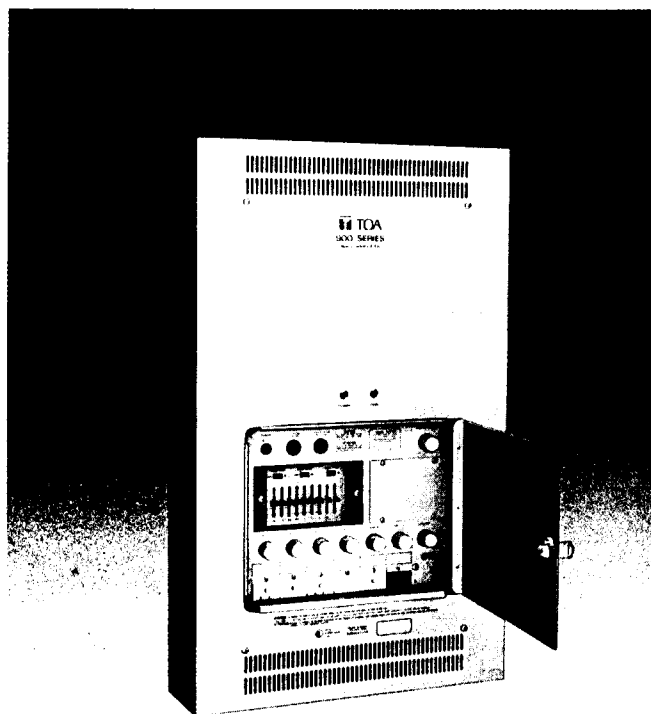


TOA NEW 900 SERIES IN-WALL MIXER POWER AMPLIFIER

Operation Instruction Manual

**W-906A
W-912A**



Features

- 1 6-channel mixer power amplifier
- 2 Expandable to 8-input
- 3 Output power: 120W for W-912A, 60W for W-906A
- 4 Wide frequency response: 30 to 20,000Hz $\pm$ 1dB
- 5 Low distortion and noise
- 6 Excellent output regulation
- 7 Built-in one-octave equalizer
- 8 Built-in compressor
- 9 Self-protection circuitry design
- 10 Separate output terminals: 4 and 8 ohms, 25 and 70 volts
- 11 Extra space for customizing
- 12 LED pilot light
- 13 LED peak indicator
- 14 Full range of plug-in modules
- 15 Flush and surface mounting

General Description

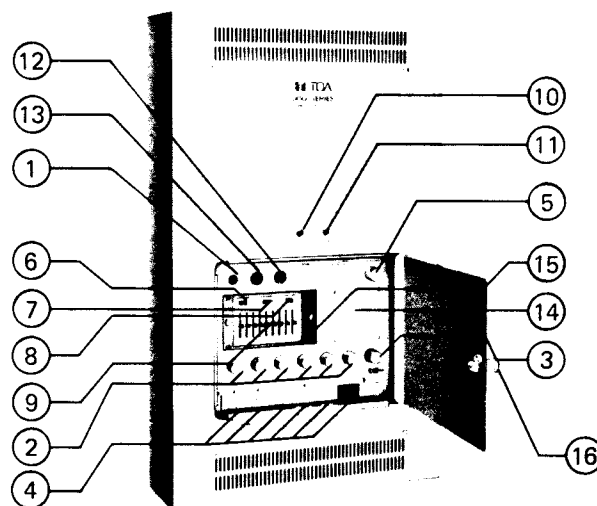
The TOA W-906A and W-912A Mixer Power Amplifiers control and mix up to six independent input signals plus two inputs with use of expanding kit. The W-906A delivers up to 60 watts of output power and the W-912A 120 watts. Optional accessory modules are available for use with the W-906A and W-912A to provide versatility for a wide range of operating applications. Edge connectors at the bottom of the front panel permit the selection of the TOA plug-in modules: The H-01 series, H-02 series, H-03 series, H-21 and H-22 Microphone Preamplifiers, the E-01 series and E-11 series Mag. Phono Preamplifiers, the X-01 series, X-11 series and X-21 Auxiliary Preamplifiers for high-level sources, the B-01 series and B-11 series Bridging Transformers for bridging high-impedance lines, the L-01 series Line Matching Transformers for matching 600-ohm lines, I-01 Paging Input for combining with TOA Intercom Systems EXES-1000, EXES-5000 and EX-16, T-01 series Line Outputs for matching 600-ohm lines and the S-01, S-02 and S-03 Tone Signal Generators for generating attention-getting signals and 1 KHz sine wave for testing within the total system. Other features include a muting function. Sources fed to particular input module accessories are muted by short-circuiting at MUTE TERMINALS on the front. To perform this function, Module E-11, X-11 series or B-11 series is required. Using any of the modules H-21, H-22 and X-21 permits the input signal level to be controlled remotely by means of an external potentiometer.

The W-906A and W-912A have a built-in one-octave graphic equalizer with 9 bands to tailor sound system frequency response to room acoustics, reducing feed-back tendencies and improving intelligibility. A built-in compressor circuit is provided to protect the output level from distortion as a result of excessive input and keeps it constant. Compressor's threshold level can be adjusted.

The W-906A and W-912A Mixer Power Amplifiers have output terminals to match 4- or 8-ohm speaker systems, or speaker distribution system may be connected to the 25- or 70-volt terminals. User's (blank)space is provided for additional functions to be made by the customers. The expanding kit (option) may be loaded in this space when the number of input is increased. Protection against tampering is assured by means of a key-locked hinged door. The W-906A and W-912A can be mounted in any four-inch wall with of the BX-9F Flush Mounting Back Box. On-wall mounting is also possible with the BX-9S Surface Mounting Box.

