



TECHNICAL SPECIFICATIONS

SWM SERIES MIXER-AMPLIFIERS

FEATURES

SWM-15

- VOX OPERATED PRIORITY OVERRIDE OR ACTIVE MIX
- SEPARATE VOLUME CONTROL FOR EACH INPUT
- FUSE PROTECTED
- 15 WATTS RMS
- WALL MOUNT
- TWO INPUTS: MIC/TEL AND AUX
- MASTER GAIN CONTROL
- SCREW TERMINALS FOR ALL CONNECTIONS
- SEPARATE BASS AND TREBLE CONTROL



FEATURES

SWM-35A, SWM-60A, SWM-100A

- THREE INPUTS: MIC 1/TEL, MIC 2/AUX 1 AND AUX 2
- BUILT-IN TONE GENERATORS: WARBLE/SINGLE
- AUTO LEVEL CONTROL ON TEL LINE INPUT
- 35, 60, AND 100 WATTS RMS
- WALL MOUNT
- MASTER GAIN CONTROL
- CIRCUIT BREAKER PROTECTION
- AUTOMATIC LIMITING CIRCUITS
- SEPARATE BASS AND TREBLE CONTROLS
- SCREW TERMINALS FOR ALL CONNECTIONS
- CASCADING PRIORITY OVERRIDE OR ACTIVE MIX
- SEPARATE VOLUME CONTROL FOR EACH INPUT



DESCRIPTION

SWM-15

The Clarity SWM-15 mixer-amplifier mixes and controls two inputs. Input one accommodates either a balanced low impedance microphone or a 600 ohm tel line audio input. A slide switch located on the front of the unit changes the input from Mic to Tel. Input two provides connection for a high impedance auxiliary input. The unit is wall mountable and includes individual input controls along with bass, treble, and master gain controls. A power "ON" LED indicator is illuminated when the unit is receiving ac power.

Priority is provided and activated by a slide switch located on the front of the unit. The override is VOX operated and does not require a contact closure.

The mixer-amplifier provides 8 ohm, 25 and 70.7 volt outputs. Screw terminals are provided for all connections. Automatic limiting circuits protect the mixer-amplifier in the event of an overload or short circuit on the outputs. A replaceable fuse is used to supply primary circuit protection.

SWM-35A, SWM-60A, SWM-100A

The Clarity SWM series mixer-amplifiers mix and control up to three inputs. Input one accommodates either a low impedance balanced microphone or 600 ohm tel line audio input. Input two allows the use of a low impedance balanced microphone or a high impedance auxiliary input. Input three is used with a high impedance input.

All three models are wall mountable and include individual input controls along with bass, treble, master gain, and tone level controls. LED indicators are provided to show power "ON" and clipping. Automatic Level Control is provided on the Tel line input. The mixer-amplifiers are equipped with two types of tone signalling, warble and single tone. These tones are activated by contact closures. In the event both contacts close simultaneously, the single tone will override the warble tone.

Priority override is provided on the mixer-amplifiers and enabled by a slide switch located on the front of the amplifier. The override is VOX operated, eliminating the need for contact closures. The override sequence is as follows, Mic 2/Tel overrides Mic 2/Aux 1 and Aux 2. Mic 2/Aux 1 overrides Aux 2.

The mixer-amplifiers provide 4 ohm, 25, and 70.7 volt outputs. Screw terminals are provided for all connections. Automatic limiting circuits provide amplifier protection in the event of an overload or short circuit on the output. A circuit breaker provides primary protection.

ARCHITECTS SPECIFICATIONS

SWM-15

The mixer-amplifier Model SWM-15 shall have a full power rating of 15 watts rms. The mixer-amplifier shall be completely solid-state and have screw-type connections for all inputs and outputs.

The mixer-amplifier shall have a frequency response of 80 Hz to 15 kHz with less than 2% distortion of rated output. Input one shall accept either a 600 ohm balanced microphone or a 600 ohm telephone page port input. A slide switch shall determine how input one is utilized. The input impedance of the auxiliary input shall be 10 kohm. The microphone input sensitivity shall be 1.5 mV rms and the auxiliary input sensitivity shall be 200 mV rms. The Tel line sensitivity shall be -10 dBm. No external impedance matching devices shall be required when connecting to telephone page ports.

