Genicom

5000 Series
Quick Reference Guide
GEK-99014

GEK-99013

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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.

FCC Warning

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

- Consult the dealer or an experienced radio/TV technician for help.

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.

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.

COMPLIANCE STATEMENT (EUROPE)

OPTIONAL INTERFACE KITS

If either Ethernet interface boards, 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
EN50082-1:1997
EN55022:1994
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

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 with icons 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: 525 watts.
  - Model 5180 printer: 1170 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 fee) 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 physical ly 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. Consult the point of purchase for additional information.

INTRODUCTION

These printers are high duty cycle, line matrix printers. Among the advanced features of these printers are:

- High speed of 500-lpm, 1000-lpm, and 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 with optional I/O cards.
- Auto interface switching.
- Top demand exit or rear exit standard on 55 dBa (5050/5100/5180) cabinet model printers.
- Industrial graphics, bar codes, and labels.

Other characteristics include:

- Input voltage: 115V or 230V auto switching (5050/5100 Models only).
- Hardware interfaces: CENTRONICS parallel and RS-232/422 serial interface.
- Standard emulation's: ANSI 4800 & 4410, Proprinter III XL, FX-286e, P 300/600, DEC LG+, Pseries, DEC PPL/3 and ESC P2.
- Standard fonts: menu- or host-selectable Gothic NLQ, Courier NLQ, Italic NLQ, OCR-A, OCR-B and Oversize. A complete list of font selections with usage description can be found in the *5000 Series User's Manual.*

Reference usage:

- **Warning**: Warning is used to alert a user of a hazard that could cause personal injury, severe damage to the equipment or both.
- **Caution**: Caution is used where there is a risk of damaging the equipment, parts or supplies.
- **Note**: Indicates that additional information is available.

Note

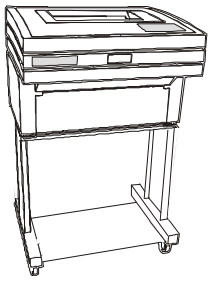
Complete specifications are in the *5000 Series User's Manual.*

MODELS

This guide covers the 55 dBa (5050/5100/5180) cabinet model with top exit and the enclosed 50 dBa cabinet model printers. The following illustrations show what each printer looks like.

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

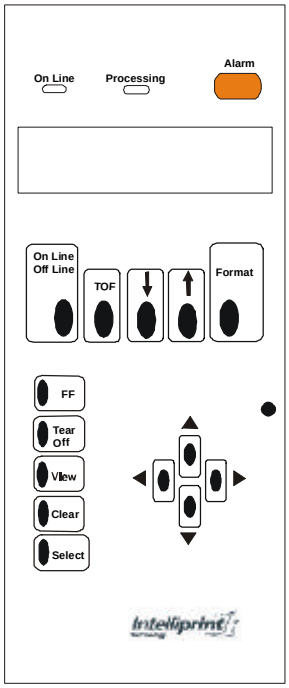
55 dBa (5050/5100) Front Enclosed Pedestal



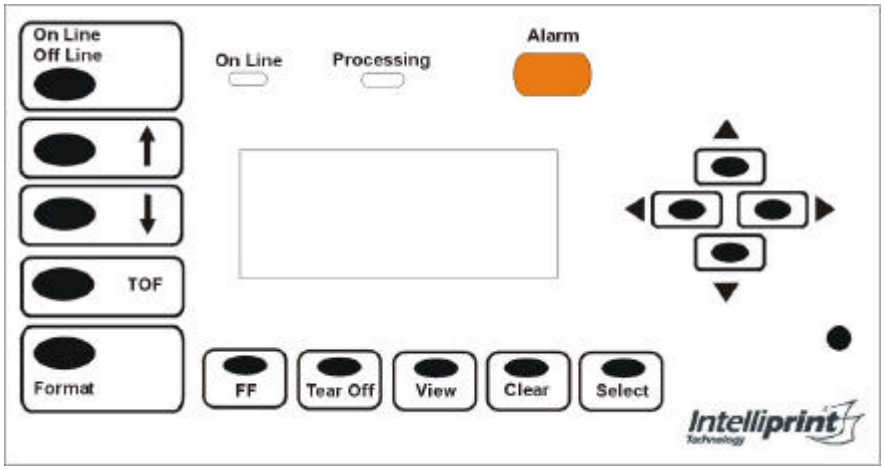
60 dBa (5050/5100) Open Pedestal

55 dBa (5180)

DESCRIPTION OF THE OPERATOR CONTROL PANEL



5180 Model Operator Control Panel (55 dBa)



5050/5100 Model Operator 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 with two rows of 16 characters each.

With the top cover open, the control panel will move around slightly to the touch (5050/5100 Model). This is normal. The floating mount allows the panel to align itself when the top cover is closed. The mount is also hinged so that it may be tilted forward to remove the ribbon deck for service.

The four pushbuttons are used to navigate the menu tree structure. The Clear and Select pushbuttons are used in conjunction with the menu navigation pushbutton for data entry to set up the printer. The On Line/Off Line pushbutton is at the upper left (5050/5100) and to the lower left side of the display (5180). The three pushbuttons (TOF, ,) are used to set Top of Form. The Format pushbutton is used (in conjunction with the Select pushbutton) to select one of ten stored setup formats. The FF, Tear Off, and View pushbuttons are additional paper positioning functions.

When in the On Line state, only the FF, On Line/Off Line, Tear Off & View pushbuttons and limited functionality of the Clear, Select, and arrow navigation pushbuttons are active. Depressing any other pushbutton causes only a "beep." The "Processing" LED indicator is lit whenever data is being received and/or being processed/printed. When interface auto switching (5050/5100 models) is enabled, the "Processing" LED indicator will blink for the duration of the timeout period.

Note

The control panel changes are not made effective until/unless the processing LED indicator is off.

Beeper

The control panel beeper sounds momentarily when:

- A BEL control code is received. The host can send a "bell" code to sound the printer's beeper. For more information, see the *5000 Series Programmer's Manual*.
- A PAPER LOW condition exists.
- An EVFU loading error occurs. For more information on the EVFU, see the *5000 Series Programmer's Manual.*
- A hard fault occurs. See page 37 for an explanation of hard faults.

Display

The LCD display provides the following information:

- The printer's status - Online, Local, Self-test, etc.
- Menu functions.
- When a fault condition exists.

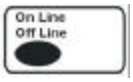
Pushbuttons

An explanation of the pushbuttons functions is given in the following section on "Operation of the Control Panel." Although the pushbuttons on the control panels are located differently on the 5050/5100 versus the 5180, their functionality is the same.

OPERATION OF THE CONTROL PANEL

The primary use of each pushbutton is printed beside the button. For more detailed information see, “Basic Pushbutton Use,” in the *5000 Series User’s Manual.*

Basic Pushbutton Use



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

The ↑ pushbutton moves paper up incrementally.

The ↓ pushbutton moves paper down incrementally.

The **TOF** (Top of Form) pushbutton sets the top of form position on the printer. See *5000 Series User’s Manual* for complete instructions.

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

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

The **Tear Off** pushbutton advances the paper to the tear position. The paper will auto retract to the retract position after 15 seconds. Depressing the tear off pushbutton any time within that 15 second wait period will retract the paper to the retract position.

The **View** pushbutton advances the paper such that the last printed line is visible in the top cover window. Depressing 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.

The **Clear** pushbutton is used in menu operations and to clear a fault condition.

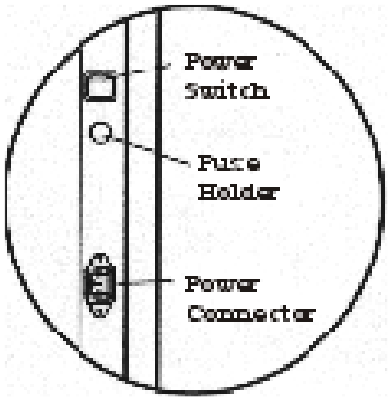
The **Select** pushbutton is used in format selection and menu operations.

The left or right menu pushbutton allows navigation of menu selections laterally within a level.

The up or down menu pushbutton allows navigation of menu selections up or down a level.

POWER SWITCH

The power switch is located on the rear panel of the printer and is marked "|" for on and "O" for off.



The power-on sequence, including self-test diagnostics, takes about fifteen seconds at which point the operator display will show "On Line".

LOADING PAPER – 50 DBA (5050/5100) CABINET MODEL AND 55 DBA (5050/5100/5180) CABINET MODEL

This printer is designed to use edge-punched (sprocket, or pin-fed) fanfold paper. See "Appendix B - Paper Specifications," in the *5000 Series User's Manual* 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 (14 5/8-inch or 371cm) should be used until the operator is familiar with the printer's setup and operation.