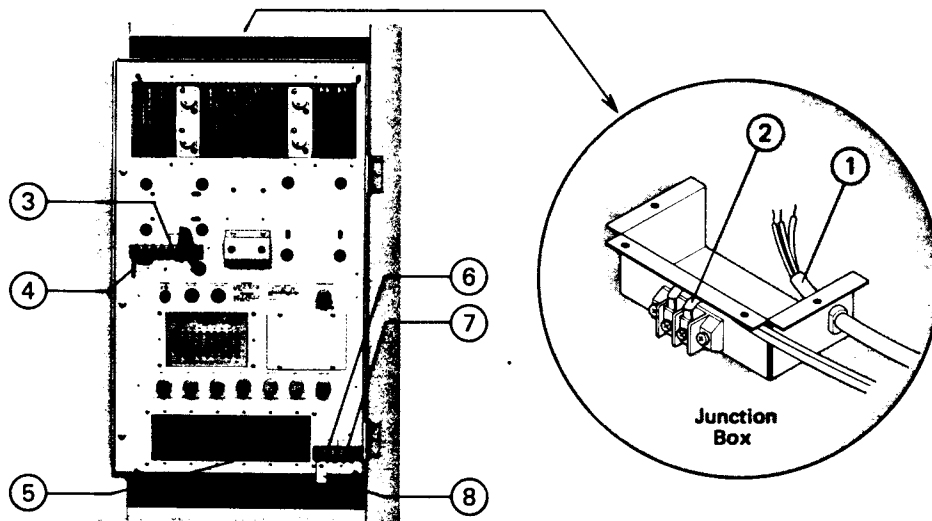
TOA NEW 900 SERIES

Controls and Features



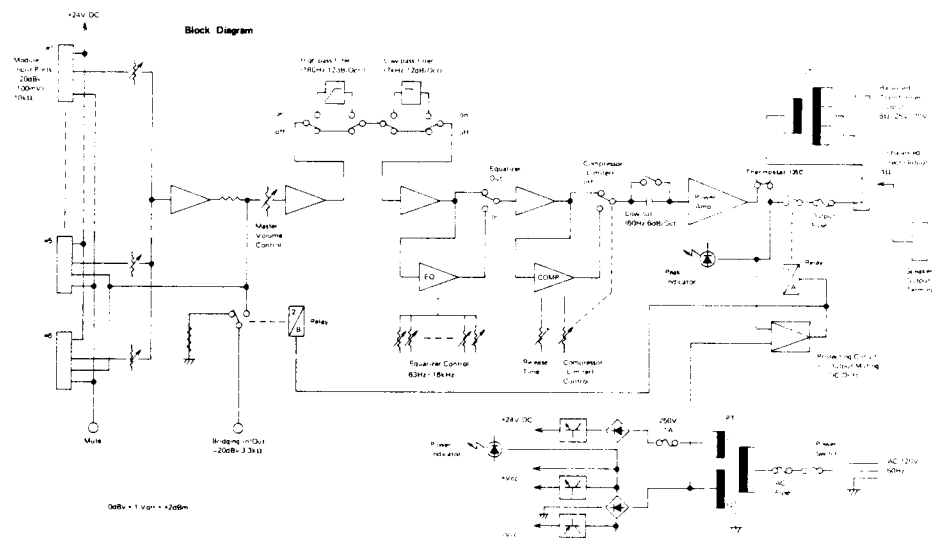
Item	Name	Function/Description									
1	POWER SWITCH	Applies line power. Two-position push button switch for on-off modes.									
2	INPUT VOLUME CONTROLS	Adjust gain of input #1 — #6 respectively.									
3	MASTER VOLUME CONTROLS	Adjust overall gain of unit.									
4	MODULES (OPTION)	Select appropriate modules according to the application.									
5	COMPRESSOR CONTROL (LIMITER)	Setting the control switch to OFF position bypasses the compressor circuit and turning it clockwise will reduce the limiter level (will limit the output).									
6	EQUALIZER SWITCH	Place this switch in the IN position to activate an equalizer.									
7	HIGH-PASS FILTER SWITCH	Place this switch in the ON position to cut off unnecessary low frequency.									
8	LOW-PASS FILTER SWITCH	Place this switch in the ON position to cut off unnecessary high frequency.									
9	EQUALIZER CONTROLS	Nine-band filters. 12dB boost and cut at each center frequency.									
10	POWER INDICATOR	Comes on when power is switched on.									
11	PEAK INDICATOR	Comes on when the output signal reaches the rated output power level.									
12	OUTPUT FUSE	Prevents excessive current flow.									
13	AC FUSE	<table border="0"> <tr> <td></td><td>W-906A</td><td>W-912A</td></tr> <tr> <td>AC FUSE</td><td>250V 3A</td><td>250V 5A</td></tr> <tr> <td>OUTPUT FUSE</td><td>250V 6A</td><td>250V 10A</td></tr> </table>		W-906A	W-912A	AC FUSE	250V 3A	250V 5A	OUTPUT FUSE	250V 6A	250V 10A
	W-906A	W-912A									
AC FUSE	250V 3A	250V 5A									
OUTPUT FUSE	250V 6A	250V 10A									
14	BLANK PANEL (USER'S SPACE)	The space of 4"(W) x 2-3/8"(H) x 3-3/4"(D) is provided. An optional expanding kit may be loaded in this space.									
15	EQUALIZER SECURITY COVER	Prevents inadvertent changes of the equalizer controls set at proper level.									
16	KEY-LOCKED DOOR	Prevents tampering.									

TOA NEW 900 SERIES



Item	Name	Function/Description
1	AC POWER CORD	Connects to power source.
2	SPEAKER OUTPUT TERMINALS	Connects to speakers.
3	OUTPUT TERMINALS	Select output impedance with this terminal.
4	LOW-CUT SWITCH	Cuts off unnecessary low frequency.
5	MODULE INPUT PORTS	Accept PLUG-IN MODULES which are optionally available. Module selection is determined by application.
6	MUTE TERMINAL	With modules employing muting function, which are optionally available, the input signals fed to the modules are muted by short-circuiting at this terminal.
7	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 the all CONTROLS (except INPUT VOLUME CONTROLS) so that the terminal can also be used as recording output. The input impedances of the equipment to be connected here should be more than 10k ohms.
8	CORD CLAMP	Clamps off lead wires from module inputs, mute terminals and bridging input/output terminals.

Block Diagram



TOA NEW 900 SERIES

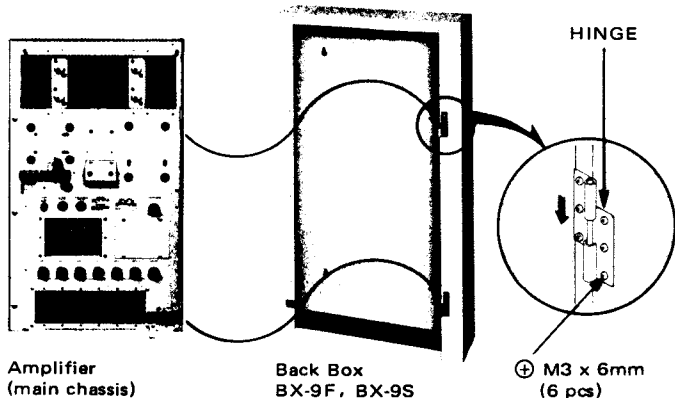
Installing and Connecting the IN-WALL Amplifier

Installing this amplifier requires the optional back box, which is Model BX-9F for flush mounting in any four-inch wall and Model BX-9S for surface mounting.
Fix the back box first in installing the amplifier. . .

Installing procedure

1. Attach hinges to the back box by means of screws.
(The hinges and screws are accessories supplied free of charge.)
2. Fix the amplifier to the back box by inserting the amplifier bolts into the hinges as illustrated.

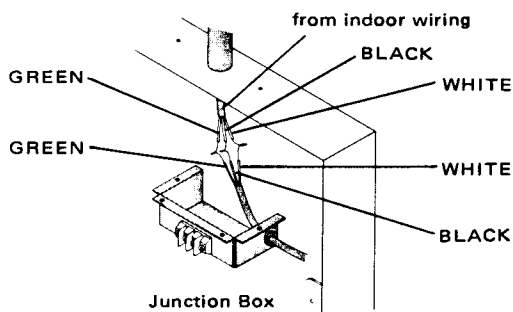
(W-906A, W-912A)



3. Connecting power cables

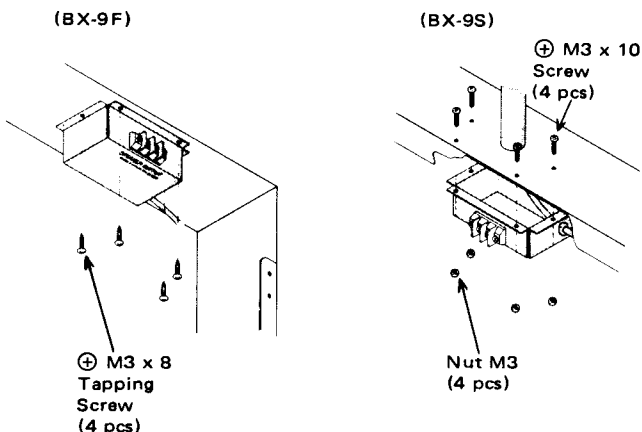
Be sure to make proper cable connections according to color coding of the power cable.

