

## SWM-15 15 WATT WALL MOUNT AMPLIFIER

### INTRODUCTION

These instructions contain the specifications necessary to install, operate, and maintain the Clarity 15 Watt Wall Mount Amplifier.

**"WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture."**

**"WARNING: Shock Hazard-Do Not Open."**

**"AVIS: Risque de Choc Electrique ne pas Ouvrir."**

**"PELIGRO: Corriente Electrica - No Abres."**

### SPECIFICATIONS

The Clarity 15 Watt Wall Mount Amplifier is designed to provide audio power that can be used to operate 4 to 8 Ohms, 25 Volt or 70 Volt type speakers or horns for voice paging or background music systems.

#### Applications

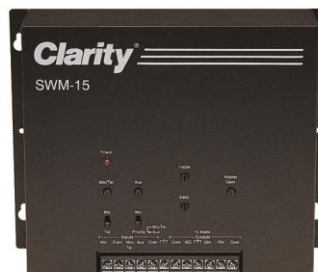
- Paging and Sound Reinforcement Systems
- Stand Alone Background Music Systems
- Telephone Paging Systems

#### Features

- Microphone **or** telephone page port on input 1 (switch selectable)
- Priority override **or** Mix all inputs (switch selectable)
- Wall mountable
- Master gain control
- Bass control
- Treble control
- Screwdriver adjustable potentiometers
- Power "ON" indicator
- 8 Ohm, 25V or 70V outputs
- Overload limiting circuit protection
- AC input fuse

#### Dimensions

9.5"W x 8.25"H x 3.0"D  
(24.13cm x 20.95cm x 7.62cm)  
(including mounting bracket 10.75"W [27.3cm])



#### Nominal Specifications

Type of Outputs	4 - 8 Ohms, 25 Volts, 70 Volts
Frequency Response	80 Hz-15 kHz
Distortion	<2%
Number of Inputs	(1) Mic/Tel, (1) Aux
Voice Switch Sensitivity	-21 dBm
Mic Input Impedance	600 Ohm balanced
Sensitivity of Mic Input	1.5mV rms
Tel Line Input Impedance	600 Ohm
Aux Input Impedance	10k Ohms

#### Nominal Power Requirements

Voltage	120 Vac
Current	.5 Amps

#### Environment

Temperature	0 to 50°C
Humidity	0 to 85% non-precipitating

#### DESIGN

The Wall Mount Amplifier is designed to provide 15 Watts of audio power to operate 4-8 Ohm, 25 Volt or 70 Volt type speakers and horns. The priority mode is switch selectable. When the amplifier is in the priority mode **MIC/TEL overrides AUX.**

An ON/OFF switch is not required for operation of the Wall Mount Amplifier. The unit is activated when the AC power cord is plugged in. An illuminated power LED indicates the amplifier is ON.

The amplifier has a master gain control plus separate bass and treble controls. The unit also contains a replaceable fuse.

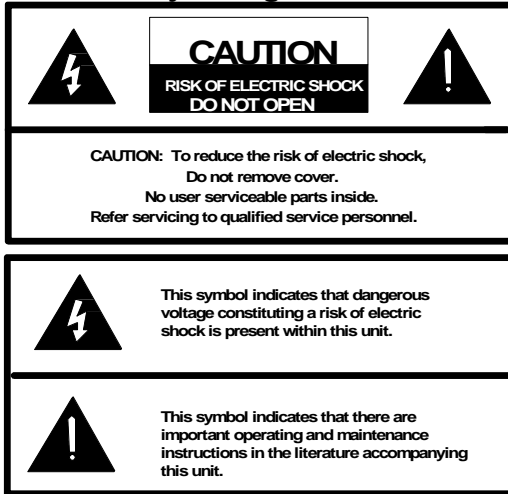
# INSTALLATION

## General

The Clarity 15 Watt Wall Mount Amplifier provides connections for two audio input sources:

One (1) Mic/Tel input and one (1) Aux input.

