Models
5050, 5100, 5180

User's Manual

GEK-99032

GENICOM

Line Printers

GEK-99043

FCC COMPLIANCE STATEMENT (USA)

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note the following:

- The use of a non-shielded interface cable with the referenced device is prohibited.
- The length of the parallel interface cable must be 3 meters (10 feet) or less.
- The length of the serial interface cable must be 15 meters (50 feet) or less.
- The length of the power cord must be 3 meters (10 feet) or less.

COMPLIANCE STATEMENT (CANADA)

This digital apparatus is in conformity with standard NMB-003 of Canada.

Cet appareil numérique est conforme à la norme NMB-003 du Canada.

COMPLIANCE STATEMENT (GERMANY)

Bescheinigung des Herstellers/Importeurs

Hermit wird bescheinigt, daß der/die/das

Machinenlärminformationsverordnung 3. GSGV, 18.01.1991: Der höchste

Schalldruckpegel beträgt 70 dB (A) oder weniger gemäß EN27779-1991.

COMPLIANCE STATEMENT (EUROPE)

Warning

This product meets the interference requirements of EN55022. In a domestic environment, this product may cause radio interference in which case, the user may be required to take adequate measures.

Optional Interface Kits

If either of the Ethernet interface board, Token ring interface board, IBM TX/CX interface board, or any variation of the Legacy parallel board is installed in either or both of the interface expansion slots, this equipment may produce additional radio frequency interference in compliance with FCC Class A emissions.

Si des panneaux d'interface d'Ethernet, panneau de token ring, panneau d'IBM TX/CX, ou n'importe quelle variation des panneaux de parallèle de legs est installé dans l'un ou l'autre ou tous les deux emplacements d'interface, ce matérial peut produire l'interférence F.R. upplémentaire conformément ICES-003 aux émissions de la classe A.

Falls Ethernet, Token ring, IBM TX/CX, Schnittstellenkarten oder eine variation der herkoemmlicken Parallelscnittstellenkarten (interface) in einer oder beiden steckbaren Erweiterungsschnittstellen installiert sind, koennen moeglicherweise zusaetzliche Funkfrequenzstoerungen erzeugt werden, unter Einhaltung der EN55022 Klasse A Stoerstrahlungswerte.

ENERGY STAR

As an ENERGY STAR ® Partner, GENICOM has determined that this product meets the ENERGY STAR ® guidelines for energy efficiency. The International ENERGY STAR ® Office Equipment Program is an international program that promotes energy saving through the use of computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, displays, printers, facsimiles, and copiers. Their standards and logos are uniform among participating nations.

INTERNATIONAL COMPLIANCE

CE

EN5008-1:1993 EN55022:1994
EN50082-1:1997 EN61000-4-2:1995
EN61000-4-3:1994
EN61000-4-4:1995
EN61000-4-5:1995
EN61000-4-6:1994

Trademark Acknowledgements

GENICOM is a registered trademark of GENICOM Corporation. The following companies own the other trademarks used in this manual:

GENICOM Corporation: Centronics;

International Business Machines Corporation: IBM;

Epson Corporation: Epson;

All other product names mentioned in this manual may also be trademarks of their respective companies.

Operating Precautions

Read this section and remember these instructions to ensure user safety and the printer's correct performance. Follow the cautions and notices labeled on the printer or marked in the manual. Save this manual for future reference.

- Use only the power cord furnished with the printer and a properly grounded outlet. Do not use an extension power cord.
- Confirm that the rated voltage of the printer matches the voltage of the power outlet where the printer will be connected.
- The maximum wattage of these printers is as follows:

  Model 5050 printer: 400 watts.
  Model 5100 printer: 524 watts.
  Model 5180 printer: 1167 watts.
- Turn off the printer and disconnect the power cord before beginning maintenance.
- Disconnect the power cord from the outlet when the printer is not used over an extended period of time.
- Disconnect the power cord from the outlet whenever thunderstorms are nearby. Leaving the power cord connected may damage the printer or other property.
- Do not put the printer in direct sunlight, near a heater, or near water. Leave adequate space around the printer.
- Use only a shielded interface cable 3 meters (10 feet) or less for the parallel interface, 15 meters (50 feet) or less for the serial interface, 100 meters (328 feet) or less for Ethernet interface 10Base-T connection, and 185 meters (607 feet) or less for the Ethernet interface 10Base-2 connection.
- Be sure the printer is turned off before connecting any interface.
- Do not turn the printer off while it is printing.
- Do not disassemble or remove any components unless instructed in the maintenance procedures.
- Keep the printer unit upright when removing or installing it.
- Do not drop small objects, such as paper clips, into the printer.
- Do not set page margins off the physically printable page area.
- Turn off the printer and disconnect the power cord immediately if an abnormal condition occurs: for instance, if the printer emits smoke, prints abnormally, becomes wet, or falls. For additional information, contact the GENICOM authorized dealer, where the printer was purchased.

TABLE OF CONTENTS

FCC COMPLIANCE STATEMENT (USA) ..... **i**

COMPLIANCE STATEMENT (CANADA) i
COMPLIANCE STATEMENT (GERMANY) i
COMPLIANCE STATEMENT (EUROPE) ii
Optional Interface Kits ..... *ii*
ENERGY STAR ii
INTERNATIONAL COMPLIANCE ii
Trademark Acknowledgements ..... *iii*
Operating Precautions ..... *iv*

TABLE OF CONTENTS ..... **v**

CHAPTER 1. INTRODUCTION **1-1**

REFERENCE USAGE: 1-2
ORGANIZATION OF THIS MANUAL 1-2

CHAPTER 2. GETTING STARTED **2-1**

PREPARING THE PRINTER FOR OPERATION 2-1
CONNECTING THE POWER CORD 2-1
CONNECTING THE INTERFACE CABLE 2-2
I/O Interface Card Options available *2-3*
DESCRIPTION OF THE CONTROL PANEL 2-3
Beeper *2-4*
Display *2-5*
Pushbuttons *2-5*
OPERATION OF THE CONTROL PANEL 2-5
Data Entry *2-6*
INSTALLING THE PAPER HANDLING SYSTEM 2-8
(55 OR 60 DBA CABINET MODELS) 2-8
Paper Handling Aids (55 dBa) Cabinet Models *2-11*
SELECTING THE PAPER PATH 2-11
5050/5100 (55 AND 60 DBA) CABINET MODEL ONLY 2-11
Wire Paper Guide *2-12*
LOADING PAPER 2-14
Manual Paper Loading *2-14*
Semiautomatic Paper Loading *2-18*
HORIZONTAL POSITIONING OF THE PAPER 2-19
THE RIBBON DECK 2-20
5050/5100 (55 OR 60 DBA) CABINET MODEL 2-20
THE RIBBON DECK 2-21
5180 (52 OR 55 DBA) CABINET MODEL 2-21
THE RIBBON CARTRIDGE 2-22
5050/5100 (50,55 OR 60 DBA) CABINET MODEL 2-22
RIBBON REMOVAL AND INSTALLATION 2-22
5050/5100 (50,55 OR 60 DBA) CABINET MODEL 2-22
Removing a Ribbon (50,55, or 60 dBa) Cabinet Model *2-25*
RIBBON REMOVAL AND INSTALLATION 2-25
5180 (52 OR 55 DBA) CABINET MODEL 2-25
SETTING THE PRINT GAP 2-27
Reading the Scale *2-27*
Using the White Scale 2-27
Using the Black Scale 2-28
PAPER TENSION ADJUSTMENT 2-28

POWER-ON SEQUENCE 2-29
INTERLOCK CIRCUIT 2-29
5050/5100 (55 or 60 dBa) Cabinet Model *2-30*
5180 (55 dBa) Model *2-31*
Top Access Door Interlock Switch 2-31
Print Module Access Panel AC Interlock Switch 2-31
INITIALIZING THE PRINTER 2-32
When to Initialize *2-32*
USING THE KEYPAD TO INITIALIZE 2-32
Control Panel Initialization *2-32*
TEST PATTERN PRINTING 2-33

CHAPTER 3. OPERATING THE PRINTER 3-1

PRINTER OPERATIONAL MODES 3-1
Online *3-1*
Offline *3-1*
Fault *3-1*
Menu *3-1*
Status Display 3-1
MAIN MENU 3-2
Operator Menu *3-2*
Setup Menu *3-2*
Maintenance Menu *3-2*
Menu Control *3-3*
SETTING UP A FORMAT 3-3
Active Format *3-3*
Setting up an Active Format *3-4*
Form Length *3-4*
Top Margin *3-4*
Bottom Margin *3-4*
Top Print Ref *3-4*
Explanation of the Top Print Ref 3-5
Example 3-5
LOW PAPER PRINTING 3-7
Low Paper *3-7*
Replenishing Paper Supply *3-7*
SETTING TOP OF FORM 3-8
PAPER TEAR-OFF FEATURE 3-9
Paper Path (5050/5100 (55 or 60 dBa) Cabinet Model Only) *3-9*
Number of Forms Ejected *3-9*
Special Forms *3-10*
LOCAL AUTO VIEW FEATURE 3-12
Viewing *3-12*
Retracting *3-12*
USING THE MENU CONTROL MENU 3-12

CHAPTER 4. USING THE OPERATOR MENU 4-1

NEW RIBBON 4-1
SELECT FORMAT 4-1
FONT STYLE 4-2
CHAR SET/COUNTRY 4-3
Character Set *4-3*
Country *4-4*
SELECT CPI 4-4
Select CPI (User Set) *4-4*
SELECT LPI 4-5

Select LPI (User Set) *4-5*
INTERFACE 4-6
EMULATION 4-6
FILTER 4-7
Serial *4-7*
Parallel(1284) *4-8*
Expansion1/Expansion2 ..... *4-9*
SHOW 4-9
Software IDs *4-10*
Sample Status Page *4-11*
Sample Format Page *4-14*
Sample Character Set *4-15*
Sample Font Page *4-15*
ADJUST TOF 4-17
Print At TOF *4-17*
Set TOF *4-18*
Rolling ASCII *4-18*
DISCARD JOB 4-18

CHAPTER 5. USING THE SET UP MENU 5-1

FORMAT 5-1
Modify Format *5-2*
Format Name 5-2
Font Style 5-2
CharSet/Country 5-3
Character Set 5-3
Country 5-3
CPI 5-4
LPI 5-4
Form Length 5-5
Top Margin 5-5
Bottom Margin 5-6
Left Margin 5-6
Right Margin 5-7
Top Print Ref 5-8
Left Print Ref 5-9
Horiz Expansion 5-9
Vert Expansion 5-10
VertExp Options 5-10
Print Modifiers 5-11
Print Options 5-11
Slew Rate 5-12
Save Format *5-12*
HORIZ TAB 5-13
VERTICAL FORMAT 5-13
Vertical Tabs *5-14*
Emulation VFU *5-14*
INTERFACE SETTINGS 5-15
MultiSource *5-15*
Parallel Setup *5-16*
Serial *5-16*
Serial Type 5-16
Serial Setup 5-17
Protocol 5-17
XON/XOFF 5-17
CD(DTR) 5-18
CA(RTS) 5-19
SCA(SRTS) 5-19
ETX/ACK 5-20

Inhibit Xmit 5-20
Lead Polarity 5-21
CD(DTR) 5-21
CA(RTS) 5-21
SCA(SRTS) 5-22
CB(CTS) 5-22
CC(DSR) 5-22
Data Bits 5-23
Parity 5-23
Stop Bits 5-24
Baud Rate 5-24
High Trip Pt% 5-25
Expansion1/Expansion2 ..... *5-25*
Legacy Parallel 5-26
Centronics 5-26
DP(Short) 5-26
DP(Long) 5-27
I/F Straps 5-28
Token Ring 5-28
Coax 5-29
Twinax 5-29
TCP/IP 5-30
Netware 5-30
ENGINE OPTIONS 5-31
Direction *5-31*
EngineOff Delay *5-31*
Print Intensity *5-32*
PRINT CONTROL 5-32
Define LF *5-33*
Define CR *5-33*
Define FF *5-33*
Define HT *5-34*
VertMove *5-34*
AutoWrap *5-34*
FF @ TOF *5-35*
GenPtrOpts 5-35
TEAROFF 5-35
Path *5-36*
Retract *5-36*
Auto *5-36*
EMULATION 5-37
ANSI (4800) *5-38*
ANSI (4410) *5-38*
FX286E *5-39*
ProPrinter *5-39*
P 300/600 ..... *5-40*
DEC LG *5-40*
Pseries *5-41*
DEC PPL3 ..... *5-41*
ESC/P2 ..... *5-42*
DISPLAY LAN 5-42
FILTER 5-42
QMS *5-43*
BC Density 5-43
Control Chars 5-44
Language 5-44
Code V 5-45
Free Format 5-45
Ignore Mode 5-46

Slashed Zero 5-46
PY Terminator 5-46
PN Terminator 5-47
Vertical DPI 5-47
LPI Grid 5-47
Version 5-48
Magnum Spaces 5-48
Ignore Chr Mode 5-48
Ignore Char 5-49
IGP *5-49*
BC Density 5-49
Control Chars 5-50
Language 5-51
IGP Terminator 5-51
Quiet Mode 5-51
Delete Logos 5-52
Default OCR-B 5-52
Vertical DPI 5-52
Slashed Zero 5-53
Clip Text 5-53
Ignore Chr Mode 5-53
Ignore Char 5-54
IPDS *5-54*
IPDS BC Stagger 5-54
IPDS BC Density 5-55
IPDS GR Density 5-55
IPDS Image Density 5-55
IPDS Dens Ovr 5-56
IBM Format *5-56*
Code Page 5-56
Code Pg Override 5-57
LPI Override 5-57
CPI Override 5-57
MPP Override 5-58
MPL Override 5-58
Override Text 5-59
Override All 5-59
Hex Print 5-60
Hex 1 5-60
Hex 2 5-61
Hex Term 5-61
DCF1 5-61
DCF2 5-62
DCF Term 5-63
Coax Compat 5-63
Case 5-64
LOC Copy FF 5-64
FF Before LC 5-64
Interv Req 5-65
Irq Err TO 5-65
Irq Bsy TO 5-66
CR at MPP+1 5-66
NL at MPP+1 5-67
FF Data 5-67
FF EndBuff 5-68
Null Sup 5-68
FF Pos 5-69
Auto Funct 5-69
LAST LF/FF 5-69
Supp CCode 5-70
VCS 5-70
Comm 5-71

CHAPTER 6. USING THE MAINTENANCE MENU 6-1

RESET TO DEFLTS 6-1
ALIGNMENT 6-2
Patterns 6-2
AdjustAmplitude 6-3
HEADSERVICE 6-4
Dot Counts 6-4
Print Chart 6-5
Actuator Status 6-6
POWER ON TIME 6-6
PRINT TIME 6-6
UPGRADE FLASH 6-7
RIBBONMONITOR 6-7

CHAPTER 7. OPERATOR CARE AND MAINTENANCE 7-1

INTRODUCTION 7-1
OPERATOR CLEANING PROCEDURES 7-1
5050/5100 (50, 55 OR 60 DBA) CABINET MODEL 7-1
OPERATOR CLEANING PROCEDURES 7-2
5180 (52 OR 55 DBA) CABINET MODEL 7-2
OPERATOR TROUBLESHOOTING 7-3
Soft Faults 7-4
Miscellaneous Non-Fault Messages 7-7
Hard Faults 7-8
Electrical Problems 7-10
Mechanical Problems 7-11
Self-test Error Messages 7-12
SERIAL INTERFACE ERRORS 7-13
PRINT HEAD REPLACEMENT 7-13
5050/5100 (50, 55 OR 60 DBA) CABINET MODEL 7-13
Replacement Procedure 7-14
PRINT HEAD REPLACEMENT 7-18
5180 (52 OR 55 DBA) CABINET MODEL 7-18
Resetting Print Head Counters 7-21

APPENDIX A UNPACKING INSTRUCTIONS A-1

UNPACKING (5180 52 DBA MODEL) A-1
Unpacking (5050/5100 55 DbA Model) A-4
Repacking A-6
UNPACKING (5180 MODEL) A-6
Removing the Shipping Blocks and Hardware A-7

APPENDIX B PAPER SPECIFICATIONS B-1

RECOMMENDED PAPER WEIGHTS B-1

APPENDIX C CONSIDERATIONS FOR OPERATION C-1

APPENDIX D D-1

PARTS, ACCESSORIES, CONSUMABLES AND OPTIONS D-1

APPENDIX E. FONT PRINT SAMPLES E-1

HIGH SPEED FONT E-1
GOTHIC DRAFT – DATA PROCESSING FONT E-1
GOTHIC NEAR LETTER QUALITY E-1

CHARACTER GRAPHICS FONT E-1
CORRESPONDENCE FONT E-2
OCR-A FONT E-2
OCR-B FONT E-2
COURIER NLQ FONT E-2
ITALIC NLQ FONT E-2
HIGH SPEED 2 ..... E-3
CANADIAN PST E-3

APPENDIX F. FLASH UPGRADE INSTRUCTIONS F-1

APPENDIX G DESCRIPTION OF STRAPPING OPTIONS G-1

LEGACY PARALLEL HARDWARE STRAP DEFINITIONS G-2
LEGACY PARALLEL SOFTWARE STRAP DEFINITIONS G-3
GENERAL PRINTER OPTIONS DEFINITIONS G-4
EMULATION OPTION DESCRIPTIONS G-6

APPENDIX H. H-1

INTERFACE EMULATION COMPATIBILITY G-1

APPENDIX I. LCD MENU MAPS I-1

CHAPTER 1. INTRODUCTION

This printer is a high duty cycle, line matrix printer. Among the advanced features of this printer are:

- High speed at 500/1000/1800 lpm
- Industry's only lifetime warranty on shuttle mechanism and striker bar
- IBM-compatible models
- Ideal for manufacturing pick lists and shipping documents
- Remote network printing
- Auto interface switching
- Top demand exit or rear exit standard (5050/5100 (55 or 60 dBa) Cabinet Model)
- Industrial graphics, bar codes, and labels

Other characteristics include:

- Input voltage:

5050/5100 Models	auto range selecting 115V or 230V
5180 Models	switchable 115V or 230V

- Hardware interfaces: menu selectable or auto switching between CENTRONICS parallel and RS-232 serial
- Standard emulation's: menu- or host-selectable ANSI 4800, ANSI 4410, Epson FX286e, IBM Proprinter III XL, P 300/600, DEC LG and PPL3, Pseries, and ESC/P2.
- Standard fonts: menu- or host-selectable Data Processing, Correspondence, Gothic NLQ, Graphics, Courier NLQ, Italic NLQ, High Speed, OCR-A, OCR-B and Oversize.

REFERENCE USAGE:

Warning

Warning is used to alert a user of a hazard that could cause personal injury or severe damage to the equipment.

Caution

Caution is used where there is a risk of damaging the equipment, parts or supplies.

Note

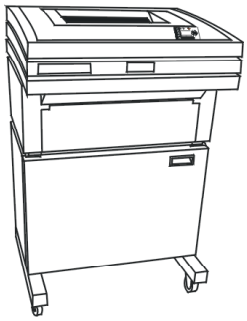
Indicates additional information.

ORGANIZATION OF THIS MANUAL

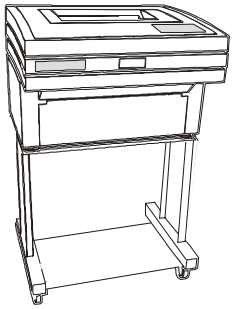
This User's Manual covers the 5000 series printers. Some procedures discussed in this manual are model number and/or cabinet specific. The differences are noted within sections where possible and separated into section where necessary. The following is a visual representation of the cabinet models available:

5000 SERIES CABINET STYLES AND MODEL NUMBERS

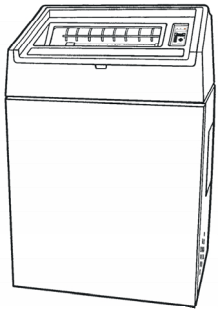
5050/5100 (50 dBa)
5180 (52 dBa)



5050/5100 (55 dBa)



5050/5100 (60 dBa)



5180 (55 dBa)

This User's Manual is divided into the following main sections:

Chapter 1: Introduction

This chapter contains a brief introduction to the key features of the printer and the organization of this manual.

Chapter 2: Getting Started

This chapter contains the instructions necessary to get the printer up and running.

Chapter 3: Operating the Printer

This chapter contains descriptions of the control panel, the pushbuttons and navigation through the menu options.

Chapter 4: Using the Operator Menu

This chapter details the procedures for accessing the options under the Operator Menu.

Chapter 5: Using the Setup Menu

This chapter details the procedures for accessing the options under the Set Up Menu.

Chapter 6: Using the Maintenance Menu

This chapter details the procedures for accessing the options under the Maintenance Menu

Chapter 7: Operator Care and Maintenance

This chapter contains information for the user to care and maintain the printer.

The following appendices are provided for reference information:

Appendix A: Unpacking & Repacking

This appendix contains information necessary to unpack the printer or repack the printer for shipment.

Appendix B: Paper Considerations

This appendix contains information as a guide to paper supplies.

Appendix C: Considerations for Operation

This appendix contains specifications on the printer.

Appendix D: Parts, Accessories, Consumables, Options

This appendix contains a list of available parts, accessories, consumables and options available for the printer.

Appendix E: Font Print Samples

This appendix contains print samples of the font styles available on this printer.

Appendix F: Flash Software Procedures

This appendix contains upgrade software procedures.

Appendix G: Description of Strapping Options

This appendix contains reference tables listing hardware and software strapping options.

Appendix H: Emulation Interface Compatibility

This appendix contains reference tables for Emulation to Interface compatibility issues.

CHAPTER 2. GETTING STARTED

PREPARING THE PRINTER FOR OPERATION

Printer unpacking is complete when all accessories have been removed from the packaging and printer cabinet or pedestal. See "Appendix A Unpacking Procedures" for more information.

Move the printer to a suitable operating location. See Appendix C for considerations on the space and conditions required for normal operation.

The two front casters have locks to stabilize the printer once it has been moved to its location. Press one brake tab to lock the wheel of the caster and press the other tab to unlock. See Figure 2-1.

Note

The printer should be initially setup following the instructions given in this chapter, in the order presented.

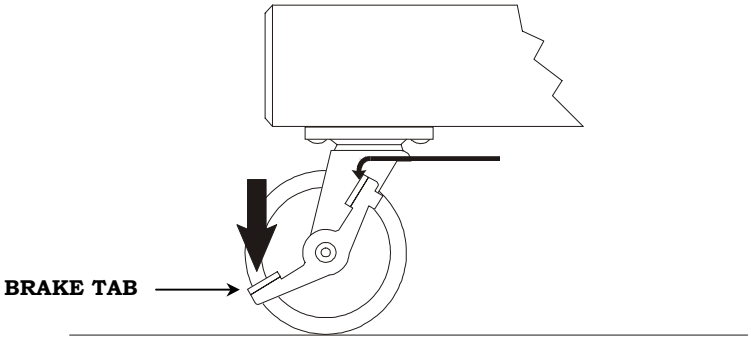


Figure 2-1 Brake Tab on Front Caster

CONNECTING THE POWER CORD

The 5050/5100 (50, 55 or 60 dBa) Cabinet Model printer is equipped with an auto-switching power supply and can be connected to either a 115V or 230V source without damage or manually changing a switch setting.

The 5180 (52 or 55 dBa) Cabinet Model has a voltage selection switch located on the back panel. The switch has two positions, 115V and 230V. The factory default is set to 230V.

Caution
(5180 (52 or 55 dBa) Cabinet Model)
Set the voltage selection switch to the proper line voltage before plugging in the power cable.

The allowable voltage variation is ±15% and the allowable frequency is 48 to 65 Hz.

A power cord is packed with the printer. Plug the female end of the cord into the recessed connector at the rear of the printer. See Figure 2-2. Plug the other end into a compatible, properly grounded AC outlet.

Note

The AC outlet must be rated for at least 10-ampere service.

Avoid using AC circuits serving other equipment which may cause chronic low voltage, noise interference, or power fluctuations. Data loss may result.

CONNECTING THE INTERFACE CABLE

Both a 25-pin RS-232C serial interface connector and a 36-pin CENTRONICS parallel interface connector are standard on this printer. Both connectors are located on the data connector plate on the rear of the printer. See Figure 2-2.

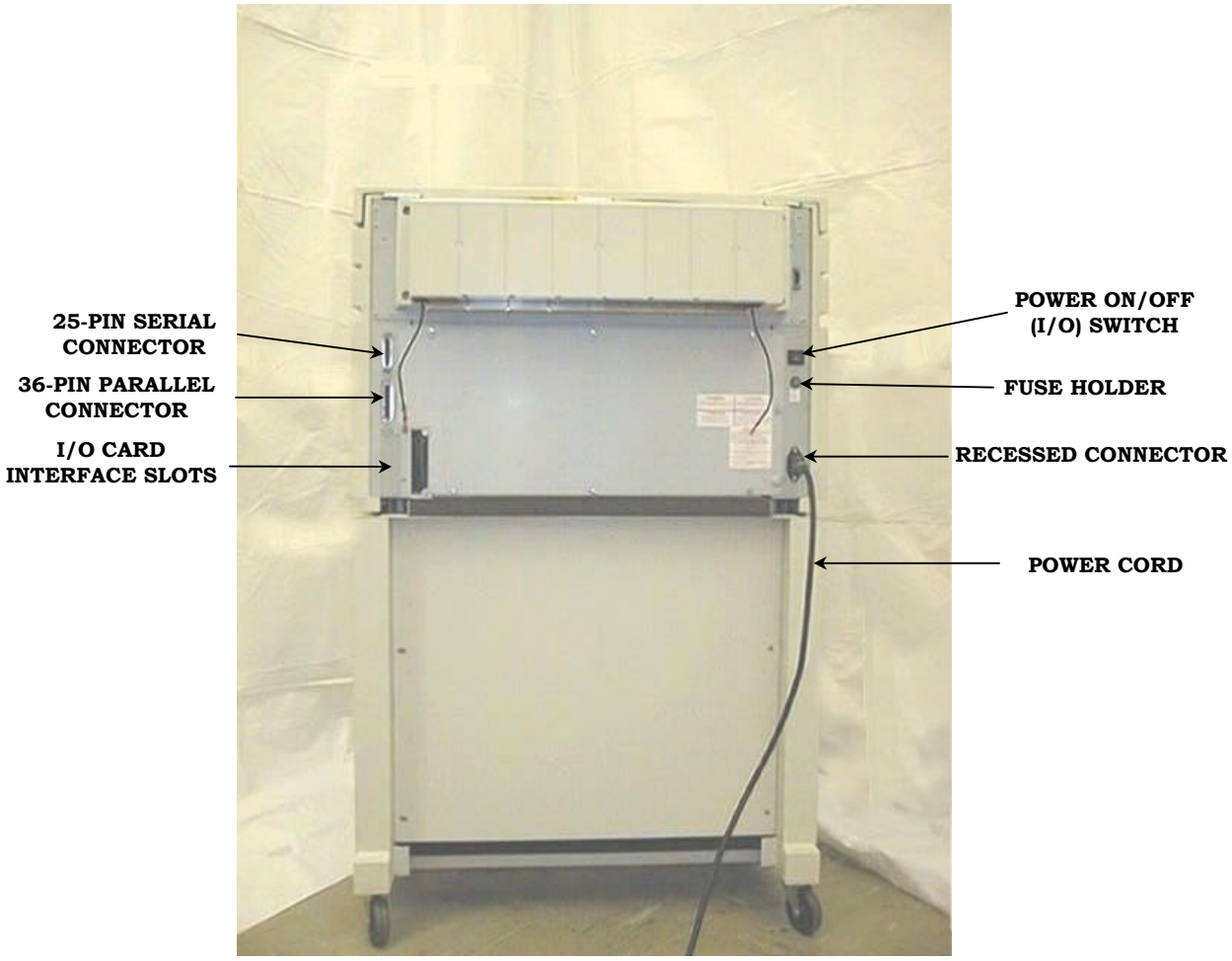


FIGURE 2-2 REAR VIEW OF PRINTER 5050/5100 (55 dBa) MODEL

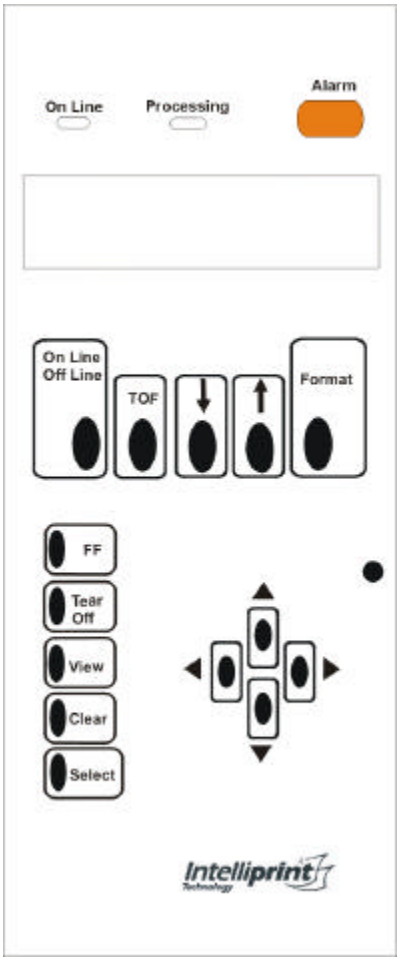
I/O Interface Card Options available

There are two expansion slots located in the rear of the printer. The interface options available are:

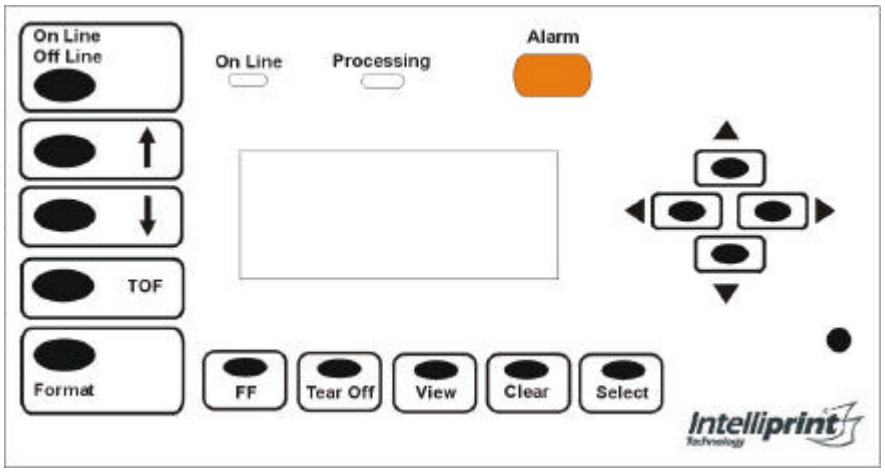
- Legacy parallel
- DPSL (Dataproducts short line)
- DPLL (Dataproducts long line)
- IBM/TX/CX
- Ethernet (10/100, 10baseT, and Token Ring)

DESCRIPTION OF THE CONTROL PANEL

The control panel is mounted in the top of the printer and is accessible with the top cover either open or closed. The Control Panel utilizes a display panel composed of two rows of sixteen characters each. With the top cover open, the control panel will move around slightly to the touch. This is normal. The floating mount allows the panel to align itself when the top cover is closed.



5050/5100 MODELS
5180 (52 dBa) MODEL



5180 (55 dBa) MODEL

The basic look and layout of the 5050/5100 (55 dBa) Cabinet Model control panel is represented by the following:

The four pushbuttons to the right of the display are to navigate the menu tree structure and are referred as menu browse pushbuttons. The **On Line/Off Line** pushbutton is located at the top of the left row of pushbuttons. The three pushbuttons below the **On Line/Off Line** pushbutton,↑ (up arrow), ↓ (down arrow), and **TOF**, are used to set top of form. See "Setting Top of Form" in Chapter 3 for additional information. The bottom left pushbutton, **Format** (in conjunction with the **Select** pushbutton), is used to select one of ten stored form formats. The **FF**, **Tear Off**, and **View** pushbuttons under the display are additional paper positioning functions. The **Clear** and **Select** pushbuttons are used in data entry.

Note

The locations of the pushbuttons and display on the 5180 (55 dBa) Cabinet Model are different, however the functionality of each is the same.

When in the online state, only the **FF**, **On Line**/**Off Line**, **Tear Off**, & **View** pushbuttons and limited functionality of the **Clear** and **Select** pushbuttons are active. Pressing any other pushbutton causes a "beep." The "Processing" LED indicator is lit whenever data is being received and or being processed/printed. In multi-source I/O mode, the "Processing" LED indicator will blink for the duration of the timeout period when processing is complete.

Note

The control panel mount on the 5050/5100 (55 or 60 dBa) and 5180 (52 dBa) Cabinet Model is hinged so that it can be tilted forward to remove the ribbon deck for service.

Beeper

The control panel beeper sounds momentarily when:

- A pushbutton is pressed.
- A BEL control code is received. (The host can send a "bell" code to sound the printer's beeper. For more information, see the *Programmer's Manual*.)
- A PAPER LOW condition exists.
- An EVFU loading error occurs. (For more information on the EVFU, see the *Programmer's Manual.*)
- A hard fault occurs. (See Chapter 7 for an explanation of hard faults.)

Display

The two row by sixteen-character LCD provide the following information:

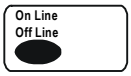
- The printer's status - Online, Local, Self-test, etc.
- Which menu or menu option is presently on display to assist in making selections.
- When a fault condition exists.

Pushbuttons

The pushbuttons are sealed and raised rubber-type switches used to make menu selections, clear faults, and position the paper. An explanation of the pushbuttons' functions is given in the following section on "Operation of the Control Panel."

OPERATION OF THE CONTROL PANEL

The primary use of each pushbutton is printed beside the button itself.



Pressing the **On Line/Off Line** pushbutton causes the printer to toggle between online and offline operation. Offline operation allows access to the menu functions.

Pressing the ↑ pushbutton moves paper up incrementally.

Pressing the ↓ pushbutton moves paper down incrementally.

Pressing the **TOF** (Top of Form) pushbutton sets the top of form position on the printer.

Pressing the **Format** pushbutton allows the operator to select from up to ten stored formats. The pushbutton is repeatedly pressed until the desired set up format is being displayed, press the **Select** pushbutton to activate the selected format.

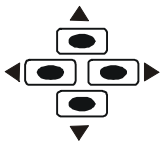
Pressing the **FF** pushbutton moves paper to next top of form according to the top of form set for the printer.

Pressing the **Tear Off** pushbutton advances the paper to the selected tear position and will auto retract to the selected retract position after 15 seconds. Pressing the tear off pushbutton any time within that 15 second wait period will retract the paper to the selected retract position. The printer will emit three beeps prior to retracting the paper.

Pressing the **View** pushbutton advances the paper such that the last printed line is visible in the top cover window. Pressing the **View** pushbutton a second time will return the paper to the last print position. Receipt of any data will also retract the paper to the print position.

Press the **Clear** pushbutton to exit or backup data entry and selection levels.

Press the **Select** pushbutton to enter or select data entry.



Pressing the menu browse pushbuttons allows navigation of menu selections. Press the ◄ (left) or ► (right) menu browse pushbuttons allows navigation of menu selections laterally within the same level. Pressing the ▲ (up) or ▼ (down) menu browse pushbuttons allows navigation up or down a level of menus. While in a user set option, these pushbuttons are used for data entry.

Data Entry

There are two modes of data entry for the control panel. The first mode is to select from a list of several options displayed on the bottom line of the LCD. The entries are sequentially displayed on the bottom line of the LCD in response to browse pushbuttons (◄ and ► .)The optional selections are shown as a circular list. For example, in selecting CPI, the choices 10, 12<, 13.3, 15, 16.7, 17.1, 20, and XX.X USER SET will be displayed sequentially. If one of the displayed values (i.e. numbers) are selected (other than the XX.X USER SET) the selection process is completed by depressing the **Select** pushbutton.

Note

The current setting is marked with the < symbol (12< shown above.)

In USER SET mode the display switches to a format where the operator may enter any value 0 to 9 for any “X” position. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ►(left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲▼(up or down) pushbuttons increment/decrement the selected digit by one. In the example used previously, 12 CPI was active when the selection process is entered (shown above as 12<). The operator selected from the list, the XX.X USER SET. The display shows 12.0, where the underline indicates the active digit, and where 12.0 is the current CPI value. Depressing the up menu browse pushbutton increments that digit from 12.0 to 22.0 or higher, where only the first digit increments. Depressing the right arrow pushbutton moves the cursor from 22.0 to 22.0. Depressing the right arrow again moved the cursor from 22.0 to the 10th position (the decimal point is automatically skipped over) from 22.0 to 22.0. Depressing the right down arrow pushbutton changes the digit from 20.0 to 20.9 (the values wrap 0 1 2 3 4 5 6 7 8 9 etc).

Note

Since the four menu browse pushbuttons are used to make this type of entry, use the Select pushbutton or CLEAR pushbutton to exit this type of data entry. If the Select pushbutton is pressed, the display shows the selection as from above: 22.9 USER SET. If the CLEAR pushbutton is used, the menu entry jumps back to the previous (higher) level showing XX.X User Set as above without changing the CPI.

INSTALLING THE PAPER HANDLING SYSTEM (55 OR 60 dBa CABINET MODELS)

The paper handling system for this printer consists of an upper paper rack and a paper shelf with wickets and a stacking aid. See Figure 2-4a. The upper rack on the 5180 (55 dBa) Cabinet Model is shaped differently, but its functionality is the same (see Figure 2-4b.) The 5050/5100 (50 dBa) and 5180 (55 dBa) Cabinet Models have internally installed paper handling aids.

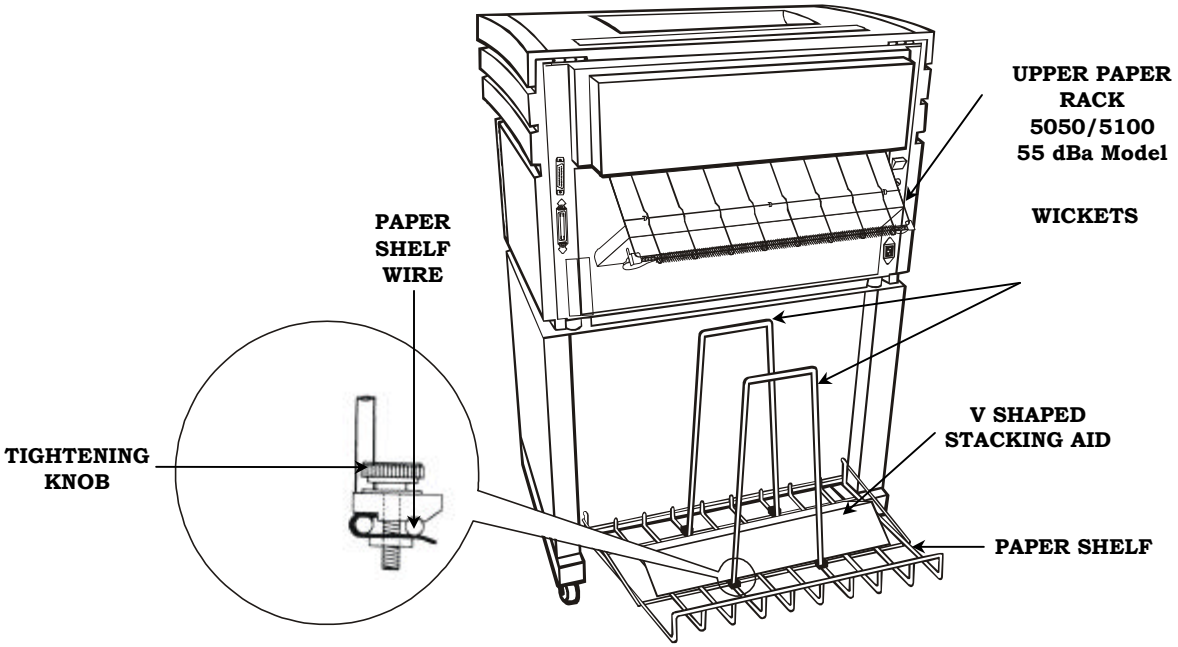


FIGURE 2-4A PAPER HANDLING SYSTEM (5050/5100 55dba)

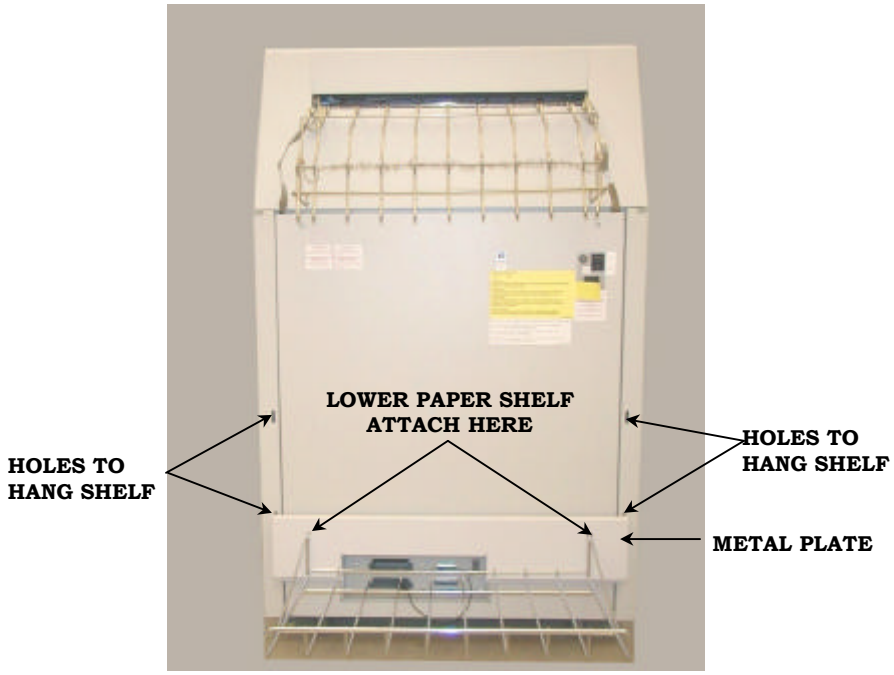


FIGURE 2-4b UPPER RACK AND LOWER PAPER SHELF INSTALLED 5180 (55 dBa) CABINET MODEL

The paper shelf hangs on the back of the printer near the floor. The paper rack hooks onto the two end wire loops protruding from the rear paper exit. Use the following procedures to install the paper handling system:

1. Hang the paper shelf on the back of the printer in the holes provided as shown in Figure 2-4a.

Note

The 5180 (55 dBa) Cabinet Model paper shelf attaches to a solid metal plate. The metal plate is attached to the back of the printer in the holes provided as shown in Figure 2-4b.

2. Install the wickets on the shelf so the tightening knobs are facing away from the area the paper will occupy.
3. Slide the wickets along the shelf so the distance between the wickets accommodates the length of the fanfold paper (form length).
4. Lay the V-shaped paper stacking aid on the shelf between the wickets. This stacking aid should be used when stacks of 1000 or more forms are anticipated. See Figure 2-4a and Figure 2-4b.
5. Hook the paper rack onto the two end wire loops protruding from the rear paper exit. See Figure 2-5.

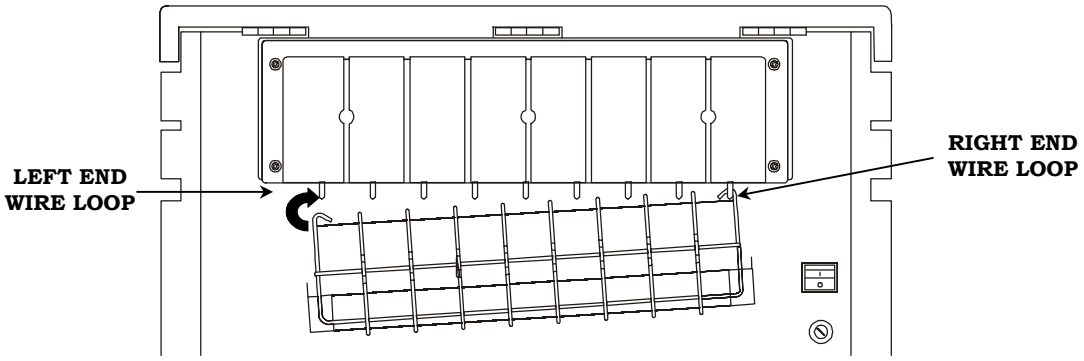


FIGURE 2-5 REAR VIEW
5050/5100 (55dBa) CABINET MODEL SHOWN)

Note

The 5180 (55dBa) Cabinet Model has an opening in the back of the printer. The upper paper rack has two metal hooks, which hang over the edge of the opening to hold the rack in place. See Figure 2-6b.

6. After the rack is hooked into place, swing it up as shown in the illustration on the left and connect the two static ground wires. See Figure 2-6a.

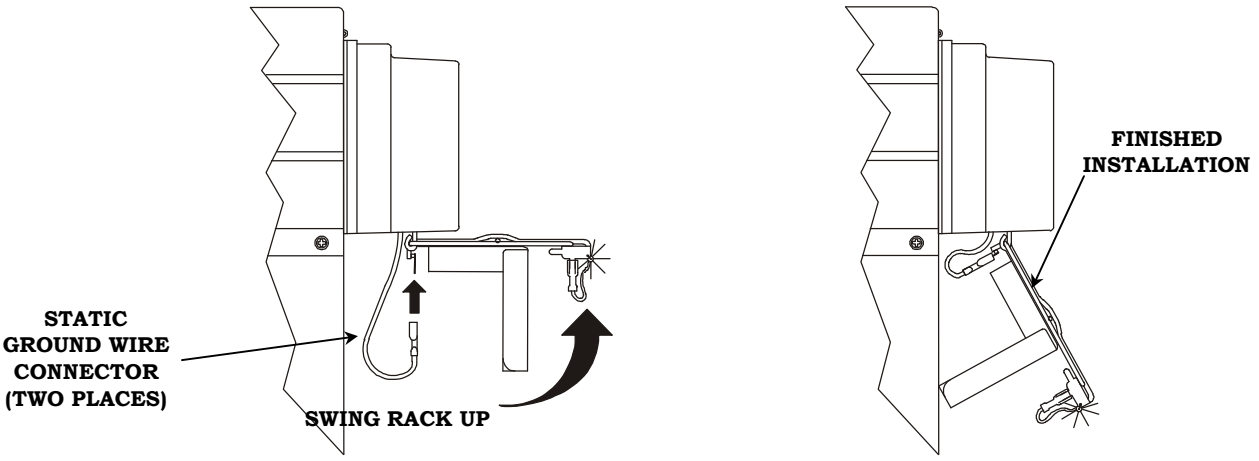


FIGURE 2-6a SIDE VIEWS
5050/5100 (55 dBa) CABINET MODEL

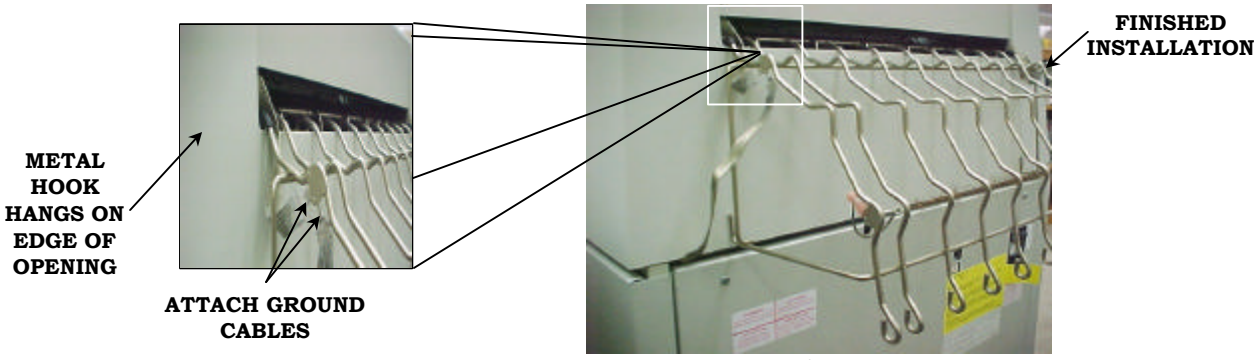


FIGURE 2-6b REAR VIEW
5180 (55 dBa) CABINET MODEL

Paper Handling Aids (55 dBa) Cabinet Models

A paper handling "wicket" is shipped with the 55 dBa model printer. It is positioned at the outside edge of the rear paper cabinet to assist in the vertical stacking of the paper. Magnets hold the wicket in various positions according to the type of form being printed. See Figure 2-7.

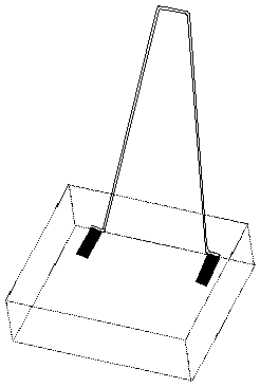


FIGURE 2-7 PAPER HANDLING "WICKET"

Another paper handling device shipped with the printer is a "V"-shaped, metal paper stacking aid. Some papers tend to curl as the stack builds in the paper compartment. This device will alleviate that situation. See Figure 2-8.

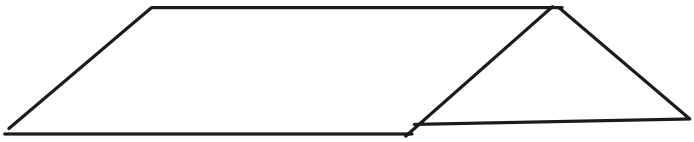


Figure 2-8 "V" Shaped Metal Paper Stacking Aid

SELECTING THE PAPER PATH 5050/5100 (55 and 60 dBa) CABINET MODEL ONLY

This printer has a top exit paper path and a rear exit paper path.

The top path is used when forms or peel-off labels are printed from the printer individually.

The rear path is used when high volume or unattended print jobs are printed.

When the top is closed, the paper will automatically seek the rear exit. To switch to the top exit, push down on the ears of the top exit door as shown below.

