

900 SERIES

MULTIPLEX PROFESSIONAL AMPLIFIER



Features

1. High quality design and construction
2. Full frequency response: 50-15,000Hz, ± 3 dB.
3. Low distortion and noise level.
4. 4 microphone inputs, 2 auxiliary inputs.
5. Isolated transformer outputs complete with 4~16 ohms, 100V, 70V.
6. AC/DC operation: 100~120/220~240V AC. and 60W, 90W, 120W, (RMS) AC 24V DC
7. AC voltage selector switch for 100~120/220~240V AC.
8. Individual bass and treble tone controls.
9. Master volume control.
10. RECV OUTPUT for a tape recorder.
11. Self-protection circuitry design.
14. Built-in LED bar graph output level meter.

General Description

SA-9120 series have both the cassette seat and tuner features.

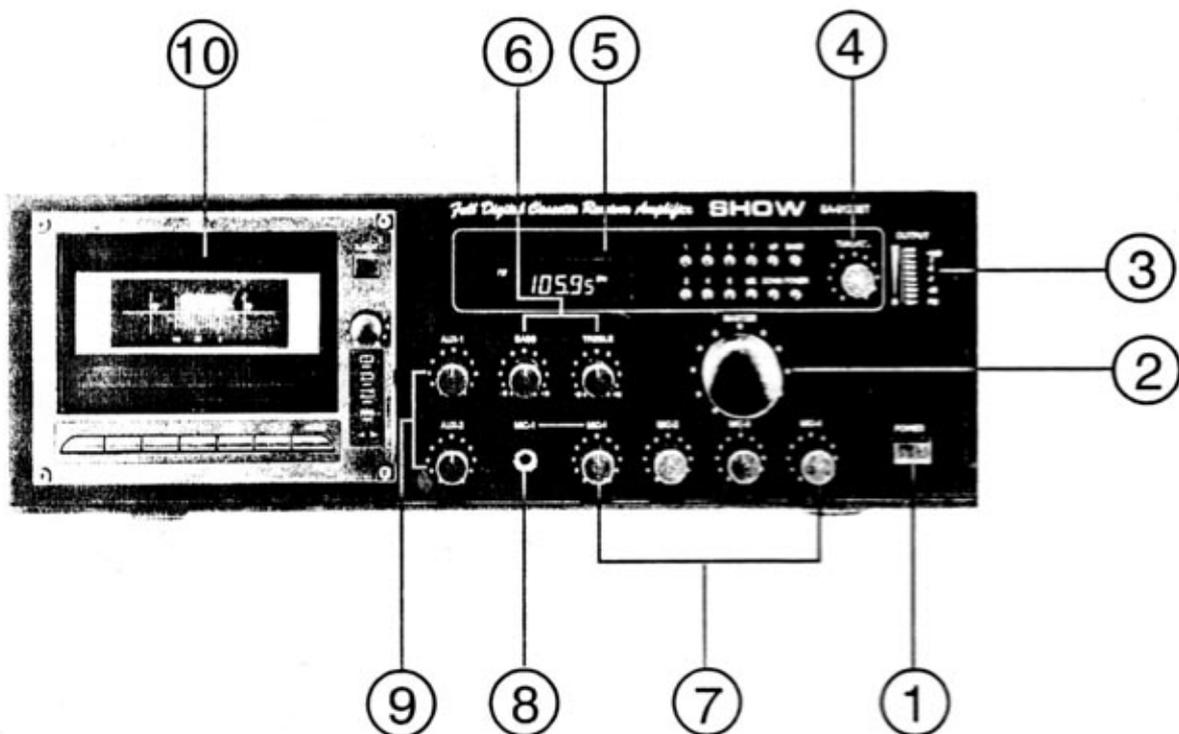
SA-9120S series have vertical cassette seat feature, all of the input and the sound signal of the machine itself can all be controlled for high/low tone from the "TONE" turn button, also, each control button is for independent volume control, while there is one grand volume button to control all of the volume of all control button.

SA-9120 is of 120w rms output; SA-990 is of 90w rms output; SA-960 is of 60w rms output.

There are four sets of balance type MIC input seat (MIC-4) which are placed at the rear board.