## Precautionary Designations



## Mounting

The Clarity 15 Watt Wall Mount Amplifier was designed for wall mounting. When mounting this unit, secure it to wall studs or a suitable brace. (A plywood backboard 2' square and at least 1/2" thick attached to wall studs would be considered a suitable brace). Make certain the unit is not mounted near heat sources or strong magnetic fields. Ascertain control and terminal strip accessibility.

Four #10 x 3/4 cross-tip round head wood screws are included for mounting. Fasten two of these screws at the appropriate location on the mounting surface (approximately 10" apart and parallel to the floor), allowing the screwheads to protrude 1/8" to 1/4". Place the chassis of the unit onto the screwheads at the mounting slots. Position the two remaining screws and fasten through the remaining slots. Complete the mounting by tightening the screws.

## Mic Connections

The Clarity Wall Mount Amplifier provides connections for a low impedance balanced microphone. For the Mic input, connect the positive pressure lead of the microphone (normally pin 2 of a standard XLR connector) to "MIC" (terminal 1), connect the microphone shield to "COM" (terminal 2) and the negative pressure lead of the microphone to "MIC/TEL" (terminal 3). (See Figure 2). Place the MIC/TEL switch in the "MIC" position.

## Page Port Connections

When using the Tel input, connect to audio page ports only. Connect Tip to "COM" (terminal 2). Connect Ring to "MIC/TEL" (terminal 3). Connect a wire strap from "MIC" (terminal 1) to "COM" (terminal 2). (See Figure 3). Place the MIC/TEL switch in the "TEL" position.

NOTE: Interface devices (separately supplied) are required when connecting to outside C.O. Lines, PABX extensions, single line telephones or telephone system trunk ports.

## Auxiliary Connections

High impedance audio sources such as a tuner, tone generator, etc. can be connected to the AUX input. Connect the output pair of the audio source to "AUX" (terminal 4) and "COM" (terminal 5). (See Figure 2).

## Speaker Cabling

When the 8 Ohm output is used, standard two conductor speaker wire can be used (18-20 AWG determined by the load). If the 25V or 70V output is used, two conductor shielded cable is recommended for speaker connections. NOTE: When shielded cable is used, the shield should only be connected to the chassis ground screw terminal of the SWM-15 (terminal 9).

## Initial Setup

Volume and tone controls are screwdriver adjustable. During initial system setup, it is recommended that the individual volume controls be set to 1/4 turn and the master gain control be set to 1/4 turn.

**All connections should be made to the amplifier and double-checked before the AC power cord is plugged in.**

The power indicator LED will illuminate when the AC power cord is plugged in.

## OPERATION

When the amplifier is in the "MIX" mode, signals on all inputs are mixed and sent to the speakers. When the "PRIORITY" mode is selected, audio from the MIC/TEL input will override the AUX input. The override is voice activated and does not require the use of an external relay or contact closure. Separate gain controls on the amplifier allow volume level adjustment of each input.

## TECHNICAL ASSISTANCE

When calling, you should have a VOM and a telephone test set available and be calling from the job site. Call (540) 767-1550 for Clarity Technical Support or visit our website at <http://www.clarity-com.com> and [www.valcom.com](http://www.valcom.com)

Clarity equipment is not field repairable. Clarity maintains service facilities in Roanoke, VA. Should repairs be necessary, attach a tag to the unit clearly stating your company name, address,

phone number, contact person, and the nature of the problem. Send the unit to:

**Clarity**  
**Repair and Return Dept.**  
**5614 Hollins Road**  
**Roanoke, VA 24019-5056**

## WARRANTY

Warranty information may be found on our website at [www.valcom.com/warranty](http://www.valcom.com/warranty)

