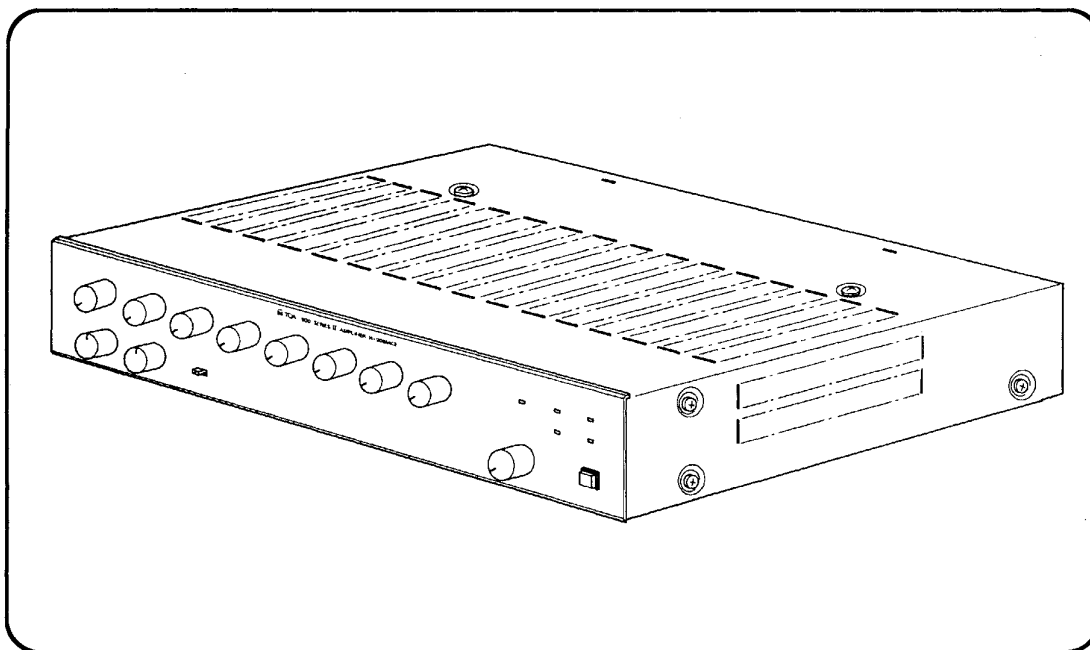




Operating Instructions

TOA 900 SERIES II MIXER PREAMPLIFIER

M-900MK2





CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



THE LIGHTNING FLASH WITH ARROWHEAD WITHIN A TRIANGLE IS INTENDED TO TELL THE USER THAT PARTS INSIDE THE PRODUCT ARE A RISK OF ELECTRIC SHOCK TO PERSONS.

THE EXCLAMATION POINT WITHIN A TRIANGLE IS INTENDED TO TELL THE USER THAT IMPORTANT OPERATING AND SERVICING INSTRUCTIONS ARE IN THE PAPERS WITH THE APPLIANCE.

Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

TOA Corporation

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■ General Description

The TOA M-900MK2 Mixer Preamplifier controls and mixes up to eight independent input signals and delivers up to +20 dBm of output power. Optional plug-in modules are available for use with the M-900MK2 to provide versatility for a wide choice of operating applications. Edge connectors on the rear of the unit permit the selection from a wide range of the TOA plug-in modules.

The mixer preamplifier has a balanced and transformer-isolated output for operation with 600 ohms or 150 ohms loads.

