SONY®

FM Stereo
FM-AM Receiver

Operating Instructions — **GB**
使用说明书 — **CS**

STR-DE685

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To prevent fire, do not cover the ventilation of the apparatus with newspapers, table-cloths, curtains, etc. And don't place lighted candles on the apparatus.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Don't throw away the battery with general house waste, dispose of it correctly as chemical waste.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

ENERGY STAR® is a U.S. registered mark.
As an ENERGY STAR® partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

This receiver incorporates Dolby* Digital and Pro Logic Surround and the DTS** Digital Surround System.
*   Manufactured under license from Dolby Laboratories.
    "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.
** "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

Table of Contents

GB

About This Manual

The instructions in this manual is for model STR-DE685. Check your model number by looking at the lower right corner of the front panel.

Tip

The instructions in this manual describe the controls on the receiver. You can also use the controls on the supplied remote if they have the same or similar names as those on the receiver. For details on the use of your remote, see pages 39–42.

Note for the supplied remote

For RM-U305C

The TV/SAT and PHONO buttons on the remote are not available.

Demonstration Mode

The demonstration will activate the first time you turn on the power. When the demonstration starts, the following message appears in the display:

> "NOW DEMONSTRATION MODE IF YOU FINISH DEMONSTRATION PLEASE PRESS POWER KEY WHILE THIS MESSAGE APPEARS IN THE DISPLAY THANK YOU"

To cancel the demonstration

Press I/(¹) to turn the receiver off while the above message is being displayed. The next time you turn the receiver on, the demonstration will not appear.

To view the demonstration

Hold down SET UP and press I/(¹) to turn on the power.

Notes

• Running the demonstration will clear the receiver's memory. For details on what will be cleared, see "Clearing the receiver's memory" on page 17.
• There will be no sound when the demonstration mode is activated.
• You cannot cancel demonstration if you did not press I/(¹) while the above message is being displayed. To cancel demonstration after the above message appears, press I/(¹) twice to activate the demonstration again. Then, press I/(¹) while the above message is being displayed.

List of Button Locations and Reference Pages

How to use this page

Use this page to find the location of buttons that are mentioned in the text.

Illustration number

NAME   14 (34)

Name of button/part   Reference page
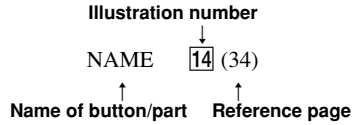
Main unit

ALPHABETICAL ORDER

0 – 9
2 CH 31 (26, 27)

A – D
A.DEC 33 (25–27)
AM 37 (32)
AUX 27 (23)
CD/SACD 23 (23)
CINEMA STUDIO EX A,B,C
  16 (26)
Digital Cinema Sound (indicator)
  17 (25)
DIMMER 5 (24)
DISPLAY 4 (24, 45)
Display 15 (24)
DVD/LD 26 (23)

E – K
ENTER 34 (34)
EQ 9 (31, 48)
EQUALIZER 18 (31)
FM 38 (32)
FM MODE 39 (32)
INPUT MODE 19 (32)
IR (receptor) 6 (39, 45)
Jog dial 36 (18, 29, 31, 34, 35)

L – O
LEVEL 12 (18, 22, 29, 48)
MASTER VOLUME 28 (22, 43)
MD/TAPE 21 (23)
MEMORY 41 (33)
MODE 32 (26, 31, 44)
MULTI CHANNEL DECODING
  (indicator) 11 (23)
MULTI CH IN 30 (23)
MUTING 29 (24, 43)
NAME 14 (34)

P – S
PHONES (jack) 3 (24, 44)
PRESET TUNING +/– 7 (33)
SET UP 13 (4, 18, 35, 48)
SHIFT 40 (33)
SPEAKERS A/B 2 (24, 29, 43)
SURR 10 (29, 48)

T – Z
TUNER 25 (32–34)
TUNING +/– 8 (32)
VIDEO 1 20 (23)
VIDEO 2 22 (23)
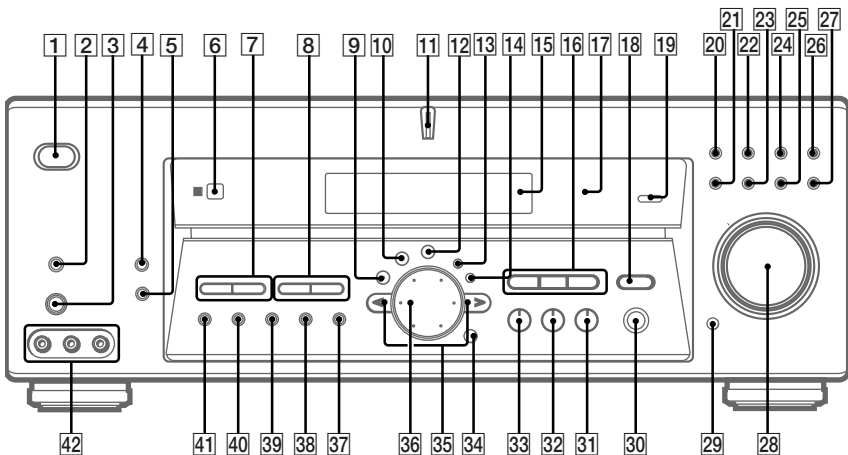VIDEO 3 24 (23)
VIDEO 3 INPUT (jacks) 42 (9)

BUTTON DESCRIPTIONS

I/⏻ (power) 1 (4, 17, 22, 31)
</> 35 (18, 29, 31, 34, 35)

Required cords

A **Audio cord (not supplied)**

White (L)　　　　　　　　　　　　　　　　　　White (L)
Red (R)　　　　　　　　　　　　　　　　　　　Red (R)

B **Audio/video cord (not supplied)**

Yellow (video)　　　　　　　　　　　　　　　Yellow (video)
White (L/audio)　　　　　　　　　　　　　　White (L/audio)
Red (R/audio)　　　　　　　　　　　　　　　Red (R/audio)

C **Video cord (not supplied)**

Yellow (video)　　　　　　　　　　　　　　　Yellow (video)

D **Optical digital cord (not supplied)**

Black　　　　　　　　　　　　　　　　　　　Black

E **Coaxial digital cord (not supplied)**

Orange　　　　　　　　　　　　　　　　　　Orange
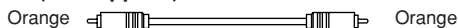
F **Monaural audio cord (not supplied)**

Black　　　　　　　　　　　　　　　　　　　Black

G **Monaural mini-plug cord (not supplied)**

Black　　　　　　　　　　　　　　　　　　　Black
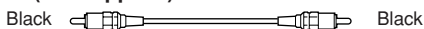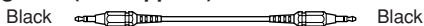
Before you get started

- Turn off the power to all components before making any connections.
- Do not connect the AC power cord until all of the connections are completed.
- Be sure to make connections firmly to avoid hum and noise.
- When connecting an audio/video cord, be sure to match the color-coded pins to the appropriate jacks on the components: yellow (video) to yellow; white (left, audio) to white; and red (right, audio) to red.
- When you connect optical digital cords, insert the cord plugs straight in until they click into place.
- Do not bend or tie the optical digital cord.

Antenna hookups

AM loop antenna (supplied)

FM wire antenna (supplied)

DIGITAL

OPTICAL

VIDEO 2 IN

MD/ TAPE IN

MD/ TAPE OUT

CD/ SACD IN

DVD/LD IN

COAXIAL

ANTENNA

AM

FM 75Ω COAXIAL

CTRL A1 II

MONITOR

VIDEO IN   VIDEO IN   VIDEO OUT   VIDEO IN   VIDEO OUT

S-VIDEO IN   S-VIDEO IN   S-VIDEO OUT   S-VIDEO IN   S-VIDEO OUT

AUDIO OUT

L   CENTER   R

FRONT   SURROUND   SUB WOOFER

IN   IN   OUT   IN   AUDIO IN   AUDIO IN   AUDIO OUT   AUDIO IN

MULTI CH IN   AUX   CD/SACD   MD/TAPE   DVD/LD   VIDEO 2   VIDEO 1   SUB WOOFER

Notes on antenna hookups

- To prevent noise pickup, keep the AM loop antenna away from the receiver and other components.

- Be sure to fully extend the FM wire antenna.

- After connecting the FM wire antenna, keep it as horizontal as possible.

Audio component hookups

MD or Tape deck

INPUT OUTPUT
LINE LINE
L
R

A   **A**

OUT   IN

DIGITAL
OPTICAL
VIDEO 2 IN
MD/ TAPE IN
MD/ TAPE OUT
CD/ SACD IN
DVD/LD IN
COAXIAL

ANTENNA
AM
FM 75Ω COAXIAL

CTRL A1 II

MONITOR

VIDEO IN   VIDEO IN   VIDEO OUT   VIDEO IN   VIDEO OUT
S-VIDEO IN   S-VIDEO IN   S-VIDEO OUT   S-VIDEO IN   S-VIDEO OUT
AUDIO OUT

L
R
FRONT SURROUND CENTER SUB WOOFER
MULTI CH IN   IN   IN   OUT IN
AUX   CD/SACD   MD/TAPE
AUDIO IN   AUDIO OUT AUDIO IN
DVD/LD   VIDEO 2   VIDEO 1   SUB WOOFER

A

OUTPUT
LINE
L
R

CD or SACD player

Video component hookups

DVD or LD player

OUTPUT
AUDIO OUT / VIDEO OUT
R / L

B

COMPONENT VIDEO

CTRL A1 II

VIDEO IN VIDEO IN VIDEO OUT VIDEO IN **MONITOR** VIDEO OUT

S-VIDEO IN / S-VIDEO IN / S-VIDEO OUT / S-VIDEO IN / S-VIDEO OUT

AUDIO IN / AUDIO IN / AUDIO OUT / AUDIO IN

AUDIO OUT

SACD / MD/TAPE / DVD/LD / VIDEO 2 / VIDEO 1 / SUB WOOFER

COMPONENT VIDEO
DVD/LD IN / VIDEO 2 IN / MONITOR OUT
Y / Pв B-Y / Pв R-Y

SPEAKERS IMPEDANCE USE 8 – 16Ω
R L / FRONT B

SPEAKERS IMPEDANCE USE 8 – 16Ω
R L / SURROUND / CENTER / R L / FRONT A

To the front panel

B

IN / OUT / IN

B / **B** / **B** / **C**

Camcorder or video game

OUTPUT
VIDEO OUT / AUDIO OUT R L

TV tuner, satellite tuner or VCR

INPUT / OUTPUT
VIDEO OUT / VIDEO OUT / AUDIO IN / AUDIO OUT R L

VCR

INPUT
VIDEO IN

TV monitor

Note on video component hookups

You can connect your TV's audio output jacks to the VIDEO 2 AUDIO IN jacks on the receiver and apply sound effects to the audio from the TV. In this case, do not connect the TV's video output jack to the VIDEO 2 VIDEO IN jack on the receiver. If you are connecting a separate TV tuner (or satellite tuner), connect both the audio and video output jacks to the receiver as shown above.

If you have a DVD player, TV, satellite tuner or LD player with COMPONENT VIDEO (Y, B-Y, R-Y) output jacks and a monitor with COMPONENT VIDEO input jacks, use a video cord (not supplied) to connect to the receiver.

Tip

When using the S-video jacks instead of the video jacks, your monitor must also be connected via an S-video jack. S-video signals are on a separate bus from the video signals and will not be output through the video jacks.

Note

On this receiver, the component video signals are not compatible with S-video signals or video signals.

Digital component hookups

Connect the digital output jacks of your DVD player and satellite tuner (etc.) to the receiver's digital input jacks to bring the multi channel surround sound of a movie theater into your home. To fully enjoy multi channel surround sound, five speakers (two front speakers, two surround speakers, and a center speaker) and a sub woofer are required. You can also connect an LD player with an RF OUT jack via an RF demodulator, like the Sony MOD-RF1 (not supplied).
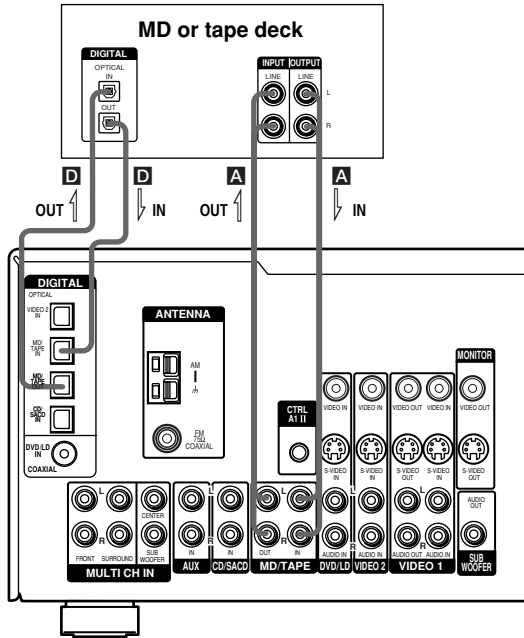
Note

You cannot connect an LD player's DOLBY DIGITAL RF OUT jack directly to this unit's digital input jacks. You must first convert the RF signal to either an optical or coaxial digital signal. For details, see "Troubleshooting" on page 43.
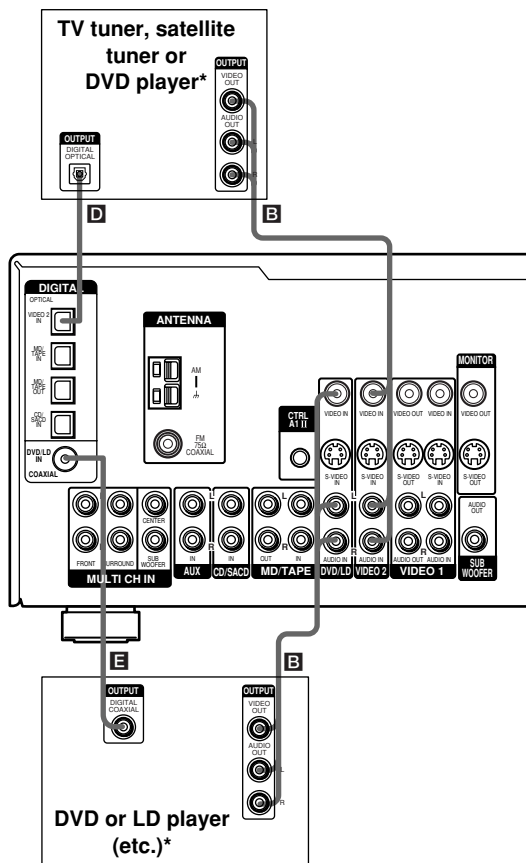
* Make either coaxial or optical connections. We recommend making coaxial connections instead of optical connections.

Connect the digital output jacks of your MD or tape deck to the receiver's digital input jack and connect the digital input jacks of your MD or tape deck to the receiver's digital output jack. These connections allow you to make digital recordings of TV broadcasts, etc.

Notes
- You cannot make digital recordings when the source is a multi channel digital source.
- All the OPTICAL and COAXIAL jacks are compatible with 96 kHz, 48 kHz, 44.1 kHz and 32 kHz sampling frequencies.
- It is not possible to record analog signals to the components connected to MD/TAPE and VIDEO jacks with only digital connections. To record analog signals, make analog connections. To record digital signals, make digital connections.
- The sound is not output when you play a SACD disc on the SACD player connected to the CD/SACD OPTICAL IN jack on this unit. Connect to the analog input jacks (CD/SACD IN jacks). Refer to the operating instructions supplied with the SACD player.

Multi channel input hookups

Although this receiver incorporates a multi channel decoder, it is also equipped with multi channel input jacks. These connections allow you to enjoy multi channel software encoded in formats other than Dolby Digital and DTS. If your DVD player is equipped with multi channel output jacks, you can connect them directly to the receiver to enjoy the sound of the DVD player's multi channel decoder. Alternatively, the multi channel input jacks can be used to connect an external multi channel decoder.

To fully enjoy multi channel surround sound, five speakers (two front speakers, two surround speakers, and a center speaker) and a sub woofer are required. Refer to the operating instructions supplied with your DVD player, multi channel decoder, etc., for details on the multi channel hookups.

Notes
• When using the connections described below, adjust the level of the surround speakers and sub woofer from the DVD player or multi channel decoder.
• See page 15 for details on speaker system hookup.

Other hookups

CONTROL A1 II

G

IN

A

**CD player, tape
deck, MD deck, etc.**
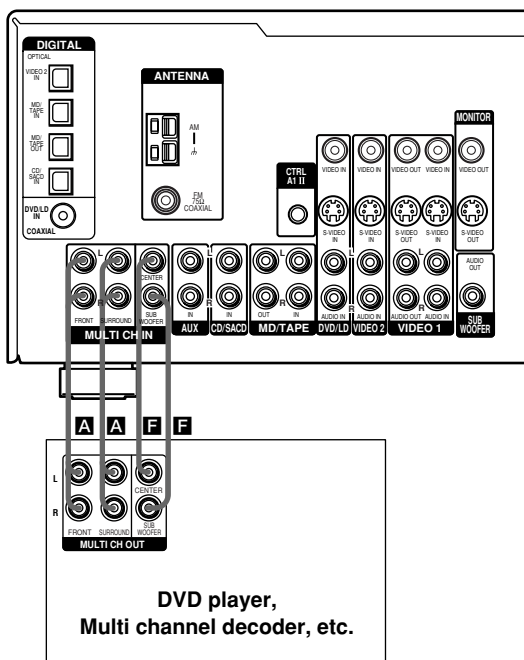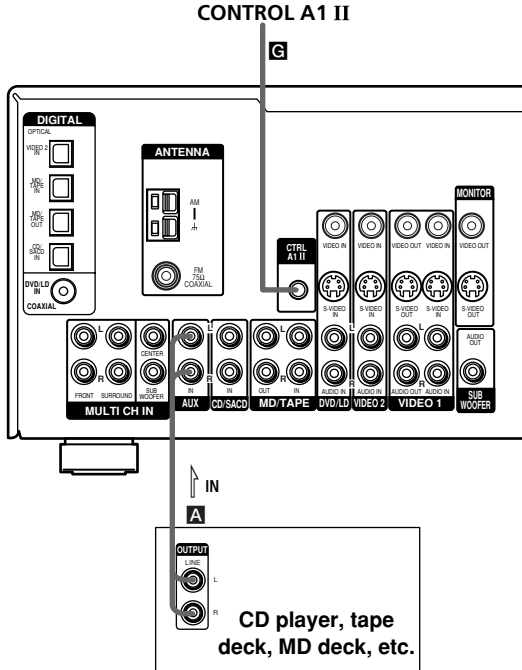
CONTROL A1 II hookup

- **If you have a CONTROL A1 II compatible
  Sony CD player, SACD player, tape
  deck, or MD deck**

  Use a monaural mini-plug cord (not
  supplied) to connect the CONTROL A1 II
  jack on the CD player, SACD player, tape
  deck, or MD deck to the CTRL A1 II jack on
  the receiver. Refer to "CONTROL A1 II
  control system" on page 36 and the operating
  instructions supplied with your CD player,
  SACD player, tape deck, or MD deck for
  details.

  Note

  If you make CONTROL A1 II connections from
  the receiver to an MD deck that is also connected
  to a computer, do not operate the receiver while
  using the "Sony MD Editor" software. This may
  cause a malfunction.

- **If you have a Sony CD changer with a
  COMMAND MODE selector**

  If your CD changer's COMMAND MODE
  selector can be set to CD 1, CD 2, or CD 3,
  be sure to set the command mode to "CD 1"
  and connect the changer to the CD jacks on
  the receiver.

  However, if you have a Sony CD changer
  with VIDEO OUT jacks, set the command
  mode to "CD 2" and connect the changer to
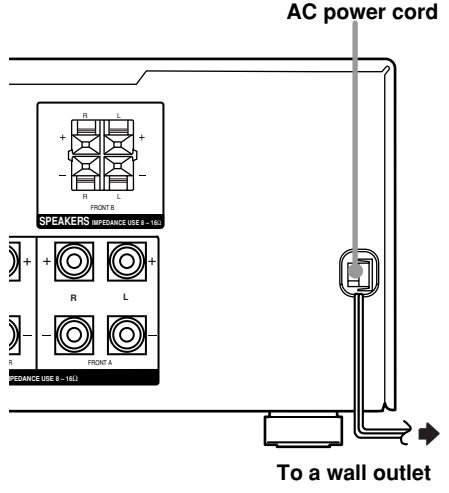 the VIDEO 2 jacks on the receiver.

  continued

13^{GB}

AUX AUDIO In hookup

If you have an individual audio component (except PHONO)
Use the audio cords to connect the LINE OUT jacks on the CD player, tape deck or MD deck to the AUX IN jacks on the receiver so that you can listen to stereo sources in surround sound.

Connecting the AC power cord

AC power cord

To a wall outlet

Before connecting the AC power cord of this receiver to a wall outlet, connect the speaker system to the receiver (page 15).

Connect the AC power cord(s) of your audio/video components to a wall outlet.

Speaker system hookups

Required cords

A Speaker cords (not supplied)

(+)   (+)

(−)   (−)

B Monaural audio cord (not supplied)

Black   Black
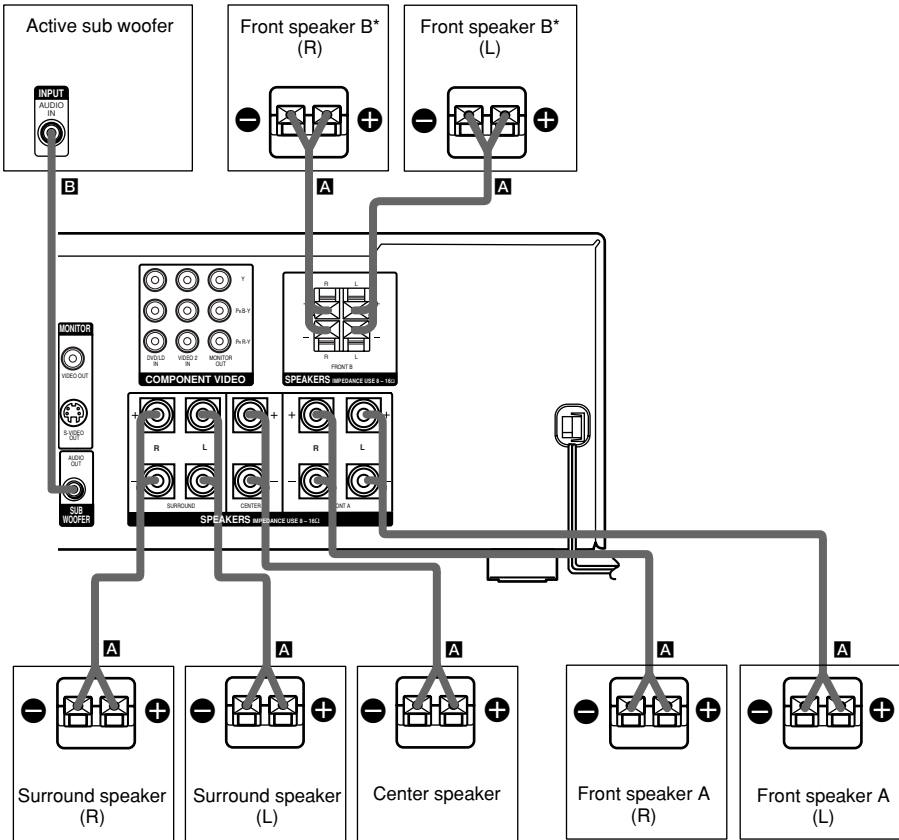
* If you have an additional front speaker system, connect them to the SPEAKERS FRONT B terminals.

Notes
- Twist the stripped ends of the speaker cords about 10 mm. Be sure to match the speaker cord to the appropriate terminal on the components: + to + and – to –. If the cords are reversed, the sound will be distorted and will lack bass.
- If you use speakers with low maximum input rating, adjust the volume carefully to avoid excessive output on the speakers.

## To avoid short-circuiting the speakers

Short-circuiting of the speakers may damage the receiver. To prevent this, make sure to take the following precautions when connecting the speakers.

