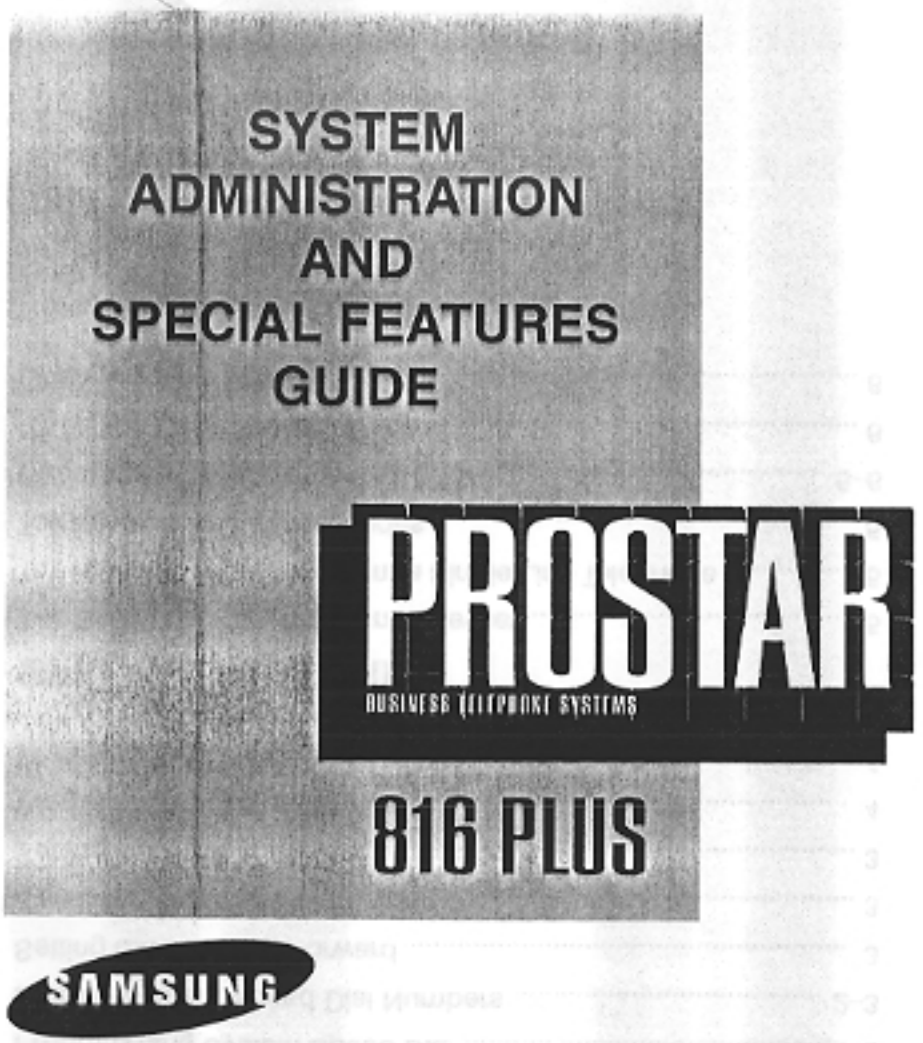


SYSTEM ADMINISTRATION AND SPECIAL FEATURES GUIDE

PROSTAR 816 PLUS

November 1994

TABLE OF CONTENTS

ABOUT THIS BOOK

This book contains instructions for special features that every telephone user may not need to know. The owner can decide who the system administrator will be and who will have access to these features. Station users can be trained on only the items that apply to them. This procedure will help control costs and telephone abuse.

Several of the features listed in this book are specific to the system operator or attendant position. You may have only one attendant or set your system up to be used without an operator.

The designated system administrator can access specific programs and modify some functions to better manage the PROSTAR 816 PLUS office telephone system. Instructions are detailed and easy to follow. When assistance is needed, contact your installation and service company.

SYSTEM ADMINISTRATOR PROGRAMMING

The following features can only be enabled at the designated attendant station or by customer programming under password control. It is recommended that a display keyset be used for all programming. If the attendant telephone is not a display keyset, one should be installed temporarily.

NIGHT SERVICE OPERATION

- Press the **MUTE/DND** button at the designated attendant station.
- The button flashes red to indicate the system is in night service operation.
- Press the **MUTE/DND** button again to turn night service off. The light stops flashing.

NOTES:

1. This will invoke night ring assignments for telephones.
2. The attendant station cannot use Do Not Disturb.

ENABLE CUSTOMER PROGRAMMING

- With the handset on-hook, dial **#06**. The display shows [MMC DISABLED].
- Dial the passcode and **1** and then dial **#**.

At this point, customer programming is open. Follow instructions as needed.

PROGRAMMING SYSTEM SPEED DIAL

Enable customer programming and then complete the following steps:

- Press the **ALM/SD** button.
- Dial the two digit code **10–98**.
- Dial the telephone number that you want stored under this code. Press the **HOLD** button to insert a three second pause and the **MSG** button to insert a hookflash.
- Press the **ALM/SD** button to store the number. Repeat this procedure for each number stored. Speed dial numbers 90–99 will not show in the display when used. These are for unlisted or private numbers. Speed dial code 99 is reserved for an external call forward number.

ERASING SYSTEM SPEED DIAL NUMBERS

Enable customer programming and then complete the following steps:

- Press the **ALM/SD** button.
- Dial the two digit code of number to be erased and press **HOLD**.
- Display shows [CLR] for three seconds and then returns to time and date.

NOTE: You may change any number by dialing over existing digits or erase completely and then reprogram.

SETTING EXTERNAL CALL FORWARD

When you wish to have incoming calls redirected out over another line to a specific telephone number, enable customer programming and then complete the following steps:

A. Enable each line to be forwarded.
   - Dial **#45**. The display shows [00000000] indicating all eight lines in the system.
   - Dial new data (eight digits).
     0 = Do not call forward this line
     1 = Call forward this line
   - Dial **#** to set new data.

B. Assign the outgoing line and the telephone number to be dialed.
   - Press the **ALM/SD** button.
   - Dial speed dial code **99**.
   - Dial line group access code **09**, **80** or **81–88** for a specific line to be used (**81** = Line 1; **88** = Line 8).
   - Dial the telephone number to be forwarded to.
   - Press **ALM/SD** to store the number.

NOTE: Repeat procedure B to change the call forward destination. External forwarding works regardless of day or night mode operation.

CANCELING EXTERNAL CALL FORWARD

Follow procedure A under "Setting External Call Forward." Setting the line or lines to **0** will cancel the feature.

SETTING THE DATE AND TIME

Enable customer programming and then follow the steps below:

- Dial **#55**. Display shows [YY MM DD W HH MM].
- Dial new information as follows:
  YY = Last two digits of the year
  MM = Month (01–12)
  DD = Day of the month (01–31)
  W = Day of the week (1–7; week begins on Monday and ends on Sunday)
  HH = Hour (use 24 hour clock)
  MM = Minutes (00–59)
- Dial **#** to set current date and time. The phone returns to normal use.

PROGRAMMING STATION NAMES

The attendant keyset may program all the names in the station directory list.

- With the handset on-hook, dial #. [PROGRAMMING] is displayed.
- Dial **14**. The display shows your extension number and any previously programmed name.
- To clear the current data, press **HOLD**.
- Press the DSS button to be named.
- Enter the name (ten characters maximum) by using the dial pad keys as detailed below.
- Press another DSS button and program the name.
- Dial # when all names have been entered.

		DIAL PAD KEY									
		1	2	3	4	5	6	7	8	9	0
NUMBER OF TIMES PRESSED	1	Q	A	D	G	J	M	P	T	W	:
	2	Z	B	E	H	K	N	Q	U	X	.
	3	*	C	F	I	L	O	R	V	Y	!
	4	1	2	3	4	5	6	7	8	9	0

EXAMPLE: To display the letter A, press 2 once.
To display the letter K, press 5 twice.
To display the number 8, press 8 four times.

NOTE: The following special keys are also used in this program.

*	=	Next	Use to advance the cursor one position to the right.
MSG	=	Space	Use to skip one cursor position on the right.
ALM/SD	=	Backspace	Use to move the cursor one position to the left.
HOLD	=	Clear	Use to clear current data.

PROGRAMMING LINE NAMES

Incoming calls can display a line identity when answered. To assign a name or directory ID for each outside line:

- Enable customer programming.
- With the handset on-hook, dial **#16**. [LINE DIRECTORY] is displayed.
- Press the outside line button to be named.
- Press the **HOLD** key to clear any previously entered data.
- Enter the directory ID using the dial pad buttons in the same manner as in "Programming Station Names" above.
- Press another line button and enter the ID.
- Dial # after all lines have been identified.

SPECIAL FEATURES

The following special features are not detailed in the *Keyset User Guide* or the *Standard Telephone User Guide*. Provide the following information to anyone who you want to have access to these features.

TOLL RESTRICTION OVERRIDE FROM A KEYSET

With an override code, you may make calls from a restricted station.

- With the keyset in the idle condition, dial **#00**.
- Dial the override code of the desired class.
- Dial #. You now have your desired class of service.
- Make the outside call within 30 seconds.
- Hang up and the station is returned to its restricted class of service.

TOLL RESTRICTION OVERRIDE FROM A SINGLE LINE TELEPHONE

With an override code, you may make calls from a restricted single line station.

- At a restricted station, dial **15**. You will receive fast busy tone.
- Dial the five digit code assigned for your level of calling. If it is dialed correctly, you will hear fast busy tone again.
- Hang up. This station is now the desired higher dialing class as determined by the code dialed.
- Within 30 seconds, lift the handset to make the call.

NOTE: This station will be returned to its original dialing class within 30 seconds after hanging up.

TOLL RESTRICTION OVERRIDE CODES

These are assigned by a technician because an understanding of the toll restriction classes programmed for your system is required.

DIRECT INWARD SYSTEM ACCESS (DISA)

Users may call in on specific lines programmed for DISA use and make intercom calls or use company lines to make outside calls.

- Call into the system on any line or lines designated for DISA use. You will receive dial tone.

- Dial the DISA security code within ten seconds.
- You will receive PROSTAR dial tone if the correct code is entered.
- Dial any internal extension number and hear ringing.
  OR
- Dial any line access code, receive outside dial tone and dial the telephone number.

The PROSTAR system can only connect two outside lines together for a preprogrammed period of time. You will hear a beep five seconds before the call will be disconnected. Dial ✱ within five seconds to start the timer again and continue the conversation.

NOTES:
1. You must use a tone telephone when calling into a DISA line.
2. Some loss of volume may be experienced when connecting two lines together.
3. Dial ✱ before you hear the beep to return to PROSTAR dial tone. You can now make another internal or external call as described above.

CHANGING DISA SECURITY CODE

To change the DISA security code, enable user programming and then follow the steps below:

- Dial # while on-hook. [PROGRAMMING] is displayed.
- Dial **65**. [DISA SECU CODE] is displayed, followed by the current four digit code.
- Dial the new four digit code.
- Dial # to save the new code.

CHANGING USER PASSWORD

To change the user password, enable user programming and then follow the steps below:

- Dial # while on-hook. [PROGRAMMING] is displayed.
- Dial **07**. [OLD PASSWORD] is displayed.
- Dial the current password. [NEW PASSWORD] is displayed.
- Dial the new four digit password.
- Dial # to save the new password.

SYSTEM ACCESS CODES

The PROSTAR 616 PLUS telephone system has preset (default) feature access codes that use the following number plan. These codes can be used if a key is not available for the feature you want to use. Standard telephone users must always dial these codes.

SINGLE LINE TELEPHONE ACCESS CODES

HF + 1	Callback
HF + 2	Call Offer
HF + 3	Unlock Door
HF + 4	Leave Message
HF + 6	System Hold

Dial own extension number plus:
- 1—Internal Zone 1
- 2—Internal Zone 2
- 3—Internal Zone 3
- 0—All Page

0	Call Attendant
5 + stn	Hold Retrieve
9	Line Group Access
11	Call Pickup
12	Meet Me Page
13	Call Door Phone 1
14	External Page
16	Call Door Phone 2
19 + ✱✱	System Speed Dial (✱✱ = Code 10–98)
71–73	Station Call Groups
80	Line Group Access
81–88	Individual Line Access

Hookflash (HF): A momentary depression of the hookswitch. You may press the FLASH button instead if it is available. Hookflash and dial 1 to make the system flash the outside line you are talking on. This is used for custom calling features or behind PBX use.

KEYSET ACCESS CODES

LINE GROUPS

LINE GROUP ACCESS
9 _____
80 _____

INDIVIDUAL LINE ACCESS
81 _____
82 _____
83 _____
84 _____
85 _____
86 _____
87 _____
88 _____

STATION GROUPS

71 _____
72 _____
73 _____

PAGING ZONES

INTERNAL PAGE ZONES
Dial own extension number plus

1	Internal Zone 1
2	Internal Zone 2
3	Internal Zone 3
0	All Page (all internal and external zones)

EXTERNAL PAGE ZONE

14	External Page (one zone only)

PROGRAMMED MESSAGES

01	DO NOT DISTURB
02	IN A MEETING
03	OUT OF TOWN
04	ON VACATION
05	OUT ON A CALL
06	OUT TO LUNCH
07	IN TOMORROW
08	PAGE ME
09	RETURN AFTERNOON
10	GONE HOME
11	_____
12	_____
13	_____
14	_____
15	_____
16	_____
17	_____
18	_____
19	_____
20	_____

FEATURE ACCESS CODES

0	Operator
3	Unlock Door
4	Redial Saved Number
5 + station	Hold Retrieve
#11 + station	Set Call Forward All
#11 + your station	Cancel Call Forward All
#12 + station	Set Call Forward Busy
#12 + your station	Cancel Call Forward Busy
12	Meet Me Page
13	Door 1
16	Door 2

UG-816P-SPF-01 11/94

TABLE OF CONTENTS

INSTALLATION SECTION

FIGURE NO. FIGURE NAME

PART 1. INTRODUCTION

1.1 INTRODUCTORY STATEMENT

This document is provided to explain the instructions and procedures required to install and connect the features of the PROSTAR 816 PLUS telephone system.

We recognize that there are as many installation practices as there are telephone systems. The instructions in the Installation Section refer to the preferred method of terminating all modular cables from the key service unit (KSU) to a typical punch-on connecting block (66M type). Connecting stations, lines and optional equipment directly to the same block or cross-connecting to a main distribution frame (MDF) is the installer's choice.

Whatever the method of connection, the modular plugs on all PROSTAR 816 PLUS KSUs provide for quick and easy isolation of field wiring from the KSU during troubleshooting.

Combining the instructions in this manual with proven installation practices will keep the PROSTAR 816 PLUS system working for many years to come.

PART 2. INSTALLATION REQUIREMENTS

2.1 SITE PLANNING

Select a KSU location that has enough space for easy installation, is well-ventilated and has adequate lighting. Select it to minimize station cable lengths. The maximum cable length is 1300 feet using 26 AWG cable for keysets. The equipment should not be exposed to direct sunlight, corrosive fumes, dust, constant vibration or strong magnetic fields such as motors, copy machines, etc.

A direct commercial AC power outlet is required. Do not use an extension cord. Ensure that all wires and cables going to and coming from the KSU are properly routed. Do not cross fluorescent lights or run parallel with AC wires. The equipment must be located within a temperature range of 32°–113°F (0°–40°C) and a humidity range of 10%–90%.

2.2 ELECTRICAL SPECIFICATIONS

INPUT
Commercial AC power source: 115V or 230V AC
90–130 VAC or 180–260 VAC
55–65 Hz Single Phase

OUTPUT	
Power outputs of main power supply	
+5V ± 5%: 1.0A DC	+30V max.: 1.0A DC
+12V ± 10%: 1.0A DC	+24V min.: 1.0A DC
-12V ± 10%: 0.2A DC	80V ± 10%: 1.0A AC

CURRENT DRAW	Maximum of 1 AMP
POWER DISSIPATION	Maximum of 60.5 watts
FUSE	Inspect main fuse for power rating. The PROSTAR power supply requires a 1 AMP fuse, 250V rating, fast acting.

WARNING: For continued protection against risk of fire, replace only with the same type and rating of fuse.

PART 3. INSTALLATION PROCEDURES

3.1 MOUNTING THE KEY SERVICE UNIT

1. Select a wall that is strong enough to support the weight of the KSU (maximum ten kg or 22.5 lb.).
2. Select hardware that will support the system when it is mounted. It is recommended that the KSU be mounted to a plywood backboard no less than ½ inch thick.
3. Secure with screws using the mounting holes in the KSU flanges on the right and left sides. Do not over-tighten or the slots on the left side of the KSU can be squeezed closed. Refer to Figure 1 (Key Service Unit Dimensions). If you are replacing an 816 KSU with an 816 PLUS KSU, the mounting screws will need to be adjusted.
4. Verify voltage at wall outlet. Inspect the AC selection switch for the proper setting. Plug in the KSU.

NOTE: For units wired for 240 VAC operation, use a HAR flexible cord assembly approved by the safety agency in the country of installation.

3.2 GROUNDING THE KEY SERVICE UNIT

1. The PROSTAR 816 PLUS system requires a solid earth ground to the KSU frame.
2. Failure to provide an adequate ground may cause confusing trouble symptoms or even circuit board failure.
3. In most cases in the US, the third wire ground at the AC power outlet will be satisfactory. If you are not sure of a good, solid ground on the third prong of an outlet, connect the grounding lug on the KSU to a ground rod or metal cold water pipe using 10 AWG solid copper wire. Refer to Figure 1.
4. Do not use both methods of ground. The National Electrical Code calls for only one path to ground. The third wire of the electrical cord must be disconnected from the KSU frame, taped and stored if an earth ground is applied to the grounding lug.

WARNING: Hazardous voltages may cause death or injury! Observe extreme caution when working with AC power line voltage.

3.3 CONNECTING TELEPHONE LINES TO THE KSU

Use the four wire (two pair) modular cables, 26 AWG, that are included with the KSU. One two pair cable is required to connect C.O. lines 1 and 2. Another cable is used for C.O. lines 3 and 4. To connect the KSU to C.O. lines 1 and 2 or C.O. lines 3 and 4:

1. The telephone company lines should be terminated on a connecting block or jack located near the KSU.
2. Identify each outside line number to ensure proper order of lines 1–8 when connected to the KSU.
3. Plug the modular jack at one end of the two pair cable into the modular connector on the KSU marked C.O. 1 and 2.
4. Connect the other end of the two pair cable to outside lines through a connecting block or appropriate jack at the MDF.
5. Use the same procedure for the connection of C.O. lines 3 and 4.

Refer to Figure 2 (Connections for C.O. Lines 1, 2, 3 and 4).

For connection of C.O. lines 5–8, a one pair cable is required for each C.O. line. To connect the KSU to C.O. lines 5, 6, 7 and 8:

1. Plug the modular jack at one end of the two pair cable into the modular connector on the KSU marked C.O. 5.
2. Connect the other end to outside line through a connecting block or an appropriate jack at the MDF.
3. Use the same procedure for the connection of C.O. lines 6, 7 and 8 respectively.

Refer to Figure 3 (Connections for C.O. Lines 5, 6, 7 and 8).

Connect an E & M tie line as shown in Figure 4 (E & M Tie Line Connections).

3.4 CONNECTING KEYSETS

A two pair twisted cable with a modular jack at one end is recommended for connecting keysets to the KSU. Ensure that the voice line (L-, L+) and data line (P-, P+) are correctly connected to the keyset. Make sure that the cable run length does not exceed 1300 feet using 26 AWG wire.

NOTE: All station cabling must be twisted pair.

To connect each keyset to the KSU:

1. Plug the modular cable into the KSU starting with station 1.
2. Connect the free end of the modular cable to a connecting block or appropriate jack at the MDF.
3. Repeat the same procedure for connection of stations 2–8.

4. As stations 7 and 8 are available for keyset or single line telephone operation, make sure that the jumper pins located on the 408 baseboard are positioned properly.

JUMPER PINS SETTINGS FOR KTS
JUMPER PINS J8 AND J9 ARE FOR STATION 7 (SET BOTH TO KTS)
JUMPER PINS J12 AND J13 ARE FOR STATION 8 (SET BOTH TO KTS)

NOTES:

1. When station 7 or 8 is used as a keyset port, ensure that the related power failure transfer relay for that circuit is strapped to OFF. Refer to Figure 14 (408 Baseboard). For port 7 (TTC1), set both J2 and J3 to OFF. For port 8 (TTC2), set both J4 and J5 to OFF. Power Failure Transfer (PFT) jumper pins have international labeling and are labeled TTC1 and TTC2 (Trunk Transfer Circuit) for circuits 1 and 2 respectively.

2. Baseboard production variations may incorporate dip switches in place of jumper pins. In all cases, ensure that settings are correct.

Refer to Figure 5 (816 Keyset Connections) for 816 keysets and Figure 6 (800 Keyset Connections) for 800 keysets.

3.5 CONNECTING SINGLE LINE TELEPHONES

A maximum of ten (10) single line telephones may be connected to the PROSTAR 816 PLUS: two (2) in the base cabinet (stations 7 and 8) and four (4) with each expansion Type II card installed.

A two pair twisted cable with a modular jack is required for connecting the single line telephones to the KSU. Make sure that the length of any cable run does not exceed a 480 ohm loop including the telephone. A typical 2500 set with 24 AWG wire will go approximately 5000 feet.

To connect single line telephones to the KSU:

1. Plug a modular cable into the KSU and connect the free end to a connecting block or appropriate jack at the MDF.
2. If either station 7 or 8 is to be used as a single line telephone, ensure that the corresponding jumper pins for each circuit are correct.
3. For stations 9–12 or stations 13–16 to be used as single line telephones, an expansion board (Type II) must be installed.

JUMPER PINS SETTINGS FOR SLT
JUMPER PINS J8 AND J9 ARE FOR STATION 7 (BOTH SET TO SLT)
JUMPER PINS J12 AND J13 ARE FOR STATION 8 (BOTH SET TO SLT)

NOTES:

1. There are no jumpers on expansion card Type II.
2. Do not connect the yellow or black leads of the single line telephone to the KSU.
3. Baseboard production variations may incorporate dip switches in place of jumper pins. In all cases, ensure that settings are correct.

Refer to Figure 7 (Single Line Telephone Connections).

3.6 INSTALLING EXPANSION BOARDS

A total of two expansion boards can be installed in the PROSTAR 816 PLUS KSU. The boards are the following:

TYPE I: Two loop start C.O. lines and four electronic keysets (Figure 8–A Expansion Board Type I 2CO/4KTS)

TYPE II: Two loop start C.O. lines and four single line telephones (Figure 8–B Expansion Board Type II 2CO/4SLT)

TYPE III: Two loop start C.O. lines or two E & M tie lines and four electronic keysets (Figure 8–C Expansion Board Type III 2CO/E&M/4KTS)

NOTE: Type I and Type II expansion cards have no strapping options. The Type III expansion card has a strapping option for each C.O. line circuit. Each circuit is selectable for a standard loop C.O. line or an E & M tie line using the jumper pin assignments in Figure 8–C.

Baseboard production variations may incorporate dip switches in place of jumper pins. In all cases, ensure that settings are correct.

JUMPER PINS SETTINGS		
	LINE 5 OR LINE 7	**LINE 6 OR LINE 8**
C.O.	Set the six (6) jumpers J1–J6 to the position marked "T"	Set the six (6) jumpers J7–J12 to the position marked "T"
E & M	Set the six (6) jumpers J1–J6 to the position marked "E"	Set the six (6) jumpers J7–J12 to the position marked "E"

Installing any expansion board in the top half of the KSU will provide for lines 5 and 6 and stations 9, 10, 11 and 12. Installing the second expansion board in the lower half of the KSU will provide for lines 7 and 8 and stations 13, 14, 15 and 16. The system must be expanded logically. Install the first expansion board in the top half of the KSU and add the second expansion board to the lower half of the KSU.

WARNING: Unplug the KSU from the AC outlet and disconnect the battery backup system before installing the expansion boards.

1. Remove four screws from either the top half or the lower half of the baseboard and replace them with metal standoffs provided in the expansion board packaging. Refer to Figure 9 (Key Service Unit Layout).
2. Set any jumpers required and connect one end of the flat ribbon cable to the expansion board. The ends of the ribbon cable are keyed to prevent incorrect insertion to sockets.
3. Position the expansion board with the modular connectors on the left and plug the other end of the ribbon cable into the correct connector on the 408 baseboard.
4. Fold any excess ribbon cable under and secure the expansion board with four screws.
5. Inspect your work. If everything is correct, connect the KSU to the wall outlet and reconnect the battery backup system if installed.
6. Connect additional lines and stations following the instructions in this section.

3.7 EXTERNAL PAGING CONNECTIONS

A modular cable with a jack at one end is recommended for connection of a customer-provided external paging system.

To connect the external paging system to the KSU:

1. Plug a three pair modular cable into the KSU connector labeled PAGE/RELAY.
2. Connect the voice pair, pins 3 and 4 (red and green wires), to the input of the amplifier. Paging output impedance is 600 ohms. If the amplifier does not have a 600 ohm input, a matching impedance transformer should be used.
3. The output level of the external page circuit is fixed. Volume adjustments must be made at the customer's amplifier.
4. When muting of background music is desired during page announcements, use the contact pair, pins 2 and 5 (yellow and black wires), for this purpose. Connect them to the mute terminals on the amplifier. Refer to Figure 10–A (External Page Connections).

3.8 COMMON RELAY CONTACTS CONNECTION

The PROSTAR 816 PLUS KSU provides a common relay contact for one of the following three options. MMC #28 COMMON BELL RELAY is used to select for which option the common relay contacts will be used.

1. MOH (Music on Hold) on Demand: When this option is selected, this set of contacts will supply a closure when the system wants the music source to be turned on. This demand for music is made by the KSU for both MOH and BGM (Background Music). In either case, a demand for the music source to be turned on is sent by the KSU via this contact closure.

   Typically, this contact set is connected to an MOH on Demand relay that will operate to supply AC voltage to the music source (i.e., radio, tuner, tape player, etc.). The purpose of MOH on Demand is to have the music source be turned on only when there is a need by the KSU (demand). When the music source is not needed, it will not have AC power and may save wear and tear on the music source.

NOTE: An MOH on Demand relay may be obtained at your local supplier.

WARNING: Do not connect these contacts directly to AC power.

2. Common Bell Interrupted: When this option is selected, C.O. lines or door phones programmed (MMCs #61, #62 and #63) will send an interrupted closure which can be used to control various ringer devices.
3. Common Bell Continuous: When this option is selected, C.O. lines or door phones programmed (MMCs #61, #62 and #63) will send an continuous closure which can be used to control various ringer devices.

The contact set maximum voltage rating is 24 VDC. The maximum current is 1.0 amperes. Refer to Figure 10–B (Common Relay Connections).

3.9 EXTERNAL MUSIC SOURCE CONNECTIONS

The PROSTAR 816 PLUS is equipped with an internal melody IC chip to provide music on hold (MOH) and background music (BGM) through the keysets. However, when this is not desired, an external music source such as a radio or tape recorder can be connected to the system.

NOTE: If the first (top) expansion card is installed, it must be removed to permit access to music source selection jumper (J11). Refer to Figure 14 (408 Baseboard).

When an external music source is desired, follow the steps below:

WARNING: Unplug the KSU from the AC outlet and disconnect the battery backup system before removing or installing any expansion boards.

