

AMBIENT LEVEL CONTROLLER V-5335621

INTRODUCTION

The Ambient Level Controller (ALC) constantly monitors room noise and adjusts the paging level to accommodate for any changes in noise level. It has a built-in Sound Pressure Level (SPL) meter.



SPECIFICATIONS

The ALC has two inputs, a loop start input (Telco) and a balanced 600 Ohm line input. The Telco input shall have priority over the line input. The microphone can be placed up to 5000 feet from the ALC with shielded wire. The ALC has five contact closure clock or remote control inputs. The ALC has four double throw relay outputs that activate on the -6 dB and 0 dB levels.

The ALC adjusts page system level in 6 dB steps. The Telco input is loop start and has priority over the line input. The line input has a dry contact closure which will provide an isolated dry contact closure at the connections of the line output.

- Power consumption 60 Watts
- Frequency Response 250 Hz to 15 KHz \pm 2dB
- Signal to noise (dB ref.) Better than -60dB
- Maximum output level 0dB, -12dB with jumper installed
- Output relay activation points 0dB and -6dB gain reduction
- Output relay contact rating 1 Amp
- Number of relay output contacts 4
- Input level controls (internal) 5
- Control requirements Dry contact closure
- Input types Line, Telco (loop start only)
- Output types Line (600 Ohm)
- Contact closure on output Yes
- Contact closure controlled input Yes
- Front panel controls Attenuation manual or automatic
- Front panel indicators Power
Attenuation, automatic
Telephone input active
- Maximum MIC line length 5000 feet

FEATURES

- Allows automatic, manual or remote control of paging system audio levels
- SPL meter with over 50 dB range built-in
- Microphone can be placed up to 5000 feet from unit
- Balanced 600 Ohm inputs and outputs
- Loop Start Telco input with priority over line input
- Clock contact closure or remote control input connections
- Relay outputs for emergency override or indicators
- Dry contact closure on line input activates isolated dry contact closure on line output
- Internal microprocessor senses ambient noise via a MIC input, and adjusts the paging level accordingly
- Rack or wall mount, single rack space
- 24VAC UL listed power supply, Part 15 (FCC) approved

Dimensions/Weight

- 17"W x 1.75"H x 8.75"D (19"W with rack ears)
(43.18cm x 4.45cm x 22.23cm)
- 8 lbs. (3.63 kg)

Environmental/Humidity

- 32 to 104° F (0 to 40° C)
- 0 to 85% non-condensing

TECHNICAL ASSISTANCE

When calling, have a VOM and a telephone test set available and call from the job site.

Call (800) 782-5266 and ask for PagePac Technical Support, or call (540) 427-6000 for Valcom 24-hour Automated Support or visit our websites at <http://www.pagepac.com> and www.valcom.com.

Should repairs be necessary, attach a tag to the unit clearly stating company name, address, phone number, contact person, and the nature of the problem. Send the unit to:

Valcom, Inc.
PagePac® Repair Dept.
5614 Hollins Road
Roanoke, VA 24019-5056

INSTALLATION

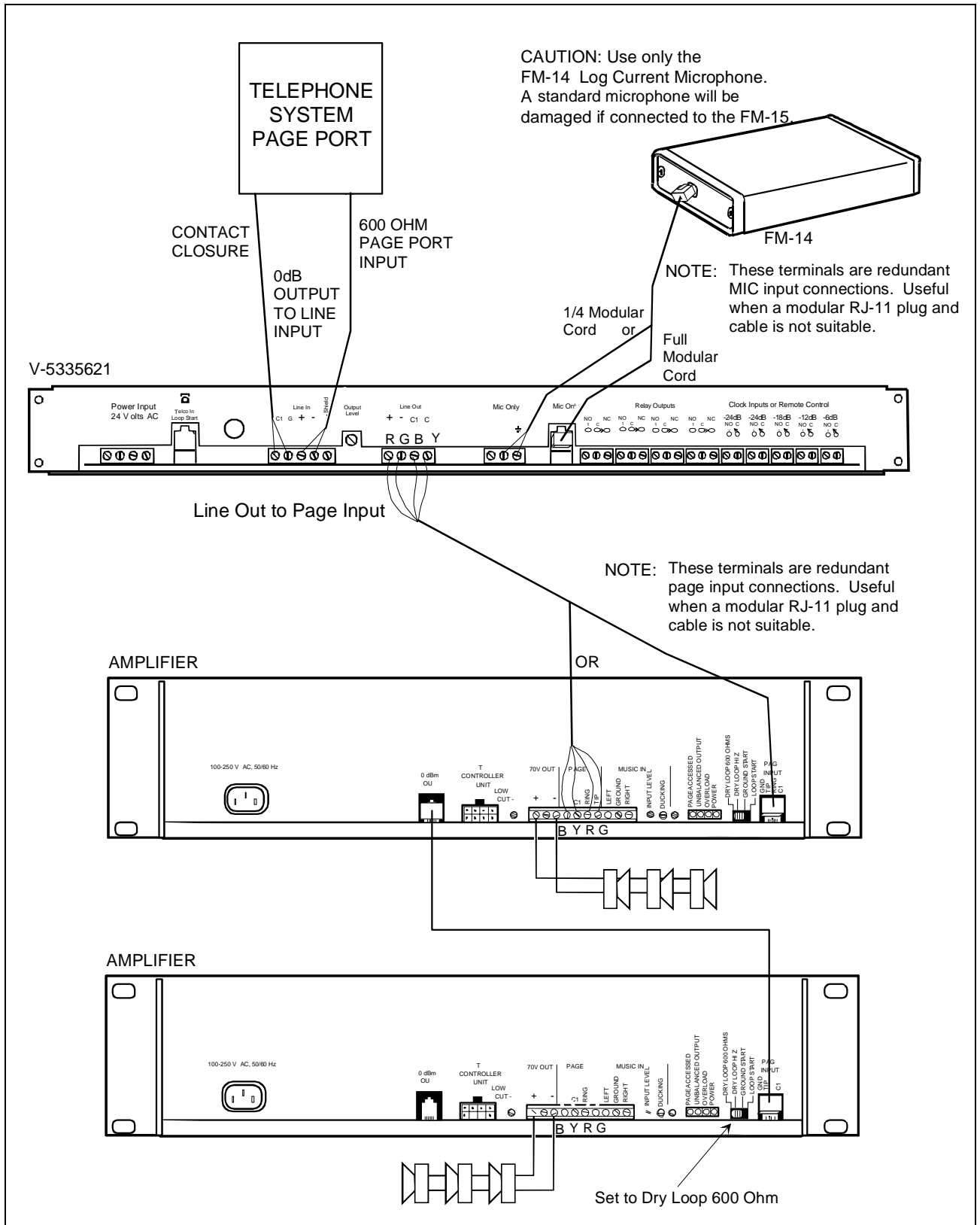


Figure 1. Connection to Conventional Paging System

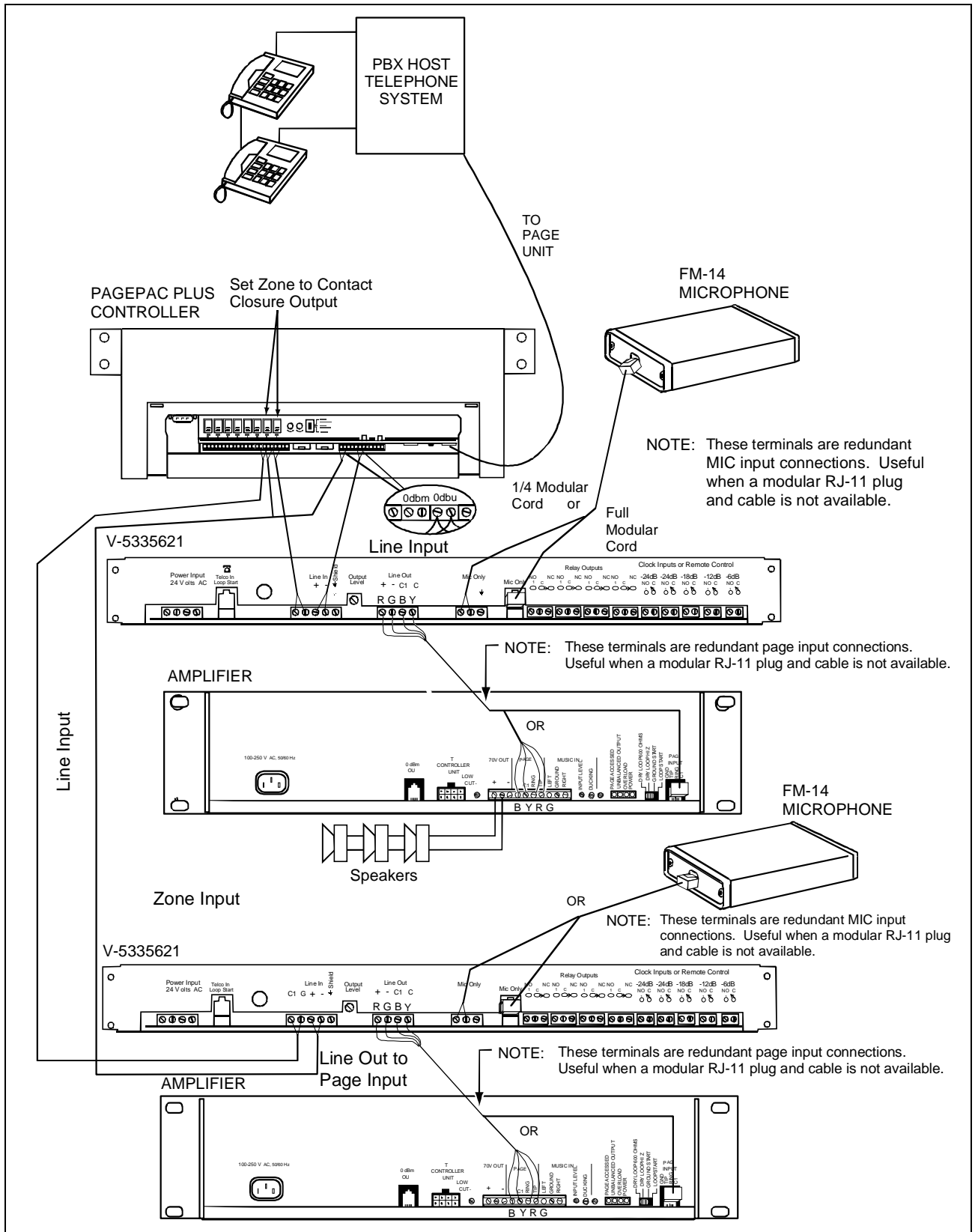


Figure 2. Multiple ALCs used with a Single Controller and Multiple Amplifiers

