

**STEREO MIXERS**
**M-1264**
**M-1212E**
**TOA 1000 series**


	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION</b> 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 you to keep this manual handy for future reference.

# CONTENTS

Handling Precautions .....	2
General Description .....	3
Features .....	3
Nomenclature (Front Panel) .....	4~5
Nomenclature (Rear Panel) .....	6~7
Input Transformer Mounting .....	8~9
Phantom Power Supply .....	9
Input and Output Specifications .....	10
Block Diagrams and Level Diagrams .....	11~12
Specifications .....	13
Accessories .....	13
Appearance .....	14

## HANDLING PRECAUTIONS

- Operating voltage is 120V AC  $\pm$  10% (120 V version) or 220-240V AC  $\pm$  10% (220-240 V version).  
Avoid using the power voltage exceeding these ranges.
- Do not expose the unit to corrosive chemicals or salt water. Also, keep your beverages away from the unit because they may be spilt.
- When there is a failure, refer the unit to qualified service personnel.
- Observe the following polarity of the XLR connector:  
Pin #1: Ground, Pin #2: Cold, Pin #3: Hot

## GENERAL DESCRIPTION

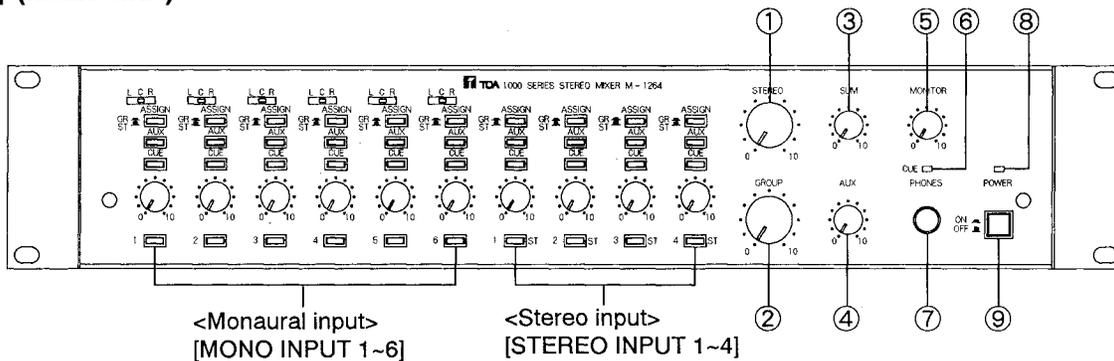
The TOA M-1264 is a 19" rack-mountable stereo mixer with multiple inputs and outputs. Inputs can be expanded by using the M-1212E expansion unit.

## FEATURES

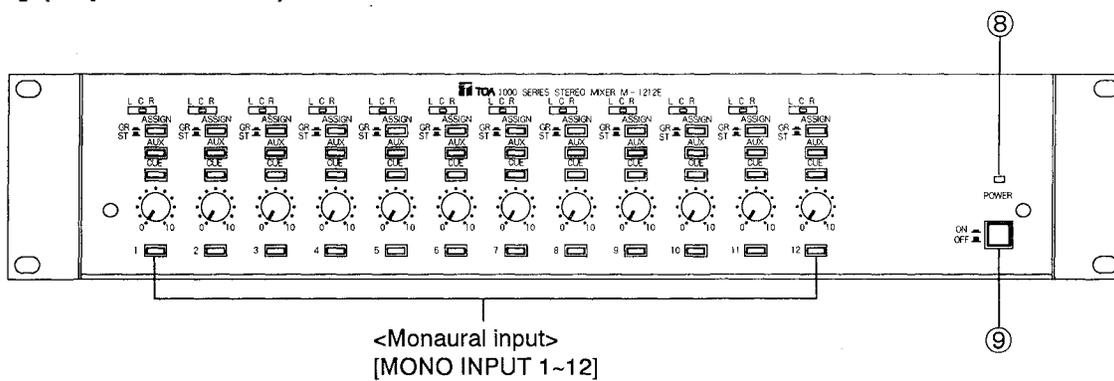
1. Six monaural inputs (expandable using the M-1212E), four stereo inputs and one auxiliary stereo input.
2. One each of output: stereo, group (L/R), stereo sum, monitor (L/R), AUX, and headphone.
3. A compressor built in each monaural input minimizes signal distortion caused when there is an extremely large input. The activation of the compressor can be indicated by a compressor activation lamp.
4. Motorized stereo/group output volume controls can be remotely adjusted from a control device. The adjusted control position is indicated on the control device.
5. The M-1212E can function as a sub-mixer because it has mixing outputs (stereo L/R, group L/R, AUX, and cue).
6. Phantom power (+24V DC) can be supplied to each monaural input.
7. A channel switch with an "easy-to-see" indicator provided for each input improves the signal-to-noise ratio and simplifies operations.
8. 4-step stereo/group send selection switch (stereo to group/group to stereo bus/group to post-stereo output control/ OFF).
9. A 3-step input level selection switch (LINE/MIC/MIC (HPF)) allows selection of either a line or microphone level input for each monaural input. The MIC (HPF) position cuts undesired frequencies using a highpass filter.
10. Electronically-balanced monaural input can be changed to a transformer-balanced input using an optional input transformer.
11. Security cover.