1. Remove AC power. If battery backup is connected, remove it also.
2. Remove the four screws from the first (top) expansion board and disconnect the ribbon cable from the baseboard. Refer to Figure 9 (Key Service Unit Layout).
3. Set the jumper (J11) to EXT for external music on hold. Refer to Figure 14 (408 Baseboard).
4. Reinstall the first (top) expansion board and secure with the four screws.
5. Inspect your work. If everything is correct, connect the KSU to the wall outlet and reconnect the battery backup system if installed.
6. Connect an external music source to the EXT. MUSIC jack on the right side of the KSU using a 1/8 inch (3.5 mm) mini phone plug. Refer to Figure 12 (External Music Source and System Battery Backup Wiring).
7. Adjust the volume of music on hold at the external source for an acceptable level on C.O. lines.
8. Adjust the volume of background music through the speakers in the keysets with the speaker volume at each keyset.

3.10 CONNECTING THE DOOR PHONE AND LOCK CONTROL

PROSTAR 816 PLUS users have the capability of communicating with an optional door phone when it is installed. A maximum of two door phones may be installed per system. To connect a door phone:

1. Plug a three pair modular cable into the connector on the left side of the KSU marked DOOR 1 or DOOR 2.
2. Connect the other free end to a connecting block at the MDF.
3. Cross-connect the voice pair, red and green wires, and the power pair, yellow and black wires, to the back of the door phone unit.
4. Cross-connect the contact pair, blue and white wires, to the customer-provided electric door lock unit for control of the door lock release mechanism.

NOTE: This pair of wires is to be used for low voltage relay control only. Do not connect to commercial AC power.

Refer to Figure 10–C (External Door Phone Connections). See MMC #77 for door contact timer.

3.11 INSTALLING THE SERIAL I/O CARD

An optional two (2) port serial I/O (SIO) card can be installed in the PROSTAR 816 PLUS KSU. These ports are labeled COM 1 and COM 2 on the right side of the KSU. COM 1 is used for Station Message Detail Recording (SMDR) and customer data printout. SMDR provides details of outside calls made through the system that can be sent to a customer-provided printer, data buffer or call accounting system. The customer data printout may used to print the contents of selected or all MMCs for record keeping and review. COM 2 is used for on-site or remote system programming.

WARNING: Remove power from the KSU by disconnecting the AC power cord and external battery backup system before installing the SIO card.

To install the SIO card:

1. If the second expansion card is installed, it must be removed to permit installation of the SIO card.
2. Remove the cover plate from the right side of the KSU and insert the two plastic standoffs into the KSU base. Refer to Figure 9 (Key Service Unit Layout).
3. Insert the RS232 connectors through the hole in the KSU. Align the SIO card with the connector on the 408 baseboard and standoffs. Secure in place.
4. Set the DIP switches on the SIO card for the selected operation. Select NO CTS when data flow control is not needed. Select CTS when data flow control is needed. It is recommended that S1 be set to CTS when possible. Data flow control is dependent on the device connected to the COM port.

S1	
CTS	NO CTS

S2	
CTS	NO CTS

5. Plug the appropriate customer-provided equipment into the COM 1 or COM 2 connector using the proper cable for the attached equipment. Refer to Figures 12 (External Music Source and System Battery Backup Wiring) and 13-A (Serial I/O Card).
6. Reinstall the expansion card if previously removed.
7. Restore battery back-up (if equipped) and AC power to the KSU.
8. For SMDR, set MMCs #19, #78 and #92.
9. Refer to the remote and on-site programming sections of this manual for the setup and connection of the COM 2 port.

NOTES:

1. The SMDR collecting device interface must be configured as follows: No Parity, Eight Bits and One Stop Bit (N81). The customer-provided device must have carriage return (CR) and line feed (LF) enabled.
2. Refer to Figure 13–B (COM 1 Port Pin Connections) for pin to pin connections for the COM 1 port.

3.12 POWER FAILURE TRANSFER

The PROSTAR 816 PLUS has three methods to provide transfer of C.O. lines to conventional single line telephones during a power failure.

NOTE: Power Failure Transfer (PFT) jumper pins have international labeling and are labeled TTC1 and TTC2 (Trunk Transfer Circuit) for circuits 1 and 2 respectively.

Method A: Use this method when station port 7 or 8 is strapped as a single line port and has single line telephones attached. When AC power fails, C.O. line port 1 will be connected to station port 7 and C.O. line port 2 will be connected to station port 8. This method uses internal relays of the PROSTAR 816 PLUS KSU. No additional equipment is required when this method is used. See Figure 14 (408 Baseboard). Set jumper pins as shown below.

Station Port 7	J2 and J3 (TTC1) to ON	J8 and J9 to SLT
Station Port 8	J4 and J5 (TTC2) to ON	J12 and J13 to SLT

Method B: Use this method when station port 7 or station port 8 is strapped as KTS (keyset) and spare (customer-provided) single line telephone(s) are attached to the PFT1, 2 (RJ14C type wiring) connector on the left side of the KSU. This method uses internal relays of the PROSTAR 816 PLUS KSU and will provide C.O. line port 1 (tip/ring) to pins 3 and 4 (green/red) of PFT1, 2 and C.O. line port 2 (tip/ring) to pins 5 and 2 (black/yellow) of PFT1, 2. See Figures 11 (+24 VDC Output Failure Transfer Connections) and 14 (408 Baseboard). Set jumper pins as shown below.

Station Port 7	J2 and J3 (TTC1) to OFF	J8 and J9 to KTS
Station Port 8	J4 and J5 (TTC2) to OFF	J12 and J13 to KTS

Method C: Use this method when a customer-provided external control relay (+24 VDC) is desired to control which C.O. line(s) are connected to customer-provided single line telephone(s) or other peripheral device(s). This method provides +24 VDC to pin 1 (blue) and GROUND to pin 6 (white) and is intended to keep the control relay energized as long as AC power is applied to the KSU. When AC power failure is

experienced, +24 VDC is removed and the customer-provided relay returns to its non-operational state. Connect the desired tip and/or ring to the contacts of this control relay as needed, following any local Telco regulations that apply. See Figure 11.

WARNING: Do not connect any C.O. line directly to these leads.

NOTE: Type II expansion boards (2CO/4SLT) have two circuit power failure transfer relays that connect the two C.O. lines to the first two SLT circuits on this card. There are no jumper pins or DIP switch settings.

Power failure transfer assignments	Board in Top	Board in Bottom
	C.O. 5 to SLT 9	C. O. 7 to SLT 13
	C.O. 6 to SLT 10	C.O. 8 to SLT 14

3.13 CONNECTING BATTERY BACKUP

The PROSTAR 816 PLUS KSU can continue full system operation during AC power failure. This requires that a 24V battery supply be connected to the KSU. When AC power drops below 78 VAC, the system switches over to batteries immediately. Calls in progress will not be interrupted.

To supply 24 volts, use two 12V batteries or four 6V batteries connected in series. Any NICAD or car battery can be used if its rating is not more than 40AH and not less than 6AH. The system will not operate in power failure mode if battery voltage drops below 21.5 VDC. Refer to Figure 12 (External Music Source and System Battery Backup Wiring).

A mate and lock type connector with approximately 36" red and black leads is supplied with the KSU. Power supply circuitry will monitor and recharge batteries as required. A 10AH battery will keep the KSU and six keysets fully operational for approximately six hours.

CAUTION: Practice extreme care when connecting live batteries to avoid personal injury or damage to the PROSTAR 816 PLUS system.

3.14 INTERNAL MUSIC SOURCE

The PROSTAR 816 PLUS KSU is equipped with an IC melody chip containing six tunes that are played continuously in order. These will be the following:

1. La Reine Deo Saba
2. Fur Elise
3. Santa Lucia
4. Maiden Pray
5. Music Box Dancer
6. Moonlight on the Colorado

NOTE: When the customer does not want internal or external music provided, remove the jumper strap from J11. See Figure 14 (408 Baseboard).

3.15 MEMORY PROTECTION

The PROSTAR 816 PLUS is equipped with a memory backup battery that prevents loss of customer data stored in RAM during a power outage. The 3.7 VDC NICAD battery is connected through the strapping of J1 on the 408 baseboard. Refer to Figure 14 (408 Baseboard). This memory backup is turned off at the factory before shipping to preserve battery life. Immediately after installation of the KSU, set jumper pin J1 to ON. Allow 48 hours of continuous operation to fully charge the NICAD battery.

NOTE: Failure to set J1 to the ON position will result in loss of customer data each time AC power is turned off.

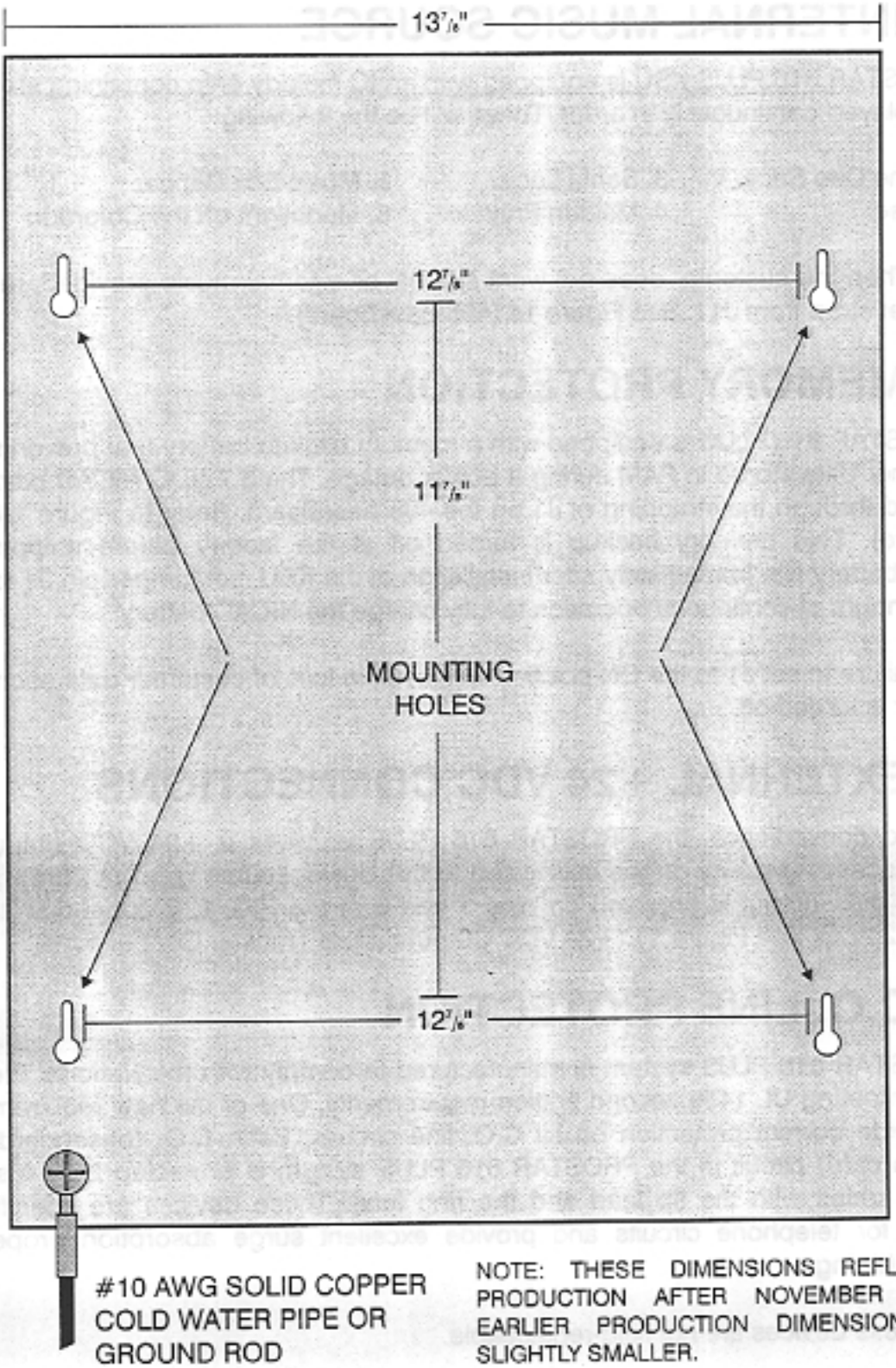
3.16 EXTERNAL +24 VDC CONNECTIONS

For added convenience, the PROSTAR 816 PLUS provides a +24 VDC output for external accessories. Any device connected to this power source must not draw more than 12.5 mA. Output is provided on pins 1 and 6 of the PFT 1, 2 connector and is labeled +24V.G. See Figure 11 (+24 VDC Output Failure Transfer Connections).

3.17 C.O. LINE PROTECTION

The PROSTAR 816 PLUS system is manufactured to comply with the National Electric Code by meeting UL 1459 second edition requirements. One of the new requirements is to provide current protection on all C.O. line circuits. Each C.O. (baseboard and expansion card) circuit in the PROSTAR 816 PLUS system is protected by a fuselike device in series with the tip lead and the ring lead. These devices are specifically designed for telephone circuits and provide excellent surge absorption properties against lightning.

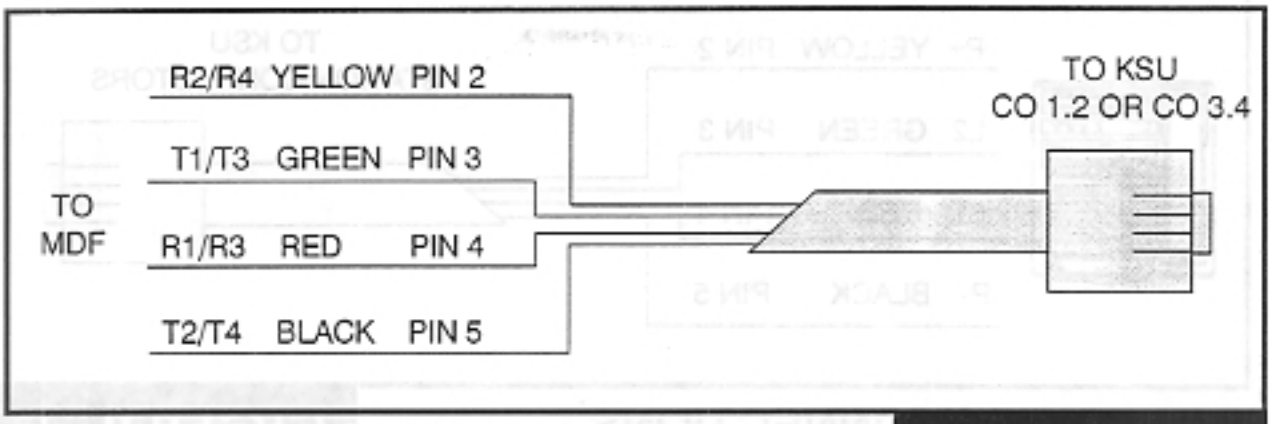
NOTE: These devices are not field-replaceable.



NOTE: THESE DIMENSIONS REFLECT KSU PRODUCTION AFTER NOVEMBER 1, 1994. EARLIER PRODUCTION DIMENSIONS WERE SLIGHTLY SMALLER.

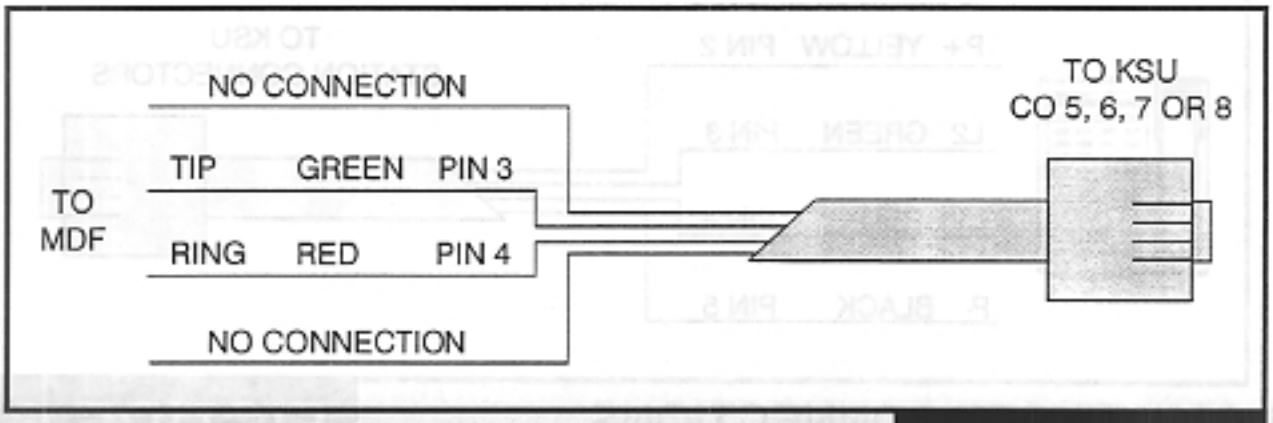
KEY SERVICE UNIT DIMENSIONS

FIGURE 1



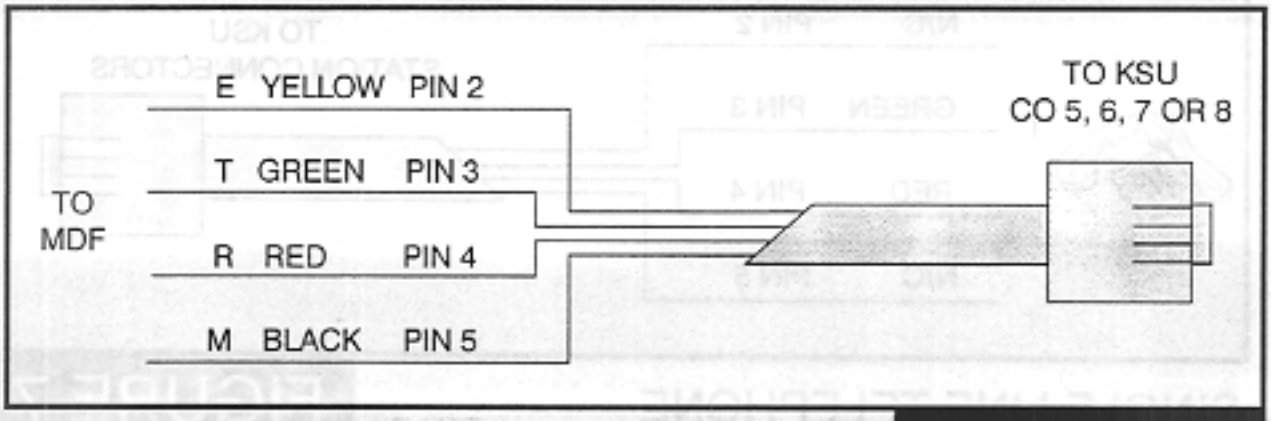
CONNECTIONS FOR C.O. LINES 1, 2, 3 AND 4

FIGURE 2



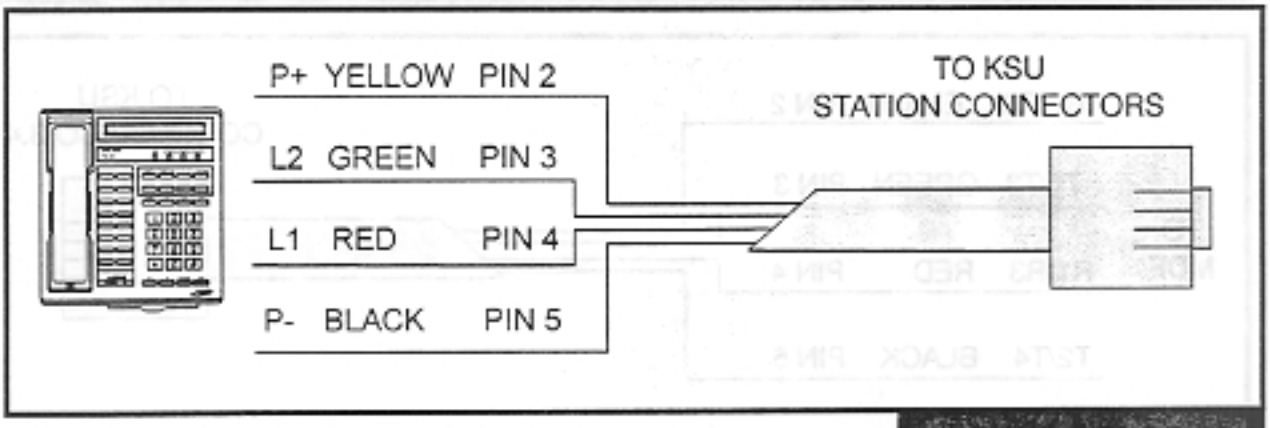
CONNECTIONS FOR C.O. LINES 5, 6, 7 AND 8