After connection is completed, insulate sufficiently the jointed sections and put them in a junction box.



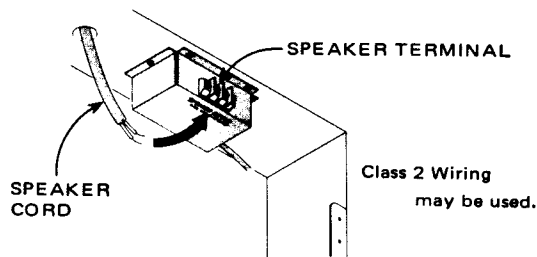
4. Attaching the junction box to the back box

The BX-9F differs from the BX-9S in the way to attach the junction box to the back box.



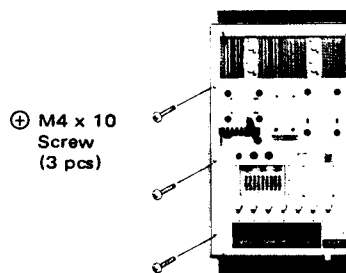
5. Connecting the speaker cable

Connect the speaker cable to the speaker terminals on the junction box. Amplifier output impedance may be selected at the output terminals on the front panel.



6. Fixing the amplifier

Fix the amplifier to the back box with screws after connecting the power cable and the speaker cable.



7. Selecting output impedance

Select appropriate output impedance that matches the speaker to be used.

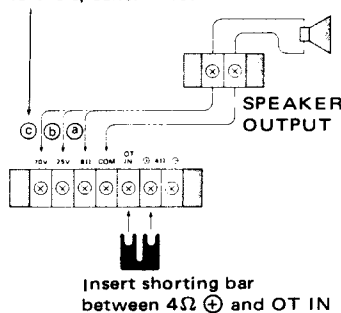
Class 2 wiring may be used.

Since these outputs consist of 8Ω, 25V and 70V via the output transformer (matching transformer) and direct output of 4Ω, the connecting method differs in each case. See the following diagrams:
Note: Impedances indicated below imply total speaker system (load) impedances.

- When connecting speakers to any one of the outputs of 8Ω, 25V or 70V (BALANCED TRANSFORMER OUTPUT); connect as illustrated below.

(W-906A)

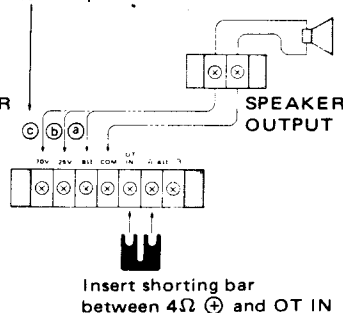
Change cable connection for required impedance according to the speaker used.



- Ⓐ 8-ohm or
- Ⓑ 10.4-ohm (25V line) or
- Ⓒ 83-ohm (70V line)

(W-912A)

Change cable connection for required impedance according to the speaker used.

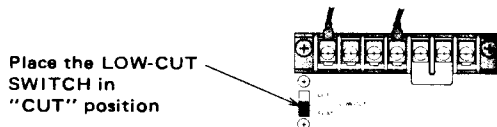


- Ⓐ 8-ohm or
- Ⓑ 5.2-ohm (25V line) or
- Ⓒ 41-ohm (70V line)

TOA NEW 900 SERIES

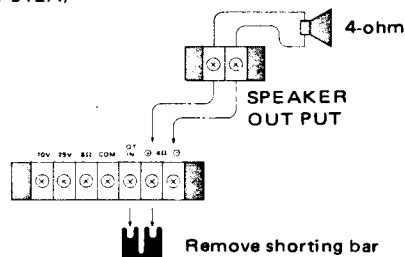
Note:

In this case, the LOW-CUT SWITCH should be in "CUT" position. This amplifier is characteristically flat even in the low frequency range. Therefore, in TRANS OUTPUT, the acoustic effect and frequency-response characteristics may be altered. In TRANS OUTPUT, cut off unnecessary low frequency to obtain the best acoustic condition.



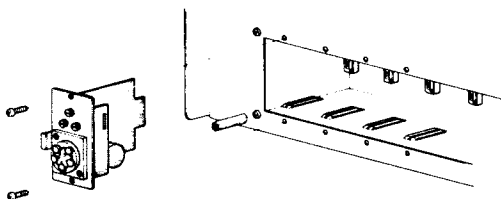
- When connecting speakers to the 4Ω output (UNBALANCED DIRECT OUTPUT); connect as illustrated below.

(W-906A, W-912A)



8. Input Connections

- This unit has six INPUT PORTS for plug-in modules. Select the desired modules for each application.
- Plug the modules into INPUT PORTS, sliding them between the guide rails, and secure each with two screws.



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

- When not all INPUT PORTS are occupied, cover the vacant PORTS with blank panels, and secure them with screws.

- PLUG-IN MODULES are provided in the following:

Balanced low impedance microphone preamp. H-01, H-21 module (with presettable low-cut filter, high-cut filter and gain controls)
Balanced low impedance microphone preamp. H-02, H-22 module (with presettable low-cut filter and gain controls)
Unbalanced high impedance microphone preamp. H-03 module (with presettable low-cut filter and gain control)
Equalized mag. phono preamp. module E-01, E-11 (with presettable gain control)
Unbalanced high impedance auxiliary preamp. X-01, X-11, X-21 module (with presettable gain control)
Balanced 10kΩ bridging transformer module B-01, B-11
Balanced 600Ω line matching transformer module L-01
Balanced paging input module I-01 (with presettable gain control and MUTE Delay)

Balanced 600Ω line output module T-01 (with presettable gain control)
Signal tone generator module (with presettable output level control)
1kHz sine wave S-01
Yelp and buzzer S-02
One-tone chime and continuous one-tone chime S-03

* With H-21, H-22 and X-21 modules employing volume remote control functions, connecting a potentiometer (10 KΩ) to the terminal of any of these modules permits the sound volume to be remotely controlled by means of the connected potentiometer.

* E-11, X-11 and B-11 modules incorporate muting functions. If a switch is connected to MUTE TERMINAL on the rear panel of the amplifier and closed, these input signals can be muted.

* T-01 is used to feed out mixed signals to external equipment.

* T-01 should be inserted only in INPUT PORT #5 or #6. (See PLUG-IN MODULES for details)

Unite these cables to allow free rotation of the amplifier.