Make sure the stripped ends of each speaker cord does not touch another speaker terminal, the stripped end of another speaker cord, or the metal parts of the receiver.

Examples of poor conditions of the speaker cord
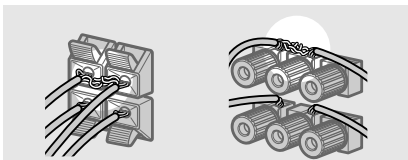
Stripped speaker cord is touching another speaker terminal.
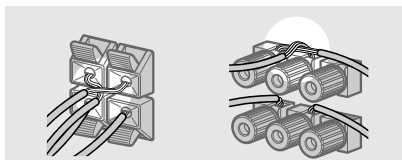
Stripped cords are touching each other due to excessive removal of insulation.

After connecting all the components, speakers, and AC power cord, output a test tone to check that all the speakers are connected correctly. For details on outputting a test tone, see page 22.

If no sound is heard from a speaker while outputting a test tone or a test tone is output from a speaker other than the one whose name is currently displayed on the receiver, the speaker may be short-circuited. If this happens, check the speaker connection again.

To avoid damaging your speakers

Make sure that you turn down the volume before you turn off the receiver. When you turn on the receiver, the volume remains at the level you turn off the receiver.

16^{GB}

Performing initial setup operations

Once you have hooked up the speakers and turned on the power, clear the receiver's memory. Then specify the speaker parameters (size, position, etc.) and perform any other initial setup operations necessary for your system.

Tip

To check the audio output during settings (to set up while outputting the sound), check the connection (page 22).

Clearing the receiver's memory

Before using your receiver for the first time, or when you want to clear the receiver's memory, do the following.

This procedure is not necessary if the demonstration activates when you turn on the power.

1 Turn off the receiver.

2 Hold down I/⏻ for 5 seconds.

The demonstration starts (page 4) and all of the following items are reset or cleared:

- All preset stations are reset or cleared.
- All sound field parameters are reset to their factory settings.
- All index names (of preset stations and program sources) are cleared.
- All SET UP parameters are reset to their factory settings.
- The sound field memorized for each program source and preset stations are cleared.
- The master volume is set to VOL MIN.

Performing initial setup operations

Before using your receiver for the first time, adjust SET UP parameters so that the receiver correspond to your system. For the adjustable parameters, see the table on page 48. See pages 17–22 for speaker settings and pages 35–36 for other settings.

Multi channel surround setup

For the best possible surround sound, all speakers should be the same distance from the listening position (Ⓐ).

However, the receiver lets you place the center speaker up to 1.5 meters closer (Ⓑ) and the surround speakers up to 4.5 meters closer (Ⓒ) to the listening position.

The front speakers can be placed from 1.0 to 12.0 meters from the listening position (Ⓐ).

You can place the surround speakers either behind you or to the side, depending on the shape of your room (etc.).

When placing surround speakers to your side
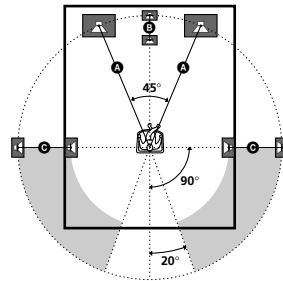
Multi channel surround setup (continued)

When placing surround speakers behind you

Note

Do not place the center speaker farther away from the listening position than the front speakers.

Normal Speaker and Micro Satellite Speaker

If you are using	Select
Normal Speakers	NORM. SP.
Micro Satellite Speakers	MICRO SP.

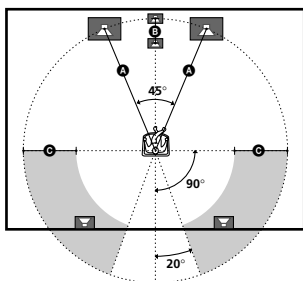The speaker size and the sub woofer selection has been preset to NORM. SP. You can adjust the speaker size and sub woofer selection when you select NORM. SP. (pages 18–19)

To select MICRO SP., turn off the power, then turn on again while pressing LEVEL. (To reset to NORM. SP., do the same procedure.)

When you select MICRO SP., the speaker size and sub woofer selection has been configured as follows:

Speaker	Settings
FRONT	SMALL
CENTER	SMALL
SURROUND	SMALL
SUB WOOFER	YES

You cannot change the configuration if you select MICRO SP.

Tip

The setting for Micro Satellite Speaker (MICRO SP.) has been programmed to optimize the sound balance. If you use Sony's Micro Satellite Speakers, select MICRO SP.

Caution

When you use Micro Satellite Speakers and the speaker size is set to "LARGE", you may not obtain the correct soundstage. The speaker may also be damaged at high volume position.

Specifying the speaker parameters

1 Press SET UP.

2 Press $<$ or $>$ to select the parameter you want to adjust.

3 Turn the jog dial to select the setting you want.

The setting is entered automatically.

4 Repeat steps 2 and 3 until you have set all of the parameters that follow.

Initial settings

Parameter	Initial setting
L R (FRONT)	LARGE*
C (CENTER)	LARGE*
SL SR (SURROUND)	LARGE*
SW (SUB WOOFER) S.W. XXX	YES*
L R DIST. XX.X m	5.0 m
C DIST. XX.X m	5.0 m
SL SR DIST. XX.X m	3.5 m
SL SR PL. XXX	BEHD.
SL SR HGT. XXX	LOW

* You can set this parameter only when you select NORM. SP.

■ Front speaker size (⌞L⌟ ⌞R⌟)

- If you connect large speakers that will effectively reproduce bass frequencies, select "LARGE". Normally, select "LARGE".

- If the sound is distorted, or you feel a lack of surround effects when using multi channel surround sound, select "SMALL" to activate the bass redirection circuitry and output the front channel bass frequencies from the sub woofer.

- When the front speakers are set to "SMALL", the center and surround speakers are also automatically set to "SMALL" (unless previously set to "NO").

■ Center speaker size (⌞C⌟)

- If you connect a large speaker that will effectively reproduce bass frequencies, select "LARGE". Normally, select "LARGE". However, if the front speakers are set to "SMALL", you cannot set the center speaker to "LARGE".

- If the sound is distorted, or you feel a lack of surround effects when using multi channel surround sound, select "SMALL" to activate the bass redirection circuitry and output the center channel bass frequencies from the front speakers (if set to "LARGE") or sub woofer.[1]

- If you do not connect a center speaker, select "NO". The sound of the center channel will be output from the front speakers.[2]

■ Surround speaker size (⌞SL⌟ ⌞SR⌟)

- If you connect large speakers that will effectively reproduce bass frequencies, select "LARGE". Normally, select "LARGE". However, if the front speakers are set to "SMALL", you cannot set the surround speakers to "LARGE".

- If the sound is distorted, or you feel a lack of surround effects when using multi channel surround sound, select "SMALL" to activate the bass redirection circuitry and output the surround channel bass frequencies from the sub woofer or other "LARGE" speakers.

- If you do not connect surround speakers, select "NO".[3]

Tip

[1]–[3] correspond to the following Dolby Pro Logic modes
[1] NORMAL
[2] PHANTOM
[3] 3 STEREO

Tip

Internally, the LARGE and SMALL settings for each speaker determine whether or not the internal sound processor will cut the bass signal from that channel. When the bass is cut from a channel, the bass redirection circuitry sends the corresponding bass frequencies to the sub woofer or other "LARGE" speakers.

However, since bass sounds have a certain amount of directionality, it is best not to cut them, if possible. Therefore, even when using small speakers, you can set them to "LARGE" if you want to output the bass frequencies from that speaker. On the other hand, if you are using a large speaker, but prefer not to have bass frequencies output from that speaker, set it to "SMALL".

If the overall sound level is lower than you prefer, set all speakers to "LARGE". If there is not enough bass, you can use the equalizer to boost the bass levels. To adjust the equalizer, see page 31.

continued

Multi channel surround setup (continued)

■ **Sub woofer selection (SW S.W. XXX)**

- If you connect a sub woofer, select "YES".

- If you do not connect a sub woofer, select "NO". This activates the bass redirection circuitry and outputs the LFE signals from other speakers.

- In order to take full advantage of the Dolby Digital bass redirection circuitry, we recommend setting the sub woofer's cut off frequency as high as possible.

■ **Front speaker distance (L R DIST. XX.X m)**

Set the distance from your listening position to the front speakers (**A** on page 17).

■ **Center speaker distance (C DIST. XX.X m)**

Set the distance from your listening position to the center speaker. Center speaker distance should be set from a distance equal to the front speaker distance (**A** on page 17) to a distance 1.5 meters closer to your listening position (**B** on page 17).

■ **Surround speaker distance (SL SR DIST. XX.X m)**

Set the distance from your listening position to the surround speakers. Surround speaker distance should be set from a distance equal to the front speaker distance (**A** on page 17) to a distance 4.5 meters closer to your listening position (**C** on page 17).

Tip

The receiver allows you to input the speaker position in terms of distance. However, it is not possible to set the center speaker further than the front speakers. Also, the center speaker cannot be set more than 1.5 meters closer than the front speakers.

Likewise, the surround speakers can not be set farther away from the listening position than the front speakers. And they can be no more than 4.5 meters closer.

This is because incorrect speaker placement is not conducive to enjoy surround sound.

Please note that, setting the speaker distance closer than the actual location of the speakers will cause a delay in the output of the sound from that speaker. In other words, the speaker will sound like it is farther away.

For example, setting the center speaker distance 1~2 m closer than the actual speaker position will create a fairly realistic sensation of being "inside" the screen. If you cannot obtain a satisfactory surround effect because the surround speakers are too close, setting the surround speaker distance closer (shorter) than the actual distance will create a larger sound stage.

Adjusting these parameter while listening to the sound often results in much better surround sound. Give it a try!

■ **Surround speaker position (⟦SL⟧ ⟦SR⟧ PL. XXX)***

This parameter lets you specify the location of your surround speakers for proper implementation of the Digital Cinema Sound surround modes. Refer to the illustration below.

- Select "SIDE" if the location of your surround speakers corresponds to section Ⓐ.
- Select "MID" if the location of your surround speaker corresponds to section Ⓑ.
- Select "BEHD." if the location of your surround speakers corresponds to section Ⓒ.
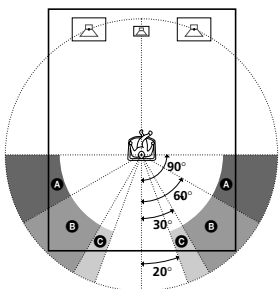
■ **Surround speaker height (⟦SL⟧ ⟦SR⟧ HGT. XXX)***

This parameter lets you specify the height of your surround speakers for proper implementation of the Digital Cinema Sound surround modes. Refer to the illustration below.
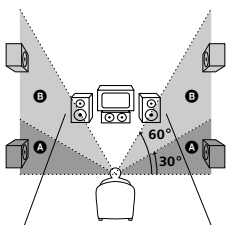
- Select "LOW" if the location of your surround speakers corresponds to section Ⓐ.
- Select "HIGH" if the location of your surround speakers corresponds to section Ⓑ.

* These parameters are not available when "Surround speaker size (⟦SL⟧ ⟦SR⟧)" is set to "NO".

Tip

The surround speaker position parameter is designed specifically for implementation of the Digital Cinema Sound modes with virtual elements.
With the Digital Cinema Sound modes, speaker position is not as critical as other modes. All modes with virtual elements were designed under the premise that the surround speaker would be located behind the listening position, but presentation remains fairly consistent even with the surround speakers positioned at a rather wide angle. However, if the speakers are pointing towards the listener from the immediate left and right of the listening position, the sound fields with virtual elements will not be effective unless the surround speaker position parameter is set to "PL. SIDE".
Nevertheless, each listening environment has many variables, like wall reflections, and you may obtain better results using "PL. MID." and "PL. BEHD." if your speakers are located high above the listening position, even if they are to the immediate left and right.
Therefore, although it may result in a setting contrary to the "Surround speaker position" explanation, we recommend that you playback multi channel surround encoded software and listen to the effect each setting has on your listening environment. Choose the setting that provides a good sense of spaciousness and that best succeeds in forming a cohesive space between the surround sound from the surround speakers and the sound of the front speakers. If you are not sure which sounds best, select "PL. BEHD." and then use the speaker distance parameter and speaker level adjustments to obtain proper balance.

continued

21^{GB}

Adjusting the speaker level

Use the remote while seated in your listening position to adjust the level of each speaker.

Note

The receiver incorporates a new test tone with a frequency centered at 800 Hz for easier speaker level adjustment.

1 **Press I/⏻ to turn on the receiver.**

2 **Press TEST TONE on the remote.**

"T. TONE" appears in the display and you will hear the test tone from each speaker in sequence.

3 **Adjust the LEVEL parameters so that the level of the test tone from each speaker sounds the same when you are in your main listening position.**

Press LEVEL to adjust the balance and level of speakers. For details on the LEVEL menu, see page 29.

While adjusting, the test tone is output from the speaker whose adjustment is performed.

4 **Press TEST TONE again to turn off the test tone.**

Tip

You can adjust the level of all speakers at the same time. Turn MASTER VOLUME on the main unit or press MASTER VOL +/– on the remote.

Notes

- The test tone cannot be output when the receiver is set to MULTI CH IN.
- The adjusted value are shown in the display during adjustment.
- Although these adjustments can also be made via the front panel using the LEVEL menu (when the test tone is output, the receiver switches to the LEVEL menu automatically), we recommend you follow the procedure described above and adjust the speaker levels from your listening position using the remote.

Checking the connections

After connecting all of your components to the receiver, do the following to verify that the connections were made correctly.

1 **Press I/⏻ to turn on the receiver.**

2 **Turn on the component that you connected (e.g., CD player or tape deck).**

3 **Press the function button to select the component (program source).**

4 **Start playing.**

If you do not obtain normal sound output after performing this procedure, see "Troubleshooting" on page 43 and take the appropriate measures to correct the problem.

Selecting the component

Function buttons

Press the function button to select the component you want to use.

To select	Press
VCR	VIDEO 1 or VIDEO 2
TV or satellite tuner	VIDEO 2
Camcorder or video game	VIDEO 3
DVD or LD player	DVD/LD
MD or Tape deck	MD/TAPE
CD or SACD player	CD/SACD
Built in tuner	TUNER
An audio component	AUX

After turning on the component you selected, select the component and play the program source.

• After selecting VCR, camcorder, video game, DVD player, or LD player, turn on the TV and set the TV's video input to match the component you selected.

INPUT MODE

Press INPUT MODE to select the input mode for your digital components.
Each time you press the button, the input mode of the currently selected component switches.

Select	To
AUTO IN	Give priority to digital signals when there are both digital and analog connections. If there are no digital signals, analog is selected.
COAX IN	Specify the digital audio signals input to the DIGITAL COAXIAL input jacks.
OPT IN	Specify the digital audio signals input to the DIGITAL OPTICAL input jacks.
ANALOG	Specify the analog audio signals input to the AUDIO IN (L/R) jacks.

Note
When the 96 kHz digital signal is input, the equalizer and surround effects are turned off.

MULTI CH IN

Press MULTI CH IN to enjoy the audio source connected to the MULTI CH IN jacks. You can adjust balance and level of all the speakers. When this function is on, the equalizer and surround effects are turned off.

MULTI CHANNEL DECODING indicator

This indicator lights up when the unit is decoding signals recorded in a multi channel format.

Basic Operations

SPEAKERS A/B

Press SPEAKERS A/B button to output the sound from the speakers connected to the SPEAKERS FRONT terminals.

Each time you press the button, the display changes cyclically as follows:

SP. A → SP. B → SP. OFF

To drive	Select
Speaker System A (Connected to the SPEAKERS FRONT A terminals)	SP. A
Speaker System B (Connected to the SPEAKERS FRONT B terminals)	SP. B

When you select "SP. OFF", no sound will be output from your speakers and "SP. OFF" lights up in the display.

MUTING

Press MUTING to mute the sound. The muting function is canceled when you turn the power on or turn the MASTER VOLUME clockwise to turn the volume up.

PHONES

Use to connect headphones.

• When the headphones are connected, speaker output is automatically canceled and "SP. OFF" lights up in the display.

Changing the display

DISPLAY

Each time you press DISPLAY, the display changes cyclically as follows:

Index name of the component* → Selected component → Sound field applied to the program source

When the tuner is selected

Index name of the preset station* → Frequency → Sound field applied to the band or the preset station

* Index name appears only when you have assigned one to the component or preset station (page 33). Index name does not appear when only blank spaces have been entered, or it is the same as the function.

DIMMER

Press DIMMER repeatedly to adjust the brightness of the display (3 steps). However, when you press any button, the display becomes the brightest setting temporary.

You can take advantage of surround sound simply by selecting one of the receiver's pre-programmed sound fields. They bring the exciting and powerful sound of movie theaters and concert halls into your home. You can also customize the sound fields to obtain the sound you want by changing the surround parameter. To fully enjoy surround sound, you must register the number and location of your speakers. See "Multi channel surround setup" starting from page 17 to set the speaker parameters before enjoying surround sound.

Automatically decoding the input audio signal

Press A.DEC.

"AUTO DEC." appears in the display.

This mode automatically detects the type of audio signal being input (Dolby Digital, DTS, or standard 2 channel stereo) and performs the proper decoding if necessary. This mode presents the sound as it was recorded/encoded, without adding any effects (e.g. reverberation).

However, if there are no low frequency signals (Dolby Digital LFE, etc.) it will generate a low frequency signal for output to the sub woofer.

Selecting a sound field

You can enjoy surround sound simply by selecting one of the pre-programmed sound fields according to the program you want to listen to.

Sound field	Display
Normal Surround	NORM.SURR.
Cinema Studio EX A	C.ST.EX A **DCS**
Cinema Studio EX B	C.ST.EX B **DCS**
Cinema Studio EX C	C.ST.EX C **DCS**
Hall	HALL
Jazz Club	JAZZ
Live Concert	CONCERT
Game	GAME

About DCS (Digital Cinema Sound)

The sound fields with **DCS** mark use DCS technology. When these sound fields are selected, "Digital Cinema Sound" indicator in the display lights up.

In collaboration with Sony Pictures Entertainment, Sony measured the sound environment of their studios and integrated the data of the measurement and Sony's own DSP (Digital Signal Processor) technology to develop "Digital Cinema Sound". In a home theater, "Digital Cinema Sound" simulates an ideal movie theater sound environment based on the preference of the movie director.

Enjoying movies with Cinema Studio EX

Cinema Studio EX is ideal for enjoying the movie software encoded with multi channel format, such as the Dolby Digital DVD. This mode reproduces the sound characteristics of Sony Pictures Entertainment's studios.

Enjoying Surround Sound

Selecting a sound field (continued)

Press CINEMA STUDIO EX A, B or C.

The selected sound field is indicated in the display.

■ **C.ST.EX A (Cinema Studio EX A)**

Reproduces the sound characteristics of the Sony Pictures Entertainment "Cary Grant Theater" cinema production studio. This is a standard mode, great for watching most any type of movie.

■ **C.ST.EX B (Cinema Studio EX B)**

Reproduces the sound characteristics of the Sony Pictures Entertainment "Kim Novak Theater" cinema production studio. This mode is ideal for watching science-fiction or action movies with lots of sound effects.

■ **C.ST.EX C (Cinema Studio EX C)**

Reproduces the sound characteristics of the Sony Pictures Entertainment scoring stage. This mode is ideal for watching musicals or classic films where music is featured in the soundtrack.

About Cinema Studio EX

Cinema Studio EX consists of the following three elements.

• Virtual Multi Dimension

Creates 5 sets of virtual speakers surrounding the listener from a single pair of actual surround speakers.

• Screen Depth Matching

In a movie theater, sound seems to come from inside the image reflected on the movie screen. This element creates the same sensation in your listening room by shifting the sound of the front speakers "into" the screen.

• Cinema Studio Reverberation

Reproduces the reverberations peculiar to a movie theater.

Cinema Studio EX is the integrated mode which operates these elements simultaneously.

Tip

You can select Cinema Studio EX by pressing MODE repeatedly.

Notes

• The effects provided by the virtual speakers may cause increased noise in the playback signal.
• When listening with sound fields that employ the virtual speakers, you will not be able to hear any sound coming directly from the surround speakers.

Selecting other sound fields

Press MODE repeatedly to select the sound field you want.

The current sound field is indicated in the display.

■ **NORM.SURR. (Normal Surround)**

Software with multi channel surround audio signals is played back according to the way it was recorded. Software with 2 channel audio signals is decoded with Dolby Pro Logic to create surround effects.

■ **HALL**

Reproduces the acoustics of a rectangular concert hall.

■ **JAZZ (Jazz Club)**

Reproduces the acoustics of a jazz club.

■ **CONCERT (Live Concert)**
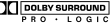
Reproduces the acoustics of a 300-seat live concert.

■ **GAME**

Obtains maximum audio impact from video game software.

To turn the surround effect off

Press A.DEC or 2CH.

Tips
- The receiver lets you apply the last selected sound field to a program source whenever it is selected (Sound Field Link). For example, if you listen to CD with "JAZZ" as the sound field, change to a different program source, then return to CD, "JAZZ" will be applied again.
- You can identify the encoding format of program software by looking at its packaging.
  Dolby Digital discs are labeled with the ▣▣ DOLBY DIGITAL logo, and Dolby Surround encoded programs are labeled with the ▣▣ DOLBY SURROUND PRO·LOGIC logo.
- When sound signals with a sampling frequency of 96 kHz are input, the sound signals are output in stereo automatically, and the sound field is turned off.

Using only the front speakers (2 Channel Stereo)

Press 2CH.

"2CH ST." appears in the display.

This mode outputs the sound from the front left and right speakers only. Standard 2 channel (stereo) sources completely bypass the sound field processing. Multi channel surround formats are downmixed to 2 channel.

Notes
- No sound is output from the sub woofer when "2CH ST." is selected. To listen to 2 channel (stereo) sources using the front left and right speakers and a sub woofer, press A.DEC to select "AUTO DEC."
- When you select "Micro Satellite Speaker" (page 18), internal sound processor will automatically redirect bass sound to sub woofer. If you want to listen to two channel (stereo) sources under this setting, we recommend that you choose "AUTO DEC." mode so that you can take advantage of your sub woofer to obtain the correct bass signal.

Enjoying stereo sound in multi channel (Dolby Pro Logic II)

The receiver can reproduce the stereo sound in multi channel through Dolby Pro Logic II. You can activate the decoder using the SET UP menu. For details, see page 35.

Understanding the multi channel surround displays
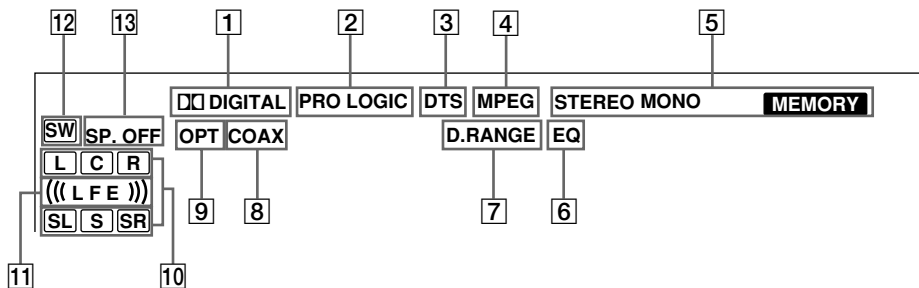
① **⧈ DIGITAL:** Lights up when the receiver is decoding signals recorded in the Dolby Digital format.

② **PRO LOGIC:** Lights up when the receiver applies Pro Logic processing to 2 channel signals in order to output the center and surround channel signals. However, this indicator does not light if the center and surround speakers are set to "NO", and "AUTO DEC." or "NORM.SURR." is selected.

Note
Pro Logic decoding does not function for MPEG format signals.

③ **DTS:** Lights up when DTS signals are input.