FIGURE 3



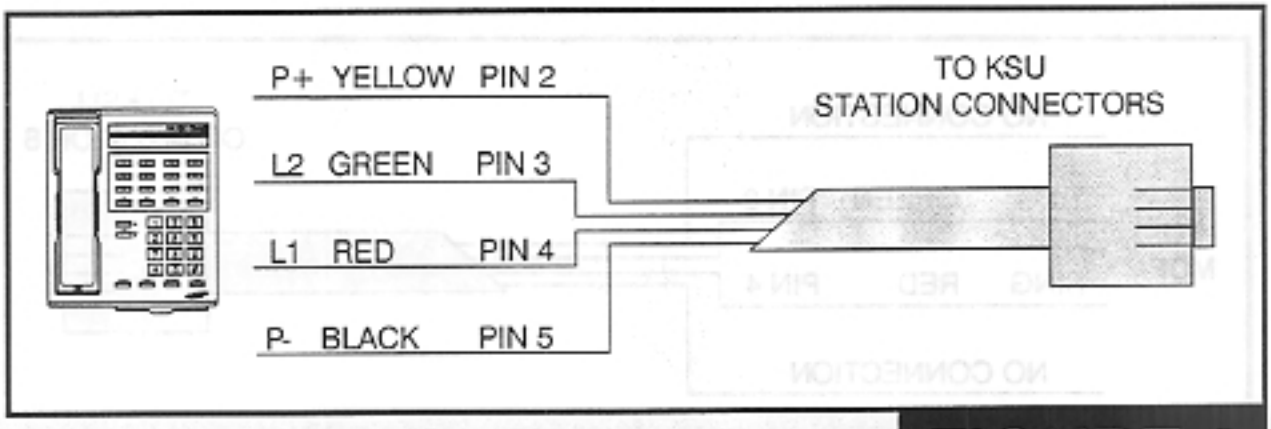
E & M TIE LINE CONNECTIONS

FIGURE 4



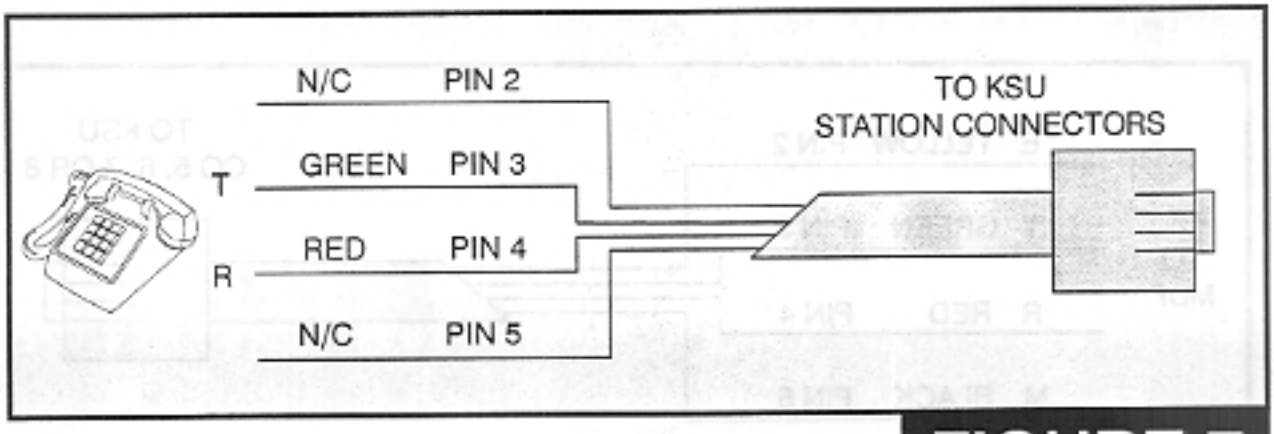
816 KEYSET CONNECTIONS

FIGURE 5



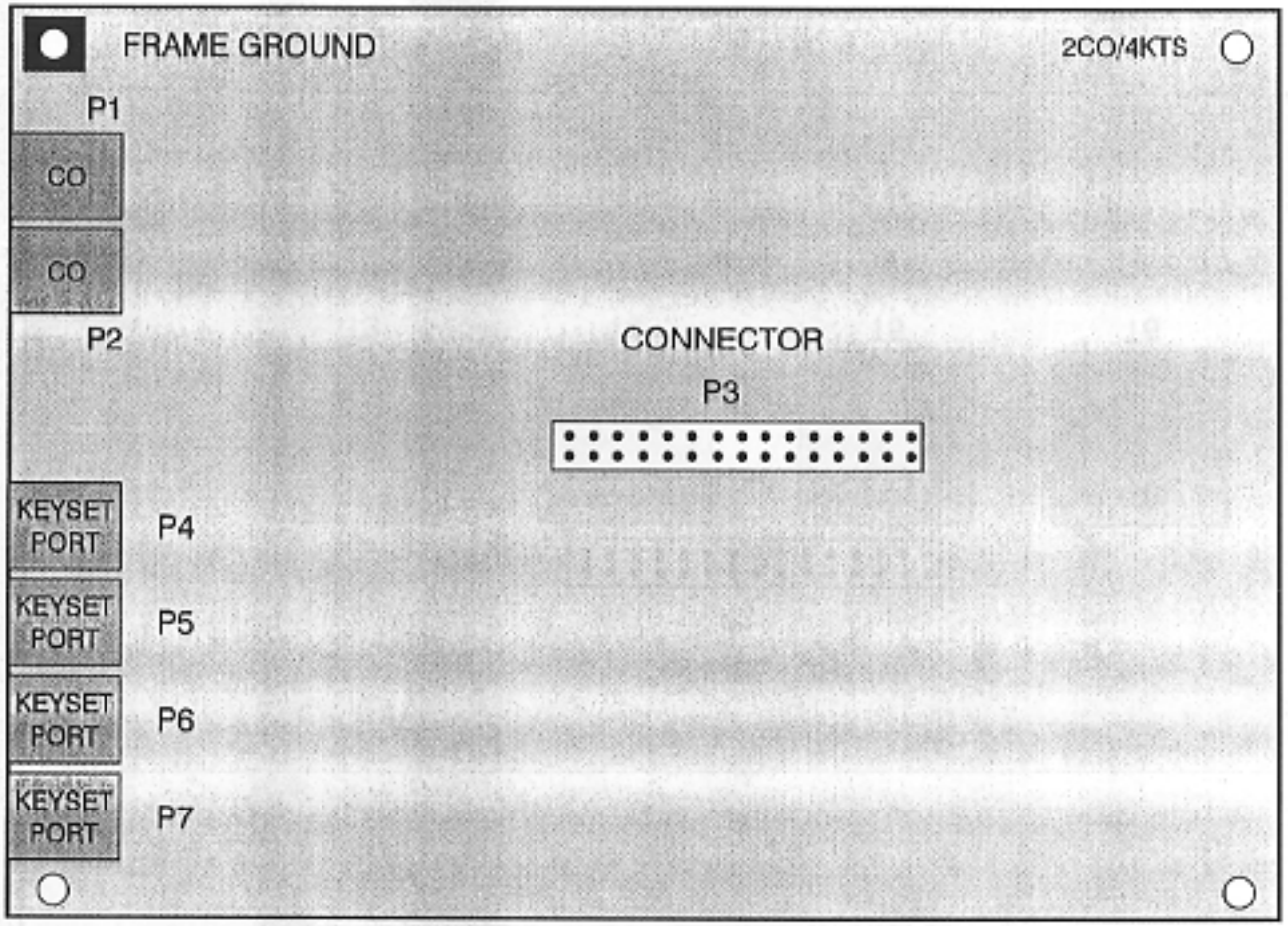
800 KEYSET CONNECTIONS

FIGURE 6



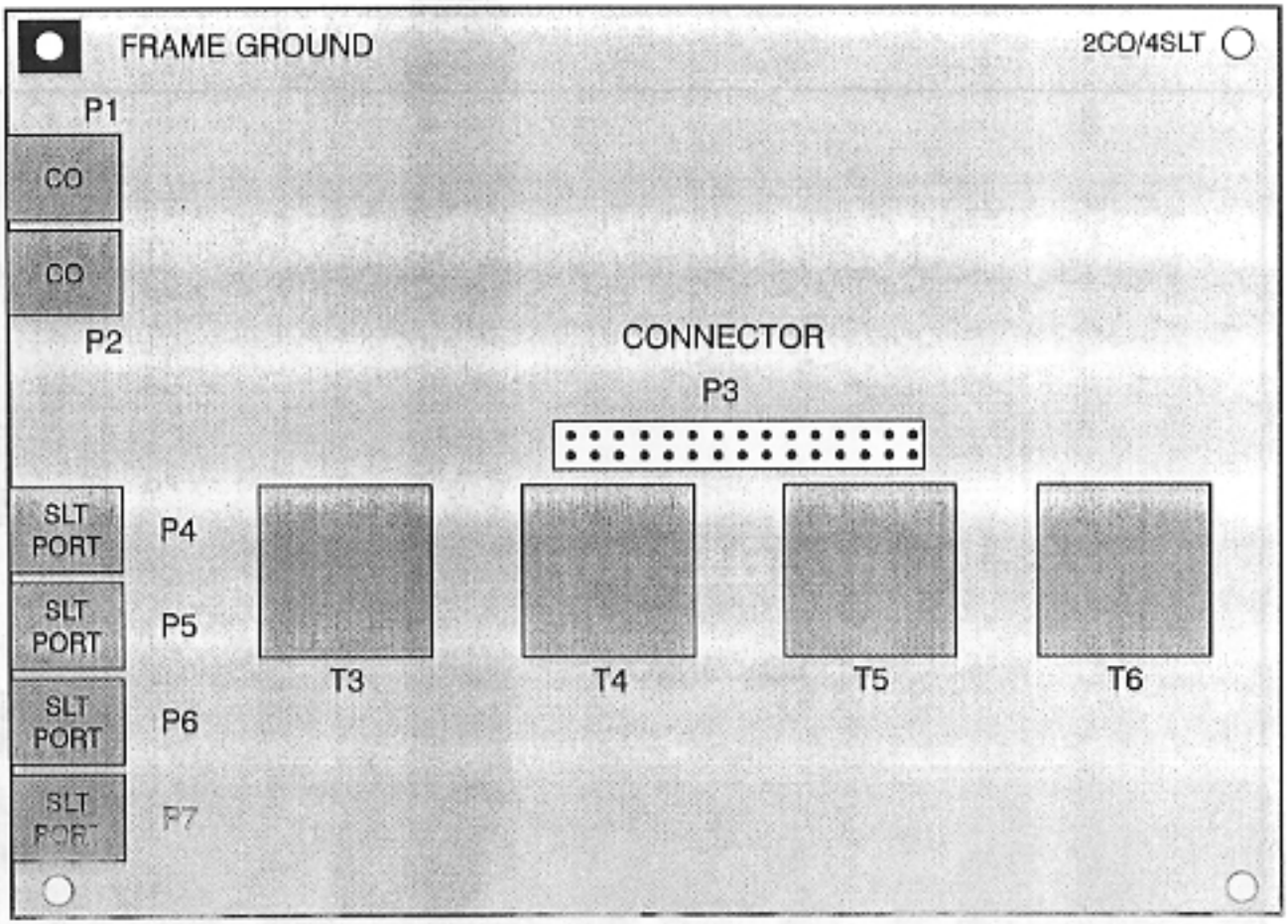
SINGLE LINE TELEPHONE CONNECTIONS

FIGURE 7



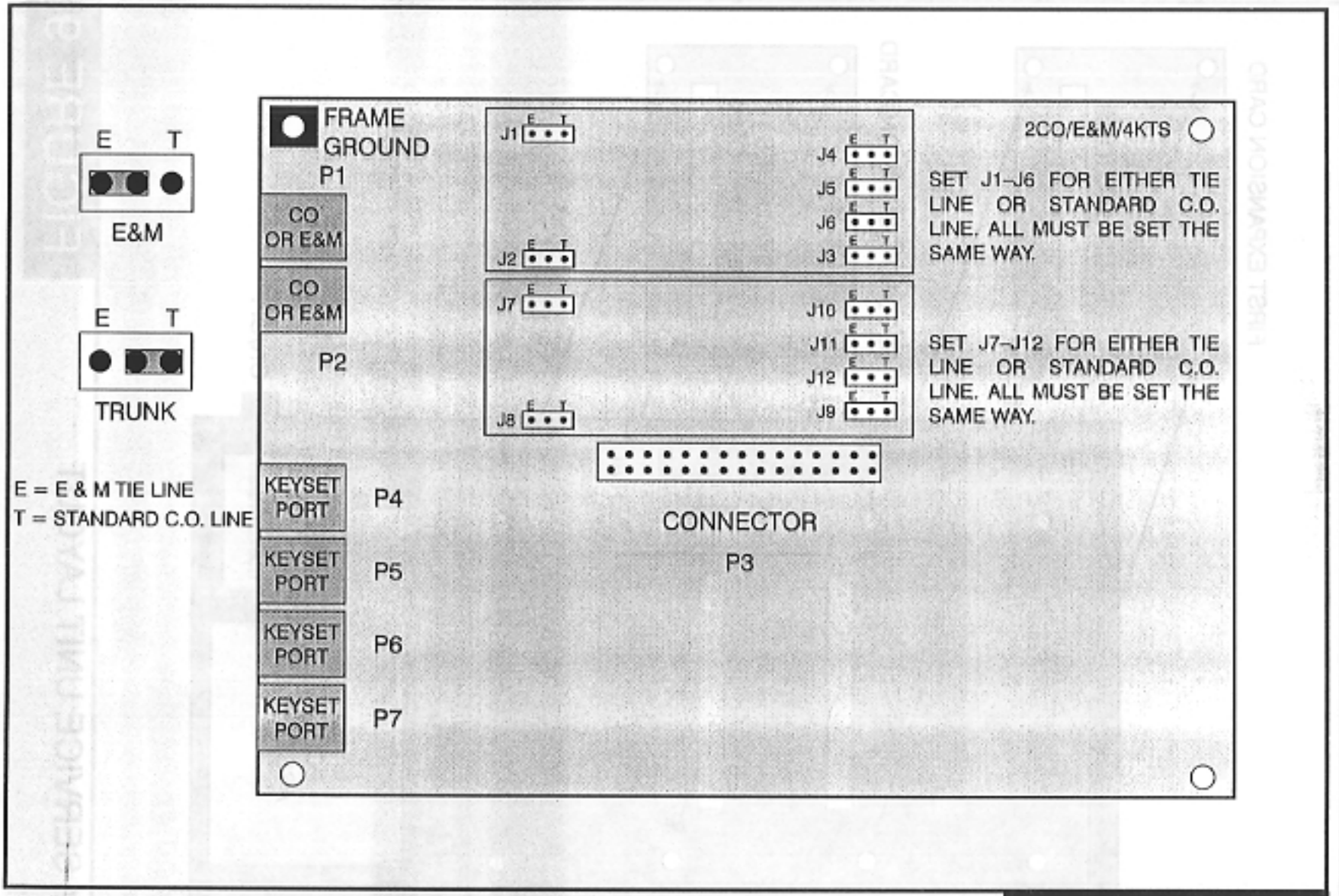
EXPANSION BOARD TYPE I 2CO/4KTS

FIGURE 8-A



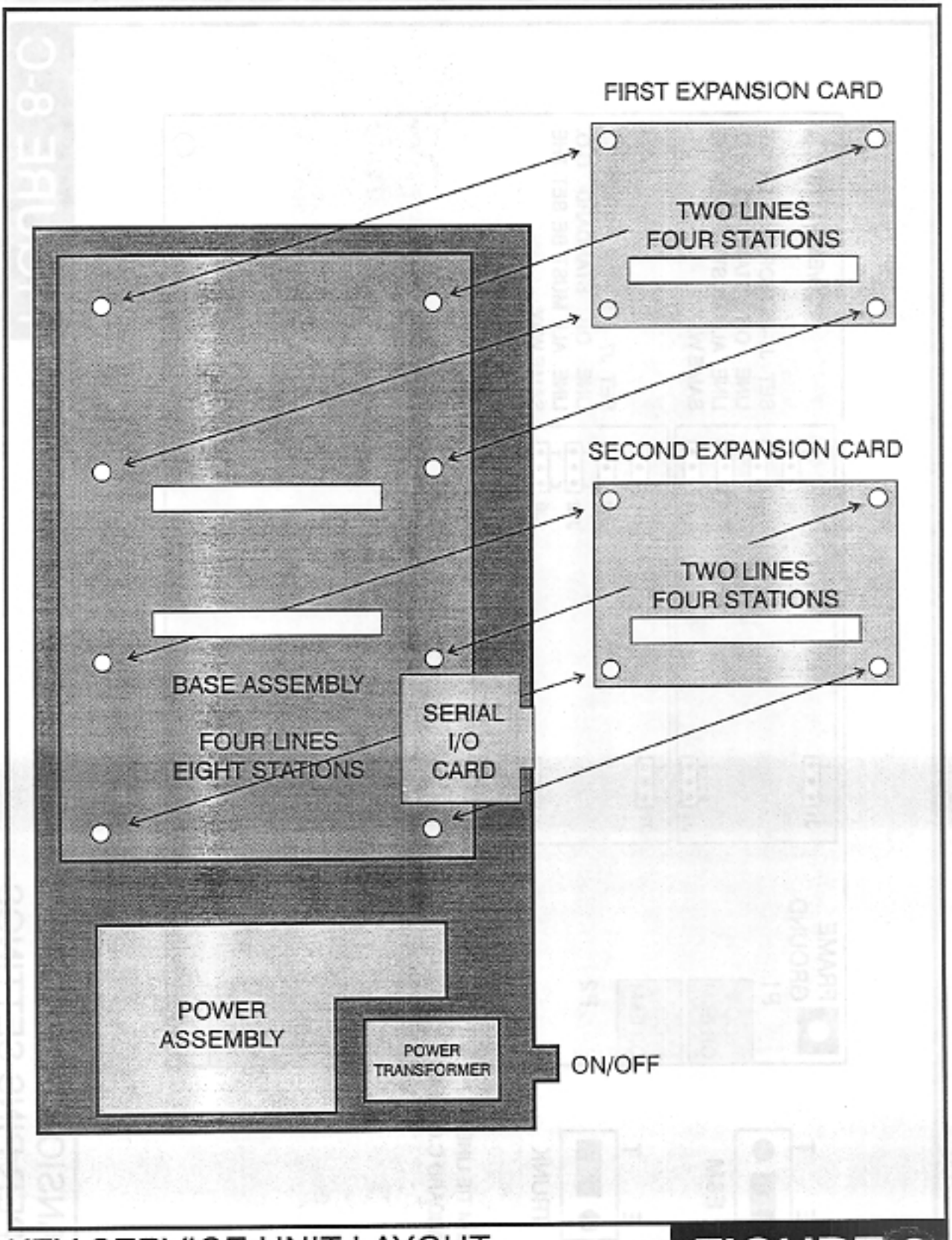
EXPANSION BOARD TYPE II 2CO/4SLT

FIGURE 8-B



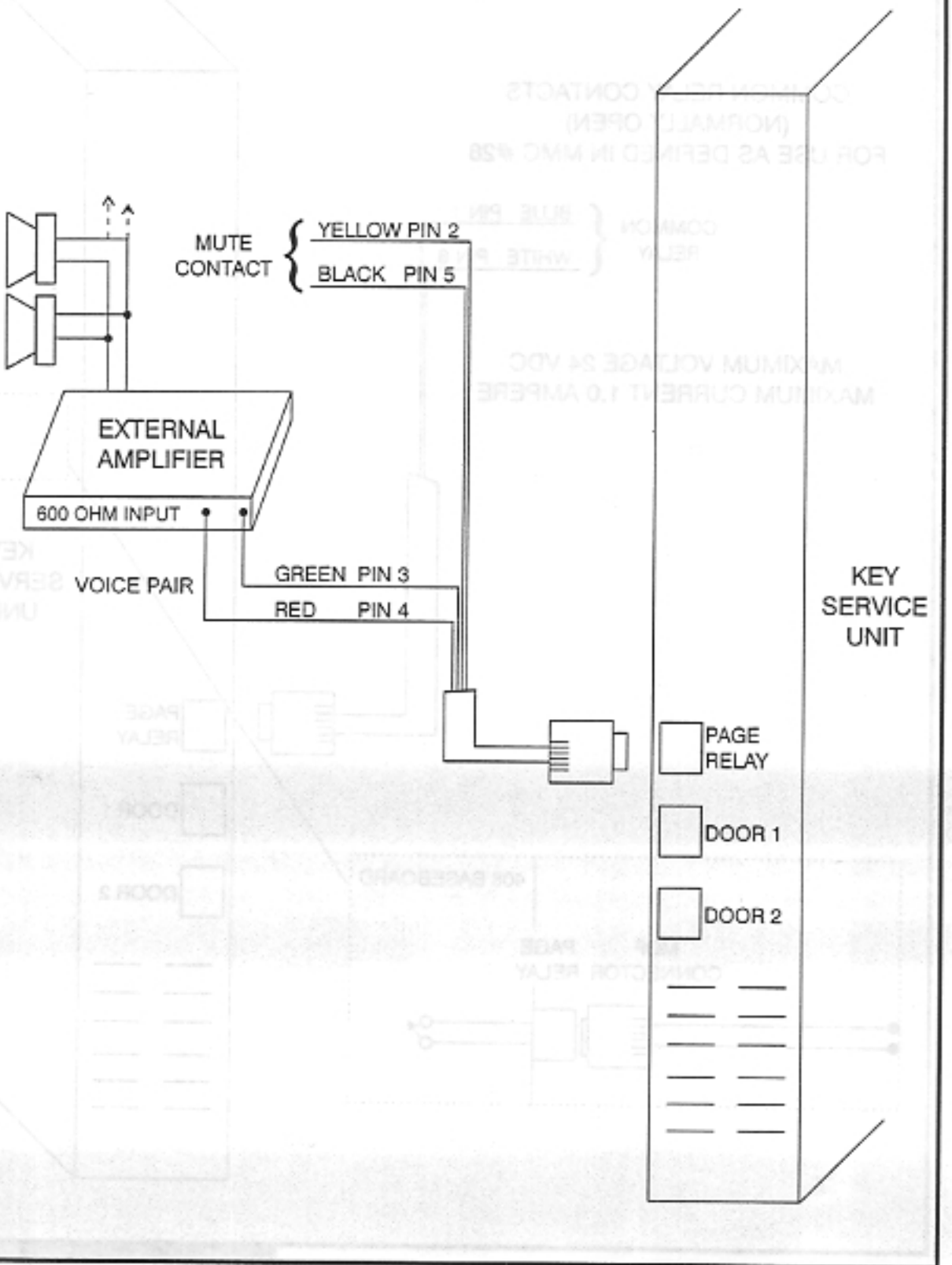
EXPANSION BOARD TYPE III 2CO/E&M/4KTS
JUMPER PINS SETTINGS

FIGURE 8-C

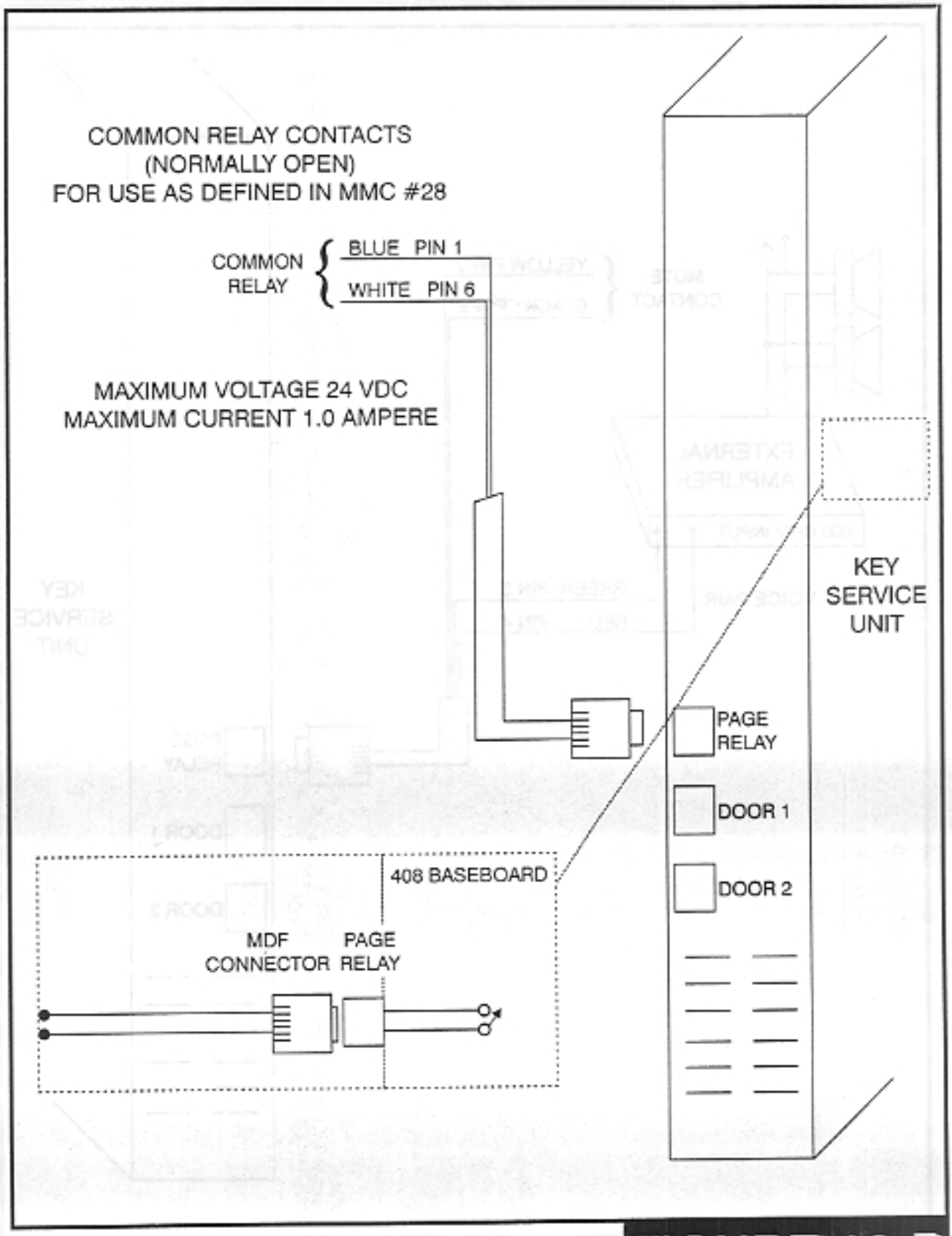


KEY SERVICE UNIT LAYOUT

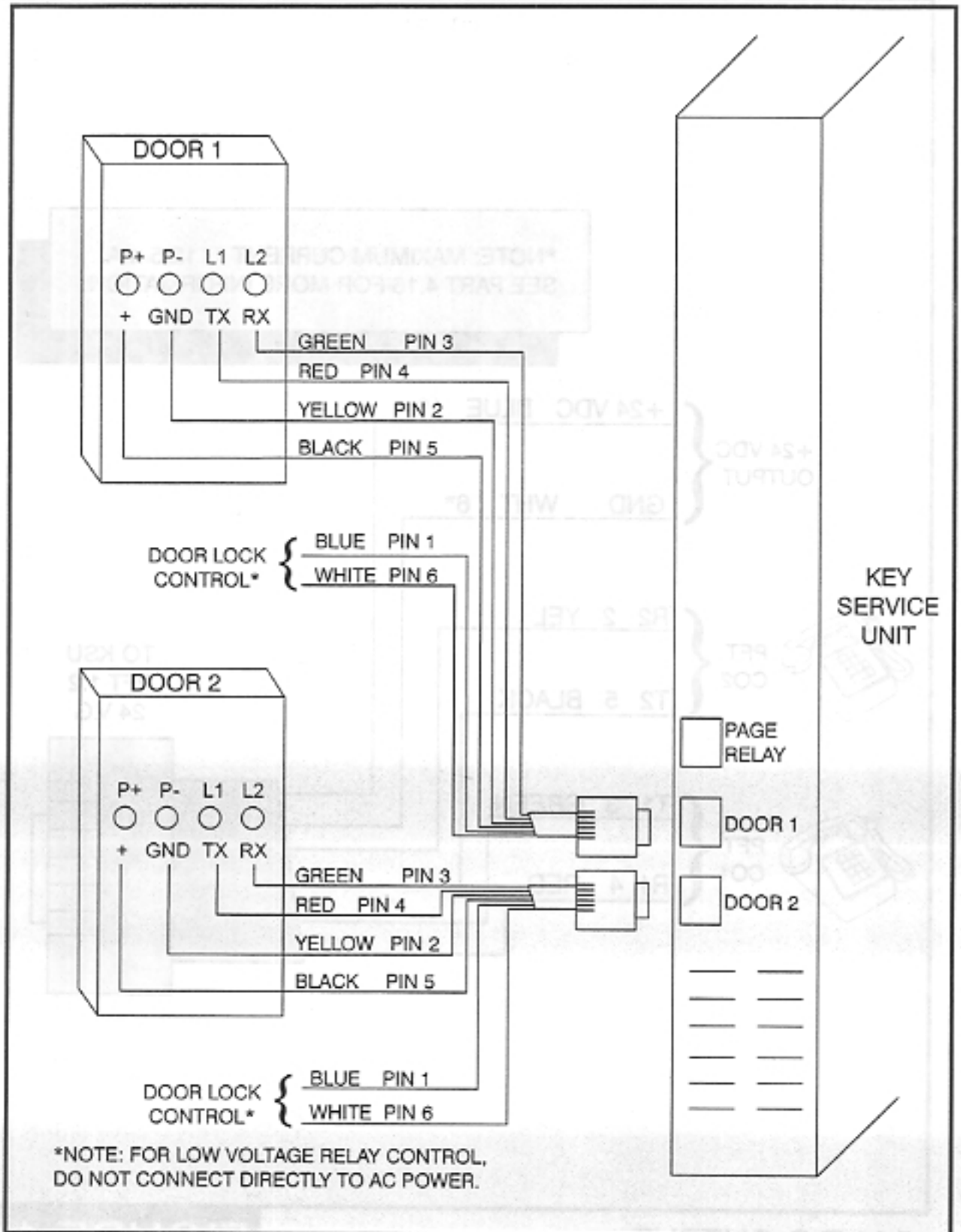
FIGURE 9



EXTERNAL PAGE CONNECTIONS **FIGURE 10-A**

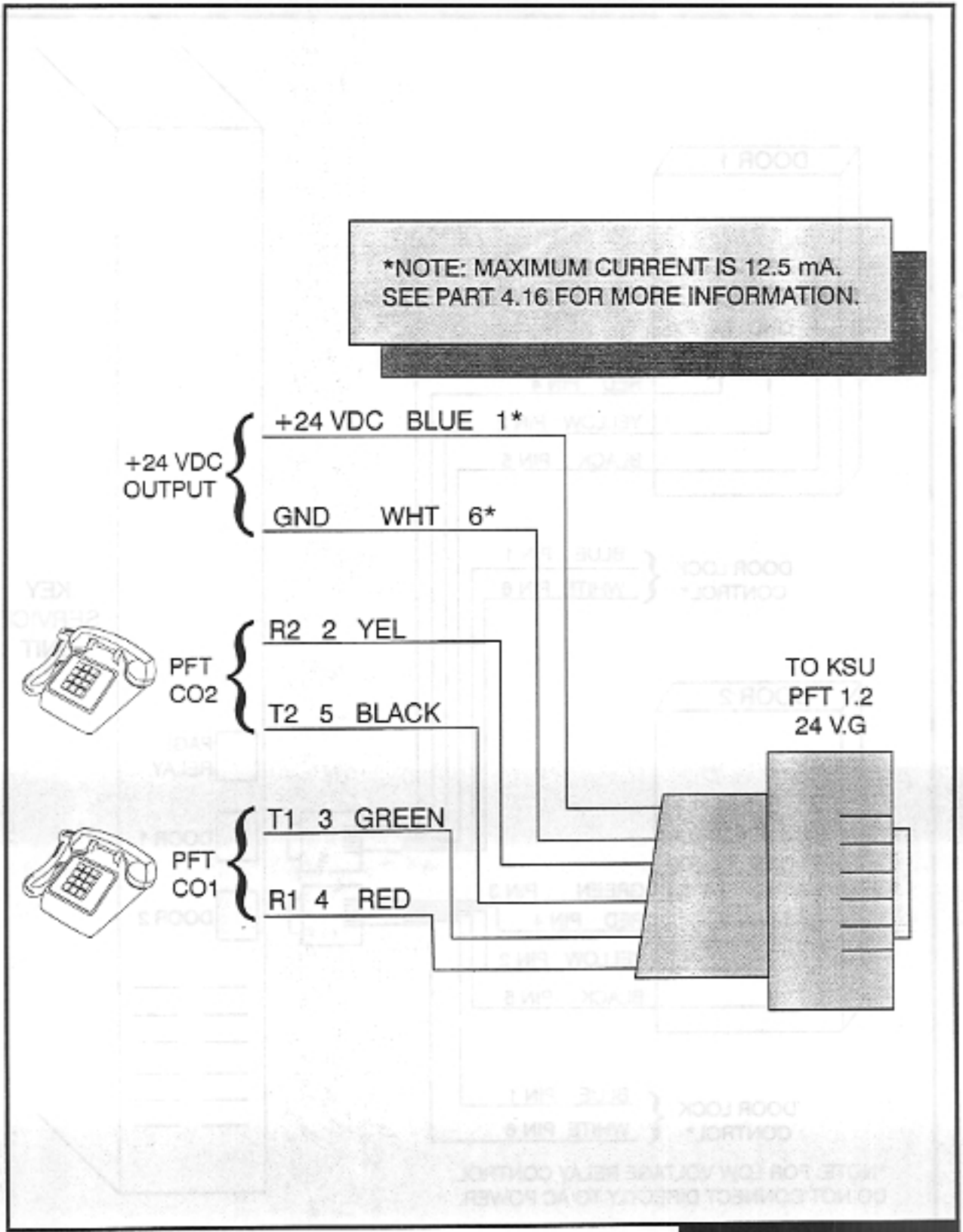


COMMON RELAY CONNECTIONS **FIGURE 10-B**



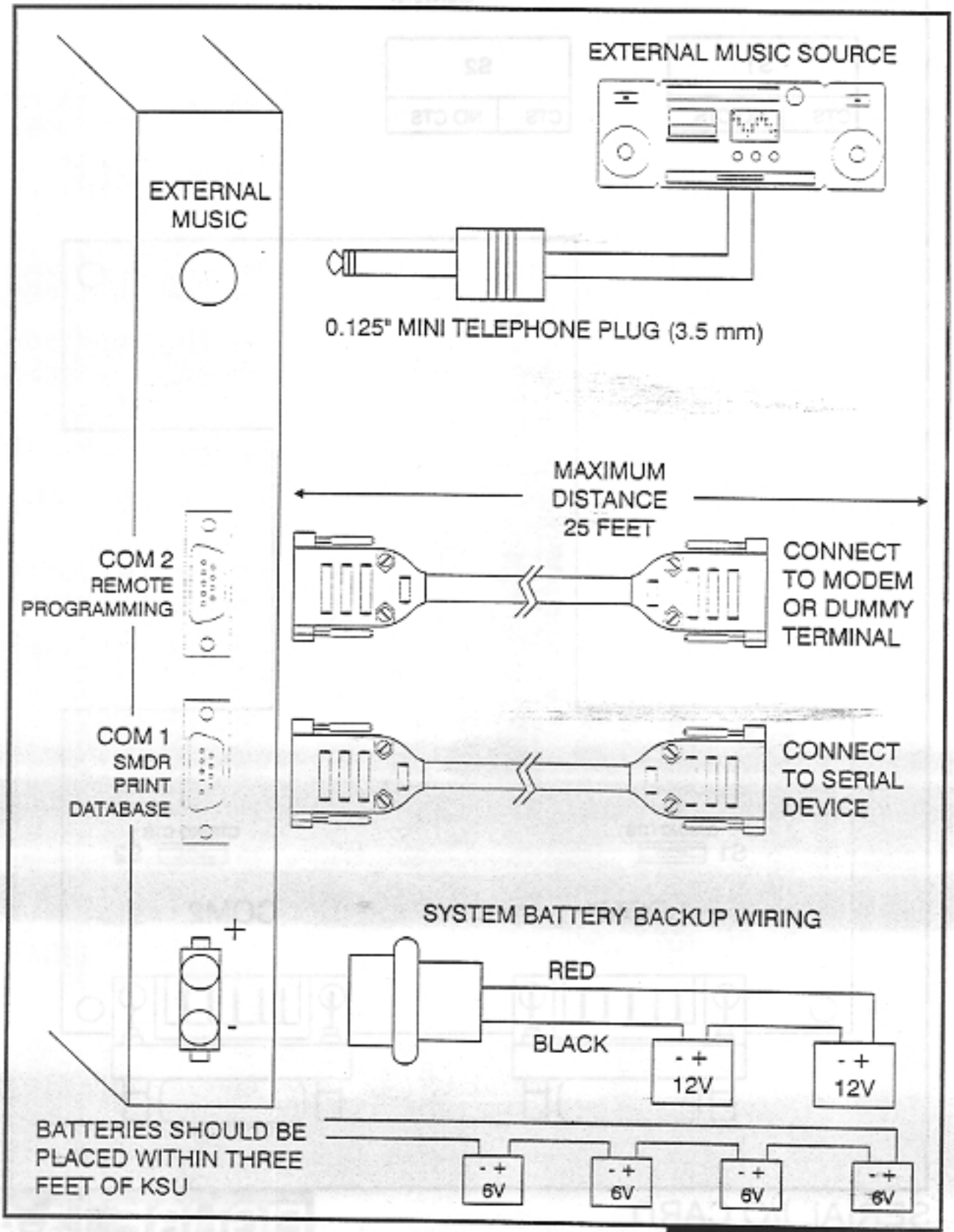
EXTERNAL DOOR PHONE CONNECTIONS

FIGURE 10-C



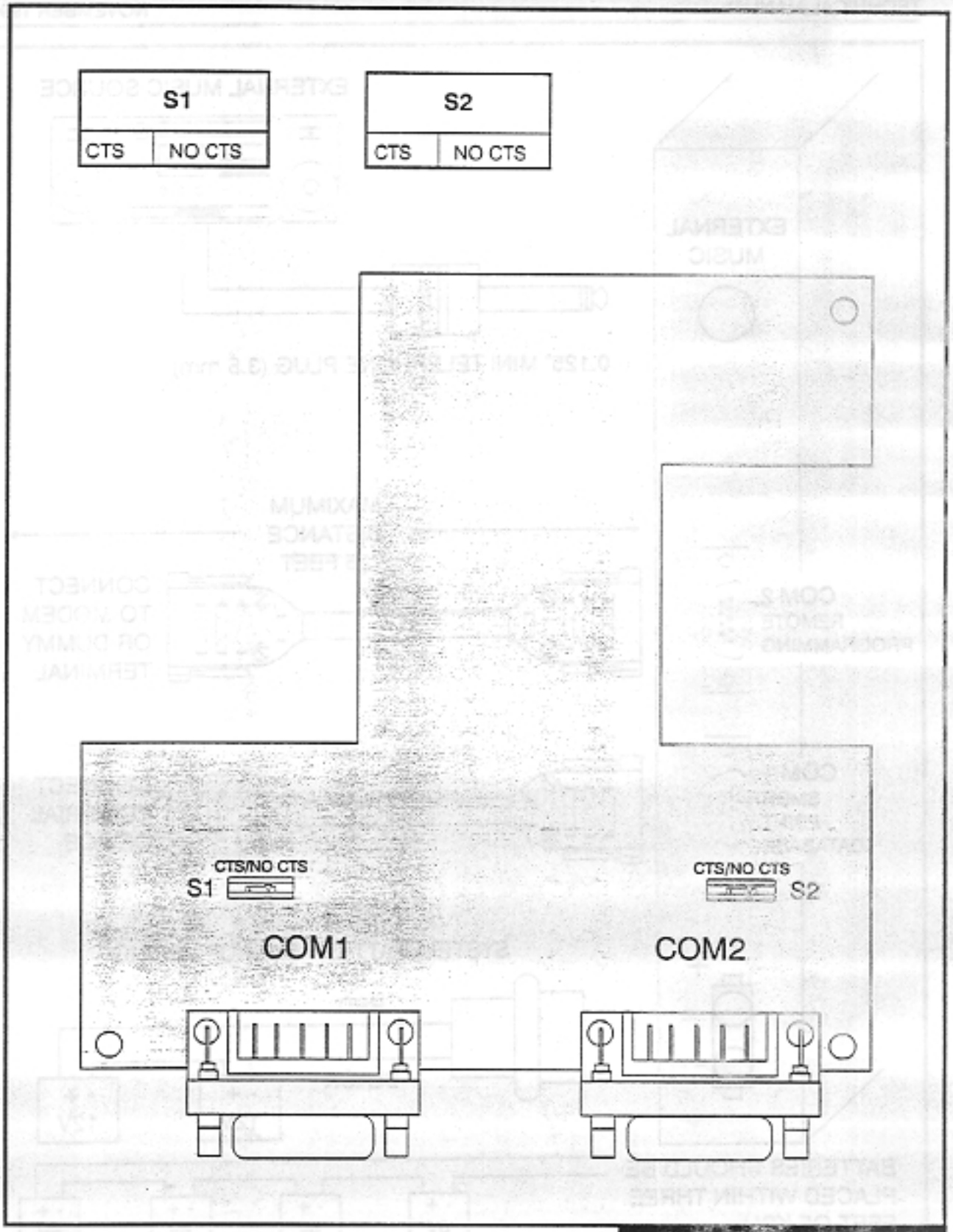
+24 VDC OUTPUT
FAILURE TRANSFER CONNECTIONS

FIGURE 11



EXTERNAL MUSIC SOURCE AND SYSTEM BATTERY BACKUP WIRING

FIGURE 12



SERIAL I/O CARD

FIGURE 13-A

Connections shown below are the pin to pin arrangements when connecting to a personal computer (PC) communication port. Both 9 and 25 pin arrangements are shown for the case when Clear to Send (CTS) is used; in addition, both are shown for the case when Clear to Send is not used (NO CTS). (CTS is needed for data flow control.) The selection of CTS or NO CTS is determined by the setting of switch 1 (S1) on the optional SIO card that needs to be installed in the base unit. It is recommended that CTS be used whenever possible. Since it is not possible to show pin to pin connections for every communication port on every device, ensure that you consult the manufacturer's specification for the correct pin connections and gender type connector needed.

Switch S1 of SIO Board Set to CTS (down)
25 Pin Communication Port

(816) COM1 9 Pin Female		Male to Female Cable	PC COM Port 25 Pin Male	
PIN 1	N/C			
PIN 2	**RXD**	**<** ←	**PIN 2**	**TXD**
PIN 3	**TXD**	**<** ←	**PIN 3**	**RXD**
PIN 4	N/C			
PIN 5	N/C			
PIN 6	N/C			
PIN 7	**SG**	**<** ←	**PIN 7**	**SG**
PIN 8	N/C			
PIN 9	**CTS**	**<** ←	**PIN 20**	**DTR**

Switch S1 of SIO Board Set to CTS (down)
9 Pin Communication Port

(816) COM2 9 Pin Female		Male to Female Cable	PC COM Port 9 Pin Male	
PIN 1	N/C			
PIN 2	**RXD**	**<** ←	**PIN 3**	**TXD**
PIN 3	**TXD**	**<** ←	**PIN 2**	**RXD**
PIN 4	N/C			
PIN 5	N/C			
PIN 6	N/C			
PIN 7	**SG**	**<** ←	**PIN 5**	**SG**
PIN 8	N/C			
PIN 9	**CTS**	**<** ←	**PIN 20**	**DTR**

COM1 PORT PIN CONNECTIONS
(PAGE 1 OF 2)

FIGURE 13-B

Switch S1 of SIO Board Set to NO CTS (up)
25 Pin Communication Port

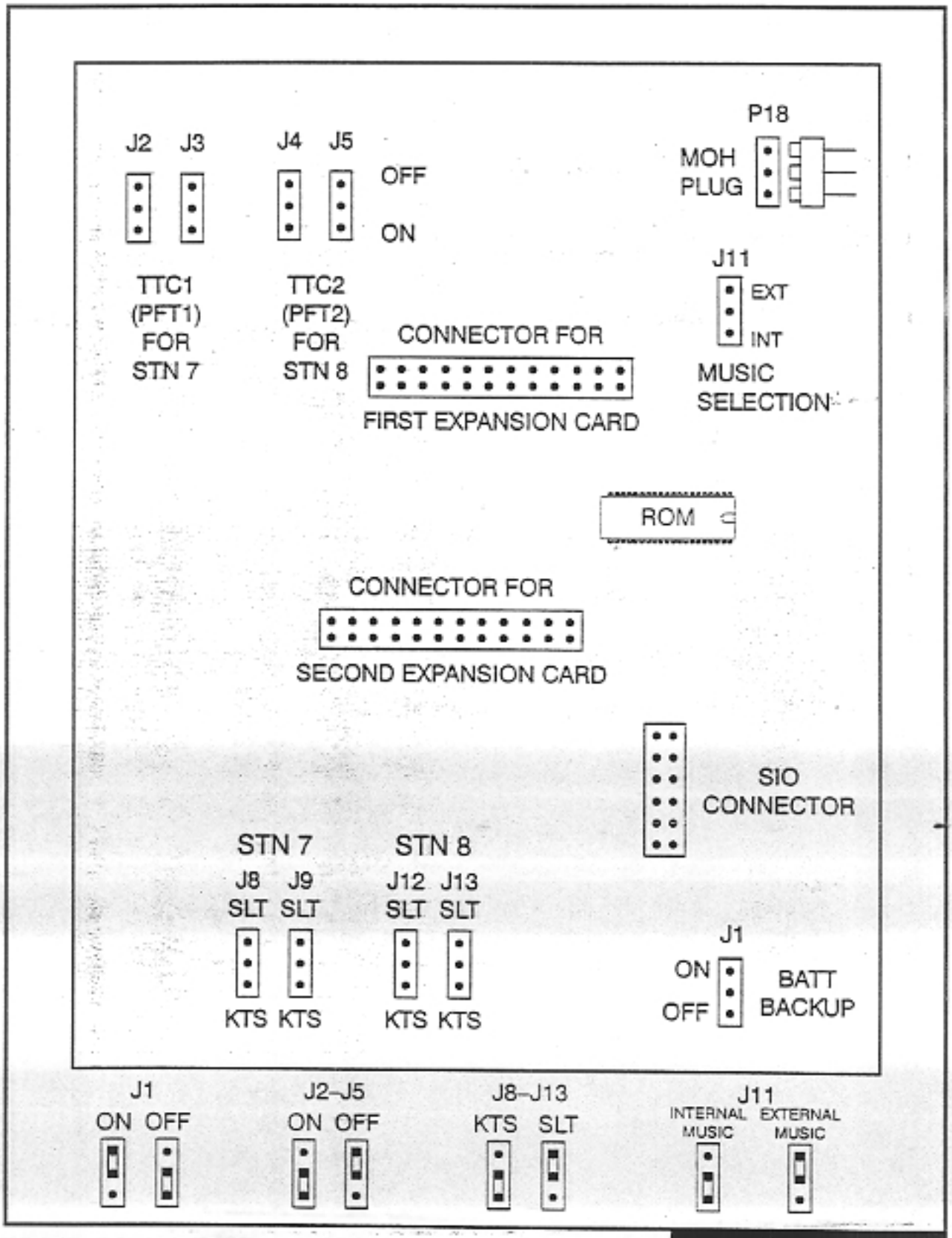
(816) COM1 9 Pin Female		Male to Female Cable	PC COM Port 25 Pin Male	
PIN 1	N/C			
PIN 2	RXD	< ←——————<	PIN 2	TXD
PIN 3	TXD	< ←——————<	PIN 3	RXD
PIN 4	N/C			
PIN 5	N/C			
PIN 6	N/C			
PIN 7	SG	< ←——————<	PIN 7	SG
PIN 8	N/C			
PIN 9	N/C			

Switch S1 of SIO Board Set to NO CTS (up)
9 Pin Communication Port

(816) COM2 9 Pin Female		Male to Female Cable	PC COM Port 9 Pin Male	
PIN 1	N/C			
PIN 2	RXD	< ←——————<	PIN 3	TXD
PIN 3	TXD	< ←——————<	PIN 2	RXD
PIN 4	N/C			
PIN 5	N/C			
PIN 6	N/C			
PIN 7	SG	< ←——————<	PIN 5	SG
PIN 8	N/C			
PIN 9	N/C			

COM1 PORT PIN CONNECTIONS
(PAGE 2 OF 2)

FIGURE 13-B



408 BASEBOARD

FIGURE 14

TABLE OF CONTENTS

PROGRAMMING SECTION

MMC	MMC NAME/FUNCTION	ACCESS
#02	Toll Override Code (Class B)	T
#03	Toll Override Code (Class C)	T
#04	Toll Override Code (Class D)	T
#05	Toll Override Code (Class E)	T
#06	Enable Customer Programming	TC
#07	Change Customer Passcode	TC
#08	Reserved	None
#09	Headset Operation On/Off	TS
#10	Auto Answer Selection	TS
#11	Call Forward All	TS
#12	Call Forward Busy	TS
#13	Auto Timer On/Off	TS
#14	Station Directory	TCS
#15	Soft Key Assignment	TS
#16	C.O. Line Directory	TC
#17	Ring Line Preference	TS
#18	Group Directory	TC
#19	SMDR Directory	TC
#20	Enable Technician Programming	T
#21	Change Technician Passcode	T
#22	DTMF Tone Muted	T
#23	Dial Pulse Make/Break Ratio	T
#24	Software Version Display	T
#25	System Initialization	T
#26	Night Mode Dialing Class	T
#27	Background Music Over Page	TC
#28	Common Bell Relay	T
#29	Data Secure	T
#30	Station Toll Class	T
#31	Extension/Trunk Use	T
#32	Internal Page	T
#33	Toll Deny Table	T
#34	Toll Deny Apply	T
#35	Toll Allow Table	T
#36	Toll Allow Apply	T
#37	Queue Timer Before Overflow	T
#38	Single Line Dialing Class	T
#39	Assign Barge-in Status	TC
#40	Dial 80 Group	T
#41	C.O. Follow Toll Restriction	T
#42	C.O. Line Pulse/Tone Selection	T
#43	Assign Trunks	T
#44	C.O. or PBX Line Selection	T
#45	External Call Forward	TC

MMC	MMC NAME/FUNCTION	ACCESS
#90	Transfer Recall Destination	TC
#91	Disconnect Signal To Single Line Port	T
#92	Change Baud Rate	T
#93	Assign Remote Port	T
#94	Toll Override Table	T

KEY

T = Technician	Use of the technician level password will allow access to all of these programs.
C = Customer	These programs can be accessed only by using the user password.
S = Station	These programs can be accessed by individual keyset users without a password.

PART 2. PROGRAMMING PROCEDURES

2.1 PROGRAM LIST

MMC	FUNCTION
#00	Toll Override (Class Selection)
#01	Toll Override Code (Class A)
#02	Toll Override Code (Class B)
#03	Toll Override Code (Class C)
#04	Toll Override Code (Class D)
#05	Toll Override Code (Class E)
#06	Enable Customer Programming
#07	Change Customer Passcode
#09	Headset Operation On/Off
#10	Auto Answer Selection
#11	Call Forward All
#12	Call Forward Busy
#13	Auto Timer On/Off
#14	Station Directory
#15	Soft Key Assignment
#16	C.O. Line Directory
#17	Ring Line Preference
#18	Group Directory (not in user guide)
#19	SMDR Directory (not in user guide)
#20	Enable Technician Programming
#21	Change Technician Passcode
#22	DTMF Tone Muted
#23	Dial Pulse Make/Break Ratio
#24	Software Version Display
#25	System Initialization
#26	Night Mode Dialing Class
#27	Background Music Over Page
#28	Common Bell Relay
#29	Data Secure

MMC	FUNCTION
#30	Station Toll Class
#31	Extension/Trunk Use
#32	Internal Page
#33	Toll Deny Table
#34	Toll Deny Apply
#35	Toll Allow Table
#36	Toll Allow Apply
#37	Queue Timer Before Overflow
#38	Single Line Dialing Class
#39	Assign Barge-in Status
#40	Dial 80 Group
#41	C.O. Follow Toll Restriction
#42	C.O. Line Pulse/Tone Selection
#43	Assign Trunks
#44	C.O. or PBX Line Selection
#45	External Call Forward
#46	Private or Non-Private Lines
#47	Dial 9 Group
#48	Assign DISA Lines Day/Night
#49	Forward C.O. Lines
#50	C.O. Flash Timing
#51	PBX Flash Timing
#52	Hold/Camp-On Recall Time
#53	Transfer Ring Time
#54	Alarm Time Duration
#55	Date and Time
#56	Override Tone Interval
#57	C.O. to C.O. Duration Timer
#58	Auto Timer Start Time

The PROSTAR 816 PLUS arrives from the factory with the customer data battery backup jumper (J1) pin in the OFF position, meaning that the NICAD battery will not be discharged during shipping and storage. The jumper (J1) pin must be moved to the ON position or customer data will be deleted every time AC power is removed. A default customer program is ready for service right out of the box. Default data may be set in one of the two following ways:

A. Power up the system with the jumper (J1) pin OFF.
B. Initialize the system via MMC #25 with the option to clear all memory.

It is highly advisable after moving jumper (J1) to the ON position that MMC #25 be used to clear all memory before customer data programming begins.

This section of the manual provides system programming instructions. Programming can be done at any electronic station port equipped with a display keyset. There are three levels of programming: (1) technician level, (2) customer level and (3) station level.