Manual Paper Loading

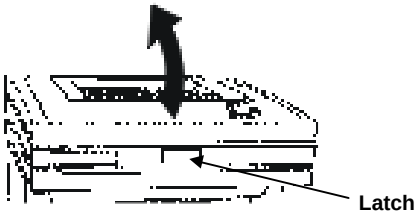
Note

For specific instructions on the 60 dBa cabinet model and the 52 dBa cabinet model, consult the *5000 Series User's Manual.*

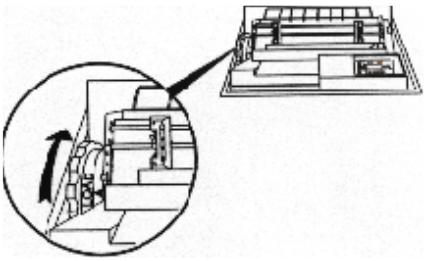
Unless otherwise noted, illustrations are of the 55 dBa (5050/5100) cabinet model.

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

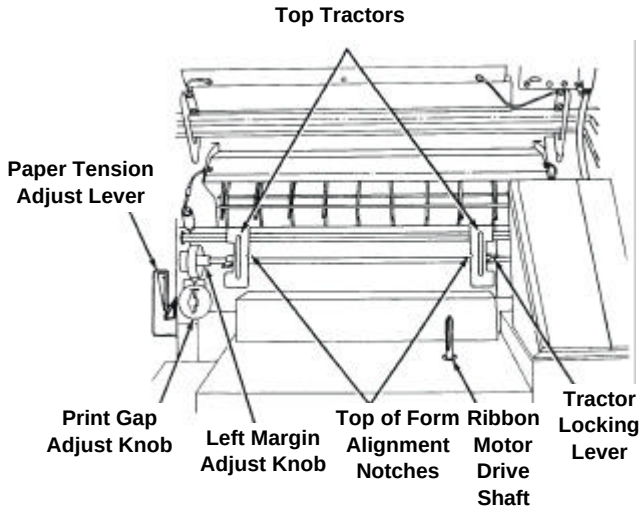
1. Raise the top cover to the open position. On the 55 dBa (5050/5100) cabinet model printer, press the cover latch to unlock the cover.



2. After noting the current setting of the print gap wheel, turn the wheel to the LOAD position by pushing the top of the wheel toward the rear of the printer until it stops.



On the 5180 model, turn the print gap adjust knob to the LOAD position by turning the knob fully *clockwise*.

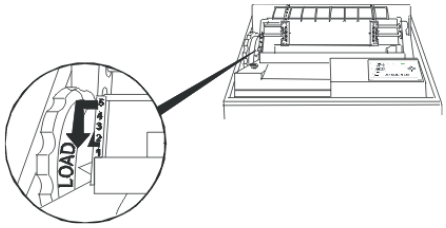


Top View 5180 Model

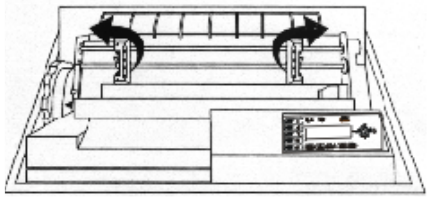
Note

If printer power is on, the fault messages Striker Bar Open and Paper Out will appear, alternately, on the display panel and the beeper will sound.

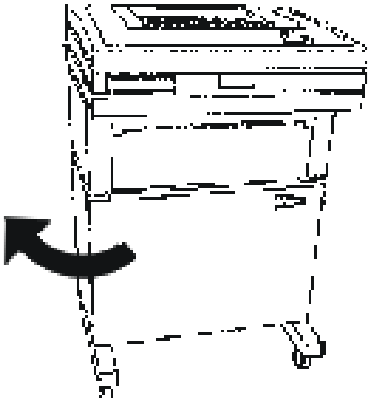
3. After noting its current position, push the paper tension adjustment lever down to position 1. Refer to Top View illustration in Step 2, page 12, for location of the paper tension lever on the 5180 model.



4. Open the top left and right tractor covers. Refer to Top View illustration in Step 2, page 12, for location of the tractor covers on the 5180 model.



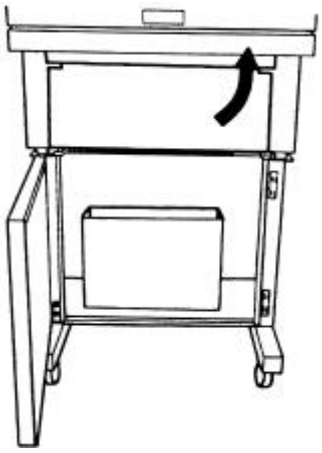
5. Open the front door and place the paper supply in the enclosure.



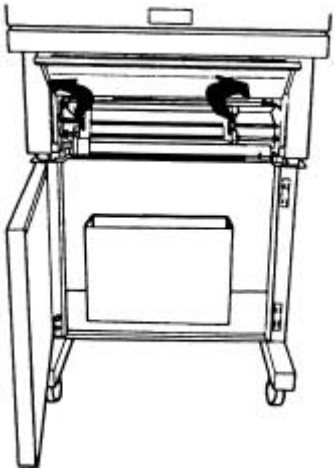
Note

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 the 55 dBa (5050/5100) cabinet model printer, 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.



7. Open the lower left and right tractor covers.



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.

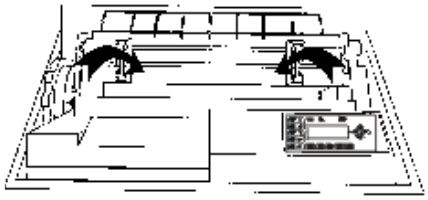
8. Hand feed the paper, bypassing the lower tractor pins, up through the printer to the top tractors. After the printer is in operation, the semiautomatic paper loading feature may be used.

Note

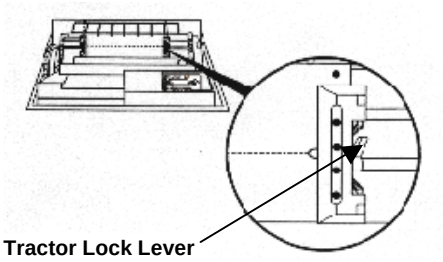
Initially, load the paper so that it will print on the second form (rather than first form) because a default setting pulls the paper down into the printer a minimum of 4 inches (see “Setting Top of

Form"). Later, vertical positioning and top of form (TOF) alignment will be completed after the printer is in operation.

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

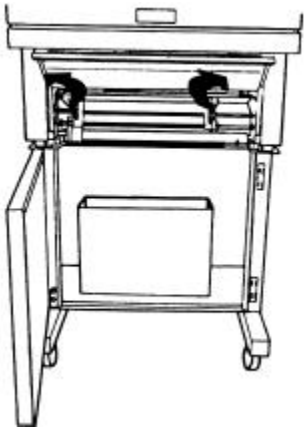


10. If necessary, release the locking lever on the right-hand tractor by flipping it down, and slide the tractor sideways to match the paper width. With the right tractor-locking lever released, slide the tractor slightly to the right to make the paper taut. Excessive tension will tear the pinholes and cause the paper to misalign. Lock the tractor in place by pressing up on the tractor-locking lever. Refer to Top View illustration in Step 2, page 12, for location of the tractor locking lever on the 5180 model.



11. Close the tractor cover.

12. 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.



13. Close the front cover. For the 55 dBa (5050/5100) cabinet model printer, close the front access panel of the printer first, 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.

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** pushbutton causes the paper to move up, at a rate of 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 loading process. If you experience problems, load the paper manually.

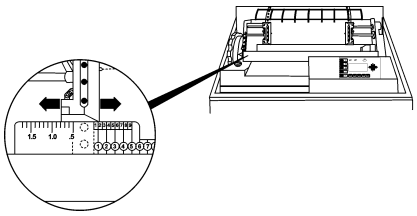
With the print gap wheel in the LOAD position, the paper tension lever at position 1, and the upper tractor doors open, complete the following steps:

1. Load the paper onto the lower tractors by placing the paper on at least three pins of each tractor, making certain that the paper is aligned horizontally across the two lower tractors. Close the tractor doors.
2. Open the upper tractor doors.
3. Press and hold the arrow pushbutton to move the paper up through the printer and into the upper tractors. Tug gently as the paper is placed over the pins of the upper tractors to make certain there is no excess slack or folds in the paper between the upper and lower tractors.
4. Close the upper tractor doors. Unlock and adjust the upper right tractor as needed.

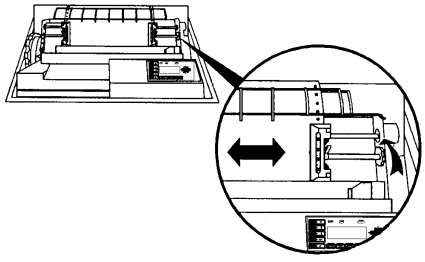
HORIZONTAL POSITIONING OF THE PAPER

The column indicator label (5050/5100 models) is located on the ribbon shield just below the left upper tractor. Complete the following steps for proper paper positioning.

