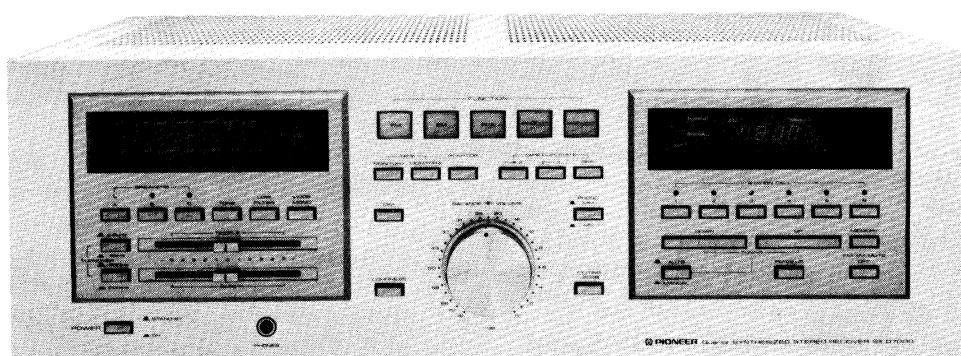


Operating Instructions

Quartz Synthesized
STEREO RECEIVER

SX-D7000

KU



IMPORTANT NOTICE

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep in a secure area.

This is for your security.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

 **PIONEER®**

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS — The operating instructions should be retained for future reference.

HEED WARNING — All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

WATER AND MOISTURE — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION — The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING — The appliance should not be mounted to a wall or ceiling.

VENTILATION — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

CLEANING — The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzene, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES — An outdoor antenna should be located away from power lines.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE — The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped, or the enclosure damaged.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be contacted nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NEPA No. 70-1978, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS

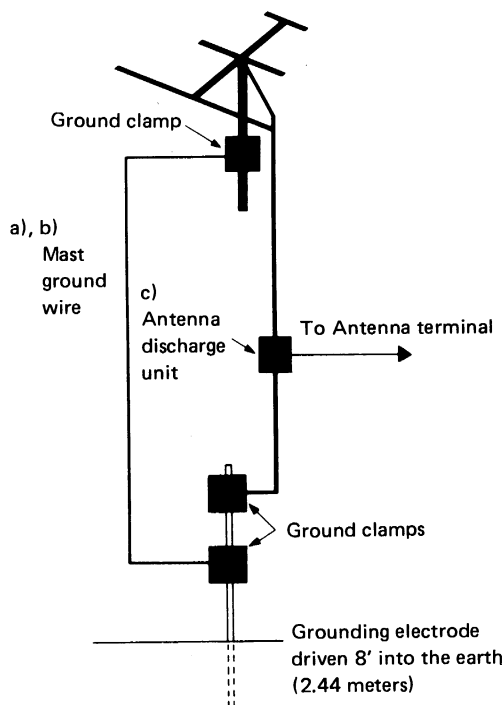


Fig. A

- a) Use No. 10 AWG copper or No. 8 AWG aluminum or No. 17 AWG copper-clad steel or bronze wire, or larger as ground wires for both mast and lead-in.
- b) Secure lead-in wire from antenna to antenna discharge unit and mast ground wire to house with stand-off insulators, spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
- c) Mount antenna discharge unit as closely as possible to where lead-in enters house.

CONTENTS

Features	3	How to Preset the Station	14
Rear Panel Facilities	4	Tape deck Operations	15
Connection Diagram	5	Effective Operation	16
Connections	6	Using the PREAMP OUT and POWER AMP IN jacks ..	17
Antenna and Ground Connections	8	Specifications	18
Front Panel Facilities	10	Troubleshooting	20
Operation	13		

FEATURES

Quartz Synthesized Tuner Section

The quartz synthesized tuner employs two scanning methods, auto scan tuning and manual scan tuning, to pick up broadcasting stations and hold the frequency point securely. In the auto scan tuning mode, the frequency band is automatically scanned when the UP or DOWN tuning switch is lightly depressed, and the frequency of the broadcasting station is picked up. In the manual scan tuning mode for FM, the frequency changes in 100 kHz units every time the tuning switch is depressed once while in the AM band, the frequency varies in 1 kHz units. The tuned frequency is controlled using a reference frequency produced by a highly precise quartz crystal and so tuning is sure-fire without drift or fluctuations.