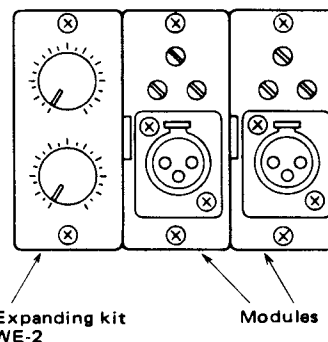
Note.

Use modules with suffix "S" for standard input port.

Input Expander

The optional expanding kit (WE-2) is necessary to increase the number of input. Up to two inputs may be added by loading the expanding kit in the user's space.

For loading the kit in the user's space, refer to the instruction manual of the kit.



CAUTION:
Installation of optional items should be performed by a qualified service personnel.

Note:

When the temperature of heat sink exceeds 105°C, the protection circuit is activated and the output is disconnected from the circuit. The signal automatically begins to be output as the temperature goes down. In such a case, confirm whether or not unit is overloaded or operated on an excessive output.

Service

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.

TOA NEW 900 SERIES

Operations

When all connections are completed, turn power switch on. Then, the power indicator is illuminated. Approx. 5 seconds after switching power on, the amplifier comes into operation.

ADJUSTMENT OF VOLUME

Adjust the individual input and master volume controls to obtain appropriate output level.

When the peak indicator remains lit, reduce the sound volume to turn it off. If the system is operated with the peak indicator lighting, it downgrades sound quality.

Adjusting graphic equalizer

The one-octave graphic equalizer tailors sound system frequency response to room acoustics, reducing feed-back tendencies and improving intelligibility. Characteristic of this equalizer is as per below graph. Adjust it to obtain the desired frequency response by actually hearing the sound or by using pink noise.

To make the adjustment, place the EQ switch in the IN position. If a control knob is moved toward the plus (+) direction, center frequency is boosted and if toward the minus (-) direction, it is cut. Placing the EQ switch in the OUT position bypasses the equalizer circuit and makes frequency response flat.

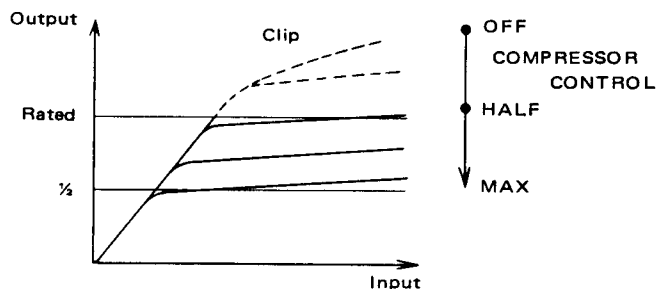
Filter

When the HIGH PASS FILTER switch is in the ON position, low frequency is cut. In this event, low frequency below 180 Hz may be cut at a 12 dB/OCTAVE rate. When LOW PASS FILTER switch is in the ON position, high frequency of 7 KHz or higher may be cut at a 12 dB/OCTAVE rate.

To bypass the filter, place the filter in the OFF position.

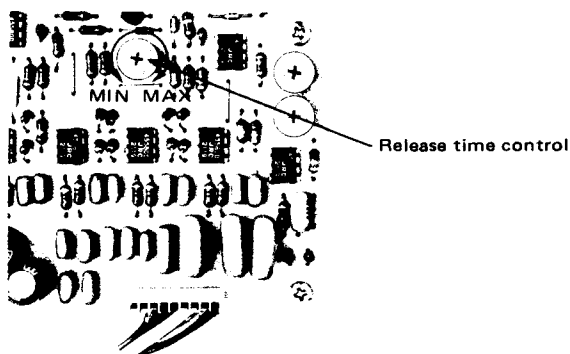
Compressor

If the COMPRESSOR CONTROL switch is set to OFF, it bypasses the compressor circuit. Turn it clockwise to activate the compressor and to adjust the limiting level. Since turning it fully clockwise far too much limits the output level, set the switch at a maximum point that does not cause the peak indicator to light up.



Adjusting release time

Compressor release time is set at 2 seconds on the amplifier supplied from the factory. Adjust the release time, if necessary, by means of the release time control at the rear of the amplifier.



• Output fuse

Each amplifier has an output fuse to protect the amplifier from short-circuiting at the output or overloading. Check the fuse when speakers connected do not sound even if the meter deflects normally. If the fuse blew, replace with the same type fuse after confirming the following points.

1. Speaker cables are not short-circuited or the load does not exceed the rating specified.
2. Wiring is correctly done at the output terminal board.

Accessories

Flush-Mounting (In-Wall) Back Box

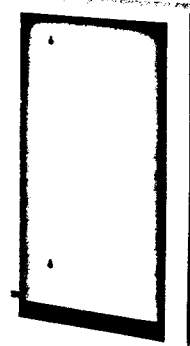
BX-9F



Volume Control Cover

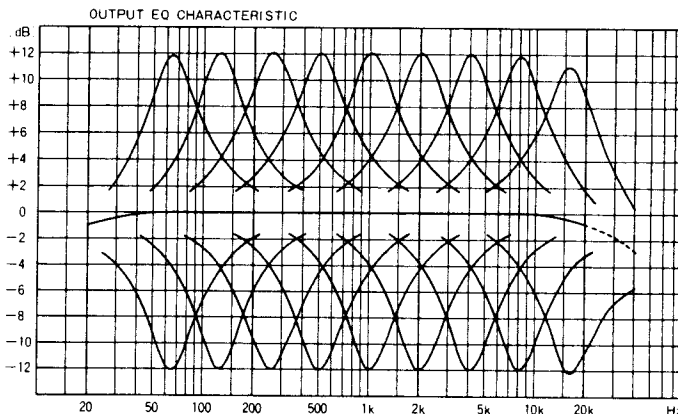
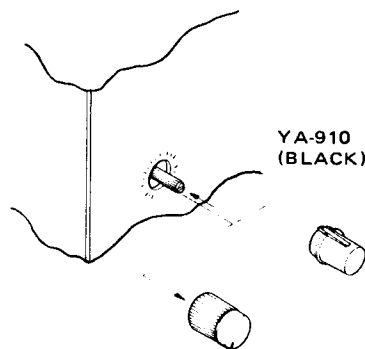
Surface-Mounting (On-Wall) Back Box

