

SONY

Remote Commander RM-V22

Operating Instructions

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English

WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Setting Up the Remote Commander

Before you can start using the Commander, you must first set it up. This manual describes everything you need to know to set up the Commander, including:

- Installing the batteries.
- Presetting the Commander with the codes for your TV, VCR, Cable box, and other audio components.

Presetting the Remote Commander

The Commander is preset at the factory to operate Sony brand TVs, VHS VCRs, receivers, and CD players. If you're using the Commander with a Sony TV, VHS VCR, receiver, and CD player, you won't need to preset the Commander before you start using it.

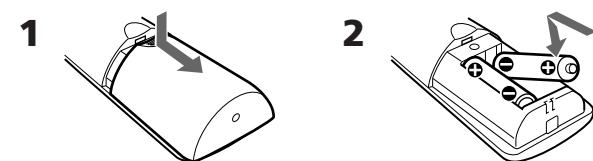
To set up the Commander to use with other (non-Sony) manufacturer's components, you'll need to follow the instructions in this manual to preset the Commander with the correct code number for your components.

Note

The Commander can be set up to operate only one component of each category (VCR, AV1, AV2, CBL, or TV position of the slide switch) at a time - unless their code numbers happen to be the same. For example, you cannot set up the Commander to operate a Sony TV and a Panasonic TV at the same time (because they use different code numbers).

Installing the Batteries

Slide open the battery compartment and insert two size AA (R6) batteries (not supplied). Be sure to line up the + and - on the batteries with the + and - on the battery compartment.







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Notes on Batteries



- Under normal conditions, batteries will last up to six months. If the Commander does not operate properly, the batteries might be worn out. When replacing batteries, replace both of them with new ones.
- Do not mix old batteries with new ones or mix different types of batteries together.
- If you take time to insert the batteries or press the buttons when replacing the batteries, the code numbers will be erased.
- If the electrolyte inside the battery should leak, wipe the contaminated area of the battery compartment with a cloth and replace the old batteries with new ones. To prevent the electrolyte from leaking, remove the batteries when you plan not to use the Commander for a long period of time.

Setting the Code

Step 1: Entering the Code Number

- 1 Set the slide switch on the Commander to the position that correspond to the desired component. 
- 2 See the tables in "Component Code numbers," and find the code number in double figures for the desired component. If more than one code number is listed, use the number that's listed first to complete the steps below. For example, if you're setting up a Philips' VCR, you would use the code number 13.
- 3 If your component isn't listed, see "Searching for the Correct Code."
- 3 Press the SET button with a ball-point pen tip etc., and release it. 
- 4 Enter the component's code number. For example, if you're entering the code for a Philips' VCR, you would press and release 1, then press and release 3. 
- 5 Press and release the ENTER button to store the code number in the Commander's memory. 
- 6 Go to "Step 2: Checking if the Code Number Works" to finish setting up.

Step 2: Checking if the Code Number Works

- 1 Power on the component you want to set up with its power switch.
- 2 Aim the commander at the component and press the POWER button. The component should power off. 
- 3 When the component powers off, check that the commander is operating the other functions of your component, such as channel and volume control. 

If the Commander Doesn't Seem to Be Working...

- First, try repeating these setup procedures using the other codes listed for your component (see "Component Code Numbers").
- If - after trying all the codes listed for your component - you still cannot get the Commander to work properly, try the search method described in "Searching for the Correct Code"


If the Commander Seems to Be Working Properly...


- You're finished setting up the Commander for your component.
- If you're setting up more than one component, you'll need to complete these procedures for each component you plan to use with the Commander.
- Use the label (supplied) to write down the code numbers of your components. Then affix the label to the back of the Commander.

Changing the Component Type on the AV1 and AV2 Positions of the Slide Switch

On the positions AV1 and AV2 of the slide switch, the functions to operate Sony brand receivers and CD player are preset at the factory (using cord No. 4 and 5 respectively).

When you change the component type on the positions AV1 and AV2 of the slide switch, complete the following procedures:

- 1 Set the slide switch to the AV1 or AV2 position. 

- 2 Press the SET button with a ball-point pen tip etc., and release it. 
- 3 Enter one of the codes from the following table, correspond to the component type you're setting up:

Component type	Code No.
VCR	1
Receiver	4
CD player	5
Tape deck	6
TV	8
Cable box	9


For example, if you're setting up a CD player, you would press and release 5.



