

# PIONEER®



## STEREO FM-AM-PHONO MUSIC CENTER COMPLETE SOLID-STATE RECEIVER

MODEL **SX-700 T**

### Features of Model SX-700 T

#### ●Complete Solid-State Highest Fidelity Amplifier

Built with advance circuitries approaching the limits of the recent state of the art, the amplifier of Model SX-700 T made full use of solid-state advantages. In particular, the siliconized SEPP output stage successfully eliminated the distortion-inherent output transformer from the amplifier, insuring high output wattage with well-damped true reproduction.

#### ●Fully Transistorized FM Tuner with Highest Sensitivity

The perfectly-shielded front-end utilizes a 4-gang variable capacitor for sharp-tuning control, resulting in outstanding sensitivity, selectivity, and stability.

#### ●Stereo/Mono Automatic Switching MPX Circuit

FM stereo/mono automatic switching MPX circuitry featured with sensitive Schmidt trigger circuit insures the lowest distortion and best stereo separation.

#### ●AM Tuner with Built-in Ferrite Loopstick

Specially designed AM RF-amplifier combined with ferrite loopstick achieved highest tuner sensitivity with large resistance to cross modulation and extraneous noise, insuring

reception of AM programs in remarkable high-fidelity.

#### ●Custom-made Circuit Configuration for Audiophiles

Model SX-700 T incorporates versatile provisions. Two sets of phono input terminals to permit alternate use of two stereo record players without changing connection, two-tape-speed (7-1/2" and 3-3/4") equalizer, and input provision for simultaneous use of two stereo speaker systems—these are all custom features for audiophiles as well as those who intend to use it for entertaining purpose.

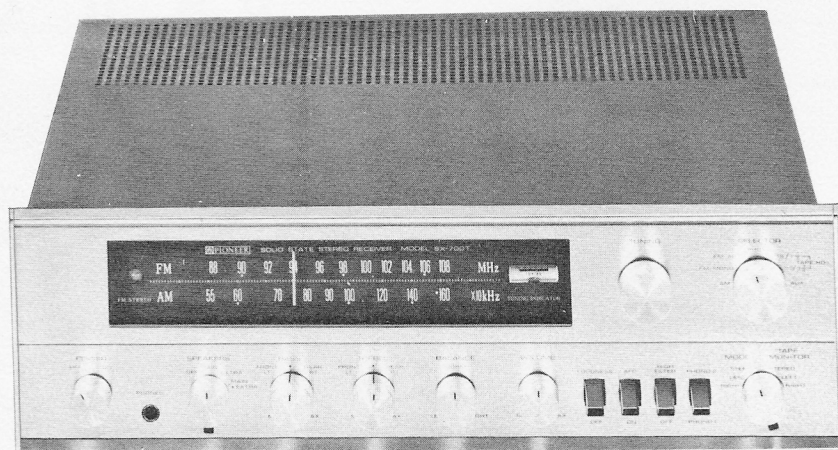
#### ●New Transistor Protector

All transistors in the amplifier are completely protected by the new type protector making effective use of tungsten elements.

#### ●Unique, Compact Design

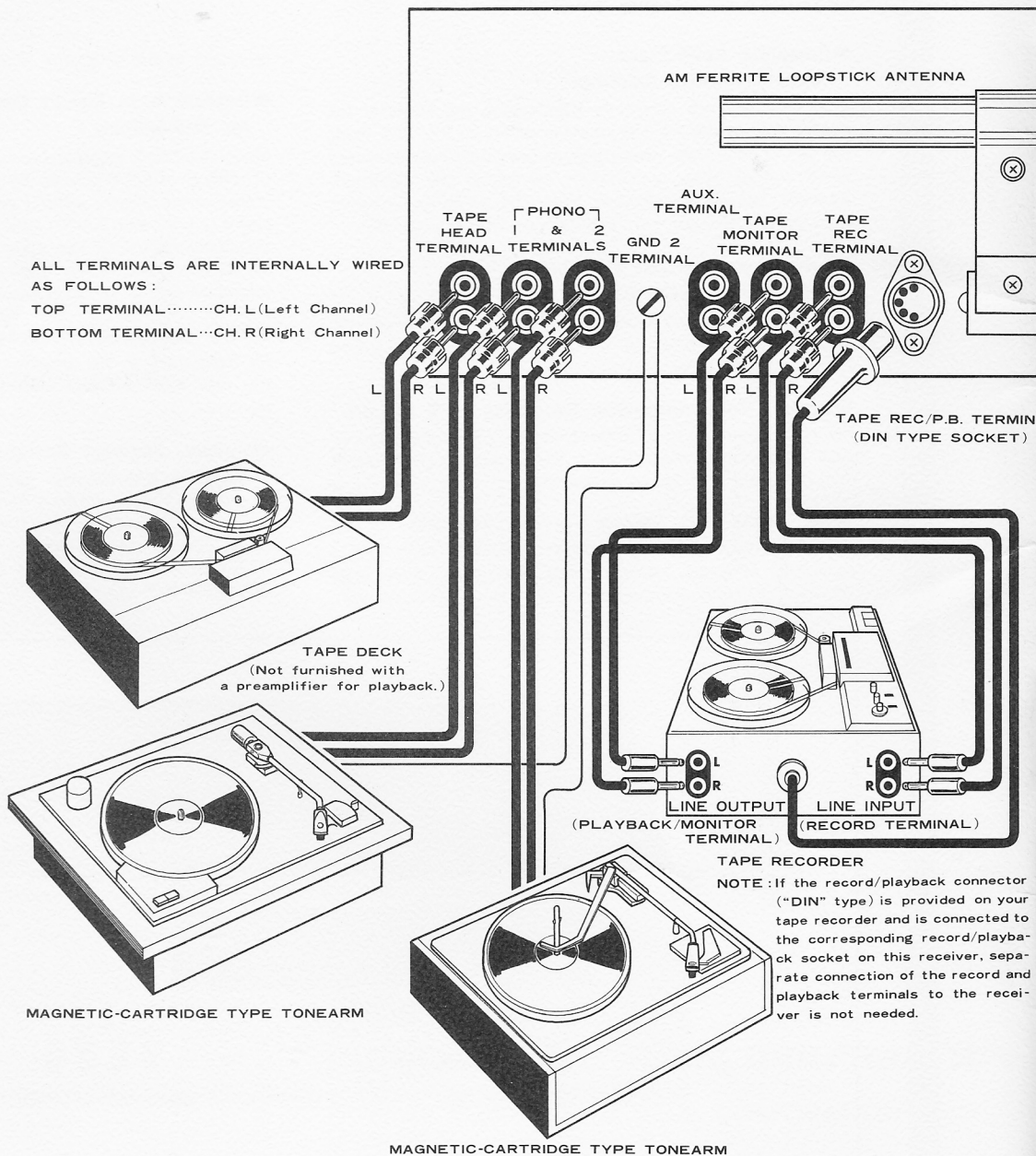
The unique and compact design of Model SX-700 T made possible of various controls configured on the front panel functionally convenient for the effective use of associated stereo system components.

In Model SX-700 T, you will find all the features only a very good hi-fi receiver outfits.

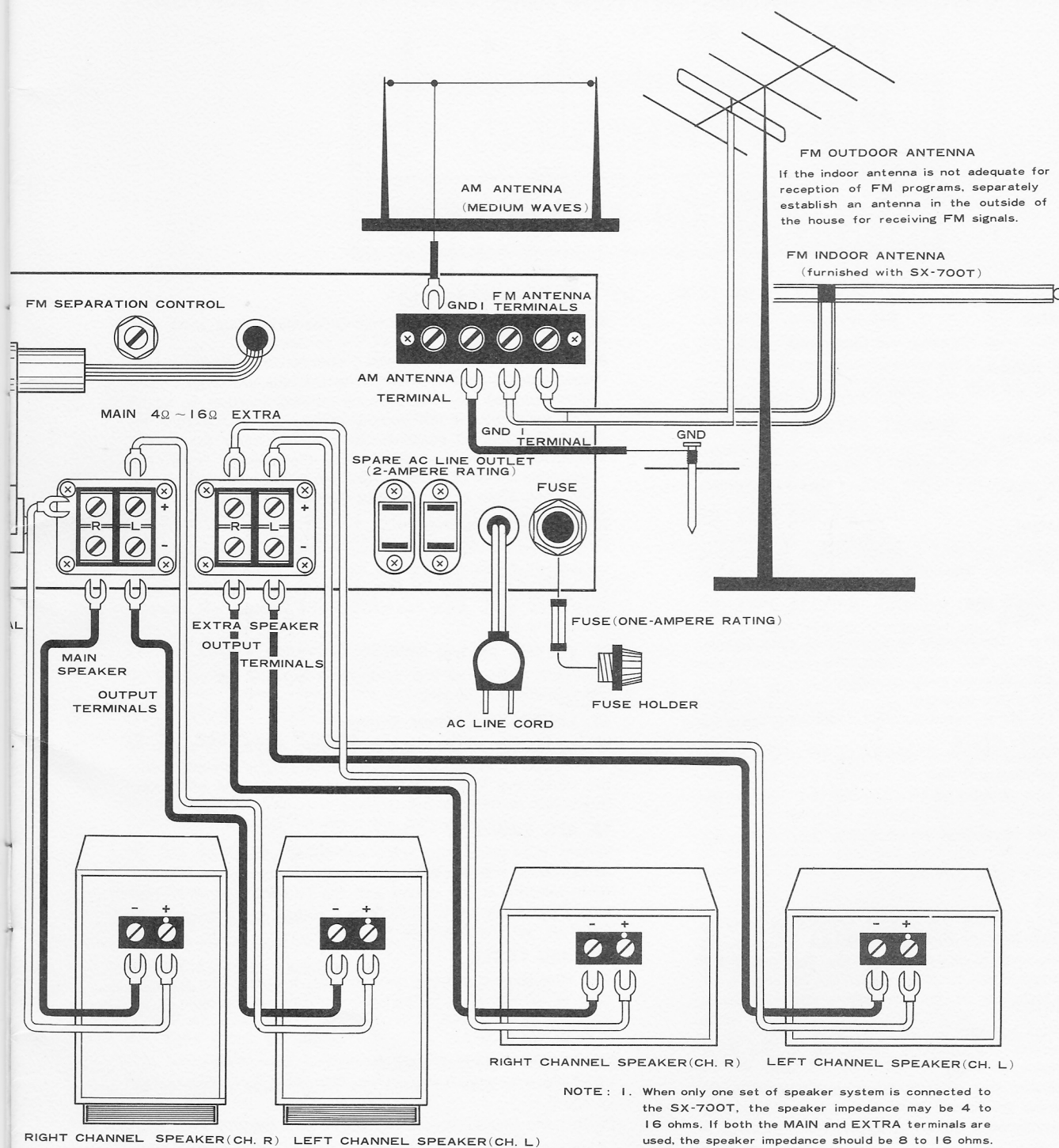


PIONEER ELECTRONIC CORPORATION

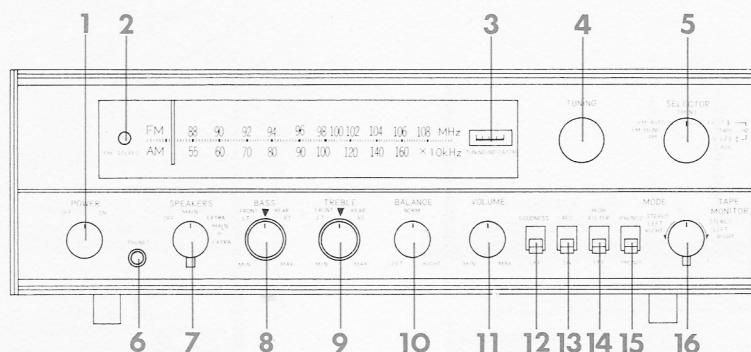
ALL TERMINALS ARE INTERNALLY WIRED  
AS FOLLOWS:  
TOP TERMINAL.....CH. L (Left Channel)  
BOTTOM TERMINAL.....CH. R (Right Channel)







## Functions of Controls and Switches on Front Panel



### 1. POWER Switch

Rotating the switch knob clockwise will turn power on.