# NOMENCLATURE [Front Panel]

## [M-1264] (Main unit)

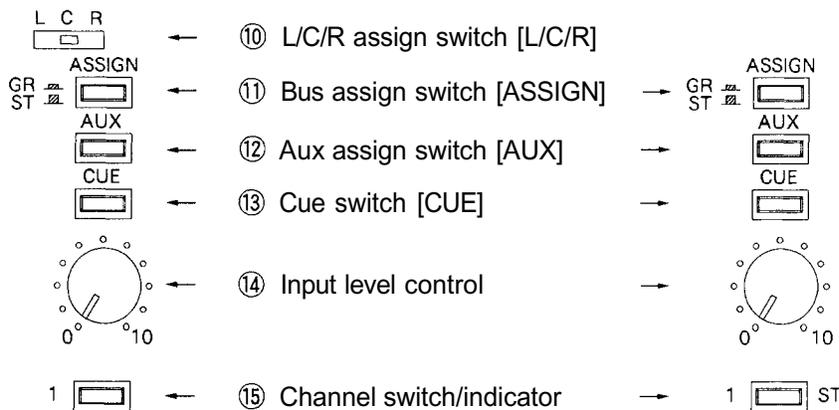


## [M-1212E] (Expansion unit)



<Monaural input > (M-1264, M-1212E)

<Stereo input> (M-1264)



### ① Stereo output level control [STEREO]

Adjusts the level to send out a mixed input signal from the stereo bus to the stereo output. This control can be remotely operated.

### ② Group output level control [GROUP]

Adjusts the level to send out a mixed input signal from the group bus to the group output. This control can be remotely operated.

### ③ Sum output level control [SUM]

Adjusts the stereo sum output signal level.

④ **Aux output level control [AUX]**

Adjusts the level of signals going to the AUX output.

⑤ **Monitor output level control [MONITOR]**

Adjusts the level to transmit a signal from the stereo bus or cue bus to the monitor output and headphone output.

⑥ **Cue indicator [CUE]**

Lights when any cue switch is pressed, indicating that the cue bus signal is being sent to both the monitor and headphone outputs. If the indicator is off, the stereo bus signals are sent to both outputs.

⑦ **Headphone jack [PHONES]**

Outputs the signal adjusted with the monitor output level control. Connect a headphone with 8 ohms or higher impedance.

⑧ **Power indicator [POWER]**

⑨ **Power switch**

Turns on the power when this switch is pressed (the power indicator lights). To turn off the power, press this switch again (the indicator is extinguished).

⑩ **L/C/R assign switches [L/C/R]**

Assign each monaural input signal to L, R, or both L and R lines of the group or stereo bus selected with the bus assign switch ⑪.

⑪ **Bus assign switches [ASSIGN (ST/GR)]**

Assign the monaural input signal adjusted with the input level control ⑭ to the stereo or group bus. (ON: group / OFF: stereo)

⑫ **Aux assign switches [AUX]**

Send the input signal to the AUX bus.

⑬ **Cue switches [CUE]**

Send the input signal to the cue bus regardless of the position of the channel switch ⑮, allowing monitoring of the signal at the headphone or monitor output.

⑭ **Input level controls**

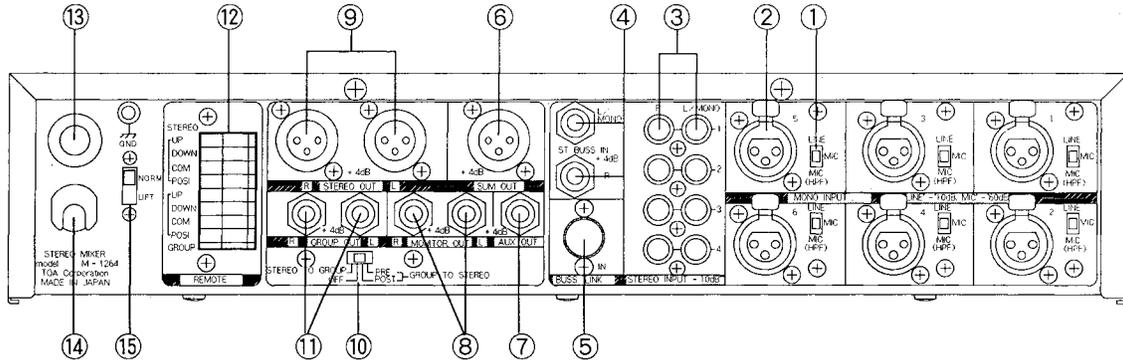
Adjust each input signal level.

