

OXMOOR[®]

C O R P O R A T I O N

A Limited Liability Company

PRM-8[™] PAGE ROUTING MODULE



Installation
&
Operation
Manual

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PRM-8 INTRODUCTION

- Multi-channel zone-page feature
- All-page capability
- Eight program channels
- Mic/line selectable page input
- Second line-level page input
- Individual channel page-level controls
- Adjustable program ducking
- Individual channel ramp-up/down adjustments
- Zone selection control by momentary or maintained closure
- PA-422 serial control capability
- Provision for real-time LED tally indicators
- Removable terminal blocks for easy wiring

The eight-channel PRM-8 Page Routing Module simplifies page routing within multiple-zone sound systems. Page inputs are easily routed to any one, or any combination, of the module's eight program channels.

Upon initiation of a page, program audio at each selected channel is automatically faded to a user-determined level and mixed with the page signal. Upon completion of a page the program audio on each channel is ramped smoothly back to its original level.

Each of the two PRM-8 page inputs may function as a Zone Page and/or an All Page input as determined by internal dip switches. An input assigned the All Page function takes priority over the Zone Page input.

Accessed through the control port, the Zone Page Enable control routes the zone page input to the selected program channels. During this page, the program audio of each selected channel is ducked as determined by the Duck Level.

Similarly, the All Page Enable control routes the All Page input to all program channels. During this page, the program audio of all channels is ducked as determined by the Duck Level.

In some installations it is desirable to prevent the All Page signal from being heard in certain zones. An All Page Source dip switch removes the All Page source from selected channels during an All Page function. All channels will continue to duck and ramp the program source during an All Page.

Screwdriver-adjustable controls on the front panel of the compact, 1U chassis include Duck Level for setting the level to which program audio is attenuated during a Zone Page and All Page. Fade In adjusts the time required for the program audio to reach the duck level upon initiation of a page. Fade Out adjustment determines the time required for the program audio to return

to its original level upon completion of a page. Page Level gain controls provide independent page level settings for each program channel.

Controls on the rear of the PRM-8 include a "Mic, Line" switch for configuring the page Mic/Line input to accept either a microphone source or a line-level source and screwdriver-adjustable attenuators for both page inputs.

A Control Port allows the use of contact closures, momentary or maintained (user selectable), for zone page selection and zone page clear. Zone page enable and all page enable always require a maintained closure. DC power is also present for adding LED tally indicators for all control functions.

The PRM-8 is ideally suited to solving the complex patching requirements of paging within room combining systems. When linked to Oxmoor's MCS Room Combining System through PA-422 ports, the Page Module tracks room combining changes. As a result, a page routed to one channel within a combined group will go to all channels in the group. Besides allowing communication between the PRM-8 and the MCS-Mainframe, the PA-422 ports make possible the utilization of an alternative controller.

All PRM-8 audio inputs and outputs are electronically balanced and accommodate either balanced or unbalanced lines. Terminal block connectors insure easy installation and solid mechanical connection for the eight program channel inputs and outputs as well as the line-level page input. The page Mic/Line connection is through a standard female XLR-type connector.

The PRM-8 Page Module brings simplicity to system design, installation and operation, along with the uncompromising performance and reliability for which Oxmoor products are well known and respected.

PRM-8 CALLOUTS

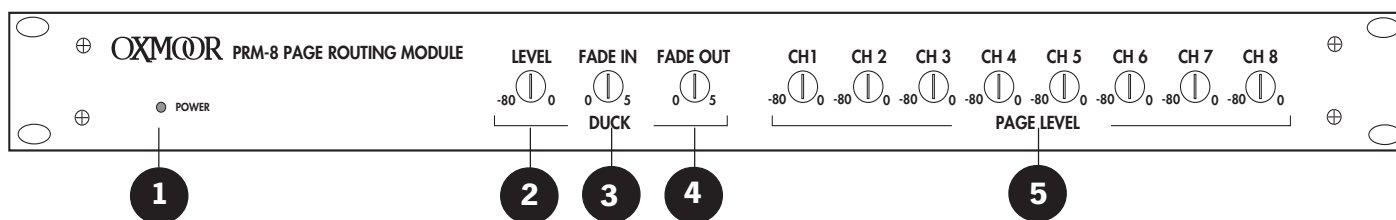


Figure 1.0: Front Panel View

1. **POWER STATUS LED** - Indicator for AC Power On.
2. **DUCK LEVEL** - Duck level control pot, accessed through the front panel with a small flat-blade screwdriver, adjusts the level to which program material is attenuated during a page. Range is from 0 (no ducking) to -80 dB.
3. **FADE IN** - Accessed through the front panel with a small flat-blade screwdriver, sets the time required, during a page, for the program material to be attenuated to the level established by the DUCK LEVEL control.
4. **FADE OUT** - Accessed through the front panel with a small flat-blade screwdriver, sets the time required for the program material to return to its prior level upon cessation of a page.
5. **PAGE LEVEL** - Accessed through the front panel with a small flat-blade screwdriver, these attenuators adjust page level, from 0 to -80 dB, in each zone individually.
6. **PROGRAM OUTPUTS** - Audio outputs, terminal block connections with mating connector, electronically balanced, accommodate balanced or unbalanced lines. Recommended load impedance is 600 ohms or greater. Maximum output level is +24 dBu.
10. **MIC/LINE LEVEL** - Accessed through the back panel with a small flat-blade screwdriver, adjusts the MIC/LINE input for varying input signal levels.
11. **LINE IN** - Page input, terminal block connections with mating connector, electronically balanced input, accepts balanced or unbalanced signals from line-level devices. Normal input level is +4 dBu with a maximum input level of +24 dBu.
12. **LINE LEVEL** - Accessed through the back panel with a small flat-blade screwdriver, adjusts the LINE input for varying input signal levels.
13. **CONTROL PORT** - Female, 25-pin, standard D-sub connector. Provides connections for external switching of: Zones for zone paging, Zone Page Enable, All Page Enable, and Zone Page Clear. Also provides tally connections for all control functions.
14. **PA-422 IN** - Male, 9-pin D-sub connector. This port connects to the PA-422 OUT of the MCS-MCP Master Control Panel, an MCS-IB Interface Box or other PA-422 control devices.