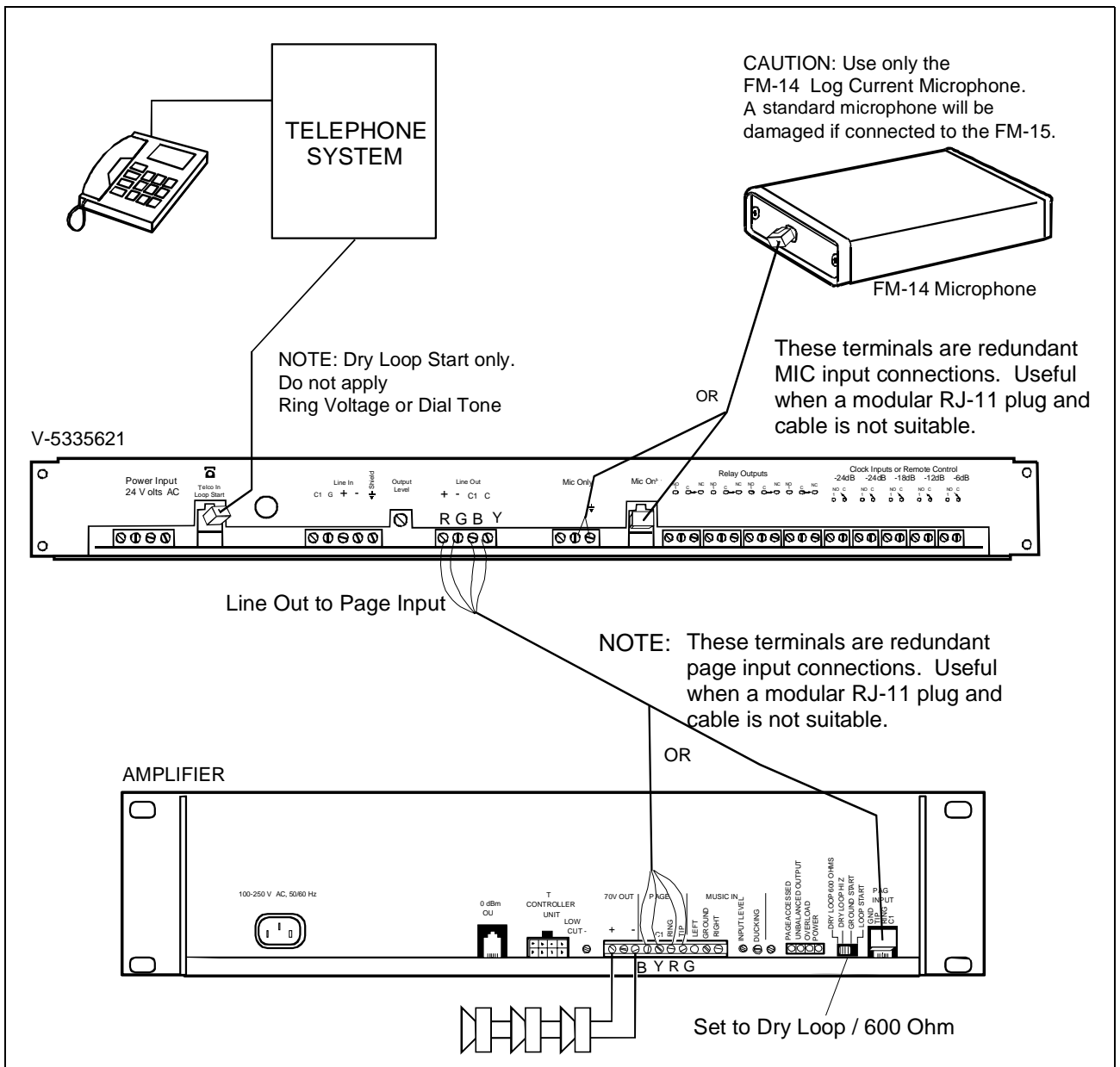


Figure 3. Connection between Paging Source and Amplifier

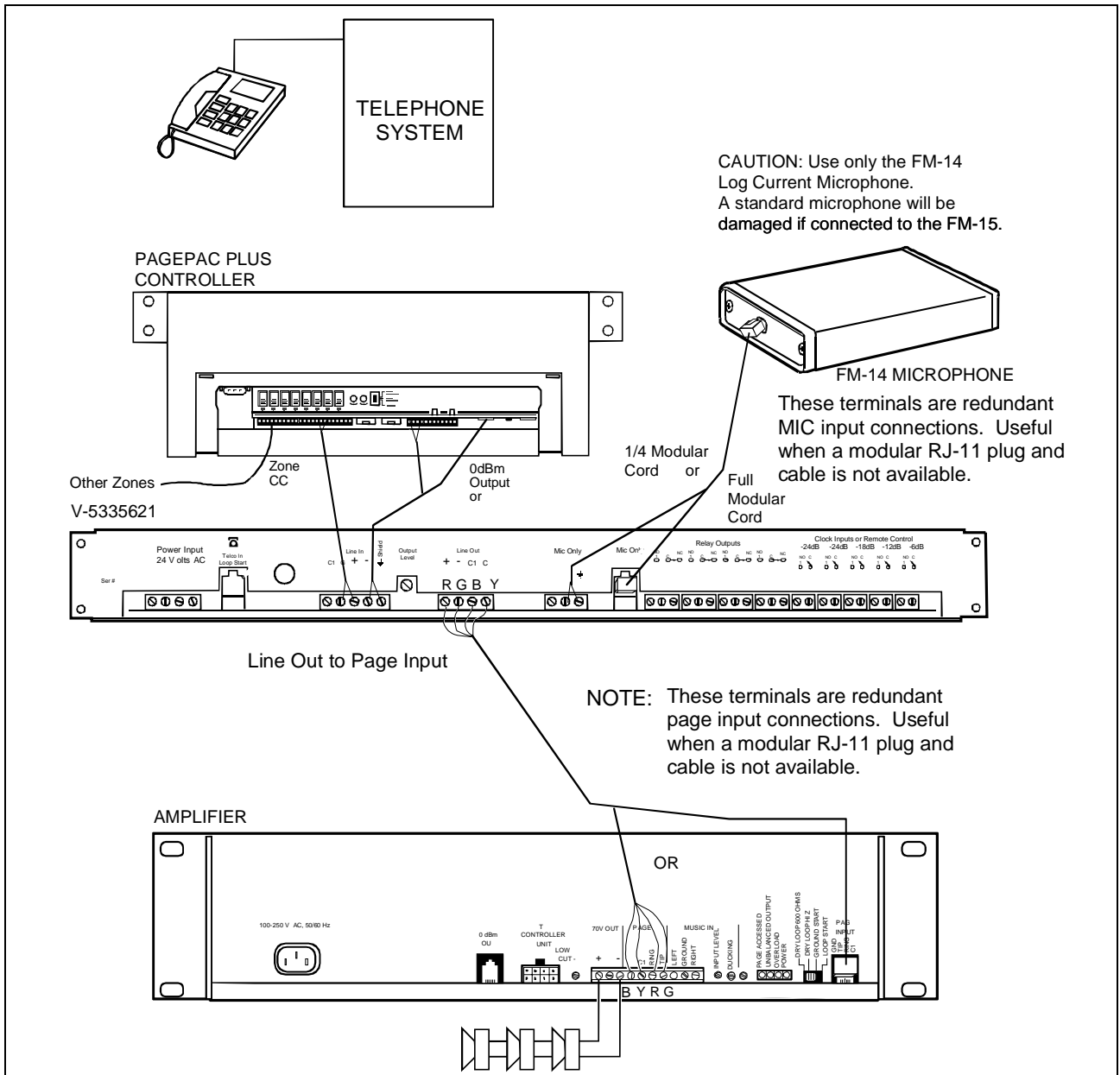


Figure 4. Connection for Single Zone Paging

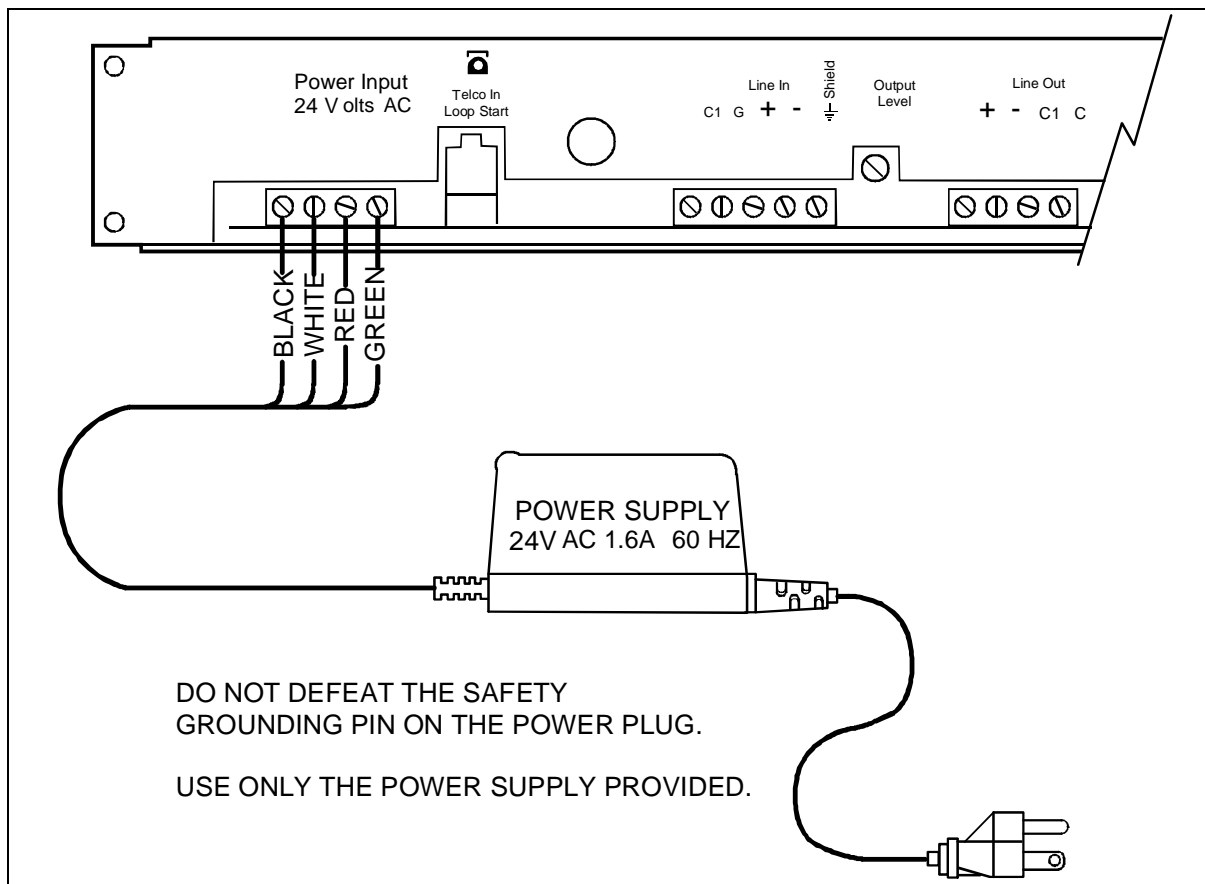


Figure 5. Power Supply Connection

Clock Control or Remote Control of Levels [Manual Override] (see Figure 6)

In the case where a user wishes to control the system level by the time of day, it is a simple matter with the ALC. Use a clock with four separate dry contact closures assigning each to a different time of day. So long as the contacts are closed the level selected will override the front panel controls. Should two contacts be closed at the same time the lower level selected will have priority. Also a manual normally open switch may be used to achieve this result.

