

Remote Commander

Operating Instructions

RM-PP412

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 operation

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

On cleaning

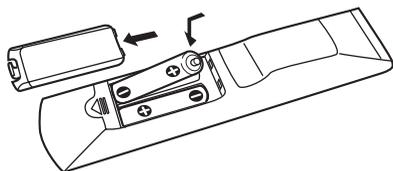
Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

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

Before you use your remote

Inserting batteries into the remote

Insert two R6 (size-AA) batteries with the + and – properly oriented in the battery compartment.



Tip

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

Notes

- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with old ones.
- Do not expose the remote sensor of the receiver 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.

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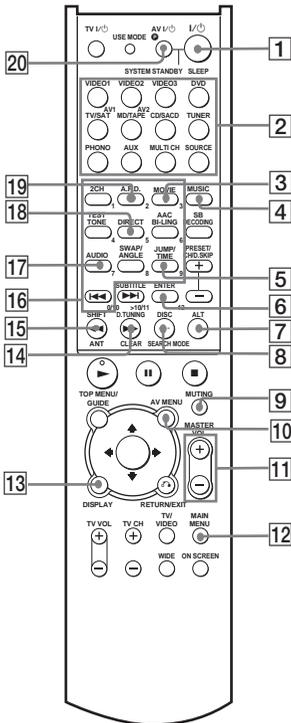
Location of Parts and Basic Remote Operations

This chapter provides information on the location of buttons and how to use them to perform basic operations.

However, some functions explained in this section may not work depending on the model of the receiver.

For the functions of the receiver you purchased, refer to the Operating Instructions supplied with the receiver.

Parts description



I/O **1**

Press to turn the receiver on or off.

A.F.D. **19**

Press to set the receiver to automatically select the appropriate decoding mode for the input signal.

ALT **7**

Press to change remote key function to activate those buttons with orange printing.

ANT* (After pressing ALT) **15**

When you selected VCR, press to select output signal from antenna terminal: TV signal or VCR program.

AUDIO **17**

Changing the sound to Multiplex, Bilingual or Multi channel TV sound.

AV MENU **10**

Press to display the menus of the VCR, satellite tuner, or DVD.

AV I/O switch **20**

Press to turn the selected audio and video components on or off.

If you press the I/O switch at the same time, it will turn off the receiver and other Sony audio/video components (SYSTEM STANDBY).

Note

The function of the AV I/O switch changes automatically each time you select the input with the input buttons (2). Depending on the component, the above operation may not be possible or may operate differently than described.

CLEAR* (After pressing ALT) **14**

When you selected CD player or DVD player, press if you made a mistake when you press the numeric buttons or press to return to the continuous play, etc.

D.TUNING* **14**

When you selected tuner, press to enter direct tuning mode.

DIRECT **18**

Press to select DIRECT function.

DISC* **8**

When you selected CD player or video CD player, press to select a disc directly (multi-disc changer only).

DISPLAY* [13]

Press to select the information displayed on the display of the receiver or TV screen.

ENTER (After pressing ALT) [6]

After selecting a channel, disc or track using the numeric buttons, press to enter the value.

Input buttons [2]

Press to select the input. Use AV 1 and AV 2 to select the command mode of the remote.

The components are factory assigned to the inputs as follows. When you want to assign other components, program the remote following the steps on "Programming the remote" on page 9.

Input(s)	Assigned component(s)
VIDEO 1	VCR (VTR mode 3)
VIDEO 2	VCR (VTR mode 1)
VIDEO 3	VCR (VTR mode 2)
DVD	DVD player
TV/SAT	TV tuner
MD/TAPE	MD deck / Tape deck (B)
CD/SACD	CD player
TUNER	Built-in tuner
PHONO	Turntable
AUX	Other audio component
MULTI CH	Component connected to the multi channel input jacks on the receiver

See the table on page 8 for information on the buttons that you can use to control each component.

Note that the inputs are factory-set as described in the table above. If you want to change the factory setting of the buttons to match your particular components, do the procedure "Programming the remote" on page 9.

JUMP/TIME* [5]

If you selected TV:

Press to toggle between the previous and the current channels.

If you selected CD player, video CD player, or DVD player:

Press to display the time information.

MAIN MENU [12]

Press to select the menu of the receiver.

MASTER VOL +/- [11]

Press to adjust the volume level of all speakers at the same time.

MOVIE [3]

Press to select the sound fields for movies.

MUSIC [4]

Press to select the sound fields for music.

MUTING [9]

Press to mute the sound.

