JVC

Specifications

Item \ Model	AV-32R370KE	AV-28R370KE
Broadcasting systems	CCIR I	
Colour systems	PAL • The EXT terminals also support the NTSC 3.58/4.43 MHz system.	
Channels and frequencies	E21-E69	
Sound-multiplex systems	NICAM (I) system	
Teletext systems	FLOF (Fastext), WST (World Standard Text)	
Power requirements	220 - 240 V AC, 50 Hz	
Power consumption	Maximum: 200 W, Average: 127 W, Standby: 3 W	Maximum: 200 W, Average: 125 W, Standby: 3 W
Picture tube size	Viewable area 76 cm (measured diagonally)	Viewable area 66 cm (measured diagonally)
Audio output	Rated Power output: 10 W + 10 W + 10 W, 18 W (woofer)	
Speakers	(13 cm × 6.5 cm) oval × 2, (16 cm × 4 cm) oval × 1, 13 cm round woofer ×1	
EXT-1 terminal	Euroconnector (21-pin, SCART) • Video input, Audio L/R inputs and RGB inputs are available. • TV broadcast outputs (Video and Audio L/R) are available.	
EXT-2 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available. • Video and Audio L/R outputs are available. • T-V LINK functions are available.	
EXT-3 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
EXT-4 terminal	RCA connectors × 3 S-VIDEO connector × 1 • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
AUDIO OUT terminal	RCA connectors × 2 • Variable audio L/R outputs are available. • Variable out 0-1 Vrms, low impedance.	
SURROUND REAR terminal	SPEAKER terminals for external surround speakers. • Surround rear sounds are output to the speakers. • For impedance 8-ohm speakers only. • Rated power output: 7.5 W + 7.5 W	
Headphone jack	Stereo mini-jack (3.5 mm in diameter)	
Dimensions (W × H × D)	946 mm × 562 mm × 551 mm	854 mm × 507 mm × 494 mm
Weight	57.5 kg	43.0 kg
Accessories	Remote control unit × 1 (RM-C1504) AA/R6 dry cell battery × 2	

We may change the design and specifications without notice.

Pictures displayed on the screen using this TV's ZOOM functions should not be shown for any commercial or demonstration purpose in public places (cafes, hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this would be an infringement of copyright.
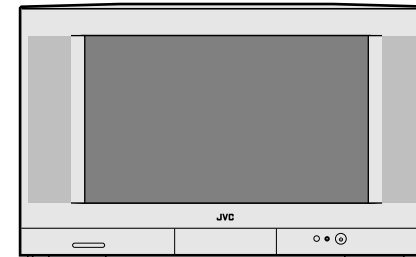
AV-32R370KE/AV-28R370KE

Colour Television
AV-32R370KE
AV-28R370KE

InteriArt
Natural Vision
T-V LINK

Contents

INSTRUCTIONS

plain English *appro✓ed*
by the word centre

Thank you for buying this JVC colour television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

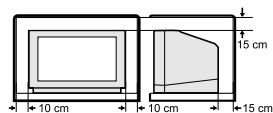## WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:
- Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
- Avoid damaging the AC plug and power cord.
- When you are not using this unit for a long period of time, it is recommended that you disconnect the power cord from the main outlet.

- The main power button on the TV does not fully isolate the TV from the mains supply. If you are not going to use this TV for a long period of time, be sure to disconnect the mains plug from the mains outlet.

Avoid improper installation and never position the unit where good ventilation is unattainable.
When installing this TV, distance recommendations must be maintained between the floor and wall, as well as installation in a tightly enclosed area or piece of furniture.
Adhere to the minimum distance guidelines shown for safe operation.

Failure to heed the following precautions may result in damage to the TV or remote control.

DO NOT block the TV's ventilation openings or holes.
(If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
DO NOT place anything on top of the TV.
(such as cosmetics or medicines, flower vases, potted plants, cups, etc.)
DO NOT allow objects or liquid into the cabinet openings.
(If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)
DO NOT place any naked flame sources, such as lighted candles, on the TV.

The surface of the TV screen is easily damaged. Be very careful with it when handling the TV.
Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully.
Never use any cleaner or detergent on it.

In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

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■ Warning

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or adaptor or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If a new mains plug has to be fitted, then follow the instruction given below:

Important

Do not make any connection to the larger terminal which is marked with the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:
Blue: Neutral
Brown: Live

As these colours may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
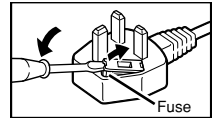
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

■ If in doubt — consult a competent electrician.

How to replace the fuse

Open the fuse compartment with a blade screwdriver, and replace the fuse.


■ Guidelines for safe operation

This equipment has been designed and manufactured to comply with international safety standards. However, as with any electrical appliance, care must be taken to ensure optimal results and operational safety.

- Before attempting to use this equipment, read the operating instructions thoroughly.
- Ensure that all electrical connections (including the mains plug, extension leads, etc.) have been made in accordance with the manufacturer's instructions.
- If ever in doubt about the installation, operation or safety of this equipment, consult your dealer.
- Handle all glass panels or covers with care.
- Never operate this equipment if it appears damaged or operates abnormally. Turn the power off, disconnect the main power plug and consult your dealer.
- Never remove any affixed panels or covers. Doing so may result in electrical shock.
- Never leave this equipment operating unattended unless otherwise specifically stated that it is designed to do so or in standby mode. Only use the designated power switch to turn off the power and ensure that all potential users are instructed how to do so. Make special arrangements for infirm or handicapped persons.
- Never watch TV while operating a motor vehicle. It is illegal to watch TV while driving.
- Never listen to headphones at high volume. Doing so may damage your hearing.

- Never obstruct the ventilation of this equipment. Doing so may cause overheating and result in a malfunction or damage.
- Never use makeshift stands or attempt to affix legs with wood screws. When using a manufacturer's approved stand or legs, use only the fixtures provided and follow the installation instructions.
- Never allow this equipment to be exposed to rain or moisture.
- Never allow anyone, especially children, to insert anything into an opening in the case. Doing so may result in a fatal electrical shock.
- Never guess or take chances with electrical equipment of any kind. It is better to be safe than sorry.

Caution
- The woofer unit is mounted on the TV. Always move the TV and woofer unit together when removing the TV from the box, or when moving the woofer unit.
- If the TV is tilted during movement the woofer unit may fall. Be careful to keep the TV level when moving it.
- Do not grip the woofer unit when moving the TV.
- Do not place objects on the woofer unit duct.
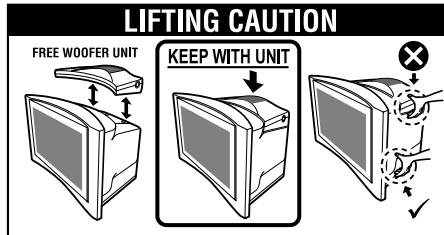
LIFTING CAUTION

FREE WOOFER UNIT KEEP WITH UNIT

Setting up your TV

Caution
• Turn off all the equipment including the TV before connecting anything.

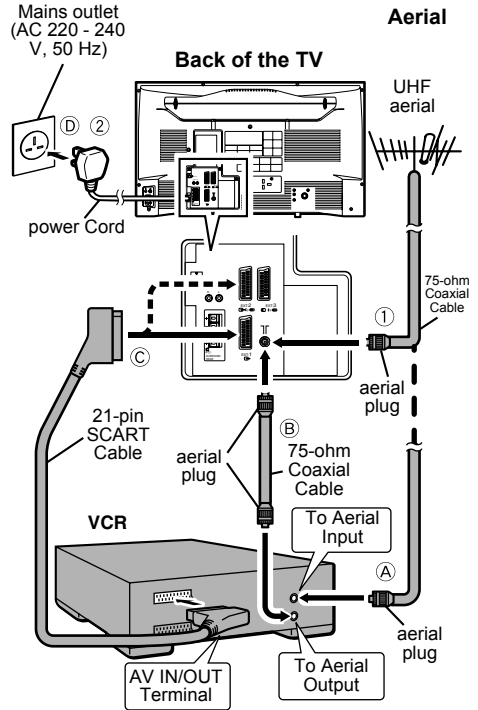## Connecting the aerial and video cassette recorder (VCR)

• The connecting cables are not provided.
• For further details, refer to the manuals provided with the devices to be connected.

■ **If you are connecting a VCR, follow Ⓐ → Ⓑ → Ⓒ → Ⓓ in the diagram opposite.**
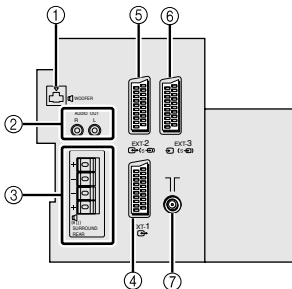
■ **If you are not connecting a VCR, follow ① → ②.**

To use the T-V LINK functions, you must have a T-V LINK compatible VCR connected by a SCART cable Ⓒ to the EXT-2 terminal on the TV. For details about T-V LINK functions, see "T-V LINK functions" on page 8.

• You can watch a video using the VCR without doing Ⓒ. For details, see your VCR instruction manual.
• To connect more equipment, please see "Additional preparation" on page 39.
• To connect external speakers and an audio system, please see "Connecting speakers or an amplifier" on page 40.
• If you connect a decoder to a T-V LINK compatible VCR, set the DECODER (EXT-2) function to ON. For details, see "Using the DECODER (EXT-2) function" on page 35. Otherwise, you will not be able to watch scrambled channels.
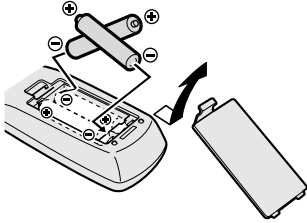
Mains outlet (AC 220 - 240 V, 50 Hz)

Back of the TV

Aerial

UHF aerial

power Cord

75-ohm Coaxial Cable

aerial plug

21-pin SCART Cable

aerial plug

75-ohm Coaxial Cable

VCR

To Aerial Input

AV IN/OUT Terminal

To Aerial Output

aerial plug

■ **Rear Panel**

① WOOFER terminal (page 39)
② AUDIO OUT terminal (page 40)
③ SURROUND REAR terminal (page 39)
④ EXT-1 terminal (pages 5, 25, 39)
⑤ EXT-2 terminal (pages 5, 8, 25, 39)
⑥ EXT-3 terminal (pages 25, 39)
⑦ Aerial socket (page 5)

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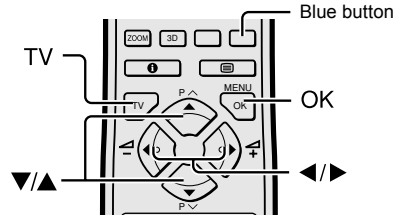# Putting the batteries into the Remote control

Use two AA/R6 dry cell batteries.
Insert the batteries from the ⊖ end, making sure the ⊕ and ⊖ polarities are correct.

- Follow the warnings printed on the batteries.
- Battery life is about six months to one year, depending on how much you use the remote control.
- The batteries we supply are only for setting up and testing your TV, please replace them as soon as you need to.
- If the remote control does not work properly, replace the batteries.
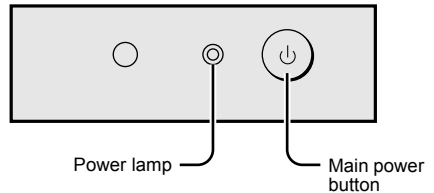
Initial settings

When the TV is first turned on, it goes into the initial setting mode, and you will see the JVC logo. Follow the instructions on the screen display to make the initial settings.

1 Press the Main power button on the TV

The Power lamp lights red (for power on), then green (for TV on) and the JVC logo appears.

Power lamp   Main power button

- If the power lamp stays red and does not change to green:
  your TV is in the standby mode. Press the ⏻/| (standby) button on the remote control to turn your TV on.
- If the JVC logo does not appear this is because your TV has already been turned on for the first time:
  use the "LANGUAGE" and "AUTO PROGRAM" functions to make the initial settings. For details, see "INSTALL" on page 29.

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2 Press the OK button

The LANGUAGE menu appears.

```
  LANGUAGE
O ENGLISH
  FRANÇAIS
  DEUTSCH
  ITALIANO
  CASTELLANO
  NEDERLANDS
  DANSK
  NORSK
  SVENSKA
  SUOMI
 TV  VCR
 ⊕
```

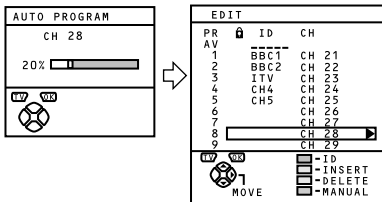**3 Press the ▼/▲ buttons to choose ENGLISH**

The on-screen display will then be in English.

To receive SKY 1 you need a satellite tuner. You must have the satellite tuner set to SKY 1 before starting the AUTO PROGRAM function which follows.

4 Press the OK button to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears and received TV channels are automatically stored in the programme numbers (PR).
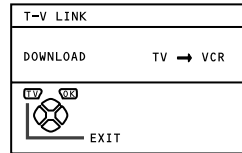
• To cancel the AUTO PROGRAM function:
  Press the *TV* button.

```
 AUTO PROGRAM          EDIT
   CH 28             PR 🔒 ID   CH
                     AV    ----
 20% ▭               1    BBC1  CH 21
                     2    BBC2  CH 22
 TV  VCR             3    ITV   CH 23
 ⊕                   4    CH4   CH 24
              ⇨      5    CH5   CH 25
                     6          CH 26
                     7          CH 27
                     8          CH 28 ▶
                     9          CH 29
                    TV  VCR      ▭-ID
                     ⊕          ▭-INSERT
                        ↰       ▭-DELETE
                       MOVE     ▭-MANUAL
```

After the TV channels have been registered in the programme numbers (PR), the EDIT menu appears

• If you want to, you can now edit the programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 30.
• If you do not want to edit programme numbers (PR), go to the next step.

5 Press the OK button to display the T-V LINK menu

```
 T-V LINK

 DOWNLOAD      TV ➡ VCR

 TV  VCR
 ⊕
        └── EXIT
```

6 If you do not have a T-V LINK compatible VCR connected:

Press the *TV* button to exit the T-V LINK menu.
The T-V LINK menu disappears.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:

Follow the operating procedure "Downloading data to a VCR" on page 35 to transmit the programme number (PR) data.

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Now, the initial settings are complete, and you can watch the TV

- BBC1, BBC2, ITV, Channel 4 and Channel 5 are automatically set to programme numbers PR 1 to PR 5. SKY 1 is set to programme number PR 6, but no TV channel name (ID) is set. If the TV doesn't receive one of these TV channels, that programme number (PR) will not be set.
- If a TV channel you want to view is not set to a programme number (PR), you can set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 30.
- The AUTO PROGRAM function does not set the programme number PR 0 (AV) for your video cassette recorder. You will need to set this using the MANUAL function.
- In some areas you may get TV reception from more than one transmitter, for example different ITV regions. In this case each TV channel could be set twice. If this happens, the first set of channels will have the stronger signal. If you want to delete the second set of channels, you will have to do it manually (see page 33).

> **If you have had any problems setting up your new TV, please call the JVC Helpline at 0870 330 5000**
>
> **Enjoy your new JVC TV!**

T-V LINK functions

When you have a T-V LINK compatible VCR connected to the EXT-2 Terminal on the TV, it is easier to set up the VCR and to view videos. T-V LINK uses the following features:

To use T-V LINK functions:
A "T-V LINK compatible VCR" means a JVC video cassette recorder with the T-V LINK logo, or with one of the following logos. However, these VCRs may support some or all of the features described earlier. For details, see your VCR instruction manual.

> "Q-LINK" (a trademark of Panasonic Corporation)
> "Data Logic" (a trademark of Metz Corporation)
> "Easy Link" (a trademark of Phillips Corporation)
> "Megalogic" (a trademark of Grundig Corporation)
> "SMARTLINK" (a trademark of Sony Corporation).

■ Pre-set download

The VCR will automatically download the registered data on the TV channels from the TV. This means you do not need to set up the program channels on your VCR manually. The preset download function automatically begins when the initial setting is complete or whenever you carry out the AUTO PROGRAM or EDIT/MANUAL functions.

You can also carry out this function using your VCR controls.

When "FEATURE NOT AVAILABLE" is displayed:
If "FEATURE NOT AVAILABLE" is displayed, the download was not performed correctly. Before trying to download again, check that:

- the VCR power is turned on
- the VCR is T-V LINK compatible
- the VCR is connected to the EXT-2 terminal
- the SCART cable is fully wired.

■ **Direct Rec**
"What You See Is What You Record"

You can easily record to VCR the images that you are watching on the TV.

For details, read the manual for your VCR. Use your VCR controls. "VCR IS RECORDING" is displayed.

In the following situations, the VCR will stop recording if the TV is turned off, if the TV channel or input is changed, or if the menu is displayed on the TV:
• when recording images from an external device connected to the TV (for example a camcorder)
• when recording a TV channel after it has been unscrambled on a decoder
• when recording a TV channel by using the TV's output because the VCR's own tuner cannot properly receive that channel.

You cannot carry out Direct Rec using your TV's control.
Generally, the VCR cannot record a TV channel that it cannot receive properly on its own tuner, even if you can view that TV channel on the TV. However, some VCRs can record a TV channel by using the TV's output if that channel can be viewed on the TV. For details, see your VCR instruction manual.

■ **TV auto power on/VCR image view**
When the VCR starts playing, the TV automatically turns on and the images from the EXT-2 terminal appear on the screen.

When the VCR menu is operated, the TV automatically turns on and the images from the EXT-2 terminal appear on the screen.

• This function does not happen if your TV's main power is turned off. Set your TV's main power to on (standby mode).

TV buttons and functions
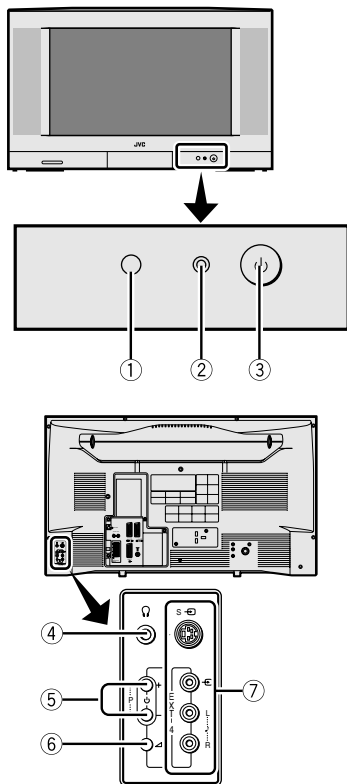
Refer to the pages in brackets for details.

① Remote control sensor
② Power lamp (6, 10)
③ Main power button (6, 10)
④ Headphone jack (mini jack) (39)
⑤ P ∨/∧ buttons/ −/+ buttons (11)
⑥ ⊿ (Volume) button (10)
⑦ EXT-4 terminal (25, 39)

Turn the main power on

Press the Main power button on the TV.

The power lamp lights red and your TV is in the standby mode.

• If the power lamp lights green, the TV is already on.

To turn the main power off:
Press the main power button again.
The power lamp goes off.

Caution

• The main power button on the TV does not fully isolate the TV from the AC supply. If you are not going to use the TV for a long period of time, be sure to disconnect the AC plug from the AC socket.

Turn the TV on from standby mode

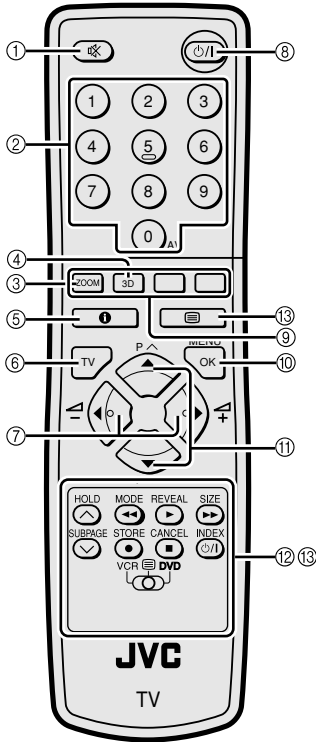**Press the P ∨/∧ buttons to turn the TV on from standby mode**

Choose a TV channel

Press the P ∨/∧ buttons to choose a programme number (PR) or an EXT terminal

Adjust the volume

1 Press the ⊿ (Volume) button
The volume level indicator appears.

2 Press the −/+ buttons while the volume level indicator is on screen

Remote control buttons and functions

① Muting button
② Number buttons
③ ZOOM button
④ 3D button
⑤ Information button
⑥ TV button
⑦ ◄/► buttons
⑧ Standby button
⑨ Colour buttons
⑩ **OK** button
⑪ ▼/▲ buttons
⑫ VCR/DVD/Teletext control button
⑬ VCR ▤ DVD switch
   ▤ (Text) button

Turn the TV on or off from standby mode

Press the ⏻/I (standby) button to turn the TV on or off.

When the TV is turned on, the power lamp changes from red to green.

• The power can be turned on by pressing the **TV** button, ▼/▲ buttons or Number buttons.

Choose a TV channel

■ **Use the number buttons:**
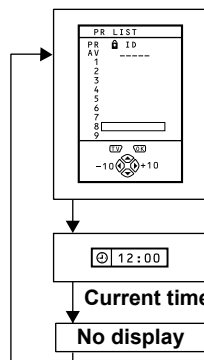**Enter the programme number (PR) of the channel using the number buttons.**

Example:
• PR6 → press **6**
• PR12 → press **1** and **2**

■ **Use the ▼/▲ buttons:**
Press the ▼/▲ buttons to choose the programme number (PR) you want.

■ **Use the PR LIST:**

1 Press the ⓘ (Information) button to display the PR LIST

Pressing the ⓘ (information) button changes the display as follows:

```
┌─────────────────────┐
│ PR LIST             │
│ PR  🔒 ID           │
│ AV  _____           │
│ 1                   │
│ 2                   │
│ 3                   │
│ 4                   │
│ 5                   │
│ 6                   │
│ 7                   │
│ 8                   │
│ 9                   │
│   [📺] [📼]         │
│ -10 ⊕ +10           │
└─────────────────────┘
```

```
┌─────────────┐
│ ⏰ 12:00    │
└─────────────┘
```
Current time

No display

2 Press the ◄/► and ▼/▲ buttons to choose a programme number (PR). Then press the OK button

• For programme numbers (PR) with the CHILD LOCK function set, the 🔒 (CHILD LOCK) mark appears next to the Programme number (PR) in the PR LIST.

• You cannot use the ▼/▲ buttons to choose a programme number (PR) with the CHILD LOCK set.

• Even if you try to choose a programme number (PR) with the CHILD LOCK set, the 🔒 (CHILD LOCK) mark will appear, and you cannot watch the TV channel. To watch the TV channel, see "CHILD LOCK" on page 28.

• If the picture is tilted, correct it. See "PICTURE TILT (Only for AV-32R370KE)" on page 21.

Adjust the volume

Press the ◄/► buttons to adjust the volume.