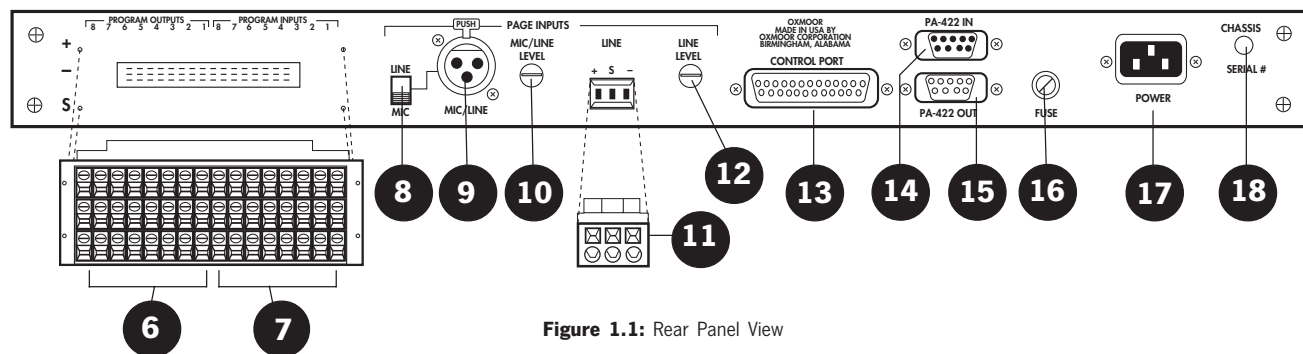


Figure 1.1: Rear Panel View

7. **PROGRAM INPUTS** - Audio inputs, terminal block connections with mating connector, electronically balanced, accept balanced or unbalanced signals from line-level devices. Normal input level is +4 dBu with a maximum input level of +24 dBu.
8. **MIC, LINE** - Switch configures the MIC/LINE input to accept either a microphone-level or a line-level source.
9. **MIC/LINE** - Page input, XLR-F type, Pin 2 positive, electronically balanced, accepts balanced or unbalanced signals. Normal input level is dependent on the MIC, LINE switch setting. Microphone input level is -50 dBu with a maximum input level of -20 dBu. Line input level is +4 dBu with a maximum input level of +24 dBu.
15. **PA-422 OUT** - Female, 9-pin D-sub connector. It is used to carry the PA-422 data to the next PA-422 device.
16. **FUSE HOLDER** - Replace only with approved type of fuse in a rating appropriate to the mains voltage, as indicated on back panel. (See SPECIFICATIONS).
17. **POWER CONNECTOR** - Standard IEC 3-pin connector for AC power cord. Use only with grounded (3-wire) outlets. Cord sets are available for all world connection standards.
18. **CHASSIS GROUND POST** - A screw with a star washer enables the installer to secure a ground wire to the chassis.