### 2. FM STEREO Indicator

This indicator lamp will flash on when the receiver picks up an FM stereo signal.

### 3. TUNING Indicator

This meter indicates the tuning state of the receiver. When the needle is deflected all the way to the right, a station is properly tuned in.

### 4. TUNING Control

This control is adjusted to select a desired station in any band of AM, FM or FM Stereo, depending on the SELECTOR switch (5).

### 5. SELECTOR Switch

This switch conditions the receiver to a variety of input signals; broadcast, record player, and taping equipment.

- AM for AM (medium wave) reception
- FM-MONO for FM-mono reception
- FM-AUTO for FM stereo/mono automatic switching operation
- PHONO for record-playing
- TAPE HD for reproducing the direct output of a tape recorder's head
- 19/7-1/2 for tape playback at 19 cm/sec (or 7-1/2 inches per second)
- 9.5/3-3/4 for tape playback at 9.5 cm/sec (or 3-3/4 inches per second)
- AUX Auxiliary input terminal

### 6. PHONES Jack

This jack is used to connect the plug of stereo-headphone to the SX-700 T Amplifier. The amplifier's output signal always appears in this jack, independently from the position of the SPEAKER switch (7).

### 7. SPEAKER Switch

- OFF — mutes speakers.
- MAIN — operates the speakers connected to the MAIN speaker terminals.
- EXTRA — operates the speakers connected to the EXTRA speaker terminals.
- MAIN-EXTRA — operates both the MAIN and EXTRA speakers.

### 8. BASS Control

Turning this control clockwise (or counterclockwise) will increase (or decrease) the volume in low frequencies. The mark indicates the intermediate point of the control range.

### 9. TREBLE Control

Turning this control clockwise (or counterclockwise) will increase

(or decrease) the volume in high frequencies. The mark indicates the intermediate point of the control range.

● Each of the BASS and TREBLE controls of consists left and right channel control knobs. These knobs are concentrically frictioncoupled and are normally rotated together to adjust tone for both the left and right channels. If the tone for only one channel needs to be adjusted, rotate the control knob for the channel, while holding the other by finger. The protruded inner knob is for the left (L) channel control, and the outer knob is for the right (R) channel control.

### 10. BALANCE Control

This control adjusts the acoustic center position between two speakers (the volume of sound from both speakers is equal at this point). Clockwise rotation will move the acoustic center toward the right, while counterclockwise rotation will move it toward the left.

### 11. VOLUME Control

Clockwise rotation of this control will increase the volume of sound for both channels.

### 12. LOUDNESS Contour Switch

When you listen to the music at low level, setting this switch to "LOUDNESS" position will enhance lows and highs to compensate the sensational loss. When listening at high level of sound, this switch is normally set to OFF.

### 13. AFC Switch

Setting this switch to "AFC" will insure stable reception of either FM or FM stereo program over a long period of time. When selecting an FM station with the TUNING control (4), this switch should be set to OFF. Once a station has been properly tuned in, set the switch to AFC.

### 14. HIGH FILTER

This filter eliminates static noise of high frequency components such as scratch noise during record playing or the radio noise from fluorescent lamps. If such noises do not exist, the switch is to be set to OFF.

### 15. PHONO Selector Switch

This switch is used to select the record player connected to SX-700 T.

PHONO 1 — enables the record player connected to PHONO 1 terminal to take control over the amplifier.

PHONO 2 — enables the record player connected to PHONO 2 terminal to take control over the amplifier.

### 16. MODE/TAPE MONITOR Switch

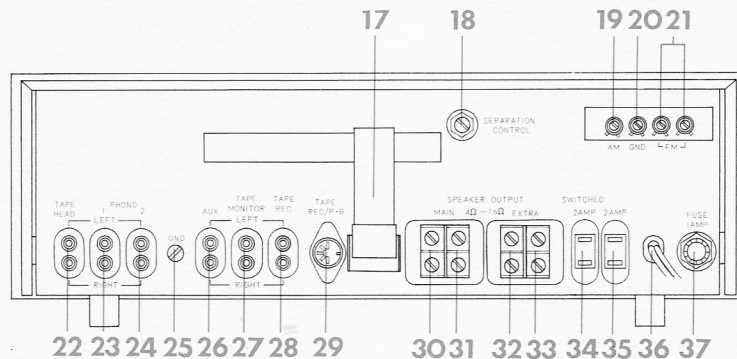
This switch is used to select the type of amplifier operation. MODE: STEREO — for stereo operation.

LEFT — for operating both the left channel and right





## FUNCTIONS OF TERMINALS AND CONTROLS ON REAR PANEL



channel speakers with only the left channel input.

RIGHT— for operating both the left channel and right channel speakers with only the right channel input.

TAPE MONITOR: This mode of operation is used when a tape recorder is connected to the TAPE MONITOR terminal (27) for either tape playback or tape monitoring with Model SX-700T.

STEREO— for stereo operation.

LEFT— for operating both the left channel and right channel speakers with only the left channel input.

RIGHT— for operating both the left channel and right channel speakers with only the right channel input.

### 17. AM Ferrite Loopstick Antenna

Due to its high gain characteristic, this loopstick has directivity. If reception is poor, adjust the direction of the antenna for best sensitivity.

### 18. FM Separation Control

This screw-driver adjustment controls separation of FM stereo programs.

Before shipment from the factory, this adjustment has been completely made. Do not move the setting position.

### 19. AM Antenna Terminal

This terminal is used to connect the receiver to the AM antenna established separately.

### 20. GND 1 Terminal

This terminal is used to ground the SX-700 T.

### 21. FM Antenna Terminal

This terminal is used to connect a separately established FM antenna to SX-700 T for reception of FM programs.

### 22. Tape Head Terminal

This terminal is used to connect the SX-700 T to the direct head output of a tape deck having no equalization amplifier for reproduction.

### 23 & 24. PHONO 1 & PHONO 2 Terminals

These terminals are used to connect SX-700 T to the record player having either a moving-magnet cartridge or a high output moving-coil cartridge.

### 25. GND 2 Terminal

This terminal is used to ground the associated stereo system components such as the record player. Connecting the ground lead from the component unit to this terminal will ground the

associated component unit.

### 26. AUX. Terminal

This terminal may be used to connect SX-700 T to other acoustic units such as other tuners or TV sets for reproduction of their outputs thru SX-700 T.

### 27. TAPE MONITOR Terminal

Connecting this terminal to either the LINE OUT terminal or the MONITOR terminal will enable you to reproduce or monitor the recorded tape thru SX-700 T, accordingly.

### 28. TAPE REC Terminal

This terminal is used to connect the SX-700 T amplifier's output to the LINE INPUT terminal of a tape recorder for recording the output of SX-700 T.

### 29. TAPE REC/P.B. Terminal (DIN Type Socket)

If your tape recorder is provided with a cord having DIN type connector plug, connecting the DIN type plug to this TAPE REC/P.B. socket will complete the connection between the amplifier and your tape recorder for both recording and playback. When this socket is in use, the terminals (27) and (28) will not be used.

### 30 & 31. MAIN SPEAKER Output Terminals

These terminals are used to feed the amplifier output to your stereo speaker systems. Terminal (30) is for the right (R) channel speaker system, and terminal (31) is for the left channel. Note that the top terminal is for connection to the positive (+) side of the speaker voice coil, and the bottom terminal for the negative (—) side of the voice coil.

### 32 & 33. EXTRA SPEAKER Output Terminals

When two sets of stereo speaker systems need to be used, these terminals are used to connect the additional set of speaker systems in the similar manner as described in (30) and (31) above. Note that terminal (32) is for the right channel speaker system, and terminal (33) is for the left channel speaker system.

### 34 & 35. AC Outlets

This is an auxiliary AC power outlet to supply line power to the associated component such as the record player. Terminal (34) is interconnected with the POWER switch (1).

### 36. AC Line Cord

This cord is used to supply power from the line to Model SX-700T.

### 37. FUSE Holder

If the fuse blows off, be sure that replacement fuse is of proper rating (1-ampere rating).

## Location for Installation of Model SX-700T

Your Model SX-700T is a solid-state unit. Determine location for installation of the unit with the following precautions in mind:

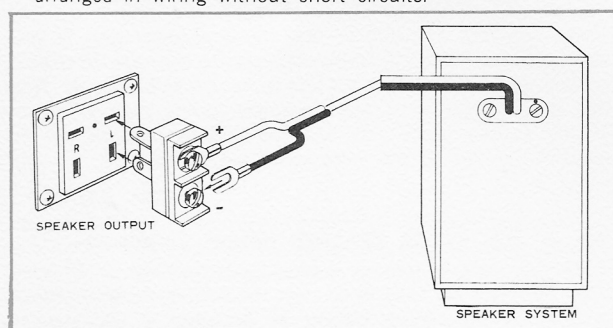
- The place where influence of dust and humidity is not significant and where good ventilation can be obtained.
- The place where the unit will not be exposed to the sun.  
Note: Transistors get easily damaged by excessive heat. Take special care to ventilation of the unit. Placing things on the unit or installing the unit in recessed place will tend to excessively rise the internal temperature of the unit.
- The place where the unit can easily have access to wall socket, external antennas, and ground.

## Location for Installation of Loudspeakers

- The best stereo-listening place is at the vertex (top) of an equilateral triangle having two stereo speakers at both ends of the base that is approximately 5 to 8 feet in length. If the flooring is made of hardwood or concrete, lay soft carpet on it to prevent harmful echos. Ideal location for installation of loudspeakers is such that hard wall stands behind the speakers, while soft curtain is hanging in the front.

## How to connect loudspeakers

1. Connect the right channel speaker to the MAIN speaker terminal (30) and the left channel speaker to terminal (31).
2. The top terminal screw is for connection to the positive (+) side of the speaker voice coil, and the bottom terminal screw to the negative (−) side. Be sure that polarities are properly arranged in wiring without short circuits.



- For wiring two sets of stereo speakers (four speakers in total), follow the procedure shown below:

1. For wiring two sets of stereo speakers, the EXTRA speaker terminal will be used in addition to the MAIN terminal. After having connected one set of stereo speakers to terminals (30) and (31) as described above, connect the right channel speaker of the other set to terminal (32) and the left channel speaker to terminal (33).

Note: When two sets of stereo speakers are used, the impedance of each speaker voice coil must be somewhere between 8 to 16 ohms.