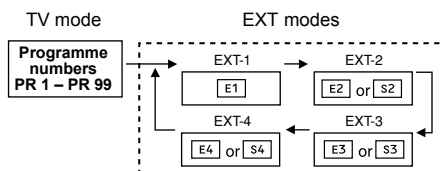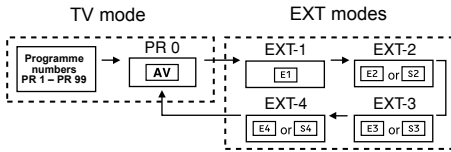The volume indicator appears and the volume changes as you press the −/+ buttons.

■ **Muting the sound Press the 🔇 (muting) button to turn off the sound.**

Pressing the 🔇 (muting) button again restores the previous volume level.

Watch images from external equipment

■ **Use the 0 (AV) button: Press the 0 (AV) button to choose an EXT terminal.**

TV mode   EXT modes

```
┌────────────┐   ┌──────────────────────────────┐
│ Programme  │   │  EXT-1    →    EXT-2          │
│ numbers    │───│  [E1]          [E2] or [S2]   │
│ PR 1 – PR 99│  │                               │
└────────────┘   │  EXT-4         EXT-3          │
                 │  [E4] or [S4]  [E3] or [S3]   │
                 └──────────────────────────────┘
```

■ **Use the ▼/▲ buttons: Press the ▼/▲ buttons to choose an EXT terminal.**

■ **Use the PR LIST:**

1 Press the ⓘ (Information) button to display the PR LIST

2 Press the ◄/► and ▼/▲ buttons to choose an EXT terminal. Then press the OK button

• For programme numbers (PR) where you have the CHILD LOCK function set, the 🔒 (CHILD LOCK) mark appears next to the programme number (PR) in the PR LIST.

• You cannot use the ▼/▲ buttons to choose a Programme number (PR) which has the CHILD LOCK set.

• Even if you try to choose a programme number (PR) with the CHILD LOCK set, the 🔒 mark will appear, and you cannot watch the TV channel. To watch the TV channel, see "CHILD LOCK" on page 28.

• If the picture is tilted, correct it. See "PICTURE TILT (Only for AV-32R370KE)" on page 21.

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To return to a TV channel:
Press the *TV* button, the ▼/▲ buttons or the number buttons.

To use the programme number PR 0 (AV):
When the TV and VCR are connected only by the aerial cable, choosing the programme number PR 0 (AV) allows you to view images from the VCR. Set the VCR RF channel to the programme number PR 0 (AV) manually. For details, see "EDIT/ MANUAL" on page 30.
Pressing the *0 (AV)* button changes the choice as follows:

- The VCR sends its playback image along the aerial cable as an RF (radio frequency) signal.
- Also see your VCR instruction manual.

ZOOM function

You can change the screen size according to the picture aspect ratio. Choose the optimum one from the following ZOOM modes.

AUTO (WSS):
For any picture format except normal picture (4:3 aspect ratio), the picture will be automatically displayed in the ideal screen size.

For normal picture (4:3 Aspect Ratio), you can choose a ZOOM mode from the 4:3 AUTO ASPECT menu. For details, see "4:3 AUTO ASPECT" on page 21.

- AUTO may not work properly with poor signal quality. In this case, choose the best ZOOM mode manually.

- This TV supports WSS (wide-screen signals). When broadcasts with WSS are received with the ZOOM mode set at AUTO (WSS), the most suitable ZOOM mode is automatically chosen according to the WSS received.
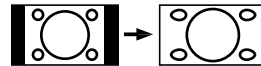
REGULAR:
Use to view a normal picture (4:3 aspect ratio) as this is its original shape.

PANORAMIC:
This stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the screen, without making the picture appear unnatural.

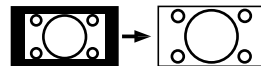- The top and bottom of the picture are slightly cut off.

14:9 ZOOM:
This zooms up the wide picture (14:9 aspect ratio) to the upper and lower limits of the screen.

16:9 ZOOM:
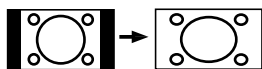This zooms up the wide picture (16:9 aspect ratio) to the full screen.

16:9 ZOOM SUBTITLE:
This zooms up the wide picture (16:9 aspect ratio) with subtitles to the full screen.
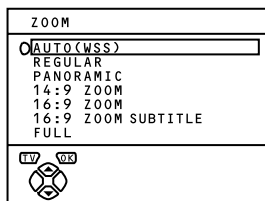

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FULL:
This uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.

• For 16:9 aspect ratio pictures that have been squeezed into a normal picture (4:3 aspect ratio), use the FULL mode to restore the picture to its original shape.

■ **Choose the ZOOM mode**

1 Press the ZOOM button to display the ZOOM menu

```
  ZOOM

 ○ AUTO(WSS)
   REGULAR
   PANORAMIC
   14:9 ZOOM
   16:9 ZOOM
   16:9 ZOOM SUBTITLE
   FULL

  TV    OK
```

2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button

The picture expands and the chosen ZOOM mode is displayed in about 5 seconds.

• You can pre-set a ZOOM mode for the normal picture. See "4:3 AUTO ASPECT" on page 21.
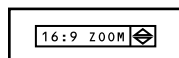
■ **Adjusting the visible area of the picture**

If subtitles or the top (or bottom) of the picture are cut off, you can adjust the visible area of the picture manually.

1 Press the ZOOM button

The ZOOM menu appears.

2 Press the OK button to display the ZOOM mode indicator.

The indicator appears.

```
 16:9 ZOOM ⊜
```

3 While it is displayed, press the ▼/▲ buttons to change the height of the picture
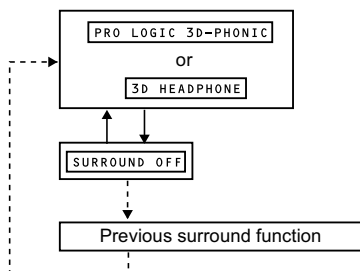
• You cannot adjust the visible area in REGULAR or FULL mode.

PRO LOGIC 3D-PHONIC function

You can turn the PRO LOGIC 3D-PHONIC function on or off, or you can switch to the 3D HEADPHONE function by one-touch operation.

Press 3D button.

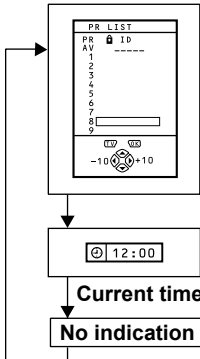Pressing **3D** button changes the function as follows:

• If some other surround function is activated before you press the **3D** button, you can return to that surround function.
• The PRO LOGIC 3D-PHONIC function will be activated when no headphones are connected. For details, see "PRO LOGIC 3D-PHONIC (Dolby Pro Logic 3D-PHONIC)" on page 22.
• The 3D HEADPHONE function will be activated when headphones are connected. For details, see "3D HEADPHONE" on page 24.

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Displaying the current time

You can display the current time on the screen.

Press the ⓘ (Information) button to display the current time

Pressing the ⓘ (Information) button changes the display as follows:

Current time

No indication

- This TV uses teletext data to set the time. If the TV has not received a TV channel that has teletext programmes since it was turned on, the time display is blank. To see the time, choose a TV channel that has teletext programmes. The time will still be displayed as long as you do not turn off the TV, even if you choose other TV channels.
- When watching videos, an incorrect time is sometimes displayed.

Return to TV channel instantly

You can return to a TV channel instantly.

Press the *TV* button

The TV returns to the TV mode and a TV channel appears.

Operating a JVC brand VCR or DVD player

These buttons will operate a JVC brand VCR or DVD player. Pressing a button that looks the same as the device's original remote control button has the same effect as the original remote control.

1 Set the VCR ▤ DVD switch to the VCR or DVD position.

   VCR:
   When you are using a VCR, set the switch to the VCR position.

   DVD:
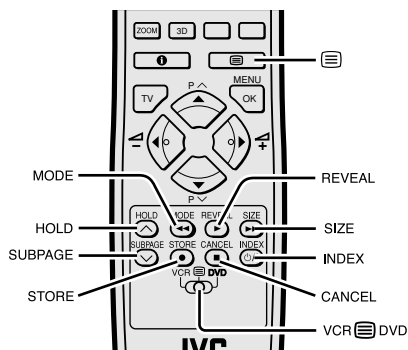   When you are using a DVD player, set the switch to the DVD position.

   ▤ (Text):
   When you are viewing Teletext programmes, set the switch to the ▤ (Text) position.

2 Press the VCR/DVD control button to control your VCR or DVD player

   - If your device is not made by JVC, these buttons will not work.
   - Even if your device is made by JVC, some of these buttons may not work, depending on the device you are using.
   - You can use the ∨/∧ buttons to choose a TV channel the VCR will receive, or choose the chapter the DVD player plays back.
   - Some models of DVD player use the ∨/∧ buttons for both operating the fast forward/backward functions and for choosing the chapter. In this case, the ◀◀/▶▶ buttons do not work.

Teletext function

MODE — REVEAL
HOLD — SIZE
SUBPAGE — INDEX
STORE — CANCEL
— VCR □ DVD

Basic operation

You can view two types of teletext broadcasts on the TV:
FLOF (Fastext) and WST.

1 Choose a TV channel with a teletext broadcast

2 Set the VCR □ DVD switch to the □ (Text) position

VCR □ **DVD**

3 Press □ (Text) button to display the teletext

Pressing □ (Text) button changes the mode as follows:

TV mode   Text mode

4 Choose a teletext page by pressing the ▼/▲ buttons, number buttons or colour buttons

To return to the TV mode:
Press the **TV** button or □ (Text) button.

- If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station.
- In Text mode, the ZOOM mode is fixed to FULL.
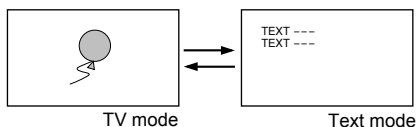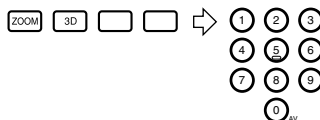- You cannot operate menus when viewing a teletext programme.

Using the List Mode

You can store the numbers of your favourite teletext pages in memory and call them up quickly using the colour buttons.

To store the page numbers:

1 Press the MODE button to go into the List mode

The page numbers you have stored are displayed at the bottom of the screen.

2 Press a colour button to choose a position. Then press the number buttons to enter the page number

3 Press and hold down the STORE button

The four page numbers blink white to show that they are stored in memory.

To call up a stored page:

1 Press the MODE button to enter the List mode

2 Press a colour button having a stored page
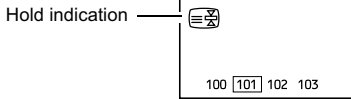

To leave the List mode:
Press the **MODE** button again.

Hold

You can hold a teletext page on the screen for as long as you want, even while several other teletext pages are being received.

Press the HOLD button

Hold indication

100 101 102 103

To cancel the Hold function:
Press the **HOLD** button again.

Sub-page

Some teletext pages include sub-pages that are automatically displayed.
You can hold any sub-page, or view it at any time.

1 **Press the SUBPAGE button to operate the sub-page function**

2 **Press the Number buttons to enter a sub-page number**
Example:
   • 3rd sub-page → press 0 (AV), 0 (AV), 0 (AV) and 3.

To cancel the sub-page function:
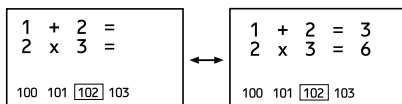Press the **SUBPAGE** button again.
   • You can also choose a sub-page by pressing the red or green button.

Reveal

Some teletext pages include hidden text (such as the answers to a quiz).
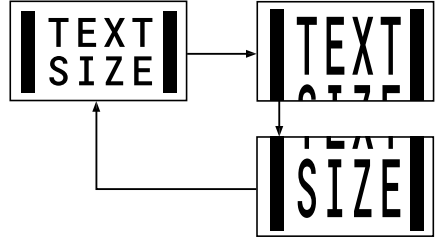You can display the hidden text.

Each time you press the REVEAL button, text is hidden or revealed

```
1  +  2  =
2  x  3  =

100  101  102  103
```
↔
```
1  +  2  =  3
2  x  3  =  6

100  101  102  103
```

Size

You can double the height of the teletext display.

Press the SIZE button.

Index

You can return to the index page instantly.

Press the INDEX button

FLOF (Fastext)/TOP/WST (World Standard Text):
Returns to page 100 or a previously specified page.

List mode:
Returns to the page number displayed in the lower left area of the screen.

Cancel

You can search for a teletext page while watching TV.

1 **Press the number button to enter a page number, or press a colour button**
The TV searches for a teletext page.
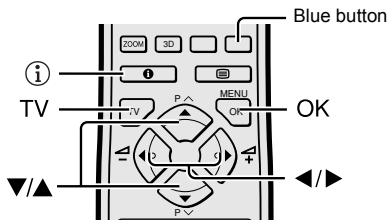
2 **Press the CANCEL button.**
The TV programme appears. When the TV finds the teletext page, its page number appears in the upper left of the screen.

3 **Press the CANCEL button to return to a teletext page when the page number is on the screen**
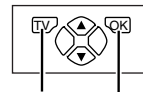
   • The TV mode cannot be resumed by pressing the **CANCEL** button. To return to the TV mode press TV.

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Using the TV's menu

This TV has a number of functions you can operate using menus. To use all your TV's functions, you need to understand the basic menu operating techniques fully.

Blue button

ⓘ

TV

OK

▼/▲

◄/►

Basic operation

1 Press the OK button to display the MENU (main menu)

When the headphones are not connected to the TV:


```
MENU

O PICTURE SETTING
  PICTURE FEATURES
  SOUND SETTING
  DIGITAL SURROUND
  EXT SETTING
  FEATURES
  INSTALL
  DEMO
```

When the headphones are connected to the TV:


```
MENU

O PICTURE SETTING
  PICTURE FEATURES
  SOUND SETTING
  HEADPHONE SURROUND
  EXT SETTING
  FEATURES
  INSTALL
  DEMO
```

• You cannot choose DIGITAL SURROUND and HEADPHONE SURROUND on the MENU (main menu) at the same time. To display HEADPHONE SURROUND on the MENU, connect the headphone to the TV. To display DIGITAL SURROUND on the MENU, disconnect the headphone from the TV.

• The display appearing at the bottom of a menu shows the buttons on the remote control you can use when you operate a chosen function.
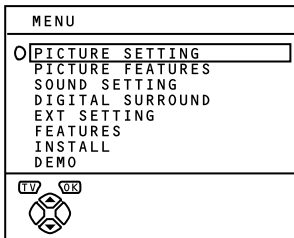

TV button   **OK** button

When a menu is displayed on the screen, the ZOOM mode may be automatically changed to the FULL mode. This is not a malfunction. When the menu disappears, the ZOOM mode will return to the previously set ZOOM mode.
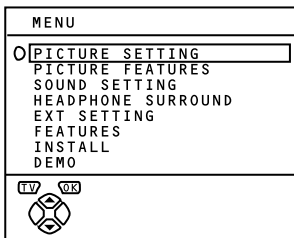
2 Press the ▼/▲ buttons to choose a menu title, and press the OK button
The menu appears.

To return to the previous menu:
Press the ⓘ (information) button.

To exit a menu instantly:
Press the ***TV*** button.

3 Press the ▼/▲ buttons to choose a function
• For details of the functions in the menus, see the following pages.

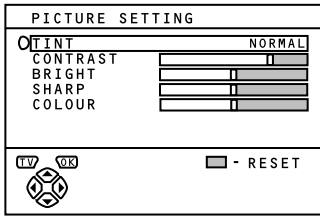**4 Press the ◄/► buttons to choose the setting of that function**
• If you want to operate a function which appears only with its name, follow the descriptions of that function on the following pages.
• The display appearing at the bottom of a menu shows you the button on the remote control that you can use when you operate a chosen function.

5 Press the OK button to complete the setting
The menu disappears.
• When watching the television with the NTSC system, the menus are displayed at about half of their normal vertical size.

PICTURE SETTING

```
PICTURE SETTING
TINT              NORMAL
CONTRAST        □
BRIGHT          □
SHARP           □
COLOUR          □

TV  OK          □ - RESET
```

■ TINT

You can select one of three TINT modes (three kinds of picture settings) to adjust the picture settings automatically.

COOL:

A cool white colour base with a boost in the colour and contrast levels that creates a more vivid picture.

WARM:

A warm orange/red colour base that creates the appropriate colour and contrast levels for watching films.

NORMAL:

A normal white colour base with normal colour and contrast levels.

■ Picture Adjustment

You can change the picture settings of each TINT mode as you like.

CONTRAST

You can adjust the picture contrast.
◀ : lower
▶ : higher

BRIGHT

You can adjust the picture brightness.
◀ : darker
▶ : brighter

SHARP

You can adjust the picture sharpness.
◀ : softer
▶ : sharper

COLOUR

You can adjust the picture colour.
◀ : lighter
▶ : deeper

HUE

You can adjust the picture tint.
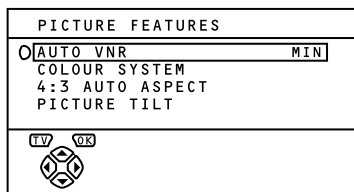◀ : reddish
▶ : greenish

• You can change the HUE setting (picture hue) only when the colour system is NTSC 3.58 or NTSC 4.43. (See "Specifications" on the back cover.)

To return to the default settings in each TINT mode:

Press the blue button.

• This returns the picture settings in the TINT mode you have chosen to the default settings, and stores them in the TINT mode.

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PICTURE FEATURES

```
   PICTURE FEATURES
O AUTO VNR           MIN
  COLOUR SYSTEM
  4:3 AUTO ASPECT
  PICTURE TILT

  TV  OK
```

■ AUTO VNR

VNR Stands for "video noise reduction".

AUTO:

This mode reduces any "noise" (interference or snowing) in the current picture. The function also adjusts the optimum sharpness of the picture (SHARP).
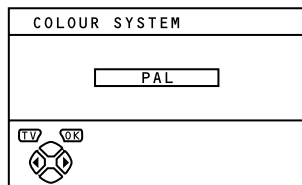
MIN:

The AUTO VNR function is cancelled. If you set the mode to AUTO but feel that the sharpness of the original picture has not been reproduced fully, change the mode to MIN. However, any noise remaining in the original picture may be emphasized.

MAX:

This mode always reduces any noise as much as possible, irrespective of state of the picture. When you set the mode to AUTO but still notice some noise, change the mode to MAX. However, this may reduce the sharpness of the picture.

■ COLOUR SYSTEM

The colour system is chosen automatically. However, if the picture is not clear or no colour appears, choose the colour system manually.

```
  COLOUR SYSTEM


        PAL

  TV  OK
```

1 Choose COLOUR SYSTEM then press the OK button

2 Press the ◄/► buttons to chose the appropriate colour system. Then press the OK button

PAL:
PAL system

NTSC 3.58:
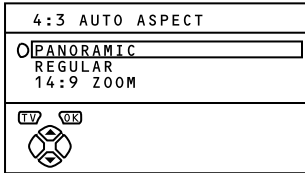NTSC 3.58 MHz system

NTSC 4.43:
NTSC 4.43 MHz system

AUTO:
This function detects a colour system from the input signal. You can only use this when you are viewing a picture from programme number PR 0 (AV), or EXT terminal.

• The AUTO function may not work properly if you have poor signal quality. If the picture is abnormal in the AUTO function, choose another colour system manually.

• You cannot choose NTSC 3.58 or NTSC 4.43 for programme number PR 0 (AV) to PR 99.

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■ **4:3 AUTO ASPECT**

You can choose one of three ZOOM modes, REGULAR, PANORAMIC or 14:9 ZOOM, as the ZOOM mode for the normal picture (4:3 aspect ratio).

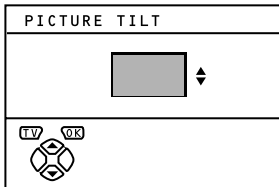**1 Choose 4:3 AUTO ASPECT then press the OK button**

```
  4:3 AUTO ASPECT

O PANORAMIC
  REGULAR
  14:9 ZOOM

 TV   OK
```

2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button
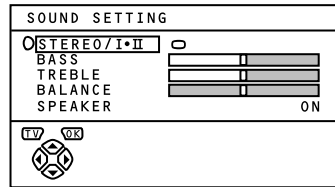
■ **PICTURE TILT (Only for AV-32R370KE)**

Sometimes the Earth's own magnetic field may make the picture tilt. If this happens, you can correct the picture tilt.

1 Choose PICTURE TILT. Then press the OK button

```
  PICTURE TILT

           ⬍

 TV   OK
```

2 Press the ▼/▲ buttons until the picture becomes level. Then press the OK button

SOUND SETTING

```
  SOUND SETTING

O STEREO/I•II   □
  BASS          ▮▮
  TREBLE        ▮▮
  BALANCE       ▮▮
  SPEAKER          ON

 TV   OK
```

■ **STEREO / I • II**

When you are viewing a bilingual broadcast programme, you can choose the sound from Bilingual I (Sub I) or Bilingual II (Sub II). If you have poor reception on a stereo broadcast, you can change from stereo to mono sound so that you can hear the broadcast more clearly and easily.

CD : Stereo sound

O : mono sound

I : Bilingual I (sub I)

II : Bilingual II (sub II)

• The sound mode you can choose differs depending on the TV programme.
• This function does not work in the EXT modes. And this function does not appear in the SOUND SETTING menu.

■ **Sound Adjustment**

You can adjust the sound to your liking.

BASS

You can adjust the low tone of the sound.
◄ : weaker
► : strong

TREBLE

You can adjust the high tone of the sound.
◄ : weaker
► : strong

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BALANCE

You can adjust the volume balance between the left and right speaker.

◀ : turn the left speaker's volume level up.

▶ : turn the right speaker's volume level up.

　　• When the DOLBY PRO LOGIC function or PRO LOGIC 3D-PHONIC function is operating, the "BALANCE" item does not appears.

■ **SPEAKER**

You can turn off the sound from the TV speakers; but you should only do this if you have connected an audio system to the TV instead of the TV speakers. When you are using this function, see "Turning the TV's speakers off" on page 36.
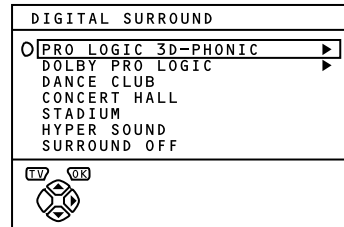
ON:

The TV speakers issue sound.

OFF:

The TV speakers do not issue sound.

• The ◀/▶ buttons of the TV remote control and the ◁ (volume) buttons at the front panel of your TV set can be used to control the volume of each speaker simultaneously.

• Setting the volume of the amplifier too high may damage the front speakers.

• When the DOLBY PRO LOGIC function or PRO LOGIC 3D-PHONIC function is operating, the "SPEAKER" item does not appears.

