

3M

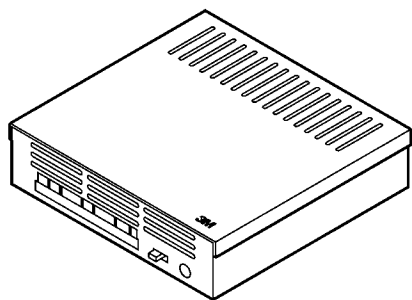
Convenience Store Intercom

Signature Series

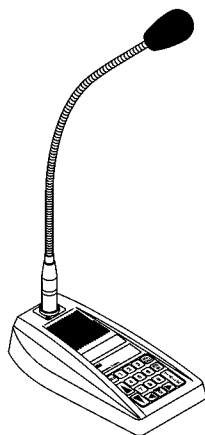
C5000 System

Models 5408, 5416 and 2475

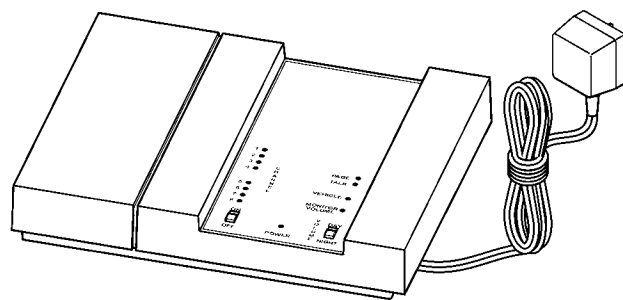
Installation Instructions



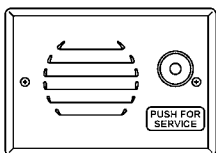
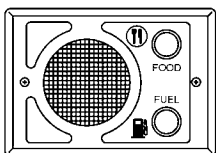
Communications Controller



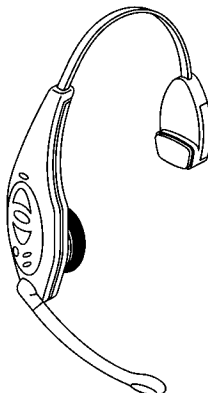
Station Selector



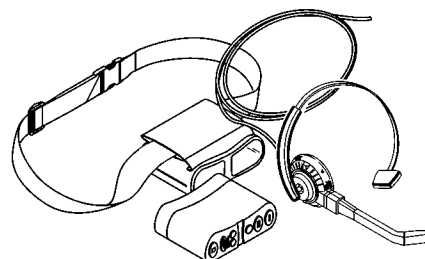
Wireless Base Station



Call Stations



Headset



Belt Pack

FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device must not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

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

3M™ Information

Call (800) 328-0033

Revision Record

Date	Revision	Reason For Change
04/15/02	01	Preliminary manual released
04/30/02	02	Preliminary second draft
05/13/02	03	Preliminary third draft

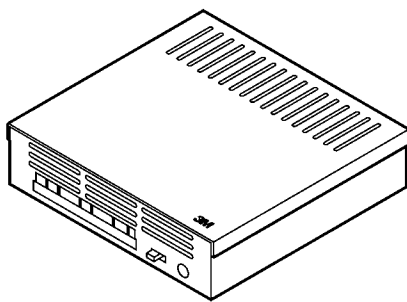
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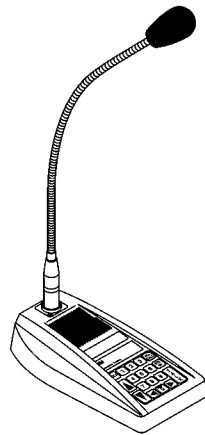
System Components

The 3M™ C5000 Convenience Store Intercom System requires the use of a Communications Controller and any combination of the following optional components:

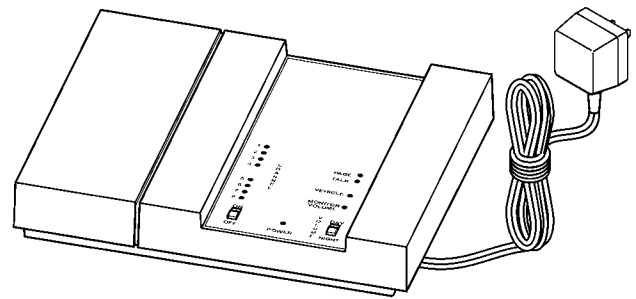
- Station Selectors
- Wireless Intercom System Base Station
- Call Stations
- Wireless Headset
- Wireless Belt Pack



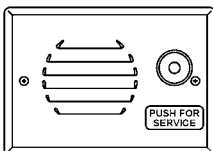
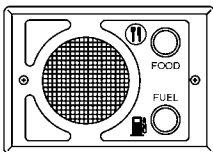
Communications Controller



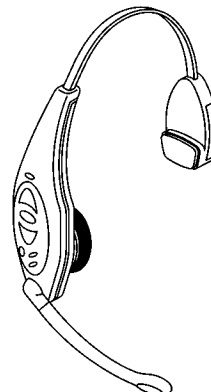
Station Selector



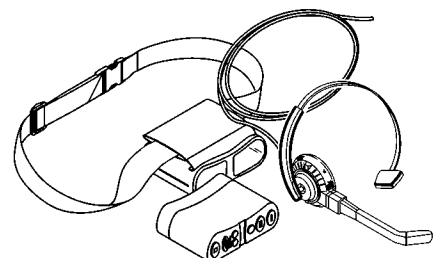
Wireless Base Station



Call Stations



Headset



Belt Pack

SP-493R

Figure 1. C5000 Intercom System Components

Material Required (Not Supplied)

- Assortment of screws, anchors, and cable clamps.
- Sufficient twisted pair sets of audio cable to connect other components such as Station Selector, Call Stations, etc. (See Figure 1.)

Component Placement

This section describes placement of the Signature Series C5000 Intercom System components:

Communications Controller

For proper system operation, locate the Communications Controller (See Figure 2):

1. Near the conduit termination of the Call Station wiring.
2. Near the power source.
3. At least 10 feet away from electrical noise sources such as the following:
 - Large electrical motors (such as air conditioners, freezers, and coolers).
 - Any electrical components that arc (i.e., relays).
 - Ballasts (for light fixtures).
4. In a secure room away from traffic.
5. Approximately 5 feet above the floor.
6. Where it is accessible from the top, bottom, and both sides.
7. In a dry and heated (between 50° and 100° Fahrenheit) location.

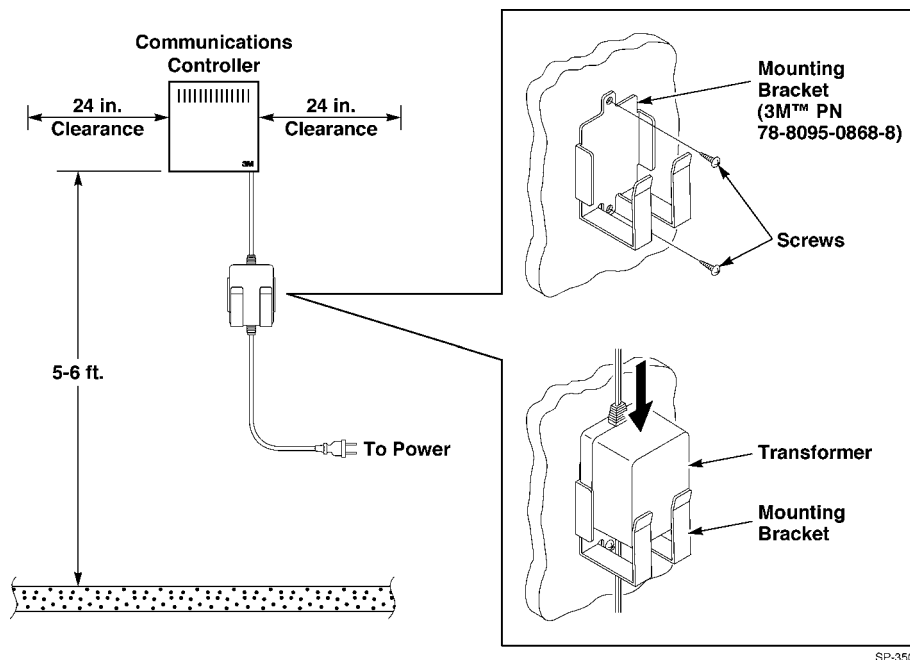


Figure 2. Suggested Communications Controller Placement

Power Supply

Locate the power supply as follows:

1. Install the power supply mounting bracket in a preferred location. (Refer to Figure 4.)
2. Insert the power supply transformer into the mounting bracket. (Refer to Figure 4.)