## How to connect tape deck or tape player

1. In case that either tape deck or tape player does not incorporate equalization amplifier for external playback operation, connect the head output directly to the TAPE HEAD terminal (22) to use the SX-700T as the main playback amplifier for the tape deck or tape player.
- The top terminal is for the left channel, and the bottom terminal for the right channel.
- If your tape deck (or tape player) is for mono operation only, connect the head output to either the top (Left Channel) terminal or the bottom (Right Channel) terminal.

## How to connect the magnetic-cartridge record player

1. If your record player is provided with magnetic cartridge, connect the phono output to either the PHONO 1 terminal (23) or PHONO 2 terminal (24). When two sets of record player need to be connected to the SX-700T amplifier, use the terminals PHONO 1 and PHONO 2 for connection to the phono outputs of the record players, respectively.
- The top terminal is for the left channel use, and the bottom terminal is for the right channel use.
- If the record player is for mono operation only, connect the phono output to either the top (Left Channel) terminal or the bottom (Right Channel) terminal.

## How to connect tape recorder

### Connection for recording

1. Connect the TAPE REC terminal (28) to the LINE INPUT terminal of the tape recorder. Note that the SX-700T amplifier's output signals are always appearing in this TAPE REC terminal whenever the amplifier is in operation.
- The top terminal is for the left channel use, and the bottom terminal is for the right channel use. If the tape recorder is for monoral operation only, connect the tape recorder's LINE INPUT terminal to either the top terminal or the bottom terminal.
- VOLUME control (11), BASS & TREBLE controls (8) (9), and LOUDNESS control (12) of Model SX-700T have no control over the signal coming out of this terminal (28). The recording level must be adjusted on the tape recorder if required.

### Connection for Tape Playback or Tape Monitoring

1. Connect the TAPE MONITOR terminal (27) to the LINE OUTPUT terminal of the tape recorder being used.
- The top terminal is for the left channel use, and the bottom terminal is for the right channel use. If the tape recorder is for monoral operation only, connect the tape recorder's LINE INPUT terminal to either the top terminal or the bottom terminal.

### Use of Record/Playback Connector Socket (DIN Type)

- If your tape recorder is provided with a cord having DIN-type connector plug for recording & playback operation, connecting the plug to the record playback connector socket (29) will complete connection between the amplifier and the tape recorder for both recording and playback operations.





## How to Connect Antenna and Ground

### Antenna for Reception of AM (Medium Wave) Program

- If your house is located close to the transmitting station, the built-in ferrite loopstick will be sufficient for reception of programs. Adjust the direction of the loopstick (17) for best AM reception.
- If the loopstick does not provide enough sensitivity for reception and hence static noise is significant, lay the antenna wire furnished with the unit on wall and connect one end of the wire to the AM antenna terminal (19). If your house is far from the transmitting station and hence the incoming signals are very weak, you may need to establish a separate AM antenna outdoors. In this case, connect one end of the outdoor antenna to the AM antenna terminal (19).

### Antenna for Reception of FM and FM Stereo Programs

- If your house is built with wooden material and is located close to the transmitting station, set up the indoor T-antenna in your room and connect the lead wire coming from the T-antenna to the FM terminal (21). Appropriately adjust the direction and height of the T-antenna and fix it to a structure like wall.
- If your house is made of ferro-concrete or is located far from the transmitting station, you may need to establish a separate FM antenna outdoors, because the arriving signals would be very weak. In this case, connect the FM antenna terminal (21) to the lead wire coming from the outdoor antenna.

### Grounding

- Connect the ground terminal (20) to the lead wire coming from a well-grounded electrode.

### Tips on Operation

1. Short circuits between speaker terminals will be fatal to transistors in the amplifier. Prior to turning the unit power on, be sure that the speaker cords are properly connected.
2. Operating the SELECTOR switch (5) or the MODE switch (16) with the VOLUME control (11) turned all the way to the right (which means large volume) may cause trouble in the unit. Avoid such a practise as abruptly applying large input to the unit.

## Operations

### To Listen to FM Programs

1. To listen to either FM monophonic program or FM stereophonic program, set the SELECTOR switch (5) to FM-AUTO and the MODE/MONITOR switch (16) to MODE-STEREO.
- Model SX-700T is provided with FM stereo/mono automatic switching circuit. Whenever the FM station changes its broadcast from monophonic program to stereophonic program, the Model SX-700T will automatically switch its reception accordingly and provides stereo audio output. Note that the stereo indicator will flash on when a stereophonic program is received.
2. Set the AFC switch (13) to OFF, and select the station you desire with the TUNING control (4) as watching the TUNING meter (3).
3. When the station is properly tuned in, set the AFC switch to ON.

NOTE: 1. If the arriving stereo signal is weak and extraneous noise is significant while the SELECTOR switch (5) is set to FM-AUTO, the unit will automatically switch its reception to monophonic mode.

2. If you desire to listen to a stereo program in monophonic mode by some reasons, or if the SELECTOR switch position in FM-AUTO causes the receiver to pick up noise excessively, set the SELECTOR switch to FM MONO position. In this case, the MODE/MONITOR switch (16) may be in any position of MODE-STEREO, LEFT, or RIGHT.

### To Listen to AM Programs

1. Set the SELECTOR switch (5) to AM. The MODE/MONITOR switch (16) may be set to any position of MODE-STEREO, LEFT, or RIGHT.
2. Select the station you desire with the TUNING control (4).

### To Play a Disc Record

1. Set the SELECTOR switch (5) to PHONO.
2. If the player connected to Model SX-700T is a stereo record player, set the MODE/MONITOR switch to MODE-STEREO. In case of monophonic record player, set the MODE/MONITOR switch to either MODE-LEFT or MODE-RIGHT, depending on the PHONO terminal used for connection to the record player.
3. Also set the PHONO selector switch (15) to either PHONO 1 or PHONO 2, depending on the PHONO terminal used for connection to the record player.

### Playback Operation with Tape Deck or Tape Player, Using Model SX-700T

1. Set the SELECTOR switch (5) to either TAPE HD 9 5/3-3/4 or TAPE HD-19/7 1/2, according to the playback speed of the tape.
2. Set the MODE/MONITOR switch (16) to MODE-STEREO if a stereo tape deck (or tape player) is connected to SX-700T for playback of stereophonically recorded tape. In case of mono tape deck (or tape player), set the MODE/MONITOR switch to either MODE-RIGHT or MODE-LEFT according to the TAPE HEAD terminal used for connection to the tape deck (or tape player).
- If monophonically recorded tape is to be played on a stereo tape deck (or tape player), set the MODE/MONITOR switch to either MODE-RIGHT or MODE-LEFT position according to the recorded track on tape.

## Record and Playback Operations with Tape Recorder, Using Model SX-700T

### Tape Record

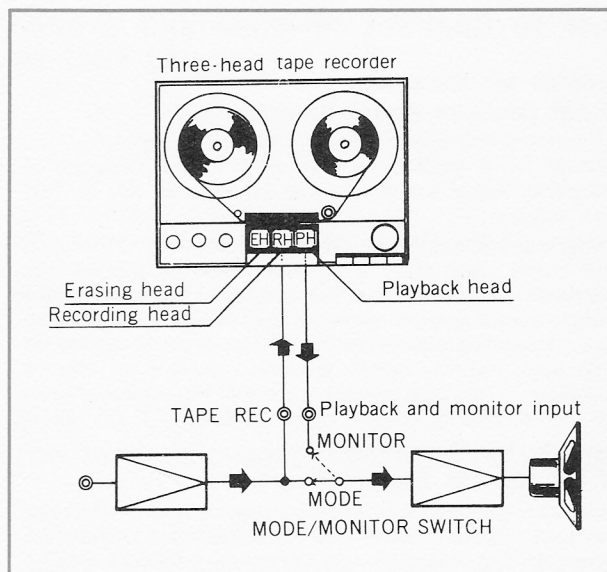
1. Set the SELECTOR switch (5) to any position of AM, FM-AUTO, PHONO, or TAPE HD, depending on the source of signals to record.
- NOTE: 1. If you desire to make monophonic recording with either mono tape recorder or stereo tape recorder, connect the tape recorder to either the top (Left Channel) terminal or the bottom (Right Channel) terminal.
2. MODE/MONITOR switch (16), VOLUME control (11), TREBLE control (9), BASS control (8), and HIGH FILTER (14) have no control over the signals being recorded. The recording level must be appropriately adjusted on the tape recorder.

### Tape Playback

1. For stereo playback operation, set the MODE/MONITOR switch (16) to MONITOR-STEREO position. If you desire to make monophonic playback with either stereo tape recorder or mono tape recorder, set the MODE/MONITOR switch to either MONITOR-LEFT or MONITOR-RIGHT position, depending on the track on tape that you like to play back.

## Tape Monitor

If your tape recorder (either two-head type or three-head type) is provided with monitor circuit and is connected to Model SX-700T for record and playback operations, you can make tape-monitoring while the tape recorder is recording or playing back. Change the MODE-MONITOR switch (16) position from MODE-STEREO to MONITOR-STEREO. If your tape recorder is of two-head type, you will monitor the signal before it enters the recording head. In case of three-head tape recorder, you will monitor the signal after it is recorded.



## ALIGNMENT INSTRUCTION

### Alignment of AM Section

Position of Switch: SELECTOR.....AM

Volume Control Setting: Fully Counterclockwise

STEPS	Input			Dial Setting	Output Equipment & Coupling	Alignment	
	Equipment & Coupling	Freq	Level			Adjust	Remarks
1	Sweep Generator TP <sub>503</sub>	455kHz	80dB	Point of no interference as near as 535kHz	Oscilloscope OUT	T <sub>505</sub>	Adjust to get maximum sensitivity and symmetry
2	" TP <sub>502</sub>	"	60dB	"	"	T <sub>504</sub> T <sub>505</sub>	"
3	" TP <sub>501</sub>	"	50dB	"	"	T <sub>503</sub> T <sub>504</sub> T <sub>505</sub>	"
4	Signal Generator Antenna terminal through dummy	600kHz	70dB (400Hz 30%)	600kHz	AC VTVM OUT	T <sub>502</sub>	Adjust to get maximum deflection
5	"	1,400kHz	"	1,400kHz	"	CT <sub>3</sub>	"
6	Repeat STEPS 4 and 5 several times						
7	"	600kHz	30dB	600kHz	"	T <sub>501</sub> Ferrite Antenna (Adjusting core)	"
8	"	1,400kHz	"	1,400kHz	"	CT <sub>1</sub> CT <sub>2</sub>	"
9	Repeat STEPS 7 and 8 several times						