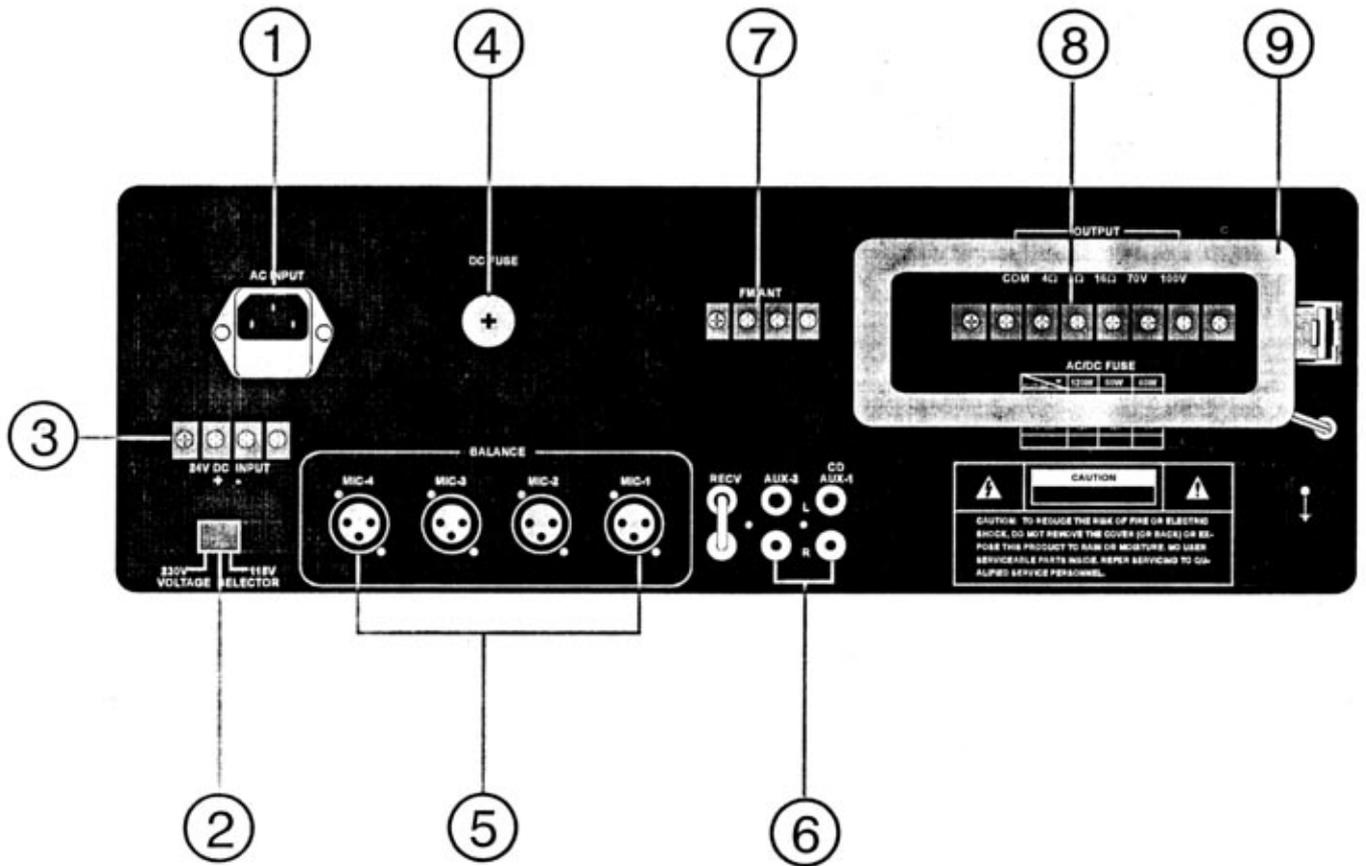
For the convenience of the users, MIC-1 displayed a 6.3 ϕ JACK seat on the panel.

There are two sets of RCA seat, the input seat may be used at the input of other CD type sound source, MIC-1 has an automatic mute feature, during broadcasting, it may insert other sound signal and make other playing sound mute.



NO	NAME	Function/Description
1	POWER ON-OFF SWITCH	Applies line power. Two-position button switch for on-off modes.
2	MASTER VOLUME CONTROL	Adjusts overall gain of unit
3	OUTPUT LEVEL METER	Indicates output level.
4	TUNER VOLUME CONTROL	Adjusts gain of TUN-VOL respectively.
5	TUNER MODULAR	Digital TUNER Modular.
6	BASS TREBLE CONTROL	Adjusts Bass TREBLE respectively. Tone is flat at center.
7	MIC 1-4 VOLUME CONTROL	Adjusts gain of MIC 1-4 respectively.
8	MIC-1 PHONE JACK	Connects to a microphone of unbalanced low impedance (30-600 ohms).
9	AUX 1-2 VOLUME CONTROL	Adjusts gain of AUX VOL. respectively.
10	CASSETTE MODULAR	DIGITAL cassette control.