- 4 Press and release the ENTER button to store the code number in the Commander's memory. 

To finish setting up the component, go to "Step 1: Entering the Code Number" and complete the procedures that are described.



Searching for the Correct Code

If you've tried all the code numbers listed for your component and you still cannot get the Commander to work (or if your component is not listed in this manual), try these steps.

- 1 Power on the component you want to set up with its power switch. Then set the slide switch on the commander to the position that corresponds to the component. 

- 2 Press the SET button with a ball-point pen tip etc., and release it. 
- 3 Press and release the CH+ button. Then press and release the POWER button. 
- 4 Repeat step 3 until your component powers off.

Pressing the CH+ and POWER buttons repeatedly will try every available code until the correct one is found. It may take up to about 50 to 60 tries until the correct code number is located.

- 5 When the component powers off, press and release the ENTER button to store the code number in the Commander's memory. 
- 6 Check that the Commander is operating the other functions of your component. Turn on the component again; then press the CH and VOL buttons. If the Commander seems to be working properly, you have completed setting up the Commander. 

If the component does not operate properly, repeat steps 2 and 5 and search for another code. As the searching always start from 01, it will stop again at the same code as the last searching. Pass the code and continue searching until the next code which the component turns off.

If you still cannot get the Commander to work properly, see "Troubleshooting."

Controlling the Volume of Video Components Connected to an Audio System

The Commander is factory preset based on the assumption that you hear the sound of your video components from your TV's speakers, and that you hear the sound of your audio components from the loudspeakers via your receiver (or amplifier).

Even if you are operating a video or audio component, this feature enables you to control the volume of your TV or receiver without first having to change the Commander's slide switch to the TV or AV1.

Position of the slide switch	Controls the volume of
VCR	TV
CBL	TV
TV	TV
AV1	Component whose type is set on the AV1 position*.
AV2	Component whose type is set on the AV1 position*.







For example, to control the volume for your VCR channels, you don't need to change the slide switch from VCR to TV.

* On the AV1 position, the receiver is preset at the factory (using code No. 4). The commander controls the receiver's volume, even if you assign a component which has no volume control itself (e.g. CD player, VCR) on the AV1 position, when the slide switch is set to the AV1 position.

Changing the Factory Preset of the Volume Control

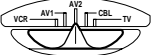
If your video components are connected to an audio system, you probably hear your TV or VCR's sound from the loudspeakers via your receiver, not from your TV speakers. In this case, you need to change the factory preset so that you can control the volume of your video components without first having to switch to the receiver (factory set on AV1 position). To change the factory preset of the volume control, follow the procedures below.

You can change this either before or after you set up the Commander to work with your component.

- 1 Set the slide switch to the position that you want to set up. 
- 2 Press the SET button with a ball-point pen tip etc., and release it. 
- 3 ① To control the component's sound from the loudspeakers via your receiver which is assigned to AV1, press the VOL- button.  ② To control the component's sound from the loudspeakers via your receiver which is assigned to AV2, press the MUTING button.  ③ To control the component's sound from the TV speakers, press the VOL+ button. 
- 4 Press and release the ENTER button to store your setting in the Commander's memory. 
- 5 If you haven't already done so, finish setting up the component by completing the procedures in "Step 1: Entering the Code Number".

Using the Remote Commander

Operating a Component

- 1 Make sure that the slide switch is set to the position that correspond to your desired component. 
- 2 Point the Commander directly at the component.
- 3 Press the button for the function you want to use.

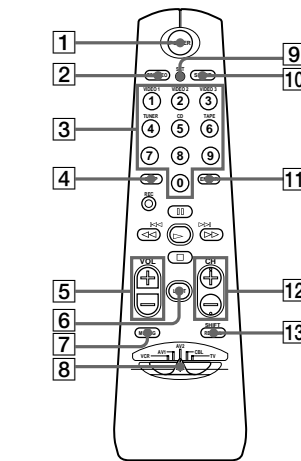
See "Remote Button Descriptions" for complete descriptions of the buttons on the Commander.

