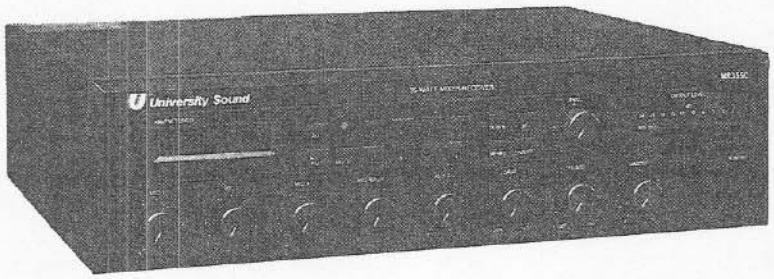
University Sound a MARK IV company

MR-355C

35-Watt Mixer Receiver



- Digital AM/FM tuner with 24 presets
- Priority paging input for telephone system source
- Automatic muting for voice-over-music announcements
- Four microphone inputs
- Two dual RCA auxiliary inputs
- Power amplifier input
- Dual RCA outputs
- Preamp output
- 4-ohm, 8-ohm, 16-ohm, 25-V and 70.7-V outputs

Description

The University Sound MR-355C is a 35-watt, five-input mixer amplifier with tuner designed for commercial sound applications. It features five separate input controls which can be used to adjust the level from any of six input sources. Figure 1 shows the layout of the front and rear panels.

The MR-355C features a digital AM/FM tuner with 24 programmable station presets. The tuner has its own input to the mixing buss and level control, so it does not affect the operation of the other inputs. When a mute is triggered, the tuner signal is muted along with input 3 and the two auxiliary inputs.

Input channels 1-3 are designed to be used as low-Z microphone inputs. The block diagram shown in Figure 2 outlines the signal flow for the MR-355C. A signal appearing at either input 1 or 2 will automatically mute the other channels unless the mute function is defeated via a switch on the rear panel. A threshold adjustment allows compensation for background noise to avoid false triggering. Input 4 is switch selectable to allow use as either a low-Z microphone or auxiliary line-level input. Microphone inputs 1-4 are available via female XLR connectors. A set of screw terminal connectors are also supplied and can be installed in place of the XLR connectors. Input 5 is for auxiliary line-level sources such as tape or CD players. Mono or stereo signals may be applied to inputs 4 or 5. The left and right components of a stereo signal can be applied to the dual RCA phono jacks of these inputs and mixed together to drive the built-in monaural power amplifier. A rear panel paging input with gain control is provided for the paging output of a telephone system. An audio signal appearing at this input automatically mutes all other inputs.

A preamplifier output jack and power amplifier input jack permit the mixed output to be fed to an external signal processor (graphic EQ or compressor), and then returned to the built-in amplifier. The preamp output may be used to drive an additional power amp with its own set of speakers without interrupting the function of the built-in amplifier. The internal connection between the preamp output and the power amp input is automatically broken when a connection is established to the power amp input. This prevents a "dry" unprocessed signal from interfering with the return from the external signal processor. The TAPE OUT jacks are not affected by the MASTER VOLUME control so that optimum recording levels for the preamp mix can be maintained.

The speaker output is available at a barrier strip which includes terminals for driving 4-, 8- and 16-ohm loudspeaker loads, as well as 25- or 70.7-volt distributed systems.

Architects' and Engineers' Specifications

The mixer amplifier shall have five input channels, with individual mix gain controls. Input channels 1 and 2 shall be configured for low-Z balanced

microphone operation. A signal present on either of these two channels shall trigger the muting of channels 3, 4 and 5. The mute circuit shall be defeatable using a switch on the rear panel, and there shall be a threshold adjustment so that background noise in the Mic 1 or Mic 2 inputs can be prevented from falsely triggering the mute circuit. Input 3 shall be configured for low-Z microphone operation. Input 4 shall be switch selectable to allow use as either a low-Z microphone or auxiliary line level input. Microphone inputs 1-4 shall be available via female XLR connectors which can be replaced with the supplied screw terminal connectors. Input 5 shall be for line-level auxiliary input sources. Inputs 4 and 5 shall accept either monaural or stereo sources. If a stereo source is connected, it shall be properly mixed to mono via a resistor network mounted on the input plate. There shall be a paging input that accepts a 600-ohm line-level feed from a phone system. When a signal is present at the paging input, it shall automatically mute other input sources. The paging input shall be equipped with its own gain control.