⑮ **Channel switches/indicators**

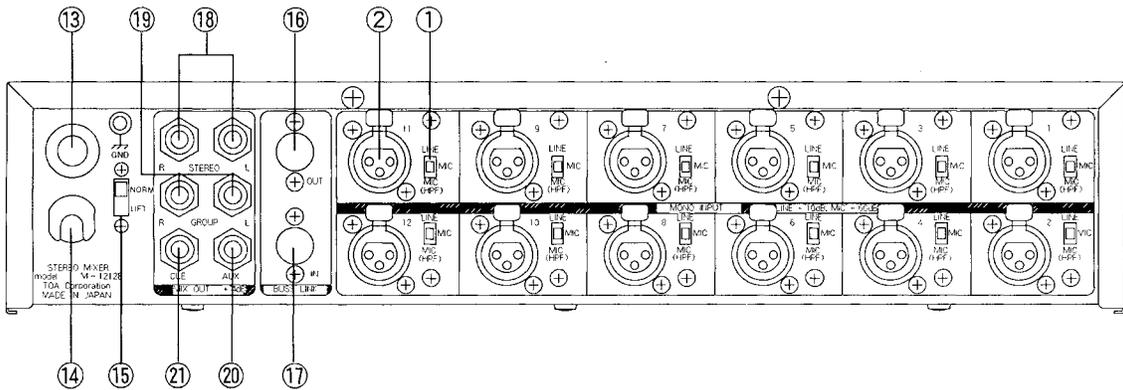
Send the input signal to the bus selected with both the L/C/R assign switch ⑩ and bus assign switch ⑪ or with the AUX assign switch ⑫. At the same time, the corresponding channel indicator lights green for monaural input or yellow for stereo input. If the monaural channel indicator lights red, this indicates that the corresponding compressor is activated. In such cases, adjust the input level using the input level control, as required. (The compressor is activated when the signal level exceeds +17 dB.)

# NOMENCLATURE [Rear Panel]

## [M-1264] (Main unit)



## [M-1212E] (Expansion unit)



- ① **Input level selection switches [LINE/MIC/MIC (HPF) ]**  
Set each monaural input level for Line, Mic or Mic with highpass filter.
- ② **Monaural input XLR connectors [MONO INPUT 1~6 (M-1264) /1~12 (M-1212E) ]**  
This electronically-balanced input can be changed to the transformer-balanced type using an optional input transformer. (Refer to the section "Input Transformer Mounting" on page 8.) Phantom power (+24V DC) can also be supplied to each input.
- ③ **Stereo input RCA jacks [STEREO INPUT 1~4 L/MONO, R]**  
Unbalanced stereo input.
- ④ **Auxiliary stereo input phone jacks [ST BUSS IN L/MONO, R]**  
Unbalanced stereo input to send signals to the stereo bus.
- ⑤ **Bus-link input terminal [BUSS LINK IN]**  
Connects to the M-1212E's bus-link output for monaural input expansion. (For connection, use the cable supplied with the M-1212E.)
- ⑥ **Sum output XLR connector [SUM OUT]**  
Electronically-balanced stereo sum output.
- ⑦ **AUX output phone jack [AUX OUT]**  
Unbalanced AUX output.

⑧ **Monitor output phone jacks [MONITOR OUT L, R]**

Unbalanced monitor output.

⑨ **Stereo output XLR connectors [STEREO OUT L, R]**

Electronically-balanced stereo output.

⑩ **Stereo/group send selection switch**

Four-step selection switch.

- STEREO TO GROUP position: Sends the stereo bus signal to the group bus.
- OFF
- GROUP TO STEREO(PRE) position: Sends the group output signal to the stereo bus.
- GROUP TO STEREO(POST) position: Sends the group output signal mixed with the stereo signal adjusted with the stereo output level control to the stereo output.

⑪ **Group output phone jacks [GROUP OUT L, R]**

Unbalanced group output.

⑫ **Remote terminals [REMOTE]**

Used for remotely operating the stereo output level control and group output level control. There are four following terminals:

UP : While this terminal and COM terminal are shorted, the level control rotates clockwise.

DOWN : While this terminal and COM terminal are shorted, the level control rotates counter-clockwise.

COM : Common terminal

POS1 : The voltage of 0 to +5V DC is output between this terminal and COM terminal depending on the knob setting (0-10).

**Note** : Do not leave the UP and DOWN terminals shorted for longer than necessary.

⑬ **Fuse and fuse holder**

When replacing, be sure to use the specified type and ratings of fuse to avoid the risk of fire. (1.5 A/250 V for 120V AC version, and T315 mA/250 V for 220-240V AC version)

⑭ **AC power cord**

⑮ **Ground loop break switch**

This switch, when set to "LIFT" position, breaks a hum-generating ground loop formed when the unit is connected to external components. Normally, set this switch to "NORM" position.