Notes on Using the Remote Commander

- Using the Commander will not increase the functions of your TV or other components. The functions of the Commander are limited to the functions of the TV or other components. For example, if your TV doesn't have a MUTE function, the MUTE button on the Commander will not function with your TV.
- Using the LIGHT function frequently of the Commander will shorten the battery life.

Remote Button Descriptions

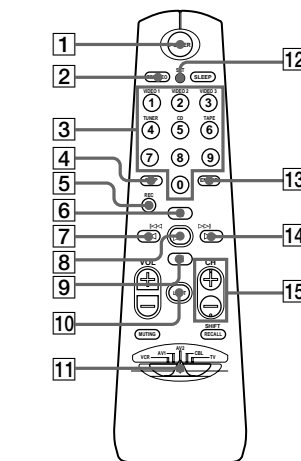
Operating a TV



- 1 To turn on and off.
- 2 To change the input mode.
- 3 To change the channel. For example, to change to channel 5, press 0 and 5 (or , press 5 and ENTER.)
- 4 To display the current channel on TV.
- 5 Volume up: +
Volume down: -

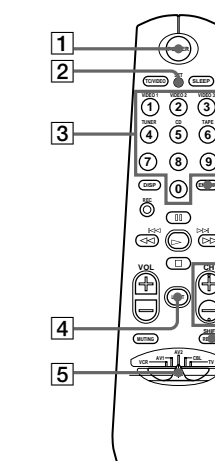
- 6 To light up the Commander's buttons. (The light will automatically turn off if no button is pressed for more than 10 seconds.)
- 7 To mute the volume on the TV. Press again to turn muting off.
- 8 Set to TV (AV1 or AV2 on which the TV is assigned).
- 9 To set up the Commander.
- 10 To operate SLEEP function on the TV. (Works only for a TV with the SLEEP function.)
- 11 To change the channel. For example, to change to channel 5, press 5 and ENTER.
- 12 Channel up: +
Channel down: -
- 13 To operate JUMP, FLASHBACK or CHANNEL RETURN function on the TV depending on the setting of the TV's manufacturer.

Operating a VCR



- 1 To turn on and off.
- 2 To change the input mode.
- 3 To change the channel. For example, to change to channel 5, press 0 and 5 (or , press 5 and ENTER.)
- 4 To display the on-screen menu (Sony VCR only).
- 5 To record, press ► while pressing ●. First release ►, then release ●.
- 6 To pause
- 7 To rewind
- 8 To play
- 9 To stop
- 10 To light up the Commander's buttons. (The light will automatically turn off if no button is pressed for more than 10 seconds.)
- 11 Set to VCR (AV1 or AV2 on which the VCR is assigned)
- 12 To set up the Commander.
- 13 To change the channel. For example, to change to channel 5, press 5 and ENTER.
- 14 To fast-forward
- 15 Channel up: +
Channel down: -

Operating a Cable box

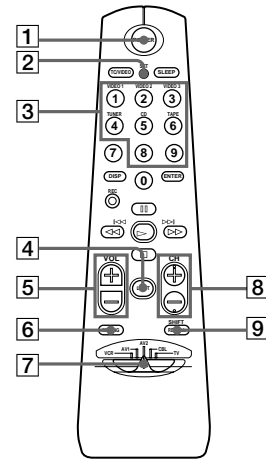


- 1 To turn on and off.
- 2 To set up the Commander
- 3 To change the channel. For example, to change to channel 5, press 0 and 5 (or , press 5 and ENTER.)
- 4 To light up the Commander's buttons. (The light will automatically turn off if no button is pressed for more than 10 seconds.)
- 5 Set to AV1 or AV2 on which the cable box is assigned.
- 6 To change the channel. For example, to change to channel 5, press 5 and ENTER.
- 7 Channel up: +
Channel down: -
- 8 To operate JUMP, FLASHBACK or CHANNEL RETURN function on the TV depending on the setting of the TV's manufacturer.

Notes

- There may be cases you may turn on/off the cable box by pressing the CH+ or CH- buttons on the Commander.
- If your cable box can control volume, be sure to set its volume control to a medium position. If the volume on the cable box is turned down completely, you will not be able to adjust your TV's volume with the Commander.