Numeric buttons (1–9, 0/10)* (After pressing ALT) [16]

If you selected tuner:

Use with SHIFT to select tuner preset station numeric input during DIRECT TUNING or MEMORY mode.

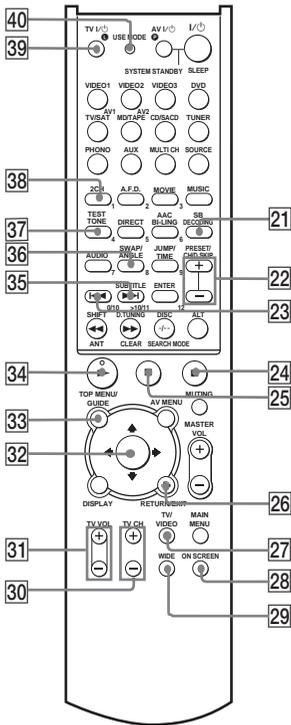
If you selected CD player, video CD player, DVD player, MD deck, or DAT deck:

Press to select track numbers. 0/10 selects track 10.

If you selected TV, VCR, or satellite tuner:

Press to select channel numbers.

* The function of these buttons switch automatically each time you select the input ([2]). Depending on the component, the above operation may not be possible or may operate differently than described.



SEARCH MODE* [8]

When you selected DVD player, press to select the search mode. Press to select the unit for search (track, index, etc.).

SHIFT* [15]

When you selected tuner, press repeatedly to select a memory page for presetting radio stations or tuning to preset stations.

SLEEP (After pressing ALT) [1]

Press repeatedly to activate the sleep function and select the duration which the receiver turns off automatically.

SUBTITLE* (After pressing ALT) [35]

When you selected DVD player, press to change the subtitles.

SWAP**/ANGLE* [36]

If you selected TV:

Press to swap the small and large pictures (only for Sony TVs with picture-in-picture function).

If you selected DVD player:

Press to select viewing angle or changing the angles.

TEST TONE [37]

Press to output a test tone.

TOP MENU/GUIDE* [33]

Press to display DVD titles or guide menus.

TV/VIDEO [27]

Press to select the TV to input signal: TV input or video input.

TV CH +/- [30]

Press to select preset TV channels.

TV VOL +/- [31]

Press to adjust the volume of TV.

TV I/O [39]

Press to turn the TV on or off.

USE MODE [40]

Press to set up the remote.

WIDE [29]

Press to switch the TV to the wide mode.

ON SCREEN [28]

Press to display the menus of the receiver on the TV screen (only for the models with on screen function).

PRESET/CH/D.SKIP +/-* [22]

If you selected tuner:

Press to scan and select preset stations.

If you selected TV, VCR, or satellite tuner:

Press to select preset channels.

If you selected CD player, video CD player, DVD player, or MD deck:

Press to skip discs (multi-disc changer only).

RETURN ↵/EXIT* [26]

After pressing MAIN MENU, AV MENU, or TOP MENU/GUIDE, press to return to the previous menu or exit the menu.

SB DECODING [21]

Press to select surround back decoding mode.

2CH  **38**

Press to turn the sound field off and listen to 2 channel stereo sound. Multi channel source is also downmixed to a 2 channel stereo sound.

>10/11* (After pressing ALT)  **35**

When you selected CD player, video CD player, LD player, MD deck, or tape deck, press to select track number over 10.

-/  **8**

When you selected TV, press to select the channel entry mode, either one or two digit.

    **ENTER/EXECUTE**  **32**

After pressing MAIN MENU, AV MENU, or TOP MENU/GUIDE, use the button to make specific settings, then press the button to enter the selection.

  **34**

Press to start play. (Press to start play on the front sides of the cassette.)

  **25**

Press to pause play or recording, or press to start recording when the component is in recording standby.

  **24**

Press to stop play.

   **23**

Press to skip tracks.

   **14**  **15**

Press to fast-forward or rewind.

Press to search tracks in the forward or backward direction.

* The function of these buttons switch automatically each time you select the input ( **2**). Depending on the component, the above operation may not be possible or may operate differently than described.

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

Notes

- The AAC BI-LING, SOURCE and 12 buttons are not available.
- Some buttons may not be used depending on the model.
- 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.
- To activate the buttons with orange printing, press ALT first before pressing the buttons.
- Before you use the     /ENTER/EXECUTE button for receiver operation, press MAIN MENU. To operate other components, press TOP MENU/GUIDE or AV MENU after selecting the input.

