DCS-VIP(Internet K/P)
User Guide

Chapter 1 Overview

This chapter explains the DCS-VIP's main functions and its usage, as well as its hardware structure and requirements. This chapter contains the following sections.

- Introduction to the DCS-VIP
- System Panels and Component Functions
- Product Specifications

Introduction to the DCS-VIP

The DCS-VIP is an integrated voice and data system, which allows for connecting to the Internet, or connecting a LAN to a remote LAN, and also provides an inexpensive and perfect Keyphone feature through an ISDN line. The DCS-VIP is the ideal SOBO(Small Office Branch Office) product, which integrates all the communication constituents available at established offices such as telephones, data communication equipment and network equipment for the LAN connection. The DCS-VIP provides TCP/IP routing, through which LAN and WAN are connected. In addition, it provides advanced services such as Packet Filtering, Dynamic Host Configuration Protocol (DHCP) and Network Address Translation (NAT).

Main Functions

- A highly effective and inexpensive system integrating the ISDN router and the Key-phone system.
- Allows for connecting to the Internet and making LAN-to-LAN connections through an ISDN line.
- An inexpensive Internet Phone Service using VoIP (Voice over Internet Protocol).
- To use Internet PC communication, Telephone Service at the same time is available for those login-name sharing users.
- Two interfaces of either ISDN BRIU or ISDN BRI S/T.
- 8 10/100BASE-T Ethernet ports.
- 6 Digital phone ports.
- 4 Analog phone ports.
- Expansion System (2BRI, 2DLI, 4DLI/SLI,4SLI, 8LAN).

Web-Based Remote Management

The DCS-VIP is able to remotely manage system operation through the Netscape Navigator web browser or Internet Explorer web browser, regardless of hardware platform or operating system. Web browsers provide a user environment similar to the Windows environment and make it easy to remotely manage the system without the need to learn the commands for setting up system configuration and management. In particular, the DCS-VIP provides a Setup Wizard with screens in the form of dialogs with the user, so that even beginners who are not familiar with routers and keyphones can easily set up the DCS-VIP system.

Keyphone Features

The DCS-VIP provides the perfect Keyphone feature at the office. It provides the same features as the 2*10 Keyphone system in that it provides 2 ISDN voice channels, 6 digital phone ports, and voice calls exchange features among 4 analog phone ports.
Voice calls exchange features are such features as Alarm for Appointments, Bosses /Secretaries, Call Forwarding, DND (Do not Disturb), Redial, Call Waiting, and Ring Tone. System features are LCR (Least Cost Routing), Operator Group, Multifunctional Buttons, Class of Service, Conference, Broadcasting, Station Group, System Speed Dial, and the limitation of trunk use.

Facilitated Expansion

The DCS-VIP main system provides 2 ISDN BRI ports, 6 digital phone ports, 4 analog phone ports and 8 Internet LAN ports. In addition, as an option, it provides the VoIP feature board, which allows for drastic cutting of telephone costs by using Voice Data Communication through the Internet.
By connecting the expansion system to the DCS-VIP main system through stacking, the ISDN BRI port, digital phone port, analog phone and Ethernet port can be easily expanded. The DCS-VIP expansion system additionally provides 2 ISDN BRI ports, 2 digital phone ports, 4 DLI/SLI ports, 4 analog phone ports and 8 Ethernet LAN ports.

ISDN BRI Interface

The DCS-VIP provides standard U or S/T ISDN interfaces. These two interfaces provide two independent Bearer (B) channels, which can use voice and data communication at the same time. Additionally, by using the BOD (Bandwidth On Demand) feature, two B channels can be combined at a speed of 128Kbps, depending on the variation of traffic volume.

VoIP (Voice over Internet Protocol)

The DCS-VIP supports the VoIP feature as an option. Since VoIP transmits voice data through the Internet, long distance and International phone call charges can be drastically cut.
The DCS-VIP's VoIP also provides basic features such as Call Outgoing/Incoming, Call Forwarding, Redialing and Call Waiting as well as Call Billing for Telephone Rate Charging and the Maintenance and Repair feature.

DHCP (Dynamic Host Configuration Protocol) Server

DHCP automatically activates IP address allotment, which the administrator must do when establishing the network. Consistent with the client's commands, the DHCP server allocates information about the IP address and network environment, and where no more network environment is needed for the client system, the server allocates it to another client. Therefore, it can use the limited IP address in a more efficient way.

NAT (Network Address Translation)

When using the TA (Terminal Adapter) through the ISDN line, only one or two persons are able to communicate at a speed of 64K/128K. But when using the ISDN PPP service, several users using the same login name are able to communicate simultaneously through the DCS-VIP's NAT feature.
The network address packet, which is randomly allocated inside, is turned into the certified IP before it is transmitted outside through the DCS-VIP and a number of users can share the same IP .

Data Compression

The DCS-VIP supports the Stacker LZS Compression Protocol, which is widely selected for ISDN. Data compression is an option which optimizes the ISDN line's bandwidth, and Stacker LZS can compress the data at the high ratio of 4:1. Packets are compressed through the ISDN line before they are transmitted, and after they reach the destination they are decompressed before being transmitted to the next remote LAN.

Simple System Software Upgrading

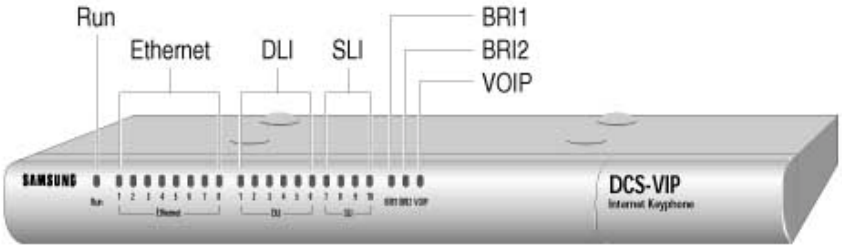
The DCS-VIP saves system software in Flash memory. Since the DCS-VIP supports TFTP (Trivial File Transfer Protocol), the console port or the Ethernet port can easily upgrade system software. Upgraded software can be downloaded at the site: http://www.samsungnetwork.com.

System Panels and Component Functions

The DCS-VIP has two kinds of system, the main system and the expansion system, which can be connected together.
This section explains each component and function of the DCS-VIP main and expansion system.

Front Panel of the DCS-VIP

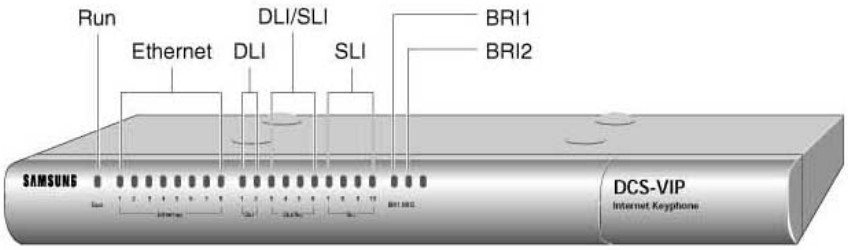
Front Panel of the Main System



LED functions are described in the table below.

LED	Color	Function
Run	Yellow-green	The light blinks while the system is operating normally.
Ethernet 1 ~ 8	Yellow-green	The light is on while the Ethernet port and PCs or Hub are connected by UTP cables.
DLI 1 ~ 6	Yellow-green	The light is on while the digital telephone connected to the DLI port is in use.
SLI 1 ~ 4	Yellow-green	The light is on while the SLI port connected to the analog port is in use.
BRI 1/2	Yellow-green	The light is on while the BRI port is connected to the ISDN Line.
VOIP	Yellow-green	The light is on while the VoIP port is connected to the Ethernet cable.

Front Panel of the Expansion System

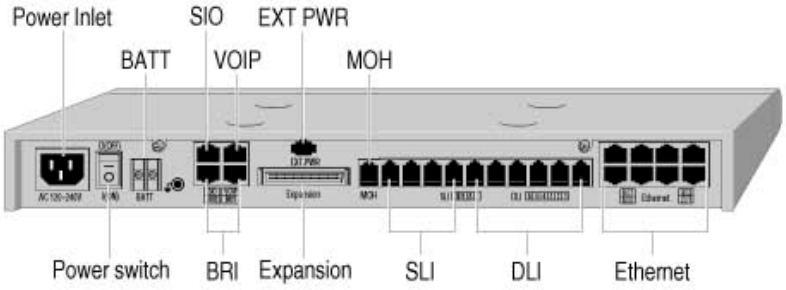


LED functions are described in the table below.

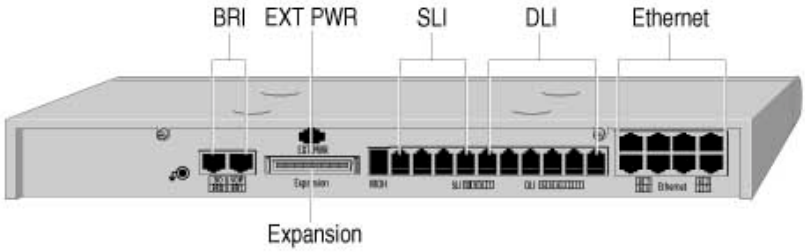
LED	Color	Function
Run	Yellow-green	The light blinks while the system is operating normally.
Ethernet 1 ~ 8	Yellow-green	The light is on while the Ethernet port and PCs or Hub are connected by UTP cables.
DLI 1 ~ 2	Yellow-green	The light is on while the digital telephone connected to the DLI port is in use.
DLI/SLI 3 ~ 6	Yellow-green	The light is on while the DLI/SLI port connected to the digital/analog port is in use.
SLI 1 ~ 4	Yellow-green	The light is on while the SLI port connected to the analog port is in use.
BRI 1/2	Yellow-green	The light is on while the BRI port is connected to the ISDN line.

Rear Panel of the DCS-VIP

Rear Panel of the Main System



Rear Panel of the Expansion System



Port Functions

Port functions of the main system and the expansion system are as follows.

Note
The following words are used to distinguish between the main system and the expansion system.
Main : The port in the main system.
Exp : The port in the expansion system.

BRI Port (RJ-45) Main Exp

The ISDN BRI port supports U Interface or S/T Interface.

- BRI U Interface: Since NT1 is built-in, this can be easily connected to the ISDN wall jack without special devices such as NT 1 or TA (Terminal Adapter).
- BRI S/T Interface: Since NT1 is not built-in, this can be connected to the ISDN wall jack through NT 1 or TA (Terminal Adapter).

VOIP Port (RJ-45) Main

This is a port connecting the Ethernet Interface when using the DCS-VIP through VoIP.

SIO Port (RJ-45) Main

SIO port is connected to the console terminal. If the console terminal is connected to the DCS-VIP, you can manage the system using console commands.

BATT Port Main

The BATT port is for connecting the battery. Once the battery is connected to the DCS-VIP system, it is recharged while the mains power is being provided. Battery power is provided if the mains power is cut off.

Ethernet Port (RJ-45) Main Exp

The Ethernet port is a 10/100Base-T port, which can connect a PC if a network adapter is installed, or a hub and router.

DLI Port (RJ-11) Main Exp

The DLI port can connect a digital telephone.

SLI Port (RJ-11) Main Exp

The SLI port can connect an analog telephone or a fax machine.

DLI/SLI Port (RJ-11) Exp

The DLI/SLI port on the expansion system is for connecting a digital or analog telephone, or a fax machine. The jumper on the expansion system board selects the port type.

Expansion Port (RS-232C) Main Exp

This port provides power for the expansion system, and transmits and receives data, when the main system and the expansion system are connected together.

EXT PWR Port Main Exp

This port provides power for the expansion system when the main system and the expansion system are connected together.

MOH Port (RJ-11) Main

This port connects external tone source equipment such as a radio or CD player to play the music for music on hold. Alternatively, you can connect output equipment for external broadcasting and the equipment as a Free Replay available for opening and shutting of the external doorway.

Power Input Terminal **Main**

This is a connector for the power cable. The power provided for this connector is AC120~240V.

Power ON/OFF Switch **Main**

This is the mains power on/off switch.

Product Specifications

Hardware Specifications

CPU	Router Module	Motorola MC68EN360
	Keyphone Module	Motorola MC68EN302
Memory	Router Module	16M DRAM 2M Flash
	Keyphone Module	8M DRAM 2M Flash
Port Interface	Main System	2 ISDN BRI Interfaces : U or S/T type 1 VoIP port : RJ-45 1 SIO port : RJ-45 8 Ethernet ports : 10/100Base-T, RJ45 6 Digital Phone ports : RJ-11 4 Analog Phone ports : RJ-11 1 Expansion port 1 BATT port 1 MOH port
	Expansion System	2 ISDN BRI Interfaces : U or S/T type 8 Ethernet ports : 10/100Base-T, RJ45 2 Digital Phone ports : RJ-11 4 Hybrid ports : RJ-11 4 Analog Phone ports : RJ-11 1 Expansion port
Dimensions	426.79(W) x 278.4(D) x 49.9(H) (mm)	
Power Supply Voltage Frequency	70 Watts, 120-240 VAC (Free Volt)	

Router Software Specifications

Routing	IP (Static Routing) IPX (LAN, WAN)
WAN Service	PPP (Point-to-Point Protocol), MLPPP(Multilink PPP)
Management	SNMP (Simple Network Management Protocol), Web-based Management
Security	PAP (Password Authentication Protocol), CHAP (Challenge Handshake Authentication Protocol), Access List, Filtering Rule
Option	NAT (Network Address Translation), DHCP (Dynamic Host Configuration Protocol) Server, DHCP Relay Agent, BOD (Bandwidth on Demand), Router Configuration (MIB) save and restore

Keyphone Software Specifications

System Features	Attendant Group, Barge-in, Call Waiting, Class Of Service, Conference, In Group/Out of Group, Least Cost Routing, Music On Hold, Page, SMDR, Call Transfer
Station Features	Alarm Reminder, Answer Mode, Boss/Secretary, Call Forwarding, Hold, Camp-on, Do Not Disturb, Message Waiting, Redial, Speaker Phone, Speed Dial, Trunk Callback
Option Features	CTI, ISDN AOC, ISDN COLP/COLR, ISDN DDI, ISDN MSN, ISDN Subaddress, Voice Mail System

VoIP Software Specifications

Basic Features	Incoming Call, Outgoing Call, Call Forward, Call Transfer, Call Wait, Redial
System Features	Set μ/A-Law, Translation Tel No. to IP Address, Web-based Management
VoIP Features	Trunk Account, IP Converting Table, Remote Download

Chapter 2 Preparing for the DCS-VIP Installation

This chapter explains how to prepare for installing the DCS-VIP. This chapter contains the following sections.

- Ordering the ISDN BRI Line
- Drawing the Network Configuration Diagram
- Installation Environment
- Precautions During Installation
- Unpacking
- Tools and Equipment Necessary for Installation

Ordering the ISDN BRI Line

You can order the ISDN BRI line from your ISDN service provider as follows.

1. Call your ISDN service provider and order the ISDN BRI service (two B channels and one D channel).

Since the DCS-VIP system has two BRI ports, you can order two different ISDN lines (four B channels and two D channels) with different phone numbers. If you are connecting the expansion system you can apply for a maximum of four ISDN lines.

2. Ask the ISDN service provider for the following information.

✓ The ISDN switch type
✓ The ISDN telephone number
✓ SPID (North America Only)

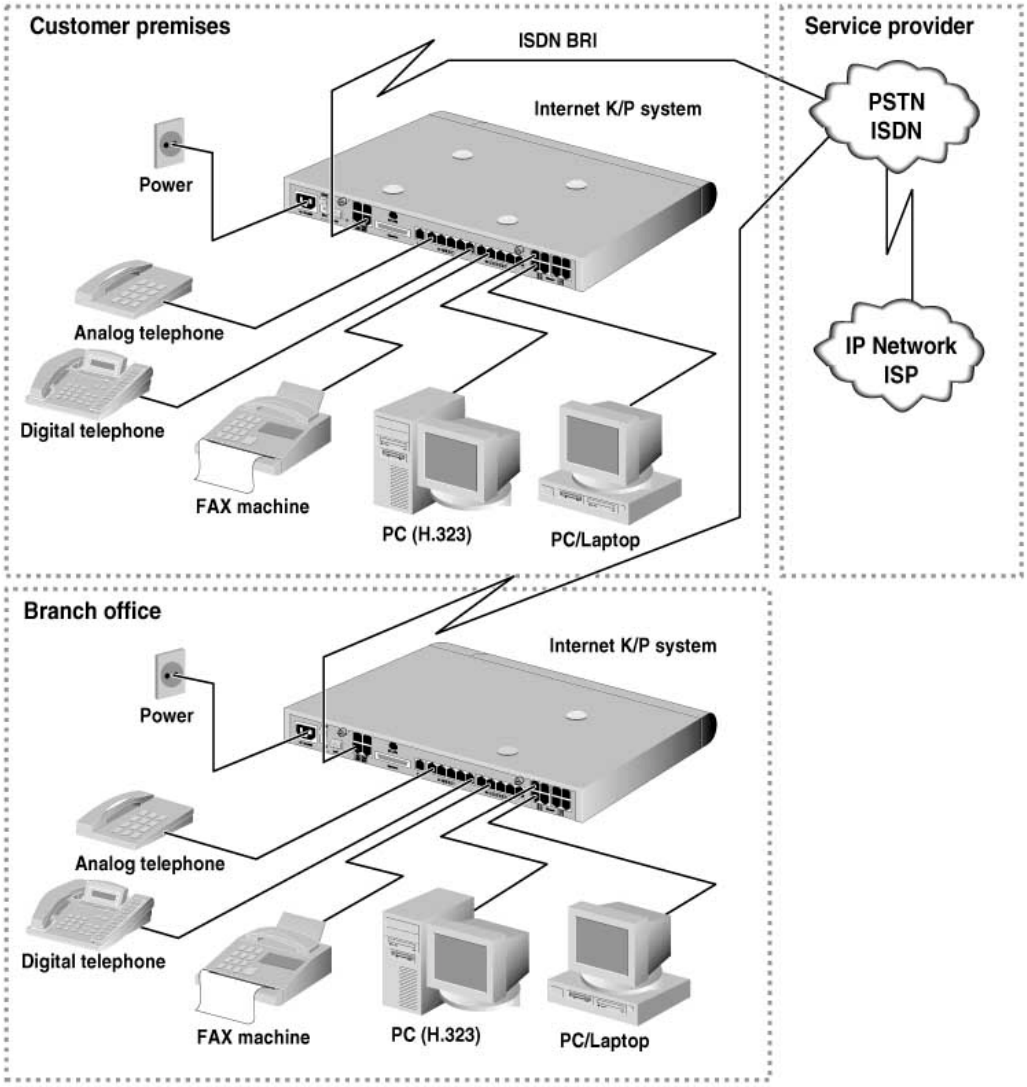
Drawing the Network Configuration Diagram

The DCS-VIP system is inexpensive in that, unlike the exclusive router, it connects itself to the ISDN line only when transmitting data. Therefore, it is particularly useful when establishing the ISDN line for SOBO and is essential for small offices where several PCs are connected by LAN, as well as for ordinary users.

Before installing the DCS-VIP and connecting it to the network, you should draw the network configuration diagram together with the network administrator to decide which network to configure using the DCS-VIP. When drawing the network configuration diagram, take into account how many PCs or telephones or Fax machines will be connected with the ISDN network through the DCS-VIP.

Note
The DCS-VIP system can easily expand the number of PCs or telephones by connecting the expansion system.

The following diagram is an example of connecting PCs, Hubs or analog devices through the DCS-VIP.



Installation Environment

The DCS-VIP should be installed in an environment where constant temperature and humidity can be maintained at all times.

- Operating Temperature : 0°C ~ 40°C
- Relative Humidity : 10% ~ 90% (Non-condensing)
- Input Voltage : 120 ~ 240 VAC (Free Volt)
- Power Consumption : 70 Watts
- Frequency : 60Hz

Caution

The input voltage fluctuation should remain within 5% of regulated voltage and the power socket should be grounded. Never plug electric products such as hair-dryers, irons or refrigerators into the same power outlet to which the DCS-VIP is connected. You are advised particularly to use the AVR for safe power supply.

Precautions During Installation

When installing the DCS-VIP, pay attention to the following

- During and after installation, always keep the location clean and dust-free .
- Install the system on a firm, flat, uncluttered surface and keep it away from magnetic fields.
- To protect the system, place it away from a busy office.
- Place the system in a cool location which is not exposed to the direct rays of the sun and place it at least 15cm away from the wall.
- Be aware of dangerous situations such as humid surfaces, unearthed expanded power cables, worn power cords, and lack of safeearthing.
- Wear an antistatic wrist strap (resistance: 1 ~ 10Mohms). Check that the strap is touching the skin and connect the clips to an unpainted part of the system.
- If you don't have a wrist strap, earth yourself by touching the metal part of the system with your hands.

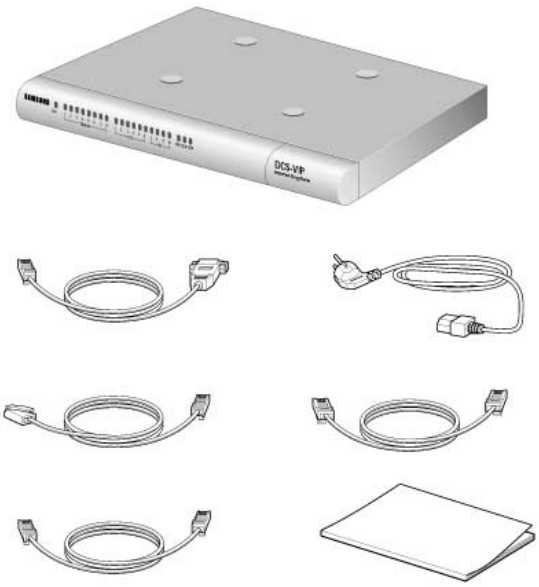
Unpacking

Unpack the DCS-VIP as follows and check the items in the box.

Unpack the DCS-VIP's box. Don't throw away the foam cushion protecting the devices. This should be used to wrap up the devices later if servicing is needed. Place the DCS-VIP system on a flat surface or in the location it is going to be used.

Check that all the following items are packed in the box.

- DCS-VIP Main/Expansion system
- Power cord
- Console cable
- Ethernet cable (Crossover cable)
- Expansion cable
- User Guide (This manual)



Tools and Equipment Necessary for Installation

- Antistatic wrist strap
- Connecting cables:
  - ✓ Ethernet cable (Straight-through cable)
  - ✓ ISDN cable
  - ✓ Telephone cable
- Ethernet 10/100BaseT Hub or a PC with a network adapter for10/100Mbps.
- If connecting a Hub: Crossover cable

Console terminal: ANSI transistorizing terminal (VT1000, VT200) or a PC with the terminal emulation program installed.

Chapter 3 Installing the DCS-VIP

This chapter explains how to install the DCS-VIP using the following procedure.

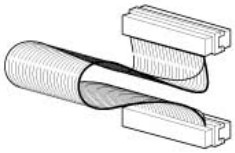
- Connecting the Expansion system (Option)
- Connecting the ISDN Line
- Connecting PCs or Hub
- Connecting Digital Phones
- Connecting Analog Phones
- Connecting a Console Terminal
- Connecting the VoIP Network (Option)
- Connecting External Music/Page (Option)
- Connecting the Power Cord

Caution
Before installing the DCS-VIP, make sure that you unplug the power cord from the power input terminal. If you start connecting the DCS-VIP to the network while power is being provided for the DCS-VIP, fatal damage could be done to the system.

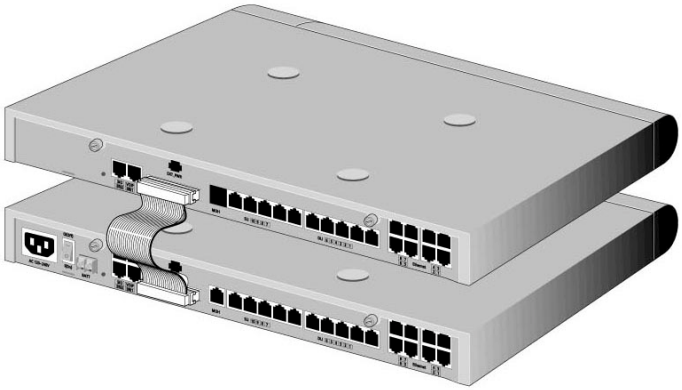
Connecting the Expansion System (Option)

The optional expansion system can be connected with the main system if there are more PCs or telephones to connect to the DCS-VIP than the main system can handle.

1. Prepare the expansion cable as follows.



2. Connect one end of the cable to the port labeled **Expansion** on the rear panel of the DCS-VIP main system and connect the other end of the cable to the port labeled **Expansion** on the rear panel of the DCS-VIP expansion system.



3. Connect one end of a Ethernet cable(Crossover cable) to the port labeled **Ethernet** on the rear panel of the DCS-VIP main system and connect the other end of the cable to the port labeled **Ethernet** on the rear panel of the DCS-VIP expansion system.

Connecting the ISDN Line

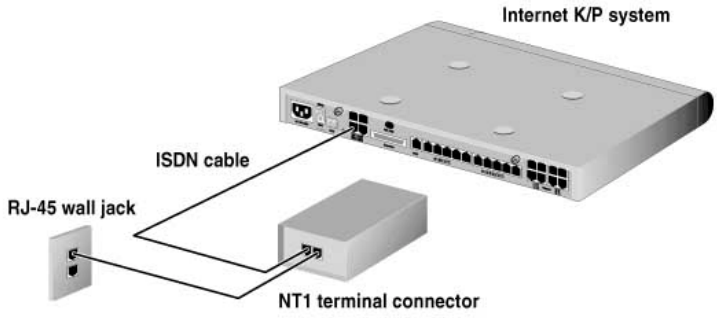
The DCS-VIP's ISDN port has two different types of interface: U and S/T Interface. Check whether the purchased ISDN type is U Interface or S/T Interface and connect the ISDN line according to the instructions for that type.

Option A) Connecting the ISDN Line to ISDN U Port

1. Connect the provided ISDN cable to the port labeled **BRI 1** on the rear panel of the DCS-VIP. For more information about the ISDN cable specifications, refer to **Appendix B**.
2. Connect the other end of the ISDN cable to an RJ-45 ISDN wall jack.
3. If you applied for two ISDN lines, connect the second ISDN cable to the port labeled **BRI 2** and the RJ-45 ISDN wall jack.

Option B) Connecting the ISDN Line to ISDN S/T Port

1. Connect the ISDN cable to the port labeled **BRI 1** on the rear panel of the DCS-VIP. For more information about the ISDN cable specifications, refer to **Appendix B**.
2. Connect the other end of the ISDN cable to the NT1 terminal connector.
3. Connect the NT1 terminal connector to the ISDN wall jack using the ISDN S/T cable that came with your NT1 terminal connector.



Connecting PCs or Hub

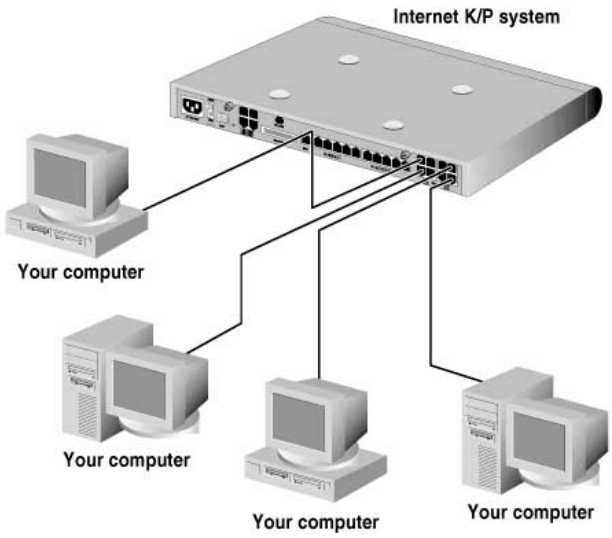
Option A) Connecting PCs

On the rear panel of the DCS-VIP there are 8 Ethernet ports. Therefore, a maximum of 8 PCs can be connected to the DCS-VIP through the Ethernet ports.

The Ethernet cable to be used is the cable in the box, which is a twisted pair category-5 straight-through cable. For more information about the cable specifications, refer to **Appendix B**.

1. Connect the provided Ethernet cable to any of the **Ethernet** ports on the rear panel of the DCS-VIP.

2. Connect the other end of the Ethernet cable to the connector on your PC.



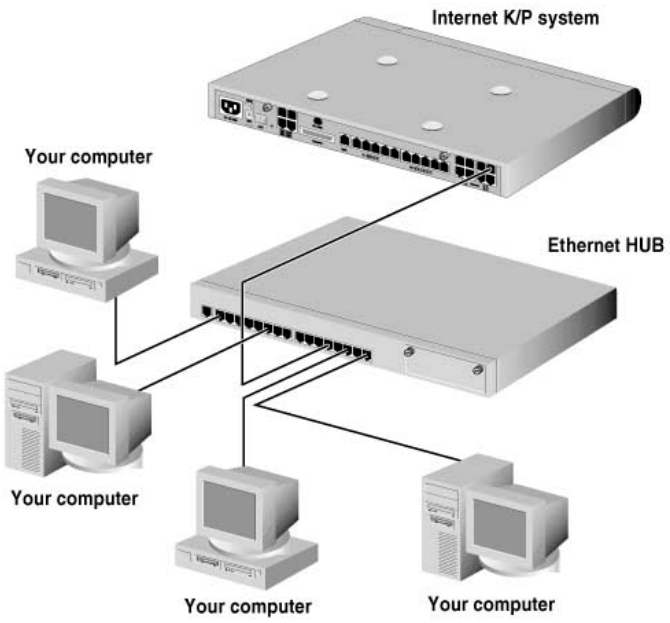
Note
To connect to the DCS-VIP using the PC linked with the DCS-VIP's Ethernet port, a 10/100Mbps Network Adapter (Network Interface card, NIC) and driver must be already installed in the PC. Refer to the Network Adapter's User Guide for further information about Network Adapter and driver installation.

Option B) Connecting a Hub

To configure the network for more users, the number of ports can be expanded by connecting a hub which supports the same speed as that of the DCS-VIP or the router. The cable to be used here is a crossover cable, which is not provided with the product. For more information about the crossover cable specifications, refer to **Appendix B**.

1. Connect an Ethernet crossover cable (not included) to any of the ports labeled **Ethernet** ports on the rear panel of your DCS-VIP.

2. Connect the other end of the cable to an available port on your Ethernet hub, switch, or router.



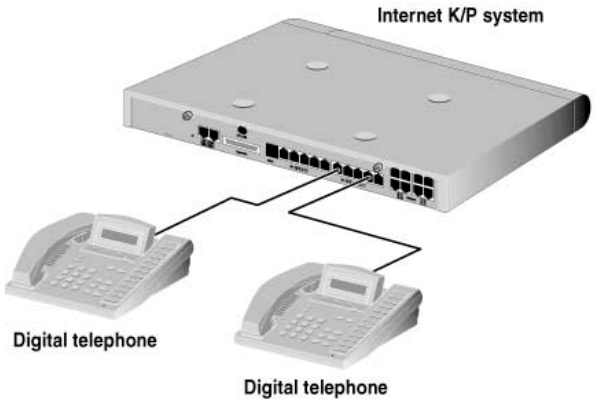
Connecting Digital Telephones

The DLI port on the rear panel of the DCS-VIP can be connected to different kinds of dgital phones as follows.

- DS-24SE, DS-24SE AOM (KDB-DLI, DS-24SE KDB-SLI)
- DS-24SI, DS-24SI AOM (KDB-DLI, DS-24SE KDB-SLI)
- DS-24S, DS-24S AOM

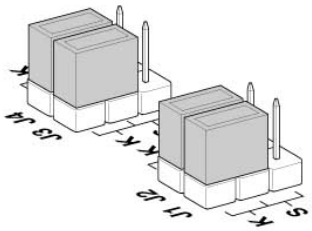
1. Connect the telephone cable to the port labeled **DLI** on the rear panel of your DCS-VIP. For more information about the telephone cable specifications, refer to **Appendix B**.

2. Connect the other end of the telephone cable to the **RJ-11** port on your digital phone.



Caution

If the digital phone is connected to the expansion system's DLI/SLI port, open the system's cover and change the board's jumper setup as follows .



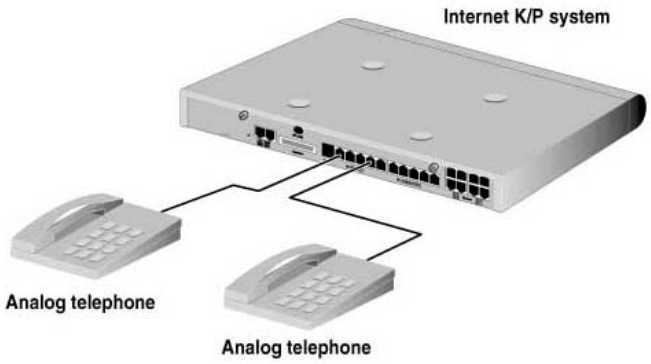
Port	Jumper
DLI 3	J1
DLI 4	J2
DLI 5	J3
DLI 6	J4

Connecting Analog Telephones

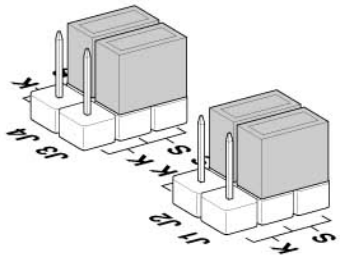
The DCS-VIP can connect an analog phone or a fax machine through the SLI port on the rear panel of the DCS-VIP.

1. Connect the telephone cable to the port labeled **SLI** on the rear panel of your DCS-VIP. For more information about the telephone cable specifications, refer to **Appendix B**.

2. Connect the other end of the telephone cable to the **RJ-11** port on your analog phone.



Caution
If the analog phone is connected to the expansion system's DLI/SLI port, open the system's cover and change the board's jumper setup as follows .



Port	Jumper
DLI 3	J1
DLI 4	J2
DLI 5	J3
DLI 6	J4

Connecting a Console Terminal

1. Connect the console cable to the port labeled **SIO** on the rear panel of your DCS-VIP. For more information about the console cable specifications, refer to **Appendix B**.

2. Connect the other end of the console cable to the COM or serial port on your console terminal.

Note
For the console terminal, a standard PC or notebook computer or ASCII terminal such as VT100, VT220 can be used.

Connecting the VoIP Network (Option)

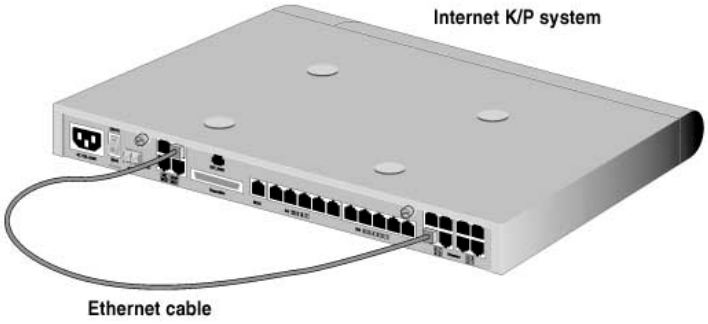
The DCS-VIP supports the VoIP (Voice over IP) feature as an option. If you selected the VoIP feature when purchasing the system, the VoIP board will already be installed in the system.

If you are using the DCS-VIP as a gateway to connect the VoIP to the Internet, connect the VoIP port to the **Ethernet** port as follows.

1. Connect the provided Ethernet cable to any of the **VOIP** ports on the rear panel of the DCS-VIP.

2. Connect the other end of the Ethernet cable to any of the Ethernet ports on the rear panel of the DCS-VIP. Alternatively, connect to the 10/100Mbps Ethernet port of another router.

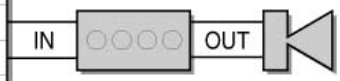
Note
If you are using a separate router as a VoIP's gateway, you can connect the VoIP port to the other router's Ethernet port.



Connecting External Music/Page (Option)

The DCS-VIP has a music on hold (MOH) feature. To use this feature you will have to connect music-providing equipment such as a radio or CD player.
If connecting external music/page, you will have to connect the **MOH** port on the rear panel of the system to the external music/page output equipment.

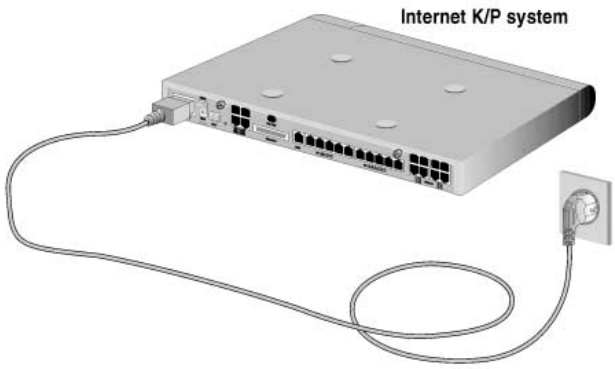
MOH PINS	Function
1	MOH +
2	MOH -
3	EXT PAGE +
4	EXT PAGE -
5	FREE RELAY +
6	FREE RELAY -



Connecting the Power Cord

When all of the cable connections to the DCS-VIP system are done, connect the power cord as follows.

1. Connect the provided power cord to the power input connector on the rear panel of your DCS-VIP.
2. Connect the other end of the power cord to the electrical outlet.



Chapter 4 Basic Configuration & Setup (Setup Wizard)

The first thing to do after installing the DCS-VIP is to boot the system and to configure the ISP (Internet Service Provider) or a remote node information. The DCS-VIP is able to set up the system configuration using the web browser.

This chapter explains how to set up the system for connecting to the Internet or a remote node, in the following order.

- Configuration Checklist
- System Setup Procedure
- Turning on the System
- Connecting to the Web Management screen
- Configuring the Initial Environment (Setup Wizard)

Configuration Checklist

- To connect to the Internet through the ISP, first apply for the service at the ISP and be sure to remember the ISP connecting telephone number, the Login Name and the Password.
- To connect to the remote network of the head office or the branch office, first have your router's IP address and subnet mask allocated by the network administrator. Write down the network connecting telephone number, the router's IP address and the subnet mask information.
- Check that the Ethernet 10/100Base-T network is properly connected to the network and ISDN line on the rear port of the DCS-VIP.
- Check that the power cord is properly connected to the wall socket and the DCS-VIP's power input connector.
- Check that the network adapter's driver is installed in the PC connected to the DCS-VIP through the Ethernet port.

System Setup Procedure

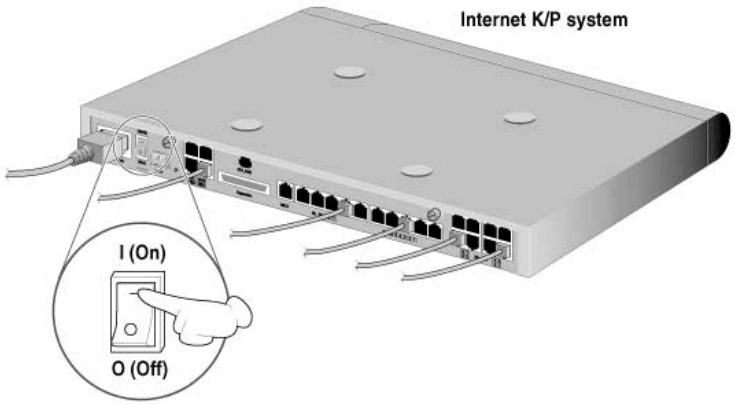
The following is the configuration necessary for connecting to the Internet or the remote router using the DCS-VIP, and for using the Keyphone and VoIP features.

❶ Turning on the system

❷ TCP/IP network installation and configuration
❸ Connecting to the web management screen
❹ Configuring the initial environment (run Wizard Setup)
    Keyphone configuration
    Router configuration
    VoIP configuration
❺ Changing the System IP Address
❻ Saving system configuration information

❶ Turning on the System

Turn on the system by pressing the Power On/Off switch on the rear panel of the DCS-VIP system. The **Run** LED lights green, and when system booting is finished the LED blinks.



❷ TCP/IP Network Installation and Configuration

If you want to set up the DCS-VIP and connect to the Internet using a PC connected to an Ethernet port , the TCP/IP protocol must be installed in the PC and the configuration information must be correct.

TCP/IP Protocol Installastion

Install the TCP/IP protocol in the PCs connected to the DCS-VIP, following the steps below.

Note
If the TCP/IP protocol is installed already, skip the following TCP/IP protocol installation process and go to 'TCP/IP Network Configuration' (below) for configuration details.

1. Turn on the PC and boot with Windows 95/98. Click the [Start] button at the bottom and select [Settings] [Control Panel].
2. When the [Control Panel] screen is displayed, double-click the [Network] icon.
3. Check if the TCP/IP component is included in [Configuration] on the [Network] screen. If it is not, click the [Add] button.
4. Select [Protocol] in the [Select Network Component Type] dialogue box and click the [Add]button.
5. Select [Microsoft] then [TCP/IP] in the [Select Network Protocol] dialogue box and click the [OK] button.
6. When the TCP/IP protocol installation is completed, the TCP/IP component will be added to the [Network Configuration] list. Click the [OK] button.
7. When the message box saying “restart the system” is displayed, click the [OK] button and reboot Windows.

TCP/IP Network Configuration

After the TCP/IP protocol is installed, configure the TCP/IP in the PCs connected to the DCS-VIP, following these steps.

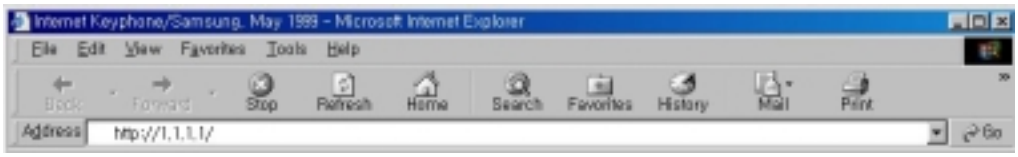
1. Click the [Start] button at the bottom and select [Settings] [Control Panel] .
2. When the [Control Panel] screen is displayed, double-click the [Network] icon.
3. Select TCP/IP in [Configuration] on the [Network] screen and click the [Properties] button. If more than one TCP/IP component is included in the [Network Configuration], select the one that is bound to an Ethernet networking adapter.
4. When the [TCP/IP Properties] screen with [IP Address] tab selected is displayed, select [Specify an IP address]. Enter **1.1.1.2** for IP Address and **255.0.0.0** for Subnet Mask.
5. Click the [Gateway] tab and enter **1.1.1.1** for the new gateway. Click the [Add] button.
6. Click the [DNS Configuration] tab and choose [Enable DNS]. Enter the host name in the [Host] box.
7. Click the [OK] button on [TCP/IP Properties] screen. When the message box saying “restart the system” is displayed, click the [OK] button and reboot Windows.

