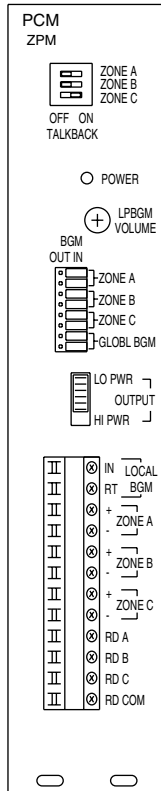


# Bogen Model PCMZPM

Zone Paging Module for  
Bogen's PCM2000 Zone Paging System





## Contents

Description .....	4
Talkback Option .....	4
Set Output Type .....	4
BGM Volume .....	4
BGM Options .....	5
Local BGM .....	5
Zone Wiring .....	5
Relay Driver Output .....	7

## Description

The Bogen PCMZPM module provides three zones of paging to the PCM2000 system. Up to three PCMZPM modules can be used in a basic system to provide up to nine zones of paging. Additional modules can be combined with a PCMCPU module in a satellite system when more than nine zones are required. Each PCMZPM module lets you set the talkback option (on or off) and background music options for each zone. Each zone can be connected or disconnected from the background music bus. Furthermore, the entire module can be disconnected from the bus and a local background music source substituted. Each module can also be configured for high-power operation (when using passive speakers and a central amplifier), or low-power operation (supplying low level signals to amplified speakers). A relay driver is provided for each zone, becoming active when the zone is active.

## Talkback Option

The talkback option requires the use of the PCMTBM talkback module (one per system).

Talkback for each zone is selected using the built-in DIP switches. For each zone, place the corresponding DIP switch in the OFF position for no talkback, or in the ON position if talkback is desired.

## Set Output Type

The OUTPUT switch is used to set the module for low-power or high-power operation. A mechanical switch lock is provided to secure the switch in place. To change the switch position, remove the screw securing the lock. Change the switch position, then invert the lock and secure it in place with the screw.

Place the OUTPUT slide switch in the LO PWR position when using amplified speakers or amplifiers per zone. Internal buffer amps condition the low level signal to drive approximately 50 amplified speakers. Place the switch in the HI PWR position when using passive speakers with a central amplifier. Only one output type can be selected per PCMZPM module.

## BGM Volume

The BGM VOL control changes the volume of the low level background music. Low level page volume is not effected by this control.

## **BGM Options**

A three-column jumper field is available to connect or disconnect each zone output to the background music bus. Place the jumper in the OUT position to disconnect the zone from the BGM bus. Place the jumper in the IN position to connect the zone to the BGM bus.

*NOTE: Each zone requires 2 jumpers to be moved to the same position as indicated by the brackets for each zone label.*

## **Local BGM**

The PCMZPM module can accept input from a secondary (local) BGM source. Move the GLOBL BGM jumpers to the out position, and connect the BGM source to the terminal strip labeled LOCAL BGM IN & RT. (See the illustrations in the Applications section of the PCMCPU manual for examples of this type of configuration wiring.)