Digital surround


```
DIGITAL SURROUND

O PRO LOGIC 3D-PHONIC        ▶
  DOLBY PRO LOGIC            ▶
  DANCE CLUB
  CONCERT HALL
  STADIUM
  HYPER SOUND
  SURROUND OFF
```

• Connecting the headphones to the TV automatically changes to the HEADPHONE SURROUND function which corresponds to the current DIGITAL SURROUND function. However, the PRO LOGIC 3D-PHONIC function and DOLBY PRO LOGIC function are changed over to the 3D HEADPHONE function as headphones cannot play back the Dolby Surround Pro Logic sound properly.

■ **PRO LOGIC 3D-PHONIC (Dolby Pro Logic 3D-PHONIC)**

The PRO LOGIC 3D-PHONIC function lets you enjoy the atmosphere of Dolby Surround Pro Logic sound without needing extra surround speakers.

With the PRO LOGIC 3D-PHONIC function, you can use the rear surround-channel signal of the Dolby Surround encoded programme to create the surround sound image as if surround speakers were located at your right and left.

Use the PRO LOGIC 3D-PHONIC function

Choose PRO LOGIC 3D-PHONIC. Then press the OK button

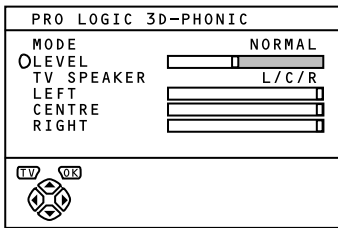**To cancel the PRO LOGIC 3D-PHONIC function:**

Press the ▼/▲ buttons to choose SURROUND OFF.

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• The PRO LOGIC 3D-PHONIC function does not work properly except for Dolby Surround encoded programmes.

• You can turn the PRO LOGIC 3D-PHONIC function on or off by pressing the **3D** button.

Change the setting of the PRO LOGIC 3D-PHONIC function

1 Choose PRO LOGIC 3D-PHONIC. Then press the ▶ button

The sub-menu of the PRO LOGIC 3D-PHONIC function appears.

```
PRO LOGIC 3D-PHONIC
   MODE              NORMAL
 ○ LEVEL          ▭▭▭▭▭
   TV SPEAKER        L/C/R
   LEFT           ▭▭▭▭▭▭▭
   CENTRE         ▭▭▭▭▭▭▭
   RIGHT          ▭▭▭▭▭▭▭

   TV   OK
      ⬙
   ◁  ⬥  ▷
      ⬘
```

2 Press the ▼/▲ buttons to choose an item. Then press the ◀/▶ buttons to change the setting

MODE:
The PRO LOGIC 3D-PHONIC function has three modes; NORMAL, CINEMA/SPORT, and MUSIC. You can choose and set a mode as you like.

LEVEL:
You can control the effect level of the PRO LOGIC 3D-PHONIC function as you like.

TV SPEAKER:
For details, see "Additional Sound settings" on page 36.

LEFT/CENTRE/RIGHT:
You can adjust the sound level of each speaker separately. LEFT/RIGHT means left and right of the front speakers and CENTRE means the centre speaker.

3 Press the OK button to complete the setting

• To change the TV speaker setting, you should connect an audio system to the TV. For details, see "Connecting speakers or an amplifier" on page 40.

• When an audio system is not connected to your TV, please be sure to leave the TV SPEAKER setting to L/C/R. If you don't, a normal sound will not come from the TV speakers. If the TV SPEAKER is not set to L/C/R, press the ▼/▲ buttons to choose TV SPEAKER and press the ◀/▶ buttons to choose L/C/R again.

■ DOLBY PRO LOGIC

You can enjoy Dolby* Surround Pro Logic sound if you add surround speakers.

Before using the DOLBY PRO LOGIC function, first connect the surround speakers to the TV, then set the items in the DOLBY PRO LOGIC function properly. For details, see "Connecting speakers or an amplifier" on page 40.

Choose DOLBY PRO LOGIC. Then press OK button

To cancel the DOLBY PRO LOGIC function:
Press the ▼/▲ buttons to choose SURROUND OFF.

• The DOLBY PRO LOGIC function will not work correctly unless you connect extra surround speakers.

• The DOLBY PRO LOGIC function is only available for Dolby Surround encoded programmes.

• Even if you do not have surround speakers, the PRO LOGIC 3D-PHONIC function lets you enjoy the atmosphere of Dolby Surround Pro Logic sound. For details, see "PRO LOGIC 3D-PHONIC (Dolby Pro Logic 3D-PHONIC)" on page 22.

* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

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■ **Other surround functions**

You can enjoy enhanced sound with one of the following four surround functions:

DANCE CLUB:

This function creates a dance club atmosphere. It does not work properly for mono sound.

CONCERT HALL:

This function creates a concert hall atmosphere. It does not work properly for mono sound.

STADIUM:

This function creates a stadium atmosphere. It does not work properly for mono sound.

HYPER SOUND:

This function enhances mono sound to create a stereo sound feel. It does not work properly for stereo sound.

To cancel the function:

Press the ▼/▲ buttons to choose SURROUND OFF.

• The above function does not work properly for Dolby Surround encoded programmes.

Headphone surround

```
HEADPHONE SURROUND

O 3D HEADPHONE
  DANCE CLUB
  CONCERT HALL
  STADIUM
  HYPER SOUND
  SURROUND OFF

TV   OK
```
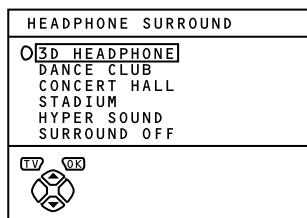
Preparation:

Before using a function in the HEADPHONE SURROUND menu, please be sure to connect the headphones to your TV. If the headphones are not connected to the TV, the DIGITAL SURROUND function becomes active instead of the HEADPHONE SURROUND function.

• Disconnecting the headphones from the TV automatically changes to the DIGITAL SURROUND function corresponding to the current HEADPHONE SURROUND function. However, the 3D HEADPHONE function is changed over to either the PRO LOGIC 3D-PHONIC function or DOLBY PRO LOGIC function, depending on the state at that time.

■ **3D HEADPHONE**

The 3D HEADPHONE function produces 3D surround effects that are heard through headphones, but should be more naturally placed, as if they were coming out of separate front speakers.

Choose 3D HEADPHONE. Then press OK button

To cancel the 3D HEADPHONE function:

Press the ▼/▲ buttons to choose SURROUND OFF.

• You can turn the 3D HEADPHONE function on or off with a single press.
• The 3D HEADPHONE function does not work properly for mono sound.
• The 3D HEADPHONE function cannot play back Dolby Surround Pro Logic sound correctly.

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■ Other surround functions

You can enjoy enhanced sounds while using headphones with one of the following four surround functions:

DANCE CLUB:

This function creates a dance club atmosphere. It does not work properly for mono sound.

CONCERT HALL:

This function creates a concert hall atmosphere. It does not work properly for mono sound.

STADIUM:

This function creates a stadium atmosphere. It does not work properly for mono sound.
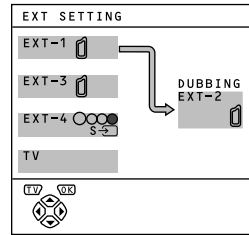
HYPER SOUND:

This function enhances mono sounds to create a stereo sound feel. It does not work properly for stereo sound.

To cancel the function:

Press the ▼/▲ buttons to choose SURROUND OFF.

• The above function does not work properly for Dolby Surround encoded programmes.

EXT SETTING


```
EXT SETTING
EXT-1   🔲
EXT-3   🔲            DUBBING
                     EXT-2
EXT-4   ⭕⭕⭕⭕          🔲
        S⤵
TV
TV   OK
  ◈
```

■ S⤵ (S-VIDEO input)

You can connect a device (such as an S-VHS VCR) to enjoy the high-quality picture of the S-VIDEO signal (Y/C signal).

Preparation:

• First read the device's instruction manual and "Additional preparation" on page 39 to connect the device to the TV properly. Second, follow the device's instruction manual to set the device so that it sends an S-VIDEO signal (Y/C signal) to the TV.

• Do not set S⤵ (S-VIDEO input) to an EXT terminal connected to a device which cannot output an S-VIDEO (Y/C signal). If it is set wrongly, a picture cannot appear.

1 Choose an EXT terminal

2 Press the yellow button and set the S⤵ (S-VIDEO input). Then press the OK button

An S⤵ (S-VIDEO input) mark is displayed. You can view an S-VIDEO signal (Y/C signal) instead of the regular video signal (composite signal).

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To cancel the S⊖ (S-VIDEO input) setting:
Press the yellow button and turn off S⊖ (S-VIDEO input) mark. The regular video signal (composite signal) pictures are resumed.
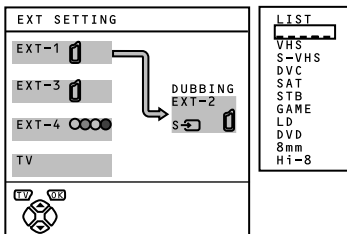
- The EXT-1 terminal does not support S-VIDEO signal (Y/C signal) and you cannot set S⊖ (S-VIDEO input) in the EXT-1 terminal.
- Setting S⊖ (S-VIDEO input) changes the head character from "E" to "S". When an EXT terminal receives a normal video signal, "E1", "E2", "E3" or "E4" appears on the display. This changes to "S2", "S3" or "S4" when it receives an S-VIDEO signal.
- Even a device which can output an S-VIDEO signal (Y/C signal) may output a regular video signal (composite signal) depending on the device setting. If a picture cannot appear because the S⊖ (S-VIDEO input) setting has been made, read the device instruction manual carefully again to check for the device settings.

■ LIST
You can store a name for each of the devices connected to each EXT terminal. Giving a name to an EXT terminal makes the EXT terminal number appear on the screen, together with its name.

1 Choose an EXT terminal

2 Press the blue button to display the name list (LIST)

3 Press the ▼/▲ buttons to choose a name. Then press the OK button
The LIST disappears and the name is assigned to the EXT terminal.
- You cannot choose an EXT terminal name that is not on the name list (LIST).

To erase a name assigned to the EXT terminal:
Choose a blank space.

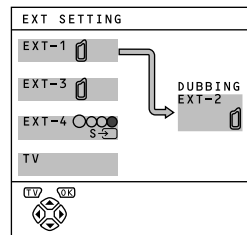**4 Press the OK button to complete the setting**

■ DUBBING
You can choose a signal source to be output from the EXT-2 terminal.

You can do this with the output signal of the device connected to another EXT terminal, or the picture and sound from a TV channel you are currently viewing.

1 Press the ◀/▶ buttons to choose the arrow from the menu

2 Press the ▼/▲ buttons to choose an EXT terminal or TV. Then press the OK button

The arrow in the menu represents a signal flow. The left side of the arrow shows a signal source output from the EXT-2 terminal.
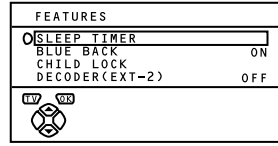
EXT-1/EXT-3/EXT-4:
The output signal of the device connected to an EXT terminal passes through the TV and is output from the EXT-2 terminal.

TV:
The picture and sound of the TV channel you are currently viewing are output from the EXT-2 terminal.

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• During dubbing, you cannot turn off the TV. Turning off the TV also turns off the output from the EXT-2 terminal.
• When you choose an EXT terminal as an output, you can view a TV programme or a picture from the other EXT terminal while dubbing the picture from a device connected to the EXT terminal onto a VCR connected to the EXT-2 terminal.
• The RGB signals from TV games cannot be output.Teletext programmes cannot be output.
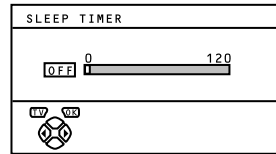
FEATURES

```
FEATURES
○ SLEEP TIMER
  BLUE BACK              ON
  CHILD LOCK
  DECODER(EXT-2)         OFF
```

■ SLEEP TIMER

You can set the TV to automatically turn off after a specified period of time.

1 Choose SLEEP TIMER, then press the OK button

A Sub-menu of the SLEEP TIMER function appears.

```
SLEEP TIMER

        0            120
  OFF
```

2 Press the ◄/► buttons to set the period of time.
Then press the OK button

You can set the period of time a maximum of 120 minutes (2 hours) in 10 minute steps.

• One minute before the SLEEP TIMER function turns off the TV, "GOOD NIGHT!" appears.
• The SLEEP TIMER function cannot be used to turn off the TV's main power.
• When the SLEEP TIMER function is on, you can display the sub-menu of the SLEEP TIMER function again to confirm or change the remaining period of time of the SLEEP TIMER function. Press the OK button to leave the menu after confirming or changing the remaining time.

To cancel the SLEEP TIMER function:

Press the ◄ button to set a period of time to "OFF".

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■ **BLUE BACK**
You can set the TV to automatically change
to a blue screen and mute the sound if the
signal is weak or absent, or when there is no
input from an external device.
ON:
This function is turned on.
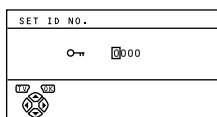**OFF:**
This function is turned off.

■ **CHILD LOCK**
When there is a TV channel you do not want
your children to watch, you can use the
CHILD LOCK function to lock out the TV
channel. Even when a child chooses a
programme number (PR) for a locked TV
channel the screen will change to blue and
display 🔒 (CHILD LOCK) so the TV channel
cannot be viewed. Unless you enter a pre-set
ID number by a special operation, the lock
cannot be released and the child cannot view
the TV channel.

To set the CHILD LOCK function

1 **Choose CHILD LOCK, then press
   the 0 (AV) button**
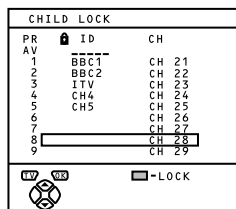   "SET ID NO." (ID number setting screen)
   appears.

   ```
   SET ID NO.

      O—   0000
   ```

2 **Set the ID number to your liking**

   1 **Press the ▼/▲ buttons to choose
     a number.**

   2 **Press the ◄/► buttons to move
     the cursor.**

3 **Press the OK button**
   The Sub-menu of CHILD LOCK appears.

   ```
   CHILD LOCK
   PR   🔒 ID      CH
   AV
   1      BBC1     CH 21
   2      BBC2     CH 22
   3      ITV      CH 23
   4      CH4      CH 24
   5      CH5      CH 25
   6               CH 26
   7               CH 27
   8               CH 28
   9               CH 29

                   ■-LOCK
   ```

4 **Press the ▼/▲ buttons to choose a
   TV channel**
   Every time you press the ▼/▲ buttons, the
   Programme number (PR) changes, and the
   picture of the TV channel registered in the
   Programme number (PR) is displayed on
   the screen.

5 **Press the blue button and set the
   CHILD LOCK function.
   Then press the OK button**
   🔒 (CHILD LOCK) appears and the TV
   channel is locked.

   To reset the CHILD LOCK function:
   Press the blue button again.
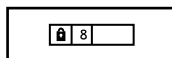   🔒 (CHILD LOCK) disappears.

   To disable easy resetting of the CHILD
   LOCK function, the menu disappears if
   you choose the CHILD LOCK function
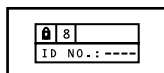   and press the OK button.

To view a locked TV channel

1 **Choose a programme number (PR)
   in which a TV channel locked with
   the number buttons or PR LIST**
   The screen changes to blue and the 🔒
   (CHILD LOCK) appears. You cannot
   view the TV channel.

   ```
   🔒 8
   ```

2 **Press the ⓘ (Information) button to
   display "ID NO." (ID No. input
   screen).**

   ```
   🔒 8
   ID NO.: ----
   ```

3 **Press the number buttons to enter
   the ID number**
   The lock is temporarily released so you
   can view the TV channel.

If you have forgotten the ID number:

Perform step 1 of "To set the CHILD LOCK function". After confirming the ID number, press the *TV* button to exit the menu.

- Even if you reset the lock temporarily, it does not mean that the CHILD LOCK function set for the TV channel is cancelled. The next time anyone tries to view the TV channel, it will be locked again.
- When you want to cancel the CHILD LOCK function, you must perform the operation "To set the CHILD LOCK function" again.
- To stop it being easy to choose the programme number (PR) of a locked TV channel, the programme number (PR) has been set so that it cannot be chosen by the ▼/▲ buttons or the buttons of the TV.
- To stop it being easy to reset the lock, "ID NO." (ID No. input screen) is set so that it cannot appear unless you press the ⓘ (Information) button.
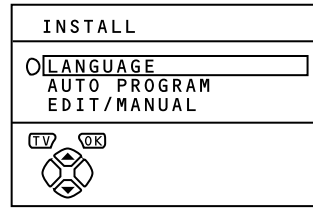
■ **DECODER (EXT-2)**

You can only use this function if you have a decoder connected to a T-V LINK compatible VCR, which in turn is connected to the EXT-2 terminal. To use this function, see "Using the DECODER (EXT-2) function" on page 35.

Caution

- If you have not connected a decoder with a T-V LINK compatible VCR to the EXT-2 terminal, setting this function to "ON" by mistake causes the picture/sound of a TV channel you are currently viewing to disappear.

INSTALL

```
INSTALL

○ LANGUAGE
  AUTO PROGRAM
  EDIT/MANUAL

TV   OK
```

■ **LANGUAGE**

You can choose the language you want to use for the on-screen display from the language list in a menu.

1 Choose LANGUAGE, then press the OK button

A sub-menu of the LANGUAGE function appears.

```
LANGUAGE
○ ENGLISH
  FRANÇAIS
  DEUTSCH
  ITALIANO
  CASTELLANO
  NEDERLANDS
  DANSK
  NORSK
  SVENSKA
  SUOMI

TV   OK
```

**2 Press the ◄/► and ▼/▲ buttons to choose a language.
Then press the OK button**

■ **AUTO PROGRAM**

To receive SKY 1 you need a satellite tuner. You must have the satellite tuner set to SKY 1 before starting the AUTO PROGRAM function.
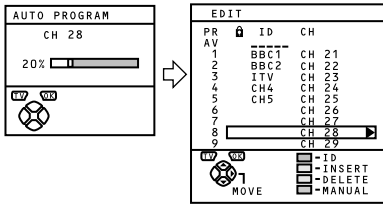
You can automatically store the TV channels for which you have the best reception. Store them in the TV's programme numbers (PR) list by doing the following.

1 Choose AUTO PROGRAM

2 Press the OK button to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears and the TV channels you receive are automatically registered in the programme numbers (PR) list.
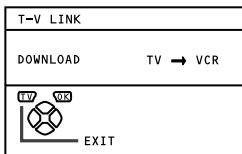
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• To cancel the AUTO PROGRAM function, press the **TV** button.

```
AUTO PROGRAM          EDIT
   CH 28            PR 🔒 ID    CH
                    AV  -----
  20% ▭▭            1   BBC1  CH 21
                    2   BBC2  CH 22
 ⊺ᴠ  ᵛᶜ             3   ITV   CH 23
 ⊗                  4   CH4   CH 24
                    5   CH5   CH 25
                    6         CH 26
                    7         CH 27
                    8         CH 28
                    9         CH 29
                    ⊺ᴠ  ᵛᶜ      ▭-ID
                    ⊗          ▭-INSERT
                       1       ▭-DELETE
                      MOVE     ▭-MANUAL
```

After the TV channels have been registered in the programme numbers (PR), the EDIT menu appears.

• You can now edit the programme numbers (PR) using the EDIT/ MANUAL function. For details, see "EDIT/MANUAL" on page 30.
• If you do not need to use the EDIT/ MANUAL function, go to the next step.

3 Press the OK button to display the T-V LINK menu

```
T-V LINK

DOWNLOAD        TV ➡ VCR

⊺ᴠ  ᵛᶜ
⊗
        EXIT
```

4 If you do not have a T-V LINK compatible VCR connected:
Press the **TV** button to leave the T-V LINK menu.
The T-V LINK menu disappears and all the settings are completed.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:
See "Downloading data to a VCR" on page 35 to transmit the programme number (PR) data to the VCR.

• If a TV channel you want to view is not set to a programme number (PR), set it manually using the MANUAL function. For details, see "EDIT/ MANUAL" on page 30.
• The AUTO PROGRAM function does not set the programme number PR 0 (AV) for your video cassette recorder. You will need to set this using the manual function.
• In some areas you may get TV reception from more than one transmitter, for example, different ITV regions. In this case each TV channel could be set twice. If this happens, the first set of channels will have the stronger signal. If you want to delete the second set of channels, you will have to do it manually (see page 33).

■ **EDIT/MANUAL**
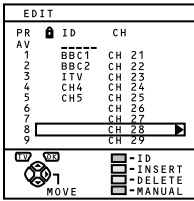The EDIT/MANUAL functions are divided into two types:
• editing the current programme numbers (PR) (EDIT functions); and
• manually storing a TV channel you want to view a programme number (PR) (MANUAL function).

Here are the details about these functions:

Caution
• Using the MOVE, DELETE or INSERT functions rewrites the current programme numbers (PR) list. Therefore, the programme numbers (PR) of some of the TV channels will change.
• Using the MANUAL function for a TV channel for which the CHILD LOCK function has been set cancels the CHILD LOCK function for that channel.
• Using the MANUAL function for a TV channel for which the DECODER (EXT-2) function has been set to ON returns the setting of the DECODER (EXT-2) function for that channel to OFF.
• When a TV channel has already been registered in PR 99, using the INSERT function deletes that TV channel.

1 Choose EDIT/MANUAL, then press the OK button

```
      EDIT
PR  🔒 ID     CH
AV     -----
 1     BBC1   CH 21
 2     BBC2   CH 22
 3     ITV    CH 23
 4     CH4    CH 24
 5     CH5    CH 25
 6            CH 26
 7            CH 27
 8            CH 28   ▶
 9            CH 29
[TV] [VCR]        ☐ = ID
                  ☐ = INSERT
  ⊕               ☐ = DELETE
    1             ☐ = MANUAL
  MOVE
```

- For programme number PR 0, "AV" appears in the programme numbers (PR) list.
- An EXT terminal number does not appear in the programme numbers (PR) list.
- The CH number is a number unique to the TV and corresponding to the channel number of a TV channel. For the relationship of a channel number and a CH number, see "CH NUMBER" on page 34.

2 Follow the description for a function you want to use

MOVE:
This function changes a programme number (PR) of a TV channel.

ID:
This function registers a channel name (ID) to a TV channel.

INSERT:
This function adds a new TV channel in the current programme numbers (PR) list by using the CH number.
- You cannot use the INSERT function if you do not know a channel number of a TV channel. Use the MANUAL function to register a TV channel in the programme number (PR).
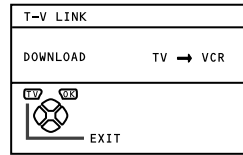
DELETE:
This function deletes a TV channel you do not want to list.

MANUAL:
This function manually stores a new TV channel in a programme number (PR).

3 Press the OK button to complete the settings
The T-V LINK menu appears.

```
 T-V LINK

 DOWNLOAD        TV ➡ VCR

[TV] [VCR]
  ⊕
        EXIT
```

4 If you do not have a T-V LINK compatible VCR connected:
Press the *TV* button to exit the T-V LINK menu.
The T-V LINK menu disappears and all the settings are completed.