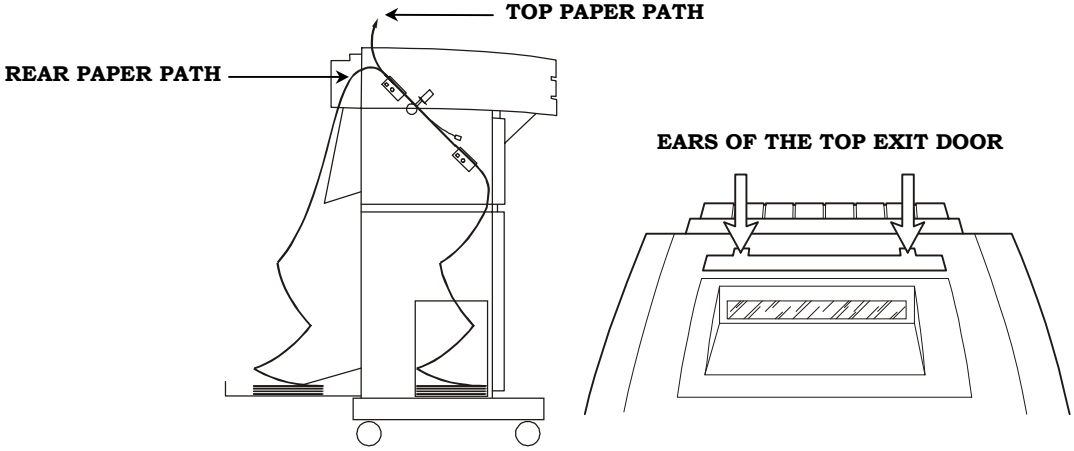


FIGURE 2-9 TOP AND REAR PAPER PATHS
5050/5100 (55 dBa) CABINET MODEL SHOWN

Note

Choose the paper path before allowing the paper to go past the upper tractors. The top cover must be closed for the paper to use either path.

Wire Paper Guide

The printer is shipped with a wire paper guide installed. The purpose of this part is to prevent paper jams when the rear (default) paper exit is used.

To thread paper through the rear exit, lift up the paper guide until it sticks to the magnet on the top cover. See Figure 2-10.

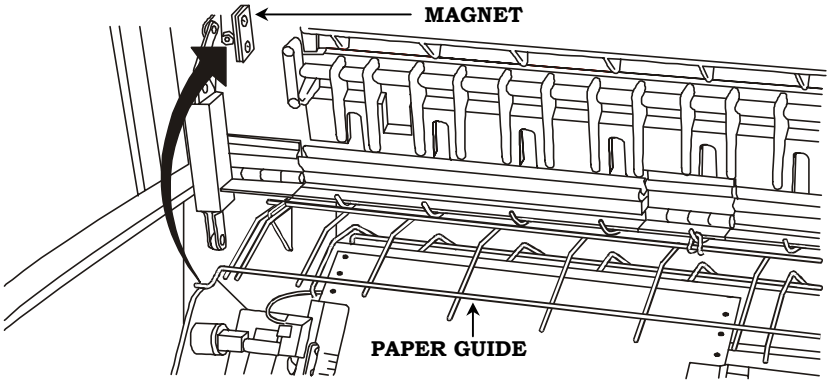


FIGURE 2-10 WIRE PAPER GUIDE
5050/5100 (55 OR 60 dBa) CABINET MODEL)

Note

The 5180 model uses rear paper path only. To have paper exit through the top (5050/5100 (55 or 60 dBa) Cabinet Model only), the paper guide must be removed. Placing a hand under the paper guide at the left end, lift up and away at an angle. See Figure 2-11a. Placing a hand under the right side of the paper guide, lift up and toward the front of the printer. See Figures 2-11b and 2-11c.

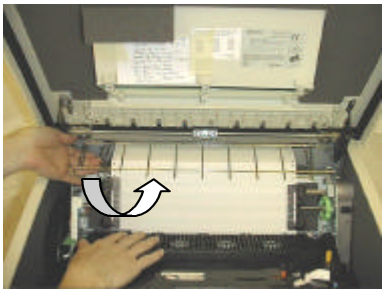


FIGURE 2 - 11a

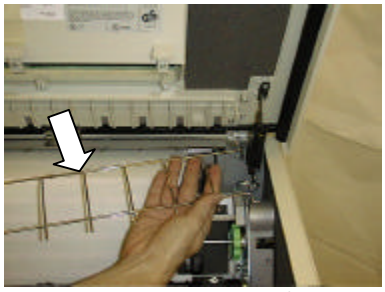


FIGURE 2 - 11b

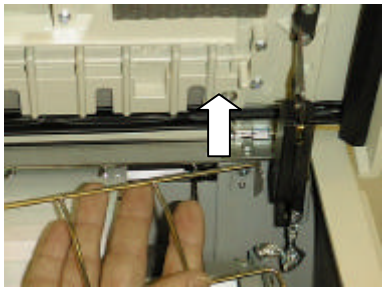


FIGURE 2 - 11c

If the rear exit paper path is used without the paper guide installed, paper may jam in the top cover.

To re-install the paper guide, find the wires that are closest together on the left end. Install the guide so that these two wires straddle the left mounting bracket. This holds the part in place horizontally. The small ring on the paper guide slides onto the corresponding prong on the paper deflector.

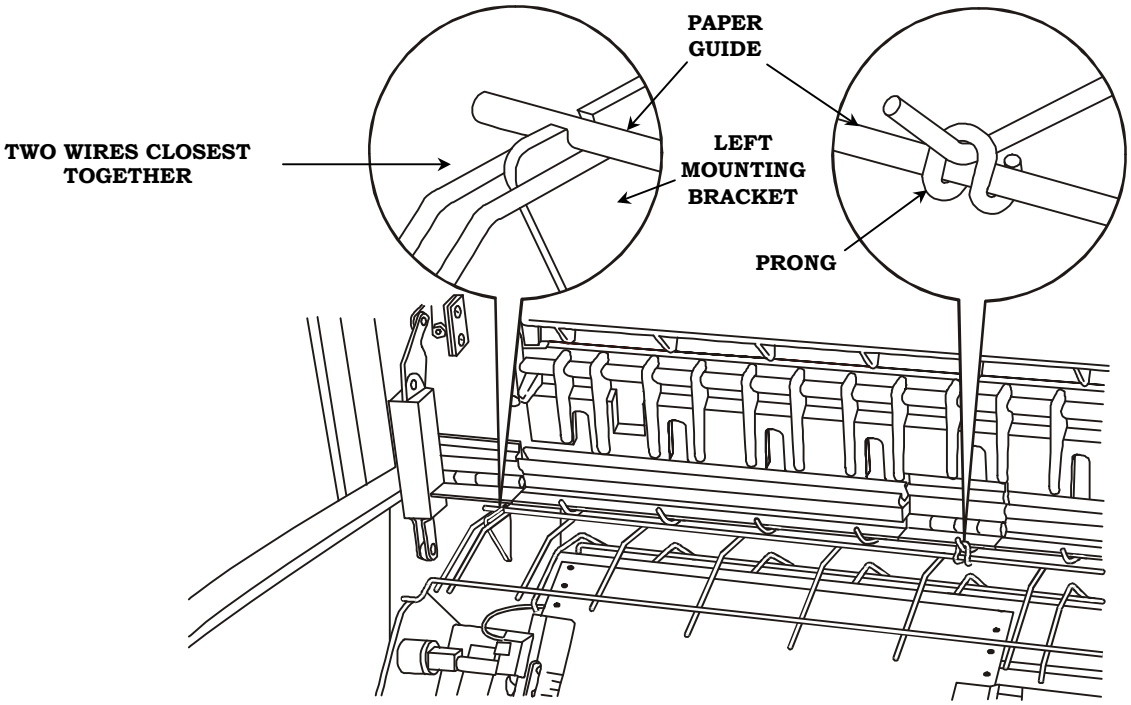


FIGURE 2-12 REINSTALLING THE PAPER GUIDE (LEFT VIEW) 5050/5100 (55 or 60 dBa) CABINET MODEL

LOADING PAPER

This printer is designed to use edge-punched (sprocket, or pin-fed) fanfold paper. See "Paper Specifications" in Appendix B for further description of the types of paper that can be used in the printer.

CAUTION

Printing without paper or using paper too narrow for the job may damage printer components and void the printer warranty. Full-width paper (greater than 14 5/8-inch or 371cm) should be used until the operator is familiar with the printer's setup and operation.

Manual Paper Loading

To load paper in the printer, complete the following steps:

Paper Out

1. Raise the top cover to the open position. On 5050/5100 (55 or 60 dBa) Cabinet Model printers, press the cover latch to unlock the cover. See Figure 2-13.

FIGURE 2-13 FRONT VIEW OF PRINTER 5050/5100 (55 or 60 dBa) CABINET MODEL

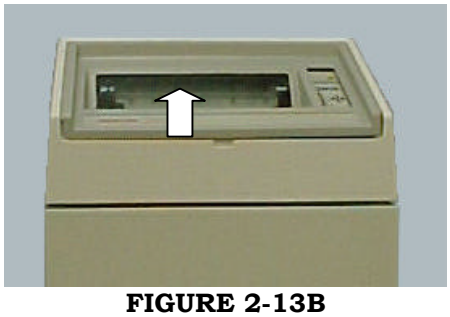


FIGURE 2-13B 5180 (55dBa) CABINET MODEL

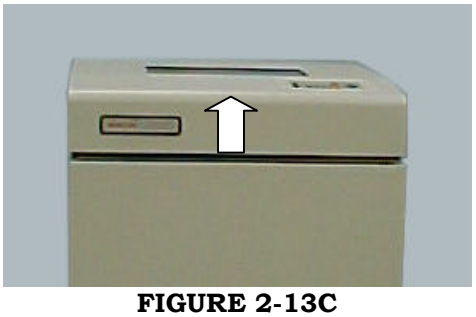


FIGURE 2-13C 5180 (52 dBa) CABINET MODEL

2. Turn the print gap wheel to the **LOAD** position by pushing the top of the wheel towards the rear of the printer until it stops. See Figure 2-14a. (On the 5180 model, turn the print gap adjust knob to the LOAD position by turning the knob fully *clockwise*. See Figure 2-14a.)

Strikr Bar Open

Note

If the power has been applied to the printer, the fault messages Paper Out and Strikr Bar Open will appear on the display panel and the beeper will sound. These will alternately display in the upper left corner of the display panel until the CLEAR pushbutton is pressed.

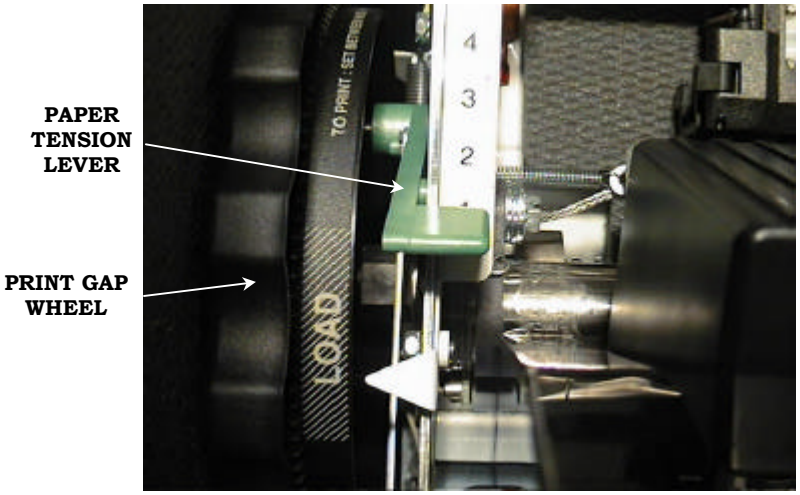


FIGURE 2-14a PRINT GAP WHEEL IN LOAD POSITION 5050/5100 (50,55, or 60 dBa) CABINET MODEL

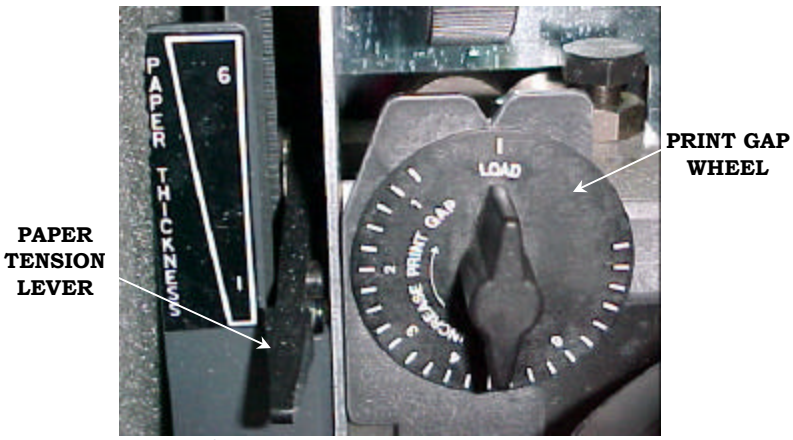


FIGURE 2-14b PRINT GAP WHEEL IN LOAD POSITION 5180 (55 OR 52 dBa) CABINET MODEL

3. Push the paper tension adjustment lever down to position 1. See Figure 2-14a(b).

4. Open the top left and right tractor doors. See Figure 2-15.
5. Open the front door and place the paper supply in the enclosure.

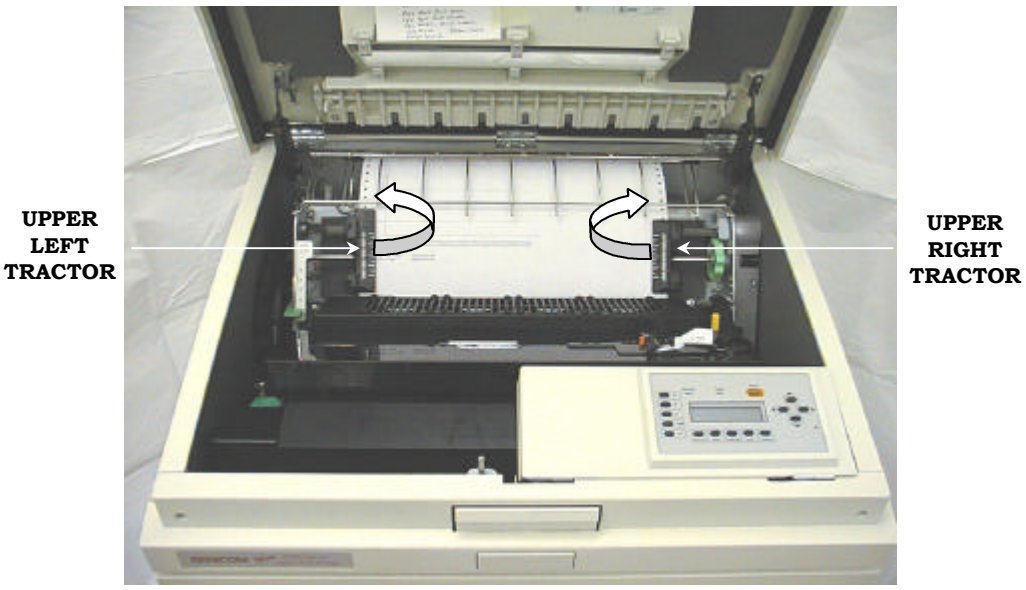


FIGURE 2-15 TOP VIEW OF PRINTER
5050/5100 (55 dBa) CABINET MODEL SHOWN)

Note

Either cut the top off the box of paper or tape the flaps down to prevent snagging the paper as it leaves the box.

6. On 5050/5100 (55 or 60 dBa) Cabinet Model printers, grasp the bottom edge of the front access panel of the printer and lift it to the open position. A magnetic latch will hold the panel open. See Figure 2-16.

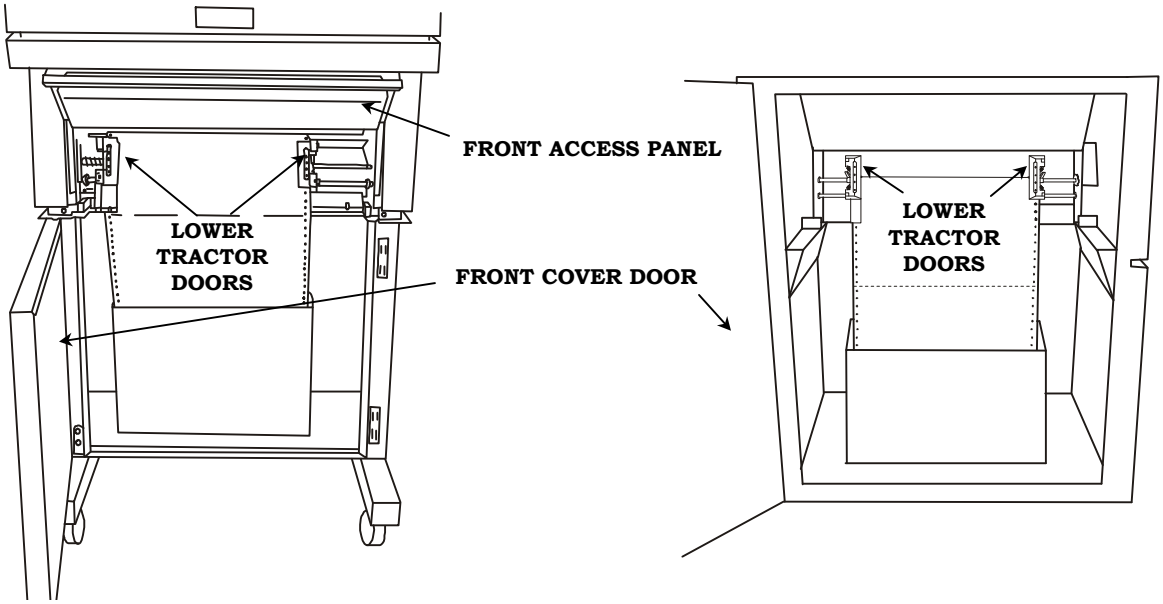


FIGURE 2-16 FRONT ACCESS PANEL AND FRONT CABINET DOOR OPEN

7. Open the lower left and right tractor doors. See Figure 2-17

Note

To load single-part paper, fold the paper over at a perforation so that the first two forms are double-thick. Later, when printer power is on, feed these doubled forms out of the printer before adjusting the print gap.

8. Hand feed the paper, bypassing the lower tractor pins, up through the printer to the top tractors. After the printer is in operation, the semiautomatic paper loading feature may be used.

Note

Initially, load the paper so that it will print on the second form (rather than first form) because a default setting pulls the paper down into the printer a minimum of 4 inches (see "Setting Top of Form"). Later, vertical positioning and top of form (TOF) alignment will be completed after the printer is in operation.

9. Place the paper onto the pins of the upper left tractor and close the tractor door.

   If necessary, release the locking lever on the right-hand tractor by flipping it down, and slide the tractor sideways to match the paper width. If necessary, see Figure 2-18.

10. Place the paper on the pins of the upper right tractor, making sure that the paper is straight horizontally, and close the tractor door.

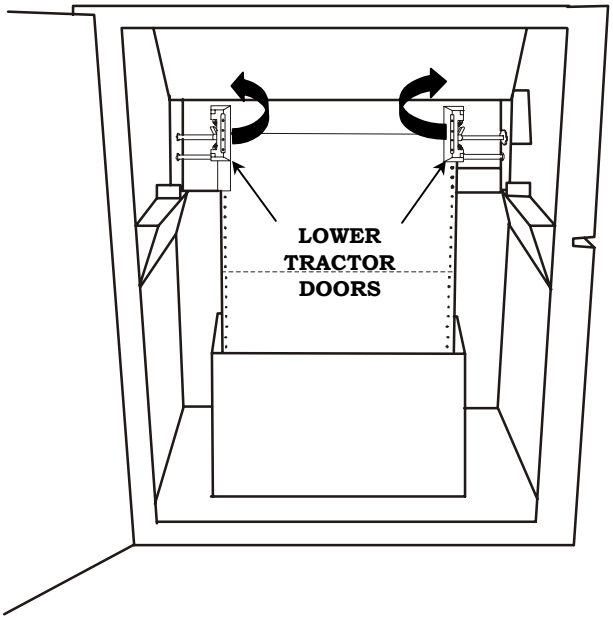


FIGURE 2-17 LOWER TRACTOR DOORS

With the right tractor locking lever released, slide the tractor slightly to the right to make the paper taut. Excessive tension will tear the pinholes and cause the paper to become misaligned. Lock the tractor in place by pressing up on the locking lever.

11. While applying a *slight* downward tension, lay the paper onto the lower tractors and close the tractor doors. If needed, unlock and adjust the right tractor for correct paper tension.

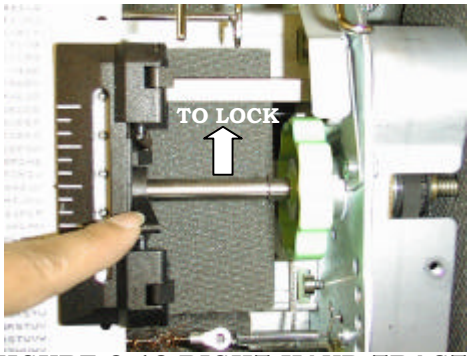


FIGURE 2-18 RIGHT HAND TRACTOR

12. Close the front cover. For the 5050/5100 (55 dBa) Cabinet Model printers, close the front access panel of the printer, and then close the front cabinet door.

Note

After the paper has been loaded, the print gap, paper tension, and top of form position must be set. These settings are discussed later is this chapter after the installation of the ribbon cartridge.

Semiautomatic Paper Loading

Once the printer's tractors have been set up for the specific paper being used and power has been applied; the semiautomatic paper loading feature may be used.

After the paper is loaded in the lower tractors, pressing the **FF** (form feed) pushbutton causes the paper to move up at a slower rate (10 inches per second) to the top tractors.

Note

Some extremely thin forms, stiff cardstock, forms with raised labels, or envelopes with cutouts may not work with this feature. If there are problems, load the paper manually.

With the print gap wheel in the **LOAD** position, the paper tension lever at position 1, and the upper tractor doors open, complete the following steps:

1. Load the paper onto the lower tractors.
2. Open the upper tractor doors.
3. Press the **FF** pushbutton to move the paper up through the printer to the upper tractors.
4. Load the paper onto the upper tractors and close the tractor doors. Unlock and adjust the upper right tractor as needed.

HORIZONTAL POSITIONING OF THE PAPER

The column indicator label is located just below the left upper tractor on the 5050/5100 model. See Figure 2-19. On the 5180 model, the column indicator is located on the ribbon deck. Use this label as a guide to position the paper horizontally within the printer. Turn the horizontal paper adjustment knob to align the paper as needed. This positions the paper for the first physical print column. On the 5180 model, the horizontal paper adjustment knob is located on the left just above the paper gap wheel. (See Figure 2-26)

If a left margin is desired, it is set electronically through either the control panel pushbuttons or a command sent by the host.

The marks on the label are set up for paper with a 1/2-inch perforation strip.

Aligning the edge of the paper with the first mark, as shown below, will cause the first column to print immediately after the perforation strip. Aligning the edge of the paper with the mark labeled 1.0 will cause the first column to print 1 inch from the edge. Using 6 characters per inch, this position is column 6 on the paper after the perforation strip.

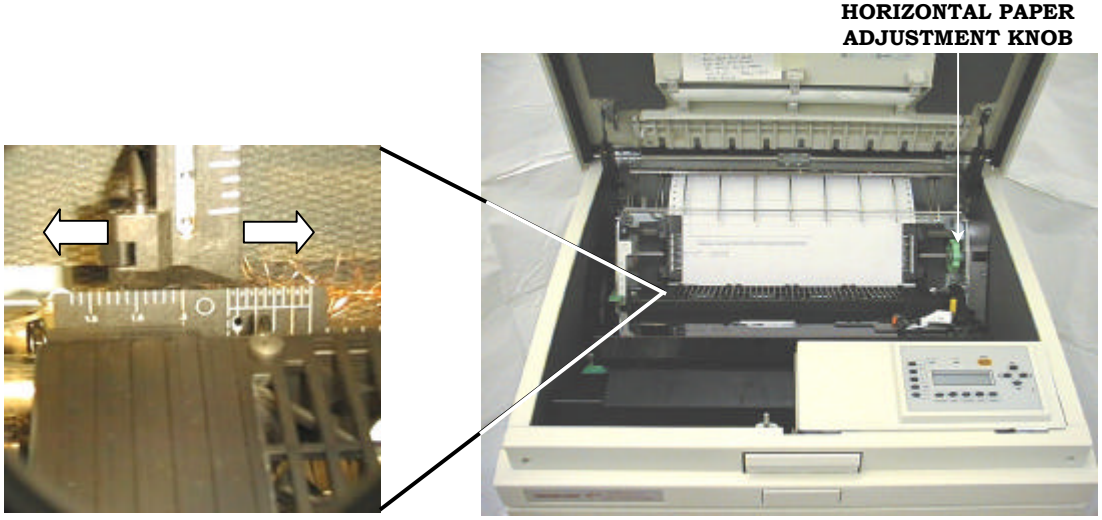


FIGURE 2-19 TOP VIEW AND COLUMN INDICATOR 5050/5100 (55 or 60 dBa) CABINET MODEL

THE RIBBON DECK
5050/5100 (55 OR 60 dBa) CABINET MODEL

The ribbon deck contains the drive mechanism for the ribbon cartridge. The locking lever is used to open (**LOAD** position) and close (**RUN** position) the ribbon drive gears.

The ribbon fabric in the cartridge is placed between the drive gears of the deck as the cartridge is lowered onto the deck. When the locking lever is moved to the **RUN** position, the drive gears move together to grip the fabric. See Figure 2-20.

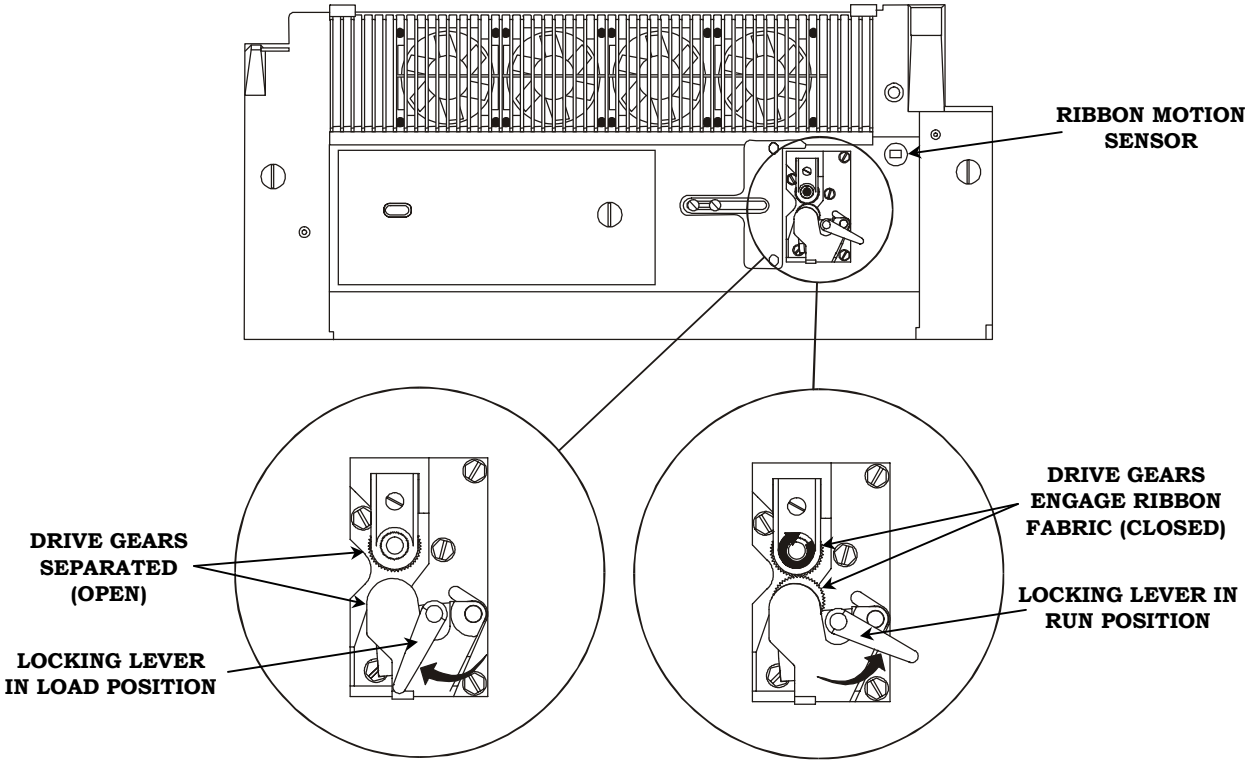


FIGURE 2-20a THE RIBBON DECK 5050/5100 MODEL

After the ribbon cartridge is in place and the locking lever has been turned to the **RUN** position, the ribbon drive knob is turned *clockwise* to manually advance the ribbon fabric.

THE RIBBON DECK
5180 (52 OR 55 DBA) CABINET MODEL

The ribbon deck contains the drive mechanism for the ribbon cartridge and a positioning pin, located to the left of the air duct and behind the captive screw. Also located on the ribbon deck is the print module access panel. See Figure 20b.

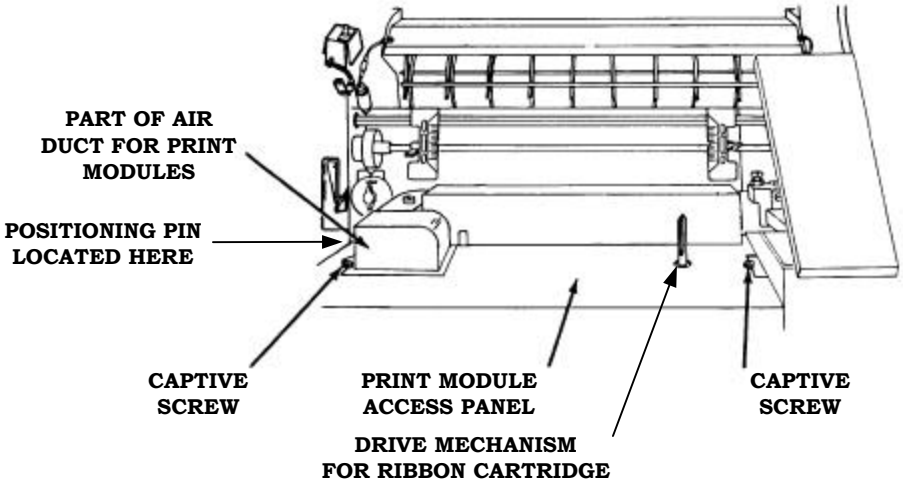


FIGURE 20b THE RIBBON DECK
5180 (52 OR 55 dBa) CABINET MODEL

THE RIBBON CARTRIDGE
5050/5100 (50,55 OR 60 dBa) CABINET MODEL

The top side of the ribbon cartridge has a window for viewing the ribbon fabric, the yellow spool knob for taking up slack in the ribbon, and an orange slide lever used to position internal parts. A removable shipping tab is located in the window on new cartridges. The bottom side has an opening for the ribbon deck drive gears and locking lever. When the ribbon is installed, the locking lever and ribbon drive knob will pass through the openings in the top side of the cartridge. Some ribbon cartridges have a reinker for longer life. The reinker lever should be rotated *clockwise* after the ribbon installation. See Figure 2-21.

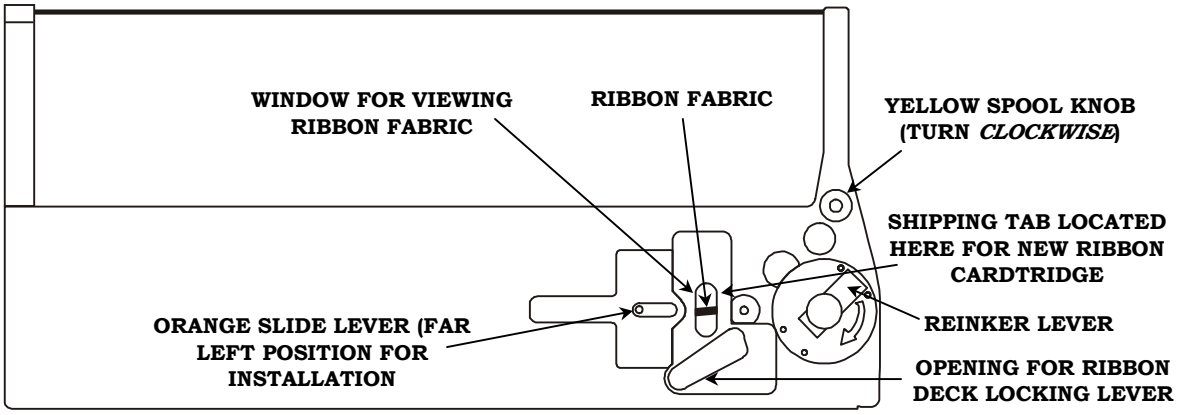


FIGURE 2-21 ABOUT THE RIBBON CARTRIDGE

RIBBON REMOVAL AND INSTALLATION
5050/5100 (50,55 OR 60 dBa) CABINET MODEL

1. Raise the top cover. On the 5050/5100 (55 or 60 dBa) model printers, press the cover latch to unlock the cover.
2. Turn the print gap wheel to the **LOAD** position.
3. Turn the ribbon locking lever *clockwise* to the **LOAD** position.
4. Make sure the orange slide lever on the ribbon cartridge is in the full left position.
5. Turn the yellow spool knob *clockwise* to take out any slack in the ribbon fabric between the cartridge arms.
6. Hold the ribbon cartridge over the ribbon deck at an angle that matches the tilt of the ribbon deck as described below:

Facing the front of the printer, hold the ribbon cartridge so the body of the cartridge is parallel to the floor. Rotate the ribbon cartridge down so that the angle of the cartridge (front to back) matches the tilt of the ribbon deck. See Figure 2-22.

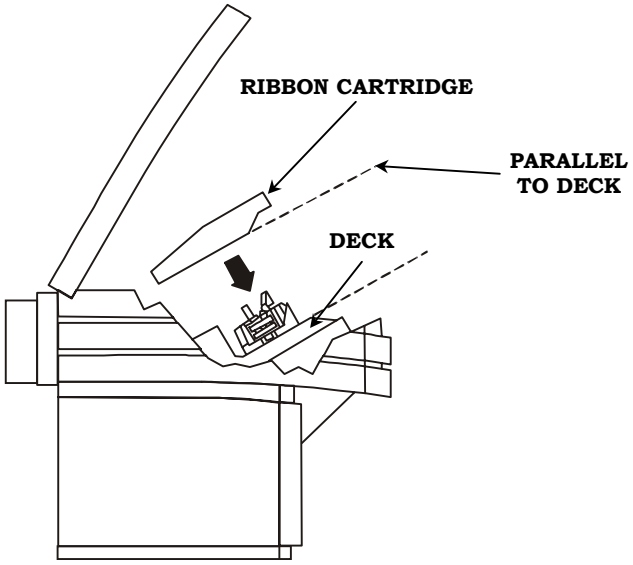


FIGURE 2-22 LEFT SIDE CUTAWAY VIEW

7. Lower the ribbon cartridge onto the ribbon deck so that the drive gears on the deck enter the opening on the bottom of the cartridge.
8. After the cartridge is in place, grasp the ribbon shipping tab on the ribbon cartridge and pull it up and towards the left to remove it from the cartridge.

9. Look into the window of the ribbon cartridge and make sure the ribbon fabric is not twisted, or folded, between the ribbon deck drive gears. If necessary, turn the yellow spool knob to straighten the fabric. See Figure 2-23.

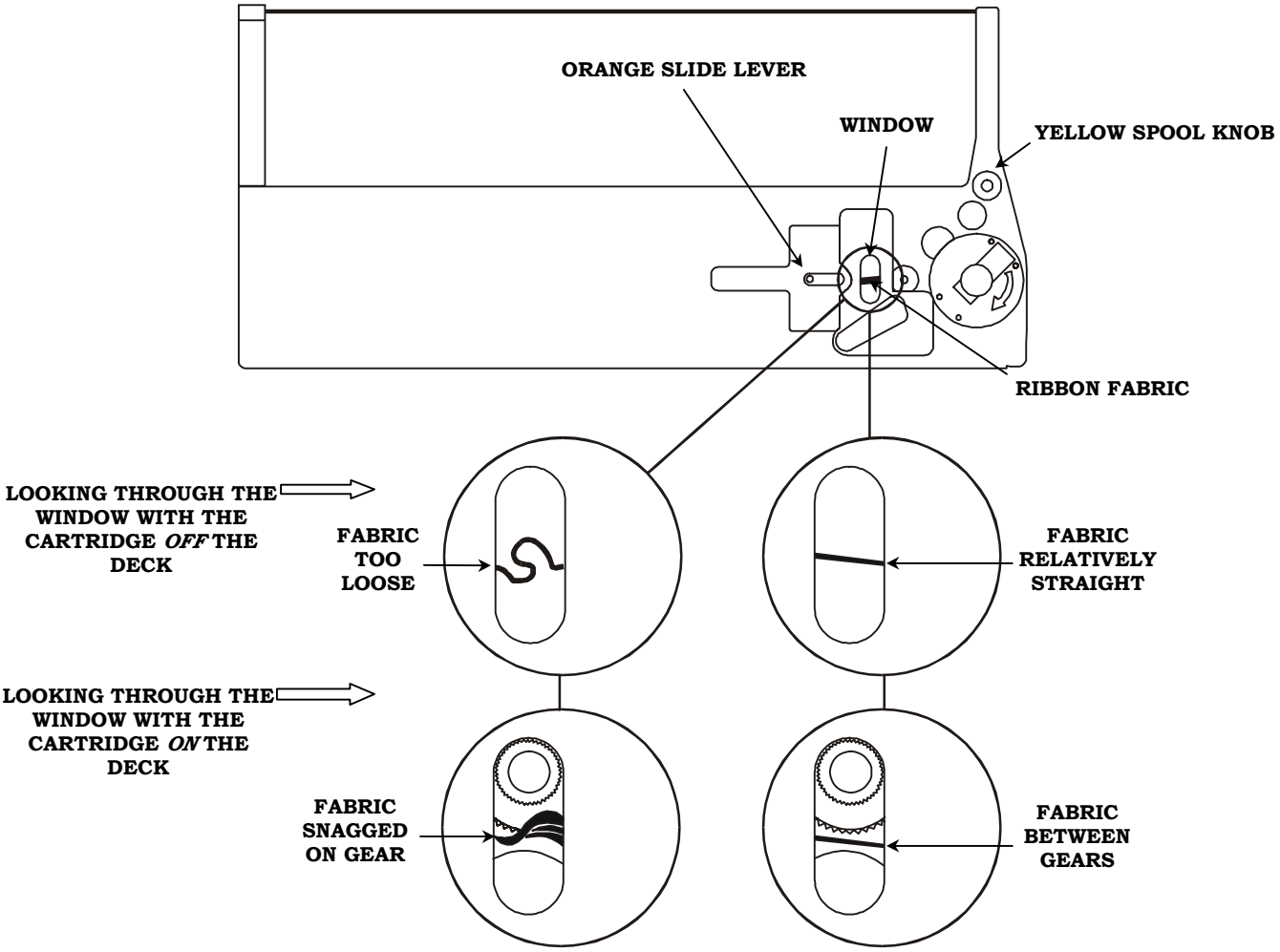


FIGURE 2-23 CHANGING OR REINSTALLING A RIBBON

10. Turn the ribbon locking lever *counterclockwise* to the **RUN** position. Turn the ribbon drive knob *clockwise* to unwind any ribbon fabric that has been wound onto the spool. The yellow spool knob will stop turning when all fabric has been unwound.
11. If the ribbon cartridge has a reinker, turn the reinker lever *clockwise* to the ON position. If necessary, see Figure 2-21.

Note

After the ribbon cartridge has been installed, the print gap, paper tension, paper path, and top of form position must be set. See "Setting the Print Gap" later in this chapter for more information.

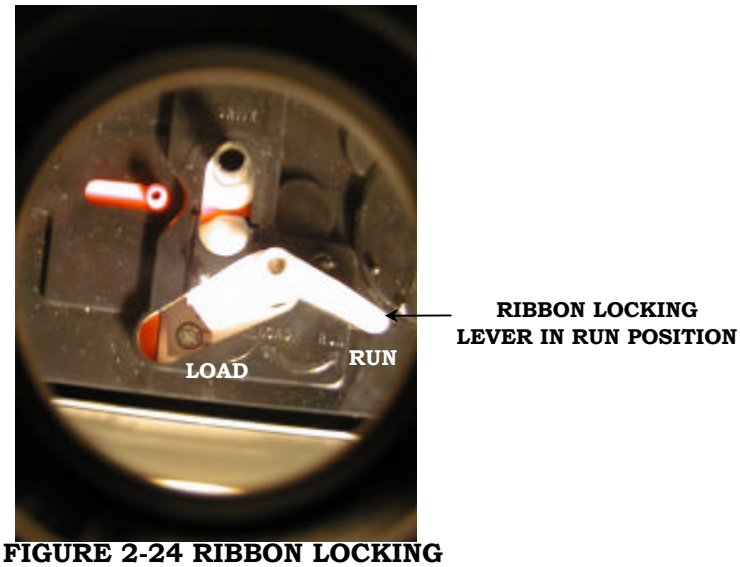


FIGURE 2-24 RIBBON LOCKING

Removing a Ribbon (50,55, or 60 dBa) Cabinet Model

1. Place the printer offline and raise the top cover.
2. Turn the print gap wheel to the **LOAD** position. If necessary, see Figure 2-14
3. Turn the ribbon locking lever *clockwise* to the **LOAD** position. If necessary, see Figure 2-24.
4. Lift the ribbon off the ribbon deck.

RIBBON REMOVAL AND INSTALLATION 5180 (52 OR 55 dBa) CABINET MODEL

Use the following procedure to install a ribbon on a 5180 (52 or, 55 dBa) Cabinet Model printer:

1. Lift the top cover of the printer.
2. If the thickness of the paper will remain the same after the ribbon cartridge is installed, note the present position of the paper gap adjust knob. See Figure 2-26.

3. Turn the paper gap adjust knob clockwise to the **LOAD** position.
4. Turn the knurled knob on the new ribbon cartridge clockwise to remove any slack in the ribbon. See Figure 2-25.

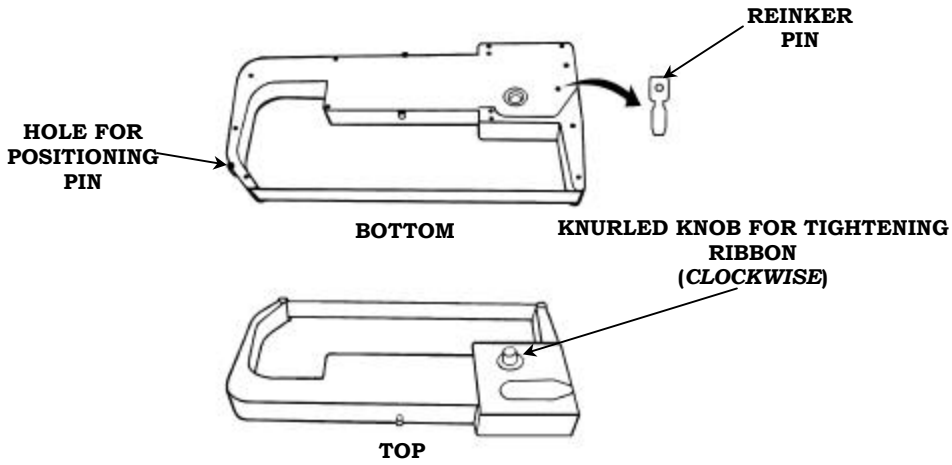


FIGURE 2-25 RIBBON CARTRIDGE
5180 (52 or55 dBa) CABINET MODEL

5. Refer to Figure 2-26. Tilt the left side of the ribbon cartridge down and place it on the positioning pin. Guide the cartridge onto positioning pin. Guide the ribbon between the air duct and the smudge shield. Then lower the right side of the cartridge onto the ribbon motor drive shaft. Turn the knurled knob on the ribbon cartridge to allow the drive shaft to enter the cartridge. Turn the knob a few more times to assure that the ribbon is running freely and that any remaining slack is removed.

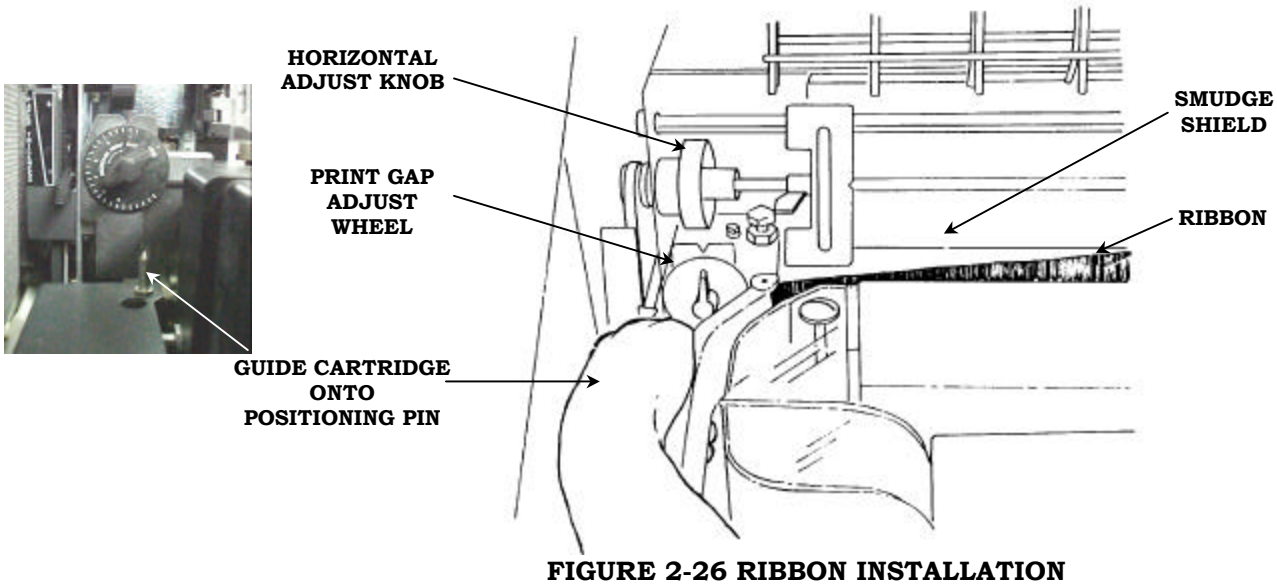


FIGURE 2-26 RIBBON INSTALLATION
5050/5100 (55 dBa) and 5180 (55 dBa) CABINET MODEL

6. Reset the paper gap adjust knob to its original position or to a setting appropriate for the paper thickness being used.
7. Close the top door of the printer.

SETTING THE PRINT GAP

The print gap wheel is used to adjust the distance between the bank of print head actuators and the striker bar. See Figures 2-14a and 2-14b for location of print gap wheel.

Setting the gap *too* tightly will cause smudging on the paper and can obstruct the movement of the shuttle mechanism. Overloading or stalling the shuttle will cause the printer to stop and **Shuttle** will be displayed on the control panel.

Setting the gap *too loosely* may cause unacceptable print quality and excessive noise.

Note

The moisture and content and the thickness of the paper determine the ideal setting. Adjust the print gap wheel to produce the best quality possible.

Reading the Scale

The print gap wheel on the 5050/5100 (55 or 60 dBa) Cabinet Model has two scales to aid in setting the proper gap. See Figure 2-27.

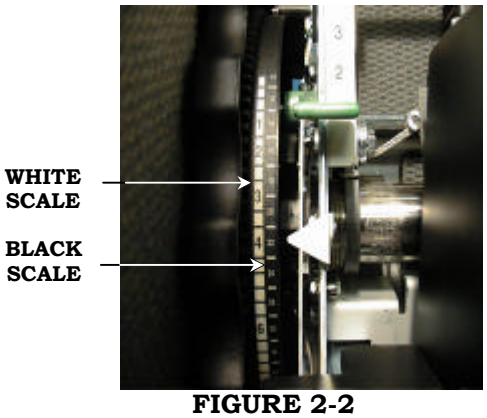


FIGURE 2-2
5050/5100 (50, 55 or 60 dBa) CABINET MODEL
BLACK AND WHITE SCALE

Using the White Scale

The white scale with the black markings is used to set the gap by the number of parts in the paper being used or adjustments for paper thickness. The higher the number the larger the print gap. For example, set the wheel to **1** for single-part paper, **2** for two-part paper, etc.

This is a relative setting. A change in the paper weight or the thickness of the carbon paper (if used) in multipart forms may

require further adjustment. Cardstock and carriers with stick-on labels require a larger print gap (higher number on the scale).

Using the Black Scale

The black scale with the white markings is used when direct measurements in thousandths of an inch are made. Its main use was during the factory setup of the printer.

After the ideal gap setting has been found for a particular type of form, note the wheel setting using the black scale. For example, a four-part form with a heavy first sheet may run best with the wheel set at **21** or **23** on the black scale instead of somewhere in the **4** range on the white scale. The smaller increments (one click of the wheel per number) provide a more accurate setting to go back to after reloading paper or changing the ribbon.

PAPER TENSION ADJUSTMENT

The paper tension lever is located next to the print gap wheel. It is used to maintain the proper tension on the paper during printing. See Figure 2-28. On the 5180 (55 dBa) Cabinet Model, the paper tension lever is located to the left of the print gap adjust knob. See Figure 2-30.

Move the lever to position 1 (the bottom position) when loading paper, setting top of form, and printing single-part paper. This position applies the least tension to the paper and should be used as the first trial position for all forms.

For multipart forms and single-part paper that is heavier than 20 pounds, higher paper tension lever settings may be required. Six-part forms are normally run at the second or third position.

The higher paper tension settings are used to squeeze air out from between the layers of multipart forms. Increase the tension if the print quality on the last part of the form is printing too light.