The bass control shall provide +/- 10 dBm of boost or cut at 100 Hz center frequency. The treble control shall provide +/- 10 dBm of boost or cut at 10 kHz center frequency.

The mixer-amplifier shall have screwdriver adjustable bass, treble and master volume controls in addition to an individual volume control for each input. A slide switch located on the front of the mixer-amplifier shall select between active mix of both inputs or priority override. If active mix is selected, both inputs shall be blended into one output. If priority override is selected, input one shall have precedence over the auxiliary input.

The mixer-amplifier shall provide a protective limiting circuit to protect against shorts or impedance mismatches. The unit shall shut down in the event of a trouble condition and reactivate when the condition is corrected.

The operating temperature shall be 0 to 50 °C (32 to 122 °F). The mixer-amplifier housing shall be constructed of 20 AWG steel and finished in carbide black with a light texture and white lettering.

Dimensions of the unit shall be 10-9/16" (26.80 cm) wide x 2-15/16" (7.49 cm) deep x 8-1/4" (20.96 cm) high. The unit shall weigh approximately 8 lbs (3.64 kg).

SWM-35A, SWM-60A, AND SWM-100A

The mixer-amplifier Model SWM-___ shall have a full power rating of ___ watts rms. The mixer-amplifier shall be completely solid-state and have screw-type connections for all inputs and outputs.

The mixer-amplifier shall have three inputs, Mic 1/Tel, Mic 2/Aux 1 and Aux 2. Each microphone input shall be compatible with low impedance balanced microphones. The auxiliary inputs shall allow the use of high impedance sources, i.e., tuners, cassette tape decks, etc. The mixer-amplifiers shall provide a single tone and warble tone output activated by separate contact closures and controlled with a level control. If both tones are activated simultaneously, the single tone shall override the warble tone. The mixer-amplifier shall have screwdriver adjustable bass, treble and master volume controls in addition to an individual volume control for each input. All controls shall be screwdriver adjustable to prevent inadvertent operation.

The mixer-amplifiers shall provide cascading VOX operated priority override. The override sequence shall be as follows, Mic 1/Tel overrides Mic 2/Aux 1 and Aux 2, Mic 2/Aux 1 overrides Aux 2. This feature shall be activated by a slide switch located on the front of the mixer-amplifier. Automatic Level Control shall be provided on the Tel Line input. This feature shall be fully automatic requiring no external setup. A separate bass and treble control shall be provided. Visual indications shall be provided to show power "ON" and clipping of signal in the output stage of the mixer amplifier.

The mixer-amplifiers shall meet the following performance specifications. Each model shall meet its rated output at less than 1% THD. Frequency response shall be 50 Hz to 16 kHz +/-2 dB. Microphone source impedance shall be 600 ohm nominal providing a balanced interface to the microphones. The sensitivity of the microphone inputs shall be 1 mV. The auxiliary inputs sensitivity shall be 10 kohm nominal with a sensitivity of 200 mV. The Tel line input shall provide a nominal input impedance of 600 ohm with a sensitivity of 200 mV. No external impedance matching devices shall be required to connect to Key system of PABX paging ports. The bass control shall provide +/-10 dB of boost or cut at 100 hz center frequency. The treble control shall provide +/-10 dB of boost or cut at 10 kHz center frequency.

The mixer-amplifiers shall be capable of operation from a 120 V, 60 Hz line. A push to reset circuit breaker shall provide primary circuit protection. A thermostat mounted on the heat sinks shall be provided to prevent thermal damage to the amplifiers in the event of an overload or abnormal rise in the ambient temperature. Heat sinks shall be enclosed in the cabinet and adequate ventilation provided for cooling. Screw terminals shall be provided for all connections.

The amplifiers shall be wall mountable, not requiring any additional brackets. The amplifiers finish shall be black with a light texture. All screening shall be white in color. The amplifier dimensions shall be 13-1/4" (33.66 cm) H x 4.375" (11.11 cm) D x 11-1/2" (29.21 cm) W. The weight shall be: SWM-35 - 16 lbs.(7.2 kg); SWM-60 - 19 lbs (8.62 kg); and SWM-100 - 22 lbs (9.98 kg).

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.