If you have a T-V LINK compatible VCR connected:
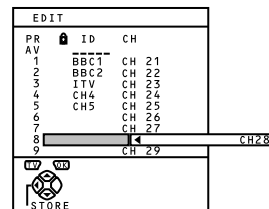Follow the operating procedure "Downloading data to a VCR" on page 35 to transmit the programme number (PR) data to the VCR.

MOVE

1 Press the ▼/▲ buttons to choose a TV channel
Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.

2 Press the ▶ button to start the MOVE function

```
      EDIT
PR  🔒 ID     CH
AV     -----
 1     BBC1   CH 21
 2     BBC2   CH 22
 3     ITV    CH 23
 4     CH4    CH 24
 5     CH5    CH 25
 6            CH 26
 7            CH 27
 8          ◀           CH28
 9            CH 29
[TV] [VCR]
  ⊕
 STORE
```

3 Press the ▼/▲ buttons to choose a new programme number (PR)

To cancel the MOVE function:
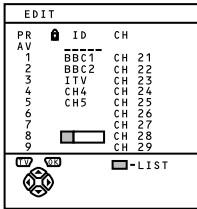Press the ⓘ (Information) button.

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4 Press the ◄ button to change the programme number (PR) of a TV channel to a new programme number (PR)
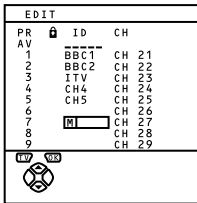
ID

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.
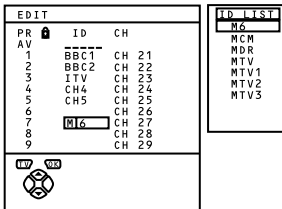
2 Press the red button to start the ID function

```
EDIT
PR  🔒 ID    CH
AV
 1     BBC1   CH 21
 2     BBC2   CH 22
 3     ITV    CH 23
 4     CH4    CH 24
 5     CH5    CH 25
 6            CH 26
 7            CH 27
 8            CH 28
 9            CH 29
TV  VCR        □-LIST
```

3 Press the ▼/▲ buttons to choose the first character of a channel name (ID) you want to give the TV channel

```
EDIT
PR  🔒 ID    CH
AV     -----
 1     BBC1   CH 21
 2     BBC2   CH 22
 3     ITV    CH 23
 4     CH4    CH 24
 5     CH5    CH 25
 6            CH 26
 7     MI     CH 27
 8            CH 28
 9            CH 29
TV  VCR
```

4 Press the blue button to display the ID LIST (channel name list)

```
EDIT                          ID LIST
PR  🔒 ID    CH               M6
AV     -----                  MCM
 1     BBC1   CH 21           MDR
 2     BBC2   CH 22           MTV
 3     ITV    CH 23           MTV1
 4     CH4    CH 24           MTV2
 5     CH5    CH 25           MTV3
 6            CH 26
 7     MI6    CH 27
 8            CH 28
 9            CH 29
TV  VCR
```

5 Press the ▼/▲ buttons to choose the channel name (ID)

To cancel the ID function:
Press the ⓘ (Information) button.

6 Press the OK button to give a channel name (ID) to a TV channel

• You can give your own unique channel name (ID) to the TV channel. When you have finished step 3, do not go to step 4. Press the ◄/► buttons to move the cursor, and press the ▼/▲ buttons to choose each character of the channel name (ID). Then press the OK button to register the channel name (ID) to the TV channel.
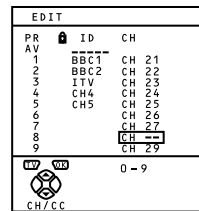
INSERT

Preparation:
• You need to find the CH number for the TV channel. Find the CH number from the "CH NUMBER" table on page 34 based on the channel number of the TV channel.

1 Press the ▼/▲ buttons to choose a programme number (PR) for which you will register a new TV channel

2 Press the green button and start the INSERT function

```
EDIT
PR  🔒 ID    CH
AV     -----
 1     BBC1   CH 21
 2     BBC2   CH 22
 3     ITV    CH 23
 4     CH4    CH 24
 5     CH5    CH 25
 6            CH 26
 7            CH 27
 8            CH --
 9            CH 29
TV  VCR        0-9
CH/CC
```

To cancel the INSERT function:
Press the ⓘ (Information) button.

32

3 Press the number buttons to enter the remaining CH number
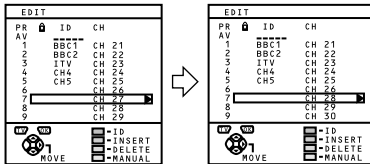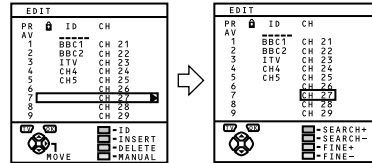
The TV shifts to registration mode.

When the registration is completed, the picture of the TV channel appears on the screen.

- The CH number is a number given to each broadcast frequency that carries a TV channel. If the TV cannot detect the TV channel corresponding to the broadcast frequency indicated by the CH number, a "no-signal" picture appears.

DELETE

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.

2 Press the yellow button to delete the TV channel

The TV channel is deleted from the programme numbers (PR) list.

MANUAL

1 Press the ▼/▲ buttons to choose a programme number (PR) for a new TV channel

2 Press the blue button to activate the MANUAL function

To cancel the MANUAL function:
Press the ⓘ (Information) button.

3 Press the green or red button to search for a TV channel

Scanning stops when the TV finds a TV channel. Then the TV channel is displayed.

4 Press the green or red button repeatedly until the TV channel you want appears

If the TV channel reception is poor:
Press the blue or yellow button to fine-tune the TV channel.

5 Press the OK button and register the TV channel to a programme number (PR)

The normal EDIT menu is resumed.

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■ CH NUMBER

• When you want to use the INSERT function on page 32, find the CH number corresponding to the channel number of the TV channel from this table.

If you want to know a particular TV channel's channel menu, look in TV listings magazines or contact the broadcaster.

CH	Channel	CH	Channel
CH 21	E21	CH 46	E46
CH 22	E22	CH 47	E47
CH 23	E23	CH 48	E48
CH 24	E24	CH 49	E49
CH 25	E25	CH 50	E50
CH 26	E26	CH 51	E51
CH 27	E27	CH 52	E52
CH 28	E28	CH 53	E53
CH 29	E29	CH 54	E54
CH 30	E30	CH 55	E55
CH 31	E31	CH 56	E56
CH 32	E32	CH 57	E57
CH 33	E33	CH 58	E58
CH 34	E34	CH 59	E59
CH 35	E35	CH 60	E60
CH 36	E36	CH 61	E61
CH 37	E37	CH 62	E62
CH 38	E38	CH 63	E63
CH 39	E39	CH 64	E64
CH 40	E40	CH 65	E65
CH 41	E41	CH 66	E66
CH 42	E42	CH 67	E67
CH 43	E43	CH 68	E68
CH 44	E44	CH 69	E69
CH 45	E45		

DEMO

The DEMO function automatically demonstrates some of the TV functions.

Choose ON or OFF. Then press the OK button

The DEMO function is set to ON, and the demonstration will start.

To stop the demonstration:

Press one of the buttons on the remote control.

When the DEMO function is set to ON:

Each time the TV is turned on, the demonstration starts automatically. If you do not want that to happen, cancel the DEMO function:
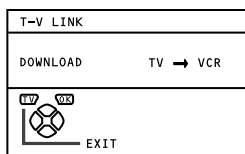
1 Display the DEMO menu again

2 Press the ▼/▲ buttons to choose OFF

3 Press the OK button to cancel the DEMO function

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Additional menu operations

Downloading data to a VCR

You can send the latest programme numbers (PR) data to a VCR with the T-V LINK function.
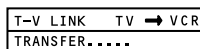
- You can only do this when a T-V LINK compatible VCR is connected to the EXT-2 terminal.
- This only works when the T-V LINK menu is being displayed.

```
T-V LINK

DOWNLOAD        TV ➡ VCR

[TV] [VCR]
⊗
          EXIT
```

1 Turn on the VCR

2 Press the OK button
The data transmission begins.

```
T-V LINK    TV ➡ VCR
TRANSFER.....
```

The T-V LINK menu disappears once the data transmission ends.

When the T-V LINK menu changes over to another menu:
The TV has finished its menu. This new menu is operated from the VCR. See the VCR instruction manual for what to do next.

If "FEATURE NOT AVAILABLE" appears at the T-V LINK menu, check the following three items. Then press the OK button to retry data transmission.

- Has a T-V LINK compatible VCR been connected to the EXT-2 terminal?
- Has the VCR power been turned on?
- Does the SCART cable that connects the EXT-2 terminal to the T-V LINK compatible VCR have all its proper connections?

Using the DECODER (EXT-2) function

If you have a decoder connected to a T-V LINK compatible VCR, which in turn is connected to the EXT-2 terminal, use the DECODER (EXT-2) function to unscramble the scrambled TV channels.

1 Turn on the decoder power
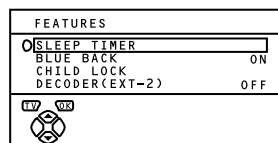
2 Display the scrambled TV channel on the TV
Even if the decoder is working, a scrambled picture appears.

3 Press the OK button to display the MENU
The MENU (main menu) appears.

4 Press the ▼/▲ buttons to choose FEATURES. Then press the OK button
The FEATURES menu appears.

```
FEATURES

O SLEEP TIMER
  BLUE BACK              ON
  CHILD LOCK
  DECODER(EXT-2)        OFF
[TV] [VCR]
⊗
```

5 Press the ▼/▲ buttons to choose DECODER (EXT-2). Then press the ◄/► buttons to choose ON
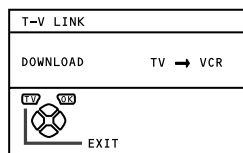An unscrambled picture appears.

To cancel the DECODER (EXT-2) function:
Press the ◄/► buttons to choose OFF.

6 Press the OK button to complete the setting
The T-V LINK menu appears.

```
T-V LINK

DOWNLOAD        TV ➡ VCR

[TV] [VCR]
⊗
          EXIT
```

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7 Follow "Downloading data to a VCR" on page 35 to transmit the programme number (PR) data to the VCR

8 If you have another TV channel you want to unscramble using a decoder, repeat steps 2 to 7

If the DECODER (EXT-2) function has been set to "ON" but the TV channel cannot be unscrambled, check the following:

• Has the decoder been connected to the VCR properly according to the VCR and decoder instruction manuals?
• Has the decoder power been turned on?
• Can the TV channel be unscrambled with a decoder?
• Do you need to change the VCR settings in order to connect the decoder? Confirm that the VCR is set properly by rechecking the VCR Instruction manual.

Additional Sound settings

Follow "Connecting speakers or an amplifier" on page 40 to connect the speakers and amplifier, then set the functions depending on the connection you have made.

When connecting an audio system (front speakers and an amplifier):
Follow "Turning the TV's speakers off" and "Using the TV speakers as the centre speakers for the PRO LOGIC 3D-PHONIC function".

When connecting surround speakers:
Follow "Setting the DOLBY PRO LOGIC function".

When connecting both an audio system (front speakers and an amplifier) and surround speakers:
Follow "Turning the TV's speakers off" and "Setting the DOLBY PRO LOGIC function".

• The ◄/► buttons of the TV remote control and the ◿ (volume) buttons at the front panel of your TV set can be used to control the volume of all the speakers at once.
• The settings of the TV speakers on each menu are related, if you change one of them the others will change automatically.
• Setting the volume of the amplifier too high may damage the front speakers.

■ Turning the TV's speakers off

Preparation:

• Press the **3D** button to choose "SURROUND OFF", then turn off the surround function.

1 Press the OK button to display the MENU (main menu)

2 Press the ▼/▲ buttons to choose SOUND SETTING. Then press the OK button to display the SOUND SETTING menu
The SOUND SETTING menu appears.

```
SOUND SETTING
○ STEREO/I·II     ▢
  BASS            ▮
  TREBLE          ▮
  BALANCE        ▮
  SPEAKER         ON

  TV   OK
  ◈
```
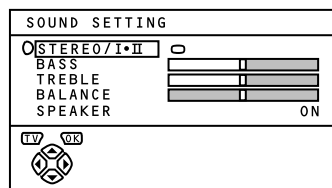
3 Press the ▼/▲ buttons to choose SPEAKER. Then press the ◄/► buttons to choose OFF
The sound from the TV speakers is cut.

4 Press the OK button to complete the settings
The menu disappears.

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■ **Using the TV speakers as the centre speakers for the PRO LOGIC 3D-PHONIC function**

When the PRO LOGIC 3D-PHONIC function is operating, the front speakers and TV speakers are all used. The TV speakers take the role of a centre speaker. It makes spoken dialogues more vivid and easier to listen to.
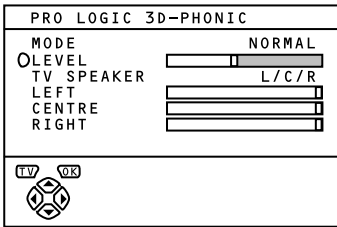
Preparation:
• If you have had headphones connected to your TV set, disconnect them.

1 **Press the OK button to display the MENU (main menu)**

2 **Press the ▼/▲ buttons to choose DIGITAL SURROUND. Then press the OK button to display the DIGITAL SURROUND menu**

3 **Press the ▼/▲ buttons to choose PRO LOGIC 3D-PHONIC. Then press the ▶ button to display the sub-menu of PRO LOGIC 3D-PHONIC function**


```
  PRO LOGIC 3D-PHONIC
   MODE          NORMAL
  OLEVEL       [         ]
   TV SPEAKER     L/C/R
   LEFT        [         ]
   CENTRE      [         ]
   RIGHT       [         ]

  [TV] [OK]
```

4 **Press the ▼/▲ buttons to choose TV SPEAKER. Then press the ◀/▶ buttons to choose CENTRE**

L/C/R:
L/C/R is used to make all the sound come from the TV speakers.

OFF:
OFF is used to cut sound from the TV speakers.
When the sound quality of the audio system is better than the TV's speakers, you can set the TV SPEAKER to OFF to cut the sound of the TV speakers.

5 **Press the OK button to complete the settings**
The menu disappears.
• Use the amplifier volume to control and set the volume of the front speakers to fit in with the TV speakers.

■ **Setting the DOLBY PRO LOGIC function**

Set the items in the sub-menu of the DOLBY PRO LOGIC function properly, and use the test signal to control the volume of the speakers so that you can listen to the sounds from them evenly. Be sure to do this operation before using the DOLBY PRO LOGIC function.
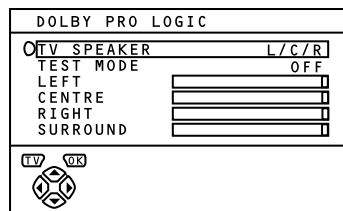
Preparation:
• If you have had the headphones connected to your TV set, disconnect them.
• Increase the volume of the TV speakers to a level at which you ordinarily listen. If you do not do this before starting the operation, it is impossible to control the volume from within the function.
When you are using an audio system, however, set the amplifier volume to zero to cut the front speakers. Then pre-set the TV sound volume level to about 10.

1 **Press the OK button to display the MENU (main menu)**

2 **Press the ▼/▲ buttons to choose DIGITAL SURROUND. Then press the OK button to display the DIGITAL SURROUND menu**

3 **Press the ▼/▲ buttons to choose DOLBY PRO LOGIC. Then press the ▶ button to display the sub-menu of the DOLBY PRO LOGIC function**


```
  DOLBY PRO LOGIC
  O[TV SPEAKER     L/C/R]
   TEST MODE        OFF
   LEFT
   CENTRE      [         ]
   RIGHT       [         ]
   SURROUND    [         ]

  [TV] [OK]
```

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4 Press the ▼/▲ buttons to choose TV SPEAKER. Then press the ◄/► buttons to choose the TV speaker setting

When you are connecting only surround speakers:
Set TV SPEAKER to L/C/R.

When you are connecting both an audio system and surround speakers:
Set TV SPEAKER to CENTRE. All the TV speakers act as a centre speaker. (However, almost no sound is emitted from the woofer.)

5 Press the ▼/▲ buttons to choose TEST MODE. Then press the ◄/► buttons to choose ON

Test signals are output alternately from each of the speakers.

To make sounds come from the front speakers of the audio system:
Slowly turn up the amplifier volume until the volume from the front speaker is roughly equal to that from the TV speakers or surround speakers.

6 Press the ◄/► buttons to adjust the sound volumes of the speakers so that you can listen to the sounds at the same volume when you are sitting where you would normally sit to watch the TV

LEFT/CENTRE/RIGHT/SURROUND:
LEFT and RIGHT stands for the left and right of the front speakers. CENTRE refers to the centre speaker, and SURROUND refers to surround speakers.

7 Press the OK button to complete the settings

The menu disappears.

- For details about listening positions, see "Connecting speakers or an amplifier" on page 40.
- When you use both an audio system and the TV speakers and they are not matched in sound quality, you can change over the TV SPEAKER setting to OFF to cut the TV speakers.

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Additional preparation

Connecting external equipment

Connect the equipment to the TV, making the correct rear panel and front panel connections.
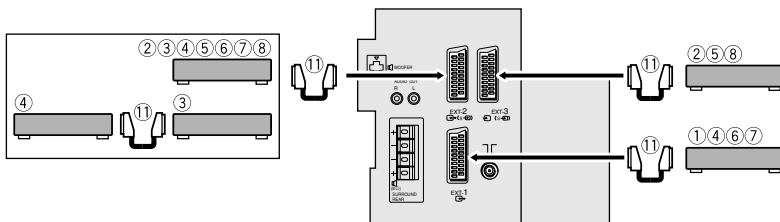
Before connecting anything:

• Read the manuals that came with the equipment.
Depending on the equipment, the connection method may be different from the diagram. Also, the equipment settings may need to change depending on the connection method.

• Turn off all the equipment including the TV.

• The "Specifications" on the back cover give the details of the EXT terminals. If you are connecting equipment not listed in the following connection diagram, see the table to choose the best EXT terminal.

• Connecting cables are not supplied.

① VCR (composite signal)
② VCR (composite signal/S-VIDEO signal)
③ T-V LINK compatible VCR (composite signal/S-VIDEO signal)
④ Decoder
⑤ DVD player (composite signal/S-VIDEO signal)
⑥ DVD player (composite signal/RGB signal)
⑦ TV game (composite signal/RGB signal)
⑧ TV game (composite signal/S-VIDEO signal)
⑨ Headphones
⑩ Camcorder (composite signal/S-VIDEO signal)
⑪ SCART cable
⑫ Audio cable
⑬ Video cable
⑭ S-VIDEO cable

Back of the TV

Back of the TV

■ **Equipment which can output the S-VIDEO signal (Y/C signal) such as an S-VHS VCR**

Connect the equipment to an EXT terminal (but not the EXT-1 terminal).

You can choose between an S-VIDEO signal (Y/C signal) and a regular video signal (composite signal). For details of how to operate the equipment, see "S⊖ (S-VIDEO input)" on page 25.

■ **T-V LINK compatible VCR**

Be sure to connect the T-V LINK compatible VCR to the EXT-2 terminal. If not, the T-V LINK function will not work properly.

• When connecting a T-V LINK compatible VCR to the EXT-2 terminal, be sure to connect the decoder to the VCR. If not, the T-V LINK function may not work properly. After you have stored TV channels in the programme numbers (PR) list, set the DECODER (EXT-2) function for the programme number (PR) to ON to unscramble a scrambled TV channel. For details, see "Using the DECODER (EXT-2) function" on page 35.

■ **Connecting headphones**

Connect the headphones with a stereo mini-jack (3.5 mm diameter) to the headphone jack at the TV front panel.

• When you connect the headphones, the TV speakers go off.

■ **Video or sound signal output from the EXT-2 terminal**

You can change over the output of the video/sound signal from the EXT-2 terminal. This is useful when you want to dub the video/sound from another device onto the VCR connected to the EXT-2 terminal. For details on how to do this, see "DUBBING" on page 26.

■ **TV output from the EXT-1 terminal**

The video/sound signal of a TV channel you are viewing is always output from the EXT-1 terminal.

• Changing over a programme number (PR) also changes over the TV output from the EXT-1 terminal.

• The video/sound signal from an EXT terminal cannot be output.
• Teletext programmes cannot be output.

Connecting speakers or an amplifier

See the audio equipment diagram, and connect the audio equipment to the TV.

Before connecting anything:

• Read the manuals that came with the amplifier and speakers.
• Turn the TV and amplifier off.
• Use impedance 8-ohm type speakers for surround speakers.
• To prevent magnetism from the speakers affecting the TV screen, use magnetic-shielded speakers for the front speakers.
• Connecting cables are not supplied.
• Pay attention to the positive ⊕ and negative ⊖ polarities when connecting the surround speakers to your TV.
• For the best effect, position the surround speakers at least 1 metre above the heads of seated viewers.
• If you want to use your external Dolby Surround decoder, connect it to the AUDIO OUT terminals. Then set all surround functions of the TV to OFF.
• The output from the AUDIO OUT terminal is not cut off connecting headphones to the TV.

■ **Audio amplifier and front speakers**

You can use external front speakers to listen to the TV sound instead of the TV speakers. For details of how to operate them, see "Turning the TV's speakers off" on page 36. Also note that when you want to use the PRO LOGIC 3D-PHONIC function, you can set it to issue sound from both of the TV speakers and external front speakers so that you can listen to spoken dialogues more clearly and easily. For details, see "Using the TV speakers as the centre speakers for the PRO LOGIC 3D-PHONIC function" on page 37.

• You cannot cut the sound from the front speaker even if you connect a headphone to the TV.

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■ External surround speakers

You can connect external surround speakers to the TV so that you can use the "DOLBY PRO LOGIC" on page 23. Before using the DOLBY PRO LOGIC function, however, follow the description "Setting the DOLBY PRO LOGIC function" on page 37.
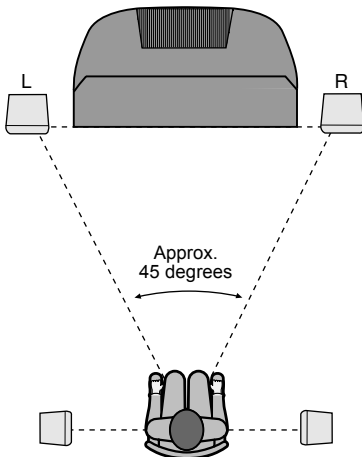
1 Amplifier
2 Front speakers (magnetic-shielded type)
3 Surround speakers (impedance 8 ohm type)
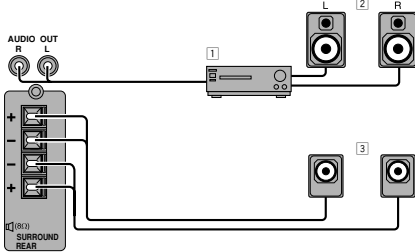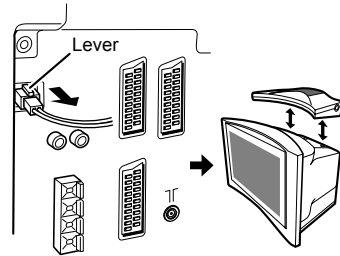

(Terminals on rear)
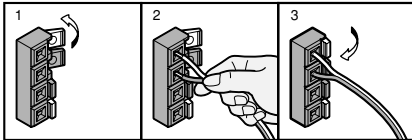
■ Positioning the speakers

L   R

Approx.
45 degrees

Removing and Fitting the Woofer Unit

■ Removing the woofer unit

The woofer unit may be removed as necessary.