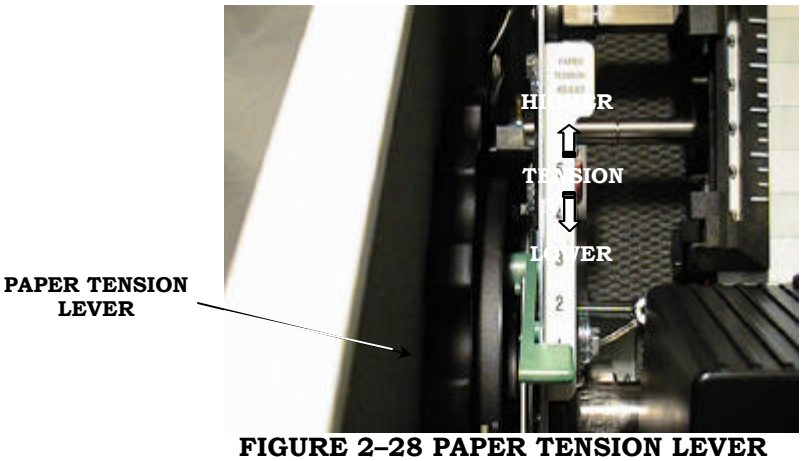


FIGURE 2–28 PAPER TENSION LEVER
5050/5100 (55 or 60 dBa) CABINET MODEL

Note

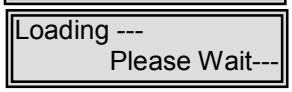
Too much tension may tear the paper or elongate the holes.

POWER-ON SEQUENCE

With the ribbon cartridge and paper installed and the power cable connected, the printer is ready for power to be applied. The power switch is located on the rear panel. See Figure 2-2.

The following describes the power-on sequence and shows the expected display:

1. The printer starts diagnostics and **Startup** shows on the display. The shuttle and ribbon motors will run for a brief period.



2. The printer loads the processing software and **Loading ---** is displayed in the upper left corner of the display and **Please wait...** is displayed in the lower right corner of the display. The printer's display briefly shows **Self Test** before returning to the previous display. During this loading and self test phase, the alarm light flashes.

3. The printer completes the sequence in approximately 15 seconds.

4. When the power-on sequence and self-test are completed, **Online** is displayed in the upper left corner of the display window and **Status** is displayed in the lower right corner of the display. The alarm light discontinues flashing.

INTERLOCK CIRCUIT

This printer has an interlock circuit to meet safety and international requirements.

5050/5100 (55 or 60 dBa) Cabinet Model

The interlock switch circuit disables the power supply voltage when the ribbon deck is lifted. This eliminates any potential shock hazard or inadvertent printer start-up while moving parts in the print area are accessible. The ribbon deck must be in place and all three thumbscrews must be tightened securely for printer operation. See Figure 2-29.

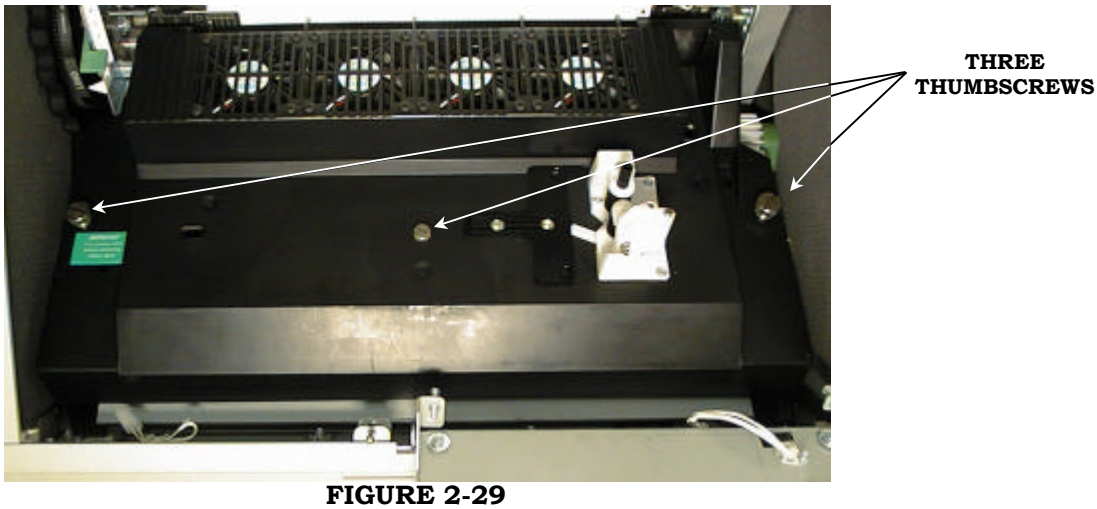


FIGURE 2-29
5050/5100 (50, 55 OR 60 dBa) CABINET MODEL
THUMBSCREWS ON RIBBON DECK

Note

Removing the ribbon deck with the power applied will energize the interlock circuit. If this happens, the deck must be replaced, power must be turned off for a period of 5 minutes before attempting to reapply power.

5180 (55 dBa) Model

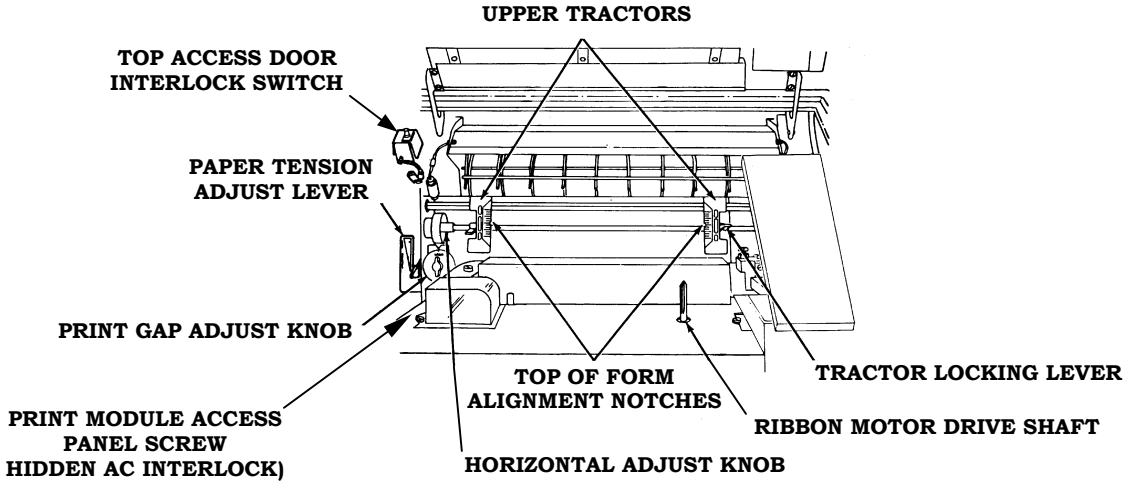


FIGURE 2-30 LEFT TOP VIEW
5180 (55 dBa) MODEL

Top Access Door Interlock Switch

The top access door interlock switch is located in the upper left corner of the door opening. See Figure 2-30. When the door is opened, the beeper will sound, printing will stop, and the message **Cover Open** will be displayed in the LCD. To use the printer with the door open, pull the switch plunger up and press the **Clear** pushbutton to clear the display. The 5180 (52 dBa) Cabinet Model does not have a top access door interlock switch.

Print Module Access Panel AC Interlock Switch

The AC interlock switch disconnects AC power from the power supply when the print module access panel is lifted. See Figure 2-30. This eliminates any potential shock hazard or inadvertent printer start-up while moving parts in the print area are accessible. The shelf must be in place and the screws must be tightened securely for printer operation.

INITIALIZING THE PRINTER

Initializing resets the printer electronics and sets the printer parameters to factory defaults. Parameters include margins, tabs, forms control, characters per inch, lines per inch, etc.

When to Initialize

Initialize the printer when:

- It is desirable to reset the printer to the factory default settings.
- The electronics lock up, causing the printer to ignore control panel inputs.
- Repair actions involving the logic circuit boards have been made.

USING THE KEYPAD TO INITIALIZE

Using the control panel pushbuttons to initialize the printer allows resetting to the factory default parameters, all interfaces, all emulations, all formats or a complete reset of all parameters.

If the printer was operating before initialization, it may need to be reconfigured for the specific task at hand. Refer to the status page printout and/or formats page printout to reset the printers settings to those used before initialization. (See "Show" in the "Using the Operator's Menu" section of Chapter 4 for procedures to print the status page and formats page.)

Note

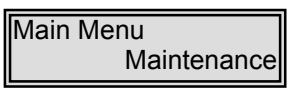
The menu option All Formats will reset all previously saved formats (customer defined) to factory defaults. Previously saved formats cannot be recalled. It is recommended a status page and format page be printed before performing this option. Use these printouts to re-configure formats and/or settings reset to factory defaults.

Control Panel Initialization

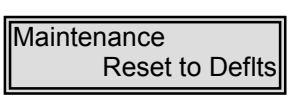
Use the following procedures to initialize the printer using the control panel:

1. Press the **On Line** pushbutton to place the printer in an offline state.

2. Press the ▼ (down) menu browse pushbutton to access the **Main Menu**.



3. Press the ◄ (left) or ► (right) menu browse pushbutton until **Maintenance** is displayed in the lower right corner of the display window.



4. Press the ▼ (down) arrow to access the Maintenance menu options. **Maintenance** will be displayed in the upper left corner of the display window and **Reset to Deflts** will be displayed in the lower right corner.

Reset to Deflts USA

5. Press the ▼ (down) menu browse pushbutton again. **USA** will be displayed in the lower right corner of the display window.
6. Press the ◄ (left) or ► (right) menu browse pushbutton to select a USA or International setting.

Factory Deflts All Interfaces

7. Press the ▼ (down) menu browse to access the options under USA or International.
8. Press the ◄ (left) or ► (right) menu browse pushbutton to select either, All Interfaces, All Formats, All Emulations, or Complete.

Note

The All Interfaces option will reset all interface settings in the printer to the factory set default values or settings. The All Formats option will reset all previously saved formats in the printer to the factory set default values or settings. The All Emulations option will reset all emulation settings in the printer to factory set default values or settings. The Complete option will reset the printer to factory set defaults for all interfaces, all previously saved formats, and all emulations.

9. Press the **Select** pushbutton next to the type of reset option desired to reset printer. The printer momentarily displays **STARTUP, Loading..... Please Wait** and complete a power-up sequence.

TEST PATTERN PRINTING

Local Menu

1. With the printer in **Local** menu, press the ▼ (down) menu browse pushbutton to access the main menu options.

Main Menu Operator

2. Press the ◄ (left) or ► (right) menu browse pushbutton until **Operator** is displayed in the lower right corner of the display window.
3. Press the ▼ (down) menu browse pushbutton to access the Operator menu options.

Operator Adjust TOF

4. Press the ◄ (left) or ► (right) menu browse pushbutton until **Adjust TOF** is displayed in the lower right corner of the display window.
5. Press the ▼ (down) menu browse pushbutton to access the **Adjust TOF** menu options.

Adjust TOF Rolling ASCII

6. Press the ◄ (left) or ► (right) menu browse pushbutton until **Rolling ASCII** is displayed in the lower right corner of the display window.

Print Pattern CLEAR to Stop

7. Press the **Select** pushbutton to print the test pattern. **CLEAR to Stop** will be displayed in the lower right corner of the display window. The printer will print a rolling test pattern of all printable ASCII characters. The pattern is printed in the font style, line length (determined by the margins), characters per inch, and lines per inch settings that are currently in effect (selected locally or remotely).
8. Press the **CLEAR** pushbutton to stop printing test pattern.

9. Press **On Line** pushbutton to return the printer a local status or press **CLEAR** pushbutton move backward up to a previous level of selections.
10. Press the **On Line** pushbutton again. This will return the printer to an online status.

If printing becomes lighter gradually over a period of time, the ribbon may need replacing.

See Figure 2-28 below for the print pattern sample using the default settings

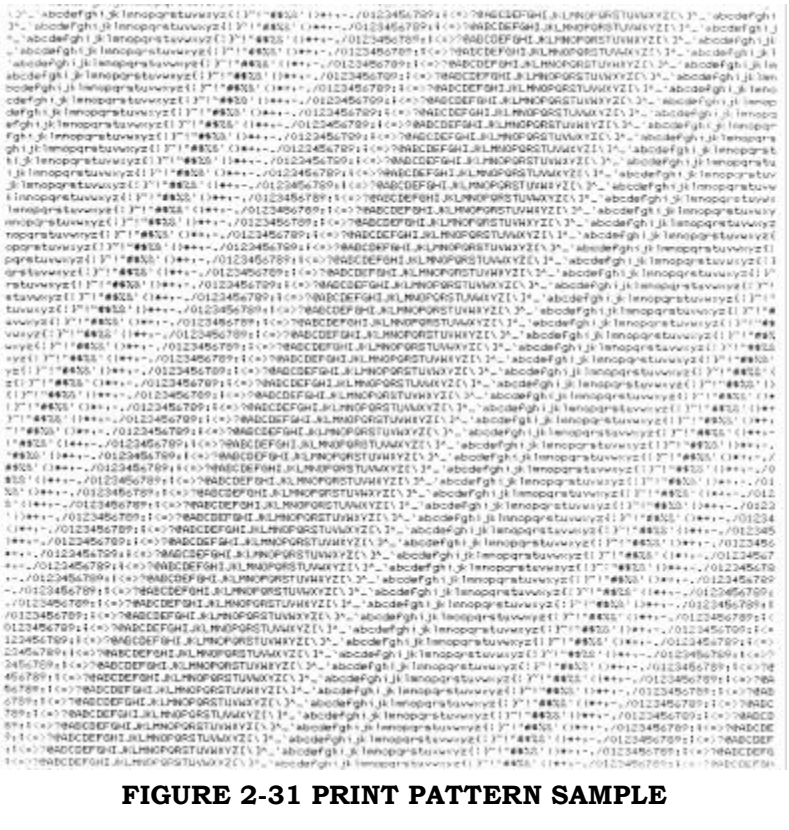


FIGURE 2-31 PRINT PATTERN SAMPLE

CHAPTER 3. OPERATING THE PRINTER

PRINTER OPERATIONAL MODES

- ONLINE
- OFFLINE
- Fault State
- Menu

Each printer state (mode) will display its own operational characteristics. These modes are defined as follows:

Online

The online state is the normal operating mode of the printer where it is ready to accept data from the host. There are functional restrictions in this mode, to prevent interference with a print job that may be in progress.

Offline

The offline state allows more operations including menu functions. This state is also referred to as Local.

Fault

The fault state is a special case where a few options are available as the machine is in a condition that may inhibit many operations. It will allow operations that are required to clear the fault condition(s). The normal exit, when a fault is corrected, is to depress the **Clear** pushbutton.

Menu

The menu state is where the settings or configuration of the printer may be altered.

Status Display

Depressing the **Select** pushbutton while online activates the status display. The LCD cycles through and displays the current printer settings, including **Format, Font Style, Code Page, CPI, Interface, Printer Emulation and I/F Emulation**. Press the **Clear** pushbutton to terminate this display.

MAIN MENU

The Main menu is organized in a tree structure. The active level is displayed on the upper left corner of the LCD display and selection options available displayed sequentially one at a time, on the lower right corner of the LCD display.

The Main menu presents only the allowable (not hidden) top level selections, Operator menu, Setup menu, Maintenance menu and Menu Control. If a menu is locked from view only those menus setup for viewing will be displayed (See "Menu Control", for further information.) The following menus are available from the Main menu level, if all menus are setup as accessible:

- Operator menu
- Setup menu
- Maintenance menu
- Menu Control (See "Menu Control" for procedures to view this menu.)

Operator Menu

The Operator menu is intended for the user who may need to make certain changes (i.e. selections) to the printer as the type of print job changes. Normally, the Operator menu involves loading paper, correcting faults, and allows temporary changes to settings that have previously been selected in the Setup menu. If the selection desired is not available in the Operator menu, proceed to the Setup menu. For procedures to navigate the operator menu, see Chapter 4. For a complete listing of menu selections, see Operator Menu Map in Appendix I.

Setup Menu

The Setup menu contains a more complete menu than the Operator menu. The Setup menu allows configuration settings in the printer to be changed and saved. Some setting are selected, enabled or user set For procedures to navigate the setup menu, see Chapter 5. For a complete listing of menu selections, see Setup Menu Map in Appendix I.

Maintenance Menu

The Maintenance menu contains selections for hardware setup, such as checking and resetting of counters, etc. For procedures on navigating the maintenance menu, see Chapter 6. For a complete listing of menu selections, see Maintenance Menu Map in Appendix I.

Menu Control

The Menu control feature allows the operator to restrict/allow access to the other menus, Operator, Setup and Maintenance. This menu is only visible after using the following procedure during power up:

- Simultaneously depress the **On Line** pushbutton and the ↑ pushbutton while turning the power on to the printer.

The printer will power up as normal, however, when accessing the menu options, a fourth menu, Menu Control will be viewable and accessible.

SETTING UP A FORMAT

Setting up the physical boundaries and other parameters of a format consists of setting the format name, font style, character set, country, CPI, LPI, form length, top margin, bottom margin, left margin, right margin, top print ref, horizontal expansion, vertical expansion, vertical expansion options, printing modifiers, print options and slew rate.

Although the entire length of the form is available for printing, some combination of a top and bottom margin or a bottom margin and offset is recommended to avoid printing on the paper perforation and possibly snagging print wires.

NOTE

Up to ten stored set up configurations (formats) may be stored for later recall using the Format pushbutton on the control panel. Each format should have a unique name.

Active Format

An active format is the format description, set of set up parameters that presently resides in the printer's processor. When printing starts, these active formats are used to format the page.

The active format can be a description that was entered through the control panel, sent from the host, or one of the stored formats selected. The active format is labeled ACTIVE on the status page printout.

Setting up an Active Format

An active format can be set up using the following three methods:

- From the Setup menu, under **Modify Format** menu**,** the **Form Length**, **Top** and **Bottom Margin**, etc may be saved.
- From the Operator menu options, use the **Select Format** to select a stored format description.
- ANSI Emulation - use the ESC[p1;p2;p3r escape sequence to set the active form length, top margin, and bottom margin. (See the *Programmer's Manual* for information on escape sequences.)

Note

See "Stored Formats" for additional information.

Form Length

Form length is set using the currently set lpi (lines per inch) value. If the form length is set to 66 lines while the lpi is set at 6, the length will be 11 inches. After the form length has been set up, a lpi change will not change the form length.

The minimum form length is .33 inch (8.4mm, 240 decipoints) and the maximum length is 22 inches (559mm, 15,840 decipoints).

Top Margin

The top margin is set using the currently set lpi value. If the top margin is set to 6 lines while the lpi is set to 6, printing will start on line 7. Lines 1 - 6 (1 inch) will be skipped. After the form has been set up, a lpi change will not alter the length of the margin.

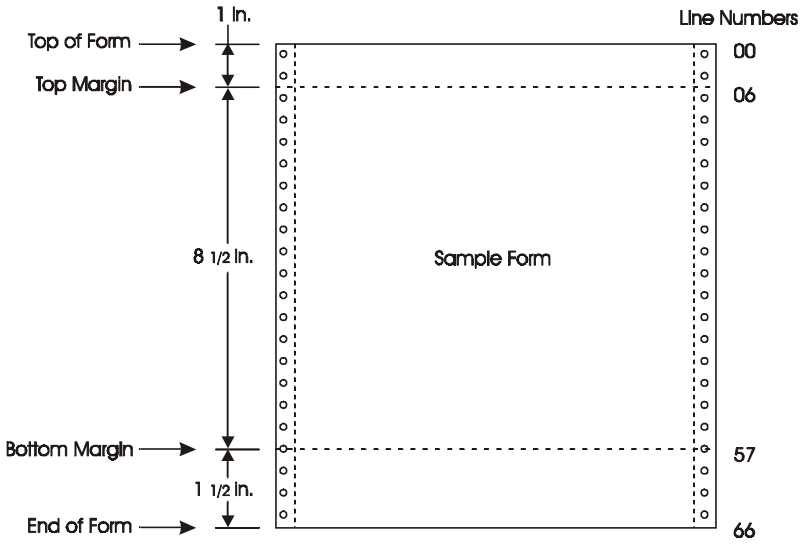
Bottom Margin

The bottom margin is set using the currently set lpi value. If the bottom margin is set to 57 lines while the lpi is set to 6, the last printable line will be line 57. Lines 58 - 66 (1.5 inch) on an 11-inch form will be skipped. After the form has been set up, a lpi change will not alter the length of the margin.

Top Print Ref

The top print ref (top print reference) is set using the currently set lpi value. If the offset distance is set to 6 lines while the lpi is set to 6, printing will start on line 7. Lines 1 - 6 (1 inch) will be skipped. The offset occurs once each time the top of form position is set using the pushbutton on the control panel. After the form has been set up, a lpi change will not alter the length of the offset distance.

The top print ref should not be confused with a top margin. They are distinctly different and serve separate functions.



Explanation of the Top Print Ref

The *Top Print Ref* feature is used mainly with preprinted forms. Certain application programs immediately start printing data on the first form with no consideration for where the form is positioned. In the past, the person loading paper was responsible for positioning the form so that the first printed line fell in the correct place on the form (perforation 2.5 inches above the alignment pointers in the upper tractors for the green forms, 1 inch above the alignment pointers for paychecks, etc.).

Using the top print ref allows loading all forms and paper with the perforation at the alignment pointers.

The host program will print the first form and then move the paper to the same position on the next form using vertical move commands (line feed, form feed, etc.). This will continue through the box of forms to be printed.

The *Top Print Ref* is used to position the string of forms to the first print line on the first form. The host is then responsible for advancing the paper to the next form's first print line with form feed commands.

Example

To print standard data listings, the operator selects an 11-inch form at 6 lpi, with no top or bottom margins. The date, which is the first printed data on each page, is supposed to land 1 inch below the top of the form (perforation). TOF has been set with the perforation at the alignment pointers.

When the application program starts, the date is printed on the first line of the form, not 1 inch from the perforation. The program prints the first page and advances the forms to the second page. The second page is also printed with the date at the perforation.

This cannot be compensated for with a top margin, since a margin affects every form by subtracting from the printable area. A top

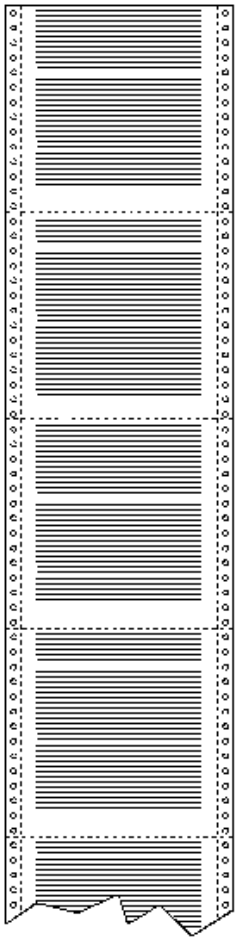
margin would effectively add to the space that the host uses to go from form to form.

In the following illustrations, the application program knows to print 54 lines of data (9 inches at 6 lpi) and then advance the paper 12 lines (2 inches at 6 lpi) before printing the next form. This will continue until the print job is finished.

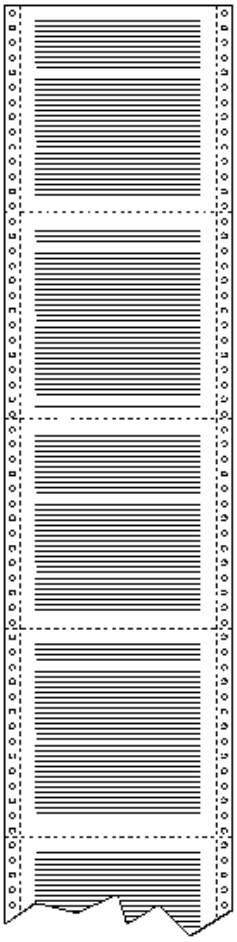
Papers, in both examples, were loaded with the perforation at the alignment pointers of the upper tractors.

Without the offset (Example A), the data printed starts at the first printable line of the form. The paper should have been loaded with the perforation 1 inch above the pointers for the desired results.

Example B shows the effect of the special offset (top print ref) on the print job. The offset (1 inch) was stored in a format description and paper was loaded with the perforation at the alignment pointers.



EXAMPLE A



EXAMPLE B

LOW PAPER PRINTING

Low paper printing allows replenishing the forms supply without losing data or forms registration.

This printer will print to the end of the current form or to the end of the last form (end of paper) after sensing a low paper condition if the form length corresponds with the active page length.

Note

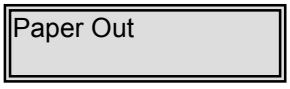
If the print job has been using reverse paper moves (backing paper up while using bar codes, oversize, or vertical moves, do not use the low paper printing feature. Once the paper runs out of the lower tractors, poor print quality and jams will occur. A form length of 12.5 inches or longer causes the printer to bypass the low paper fault. The printer will go to a paper out condition.

Low Paper

When the paper supply runs down to approximately 12.5 inches (32cm) remaining, the paper out sensor is activated. The alarm light will flash and **Paper Almost Out** will display in the upper left corner of the display.

1. Press the **Clear** pushbutton. **Local** will be displayed in the upper line of the display window and **Low Paper Menu** will be displayed in the lower line of the display window.

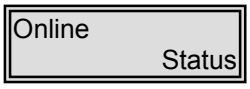
2. Press the **On Line** pushbutton and the printer will finish the remainder of the current form and stop. **Local** will be displayed in the upper line of the display window and **Low Paper Status** will be displayed in the lower line of the display. The printer will finish the remainder of the current form and stop**.**



3. The alarm light will flash and **Paper Out** will display in the upper left corner of the display.
4. Replenish the paper supply in the printer. (See “Replenishing Paper Supply for additional information.) The printer will finish the job inside the printer buffer when the printer is replenished with paper and back online with the appropriate form settings. (See “Setting TOF” for additional information.)

Replenishing Paper Supply

If the operator wants to change forms or paper:



1. With the printer in the online status, press the **FF** (form feed) pushbutton to eject the remaining forms out of the upper tractors. (If Paper Out is displayed in the upper left corner of the display window, press **FF** (form feed) pushbutton to eject the remaining form out of the upper tractors.)
2. Load a fresh supply of paper/forms and return the print gap wheel to the proper setting. If necessary, see “Loading Paper” in Chapter 1.

3. Use the ↑and/or ↓ arrow pushbuttons to make final adjustments to the perforation's position.
4. Press **TOF** pushbutton and place the printer Online. (If necessary, see Setting Top of Form.)
5. Press the **Clear** pushbutton to clear the fault displays.
6. Press the **On Line** pushbutton to place the printer online.

SETTING TOP OF FORM

Setting the top of form tells the printer where the top of form position (perforation) is located on the paper.

Use the following procedures to set the top of form.

1. The paper perforation must first be positioned at the pointer on each of the upper tractor doors. See Figure 3-1.
2. Position the paper using the ↑ pushbutton and/or ↓ pushbuttons, if necessary.
3. Press the **TOF** pushbutton. After the perforation is positioned at the pointers and the **TOF** pushbutton is pressed, the printer will move the paper so that the paper is correctly positioned at the print wires for printing. Press the **On Line** pushbutton to place the printer online.

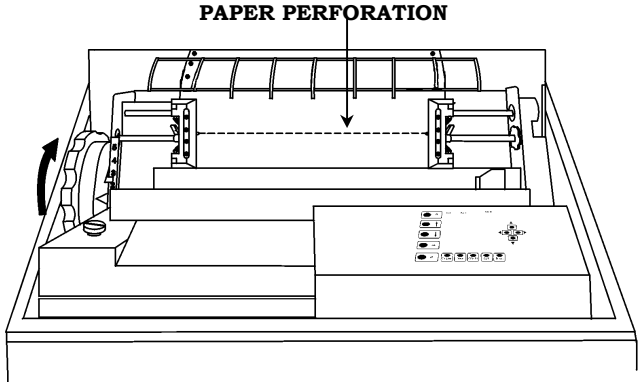


FIGURE 3-1 PAPER PERFORATION CORRECTLY POSITIONED BETWEEN UPPER TRACTORS 5050/5100 (55 OR 60 dBa) CABINET MODEL

Note

To ensure proper printing integrity, do not print within 1/8 inch of perforations.

PAPER TEAR-OFF FEATURE

Pressing the **Tear Off** pushbutton starts the paper tear-off feature cycle.

This feature moves the paper forward, out of the printer, far enough to tear off the last printed form at its perforation. **Tearoff** will show in the display. After a 15-second delay, the beeper will sound a warning. The paper then retracts back into the printer and is positioned at the print wires ready to print.

Pressing the **Tear Off** pushbutton a second time during this cycle will cancel the 15-second delay and immediately retract the paper.

This feature will not work during a fault condition such as **Ribbon Jam** or **Strikr Bar Open**.

Paper Path (5050/5100 (55 or 60 dBa) Cabinet Model Only)

The distance the forms are ejected and retracted depends on which paper path (top exit or rear exit) is being used. (See TearOff menu option in chapter 5.)

Number of Forms Ejected

This feature works by performing a series of forward form feeds to eject the paper and a shorter series of reverse form feeds to reposition the paper. It is designed to prevent the paper from being backed out of the upper tractors. Since paper is needed in the tractors above the print wires, that form(s) can not be printed. (See Special Forms below.)

The charts on the following pages show the number of forward form feeds (or forms ejected), the number of forms retracted (reverse form feeds), and the approximate amount of paper retracted for a given form length.

Special Forms

When using special forms like labels on a carrier, the menu option Retract under TearOff sub-menu option allows full retraction of forms. If the carrier is not torn off, it can be fully retracted so the first form can be used. (See Using Set Up Menu for more information.)

Rear Paper Exit Tear-off (All Models)
Calculated Ejection and Retraction Chart

FORM LENGTH (INCHES)	NUMBER OF FORMS EJECTED	NUMBER OF FORMS RETRACTED	INCHES RETRACTED
0.5	34	22	11
1.0	17	11	11
1.5	12	8	12
2.0	9	6	12
2.5	7	4	10
3.0	6	4	12
3.5	5	3	10.5
4.0	5	3	12
4.5	4	2	9
5.0	4	2	10
5.5	4	2	11
6.0	3	2	12
6.5	3	2	13
7.0	3	2	14
7.5	3	2	15
8.0	3	2	16
8.5	2	1	8.5
9.0	2	1	9
9.5	2	1	9.5
10.0	2	1	10
10.5	2	1	10.5
11.0	2	1	11
11.5	2	1	11.5
12.0	2	1	12
12.5	2	1	12.5
13.0	2	1	13
13.5	2	1	13.5
14.0	2	1	14
14.5	2	1	14.5
15.0	2	1	15
15.5	2	1	15.5
16.0	2	1	16
16.5	2	1	16.5
17.0	1	0	11
17.5	1	0	0
18.0	1	0	0
18.5	1	0	0
19.0	1	0	0
19.5	1	0	0
20.0	1	0	0
20.5	1	0	0
21.0	1	0	0
21.5	1	0	0
22.0	1	0	0

Top Paper Exit Tear-off (5050/5100 55 dBa Cabinet Model Only)
Calculated Ejection and Retraction Chart

FORM LENGTH (INCHES)	NUMBER OF FORMS EJECTED	INCHES EJECTED	INCHES RETRACTED	FORMS NOT USED
0.5	16	8	5	6
1.0	8	8	5	3
1.5	5	8	5	2
2.0	4	8	4	2
2.5	3	8	3	2
3.0	2	8	5	1
3.5	2	8	4.5	1
4.0	2	8	4	1
4.5	1	8	3.5	1
5.0	1	8	3	1
5.5	1	8	2.5	1
6.0	1	8	2	1
6.5	1	8	1.5	1
7.0	1	8	1	1
7.5	1	8	.5	1
8.0	1	8	0	1
8.5	1	8.5	-.5	1
9.0	1	9	-1	1
9.5	1	9.5	-1.5	1
10.0	1	10	-2	1
10.5	1	10.5	-2.5	1
11.0	1	11	-3	1
11.5	1	11.5	-3.5	1
12.0	1	12	-4	1
12.5	1	12.5	-4.5	1
13.0	1	13	-5	1
13.5	1	13.5	-5.5	1
14.0	1	14	-6	1
14.5	1	14.5	-6.5	1
15.0	1	15	-7	1
15.5	1	15.5	-7.5	1
16.0	1	16	-8	1
16.5	1	16.5	-8.5	1
17.0	1	17	-9	1
17.5	1	17.5	-9.5	1
18.0	1	18	-10	1
18.5	1	18.5	-10.5	1
19.0	1	19	-11	1
19.5	1	19.5	-11.5	1
20.0	1	20	-12	1
20.5	1	20.5	-12.5	1
21.0	1	21	-13	1
21.5	1	21.5	-13.5	1
22.0	1	22	-14	1

Negative retraction numbers are forward paper moves.

LOCAL AUTO VIEW FEATURE

The local auto view feature is used to view the last line printed through the glass in the top cover.

Viewing

This feature is activated using the **View** pushbutton from the control panel. Pressing the **View** pushbutton causes the paper to move up until the last printed line is at the pointers of the upper tractors.

Retracting

Pressing the **View** pushbutton a second time will cause the paper to move back down until it is positioned at the print wires ready for printing. Receipt of any data will also retract the paper to the print position.

USING THE MENU CONTROL MENU

This menu is only viewable after following special procedures during power up.

Use the following procedure to view the Menu Control menu and select this option:

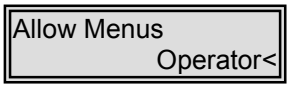
- Simultaneously depress the **FF** pushbutton and the ↑ pushbutton while turning the power on to the printer. The printer will power up as normal.

Note

Keep the FF pushbutton and ↑ pushbutton depressed until the power-up sequence is complete.

1. Press the **On Line** pushbutton to place the printer in a Local (offline) status.

2. Press the ▼ (down) menu browse pushbutton to access the main menu.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until **Menu Control** is displayed in the lower right corner of the display window.
4. Press the **Select** pushbutton to access the **Menu Control** options. **Allow Menus** will be displayed in the lower right corner of the display window.



5. Press the ▼ (down) menu browse pushbutton to access the **Allow Menus** options.
6. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired menu is displayed in the lower right corner of the display window.
7. Press the **Select** pushbutton to enable or disable the viewing of a menu. The **<** symbol immediately follows an enabled menu.

8. Cycle the power to the printer. After the power-up sequence is complete, only the enabled menu views will be viewable and accessible.

Note

If all the menus, Operator, Set Up and Maintenance are restricted from viewing, when the power cycle is complete, no menu will be visible from the Local menu level. Repeat the steps in this section to access Menu Control Menu and re-configure the menu viewing options.

CHAPTER 4. USING THE OPERATOR MENU

While in **Local**, press the ▼ (down) menu browse pushbutton until **Operator** menu is displayed in the bottom right corner of the LCD. **Main** will be displayed in the upper left corner of the LCD.

To move up or down a level of menu options, press the ▲ (up) or ▼ (down) menu browse pushbuttons. To move laterally among options on the same level, use the ◄ (left) or ► (right) menu browse pushbuttons.

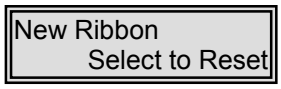
Currently selected (or active) menu options are displayed in the LCD with a **<** symbol, which follows immediately to the right of the menu option. Some menu options are toggle options and reflect an enabled or disabled condition. Press the **Select** pushbutton to cause the printer to perform this operation.

As necessary, a graphic representing the LCD is shown to the left of text for clarity.

Press the **Clear** pushbutton to return to the upper level menu or to **Local** when in a first-level menu.

NEW RIBBON

1. When a new ribbon is placed in the printer, the operator can reset the ribbon counter. This option is only available when Ribbon Monitor is enabled through the Maintenance Menu. (See “Ribbon Monitor” in Chapter 6 for procedures.)
2. Use the following procedures to access the new ribbon option:



3. While in the **Operator** menu, press ▼ (down) to access **Select to Reset**. **New Ribbon** is displayed in the upper left corner of the LCD and **Select to Reset** is displayed in the lower right corner.
4. Press the **Select** pushbutton to reset the counter.

SELECT FORMAT

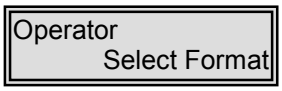
This menu option allows the operator to select a previously saved format. When a format is saved, the format name is user set. The first format name is Default unless changed in the Setup Menu. Only the formats changed from default settings will appear in the Operator Menu. See “Stored Formats” in Chapter 5 for procedures.

Note

Pressing the Format pushbutton allows the operator to select a format using the control panel.

For example, if a format for a picking label is saved as Pick Ticket, the name Pick Ticket will be displayed as one of the formats available for selection. There is a limit of ten saved formats. (Default in the example below is used in place of the name Pick Ticket.)

Use the following procedures to select a saved format:



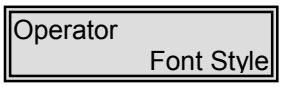
1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Select Format** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbuttons to access the saved formats.

3. Press the ◄ (left) or ► (right) menu browse pushbuttons until the saved format desired is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to select a saved format. The **<** symbol will now immediately follow the saved format, indicating the currently selected format.

FONT STYLE

There are eleven font styles available for selection. See Operator Menu Map in Appendix I for Font Styles available.

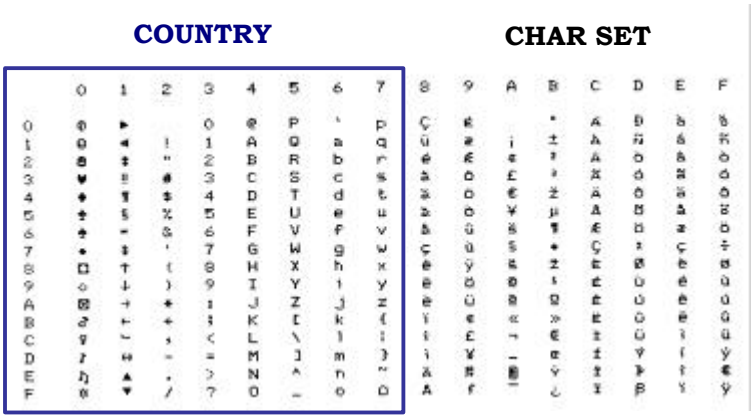
Use the following procedures to select a font style:



1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Font Style** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the font styles.
3. Press the ◄ (left) or ► (right) menu browse pushbuttons until the font style desired is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to select a font style. The **<** symbol will now immediately follow the font style, indicating the currently selected font style.

CHAR SET/COUNTRY

The character map consists of 256 characters (0X00 – 00XFF). Using the Country (OX00-OX7F) and Character Set (0X80-OXFF) and options allows the operator to select the upper and lower ends of the character maps respectively (See example character set below.) Under the Char Set/Country, there are two sub-menus, Character Set and Country. (See Operator Menu Map in Appendix I for selections available.)



Character Set

This menu allows selection of the character (0X80 to 0XFF) of the character map.

When using the Proprinter emulation, international character sets must be selected using escape sequences from the host. See *Programmer's Manual* for more information on international character sets and character charts.

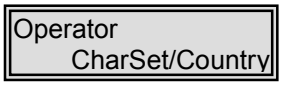
Use the following procedures to select this option:

Operator CharSet/Country	1. While in **Operator** menu, press the □ (left) or □ (right) menu browse pushbuttons until **CharSet/Country** is displayed in the lower right corner of the LCD.
CharSet/Country Character Set	2. Press the □ (down) menu browse pushbutton to access the character set sub-menu. **CharSet/Country** will be displayed in the upper left corner of the LCD and **Character Set** will be in the lower right corner of the LCD.
Character Set USA CP 437<	3. Press the □ (down) menu browse pushbutton to access the character set options. **CharacterSet** will be displayed in the upper left corner of the LCD.
	4. Press the □ (left) or □ (right) menu browse pushbuttons until the character set desired is displayed in the lower right corner of the LCD.
	5. Press the **Select** pushbutton to select a character set. The **<** symbol will now immediately follow the character set, indicating the currently selected character set.

Country

This menu allows selection of the characters (0X00 to 0X7F) of the character map.

Use the following procedures to select a country:



1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **CharSet/Country is** displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the country sub-menu. **CharSet/Country** will be displayed in the upper left corner of the LCD and **Country** will be in the lower right corner of the LCD.

3. Press the ▼ (down) menu browse pushbutton to access the country options. **Country** will be displayed in the upper left corner of the LCD.
4. Press the ◄ (left) or ► (right) menu browse pushbuttons until the country desired is displayed in the lower right corner of the LCD.
5. Press the **Select** pushbutton to select a country. The **<** symbol will now immediately follow the country, indicating the currently selected country.

SELECT CPI

This menu option allows the operator to select or define a CPI (characters per inch) setting. See Operator Menu Map in Appendix I for CPI settings available.

Use the following procedures to select a CPI setting:

1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Select CPI is** displayed in the lower right corner of the LCD.

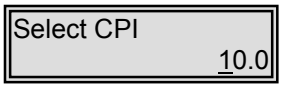
2. Press the ▼ (down) menu browse pushbutton to access the CPI settings. **Select CPI** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbuttons until the CPI setting desired is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to select a CPI. The **<** symbol will now immediately follow the CPI, indicating the currently selected CPI.

Select CPI (User Set)

The current CPI setting will appear in the LCD. This option allows the user to set a non-standard CPI.

Use the following procedures to set a non-standard CPI:

1. While in **Select CPI** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **10.0 User Set** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to select this feature. Notice the cursor (underline) beneath the currently selected digit to be changed.
3. In User Set mode the display switches to a format where the operator may enter any value 0 to 9 for any numeric position. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼ (up or down) pushbuttons increment/decrement the selected digit by one.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

SELECT LPI

This menu option allows the operator to select or define a LPI (lines per inch) setting. See Operator Menu map in Appendix I for LPI settings available for selection.

Use the following procedures to select a LPI setting:

1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Select LPI is** displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the LPI settings. **Select LPI** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbuttons until the LPI setting desired is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to select a LPI. The **<** symbol will now immediately follow the LPI, indicating the currently selected LPI.

Select LPI (User Set)

The current LPI setting will appear in the LCD. This option allows the user to set a non-standard LPI.

Use the following procedures to set the LPI to a non-standard LPI:

1. While in **Select LPI** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **06 User Set** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to select this feature. Notice the cursor (underline) beneath the currently selected digit to be changed.

3. In User Set mode, the display switches to a format where the operator may enter any value 0 to 9 for any position. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ►(left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼(up or down) pushbuttons increment/decrement the selected digit by one.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

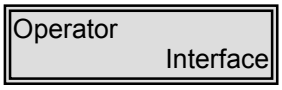
Note

Repeat this section if further changes are necessary.

INTERFACE

The Interface menu allows the operator to select a specific type of interface the printer will be using. The factory default setting is multisource, which activates all interfaces. The multisource setting is sufficient for most applications. (See the Operator Menu Map in Appendix I for available selections.)

Use the following procedures to select the interface type:



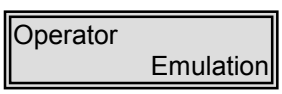
1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Interface** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the interface options.
3. Press the ◄ (left) or ► (right) menu browse pushbuttons until the interface type desired is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to select an interface type. The **<** symbol will now immediately follow the saved interface type.

EMULATION

This menu is used to select a printer emulation. This printer can emulate (become functionally similar to) ANSI (4800), ANSI (4410), FX286e, IBM ProPrinter P300/600, DEC LG (Digital Branded models only), PSeries, DEC PPL3 (Digital Branded models only), and ESC/P2.

Which emulation to use will depend on what control codes and escape sequences will be sent by the host. (See *Programmer's Manual*, for information on each emulation.)

Use the following procedures to select this option:



1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Emulation** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the emulation options.

3. Press the ◄ (left) or ► (right) menu browse pushbuttons until the emulation desired is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton to select an emulation option. The **<** symbol will now immediately follow the saved emulation option.

FILTER

This menu option allows the operator to select an interface filter option. Multiple filters can be active as the port becomes active assuming three software loads: standard, SCS, and IPDS (QMS and IGP is included in standard and SCS software). The maximum multiple filters is three. Hexdump has the lowest selection priority.

Note

QMS and IGP are mutually exclusive. Selecting the menu option "None" deactivates *all* interface filters. SCS is only selectable on Expansion ports if the software is installed.

See the Operator Menu Map in Appendix I for a complete listing of the selections available.

Use the following procedures to select a filter option:

1. While in **Operator** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Filter** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the Filter options. **Filter** will be displayed in the upper left corner of the LCD.

3. Press the ◄ (left) or ► (right) menu browse pushbuttons until the filter desired is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton to select a filter option. The **<** symbol will now immediately follow the saved filter option.

The following describes the options available:

Serial

This menu is used to configure the serial filter options. Activate this option only on RS232C serial port.

Note

IGP and QMS are mutually exclusive options.

Use the following procedures to select this option:

1. While in the **Filter** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Serial** is displayed in the lower right corner of the LCD.

2. Press the **Select** or ▼ (down) menu browse pushbutton to access the **Serial** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will now immediately follow the enabled option.

Parallel(1284)

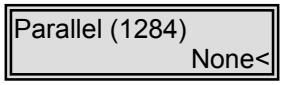
This menu is used to configure the parallel (1284) filter options. Configure this filter option only on 1284 parallel port.

Note

IGP and QMS are mutually exclusive options.

Use the following procedures to select this option:

1. While in the **Filter** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Parallel (1284)** is displayed in the lower right corner of the LCD.
2. Press the **Select** or ▼ (down) menu browse pushbutton to access the **Parallel (1284)** options.



3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will now immediately follow the enabled option.

Expansion1/Expansion2

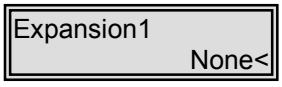
This menu is used to select the expansion 1 or Expansion2 options.

Note

IGP and QMS are mutually exclusive options. SCS and IPDS are also mutually exclusive options and are dependent on the software loaded in the printer.

Use the following procedures to select this option:

1. While in the **Filter**, press the ◄ (left) or ► (right) menu browse pushbutton until either **Expansion 1** or **Expansion 1** is displayed in the lower right corner of the LCD.
2. Press the **Select** or ▼ (down) menu browse pushbutton to access the **Expansion1** or **Expansion2** options.

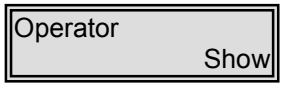


3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will now immediately follow the enabled option.

SHOW

This menu option allows the operator to view or print various printer settings. See the Operator Menu map in Appendix I for a complete listing of selections available.

Use the following procedures to view or print the printer settings:



1. While in Operator Menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Show** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the show options.
3. Press the **Select** pushbutton to select a show option. The following describes each selection available.

Software IDs

This option displays the part or version number of the installed software. This is a view only option. When selected, the display will automatically cycle and display information similar to the following display example:

TTMI: 44A105004
Font: 44A100071
CCU: 44A105086
Panl: 44A119255
XXXY: <Revision Number> *

* XXXY: are board identifiers, where XXX is the option board installed, Y is the expansion slot number and <Revision Number> is additional information (i.e. part number if applicable.)

Expansion Slot Information	
Option Board Installed	**Board Identifier**
Legacy Parallel (Centronics, DP Short, DP Long)	Leg1: or Leg2:
Ethernet (any speed) or Token Ring	Net1: or Net2:
empty or unknown board	Exp1: or Exp2:
IBM front end board	Fep1: or Fep2:

Sample Status Page

Selecting this option will print the current settings of the printer. Press the **Clear** pushbutton to stop printing. The following two pages, Figure 4-2a and 4-2b, are a sample printout of the status page, reflecting the factory default settings with standard software installed.

```
Status Page    5000
Operator
      Active Format  DEFAULT
      Font Style     Data Proces
      CharSet/Country    USA CP 437   USA ISO
      CPI        10
      LPI        6
      Interface      MultiSource
      Emulation      ANSI(4800)
      Filter
            None
      Software IDs
            TTMI: 44A105072
            Font: 44A100082
            CCU: 44A105086
            Panl: 44A119255
            Exp1: (empty)
            Exp2: (empty)
Set Up
      Active Format
            Format Name  DEFAULT
            Font Style     Data Proces
            CharSet/Country    USA CP 437   USA ISO
            CPI        10
            LPI        6
                       By IN          By Decipoint
            Form Length    11.00          7920
            Top Margin     0          0
            Bottom Margin 11.00           7920
            Left Margin    0          0
            Right Margin   13.20          9504
            Top Print Ref  0          0
            Left Print Ref 0          0
            Horiz Expansion     X1
            Vert Expansion      X1
            VertExp Options     Default (top)
            Print Modifiers
                  DoubleStrike   Disable
                  Emphasized     Disable
            Print Options
                  UpperCase      Disable
                  High Speed     Enable
            Slew Rate      Normal
      Horiz Tab
            None
      Vertical Format Vertical Tabs
            Vert Tab
                  Nome
      InterfaceSettgs
            MultiSource    Delay Seconds006
            Parallel Setup
                  No Fault PO&OFF   Disable
            Serial
                  XON/XOFF
                        Ready/Busy     Disable
                        ON/OFFline     Disable
                        Fault      Enable
                        Robust XOFF  Disable
                        Robust XON     Disable
                  CD(DTR)
                        Ready/Busy     Enable
                        ON/OFFline     Enable
                        Fault      Enable
                  CA(RTS)
```

FIGURE 4-2a (SAMPLE STATUS PAGE 1)

```
                Ready/Busy      Disable
                ON/OFFline      Disable
                Fault           Disable
            SCA(SRTS)
                Ready/Busy      Enable
                ON/OFFline      Enable
                Fault           Enable
            ETX/ACK             Disable
            Inhibit Xmit        Disable
            Lead Polarity
                CD(DTR)         High
                CA(RTS)         High
                SCA(SRTS)       High
                CB(CTS)         High
                CC(DSR)         High
            Data Bits           8 Bits
            Parity              No Parity Bit
            Stop Bits           1
            Baud Rate           9600
            Buffer Options      High Trip Pt % 80
            PI Lead             Disable
        Expansion1
            None
        Expansion2
            None
        Engine Options
            Direction           Bi-directional
                EngineOff Delay     2 seconds
                Print Intensity     Normal
            Print Control
                Define LF           LF = CR + LF
                Define CR           CR = CR
                Define FF           FF = CR + FF
                Define HT           NoTabs = Space
                VertMove            VM = CR + VM
                AutoWrap            Enable
                FF @ TOF            Enable
            GenPtrOpts
                                    0         1         2         3
                                    12345678901234567890123456789012
                Group 1             01100001000100000000000000000000
                Group 2             00010011001110000000000000000000
            TearOff
                Path                Rear
                Retract             Next TOF
                Auto                Disable
            Emulation           ANSI (4800)
                SFCC                1B (27)
                                    0         1         2         3
                                    12345678901234567890123456789012
                Options             00000000010000000000000000000000
            Filter
                None
Maintenance
    Power On Time           00000:00:00
    Print Time              00000:00:00
    Memory Usage
        RAM Size        8192 kB
        Code Size       2318 kB
        Heap Used       718 kB
        Free Mem        5155 kB
    RibbonMonitor Disable
```

FIGURE 4-2b (SAMPLE STATUS PAGE 2)

Sample Format Page

Selecting this option will print a description of optional pre-saved format (also known as a form.) Press the **Clear** pushbutton to stop printing. See Figure 4-3.