Table of buttons used to control each component

When you program the remote to control the following Sony or non-Sony components, you can use the buttons on the remote that are marked with circles. Note, however, that some buttons may not operate your component.

Component	CD player	DAT deck	MD deck	Tape deck (A and B)	LD player	VCR	TV	Satellite tuner/Cable box	Video CD player	DVD player
AV I/⏪	●	●	●		●	●	●	●	●	●
Numeric buttons	●	●	●	●	●	●	●	●	●	●
▷	●	●	●	●	●	●			●	●
	●	●	●	●	●	●			●	●
■	●	●	●	●	●	●			●	●
◀◀/▶▶	●	●	●	●*	●	●			●	●
◀◀/▶▶	●	●	●	●	●	●			●	●
ANT						●				
D.SKIP**	●		●						●	●
PRESET/CH +/-						●	●	●		
SUBTITLE										●
>10/11	●		●	●	●			●	●	
AUDIO						●	●			●
SWAP ANGLE							●			●
JUMP TIME	●		●				●	●	●	●
DISC**	●								●	
-/--							●	●		
SEARCH MODE										●
ENTER	●	●	●	●	●	●	●	●		●
AV MENU						●		●		●
TOP MENU/GUIDE								●		●
DISPLAY	●		●		●	●	●	●	●	●
RETURN ↵					●				●	●
EXIT								●		
↑/↓/←/→/ENTER/EXECUTE						●		●		●
CLEAR	●									●

* B deck only.

**With a multi-disc changer only.

Advanced Remote Operations

This chapter describes how to set the remote to control non-Sony components.

Programming the remote

You can program the remote to control non-Sony components. Once the control signals have been memorized, you can use those components as part of your system.

Furthermore, you can also program the remote for Sony components that the remote is unable to control. Note that the remote can only control components that accept infrared wireless control signals.

Note

You cannot program the SOURCE button.

1 Press AV I/⏻ while holding down USE MODE.

The USE MODE button lights.

2 Press one of the input buttons to select the input you want to control.

For example, if you are going to control a CD player, press CD/SACD.

You can also select the TV I/⏻ button.

3 Press the numeric buttons to enter the numeric code (or one of the codes if more than one code exists) corresponding to the component and the maker of the component you want to control.

See the tables starting from page 10 for information on the numeric code(s) corresponding to the component and the maker of the component. (The first digit and the last two digits of the numeric code correspond to the category and the maker's code respectively.)

4 Press ENTER.

Once the numeric code has been verified, the USE MODE button slowly flashes twice and the remote automatically exits the programming mode.

5 Repeat steps 1 to 4 to control other components.

To cancel programming

Press USE MODE during any step. The remote automatically exits the programming mode.

To use the programmed input

Press the programmed input buttons.

If programming is unsuccessful, check the following:

- If the USE MODE button does not light up in step 1, the batteries are weak. Replace both batteries.
- If the USE MODE button flashes 4 times in quick succession while entering the numeric code, an error has occurred. Start again from step 1.
- In step 1, the remote automatically exits the programming mode if 60 seconds has passed after pressing USE MODE. Start again from step 1.

Notes

- The USE MODE button turns off while a valid button is pressed.
- In step 2, if you press the input buttons several times, only the last selected input is valid.
- In step 2, if you press TV I/⏻, only TV VOL +/-, TV CH +/-, TV/VIDEO and WIDE buttons are reprogrammed.
- In step 3, if you press the input buttons, the new input is selected and the programming procedure returns to the beginning of step 3.
- For the numeric codes, only the first three numbers entered are valid.

To clear the memory of the remote

Press I/⏻, AV I/⏻ and MASTER VOL- at the same time. The USE MODE button flashes 3 times, then goes off.

The numeric codes corresponding to the component and the maker of the component

Use the numeric codes in the tables below to control non-Sony components and also Sony components that the remote is normally unable to control. Since the remote signal that a component accepts differs depending on the

continued

model and year of the component, more than one numeric code may be assigned to a component. If you fail to program your remote using one of the codes, try using other codes.

Notes

- The numeric codes are based on the latest information available for each brand. There is a chance, however, that your component will not respond to some or all of the codes.
- All of the functions on this remote may not be available when used with your particular component.