TECHNICIAN LEVEL
All system programming can be accessed by entering a technician passcode at any display station. Only an authorized person can program the features which are applied to all the stations in the system.

CUSTOMER LEVEL
Customer programming is intended for customer use and allows limited access to system programs through use of a customer level passcode. The attendant keyset will use this level of access to enable specific features.

STATION LEVEL
Station programming can be done at any station without a passcode because these features will be applied to that station only.

This section describes all levels of programming. Station and customer programming may also be found in the *Keyset User Guide* or the *System Administration and Special Features Guide*.

Features will operate when the system is turned on because they are factory-programmed. This is called default data. You may use the features as factory-programmed or change them.

The programming should be done using the following procedures while on-hook.

A. To program each feature, the system must be set to the program enable mode. Dial the # key plus 20 plus passcode plus 0 or 1 plus the # key (0: Programmable Disable; 1: Programmable Enable).

MMC #: 00 TOLL OVERRIDE (CLASS SELECTION)

DESCRIPTION:

This MMC is used to access one of the five toll override passcodes (classes A–E). When this MMC and a valid passcode are entered, the dialing station toll class will be temporarily changed. The override class will be determined by the passcode entered. A passcode for classes A–E is assigned in MMCs #01–#05 respectively. This feature is also know as "traveling class of service."

Example: Station 28 is restricted and not allowed to make any long distance calls. When MMC #00 plus the passcode for toll class A (unrestricted class) is entered, station 28 is now toll class A and can make a long distance call.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 00.
   [CLASS PASSWORD ?] is displayed.

3. Enter the five digit code of the desired class (A, B, C, D or E) plus the # key, for example, class A. Enter 00000# for Class A toll override.
   [YOUR STN IS A] is momentarily displayed.

4. You now have 30 seconds to dial the telephone number.

DEFAULT DATA: NONE

RELATED ITEMS:

MMC #01 TOLL OVERRIDE CODE (CLASS A)
MMC #02 TOLL OVERRIDE CODE (CLASS B)
MMC #03 TOLL OVERRIDE CODE (CLASS C)
MMC #04 TOLL OVERRIDE CODE (CLASS D)
MMC #05 TOLL OVERRIDE CODE (CLASS E)
MMC #06 ENABLE CUSTOMER PROGRAMMING
MMC #07 CHANGE CUSTOMER PASSCODE
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY

MMC #: 01 TOLL OVERRIDE CODE (CLASS A)

DESCRIPTION:

This MMC is used to assign the five digit passcode that will be used as Class A toll restriction override. When a station user enters this passcode after entering MMC #00, the station class of service will be Class A and the user has 60 seconds to make a call.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.
2. Dial the # key.
   [PROGRAMMING] is displayed.
3. Dial 01.
   [CLASS A: 00000:] is displayed.
4. Enter a new five (5) digit passcode XXXXX.
5. Dial the # key to exit.

DEFAULT DATA: 00000

RELATED ITEMS: MMC #00 TOLL OVERRIDE (CLASS SELECTION)
MMC #30 STATION TOLL CLASS
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY

MMC #: 02 TOLL OVERRIDE CODE (CLASS B)

DESCRIPTION:

This MMC is used to assign the five digit passcode that will be used as Class B toll restriction override. When a station user enters this passcode after entering MMC #00, the station class of service will be Class B and the user has 60 seconds to make a call.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.
2. Dial the # key.
   [PROGRAMMING] is displayed.
3. Dial 02.
   [CLASS B: 11111:] is displayed.
4. Enter a new five (5) digit passcode XXXXX.
5. Dial the # key to exit.

DEFAULT DATA: 11111

RELATED ITEMS: MMC #00 TOLL OVERRIDE (CLASS SELECTION)
MMC #30 STATION TOLL CLASS
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY

MMC #: 03 TOLL OVERRIDE CODE (CLASS C)

DESCRIPTION:

This MMC is used to assign the five (5) digit passcode that will be used as Class C toll restriction override. When a station user enters this passcode after entering MMC #00, the station class of service will be Class C and the user has sixty (60) seconds to make a call.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.

2. Dial the # key.
   [PROGRAMMING] is displayed.

3. Dial 03.
   [CLASS C:22222:] is displayed.

4. Enter a new five (5) digit passcode XXXXX.

5. Dial the # key to exit.

DEFAULT DATA: 22222

RELATED ITEMS: MMC #00 TOLL OVERRIDE (CLASS SELECTION)
MMC #30 STATION TOLL CLASS
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY

MMC #: 04 TOLL OVERRIDE CODE (CLASS D)

DESCRIPTION:

This MMC is used to assign the five (5) digit passcode that will be used for Class D toll restriction override. When a station user dials this passcode after entering MMC #00, the station class of service will be Class D and the user has sixty (60) seconds to make a call.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.

2. Dial the # key.
   [PROGRAMMING] is displayed.

3. Dial 04.
   [CLASS D: 33333:] is displayed.

4. Enter a new five (5) digit passcode XXXXX.

5. Dial the # key to exit.

DEFAULT DATA: 33333

RELATED ITEMS: MMC #00 TOLL OVERRIDE (CLASS SELECTION)
MMC #30 STATION TOLL CLASS
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY

MMC #: 05 TOLL OVERRIDE CODE (CLASS E)

DESCRIPTION:

This MMC is used to assign the five (5) digit passcode that will be used for Class E toll restriction override. When a station user dials this passcode after entering MMC #00, the station class of service will be Class E and the user has sixty (60) seconds to make a call.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.

2. Dial the # key.
   [PROGRAMMING] is displayed.

3. Dial 05.
   [CLASS E: 44444] is displayed.

4. Enter a new five (5) digit passcode XXXXX.

5. Dial the # key to exit.

DEFAULT DATA: 44444

RELATED ITEMS: MMC #00 TOLL OVERRIDE (CLASS SELECTION)
MMC #30 STATION TOLL CLASS
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY

MMC #: 06 ENABLE CUSTOMER PROGRAMMING

DESCRIPTION:

This program will enable customer access to a limited number of MMCs. See the list at the beginning of the Programming Section of this manual.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 04.
   [MMC DISABLED] is displayed.

3. Dial the four (4) digit passcode, default 4321 plus 1 to enable programming or 0 to disable programming.

4. Dial the # key to exit.

NOTE: Programming mode will automatically time out after a short period of time following the last key sequence.

DEFAULT DATA: PASSCODE = 4321

RELATED ITEMS: MMC #07 CHANGE CUSTOMER PASSCODE

MMC #: 07 CHANGE CUSTOMER PASSCODE

DESCRIPTION:

Use this MMC to change the customer level programming passcode.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 07.
   [OLD PASSCODE] is displayed.

3. Enter the old passcode, for example, 4321.
   [NEW PASSCODE] is displayed.

4. Enter the new four (4) digit passcode valid digits 0–9. The passcode cannot include ✱ or #.

5. Dial the # key to exit.

NOTE: If the customer forgets the passcode, a technician may get into programming by using the technician passcode.

DEFAULT DATA: PASSCODE = 4321

RELATED ITEMS: MMC #06 ENABLE CUSTOMER PROGRAMMING

MMC #: 09 HEADSET OPERATION ON/OFF

DESCRIPTION:

This MMC is used to enable /disable headset operation for keyset users. This MMC is accessed by each keyset user and not via MMC 20. When headset operation is enabled, the SPK key will function as the hook switch.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] will be displayed.