PRM-8 BLOCK DIAGRAM

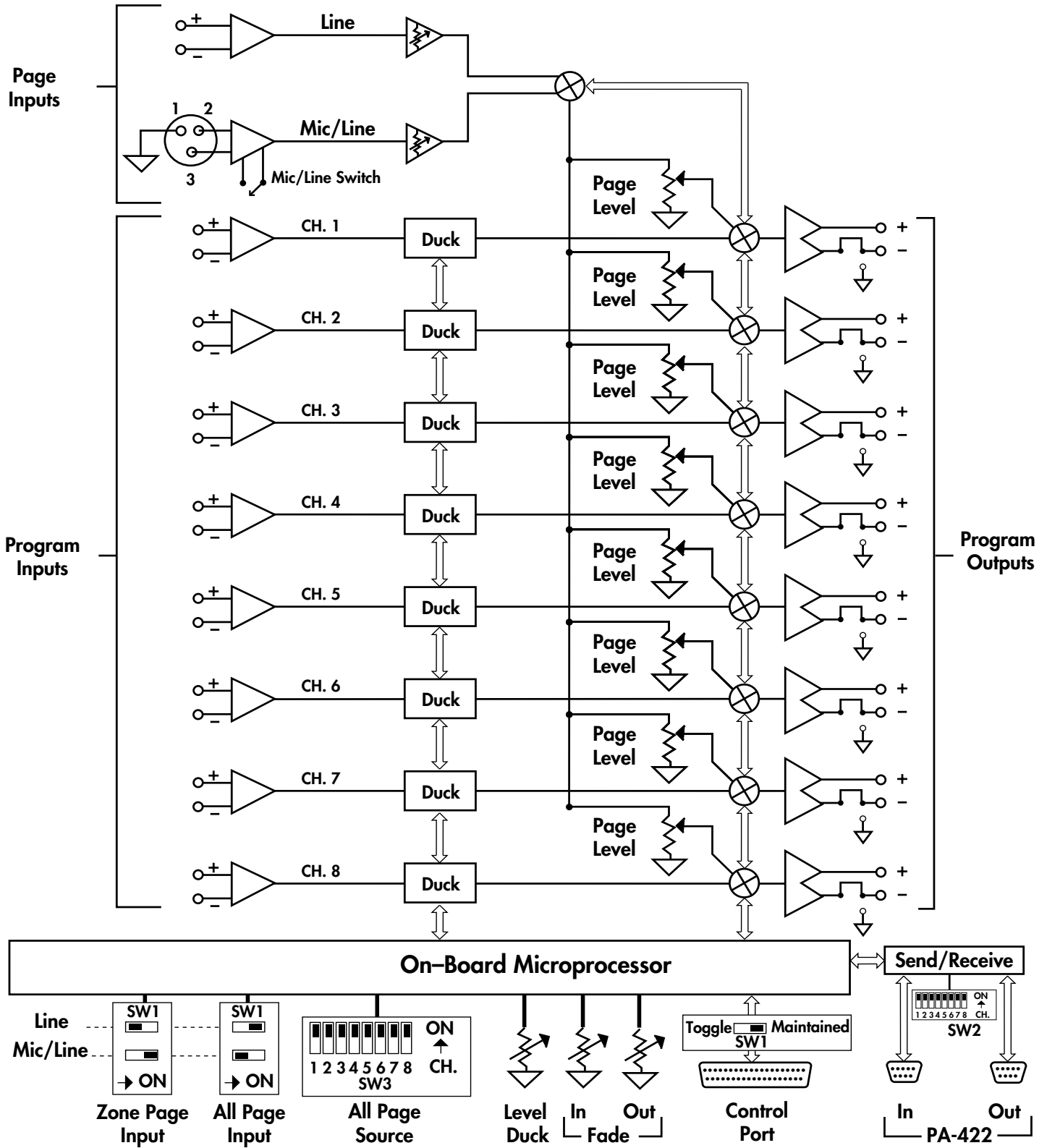


Figure 1.3: Block Diagram

PRM-8 SET-UP

PRM-8 SET-UP OVERVIEW

(Refer to Figure 2.1)

The PRM-8 has three internal dip switches that may be used to configure its operation for different system requirements. Before installing the PRM-8, refer to the switch function description below to determine the switch positions best suited to your system requirements. Refer to page 10 for a typical control panel configuration and its operation.

CAUTION!

Hazardous voltages are present inside the chassis. Before opening the case to gain access to the printed circuit board, always remove the power from the unit by disconnecting the AC power cord.

If changes are required:

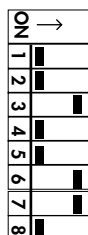
1. Disconnect the AC power cord.
2. Remove the screws that secure the top cover and set the cover aside.
3. Use the front panel Power LED and the AC Power Transformer as reference points to locate SW1, SW2 and SW3 which are located on the component side of the PRM's printed circuit board.

SW1 SET-UP PROCEDURE

(Refer to Figure 2.0)

Switch SW1 determines if: A manual Zone Page Clear line is to be used; The system is to store the Zone Page selections after a zone page; The Channel Select is to operate with momentary or maintained closures; The Page inputs are to be used as All Page, Zone Page or both.

SW1



SW1: Shipped from factory configured as shown.

Note: The Zone Page Clear function can be used only if the Control Port is set for MOMENTARY operation (#4 ON).

1	* Off	=	Not used, set to Off position
2	* Off	=	Not used, set to Off position
3	Off	=	Zone Page selection is NOT stored
	* On	=	Zone Page selection is stored
4	* Off	=	Channel Select set for MAINTAINED closures
	On	=	Channel Select set for MOMENTARY closures
5	* Off	=	Mic/Line input NOT used as All Page
	On	=	Mic/Line input used as All Page
6	Off	=	Line input NOT used as All Page
	* On	=	Line input used as All Page
7	Off	=	Mic/Line input NOT used as Zone Page
	* On	=	Mic/Line input used as Zone Page
8	* Off	=	Line input NOT used as Zone Page
	On	=	Line input used as Zone Page
* Indicates factory settings.			

Figure 2.0: Factory Set-Up for SW1

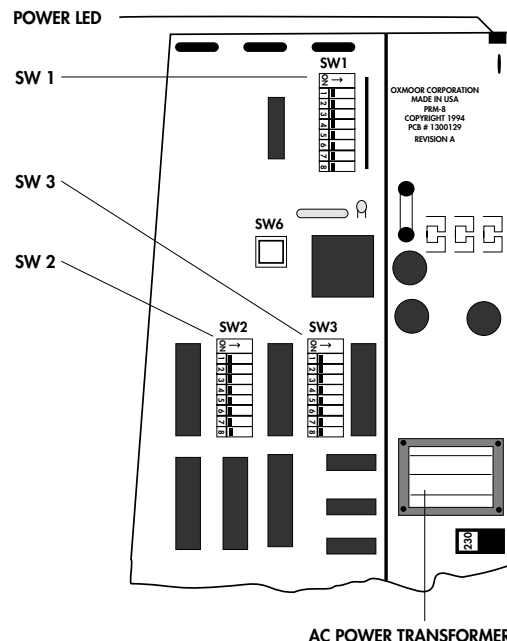


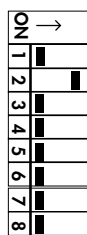
Figure 2.1: SW1, SW2 and SW3 Location on Printed Circuit Board

SW2 SET-UP PROCEDURE

(Refer to Figure 2.2)

Switch SW2 determines the PA-422 address. When the PA-422 port is to be used, the PRM-8's PA-422 address should be set to the same address as the controlling device. PA-422 requires that a device's address be between 1 and 250.

SW2



SW2: Shipped from factory with PA-422 set to address 2.

PA-422 Address

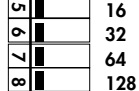


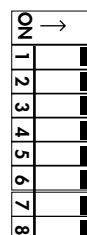
Figure 2.2: Factory Set-Up for SW2

SW3 SET-UP PROCEDURE

(Refer to Figure 2.3)

SW3 allows individual channels to NOT receive the All Page source. Those channels switched OFF will continue to mute and ramp the program source during an All Page, but will not receive the All Page source.

SW3



SW3: Shipped from factory with all channels set to receive the All Page source (all channels ON).