BX-9S



Expanding kit

WE-2



TOA NEW 900 SERIES

Specifications

Model	W-906A	W-912A
Type	Wall mounting 6-channel mixer power amplifier	
Output Power	60W RMS	120W RMS
Power Bandwidth	(D) : 20 – 20,000Hz, 0.5% THD (T) : 50 – 20,000Hz, 0.5% THD	
Frequency Response	(D) : 30 – 20,000Hz ± 1dB (T) : 30 – 15,000Hz ± 1dB (T) : 30 – 20,000Hz + 1dB, -3dB	
Total Harmonic Distortion	0.02% at 1 KHz, rated output	
Inputs	Six input ports: Each port accepts any input module except T-01S. Use T-01S only in port #5 or #6. One bridging input/output	
Input Sensitivity/Impedance	Input ports #1 to #6: 100mV/10K ohms Bridging input/output: 100mV/3.3 K ohms	
Outputs	(T) : 8 ohms, 25V & 70V, balanced	(D) : 4 ohms, unbalanced
Output Regulation (1KHz)	(D) : Less than 0.5dB, no load to full load.	(T) : Less than 1.0dB, no load to full load.
Signal to Noise Ratio (Band Pass: 20 – 20,000Hz)	Controls OFF: 90dB Master volume Max: 77dB	Equalizer IN: 88dB Compressor IN: 84dB
Compression	Attack time: no greater than 2 milliseconds Release time: adjustable 20 ~ 2000 milliseconds	Compression range: 20dB Distortion: less than 1%
Equalization	9-Band ISO One-octave graphic equalizer Center frequencies: 63, 125, 250, 500, 1000, 2000, 4000, 8000, 16000Hz Equalization range: ± 12dB	
Filters	High-pass filter: 180Hz 12dB/octave	Low-pass filter: 7KHz 12dB/octave
Controls	6 Input gain controls 1 Master gain control 1 Compression level control 9 Equalizer controls 1 Power ON/OFF switch	1 Equalizer ON/OFF switch 1 High-pass filter ON/OFF switch 1 Low-pass filter ON/OFF switch 1 Low-cut switch (60Hz, 6dB/octave, inside)
Indicators	1 LED power indicator	1 LED peak indicator
Protection	Self-protection, with 2 AC fuses (1 inside) and 1 output fuse	
Connectors	Input #1 to #6: Card-edge connector Output: Screw-terminal strip Bridging input/output: Screw-terminal strip	Mute: Screw-terminal strip AC Power cord: SJT 3-conductor
Power Consumption	AC 120V, 60Hz, 100W	AC 120V, 60Hz, 180W
Dimensions in inches (mm) (height) x (Width) x (Depth)	Face panel: 26-3/4" (680) x 16-1/4" (412) x 1-1/8" (28) BX-9F Back Box: 24-3/4" (628) x 14-1/4" (362) x 3-7/8" (98) BX-9S Back Box: 26-3/4" (680) x 16-1/4" (412) x 3-7/8" (98)	
Weight (without input modules and back box)	13.7Kg (30.1 lbs.)	17.3Kg (38.1 lbs.)
Color	Silver	
Standard Accessories	3 Volume control covers	
Other Features	Out put disconnect for approx. 5 sec after power turned on. Muting Function: Accomplished by input module model X-11S, B-11S and E-11S.	

* Power Bandwidth and Frequency Response are from input port to power amplifier output.

* Specifications are subject to change without notice.

TOA NEW 900 SERIES

Plug-in Modules and Accessories

(OPTION)



The TOA PLUG-IN MODULES are suitable for TOA NEW 900 SERIES MIXER POWER AMPLIFIERS A-901A, A-903A, A-906A and A-912A, MIXER PREAMPLIFIER M-900A, and POWER AMPLIFIERS P-906A, P-912A and P-924, and IN WALL AMPLIFIERS W-906A, W-912A. Owing to wide selection of MODULES, the desired applications will be obtained. The various types of connectors can also meet the needs of equipment to be connected. MICROPHONE PREAMPLIFIER H-01 series and H-21 incorporates controls for high-cut, low-cut and gain, H-02 series, H-22 and H-03 series controls for low-cut and gain. A gain control is built in MAG. PHONO PREAMPLIFIERS E-01 and E-11 series. AUXILIARY PREAMPLIFIERS X-01 and X-11 series, and X-21, PAGING INPUT I-01 and LINE OUTPUT T-01 series. T-01 series is an output module with transformer, serving as a line output for recording, etc..

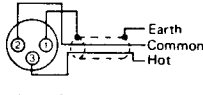
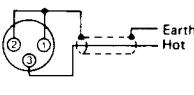
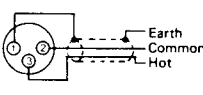
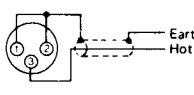
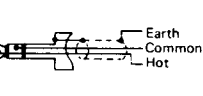
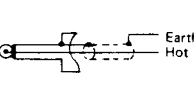
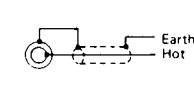
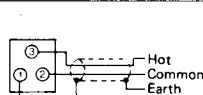
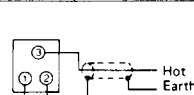
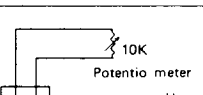
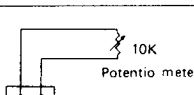
PAGING INPUT I-01 is specially designed to associate with TOA INTERCOM SYSTEMS. It accepts paging signals from the intercom station.

A group of special signal generating modules is also available for catching-attention before announcement and testing within the total system. All PLUG-IN MODULES have handles on their front for easy insertion and removal.

Features:

1. Wide dynamic range
2. Low noise and distortion
3. Wide frequency response
4. Built-in remote volume control circuit (available for models with "20" suffixes, such as H-21)
5. Built-in muting circuit (available for models with "11" suffixes, such as X-11)
6. Presettable gain control (except for B-01, B-11 and L-01)
7. Microphone modules furnished with tone controls (H-01, H-02, H-21, H-22 and H-03)

(INPUT CONNECTIONS. T-01 OUTPUT CONNECTION)

MODEL Connection	PLUG-CONNECTIONS	
	Balanced Connection	Unbalanced Connection
	H-01 series H-21 H-02 series H-22 B-01 series B-11 series L-01 series T-01 series	H-03 series E-01 series E-11 series X-01 series X-11 series X-21
 CANNON XLR-3-13 (Female) type	 CANNON XLR 3-12 (Male) type	 CANNON XLR 3-12 (Male) type
 CANNON XLR-3-14 (Male) type	 CANNON XLR 3-11 (Female) type	 CANNON XLR 3-11 (Female) type
 Phone Jack (P)	 Phone Plug (Double Pole)	 Phone Plug (Single Pole)
 RCA Phono Jack (R)		 RCA Phono Jack
 3P Screw Terminal (S)	 Hot Common Earth	 Hot Earth
 5P Screw Terminal (S)	 10K Potentio meter Hot Common Earth Potentio Meter	 10K Potentio meter Hot Earth Potentio Meter