Formats

Active Format

Format Name	DEFAULT	
Font Style	Data Proces	
CharSet/Country	USA CP 437	USA ISO
CPI	10	
LPI	6	
	By IN	By Decipoint
Form Length	11.00	7920
Top Margin	0	0
Bottom Margin	11.00	7920
Left Margin	0	0
Right Margin	13.20	9504
Top Print Ref	0	0
Left Print Ref	0	0
Horiz Expansion	X1	
Vert Expansion	X1	
VertExp Options	Default (top)	
Print Modifiers		
Doublestrike	Disable	
Emphasized	Enable	
Print Options		
UpperCase	Disable	
High Speed	Enable	
Slew Rate	Normal	

Stored Formats

Format Name	DEFAULT	
Font Style	Data Proces	
CharSet/Country	USA CP 437	USA ISO
CPI	10	
LPI	6	
	By IN	By Decipoint
Form Length	11.00	7920
Top Margin	0	0
Bottom Margin	11.00	7920
Left Margin	0	0
Right Margin	13.20	9504
Top Print Ref	0	0
Left Print Ref	0	0
Horiz Expansion	X1	
Vert Expansion	X1	
VertExp Options	Default (top)	
Print Modifiers		

FIGURE 4-3 SAMPLE FORMAT PAGE PRINTOUT

Sample Character Set

Selecting this option will print an example of the currently selected character set/country character table. Press the **Clear** pushbutton to stop printing. See Figure 4-4.

FIGURE 4-4 SAMPLE CHARACTER SET

Sample Font Page

Selecting this option prints the current font package included in the printer software. The Font Page printout is meant to compliment the Status Page printout. This report is for reference purposes only, it reflects the fonts included in the Font part number, which is identified under Software IDs on the Status Page printout. It does not reflect selections or settings, either default or customer-defined. Press the **Clear** pushbutton to stop printing. The following is an example of the font page printout.

Font Page	5000		
Font Package:	44A100082		
Font List	Alignment	ALN:10	33
	Courier NLQ	CON:10	1000
		CON:13	1000
	Correspond	CRE:10	1000
		CRE:13	1000
	Data Proces	GCD:10	1000
		GCD:13	1000
		GCD:16	1000
	Gothic NLQ	GCN:10	1000
		GCN:13	1000
		GCN:16	1000
	High Speed 2	HSD:10	1000
	High Speed	THD:10	1000
		HSD:16	1000
	Italic NLQ	ITN:10	1000
	Graphics	LGD:10	1000
		LGD:13	1000
		LGD:16	1000
	OCR-A	OAN:10	1000
	OCR-B	OBN:10	1000
	CanadianPst	ORN:16	1000

Number of Maps: 130

Maps (Overlay):

USA ISO	Germany	French A ISO	French B ISO	Canadian
Dutch	Italian	UK ISO	Spanish	Dan/Nor A
Dan/Nor B	Dan/Nor C	Dan/Nor D	Swed/Fin A	Swed/Fin B
Swed/Fin C	Swed/Fin D	Swiss	Slo/Croat	UK A
Turkish	Greek	Italian ISO	Spanish ISO	FX: USA
FX: France	FX: Germany	FX: UK	FX: Denmark I	FX: Denmark II
FX: Italy	FX: Spain I	FX: Japan	FX: Norway	FX: Denmark II
FX: Spain II	FX: Latin Amer	FX: Netherland	FX: Angl-Unvrs	FX: Span Amer
FX: Portugal	FX: Africa	FX: Switzerland	FX: Turkey	FX: Greece
FX: Slo/Croat	Legal	Korea	None	Download Map

Maps (Code Page):

CCP050	USA CP 437	Multi CP 850	Code Page 852	Code Page 853
Code Page 855	Code Page 858	Code Page 860	Code Page 863	Code Page 864
Code Page 865	Code Page 866	Code Page 867	Greek CP 437	Dec MultiNtnl
Roman 8	Mazowia CP	Turkish CP	Greek CP 851	Kamen
ISO-8859-1	ISO-8859-2	ISO-8859-3	ISO-8859-4	ISO-8859-5
ISO-8859-6	ISO-8859-7	ISO-8859-8	ISO-8859-9	ISO-8859-15
Dec Supp	Dec Tech	Dec Spec1Graph	Dec ISO-Latin 1	Dec British
Dec Finnish	Dec French	Dec FrCanadian	Dec German	Dec ISO Italian
Dec JIS Roman	Dec Nor/Dan	Dec Spanish	Dec Swedish	Dec ISO Nor/Dan
Dec Dutch	Dec Swiss	Dec Portuguese	Dec Legal	Dec Hebrew
Dec Hebrew Supp	Dec ISO Lat/Heb	Dec Katakana	Dec ANSI	ISO Latin 2
ISO Latin 5	Greek Supp	Turkish 7-Bit	Turkish 8-Bit	ISO/Lat/Gr Supp
ISO Lat/Cy Supp	PC437 Greek	PC861 Icelandic	PC869 Greek	USSR (GOST)
BRASCII	ABICOMP	PC857 (Turkish)	ISO Latin 1T	Bulgaria
Code MJK (CSFR)	Estonia	PC774 Lithuania	PC866 LAT	ECMA-94-1 Mult
KU 42(KU Thai)	TIS 11(TS 988)	TIS 13 (IBM Std)	TIS 16 (SIC Old)	TIS 17 (SIC STD)
TIS 18 (General)	None			

FIGURE 4-5 SAMPLE FONT PRINT PRINTOUT

ADJUST TOF

This menu option allows the operator to print a test pattern, view a test pattern and adjust the top of form. This menu is used to check, and then align the paper to the print line of the printer. It is used to fine-tune the top of form setting. Use the ↑ arrow and/or ↓ arrow pushbuttons to align the paper.

There are three steps to using this feature:

1. Place the paper perforation at the alignment point in the upper tractor doors. (See Figure 3-1)
2. Perform **Print at TOF** options until the printing is set to the first printing line of the printer. (See "Print at TOF" for additional information.)
3. Perform **Rolling ASCII** to verify TOF settings are correct. (See "Rolling ASCII" for additional information.)

Use the following procedures to perform these actions:

Operator Adjust TOF

1. While in Operator menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Adjust TOF** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the Adjust TOF options.
3. Press the **Select** pushbutton to select an Adjust TOF option. The following describes each selection available.

Print At TOF

Use this menu to check the positioning of printing on the paper. The printer will print a pattern HHHHH at the current top of form position. Use the ↑ or ↓ pushbutton to adjust the printing location on the paper.

Use the following procedures to view the pattern:

Adjust TOF Print at TOF

1. While in **Adjust TOF** menu, press the ◄ (left) or ► (right) menu browse pushbutton, until **Print at TOF** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton. The printer will print **HHHHH** at the left side of the paper and feed the paper forward. Adjust the placement of the HHHHH on the paper by using the ↑ arrow or ↓ arrow. Repeat this step as necessary. Each time this step is repeated, the printer will print **HHHHH** the right of the last printout. After the fifth attempt to make adjustments, the printer will advance the paper to the next form. Continue making adjustments as necessary. See Figure 4-6.

3. Proceed to **Set TOF** to set a new top of form.

FIGURE 4-6 PRINT AT TOF SAMPLE (THREE REPETITIONS)

Set TOF

After using the Print at TOF to adjust the printing to the top of form, this option allows the operator to set the top of form.

Use the following procedures to set the top of form using this menu option:

Adjust TOF
Set TOF

1. While in the **Adjust TOF** menu, press the □ (left) or □ (right) menu browse pushbutton until **Set TOF** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton. The printer will retract the paper, so the paper is correctly positioned at the print wires for printing. (If necessary, see "Setting Top of Form" for more information.) Use **Print Pattern** to verify printing begins at first line of form.

Note

To ensure proper printing integrity, do not print within 1/8 inch of perforations.

Rolling ASCII

Adjust TOF
Rolling ASCII

Selecting this option will print a test pattern until the operator presses the **Clear** pushbutton to stop. This option can be used to verify printing occurs at the top of form. See "Test Pattern Printing" in Chapter 2 for additional information.

DISCARD JOB

This menu option is used to clear the printer's buffer.

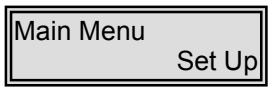
Use the following procedures to select the discard job option:

Adjust TOF
Discard Job

1. While in the **Adjust TOF** menu, press the □ (left) or □ (right) menu browse pushbutton until **Discard Job** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton to discard job (clear the buffer) in printer.

CHAPTER 5. USING THE SET UP MENU

The Set Up menu allows the operator to modify or create stored formats. The Set Up menu also allows the operator to set default settings for Horiz Tab, Vertical Format, Interface Settings, Engine Options, Print Control, GenPtrOpts (General Printer Options), TearOff, Emulation, Display Lang (Display Language) and Filter. See Appendix I for the complete Set Up Menu Map.



While in **Local**, press the ▼ (down) menu browse pushbutton until **Set Up** menu is displayed in the bottom right corner of the LCD. **Main Menu** will be displayed in the upper left corner of the LCD.

To move up or down a level of menu options, press the ▲ (up) or ▼ (down) menu browse pushbuttons. To move laterally among options on the same level, use the ◄ (left) or ► (right) menu browse pushbuttons.

Currently selected menu options are displayed in the LCD with a **<** symbol, which follows immediately to the right of the menu option. Some menu options are toggle options and reflect an enabled or disabled condition. Press the **Select** pushbutton to cause the printer to perform this operation.

Press the **Clear** pushbutton to return to the upper level menu or to **Local** when in a first-level menu.

FORMAT

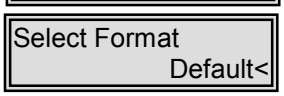
This menu option allows the operator to change or create and store format settings for the printer. (See Set Up menu map in Appendix I for available selections.

There are three steps to changing or creating a stored format.

1. ***Select the format*** to modify or create.
2. ***Modify the format***. (See "Modify Format" for procedures and menu options.)
3. ***Save the format***. (See "Save Format" for procedures and menu options.)

Use the following procedures to select a format to modify:

1. Press the On Line pushbutton to place the printer in Local Menu mode.



2. From the control panel, press the **Format** pushbutton until the desired format is displayed in the LCD window. If no previously saved format exists, **DEFAULT**< will be displayed in the LCD window.
3. Use the ◄ (left) or ► (right) menu browse pushbuttons until the desired format is in the lower right corner of the LCD.

Modify Format

This menu option allows the operator to modify a format.

Use the following procedure to modify a format:

1. While in Format menu, press ◄ (left) or ► (right) until **Modify Format** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Modify Format** options.

The following describes each of the selections available.

Format Name

This menu option allows the operator to change the selected format name. The LCD will display the format selected from the control panel using the **Format** pushbutton. If no previously saved format name exists, the format will be displayed as **Default**.

Note

Use unique format names when creating or modifying a format.

Use the following procedures to select Format Name options:

1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Format Name** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton to select a Format Name option. Notice the cursor (underline) beneath the currently selected digit to be changed.

3. In Format Name mode, the display switches to a format where the operator may enter any alphanumeric character. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼ (up or down) pushbuttons increment/decrement the selected digit by one. Alphanumeric characters will display in place of the underlined digit sequentially.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

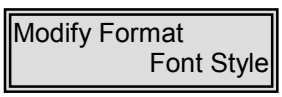
Note

Repeat this section if further changes are necessary.

Font Style

This menu option is used to select the font style. (See Set Up Menu Map in Appendix I for available selections.)

Use the following procedures to select font style options:



1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Font Style** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the Font Style options.
3. Press the **Select** pushbutton to select a Font Style option. The **<** symbol will now immediately follow the saved Font Style option.

CharSet/Country

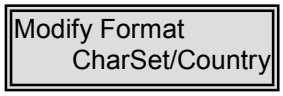
The character map consists of 256 characters (0X00 – 00XFF). Using the Character Set (0X80-OXFF) and Country (00-7F) options allows the operator to select the upper and lower ends of the character maps respectively. Under the Char Set/Country, there are two sub-menus, Character Set and Country. (See Operator Menu Map in Appendix I for selections available.)

Character Set

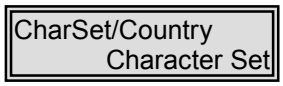
This menu allows selection of the characters 0X80 to 0XFF of the character map.

When using the Proprinter emulation, international character sets must be selected using escape sequences from the host. See *Programmer's Manual* for more information on international character sets and character charts.

Use the following procedures to select a character set:



1. While in **Modify Format** Menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **CharSet/Country is** displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the character set sub-menu.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until **Character Set** is displayed in the lower right corner of the LCD.

4. Press the ▼ (down) menu browse pushbutton to access the character set options. **Character Set** will be displayed in the upper left corner of the LCD.
5. Press the ◄ (left) or ► (right) menu browse pushbuttons until the character set desired is displayed in the lower right corner of the LCD.
6. Press the **Select** pushbutton to select a character set. The **<** symbol will now immediately follow the currently selected character set.

Country

This menu allows selection of the characters 0X00 to 0X7F of the character map.

Use the following procedures to select a country:

1. While in **Modify Format** Menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **CharSet/Country** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the country sub-menu.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until **Country** is displayed in the lower right corner of the LCD.

4. Press the ▼ (down) menu browse pushbutton to access the country options. **Country** will be displayed in the upper left corner of the LCD.
5. Press the ◄ (left) or ► (right) menu browse pushbuttons until the country desired is displayed in the lower right corner of the LCD.
6. Press the **Select** pushbutton to select a country. The **<** symbol will now immediately follow the currently selected country.

CPI

This menu option is used to select the characters per inch (CPI.) (See Set Up Menu Map for available selections.)

Use the following procedures to select the CPI options:

1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Select CPI** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the CPI options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired CPI setting is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to select a CPI option. The **<** symbol will now immediately follow the saved Select CPI option. (See "Select CPI (User Set)" under Using the Operator Menu for procedures to set up a non-standard CPI.)

LPI

This menu is used to select the lines per inch (LPI) (See Set Up Menu Map for available selections.)

Use the following procedures to select the LPI options:

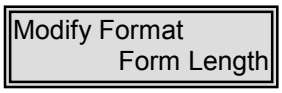
1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **LPI** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **LPI** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton, until the desired **LPI** setting is displayed in the LCD.
4. Press the **Select** pushbutton to select a LPI option. The **<** symbol will now immediately follow the saved LPI option. (See "Select LPI (User Set)" under Using the Operator Menu for procedures to set up a non-standard LPI.)

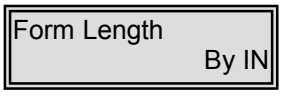
Form Length

This menu option is used to setup the form length. The form length may be set By Lines, By MM, or By Inches.

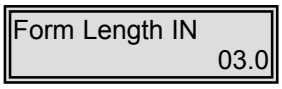
Use the following procedures for setting the form length:



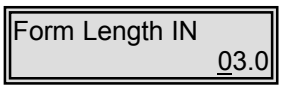
1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Form Length** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **Form Length** options. **Form Length** will be displayed in upper left corner of LCD.



3. Press ◄ (left) or ► (right) menu browse pushbutton and select **By Lines**, **By MM**, or **By IN**. Press the **Select** pushbutton to select one of these options. The current setting is displayed in the lower right corner of the LCD.



4. Press the **Select** pushbutton again to modify the setting. Notice the cursor (underline) is now shown under the first digit. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼ (up or down) pushbuttons increment/decrement the selected digit by one.

5. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

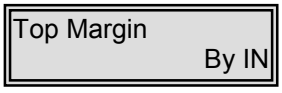
Repeat this section if further changes are necessary.

Top Margin

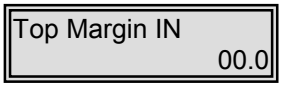
This menu option is used to setup the top margin. The top margin may be set using By Inches, By MM or By Lines.

Use the following procedures for setting the top margin:

1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Top Margin** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **Top Margin** options. **Top Margin** will be displayed in upper left corner of LCD.



3. Press ◄ (left) or ► (right) menu browse pushbutton and select **By IN**, **By MM**, or **By Lines**. Press the **Select** pushbutton to select one of these options. The current setting is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton again to modify the setting. Notice the cursor (underline) is now shown under the first digit. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼ (up or

down) pushbuttons increment/decrement the selected digit by one.

5. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

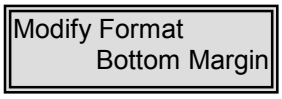
Note

Repeat this section if further changes are necessary.

Bottom Margin

This menu option is used to setup the bottom margin. The bottom margin may be set using By Inches, By MM or By Lines.

Use the following procedures for setting the bottom margin:



1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Bottom Margin** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Bottom Margin** options. **Bottom Margin** will be displayed in upper left corner of LCD.

3. Press ◄ (left) or ► (right) menu browse pushbutton and select **By IN**, **By MM**, or **By Lines**. Press the **Select** pushbutton to select one of these options. The current setting is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton again to modify the setting. Notice the cursor (underline) is now shown under the first digit. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼ (up or down) pushbuttons increment/decrement the selected digit by one.

5. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

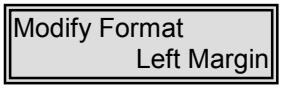
Note

Repeat this section if further changes are necessary.

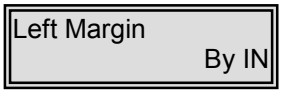
Left Margin

This menu option is used to setup the left margin. The left margin may be set using By Inches, By MM or By Column.

Use the following procedures for setting the left margin:



1. While in **Modify Format** menu, the ◄ (left) or ► (right) menu browse pushbutton until **Left Margin** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **Left Margin** options. **Left Margin** will be displayed in upper left corner of LCD.

3. Press ◄ (left) or ► (right) menu browse pushbutton and select **By IN**, **By MM**, or **By Column**. Press the **Select** pushbutton to select one of these options. The current setting is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton again to modify the setting. Notice the cursor (underline) is now shown under the first digit. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼ (up or down) pushbuttons increment/decrement the selected digit by one.

5. Press the **Select** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

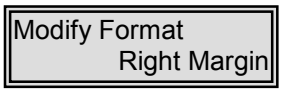
Note

Repeat this section if further changes are necessary.

Right Margin

This menu option is used to setup the right margin. The right margin may be set using By Inches, By MM or By Column.

Use the following procedures for setting the right margin:



1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Right Margin** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Right Margin** options. **Right Margin** will be displayed in upper left corner of LCD.

3. Press ◄ (left) or ► (right) menu browse pushbutton and select **By IN**, **By MM**, or **By Column**. Press the **Select** pushbutton to select one of these options. The current setting is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton again to modify the setting. Notice the cursor (underline) is now shown under the first digit. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical ▲ ▼ (up or down) pushbuttons increment/decrement the selected digit by one.
5. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

Top Print Ref

This menu option is used to setup the top print ref. The top print ref may be set using By Inches, By MM or By Lines.

Use the following procedures for setting the top print ref:

1. While in Modify Format menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Top Print Ref** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Top Print Ref** options. **Top Print Ref** will be displayed in upper left corner of LCD.

3. Press ◄ (left) or ► (right) menu browse pushbutton and select **By IN**, **By MM**, or **By Lines**. Press the **Select** pushbutton to select one of these options. The current setting is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton again to modify the setting. Notice the cursor (underline) is now shown under the first digit. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) pushbuttons increment/decrement the selected digit by one.
5. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

Left Print Ref

This menu option is used to setup the left print ref. The left print ref may be set using By Inches, By MM or BY Column.

Use the following procedures for setting the left print ref:

Modify Format Left Print Ref

1. While in **Modify Format** menu, press the □ (left) or □ (right) menu browse pushbuttons until **Left Print Ref** is displayed in the lower right corner of the LCD.

Left Print Ref By IN

2. Press the □ (down) menu browse pushbutton to access the **Left Print Ref** options. **Left Print Ref** will be displayed in upper left corner of LCD.

Left Print Ref IN 00.0

3. Press □ (left) or □ (right) menu browse pushbutton and select **By IN**, **By MM**, or **By Column**. Press the **Select** pushbutton to select one of these options. The current setting is displayed in the lower right corner of the LCD.

Left Print Ref IN 00.0

4. Press the **Select** pushbutton again to modify the setting. Notice the cursor (underline) is now shown under the first digit. The four menu browse pushbuttons revert to data entry operation. The horizontal □ □ (left or right) pushbuttons position the cursor (underline) to the digit to be changed; the vertical □ □ (up or down) pushbuttons increment/decrement the selected digit by one.

5. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

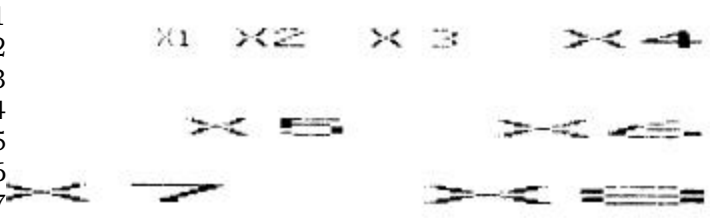
Note

Repeat this section if further changes are necessary.

Horiz Expansion

This menu is used to expand the currently selected font style horizontally from 1 to 8 times normal width. (This is not the same as expanded character printing with the oversize character font.) See examples of options below.

X1
X2
X3
X4
X5
X6
X7
X8



Use the following procedure to change the horizontal expansion:

Modify Format Horiz Expansion

1. While in **Modify Format** menu, press the □ (left) or □ (right) menu browse pushbuttons until **Horiz Expansion** is displayed in the lower right corner of the LCD.

Horiz Expansion X1<

2. Press the □ (down) menu browse pushbutton to access the **Horiz Expansion** options. **Horiz Expansion** will now be displayed in the upper left corner of the LCD.

3. Press the □ (left) or □ (right) menu browse pushbutton until the desired selection is displayed.
4. Press the **Select** pushbutton to select a horizontal expansion option. The **<** symbol will now immediately follow the saved horizontal expansion option.

Vert Expansion

This menu is used to expand the currently selected font style vertically from 1 to 8 times normal height. (This is not the same as expanded character printing with the oversize character font.) See examples of options below.

X1
X2
X3
X4
X5
X6
X7
X8

Use the following procedure to change the vertical expansion:

Modify Format
Vert Expansion

1. While in **Modify Format** menu, press the □ (left) or □ (right) menu browse pushbuttons until **Vert Expansion** is displayed in the lower right corner of the LCD.

Vert Expansion
X1<

2. Press the □ (down) menu browse pushbutton to access the **Vert Expansion** options. **Vert Expansion** will now be displayed in the upper left corner of the LCD.
3. Press the □ (left) or □ (right) menu browse pushbutton until the desired selection is displayed.
4. Press the **Select** pushbutton to select a vertical expansion option. The **<** symbol will now immediately follow the saved horizontal expansion option.

VertExp Options

This menu is used to control how the expanded characters will appear. (See Set Up Menu Map in Appendix I for available selections.) Although all expanded characters are printed from the top down, the positioning on the page will make them appear to "group" up or "sag" down when compared to normally printed characters on the same line. See examples below.

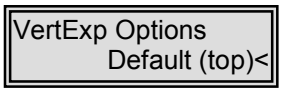
Baseline Option

←"GROUP" UP

Default Option

←"SAG" DOWN

1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **VertExp Options** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **VertExp Options** options. **VertExp Options** will now be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed.
4. Press the **Select** pushbutton to select a VertExp Options option. The **<** symbol will now immediately follow the saved VertExp Options option.

Print Modifiers

This menu is used to select font enhancements. See Set Up Menu Map in Appendix I for available selections.

Use the following procedure to select a print modifier:

1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Print Modifiers** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Print Modifiers** options. **Print Modifiers** will now be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed.
4. Press the **Select** pushbutton to select a Print Modifier option. The **<** symbol will now immediately follow the saved Print Modifier option.

Print Options

This menu is also used to select font enhancements. See Set Up Menu Map In Appendix I for available selections.

Use the following procedures to select a Print Options:

1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Print Options** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Print Options** options. **Print Options** will now be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed.
4. Press the **Select** pushbutton to select a Print Options option. The **<** symbol will now immediately follow the saved Print Options option.

Slew Rate

This menu is used to set the speed at which paper can be moved through the printer during the printing operations (form feeds, vertical moves, etc.) The reduced slew speed can be useful if the printer is experiencing trouble with heavy stock or stiff multi-part forms. Using the reduced slew speed can slow throughput considerably.

Use the following procedures to select a Slew Rate:

1. While in **Modify Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Slew Rate** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Slew Rate** options. **Slew Rate** will now be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed.
4. Press the **Select** pushbutton to select a Slew Rate option. The **<** symbol will now immediately follow the saved Slew Rate option.

Save Format

This is the final step used to modify or create a stored format. (See "Format" for additional information.) This menu is used to save the format settings created after selecting and modifying a format. When saving a format, the operator is given the choice to save the format to the active (the format chosen from the control panel) or as a blank format, if available. There are ten possible customer-defined format slots available. It is recommended that each customer-defined format be saved with a unique name.

Note

Print a Format Page printout and save for future reference or in the event a format(s) needs to be re-configured.

Use the following procedure to save a format:

1. While in **Stored Formats** menu, press the ◄ (left) to ► (right) menu browse pushbutton until **Save Format** appears in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton. **Save Format** will appear in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired format is listed. If no previously saved format name exists, the default format names are **Default** through **Blank Format 1 ... 9**.
4. Press the **Select** pushbutton to select a format slot. Choosing a blank format will immediately display the format name modified under Format Name.
5. Press the **Select** pushbutton to confirm this format name. Press the Clear pushbutton to exit this option.

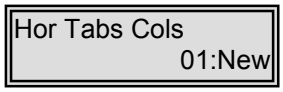
HORIZ TAB

This menu is used to set or clear horizontal tabs. The Horiz Tab may be set using By Inches, By MM, By Column, or Clear All Tabs.

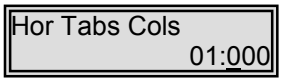
Use the following procedures for setting a horizontal tab:

1. While in **Set Up** menu, press ◄ (left) or ► (right) menu browse pushbutton until **Horiz Tab** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) pushbutton to access the horizontal tab submenus. Horiz Tab is displayed in the upper left corner of the LCD.



3. Press the ◄ (left) or ► (right) menu browse pushbuttons and select **Clear All Tabs**, **By Columns, By Inches, or By MM.** Press the **Select** pushbutton to select one of these options. **Hor Tabs Cols**, **Hor Tabs IN**, or **Hor Tabs MM** will be displayed in the upper left corner of LCD.



4. Press the **Select** pushbutton again to modify the horizontal tab setting. Notice the cursor (underline) is now shown under the first digit and the default number is 000. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbuttons increment/decrement the selected digit by one.

Note

The first two digits represent the tab ID and the last three digits are the tab location. The number of tab IDs available is dependent on the emulation selected. See "Horizontal/Vertical Tab Id Maximum Slots" table in Appendix H.

5. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

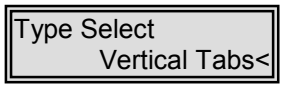
Repeat this section if further changes are necessary.

VERTICAL FORMAT

This menu is used to select either an emulation-dependent vertical format unit (VFU) or a vertical tab table for vertical moves.

Use the following procedures to select a vertical format:

1. While in **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Vertical Format** is displayed in the upper left corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the vertical format submenu. **Type Select** is displayed in the upper left corner of the LCD.

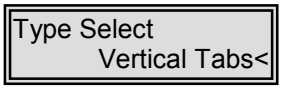
3. Press the ◄ (left) or ► (right) menu browse pushbuttons to select the desired vertical format type.

The following describes the selections available.

Vertical Tabs

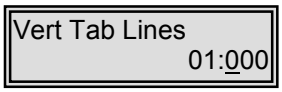
This menu is used to clear or set the vertical tab. The vertical tab length may be set By Lines, By Inches, By MM or Clear All Tabs.

Use the following procedures for setting a vertical tab:



1. While in **Type Select** menu, press the ▼ (down) menu browse pushbutton. **Vert Tab** will be displayed in the upper left corner of the LCD. (This step assumes Vertical Tabs is the currently selected setting. If not, press the **Select** pushbutton to select **Vertical Tabs**.)

2. Press the ◄ (left) or ► (right) menu browse pushbuttons and select **Clear All Tabs**, **By Lines**, **By Inches**, or **By MM**. Press the **Select** pushbutton to select one of these options. **Vert Tab Lines**, **Vert Tab IN**, or **Vert Tab MM** will be displayed in the upper left corner of the LCD.



3. Press the **Select** pushbutton again to modify the vertical tab setting. Notice the cursor (underline) is now shown under the first digit and the default number is 000. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbuttons increment/decrement the selected digit by one.

Note

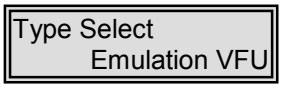
The first two digits represent the tab ID and the last three digits are the tab location. The number of tab IDs available is dependent on the emulation selected. See "Horizontal/Vertical Tab Id Maximum Slots" table in Appendix H.

4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

Emulation VFU



This option sets the Vertical Format for an emulation-dependent vertical format unit (VFU.) The VFU option is for all emulations ***except*** Proprinter and FX286e. See the *Programmer's Manual* for additional information.

Use the following procedure to select the Emulation VFU option:

- While in **Type Select** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Emulation VFU** is displayed in the lower right corner of the LCD. Press **Select** to select **Emulation VFU**.

INTERFACE SETTINGS

This menu and its sub-menus are used to setup the printer's interface options and the serial interface parameters. See the Set Up Menu Map in Appendix I for available selections.

Use the following procedures to select an interface setting:

1. While in the **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **InterfaceSettgs** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the sub-menu options. **Interface Settgs** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired interface is displayed. Press the **Select** pushbutton to select **MultiSource**, **Parallel Setup, Serial Setup, Expansion 1,** or **Expansion 2**.

The following describes the selections available.

MultiSource

This sub-menu is used to select the multiple interface option. The printer will automatically choose the interface receiving data.

Use the following procedure to select the MultiSource option:

1. While in the **InterfaceSettgs** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **MultiSource** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton to select **MultiSource**. **Delay Seconds** will be displayed in the upper left corner of the display and the current setting will be displayed in the lower right corner of the display. Notice the cursor (underline) is now shown under the first digit and the default number is 000. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbuttons increment/decrement the selected digit by one.
3. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD. The valid range of values for this option is 006 to 030.

Note

Repeat this section if further changes are necessary.

Parallel Setup

This menu option is used to configure the parallel interface only. There is only one setting, **No Fault PO & Off**, under this menu to enable or disable. In the default condition (disabled), the parallel fault lead will be set to true for either of the two conditions, paper out or if in the offline condition. If enabled, the parallel fault lead will *not* be set to true for either (or both) of the conditions, paper out and/or offline.

Use the following procedures to configure the Parallel Setup option:

1. While in the **InterfaceSettgs** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Parallel Setup** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to select **Parallel Setup**. **Parallel Setup** will be displayed in the upper left corner of the display and the current setting will be displayed in the lower right corner of the display.
3. Press the Select pushbutton to enable or disable a setting. The **<** symbol will now immediately follow the enabled setting.

Serial

This menu option is used to configure the serial interface. See the Set Up Menu Map in Appendix I for a complete view of selections and/or submenus available.

Use the following procedure to select the Serial option:

- While in the **InterfaceSettgs** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Serial** is displayed in the lower right corner of the LCD.

The following describes the selections available.

Serial Type

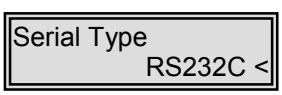
This menu is used to select the serial interface type, RS232C or RS422.

Note

The Serial Type selected determines which menu items appear under the Serial Setup menu.

Use the following procedure to select the serial interface type:

1. While in the **Interface Settgs** menu, press the ▼ (down) menu browse pushbutton. **Serial Type** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **Serial Type** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired setting is displayed in the lower right corner of the display.

4. Press the **Select** pushbutton to enable a setting or disable a setting. The **<** symbol will now immediately follow the selected (saved) setting.

Serial Setup

This menu, its sub-menus, and options are used to change parameter settings for the serial interface. See the Set Up Menu Map in Appendix I for a complete listing of available selections.

Note

The Serial Type selected determines which menu items appear under the Serial Setup menu.

Use the following procedures to select the serial setup option:

1. While in the **Interface Settgs** menu, press the ▼ (down) menu browse pushbutton. **Serial Setup** will be displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the Serial Setup options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until **Serial Setup** is displayed in the lower right corner of the LCD. Press the ▼ (down) menu browse or **Select** pushbutton to access the **Serial Setup** sub-menus.

The following describes the selections available.

Protocol

This sub-menu is used to select a protocol setting for the serial setup for both RS232 and RS422 serial type. Protocol settings configure the communication settings of the printer. See Set Up Menu Map in Appendix I for a complete listing of available selections.

Use the following procedures to select a protocol submenu:

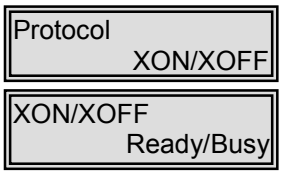
1. While in the **Serial Setup** menu, press the ▼ (down) menu browse pushbutton until **Protocol** is displayed in the lower right corner of the display menu.

2. Press the ▼ (down) menu browse pushbutton. **Protocol** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired protocol sub-menu selection is displayed in the lower right corner of the LCD.

The following describes the selections available.

XON/XOFF

This option is used to configure the XON/XOFF (also known as DC1/DC3) settings for both RS232 and RS422 serial type. Use the following procedures to enable/disable or change an **XON/XOFF** setting:

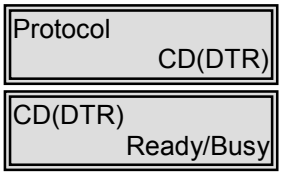


1. While in the **Protocol** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **XON/XOFF** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the XON/XOFF options.
3. Press the **Select** pushbutton to enable or disable a setting. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the selected (saved) setting.

Option	Meaning
Ready/Busy	XOFF is transmitted to the host by the printer when the print is unable to receive more data. XON is transmitted to the host by the printer when the printer is ready to receive more data.
ON/OFFline	XOFF is transmitted by the printer when it goes offline and XON is transmitted by the printer when it goes online.
Fault	XOFF is transmitted by the printer when a fault is detected. XON is transmitted by the printer when the fault has been cleared.
Robust XOFF	XOFF no extra XON codes are sent.
Robust XON	XON codes are sent to the host every 20 seconds if the printer is ready to receive data.

CD(DTR)

This option is used to configure CD(DTR) settings for RS232 serial type. This is also known as Data Terminal Ready Use the following procedures to enable/disable or change an CD (DTR) setting:

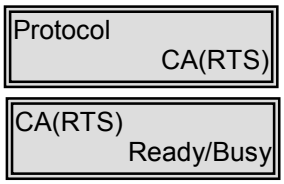


1. While in the **Protocol** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **CD(DTR)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the CD(DTR) options.
3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled setting.

Option	Meaning
Ready/Busy	DTR signal should be used to reflect if the printer is ready (able to receive data) or busy (currently unable to receive data.)
ON/OFFline	DTR signal should be used to reflect the printer is online or offline.
Fault	DTR signal should be used to reflect whether a fault condition exists.

CA(RTS)

This option is used to configure CA(RTS) settings for RS232 serial type. This is also known as Request to Send. Use the following procedures to enable/disable or change an CA (RTS) setting:

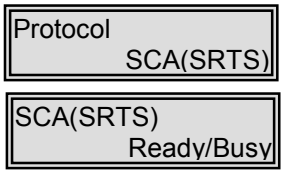


1. While in the **Protocol** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **CA(RTS)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the CA(RTS) options.
3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

Option	Meaning
Ready/Busy	RTS signal should be used to reflect if the printer is ready (able to receive data) or busy (currently unable to receive data.)
ON/OFFline	RTS signal should be used to reflect the printer is online or offline.
Fault	RTS signal should be used to reflect whether a fault condition exists.

SCA(SRTS)

This option is used to configure the SCA(SRTS) settings RS232 serial type. This is also known as Secondary Request to Send. Use the following procedures to enable/disable or change an SCA(SRTS) setting:



1. While in the **Protocol** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **SCA(SRTS)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the SCA(SRTS) options.
3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

Option	Meaning
Ready/Busy	STRS signal should be used to reflect if the printer is ready (able to receive data) or busy (currently unable to receive data.)
ON/OFFline	SRTS signal should be used to reflect the printer is online or offline.
Fault	SRTS signal should be used to reflect whether a fault condition exists.

ETX/ACK

This option is used to configure the ETX/ACK (End of Text/Acknowledge) settings for RS232 serial type. ETX/ACK is a serial validity check protocol, where the host appends the ETX (end of text) code (0X03) at the end of each data block and waits to receive an acknowledge character (ACK=0X06) from the printer within a time period prior to sending the next block of data. This is not an ETX/ACK/NAK protocol. The printer never responds with a NAK (0X15) even if errors are detected. If enabled, the printer controller immediately replies to an ETX with an ACK. If disabled, the ETX is ignored and no further action is taken (treats it as just another data character.) If On Prn Complete is selected, the printer waits until the data block has been printed prior to sending the host the ACK character. Use the following procedures to enable/disable or change an ETX/ACK setting:

1. While in the **Protocol** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **ETX/ACK** option is displayed.

2. Press the ▼ (down) menu browse pushbutton to access the ETX/ACK options.
3. Press the **Select** pushbutton to enable or disable a setting. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

Inhibit Xmit

This sub-menu is used to configure an inhibit Xmit setting for the serial setup for RS232 serial type. The options available under this sub-menu are **Never** or **Via CB(CTS)**. If **Never** is selected, the host is prevented from controlling the printer's ability to transmit back to the host via the CB (CTS) hardware lead. If **Via CB(CTS)** is selected, the host can control the inhibit transmit with the Clear to Send (CB) lead.

Use the following procedures to enable/disable an inhibit Xmit setting:

1. While in the **Serial Setup** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Inhibit Xmit** is displayed in the lower right corner of the display menu.

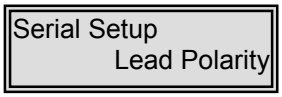
2. Press the ▼ (down) menu browse pushbutton to access the **Inhibit Xmit** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired protocol sub-menu option is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will now immediately follow the enabled option.

Lead Polarity

This sub-menu is used to configure a lead polarity setting for the serial setup for RS232 serial type. There are five additional sub-menus available.

Type of Signal Sent	Meaning	
	High	**Low**
CD(DTR)	Signal will be generated when the printer is ready and the internal buffer is not full	Signal will be generated when the printer is not ready or the internal serial buffer is full
CA (RTS)		
SCA (STRS)		
CB (CTS)		
CC (DSR)		

Use the following procedures to access the lead polarity submenu:



1. While in the **Serial Setup** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Lead Polarity** is displayed in the lower right corner of the display menu.
2. Press the ▼ (down) menu browse pushbutton to access the **Lead Polarity** sub-menus.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired lead polarity sub-menu selection is displayed in the lower right corner of the LCD.

The following describes the selections available.

CD(DTR)

There are two settings for the CD(DTR), high or low. See table under Lead Polarity for additional information.

Use the following procedures to enable/disable or change a CD (DTR) setting for RS232serial type:

1. While in the **Lead Polarity** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **CD(DTR)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the CD(DTR) options.
3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

CA(RTS)

There are two settings for the CA(RTS), high or low. See table under Lead Polarity for additional information.

Use the following procedures to enable/disable or change a CA (RTS) setting for RS232 serial type:

1. While in the **Lead Polarity** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **CA(RTS)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the CA(RTS) options.

3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

SCA(SRTS)

There are two settings for the SCA(SRTS), high or low. See table under Lead Polarity for additional information.

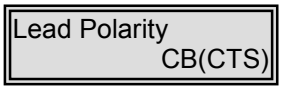
Use the following procedures to enable/disable or change a SCA(SRTS) setting for RS232 serial type:

1. While in the **Lead Polarity** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **SCA(SRTS)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the SCA(SRTS) options.
3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

CB(CTS)

There are two settings for the CB(CTS), high or low. See table under Lead Polarity for additional information.

Use the following procedures to enable/disable or change a CB (CTS) setting for RS232 serial type:



1. While in the **Lead Polarity** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **CB(CTS)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the CB(CTS) options.
3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

CC(DSR)

There are two settings for the CC(DSR), high or low. See table under Lead Polarity for additional information.

Use the following procedures to enable/disable or change a CC(DSR) setting for RS232 serial type:

1. While in the **Lead Polarity** menu, press the ◄ (left) or ► (right) menu browse pushbutton until the **CC(DSR)** option is displayed.
2. Press the ▼ (down) menu browse pushbutton to access the CC(DSR) options.
3. Press the **Select** pushbutton to enable or disable an option. See the Set Up Menu Map for available selections. The **<** symbol will now immediately follow the enabled option.

Data Bits

This sub-menu is used to configure the number of data bits per character setting for the serial setup for RS232 and RS422 serial type. There are two settings under the Data Bits option, 7 Bits or 8 Bits. Set the data bits equal to that of the host computer.

Use the following procedures to enable/disable a data bits setting:

1. While in the **Serial Setup** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Data Bits** is displayed in the lower right corner of the display menu.

2. Press the ▼ (down) menu browse pushbutton. **Data Bits** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed in the lower right corner of the LCD. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will now immediately follow the enabled option.

Parity

This sub-menu is used to configure a parity setting for the serial setup. Parity is a serial port communication parameter used to identify a data bit position in each serial data character for error detection.

Option	Meaning if Enabled
No Parity Bit	The serial character does not have this bit and parity checking is disabled.
Ignore	The character does contain the parity bit, but it is ignored by the printer with no error detection being made. The bit may e a logical one or zero.
Even	The parity bit set by the host is such that there is an even number of logical “ones” in the character. The printer checks for an even number of “ones” and flags a parity error if there is an odd number of “ones” constituting the data bits including the parity bit.
Odd	The parity bit is set by the host such that there is an odd number of logical “ones” in the character. The printer checks for an odd number of “ones” and flags a parity error if there is an odd number of “ones” constituting the data bits including the parity bit.
Space	The parity bit set by the host to a logical zero bit. The printer checks the parity bit for zero and flags a parity error if it is a logical one.
Mark	The parity bit set by the host to a logical one bit. The printer checks the parity bit of one and flags a parity error if it is a logical zero.

Use the following procedures to enable/disable a parity setting:

1. While in the **Serial Setup** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Parity** is displayed in the lower right corner of the display menu.

2. Press the ▼ (down) menu browse pushbutton. **Parity** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed in the lower right corner of the LCD. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will now immediately follow the enabled option.

Stop Bits

This sub-menu is used to configure the number of stop bits per character setting for the serial setup. Set the number of stop bits equal to that of the host computer. There are two settings under the Stop Bits option, 1 or 2.

Use the following procedures to enable/disable a stop bits setting:

1. While in the **Serial Setup** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Stop Bits** is displayed in the lower right corner of the display menu.

2. Press the ▼ (down) menu browse pushbutton. **Stop Bits** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed in the lower right corner of the LCD. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will now immediately follow the enabled option.

Baud Rate

This sub-menu is used to configure a baud rate setting for the serial setup. See Set Up Menu Map in Appendix I for a complete listing of available selections.

Use the following procedures to enable/disable a baud rate setting:

1. While in the Serial Setup menu, press the ◄ (left) or ► (right) menu browse pushbutton until Baud Rate is displayed in the lower right corner of the display menu.

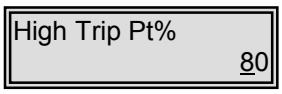
2. Press the ▼ (down) menu browse pushbutton. Baud Rate will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired selection is displayed in the lower right corner of the LCD. Press the Select pushbutton to enable or disable an option. The < symbol will now immediately follow the enabled option.

High Trip Pt%

This sub-menu is used to configure a High Trip Point setting for the serial setup as a percentage of total buffer size. This setting configures the point where the printer transmits a signal to the host when the buffer is a set percentage full. For example, the default setting is set to 80. This means the printer will send a full buffer signal to the host that the buffer is full when the buffer is 80% to capacity. The 20% buffer capacity acts as a cushion allowing enough time for the printer to process the data in its buffer while giving the host time to stop transmitting data before the buffer is completely (100%) full and data is lost. This option is a user-defined setting.

Use the following procedures to configure a High Trip Point setting:

1. While in the **Serial Setup** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **High Trip Pt%** is displayed in the lower right corner of the display menu.



2. Press the **Select** pushbutton. **High Trip Pt%** will be displayed in the upper left corner of the LCD, and the current setting will be displayed in the lower right corner of the LCD. Notice the cursor (underline) is now shown under the first digit and the default number is 80. The four menu browse pushbuttons revert to data entry operation. The horizontal ◄ ► (left or right) pushbuttons position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down pushbuttons increment/decrement the selected digit by one.
3. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD. Repeat this step if further changes are necessary.

Note

Repeat this section if further changes are necessary.

Expansion1/Expansion2

This menu option is used to configure the settings for the I/O cards in the two expansion slots located in the rear of the printer. The options under Expansion1 or Expansion2 are the same. If not labeled, Expansion1 slot is closest to the left side of the printer while facing the rear of the printer. Make changes to Expansion1 or Expansion2 settings according to the slot installed. There are six sub-menus under this menu.

Use the following procedures to select this menu option:

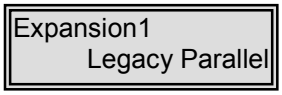
1. While in the **InterfaceSettgs** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Expansion1** or **Expansion2** is located in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse, or the **Select** pushbutton, to access the Expansion1 or Expansion2 menu.

The following describes the selections available:

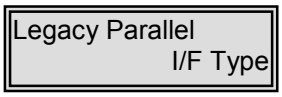
Legacy Parallel

This sub-menu is used to configure Legacy Parallel settings for the Legacy Parallel I/O card installed in the expansion slot of the printer. There are 2 sub-menus under this option, I/F Type and I/F Straps.

Use the following procedure to access this option:



1. While in the **Expansion1** or **Expansion2** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Legacy Parallel** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton. **Legacy Parallel** will be displayed in the upper left corner of the LCD.



3. Press the ◄ (left) or ► (right) menu browse pushbutton until **I/F Type** is displayed in the lower right corner of the LCD.
4. Press the ▼ (down) menu browse pushbutton to access the **I/F Type** options. A currently active option will be displayed in the lower right corner of the LCD immediately followed by the **<** symbol.

The following describes the selections available.

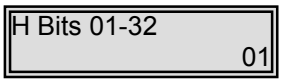
Centronics

This menu is used to enable/disable the I/F Straps for Centronics. These are also known as hardware straps. See Table 1 in Appendix G for hardware strap descriptions.

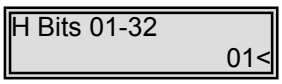
Use the following procedures to access the Centronics option:

1. While in the **I/F Type** menu, press the ◄ (left) or ► (right) menu browse pushbutton until Centronics is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the I/F Straps options.) **I/F Straps** will be displayed in the upper left corner of the display.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the range of **H Bits 01 – 32** or **H Bits 33 - 64** is displayed in the lower right corner of the display.



4. Press the **Select** pushbutton to access **H Bits 01 –32** or **H Bits 33 – 64**. **H Bits 01 - 32** or **H Bits 33 - 64** will be displayed in the upper left corner of the LCD.



5. Depending on the H Bits menu selected, use the ◄ (left) or ► (right) menu browse pushbutton until the desired H Bit strap is displayed (01-32 or 33-64.) Press the **Select** pushbutton to enable/disable an H Bit strap. The **<** symbol will immediately follow an enabled H Bit strap.
6. Press the **Clear,** or ▲ (up) menu browse, pushbutton to exit this menu.

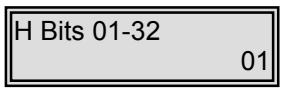
DP(Short)

This menu is used to enable/disable the I/F Straps for DP(Short) I/O Card (optional interface card.) These are also known as hardware straps. See Table 1 in Appendix G for hardware strap descriptions.

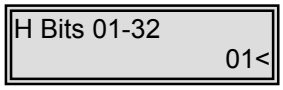
Use the following procedures to access the DP(Short) option:

1. While in the **I/F Type** menu, press the ◄ (left) or ► (right) menu browse pushbutton until DP(Short) is displayed in the lower right corner of the LCD.
2. Press the▼ (down) menu browse pushbutton to access the I/F Straps options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the range of **H Bits 01 – 32** or **H Bits 33-64** is displayed in the lower right corner of the display.



4. Press the **Select** pushbutton to access **H Bits 01 – 32** or **H Bits 33 – 64**. **H Bits 01 - 32** or **H Bits 33 - 64** will be displayed in the upper left corner of the LCD.



5. Depending on the H Bits menu selected, use the ◄ (left) or ► (right) menu browse pushbutton until the desired H Bit strap is displayed (01 - 32 or 33 - 64.) Press the **Select** pushbutton to enable/disable an H Bit strap. The < symbol will immediately follow an enabled H Bit strap.
6. Press the, **Clear** or ▲ (up) menu browse, pushbutton to exit this menu.