1. Check the column indicator label located on the ribbon shield to determine if the paper needs to be realigned horizontally.



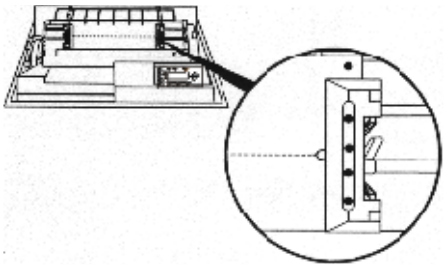
2. If a left margin is desired, it can be set electronically through either the control panel pushbuttons or a command sent by the host.
   - The marks on the label are set up for paper with a 1/2-inch perforation strip.
   - Aligning the edge of the paper with the first mark will cause the first column 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. If printing will be at 6 characters per inch, this position is column 6 on the paper after the perforation strip.
3. Turn the green horizontal paper adjustment knob (5050/5100 models) to align the paper as needed. This positions the paper for the first physical print column.



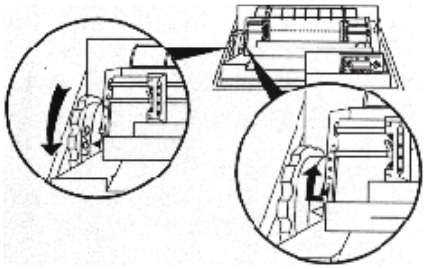
NOTE

The lower tractors are automatically readjusted to maintain proper alignment.

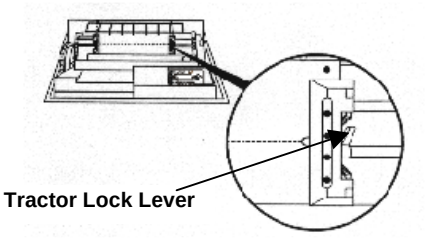
4. Align the perforations at the bottom of the first form with the pointers on the upper tractor doors by using the ↑ arrow or ↓ arrow pushbuttons. Refer to Top View illustration in Step 2, page 12, for location of the top of form alignment notches on the 5180 model.



5. If the same type of paper has been loaded, reset the print gap wheel and the paper tension lever to their prior positions. Refer to Top View illustration in Step 2, page 12, for location of the print gap adjust knob and paper tension lever on the 5180 model.

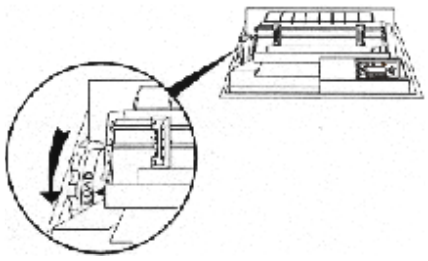


6. To accommodate a different *width* of paper, release the right tractor lock by pushing down on the small black lever. Load the paper onto the tractor pins and close the tractor door. Slide the tractor to the right to remove slack, then lock the tractor again and close the door. Refer to Top View illustration in Step 2, page 12, for location of the tractor locking lever on the 5180 model.



- If another *type* of paper has been loaded, use the following guidelines for the proper settings of the print gap and paper tension:

- Set the print gap wheel to 1 for single-part paper or 2 for two-part paper. For a more accurate method of setting the print gap, see the section, "Print Gap Adjustment," in the *5000 Series User's Manual.*



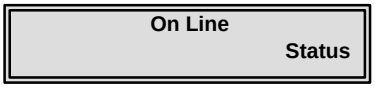
- Set the paper tension lever to 1 for single-part paper and 2 or higher for multi-part forms.

Note

Because of humidity and the weight of the paper, you may have to change the above settings to obtain the best print quality. For paper specifications, see Appendix B in the *5000 Series User's Manual.*

7. Press the **TOF** pushbutton on the control panel.
8. At this point the message **Paper Jam** may be displayed. Press the **Clear** pushbutton on the operator control panel to clear this display.
9. Close the top cover.

10. Press the **On Line** pushbutton on the control panel. "**On Line**" should now be displayed. If a fault message is displayed, check the "Display Messages" section of this guide to determine the possible cause.

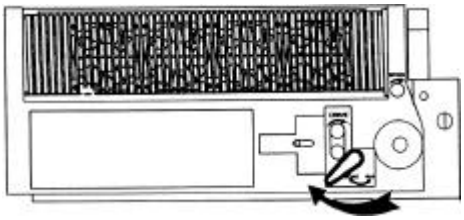


THE RIBBON DECK – 50 & 55 DBA (5050/5100) CABINET MODEL PRINTERS

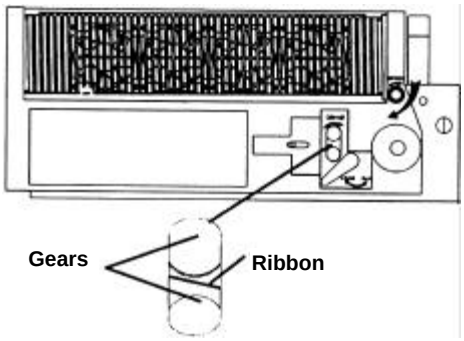
Note

Information on the 55 dBa (5180) cabinet model printer can be found in the *5000 Series User's Manual.*

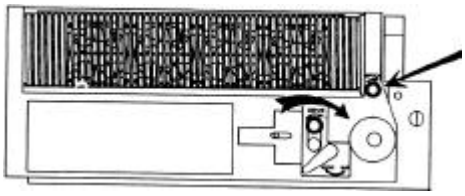
The ribbon deck contains the drive mechanism for the ribbon cartridge. The locking lever is used to open (**LOAD** position) and close (**RUN** position) the ribbon drive gears.



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.



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



THE RIBBON CARTRIDGE – 50 & 55 DBA (5050/5100) CABINET MODEL PRINTERS

Note

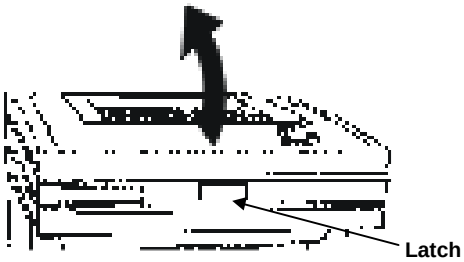
Information on the 55 dBa (5180) cabinet model printer can be found in the *5000 Series User's Manual.*

The topside 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 topside of the cartridge. Some ribbon cartridges have a re-inker for longer life. The re-inker lever should be rotated clockwise after the ribbon installation.

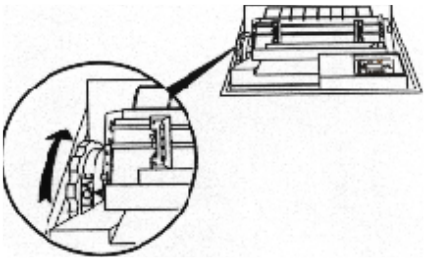
RIBBON REMOVAL AND INSTALLATION – 50 & 55 DBA (5050/5100) CABINET MODEL PRINTERS

Removing a Ribbon

1. Press the **On Line** pushbutton on the control panel until "Local" is shown in the display.
2. Raise the top cover. On the 55 dBa cabinet model printer, press the cover latch to unlock the cover.



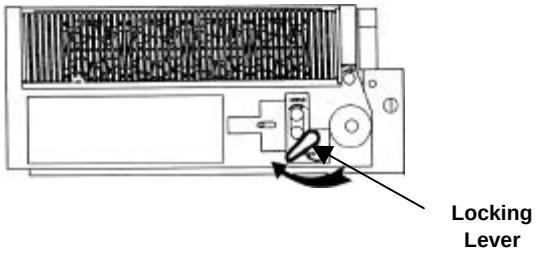
3. After making note of its current position, turn the print gap wheel to the **LOAD** position.



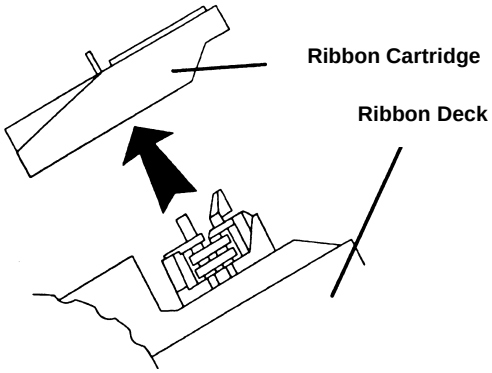
NOTE

Fault message Striker Bar Open will appear on the display panel and the beeper may sound.