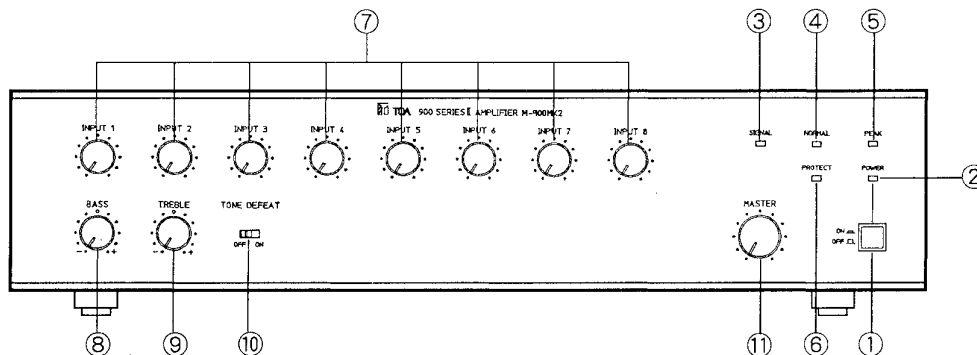
Other features include a tone defeat switch, muting functions, remote master volume control and connections for another mixer preamplifier or mixer power amplifiers A-903MK2, A-906MK2 and A-912MK2.

■ Features

1. 8-channel mixer preamplifier
2. Wide frequency response : 20~20,000 Hz $\pm$ 1 dB
3. Low distortion and noise level
4. Parallel operation of two mixer preamplifiers.
5. Bass and Treble controls
6. Tone defeat switch
7. Remote master volume control
8. A full range of plug-in modules
9. Balanced and transformer-isolated output of 150/600 ohms.
10. Portable or rack mounting type

■ Nomenclature

< Front Panel >



① Power Switch

Applies line power. Two-position push button switch for on/off modes.

② Power Indicator LED

Green LED lights when the power is switched "ON".

③ Signal Indicator LED

Green LED lights when more than -30 dB signal level is fed to the inputs by means of the input and master volume controls.

④ Normal Indicator LED

Yellow LED lights when fed to the proper signal level.

⑤ Peak Indicator LED

Red LED lights when amplifier approaches clipping level. If steady lit, the input level control should be turned down until the LED flashes only intermittently.

⑥ Protection Indicator LED

Remains lit for about 5 seconds after power switch is turned ON.

⑦ Input Volume Controls

Adjust gain of input #1 ~ #8 respectively.

⑧ Bass Control

Modifies bass response. Turn clockwise to boost, counter-clockwise to attenuate the bass response. Tone is flat at center.

⑨ Treble Control

Modifies treble response. Turn clockwise to boost, counter-clockwise to attenuate the treble response. Tone is flat at center.

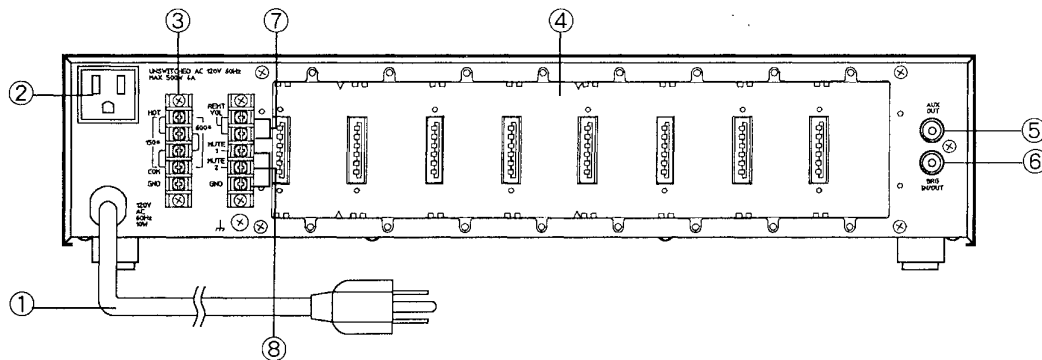
⑩ Tone Switch

Selects ON/OFF of the BASS and TREBLE controls. When slid to OFF, BASS and TREBLE controls are active. When slid to ON, they become inactive to make tone flat.

⑪ Master Volume Control

Adjusts overall gain of the unit.

< Rear Panel >



① AC Power Cord

Connects to power source.

② AC Outlet (Unswitched)

Provides AC power for auxiliary equipment with power consumption of up to 500W.

③ Output terminals

Connect to power amplifier.

④ Module Input Ports

Accepts optional PLUG-IN MODULES.
Module selection is determined by application.
For details, refer to Plug-in Module Instruction Manual.

⑤ AUX Out

Provides connections for a booster amplifier or tape recorder.
The input impedance of the equipment should be of more than 10k ohms.