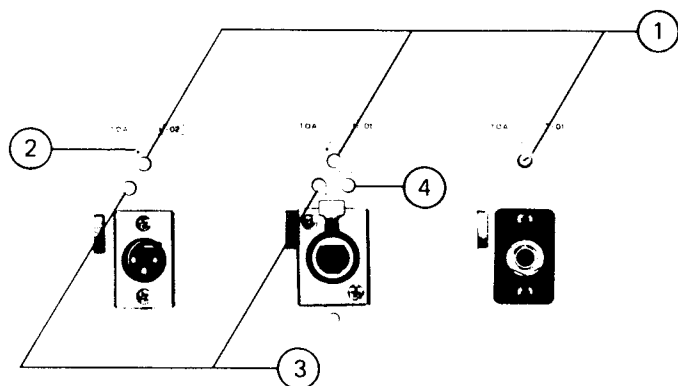
TOA NEW 900 SERIES

Plug-In Modules

Applications		Module Types	Specifications				
			Source Impedance	input Sensitivity for Rated Output (100m V)	Gain	Max. Before Clip into 10k-ohm load at less than 0.5% THD (1 kHz) [Output Voltage: S-01, S-02, S03]	Frequency Response ± 1 dB
Microphone Preamplifier	Low Z MIC with Low & High filters	H-01 series	Balanced 200 ohms	nominal 1.0 mV adjustable 0.25~25 mV	nominal 40 dB adjustable 52~32 dB	6.3 V (+16 dBv)	25~20,000Hz
	Low Z MIC with Low & High filters and remote volume control facility	H-21					
	Low Z MIC with Low-cut filter	H-02 series					
	Low Z MIC with Low-cut filter and remote volume control facility	H-22					
	High Z MIC with Low-cut filter	H-03 series	Unbalanced 50k ohms	nominal 3.2 mV adjustable 0.8~8.0 mV	nominal 30 dB adjustable 42~22 dB	6.3 V (+16 dBv)	20~20,000Hz
Mag. Phono Preamplifier	—	E-01 series	Unbalanced 50k ohms	nominal 2.0 mV adjustable 2.0~5.0 mV	nominal 34 dB adjustable 34~26 dB	6.3 V (+16 dBv)	RIAA Equalized
	with MUTE	E-11 series					
Auxiliary Preamplifier	—	X-01 series	Unbalanced 220k ohms	nominal 100mV adjustable 100~3,200 mV	nominal 0 dB adjustable 0~-30 dB	6.3 V (+16 dBv)	20~20,000Hz
	with MUTE	X-11 series					
	with remote volume control facility	X-21					
Bridging transformer	—	B-01 series	Balanced 10k ohms	125 mV	-1 dB	—	20~20,000Hz
	with MUTE	B-11 series					
Line Matching Transformer		L-01 series	Balanced 600 ohms	125 mV	-2 dB	—	20~20,000Hz
Paging Input		I-01	Balanced 600 ohms	nominal 3.2V adjustable 3.2~10V	nominal -30 dB adjustable -30~-40 dB	—	500~20,000Hz Low-cut 250Hz
Line Output		T-01 series	[Output Balanced 600 ohms]	—	nominal 20 dB (1.0 V output) adjustable 20~4 dB (1.0 V~158 mV)	6.3 V (+16 dBv) 4.7 V (+13.4 dBv) into 600-ohm load	30~20,000Hz
Tone Signal Generator	1 kHz Sine Wave	S-01	—	—	—	0.5 V (-6 dBv) 0.5% THD	—
	Buzzer/Yelp	S-02	—	—	—	1 V peak to peak	—
	One Tone Chime / Continuous Chime	S-03	—	—	—	1 V peak to peak	—

• FRONT PANEL CONTROLS AND FEATURES

Modules with built-in controls are provided in the following three types.



① GAIN CONTROL

This adjusts gain. Turn clockwise (CW) to increase and counter-clockwise (CCW) to reduce gain.

Set the gain as low as possible, thereby, noise can be reduced, and the maximum permissible input level is raised.

② NOMINAL POSITION MARK

Ⓢ The left figure shows nominal setting of controls.

③ LOW-CUT FILTER CONTROL 330Hz, 6dB/oct (max. attenuation)

This provides flat characteristics at full CW position and attenuation in low frequency by turning CCW. Adjust it to obtain proper tone quality. With low-cut, tone becomes clear.

④ HIGH-CUT FILTER CONTROL 4.2kHz, 6dB/oct (max. attenuation)

This provides flat characteristics at full CW position and attenuation in high frequency by turning CCW. Adjust it to obtain proper tone quality. With high-cut, tone becomes soft.

Specifications							Connector					
Before Clip 10k-ohm load 0.5% THD (100kHz) Voltage: -02, S03	Frequency Response ± 1 dB	Noise Level (equivalent input noise or S/N)	Signal Muting Level	Remote volume control range (Use 10K ohms potentiometer)	Controls (pre- settable)	Weight (max.)	 XLR-3-13(F) Type	 XLR-3-14(M) Type	 Phone Jack (P)	 RCA Phono Jack (R)	 3P Screw Terminal(S)	 5P Screw Terminal (S)
0dBv	25~20,000Hz	-126 dBm 200 ohms terminated	—	—	1-Low cut 1-High cut 1-Gain	105gr (3.71oz)	H-01F	H-01M	H-01P	—	H-01S	—
				0~-60 dB		100gr (3.53oz)	—	—	—	—	—	H-21S
				—	1-Low cut 1-Gain	100gr (3.53oz)	H-02F	H-02M	H-02P	—	H-02S	—
				0~-60 dB		95gr (3.35oz)	—	—	—	—	—	H-22S
0dBv	20~20,000Hz	S/N 70 dB	—	—	1-Low cut 1-Gain	60gr (2.12oz)	—	—	H03P	H-03R	—	—
0dBv	RIAA Equalized	S/N 70 dB	—	—	1-Gain	50gr (1.76oz)	—	—	—	E-01R	E-01S	—
0dBv			60 dB			55gr (1.94oz)	—	—	—	E-11R	E-11S	—
0dBv			—		1-Gain	70gr (2.47oz)	X-01F	—	X-01P	X-01R	X-01S	—
0dBv			60 dB			75gr (2.65oz)	X-11F	—	X-11P	X-11R	X-11S	—
0dBv	20~20,000Hz	S/N 90 dB	—	0~-60 dB	—	65gr (2.29oz)	—	—	—	—	—	X-21S
0dBv	20~20,000Hz	—	60 dB	—	—	90gr (3.17oz)	B-01F	—	B-01P	—	B-01S	—
0dBv	20~20,000Hz	—	—		—	95gr (3.35oz)	B-11F	—	B-11P	—	B-11S	—
0dBv	20~20,000Hz	—	—		—	90gr (3.17oz)	L-01F	—	L-01P	—	L-01S	—
0dBv	500~20,000Hz Low-cut 250Hz	—	—		1-Mute 1-Gain	100gr (3.53oz)	—	—	—	—	—	I-01S
0dBv	30~20,000Hz	S/N 80 dB	—		1-Gain	100gr (3.53oz)	—	T-01M	T-01P	—	T-01S	—
0dBv	0.5% THD	S/N 80 dB	—		1-Output	55gr (1.94oz)	—	—	—	—	S-01S	—
0dBv	—	S/N 80 dB	—		1-Output	60gr (2.12oz)	—	—	—	—	S-01S	—
0dBv	—	S/N 80 dB	—		1-Output	70gr (2.47oz)	—	—	—	—	S-03S	—

*0 dBv = 1 volt ÷ + 2 dBm. * Specifications are subject to change without notice.

• SPECIFICATIONS IN COMMON

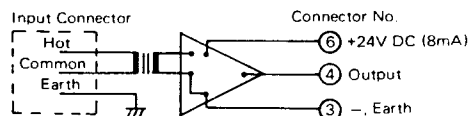
Load impedance : 10k-ohms
 Mounting : Card-edge connector
 Dimensions in mm (inches) : 78(3.07) × 35(1.38) × 88(3.46)
 (H) × (W) × (D)

CAUTION * Modules model E-11, X-11, B-11 and T-01 should be used exclusively with model A-903A, A-906A, A-912A, M-900A, W-906A and W-912A.