Another big feature is that the six STATION CALL switches can be used to preset up to six FM and six AM frequencies for later recall at the touch of the switch.

When the power switch is turned on again after having been turned off and when the function switch has been selected, the last station which was tuned in is held in the memory for instant recall.

DC Power Amplifier with Non Switching Amplifier System

The DC power amplifier features a non-switching amplifier system which uses a high-speed bias servo circuit to control the bias current of the transistors in the power amplifier's output stage at a high speed and which, like a class A amplifier, employs transistors in the active region at all times. As with a class B amplifier, the end-stage transistors are prevented from being set to the cut-off mode and so there is no switching distortion. Furthermore, the bias current varies in line with the input signals and the power efficiency is as high as with a class B amplifier.

Along with the adoption of the non-switching amplifier system, the power amplifier with its first-stage differential current mirror load DC amplifier configuration pumps out

Continuous power output of 120 watts* per channel, min., at 8ohms from 20Hertz to 20,000 Hertz with no more than 0.005% total harmonic distortion.

* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.

Preamplifier Guaranteeing High-fidelity Sound Reproduction

The tone amplifier which employs low-noise, low-distortion ICs assures a low distortion of 0.005% (from 20Hz to 20,000Hz, 4V output). The equalizer amplifier also employs low-noise transistors and also high-precision capacitors and resistors to deliver top-notch characteristics such as an RIAA deviation of ± 0.2 dB over 20 to 20,000Hz, a signal-to-noise ratio of 86dB (MM), 72dB (MC) and a maximum allowable input of 200mV (MM).

Fluorescent Display Tubes for Power Meter and Frequency Indicator

Featured for the power meter is a fluorescent display tube using the latest digital technology, a logarithmic compression circuit and a peak hold circuit. This combination allows a power output level display from 0.001 watts up to 120 watts without range selection on a bar graph display.

In addition, there is a reception frequency display based on a fluorescent display tube. This indicates the frequency of the broadcasting station in five digits so that it is easy to tune in a station quickly. The tuning and signal indicators also use new indicators with fluorescent display tubes.

Other Features

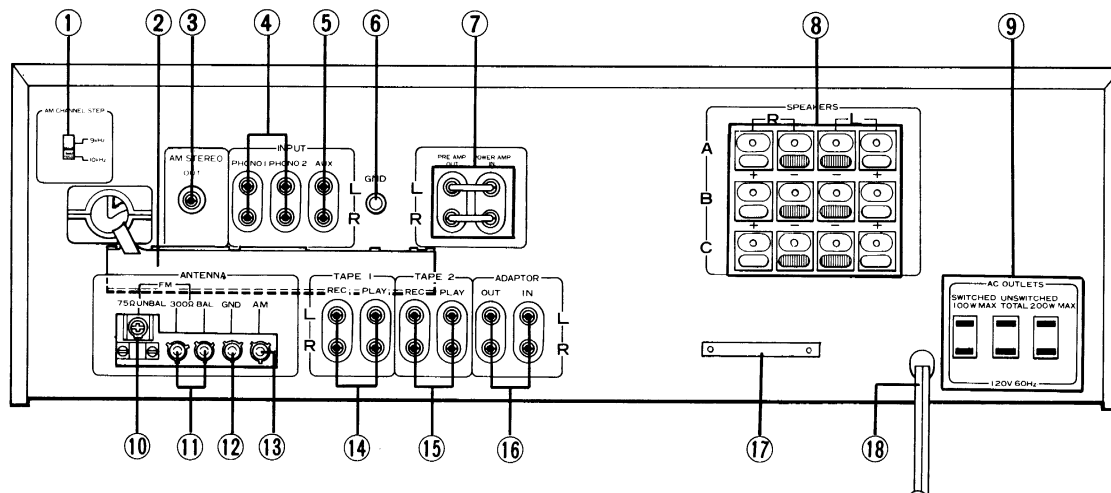
TURNOVER switches: These switches yield variations in the curves of the BASS and TREBLE controls when they are operated in conjunction with the other BASS and TREBLE controls. One is used for the bass and the other for the treble, thereby allowing plenty of variation in BASS and TREBLE control adjustment.