Call Stations

For proper system operation, install the Call Stations in locations:

1. Chosen for ease of use.
2. At least 48 inches above the pavement.

✓ **Note**

Local codes may dictate placement of call stations.

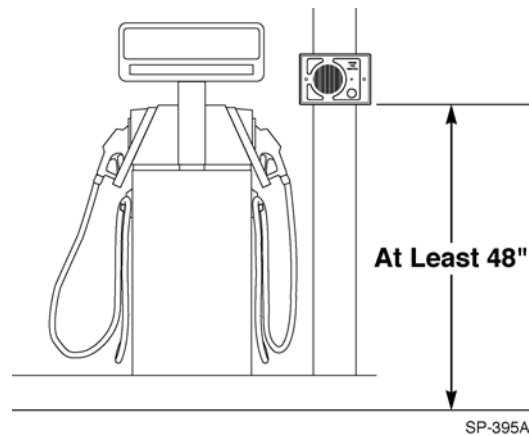


Figure 3. Suggested Call Station Placement

Heavy Duty Security Handsets

To provide increased reliability when using Heavy Duty Handsets (78-8117-4029-5), replace the existing capacitor and resistor connected from handset terminals 6B to 5B with a length of wire.

Station Selectors

For proper system operation, locate the Station Selectors:

1. At locations chosen for maximum efficiency.
2. On counters, mounted on pedestals, or mounted on walls.
3. In dry and heated areas.

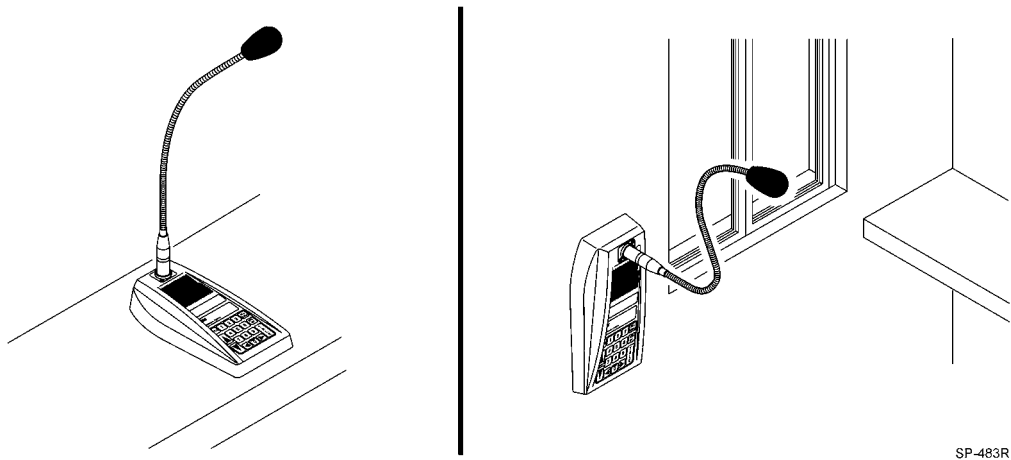


Figure 4. Suggested Station Selector Station Placement

Merge Switch (Optional)

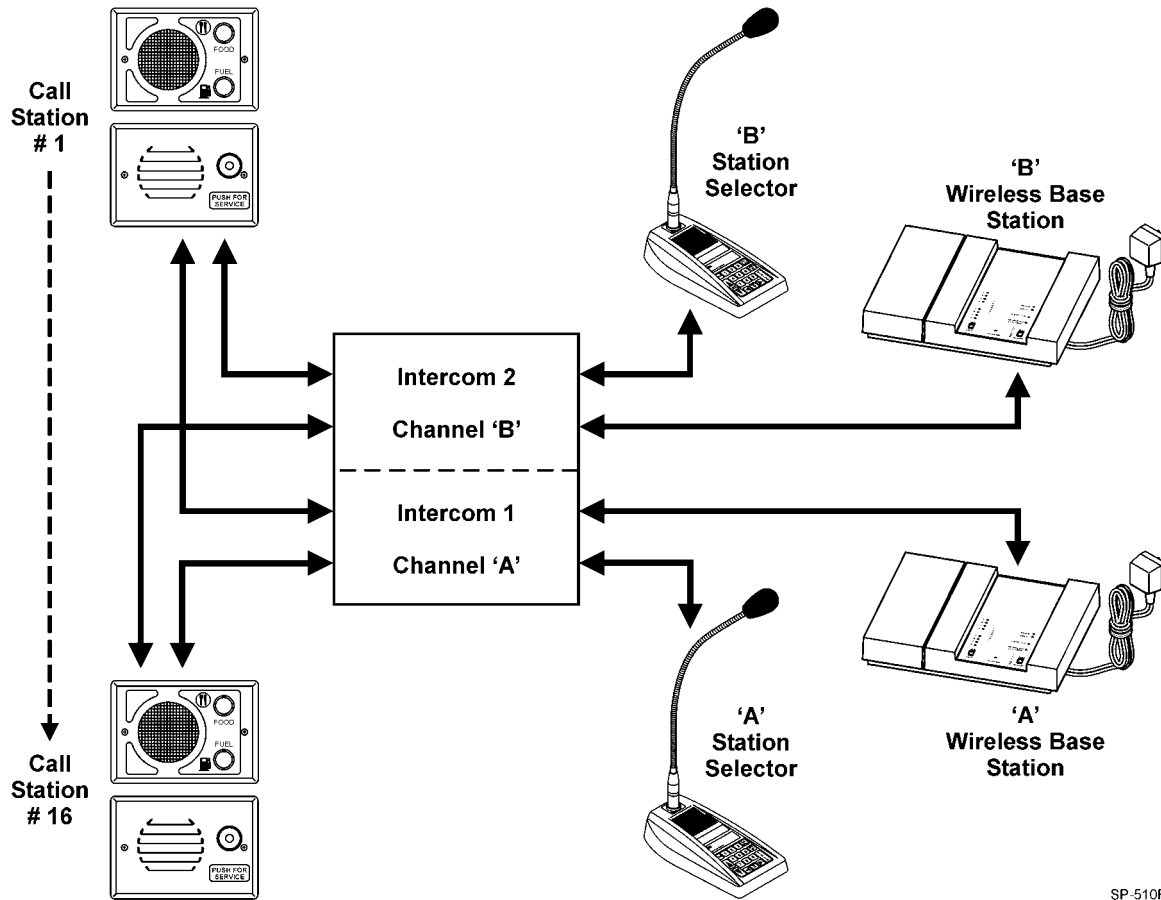
The Merge Switch is supplied by the installer and can be any single-pole, single-throw switch.

✓ **Note**

Install the Merge Switch in a location that is convenient, accessible, and preferred by the customer.

An open switch allows normal C5000 operation. A closed switch activates the merge feature. This feature will route all calls to “A” (fuel) station devices. An example of this use is a food operation that is closed for a part of the day. The merge feature should be activated while the food operation is closed. Any calls originating from the food button “B” will be routed to the “A” fuel devices so the attendant can inform the customer that the food operation is closed.

Understanding the Signature Series C5000



SP-510R

The C5000 Convenience Store Intercom can be thought of as 2 separate intercoms in 1 package. The 2 intercoms can work together or separately depending on the mode that is selected.

The C5000 has 2 MODES of operation:

One Business Mode: Both intercoms (A & B) work together to serve a Single business installation (example: fuel only) and typically a 1-button Call Station is used.

Two Business Mode: Each intercom (A & B) works independently to serve 2 separate business installations (example: food & fuel) and typically a 2-button Call Station is used.

The mode of operation is set during the Programming Stage when installing the C5000 Communications Controller (Black Box).

Each intercom (A & B) can access ALL of the Call Stations in the system. There are no zoning limitations.

The C5000 can support BOTH wired and wireless configurations at the same time.

In a wireless only installation, 2 wireless Base Stations are required in order to use both intercoms (A & B).

The C5000 only supports Half-Duplex (Standard) mode. You cannot use Full-Duplex (Duplex) when using wireless Base Stations with the C5000.