The mixer amplifier shall include a digital AM/FM tuner with the capability for 24 station presets. Connections for external AM and FM antennas shall be provided on the rear of the unit. The front panel shall have a level control specifically for the tuner signal, which shall be muted whenever the unit's mute circuit is activated. There shall also be a rear panel tuner output with a level control. This rear panel output shall be unaffected by the front panel level controls or the muting circuit.

There shall be a master level control, with LED bargraph output level indication. Separate bass and treble equalization controls shall be provided. The mixer amplifier shall meet the following performance criteria: output power shall be 100 watts; total harmonic distortion shall be less than 1% at 1 kHz; frequency response shall be within ±2 dB from 60 Hz to 15 kHz; input impedance shall be 600-ohms (balanced inputs) or 47 kW (unbalanced inputs); nominal load impedance shall be 4-, 8- or 16-ohms for voice-coil-connected loudspeakers, 25- or 70.7-volt nominal transformer windings for the constant-voltage output.

In addition to a preamplifier output/power amplifier input link, there shall be a line-level tape output which will not be affected by the master volume control.

The mixer amplifier shall operate from a standard 120 V ac 50/60 Hz power source, and measure 10.8 cm (4.25 in.) high x 42.0 cm (6.5 in.) wide x 34.6 cm (13.6 in.) deep. The net weight shall be 7.9 kg (17.5 lb).

The mixer amplifier shall be the University Sound Model MR-355C.

Uniform Limited Warranty

University Sound products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Mark IV Audio Service or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Mark IV Audio Service or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Mark IV Audio Service at 10500 W. Reno Avenue, Oklahoma, OK 73127 (800/845-8727 or FAX 405/577-3274). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. University Sound shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

University Sound Electronics are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

For technical assistance, contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. eastern standard time.