❸ Connecting to the Web Management screen

The factory default IP address of the DCS-VIP is "**1.1.1.1**". To set up the DCS-VIP system, run the web browser and connect this default IP address.

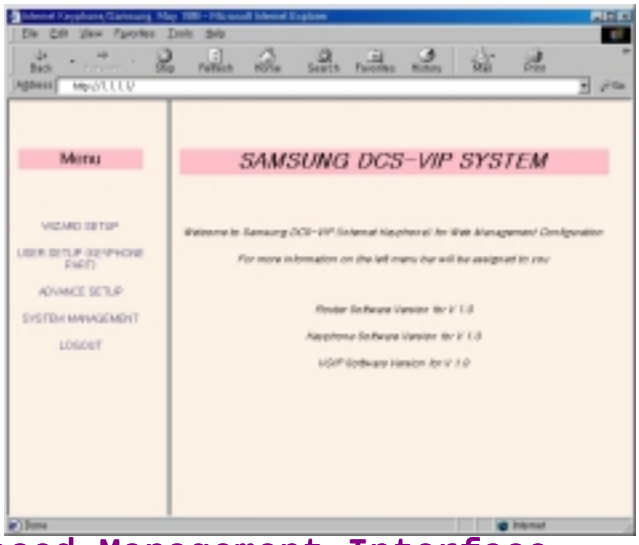
1. Run a web browser. Internet Explorer 5.0 or Netscape Navigator 4.5 or above is recommended.

2. Make a connection to the DCS-VIP system with IP address "**1.1.1.1**".



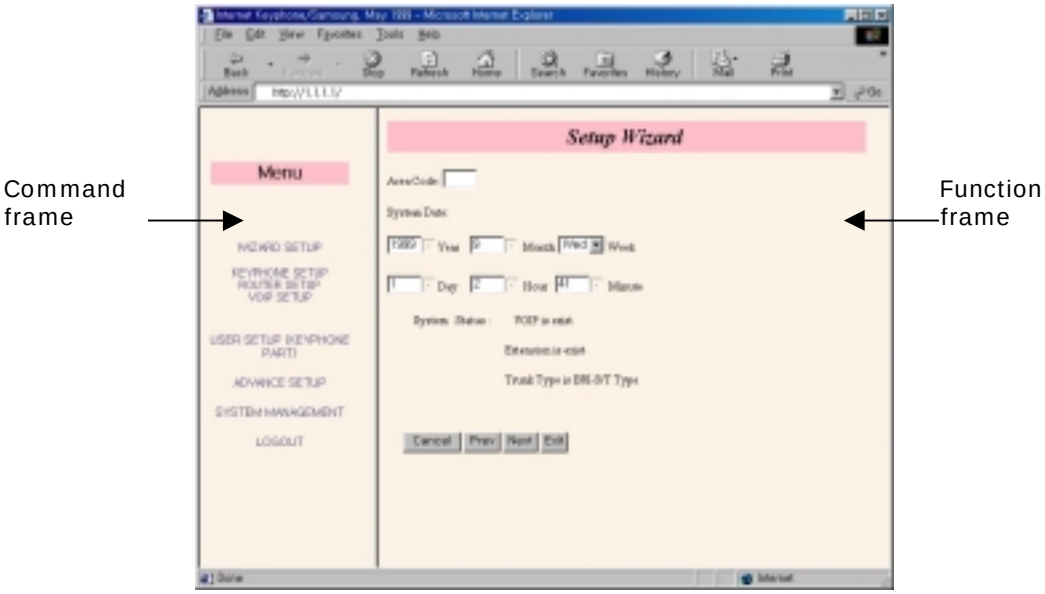
3. Enter the default User Name '**guest**' and Password '**samsung**'.

4. The web-based management screen for the DCS-VIP appears.



Web-based Management Interface

The DCS-VIP web-based management screen is divided into two frames as shown below.



Frame	Command	Function
Command frame	WIZARD SETUP	Select this to set system configuration for the first time, after installating the DCS-VIP. Then you can easily and quickly set basic information necessary for using the Keyphone, Router, and VoIP.
	USER SETUP (KEYPHONE PART)	You can set Call Forwarding, Alarm Reminder, and Station Speed Dial, depending on the line connected to the DCS-VIP. Also, you can reset Keyset configuration, or select bell type of Keyphone.
	ADVANCE SETUP	After completing basic system configuration by running the WIZARD SETUP, you can set options for the Keyphone, Router, and VoIP as required.
	SYSTEM MANAGEMENT	Menu for system management of DCS-VIP.
	LOGOUT	Log out the web management screen connection.
Function frame	Interactive pages for commands	Contain entry parameters and procedural buttons

Buttons on the Web Management Screen

The functions of the buttons on the Web Management Screen are as follows.

Cancel
- regardless of the screen you are on, if you press this button you will cancel all the configuration you have done and go to the start screen.

Prev
- select to go back to the previous web management screen.

Next
- select to proceed to the next web management screen.

Exit
- End the web management screen connection.

❹ Configuring the Initial Environment (WIZARD SETUP)

To set up the basic system configuration, click the **WIZARD SETUP** menu on the DCS-VIP's web configuration screen. The **KEYPHONE SETUP, ROUTER SETUP**, and **VOIP SETUP** submenu will appear. Configure the initial environment for Keyphone, Router, and VoIP(option) as described below.

Configuring the Keyphone Function

In the Keyphone Setup Wizard, set basic information, such as system installation country, region code, system date, and ISDN option, etc, necessary for using DCS-VIP keyphone functions. Click the **WIZARD SETUP ➛ KEYPHONE SETUP.**

Setup Wizard 1

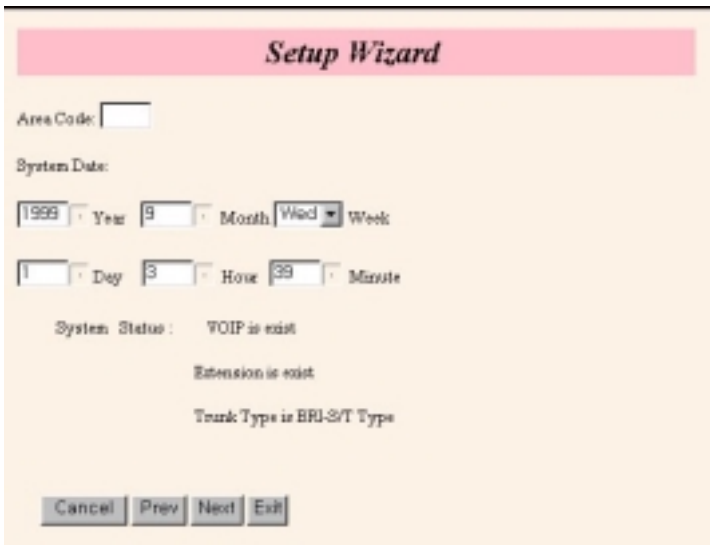
On this screen, you can set the country where the DCS-VIP is installed.

Set the country by clicking the dropdown button of the **Country** parameter. (If you set the wrong country, the system may not operate normally because system standards between countries are different.) Click the **Next** button.

Note
If you change the country, the system data is reinitialized with the changed country's information.

Setup Wizard 2

On this screen, you can set the area code, system date and system status.

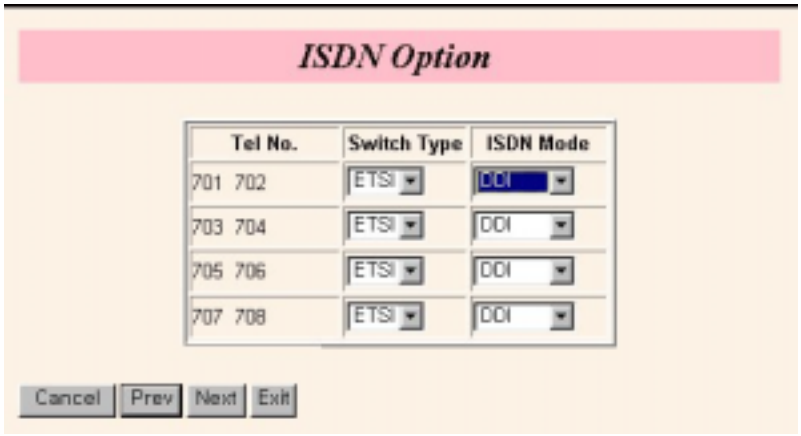


Set the following parameter values and click the **Next** button.

- **Area Code** : Enter the code of the area where the DCS-VIP will be installed.
- **System Date** : Set the system date and time. The set date and time will be saved in the system memory.
- **System Status** : Displays system status, such as whether DCS-VIP system provides VoIP function, whether expend system is equipped, and trunk line type.

ISDN Option

On this screen, you can set the ISDN switch type and ISDN mode.



Set the following parameter values and click the **Next** button.

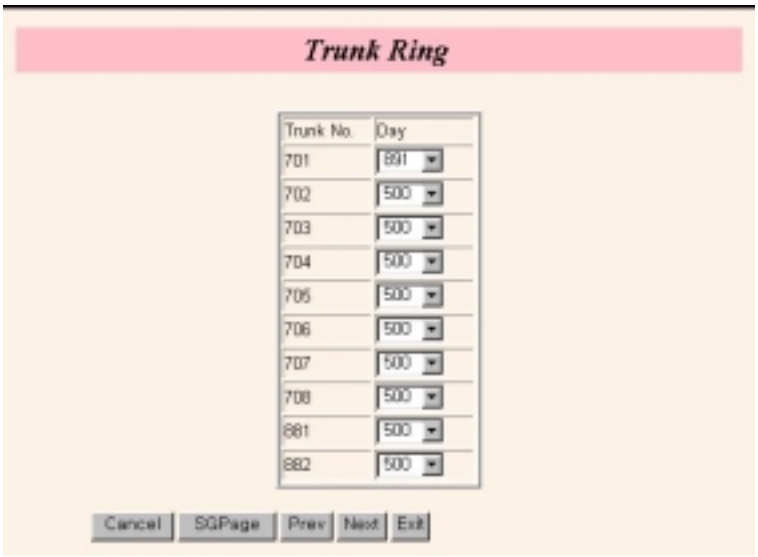
- **Switch Type** : Select the switch type that is used by the local ISDN service provider.

- **ISDN Mode** : Select the mode of the BRI trunk that will be used.
  - Normal: Select the default user to ring for incoming calls.
  - DDI : Directly connect an external call to a selected internal user .
  - MSN : Allows the use of different numbers for each BRI channel.

Trunk Ring

This screen appears only if you set **Normal** as **ISDN Mode** parameter on the **ISDN Option** screen. You can set the station number to ring when call destination

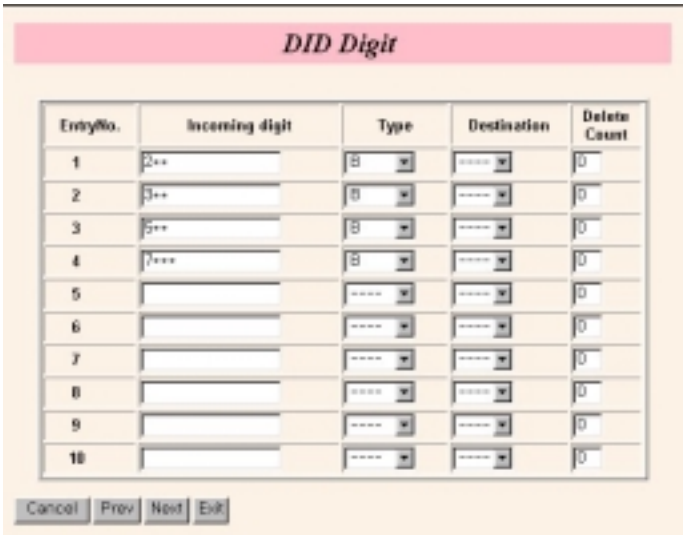
is done by each of trunk lines.



Set the station telephone number to ring when the signal destination is operated according to the trunk of each country. For example, to set the station numbered 208 to ring when the signal destination is operated on the trunk numbered 704, click the dropdown button to the right of **Trunk No. 704** and select 208. Then, click the **Next** button.

DID Digit

This screen appears only if you set **DDI** as **ISDN Mode** parameter on the **ISDN Option** screen. You can program a station (or a group) to ring directly from an external incoming telephone call.



Set the following parameter values and click the **Next** button.

- **Incoming digit** : Enter the digits to be matched when you want to ring a station directly from the external network.
- **Type** : Set the type of the station to ring.
  - STN : Ring a specified station.
  - SGRP : Ring a station group.
  - TGRP : Ring a trunk group.
  - B : When B is selected, the number of digits shown in the “Delete Count” field will be deleted before a match is attempted.
- **Destination** : Select the station to ring when you select ‘STN’ in the ‘Type’ parameter.
- **Delete Count** : Enter the number of digits to be deleted when you select ‘B’ in the ‘Type’ parameter.

MSN Digit

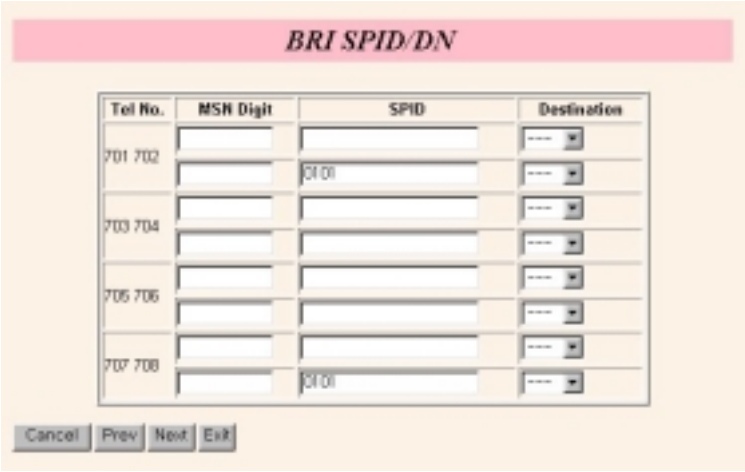
This screen appears only if you set **MSN** as **ISDN Mode** parameter on the **ISDN Option** screen. You can make a transfer table to use BRI trunks in the MSN (Multiple Subscriber Number) mode.

Set the following parameter values and click the **Next** button.

- **No.** : Select the trunk number which will be used in MSN mode.
- **MSN Digit** : Enter a 12-digit MSN number, using the numbers from 0~9.
- **Destination :** Set the station number that will be connected to each MSN number.

BRI SPID/DN

This screen appears only if you set **MSN** as **ISDN Mode** parameter on the **ISDN Option** screen. You can make a conversion table to use BRI trunks in the MSN (Multiple Service Number) mode in **North America**.
Set the following parameter values and click the **Next** button.



- **MSN Digit** : Enter a 12-digit MSN number for each trunk number, using numbers from 0 ~ 9.
- **SPID** : Enter the SPID (Service Profile Identifier) number for each MSN number. The SPID number is allocated by the ISDN service provider.
- **Destination** : Set the station number that will be connected to each MSN number.

KP Side Configuration Confirm

The Keyphone function configuration is now done. Check the data carefully.

For any corrections, click on the **Prev** button to go back to the previous stage.

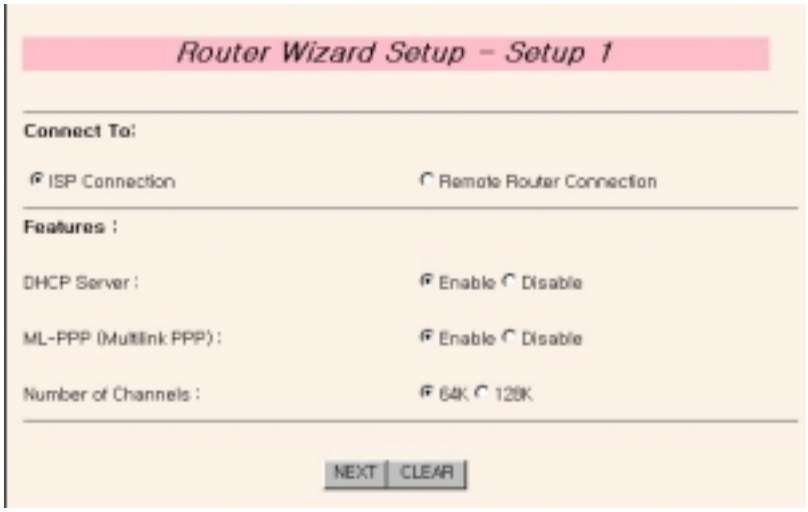
If no correction is needed, click on the **Exit** button.

Configuring the Router Function

In the Router Setup Wizard, you can configure the LAN and WAN environment necessary for connecting to the Internet or a remote node, using the DCS-VIP. Click the **WIZARD SETUP ➛ ROUTER SETUP**.

Router Wizard Setup - Setup 1

On this screen, you can set up the counterpart that you are using the DCS-VIP to connect to and the functions of DHCP and MLPPP.



Set the following parameter values and click the **Next** button.

- **Connection To** : Select what you want to connect DCS-VIP to (ISP, or Remote Router)
  - ISP Connection : Connect to ISP.
  - Remote Router Connection : Connect to remote routers such as branches and headquarters.

- **DHCP Server** : Choose whether to use DCS-VIP system as DHCP server.
  - Enable : Select to allocate IP in Ethernet PC connected to DCS-VIP. Make sure you select "Enable" for ISP connection.
  - Disable : Select not to use DHCP function. If you select "Disable", the network administrator should set up the network information, including IP address in Ethernet PC.

- **ML-PPP (Multilink PPP)** : MLPPP is the protocol that combines more than two ISDN B channels into one PPP (128Kbps). Select "Enable" to use MLPPP function.

- **Nuber of Channels :** Select the bandwidth(64K/128K) for the ISDN line. If you select 128K, then you are using 2 different B channels at the same time. Thus, phone charges will be doubled.

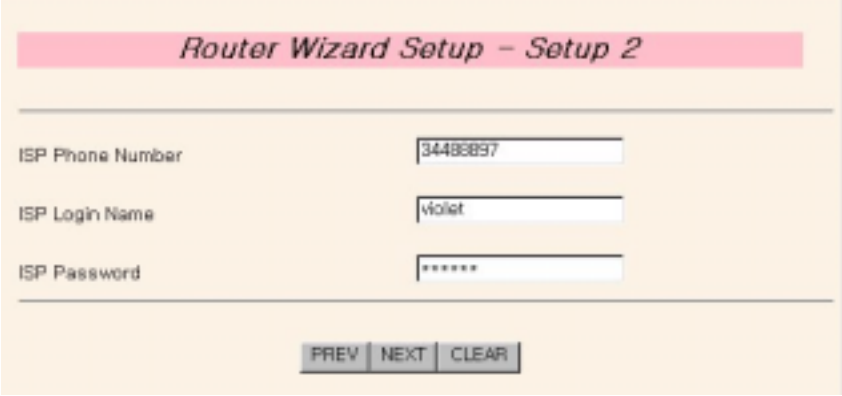
Router Wizard Setup - Setup 2

On the Router Wizard Setup - Setup 2 screen, you can enter the information about the ISP or the remote node to connect to.

For ISP connection

If you chose ISP for **Connection To** parameter on the Router Wizard Setup - Setup 1 screen, the following parameters will be displayed. Set the parameter values and click the **Next** button.

- **ISP Phone Number** : Enter the ISP phone number.



- **ISP Login Name** : Enter the ISP login name.
- **ISP Password** : Enter the ISP login password.

Note
Contact your ISP if you are not sure about the parameters.

For Remote Router connection

If you chose Remote Router for **Connection To** parameter on the Router Wizard Setup - Setup 1 screen, the following parameters will be displayed. Set the parameter values and click the **Next** button.

- **Remote Router Phone Number** : Enter the remote node telephone number.

- **Remote Router Login Name** : Enter the remote node login name.
- **Remote Router Password** : Enter the remote node password.
- **Remote Router WAN IP Address** : Enter the IP address of the remote node network.
- **Remote Router WAN Network Mask** : Enter the subnet mask of the remote node network.

Note
Contact your remote network administrator if you are not sure about the parameters.

Router Wizard Setup - Confirm Page

Initial set up for the user environment of the LAN and WAN is now completed. Confirm the values on the Wizard Setup - Confirm Page screen. If you have anything to correct, click on **Prev** button to go back to the previous stage. If not, click on the **Exit** button**.**

Note
NAT (Network Address Translation) will enable more than two users to communicate simultaneously using one account if you use ISDN PPP service.
For ISP connection, the NAT function will be automatically enabled.
For Remote Router connection the NAT function will be automatically disabled.

Now that initial set up for the DCS-VIP router module is completed, you will be able to connect to the Internet and to the remote router through the ISP.

Configuring the VoIP Function

The VoIP Setup Wizard can set up the necessary information about how to use the Internet phone charging the inexpensive communication rate. Click the **WIZARD SETUP ➛ KEYPHONE SETUP**.

VoIP IP Address

On the VoIP IP Address screen, you can set up the VoIP gateways' IP address and the subnet mask.

Set the following parameter values and click the **Next** button.

- **VoIP IP Address** : Enter the VoIP gateway IP address.
- **Subnet Mask** : Enter the subnet mask of VoIP gateway.
- **Gateway** : Enter the gateway IP address.

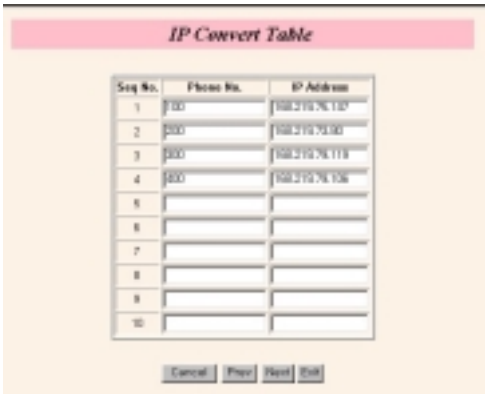
VoIP Option

On the VoIP Option screen, you can set up the various options necessary for using the Internet phone.
Set the following parameter values and click the **Next** button.

- **DB read from backup memory, if reset** : This decides whether to load the DB form the programs' initial data or from the data saved in the memory.
- **Gatekeeper Connection** : This means whether to connect to Gatekeeper or not.
- **Multi Frame Count** : Select the number of the frames for the voice packet that has been compressed in DSP(Digital Signal Processor) The default is '3'.
- **Echo Cancellation** : Select whether to use echo cancellation
- **Ring Back Tone Support** : Select the source that ring back tone comes from. Users hear this tone when placing a call.
  - Enable : Generate the ring back tone from VoIP Tone source.
  - Disable :Generate the ring back tone from the DCS-VIP.
- **Silence Suppression** : Select whether to transmit bundle packet while on the phone. In general, select 'Enable'.
- **PCM Companding Method** : This is the signal standard, which will be used in the telephone network.
  - ULAW : Signal standard mainly used in North America.
  - ALAW : Signal standard mainly used in Europe.
- **Audio Codec** : For Audio Codec, G.723.1 (6.3k) and G.729A are supported.
- **VoIP Gateway ID** : This is a VoIP's caller ID to calculate the calling charge.

IP Convert Table

On the IP Convert Table screen, you can set up the telephone number connected to the VoIP gateway and the IP address.



Set the following parameter values and click the **Next** button.

- **Seq No** : Select the index number of IP Conversion Table.
- **Phone No**. : Select the telephone number to link to VoIP gateway.
- **IP Address** : Select the IP address of VoIP gateway.

VoIP Configuration Confirm

VoIP configuration has now been set up. Check the configuration carefully.

For any corrections, click on the **Prev** button to go back to the previous stage.
If no correction is needed, click on the **Next** button.

❺ Changing the System IP Address

Use the **ADVANCE SETUP** menu on the DCS-VIP web management screen to change the system IP address.

When you connect to ISP, you can use the default IP address for the DCS-VIP system or change it to match the network neighborhood.
When you connect to Remote Router, you must change the IP address for the DCS-VIP system to best match the network neighborhood.

Instructions on how to change IP address for the DCS-VIP system are as follows.

1. Click the **ADVANCE SETUP** ➔ **ROUTER SETUP** ➔ **IP Setup** menu on the DCS-VIP web management screen.

2. Set each value for the following parameters, then click the **SET** button.
- Administrative Status : Set as 'ENABLE'.
- IP Address : This is the DCS-VIP system IP address. Enter the new system IP address.
- Subnet Mask : This is the subnet mask for DCS-VIP system. Enter the new system subnet mask.

❻ Saving system configuration information

When you completed setting the system configuration information through WIZARD SETUP and changed the system IP address using ADVANCE SETUP, you can save the settings in the system memory as follows. If you reboot your computer, you can use configuration information that you are configured.

1. Click the **SYSTEM MANAGEMENT** ➔ **MIB SAVE/RESTORE** menu. Following MIB Save/Restore screen will appear.

2. Specify **Operation to Perform** parameter as **SaveConfiguration.** Click the **Set** button. It will take a few minutes to save the system configuration information in

the memory.

3. To reboot the system, select **SYSTEM MANAGEMENT → SYSTEM REBOOT** menu. Click the check button to mark V for each item. Then the DCS-VIP system will reboot.

Note
If you changed the DCS-VIP system IP address, you must reboot the system and then change TCP/IP properties of the PC connected to the DCS-VIP system through Ethernet port, which will best match the DCS-VIP system IP address.

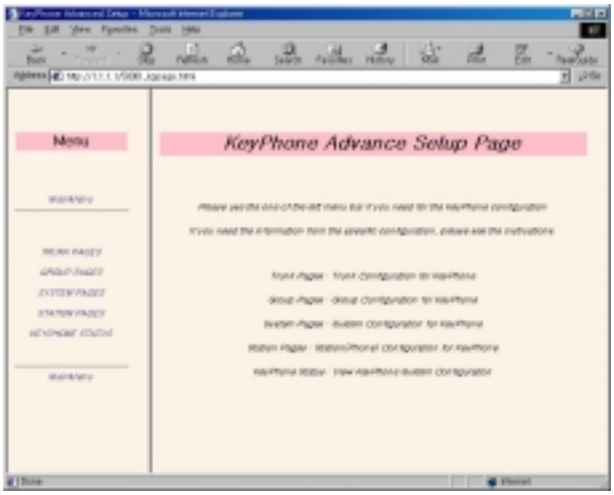
Chapter 5 Advanced Setup Options

Using Setup Wizard, the DCS-VIP can set up advanced features for Keyphone, Router, and VoIP modules after setting up the initial environment. This chapter explains how to set up the advanced features for each module using the web browser.

- Advanced Keyphone Setup
- Advanced Router Setup
- Advanced VoIP Setup

Advance Keyphone Setup

To set up the advanced features of the Keyphone, click the **ADVANCE SETUP** ➔ **KEYPHONE SETUP** menu on the DCS-VIP's web management screen. The following submenu screen for **TRUNK PAGES**, **GROUP PAGES**, **SYSTEM PAGES**, **STATION PAGES**, **KEYPHONE STATUS** will appear.



Trunk Features Setup

This explains how to set up the trunk features. Select the **TRUNK PAGES** menu on the **ADVANCE SETUP** ➛ **KEYPHONE** menu screen. Then, you will see TRUNK PAGES screen consisting of following 13 submenus.

So Mapping	Co Line Number	Distinctive Ring	Trunk Abandon
Trunk Name	Trunk ring	Trunk timer	ISDN Option
MSN Digit	SO Option	TRUNK ON/OFF	BRI S/T
BRI RESTART			

This section will describe how to setup functions for 13 submenus.

S0 Mapping

On the S0 Mapping screen you can select the trunk number for each station.

Click the **SO Mapping** dropdown button for each station, select the connected trunk number and click the **Set** button.

CO Line Number

On the CO Line Number screen, you can enter the CO Line number. CO (Central Office Trunk) Line number is given by the telephone service provider.

Enter the CO telephone number into the **CO Line No.** parameter for each trunk and click the **Set** button.

Distinctive Ring

On the Distinctive Ring, you can select a Ring tone or Cadence to distinguish a particular call from another. Use Ring tone for digital phones and Cadence for normal phones.

Select ring tone and ring cadence for each station and click the **Set** button.

- **Tone** : Select a ring tone for each station.
  - F-STN : Ring according to the station's ring tone.
  - 1-8 : Ring with the selected ring tone.

- **Cadence** : Select a cadence for each station.
  - F-STN : Ring according to the caller's SLI Ring Cadence.
  - 1-8 : Ring with the selected cadence.

Trunk Abandon

On the Trunk Abandon screen, you can select whether to save information about abandoned trunk calls.

To save the caller's information for each trunk in the SMDR and the Report Trunk Abandon List, tick the **Report Trunk Abandon** parameter. Click the **Set** button.

Trunk Name

On the Trunk Name screen, you can assign a name to a trunk.

Enter the trunk name into the **Trunk Name** parameter for each trunk and click the **Set** button. For the trunk name you can enter any character up to 11 characters maximum.

Trunk Ring

On the Trunk Ring screen, you can select certain functions for each trunk line.

Select the following parameter values for each trunk and click the **Set** button.

- **Day** : Select the station number for daytime mode.
- **Night** : Select the station number for nighttime mode

Trunk Timers

On the Trunk Timers screen, you can change the time parameters for each trunk line.

Select the following parameter values for each trunk and click the **Set** button.

- **Trunk Release** (100 msec) : Set the delay time before a trunk can be redialed.
- **DTMF Duration** (100 msec) : Set DTMF (Dual-Tone Multiple-Frequency) duration.
- **First Digit Delay** (100 msec) : Set first digit delay time.
- **Trunk Pause** (sec) : Set time to allow trunk operators to be ready.

ISDN Option

On the ISDN Option screen, you can select the options for each BRI trunk line.

The DCS-VIP system has four BRI ports so that four BRI trunks maximum (8 maximum BRI channels) can be used. Two trunks allocated to the **Tel No**. parameter activate as a pair so that the same value is saved. Select the following values for each BRI trunk and click the **Set** button.

- **ISDN Operator** : Select the ISDN switch type. Consult the ISDN service provider if you don't know your ISDN switch type.
- **ISDN Mode** : Select the BRI trunk mode.
  - Normal: Ring the selected user for incoming trunk calls.
  - DDI : Select the station number for each trunk call.
  - MSN : Select a different telephone number for each channel.
- **Dial Send** : Select the digits transmitting type.
  - OVERLAP: The digits are transmitted whenever the user dials.
  - ENBLOCK: Send the digits at the same time after all the digits are entered.
- **Channel Any** : Tick to use the BRI trunk line.
- **Router Service :** To use the router service, click the check button to mark V for corresponding item.

S0 Option

On the S0 Option screen, you can check if the channel for each trunk is used and select the ISDN switch type.

The two trunks allocated to the **Tel No**. parameter activate as a pair so that the same value is saved. Select the following information for each BRI trunk and click the **Set** button**.**

- **Channel Any** : Tick to use the BRI trunk line.
- **ISDN Operator** : Select ISDN switch type.

ISDN SPID

On the ISDN SPID/DN screen, you can select a conversion table to use a BRI trunk line in MSN (Multiple Subscriber Number) mode in North America.

The two trunks allocated to the **Tel No.** parameter activate as a pair so that the same value is saved. Select the following parameter values for each BRI trunk and click the **Set** button.

- **MSN Digit** : Enter a 12-digit MSN number, using the numbers from 0 ~ 9.
- **SPID** : Enter the SPID for each MSN digit.
- **Dest. Day** : Select the station number for daytime destination.
- **Dest. Night** : Select the station number for nighttime destination.

- **Call Wait** : Tick to use Call Waiting.
- **Option**
  - Accept : Select to accept the BRI trunk ring.
  - Reject : Select to reject the BRI trunk ring.

S0 SPID

On the S0 SPID screen, you can select SPID for each trunk line. SPID is used only in North America.

The two trunks allocated to the **Tel No**. parameter activate as a pair so that the same value is saved. Enter the SPID1 number and the SPID2 number for each BRI given by the ISDN service provider. Click the **Set** button.

Trunk ON/OFF

On the Trunk ON/OFF screen, you can select certain functions for each trunk line.

Select the following parameter values for each trunk and click the **Set** button.

- **Permit Trunk FWD** : Tick to permit trunk forward.
- **Trunk Incoming DND** : Tick to set DND for incoming trunk calls.
- **LCR Allow** : Tick to enable Least Circuit Route function.

BRI S/T

On the BRI S/T screen, you can select whether to use each BRI port as trunk port or S0 port.

Select whether to use trunk port or S0 port by clicking the **Mode** dropdown button for each BRI port. Then, click the **Set** button.

After change the BRI S/T mode, you should initialize the BRI channel. For more information about this, refer to **BRI RESTART** (below).

BRI RESTART

On the BRI RESTART screen, you can initialize the BRI channel when you change the BRI S/T mode.

If you want to initialize the BRI channel, you can select the **BRI Restart** parameter to mark V, and then click the **Set** button.

Group Features Setup

This section explains how to set up the group features. Select the **GROUP PAGES** menu on the **ADVANCE SETUP ➛ KEYPHONE** menu screen. Then, you will see GROUP PAGES screen consisting of following 20 submenus.

LCR Route	Cos Contents	StnGrp	Lcr Time	Operator group
Pickup group	Trunk group	PGM Message	Tone Cadence	Wild Char
RingPlan Table	Account	Authorization code	Cid Translation	Internal Page Zone
LCR Digit	LCR Modi DIGIT	System Speed Dial	Toll Allow	Toll Deny

This section will describe how to setup functions for 20 submenus.

LCR Route

On the LCR Route screen, you can set the time zone, the trunk group, and LCR Modify Digit Table for LCR Route option. If a valid digit is dialed, the system selects the trunk group according to the previously selected LCR Route table.

After clicking drop down button on the **Route Table**, select the table entry number. Select time zone and class. Next, enter the following parameter values.

- **Trk Grp Tel** : Enter the trunk group number.
- **Dgt Mod Table#** : Enter the LCR Modify Digit Table number you want. The contents for the selected LCR Modify Digit Table can be written in **GROUP PAGES ➛ LCR Modi Digit** menu.

Select all the parameters above for each time zone and click the **Set** button.

COS Contents

On the COS Contents screen, you can select the functions for each service class.

Click the **Entry No** dropdown button to select the class of service and select the Value parameter for each feature by ticking it. Select all the feasible features for each class of service. Click the **Set** button.

StnGrp

On the StnGrp screen, you can select the members for the station group and how to distribute the calls.

First, click the **Group Tel** dropdown button to select the station group and select the following parameter values. You don't need to select the first station group (number 500) since it is fixed as the operating group.

- **Group Name** : Select the group name.
- **Ring Type** : Set how to distribute the calls to the station group members
  - Sequential : Start ringing the first member in in the group.
  - Distribute : Start ringing the members in turn, according to the preselected order.
  - Unconditional : Ring each member for the same number of times.
- **Overflow Time** : Enter the time for transferring incoming calls to the station previously specified by **Next Dest**, in case that all station group members are on the line.
- **Transfer Recall Tm**: Enter the recall time for transferring incoming calls to the station previously specified by **Next Dest**.

- **Next Dest** : Select the station to transfer the calls to when other members in the group are busy.
- **Station Group Type** : Specify the station group type. If you want to set the station group as Voice Mail/Automatic Attendant device, select the VMAA option.
- **Group Name** : Select the group name you selected.
- **Member** : Select the members in the group.

Select the parameter values for each station group and click the **Set** button.

LCR Time

On the LCR Time screen, you can set the LCR time. You can select the day of the week (SUN-SAT), and the time zone (A-D).

Decide on the date and the time zone to select for the LCR feature's timetable and select the following parameters.

- **Hour** : The hour for LCR to start.
- **Min** : The minute for LCR to start.
- **Zone** : The time zone you want.

Select the timetable for each day of the week and the time zone and click the **Set** button.

Operator Group

On the Operator Group screen, you can select the members for the operator group.

Set the following parameter values and click the **Set** button.

- **Group Ring Types** : Set the group ring type.
  - Sequential : Ring each idle station in the group in turn starting with the first member of the group each time.
  - Distribute : Ring each idle station in the group in turn according to the preselected order.
  - Unconditional : Ring all the members for the same number of times.
- **Overflow Time** : Set the overflow time. If all members of a group are busy this timer allows the call to be forwarded to the next programmed destination.
- **Transfer Recall Tm** : Set the transfer recall time.
- **Next Destination** : Select the station to transfer the calls to.
- **Group type** : Set the Operator Group type as 'Normal'.
- **Group Name** : Enter the Operator Group name.
- Member's Tel No. : Select the member's telephone number in the operator group.

Pickup Group

On the Pickup Group screen, you can select a pickup group for each station. This pickup group will take the calls for other stations.

Click the **Group No** dropdown button for each station (Tel No.) and choose the group number to select as answer agency group. Click the **Set** button.

Trunk Group

On the Trunk Group screen, you can set the trunk group. Each trunk line can belong to more that one trunk group.

Select the following parameters for each trunk group (Group No.) and click the **Set** button.

- **Mode** : For each trunk group select the trunk call type for outgoing calls. The selected type will be used in LCR option.
  - SEQU : Ring the first member in the trunk group.
  - DIST : Ring the members according to the order you have selected.
- **Member** : Select the members for each trunk group.

PGM Message

On the PGM Message screen, you can set or reset PGM message.

You can enter the message into the **Message** parameter for each message number (Msg. No). You can use up to 16 characters. Enter all your messages and click the **Set** button.

Tone Cadence

On the Tone Cadence screen, you can reset the tone cadence for the system.

Select the following parameter values for each type of tone and click the **Set** button.

- **Cadence Status** : Select the cadence status. If a status is 'continuous', all cadence value is NONE.
  - Continuous : Continuous tone.
  - Interrupt : Interrupt tone.
- **First Cadence / Second Cadence** : Set the cadence if you selected 'Interrupt'
  - On (100ms) : Set the duration for on time.
  - Off (100ms) : Set the duration for off time

Wild Char

On the Wild Char screen, you can select to use the Wild Character Option.

Tick the possible values for each wild character X, Y, and Z. For instance, if you selected 1,2 for possible values for wild character X, you will have "01" and "02" for "OX".

Ring Plan Table

On the Ring Plan Table screen, you can set the time when the system changes from nighttime mode to daytime mode, and vice versa.

- **Night Start Time** : Set the Start Time for daytime mode.
- **Night End Time** : Set the End Time for nighttime mode.

Click the **Set** button.

Account Code

On the Account Code screen, you can select the Account Code to be entered in order to charge the relevant telephone rate whenever a phone call is made. There are 10 available entries.

On the **Entry** choose the entry number to select the Account Code or choose the entry number to click the **Operation** dropdown button to select the table entry number. At the bottom of the screen, the **Account Code** parameter will appear. Enter a 12-digit Account Code consisting of the numbers 0 ~ 9. Select an Account Code for each entry. Click the **Set** button.

Authorization Code

On the Authorization Code screen, you can set or reset the Authorization Code, which you must enter when you change the service class. You can enter up to 10 authorization codes.

On the **Entry** choose the entry number to select an Authorization Code or click the **Operation** dropdown button to select the table entry number. At the bottom of the screen the Authorization Code and the Authorization Code enter blank will appear.

- **Account Code** : Enter a 4-digit authorization code.
- **Author COS** : Enter the service class that will be affected by the new Authorization Code.

Select the Authorization Code and the COS for each entry. Click the **Set** button.

CID Translation

On the CID Translation screen, you can give a name to incoming external calls.

On the **Entry** choose the table entry number to select the external telephone number or click the **Operation** dropdown button to select the table entry number. At the bottom of the screen the **CID Number** and the **CID Name** parameters will appear.

- **CID Number** : Enter the external telephone numbers, using 0~9, *, #. You can enter up to 11 digits.
- **CID Name** : Enter the name for the external telephone number. You are allowed to use any characters up to a maximum of 15.

Select the CID Number and the CID Name for each entry. Click the **Set** button.

Internal Page Zone

On the Internal Page Zone screen, you can select whether to include stations in internal page zones or not. Each digital telephone can have more than one page zone.

Click the **Operation** dropdown button to select the table entry number. Then specify the following parameter's value.

- **Member Tel No** : Select the station number for internal page zone.
- **Page Zone** : Set the page zones for the selected station number. (For instance, you might tick Page zones 1 and 3 for station 201.) Tick on '*' to include the selected station in all page zones.

Select all the broadcasting zones for each member and click the **Set** button.

LCR Digit

On the LCR Digit screen, you can set the LCR digit and the Route table. LCR (Least Cost Routing) allows users to be automatically linked to the most inexpensive network.

On the **Entry** click the Route table entry number or click the **Operation** dropdown button to select the entry number. At the bottom of the screen the following parameters will appear.

- **LCR Digit** : Enter a 10 digit string, using 0~9, *, #.
- **No. of digits** : Enter how many digits are required to match the LCR digit string..
- **Route Table #** : Enter the Route table number you want to use. You can define the actual route for the selected Route table number in the **LCR Route** menu.

Select all the LCR digits for each entry and click the **Set** button.

LCR Modify Digit

On the LCR Modify Digit screen, you can set the LCR Modify Digit to insert or append digits to the dialed digits.

On the **Entry** click the table entry number or click the **Operation** dropdown button to select the table entry number. At the bottom of the screen the following parameters will appear.

- **Digit to be deleted** : Enter the digits to be deleted (maximum 15 digits.)
- **Insert Digit** : Enter up to 11 digits to insert , using 0~9,*, #, P.
- **Append Digit** : Enter up to 11 digits to append, using 0~9,*, #, P.

Click the **Set** button.

Note
The digit will be dialed after going through the following calculation: digit to be inserted +dialed digit – digit to be deleted + digits to be appended.