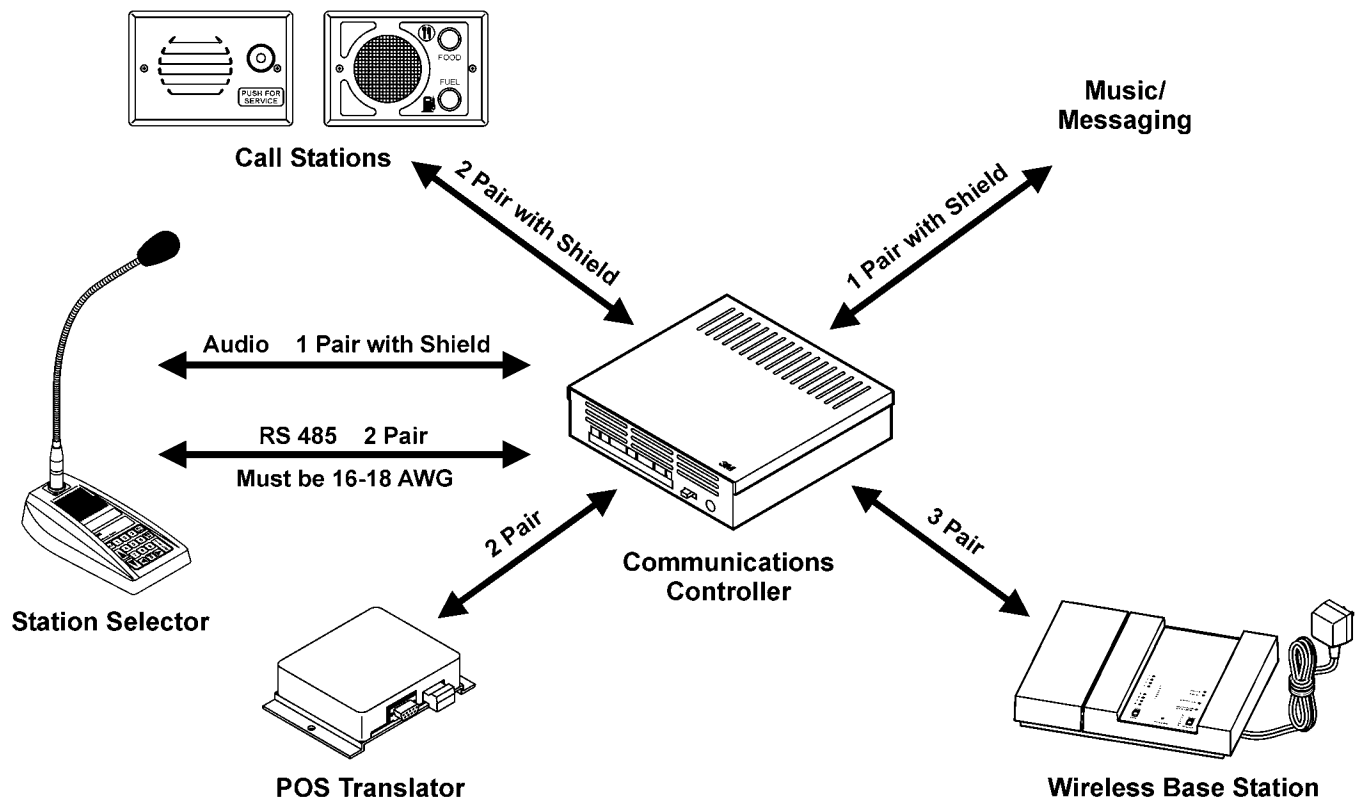
You cannot achieve more than 2 channels with the C5000. Multiple C5000 Communications Controllers CANNOT be 'ganged' together.

Wiring the System

Depending on distance use twisted pair, 14-22 AWG audio cable when wiring the Wired Intercom System, components. Figure 7 shows an overview of the cable types and number of conductors required for each unit. Table 1 shows wire gauge required for different distances between components. We recommend installing a separate power supply transformer (3M part number 78-8095-0910-8), for each Station Selector located over 100 feet from the Communications Controller.

✓ **Note**

The RS 485 cable carries DC power for the Station Selectors, requiring a larger gauge wire.



SP-486R

Figure 5. Cable and Connection Requirements

All Audio Wiring		RS 485 Cable (only)	
Wire Gauge	Distance Between Components	Wire Gauge	Distance Between Components
22	Up to-309 feet	22	Up to 62 feet
20	310-493 feet	20	63-99 feet
18	494-783 feet	18	100-157 feet
16	784-1245 feet	16	158-249 feet
14	1246-1980 feet	14	250-396 feet

Table 1. Wire Size Requirements

Configuration Worksheets

Use Configuration Worksheets 1 through 4 (located near the end of this document) to plan and record your system configuration. You can record the system wire locations, wire color scheme, and program settings on the worksheets. Store the worksheets inside the cover of the Communications Controller.

Wiring Call Stations

Call Station wiring consists of 5 wires for 2-button systems, and 4 wires for 1-button systems as follows:

- 2 Speaker wires
- Speaker shield wire (used as Common for buttons)
- Button “A” (1-button and 2-button systems)
- Button “B” (2-button systems only)

Configuration Worksheet 1 shows how to connect the Call Stations to the proper Communications Controller ports.

Important

Button “A” is wired for FUEL and Button “B” for FOOD in most two-button systems. FOOD calls then route to FUEL stations when the Merge Switch is placed in merge mode (switch closed) for off-peak hours operation. See Configuration Worksheet 3.

Station Selectors

Wiring Station Selectors involves connecting a minimum of 7 wires: 3 audio wires and 4 power and communications wires.

Important

The C5000 System is powered by one power supply that provides power for the Communications Controller and a maximum of three Station Selectors. A separate power supply (78-8095-0910-8) must be plugged into each Station Selector that exceeds the three Station Selector limit, or if the cable length from the Station Selector to the Communications Controller exceeds 100 feet.

Refer to Configuration Worksheets 2 and 3 to determine the specific wires and connections to be made.

Wireless Base Station to the Communications Controller

1. Locate the Wireless Intercom Base Station within 50 feet of operators wearing headsets.

Important

Do not mount base station under steel countertops, within 3 feet of coolers/refrigerators/ranges or in areas where steel doors, walls, etc. will obscure it, as this will cause operational problems.

2. Connect the Wireless Base Station to the Communications Controller using the following 6 wires:
 - 3 audio wires
 - 2 control wires
 - 1 ground wire

Configuration Worksheet 4 shows the specific wires and connections for your system.

Initializing the System

System Mode Selection:

Before starting the system Initialization process, you must determine the mode of operation. Check the number of speakers at each Multiple Product Dispenser (MPD). Typically, each active side of the MPD is identified as a separate pump:

Number of Speakers at MPD	Mode of Operation to Use
1	Island Mode
2	Pump Mode

Table 2. Determining Mode of Operation

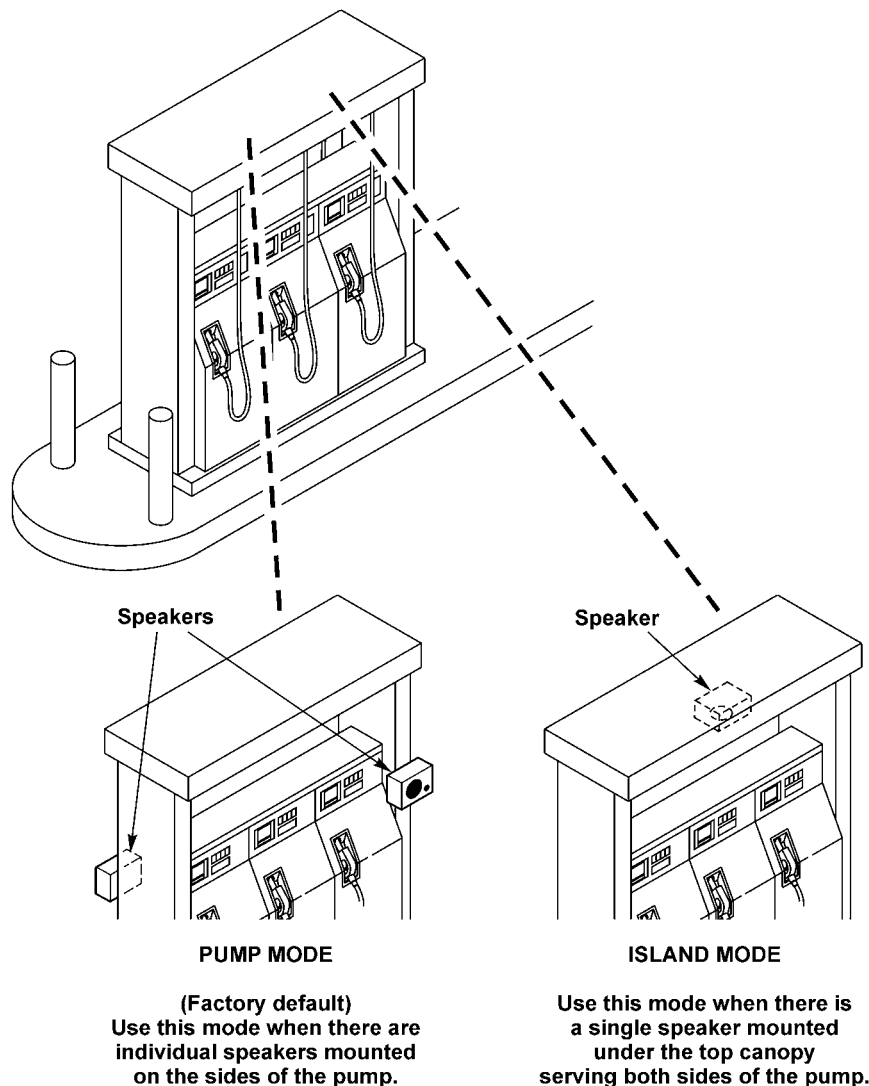


Figure 6. Pump Mode and Island Mode

⚠ Important

1. Initialization will erase all memorized parameters and restore factory default values.
2. If Pump Mode (factory default) is desired, initialization is not required.
3. If software is upgraded, the system **must** be re-initialized