Control of External Devices [Relay Outputs] (see Figure 6)

The ALC provides for control of external devices that need activation at maximum noise levels. This is provided by four sets of dry contact closures on the back panel. These activate at -6 and 0 dB levels. This can be used for priority override of remote level controls, strobe activation or similar applications.

Set the manual level control to automatic [Blue knob] (see Figure 7). This allows the ALC to calibrate itself. The automatic position will allow the ALC to constantly change the paging level to compensate for the changes in noise level in the area being monitored.

Check the SPL meter [Green LED] (see Figure 7) for maximum noise level. This is your high noise level reading. Then set the maximum noise level control [Red knob] to the average high noise level. If you feel the room noise may actually be louder at some time, move the control up one click to the right [clockwise].

The paging level meter [Red LED bar graph] (see Figure 7) indicates the paging level changes that are taking place with dual LEDs.

Calibration complete.

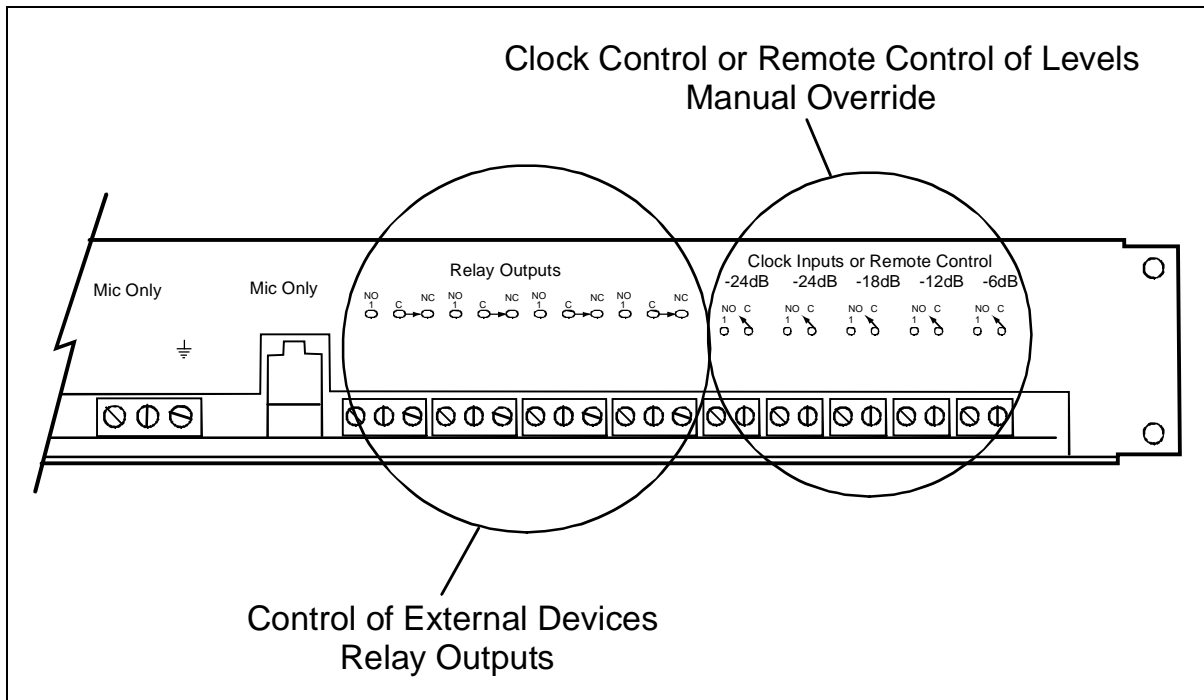


Figure 6. Clock Control or Remote Control of Levels Manual Override, Relay Outputs