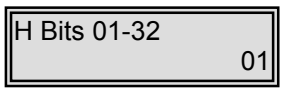
DP(Long)

This menu is used to enable/disable the I/F Straps for DP(Long) I/O Card (optional interface card.) These are also known as hardware straps. See Table 1 in Appendix G for hardware strap descriptions.

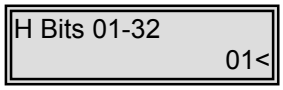
Use the following procedures to access the DP(Long) option:

1. While in the **I/F Type** menu, press the ◄ (left) or ► (right) menu browse pushbutton until DP(Long) is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the I/F Straps options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the range of **H Bits 01 – 32** or **H Bits 33 - 64** is displayed in the lower right corner of the display.



4. Press the **Select** pushbutton to access **H Bits 01 – 32** or **H Bits 33 – 64**. **H Bits 01 - 32** or **H Bits 33 - 64** will be displayed in the upper left corner of the LCD.

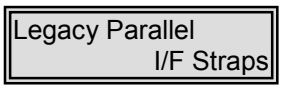


5. Depending on the H Bits menu selected, use the ◄ (left) or ► (right) menu browse pushbutton until the desired H Bit strap is displayed (01 - 32 or 33 - 64.) Press the **Select** pushbutton to enable/disable an H Bit strap. The < symbol will immediately follow an enabled H Bit strap.
6. Press the Clear, or ▲ (up) menu browse, pushbutton to exit this menu.

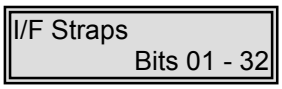
I/F Straps

This menu is used to enable/disable the I/F Straps for the Legacy Parallel I/O card (optional interface card.) These are also known as software straps. See Table 2 in Appendix G for additional information.

Use the following procedures to access the I/F Straps for Legacy Parallel:

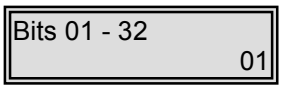


1. While in the **Legacy Parallel** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **I/F Straps** is displayed in the lower right corner of the LCD.



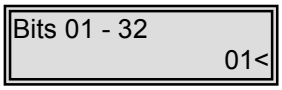
2. Press the ▼ (down) menu browse pushbutton to access the **I/F Straps**. **I/F Straps** will be displayed in the upper left corner of the LCD.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until **Bits 01 - 32** or **Bits 33 - 64** is displayed in the lower right corner of the LCD.



4. Press the **Select** pushbutton to access **Bits 01 - 32** or **Bits 33 - 64.**

5. Depending on the Bits menu selected, use the ◄ (left) or ► (right) menu browse pushbutton until the desired Bit strap is displayed (01 - 32 or 33 - 64.) Press the **Select** pushbutton to enable/disable a Bit strap. The **<** symbol will immediately follow an enabled Bit strap.



6. Press the **Clear,** or ▲ (up) menu browse, pushbutton to exit this menu.

Token Ring

This menu is used to select the MBit speed for Token Ring usage (optional interface card.) Use the following procedures to select the MBit speed for Token Ring:

1. While in **Expansion1** or **Expansion2** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Token Ring** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) pushbutton. **Token Ring** will be displayed in the upper left corner of the LCD.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired Mbit speed is displayed in the lower right corner of the LCD. Press the **Select** pushbutton to enable or disable a setting. The **<** symbol will immediately follow an enabled Mbit speed setting.

4. Press the **Clear,** or ▲ (up) menu browse, pushbutton to exit this option.

Coax

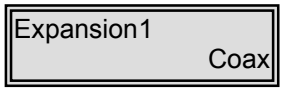
This menu is used to configure the Coax settings, Emulation, Buffer Size, and Early Complete. These options are only visible with the appropriate software, SCS or IPDS, and TX/CX I/O card installed in either expansion slot 1 or 2.

Note

Under Emulation, 6408 is the only available option for IPDS.

See Setup Menu Map in Appendix I for options available.

Use the following procedures to access the Coax options:



1. While in the **Expansion1/2** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Coax** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton. **Coax** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired setting is displayed in the lower right corner of the LCD.

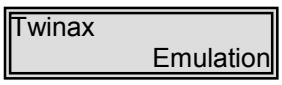
4. Press the ▼ (down) menu browse pushbutton to access the options. Press the **Select** pushbutton to enable/disable a setting. The **<** symbol will immediately follow an enabled coax setting.
5. Press the **Clear,** or ▲ (up) menu browse, pushbutton to exit this option.

Twinax

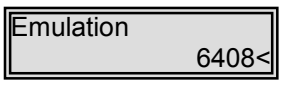
This menu is used to configure the Twinax settings, Emulation, Station Addr, and Buffer Size. These options are only visible with the appropriate software, SCS or IPDS, and TX/CX I/O card installed in either expansion slot 1 or 2. See Setup Menu Map for available options available.

Use the following procedures to access the Twinax options:

1. While in the **Expansion1/2** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Twinax** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton. **Twinax** will be displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired setting is displayed in the lower right corner of the LCD.



4. Press the ▼ (down) menu browse pushbutton to access the options. Press the **Select** pushbutton to enable/disable a setting. The **<** symbol will immediately follow an enabled twinax setting.
5. Press the Clear, or ▲ (up) menu browse, pushbutton to exit this option.

TCP/IP

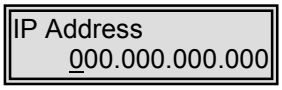
This menu is used to configure the TCP/IP settings, IP Address, Netmask, Router IP Addr, and Frame Type. These options are user-defined options.

Use the following procedures to set the TCP/IP settings:

1. While in the **Expansion1** or **Expansion2** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **TCP/IP** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **TCP/IP** menu options. **TCP/IP** is displayed in the upper left corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired menu setting is displayed in the lower right corner of the LCD. Press the **Select** pushbutton to access the menu desired.
4. Press the **Select** pushbutton again to enable or disable a setting option. The **<** symbol will immediately follow an enabled TCP/IP setting. IP Address, Netmask, and Router IP Address are user set options.
5. Pressing the Clear pushbutton will exit the current option menu option, so that selection of another option may be made.

Use the following procedures to use these settings:



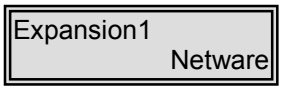
1. The option to be set will be displayed in the upper right corner of the LCD. (The example to the left is for the IP Address setting.) Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbuttons increment/decrement the selected digit by one.
2. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary. Cycle power after entries to activate changes.

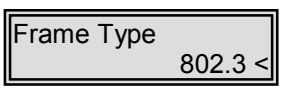
Netware

This menu is used to select the Frame Type for Novell Netware Use the following procedures to select a Frame Type for Netware.



1. While in the **Expansion1** or **Expansion2** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Netware** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) pushbutton. **Netware** will be displayed in the upper left corner of the LCD and **Frame Type** will be displayed in the lower right corner.



3. Press the ▼ (down) pushbutton again. **Frame Type** will be displayed in the upper left corner of the LCD.

4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed in the lower right corner of the LCD.
5. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

ENGINE OPTIONS

This menu and its sub-menus are used to control the shuttle motor and print wire actuator tiers.

Use the following procedure to access the Engine Options sub-menus:

1. While in the **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Engine Options** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Engine Options** sub-menus.

The following describes the sub-menus and options available:

Direction

This menu is used to control the firing or the print wires in relationship to the swing of the shuttle. Bi-directional mode allows printing during both the left and right shuttle swing (normal operation.)

Printing only in left or right swing of the shuttle is used for trouble-shooting and alignment purposes. A slight increase in the quality of printing may be realized using a single-swing option due to the characteristics of the timing.

Use the following procedures to select an option:

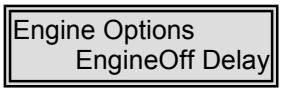
1. While in the **Engine Options** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Direction** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the Direction options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

EngineOff Delay

This menu is used to set the power-off delay for the shuttle motor. This delay is the time between the moment when no print data is detected and the moment when the shuttle motor is shut off. A short delay time is preferred. If the host is sending data slower than the printer can print, a longer delay may prevent the time lost when the shuttle is turned off and cycled back on again.

Use the following procedures to select an option:



1. While in the **Engine Options** menu, press the ◄ (left) or ► (right) menu pushbutton until **EngineOff Delay** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **EngineOff Delay** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Print Intensity

This menu is used to set the print intensity (striking power) of the print head actuators. Normal intensity is the default setting of this printer. It gives excellent print quality while extending the life of the print actuators and the ribbon fabric. High intensity is used when heavy multipart forms show a need for more print impact on the last copy.

Use the following procedures to select an option:

1. While in the **Engine Options** menu, press the ◄ (left) or ► (right) menu pushbutton until **Print Intensity** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Print Intensity** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

PRINT CONTROL

This menu and its sub-menus are used to set printer response to line termination and certain positioning commands sent by the host system.

Use the following procedures to access the Print Control sub-menus and options:

1. While in the **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Print Control** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Print Control** sub-menus.

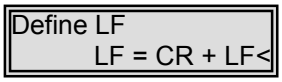
The following describes the sub-menus and options available:

Define LF

This menu is used to define the action of the printer upon receiving a line feed character.

Use the following procedures to select an option:

1. While in the **Print Control** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Define LF** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Define LF** options.



3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Define CR

This menu is used to define the action of the printer upon receiving a carriage return character.

Use the following procedures to select an option:

1. While in the **Print Control** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Define CR** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Define CR** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Define FF

This menu is used to define the action of the printer, upon receiving a form feed character.

Use the following procedures to select an option:

1. While in the **Print Control** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Define FF** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the Define FF options.

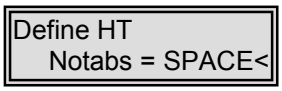
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Define HT

This menu is used to define the action of the printer upon receiving a horizontal tab character.

Use the following procedures to select an option:

1. While in the **Print Control** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Define T** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Define HT** options.



3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

VertMove

This menu is used to define the vertical movement behavior for the printer.

Use the following procedures to select an option:

1. While in the **Print Control** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **VertMove** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **VertMove** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

AutoWrap

This menu is used to enable/disable the auto wrapping option for the printer. If set to enable, autowrapping will occur at the right margin. If this option is disabled, no auto wrap will occur and data will be truncated.

Use the following procedures to select an option:

1. While in the **Print Control** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **AutoWrap** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **AutoWrap** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

FF @ TOF

This menu is used to define form feed with top of form behavior for the printer. If enabled, the printer will ignore a form feed character, if the printer is already at the top of form.

Use the following procedures to select an option:

1. While in the **Print Control** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **FF @ TOF** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access **the FF @ TOF** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

GENPTROPTS

This menu is used to set general printer options. See "General Printer Options Definitions," table 3 and 4, in Appendix G for additional information.

Note

To print the Euro currency symbol, see Table 3 and 4 in Appendix G for settings.

Use the following procedures to select an option:

1. While in the **Set Up** menu, press ◄ (left) or ► (right) menu browse pushbutton until **GenPtrOpts** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **GenPtrOpts** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired **Group 1** or **Group 2** is displayed.
4. Press the **Select** pushbutton to select **Group 1** or **Group 2**.

5. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to either enable or disable an option. The **<** symbol will immediately follow an enabled option.

TEAROFF

This menu and its sub-menus are used to modify the tear off feature settings for this printer.

Use the following procedures to access the sub-menus:

1. While in the **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **TearOff** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the TearOff submenu options.

The following describes the TearOff sub-menus and options:

Path

This menu is used to select the rear or top paper path used for the printer. This menu is only applicable and visible for the 5050/5100 (55 or 60 dBa) Cabinet Model printer.

Use the following procedures to select a paper path:

1. While in the **TearOff** menu, press ◄ (left) or ► (right) menu browse pushbutton until **Path** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Path** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Note

See "Paper Path" in Chapter 2 for additional procedures to printing using a top paper path.

Retract

This menu is used to select the length of the paper retraction. Next TOF will retract the paper to the next TOF as currently set for the printer. Full Return will retract the paper only the length of a line return as currently set for the printer.

Use the following procedures to select the length:

1. While in the **TearOff** menu, press ◄ (left) or ► (right) menu browse pushbutton until **Retract** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Retract** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Auto

This menu is used to enable/disable the auto tear off feature. If enabled the printer will automatically eject the paper to the selected tear off position after a selected timeout after the shuttle stops.

Use the following procedures to set the auto features.

TearOff
Auto

1. While in the **TearOff** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Auto** is displayed in the lower right corner of the LCD.

Auto
Disable<

2. Press the ▼ (down) menu browse pushbutton to access the **Auto** options.

If the auto feature is enabled, there are two additional settings to be configured. A Time Setting configures the printer for a specific period of time to wait after all data is printed before ejecting the paper. A Start Eject setting configures the printer to advance to the tear off position after the Time Setting has elapsed from anywhere on the paper (Timeout Only) or after the Time Setting has elapsed only if at the top of form position.

The following describes the additional settings if Enable is selected.

1. Press the ◄ (left) or ► (right) menu browse pushbutton until **Enable** is displayed in the lower right corner of the LCD.

Auto
Time

2. Press the **Select** pushbutton to access the Enable options. **Auto** will be displayed in the upper left corner of the LCD and the available options will display in the lower right corner of the LCD.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to select the desired submenu. The **Time** option is user set. The range of values for the time option is 1 to 10 seconds.

Use the following procedures to use this setting:

Time
00:00

1. Press the **Select** pushbutton to access. The option to be set will be displayed in the upper right corner of the LCD. Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbuttons increment/decrement the selected digit by one. There is a maximum allowed setting of 10:00.
2. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD. Repeat this set if further changes are necessary.

Note

Repeat this section if further changes are necessary.

EMULATION

This menu and sub-menus are used to select a printer emulation setting and configure its settings.

Use the following procedure to select this option.

Set Up
Emulation

1. While in the **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Emulation** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Emulation** submenus.

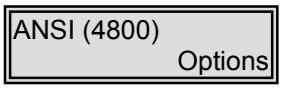
The following describes accessing the submenus and options:

ANSI (4800)

This menu is used to select the ANSI (4800) emulation. See "I/F Emulation Option Descriptions," table 5, in Appendix G for additional information.

Use the following to configure the ANSI (4800) emulation settings:

1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **ANSI (4800)** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to access the settings for **ANSI (4800)**. **ANSI (4800)** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

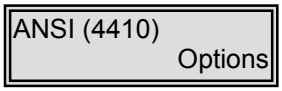
4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an **ANSI (4800)** setting.
5. Press the **Clear**, or ▲ (up) menu browse, pushbutton to exit this option.

ANSI (4410)

This menu is used to select the ANSI (4410) emulation. See "I/F Emulation Option Descriptions," table 6, in Appendix G for additional information.

Use the following to configure the ANSI (4410) emulation settings:

1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **ANSI (4410)** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to access the settings for **ANSI(4410)**. **ANSI (4410)** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an **ANSI (4410)** setting.
5. Press the **Clear**, or ▲ (up) menu browse, pushbutton to exit this option.

FX286E

This menu is used to select the FX286e emulation. See "I/F Emulation Option Descriptions," table 8, in Appendix G for additional information.

Use the following to configure the FX286e emulation settings:

1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **FX286e** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to access the settings for FX286e. **FX286e** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable a **FX286e** setting.
5. Press the **Clear**, or ▲ (up) menu browse, pushbutton to exit this option.

ProPrinter

This menu is used to select the ProPrinter emulation. See "I/F Emulation Option Descriptions," table 7, in Appendix G for additional information.

Use the following to configure the ProPrinter emulation settings:

1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **ProPrinter** is displayed in the lower right corner of the LCD.

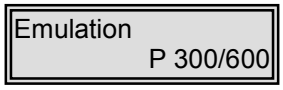
2. Press the **Select** pushbutton to access the settings for **ProPrinter**. **ProPrinter** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable a **ProPrinter** setting.
5. Press the **Clear**, or ▲ (up) menu browse, pushbutton to exit this option.

P 300/600

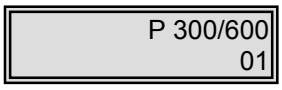
This menu is used to select the P 300/600 emulation. See "I/F Emulation Option Descriptions," table 11, in Appendix G for additional information.

Use the following to configure the P 300/600 emulation settings:



1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **P 300/600** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to access the settings for **P 300/600**. **P 300/600** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

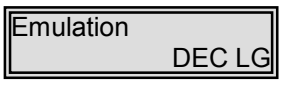


4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable a **P 300/600** setting.
5. Press the **Clear**, or ▲ (up) menu browse, pushbutton to exit this option.

DEC LG

This menu is used to select the DEC LG emulation. See "I/F Emulation Option Descriptions," table 12, in Appendix G for additional information.

Use the following to configure the DEC LG emulation settings:



1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **DEC LG** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to access the settings for **DEC LG**. **DEC LG** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable a **DEC LG** setting.
5. Press the **Clear**, or ▲ (up) menu browse pushbutton to exit this option.

Pseries

This menu is used to select the Pseries emulation. See "I/F Emulation Option Descriptions," table 10, in Appendix G for additional information.

Note

Under the menu option SFCC, the user defines a SFCC character.

Use the following to configure the Pseries emulation settings:

1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Pseries** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to access the settings for **Pseries**. **Pseries** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

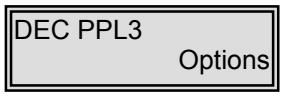
4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable a **Pseries** setting.
5. Press the **Clear**, or ▲ (up) menu browse pushbutton to exit this option.

DEC PPL3

This menu is used to select the DEC PPL3 emulation. See "I/F Emulation Option Descriptions," table 13 in Appendix G for additional information.

Use the following to configure the DEC PPL3 emulation settings:

1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **DEC PPL3** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to access the settings for **DEC PPL3**. **DEC PPL3** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.
3. Press the **Select** pushbutton to access the options menu.

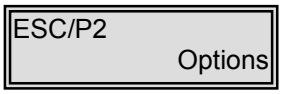
4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable a **DEC PPL3** setting.
5. Press the **Clear**, or ▲ (up) menu browse, pushbutton to exit this option.

ESC/P2

This menu is used to select the ESC/P2 emulation. See "I/F Emulation Option Descriptions," table 9, in Appendix G for additional information.

Use the following to configure the ESC/P2 emulation settings:

1. While in the **Emulation** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **ESC/P2** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to access the settings for **ESC/P2**. **ESC/P2** will be displayed in the upper left corner of the LCD and **Options** will be displayed in the lower right corner.

3. Press the **Select** pushbutton to access the **Options** under **ESC/P2**.
4. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an **ESC/P2** setting.
5. Press the Clear, or ▲ (up) menu browse, pushbutton to exit this option.

DISPLAY LAN

This menu is used to select the LCD language. At present writing, the only option under this menu is English. Future languages will include Spanish, German, Italian and French.

Use the following procedures to select the language displayed in the LCD:

1. While in the **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Display Lang** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Display Lang** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired language is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow the enabled option.

FILTER

This menu option is used to select and configure settings for QMS, IGP, IPDS* and IBM Format*.

Use the following procedures to use this option.

1. While in the **Set Up** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Filter** is displayed in the lower right corner of the LCD.
2. Press the ▼ (down) menu browse pushbutton to access the **Filter** options.

* Viewable with SCS or IPDS software installed in printer.

The following describes the sub-menus and options available:

QMS

This menu option is used to select the QMS filter option.

Use the following procedures to access the QMS options:

1. While in the **Filter** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **QMS** is displayed in the lower right corner of the display.
2. Press the ▼ (down) menu browse pushbutton to access the configuration settings for QMS.

The following describes the options available:

BC Density

This menu option is used to select the BC Density setting for QMS. This option is used to select the barcode print density in QMS emulation. **Low** represents low density, **High** represents double horizontal, and **Stagger** represents staggered format.

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **BC Density** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **BC Density** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Control Chars

This menu option is used to select the Control Chars setting for QMS. This option designates the hex value for the desired graphic control character in QMS emulation. See table below.

Hex Value	Character
0X5E	^
0X60	`
0X7C	¦
0X7E	~
0XAA	¬
0XB0	▒
OX01	<SOH>
0X21	´
0X3B	;
0X3F	?
0X40	@
0X5C	\

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Control Chars** is displayed in the lower right corner of the LCD.

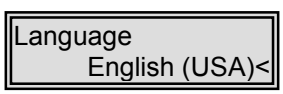
2. Press the ▼ (down) menu browse pushbutton to access the **Control Chars** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Language

This menu option is used to select the Language setting for QMS. This option permits the selection of twelve International Standards Organization (ISO) character sets as the power-up default character set.

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Language** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **Language** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Code V

This menu is used to select the Code V setting for QMS. This option disables/enables the printer to recognize and process Code V emulation. When this option is disabled, the printer will not accept any Code V commands until it receives the ^PY^- command. When enabled, the printer accepts and processes all Code V emulations as though the ^PY^- command had been sent.

Note

Code V is always active without the ^PY controls.

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Code V** is displayed in the lower right corner of the LCD.

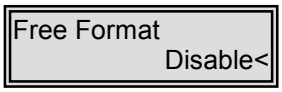
2. Press the ▼ (down) menu browse pushbutton to access the **Code V** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Free Format

This menu is used to select the Free Format setting for QMS. This option of enabled sets the printer to ignore all characters with hexadecimal values less than 20H. This includes all system paper movement commands. This option will be turned off when the printer received the ^O^- command.

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Free Format** is displayed in the lower right corner of the LCD.



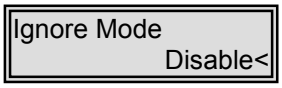
2. Press the ▼ (down) menu browse pushbutton to access the **Free Format** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Ignore Mode

This menu is used to select the Ignore Mode (Ignore Data Mode) setting for QMS. When Ignore Mode is enabled, the printer ignores all data received from the host until a ^A is received. If this option is enabled, **Code V** must also be enabled.

Use the following procedure to select this option:

1. While in the QMS menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Ignore Default** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the Ignore Default options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Slashed Zero

This menu is used to select the Slashed Zero setting for QMS. When enabled, the Slashed Zero option will print slashes in zeros, e.g.. "Ø."

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Slashed Zero** is displayed in the lower right corner of the LCD.

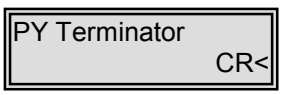
2. Press the ▼ (down) menu browse pushbutton to access the **Slashed Zero** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

PY Terminator

This menu is used to select either the CR or CR LF as the PY Terminator setting for QMS. The "PY^- magnum on command should be terminated with <CR><LF>. With this option set to LF, the <LF> is ignored. It may also be terminated by a carriage return/linefeed combination. The linefeed causes printing to begin on the second line of the program. If printing on the first line is desired, set this option to CR.

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **PY Terminator** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **PY Terminator** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable

or disable an option. The **<** symbol will immediately follow an enabled option.

PN Terminator

This menu is used to select either the CR or CR LF as the PN Terminator setting for QMS. The command to turn off the graphics conversion (^PN^-) may be terminated by a carriage return/linefeed combination. If no linefeed is desired when QMS is turned off, set this option to CR.

Use the following procedure to select this option:

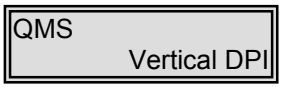
1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **PN Terminator** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **PN Terminator** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Vertical DPI

This menu is used to select the Vertical DPI setting for QMS. This is used to specify the desired Vertical Dots Per Inch in Code V Version I. If set to 70, a one-inch (1") high character (as called for in a Magnum command) will be 70/72 of an inch high.

Use the following procedure to select this option:



1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Vertical DPI** is displayed in the lower right corner of the LCD.

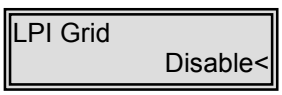
2. Press the ▼ (down) menu browse pushbutton to access the **Vertical DPI** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

LPI Grid

This menu is used to select the LPI Grid setting for QMS. When enabled, a linefeed <LF> after a graphics pass will put the paper on the next LPI grid position. If disabled, a linefeed after a graphics move will move the paper using the LPI increment.

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **LPI Grid** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **LPI Grid** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Version

This menu is used to select the Version setting for QMS. This feature is provided for users of Code V Version I programming who utilized rotated MAGNUM characters. Elongation of characters could cause print line length to be exceeded. Setting this option to Ver I, will prevent character elongation from causing print line overflow.

Use the following procedure to select this option:

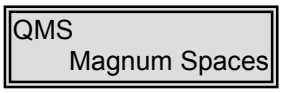
1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Version** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Version** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Magnum Spaces

This menu is used to select the Magnum Spaces setting for QMS. When Magnum Spaces is enabled, trailing spaces in strings are ignored. If a Magnum pass field contains only spaces, the defined height of the field is ignored.

Use the following procedure to select this option:



1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Magnum Spaces** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Magnum Spaces** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Ignore Chr Mode

This menu is used to select the Ignore Character Mode setting for QMS. When Ignore Chr Mode is enabled, the character value specified in Ignore Char option will be discarded when detected in the datastream. If this option is enabled, a character must be designated to be discarded using the Ignore Char (see next option.)

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Ignore Chr Mode** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Ignore Chr Mode** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Ignore Char

This menu option is used to set the hexadecimal value of the received data character to be ignored when the Ignore Chr Mode is enabled. The valid range of hexadecimal values is 0X00 to 0XFF.

Use the following procedure to select this option:

1. While in the **QMS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Ignore Character** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to access the **Ignore Character** options.
3. This option is user set. Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbutton increment/decrement the selected alphanumeric digit by one. Enter the hex value of the character desired.
4. Press the **Select** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD. Repeat this step if further changes are necessary.
5. Press the **Clear** pushbutton to exit this option.

IGP

This menu option is used to select the IGP filter option.

Use the following procedures to access the IGP options:

1. While in the **Filter** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IGP** is displayed in the lower right corner of the display.
2. Press the ▼ (down) menu browse pushbutton to access the configuration settings for IGP.

The following describes the options available:

BC Density

This menu option is used to select the BC Density setting for IGP. This option is used to select the barcode print density in QMS emulation. **Low** represents low density, **High** represents double horizontal, and **Stagger** represents staggered format.

Use the following procedure to select this option:

1. While in the IGP menu, press the ◄ (left) or ► (right) menu browse pushbutton until BC Density is displayed in the lower right corner of the LCD.

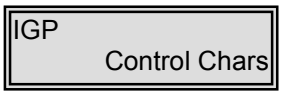
2. Press the ▼ (down) menu browse pushbutton to access the BC Density options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the Select pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Control Chars

This menu option is used to select the Control Chars setting for IGP. This is used to designate the hexadecimal value for the desired graphic control character in IGP emulation. Menu selections are in hex.

Hex Value	Character
0X5E	**^**
0X60	**`**
0X7C	**¦**
0X7E	**~**
0XAA	**¬**
0XB0	**▒**
0X01	**<SOH>**
0X21	**´**
0X3B	**;**
0X3F	**?**
0X40	**@**
0X5C	****

Use the following procedure to select this option:



1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Control Chars** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Control Chars** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Language

This menu option is used to select the Language setting for IGP. This option permits the selection of twelve International Standards Organization (ISO) character sets as the power-up default character set.

Use the following procedure to select this option:

1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Language** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Language** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

IGP Terminator

This menu option is used to select the IGP Terminator setting for IGP. When set to CR, all IGP commands are required to be terminated with a carriage return. When set to CR LF, all IGP commands are required to be terminated with a linefeed.

Use the following procedure to select this option:

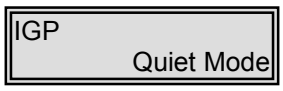
1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IGP Terminator** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **IGP Terminator** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

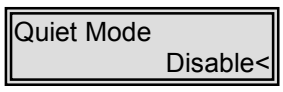
Quiet Mode

This menu option is used to select the Quiet Mode setting for IGP. When enabled, all IGP commands are passes unprocessed to the printer (printed as text.) Disabling this option, or receiving a LISTEN command, will disable **Quiet Mode**.

Use the following procedure to select this option:



1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Quiet Mode** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **Quiet Mode** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable

or disable an option. The **<** symbol will immediately follow an enabled option.

Delete Logos

This menu option is used to select the Delete Logos setting for IGP. When enabled, logos that are associated with a form will be deleted when the form is deleted. To conserve IGP memory, all forms and logos should be deleted when they are no longer required.

Use the following procedure to select this option:

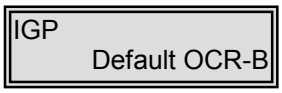
1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Delete Logos** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Delete Logos** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Default OCR-B

This menu option is used to select the Default OCR-B setting for IGP. When enabled, the default font will be OCR-B.

Use the following procedure to select this option:



1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Default OCR-B** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Default OCR-B** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Vertical DPI

This menu option is used to select the Vertical DPI setting for IGP. This is used to specify the desired Vertical Dots Per Inch in Code V Version I. If set to 70, a one-inch (1") high character (as called for in a Magnum command) will be 70/72 of an inch high.

Use the following procedure to select this option:

1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Vertical DPI** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Vertical DPI** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable

or disable an option. The **<** symbol will immediately follow an enabled option.

Slashed Zero

This menu option is used to select the Slashed Zero setting for IGP. When enabled, the Slashed Zero option will print slashes in zeros, e.g.. "Ø."

Use the following procedure to select this option:

1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Slashed Zero** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Slashed Zero** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Clip Text

This menu option is used to select the Clip Text (Excess Form Text Ignored) setting for IGP. When enabled, the Clip Text option will not print any text that exceeds the IGP form length.

Use the following procedure to select this option:

1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Clip Text** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Clip Text** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

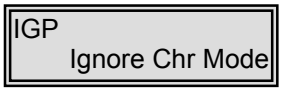
Ignore Chr Mode

This menu option is used to select the Ignore Character Mode setting for IGP. When enabled, the character value specified in the Ignore Char option will be discarded when detected in the datastream.

Note

When enabled, a character must be designated to be discarded using the Ignore Char option.

Use the following procedure to select this option:



1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Ignore Chr Mode** is displayed in the lower right corner of the LCD.

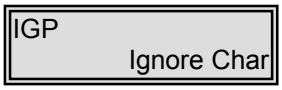
2. Press the ▼ (down) menu browse pushbutton to access the **Ignore Chr Mode** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Ignore Char

This menu option is used to select the Ignore Character setting for IGP. This specifies the decimal value (0 to 25) of the character to be ignored within the datastream. The **Ignore Chr Mode** must be enabled for this option to take effect. This is user set.

Use the following procedure to select this option:



1. While in the **IGP** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Ignore Character** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton to access the **Ignore Character** options.

3. Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbutton increment/decrement the selected alphanumeric digit by one. Enter the hex value of the character desired.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD. Repeat this step if further changes are necessary.
5. Press the **Clear** pushbutton to exit this option.

Note

Repeat this section if further changes are necessary.

IPDS

This menu option is used to select the IPDS (Intelligent Print Data Stream) filter options.

Use the following procedures to access the IPDS options:

1. While in the **Filter** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IPDS** is displayed in the lower right corner of the display.
2. Press the ▼ (down) menu browse pushbutton to access the configuration settings for IPDS.

The following describes the options available:

IPDS BC Stagger

This menu option is used to select the IPDS BC Stagger setting for IPDS. When enabled, the barcode printing is faster at a lower print quality.

Use the following procedure to select this option:

3. While in the IPDS menu, press the ◄ (left) or ► (right) menu browse pushbutton until IPDS BC Stagger is displayed in the lower right corner of the LCD.

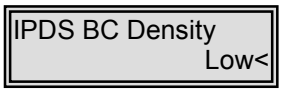
4. Press the ▼ (down) menu browse pushbutton to access the IPDS BC Stagger options.
5. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the Select pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

IPDS BC Density

This menu option is used to select the IPDS BC Density setting for IPDS. This option is used to select the barcode print density in IPDS emulations. **Low** is 72 dots horizontally by 72 dots vertically and **High** is 144 dots horizontally by 144 vertically.

Use the following procedure to select this option:

1. While in the **IPDS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IPDS BC Density** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **IPDS BC Density** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

IPDS GR Density

This menu option is used to select the IPDS GR Density setting for IPDS. Used to select graphic print density in IPDS emulations. **Low** is 72 dots per inch and **High** is 144 dots per inch. Higher density means better print quality, but at a lower speed.

Use the following procedure to select this option:

1. While in the IPDS menu, press the ◄ (left) or ► (right) menu browse pushbutton until IPDS GR Density is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the IPDS GR Density options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the Select pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

IPDS Image Density

This menu option is used to select the IPDS Image Density setting for IPDS. This is used to select image density/quality in IPDS emulations. **Low** is 72 dots per inch and **High** is 144 dots per inch. Higher density means better print quality, but at a lower speed.

Use the following procedure to select this option:

1. While in the **IPDS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IPDS Image Density** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **IPDS Image Density** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

IPDS Dens Ovr

This menu option is used to select the IPDS Dens Ovr (IPDS Density Override) setting for IPDS. When enabled, the printer will override any IPDS command attempting to change the IPDS BC Density, IPDS GR Density, IPDS Image Density, and IPDS Text. The current menu values are used. When disabled, the individual density/quality values my be set by IPDS commands.

Use the following procedure to select this option:

1. While in the **IPDS** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IPDS Dens Ovr** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **IPDS Dens Ovr** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

IBM Format

This menu option is used to configure the settings in the IBM Format filter option. These options are for IPDS and SCS. See the Setup Menu in Appendix I for a complete listing of available selections.

Use the following procedures to access the IBM Format options:

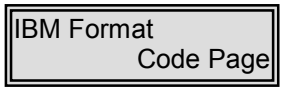
1. While in the **Filter** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IBM Format** is displayed in the lower right corner of the display.
2. Press the ▼ (down) menu browse pushbutton to access the configuration settings for IBM Format.

The following describes the options available:

Code Page

This menu option is used to select the default Code Page setting for IBM Format. See the Set Up Menu Map in Appendix I for a complete listing of available selections.

Use the following procedure to select this option:



1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Code Page** is displayed in the lower right corner of the LCD.

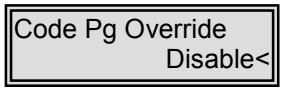
2. Press the ▼ (down) menu browse pushbutton to access the **Code Page** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Code Pg Override

This menu option is used to enable/disable the Code Page Override options. When enabled, the printer will override any host-set command, which attempts to change the Code Page value. The current menu value is used.

Use the following procedures to enable/disable a setting:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Code Pg Override** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **Code Pg Override** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

LPI Override

This option is used to enable/disable the LPI Override setting. When enabled, the printer will override any host-set command, which attempts to change the lines per inch value. The current operator-set value is used.

Use the following procedure to enable/disable an option:

1. While in the **IBM Format** menu option, press the ◄ (left) or ► (right) pushbutton until **LPI Override** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) pushbutton to access the **LPI Override** menu options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

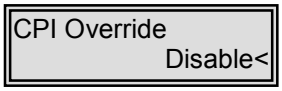
CPI Override

This menu option is used to select the CPI Override setting for IBM Format. When enable, the printer will override any host-set command which attempts to change the characters per inch value. The current

operator-set value will be used. See the Set Up Menu Map in Appendix I for a complete listing of available selections.

Use the following procedure to select this option:

1. While in the **IBM Format** menu option, press the ◄ (left) or ► (right) menu browse pushbutton until **CPI Override** is displayed in the lower right corner of the LCD.



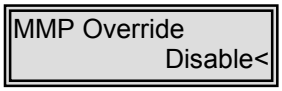
2. Press the ▼ (down) menu browse pushbutton to access the **CPI Override** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

MPP Override

This menu option is used to enable/disable the MPP Override options. When enabled, the printer will override any host-set command, which attempts to change the MPP (maximum print position) value to anything other than the current menu value. The operator-set value is used.

Use the following procedure to enable/disable this option:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **MPP Override** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton to access the **MPP Override** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

MPL Override

This menu option is used to enable/disable the MPL Override Option. When enabled, the printer will override any host-set command, which attempts to change the MPL (maximum print lines) value to anything other than the operator-set value.

Use the following procedure to enable/disable this option:

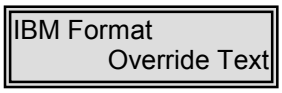
6. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **MPL Override** is displayed in the lower right corner of the LCD.

7. Press the ▼ (down) menu browse pushbutton to access the **MPL Override** options.
8. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

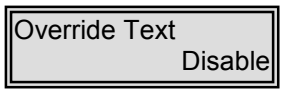
Override Text

This menu option is used to enable/disable the Override Text option. When enabled, the printer will override any host-set command, which attempts to change the text quality value to anything other than the current menu value. The operator-set value will be used.

Use the following procedures to enable/disable a setting.



1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton, until **Override Text** is displayed in the lower right corner of the LCD.

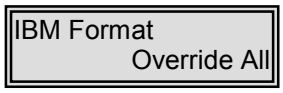


2. Press the ▼ (down) menu browse pushbutton to access the **Override Text** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Override All

This menu option is used to enable/disable the Override All option. When enabled, the printer will override any host-set command, which attempts to change the values of Code Page, LPI, CPI, MPP, or MPL. Operator-set values will be used. When disabled, the individual override options control Code Page, LPI, CPI, MPP, or MPL.

Use the following procedure to enable/disable a setting:



1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Override All** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Override MMP** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The **<** symbol will immediately follow an enabled option.

Hex Print

This menu option is used to enable/disable the Hex Print option. This is used to troubleshoot communications or applications program problems. The received EBCDIC data stream is converted to hex dump format and printed. The printout can aid in determining what the printer is being instructed to do by the data stream.

Use the following procedure to enable/disable a setting:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Hex Print** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Hex Print** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Hex 1

This menu option is used to select the HEX 1 setting for IBM Format. This is a user set option. Hex 1 defines the first character (in EBCDIC) of the lead-in sequence for hex passthru. Hex passthru enables sending commands in the datastream to access features that are not available in standard IBM emulations. Hex passthru requires an identification of two lead-in characters (Hex 1 and Hex 2) indicating the beginning of the command stream and a terminating character (Hex Term) indicating the end of the command stream. Upon receipt of the two lead-in characters, the emulation controller begins translating the EBCDIC characters 0 to 9 and A to F into hexadecimal data. Two EBCDIC characters are combined into one ASCII hexadecimal byte and sent to the printer. Translation continues until the emulation controller receives the terminating character.

Use the following procedure to select this option:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **HEX 1** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton to configure the **HEX 1** options.

3. Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbutton increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

Hex 2

This menu option is used to select the HEX 2 setting for IBM Format. This option defines the second character (in EBCDIC) of the lead-in sequence for hex passthru. See Hex 1 for additional information. This is a user set option.

Use the following procedure to select this option:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **HEX 2** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton to configure the **HEX 2** options.

3. Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbutton increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

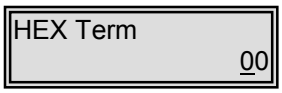
Repeat this section if further changes are necessary.

Hex Term

This menu option is used to select the HEX Term setting for IBM Format. Hex Term is used to define the last character (in EBCDIC) of a hex passthru sequence. See Hex 1 for additional information. This is a user set option.

Use the following procedure to select this option:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **HEX Term** is displayed in the lower right corner of the LCD.
2. Press the **Select** pushbutton to configure the **HEX Term** options.



3. Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbutton increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

DCF1

This menu option is used to select the DCF1 setting for IBM Format. DCF 1, DCF 2, and DCF Term may be received in the data stream to

modify printer functions. DCF capacity has been preserved in order to allow receipt of print jobs that were created for older printer products that do not have the LCD menu feature. All options that were previously set using DCF commands can now be set using the LCD menus. This is the preferred method. This is a user set option.

Use the following procedures to select this option:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **DCF1** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to configure the DCF1 option.
3. Notice the cursor (underline) is now shown under the first digit. Use the horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changes; use the vertical ▲ ▼ (up or down) menu browse pushbuttons to increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

DCF2

This menu option is used to select the DCF2 setting for IBM Format. See DCF 1 for additional information. This is a user set option.

Use the following procedures to select this option:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **DCF2** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to configure the **DCF2** options.
3. Notice the cursor (underline) is now shown under the first digit. Use the horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changes; use the vertical ▲ ▼ (up or down) menu browse pushbuttons to increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD.

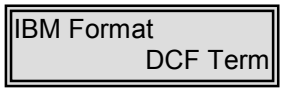
Note

Repeat this section if further changes are necessary.

DCF Term

This menu option is used to select the DCF Term setting for IBM Format. See DCF 1 for additional information. This is a user set option.

Use the following procedures to select this option:



1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **DCF Term** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to configure the DCF Term options.
3. Notice the cursor (underline) is now shown under the first digit. Use the horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; use the vertical ▲ ▼ (up or down) menu browse pushbuttons to increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton after all changes are complete and the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

Coax Compat

This menu is used to configure the Coax Compat (Coax Compatibility) settings for IBM Format.

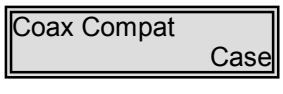
Note

Coax options are only available for IPDS and SCS.

See Setup Menu Map in Appendix I for a complete listing of available selections.

Use the following procedures to access the Coax Compatibility options:

1. While in the **IBM Format** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Coax Compat** is displayed in the lower right corner of the LCD.



2. Press the ▼ (down) menu browse pushbutton. **Coax Compatibility** will be displayed in the upper left corner of the LCD.

The following describes the options available.

Case

This menu option is used to select the Case option under Coax Compat. This option is valid for DSC/DSE modes only. LU-1 is always dual case. It causes the printer to print in upper and lower case when set to **Dual**, or in upper case only when set to **Mono**. See the Setup Menu Map for a complete listing of selections available.

Use the following procedures to select setting:

1. While in the **Coax Compat** menu option, press the ◄ (left) or ► (right) menu browse pushbuttons until **Case** is displayed in the lower right corner of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the **Case** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

LOC Copy FF

This menu option is used to enable/disable the LOC Copy FF options. This option causes the printer to execute a form feed after the print buffer is completed in an operator-initiated local copy print job. The printer ejects the page and is set to print at column 1, line 1 of the next page. This option overrides FF End Buff to allow the printer to maintain compatibility with application programs designed for earlier printers.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **LOC Copy FF** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **LOC Copy FF** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

FF Before LC

This menu option is used to enable/disable the FF Before LC option. This option causes the printer to execute a form feed before the printer buffer is completed in an operator-initiated local copy print job.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **FF Before LC** is displayed in the lower right corner of the display.

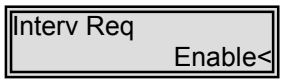
2. Press the ▼ (down) menu browse pushbutton to access the **FF Before LC** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Interv Req

This menu option is used to enable/disable the Interv Req (Intervention Required) option. When enabled, this causes an intervention required message to be sent to the host computer if the printer is busy or in an error condition. The time before sending the Intervention Required message is set by the **Irq Err TO** and **Irq Bsy TO** options.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Interv Req** is displayed in the lower right corner of the display.



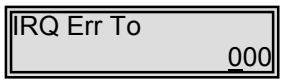
2. Press the ▼ (down) menu browse pushbutton to access the **Interv Req** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Irq Err TO

This menu option is used to select the IRQ Err TO setting for Coax Compat. If the Interv Req option is enabled, the IRQ Err TO value represents the amount of time available to clear an error (such as paper jam or paper out, etc.) before the printer notifies the host computer. Each value represents 5 seconds. The default value of 12 represents 60 seconds. This is a user set option.

Use the following procedures to select this option:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IRQ Err TO** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to configure the **Irq Err TO** option.
3. Notice the cursor (underline) is now shown under the first digit. Use the horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; use the vertical ▲ ▼ (up or down) menu browse pushbuttons to increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton after all changes are complete and the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

Irq Bsy TO

This menu option is used to select the IRQ Bsy TO setting for Coax Compat. If the Interv Req option is enabled and the printer is offline for a period of time exceeding the IRQ BSY To value selected, the LCD display will show "ON HOLD TIMOUT" and the host will be sent an Intervention Required message. This is a user set option.

Use the following procedures to select this option:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **IRQ Bsy TO** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton to configure the **Irq Bsy TO** option.
3. Notice the cursor (underline) is now shown under the first digit. Use the horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; use the vertical ▲ ▼ (up or down) menu browse pushbuttons to increment/decrement the selected numeric digit by one.
4. Press the **Clear** pushbutton after all changes are complete and the desired value is displayed in the lower right corner of the LCD.

Note

Repeat this section if further changes are necessary.

CR at MPP+1

This menu option is used to enable/disable a carriage return at maximum print position + 1 line (LU-3 mode) option. If CR at MPP+1 is set to NL and a carriage return is executed at MPP+1, a new line will also be executed. The next print position will be on the next line, column 1. If set to CR, and a carriage return is executed at MPP+1, no additional new line will be executed, and the next print position will be the current line, column 1.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **CR at MPP+1** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **CR at MPP+1** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

NL at MPP+1

This menu option is used to enable/disable a NL at MPP+1 (New Line at Maximum Print Position + 1 Line (LU-3 mode)) option. If NL at MPP+1 is set to LN +2, a new line is executed at MPP +1, and additional new line is executed automatically. The next print position will be in column 1 and down 2 lines. If set to NL, no additional new line is executed at MPP+1, and the next print position will be on column 1 of the next line.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **NL at MPP+1** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **NL at MPP+1** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

FF Data

This menu option is used to enable/disable a FF Data (Form Feed Followed by Data) option. When printing in LU-3 mode, the FF Data option is used to select the action taken if a form feed is received by the printer and it is not the last character in the IBM print buffer. When set to COL 2, the current print position after the form feed will be the second position on line one of the next form. If set to COL 1, the current print position will be the first position on line one of the next form.

Use the following procedures to enable/disable a setting:

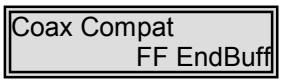
1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **FF Data** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **FF Data** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

FF EndBuff

This menu option is used to enable/disable a FF EndBuff (Form Feed at End of Buffer) option. The FF End Buff option is used to select the action taken if a form feed is received by the printer and it is the last character in the IBM print buffer. When set to LN 2, the current print position after the form feed will be the first position on line two of the next form. If set to LN 1, the current print position will be the first position on line one of the next form.

Use the following procedures to enable/disable a setting:



1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **FF EndBuff** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **FF EndBuff** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Null Sup

This menu option is used to select a Null Sup (Null Suppression) option. If Null Sup is enabled, and formatted data is received from the host (ignore NL, EM, CR and print spaces instead), then all lines consisting entirely of nonprintable characters (nulls, attributes, and non-display or non-print fields) will be printed as blank lines and a new line executed at the end of the line. The next print position after such a line will be on the next line, column one.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Null Sup** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **Null Sup** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

FF Pos

This menu option is used to enable/disable a FF Pos option. Form feed commands may be executed anywhere or treated as blanks if they do not occur at MPP+1, the first print position of a line (column one.)

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **FF Pos** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **FF Pos** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Auto Funct

This menu option is used to enable/disable an Auto Funct option. The Auto Funct option is used to specify what action will be taken when the printing of an IBM print buffer is completed. If set to FF (form feed), the printer will automatically execute a form feed at the end of the print buffer or a local copy, unless the last character received was already a form feed. If set to NL (new line), and the last character is not a form feed, new line, or carriage return, a new line will be automatically executed.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Auto Funct** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **Auto Funct** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

LAST LF/FF

This menu option is used to enable/disable a LAST LF/FF (Last Line Feed Send as Form Feed) option. When enabled, this option will cause a page eject when the last character in the IBM print buffer is a line feed.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **LAST LF/FF** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **LAST LF/FF** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Supp CCode

This menu option is used to enable/disable a Supp CCode (Suppress Host Control Codes) option. When enabled, this will suppress control codes generated by the IBM host.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Supp CCode** is displayed in the lower right corner of the display.

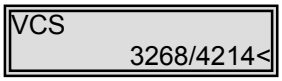
2. Press the ▼ (down) menu browse pushbutton to access the **Supp CCode** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

VCS

This menu option is used to select a VCS option. This option will allow either emulation of a 3287 or 3268/4214 printer.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **VCS** is displayed in the lower right corner of the display.



2. Press the ▼ (down) menu browse pushbutton to access the **VCS** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

Comm

This menu option is used to select a Comm option. The Comm option enables/disables the Extended Attribute Buffer (EAB) and enables/disables the Query Reply. When set to EAB, EAB is enabled, but not Query Reply. When set to QUERY/EAB, EAB and Query Reply are both enabled. In the Disabled state, neither EAB nor Query Reply is enabled.

Use the following procedures to enable/disable a setting:

1. While in the **Coax Compat** menu, press the ◄ (left) or ► (right) menu browse pushbuttons until **Comm** is displayed in the lower right corner of the display.

2. Press the ▼ (down) menu browse pushbutton to access the **Comm** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed. Press the **Select** pushbutton to enable or disable an option. The < symbol will immediately follow an enabled option.

CHAPTER 6. USING THE MAINTENANCE MENU

The activities performed under this menu include resetting the printer to defaults, alignment, head service, power on time and print time settings, upgrade software functions, and ribbon monitor functions.

While in **Local**, press the ▼ (down) menu browse pushbutton to enter the **Main Menu**. Press the ◄ (left) or ► (right) menu browse pushbutton until **Maintenance** menu is displayed in the bottom right corner of the LCD. **Main Menu** will be displayed in the upper left corner of the LCD.

To move up or down a level of menu options, press the ▲ (up) or ▼ (down) menu browse pushbuttons. To move laterally among options on the same level, use the ◄ (left) or ► (right) menu browse pushbuttons.

Currently selected menu options are displayed in the LCD with a **<** symbol, which follows immediately to the right of the menu option. Some menu options are toggle options and reflect an enabled or disabled condition. Press the **Select** pushbutton to cause the printer to perform this operation.

Press the **Clear** pushbutton to return to the upper level menu or to **Local** when in a first-level menu.

RESET TO DEFLTS

This menu is used to reset the printer to factory defaults or re-initializing certain groups of printer settings from the control panel.

Note

Before proceeding with resetting the printer to previous defaults, have a current printout of current settings. This will provide a record of settings, which may need to be restored. See the "Show" option in Chapter 4 Using the Operator Menu for additional information.

Use the following procedures to select this option:

1. While in the **Maintenance** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Reset to Deflts** is displayed in the lower line of the LCD.