900 SERIES



NO	NAME	Function/Description
1	AC INPUT	AC main connects to AC power source (AC FUSE)
2	AC SELECTOR	AC selector switch (100V-120V/220V-240V).
3	DC INPUT	DC power supply DC 24V battery.
4	FUSE HOLDER	DC FUSE (prevents excessive current flow).
5	MIC-1~MIC-4 INPUT	Connects to microphone balance type.
6	RCA JACK	Connects CD player & cassette, radio output.
7	ANTENNA	connects FM antenna.
8	ANTENNA	AM loop antenna.
9	OUTPUT LOW & HIGH IMPEDANCE	Connects to speakers (Low Impedance & High Impedance).

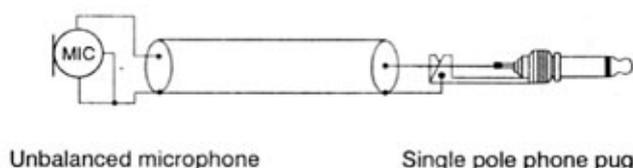
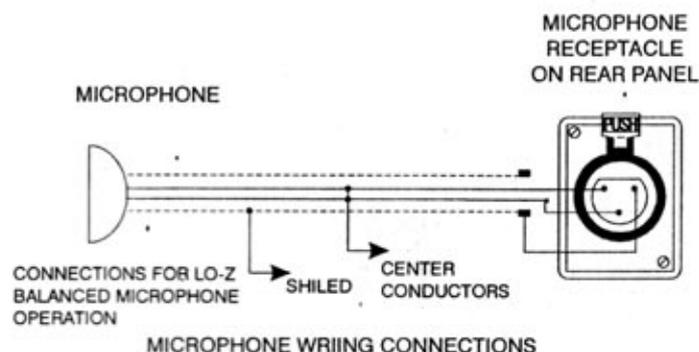
INPUT CONNECTION

MICROPHONE CONNECTIONS: AS witchcraft type A3M Microphone connector or equivalent is required for making connections to the Microphone inputs and audio shielded cable is required for all balanced and unbalanced microphone input connections.

BALANCED MICROPHONE INPUT CONNECTIONS: Using shielded cable, connect the two center conductors of the cable to prongs #2 and #3 of the A3M Microphone connector. Connect the shield of the cable to prong #1 of the A3M Microphone connector.

UNBALANCED MICROPHONE INPUT CONNECTIONS: Using shielded cable, connect the center conductor of the cable to prong #2 of the A3M Microphone connector.

Connect the shield of the cable to prong #1 of A3M Microphone connector.3

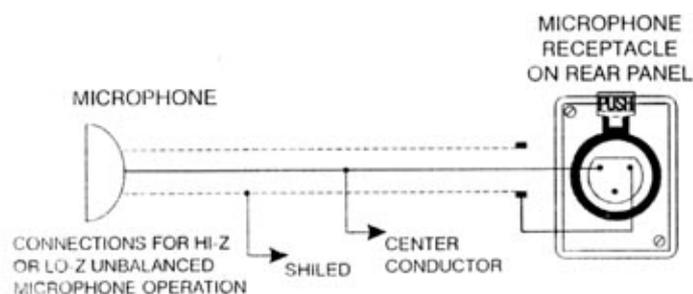


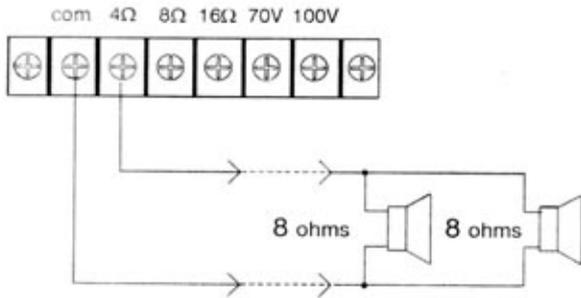
PRIORITY PAGING: The amplifier features a transistorized circuit which automatically removes all program material for the amplifier and permits microphone #1 to take over for special or emergency announcements.

This electronic switch is operated from the microphone, which must contain a single-pole switch, normally open for actuating this circuit.

A turntable with a high impedance ceramic or crystal cartridge may be connected to an AUX. input.