### Alignment of FM Section

Disconnect output terminal of frontend (1,2) from IN terminal of IF unit

Position of Switch: SELECTOR.....FM MONO

AFC.....OFF

Volume Control Setting: Fully Counterclockwise

STEPS	Input			Dial Setting	Output Equipment & Coupling	Alignment	
	Equipment & Coupling	Freq	Level			Adjust	Remarks
1	Sweep Generator	10.7MHz	40dB		Oscilloscope	T <sub>201</sub>	Adjust to get maximum sensitivity and symmetry
	IN				TUNE	T <sub>202</sub> T <sub>203</sub>	
2	"	"	80dB		"		
	"						
3	Remove electrolytic capacitor C <sub>218</sub> (5μF) in detector circuit						
4	"	"	40dB		Oscilloscope	T <sub>204</sub>	Adjust primary side of T <sub>204</sub> so that incline of straight part of "S" curve will be steepest; adjust secondary side so that center of "S" curve will coincide with center of marker
	"				OUT		
5	Connect output terminal of frontend (1,2) to IN terminal of IF unit						
6	"	"	40dB	Point of no interference as near as 88MHz	"	Top of T <sub>302</sub> T <sub>201</sub> T <sub>202</sub> T <sub>203</sub>	Adjust to get maximum sensitivity and symmetry
	TP of Frontend				TUNE		
7	"	"	80dB	"	"		Check symmetry of curve
	"						
8	"	"	40dB	"	"	T <sub>204</sub>	Adjust similarly STEPS 4
	"						
9	Connect electrolytic capacitor C <sub>218</sub> (5μF)						
10	Signal Generator	90MHz	20dB	90MHz	Oscilloscope VTVM	L <sub>304</sub> (L <sub>4</sub> )	Adjust to get maximum deflection
	FM Antenna terminal		(400Hz30%)		OUT		
11	"	106MHz	"	106MHz	"	CT <sub>304</sub> (TC <sub>4</sub> )	"
	"		"		"		
12	Repeat STEPS 10 and 11 several times						
13	"	90MHz	"	90MHz	"	L <sub>301</sub> (L <sub>1</sub> ) L <sub>302</sub> (L <sub>2</sub> ) L <sub>303</sub> (L <sub>3</sub> )	"
	"		"		"		
14	"	106MHz	"	106MHz	"	CT <sub>301</sub> (TC <sub>1</sub> ) CT <sub>302</sub> (TC <sub>2</sub> ) CT <sub>303</sub> (TC <sub>3</sub> )	"
	"		"		"		
15	Repeat STEPS 13 and 14 several times						

## Alignment of MPX Section

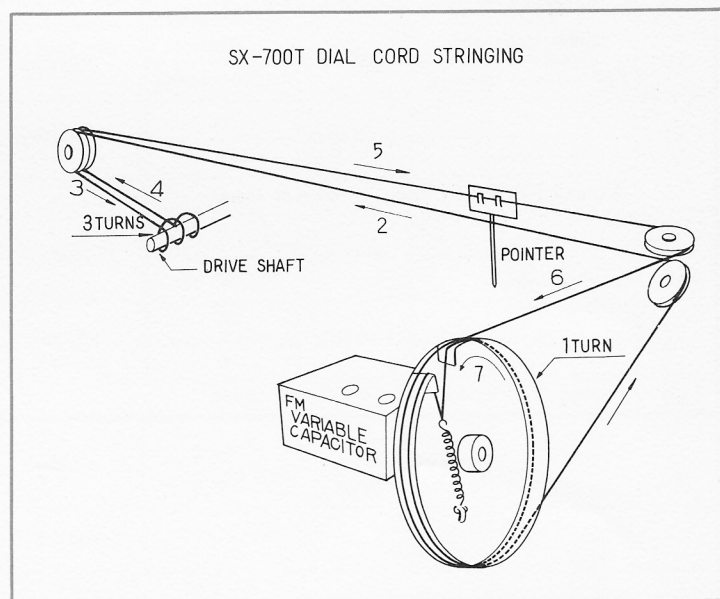
Position of Switch: SELECTOR.....FM AUTO

AFC.....OFF

Volume Control Setting: Fully Counterclockwise

Input Signal: Main (L + R) 40.5kHz Deviation (60%) 19kHz Pilot  
7.5kHz Deviation (10%)

STEPS	Circuit to be adjusted	Signal Generator Input		Connect VTVM	Alignment	
		Coupling	Input Signal		Adjust	Remarks
1	SCA Filter	Audio Oscillator to IN	66kHz 170mV	AC VTVM TP <sub>703</sub>	L <sub>704</sub>	Adjust to get minimum deflection
2	"	"	68kHz 170mV	"	L <sub>705</sub>	"
3	19kHz Stage	MPX Generator to FM Antenna terminal	Main (L + R)	DC VTVM TP <sub>702</sub>	L <sub>701</sub> L <sub>702</sub>	Position of VR <sub>702</sub> .....Max. Adjust to get minimum deflection
4	38kHz Stage	"	Sub (L - R)	AC VTVM Lout or Rout	L <sub>703</sub>	Adjust to get maximum deflection
5	Separation Control	"	L	AC VTVM Rout	VR <sub>7</sub>	Position of VR <sub>701</sub> .....Central point. Adjust to get minimum deflection
6	"	"	R	AC VTVM Lout	VR <sub>7</sub>	"
7	"	"	Main (L + R)	Lout Rout	VR <sub>701</sub>	Adjust to less than 1dB in the difference of output
8	Repeat STEPS 5,6 and 7 several times					
9	Stereo indicator light	"	" 18dB		VR <sub>702</sub>	Adjust to light stereo ind. lamp when MPX Signal is applied







## Parts list of the SX-700T

### CAPACITORS

Symbol	Description				Part No.
C1	Styrol	150PF	10%	50WV	
C2	"	"	"	"	
C3	Mylar	0.01 $\mu$ F	"	"	
C4	"	"	"	"	
C5	Electrolytic	1000 $\mu$ F		35	
C6	"	"		"	
C7	"	2000 $\mu$ F		75	
C8	Ceramic	10P $\mu$ F	10%	50	
C9	Mylar	0.5 $\mu$ F	"	"	
C10	Styrol	2000PF	"	"	
C11	Ceramic	0.01 $\mu$ F	"	"	
C12	"	"	"	"	
C14	"	1000PF	"	"	

### RESISTORS

Symbol	Description				Part No.
R1	Carbon film	68K	10%	1/4W	
R2	"	"	"	"	
R3	"	"	"	"	
R4	"	"	"	"	
R9	"	150K	"	"	
R10	"	"	"	"	
R11	"	15K	"	"	
R12	"	"	"	"	
R13	"	27K	"	"	
R14	"	"	"	"	
R15	"	120 $\Omega$	"	1/2W	
R16	"	"	"	"	
R17	Composition	0.5 $\Omega$	"	1	
R18	"	"	"	"	
R19	"	"	"	"	
R20	"	"	"	"	
R21	"	150 $\Omega$	"	2	
R22	"	"	"	"	
R23	Carbon film	68K	"	1/4W	
R24	"	3.3K	"	1/2W	
R25	Composition	220K	"	"	
R26	Carbon film	33	"	"	
R27	Composition	2.2M	"	"	
R28	Carbon film	680K	"	1/4W	
R31	Carbon film	47 $\Omega$	"	"	
R32	"	"	"	"	

### POTENTIOMETERS

Symbol	Description	Part No.
VR1	500K dual Volume	C85-054-0
VR2	100K dual Bass	C87-018-0
VR3	100K dual Treble	C87-018-0
VR4	50K dual Balance	C85-052-0
VR5	100 $\Omega$ Current Control	C92-032-0
VR6	"	C92-032-0
VR7	10K MPX Separation Control	C92-028-0

### COILS AND TRANSFORMERS

Symbol	Description	Part No.
L1	Choke Coil	T24-025-0
L2	"	"
	Power Transformer	T52-109-C
	AM Ferrite Loopstick Antenna Coil	T42-014-0

### SWITCHES

Symbol	Description	Part No.
S1	Input Selector	S16-037-C
S2	Mode Selector Switch	S16-038-B
S3	Output Selector	S16-041-A
S4	Toggle Switch	S42-001-C
S5	"	"
S6	"	"
S7	"	"
S8	Power Switch	S11-014-A

### DIODES AND TRANSISTORS

Symbol	Description	Part No.
D1	1S 426 Diode	
D2	"	
Q1	2SD92 Transistor	
Q2	"	
Q3	"	
Q4	"	
Th1	D-22A Thermistor	
Th2	"	

### MISCELLANEOUS

Symbol	Description	Part No.
	FM Frontend	W11-021-A
	FM IF Unit	W12-009-C
	MPX Unit	W13-021-D
	AM Unit	W14-004-C
	Pre Amp Unit	W15-005-D
	Control Amp Unit	W15-047-B
	Main Amp Unit	W15-009-B
	Power Supply Unit	W16-008-A
	Front Panel	M21-069-B
	Metal Case	M33-086-C
	Foot	M61-003-0
	Screw. to Fix Metal Cover	B11-021-B
	Dial Scale	A33-036-C
	Dial Pointer	A31-080-A
	Dial Pully (for tuning capacitor)	M41-085-0
	Dial Pulley	M10-014-0
	Dial Spring	E31-065-0
	Knob. Selector	A11-109-0
	Knob. Tuning	A11-119-0
	Knob. Mode. Output Selector	A11-115-A
	Knob. Volume. Balance Power	A11-112-A
	Knob. Bass. Treble (L)	A11-135-0
	Knob. Bass. Treble (R)	A11-138-0
	Tuning Meter	A91-005-D
	Bracket (Orange)	A59-030-0
	Pilot Lamp	E22-002-0
	Pilot Lamp Socket	K41-002-0
	Fuse 1A	E21-004-0
	Pilot Lamp for FM Stereo	E22-011-0
	Fuse Holder	K96-006-C
	Headphone Jack	K72-006-0
	Connector 5P for Tape Recorder	K93-003-0
	AC Concent	K82-007-B
	Concent for Speaker	K73-003-0
	Terminal 6P	K22-013-0
	Terminal 4P	K11-018-0

### W15-005 (PRE AMP UNIT)

#### CAPACITORS

Symbol	Description				Part No.
C101	Electrolytic	10 $\mu$ F		10V	
C102	"	"		"	
C103	Styrol	500PF	10%	50V	
C104	"	"	"	"	
C105	Electrolytic	10 $\mu$ F		10V	
C106	"	"		"	
C107	Styrol	100PF	10%	50V	
C108	"	"	"	"	
C109	Electrolytic	100 $\mu$ F		25V	
C110	"	"		"	
C111	"	"		3V	
C112	"	"		"	
C113	"	10 $\mu$ F		10V	
C114	"	"		"	
C115	Mylar	0.01 $\mu$ F	10%	50V	

# PIONEER

## CAPACITORS

Symbol	Description				Part No.
C116	Mylar	0.01 $\mu$ F	10%	50V	
C117	"	0.003 $\mu$ F	"	"	
C118	"	"	"	"	
C119	"	"	"	"	
C120	"	"	"	"	

## RESISTORS

Symbol	Description				Part No.
R101	Carbon	270K	10%	1/4W	
R102	"	"	"	"	
R103	"	390 $\Omega$	"	"	
R104	"	"	"	"	
R105	"	100K	"	"	
R106	"	"	"	"	
R107	"	330K	"	"	
R108	"	"	"	"	
R109	"	33K	"	"	
R110	"	"	"	"	
R111	"	330K	"	"	
R112	"	"	"	"	
R113	"	27K	"	"	
R114	"	"	"	"	
R115	"	1M	"	"	
R116	"	"	"	"	
R117	"	15K	"	"	
R118	"	"	"	"	
R119	"	"	"	"	
R120	"	"	"	"	
R121	"	2.2K	"	"	
R122	"	"	"	"	
R123	"	10K	"	"	
R124	"	"	"	"	
R125	"	220 $\Omega$	"	"	
R126	"	"	"	"	
R127	"	1K	"	"	
R128	"	"	"	"	