Remove the connector while pushing the connector lever on the WOOFER terminal, lift the woofer, and remove it.

Lever

■ Fitting the woofer unit

Fit the woofer unit in the reverse order to that described in "Removing the woofer unit".

Align the projection on the base of the woofer unit with the hole in the top of the TV, and insert the connector into the WOOFER terminal.

■ Cautions when fitting the woofer unit

• Check that the woofer unit is fitted correctly on the top of the TV.
• Do not use excessive force when inserting the connector into the WOOFER terminal. Use of excessive force may damage the connector.

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Troubleshooting

If a problem arises while you are using the TV, please read this troubleshooting guide carefully before you ask to have the TV repaired. You may be able to fix it easily by yourself. For example, if the mains plug is disconnected from the mains outlet, or the TV aerial has problems, you may think there is a problem with the TV itself.

Important:
- This troubleshooting guide only covers problems whose causes are not easy to decide. If you have a question when you are operating a function, read the page(s) for that function carefully, not this troubleshooting guide.
- If you follow the advice in this troubleshooting guide without any success, unplug the mains plug and ask for your TV to be repaired. Do not attempt to repair the TV by yourself or to remove the rear cover of the TV.

■ If you cannot turn on the TV
- Is the mains plug connected to the mains outlet?
- Is the power lamp lit? If not, press the main power button.

■ No picture or no sound
- Have you chosen a TV channel with very poor reception? If so, the BLUE BACK function will be activated: the entire screen becomes blue, and the sound is muted. If you still want to view the TV channel, follow the description "BLUE BACK" on page 28 to try to change the BLUE BACK function setting to OFF.
- Have you connected headphones to the TV?
  Connecting headphones to the TV turns off the TV speakers.
- Have you set the SPEAKER function to OFF? Follow the description "SPEAKER" on page 22 to check the SPEAKER function setting.

■ Poor picture
- If noise (snow) totally block out the picture, there may be a problem with the aerial or aerial cable. Check the following to try to solve the problem:
  - Have the TV and aerial been connected properly?
  - Has the aerial cable been damaged?
  - Is the aerial pointing in the right direction?
  - Is the aerial itself faulty?

- If the TV or aerial suffers interference from other equipment, stripes or noise may appear in the picture. Move any equipment such as an amplifier, personal computer, or a hair drier, that can cause interference away from your TV. Or try moving the TV. If the aerial suffers interference from a radio tower or high-voltage wire, please contact your local dealer.
- If the TV suffers interference from signals reflecting from mountains or buildings, double-pictures (ghosting) will occur. Try to change the aerial's direction or replace it with one with better directionality.
- Are your COLOUR SYSTEM settings correct? Follow the description "COLOUR SYSTEM" on page 20 to try to solve the trouble.
- Have the COLOUR and BRIGHT settings been adjusted properly? Follow the description "Picture Adjustment" on page 19 to try to adjust them properly.
- Videotaping teletext is not recommended because it may not record correctly.
- When a white and bright still image (such as a white dress) is displayed on the screen, the white part may look as if it is coloured. This is unavoidable due to the nature of the picture tube itself, and not due to a TV failure. When the picture disappears from the screen, the unnatural colours will also disappear.

■ **Poor sound**
- Have you adjusted BASS or TREBLE properly? If not, follow the description "Sound Adjustment" on page 21.
- When TV channel reception is poor, it can be hard to hear stereo or bilingual sound. In this case, follow the description "STEREO / I • II" on page 21 to hear the sound more easily by changing it to a mono sound.

■ **If the TV does not respond to the remote control**
- Have the batteries of the remote control worn out? Follow the description "Putting the batteries into the Remote control" on page 6 and replace them with new batteries.
- Have you attempted to use the remote control from the sides or rear of the TV or from more than seven metres away from the TV? Use the remote control in the front of your TV or from less than seven metres away.
- When you are viewing a teletext programme, you cannot operate the menus. Press the **TV** button to return to the ordinary TV programme, and then try operating the menus.
- If the TV will not respond suddenly, press the main power button on the TV and turn off the main power. Press the main power button again to turn on the TV. If the TV returns to a normal state, it is not a failure.

■ **Other issues**
- When the SLEEP TIMER function operates, the TV is automatically turned off. If the TV is turned off suddenly, try to press the ⏻/I (standby) button to turn on the TV once again. If the TV goes back to normal, there is no problem.
- When the TV is receiving a wide-screen signal (WSS) or a signal from an external device affecting the screen size, the ZOOM mode automatically changes. When you want to resume the previous ZOOM mode, press the **ZOOM** button again.

- If you bring a magnetised equipment such as a speaker near to your TV, the picture may be warped or unnatural colours now appear at the corners of the screen. In this case, keep the equipment away from your TV. If speakers cause this to happen, use magnetic-shielded speakers instead.
- A picture may be tilted due to the earth's own magnetic field. If so, use the "PICTURE TILT (Only for AV-32R370KE)" on page 21 to correct the tilt.
- The TV may make a crackling sound due to a sudden change in temperature. The picture or sound may be normal. If you hear crackling sounds frequently while you are viewing the TV, there may be other causes. As a precaution, ask your service technician to inspect it.
- Touching the screen may cause you to feel a slight electric shock due to its static electricity. This is unavoidable due to the construction of the picture tube. It is not a problem with the TV. You can rest assured that this static discharge is not harmful.

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JVC

ENGLISH ●
DEUTSCH ●
FRANÇAIS ●
NEDERLANDS ●
CASTELLANO ●
ITALIANO ●
PORTUGUÊS ●

Natural Vision **T-V LINK** Interí Art

AV-32T35SPE
AV-28T35SPE

COLOUR TELEVISION	INSTRUCTIONS
FARBFERNSEHGERÄT	**BEDIENUNGSANLEITUNG**
TELEVISEUR COULEUR	**MANUEL D'INSTRUCTIONS**
KLEURENTELEVISIE	**GEBRUIKSAANWIJZING**
TELEVISOR A COLOR	**MANUAL DE INSTRUCCIONES**
TELEVISORE A COLORI	**ISTRUZIONI**
TELEVISOR A CORES	**INSTRUÇÕES**

Thank you for buying this JVC colour television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

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

CAUTION:

- Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
- Avoid damaging the AC plug and power cord.
- When you are not using this unit for a long period of time, it is recommended that you disconnect the power cord from the main outlet.

- The main power button on the TV does not fully isolate the TV from the AC supply. If you are not going to use this TV for a long period of time, be sure to disconnect the AC plug from the AC socket.

Avoid improper installation and never position the unit where good ventilation is unattainable.

When installing this television, distance recommendations must be maintained between the floor and wall, as well as installation in a tightly enclosed area or piece of furniture.

Adhere to the minimum distance guidelines shown for safe operation.
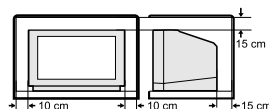
Failure to heed the following precautions may result in damage to the television or remote control.

DO NOT block the TV's ventilation openings or holes.
(If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)

DO NOT place anything on top of the TV.
(such as cosmetics or medicines, flower vases, potted plants, cups, etc.)

DO NOT allow objects or liquid into the cabinet openings.
(If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)

DO NOT place any naked flame sources, such as lighted candles, on the TV.

The surface of the TV screen is easily damaged. Be very careful with it when handling the TV.
Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully.
Never use any cleaner or detergent on it.

In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

CONTENTS

1

Setting up your TV

Caution
• Turn off all the equipment including the TV before connecting anything.
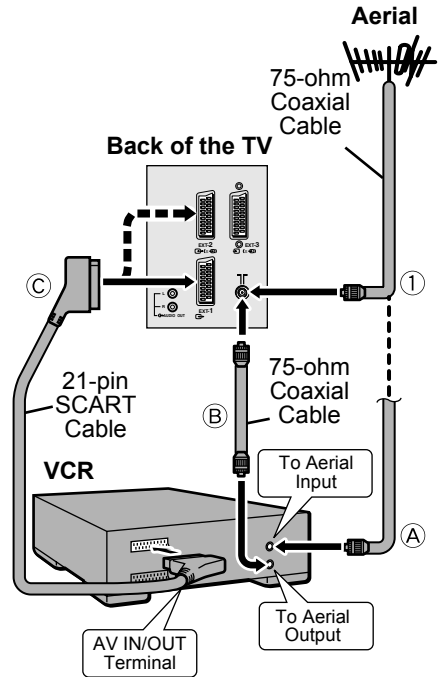
Connecting the aerial and VCR

• The connecting cables are not provided.
• For further details, refer to the manuals provided with the devices to be connected.

■ **If connecting a VCR, follow Ⓐ →
Ⓑ → Ⓒ.**

■ **If not connecting a VCR, follow ①.**

To operate T-V LINK functions, a T-V
LINK compatible VCR must be connected to
the EXT-2 terminal on the TV. For details
about T-V LINK functions, see "T-V LINK
FUNCTIONS" on page 5.

• A video can be viewed from the VCR
  without performing Ⓒ. For details, refer
  to your VCR instruction manual.
• To connect additional external devices,
  please see "Additional preparation" on
  page 35.
• To connect speakers and amplifier, please
  see "Connecting Speakers/Amplifier" on
  page 36.
• When a decoder is connected to a T-V
  LINK compatible VCR, set the
  DECODER (EXT-2) function to ON. For
  details, see "Using the DECODER (EXT-
  2) function" on page 34. Otherwise, you
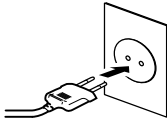 will not be able to view scrambled
  channels.

■ **Rear Panel**
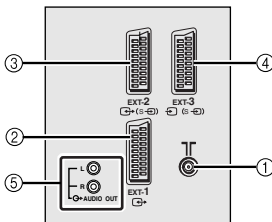
① Aerial socket (2)
② EXT-1 terminal (2, 22, 35)
③ EXT-2 terminal (2, 5, 22, 35)
④ EXT-3 terminal (22, 35)
⑤ AUDIO OUT terminal (36)

2

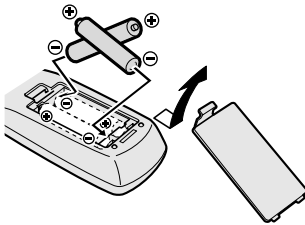## Connecting the power cord to the AC outlet

Caution
• Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.

## Putting the batteries into the Remote control

Use two AA/R6 dry cell batteries.
Insert the batteries from the ⊖ end, making sure the ⊕ and ⊖ polarities are correct.

• Follow the warnings printed on the batteries.
• Battery life is about six months to one year, depending on your frequency of use.
• The batteries we supply are only for setting up and testing your TV, please replace them as soon as necessary.
• If the remote control does not work properly, replace the batteries.

Initial settings

When the TV is first turned on, it enters the initial setting mode, and the JVC logo is displayed. Follow the instructions on the on-screen display to make the initial settings.
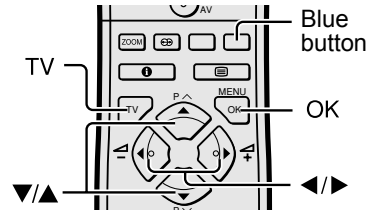
1 Press the Main power button on the TV

The Power lamp lights red (for power on), then green (for TV on) and the JVC logo is displayed.
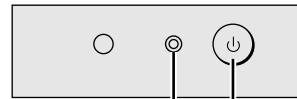
Power lamp   Main power button

• If the power lamp stays red and does not change to green:
Your TV is in the standby mode. Press the ⏻/I (Standby) button on the remote control to turn your TV on.
• The JVC logo does not appear when your TV has been turned on once. In this case, use the "LANGUAGE" and "AUTO PROGRAM" functions to make the initial settings. For details, see "INSTALL" on page 26.
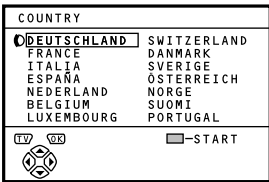
ENGLISH

3

2 Press the OK button

The LANGUAGE menu appears.

```
LANGUAGE
●ENGLISH
  FRANÇAIS
  DEUTSCH
  ITALIANO
  CASTELLANO
  NEDERLANDS
  DANSK
  NORSK
  SVENSKA
  SUOMI

TV  OK
```

3 Press the ◄/► and ▼/▲ buttons to choose ENGLISH. Then press the OK button

English is set for the on-screen display description. The COUNTRY menu appears as a sub-menu of the AUTO PROGRAM function.
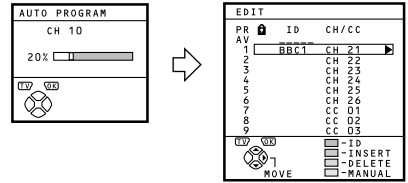
```
COUNTRY
●DEUTSCHLAND   SWITZERLAND
  FRANCE       DANMARK
  ITALIA       SVERIGE
  ESPAÑA       ÖSTERREICH
  NEDERLAND    NORGE
  BELGIUM      SUOMI
  LUXEMBOURG   PORTUGAL

TV  OK            ▢–START
```

4 Press the ◄/► and ▼/▲ buttons to choose the country where you are now located

5 Press the blue button to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears and received TV channels are automatically registered in the Programme numbers (PR).

• To cancel the AUTO PROGRAM function:
  Press the **TV** button.

```
AUTO PROGRAM
   CH 10

20%  ▭▭

TV  OK
```

```
EDIT
PR 🔒 ID    CH/CC
AV
1             CH 21  ►
2    BBC1    CH 22
3             CH 23
4             CH 24
5             CH 25
6             CH 26
7             CC 01
8             CC 02
9             CC 03
TV  OK       ▭–ID
             ▭–INSERT
             ▭–DELETE
   MOVE      ▭–MANUAL
```

After the TV channels have been registered in the Programme numbers (PR), the EDIT menu appears

• You can proceed to edit the Programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 28.
• If you do not need to use the EDIT/MANUAL function, go to the next step.

6 Press the OK button to display the T-V LINK menu

```
T-V LINK

DOWNLOAD    TV ➡ VCR

TV  OK

   ┗━ EXIT
```

4
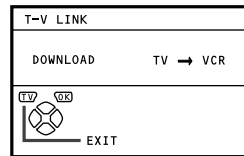
7 If you do not have a T-V LINK compatible VCR connected:
Press the **TV** button to exit the T-V LINK menu.
The T-V LINK menu disappears.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:
Follow the operating procedure "Downloading the data to VCR" on page 33 to transmit the Programme number (PR) data.

Now, the initial settings are complete, and you can watch the TV
• When your TV can detect the TV channel name from the TV channel broadcast signal, it automatically registers the TV channel name (ID) to the Programme number (PR) in which the TV channel has been registered.
• If a TV channel you want to view is not set to a Programme number (PR), manually set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 28.
• The TV channel is not registered in Programme number PR 0 (AV). When you want to register a TV channel to PR 0 (AV), manually set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 28.

T-V LINK FUNCTIONS

When a T-V LINK compatible VCR is connected to the EXT-2 Terminal on the TV, it is easier to set up the VCR and to view videos. T-V LINK uses the following features:

To use T-V LINK functions:
A T-V LINK compatible VCR is necessary. The VCR must be connected to the EXT-2 terminal on the TV by a fully wired SCART cable.

A "T-V LINK compatible VCR" means a JVC VCR with the T-V LINK logo or a VCR with one of the following logos. However, these VCRs may support some or all of the features described below. For details, refer to your VCR instruction manual.
"Q-LINK" (a trademark of Panasonic Corporation)
"Data Logic" (a trademark of Metz Corporation)
"Easy Link" (a trademark of Phillips Corporation)
"Megalogic" (a trademark of Grundig Corporation)
"SMARTLINK" (a trademark of Sony Corporation)

ENGLISH

5

■ Pre-set Download

Download the registered data on the TV channels from the TV to the VCR.
The Preset Download function automatically begins when the initial setting is complete or whenever the AUTO PROGRAM or EDIT/MANUAL operations are performed.

• This function can be operated via VCR operation.

When "FEATURE NOT AVAILABLE" is displayed:

If "FEATURE NOT AVAILABLE" is displayed, the download was not performed correctly. Before trying to download again, ensure the following:

• The VCR power is turned on.
• The VCR is T-V LINK compatible.
• The VCR is connected to the EXT-2 terminal.
• The SCART cable is fully wired.

■ Direct Rec

"What You See Is What You Record"
You can record to VCR the images that you are currently viewing on TV by a simple operation. For details, read the manual for your VCR. Operate via the VCR. "VCR IS RECORDING" is displayed.

In the following conditions, the VCR will stop recording if the TV is turned off, if the TV channel or input is switched, or if the menu is displayed on the TV:

• When recording images from an external device connected to the TV.
• When recording a TV channel after it has been unscrambled on a decoder.
• When recording a TV channel by using the TV's output because that TV channel cannot be properly received on the VCR's tuner.

• Operation via the TV is not possible.
• Generally, the VCR cannot record a TV channel that cannot be received properly by the VCR's tuner, even though you can view that TV channel on the TV. However, some VCRs can record a TV channel by using the TV's output if that channel can be viewed on the TV, even though the TV channel cannot be received properly by the VCR's tuner. For details, refer to your VCR instruction manual.

■ TV Auto Power On/VCR Image View

When the VCR starts playing, the TV automatically turns on and the images from EXT-2 terminal are displayed on the screen. When the VCR menu is operated, the TV automatically turns on and the images from EXT-2 terminal are displayed on the screen.

• This function does not operate if your TV's main power is turned off. Set your TV's main power to on (standby mode).

6

TV buttons and functions
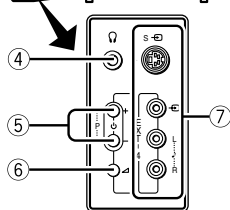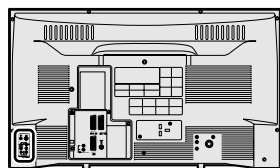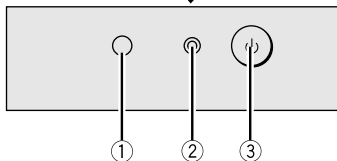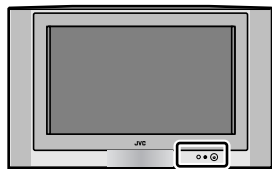
Refer to the pages in parentheses for details.

① Remote control sensor
② Power lamp (3, 7)
③ Main power button (3, 7)
④ Headphone jack (mini jack) (35)
⑤ P ∨/∧ buttons/ −/+ buttons (8)
⑥ ◢ (Volume) button (8)
⑦ EXT-4 terminal (22, 35)

Turn the Main power on

Press the Main power button on the TV.
The Power lamp lights red and your TV is in the standby mode.
• If the Power lamp lights green, the TV is already on.

To turn the Main power off:
Press the Main power button again.
The Power lamp goes off.

Caution
• The main power button on the TV does not fully isolate the TV from the AC supply. If you are not going to use this TV for a long period of time, be sure to disconnect the AC plug from the AC socket.

7

Turn the TV on from standby mode

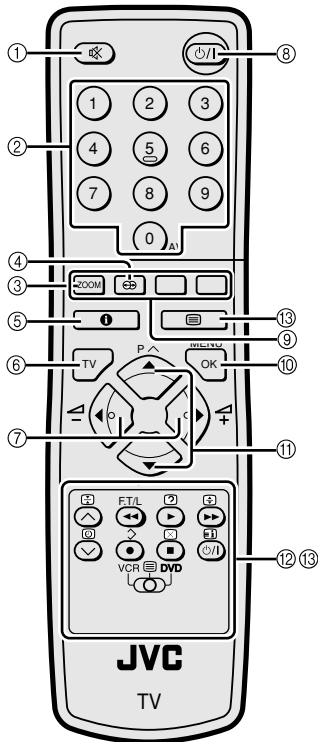**Press the P ∨/∧ buttons to turn the TV on from standby mode**

Choose a TV channel

Press the P ∨/∧ buttons to choose a programme number (PR) or an EXT terminal

Adjust the volume

1 **Press the ⊿ (Volume) button**
The volume level indicator appears.

2 **Press the −/+ buttons while the volume level indicator is displayed**

8

Remote control buttons and functions

① Muting button
② Number buttons
③ ZOOM button
④ HYPER SOUND button
⑤ Information button
⑥ *TV* button
⑦ ◀/▶ buttons
⑧ Standby button
⑨ Colour buttons
⑩ **OK** button
⑪ ▼/▲ buttons
⑫ VCR/DVD/Teletext control button
⑬ VCR ▤ DVD switch ▤ (Text) button

Turn the TV on or off from standby mode

Press the ⏻/l (standby) button to turn the TV on or off.

When the TV is turned on, the power lamp changes from red to green.

• The power can be turned on by pressing the *TV* button, ▼/▲ buttons or Number buttons.

Choose a TV channel

■ **Use the number buttons:**
Enter the programme number (PR) of the channel using the number buttons.
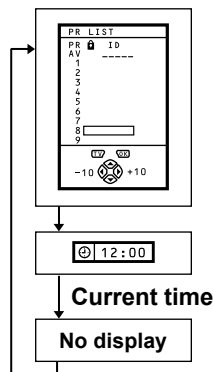
Example:

• PR6 → press *6*
• PR12 → press *1* and *2*

■ **Use the ▼/▲ buttons:**
Press the ▼/▲ buttons to choose the programme number (PR) you want.

9

■ Use the PR LIST:

1 Press the ⓘ (Information) button to display the PR LIST

Pressing the ⓘ (information) button changes the display as follows:

```
┌──────────────────┐
│  PR LIST         │
│  PR 🔒  I D      │
│  AV    _____     │
│  1               │
│  2               │
│  3               │
│  4               │
│  5               │
│  6               │
│  7               │
│  8  ▭            │
│  9               │
│     📺  📺        │
│  −10 ✛ +10       │
└──────────────────┘
        │
        ▼
   ┌──────────┐
   │🕐 12:00  │
   └──────────┘
 **Current time**
 ┌──────────┐
 │**No display**│
 └──────────┘
```

2 Press the ◄/► and ▼/▲ buttons to choose a Programme number (PR). Then press the OK button

- For Programme numbers (PR) with the CHILD LOCK function set, the 🔒 (CHILD LOCK) mark is displayed next to the Programme number (PR) in the PR LIST.
- You cannot use the ▼/▲ buttons to choose a Programme number (PR) with the CHILD LOCK function set.
- Even if you try to choose a Programme number (PR) with the CHILD LOCK function set, the 🔒 (CHILD LOCK) mark will appear, and you cannot watch the TV channel. To watch the TV channel, see "CHILD LOCK" on page 24.
- If the picture is tilted, correct it. See "PICTURE TILT (Only for AV-32T35SPE)" on page 20.