⑯ **Bus-link output terminal [BUSS LINK OUT]**

Connects to the M-1264's bus-link input terminal.

⑰ **Bus-link input terminal [BUSS LINK IN]**

Connects to other M-1212E's bus-link output terminal for monaural channel expansion. (For connection, use the cable supplied with the M-1212E.)

⑱ **Stereo mixing output phone jacks [STEREO MIX OUT L, R]**

Unbalanced stereo bus mixing output.

⑲ **Group mixing output phone jacks [GROUP MIX OUT L, R]**

Unbalanced group bus mixing output.

⑳ **AUX mixing output phone jack [AUX MIX OUT]**

Unbalanced AUX bus mixing output.

㉑ **Cue mixing output phone jack [CUE MIX OUT]**

Unbalanced cue bus mixing output.

## INPUT TRANSFORMER MOUNTING

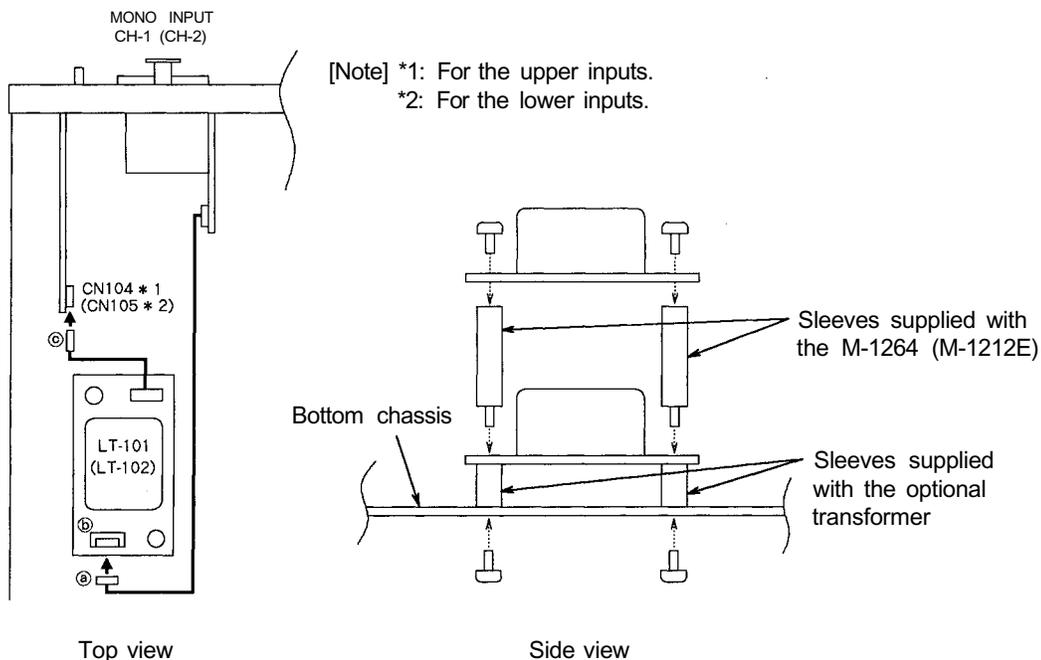
### CAUTION

THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED PERSONNEL ONLY. TO AVOID ELECTRIC SHOCK, DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL

The M-1264's (M-1212E's) monaural inputs are electronically balanced. They can be made transformer-balanced inputs using the optional input transformer LT-101 or LT-102.

### How to mount the input transformer

- ① Set the power switch to OFF and remove the power cord from a wall outlet.
- ② Remove the unit's case by loosening six side panel screws (three each on both sides) and two rear panel screws.
- ③ Fix two sleeves to the bottom chassis using screws, then mount the transformer to the sleeves using other screws. (The sleeves and screws are supplied with the transformer.) When stacking two transformers due to the number or arrangement of channels, use the sleeves supplied with the M-1264 (M-1212E).
- ④ When changing the inputs 1, 3, 5, etc. located in the upper section, detach connector ① from CN-104 connector, connect the detached connector to the transformer connector ②, and connect the transformer lead ③ to the CN-104. When changing the inputs 2, 4, 6, etc. in the lower section, detach connector ① from CN-105 connector, connect the detached connector to the transformer connector ②, and connect the transformer lead ③ to the CN-105.
- ⑤ Replace the case.



## Matching Transformer Specifications

Model	LT-101	LT-102
Impedance	10k $\Omega$ : 10k $\Omega$	600 $\Omega$ : 600 $\Omega$
Frequency response	Within $\pm$ 0.15 dB (30 Hz~20 kHz)	Within $\pm$ 0.15 dB (30 Hz~20 kHz)
Constant loss	Within 1.5 dB (1 kHz)	Within 1.5 dB (1 kHz)
Distortion	0.2 % or less (50 Hz / +5 dB*)	0.2 % or less (50 Hz / +5 dB*)

\* 0 dB = 0.775 Vrms

\*\* Specifications are subject to change without notice.