Initialization Instructions for Pump Mode (factory default)

```
Init PUMP Mode
'TALK' = Yes
1      : DTMD
```

Pump mode assigns each Call Station to a single number (1 through 16). Pump mode is used when there are 2 speakers per M.P.D., and each speaker serves one side of the dispenser.

1. Reset or remove power from the Station Selector using one of the following methods:
 - Unplug the RS485 cable.
 - Press and hold the STD BY key while entering the numeric code 911.
2. Press and hold the ALL CALL key while applying power to the Selector.

Initialization Instructions for Island Mode

```
Init ISLAND Mode
'TALK' = Yes
```

Island mode assigns each Call Station to two consecutive numbers (1&2, 3&4,). Island mode is used where a single speaker serves both sides of a dispenser.

1. Reset or remove power from any Station in one of the following ways.
 - Unplug the RS485 cable
 - Press and hold the STD BY key while entering the numeric code 911.
2. Press and hold the HOLD key while applying power to any Selector.

Resetting the Station Selector (Reset)

To reset only the station selector:

1. Press and hold the STD BY key.
2. Enter the numeric code: 911.

Resetting the System (Reset)

To reset only the entire system:

1. Press and hold the STD BY key.
2. Enter the numeric code: 8642.

DEFINITIONS:

- 1) **Power On Reset:** Turning off power, and then turning it back on, commonly referred to as a “Cold Boot”.
- 2) **Reset:** Restarting the microcontroller firmware, commonly referred to as a “Warm Boot”.
- 3) **Re-Initialize:** Over writes the EEPROM memory with factory default values. This process also selects “Pump” or “Island” mode of operation.
- 4) **Programming Mode:** Change the EEPROM memory from factory default values to user preferences.

Programming the System

⚠ Important

If you have not selected the mode of operation (Pump or Island) do so now! See **System Mode Selection**.

Programming State

To program the C5000, it is necessary to put the system in the programming state. From this state, the entire system is configured and all memorized parameters are adjusted.

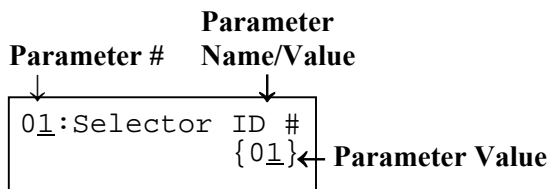
To enter the programming state, simultaneously:

- Press and hold the STD BY key.
- Enter the numeric code: 97531.

The display shows:

```
01:Selector ID #
      {01}
```

The Parameter #, Parameter Name/Value, and Parameter Value fields are as shown below.



The “_” indicates cursor position. To move the cursor from one field to another, use the Left Arrow and Right Arrow keys.

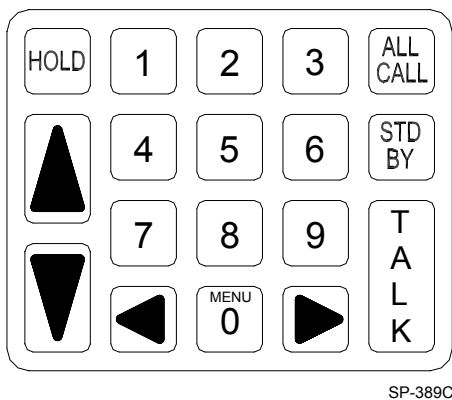
To input data at the cursor position, do one of the following:

- Use the Up Arrow and Down Arrow keys to scroll to desired value.
- Use the 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0/Menu keys.

The STD BY key clears a field to a default value (space for text or the default value).

The HOLD key shifts case for text data.

The ALL CALL key exits from the programming state and enters the Off Line mode.



SP-389C

Figure 7. Model 2475 Keypad

⚠ Important

All Station Selectors ship from the factory with a default ID number of 15. It is important to connect and power up each new Station Selector, ONE STATION SELECTOR AT A TIME, when installing a new system. Doing this allows you to change the ID number to a lower value (start at 1) and avoid the erratic behavior caused by multiple Station Selectors sharing the same ID number.

Error Message

```
! E R R O R !
NO COMMUNICATION
```

The system will display one error message: No Communication.

This message occurs when there is no communications between the Station Selector and Communications Controller. To correct this:

- Be sure Communications Controller is powered on.
- Be sure pins 2 and 3 of J3 on the Communications Controller are connected to pins 2 and 3 of J8 (RS-485 connector) on the Station Selector. Polarity must be correct!
- Call 3M Technical Service to confirm software compatibility between station selector and communications controller.

Parameter Selection

```
01:Selector ID #
      {01}
```

A number (1 to 15 inclusive). Default = 15. This number must be unique relative to all other Station Selector ID numbers used in the system.

```
02:Controller
      {C5000 2-Chnl}
```

Displays the model of the Communications Controller connected to the Station Selector. If no Communications Controller is connected {Undefined} will be displayed.

```
03:Audio Channel
      {A}
```

A Letter (A or B): defines the Communications Controller Audio channel used by the Station Selector. This setting must match the channel letter (A or B) on the Communications Controller to which the Station Selector Audio Buss is connected.

- If the Station Selector Audio Buss is wired to J18 on the Communications Controller, set the Audio Channel value to A.
- If the Station Selector Audio Buss is wired to J20 on the Communications Controller, set the Audio Channel value to B.

All Station Selectors connected to the same Audio Buss must be set to the same channel (A or B).

```
04:# of Business
      {02}
```

A Number (A or B): The C5000 has 2 MODES of operation:

One Business Mode: Both intercoms (A & B) work together to serve a Single business installation (example: fuel only) typically a 1-button Call Station is used.

Two Dual Business Mode: Each intercom (A & B) works independently to serve 2 separate business installations (example: food & fuel) typically a 2-button Call Station is used.

```
05:Max Stations
      {16}
```

A number (1 to 16 inclusive). Total number of Call Stations in the system. Default = What the Communications Controller senses. Stations are numbered starting with 1 up to this value. This value should be adjusted to equal the number of speakers connected to the Communications Controller, preventing an operator from accessing an unwired Call Station.

06:Alert Volume {08}	A number (1 to 15 inclusive). Default = 08. Adjusts the volume of the Station Selector alert tone (Chime or Beep). A value of 15 is the loudest setting.
07:Alert Type {Chime}	Beep or Chime. Default = Chime.
08:VOX Enable {Off}	A value (On, Off). Default = Off. Enables the VOX (Voice Operated Transmission) feature.
09:VOX Sensitive {15}	A number (1 to 15 inclusive). Default = 15 (most sensitive). Adjust this value to accommodate the ambient noise level at the Station Selector location. Use a lower value for a higher noise environment.
10:Priority{Off} S=xy: User Name	A value (Off, 1 to 24 inclusive). Default = Off. The Call Station selected here has top propriety call in over all other Call Station requests.
11:Auto Standby {On }	A value (On or Off). Default = On. Enables the 90-second station connection time out. If the Talk key is not pressed within 90 seconds, the Station Selector returns to the Standby mode.
12:Station Name S=xy: User Name	Assignment of Call Station names (01 through Max Stations) where xy indicates station number. Default = PUMP number xy where xy = station number (see “Keypad Function Definitions for Text Entry”).
13:Sync All Data 'T A L K' = Yes	Command to synchronize all Station Selectors with the data from the Station Selector that issued the command. All data is synchronized with the exception of Selector ID #, Silence Calls, and Registry.
Are You Sure ? 'T A L K' = Yes	This confirmation message follows the above. Station Selectors must be On Line to be synchronized.
14:Software Rev. Se=a.bc Con=x.yz	Read from Station Selector & Communications Controller. Station Selector and Communications Controller software revision numbers.