PRM-8 Program Channels

Figure 2.3: Factory Set-Up for SW3

PRM-8 SET-UP (CONTINUED)

DIRECT MODE SET-UP

The PRM-8 can be programmed to allow page routing to any channel without the use of the Zone Page Enable control line. In this mode the Fade In and Fade Out settings are ignored and any combination of channels may be selected at any time. When a program channel is selected (using a Channel Select control line) the program audio is immediately ducked to the Duck Level setting and the PRM's Zone Page input is routed to the selected channel(s).

To program the PRM-8 for the Direct Mode operation:

- Remove the AC power from the unit.
- Set SW1, switch number 4 to the off (MAINTAINED) position.
- Hard-wire the Zone Page Clear line (pin 14 on the Control Port) to common.
- Restore the AC power to the unit.

PROGRAM OUTPUT BALANCED/UNBALANCED SET-UP

(Refer to Figure 2.4)

The PRM-8 is configured from the factory for balanced audio outputs. A jumper is provided for each channel to allow easy conversion to an unbalanced configuration.

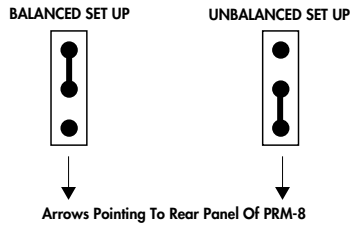


Figure 2.4: Program Output Jumper Set-Up

PROGRAM OUTPUT FACTORY SET-UP

(Refer to Figure 2.5)

Located next to the PRM-8's Program Output connector on the circuit board, the jumpers are labeled as follows:

P9	=	Channel 1
P16	=	Channel 2
P11	=	Channel 3
P10	=	Channel 4
P13	=	Channel 5
P12	=	Channel 6
P14	=	Channel 7
P15	=	Channel 8

The diagram below illustrates the factory set-up for the balanced/unbalanced jumpers.

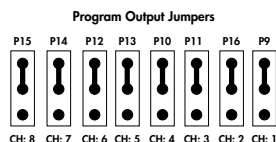


Figure 2.5: Factory Set-Up for Output Jumpers

CUSTOM SET-UP

(Refer to Figures 2.6, 2.7, 2.8 and 2.9)

Use the templates below to record custom set-ups of the PRM-8:

SW1

ON	→
1	
2	
3	
4	
5	
6	
7	
8	

Figure 2.6: SW1 Set-Up Template

SW2

ON	→
1	
2	
3	
4	
5	
6	
7	
8	

1
2
4
8
16
32
64
128

PA-422 Address

Figure 2.7: SW2 Set-Up Template

SW3

ON	→
1	
2	
3	
4	
5	
6	
7	
8	

1
2
3
4
5
6
7
8

PRM-8 Program Channels

Figure 2.8: SW3 Set-Up Template

Program Output Jumpers

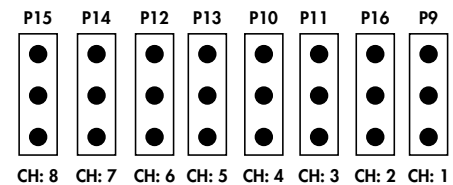


Figure 2.9: Program Output Jumpers Set-Up Template

PRM-8 CONNECTIONS

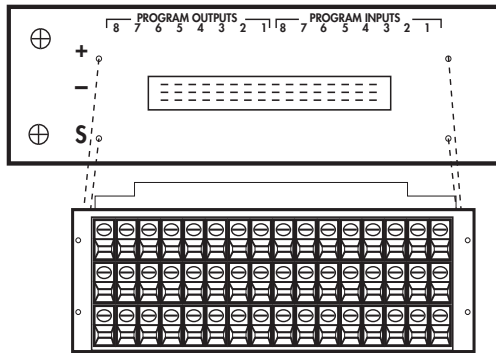


Figure 3.0: Program Inputs and Outputs View

PROGRAM INPUT AND OUTPUT CONNECTIONS

(Refer to Figure 3.0)

The PRM-8 Page Module provides connections for eight program channels. Upon initiation of a page, the page inputs are routed to any one, or any combination, of these program channels.

The Program Input and Output connections are made through a 48-pin screw terminal block mating connector. *NOTE: Make sure that the two mounting screws (shipped with the connector) are used to secure the 48-pin screw terminal to the enclosure.*

- 1. PROGRAM INPUTS:** (S) = Shield, (+) = High, (-) = Low, electronically balanced input, accepts balanced or unbalanced signals from line-level devices. Nominal input level is +4 dBu with maximum input level of +24 dBu.
- 2. PROGRAM OUTPUTS:** (S) = Shield, (+) = High, (-) = Low, electronically balanced output accommodates balanced or unbalanced lines. Recommended load impedance is 600 ohms or greater. Maximum output level is +26 dBu.

PROGRAM INPUT AND OUTPUT WIRING SCHEMES

(Refer to Figures 3.1 and 3.2)

The diagrams below illustrate the correct wiring of balanced and unbalanced program inputs and outputs.