## PHANTOM POWER SUPPLY

### CAUTION

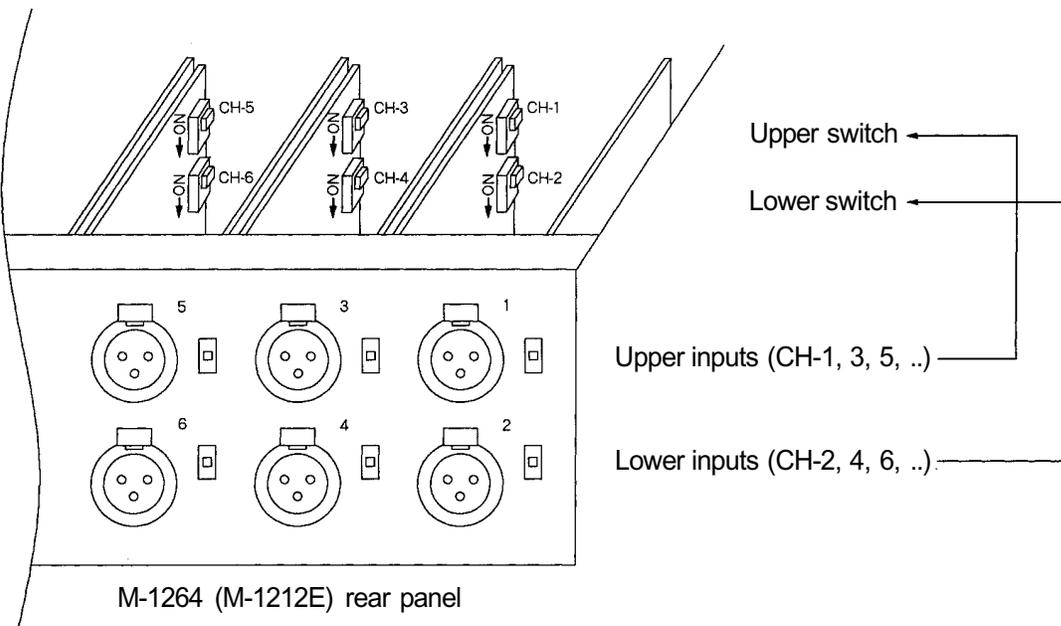
THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED PERSONNEL ONLY. TO AVOID ELECTRIC SHOCK, DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

Phantom power (+24V DC) can be supplied to each monaural input using the internal phantom power switch.

- ① Set the power switch to OFF, and remove the power cord from a wall outlet.
- ② Remove the unit's case by loosening six side panel screws (three each on both sides) and two rear panel screws.
- ③ Set the phantom power switch of the desired input to ON.
- ④ Replace the case.

### [Precautions]:

- (1) To avoid electric shocks, do not touch the unit's internal components except when installing the input transformer and setting the phantom power switch.
- (2) Leave the phantom power switch in the OFF position for inputs not receiving the phantom power. (The unit is factory-preset as shown in the figure below.)