System Speed Dial

On the System Speed Dial screen, you can set the speed dial for each station group with the allocated speed dial block. If none of the speed dial blocks is allocated, you cannot enter the speed dial.

On the **Bin No** click the table entry number to select the system speed dial or click the **Operation** dropdown button to select the entry number. At the bottom of the screen the following parameters will appear.

- **Bin Name** : Enter the speed dial name.
- **Trunk Tel No**. : Select the trunk number.
- **Outgoing digits** : Enter frequently-used outgoing telephone number.

Register the speed dial for each entry and click the **Set** button.

Toll Allow

On the Toll Allow screen, you can select the class to allow for the outgoing trunk.

On the **Entry** click the entry number to select the class to allow for the outgoing trunk or click the **Operation** dropdown button to select the table entry number. Six buttons will appear for you to choose which classes for the trunk outgoing for each class. Click the ticking button to allow for the call outgoing to tick it on and click the **Set** button.

Toll Deny

On the Toll Deny screen select the class to deny the trunk outgoing.

On the **Entry** click the entry number to select the class to deny for the trunk outgoing or click **Operation** dropdown button to select the table entry number. Six

buttons will appear for you to choose whether to deny for the trunk outgoing for each class. Click the ticking button to deny for the call outgoing to tick it on and click the **Set** button.

System Features Setup

This section explains how to set up the system features. Select the **SYSTEM PAGES** menu on the **ADVANCE SETUP** ➛ **KEYPHONE** menu screen. Then, you will see SYSTEM PAGES screen consisting of following 16 submenus.

Barge In	Change Passcode	Date and Time	Sli Ring Cadence
SMDR Option	System Counter	System I/O	System Timer
Tech Passcode	Tenant On OFF	System VMAA Opt	My area code
DGP Volume	System Coding	Cust Use MMC	Key Prog

Barge In

On the Barge In screen, you can select to allow other stations to barge in upon a busy station.

Click the **Barge In Type** dropdown button, select one of the following Barge in options and click the **Set** button.

- No Barge In : do not barge in.
- Barge In With Tone : Barge in, giving the selected station a warning tone.
- Barge In Without Tone : Barge in without a warning tone.

Change Passcode

On the Change Passcode screen, you can set or reset passcodes that must be entered to use certain functions.

Enter the four-digit passcode using the numbers 0 ~ 9 and click the **Set** button.

Date and Time

On the Date and Time screen, you can set or reset date and time for the DCS-VIP system.

Click on the variations button or the dropdown button for each parameter to select the system's date and time. Click the **Set** button.

SLI Ring Cadence

On the SLI Ring Cadence screen, you can change ring cadence for normal phones.

SLI Ring Name is a standard telephone's destination ring type and each SLI Ring Name has the following meaning:

- Station : Station ring.
- Trunk : Trunk ring.
- Door : Door ring.
- Alarm : Alarm ring.
- CBK : Scheduled ring.

Select the First Cadence and the Second Cadence for each destination ring type and click the **Set** button.

- **First Cadence / Second Cadence** : Set the ring cadence.
  - On(100ms) : Set the ringing duration.

– Off(100ms) : Set the duration between one ring and another.

SMDR Option

On this screen, you can select which SMDR (System Message Detail Recording) options should be printed.

To print the required information tick the relevant parameter(s) and click the **Set** button. Each parameter is as follows.

- **Page Header** : Output title or header for each page.
- **Line Per Page** : The numbers of line on each page. (99 lines max.)
- **Incoming Call** : Output incoming calls.
- **Outgoing Call** : Output outgoing calls.
- **Authorized Code** : Output level change code
- **Less Start Time** : Output calls that ended before SMDR was activated.
- **In/Out Group** : Output in/out group messages.
- **DND Call** : Output Do Not Disturb calls.
- **Wake Up Call** : Output station alarms.
- **Directory Name** : Company name that will be printed out with the header.
- **CLIP Data** : Output information about callers : SMDR (16 digits max.)
- **Abandon Call** : Output information about abandoned trunk calls.
- **No.of Dial Mask 0** : The number of digits that will not be printed out (18 digits max.)
- **Incoming Answer** : Answered incoming calls.

System Counters

On the System Counters screen, you can reset system counters.

Set the following parameter values and click the **Set** button. You can use numbers 01 ~ 99.

- **Alarm Reminder** : Enter the number of times to ring an alarm.
- **Auto Redial** : Enter the number of times to redial.
- **New Call** : Enter the number of times a trunk may be reused.

System I/O

On the System I/O screen, you can set the parameters for the system input /output mode.

First, click the **Service Type** dropdown button and choose the equipment to be connected to the system input/output port. Then, select the following parameter values and click the **Set** button.

- **Service Type** : Select the service type.
- **Baud Rate** : Set the transmitting speed.
- **Char Len** : Set the character length.
- **Parity** : Set the parity.
- **Retry Count** : Enter the number of times to retry.
- **Stop Bit** : Set the stop bit.
- **Wait Time** : Set the message wait time.
- **Pwr Check** : Select whether to check password or not.

System Timers

On the System Timers screen, you can reset the system timers.

Click the variation button for each timer and select the timer value. Click the **Set** button. Each timer is as follows and each timer's value range is shown in parenthesis.

- Alert tone Time (100-2500 MSEC): This timer sets the duration of the attention tone preceding a call to a keyset in the Voice Announce or Auto Answer mode. This tone will also precede a forced Auto Answer call.
- Alm rem. Interval (1-255 SEC) : This timer controls the time length between ring attempts at a station when alarm reminder is set.
- Alm rem. Ring off (1-25 SEC) : This timer controls the length of the ring cycle duration when alarm reminder is set at a station.
- Att. Recall Time (1-255 SEC) : This is the length of time a transfer recall will ring at a station before recalling the operator.
- Auto redial int. (1-255 SEC) : This timer controls the time between attempts after RETRY dialing is set on a station.
- Auto redial rls. (1-255 SEC) : This timer controls the duration of a Ring No Answer condition on a retry number dialed before the auto redial is automatically canceled.
- Bargein tone int (100-9900MSEC) : This timer controls the intervals between the tones sent to the station which is being barged in on.
- Callback no ans (1-255 SEC): This timer controls the time before the callback is automatically canceled when a callback detects Ring No Answer.
- Camp on Recall (0-255 SEC) : This timer controls the time a camped-on call will stay at a destination before recalling to the transferring station.
- Cid display tm (1-25 SEC) : The amount of time that the Caller ID information remains on the keyset's display
- Co clear time (0-255 SEC) : The length of time a keyset remains busy after cleardown.
- Co-co disconnect (1-255 MIN) : This timer specifies the duration of an unsupervised conference; when it expires both trunks are disconnected.
- Confirm tone time (100-2500 MSEC): The duration of the tone heard when a feature is activated or deactivated.
- Dial pass time (0-25 SEC) : This timer controls the time before connecting the transmit of the keyset to the trunk side of an outgoing call.
- Display delay tm (1-255 SEC) : This timer controls the time a display is shown in the LCD display. This timer also controls the time that error tone is heard.
- Door lock rels (100-2500 MSEC) : This timer controls the time the door lock relay will be activated.
- Door ring detect (1-250 MSEC) : This timer controls the time before a call is answered by the door phone.
- Door ring off tm (1-255 SEC) : This timer controls the duration of ringing at the door ring destination before automatically canceling.
- E-hold recall tm (0-255 SEC) : This timer controls the time a call is held exclusively at a station before recalling.
- Ext.fwd delay tm (1-255 SEC) : This timer controls the time a station is allowed to ring before the call is placed on external call forwarding.
- **First digit time** (1-255 SEC) : This timer controls how long the system will wait for dialing to begin before dropping the dial tone and returning the user to error tone.
- Hook flash max tm (20-2500 MSEC) : This timer controls the duration of a hookswitch flash to ensure that the flash is valid and not a line noise or an accidental hookswitch bounce (LONGEST DURATION)
- Hook flash min tm (20-2500 MSEC) : This timer controls the duration of a hookswitch flash to ensure that the flash is valid and not a line noise or an accidental hookswitch bounce (SHORTEST DURATION)
- Hook off time (100-2500 MSEC) : This timer controls the time before dial tone is sent to a single line station.
- Hook on time (20-2500 MSEC): This timer sets the minimum amount of time that the system will recognize as an SLT hang up.
- Inquiry release (1-255 SEC): This timer monitors the duration of the interaction of the soft key to determine when to return the LCD back to normal status. This timer affects only display phones.
- Inter digit time (1-255 SEC) : This timer controls the grace period between dialing valid digits before dropping the call and returning the user to error tone.
- **Isdn int dgt tm** (1-15 SEC) : This timer controls the grace period between

dialing valid digits and the end of the dialing string on an ISDN call.

- Kmmc lock out tm (10-255 SEC) : This timer controls the grace period between programming actions while in a programming session. The timer automatically returns the system to secure programming status.
- Lcr advance time (1-255 SEC) : This timer controls the period of time before selecting the next allowable route when a station is allowed to route advance.
- Lcr inter digit (1-255 SEC): This timer controls the grace period between dialing valid digits before dropping the call and returning the user to error tone.
- Mcl delay time (1-8 SEC) : This timer controls the time when the system should start transmitting Authorisation code after sending MCL Access code.
- Ms led on time (0-10 SEC) : This timer controls the duration a Manual Signalling key will remain on after use.
- Off hook ring ind (1-255 SEC) : This timer controls the time between ring bursts to a user who has a camped-on call.
- Off hook select (1-255 SEC) : This timer controls the grace period before placing an internal/external call as programmed in MMCs 306 and 307.
- Ohva answer time (1-255 SEC) : This timer controls the duration of an OHVA call before automatic rejection.
- **Page tone time** (100-2500 MSEC) : This timer controls the duration of tone burst heard over the page prior to the page announcement.
- **Park recall time** (0-255 SEC) : This timer controls the time a call is parked before recalling to the call park originator.
- Power down time (100-2500 MSEC) : This timer monitors the power to the ROM pack to begin shutdown status.
- Recall disconnect (1-255 MIN) : This is the time an attendant recall will ring before being disconnected.
- Recall wait time (0-255 SEC) : This is the time any recall (hold or transfer) continues to recall at your station before it recalls to the operator.
- Sys hold recall (0-255 SEC): This timer determines the time calls can be left on hold before recalling the holding station. This is a system-wide timer. Setting this timer to 000 means that no recalling will take place.
- Transfer recall (0-255 SEC): This timer determines the time transferred calls ring before recalling. This is a system-wide timer.

Tech Passcode

On the Tech Passcode screen, you can set or reset the passcode needed for technical programming.

Enter a four-digit passcode using the numbers 0 ~ 9 into the **Technical Passcode** parameter. Click the **Set** button.

Tenant On Off

On the Tenant On Off screen, you can select whether to use system functions. Tick on the parameters for the functions you want.

To use a feature, tick the relevant parameter(s) and click the **Set** button.

- **LCR Enable** : Select whether to use LCR function or not.
- **CID Insert Code** : Save country code in CID.
- **Transfer MOH** : Send the tones for held calls instead of paging tones when you forward calls.
- **DSP SSPD NAME** : Display names instead of numbers in DSP SSPD mode.
- **DID Busy Route** : Transfer the calls to relay station when DID station is busy.
- **All Pickup** : Allow non-pickup groups to pick up.

System VMAA Opt

On the System VMAA Opt screen, you can set the options related to VM (Voice mail) and AA (Auto Answering).

There are 8 options as follows. Click the variations button for each parameter to select the option value. Click the **Set** button.

- **DN1 Extension No.** : The first dial number of station
- **DN1 Trunk No.** : The first dial number of trunk
- **DN2 Extension No.** : The second dial number of station
- **DN2 Trunk No.** : The second dial number of trunk
- **Separator** : Separator symbol
- **Disconnect-Signal** : Disconnect signal
- **Progress Tone**
  - Dial-Tone : Dial Tone
  - Busy-Tone : Busy Tone
  - RBAK-Tone : Ringback Tone
  - DND-Tone : Call Deny Tone
  - ANS-HSET : Headset Answer
  - ANS-SPK : Speaker Answer
- **Call type**
  - Directory : Direct call
  - All FWD Call : Unconditional call forwarding
  - Busy FWD Call : Busy Forward Call
  - NOANS FWD Call : No Answer Forward Call
  - Recall : Recall
  - Direct Trunk Call : Direct Trunk Call
  - Overflow : Overflow Call
  - DID Call : Internal Direct Call
  - MSG Call : Message Call

My Area Code

On the My Area Code screen, you can set the name of the country and the area code (four digits maximum). This code and name indicate the area and country where the DCS-VIP system is installed.

Select the Area Code and the Country. Click the **Set** button.

- **Area Code** : Enter a 4-digit area code, using the numbers from 0~9.
- **Country** : Select the country where the system is installed.

DGP Volume

On the DGP Volume screen, you can control the digital phone volumes. You set the volume for each sound type.

Click the dropdown button for each sound type to select the sound volume. Click the **Set** button.

- **Key Tone Volume** : Set the volume of the key tone.
- **Side Tone Volume** : Set the volume of the side tone.
- **Handset Tx** : Set the volume of Handset TX.
- **MIC TX Level** : Set the level of MIC TX.
- **Noise Guard/Noise Thres/ALC Thres/TX/RX Thres/TX/RX Comp** : General users are advised not to change the default values for these parameters since they have a significant effect on the performance of the system.

System Coding

On the System Coding screen, you can select the signal standard for analog/digital signal conversion.

Click the **Coding** dropdown button to select one signal standard from the following signal standards. Click the **Set** button.

- u-law : The standard used mainly in North America .
- a-law : The standard used mainly in Europe.

Cust Use MMC

On the Cust Use MMC screen, you can select which MMC commands are permitted for customer use.

To select each program for customer use, tick the **Permit** parameter next to it.

Key Prog

On the Key Prog screen, you can configure the DSS buttons of a digital keyset with a range of system features.

First, click the **Station No** dropdown button and choose the user's station number to select the specific features on the program buttons. Then select **Feature** and **Extension.** Click the **Set** button.

- **Feature** : Select the required feature for each program button (DSS Key).
- **Extension** : Select the extension in trunk line/trunk group option.

Station Features Setup

This explains how to set up the station features. Select the **STATION PAGES** menu on the **ADVANCE SETUP ➛ KEYPHONE** menu screen. Then, you will see STATION PAGES screen consisting of following 17 submenus.

AllowCid	AomMaster	CID Block	Ext Trk Use	Forced Code
LCR Class	Ring Type	Set Relocation	Speed Block	Station Cos
Station Pair	VMSPort	Station Timer	Num Plan	Boss and Sec
HotLine	Key Prog			

Allow CID

On this screen, you can select whether to allow stations to send or receive caller ID (CID) information to or from other stations.

Set the following parameter values and click the **Set** button.

- **Send** : Tick on the box to send CID.
- **Receive** : Tick on the box to receive and display CID.

AOM Master

On the AOM Master screen, you can select the station which will act as an AOM (Add-on Module) master. Set the following parameter values and click the **Set** button.

- **Master Tel No**. : Enter the station number that will act as an AOM master.

CID Block

On the CID Block screen, you can allocate the entry in which CID information is saved. You can select the number of entries in blocks of 10.

- **CID Block (*10)** : Select the number of entries that will be allocated to each station. (E.g. If you select 1 that means you want 10 entries. Likewise, 3 means you want 30 entries.)

Click the **Set** button.

Ext Trk Use

On the Ext Trk Use screen, you can select what trunk lines can be used by astation to make outgoing calls, or to pick up incoming calls.

- **Dial** : For each station select the trunks that may be used for external dialing.
- **Ans** : For each station select the trunks that may be answered.

Click the **Set** button.

Forced Code

On the Forced Code screen, you can select if a station must enter a code before making external calls.

Click the dropdown button for each station's **Mode** parameter to select the Forced Code and click the **Set** button**.**

- None : No code required.

- Authorization : You can make external calls only when an Authorization Code is entered.
- Account : You can make external calls only when an Account Code is entered.

LCR Class

On the LCR Class screen, you can select the LCR(Least Cost Routing) class. LCR is used to limit the selection of the trunk group.

Click the **LCR** dropdown button for each station, and select the class of LCR (1 to 4). You can select to set up each class at the **Group->LCR Digit/LCR Modify Digit/LCR Route/LCR Tim**e menu. Click the **Set** button.

Ring Type

On the Ring Type screen, you can select the ring type for incoming calls.

Click the **Ring Type** dropdown button to select one option from the three following options and click the **Set** button.

- ICM RING : On for 0.4 sec. / Off for 0.2 sec. / On for 2 sec. / Off for 3 sec.
- CO RING : On for 1 sec. / Off for 2 sec. : normal trunk ring.
- DATA RING : On for 1 sec. / Off for 2 sec. : normal trunk ring without off-hook tone.

Set Relocation

On the Set Relocation screen, you can switch the parameters of one station with those of another.

Click the **Relocation Port** dropdown button for each station to select the Relocation Port to exchange the information. Relocation Port is selected only in online and it immediately reflects the exchanged information if it is uploaded after being revised.

Speed Block

On the Speed Block screen, you can select a speed block. Each speed block can accommodate 10 speed dials. Speed dial blocks can be allocated to more than one station and therefore can be shared.

Click the **Speed Block** dropdown button to select the speed dial block and click the **Set** button.

Station COS

On the Station COS screen, you can select the COS (Class Of Service) for each station. COS is used to grade the service provided by the DCS-VIP. There are 10 COSs. You can select service items for each COS. This enables you to use allowed service items.

Select the COS for both day mode and night mode for each station and click the **Set** button.

- **Day** : Select the COS for daytime.
- **Night** : Select the COS for nighttime.

Note

You can select the viable features for each service at Group -> COS Contents menu.

Station Pair

On the Station Pair screen, you can pair stations. The paired stations will act as one. If one station of the pair changes its functions or rings, so will the other.

Click the **Secondary No** dropdown button for each primary station to select the station to match with the Primary station. Click the **Set** button.

VMS Port

On the VMS Port screen, you can select whether to use each telephone port as a Voice mail port or as a normal telephone port.

Click the **VMS Port** dropdown button for each station to select one option from the two options displayed and click the **Set** button.

- Normal : Select to use as normal telephone port.
- VMS : Select to use as Voice mail port.

Station Timer

On the Station Timer screen, you can select the timer values. Each timer's value range and unit is shown in parenthesis.

Set the following timer values and click the **Set** button.

- **No Answer** (sec) : Set the time that will be recognized as No Answer.
- **DTMF duration** (100msec) : Set the DTMF TONE duration.(the tones generated on pushing the buttons on digital telephones).
- **First Digit Delay** (100 msec) : Select the duration for first digit delay after selecting Voice mail/ Automatic relay.

Number Plan

On the Number Plan screen, you can select or change the dial number (feature number) to activate each feature for a station, trunk, station group, or trunk group.

First, choose the Port/Group to select the Number plan in the **Group Type** parameter. The parameter showing the relevant port and type for each Port/Group will appear. Enter the feature number into the **Tel No**. parameter for each Port/ Group and click the **Set** button.

Boss and Sec

On the Boss and Sec screen, you can select the stations that will act as boss or secretary stations. Each boss can have up to four secretaries.

First, click the boss's telephone number to select a secretary. The Secretary parameters 1 to 4 will appear at the bottom of the screen to allow you to select the secretary's station number(s). Click the dropdown button for Secretary 1/2/3/4 to select each secretary's station number and click the **Set** button.

Caution

A boss station cannot be selected as the secretary of another boss station.

Hot Line

On the Hot Line screen, you can select the internal or external hot line for each station. If you pick up the handset of a hot line station, it will automatically dial the programmed telephone number after the hotline waiting period.

First, click the station number to select the Hot Line. The following parameters will appear to allow you to select Hot Line mode, trunk number, and external outgoing number. Set the parameter values and click the **Set** button.

- **Mode** : Select the Hot Line mode.
  - Hot Line : Select internal hot line.
  - Off-Hook Selection : Select external hot line.
- **Hot Line** : Select the station for internal hot line after selecting '**Hot Line'** in the **Mode** parameter.
- **Trunk No** : Select trunk number after selecting '**Off-Hook Selection**' in the **Mode** parameter.
- **Outgoing digits** : Enter the outgoing digits after selecting '**Off-Hook Selection**' in the **Mode** parameter.

Key Prog

On the Key Prog screen, you can select the features to be assigned to the digital handset program buttons.

Select the station number of the user at **Station No** and select the following parameters.

- **Feature** : Select the required features.
- **Extension** : Select the extension number for trunk line/ trunk group selection.

Click the **Set** button.

Identifying keyphone status

This section describes how to identify the keyphone module status. On the **ADVANCE SETUP ➛ KEYPHONE SETUP** menu, select the **KEYPHONE STATUS** menu. Then, you will see KEYPHONE STATUS screen consisting of following 2 submenus.

System Status	Port Status

System Status

On the System Status screen, you can check the system date and time, the BRI port type, the feasibility of the VoIP support, and the software version. You can change some of these values if required.

- **System Date and Time** : You can check the system date and time.
- **Config Card Status**
  - VoIP: You can check the feasibility of the VoIP feature provided as an option.
  - Extension : You can check the DCS-VIP expansion system's BRI port type.
  - Base : You can check the DCS-VIP main system's BRI port type.
- **Version** : You can check the system software's version.

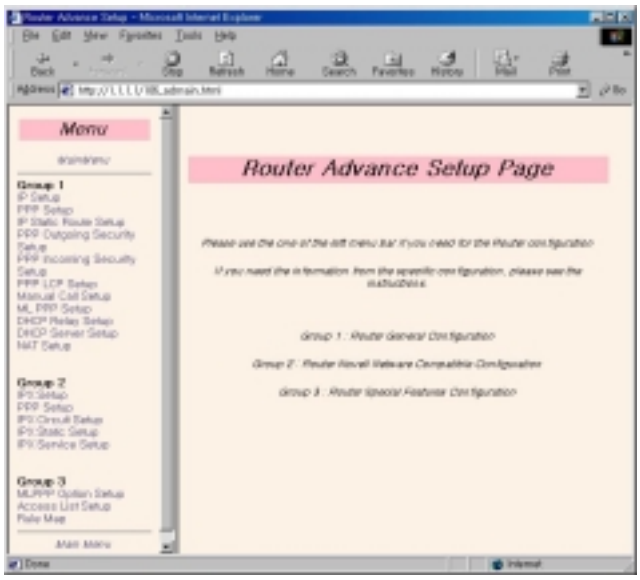
Port Status

On the Port Status screen, you can refer to the DCS-VIP main/expansion system's station/trunk/VoIP/router port status.

- Port : BRI port number.
- Tel : Port telephone number.

Advance Router Setup

To set up the advanced functions of the Router on the DCS-VIP's web management screen, click the **ADVANCE SETUP ➔ ROUTER SETUP** menu. The following advance menu screen will appear.



Group 1 (IP Option)

You can set up the options for IP (Internet Protocol) which is the Internet layer protocol of TCP/IP.

IP Setup

On the IP Setup screen, you can change the IP address and subnet mask of the DCS-VIP. Set the following parameter values and click the **Set** button.

- **Administrative Status** : To use IP (Internet Protocol), select 'ENABLE'.
- **IP Address** : IP address of the DCS-VIP. If you want to reset IP address of the DCS-VIP, enter the new IP address here.
- **Subnet Mask** : Subnet mask of the DCS-VIP. If you want to reset subnet mask of the DCS-VIP, enter the new subnet mask here.

PPP Setup

PPP (Point to Point Protocol) is a WAN protocol that you use to connect to the Internet or remote network through an exclusive line or public line. If you want to use a PPP connection in the TCP/IP environment, set up the following parameters.

PPP Over ISDN Configuration

- **Channel Selection** : In DCS-VIP you can create two address books for a PPP connection, using one for CHANNEL-1, the other for CHANNEL-2. In this way, you do not have to enter the destination network information when you connect to the remote router. Make sure you do not confus CHANNEL-1 and CHANNEL-2 with ISDN B1, B2. Select either CHANNEL-1 or CHANNEL-2 to enter the destination network information.
- **Channel Status** : select whether to enable or disable the address book you chose in the **Channel Selection** parameter.

  - ENABLE : select to use the address book.
  - DISABLE : select not to use the address book.
- **Destination Phone Number** : Enter ISDN phone number of the destination network. Enter ISDN phone number (7-8) digits, but do not enter '-' in the middle of the phone number.
- **Destination Sub Address** : Enter sub address of the destination network. Sub address is used in North America only.
- **WAN IP Address** : Enter IP address of the destination network router you want to connect to.
- **WAN Subnet Mask** : Enter subnet mask of the destination network router you want to connect to.
- **WAN IP Status** : To use IP(Internet Protocol), select 'ENABLE'.

After finishing setting up all the parameters above, click on the **SET** button. If you want to make a new address book for another channel, click on the **NEXT** button to enter the new destination network information. Then, click the **SET** button.

IP Static Route Setup

Static Routing is the way in which the network administrator establishes the routing table. This is appropriate for an environment with predictable network traffic and simple network design. In order to use IP static routing, first you have to create routing tables using the IP Static Route Setup menu screen.

- **Channel** : This is the connecting factor between the WAN and the routing table. This will connect the address book that you chose in the **PPP Setup** menu and the IP routing table. Select the address book that you want to connect to the IP routing table.
- **Destination IP Address** : Enter the IP address of the destination network router that you want to connect to.
- **Destination Subnet Mask** : Enter the subnet mask of the destination network router that you want to connect to.
- **Gateway IP Address** : Enter the IP address of the next hop after transmitting packet.

Note
Hops are routers that IP packets go through before arriving at the destination network from the transmitting network.

- **Number of Hops** : Enter the number of hops that a packet passes through before reaching the destination network. Normally this will be '1'.
- **Circuit Number** : If you select X.25 for WAN protocol, enter the virtual circuit number as X.25. If you select PPP for WAN protocol, enter '0'.
- **Static Route Status** : If you set this parameter to 'ENABLE', the routing table set up on this screen will be used.

After finishing setting up all the parameters above, click on the **SET** button. If you want to make a new routing tabel for other channel, click on the **NEXT** button to enter the new IP routing information. Then, click the **SET** button.

PPP Outgoing Security Setup

In order to automatically connect the DCS-VIP router to the ISP or remote router, you need a login name and password. You enter the login name and the password on the PPP Outgoing Security Setup screen. Set the following parameter values and click the **Set** button.

- **Router Name** : To use the account service, enter the login name provided by the ISP or remote network administrator.
- **Router Password** : To use account service, enter the password provided by

the ISP or remote network administrator.

PPP Incoming Security Setup

Remote router name and password can be set up for remote router connection and ISP LAN service. Remote router name and password are set up for unauthorized users who want to connect to the user's DCS-VIP router in remote router or ISP. Set the following parameter values and click the **Set** button.

- **Remote Router Name** : When you want to connect to the user's DCS-VIP router from the other network, enter the necessary login name.
- **Remote Router Password** : When you want to connect to user's DCS-VIP router from the other network, enter the necessary password.

PPP LCP Setup

You can specify the various options necessary for PPP link setting on the **PPP LCP Setup** screen.

- **Channel** : This is the connecting factor between WAN and the routing table. This will connect the address book that the user chose in the **PPP Setup** menu and the IP routing table. Select the address book that you want to connect IP routing table to.
- **Circuit Index** : If you select X.25 for WAN protocol, enter the virtual circuit number as X.25. If you select PPP for WAN protocol, enter '0'.
- **Authentication Status of Router** : If the user network can be connected to the destination network by entering Incoming User Name and Incoming User Password set in **PPP Incoming Security Setup** menu correctly, set this item to 'ENABLE'.
- **PPP Idle Timer** : If no packet is transmitted on the PPP link during the time set in this parameter, the PPP link is deallocated automatically. The timer value range is 3~3600(seconds).
- **Remote IP Address Negotiation** : Select whether to use the IP address that you have given for ISP connection. Select "ENABLE" for ISP connection and select "DISABLE" for remote router.
- **PPP Link Operational Status** : This displays the operational status of the PPP link. This parameter is read-only.

After finishing setting up all the parameters above, click on the **SET** button. If you want to make a new PPP LCP information for another channel, click on the **NEXT** button to enter the new PPP LCP information. Then, click the **SET** button.

Manual Call Setup

On the **Manual Call Setup** screen, after completing the router module configuration setting for DCS-VIP system, you can connect/disconnect physical channel to connect to the ISP or remote router.

- **Channel Selection** : Select the address book that you need to connect/ disconnect the physical channel for ISP or remote router connection.

To connect the physical channel, click the **CONNECT** button.
To disconnect the physical channel connection, click the **DISCONNECT** button.

ML PPP Setup

MLPPP is the protocol that combines more than two ISDN B channels into one PPP. Therefore, MLPPP enables you to use 128Kbps in one ISDN B channel, transmitting data at a faster speed. On the ML PPP Setup screen, set up the following

parameters.

- **Channel** : Select the channel you want MLPPP function for.
- **Circuit Number** : If you select X.25 for WAN protocol, enter the virtual circuit number as X.25. If you select PPP for WAN protocol, enter '0'.
- **Administrative Status** : If this parameter is set to 'ENABLE', the traffic capacity on the B channel will be monitored and if it is more than the fixed level the MLPPP function will be used automatically. If this is set to 'Down', traffic capacity will not be monitored, so the MLPPP function cannot be used.
- **Maximum Threshold** : Select the number and rate of traffic using the MLPPP function. For example, if you set the traffic rate to 70% and the number to 2 times, the MLPPP function will be used automatically if the traffic rate on the B channel becomes more than 70% and 2 times.
- **Minimum Threshold** : Select the number and rate of traffic which deallocates the MLPPP function. For example, if you set the traffic rate to 20% and the number to 3 times, the MLPPP function will be deallocated automatically if the traffic rate on the B channel becomes less than 20% and 3 times.

After finishing setting up all the parameters above, click on the **SET** button. If you want to set up an MLPPP function for another channel, click on the **NEXT** button to enter the new MLPPP information. Then, click the **SET** button.

DHCP Relay Setup

On the DHCP Relay Setup screen, you can set up the Relay Agent connecting the DHCP server to the DCS-VIP system to allocate the IP address automatically using the DHCP server. Set the following parameter values and click the **Set** button.

- **DHCP Relay Agent** : Select 'ENABLE' to use the DHCP Relay Agent.
- **Use DHCP Relay Table** : Select 'ENABLE' to use the DHCP Relay Table.

Server Table Configurations

- **DHCP Server IP Address** : Enter the DHCP server IP address that will receive packets from the client.
- **DHCP Server Status** : Select 'ENABLE' to use the DHCP server.

DHCP Server Setup

On the DHCP Server Setup screen, you can set up parameters for the DHCP server. This includes automatic allocation of IP addresses for the network administrator. Set the following parameter values and click the **Set** button.

- **DHCP Server Enable** : To use DHCP, select 'ENABLE' and set up the following parameters .
- **DHCP Server Subnet Mask** : Enter the subnet mask of the DHCP server.
- **DHCP Server Address Pool Start** : Enter the starting IP address that will be allocated to clients in the DHCP server.
- **Count** : Enter the total number of IP addresses that can be allocated to clients in the DHCP server. The range of parameter values depends on the IP address. For example, if the address is '10.0.4.20', the range will be 1 ~ 234. If the address is 'xxx.xxx.xxx.0', the range will be 1 ~ 254.
- **Domain Name String** : Enter the domain name to be proceeded by the client host name.
- **DNS Primary Server** : Enter the IP address of the primary DNS(Domain Name Server). DNS changes URL address such as www.samsung.co.kr into an IP address.
- **DNS Secondary Server** : Enter the second DNS(Domain Name Server) IP address. This server will be used if the primary DNS server fails to change a URL address to an IP address.

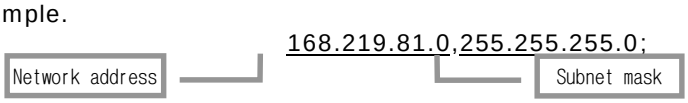
- **Primary Gateway** : Enter the gateway, the IP address of the DCS-VIP .

NAT Setup

NAT (Network Address Translation) will enable more than two users to connect to the network using a single user account. This function is valid only for ISP connection. On this screen, set the following parameter values and click the **Set** button.

NAT Table Configuration

- **Global IP Address** : For the initial link to the ISP, set this IP address (10.0.0.1). If the link succeeds, the ISP will automatically allocate an IP address, which will be saved in this field as the NAT global IP address.
- **Subnet Mask** : For the initial link to the ISP, use any subnet mask. When the ISP allocates a NAT global IP address, the subnet mask value will automatically be set up. In general, 255.255.255.0 is used as subnet mask.
- **NAT Entry Status** : To generate the NAT table defined on this screen, select 'CREATE', and if you want to delete it, select 'DELETE'.
- **Network IP Address, Subnet Mask** : Enter the DCS-VIP network address range and subnet mask. You must enter the numbers as formatted in the following example.



NAT Global Configuration

- **NAT Port Translation** : To perform port conversion according to address conversion of NAT Global IP address., select 'YES'
- **NAT Feature** : To use NAT function, select 'ENABLE'.

Group 2 (IPX Option)

You can set up the options for IPX, which is the network layer protocol for Novell NetWare. Set the following parameter values and click the **Set** button.

IPX Setup

When you configure Ethernet using the DCS-VIP, you need to set the following parameters if you want to use the devices connected to each other in the NetWare network environment.

- **IPX Internal Network Number** : IPX network number of Ethernet itself. MAC address of system is mainly used. The network number of the IPX address is 32-bit hex values separated with dots.
- **IPX Node Number** : IPX node number of Ethernet itself. The node number of the IPX address is 48bit hex values separated with dots.
- **IPX Global Administrative Status** : To operate Ethernet IPX, select 'ENABLE'.
- **IPX Port Network Number** (Hex Value) : Enter the IPX number of network on the side of Ethernet.
- **IPX Port Administrative Status** : To operate Ethernet IPX number, select 'ENABLE'.

PPP Setup

For PPP connection in NetWare network environment PPP, set up the parameters below.

PPP Over ISDN Configuration

- **Channel Selection** : In DCS-VIP you can create two address books for PPP connection, using one for CHANNEL-1, the other for CHANNEL-2. In this way, you do not have to enter the destination network information when you connect to the remote router. Make sure you do not confuse CHANNEL-1 and CHANNEL-2 with ISDN B1, B2. Select either CHANNEL-1 or CHANNEL-2 to enter the destination network information.
- **Channel Status** : select whether to enable or disable the address book you chose in the **Channel Selection** parameter.
  - ENABLE : select to use the address book.
  - DISABLE : select not to use the address book.
- **Destination Phone Number** : Enter the ISDN phone number of the destination network. Enter the ISDN phone number as 7-8 digits, but do not enter '-' in the middle of the phone number.
- **Destination Sub Address** : Enter sub address of the destination network. Sub address is used in North America only.
- **WAN IPX Network Address** : Enter IPX number of the network on the side of ISDN Interface.
- **WAN IPX Status** : To operate ISDN interface IPX number, select 'ENABLE'.

After finishing setting up all the parameters above, click on the **SET** button. If you want to make a new address book for another channel, click on the **NEXT** button to enter the new destination network information. Then, click the **SET** button.

IPX Circuit Setup

On the IPX Circuit Setup screen, you can configure IPX Circuit setup.

- **Circuit Index** : This Index indicates the number mapping with channel (Ethernet, B1, B2), and X.25 Virtual Circuit Number.
  E.g. 0 : Ethernet, 0
  1 : B1, 0 (for PPP)

- **Channel** : This means Ethernet, B1, B2 channel. Select the channel for IPX Circuit configuration.
- **X.25 Virtual Circuit Number** : This parameter is actual VC number for circuit. If you select PPP for WAN protocol, enter '0'.
- **Header Frame Style** : Select the CSMA/CD control used in Interface.
- **Virtual Circuit Type** : Select the virtual circuit type. The types are PVC (Permanent Virtual Circuit) and SVC (Switched Virtual Circuit).
- **IPX Network Number** : Enter IPX Network Number clarified in Circuit.
- **RIP Information Update** : If you use a protocol that sends and receives an RIP packet periodically, select 'PERIODIC' for this parameter; if using the Demand RIP, select 'TRIGGERED'.
- **Circuit Administrative status** : To use IPX in this Interface, select 'ENABLE'.

After finishing setting up all the parameters above, click on the **SET** button. If you want to create an IPX circuit entry for another channel, click on the **NEXT** button to enter the new IPX circuit entry information. Then, click the **SET** button.

IPX Static Setup

On the IPX Static Setup screen, you can create the routing table necessary for using IPX static routing.

- **Circuit Index** : This indicates the eigen number to discriminate each logical Circuit. This number is the 'Circuit Index' parameter number on the **IPX Circuit Setup** menu.

- **Network Number** : This indicates the IPX network number of the destination network.
- **MAC Address of the Next Hop Router** : Enter the NIC(Network Interface Card) address of the next hop.

Note
Hops are routers that IP packets go through before arriving at the destination network from the transmitting network.

- **Transport Delay to reach the Destination Network** : Enter the time taken before arriving at the destination network by tick unit.
- **Number of Hops** : Enter the number of hops necessary for arriving at the destination network.
- **Static Route Status** : To use the routing path information set up on this screen, set this to 'ENABLE'.

After finishing setting up all the parameters above, click on the **SET** button. If you want to create a routing table for another Circuit, click on the **NEXT** button to enter the new routing information. Then, click the **SET** button.

IPX Service Setup

On the IPX Service Setup screen, you can set up IPX Static Server configuration.

- **Circuit Index** : This indicates the eigen number to discriminate each logical Circuit. This number is the 'Circuit Index' parameter number on the **IPX Circuit Setup** menu.
- Server Name : This indicates the service name of server.

(e.g. File server, Print server etc.)

- **Service Type** : This indicates the service type.
- **Server Network Number** : Enter network number of IPX address.
- **Server MAC Address** : Enter node number of IPX address.
- **Service Socket** : Enter the socket number of IPX address.
- **Next Hop Router Address** : Enter the next hop router address.
- **Number of Hops** : Enter the number of hops necessary for arriving at the destination network.
- **Service Entry Status** : This shows whether this Static service is valid or not.

After finishing setting up all the parameters above, click on the **SET** button. If you want to create an IPX Static Server for another Circuit, click on the **NEXT** button to enter the new IPX Static Server information. Then, click the **SET** button.

Group 3 (Accessories)

In the Accessories menu, you can set up additional functions such as MLPPP, Access List and Rule Map.

MLPPP Option Setup

On the MLPPP Options Setup screen, you can set up options for the Multi-link PPP.

- **Channel** : Select the channel you want the MLPPP function for. (Choose from CHANNEL 1 and CHANNEL 2 in the PPP Setup menu.)
- **Circuit Index** : If you select X.25 for WAN protocol, enter the virtual circuit number as X.25. If you select PPP for WAN protocol, enter '0'.
- **Multilink Protocol Configuration Header Format** : Select the format of MLPPP header that will be used.
- **MRRU (Max Received Reconstructed Units)** : Enter the maximum packet (unit) size received and reconstructed on MLPPP.
- **Bundle Class** : Decide the Identifier address space used in MLPPP Bundle..
- **Bundle Address** : Enter the Bundle Address of MLPPP.

After finishing setting up all the parameters above, click on the **SET** button. If you want to set up the MLPPP function for the other channel, click on the **NEXT** button and enter the information for MLPPP. Then, click on the **SET** button.

Access List Setup

On the Access List Setup screen, you can define the filter rules to permit or prevent access to the user's network for special packets.

- **Rule Number** : Select the character number of filter rules defined on this screen. You can define filter Rules to 100 at its maximum. And discriminate each one using this number. At this time, the number possible for enter is the value between 1 and 100.
- **Protocol Type** : Select the protocol type of the packets to which the filter rules will apply.
- **Direction** : Select whether filter rules will apply to transmitted or received packets.
  - IN : Filter rules apply to received packets.
  - OUT : Filter rules apply to transmitted packets.
  - BOTH : Filter rules apply to both transmitted and received packets.

- **Source Address** : This is the address of the source network applying the filter rules. Currently, the format of the address depends on the protocol type set in `Protocol Type'.
- **Source Masking :** This is the subnet mask of the source network applying the filter rules. Enter the number of MSB bit checked in source network address.
- **Destination Address :** This is the address of the destination network applying the filter rules. Currently, the format of the address depends on the protocol type set in `Protocol Type'.
- **Destination Masking** : This is the subnet mask of the destination network applying the filter rules. Enter the number of MSB bit checked in destination network address.
- **Source Port Number** : This is the range of port/socket numbers or the port/socket number of the source applying the filter rules. If '*' is entered for this parameter, the port/socket number will not matter. The range of numbers is 220-300.
- **Destination Port Number** : This is the range of port/socket numbers or the port/socket number of the destination applying the filter rules. If '*' is entered for this parameter, the port/socket number will not matter. The range of numbers is

220-300.

- **Sub Protocol Type** : Select the sub protocol associated with the primary protocol (UDP, TCP, SPX etc.). If '*' is entered for this parameter, the basic value will be used. The value range is 1~255.
- **Action Policy** : Set up how you will apply filter rules defined in each parameter of the Filter Rules screen.
  - ALLOW : This allows receiving/transmitting of packets conforming to filter rules defined in each parameter.
  - DENY : This denies receiving/transmitting of packets conforming to filter rules defined in each parameter.
  - DISABLE : This does not apply filter rules defined in each parameter of the Filter Rules screen, but saves them for later use.
  - INVALID : This neither applies nor saves filter rules defined in each parameter of the Filter Rules screen.

After finishing setting up all the parameters above, click on the **SET** button. If you want to apply filter rules to other protocols, click on the **NEXT** button to set up the parameter values. Then, click on the **SET** button.