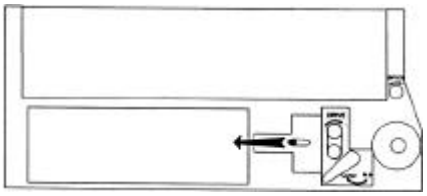
4. Turn the white ribbon locking lever *clockwise* to the **LOAD** position.



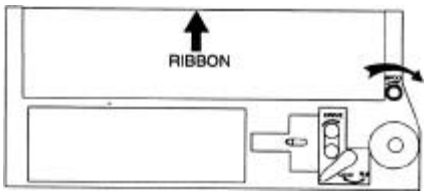
5. Lift the old ribbon cartridge off the ribbon deck.



6. Make sure the orange SLIDE LEVER on the new ribbon cartridge is in the full left position.

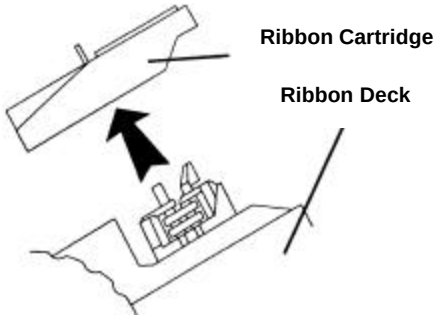


7. Turn the yellow SPOOL knob *clockwise* to take out any slack in the ribbon fabric between the cartridge arms.



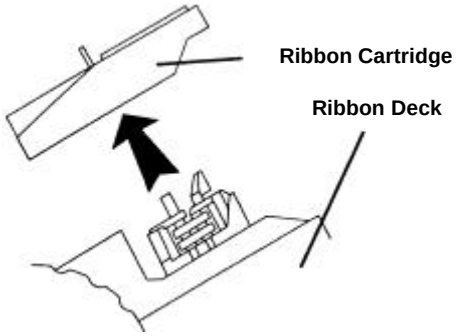
8. Place the printer offline and raise the top cover.
9. Turn the print gap wheel to the **LOAD** position. [See illustration in Step 3 above.]

10. Turn the white ribbon-locking lever *clockwise* to the **LOAD** position. [See the illustration in Step 4 above.]
11. Lift the ribbon off the ribbon deck.

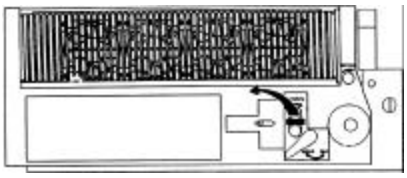


Replacing the Ribbon

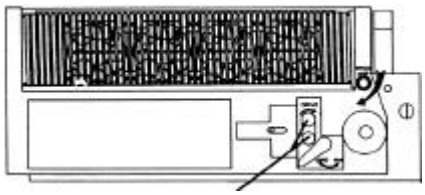
12. Hold the ribbon cartridge over the ribbon deck at an angle that matches the tilt of the ribbon deck as described below:
    - Facing the front of the printer, hold the ribbon cartridge so the body of the cartridge is parallel to the floor. Tilt the ribbon cartridge down so that the angle of the cartridge (front to back) matches the angle of the ribbon deck.
    - 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.
    - 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.



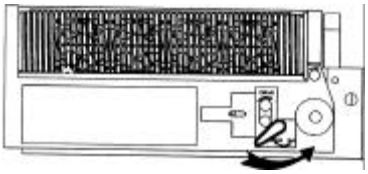
13. After the cartridge is in place, grasp the ribbon shipping tab on the ribbon cartridge and pull it up and towards the left to remove it from the cartridge.



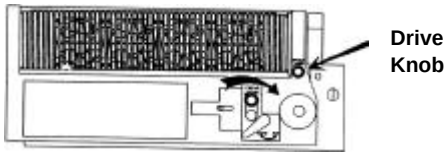
14. Turn the yellow SPOOL knob *clockwise* to make sure the ribbon is tensioned properly between the drive gears.



15. Turn the ribbon-locking lever *counter clockwise* to the **RUN** position.



16. Turn the black ribbon DRIVE knob *clockwise* until the yellow SPOOL knob stops turning.



17. If the ribbon cartridge has a reinker, turn the reinker lever *clockwise* to the ON position.

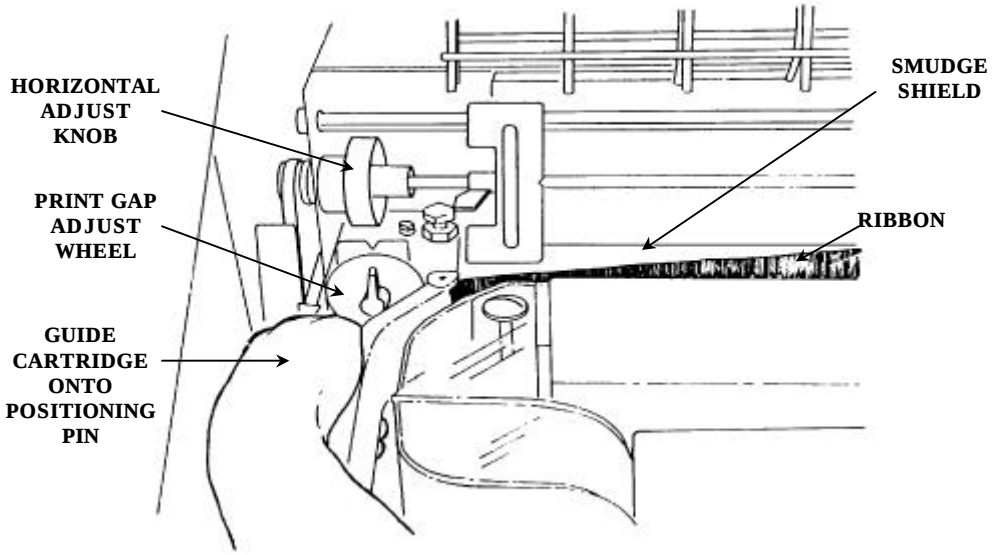
Note

After the ribbon cartridge has been installed, the print gap, paper tension, paper path, and top of form position must be set.

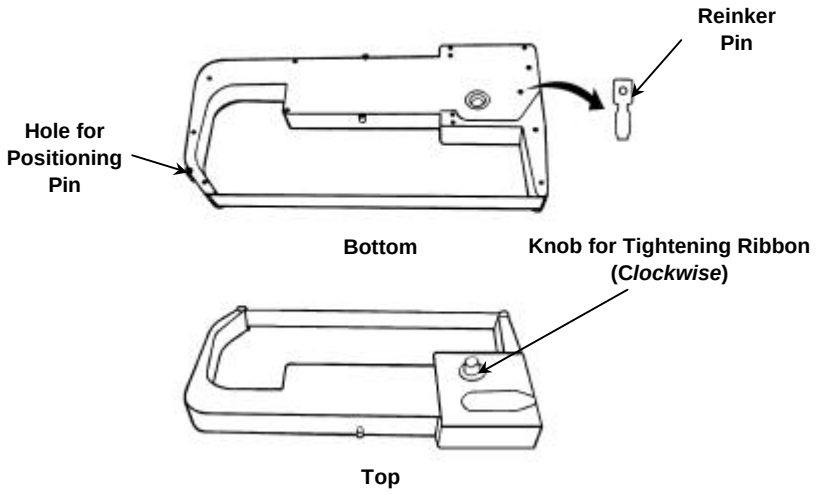
INSTALLATION AND REMOVAL OF RIBBON – 55 DBA (5180) CABINET MODEL

Use the following procedure to install a ribbon on a 5180 (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.



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.

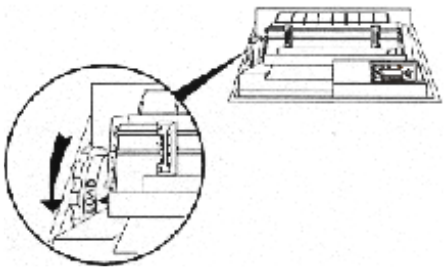


5. Refer to figure in Step 2, page 25. Tilt the left side of the ribbon cartridge down and place it on the positioning pin. Guide the cartridge onto the pin. Guide the ribbon between the air duct and the smudge shield. Then lower the right side of the cartridge onto the ribbon motor drive shaft. Turn 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.
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.

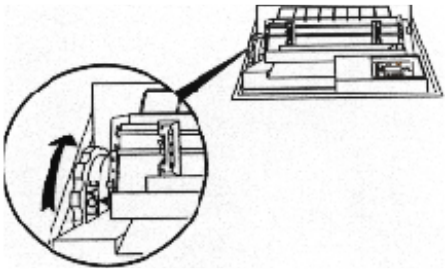
OPTIMIZING PRINT QUALITY

The print gap wheel is used to adjust the distance between the bank of print head actuators and the striker bar. Several factors can affect the print quality.

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



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



The moisture content and the thickness of the paper are major factors in determining the ideal setting.