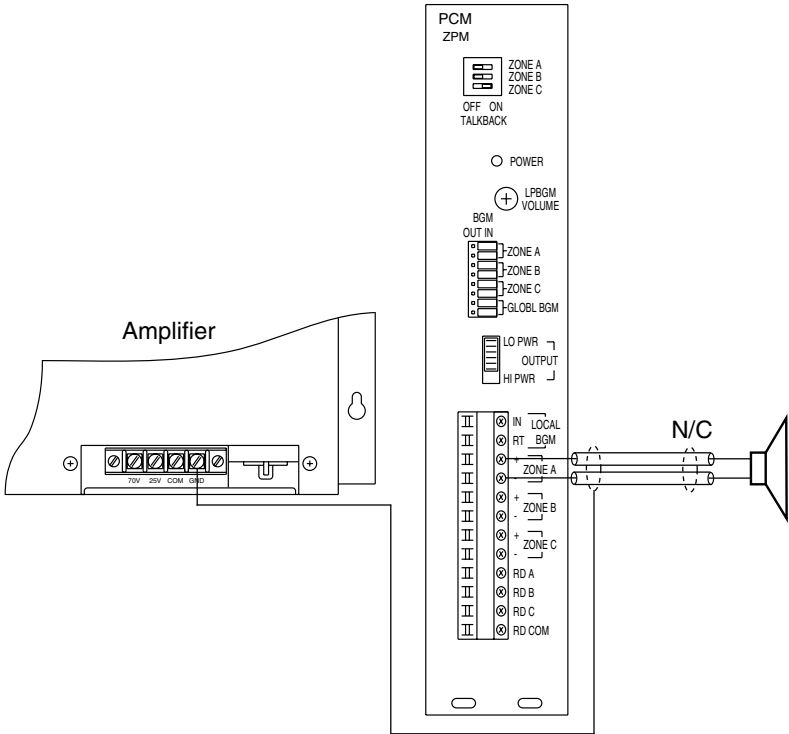
*NOTE: The local BGM source must be compatible with the types of speakers installed on the zone outputs, that is, low level when used with separate zone amplifier or amplified speakers and high-power 25V or 70V when used with passive speakers.*

## **Zone Wiring**

The speaker of each paging zone connects to the appropriate screw terminals on the connector block. These are labeled ZONE A, ZONE B, and ZONE C. Each connection is marked + and - as a means of identifying phasing of the zone. Typically, speaker returns go to - and speaker feeds go to +.

2-conductor shielded wire is recommended for speaker installation. One side of the shield is grounded through the amplifier and the other side is left floating with no connection. See illustration on page 6.

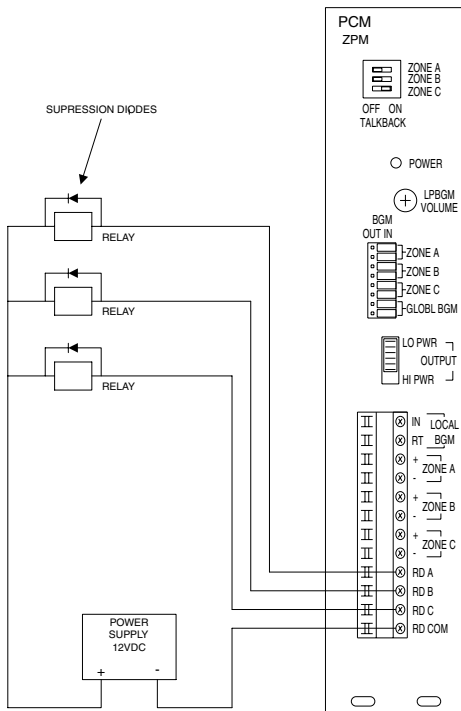
*NOTE: A white block next to the zone output terminals is provided to write the actual system zone number for that set of terminals. Use an indelible marker to write in the zone numbers.*



## Relay Driver Output

Each zone module has three relay driver outputs: RD A, RD B, and RD C - one for each speaker zone. When a zone is active, its relay driver is shorted to RD COM through an open collector transistor. These drivers can be used to activate external relays to provide greater power capacity or to operate external equipment. The power supply for these relays must be 12V DC or less. The total sink current per driver cannot exceed 100 mA.

*NOTE: Some power supplies are rated at 12V DC, but when lightly loaded are considerably higher in output voltage. If the power supply for the relay has an unloaded output of greater than 13V DC, the relay drivers may begin to conduct, energizing the relay. If this problem occurs, you can either replace the supply with a regulated supply or use a lower voltage supply.*



**BOGEN<sup>®</sup>**  
**COMMUNICATIONS, INC.**

50 Spring Street, Ramsey, NJ 07446  
Tel. 201-934-8500, Fax: 201-934-9832

Web Site: [www.bogen.com](http://www.bogen.com) / E-mail: [info@bogen.com](mailto:info@bogen.com)