Note
When playing a DTS format disc, be sure that you have made digital connections and that INPUT MODE is NOT set to "ANALOG" (page 23).

④ **MPEG:** Lights up when MPEG signals are input.

Note
Only the front 2 channels are compatible with MPEG format. Multi channel surround sound is downmixed and output from the front 2 channels.

⑤ **Tuner indicators:** Lights up when using the receiver to tune in radio stations, etc. See pages 32–33 for tuner operations.

⑥ **EQ:** Lights up when the equalizer functions.

⑦ **D.RANGE:** Lights up when dynamic range compression is activated. See page 30 to adjust the dynamic range compression.

⑧ **COAX:** Lights up when the source signal is a digital signal being input through the COAXIAL terminal.

⑨ **OPT:** Lights up when the source signal is a digital signal being input through the OPTICAL terminal.

⑩ **Playback channel indicators:** The letters (L, C, R, etc.) indicate the channels being played back. The boxes around the letters vary to show how the receiver downmixes the source sound (based on the speakers settings). When using sound fields like "C.ST.EX", the receiver adds reverberation based on the source sound.

L (Front Left), R (Front Right), C (Center (monaural)), SL (Surround Left), SR (Surround Right), S (Surround (monaural or the surround components obtained by Pro Logic processing))

Example:
Recording format (Front /Surround): 3/2
Output channel: Surround speakers absent
Sound Field: AUTO DEC.

L C R

SL   SR

11 $(((\; \text{L F E} \;)))$: Lights up when the disc being played back contains the LFE (Low Frequency Effect) channel and when the sound of the LFE channel signal is actually being reproduced.

12 **SW:** Lights up when sub woofer selection is set to "YES" (page 20) and the audio signal is output from the SUB WOOFER jacks.

13 **SP. OFF:** Lights up when headphones are inserted or the SPEAKERS A/B button is set to "SP. OFF".

Customizing sound fields

By adjusting the surround parameters and the equalization of the front speakers, you can customize the sound fields to suit your particular listening situation.

Once you customize a sound field, the changes are stored in the memory indefinitely. You can change a customized sound field any time by making new adjustments to the parameters.

See the tables on page 49 for the parameters available in each sound field.

To get the most from multi channel surround sound

Position your speakers and do the procedures described in "Multi channel surround setup" starting from page 17 before you customize a sound field.

Adjusting the surround parameter

The SURR menu contains parameter that let you customize various aspects of the current sound field. The settings are stored individually for each sound field.

1 Start playing a program source encoded with multi channel surround sound.

2 Press SURR.

The button lights up and the first parameter is displayed.

3 Turn the jog dial to select the setting you want.

The setting is entered automatically.

Initial settings

Parameter	Initial setting
EFFECT	(depends on the sound field)

Effect level (EFFECT)

Lets you adjust the "presence" of the current surround effect.

Adjusting the level parameters

The LEVEL menu contains parameters that let you adjust the balance and volumes of each speaker. The settings are applied to all sound fields.

1 Start playing a program source encoded with multi channel surround sound.

2 Press LEVEL.

The button lights up and the first parameter is displayed.

3 Press $<$ or $>$ to select the parameter you want to adjust.

4 Turn the jog dial to select the setting you want.

The setting is entered automatically.

29^{GB}

Customizing sound fields (continued)

Initial settings

Parameter	Initial setting
⬛L⬛ ⬛R⬛ BAL. L/R XXX*	BALANCE
CTR XXX dB*	0 dB
SUR.L. XXX dB*	0 dB
SUR.R. XXX dB*	0 dB
S.W. XXX dB*	0 dB
L.F.E. XXX dB	0 dB
D. RANGE COMP. XXX	OFF

* The parameters can be adjusted separately for MULTI CH IN.

Front balance (⬛L⬛ ⬛R⬛ BAL. L/R XXX)

Lets you adjust the balance between front left and right speakers.

Center level (CTR XXX dB)

Lets you adjust the level of the center speaker.

Surround left level (SUR.L. XXX dB)

Lets you adjust the level of the surround left speaker.

Surround right level (SUR.R. XXX dB)

Lets you adjust the level of the surround right speaker.

Sub woofer level (S.W. XXX dB)

Lets you adjust the level of the sub woofer.

LFE (Low Frequency Effect) mix level (L.F.E. XXX dB)

Lets you attenuate the level of the LFE (Low Frequency Effect) channel output from the sub woofer without effecting the level of the bass frequencies sent to the sub woofer from the front, center or surround channels via the Dolby Digital or DTS bass redirection circuitry.

- For LFE mix level, "0 dB" outputs the full LFE signal at the mix level determined by the recording engineer.

- To mute the sound of the LFE channel from the sub woofer, select "OFF". However, the low frequency sounds of the front, center, or surround speakers are output from the sub woofer according to the settings made for each speaker in the speaker setup (pages 17–21).

Dynamic range compressor (D. RANGE COMP. XXX)

Lets you compress the dynamic range of the sound track. This may be useful when you want to watch movies at low volumes late at night. We recommend using the "MAX" setting.

- To reproduce the sound track with no compression, select "OFF".

- To reproduce the sound track with the dynamic range intended by the recording engineer, select "STD".

- To compress the dynamic range in small steps to achieve the sound you desire, select "0.1"– "0.9".

- To reproduce a dramatic compression of the dynamic range, select "MAX".

Note

Dynamic range compression is possible with Dolby Digital sources only.

Adjusting the equalizer

The EQ menu lets you adjust the equalization of the front speakers. The settings are stored individually for each sound field.

1 Start playing a program source encoded with multi channel surround sound.

2 Press EQ.

The button lights up and the first parameter is displayed.

3 Press $<$ or $>$ to select the parameter (gain (dB)) you want to adjust.

4 Turn the jog dial to select the setting you want.

The setting is entered automatically.

Gain (dB)
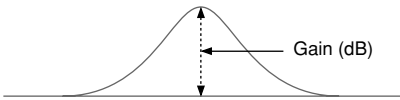
To turn on/off the equalizer

Press EQUALIZER. The EQ indicator in the display lights up when the equalizer is turned on. When you adjust the equalizer using the EQ parameters, the settings are stored separately for each sound field and can be reproduced whenever you turn on the equalizer.

Front speaker bass adjustment (Gain)

Lets you adjust the gain of bass.

Front speaker treble adjustment (Gain)

Lets you adjust the gain of treble.

Resetting customized sound fields to the factory settings

1 If the power is on, press I/$\circlearrowleft$ to turn off the power.

2 Hold down MODE and press I/$\circlearrowleft$.

"SF. CLR." appears in the display and all sound fields are reset at once.

Before receiving broadcasts, make sure you have connected FM and AM antennas to the receiver (page 7).

Direct tuning

You can enter a frequency of the station you want directly by using the numeric buttons on the supplied remote. For details on the buttons used in this section, see pages 39–42.

1 Press TUNER on the remote.

The last received station is tuned in.

2 Press FM or AM to select the FM or AM band.

3 Press D. TUNING on the remote.

4 Press the numeric buttons to enter the frequency.

Example 1: FM 102.50 MHz

$$(1) \rightarrow (0) \rightarrow (2) \rightarrow (5) \rightarrow (0)$$

Example 2: AM 1350 kHz
(You don't have to enter the last "0" when the tuning scale is set to 10 kHz.)

$$(1) \rightarrow (3) \rightarrow (5) \rightarrow (0)$$

If you cannot tune in a station and the entered numbers flash

Make sure you've entered the right frequency. If not, repeat steps 3 and 4.

If the entered numbers still flash, the frequency is not used in your area.

5 If you've tuned in an AM station, adjust the direction of the AM loop antenna for optimum reception.

6 Repeat steps 2 to 5 to receive another station.

Tips
- If you do not remember the precise frequency, press TUNING + or TUNING – after entering the value close to the frequency you want. The receiver automatically tunes in the station you want. If the frequency seems to be higher than the entered value, press TUNING +, and if the frequency seems to be lower than the entered value, press TUNING –.
- If "STEREO" flashes in the display and the FM stereo reception is poor, press FM MODE to change to monaural (MONO). You will not be able to enjoy the stereo effect, but the sound will be less distorted. To return to stereo mode, press FM MODE again.

The tuning scale is:
FM : 50 kHz
AM : 9 kHz

Automatic tuning

If you don't know the frequency of the station you want, you can let the receiver scan all available stations in your area.

1 Press TUNER.

The last received station is tuned in.

2 Press FM or AM to select the FM or AM band.

3 Press TUNING + or TUNING –.

Press TUNING + to scan from low to high; press TUNING – to scan from high to low.

The receiver stops scanning whenever a station is received.

When the receiver reaches either end of the band

Scanning is repeated in the same direction.

4 To continue scanning, press TUNING + or TUNING – again.

Preset tuning

After you have tuned in stations using Direct Tuning or Automatic Tuning, you can preset them to the receiver. Then you can tune in any of the stations directly by entering its 2-character preset code using the supplied remote. Up to 30 FM or AM stations can be preset. The receiver will also scan all the stations that you have preset.

Before tuning to preset stations, be sure to preset them by performing steps on "Presetting radio stations" in this page.

Presetting radio stations

1 **Press TUNER.**

The last received station is tuned in.

2 **Tune in the station that you want to preset using Direct Tuning (page 32) or Automatic Tuning (page 32).**

3 **Press MEMORY.**

"MEMORY" appears in the display for a few seconds.

Do steps 4 to 6 before "MEMORY" goes out.

4 **Press SHIFT to select a memory page (A, B or C).**

Each time you press SHIFT, the letter "A", "B", or "C" appears in the display.

5 **Press PRESET TUNING + or PRESET TUNING – to select a preset number.**

If "MEMORY" goes out before you press the preset number, start again from step 3.

6 **Press MEMORY again to store the station.**

If "MEMORY" goes out before you can store the station, start again from step 3.

7 **Repeat steps 2 to 6 to preset another station.**

To change a preset number to another station

Do steps 1 to 6 to preset a new station to the number.

Tuning to preset stations

You can tune the preset stations by either of the following two ways.

Scanning the preset stations

1 **Press TUNER.**

The last received station is tuned in.

2 **Press PRESET TUNING + or PRESET TUNING – repeatedly to select the preset station you want.**

Each time you press the button, the receiver tunes in one preset station at a time, in the corresponding order and direction as follows:

$$\rightarrow A1 \leftrightarrow A2 \leftrightarrow ... \leftrightarrow A0 \leftrightarrow B1 \leftrightarrow B2 \leftrightarrow ... \leftrightarrow B0 \leftarrow$$
$$\rightarrow C0 \leftrightarrow ...C2 \leftrightarrow C1 \leftarrow$$
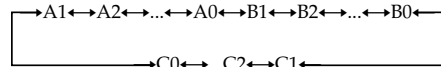
Using the preset codes

Use the supplied remote to perform the following operations. For details on the buttons used in this section, see pages 39–42.

1 **Press TUNER on the remote.**

The last received station is tuned in.

2 **Press SHIFT to select a memory page (A, B, or C), then press the preset number of the station you want using the numeric buttons.**

Naming preset stations and program sources

You can enter a name (index name) of up to 8 characters for preset stations and program sources. These names (for example, "VHS") appear in the receiver's display when a station or program source is selected. Note that no more than one name can be entered for each preset station or program source.

This function is useful for distinguishing components of the same kind. For example, two VCRs can be specified as "VHS" and "8MM", respectively. It is also handy for identifying components connected to jacks meant for another type of component, for example, a second CD player connected to the MD/TAPE jacks.

1 To name a preset station
Press TUNER, then tune in the preset station you want to create an index name for.

The last station you received is tuned in. If you are not familiar with how to tune in preset stations, see "Tuning to preset stations" on page 33.

To name a program source
Select the program source (component) to be named.

2 Press NAME.

3 Create an index name by using the jog dial and < or >:

Turn the jog dial to select a character, then press > to move the cursor to the next position.

To insert a space
Turn the jog dial until a blank space appears in the display.

If you've made a mistake
Press < or > repeatedly until the character to be changed flashes, then turn the jog dial to select the right character.

4 Press ENTER.

5 Repeat steps 2 to 4 to assign index name for another station or program source.

Recording

Before you begin, make sure you've connected all components properly.

Recording on an audio tape or MiniDisc

You can record on a cassette tape or MiniDisc using the receiver. See the operating instructions of your cassette deck or MD deck if you need help.

1 Select the component to be recorded.

2 Prepare the component for playing.
For example, insert a CD into the CD player.

3 Insert a blank tape or MD into the recording deck and adjust the recording level, if necessary.

4 Start recording on the recording deck, then start playback on the playback component.

Notes
• Sound adjustments do not affect the signal output from the MD/TAPE OUT jacks.
• The analog audio signals of the current function is output from the REC OUT jacks.
• When MULTI CH IN is selected, the analog audio signals of the current function is output from the REC OUT jacks.
• You cannot record a digital audio signal using a component connected to the analog MD/TAPE OUT jacks. To record a digital audio signal, connect a digital component to the DIGITAL MD/TAPE OUT jacks.

- Some sources contain copy guards to prevent recording. In this case, you may not be able to record from the sources.
- When MULTI CH IN is selected, no signals are output from DIGITAL OUT jacks (MD/TAPE OPTICAL OUT).

Recording on a video tape

You can record from a VCR, a TV, a DVD player or an LD player using the receiver. You can also add audio from a variety of audio sources when editing a video tape. See the operating instructions of your VCR or LD player if you need help.

1 **Select the program source to be recorded.**

2 **Prepare the component for playing.**

For example, insert the laser disc you want to record into the LD player.

3 **Insert a blank video tape into the VCR (VIDEO 1) for recording.**

4 **Start recording on the recording VCR, then start playing the video tape or laser disc you want to record.**

Tip
You can record the sound from any audio source onto a video tape while copying from a video tape or laser disc. Locate the point where you want to start recording from another audio source, select the program source, then start playback. The audio from that source will be recorded onto the audio track of the video tape instead of the audio from the original medium. To resume audio recording from the original medium, select the video source again.

Notes
- Make sure to make both digital and analog connections to the VIDEO 2 and DVD/LD inputs. Analog recording is not possible if you make only digital connections.
- When MULTI CH IN is selected, the analog audio signals of the current function is output from the REC OUT jacks.

Using the Sleep Timer

You can set the receiver to turn off automatically at a specified time.

Press SLEEP on the remote while the power is on.

Each time you press the button, the display changes cyclically as follows:

2-00-00 → 1-30-00 → 1-00-00 → 0-30-00 → OFF

The display dims after you have specified the time.

Tips
- You can freely specify the time. After pressing SLEEP, specify the time you want using the jog dial and $<$ / $>$ on the receiver. The sleep time changes in 1 minute intervals. You can specify up to 5 hours.
- To check the remaining time before the receiver turns off, press SLEEP. The remaining time appears in the display.

Adjustments using the SET UP button

The SET UP button allows you to make the following adjustments.

1 **Press SET UP.**

2 **Press $<$ or$>$ to select the parameter you want to adjust.**

3 **Turn the jog dial to select the setting you want.**

The setting is entered automatically.

4 **Repeat steps 2 and 3 until you have set all of the parameters that follow.**

Initial settings

Parameter	Initial setting
C.MODE.AVX	AV2
PRO LOGIC	II MOVIE
A.PWR – XXX	YES

Adjustments using the SET UP button (continued)

■ CONTROL A1Ⅱ auto power on (A.PWR – XXX)

Lets you turn on the receiver automatically when the component connected via monaural miniplug cord (page 13) is turned on and the playback is started.

When set to "OFF", you can save the power consumption of the receiver during standby mode.

■ Selecting the command mode of the remote (C.MODE.AVX)

Lets you select the command mode of the remote. Change the command mode when you use 2 Sony receivers in the same room.

■ 2ch decode mode (PRO LOGIC)

Lets you specify the type of decoding for the 2 channel source. This receiver incorporates with Dolby Pro Logic II which has movie mode and music mode, and the receiver can reproduce the 2 channel sound in 5.1 channel through Dolby Pro Logic II.

- When set to "DOLBY PL", the receiver performs the Pro Logic decoding. The source recorded in 2 channel is decoded into 4 channels.
- When set to "II MOVIE", the receiver performs the Pro Logic II movie mode decoding. This setting is ideal for the movies encoded in Dolby Surround. Besides, this mode can reproduce the sound in 5.1 channel when watching the videos of old movies or in the dubbed language.
- When set to "II MUSIC", the receiver performs the Pro Logic II music mode decoding. This setting is ideal for the normal stereo sources, such as CDs.

Note
Dolby Pro Logic II does not function for DTS or MPEG format signals.

CONTROL A1Ⅱ control system

Getting Started

This section explains the basic functions of the CONTROL A1Ⅱ Control System. Certain components have special functions, such as "CD Synchro Dubbing" on cassette decks, that require CONTROL A1Ⅱ connections. For detailed information regarding specific operations, be sure to also refer to the Operating Instructions supplied with your component(s).

The CONTROL A1Ⅱ Control System was designed to simplify the operation of audio systems composed of separate Sony components. CONTROL A1Ⅱ connections provide a path for the transmission of control signals which enable automatic operation and control features usually associated with integrated systems.

Currently, CONTROL A1Ⅱ connections between a Sony CD player, amplifier (receiver), MD deck and cassette deck provide automatic function selection and synchronized recording.

In the future, the CONTROL A1Ⅱ connection will work as a multifunction bus allowing you to control various functions for each component.

Notes
- The CONTROL A1Ⅱ Control System is designed to maintain upward compatibility as the Control System is upgraded to handle new functions. In this case, however, older components will not be compatible with the new functions.
- Do not operate a 2 way remote control unit when the CONTROL A1Ⅱ jacks are connected via a PC interface kit to a personal computer running "MD Editor" or similar application. Also, do not operate the connected component in a manner contrary to the functions of the application, as this may cause the application to operate incorrectly.

CONTROL A1 II and CONTROL A1 compatibility

The CONTROL A1 control system has been updated to the CONTROL A1 II which is the standard system in the Sony 300 disc CD changer and other recent Sony components. Components with CONTROL A1 jacks are compatible with components with CONTROL A1 II, and can be connected to each other. Basically, the majority of the functions available with the CONTROL A1 control system will be available with the CONTROL A1 II control system.

However, when making connections between components with CONTROL A1 jacks and components with CONTROL A1 II jacks, the number of functions that can be controlled may be limited depending on the component. For detailed information, refer to the operating instructions supplied with the component(s).

Connections

Connect monaural mini-plug cords in series to the CONTROL A1 II jacks on the back of each component. You can connect up to 10 CONTROL A1 II compatible components in any order. However, you can connect only one of each type of component (i.e., 1 CD player, 1 MD deck, 1 tape deck and 1 receiver).

(You may be able to connect more than one CD player or MD deck, depending on the model. Refer to the operating instructions supplied with the respective component for details.)

Example

Amplifier (Receiver) CD player MD deck Tape deck Other component
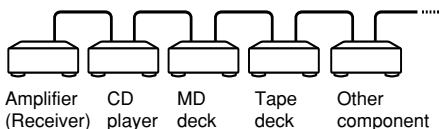
In the CONTROL A1 II control system, the control signals flow both ways, so there is no distinction of IN and OUT jacks. If a component has more than one CONTROL A1 II jack, you can use either one, or connect different components to each jack.

Jacks and connection examples

CD player

MD deck
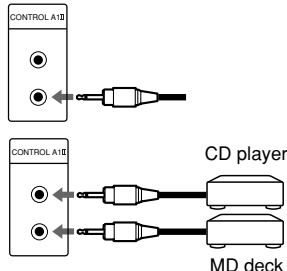
On CONTROL A1 jacks and connections

It is possible to make connections between CONTROL A1 and CONTROL A1 II jacks. For details regarding particular connections or set up options, refer to the operating instructions supplied with the component(s).

About the connecting cord

Some CONTROL A1 compatible components are supplied with a connecting cord as an accessory. In this case, use the connecting cord for your connection.

When using a commercially available cord, use a monaural mini-plug cord less than 2 meters long, with no resistance (such as the Sony RK-G69HG).

Basic Functions

The CONTROL A1 II functions will operate as long as the component you want to operate is turned on, even if all of the other connected components are not turned on.

CONTROL A1II *control system (continued)*

Automatic function selection

When you connect a CONTROL A1II compatible Sony amplifier (or receiver) to other Sony components using monaural mini-plug cords, the function selector on the amplifier (or receiver) automatically switches to the correct input when you press the play button on one of the connected components.

Notes
• You must connect a CONTROL A1 compatible amplifier (receiver) using a monaural mini-plug cord in order to take advantage of the automatic function selection feature.
• This function only works when the components are connected to the amplifier (or receiver) inputs according to the names on the function buttons. Certain receivers allow you to switch the names of the function buttons. In this case, refer to the operating instructions supplied with the receiver.
• When recording, do not play any components other than the recording source. It will cause the automatic function selection to operate.

Synchronized recording

This function lets you conduct synchronized recording between the selected source and recorder components.

1 Set the function selector on the amplifier (or receiver) to the source component.

2 Set the source component to pause mode (make sure both the ► and ❙❙ indicators light together).

3 Set the recorder component to the REC-PAUSE mode.

4 Press PAUSE on the recorder component.
The source component is released from the pause mode, and recording begins shortly thereafter.
When playback ends from the source component, recording stops.

Notes
• Do not set more than one component to the pause mode.
• Certain recorder components may be equipped with a special synchronized recording function that uses the CONTROL A1II Control System, such as "CD Synchro Dubbing". In this case, refer to the operating instructions supplied with the recorder component.

You can use the remote RM-U305C to operate the components in your system.

Before you use your remote

Inserting batteries into the remote

Insert R6 (size-AA) batteries with the + and – properly oriented in the battery compartment. When using the remote, point it at the remote sensor ■ on the receiver.
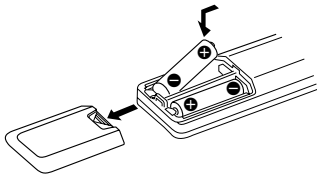
Tip

Under normal conditions, the batteries should last for about 6 months. When the remote no longer operates the receiver, replace all batteries with new ones.

Notes

• Do not leave the remote in an extremely hot or humid place.
• Do not use a new battery with an old one.
• Do not expose the remote sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
• If you don't use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Remote button description
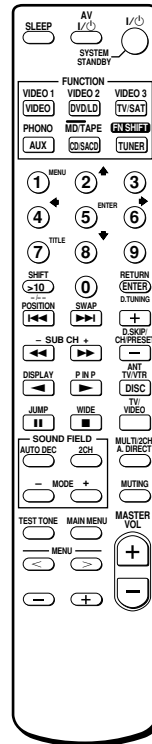
The tables below show the settings of each button.

Remote Button	Operations	Function
SLEEP	Receiver	Activates the sleep function and the duration which the receiver turns off automatically.
I/⏻	Receiver	Turns the receiver on or off.

39GB

Remote Button	Operations	Function
VIDEO/ VIDEO 1*	Receiver	To watch VCR. (VTR mode 3)
VIDEO 2*	Receiver	To watch VCR. (VTR mode 1)
VIDEO 3*	Receiver	To watch VCR. (VTR mode 2)
DVD/LD	Receiver	To watch DVD or laser disc.
TV/SAT	Receiver	To watch TV programs or satellite receiver.
PHONO*	Receiver	To listen to turntable.
MD/TAPE*	Receiver	To listen to Minidisc or audio tape.
AUX	Receiver	To listen to an audio equipment.
CD/SACD	Receiver	To listen to compact disc.
TUNER	Receiver	To listen to radio programs.
SHIFT	Receiver	Press repeatedly to select a memory page for presetting radio stations or tuning to preset stations.
D.TUNING	Receiver	Tuner station direct key-in-mode.
AUTO DEC	Receiver	Selects AUTO DECODING mode.
MODE +/–	Receiver	Selects sound field mode.
2CH	Receiver	Selects 2CH mode.
MULTI/ 2CH A. DIRECT	Receiver	Selects MULTI CH IN source.
MUTING	Receiver	Mutes the sound from the receiver

* VIDEO 1, VIDEO 2, VIDEO 3, PHONO and MD/TAPE function is a 2-key operation. To select the above function, press FN SHIFT (function shift) and the function key you want simultaneously. For example, press FN SHIFT and CD/SACD to select MD/TAPE function.