Operating a Receiver

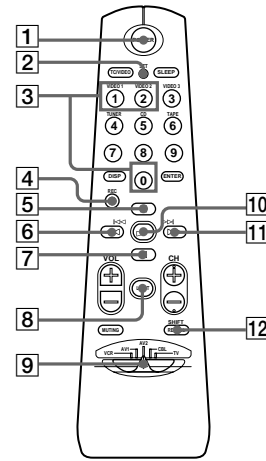


- 1 To turn on and off.
- 2 To set up the Commander.
- 3 To select the input source:
1 selects VIDEO 1
2 selects VIDEO 2
3 selects VIDEO 3
4 selects TUNER
5 selects CD PLAYER
6 selects TAPE DECK
8 selects TV
9 selects CABLE BOX
(7 and 0 do not have an assigned function).
- 4 To light up the Commander's buttons. (The light will automatically turn off if no button is pressed for more than 10 seconds.)
- 5 Volume up: +
Volume down: -
- 6 To mute the volume on a receiver.
Press again to turn muting off.
- 7 Set to AV1 or AV2 on which the receiver is assigned.
- 8 Presetting frequency up: +,
down: -
Tuning frequency up: +,
down: -
- 9 To shift band (FM/AM).

Note

On the AV1 position of the slide switch, the functions to operate Sony brand receivers are preset at the factory.

Operating a Tape Deck



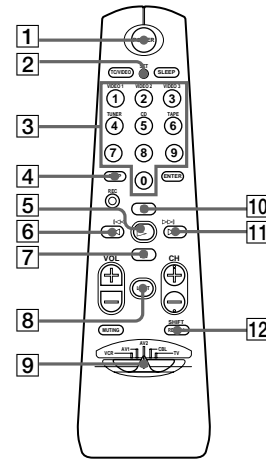
- 1 To turn on and off.
- 2 To set up the Commander.
- 3 To select the tape direction:
1 selects Deck A (dual cassette deck only*)
2 selects Deck B (dual cassette deck only*).
- 4 To record, press ► while pressing ●/First release ►, then release ●.
- 5 To pause
- 6 To rewind
- 7 To stop
- 8 To light up the Commander's buttons. (The light will automatically turn off if no button is pressed for more than 10 seconds.)
- 9 Set to AV1 or AV2 on which the tape deck is assigned.
- 10 To play
- 11 To fast-forward
- 12 To select the tape deck: deck A or deck B (dual cassette deck only**).

* If your deck's commander has two sets of tape operating buttons and has no A/B button for deck selection, use the numeric buttons (1 and 2): button 1 selects Deck A, and button 2 selects Deck B.

** If the deck's commander has one set of tape operating buttons, and has an A/B button for the deck section, use the RECALL button to select Deck A or B.

- 1 To turn on and off.
- 2 To set up the Commander.
- 3 To select the tape direction:
1 selects Deck A (dual cassette deck only*)
2 selects Deck B (dual cassette deck only*).

Operating a CD Player



- 1 To turn on and off.
- 2 To set up the Commander.
- 3 To select the track number. 0 selects track 10.
To select track numbers above 10, see the descriptions on the DISP button below.
- 4 To select numbers 10 and above.
For example, to select track 15, press DISP and then press 5.
- 5 To play
- 6 To select the previous track.
- 7 To stop
- 8 To light up the Commander's buttons. (The light will automatically turn off if no button is pressed for more than 10 seconds.)
- 9 Set to AV1 or AV2 on which the CD player is assigned.
- 10 To pause
- 11 To select next track.
- 12 To select next disc.

Note

On the AV2 position of the slide switch, the functions to operate Sony brand CD players are preset at the factory.

Component Code Numbers

TV and VCR Codes

Brand	Component	Code No.
Sony	VCR	01 (VTR1: Beta) 02 (VTR2: 8 mm) 03 (VTR3: VHS)
	TV	01
	VCR	30
Admiral (M.Wards)	TV	02, 14, 09
	VCR	41
AOC	TV	12
Audio Dynamic	VCR	17, 40
	VCR	33, 46
Bell & Howell (M. Wards)	TV	14, 09, 38
	VCR	20, 22, 17
Brocsonic	TV	03, 12
	VCR	12, 11
Canon	VCR	35
Citizen	VCR	18, 35
	TV	22, 23, 20, 21
Croslex	TV	11
	VCR	07, 41, 12
Curtis Mathis	TV	03, 19, 23
	VCR	44, 15, 12
Daewoo	TV	35, 36, 03, 41
	TV/VCR Combo	36 & 44
	TV	13
Daytron	TV	13
DBX	VCR	17, 39, 40

