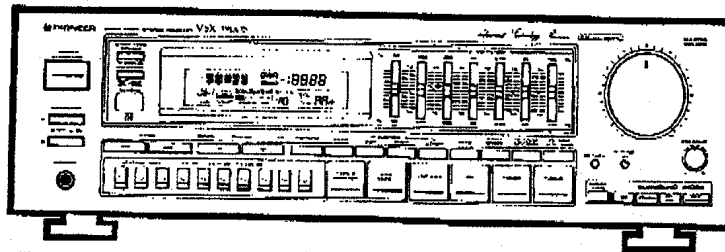## Operating Instructions

AUDIO/VIDEO STEREO RECEIVER

VSX-3800
VSX-3900S

* Illustration shows VSX-3900S.

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

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

IMPORTANT NOTICE
[For U.S. and Canadian models]

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

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

CONTENTS

⦿ PIONEER
The Art of Entertainment

SURROUND EFFECT

This unit has a built-in surround processor for adding presence and an expansive effect to the sound.

• STUDIO:

Select to this position to enjoy the effect of listening to music in a recording studio.

The source sound is output as is through the front speakers, with reverberation output through the rear speakers.

The center sound is positioned directly between the front speakers. This is particularly suitable for a sound source that has a lot of reverberation.

• SIMULATED SURROUND:

The "SIMULATED SURROUND" creates the effect of reverberated and reflected sound from the walls and ceiling similar to a concert hall. These sound-effects added to the actual sound from the source make you feel as if in a more expanded space. The different ranges of the expanded space can be set by the Delay Time Switch. For example, set the Delay Time to 5 ms to 20 ms for a live-house concert. For chamber music, set to 15 ms to 20 ms. For orchestral music, set to 25 ms to 30 ms. The "SIMULATED SURROUND" also gives effects on monaural sources by outputting the reverberated sound from the rear speakers while keeping the output sound from the front speakers as it is. Turn on the "SIMULATED SURROUND" for a monaural source to gain the effective surround playback.

• DOLBY SURROUND:

Choose this setting for movies and music (especially Video Discs and video tapes bearing the ▯▯ DOLBY SURROUND mark) playback. Dolby Surround decodes the surround information in the source signal, providing a feeling of left-right and front-back movement matching the action on screen.

Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590; Canadian numbers 1,004,603 and 1,037,877. "Dolby" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories Licensing Corporation.

Fabriqué sous licence de Dolby Laboratories Licensing Corporation et sous un ou plusiers des brevets suivants: U.S.A. 3,632,886, 3,746,792, et 3,959,590; Canada 1,004,603 et 1,037,877. DOLBY et le symbole double-D ▯▯ sont des marques de Dolby Laboratories Licensing Corporation.

When using DOLBY SURROUND, a delay time setting of 20 ms is usually appropriate.

If your rear speakers are very close to the listening position, try 25 ms or 30 ms; if they are some distance away try 15 ms.

Adjustment of input balance is required to obtain the correct DOLBY SURROUND effect. For the adjustment procedure, refer to "DOLBY SURROUND INPUT BALANCE ADJUSTMENT PROCEDURE" on page 20.

SURROUND SPEAKER INSTALLATION EXAMPLE

To get the best effect out of the surround system, place the speakers as shown below.

An example for speaker location
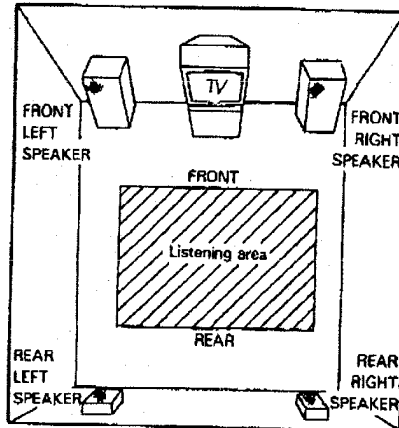

NOTE:
* To avoid interference with the picture on a nearby TV set, use magnetically shielded speaker systems.
* Position the left and right channel speakers at equal distances from the TV set and approximately six feet from each other.
* Rear speakers are best positioned slightly above ear level.

Note:
Dolby Surround will not operate correctly if the signal passes through a graphic equalizer.
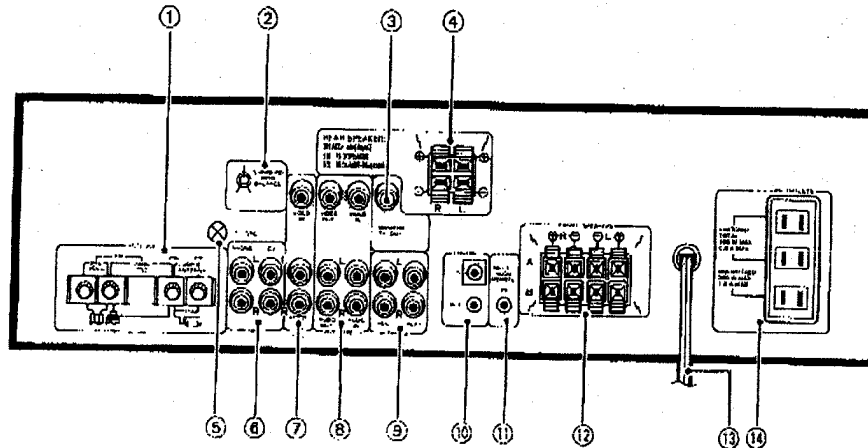
① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

② SURROUND INPUT BALANCE control

This knob is for adjusting the balance of the DOLBY SURROUND input signal. To adjust, apply a monaural sound signal and rotate until the SURROUND (rear) sound becomes minimal (see page 20).

③ MONITOR TV OUT jack

Connect to a monitor TV or a TV set with video input jacks.

④ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.
Use rear speakers of impedance 8 Ω to 16 Ω.

NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

⑤ GND terminal

Connect to the ground lead of a turntable.

⑥ INPUT jacks

PHONO .... Connect to the output cables from a turntable.
CD .... Connect to the output jacks of a compact disc player.

⑦ VDP/CDV jacks

Connect to a video disc player's video and audio output jacks.

⑧ VCR/TAPE 1 jacks

Connect to a VCR or cassette deck.
When connecting to a cassette deck, use only the L and R jacks. When connecting to a VCR, also connect the VIDEO IN, OUT jacks.

⑨ TAPE 2 jacks

Connect the cassette deck to these jacks.

⑩ CONTROL IN/OUT jacks

IN: Connect to other Pioneer components to this jack when using those components to control this unit.

OUT: Connect to other Pioneer components to this jack when using the remote control of this unit to control the other components.

NOTE:
The receiver's remote sensor does not function when a plug is inserted in the IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.

To the CONTROL IN jack of other component.

Receiver   Pioneer component bearing the [🎛] mark.

Remote control unit
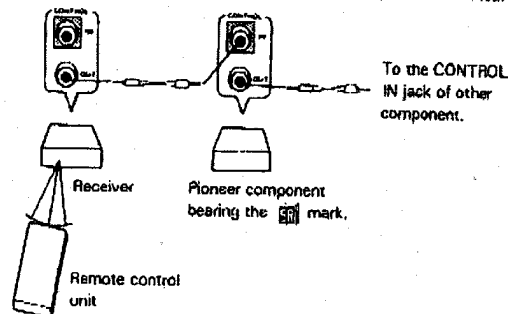
⑪ MULTI-ROOM REMOTE IN jack (See page 7)

Connect the adaptor (MR-100, sold separately) to this Multi-Room Remote IN jack. You can operate the unit by remote control via the adaptor. It is convenient when the unit is located in a separate room.

⑫ SPEAKERS terminals

A: Connect to a first set of speakers.
B: Connect to a second set of speakers.

NOTE:
* Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
* No sound will be heard through the speakers when both A and B switches are pressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑬ Power cord (See page 4)

⑭ AC OUTLETS (See page 4)

MULTI-ROOM REMOTE CONTROL UNIT CONNECTION

Multi-Room Remote control
unit MR-100 (Option)

MULTI-ROOM
REMOTE
IN   OUT
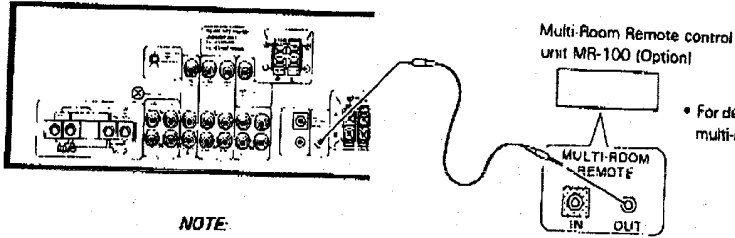
• For details, see operating instructions for
multi-room remote control unit MR-100.

