

# 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 4-8 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 selected)
- Priority override (switch selected)
- Wall mountable
- Master volume control
- Bass control
- Treble control
- All controls are screwdriver adjustable
- Power "ON" indicator
- 8 ohm, 25V or 70V outputs
- UL Listed
- 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 Impedance	10K ohms

#### Nominal Power Requirements

Voltage	120 VAC
Current	.5 Amps

#### Environment

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

**947431**

## 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 1/TEL overrides AUX 1**.

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. The power LED illuminating indicates the amp is ON.

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

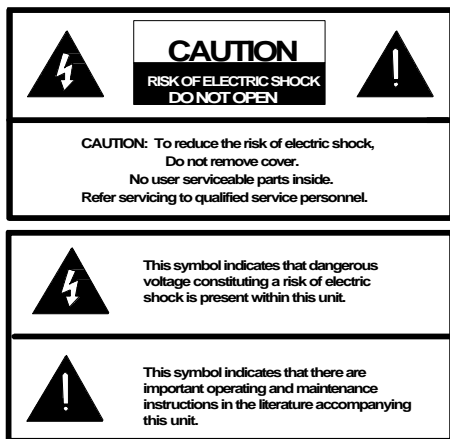
## INSTALLATION

### General

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

One Tel Line/Mic input and One Auxiliary 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 low impedance balanced microphones. For the Mic 1 input, connect the positive pressure lead of the microphone (normally pin 2 of a standard XLR connector) to the Mic 1 screw terminal; connect the microphone shield to the Mic 1 ground screw terminal and the negative pressure lead of the microphone to the remaining Mic 1 screw terminal. (Refer to Figure 2).

### Page Port Connections

When using the Tel Line input, connect audio page ports only. Connect Tip to terminal 2 designated as COM, connect Ring to terminal 3 designated as Mic/Tel Line; strap terminal 1 to terminal 2.

NOTE: Interface devices are required when connecting to outside C.O. Lines, PABX extensions, single line telephones or telephone system trunk ports. (Refer to Figure 3).

### Auxiliary Connections

High impedance auxiliary devices such as a tuner, tone generator, etc. can be connected to the AUX input. Connect common out to one AUX screw terminal and audio out to the remaining AUX screw terminal. (Refer to 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 25 or 70V output is used, two conductor shielded cable is recommended for speaker connections. NOTE: When shielded cable is used, the shield should be connected to the ground screw terminal.

### Terminal Setup

Volume and tone controls are screwdriver adjustable. During initial system setup, it is recommended that the individual gain controls be set 1/4 turn and the master volume control be set 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 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 mix mode is selected, a signal from Mic 1/Tel will override the Aux 1 input. The override is voice activated and does not require the use of an external relay or contact closure. The separate gain controls on the unit allow adjustment in the volume levels of each input.

## TECHNICAL ASSISTANCE

When trouble is reported, verify that AC power is being supplied to the unit.

Assistance in troubleshooting is available from the factory. When calling, you should have a VOM and a telephone test set available and be calling from the job site. Call 1 (540) 427-3505 for an Applications Engineer.

CLARITY maintains service facilities in Roanoke, VA. Should repairs be necessary, please call Clarity at 1 (540) 427-3505 for a Return Authorization Number.

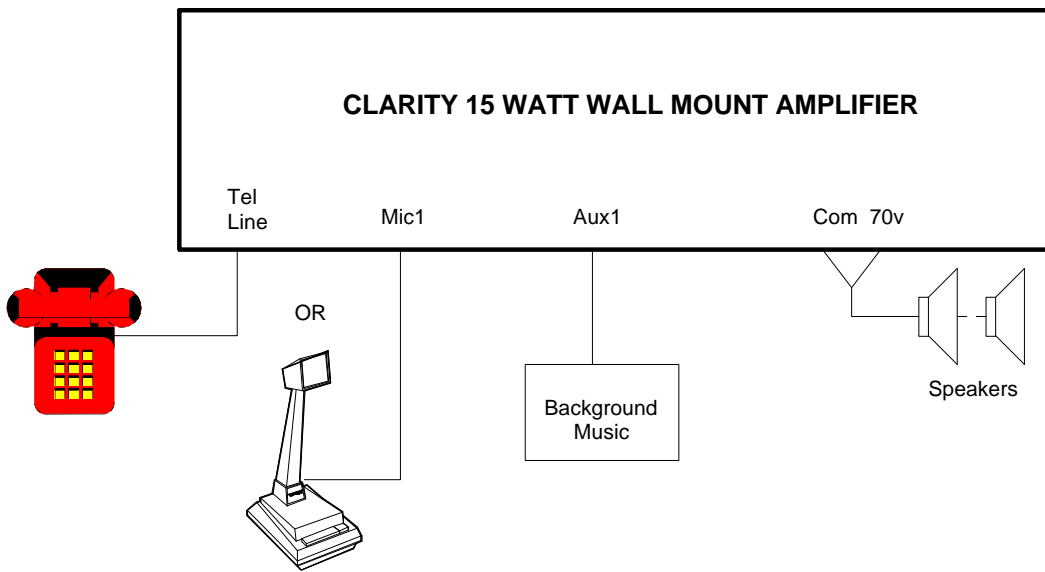
### LIMITED WARRANTY

Clarity warrants its products to be free from defects in materials and workmanship under conditions of normal use and service for a period of one year from the date of shipment. The obligation under this warranty shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