Keypad Function Definitions (for Text entry) (Programming State)

Key functions are defined below.

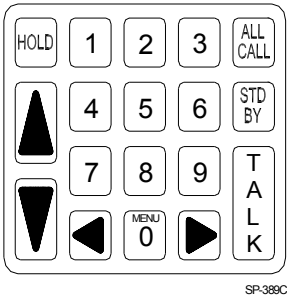


Figure 8. Model 2475 Keypad

Key	Function												
HOLD (Shift)	Shifts between upper and lower case for text data.												
UP ARROW	Increments data by 1. Fields wrap around.												
DOWN ARROW	Decrements data by 1. Fields wrap around.												
1	Enters the digit 1 for numeric entry. Enters the following for text entry: <table border="1" style="margin-left: 40px;"> <tr> <td>Unshifted</td> <td>A</td> <td>B</td> <td>C</td> <td>1</td> <td>(</td> </tr> <tr> <td>Shifted</td> <td>a</td> <td>b</td> <td>c</td> <td>1</td> <td>)</td> </tr> </table>	Unshifted	A	B	C	1	(Shifted	a	b	c	1)
Unshifted	A	B	C	1	(
Shifted	a	b	c	1)								
2	Enters the digit 2 for numeric entry. Enters the following for text entry: <table border="1" style="margin-left: 40px;"> <tr> <td>Unshifted</td> <td>D</td> <td>E</td> <td>F</td> <td>2</td> <td>[</td> </tr> <tr> <td>Shifted</td> <td>d</td> <td>e</td> <td>f</td> <td>2</td> <td>]</td> </tr> </table>	Unshifted	D	E	F	2	[Shifted	d	e	f	2]
Unshifted	D	E	F	2	[
Shifted	d	e	f	2]								
3	Enters the digit 3 for numeric entry. Enters the following for text entry: <table border="1" style="margin-left: 40px;"> <tr> <td>Unshifted</td> <td>G</td> <td>H</td> <td>I</td> <td>3</td> <td>{</td> </tr> <tr> <td>Shifted</td> <td>g</td> <td>h</td> <td>i</td> <td>3</td> <td>}</td> </tr> </table>	Unshifted	G	H	I	3	{	Shifted	g	h	i	3	}
Unshifted	G	H	I	3	{								
Shifted	g	h	i	3	}								
4	Enters the digit 4 for numeric entry. Enters the following for text entry: <table border="1" style="margin-left: 40px;"> <tr> <td>Unshifted</td> <td>J</td> <td>K</td> <td>L</td> <td>4</td> <td>←</td> </tr> <tr> <td>Shifted</td> <td>j</td> <td>k</td> <td>l</td> <td>4</td> <td>→</td> </tr> </table>	Unshifted	J	K	L	4	←	Shifted	j	k	l	4	→
Unshifted	J	K	L	4	←								
Shifted	j	k	l	4	→								
5	Enters the digit 5 for numeric entry. Enters the following for text entry: <table border="1" style="margin-left: 40px;"> <tr> <td>Unshifted</td> <td>M</td> <td>N</td> <td>O</td> <td>5</td> <td>:</td> </tr> <tr> <td>Shifted</td> <td>m</td> <td>n</td> <td>o</td> <td>5</td> <td>;</td> </tr> </table>	Unshifted	M	N	O	5	:	Shifted	m	n	o	5	;
Unshifted	M	N	O	5	:								
Shifted	m	n	o	5	;								

Key	Function												
6	<p>Enters the digit 6 for numeric entry. Enters the following for text entry:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Unshifted</td> <td>P</td> <td>Q</td> <td>R</td> <td>6</td> <td></td> </tr> <tr> <td>Shifted</td> <td>p</td> <td>q</td> <td>r</td> <td>6</td> <td> </td> </tr> </table>	Unshifted	P	Q	R	6		Shifted	p	q	r	6	
Unshifted	P	Q	R	6									
Shifted	p	q	r	6									
7	<p>Enters the digit 7 for numeric entry. Enters the following for text entry:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Unshifted</td> <td>S</td> <td>T</td> <td>U</td> <td>7</td> <td>.</td> </tr> <tr> <td>Shifted</td> <td>s</td> <td>t</td> <td>u</td> <td>7</td> <td>!</td> </tr> </table>	Unshifted	S	T	U	7	.	Shifted	s	t	u	7	!
Unshifted	S	T	U	7	.								
Shifted	s	t	u	7	!								
8	<p>Enters the digit 8 for numeric entry. Enters the following for text entry:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Unshifted</td> <td>V</td> <td>W</td> <td>X</td> <td>8</td> <td>&</td> </tr> <tr> <td>Shifted</td> <td>v</td> <td>w</td> <td>x</td> <td>8</td> <td>@</td> </tr> </table>	Unshifted	V	W	X	8	&	Shifted	v	w	x	8	@
Unshifted	V	W	X	8	&								
Shifted	v	w	x	8	@								
9	<p>Enters the digit 9 for numeric entry. Enters the following for text entry:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Unshifted</td> <td>Y</td> <td>Z</td> <td>#</td> <td>9</td> <td>'</td> </tr> <tr> <td>Shifted</td> <td>y</td> <td>z</td> <td>,</td> <td>9</td> <td>"</td> </tr> </table>	Unshifted	Y	Z	#	9	'	Shifted	y	z	,	9	"
Unshifted	Y	Z	#	9	'								
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0/MENU	<p>Enters the digit 0 for numeric entry. Enters the following for text entry:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Unshifted</td> <td>+</td> <td>*</td> <td>=</td> <td>0</td> <td><</td> </tr> <tr> <td>Shifted</td> <td>-</td> <td>/</td> <td>^</td> <td>0</td> <td>></td> </tr> </table>	Unshifted	+	*	=	0	<	Shifted	-	/	^	0	>
Unshifted	+	*	=	0	<								
Shifted	-	/	^	0	>								
LEFT ARROW	Jump left to next data field.												
RIGHT ARROW	Jump right to next data field.												
ALL CALL	Exits the programming state and enters Off Line mode.												
STD BY	Clear the data field to its default value (space for text or the default value).												
TALK	Enter key where appropriate.												

Adjusting the System

Inbound Audio Volume Level

To set the inbound audio volume level:

1. Ask an attendant to stand at a Call Station and push the incoming call button for your Station Selector.
2. Answer the call by pressing the TALK button.
3. As the attendant talks, adjust the up/down arrows on the Station Selector keypad to reach a desirable level.

VOX (Voice Operated Transmission) Sensitivity Level

 Important
--

The VOX adjustments are necessary only if VOX is enabled for your system.

The VOX sensitivity level determines the maximum distance from the microphone that the speaker can activate communication.

 Important
--

The suggested average activation distance from the microphone to the attendant is 2 to 6 inches.
--

To set the VOX sensitivity level:

1. Follow the directions under the section *Programming the System* to put the Station Selector in programming mode.
2. Locate the VOX Enable parameter and be sure it is set to ON.
3. Locate the VOX Sensitive parameter and press the right-arrow key to edit the value.
4. Use the up/down arrow keys to adjust sensitivity:
 - The up arrow key increases the sensitivity (lengthens the distance from the microphone to the attendant). Fifteen is most sensitive.
 - The down arrow key decreases sensitivity. One is least sensitive.
5. Press the ALL CALL key to exit Programming.

Communications Controller

You must remove the cover from the Communications Controller to perform the following adjustments:

Outbound ALL CALL Volume Level

To set the outbound ALL CALL Volume Level:

1. Ask another attendant to stand near a Call Station that is not in use.
2. Press and hold the ALL CALL button on the Station Selector to make the connection to the Call Stations.
3. Speak to the attendant near the Call Station to determine if the volume is low, satisfactory, or high.
4. If the volume is unsatisfactory, adjust the ALL CALL volume control in the Communications Controller. (See Figure 8.) Turn clockwise to increase the volume, counter-clockwise to decrease it.
5. Repeat steps 2 through 4 until the volume is satisfactory.