2. Dial 09.
   [HEADSET USE: NO] current data is displayed.

3. Enter the new data (0 or 1).

   1= enable headset mode (YES)
   0= disable headset mode (NO)

4. Dial the # key to exit.

DEFAULT DATA: HEADSET DISABLED

RELATED ITEMS: *KEYSET USER GUIDE*

MMC #: 10 AUTO ANSWER SELECTION

DESCRIPTION:

This MMC is used to set the answer mode for intercom calls to a keyset. Programming must be done at each keyset and is not available via MMC #20.

NOTES:

1. This MMC applies to intercom calls ONLY.
2. When changing stations 7 or 8 from a keyset to a single line telephone, set the answer selection mode to RING before removing the keyset.
3. 800 keyset users must lift the handset to speak.

ACTION AND DISPLAY

1. Dial #10.
   [MODE : NORMAL:] will be displayed

2. Enter the new data (0 or 1).

   1 = Auto Answer Mode (AUTO)
   0 = Ring Mode (NORMAL)

3. Dial the # key to exit.

DEFAULT DATA: ALL KEYSETS RING MODE [NORMAL]

RELATED ITEMS: *KEYSET USER GUIDE*

MMC #: 11 CALL FORWARD ALL

DESCRIPTION:

This MMC is used by each station to set or clear Call Forward All.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] will be displayed.

2. Dial 11.
   [FWD: NONE:] current data is displayed.

3. Enter the destination station by pressing the DSS key or dialing the station number 21–36.

4. Forward All is now set. The SPK key is flashing.

5. To clear forwarding, repeat steps 1, 2 and 3, but dial your own station.

6. Forwarding is now clear.

7. Dial the # key to exit.

DEFAULT DATA: NONE

RELATED ITEMS: MMC #12 CALL FORWARD BUSY
MMC #80 KEYSET BUTTON PROGRAMMING (CODE 46)
KEYSET USER GUIDE

MMC #: 12 CALL FORWARD BUSY

DESCRIPTION:

This MMC is used by each station user to set or clear Call Forward Busy.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] will be displayed.

2. Dial 12.
   [FWD BUSY TO:] current data is displayed.

3. Enter the destination station by pressing the DSS key or dialing the station number 21–36.

4. Forward Busy is now set. The SPK key is flashing.

5. To clear forwarding repeat steps 1, 2 and 3, but dial your own station.

6. Forwarding is now clear.

7. Dial the # key to exit.

DEFAULT DATA: NONE

RELATED ITEMS: MMC #11 CALL FORWARD ALL
MMC #80 KEYSET BUTTON PROGRAMMING (CODE 46)
KEYSET USER GUIDE

MMC #: 13 AUTO TIMER ON/OFF

DESCRIPTION:

This MMC is used by display keyset users to enable or disable the auto timer function for C.O. line calls. This MMC is accessed by each display keyset user and is not available via MMC #20.

ACTION AND DISPLAY

1. Dial # 13
   [AUTO TIMER OFF:] current data is displayed.

2. Enter the new data (0 or 1).

   0 = Disable Auto Timer (OFF)
   1 = Enable Auto Timer (ON)

3. Dial the # key to exit.

DEFAULT DATA: AUTO TIMER OFF

RELATED ITEMS: MMC #58 AUTO TIMER START TIME
KEYSET USER GUIDE

MMC #: 14 STATION DIRECTORY

DESCRIPTION:

Use at the attendant's keyset to enter a directory name for each station in the system. If the attendant's keyset is not a display keyset, temporarily install one at this station.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 14.
   [EXT21:.....] The current data is displayed.

3. Press the HOLD key to clear the current data.

4. Press the DSS button to be named, for example, DDS 02.
   [EXT22:.....] The current data is displayed.

5. Enter the name by using the method below (ten characters maximum).

DIAL PAD KEY

NUMBER OF TIMES PRESSED	1	2	3	4	5	6	7	8	9	0
1	Q	A	D	G	J	M	P	T	W	:
2	Z	B	E	H	K	N	Q	U	X	.
3	*	C	F	I	L	O	R	V	Y	!
4	1	2	3	4	5	6	7	8	9	0

NOTE: The following special keys are also used in this MMC.

*	=	NEXT	Use to advance the cursor one position to the right.
MSG	=	SPACE	Use to skip one cursor position on the right.
ALM/SD	=	BACKSPACE	Use to move the cursor one position to the left.
HOLD	=	CLEAR	Use to clear the current data.

6. Press the next DSS button and enter name.

7. Dial the # key after all names are entered.

DEFAULT DATA: NO NAMES ASSIGNED

RELATED ITEMS: ***KEYSET USER GUIDE***
SYSTEM ADMINISTRATION AND SPECIAL FEATURES GUIDE

MMC #: 15 SOFT KEY ASSIGNMENT

DESCRIPTION:

This program is used to assign any of the following functions to the four round buttons on each keyset. These are assigned on an individual keyset basis.

00	NO ASSIGNMENT	40	BOSS/SECRETARY
33	TIMER	41	GROUP LISTENING
34	AUTO ANSWER	42	ACCOUNT CODE
35	AUTO REDIAL	43	GROUP 1
36	CALLBACK	44	GROUP 2
37	INTERNAL PAGE	45	GROUP 3
38	ATTENDANT	46	FORWARD ALL TO GROUP 3
39	DOOR PHONE 1	47	DOOR PHONE 2

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 15.
   [STN KEY PROGRAM] is displayed.

3. Press the round button to be programmed, for example, the first left button.
   [TIMER:TIMER:] The current data is displayed.

4. Dial the two (2) digit code (XX) from the table above for the desired function.
   The code is displayed.

5. Dial the # key to exit.

NOTE: Blank button designation strips should be used when anything other than default functions are assigned. New functions can be labeled for customer use.

DEFAULT DATA: REFER TO DEFAULT KEYSET LAYOUTS IN MMC #80 KEYSET BUTTON PROGRAMMING

RELATED ITEMS: *KEYSET USER GUIDE*

MMC #: 16 C.O. LINE DIRECTORY

DESCRIPTION:

This program is used to enter an identification or directory name for each C.O. line.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 16.
   [LINE DIRECTORY] is displayed.

3. Press the C.O. line button to be named, for example, C.O. line 1.
   [LINE1:.....] The current data is displayed.

4. Press the HOLD button to clear old data.

5. Enter the name by using the method below (ten characters maximum).

DIAL PAD KEY

		1	2	3	4	5	6	7	8	9	0
NUMBER	1	Q	A	D	G	J	M	P	T	W	:
OF TIMES	2	Z	B	E	H	K	N	Q	U	X	.
PRESSED	3	*	C	F	I	L	O	R	V	Y	!
	4	1	2	3	4	5	6	7	8	9	0

NOTE: The following special keys are also used in this MMC.

*	=	NEXT	Use to advance the cursor one position to the right.
MSG	=	SPACE	Use to skip one cursor position on the right.
ALM/SD	=	BACKSPACE	Use to move the cursor one position to the left.
HOLD	=	CLEAR	Use to clear the current data.

6. Repeat steps 3–5 for all C.O. lines to be named.

7. Dial the # key to exit.

DEFAULT DATA: NO LINE DIRECTORY INFORMATION ASSIGNED

RELATED ITEMS: *SYSTEM ADMINISTRATION AND SPECIAL FEATURES GUIDE*

MMC #: 17 RING LINE PREFERENCE

DESCRIPTION:

This MMC is used by each keyset user to enable or disable ringing line preference for new C.O. line calls.

ACTION AND DISPLAY

1. Dial #17.
   [RING PREFER ON:] The current data is displayed.

2. Enter the new data (0 or 1).

   0 = Ring Preference Disable (OFF)
   1 = Ring Preference Enable (ON)

3. Dial the # key to exit.

DEFAULT DATA: RING PREFERENCE ENABLED

RELATED ITEMS: *KEYSET USER GUIDE*

MMC #: 18 GROUP DIRECTORY

DESCRIPTION:

This program is used to assign a ten character name or identification for each of the three station groups 71, 72 and 73.

ACTION AND DISPLAY

1. Dial #18.
   [GROUP DIRECTORY] is displayed.

2. Press the first round button to select group 71, the second for group 72 or the third for group 73.
   The current data is displayed, e.g., for group 1, [GRP71:] is displayed.

3. Enter the name by using the method below (ten characters maximum).

DIAL PAD KEY

		1	2	3	4	5	6	7	8	9	0
NUMBER	1	Q	A	D	G	J	M	P	T	W	:
OF TIMES	2	Z	B	E	H	K	N	Q	U	X	.
PRESSED	3	*	C	F	I	L	O	R	V	Y	!
	4	1	2	3	4	5	6	7	8	9	0

NOTE: The following special keys are also used in this MMC.

*	=	NEXT	Use to advance the cursor one position to the right.
MSG	=	SPACE	Use to skip one cursor position on the right.
ALM/SD	=	BACKSPACE	Use to move the cursor one position to the left.
HOLD	=	CLEAR	Use to clear the current data.

4. Repeat steps 2 and 3 as needed.

5. Dial the # key to exit.

DEFAULT DATA: NONE

RELATED ITEMS: MMC #69 STATION HUNT GROUPS
MMC #76 HUNT GROUP RING MODES

MMC #: 19 SMDR DIRECTORY

DESCRIPTION:

This program is used to assign a 16 character directory name at the top of each page of an SMDR printout.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 19.
   [SMDR DIRECTORY] is momentarily displayed.
   [.....] The current data is displayed.

3. Press the HOLD button to clear old data.

4. Enter the name by using the method below (16 characters maximum).

DIAL PAD KEY

NUMBER OF TIMES PRESSED	1	2	3	4	5	6	7	8	9	0
1	Q	A	D	G	J	M	P	T	W	:
2	Z	B	E	H	K	N	Q	U	X	.
3	*	C	F	I	L	O	R	V	Y	!
4	1	2	3	4	5	6	7	8	9	0

NOTE: The following special keys are also used in this MMC.

*	=	NEXT	Use to advance the cursor one position to the right.
MSG	=	SPACE	Use to skip one cursor position on the right.
ALM/SD	=	BACKSPACE	Use to move the cursor one position to the left.
HOLD	=	CLEAR	Use to clear the current data.

5. Dial the # key to exit.

DEFAULT DATA: NO NAME

RELATED ITEMS: MMC #78 SMDR PAGE LENGTH
MMC #92 CHANGE BAUD RATE
SIO BOARD INSTALL

MMC #: 20 ENABLE TECHNICIAN PROGRAMMING

DESCRIPTION:

Allows you to set the system for program enable or disable mode for technician level access. This will also enable you to access customer programs.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 20.
   [MMC DISABLED] The current data is displayed.

3. Enter the four (4) digit passcode (default 1234). [ERROR] is displayed when a wrong passcode is entered.

4. Enter the desired function from the list below.

   0 = System program disable (CLOSED)
   1 = System program enable (OPEN)
   2 = Auto C.O. line selection while on-hook enable; via dial 9
   3 = Auto C.O. line selection while on-hook disable; via dial 9
   4 = 12 hour clock
   5 = 24 hour clock

5. Dial the # key to exit.

NOTE: The system will automatically exit the programming mode in a short time.

DEFAULT DATA: PASSCODE IS 1234

RELATED ITEMS: MMC #21 CHANGE TECHNICIAN PASSCODE

MMC #: 21 CHANGE TECHNICIAN PASSCODE

DESCRIPTION:

This MMC is used to change the default technician passcode.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 21.
   [OLD PASSCODE] is displayed.

3. Enter the current passcode.
   [NEW PASSCODE] is displayed. If the wrong passcode is entered, the display will show [ERROR] and the system will release you from programming.

4. Enter the new passcode.

5. Dial the # key to exit.

NOTES:

1. The four digit passcode is composed of any digit 0–9 of the dial keys and 1–6 of the DSS keys. The digits 1–6 on the DSS keys represent A, B, C, D, E and F respectively.
2. This MMC does not require MMC ENABLED.

DEFAULT DATA: LOSS OF RAM MEMORY INITIALIZES PASSCODE TO DEFAULT VALUE 1234

RELATED ITEMS: MMC #20 ENABLE TECHNICIAN PROGRAMMING

MMC #: 22 DTMF TONE MUTED

DESCRIPTION:

Allows the user to mute DTMF tones to the calling party when dialing on C.O. lines. This is a system-wide option for keyset users.

Note: This MMC will mute only tones heard in the calling stations handset or speaker and has no effect on the DTMF being sent on the C.O. lines.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 22.
   [DTMF MUTED] The current data is displayed.

3. Enter the technician passcode.

4. Enter the new data (0 or 1).

   0 = DTMF ON (calling station will hear DTMF tone)
   1 = DTMF MUTED (calling station will not hear DTMF tone)

5. Dial the # key to exit.

NOTE: This MMC does not require MMC ENABLED.

DEFAULT DATA: 1 = DTMF MUTED

RELATED ITEMS: NONE

MMC #: 23 DIAL PULSE MAKE/BREAK RATIO

DESCRIPTION:

Enables you to adjust the dial pulse make/break ratio.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 23.
   [MAKE RATIO] is displayed.

3. Enter the technician passcode.
   [MAKE: 33:] The current data is displayed.

4. Enter the new MAKE ratio—two (2) digits (XX) in the range of 01–99.
   [BREAK: 66:] The current data is displayed.

5. Enter the new BREAK ratio—two (2) digits (XX) in the range of 01–99.

6. Dial the # key to exit.

NOTE: This MMC does not require MMC ENABLED.

DEFAULT DATA: MAKE 33/BREAK 66

RELATED ITEMS: MMC #42 C.O. LINE PULSE/TONE SELECTION

MMC #: 24 SOFTWARE VERSION DISPLAY

DESCRIPTION:

Provides display of the current software version of the KSU and the keyset.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 24.
   [VERSION] is displayed.

3. Enter the technician passcode.
   [KSU:V1.0 KTS:V3] The current data is displayed.
   The display will show the KSU version and the keyset version.

4. Dial ✱ key (to show date made).
   [MADE 19YY:MM:DD] is displayed (YY = year/MM = month/DD = day).

5. Dial the # key to exit.

NOTE: This MMC does not require MMC ENABLED.

DEFAULT DATA: NONE

RELATED ITEMS: NONE

MMC #: 25 SYSTEM INITIALIZATION

DESCRIPTION:

Enables you to initialize the system without turning system power ON and OFF. Care should be taken in this MMC regarding the use of option 2 below because it will clear all customer data and default the system to the stored factory program.

NOTES:

1. This MMC does not require MMC ENABLED.
2. Option 2 below should be used at initial installation.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 25.
   [INITIAL SYS?] will be displayed.

3. Enter the technician passcode.

4. Enter one of the three digits below.

   0 = No initialization
   1 = Initialization of scratch pad data in RAM (customer data will not be erased)
   2 = Initialization of scratch pad data in RAM, erasure of ALL programmed customer data and system reset to the stored factory program; all MMCs will be set at the default values (this will take approximately 15 seconds)

5. Dial the # key to exit.

DEFAULT DATA: NONE

RELATED ITEMS: NONE

MMC #: 26 NIGHT MODE DIALING CLASS

DESCRIPTION:

Use this program to set all stations to a specific call restriction class for after hours service. This is a system wide option and ALL stations are set at the same time.

NOTES:

1. Same as day mode means all stations will remain at the same class for both day and night service. Same restrictions apply day and night.
2. Class F will be allowed numbers in MMC #94 TOLL OVERRIDE TABLE.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 26.
   [NIGHT TOLL:0:] The current data is displayed.

3. Enter the technician level passcode plus one of the following digits:

   0 = Same as DAY MODE OPERATION
   1 = All stations Class B
   2 = All stations Class C
   3 = All stations Class D
   4 = All stations Class E
   5 = All stations Class F

4. Dial the # key to exit.

DEFAULT DATA: NIGHT SERVICE OPERATION SAME AS DAY MODE OPERATION

RELATED ITEMS: MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY
MMC #94 TOLL OVERRIDE TABLE

MMC #: 27 BACKGROUND MUSIC OVER PAGE

DESCRIPTION:

This MMC will allow background music (BGM) to be sent out over the page voice pair so that BGM can be heard over the customer-provided external page system.

NOTE: The background music will be the same as the music on hold source.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.

2. Dial the # key.
   [PROGRAMMING] is displayed.

3. Dial 27.
   [BGM * PAGE: NO:] is displayed.

4. Enter the new data (0 or 1).

   1 = YES (send BGM to page voice pair)
   0 = NO (do not send BGM to page voice pair)

5. Dial # to exit.

DEFAULT DATA: BGM OVER PAGE NO

RELATED ITEMS: MUSIC ON HOLD INSTALLATION

MMC #: 28 COMMON BELL RELAY

DESCRIPTION:

This MMC is used to set the operation mode of the common relay contact set. Three choices are available.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.

2. Dial the # key.
   [PROGRAMMING] is displayed.

3. Dial 28.
   [RELAY USE: MOH] is displayed.

4. Enter the new data from one of the three codes as follows:

   0 = MOH on Demand
   1 = Common Bell Interrupted
   2 = Common Bell Continuous

5. Dial # to exit.

6. The new data is momentarily displayed for confirmation.

DEFAULT DATA: MOH ON DEMAND

RELATED ITEMS: MMC #61 NIGHT RING ASSIGNMENT
MMC #62 DAY RING ASSIGNMENT
MMC #63 DOOR PHONE RING ASSIGNMENT
(ALL FOR OPTION 1 OR 2)

MMC #: 29 DATA SECURE

DESCRIPTION:

This MMC is used to secure single line telephones from getting a camp-on tone. This feature is used when the SLT port is being used as a FAX or modem line.

ACTION AND DISPLAY

1. Open technician level programming via MMC #20.

2. Dial the # key.
   [PROGRAMMING] is displayed.

3. Dial 29.
   [DATA SECURE] is momentarily displayed.
   [0000000000000000] The current data for all 16 stations is displayed.

4. Enter the new data (0 or 1) for all 16 stations.

   0 = NOT SECURE: camp-on tone will be heard
   1 = SECURE: camp-on tone will not be heard

5. Dial # key to exit.

DEFAULT DATA: NO SLT SECURE

RELATED ITEMS: MMC #38 SINGLE LINE DIALING CLASS

MMC #: 30 STATION TOLL CLASS

DESCRIPTION:

Enables you to assign an individual dialing class of service to each station.

NOTE: MMC #94 TOLL OVERRIDE TABLE is the toll override table and an entry in MMC #94 is allowed to be dialed by any station regardless of the class set here. The entries set in MMC #94 are typically emergency type phone numbers (for example, 911).

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 30.
   [STATION TOLL CLASS] is momentarily displayed.
   [0000000000000000] The current data for all 16 stations is displayed.

3. Enter the new data (0–5) from the choices below for all 16 stations.

   0 = Class A No restrictions
   1 = Class B Follows allow/deny table for Class B (MMCs #33, #34, #35 and #36)
   2 = Class C Follows allow/deny table for Class C (MMCs #33, #34, #35 and #36)
   3 = Class D Follows allow/deny table for Class D (MMCs #33, #34, #35 and #36)
   4 = Class E Follows allow/deny table for Class E (MMCs #33, #34, #35 and #36)
   5 = Class F Intercom calls and phone numbers set in MMC #94 only

4. Dial the # key to exit.

DEFAULT DATA: 0000000000000000 (ALL STATIONS CLASS A)

RELATED ITEMS: MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY
MMC #41 C.O. FOLLOW TOLL RESTRICTION
MMC #44 C.O. OR PBX LINE SELECTION
MMC #94 TOLL OVERRIDE TABLE

MMC #: 31 EXTENSION/TRUNK USE

DESCRIPTION:

This program enables you to designate the type of access each station will have on all C.O. lines.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 31.
   [EXT ✱ TRUNK USE] is displayed.

3. Press the DSS key of the station to be programmed (for example, DSS 01).
   [EXT21:33333333] The current data of all eight trunks is displayed.

4. Enter the new data (0, 1, 2 or 3) from the choices below for all eight trunks.

   0 = No Direct Access (can access from hold and transfer)
   1 = Answer Only
   2 = Dial Only
   3 = Answer and Dial

5. Dial the # key to exit.

6. Repeat steps 1–5 for each station.

DEFAULT DATA: 33333333

RELATED ITEMS: NONE

MMC #: 32 INTERNAL PAGE

DESCRIPTION:

This function enables you to allow or deny a station from receiving an internal page.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 32.
   [ENABLE ALL CALLS] is momentarily displayed.
   [1111111111111111] The current data for all 16 stations is displayed.

3. Enter the new data (0 or 1) for all 16 stations.

   0 = Deny
   1 = Allow

4. Dial the # key to exit.

DEFAULT DATA: ALL STATIONS RECEIVE INTERNAL PAGES

RELATED ITEMS: MMC #68 INTERNAL PAGE ZONES

TOLL RESTRICTION OVERVIEW

The PROSTAR 816 PLUS provides six (6) classes (A, B, C, D, E and F) of dialing service. Of the six classes, two are fixed and four are programmable. Dialing restrictions for the four programmable classes are determined by the following:

1. The DENY table MMC #33 in conjunction with the deny APPLY table MMC #34.
2. The ALLOW table MMC #35 in conjunction with the allow APPLY table MMC #36.
3. Each of the 16 stations may be assigned (MMC #30) to one of the following six classes defined below.
   - CLASS A is a fixed UNRESTRICTED class.
   - CLASS B is RESTRICTED as defined in MMCs #33, #34, #35, #36 and #94.
   - CLASS C is RESTRICTED as defined in MMCs #33,#34, #35, #36 and #94.
   - CLASS D is RESTRICTED as defined in MMCs #33, #34, #35, #36 and #94.
   - CLASS E is RESTRICTED as defined in MMCs #33, #34, #35, #36 and #94.
   - CLASS F is a fixed RESTRICTED class and is allowed all internal calls, and only outside (C.O.) calls allowed by the Toll Override Table of MMC # 94.

Toll restriction and limited dialing in the PROSTAR 816 PLUS are accomplished by making an entry in the DENY table (MMC #33) and then assigning one or all of the four classes (B, C, D or E) to which that entry should APPLY (MMC #34). If any exception to the deny entry is needed, it is assigned in the ALLOW table (MMC #35) and to which class the allow entry should APPLY (MMC #36).

The four MMCs (#33, #34, #35 and #36) involved in toll restriction programming are as follows. MMC #33 is the DENY table and has 500 entries. In this MMC, enter the digit(s) (maximum 11) that are to be denied when dialing over a C.O. line. The entry range is 001–500.

MMC #34 is the deny APPLY table and is used in conjunction with MMC #33. In this MMC, enter a 1 under each class (B, C, D or E) to which a deny entry in MMC #33 should APPLY. If you make an entry in MMC #33 and do not APPLY that entry to a class, the deny entry will have no effect. The entry range is 001–500 and corresponds to an entry in MMC #33.

MMC #35 is the ALLOW table and has 500 entries. In this MMC, enter any exceptions (maximum 11 digits) of the deny pattern. The entry range is 001–500.

MMC #36 is the allow APPLY table and is used in conjunction with MMC #35. In this MMC, enter a 1 under each class (B, C, D or E) to which an allow entry in MMC #35

TOLL RESTRICTION OVERVIEW

Class B can dial:

- All seven digit calls except numbers beginning with the prefix 976
- All numbers in area codes 201, 202, 203, 407 and 818
- All 1+ 800 numbers

Class C can dial:

- All seven digit calls except numbers beginning with the prefix 976
- All numbers in area codes 201, 209, 307 and 618
- All 1+ 800 numbers

Class D can dial:

- All seven digit calls except numbers beginning with the prefix 976
- All numbers in area code 201
- All 1+ 800 numbers

Class E can dial:

- All seven digit calls except numbers beginning with the prefix 976
- All 1+ 800 numbers

MMC #33

Entry #	Digits
001	976
002	1*0*
003	1*1*

MMC #34

Entry #	B C D E
001	1111
002	1111
003	1111

MMC #35

Entry #	Digits
001	1201*
002	1202*
003	1203*
004	1209*
005	1307*
006	1407*
007	1618*
008	1800*
009	1818*

MMC #36

Entry #	B C D E
001	1110
002	1000
003	1000
004	0100
005	0100
006	1000
007	0100
008	1111
009	1000

TOLL RESTRICTION OVERVIEW

MMC #35

Entry #	Digits
001	201*
002	202*
003	203*
004	209*
005	307*
006	407*
007	618*
008	800*
009	818*

MMC #36

Entry #	B C D E
001	1 1 1 0
002	1 0 0 0
003	1 0 0 0
004	0 1 0 0
005	0 1 0 0
006	1 0 0 0
007	0 1 0 0
008	1 1 1 1
009	1 0 0 0

MMC #: 33 TOLL DENY TABLE

DESCRIPTION:

This program enables you to define what leading digit(s) in a dialing plan are to be restricted. There are (500) entries in this table numbered 001–500. Each entry can define up to 11 digits. See the Toll Restriction Overview.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 33.
   [TOLL DENY TABLE] is displayed.

3. Enter a three (3) digit (XXX) table entry from 001–500 (for example, 001).
   [001:.....] The current data is displayed.

4. Press the HOLD button to clear data, if necessary.
   Enter up to 11 digits to be restricted.

5. Press the left round button to advance to the next entry or the right round button to go back to the previous entry and repeat step 4 until all entries are made.

6. Dial the # key to exit.

NOTES:

1. Press the HOLD key to clear the current data.
2. Press the left round button to advance to the next entry.
3. Press the right round button to go back to the previous entry.

DEFAULT DATA: NO DATA

RELATED ITEMS: MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY
MMC #41 C.O. FOLLOW TOLL RESTRICTION
MMC #44 C.O. OR PBX LINE SELECTION
MMC #94 TOLL OVERRIDE TABLE

MMC #: 34 TOLL DENY APPLY

DESCRIPTION:

This MMC works in conjunction with MMC #33 and has a matching table of 500 entries (001–500) with MMC #33. Define in this MMC to what class(es) the toll deny entry of MMC #33 should apply. An entry made in MMC #33 and not defined in this MMC will have no effect. Enter 1 for each class (B, C, D or E) for which the toll deny entry in MMC #33 will apply. See the Toll Restriction Overview.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 34.
   [TOLL DENY APPLY] is displayed.

3. Enter a three (3) digit (XXX) table entry from 001–500 (for example, 001).
   [001: 0000] The current data for classes B, C, D and E is displayed.

4. Enter 0 for classes B, C, D and E if the table entry is *not* to apply to that class. Enter 1 for classes B, C, D and E if the table entry is to apply to that class.
   Enter the necessary data for all four classes.

5. Press the left round button to advance to the next entry or the right round button to go back to the previous entry and repeat step 4 until all entries are made.

6. Dial the # key to exit.

NOTES:

1. Press the HOLD key to clear the entry.
2. Press the left round button to advance to the next entry.
3. Press the right round button to go back to the previous entry.