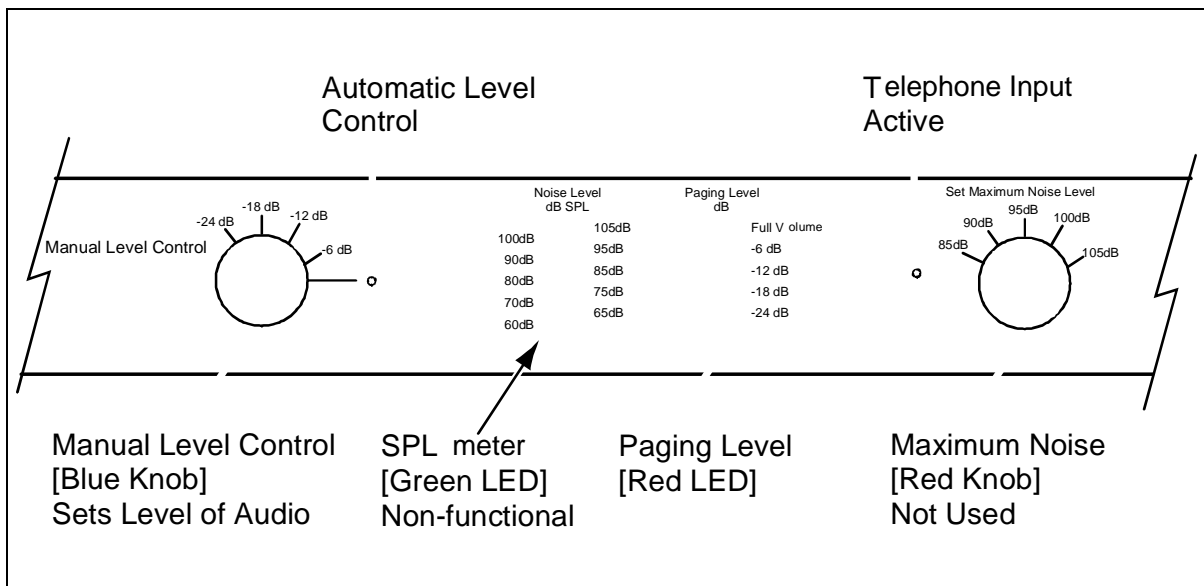


Figure 7. Manual Level Control of the ALC without the Microphone & Remote Manual Level Control

FM-14 Log Current Microphone (see Figure 8)

The wire for the FM-14 Log Current Microphone does not have to be shielded. This can be a phone line existing in the building. Use a RJ-11 connector at the microphone. When connecting the MIC, use a RJ-11 connector or wire directly to the terminal strip marked MIC ONLY.

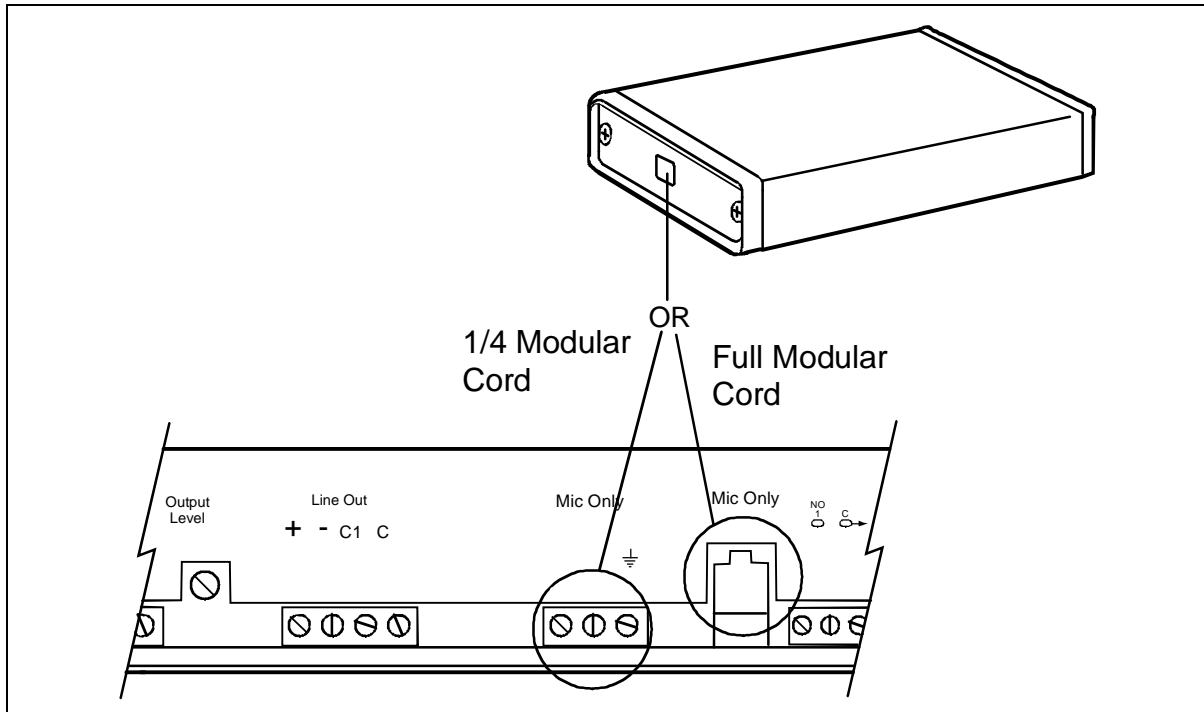


Figure 8. Connection of the FM-14 Log Current Microphone

Manual Use of the Ambient Level Controller (see Figure 7)

The ALC may be used without the FM-14 MIC. In this mode the ALC becomes a leveler or limiter for a manual control of the sound system. The Telco input or the line input may be in this mode. The SPL meter will not function but all other functions will work in the normal way. The manual level control on the front panel will set the level of the sound system [Blue knob].