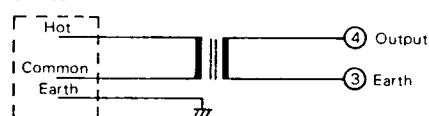
TOA NEW 900 SERIES

Block Diagrams (Plug-in Modules)

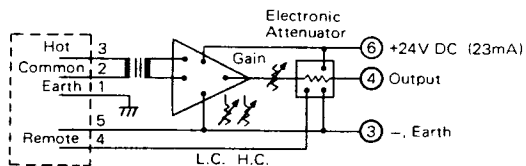
H-01 Series



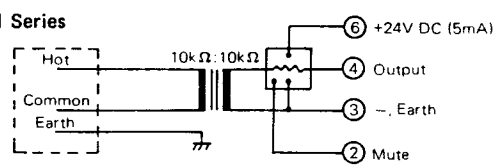
B-01 Series



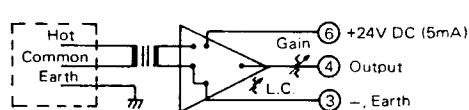
H-21S



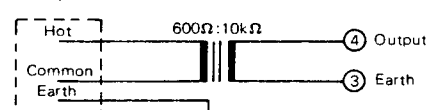
B-11 Series



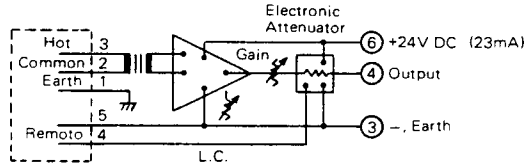
H-02 Series



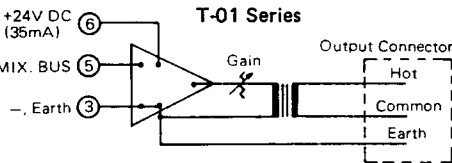
L-01 Series



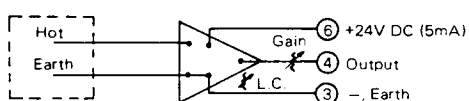
H-22S



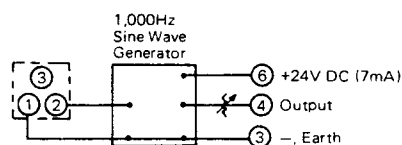
T-01 Series



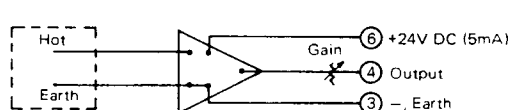
H-03 Series



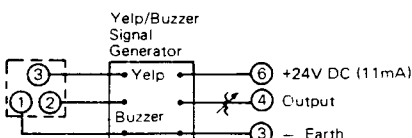
S-01S



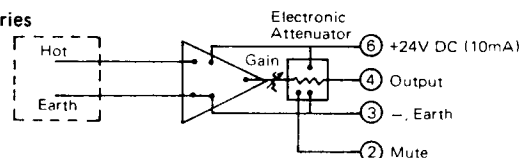
E-01 Swries



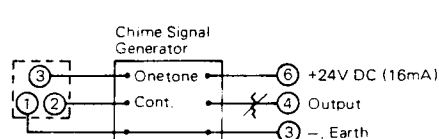
S-02S



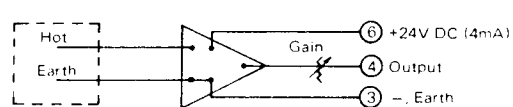
E-11 Series



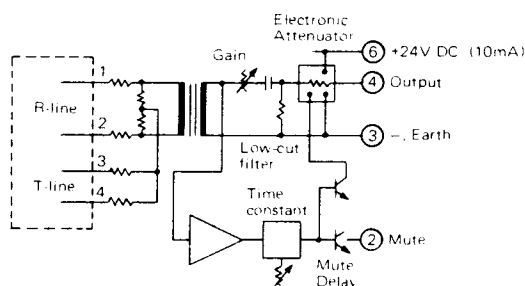
S-03S



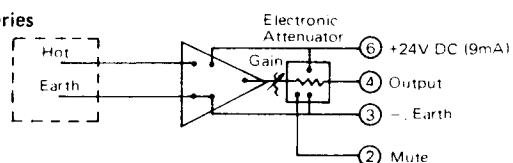
X-01 Series



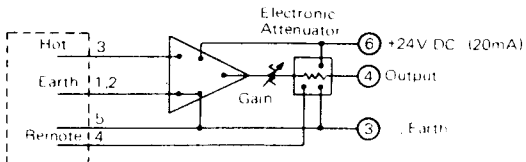
I-01S



X-11 Series



X-21S

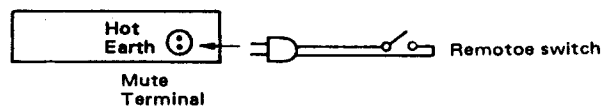


Operation and Connections (Plug-in Modules)

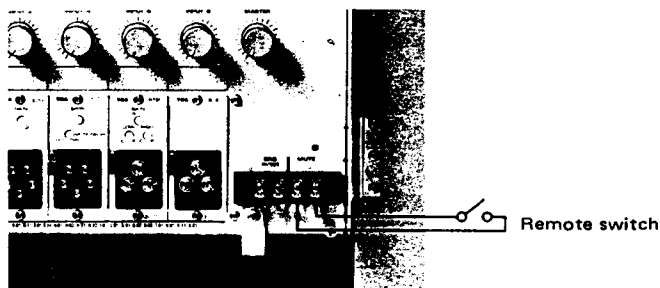
• E-11, X-11, B-11 Series (with mute)

Connections

(M-900A, A-903A, A-906A, A-912A)



(W906A, W-912A)

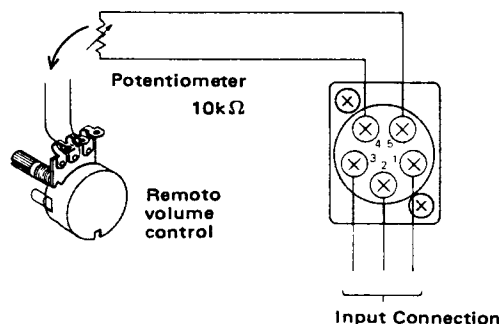


OPERATION

When the switch is closed, the signals fed to E-11, X-11 and B-11 are attenuated by approx. 60dB. Accordingly a microphone can have a priority at a time of announcement.

• H-21, H-22, X-21 (Remote volume control facilities)

Connections



OPERATION

Preset the gain control of module and the input volume control of the corresponding input so that an appropriate sound level may be obtained through the remote volume control.

CAUTION

Use the potentiometer of 10K ohms.
Make wiring test the interference from external noise should occur.

• T-01 SERIES (BALANCED 600-ohm LINE OUTPUT MODULES)

This series of modules, of rated output level 1 volt, is used for transmitting mixing signals of amplifiers to external equipment and as a REC out.

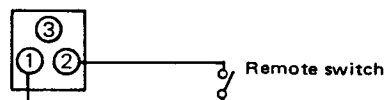
It is provided with a presettable gain control.

T-01 Series should be used exclusively for TOA NEW 900 series, A-903A, A-906A, A-912A, M-900A, W-906A and W-912A. Use it only in Input Port PORT #5 or #6 of the above models.

It will not operate when connected into other PORTS. Approx. 5 seconds after power has been supplied to these modules the output signal is transmitted.