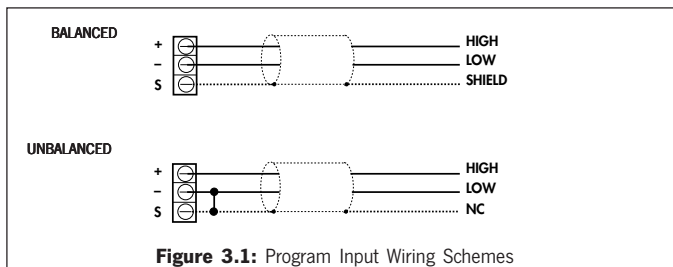


Figure 3.1: Program Input Wiring Schemes

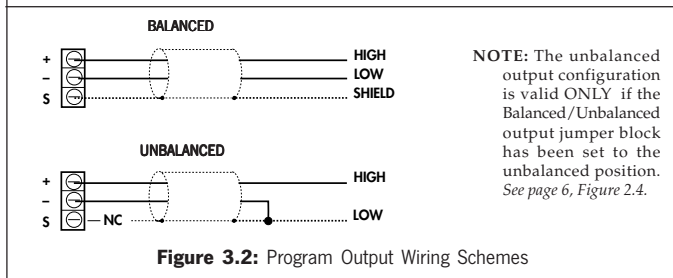


Figure 3.2: Program Output Wiring Schemes

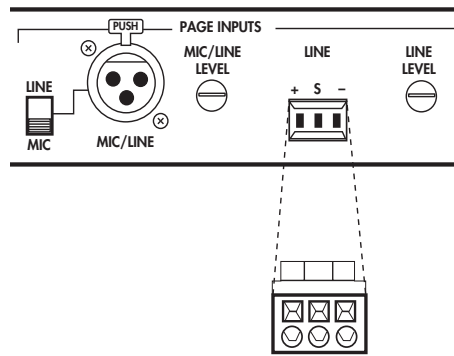


Figure 3.3: Page Inputs View

PAGE INPUT CONNECTIONS

(Refer to Figure 3.3)

The PRM-8 Page Module provides connections for two page inputs. Page inputs are easily routed to any one, or any combination, of the module's eight program channels.

- 1. MIC/LINE:** XLR input, Pin 1 = Shield, 2 = High, 3 = Low, accepts balanced or unbalanced signals from mic-level or line-level audio devices.

MIC, LINE: Set switch to **MIC** position for mic-level or **LINE** position for line-level source.

MIC/LINE LEVEL: Use a small flat-blade screwdriver to adjust the MIC/LINE input for various input signal levels.

- 2. LINE:** (S) = Shield, (+) = High, (-) = Low, accepts balanced or unbalanced signals from line-level audio devices. The connections are made through a 3-pin cage-clamp connector. The cage-clamp spring clamps the wire providing quick and easy termination.

LINE LEVEL: Use a small flat-blade screwdriver to adjust the LINE input for various input signal levels.

PAGE INPUT WIRING SCHEMES

(Refer to Figure 3.4)

The diagram below illustrates the correct wiring of balanced and unbalanced page inputs.

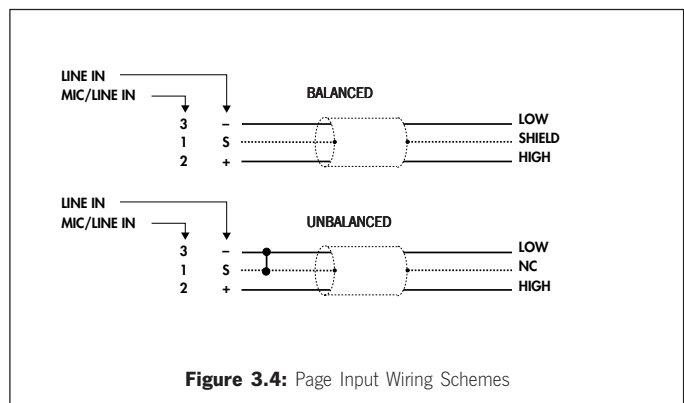


Figure 3.4: Page Input Wiring Schemes

PRM-8 CONNECTIONS (CONTINUED)

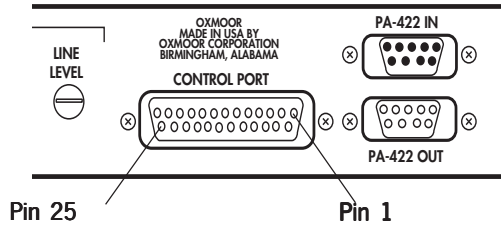


Figure 3.5: Control Port View

CONTROL PORT CONNECTIONS

(Refer to Figures 3.5, 3.6 and 3.7)

The PRM-8 Page Module Control Port provides connections for external switching of zones for Zone Paging, Zone Page Enable, All Page Enable, and Zone Page Clear. Also provides tally connections for all control functions. *NOTE: The Zone Page Enable and the All Page Enable tally lines are activated only after the duck level setting is reached, as established by the front panel control.*

All Channel Select functions are operated by contact closures, either "momentary" or "maintained" depending on SW1 (see page 5) setting. Zone Page Enable and All Page Enable functions are operated by "maintained" contact closures.

Pin	Function	Pin	Function
1	Common	14	Zone Page Clear
2	Common	15	All Page Tally
3	Bias for Back EMF	16	Zone Page Tally
4	All Page Enable	17	Channel 1 Select Tally
5	Channel 1 Select	18	Channel 2 Select Tally
6	Channel 2 Select	19	Channel 3 Select Tally
7	Channel 3 Select	20	Channel 4 Select Tally
8	Channel 4 Select	21	Channel 5 Select Tally
9	Channel 5 Select	22	Channel 6 Select Tally
10	Channel 6 Select	23	Channel 7 Select Tally
11	Channel 7 Select	24	Channel 8 Select Tally
12	Channel 8 Select	25	+15 VDC
13	Zone Page Enable		

Figure 3.6: Control Port Pin-Out

Function	Description
All Page Enable	Initiates All Page
Channel X Select	Assigns channel to receive the Zone Page
Channel X Tally	Provides open-collector closure to common when control function is active
Common	Logic Common
Zone Page Enable	Initiates Zone Page
Zone Page Clear	Clears Channel X Selections
+15 VDC	DC voltage for Tally LEDs

Figure 3.7: Control Port Functions and Descriptions

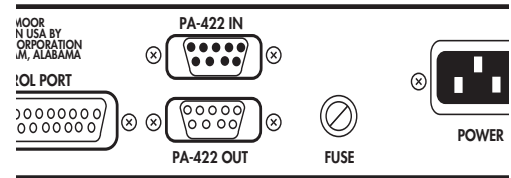


Figure 3.8: PA-422 Serial Control Port View

PA-422 SERIAL CONTROL PORT CONNECTIONS

(Refer to Figures 3.8, 3.9 and 3.10)

All PRM-8 functions can be controlled through the PA-422 serial control port. See Wiring detail below.