Rule Map

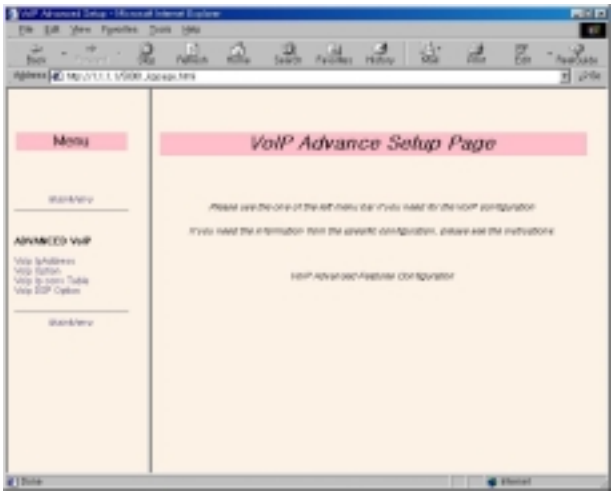
On the Rule Map screen, you can apply several rules defined in the Filter Rule menu by selecting them.

- **Protocol Type** : Select the protocol type set in 'protocol type' item of **Access List Setup** menu.
- **Filtering Rule Numbers** : Enter the number of the filter rule you want to apply. The value for this parameter is the 'Rule Number' value set in the Filter Rule menu. When entering individual filter rule numbers, use ',' to separate them (e.g. 1,2,4) and when entering a range of filter rule numbers , use '-' (e.g. 1-4). You can define up to 100 filter rules. Enter '0' if no filter rule is applied.
- **Rule Map Status** : To apply the Rule Map defined on this screen, select 'Current', otherwise select 'Invalid'.

After finishing setting up all the parameters above, click on the **SET** button. If you want to apply the Rule Map to other protocols, click on the **NEXT** button to set up the parameter values. Then, click on the **SET** button.

Advance VoIP Setup

If using the VoIP feature provided as an option, to select the Advance function click the **Advance Setup ➛ VoIP** menu on the DCS-VIP's web management screen. The following Advance screen will appear.



VoIP IP Address

On the VoIP IP Address screen, you can specify the VoIP gateway's IP address and the subnet mask.

Specify the each following parameter values and click the **Next** button.

- **VoIP IP Address** : Enter the VoIP gateway's IP address.
- **Subnet Mask** : Enter the VoIP gateway's subnet mask.
- Gateway : Enter the gateway's IP address.

VoIP Option

On the VoIP Option screen, you can set up many different options needed for using the Internet phone.

Select the following parameter values and click the **Next** button.

- **DB read from backup memory, if reset** : This decides whether to load the database (DB) from the program's initial data or from the data saved in the memory.
- **Gatekeeper Connection** : This selects to check whether the VoIP system is connected to the Gatekeeper.
- **Multi Frame Count** : This selects the number of the Voice packet frame compressed in the DSP (Digital Signal Processor).

Note
If Audio Codec parameter's value is G.723.1, '3' is appropriate here. Be aware that the system function deteriorates if the number is '1' or less.
If Audio Codec parameter's value is G.729A, '9' is appropriate here. Be aware that the system function deteriorates if the number is below '9'.

- **Echo Cancellation** : This determines whether the echo sound is cancelled for voice calling.
- **Ring Back Tone Support** : Once a phone call is dialed, this selects the tone

source of the Ring Back Tone which the caller hears while the phone is ringing the destination.
- Enable : This produces the sound in the VoIP's Tone source.
- Disable : This produces the sound in the DCS-VIP system.

- **Silence Suppression** : This determines whether to transmit a mute packet when a phone call is made. Generally, you should set this parameter to 'Enable'.
- **PCM Companding Method** : This defines the signal standard used in the telephone network.
  - ULAW : This is a signal standard mainly used in telephone networks in North America.
  - ALAW : This is a signal standard mainly used in telephone networks in Europe.

Note
This parameter's value provides you with information and cannot be changed here. To change this value, change it in the KMMC's K/P database and reboot the system.

- **Audio Codec** : For Audio Codec, G.723.1 (6.3k) and G.729A are supported.
- **VoIP Gateway ID** : This is a VoIP's caller ID to calculate the calling charge.

VoIP IP Convert Table

On the VoIP IP Convert Table screen, you can specify the telephone number and the IP address to be connected to the VoIP gateway.

Click the dropdown button on **Operation** to select the IP convert table number. Then, an item will appear at the bottom of the screen. You can specify next parameter. Select each of the following parameter values and click the **Next** button.

- **Phone No.** : This selects the telephone number(alias number) connected to the VoIP system on the other side.
- **IP Address** : This selects the VoIP system's IP Address on the other side.

VoIP DSP Option

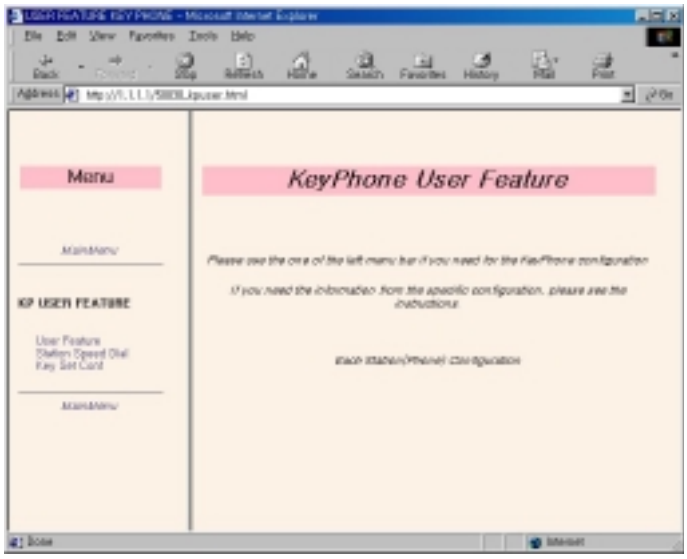
On the VoIP DSP Option screen, you can set up the various options for the DSP (Digital Signal Processor).

Select each of the following parameter values and click the **Next** button.

- **Frame Sync Polarity** (FSP) : This selects the DSP pcm sampling method.
- **Clock Polarity** (CLKP) : This selects the DSP pcm sampling method.
- **High Pass Filter Enable** (HPFE) : This selects whether DSP input filtering is available.
- **Post Filter Enable** (PFE) : This selects whether DSP output filtering is available.
- **Input Gain** : This selects the size of the DSP pcm input gain.
- **Voice Volume** : This selects the voice volume during a phone call.
- **Jitter Buffer Size** : This indicates the size of the DCP's jitter buffer to prevent jitter delay and it is set up by **Multi Frame Count** ×**2**. The **Multi Frame Count** parameter is set up in the VoIP Option menu.

Chapter 6 USER SETUP (KEYPHONE PART)

This chapter explains available user features and how the users of keyphone connected to the DCS-VIP can configure their own working environment.
To set up the Keyphone's user features click the **USER SETUP (KEYPHONE PART)** menu on the DCS-VIP web management screen. The following Advance menu screen will appear.



User Feature

On the User Feature screen, you can set Call Forwarding, Alarm Reminder and Station Lock.
First, click the **Station No** dropdown button to select your station number and set the following parameter values. Then, click the **Set** button.

- **Station Name** : Enter the station name.

Call forward

- **Forward Type** : You can forward calls to another user or to an external network. Select the forward type. There are 6 types of call forwarding as follows.
  - Cancel : Cancel call forward.
  - All : Forward all incoming calls.
  - Busy : Forward calls when the line is busy.
  - No Answer : Forward calls when there is no answer.
  - Busy/No Answer : Forward calls when the line is busy or when there is no answer.
  - External : Forward calls to a mobile phone or another network.
- **All FWD** : Select the telephone number to forward calls to on ALL FWD.
- **Busy FWD** : Select the telephone number to forward calls to on Busy FWD.
- **No answer FWD** : Select the telephone number to forward calls to on No answer FWD.

External FWD
If you select External FWD, set the following parameters.

- **Trunk Tel** : Select the trunk line to forward calls to an external user.
- **Outgoing digits** : Enter the telephone number (18 digits maximum) to forward

calls to.

Alarm Reminder
You can use Alarm Reminder only on a digital handset with liquid crystal display (LCD). The Alarm goes off at the set time and a message will appear in the LCD.

- Hour, Minute : Set the time at which alarm goes off..
- Mode : If you select 'Today', alarm goes off once within 24 hours. If you select 'Daily', alarm goes off at the set time, every day.
- Message : You can enter a maximum 16- letter message. The message can include numbers and text..

- **Station Lock Status** : Select whether to lock the station to prevent others from using the station.
  - Unlocked : Unlock your station.
  - Locked Out : Prevent outgoing calls from the station.
  - Locked All : Preventany activity from the station.

- **Change Station Passcode** : With a digital hand set , you can save a passcode to use DISA or to lock/unlock the station. Enter a 4-digit number, using the numbers from 0~ 9.

Station Speed Dial

On the Station Speed Dial screen, you can register speed dial codes for frequently used telephone numbers. The speed dial codes will be saved in the system.

First, click the **Station No** dropdown button to select your station number. Click the table entry number to register the speed dial number in the **Bin No** or click the **Operation** dropdown button to select the table entry number. At the bottom of the screen, the following parameters will appear.

- **Bin Name** : Enter the name to use for the speed dial. You can enter up to 11digits.
- **Trunk Tel** : Select trunk line for external telephone numbers. If you select a trunk line, '- ' appears to separate the trunk number from other numbers.
- **Outgoing digits** : You can select a maximum of 24 digits for the speed dial, using numbers from 0~9, *and #.

Register the speed dial number for each station and click the **Set** button.

Keyset Conf

On the Keyset Conf screen, you can set the answer mode, date mode and ring volume.

First, click the **Station No** dropdown button to select your station number and set the following parameter values. Then, click the **Set** button.

- **Station Language** : Select the language that will appear in the LCD of the digital handset.
- **Answer Mode** : Select the mode in which the digital handset will answer the call.
  - Normal : The keyset will ring in one of eight custom ring patterns. Calls are answered by pressing the [Speaker] button or by lifting the handset.
  - Auto : After giving a short attention tone, the keyset will automatically answer calls on the speakerphone. When a C.O. line is transferred to a keyset in Auto Answer, the screened portion of the call will be Auto Answer, but the keyset or add-on module (AOM) will ring when the transfer is complete if you have not pressed the [Speaker] button or lifted the handset.
  - Voice : The keyset will not ring. After a short attention tone, callers can make

an announcement but the ANS/RLS key or handset must be used to answer calls.

- **Date Mode** : Select the date mode that will appear in the digital hand set.
  - Oriental Capital MM/DD DAY HH:MM
    UPP CASE (uppercase mode)
  - Oriental NonCapital MM/DD DAY HH:MM
    LOW CASE (lowercase mode)
  - Western Capital DAY DD MON HH:MM
    UPP CASE (uppercase mode)
  - Western NonCapital DAY DD MON HH:MM
    LOW CASE (lowercase mode)

- **Time Mode** : Select the time mode that appears in the display of the digital handset. You can select either 24- hour mode or 12- hour mode.

- **CID Display** : Select whether to display Caller ID.
  - No Display : Do Not display Caller ID.
  - Number First : Display the number of the caller first.
  - Name First : Display the name of the caller first.

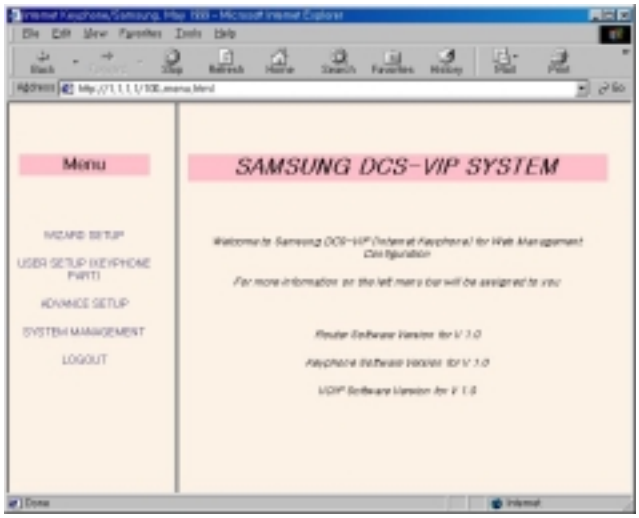
- **Station Volume** : You can select the volume of all sound sources.
  - Ring Volume : Set a level for keyset ring volume. There are eight volume levels ; level 1 is the lowest and level 8 is the highest.
  - Off Ring : Set a level for keyset off-hook ring volume. There are eight volume levels ; level 1 is the lowest and level 8 is the highest.
  - Handset : Set a level for keyset off-hook ring volume. There are eight volume levels ; level 1 is the lowest and level 8 is the highest.
  - Speaker : Set a level for keyset heard volume through speaker. There are 16 volume levels ; level 1 is the lowest and level 16 is the highest.
  - BGM : Set a level for keyset background music volume. There are 16 volume levels ; level 1 is the lowest and level 16 is the highest.
  - Page : Set a level for page volume. There are 16 volume levels ; level 1 is the lowest and level 16 is the highest.

- **Ring Frequency** : Select the ring frequency.

Chapter 7 System Management

This chapter explains how to manage the DCS-VIP through the web browser.

To manage the DCS-VIP system, click the **SYSTEM MANAGEMENT** menu on the DCS-VIP web management screen. The following Advance menu screen will appear.



PASSWORD

User name and password for web management screen connection for the DCS-VIP system are 'guest' and 'samsung', respectively. On the **PASSWORD** screen, you can change the default password.

To change the password, set up the following parameters and click the **Set** button.

- **Old password** : Enter the old password.
- **New password** : Enter the new password.
- **Confirm New Password** : For confirmation, re-enter the new password.

MIB SAVE/RESTORE

On the **MIB SAVE/RESTORE** screen, you can save the system configuration informations(MIB) changed in flash memory.

- **Operation to Perform** : Default is 'Save Configuration'. Each option function can be summarized as follows.
  - Save Configuration : You can save the system configuration informations(MIB) changed in the flash memory.
  - Restore Configuration : You can restore the system configuration informations(MIB) from the flash memory.
  - No Restore : You do not restore the system configuration informations(MIB).

SOFTWARE DOWNLOAD

On the Software Download screen, you can download the system software for each module.

- **File Name** : Click the dropdown button to select the software to download.
- **IP Address** : Enter the TFTP server's IP address where the software to download is saved.

- **Download Control** : Specify this parameter as 'Start' to perform software download operation.

  After setting up the parameters above, click the **Set** button. You can check the software download status by viewing the **Download Status** parameter's value. If the value appears as **Complete,** the download is completed.

SYSTEM REBOOT

On the **SYSTEM REBOOT** screen, you can reboot system by each DCS-VIP system module(Keyphone, Router, VoIP).

Click the check button for module you want to reboot, to select the **Set** button.

Chapter 8 Keyphone MMC Program

The DCS-VIP can easily change system settings by using the keyphone. An MMC (Man Machine Code) is a program which sets up the system according to your needs. This chapter explains how to use a keyphone MMC program. It consists of four parts as follows.

- Introduction to programming
- Precautions before starting programming
- Programming procedure
- Programming using MMCs

Introduction to Programming

An MMC program is a program to change the value of data which the system operating program uses. There are three levels of MMC program: technician (or system), customer and station levels. Technician and customer level programs require passcodes before they can be used to make changes, but station level programs do not.

Technician (System) level program

This level can access all MMCs for programming. Any station within the system can be used for programming, but programming should only be done on one station at a time.

Customer level program

This level can access only those programs that the technician has set up in MMC 802 (Customer Access MMC Number) Any station within the Tenant group can be used for programming, but programming should only be done on one station at a time.

Station level program

This level can only access programs which do not require a passcode.

Precautions Before starting Programming

This section explains how to use the keyphone buttons and what precautions to take before starting an MMC program.

The Function of Keyphone Buttons

The DCS-VIP can be connected to several kinds of digital keyphone as follows.

- DS-24SE, DS-24SE AOM (including KDB-DLI, DS-24SE KDB-SLI)
- DS-24SI, DS-24SI AOM (including KDB-DLI, DS-24SE KDB-SLI)
- DS-24S, DS-24S AOM

The first button among the three soft buttons below the LCD denotes 'Left'. This button is used to save the changed data while programming, or to move the cursor to the left on the LCD.

The third button among the three soft buttons denotes 'Right'. This button is used to save the changed data while programming, or to move the cursor to the right .

The last six buttons among those buttons available for programming represent 'A' ~ 'F'. They are used for specific purposes while programming. For general use, they fulfill specific functions which the user has allocated to each button.

- The UP and DOWN volume keys are used to scroll through available options.
- The SPK key is used to save data and and allow you to start a new MMC.
- The TRSF key is used to save data and exit programming mode.

Note
System Programming in chapter 8 of this user guide explains each program using the procedures for a DS-24SE model digital telephone. If you are using the DS-24E model digital telephone, you press the ANS/RLS button instead of the MSG button in the program procedure.

Precautions When Programming

- Programming is available only when the phone is properly hung up.
- Programming is available on any station (digital telephone).
- Programming is available only on digital telephones not on analog ones.
- If using digital telephones without an LCD you don't use the [▲ ▼] button. You can dial numbers specified in this user guide but some programs are unavailable because your digital telephone is without soft buttons. Therefore, in using telephones without an LCD you can only use customer level programs.
- If 'INVALID DATA' appears in the LCD while programming, you should re-enter the correct data.
- When you have successfully completed an entry, the LCD changes the display for the next step.
- Programming halts if you have not pressed a button for a certain period of time (60 seconds by default).
- Programming halts if you pick up the handset whilst programming.
- If you press the 【SPK】 or 【TRSF】key without entering the changed data to confirm (press the left key from the soft button and the right key) or you pick up the handset to have programming process stopped or the telephone plug is pulled out, Newly entered data are saved as the same data seen in the liquid crystal indicator.

Programming Procedure

This section explains the programming procedure to follow before you begin to use the MMCs as described in the next section.

The programming procedure is as follows.

1. Make system available for programming.
① Press [TRSF] button when the program is on pause.
② Enter the MMC program number 200 (for system level programming) or 800 (for technician level programming).
③ Enter the system-level passcode or the technician-level passcode.
④ Press the dial button '1'and make the programming mode 'ENABLE'.
⑤ If you are using MMC 800 'Enable Technician Program', enter the (Tenant) number.

2. Prepare to select the program number.
Press [SPK] button to have the program selection mode appear.
Or
press [TRSF] button to halt programming.

3. Select the program.
Enter the program number.
Or
select the program number with the [UP] or [DOWN] button and press the [SPK] button.
Or
in the state of pause press [TRSF] button and enter the program number.

4. Start programming.

Programming Using MMCs

This section explains how to program using the MMCs. You should read the instructions for each program carefully before starting the program.
First, decide what changes are required to the system, and therefore which MMCs you need to use. Then, "ENABLE" the keyphone (as described above) and follow the procedure for your selected program(s).

Important
If you are installing the system for the first time, you must run MMC 812 (Set Country) before any other programming is done. This selects the correct system software version.

100 STATION LOCK

Allows the system administrator or technician to lock or unlock an individual station or all stations simultaneously. The three options are as follows:

0	UNLOCKED	Unlocks a locked station.
1	LOCKED OUTGOING	The keyset cannot make calls outside the system. It can however make and receive intercom calls and receive incoming C.O calls. When in this mode the HOLD key of the keyset will flash slow RED.
2	LOCKED ALL CALLS	The keyset cannot make or receive any calls. When in this mode the HOLD key of the keyset will light steady RED.

DEFAULT DATA
ALL STATIONS UNLOCKED

PROGRAM KEYS	
UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
ANS/RLS	Used to select ALL

ACTION	DISPLAY
1. Press TRSF 100	
Display shows	[201] STN LOCK UNLOCKED
2. Dial station number (e.g., 205) OR Use UP and DOWN to select station And use RIGHT soft key to move cursor OR Press ANS/RLS to select all stations.	[205] STN LOCK UNLOCKED
3. Enter 0 to unlock or 1 or 2 to lock (e.g., 1) OR Use UP and DOWN key to make selection and press RIGHT soft key to return to step 2	

[ALL] STN LOCK
?

4. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

[205] STN LOCK
LOCKED OUTGOING

RELATED ITEMS
MMC 101 CHANGE USER PASSCODE
MMC 301 ASSIGN STATION COS
MMC 701 ASSIGN COS CONTENTS

101 CHANGE USER PASSCODE

Allows the system administrator or technician to reset any keyset's passcode to its default value "1234". This MMC cannot display the station passcode; it can only reset it to default.

Keyset users can set or change their individual passcodes. The passcode is used to lock or unlock the keyset for toll restriction override and for access.

Note
Default passcode cannot be used for toll restriction override.

DEFAULT DATA
ALL STATION PASSCODE 1234

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 101
Display shows

[201] PASSCODE
PASSCODE:****

2. Dial station number (e.g., 205)
OR
Use UP or DOWN to scroll through keyset numbers and press RIGHT soft key to move the cursor right

[205] PASSCODE
PASSCODE:****

3. Press HOLD to reset passcode

[205] PASSCODE
PASSCODE:1234

4. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 100 STATION LOCK

102 CALL FORWARD

Allows the system administrator to program the call forward destinations for other station users. This MMC also allows call forward to be set after the destination has been entered.
The DCS-VIP system allows six types of call forwarding:

0. FORWARD CANCEL
1. ALL CALL
2. BUSY
3. NO ANSWER
4. BUSY/NO ANSWER
5. EXTERNAL FORWARD

If you select "BUSY/NO ANSWER", the phone call will be forwarded to the station selected for condition 2 or 3 according to the user's requirements. You can select the expected number only when all the numbers to be forwarded are already set up. If "FORWARD : OFF" is set in MMC 701, (ASSIGN COS CONTENTS), call forwarding will be cancelled. External call forwarding can be set up only when both "FORWARD" and "EXT FWD" are set as "ON" in MMC 701.

DEFAULT DATA
ALL STATION 0. FORWARD CANCEL

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 102
Display shows

[201] FORWARD
0:FORWARD CANCEL

2. Dial station number (e.g., 205)
OR
Press UP or DOWN to select station
and press RIGHT soft key to move cursor

[205] FORWARD
0:FORWARD CANCEL

3. Dial 0-5 to select forward type
OR
Press UP or DOWN to select forward type
and press RIGHT soft key to move cursor

[205] FORWARD
1:ALL CALL NONE

4. Dial destination number (e.g., 201)
OR
Press UP or DOWN to select destination
and press RIGHT soft key to move cursor

[205] FORWARD
1:ALL CALL:201

5. Dial 1 for YES or 0 for NO
OR
Press UP or DOWN to select YES or NO and
press RIGHT soft key to return to step 2

[205] FORWARD
CURRENTLY SET :YES

6. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 301 ASSIGN STATION COS
MMC 501 SYSTEM-WIDE TIMERS
MMC 502 STATION TIMERS
MMC 701 ASSIGN COS CONTENTS
MMC 722 STATION KEY PROGRAMMING
MMC 723 SYSTEM KEY PROGRAMMING

103 SET ANSWER MODE

Allows the system administrator to change the answer mode of any keyset or add-on module (AOM). Each keyset or AOM can have its answer mode set to one of the following options:

0. RING MODE : The keyset will ring in one of eight custom ring patterns. Calls are
answered by pressing the ANS/RLS key or by lifting the handset.

1. AUTO ANSWER MODE : After giving a short attention tone, the keyset will automatically answer calls on the speakerphone. When a C.O. line is transferred to a keyset in Auto Answer, the screened portion of the call will be Auto Answer, but the keyset or AOM will ring when the transfer is complete if the user has not pressed the ANS/RLS key or lifted the handset.

2. VOICE ANNOUNCE : The keyset will not ring. After a short attention tone, callers can make an announcement but the ANS/RLS key or handset must be used to answer calls.

DEFAULT DATA
ALL KEYSETS RING MODE
RING FREQUENCY DEFAULT IS 5

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry
ANS/RLS Used to select ALL

ACTION DISPLAY

1. Press TRSF 103
Display shows

[201] ANS MODE
RING MODE

2. Dial station number (e.g., 205)
OR
Use UP and DOWN to select keyset
and press RIGHT soft key to move cursor
OR
Press ANS/RLS to select all stations.

[205] ANS MODE
RING MODE

3. Dial 0,1 or 2 to change ring mode
OR
Press UP or DOWN to select ring mode and
press RIGHT soft key to return to step 2

[ALL] ANS MODE
2

4. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

[205] ANS MODE
VOICE ANNOUNCE

RELATED ITEMS
MMC 111 KEYSET RING TONE

104 STATION NAME

Allows the system administrator or technician to enter a name (up to 11 characters) to identify an individual station.

Names are written using the keypad. Each key press selects a character. Pressing the dial pad key moves the cursor to next position. For example, if the directory name is "SAM SMITH", press the number "7" three times to get the letter "S". Press the number "2" once to the letter "A". Continue selecting characters from the table below to complete your message. Pressing the bottom left programmable key will change the letter from upper to lower case.

Note
When the character you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right.

COUNT	1	2	3	4	5
DIAL 0	Q	Z	.	)	0
DIAL 1	Space	?	,	!	1
DIAL 2	A	B	C	@	2
DIAL 3	D	E	F	#	3
DIAL 4	G	H	I	$	4
DIAL 5	J	K	L	%	5
DIAL 6	M	N	O	^	6
DIAL 7	P	R	S	&	7
DIAL 8	T	U	V	*	8
DIAL 9	W	X	Y	(	9
DIAL *	:	=	[	]	*

The # key can be used for the following special characters:
#, space, &, !, :, ?, ., ,, %, $, -, <, >, /, =, [,], @, ^, (,), _, +, {, }, |, ; , ” and ~.

DEFAULT DATA
NONE

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry
A Key #19; acts as toggle between upper case and lower case

ACTION DISPLAY

1. Press TRSF 104
Display shows

[201] STN NAME

2. Dial station number (e.g., 205)
OR
Use UP and DOWN to select station
and press RIGHT soft key to move cursor

[205] STN NAME

3. Enter the station name using the procedure described above
Press the RIGHT soft key to return to step 2

[205] STN NAME
SAM SMITH

4. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 404 TRUNK NAME

105 STATION SPEED DIAL

Allows the system administrator or technician to program the personal speed dial locations assigned to a station. This must be done for single line telephones because these stations cannot access programming. Each station may have up to 50 locations or bins assigned to it in MMC 606 (Assign Speed Block). The speed dial bins are numbered 00-49. Each speed dial number consists of a trunk or trunk group access code followed by a separator and up to 24 digits to be dialed. These dialed digits may consist of 0-9, * and #. If the system recognizes a valid trunk or trunk group access number, it will automatically insert the separator.

DEFAULT DATA
NONE

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry

```
B                          Used to insert a flash code "F"
C                          Used to insert a pause code "P"
D                          Used to insert a pulse/tone conversion code "C"
E                          Used to mask/unmask following digits (shows as "[" or
"]")
F                          Used to enter name for speed dial bin (see MMC 106)

ACTION    DISPLAY

1.        Press TRSF 105
          Display shows

[201] SPEED DIAL
00 :

2a.       Dial station number (e.g., 205)
          OR
          Use UP and DOWN to select station
          and press RIGHT soft key to move cursor
          OR
          Press LEFT soft key to go to step 4

[205] SPEED DIAL
00 :

2b.       If selected station has no speed dial bins,
          the display will be as shown and
          a new station may be selected

[205] SPEED DIAL
SPDBLK NOT EXIST

3.        Dial location number (e.g., 05)
          OR
          Press UP or DOWN to select location
          and press RIGHT soft key to move cursor
          OR
          Press LEFT soft key to return to step 2

[205] SPEED DIAL
05 :

4.        Enter trunk access code (e.g., 9)
          followed by the number to be dialed (e.g., 4264100)
          OR
          Press the RIGHT soft key to return to step 2
          OR
          Press LEFT soft key to return to step 3

          Press HOLD button to clear an entry
          If an error is made, use DOWN arrow to step back

[205] SPEED DIAL
05 : 9-4264100

5.        Press “F” button to access MMC 106 Station Speed Dial by name
          OR
          Press TRSF to save and exit
          OR
          Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 106            STATION SPEED DIAL NAME
```

MMC 606 ASSIGN SPEED BLOCK

106 STATION SPEED DIAL NAME

Allows a name (up to 11 characters) to be entered for each personal speed dial location. This name enables the speed dial number to be located when the directory dial feature is used. The directory dial feature allows display keyset user's to select a speed dial location by viewing its name.

Names are written using the keypad. Each key press selects a character. Pressing the dial pad key moves the cursor to next position. For example, if the directory name is "SAM SMITH", press the number "7" three times to get the letter "S". Press the number "2" once to the letter "A". Continue selecting characters from the table below to complete your message. Pressing the bottom left programmable key will change the letter from upper to lower case.

Note
When the character you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right.

COUNT	1	2	3	4	5
DIAL 0	Q	Z	.	)	0
DIAL 1	Space	?	,	!	1
DIAL 2	A	B	C	@	2
DIAL 3	D	E	F	#	3
DIAL 4	G	H	I	$	4
DIAL 5	J	K	L	%	5
DIAL 6	M	N	O	^	6
DIAL 7	P	R	S	&	7
DIAL 8	T	U	V	*	8
DIAL 9	W	X	Y	(	9
DIAL *	:	=	[	]	*

The # key can be used for the following special characters:
#, space, &, !, :, ?, ., ,, %, $, -, <, >, /, =, [,], @, ^, (,), _, +, {, }, |, ; , " and ~.

DEFAULT DATA
NONE

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry
A Key #19; acts as toggle between upper case and lower case

ACTION DISPLAY

1. Press TRSF 106
Display shows

[201] SPEED NAME
00 :

2a. Dial station number (e.g., 205)
OR
Use UP and DOWN to select station
and press RIGHT soft key to move cursor

```
[205] SPEED NAME
00 :
```

2b. Dial station number (e.g., 305)
OR
Use UP and DOWN to select station and press RIGHT soft key
If no Speed blocks are assigned the display will be as
shown and a new station may be selected

```
[205] SPEED NAME
SPDBLK NOT EXIST
```

3. Dial speed dial location (e.g., 05)
Use UP and DOWN to scroll through
location numbers and use the RIGHT
soft key to move the cursor
OR
Press the LEFT soft key to return to step 2

```
[205] SPEED NAME
01 :
```

4. Enter the location name using the procedure
described above and press RIGHT soft key
to return to step 2
OR
Press LEFT soft key to return to step 3 to continue entries

```
[205] SPEED NAME
01 : SAM SMITH
```

5. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 105 STATION SPEED DIAL

107 KEY EXTENDER

Use this program to view the programmable keys assigned to the keyset station. In addition, it allows the system administrator to assign key extenders to some keys that will make a general access feature key more specific. The feature keys that can have extenders are listed below.

FEATURE KEY	EXTENDER
BOSS	Boss and Secretary (1-4)
DIR	Directory dial by name type (1-3)
DP	Direct Pickup (extension or station group number)
DS	Direct Station Select (station number)
FWRD	Call Forward (0-5)
GPIK	Group Pickup (01-05)
MMPG	Meet Me Page (0-9, *)
PAGE	Page (0-9, *)
PMSG	Programmed Station Text Messaging (00-20)
SG	Station Group (500-504)
SPD	Speed Dial (00-49, 500-999)
VT	Voice Mailing Transfer (504)

DEFAULT DATA
NONE

```
PROGRAM KEYS
UP & DOWN          Used to scroll through options
KEYPAD                    Used to enter selections
SOFT KEYS          Move cursor left and right
SPK                       Used to store data and advance to next MMC
HOLD                      Used to clear previous entry

ACTION    DISPLAY

1.        Press TRSF 107
          Display shows first station

[201] EXTD:KTS
01 : CALL1

2.        Dial station number (e.g., 205)
          OR
          Use UP and DOWN to scroll through
          station numbers and press RIGHT
          soft key to move the cursor

[205] EXTD:KTS
01 : CALL1

3.        Press the RIGHT soft key to program the keyset
          OR
          Use UP and DOWN to scroll through the keyset
          and AOM's and use the RIGHT soft key to
          move the cursor

[201] EXTD:KTS
01 : CALL1

[201] EXTD:AOM1
01 : DS

4.        Enter key number (e.g., 18)
          Use Up and DOWN to scroll through
          keys and use the RIGHT soft key to
          move the cursor
          OR
          Press the key to be programmed

[205] EXTD:KTS
18 : DS

5.        Dial extender according to above table.
          System will return to this step
          If no more entries, press LEFT soft
          key to return to step 2

[205] EXTD:KTS
18 : DS 207

6.        Press TRSF to save and exit
          OR
          Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 209            ASSIGN ADD-ON MODULE
MMC 722            STATION KEY PROGRAMMING
```

MMC 723 SYSTEM KEY PROGRAMMING

108 STATION STATUS

Displays the following attributes of a station port. This is a read-only MMC.

0	PORT	Board Name－Line Type－Port Number
1	TYPE	Keyset Type
2	PICKUP GROUP	None, 01-05
3	SGR	Station Group Number
4	BOSS-SECR	None, 1-4
5	PAGE	None, Page zone (1-5)
6	DAY COS NO	
7	NIGHT COS NO	

DEFAULT DATA

PORT	Port Position
TYPE	24B, 12B, 7B, 32B AOM, 64B AOM or DISCONNECTED
PICKUP GROUP	01
SGR	NONE
BOSS-SECR	NONE
PAGE	NONE
DAY COS NO	01
NIGHT COS NO	01

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 108
   Display shows

```
[201] STN STATUS
PORT:BDL101
```

2. Dial station number (e.g., 205)
   OR
   Use UP and DOWN to select station
   and press RIGHT soft key to move cursor

```
[205] STN STATUS
PORT:BDL109
```

3. Dial 0-8 to select station status type
   OR
   Press UP or DOWN to select station status and
   press RIGHT soft key to return to step 2

```
[205] STN STATUS
TYPE:24B US SET
```

4. Press TRSF to save and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 301	ASSIGN STATION COS
MMC 302	PICKUP GROUPS

MMC 303 ASSIGN BOSS/SECRETARY
MMC 601 ASSIGN STATION GROUP
MMC 604 ASSIGN STATION TO PAGE ZONE

109 DATE DISPLAY

Allows the system administrator or technician to select the date and time display mode on a per-station basis or system-wide.

0 COUNTRY Sets overall display format and has two options
0 = ORIENTAL MM/DD DAY HH : MM
1 = WESTERN DAY DD MON HH : MM

1 CLOCK Sets format of clock display and has two options
0 = 12 HOUR Displays 1 P.M as 01:00
1 = 24 HOUR Displays 1 P.M as 13:00

2 DISPLAY Sets format of DAY and MON display and has two options
0 = UPP CASE Displays Friday as FRI and March as MAR
1 = LOW CASE Displays Friday as Fri and March as Mar

DEFAULT DATA
COUNTRY WESTERN
CLOCK 24 HOUR
DISPLAY LOWERCASE

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry
ANS/RLS Used to select ALL

ACTION DISPLAY

1. Press TRSF 109
Display shows

[201] DAY FORMAT
COUNTRY:WESTERN

2. Dial station number (e.g., 205)
OR
Use UP and DOWN to select station
and press RIGHT soft key to move cursor
OR
Press ANS/RLS for all keysets

[205] DAY FORMAT
COUNTRY:WESTERN

[ALL] DAY FORMAT
COUNTRY:?

3. Dial 0-2 to select mode
OR
Use UP and DOWN to scroll through
modes and press RIGHT soft key to move cursor

[205] DAY FORMAT
COUNTRY:ORIENTAL

4. Use UP and DOWN to scroll through
formats and press RIGHT soft key to return to step 2
OR
Press LEFT soft key to return to step 3

5. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 505 ASSIGN DATE AND TIME

110 STATION ON & OFF

Allows the system administrator to set any of the keyset features listed below.

0 AUTO HOLD Automatically places an existing C.O. call on hold if a CALL button, trunk key or trunk route key is pressed during that call.

1 AUTO TIMER Automatically starts the stop watch timer during a C.O call.

2 HEADSET USE When on, this feature disables the hook switch allowing a headset user to answer all calls by pressing the ANS/RLS button.

3 HOT KEYPAD When on, this feature allows the user to dial directory numbers without having to first lift the handset or press the SPK button.

4 KEY TONE Allows the user to hear a slight tone when pressing buttons on their keyset.

5 PAGE REJOIN Allows the user to hear the latter part of page announcements if the keyset becomes free during a page.

6 RING PREF When off, requires the user to press the fast flashing button to answer a ringing call after lifting the handset.

7 CALL COST Displays the call cost on the keyset or SMDR report.

8 AUTO CAMPON Keyset users can allow intercom calls to camp-on to other keysets without having to press a CAMP-ON key.

DEFAULT DATA
AUTO HOLD OFF
AUTO TIMER ON
HEADSET USE OFF
HOT KEYPAD ON
KEY TONE ON
PAGE REJOIN ON
RING PREF ON
CALL COST OFF
AUTO CAMPON OFF

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry
ANS/RLS Used to select ALL

ACTION DISPLAY

1. Press TRSF 110

Display shows

```
[201] STN ON/OFF
AUTO HOLD : OFF
```

2. Dial station number (e.g., 205)
   OR
   Use UP and DOWN to select station
   and press the RIGHT soft key to move cursor
   OR
   Press ANS/RLS for all keysets

3. Dial the option number from above list (e.g., 4)
   OR
   Press UP or DOWN to select the option and
   press the RIGHT soft key to move the cursor

```
[201] STN ON/OFF
HOT KEYPAD : OFF
```

4. Press UP or DOWN to select ON or OFF
   Press the LEFT or RIGHT soft key to return to step 2
   OR
   Dial 1 for ON or 0 for OFF

```
[201] STN ON/OFF
HOT KEYPAD : ON
```

5. Press TRSF to save and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 301	ASSIGN STATION COS
MMC 701	ASSIGN COS CONTENTS

111 KEYSET RING TONE

Allows the system administrator or technician to select the ring tone heard at each keyset. There are eight ring tones available. A short tone burst of the selection will be heard when the dial keypad is pressed.

DEFAULT DATA
SELECTION 5

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 111
   Display shows

```
[201] RING TONE
SELECTION 5
```

2. Dial station number (e.g., 205)
   OR

Use UP and DOWN to select station
and press the RIGHT soft key to move cursor
OR
Press ANS/RLS for all keysets

```
[205] RING TONE
SELECTION 6
OR
[ALL] RING TONE
SELECTION ?
```

3. Dial 1-8 to select ring tone
OR
Press UP or DOWN to select ring tone and
press RIGHT soft key to move cursor and
return to step 2

```
[205] RING TONE
SELECTION 5
OR
[ALL] RING TONE
SELECTION 5
```

4. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 114	OFF-HOOK RING VOLUME
MMC 318	DISTINCTIVE RING

112 ALARM CLOCK

Allows the station user, system administrator or technician to set or change the alarm clock/appointment reminder feature for a station. This must be done by the system administrator or technician for single line telephones as they cannot access programming. Three alarms may be set for each station and each alarm may be defined as a one-time or TODAY alarm or as a DAILY alarm as described below. The TODAY alarm is automatically canceled after it rings while the DAILY alarm rings every day at the same time. Alarm numbers are 1,2 and 3.

Entry	Alarm Type
1	NOTSET
2	TODAY
3	DAILY

DEFAULT DATA
ALARMS ARE NOTSET

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 112
Display shows

```
[201] ALM CLK(1)
```

```
HHMM: NOTSET
```

2. Dial station number (e.g., 205)
   OR
   Use UP and DOWN to select station
   and press the RIGHT soft key to move cursor
   OR
   Press ANS/RLS for all keysets

```
[205] ALM CLK(1)
HHMM: NOTSET
```

3. Dial 1-3 to select alarm (e.g., 2)
   OR
   Press UP or DOWN to select alarm and
   press the RIGHT soft key to move cursor
   OR
   Press LEFT soft key to return to step 2

```
[201] ALM CLK(1)
HHMM: NOTSET
```

4. Enter alarm time in 24 hour clock
   format, e.g., 1300
   Display will automatically advance to step 5

```
[205] ALM CLK(2)
HHMM:1300 NOTSET
```

5. Dial valid entry from above list for alarm type
   OR
   Press UP or DOWN to select alarm type and
   press the RIGHT soft key to move cursor and return to step 2

```
[205] ALM CLK
HHMM:1300 DAILY
```

6. Press TRSF to save and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 116 ALARM REMINDER/MESSAGE

114 STATION VOLUME

Allows the station user or system administrator to set the ring volume, off hook ring volume, handset receive volume, speaker volume, background music volume and page volume for a keyset.

0 RING VOLUME This is the volume setting for the keyset ringer. (1-8)
1 OFF-RING VOL This is the volume of the alert tone that tells you there is a call camped on to a keyset. (1-8)
2 HANDSET VOL This is the volume setting for conversations on the handset receiver. (1-8)
3 SPEAKER VOL This is the receive volume setting for conversations on the speaker phone of a keyset. (1-16)
4 BGM VOLUME This is the volume at which you will hear background music (BGM) over the keyset speaker when your keyset is idle and BGM is turned on. (1-16)
5 PAGE VOLUME This is the volume at which you will hear internal page over the keyset speaker when your keyset is idle, providing the keyset is in an

internal page group. (1-16)

DEFAULT DATA
RING VOLUME 4
OFF-RING VOL 4
HANDSET VOL 4
SPEAKER VOL 13
BGM VOLUME 13
PAGE VOLUME 13

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
ANS/RLS Used to select ALL

ACTION DISPLAY

1. Press TRSF 114
Display shows

[201] STN VOLUME
RING VOLUME 4

2. Dial station number (e.g., 205)
OR
Press UP or DOWN to select station
and press the RIGHT soft key to move cursor
OR
Press ANS/RLS for all keysets

[205] STN VOLUME
RING VOLUME 4

[ALL] STN VOLUME
RING VOLUME 4

3. Press UP or DOWN to select volume type
OR
Dial volume number (0-5) on keypad (e.g., 4)

[205] STN VOLUME
RING VOLUME 4

4. Press UP or DOWN to select ring level or
dial level of volume 1-8 on dial keypad
Press RIGHT soft key to return to step 2

[201] STN VOLUME
BGM VOLUME 13

5. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 111 KEYSET RING TONE

115 SET PROGRAMMED MESSAGE

Allows the system administrator to set a programmed message at any or all keysets. There are 20 messages available. 10 are pre-programmed and 10 can be customized in

MMC 715 (Programmed Station Message).