Remote Button	Operations	Function
TEST TONE	Receiver	Press to output test tone.
MAIN MENU	Receiver	Press this button repeatedly to select one of the five cursor modes: EQ, SURR, LEVEL, SET UP and NAME.
MENU </>	Receiver	Selects a menu item.
MENU +/–	Receiver	Makes adjustment or change the setting.
MASTER VOL +/–	Receiver	Adjusts the master volume of the receiver.
AV I/①	TV/VCR/ CD player/ VCD player/ LD player/ DVD player MD deck/ DAT deck/	Turns the audio and video components on or off.
SYSTEM STANDBY (Press AV I/① and I/① at the same time)	Receiver/TV/ VCR/Satellite tuner/ CD player/ VCD player/ LD player/ DVD player/ MD deck/ DAT deck/ TAPE deck.	Turns off the receiver and other Sony audio/video components
0-9	Receiver	Use with "SHIFT" button to select tuner preset station numeric input during DIRECT TUNING or MEMORY mode.
	CD player/ VCD player/ LD player/ MD deck/ DAT deck	Selects track numbers. 0 selects track 10.
	TV/VCR/ satellite tuner	Selects channel numbers.
>10	CD player/ VCD player/ LD player/ MD deck/ Tape deck	Selects tracks numbers over 10.

Remote Button	Operations	Function
ENTER	TV/VCR/ satellite tuner/ LD player/ MD deck/ DAT deck/ Tape deck	After selecting a channel, disc or track using the numeric buttons, press to enter the value.
D. SKIP/ CH/PRESET +/–	Receiver	Scans and selects preset stations.
	TV/VCR/ satellite tuner	Selects preset channel.
	CD player/ VCD player/ DVD player/ MD deck	Skips discs (multi-disc changer only).
◄◄ /►►►	VCR/ CD player/ VCD player/ LD player/ DVD player/ MD deck/ DAT deck/ Tape deck	Skips tracks.
◄◄/►►	CD player/ VCD player/ DVD player	Search tracks (forward or backward)
	VCR/ LD player/ MD deck/ DAT deck/ Tape deck	Fastforwards or rewinds.
◄	Tape deck	Starts play on the reverse side.
►	VCR/ CD player/ VCD player/ LD player/ DVD player/ MD deck/ DAT deck/ Tape deck	Starts play.

Remote Button	Operations	Function
❚❚	VCR/ CD player/ VCD player/ LD player/ DVD player/ MD deck/ DAT deck/ Tape deck	Pauses play or record. (Also start recording with components in record standby.)
■	VCR/ CD player/ VCD player/ LD player/ DVD player/ MD deck/ DAT deck/ Tape deck	Stops play.
DISPLAY	TV/VCR/ VCD player/ LD player/ DVD player	Selects information displayed on the TV screen.
ANT TV/VTR	VCR	Selects output signal from the aerial terminal: TV signal or VCR program.
DISC	CD player	Selects discs (multi-disc changer only).
TITLE	DVD player	Displays DVD title.
MENU	DVD player	Displays DVD menu.
ENTER	DVD player	Enters the selection.
RETURN	DVD player	Returns to previous menu or exits the menu.
▲/▼/◄/►	DVD player	Selects a menu item.
-/--	TV	Selects the channel entry mode, either one or two digit

Operations Using the Remote RM-U305C

41^{GB}

Remote button description (continued)

Remote Button	Operations	Function
POSITION**TV	TV	Changes the position of the small picture.
SWAP**	TV	Swaps the small and the large picture.
SUB CH +/–**	TV	Selects the preset channels for the small picture.
P IN P**	TV	Activates the picture-in-picture function.
JUMP	TV	Toggles between the previous and the current channels.
WIDE	TV	Selects the wide picture mode.
TV/VIDEO	TV	Selects input signal: TV input or video input.

** Only for Sony TVs with the picture-in-picture function.

Notes
• When you press the function buttons (VIDEO 1, VIDEO 2, VIDEO 3, DVD/LD), the input mode of the TV might not switch to the corresponding input mode that you want. In this case, press the TV/VIDEO button to switch the input mode of the TV.
• Some functions explained in this section may not work depending on the model of the receiver.
• The above explanation is intended to serve as an example only. Therefore, depending on the component the above operation may not be possible or may operate differently than described.
• The TV/SAT and PHONO functions are not available for set operation.

Changing the factory setting of a function button

If the factory settings of the FUNCTION buttons do not match your system components, you can change them. For example, if you have an MD player and a tape deck and you don't have a CD player, you can assign the CD/SACD button to your tape deck.

Note that the settings of the TUNER and FN SHIFT functions (VIDEO 1, VIDEO 2, VIDEO 3, PHONO and MD/TAPE) button cannot be changed.

1 Hold down the Function button whose function you want to change (for example, CD/SACD).

2 Press the corresponding button of the component you want to assign to the Function button (for example, 4 – Tape deck).

The following buttons are assigned to select the functions:

To operate	Press
CD player	1
DAT deck	2
MD deck	3
Tape deck A	4
Tape deck B	5
LD player	6
VCR (command mode VTR 1*)	7
VCR (command mode VTR 2*)	8
VCR (command mode VTR 3*)	9
TV	0
DSS (Digital Satellite Receiver)	>10
DVD	ENTER
VCD player	⏮

* Sony VCRs are operated with a VTR 1, 2 or 3 setting. These correspond to Beta, 8mm and VHS respectively.

Now you can use the CD/SACD button to control the tape deck.

To reset a button to its factory setting
Repeat the above procedure.

To reset all the function buttons to their factory setting
Press I/⏻, AV I/⏻ and MASTER VOL – at the same time.

Precautions

On safety

Should any solid object or liquid fall into the cabinet, unplug the receiver and have it checked by qualified personnel before operating it any further.

On power sources

- Before operating the unit, check that the operating voltage is identical with your local power supply. The operating voltage is indicated on the nameplate at the rear of the receiver.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the receiver itself has been turned off.
- If you are not going to use the receiver for a long time, be sure to disconnect the receiver from the wall outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.
- AC power cord must be changed only at the qualified service shop.

On heat buildup

Although the unit heats up during operation, this is not a malfunction. If you continuously use this unit at a large volume, the cabinet temperature of the top, side and bottom rises considerably. To avoid burning yourself, do not touch the cabinet.

On placement

- Place the receiver in a location with adequate ventilation to prevent heat buildup and prolong the life of the receiver.
- Do not place the receiver near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunctions.

On operation

Before connecting other components, be sure to turn off and unplug the receiver.

On cleaning

Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

If you have any question or problem concerning your receiver, please consult your nearest Sony dealer.

Troubleshooting

If you experience any of the following difficulties while using the receiver, use this troubleshooting guide to help you remedy the problem. Also, see "Checking the connections" on page 22 to verify that the connections are correct. Should any problem persist, consult your nearest Sony dealer.

There is no sound or only a very low-level sound no matter which component is selected.

- Check that the speakers and components are connected securely and correctly.
- Check that both the receiver and all the components are turned on.
- Check that the MASTER VOLUME control is not set at VOL MIN.
- Check that the SPEAKERS A/B button is not set to "SP. OFF" and is set accordingly to your SPEAKERS FRONT system (page 24).
- Press MUTING to cancel the muting function.
- Check that the headphones are not connected.
- The protective device on the receiver has been activated because of a short circuit ("PROTECT" flashes). Turn off the receiver, eliminate the short-circuit problem and turn on the power again.

There is no sound from a specific component.

- Check that the component is connected correctly to the audio input jacks for that component.
- Check that the cord(s) used for the connection is (are) fully inserted into the jacks on both the receiver and the component.
- Check that you have selected the correct component on the receiver.

Additional Information

Troubleshooting (continued)

There is no sound from one of the front speakers.

Connect a pair of headphones to the PHONES jack to verify that sound is output from the headphones (page 24).

If only one channel is output from the headphones, the component may not be connected to the receiver correctly. Check that all the cords are fully inserted into the jacks on both the receiver and the component.

If both channels are output from the headphones, the front speaker may not be connected to the receiver correctly. Check the connection of the front speaker which is not outputting any sound.

The left and right sounds are unbalanced or reversed.

• Check that the speakers and components are connected correctly and securely.
• Adjust balance parameters in the LEVEL menu.

There is severe hum or noise.

• Check that the speakers and components are connected securely.
• Check that the connecting cords are away from a transformer or motor, and at least 3 meters away from a TV set or fluorescent light.
• Move your TV away from the audio components.
• The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.

There is no sound or only a very low-level sound is heard from the center or/and surround speakers.

• Make sure the sound field function is on (press MODE).
• Select a sound field containing the word "C.ST.EX" (pages 25–26).
• Adjust the speaker level (page 22).
• Make sure the center or/and surround speaker size parameter is set to either "SMALL" or "LARGE" (page 19).

There is no sound from the active sub woofer.

There is no sound output from the SUB WOOFER terminal depending on the sound field (page 49).

The surround effect cannot be obtained.

Make sure the sound field function is on (press MODE).

Dolby Digital or DTS multi channel sound is not reproduced.

• Check that the playing DVD, etc. is recorded in Dolby Digital or DTS format.
• When connecting the DVD player, etc. to the digital input jacks of this receiver, check the audio setting (settings for the audio output) of the connected component.

Recording cannot be done.

• Check that the components are connected correctly.
• Select the source component with function buttons.
• Make sure that INPUT MODE is set to "ANALOG" before recording from a digital component connected to the analog MD/TAPE terminals.
• Make sure that INPUT MODE is set to "COAX IN" or "OPT IN" (page 23) before recording from a digital component connected to the DIGITAL MD/TAPE OUT terminals.

To connect an LD player via an RF demodulator.

Connect the LD player to the RF demodulator, then connect the RF demodulator's optical or coaxial digital output to the receiver's jack. When making this connection, be sure to set INPUT MODE manually (page 23). The receiver may not operate correctly if INPUT MODE is set to "AUTO IN".

For details on DOLBY DIGITAL RF hookups, see the operating instructions supplied with your RF demodulator.

The FM reception is poor.

Use a 75-ohm coaxial cable (not supplied) to connect the receiver to an outdoor FM antenna as shown below. If you connect the receiver to an outdoor antenna, ground it against lightning. To prevent a gas explosion, do not connect the ground wire to a gas pipe.

Outdoor FM antenna

Receiver

ANTENNA

AM

FM 75Ω COAXIAL

Ground wire (not supplied)

To ground
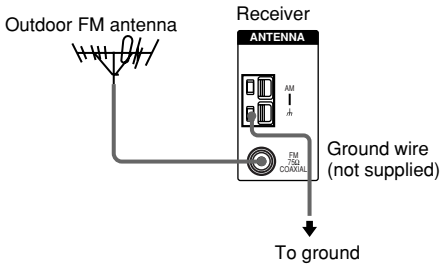
Radio stations cannot be tuned in.

- Check that the antennas are connected securely. Adjust the antennas and connect an external antenna if necessary.
- The signal strength of the stations is too weak (when tuning in with automatic tuning). Use direct tuning.
- Make sure you set the tuning interval correctly (when tuning in AM stations with direct tuning).
- No stations have been preset or the preset stations have been cleared (when tuning by scanning preset stations). Preset the stations (page 33).
- Press DISPLAY so that the frequency appears in the display.

There is no picture or an unclear picture appears on the TV screen or monitor.

- Select the appropriate function on the receiver.
- Set your TV to the appropriate input mode.
- Move your TV away from the audio components.

The remote does not function.

- The TV/SAT and PHONO buttons on the remote are not available.
- Point the remote at the remote sensor ▓ on the receiver.
- Check that you select AV1 as the command mode of the receiver (page 35).
- Remove any obstacles in the path between the remote and the receiver.
- Replace both batteries in the remote with new ones, if they are weak.
- Make sure you select the correct function on the remote.
- If the remote is set to operate the TV only, use the remote to select a source or component other than TV before operating the receiver or other component.

Clearing the receiver's memory

To clear	See
All memorized settings	page 17
Customized sound fields	page 31

Additional Information

Specifications

Amplifier section

POWER OUTPUT
Rated Power Output at Stereo Mode
(8 ohms 1 kHz, THD 0.7 %)

$$100 \text{ W} + 100 \text{ W}^{1)}$$
$$90 \text{ W} + 90 \text{ W}^{2)}$$

Reference Power Output[1]
(8 ohms 1 kHz, THD 10 %)

FRONT[3]:	120 W/ch
CENTER[3]:	120 W
SURR[3]:	120 W/ch

1) Measured under the following conditions:
    230 V AC, 50 Hz
2) Measured under the following conditions:
    220 V AC, 50 Hz
3) Depending on the sound field settings and the source, there may be no sound output.

Frequency response

MULTI CH IN, CD/SACD, AUX, MD/TAPE, DVD/LD, VIDEO 1, 2, 3	10 Hz – 70 kHz +0.5/–2 dB (with sound field, equalizer, and bass boost bypassed)

Inputs (Analog)

MULTI CH IN, CD/SACD, AUX, MD/TAPE, DVD/LD, VIDEO 1, 2, 3	Sensitivity: 250 mV Impedance: 50 kilohms S/N[4]: 96 dB (A, 250 mV[5])

4) INPUT SHORT (with sound field, equalizer and bass boost bypassed).
5) Weighted network, input level.

Inputs (Digital)

DVD/LD (Coaxial)	Sensitivity: – Impedance: 75 ohms S/N: 100 dB (A, 20 kHz LPF)
VIDEO 2, CD/SACD, MD/TAPE (Optical)	Sensitivity: – Impedance: – S/N: 100 dB (A, 20 kHz LPF)

Outputs (Analog)

MD/TAPE (OUT), VIDEO 1 (AUDIO OUT)	Voltage: 250 mV Impedance: 10 kilohms
SUB WOOFER	Voltage: 2 V Impedance: 1 kilohms

Outputs (Digital)

MD/TAPE (Optical)	Sensitivity: –

EQ

Gain levels:	±6 dB, 1 dB step

FM tuner section

Tuning range 87.5 - 108.0 MHz

Antenna terminals 75 ohms, unbalanced

Intermediate frequency
10.7 MHz

Sensitivity
Mono: 18.3 dBf, 2.2 µV/75 ohms
Stereo: 38.3 dBf, 22.5 µV/75 ohms

Usable sensitivity 11.2 dBf, 1 µV/75 ohms

S/N
Mono: 76 dB
Stereo: 70 dB

Harmonic distortion at 1 kHz
Mono: 0.3%
Stereo: 0.5%

Separation 45 dB at 1 kHz

Frequency response 30 Hz – 15 kHz,
+0.5/–2 dB

Selectivity 60 dB at 400 kHz

AM tuner section

Tuning range 531 – 1602 kHz

Antenna Loop antenna

Intermediate frequency
450 kHz

Usable sensitivity 50 dB/m (at 1,000 kHz or
999 kHz)

S/N 54 dB (at 50 mV/m)

Harmonic distortion 0.5 % (50 mV/m, 400 Hz)

Selectivity 35 dB

Video section

Inputs
Video: 1 Vp-p, 75 ohms
S-video: Y: 1 Vp-p, 75 ohms
C: 0.286 Vp-p, 75 ohms
Component Video: Y: 1 Vp-p, 75 ohms
P_B B-Y: 0.7 Vp-p,
75 ohms
P_R R-Y: 0.7 Vp-p,
75 ohms

Outputs
Video: 1 Vp-p, 75 ohms
S-video: Y: 1 Vp-p, 75 ohms
C: 0.286 Vp-p, 75 ohms
Component Video: Y: 1 Vp-p, 75 ohms
P_B B-Y: 0.7 Vp-p,
75 ohms
P_R R-Y: 0.7 Vp-p,
75 ohms

General

Power requirements 220 – 230 V AC, 50/60 Hz

Power consumption 180 W

Power consumption (during standby mode)
0.5 W (when "A.PWR" in the SET UP menu is set to
"NO") (page 35).

Dimensions $430 \times 157.5 \times 308.5$ mm
including projecting parts
and controls

Mass (Approx.) 7.5 kg

Supplied accessories
FM wire antenna (1)
AM loop antenna (1)
Remote commander RM-U305C (1)
R6 (size-AA) batteries (2)

Design and specifications are subject to change
without notice.

Additional Information

Tables of settings using SURR, LEVEL, EQ, and SET UP buttons

You can make various settings using the LEVEL, SURR, EQ, SET UP buttons, jog dial, and $<$ / $>$ buttons. The tables below show each of the settings that these buttons can make.

Press	Press $<$ or $>$ to select	Turn jog dial to select	Page
SURR	EFFECT	depends on the sound field (15 steps)	29
LEVEL	[L] [R] BAL. L/R XXX	L +8 to R +8 (1 steps)	29
	CTR XXX dB	–10 dB to +10 dB (1 dB steps)	
	SUR.L.XXX dB	–10 dB to +10 dB (1 dB steps)	
	SUR.R.XXX dB	–10 dB to +10 dB (1 dB steps)	
	S.W. XXX dB	–10 dB to +10 dB (1 dB steps)	
	L.F.E. XXX dB	OFF, –20 dB to 0 dB (1 dB steps)	
	D. RANGE COMP. XXX	OFF, 0.1 to 0.9 (0.1 steps), STD, MAX	
EQ	FRONT BASS GAIN	–6 dB to +6 dB (1 dB steps)	31
	FRONT TREBLE GAIN	–6 dB to +6 dB (1 dB steps)	
SET UP	[L] [R] (FRONT)	LARGE, SMALL	18
	[C] (CENTER)	LARGE, SMALL, NO	
	[SL] [SR] (SURROUND)	LARGE, SMALL, NO	
	[SW] (SUB WOOFER) S.W. XXX	YES, NO	
	[L] [R] DIST. XX.X m	between 1.0 meters and 12.0 meters (0.1 meters steps)	
	[C] DIST. XX.X m	between [L] [R] DIST. and 1.5 meters (0.1 meters steps)	
	[SL] [SR] DIST. XX.X m	between [L] [R] DIST. and 4.5 meters (0.1 meters steps)	
	[SL] [SR] PL. XXX	SIDE, MID, BEHD.	
	[SL] [SR] HGT. XXX	LOW, HIGH	
	C.MODE.AVX	AV1, AV2	35
	PRO LOGIC	DOLBY PL, II MOVIE, II MUSIC	
	A.PWR–XXX	YES, NO	

Adjustable parameters for each sound field

The adjusted SURR and EQ parameters are stored in each sound field.

	<	SURR	>	<	EQ		>
				<	FRONT		>
		EFFECT LEVEL			BASS GAIN		TREBLE GAIN
2CH ST.					●		●
AUTO DEC.					●		●
NORM.SURR.					●		●
C.ST.EX A		●			●		●
C.ST.EX B		●			●		●
C.ST.EX C		●			●		●
HALL		●			●		●
JAZZ		●			●		●
CONCERT		●			●		●
GAME		●			●		●
MULTI CH IN							
PCM96K							

The adjusted LEVEL parameters are applied to all the sound fields.

	<			LEVEL			>
	FRONT BAL	CENTER LEVEL	SUR.L. LEVEL	SUR.R. LEVEL	S. WOOFER LEVEL	LFE MIX[1]	D.RANGE COMP[1]
2CH ST.	●					●	●
AUTO DEC.	●	●	●	●	●	●	●
NORM.SURR.	●	●	●	●	●	●	●
C.ST.EX A	●	●	●	●	●	●	●
C.ST.EX B	●	●	●	●	●	●	●
C.ST.EX C	●	●	●	●	●	●	●
HALL	●	●	●	●	●[2]	●	●
JAZZ	●	●	●	●	●[2]	●	●
CONCERT	●	●	●	●	●[2]	●	●
GAME	●	●	●	●	●	●	●
MULTI CH IN	●	●	●	●	●		
PCM96K	●						

[1] These parameters may not operate depending on the source or adjustments. For details, see each item in "Adjusting the level parameters" (page 29).

[2] When these sound fields are selected, there is no sound output from the sub woofer if the front speaker size is set to "LARGE". However, sound will be output from the sub woofer if the digital input signal contains L.F.E. signals.

目录

CS

3^{CS}

关于本说明书

本说明书供 STR–DE685 型号所用。
请查看前面板右下角的型号编码。

要领

本说明书说明接收机的控制器。您也可用附带遥控器上的控制按钮，如果它与接收机上的控制按钮具有相同或类似名称。有关遥控器的使用详情，请参照第 39–42 页。

附带遥控器需知

对於 RM–U305C

遥控器上的 TV/SAT 和 PHONO 按钮不起作用。

示范模式

当您首次打开本机电源时，示范将启动。
当示范启动时，以下信息将出现于显示器：
"NOW DEMONSTRATION MODE IF YOU FINISH DEMONSTRATION PLEASE PRESS POWER KEY WHILE THIS MESSAGE APPEARS IN THE DISPLAY THANK YOU"
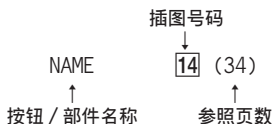
欲取消示范
在以上信息显示时按 I/⏻ 以关闭接收机。当下一次打开接收机时，示范将不会再出现。

欲观看示范
按住 SET UP，并按 I/⏻ 以打开电源。

注
- 启动示范将删除接收机的存储器。欲知什么内容将会被删除，请参考第 17 页的"清除接收机的存储"。
- 当示范模式启动时将没有声音发出。
- 当以上信息显示时若您没有按 I/⏻ 按钮，您将无法取消示范模式。若要在以上信息出现后取消示范模式，按两次 I/⏻ 按钮以再次启动示范模式。然后，在以上信息显示时按 I/⏻ 按钮。

4^{CS}

按钮位置和参照页数一览表

如何使用此页
利用此页查找在文中所提及的按钮的位置。

插图号码
↓
NAME   14 (34)
↑   ↑
按钮 / 部件名称   参照页数

主机

按字母顺序排列

0 – 9
2 CH 31 (27)

A – D
A.DEC 33 (25–27)
AM 37 (32)
AUX 27 (23)
CD/SACD 23 (23)
CINEMA STUDIO EX A,B,C 16 (26)
Digital Cinema Sound (数字电影院音响)(指示灯) 17 (25)
DIMMER 5 (24)
DISPLAY 15 (24,45)
DVD/LD 26 (23)

E – K
ENTER 34 (34)
EQ 9 (31,48)
EQUALIZER 18 (31)
FM 38 (32)
FM MODE 39 (32)
INPUT MODE 19 (23)
IR (接收器) 6 (39,45)
微调度盘 36 (18,29,31,34,35)

L – O
LEVEL 12 (18,22,29,48)
MASTER VOLUME 28 (22,43)
MD/TAPE 21 (23)
MEMORY 41 (33)
MODE 32 (26,31,44)
MULTI CHANNEL DECODING (多重声道解码)(指示灯) 11 (23)
MULTI CH IN 30 (23)
MUTING 29 (24,43)
NAME 14 (34)

P – S
PHONES (耳机)(插孔) 3 (24,44)
PRESET TUNING +/– 7 (33)
SET UP 13 (4,18,35,48)
SHIFT 40 (33)
SPEAKERS A/B 2 (24,29,43)
SURR 10 (29,48)