Outbound Talk Volume Level (Only for systems that contain one or more Station Selectors)

To set the outbound talk volume for Audio Channel A or Audio Channel B Station Selectors, do the following:

1. Press the Station Selector number key representing the Call Station you have chosen.
2. Speak to the attendant at the Call Station to determine if the volume is low, satisfactory, or high.
3. If the volume is unsatisfactory,
 - If you are adjusting an Audio Channel A device, adjust TALK A in the Communications Controller for Audio Channel A volume control.
 - If you are adjusting an Audio Channel B device, adjust TALK B in the Communications Controller for Audio Channel B volume control.
 - Turn clockwise to increase the volume, counter-clockwise to decrease it. (See Figure 9.)
4. Repeat steps 2 and 3 until the volume is satisfactory.
5. Press STANDBY on the Station Selector to cancel the connection to the Call Station.

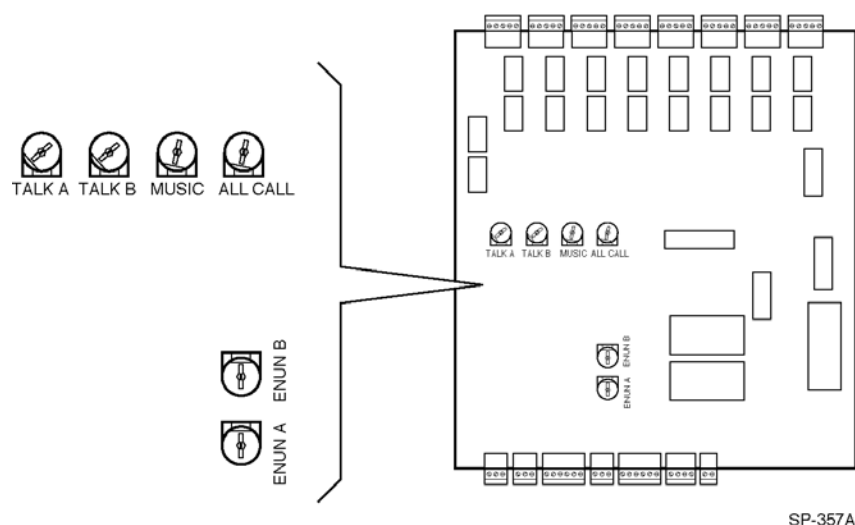


Figure 9. Communications Controller Volume Controls

Outbound Music/Messaging Level (Only for Systems That Use Music/Messaging)

To set the outbound Music/Messaging level, do the following:

1. Ask another attendant to stand near a Call Station that is not in use and has Music/Messaging activated. (See the Communications Controller Hardware Section on Page 7 for details on how to activate Music/Messaging for a Call Station).
2. Determine if the Music/Messaging volume is low, satisfactory, or high.
3. If the volume is unsatisfactory, adjust the MUSIC volume control in the Communications Controller. Turn clockwise to increase the volume, counter-clockwise to decrease it. (See Figure 9.)
4. Repeat steps 2 and 3 until the volume is satisfactory.

Wireless Base Station

You must remove the covers from the Wireless Base Station and the Communications Controller to perform Wireless Base Station adjustments. You should also adjust the following volume levels in sequence:

1. Inbound Audio Volume Level
2. Outbound Audio Volume Level
3. Enunciator Volume Level

Configure Base Station

See Configuration Worksheet 4 for information about configuring the Base Station.

Inbound Audio Volume Level

To set the inbound audio volume level, do the following:

1. Set the Base Station MENU MIC SENS pot to a mid-range level. (See Figure 10.)
2. Adjust the volume controls on the device (headset or belt pack) to set the audio volume to a mid-range level (such as audio level 8).
3. Ask another attendant to stand at a Call Station and push the incoming call button for your device. (Press the appropriate call for the Audio Channel.)
4. Make a connection to the Call Station (by pressing the T1 or T2 button).
5. Listen to the other attendant to determine the inbound audio volume level.
6. If needed, adjust the MENU MIC SENS pot to achieve the desired volume. (See Figure 10.)
7. Repeat Steps 3 through 6, if necessary.

Outbound Audio Volume Level

To set the outbound audio volume level, do the following:

1. Set the DAY/NIGHT switch to DAY. (See Figure 10.)
2. Set the wireless device to the desired listening level.
3. Ask another attendant to stand at a Call Station and push the incoming call button for your device. (Press the appropriate call button for the Audio Channel.)
4. Make a connection to the Call Station (by pressing the T1 or T2 button).
5. Talk to the other attendant to determine the outbound audio volume level.
6. If needed, adjust the DAY MENU SIGN AUDIO LEVEL pot to achieve the desired volume. (See Figure 10.)
7. Set the DAY/NIGHT switch to NIGHT and repeat steps 3 through 6.
8. Repeat Steps 3 through 6, if necessary.

<p>⚠ Important</p>
<ol style="list-style-type: none"> 1. Set the system to Standard Mode. 2. Disable the TALK/LOCK function. 3. Set J1 and J2 jumpers to SPKR.

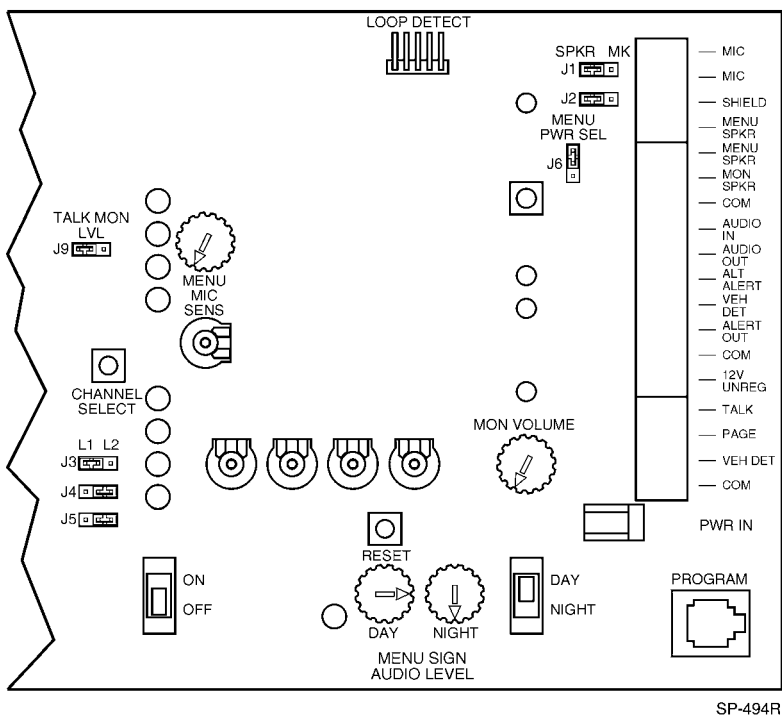


Figure 10. Wireless Base Station Audio Level Controls

Enunciator Volume Level (Wireless Systems Only)**⚠ Important**

Adjust the Enunciator Volume Level slightly lower than the inbound talk volume level to give customer conversations priority over Enunciator announcements.

The Enunciator Level is the volume at which you hear Enunciator announcements in the wireless device. Adjust the volume by turning the pots described in the adjustment steps below.

To adjust the Enunciator volume levels for Audio Channel A and Audio Channel B wireless devices:

1. Set the wireless device to the desired listening volume.
2. Set the Enunciator volume pots on the C5000 Communications Controller to mid-range levels.
The C5000 Communications Controller enunciator volume pots are:
 - ENUN A for Audio Channel A devices. (See Figure 9.)
 - ENUN B for Audio Channel B devices. (See Figure 9.)
3. Enter SCAN mode (by momentarily pressing and releasing P on the wireless device).
4. Listen for the Enunciator to announce “Connect, ALL CALL, 1, 2, 3, ...”.
5. If you hear nothing, turn ENUN A and ENUN B up 1/4 turn and repeat Steps 3 and 4.
(Turning the pots clockwise increases volume; turning them counter-clockwise decreases volume.)
6. If the Enunciator remains inaudible or the volume is too low, repeat Step 5 until the volume is satisfactory.
7. If the Enunciator remains inaudible, check all wiring, make necessary changes, and begin this process again.