DEFAULT DATA
NO MESSAGES SELECTED

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry
ANS/RLS Used to select ALL

ACTION DISPLAY

1. Press TRSF 115
Display shows

[201] PGMMSG(00)
CANCEL PGM MSG

2. Dial station number (e.g., 205)
OR
Press UP or DOWN to select station and
press the RIGHT soft key to move cursor
OR
Press ANS/RLS to select All

[205] PGMMSG(00)
CANCEL PGM MSG

[ALL] PGMMSG(??)

3. Dial 01-20 to select message number (e.g., 05)
OR
Press UP or DOWN to select message
Press the RIGHT soft key to return to step 2

[205] PGMMSG(05)
PAGE ME

4. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 715 PROGRAMMED STATION MESSAGE

116 ALARM REMINDER / MESSAGE

Allows the system administrator or technician to set or change the alarm clock/appointment reminder feature for any station. This must be done by the system administrator or technician for single line telephones as they cannot access programming. Two alarms may be set for each station and each alarm may be defined as a one-time or TODAY alarm or as a DAILY alarm as described below. The TODAY alarm is automatically canceled after it rings while the DAILY alarm rings every day at the same time. Alarm numbers are 1 and 2.

Entry Alarm Type
1 NOTSET
2 TODAY

3 DAILY

Messages are written using the keypad. Each key press selects a character. Pressing the dial pad key moves the cursor to next position. For example, if the directory name is "SAM SMITH", press the number "7" three times to get the letter "S". Press the number "2" once to the letter "A". Continue selecting characters from the table below to complete your message. Pressing the "A" key will change the letter from upper to lower case.

COUNT	1	2	3	4	5
DIAL 0	Q	Z	.	)	0
DIAL 1	Space	?	,	!	1
DIAL 2	A	B	C	@	2
DIAL 3	D	E	F	#	3
DIAL 4	G	H	I	$	4
DIAL 5	J	K	L	%	5
DIAL 6	M	N	O	^	6
DIAL 7	P	R	S	&	7
DIAL 8	T	U	V	*	8
DIAL 9	W	X	Y	(	9
DIAL *	:	=	[	]	*

DEFAULT DATA
ALARMS are NOTSET

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC
HOLD Used to clear previous entry
ANS/RLS Used to select ALL
A Key #19; acts as toggle between upper case and lower case

ACTION DISPLAY

1. Press TRSF 116
Display shows

```
[201] ALM REM (1)
HHMM:     NOTSET
```

2. Dial station number (e.g., 205)
OR
Press UP or DOWN to select station and
press the RIGHT soft key to move cursor
OR
Press ANS/RLS to select all stations

```
[205] ALM REM (1)
HHMM:     NOTSET
```

```
[ALL] ALM REM (1)
HHMM:     NOTSET
```

3. Dial 1-2 to select alarm (e.g., 2)
OR
Press UP or DOWN to select alarm and
press the RIGHT soft key to move cursor
OR
Press the LEFT soft key to return to step 2

```
[201] ALM REM (1)
HHMM:      NOTSET
```

4. Enter alarm time in 24 hour clock format (e.g., 1300)
   Display automatically advances to step 5

```
[205] ALM REM (2)
HHMM:1300 NOTSET
```

5. Dial valid entry from above list for alarm type
   OR
   Press UP or DOWN to select alarm type
   and press the RIGHT soft key to move cursor

```
[205] ALM REM
HHMM:1300 DAILY
```

6. Enter message using above table and
   press the RIGHT soft key to return to step 2

```
[205] ALM REM
Sam SMITH
```

7. Press TRSF to save and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 112 ALARM CLOCK

119 CALLER ID / ANI DISPLAY

Allows the technician to set the individual station display preference on a per-station basis. Caller ID and ANI each can be selected to show the name or number first, or no display, depending on the type of call. For ANI the number must be programmed in the CID/ANI translation table (MMC 728). ANI does not provide names. Caller ID and ANI displays have the following options:

0 NO DISPLAY No Caller ID or ANI data will be displayed.
1 NUMBER FIRST The Caller ID or ANI number received from the Central Office will be displayed first.
2 NAME FIRST The Caller ID name received will be displayed first.

DEFAULT DATA
NUMBER FIRST

PROGRAM KEYS
UP & DOWN Used to scroll through options
KEYPAD Used to enter selections
SOFT KEYS Move cursor left and right
SPK Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 119
   Display shows first station

```
[201] CID DISP
NUMBER FIRST
```

2. Enter station number (e.g., 205)
   OR

Press UP or DOWN to scroll through station and
press the RIGHT soft key to select a station
OR
Press ANS/RLS to select All and press the RIGHT soft key

[205] CID DISP
NUMBER FIRST

3. Dial 0 for CID or 1 for ANI
OR
Press UP or DOWN to select option
and press RIGHT soft key to continue or
LEFT soft key to return to step 2

[205] ANI DISP
NAME FIRST

4. Dial display option 0, 1 or 2 (e.g., 2)
OR
Press UP or DOWN to select option
and press RIGHT or LEFT soft key to
return to step 2

[205] ANI DISP
NAME FIRST

5. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 312	ALLOW CLIP
MMC 414	ASSIGN CID / ANI TRUNKS
MMC 728	CID / ANI TRANSLATION TABLE

121 KEYSET LANGUAGE

Allows keyset users the ability to assign an LCD display based on the user's own language.

0 ENGLISH
1 GERMAN
2 SPANISH

Note
As soon as changes are made in a programming language, the changed language is displayed.

DEFAULT DATA
ENGLISH

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 121
Display shows

```
[201] LANGUAGE
ENGLISH
```

2. Dial keyset number (e.g. 205)
   OR

```
[205] LANGUAGE
ENGLISH
```

   Press UP or DOWN to select keyset and press RIGHT soft key
   OR
   Press ANS/RLS to select All

```
[ALL] LANGUAGE
2
```

3. Dial 0, 1 or 2 for language required
   OR
   Press UP or DOWN to select language and press
   RIGHT soft key.

```
[205] LANGUAGE
GERMAN
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

200 OPEN CUSTOMER PROGRAMMING

Used to open and close customer level programming. If programming is not opened and an attempt is made to access a system MMC, the error message [NOT PERMIT] will be displayed. A four-digit passcode is required to access this MMC. Each digit can be 0-9. When opened, this MMC enables access to all MMCs allowed in MMC 802 (Customer Access MMC Number).

DEFAULT DATA
DISABLE

PROGRAM KEYS

UP & DOWN	Select open or closed
KEYPAD	Used to enter passcode
SPK	Save data and advance to next MMC
TRSF	Exit programming

ACTION DISPLAY

1. Press TRSF 200
   Display shows

```
ENABLE CUS. PROG.
PASSCODE:
```

2. Enter passcode

```
ENABLE CUS. PROG.
PASSCODE:
```

Correct code shows

```
ENABLE CUS. PROG.
DISABLE
```

Incorrect code shows

```
ENABLE CUS. PROG.
PASSWORD ERROR
```

3. Press UP or DOWN arrow key to select
ENABLE or DISABLE
Press RIGHT soft key
OR
Dial 1 for ENABLE or dial 0 for DISABLE

```
ENABLE CUS. PROG.
ENABLE
```

4. Press SPK to advance to MMC entry level
and press UP or DOWN key to select MMC
OR
Enter MMC number and press RIGHT soft
key to enter MMC

5. To log out, press TRSF key

RELATED ITEMS
MMC 201 CHANGE CUSTOMER PASSCODE
MMC 501 SYSTEM-WIDE TIMERS
MMC 802 CUSTOMER ACCESS MMC NUMBER

201 CHANGE CUSTOMER PASSCODE

Used to change the passcode allowing access to MMC 200 (Open Customer Programming) from its current value.

CAUTION
The passcode is four digits long. Each digit can be 0-9. The current (old) passcode is required for this MMC.

DEFAULT DATA
PASSCODE = 1 2 3 4

PROGRAM KEYS
KEYPAD Used to enter passcode
SPK Save data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 201

```
CUST. PASSCODE
NEW CODE: _
```

2. Enter new passcode via keypad (maximum four digits)

```
CUST. PASSCODE
NEW CODE:****
```

3. Verify new passcode via keypad

```
CUST. PASSCODE
```

VERIFY :****

PASSCODE verified
OR

CUST PASSCODE
VERIFY :SUCCESS

PASSCODE failure
Return to step 2

CUST PASSCODE
VERIFY :FAILURE

4. Press TRSF to store and exit
OR
Press SPK to save and advance to next
MMC

RELATED ITEMS
MMC 200 OPEN CUSTOMER PROGRAMMING

202 CHANGE FEATURE PASSCODES

Used to change the passcodes for several features as follows:

DIAL	OPTION	DESCRIPTION
0	DAY/NIGHT	Change DAY/NIGHT mode

CAUTION
The passcode are four digits long. Each digit can be 0-9.

DEFAULT DATA
DAY/NIGHT 0000

PROGRAM KEYS

KEYPAD	Used to enter passcodes
SPK	Save data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 202
   Display shows

CHANGE PASSCODE
DAY/NIGHT :0000

2. Press UP or DOWN key to make selection
   Press RIGHT soft key to move cursor to
   passcode entry

CHANGE PASSCODE
DAY/NIGHT :0000

3. Enter new passcode via the dial keypad
   Press RIGHT soft key to return to step 2
   and continue to change other passcodes

CHANGE PASSCODE
DAY/NIGHT :9999

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 507 ASSIGN AUTO NIGHT TIME

206 BARGE-IN TYPE

Sets the type of barge-in that is permitted.

OPTION	TYPE OF BARGE IN	DESCRIPTION
0	NO BARGE-IN	Barge-in feature is unavailable regardless of a station's barge-in status.
1	BARGE-IN WITH TONE	Barge-in will have an intrusion tone and display at the barged-in on station.
2	BARGE-IN WITHOUT TONE	Barge-in is allowed. There is no barge-in tone or display at the barged-in on station and the barging-in station will be muted.

DEFAULT DATA
NO BARGE IN

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 206
Display shows

BARGE IN TYPE
NO BARGE IN

2. Dial 0-2 to select barge-in type (e.g., 2)
OR
Press UP or DOWN to select barge-in type
and press RIGHT soft key

BARGE IN TYPE
WITHOUT TONE

3. Press TRSF to store and exit
OR
Press SPK to save and advance to next
MMC

RELATED ITEMS

MMC 301	STATION COS
MMC 701	COS CONTENTS

207 ASSIGN VM/AA PORT

Allows technician to change a "NORMAL" SLI port to a VMAA port. VMAA ports will

receive in-band signaling digits designated in MMC 726 (VM/AA Options) and will also receive a true disconnect signal upon completion of a call. Only 16SLI and 24 SLI boards support disconnect signal. A KDB-SLI can not be used as a VMAA port because it does not support disconnect signal. Do not set VMAA ports as "data ring" (MMC 208). This will delete inband signaling for voice mail integration. VMAA ports have the equivalent of data secure written in the program and are always protected against tones.

DEFAULT DATA
NORMAL PORT

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 207
Display shows

[209] VMAA PORT
NORMAL PORT

2. Dial station number (e.g., 205)
OR
Press UP or DOWN to select station
and press RIGHT soft key to move cursor

[205] VMAA PORT
NORMAL PORT

3. Dial 1 or 0 to select port type (1=VMAA and 0=NORMAL) OR
Press UP or DOWN to select option
Press RIGHT soft key

[209] VMAA PORT
VMAA PORT

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 726	VM/AA OPTIONS

208 ASSIGN RING TYPE

Provides the ability to program the ring cadence of single line telephones as ICM ringing, C.O. ringing and data secure. Only single line ports on the D16SL and D24SL, not the KDB-SLI, support disconnect signal. Do not make VMAA ports data ring; this will return them to a single line port and stop voice mail integration.

OPTIONS

0	ICM RING

This is the default option. When set to this option stations will ring on intercom calls with the intercom ring pattern of 400mS on, 200mS off, 400mS on and 3Sec off. The stations will NOT receive a disconnect signal.

1 CO RING

When set to this option stations will ring on intercom calls with the CO pattern of 1Sec on, and 3Sec off. The stations will NOT receive a disconnect signal.

2 DATA RING

When set to this option stations will ring on intercom calls with the CO pattern of 1Sec on, and 3Sec off. The stations will receive a disconnect signal and are protected against intrusion tones.

DEFAULT DATA
ICM RING

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 208
   Display shows

[209] RING TYPE
ICM RING

2. Dial station number (e.g., 205)
   OR
   Press UP or DOWN to select station and
   press RIGHT soft key to move cursor

[205] RING TYPE
ICM RING

3. Dial 0, 1 or 2 to select port type
   OR
   Press UP or DOWN to select option
   Press LEFT or RIGHT soft key to return to step 2

[205] RING TYPE
DATA RING

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 207 ASSIGN VMAA PORTS

209 ASSIGN ADD-ON MODULE

Designates to which keyset an add-on module (AOM) or 64-button module is assigned and determines if an off-hook voice announce (OHVA) will be received via an AOM (AOM only). OHVAED:YES allows off-hook voice announce to an AOM. In the 400si the maximum number of AOMs that a keyset can have assigned to it is 4. There is no limit to the number of 32-button AOMs that can be assigned in the

system. The maximum number of 64-button AOMs that can be assigned to a keyset is 4. The 400si will support a maximum of 32 64-button modules per system.

Note
The 64-button modules do not have a speaker or microphone so they will not have the off-hook voice announce option.

DEFAULT DATA
NONE FOR MASTER
OFF FOR OHVAED

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
RELEASE	Used to store data and advance to next MMC
HOLD	Clear previous entry

ACTION DISPLAY

1. Press TRSF 209
Display shows first AOM

[301] AOM MASTER
MASTER : NONE

2. Dial AOM number
OR
Use UP or DOWN to scroll through AOM numbers and use soft keys to move cursor

[301] AOM MASTER
MASTER : NONE

3a. Enter station number, e.g., 301
OR
Use UP or DOWN for selection of stations.
OR
Dial the number using the dial keypad.

[301] AOM MASTER
MASTER : 201

3b. Enter 1 for OHVAED: ON or 0 for OHVAED: OFF
OR
Use UP or DOWN to select ON/OFF options
Press RIGHT soft key to return to step 2

[301] AOM MASTER
OHVAED : ON

4. Press TRSF to store and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS
NONE

210 CUSTOMER ON/OFF PER TENANT

Allows the system administrator to enable system-wide features on a per-tenant basis.

01 LCR ENABLE This will enable the LCR feature.
04 CID CODE INS Allows the digit '1' to be inserted automatically by the system for a received CID call.
06 TRANSFER MOH Allows the transferred station to hear system MOH.
07 DSP SSPDNAME Allows the system speed dialing station to display system speed name.
08 DID BSY ROUT Allows the DID incoming station, when busy, to route to the system operator.

DEFAULT DATA

LCR ENABLE	OFF
CID CODE INS	OFF
TRANSFER MOH	OFF
DSP SSPDNAME	OFF
DID BSY ROUT	OFF

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 210
   Display shows

```
TEN. ON AND OFF
DISA PSWD : OFF
```

2. Press RIGHT soft key to move cursor

```
TEN. ON AND OFF
DISA PSWD : OFF
```

3. Dial 1 for ON or 0 for OFF
   OR
   Press UP or DOWN to make selection and press
   RIGHT soft key to enter and move cursor to step 1

```
TEN. ON AND OFF
DISA PSWD : ON
```

4. Press UP or DOWN to make selection from the
   above list at step 2.

```
TEN. ON AND OFF
LCR ENABLE : OFF
```

Press RIGHT soft key to move cursor.

```
TEN. ON AND OFF
LCR ENABLE : OFF
```

Dial 1 for ON or 0 for OFF

OR
Press UP or DOWN to make selection and press
RIGHT soft key to enter and move cursor to step 1

```
TEN. ON AND OFF
LCR ENABLE   ON
```

5. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
LCR PROGRAMMING
MOH PROGRAMMING
CID PROGRAMMING
MMC 714 DID TRANSLATION TABLES

211 DOOR RING ASSIGNMENT

Designates which station or group of stations will ring when a door phone button is pressed.

Door phone rings on the station (group) and selects each day/night mode. If no door phone interface module is in the system, “DOOR NOT EXIST” is displayed.

DPIM (Door Phone Interface Module) connected to the door phone can be connected to anywhere on the digital telephone port.

DEFAULT DATA
500

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 211
Display shows first door phone

```
[202] DOOR RING
1:500 2:500
```

2. Dial door phone number (e.g., 230)
OR

```
[222] DOOR RING
1:500 2:500
```

Press UP or DOWN to scroll through door
phones. Use RIGHT soft key to move cursor
OR
Press ANS/RLS to select ALL door ring

```
[ALL] DOOR RING
1:500 2:500
```

3. Enter new ring plan selection via
dial keypad
OR
Press UP or DOWN key to make selection
OR
Press RIGHT soft key to move cursor

[202] DOOR RING
1 301 2 500

RELATED ITEMS
MMC 601 ASSIGN STATION GROUP

300 CUSTOMER ON/OFF PER STATION

Allows the following features to be enabled on a per-station basis.

0 ACCESS DIAL Determines whether a user can select a trunk or trunk group by dialing its directory number (DN) i.e. 800, 801, 701, 702, etc.. when using LCR.
1 MICROPHONE Allows all 12- and 24-button keysets to be used in the speakerphone mode.
2 OFFHOOK RING Will allow a short burst of ring tone to indicate another call.
3 SMDR PRINT When the station is set for no C.O. calls to and from this station, the station will not print on SMDR. This includes transferred calls or calls picked up from hold or park.
4 TGR ADV. TONE When this feature is set to ON, a warning tone will be heard each time LCR advances to the next route.
5 VMAA FORWARD This feature selects whether intercom calls can be forwarded to voice mail.
ON = Permits forward to voice mail.
OFF = No forward to voice mail.

DEFAULT DATA
ALL FEATURES SET TO ON

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 300
Display shows

[201] CUS. ON/OFF
ACCESS DIAL ON

2. Dial station number (e.g.,205)
OR
Press UP or DOWN to select station
OR

[205] CUS. ON/OFF
ACCESS DIAL ON

Press ANS/RLS for ALL and press RIGHT soft

key to move cursor

[ALL] CUS. ON/OFF
ACCESS DIAL ON

3. Press UP or DOWN to select feature and
press RIGHT soft key to move cursor

[ALL] CUS. ON/OFF
ACCESS DIAL ON

4. Press UP or DOWN to select ON/OFF and
press RIGHT soft key
OR
Dial 1 for ON or 0 for OFF

[ALL] CUS. ON/OFF
ACCESS DIAL OFF

5. Press LEFT soft key to return to step 2
Press RIGHT soft key to return to step 1
OR
Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 207	ASSIGN VM/AA PORT
MMC 712	LCR ROUTE TABLE
MMC 725	SMDR OPTIONS
MMC 726	VM/AA OPTIONS

301 ASSIGN STATION COS

Used to assign a class of service to each keyset. There are 10 different classes of service that are defined in MMC 701 (Assign COS Contents). Classes of service are numbered 01-10. Default COS is COS 01.

Note
Check if Secondary stations are in use (MMC 740). Caution should be taken when changing COS for these stations. If either the Primary station or Secondary station COS is changed then the " paired" station is also changed.

DEFAULT DATA
01

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 301
Display shows first station

[201] STN COS

```
DAY:01     NIGHT:01
```

2. Dial station number (e.g., 205)
   OR
   Use UP or DOWN to scroll through stations
   Press RIGHT soft key to advance to step 3
   OR
   Use UP or DOWN to scroll through stations
   and press LEFT soft key to advance to Step 4

```
[205] STN COS
DAY:01     NIGHT:01
```

   OR
   Press ANS/RLS to select all stations

```
[ALL] STN COS
DAY:01     NIGHT:01
```

3. Enter day class of service([01] – [10]) (e.g. 05)
   OR
   Use UP or DOWN to scroll through classes
   of service and press RIGHT soft key to
   advance to step 4
   OR
   Use UP or DOWN to scroll through classes
   of service and press LEFT soft key to
   return to step 2

```
[205] STN COS
DAY:05     NIGHT:01
```

4. Enter night class of service([01] – [10]) (e.g. 05)
   OR
   Use UP or DOWN to scroll through classes
   of service and press RIGHT soft key to
   advance to step 5
   OR
   Use UP or DOWN to scroll through classes
   of service and press LEFT soft key to
   return to step 3

```
[205] STN COS
DAY:05     NIGHT:05
```

5. Press TRSF to save and exit
   OR
   Press SPK to save and advance to next
   MMC

RELATED ITEMS
MMC 701 ASSIGN COS CONTENTS

302 PICKUP GROUPS

Allows the assignment of stations into call pickup groups. There is a maximum of 5 pickup groups. An unlimited number of members can belong to each group. Stations can be in only one pickup group at any given time.

DEFAULT DATA
PICKUP GRP 01

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 302
   Display shows

```
[201] PICKUP GRP
PICKUP GRP :NONE
```

2. Dial station number (e.g., 205)
   OR
   Use UP or DOWN to select station number
   and press RIGHT soft key

```
[205] PICKUP GRP
PICKUP GRP :NONE
```

   OR
   Press ANS/RLS key to select all

```
[ALL] PICKUP GRP
PICKUP GRP :??
```

3. Dial pickup group number
   OR
   Press UP or DOWN to select group number

```
[205] PICKUP GRP
PICKUP GRP :05
```

4. Press RIGHT soft key to return to step 2
   OR
   Press LEFT soft key to return to step 3
   OR
   Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 107	KEY EXTENDER
MMC 722	STATION KEY PROGRAMMING
MMC 723	SYSTEM KEY PROGRAMMING

303 ASSIGN BOSS/SECRETARY

Assigns BOSS keysets to SECRETARY keysets. One BOSS station can have up to and including four SECRETARY stations, and one SECRETARY station can have up to and including four BOSS stations. A dedicated BOSS button must be programmedon the SECRETARY keysets(s). A dedicated BOSS button must also be programmed on the BOSS keyset(s).

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL
F BUTTON	Used to toggle BOSS/SECRETARY field (button #21)

ACTION DISPLAY

1. Press TRSF 303
   Display shows

```
BOSS STN:NONE
SECR 1:NONE
```

2. Dial BOSS station number (e.g. 205)
   OR
   Press UP and DOWN to select station and
   press RIGHT soft key to advance cursor

```
BOSS STN:205
SECR 1:NONE
```

```
BOSS STN:[205]
SECR 1:NONE
```

3. Dial SECRETARY station number (e.g. 201)
   OR
   Press UP and DOWN to select station and
   press RIGHT soft key to enter
   more secretary stations

```
BOSS STN:[205]
SECR 1:[201]
```

4. Press LEFT soft key to return to step 2 and
   continue entries
   OR
   Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

```
BOSS STN:[205]
SECR 2:[202]
```

RELATED ITEMS

MMC 722	STATION KEY PROGRAMMING

304 ASSIGN EXTENSION/TRUNK USE

Allows trunks on a per-station basis the ability to answer incoming calls, to dial out or to do both. If a station is set to NO Dial, the station will not have the ability to place a call. If the station is set to NO ANSWER, the station cannot answer an incoming call.

Note
MMC 406 Trunk Ring Assignment will override this MMC for the Answer option.

DEFAULT DATA
DIAL : YES ANS : YES

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 304
   Display shows

[201] USE [701]
DIAL:YES ANS:YES

2. Dial the station number (e.g., 205)
   OR
   Press UP or DOWN key to select station and press RIGHT soft key

[205] USE [701]
DIAL:YES ANS:YES

3. Dial the trunk ID number (e.g., 704)
   OR
   Press UP or DOWN key to select trunk and press RIGHT soft key

[205] USE [704]
DIAL:YES ANS:YES

4. Press UP or DOWN key to select YES/NO option
   OR
   Dial 1 for YES or 0 for NO and press RIGHT soft key to move cursor to ANS option
   Press UP or DOWN key to select YES/NO option

[205] USE [704]
DIAL:NO ANS:YES

   OR
   Dial 1 for YES or 0 for NO and press RIGHT soft key to return to step 2

[205] USE [704]
DIAL:NO ANS:NO

5. Press TRSF to store and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 406	TRUNK RING ASSIGNMENT
MMC 722	STATION KEY PROGRAMMING
MMC 723	SYSTEM KEY PROGRAMMING

305 ASSIGN FORCED CODE

Allows the assignment of either account or authorization codes on a per-station basis or on an all-station basis.

0 NONE
1 AUTHORIZE CODE
2 ACCOUNT CODE

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 305
   Display shows

[201] FORCD CODE
NONE

2. Dial station number (e.g., 205)
   OR
   Press UP or DOWN key to select station and
   press RIGHT soft key to move cursor

[205] FORCD CODE
NONE

3. Dial a feature option 0-2, e.g., 2
   OR
   Press UP or DOWN key to select option
   and press RIGHT soft key to return to step 2

[205] FORCD CODE
ACCOUNT

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 707	AUTHORIZATION CODE
MMC 708	ACCOUNT CODE

306 HOT LINE

Allows a station the ability to make a predetermined call similar to a ringdown circuit, upon the expiration of a timer (see MMC 501 System-Wide Timers, *Off-Hook*

Selection Timer option). The hotline destination can be a station, a station group, a trunk, a trunk group or an external number There can be a maximum of 24 digits in the dial string for the external number. The access code for the trunk or trunk group access code is not counted as part of the 24.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
B	Used to insert a flash code "F"
C	Used to insert a pause code "P"
D	Used to insert a pulse/tone conversion code "C"
E	Used to mask/unmask following digits - shows as "[" or "]"
F	Used to enter name for speed dial bin (see MMC 106)

ACTION DISPLAY

1. Press TRSF 306
Display shows

[201] HOT LINE

2. Dial station number
OR
Use UP or DOWN to scroll through stations
Press RIGHT soft key to move the cursor

[205] HOT LINE
_

3. Enter the hot line destination, i.e. a station or trunk ID (e.g., 9 or 701), with a maximum of 24 outgoing digits after the access code for the CO call (see above list of options if needed)
Bottom row of program keys are options B-E

[205] HOT LINE
9-1305P4264100_

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 501 SYSTEM-WIDE TIMERS (*Off-Hook Selection Timer* option)

308 ASSIGN BACKGROUND MUSIC SOURCE

Assigns a background music source to the DCS-VIP system.
One music source is in the system and the telephone number is 371. The number 371 can be used both for an internal and an external music source. If "NONE" is selected as a background music source, or if a music source is not connected to the external music source port selected as the background music source, no music will be heard.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 308
   Display shows current setting

[2001] BGM SOURCE
BGM SOURCE:NONE

2. Dial keyset number (e.g., 2005)
   OR
   Use UP or DOWN to scroll through keyset numbers
   Press RIGHT soft key to move cursor

[2005] BGM SOURCE
BGM SOURCE:NONE

OR
Press ANS/RLS to select all stations

[ALL] BGM SOURCE
BGM SOURCE:?

3. Enter source number (e.g., 3701)
   OR
   Press UP or DOWN key to make selection and
   press RIGHT soft key to return to step 2

[2005] BGM SOURCE
BGM SOURCE:371

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 309	ASSIGN STATION MUSIC ON HOLD
MMC 408	ASSIGN TRUNK MUSIC ON HOLD SOURCE

309 ASSIGN STATION MUSIC ON HOLD

Assigns a Music On Hold source to the DCS-VIP system. The default directory number of a background music source is 371.
One music source is in the system and the telephone number is 371. The number 371 can be used both for an internal and an external music source.
If you select “TONE” as Music On Hold source, TONE will be heard as Music On Hold source. If you select “NONE”, no sound will be heard while call is held.

DEFAULT DATA

NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 309
   Display shows current setting

[201] MOH SOURCE
MOH SOURCE:NONE

2. Dial keyset number (e.g., 205)
   OR
   Use UP or DOWN to scroll through keyset numbers and press RIGHT soft key to move the cursor

[205] MOH SOURCE
MOH SOURCE:NONE

   OR
   Press ANS/RLS to select all stations

[ALL] MOH SOURCE
MOH SOURCE:?

3. Enter source number (e.g., 371)
   OR
   Press UP or DOWN key to make selection and press RIGHT soft key to return to step 2

[205] MOH SOURCE
MOH SOURCE:371

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 308 ASSIGN BACKGROUND MUSIC SOURCE
MMC 408 ASSIGN TRUNK MUSIC ON HOLD SOURCE

310 LCR CLASS OF SERVICE

Assigns the LCR class of service allowed for a station on a per-station basis. There are four classes which may be assigned. LCR class of service allows specific users to trunk advance up to a matching LCR class of service programmed in MMC 710 (LCR Digit Table).

DEFAULT DATA
LCR CLASS 1

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 310
   Display shows

[201] LCR CLASS
LCR CLASS 1

2. Dial station number (e.g., 205)
   OR
   Press UP or DOWN to select station and
   press RIGHT soft key to move cursor

[205] LCR CLASS
LCR CLASS 1

   OR
   Press ANS/RLS to select all stations

[ALL] LCR CLASS
LCR CLASS ?

3. Dial 1-4 to select class type
   OR
   Press UP or DOWN to select class type
   Press RIGHT soft key to return to step 2

[205] LCR CLASS
LCR CLASS 3

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 710	LCR DIGIT TABLE
MMC 711	LCR TIME TABLE
MMC 712	LCR ROUTE TABLE
MMC 713	LCR MODIFY DIGIT TABLE

312 ALLOW CLIP

Allows the system administrator or technician to allow or deny Caller Identification (CLIP) data to be displayed at LCD 24B and LCD 12B keysets. CID information is essentially the same to the end user and is not separated. Each keyset can have the following options:

0 CLIP NOT ALLOWED
CLIP data will not be displayed.
1 CLIP ALLOWED
CLIP data will be displayed.

Note

Requires optional hardware and/or software.

DEFAULT DATA
RCV : YES SND : YES

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 312
   Display shows

[201] ALLOW CLIP
RCV : YES SND : YES

2. Dial station number (e.g., 205)
   OR
   Press UP or DOWN to select station
   and press right soft key to move cursor

[205] ALLOW CLIP
RCV : NO SND : NO
   OR
   Press ANS/RLS to select ALL

[ALL] ALLOW CLIP
RCV : NO SND : NO

3. Dial 0 or 1 to select option
   OR
   Press UP or DOWN to select option
   and press right soft key to return to step 2

[ALL] ALLOW CLIP
RCV : YES SND : YES

4. Press TRSF to store and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 119 CALLER ID/ANI DISPLAY

315 SET RELOCATE

Used to relocate a station to another location (different port). All the previous data are moved to the new location automatically.

Note
The hybrid port is limited to set relocation function. The hybrid port is telephone number from 213 to 216. .??

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter station number
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 315
   Display shows

   ```
   SET RELOCATION
   EXT_   EXT
   ```

2. Dial the original station number (e.g. 205)
   OR
   Press UP and DOWN key to select station and press RIGHT soft key

   ```
   SET RELOCATION
   EXT205 EXT
   ```

3. Dial the new location's station number (e.g. 210)

   ```
   SET RELOCATION
   EXT205 EXT210
   ```

4. Press TRSF to store and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS
NONE

316 COPY STATION USEABLE

Copy the condition of station/trunk usability from one station to another station

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 316
   Display shows

   ```
   [201] COPY USABLE
   FROM NONE
   ```

2. Enter destination station number (e.g. 205)
   OR
   Press UP and DOWN key to make selection and press RIGHT

soft key to move cursor

[205] COPY USABLE
FROM NONE

3. Enter the source station number (e.g. 210)
OR
Press UP and DOWN key to make selection and press RIGHT soft key to move cursor

[205] COPY USABLE
FROM 210

4. Press TRSF to store and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 304 ASSIGN EXTENSION/TRUNK USE

318 DISTINCTIVE RINGING

Allows the technician to select the ring tone heard at a keyset when called by a specific station or when a specific trunk rings that keyset. There is also a cadence control option to perform a similar function for single line telephones (SLTs). There are eight ring tones available along with a Follow Station (F-STN) option for the keysets. There are 5 cadences and a Follow Station option for SLTs.

TONE OPTION DESCRIPTION
F-STN Calls will ring with the keyset user's choice of ring frequency.
1～8 Calls from the programmed station or trunk will ring keysets with this ring frequency.

CADENCE OPTION DESCRIPTION
F-STN Calls will ring with the normal SLT ring cadences.
1 Calls from the programmed station or trunk will ring SLTs with the intercom ring cadence.
2 Calls from the programmed station or trunk will ring SLTs with the CO ring cadence.
3 Calls from the programmed station or trunk will ring SLTs with the DOOR ring cadence.
4 Calls from the programmed station or trunk will ring SLTs with the ALARM ring cadence.
5 Calls from the programmed station or trunk will ring SLTs with the CALLBACK ring cadence.

DEFAULT DATA
T : F-STN C : F-STN

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 318

Display shows first station

```
[201] RING TONE
T:F-STN C:F-STN
```

2. Dial trunk or station number (e.g., 705)
   OR
   Press UP or DOWN to select trunk or station
   and press RIGHT soft key to move cursor

```
[705] RING TONE
T:F-STN C:F-STN
```

3. Dial 1-8 to select ring tone
   OR
   Press UP or DOWN to select ring tone and
   press RIGHT soft key to move cursor

```
[705] RING TONE
T:5 C:F-STN
```

4. Dial 1-5 to select ring cadence
   OR
   Press UP or DOWN to select ring cadence
   and
   press RIGHT soft key to move cursor

```
[705] RING TONE
T:5 C:3
```

5. Press TRSF to store and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS
MMC 111 STATION RING TONE

400 CUSTOMER ON/OFF PER TRUNK

Assigns several options on a per-trunk basis.

OPTIONS
1 TRUNK INC DND
When this option is set to ON a trunk that is programmed to ring a specific station (a private line or DIL) will ring at that station if the station is in DND.
2 TRUNK FORWARD
When this option is set to OFF, this trunk will not follow a ringing stations call forwarding.
3 LCR ALLOW
Allows LCR to be switched ON/OFF when a trunk is directly accessed.

DEFAULT DATA
TRK INC. DND OFF
TRK FORWARD ON
LCR ALLOW OFF

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 400
   Display shows

[701] TRK ON/OFF
TRK INC.DND OFF

2. Dial trunk number (e.g., 704)
   OR
   Press UP or DOWN to select trunk

[704] TRK ON/OFF
TRK INC.DND OFF

   OR
   Press ANS/RLS for all trunks and press
   RIGHT soft key to move cursor to options

[ALL] TRK ON/OFF
TRK INC.DND ?

3. Dial option number from above list (0-2)
   OR
   Press UP or DOWN key to select option and
   press RIGHT soft key to move cursor

[704] TRK ON/OFF
TRK FORWARD ON

4. Dial 1 for ON or 0 for OFF
   OR
   Press UP or DOWN key to select ON/OFF
   and press RIGHT soft key to return to step 2

[704] TRK ON/OFF
TRK FORWARD OFF

5. Press TRSF to store and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS
NONE

404 TRUNK NAME

Allows a name (up to 11 characters) to be entered to identify an individual trunk.

Names are written using the keypad. Each press of a key will select a character. Press the desired key to move the cursor to the next position. For example, if the directory name is "SAM SMITH," press the number "7" three times to get the letter "S." Now press the number "2" once to get the letter "A." Continue selecting characters from the table below to complete your message. Pressing the "A" key will change the letter from upper case to lower case.

Note

When the character you want appears on the same dial keypad as the previous character, press the UP key to move the cursor to the right or the DOWN key to move the cursor left. A space can be entered by using these keys.

The # key can be used for special characters: #, space, &, !, :, ?, ., %, $, -, <, >,

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	sp	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

/, =, [,], @, ^, (,), _, +, {, }, |, ;, \. and ~.

DEFAULT DATA
NO NAMES ENTERED

PROGRAM KEYS

UP & DOWN	Used to scroll through options/move cursor left or right
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
A	Key #19; acts as toggle between upper case and lower case

ACTION DISPLAY

1. Press TRSF 404
   Display shows

[701] TRUNK NAME

2. Dial trunk (e.g., 704)
   OR
   Press UP or DOWN to select trunk
   Press RIGHT soft key to move cursor

[704] TRUNK NAME

3. Enter trunk name using the procedure above
   Press RIGHT soft key to return to step 2

[704] TRUNK NAME
SAMSUNG

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MC 104 STATION NAME
MMC 405 TRUNK NUMBER (CO LINE NUMBER?)
"A" KEY IS BUTTON #19

405 CO LINE NUMBER

Allows a 10-digit number to be entered to identify an individual trunk.

Numbers are written using the keypad. Each press of a key will select a digit. Pressing the desired key will move the cursor to the next position. For example, if the trunk number is "426-4100," press the number "4" five times to get the number "4." Now press the number "2" five times for number "2." Continue selecting characters from the table below to complete your number.

Note
When the number you want appears on the same dial pad key as the previous number, press the UP key to move the cursor to the right or the DOWN key to move the cursor left. A space can be entered by using these keys. The # key will enter special digits, including a dash.

DEFAULT DATA

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	Sp	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

NO NUMBERS ENTERED

PROGRAM KEYS

UP & DOWN	Used to scroll through options/move cursor left or right
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
A	Key #19; acts as toggle between upper case and lower case

ACTION DISPLAY

1. Press TRSF 405
   Display shows

[701] CO TEL NO.

2. Dial trunk (e.g., 704)
   OR
   Press UP or DOWN to select trunk and press
   RIGHT soft key to move the cursor

[704] CO TEL NO.

3. Enter trunk number using the procedure described above

[704] CO TEL NO.
3054264100

4. Press RIGHT soft key to return to step 2
OR
Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 404 TRUNK NAME

406 TRUNK RING ASSIGNMENT

Enables ringing to a specific station or to a group of stations when incoming calls are received. Trunk ring rings on the station or station group.

DEFAULT DATA
ALL TRUNKS RING DEFAULT OPERATOR GROUP (500)

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL (trunks only)

ACTION DISPLAY

1. Press TRSF 406
Display shows

[701] TRK RING
1:500 2:500

2. Use UP or DOWN to scroll through trunk numbers and press the RIGHT soft key to move the cursor
OR
Press ANS/RLS for ALL
OR

[ALL] TRK RING
1:500 2:500

3. Dial station number or station group number (e.g., 205)
OR
Press UP or DOWN key to select station number or station group number and press RIGHT soft key

[704] TRK RING

```
1:205 2:500

[704] TRK RING
1:205 2:501
```

4. Dial station number or station group number
   OR
   Press UP or DOWN key to select station number or station group number and press RIGHT soft key

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 202 CHANGE FEATURE PASSCODES
MMC 507 ASSIGN RING PLAN TIME
MMC 601 ASSIGN STATION GROUP

407 FORCED TRUNK RELEASE

Provides a positive forced trunk release to a specific trunk or all trunks in the event of a trunk lockup.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 407
   Display shows

```
[701] TRK RELS.
RELEASE? Y:1, N:0
```

2. Dial in trunk number (e.g., 704)
   OR
   Press UP or DOWN key to select trunk and press RIGHT soft key

```
[704] TRK RELS.
RELEASE?_Y:1, N:0
```

   OR
   Press ANS/RLS to select all trunks

```
[ALL] TRK RELS.
RELEASE?_Y:1, N:0
```

3. Dial 1 for YES
   OR

Dial 0 for NO
Pressing 1 or 0 will return to step 2

[704] TRK RELS.
RELEASE?1Y 1, N 0

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 603 ASSIGN TRUNK GROUP

408 ASSIGN TRUNK MUSIC ON HOLD SOURCE

Allows the system administrator to select which Music On Hold (MOH) source can be heard on each trunk. There are three selections: TONE, NONE and one of the customer-provided MOH sources connected to the system. The default directory number of the MOH source is 371.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY
1. Press TRSF 408
Display shows current setting

[701] TRK MOH
MOH SOURCE: TONE

2. Dial trunk number (e.g., 704)
OR
Use UP or DOWN to scroll through trunk numbers and press RIGHT soft key to move cursor

[704] TRK MOH
MOH SOURCE: TONE

OR
Press ANS/RLS to select ALL

[ALL] TRK MOH
MOH SOURCE: 2

3. Enter source number (e.g., 371)
OR
Press UP or DOWN key to select option
Press RIGHT soft key to return to step 2

[705] TRK MOH
MOH SOURCE: 371

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

[705] TRK MOH
MOH SOURCE: 371

RELATED ITEMS
MMC 308 ASSIGN BACKGROUND MUSIC SOURCE
MMC 309 ASSIGN STATION MUSIC ON HOLD

409 TRUNK STATUS READ

Allows servicing personnel to quickly identify the location of a trunk in the system and to view the most significant information about that trunk. This is a read-only MMC.

OPTION TABLE

00	PORT NUMBER
01	TYPE
03	TRK FORWARD
08	DAY RING
09	NIGHT RING
10	MOH SOURCE

DEFAULT DATA

PORT NUMBER	Trunk port number
TYPE	Trunk type
TRK FORWARD	ON
DAY RING	500 (701:891)
NIGHT RING	500 (701:891)
MOH SOURCE	371

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 409
   Display shows first trunk

[701] TRK STATUS
PORT: BBRI01

2. Enter trunk number via dial keypad (e.g., 703)
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to move cursor

[703] TRK STATUS
PORT: BBRI03

3. Enter desired option
   OR
   Press UP or DOWN key to make selection

```
[703] TRK STATUS
TYPE: BRI TRUNK
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 400	CUSTOMER ON/OFF PER TRUNK
MMC 406	TRUNK RING ASSIGNMENT
MMC 408	ASSIGN TRUNK MUSIC ON HOLD SOURCE

415 REPORT TRUNK ABANDON DATA

Allows the system administrator or technician to enable or disable the reporting of abandoned C.O. calls for which CID or ANI information has been collected on a per-trunk basis. There are two options for this MMC as follows:

0 REPORT: NO
Abandoned call records for incoming calls with CID or ANI information will not be printed on SMDR or stored in the system call abandon list. These records will continue to be stored in the station review list.

1 REPORT: YES
Abandoned call records for incoming calls with CID or ANI information will be printed on SMDR and stored in the system call abandon list. These records will also be stored in the station review list.

Note
In order for these abandoned call records to print on SMDR, set Option 11 'Abandon Call' in MMC 725 (SMDR Options) to YES.