NOTE:
*Be careful not make the wrong connections for CONTROL IN/OUT
(black) and MULTI-ROOM REMOTE IN (green).*

[Set-up example]

Speakers B

Remote control unit

MR-100

Bed Room

Speakers A

A/V system
(including VSX-3900S or VSX-3800)

Speakers A   Living Room
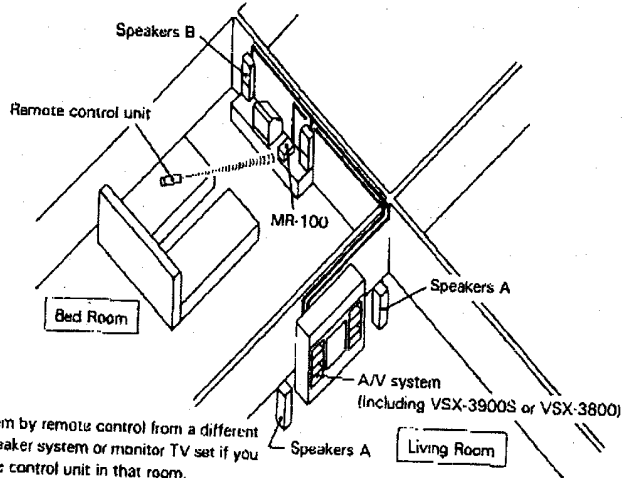
You can operate the main system by remote control from a different
room in which are installed a speaker system or monitor TV set if you
also install a Multi-Room remote control unit in that room.

7

<ARB1319>

CONNECTIONS

Audio components connections

FM antenna

AM loop antenna

Set up.

Front speaker system A

L   R

VSX-3800
/ VSX-3900S

Rear speaker system

L   R

Front speaker system B

L

R

Ground   Turntable   CD player   Cassette deck   Cassette deck

OUTPUT   REC   PLAY   REC   PLAY
L   L   L
R   R   R
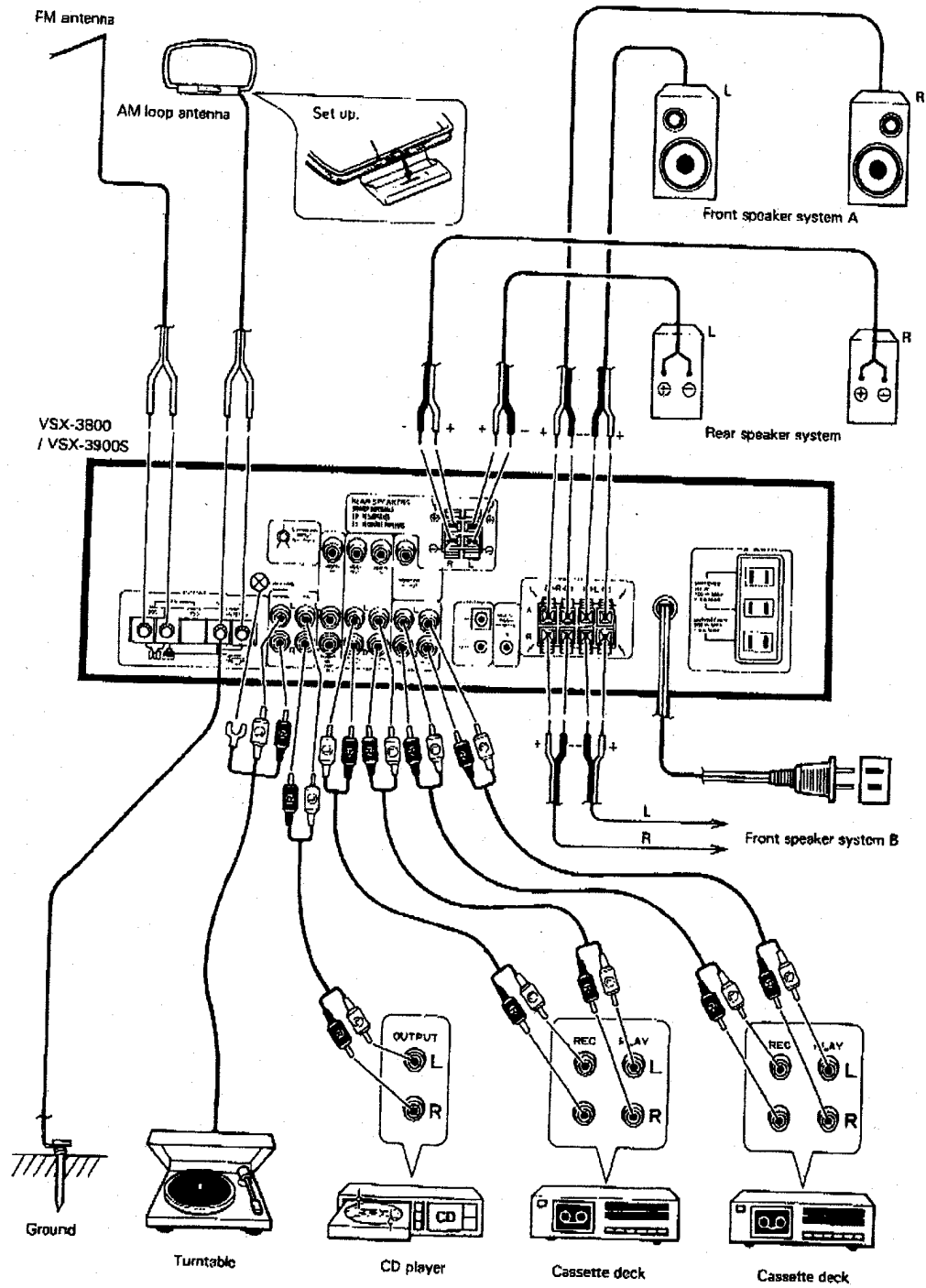
Video components connections

LD player   VCR   TV monitor
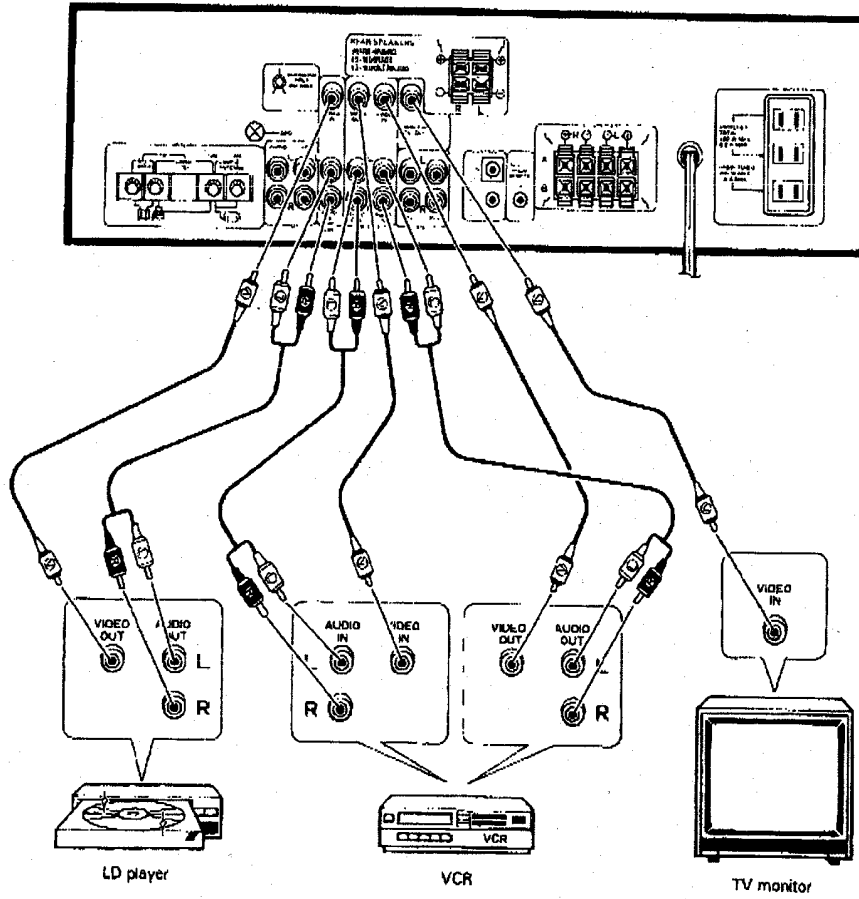
NOTE:
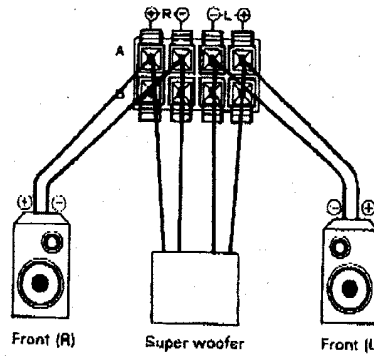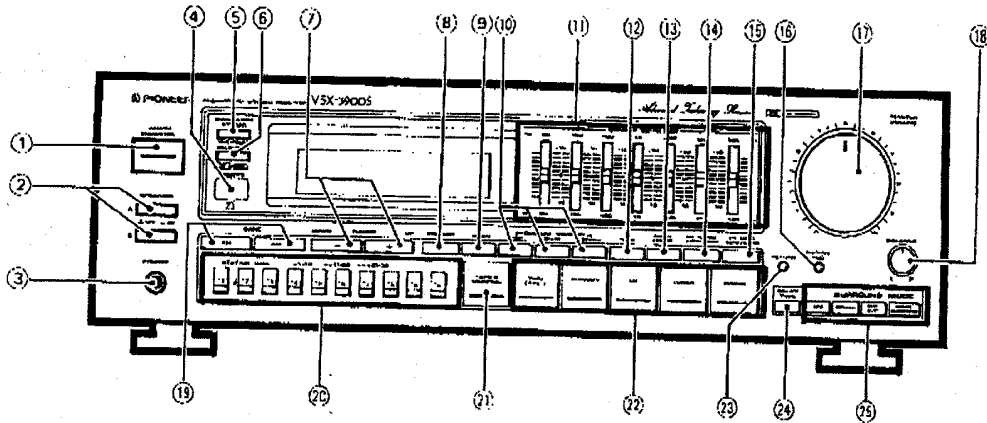When connecting a super woofer system such as the Pioneer S W1000, connect it to the same speaker terminals (A or B) to which the front speakers are connected. Connecting the front speakers and super woofer system to terminals A and B respectively will result in reduced volume from the front speakers.