To control a tuner

Maker	Code(s)
SONY	002, 003, 004, 005

To control a CD player

Maker	Code(s)
SONY	101, 102, 103
DENON	104, 123
JVC	105, 106, 107
KENWOOD	108, 109, 110
MAGNAVOX	111, 116
MARANTZ	116
ONKYO	112, 113, 114
PANASONIC	115
PHILIPS	116
PIONEER	117
TECHNICS	115, 118, 119
YAMAHA	120, 121, 122

To control a DAT deck

Maker	Code(s)
SONY	203
PIONEER	219

To control a tape deck

Maker	Code(s)
SONY	201, 202
DENON	204, 205
KENWOOD	206, 207, 208, 209
NAKAMICHI	210
PANASONIC	216
PHILIPS	211, 212
PIONEER	213, 214
TECHNICS	215, 216

Maker	Code(s)
YAMAHA	217, 218

To control an MD deck

Maker	Code(s)
SONY	301
DENON	302
JVC	303
KENWOOD	304

To control a DVD player

Maker	Code(s)
SONY	401, 402, 403
PANASONIC	406, 408
PHILIPS	407
PIONEER	409
TOSHIBA	404
DENON	405

To control a TV

Maker	Code(s)
SONY	501, 502
DAEWOO	504, 505, 506, 507, 515, 544
FISHER	508
GOLDSTAR	503, 511, 512, 515, 534, 544
GRUNDIG	517, 534
HITACHI	513, 514, 515, 544
ITT/NOKIA	521, 522
JVC	516
MAGNAVOX	503, 518, 544
MITSUBISHI/ MGA	503, 519, 544
NEC	503, 520, 544
PANASONIC	509, 524
PHILIPS	515, 518
PIONEER	509, 525, 526, 540
RCA/PROSCAN	510, 527, 528, 529, 544
SAMSUNG	503, 515, 531, 532, 533, 534, 544
SANYO	508, 545, 546, 547
SHARP	535
TELEFUNKEN	523, 536, 537, 538
THOMSON	530, 537, 539
TOSHIBA	535, 540, 541
ZENITH	542, 543

To control an LD player

Maker	Code(s)
SONY	601, 602, 603
PIONEER	606

To control a video CD player

Maker	Code(s)
SONY	605

To control a VCR

Maker	Code(s)
SONY	701, 702, 703, 704, 705, 706
AIWA	710, 750, 757, 758
AKAI	707, 708, 709, 759
BLAUPUNKT	740
EMERSON	711, 712, 713, 714, 715, 716, 750
FISHER	717, 718, 719, 720
GENERAL ELECTRIC	712, 722, 730
GOLDSTAR	723, 753
GRUNDIG	724
HITACHI	722, 725, 729, 741
ITT/NOKIA	717
JVC	726, 727, 728, 736
MAGNAVOX	730, 731, 738
MITUBISHI/MGA	732, 733, 734, 735
NEC	736
PANASONIC	729, 730, 737, 738, 739, 740
PHILIPS	729, 730, 731
PIONEER	729
RCA/PROSCAN	722, 729, 730, 731, 741, 747
SAMSUNG	742, 743, 744, 745
SANYO	717, 720, 746
SHARP	748, 749
TELEFUNKEN	751, 752
TOSHIBA	747, 755, 756
ZENITH	754

To control a satellite tuner or cable box

Maker	Code(s)
SONY	801, 802, 803, 804
JERROLD/G.I.	806, 807, 808, 809, 810, 811, 812, 813, 814
PANASONIC	818
RCA	805, 819
S.ATLANTA	815, 816, 817

Selecting the mode of the remote

You can switch the command mode (AV1 or AV2) of the remote. If the command mode of the receiver and the remote is different, you cannot use the remote to operate the receiver.

1 Press AV1 (or AV2) while holding down USE MODE.

The USE MODE button lights once (or twice for AV2), then the command mode switches.

To reset the remote to factory settings

Press I/⏪, AV I/⏪, and MASTER VOL – at the same time. The USE MODE button lights 3 times, then goes off.

Additional Information

Troubleshooting

If you experience any of the following difficulties while using the receiver, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer.

The remote does not function.

- The AAC BI-LING, SOURCE and 12 buttons are not available.
 - Check that the mode of the remote corresponds to that of the receiver (page 11).
 - Point the remote at the remote sensor  on the component.
 - 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 input on the remote.
 - When you operate a programmed non-Sony component, the remote may not function properly depending on the model and the maker of the component.
 - Press MAIN MENU before you use the ////ENTER/EXECUTE button for receiver operation (page 7).
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Specifications

General

Remote control system	Infrared control
Power requirements	3 V DC with two R6 (size-AA) batteries
Dimensions	210 × 49 × 25 mm
Mass (approx.)	85 g excluding batteries

Design and specifications are subject to change without notice.