Microprocessor Update Timing Period (see Figure 9)

To change the microprocessor update period, remove the top cover, find the jumpers marked "Timing Adj. J4 and J5", then refer to the chart below.

PERIOD	J4	J5
0.5 Seconds	IN	OUT
1.0 Seconds	OUT	IN
2.0 Seconds	OUT	OUT
4.0 Seconds	IN	IN

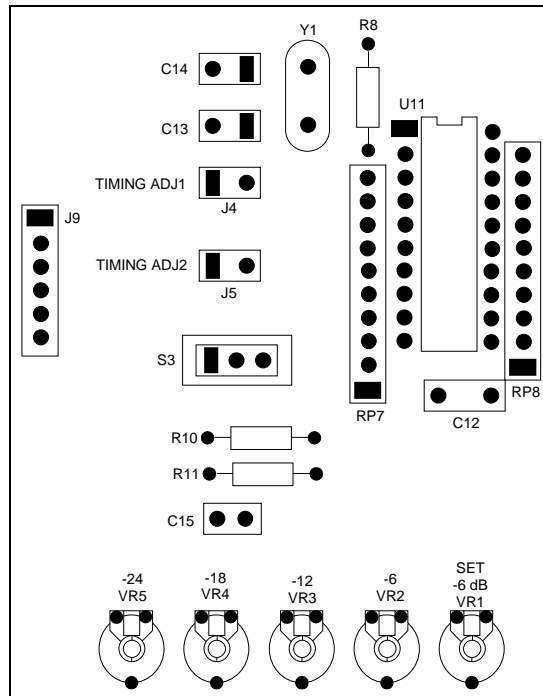


Figure 9. Timing Adjustments for J4 and J5

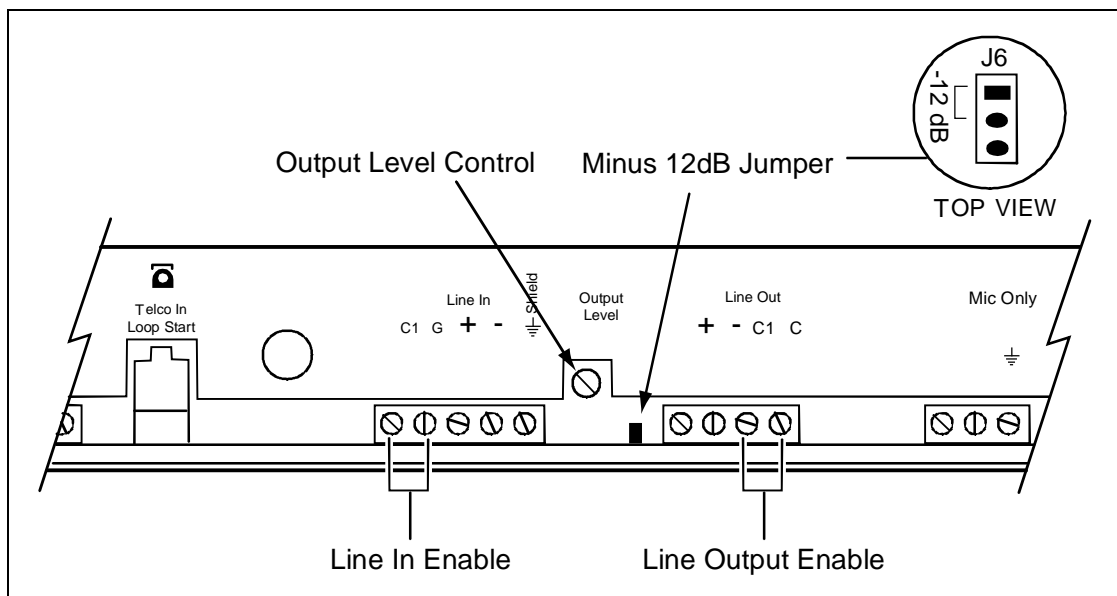


Figure 10. Output Level Control