Front (R)   Super woofer   Front (L)

① POWER (STANDBY/ON) switch

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

* The accessory remote control unit can also be used to operate STANDBY/ON function of this switch.
* When not using the unit for a long period, disconnect the power cord.

[TIMER ON/OFF possible]

When the unit is switched ON, ON/OFF can be performed with the optional timer.

NOTE:

When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

② SPEAKERS switches (■ OFF, ▬ ON)

These are used to select the speaker through which you wish to listen.

A: When the speakers connected to A terminals are in use.

B: When the speakers connected to B terminals are in use.

* Turn both A and B speakers to OFF position when only the HEADPHONES are in use.

NOTE:

No sound will be heard through the speakers when both A and B switches are pressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

③ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

④ Remote sensor window

⑤ SIMULATED STEREO switch

This turns monaural signals into simulated stereo sound. Use this when you wish to experience a sense of stereo presence with AM broadcasts, VCR or other monaural signal sources.

NOTE:

This function can also be used with stereo sources, but it will result in a different sound from the normal stereo sound.

⑥ V (Video)-SIGNAL SELECTOR switch

This lets you switch the video signal without switching the audio signal. This means that you can, for example, listen to a CD while watching a video disc.

⑦ TUNING switches (DOWN –, UP +)

UP: The FM or AM band is scanned in the direction of increasing frequency

DOWN: The opposite operation to that of the UP switch takes place.

⑧ MEMORY switch

When the unit is in the frequency display mode, pressing this switch will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.

This switch is also used to input custom memory names (see page 17).

⑨ SCAN switch

This switch is used for both station memory scan and custom memory scan.

⑩ CUSTOM MEMORY switches

You can use these switches to classify stations assigned to STATION CALL switches into different genres of music, depending on the material played on the station.

After classifying the stations, you can recall a particular genre and scan all the stations of that genre with memory scan until you find the desired one.

## ⑪ GRAPHIC EQUALIZER controls

The equalizer is divided into seven frequency ranges (60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz) to tailor music to the individual taste of the listener.

⑫ HITS (Hyper Intelligent Tuning System) switch

* If the HITS switch is pressed during input of numbers for DIRECT ACCESS tuning, the receiver sets the remaining digits which have not yet been input to "0," searches for the corresponding frequencies, and stops on the first station it finds.
* If the HITS switch is pressed at the currently displayed station frequency, the receiver searches up and down the frequency for the next station (The SEARCH indicator in the display section lights at this time.) and stops at the first one it finds.

11

<ARB1319>

(FM)
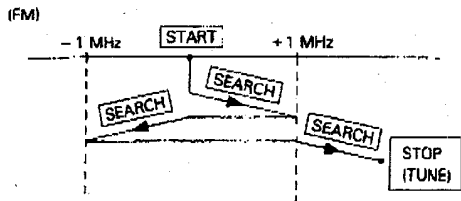
NOTE:
- *The system searches for stations within successive 1 MHz ranges for FM and 100 kHz ranges for AM. During DIRECT ACCESS tuning, it searches up and down for a station until it reaches the edges of the band. If no receivable station is found within the band range, the receiver returns to the state it was in before the HITS switch was pressed.*
- *If the upper (or lower) frequency limit of the receiver is encountered during HITS operation, the receiver stops searching in that direction but continues to search in the other.*

⑬ DIRECT ACCESS tuning switch

When this switch is pressed, the STATION CALL switches function as numeric number switches for direct input of the desired reception frequency. Press again to cancel this mode.
If the input station falls outside of the receiver's tuning range, the display section will display a message: "UPPER" if the frequency is too high and "LOWER" if it is too low (see page 15).

⑭ FM TUNING AUTO/MANU switch

Works during FM reception.
Use this switch to select either the AUTO mode or the MANUAL mode. When the "AUTO TUNING" indicator is lit, the receiver is in the AUTO mode (see page 14).

⑮ FM MODE AUTO/MONO selector switch

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator is lighted.
Auto stereo mode:
Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.
Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This switch has no effect on reception of AM broadcasts.

⑯ MUTING switch

Press to temporarily cut off the sound volume. The display section MUTING indicator will flash. When pressed again, the sound will return to its previous level.

⑰ MASTER VOLUME control

Use to adjust volume level.

⑱ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L position and if the left side is louder, turn toward the R position.

⑲ BAND Selector switches

These switches are used to select either AM or FM reception.
AM: Press this switch for AM reception.
FM: Press this switch for FM reception.

⑳ STATION CALL switches

These switches are used to preset and recall desired broadcasting stations.

㉑ TAPE 2 MONITOR switch

Press when listening to tape playback with the cassette deck 2.

㉒ Function switches

Use to select playback source.
[VCR/TAPE 1] – Press when performing playback on the cassette deck 1 or VCR.
[VDP/CDV] – Press when performing playback on a video disc player or CDV player, etc.
[CD] – Press when listening to compact disc playback with a CD player.
[TUNER] – Press when listening to AM or FM broadcasts with a tuner.
[PHONO] – Press when listening to record playback on a turntable.

㉓ RETURN switch

Pressing this switch returns the receiver to the following settings, the sound level being controlled by MASTER VOLUME control knob.
- TAPE 2 MONITOR   OFF
- MUTING   OFF
- INPUT SELECTOR   TUNER
- BAND   FM *

* The last FM broadcast you were listening to will be received. When reception is not possible, search begins for frequency that can be received.
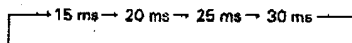
NOTE:
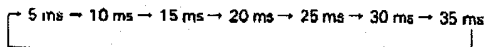*If no sound is output after the RETURN switch is pressed, make sure that SPEAKERS switches are turned on.*

㉔ DELAY TIME switch

Operates when the SIMULATED or DOLBY SURROUND mode is ON.
For DOLBY SURROUND, 20 ms is standard.
DOLBY SURROUND:

```
┌──→15 ms → 20 ms → 25 ms → 30 ms ──┐
└──────────────────────────────────┘
```

SIMULATED SURROUND:

```
┌→ 5 ms → 10 ms → 15 ms → 20 ms → 25 ms → 30 ms → 35 ms
└───────────────────────────────────────────────────┘
```

㉕ SURROUND MODE switches

OFF:
To cancel the surround function.
STUDIO:
Enjoy the atmosphere of listening to music in a recording studio.
SIMULATED SURROUND:
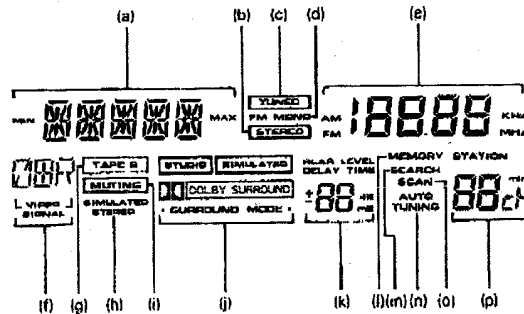Gives concert-hall presence to monaural sound (AM, TV, etc.).
With a monaural source, a much better surround effect is achieved if it is used together with SIMULATED STEREO.
DOLBY SURROUND:
Select this setting when watching video tapes or video discs bearing the ▯▯ DOLBY SURROUND mark.

Operation display panel

(a) Displays function and custom memory name, as well as surround and rear level.
(b) STEREO indicator
Lights when a stereo FM broadcast is being received.
(c) TUNED indicator
Lights when a station is tuned.
(d) FM MONO indicator
Lights when the FM MONO mode is selected with the FM MODE AUTO/MONO switch.
(e) Frequency display
(f) VIDEO SIGNAL display
Displays the component selected with the V-SIGNAL SELECTOR switch.
(g) TAPE 2 indicator
Lights when the TAPE 2/MONITOR switch is ON.
(h) SIMULATED STEREO indicator
(i) MUTING indicator
Flashes when MUTING is ON.

(j) SURROUND MODE indicator
Displays the surround mode selected with the SURROUND MODE switches.
(k) REAR LEVEL/DELAY TIME display
When REAR LEVEL is lit, it displays the surround rear level as compared to the front level. The offset value is 0 dB, A maximum of 20 dB, and a minimum of $-\infty$ is displayed.
When DELAY TIME is lit, it displays surround delay time settings.
(l) MEMORY indicator
(m) SEARCH indicator
Lights during HITS operation or when the RETURN switch is pressed and the last FM broadcast could not be received.
(n) AUTO TUNING indicator
Lights when the FM TUNING AUTO/MANUAL switch is set to AUTO.
(o) SCAN indicator
Lights during station memory scan and custom memory scan operation
(p) STATION display
Indicates channel (STATION CALL number) or sleep time.