2. Press the ▼ (down) menu browse pushbutton to access the reset to defaults options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton to select either **USA** or **International**.
4. Press the ▼ (down) menu browse pushbutton to access either USA or International reset options.

Note

The All Interfaces option will reset all interface settings to the factory default settings. The All Formats will reset all previously saved formats to factory defaults. The All Emulations will reset all emulation settings to factory default settings. The Complete option will reset all interface, all formats and all emulations settings to factory default settings.

5. Press the **Select** pushbutton again to reset the printer to factory defaults. The printer momentarily displays **STARTUP** in the LCD and will complete a power-up sequence. After completion of a power-up sequence, printer returns to Online status.
6. If the printer was operating before initialization, it may need to be reconfigured for the specific task at hand. After achieving proper configuration, print a set of status reports and save for future reference.

ALIGNMENT

This menu and its sub-menus are used to make adjustments for printing issues.

Use the following procedures to select this option:

1. While in the **Maintenance** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Alignment** is displayed in the lower right corner of the LCD.
2. Press the **Select** or ▼ (down) menu browse pushbutton to access the **Alignment** options.

The following describes the options available:

Patterns

This menu is used to print the patterns used for adjustments. There are six available patterns. Signature will print a small sample of each of the other five patterns. The Amplitude Pattern is used to adjust the amplitude. The Horizontal Timing, Vertical, Timing and Checkerboard Patterns are verification patterns. The Inter-module Gap Pattern is used to verify print head mounting.

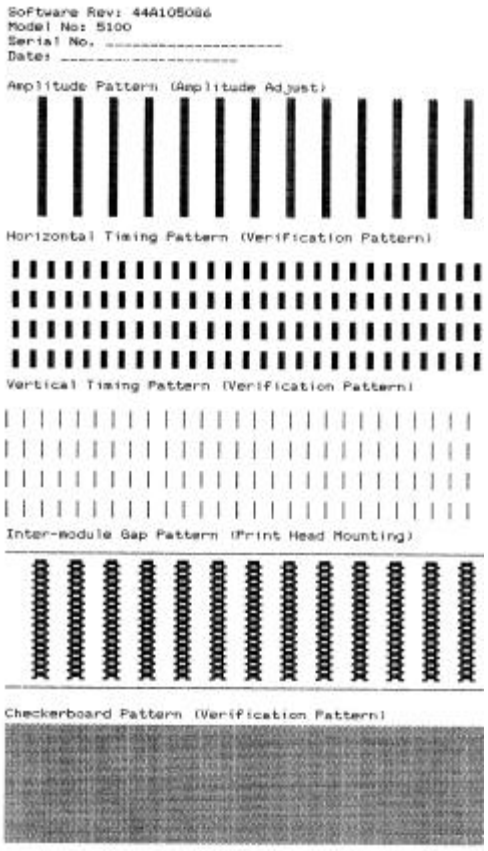
Use the following procedures to select this option:

1. While in the **Alignment** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Patterns** is displayed in the lower right corner of the LCD.

2. Press the **Select** or ▼ (down) menu browse pushbutton to access the **Patterns** options.
3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired pattern option is displayed.

4. Press the **Select** pushbutton to select a pattern to print. **CLR to Stop** will be displayed in the lower right corner of the LCD.

5. Press the **Clear** pushbutton to stop printing the pattern. Press the **On Line** pushbutton to return the printer to the Local menu status or press the **Clear** pushbutton to move backwards up a level.



SIGNATURE PATTERN SAMPLE

AdjustAmplitude

This menu is used to adjust the amplitude of the printer. The goal of the amplitude adjustment is to bring the six lines the printer is printing into perfectly spaced vertical lines. The example following the procedures shows a sample amplitude pattern and three blowups of pattern samples.

Use the following procedures to select this option:

Alignment AdjustAmplitude

1. While in the **Alignment** menu, press the □ (left) or □ (right) menu browse pushbutton until **AdjustAmplitude** is displayed in the lower right corner of the window.
2. Press the **Select** pushbutton, or the □ (down) menu browse pushbutton, to access the **AdjustAmplitude** options.

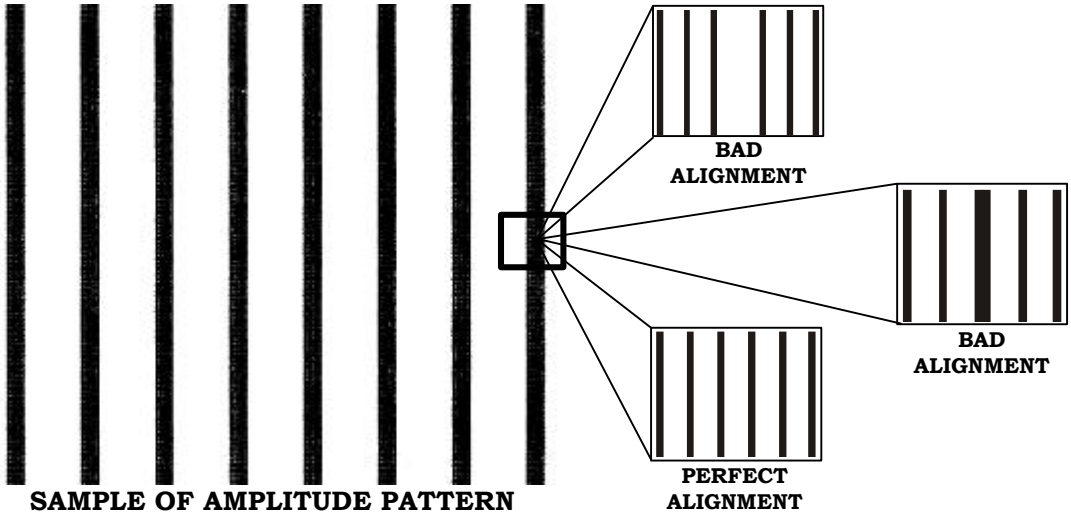
AdjustAmplitude Pattern

3. Press the □ (left) or □ (right) menu browse pushbutton until the **Pattern** is displayed in the lower right corner of the LCD.
4. Press the **Select** pushbutton to print the pattern to adjust the amplitude.

5. Use the (left) or (right) menu browse pushbuttons to adjust the amplitude while the pattern is printing.
6. Press the **Clear** pushbutton to stop printing the pattern.

AdjustAmplitude
Save Amplitude

7. Press the (left) or (right) pushbutton until **Save Amplitude** is displayed in the lower right corner of the LCD.
8. Press the **Select** pushbutton to save the amplitude adjustment.



SAMPLE OF AMPLITUDE PATTERN

HEADSERVICE

This menu is used to check the amount of usage for the individual print heads and to reset the print head counters. The printer keeps track of how many times each print head is fired during printing and displays this information on a graph.

Use the following procedures to select this option:

Maintenance
HeadService

1. While in the **Maintenance** menu, press the (left) or (right) menu browse pushbutton until **HeadService** is displayed in the lower right corner of the LCD.
2. Press the **Select** or (down) menu browse pushbutton to access the **HeadService** options.

The following describes the options available:

Dot Counts

This menu is used to reset the print head counters. The counters for the print heads can be reset to zero. This procedure is normally used after the installation of a new print head. Resetting this counter arbitrarily is not recommended.

Note

Make sure the correct print head number is displayed before clearing the counter. *Once a counter is reset to zero, it cannot be set back to its original count.*

Use the following procedure to select this option:

HeadService Dot Counts

1. While in the **HeadService** menu, press the □ (left) or □ (right) menu browse pushbutton until **Dot Counts** is displayed in the lower right corner of the LCD.

Select to Reset XX:nnnnnnnnn

2. Press the **Select** pushbutton to access the **Dot Counts** option. The individual print head number will be displayed followed by the number of times the individual print head has been fired. In the example to the left, XX represents the print head number and nnnnnnnnn represents a number. Use the □ (left) or □ (right) menu browse pushbutton to locate the desired print head counter.
3. Press the **Select** pushbutton to reset the count.

Note

Repeat this section as often as necessary to reset a print head counter.

Print Chart

This menu is used to print a graph of the number of times individual print heads have been fired.

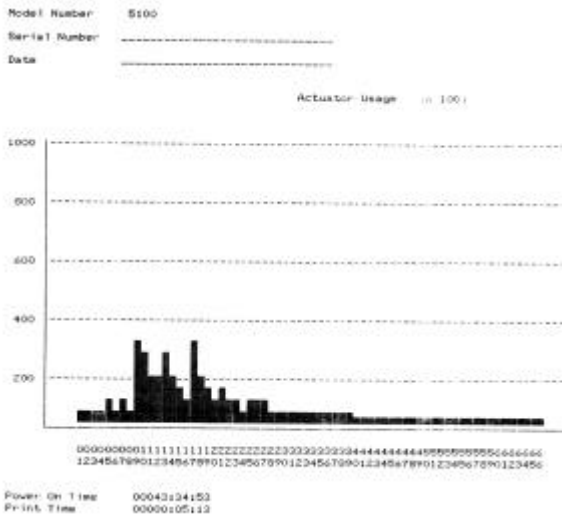
Use the following procedures to select this option:

HeadService Print Chart

1. While in the **HeadService** menu, press the □ (left) or □ (right) menu browse pushbutton until **Print Chart** is displayed in the lower right corner of the LCD.

Print Chart CLEAR to Stop

2. Press the **Select** pushbutton to print the print chart. **CLR to Stop** will be displayed in the lower right corner of the LCD.



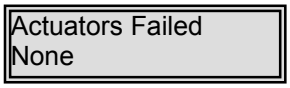
PRINT CHART SAMPLE

Actuator Status

This menu is used to identify an actuator failure.

Use the following procedure to select this option:

1. While in the **HeadService** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Actuator Status** is displayed in the lower right corner of the LCD.

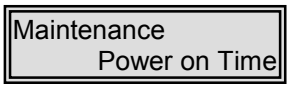


2. Press the **Select** pushbutton to display the failed actuator. If no actuator has failed, the word **None** will be displayed in the lower left corner of the LCD.

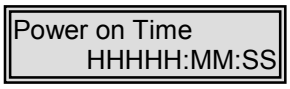
POWER ON TIME

This menu is used to display the total elapsed time that the printer has had power applied to it.

Use the following procedure to select this option:



1. While in the **Maintenance** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Power On Time** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to display the **Power On Time**. In the example to the left, HHHHH represents hours, MM represents minutes, and SS represents seconds.

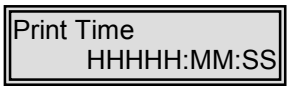
3. Press the **Clear** pushbutton to return to the previous display.

PRINT TIME

This menu is used to display the total time the shuttle motor has run.

Use the following procedure to select this option:

1. While in the **Maintenance** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Power Time** is displayed in the lower right corner of the LCD.



2. Press the **Select** pushbutton to display the **Power Time**. In the example to the left, HHHHH represents hours, MM represents minutes, and SS represents seconds.

3. Press the **Clear** pushbutton to return to the previous display.

UPGRADE FLASH

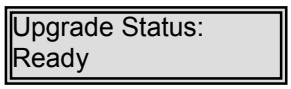
This menu is used to place the printer in a data receiving status for upgrading the printer with a software upgrade. See Appendix F for complete upgrade installation instructions.

Use the following procedures to select this option:

Note

Make sure the printer is connected to the host before proceeding.

1. While in the **Maintenance** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Upgrade Flash** is displayed in the lower right corner of the LCD.

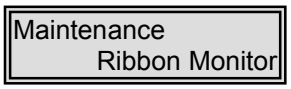


2. Press the **Select** pushbutton to upgrade the printer. **Ready** will be displayed in the lower left corner of the LCD. (See Appendix F for the Software Upgrade procedures and additional information.) To exit this function without upgrading the software, re-cycle the power to the printer.

RIBBONMONITOR

This menu is used to monitor the life of the printer ribbon. When this option is enabled, the user can monitor the ribbon life and reset the ribbon counter using the Operator menu. (See New Ribbon under the Operator menu.)

Use the following procedures to select this option.



1. While in the **Maintenance** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **RibbonMonitor** is displayed in the lower right corner of the LCD.

2. Press the **Select** pushbutton or the ▼ (down) menu browse pushbutton to access the **RibbonMonitor** options.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until the desired option is displayed in the lower right corner of the LCD.

4. Press the **Select** pushbutton to enable an option. The **<** symbol will immediately follow an enabled option. **EOL Limit** and **EOL Warning** are user set options.

Use the following procedures to select these options:

- Press the **Select** pushbutton while **EOL Limit** or **EOL Warning** is displayed in the lower right corner of the LCD. These options are user set. Notice the cursor (underline) is now shown under the first digit. The horizontal ◄ ► (left or right) menu browse pushbuttons to position the cursor (underline) under the digit to be changed; the vertical ▲ ▼ (up or down) menu browse pushbutton increment/decrement the selected digit by one.
- Press the **Clear** pushbutton ***after*** all changes are complete **and** the desired value is displayed in the lower right corner of the LCD. When the printer is online, the LCD window will display the EOL value remaining for monitoring purposes.

Note

Repeat this section if further changes are necessary. The valid range of values for EOL Limit is between 30 and 120. The valid range of values for EOL Warning is between 0 and 29.

The EOL Limit allows the use to set the End of Life Limit value for the Ribbon. Although, the user can set a limit other than the EOL recommended for a ribbon, the current EOL types available are as follows:

5050/5100 (55 or 60 dBa) Cabinet Model	**50M and 75 M**
5180 (52 and 55 dBa) Cabinet Model	**75M and 125M**

The EOL Warning allows the user to set the End Of Life Warning value for the ribbon. This warning does not cause a fault. It is a monitoring function only.

CHAPTER 7. OPERATOR CARE AND MAINTENANCE

INTRODUCTION

These shuttle matrix printers are designed so that preventive maintenance is **not** required. There are **no** lubrication requirements; therefore, operator maintenance is minimal.

OPERATOR CLEANING PROCEDURES 5050/5100 (50, 55 OR 60 DBA) CABINET MODEL

Clean the printer as necessary. The area where the printer is located, the amount of usage, and the type of paper used all affect how often cleaning is required.

1. Turn the power switch off and disconnect the power cord from the AC source.
2. Turn the print gap wheel to the **LOAD** position and remove the paper.
3. Turn the ribbon locking lever to the **LOAD** position and remove the ribbon cartridge.
4. Rotate the control panel to the open position.
5. Starting with the center thumbscrew, loosen the three thumbscrews and remove the ribbon deck. See Figure 7-1.

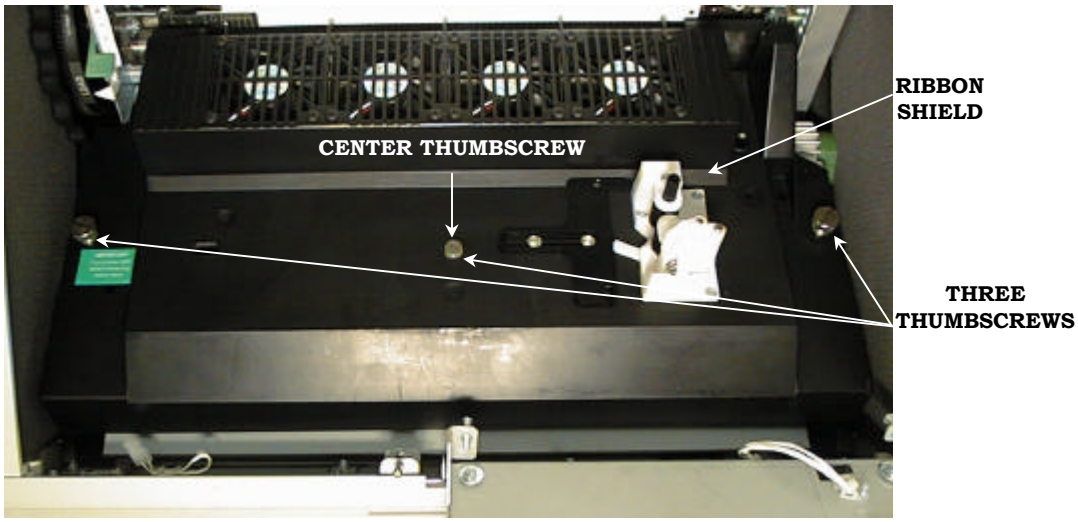


FIGURE 7-1 THE RIBBON DECK 5050/5100 (50, 55 OR 60 dBa) CABINET MODEL

Caution

Use extreme care while cleaning around the ribbon shield area. The shield is constructed of thin metal and the edges are sharp.

6. Vacuum the print head area using a soft bristle brush to dislodge paper debris. Wipe away any accumulation of dust from the ribbon shield and striker bar area.
7. Blow dust out of, or away from, the paper jam sensor on the upper left tractor.
8. Blow dust out off or away from, the paper out sensor on the lower left tractor.
9. Blow dust out of, or away from, the ribbon weld sensor located on the left of the print heads.
10. Vacuum any paper debris that has accumulated inside the paper storage area.
11. Vacuum both the top and bottom side of the ribbon deck. Make sure the ribbon motion sensor is clean.
12. Reinstall the ribbon deck making sure all three thumbscrews are tightened.
13. Inspect the ribbon fabric for wear before reinstalling the ribbon cartridge.
14. Clean the outside surfaces of the printer with a clean damp cloth. Dampen the cloth with water. Do not use cleaning solutions. Always dry the outside cabinet surfaces with a clean dry cloth.
15. Reconnect the power cord and apply power to the printer for operation.

OPERATOR CLEANING PROCEDURES 5180 (52 OR 55 DBA) CABINET MODEL

Clean the printer as necessary. The area where the printer is located, the amount of usage, and the type of paper used all affect how often cleaning is required.

Use the following procedures to clean the printer:

1. Turn the power switch off and disconnect the power cable from the AC source.

Warning

Use extreme care while cleaning around the smudge shield area. The shield is constructed of thin metal and the edges are sharp.

2. Turn the print gap adjust knob to the Load position, remove the ribbon cartridge, and wipe away any accumulation of dust from the smudge shield and striker bar area.
3. With a soft brush and vacuum, remove any paper dust that has accumulated inside the printer. Most dust tends to accumulate in the striker bar area and the paper supply compartment.
4. Reinstall or replace (if print legibility is not acceptable) the ribbon cartridge.

5. Clean the outside surfaces of the printer with a clean cloth and water. Do not use cleaning solutions. Always dry the outside cabinet surfaces with a clean dry cloth.

Warning

Do not operate the printer with the air filters removed.

6. Check the air filters on each side of the printer for blockage. If needed, remove the filter by sliding the grille up and pulling it out at the top. Vacuum and/or replace the filters.
7. Reconnect the power cable and apply power to the printer for operation.

OPERATOR TROUBLESHOOTING

Many of the operating faults that can occur are operator-correctable. They are often related to an incorrect setup, wrong adjustment, or the need to replenish consumables.

Initializing the Printer – Newly installed parts or options, power fluctuations, static buildup, or errant electrical signals may cause the printer electronics to lock up. Initializing the printer will clear this problem as long as no damage has been done. (See "Chapter 2 - Initializing the Printer").

Use the initialization procedure when:

- Inputs to the control panel are ignored or misinterpreted.
- The printer performs unexplained actions or ignores commands.
- The printer misinterprets valid commands from the host.

The remainder of this chapter is divided into the following sections and contains information as a help guide through possible problems.

TABLE 7-1 – Soft Fault Displays, lists display messages that may appear that do not stop the printer.
TABLE 7-2 – Miscellaneous Non-Fault Messages
TABLE 7-3 –Hard Fault Displays, lists display messages that may appear when printing has stopped unexpectedly. It also lists the probable cause and/or the action needed to clear the fault.
TABLE 7-4 – Electrical Problems, as a guides when the display, pushbuttons, or an incorrect data printout is the problem.
TABLE 7-5 – Mechanical Problems, addresses problems with paper feeding, print quality, and incorrect adjustments.
TABLE 7-6 – Diagnostic Fault Codes, shows and explains the faults that may be detected during self-test diagnostics.
TABLE 7-7 – Serial Interface Errors
Print Head Actuator Replacement – Step-by-step replacement instructions and information that may keep the printer online if a replacement print head is not immediately available.

Soft Faults

When a soft fault occurs, printing stops, and operator intervention is required.

Some change in the data being sent to the printer may be required (See *Programmer's Manual*).

If a wire driver or print head actuator fails, (see the first two displays in Table 7-1), printing may continue without damage to the printer (see the section on print head replacement).

Press the **CLEAR** pushbutton to clear the display.

Either **Online** or **Local** will be displayed in upper left corner of the display window. The following fault messages will be displayed in the lower right corner of the display window:

TABLE 7-1
Soft Fault Displays

DISPLAY	MEANING	CORRECTIVE ACTION
Change Ribbon	The Ribbon monitor feature has detected the specified number of dots has been printed for the current ribbon.	Press the **CLEAR** pushbutton to ignore this warning and continue printing or replace the current ribbon. Reset the ribbon count through the operator menu, if Ribbon Monitor is enabled.
Service Time	Service time was set to zero or the timer has failed.	Press the **Clear** pushbutton to clear the fault.
Paper Almost Out	Low paper print mode.	Press the **Clear** pushbutton to enter Low Paper printing mode or replace the paper supply.
VFU Missing TOF	Missing TOF in the VFU load sequence.	Press the **Clear** pushbutton to clear the fault. Verify data being sent to the printer by the host system.
VFU PI Lead	Paper Instruction lead: The menu option for PI lead selection is set incorrectly.	Press the **Clear** pushbutton to clear the fault. Change the PI Lead setting using the set up menu options.
Invalid VFU Seq	There is an invalid character(s) in the VFU load sequence.	Press the **Clear** pushbutton to clear the fault. Verify data being sent to the printer by the host system.
VFU Tbl Too Long	The VFU table length has been exceeded.	Press the **Clear** pushbutton to clear the fault. Verify data being sent to the printer by the host system.
Paper Almost Out	A low paper condition exists.	Press the **CLEAR** pushbutton to proceed to low paper printing. See “Low Paper Printing” in Chapter 3.
Paper Out	Paper supply is depleted.	Load paper and set top of form. The paper out sensor is reset when paper is inserted in the lower tractors and the **CLEAR** pushbutton is pressed.
Paper Jam	No paper movement has been sensed by the paper motion sensor.	Check for paper jam and clear using the following procedure: 1. Turn the print gap wheel to the **LOAD** position and physically clear the paper jam. 2. Reload paper and readjust right side tractors, paper tension and gap. 3. Press the **CLEAR** pushbutton to clear display Clean the paper motion sensor located on the upper left tractor.

TABLE 7-1
Soft Fault Displays (Continued)

No Ribbon	Ribbon cartridge is missing, installed incorrectly, or damaged.	Install Ribbon. See "Installing Ribbon" in Chapter 2.
Ribbon Jam	Ribbon has stopped moving.	1. Remove the ribbon cartridge. 2. Clean the ribbon motion sensor. 3. Inspect and reinstall the ribbon cartridge. Press the **CLEAR** pushbutton to clear the fault.
Ribbon Weld	A specified amount of time has passed without detecting the ribbon weld passing. The ribbon may be jammed or broken.	Check the ribbon. If necessary, replace ribbon. See " Replacing Ribbon" in Chapter 2.
Ribbon Weld Pass	The ribbon weld is passing by the actuators while the printer is suspended.	Press the **Clear** pushbutton to clear the fault.
Striker Bar Open	Print gap wheel turned to the **OPEN** position.	Adjust for proper paper gap.

Miscellaneous Non-Fault Messages

The following displays indicate printer status:

Either **Online** or **Local** will be displayed in upper left corner of the display window. The following fault messages will be displayed in the lower right corner of the display window:

Table 7-2
Miscellaneous Non-Fault Messages

DISPLAY	MEANING
Ready	The serial interface CB lead is true.
Standby Mode	Printer deselected by host via received DC3.
Tearoff	Paper is in position for tear off at rear paper exit.
TopTearoff	Paper is in position for tear off at top paper exit. See "Tearoff" in Chaper 3 for additional information.

Hard Faults

When a hard fault occurs, the printer will be rendered inoperative. Operator intervention may correct the fault, however service may be required. Correct the condition causing the fault, if possible and press the **CLEAR** pushbutton to restore printer operation.

TABLE 7-3
Hard Fault Displays

DISPLAY	MEANING	
Driver Circuit	All actuators on an entire tier fail.	Call for Service.
Shuttle Overload	Shuttle drive motor is stalled or overloaded.	Check for interference caused by a paper jam or print gap adjusted too tight. If problem continues, call for service.
Low Power	Power supply has sensed low line voltage or is temporarily overloaded by continuous high density printing.	Check for irregular voltage from power source. If problem continues, call for service.
Image Logic Fail	No image logic dot request processed for 5 seconds.	Try to clear fault by cycling power and initializing the printer. If problem continues, call for service.
NVRAM Reinit	NVRAM has been initialized.	Press **CLEAR** pushbutton to continue. If problem continues, call for service.
No Font	No printable font found in printer.	Try to clear fault by cycling power and initializing. If fault does not clear, call for service.
Bad Wire Driver	A defective wire driver has been found (see Note 1).	Move or replace actuator modules. If problem continues, call for service.
Bad Actuator	A print head actuator has been found (see Note 1).	Move or replace actuator modules. If problem continues, call for service.
LEFT FAN	The left print head fan in the ribbon deck has failed. Call for service.	Call for service.
LEFT CENTER FAN	The left center print head fan in the ribbon deck has failed. Call for service.	Call for service.
RIGHT CENTER FAN	The right center print head fan in the ribbon deck has failed. Call for service.	Call for service.
RIGHT FAN	The right print head fan in the ribbon deck has failed. Call for service.	Call for service.
REAR FAN	The rear fan for the logic circuit boards has failed. Call for service.	Call for service.
VFU Fmt Inactive	A VFU load sequence has been received and the printer is in "Vertical Tab" mode instead of "Emulation VFU" mode. The sequence will be discarded.	Press the **Clear** pushbutton to clear the fault. The Vertical Format mode is selectable from the SetUp menu.

Note 1: When a defective wire driver or actuator is found, use the Maintenance Menu to find the position of the bad actuator, position (1-66 for 1000/1800-lpm or 1-33 for 500-lpm). (See Chapter 6 “Using the Maintenance Menu” for additional information.)

Electrical Problems

Use Table 7-4 when problems are experienced with the display, pushbuttons, or data printouts.

TABLE 7-4
Electrical Problems

PROBLEM	POSSIBLE CAUSE/CORRECTIVE ACTION
No indication on the display panel when power is turned on.	▪ Make sure that the power cord is securely plugged into the printer and wall outlet. ▪ Check for power at the wall outlet using a known good appliance. ▪ Check the thumbscrews on the ribbon deck. ▪ Check the printer for a blown fuse.
Some pushbuttons are inoperative.	▪ Normal if printer is online. ▪ Offline: Printer may be locked up. Try to print a status sheet as future reference for printer settings. ▪ Recycle the power to the printer and initialize the printer.
Printer does not respond correctly to pushbutton commands.	▪ Invalid configuration may be causing printer to lock up. Turn power off for 15 seconds, and then back on. If problem persists, initialize the printer.
Incorrect or no printout.	▪ Check interface cable connections. ▪ Selected speed (baud rate) may not be compatible with host. Reset serial interface data rate. ▪ Parity selected may not be compatible with host. Reset serial interface parity type. ▪ Interface settings may not be compatible with host. Recheck settings and compare to host protocol settings.

Mechanical Problems

Use Table 7-5 when problems are experienced with paper feeding and print quality.

TABLE 7-5
Mechanical Problems

PROBLEM	POSSIBLE CAUSE/CORRECTIVE ACTION
Paper does not feed properly.	▪ Paper supply in lower enclosure not aligned properly. ▪ Paper snagging on box. Cut top of box off. ▪ Paper not loaded properly. Reload paper and check tractors for proper adjustment.
Paper tearing, paper "walking" out of tractors, elongation of paper pin holes.	▪ Excessive tension on paper. ▪ Readjust paper tension lever, readjust print gap wheel, check right side upper and lower tractors for correct lateral paper tension.
Paper jammed.	▪ Paper jams are most often caused by incorrect paper tension (see above) or misaligned tractors or paper. 1. Turn the print gap wheel to the **LOAD** position and physically clear paper jam. 2. Reload paper, readjust right side tractors, paper tension, and gap. 3. Press **CLEAR** pushbutton to print buffered data and to clear display.
Light printing.	▪ Ribbon worn. Install a new ribbon. ▪ Paper gap too large. Turn print gap wheel for a smaller gap.
Ribbon droops on one side during printing or outer columns of print missing.	▪ Ribbon cartridge improperly installed. Check installation by repeating installation procedure. ▪ Print heads too close to paper. Adjust paper gap setting for thicker paper.
Weak or absent printing in some columns, light or missing dots in adjacent columns, poor print quality in a narrow zone of the print area. **Bad Actuator** or **Driver Circuit** may be displayed.	▪ Check for loose cable connection on print head actuators. ▪ **Bad Actuator** indicates that an actuator or the driver circuit controlling that actuator has failed the printer's test of the circuit. Try replacing the actuator. ▪ **Driver Circuit** is displayed when the printer's self test determines that *ALL* of the actuators or wire drivers are defective. ▪ When either of these occur, call for service. Continue to use printer if light or missing dots can be tolerated temporarily.

Self-test Error Messages

Self-test diagnostics are run:

- During the power-on sequence.
- After initialization by either the control panel keypad.
- After printing.
- When requested from the host by the ESC Q escape sequence. (See *Programmer's Manual* for information on escape sequences.)

The following table shows the display message, fault, and error message. (The error message is used only when requested by ESC Q - See note.) The fault column indicates which circuit board is defective.

NOTE

The error message is used only in the ANSI emulation while using the serial interface. When an ESC Q escape sequence is received, the printer performs a self-test and sends the appropriate error message to the host if a fault is found. DCS = ESC P and ST = ESC \. See *Programmer's Manual* for information on the ANSI emulation and escape sequences.

TABLE 7-6
Diagnostic Fault Codes

DISPLAY	FAULT	CORRECTIVE ACTION
Self Test	Self-test in progress.	None.
TTMI error	Invalid response from TTMI board.	Call for service.
TTMI noresp	No response from TTMI board.	Call for service.
TTMI checksum	TTMI board ROM checksum failure.	Call for service
Shuttle Error	Shuttle cannot stabilize.	Check for paper jam or print gap adjustment. If either condition does not exist, call for service.
Loading----- Please Wait.....	Self-test completed with no errors found, printer software is loading.	None.

SERIAL INTERFACE ERRORS

If the host does not stop sending data when the printer reports busy, the input buffer will eventually fill to capacity. Any additional data sent by the host will be discarded and an error condition will exist. This error may be reported to the operator via GenPtrOpts (Group 1) strap 16. See “GenPtrOpts” in Chapter 3 and Table 3 in Appendix G for additional information.

Parity, Framing and UART overrun characters will be replaced in the data stream with the “*” character.

Strap 16	Type of Error	Display/Print Message	Action performed
Disabled	Parity Error	Parity Error	Replace character with “*”
Disabled	Framing Error	Framing Error	Replace character with “*”
Disabled	UART Overflow Error	UART Overflow	Replace character with “*”
Disabled	Buffer Overflow Error	Buffer Overflow	Lost data after end of Buffer

When Strap 16 is enabled, the action performed is the same as Strap 16 disabled, but a message is displayed and printed. The printer is placed in an off line condition. Press the **CLEAR** pushbutton to continue.

PRINT HEAD REPLACEMENT 5050/5100 (50, 55 OR 60 DBA) CABINET MODEL

The 33 print heads in this printer are identical. If a replacement print head is temporarily unavailable, rearrange the heads so that the defective one is located in an area that is least likely to be used. Relocating the defective head to the far right end of the shuttle would still allow a full 12.8-inch line (128 characters at 10 cpi) to be printed starting at the left.

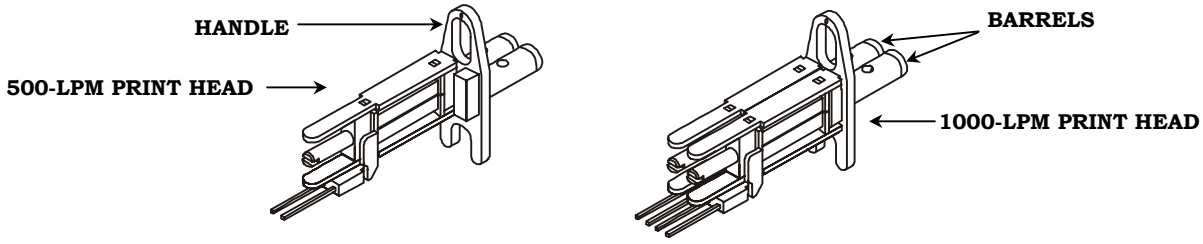


FIGURE 7–2 PRINT HEADS

Print heads for the 500-lpm printers have one actuator. See Figure 7-2. Print heads for the 1000-lpm printer have two actuators.

The actuators for the 500-lpm and 1000-lpm models are physically marked to distinguish them from lower speed model actuators. The brazed block on the 500-lpm and 1000-lpm model has a black connector housing. See Figure 7-3.

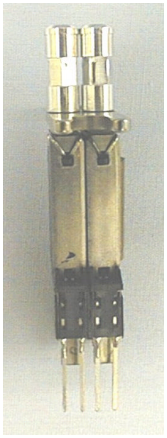


FIGURE 7-3
BLACK BRAZED BLOCK (1000-LPM)

The handle on the actuator is used to lift the print head from the printer. During installation, press down and to the right on the barrels of the print head to position it properly.

The section starting below covers the replacement of the print heads. See Appendix D for information on ordering print head replacement kits.

Note

Do not operate the printer with a print head removed. All 33 heads must be in place with their connectors secured to maintain shuttle balance.

Replacement Procedure

To remove and replace a print head, complete the following steps:

1. Turn the printer power off and disconnect the power cord from the AC source.
2. Open the top cover and set the print gap wheel to the **LOAD** position.
3. Remove the ribbon cartridge.
4. Tilt the control panel up and towards the front of the printer.
5. Starting with the middle one, unscrew the three captive thumbscrews and remove the ribbon deck.

Note

If the printer has been printing for an extended time, allow it to cool for five minutes.

6. Remove the Allen wrench from the foam padding. See Figure 7-4.

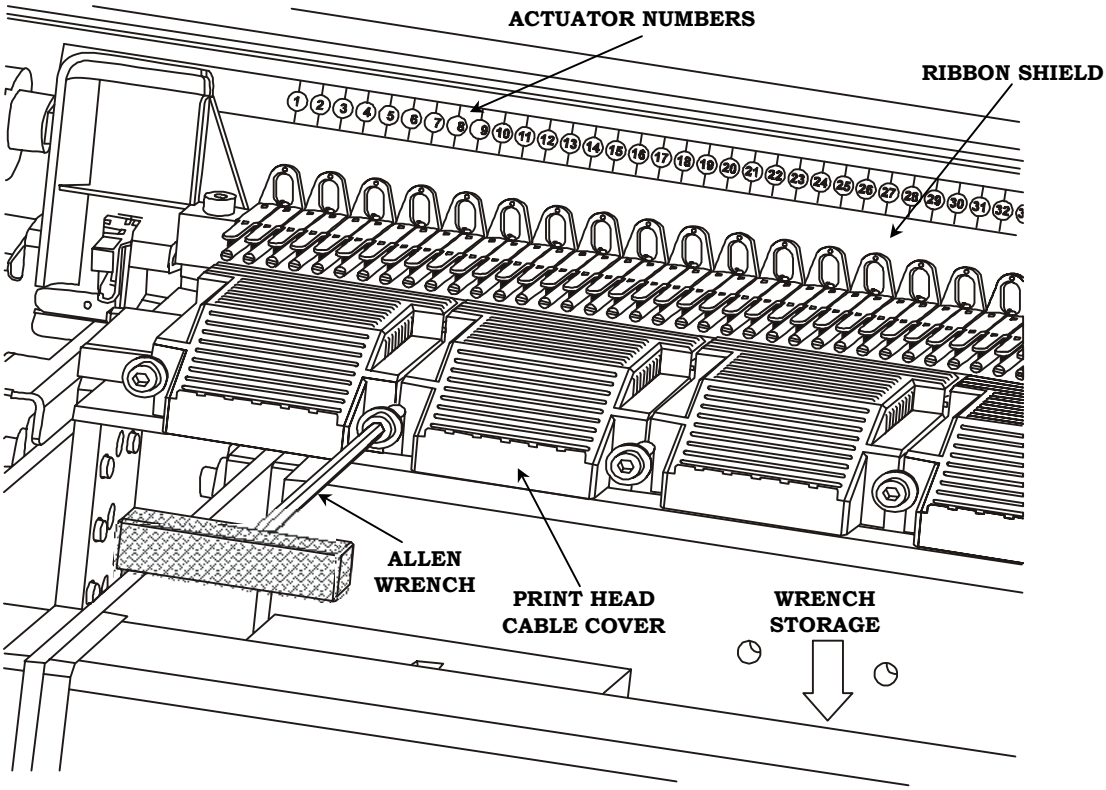


FIGURE 7-4 REPLACEMENT PROCEDURE (1 OF 3)

7. Unscrew the two screws securing the print head cable cover for the print head to be removed. See Figure 7-4. Unscrew the screws until their ends are flush with the end of the cover.

Note

On 500-lpm printers, the cable covers are attached in pairs. Three screws must be loosened to remove the covers.

When removing print heads 6, 17, and 28 on a 1000-lpm printer, two cable covers must be removed. Remove covers 1 and 2 for print head 6, covers 3 and 4 for print head 17, and covers 5 and 6 for print head 28.

8. Remove the cable cover by pulling back on it while wiggling it from side to side. After it is disconnected, lift up on the back of the cover to clear the screws.

9. Each print head number is shown in a large circle on the label underneath the print heads. See Figure 7-4. Lay the Allen wrench down between the dotted lines over the number of the head to be removed. The print head screw underneath the head is difficult to see; however, it can be felt it with the wrench. See Figure 7-5.
10. Loosen the screw 1/2 turn.
11. Grasp the print head by the handle and lift it out of the printer. See Figure 7-5.

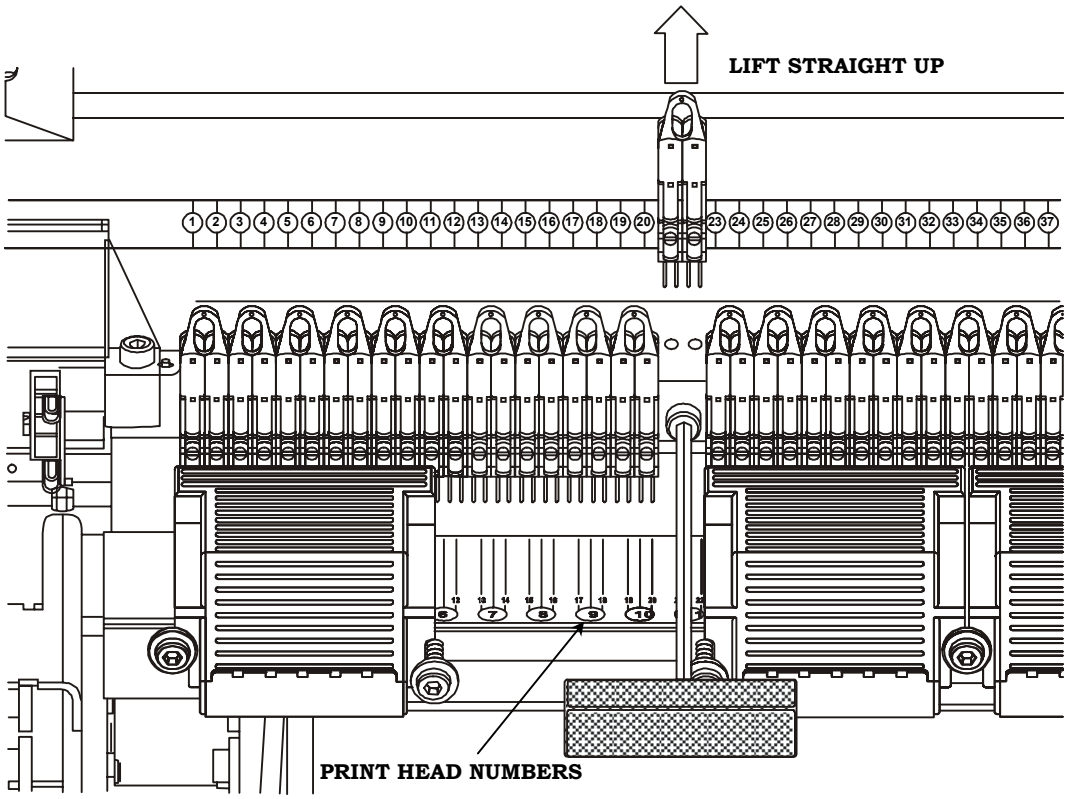


FIGURE 7-5 REPLACEMENT PROCEDURE (2 OF 3)

12. Place the new print head over the print head screw. Press down and to the right on the barrels of the print head and tighten the screw. See Figure 7-6.

Note

If there is not enough or too much clearance for the new print head, loosen the print head screws on all of the heads to the left of the one being replaced. When the new print head is in place, tighten all print head screws starting with the new one and working towards the left side of the printer. Keep each print head snug against the print head immediately to the right.

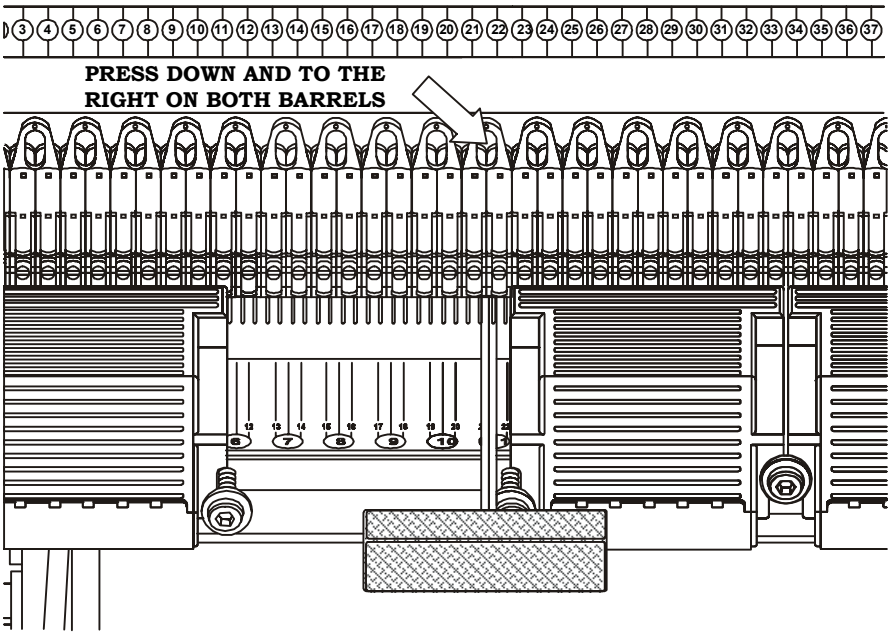


FIGURE 7-6 REPLACEMENT PROCEDURE (3 OF 3)

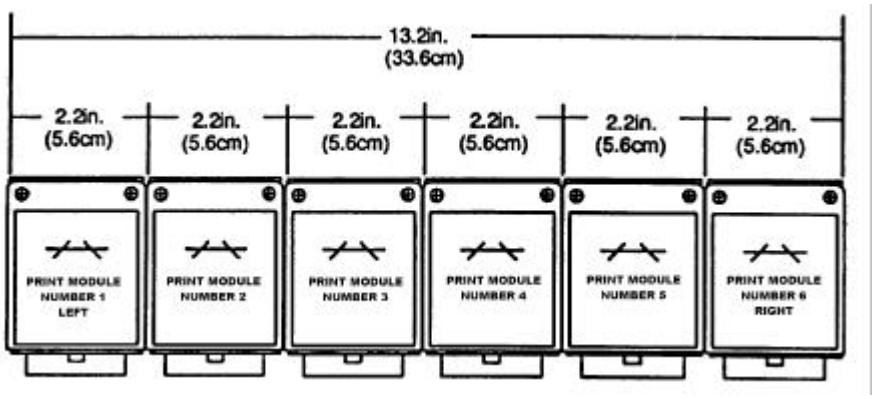
13. Push the cable cover/connector over the connecting pins on the print heads. Wiggle the cover from side to side while pushing the connector onto the pins. When in place, press down on the end of the cover while tightening the cover screws.

14. Install the ribbon deck and a ribbon cartridge. Make sure the thumbscrews are tight on the ribbon deck.

15. Apply power and run the printer again to verify correct operation.

PRINT HEAD REPLACEMENT
5180 (52 OR 55 DBA) CABINET MODEL

The six print actuator modules are identical. If a replacement module is temporarily unavailable, rearrange the modules so that the defective one is located in an area that is least likely to be used. Relocating the defective module to the far right end of the shuttle would still allow a full 11-inch line (110 characters at 10 cpi) to be printed starting at the left.



See Appendix D for information on ordering print actuator modules.

Note

Do not operate the printer with a print module removed. All six modules must be in place to maintain shuttle balance.

Any of the six print modules may be removed and replaced without special tools or equipment. A coin or screwdriver may be used to loosen a single screw on each module, but a screwdriver is preferred to avoid dropping a coin into the printer.

To remove and replace a print module, complete the following steps:

1. Turn the printer power off and disconnect the power cable from the AC source.
2. Open the top access door and set the print gap adjust knob to the Load position (fully clockwise.)
3. Remove the ribbon cartridge.
4. Loosen the two captive thumbscrews (See Figure 7-7) and tilt the print module access panel up out of the way.

5. Remove the section of air duct nearest you by pulling it back, and then up. The duct snaps on and off. See Figure 7-7.

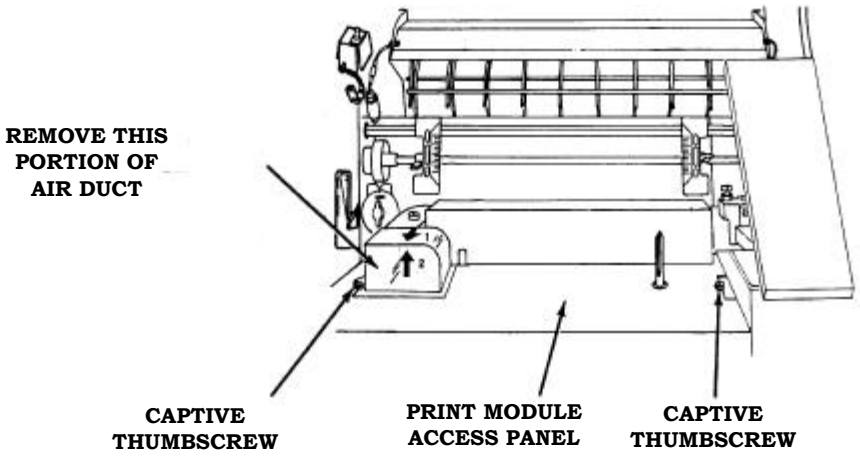


FIGURE 7-7

Note

Print modules must be removed in order from left to right, and replaced in reverse order. For Example, to remove the number 3 module, remove the left first, number 2 module next, and then the third module.

When reassembling, the rightmost module that was removed must be installed first, followed by the next module, and so on, until the left module is in place.

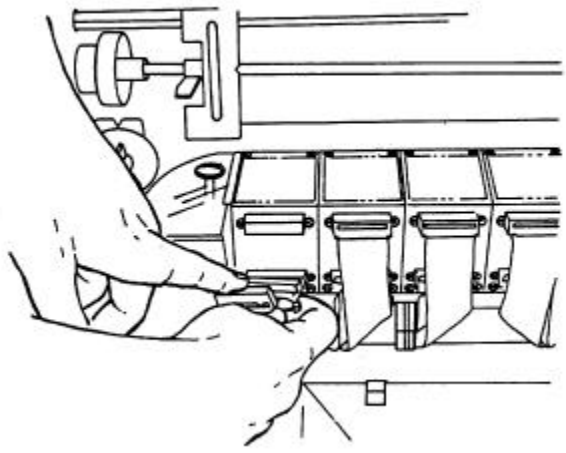


FIGURE 7-8
REMOVING PRINT HEAD CABLES

6. Disconnect the two flat ribbon cables from the modules to be removed. See Figure 7-8.

Caution

Do not attempt to completely unscrew the thumbscrew securing the print module. Damage to the retaining clips will result.

7. Use a screwdriver to loosen the knurled-head screw of the modules to be removed.
8. Rotate each module to be removed, in turn back towards the front of the printer and lift to remove. See Figures 7-10 and 7-11.

FIGURE 7-9
REMOVING FIRST PRINT MODULE

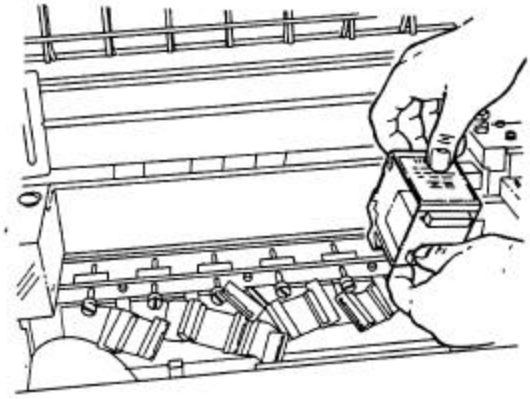


FIGURE 7-10
REMOVING NUMBER 6 PRINT MODULE

Note

Before reinstalling the print actuator modules, be sure the module mounting surface and wire guides are free of foreign matter (ribbon and paper dust.)

9. Replace the modules in reverse order of removal. Holding the module tilted back slightly, place it on the mounting surface and rotate it forward.

10. Slide each module towards the right as far as it will go. Hold it towards the right until the screw is tightened to prevent print gaps between modules.
11. Use a screwdriver to tighten the screw.
12. Reconnect the ribbon cables to the modules.
13. Replace the portion of air duct removed earlier.
14. Lower the print module access panel into position and tighten the two thumbscrews.

Note

The thumbscrews must be threaded properly and tight to actuate the AC interlock switch.