PNONO MM/MC switch: This switch is used to select between MC (moving coil) cartridges and MM (moving magnet) cartridges. There is no need to change over the turntable connections every time you want to use a different cartridge.

TAPE DUPLICATE switch: This switch allows you to use two tape decks to edit or duplicate material recorded on one tape to another. Duplication from an open-reel deck to a cassette deck, for example, can be performed in a one-touch operation.

- AM STEREO OUTPUT jack for AM stereo broadcast
- FM 25 μ S Switch and Adaptor Switch
- Separable Preamplifier/Power amplifier
- FM/AM muting switch

REAR PANEL FACILITIES



① AM CHANNEL STEP SWITCH

This switch is normally set to the 10 kHz position. Set it to the 9 kHz position when the channel allotment plan is changed and the intervals between the AM broadcasting stations change from 10 kHz units to 9 kHz units.

② AM BAR ANTENNA

This antenna is for AM broadcasts. When tuning in an AM station, first use the tuning operation and then move this bar antenna and set it where the optimum reception is obtained. At the same time observe the signal indicator.

For details, refer to "AM ANTENNA" on page 9.

③ AM STEREO OUTPUT JACK

This jack is for AM stereo broadcasts. When listening to the AM stereo broadcasts, connect the adaptor component to this jack. For further details, refer to the operating instructions of the AM stereo adaptor component.

④ PHONO 1, 2 JACKS

Connect the two turntables output cords to these jacks.

⑤ AUX JACKS

These are auxiliary input jacks. Connect a TV tuner or cartridge tape player to them.

⑥ GND TERMINAL

This is the ground terminal. Connect the ground wire of the turntable, etc. to this terminal.

⑦ PREAMPLIFIER/POWER AMPLIFIER CONNECTOR BARS

When the connector bars are disconnected from the jacks, you can separate the receiver's preamplifier and

power amplifier. For normal use, however, they are connected. For further details on how to use these bars, refer to page 17.

NOTE:

If these bars are not connected properly, you will not hear any sound from the speakers connected to the SPEAKERS terminals.

⑧ SPEAKERS TERMINALS A, B, C

Connect the three speaker systems to these terminals.

⑨ AC OUTLETS

These are spare power outlets. Insert the power plug on the stereo components (turntable, tape deck, etc.) into these outlets.

SWITCHED

The power supplied through this outlet is coupled to the operation of the receiver's power switch. The maximum power capacity which may be connected to this outlet is 100W.

UNSWITCHED

The power is always supplied through these two outlets regardless of the position of the power switch. The maximum power capacity which may be connected to these two outlets is 200W.

⑩ FM 75-OHM ANTENNA TERMINAL

Connect a 75-ohm coaxial cable to this terminal when using it as the feeder from the FM antenna.

⑪ FM 300-OHM ANTENNA TERMINALS

Connect a 300-ohm twin-lead feeder to these terminals when using it as the feeder from the FM antenna. Use these terminals when connecting the accessory T-type FM antenna.

12 ANTENNA GND TERMINAL

This is the ground terminal. From aspects of reduced noise, connect a ground lead to this terminal.

13 AM ANTENNA TERMINAL

When using an external AM antenna, connect it to this terminal.

14 TAPE 1 JACKS

Connect the tape deck cords to these jacks. Connect the REC (recording) jacks to the INPUT jacks on the tape deck, and the PLAY (playback) jacks to the OUTPUT jacks.

15 TAPE 2 JACKS

Connect your second tape deck cords to these jacks.