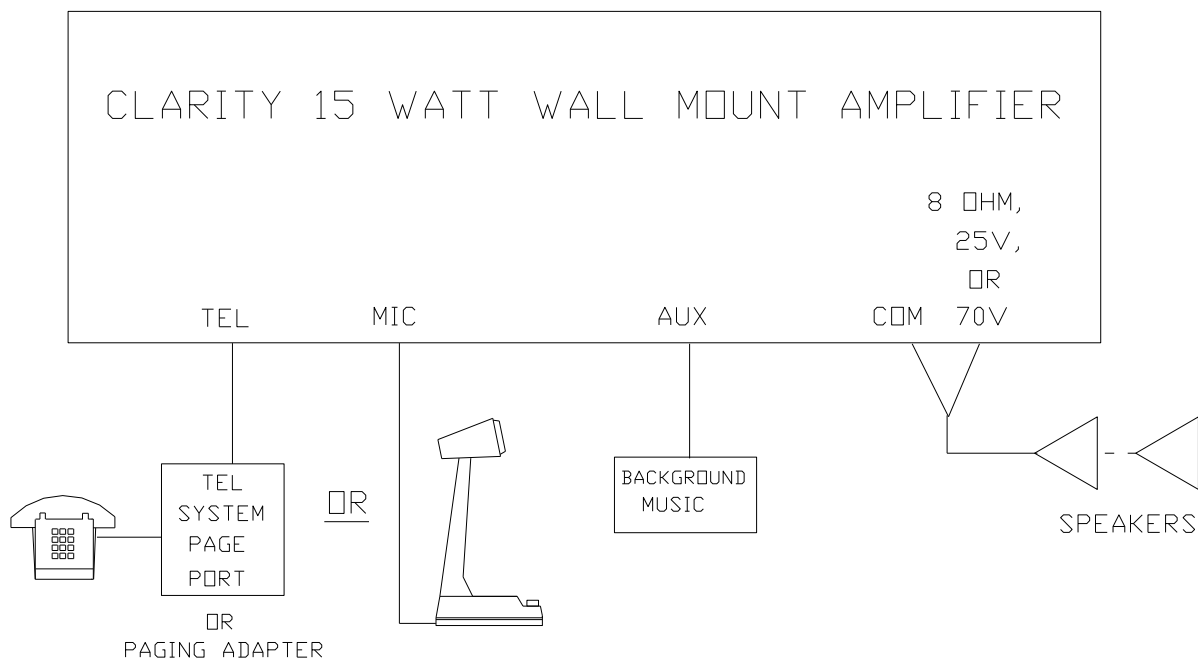


FIGURE 1 - BLOCK DIAGRAM OF A TYPICAL INSTALLATION - INPUTS AND OUTPUTS