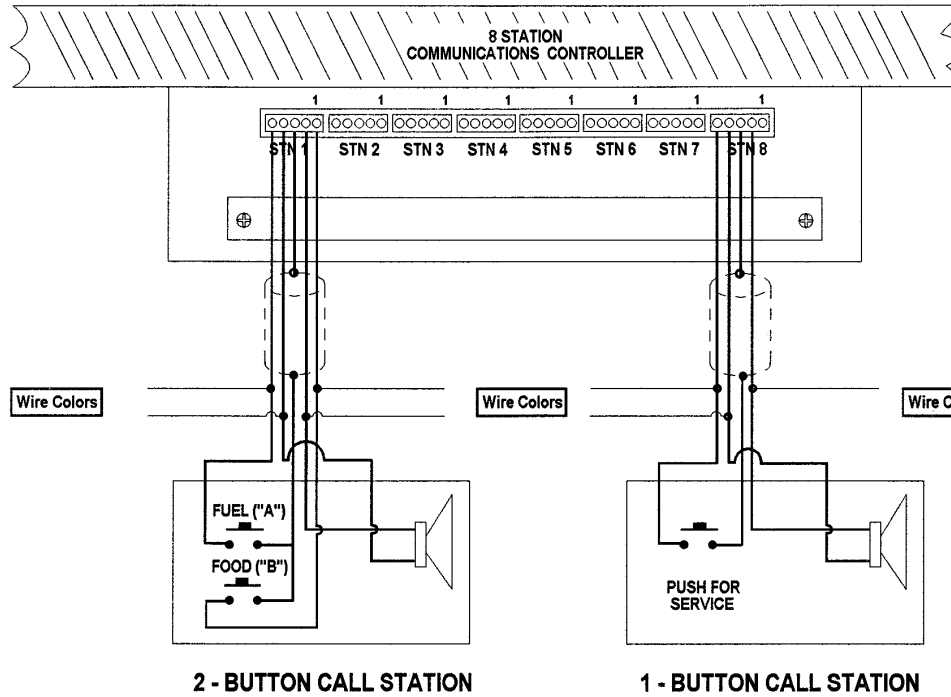
Testing the Functions

Perform the following tests after installing the C5000 Intercom System:

1. Checking TALK/LISTEN switching:
 - a. Ask an attendant to go to Call Station 1 and press the call button.
 - b. Establish a connection with the CALL STATION (press TALK on the Station Selector or Remote Microphone).
 - c. Talk and listen to the attendant to determine that the TALK and LISTEN modes are functioning satisfactorily.
 - d. Repeat Steps a through c for all CALL STATIONS.
2. Checking ALL CALL:
 - a. Ask an attendant to go to a Call Station.
 - b. Activate ALL CALL (press and hold ALL CALL on the Station Selector or Remote Microphone).
 - c. Broadcast an announcement from the Station Selector.

- d. Ask the attendant to verify that the message is broadcast from all Call Stations, which have not been disabled.
 3. Check the Wireless Intercom System switches:
 - a. Ask an attendant to go to Call Station 1 and press the incoming call button for your wireless device (A or B).
 - b. Establish a connection with the Call Station (press T1 or T2 on the wireless device).
 - c. Talk and listen to the attendant to determine if the TALK and LISTEN modes are functioning satisfactorily.
 - d. Verify that the enunciator level is set to a desirable level.
 - e. Repeat steps a through d for all Call Stations.
 4. Check the POS Translator functionality (if used).

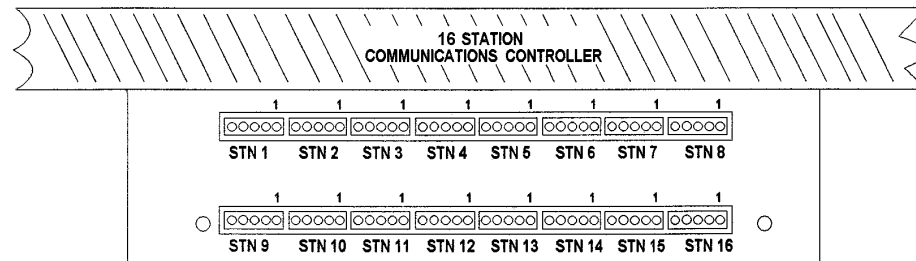
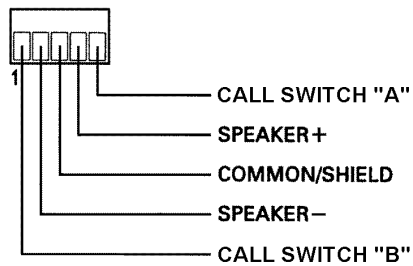
CONFIGURATION WORKSHEET 1 COMMUNICATIONS CONTROLLER - CALL STATION CONNECTIONS



IMPORTANT
RECORD SETTINGS AND WIRE
COLORS AND STORE THIS DOCUMENT
IN THE COMMUNICATIONS CONTROLLER

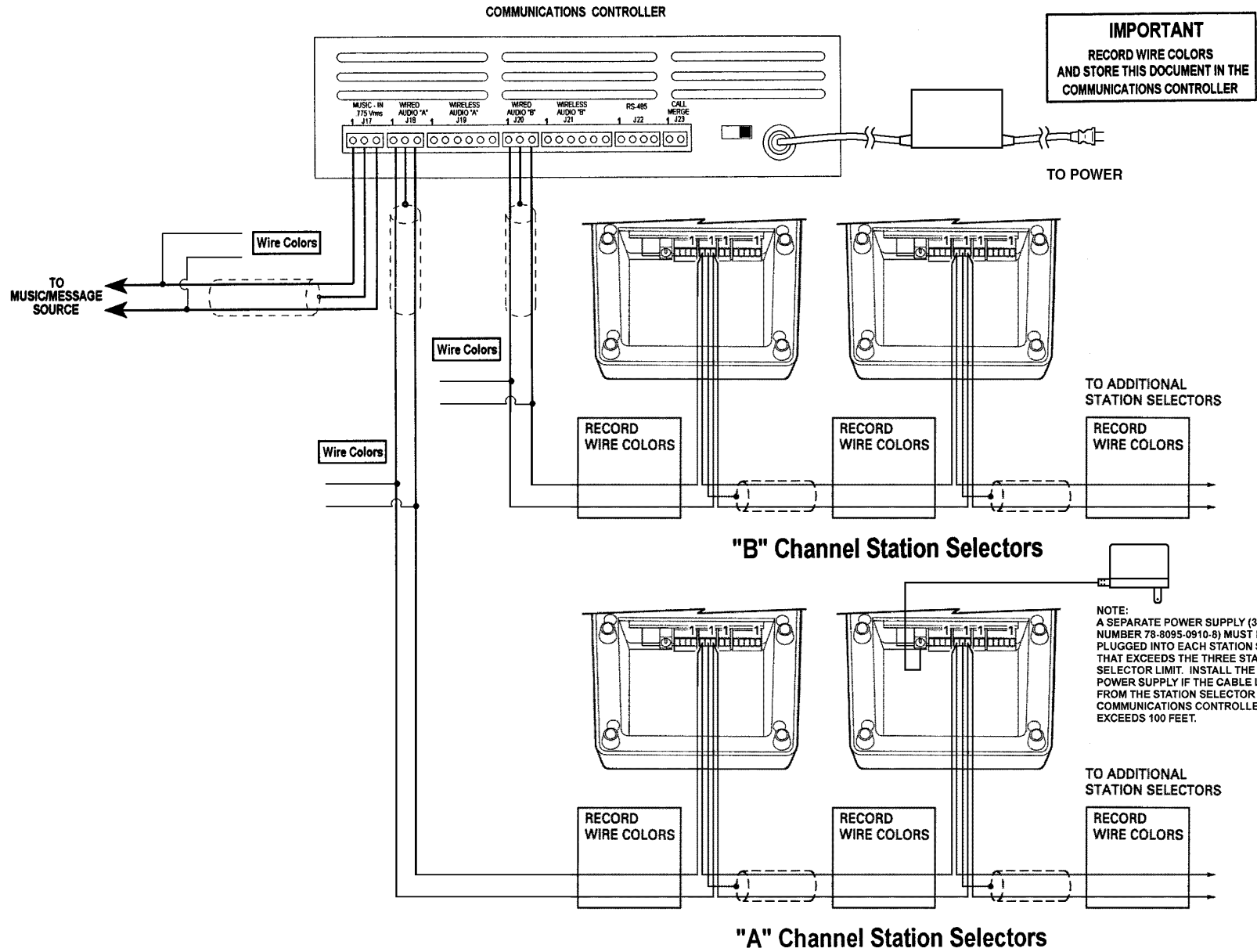
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COMMUNICATIONS CONTROLLER SPEAKER CONNECTION PIN-OUT