T – Z
TUNER 25 (23,32–34,35)
TUNING +/– 8 (32)
VIDEO 1 20 (23)
VIDEO 2 22 (23)
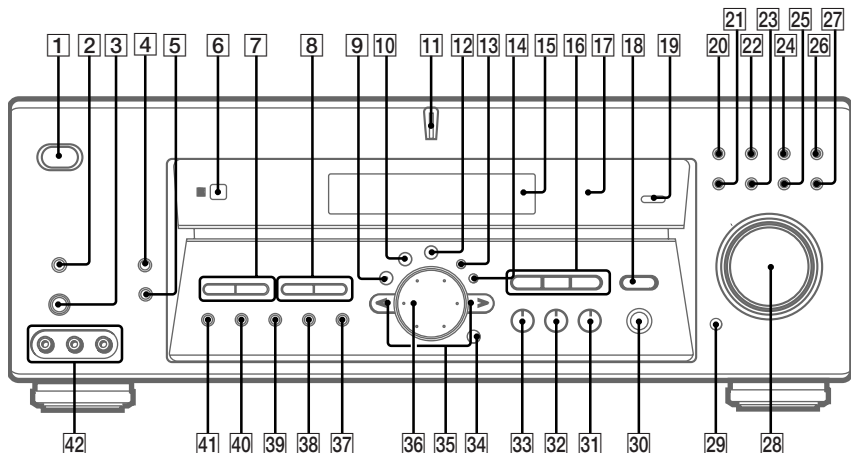VIDEO 3 24 (23)
VIDEO 3 INPUT (插孔) 42 (9)

按钮说明
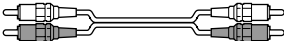
I/⏻ (电源) 1 (4,17,22,31)
</> 35 (18,29,31,34,35)

所需导线

A 声频导线（无附带）
白色（左）
红色（右）
白色（左）
红色（右）
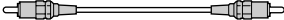
B 声／视频导线（无附带）
黄色（视频）
白色（左声频）
红色（右声频）
黄色（视频）
白色（左声频）
红色（右声频）

C 视频导线（无附带）
黄色（视频）
黄色（视频）

D 光频数字导线（无附带）
黑色
黑色

E 同轴数字导线（无附带）
橙色
橙色
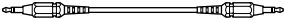
F 单声道声频导线（无附带）
黑色
黑色

G 单声道迷你插头导线（无附带）
黑色
黑色

要连接以前

- 要进行任何连接以前，必须先关掉所有单片机的电源。
- 未完成所有的连接工作以前，请勿连接 AC 电源导线。
- 接线必须稳固以免引起哼声和噪音。
- 连接声／视频导线时，导线的色码管脚务必对准单片机上相应的插孔：黄色（视频）对黄色；白色（左声频）对白色；和红色（右声频）对红色。
- 当您连接光频数字导线时，请插入导线插头直至妥善就位。
- 不可弯折或打结光频数字导线。

天线连接
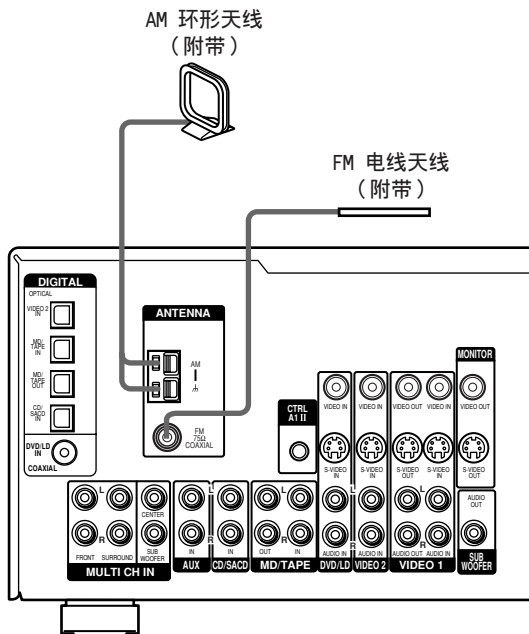
AM 环形天线
（附带）

FM 电线天线
（附带）

天线连接需知

- 为防噪音干扰，请将 AM 环形天线远离接收机和其他单片机。
- FM 电线天线一定要完全伸开。
- 连接了 FM 电线天线之后，尽可能让它保持水平状态。

7CS

声频单片机的连接

MD 或磁带卡座

INPUT OUTPUT
LINE LINE
L
R

Ａ   Ａ

OUT   IN

DIGITAL
OPTICAL
VIDEO 2 IN
MD/TAPE IN
MD/TAPE OUT
CD/SACD IN
DVD/LD IN
COAXIAL

ANTENNA
AM
FM 75Ω COAXIAL

CTRL A1 II

MONITOR

VIDEO IN VIDEO IN   VIDEO OUT VIDEO IN   VIDEO OUT

S-VIDEO IN   S-VIDEO IN   S-VIDEO OUT S-VIDEO IN   S-VIDEO OUT

L
CENTER
R
FRONT SURROUND
SUB WOOFER
MULTI CH IN   AUX   CD/SACD   MD/TAPE   DVD/LD VIDEO 2   VIDEO 1   SUB WOOFER
IN   IN   OUT IN
AUDIO IN   AUDIO IN AUDIO OUT AUDIO IN   AUDIO OUT

Ａ

OUTPUT
LINE
L
R

CD 或 SACD 唱机

视频单片机的连接

DVD 或镭射影碟播放机

OUTPUT
AUDIO OUT   VIDEO
R   L   OUT

B

COMPONENT VIDEO

MONITOR

Y
P$_B$/B-Y
P$_R$/R-Y

DVD/LD
IN

VIDEO 2
IN

MONITOR
OUT

COMPONENT VIDEO

SPEAKERS IMPEDANCE USE 8 – 16Ω

R   L   R   L
FRONT B

CTRL
A1 II

VIDEO B   VIDEO IN   VIDEO OUT   VIDEO IN   VIDEO OUT

S-VIDEO   S-VIDEO IN   S-VIDEO OUT   S-VIDEO IN   S-VIDEO OUT

R   L
SURROUND

CENTER

R   L
FRONT A

SPEAKERS IMPEDANCE USE 8 – 16Ω

AUDIO
OUT

至前面板

OUT   IN   AUDIO IN   AUDIO IN   AUDIO OUT   AUDIO IN   SUB
WOOFER

SACD   MD/TAPE   DVD/LD   VIDEO 2   VIDEO 1

B   **IN**   **B**   **OUT**   **B**   **IN**   **B**   **C**

OUTPUT
VIDEO
OUT
AUDIO
OUT
L
R

INPUT   OUTPUT
VIDEO   VIDEO
OUT   OUT
AUDIO   AUDIO
IN   OUT
L
R

INPUT
VIDEO
IN

摄影机或
电视游戏机

电视
调谐器，
卫星调谐器
或录影机

录影机

电视监视器

视频单片机的连接需知

您可将电视机的声频输出插孔连接到接收机的 VIDEO 2 AUDIO IN 插孔，以增强电视声频的音响效果。此时，请勿将电视机的视频输出插孔连接到接收机的 VIDEO 2 VIDEO IN 插孔。若您连接一台独立的电视调谐器(或卫星调谐器)，请如上图所示将声视频输出插孔皆连接到接收机上。

如果您的 DVD 播放机，电视机，卫星调谐器或 LD 播放机带有 COMPONENT VIDEO（Y，B-Y，R-Y）输出插孔，监视器则带有 COMPONENT VIDEO 输入插孔时，请用视频导线（无附带）连接到接收机。

要领
使用 S 视频插孔而不是普通视频插孔时，监视器也须通过 S 视频插孔连接好。S 视频信号来自于普通视频信号的分离母线上，而不能从普通视频插孔输出。

注
在本接收机上，色差视频信号与 S 视频信号或普通视频信号不兼容。

数字单片机的连接

将 DVD 播放机和卫星调谐器(等)的数字输出插孔连接到接收机的数字输入插孔，即可将电影院的多重声道环绕声音响带进您家里。为了充分享受多重声道环绕声效果，您必须连接 5 台扬声器(2 台前扬声器，2 台环绕声扬声器和 1 台中央扬声器)和 1 台重低音扬声器。您也能通过 RF 解调器(射频检波器)连接一台具有 RF OUT (射频输出)插孔的镭射影碟播放机，例如 Sony MOD–RF1(无附带)。
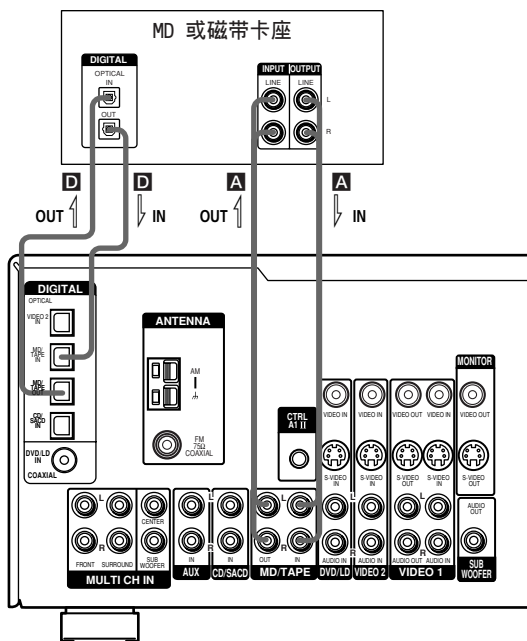
注
您不可将镭射影碟播放机的 DOLBY DIGITAL RF OUT 插孔直接连接到本机的数字输入插孔。您务必首先将 RF(射频) 信号转变成光频或同轴数字信号。详情请参看第 43 页的"故障探寻"。
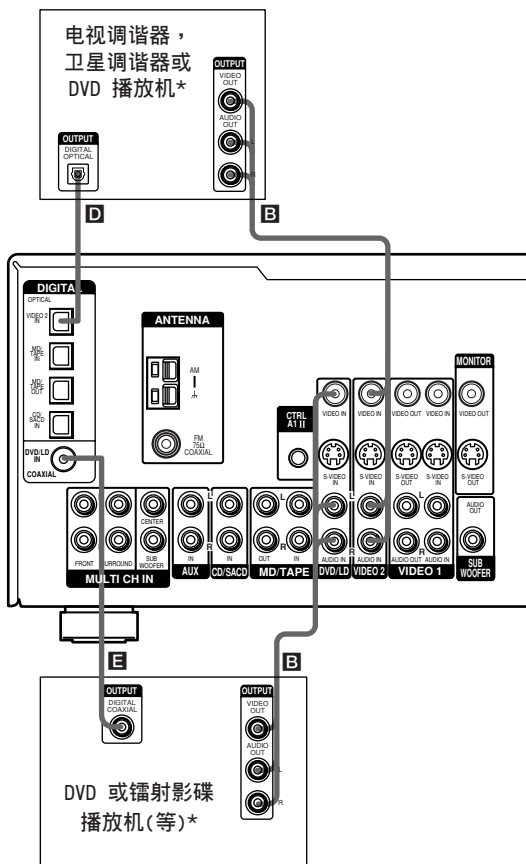
* 您可进行同轴或光频连接。我们建议您采用同轴连接，而非光频连接。

将您的 MD 或磁带卡座的数字输出插孔连接到本接收机的数字输入插孔，MD 或 磁带卡座的数字输入插孔则连接到本接收机的数字输出插孔。这些连接可让您从电视广播等进行数字录制。

注
- 当信号源为多重声道数字信号时，您将无法进行数字录制。
- 所有的 OPTICAL 和 COAXIAL 插孔皆与 96 kHz，48 kHz，44.1 kHz 和 32 kHz 取样频率兼容。
- 只作数字连接将无法把模拟信号录到连接于 MD/TAPE 和 VIDEO 插孔的单片机。要录模拟信号时，须作模拟连接。要录数字信号时，请作数字连接。
- 在连接于本机的 CD/SACD OPTICAL IN 插孔的 SACD 唱机上播放 SACD 光碟时将没有声音输出。请连接到模拟输入插孔（CD/SACD IN 插孔）。请参考附带于 SACD 唱机的使用说明书。

11^{CS}

# 多重声道输入的连接

本接收机虽含有多重声道解码器，它也配备多重声道输入插孔。这些连接可让您享受以杜比数字 (Dolby Digital)和 DTS 格式以外编码的多重声道软体。您的 DVD 播放机如果配备有多重声道输出插孔，您便可将它们直接连接到接收机享受 DVD 播放机的多重声道解码器的音响。另外，多重声道输入插孔还可用于连接外接式多重声道解码器。

为了充分享受多重声道环绕声效果，您必须连接 5 台扬声器 (2 台前扬声器，2 台环绕声扬声器和 1 台中央扬声器) 和 1 台重低音扬声器。有关多重声道连接的详情，请参考随 DVD 播放机，多重声道解码器等附带的使用说明书。

注
• 采用下述连接时，请调整 DVD 播放机或多重声道解码器的环绕声扬声器和重低音扬声器的电平。
• 有关扬声器系统之连接详情，请参看第 15 页。

DVD 播放机，
多重声道解码器等。

其他连接
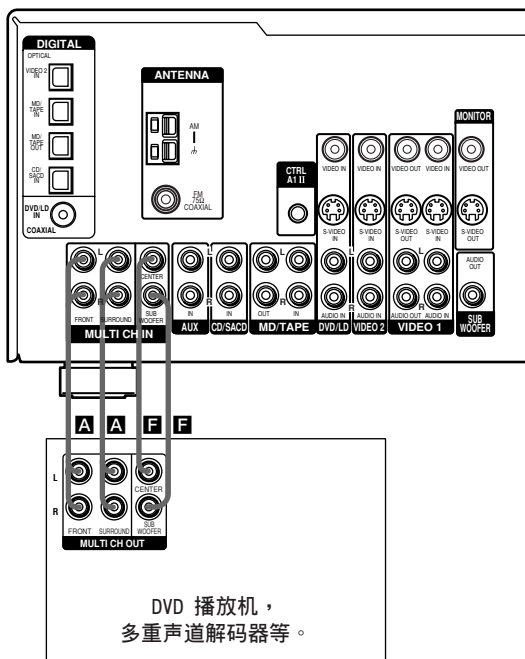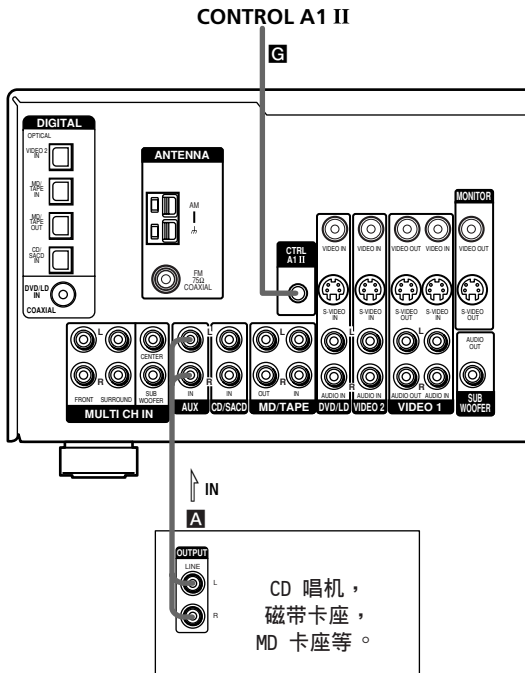
CONTROL A1 II

CONTROL A1 II 的連接

- **若您拥有 CONTROL A1 II 兼容的 Sony CD 唱机，SACD 唱机，磁带卡座或 MD 卡座**
  可用单声道迷你插头导线（无附带）将 CD 唱机，SACD 唱机，磁带卡座或 MD 卡座的 CONTROL A1 II 插孔连接到本接收机的 CTRL A1 II 插孔。详情请参考第 36 页的 "CONTROL A1 II 控制系统" 和随 CD 唱机，SACD 唱机，磁带卡座或 MD 卡座所附带的使用说明书。

  注
  如果从本接收机到连接于电脑的 MD 卡座使用 CONTROL A1 II 连接时，则当使用 "Sony MD Editor" 软体时，请不要操作接收机。因为可能会引起故障。

- **若您拥有带有 COMMAND MODE 选择器的 Sony CD 换碟器**
  如果您的 CD 换碟器的 COMMAND MODE （指令模式）选择器被设定于 CD 1，CD 2 或 CD 3，您必须把指令模式设定于 "CD 1"，并把换碟器连接到接收机的 CD 插孔。
  但是如果您的 Sony CD 换碟器带有 VIDEO OUT 插孔，则把指令模式设定于 "CD 2"，并把换碟器连接到本接收机的 VIDEO 2 插孔。

AUX AUDIO IN 连接

若您拥有个别的声频单片机（PHONO 除外）
使用声频导线将 CD 唱机、磁带卡座或 MD
卡座的 LINE OUT 插孔连接至接收机的 AUX
IN 插孔以聆听有环绕声音响的立体声音
源。

连接 AC 电源线

AC 电源线

至墙上插座
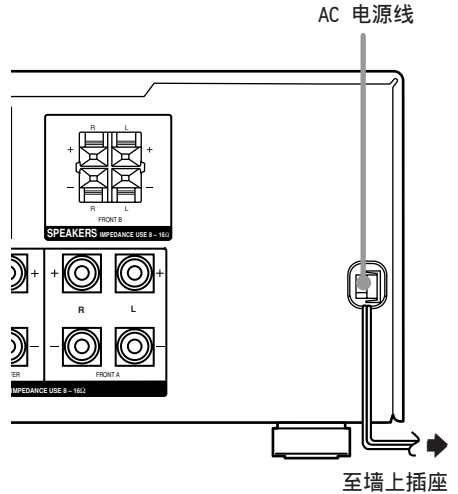
要将本接收机的 AC 电源线接插到墙上插座
之前，请先把扬声器系统连接到接收机（第
15 页）。

将声／视频单片机的 AC 电源线接插到墙上
插座。

连接扬声器系统

需用导线

A 扬声器导线（无附带）

(+)   (+)

(−)   (−)

B 单声道声频导线（无附带）

黑色   黑色

| 有源重低音扬声器 | 前扬声器 B* （右） | 前扬声器 B* （左） |

INPUT AUDIO IN

B　**A**　**A**

MONITOR

VIDEO OUT

S-VIDEO OUT

AUDIO OUT

SUB WOOFER

Y　Pb-Y　Pr-Y

DVD/LD IN　VIDEO 2 IN　MONITOR OUT

COMPONENT VIDEO

R　L

R　L

FRONT B

SPEAKERS IMPEDANCE USE 8 – 16Ω

R　L

SURROUND　CENTER　FRONT A

SPEAKERS IMPEDANCE USE 8 – 16Ω

R

A　**A**　**A**　**A**　**A**

| 环绕声扬声器 （右） | 环绕声扬声器 （左） | 中央扬声器 | 前扬声器 A （右） | 前扬声器 A （左） |
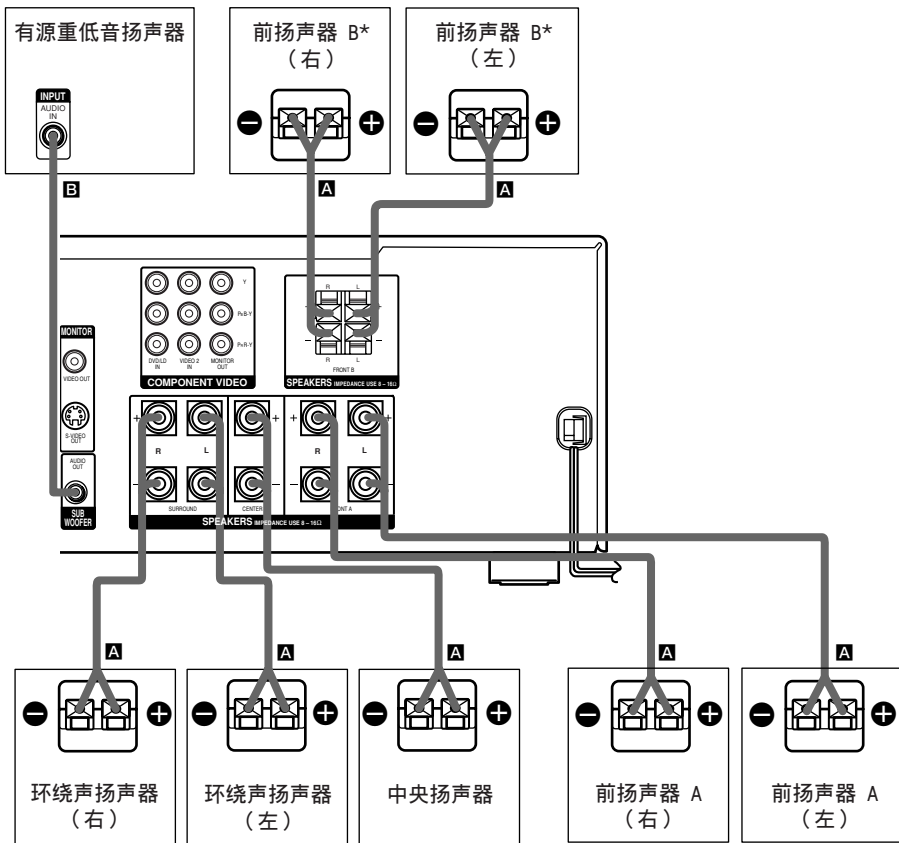
* 如果您有一台额外的前扬声器系统，请将它连接至 SPEAKERS FRONT B 端子。

15^CS

连接扬声器系统（续）

注
- 将扬声器导线剥除绝缘的一端扭曲约 10 mm。务必将扬声器导线对准单片机上相应的端子来接插：+ 至 + 及 − 至 −。如果接反了导线，声音将失真并缺乏低音。
- 如果使用低于最大输入定额的扬声器，请小心调节音量以免超出扬声器的输出定额。

为免扬声器发生短路

扬声器发生短路可能会损坏接收机。为防此事故，连接扬声器时必须注意下列事项。

请确保每条扬声器导线已剥过的尾端没有触碰到其他扬声器端子、其他扬声器已剥过的尾端或接收机的金属部件。

状况欠佳的扬声器导线范例
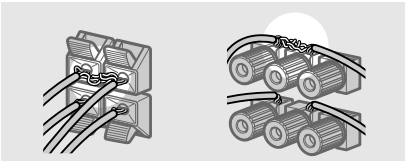
剥除了绝缘皮的扬声器导线触碰到别的扬声器端子。

过分剥除绝缘部分导致剥除了绝缘的导线相互触碰。

连接好所有单片机，扬声器和 AC 电源线之后，请输出测试音以检查所有的扬声器是否都已正确地连接。有关输出测试音的详情，请参照第 22 页。

输出测试音时，若听不到声音自扬声器发出，或者，测试音并非从接收机正显示著名称的扬声器发出时，可能是扬声器发生短路。遇此情况时，请再次检查扬声器的连接。

要避免损坏您的扬声器时

请确保在关闭接收机以前先调低接收机的音量。当您打开接收机，音量应该保持在您关闭接收机时的水平。

执行初始设置操作

一旦连接了扬声器并打开电源后，请清除接收机的存储。然后，请指定扬声器参数（大小，位置等）并执行您的系统所需的任何其他初始设置。

要领
设定中查听声频输出（输出声音时进行设置），检查连接状态（第 22 页）。

清除接收机的存储

首次使用接收机或要清除接收机的存储时，请进行下列程序。

当您打开本机电源时若示范启动，此步骤可被省略。
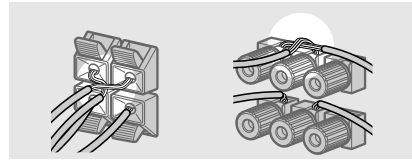
1 关掉接收机。

2 按住 I/⏻ 5 秒。

示范即开始（第 4 页），而下列所有各项将被重调或清除：

- 所有的预约电台都被重调或清除。
- 所有的声场参数都被重调回工厂设定。
- 所有的索引名称（预约电台和节目信号源的）都被清除。
- 所有的 SET UP 参数都被重调回工厂设定。
- 为各节目信号源和预约电台存储的声场都被清除。
- 主音量被设定为 VOL MIN。

首次使用您的接收机之前，请先调整 SET UP 参数使接收机相应于您的系统。有关可调整参数，请参看第 48 页的桌表。关于扬声器的设定，请参看第 17–22 页。有关其他设定，则请参看第 35–36 页。
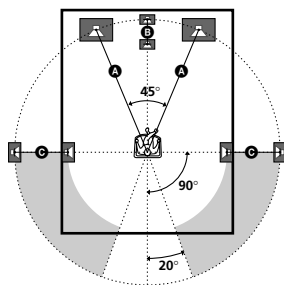
多重声道环绕声的设置

为获得最佳的环绕声效果，所有的扬声器必须与聆听位置 Ⓐ 具同等距离。

然而，接收机却允许您将中央扬声器更接近 Ⓑ 聆听位置放置；即高达 1.5 米，而环绕声扬声器则 4.5 米更接近 Ⓒ 聆听位置。

前扬声器可被安置在离聆听位置 Ⓐ 1.0 至 12.0 米之处。

您可依据房间的形状将环绕声扬声器放置在您的后面或两侧。

当放置环绕声扬声器于您的两侧时

17^{CS}

多重声道环绕声的设置（续）

当放置环绕声扬声器于您的后面时
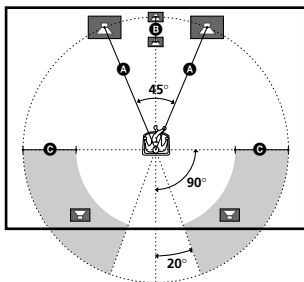
注
请勿将中央扬声器放置在比前扬声器距离聆听位置更远处。

一般扬声器和微卫星扬声器

若您正在使用	请选择
一般扬声器	NORM. SP.
微卫星扬声器	MIRCO SP.