SETTING THE UNIT PRIOR TO OPERATION

• Before operating the unit, be sure to set it as shown below.

Set the MASTER VOLUME control to the "0" position.

Press the SPEAKERS switch corresponding to the speaker system to be used.
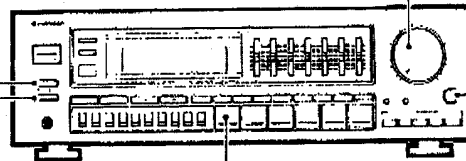
Set the BALANCE control to the center position.

Set the TAPE 2 MONITOR switch to OFF (TAPE 2 indicator goes off).

13
<ARB1319>

GRAPHIC EQUALIZER CONTROLS

The advantage of the GRAPHIC EQUALIZER over conventional tone controls is that with the seven controls of the GRAPHIC EQUALIZER it is possible to control seven different narrow, distinct sections of the audio band. With conventional tone controls a setting for a bass or treble boost or cut will also affect the lower or upper mid frequencies. The frequency bands controlled by the seven slide controls have been chosen to yield the maximum possible control action within the audio spectrum.
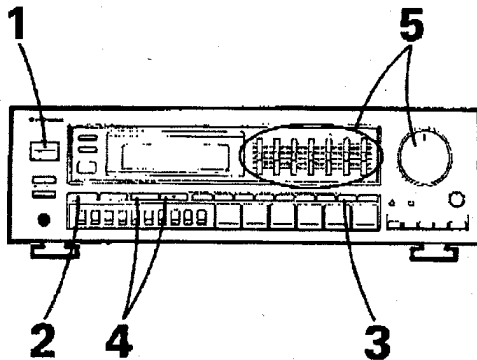
Emphasize frequency range.

De-emphasize frequency range.
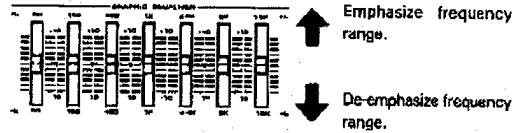
LISTENING TO THE BROADCAST

* Check that all terminals are properly connected before switching on the unit.
* Be sure to turn the TAPE 2 MONITOR switch OFF when listening to AM or FM broadcasts.

AUTO TUNING (FM reception)

The electronic tuning circuit inside the unit will search for the station.

1. Press the POWER switch to the ON position.
2. Set the BAND selector switches for FM reception.
3. Press the FM TUNING AUTO/MANU switch to establish the AUTO tuning mode (the AUTO TUNING indicator lights).
4. Press the TUNING switches "UP +" or "DOWN –" for a higher or lower frequency as desired.

   The frequency will change rapidly during scanning. The AUTO TUNING will stop automatically when the station is located and the TUNED indicator will light up.

NOTE:
When the AUTO TUNING is in use, reception may not be possible over long distances or when signals are weak. At these times manual tuning is recommended.

5. Adjust the volume with the MASTER VOLUME control and the tone with the GRAPHIC EQUALIZER controls.

MANUAL TUNING (FM/AM reception)
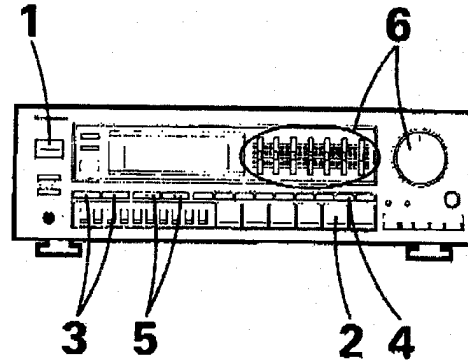
1. Press the POWER switch to the ON position.
2. Press the TUNER switch of the function switches.
3. Select either FM or AM using the BAND selector switch.
4. Press the FM TUNING AUTO/MANU switch to establish the MANUAL tuning mode (the AUTO TUNING indicator goes off) during FM reception.
5. Use the TUNING switches to locate the frequency of the desired station.

   For step-by-step searching, press the TUNING switch once and release it immediately. For continuous rapid scanning keep the TUNING switch pressed. The TUNED indicator will light up when the station is tuned in best.
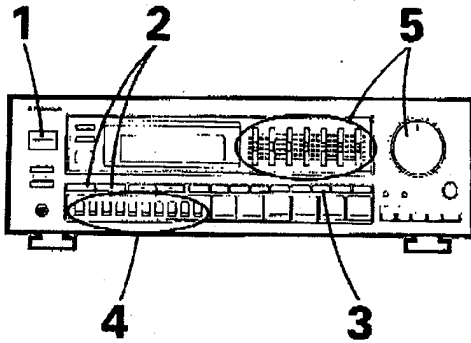
NOTE:
The TUNED indicator will not function for broadcasts received over long distances or when signals are weak.

6. Adjust the volume with the MASTER VOLUME control and the tone with the GRAPHIC EQUALIZER controls.

LISTENING TO BROADCASTS USING DIRECT ACCESS TUNING

Example 1: To receive FM 106.00 MHz

When you know the frequency of the desired station, the frequency can be input directly using the STATION CALL (number) switches in the following way:

1. Press the POWER switch to the ON position.

NOTE:
Be sure to turn the TAPE 2 MONITOR switch OFF when listening to AM or FM broadcasts.

2. Select either FM or AM using the BAND selector switch.

3. Press the DIRECT ACCESS tuning switch.

4. Input the desired station frequency using the STATION CALL switches.

Once the station frequency has been input, the receiver tunes in that frequency. If the input frequency falls below the lower or upper limit of the receiver's receivable frequency range (FM: 87.5 MHz – 108 MHz; AM: 530 kHz – 1,700 kHz "LOWER" or "UPPER" is displayed, indicating that the frequency which has been input cannot be tuned in.

5. Adjust the volume with the MASTER VOLUME control and the tone with the GRAPHIC EQUALIZER controls.

To cancel frequency input

Direct access is canceled when the DIRECT ACCESS tuning switch is pressed again.
Under the following conditions direct access is canceled and the unit returns to the condition in effect before direct access was selected:
① If there is no switch input for about five seconds after the DIRECT ACCESS tuning switch was pressed.
② If more than about eight seconds elapse between number input.

* There is no need to input the last digit "0" of the desired station frequency.

PRESET TUNING

FREQUENCY PRESETTING

Allows three stations per STATION CALL switch (press once, twice, or three times to select).

1. Press the POWER switch to the ON position.

NOTE:
Be sure to turn the TAPE 2 MONITOR switch OFF when listening to AM or FM broadcasts.

2. Select either FM or AM using the BAND selector switch.

3. Tune in the desired station.

- See the section "DIRECT ACCESS TUNING" for information on reception using the Direct Access Tuning mode.
- See the section "AUTO TUNING" for information on reception using the Auto Tuning mode.
- See the section "MANUAL TUNING" for information on reception using the Manual Tuning mode.
  In addition to station frequencies, the FM MODE (AUTO/MONO) can also be preset.

4. Press the MEMORY switch.

5. Press the STATION CALL switch into which you wish to preset the station.

- Press the STATION CALL switch while the MEMORY indicator is flashing (about 5 seconds).
- Use the STATION CALL switches (*1 ~ *9, *0) to select a preset channel. One press selects the 1 - 10 range, two presses 11 - 20, and three presses 21 - 30.

```
[Example] If you press switch *3 :
```

Once — STATION 3
Twice — STATION 13
Three times — STATION 23

Press a STATION CALL switch within two seconds. When the display stops flashing, the station is preset.

NOTE:
Do not press switches, while the display is flashing.

6. Repeat steps 2 to 5 to preset additional stations.

Total of 30 AM and FM stations may be preset. When you store a new preset, it takes the place of the previously stored station (if any).

LISTENING TO BROADCASTS USING PRESET TUNING

1. Press the POWER switch to the ON position.

2. Press the STATION CALL switch into which the desired station has been preset.

- When the Function switch is set to a function other than TUNER, it will switch to the TUNER function automatically if one of the STATION CALL switches is pressed.
  Tuning can be performed simply and accurately following the above procedure.