Use Belden #9681 or equivalent.

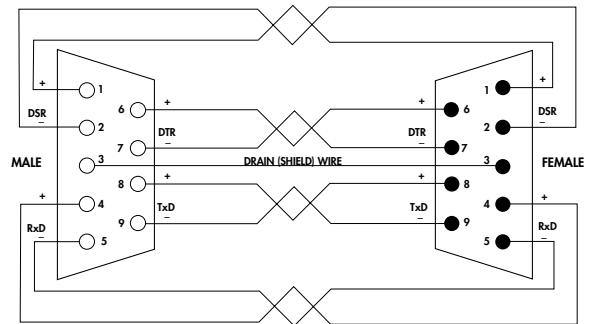


Figure 3.9: PA-422 Serial Control Port Wiring

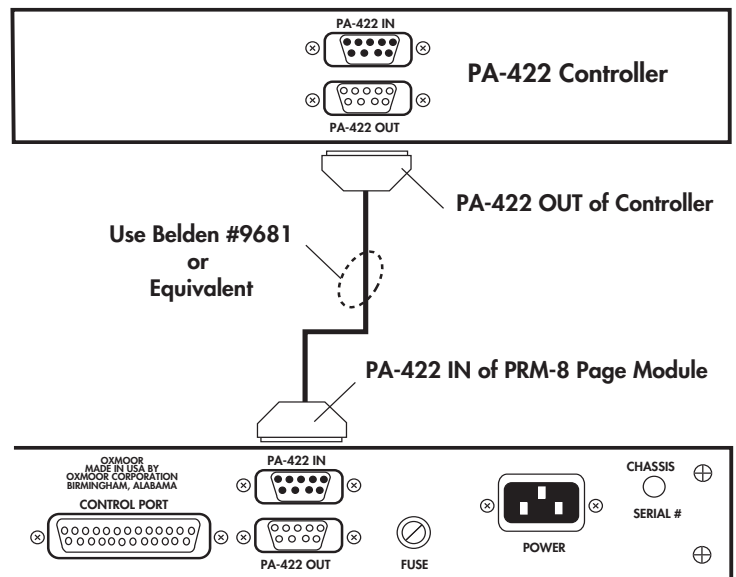


Figure 3.10: PA-422 Typical Connection Scheme

PRM-8 PROGRAMMING

1.0 PRM-8 PROGRAMMING OVERVIEW

This document is a PA-422 communications reference for those interested in designing their own custom software to control the OXMOOR PRM-8 system. Intended as a supplement to the PA-422 standard documentation (which describes in detail the operation of PA-422), this text describes those commands which are used with the PRM-8. These commands are described in a manner consistent with the PA-422 standards draft: each command is introduced and its exact usage given in a procedural, step-by-step fashion. Also included are the data formats associated with each command.

2.0 DEVICE CONTROL LANGUAGE STRUCTURES

2.1 Transmit All Data - 81 hex

This command sends the data necessary to specify the operational mode and channel configurations of the PRM-8. The data transmitted includes the status of link switches, device mode of operation, channel selection for page function and enable/disable page function. To send this command the controller must:

1. Transmit the address of the desired device.
2. Wait until DSR is set or 250 msec timeout period has elapsed.
3. Set DTR.
4. Get DT (device-type code; 31 hex).
5. Get ID (mfg.'s identification code; 29 hex).
6. Transmit 81 hex (command code).
7. Transmit the data as shown in the data structure description (see section 3).
8. Get COMSTAT (should be 00 hex if successfully executed).
9. Verify DSR is reset by addressed device.
10. Reset DTR.

2.2 Update Parameter of Device Channel - 96 hex

This command allows the controlling device to adjust program source fade levels and fade in/out times of the PRM-8.

1. Transmit the address of the desired device.
2. Wait until DSR is set or 250 msec timeout period has elapsed.
3. Set DTR.
4. Get DT (device-type code; 31 hex).
5. Get ID (mfg.'s identification code; 29 hex).
6. Transmit 96 hex (command code).
7. Transmit the data as shown in the data structure description (see section 3).
8. Get COMSTAT (should be 00 hex if successfully executed).
9. Verify DSR is reset by addressed device.
10. Reset DTR.

3.0 DEVICE CONTROL LANGUAGE (DCL) DATA STRUCTURES

This section details the exact data streams that should be sent with each PA-422 command to correctly communicate with the desired device. Each data structure is presented in the following format:

Data Transmitted:

(the data that should be sent with the command)

Byte# =	Data stream position
Valid Data Range =	Valid values for byte
Description =	Information byte contains

Data Received:

(the data returned from the desired device).

Byte# =	Data stream position
Valid Data Range =	Valid values for byte
Description =	Information byte contains

NOTE: All numbers in the data fields are decimal unless noted otherwise.

PRM-8 PROGRAMMING (CONTINUED)

3.1 Transmit All Data (81 hex)

Data Transmitted:

Byte# =	1
Valid Data Range =	0-2
Description =	Page Source Input Select 0 = Mic/Line Level Input 1 = Line Level Input 2 = Both Mic/Line and Line Level inputs activated
Byte# =	2
Valid Data Range =	0 or 2
Description =	Operational Mode Status 0 = Normal PRM-8 Application 1 = MCS Room Combining System Application 2 = Direct Mode Application
Byte# =	3
Valid Data Range =	0 or 1
Description =	PRM-8 Paging Mode 0 = Page Function Disable 1 = Page Function Enable
Byte# =	4
Valid Data Range =	0-FF hex
Description =	Channel Select for Page Mode, i.e., channels 1-8. Each bit corresponds to the appropriate channel desired. For example: 00010101 will route the initiated page to channels 5, 3, and 1. Bit 8 (MSB) is channel 8; bit 1 (LSB) is channel 1.