1. Inspection by Clarity indicates the validity of the claim;
2. The defect is not the result of damage, misuse, or negligence after the original shipment;
3. The product has not been in any way repaired by others and that factory sealed units are unopened (A service charge plus parts and labor will be applied to units defaced or physically damaged);
4. Freight charges for the return of products to Clarity are prepaid;
5. All units "out of warranty" are subject to a service charge. The service charge will cover minor repairs (Major repairs will be subject to additional charges for parts and labor).

**This warranty is in lieu of and excludes all other warranties expressed or implied, and in no event shall Clarity be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation or use of the product.**

This warranty specifically excludes damage incurred in shipment. In the event a product is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved in accordance with the F.O.B. point.



**FIGURE 1 - BLOCK DIAGRAM OF A TYPICAL INSTALLATION**

**CONNECTIONS**

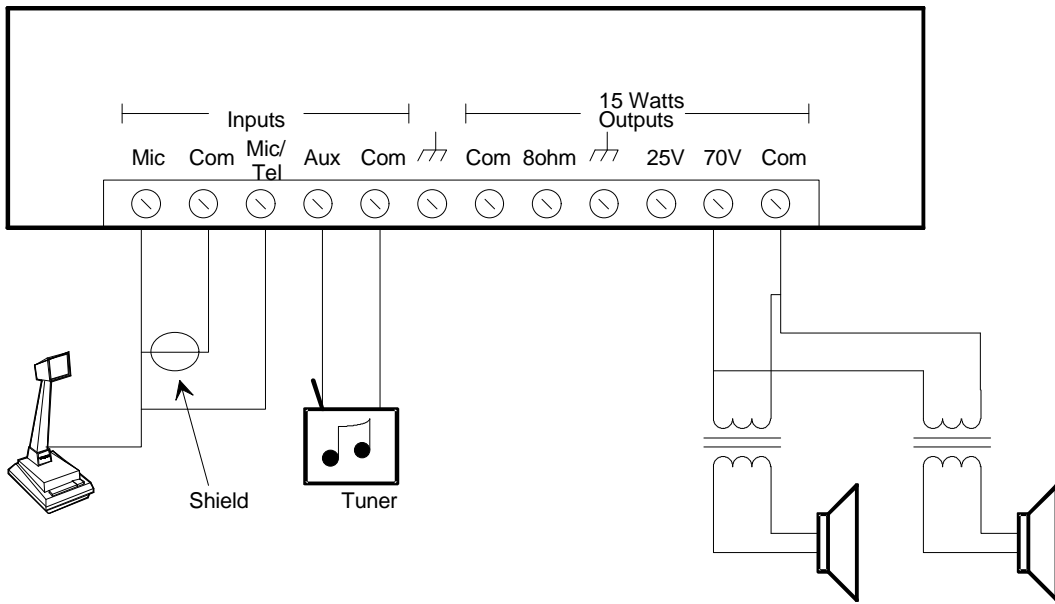


FIGURE 2

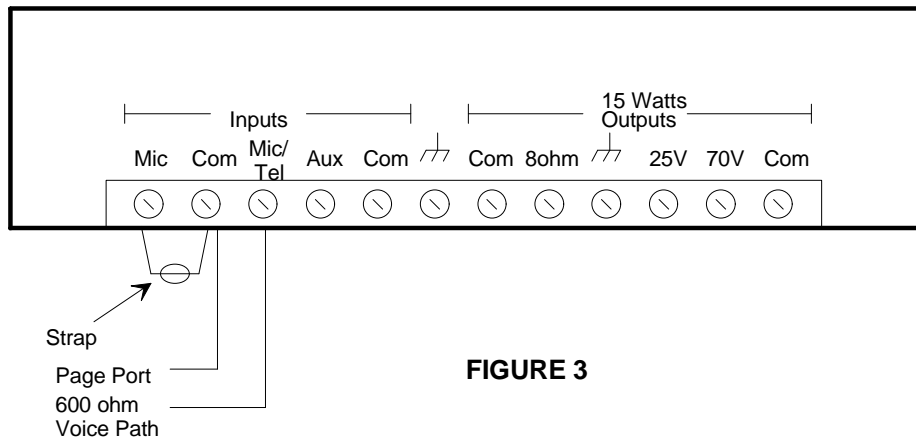


FIGURE 3