扬声器的尺寸和重低音扬声器的选项已被预设为 NORM.SP.。当您选择了 NORM.SP.（第 18–19 页），您即可调整扬声器的尺寸和重低音扬声器的选项。

要选择 MICRO SP.时，先关闭电源，然后在按住 LEVEL 时再次打开。（要重新设定为 NORM. SP.时，请进行同样的步骤。）

若您选择 MICRO SP.，扬声器的尺寸和重低音扬声器的选项则被定制如下：

扬声器	设定
FRONT	SMALL（小）
CENTER	SMALL（小）
SURROUND	SMALL（小）
SUB WOOFER	YES（是）

选择 MICRO SP. 将使您无法更换扬声器的结构。

要领
微卫星扬声器 (MICRO SP.) 的设置被编程以使音响平衡更为理想。若您使用 Sony 的微卫星扬声器，请选择 MICRO SP.。

小心
当您使用微卫星扬声器，而扬声器尺寸被设置为"LARGE"时，您可能无法获取正确的声阶。扬声器也可能因为处于高音量而损坏。

指定扬声器参数

1 按 SET UP。

2 按 < 或 > 以选择所要调整的参数。

3 转动微调度盘以选择所要的设定。
设定即自动地被输入。

4 反复步骤 2 和 3 直至设定好下列所有的参数。

初始设定

参数	初始设定
L R （FRONT）	LARGE*
C （CENTER）	LARGE*
SL SR （SURROUND）	LARGE*
SW （SUB WOOFER) S.W. XXX	YES*
L R DIST. XX.X m	5.0 m
C DIST. XX.X m	5.0 m
SL SR DIST. XX.X m	3.5 m
SL SR PL. XXX	BEHD.
SL SR HGT. XXX	LOW

* 仅当选取 NORM.SP.方可设置此参数。

■ **前扬声器尺寸（ L   R ）**

- 如果连接了可有效地再现底音频率的大型扬声器，请选择"LARGE"（大型）。通常是选"LARGE"。

- 使用多重声道环绕声时如果声音失真，或缺乏环绕声效果，请选择"SMALL"（小型）以启动底音改向电路并从重低音扬声器输出前声道底音频率。

- 当前扬声器被设定为"SMALL"时，中央和环绕声扬声器也都自动地设定为"SMALL"（除非预先设定于"NO"）。

■ **中央扬声器尺寸（ C ）**

- 如果连接了可有效地再现底音频率的大型扬声器，请选择"LARGE"（大型）。通常是选"LARGE"。然而，如果设定前扬声器于"SMALL"，您将无法把中央扬声器设定于"LARGE"。

- 使用多重声道环绕声时如果声音失真，或缺乏环绕声效果，请选择"SMALL"以启动底音改向电路并从前扬声器（如果设定于"LARGE"）或重低音扬声器输出中央声道底音频率。*1

- 如果没有连接中央扬声器，请选择"NO"。中央声道的音响将从前扬声器输出。*2

■ **环绕声扬声器尺寸（ SL   SR ）**

- 如果连接了可有效地再现底音频率的大型扬声器，请选择"LARGE"（大型）。通常是选"LARGE"。然而，如果设定前扬声器于"SMALL"，您将无法把环绕声扬声器设定于"LARGE"。

- 使用多重声道环绕声时如果声音失真，或缺乏环绕声效果，请选择"SMALL"以启动底音改向电路并从重低音扬声器或"LARGE"扬声器输出环绕声声道底音频率。

- 如果没有连接环绕声扬声器，请选择"NO"。*3

要领
*1–*3 相应于下列杜比专业逻辑（Dolby Pro Logic）模式
*1 NORMAL （一般）
*2 PHANTOM （幻像）
*3 3 STEREO （3 立体声）

要领
每台扬声器的 LARGE 和 SMALL 设置将决定内置音响处理器是否将截断来自该声道的底音信号。当底音被截断后，底音改向电路将传送相应的底音频率至重低音扬声器或其他"LARGE"扬声器。然而，因为底音含有指定的改向性质，可以的话最好别截断它。因此，虽然使用小型扬声器，若您要从该扬声器输出底音频率，您可将它设置为"LARGE"。另一方面，若您使用大型扬声器但却不希望底音频率自扬声器输出，则请设置为"SMALL"。

如果总声音电平低于您所要的水准，请把所有的扬声器都设定于"LARGE"。若底音不足，您可用均衡器加强底音电平。请参看第 31 页以调整均衡器。

多重声道环绕声的设置（续）

■ 重低音扬声器的选项（$\boxed{\text{SW}}$ S.W. XXX）

- 如果连接重低音扬声器，请选择"YES"。

- 如果没有连接重低音扬声器，请选择
  "NO"。这将启动底音改向电路并从别的扬
  声器输出 LFE 信号。

- 为了充分利用杜比数字（Dolby Digital）
  底音改向电路，我们建议把重低音扬声器的
  截断频率尽可能设定于较高频率。

■ 前扬声器的距离（$\boxed{\text{L}}$ $\boxed{\text{R}}$ DIST. XX.X m）

设定从您的聆听位置到前扬声器的距离（第
17 页的 **A**）。

■ 中央扬声器的距离（$\boxed{\text{C}}$ DIST. XX.X m）

设定从您的聆听位置到中央扬声器的距离。
中央扬声器的距离必须与前扬声器（第 17
页的 **A**)的距离一样；即 1.5 米更接近您
的聆听位置（第 17 页的 **B**）。

■ 环绕声扬声器的距离（$\boxed{\text{SL}}$ $\boxed{\text{SR}}$ DIST.
  XX.X m）

设定从您的聆听位置到环绕声扬声器的距
离。环绕声扬声器的距离必须与前扬声器
（第 17 页的 **A**)的距离一样；即 4.5 米更
接近您的聆听位置（第 17 页的 **C**）。

要领

接收机可让您按照距离输入扬声器的位置。然
而，您不能把中央扬声器设定得更远于前扬声
器。中央扬声器也不能设定在 1.5 米以上更接近
于前扬声器。
同样的，环绕声扬声器不可设置在比前扬声器更远
于聆听位置。而且，它们不可被放置在超过
4.5 米更接近聆听位置。这是因为错误放置扬声器
将使您无法充份享受环绕声效果。
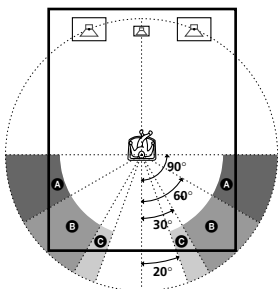请注意，扬声器的距离设定如果近过扬声器的实际
位置，则来自扬声器的音响将会被延迟。换言之，
扬声器听起来会好像远一些。
例如把中央扬声器的距离设定得比实际的扬声器位
置近 1～2 米时将制造相当逼真的"在银幕里面"
的感觉。如果因为环绕声扬声器太靠近而得不到满
意的环绕声效果，您可以把环绕声扬声器的距离设
定为比实际距离接近(较短距离)，如此即可产生较
大声级。
一边聆听音响一边调节这些参数将带给您更佳的
环绕声效果。不妨试试！

■ **环绕声扬声器的位置(** $\boxed{SL}$ $\boxed{SR}$ **PL . XXX)***

此参数可让您指定环绕声扬声器的位置以正确地操作数字影院音响环绕声模式。请参考下图。

- 如果环绕声扬声器的位置符合 **A** 部分,请选择"SIDE"。
- 如果环绕声扬声器的位置符合 **B** 部分,请选择"MID"。
- 如果环绕声扬声器的位置符合 **C** 部分,请选择"BEHD."。

■ **环绕声扬声器的高度 (** $\boxed{SL}$ $\boxed{SR}$ **HGT. XXX)***

此参数可让您指定环绕声扬声器的高度以正确地操作数字影院音响环绕声模式。请参考下图。

- 如果环绕声扬声器的位置符合 **A** 部分,请选择"LOW"。
- 如果环绕声扬声器的位置符合 **B** 部分,请选择"HIGH"。

* 当"环绕声扬声器尺寸 ($\boxed{SL}$ $\boxed{SR}$)"被设定于"NO"时,这些参数都无效。

要领

环绕声扬声器的位置参数是为操作带有虚拟元素的数字影院音响模式而设计的。

在数字影院音响模式中,扬声器的位置将不像其他模式所要求的的那样严格。所有具有虚拟元素的模式虽都以环绕声扬声器必须被设置在聆听位置后面的前提下设计,但即使环绕声扬声器位于相当宽大的角度,它仍能保留相当的效果。不过,如果扬声器从紧靠著聆听位置的左边和右边面对听者时,除非把环绕声扬声器的位置参数设定于"PL. SIDE",否则,带有虚拟元素的声场将无法发挥功效。

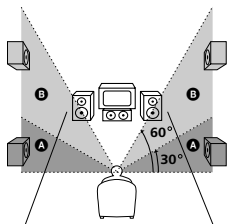此外,每个聆听环境都有许多可变因素,例如墙的反射性,若您的扬声器被放置在高于聆听位置之处,即使它们紧贴于聆听位置的左边和右边,您也可采用"PL. BEHD."和"PL. MID"以得到较好的效果。

因此,尽管可能会造成与"环绕声扬声器的位置"的说明相反的设置,我们还是建议您播放多重声道环绕声编码软件。并且于您所在之处聆听每个设定的效果。请选择那些有良好的宽广感,以及在环绕声扬声器的环绕音响和前扬声器的声响之间能最成功组成一连贯空间的设置。若您不确定那种音响最好,请选择"PL. BEHD.",然后使用扬声器距离参数和扬声器电平调整以获得适当的平衡。

多重声道环绕声的设置（续）

调整扬声器的电平

坐在聆听位置时用遥控器调整各扬声器的电平。

注
本接收机含有中心频率为 800 Hz 的全新音响，让您更轻易地调整扬声器电平。

1 按 I/⏻ 以打开接收机。

2 按遥控器上的 TEST TONE。
显示器中即出现"T. TONE"（测试音），您将逐一地从各个扬声器听到测试音。

3 请调整 LEVEL 参数，以便当您处于主要聆听位置时，从每台扬声器输出的测试音都具有同样的电平。
按 LEVEL 以调整扬声器的平衡和电平。有关 LEVEL 选单的详情，请参看第 29 页。
在进行调整当中，测试音是从被调整的扬声器所输出。

4 再按一次 TEST TONE 以关掉测试音。

要领
您可同时调整所有扬声器的电平。转动主机上的 MASTER VOLUME 或按遥控器上的 MASTER VOL +/−。

注
• 当接收机被设定为 MULTI CH IN 时将无法输出测试音。
• 在进行调整当中，调整数值将显示于显示器。
• 虽然这些调整也可用前面板上的 LEVEL 选单来进行（当输出测试音时，接收机将自动地切换为 LEVEL 选单），我们建议您按照上述说明，用遥控器从您的聆听位置调整扬声器的电平。

检查连接

把所有的单片机都连接到接收机之后，请进行下列操作以确认连接是否正确。

1 按 I/⏻ 以打开接收机。

2 打开所连接的单片机（例如 CD 唱机或磁带卡座）。

3 按功能按钮以选择单片机（节目信号源）。

4 开始播放。

若进行这些步骤以后仍无法获得正常的音响，请参看第 43 页的"故障探寻"以采取适当的对策。

选择单片机

功能按钮

按功能按钮以选择您要使用的单片机。

要选择	按
录影机	VIDEO 1 或 VIDEO 2
电视或卫星调谐器	VIDEO 2
摄影机或电视游戏机	VIDEO 3
DVD 或镭射影碟播放机	DVD/LD
MD 或磁带卡座	MD/TAPE
CD 或 SACD 唱机	CD/SACD
内置调谐器	TUNER
一台声频单片机	AUX

打开所选单片机之后，选择单片机并播放节目信号源。

• 选择了录影机，摄影机，电视游戏机，DVD 播放机或镭射影碟播放机之后，打开电视机并设定电视机的视频输入以配合您所选的单片机。

输入模式

按 INPUT MODE 为数字单片机选择输入模式。
每按一次按钮，当前所选单片机的输入模式将转换。

选择	以便
AUTO IN	当兼具数字和模拟两种连接时，数字信号具有优先权。如果没有数字信号，模拟将被选取。
COAX IN	指定数字声频信号输入到 DIGITAL COAXIAL 输入插孔。
OPT IN	指定数字声频信号输入到 DIGITAL OPTICAL 输入插孔。
ANALOG	指定模拟声频信号输入到 AUDIO IN (L/R) 插孔。

注
若 96 kHz 数字信号被输入，均衡器和环绕声效果将不起作用。

MULTI CH IN

按 MULTI CH IN 以享受连接到 MULTI CH IN 插孔的声频源。您可以调整所有扬声器的平衡和电平。当此功能启动，均衡器和环绕声效果将关闭。

MULTI CHANNEL DECODING (多重声道解码)指示灯

当本机给用多重声道格式录音的信号解码时，此指示灯将亮起。

基本操作

23^{CS}

选择单片机（续）

SPEAKERS A/B

按 SPEAKERS A/B 按钮以从连接到
SPEAKERS FRONT 端子的扬声器输出声音。
每按一次此按钮，显示即如下循环切换：
SP. A → SP. B → SP. OFF

要驱动	请选择
扬声器系统 A（连接至 SPEAKERS FRONT A 端子）	SP. A
扬声器系统 B（连接至 SPEAKERS FRONT B 端子）	SP. B

当您选取"SP. OFF"，您的扬声器将不输
出声音，"SP. OFF"则亮起于显示器。

MUTING（静音）

按下 MUTING 以消除声音。当您打开电源或
顺时针方向转动 MASTER VOLUME 以提高音量
时，静音功能将被取消。

PHONES（耳机）

用于连接头戴耳机。

• 当连接了头戴耳机，扬声器输出将自动被取
消，"SP.OFF"则亮起于显示器。

改变显示

DISPLAY（显示）

每按一次 DISPLAY，显示即如下循环切换：
单片机的索引名称* → 所选单片机 → 适
用于节目信号源的声场

选取调谐器时
预约电台的索引名称* → 频率 → 适用于
波段或预约电台的声场

* 索引名称仅当在您已指配一个名称给单片机或
预约电台后才会出现（第 33 页）。只输入空
白空间或与功能具有同样名称将无法显示索引
名称。

DIMMER（调光器）

反复按 DIMMER 以调整显示器的亮度
（3 段）。
然而，当按任何按钮时，显示将暂时变成最
亮的设定。

只需选择接收机的预编程声场之一，您即可充份利用环绕声效果。这些效果能将电影院和音乐厅魄力十足及强劲的音响带进您家里。您也可通过改换环绕声参数来定制声场以获取您所要的音响。

为能充份享受环绕声效果，您必须先登记扬声器的数量和位置。享受环绕声之前，请参阅从第 17 页起的"多重声道环绕声的设置"一节以设定扬声器参数。

自动为输入的声频信号解码

按 A.DEC。

"AUTO DEC." 出现于显示器。

本模式能自动检测输入的声频信号类型 (Dolby Digital，DTS 或标准 2 声道立体声)，必要时则执行适当的解码。此模式将输出所录制 / 编码的音响而不加杂其他效果 (例如交混回响)。

然而，若没有低频率信号 (Dolby Digital LFE 等)，它将制造低频率信号以输出到重低音扬声器。

选择声场

只需根据您所要收听的节目选择其中一种预编程声场，您便可享受环绕声效果。

声场	显示
一般环绕声	NORM.SURR.
Cinema Studio (影院制作室) EX A	C.ST.EX A **DCS**
Cinema Studio (影院制作室) EX B	C.ST.EX B **DCS**
Cinema Studio (影院制作室) EX C	C.ST.EX C **DCS**
音乐厅	HALL
爵士俱乐部	JAZZ
现场音乐会	CONCERT
电视游戏	GAME

关于 DCS (数字影院音响)

带 **DCS** 标志的声场采用 DCS 技术。当选取这些声场，显示器的 "Digital Cinema Sound" (数字影院音响)指示灯将亮起。

在与 Sony Pictures Entertainment 的协作下，Sony 掌握了制片的音响环境，并且结合所测得的数据和 Sony 的 DSP (数字信号处理器) 技术得以发展 "Digital Cinema Sound" (数字影院音响)。在家居影院中，"Digital Cinema Sound" (数字影院音响)将依据影片导演的偏好模仿理想的影院音响环境。

用 Cinema Studio (影院制作室) EX 观赏电影

Cinema Studio (影院制作室) EX 是用于享受用多重声道格式编码的电影软件，诸如 Dolby Digital DVD (杜比数字 DVD)之类的理想模式。此模式用于再现 Sony Pictures Entertainment 制作室的音响特质。

25^{CS}

选择声场（续）

按 CINEMA STUDIO（影院制作室）EX A，B 或 C。
所选声场将出现于显示器。

■ C.ST.EX A（影院制作室 EX A）
再现 Sony Pictures Entertainment 的
"Cary Grant Theater"影片制作室的音响
特质。这是一个标准模式，可以很好地观看
大多数类型的影片。

■ C.ST.EX B（影院制作室 EX B）
再现 Sony Pictures Entertainment 的
"Kim Novak Theater"影片制作室的音响特
质。此模式是用于观看具有很多音响效果的
科幻或动作影片的理想模式。

■ C.ST.EX C（影院制作室 EX C）
再现 Sony Pictures Entertainment 的配乐
剧的音响特质。此模式用于观看音乐剧或音
轨中以音乐为特色的古典影片的理想模式。

关于 Cinema Studio（影院制作室）EX
Cinema Studio（影院制作室）EX 包括下列三
个要素：

• 虚拟多空间

从单一的实际环绕声扬声器制造 5 套虚拟
扬声器围绕著听者。

• 屏幕深度配合

在电影院里，音响彷佛来自投射在电影屏
幕上的影像的内部。此要素通过将前扬声
器的音响转换到屏幕上，在您的聆听室里
制造同样的感觉。

• 影院制作室交混回响

再现电影院独有的交混回响。

Cinema Studio（影院制作室）EX 是可同时操
作这些元素的综合模式。

要领
您可反复按 MODE 以选择 Cinema Studio（影院制
作室）EX。

注
• 虚拟扬声器产生的音响效果可能会在播放信号
里制造噪音。
• 当聆听运用虚拟扬声器的声场时，您将无法听
见直接来自于环绕声扬声器的声音。

选择其他声场

反复按 MODE 以选择所要的声场。
当前声场即出现于显示器。

■ NORM.SURR.（一般环绕声）
具有多重声道环绕声声频信号的软体将依据
其录制方式播放。具有 2 声道声频信号的软
体是用杜比专业逻辑解码来制造环绕声效果
的。

■ HALL
再现矩形音乐厅的音响。

■ JAZZ（爵士俱乐部）
再现爵士俱乐部的音响。

■ CONCERT（现场音乐会）
再现有 300 个座位的现场音乐会的音响。
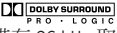
■ GAME
从电视游戏软体获得最好的音响效果。

要关掉环绕声效果时
按 A.DEC 或 2CH。

要领

- 每当选取节目信号源，此接收机可让您运用最后选取的声场于节目信号源（声场联结）。例如若您聆听以"JAZZ"作为声场的 CD 时，将它更换为不同的节目信号源，然后回到 CD，"JAZZ"将再次被运用。

- 查看一下包装便可识别程式软体的编码格式。杜比数字（Dolby Digital）光碟贴有 ▶◀ DOLBY DIGITAL 标志，杜比环绕声（Dolby Surround）编码程式则贴有 ▶◀ DOLBY SURROUND PRO·LOGIC 标志。

- 当输入带有 96 kHz 取样频率的声音信号时，声音信号将自动地以立体声输出，而声场则被关掉。

仅使用前扬声器（2 声道立体声）

按 2CH。

"2CH ST."出现于显示器。

此模式只从前左和右扬声器输出声音。标准的 2 声道（立体声）信号源完全不需经过声场处理。多重声道环绕声格式将下降混频为 2 声道。

注

- 当选取"2CH ST."，重低音扬声器将不输出声音。如果要用前左和右扬声器，以及重低音扬声器听 2 声道（立体声）时，按 A.DEC 以选择"AUTO DEC."。

- 当选取"微卫星扬声器"（第 18 页），内置音响处理器会自动地将底音转至重低音扬声器。若您想要在此设定中聆听 2 声道（立体声）信号源，我们建议您选择"AUTO DEC."模式。您可充分利用重低音扬声器以获得正确的重低音信号。

在多重声道中享受立体声音响（杜比专业逻辑 II）

此接收机可通过 Dolby Pro Logic II（杜比专业逻辑 II）在多重声道中再现立体声音响。您可使用 SET UP 选单启动解码器。有关详情，请参照第 35 页。

27^{CS}

多重声道环绕声显示说明

```
12    13        1        2        3    4              5

      ┌───────────────────────────────────────────────────────────┐
      │       ⎕⎕ DIGITAL  PRO LOGIC  DTS  MPEG  STEREO MONO  MEMORY │
   SW SP. OFF   OPT COAX                     D.RANGE  EQ            │
      L  C  R                                                      │
     ((( L F E )))                                                 │
     SL  S  SR                                                     │
      └───────────────────────────────────────────────────────────┘
                    9    8                  7    6

  11         10
```
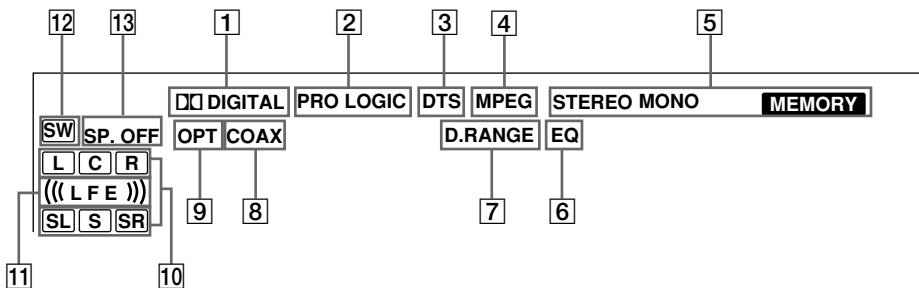
① ⎕⎕ DIGITAL：接收机给用杜比数字格式录音的信号解码时将亮起。

② PRO LOGIC：当接收机运用专业逻辑处理于2 声道信号来输出中央和环绕声道信号时将亮起。然而，如果把中央和环绕声扬声器设定于"NO"并选择"AUTO DEC."或"NORM.SURR."，此指示灯将不亮起。

   注
   专业逻辑解码对 MPEG 格式信号不起作用。

③ DTS：当输入 DTS 信号时将亮起。

   注
   播放 DTS 格式的光碟时，请确认已作好数字连接，并确保 INPUT MODE 不被设定于 ANALOG(模拟)(第 23 页)。

④ MPEG：当输入 MPEG 信号时将亮起。

   注
   只有前 2 声道与 MPEG 格式兼容。多重声道环绕声将从前 2 声道下降混频及输出。

⑤ 调谐器指示灯：当用接收机调谐广播电台等时将亮起。关于调谐器的操作，请参看第 32–33 页。

⑥ EQ：当启动均衡器功能时将亮起。

⑦ D.RANGE：启动动态范围压缩功能时将亮起。请参看第 30 页关于调整动态范围压缩的说明。

⑧ COAX：当声源信号是通过 COAXIAL 端子输入的数字信号时将亮起。

⑨ OPT：当声源信号是通过 OPTICAL 端子输入的数字信号时将亮起。

⑩ 播放声道指示灯：L，C，R 等文字表示播放声道。围绕著文字的框格表示接收机用于进行下降混频信号源声音的方式（依据扬声器设定）。当使用诸如"C.ST.EX"的声场时，接收机将根据信号源声加入交混回响效果。

   L（前左），R（前右），C（中央（单声道），SL（环绕声左），SR（环绕声右），S（环绕声（单声道或由专业逻辑处理获得的环绕声成分））。

   举例：
   录音格式（前 / 环绕声）：3/2
   输出声道：没有启动环绕声扬声器
   声场：AUTO DEC.