15. Install the ribbon.
16. Turn the print gap adjust knob to the desired setting (normally 1 for single-part forms) and close the top cover.
17. Reconnect the power cable to the AC source and turn the power switch to the on position.

Resetting Print Head Counters

The printer keeps track of how many times each print head is fired during printing and displays this information on a graph.

Counters should be reset only when a new print head has been installed.

Note

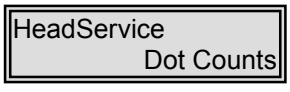
Make sure the correct print head number is displayed before clearing the counter. Once a counter is reset to zero, it can not be set back to its original count.

Use the following procedure to reset the counters:

1. Press the **On Line** pushbutton to place printer offline or in local mode.
2. Press the ▼ (down) menu browse pushbutton to access the menus.

3. Press the ◄ (left) or ► (right) menu browse pushbutton until **Maintenance** is displayed in the lower right corner of the display window.

4. Press the ▼ (down) menu browse pushbutton to access the **Maintenance** menu options. **HeadService** will be displayed in the lower right corner of the display window.
5. Press the ▼ (down) menu browse pushbutton to access the **HeadService** options.



6. Press the ◄ (left) or ► (right) menu browse pushbutton until **Dot Counts** is displayed in the lower right corner of the display window.

7. Press the **Select** pushbutton to access the **Dot Counts** option. The individual print head number will be displayed followed by the number of times the individual print head has been fired. In the example to the left, XX represents the print head number and nnnnnnnnn represents a number. Use the ◄ (left) or ► (right) menu browse pushbutton to locate the desired print head counter.
8. Press the **Select** pushbutton to reset the count. Repeat this step as often as necessary to reset a print head counter.

APPENDIX A UNPACKING INSTRUCTIONS

UNPACKING (5180 52 dBa MODEL)

1. Cut only the two shipping straps that hold the shipping package to the pallet. See Figure A-1.
2. Carefully slide the shipping package and its contents off of the pallet. Move the pallet from the unpacking area.
3. Now cut the two remaining shipping straps that surround the shipping package. See Figure A-2.
4. Lift the top off the shipping package.

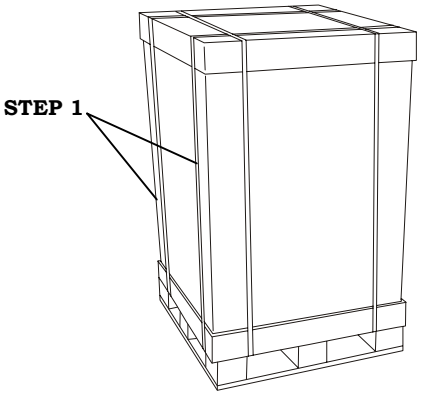


FIGURE A-1

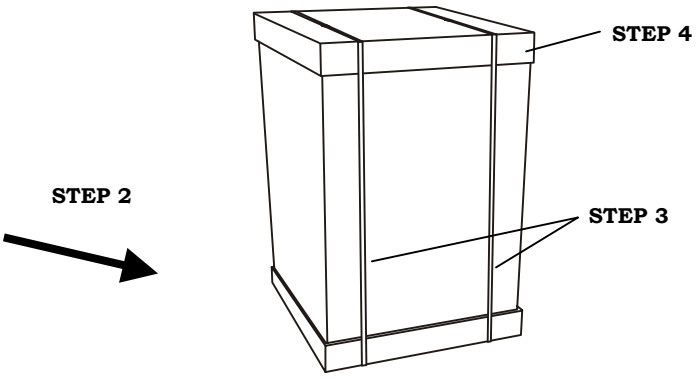


FIGURE A-2

5. Remove the packing material from the top of the printer. See Figure A-3.
6. Lift out the single panel of the shipping package sleeve. See Figure A-3.
7. Now remove the remaining 3-sided package sleeve and the packing material. See Figure A-3.

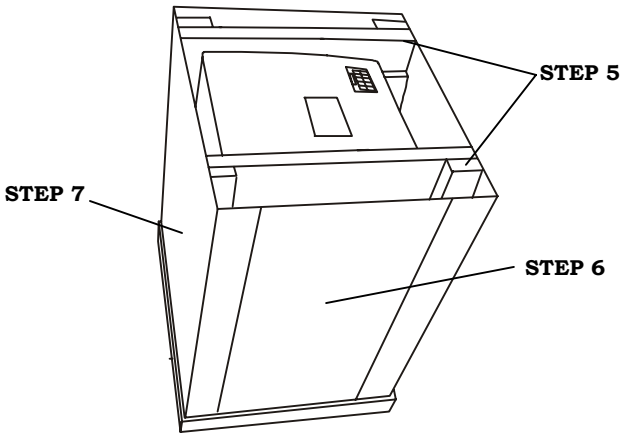


FIGURE A-3

8. Cut the front and back corners of both sides of the shipping package base so that the cardboard will lay flat. See Figure A-4.
9. Cut the plastic bag free from the shipping blocks on each side (taking care to not scratch or cut the printer) and remove from the printer.
10. Tilt the printer slightly from the side where the cardboard was cut and kick the packing block (see figure A-4) out from under the printer. Carefully lower the printer. Repeat to remove the packing block from the opposite side.

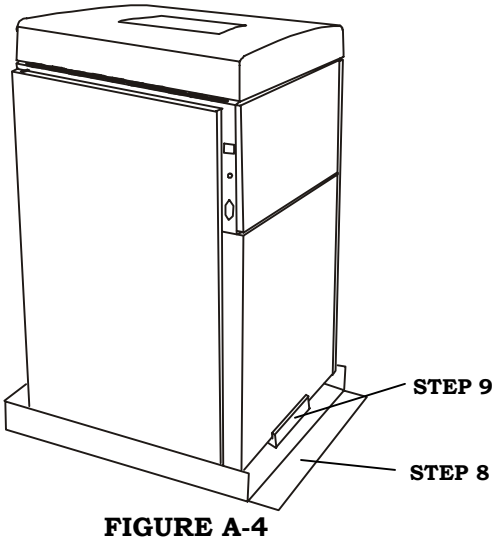


FIGURE A-4

11. Roll the printer off the base of the shipping package.

12. Open the top cover of printer and remove the sheet of packing material covering the control panel.
13. Next, remove the foam packing block from between the paper guides by cutting the plastic tie.
14. To maintain stability in the printer during shipping two brackets are used to attach the print mechanism to the frame. **THESE MUST BE REMOVED BEFORE THE PRINTER IS PUT INTO OPERATION!** Please study Figure A-5 (below) and follow the steps listed below to remove the brackets. An Allen wrench is provided in the manual kit for the removal of the screws.
15. Open the front cabinet door. The shipping brackets are located on the right and left sides of the cabinet. Three screws attach each bracket - one on the top which it is attached to the print mechanism and two on the bottom, which are attached to the cabinet frame.
16. Remove the screw holding the bracket to the print mechanism.
17. Remove the two screws on the bottom of the shipping bracket.

Note

The brackets and screws, as well as the Allen wrench can be reused if the printer is shipped to a new location at a future date.

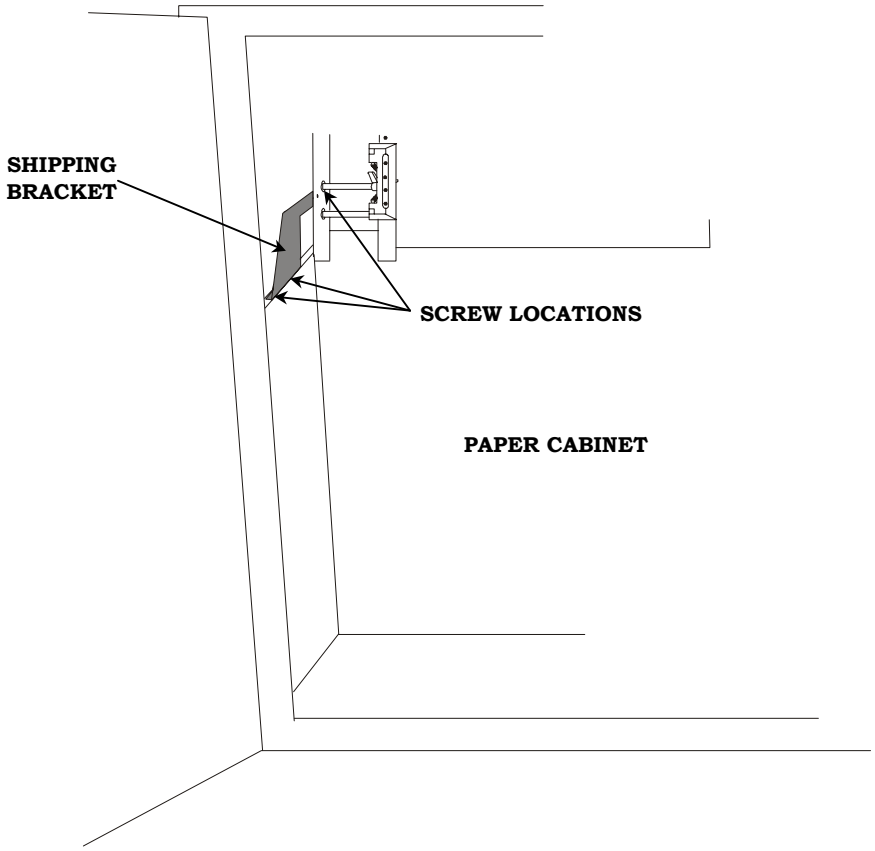


FIGURE A-5

Unpacking (5050/5100 55 DbA Model)

1. Cut the shipping straps. See Figure A-6.
2. Lift the top off the shipping package. See Figure A-6.

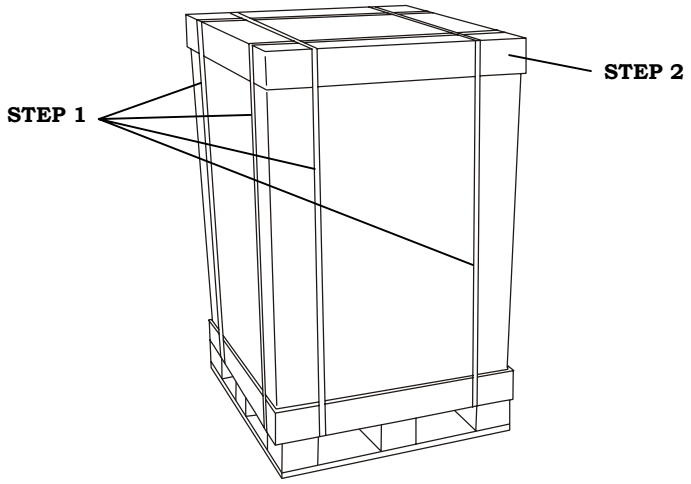


FIGURE A-6

3. Remove any items stored inside the shipping package. See Figure A-7
4. Remove the tray. See Figure A-7.
5. Remove the two pieces of packing material from the top of the printer. See Figure A-7.
6. Lift out the front wall of the shipping sleeve. See Figure A-7.

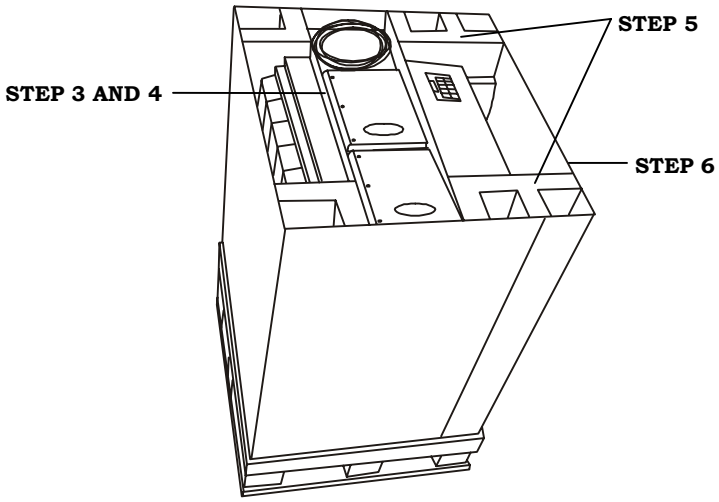


FIGURE A-7

7. Remove the packing material and box containing the paper handling system from in front of the printer. See Figure A-8.
8. Remove the remaining portion of the shipping package sleeve. See Figure A-8.

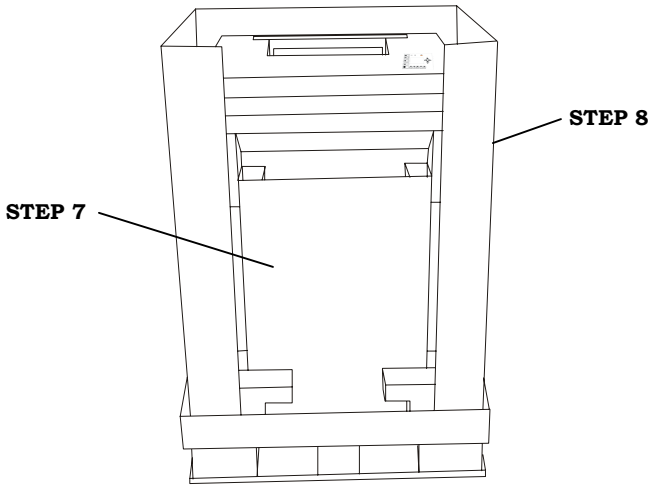


FIGURE A-8

9. Remove the ribbon cartridge box and the packing material from the rear of the printer. See Figure A-9.

CAUTION

The printer is top heavy. Use two people for the next four steps.

10. Using two people, carefully slide the printer, in the shipping package base, off the pallet. This is easiest done with one person on one side of the printer and the other person on the opposite side. Place a foot on the pallet to prevent it from moving, and slide the printer forward off the pallet.

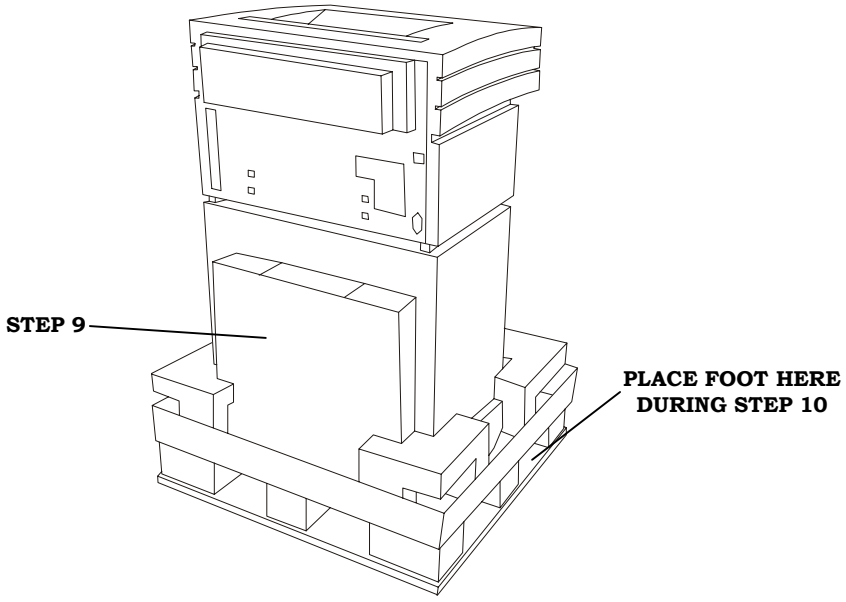


FIGURE A-9

11. Cut the four corners of the shipping package base so that the sides will lay flat. See Figure A-10.

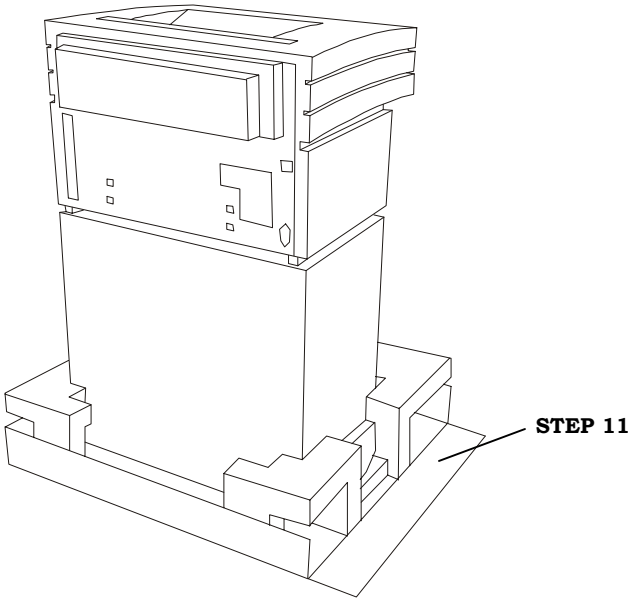


FIGURE A-10

12. Tilt the printer up slightly on one side and kick the packing block out from under the printer. Carefully lower the printer.
13. Tilt the printer up on the other side and remove the other packing block.
14. Remove the plastic bag from the printer.
15. Roll the printer off the base of the shipping package.

Repacking

If this product needs to be repackaged for shipment to another location or for servicing, contact an authorized sales representative for a field repacking kit.

UNPACKING (5180 MODEL)

Printer unpacking is complete when all boxes and accessories have been removed from the lower part of the printer.

Move the printer to a suitable operating location. See Appendix C for considerations on the space and conditions required for normal operation.

Each corner of the printer has a screw-down leveling pad near the wheel. Use the pads to level the printer on uneven surfaces or to prevent the printer from rolling.

Removing the Shipping Blocks and Hardware

Caution

Important: Operation of the printer with the shipping hardware installed will cause excessive vibration and damage. All three shippng blocks and the two striker bar support bolts must be removed.

Note

Due to production changes, the shipping hardware in the printer may vary slightly in type and appearance.

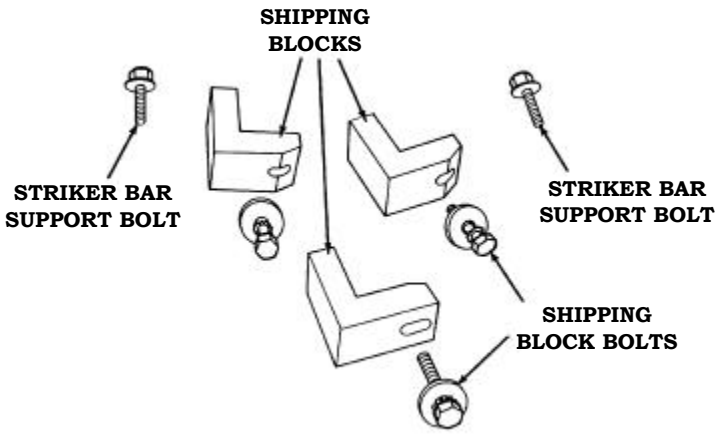


FIGURE A-11
SHIPPING HARDWARE

Use the following procedures to remove the three shipping blocks and two striker bar support bolts before using the printer (See Figure A-11):

1. Open the front access door.

2. Remove the three shipping block bolts from the “ceiling” of the lower enclosure. See Figure A-12. One bolt is located near the front of the printer and the other two are near the back wall of the enclosure.

   To locate the two rear shipping blocks and bolts, enter the lower area of the printer far enough to look behind the paper handling assembly (lower tractors and paper guides.)

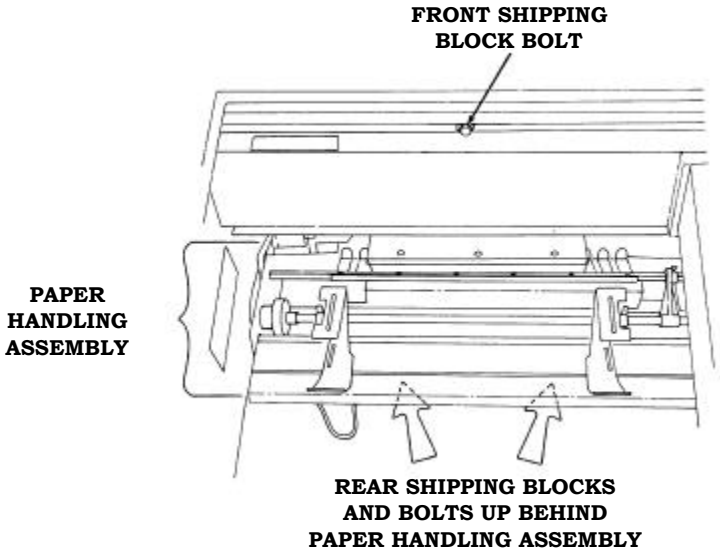


FIGURE A-12
SHIPPING BLOCK BOLTS

3. After removing the bolts, reach up behind the paper handling assembly and remove the two rear shipping blocks. Use a screwdriver to help slide the blocks loose. The front shipping block is removed from inside the top of the printer.
4. Open the top access door.
5. Unscrew the two print module access panel screws (See Figure 7-7 in Chapter 7) and tilt the ribbon shelf up towards the front of the printer.

6. Remove the front shipping block. If necessary, use a screwdriver to slide the blocks free. (See Figure A-13.)

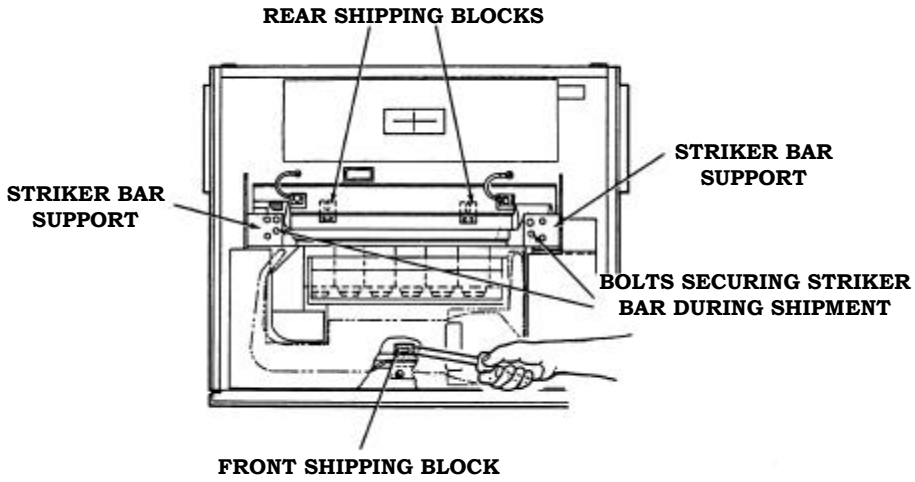


FIGURE A-13
SHIPPING BLOCK LOCATIONS

7. Remove the two striker bar support bolts. (See Figure A-13.)
8. After replacing the print module access panel, make sure the access screws are threaded properly and tightened all the way. The shelf has an AC power interlock switch that removed power when the shelf is raised.

APPENDIX B PAPER SPECIFICATIONS

The printer is designed to use edge-punched (sprocket-fed) fanfold paper. See diagram below. multipart forms should be free of staples or stitching and preferably held together with glue or self-crimping techniques. They need to be of uniform thickness from side-to-side. In the case of special forms and gummed labels, it is best to consult a forms supplier for help in selecting the best forms construction and to try a sample to ensure satisfactory operation. The chart on the next page lists forms that should provide satisfactory performance.

Paper widths from 3 inches (76.2 mm) to 16.54 inches (420.1 mm) and form lengths from 0.3 inch (8.4 mm) to 22 inches (559 mm) can be accommodated. Fanfolds between 5.5 and 12 inches (139.7 and 304.8 mm) apart are recommended.

Note

High humidity may cause unsatisfactory paper feeding and handling. Low humidity may cause static buildup. Make sure you test how well the forms feed under various ambient conditions. Some recycled papers have a higher content of dust and debris, which may require more frequent cleaning of the printer.

The most satisfactory performance from the printer can be achieved with paper of the recommended weights as shown below.

RECOMMENDED PAPER WEIGHTS

Number of Parts	Recommended Paper Weight	Weight of Carbon Insert Sheet
1	15 lb (56 g/m2)	
2, 3, or 4	13.5 lb (50 g/m2)	5 lb (19 g/m2)
5 or 6	12 lb (45 g/m2)	5 lb (19 g/m2)

Recommended maximum weight for single-ply paper is 24 lb. (90 g/m^2). Maximum forms thickness should not exceed 0.025 inches (0.613 mm). Printing materials up to 125# Tag (226 g/m^2) or 110# Index (199 g/m^2) can be handled.

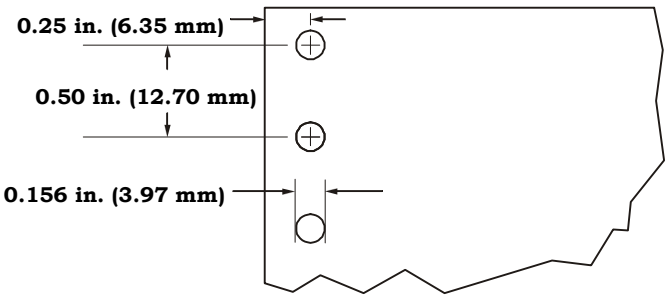


FIGURE B-1 SPROCKET HOLE DETAILS

Company	Catalog Number	Description
Avery	4162	Clear Label, One-wide 3 1/2" X 15/16"
Moore	J21147	24-lb White Wove Envelope with Keen Edge
	J13706	24-lb White Wove Envelope
	J21105	24-lb Ivory Laid Textured Envelope
	8530SG	One-wide Tab Card, Computer Punch Card
	1530SG	Two-wide Tab Card, Computer Punch Card
	1412T, 1412TC	One-part 11" X 14 7/8" 15-lb
	1412T, 1412RH	Two-part 11" X 14 7/8" 15-lb
	1412T, 1412TQ, 1412RH	Three-part 11" X 14 7/8" 15-lb
	1412T, 1412TE	Four-part 11" X 14 7/8" 15-lb
	1412T	Five-part 11" X 14 7/8" 15-lb
	1412T, 1412TQ, 1412NP	Six-part 11" X 14 7/8" 15-lb
	TC7	110-lb Time Cards
	21022	20-lb Laid Textured
	13557	Six-part Self-Mailer
	13060	Seven-part Universal Mailer
	13086	Two-wide 3" X 5" Card 100-lb. White Tag Stock
	29264	Mini-printer Label 3 1/2" X 15/16"
	1410Q	Two-part 14 7/8" X 11"
	1410CKP	One-part 14 7/8" X 11"
	8510	One-part 8 1/2" X 11"
	8512TQ	Three-part 8 1/2" X 11"
	8512TQ	Six-part 8 1/2" X 11"
	13078	3" X 5", 100-lb. White Tag Stock
	9510J	Four-part 9 1/2" X 11"
	9510CK, 9510J, 9510CJ	One-part 9 1/2" X 11"
	1182T	One-part 113/4" X 8 1/2"
	1280J, 1280CK	One-part 12" X 8 1/2"
	1482TA, 1488TH	One-part 14 7/8" X 8 1/2"
	NNSY 4430/26	Four-part 9 1/2" X 11"
	P1-9511-15-00	One-part 9 1/2" X 11" 15-lb
	P1-9511-20-00	One-part 9 1/2" X 11" 20-lb
	13805	One-part 20-lb.
	28084	Label, One-wide 3 1/2" X 15/16"
	28118	Label, Two-wide 3 1/2" X 15/16"
	28142	Label, Three-wide 3 1/2" X 15/16"
	28183	Label, Four-wide 3 1/2" X 15/16"
NCR	2-10-L6	6-part Self-Mailer
	6240174082	8-1/2" X 11" Carbonless 5-part
	211093	Single-part 11" X 14 7/8" 15-lb

APPENDIX C CONSIDERATIONS FOR OPERATION

- Voltage: 120 VAC and 240 VAC ±15% auto range seeking.
- Frequency: 48 to 65 Hz.
- Power Consumption:

	500-LPM	1000-LPM	1800-LPM
Idle	35 Watts	35 Watts	50 Watts
Printing	213 Watts	350 Watts	674 Watts

Dissipated Power (maximum):

500-LPM 400 Watts = 1370 BTU/hour
1000-LPM 524 Watts = 1795 BTU/hour
1800-LPM 1167 Watts = 3997 BTU/hour

- Weight:

Cabinet Model	**Unboxed**	**Boxed**
5050/5100 (55 dBa)	175 lbs. 97.3 kg	220 lbs. 99.7 kg
5050/5100 (50 dBa)	295 lbs. 133.8 kg	340 lbs. 154.2 kg
5050/5100 (60 dBa)	169 lbs. 214 lbs.	76.8 kg 97.3 kg
5180 (55 dBa)	320 lbs. 145 kg	404 lbs. 138 kg
5180 (52 dBa)	420 lbs. 191 kg	462 lbs. 210 kg

- Overall size:

Cabinet Model	**Physical Size (HxWxD)**
5050/5100 (55 dBa)	42 x 26.5 x 25 in. 1077 x 679 x 635 mm
5050/5100 (50 dBa)	42 x 27 x 29 in. 1077 x 686 x 737 mm
5050/5100 (60 dBa)	39 x 26.6 x 25 in. 991 x 679 x 635 mm
5180 (55 dBa)	48 x 29 x 25 in. 1219 x 737 x 635 mm
5180 (52 dBa)	42 x 30 x 29 in. 1080 x 760 x 725 mm

An additional 20 inches (50.8cm) of clearance is required in front of the printer to open the pedestal door.

An additional 22 inches of clearance is required in the rear of the 5050/5100 (50 dBa) Cabinet Model printer to open the rear cabinet door.

An additional 20 inches of clearance is required in the rear of the 5180 (52 dBa) Cabinet Model printer to open the rear cabinet door.

- Paper Handling:

5180 (55 dBa) Cabinet Model – allow an additional 17 inches of clearance in the rear of the printer for the paper handling shelf option.

5050/5100 (55 dBa) Cabinet Model – allow an additional 10 inches of clearance in the rear of the printer for the paper handling shelf option.

- Operating Environment:

Temperature	39 to 104° F4 to 40° C
Humidity	15 to 90% noncondensing

Note

For UK installations, a 10-amp fuse must be installed on the mains lead.

APPENDIX D
PARTS, ACCESSORIES, CONSUMABLES AND OPTIONS

The items listed below are available from an authorized GENICOM distributor, service agent, or from GENICOM headquarters at the following address:

GENICOM Corporation
Parts Sales
1 Genicom Drive
Waynesboro, Virginia 22980-1999
1-800-535-4364
FAX: (540) 949-1890
Electronic Bulletin Board: (540) 949-1576

(Check for current printer drivers and the updated replacement and spare part listings)

When ordering, specify description, part or catalog number, and quantity desired. (Have the model number of the printer available).

Description	Part or Catalog Number
5050/5100 Ribbon Cartridge (50 M)	4A0040B02
5050/5100 Ribbon Cartridge (75 M)	4A0040B05
5050/5100 Ribbon Cartridge Fast Drying – Special Applications	4A0040B11
5180 Ribbon Cartridge (125 M) Long Life	44A509160G02
5180 Ribbon Cartridge (75 M)	44A509160G03
5180 Ribbon Cartridge (50 M) IR Readable	44A509160G04
5180 Ribbon Cartridge Fast Drying – Special Applications	44A509160G08

APPENDIX E. FONT PRINT SAMPLES

The following samples were printed at 10 characters per inch (CPI) at 6 lines per inch (LPI). Chapter 3 and 4 has complete information on available font styles and CPI/LPI settings.

HIGH SPEED FONT

```
0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdef
123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefg
23456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefgh
3456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghi
456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghij
56789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijk
6789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijkl
789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklm
```

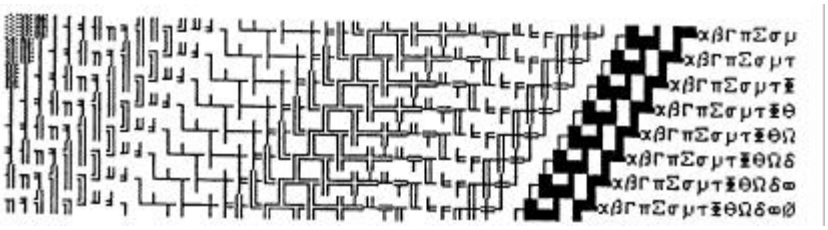
GOTHIC DRAFT – DATA PROCESSING FONT

```
0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdef
123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefg
23456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefgh
3456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghi
456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghij
56789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijk
6789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijkl
789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklm
```

GOTHIC NEAR LETTER QUALITY

```
0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdef
123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefg
23456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefgh
3456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghi
456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghij
56789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijk
6789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijkl
789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklm
```

CHARACTER GRAPHICS FONT



CORRESPONDENCE FONT

(BETTER QUALITY THAN DRAFT-BETTER SPEED THAN NLQ)

OCR-A FONT

OCR-B FONT

COURIER NLQ FONT

ITALIC NLQ FONT

HIGH SPEED 2

```
0123456789:;<=>?@ABC !"#$%&'()*+,-./0123456789:;<=>?@ABCDEF(
123456789:;<=>?@ABC !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGI
23456789:;<=>?@ABC !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGH
3456789:;<=>?@ABC !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHI
456789:;<=>?@ABC !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJ
56789:;<=>?@ABC !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJK
6789:;<=>?@ABC !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKL
```

CANADIAN PST

Appendix F. Flash Upgrade Instructions

This printer is equipped with flash memory. Should an upgrade be necessary, a PC may be used to provide the upgrade via the printer's parallel port.

Note

Update may be performed using another interface port, such as Ethernet, Twinax, Coax, etc. Substitute the appropriate drive letter and interface port for the type of interface used for upgrading the printer.

1. Load the new flash software file <filename.lod> to a convenient folder on a PC storage media, such as the "C:" hard drive.
2. Connect a six foot Centronics parallel cable from PC's LPT1 port to the standard parallel port on the back of the printer.
3. (Detach any other cables that may be connecting the printer to a host computer in order to prevent possible data transmission problems).

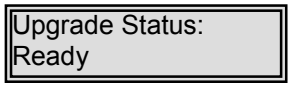
Use the following steps to perform a flash software upgrade:

Note

Make sure the printer is connected to the host to be used for upgrading code before proceeding.

1. Place the printer in a status to receive a flash upgrade using the following procedure:
2. Place the printer into an OFFLINE state via the OFFLINE/ONLINE control panel key.
3. Select **Menu**, then **Maintenance** via the menu browse keys.

4. While in the **Maintenance** menu, press the ◄ (left) or ► (right) menu browse pushbutton until **Upgrade Flash** is displayed in the lower right corner of the display window.



5. Press the **Select** pushbutton to upgrade the printer. **Ready** will be displayed in the lower left corner of the display window. To exit this function without upgrading the software, re-cycle the power to the printer.
6. Use the following procedure to continue the upgrade flash procedure:
7. Bring up a DOS window on your PC. Change to the directory where the upgrade file was stored. At the DOS command line in the PC type the following command:
8. **C>copy/b <filename>.lod LPT1:**
9. **<filename>** is the name of the upgrade file used for the software upgrade.) **.lod** is the file name extension required for the upgrade. C> is the drive letter for the PC.
10. Press the Return (also known as Enter) key on the PC, monitoring the LCD display for error messages.

11. When upgrade is complete, the printer will re-boot itself and return to an online status. If the printer does not reboot, disconnect the cable from the host and recycle the power. Printer will power up in the online status.

APPENDIX G DESCRIPTION OF STRAPPING OPTIONS

This appendix contains descriptions for firmware strap settings, which are changed using the menu options available. See “Using the Set Up Menu” in Chapter 5 for procedures to enable/disable an option (setting.)

LEGACY PARALLEL HARDWARE STRAP DEFINITIONS

Strap meanings are the same for Centronics, DP (Short) and DP (Long); however, the straps are set individually for each. If there is a Centronics and DP (Short) both installed each may be setup separately.

Table 1
I/F Straps

H Bits 01-32	Meaning if Enabled	Meaning if Disabled
01	Prime High = Buffer Clear.	Prime Low = Buffer Clear.
02	Interrupt on all Control Codes.	Interrupt disabled on all Control Codes, except LF, VT, FF, CR, DC1 and DC3.
03	DEL does not cause an Interrupt.	DEL causes an Interrupt.
04	DEL does not cause Prime.	DEL causes Prime.
05	Reserved.	Reserved.
06	Reserved.	Reserved.
07	Underline character treated as CR.	Underline character printed.
08	PI Lead causes Interrupt.	PI Lead does not cause Interrupt.
09	ACK lead does not reflect ONLINE/LOCAL status. 05 must be enabled.	ACK lead reflects ONLINE/LOCAL status.
10	Character conversion to space enabled. (See 41-48.)	Character conversion to space disabled.
11	CR not decoded.	CR will generate an Interrupt.
12	FF not decoded.	FF will generate an Interrupt.
13	LF not decoded.	LF will generate an Interrupt.
14	VT not decoded.	VT will generate an Interrupt.
15	DC3 not decoded.	DC3 will generate an Interrupt.
16	DC1 not decoded.	DC1 will generate an Interrupt.
17	Busy does not reflect ACK.	Busy reflects ACK.
18	Busy/Demand per character.	No Busy/Demand per character.
19	No software control of Busy.	Software control of busy.
20	Busy does not reflect (ONLINE/LOCAL) FAULT/PO status.	Busy reflects (ONLINE/LOCAL) FAULT/PO status.
21	Busy does not reflect (FAULT) ONLINE/LOCAL status.	Busy reflects (FAULT) ONLINE/LOCAL status.
22	Busy does not reflect (PO) ONLINE/LOCAL/PO status.	Busy reflects (PO) ONLINE/LOCAL/PO status.
23	ACK does not reflect PO.	ACK reflects PO.
24	ACK does not reflect FAULT.	ACK reflects FAULT.
25	Data leads 0-7 are active high.	Data leads 0-7 are active low.
26	Busy is active high.	Busy is active low.
27	PI is active high.	PI is active low.
28	PI is enabled.	PI is disabled.
29	STB is active high.	STB is active low.
30	SELECT is active high.	SELECT is active low.
31	PO is active high.	PO is active low.
32	FAULT is active high.	FAULT is active low.

Table 1 (Continued)
I/F Straps

H Bits 33-64	Meaning if Enabled	Meaning if Disabled
33	Disable Demand delay.	Enable Demand delay.
34-35	Set ACK delay from Strobe.	34 / 35 / Delay Disable / Disable / None Disable / Enable / 1 µsec Enable / Disable / 2 µsec Enable / Enable / 3 µsec
36-37	Set ACK Pulse Width.	36 / 37 / Width Disable / Disable / None Disable / Enable / 1 µsec Enable / Disable / 2 µsec Enable / Enable / 3 µsec
38	Reserved.	Reserved.
39	Reserved.	Reserved.
40	Reserved.	Reserved.
41-48	Used with strap 10 to select space character substitution. 41 corresponds with Bit 1 of the character code.	
49-64	Reserved.	Reserved.

LEGACY PARALLEL SOFTWARE STRAP DEFINITIONS

Table 2
I/F Straps

Bits 01-32	Meaning if Enabled	Meaning if Disabled
01-03	Reserved for future use.	Reserved for future use.
04	No Prime on Select.	Prime on Select.
05	No Fault on PO or Deselect.	Fault on PO or Select.
06-07	Reserved for future use.	Reserved for future use.
08	Pass 8 bit Data.	Bit 8 equals 0.
09-32	Reserved for future use.	Reserved for future use.
Bits 33-64	**Meaning if Enabled**	**Meaning if Disabled**
33-39	Reserved for future use.	Reserved for future use.
40	Disable Parallel timeout.	Parallel timeout. Enabled.
41-64	Reserved for future use.	Reserved for future use.

GENERAL PRINTER OPTIONS DEFINITIONS

Table 3
Group 1

Straps	Meaning if Active	Meaning if Inactive
01	TOF set move forward - use forward motion.	TOF set move forward - use reverse motion.
02	Paper Low = PO Fault - paper out fault.	Paper Low = PO Fault - paper low fault.
03	Deselect on Paper Low - enable if 02 is enabled.	Deselect on Paper Low – disabled.
04	Auto low paper print to end of last sheet - override 02 and 03.	Auto low paper print to end of last sheet disabled.
05	Paper Jam Fault unreported.	Paper Jam Fault reported.
06	Reverse paper motion permitted on PL.	Reverse paper motion caused PO Fault.
07	Autoview feature enabled.	Autoview feature disabled.
08	Enable TTMI kick start enabled.	Enable TTMI kick start disabled.
09	Truncate slews at TOF enabled.	Truncate slews at TOF disabled.
10	Ribbon weld fault disabled.	Ribbon weld fault enabled.
11	Descending draft characters descending.	Descending draft characters non-descending.
12	Descending NLQ characters descending.	Descending NLQ characters non-descending.
13	CPI reset at font change - cpi reset to 10 cpi.	CPI reset at font change - cpi retained.
14	Derive 12 cpi from 10cpi.	Derive 12 cpi from 13 cpi.
15	Derive 15 cpi from 16 cpi.	Derive 15 cpi from 13 cpi.
16	Enable Serial I/F error print - display/print serial I/F errors.	Enable Serial I/F error print - “*” for Serial I/F errors.
17-32	Reserved for future use.	Reserved for future use.

Table 4
Group 2

Straps	Meaning if Active	Meaning if Inactive
01	Repeat bell during fault - repeated rings.	Repeat bell during fault - single ring.
02	Disable bell disabled.	Disable bell enabled.
03	Enable slashed zero - slashed zero.	Enable slashed zero - normal zero.
04	Power-up state - online state.	Power-up state - local state.
05	Power-up in last state - use last state.	Power-up in last state - use strap 4.
06	Menu exit condition - exit after 1 minute.	Menu exit condition - no exit on inactive.
07	Top-of-Form control - disable TOF on remote.	Top-of-Form control - enable TOF on remote.
08	Received DC1-DC3 operation - Select/Deselect..	Received DC1-DC3 operation - No Select/Deselect..
09	Substitute EURO character (8859-X @ 0XA4) - substitute EURO character.	Substitute EURO character (8859-X @ 0XA4) - no EURO substitution.
10	Page mode imaging enabled.	Page mode imaging disabled.
11	Paper at top of Bar Code after printing - top of BC after print.	Paper at top of Bar Code after printing - no position change after BC.
12	Staggered Barcodes - enable staggered barcodes.	Staggered Barcodes - disable staggered barcodes.
13	Paper at top of OVERSIZE after printing - top of OV after print.	Paper at top of OVERSIZE after printing - no position change after OV.
14	Substitute EURO character (all pages @ 0XFE - Windows) - substitute EURO character.	Substitute EURO character (all pages @ 0XFE - Windows) - no EURO substitution.
15	Rotate Bar Code Mode - rotate relative to orientation.	Rotate Bar Code Mode - rotate about portrait x,y.
16	Force bar code new page - move to new page if BC > bottom margin.	Force bar code new page - disable forced new page.
17-32	Reserved for future use.	Reserved for future use.

EMULATION OPTION DESCRIPTIONS

Table 5
ANSI (4800)

Options	Meaning if Active	Meaning if Inactive
01	SI/SO selects Oversize and Bar code-select via SI/SO.	SI/SO selects Oversize and Bar code-no selection via SI/SO
02	Reserved.	Reserved.
03	ESC C control - disable ESC C sequence.	ESC C control - reset when ESC C is received.
04	Reserved.	Reserved.
05	Reserved.	Reserved.
06	GENCIC control - set (80-8F as control).	GENCIC control - reset (80-9F per GENCS2).
07	GENCS2 control - set (80-9F, 15, print).)	GENCS2 control - reset (80-9F ignore)
08	Line grid control (LF = next lpi grid)	Line grid control (LF = LF)
09	Dbl strike/shadow control - Double Strike	Dbl strike/shadow control - Shadow.
10	Character Graphics/Postnet - Char Graphics in SCR[2] esc[12m	Character Graphics/Postnet - Canad. Postnet in SGR[2] esc[12m
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 6
ANSI (4410)

Options	Meaning if Active	Meaning if Inactive
01	SI/SO selects Oversize and Bar code-Select.	SI/SO selects Oversize and Bar code-Ignore SI/SO
02	Reserved.	Reserved.
03	ESC C control - disable ESC C sequence.	ESC C control - reset when ESC C is received.
04	Reserved.	Reserved.
05	Reserved.	Reserved.
06	GENCIC control - set (80-8F as control).	GENCIC control - reset (80-9F per GENCS2).
07	GENCS2 control - set (80-9F, 15, print).)	GENCS2 control - reset (80-9F ignore)
08	Line grid control (LF = LF)	Line grid control (LF = LF)
09	Dbl strike/shadow control - Double Strike	Dbl strike/shadow control - Shadow.
10	Character Graphics/Postnet - Char Graphics in SCR[2] esc[12m	Character Graphics/Postnet - Canad. Postnet in SGR[2] esc[12m
11	Bit 8 control - 8th bit is alternative font.	Bit 8 control - 8th bit selects 256 characters.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 7
Proprinter III XL

Options	Meaning if Active	Meaning if Inactive
01	RESERVED (Slashed Zero) This strap is a copy of the upper level ENG_OP_SLASH_ZERO strap.	
02	Line Length - 8 inches.	Line Length - 13.2 inches.
03	Condensed Print - condensed @ 12cpi = 12 cpi.	Condensed Print - condensed @ 12cpi = 20 cpi.
04	Initial Code page – Multinational.	Initial Code page – USA.
05	Character Set Select default - Character set 2.	Character Set Select default - Character set 1.
06	Form Length - 12" Form.	Form Length - 11" Form.
07	Reserved.	Reserved.
08	Reserved.	Reserved.
09	Reserved.	Reserved.
10	Reserved.	Reserved.
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 8
EPSON FX286e

Options	Meaning if Active	Meaning if Inactive
01	Condensed Print - enabled.	Condensed Print - disabled.
02	Italics font control - codes 128-255 are Code Page.	Italics font control - codes 128-255 are Italics.
03	Default Print Quality - default print quality is NLQ.	Default Print Quality - default print quality is draft.
04	Default Perf Skip - 1 inch per skip default.	Default Perf Skip - No perf skip default.
05	Reserved.	Reserved.
06	Reserved.	Reserved.
07	Reserved.	Reserved.
08	Reserved.	Reserved.
09	Reserved.	Reserved.
10	Reserved.	Reserved.
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 9
ESC P2

Options	Meaning if Active	Meaning if Inactive
01	Condensed Print - enabled.	Condensed Print - disabled.
02	Italics font control - codes 128-255 are Code Page.	Italics font control - codes 128-255 are Italics.
03	Default Print Quality - default print quality is NLQ.	Default Print Quality - default print quality is draft.
04	Default Perf Skip - 1 inch per skip default.	Default Perf Skip - No perf skip default.
05	Reserved.	Reserved.
06	Reserved.	Reserved.
07	Reserved.	Reserved.
08	Reserved.	Reserved.
09	Reserved.	Reserved.
10	Reserved.	Reserved.
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 10
Printronix Pseries

Options	Meaning if Active	Meaning if Inactive
01	Overstrike - enabled.	Overstrike - disabled.
02	ACK selects LPI for 1 line - 10.3 LPI.	ACK selects LPI for 1 line - 8 LPI.
03	VFU load - PI required for VFU load.	VFU load - No PI required for VFU load.
04	Defines codes 80 to 9F - 80 to 9F are printable.	Defines codes 80 to 9F - 80 to 9F are control codes.
05	Backspace (BS = BS).	Backspace (BS = Double High).
06	Reserved.	Reserved.
07	Reserved.	Reserved.
08	Reserved.	Reserved.
09	Reserved.	Reserved.
10	Reserved.	Reserved.
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 11
Printronix P300/600

Options	Meaning if Active	Meaning if Inactive
01	Edit Line (CR = CR).	Edit Line (CR = edit mode).
02	Restrict LPI (restrict lpi to 8).	Restrict LPI (non-restricted lpi).
03	VFU load - PI required for VFU load.	VFU load - No PI required for VFU load.
04	Reserved.	Reserved.
05	Reserved.	Reserved.
06	Reserved.	Reserved.
07	Reserved.	Reserved.
08	Reserved.	Reserved.
09	Reserved.	Reserved.
10	Reserved.	Reserved.
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 12
Dec LG Plus

Options	Meaning if Active	Meaning if Inactive
01	Unsolicited Reporting - enabled (See strap S-2).	Unsolicited Reporting - disabled (default).
02	Unsolicited status report size - extended unsolicited reports.	Unsolicited status report size - brief unsolicited reports.
03	Reserved.	Reserved.
04	Reserved.	Reserved.
05	Reserved.	Reserved.
06	Reserved.	Reserved.
07	Reserved.	Reserved.
08	Reserved.	Reserved.
09	Reserved.	Reserved.
10	Reserved.	Reserved.
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

Table 13
Dec PPL3

Options	Meaning if Active	Meaning if Inactive
01	Condensed printing in ISO-LATIN9 code page.	Condensed printing in ISO-LATIN9 code page.
02	Reserved.	Reserved.
03	Reserved.	Reserved.
04	Reserved.	Reserved.
05	Reserved.	Reserved.
06	Reserved.	Reserved.
07	Reserved.	Reserved.
08	Reserved.	Reserved.
09	Reserved.	Reserved.
10	Reserved.	Reserved.
11	Reserved.	Reserved.
12	Reserved.	Reserved.
13	Reserved.	Reserved.
14	Reserved.	Reserved.
15	Reserved.	Reserved.
16	Reserved.	Reserved.

APPENDIX H.
INTERFACE EMULATION COMPATIBILITY

Printer Emulation Vs Filter

Printer Emulation	Filter					
	QMS	IGP	SCS	IPDS	Hex Print	Hex Pass
ANSI (4800)	X	X	X	X	X	X
ANSI (4410)	X	X			X	X
FX286e	X	X			X	X
Proprinter IIIXL	X	X			X	X
P300/600	X	X			X	X
Dec LG+					X	X
Pseries					X	X
DEC PPL/3					X	X
ESC P2					X	X

Note: Only one printer emulation can be active. If SCS and IPDS Filter are selected on any port (Expansion 1 or 2), ANSI (4800) printer emulation is automatically selected. Only two Filters may be active on an I/F port.
QMS and IGP are mutually exclusive. SCS and IPDS are mutually exclusive.