3. Adjust the volume with the MASTER VOLUME and tone control with the GRAPHIC EQUALIZER controls.
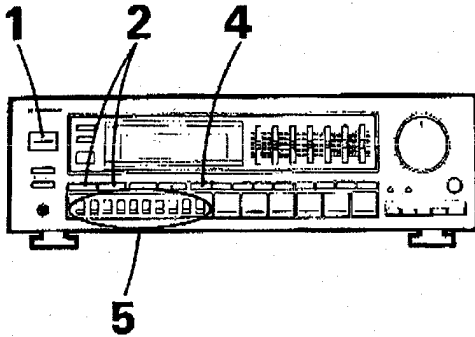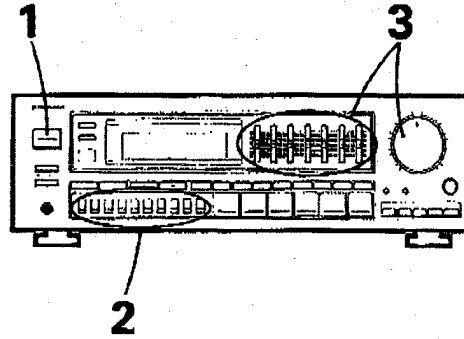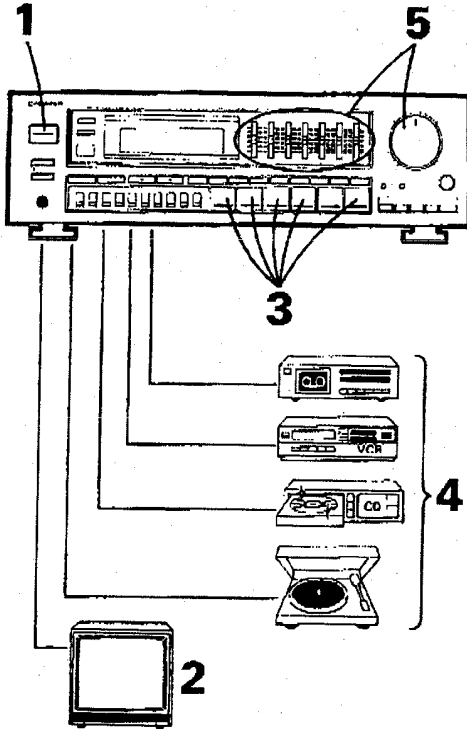
NOTE:
The contents of the STATION CALL switch will be preserved for several days, even if the receiver power cord is unplugged.
If a preset station has been erased, preset it again.

Last station memory

The last received AM and FM stations remain stored despite FUNCTION and/or POWER switching. To recall, use BAND selector switches.
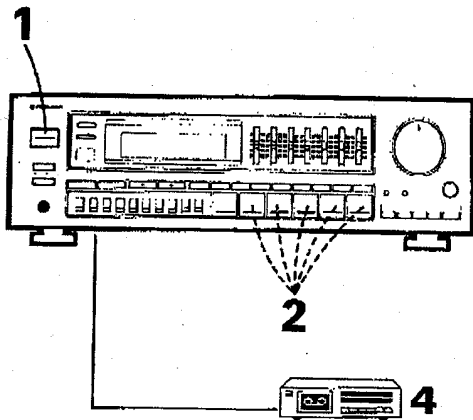
TO WATCH OR LISTEN TO OTHER SOURCES

1. Turn on the POWER switch to the unit and power to the components you wish to use.
2. When using video components, switch on power to the Monitor TV.
3. Use the function switches and tape monitor switches as appropriate to select the desired program source.

	Function switch	TAPE 2 MONITOR switch
To listen to a tape on the cassette deck connected to TAPE 2 jacks	—	ON
To watch or listen to the component connected to VCR/TAPE 1 jacks	VCR/TAPE 1	OFF
To watch or listen to the component connected to VDP/CDV jacks	VDP/CDV	OFF
To listen to a CD	CD	OFF
To listen to records	PHONO	OFF

4. Operate the appropriate audio or video component to play back the program source.

5. Adjust the volume with the MASTER VOLUME control and the tone with the GRAPHIC EQUALIZER controls.

TAPE RECORDING

[For a cassette deck]

You can record an FM or AM broadcast, or a sound source connected to the VCR/TAPE1, VDP/CDV, CD and PHONO jacks.

1. Turn on the POWER switch of the unit.
2. Select the sound source to be recorded.
3. Turn on (or start) the sound source to be recorded.
4. Operate the cassette deck connected to the VCR/TAPE 1 or TAPE 2 jacks.

   * For details of operating the cassette deck, read the operating instructions of the cassette deck.

1 **5**

3

4

2

1. Turn on the POWER switch to the unit and power to the components you wish to use.
2. When using video components, switch on power to the Monitor TV.
3. Use the function switches and tape monitor switches as appropriate to select the desired program source.

	Function switch	TAPE 2 MONITOR switch
To listen to a tape on the cassette deck connected to TAPE 2 jacks	—	ON
To watch or listen to the component connected to VCR/TAPE 1 jacks	VCR/TAPE 1	OFF
To watch or listen to the component connected to VDP/CDV jacks	VDP/CDV	OFF
To listen to a CD	CD	OFF
To listen to records	PHONO	OFF

4. Operate the appropriate audio or video component to play back the program source.

5. Adjust the volume with the MASTER VOLUME control and the tone with the GRAPHIC EQUALIZER controls.

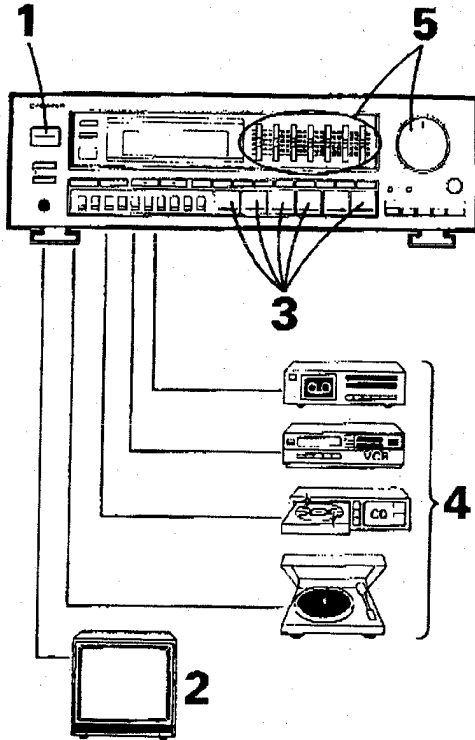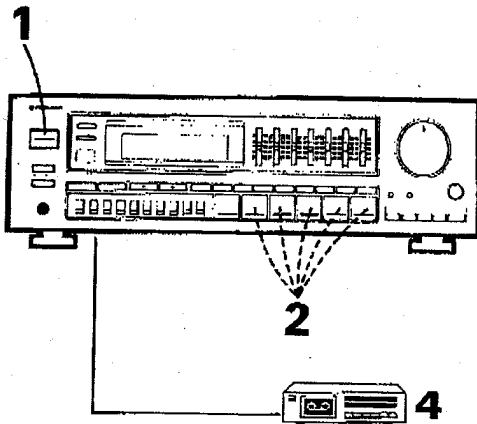# TAPE RECORDING

[For a cassette deck]

1

2

4

You can record an FM or AM broadcast, or a sound source connected to the VCR/TAPE1, VDP/CDV, CD and PHONO jacks.

1. Turn on the POWER switch of the unit.
2. Select the sound source to be recorded.
3. Turn on (or start) the sound source to be recorded.
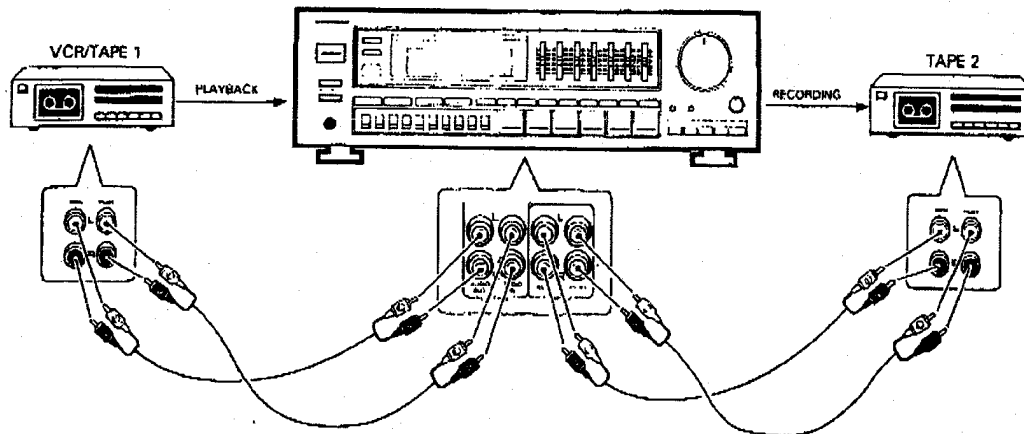4. Operate the cassette deck connected to the VCR/TAPE 1 or TAPE 2 jacks.
   * For details of operating the cassette deck, read the operating instructions of the cassette deck.

COPYING TAPES

When two cassette decks are used, the sound played back on the deck connected to the VCR/TAPE 1 jacks can be recorded on the deck connected to the TAPE 2 jacks:

• To make a tape copy with contents identical to the original tape.
• To edit a recording of an FM broadcast in order to cut out unwanted commercials, recording only the desired material onto another tape.