Brand	Component	Code No.
Dimensia	VCR	07
Emerson	VCR	44, 22, 23, 19, 20, 21, 41
	TV	22, 13, 20, 21, 23, 03, 15, 42
	TV/VCR Combo	21 & 23, 22
Fisher	VCR	33, 37, 38, 36
	TV	25
Funai	VCR	41
General Electric	VCR	32, 07, 12
	TV	02, 18, 03, 07
	TV/VCR Combo	27 & 24, 25
Goldstar	VCR	35
	TV	03, 13, 12, 30, 46
Hitachi	TV/VCR Combo	TV code & 35
	VCR	11, 07, 08
HQ	TV	31, 13, 03, 32
	VCR	15
Instant Replay	VCR	12, 11
JC Penny	VCR	12, 08, 07, 33, 17, 39, 40
	TV	03, 02, 30, 07
JVC	VCR	17, 47, 48, 49, 39, 40
	TV	28, 29
Kenwood	VCR	17, 39, 35, 40
KTV	TV	33, 13, 03, 23, 34
LXI (Sears)	VCR	41, 35, 08, 36, 37, 33, 38
	TV	02, 03, 11, 25, 19, 12
Magnavox	VCR	13, 11, 12, 10
	TV	11, 12, 13, 03, 43, 47
	TV/VCR Combo	11, 18, 47 & 12, 13
Marantz	VCR	17, 39, 40
Marta	VCR	35
Memorex	VCR	12, 38
Minolta	VCR	08, 07
Mitsubishi/MGA	VCR	26, 27, 28, 29
	TV	24, 03, 12
Multitech	VCR	28, 41, 24
NEC	VCR	17, 39, 40
	TV	03, 12
Olympic	VCR	12, 11
Optimus	VCR	27
Panasonic	VCR	09, 10, 11, 12
	TV	18, 16, 17, 07, 49
	TV/VCR Combo	18 & 11, 12
Pentax	VCR	08, 07
	VCR	11, 12
Philco	TV	11, 13, 03
	VCR	13, 11, 12
Philips	TV	11
	VCR	11
Pioneer	VCR	11
	TV	37, 18, 19
Portland	TV	03, 08
	VCR	11, 12, 09, 10, 06
Quasar	TV	18, 07, 48
	TV/VCR Combo	18, 48 & 12, 09, 10
Radio Shack	TV	02, 12, 24, 23
RCA/PROSCAN	VCR	07, 08, 11, 12, 13, 14, 15, 16
	TV	02, 03, 04, 05, 06, 07, 08, 44, 45
	TV/VCR Combo	18 & 11
Realistic	VCR	12, 33, 31, 38, 27, 41

Brand	Component	Code No.
Sansui	VCR	17
Singer	VCR	18
Samsung	VCR	25, 16, 24
	TV	26, 12, 13, 03
	TV/VCR Combo	23, 27 & 24, 25, 29
Sanyo	VCR	33, 38
	TV	25
Scott	VCR	15, 16, 24, 38, 26, 27, 28, 29
	TV	23, 12
Sharp	VCR	30, 31
	TV	14, 13, 15
Shintom	VCR	18
	VCR	41, 30
Signature 2000 (M. Wards)	TV	14, 09
	VCR	13, 11, 12, 41
Sylvania	TV	11, 12, 03
	VCR	41
Symphonic	VCR	41
	TV	23, 39, 40
Tashiro	VCR	23 & 41
	VCR	35
Tatung	VCR	17, 39, 40
Teac	VCR	17, 39, 41, 40
Technics	VCR	12, 11
Toshiba	VCR	15, 14
	TV	19, 14
Videch	TV	31, 03, 12
Wards	VCR	30, 31, 38, 34, 35
	TV	13, 03, 15, 12
Yamaha	VCR	33, 17, 39, 40
	VCR	34
	TV	09, 10