Filter Combinations

	QMS	IGP	SCS	IPDS	Hex Print	Hex Pass
QMS			X		X	X
IGP			X		X	X
SCS	X	X			X	X
IPDS					X	X
Hex Print	X	X	X	X		X
Hex Pass	X	X	X	X	X	

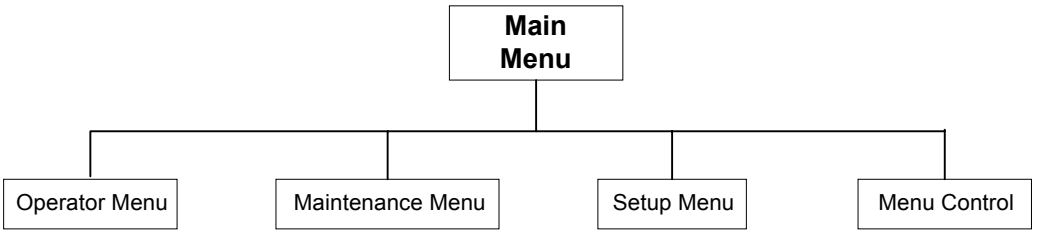
Interface Port and Filter Compatibility

I/F Port	Filter				
	QMS	IGP	SCS	IPDS	Hex Print
RS 232/422 Serial	X	X			X
1283 Parallel	X	X			X
Ethernet 10 Bt/10B2	X	X		(future)	X
Ethernet 10/100 base T	X	X		(future)	X
Token Ring	X	X		(future)	X
IBM TX/CX	X	X	X	X	X
Legacy CENTRONICS	X	X			X
Legacy DPLL	X	X			X
Legacy DPSL	X	X			X

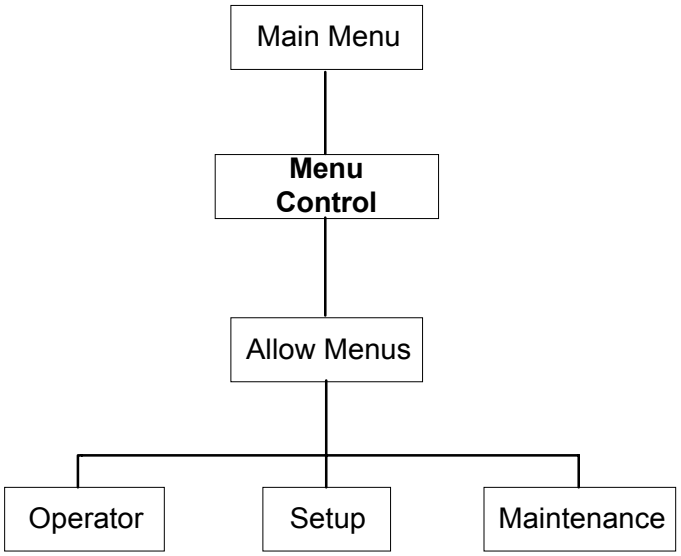
Horizontal/Vertical Tab Id Maximum Slots

Printer Emulation	Maximum Tab Id Slots	
	Horizontal	Vertical
ANSI (4800)	22	12
ANSI (4410)	22	12
FX286e	32	32
Proprinter IIIXL	32	32
P300/600	32	32
Dec LG+	32	67
Pseries	32	32
DEC PPL/3	32	64
ESC P2	32	32

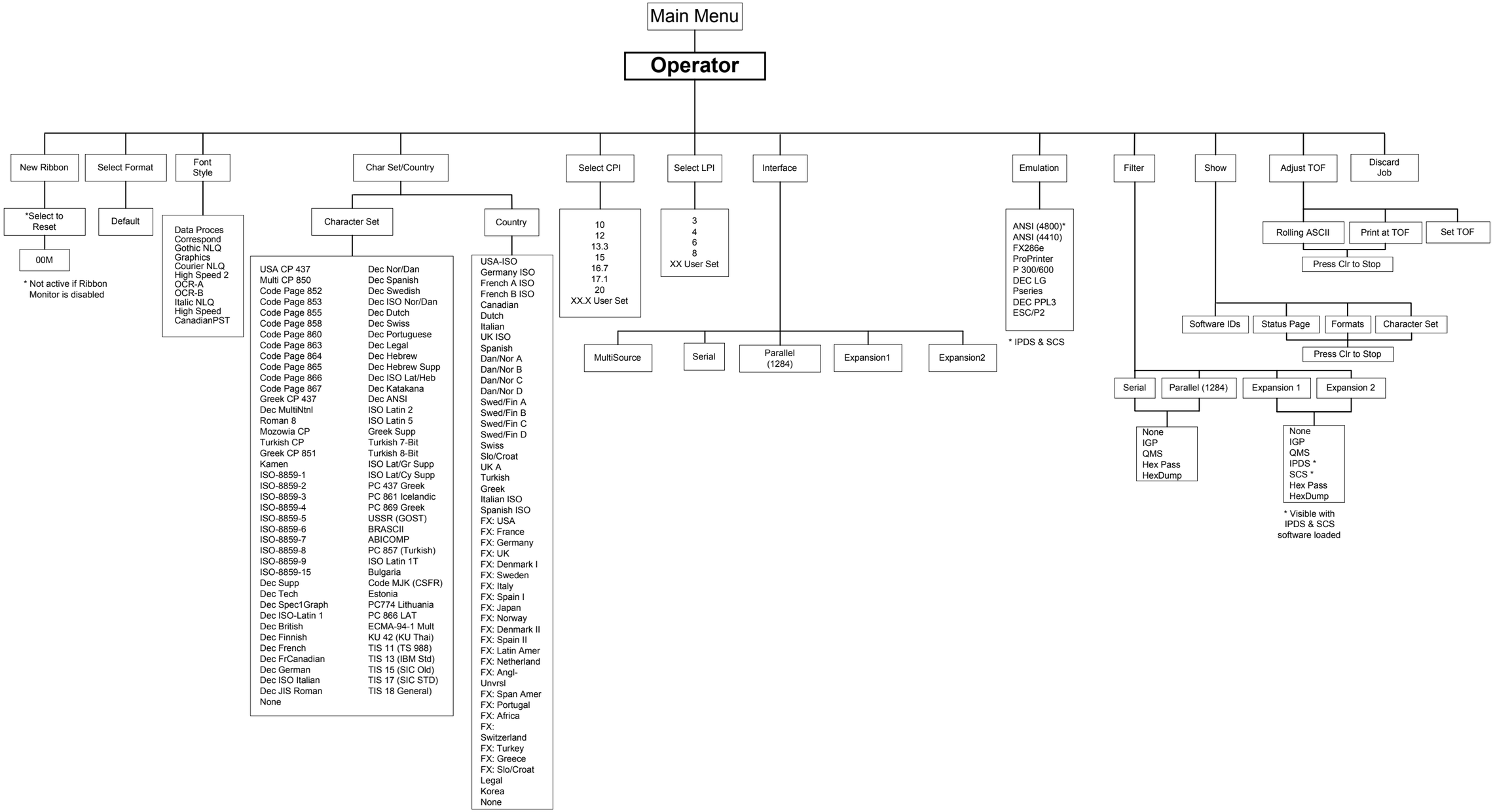
APPENDIX I. LCD MENU MAPS

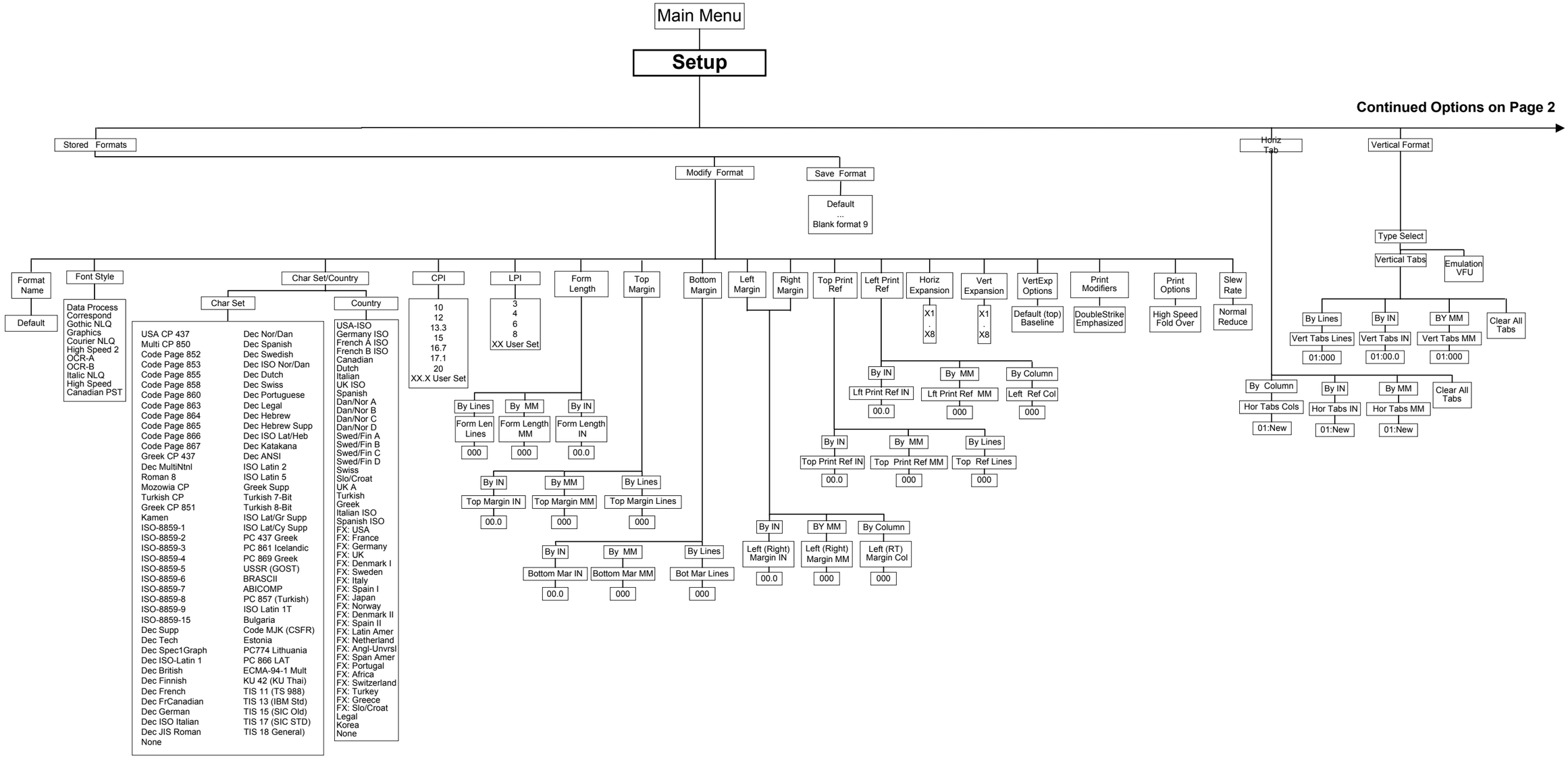


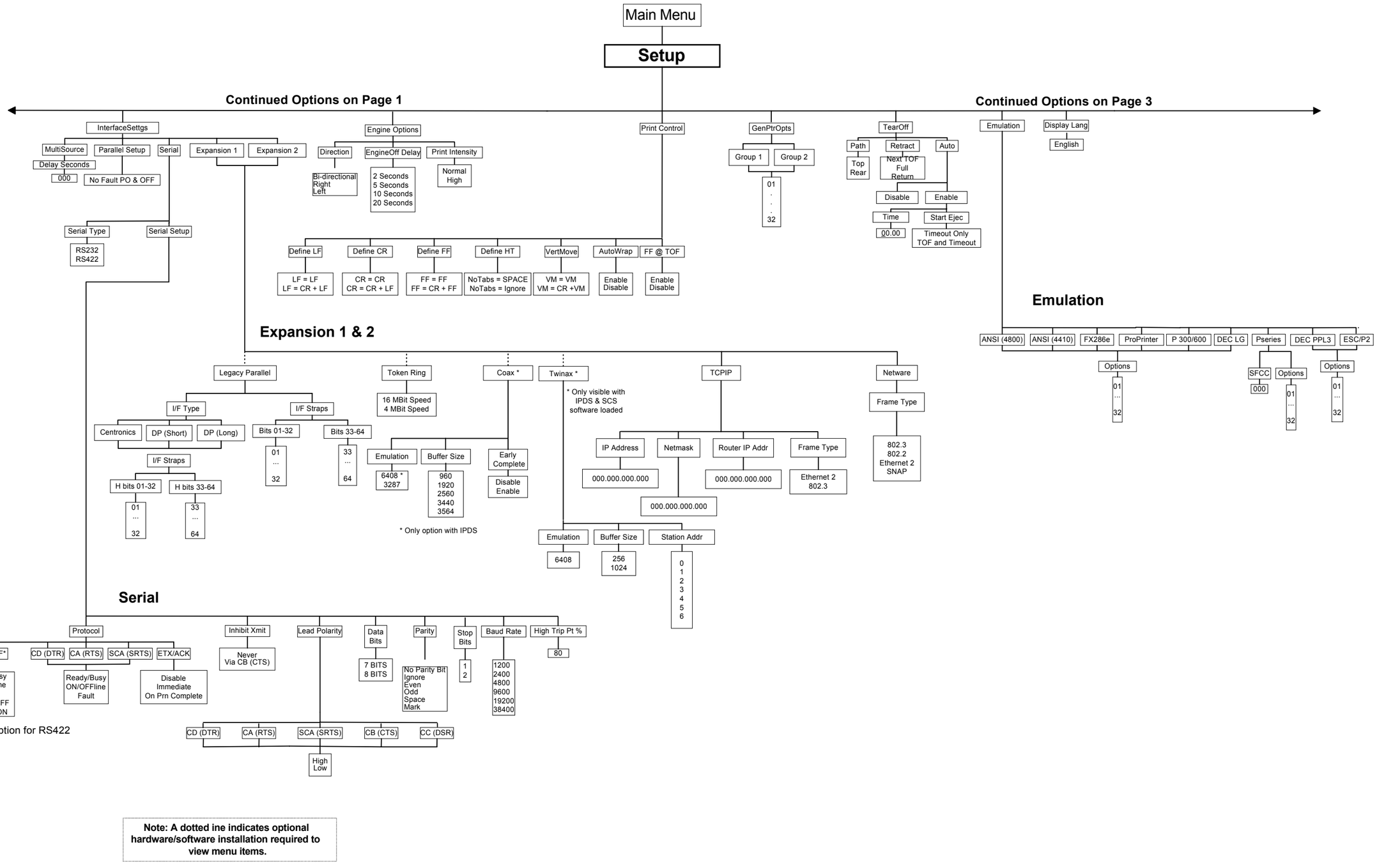
Note: Operator, Maintenance, and Setup menus are expanded on separate pages.



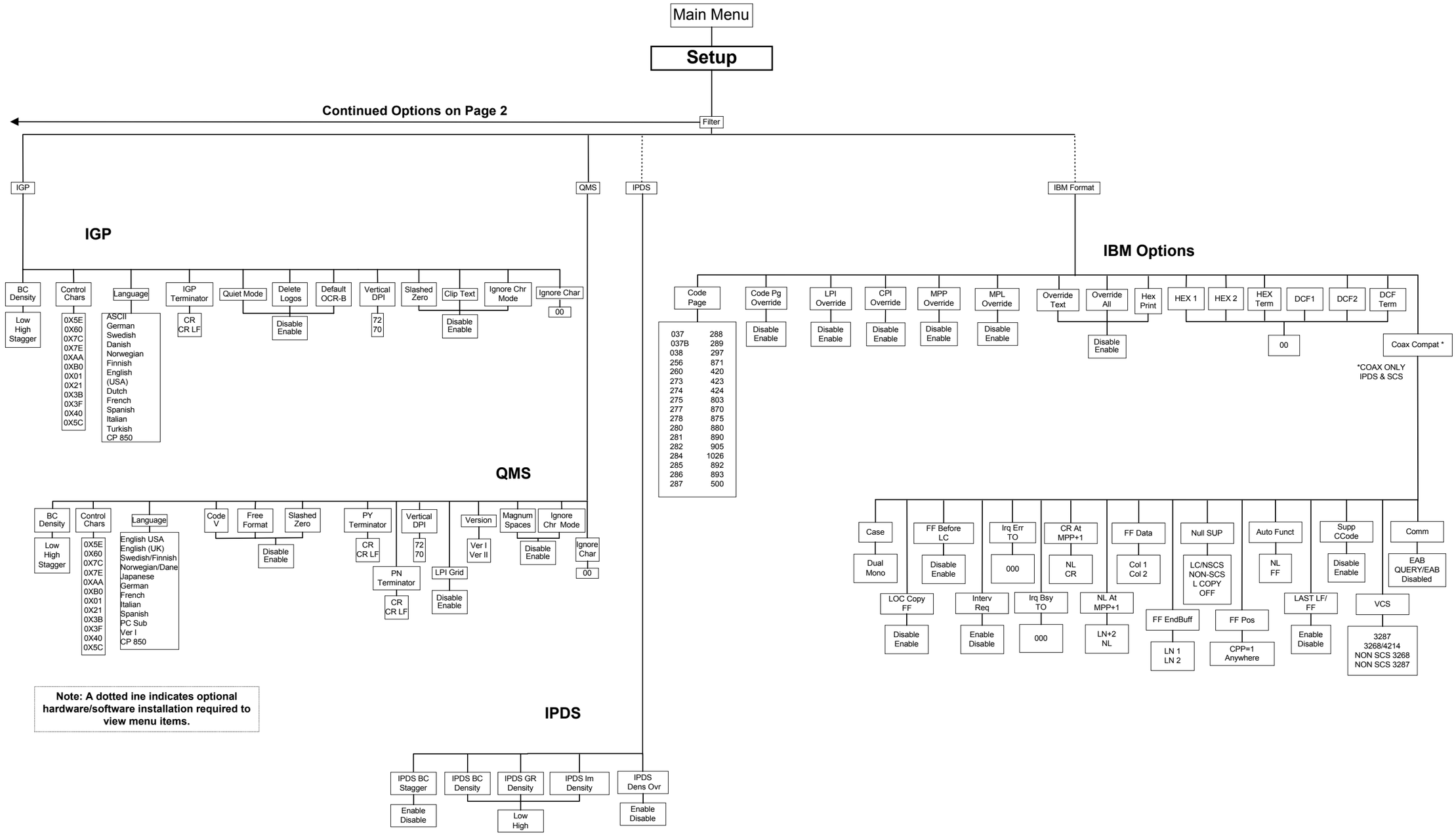
Note: To display this menu, see Menu Control in *User's Manual.*

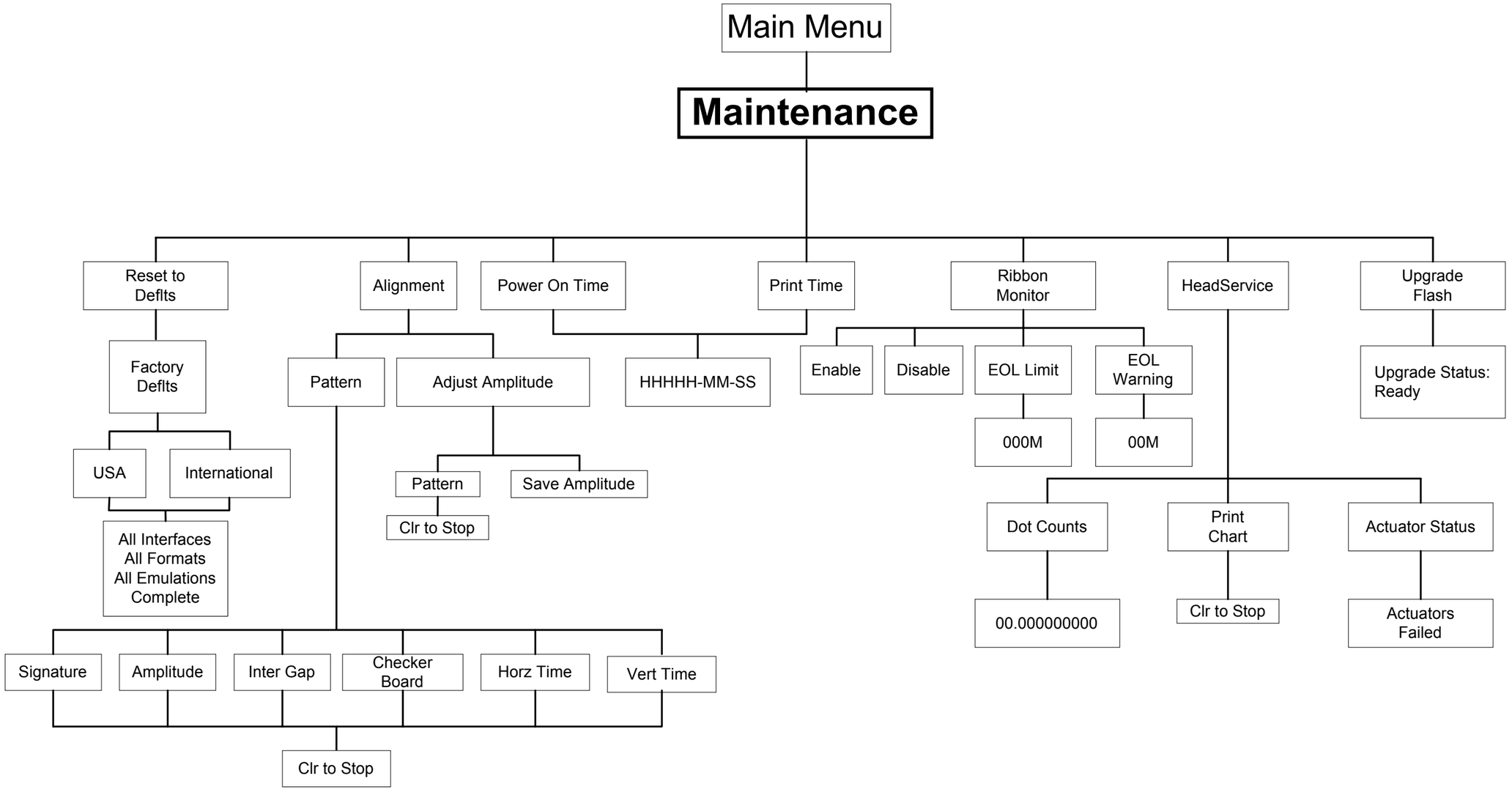

Main Menu
Operator
New Ribbon
*Select to Reset
00M
* Not active if Ribbon Monitor is disabled
Select Format
Default
Font Style
Data Proces
Correspond
Gothic NLQ
Graphics
Courier NLQ
High Speed 2
OCR-A
OCR-B
Italic NLQ
High Speed
CanadianPST
Char Set/Country
Character Set
USA CP 437
Multi CP 850
Code Page 852
Code Page 853
Code Page 855
Code Page 858
Code Page 860
Code Page 863
Code Page 864
Code Page 865
Code Page 866
Code Page 867
Greek CP 437
Dec MultiNtnl
Roman 8
Mozowia CP
Turkish CP
Greek CP 851
Kamen
ISO-8859-1
ISO-8859-2
ISO-8859-3
ISO-8859-4
ISO-8859-5
ISO-8859-6
ISO-8859-7
ISO-8859-8
ISO-8859-9
ISO-8859-15
Dec Supp
Dec Tech
Dec Spec1Graph
Dec ISO-Latin 1
Dec British
Dec Finnish
Dec French
Dec FrCanadian
Dec German
Dec ISO Italian
Dec JIS Roman
None
Dec Nor/Dan
Dec Spanish
Dec Swedish
Dec ISO Nor/Dan
Dec Dutch
Dec Swiss
Dec Portuguese
Dec Legal
Dec Hebrew
Dec Hebrew Supp
Dec ISO Lat/Heb
Dec Katakana
Dec ANSI
ISO Latin 2
ISO Latin 5
Greek Supp
Turkish 7-Bit
Turkish 8-Bit
ISO Lat/Gr Supp
ISO Lat/Cy Supp
PC 437 Greek
PC 861 Icelandic
PC 869 Greek
USSR (GOST)
BRASCII
ABICOMP
PC 857 (Turkish)
ISO Latin 1T
Bulgaria
Code MJK (CSFR)
Estonia
PC774 Lithuania
PC 866 LAT
ECMA-94-1 Mult
KU 42 (KU Thai)
TIS 11 (TS 988)
TIS 13 (IBM Std)
TIS 15 (SIC Old)
TIS 17 (SIC STD)
TIS 18 General)
Country
USA-ISO
Germany ISO
French A ISO
French B ISO
Canadian
Dutch
Italian
UK ISO
Spanish
Dan/Nor A
Dan/Nor B
Dan/Nor C
Dan/Nor D
Swed/Fin A
Swed/Fin B
Swed/Fin C
Swed/Fin D
Swiss
Slo/Croat
UK A
Turkish
Greek
Italian ISO
Spanish ISO
FX: USA
FX: France
FX: Germany
FX: UK
FX: Denmark I
FX: Sweden
FX: Italy
FX: Spain I
FX: Japan
FX: Norway
FX: Denmark II
FX: Spain II
FX: Latin Amer
FX: Netherland
FX: Angl-Unvrsl
FX: Span Amer
FX: Portugal
FX: Africa
FX: Switzerland
FX: Turkey
FX: Greece
FX: Slo/Croat
Legal
Korea
None
Select CPI
10
12
13.3
15
16.7
17.1
20
XX.X User Set
Select LPI
3
4
6
8
XX User Set
Interface
MultiSource
Serial
Parallel (1284)
Expansion1
Expansion2
Emulation
ANSI (4800)*
ANSI (4410)
FX286e
ProPrinter
P 300/600
DEC LG
Pseries
DEC PPL3
ESC/P2
* IPDS & SCS
Filter
Serial
None
IGP
QMS
Hex Pass
HexDump
Parallel (1284)
Expansion 1
None
IGP
QMS
IPDS *
SCS *
Hex Pass
HexDump
Expansion 2
* Visible with IPDS & SCS software loaded
Show
Software IDs
Status Page
Formats
Character Set
Press Clr to Stop
Adjust TOF
Rolling ASCII
Print at TOF
Set TOF
Press Clr to Stop
Discard Job


Main Menu
Setup
Continued Options on Page 2
Stored Formats
Modify Format
Save Format
Default ... Blank format 9
Horiz Tab
Vertical Format
Format Name
Default
Font Style
Data Process
Correspond
Gothic NLQ
Graphics
Courier NLQ
High Speed 2
OCR-A
OCR-B
Italic NLQ
High Speed
Canadian PST
Char Set/Country
Char Set
USA CP 437
Multi CP 850
Code Page 852
Code Page 853
Code Page 855
Code Page 858
Code Page 860
Code Page 863
Code Page 864
Code Page 865
Code Page 866
Code Page 867
Greek CP 437
Dec MultiNtnl
Roman 8
Mozowia CP
Turkish CP
Greek CP 851
Kamen
ISO-8859-1
ISO-8859-2
ISO-8859-3
ISO-8859-4
ISO-8859-5
ISO-8859-6
ISO-8859-7
ISO-8859-8
ISO-8859-9
ISO-8859-15
Dec Supp
Dec Tech
Dec Spec1Graph
Dec ISO-Latin 1
Dec British
Dec Finnish
Dec French
Dec FrCanadian
Dec German
Dec ISO Italian
Dec JIS Roman
None
Dec Nor/Dan
Dec Spanish
Dec Swedish
Dec ISO Nor/Dan
Dec Dutch
Dec Swiss
Dec Portuguese
Dec Legal
Dec Hebrew
Dec Hebrew Supp
Dec ISO Lat/Heb
Dec Katakana
Dec ANSI
ISO Latin 2
ISO Latin 5
Greek Supp
Turkish 7-Bit
Turkish 8-Bit
ISO Lat/Gr Supp
ISO Lat/Cy Supp
PC 437 Greek
PC 861 Icelandic
PC 869 Greek
USSR (GOST)
BRASCII
ABICOMP
PC 857 (Turkish)
ISO Latin 1T
Bulgaria
Code MJK (CSFR)
Estonia
PC774 Lithuania
PC 866 LAT
ECMA-94-1 Mult
KU 42 (KU Thai)
TIS 11 (TS 988)
TIS 13 (IBM Std)
TIS 15 (SIC Old)
TIS 17 (SIC STD)
TIS 18 General)
Country
USA-ISO
Germany ISO
French A ISO
French B ISO
Canadian
Dutch
Italian
UK ISO
Spanish
Dan/Nor A
Dan/Nor B
Dan/Nor C
Dan/Nor D
Swed/Fin A
Swed/Fin B
Swed/Fin C
Swed/Fin D
Swiss
Slo/Croat
UK A
Turkish
Greek
Italian ISO
Spanish ISO
FX: USA
FX: France
FX: Germany
FX: UK
FX: Denmark I
FX: Sweden
FX: Italy
FX: Spain I
FX: Japan
FX: Norway
FX: Denmark II
FX: Spain II
FX: Latin Amer
FX: Netherland
FX: Angl-Unvrsl
FX: Span Amer
FX: Portugal
FX: Africa
FX: Switzerland
FX: Turkey
FX: Greece
FX: Slo/Croat
Legal
Korea
None
CPI
10
12
13.3
15
16.7
17.1
20
XX.X User Set
LPI
3
4
6
8
XX User Set
Form Length
By Lines
Form Len Lines
000
By MM
Form Length MM
000
By IN
Form Length IN
00.0
Top Margin
By IN
Top Margin IN
00.0
By MM
Top Margin MM
000
By Lines
Top Margin Lines
000
Bottom Margin
By IN
Bottom Mar IN
00.0
By MM
Bottom Mar MM
000
By Lines
Bot Mar Lines
000
Left Margin
Right Margin
Top Print Ref
By IN
Top Print Ref IN
00.0
By MM
Top Print Ref MM
000
By Lines
Top Ref Lines
000
Left Print Ref
By IN
Lft Print Ref IN
00.0
By MM
Lft Print Ref MM
000
By Column
Left Ref Col
000
Horiz Expansion
X1 . X8
Vert Expansion
X1 . X8
VertExp Options
Default (top) Baseline
Print Modifiers
DoubleStrike Emphasized
Print Options
High Speed Fold Over
Slew Rate
Normal Reduce
By IN
Left (Right) Margin IN
00.0
BY MM
Left (Right) Margin MM
000
By Column
Left (RT) Margin Col
000
By Column
Hor Tabs Cols
01:New
By IN
Hor Tabs IN
01:New
By MM
Hor Tabs MM
01:New
Clear All Tabs
Type Select
Vertical Tabs
Emulation VFU
By Lines
Vert Tabs Lines
01:000
By IN
Vert Tabs IN
01:00.0
BY MM
Vert Tabs MM
01:000
Clear All Tabs



Note: A dotted ine indicates optional hardware/software installation required to view menu items.


Main Menu
Setup
Continued Options on Page 2
Filter
IGP
QMS
IPDS
IBM Format
IGP
BC Density
Low
High
Stagger
Control Chars
0X5E
0X60
0X7C
0X7E
0XAA
0XB0
0X01
0X21
0X3B
0X3F
0X40
0X5C
Language
ASCII
German
Swedish
Danish
Norwegian
Finnish
English
(USA)
Dutch
French
Spanish
Italian
Turkish
CP 850
IGP Terminator
CR
CR LF
Quiet Mode
Delete Logos
Disable
Enable
Default OCR-B
Vertical DPI
72
70
Slashed Zero
Clip Text
Disable
Enable
Ignore Chr Mode
Ignore Char
00
IBM Options
Code Page
037
037B
038
256
260
273
274
275
277
278
280
281
282
284
285
286
287
288
289
297
871
420
423
424
803
870
875
880
890
905
1026
892
893
500
Code Pg Override
LPI Override
CPI Override
MPP Override
MPL Override
Disable
Enable
Override Text
Override All
Hex Print
HEX 1
HEX 2
HEX Term
00
DCF1
DCF2
DCF Term
Coax Compat *
*COAX ONLY
IPDS & SCS
QMS
BC Density
Low
High
Stagger
Control Chars
0X5E
0X60
0X7C
0X7E
0XAA
0XB0
0X01
0X21
0X3B
0X3F
0X40
0X5C
Language
English USA
English (UK)
Swedish/Finnish
Norwegian/Dane
Japanese
German
French
Italian
Spanish
PC Sub
Ver I
CP 850
Code V
Free Format
Slashed Zero
Disable
Enable
PY Terminator
CR
CR LF
PN Terminator
CR
CR LF
Vertical DPI
72
70
LPI Grid
Disable
Enable
Version
Ver I
Ver II
Magnum Spaces
Ignore Chr Mode
Ignore Char
00
Case
Dual
Mono
FF Before LC
LOC Copy FF
Irq Err TO
Interv Req
Irq Bsy TO
000
CR At MPP+1
NL
CR
NL At MPP+1
LN+2
NL
FF Data
Col 1
Col 2
FF EndBuff
LN 1
LN 2
Null SUP
LC/NSCS
NON-SCS
L COPY
OFF
FF Pos
CPP=1
Anywhere
Auto Funct
NL
FF
LAST LF/
FF
Supp CCode
VCS
3287
3268/4214
NON SCS 3268
NON SCS 3287
Comm
EAB
QUERY/EAB
Disabled
Note: A dotted ine indicates optional hardware/software installation required to view menu items.
IPDS
IPDS BC Stagger
IPDS BC Density
IPDS GR Density
IPDS Im Density
IPDS Dens Ovr
Low
High


Main Menu
Maintenance
Reset to Defits
Factory Defits
USA
International
All Interfaces
All Formats
All Emulations
Complete
Alignment
Pattern
Adjust Amplitude
Pattern
Save Amplitude
Clr to Stop
Signature
Amplitude
Inter Gap
Checker Board
Horz Time
Vert Time
Clr to Stop
Power On Time
HHHHH-MM-SS
Print Time
Ribbon Monitor
Enable
Disable
EOL Limit
EOL Warning
000M
00M
Dot Counts
00.000000000
Print Chart
Clr to Stop
HeadService
Actuator Status
Actuators Failed
Upgrade Flash
Upgrade Status: Ready

2

25-pin RS-232C serial interface connector.....2-2

3

36-pin CENTRONICS parallel interface connector 2-2

A

Active Format.....3-3
Actuator Status 6-6
Adjust TOF.....4-17
AdjustAmplitude 6-3
Alignment.....6-2
ANSI (4410).....5-38
ANSI (4800).....5-38
ANSI 4410.....1-1
ANSI 4800.....1-1
Appendix E. Font Print Samples E-1
Appendix F. Flash Upgrade Instructions F-1
Appendix G Description of Strapping Options.. G-1
Appendix I. LCD Menu Maps.....I-1
Auto.....5-36
Auto Funct.....5-69
auto-switching power supply.....2-1
AutoWrap 5-34

B

Bad Actuator..... 7-9.
See Mechanical Problems.
See Hard Faults
Bad Wire Driver.....
See Hard Faults
Basic Pushbutton Use.....2-5
Baud Rate 5-24
BC Density 5-43, 5-49
Beeper.....2-4
Bottom Margin 3-4, 5-6
Buffer Overflow .....
See Serial Interface Errors.

C

CA(RTS) 5-19, 5-21
Case 5-64
CB(CTS).....5-22
CC(DSR) 5-22
CD(DTR)..... 5-18, 5-21, 5-22
Centronics.....5-26
CENTRONICS.....1-1
Change Ribbon..... **7-5**.
See Soft Fault Displays
Chapter 1. Introduction.....1-1
Chapter 2. Getting Started 2-1
Chapter 3. Operating the Printer.....3-1
Chapter 4. Using the Operator Menu.....4-1
Chapter 5. Using the Set Up Menu 5-1
Chapter 6. Using the Maintenance Menu..... 6-1
Chapter 7. Operator Care and Maintenance 7-1
Char Set/Country..... 4-3
Character Set.....4-3, 5-3
CharSet/Country..... 5-3
Clip Text 5-53
Coax 5-29
Coax Compatibility..... 5-63
Code Page 5-56
Code Pg Override..... 5-57
Code V 5-45
column indicator label..... 2-19
Comm..... 5-71
Connecting the Interface Cable 2-2
Connecting the Power Cord 2-1
Considerations for Operation C-1
Control Chars 5-44, 5-50
Control Panel Initialization 2-32
Country 4-4, 5-3
Courier NLQ 1-1
CPI 5-4
CPI Override 5-57
CR at MPP+1 5-66

D

Data Bits..... 5-23
Data Entry 2-6
DCF Term 5-63
DCF1..... 5-61
DCF2..... 5-62
DEC LG 5-40
DEC LG and PPL3..... 1-1
DEC PPL3..... 5-41
Default OCR-B 5-52
Define CR 5-33
Define FF 5-33
Define HT 5-34
Define LF 5-33
Delete Logos 5-52
Description of the Control Panel..... 2-3
Direction 5-31
Discard Job 4-18
Display 2-5
Display Lan..... 5-42
Dot Counts 6-4
DP(Long) 5-27
DP(Short) 5-26
Driver Circuit .....**7-9**, 7-11.
See Mechanical Problems.
See Hard Faults

E

Electrical Problems 7-10
Emulation.....4-6, 5-37

Emulation Option descriptions G-6
Emulation VFU 5-14
Engine Options 5-31
EngineOff Delay 5-31
Epson FX286e 1-1
ESC/P2 ..... 1-1, 5-42
ETX/ACK 5-20
Euro information 5-35
Euro Information G-5
Expansion1/Expansion2 ..... 4-9, 5-25
Explanation of the Top Print Ref 3-5

F

paper B-1
features of this printer 1-1
FF @ TOF 5-35
FF Before LC 5-64
FF Data 5-67
FF EndBuff 5-68
FF Pos 5-69
Figure 3-1 Paper Correctly Positioned Between Upper Tractors 3-8
Figure 3-2b Sample Printout of Status Page 4-13
Figure 3-4 Character Set Printout Sample 4-15
Figure 3-5 View Pattern Sample Printout 4-17
Figure 4-1 The Ribbon Deck 7-1
Figure 4-2 Print Heads 7-14
Figure 4-3 Print Head Replacement Procedure (1 of 3) 7-15
Figure 4-4 Print Head Replacement Procedures (2 of 3) 7-16
Figure 4-5 Print Head Replacement Procedures (3 of 3) 7-17
Figure A-1 Unpacking from Pallet A-1
Figure A-10 Shipping Package Base A-6
Figure A-2 Straps on Box A-1
Figure A-3 Removing Packing Material A-2
Figure A-4 Packing Block A-2
Figure A-5 Brackets & Screws A-3
Figure A-7 Lifting Shipping Sleeve A-4
Figure A-8 Removing Shipping Package A-5
Figure A-9 Sliding Printer off Pallet A-5
Figure B-1 Sprocket Hole Details B-2
Filter 4-7, 5-42
Filter Combinations H-1
Font Style 4-2, 5-2
Form Length 3-4, 5-5
Format 5-1
Format Name 5-2
Framing Error ..... 7-13. *See* Serial Interface Errors
Free Format 5-45
FX286E 5-39

G

General Printer Options Definitions G-4
GENPTROPTS 5-35
Gothic NLQ 1-1
Graphics 1-1

H

Hard Faults 7-8
HeadService 6-4
Hex 1 5-60
Hex 2 5-61
Hex Print 5-60
Hex Term 5-61
High Speed 1-1
High Trip Pt% 5-25
Horiz Expansion 5-9
Horiz Tab 5-13
Horizontal Positioning of the Paper 2-19
Horizontal/Vertical Tab Id Maximum Slots . H-2

I

I/F Straps 5-28
IBM Format 5-56
IBM Proprinter III XL 1-1
Ignore Char 5-49, 5-54
Ignore chr mode 5-53
Ignore Chr mode 5-48
Ignore Mode 5-46
IGP 5-49
IGP Terminator 5-51
Image Logic Fail ..... **7-9**. *See* Hard Faults
Inhibit Xmit 5-20
Initializing the Printer 2-32, 7-3
Installing the Paper Handling System (55 or 60 dBa) Cabinet Models 2-8
Interface 4-6
Interface Port and Filter Compatibility H-2
Interface Settings 5-15
Interlock circuit 2-29
interlock switch circuit 2-30
Interv Req 5-65
Invalid VFU Seq ..... **7-5**. *See* Soft Fault Displays
IPDS 5-54
IPDS BC Density 5-55
IPDS BC Stagger 5-54
IPDS Dens Ovr 5-56
IPDS GR Density 5-55
IPDS Image Density 5-55
Irq Bsy TO 5-66
Irq Err TO 5-65
Italic NLQ 1-1

L

Language 5-44, 5-51
LAST LF/FF 5-69
Lead Polarity 5-21

LEFT CENTER FAN ..... **7-9**.
See Hard Faults
LEFT FAN..... **7-9**.
See Hard Faults
Left Margin..... 5-6
Left Print Ref..... 5-9
Legacy Parallel 5-26
Legacy parallel Hardware strap definitions G-2
Legacy Parallel Software Strap Definitions..... G-3
LOAD position..... 2-15
Loading Paper..... 2-14
Loading----- Please Wait.....
See Diagnostic Fault Codes
LOC Copy FF 5-64
Local Auto View Feature 3-12
locking lever 2-20
Low Paper 3-7
Low Paper Printing..... 3-7
Low Power..... **7-9**.
See Hard Faults
LPI..... 5-4
LPI Grid..... 5-47
LPI Override..... 5-57

M

Magnum Spaces..... 5-48
Main Menu 3-2
Maintenance Menu 3-2
Manual Paper Loading 2-14
Mechanical Problems 7-11
Menu Control 3-3
Miscellaneous Non-Fault Messages 7-7
Modify Format 5-2
MPL Override..... 5-58
multipart forms B-1
MultiSource 5-15

N

Netware 5-30
New Ribbon..... 4-1
NL at MPP+1 5-67
No Font..... **7-9**.
See Hard Faults
No Ribbon.....
See Soft Fault Displays
Null Sup..... 5-68
Number of Forms Ejected 3-9
NVRAM Reinit ..... **7-9**.
See Hard Faults

O

OCR-A..... 1-1
OCR-B..... 1-1
Operating Precautions iv
Operation of the Control Panel..... 2-5
Operator Cleaning Procedures
5050/5100 (50, 55 or 60 dBa)
Cabinet Model..... 7-1
5180 (52 or 55 dBa) Cabinet Model..... 7-2
Operator Menu 3-2
Operator Troubleshooting 7-3
Options available..... 2-3
Organization of this manual 1-2
Override All 5-59
Override MPP 5-58
Override Text 5-59
Oversize 1-1

P

P 300/600 ..... 1-1, 5-40
Paper Almost Out..... **7-5**.
See Soft Fault Displays
Paper Handling Aids (55 dBa) Cabinet Models2-11
Paper Jam .....
See Soft Fault Displays
Paper Out .....
See Soft Fault Displays
Paper Path
(5050/5100 55 or 60 dBa) Cabinet Model Only)
..... 3-9
paper rack..... 2-8
paper shelf..... 2-8
Paper Specifications.....B-1
Paper Tear-Off Feature 3-9
Paper Tension Adjustment 2-28
paper tension adjustment lever..... 2-15
paper width.....B-1
Parallel Setup 5-16
Parallel(1284)..... 4-8
Parity..... 5-23
Parity Error.....
See Serial Interface Errors
Parts, Accessories, Consumables and Options.. D-1
Path 5-36
Patterns..... 6-2
PN Terminator 5-47
Power on Time..... 6-6
Power-On Sequence..... 2-29
Print Chart..... 6-5
Print Control..... 5-32
print gap wheel..... 2-15
Print Head Replacement..... 7-21
5050/5100 (50, 55 or 60 dBa)
Cabinet Model..... 7-13
5180 (52 or 55 dBa) Cabinet Model..... 7-18
Print Intensity..... 5-32
Print Modifiers..... 5-11
Print Options 5-11
Print Pattern 4-18
Print Time 6-6
Printer Emulation vs Filter H-1

Printer operational Modes 3-1
ProPrinter 5-39
Protocol 5-17
Pseries 1-1, 5-41
Pushbuttons 2-5
PY Terminator 5-46

Q

QMS 5-43
Quiet Mode 5-51

R

Reading the Scale 2-27
Ready ..... **7-7**.
See Misc. Non-Fault Messages
REAR FAN ..... **7-9**.
See Hard Fault Displays
Recommended Paper Weights B-1
reinker 2-22
reinker lever 2-22
re-install the paper guide 2-13
Removing a Ribbon
(50,55, or 60 dBa) Cabinet Model 2-25
Removing the Shipping Blocks and Hardware .. A-7
Repacking A-6
Replacement Procedure 7-14
Replenishing Paper Supply 3-7
Reset to Deflts 6-1
Resetting Print Head Counters 7-21
Retract 5-36
Retracting 3-12
ribbon cartridge 2-20
ribbon drive knob 2-20
Ribbon Jam .....
See Soft Fault Displays.
See Paper Tear-Off Feature
Ribbon Removal and Installation
5050/5100 (50,55, or 60 dBa) Cabinet Model 2-22
5180 (52 or 55 dBa) Cabinet Model 2-25
Ribbon Weld .....
See Soft Fault Displays
Ribbon Weld Pass .....
See Soft Fault Displays
RibbonMonitor 6-7
RIGHT CENTER FAN ..... **7-9**.
See Hard Faults
RIGHT FAN ..... **7-9**.
See Hard Faults
Right Margin 5-7
RUN position 2-20

S

Sample Character Set 4-15
Sample Font Page 4-15
Sample Form Page 4-14
Save Format 5-12
SCA(SRS) 5-22
SCA(SRTS) 5-19
See Low Paper ..... .
See Low Paperr .....
Select CPI 4-4
Select CPI (User Set) 4-4
Select Format 4-1
Select LPI 4-5
Select LPI (User Set) 4-5
Selecting the Paper Path
5050/5100 (55 and 60 dBa) Cabinet Model Only 2-11
Self Test .....
See Diagnostic Fault Codes.
Self-test Error Messages 7-12
Semiautomatic Paper Loading 2-18
Serial 4-7, 5-16
Serial interface Errors 7-13
Serial Setup 5-17
Serial Type 5-16
Service Time ..... **7-5**.
See Soft Fault Displays
Set TOF 4-18
Setting the Print Gap 2-27
Setting top of form 3-8
Setting up a FormAT 3-3
Setting up an Active Format 3-4
Setup Menu 3-2
Show 4-9
Shuttle Error ..... **7-12**.
See Diagnostic Fault Codes
Shuttle Overload ..... **7-9**.
See Hard Faults
Slashed Zero 5-46, 5-53
Slew Rate 5-12
Soft Faults 7-4
Software IDs 4-10
Special Forms 3-10
stacking aid 2-8
Standby ..... **7-7**.
See Misc. Non-Fault Messages
Status Display 3-1
Status Page 4-11
Stop Bits 5-24
Striker Bar Open .....
See Soft Fault Displays
Strikr Bar Open .....
See Paper Tear-Off Feature
Supp CCode 5-70

T

Table 1 I/F Straps G-2
Table 10 Printronix Pseries I/F Emulation G-8
Table 11 Printronix P300/600 Emulation G-9

Table 12 Dec LG Plus Emulation G-9
Table 13 Dec PPL3 Emulation G-10
Table 2 I/F Straps (Software) G-3
Table 3 Group 1 Options G-4
Table 4 Group 2 Options G-5
Table 5 ANSI (4800) I/F Emulation G-6
Table 6 ANSI (4410) I/F Emulation G-6
Table 7 Proprinter III XL I/F Emulation G-7
Table 7-1 Soft Fault Displays 7-5
Table 7-1 Soft Fault Displays(Cont.) 7-6
Table 7-2 7-7
Table 7-2 Miscellaneous Non-Fault Messages ... 7-7
Table 7-3 Hard Fault Displays 7-9
Table 7-4 7-10
Table 7-4 Electrical Problems 7-10
Table 7-5 7-11
Table 7-5 Mechanical Problems 7-11
Table 7-6 7-12
Table 7-6 Diagnostic Fault Codes 7-12
Table 8 EPSON FX 286e I/F Emulation G-7
Table 9 ESC P2 I/F Emulation G-8
Table Of Contents v
TCP/IP 5-30
Tearoff ..... **7-7**.
See Misc. Non-Fault Messages
TearOff 5-35
Test Pattern Printing 2-33
the horizontal paper adjustment knob 2-19
The Ribbon Cartridge
5050/5100 (50, 55 or 60 dBa) Cabinet Model 2-22
The Ribbon Deck
5050/5100 (55 or 60 dBa) Cabinet Model 2-20
5180 (52 or 55 dBa) Cabinet Model 2-21
Token Ring 5-28
Top Margin 3-4, 5-5
Top Print Ref 3-4, 5-8
TopTearoff ..... **7-7**.
See Misc. Non-Fault Messages
TTMI checksum ..... **7-12**.
See Diagnostic Fault Codes
TTMI error ..... **7-12**.
See Diagnostic Fault Codes
TTMI noresp ..... **7-12**.
See Diagnostic Fault Codes
Twinax 5-29

U

UART Overflow 7-13
Unpacking (5050/5100 55 DbA Model) 4
Unpacking (5180 52 DbA Model) 1
Unpacking (5180 Model) 6
Unpacking Instructions 1
Upgrade Flash 6-7
Using the Keypad to Initialize
How to Initialize the Printer 2-32
Using the menu control Menu 3-12

V

VCS 5-70
Version 5-48
Vert Expansion 5-10
VertExp Options 5-10
Vertical DPI 5-47, 5-52
Vertical Format 5-13
Vertical Tabs 5-14
VertMove 5-34
VFU Fmt Inactive ..... **7-9**.
See Hard Faults
VFU Missing TOF .....
See Soft Fault Displays. *See*
VFU PI Lead ..... **7-5**.
See Soft Fault Displays
VFU Tbl Too Long ..... **7-5**.
See Soft Fault Displays
View Pattern 4-17
Viewing 3-12

W

When to Initialize 2-32
wickets 2-8
Wire Paper Guide 2-12

X

XON/XOFF 5-17

Y

yellow spool knob 2-22