                L C R

                SL   SR

28^{CS}

11 **(((ＬＦＥ)))**：当播放含有 LFE（低频效果）声道的光碟，以及当 LFE 声道信号的声音实际上正在重新处理时将亮起。

12 **SW**：当重低音扬声器选项被设定于"YES"（第 20 页），而声频信号从 SUB WOOFER 插孔输出时将亮起。

13 **SP．OFF（扬声器关掉）**：接插了头戴耳机后将亮起或 SPEAKERS A/B 按钮被设定为"SP．OFF"。

定制声场

通过调整环绕声参数和前扬声器的平衡，您可定制声场以迎合您的特殊聆听喜好。

一旦定制了声场，它将一直存储于指定的存储器中。然而，您只须重新调整参数，便可随时改变定制声场。

关于各声场中备有的参数，请参看第 49 页的桌表。

为获得最佳的多重声道环绕声效果

要定制声场之前，请按照从第 17 页起的"多重声道环绕声的设置"所说明的方法安置好扬声器，并作好各项调定工作。

调整环绕声参数

SURR 选单含有用于定制各种模式的当前声场的参数。各项设置可被分别储存于各声场。

1 开始播放用多重声道环绕声编码的节目信号源。

2 按 SURR。
按钮即亮起并显示第一个参数。

3 转动微调度盘以选择所要的设定。
设定即自动地被输入。

初始设定

参数	初始设定
EFFECT	（因声场而异）

效果电平（EFFECT）
用于调整当前环绕声效果的"存在感"。

调整电平参数

LEVEL 选单含有用于调整各扬声器的平衡和音量的参数。其设定适用于所有的声场。

1 开始播放用多重声道环绕声编码的节目信号源。

2 按 LEVEL。
按钮即亮起并显示第一个参数。

3 按 ＜ 或 ＞ 以选择所要调整的参数。

4 转动微调度盘以选择所要的设定。
设定即自动地被输入。

定制声场（续）

初始设定

参数	初始设定
🔲 🔳 BAL. L/R XXX*	BALANCE
CTR XXX dB*	0 dB
SUR.L. XXX dB*	0 dB
SUR.R. XXX dB*	0 dB
S.W. XXX dB*	0 dB
L.F.E. XXX dB	0 dB
D. RANGE COMP. XXX	OFF

* MULTI CH IN 的参数可各别地被调整。

前平衡（ 🔲 🔳 BAL. L/R XXX）
用于调整前左和前右扬声器间的平衡。

中央电平（CTR XXX dB）
用于调整中央扬声器的电平。

环绕声左电平（SUR.L. XXX dB）
用于调整环绕声左扬声器的电平。

环绕声右电平（SUR.R. XXX dB）
用于调整环绕声右扬声器的电平。

重低音扬声器电平（S.W. XXX dB）
用于调整重低音扬声器的电平。

LFE（低频效果）混频电平（L.F.E. XXX dB）
用于减弱来自重低音扬声器的 LFE（低频效果）声道的电平，但不会影响从前，中央或环绕声声道通过杜比数字（Dolby Digital）或 DTS 底音改向电路送到重低音扬声器的底频率电平。

- 用于 LFE 混频电平时，"0 dB"将输出由录音技师所决定的完整 LFE 信号于混频电平。
- 要静调（静音）来自重低音扬声器的 LFE 声道声音时，请选择"OFF"。但是前，中央或环绕声扬声器的底频率将根据扬声器设置一节中（第 17–21 页）所进行的各项扬声器调定的设置从重低音扬声器输出。

动态范围压缩（ D. RANGE COMP. XXX）
用于压缩声迹的动态范围。这项功能在深夜里用小音量观赏电影片时很有用。我们建议您选用"MAX"设定。

- 要再现无压缩的声迹时，请选择"OFF"。
- 要再现录影技师指定动态范围的声迹时，请选择"STD"。
- 要用小步进压缩动态范围获得所要的声音时，请选择"0.1"–"0.9"。
- 要再现动态范围极为显著的压缩效果时，请选择"MAX"。

注
动态范围压缩仅适用于杜比数字信号源。

调整均衡器

EQ（均衡器）选单用于调整前扬声器的平衡。各项设置可被分别储存于各声场。

1 开始播放用多重声道环绕声编码的节目信号源。

2 按 EQ。
按钮即亮起并显示第一个参数。

3 按 ＜ 或 ＞ 以选择所要调整的参数（增益（dB））。

4 转动微调度盘以选择所要的设定。
设定即自动地被输入。

增益（dB）
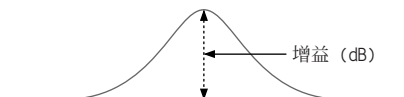
要打开／关闭均衡器时

按 EQUALIZER。当均衡器打开时，显示器的 EQ 指示灯将亮起。当用 EQ 参数调节均衡器时，各项设置将被分别储存于各声场，并可随时在您打开均衡器时再现。

前扬声器的底音调整（增益）

可用于调整底音的增益。

前扬声器的高音调整（增益）

可用于调整高音的增益。

将定制声场重调回工厂设定

1 如果接通著电源，请按 I/ᐤ 以关掉电源。

2 按住 MODE，并按 I/ᐤ。
"SF．CLR．"即出现于显示器，所有的声场则重调回工厂设定。

在接收广播电台以前,务必将 FM 和 AM 天线连接至接收机(第 7 页)。

直接调谐

您可用附带遥控器上的数字按钮直接输入所要电台的频率。关于本章节所使用的按钮之详情,请参照第 39–42 页。

1 按遥控器上的 TUNER。
最后接收的电台即被调入。

2 按 FM 或 AM 以选择 FM 或 AM 波段。

3 按遥控器上的 D.TUNING。

4 按数字按钮以输入频率。
例 1: FM 102.50 MHz

$$(1) \rightarrow (0) \rightarrow (2) \rightarrow (5) \rightarrow (0)$$

例 2: AM 1350 kHz
(当调谐度盘被设定为 10 kHz,您不必输入最后的"0"数字。)

$$(1) \rightarrow (3) \rightarrow (5) \rightarrow (0)$$
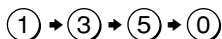
如果您无法调入电台,并且输入的数字闪烁时
务必确认已输入正确的频率。否则,请重复第 3 和 4 步骤。如果输入的数字仍旧闪烁,则表示该频率不适用于您的地区。

5 如果您已调入 AM 电台,请调整 AM 环形天线的方向以获取最佳的接收。

6 反复步骤 2 到 5 以接收其他电台。

要领
• 如果忘记准确的频率,您可在输入所要电台的近似频率之后按 TUNING + 或 TUNING −。接收机即自动地调入所要电台。如果频率似乎比输入值高,请按 TUNING +,如果频率似乎低于输入值,则按 TUNING −。
• 如果显示器闪烁著"STEREO",而 FM 立体声的接收状况欠佳时,按 FM MODE 以更换为单声道 (MONO)。虽没有立体声效果,但声音较不失真。要返回立体声模式时,再按一次 FM MODE。

调谐度盘为:
FM:50 kHz(千赫)
AM:9 kHz(千赫)

自动调谐

如果您不知道所要收听电台的频率,您可让接收机扫描当地所有的电台。

1 按 TUNER。
最后接收的电台即被调入。

2 按 FM 或 AM 以选择 FM 或 AM 波段。

3 按 TUNING + 或 TUNING −。
按 TUNING + 从低向高扫描;按 TUNING − 从高向低扫描。
当接收到电台时,接收机即停止扫描。

当接收机扫描到波段的任何一端时
扫描将同方向地反复进行。

4 要持续扫描时,请再按一次 TUNING + 或 TUNING −。

预约调谐

用直接调谐或自动调谐调入电台之后，您可以把它们预约到接收机里。然后，您即可用附带的遥控器输入两个字符的预约码直接调入任何电台。高达 30 个 FM 或 AM 电台可被预约。接收机也能扫描全部您所预约的电台。

要调收预约电台以前，务必遵照本章节"预约广播电台"的步骤先行预约。

预约广播电台

1 按 TUNER。
最后接收的电台即被调入。

2 用直接调谐（第 32 页）或自动调谐（第 32 页）调入所要预约的电台。

3 按 MEMORY。
"MEMORY"（存储器）将显示于显示器数秒。
请在"MEMORY"显示熄灭以前进行步骤 4 到 6。

4 按 SHIFT 以选择存储页（A，B 或 C）。
每按一次 SHIFT，字母"A"，"B"或"C"即出现于显示器。

5 按 PRESET TUNING + 或 PRESET TUNING − 以选择预约号。
在您按预约号之前如果"MEMORY"显示熄灭，请再次从步骤 3 开始。

6 再按一次 MEMORY 以存储电台。
在您储存电台之前如果"MEMORY"显示熄灭，请再次从步骤 3 开始。

7 反复步骤 2 到 6 以预约其他电台。

要改变预约号至另一个电台时
请进行步骤 1 到 6 以预约一个新电台到该预约号。

调谐预约广播电台

您可用下列两种方式的其中之一调入预约电台。

扫描预约广播电台

1 按 TUNER。
最后接收的电台即被调入。

2 反复按 PRESET TUNING + 或 PRESET TUNING − 以选择所要的预约电台。
每按一次此按钮，接收机将按照如下顺序和方向一次调入一个预约电台。

$$\longrightarrow A1 \longleftrightarrow A2 \longleftrightarrow ... \longleftrightarrow A0 \longleftrightarrow B1 \longleftrightarrow B2 \longleftrightarrow ... \longleftrightarrow B0 \longleftarrow$$
$$\longrightarrow C0 \longleftrightarrow ... C2 \longleftrightarrow C1 \longleftarrow$$
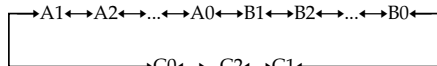
使用预约码
使用附带的遥控器执行下列操作。关于本章节所使用的按钮之详情，请参照第 39–42 页。

1 按遥控器上的 TUNER。
最后接收的电台即被调入。

2 按 SHIFT 以选择存储页（A，B 或 C）。
然后用数字按钮按所要电台的预约号。

为预约电台和节目信号源定名

每个预约电台或节目信号源可用高达 8 个字符的名字（索引名称）。每当选择了电台或节目信号源，这些名字（例如"VHS"）将显示于接收机的显示器。请注意，您只能给每个预约电台或节目信号源输入一个名字。

此功能可用于识别同类型的单片机。例如两台录影机可以分别被指定为"VHS"和"8MM"。它也便于识别连接于已被指定为其他类型单片机插头的单片机。例如连接第二台 CD 唱机到 MD/TAPE 插孔。

1 给预约电台定名

按 TUNER，然后调入您要建立索引名称的预约电台。

最后接收的电台将被调入。

如果仍不熟悉预约电台的调谐方法，可参看第 33 页的"调谐预约广播电台"。

给节目信号源定名
选择要定名的节目信号源（单片机）。

2 按 NAME。

3 使用微调度盘和 < 或 > 建立索引名称：

转动微调度盘以选择字符，然后按 > 以移动游标到下一个位置。

要插入空间时
转动微调度盘直至空白空间出现于显示器。

如果您输入错误
反复按 < 或 > 直至要改变的字符闪烁，然后转动微调度盘以选择正确的字符。

4 按 ENTER。

5 反复步骤 2 到 4 以指配其他电台或节目信号源的索引名称。

录音／影

开始操作之前，务必确认是否已妥当连接所有的单片机。

录在录音带或迷你光碟（MD）上

您可用此接收机在卡带或迷你光碟上进行录制。必要时，可参看卡带座或迷你光碟 (MD) 卡座的使用说明书。

1 选择要进行录制的单片机。

2 准备播放用的单片机。

例如将 CD 置入 CD 唱机内。

3 把空白磁带或迷你光碟装入录音座，必要时，请调整录音电平。

4 开始录音座的录音，然后启动播放用单片机。

注
• 调节声音不会影响从 MD/TAPE OUT 插孔输出的信号。
• 当前功能的模拟声频信号将从 REC OUT 插孔输出。
• 当选取 MULTI CH IN，当前功能的模拟声频信号将从 REC OUT 插孔输出。
• 您无法用连接至模拟 MD/TAPE OUT 插孔的单片机来录制数字声频信号，要录制数字声频信号时，将数字单片机连接至 DIGITAL MD/TAPE OUT 插孔。

- 某些音源含有复制防护装置以防止录制。在此
情况下，您可能无法从音源上录制。
- 当选取了 MULTI CH IN，将没有信号从
DIGITAL OUT 插孔（MD/TAPE OPTICAL OUT）输
出。

录在录像带上

您可用本接收机从录影机，电视机，DVD 播
放机或镭射影碟播放机录影。在编辑录像带
时，您也可从各种声频信号源加进声频。必
要时，可参看录影机或镭射影碟播放机的使
用说明书。

1 选择要进行录制的节目信号源。

2 准备播放用单片机。
例如装入要录到镭射影碟播放机的镭射
光碟。

3 把空白录像带装入录影用录影机（VIDEO
1）。

4 让录影机开始录音，然后播放要录的录影
带或光碟。

要领
在拷贝录影带或镭射光碟时，您可以把任何声频
信号源的声音录进录像带中。查找要从别的声频
信号源开始录音的录制起点，选择节目信号源，
然后开始播放。来自该信号源的声频即被录进录
像带的声迹里替代来自原来媒介的声频。要恢复
从原来媒体的录音时，请再选一次视频信号源。

注
- 请确定已将数字和模拟连接到 VIDEO 2 和
DVD/LD 输入插孔。如果只有数字连接，模拟录
制将无法工作。
- 当选取 MULTI CH IN，当前功能的模拟声频信
号将从 REC OUT 插孔输出。

使用睡眠定时器

您可设定接收机在指定的时间自动关闭。

在电源打开时按遥控器上的 SLEEP。
每按一次按钮，显示即如下循环切换：

2-00-00 → 1-30-00 → 1-00-00
→ 0-30-00 → OFF（关掉）

指定了时间之后，显示即变暗淡。

要领
- 您可以自由地指定时间。按 SLEEP 后用接收机
上的微调度盘和 ＜ / ＞ 指定您所要的时间。
睡眠定时以 1 分钟间隔改变。您可指定高达 5
个小时。
- 要在接收机关闭之前查看剩余时间时，请按
SLEEP。剩余时间即出现于显示器。

用 SET UP 按钮进行调整

SET UP 按钮可让您进行下列调整。

1 按 SET UP。

2 按 ＜ 或 ＞ 以选择所要调整的参数。

3 转动微调度盘以选择所要的设定。
设定即自动地被输入。

4 反复步骤 2 和 3 直至设定好下列所有的
参数。

初始设定

参数	初始设定
C.MODE.AVX	AV2
▶PRO LOGIC◀	II MOVIE
A.PWR – XXX	YES

35^{CS}

■ CONTROL A1Ⅱ 自动功能 (A.PWR – XXX)
当所连接单片机是设定于播放模式时，可以
把此接收机的功能自动地切换到通过
CONTROL A1 导线所连接的 Sony 单片机
（第 13 页）。

当设置为"OFF"（关）时，您可在待机模
式时节省接收机的电源消耗。

■ 选择遥控器的指令模式 (C.MODE.AVX)
用于选择遥控器的指令模式。在同一房间内
使用 2 台 Sony 接收机时用于改换指令模
式。

■ 2 声道解码模式（ PRO LOGIC ）
可以指定用于 2 声道声源的解码模式。此
接收机结合了具有电影模式和音乐模式的
Dolby Pro Logic II（杜比专业逻辑 II）。
而且此接收机可通过 Dolby Pro Logic II
（杜比专业逻辑 II）在 5.1 声道中再现 2
声道音响。

• 当设定于"DOLBY PL"（杜比专业逻辑）
  时，接收机即开始专业逻辑解码。用 2 声
  道录音的信号源即被解码成 4 声道。

• 当设定于"II MOVIE"（II 电影）时，接
  收机即开始专业逻辑 II 电影模式解码。此
  设定适用于以杜比环绕声编码的电影。此
  外，在观看旧电影或配音的录像带时，可用
  此模式再现 5.1 声道声。

• 当设定于"II MUSIC"时，接收机即开始专
  业逻辑 II 音乐模式解码。此设定适用于诸
  如 CD 等一般的立体声信号源。

注
Dolby Pro Logic II（杜比专业逻辑 II）对于
DTS 或 MPEG 格式的信号不起作用。

CONTROL A1Ⅱ 控制系统

开始使用

**本节说明 CONTROL A1Ⅱ 控制系统的基本功
能。某些单片机拥有特殊的功能，例如卡座上
的"CD 同步拷贝录音"，这便须连接
CONTROL A1Ⅱ 使用。有关具体操作方法等详细
资料，一定请参考您的单片机附带的使用说明
书。**

CONTROL A1Ⅱ 控制系统是特别为包含分离
式的 Sony 单片机在内的音响系统的简化操
作手续而设计的。CONTROL A1Ⅱ 连接器拥
有一个控制信号的传输用通路。这个控制信
号可自动操作和控制普通组合在整个系统中
的功能。

目前，接在 Sony 牌的 CD 唱机，放大器
（接收机），MD 卡座和磁带卡座之间的
CONTROL A1Ⅱ 连接器还拥有自动功能选择
和同步录音的功能。

将来，这个 CONTROL A1Ⅱ 连接器还将担负
可让您用于控制各单片机的各种不同功能的
多功能母线的任务。

注
• CONTROL A1Ⅱ 控制系统专用于保持高级功能兼
  容性/即当控制系统被提升为用于控制某些更新
  的功能时，较旧的组合音响系统便将不能兼容
  这些新功能了。
• 当用 PC（个人电脑）界面配套元件将 CONTROL
  A1Ⅱ 插孔连接到个人电脑上去操作"MD 编辑程
  序"或类似装置时，请勿操作 2 路遥控器。也
  请勿用与此控制装置的功能相反的方法去操作
  所连接的单片机，因为可能导致该装置操作错
  误。

CONTROL A1 II 和 CONTROL A1 可兼容

CONTROL A1 控制系统经不断改进而发展成为 CONTROL A1 II，这是 Sony 300 碟式 CD 换碟器和其他新型 Sony 牌单片机的标准系统装备。带 CONTROL A1 插孔的单片机和带有 CONTROL A1 II 的单片机是可兼容的，它们可以互相连接使用。基本上，一些适用 CONTROL A1 控制系统的主要功能也适用 CONTROL A1 II 控制系统的。

但当连接带 CONTROL A1 插孔的单片机与带 CONTROL A1 II 插孔的单片机时，一部分能控制的功能可能因所连接单片机种类而受限制。详细内容，请参阅各该单片机的使用说明书。

连接

将单耳声（2 极）微插头导线串联连接到各单片机背面的 CONTROL A1 II 插孔。您可以任意顺序地连接最多 10 个 CONTROL A1 II 兼容的单片机。但是每种型式的单片机各只能连接一个（例如一个 CD 唱机，一个 MD 卡座，一个磁带卡座和一个接收机）。

（依据型号不同，您也可以连接一个以上的 CD 唱机或 MD 卡座。详情请参考各单片机附带的使用说明书。）

例

| 放大器 | CD | MD 卡座 | 磁带卡座 | 其他 |
|（接收机）| 唱机 | | | 单片机 |

在 CONTROL A1 II 控制系统中，控制信号的信号流是成双向流通的，因此便无 IN（输入）和 OUT（输出）插孔之别了。如果一个单片机拥有多于一个的 CONTROL A1 II 插孔，您可任意连接其中一个使用，或将不同单片机分别连接到各插孔。

插孔和连接例

CD 唱机

MD 卡座
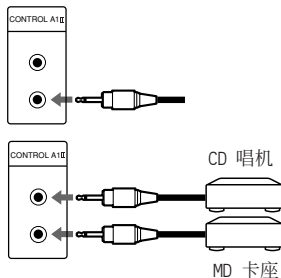
CONTROL A1 插孔和连接须知

CONTROL A1 和 CONTROL A1 II 插孔之间可以相连接。有关特殊连接和调定选择的详细内容，请参阅各该单片机附带的说明书。

关于连接导线

有些 CONTROL A1 兼容单片机附带有作为附件的连接导线。此时，请利用该连接导线进行连接。

如果是采用市售的适用导线，则请用长度 2 米以下而无电阻的单耳声（2 极）微插头导线（例如 Sony RK–G69HG）。

基本功能

CONTROL A1 II 的功能，只要您想操作的单片机打开著电源，而即使所有其他连接的单片机都没有打开电源，也能发生作用的。

其他操作

CONTROL A1 控制系统（续）

自动功能选择

当使用单耳声微插头导线将 CONTROL A1 II 兼容的 Sony 放大器（或接收机）连接到其他 Sony 单片机时，您如果按下所连接单片机之一上面的操作按钮，则放大器（或接收机）上的功能选择器便将自动地切换到正确的输入位置。

注

- 为了能利用自动功能选择的这个特点，便须用单耳声微插头导线连接 CONTROL A1 兼容的放大器（接收机）。
- 本功能只有在单片机按照功能键上名称连接到放大器（或接收机）的输入端子时起作用。某些接收机还可切换功能键名称。此时，请参看接收机附带的使用说明书。
- 进行录音中，切勿放录音声源以外的单片机。因为会引起自动功能选择的操作。

同步录音

本功能可让您在所选择信号源和录音机单片机之间进行同步录音。

1 将放大器（或接收机）上的功能选择器设定于信号源的单片机。

2 将信号源单片机设定为暂停模式（确认 ▶ 和 ‖ 指示灯一起点亮与否）。

3 将录音单片机设定为 REC–PAUSE 模式。

4 按录音单片机上的 PAUSE（暂停）键信号源单片机的暂停模式即被释放，随即开始录音。
当信号源单片机的放音终了时，录音便停止下来。

注
- 别把一个以上的单片机设定为暂停模式。
- 某些录音单片机可能装备有使用 CONTROL A1 II 控制系统的特殊同步录音，例如 "CD 同步拷贝录音"。请参看录音单片机附带的使用说明书。

您可用 RM–U305C 遥控器操作您系统的单片机。

在使用您的遥控器之前

把电池装入遥控器

在电池室中装入 R6（AA 号）干电池并对准 + 和 – 电极。使用遥控器时，必须瞄准接收机上的遥控传感器 ▣。
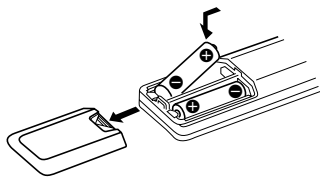
要领
在一般使用状况下，电池可耐用大约 6 个月。当遥控器不能再操作接收机时，请换上两节新的电池。