• S-01 (1,000Hz SINE WAVE)

Connections

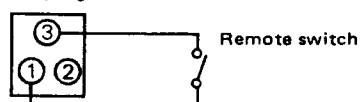


It is operated by closing the remote switch.

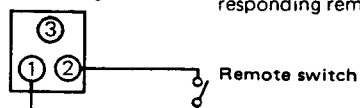
• S-02 (YELP AND BUZZER)

Connections

Yelp signal



Buzzer signal

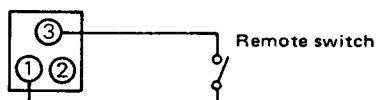


Each signal is generated by closing corresponding remote switches.

• S-03 (ONE-TONE CHIME AND CONTINUOUS ONE-TONE CHIME)

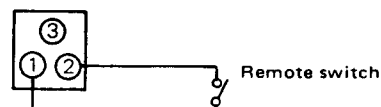
Connections

One-tone chime



By closing the remote switch, chime sounds once.

Continuous one-tone chime



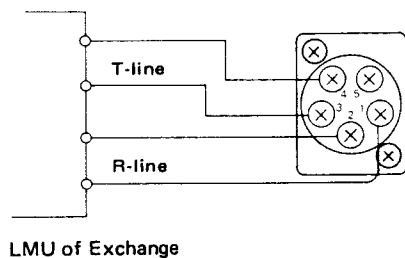
By closing the remote switch, one-tone chime sounds continuously during the closure of the switch.

TOA NEW 900 SERIES

● I-01C (BALANCED PAGING INPUT MODULE)

This module is used for connecting TOA intercom Systems (EXES) for paging. By connecting this module to the exchange in place of an intercom station, paging is possible. It is provided with a pre-settable gain control. The I-01S is applicable to the TOA EXES-1000, EXES-5000 and EX-16 Intercom Systems.

CONNECTIONS



LMU (Line modem Unit)

This unit is composed of a modulator to receive signals from stations, a demodulator to send signals to the station and a scanning circuit.

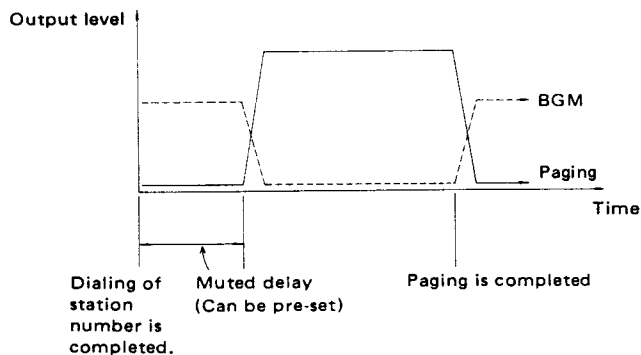
Summary Specifications of R and T Lines

R-line: Approx. 9mA DC plus audio signals of +30dBm max.

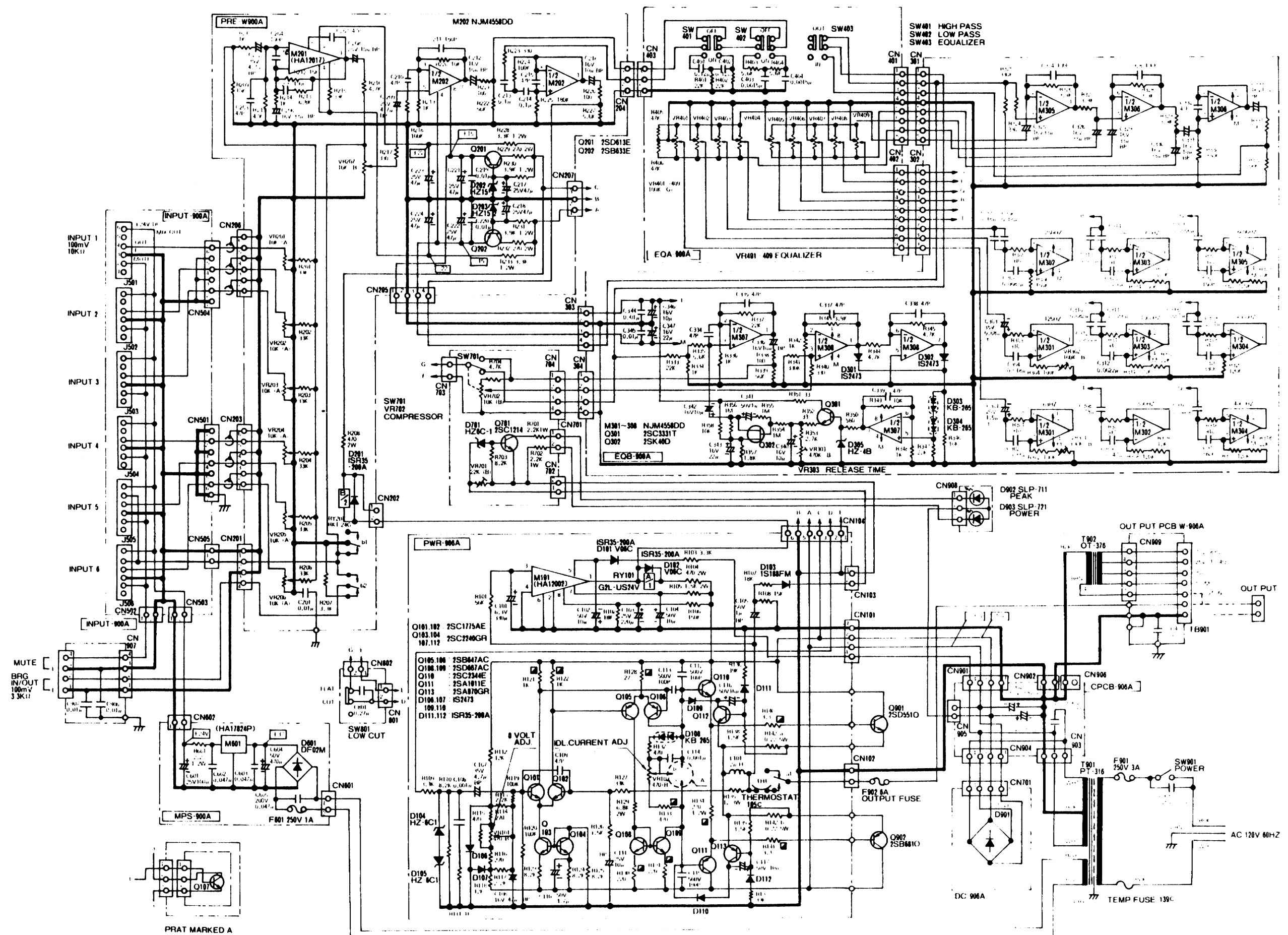
T-line: Approx. 9mA DC

HOW TO USE:

Paging is possible from other station by dialing the station number assigned to this module. To prevent a calling tone from being sounded through the paging speaker, the module is designed to override paging output during a period of time that the calling tone signal is transmitted. The length of time to mute the paging output is adjustable between zero and three seconds. During paging, background music (the input signal fed to E-11, X-11 or B-11 module) is muted.



Schematic W-906 A



Schematic W-912A