Adjust the volume

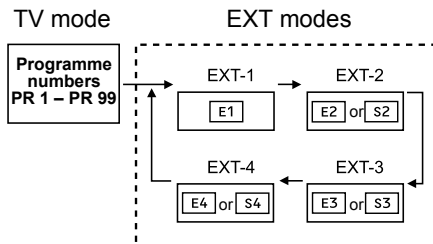**Press the ◄/► buttons to adjust the volume.**
The Volume indicator appears and the volume changes as you press the −/+ buttons.

■ Muting the sound
Press the 🔇 (muting) button to turn off the sound.
Pressing the 🔇 (muting) button again restores the previous volume level.

Watch images from external devices

■ Use the ⓪ (AV) button:
Press the ⓪ (AV) button to choose an EXT terminal.

TV mode   EXT modes

```
┌──────────────┐    ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
│Programme     │      EXT-1  →   EXT-2
│numbers       │ →  │ ┌────┐     ┌───────────┐│
│PR 1 – PR 99  │    │ │ E1 │     │ E2 │or│ S2 ││
└──────────────┘    │ └────┘     └───────────┘│
                    │   ▲              │       │
                    │  EXT-4         EXT-3     │
                    │ ┌───────────┐ ┌─────────┐│
                    │ │ E4 │or│ S4│←│ E3│or│S3 ││
                    │ └───────────┘ └─────────┘│
                    └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
```

■ Use the ▼/▲ buttons:
Press the ▼/▲ buttons to choose an EXT terminal.

■ Use the PR LIST:

1 Press the ⓘ (Information) button to display the PR LIST

2 Press the ◄/► and ▼/▲ buttons to choose an EXT terminal. Then press the OK button

- The EXT terminals are registered after the Programme number PR 99.

10

• You can choose a video input signal from the S-VIDEO signal (Y/C signal) and regular video signal (composite signal). For details, see "S⊖ (S-VIDEO input)" on page 22.
• If you do not have a clear picture or no colour appears, change the colour system manually. See "COLOUR SYSTEM" on page 19.
• If you choose an EXT terminal with no input signal, the EXT terminal number becomes fixed on the screen.
• This TV set has a function which can automatically change over the input according to a special signal output from an external device. (The EXT-4 terminal does not support it.)
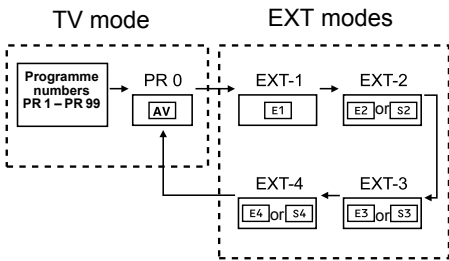
To return to a TV channel:
Press the *TV* button, the ▼/▲ buttons or the Number buttons.

To use the Programme number PR 0 (AV):
When the TV and VCR are connected only by the Aerial cable, choosing the Programme number PR 0 (AV) allows you to view images from the VCR. Set the VCR RF channel to the Programme number PR 0 (AV) manually. For details, see "EDIT/MANUAL" on page 28.
Pressing the *0 (AV)* button changes the choice as follows:

TV mode   EXT modes

Programme numbers PR 1 – PR 99 | PR 0 [AV] → EXT-1 [E1] → EXT-2 [E2 or S2]
EXT-4 [E4 or S4] ← EXT-3 [E3 or S3]

• The VCR RF channel is sent as the RF signal from the VCR.
• Also refer to your VCR instruction manual.

ZOOM function

You can change the screen size according to the picture aspect ratio. Choose the optimum one from the following ZOOM modes.

AUTO (WSS):
For any picture format except Normal Picture (4:3 Aspect Ratio), the picture will be automatically displayed in the optimum screen size.
For Normal Picture (4:3 Aspect Ratio), the picture displayed in accordance with the ZOOM mode set on the 4:3 AUTO ASPECT menu. For details, see "4:3 AUTO ASPECT" on page 20.
• AUTO may not function properly with poor signal quality. In this case, choose an optimum ZOOM mode manually.
• This TV supports WSS (wide-screen signals). When broadcasts with WSS are received with the ZOOM mode set at AUTO (WSS), the most suitable ZOOM mode is automatically chosen according to the WSS received.
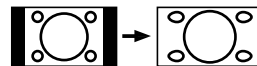
REGULAR:
Use to view a normal picture (4:3 aspect ratio) as its original size is.

PANORAMIC:
This mode stretches the left and right sides of a normal picture (4:3 Aspect Ratio) to fill the screen, without making the picture appear unnatural.

• The top and bottom of the picture are slightly cut off.

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14:9 ZOOM:
This mode zooms up the Wide Picture (14:9 Aspect Ratio) to the upper and lower limits of the screen.
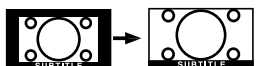
16:9 ZOOM:
This mode zooms up the Wide Picture (16:9 Aspect Ratio) to the full screen.

16:9 ZOOM SUBTITLE:
This mode zooms up the Wide Picture (16:9 Aspect Ratio) with subtitles to the full screen.
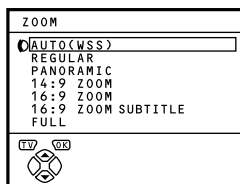
FULL:
This mode uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.

Use for pictures with a 16:9 aspect ratio that have been squeezed into a normal picture (4:3 aspect ratio), you can restore their original dimensions.

■ **Choose the ZOOM mode**

1 **Press the ZOOM button to display the ZOOM menu**

```
ZOOM
AUTO(WSS)
REGULAR
PANORAMIC
14:9 ZOOM
16:9 ZOOM
16:9 ZOOM SUBTITLE
FULL
```

2 **Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button**

The picture expands and the chosen ZOOM mode is displayed in about 5 seconds.
• You can pre-set a ZOOM mode for the normal picture. See "4:3 AUTO ASPECT" on page 20.
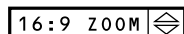
■ **Adjusting the visible area of the picture**
If subtitles or the top (or bottom) of the picture are cut off, adjust the visible area of the picture manually.

1 **Press the ZOOM button**
The ZOOM menu appears.

2 **Press the OK button to display the ZOOM mode indication**
Indicator is displayed.

16:9 ZOOM ⇔

3 **While it is displayed, press the ▼/▲ buttons to adjust the visible area vertically**
• You cannot adjust the visible area in REGULAR or FULL mode.

HYPER SOUND function

You can enjoy sounds with a wider ambience.

**Press the ⊕ (HYPER SOUND) button to turn the HYPER SOUND function on or off**
• The HYPER SOUND function does not work properly with mono sound.
• The HYPER SOUND function can be also turned on or off by using the SOUND SETTING menu. For details, see "HYPER SOUND" on page 21.

12

Displaying the current time

You can display the Current Time on the screen.

Press the ⓘ (Information) button to display the current time

Pressing the ⓘ (Information) button changes the display as follows:

Current time
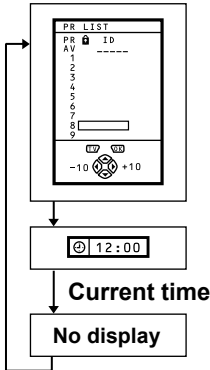
No display

- This TV uses teletext data to set the current time. If the TV has not received a TV channel that has teletext programmes since it was turned on, the time display is blank. To view the current time, choose a TV channel that has teletext programmes. The time will still be displayed as long as you do not turn off the TV, even if you choose other TV channels.
- When watching videos, an incorrect current time is sometimes displayed.

Return to TV channel instantly

You can return to a TV channel instantly.

Press the *TV* button

The TV returns to the TV mode and a TV channel appears.

Operating a JVC brand VCR or DVD player

You can operate a JVC brand VCR or DVD player. Pressing the button having the same appearance as the original remote control button of a device makes the function work in the same way as the original remote control.

1 Set the VCR ▤ DVD Switch to the VCR or DVD position

VCR:
When you are operating the VCR, set the switch to the VCR position.

DVD:
When you are operating the DVD player, set the switch to the DVD position.

2 Press the VCR/DVD Control Button to control your VCR or DVD player

- If your device is not made by JVC, these buttons cannot be used.
- Even if your device is made by JVC, some of these buttons or any one of the buttons may not work, depending on the device.
- You can use the ∨/∧ buttons to choose a TV channel. The VCR will receive or choose the chapter the DVD player plays back.
- Some DVD player models use the ∨/∧ buttons for both operating of Fast forward/backward functions and choosing the chapter. In this case, the ◀◀/▶▶ buttons do not work.
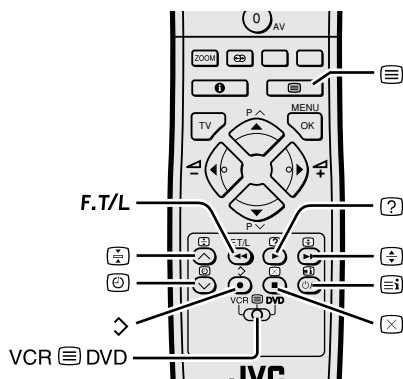
ENGLISH

13

Teletext function

F.T/L

VCR 🔳 DVD

Basic operation

You can view three types of teletext broadcasts on the TV:
FLOF (Fastext), TOP and WST.

1 Choose a TV channel with a teletext broadcast

2 Set the VCR 🔳 DVD switch to the 🔳 (Text) position

VCR 🔳 DVD

3 Press 🔳 (Text) button to display the teletext

Pressing 🔳 (Text) button changes the mode as follows:

TV mode   Text mode

4 Choose a teletext page by pressing the ▼/▲ buttons, Number buttons or Colour buttons

To return to the TV mode:
Press the **TV** button or 🔳 (Text) button.

- If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station.
- The ZOOM function will not operate in the TV and text mode or Text mode.
- No menu operations are possible when viewing a teletext programme.
- Language display depends on the country which was set on the COUNTRY menu. If characters on a Teletext programme do not appear properly, change the COUNTRY Setting to other country's. For detail, "Changing the COUNTRY setting" on page 33.
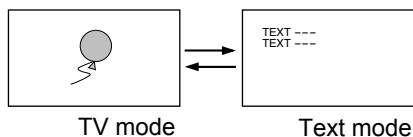
Using the List Mode

You can store the numbers of your favourite teletext pages in memory and call them up quickly using the colour buttons.

■ To store the page numbers:

1 Press F.T/L button to engage the List mode

The stored page numbers are displayed at the bottom of the screen.

2 Press a Colour button to choose a position. Then press the Number buttons to enter the page number
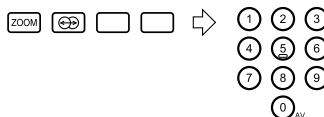
3 Press and hold down ◇ (Store) button

The four page numbers blink white to indicate that they are stored in memory.

ENGLISH

■ To call up a stored page:

1 Press the _F.T/L_ button to engage the List mode

2 Press a colour button to which a page has been assigned

[ZOOM] [⊕] [ ] [ ]

To exit the List mode:
Press the _F.T/L_ button again.

Hold

You can hold a teletext page on the screen for as long as you want, even while several other teletext pages are being received.

Press the ⊡ (Hold) button

Hold indication ────── ⬚

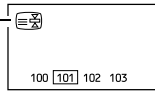100 [101] 102 103

To cancel the Hold function:
Press ⊡ (Hold) button again.

Sub-page

Some teletext pages include sub-pages that are automatically displayed.
You can hold any sub-page, or view it at any time.

1 Press the ⊚ (Sub-page) button to operate the Sub-page function

2 Press the Number buttons to enter a sub-page number
Example:
• 3rd sub-page → press _0_, _0_, _0_ and _3_.

To cancel the Sub-page function:
Press the ⊚ (Sub-page) button again.

You can also choose a sub-page by pressing the red or green button.

Reveal

Some teletext pages include hidden text (such as answers to a quiz).
You can display the hidden text.

Each time you press the ⍰ (Reveal) button, text is hidden or revealed

1 + 2 =		1 + 2 = 3
2 x 3 =	↔	2 x 3 = 6
100 101 [102] 103		100 101 [102] 103

Size

You can double the height of the teletext display.

Press the ⊟ (size) button.

TEXT SIZE → TEXT SIZE → TEXT SIZE

15
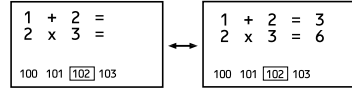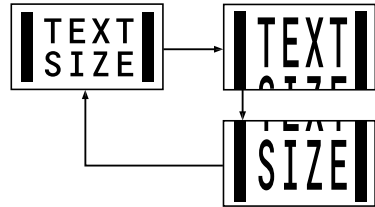
Index

You can return to the index page instantly.

Press 🗐 (Index) button

FLOF (Fastext)/TOP/WST:
Returns to page 100 or a previously specified page.

List mode:
Returns to the page number displayed in the lower left area of the screen.

Cancel

You can search for a teletext page while watching TV.

1 Press the Number button to enter a page number, or press a Colour button
The TV searches for a teletext page.

2 Press ⊠ (Cancel) button
The TV programme appears. When the TV finds the teletext page, its page number appears in the upper left of the screen.

3 Press ⊠ (Cancel) button to return to a teletext page when the page number is on the screen
• The TV mode cannot be resumed even by pressing the ⊠ (Cancel) button. A TV programme is temporarily displayed instead of the teletext programme.

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Using the TV's menu

This TV has a number of functions you can operate using menus. To fully utilize all your TV's functions, you need to understand the basic menu operating techniques fully.
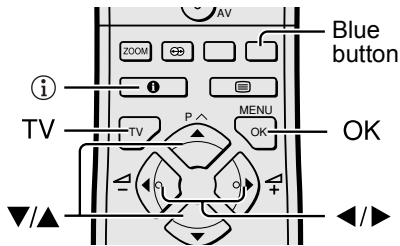
Basic operation

1 Press the OK button to display the MENU (main menu)

```
MENU

◐ PICTURE SETTING
  PICTURE FEATURES
  SOUND SETTING
  EXT SETTING
  FEATURES
  INSTALL
  DEMO

TV   OK
```
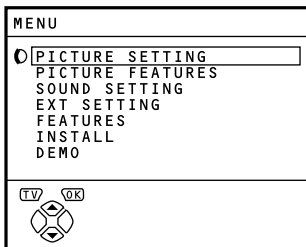
- The display appearing at the bottom of a menu indicates buttons on the remote control you can use when you operate a chosen function.

TV button   **OK** button

When a menu is displayed on the screen, the ZOOM mode may be automatically changed to the FULL mode. This is not a malfunction. When the menu disappears, the ZOOM mode will return to the previously set ZOOM mode.

2 Press the ▼/▲ buttons to choose a menu title, and press the OK button
The menu appears.

To return to the previous menu:
Press the ⓘ (information) button.

To exit a menu instantly:
Press the *TV* button.

3 Press the ▼/▲ buttons to choose a function
- For details of the functions in the menus, see the following pages.

4 Press the ◀/▶ buttons to choose the setting of that function
- If you want to operate a function which appears only with its name, follow the descriptions of that function on the following pages.
- The display appearing at the bottom of a menu shows you a button on the remote control that you can use when you operate a chosen function.

5 Press the OK button to complete the setting
The menu disappears.
- When watching the television with the NTSC system, the menus are displayed at about half of their normal vertical size.

PICTURE SETTING

```
PICTURE SETTING
● TINT              WARM
  CONTRAST        ▭
  BRIGHT          ▭
  SHARP           ▭
  COLOUR          ▭
  HUE             ▭

TV  OK              ▭ - RESET
```

■ TINT
You can select one of three TINT modes (three kinds of picture settings) to adjust the picture settings automatically.

COOL:
A cool white colour base with a boost in the colour and contrast levels that creates a more vivid picture.

WARM:
A warm orange/red colour base that creates the appropriate colour and contrast levels for watching films.

NORMAL:
A normal white colour base with normal colour and contrast levels.

■ Picture Adjustment
You can change the picture settings of each TINT mode as you like.

CONTRAST
You can adjust the picture contrast.
◄ : lower
► : higher

BRIGHT
You can adjust the picture brightness.
◄ : darker
► : brighter

SHARP
You can adjust the picture sharpness.
◄ : softer
► : sharper

COLOUR
You can adjust the picture colour.
◄ : lighter
► : deeper

HUE
You can adjust the picture tint.
◄ : reddish
► : greenish

• You can change the HUE setting (picture hue) only when the colour system is NTSC 3.58 or NTSC 4.43. (See "Specifications" on page 42.)

To return to the default settings in each TINT mode:
Press the blue button.
• This returns the picture settings in the TINT mode you have chosen to the default settings, and stores them in the TINT mode.

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PICTURE FEATURES

```
PICTURE FEATURES
◐AUTO VNR            AUTO
  COLOUR SYSTEM
  4:3 AUTO ASPECT
  PICTURE TILT

 TV   OK
 ◈
```

■ AUTO VNR

VNR Stands for "video noise reduction".

AUTO:

This mode reduces any "noise" (interference or snowing) in the current picture. The function also adjusts the optimum sharpness of the picture (SHARP).

MIN:

The AUTO VNR function is cancelled. If you set the mode to AUTO but feel that the sharpness of the original picture has not been reproduced fully, change the mode to MIN. However, any noise remaining in the original picture may be emphasized.

MAX:

This mode always reduces any noise as much as possible, irrespective of state of the picture. When you set the mode to AUTO but still notice some noise, change the mode to MAX. However, this may reduce the sharpness of the picture.

■ COLOUR SYSTEM

The colour system is chosen automatically. However, if the picture is not clear or no colour appears, choose the colour system manually.

```
COLOUR SYSTEM

        PAL

 TV   OK
 ◈
```

1 Choose COLOUR SYSTEM then press the OK button

2 Press the ◄/► buttons to chose the appropriate colour system. Then press the OK button

PAL:

PAL system

SECAM:

SECAM system

NTSC 3.58:

NTSC 3.58 MHz system

NTSC 4.43:

NTSC 4.43 MHz system

AUTO:

This function detects a colour system from the input signal. Only when you are viewing a picture from Programme number PR 0 (AV), or EXT terminal, you can choose using the AUTO function.

- The AUTO function may not function properly if you have poor signal quality. If the picture is abnormal in the AUTO function, choose another colour system manually.
- When in the Programme numbers PR 0 (AV) to PR 99, you cannot choose NTSC 3.58 or NTSC 4.43.

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■ **4:3 AUTO ASPECT**

You can choose one of three ZOOM modes, REGULAR, PANORAMIC or 14:9 ZOOM, as the ZOOM mode for the normal picture (4:3 aspect ratio).

1 Choose 4:3 AUTO ASPECT then press the OK button

```
4:3 AUTO ASPECT

O PANORAMIC
  REGULAR
  14:9 ZOOM

TV   OK
```
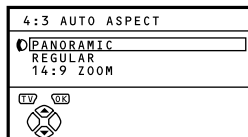
2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button

■ **PICTURE TILT (Only for AV-32T35SPE)**

There are cases where the Earth's magnetic force may make the picture tilt. If this happens, you can correct the picture tilt.

1 Press the ▼/▲ buttons to choose PICTURE TILT. Then press the OK button
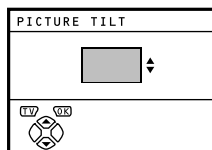
```
PICTURE TILT

TV   OK
```

2 Press the ▼/▲ buttons until the picture becomes level. Then press the OK button

SOUND SETTING

```
SOUND SETTING

O STEREO/I·II   O
  BASS
  TREBLE
  BALANCE
  HYPER SOUND  OFF        ON
  SPEAKER                 ON

TV   OK
```
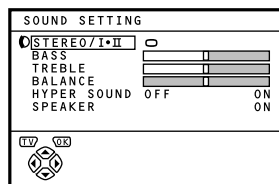
■ **STEREO / I • II**

When you are viewing a bilingual broadcast programme, you can choose the sound from Bilingual I (Sub I) or Bilingual II (Sub II). When the stereo broadcasting is received poorly, you can change from stereo to mono sound so that you can hear the broadcast more clearly and easily.

CO : Stereo sound

O : mono sound

I : Bilingual I (sub I)

II : Bilingual II (sub II)

• The sound mode you can choose differs depending on the TV programme.
• This function does not work in the EXT modes. And this function does not appear in the SOUND SETTING menu.

■ **Sound Adjustment**

You can adjust the sound to your liking.

BASS

You can adjust the low tone of the sound.
◄ : weaker
► : strong

TREBLE

You can adjust the high tone of the sound.
◄ : weaker
► : strong

BALANCE

You can adjust the volume balance between the left and right speaker.
◄ : turn the left speaker's volume level up.
► : turn the right speaker's volume level up.

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■ HYPER SOUND

You can enjoy sounds with a wider
ambience.

ON:

This function is turned on.

OFF:

This function is turned off. The menu
disappears.

- The HYPER SOUND function does not
  work properly with mono sound.
- You can turn on or off the HYPER
  SOUND function with a single press. For
  details, see "HYPER SOUND function"
  on page 12.

■ SPEAKER

You can turn off the sound from the TV
speakers; but you should only do this if an
audio system is connected to the TV as a
substitute for the TV speakers.

ON:

The TV speakers issue sound.

OFF:

The TV speakers does not issue sound.

- The ◄/► buttons of the TV remote
  control and the ◿ (volume) buttons at
  the front panel of your TV set can be used
  to control the volume of each speaker
  simultaneously.
- Setting the volume of the amplifier too
  high may damage the front speakers.

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EXT SETTING
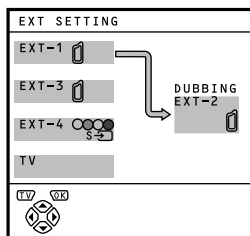
■ S⊟ (S-VIDEO input)

When connecting a device (such as S-VHS VCR) which enables an S-VIDEO signal (Y/C signal) to be output, you can enjoy high-quality picture of the S-VIDEO signal (Y/C signal).

Preparation:

• At first, read the Device Instruction Manual and "Additional preparation" on page 35 to connect the device to the TV properly. Second, follow the Device Instruction Manual to set the device so that an S-VIDEO signal (Y/C signal) can be output to the TV.

• Do not set S⊟ (S-VIDEO input) to the EXT terminal connected to a device which cannot output an S-VIDEO (Y/C signal). If it is set wrongly, a picture cannot appear.

---

1 Choose an EXT terminal

---

2 Press the yellow button and set the S⊟ (S-VIDEO input). Then press the OK button

An S⊟ (S-VIDEO input) mark is displayed. You can view an S-VIDEO signal (Y/C signal) instead of the regular video signal (composite signal).

To cancel the S⊟ (S-VIDEO input) setting:

Press the yellow button and turn off S⊟ (S-VIDEO input) mark. The regular video signal (composite signal) pictures are resumed.

• The EXT-1 terminal does not support S-VIDEO signal (Y/C signal) and you cannot set S⊟ (S-VIDEO input) in the EXT-1 terminal.

• Setting S⊟ (S-VIDEO input) changes the head character from "E" to "S". For example, "E2" is changed to "S2".