16 ADAPTOR JACKS

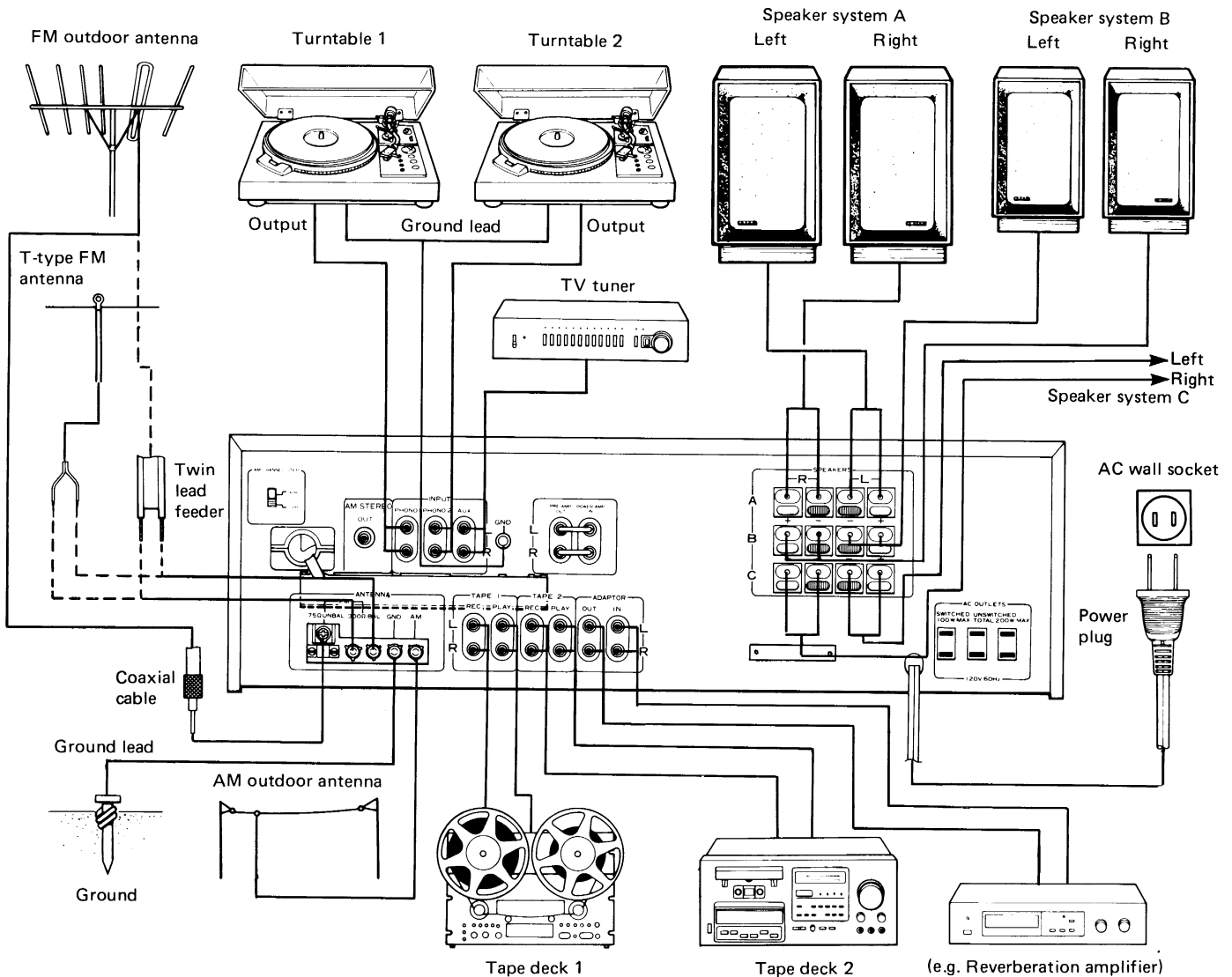
Connect the adaptor component or third tape deck to these jacks.

17 SERIAL NUMBER PLATE

18 POWER CORD

Plug this into an wall socket.