[When using two cassette decks]

1. Load the playback tape (i.e. the pre-recorded tape) in the deck connected to the VCR/TAPE 1 jacks, and the tape to be recorded in the other deck connected to the TAPE 2 jacks.
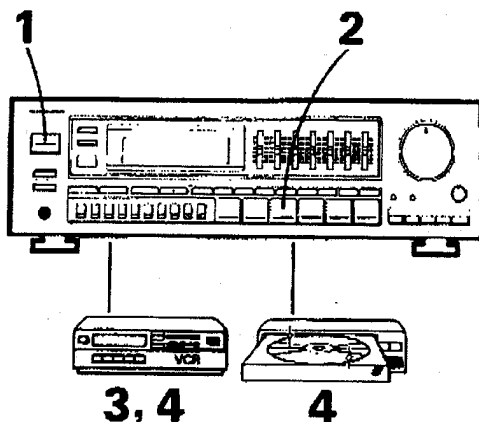2. Press the VCR/TAPE 1 switch.

3. Operate the cassette decks to begin copying.

Set the cassette deck with the non-recorded tape to the recording mode, and set the cassette deck with the original tape to the playback mode.

VCR RECORDING

When playing back from a video or audio component connected to the VDP/CDV jacks, you can record on a VCR connected to the VCR/TAPE 1 jacks.

Refer to the connection procedures on page 9 and refer to the VCR operating instructions regarding proper operation procedures.

1. Turn on the POWER switch to the unit and power to other components.
2. Press the VDP/CDV switch of the function switches.
3. Insert a video cassette for recording into the VCR and adjust the recording level. For details, consult the Operating Instructions for the VCR used.
4. Start recording on a VCR, and start playback on the component connected to the VDP/CDV jacks.

   • Select the line input for the VCR you wish to record on.

[When recording sound from an audio component on a VCR]

Operate using the following procedure 2.

2. Use the function switch to select the desired program source. (except for the VCR/TAPE 1 and TAPE 2/MONITOR)

To choose a radio tuner program source, press the desired STATION CALL switch if the station has been preset. If the desired station has not been preset, tune in the station using Auto, Manual or Direct access tuning.

NOTE:
TAPE 2 can not be used for VCR recording.

19
<ARB1319>

VSX-3900S REMOTE CONTROL OPERATION

LOADING BATTERIES

1. Open the battery compartment cover on the rear of the remote control unit. The cover should open easily if you slide it in the direction of the arrow while pressing on it with your thumb.
2. Take out the two supplied alkaline batteries size "AA" (LR6/AM-3), and insert them into the battery compartment in accordance with the indications in the compartment.
3. Close the cover of the battery compartment.
4. Press the PRESET button on the front lower left with the tip of the pen, etc.

RESET button
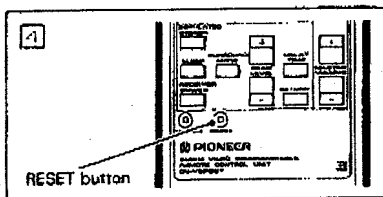
Incorrect use of batteries may lead to leakage or rupture. Always be sure to follow these guidelines:

A.
Always insert batteries into the battery compartment correctly matching the positive (+) and negative (   ) polarities, as indicated inside the compartment.

B.
Never mix new and used batteries.

C.
Batteries of the same size may have different voltages, depending on their type. Do not mix different types of batteries.

REMOTE CONTROL RANGE

When operating the remote control unit, point the front of the unit at the front panel of the receiver. The remote control unit may be used within a range of about 7 meters (23 feet) from the remote sensor, within angles of up to about 30 degrees.

Performance of the remote control unit is adversely affected in the presence of strong fluorescent light. Keep such lights away, especially from the sensor window.

30°
30°
7m (23 feet)
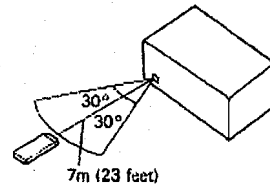
Battery Replacement

When the batteries have run out, the transmit indicator will not illuminate even when a key is pressed. Be sure to replace the batteries as soon as possible. As the programmed functions will be retained in memory only as long as batteries are inserted, remove the old batteries only if they can be replaced by new ones immediately.

Also, be sure to always use the specified batteries. (size "AA" (LR6/AM-3) alkaline batteries)

NOTE:
When no batteries are inserted, the programmed memory contents will be erased after 30 to 60 minutes.

OPERATION

① Transmit mode selector switch

AUDIO:
Select this position for remote control operation of audio equipment such as a CD player, tape deck or receiver.
VIDEO:
Select this position for remote control operation of video equipment such as a Video disc player (LD player), VCR or TV.

② TRANSMIT/LEARN indicator

When the LEARN selector switch is at the SR RECALL or USE position:
The indicator flashes when a key is pressed.
When the LEARN selector switch is at the LEARN position:
The indicator lights when the unit is in the learning standby mode.

③ LEARN selector switch

This can be set as follows:
LEARN:
This position is used for storing the codes of your remote control unit.
USE:
Set to this position after codes have been stored in the LEARN position. (Set to this position when using memorized commands.)
In the initial state, the SR RECALL position is equivalent to the Pioneer unified remote control code.

SR RECALL:
Set to this position when transmitting Pioneer unified remote control code signals (Marked on the remote control unit).
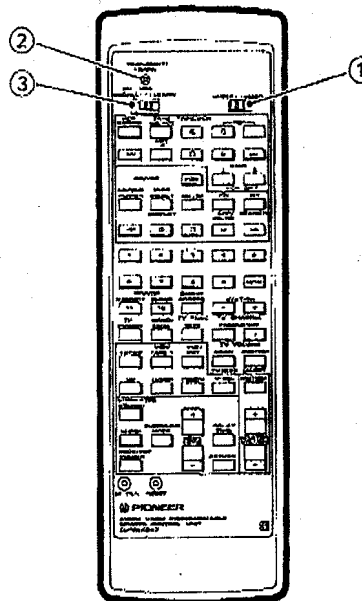
■ RECEIVER AMPLIFIER SECTION OPERATION

• Amplifier section control keys, VCR power key, and TV power key can be operated whether the transmit mode selector switch is at the AUDIO or VIDEO position.
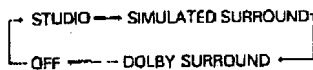
Set the LEARN select switch to SR RECALL.

INPUT SELECTOR keys:
Press VCR/TAPE 1, VDP/CDV, TAPE 2, CD, TUNER or PHONO to select the amplifier input.
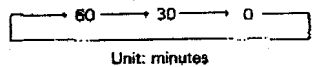
SURROUND MODE key:
The surround mode is switched in the following manner each time the key is pressed:

STUDIO → SIMULATED SURROUND
OFF → DOLBY SURROUND

SLEEP timer key:
Activates the SLEEP timer. The length changes in the following manner each time the key is pressed:

60 → 30 → 0

Unit: minutes

While the SLEEP timer is activated, the receiver's display section, graphic equalizer control knobs become less bright (dimmer function).
"SLEEP" appears in the display section. The time is indicated in the STATION display area. (Example: "60 ᵐⁿⁿ".)
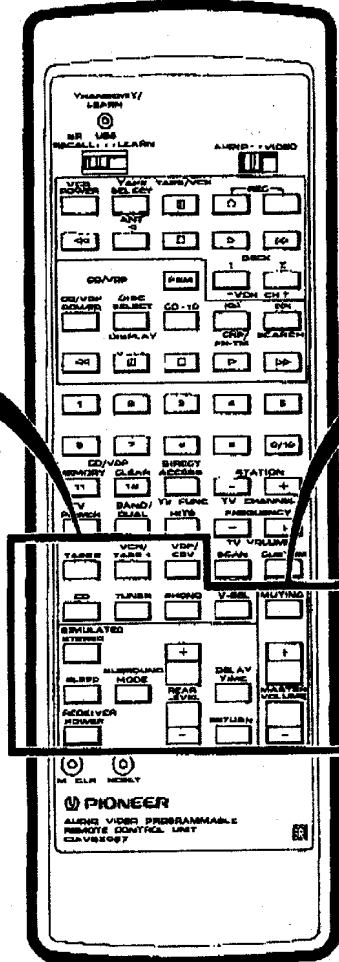
RECEIVER POWER key:
Switches the receiver power ON/STANDBY.

SIMULATED STEREO key:
This switches the simulated stereo mode ON and OFF.

REAR LEVEL (+, –) key:
Adjusts the sound level of the rear speakers to the level of the front speakers.

MASTER VOLUME (+, –) keys:
Adjusts the overall (front and rear) volume.

MUTING key:
Used to temporarily mute the sound.
The volume is restored when pressed again.

DELAY TIME key:
Switches the delay time for surround each time it is pressed.

① **DOLBY SURROUND:**

15 → 20 → 25 → 30
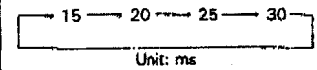
Unit: ms

② **SIMULATED SURROUND:**

5 → 10 → 15 → 20
35 ← 30 ← 25
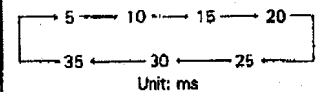
Unit: ms

V-SEL (Video signal selector) key
This switches the signal output from the MONITOR TV OUT jack.

VDP → VCR → OFF
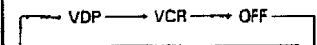
RETURN key:
Press the RETURN key to return the unit into the initial state. TUNER is selected at this initial state. Adjust the sound level by MASTER VOLUME keys.