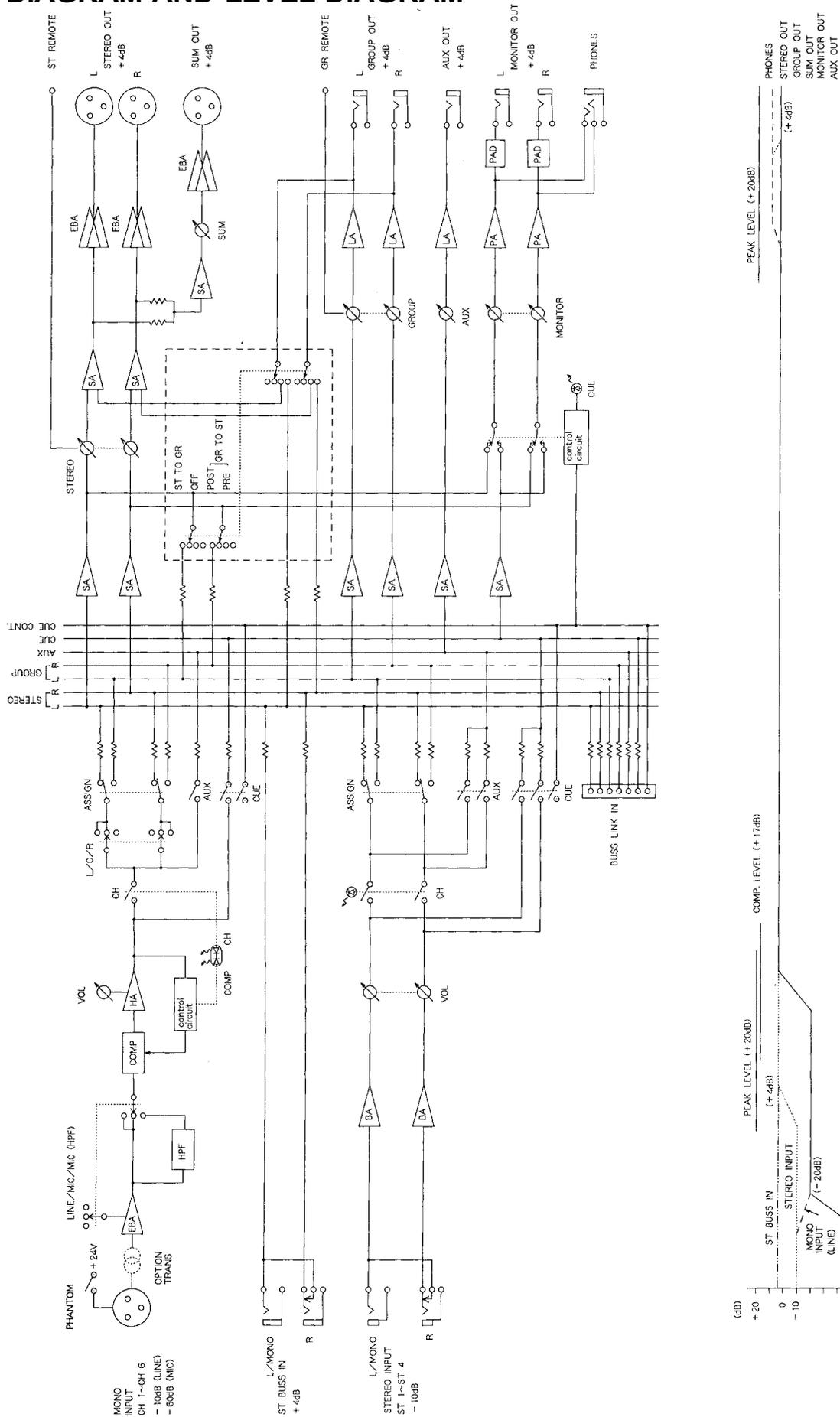


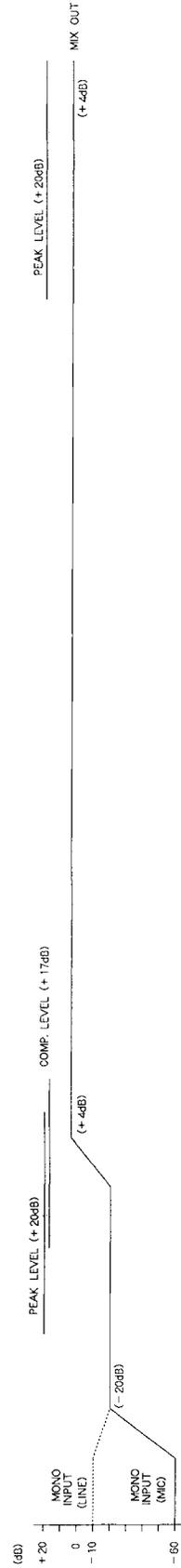
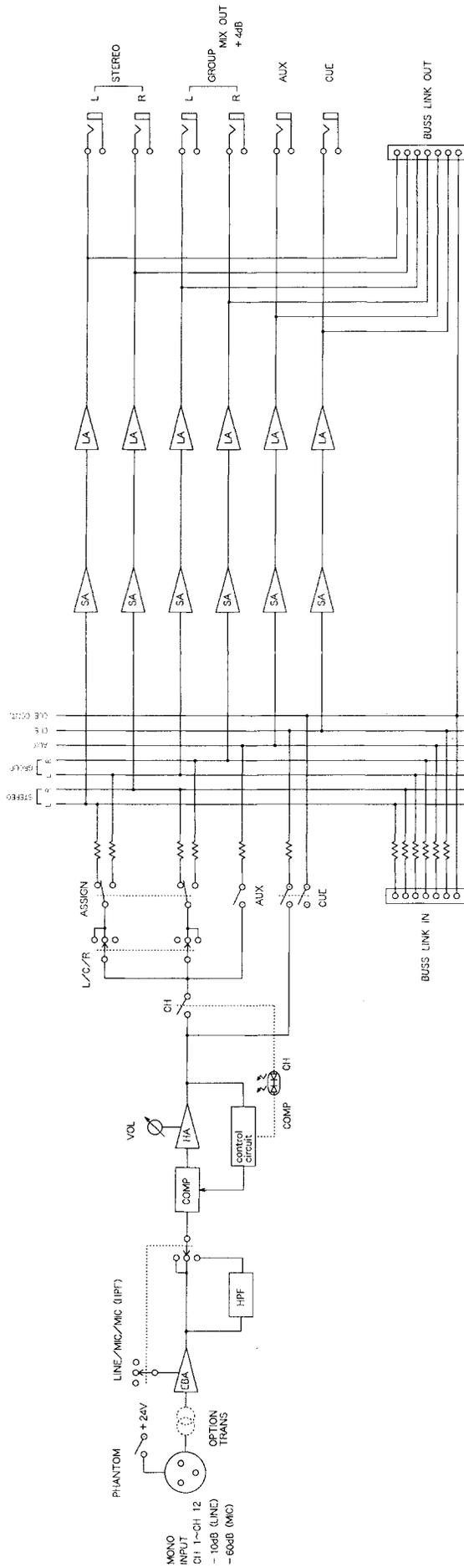
## INPUT AND OUTOUT SPECIFICATIONS