Byte# =	5 through 15
Valid Data Range =	0-FF hex
Description =	MCS Room Combining System Link switch settings

Room combinations for each of the 11 link switches. If a link switch is inactive, the byte for that switch should be zero. Thus, if link switch one is active and it combines rooms 1 and 2, then byte 5 should be 00000011. Note that byte 5 corresponds to link switch 1, and byte 15 corresponds to link switch 11. If an MCS Room Combining System is not used, then byte 2 (operational mode status byte) is zero. Bytes 5 through 15 are still required to be transmitted, but the data is ignored by PRM-8.

Data Received: none

PRM-8 PROGRAMMING (CONTINUED)

3.2 Update Parameter of Device Channel (96 hex)

Data Transmitted:

Byte# = 1
Valid Data Range = 0 or 1
Description = 0 = Enable front panel trim
 pots for Page function
 1 = Disable trim pots and use
 PA-422 data for Page
 function

Byte# = 2
Valid Data Range = 0-FF hex
Description = Program source level
 defined for all 8 channels.
 (0 to -48dBu, -80dBu = off)

 Program source attenuation
 levels can be calculated as
 follows:
 Attenuation (dBu) = $20 \text{ Log } [(V_{in} / 0.7747) (\text{decimal value} / 256)]$

For example:
0F hex (15 decimal) = value
transmitted $0.7747v = V_{in}$ input
 $-24\text{dBu} = 20 \text{ Log} [(1) (15 / 256)]$

Other example values for input
voltage of $0.7747v (V_{in})$ are:
FF hex equals 0 dBu attenuation
0F hex equals -24 dBu attenuation
01 hex equals -48 dBu attenuation
00 hex equals -80 dBu attenuation

Byte# = 3
Valid Data Range = 0-FF hex
Description = Program source fade in time
 after page function is disabled.
 (0 to 5 seconds)

 FF hex = 5 seconds fade in time
 0F hex = 2.5 sec. fade in time
 00 hex = 0 seconds fade in time

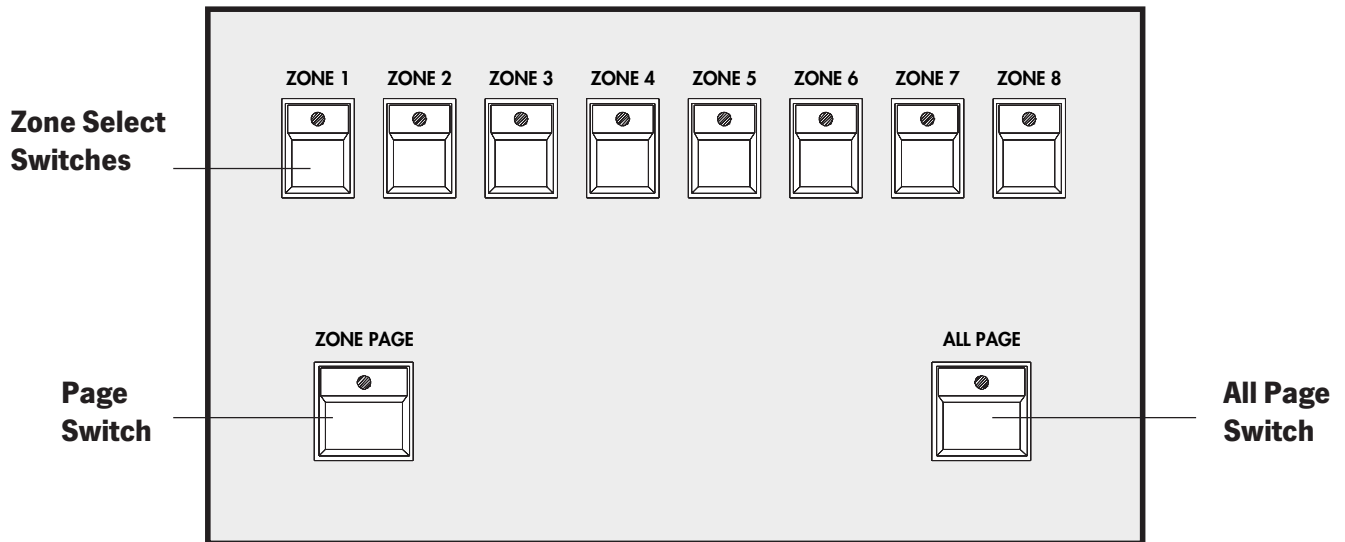
Byte# = 4
Valid Data Range = 0-FF hex
Description = Program source fade out time
 for enabled page function.
 (0 to 5 seconds)
 FF hex = 5 sec. fade out time
 0F hex = 2.5 sec. fade out time
 00 hex = 0 sec. fade out time

Data Received: none

TYPICAL PAGING CONTROL PANEL

Illustrated below is a typical control panel that could be used with Oxmoor's PRM-8 Page Routing Module. While there are many other ways of controlling Oxmoor's page module, the illustration includes the functions most often desired.

Two types of paging are possible with this panel. Zone Page distributes a page to zones selected with the Zone Select switches. All Page sends the page to all zones. LED tally indicators, incorporated into each push-button, provide a visual confirmation of the status of each function.



Zone Select Switches

A page can be sent to any one or any combination of zones. Use the Zone Select switches to determine which zones will receive a page. These buttons function in a "push-on/push-off" fashion.

Select zones to receive a page by pushing each appropriate Zone Select switch once. The LED will turn on, indicating that the zone has been selected. To remove a zone that has been selected, simply push the appropriate zone's button once.

Once a zone or zones have been selected, a Zone Page may be initiated.

Note: An illuminated LED indicates only that the zone is programmed to receive a page, not that the PRM-8's page input is on.