⑥ Bridging Input/Output

This terminal is used as a mixing bus. Mixing is achieved when the similar terminal of another amplifier is connected to this terminal. The output level taken from this terminal is independent of Master Volume Control, Bass and Treble Controls so that the terminal can also be used as recording output.

The input impedances of the equipment to be connected here should be of more than 10k ohms.

⑦ Remote Volume Control Terminals

Connecting a 10k linear taper potentiometer across these terminals will allow remote control of preamplifier output.

⑧ Mute terminals

Mutes input signals fed to plug-in modules employing muting function by short-circuiting at these terminals.

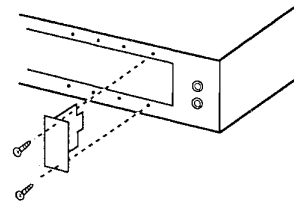
Input Connections

These are eight INPUT PORTS for PLUG-IN MODULES.

Select the desired modules for each application. Plug the modules into the INPUT PORTS.

Slide them between the guide rails and secure with two screws.

CAUTION : Modules should not be inserted or removed while the amplifier is turned on.



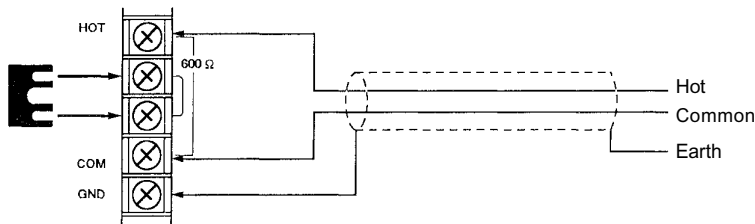
Cover unoccupied INPUT PORTS with blank panels. Secure blank panels with screws.

Output Connections

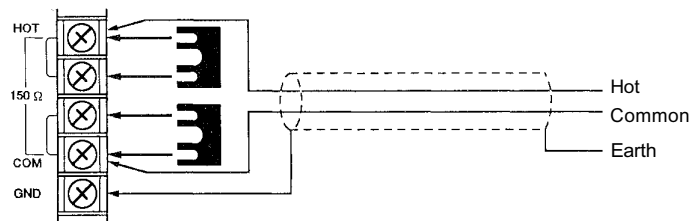
● Connect power amplifier(s) to the output terminal of M-900MK2.

Select 600-ohm or 150-ohm connection, provided at the output terminal to match the input impedance of amplifier(s).

【600-ohm connection】

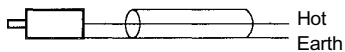


【150-ohm connection】



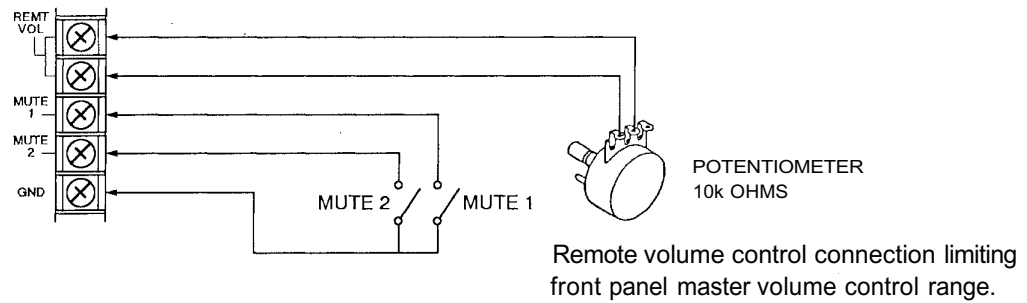
● AUX Out

For this connection, use RCA phone jack with shielded cable.



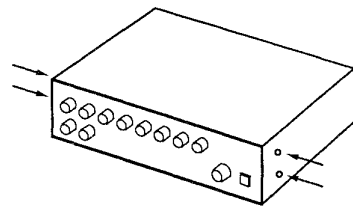
External equipment such as tape recorder, etc.