Adjust the print gap wheel to produce the best print quality possible.

Reading the Scale

The print gap wheel has two scales to aid in setting the proper gap.

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 multi-part 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.

LOW PAPER PRINTING

Low paper printing allows you to replenish 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.

Note

A form length of 12.5 inches or longer causes the printer to bypass the low paper fault. The printer will finish the last form of a box and immediately go to a paper out condition.

Low Paper

When the paper supply runs down to 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.

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

Press the **On Line** pushbutton and the printer will finish the remainder of the current form and stop. **Online** will be displayed in the upper left corner of the display window and **Low Paper Status** will be displayed in the lower right corner of the display. The printer will finish the remainder of the current form and stop**.**

The alarm light will flash and **Paper Out** will display in the upper left corner of the display.

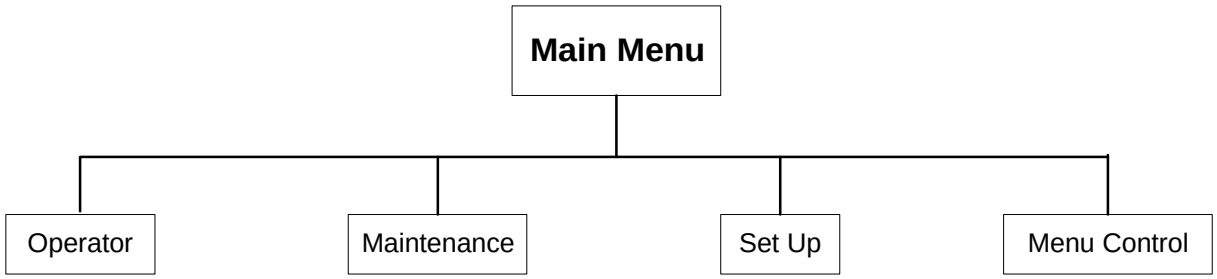
Replenish the paper supply in the printer. (See “Replenishing Paper Supply” in *5000 Series User’s Manual*) The printer will finish the job in the print buffer, when the printer is replenished with paper and back online with the appropriate form settings. (See “Setting TOF” for additional information.)

Note

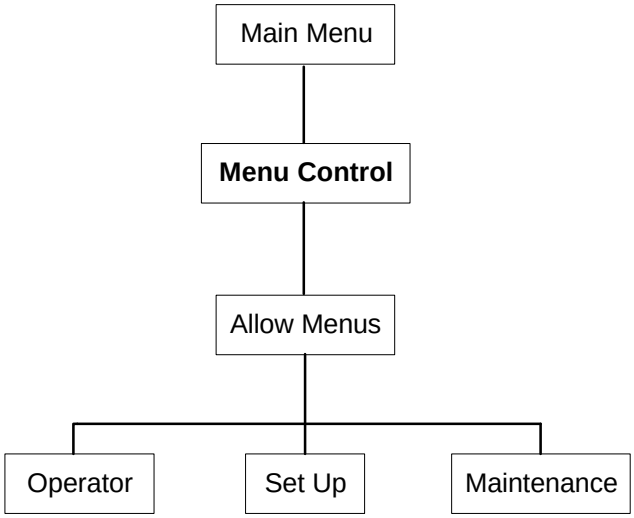
If your print job has been using reverse paper moves (backing paper up while using bar codes, oversize, or vertical moves), stop at this point and replenish the paper supply. Once the paper runs out of the lower tractors in this mode, poor print quality and jams could occur.

LCD MENU MAPS

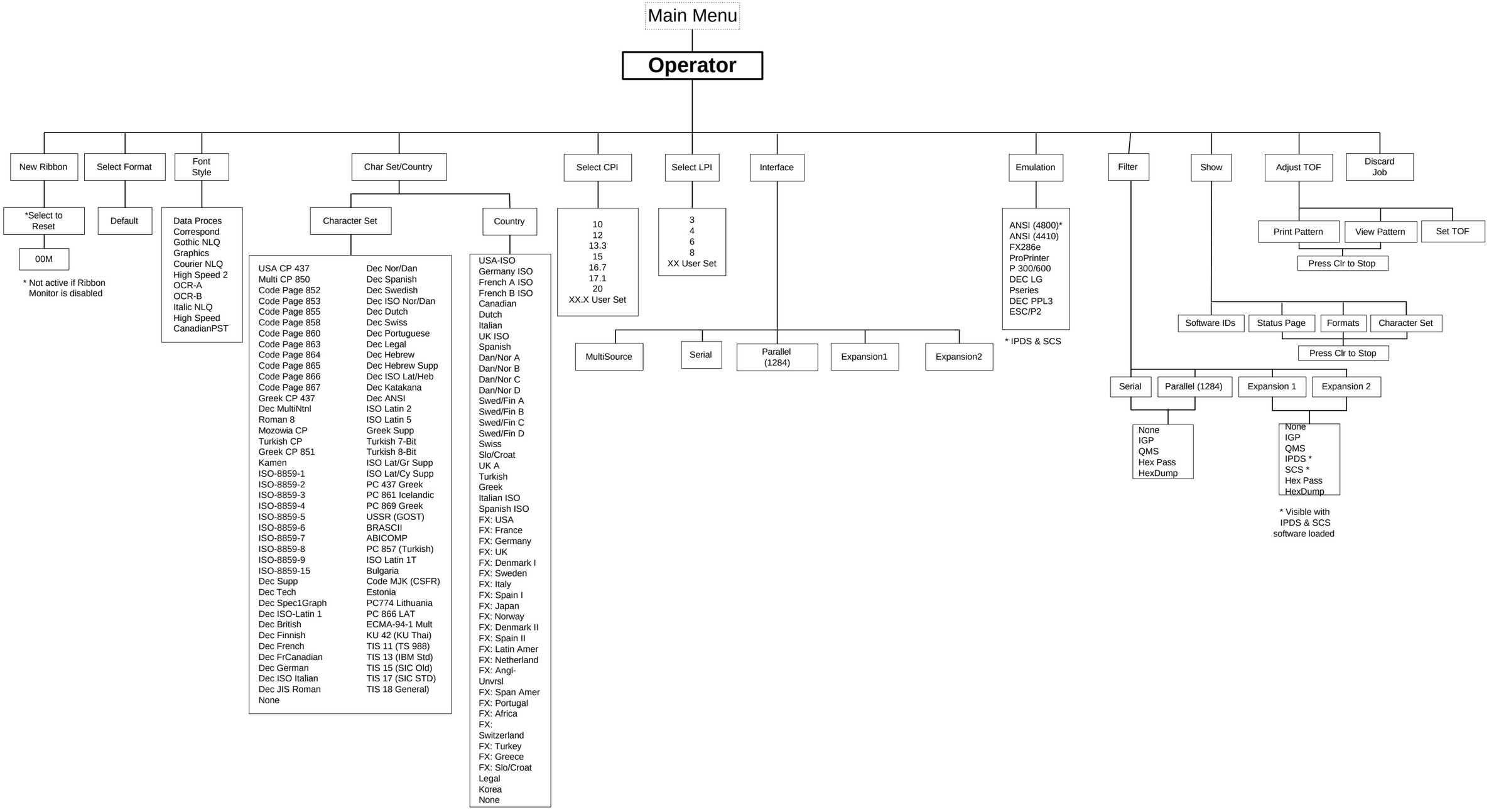
The following Menu Maps detail all options available on the 5000 series printers. Complete instructions for setting specific options can be found in the *5000 Series User’s Manual.*