Specifications subject to change with-

Figure 1—MR-355C Front and Rear Panels

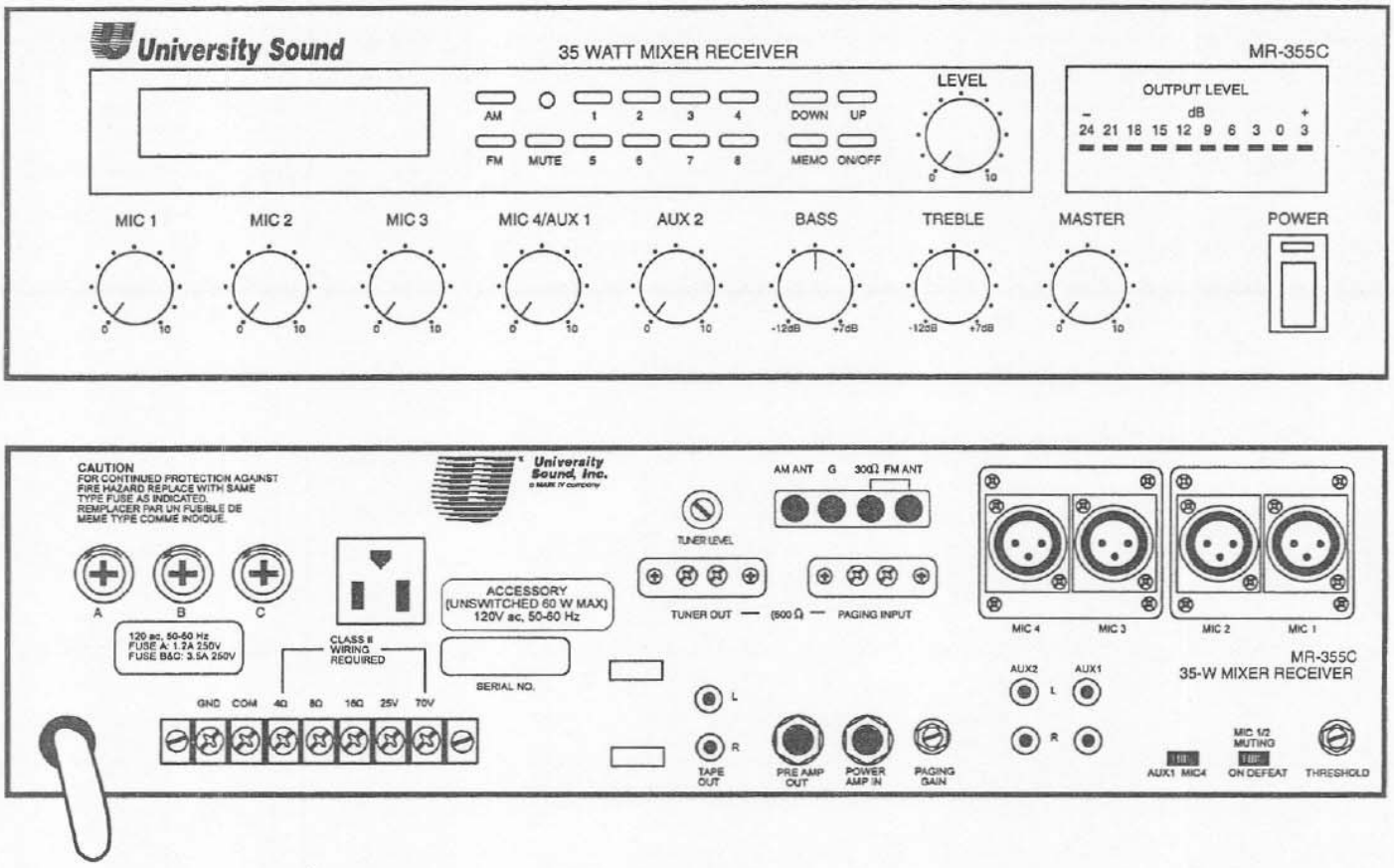
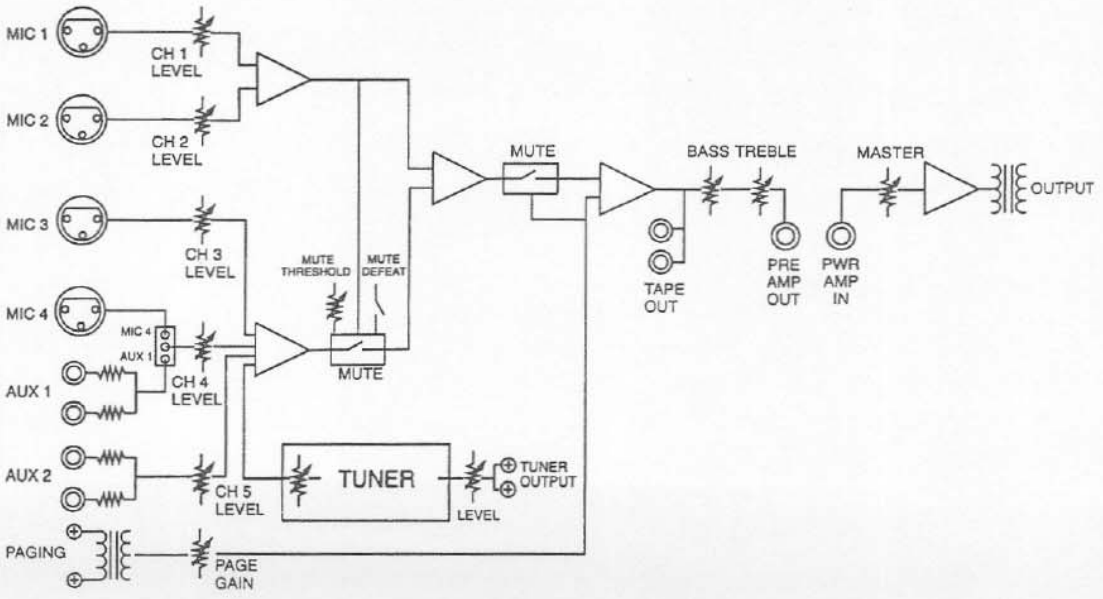
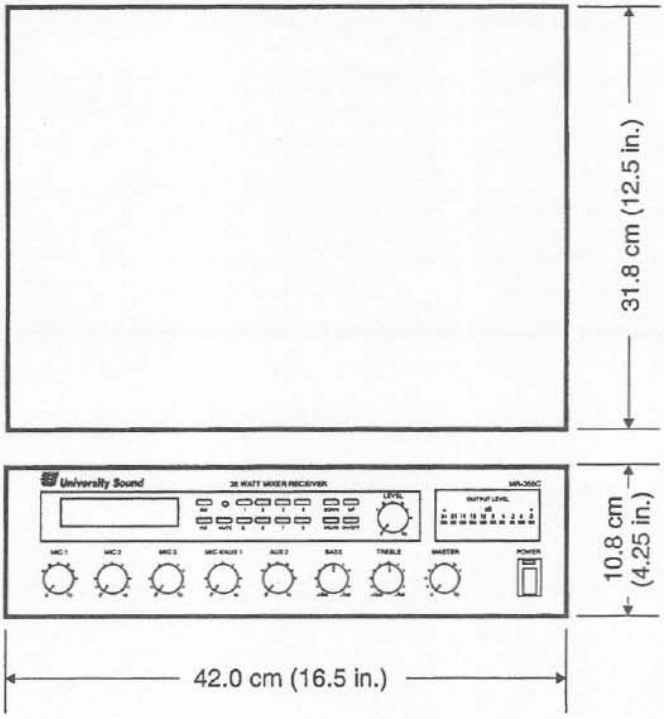