• Even an device which enables the S-VIDEO signal (Y/C signal) to be output may output a regular video signal (composite signal) depending on the device setting. If a picture cannot appear because S⊟ (S-VIDEO input) setting has been made, read the device Instruction Manual carefully again to check for the device settings.

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■ ID LIST

You can have a name corresponding to the devices connected for each EXT terminal. Giving a name to an EXT terminal makes the EXT terminal number appear on the screen, together with the name.

1 Choose an EXT terminal

2 Press the blue button to display the name list (ID LIST)
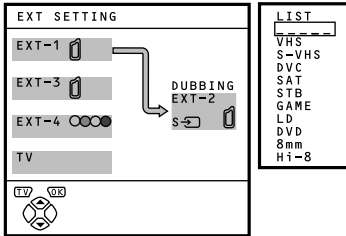
3 Press the ▼/▲ buttons to choose a name. Then press the OK button

The ID LIST disappears and the name is assigned to the EXT terminal.

• You cannot assign an EXT terminal name not found in the name list (ID LIST).

To erase a name assigned to the EXT terminal:
Choose a blank space.

4 Press the OK button to complete the setting

■ DUBBING

You can choose a signal source to be output from an EXT-2 terminal.

You can choose any one of the output signal of the device connected to the EXT terminal and the picture and sound from a TV channel you are currently viewing to output it to the EXT-2 terminal.

1 Press the ◄/► buttons to choose the arrow from the menu

2 Press the ▼/▲ buttons to choose an EXT terminal or TV. Then press the OK button

The arrow in the menu represents a signal flow. The left side of the arrow denotes a signal source output from the EXT-2 terminal.

EXT-1/EXT-3/EXT-4:
The output signal of the device connected to an EXT terminal passes through the TV and is output from the EXT-2 terminal.

TV:
The picture and sound of the TV channel you are currently viewing are output from the EXT-2 terminal.

• During dubbing, you cannot turn off the TV. Turning off the TV also turns off the output from the EXT-2 terminal.
• When you choose an EXT terminal as an output, you can view a TV programme or a picture from the other EXT terminal while dubbing the picture from a device connected to the EXT terminal onto a VCR connected to the EXT-2 terminal.
• The RGB signals from the TV games cannot be output. Teletext programmes cannot be output.
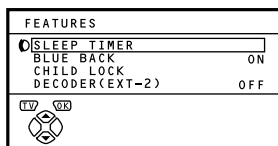
ENGLISH

FEATURES

```
FEATURES

○ SLEEP TIMER
  BLUE BACK          ON
  CHILD LOCK
  DECODER(EXT-2)     OFF
```

■ SLEEP TIMER

You can set the TV to automatically turn off after a specified period of time.

1 Choose SLEEP TIMER, then press the OK button

A Sub-menu of the SLEEP TIMER function appears.

```
SLEEP TIMER


      0              120
 OFF
```
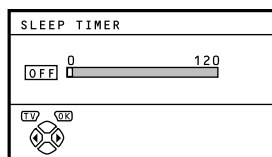
2 Press the ◄/► buttons to set the period of time.
Then press the OK button

You can set the period of time a maximum of 120 minutes (2 hours) in 10 minute increments.

- One minute before the SLEEP TIMER function turns off the TV, "GOOD NIGHT!" appears.
- The SLEEP TIMER function cannot be used to turn off the TV's main power.
- When the SLEEP TIMER function is on, you can display the Sub-menu of the SLEEP TIMER function again to confirm and/or change the remaining period of time of the SLEEP TIMER function. Press the OK button to exit the menu after confirming and/or changing the remaining time.

To cancel the SLEEP TIMER function:

Press the ◄ button to set a period of time to "OFF".

■ BLUE BACK

You can set the TV to automatically change to a blue screen and mute the sound if the signal is weak or absent, or when there is no input from an external device.

ON:

This function is turned on.

OFF:

This function is turned off.

■ CHILD LOCK

When there is a TV channel you wish your children not to watch, you can use the CHILD LOCK function to lock out the TV channel. Even when a child chooses a Programme number (PR) in which a locked TV channel has been registered, the screen will change to blue and displays 🔒 (CHILD LOCK) so the TV channel cannot be viewed. Unless you enter a pre-set ID number by a special operation, the lock cannot be released and the child cannot view the TV channel programmes.

To set the CHILD LOCK function

1 Choose CHILD LOCK, then press the 0 (AV) button

"SET ID NO." (ID number setting screen) appears.

```
SET ID NO.


        ○━   0 000
```

2 Set the ID number to your liking

1 Press the ▼/▲ buttons to choose a number.

2 Press the ◄/► buttons to move the cursor.

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3 Press the OK button

The Sub-menu of CHILD LOCK appears.

```
CHILD LOCK
PR  🔒  ID       CH/CC
AV        ──
 1      BBC1     CH 21
 2               CH 22
 3               CH 23
 4               CH 24
 5               CH 25
 6               CH 26
 7               CC 01
 8               CC 02
 9               CC 03

 📺   OK                  ☐-LOCK
  ◈
```

4 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the Programme number (PR) changes, and the picture of the TV channel registered in the Programme number (PR) is displayed on the screen.

5 Press the blue button and set the CHILD LOCK function.
Then press the OK button

🔒 (CHILD LOCK) appears and the TV channel is locked.

To reset the CHILD LOCK function:
Press the blue button again.
🔒 (CHILD LOCK) disappears.

To disable easy resetting of the CHILD LOCK function, the menu disappears by choosing the CHILD LOCK function and pressing the OK button as in the ordinary menu operation.

To view a locked TV channel

1 Choose a Programme number (PR) in which a TV channel locked with the Number buttons or PR LIST

The screen changes to blue and the 🔒 (CHILD LOCK) appears. You cannot view the TV channel.

```
🔒 8
```

2 Press the ⓘ (Information) button to display "ID NO." (ID NO. input screen).

```
🔒 8
ID NO.:────
```

3 Press the Number buttons to enter the ID number

The lock is temporarily released so you can view the TV channel.

If you have forgotten the ID number:
Perform step 1 of "To set the CHILD LOCK function". After confirming the ID number, press the *TV* button to exit the menu.

- Even if you reset the lock temporarily, it does not mean that the CHILD LOCK function set for the TV channel is cancelled. The next time anyone attempts to view the TV channel, it will be locked again.
- When you would like to cancel the CHILD LOCK function, you must perform the operation "To set the CHILD LOCK function" again.
- To disable easy choosing of a Programme number (PR) in which a locked TV channel has been registered, the Programme number (PR) has been set that it cannot be chosen by the ▼/▲ buttons or the operation buttons at the TV.
- To disable easy resetting of the lock, "ID NO." (ID NO. input screen) is set so that it cannot appear unless you press the ⓘ (Information) button.

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■ **DECODER (EXT-2)**

Only when connecting a Decoder with a T-V LINK compatible VCR connected to the EXT-2 terminal, you can use this function. To operate this function, see "Using the DECODER (EXT-2) function" on page 34.

Caution

• If you have not connected a Decoder with a T-V LINK compatible VCR connected to the EXT-2 terminal, setting this function to "ON" by mistake causes the picture/ sound of a TV channel you are currently viewing not to be issued.

INSTALL
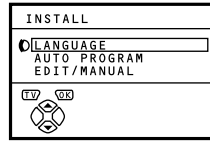
```
INSTALL
○ LANGUAGE
  AUTO PROGRAM
  EDIT/MANUAL
TV   OK
```

■ **LANGUAGE**

You can choose the language you want to use for the on-screen display from the language list in a menu.

1 Choose LANGUAGE, then press the OK button

A sub-menu of the LANGUAGE function appears.

```
LANGUAGE
○ ENGLISH
  FRANÇAIS
  DEUTSCH
  ITALIANO
  CASTELLANO
  NEDERLANDS
  DANSK
  NORSK
  SVENSKA
  SUOMI
TV   OK
```

2 Press the ◀/▶ and ▼/▲ buttons to choose a language. Then press the OK button

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■ AUTO PROGRAM

You can automatically register the TV channels which can be received well at your residence in the TV's Programme numbers (PR) by performing the following.

1 Choose AUTO PROGRAM. Then press the OK button

The COUNTRY menu appears as a sub-menu of the AUTO PROGRAM function. There are two COUNTRY menus. Pressing the yellow button changes the COUNTRY menu as follows:

```
COUNTRY

◐DEUTSCHLAND   SWITZERLAND
 FRANCE         DANMARK
 ITALIA         SVERIGE
 ESPAÑA         ÖSTERREICH
 NEDERLAND      NORGE
 BELGIUM        SUOMI
 LUXEMBOURG     PORTUGAL

TV  OK               ■-START
◈
```

2 Press the ◄/► and ▼/▲ buttons to choose the country where you are now located

3 Press the blue button to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears and received TV channels are automatically registered in the Programme numbers (PR).

- To cancel the AUTO PROGRAM function, press the *TV* button.

```
AUTO PROGRAM          EDIT
                      PR 🔒 ID    CH/CC
  CH 10               AV
                      1  [BBC1]  CH 21  ►
 20% ▭               2          CH 22
                      3          CH 23
                      4          CH 24
 TV  OK              5          CH 25
 ◈        ⇨          6          CH 26
                      7          CC 01
                      8          CC 02
                      9          CC 03
                      TV  OK     ▭-ID
                      ◈          ▭-INSERT
                          ┐      ▭-DELETE
                        MOVE     ▭-MANUAL
```
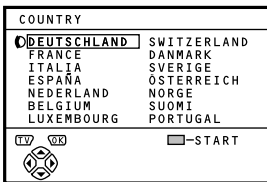
⬇
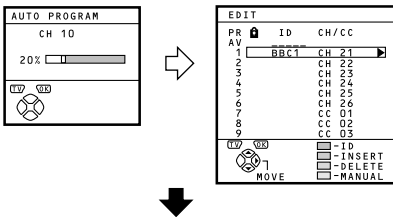
After the TV channels have been registered in the Programme numbers (PR), the EDIT menu appears.

- You can proceed to edit the Programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 28.

- If you do not need to use the EDIT/MANUAL function, go to the next step.

4 Press the OK button to display the T-V LINK menu

```
T-V LINK

DOWNLOAD      TV ➜ VCR

TV  OK
◈
       EXIT
```
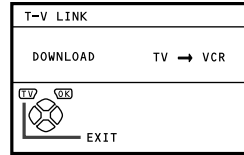
5 If you do not have a T-V LINK compatible VCR connected:

Press the *TV* button to exit the T-V LINK menu.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:

Follow the operating procedure "Downloading the data to VCR" on page 33 to transmit the Programme number (PR) data.

- When your TV can detect the TV channel name from the TV channel broadcast signal, it automatically registers the TV channel name (ID) to the Programme number (PR) in which the TV channel has been registered.
- If a TV channel you want to view is not set to a Programme number (PR), manually set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 28.
- The TV channel is not registered in Programme number PR 0 (AV). When you want to register a TV channel to PR 0 (AV) manually set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 28.

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■ **EDIT/MANUAL**

The EDIT/MANUAL functions are divided into two types: editing of the current Programme numbers (PR) (EDIT functions) and manual registration of a TV channel you want to view to the Programme number (PR) (MANUAL function). The details about these functions are as follows:

Caution

- Using the MOVE, DELETE or INSERT function rewrites the current Programme numbers (PR) list. Resultingly, the Programme number (PR) of some of the TV channels will change.
- Using the MANUAL function for a TV channel for which the CHILD LOCK function has been set cancels the CHILD LOCK function for the TV channel.
- Using the MANUAL function for a TV channel for which the DECODER (EXT-2) function has been set to ON returns the setting of the DECODER (EXT-2) function for the TV channel to OFF.
- When a TV channel has already been registered in PR 99, using the INSERT function deletes the TV channel.

1 **Choose EDIT/MANUAL, then press the OK button**
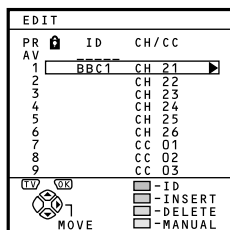
- For Programme number PR 0, "AV" appears in the Programme numbers (PR) list.
- An EXT terminal number does not appear in the Programme numbers (PR) list.
- The CH/CC number is a number unique to the TV and corresponding to the Channel number of a TV channel. For the relationship of a Channel number and a CH/CC number, see "CH/CC numbers" on page 37.

2 **Follow the operation description of a function you want to use and operate the function**

MOVE:
This function changes a Programme number (PR) of a TV channel.

ID:
This function registers a Channel name (ID) to a TV channel.

INSERT:
This function adds a new TV channel in the current Programme numbers (PR) list by using the CH/CC number.

- You cannot use the INSERT function if you do not know a Channel number of a TV channel. Use the MANUAL function to register a TV channel in the Programme number (PR).

DELETE:
This function deletes an unnecessary TV channel.

MANUAL:
This function manually registers a new TV channel in a Programme number (PR).

3 **Press the OK button to complete the settings**
The T-V LINK menu appears.

4 **If you do not have a T-V LINK compatible VCR connected:**
Press the *TV* button to exit the T-V LINK menu.
The T-V LINK menu disappears and all the settings are completed.

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If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:

Follow the operating procedure "Downloading the data to VCR" on page 33 to transmit the Programme number (PR) data to the VCR.

MOVE

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the Programme number (PR) is changed over, and the picture of the TV channel registered in the Programme number (PR) appears on the screen.

2 Press the ▶ button to start the MOVE function

3 Press the ▼/▲ buttons to choose a new Programme number (PR)

To cancel the MOVE function:
Press the ⓘ (Information) button.

4 Press the ◀ button to change the Programme number (PR) of a TV channel to a new Programme number (PR)

ID

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the Programme number (PR) is changed over, and the picture of the TV channel registered in the Programme number (PR) appears on the screen.

2 Press the red button to start the ID function
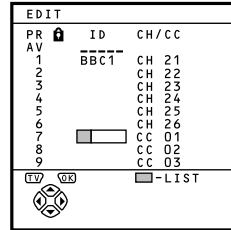
3 Press the ▼/▲ buttons to choose the first character of a Channel name (ID) you want to attach to the TV channel
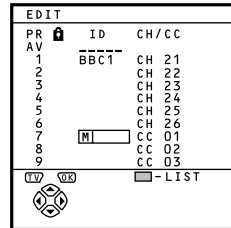
4 Press the blue button to display the ID LIST (channel name list)
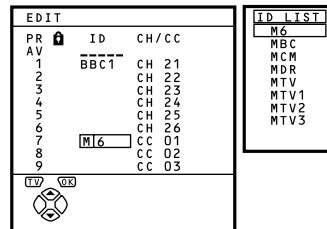
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5 Press the ▼/▲ buttons to choose the Channel name (ID)

To cancel the ID function:
Press the ⓘ (Information) button.

6 Press the OK button to register a Channel name (ID) to a TV channel

• You can register your unique Channel name (ID) to the TV channel. When step 3 is completed, do not go to step 4, but press the ◄/► buttons to move the cursor and the ▼/▲ buttons to choose a character for completing the Channel name (ID). Then press the OK button to register the Channel name (ID) to the TV channel.

INSERT

Preparation:
• A CH/CC number unique to this TV and corresponding to the Channel number of a TV channel is required. Find the corresponding CH/CC number from a table "CH/CC numbers" on page 37 based on the Channel number of the TV channel.
• When the COUNTRY setting is not FRANCE, use a two-digit CH/CC number. When the COUNTRY setting is FRANCE, use a three-digit CH/CC number.
• Only when you add a TV channel (SECAM-L system) from a French station, be sure to set COUNTRY to FRANCE. If the COUNTRY setting is not FRANCE, follow the description "Changing the COUNTRY setting" on page 33 to change the COUNTRY setting to FRANCE, then start the INSERT function.

1 Press the ▼/▲ buttons to choose a Programme number (PR) for which you will register a new TV channel

2 Press the green button and start the INSERT function.

```
 EDIT
 PR 🔒    ID    CH/CC
 AV    ------
 1     BBC1   CH 21
 2            CH 22
 3            CH 23
 4            CH 24
 5            CH 25
 6            CH 26
 7            CH --
 8            CC 01
 9            CC 02
 TV  OK      0-9
   ◇
 CH/CC
```

3 Press the ▼/▲ buttons to choose "CC" or "CH" according to the CH/CC number of the TV channel

When the COUNTRY setting is FRANCE:
Choose "CH1", "CH2", "CC1" or "CC2".

To cancel the INSERT function:
Press the ⓘ (Information) button.

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4 Press the Number buttons to enter the remaining CH/CC number

The TV shifts to registration mode. When the registration is completed, the picture of the TV channel appears on the screen.

• The CH/CC number is a number indicating the broadcast frequency to the TV. If the TV cannot detect the TV channel corresponding to the broadcast frequency indicated by the CH/CC number, a picture in the no-signal state appears.

DELETE

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the Programme number (PR) is changed over, and the picture of the TV channel registered in the Programme number (PR) appears on the screen.

2 Press the yellow button to delete the TV channel

The TV channel is deleted from the Programme numbers (PR) list.

MANUAL

Preparation:

• As long as you register the TV channel (SECAM-L system) from a French station, be sure to set the COUNTRY setting to FRANCE. If the COUNTRY setting is not FRANCE, follow the description "Changing the COUNTRY setting" on page 33 to change the COUNTRY setting to FRANCE, then start the MANUAL function.

1 Press the ▼/▲ buttons to choose a Programme number (PR) to which you want to register a new TV channel

2 Press the blue button to activate the MANUAL function

At the right side following the CH/CC number, the SYSTEM (broadcasting system) of the TV channel appears.

```
EDIT
PR  🔒  ID    CH/CC
AV
1       ____
2       BBC1    CH 21
3               CH 22
4               CH 23
5               CH 24
6               CH 25
7               CH 26
8               CC 01 (B/G)
9               CC 02
                CC 03
TV   OK         ☐-SEARCH+
 ◇              ☐-SEARCH-
◇ ◇             ☐-FINE+
 ◇              ☐-FINE-
  SYSTEM
```

To cancel the MANUAL function:
Press the ⓘ (Information) button.

3 Press the ▶ button to choose the SYSTEM (broadcasting system) for a TV channel you want to register

TV channel (SECAM-L system) from a French station:

Set the SYSTEM to "L". If it is set to one other than "L", you cannot receive the TV channel of the SECAM-L system.

Other TV channels:

If you do not know the correct broadcasting system, set the SYSTEM to "B/G". If "B/G" is not correct, it results in the fact that you will not hear the sound normally when the TV detects a TV channel. In this case, retry to set the SYSTEM again correctly so that no problem arises.

4 Press the green or red button to search for a TV channel

Scanning stops when the TV finds a TV channel. Then the TV channel is displayed.

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5 Press the green or red button repeatedly until the TV channel you want appears

If the TV channel reception is poor:
Press the blue or yellow button to fine-tune the TV channel.

If you cannot hear the normal sound even when the picture of the TV channel appears normally:
The SYSTEM setting is wrong. Press the ▶ button and choose a SYSTEM that has normal sound.

6 Press the OK button and register the TV channel to a Programme number (PR)
The normal EDIT menu is resumed.

DEMO
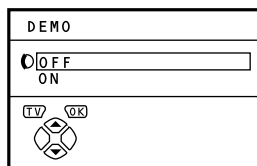
```
┌─────────────────────────┐
│  DEMO                   │
│                         │
│  ○ OFF                  │
│    ON                   │
│                         │
│  TV   OK                │
│    ◈                    │
└─────────────────────────┘
```

The DEMO function automatically demonstrates some of the TV functions.

Choose ON or OFF. Then press the OK button
The DEMO function is set to ON, and the demonstration will start.

To stop the demonstration:
Press one of the buttons on the remote control.

When the DEMO function is set to ON:
Each time the TV is turned on, the demonstration starts automatically. If you do not want that to happen, perform the following operations to cancel the DEMO function:

1 Display the DEMO menu again

2 Press the ▼/▲ buttons to choose OFF

3 Press the OK button to cancel the DEMO function

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Additional menu operations

Downloading the data to VCR

You can transmit to the latest Programme numbers (PR) data to the VCR with the T-V LINK function.

Caution
- Only when the T-V LINK compatible VCR is connected to the EXT-2 terminal, this operation is enabled.
- Only when the T-V LINK menu is being displayed, this operation is enabled.

```
T-V LINK

DOWNLOAD        TV → VCR

TV   OK

          EXIT
```

1 Turn on the VCR
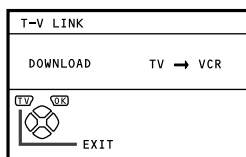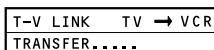
2 Press the OK button
The data transmission begins.

```
T-V LINK   TV → VCR
TRANSFER.....
```

The T-V LINK menu disappears once the data transmission ends.

When the T-V LINK menu is changed over to another menu:
The menu operation at the TV side is completed and it is shifted to the menu operation at the VCR side. Refer to the VCR Instruction Manual and operate the VCR.

If "FEATURE NOT AVAILABLE" appears at the T-V LINK menu, ensure the following three items are correct; then press the OK button to retry data transmission.
- Has the T-V LINK compatible VCR been connected to the EXT-2 terminal?
- Has the VCR power been turned on?
- Does the SCART cable that is connected to the EXT-2 terminal to T-V LINK compatible VCR have all proper connections?

Changing the COUNTRY setting

After the AUTO PROGRAM function is completed, you can change the country you have already set by using the AUTO PROGRAM function.
When registering the TV channels for French broadcast stations (SECAM-L system), perform this operation to change the country.

1 Display the INSTALL menu

When the EDIT menu is currently being displayed:
Press the ⓘ (Information) to return to the INSTALL menu.

2 Press the ▼/▲ buttons to choose AUTO PROGRAM. Then press the OK button
A COUNTRY menu appears as a sub-menu of the AUTO PROGRAM function. There are two COUNTRY menus. Pressing the yellow button changes the COUNTRY as follows:

```
COUNTRY

○ DEUTSCHLAND    SWITZERLAND
  FRANCE         DANMARK
  ITALIA         SVERIGE
  ESPAÑA         ÖSTERREICH
  NEDERLAND      NORGE
  BELGIUM        SUOMI
  LUXEMBOURG     PORTUGAL

TV  OK              □ -START

```
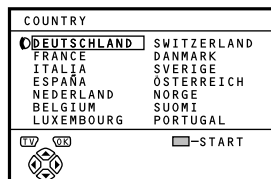
3 Press the ◀/▶ and the ▼/▲ buttons to choose a country

4 Press the OK button to complete the setting

The menu disappears.

To return to the INSTALL menu from the COUNTRY menu:

Press the ⓘ (Information) button instead of the OK button.

Using the DECODER (EXT-2) function

When connecting a Decoder with a T-V LINK compatible VCR connected to the EXT-2 terminal, use the DECODER (EXT-2) function to unscramble the scrambled TV channels.

1 Turn on the Decoder power

2 Display the TV channel capable of being unscrambled with the Decoder on the TV

Even if the Decoder is functioning, a scrambled picture appears at this time.