注
- 不要把遥控器放置在太热或太潮湿的地方。
- 不要混用新、旧电池。
- 别让遥控传感器受阳光或电灯的强光直射。否则，可能引起故障。
- 如果准备长时期不用遥控器，请取出电池以免因电池漏液及腐蚀而损坏遥控器。

遥控器按钮说明

下列桌表说明各按钮的功能。

遥控器按钮	操作	功能
SLEEP	接收机	启动睡眠功能和接收机自动关闭的时限。
I/⏻	接收机	打开或关闭接收机。

39CS

遥控器按钮说明（续）

遥控器按钮	操作	功能
VIDEO/VIDEO 1*	接收机	观看录影机。（VTR 模式 3）
VIDEO 2*	接收机	观看录影机。（VTR 模式 1）
VIDEO 3*	接收机	观看录影机。（VTR 模式 2）
DVD/LD	接收机	观看 DVD 或镭射光碟。
TV/SAT	接收机	观看电视节目或卫星接收机。
PHONO*	接收机	聆听唱片(唱盘唱机)。
MD/TAPE*	接收机	聆听 MD 或录音带。
AUX	接收机	聆听声频设备。
CD/SACD	接收机	聆听 CD。
TUNER	接收机	收听广播电台。
SHIFT	接收机	反复按下以选择预约电台或调入预约的电台所用的存储页。
D.TUNING	接收机	调谐器电台直接输入模式。
AUTO DEC	接收机	选择 AUTO DECODING 模式。
MODE +/–	接收机	选择声场模式。
2CH	接收机	选择 2CH 模式。
MULTI/2CH A. DIRECT	接收机	选择 MULTI CH IN 信号源。
MUTING	接收机	消除来自接收机的声音。

* VIDEO 1，VIDEO 2，VIDEO 3，PHONO 和 MD/TAPE 功能需用 2 个按钮操作。要选择以上功能时，请同时按 FN SHIFT （功能转换）以及您要的功能按钮。例如按 FN SHIFT 及 CD/SACD 以选择 MD/TAPE 功能。
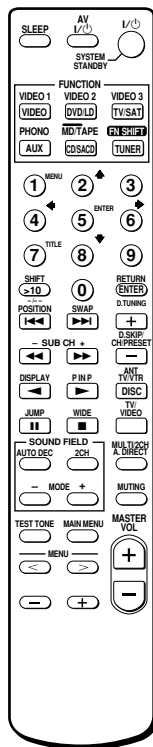
遥控器按钮	操作	功能
TEST TONE	接收机	按下以输出测试音。
MAIN MENU	接收机	反复按此按钮以选择五种游标模式的其中之一：EQ，SURR，LEVEL，SET UP 和 NAME。
MENU </>	接收机	选取选单项目。
MENU +/–	接收机	进行调整或改变设定。
MASTER VOL +/–	接收机	调整接收机的主音量。
AV I/⏻	电视机 /录影机 /CD 唱机 /VCD 播放机 /镭射影碟播放机 /DVD 播放机 /MD 卡座 /DAT 卡座	打开或关闭声视频单片机。
SYSTEM STANDBY (同时按 AV I/⏻ 和 I/⏻)	接收机/电视机 /录影机 /卫星调谐器 /CD 唱机 /VCD 播放机 /镭射影碟播放机 /DVD 播放机 /MD 卡座 /DAT 卡座/磁带卡座	关闭接收机和其他 Sony 声频/视频单片机。
0–9	接收机	在 DIRECT TUNING 或 MEMORY 模式中与"SHIFT"按钮配合使用以选择调谐器预约电台的数字输入。
	CD 唱机 /VCD 播放机 /镭射影碟播放机 /MD 卡座 /DAT 卡座	选择曲号。0 选择曲号 10。
	电视机 /录影机 /卫星调谐器	选择频道号。
>10	CD 唱机 /VCD 播放机 /镭射影碟播放机 /MD 卡座 /磁带卡座	选择超过 10 的曲号。

遥控器 按钮	操作	功能
ENTER	电视机 / 录影机 / 卫星调谐器 / 镭射影碟 播放机 / MD 卡座 / DAT 卡座 / 磁带卡座	用数字按钮选取频道、 光碟或声轨之后，按下 以输入数值。
D.SKIP/	接收机	扫描和选择预约电台。
CH/PRESET +/−	电视机 / 录影机 / 卫星调谐器	选择预约频道。
	CD 唱机/ VCD 播放机/ DVD 播放机/ MD 卡座	跳越光碟（仅於多用途 光碟转换器）。
⏮/⏭	录影机/ CD 唱机 / VCD 播放机/ 镭射影碟 播放机 / DVD 播放机 / MD 卡座 / DAT 卡座 / 磁带卡座	跳越曲子。
◀◀/▶▶	CD 唱机/ VCD 播放机 / DVD 播放机	寻找曲子 （向前或向後）。
	录影机 / 镭射影碟 播放机 / MD 卡座 / DAT 卡座 / 磁带卡座	快进或重绕。
◀	磁带卡座	开始播放倒绕面。
▶	录影机 / CD 唱机/ VCD 播放机 / 镭射影碟 播放机 / DVD 播放机/ MD 卡座 / DAT 卡座/ 磁带卡座	开始播放。

遥控器 按钮	操作	功能
⏸	录影机 / CD 唱机/ VCD 播放机 / 镭射影碟 播放机 / DVD 播放机/ MD 卡座 / DAT 卡座/ 磁带卡座	暂停播放或录音 / 影。 （单片机呈录音 / 影备 用模式时，则开始录 音 / 影。）
■	录影机 / CD 唱机 / VCD 播放机 / 镭射影碟 播放机 / DVD 播放机 / MD 卡座 / DAT 卡座/ 磁带卡座	停止播放。
DISPLAY	电视机 / 录影机 / VCD 播放机 / 镭射影碟 播放机 / DVD 播放机	选择显示於电视屏幕上 的信息。
ANT TV/VTR	录影机	选择来自天线端子的 输出信号：电视信号 或录影机节目。
DISC	CD 唱机	直接选择光碟（仅於多 用途光碟转换器）。
TITLE	DVD 播放机	显示 DVD 标题。
MENU	DVD 播放机	显示 DVD 选单。
ENTER	DVD 播放机	输入选单。
RETURN	DVD 播放机	返回之前的选单或退出 选单。
▲/▼/◀/▶	DVD 播放机	选择选单项目。
-/--	电视机	选择频道输入模式， 一位或两位数。

遥控器 按钮	操作	功能
POSITION**	电视机	改变小影像的位置。
SWAP**	电视机	调换大，小影像。
SUB CH +/–**	电视机	为小影像选择预约频道。
P IN P**	电视机	启动画中画功能。
JUMP	电视机	跳动於之前及当前频道之间。
WIDE	电视机	选择宽影像模式。
TV/VIDEO	电视机	选择输入信号：电视输入或视频输入。

** 仅於具画中画功能的 Sony 电视机。

注

• 当您按下功能按钮（VIDEO 1，VIDEO 2，VIDEO 3，DVD/LD），电视机的输入模式可能无法转换至您所要之相应的输入模式。在此情况下，按 TV/VIDEO 按钮以转换电视机的输入模式。
• 视接收机的型号而定，在本章节里所提及的某些功能可能无效。
• 以上说明仅作为范例。
  因此，依据单片机而定，以上的操作可能无效，或者其操作可能与说明有所出入。
• TV/SAT 和 PHONO 功能对设置操作不起作用。

改换功能按钮的出厂预设

如果功能按钮的出厂预设不符合您系统的单片机，您可将它更换。例如若您有迷你镭射唱机和磁带卡座而没有 CD 唱机时，您可按磁带卡座的 CD/SACD 按钮。

请注意，TUNER 和 FN SHIFT 功能按钮的设定（VIDEO 1，VIDEO 2，VIDEO 3，PHONO 和 MD/TAPE）是不能更改的。

1 按住您想要更改功能的功能按钮（例如 CD/SACD）。

2 按单片机的相应按钮；即您要指配的功能按钮（例如 4 – 磁带卡座）。
下列按钮用以选择各别的功能：

要操作	请按下
CD 唱机	1
DAT 卡座	2
MD 卡座	3
磁带卡座 A	4
磁带卡座 B	5
镭射影碟播放机	6
录影机（指令模式 VTR 1*）	7
录影机（指令模式 VTR 2*）	8
录影机（指令模式 VTR 3*）	9
电视机	0
DSS（数字卫星接收机）	>10
DVD 播放机	
	ENTER
VCD 播放机	⏮

* Sony 录影机可用 VTR 1，2 或 3 的设定操作。这些设置分别适用于 Beta，8mm 和 VHS。

现在，您可用 CD/SACD 按钮操作磁带卡座。

要将按钮重设回出厂预设时
请重复上述步骤。

要将所有的功能按钮都重设回出厂预设时
同时按 I/⏻，AV I/⏻ 和 MASTER VOL – 。

使用前注意事项

安全须知

万一有杂物或液体掉进机壳内，请立即拔下接收机插头并找合格人员检查过后才可以再操作使用。

电源须知

• 操作本机之前，请先检查操作电压是否符合当地的电源电压。接收机的操作电压标示在接收机背后的铭板上。
• 虽然已关闭接收机的电源，如果没有从墙上插座拔出电线，本机并未完全与 AC 电源（主电源）隔离。
• 如果长时间不使用接收机，请从墙上插座拔下接收机的电源线。要拔下 AC 电源线时，必须抓住插头拔出，不可拉著导线拔。
• AC 电源线仅可在授权的维修中心更换。

内积热须知

在操作时本机会加热，这并非故障。如果持续使用本机，机壳顶部，侧面和底面的温度会上升得相当高。为免被烫伤，请不要接触机壳。

安置须知

• 必须安装接收机于通风良好的地方以防积热，并延长接收机的使用寿命。
• 不要把接收机放在靠近热源或阳光直射，多尘或有机械性冲击的地方。
• 别在机壳顶上放置任何东西以免堵住通风孔而引起故障。

操作须知

要连接别的单片机之前，请先关掉接收机的电源，并拔下电源插头。

清洁须知

请用温和的洗涤剂清洗机壳，控制板和控制器。不可使用任何类型的砂布，磨粉或酒精，苯等溶剂。

如果您对接收机仍有任何疑问或问题，请洽询附近的 Sony 经销商。

故障探寻

使用接收机时如果碰到如下困难，请用此故障探寻指南试著解决问题，并参看第 22 页的"检查连接"以确认连接是否正确。如果仍不能解决问题，请洽询附近的 Sony 经销商。

无论选那个单片机都无声音或只听到极小的声音。

• 检查扬声器和单片机的连接是否正确及稳固。
• 检查接收机和所有的单片机是否都已打开了电源。
• 检查 MASTER VOLUME 控制按钮没有被设定在 VOL MIN。
• 确认 SPEAKERS A/B 按钮未被设置为"SP. OFF"，并且已依据您的 SPEAKERS FRONT 系统设定（第 24 页）。
• 按 MUTING 以解除静音功能。
• 确认未连接头戴耳机。
• 因发生短路而启动了接收机的保护装置（"PROTECT"将闪烁）。请关掉接收机电源，解决了短路问题之后再打开电源。

指定的单片机没有发出声音。

• 确认单片机是正确地连接在该单片机所用的声频输入插孔。
• 确认连接用导线已妥当地接插于接收机和单片机的插孔。
• 检查是否选对了接收机上的单片机。

43^{CS}

故障探寻（续）

其中一个前扬声器没有声音。

连接一对头戴耳机至 PHONES 插孔以确认声音是否自头戴耳机输出（第 24 页）。

如果只有一个声道从头戴耳机输出，单片机可能没有被正确地连接至接收机。请查看所有的导线是否都已妥善地插入接收机和单片机。

如果两个声道都从头戴耳机输出，前扬声器可能没有被正确地连接至接收机。请查看完全没有输出声音的前扬声器。

左和右声音不平衡或相反。

- 检查扬声器和单片机的连接是否正确及稳固。
- 调整 LEVEL 选单的平衡参数。

有严重的哼声或噪音。

- 检查扬声器和单片机的连接是否正确及稳固。
- 检查连接导线是否远离变压器或电动机，并且至少离开电视机或荧光灯 3 米。
- 把电视机移离声频单片机。
- 插头和插孔都脏了。请用微蘸酒精的布擦拭。

从中央或／和环绕声扬声器上听不到声音或只听见极小的声音。

- 确认是否已打开了声场功能（按 MODE）。
- 选择含有 "C.ST.EX" 字样的声场（第 25–26 页）。
- 调整扬声器的电平（第 22 页）。
- 确认中央或／和环绕声扬声器的尺寸参数是否设定于 "SMALL" 或 "LARGE"（第 19 页）。

有源重低音扬声器没有输出声音。

视声场所定，可能没有声音自 SUB WOOFER 端子输出（第 49 页）。

无法获得环绕声效果。

确认是否已打开了声场功能（按 MODE）。

不能再现杜比数字（Dolby Digital）或 DTS 多重声道音响。

- 检查播放中的 DVD 等是否用杜比数字或 DTS 格式录制。
- 当连接 DVD 播放机等到此接收机的数字输入插孔，请检查所连接单片机的声频设定（声频输出用的设定）。

不能录音。

- 检查单片机的连接是否正确。
- 用功能按钮选择音源设备。
- 开始从连接到模拟 MD/TAPE 端子的数字单片机录音之前，请确定 INPUT MODE 已被设定为 "ANALOG"。
- 开始从连接到 DIGITAL MD/TAPE OUT 端子的数字组成机录音之前，请确定 INPUT MODE 已被设定为 "COAX IN" 或 "OPT IN"（第 23 页）。

要通过射频解调器连接镭射影碟播放机时。

将镭射影碟播放机连接到射频解调器，然后将射频解调器的光频或同轴数字输出连接到接收机的相应插孔。进行连接时，务必手动调定 INPUT MODE（第 23 页）。如果 INPUT MODE 被设定为 "AUTO IN"，接收机可能无法正确地操作。

关于 DOLBY DIGITAL RF 的连接，请参看随射频解调器附带的使用说明书。

FM 接收状况欠差。

如下图所示用 75 欧的同轴电缆（无附带）将接收机连接至室外 FM 天线。如果将接收机连接至室外天线，请把它接地以防闪电。为防止煤气爆炸事故，请勿将地线连接至煤气配管。
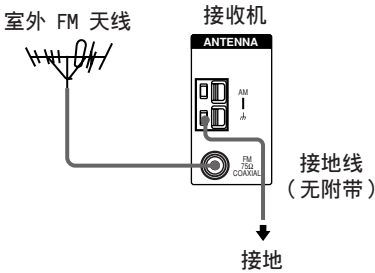
不能调入电台。

- 检查是否已稳固地连接天线。
  请调整天线。必要时，请连接室外天线。
- 电台的信号强度太弱（当用自动调谐调入时）。请改用直接调谐。
- 确认调谐间隔是否设定正确（当用直接调谐调入 AM 电台时）。
- 未曾预约电台或预约电台已被清除（用扫描预约电台调谐时）。请预约电台（第 33 页）。
- 按 DISPLAY 使频率出现于显示器。

电视屏幕或监视器上没有影像或影像不清晰。

- 选择接收机上适当的功能。
- 把电视机设定于适当的输入模式。
- 把电视机移离声频单片机。

遥控器不起作用。

- 遥控器上的 TV/SAT 和 PHONO 按钮不起作用。
- 遥控器必须指向接收机的遥控传感器 ⏛。
- 检查您是否已选择 AV1 作为接收机的指令模式（第 35 页）。
- 排除遥控器和接收机通讯之间的任何障碍物。
- 如果遥控器的电池变弱，请换上两节新的电池。
- 确认遥控器上所选功能是否正确。
- 如果遥控器被设定为只操作电视机，在操作接收机或其他单片机之前，请用遥控器选择电视机以外的播放源或单片机。

清除接收机的存储

要清除	请参看
所有存储的设定	第 17 页
定制声场	第 31 页

附加信息

规格

放大器部分
功率输出
立体声模式时的额定功率输出
(8 欧 1 kHz，总谐波失真 0.7 %)

100 W + 100 W[1]
90 W + 90 W[2]

基准功率输出[1]
(8 欧 1 kHz，总谐波失真 10 %)
FRONT[3]:	120 W/ch
CENTER[3]:	120 W
SURR[3]:	120 W/ch

1) 在下列条件下测定：

230 V AC，50 Hz
2) 在下列条件下测定：

220 V AC，50 Hz
3) 视声场设定和信号源而定，可能无声音输出。

频率响应

MULTI CH IN，CD/SACD，AUX，MD/TAPE，DVD/LD，VIDEO 1，2，3	10 Hz – 70 kHz +0.5/–2 dB（具有声场，均衡器和底音加强旁通）

输入（模拟）

MULTI CH IN，CD/SACD，AUX，MD/TAPE，DVD/LD，VIDEO 1，2，3	灵敏度：250 mV 阻抗：50 千欧 信噪比[4]：96 dB (A，250 mV[5])

4) INPUT SHORT（具有声场，均衡器和底音加强旁通）。
5) 权重网络，输入电平。

输入（数字）

DVD/LD（同轴）	灵敏度：– 阻抗：75 欧 信噪比：100 dB (A，20 kHz LPF)
VIDEO 2，CD/SACD，MD/TAPE（光频）	灵敏度：– 阻抗：– 信噪比：100 dB (A，20 kHz LPF)

输出（模拟）

MD/TAPE (OUT)，VIDEO 1 (AUDIO OUT)	电压：250 mV 阻抗：10 千欧
SUB WOOFER	电压：2 V 阻抗：1 千欧

输出（数字）

MD/TAPE（光频）	灵敏度：–

EQ
增益电平： ±6 dB，1 dB 步进

FM 调谐器部分

调谐范围	87.5 – 108.0 MHz
天线端子	75 欧,不平衡
中频	10.7 MHz

灵敏度
Mono(单声道):	18.3 dBf,2.2 μV/75 欧
Stereo(立体声):	38.3 dBf,22.5 μV/75 欧

有效灵敏度	11.2 dBf,1 μV/75 欧

S/N(信噪比)
Mono(单声道):	76 dB
Stereo(立体声):	70 dB

1 kHz 时的谐波失真
Mono(单声道):	0.3 %
Stereo(立体声):	0.5 %

分离	1 kHz 时为 45 dB
频率响应	30 Hz – 15 kHz,+0.5/–2 dB
选择性	400 kHz 时为 60 dB

AM 调谐器部分

调谐范围	531 – 1602 kHz
天线	环形天线
中频	450 kHz
有效灵敏度	50 dB/m (1,000 kHz 或 999 kHz 时)
S/N(信噪比)	54 dB (50 mV/m 时)
谐波失真	0.5 % (50 mV/m,400 Hz)
选择性	35 dB

视频(录影)部分

输入
视频:	1 Vp–p,75 欧
S 视频:	Y: 1 Vp–p,75 欧
	C: 0.286 Vp–p,75 欧
单片机视频:	Y: 1 Vp–p,75 欧
	P_B B–Y: 0.7 Vp–p, 75 欧
	P_R R–Y: 0.7 Vp–p, 75 欧

输出
视频:	1 Vp–p,75 欧
S 视频:	Y: 1 Vp–p,75 欧
	C: 0.286 Vp–p,75 欧
单片机视频:	Y: 1 Vp–p,75 欧
	P_B B–Y: 0.7 Vp–p, 75 欧
	P_R R–Y: 0.7 Vp–p, 75 欧

一般规格

电源	220 – 230 V AC,50/60 Hz
电力消耗	180 W

电力消耗(备用模式中)
0.5 W (当 SET UP 选单里的 "A.PWR" 被设置为 "NO")(第 35 页)。

尺寸	430 × 157.5 × 308.5 mm 包含凸起部分和控制器
质量(大约值)	7.5 kg

附带附件:
FM 电线天线 (1)
AM 环形天线 (1)
RM–U305C 遥控器 (1)
R6 (AA 号) 电池 (2)

设计和规格有所变更时,恕不另行奉告。

使用 SURR，LEVEL，EQ 和 SET UP 按钮的设定一览表

您可用 LEVEL，SURR，EQ，SET UP，微调度盘和 < / > 按钮进行各项设定。
以下桌表说明这些按钮可作的各项设置。

按	按 < 或 > 以选择	转动微调度盘以选择	页数
SURR	EFFECT	因声场而异（15 步进）	29
LEVEL	[L] [R] BAL. L/R XXX	L +8 到 R +8 (1 步进)	29
	CTR XXX dB	–10 dB 到 +10 dB (1 dB 步进)	
	SUR.L. XXX dB	–10 dB 到 +10 dB (1 dB 步进)	
	SUR.R. XXX dB	–10 dB 到 +10 dB (1 dB 步进)	
	S.W. XXX dB	–10 dB 到 +10 dB (1 dB 步进)	
	L.F.E. XXX dB	OFF，–20 dB 到 0 dB (1 dB 步进)	
	D. RANGE COMP. XXX	OFF，0.1 到 0.9 (0.1 步进)，STD，MAX	
EQ	FRONT BASS GAIN	–6 dB 到 +6 dB (1 dB 步进)	31
	FRONT TREBLE GAIN	–6 dB 到 +6 dB (1 dB 步进)	
SET UP	[L] [R] (FRONT)	LARGE，SMALL	18
	[C] (CENTER)	LARGE，SMALL，NO	
	[SL] [SR] (SURROUND)	LARGE，SMALL，NO	
	[SW] (SUB WOOFER) S.W. XXX	YES，NO	
	[L] [R] DIST. XX.X m	在 1.0 米和 12.0 米之间 (0.1 米步进)	
	[C] DIST. XX.X m	在 [L] [R] DIST. 和 1.5 米之间 (0.1 米步进)	
	[SL] [SR] DIST. XX.X m	在 [L] [R] DIST. 和 4.5 米之间 (0.1 米步进)	
	[SL] [SR] PL. XXX	SIDE，MID，BEHD.	
	[SL] [SR] HGT. XXX	LOW，HIGH	
	C.MODE.AVX	AV1，AV2	35
	PRO LOGIC	DOLBY PL，II MOVIE，II MUSIC	
	A.PWR–XXX	YES，NO	

各声场的可调整参数

所调整的 SURR 和 EQ 参数即被存储于各声场中。

	<	SURR	>	<	EQ		>
				<	FRONT		>
		EFFECT LEVEL			BASS GAIN	TREBLE GAIN	
2CH ST.					●	●	
AUTO DEC.					●	●	
NORM.SURR.					●	●	
C.ST.EX A		●			●	●	
C.ST.EX B		●			●	●	
C.ST.EX C		●			●	●	
HALL		●			●	●	
JAZZ		●			●	●	
CONCERT		●			●	●	
GAME		●			●	●	
MULTI CH IN							
PCM96K							

所调整的 LEVEL 参数适用于所有的声场。

	<	LEVEL					>
	FRONT BAL	CENTER LEVEL	SUR.L. LEVEL	SUR.R. LEVEL	S. WOOFER LEVEL	LFE MIX[1]	D.RANGE COMP[1]
2CH ST.	●					●	●
AUTO DEC.	●	●	●	●	●	●	●
NORM.SURR.	●	●	●	●	●	●	●
C.ST.EX A	●	●	●	●	●	●	●
C.ST.EX B	●	●	●	●	●	●	●
C.ST.EX C	●	●	●	●	●	●	●
HALL	●	●	●	●	●[2]	●	●
JAZZ	●	●	●	●	●[2]	●	●
CONCERT	●	●	●	●	●[2]	●	●
GAME	●	●	●	●	●	●	●
MULTI CH IN	●	●	●	●	●		
PCM96K	●						

[1] 视信号源或所作的调整而定，这些参数可能不起作用。请参看"调整电平参数"（第 29 页）的各项目以获取详情。

[2] 当选取这些声场，如果前扬声器的尺寸被设定为"LARGE"，则重低音扬声器将不会输出声音。但是，如果数字输入信号含有 L.F.E. 信号，声音即从重低音扬声器输出。