## TRANSISTORS

Symbol	Description				Part No.
Q101	2SC458 LG				
Q102	"				
Q103	"				
Q104	"				

## W12-009 (FM IF Unit)

### CAPACITORS

Symbol	Description				Part No.
C201	Ceramic	0.01 $\mu$ F	+80% - 20%	25V	
C202	"	"	"	"	
C203	"	"	"	"	
C204	"	"	"	"	
C205	"	"	"	"	
C206	"	"	"	"	
C207	"	"	"	"	
C208	"	"	"	"	
C209	"	"	"	"	
C210	"	"	"	"	
C211	"	"	"	"	
C212	"	"	"	"	
C213	"	"	"	"	
C214	"	"	"	"	
C215	"	"	"	"	
C216	"	300PF	$\pm 10\%$	"	
C217	"	0.01 $\mu$ F	+80% - 20%	25V	
C218	Electrolytic	5 $\mu$ F	"	10V	
C219	Ceramic	0.01 $\mu$ F	"	25V	
C220	"	5PF	$\pm 10\%$	50V	
C221	"	0.01 $\mu$ F	+80% - 20%	25V	
C222	Electrolytic	3 $\mu$ F	"	6V	
C223	Ceramic	0.01 $\mu$ F	"	25V	
C224	"	"	"	"	
C225	Mylar	0.1 $\mu$ F	"	50V	
C226	Ceramic	0.01 $\mu$ F	"	25V	
C227	"	5PF	$\pm 10\%$	50V	
C228	"	100PF	$\pm 10\%$	50V	
C229	"	0.01 $\mu$ F	+80% - 20%	25V	

## RESISTORS

Symbol	Description				Part No.
R201	Carbon film	680 $\Omega$	10%	1/4W	
R202	"	1.5K	"	"	
R203	"	470 $\Omega$	"	"	
R204	"	100 $\Omega$	"	"	
R205	"	33K	"	"	
R206	"	1.5K	"	"	
R207	"	4.7K	"	"	
R208	"	100 $\Omega$	"	"	
R209	"	1K	"	"	
R210	"	100 $\Omega$	"	"	
R211	"	33K	"	"	
R212	"	100 $\Omega$	"	"	
R213	"	1.5K	"	"	
R214	"	4.7K	"	"	
R215	"	100 $\Omega$	"	"	
R216	"	1K	"	"	
R217	"	100 $\Omega$	"	"	
R218	"	33K	"	"	
R219	"	1K	"	"	
R220	"	1.5K	"	"	
R221	"	4.7K	"	"	
R222	"	1K	"	"	
R223	"	"	"	"	
R224	"	"	"	"	
R225	"	100 $\Omega$	"	"	
R226	"	100K	"	"	
R227	"	2.7K	"	"	
R228	"	4.7K	"	"	
R229	"	2.2K	"	"	
R230	"	100K	"	"	
R231	"	8.2K	"	"	
R232	"	1K	"	"	
R233	"	15K	"	"	
R234	"	1K	"	"	
R235	"	10K	"	"	
R236	"	2.7K	"	"	

## TRANSFORMERS

Symbol	Description				Part No.
T201	IF Transformer				T81-018-0
T202	"				T81-019-0
T203	"				T81-018-0
T204	"				T82-016-0

## COUPLATE

Symbol	Description				Part No.
W201	Discriminator				W53-032-0

## DIODES AND TRANSISTORS

Symbol	Description				Part No.
D201	1N60 Diode				
D202	"				
D203	"				
D204	"				
D205	"				
Q201	2SC460A Transistor				
Q202	"				
Q203	"				
Q204	"				
Q205	2SC372				

## W11-021 (FM FRONT-END)

### CAPACITORS

Symbol	Description				Part No.
C301	Ceramic	33PF	10%		
C302	"	6PF	$\pm 0.5$ PF		
C303	"	5PF	$\pm 0.25$ PF		
C304	"	10PF	$\pm 1$ PF		
C305	"	0.5PF	$\pm 0.15$ PF		
C306	"	1000PF	10%		
C307	"	"	"		
C308	"	100PF	"		





## CAPACITORS

Symbol	Description			Part No.
C309	Ceramic	7PF	± 0.5PF	
C310	"	0.5PF	± 0.15PF	
C311	"	5PF	± 0.25PF	
C312	"	33PF	10%	
C313	"	2PF	± 0.25PF	
C314	"	1000PF	10%	
C315	"	33PF	"	
C316	"	100PF	"	
C317	"	47PF	"	
C318	"	1000PF	"	
C319	"	33PF	"	
C320	"	5PF	± 0.25PF	
C321	"	1000PF	10%	
C322	"	4PF	± 0.25PF	
C323	"	7PF	± 0.5PF	
C324	"	1000PF	10%	
C325	"	1PF	± 0.25PF	
C326	"	1000PF	10%	
C327	"	5PF	± 0.25PF	
C328	"	"	"	
C329	"	1000PF	20%	

## RESISTORS

Symbol	Description				Part No.
R301	Carbon film	4.7K	10%	1/8W	
R302	"	1.5K	"	1/16W	
R303	"	1K	"	"	
R304	"	6.8K	"	"	
R305	"	15K	"	"	
R306	"	1K	"	1/8W	
R307	"	1K	"	"	
R308	"	1K	"	1/16W	
R309	"	2.7K	"	"	
R310	"	15K	"	"	
R311	"	150K	"	1/8W	
R312	"	1M	"	"	

## DIODES AND TRANSISTORS

Symbol	Description				Part No.
D301	1S351 Diode				
Q301	2SC535 Transistor				
Q302	"				
Q303	2SC461				

## COILS AND TRANSFORMERS

Symbol	Description				Part No.
T301	ANT. Balun				
T302	I.F.T.				
L301	Input coil				
L302	R.F. coil				
L303	"				
L304	OSC coil				
L305	Trap coil				

## W16-008 (POWER SUPPLY UNIT)

### CAPACITORS

Symbol	Description				Part No.
C401	Electrolytic	100μF		50WV	
C402	"	"		"	
C403	"	10μF		50WV	
C404	"	200μF		25WV	
C405	"	"		25WV	
C406	"	"		15WV	

## RESISTORS

Symbol	Description				Part No.
R401	Carbon film	470Ω	10%	1/2 W	
R402	"	3.3K	"	"	
R403	"	22K	"	"	
R404	"	3.3K	"	"	
R405	"	39Ω	"	"	
R406	"	5.6Ω	"	"	
R407	"	470Ω	"	"	
R408	"	1K	"	"	
R409	"	33Ω	"	"	

## DIODES AND TRANSISTORS

Symbol	Description	Part No.
D401	SD - 2 Diode	
D402	"	
D403	SH - 1S	
D404	"	
Sz	Sz - 200 - 13	
Q401	2SC283 Transistor	
Q402	2SC367	

## W14-004 (AM TUNER UNIT)

### CAPACITORS

Symbol	Description				Part No.
C501	Ceramic	0.04μF	+80%-20%	25WV	
C502	"	"	"	"	
C503	"	"	"	"	
C504	"	"	"	"	
C506	"	0.01μF	"	"	
C507	Styrol	410PF	10%	50V	
C508	Ceramic	0.04μF	+80%-20%	25WV	
C509	"	"	"	"	
C510	Electrolytic	10μF	"	15WV	
C511	Ceramic	5PF	5%	50V	
C512	"	0.04μF	+80%-20%	25WV	
C513	"	"	"	"	
C514	Electrolytic	10μF	"	15WV	
C515	Ceramic	0.04μF	+80%-20%	25WV	
C516	"	"	"	"	
C517	"	2PF	"	50V	
C518	"	0.04μF	+80%-20%	25WV	
C519	"	30PF	"	50V	
C521	Electrolytic	200μF	"	15WV	
C522	Ceramic	0.01μF	+80%-20%	25WV	
C523	"	0.005μF	"	"	

## RESISTORS

Symbol	Description				Part No.
R501	Carbon film	330K	10%	1/8W	
R502	"	2.2K	"	"	
R503	"	47K	"	"	
R504	"	1K	"	"	
R505	"	2.2K	"	"	
R506	"	3.3K	"	"	
R507	"	27K	"	"	
R508	"	1K	"	"	
R509	"	2.2K	"	"	
R510	"	470Ω	"	"	
R511	"	220Ω	"	"	
R513	"	47K	"	"	
R514	"	220K	"	"	
R515	"	2.2K	"	"	
R516	"	1K	"	"	
R517	"	2.2K	"	"	
R518	"	12K	"	"	
R519	"	8.2K	"	"	
R520	"	"	"	"	
R521	"	47K	"	"	
R522	"	1K	"	"	
R524	"	100Ω	"	"	
R525	"	2.2K	"	"	
R526	"	470Ω	"	"	
R527	"	22K	"	"	

# PIONEER

## COILS AND TRANSFORMERS

Symbol	Description	Part No.
T501	MW RF Coil	T41-007-0
T502	OSC Coil	T43-004-0
T503	IF Transformer	T71-014-A
T504	IF Transformer	T71-018-0
T505	IF Transformer	T72-012-A

## DIODES AND TRANSISTORS

Symbol	Description	Part No.
D501	1N60 Diode	
D502	"	
D503	"	
D504	"	
Q501	2SC372 Transistor	
Q502	"	
Q503	"	
Q504	"	

## CONTROL AMP.UNIT (W15-047)

### CAPACITORS

Symbol	Description			Part No.
C601	Electrolytic	1	10V	
C602	"	"	"	
C603	Mylar	0.022	50V	
C604	"	"	"	
C605	Electrolytic	4.7	15V	
C606	"	"	"	
C607	"	100	50V	
C608	"	"	"	
C609	Mylar	4700P	"	
C610	"	"	"	
C611	"	"	"	
C612	"	"	"	
C613	Electrolytic	50	25V	
C614	"	"	"	
C615	"	100	6.3V	
C616	"	"	"	
C617	"	3.3	25V	
C618	"	"	"	
C619	Mylar	2200P	50V	
C620	"	"	"	
C621	"	0.01	"	
C622	"	"	"	
C623	"	0.033	"	
C624	"	"	"	
C625	"	0.1	"	
C626	"	"	"	

## RESISTORS

Symbol	Description		Part No.
R601	Carbon film (LN)	330k	
R602	"	"	
R603	"	33k	
R604	"	"	
R605	"	8.2k	
R606	"	"	
R607	"	1k	
R608	"	"	
R609	"	"	
R610	"	"	
R611	Carbon film	2.2k	
R612	"	"	
R613	"	6.8k	
R614	"	"	
R615	"	"	
R616	"	"	
R617	Carbon film (LN)	1k	
R618	"	"	
R619	"	330k	
R620	"	"	
R621	Carbon film	47k	
R622	"	"	
R623	Carbon film (LN)	8.2k	
R624	"	"	
R625	Carbon film	1.5k	
R626	"	"	
R627	"	330	
R628	"	"	
R629	"	10k	
R630	"	"	
R631	"	2.2k	
R632	"	"	
R633	"	4.7k	
R634	"	"	
R635	"	18k	
R636	"	"	