DEFAULT DATA: NO DATA

RELATED ITEMS: MMC #33 TOLL DENY TABLE
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY
MMC #41 C.O. FOLLOW TOLL RESTRICTION
MMC #44 C.O. OR PBX LINE SELECTION
MMC #94 TOLL OVERRIDE TABLE

MMC #: 35 TOLL ALLOW TABLE

DESCRIPTION:

This program enables you to define what leading digit(s) in a dialing plan are to be an exception to the entries of the deny table (MMC #33) and thereby allowed to be dialed. There are five hundred (500) entries in this table numbered 001–500. Each entry can define up to 11 digits. See the Toll Restriction Overview.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 35.
   [TOLL ALLOWED TABLE] will be displayed.

3. Enter a three (3) digit (XXX) table entry from 001–500 (for example, 001).
   [001:.....] The current data is displayed.

4. Press the HOLD button to clear data, if necessary.
   Enter up to 11 digits to be allowed.

5. Press the left round button to advance to the next entry or the right round button to go back to the previous entry and repeat step 4 until all entries are made.

6. Dial the # key to exit.

NOTES:

1. Press the HOLD key to clear the entry.
2. Press the left round button to advance to the next entry.
3. Press the right round button to go back to the previous entry.

DEFAULT DATA: NO DATA

RELATED ITEMS: MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #36 TOLL ALLOW APPLY
MMC #41 C.O. FOLLOW TOLL RESTRICTION
MMC #44 C.O. OR PBX LINE SELECTION
MMC #94 TOLL OVERRIDE TABLE

MMC #: 36 TOLL ALLOW APPLY

DESCRIPTION:

This MMC works in conjunction with MMC #35 and has a matching table of 500 entries (001–500) with MMC #35. Define in this MMC to what class(es) the toll allow entry of MMC #35 should apply. An entry made in MMC #35 and not defined in this MMC will have no effect. Enter 1 for each class (B, C, D or E) to which the toll allow entry in MMC #35 will apply. See the Toll Restriction Overview.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 34.
   [TOLL ALLOW APPLY] will be displayed.

3. Enter a three (3) digit (XXX) table entry from 001–500 (for example, 001).
   [001: 0000] The current data for classes B, C, D and E is displayed.

4. Enter 0 for classes B, C, D and E if the table entry is *not* to apply to that class. Enter 1 for classes B, C, D and E if the table entry is to apply to that class.
   Enter the necessary data for all four classes.

5. Press the left round button to advance to the next entry or the right round button to go back to the previous entry and repeat step 4 until all entries are made.

6. Dial the # key to exit.

NOTES:

1. Press the HOLD key to clear the entry.
2. Press the left round button to advance to the next entry.
3. Press the right round button to go back to the previous entry.

DEFAULT DATA: NO DATA

RELATED ITEMS: MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #41 C.O. FOLLOW TOLL RESTRICTION
MMC #44 C.O. OR PBX LINE SELECTION
MMC #94 TOLL OVERRIDE TABLE

MMC #: 37 QUEUE TIME BEFORE OVERFLOW

DESCRIPTION:

This MMC is used to set the amount of time a call will queue for an available port in group 73 to answer before the call is sent to the overflow destination. Both the amount of time and the overflow destination are programmed in this MMC. This timer is in effect for new C.O. calls and recalls to group 73 and does not apply to intercom calls to group 73.

NOTE: Value 00 in this MMC means no overflow. For overflow to work, a value of 01 second or higher must be programmed.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 37.
   [QUEUE TIMER] is momentarily displayed.
   [00 SEC] The current data is displayed.

3. Enter a two (2) digit (XX) value from 00–90 seconds.

4. Dial ✱.
   [OVERFLOW STN] is momentarily displayed.
   [EXT 21] The current overflow destination is displayed.

5. Enter a new overflow destination via DSS key 1–16.

6. Dial the # key to exit.

DEFAULT DATA: **TIMER = 00 SECONDS**
OVERFLOW DESTINATION = EXT 21 (OPERATOR)

RELATED ITEMS: **MMC #52 HOLD/CAMP-ON RECALL TIME**
MMC #53 TRANSFER RING TIME
MMC #61 NIGHT RING ASSIGNMENT
MMC #62 DAY RING ASSIGNMENT
MMC #69 STATION HUNT GROUPS

MMC #: 38 SINGLE LINE DIALING CLASS

DESCRIPTION:

You must define the type of telephone connected to each SLT port for dialing purposes. Keysets are not affected by this program and will be assigned 0.

NOTE: This MMC must be used to define ports 7 and 8.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 38.
   [SLT DIAL TYPE] is momentarily displayed.
   [0000000000000000] The current data for all 16 stations is displayed.
   0 = keyset
   1= SLT DTMF
   2= SLT Dial Pulse
   N= NOT EQUIPPED

3. Enter the new data (0, 1 or 2) for all 16 stations.

   0 = Key telephone or ports not equipped
   1 = Single line telephone (DTMF)
   2 = Single line telephone (Dial Pulse)

4. Dial the # key to exit.

DEFAULT DATA: DEPENDS ON HARDWARE CONFIGURATION.

RELATED ITEMS: PORT 7 AND 8 STRAPPING IN INSTALLATION MANUAL

MMC #: 39 ASSIGN BARGE-IN STATUS

DESCRIPTION:

This program allows you to assign individual stations the ability to barge-in on (override) an existing conversation.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 39.
   [ASSIGN BARGE-IN] is momentarily displayed.
   [0000000000000000] The current data for all 16 stations is displayed.

3. Enter the new data (0, 1, 2 or 3) for all 16 stations.

   0 = You cannot barge-in/Others can barge-in on you
   1 = You cannot barge-in/No one can barge-in on you
   2 = You can barge-in/Others can barge-in on you
   3 = You can barge-in/No one can barge-in on you

4. Dial the # key to exit.

NOTE: Barge-in on station to station will be permitted when both stations are set to data 0 and/or 2 (others can barge-in on you).

DEFAULT DATA: ALL STATIONS DATA 0

RELATED ITEMS: MMC #56 OVERRIDE TOLL INTERVAL
MMC #72 EXECUTIVE BARGE-IN (OVERRIDE)

MMC #: 40 DIAL 80 GROUP

DESCRIPTION:

This program allows individual C.O. lines to be added to or removed from the line group that is accessed by dialing 80. Some TELCOs require more expensive trunk charges over business line rates when this form of pooled access is used.

NOTE: Before assigning a C.O. line in this group, it must be removed from dial group 9 (MMC #47).

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 40.
   [DIAL 80 GROUP] is momentarily displayed.
   [00000000] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = Not in group
   1 = In group

4. Dial the # key to exit.

DEFAULT DATA: ALL LINES DATA 0

RELATED ITEMS: MMC #47 DIAL 9 GROUP

MMC #: 41 C.O. FOLLOW TOLL RESTRICTION

DESCRIPTION:

This MMC is used to program C.O. lines to follow or bypass (not follow) station toll restriction. Toll restriction will *not* be applied to station users who are using a trunk defined in this MMC to bypass (not follow) toll restriction.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 41.
   [CO BYPASS TOLL] is momentarily displayed.
   [00000000] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = C.O. line that is to follow station toll restriction
   1 = C.O. line that is to bypass station toll restriction (not follow)

4. Dial the # key to exit.

DEFAULT DATA: ALL LINES DATA 0 (FOLLOW STATION TOLL RESTRICTION)

RELATED ITEMS: MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY
MMC #44 C.O. OR PBX LINE SELECTION
MMC #94 TOLL OVERRIDE TABLE

MMC #: 42 C.O. LINE PULSE/TONE SELECTION

DESCRIPTION:

Enables you to define which C.O. lines are to be assigned as tone or pulse dialing.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 42.
   [TRUNK DIAL TYPE] is momentarily displayed.
   [11111111] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = Pulse dialing
   1 = DTMF dialing

4. Dial the # key to exit.

DEFAULT DATA: ALL LINES ARE SET AS 1

RELATED ITEMS: MMC #23 DIAL PULSE MAKE/BREAK RATIO

MMC #: 43 ASSIGN TRUNKS

DESCRIPTION:

Enables you to define which lines are used as normal C.O. lines or tie lines.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 43.
   [ASSIGN TRUNKS]is momentarily displayed.
   [11111111] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0, 1 or 3—2 and 4 are invalid) for all eight trunks.

   0 = C.O. line is not connected
   1 = C.O. line is connected
   2 = B/W tie (unavailable)
   3 = E/M tie (E & M tie line)
   4 = R/D tie (unavailable)

4. Dial the # key to exit.

NOTES:

1. C.O. lines 1, 2, 3 and 4 are available only for normal C.O. lines. C.O. lines 5, 6, 7 and 8 can be used as normal C.O. lines or tie lines.
2. Options 2 and 4 require a special universal trunk card. It is not currently available in the US.

DEFAULT DATA: DEPENDS ON HARDWARE CONFIGURATION

RELATED ITEMS: EXPANSION CARD INSTALLATION

MMC #: 44 C.O. OR PBX LINE SELECTION

DESCRIPTION:

Enables you to define which lines are directly connected to the telephone company (C.O.) or PBX line.

NOTE: This MMC defines the flash type (C.O. or PBX) sent on the line.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 44.
   [C.O. or PBX TRUNK] is momentarily displayed.
   [11111111] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = PBX line
   1 = C.O. line

4. Dial the # key to exit.

DEFAULT DATA: 11111111 C.O. LINE

RELATED ITEMS: MMC #50 C.O. FLASH TIMING
MMC #51 PBX FLASH TIMING
MMC #75 PBX TOLL CHECK

MMC #: 45 EXTERNAL CALL FORWARD

DESCRIPTION:

Enables you to designate the C.O. line that can be forwarded to another outside telephone number.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 45.
   [FORWARD LINE SET] is momentarily displayed.
   [00000000] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0= Deny external call forwarding
   1= Allow external call forwarding

4. Dial the # key to exit.

DEFAULT DATA: 00000000

RELATED ITEMS: MMC #59 EXTERNAL CALL FORWARD TIMER

MMC #: 46 PRIVATE OR NON-PRIVATE LINES

DESCRIPTION:

Enables you to assign each C.O. line for private or non-private use. Lines set for non-private work like 1A2 operation. A maximum of three additional parties may access a line already in use. (This feature is also known as broker call service.)

ACTION AND DISPLAY

1. Dial the # key.
   PROGRAMMING is displayed.

2. Dial 46.
   [PRIVACY OR NON] and then [PRIVACY: 0 NON: 1] is momentarily displayed.
   [00000000] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0= Privacy
   1= Non-Privacy

4. Dial the # key to exit.

DEFAULT DATA: 00000000

RELATED ITEMS: NONE

MMC #: 47 DIAL 9 GROUP

DESCRIPTION:

Allows individual C.O. lines to be added to or removed from the line group that is accessed by dialing 9. Some TELCOs require more expensive trunk charges over business line rates when this form of pooled accessed is used.

NOTE: C.O. lines CANNOT be in more that one dial group.

ACTION AND DISPLAY

1. Dial the # key to exit.
   [PROGRAMMING] is displayed.

2. Dial 47.
   [DIAL 09 GROUP] is momentarily displayed.
   [11111111] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = Not in group
   1 = In group

4. Dial the # key to exit.

DEFAULT DATA: 11111111 ALL C.O. LINES ARE IN DIAL 9 GROUP

RELATED ITEMS: MMC #40 DIAL 80 GROUP

MMC #: 48 ASSIGN DISA LINES DAY/NIGHT

DESCRIPTION:

Used to assign specific lines to be used for DISA features.

WARNING: As it is impossible to prevent unauthorized access to your telephone system by "hackers," we suggest that you do not turn the DISA feature on unless you intend to use it. If you do use this feature, it is good practice to frequently change passcodes and periodically review your telephone records for unauthorized use.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 48.
   [ASSIGN DISA] is momentarily displayed.
   [00000000] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0, 1, 2 or 3) for all eight C.O. lines.

   0 = Not a DISA line
   1 = DISA night mode
   2 = DISA day mode
   3 = DISA both day and night

4. Dial the # key to exit.

DEFAULT DATA: 00000000

RELATED ITEMS: MMC #65 DISA SECURITY CODE

MMC #: 49 FORWARD C.O. LINES

DESCRIPTION:

Used to set C.O. lines to follow or to not follow station call forwarding for new incoming calls. Transferred calls will always follow station call forwarding.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 49.
   [CO LINE FORWARD] is momentarily displayed.
   [00000000] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = Will not follow station call forward
   1 = Will follow station call forward

4. Dial the # key to exit.

DEFAULT DATA: 00000000

RELATED ITEMS: MMC #11 CALL FORWARD ALL
MMC #12 CALL FORWARD BUSY

MMC #: 50 C.O. FLASH TIMING

DESCRIPTION:

Enables you to define the length of a flash on the C.O. line.

Note: This flash time is applied to lines defined as C.O. lines in MMC #44.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 50.
   [C.O. FLASH TIME] is momentarily displayed.
   [0600MSEC] The current data is displayed.

3. Enter the new flash time—four (4) digits (XXXX) in milliseconds.
   The range is 0000–5000 ms.

   NOTE: 1000 ms equals one second.

4. Dial the # key to exit.

DEFAULT DATA: 0600 ms

RELATED ITEMS: MMC #44 C.O. OR PBX LINE SELECTION

MMC #: 51 PBX FLASH TIMING

DESCRIPTION:

Enables you to define the length of a flash for a line defined as a PBX line.

NOTE: This flash time is applied to lines defined as PBX lines in MMC #44 C.O. OR PBX LINE SELECTION.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 51.
   [PBX FLASH TIME] is momentarily displayed.
   [0600MSEC] The current data is displayed.

3. Enter the new flash time—four (4) digits (XXXX) in milliseconds.
   The range is 0000–5000 ms.

   NOTE: 1000 ms equals one second.

4. Dial the # key to exit.

DEFAULT DATA: 0600 MS

RELATED ITEMS: MMC #44 C.O. OR PBX LINE SELECTION

MMC #: 52 HOLD/CAMP-ON RECALL TIME

DESCRIPTION:

Enables you to define the length of time a C.O. line is allowed to be on hold or camped-on before it recalls. Hold recall will recall the original station. Camped-on recall will be determined in MMC #90 TRANSFER RECALL DESTINATION.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 52.
   [HOLD RECALL TIME] is momentarily displayed.
   [030SEC:] The current data is displayed.

3. Enter the new RECALL TIME—three (3) digits (XXX) in seconds.
   The range is 000–990 seconds.

4. Dial the # key to exit.

DEFAULT DATA: 030 SECONDS

RELATED ITEMS: MMC #90 TRANSFER RECALL DESTINATION

MMC #: 53 TRANSFER RING TIME

DESCRIPTION:

Enables you to define the length of time a transferred call will ring at a station before it recalls. The recall destination will be determined in MMC #90 TRANSFER RECALL DESTINATION.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 53.
   [TRSF RECALL TIME] is momentarily displayed.
   [030SEC:] The current data is displayed.

3. Enter the new RECALL TIME—three (3) digits (XXX) in seconds.
   The range is 000–200 seconds.

4. Dial the # key to exit.

DEFAULT DATA: 30 SECONDS

RELATED ITEMS: MMC #90 TRANSFER RECALL DESTINATION

MMC #: 54 ALARM TIME DURATION

DESCRIPTION:

Enables you to define the duration of the ringing signal when using the alarm feature.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 54.
   [ALARM RING TIME] is momentarily displayed.
   [010SEC:] The current data is displayed.

3. Enter the new ALARM RING TIME—three (3) digits (XXX) in seconds.
   The range is 000–200 seconds.

4. Dial the # key to exit.

DEFAULT DATA: TEN SECONDS

RELATED ITEMS: *KEYSET USER GUIDE*

MMC #: 55 DATE AND TIME

DESCRIPTION:

Enables you to adjust the date and time.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 55.
   [YY MM DD W HH MM] is displayed.

3. Enter the new data [YY MM DD W HH MM] for all fields.

   YY = Last two digits of the year
   MM = Month of the year (01–12)
   DD = Day (01–31)
   W = Day of the week
   HH = Hour (24 hour mode)
   MM = Minutes (00–60)

   Weekday Values

   1 = Monday
   2 = Tuesday
   3 = Wednesday
   4 = Thursday
   5 = Friday
   6 = Saturday
   7 = Sunday

4. Dial the # key to exit.

NOTE: If the 12 hour clock is desired, program the time in 24 hour clock (military time) in this program. Then change to 12 hour clock in MMC #20. Failure to do so will result in incorrect change in the day of the week display.

DEFAULT DATA: NONE

RELATED ITEMS: NONE

MMC #: 56 OVERRIDE TONE INTERVAL

DESCRIPTION:

Enables you to define the interval between intrusion tones. Tone is heard at the beginning of override and repeated at programmed intervals.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 56.
   [OVERRIDE ALARM] is momentarily displayed.
   [10SEC:] The current data is displayed.

3. Enter the new OVERRIDE ALARM interval—two (2) digits (XX) in seconds.
   The range is 00–99 seconds.

4. Dial the # key to exit.

DEFAULT DATA: TEN SECONDS

RELATED ITEMS: MMC #39 ASSIGN BARGE-IN STATUS
MMC #72 EXECUTIVE BARGE-IN (OVERRIDE)

MMC #: 57 C.O. TO C.O. DURATION TIMER

DESCRIPTION:

Enables you to define the length of time for an unsupervised conference, a DISA call or an external call forward connection. The connection between two C.O. lines will automatically be dropped when this timer expires. Dial * on the dial pad to reset this timer.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 57.
   [CO CO CALL TIME] is momentarily displayed.
   [150SEC:] The current data is displayed.

3. Enter the new CO CO CALL TIME duration—three (3) digits (XXX) in seconds. The range is 010–990 seconds.

4. Dial the # key to exit.

NOTE: Recalls to the operator will be automatically disconnected if not answered before this timer expires.

DEFAULT DATA: 150 SECONDS

RELATED ITEMS: NONE

MMC #: 58 AUTO TIMER START TIME

DESCRIPTION:

Enables you to define the delay before the auto timer starts.

ACTION AND DISPLAY

1. Dial the # key.
   PROGRAMMING is displayed.

2. Dial 58.
   [TIMER DELAY TIME] is momentarily displayed.
   [45SEC:] The current data is displayed.

3. Enter the new TIMER DELAY TIME start time—two (2) digits (XX) in seconds.
   The range is 00–99 seconds.

4. Dial the # key to exit.

DEFAULT DATA: 45 SECONDS

RELATED ITEMS: MMC #13 AUTO TIMER ON/OFF

MMC #: 59 EXTERNAL CALL FORWARD TIMER

DESCRIPTION:

When MMC #45 has one or more lines set for external call forward, use this program to delay the forwarding feature. This will allow the customer time to answer the line before it is externally forwarded.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 59.
   [EXT DLY TIME] is displayed momentarily.
   [030SEC:] The current data is displayed.

3. Enter the new EXT DLY TIME start time—three (3) digits (XXX) in seconds.
   The range is 000–200 seconds.

4. Dial the # key to exit.

DEFAULT DATA: 030 SECONDS

RELATED ITEMS: MMC #45 EXTERNAL CALL FORWARD

MMC #: 60 C.O. LINE RING MODE

DESCRIPTION:

Used to assign an incoming ring mode for each C.O. line.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 60.
   [TRUNK RING MODE] is displayed.

3. Press the desired C.O. line button.
   [UNCONDITN RING:] The current ring mode is displayed.

4. Enter the new data (0, 1, 2 or 3).

   0 = Individual ring mode
   1 = Conditional ring mode
   2 = Unconditional ring mode
   3 = Distributed ring mode

5. Repeat steps 1–4 for all eight C.O. lines.

6. Dial the # key to exit.

NOTES:

1. Individual Ring Mode: an incoming line will ring the first non-busy station in the order defined in MMC #61 for NIGHT MODE and in MMC #62 for DAY MODE. If all stations are busy, off-hook ringing is sent to the first station programmed for the line ringing group.
2. Conditional Ring Mode: an incoming line will ring all stations that are idle for that line ringing group.
3. Unconditional Ring Mode: an incoming line will ring stations as defined in a line ringing groups whether they are active or idle.
4. Distributed Ring Mode: allows multiple stations to share the incoming call load by ringing the first station with a call and then the next call at the next station assigned to ring.

DEFAULT DATA: UNCONDITIONAL RING FOR ALL C.O. LINES

RELATED ITEMS: MMC #61 NIGHT RING ASSIGNMENT
MMC #62 DAY RING ASSIGNMENT

MMC #: 61 NIGHT RING ASSIGNMENT

DESCRIPTION:

Enables you to define which telephones ring on a per-line basis when the system is in the NIGHT MODE.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 61.
   [NITE RING ASSIGN] is displayed.

3. Press the C.O. line key to be programmed (for example, line 1).
   [LINE1:] is momentarily displayed.
   [1 . . . . . .] The current data is displayed.

4. Press the DSS key of each station that is to ring in night mode. (Press the fourth round button for common bell relay.)

5. Dial the # key to exit.

6. Repeat steps 1–5 for all C.O. lines.

NOTES:

1. A C.O. line may have a maximum of 16 stations assigned to ring (15 when a common bell is assigned).
2. Letters A–G in the display indicate stations 30–36 respectively.
3. Common bell relay is indicated with a ✱.

DEFAULT DATA: ALL C.O. LINES RING TO STATION 21 (OPERATOR)

RELATED ITEMS: MMC #28 COMMON BELL RELAY

MMC #: 62 DAY RING ASSIGNMENT

DESCRIPTION:

Enables you to define which telephones ring on a per-line basis when the system is in the day ring mode.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 62.
   [DAY RING ASSIGN] is displayed.

3. Press the C.O. line key to be programmed (for example, line 1).
   [LINE1:] is momentarily displayed.
   [1 . . . . . .] The current data is displayed.

4. Press the DSS key of each station that is to ring in day mode. (Press the fourth round button for common bell.)

5. Dial the # key to exit.

6. Repeat steps 1–5 for all C.O. lines.

NOTES:

1. A C.O. line may have a maximum of 16 stations assigned to ring (15 when a common bell is assigned).
2. Letters A–G in the display indicate stations 30–36 respectively.
3. Common bell relay is indicated with a ✱.

DEFAULT DATA: ALL C.O. LINES RING STATION 21 (OPERATOR)

RELATED ITEMS: MMC #28 COMMON BELL RELAY

MMC #: 63 DOOR PHONE RING ASSIGNMENT

DESCRIPTION:

Enables you to define which telephones will ring when a door phone button is pressed. This MMC is used to assign ringing for DOOR1 and DOOR2.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 63.
   [DOOR RING ASSIGN] is displayed.

3. Dial 1 for DOOR1 or 2 for DOOR2 (for example, door 1).
   [12345678] The current data is displayed.

4. Press the DSS button of each station that should receive door phone ringing. Press the fourth round button for common bell.

5. Dial the # key to exit.

NOTES:

1. A door phone may have a maximum of eight stations assigned to ring; seven when common bell is assigned.
2. Letters A–G in the display indicate stations 30–36 respectively.
3. Common bell relay is indicated with a *.

DEFAULT DATA: RING STATIONS 1, 2, 3, 4, 5, 6, 7 AND 8

RELATED ITEMS: MMC #78 COMMON BELL RELAY

MMC #: 64 RING OVER EXTERNAL PAGE

DESCRIPTION:

This MMC is used to assign each C.O. line that is to ring over an external (customer-provided) page when the system is set to night mode. The assigned C.O. lines will send ring tone to the external page voice pair and ring the stations assigned in MMC #61.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 64.
   [RING OVER PAGE] is displayed momentarily.
   [00000000] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = No ring over page
   1 = Ring over page

4 Dial the # key to exit.

DEFAULT DATA: 00000000

RELATED ITEMS: MMC #61 NIGHT RING ASSIGNMENT

MMC #: 65 DISA SECURITY CODE

DESCRIPTION:

Use this program to assign the four digit security code used for DISA features.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 65.
   [DISA SECU CODE] is displayed momentarily.
   [1234:] The current data is displayed.

3. Enter the new DISA SECU CODE—four (4) digits (XXXX) using valid digits 0–9.

   NOTE: ✱ and # cannot be used.

4. Dial the # key to exit.

DEFAULT DATA: 1234

RELATED ITEMS: MMC #48 ASSIGN DISA LINES DAY/NIGHT

MMC #: 66 ASSIGN DO NOT DISTURB

DESCRIPTION:

Used to allow or deny the use of the DND function button on each keyset.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 66.
   [SET DND STATUS] is momentarily displayed.
   [0111111111111111] The current data for all 16 stations is displayed.

3. Enter the new SET DND STATUS data (0 or 1) for all 16 stations.

   0 = DND is *not* allowed (disabled)
   1 = DND is allowed (enabled)

4. Dial the # key to exit.

NOTE: Disabling the DND button will not allow keysets to select a pre-programmed message. The MUTE function is not affected.

DEFAULT DATA: 0111111111111111 (OPERATOR STATION 21 IS NIGHT BUTTON, NOT DND)

RELATED ITEMS: NONE

MMC #: 67 CAMP-ON TONE INTERVAL

DESCRIPTION:

Used to adjust the time interval between camp-on reminder tones.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 67.
   [CAMP ON TONE] is momentarily displayed.
   [00:] The current data is displayed.

3. Enter the new CAMP ON TONE data—two (2) digits (XX) in seconds. The range is 10–99 seconds. 00 seconds will send only a single ring tone at the beginning of a camp-on.

4. Dial the # key to exit.

NOTE: Setting this value higher than the HOLD/CAMP-ON recall timer (MMC #52) will cause a single ring tone only.

DEFAULT DATA: 00 SINGLE RING TONE

RELATED ITEMS: MMC #52 HOLD/CAMP-ON RECALL TIME

MMC #: 68 INTERNAL PAGE ZONES

DESCRIPTION:

Used to assign keysets to one of three internal zones or all page.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 68.
   [ASSIGN PAGE ZONE] is momentarily displayed.
   [0000000000000000] The current data for all 16 stations is displayed.

3. Enter the new data (0, 1, 2 or 3) for all 16 stations.

   0 = Included in all page
   1 = Zone 1 only
   2 = Zone 2 only
   3 = Zone 3 only

4. Dial the # key to exit.

NOTE: MMC #32 can disable internal paging regardless of data assigned in this program.

DEFAULT DATA: 0000000000000000 NO STATIONS IN ANY ZONES

RELATED ITEMS: MMC #32 INTERNAL PAGE

MMC #: 69 STATION HUNT GROUPS

DESCRIPTION:

Assigns stations to one of the three hunt groups.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 69.
   [STN HUNT GROUPS] is displayed.

3. Dial 1, 2 or 3 to select the group to be programmed (for example, dial 1).
   [GROUP 1:] is displayed.

4. Press the DSS button of each station that is to be assigned to this group (maximum eight stations per group). Stations 10–16 will be displayed as letters A–G. A station cannot be assigned to more than one group at one time. If a station being assigned is in another group, it will be deleted from the old group and assigned to the new group.

5. Dial the # key to exit.

NOTE: Press the HOLD button to remove all stations from a group and exit the program.

DEFAULT DATA: NO STATIONS ASSIGNED

RELATED ITEMS: MMC #18 GROUP DIRECTORY
MMC #76 HUNT GROUP RING MODES

MMC #: 70 ATTENDANT ASSIGNMENT

DESCRIPTION:

Enables you to define which station is to act as the operator's station.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 70.
   [ATTN: EXT21:] The current data is displayed.

3. Press the desired DSS key for the new attendant.

4. Dial the # key to exit.

NOTES:

1. The operator places the system into night mode by pressing the DND key. If a single line telephone is assigned the attendant function, the system cannot be placed in night service.
2. The Do Not Disturb feature is not available at the attendant keyset.