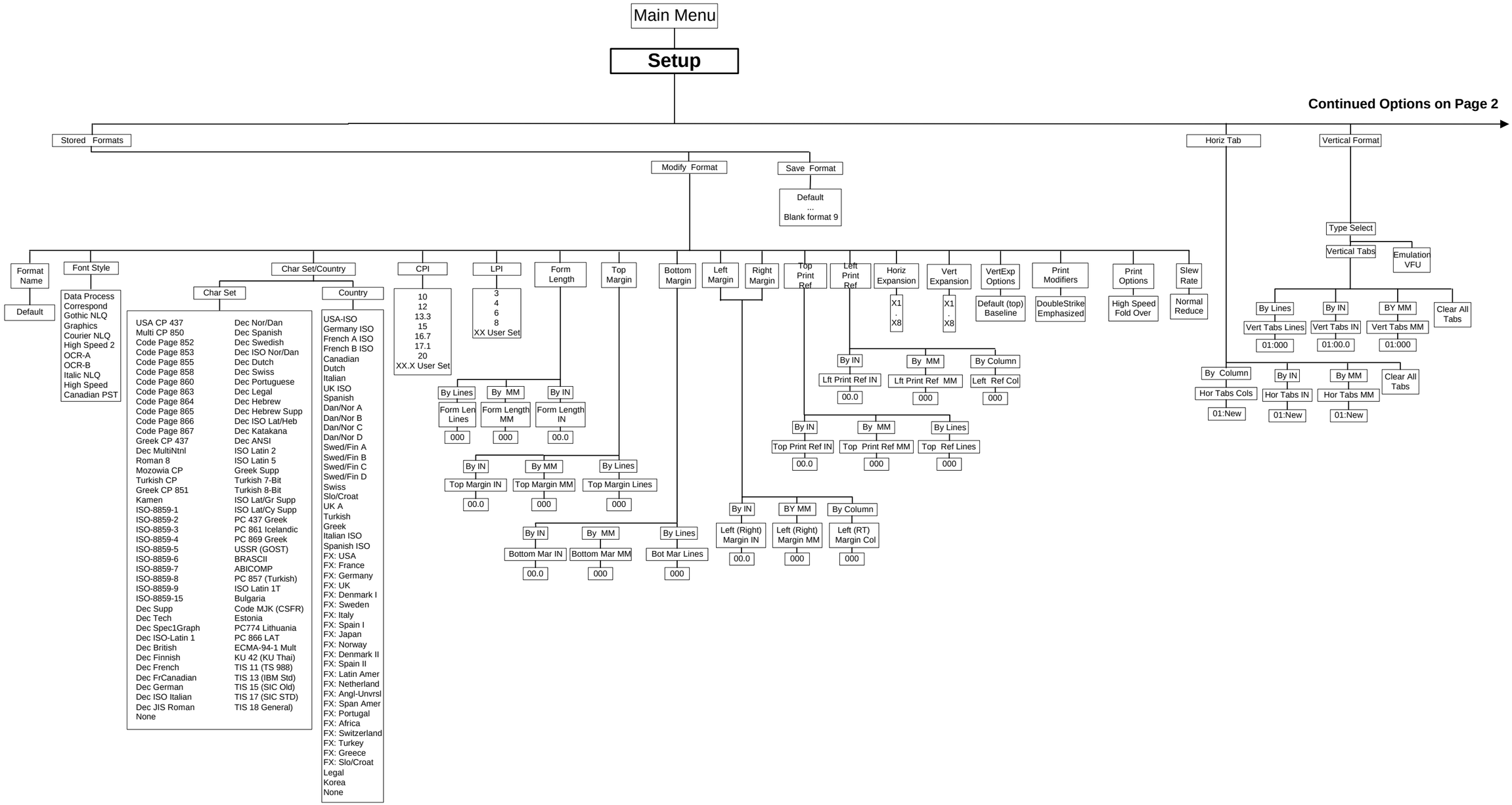


Note: Operator, Maintenance, Setup and Menu Control menus are expanded on separate pages.



Note: To display this menu, see "Using Menu Control" in Chapter 3, 5000 Series User's Manual for additional information.


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
Print Pattern
View Pattern
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
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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
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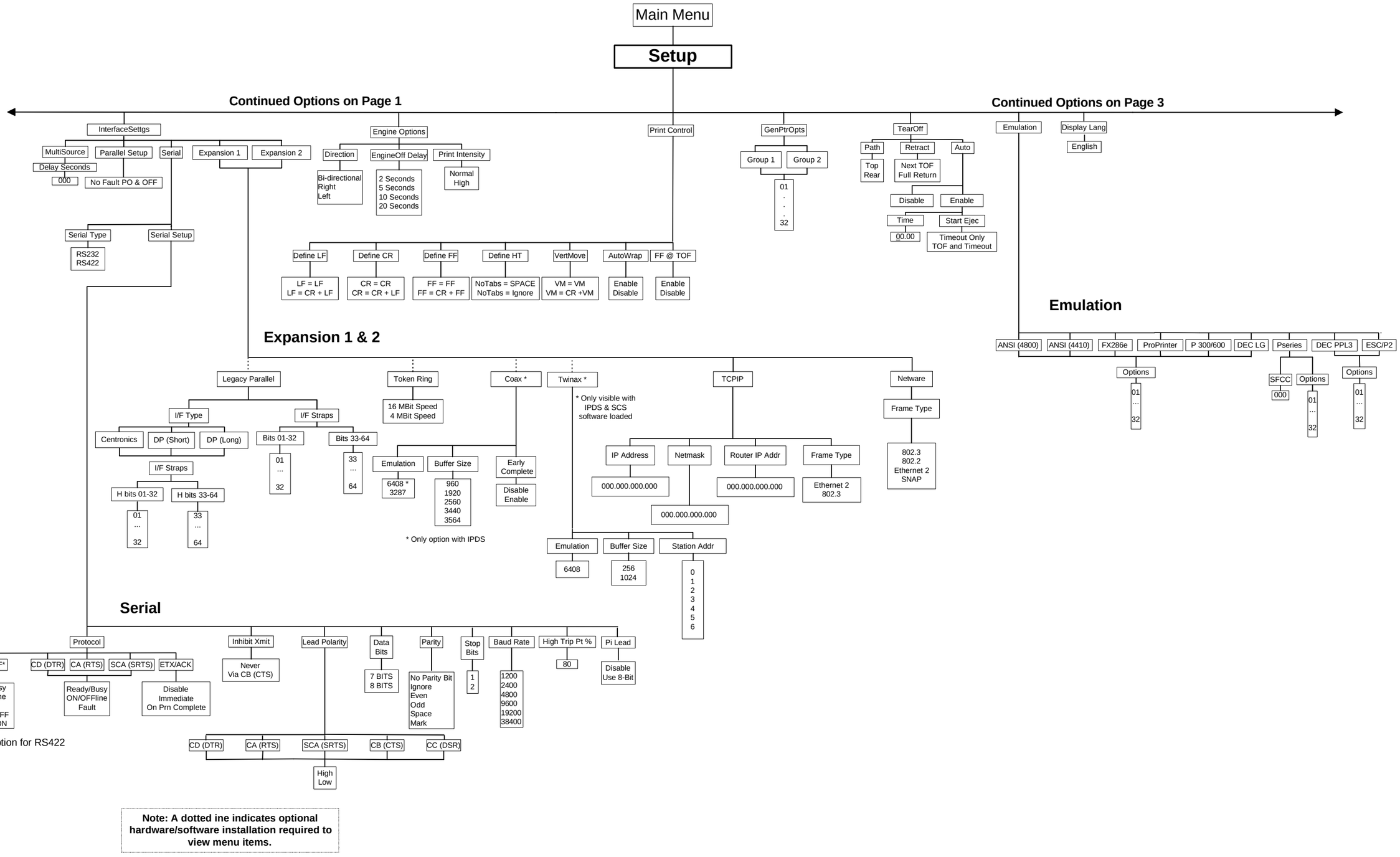
Dec Nor/Dan
Dec Spanish
Dec Swedish
Dec ISO Nor/Dan
Dec Dutch
Dec Swiss
Dec Portuguese
Dec Legal
Dec Hebrew
Dec Hebrew Supp
Dec ISO Lat/Heb
Dec Katakana
Dec ANSI
ISO Latin 2
ISO Latin 5
Greek Supp
Turkish 7-Bit
Turkish 8-Bit
ISO Lat/Gr Supp
ISO Lat/Cy Supp
PC 437 Greek
PC 861 Icelandic
PC 869 Greek
USSR (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
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
By Column
Hor Tabs Cols
01:New
By IN
Hor Tabs IN
01:New
By MM
Hor Tabs MM
01:New
Clear All Tabs