## TRANSISTORS

Symbol	Description		Part No.
Q601	2SC871		
Q602	"		
Q603	2SC870		
Q604	"		

## FM-MPX.UNIT (W13-021)

### CAPACITORS

Symbol	Description				Part No.
C701	Electrolytic	2.2		10V	C51-022-O
C702	Mylar	0.02		50V	
C703	Ceramic	68P		"	
C704	Styrol	0.02	±5%	"	
C705	Electrolytic	10		10V	
C706	Styrol	0.005	±5%	50V	
C707	"	0.0022	"	"	
C708	"	"	"	"	
C709	Electrolytic	4.7	±20%	15V	
C710	"	"	"	"	
C711	"	0.47		25V	
C712	"	"		"	
C713	"	33		10V	
C714	Styrol	0.005	±5%	50V	
C715	"	0.0033	"	"	
C716	Electrolytic	22		10V	
C717	"	10		"	
C718	"	"		"	
C719	Styrol	0.015	±5%	50V	
C720	Electrolytic	1		10V	
C721	"	22		25V	
C722	Styrol	1000P		50V	
C723	"	"		"	
C724	Ceramic	0.04	+100% -0	50V	

## RESISTORS

Symbol	Description			Part No.
R701	Carbon film	100k		1/8W
R702	"	1k		"
R703	"	47k		"
R704	"	68k		"
R705	"	220		"
R706	"	1k		"
R707	"	4.7k		"
R708	"	100k		"
R710	"	47k		"
R711	"	"		"
R712	"	12k		"
R713	"	3.3k		"
R714	"	56k		"
R715	"	"		"
R716	"	100		"
R717	"	10k	5%	"
R718	"	12k		"
R719	"	"		"
R720	"	0k		"
R721	"	100k		"
R722	"	"		"
R723	"	330k		"
R724	"	"		"
R725	"	47k		"
R726	"	"		"
R727	"	15k		"
R728	"	"		"
R729	"	1.5k		"
R730	"	"		"
R731	"	33k		"
R733	"	47k		"
R734	"	33k		"
R735	"	100		"
R736	"	10k		"
R737	"	"		"
R738	"	3.3k		"
R739	"	680		"
R740	"	4.7k		"
R741	"	15k		"
R742	"	"		"
R743	"	2.2k		"



## DIODES AND TRANSISTORS

Symbol	Description	Part No.
D701	0A79 Diode	
D702	"	
D703	"	
D704	"	
D705	"	
D706	1N60	
Q701	2SC870 Transistor	
Q702	"	
Q703	"	
Q704	"	
Q705	"	
Q706	"	
Q707	"	
Q708	"	
Q709	"	

## DIODES AND TRANSISTORS

Symbol	Description	Part No.
Q801	2SC458LG Transistor	
Q802	"	
Q803	2SC627	
Q804	"	
Q805	"	
Q806	"	
Q807	2SB55	
Q808	"	

## W15-009 (MAIN AMP UNIT)

### CAPACITORS

Symbol	Description			Part No.
C801	Electrolytic	10 $\mu$ F		10WV
C802	"	"		"
C805	"	"		"
C806	"	"		"
C807	"	50 $\mu$ F		15WV
C808	"	"		"
C809	"	100 $\mu$ F		50V
C810	"	"		"
C811	"	"		3V
C812	"	"		"
C813	Mica	200P	10%	50V
C814	"	"	"	"
C815	Mylar	0.2	"	"
C816	"	"	"	"
C817	Mica	50P	"	"
C818	"	"	"	"
C819	Ceramic	100pF	"	"
C820	"	"	"	"

## TRANSFORMERS

Symbol	Description	Part No.
T701	19 kHz Transformer	T75 020 A
T702	38 kHz Transformer	T75 021 A
T703	19 kHz Transformer	T75 011 A
T704	S.C.A Filter Coil	T75-007 A
T705	19 kHz Filter Coil	T75 010 A

## POTENTIOMETERS

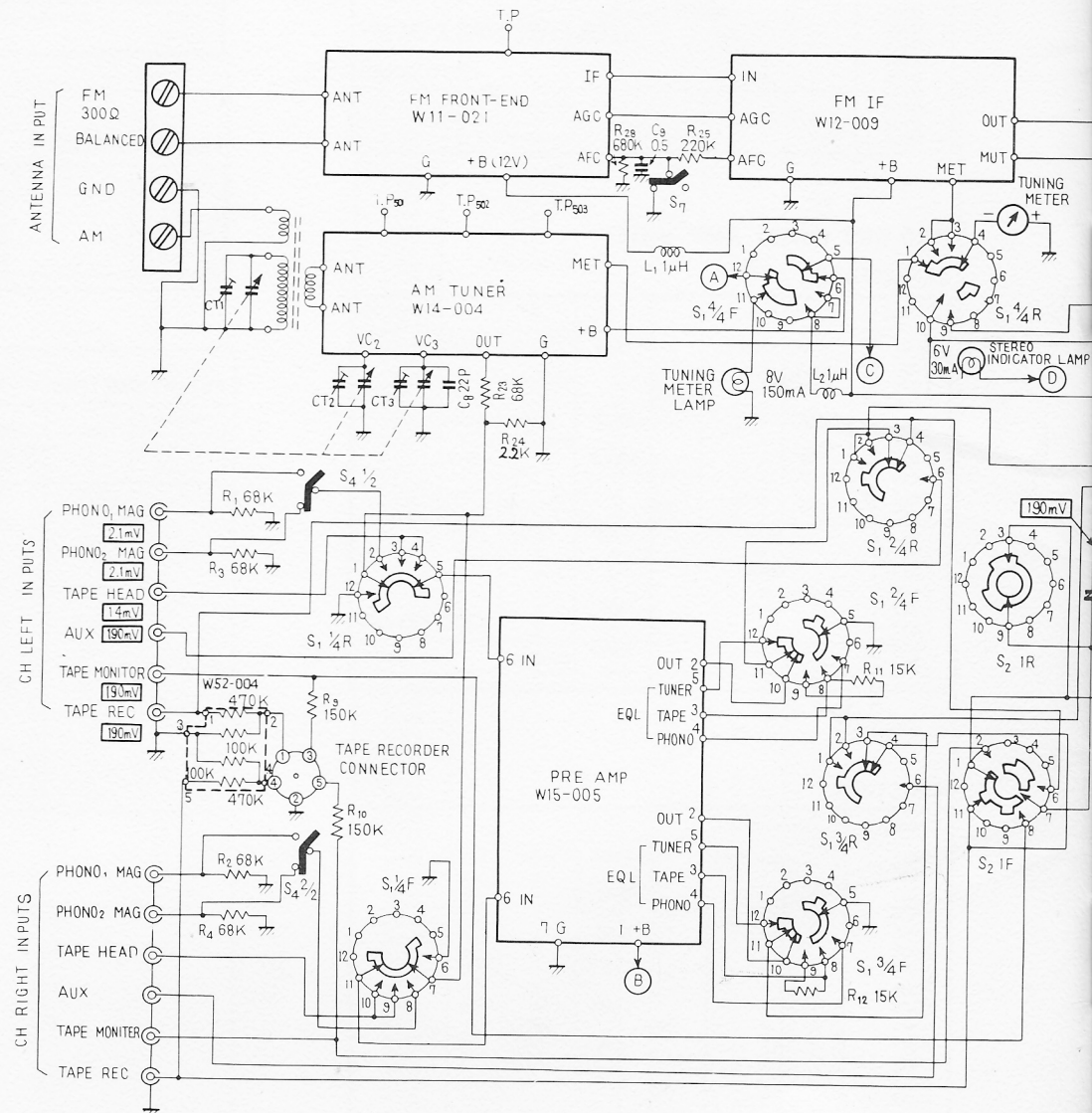
Symbol	Description	Part No.
VR701	1 k $\Omega$ , Left and Right Level Adjust	C92 022 O
VR702	300 $\Omega$ , Auto Level Adjust	C92 026 O

## RESISTORS

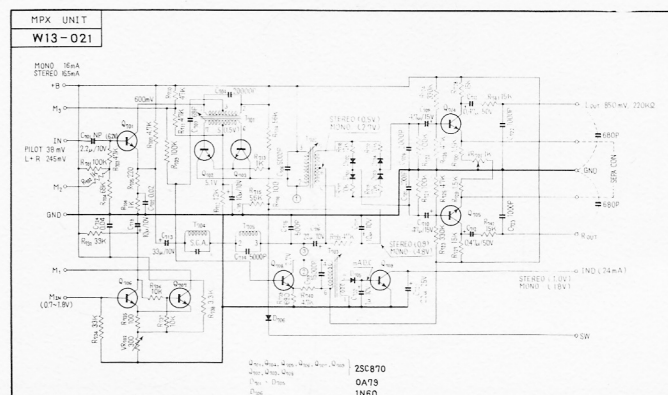
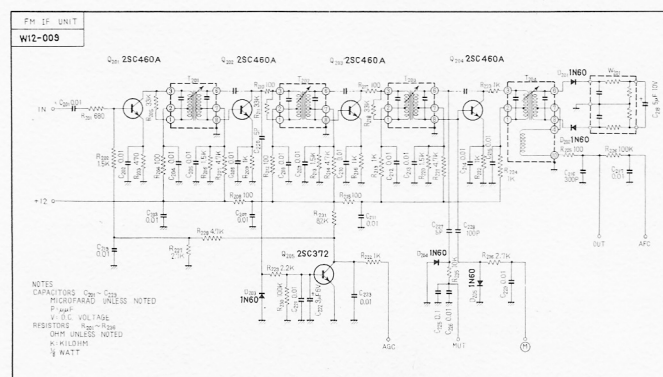
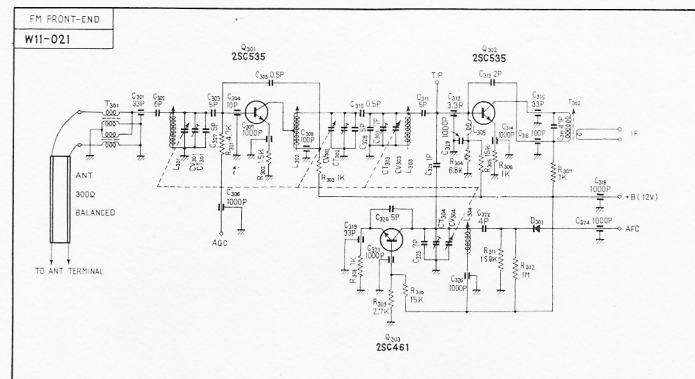
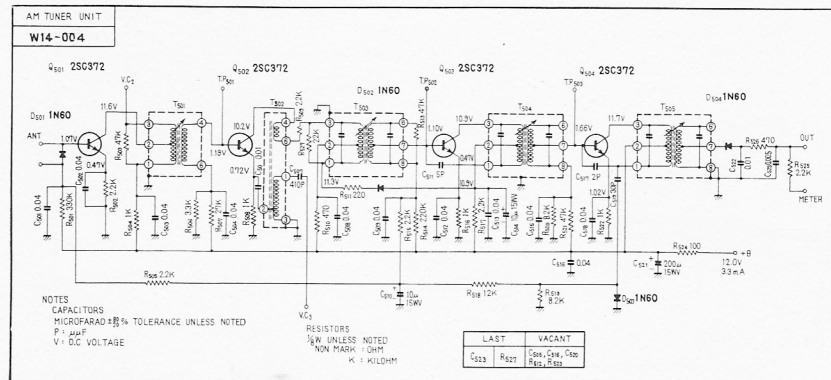
Symbol	Description			Part No.
R801	Carbon film	150K	10%	1/8 W
R802	"	"	"	"
R803	"	27K	"	"
R804	"	"	"	"
R805	"	5.6K	"	"
R806	"	"	"	"
R807	"	1K	"	"
R808	"	"	"	"
R809	"	150 $\Omega$	"	"
R810	"	"	"	"
R811	"	39K	"	"
R812	"	"	"	"
R813	"	4.7K	"	"
R814	"	"	"	"
R815	"	150 $\Omega$	"	"
R816	"	"	"	"
R817	"	1K	"	1/4 W
R818	"	"	"	"
R819	"	2.2K	"	"
R820	"	"	"	"
R821	"	330 $\Omega$	"	1/8 W
R822	"	"	"	"
R823	"	"	"	"
R824	"	"	"	"
R825	"	22 $\Omega$	"	"
R826	"	"	"	"
R827	"	4.7 $\Omega$	"	1/2 W
R828	"	"	"	"
R829	"	4.7K	"	1/8 W
R830	"	"	"	"