NOTE:
If no sound is output after the RETURN key is pressed, make sure that SPEAKERS switches are turned on.

■ RECEIVER TUNER SECTION OPERATION

Set the LEARN selector switch to SR RECALL.

Set the Transmit mode selector switch to AUDIO.

TUNER function keys
(operation of FM/AM Tuner)

1 to 0/10 (STATION CALL) keys:
For recall of tuner presets.
To recall stations with station numbers higher than 11, use the STATION CALL switches on the remote control unit in the same way, pressing the same key twice or three times.

BAND key:
Switches the FM and AM bands by turns.

DIRECT ACCESS key:
Use this for direct access tuning. After pressing this key, you can tune by specifying the frequency with the 1 to 0/10 keys.

HITS key:
For Hyper Intelligent Tuning System operation.

FREQUENCY + (Up) key:
Shifts the frequency up.

FREQUENCY – (Down) key:
Shifts the frequency down.

STATION + (Up) key:
This takes you to higher station numbers in sequence.

STATION – (Down) key:
This takes you to lower station numbers in sequence.
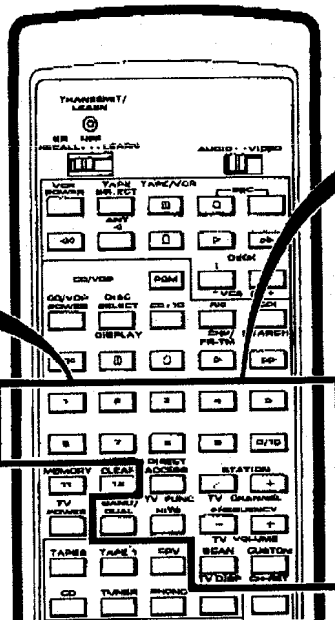
SCAN key:
Use this to start memory scan of stations. When you recall a custom memory name, stations in the custom memory are scanned.

CUSTOM key:
Use this to recall custom memory names.

■ TV OPERATION

Set the LEARN selector switch to SR RECALL.

Set the Transmit mode selector switch to VIDEO.

TV function keys
(operation of component display or projection monitor receiver)

1 to 12 (CHANNEL CALL DIGIT) keys:
Used to call up channels.

CH-RTN (CHANNEL RETURN) key:
Returns to the previously received channel.

TV CHANNEL + (UP) key:
Changes the channel in the direction of larger CHANNEL CALL DIGIT numbers.

TV CHANNEL – (DOWN) key:
Changes the channel in the direction of smaller CHANNEL CALL DIGIT numbers.

DUAL (MTS) key:
Switches between MAIN, SAP, MAIN/SAP and (MONO). See the TV operating instructions for details.

TV VOLUME +, – keys:
Raises and lowers the volume.

TV POWER key:
Switches the power of the TV ON/OFF.

TV FUNC (FUNCTION) keys:
Selects each function in a cyclic manner.

NOTE:
Some televisions cannot be controlled using the TV FUNC key.

TV DISP (DISPLAY) key:
Puts display on TV screen. Clears display from screen.

■ CD PLAYER OPERATION

SR USE
RECALL...LEARN

Set the LEARN select switch to SR RECALL.

AUDIO..VIDEO

Set the Transmit mode selector switch to AUDIO.

CD Function Keys
(Operation of CD player)

CD POWER key:
Switches CD player power ON/OFF. (This only applies to CD players which you can switch ON/OFF by remote control operation)

|◀◀ (TRACK SEARCH) key:
Returns to the beginning of the track currently in playing.

▶▶| (TRACK SEARCH) key:
Advances to the next track.

DISC SELECT key:
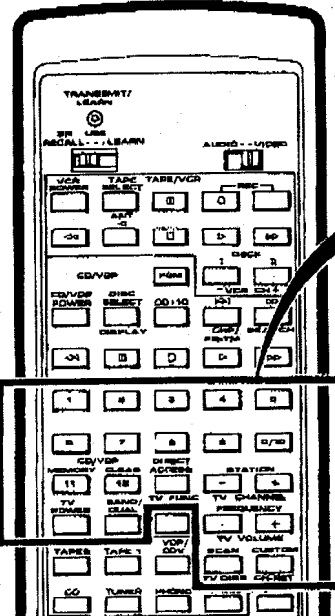Selects the DISC No. (1 to 6) for multi-play compact disc players.

|| (PAUSE) key:
Pauses playback.

■ (STOP) key:
Stops playback.

▶ (PLAY) key:
Selects playback.

PGM (PROGRAM) key:
Press to program the CD player.

◀◀ (MANUAL SEARCH) key:
Selects fast backward.

▶▶ (MANUAL SEARCH) key:
Selects fast forward.

1*-0/10* (numeric) keys:
For direct selection of a track or programming of tracks.

MEMORY* key:
Memorizes a program.

CLEAR* key:
Erases a memorized program.

> * When using these as CD keys, first press the PGM key. If you don't press the PGM key, they will operate as keys for the STATION CALL tuning function.

CD +10 key:
Use this key when programming a TRACK NUMBER higher than 10. (Example) When programming TRACK NUMBER 21, press the CD +10 key twice and then key 1.

NOTE:
You may not be able to use the CD +10 key with certain CD players.

REMOTE CONTROLLING OF ANY OTHER OF YOUR AUDIO-VISUAL COMPONENTS VIA THIS UNIT REQUIRES:

1. All components must be remote controllable (have sensor window on front panel) to receive direct commands from this unit, upon successful learning of those commands by this programmable unit or,
2. All units must have remote control jacks (IN/OUT) on the rear panel and be correctly connected to the receiver according to the diagram on page 6.

CHP/FR-TM* (CHAPTER/FRAME TIME) key:
Used for chapter or frame (time) search operation.

SEARCH key:
Used for the search operation and for the memory repeat operation.

■ VDP OPERATION

SR USE
RECALL...LEARN

Set the LEARN select switch to SR RECALL.

AUDIO..VIDEO

Set the Transmit mode selector switch to VIDEO.

VDP function keys
(operation of LD player)

VDP POWER key:
Switches VDP power ON/OFF. (This only applies to LD players which you can switch ON/OFF by remote control operation)

DISPLAY call key:
Clears the chapter and frame/time displays from the screen.

|| (PAUSE) key:
Video and audio are stopped and playback is paused.

■ (STOP/EJECT) key:
Playback is stopped when pressed once. Pressing again causes the disc tray to come out.

▶ (PLAY) key:
Selects playback.

PGM (PROGRAM) key:
Allows use of chapter program play, frame search and time search.

◀◀ (SCAN) key:
Selects fast backward.

▶▶ (SCAN) key:
Selects fast forward.

1*-0/10* (numeric) keys:
Used for chapter and frame/time number search and for chapter program play.

MEMORY* key:
Used for chapter program play.

CLEAR* key:
Used for releasing repeat playback, number correction and mode release during search operation, and for releasing chapter program play.

> * When using these as VDP keys, first press the PGM or CHP/FR-TM key. If you don't press the PGM or CHP/FR-TM key, they will operate as keys for the TV CHANNEL CALL tuning function.

PROGRAMMING

Introduction

This system remote control can "learn" the commands of other remote control units, regardless of manufacturer, as long as the other unit is of the infrared type.

On rare occasions, programming this unit may be impossible with some special types of infrared remote control units.

In some cases you may still need the original remote control unit for special situations. But as a rule, you will be able to use this Pioneer remote for most system control needs, including video as well as audio equipment.

LEARNING KEYS

Excluding the PGM key in the AUDIO and VIDEO modes, and the CHP/FR-TM key in the VIDEO mode, all other keys are programmable. When programming a key, the previous program on the button is erased. In the AUDIO and VIDEO modes, the Pioneer unified remote control code is already programmed in the unit. If your audio and video equipment consists of Pioneer components, the remote control unit can be used as is. If you wish to program functions which do not already exist in the memory, use the LEARN function to program them. It is also possible to return to the original Pioneer commands after programming other commands. (Refer to page 33 "Returning to the Initial Settings" for this procedure.)

* In each mode, one function per key can be programmed.
* When presetting keys, make sure that the remote control units of both this and the other component are loaded with fresh batteries.

LEARNING CAPACITY

About 40 commands are adequate for Pioneer's remote control signal. More commands than this can't be programmed even if there are keys which have not been preset.

Switching the transmit mode selector's position between AUDIO and VIDEO lets you program a single key with two commands. (During use, switch to the position you programmed in.)

> When teaching functions with names that differ from those of the keys, write in the names or codes of the functions on the supplied template and place on the key.

[Operation example]

1. Set the LEARN switch of the programmable remote control unit to the LEARN position and set the Transmit mode selector switch to the VIDEO position.
   * Programming is possible with the Transmit mode selector switch in any position, but VIDEO is used as an example.
2. Place the transmission sections of the programmable remote control unit and the remote control of the VCR facing each other.

Programmable remote control unit   1 to 2 inches
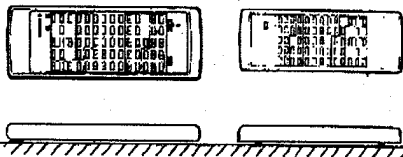
* Place the two units on a table, separated by 2 to 5 cm (1 to 2 inches).
  Memorization will not be possible if they are too close.