Cable Box Codes

Brand	Code No.
Hamlin/Regal	22, 23, 24, 25, 26
Jerrold/G.I.	01, 02, 03, 04, 05, 06, 07, 08, 18
Oak	27, 28, 29
Panasonic	19, 20, 21
Pioneer	14, 15
Scientific Atlanta	09, 10, 11
Tocom	16, 17
Zenith	12, 13

Separate Components

Tape Deck Codes

Brand	Code No.
Sony	01
Aiwa	16, 22, 23
Denon	13
Fisher	30
JCV	03, 04
Kenwood	07, 08
Nakamichi	15
Onkyo	09, 10, 21

Brand	Code No.
Panasonic	19
Philips	24
Pioneer	02, 20
RCA	26, 27
Sansui	15, 18
Sharp	13
Teac	14, 17
Technics	05, 06, 19
Yamaha	11, 12

CD Player Codes

Brand	Code No.
Sony	01
Aiwa	30, 32
Denon	24
Fisher	27
JVC	05, 06, 07
Kardon	40
Kenwood	08, 09, 10
Magnavox	22, 23
Nakamichi	14
Onkyo	17, 18
Panasonic	29
Philips	22, 26
Pioneer	02, 13
RCA	12, 38, 39
Sansui	14, 16, 34
Sanyo	27
Shewood	41
Sharp	24, 28
Teac	15, 25, 37
Technics	03, 04, 29
Yamaha	19, 20, 21

Receiver/Amplifier Codes

Brand	Code No.
Sony	01
Aiwa	22, 27
Denon	12, 13, 14
Fisher	34
JVC	05, 06
Kenwood	03, 04
Magnavox	35
Nakamichi	16
Onkyo	09, 20
Panasonic	21
Philips	24
Pioneer	02, 25
RCA	28, 29, 31
Denon	16, 17, 23
Sansui	13
Sharp	12, 30
Teac	15, 18, 19
Technics	07, 08, 21
Yamaha	10, 11

Mini Hi-Fi component system codes

Brand	Code No. Receiver	for each CD	section Tape
Sony	01	01	01
Admiral	33	33	-
Aiwa	22	30	-
	27	32	16
Denon	12	24	13
Garrard	19	37	-
Harman	38	43	-
Jensen	37	31	29
JVC	06	06	04
	05	05	03
Kenwood	04	09	08
	03	08	07
Marantz	32	26	28
McIntosh	39	43	-
Onkyo	09	17	09
Panasonic	21	29	19
Pioneer	25	13	20
RCA	26	11	25
Sansui	17	16	18
Sharp	30	28	-
	12	24	13
Sounde-sigh	36	35	-
Teac	15	-	14
Technics	21	29	19
	07	03	05
	08	04	06
Yamaha	10	19	11
	11	20	12

Troubleshooting

If you have problems setting up or using the Commander:

- When setting up the Commander, carefully go through the procedures described in "Setting the Code." If the code that's listed first for your component doesn't work, try all the codes for your component - in the order in which they're listed. If all the codes fail to work (or if your component is not listed in this manual), try using the procedures in "Searching for the Correct Code."
- Check that you're aiming the Commander directly at the component, and that there are no obstructions between the Commander and the component.
- Make sure the batteries you're using are not worn out, and that they're inserted correctly. Note that whenever you remove the batteries - to replace them, for example - the code numbers you've set are automatically eased and must be reset.
- When setting up the component, if you press the wrong button, move the slide switch to a different position. Then reset the slide switch and start the procedures over again.
- Check that the slide switch is set to the component you want to control.
- Check that the component has infrared remote capability. For example, if your component didn't come with a remote controller, it probably isn't capable of being controlled by a remote controller.
- If your video components are connected to an audio system, make sure you've set up the Commander as described in "Controlling the Volume of Video Components Connected to an Audio System".

Specifications

Operable distance	Approx. 7 m (23 ft) (varies depending of the component of each manufacturer)
Power requirements	Two size AA (R6) batteries (not supplied)
Battery life	Approx. 6 months (varies depending on frequency of use)
Dimensions	Approx. 62 x 207 x 41.5 mm (w/h/d) (2 1/2 x 8 1/4 x 1 1/16 in.)
Mass	Approx. 100 g (3.5 oz.) (no including batteries)
Supplied accessory	Label (2)

Design and specifications are subject to change without notice.