## SX-700T



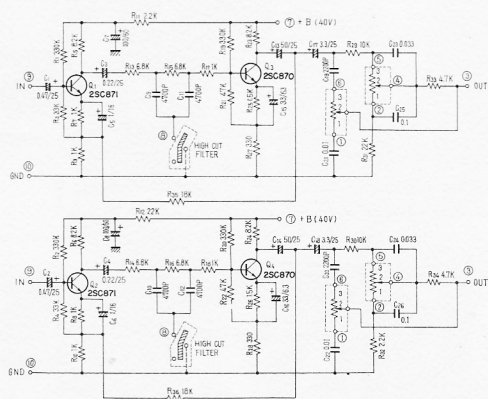




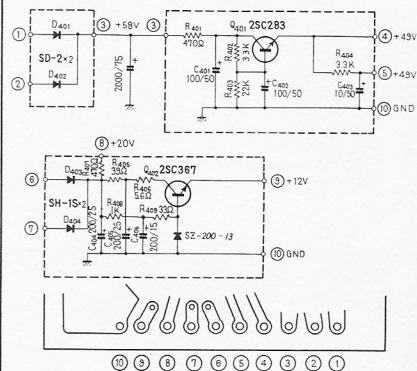




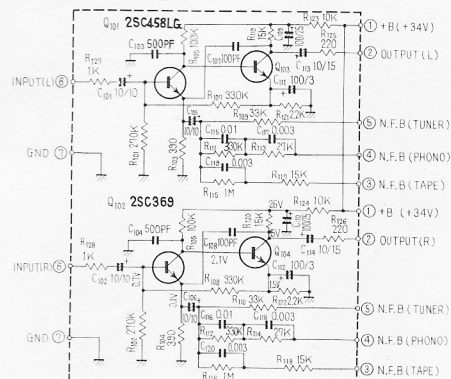
# CONTROL AMP UNIT W15-047

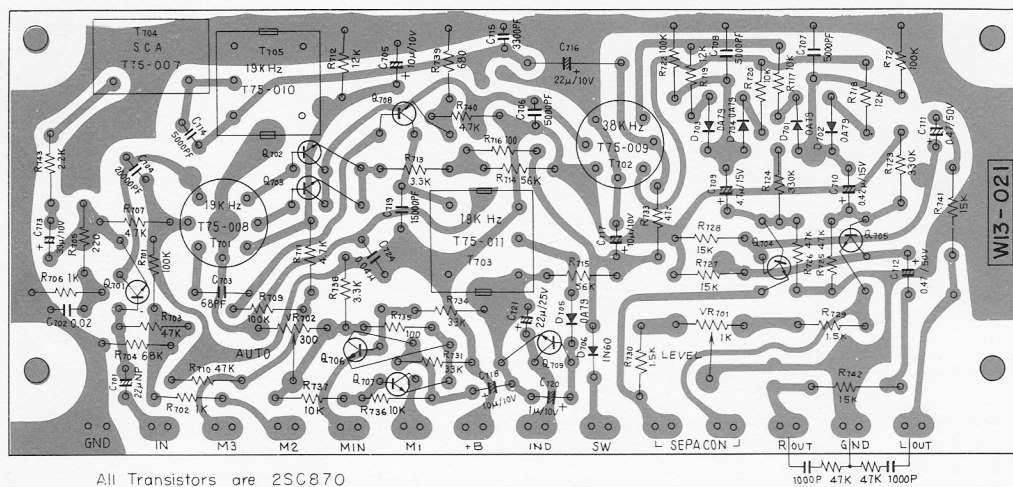
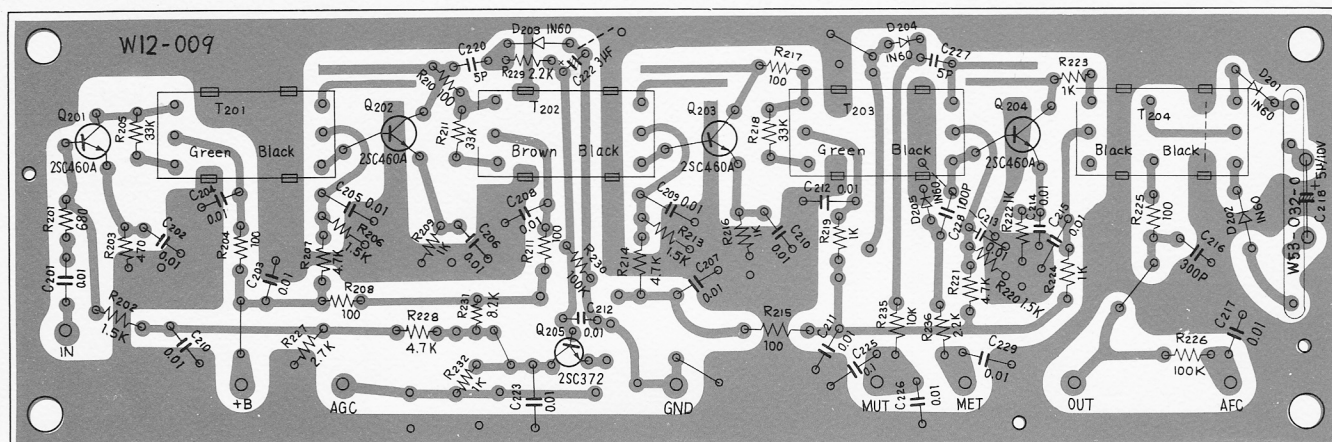


# POWER SUPPLY W-16-008

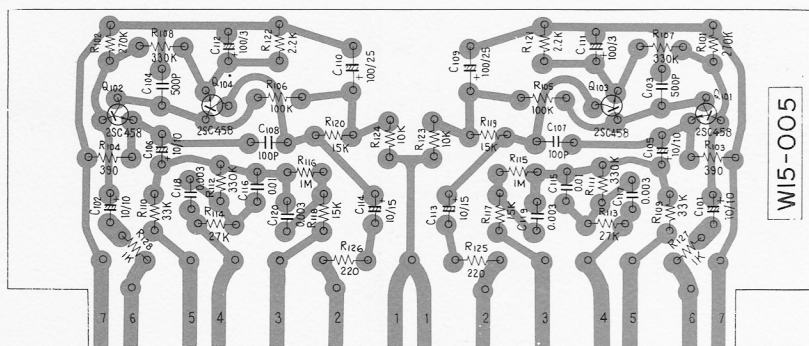


# PRE AMP UNIT W15-005

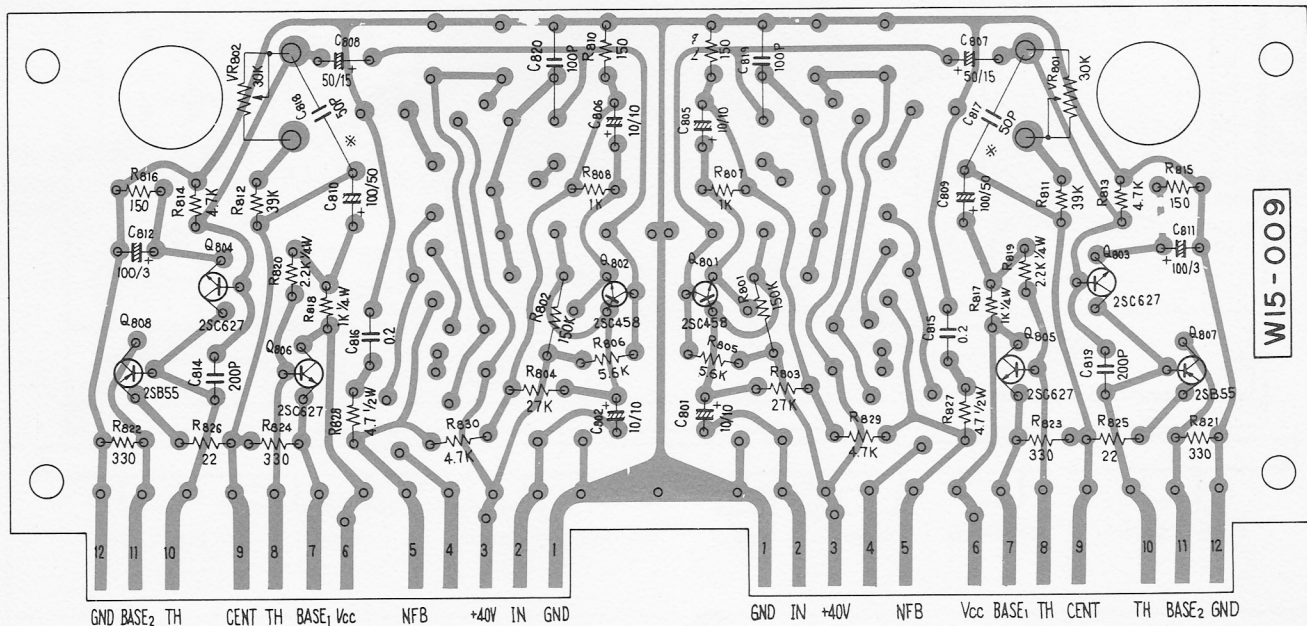
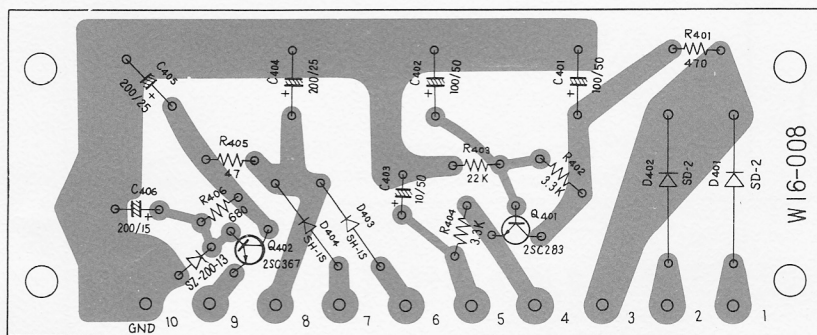
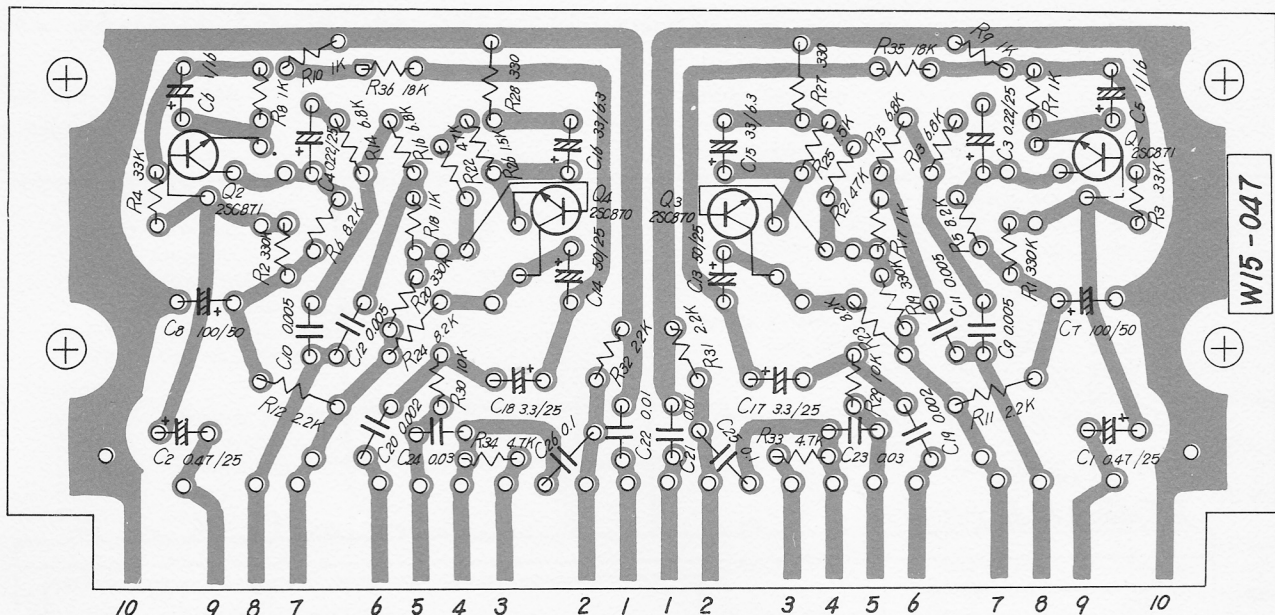