Page Switch

To page, press and hold the Page switch. The Page Switch's LED will turn on, indicating that a page is in progress. As long as the Page switch is held down, the page input will be *on* and the page message will be directed to all selected zones.

When the page is complete, release the Page switch. The LED on the Page switch will be turned off, indicating the page input is *off*.

Note: As long as the Page Switch's LED is on, no additional zones can be added or deleted from the setup.

All Page Switch

To send a page to all zones simultaneously, push and hold the All Page switch. The All Page switch's LED will illuminate, indicating that a page is in process. The All Page function overrides whatever selections have been made at the Zone Select switches. As long as the All Page switch remains depressed, the page input will be *on* and the page message will be directed to all zones, whether they have been selected or not.

When the All Page is complete, release the All Page switch. The LED on the All Page switch will be turned off, indicating the all page input is *off*.

PRM-8 SET-UP NOTES

PRM-8 SPECIFICATIONS

FREQUENCY RESPONSE	20 Hz to 20 kHz +0, -0.3 dB
HUM AND NOISE	Ref. +4 dBm Output @ Unity Gain -85 dB (20 Hz to 20 kHz, Unweighted)
DISTORTION	THD + Noise and IMD* -80 dB/0.01%
CROSSTALK	Channel to Channel -80 dB (20 Hz to 20 kHz)
PROGRAM INPUTS	Type Electronically Balanced (RF Suppressed) Connectors Screw Terminal Blocks with Mating Connector Input Impedance 80 K Ohms Input Sensitivity Nominal +4 dBu, Maximum +24 dBu
PROGRAM OUTPUTS	Type Electronically Balanced (RF Suppressed) Connectors Screw Terminal Blocks with Mating Connector Source Impedance 150 Ohms (75 Ohms/Side) Recommended Load Impedance 600 Ohms or Greater Maximum Output Level Ref. 1 kHz @ Rated THD Terminated w/600 Ohms +24 dBm (All Outputs Driven Simultaneously) Unterminated +26 dBu
PAGE MIC/LINE INPUT	Type Electronically Balanced (RF Suppressed) Connectors Female XLR, Pin 1 Shield (Chassis), Pin 2 +, Pin 3 – Input Impedance 1.5 K Ohms Mic. Input Sensitivity Nominal -50 dBu Mic. Gain Control Range -50 dB to 0 dB (Ref. 0 dBu Output) Line Input Sensitivity Nominal +4 dBu, Maximum +24 dBu Mic/Line Switch Sets Input for Microphone or Line-Level Source
PAGE LINE INPUT	Type Electronically Balanced (RF Suppressed) Connectors Cage-Clamp Connector with Mating Connector Input Impedance 80 K Ohms Input Sensitivity Nominal +4 dBu, Maximum +24 dBu Gain Control Range ± 15 dB
PAGE LEVEL CONTROLS	Ref. +4 dBm Output @ Unity Gain 0 to -80 dB (Accessed Through Front Panel)
DUCK ADJUSTMENTS	Attenuation 0 dB to -80 dB (Variable) Fade In 0 to 5 Seconds (Variable) Fade Out 0 to 5 Seconds (Variable)
CONTROL PORT	Connector 25-pin D-sub, Female Input Type Active Low, Internally Pulled Up Logic Action Channel Select "Selectable" Momentary or Maintained Closure to Common All Page & Zone Page Maintained Closure to Common Logic Levels Low < .8 Volts, High > 2.4 Volts Maximum Sink Current 1 mA Maximum Cable Length 600 m (2000 ft.), #22 AWG Switching Time 50 ms Power Output +15 VDC ±0.1 V, 50 mA
COMMUNICATION	Protocol PA-422 Input Connector 9-pin D-sub, Male Output Connector 9-pin D-sub, Female
MAINS POWER	Power Requirements 100 to 125 VAC or 200 to 230 VAC, 50/60 Hz
MECHANICAL	Overall Dimensions 44 H x 482 W x 254 D mm (1.72 H x 19 W x 10 D in) Finish Textured Black Paint Weight Shipping: 6.3 Kg (14 lb) Net: 5.9 Kg (13 lb)

*SMPTE Method; 60 Hz + 7 kHz mixed 4:1. ** Input terminated w/600 ohms, unity gain, adjacent channel driven to +4 dBm output.
Specifications subject to change without notice.

OXMOOR FACTORY SERVICE

For service information contact:

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Internet: www.oxmoor.com

Additional Installation & Operation Manuals are available from Oxmoor. Contact the Oxmoor Sales Department for pricing and other ordering information. Consult warranty statement for cautions concerning unauthorized service.

OXMOOR TWO YEAR LIMITED WARRANTY

Oxmoor warrants that each Oxmoor electronic product shall be free from defects in workmanship and materials and will, at its option, repair or replace any part of the product without charge provided the product is delivered to Oxmoor within two years of date of original purchase from or delivery by an authorized Oxmoor dealer. Excluded from this warranty are finish and appearance items and malfunction resulting from abuse, from use that is not in accordance with instructions, or operation under other than specified conditions. Also excluded are incidental or consequential damages except where precluded by applicable law. This warranty provides the customer with specific legal rights; there may also be other rights which vary from state to state.

Repair by other than Oxmoor Factory Service Department or its authorized service agency, unauthorized modification, or the removal or defacing of the serial number will void this warranty.

Products returned for factory warranty service must be prepaid and packaged in such a way as to insure safe transit and must be accompanied by a sales slip or other valid proof of purchase date.

PRIOR AUTHORIZATION FROM OXMOOR IS REQUIRED FOR RETURN. Contact Oxmoor for a Return Authorization (R.A.) Number and shipping information before returning product for service.



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For 24-hour access to product specs and information visit Oxmoor's complete product line on the internet at www.oxmoor.com.

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Specifications and design are subject to change without notice.