Main Menu
Setup
Continued Options on Page 1
Continued Options on Page 3
InterfaceSettgs
MultiSource
Delay Seconds
000
Parallel Setup
No Fault PO & OFF
Serial
Serial Type
RS232
RS422
Serial Setup
Expansion 1
Expansion 2
Engine Options
Direction
Bi-directional
Right
Left
EngineOff Delay
2 Seconds
5 Seconds
10 Seconds
20 Seconds
Print Intensity
Normal
High
Print Control
Define LF
LF = LF
LF = CR + LF
Define CR
CR = CR
CR = CR + LF
Define FF
FF = FF
FF = CR + FF
Define HT
NoTabs = SPACE
NoTabs = Ignore
VertMove
VM = VM
VM = CR +VM
AutoWrap
Enable
Disable
FF @ TOF
Enable
Disable
GenPtrOpts
Group 1
Group 2
01
.
.
.
32
TearOff
Path
Top
Rear
Retract
Next TOF
Full Return
Auto
Disable
Enable
Time
00.00
Start Ejec
Timeout Only
TOF and Timeout
Emulation
Display Lang
English
Expansion 1 & 2
Legacy Parallel
I/F Type
Centronics
DP (Short)
DP (Long)
I/F Straps
H bits 01-32
01
...
32
H bits 33-64
33
...
64
I/F Straps
Bits 01-32
01
...
32
Bits 33-64
33
...
64
Token Ring
16 MBit Speed
4 MBit Speed
Emulation
6408 *
3287
Buffer Size
960
1920
2560
3440
3564
Early
Complete
Disable
Enable
* Only option with IPDS
Coax *
Twinax *
* Only visible with
IPDS & SCS
software loaded
Emulation
6408
Buffer Size
256
1024
Station Addr
0
1
2
3
4
5
6
TCPIP
IP Address
000.000.000.000
Netmask
000.000.000.000
Router IP Addr
000.000.000.000
Frame Type
Ethernet 2
802.3
Netware
Frame Type
802.3
802.2
Ethernet 2
SNAP
Emulation
ANSI (4800)
ANSI (4410)
FX286e
ProPrinter
Options
01
...
32
P 300/600
DEC LG
Pseries
SFCC
000
Options
01
...
32
DEC PPL3
Options
01
...
32
ESC/P2
Serial
Protocol
XON/XOFF*
Ready/Busy
ON/OFFline
Fault
Robust XOFF
Robust XON
CD (DTR)
CA (RTS)
Ready/Busy
ON/OFFline
Fault
SCA (SRTS)
ETX/ACK
Disable
Immediate
On Prn Complete
* Only option for RS422
Inhibit Xmit
Never
Via CB (CTS)
Lead Polarity
CD (DTR)
CA (RTS)
SCA (SRTS)
High
Low
CB (CTS)
CC (DSR)
Data
Bits
7 BITS
8 BITS
Parity
No Parity Bit
Ignore
Even
Odd
Space
Mark
Stop
Bits
1
2
Baud Rate
1200
2400
4800
9600
19200
38400
High Trip Pt %
80
Pi Lead
Disable
Use 8-Bit
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: Disable, Enable
- Delete Logos: Disable, Enable
- Default OCR-B
- Vertical DPI: 72, 70
- Slashed Zero
- Clip Text: Disable, Enable
- Ignore Chr Mode
- Ignore Char: 00

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: Disable, Enable
- Free Format
- Ignore Default
- Slashed Zero
- 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: Disable, Enable
- Ignore Chr Mode
- Ignore Char: 00

Note: A dotted ine indicates optional hardware/software installation required to view menu items.

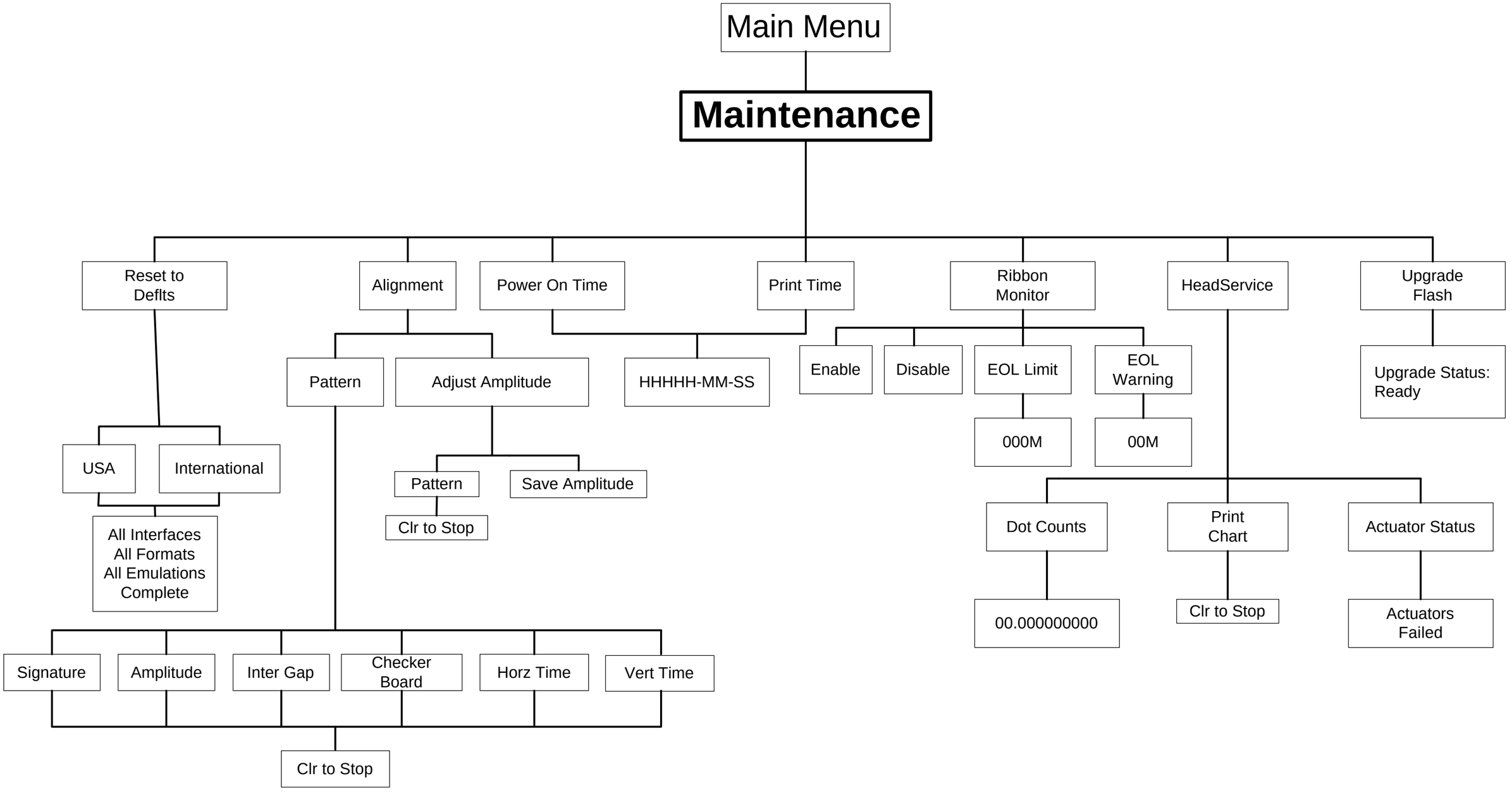
IPDS

- IPDS BC Stagger: Enable, Disable
- IPDS BC Density
- IPDS GR Density: Low, High
- IPDS Im Density
- IPDS Dens Ovr: Enable, Disable

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: Disable, Enable
- LPI Override: Disable, Enable
- CPI Override: Disable, Enable
- MPP Override: Disable, Enable
- MPL Override: Disable, Enable
- Override Text
- Override All: Disable, Enable
- Hex Print
- HEX 1
- HEX 2
- HEX Term: 00
- DCF1
- DCF2
- DCF Term
- Coax Compat *: Case: Dual, Mono; FF Before LC: Disable, Enable; Irq Err TO: 000; CR At MPP+1: NL, CR; FF Data: Col 1, Col 2; Null SUP: LC/NSCS NON-SCS L COPY OFF; Auto Funct: NL, FF; Supp CCode: Disable, Enable; Comm: EAB QUERY/EAB Disabled
  - LOC Copy FF: Disable, Enable
  - Interv Req: Enable, Disable
  - Irq Bsy TO: 000
  - NL At MPP+1: LN+2, NL
  - FF EndBuff: LN 1, LN 2
  - FF Pos: CPP=1, Anywhere
  - LAST LF/FF: Enable, Disable
  - VCS: 3287, 3268/4214 NON SCS 3268 NON SCS 3287

*COAX ONLY IPDS & SCS


Main Menu
Maintenance
Reset to Deflts
Alignment
Power On Time
Print Time
Ribbon Monitor
HeadService
Upgrade Flash
USA
International
All Interfaces
All Formats
All Emulations
Complete
Pattern
Adjust Amplitude
Pattern
Save Amplitude
Clr to Stop
HHHHH-MM-SS
Enable
Disable
EOL Limit
EOL Warning
000M
00M
Upgrade Status: Ready
Dot Counts
Print Chart
Actuator Status
00.000000000
Clr to Stop
Actuators Failed
Signature
Amplitude
Inter Gap
Checker Board
Horz Time
Vert Time
Clr to Stop

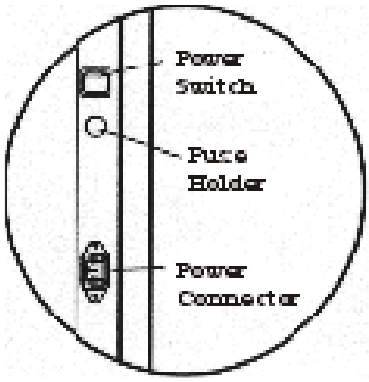
CLEANING PROCEDURE

While cleaning is not required for the normal operation of these printers, should cleaning be desired the following steps are suggested:

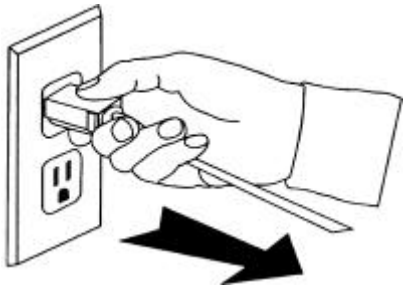
WARNING

Do not use any cleaning solutions!!!