Figure 2—MR-355C Block Diagram



MR-355C Mixer Receiver

Figure 3—MR-355C Dimensions



Specifications

Power Output (at 1 kHz):
35 Watts
Frequency Response:
80 Hz - 15 kHz, ±2 dB
Input Sensitivity/Impedance,
Mic 1, 2, 3, 4:
0.3 mV/600 ohm (balanced)
Paging:
-20 dBm/600 ohm (transformer isolated)
Power Amp In:
1 V/10 kohm (unbalanced)
Aux 1 and Aux 2:
100 mV/47 kohm (unbalanced)
THD (at rated output):
<.5% at 1 kHz
Signal-to-Noise Ratio,
Mic 1, 2, 3, 4:
> 52 dB
Aux 1 and Aux 2:
> 65 dB
Paging:
> 65 dB
Power Amp In:
> 90 dB
Line Output Level/Impedance,
Preamp Output:
1 V/1 kohm (unbalanced)
Tape Output:
500 mV/47 kohm (unbalanced)
Speaker Outputs:
4-, 8-, 16-ohm
25- and 70.7-volt
Tone Controls,
Bass:
+7/-12 dB at 100 Hz
Treble:
+7/-12 dB at 10 kHz
Muting:
40 dB attenuation
Protection:
3 independent Slo-Blo® fuses, primary ac and dc
Power Dissipation:
170 watts
Power Supply:
108-132 V ac, 50/60 Hz
Optional Accessory:
RM-3/10 Rack Mount Kit
Dimensions (see Figure 3),
Height:
10.8 cm (4.25 in.)
Width:
42.0 cm (16.5 in.)
Depth:
31.8 cm (12.5 in.)
Net Weight:
7.9 kg (17.5 lb)
Shipping Weight:
8.6 kg (19.0 lb)

University Sound a MARK IV company
a MARK IV company
600 Cecil Street, Buchanan, MI 49107
800/234-6831, 616/695-6831, Fax 616/695-1304

Part # 533908-9631