

MIXER POWER AMPLIFIERS

FEATURES

- FOUR BALANCED MICROPHONE OR THREE AUXILIARY INPUTS
- TELEPHONE SYSTEM AUDIO PAGE PORT INPUT
- VOICE CONTROLLED SWITCHING ON ALL INPUTS
- MULTI-LEVEL PRIORITY SWITCHING
- ON/OFF SWITCH
- TAPE OUTPUT
- BOOSTER OUTPUT
- POWER "ON" INDICATOR
- CLIPPING INDICATOR
- EFFECTS LOOP WITH LINK SWITCH
- MIX ALL INPUTS OR PRIORITY INPUT OPTION
- BASS, TREBLE AND MASTER GAIN CONTROLS
- 3 LEVELS OF PROTECTION: THERMAL, ACTIVE CURRENT LIMITING, & CIRCUIT BREAKER
- RACK MOUNTABLE WITH OPTIONAL MOUNTING KIT (SMA-RMK*)



DESCRIPTION

The Clarity SMA series mixer-amplifiers mix and control up to four inputs. Input one accommodates either a low impedance balanced microphone or 600 ohm Tele line audio input. Inputs two, three and four allow the use of a low impedance balanced microphone or a high impedance auxiliary input. All three models are shelf or rack mountable (Rack Mount Kit required). User controls include individual input gain, bass, treble, and master gain. LED indicators show power "ON" and clipping conditions. Priority override is provided on the mixer-amplifiers and enabled by strapping two screw terminals on the back of the amplifier. The override is VOX operated, eliminating the need for contact closures. The override sequence is as follows: Mic 1/Tel overrides Mic 2/Aux 1, Mic 2/Aux 1 overrides Mic 3/Aux 2, Mic 3/Aux 2 overrides Mic 4/Aux 3. The mixer-amplifiers connect to 2-4 ohm speaker load and 25/70 volt speaker lines. Screw terminals are provided for all connections. Automatic limiting circuits and thermal sensors protect the amplifier in the event of an overload or short circuit on the output. Primary protection of the amplifier is provided by a push-to-reset circuit breaker.

SPECIFICATIONS

OUTPUT

2-4 ohm, 25 and 70.7 volts

WATTAGE OUTPUT

SMA-40: 40 Watts

SMA-60: 60 Watts

SMA-120: 120 Watts

OUTPUT PROTECTION

Thermal, active current limiting and circuit breaker

INPUT

Number of Inputs: 4

Input Types: (1) Mic/Tel and (3) Mic/Aux

Mic Impedance: 600 ω balanced

Mic Sensitivity: 1.0 mV rms

Tel Impedance: 600 ω hm

Tel Sensitivity: 200 mV rms

Aux Impedance: 10 k ω hm

Aux Sensitivity: 200 mV rms

Priority Sequence: Input 1 > Input 2 > Input 3 > Input 4

Power Amp Input: 1 Volt rms 2 10 k ω hm

FREQUENCY RESPONSE

30 Hz to 20 kHz \pm 2 dB

DISTORTION

< 1% @ 1 kHz Rated Output

SIGNAL-TO-NOISE

< 70 dB

OVERRIDE

Priority Voice Operated

POWER REQUIREMENTS

120 Vac 60 Hz Current 1.6 amps

MOUNTING

Rack or Shelf

FINISH

Metallic Charcoal Gray with White Graphics.

DIMENSIONS AND WEIGHT

17.1" (43.43 cm) W x 3.5" (8.9 cm) H x 12.5" (31.75 cm) D. Weight: 20 lbs (9.0 kg), 24 lbs (10.8 kg)

ARCHITECTS SPECIFICATIONS SMA-40, SMA-60 AND SMA-120

The mixer-amplifier Model SMA-____ shall have a full power rating of ____ watts RMS. The mixer-amplifier shall be completely solid-state and have screw-type terminals for all microphone and speaker connections.

The mixer-amplifier shall have four inputs, Mic 1/Tel, Mic 2/Aux 1, Mic 3/Aux 2 and Mic 4/Aux 3. 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- amplifier shall have bass, treble and master volume controls in addition to an individual volume control for each input.

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 overrides Mic 3/Aux 2 overrides Mic 4/Aux 3. This feature shall be activated by strapping two terminals on the back of the amplifier. Visual indicators shall be provided to show power "ON" and clipping of signal in the output stage of the mixer amplifier. Phono jacks shall be provided for Aux. inputs, booster and tape outputs.

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 30 hZ to 20 kHz +/- 2 dB. Signal to noise shall be greater than -70 dB. A tape output shall be provided with an impedance of 600 ohms nominal and an output level of 200 mV. A booster output shall be provided with an impedance of 600 ohms nominal and an output level of 1 V. Microphone source impedance shall be 600 ohms 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 k ohms nominal with a sensitivity of 200 mV. The Tel line input shall provide a nominal input impedance of 600 ohms 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.

The amplifiers shall be shelf mountable, not requiring any additional brackets.

The amplifiers finish shall be metallic gray. All screening shall be white in color. The amplifier dimensions shall be 17.1 (43.43 cm) W x 3.5" (8.9 cm) H x 12.5" (31.75 cm) D. The weight shall be: SMA-40 - 20.0 lbs.(9.0 Kg); SMA-60 and SMA-120 -24.0 lbs(10.8 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.