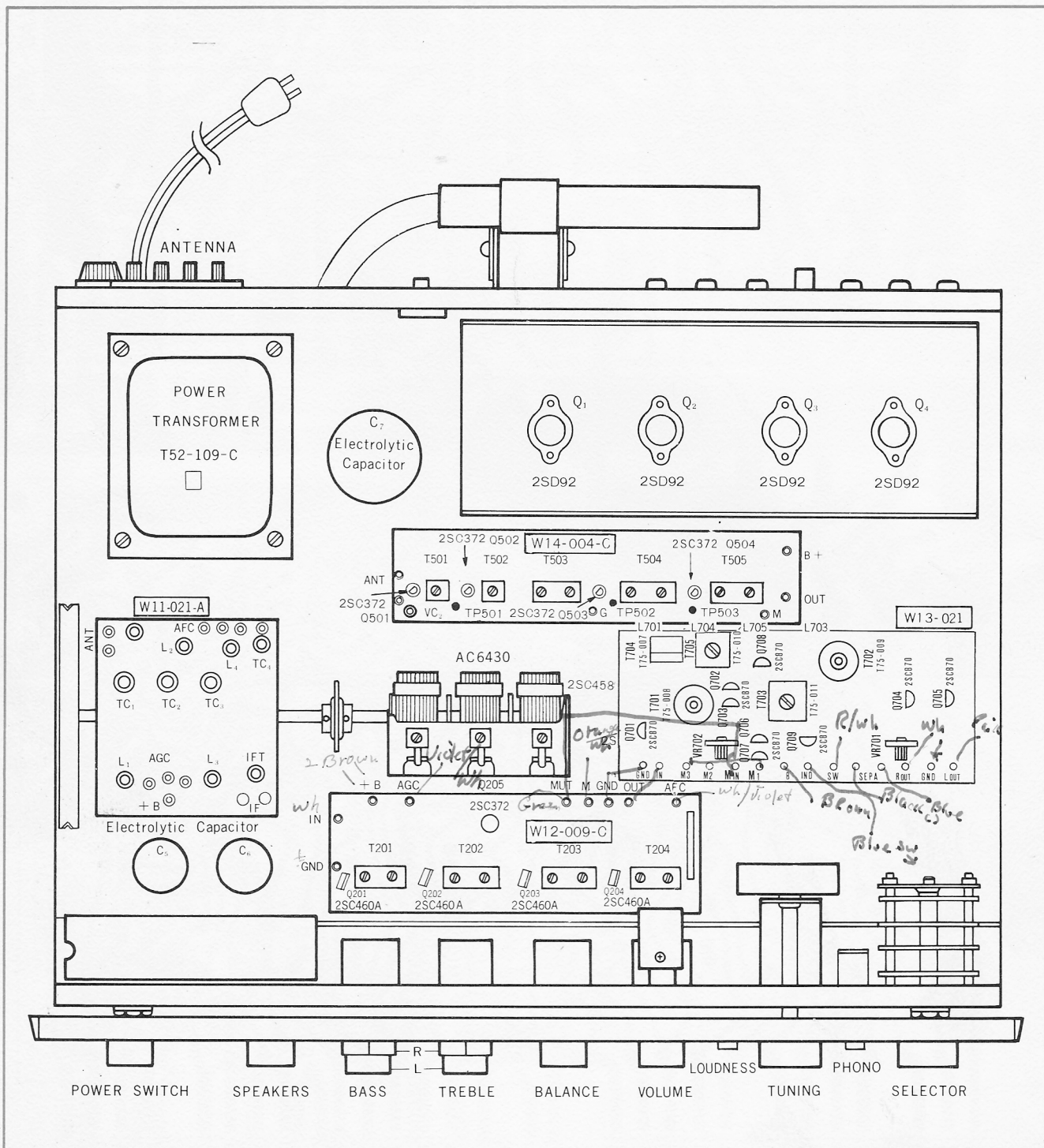
All Transistors are 2SC870













## MODEL SX-700T TECHNICAL SPECIFICATIONS

### Transistors and Diodes

#### Tuner Section

1.....	2SC 461	(FM Front-end)
2.....	2SC 535	(FM Front-end)
4.....	2SC 460A	(FM IF Stage)
5.....	2SC 372	(FM AGC, AM RF Amp, Conv, IFamp)
9.....	2SC 870	(MPX Stage)
1.....	IS 351	(variable capacitance diode, AFC)
10.....	IN 60	(Diodes: Discriminator, AGC, AM Det)
5.....	OA 79	(Diodes: MPX stage)

#### Audio Section

6.....	2SC 458	(Equalizer amp Driver)
2.....	2SC 871	(Control amp)
2.....	2SC 870	(Control amp)
4.....	2SC 627	(Driver)
2.....	2SB 55	(Driver)
4.....	2SD 92	(Power amp)
1.....	2SC 283	(Filter Circuit)
1.....	2SC 367	(Filter Circuit)
2.....	IS 426	(Thermal Compensation)
2.....	SD-2	(Diodes Rectfier)
2.....	SH-1S	(Diodes Rectfier)
1.....	SZ-200-13	(Zener diode)

#### FM Section

Circuitry	Front-end using 4 gang variable air capacitor, 4 double-tuning IF stages.
Frequency Range	87~108 MHz
IHF Usable Sensitivity	2.2 $\mu$ V
Image Rejection	60 dB (at 98 MHz)
Signal to Noise Ratio	60 dB (100 % MOD)
Antenna Input	300 ohms (balanced)

#### Multiplex Section

Circuitry	Time-switching type de-modulator FM Mono Stereo Automatic selection
Channel Separation	better than 35 dB (at 1 kHz)

#### AM Section

Circuitry	Superheterodyne with tuned RF stage
Frequency Range	525~1605 kHz
IHF Usable Sensitivity	18 $\mu$ V
Image Rejection	55 dB (at 1000 kHz)
Antenna Input	Built-in Ferrite loopstick antenna with terminal for external antenna

### Audio Section

Circuitry	single ended push-pull
Music Power Output	60 watts total (IHF rating)
RMS Rated Power Output	25 watts per channel (8 $\Omega$ ) 19 watts per channel (16 $\Omega$ )
Harmonic Distortion	Less than 1% (at 1kHz rated output)
Frequency Response	$\pm 1$ dB, from 25 Hz to 50 kHz (Over-all)
Power Bandwidth	15 Hz to 30 kHz (AUX)
Damping Factor	35 (8 $\Omega$ )
Hum & Noise (at rated output IHF closed circuit)	TAPE HEAD: better than 70 dB. MAG: better than 75 dB. AUX: better than 85 dB.
Inputs Impedance and Audio Sensitivity (for rated output)	MAGnetic PHONO: 2.1 mv. 50 k $\Omega$ (1 kHz) TAPE HEAD: 1.4 mv. 120 k $\Omega$ (1 kHz) TAPE MONITOR: 250 mv. 160 k $\Omega$ (1 kHz) AUXiliary: 190 mv. 160 k $\Omega$ (1 kHz)
Output Terminals and Jacks	Speakers: 4~16 ohms Stereo headphones jack, Simultaneous tape Recording jacks, equipped with TAPE MONITOR switch. Tape recording/playback jack (DIN standards)
Equalization Curves	PHONO: RIAA TAPE: NAB
Tone Controls (each channel)	BASS: boost 13 dB, cut 14 dB (at 50 Hz) TREBLE: boost 10 dB, cut 12 dB (at 10 kHz)
Filters	HIGH: cut 10 dB (at 10 kHz)
Loudness Contour	Switchable to ON-OFF boost 13 dB at 50 Hz, boost 9 dB at 10 kHz, with VOLUME control set at -40 dB

### Power Supply, Etc.

Line Requirements	117V, 50-60 Hz. 95 watts (Max)
Dimensions	Over-all 16"—405 mm (width) 5 <sup>7</sup> / <sub>16</sub> "—137 mm (height) 13 <sup>3</sup> / <sub>16</sub> "—350 mm (depth)
Weight	Net Net 20 lbs. 9.1 kg Net 26 lbs. 11.8 kg

# PIONEER



**PIONEER ELECTRONIC CORPORATION**

15-5, 4-Chome, Ohmori-nishi, Ohta-ku, Tokyo, Japan

**PIONEER ELECTRONICS U.S.A. CORPORATION**

140 Smith St., Farmingdale, L.I., N.Y. 11735, U.S.A.

**PIONEER ELECTRONIC EUROPE AG.**

59, Forch Strasse, 8032 Zurich, Switzerland