# CONNECTIONS

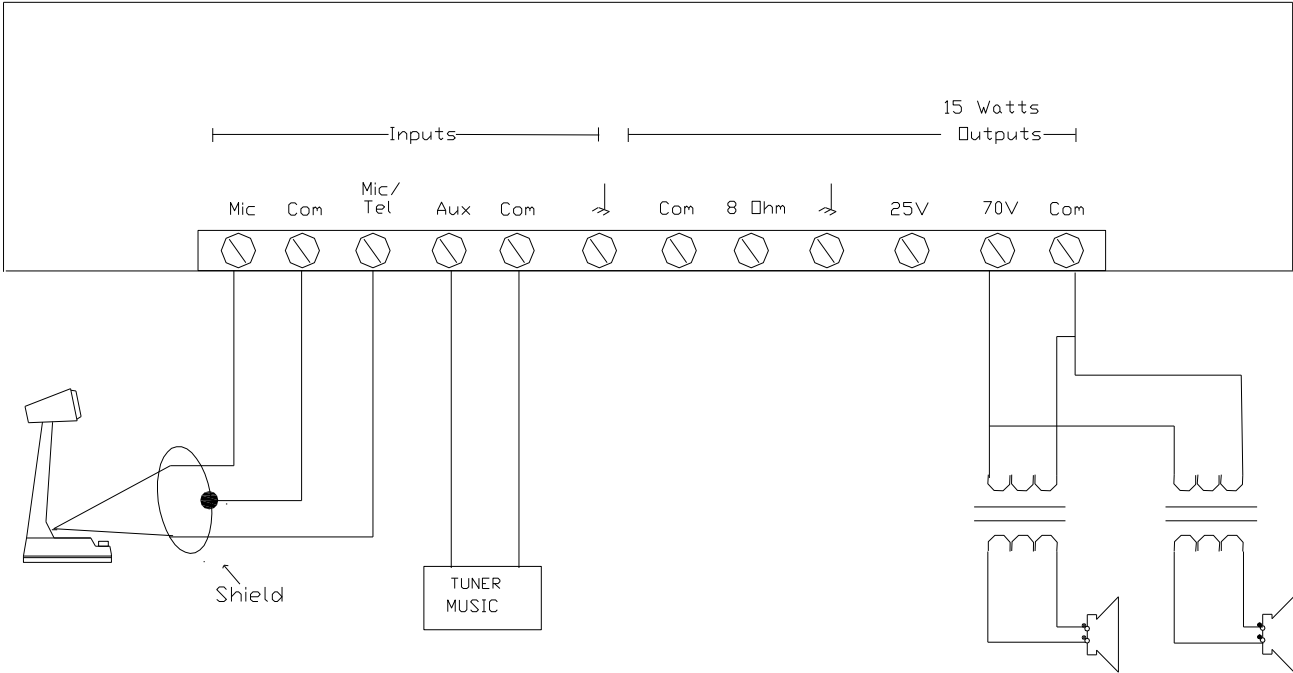


FIGURE 2

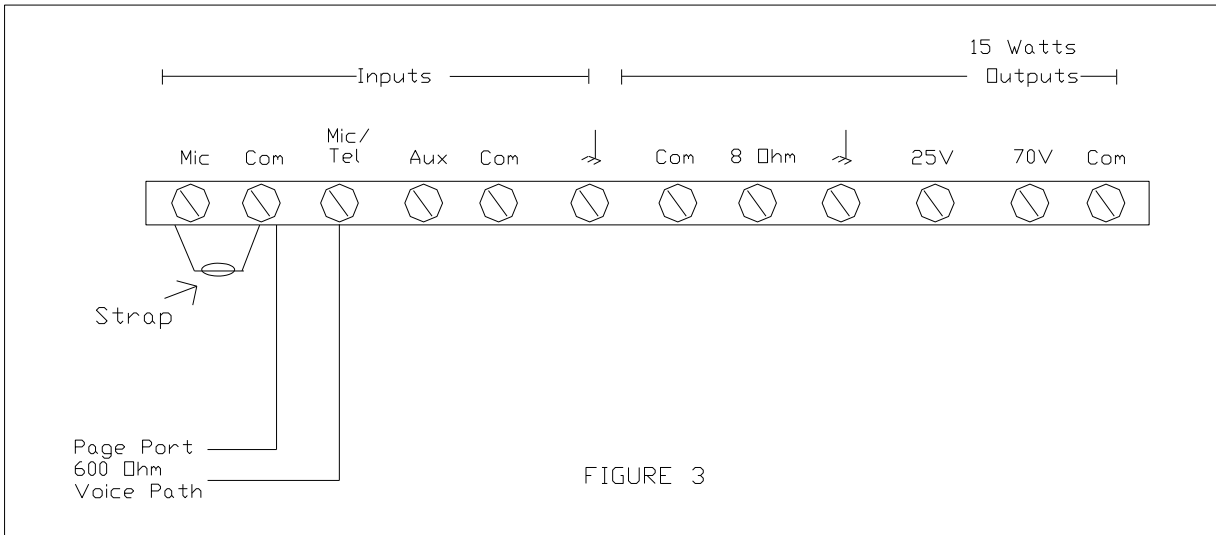


FIGURE 3