DEFAULT DATA: STATION 21 IS THE OPERATOR STATION

RELATED ITEMS: NONE

MMC #: 71 SYSTEM SPEED DIAL RESTRICTION

DESCRIPTION:

Enables you to define whether the system allows or denies long distance numbers in system speed dialing to override toll restriction.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 71.
   [ALLOW TOLL:] is displayed.

3. Enter the new data (0 or 1, for example, 1).

   0 = Allow speed dialing to override toll restriction
   1 = Deny speed dialing from overriding toll restriction

4. Dial the # key to exit.
   [RESTRICT TOLL:] is displayed momentarily for confirmation.

DEFAULT DATA: SYSTEM SPEED DIALING WILL OVERRIDE TOLL RESTRICTION

RELATED ITEMS: MMC #30 STATION TOLL CLASS
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY
MMC #94 TOLL OVERRIDE TABLE

MMC #: 72 EXECUTIVE BARGE-IN (OVERRIDE)

DESCRIPTION:

Allows you to assign the override feature with or without an intrusion tone.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 72.
   [OVRD WITH TONE:] is displayed.

3. Enter the new data (1 or 2) for the executive barge-in option.

   1 = Override enable without intrusion tone
   2 = Override enable with intrusion tone

4. Dial the # key to exit.

NOTE: To define the interval of intrusion tone, refer to MMC #56.

DEFAULT DATA: OVERRIDE WITH TONE

RELATED ITEMS: MMC #39 ASSIGN BARGE-IN STATUS
MMC #56 OVERRIDE TONE INTERVAL

MMC #: 73 BOSS/SECRETARY ASSIGNMENT

DESCRIPTION:

Designates which station is defined as the boss station and which station is defined as the secretary station.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 73.
   [BOSS/SECRETARY] is displayed momentarily.
   [BOSS :] is displayed.

   Press the DSS key for the BOSS station (for example, DSS 02).
   [BOSS: 22] is displayed momentarily.
   [SECR:] is displayed.

4. Press the DSS key for the SECRETARY station (for example, DSS 03).
   [SECR: 23] is displayed.

5. Dial the # key to exit.
   [BOSS: 22] is displayed momentarily.
   [SECR: 23] is displayed momentarily for confirmation.

   NOTE: If a boss station enables Do Not Disturb, intercom calls are transferred to the secretary station. C.O. line calls are not transferred to the secretary station.

DEFAULT DATA: NO BOSS/SECRETARY PAIRS DEFINED

RELATED ITEMS: NONE

MMC #: 74 ALLOW C.O. FLASH

DESCRIPTION:

This MMC is used to designate each C.O. line that will be allowed to send a flash to the central office. When a C.O. line is programmed to allow flash, the system will send a flash when the station user presses the C. O. line button while connected to the C.O. line.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 74.
   [ALLOW FLASH] is displayed momentarily.
   [11111111] The current data for all eight C.O. lines is displayed.

3. Enter the new data (0 or 1) for all eight C.O. lines.

   0 = *Not* allowed to flash
   1 = Allowed to flash

4. Dial the # key to exit.

DEFAULT DATA: 11111111

RELATED ITEMS: MMC #50 C.O. FLASH TIMING
MMC #51 PBX FLASH TIMING

MMC #: 75 PBX TOLL CHECK

DESCRIPTION:

Used to inform the PROSTAR 816 PLUS system of any PBX/CENTREX access codes (maximum of five). The system will ignore these codes and apply toll restriction as programmed.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 75.
   [CENTREX TOLL CHK] is displayed.

3. Dial table entry 1–5, for example, 1.
   [CTOLL1:...] The current data is displayed.

4. Enter the PBX or CENTREX access code—three (3) digits maximum.
   Valid digits include 0–9 and *.

5. Repeat steps 1–4 for up to five (5) different access codes.

6. Dial the # key to exit.

   NOTE: Press the HOLD button to clear entry and exit.

DEFAULT DATA: ALL FIVE TABLES ARE EMPTY

RELATED ITEMS: MMC #51 PBX FLASH TIMING

MMC #: 76 HUNT GROUP RING MODES

DESCRIPTION:

Used to assign a ring pattern for each station group.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 76.
   [HNTGRP RING MODE] is displayed.

3. Dial the group number 1, 2 or 3, for example, 1.
   [INDIVDU RING:] The current data is displayed.

4. Enter the new data (0, 1, or 2).

   0 = Individual
   1 = Distributed/Individual
   2 = Conditional

5. Dial the # key to exit.

NOTES:

1. Individual Ring: calls will ring the lowest station number first. Caller will receive busy signal if all members are busy.
2. Distributed/Individual: calls will be distributed among all members of the group. A busy member will lose its turn in hunt sequence. Caller will receive a busy signal if all members are busy.
3. Conditional: calls will ring all members at the same time. If all members are busy, ringing is applied to the lowest station number if it is a keyset.
4. Camp-on and callback features cannot be applied to groups 71, 72 and 73.

DEFAULT DATA: ALL GROUPS INDIVIDUAL MODE (DATA 0)

RELATED ITEMS: MMC #18 GROUP DIRECTORY
MMC #69 STATION HUNT GROUPS

MMC #: 77 DOOR CONTACT TIMER

DESCRIPTION:

Allows the duration of the door phone contact closure to be adjusted.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 77.
   [DOOR LOCK TIME] is momentarily displayed.
   [01.5SEC:]The current data is displayed.

3. Enter the new data as three (3) digits (XXX).
   The range is 015–100 (01.5 seconds–10.0 seconds). Entering 015 will display as 1.5 seconds.

4. Dial the # key to exit.

DEFAULT DATA: 1.5 SECONDS

RELATED ITEMS: DOOR PHONE INSTALLATION

MMC #: 78 SMDR PAGE LENGTH

DESCRIPTION:

Used to assign the number of lines to be printed per page on the SMDR printout.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 78.
   [LINE PER PAGE: 33] is displayed.

3. Enter the new data for number of lines you want printed on each page. The range is 10–99.

   NOTE: This number will include four lines for the report header.

4. Dial the # key to exit.

NOTE: With the default setting, the report format will be double-spaced and print 29 call records plus four lines in the header. This assumes that carriage return and line feed are enabled on the customer-provided printer.

DEFAULT DATA: 33

RELATED ITEMS: MMC #19 SMDR DIRECTORY
MMC #92 CHANGE BAUD RATE

MMC #: 79 BACKGROUND MUSIC ALLOW/DENY

DESCRIPTION:

This MMC is used to allow or deny BGM on a per-station basis.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 79.
   [ALLOW BGM] is momentarily displayed.
   [1111111111111111] The current data for all 16 stations is shown.

3. Enter the new data (0 or 1) for all 16 stations.

   0 = BGM not allowed
   1 = BGM allowed

4. Dial the # key to exit.

NOTE: BGM and MOH are of the same source.

DEFAULT DATA: 1111111111111111

RELATED ITEMS: MUSIC ON HOLD INSTALLATION

MMC #: 80 KEYSET BUTTON PROGRAMMING

DESCRIPTION:

Defines what function is assigned to each button on the 816 keysets (for 800 keysets, see MMC #88 800 KEYSET BUTTON PROGRAMMING).

ACTION AND DISPLAY

1. Dial the # key to exit.
   [PROGRAMMING] is displayed.
2. Dial 80.
   [KEY PROGRAMMING] is displayed.
3. Press the button that is to be reassigned, for example, DSS button 16.
   [EXT36:EXT36:] The current data is displayed.
4. Enter the new data code from below for the desired function. All 816 keysets are now assigned this new function.
5. Dial the # key to exit.

NOTE: Buttons are assigned on a system-wide basis. When you change a button to a new function, it changes for all 816 keysets in the system.

DEFAULT DATA: **SEE KEYSET LAYOUT**
SEE DEFAULT BUTTON MAPPING

RELATED ITEMS: **MMC #15 SOFT KEY ASSIGNMENT**
SEE THE FOLLOWING TABLE

CODE	FUNCTION	CODE	FUNCTION	CODE	FUNCTION
00	NOT USED	16	STATION 36	32	ALARM/SPEED DIAL
01	STATION 21	17	C.O. LINE 1	33	TIMER
02	STATION 22	18	C.O. LINE 2	34	AUTO ANSWER
03	STATION 23	19	C.O. LINE 3	35	AUTO REDIAL
04	STATION 24	20	C.O. LINE 4	36	CALLBACK
05	STATION 25	21	C.O. LINE 5	37	INTERNAL PAGE
06	STATION 26	22	C.O. LINE 6	38	ATTENDANT
07	STATION 27	23	C.O. LINE 7	39	DOOR PHONE 1
08	STATION 28	24	C.O. LINE 8	40	BOSS/SECRETARY
09	STATION 29	25	HOLD	41	GROUP LISTENING
10	STATION 30	26	SPEAKER	42	ACCOUNT CODE
11	STATION 31	27	REDIAL	43	GROUP 1
12	STATION 32	28	MUTE/DND	44	GROUP 2
13	STATION 33	29	EXTERNAL PAGE	45	GROUP 3
14	STATION 34	30	CONFERENCE	46	FWD ALL TO GROUP 3
15	STATION 35	31	MESSAGE	47	DOOR PHONE 2

MMC #: 81 DIAGNOSTIC KEY TEST

DESCRIPTION:

Allows you to check whether each key works properly.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 81.
   [KEY TEST] is displayed and all LEDs light and station rings. Display sets show the full matrix pattern for 16 characters. All tri-color LEDs light amber.

3. Press each function button and dial pad key to test its operation. Display sets will show the corresponding key name. Buttons with LEDs will turn OFF and stay OFF when pressed.

4. Lift the handset and end testing.

DEFAULT DATA: NONE

RELATED ITEMS: NONE

MMC #: 82 PROGRAMMABLE MESSAGES

DESCRIPTION:

Provides up to 20 status messages that can be selected by any display keyset user. Once activated, other display sets calling will have the selected message displayed.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 82.
   [MESSAGE WRITING] is displayed momentarily.
   [MSG0:] is displayed if empty.
   [XXXXXXXXXXXXXXXX] If set, the current message for message 0 is displayed.

3. Enter the new data for message 0 using the method below or select the message number 0–9 to be programmed. Message number selection is made by pressing a corresponding DSS buttons 1–10. For example, message number 3 is DSS button 4.
   [MSG3:] is displayed if empty.
   [XXXXXXXXXXXXXXXX] If set, the current message for message 3 is displayed.

4. Press the HOLD button to clear current data, if necessary. Enter the new message by using the method below (maximum 16 characters).

DIAL PAD KEY

		1	2	3	4	5	6	7	8	9	0
NUMBER	1	Q	A	D	G	J	M	P	T	W	:
OF TIMES	2	Z	B	E	H	K	N	Q	U	X	.
PRESSED	3	*	C	F	I	L	O	R	V	Y	!
	4	1	2	3	4	5	6	7	8	9	0

NOTE: The following special keys are also used in this MMC.

*	=	NEXT	Use to advance the cursor one position to the right.
MSG	=	SPACE	Use to skip one cursor position on the right.
ALM/SD	=	BACKSPACE	Use to move the cursor one position to the left.
HOLD	=	CLEAR	Use to clear the current data.

5. Press the corresponding DSS button of the next message number to be programmed.

MMC #: 83 HOT LINE/PRIME LINE

DESCRIPTION:

This MMC is used to assign a hot line/prime line destination for each station. The destination may be one of the following:

1. Station
2. Station Group
3. Trunk
4. Trunk Group
5. System Speed Dial Number

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 83.
   [ASSIGN HOT LINE] is displayed.

3. Press the DSS key of the station to be programmed, for example, DSS 02. [EXT02:]
   The current data is displayed.

4. Enter the new data for desired hot line destination as follows:

   - For a station, press the associated DSS button.
   - For a station group, press the associated group round button.
   - For a trunk, press the associated C.O. line button.
   - For a trunk group, dial 9 for trunk group 9 or 8 for trunk group 80. (Use 8, not 80 so it will not conflict with system speed 80.)
   - For system speed dial number, enter the bin number 10–98.
   - To clear current data, press your own DSS button.

5. Dial the # key to exit.

DEFAULT DATA: NO HOT LINE ASSIGNED

RELATED ITEMS: MMC #84 HOT LINE DELAY
MMC #85 HOT LINE DELAY TIMER

MMC #: 84 HOT LINE DELAY

DESCRIPTION:

This MMC is used to assign a hot line delay on a per-station basis. Each station assigned a hot line may use this delay to access a different feature or line key before the hot line destination. (This is also known as the warm line feature.)

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 84.
   [DELAY HOT LINE] is displayed momentarily.
   [0000000000000000] The current data is shown.

3. Enter the new data (0 or 1) for all 16 stations.

   0 = For no delay
   1 = With delay (warm line); delay time is set in MMC #85 HOT LINE DELAY TIMER

DEFAULT DATA: 0000000000000000

RELATED ITEMS: MMC #83 HOT LINE/PRIME LINE
MMC #85 HOT LINE DELAY TIMER

MMC #: 85 HOT LINE DELAY TIMER

DESCRIPTION:

This MMC is used to set the amount of time for the hot line delay. Station users with hot line delay will be connected to their hot line destination after this timer has expired.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 85.
   [HOT LINE DELAY] is momentarily displayed.
   [005SEC:] The current data is shown.

3. Enter a valid three (3) digit number (XXX) in seconds.
   The range is 001–250 seconds.

4. Dial the # key to exit.

DEFAULT DATA: 005 SECONDS

RELATED ITEMS: MMC #83 HOT LINE/PRIME LINE
MMC #84 HOT LINE DELAY

MMC #: 86 MICROPHONE ALLOW/DENY

DESCRIPTION:

This MMC is used to allow or deny the use of the 816 keyset microphone. If microphone use is denied, the station user must lift the handset to speak on any type of call. The station user may continue to use on-hook dialing or monitoring as usual, but must lift the handset to speak.

NOTE: 800 keysets do not have microphones.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 86.
   [ALLOW MICROPHONE] is displayed momentarily.
   [1111111111111111] The current data for all 16 stations is displayed.

3. Enter the new data (0 or 1) for all 16 stations.

   0 = Deny the use of the 816 keyset microphone (MUTED)
   1 = Allow the use of the 816 keyset microphone (NORMAL)

4. Dial the # key to exit.

DEFAULT DATA: ALL STATION DATA IS 1 (MICROPHONE NORMAL)

RELATED ITEMS: NONE

MMC #: 87 OFF-HOOK DISPLAY

DESCRIPTION:

This MMC is used to program the system-wide off-hook display. Use the table below to program the 16 character LCD display.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 87.
   [OFF HOOK DISPLAY] is displayed momentarily.
   [HAVE A NICE DAY!] The current data is displayed.

3. Press the HOLD button to clear the current data, if necessary.

4. Enter the name by using the method below (16 characters maximum).

DIAL PAD KEY

		1	2	3	4	5	6	7	8	9	0
NUMBER	1	Q	A	D	G	J	M	P	T	W	:
OF TIMES	2	Z	B	E	H	K	N	Q	U	X	.
PRESSED	3	*	C	F	I	L	O	R	V	Y	!
	4	1	2	3	4	5	6	7	8	9	0

NOTE: The following special keys are also used in this MMC.

*	=	NEXT	Use to advance the cursor one position to the right.
MSG	=	SPACE	Use to skip one cursor position on the right.
ALM/SD	=	BACKSPACE	Use to move the cursor one position to the left.
HOLD	=	CLEAR	Use to clear the current data.

5. Dial the # key to exit.

DEFAULT DATA: HAVE A NICE DAY!

RELATED ITEMS: NONE

MMC #: 88 800 KEYSET BUTTON PROGRAMMING

DESCRIPTION:

This MMC is used to assign button mapping to the 800 type keyset. Any DSS, C.O. line or function may be assigned to any of the twelve (12) buttons. Careful thought should be taken before assigning any buttons as limited or no access may apply to some features. It is highly recommended that *all* C.O. lines have a dedicated button.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.
2. Dial 88.
   [800 KEY PROGRAM] is displayed.
3. Press the associated DSS button of the 800 station you wish to program, for example, DSS key 02.
4. [KEY01:LINE1] The first key and current key are displayed.
5. Enter the two (2) digit function code (XX) from below or dial ✱ to advance to the next key.
6. Repeat step 5 to program all twelve (12) buttons.
7. Dial the # key when done.

CODE	FUNCTION	CODE	FUNCTION	CODE	FUNCTION
00	NOT USED	16	STATION 36	32	ALARM/SPEED DIAL
01	STATION 21	17	C.O. LINE 1	33	TIMER
02	STATION 22	18	C.O. LINE 2	34	AUTO ANSWER
03	STATION 23	19	C.O. LINE 3	35	AUTO REDIAL
04	STATION 24	20	C.O. LINE 4	36	CALLBACK
05	STATION 25	21	C.O. LINE 5	37	INTERNAL PAGE
06	STATION 26	22	C.O. LINE 6	38	ATTENDANT
07	STATION 27	23	C.O. LINE 7	39	DOOR PHONE 1
08	STATION 28	24	C.O. LINE 8	40	BOSS/SECRETARY
09	STATION 29	25	HOLD	41	GROUP LISTENING
10	STATION 30	26	SPEAKER	42	ACCOUNT CODE
11	STATION 31	27	REDIAL	43	GROUP 1
12	STATION 32	28	MUTE/DND	44	GROUP 2
13	STATION 33	29	EXTERNAL PAGE	45	GROUP 3
14	STATION 34	30	CONFERENCE	46	FWD ALL TO GROUP 3
15	STATION 35	31	MESSAGE	47	DOOR PHONE 2

DEFAULT DATA: SEE DEFAULT BUTTON MAPPING
SEE KEYOUT LAYOUT

RELATED ITEMS: NONE

MMC #: 89 DATABASE PRINTOUT

DESCRIPTION:

This MMC is used when an optional SIO (two serial port) card has been installed in the system to print the customer database. The customer database may be printed by individual MMC or all MMCs (refer to SIO card installation and setup).

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 89.
   [PRINT DATABASE] is displayed momentarily.
   [WHICH MMC:] is displayed.

3. Enter the two (2) digit MMC number for an individual MMC or ** for all MMCs.

4. Dial the # key to exit.

NOTE: If the database is printing, you may stop printing by entering 00 at step 3.

DEFAULT DATA: NONE

RELATED ITEMS: MMC #92 CHANGE BAUD RATE

MMC #: 90 TRANSFER RECALL DESTINATION

DESCRIPTION:

This MMC is used to program the transfer recall and camp-on recall destination on a per-station basis. The recall destination can be one of two choices:

1. Recall to the station that made the transfer or camp-on
2. Recall to group 73 (Starmail)

This MMC is accessed via the technician (MMC #20) or customer (MMC #06) level passcode.

ACTION AND DISPLAY

1. Open programming via MMC #20 or MMC #06.

2. Dial the # key.
   [PROGRAMMING] will be displayed.

3. Dial 90.
   [TRF RECALL DEST] is momentarily displayed.
   [0000000000000000] The current data for all 16 stations is displayed.

4. Enter the new data (0 or 1) for all 16 stations.

   0 = Recall the originating station
   1 = Recall to group 73 (Starmail)

5. Dial the # key to exit.

DEFAULT DATA: ALL STATION DATA 0 (RECALLS TO ORIGINATING STATION)

RELATED ITEMS: MMC #52 HOLD/CAMP-ON RECALL TIME
MMC #53 TRANSFER RING TIME

MMC #: 91 DISCONNECT SIGNAL TO SINGLE LINE PORT

DESCRIPTION:

This MMC is used to set the amount of time the system will open the tip and ring of selected single line ports when disconnecting. The opening of the tip and ring will ensure the proper disconnect supervision of the selected single line port connected to various types of equipment, (i.e., answering machine, voice mail, etc.).

The following selected single ports can provide disconnect supervision:
- Ports 7 and 8 when strapped as single line port
- Circuits one and two of each single line expansion card (Type II)
- Maximum six (6) circuits with two expansion Type II cards installed

This MMC is programmed in two parts. The first is the amount of time the tip and ring will open on disconnect and the second is the single line ports which apply.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 91.
   [SLT DISCONNECT] is displayed momentarily.
   [03SEC:] The current data is displayed.

3. Enter a valid two (2) digit number (XX) in seconds.
   The range is 01–30 seconds.

4. Dial ✱ key.
   [APPLY STATION] is displayed momentarily.
   [0000000000000000] The current data is displayed for all 16 stations.

5. Enter the new data (0 or 1) for all 16 stations.

   0 = Disconnect timer will *not* apply to the station
   1 = Disconnect timer will apply to the station

   NOTE: Entering 1 for stations other then the six valid SLT ports will have no effect.

6. Dial the # key to exit.

DEFAULT DATA: TIME 03 SECONDS/APPLY NONE

RELATED ITEMS: NONE

MMC #: 92 CHANGE BAUD RATE

DESCRIPTION:

This MMC is used to set or change the baud rate of COM1 and/or COM2 when the optional SIO (two serial port) card is installed. The COM port baud rate must match the baud rate of the peripheral device to which it is connected.

NOTE: Communications protocol is fixed for both ports as eight bits, no parity and one stop bit (8 NONE 1).

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 92.
   [CHANGE BAUD RATE] is displayed.

3. Dial 1 for COM1 or 2 for COM2. (EXAMPLE: 1)
   [BAUD RATE: 9600] The current data is displayed.

4. Dial the * key of the dial pad to select the desired baud rate.
   Selectable baud rates are 300, 600, 1200, 2400, 4800 and 9000.

5. Dial the # key to exit.

DEFAULT DATA: COM1 AND COM2 SET AT 9600 BAUD

RELATED ITEMS: SIO INSTALLATION

MMC #: 93 ASSIGN REMOTE PORT

DESCRIPTION:

This MMC is used to assign a remote programming port. While there is *no* physical connection between this port and any modem or personal computer, it is necessary so that a software link can be established between the system and the COM port. During remote programming, this keyset will be disabled and if it is a display keyset, it will echo the programming in the LCD display. When no remote programming is underway, this keyset functions as normal.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 93.
   [ASSIGN REMOTE] is displayed momentarily.
   [PORT: EMPTY] The current data is displayed.

3. Press a valid DSS key of an installed keyset. Pressing a DSS button of an uninstalled keyset will display: [INVALID ENTRY].

4. Dial the # key to exit.

DEFAULT DATA: NO REMOTE PORT

RELATED ITEMS: REMOTE PROGRAMMING SECTION

MMC #: 94 TOLL OVERRIDE TABLE

DESCRIPTION:

This MMC is used to enter up to five exceptions to toll restriction. These exceptions can be accessed by any class in both the day and night modes. These entries are useful to allow access to emergency numbers. Caution should be taken regarding the entries of this table because they will not be blocked for outgoing calls.

ACTION AND DISPLAY

1. Dial the # key.
   [PROGRAMMING] is displayed.

2. Dial 94.
   [TOLL OVERRIDE TABLE] is displayed.

3. Dial a table entry 1–5 to be programmed (for example, 1).
   [001:] The current data is displayed.

4. Enter the new data (maximum 11 digits) via the dial pad.

5. Dial the # key to exit.

DEFAULT DATA: NO ENTRIES IN TABLE

RELATED ITEMS: MMC #30 STATION TOLL CLASS
MMC #33 TOLL DENY TABLE
MMC #34 TOLL DENY APPLY
MMC #35 TOLL ALLOW TABLE
MMC #36 TOLL ALLOW APPLY
MMC #41 C.O. FOLLOW TOLL RESTRICTION
MMC #44 C.O. OR PBX LINE SELECTION

2.3 BLANK DATA RECORD SHEETS

The following blank data record sheets are provided for you to record the programmed data for each system you install.