CONNECTION DIAGRAM



CONNECTIONS

PRECAUTIONS

- Set the POWER switch to ON only when you have completed all the connections of the stereo system. Always set this switch to STAND-BY position if you want to change the connections.
- All the receiver's jacks are aligned in two rows: the upper row for L (left channel) and the lower row for R (right channel). Always connect L to L and R to R with the audio component output and input jacks.
- Make sure that the connections are secure. Improper connections can generate noise or cause the sound to be cut off.
- The SPEAKERS switches may be used in combination so that sound can be heard through the A and B, A and C or B and C pairs of speakers. If the A, B and C switches are all depressed, no sound will be heard through the speakers.

SPEAKER SYSTEM CONNECTIONS (Fig. 1)

The receiver is provided with three sets of SPEAKERS output terminals. Use the A set when connecting only one set of speakers. Viewed from the front, the R (right channel) SPEAKERS terminals are on the right and the L (left channel) SPEAKERS terminals are on the left. Connect the left channel speaker to the L terminals and the right channel speaker to the R terminals.

Cautions when connecting the speakers

1. Do not plug the receiver's power cord into a wall socket before the speakers are fully connected to the SPEAKERS terminals.
2. The speaker output terminals have polarities: minus (black) and plus (red). The input jacks on the speakers also have plus and minus polarities. When connecting, make sure that these polarities are aligned: plus to plus and minus to minus. If the left and right speaker polarities are misaligned, the reproduced sound will not display a natural stereo effect.
3. Use speakers with a nominal impedance of 4 ohms or more.

If you want to connect three sets of speaker system, make sure that the impedance of each system is 8 ohms or more. If the impedance is less than 8 ohms, the protection circuit will be actuated when the volume is turned up and you will not be able to enjoy proper stereo performance.

4. Never use the speakers with the speaker output terminals shorted (minus and plus jacks connected) since this may damage the power transistors in the receiver.
5. This receiver delivers a high output power and so make sure that you use speakers with a high allowable input.
6. The high output power of this receiver requires that the speaker lead wires have an ample current carrying capacity. Use wires with a high capacity and connect them securely. If you use low capacity wires and do not connect them properly, the reproduced sound will be adversely affected and heat generation or short circuits may be caused.

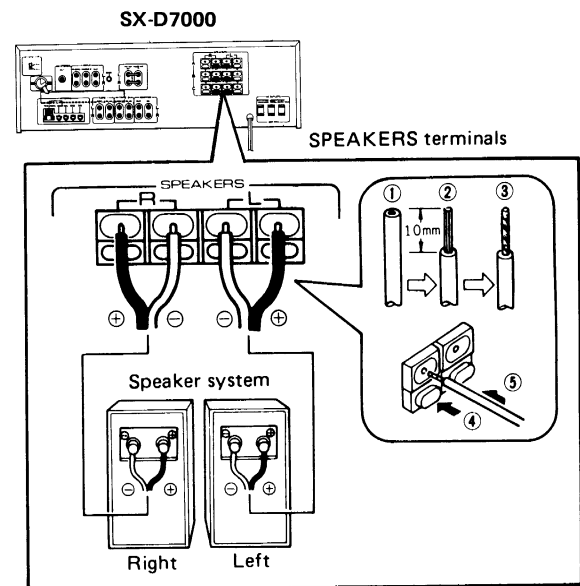


Fig. 1

Processing and connecting the speaker cords

1. Cut off the covering of the speaker cords as shown in Fig. 1.
2. If the strands at the tip of the cord are pointing in all directions, twist them with your thumb and forefinger. Otherwise some of the strands may come into contact with other terminals and cords, and cause a short.
3. Push the minus (black) button of the speaker terminals with your finger and insert the minus speaker lead into the hole above the button. The lead is locked into position when the button is released. Check that the lead is connected firmly.
4. In the same way, connect the plus speaker lead to the plus terminal (red).
5. Check that the core wires of the speaker leads are not projecting from the terminals. If they should come into contact, this will give rise to a short circuit.