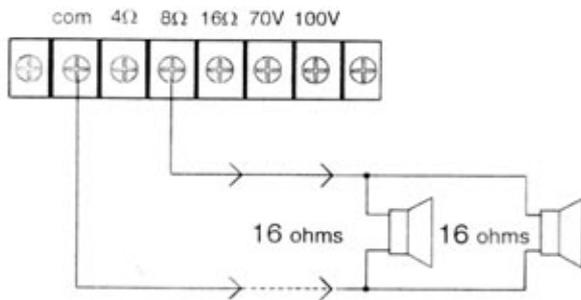
The external "ACOUSTIC EQUALIZER" is connected to the SEND and RECV receptacles on the rear panel of the amplifier, SENF is connected to the input of the external "equalizer" and RECV to the output of the external.





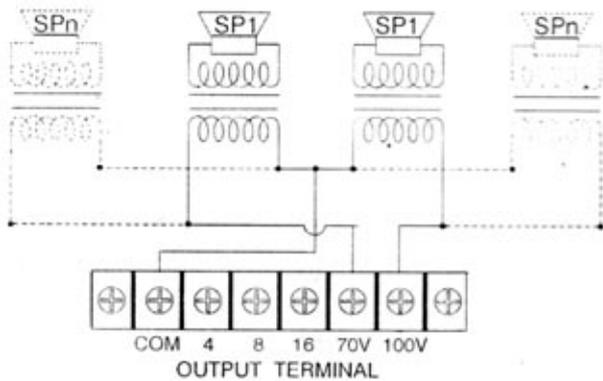
a. 70V and 100V constant line connections

IMPORTANT NOTICE: When the 70V and 100V constant voltage line sare used a line-matching transformer must be used with each speaker.



b. 4, 8 and 16 OHM LINE CONNECTIONS
Use the TWO SPEAKER JACKS (phone jacks) for quick connect and disconnect. Connect the spade lug to the terminal on the 6 screw terminal strip, which corresponds to the impedance of the speaker.

Generally, the speaker lines are connect- ed directly between the appropriate COM terminal on the 6 scre terminal strip and the terminal corresponding to the imped- ance of the speaker or of the line voltage.



Specifications

Type	Mixer power amplifier		
Model	SA-960ST SA-960S 60W	SA-990ST SA-990S 90W	SA-9120ST SA-9120S 120W
Power output	Rated: 60W max: 90W	Rated: 90W max: 120W	Rated: 120W max: 180W
Output regulation	Less than 2 dB no load to full load		
Outputs	Speaker output (balanced) 60W 4Ω(15.4V), 8Ω(21.9V), 16Ω(30.9V), 70V(83Ω), 100V(170Ω) 90W 4Ω(18.9V), 8Ω(26.8V), 16Ω(37.9V), 70V(54.4Ω), 100V(111Ω) 120W 4Ω(21.9V), 8Ω(30.9V), 16Ω(43.8V), 70V(42Ω), 100V(83Ω) RECV: 4.7k ohms, 650mV SEND: 600 ohms, 1V		
Inputs	INPUT 1: (MIC 1) 600 ohms, -60dB (BAL. UNBAL) INPUT 2: (MIC 2) 600 ohms, -60dB (BAL) INPUT 3: (MIC 3) 600 ohms, -60dB (BAL) INPUT 4: (MIC 4) 600 ohms, -60dB (BAL) (AUX 1) 220k ohms, -14dB (AUX 2) 10k ohms, -23dB		
Frequency Response	50~15,000Hz		
Total harmonic distortion	Less than 2% at 1kHz, rated power		
Signal to noise ratio (Tone control centered)	All volume controls C.C.W. :80 dB below rated power Microphone :80 dB below rated power AUX 1, AUX 2 :80 dB below rated power		
Tone controls	BASS : ±10 dB at 100Hz TREBLE : ±10 dB at 100Hz		
Controls	INPUT 1 volume control Tone controls (BASS, TREBLE) INPUT 2 volume control Cassette volume control INPUT 3 volume control MASTER volume control INPUT 4 volume control Voltage selector TUNER volume control AUX1,2 volume control		
Indicator	Power indicator (LED) LED output level meter		
AC power supply	110~127 (220~240V AC 50/60H)		
DC power supply	24V	24V	24V
AC power consumption	160 WATTS at rated output	270 WATTS at rated output	320 WATTS at rated output
DC power consumption	4.2A at rated output	7.3A at rated output	8A at rated output
Dimensions	450mm(W)×150mm(H)×330mm(D)		
Weight	7.9kg	8.8kg	11kg
Color	Black		

*Specifications are subject to change without notice