USEFUL GUIDELINES

A. Keep a record of each system programming in a safe place on-site.

B. Use a pencil to record the data. Ink cannot easily be erased or changed.

C. Always update the record sheets when changes are made to the system database.

D. These sheets may be copied as needed.

PROSTAR 816 PLUS
DATABASE FORMS

CUSTOMER NAME: _____

ADDRESS: _____

_____

_____

_____

TELEPHONE NUMBER: _____

DATABASE CONTAINS _____ SHEETS

MMC #14 STATION DIRECTORY (TEN CHARACTERS)			
EXT 21		EXT 29	
EXT 22		EXT 30	
EXT 23		EXT 31	
EXT 24		EXT 32	
EXT 25		EXT 33	
EXT 26		EXT 34	
EXT 27		EXT 35	
EXT 28		EXT 36	

MMC #16 C.O. LINE DIRECTORY (TEN CHARACTERS)	
C.O. LINE 1	
C.O. LINE 2	
C.O. LINE 3	
C.O. LINE 4	
C.O. LINE 5	
C.O. LINE 6	
C.O. LINE 7	
C.O. LINE 8	

MMC #18 GROUP DIRECTORY (TEN CHARACTERS)	
GROUP 1	
GROUP 2	
GROUP 3	

MMC #19 SMDR DIRECTORY (16 CHARACTERS)	
COMPANY	

MMC #82 PROGRAMMABLE MESSAGES (16 CHARACTERS)	
MESSAGE #0	
MESSAGE #1	
MESSAGE #2	
MESSAGE #3	
MESSAGE #4	
MESSAGE #5	
MESSAGE #6	
MESSAGE #7	
MESSAGE #8	
MESSAGE #9	

(COPY AS NEEDED)

SHEET _____ OF _____

MMC #33 TOLL DENY TABLE/MMC #34 TOLL DENY APPLY

	MMC #33	MMC #34			
ENTRY	DENY DIGITS	B	C	D	E

	MMC #33	MMC #34			
ENTRY	DENY DIGITS	B	C	D	E

(COPY AS NEEDED)

SHEET _____ OF _____

MMC #35 TOLL ALLOW TABLE/MMC #36 TOLL ALLOW APPLY

	MMC #35	MMC #36			
ENTRY	EXCEPTION DIGITS	B	C	D	E

	MMC #35	MMC #36			
ENTRY	EXCEPTION DIGITS	B	C	D	E

(COPY AS NEEDED)

SHEET _____ OF _____

MMC #73 BOSS/SECRETARY ASSIGNMENT			
BOSS	EXT	SECRETARY	EXT
BOSS	EXT	SECRETARY	EXT
BOSS	EXT	SECRETARY	EXT
BOSS	EXT	SECRETARY	EXT
BOSS	EXT	SECRETARY	EXT
BOSS	EXT	SECRETARY	EXT
BOSS	EXT	SECRETARY	EXT
BOSS	EXT	SECRETARY	EXT

MMC #75 PBX TOLL CHECK	
ENTRY 1	
ENTRY 2	
ENTRY 3	
ENTRY 4	
ENTRY 5	

MMC #94 TOLL OVERRIDE TABLE	
ENTRY 1	
ENTRY 2	
ENTRY 3	
ENTRY 4	
ENTRY 5	

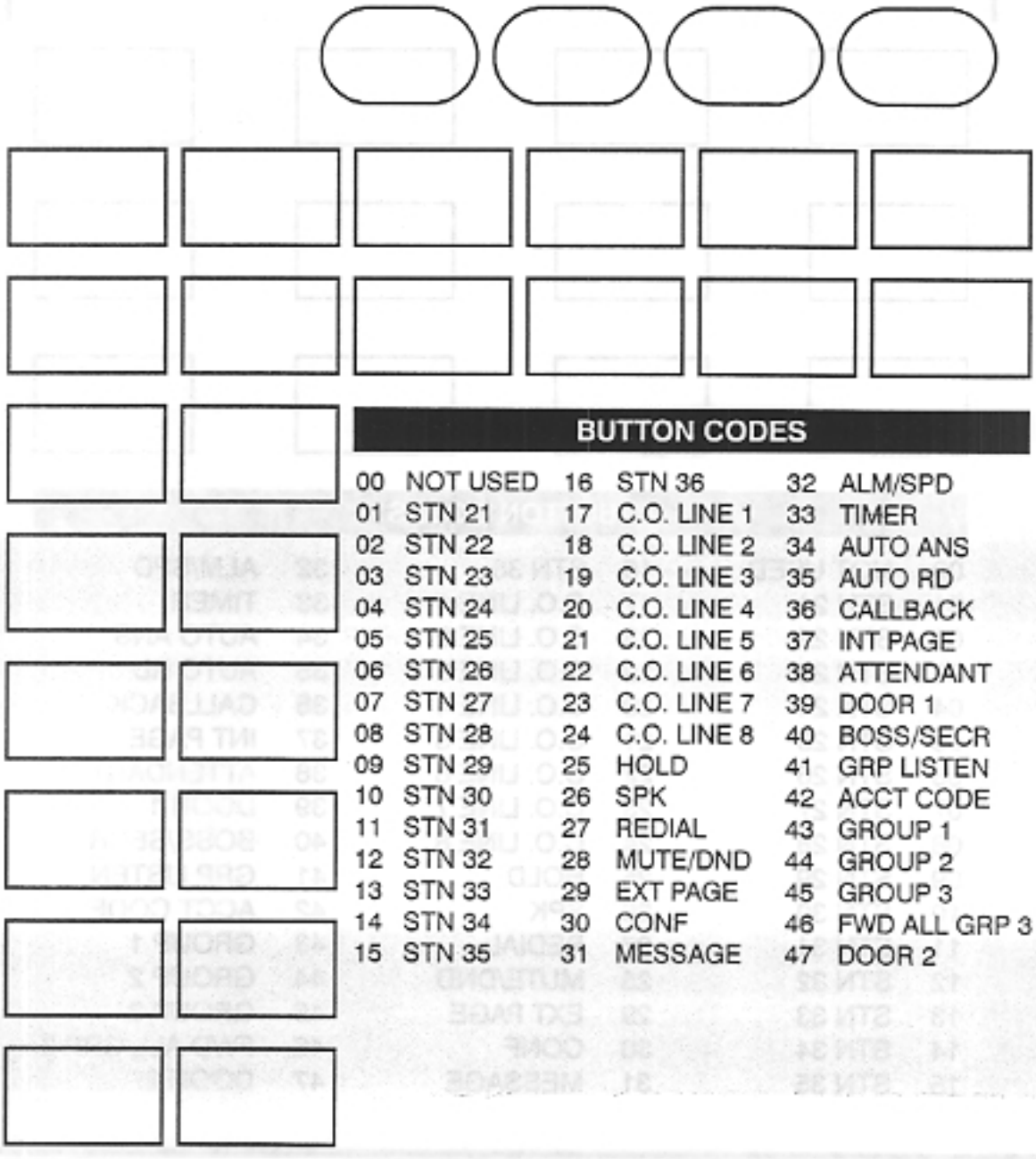
(COPY AS NEEDED)

SHEET _____ OF _____

80	KEYSET BUTTON PROGRAMMING

STATION NUMBER		NOTES

816 KEYSET



BUTTON CODES

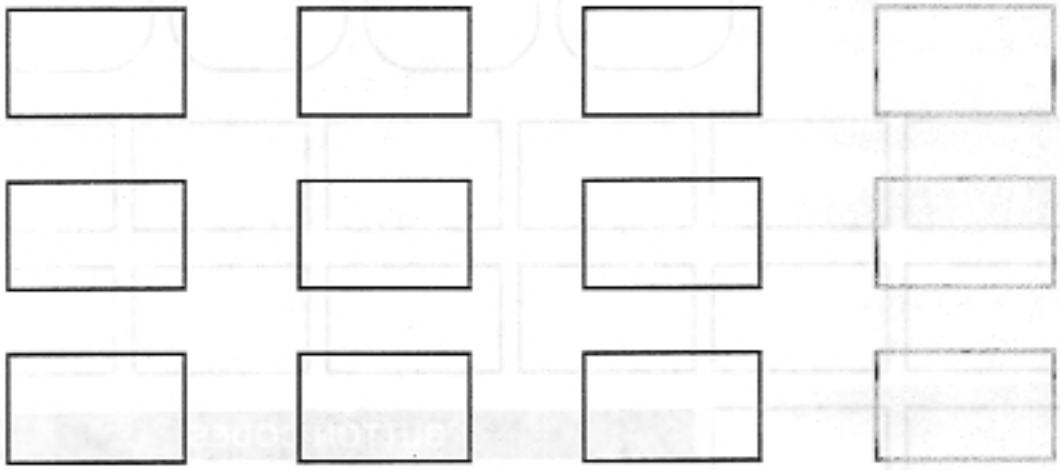
00	NOT USED	16	STN 36	32	ALM/SPD
01	STN 21	17	C.O. LINE 1	33	TIMER
02	STN 22	18	C.O. LINE 2	34	AUTO ANS
03	STN 23	19	C.O. LINE 3	35	AUTO RD
04	STN 24	20	C.O. LINE 4	36	CALLBACK
05	STN 25	21	C.O. LINE 5	37	INT PAGE
06	STN 26	22	C.O. LINE 6	38	ATTENDANT
07	STN 27	23	C.O. LINE 7	39	DOOR 1
08	STN 28	24	C.O. LINE 8	40	BOSS/SECR
09	STN 29	25	HOLD	41	GRP LISTEN
10	STN 30	26	SPK	42	ACCT CODE
11	STN 31	27	REDIAL	43	GROUP 1
12	STN 32	28	MUTE/DND	44	GROUP 2
13	STN 33	29	EXT PAGE	45	GROUP 3
14	STN 34	30	CONF	46	FWD ALL GRP 3
15	STN 35	31	MESSAGE	47	DOOR 2

800 KEYSET BUTTON PROGRAMMING (COPY AS NEEDED)

STATION NUMBER _____

NOTES _____

800 KEYSET



BUTTON CODES

00	NOT USED	16	STN 36	32	ALM/SPD
01	STN 21	17	C.O. LINE 1	33	TIMER
02	STN 22	18	C.O. LINE 2	34	AUTO ANS
03	STN 23	19	C.O. LINE 3	35	AUTO RD
04	STN 24	20	C.O. LINE 4	36	CALLBACK
05	STN 25	21	C.O. LINE 5	37	INT PAGE
06	STN 26	22	C.O. LINE 6	38	ATTENDANT
07	STN 27	23	C.O. LINE 7	39	DOOR 1
08	STN 28	24	C.O. LINE 8	40	BOSS/SECR
09	STN 29	25	HOLD	41	GRP LISTEN
10	STN 30	26	SPK	42	ACCT CODE
11	STN 31	27	REDIAL	43	GROUP 1
12	STN 32	28	MUTE/DND	44	GROUP 2
13	STN 33	29	EXT PAGE	45	GROUP 3
14	STN 34	30	CONF	46	FWD ALL GRP 3
15	STN 35	31	MESSAGE	47	DOOR 2

STATION-RELATED DATA ENTRY FORM (COPY AS NEEDED)

		STATION NUMBER															
	MMC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
HEADSET 0=NO/1=YES	09																
ANS MODE 0=RING/1=AUTO	10																
AUTO TIME 0=OFF/1=ON	13																
SOFT KEYS	15																
• BUTTON 1																	
• BUTTON 2																	
• BUTTON 3																	
• BUTTON 4																	
RING LINE PREF 0=OFF/1=ON	17																
DATA SECURE 0=NO/1=YES	29																
CLASS (A–F) 0–5	30																
EXT/TRUNK USE 0, 1, 2 OR 3	31																
• TRUNK LINE 1																	
• TRUNK LINE 2																	
• TRUNK LINE 3																	
• TRUNK LINE 4																	
• TRUNK LINE 5																	
• TRUNK LINE 6																	
• TRUNK LINE 7																	
• TRUNK LINE 8																	
ALLOW PAGE 0=NO/1=YES	32																
DIAL CLS 0=KEY/1=SL(T)/2=SL(P)	38																
BARGE-IN STATUS 0–3	39																
DOOR 1 RING	63																
DOOR 2 RING																	
DND 0=NO/1=YES	66																
PAGE ZONES 0–3	68																
STATION GROUPS 1, 2 OR 3	69																
BGM 0=DENY/1=ALLOW	79																
HOT LINE DATA 0–5	83																
HOT LINE DELAY 0=NO/1=YES	84																
MIC 0=DENY/1=ALLOW	86																
TRSF RECALL 0=ORIG/1=GRP73	90																
SLT DICO & APPLY	91																

SYSTEM-RELATED DATA ENTRY FORM (COPY AS NEEDED)

MMC	TITLE	DEFAULT DATA	NEW DATA
01	TOLL OVERRIDE CODE (CLASS A)	00000	
02	TOLL OVERRIDE CODE (CLASS B)	11111	
03	TOLL OVERRIDE CODE (CLASS C)	22222	
04	TOLL OVERRIDE CODE (CLASS D)	33333	
05	TOLL OVERRIDE CODE (CLASS E)	44444	
07	CHANGE CUSTOMER PASSCODE	4321	
22	DTMF TONE MUTED	MUTED	
23	DIAL PULSE MAKE/BREAK RATIO	33/66	
26	NIGHT MODE DIALING CLASS	SAME AS DAY	
27	BGM OVER PAGE	NO	
28	COMMON BELL RELAY	MOH	
37	QUEUE TIMER BEFORE OVERFLOW	00 SEC/EXT 21	
50	C.O. FLASH TIMER	600 MS	
51	PBX FLASH TIMING	600 MS	
52	HOLD/CAMP-ON RECALL TIME	30 SEC	
53	TRANSFER RING TIME	30 SEC	
54	ALARM TIME DURATION	10 SEC	
56	OVERRIDE TONE INTERVAL	10 SEC	
57	C.O. TO C.O. DURATION TIMER	150 SEC	
58	AUTO TIMER START TIME	45 SEC	
59	EXTERNAL CALL FORWARD TIMER	30 SEC	
64	RING OVER EXTERNAL PAGE	OFF	
65	DISA SECURITY CODE	1234	
67	CAMP-ON TONE INTERVAL	00	
70	ATTENDANT ASSIGNMENT	STATION 21	
71	SYSTEM SPEED DIAL RESTRICTION	0=ALLOW	
72	EXECUTIVE BARGE-IN (OVERRIDE)	WITH TONE	
76	HUNT GROUP RING MODES	ALL GROUPS 0 (IND)	
	• GROUP 1		
	• GROUP 2		
	• GROUP 3		
77	DOOR CONTACT TIMER	1.5 SEC	
78	SMDR PAGE LENGTH	33 LINES	
80	KEYSET BUTTON PROGRAMMING	SEE 816 DEFAULT	
85	HOT LINE DELAY TIMER	005 SEC	
87	OFF-HOOK DISPLAY	HAVE A NICE DAY!	
88	800 KEYSET BUTTON PROGRAMMING	SEE 800 DEFAULT	
92	CHANGE BAUD RATE	COM1 9600/COM2 9600	
93	ASSIGN REMOTE PORT (816)	NOT ASSIGNED	

C.O. LINE-RELATED DATA ENTRY FORM (COPY AS NEEDED)

	MMC	C.O. LINE NUMBER							
		LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8
DIAL GROUP 80 0=OUT/1=IN	40								
C.O. FOLLOW TOLL 0=YES/1=NO	41								
PULSE/TONE DIALING 0=PULSE/1=DTMF	42								
ASSIGN TRUNK 0, 1 OR 2	43								
C.O. OR PBX LINE 0=PBX/1=C.O.	44								
EXTERNAL FWD 0=NO/1=YES	45								
PRIVATE OR NON-PRIVATE 0=PRI/1=NON	46								
DIAL 9 GROUP 0=OUT/1=IN	47								
DISA LINE 0, 1, 2 OR 3	48								
C.O. FOLLOW FWD 0=NO/1=YES	49								
C.O. RING MODE 0, 1, 2 OR 3	60								
DAY/NIGHT RINGING	62/61	D/N	D/N	D/N	D/N	D/N	D/N	D/N	D/N
STATION 21		/	/	/	/	/	/	/	/
STATION 22		/	/	/	/	/	/	/	/
STATION 23		/	/	/	/	/	/	/	/
STATION 24		/	/	/	/	/	/	/	/
STATION 25		/	/	/	/	/	/	/	/
STATION 26		/	/	/	/	/	/	/	/
STATION 27		/	/	/	/	/	/	/	/
STATION 28		/	/	/	/	/	/	/	/
STATION 29		/	/	/	/	/	/	/	/
STATION 30		/	/	/	/	/	/	/	/
STATION 31		/	/	/	/	/	/	/	/
STATION 32		/	/	/	/	/	/	/	/
STATION 33		/	/	/	/	/	/	/	/
STATION 34		/	/	/	/	/	/	/	/
STATION 35		/	/	/	/	/	/	/	/
STATION 36		/	/	/	/	/	/	/	/
RING OVER PAGE 0=OFF/1=ON	64								
ALLOW C.O. FLASH 0=NO/1=YES	74								

TABLE OF CONTENTS

REMOTE ACCESS SECTION

PART 1. REMOTE PROGRAMMING

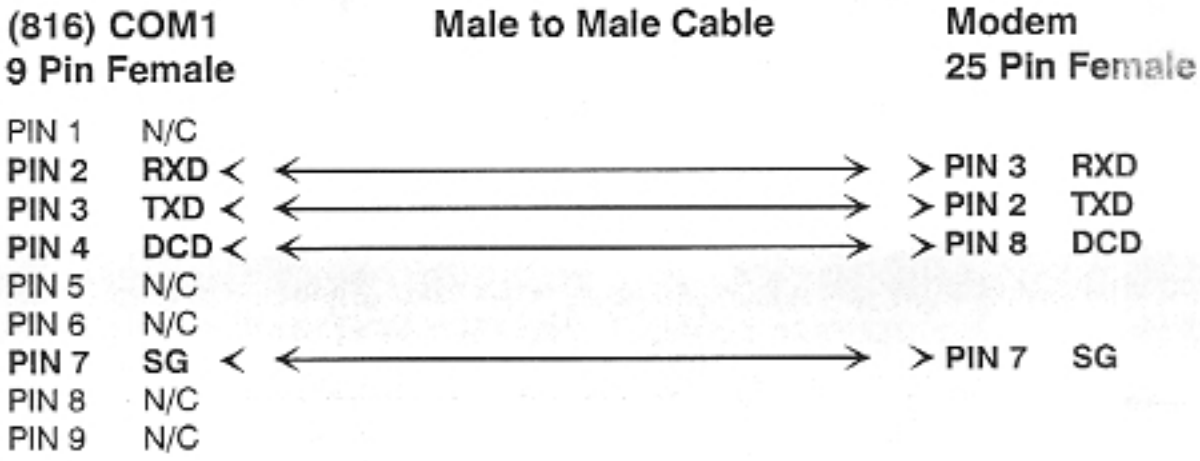
Remote programming capability has been incorporated in the PROSTAR 816 PLUS via communication (serial) port 2 of the optional SIO card mounted in the base unit. This port is fixed as a programming port only. The remote programming capability of the PROSTAR 816 PLUS can be used to add, delete or modify a customer database. While remote programming gives added flexibility to the PROSTAR 816 PLUS, it is *not* possible to UP/DOWN load from or to a disk or tape. All PROSTAR 816 PLUS MMCs may be accessed via remote programming.

1.1 CUSTOMER SITE REQUIREMENTS

Before remote programming can be used, the following requirements must be fulfilled at the customer site:

- Install the optional SIO board in the base unit and be sure that S2 is set to CTR. (See the Installation Section of this manual.)
- MMC #92 Change Baud Rate: This MMC will set the baud rate of communication port 2 of the optional SIO board to match the customer site's modem. Baud rate speed selections are 300, 600, 1200, 2400, 4800 and 9600 baud. Communication protocol is fixed at No Parity, Eight Bit Word Length and One Stop Bit (N81).
- MMC #93 Assign Remote Port: When remote programming is used, it *must* reference an *installed* 816 keyset at the customer site. This assigned keyset will be *disabled* for the duration of the remote programming session. When remote programming is not in use, this assigned keyset will function as a normal keyset. No default data has been set and a keyset port selection should be made that will offer the minimal inconvenience at the job site.

  NOTE: There are *no physical connections* to be made between keyset and modem or keyset and communication port. The assigned keyset is used as a software reference point only.
- A customer-provided modem and cable connected to COM port 2, as shown below:



- A voice grade dial up line on which the modem can be called.

1.2 REMOTE SITE REQUIREMENTS

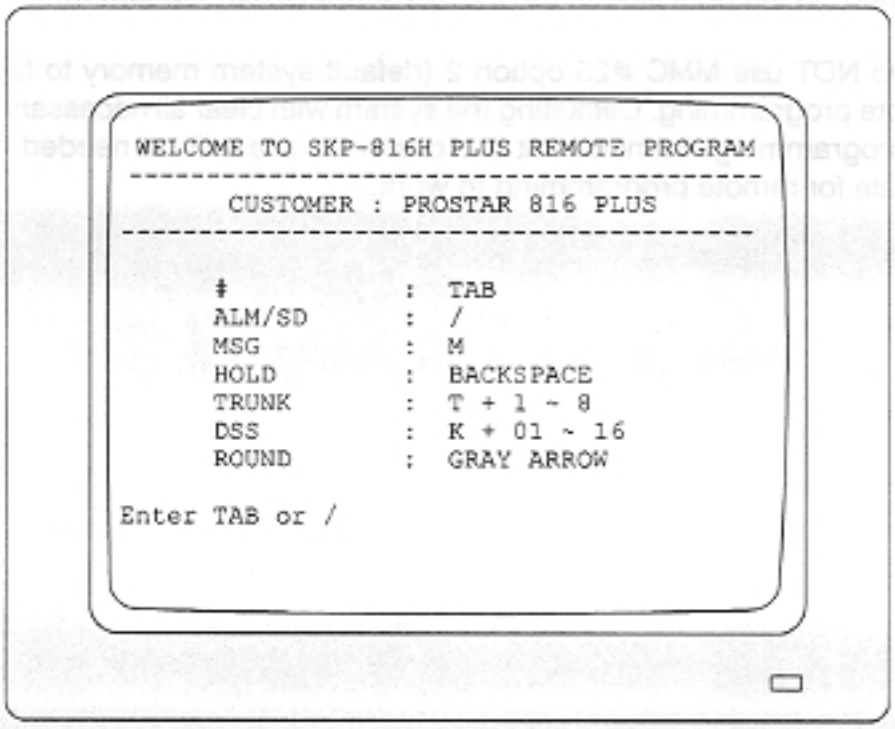
- Personal computer (PC) with communication software that can emulate VT 102 terminal

  NOTE: Since communication software can vary, no assurance can be made that every communications software package available will work.

- Internal or external modem able to match baud rate speed with the modem at the customer site
- Voice grade dial line to call customer modem

1.3 BEGIN PROGRAMMING

Dial the customer modem number and establish a communication link with the customer site. Once communications have been established, press the TAB key on the PC keyboard and you will receive the PROSTAR 816 PLUS header display (shown below). If you receive a "SORRY! DESTINATION PORT IS BUSY" display, the keyset assigned in MMC #93 is currently busy and no remote programming can be done at this time. When the PROSTAR 816 PLUS header is displayed, you can enter MMC #20, enter the necessary passcode to open programming and begin the remote programming session.



PROSTAR 816 PLUS REMOTE HEADER

NOTE: CUSTOMER in the header will display the name assigned in MMC #19.

1.4 PROGRAMMING PROTOCOL

The PROSTAR 816 PLUS will only recognize keystrokes of the PC keyboard that have been assigned as an 816 keyset equivalent. These keystrokes are fixed and are *not programmable*. Use the PC equivalent in place of the 816 key as called for in MMC programming procedures. These keystrokes are described below.

816 KEY	PC KEYBOARD EQUIVALENT	
#	TAB	(use when # is needed in all MMC cases)
ALM/SD	/	(use when ALM/SD is needed in all MMC cases)
MSG	M	(use when MSG is needed in all MMC cases)
HOLD	BACKSPACE	(use when HOLD is needed in all MMC cases)
TRUNK	T1 = C.O. one, T2 = C.O. two, T3 = C.O. three, etc.	
DSS	K01 = DSS key 1, K02 = DSS key 2, K03 = DSS key 3, etc.	
ROUND	GRAY ARROWS as follows:	
	↑	First from the left
	←	Second from the left
	→	Third from the left
	↓	Fourth from the left

Dial pad numbers may be entered using the standard number keys of the PC keyboard or the number pad on the right side of the PC keyboard (when equipped).

CAUTION: Do NOT use MMC #25 option 2 (default system memory to factory default) while in remote programming. Defaulting the system with clear all necessary data needed for remote programming. Someone at the customer site will be needed to assign the necessary data for remote programming to work.

PART 2. ON-SITE PROGRAMMING VIA PC TERMINAL

On-site programming via a PC terminal has been incorporated in the PROSTAR 816 PLUS via communication (serial) port 2 of the optional SIO card mounted in the base unit. This port is fixed as a programming port only. The on-site programming capability of the PROSTAR 816 PLUS can be used to add, delete or modify a customer database. While on-site programming gives added flexibility to the PROSTAR 816 PLUS, it is *not* possible to UP/DOWN load from or to a disk or tape. All PROSTAR 816 PLUS MMCs may be accessed via on-site programming.

2.1 ON-SITE REQUIREMENTS

Before on-site programming can be used, the following requirements must be fulfilled:

- An installed optional SIO board in the base unit and set DIP switch S2 for CTS or NO CTS as needed. (See the Installation Section of this manual.)

- A customer-provided PC terminal with communication software that can emulate a VT102 type terminal.

  NOTE: Since communication software can vary no assurance can be made that every communications software package available will work.

- MMC #92 Change Baud Rate: This MMC will set the baud rate of communication port 2 of the optional SIO board to match the customer's PC terminal. Baud rate speed selections are 300, 600, 1200, 2400, 4800 and 9600 baud. Communication protocol is fixed at NO PARITY, 8 BIT WORD LENGTH and 1 STOP BIT (N81).

- MMC #93 Assign Remote Port: When on-site programming is used, it *must* reference an *installed* 816 keyset at the customer site. This assigned keyset will be *disabled* for the duration of the on-site programming session. When on-site programming is not in use, this assigned keyset will function as a normal keyset. No default data has been set and a keyset port selection should be made that will offer the minimal inconvenience at the job site.

  NOTE: There are *no physical connections* to be made between the assigned keyset and the communication port. The assigned keyset is used as a software reference point only. If the assigned keyset is a display keyset, it will echo the programming key strokes from the PC terminal.

- A customer-provided cable connected between the PC terminal and COM port 2. Use one of the cable arrangements below, based on the setting of S2 on the SIO board and the COM port of the PC.

USE WHEN S2 IS SET TO CTS AND PC COM PORT IS 25 PINS

(816) COM2 9 Pin Female		Male to Female Cable	PC COM Port 25 Pin Male	
PIN 1	N/C			
PIN 2	**RXD**	< ←	**PIN 2**	**TXD**
PIN 3	**TXD**	< ←	**PIN 3**	**RXD**
PIN 4	**DCD**	< ←	**PIN 4**	**RTS**
PIN 5	N/C			
PIN 6	N/C			
PIN 7	**SG**	< ←	**PIN 7**	**SG**
PIN 8	N/C			
PIN 9	N/C			

USE WHEN S2 IS SET TO CTS AND PC COM PORT IS 9 PINS

(816) COM2 9 Pin Female		Male to Female Cable	PC COM Port 9 Pin Male	
PIN 1	N/C			
PIN 2	**RXD**	< ←	**PIN 3**	**TXD**
PIN 3	**TXD**	< ←	**PIN 2**	**RXD**
PIN 4	**DCD**	< ←	**PIN 7**	**RTS**
PIN 5	N/C			
PIN 6	N/C			
PIN 7	**SG**	< ←	**PIN 5**	**SG**
PIN 8	N/C			
PIN 9	N/C			

USE WHEN S2 IS SET TO NO CTS AND PC COM PORT IS 25 PINS

(816) COM2 9 Pin Female		Male to Female Cable	PC COM Port 25 Pin Male	
PIN 1	N/C			
PIN 2	**RXD**	< ←	**PIN 2**	**TXD**
PIN 3	**TXD**	< ←	**PIN 3**	**RXD**
PIN 4	N/C			
PIN 5	N/C			
PIN 6	N/C			
PIN 7	**SG**	< ←	**PIN 7**	**SG**
PIN 8	N/C			
PIN 9	N/C			

USE WHEN S2 IS SET TO NO CTS AND PC COM PORT IS 9 PINS

(816) COM2 9 Pin Female		Male to Female Cable	PC COM Port 9 Pin Male	
PIN 1	N/C			
PIN 2	**RXD**	< ←	**PIN 3**	**TXD**
PIN 3	**TXD**	< ←	**PIN 2**	**RXD**
PIN 4	N/C			
PIN 5	N/C			
PIN 6	N/C			
PIN 7	**SG**	< ←	**PIN 5**	**SG**
PIN 8	N/C			
PIN 9	N/C			

2.2 BEGIN PROGRAMMING

Once communications have been established, press the TAB key on the PC keyboard and you will receive the PROSTAR 816 PLUS header display (shown below). If you receive a "SORRY! DESTINATION PORT IS BUSY" display, the keyset assigned in MMC #93 is currently busy and no on-site programming can be done at this time. When the PROSTAR 816 PLUS header is displayed, you can enter MMC #20, enter the necessary passcode to open programming and begin the on-site programming session.

PROSTAR 816 PLUS ON-SITE HEADER

NOTE: CUSTOMER in the header will display the name assigned in MMC #19.

2.3 PROGRAMMING PROTOCOL

The PROSTAR 816 PLUS will only recognize keystrokes of the PC keyboard that have been assigned as an 816 keyset equivalent. These keystrokes are fixed and are *not programmable*. Use the PC equivalent in place of the 816 key as called for in MMC programming procedures. These keystrokes are described below.

816 KEY	PC KEYBOARD EQUIVALENT	
#	TAB	(use when # is needed in all MMC cases)
ALM/SD	/	(use when ALM/SD is needed in all MMC cases)
MSG	M	(use when MSG is needed in all MMC cases)
HOLD	BACKSPACE	(use when HOLD is needed in all MMC cases)
TRUNK	T1 = C.O. one, T2 = C.O. two, T3 = C.O. three, etc.	
DSS	K01 = DSS key 1, K02 = DSS key 2, K03 = DSS key 3, etc.	
ROUND	GRAY ARROWS as follows:	
	↑	First from the left
	←	Second from the left
	→	Third from the left
	↓	Fourth from the left

Dial pad numbers may be entered using the standard number keys of the PC keyboard or the number pad on the right side of the PC keyboard (when equipped).