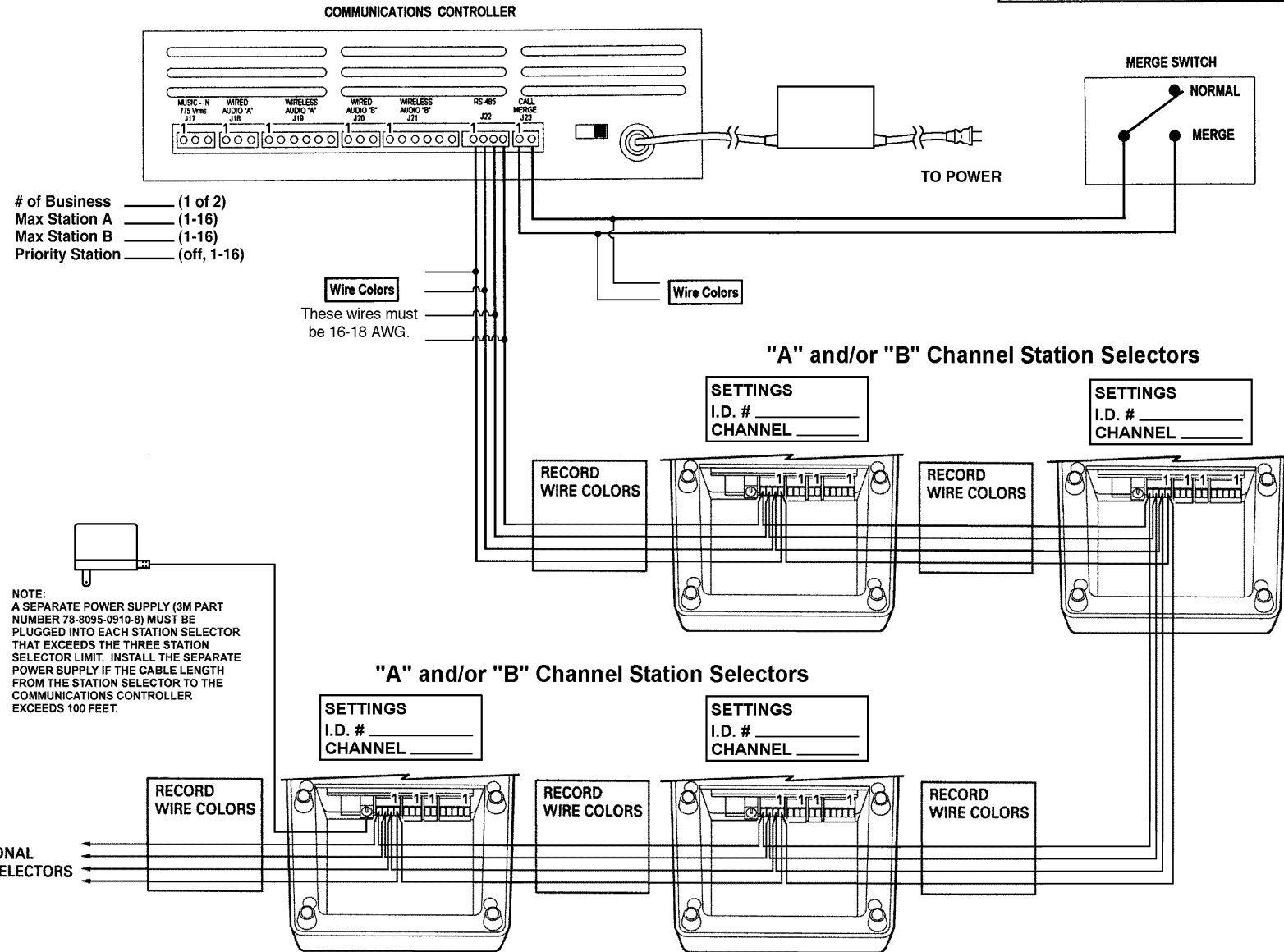
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CONFIGURATION WORKSHEET 2 COMMUNICATIONS CONTROLLER - STATION SELECTOR AUDIO CONNECTIONS



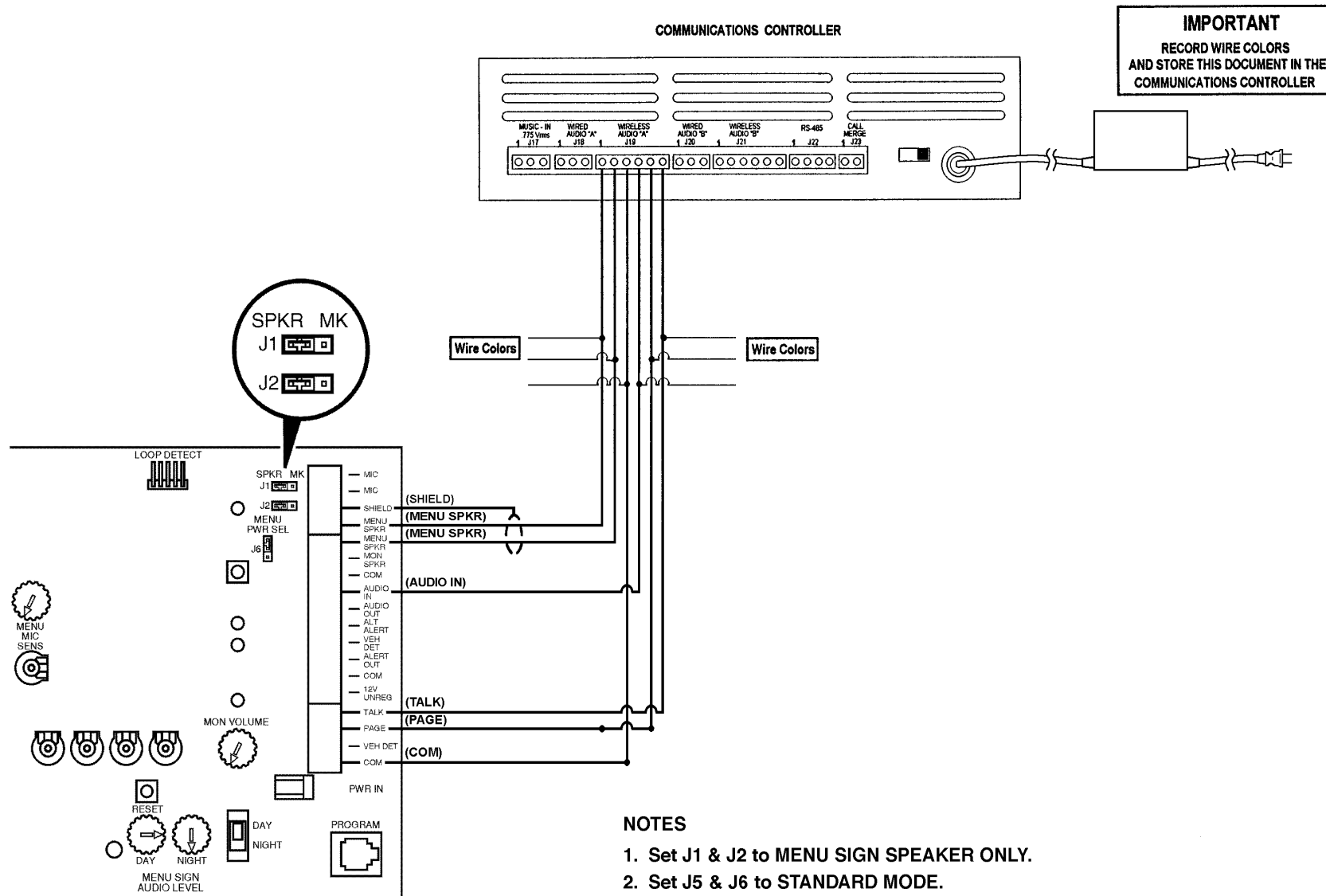
CONFIGURATION WORKSHEET 3 COMMUNICATIONS CONTROLLER - STATION SELECTOR RS-485 and OTHER CONNECTIONS

NOTE
MERGE SWITCH CLOSED ROUTES ALL CALLS ("A" AND "B") TO "A" AUDIO DEVICES ONLY



NOTE:
A SEPARATE POWER SUPPLY (3M PART NUMBER 78-8095-0910-8) MUST BE PLUGGED INTO EACH STATION SELECTOR THAT EXCEEDS THE THREE STATION SELECTOR LIMIT. INSTALL THE SEPARATE POWER SUPPLY IF THE CABLE LENGTH FROM THE STATION SELECTOR TO THE COMMUNICATIONS CONTROLLER EXCEEDS 100 FEET.

CONFIGURATION WORKSHEET 4 COMMUNICATIONS CONTROLLER - WIRELESS BASE STATION CONNECTIONS



NOTES

1. Set J1 & J2 to MENU SIGN SPEAKER ONLY.
2. Set J5 & J6 to STANDARD MODE.
3. Disable TALK LOCK feature on headsets and/or beltpacks.
4. Insure that MENU SPKR connection between base station and Communications Controller is a shielded twisted pair of conductors.

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