DEFAULT DATA
REPORT: YES

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 415
   Display shows

```
[701] TRK ABNDN
REPORT: YES
```

2. Dial trunk number (e.g., 705)
   OR
   Use UP or DOWN to select trunk and use
   LEFT or RIGHT soft key to move cursor

```
[705] TRK ABNDN
REPORT: YES
```

3. Dial 1 for YES or 0 for NO
   OR
   Use UP or DOWN to scroll through options and use LEFT or RIGHT soft key to return to step 2

```
[705] TRK ABNDN
REPORT: NO
```

4. Press TRSF to save and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 725	SMDR OPTIONS
MMC 414	ASSIGN CALLER ID TRUNKS

418 BRI CARD RESTART

Enables any changes you make in MMC 419(BRI OPTION) or MMC 423(S/T MODE) and applies them, as appropriate, to each BRI card that you restart.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 418
   Display shows

```
[701] RESTART
CARD RESTART ? NO
```

2. Enter first BRI trunk number in card (e.g. 701)
   OR
   Press UP or DOWN to select and press RIGHT soft key

```
[701] RESTART
CARD RESTART ? NO
```

3. Enter 1 for Yes or 0 for NO
   OR
   Press UP or DOWN to select and press RIGHT soft key
   (If you select No, system returns to step 2)

4. You are asked for confirmation;
   Enter 1 for Yes or 0 for NO
   Press UP or DOWN to select and press RIGHT soft key
   (If you select No, system returns to step 2)

5. Press TRSF to save and exit
OR
Press SPK to save and advance to next MMC

RELATED ITEMS

MMC 419	BRI OPTION
MMC 423	S/T MODE

419 BRI OPTION

Assigns several options on a per-BRI basis and there are different options depending on whether the BRI is programmed as a trunk or station in MMC 423 (S/T Mode).

OPTION

- ANY CHANNEL

When this option is set to YES, the system will place calls on any free channel of that BRI if the channel chosen by the user is busy. If set to NO, the user will receive a busy signal if they attempt to access a busy channel even if the other channel on that BRI is free.

- BRI MODE

P-P DID : Point to Point Direct Inward Dial. This operates in a similar manner to an analog DID circuit with multiple CO numbers pointed to a single channel and translated within the system (MMC714) to a single device. (This mode is not used in the U.S.)

P-M NOR : Point to Multi-point NORmal. This type of circuit operates in a similar manner to P-P NORmal but allows multiple devices to be attached to the circuit. Ringing is defined in MMC 406. (This mode is not used in the U.S.)

P-M MSN : Point to Multi-point MSN. This setting is used when the line uses the MSN supplementary service. Ringing is defined in MMC 426. (This is the U.S. default mode of operation.)

P-P NOR : Point to Point NORmal. This operates like a standard telephone line with one CO number per channel and ring according to MMC 406. (This mode is not used in the U.S.)

- DLSEND

OVERLAP : Digits will be sent as they are dialed by the user. This is the usual setting for U.S. operation.

ENBLOCK : Digits will be collected and sent in a single block similar to a cellphone. This setting is generally not used in the U.S.

- ROUTER SRV (DATA Service for ROUTER)

When this option is set to YES, setting Line can service data.
If One Line set YES, other lines set NO, immediately.

DEFAULT DATA

ANY CHANNEL	YES
BRI MODE	P-P DID
DLSEND	OVERLAP
ROUTER SRV	YES (for 701 & 702)

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 419
   Display shows

```
[701] BRI OPTION
DLSEND          :OVERLAP
```

2. Dial BRI trunk number (e.g. 704)
   OR
   Press UP
   or DOWN key to select the port.
   Use the RIGHT soft key to position
   the cursor under DLSEND.

```
[704] BRI OPTION
DLSEND          :OVERLAP
```

3. Press UP or DOWN key to make selection
   (ROUTER SRV?, DLSEND, BRI MODE or
   CHANNEL ANY). Select DLSEND
   and press RIGHT soft key to move the
   cursor under OVERLAP. Use UP and DOWN
   key to select OVERLAP/ENBLOCK. Press
   RIGHT soft key to make the selection.

```
[704] BRI OPTION
DLSEND          :ENBLOCK
```

4. Use UP or DOWN key to get to BRI MODE.
   Press RIGHT soft key to move the cursor
   Under MSN/DID/NORMAL. Use UP or
   DOWN key to make the selection.

```
[704] BRI OPTION
BRI MODE     :P-P NOR
```

5. Press TRSF to save and exit
   OR
   Press SPK to save and advance to next MMC

RELATED ITEMS

MMC418	BRI CARD RESTART
MMC423	S/T MODE

421 MSN DIGIT

Provides a method of assigning an incoming MSN call to a station.
If an entry in the MSN DIGIT TABLE matches the incoming call's called party number, then the programmed station receives audible signalling if it is programmed to "Accept" the call or the call is cleared if the DCS-VIP is programmed to "Reject" the call.
If the called party number does not have a matching entry in the MSN table, then the operator is presented with the call.
Each MSN number can be assigned to a station. If the programmed destination is busy (e.g. a station), there is a programmable option to send busy line to the caller or to camp on to the busy destination.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options

KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 421
   Display shows

```
[701] MSN    DGT(1)
             → NONE
```

2. Enter trunk number (e.g. 704)
   OR
   Press UP and DOWN key to scroll through
   ISDN PORT
   and press RIGHT soft key to move cursor

```
[704] MSN    DGT(1)
             → NONE
```

3. Enter the location (e.g. 4)
   OR
   Press UP and DOWN to select location and
   press RIGHT soft key to move cursor.
   (Max. 8 locations).

```
[704] MSN    DGT(4)
             → NONE
```

4. Enter digits to be translated
   (e.g. 4603881) via dial key pad and press
   RIGHT soft key to move cursor.
   (Max. 10 digits).

```
[704] MSN    DGT(4)
4603881_     → NONE
```

5. Enter station number via dial key pad (e.g. 204)
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key
   automatically advances the cursor. If the,
   data entered is invalid, "INVALID DATA"
   will be displayed.

```
[704] MSN    DGT(4)
4602831      → 204
```

6. Press RIGHT soft key to move cursor under
   CW(CallWait) option. Use UP or DOWN key
   to select ON/OFF.
   Press RIGHT soft key to move cursor under
   ACCEPT/REJECT option.
   Press RIGHT soft key to go back to step 3.
   Follow same procedure to add more entries
   in MSN table.

```
[704] MSN    DGT(4)
CW:YES       OPT:ACCEPT
```

7. Press TRSF to save and exit

OR
Press SPK to save and advance to next MMC

RELATED ITEMS

MMC419	BRI OPTION
MMC714	DID NUMBER & NAME TRANSLATION

423 S/T MODE

Allows the technician to select whether a BRI circuit is a station port or a trunk port.

0. TRUNK
1. STATION

DEFAULT DATA
TRUNK

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 423
Display shows first BRI

[702] S/T MODE
TRUNK

2. Dial trunk number (e.g., 705)
OR
Use UP or DOWN to scroll through BRI numbers and press RIGHT soft key to move cursor

[705] S/T MODE
TRUNK

OR
Press ANS/RLS to select ALL

[ALL] S/T MODE
TRUNK

3. Enter Circuit type (0 or 1)
OR
Press UP or DOWN key to select option
Press RIGHT soft key to return to step 2

[7027] S/T MODE
STATION

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 119	CALLER ID / ANI DISPLAY
MMC 312	ALLOW CLIP
MMC 501	SYSTEM-WIDE TIMERS
MMC 608	ASSIGN CID / ANI REVIEW BLOCK
MMC 725	SMDR OPTIONS
MMC 728	CID / ANI TRANSLATION TABLE

424 ISDN S0 MAPPING TABLE

Allows BRI Extension (station) to be mapped to special BRI port.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 424
   Display shows

```
[7801] S0 MAPPING
739
```

2. Dial S0 MSN (e.g. 7804)
   OR
   Press UP or DOWN key to select S0 MSN
   Press RIGHT soft key to move cursor.

```
[7804] S0 MAPPING
739
```

3. Dial BRI Extension number 741
   OR
   Press UP or DOWN key to select ON/OFF
   and press RIGHT soft key to return to step 2

```
[7804] S0 MAPPING
741
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 724	DIAL NUMBER PLAN

434 CONNECTION STATUS

This read-only MMC will confirm the connection status of stations or trunks. Display status actually displays the status of a station or trunk at the time requested. If a conference is in progress with the selected trunk or station the display will show one of the conference parties and an arrow (→). The technician or system administrator can then display the next parties in the conference. If a station or trunk is in an idle state the display will show "NONE". If the station or trunk selected is not a valid selection the display will show "INVALID DATA". If the station

or trunk is made busy by the CPU the display will show "MADE BUSY". If the station is in a busy state with no other connection, the display will show "BUSY" only.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to advance to next MMC
TRSF	Exit

ACTION DISPLAY

Display trunk connection status

1. Press TRSF 434

```
DISPLAY STATUS
_ :
```

2. Enter trunk number.
   Display shows connection status

```
DISPLAY STATUS
702 : 227
```

3. Enter another trunk
   OR
   Press TRSF to exit.

```
DISPLAY STATUS
702 : 227
```

Display station connection status

1. Press TRSF 434

```
DISPLAY STATUS
_ :
```

2. Enter station number.
   Display shows connection status

```
DISPLAY STATUS
235 : 715
```

3. Enter another station
   OR
   Press TRSF to exit.

```
DISPLAY STATUS
235 : 715
```

Display trunk status in conference.

Example: Trunk 702, stations 227, 215, and 216 in conference.

1. Press TRSF 434

```
DISPLAY STATUS
_:
```

2. Enter station or trunk number.
   Display shows connection status

```
DISPLAY STATUS
702  227 215 →
```

3. Press RIGHT soft key to display the next
   station or trunks involved.

```
DISPLAY STATUS
702  216
```

4. Enter another station or trunk OR
   Press TRSF to exit.

```
DISPLAY STATUS
225 : NONE
```

5. Enter another station or trunk OR
   Press TRSF to exit.

```
DISPLAY STATUS
216 : 702 227
```

Display status no connection.

1. Press TRSF 434

```
DISPLAY STATUS
_:
```

2. Enter station or trunk number.
   Display shows connection status

```
DISPLAY STATUS
702 : NONE
```

3. Enter another station or trunk OR
   Press TRSF to exit.

```
DISPLAY STATUS
702 : NONE
```

Display connection status with invalid trunk or station number.

1. Press TRSF 434

```
DISPLAY STATUS
_:
```

2. Enter invalid station or trunk number.
   Display shows INVALID DATA

```
DISPLAY STATUS
INVALID DATA
```

3. Enter another station or trunk OR
Press TRSF to exit.

```
DISPLAY STATUS
_:
```

Display connection status with trunk or station number busy.

1. Press TRSF 434

```
DISPLAY STATUS
_:
```

2. Enter station or trunk number.
Display shows connection status

```
DISPLAY STATUS
725 : MADE BUSY
```

3. Enter another station or trunk OR
Press TRSF to exit.

```
DISPLAY STATUS
725 : MADE BUSY
```

RELATED ITEMS
MMC 409 TRUNK STATUS

500 SYSTEM-WIDE COUNTERS

Used to set the values of the system counters. The counters are listed below with a brief description of each.

0. ALARM REM. CNTER : This is the number of times that an alarm reminder will ring a station before canceling. RANGE = 1- 99.
1. AUTO RDL COUNTER : This is the number of times the system will redial an outside number after the auto redial feature has been activated. RANGE = 1-15.
4. NEW CALL COUNTER : This is the number of times the system will allow a user to signal New Call on a C.O. line during one DISA call. RANGE = 1-99.

DEFAULT DATA
ALARM REM. CNTER : 5
AUTO RDL COUNTER : 3
NEW CALL COUNTER : 99

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 500
Display shows

```
ALARM REM CNTER
05→
```

2 Enter number from above list (e.g., 3)
OR
Press UP or DOWN key to make selection
and press RIGHT soft key to move cursor

DISA LOCK CNTER
05→

3. Enter new value via dial keypad
If valid, system returns to step 2

DISA LOCK CNTER
05 →02

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 501 SYSTEM-WIDE TIMERS

501 SYSTEM-WIDE TIMERS

Allows the technician to adjust individual timers as necessary.

00. AA INT DGT TIME (1-25 SEC) : When the AA card is installed, this timer determines the interdigit time for AA call processing. If this timer expires before valid digits are received by the AA card, the call will be routed to the AA invalid digits destination
01. AA NO ACT TIME (1-25 SEC) : When the AA card is installed, this timer determines the time that the AA card will wait for a first digit for AA call processing. If this timer expires before a digit is received, the call will be routed to the AA no action destination.
02. AA TRANS TIME (0-25 SEC): If using the Automatic ATC (Attendant Console), the time to analyze whether or not the entered data exist in the digit of MMC 732 when this time arrives.
03. ALARM WAKE TIME (0-2500 MIN) : This is the time the system alarm key will start ringing after the alarm has been silenced.
04. ALERT TONE TIME (100-2500 MSEC) : This timer sets the duration of the attention tone preceding a call to a keyset in the Voice Announce or Auto Answer mode. This tone will also precede a forced Auto Answer call.
05. ALM REM.INTERVAL (1-255 SEC) : This timer controls the time between ring attempts at a station when alarm reminder is set.
06. ALM REM.RING OFF (1-25 SEC) : This timer controls the length of the ring cycle when alarm reminder is set at a station.
07. ATT RECALL TIME (1-255 SEC) : This is the length of time a transfer recall will ring at a station before recalling the operator.
08. AUTO REDIAL INT. (1-255 SEC) : This timer controls the time between attempts after RETRY dialing is set on a station.
09. AUTO REDIAL RLS. (1-255 SEC) : This timer controls the duration of a Ring No Answer condition on a retry number dialed before the auto redial is automatically canceled.
10. BARGE IN TONE INT (100-9900 MSEC) : The intervals between the tones sent to the station being barged in on.
12. CALLBACK NO ANS (1-255 SEC) : This timer controls the time before the callback is automatically canceled when a call back detects Ring No Answer.
13. CAMP ON RECALL (0-255 SEC) : This timer controls the time a camped-on call will stay at a destination before recalling to the transferring station.
14. CLIP DISPLAY TM (1-25 SEC) : The amount of time that the Caller ID

information remains on the keyset's display.
16. CO CLEAR TIME (0-255 SEC) : The length of time a DTS key remains busy after cleardown.
18. CO-CO DISCONNECT (1-255 MIN) : This timer monitors the duration of an unsupervised conference; when it expires, both trunks are disconnected.
19. CONFER TONE INT (100-9900 MSEC) : Controls the timing of intervals between the tones heard by parties in a conference.
20. CONFIRM TONE TM (100-2500 MSEC) : The duration of tone heard when a feature is activated or deactivated.
23. DIAL PASS TIME (0-25 SEC) : This timer monitors the duration of time before connecting the transmit of the keyset to the trunk side of an outgoing call.
28. DISPLAY DELAY TM (1-255 SEC) : This timer controls the duration a display is shown in the LCD display. This timer also controls the duration of time that error tone is heard.
29. DOOR LOCK RELES. (100-2500 MSEC) : This timer controls the duration of time the door lock relay will be activated.
30. DOOR RING DETECT (1-250 MSEC) : This timer controls the duration of time before a call is answered by the door phone.
31. DOOR RING OFF TM (1-255 SEC) : This timer controls the duration of ringing at the door ring destination before automatically canceling.
32. E-HOLD RECALL TM (0-255 SEC) : This timer controls the duration of time a call is held exclusively at a station before recalling.
33. EXT.FWD DELAY TM (1-255 SEC) : This timer controls the External Call Forward feature which will allow a station to ring before the call is placed on external call forwarding.
34. FIRST DIGIT TIME (1-255 SEC) : This timer controls how long the system will wait for dialing to begin before dropping the dial tone and returning the user to error tone.
35. HOK FLASH MAX TM (20-2500 MSEC) : This timer monitors the duration of a hookswitch flash to ensure that the flash is valid and not a line noise or an accidental hookswitch bounce (LONGEST DURATION).
36. HOK FLASH MIN TM (20-2500 MSEC) : This timer monitors the duration of a hookswitch flash to ensure that the flash is valid and not a line noise or an accidental hookswitch bounce (SHORTEST DURATION).
37. HOOK OFF TIME (100-2500 MSEC) : This timer controls the time before dial tone is sent to a single line station.
38. HOOK ON TIME (20-2500 MSEC) : This timer sets the minimum amount of time that the system will recognize as an SLT hang up.
39. INQUIRY RELEASE (1-255 SEC) : This timer monitors the duration of the interaction of the soft key to determine when to return the LCD back to normal status. This timer affects only display phones.
40. INTER DIGIT TIME (1-255 SEC) : The timer controls the grace period between dialing valid digits before dropping the call and returning the user back to error tone.
41. ISDN INT DGT TM (1-15 SEC) : This timer controls the grace period between dialing valid digits and the end of the dialing string on an ISDN call.
42. KMMC LOCK OUT TM (10-255 SEC) : This timer controls the grace period between programming actions while in a programming session. The timer automatically returns the system to secure programming status.
43. LCR ADVANCE TIME (1-255 SEC) : This timer controls the duration of time before selecting the next allowable route when a station is allowed to route advance.
44. LCR INTER DIGIT (1-255 SEC) : This timer controls the grace period between dialing valid digits before dropping the call and returning the user to error tone.
45. MCL DELAY TIME (1-8 SEC) : Controls the time when the system should start transmitting Authorisation code after sending MCL Access code.
46. MS LED ON TIME (0-10 SEC) : This timer controls the duration a Manual Signalling key will remain on after use.
47. OFF HOK RING INT (1-255 SEC) : This timer controls the duration of time between ring bursts to a user who has a camped-on call.

48. OFF HOOK SELECT (1-255 SEC) : This timer controls the grace period before placing a internal/external call as programmed in MMCs 306 and 307.
49. OHVA ANSWER TIME (1-255 SEC) : This timer controls the time duration of an OHVA call before automatic rejection.
50. PAGE TIME OUT (1-255 SEC) : This timer controls the duration of a page announcement.
51. PAGE TONE TIME (100-2500 MSEC) : This timer controls the duration of tone burst heard over the page prior to the page announcement.
52. PARK RECALL TIME (0-255 SEC) : This timer controls the duration of time a call is parked before recalling to the call park originator.
53. PC-MMC LOCK TIME (1-60 MIN) : This timer monitors the PCMMC activity, drops the link if no action is created by PCMMC and returns the system to secure program status.
55. POWER DOWN TIME (100-2500 MSEC) : This timer monitors the power to the ROM pack to begin shutdown status.
60. RECALL DISCONNECT (1-255 MIN) : This is the time an attendant recall will ring before being disconnected.
61. RECALL WAIT TIME (0-255 SEC) : This is the time any recall (hold or transfer) continues to recall at your station before it recalls to the operator.
64. SYS HOLD RECALL (0-255 SEC) : This timer determines the time calls can be left on hold before recalling back to the holding station. This is a system-wide timer. Setting timer to 000 means no recalling will take place.
65. TRANSFER RECALL (0-255 SEC) : This timer determines the time that transferred calls ring before recalling. This is a system-wide timer.

DEFAULT DATA

00. AA INT DGT TIME	:	5	SEC
01. AA NO ACT TIME :	10	SEC	
02. AA TRANS TIME :	2	SEC	
03. ALARM WAKE TIME	:	10	MIN
04. ALERT TONE TIME	:	1000	MSEC
05. ALM REM. INTERVAL	:	25	SEC
06. ALM REM. RING OFF	:	10	SEC
07. ATT. RECALL TIME	:	30	SEC
08. AUTO REDIAL INT	:	30	SEC
09. AUTO REDIAL RLS	:	45	SEC
10. BARGE IN TONE INT	:	1300	MSEC
12. CALLBACK NO ANS	:	30	SEC
13. CAMP ON RECALL :	30	SEC	
14. CLIP DISPLAY TM	:	5	SEC
16. CO CLEAR TIME :	30	SEC	
18. CO-CO DISCONNECT	:	20	MIN
20. CONFIRM TONE TM	:	1000	MSEC
23. DIAL PASS TIME :	5	SEC	
28. DISPLAY DELAY TM	:	2	SEC
29. DOOR LOCK RELES	:	500	MSEC
30. DOOR RING DETECT	:	5	MSEC
31. DOOR RING OFF TM	:	30	SEC
32. E-HOLD RECALL TM	:	45	SEC
33. EXT.FWD DELAY TM	:	10	SEC
34. FIRST DIGIT TIME	:	10	SEC
35. HOK FLASH MAX TM	:	800	MSEC
36. HOK FLASH MIN TM	:	350	MSEC
37. HOOK OFF TIME :	100	MSEC	
38. HOOK ON TIME :	1000	MSEC	
39. INQUIRY RELEASE	:	30	SEC
40. INTER DIGIT TIME	:	10	SEC
41. ISDN INT DGT TM	:	7	SEC
42. KMMC LOCK OUT TM	:	60	SEC
43. LCR ADVANCE TIME	:	5	SEC
44. LCR INTER DIGIT	:	5	SEC

```
45. MCL DELAY TIME :        4       SEC
46. MS LED ON TIME :        5       SEC
47. OFF HOK RING INT        :       15      SEC
48. OFF HOOK SELECT         :       5       SEC
49. OHVA ANSWER TIME        :       10      SEC
50. PAGE TIME OUT  :        20      SEC
51. PAGE TONE TIME :        500     MSEC
52. PARK RECALL TIME        :       45      SEC
53. PC-MMC LOCK TIME        :       5       MIN
55. POWER DOWN TIME         :       200     MSEC
60. RECALL DISCONNECT       :       2       MIN
61. RECALL WAIT TIME        :       15      SEC
64. SYS HOLD RECALL         :       45      SEC
65. TRANSFER RECALL         :       20      SEC
```

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 501
   Display shows first timer value

```
AA INT DGT TIME
05 SEC
```

2. Press UP or DOWN key to select timer and
   press RIGHT soft key to move cursor

```
KMMC LOCK OUT TM
30 SEC _
```

3. Enter new value using keypad; if valid, system
   returns to step 2 with new value

```
KMMC LOCK OUT TM
30 SEC 225
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

```
MMC 101  CHANGE USER PASSCODE
MMC 301  ASSIGN STATION COS
MMC 701  ASSIGN COS CONTENTS
```

502 STATION TIMERS

This MMC allows the Forward No Answer timer to be changed on a per-station basis or for the entire system and allows the technician to adjust the DTMF duration and first digit delay to a voice mail port.

OPTIONS

00. NO ANS FWD (1-255 SEC) : This is the time a call will ring at a station before forwarding to the programmed destination.

01. DTMF DUR. (100-9900 MSEC) : This is the duration of the DTMF digits sent as in-band signaling to a VMAA SLT port.
02. F-DGT DELY (100-9900 MSEC) : This is the time the system will wait after a VMAA SLT port answers before sending DTMF in-band signaling digits.

DEFAULT DATA

NO ANS FWD	:	15	SEC
DTMF DUR. :	100	MSEC	
F-DGT DELY	:	600	MSEC

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 502
   Display shows

```
[201] NO ANS FWD
010 SEC →_
```

2. Dial station number (e.g., 205)
   OR
   Press UP or DOWN key to select station and
   press RIGHT soft key

```
[205] NO ANS FWD
010 SEC →_
```

   OR
   Press ANS/RLS to select all stations and
   press RIGHT soft key

```
[ALL] NO ANS FWD
*** SEC →_
```

3. Press UP or DOWN key to select timer and
   press RIGHT soft key

4. Enter new value via dial keypad, e.g., 0200
   System will return to step 2

```
[205] NO ANS FWD
0100 MS →200
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 102	CALL FORWARD

503 TRUNK-WIDE TIMERS

Allows certain trunk timer values to be changed on a per-trunk basis or for all

trunks. It is not advisable to change these values, with the exception of trunk flash time, without assistance from Technical Support.

01. CLEARING (100-5000 MSEC) : This timer ensures that a call is fully disconnected at the CO by preventing CO access outgoing or receiving incoming ring between a disconnect and the expiration of this timer.
03. DTMF DUR. (100-9900 MSEC) : (DTMF DURation) This is the length of the DTMF digits that will be sent to the CO on this line.
04. F-DGT DELY (100-9900 MSEC) : (First DiGiT DELaY) This is the length of time the system will wait for CO line conditions to stabilize after seizure before sending DTMF digits.
05. FLASH TIME (100-2500 MSEC) : This is the duration of the momentary open sent on a circuit flagged as PBX in MMC 401.
07. PAUSE TIME (1-255 SEC) : This is the length of time the system will wait before sending the next digit for a pause in a speed dial bin.

DEFAULT DATA

CLEARING :	1000	MSEC	
DTMF DUR. :	100	MSEC	
F-DGT DELY	:	600	MSEC
FLASH TIME	:	600	MSEC
PAUSE TIME	:	3	SEC

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 503
Display shows

```
[701] ANS  BAK TM
0600 MS →
```

2. Dial trunk number (e.g., 704)
OR
Press UP or DOWN key to select trunk and
press RIGHT soft key to move cursor

```
[704] ANS  BAK TM
0600 MS →
```

OR
Press ANS/RLS to select all trunks and
press RIGHT soft key to move cursor

```
[ALL] ANS  BAK TM
****MS →
```

3. Dial timer number from above list
OR
Press UP or DOWN key to select timer and
press RIGHT soft key to move cursor

```
[704] DTMP DUR.
0600 MS →
```

4. Enter new timer value (must be four digits, e.g., 0700)
   System returns to step 2

```
[704] DTMP DUR
0600 MS →0700
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

505 ASSIGN DATE AND TIME

Allows the system date and time to be set. This will set the system-wide clock.

WMMDDYY : HHMM
- W : Day (0:SUN, 1:MON, 2:TUE, 3:WED 4:THU, 5:FRI, 6:SAT)
- MM : Month (01-12)
- DD : Date (01-31)
- YY : Year (00-99)
- HH : Hour (00-23)
- MM : Minute (00-59)

DEFAULT DATA
Depends on Software Version

PROGRAM KEYS

KEYPAD	Used to enter selections
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 505
   Display shows

```
OLD:6 0 1 0 1 8 4:0 0 4 7
NEW:W M M D D Y Y:H H M M
```

2. Enter new time and date using above table
   System returns to step 2

```
OLD:6 0 1 0 1 8 4:0 0 4 7
NEW:3 0 2 0 9 9 4:1 4 4 5
```

3. Verify time and date
   Re-enter if necessary

```
OLD: 3 0 2 0 9 9 4:1 4 4 5
NEW:W M M D D Y Y:H H M M
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 109 DATE DISPLAY

506 TONE CADENCE

Provides the ability to customize the tone cadence on a system-wide basis. There are 10 tone cadences available. The tone control of the cadence may be changed from interrupt tone to continuous tone. Please call Technical Support before changing any cadences as some systems may require default settings.

TONE NAME	**DESCRIPTION**
BUSY TONE	The called station is busy.
CONFM/BARGE	A feature has been successfully activated/cleared or a Barge In with Tone has been performed.
DIAL TONE	The system is ready to interpret key presses/dialed digit.
DND/NO MORE	The called station is in DND or has no free CALL buttons.
ERROR TONE	An error has been made.
HOLD/CAMPON	This is the system-generated hold tone.
MSGWAT TONE	This is the dial tone heard at an SLT with a message waiting.
RGBACK TONE	The called station is ringing.
RING TONE	This is the CO ring cadence.
TRSFER TONE	This is the dial tone heard when the transfer key is pressed or an SLT hook flashes.
DID RGBACK	This is the ringback tone heard by the outside party when they dial a DID number.

DEFAULT DATA

TONE		ON	OFF	ON	OFF
00. BUSY TONE		500	500	500	500
01. CONFM/BARGE	50	50	50	50	
02. DIAL TONE		1000	250	1000	250
03. DND/NO MORE	250	250	250	250	
04. ERROR TONE		250	250	250	250
05. HOLD/CAMPON	500	3500	500	3500	
06. MSGWAT TONE	CONTINUOUS TONE				
07. RGBACK TONE	1000	2000	1000	2000	
08. RING TONE		1000	2000	1000	2000
09. TRSFER TONE	100	100	100	100	
10. DID RNGBACK	1000	2000	1000	2000	

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 506
   Display shows

BUSY TONE
CONTINUOUS TONE

2. Dial tone number from above list (0-9, e.g., 9)
   OR
   Press UP or DOWN key to select tone

TRSFER TONE
INTERRUPT TONE

3. Dial tone option 0 for CONTINUOUS or

1 for INTERRUPT
OR
Press UP or DOWN key to select tone control and press RIGHT soft key to advance to step 4
OR
Press LEFT soft key to return to step 2

TRASFER TONE
INTERRUPT TONE

4. Dial new value for interrupt times (must be four digits)
Press RIGHT soft key to advance cursor
Press LEFT soft key to retreat cursor
If valid entry, system returns to step 2

TRSFER TONE: 0100
9900 0100 9900

5. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

508 CALL COST

Allows the system administrator to program Call Cost parameters so the call cost can be calculated from number of Meter Pulses received by the DCS-VIP from the network. The call cost can be displayed on the LCD during a call or as an SMDR record. Attributes are listed below.

0. UNIT COST PER MP	This value is multiplied by the number of Meter Pulses to calculate Call Cost.
1. CALL COST RATE	The Call Cost is multiplied by this value to give the final Call Cost.

Caution
Changing this value when there is call in progress may result in an inaccurate call cost.

DEFAULT DATA

UNIT COST PER MP	200 PENCE (K)
CALL COST RATE	100 PERCENT

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 508
Display shows

UNIT COST PER MP
0200 PENCE

2. Dial 0 or 1
   OR
   Press UP or DOWN key for selection and
   press RIGHT soft key to move cursor

```
UNIT COST PER MP
0200 PENCE
```

3. Enter new value (e.g. 111 for 111 percent)
   System returns to step 2

```
CALL COST RATE
100%      111
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

```
CALL COST RATE
111% →
```

RELATED ITEMS
NONE

510 SLI RING CADENCE

Provides the ability to customize the ring cadence for SLI ports on a system-wide basis. There are 5 cadences available. Please call Technical Support before changing any cadences as some peripheral systems may require default settings.

CADENCE NAME	DESCRIPTION
1. STN RING	This is the cadence intercom calls will ring at.
2. TRUNK RING	This is the cadence trunk calls will ring at.
3. DOOR RING	This is the cadence doorphone calls will ring at.
4. ALARM RING	This is the cadence alarm reminder calls will ring at.
5. CBK RING	This is the cadence call backs will ring at.

DEFAULT DATA

	ON	OFF	ON	OFF
1. STN RING	400	200	400	2000
2. TRUNK RING	1000	2000	1000	2000
3. DOOR RING	400	100	400	2000
4. ALARM RING	200	200	200	2000
5. CBK RING	200	200	200	4000

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 510
   Display shows

```
1. STN RING:0400
0200 0400 3000
```

2. Dial cadence number from above list (e.g., 3)

OR
Press UP or DOWN key to select and press
LEFT soft key to advance to step 3

3: DOOR RING: 0400
0100 0400 2000

3. Dial new value for interrupt times (must be four digits)
Press RIGHT soft key to advance cursor
Press LEFT soft key to retreat cursor
If valid entry, system returns to step 2

3: DOOR RING 0100
9900 0100 9900

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

600 ASSIGN OPERATOR GROUP

Used to assign members to the operator group. There are several options that can be selected for ringing, overflow, group transfer and overflow destination. A maximum of 30 members are allowed in one group for sequential or distributed ring, and 10 members for unconditional ring. The operator group is automatically assigned group number 500.

FEATURE KEYS

0	RING	Ring mode
1	OVERFLOW	Overflow time
2	GRP TRSF	Group transfer time
3	NEXT PORT	Overflow port
4	MEMBER	Group member (e.g., station 202)

RING MODES

0 SEQUENTIAL
The first idle station listed in the group will ring. If the first is busy, the next idle station will ring.
1 DISTRIBUTE
The first call will ring the first station listed in the group. The next call will ring the next station listed in the group
2 UNCONDITION
All the stations listed in the group will ring. Busy stations will receive off-hook ring (Max. 10 stations ringing).

DEFAULT DATA
RING : UNCONDITION
OVERFLOW : 030 SEC
GRP TRSF : 045 SEC
NEXT PORT : NONE
MEMBER : NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 600
   Display shows

```
[500] OPER. GROUP
RING: UNCONDITION
```

2. Dial feature option (0-4, e.g., 3)
   OR
   Press RIGHT soft key to select option and
   move cursor to next step

```
[500] OPER. GROUP
NEXT PORT: NONE
```

3. Press RIGHT soft key to move cursor

```
[500] OPER. GROUP
NEXT PORT: NONE
```

4. Dial value for port (e.g., 205)
   If valid entry, system returns to step 2

```
[500] OPER. GROUP
NEXT PORT: 205
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 211	DOOR RING ASSIGNMENT
MMC 212	ALARM RINGING STATION
MMC 406	TRUNK RINGING ASSIGNMENT
MMC 601	ASSIGN STATION GROUP
MMC 602	STATION GROUP NAME

601 ASSIGN STATION GROUP

This MMC is used to build all station groups except the operator group (for the operator group see MMC 600). The options for setting up these groups are as follows.

TYPE: This is the type of group you are creating and can be one of the following:

0. NORMAL GROUP: Used to assign stations in a ring group. The members can be stations, common bell contacts or Ring over Page relays.

1. VMAA GROUP: Used to group a number of voice mail port extensions. These must have been defined in MMC 207 as VMAA ports or they cannot be entered here. Check all programming in MMC 726 to ensure that the In-band DTMF codes are properly set.

RING MODE: Each group can have one of the following ring modes. This will decide how calls are sent to the group.

0. SEQUENTIAL: The stations listed as members (see below) will be called on a “first available” basis. Calls will first go to the first member; if the first member is busy, calls will go to the second member; if the second member is

busy, calls will go to the third member, etc. This type of group is useful for placing the bulk of the incoming calls with a selected individual (the first member), with other members only getting the calls when the first member is busy.

1. DISTRIBUTED: The first call will go to the first member, the second call will go to the second member, the third call will go to the third member, and so on. This type of group is useful for evenly distributing the calls among all group members.

2. UNCONDITIONAL: Calls are placed with all group members simultaneously. This reduces the number of members of the group to 10. If a group member is busy, they can receive off hook ring if defined in MMC 300.

This ring mode option is not available for UCD of VMAA groups.

OVERFLOW:
This is a timer that will cause unanswered calls to a group to begin also ringing the NEXT PORT (see below) after this timer has elapsed. If set to 000, no overflow will take place.

GRP TRANSFER:
This is a timer that will determine how long C.O. calls transferred to the group will ring there before recalling. If set to 000, no recall will take place.

NEXT PORT:
This is the station or group number that callers will also ring at if the OVERFLOW feature has been programmed.

MEMBER:
List all members that are to be in the group. Up to 20 members are allowed in each group, but stations can be assigned to multiple station groups.

Note
When a group is called, or a caller is transferred to a group, ringback is sent to the caller. A busy signal will not be returned even if all group members are busy. Calls to a group do not follow the call forwarding instructions of any stations in the group.

FEATURE KEYS

0	TYPE	Group type (Normal, VM/AA)
1	RING	Ring mode (Sequential, distributed or unconditional)
2	OVERFLOW	Overflow time (000-250 secs.)
3	GRP TRSF	Group transfer time (000-250 secs.)
4	NEXT PORT	Overflow port (Any station, common bell or ring over page)
5	MEMBER	Group members (e.g., station 202, 225, 231)

RING MODES

0 SEQUENTIAL
The first idle station listed in the group will ring. If the first is busy, the next idle station will ring.

1 DISTRIBUTED
The first call will ring the first station listed in the group. The next call will ring the next station listed in the group.

2 UNCONDITIONAL
All the stations listed in the group will ring. Busy stations will receive off-hook ring. (Max. 20 stations ringing)

```
DEFAULT DATA

TYPE              : NORMAL GRP
RING              : DISTRIBUTE
OVERFLOW  : 030 SEC
```

GRP TRSF : 045 SEC
NEXT PORT : NONE
MEMBER : NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 601
   Display shows

[501] STN. GROUP
TYPE: NORMAL GRP

2. Dial group number (e.g., 505)
   OR
   Press UP or DOWN key to select group
   Press LEFT soft key to move cursor to type
   of group and dial group type (0-2, e.g., 1)

[505] STN. GROUP
TYPE: NORMAL GRP

   OR
   Press UP or DOWN key to make selection
   Press LEFT soft key to move cursor to TYPE

[505] STN GROUP
TYPE: VMAA

3. Dial feature option number (0-6, e.g., 0)
   OR
   Press UP or DOWN key to make selection
   Press RIGHT soft key to move cursor to
   ring value

[505] STN GROUP
RING: SEQENTIAL

4. Dial ring option (0-2, e.g., 1)
   OR
   Press UP or DOWN key to make selection
   Press LEFT soft key to take cursor
   back to RING or press RIGHT soft key to
   return to step 2

[505] STN GROUP
RING: DISTRIBUTE

5. Dial next feature option and continue
   OR
   Press UP or DOWN key to select option
   OR
   Press LEFT soft key to return to step 2

[505] STN GROUP
RING: DISTRIBUTE

6. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 300 CUSTOMER ON/OFF PER STATION

602 STATION GROUP NAME

Allows the system administrator or technician to enter a name (up to 11 characters) to identify an individual station group.
Names are written using the keypad. Each press of a key will select a character. Pressing the next key will move the cursor to the next position. For example, if the directory name is "SAMSUNG," press the number "7" three times to get the letter "S." Now press the number "2" once to get the letter "A." Continue selecting characters from the table below to complete your message. Pressing the bottom left programmable key will change the letter from upper case to lower case.

Note
When the character that you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right or the DOWN key to move the cursor left.

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	Space	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

The # key can be used for the following special characters: #, space, &, !, :, ?, ., %, $, -, <, >, /, =, [,], @, ^, (,), _, +, {, }, |, ;, \, " and ~.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 602
Display shows

[501] SGR NAME

2. Dial group number (e.g., 505)
OR
Press UP or DOWN key to make selection
Press LEFT or RIGHT soft key to move cursor

[505] SGR NAME

3. Enter name using above method and table

[505] SGR NAME
SAMSUNG

4. Press LEFT or RIGHT soft key to return to step 2
OR
Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 104	STATION NAME
MMC 404	TRUNK NAME
MMC 600	ASSIGN OPERATOR GROUP
MMC 601	ASSIGN STATION GROUP

603 ASSIGN TRUNK GROUP

Allows the assignment of trunks to a specific trunk group or to several trunk groups. This is very useful for programming of LCR when more than one trunk is to be in several dialing plans. There are two different modes of operation: (1) sequential and (2) distribute.

Caution
As stated above, one trunk can appear in more than one trunk group. If necessary, delete the trunk member from other groups to prevent accidental access.

DEFAULT DATA

MODE : SEQUENTIAL
MEMBER : Group 9 : ALL TRUNK
Remaining trunk groups : NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 603
Display shows

[9] TRK GROUP
MODE: SEQUENTIAL

2. Enter valid trunk group (e.g., 9, 80-83)
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to advance cursor

```
[81] TRK GROUP
MODE: SEQUENTIAL
```

3. Press RIGHT soft key to change mode
   OR
   Press UP or DOWN key to change MODE to MEMBER

```
[81] TRK GROUP
MEMBER 01: NONE
```

4. Press RIGHT soft key to move cursor to
   number of member and enter valid member
   number (1-80, e.g., 05) via dial keypad
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to move cursor

```
[81] TRK GROUP
MEMBER 05: NONE
```

5. Enter valid trunk number (e.g., 729)
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to move cursor

```
[81] TRK GROUP
MEMBER 01: 710
```

6. Repeat steps 1-6 to remove trunk from
   group 9 if necessary

7. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
LCR PROGRAMMING
TENANT PROGRAMMING

604 ASSIGN STATION TO PAGE ZONE

Allows the technician to assign a keyset to any of the four internal paging zones and all page (page + *). The total number of keysets that can receive a page is limited to 16. A keyset may be assigned to more than one zone.
The assignment is controlled by the use of class marks. If a keyset is flagged as "1" in a zone column, it will receive pages for that zone. If the keyset is flagged as "0", it will not receive pages for that zone. Keysets can receive pages for more than one zone.

DEFAULT DATA

ENTRY	: STN	: 1234
01	: NONE	: 0000

PROGRAM KEYS

UP & DOWN	Used to scroll through options

KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 604
   Display shows

```
ENTRY : STN : 1234*
01 : NONE : 00001
```

2. Enter index number (01-16, e.g., 05)
   via dial keypad
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to move cursor

```
ENTRY : STN : 1234*
05 : NONE : 00001
```

3. Enter station number (e.g., 205) via dial
   keypad
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to move cursor

```
ENTRY : STN : 1234*
05 : 205 : 00001
```

4. Move cursor under page zone desired by
   pressing UP or DOWN key, and enter the digit
   '1' under zone
   Press RIGHT soft key to
   return to step 2 to continue with entries

```
ENTRY : STN : 1234*
05 : 205 : 01001
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

606 ASSIGN SPEED BLOCK

Provides a means of adding or deleting speed dial blocks to the system or an individual keyset. With the ability to delete a block or blocks of speed dial, it will not be necessary to waste these on such items as voice mail, DPIMs or stations that do not require the ability to use speed dial. The Free List will show how many bins are left to be assigned.
A library of up to 250 speed dial numbers may be allocated as needed. The system list can have up to 50 numbers and each station can have up to 5 numbers. Speed dial numbers are assigned in blocks of 10. Each speed number may contain up to 24 digits.

DEFAULT DATA
SYSTEM : 20

STATIONS : 1

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
TRSF	Used to exit programming

ACTION DISPLAY

1. Press TRSF 606
   Display shows

```
FREE LIST : 20
SYSTEM : 20
```

2. Press RIGHT soft key to advance to next line

```
FREE LIST : 20
SYSTEM : 20
```

3. Use UP or DOWN key to select SYSTEM or EXT
   Press RIGHT soft key to advance cursor

```
FREE LIST : 20
EXT201 : 1
```

4. Enter the number of blocks.
   OR
   Press the UP or DOWN key to select the number of blocks

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 705	ASSIGN SYSTEM SPEED DIAL
MMC 706	SYSTEM SPEED DIAL BY NAME

608 ASSIGN REVIEW BLOCK

Provides a means of adding or deleting CID/ANI review blocks to an individual keyset. With the ability to delete a block or blocks or speed dial, it will not be necessary to waste these on such items as voice mail, DPIMs or keysets that do not have displays. The Free List will show how many bins are left to be assigned. The system has 400 total bins. Each keyset may be assigned a maximum of 10 bins.