■ Muting and Remote Volume Control Connection

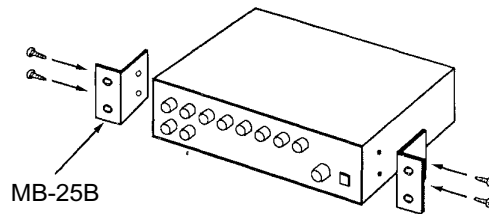


■ Rack Mounting

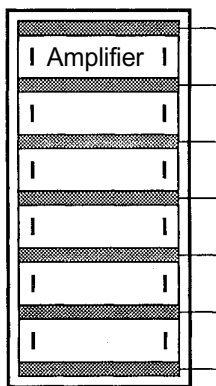
To mount the amplifier in a standard 19" equipment rack, use the optional MB-25B rack mounting bracket.



Remove 4 screws securing case.



Fix the brackets with attached 4 screws. The length of screws should not exceed 12mm (1.2").



PF-511 perforated panel (1-unit size)

If two or more units are mounted in an equipment rack, provide space for ventilation. The perforated panel PF-511 (optional) is recommended for this purpose.

■ Operation

After all connections are made, turn power switch ON, illuminating the Power Indicator LED. The amplifier comes into operation approximately 5 seconds after the power is turned on.

■ Volume Adjustment

Obtain desired output level by adjusting the individual input and master volume controls. For normal music playing or announcement, adjust volume using their controls until the normal LED intermittently lights. Sound quality is deteriorated when the peak LED remains lit.

■ Tone Control Adjustment

Set the tone switch to the OFF position. This activates the bass and treble controls. The frequency response characteristics of each control are flat at center, boost in CW and attenuation in CCW positions. When tone controls are unnecessary, set the tone switch to ON mode.

■ Installation

Never block ventilation holes.

The amplifier should never be placed in areas

- exposed to direct sunlight.
- with high humidity or dust levels.
- with high ambient temperatures.
- susceptible to vibration.
- with poor ventilation.
- adjacent to heat-generating equipment.

CAUTION : Do not remove the case or you may encounter an electric shock.

■ Servicing

● Unpacking

Upon receipt of the amplifier shipment, please inspect for any damage incurred in transit. If damage is found, please notify your local TOA representative and the transportation company immediately.

State date, nature of damage, whether any damage was noticed on the shipping container, prior to unpacking.

Please give waybill number of shipping order.

● Failure

Should amplifier fail, contact your nearest TOA authorized contractor or service center.