Input/Output		Level	Impedance	Connector
Monaural Input	Line	-10 dB	50 k $\Omega$	XLR 3-pin connector
	Mic	-60 dB	1 k $\Omega$	
	Mic (with HPF)	-60 dB	1 k $\Omega$	
Stereo Input (L, R)		-10 dB	50 k $\Omega$	RCA jack
Auxiliary Stereo Input (L, R)		+4 dB	10 k $\Omega$	Unbalanced phone jack
Stereo Output (L, R)		+4 dB	600 $\Omega$ or more (Matched load)	XLR 3-pin connector
Sum Output		+4 dB	600 $\Omega$ or more (Matched load)	
Group Output (L, R)		+4 dB	1 k $\Omega$	Unbalanced phone jack
Monitor Output (L, R)		+4 dB	1 k $\Omega$	
AUX Output		+4 dB	1 k $\Omega$	
Mixing Output (M-1212E)	Stereo Mixing	+4 dB	1 k $\Omega$	Unbalanced phone jack
	Group Mixing	+4 dB	1 k $\Omega$	
	AUX Mixing	+4 dB	1 k $\Omega$	
	Cue Mixing	+4 dB	1 k $\Omega$	

# BLOCK DIAGRAM AND LEVEL DIAGRAM

[M-1264]





## SPECIFICATIONS

Model	M-1264	M-1212E
Frequency Response	20Hz~20kHz(+0,-1.5dB)	
Total Harmonic Distortion	0.15 % or less (Monaural Input to Stereo Output +4 dB*, 1 kHz) 0.01 % or less (Stereo Input to Stereo Output, +4 dB*, 1 kHz)	
Noise Level (IHF-A)	(1)When all volume controls are in minimum position. Stereo Output : - 100 dB or less (2) When the stereo volume control is in maximum position and all other controls in minimum position. Stereo Output : —98 dB or less (Only M-1264 used) —92 dB or less (Both M-1264 and M-1212E used) (3) When the stereo volume control and one monaural input level control are in maximum position, and all other controls in minimum position. Stereo Output : -62 dB or less	(1) When all volume controls are in minimum position. Stereo Mixing Output : -94 dB or less (2) When one monaural input level control is in maximum position and all other controls in minimum position. Stereo Mixing Output : -62 dB or less
Maximum voltage gain	Monaural input (Mic) to stereo output : 64 dB Monaural input (Line) to stereo output : 14 dB Stereo input to stereo output : 14 dB	
Compressor (monaural input)	Activation signal level : +17 dB or more Compression ratio : 10:1 (Compression curve : Soft knee)	
Power consumption	25 W (120V AC version) 28 W (220-240V AC version)	26 W (120V AC version) 28 W (220-240V AC version)
Dimensions	482.6 (W) x 88.4 (H) x 311.8 (D) mm (18.82" x 3.45" x 12.16")	
Weight	5.2kg (11.47lb.)	

\* 0 dB = 0.775 Vrms.

\*\* Specifications are subject to change without notice.

## ACCESSORIES

### [M-1264]

Security cover x 1  
Security cover fixing screw x 2  
Fuse (250 V, 1.5 A) (for 120V AC version) x 1  
Fuse (250 V, T315 mA) (for 220-240V AC version) x 1  
Rack mounting screw x 4  
Transformer mounting sleeve x 6  
Warranty card (for USA and Canada) x 1  
Operating instructions x 1