DEFAULT DATA
STATIONS: NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
TRSF	To exit programming

ACTION DISPLAY

1. Press TRSF 608
   Display shows first station

```
[201] REVW BLOCK
NONE: 1000 FREE
```

2. Enter desired station number (e.g. 205)
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to advance cursor

```
[205] REVW BLOCK
NONE: 1000 FREE
```

3. Enter valid number for bins (e.g. 5)
   OR
   Press UP or DOWN key to make selection
   OR
   Press HOLD key to delete bin(s)

```
[205] REVW BLOCK
50 : 950 FREE
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 119 CALLER ID / ANI DISPLAY
MMC 312 ALLOW CLIP

700 COPY COS CONTENTS

This MMC allows the technician to duplicate a class of service to make it easier to have multiple similar classes of service.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
"F" KEY	Used to advance to MMC 701

ACTION DISPLAY

1. Press TRSF 700
   Display shows

```
COPY COS ITEMS
COS 01 → COS 01
```

2. Dial selected COS to copy (e.g., 05)
   OR
   Press UP or DOWN key to select COS and
   press RIGHT soft key to move cursor and

advance to next step

```
COPY COS ITEMS
COS 05 → COS 01
```

3. Dial target COS (e.g., 06)
   OR
   Press UP or DOWN key to select COS
   Press RIGHT soft key to move cursor
   back to step 2

```
COPY COS ITEMS
COS 05 → COS 06
```

4. Press F key to advance to MMC 701 and
   press RIGHT soft key to advance cursor

```
COS CONTENTS (06)
TOLL LEVEL : A
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 701 ASSIGN COS CONTENTS

701 ASSIGN COS CONTENTS

Similar to MMC 700 but does not allow a copy command. This MMC is primarily used for creating a new class of service. If the unsupervised conference feature is allowed, a programmed CONF key must be available to allow reentry into a conference call.

Table A. DIAL DIGIT TOLL LEVEL

DIAL DIGIT	TOLL LEVEL
0	A
1	B
2	C
3	D
4	E
5	F
6	G
7	H

Table B. COS USE Feature List by Option Number

000. AA CALER : Auto answer control by caller*
003. AUTO RDL : Retry on busy
004. CALLBACK : Callback
005. CID ABND : Caller ID Abandon*
006. CID INQR : Caller ID Inquire*
007. CID INVT : Caller ID Investigate*
008. CONFER. : Conference
010. DAY/NIGHT : DAY/NIGHT Mode
011. DIRECT : Directory dial
013. DND : Do Not Disturb
015. DOOR : Door ring answer
016. DSS : Direct station select
017. DTS : Direct trunk select
019. EXT FWD : External call forward
020. FEATURE : Feature key

```
021.  FLASH        : Trunk flash
022.  FOLLOW-ME    : Call forward-follow me
023.  FORWARD      : Call forwarding
025.  GRP I/O      : Group in/out
026.  HOLD         : Hold
027.  HOT LINE     : Hot line
028.  INTERCOM     : Intercom call
029.  MESSAGE      : Message
030.  MM PAGE      : Meet me page
031.  NEW CALL     : New call
032.  OHVAED       : Ohvaed
033.  OHVAING      : Ohvaing
035.  OPERATOR     : Operator
036.  OUT TRSF     : Outgoing transfer
037.  OVERRIDE     : Override
038.  PAGE 0       : Page zone 0  PAGING
039.  PAGE 1       : Page zone 1  PAGING
040.  PAGE 2       : Page zone 2  PAGING
041.  PAGE 3       : Page zone 3  PAGING
042.  PAGE 4       : Page zone 4  PAGING
049.  PICKUP       : Call pickup
052.  SECURE       : Override secure
053.  SSPD TOL     : System speed dial toll check
054.  STN LOCK     : Station locking
056.  SYS SPD      : System Speed Dial
058.  UNCO CNF     : CO to CO conference
```

Table C. CALL STN Group
Table D. CALL TRK Group

```
DEFAULT DATA
TOLL LEVEL
COS:     01       02       03       04       05       06       07       08
         A         B        C        D        E        F        G        H

OTHERS LEVEL:     A

FEATURE
DND               : NO
EXT AREC          : NO
EXT FWD           : NO
FOLLOW-ME         : NO
FORWARD           : NO
OUT TRSF          : NO
OVERRIDE          : NO
STS MSG           : NO
TRK AREC          : NO
UNCO CNF          : NO
OTHERS            : YES

PROGRAM KEYS
UP & DOWN         Used to scroll through options
KEYPAD            Used to enter selections
SOFT KEYS         Move cursor left and right
SPK               Used to store data and advance to next MMC

ACTION   DISPLAY
```

1. Press TRSF 701
   Display shows

```
COS CONTENTS (01)
TOLL LEVEL: A
```

2. Dial COS (e.g., 06)
   OR
   Press UP or DOWN key to select COS
   Press RIGHT soft key to move cursor to toll level

```
COS CONTENTS (06)
TOLL LEVEL: A
```

3. Dial toll level (e.g., 2-see above list)
   OR
   Press UP or DOWN to select new toll level
   OR
   Press RIGHT soft key to advance to COS options

```
COS CONTENTS (06)
TOLL LEVEL: C
```

4. Dial COS option (e.g., 09-see Caller ID option list or Basic option list)
   OR
   Press UP or DOWN key to select option
   Press RIGHT soft key to move cursor

```
COS CONTENTS (06)
09 : DND : YES
```

5. Dial 0 for NO or 1 for YES
   OR
   Press UP or DOWN key to select option
   Press LEFT soft key to return to step 4
   Press RIGHT soft key to return to step 2

```
COS CONTENTS (06)
09 : DND : NO
```

6. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 700 COPY COS CONTENTS

702 TOLL DENY TABLE

Provides a way to make toll restriction (call barring) very easy and flexible. There are 250 entries allowed in the deny table and each entry index can be assigned to a class of service. Each index can have up to 12 digits. With the use of wild cards (MMC 704 Assign Wild Character), more flexibility can be built into toll restriction. Wild cards can be used repeatedly in the dial string, limited only to what is allowed or denied in MMC 704. There are six toll levels, B-G, that are programmable. Toll level A is set as unrestricted by default and toll level H is set as in-house only by default.

WILD CARD KEY

BUTTON	DIAL	WILD CARD
19	0	X
20	1	Y
21	2	Z

DEFAULT DATA

ENTRY	: DIGIT	: B	C	D	E	F	G
001	: 00X	: 1	1	1	1	1	1
002	: 0X	: 0	1	1	1	1	1
003	: 101	: 0	1	1	1	1	1
004	: 7008X	: 0	1	1	1	1	1
005	: X	: 0	0	1	1	1	1
OTHERS	:	: 0	0	0	0	0	0

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 702
   Display shows

```
DENY (001) : BCDEFG
:000000
```

2. Dial index number 001-250 (e.g., 005)
   OR
   Press UP or DOWN key to select index and

```
DENY (005) : BCDEFG
:000000
```

   press RIGHT soft key to move cursor and
   enter toll pattern via dial keypad (e.g., 212)

```
DENY (005) : BCDEFG
212 :000000
```

   OR
   Enter wild card (e.g., 21X) from above list
   and press RIGHT soft key to move cursor to
   COS options

```
DENY (005) : BCDEFG
21x :000000
```

3. Press UP or DOWN key to move cursor
   along line until under toll class mark (e.g., E)
   Enter a 1 for YES or 0 for NO and press
   RIGHT soft key to return to step 1
   OR
   Press LEFT soft key to return to step 2

```
DENY (001) : BCDEFG
```

```
212 000100
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 703	TOLL ALLOWANCE TABLE
MMC 704	ASSIGN WILD CHARACTER

703 TOLL ALLOWANCE TABLE

Provides a way to make toll restriction (call barring) very easy and flexible. There are 250 entries allowed in the deny table and each entry index can be assigned to a class of service. Each index can have up to 12 digits. With the use of wild cards (MMC 704, Assign Wild Character), more flexibility can be built into toll restriction. There are six toll levels, B-G, that are programmable. Toll level A is set as unrestricted by default and toll level H is set as in-house only by default.

WILD CARD KEY

BUTTON	DIAL	WILD CARD
19	0	X
20	1	Y
21	2	Z

DEFAULT DATA

ENTRY	: DIGIT	: B	C	D	E	F	G
001	: 011X	: 1	1	0	0	0	0
002	: 012X	: 1	1	0	0	0	0
003	: 015X	: 1	1	0	0	0	0
004	: 016X	: 1	1	0	0	0	0
005	: 017X	: 1	1	0	0	0	0
006	: 018X	: 1	1	0	0	0	0
007	: 019X	: 1	1	0	0	0	0
008	: 080X	: 1	1	0	0	0	0
009	: 11X	: 1	1	1	1	1	1
OTHERS	:	: 0	0	0	0	0	0

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 703
   Display shows

```
ALOW (001)  BCDEFG
 000000
```

2. Dial index number 001-500 (e.g., 005)
   OR
   Press UP or DOWN key to select index and

```
ALOW (005)  BCDEFG
 000000
```

   press RIGHT soft key to move cursor and

enter toll pattern via dial keypad (e.g., 212)

```
ALOW (005)  BCDEFG
212 :000000
```

OR
Enter wild card (e.g., 21X) from above list and press RIGHT soft key to move cursor to COS options

```
ALOW (005)  BCDEFG
21x :000000
```

3. Press UP or DOWN key to move cursor along line until under toll class mark (e.g., E)
Enter a 1 for YES or 0 for NO and press RIGHT soft key to return to step 1
OR
Press LEFT soft key to return to step 2

```
ALOW (001)  BCDEFG
212  000100
```

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 702 TOLL DENY TABLE
MMC 704 ASSIGN WILD CHARACTER

704 ASSIGN WILD CHARACTER

Provides flexibility to toll restriction (call barring) when a specific numbering plan is desired. There are only three entry tables but more than one digit can be assigned per table if needed.

DEFAULT DATA

	0	1	2	3	4	5	6	7
	8	9	*	#				
X :	1	1	1	1	1	1	1	1
	1	1	1	1				
Y :	0	0	0	0	0	0	0	0
	0	0	0	0				
Z :	0	0	0	0	0	0	0	0
	0	0	0	0				

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 704
Display shows

```
012345678*#
x:000000000000
```

2. Press UP or DOWN key to select X,Y or Z
   Press RIGHT soft key to advance cursor
   to option line

```
012345678*#
z:0000000000000
```

3. Press UP or DOWN key to move cursor to
   option digit desired (e.g., 5) and enter the
   digit 1 under the desired digit
   If needed, place the digit 1 under one or
   more digits
   Press LEFT soft key to return to step 2
   OR
   Press RIGHT soft key to return to step 1

```
012345678*#
z:000001000000
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 702 TOLL DENY TABLE
MMC 703 TOLL ALLOWANCE TABLE

705 PROGRAM SYSTEM SPEED DIAL

Enables the assignment of system speed dialing numbers. There are up to 200 entries available for programming.
Each speed dial number consists of a trunk or trunk group access code followed by a separator and up to 24 digits to be dialed. These dialed digits may consist of 0-9, * and #. If the system recognizes a valid trunk or trunk group access number, it will automatically insert the separator.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
B	Used to insert a flash code "F"
C	Used to insert a pause code "P"
D	Used to insert a pulse/tone conversion code "C"
E	Used to mask/unmask following digits. shows as "[" or "]"
F	Used to enter name for speed dial bin (see MMC 706)

ACTION DISPLAY

1. Press TRSF 705
   Display show

```
SYS SPEED DIAL
```

```
500:
```

2. Dial desired speed index (e.g., 505)
   OR
   Press UP or DOWN key to make selection and press RIGHT soft key to move cursor

```
SYS SPEED DIAL
505:
```

3. Enter access code (e.g., 9/701) plus the phone number up to 18 digits (digits will scroll under) and press RIGHT soft key to return to step 2

```
SYS SPEED DIAL
505: 9-1212234567
```

4. Press F key to toggle to MMC 706, step 3 to enter name

```
SYS SPEED NAME
505:
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 706	SYSTEM SPEED DIAL BY NAME

706 SYSTEM SPEED DIAL BY NAME

Allows a name to be entered for each system speed dial location. There are 11 characters available for the speed dial name. This name enables the speed dial number to be located when using the directory dial feature. The directory dial feature allows the display keyset user to select a speed dial location by scanning its name.

Names are written using the keypad. Each press of a key selects a character. Pressing a different key moves the cursor to the next position. For example, if the directory name is "SAM SMITH," press "7" three times to get the letter "S". Press "2" once to get the letter "A." Continue selecting characters from the table below to complete your message. Pressing the "A" key will change the letter from upper case to lower case.

Note

When the character you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right.

The # key can be used for special characters: #, space, &, !, :, ?, ., %, $, -, <, >,

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	space	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

/, =, [,], @, ^, (,), _, +, {, }, |, ;, \. and ~.

DEFAULT DATA
NO NAMES

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
TRSF	Used to store and exit MMC

ACTION DISPLAY

1. Press TRSF 706
   Display shows

SYS SPEED NAME
500:

2. Dial system speed entry number (e.g., 505)
   OR
   Press UP or DOWN key to select entry number
   and press RIGHT soft key to move cursor

SYS SPEED NAME
505:

3. Enter name using dial keypad and above
   table and press RIGHT soft key to return to
   step 2

SYS SPEED NAME
505: SAMSUNG

   OR
   Press the F key to toggle to speed dial
   number to return to MMC 705, step 5

SYS SPEED DIAL
505

4. Press RIGHT soft key to return to step 2
   OR
   Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 705	ASSIGN SYSTEM SPEED DIAL

707 AUTHORIZATION CODE

Enables the authorization feature on a per-class of service selection. There are 20 available entries.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 707
   Display shows

AUTHOR.CODE (001)
CODE: COS: --

2. Dial code index number 001-020 (e.g., 005)
   OR
   Press UP or DOWN key to select index number and press RIGHT soft key to move cursor

AUTHOR.CODE (005)
CODE: _ COS: --

3. Enter authorization code (maximum four digits) via dial keypad (e.g., 1234) and press RIGHT soft key to move cursor

AUTHOR.CODE (001)
CODE: 1234 COS: --

4. Enter class of service number 01-10 (e.g., 05)
   OR
   Press UP or DOWN key to select COS and press RIGHT soft key to select and return to step 2

AUTHOR.CODE (001)

```
CODE 1234 COS 05
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 305	ASSIGN FORCED CODE

708 ACCOUNT CODE

Enables the account code entry feature. There are 200 available entries.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 708
   Display shows

```
ACCOUNT CODE
(001)
```

2. Dial code index number 001-200 (e.g. 005)
   OR
   Press UP or DOWN key to select index number and press RIGHT soft key to move cursor

```
ACCOUNT CODE
(005)
```

3. Enter account code (maximum 12 digits) via dial keypad (e.g. 123456789012) and press RIGHT soft key to move cursor back to step 2

```
ACCOUNT CODE
(005) 123456789012
```

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 305	ASSIGN FORCED CODE

710 LCR DIGIT TABLE

The LCR DIGIT TABLE contains all numerical digits for the completion of outgoing call placement. This table works in conjunction with LCR ROUTE TABLE, LCR TIME TABLE and LCR MODIFY DIGITS TABLE. There is a maximum of 500 entries with a digit string length of 10 numerical digits. This system will automatically maintain entered digit strings in numerical order. The characters * and # are also accepted

for use with feature codes.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 710
   Display shows

```
LCR DIGIT (001)
DIGIT:
```

2. Dial LCR entry ([001] - [500]) (e.g., 005)
   OR
   Press UP or DOWN to select entry and press
   RIGHT soft key to move cursor

```
LCR DIGIT (005)
DIGIT: _
```

3. Enter LCR digit string via the dial keypad and
   press RIGHT soft key
   OR
   Press LEFT soft key to return to step 1

```
LCR DIGIT (005)
DIGIT: 305426
```

4. Enter digit length (00-31); cursor will move
   to RT:
   Enter route selection (1-16)
   OR
   Press LEFT soft key to return to length value
   Valid entry will return you to step 1

```
LCR DIGIT (005)
LENGTH: 10 RT 01
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 310	LCR CLASS OF SERVICE
MMC 711	LCR TIME TABLE
MMC 712	LCR ROUTE TABLE
MMC 713	LCR MODIFY DIGIT TABLE

711 LCR TIME TABLE

This table gives flexibility to the system, through the LCR ROUTES, to allow calls placed at any given time of day to use the least cost trunk route that is available.

When LCR ROUTE ADVANCE is allowed, it is possible for calls to be placed on more expensive trunks on any given time of day. There are four possible time entries per day; the start time of the next time period is the end time of the previous time period.

FEATURE KEYS

DAY	VALUE
SUN	0
MON	1
TUE	2
WED	3
THU	4
FRI	5
SAT	6

TIME	BAND
A	0
B	1
C	2
D	3

LCRT	
LCRRT	1
LCRRT	2
LCRRT	3
LCRRT	4

DEFAULT DATA

NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 711
   Display shows

LCR TIME (SUN A)
HHMM: LCRT: -

2. Dial day of week (SUN-SAT, e.g., WED)
   OR
   Press UP or DOWN to make day selection
   and press RIGHT soft key to
   move cursor and advance to step 3

LCR TIME (WED A)
HHMM: LCRT: -

3. Dial time band (A-D, e.g., B)
   OR
   Press UP or DOWN to make time band
   selections and press RIGHT soft key to
   move cursor and advance to step 4

```
LCR TIME (WED B)
HHMM: LCRT: -
```

4. Dial time via keypad (24 hour format)
   Cursor moves to LCRT (see MMC 712)
   Dial entry 1-4
   System returns to step 2

```
LCR TIME (WED B)
HHMM 0800 LCRT: -
```

   OR
   Press UP or DOWN to select entry and
   press RIGHT soft key to
   return to step 1

```
LCR TIME (WED B)
HHMM 0800 LCRT 1
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 310	LCR CLASS OF SERVICE
MMC 710	LCR DIGIT TABLE
MMC 712	LCR ROUTE TABLE
MMC 713	LCR MODIFY DIGIT TABLE

712 LCR ROUTE TABLE

The LCR ROUTE TABLE has the responsibility for the selection of a specific trunk group in the completion of an outgoing call. This table works in conjunction with LCR DIGIT TABLE, LCR TIME TABLE, LCR COS TABLE and LCR MODIFIED DIGITS TABLE. After the user dials a valid digit string, the system will use the LCR ROUTE TABLE to select a specific predetermined trunk group. There is a maximum of 16 routes available beginning with ROUTE NUMBER 1. If more than one trunk group is available for call completion, the system will use the first designated trunk group and then start to utilize succeeding trunk groups. If all trunk groups are busy in a selected route, call queue will become active and allocate trunks as they become available.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 712
   Display shows

```
LCR ROUTE (01-16)
C 1 G NONE M ---
```

2. Dial LCR ROUTE index number 01-16 (e.g., 05)
   OR
   Press UP or DOWN to select index and press RIGHT soft key to move cursor and advance to step 3

```
LCR ROUTE (05 1)
C 1 G NONE M ---
```

3. Dial TIME BAND index number 1-4 (e.g., 2)
   OR
   Press UP or DOWN to select index and press RIGHT soft key to move cursor and advance to step 4

```
LCR ROUTE (05 2)
C 1 G NONE M ---
```

4. Dial LCRCOS number 1-4 (e.g., 4)
   OR
   Press UP or DOWN to select COS and press RIGHT soft key to move cursor and advance to step 5

```
LCR ROUTE (05 2)
C 4 G NONE M ---
```

5. Dial TRUNK GROUP access code ([9] , [80] ~ [83]) (e.g., 81)
   OR
   Press UP or DOWN to select access code and press RIGHT soft key to move cursor and advance to step 6

```
LCR ROUTE (05 2)
C 4 G 81 M ---
```

6. Dial MODIFY DIGITS index number 001-100 (e.g., 050)
   OR
   Press UP or DOWN to select index number and press RIGHT soft key to move cursor

```
LCR ROUTE (05 2)
C 4 G 81 M 050
```

   OR
   Press RIGHT soft key to enter NO index number

```
LCR ROUTE (05 2)
C 4 G 81 M ---
```

7. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 310 LCR CLASS OF SERVICE

```
MMC 710          LCR DIGIT TABLE
MMC 711  LCR TIME TABLE
MMC 713  LCR MODIFY DIGIT TABLE
```

713 LCR MODIFY DIGIT TABLE

This program entry is also referred to as Outdial Rules. This l gives the system the ability to add or delete a digit string or single digit if needed to complete a call. A good example is the adding of a digit "1". An advantage is to insert a common carrier network access code of 10288 (ATT®). With these digits inserted, a long distance call will be placed over a local line utilizing the common carrier network. The characters * and # can also be entered. There are 100 modify digit entries available in the DCS-VIP.

```
OPTION                      MAXIMUM NUMBER OF DIGIT ENTRIES
Number of digits to delete  15
Insert (before dialing string)       14
Append (after dialing string)        14

DIGIT STRING KEY
Insert String + Digit String(delete) + Append String

DEFAULT DATA
NONE

PROGRAM KEYS
UP & DOWN       Used to scroll through options
KEYPAD          Used to enter selections
SOFT KEYS       Move cursor left and right
SPK             Used to store data and advance to next MMC
HOLD            Used to clear previous entry

ACTION   DISPLAY

1.       Press TRSF 713
         Display shows

LCR MODIFY (001)
NOF DEL DGT:00

2.       Enter index number (e.g., 005)
         OR
         Press UP or DOWN keys to make selection
         and press RIGHT soft key to move cursor

LCR MODIFY (005)
NOF DEL DGT:00

3.       Enter number of digits to delete
         OR
         Press RIGHT soft key to skip step and move
         cursor to step 4

LCR MODIFY (005)
INS:

4.       Enter digits to be inserted (e.g., 10288)
         OR
         Press RIGHT soft key to skip step or to store
         information and advance to step 5
```

```
LCR MODIFY (005)
INS 10288_
```

5. Enter digits to be appended (e.g., 45678)
   OR
   Press RIGHT soft key to skip step or to store information and return to step 2

```
LCR MODIFY (005)
APP _
```

6. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

```
RELATED ITEMS
MMC 310  LCR CLASS OF SERVICE
MMC 710           LCR DIGIT TABLE
MMC 711  LCR TIME TABLE
MMC 712  LCR ROUTE TABLE
```

714 DID NUMBER AND NAME TRANSLATION

Assigns an incoming DID call to a specific ring plan destination. It also provides a call waiting option, if needed, so that a second incoming DID call can be received. An name up to 11 characters can be added to the number. There are a maximum of 100 entries in the DCS-VIP. If there is no matching number on the DID service, the call is routed to the operator group.

Options are as follows:

1. DGT: = Digits to be received.
2. RING PLAN : Destination in day/night mode (a station, a station group, a trunk or a trunk group). Repeat (B) will be acceptable to bypass.
3. CW: = Call Waiting Yes/No. Allow a second DID call to be received.
4. DELETE: The number of digits to delete. This is useful with mixed numbering plans and DID Pass Through. Maximum number of digits that can be deleted is 3.
5. NAME = Input up to 11 characters to identify call.

Names are written using the keypad. Each press of a key selects a character. Pressing the dial keypad moves the cursor to the next position. For example, if the directory name is "SAM SMITH," press "7" three times to get the letter "S." Press "2" once to get "A." Continue selecting characters from the table below to complete your message. Pressing the bottom left programmable key changes the letter from upper case to lower case.

```
Note
When the character you want appears on the same dial pad key as the previous
character, press the UP key to move the cursor to the right.
```

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	space	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

The # key can be used for special characters: #, space, &, !, :, ?, ., %, $, -, <, >, /, =, [,], @, ^, (,), _, +, {, }, |, ;, \ and ~.

DEFAULT DATA
NO ENTRIES

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 714
   Display shows

```
DID DIGIT (001)
DGT:
```

2. Enter valid index number, e.g. 005,
   via dial keypad
   OR
   Press UP or DOWN key to make selection
   Press RIGHT soft key to move cursor

```
DID DIGIT (005)
DGT:
```

3. Enter digits to be translated (e.g. 5065)
   via dial keypad and press RIGHT
   soft key to move cursor

```
DID DIGIT (005)
DGT: 5065
```

4. Enter station or group number for each Ring
   Plan destination via dial keypad (e.g. 530)
   OR
   Press UP or DOWN key to make selection
   Press RIGHT soft key to advance to next

Press RIGHT soft key to ENTER and
move cursor

DID DIGIT (005)
1:530 2:

5. Press UP or DOWN key to make selection or
select 1 for YES, or 0 for NO via dial keypad
Press RIGHT soft key to advance to step 6

DID DIGIT (005)
CW:NO DELETE:0

6. Enter the number of digits to be deleted via dial keypad
OR
Press UP or DOWN key to select digits to be deleted and
press RIGHT soft key to move cursor

DID DIGIT (005)
CW:YES DELETE:0

7. Enter name using above table and
press RIGHT soft key to return to step 2

8. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
TRUNK PROGRAMMING

715 PROGRAMMED STATION MESSAGE

Allows custom messages to be programmed or default messages to be changed. Messages are written via the keypad. Each press of a key will select a character. Pressing a different key will move the cursor to the next position. For example, if the message is "Sunbathing," press the number "7" three times to get the letter "S." Now press the number "8" twice to get the letter "U." Continue selecting characters from the table below to complete your message. Pressing the "A" key will change the letter from upper case to lower case.

Note
When the character you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right or the DOWN key to move the cursor to the left. A space can be entered by using these keys.

The # key can be used for special characters: #, space, &, !, :, ?, ., %, $, -, <,

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	space	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

>, /, =, [,], @, ^, (,), _, +, {, }, |, ;, \. and ~.

There are 30 messages. They fall in the following categories:

MESSAGES 01-10 (16-character default messages): These are preprogrammed messages. Any of them can be changed.
MESSAGES 11-20 (16-character blank messages): These are blank messages that can be created.

DEFAULT DATA
01. GIVE ME THE CALL
02. TAKE A MESSAGE
03. ASK THEM TO HOLD
04. SEND TO MY VM
05. TRSF TO MY SECY
06. LEAVE A MESSAGE
07. PAGE ME
08. OUT OF TOWN
09. IN A MEETING
10. I WILL CALL BACK
MESSAGES 11-20 ARE 16-CHARACTER BLANK MESSAGES

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
"A" KEY	Toggles from upper case to lower case

ACTION DISPLAY

1. Press TRSF 715
Display shows

PGM MESSAGE (01)
INA MEETING

2. Enter index number ([01] ~ [20]) (e.g., 11)
OR
Press UP or DOWN arrow to make selection
Press RIGHT soft key to move cursor

PGM MESSAGE (11)
_

3. Enter message via dial keypad using the
above table (maximum 16 characters)
Use "A" key to toggle upper case/lower case
Press RIGHT soft key to return to step 2

PGM MESSAGE (11)
SunBathing

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 115 SET PROGRAMMED MESSAGE

716 UK LCR Option

718 MY AREA CODE

This MMC defines the home area code and country code for the DCS-VIP system. This information is used for Caller ID, ANI and ISDN calls in defining the area code on incoming calls. This MMC removes the local area code to allow callback without digit modifications in LCR.

Note
If 10-digit local dialing is used, My Area Code is not used. If 7-digit local dialing is used, My Area Code is used and removes the area code.

DEFAULT DATA
AREA : NONE
COUNTRY : 44(UK)

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter DN of selected device
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 718
   Display shows

MY AREA CODE
AREA :

2. Dial 0 for area code or 1 for country code
   OR
   Use UP or DOWN key to scroll and
   press RIGHT soft key to move cursor

MY AREA CODE
COUNTRY:44

3. Enter the desired country code or area code via
   dial keypad and press RIGHT soft key to enter
   (If you wish to enter the country code and area code again, repeat step 2)

4. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

720 COPY KEY PROGRAMMING

Provides a tool for duplicating key assignments from one keyset to another. This can be done on a per-station basis or on all stations but not on a group of stations. One limitation is that you must copy a 24B keyset to a 24B keyset, a 12B keyset to a 12B keyset, a 7B keyset to a 7B keyset an AOM to an AOM and a 64BM to a 64BM.

DEFAULT DATA

NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 720
   Display shows

```
[201] COPY KEY
SRC PHONE:NONE
```

2. Enter station number to copy to (e.g., 205)
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key to move cursor

```
[205] COPY KEY
SRC PHONE:NONE
```

3. Enter station number to copy from (e.g 203)
   Cursor is returned to step 2
   OR Press UP or DOWN key to make selection

```
[205] COPY KEY
SRC PHONE:203
```

4. Press RIGHT soft key to return to step 2
   OR
   Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 107	KEY EXTENDER
MMC 721	SAVE STATION KEY PROGRAMMING
MMC 722	STATION KEY PROGRAMMING
MMC 723	SYSTEM KEY PROGRAMMING

721 SAVE STATON KEY PROGRAMMING

Provides a service tool which will minimize the accidental loss of programmable keys on an DCS-VIP keyset. The method of operation is simple - first the data is saved and then the station can be replaced with another station type or the keys can be reprogrammed to other features. Once testing or replacement is completed, the data can be restored to the station, providing the same type is in place.

```
Note
This program is not to be confused with SET RELOCATE (MMC 315). MMC 721 is for saving
and restoring the same device type at that port.
```

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 721
   Display shows

[201] SAVE KEY
RESTORE

2. Enter station number (e.g., 205)
   OR
   Press UP or DOWN key to make selection
   and press RIGHT soft key

[205] SAVE KEY
RESTORE

3. Press UP or DOWN key to make function
   selection (e.g., SAVE)

[201] SAVE KEY
SAVE

4. Press RIGHT soft key to enter data and return to
   step 2
   OR
   Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 107 KEY EXTENDER
MMC 722 STATION KEY PROGRAMMING
MMC 723 SYSTEM KEY PROGRAMMING

722 STATION KEY PROGRAMMMING

Allows the customizing of programmable keys on specific keysets, AOMs, or 64-button modules on the DCS-VIP system. For keysets, buttons 1 and 2 are set as CALL buttons by default. For AOMs and 64-button DSS boxes, all buttons are set as DS keys by default. Features are entered via the dial keypad by pressing the relevant number as shown in the table below. For example, for OHVA, the number 6 is pressed three times. If the BOSS key is required, press 2 for the first letter B and then use the UP or DOWN key to change the selection from BARGE to BOSS.

DIAL KEYPAD

Programmable Key Assignments

COUNT	1	2	3
DIAL 2	AAPLAY	BARGE	CALL
DIAL 3	DICT	DICT	FAUTO
DIAL 4	GPIK	HLDPK	IG
DIAL 5	LCR	LCR	LCR
DIAL 6	MMPA	NEW	OHVA
DIAL 7	PAGE	REJECT	SG
DIAL 8	TG	UA	

ABAND : ABANDONED CALL
ACCT : ACCOUNT
AN/RLS : ANSWER/RELEASE
BARGE : BARGE-IN
BLOCK : OHVA BLOCK
BOSS : BOSS/SECRETARY
CALL : CALL BUTTON
CAMP : STATION CAMP-ON
CANMG : MESSAGE CANCEL
CBK : CALLBACK
CLIP : CALLER ID/ANI*
CONF : CONFERENCE
CSNR : CALLER ID SAVE NUMBER REDIAL
DIR : DIRECTORY
DLOCK : DOOR LOCK
DND : DO NOT DISTURB
DP : DIRECT PICKUP
DROP : DROP
DS : DSS KEY
DT : DTS KEY
EP : EXISTING CALL PICKUP
FAUTO : FORCED AUTO ANSWER
FWRD : CALL FORWARD
GPIK : GROUP PICKUP
HDSET : HEADSET MODE
HLDPK : HOLD PICKUP
HOLD : HOLD
IG : IN/OUT OF GROUP
INQIRE : INQUIRE (CID*/ANI)
ISPY : CID/ANI SPY
LCR : LEAST COST ROUTING
LISTN : GROUP LISTENING
LNR : LAST NUMBER REDIAL
LOG : CALL LOGGING
MMPA : MEET ME PAGE ANSWER
MMPG : MEET ME PAGE
MS : MANUAL SIGNAL(Special Tone Service)
MSG : MESSAGE
MUTE : MUTE
NEW : NEW CALL
NIGHT : NIGHT SERVICE
NND : NAME NUMBER DATE (CID*/ANI)

NXT : NEXT (CID*/ANI)
OHVA : OFF-HOOK VOICE ANNOUNCE
OPER : OPERATOR
PAGE : PAGE
PAGPK : PICKUP PAGE HOLD
PMSG : PROGRAMMED STATION MESSAGE
PRB : PRIVACY RELEASE BRIDGE
REJECT : OHVA REJECT
RETRY : AUTO REDIAL ON BUSY
REVW : REVIEW (CID*/ANI)
SETMG : SET MESSAGE W/O RING
SG : STATION GROUP
SNR : SAVED NUMBER REDIAL
SPD : SPEED DIAL
STORE : STORE DISPLAYED NUMBER (CID*/ANI)
TG : TRUNK GROUP
TIMER : TIMER
VT : VOICEMAIL TRANSFER
* =

DEFAULT DATA

Default 24-Button Keyset with or without Display

01:CALL1	02:CALL2	03:NONE	04:NONE	05:NONE	06:TG9
07:NONE	08:NONE	09:NONE	10:NONE	11:NONE	12:NONE
13:NONE	14:NONE	15:NONE	16:NONE	17:NONE	18:NONE
19:CONF	20:SPD	21:LNR	22:PAGE	23:CBK	24:MSG

Default 12-Button Keyset

01:CALL1	02:CALL2	03:NONE	04:NONE	05:NONE	06:TG9
07:NONE	08:NONE	09:NONE	10:NONE	11:NONE	12:NONE

Default Add-On Module

01:DS	02:DS	03:DS	04:DS
05:DS	06:DS	07:DS	08:DS
09:DS	10:DS	11:DS	12:DS
13:DS	14:DS	15:DS	16:DS
17:DS	18:DS	19:DS	20:DS
21:DS	22:DS	23:DS	24:DS
25:DS	26:DS	27:DS	28:DS
29:DS	30:DS	31:DS	32:DS

Default 64-Button DSS Box

01:DS	02:DS	03:DS	04:DS
05:DS	06:DS	07:DS	08:DS
09:DS	10:DS	11:DS	12:DS
13:DS	14:DS	15:DS	16:DS
17:DS	18:DS	19:DS	20:DS
21:DS	22:DS	23:DS	24:DS
25:DS	26:DS	27:DS	28:DS
29:DS	30:DS	31:DS	32:DS
33:DS	34:DS	35:DS	36:DS
37:DS	38:DS	39:DS	40:DS
41:DS	42:DS	43:DS	44:DS
45:DS	46:DS	47:DS	48:DS
49:DS	50:DS	51:DS	52:DS
53:DS	54:DS	55:DS	56:DS
57:DS	58:DS	59:DS	60:DS
61:DS	62:DS	63:DS	64:DS

Default 7-Button Keyset

01:CALL1	02:CALL2	03:NONE
04:NONE	05:NONE	06:NONE
	07:MSG	

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 722
   Display shows

```
[201] KEY PROG.
01 CALL1 →
```

2. Enter selected station number (e.g., 205)
   OR
   Press UP or DOWN key to select station
   Press RIGHT soft key to move cursor

```
[205] KEY PROG.
01 CALL1 →
```

3. Enter selected key number (e.g., 18)
   OR
   Press UP or DOWN key to select key number
   Press RIGHT soft key to move cursor

```
[201] KEY PROG.
18 NONE → _
```

4. Using above chart, press dial keypad
   number to make selection

OR
Press UP or DOWN key to make selection
Press RIGHT soft key to advance cursor to
step 5 to enter extender if required or to return to step 2

```
[201] KEY PROG
18  NONE  →GPIK_
```

5. If required, enter extender (e.g., 03)
OR
Press UP or DOWN key to make selection
Press RIGHT soft key to return to step 2

```
[201] KEY PROG
18  NONE  →GPIK03
```

6. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 107	KEY EXTENDER
MMC 720	COPY KEY PROGRAMMING
MMC 721	SAVE STATON KEY PROGRAMMING

723 SYSTEM KEY PROGRAMMING

This MMC is much like MMC 722 (Station Key Programming). The main difference is that this MMC is system-wide rather than on a per-station basis. Features are entered via the dial keypad by pressing the relevant number as shown in the table below. For example, for OHVA, the number 6 is pressed three times. If the BOSS key is required, first press 2 for the first letter B and then use the UP or DOWN key to make the selection from BARGE to BOSS.

```
Note
Please remember that this program is system-wide.
```

DIAL KEYPAD

COUNT→	1	2	3
DIAL 2	AAPLAY	BARGE	CALL
DIAL 3	DICT	DICT	FAUTO
DIAL 4	GPIK	HLDPK	IG
DIAL 5	LCR	LCR	LCR
DIAL 6	MMPA	NEW	OHVA
DIAL 7	PAGE	REJECT	SG
DIAL 8	TG	UA	

TYPE OF SET

DIAL	0	24-BTN SETS
DIAL	1	12-BTN SETS
DIAL	2	7-BTN SETS
DIAL	3	32-BTN AOMS
DIAL	4	64-BTN AOMS

Programmable Key Assignments

ABAND : ABANDONED CALL
ACCT : ACCOUNT
AN/RLS : ANSWER/RELEASE
BARGE : BARGE-IN
BLOCK : OHVA BLOCK
BOSS : BOSS/SECRETARY
CALL : CALL BUTTON
CAMP : STATION CAMP-ON
CANMG : MESSAGE CANCEL
CBK : CALLBACK
CLIP : CALLER ID/ANI*
CONF : CONFERENCE
CSNR : CALLER ID SAVE NUMBER REDIAL
DIR : DIRECTORY
DLOCK : DOOR LOCK
DND : DO NOT DISTURB
DP : DIRECT PICKUP
DROP : DROP
DS : DSS KEY
DT : DTS KEY
EP : EXISTING CALL PICKUP
FAUTO : FORCED AUTO ANSWER
FWRD : CALL FORWARD
GPIK : GROUP PICKUP
HDSET : HEADSET MODE
HLDPK : HOLD PICKUP
HOLD : HOLD
IG : IN/OUT OF GROUP
INQIRE : INQUIRE (CID*/ANI)
ISPY : CID/ANI SPY
LCR : LEAST COST ROUTING
LISTN : GROUP LISTENING
LNR : LAST NUMBER REDIAL
LOG : CALL LOGGING
MMPA : MEET ME PAGE ANSWER
MMPG : MEET ME PAGE
MS : MANUAL SIGNAL(Special Tone Service)
MSG : MESSAGE
MUTE : MUTE
NEW : NEW CALL
NIGHT : NIGHT SERVICE
NND : NAME NUMBER DATE (CID*/ANI)
NXT : NEXT (CID*/ANI)
OHVA : OFF-HOOK VOICE ANNOUNCE
OPER : OPERATOR
PAGE : PAGE
PAGPK : PICKUP PAGE HOLD
PMSG : PROGRAMMED STATION MESSAGE
PRB : PRIVACY RELEASE BRIDGE
REJECT : OHVA REJECT
RETRY : AUTO REDIAL ON BUSY
REVW : REVIEW (CID*/ANI)
SETMG : SET MESSAGE W/O RING
SG : STATION GROUP
SNR : SAVED NUMBER REDIAL
SPD : SPEED DIAL
STORE : STORE DISPLAYED NUMBER (CID*/ANI)
TG : TRUNK GROUP
TIMER : TIMER
VT : VOICEMAIL TRANSFER

* =

DEFAULT DATA

Default 24-Button Keyset with or without Display

01:CALL1	02:CALL2	03:NONE	04:NONE	05:NONE	06:TG9
07:NONE	08:NONE	09:NONE	10:NONE	11:NONE	12:NONE
13:NONE	14:NONE	15:NONE	16:NONE	17:NONE	18:NONE
19:CONF	20:SPD	21:LNR	22:PAGE	23:CBK	24:MSG

Default 12-Button Keyset

01:CALL1	02:CALL2	03:NONE	04:NONE	05:NONE	06:TG9
07:NONE	08:NONE	09:NONE	10:NONE	11:NONE	12:NONE

Default Add-On Module

01:DS	02:DS	03:DS	04:DS
05:DS	06:DS	07:DS	08:DS
09:DS	10:DS	11:DS	12:DS
13:DS	14:DS	15:DS	16:DS
17:DS	18:DS	19:DS	20:DS
21:DS	22:DS	23:DS	24:DS
25:DS	26:DS	27:DS	28:DS
29:DS	30:DS	31:DS	32:DS

Default 64-Button DSS Box

01:DS	02:DS	03:DS	04:DS
05:DS	06:DS	07:DS	08:DS
09:DS	10:DS	11:DS	12:DS
13:DS	14:DS	15:DS	16:DS
17:DS	18:DS	19:DS	20:DS
21:DS	22:DS	23:DS	24:DS
25:DS	26:DS	27:DS	28:DS
29:DS	30:DS	31:DS	32:DS
33:DS	34:DS	35:DS	36:DS
37:DS	38:DS	39:DS	40:DS
41:DS	42:DS	43:DS	44:DS
45:DS	46:DS	47:DS	48:DS
49:DS	50:DS	51:DS	52:DS
53:DS	54:DS	55:DS	56:DS
57:DS	58:DS	59:DS	60:DS
61:DS	62:DS	63:DS	64:DS

Default 7-Button Keyset

01:CALL1	02:CALL2	03:NONE
04:NONE	05:NONE	06:NONE
	07:MSG	

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 723
   Display shows

```
SYS KEY PROGRAM
TYPE:24 BTN SETS
```

2. Enter the type of keyset via dial keypad (e.g., 0)
   OR
   Press UP or DOWN key to make selection and
   press RIGHT soft key to move cursor

```
SYS KEY PROGRAM
TYPE:24 BTN SETS
```

3. Enter key number to program (e.g., 18)
   OR
   Press UP or DOWN key to make selection and
   press RIGHT soft key to move cursor

```
SYS KEY PROGRAM
18 DS
```

4. Using above table, press dial keypad
   number to make feature selection (e.g. GPIK)
   OR
   Press UP or DOWN key to make selection
   Press RIGHT soft key to advance cursor to
   step 5 to enter extender if required
   OR
   Press LEFT soft key to return to step 3

```
SYS KEY PROGRAM
18 DS GPIK
```

5. If required, enter extender (e.g., 03)
   OR
   Press UP or DOWN key to make selection
   Press RIGHT soft key to return to step 2
   Press LEFT soft key to return to step 3

```
SYS KEY PROGRAM
18 DS  GPIK03
```

6. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 107 KEY EXTENDER
MMC 720 COPY KEY PROGRAMMING
MMC 721 SAVE STATON KEY PROGRAMMING

724 DIAL NUMBERING PLAN

This MMC allows the technician to change directory numbers for stations, trunks, station groups, trunk groups and feature access codes.