3. Hold down the VCR PLAY key of the Programmable remote control unit until the TRANSMIT/LEARN indicator lights up, then release the key.
4. Hold down the PLAY key of the VCR remote control unit.
5. Release the key of the VCR remote control unit after making sure that the TRANSMIT/LEARN indicator has gone out on the Pioneer remote control unit.

NOTE:

If the TRANSMIT/LEARN indicator flashes, it indicates that you are trying to preset a key not available for the learning function, or otherwise the program capacity has been exceeded. In this case, the function programmed last will not be memorized correctly. All previously programmed functions, however, will be retained in memory and may be used as they are if the last function is not essential. For re-programming refer to page 33 "Returning to the Initial Settings."

6. Set the LEARN selector switch of the programmable remote control unit to the USE position.
   * The previous code (Pioneer uniform remote control code or code for other equipment) is erased and replaced by the new code.
7. Check that the program works.
   * Try actual operation and make sure the unit works properly.
   * If the VCR does not operate when pressing the key, change angle, position and distance between the remote control units and repeat the programming procedure.
   * When programming, make sure that the function indications (for example, ►, ►►, ■) on the other remote control unit and the programmable remote control unit are the same. This will facilitate operation.

NOTE:

Be careful when using the learn function because signals from the transmitting remote control unit may be reflected from walls or the ceiling, and may arrive at the sensor of a component other than the programmable remote control unit. It's a good idea to remove the tape from a cassette deck or VCR in case they are accidentally activated. It is also preferable to unplug the power cords of system components from power outlets, or cover the remote sensors of remote controlled components to prevent accidental operation.

Questions and Answers about the Learning Function

Q: The remote control unit of my VCR has two REC (recording) keys. They both have to be pressed at the same time to start recording. What is the learning procedure in this case?

A: Hold one of the keys on the programmable remote control depressed (other than the REC key) until the LEARN indicator lights up, and then press the two keys on the VCR remote control simultaneously.

Q: The remote control unit of my VCR has a REC (recording) key and a PLAY (playback) key and they both have to be pressed at the same time to start recording. What is the learning procedure in this case?

A: Hold one of the keys on the programmable remote control depressed (ther than the REC key) until the LEARN indicator lights up, and then press the REC and PLAY keys on the VCR remote control simultaneously.

NOTE:
* *As described above, operations which require two keys to be pressed at the same time are programmed by pressing the two keys simultaneously.*
* *There are 2 REC keys on the remote control unit to prevent miss-operation. To start recording, or to memorize a command code with the REC keys, they must both be pressed at the same time.*

## Operating other equipment using the programmable remote control unit

1. Set the LEARN switch of the programmable remote control unit to the USE position.
2. Set the Transmit mode selector switch to the desired position (AUDIO/VIDEO).
   * Set to the VIDEO position for programming as described in the example.
3. Press the key of the desired function.
   * The TRANSMIT/LEARN indicator lights up while the remote control unit is sending codes.

NOTE:
* *When operating programmed keys, always set the LEARN switch to the USE position. Operation is not possible in the LEARN position.*
* *For functions which require two keys to be pressed at the same time (recording etc.) or functions for which several codes are sent simultaneously (auto functions, timer programming, etc.) the programming procedure is different and improper operation may occur.*

Returning to the Initial Settings

1. Set the LEARN selector switch to the LEARN position.
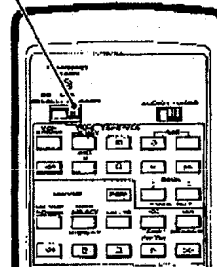
2. Press any of the keys available for programming. The TRANSMIT/LEARN indicator will illuminate.
3. Use a ball-point pen or similar object to press the M•CLR button while the TRANSMIT/LEARN indicator is flashing.
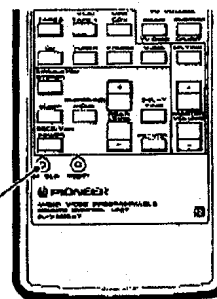
M-CLR button

* The programmed functions for the AUDIO and VIDEO positions are cleared, and the remote control unit is reset to the Pioneer uniform remote control codes.
* Press the button gently; do not use excessive force.

The following is the summary of the remote function modes. It is noteworthy that the unit can learn audio or video type of commands regardless of the setting of the transmit mode. This means you can program audio commands while the mode selector switch is on video and vice versa.

		TRANSMIT MODE SELECTOR SWITCH	
		AUDIO	VIDEO
LEARN SELECTOR SWITCH	SR RECALL	Operate all audio sections of this receiver and other Pioneer components.	Operate the video sections of this receiver and other Pioneer components.
	LEARN	Learn commands from different audio brands.	Learn commands from different video brands.
	USE	Operate audio components of different brands, using the programmed (learnt) commands.	Operate video components of different brands, using the programmed (learnt) commands.

SPECIFICATIONS

Amplifier Section

[Front] (only front channels driven)

Continuous Average Power Output is 100 watts* per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.05 % total harmonic distortion.**

Continuous Power Output (only rear channels driven)**
Rear: 1 kHz, T.H.D. 0.08%, 8 Ω .... 18 W + 18 W
Dynamic power output (with EIA test signal)
2/4/8 Ω .... 230 W/200 W/150 W
Input (Sensitivity/ Impedance)
PHONO .... 2.5 mV/47 kΩ
CD, VDP/CDV, VCR/TAPE 1, TAPE 2 .... 150 mV/47 kΩ
Phono Overload Level (T.H.D. 0.08 %, 1,000 Hz)
PHONO .... 130 mV
Output Level
TAPE 2 REC, VCR 1 REC .... 150 mV/2.2 kΩ
Frequency Response
PHONO (RIAA Equalization) .... 20 Hz to 20,000 Hz ±0.5 dB
CD, VDP/CDV, VCR/TAPE 1, TAPE 2
.... 10 Hz to 70,000 Hz ±½ dB
Signal-to-Noise Ratio (IHF, short circuited, A network)
PHONO .... 72 dB
CD, VDP/CDV, VCR/TAPE 1, TAPE 2 .... 97 dB
Signal-to-Noise Ratio (EIA, at 1 W (1 kHz))
PHONO .... 75 dB
CD, VDP/CDV, VCR/TAPE 1, TAPE 2 .... 80 dB
Graphic Equalizer frequency band .... 60 Hz, 150 Hz, 400 Hz,
1 kHz, 2.4 kHz, 6 kHz, 15 kHz, ±8 dB

FM Tuner Section
Frequency range .... 87.5 MHz to 108 MHz
Usable Sensitivity .... 10.8 dBf, IHF (0.95 μV/75 Ω)
50 dB Quieting Sensitivity
MONO .... 15.3 dBf (1.6 μV/75 Ω)
STEREO .... 37.1 dBf (19.5 μV/75 Ω)
Signal-to-Noise Ratio
MONO .... 80 dB (at 85 dBf)
STEREO .... 76 dB (at 85 dBf)
Distortion
STEREO .... 0.3 % (1 kHz)
Alternate Channel Selectivity .... 55 dB (400 kHz)
Stereo Separation .... 35 dB (1 kHz)
Frequency Response .... 30 Hz to 16 kHz (±1 dB)
Antenna Input .... 300 Ω balanced, 75 Ω unbalanced

AM Tuner Section
Frequency range .... 530 kHz to 1,700 kHz
Sensitivity
IHF, Loop antenna .... 300 μV/m
Selectivity .... 20 dB
Signal-to-Noise Ratio .... 50 dB
Antenna .... AM Loop Antenna

VIDEO Section
Input (Sensitivity/Impedance)
VCR, VDP/CDV .... 1 Vp-p/75 Ω
Output (Level/Impedance)
VCR, MONITOR .... 1 Vp-p/75 Ω
Frequency Response .... 5 Hz — 10 MHz ±? dB
Signal to Noise Ratio .... 55 dB
Isolation .... 55 dB

Miscellaneous
Power Requirements .... AC 120 Volts, 60 Hz
Power Consumption .... 390 W (UL), 500 VA (CSA)
In standby condition .... 3 W
AC Outlets
SWITCHED x 2 .... TOTAL 100 W (0.8 A) MAX
UNSWITCHED x 1 .... 200 W (1.6 A) MAX
Dimensions .... 420 (W) X 125 (H) X 330 (D) mm
16-9/16(W) X 4-15/16 (H) X 13 (D) in
Weight (without package) .... 8.5 kg (18 lb 12 oz)

Furnished Parts
FM Antenna 1
AM Loop Antenna 1
Remote control unit 1
Dry cell battery
VSX-3900S: size "AA" (LR6/AM-3) Alkaline 2
VSX-3800: size "AA" (R6/UM-3) 2
Operating Instructions 1
VSX-3900S: Template 1

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

** Measured By Audio Spectrum Analyzer.

NOTE:
Specifications and design subject to possible modification without notice due to improvements.

MAINTENANCE OF EXTERNAL SURFACES
* Use a polishing cloth or dry cloth to wipe off dust and dirt.
* When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
* Never use thinners, benzene, insecticide sprays and other chemicals on or near this unit, since these will corrode the surfaces.