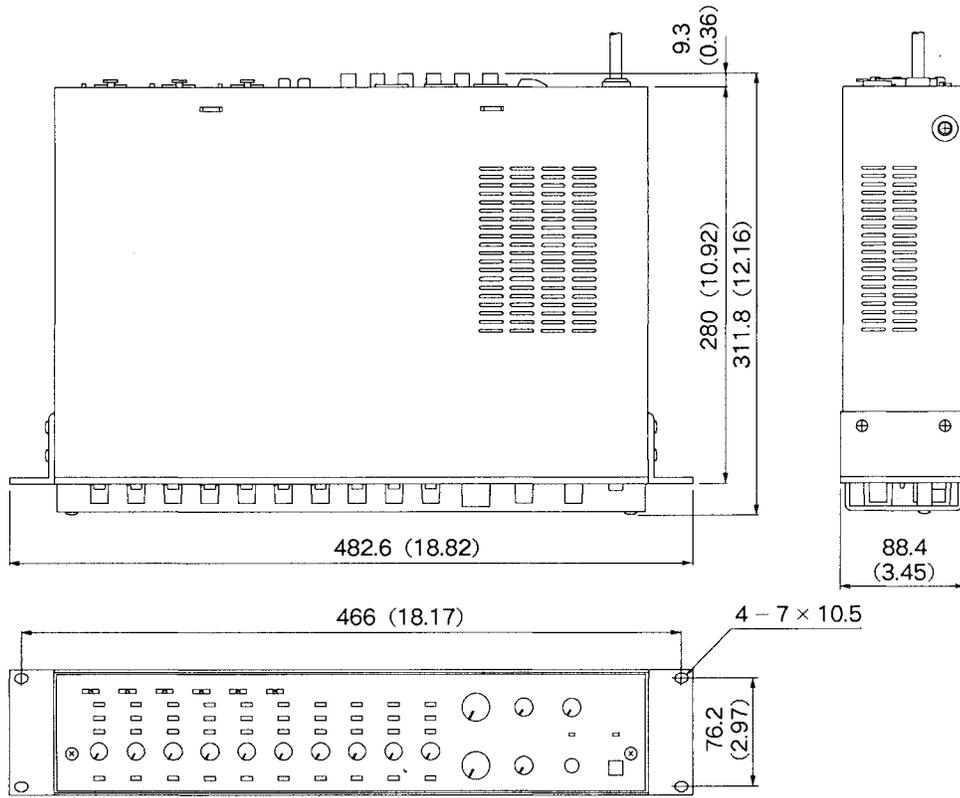
### [M-1212E]

Security cover x 1  
Security cover fixing screw x 2  
Fuse (250 V, 1.5 A) (for 120V AC version) x 1  
Fuse (250 V, T315 mA) (for 220-240V AC version) x 1  
Rack mounting screw x 4  
Transformer mounting sleeve x 12  
Bus-link cable (1 m) x 1  
Warranty card (for USA and Canada) x 1  
Operating instructions x 1

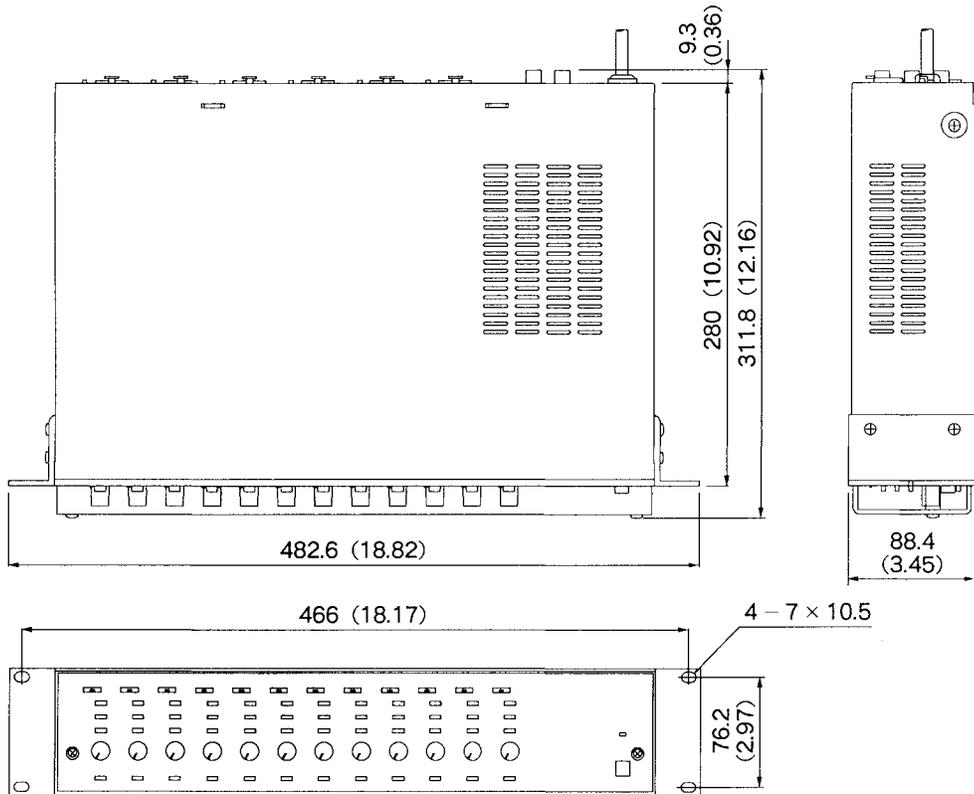
# APPEARANCE

[M-1264]

Unit : mm (in.)



[M-1212E]







TOA Corporation

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