DIAL OPTION DESCRIPTION

0 STN DIAL NUM This is where station directory numbers are changed or assigned.
1 TRK DIAL NUM This is where trunk directory numbers are changed or assigned.
3 MISC DIAL NUM This is where directory numbers for ROUTER & MOH port are changed or assigned.
4 STNG DIAL NUM This is where station group numbers are changed or assigned.
5 TRKG DIAL NUM This is where trunk group numbers are changed or assigned.
6 FEAT DIAL NUM This is where feature access codes are changed or assigned. Dialing codes are entered via the dial keypad by pressing the relevant number as shown in the table below. For example, for OHVA, the number 6 would be pressed three times.

Note
Please remember that this program is system-wide.

7 SO STN DIAL NO. This is where directory numbers for BRI ports are changed or assigned. MMC 423 is used to assign BRI ports as stations or trunks.

DIAL KEYPAD

COUNT→	1	2	3
DIAL 2	AAPLAY	BARGE	CALL
DIAL 3	DICT	DICT	FAUTO
DIAL 4	GPIK	HDSET	IG
DIAL 5	LCR	LCR	LCR
DIAL 6	MMPA	NEW	OHVA
DIAL 7	PAGE	REJECT	SEGMA
DIAL 8	UA	UA	VDIAL
DIAL 9	WCOS	WCOS	WCOS

ABAND : ABANDONED CALL
ACCT : ACCOUNT
AUTH : AUTHORIZATION

BARGE : BARGE-IN
BLOCK : OHVA BLOCK
BOSS : BOSS/SECRETARY
CAMP : STATION CAMP-ON
CANMG : MESSAGE CANCEL
CBK : CALLBACK
CONF : CONFERENCE
DIR : DIRECTORY
DLOCK : DOOR LOCK
DND : DO NOT DISTURB
DP : DIRECT PICKUP
DROP : DROP
DS : DSS KEY
DT : DTS KEY
EP : EXISTING CALL PICKUP
FAUTO : FORCED AUTO ANSWER
FLASH : FLASH
FWRD : CALL FORWARD
GRPK : GROUP PICKUP
HDSET : HEADSET MODE
HLDPK : HOLD PICKUP
HOLD : HOLD
IG : IN/OUT OF GROUP
LCR : LEAST COST ROUTING
LISTN : GROUP LISTENING
LNR : LAST NUMBER REDIAL
MMPA : MEET ME PAGE ANSWER
MMPG : MEET ME PAGE
MSG : MESSAGE
MYGRPK : MY GROUP PICK UP
NEW : NEW CALL
NIGHT : NIGHT
OHVA : OFF-HOOK VOICE ANNOUNCE
OPER : OPERATOR
PAGE : PAGE
PAGPK : PICKUP PAGE HOLD
PMSG : PROGRAMMED STATION MESSAGE
REJECT : OHVA REJECT
SETMG : SET MESSAGE W/O RING
SLTMMC : SLT PROGRAMMING
SNR : SAVED NUMBER REDIAL
SPEED : SPEED DIAL
WCOS : WALKING COS

DEFAULT DATA

STN DIAL NUM : Running number from 201 according to the card installation
TRK DIAL NUM : Running number from 701 according to the card installation
VoIP is : 881,882
MISC DIAL NUM : 371
BGM : 371
ROUTER : 891,892
STNG DIAL NUMBER : 500~504
TRKG DIAL NUMBER : 9, 80~83
FEAT DIAL NUMBER :
ABAND : 64
ACCT : 47
AUTH : *
BARGE : NONE

```
BLOCK                    : NONE
BOSS                     : NONE
CAMP                     : 45
CANMG                    : 42
CBK                      : 44
CONF                     : 46
DIR                      : NONE
DIRPK                    : 65
DLOCK                    : 13
DND                      : 40
FAUTO                    : 14
FWD                      : 60
GRPK                     : 66
HDSET                    : NONE
HLDPK                    : 12
HOLD                     : 11
IG                       : 53
LCR                      : #
LISTN                    : NONE
LNR                      : 19
MMPA                     : 56
MMPG                     : 54
MSG                      : 43
MYGRPK                   : 28
NEW                      : NONE
OHVA                     : NONE
OPER                     : 0
PAGE                     : 55
PAGPK                    : 10
PMSG                     : 48
REJECT                   : NONE
SETMG                    : 41
SLTMMC                   : 15
SNR                      : 17
SPEED                    : 16
SO STN DIAL NO.          : 7801~7808
```

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 724
   Display shows

```
STN NUMBER NUMBER
BDLI01 201→
```

2. Dial option number to make selection (e.g., 2)
   OR
   Press UP or DOWN key to make selection and
   press RIGHT soft key to advance cursor

```
FEAT NUMBER PLAN
ABAND  64 →
```

3. Select feature via dial keypad (e.g., 7)

```
FEAT NUMBER PLAN
PAGE : 55 →_
```

Press UP or DOWN key to make selection
then press RIGHT soft key to advance cursor

```
FEAT NUMBER PLAN
OHVA :NONE →_
```

4. Enter digits (e.g., 63) via the dial keypad

```
FEAT NUMBER PLAN
OHVA :NONE → 63
```

5. Press LEFT soft key to enter changes and
continue to make changes

```
FEAT NUMBER PLAN
OHVA :NONE → 63
```

OR
Press RIGHT soft key to enter changes and return to step 2; if an error message appears indicating duplication of access code, enter 1 for YES (for change) or enter 0 for NO (for no change)

```
NUMBER IN USE
CHANGE? __ Y:1, N:0
```

6. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

ALL PROGRAMS AND FEATURES

725 SMDR OPTIONS

Allows the system administrator to select the information to be printed on the SMDR report. The following options may be selected.

```
Note
Items marked † only apply to systems with Caller ID software.
```

00. PAGE HEADER : This option determines whether a page header will print at the top of each page. This would normally be turned off if SMDR is being sent to a Call Accounting machine.
01. LINE PER PAGE : This option selects the length of each page to determine when to print the SMDR header. The number of lines may be in the range 01-99.
02. INCOMING CALL: This option determines whether incoming calls will print on SMDR.
03. OUTGOING CALL : This option determines whether outgoing calls will print on SMDR.
04. AUTHORIZE CODE : This option determines whether authorization codes will print on SMDR.
05. SMDR START TIME : Determines whether or not to print a phone call which is finished prior to SMDR start time.
06. IN/OUT GROUP : This option allows a message, IN GROUP or OUT

GROUP, to be printed in the digits dialed column each time a station enters or leaves a group.
07. DND CALL : This option allows a message, IN GROUP or OUT GROUP, to be printed in the digits dialed column each time a station enters or leaves DND.
08. WAKE-UP CALL : This option determines whether stations receiving an alarm reminder call will print on SMDR.
09. DIRECTORY NAME : This option allows the system administrator to enter a 16 character name which will appear on the SMDR header.
10. CALLER ID DATA : This option can be selected to print Caller ID data received from the Central Office on incoming calls . This option requires the use of a 132 column (wide carriage) printer or an 80 column printer set for condensed print.
11. ABANDON CALL : If this option is set to YES, unanswered calls for which CID information was received will print on SMDR.
13. NO. OF DIAL MASK : The number of digits not to be printed while dialing (maximum 18 digits)
INCOMMING ANSWER

The DIRECTORY NAME that appears on the SMDR header is programmed as follows. Names are written using the dial keypad. Each press of a key will select a character. Pressing the next key will move the cursor to the next position. For example, if the directory name is "SAM SMITH," press the number "7" three times to get the letter "S." Now press the number "2" once to get the letter "A." Continue selecting characters from the table below to complete your message.

Note
When the character you want appears on the same dial pad key as the previous character, press the right soft key to move the cursor to the right.

DEFAULT DATA

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	space	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

PAGE HEADER : YES
LINE PER PAGE : 60 LINE
INCOMING CALL : NO
OUTGOING CALL : YES
AUTHORIZE CODE : NO
SMDR START TIME : YES
IN/OUT GROUP : NO
DND CALL : NO
WAKE-UP CALL : YES
DIRECTORY NAME : NONE
CALLER ID DATA : NO
ABANDON CALL : NO
NO. OF DIAL MASK : 00
INCOMMING ANSWER : NO

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 725
   Display shows

PAGE HEADER
PRINT : YES

2. Dial the option number (e.g., 01)
   OR

LINE PER PAGE
66 LINE / PAGE

   Use the UP or DOWN key to scroll through the options and press the RIGHT or LEFT soft key to select option

3. Enter the number of lines per page in the range 01-99(e.g., 50)
   OR
   Use UP or DOWN to change number of lines and press the RIGHT or LEFT soft key to save the data and return to step 2

50 LINE / PAGE
LINE PER PAGE

OR
LINE PER PAGE
50 LINE / PAGE

THEN
50 LINE / PAGE
LINE PER PAGE

4. Press TRSF to exit
   OR
   Press SPK to exit and move to the next MMC

RELATED ITEMS
MMC 300 CUSTOMER ON/OFF PER STATION

726 VM/AA OPTIONS

This MMC is used to define all in-band DTMF codes sent to voice mail ports. These in-band codes can be 0-9, A, B or C, and perform two functions.

CALL AND TYPE INFORMATION
This is a DTMF signaling string sent to a voice mail port when the voice mail port answers a call. This DTMF information tells the voice mail port what type of call it is

receiving and where the call is coming from e.g. call has forwarded from extension 225.

CALL PROGRESS TONES
These are sent to the voice mail system to provide information about the progress of the call e.g. ringback, busy or disconnect.
Most voice mail systems can utilize DTMF in-band signaling for more efficient call processing. This MMC has many parameters that can be programmed according to the type of automated attendant and/or voice mail system connected.

CALL AND TYPE INFORMATION
The format of DTMF data sent to a VM/AA port is as follows:
[CALL TYPE] + [DN1] + [SEPARATOR] + [DN2]
and an example of this would be
[FORWARD ALL] from [225] on trunk [703]
Each field can be programmed individually as follows:

0. EXTENSION FOR DN1: If set to yes, when the voice mail auto attendant system answers a call the DCS will send data in the DN1 field indicating that a station is ringing the VM/AA port.
If set to no, when the voice mail auto attendant system answers a call the DCS will not send station data in the DN1 field.

1. TRUNK FOR DN1: If set to yes, when the voice mail auto attendant system answers a call the DCS will send data in the DN1 field indicating that a trunk is ringing the VM/AA port.
If set to no, when the voice mail auto attendant system answers a call the DCS will not send trunk data in the DN1 field.

2. EXTENSION FOR DN2: If set to yes, when the voice mail auto attendant system answers a call the DCS will send data in the DN2 field indicating that an originating station is ringing the VMAA port.
If set to no, when the voice mail auto attendant system answers a call the DCS will not send station data in the DN2 field.

3. TRUNK FOR DN2:If set to yes, when the voice mail auto attendant system answers a call the DCS will send data in the DN2 field indicating that an originating trunk is ringing the VMAA port.
If set to no, when the voice mail auto attendant system answers a call the DCS will not send trunk data in the DN2 field.

4. SEPARATOR: When both DN1 and DN2 are used, a digit defined here is sent between DN1 and DN2 so the VMAA system can determine where DN1 stops and where DN2 starts. The separator can be DTMF 0 through 9, A, B or C

5. DISCONNECT: This is the call progress digit sent to the VMAA port in place of a disconnect open. The digit defined here is sent three times.

6. CALL TYPE ID : This is the DTMF digit that is sent first in the in-band digit string and can identify any of the following call types:
0. DIRECT CALL
A call originating directly from another station in the system.
1. ALL FWD CALL
This indicates that a call was forwarded to the VM/AA port from a station with CALL FORWARD ALL set.
2. BSY FWD CALL
This indicates that a call was forwarded to the VM/AA port from a station with CALL FORWARD BUSY set.
3. NOA FWD CALL
This indicates that a call was forwarded to the VM/AA port from a station with CALL

FORWARD NO ANSWER set.
4. RECALL
A call is recalling the VM/AA port after being transferred and not answered.
5. DIR TRK CALL
A C.O. call has gone directly to VM/AA (e.g., trunk 717 DIL to VM/AA).
6. OVERFLOW
A call has OVERFLOWED to the VM/AA port from a station group.
7. DID CALL
A DID call has called the VM/AA port.
8. MESSAGE CALL
A message button or message reply feature code has been used to call the VM/AA port.

7. PROGRESS TONE ID

These are the DTMF codes that are sent to the VM/AA port in place of regular progress tones. For example, when a VM/AA port goes off hook to originate or transfer a call, instead of hearing normal dial tone, it will hear DTMF "BA".
Progress tones can greatly increase the efficiency of a VM/AA system because it is easier and quicker to detect DTMF than a busy, ringback or DND tone.

Progress tones can identify any of the following.

TONES	VALUE	
0.	DIAL TONE	BA
1.	BUSY TONE	4
2.	RNGBACK TONE	5
3.	DND NO MORE	6
4.	HDSET ANSWER	3
5.	SPKER ANSWER	2

GENERAL RULES

1. 201 is talking to a trunk and presses TRANSFER plus the station number, but the station is forwarded to VM/AA and VM/AA answers. When this happens, if 201 presses TRANSFER again to return to the trunk, the VM/AA port is not on hold. It is disconnected.

2. A VM/AA port leaves a message indication for a station. When the station returns the message, any available port in the VM/AA group should ring, not only the one that left the message.

3. A VM/AA port leaves a message for a station. When the station returns the message, the MESSAGE LED is not automatically turned off. If a VM/AA system turns on the MESSAGE LED, the VM/AA system must turn it off.

4. If DTMF call progress tones are not enabled, the system sends regular call progress tones (see Item #3).

5. When a VM/AA port calls a station that is in the AUTO ANSWER or VOICE ANNOUNCE mode, the keyset will be forced to ring.

6. All calls to a VM/AA port or group will ring with C.O. Line ringing cadence, not intercom ring cadence.

EXAMPLES OF VM/AA OPERATION (IN-BAND DTMF DIGIT STRING)

In the following example, all call and type data is turned on unless otherwise stated.
X is the separator digit, all-default values are used in these examples and [ ] means an item is not used.

A DIL 701 calls a VM/AA port or group:
[*] + [701] + [ ] + [ ]

In the above example, if C.O. information is not used:
[ ] + [ ] + [ ] + [ ] (Nothing is used)

DIL 701 calls a call-forwarded station (205):
[#] + [205] + [X] + [701]

In the above example, if forward information is not used:
[ ] + [205] + [X] + [701]

In the above example, if forward and DN2/C.O. information is not used:
[ ] + [205] + [ ] + [ ]

DIL 701 calls group 501 that overflows to VM/AA:
[#] + [501] + [x] + [701]

In the above example, if overflow information is turned off:
[ ] + [ ] + [ ] + [ ] (Nothing is sent)

A DID call rings the VM/AA directly:
[B] + [9999] + [ ] + [ ]
9999 are the DID digits from C.O.

In the above example, if DID information is turned off:
[ ] + [9999] + [ ] + [ ]

A station transfers (blind or screened) a call (C.O., DID or intercom) to VM/AA group or port. When the transferring station hangs up (blind transfer):
[ ] + [ ] + [ ] + [ ] (Nothing is sent)

A station (202) transfers a C.O. call (702) to a station (225) that is Call Forward All to a VM/AA group or port. When the transferring station hangs up (blind transfer)and the VM/AA group or port answers:
[#] + [225] + [x] + [702]

A station (202) transfers a C.O. call (702) to a group (501) that overflows to a VM/AA group or port:
[#] + [501] + [X] + [702]

In the above example, if overflow information is turned off:
[ ] + [ ] + [ ] + [ ] (Nothing is sent)

A station (205) calls a VM/AA port or group:
[*] + [205] + [ ] + [ ]

In the above example, if direct information is turned off:
[ ] + [ ] + [ ] + [ ] (Nothing is sent)

A station (205) calls using MESSAGE key:
[*] + [205] + [ ] + [ ]

In the above example, if message information s turned off:
[ ] + [ ] + [ ] + [ ] (Nothing is sent)

A call (702) recalls back from station 225 to the VM/AA group:
[#] + [225] + [x] + [702]
In the above example, if recall and DN2/CO information are turned off:
[ ] + [ ] + [ ] + [ ] (Nothing is sent)

DEFAULT DATA

EXT FOR DN1	: NO
TRK FOR DN1	: NO
EXT FOR DN2	: NO
TRK FOR DN2	: NO
SEPARATOR	: NO
DISCONECT SIGNAL	: NO
CALL TYPE ID	
DIRECT CALL	: NO
ALL FWD CALL	: NO
BSY FWD CALL	: NO
NOA FWD CALL	: NO
RECALL	: NO
DIR TRK CALL	: NO
OVERFLOW	: NO
DID CALL	: NO
MESSAGE CALL	: NO
PROGRESS TONE ID	
DIAL TONE	: NO
BUSY TONE	: NO
RINGBAK TONE	: NO
DND NO MORE	: NO
HDSET ANSWER	: NO
SPKER ANSWER	: NO

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used in some fields where a value is entered or deleted.
A	Used to input alpha character "A"
B	Used to insert alpha character "B"
C	Used to insert alpha character "C"

ACTION DISPLAY

1. Press TRSF 726
   Display shows

EXT FOR DN1
YES

2. Enter the option number from above list (e.g. 4)
   OR
   Press UP or DOWN key to make selection
   Press LEFT soft key to move cursor

SEPARATOR
NO

3. System will take you to the relevant step 4–11
   Enter 1 for YES or 0 for NO
   Press UP or DOWN key for selection
   Press RIGHT soft key to return to step 2

SEPARATOR
NO

4. If option 0 is selected at step 2

```
EXT FOR DN1
YES
```

5. If option 1 is selected at step 2

```
TRK FOR DN1
YES
```

6. If option 2 is selected at step 2

```
EXT FOR DN2
NO
```

7. If option 3 is selected at step 2

```
TRK FOR DN2
NO
```

8. If option 4 is selected at step 2
(A valid entry consists of digits 0-9 or alpha characters A-C)

```
SEPARATOR
NO
```

9. If option 5 is selected at step 2
(A valid entry consists of digits 0-9 or alpha characters A-C)

```
DISCONNECT SIGNAL
C
```

10. If option 6 is selected at step 2
(A valid entry consists of digits 0-9 or alpha characters A-C)
See above option list under CALL TYPE ID

```
CALL TYPE ID
DIRECT CALL : NO
```

11. If option 7 is selected at step 2
(A valid entry consists of digits 0-9 or alpha characters A-C)
See above option list under PROGRESS TONE ID

```
PROGRESS TONE ID
DIAL TONE    :B
```

RELATED ITEMS
MMC 207 ASSIGN VM/AA PORT

727 SYSTEM VERSION

Used to identify the software versions for all the key components of the DCS-VIP system. This is a read-only MMC.

YY.MM.DD Version #
YY: YEAR
MM: MONTH
DD: DATE

Version #: e.g. V1.00

MAIN VERSION : the version of Keyphone S/W.
ROUTER VERSION: the version of Router S/W.
VOIP VERSION : the version of VoIP S/W.

PROGRAM KEYS
SPK Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 727
Display shows

2. Press UP or DOWN key to select details of
all major software versions (shown sequentially for system boards).

3. Press TRSF to exit
OR
Press SPK to exit and move to the next MMC

RELATED ITEMS
NONE

728 CID/ANI TRANSLATION TABLE

Allows the system administrator or technician to associate a CID or ANI number received from the central office with a name programmed in this translation table. If there is no match between a received number and a name in this table, "no CID name" will be displayed.
The translation table consists of 500 entries with each entry comprised of a 10-digit telephone number and a 16-digit name.
Names are written using the keypad. Each press of a key will select a character. Pressing the next key will move the cursor to the next position. For example, if the directory name is "SAM SMITH," press the number "7" three times to get the letter "S." Now press the number "2" once to get the letter "A." Continue selecting characters from the table below to complete your message.

Note
When the character you want appears on the same dial pad key as the previous character, press the VOL UP key to move the cursor to the right.

DEFAULT DATA
NONE

COUNT	1	2	3	4	5
DIAL0	Q	Z	.	)	0
DIAL1	Space	?	,	!	1
DIAL2	A	B	C	@	2
DIAL3	D	E	F	#	3
DIAL4	G	H	I	$	4
DIAL5	J	K	L	%	5
DIAL6	M	N	O	^	6
DIAL7	P	R	S	&	7
DIAL8	T	U	V	*	8
DIAL9	W	X	Y	(	9
DIAL*	:	=	[	]	*

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 728
   Display shows

TRANSLATION (001)
DIGIT:

2. Dial entry number (e.g. 005)
   OR
   Use UP or DOWN to scroll through entries
   Press RIGHT soft key to select entry

TRANSLATION (005)
DIGIT:

3. Enter telephone number and press RIGHT
   soft key to advance to name entry
   OR
   Enter telephone number and press
   LEFT soft key to return to step 2

TRANSLATION (005)
DIGIT: 3054264100

4. Enter associated name as described
   above and press RIGHT or LEFT soft key
   to return to step 2
   OR
   Press TRSF to save and exit
   OR
   Press SPK to save and advance to next MMC

TRANSLATION (005)
SAMSUNG TELECOM

RELATED ITEMS

MMC 312	ALLOW CLIP
MMC 414	ASSIGN CID/ANI TRUNKS
MMC 420	ANI/DNIS OPTIONS
MMC 608	ASSIGN REVIEW BLOCKS
MMC 728	CID/ANI TRANSLATION TABLE

740 STATION PAIR

This MMC allows a station (or any other DCS-VIP extension) to be assigned as a Secondary keyset to another (Primary)keyset on the system. This will allow all features to be set or cancelled form either keyset and both keysets will ring when the Primary keyset receives a call.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 740
   Display shows

```
[201] PRIMARY
SECONDARY:NONE
```

2. Dial Primary station number (e.g. 205)
   OR
   Press UP or DOWN key to select and
   press RIGHT soft key to move cursor

```
[205] PRIMARY
SECONDARY:_NONE
```

3. Dial Secondary station number (e.g. 7903)

```
[205] PRIMARY
SECONDARY:7903
```

4. Press TRSF to exit
   OR
   Press SPK to exit and move to the next MMC

RELATED ITEMS
NONE

800 ENABLE TECHNICIAN PROGRAM

Used to open and close technician level programming. If programming is not opened and an attempt is made to access a system MMC, the error message "ACCESS DENIED" will be displayed.
A four-digit passcode is required to access this MMC. Each character can be digits 0-9 or *. When opened, this MMC enables access to all MMCs.

DEFAULT DATA
DISABLE TENANT : 1

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 800
   Display shows

```
ENABLE TECH.PROG
PASSCODE:
```

2. Enter passcode

```
ENABLE TECH.PROG
PASSCODE:4321
```

Correct code shows

```
ENABLE TECH.PROG
DISABLE TENANT: 1
```

Incorrect code shows

```
ENABLE TECH.PROG
PASSCODE ERROR
```

3. Press UP or DOWN to open or close
OR

```
ENABLE TECH.PROG
ENABLE TENANT: 1
```

Enter 1 to enable or 0 to disable
Press RIGHT soft key to move to tenant number and enter tenant number (1-2)

```
ENABLE TECH.PROG
ENABLE TENANT: 1
```

4. Press SPK to advance to MMC entry level

```
801  TEC.PASSCODE
SELECT PROG.ID
```

5. Enter the MMC desired (e.g., 209)

```
209  AOM MASTER
AOM NOT EXIST
```

6. To log out and return to MMC 800, press UP or DOWN key to select DISABLE TENANT:1
OR
Press SPK then TRSF to return to normal display
Programming option will time out

RELATED ITEMS

MMC 801 CHANGE TECHNICIAN PASSCODE

801 CHANGE TECHNICIAN PASSCODE

Used to change the passcode allowing access to MMC 800 (Enable Technician Program) from its current value.

Note
The passcode is four characters long. Each character can be digits 0-9 or *. The current or "old" passcode is required for this MMC.

DEFAULT DATA
4321

PROGRAM KEYS

KEYPAD	Used to enter passcodes
SPK	Save data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 801

```
TECH. PASSCODE
NEW CODE: _
```

2. Enter new passcode

```
TECH. PASSCODE
NEW CODE: ****
```

3. Enter new passcode again to verify

```
TECH. PASSCODE
VERIFY : ****
```

4. If passcode is correct, press RIGHT soft key to continue and enter desired MMC

```
TECH. PASSCODE
VERIFY SUCCESS
```

5. If pass code is incorrect

```
TECH. PASSCODE
VERIFY : FAILURE
```

6. System returns to step 2

```
TECH. PASSCODE
NEW CODE : ****
```

7. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC 800	ENABLE TECHNICIAN PROGRAM

802 CUSTOMER ACCESS MMC NUMBER

Allows the system administrator to have access to certain MMCs. For example, it is required that the system administrator have access to MMC 102 (Call Forward) for call forwarding but it is not required that the system administrator have access to MMC 710 (LCR Digit Table) for LCR dial plans. This MMC is for both tenants.

DEFAULT DATA

100.	STN LOCK	: YES
101.	STN CODE	: YES
102.	CALL FWD	: YES
103.	ANS MODE	: YES
104.	STN NAME	: YES

```
105.  SPD DIAL          : YES
106.  SPD NAME          : YES
107.  KEY EXT           : YES
108.  STN STS           : YES
109.  DAY FORM          : YES
110.  STN MISC          : YES
111.  RNG TONE          : YES
112.  ALM CLK           : YES
114.  STN VOL           : YES
115.  PMSG NO.          : YES
116.  ALM REM.          : YES
119.  C/A DISP          : YES
121.  LANGUAGE          : YES
201.  CUS. CODE         : YES
202.  CHG. CODE         : YES
206.  BARGE IN          :  NO
207.  VMAA POT          :  NO
208.  SLI RING          :  NO
209.  SET AOM           :  NO
210.  TEN. MISC         :  NO
211.  DOR RING          :  NO
300.  CUS. MISC         :  NO
301.  STN COS           :  NO
302.  PICK-UP GRP       :  NO
303.  BOS/SEC           :  NO
304.  TRK USE           :  NO
305.  FOR. CODE         :  NO
306.  HOT LINE          :  NO
308.  BGM SRC           :  NO
309.  STN MOH           :  NO
310.  LCR COR           :  NO
312.  ALLOW CID         :  NO
315.  SET RLOC          :  NO
316.  COPY USE          :  NO
318.  DIS. RING         :  NO
404.  TRK NAME          :  YES
502.  STN TIME          :  YES
505.  DAT/TIME          :  YES
507.  NIG TIME          :  YES
602.  SGR NAME          :  YES
705.  SPD DIAL          :  YES
706.  SPD NAME          :  YES
708.  ACC CODE          :  YES
715.  PGM MSG           :  YES
740.  STN PAIR          :  NO
OTHERS                  :  NO
```

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION	DISPLAY
1.	Press TRSF 802 Display shows

```
MMC TENANT: 1
100 STN LOCK YES
```

2. Enter desired tenant number (1 or 2) via dial keypad
   OR
   Press UP or DOWN key to make selection and press RIGHT soft key to move cursor

```
MMC TENANT: 1
100 STN LOCK:YES
```

3. Enter desired MMC number via dial keypad
   OR
   Press UP or DOWN key to make selection and press RIGHT soft key to move cursor

```
MMC TENANT: 1
102 CALL FWD:YES
```

4. Enter 1 for YES or 0 for NO via dial keypad
   OR
   Press UP or DOWN key to make selection and press LEFT soft key to return to step 3 to make additional entries

```
MMC TENANT: 1
102 CALL FWD:NO
```

5. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

804 SYSTEM I/O PARAMETER

Provides a means of assigning a system I/O port for use with one of the service types detailed below. There is one I/O port available on the DCS-VIP (see below).

PARAMETER OPTIONS

Dial 0	Service	Type of Service
Dial 1	Baud Rate	Speed
Dial 2	Char Length	Character Length
Dial 3	Parity	Parity Bit
Dial 4	Stop Bit	Stop Bit
Dial 5	Retry Count	Number of Retries
Dial 6	Wait Time	Message Wait Time

SERVICE TYPE	PORT 1		
Dial 00	NOT USED		NOT USED
Dial 02	SMDR	SMDR	
Dial 22	CONSOLE		CONSOLE

BAUD (SPEED)

Dial 0	1200 bps
Dial 1	2400 bps
Dial 2	4800 bps
Dial 3	9600 bps
Dial 4	19200 bps

Dial 5 38400 bps

CHARACTER LENGTH
Dial 7 7 bits
Dial 8 8 bits

PARITY
Dial 0 None
Dial 1 Odd
Dial 2 Even

STOP BIT
Dial 1 I bit
Dial 2 2 bit

DEFAULT DATA

	PORT1
SERVICE	: NOT USE
BAUD RATE	: 19200 BPS
CHAR LENGTH	: 8 BITS
PARITY	: NONE
RETRY COUNT	: 3
STOP BIT	: 1 BIT
WAIT	: 30 SEC
PWR CHECK	: OFF

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear entry (when valid)

ACTION DISPLAY

1. Press TRSF 804
   Display shows

SYS I/O PORT :1
SERVICE :PC-MMC

2. Enter desired port via dial keypad (e.g., 2)
   OR
   Press UP or DOWN key to make selection
   Press RIGHT soft key to move cursor

SYS I/O PORT :2
SERVICE :SMDR

3. Enter parameter desired via dial keypad
   (e.g., 7) from the above option list
   OR
   Press UP or DOWN key to make selection
   Press RIGHT soft key to move cursor

SYS I/O PORT :2
SIM PAIR :NONE

4. Enter station number of desired SIM via dial
   keypad (e.g., 2902)

OR
Press UP or DOWN key to display SIM(s)
Press RIGHT soft key to return to step 2

```
SYS I/O PORT  2
SIM PAIR  2902
```

5. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 725 SMDR OPTIONS

805 LEVEL & GAIN CONTROL

0. TX LEVEL CONTROL : There are eight (8) volume levels (LEVEL 0 –LEVEL 7) which can be controlled by the VOL UP and DOWN keys on the keyset. However, there are 11 possible levels in the system. With this MMC, users can select the desired eight levels.

1. TSW GAIN CONTROL : Allows the system administrator to set the level of TSW gain control for four time-switch connect types.
0. SLT -> SLT
1. SLT -> DTRK
2. DTRK -> SLT
3. DTRK -> DTRK

Caution

The db levels should be left at default settings. Changing some of these settings??

DEFAULT DATA

TX LEVEL CONTROL

LEVEL 0 : 0	LEVEL 4 : 3
LEVEL 1 : 1	LEVEL 5 : 5
LEVEL 2 : 2	LEVEL 6 : 6
LEVEL 3 : 4	LEVEL 7 : 7

TSW GAIN CONTROL

SLT -> DTRK	: + 0. 0	DTRK -> SLT	: + 0. 0
SLT -> SLT	: + 0. 0	DTRK -> DTRK	: + 0. 0

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear entry (when valid)
ANS/RLS	Used to select ALL

ACTION DISPLAY

1. Press TRSF 805
Display shows

```
TX LEVEL CONTROL
LEVEL 0 → 1
```

2. Press UP or DOWN key to select TX LEVEL

CONTROL or TSW GAIN CONTROL
Press RIGHT soft key to go to the volume level or TSW option

```
TX LEVEL CONTROL
LEVEL 0 → 1
```

3a. Press RIGHT soft key to go to the volume level
OR
Press UP or DOWN key to go to next volume level

```
TX LEVEL CONTROL
LEVEL 1 → 2
```

3b. Press RIGHT soft key to go to the TSW type
OR
Press UP or DOWN key to go to next TSW type

```
TSW GAIN CONTROL
SLT → ATRK:0dB
```

4a. Enter desired volume data via dial keypad
OR
Use UP or DOWN key to scroll data (00-10)

```
TX LEVEL CONTROL
LEVEL 1 → 3
```

4b. Press UP or DOWN key to select TSW gain data and
Press RIGHT soft key to go to 3b

```
TSW GAIN CONTROL
SLT → ATRK:+2dB
```

5. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

807 KEYSET VOLUME CONTROL

Allows the system administrator to set the level of keyset volume.

DEFAULT DATA

	DGP	AOM
KEY TONE VOL	: 1	1
SIDETONE VOL	: 1	1
HANDSET TX	: 5	5
MIC TX LEVEL	: 3	3
NOISE GUARD	: 8	8
NOISE THRES.	: 1	1
ALC THRES.	: 7	7
TX/RX THRES.	: 3	3
TX/RX COMP.	: 5	5

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear entry (when valid)

ANS/RLS Used to select ALL

ACTION DISPLAY

1. Press TRSF 807
Display shows

```
VOL. CONTROL : DGP
HANDSET VOL : 3
```

2. Press RIGHT soft key to select DGP
volume control.

```
VOL. CONTROL : DGP
HANDSET VOL : 3
```

3. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL. CONTROL : DGP
KEY TONE VOL : 1
```

4. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL. CONTROL : DGP
SIDE TONE VOL : 1
```

5. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL. CONTROL : DGP
HANDSET TX : 3
```

6. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL. CONTROL : DGP
MIC TX LEVEL : 3
```

7. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL. CONTROL : DGP
NOISE GUARD : 8
```

8. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL. CONTROL : DGP
NOISE THRES : 1
```

9. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL. CONTROL : DGP
ALC THRES : 1
```

10. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll next volume

```
VOL CONTROL : DGP
TX/RX THRES : 1
```

11. Press RIGHT soft key to change the volume level
OR
Use UP or DOWN key to scroll to next volume

```
VOL CONTROL : DGP
TX/RX COMP : 1
```

12. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
NONE

809 SET SYSTEM MMC LANGUAGE

Allows the system administrator to assign an LCD display based on the system programming language.

0. ENGLISH
1. GERMAN

Note
As soon as changes are made in a programming language, the changed language is displayed.

DEFAULT DATA
ENGLISH

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC

ACTION DISPLAY

1. Press TRSF 809
Display shows

```
SYS MMC LANGUAGE
ENGLISH
```

2. Enter 0 for ENGLISH or 1 for GERMAN
OR
Press UP or DOWN to make selection and press RIGHT soft key

```
SYS MMC LANGUAGE
GERMAN
```

3. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS

NONE

810 HALT PROCESSING

Used only in the event that all data processing needs to be stopped.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections

ACTION DISPLAY

1. Press TRSF 810
   Display shows

HALT/PROCESSING
PROCESSING

2. Press UP or DOWN key to make selection
   OR
   Dial selection using above option menu
   Press RIGHT soft key

HALT/PROCESSING
HALT

3. Press TRSF to store and exit
   OR
   Press SPK to store and advance to next MMC

RELATED ITEMS

MMC	811	RESET SYSTEM

811 RESET SYSTEM

Provides two methods for restarting the system. The first method restarts the system and clears all memory. The second method restarts the system only. If "clear memory" is selected, all data will return to default values .

Caution
Extreme care should be taken when using this MMC. If the system is restarted, all voice/data connections are dropped. If memory is cleared, all customer data is deleted and the system returns to default status.

Note
The program can operate without selecting the program enable mode in MMC 800 (ENABLE TECHNICIAN PROGRAM)
In this case the technician password should be entered.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

ACTION DISPLAY

1. Press TRSF 811
Display shows

SYSTEM RESTART
RESET SYSTEM?NO

2. Press UP or DOWN key to make selection
(RESET SYSTEM or CLEAR MEMORY)
After selection is made, press RIGHT
soft key to move cursor to YES/NO option

SYSTEM RESTART
CLEAR MEMORY?NO

3. Press UP or DOWN key to make selection
and press RIGHT soft key

SYSTEM RESTART
CLEAR MEMORY?YES

4. Press UP or DOWN key to make selection
and press RIGHT soft key

Caution: If you select YES to clear memory, this erases all data in the system

SYSTEM RESTART
ARE YOU SURE?YES

5. System will return with default time and
date and default extension number
OR
If system is restarted only, it will return to
normal programmed status

RELATED ITEMS

MMC 810	HALT PROCESSING
MMC 812	SET COUNTRY

812 SET COUNTRY

Caution
This MMC must be set by the installer before nay other progrmming is carried out.

Allows the system installer to select the system software country version. Options are: UK and EU. After using this MMC, the installer must restart the system to make the selection effective.

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

ACTION DISPLAY

1. Press TRSF 812
Display shows

```
SET COUNTRY CODE
UK
```

2. Press UP or DOWN key to make selection and
press RIGHT soft key

```
SET COUNTRY CODE
AUSTRALIA
```

3. Press UP or DOWN key to select YES or NO and
press RIGHT soft key

```
WARNING! RESTART
ARE YOU SURE?YES
```

Caution
If you select YES, this will restart the syste.

4. Press TRSF to store and exit
OR
Press SPK to store and advance to next MMC

RELATED ITEMS
MMC 811 RESET SYSTEM

818 BACK-UP DATA BASE

This allows you to back up the database (DB) for the Keyphone and VoIP in Flash memory. In general, KEYPHONE backs up DB at one minute cycle. However, in case of DB alteration back up data base is used to force KEYPHONE to back up DB. Options are:

1. Copy Keyphone DB to FLASH: Yes/No
2. Copy VOIP DB to FLASH : Yse/No

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

ACTION DISPLAY

1. Press TRSF 818
Display shows

2. Decide whether to operate Keyphone DB COPY or VOIP DB COPY.
Press UP or DOWN key to select COPY item (KP/VOIP)
and
press RIGHT soft key to move the cursor.

3. To copy the item, select YES or press ‘1’ .
If you press RIGHT or LEFT soft key you can move back to the former field.

4. Make sure again that you proceed DB COPY and select YES or press ‘1’ digit.

RELATED ITEMS
NONE

820 SET VOIP IP ADDRESS

This program is used if a VoIP board is installed in the system . You can set up the IP address for VoIP's call, the Gateway, and Subnet mask. You can program this MMC without setting up the program enable mode in MMC 800 (Enable Technician Program).

Note
Each entry for IP Address, Gateway, and Subnet mask cannot exceed the maximum 255. Also, when entering each field, leading zeros must always be entered, e.g. 165. 219. 079. 001.

Caution
VoIP board restarts if VoIP Address is changed.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

ACTION DISPLAY

1. Press TRSF 820
   Display shows

2. Select the item of IP Address, Gateway, Subnet mask.
   Press UP or DOWN key to select the restart method
   and decide on the item.
   Press RIGHT soft key to move the cursor.

3. Enter the value of IP Address, Gateway and Subnet mask.
   If you press RIGHT or LEFT soft key you can move back to the former field.

4. Setting is automatically made as soon as the last field of each item is entered.

5. When setting is finished, restart VoIP.
   Refer to MMC 822 for detailed information on how to restart VoIP.

RELATED ITEMS

MMC 822	VOIP/ROUTER RESTART

821 SET VOIP OPTION

This program is used if a VoIP board is installed in the system . You can set the data which general users must change among VOIP's environment set up data.

Note
Currently, there is only one item to choose: whether to make Imaginary tone heard when setting outgoing call against RING BACK TONE???

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

ACTION DISPLAY

1. Press TRSF 821
   Display shows

2. Press UP or DOWN key to select the option and press RIGHT soft key to move the cursor.
   (At present only RING BACK TONE item exists.)

3. Decide whether or not to set virtual tone. (YES/NO).

RELATED ITEMS
NONE

822 VOIP/ROUTER RESTART

Used to restart VOIP and ROUTER board.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

ACTION DISPLAY

1. Press TRSF 822
   Display shows

2. Press UP or DOWN key to select the board to restart and press RIGHT soft key to move the cursor.

3. Select whether to restart the board (YES/NO).

4. Confirm whether to restart the selected board or not (YES/NO)

RELATED ITEMS
NONE

823 SET CTI INFORMATION

Used to decide whether or not to set CTI IP Address, Port Number and Service Enable for CTI(Computer Telephony Interface) through Ethernet.

DEFAULT DATA
IP Address : NONE
CTI Port : 5000
CTI Enable : NO

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right

ACTION DISPLAY

1. Press TRSF 823
   Display shows

2. Press UP or DOWN key to select the item to set (IP Address or Port NO) and press RIGHT soft key to move the cursor.

3. Enter the value of IP Address/ CTI Port NO.
   Press RIGHT or LEFT soft key to move back to the former field.

Setting is automatically made as soon as the last field of each item is entered.

RELATED ITEMS
NONE

900 CLEAR PASSCODE

It is a program for A/S use to delete the passcode when the system program passcode is forgotten.
You are advised to change the password into the new one as the password is changed into the initial value once it is deleted.
There are two types of program to delete the password as follows.

0. TECH. CODE : Technician program password
1. CUS. 1 CODE : Tenant 1's customer program password

Caution
When you change the system program's password, you are advised to ask the vendor for help and consult specialists.

DEFAULT DATA
NONE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPK	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION DISPLAY

1. Press TRSF 900
   Display shows

2. Enter the passcode.

3. Enter the program type ([0] - [1])
   OR
   Press UP or DOWN key and select the program type and press RIGHT soft key.

4. Press HOLD key.

5. Press TRSF to store and exit

RELATED ITEMS

MMC 201	CHANGE CUSTOMER PASSCODE
MMC 801	CHANGE TECHNICIAN PASSCODE