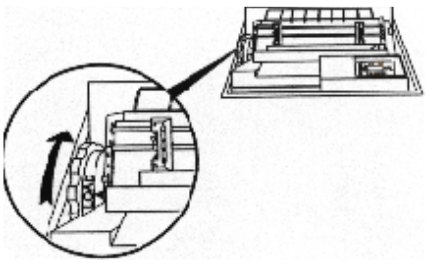
1. Turn the power switch off. The power switch is located on the rear panel of the printer.



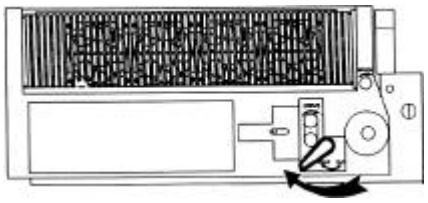
2. Disconnect the power cord from the AC source.



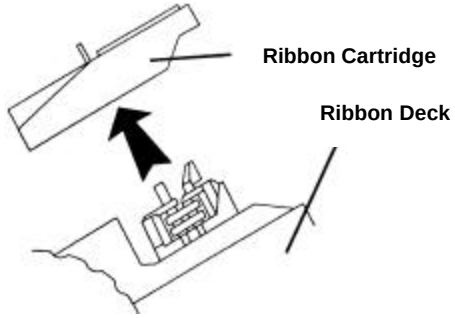
3. With the cover open note the current setting, than turn the print gap wheel to the **LOAD** position. Refer to Top View illustration in Step 2, page 12, for location of the print gap adjust knob on the 5180 model.



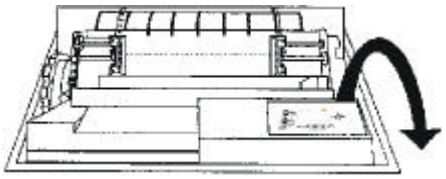
4. Turn the ribbon deck locking lever to the **LOAD** position.



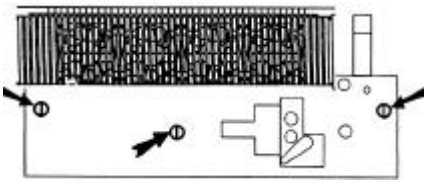
5. Lift the ribbon cartridge off the ribbon deck.



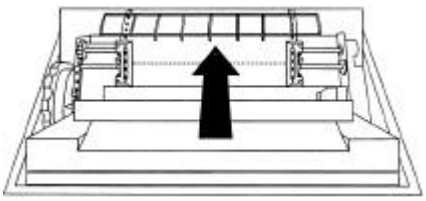
6. Flip the control panel forward.



7. Loosen the three thumbscrews on the ribbon deck, starting with the *center thumbscrew first*.

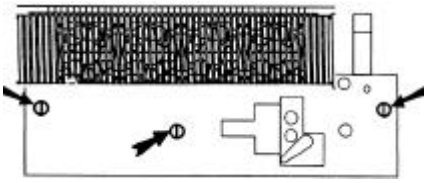


8. Remove the ribbon deck by lifting upward.



9. Using a soft brush or vacuum, remove any paper dust that has accumulated inside the printer.

10. Replace the ribbon deck and tighten the thumbscrews.

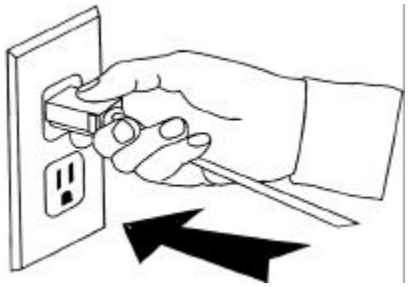


11. Reinstall the ribbon cartridge by following the procedures described in the “Installing New Ribbon” section.
12. Clean the outside surfaces of the printer with a clean, damp cloth. Dry the surfaces with a clean dry cloth.

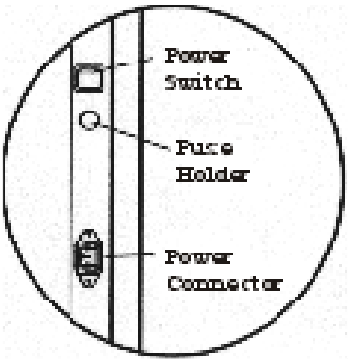
WARNING

Do not use any cleaning solutions!!!

13. Reconnect the power cord.



14. Turn the printer on.



FAULT AND ERROR CONDITIONS

Hard Faults

When a hard fault occurs, printing will stop and operator intervention is required. Correct the condition causing the fault and press the **Clear** pushbutton to restore printer operation. This is only a partial list of possible hard fault conditions. For a complete list consult the *5000 Series User's Manual.*

DISPLAY	MEANING
Low Paper	A low paper condition exists. Press Clear to proceed to low paper printing. See "Low Paper Printing" in Chapter 2 in *5000 Series User's Manual.*
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	The paper motion sensor has sensed no paper movement. 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 Clear to clear display 4. Clean the paper motion sensor located on the upper left tractor.
No Ribbon	Ribbon cartridge is missing, installed incorrectly, or damaged.
Ribbon Jam	Ribbon has stopped moving. Remove the ribbon cartridge. Clean the ribbon motion sensor. Inspect and reinstall the ribbon cartridge. Press Clear to clear display.
Striker Bar	Print gap wheel turned to the LOAD position. Adjust for proper paper gap.
Shuttle Overload	Shuttle drive motor is stalled or overloaded. Check for interference caused by a paper jam at the print head area or print gap adjusted too tight.
Paper Almost Out	A low paper condition exists. The paper out sensor has detected the end of the last form of the paper supply and printing continued to the end of the current form.

Soft Faults

When a soft fault occurs, printing continues (or can be started) and immediate operator intervention may not be required.

Some change in the data being sent to the printer may be required (See *5000 Series Programmer's Manual*).

If a wire driver or print head actuator fails, 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 soft fault messages will be displayed in the lower right corner of the display window:

DISPLAY	MEANING
Driver Circuit	All actuators on an entire tier failed.
Bad Actuator	An actuator or the driver circuit controlling the actuator has failed.
Array Failure	All actuators on both tiers have failed (5180 Model only).
Cover Open	Detected the cabinet cover is open.
Change Ribbon	The ribbon monitor feature has detected the specified number of dots has been printed on the current ribbon.
Service Time	Service time was set to zero or the timer has failed.
Low Power Suspnd	Printing is temporarily suspended because of a short-duration, low power supply voltage or the ribbon weld passing the sensor.
VFU Missing TOF	Missing TOF in the VFU load sequence.
VFU PI Lead	Paper Instruction Lead: The menu option for PI lead selection is set incorrectly.
Invalid VFU Seq	There is an invalid character(s) in the VFU load sequence.
VFU Tbl Too Long	The VFU table length has been exceeded.
Bad Font Checksum	Download font load checksum error. An invalid checksum value was detected.

Note

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- and 1800-lpm or 1-33 for 500-lpm).

Electrical Problems

Potential problems that can be experienced with the display, pushbuttons, or data printouts.

PROBLEM	POSSIBLE CAUSE/CURE
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 working appliance. • Check the thumbscrews on the ribbon deck. • Check the printer for a blown fuse.
Some pushbuttons are inoperative.	• Normal if printer is online. (Pushbutton press causes a beep). • Offline: Printer may be locked up. Turn power off for 15 seconds and then back on.
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, contact your service provider.
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

Potential problems that can be experienced with paper feeding and print quality.

PROBLEM	POSSIBLE CAUSE/CURE
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 misalign tractors or paper. • Turn the print gap wheel to the **LOAD** position and physically clear paper jam. • Reload paper, readjust right side tractors, paper tension, and gap. • Press **Clear** 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 Actuators or Driver Circuit may be displayed.	• Check for loose cable connection on print head actuators. • Bad Actuators indicates that a particular actuator or the driver circuit controlling that actuator has failed the printer's test of the circuit. • 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. It is all right to continue using the 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 using the control panel.
- After printing.
- When requested from the host by the ESC Q escape sequence. (See *5000 Series Programmer's Manual* for information on escape sequences.)

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 *5000 Series Programmer's Manual* for information on the ANSI emulation and escape sequences.

ADDITIONAL OPTIONS AVAILABLE

A complete listing of the options available in this printer can be found in the *5000 Series User's Manual, Appendix D.* These items may be obtained 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 the quantity desired. See the *5000 Series Programmer's Manual, Appendix D* for the available items.