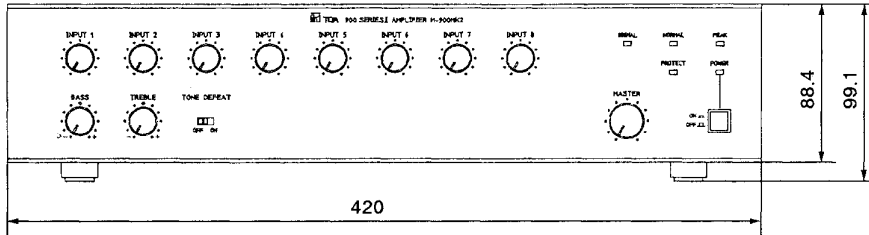
■ Specifications

Type	8-channel mixer preamplifier
Rated Output	+4 dBm, +20 dBm (max.)
Power Band Width	30~20,000Hz, +20dBm 0.5% THD 25~20,000 Hz, +18 dBm 0.5% THD
Frequency Response	20 ~20,000 Hz, ± 1 dB
Total Harmonic Distortion	0.01% at 1 kHz, rated output
Inputs	Eight Input Ports : Each port accepts any input module. One Bridging Input/Output
Input Sensitivity/Impedance	Input Port #1 to #8 : 100 mV/10k ohms Bridging Input/Output : 100 mV/3.3k ohms
Outputs	Main : Balanced, 150/600 ohms Aux : Unbalanced, 10k ohms, 0 dBm
Output Regulation (1 kHz)	Less than 1.5 dB, no load to full load
Signal to Noise Ratio (Band Pass 20 ~20,000 Hz) Tone Controls Centered	Master volume min : 90 dB Master volume max : 77 dB
Tone Controls	Bass: ± 10 dB at 100 Hz, Treble : ± 10 dB at 10 kHz
Controls	8 Input gain controls 1 Master gain control 1 Bass tone control 1 Treble control 1 Power ON/OFF switch 1 Tone defeat switch
Indicators	1 Power LED, 1 Protect LED, 1 Signal LED, 1 Normal LED, 1 Peak LED
Protection	Self-protection, with AC fuse (inside)
Connectors	Input No.1 to No.8 Card-edge connector Bridging, Aux output RCA phono jack Output Screw-terminal strip Mute, Remote VR Screw-terminal strip AC power cord/plug SJT, 3-prong type AC outlet 3-pin grounding type
Power Consumption	18W
Temperature Range	-10°C ~ +60°C (12°F ~ 140°F)
Dimensions (W) x (H) x (D)	420 x 99.1 x 307.5 mm (16.5 x 3.9 x 12.1 in.)
Weight	5.3 kg (11.7 lb.)
Color	Black
Standard Accessories	4 Volume control covers (YA-920)
Other Features	Output disconnected for approx. 5 seconds after switching power on.

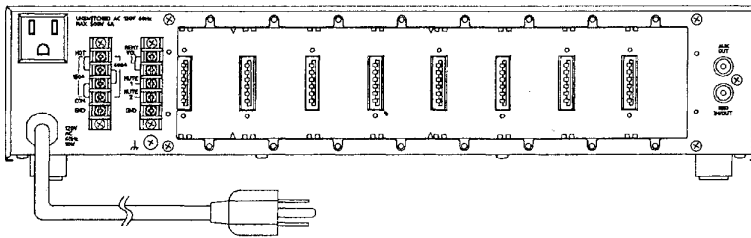
* Specifications are subject to change without notice.

■ Appearance

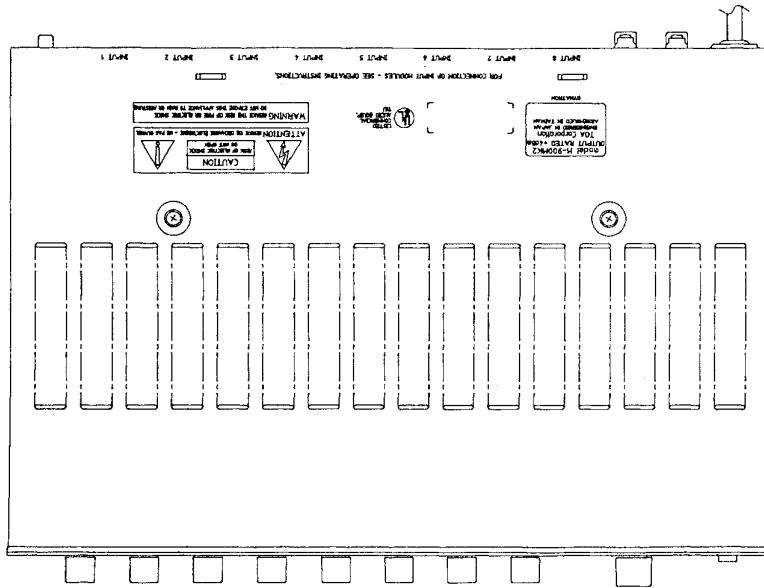
< Front View >



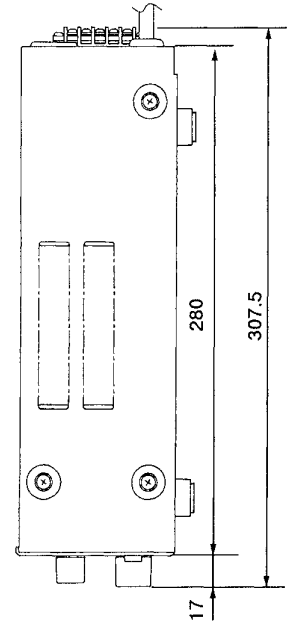
< Rear View >



< Top View >



< Side View >





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KOBE, JAPAN

PRINTED IN TAIWAN
133-12-115-50