3 Press the OK button to display the MENU

The MENU (main menu) appears.

4 Press the ▼/▲ buttons to choose FEATURES. Then press the OK button

The FEATURES menu appears.

```
FEATURES
○ SLEEP TIMER
  BLUE BACK          ON
  CHILD LOCK
  DECODER(EXT-2)     OFF

TV  OK
```

5 Press the ▼/▲ buttons to choose DECODER (EXT-2). Then press the ◀/▶ buttons to choose ON
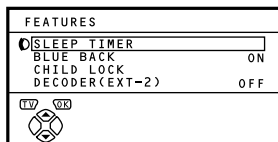
An unscrambled picture appears.

To cancel the DECODER (EXT-2) function:

Press the ◀/▶ buttons to choose OFF.

6 Press the OK button to complete the setting

The T-V LINK menu appears.

```
T-V LINK

DOWNLOAD       TV ➡ VCR

TV  OK
        EXIT
```
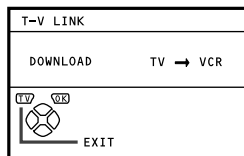
7 Follow the operating procedure "Downloading the data to VCR" on page 33 to transmit the Programme number (PR) data to the VCR

8 If you have another TV channel capable of being unscrambled with a Decoder, repeat steps 2 through 7

If for some reason the DECODER (EXT-2) function has been set to "ON" but the TV channel cannot be unscrambled, check the following:

- Has the Decoder been connected to the VCR properly according to the VCR and Decoder Instruction Manuals?
- Has the Decoder power been turned on?
- Can the TV channel be unscrambled with a Decoder?
- Is it necessary to change the VCR settings in order to connect the Decoder? Confirm that the VCR is set properly by rechecking the VCR Instruction Manual.

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Additional preparation

Connecting the external devices

Connect the devices to the TV, paying attention to the following connection diagram.

Before connecting anything:
- Read the manuals provided with the devices. Depending on the devices, the connection method may differ from the figure. In addition, the device settings may be changed depending on the connection method to secure proper operation.
- Turn off all the devices including the TV.
- The "Specifications" on page 42 contains the details of the EXT terminals. If you are connecting a device not listed in the following connection diagram, see the table to choose the best EXT terminal.
- Note that connecting cables are not supplied.

① VCR (composite signal)
② VCR (composite signal/S-VIDEO signal)
③ T-V LINK compatible VCR (composite signal/S-VIDEO signal)
④ Decoder
⑤ DVD player (composite signal/S-VIDEO signal)
⑥ DVD player (composite signal/RGB signal)
⑦ TV game (composite signal/RGB signal)
⑧ TV game (composite signal/S-VIDEO signal)
⑨ Headphones
⑩ Camcorder (composite signal/S-VIDEO signal)
⑪ SCART cable
⑫ Audio cable
⑬ Video cable
⑭ S-VIDEO cable

Back of the TV

Back of the TV

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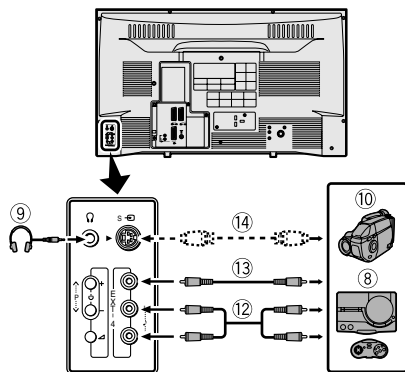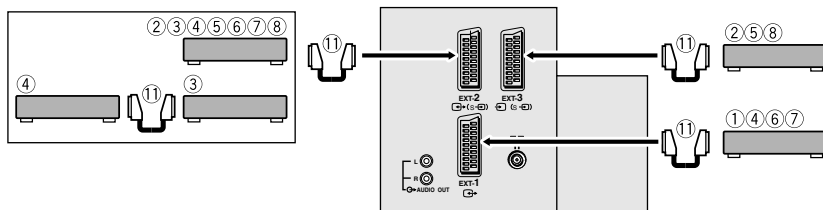
■ **Devices which can output the S-VIDEO signal (Y/C signal) such as a S-VHS VCR**

Connect the device to an EXT terminal other than the EXT-1 terminal.
You can choose a video input signal from the S-VIDEO signal (Y/C signal) and regular video signal (composite signal). For details of how to operate the device, see "S⊖ (S-VIDEO input)" on page 22.

■ **T-V LINK compatible VCR**

Be sure to connect the T-V LINK compatible VCR to the EXT-2 terminal. If not, the T-V LINK function will not work properly.

• When connecting a T-V LINK compatible VCR to the EXT-2 terminal, be sure to connect the Decoder to the VCR. If not, the T-V LINK function may not work properly. After you have registered TV channels to the Programme numbers (PR), set the DECODER (EXT-2) function for the Programme number (PR) to ON in order to unscramble a scrambled TV channel. For details of operation, see "Using the DECODER (EXT-2) function" on page 34.

■ **Connecting headphones**

Connect the headphones with a stereo mini-jack (of 3.5 mm in diameter) to the headphone jack at the TV front panel.

• When you connect the headphones, the TV speakers issue no sound.

■ **Video/sound signal output from the EXT-2 terminal**

You can arbitrarily change over the output of the video/sound signal from the EXT-2 terminal. It is useful when you want to dub the video/sound from another device on the VCR connected to the EXT-2 terminal. For details on how to do this operation, see "DUBBING" on page 23.

■ **TV output from the EXT-1 terminal**

The output of video/sound signal of a TV channel you are currently viewing is always output from the EXT-1 terminal.

• Changing over a Programme number (PR) also changes over the TV output from the EXT-1 terminal.
• The video/sound signal from an EXT terminal cannot be output.
• Teletext programmes cannot be output.

■ **Connecting Speakers/Amplifier**

While referring to the Audio equipment connection diagram, connect the audio equipment you desire to the TV.
You can use external front speakers to listen to the TV sound instead of the TV speakers.

Before connecting anything:
• Read the manuals provided with the amplifier and speakers.
• Turn the TV and Amplifier off.
• To prevent magnetism from the speakers adversely effecting the TV screen, use magnetic-shielded speakers for the front speakers.
• Note that connecting cables are not supplied.

Back of the TV

1 Amplifier
2 Front speakers (Magnetic-shielded type)

• The output from the AUDIO OUT terminal is not interrupted by headphone connection to the TV. You cannot cut the sound from the front speaker even if you connect a headphone to the TV.

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CH/CC numbers

When you want to use the INSERT function on page 30, find the CH/CC number corresponding to the Channel number of the TV channel from this table.

CH	Channel	CH	Channel	CC	Channel	CC	Channel
CH 02 / CH 202	E2	CH 40 / CH 240	E40	CC 01 / CC 201	S1	CC 31 / CC 231	S31
CH 03 / CH 203	E3, ITALY A	CH 41 / CH 241	E41	CC 02 / CC 202	S2	CC 32 / CC 232	S32
CH 04 / CH 204	E4, ITALY B	CH 42 / CH 242	E42	CC 03 / CC 203	S3	CC 33 / CC 233	S33
CH 05 / CH 205	E5, ITALY D	CH 43 / CH 243	E43	CC 04 / CC 204	S4	CC 34 / CC 234	S34
CH 06 / CH 206	E6, ITALY E	CH 44 / CH 244	E44	CC 05 / CC 205	S5	CC 35 / CC 235	S35
CH 07 / CH 207	E7, ITALY F	CH 45 / CH 245	E45	CC 06 / CC 206	S6	CC 36 / CC 236	S36
CH 08 / CH 208	E8	CH 46 / CH 246	E46	CC 07 / CC 207	S7	CC 37 / CC 237	S37
CH 09 / CH 209	E9, ITALY G	CH 47 / CH 247	E47	CC 08 / CC 208	S8	CC 38 / CC 238	S38
CH 10 / CH 210	E10, ITALY H	CH 48 / CH 248	E48	CC 09 / CC 209	S9	CC 39 / CC 239	S39
CH 11 / CH 211	E11, ITALY H+1	CH 49 / CH 249	E49	CC 10 / CC 210	S10	CC 40 / CC 240	S40
CH 12 / CH 212	E12, ITALY H+2	CH 50 / CH 250	E50	CC 11 / CC 211	S11	CC 41 / CC 241	S41
CH 21 / CH 221	E21	CH 51 / CH 251	E51	CC 12 / CC 212	S12	CC 75 / CC 275	X
CH 22 / CH 222	E22	CH 52 / CH 252	E52	CC 13 / CC 213	S13	CC 76 / CC 276	Y
CH 23 / CH 223	E23	CH 53 / CH 253	E53	CC 14 / CC 214	S14	CC 77 / CC 277	Z, ITALY C
CH 24 / CH 224	E24	CH 54 / CH 254	E54	CC 15 / CC 215	S15	CC 78 / CC 278	Z+1
CH 25 / CH 225	E25	CH 55 / CH 255	E55	CC 16 / CC 216	S16	CC 79 / CC 279	Z+2
CH 26 / CH 226	E26	CH 56 / CH 256	E56	CC 17 / CC 217	S17		
CH 27 / CH 227	E27	CH 57 / CH 257	E57	CC 18 / CC 218	S18		
CH 28 / CH 228	E28	CH 58 / CH 258	E58	CC 19 / CC 219	S19		
CH 29 / CH 229	E29	CH 59 / CH 259	E59	CC 20 / CC 220	S20		
CH 30 / CH 230	E30	CH 60 / CH 260	E60	CC 21 / CC 221	S21		
CH 31 / CH 231	E31	CH 61 / CH 261	E61	CC 22 / CC 222	S22		
CH 32 / CH 232	E32	CH 62 / CH 262	E62	CC 23 / CC 223	S23		
CH 33 / CH 233	E33	CH 63 / CH 263	E63	CC 24 / CC 224	S24		
CH 34 / CH 234	E34	CH 64 / CH 264	E64	CC 25 / CC 225	S25		
CH 35 / CH 235	E35	CH 65 / CH 265	E65	CC 26 / CC 226	S26		
CH 36 / CH 236	E36	CH 66 / CH 266	E66	CC 27 / CC 227	S27		
CH 37 / CH 237	E37	CH 67 / CH 267	E67	CC 28 / CC 228	S28		
CH 38 / CH 238	E38	CH 68 / CH 268	E68	CC 29 / CC 229	S29		
CH 39 / CH 239	E39	CH 69 / CH 269	E69	CC 30 / CC 230	S30		

CH	Channel	CH	Channel	CC	Frequency (MHz)	CC	Frequency (MHz)
CH 102	F2	CH 141	F41	CC 110	116 - 124	CC 152	391 - 399
CH 103	F3	CH 142	F42	CC 111	124 - 132	CC 153	399 - 407
CH 104	F4	CH 143	F43	CC 112	132 - 140	CC 154	407 - 415
CH 105	F5	CH 144	F44	CC 113	140 - 148	CC 155	415 - 423
CH 106	F6	CH 145	F45	CC 114	148 - 156	CC 156	423 - 431
CH 107	F7	CH 146	F46	CC 115	156 - 164	CC 157	431 - 439
CH 108	F8	CH 147	F47	CC 116	164 - 172	CC 158	439 - 447
CH 109	F9	CH 148	F48	CC 123	220 - 228	CC 159	447 - 455
CH 110	F10	CH 149	F49	CC 124	228 - 236	CC 160	455 - 463
CH 121	F21	CH 150	F50	CC 125	236 - 244	CC 161	463 - 469
CH 122	F22	CH 151	F51	CC 126	244 - 252		
CH 123	F23	CH 152	F52	CC 127	252 - 260		
CH 124	F24	CH 153	F53	CC 128	260 - 268		
CH 125	F25	CH 154	F54	CC 129	268 - 276		
CH 126	F26	CH 155	F55	CC 130	276 - 284		
CH 127	F27	CH 156	F56	CC 131	284 - 292		
CH 128	F28	CH 157	F57	CC 132	292 - 300		
CH 129	F29	CH 158	F58	CC 133	300 - 306		
CH 130	F30	CH 159	F59	CC 141	306 - 311		
CH 131	F31	CH 160	F60	CC 142	311 - 319		
CH 132	F32	CH 161	F61	CC 143	319 - 327		
CH 133	F33	CH 162	F62	CC 144	327 - 335		
CH 134	F34	CH 163	F63	CC 145	335 - 343		
CH 135	F35	CH 164	F64	CC 146	343 - 351		
CH 136	F36	CH 165	F65	CC 147	351 - 359		
CH 137	F37	CH 166	F66	CC 148	359 - 367		
CH 138	F38	CH 167	F67	CC 149	367 - 375		
CH 139	F39	CH 168	F68	CC 150	375 - 383		
CH 140	F40	CH 169	F69	CC 151	383 - 391		

- When two CH/CC numbers correspond to one Channel number, choose either one according to the current COUNTRY setting. When the COUNTRY setting is other than FRANCE, choose a two-digit CH/CC number. When the COUNTRY setting is FRANCE, choose a three-digit CH/CC number.
- Find the CH/CC number (CC110 to CC161) corresponding to the TV channel (SECAM-L system) from a French cable TV station, based on the broadcast frequency of the TV channel. When you do not know the broadcast frequency, please contact the cable TV station.
- The CH/CC numbers of CH102-CH169 and CC110-CC161 correspond to the TV channels being broadcast by a SECAM-L system. The other CH/CC numbers correspond to the TV channels being broadcast by a method other than a SECAM-L system.

Troubleshooting

If a problem arises while you are using the TV, please read this "Troubleshooting" well before you request having the TV repaired. You may be able to fix it easily by yourself. For example, if the AC plug is disconnected from the AC outlet, or the TV aerial has problems, you may think there is a problem with the TV itself.

Important:
- This Troubleshooting guide only covers problems whose cause are not easy to determine. If a question arise when you are operating a function, read the page(s) corresponding to the operation of the function well, not this Troubleshooting guide.
- After you have followed the Troubleshooting description or the operating description of the functions concerned without any success, remove the AC plug from the AC outlet and request a repair of your TV. Do not attempt to repair the TV by yourself or remove the rear cover of the TV.

■ If you cannot turn on the TV
- Is the AC plug connected to the AC outlet?
- Is the Power lamp lit? If not, press the Main power button.

■ No picture/No sound
- Have you chosen a TV channel whose reception is extremely bad? In this case, the BLUE BACK function will be activated, the entire screen becomes blue, and the sound is muted. In spite of this, if you want to view the TV channel, follow the description "BLUE BACK" on page 24 to try to change the BLUE BACK function setting to OFF.
- Have you connected the headphones to the TV? Connecting the headphones to the TV causes sounds not to be issued from the TV speakers.
- Have you set the SPEAKER function to OFF? Follow the description "SPEAKER" on page 21 to confirm the SPEAKER function setting to try to solve the problem.
- If the SYSTEM setting for a TV channel is incorrect, it may prevent the sound from being issued. Follow the description "EDIT/MANUAL" on page 28 to use the MANUAL function to try to change the SYSTEM setting.

■ Poor picture
- If noise totally obscures the picture (snow), the aerial or aerial cable may have trouble. Check the following to try to solve the trouble:
  Has the TV and aerial been connected properly?
  Has the aerial cable been damaged?
  Is the aerial pointed to the right direction?
  Is the aerial itself faulty?
- If the TV or aerial receives interference from the other devices, stripes or noise may appear in the picture. Move such devices as an amplifier, personal computer, or a hair drier that can cause interference away from your TV, or try changing its location. If the aerial suffers interference from a radio tower or high-voltage wire, please contact your local dealer.
- If the TV receives interference from signal reflecting from mountains or building, double-pictures (ghosting) will occur. Try to change the aerial's direction or replace the antenna with the one with better directionality.
- Are your COLOUR SYSTEM settings for the TV channels correct? Follow the description "COLOUR SYSTEM" on page 19 to try to solve the trouble.

- Has COLOUR or BRIGHT been controlled properly? Follow the description "Picture Adjustment" on page 18 to try to adjust them properly.
- Videotaping teletext is not recommended because it may not record correctly.
- When a white and bright still image (such as a white dress) is displayed on the screen, the white part may look as if it were coloured. It is a phenomenon unavoidable due to the nature of the picture tube itself, and not due to a TV failure. When the picture disappears from the screen, the unnatural colours will also disappear.
- When viewing images from commercially available video software products, or videos from videotapes which have been recorded improperly, the top of the image may be distorted. This is due to the condition of the video signal, and not because of malfunction.

■ Poor sound

Have you adjusted BASS or TREBLE properly? If not, follow the description "Sound Adjustment" on page 20 to try to adjust them properly.

When the TV channel reception is poor, it can be hard to hear the stereo or bilingual sound. In this case, follow the description "STEREO / I • II" on page 20 to hear the sound more easily by changing it to a mono sound.

■ Operation disabled

- Have the batteries of the remote control become exhausted? Follow the description "Putting the batteries into the Remote control" on page 3 and replace them with new batteries to try to solve the problem.
- Have you attempted to use the remote control at the sides or rear of the TV or at a location more than seven meters apart from the TV location? Operate the remote control in the front of your TV or a location less than seven meters from your TV to try to solve the problem.
- When you are viewing a teletext programme, you cannot operate the menus. Press the **TV** button to return the teletext programme to the ordinary TV programme to try operating the menus.
- If the TV operation becomes disabled suddenly, press the Main power button on the TV and turn off the main power. Try to press the Main power button again to turn on the main power. If the TV returns to a normal state, it is not a failure.

■ Other concerns

- When the SLEEP TIMER function operates, the TV is automatically turned off. If the TV is turned off suddenly, try to press the ⏻/| (Standby) button to turn on the TV once again. At this time, if the TV resumes a normal state, there is no problem.
- When a WSS signal is included in the broadcast signal or the signal from an external device, or when the TV is receiving a control signal from an external device, the ZOOM mode will change automatically. When you want to return to the previous ZOOM mode, press the **ZOOM** button to choose the ZOOM mode again.
- If you bring a magnetised device such as a speaker near to your TV, a picture may be warped or unnatural colours appear at the corners of the screen. In this case, keep the device apart from your TV. If the speakers causes such phenomena, use the magnetic-shielded speakers instead.

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- A picture may be tilted due to the influence of the earth's magnetism. In this case, use the "PICTURE TILT (Only for AV-32T35SPE)" on page 20 to complete the tilt.
- It takes a short period of time from the time an operation such as changing channels is performed until an image is displayed. This is not a malfunction. This is the time required for the image to stabilize before it can be displayed.
- The TV may emit a crackling sound due to a sudden change in temperature. It does not matter if a picture or sound does not show any abnormality. If you hear crackling sounds frequently while you are viewing the TV, other causes may be assumed. For precautionary purposes, request your service technician to inspect it.
- Touching the screen may cause you feel a slight electric shock due to its static electricity. It is an unavoidable phenomenon due to the construction of the picture tube. It is not a problem with the TV. You can rest assured that this static discharge does not have harmful influence over the human body.
- When a menu is displayed on the screen, the ZOOM mode may be automatically changed to the FULL mode. This is not a malfunction. When the menu disappears, the ZOOM mode will return to the previously set ZOOM mode.

Specifications

Item \ Model	AV-32T35SPE	AV-28T35SPE
Broadcasting systems	CCIR B/G, I, L	
Colour systems	PAL, SECAM • The EXT terminals also support the NTSC 3.58/4.43 MHz system.	
Channels and frequencies	• E2-E12, E21-E69, S1-S41, X, Y, Z, Z+1, Z+2, ITALY A-H, ITALY H+1, ITALY H+2, F2-F10, F21-F69 • French cable TV channel of broadcast frequencies 116 - 172 MHz and 220 - 469 MHz	
Sound-multiplex systems	A2 (B/G), NICAM (B/G, I, L) system	
Teletext systems	FLOF (Fastext), TOP, WST (World Standard System)	
Power requirements	220 - 240 V AC, 50 Hz	
Power consumption	Maximum: 180 W, Average: 120 W, Standby: 3 W	
Picture tube size	Viewable area 76 cm (measured diagonally)	Viewable area 66 cm (measured diagonally)
Audio output	Rated Power output: 10 W + 10 W	
Speakers	(13 cm × 6.5 cm) oval × 2	
EXT-1 terminal	Euroconnector (21-pin, SCART) • Video input, Audio L/R inputs and RGB inputs are available. • TV broadcast outputs (Video and Audio L/R) are available.	
EXT-2 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input, Audio L/R inputs and RGB inputs are available. • Video and Audio L/R outputs are available. • T-V LINK functions are available.	
EXT-3 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
EXT-4 terminal	RCA connectors × 3 S-VIDEO connector × 1 • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
AUDIO OUT terminal	RCA connectors × 2 • Variable audio L/R outputs are available. • Variable out 0-1 Vrms, low impedance	
Headphone jack	Stereo mini-jack (3.5 mm in diameter)	
Dimensions (W × H × D)	946 mm × 562 mm × 547 mm	854 mm × 508 mm × 490 mm
Weight	54.5 kg	40 kg
Accessories	Remote control unit × 1 (RM-C1502) AA/R6 dry cell battery × 2	

Design and specifications subject to change without notice.

Pictures displayed on the screen using this TV's ZOOM functions should not be shown for any commercial or demonstration purpose in public places (cafes, hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this constitutes an infringement of copyright.

JVC

VICTOR COMPANY OF JAPAN, LIMITED

JVC

Colour Television
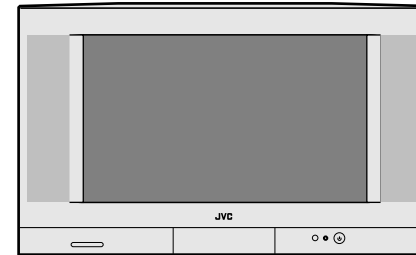
AV-32T67SKE
AV-28T67SKE

InteríArt

Natural Vision

T–V LINK

Contents

JVC

VICTOR COMPANY OF JAPAN, LIMITED

INSTRUCTIONS

plain English appro✓ed
by the word centre

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LCT1353-001A-U
0203-MK-CR-JMUK

Thank you for buying this JVC colour television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

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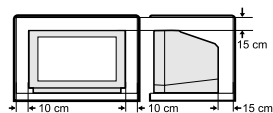
CAUTION:

- Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
- Avoid damaging the AC plug and power cord.
- When you are not using this unit for a long period of time, it is recommended that you disconnect the power cord from the main outlet.

- The main power button on the TV does not fully isolate the TV from the mains supply. If you are not going to use this TV for a long period of time, be sure to disconnect the mains plug from the mains outlet.

Avoid improper installation and never position the unit where good ventilation is unattainable.
When installing this TV, distance recommendations must be maintained between the floor and wall, as well as installation in a tightly enclosed area or piece of furniture.
Adhere to the minimum distance guidelines shown for safe operation.

Failure to heed the following precautions may result in damage to the TV or remote control.

DO NOT block the TV's ventilation openings or holes.
   (If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
DO NOT place anything on top of the TV.
   (such as cosmetics or medicines, flower vases, potted plants, cups, etc.)
DO NOT allow objects or liquid into the cabinet openings.
   (If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)
DO NOT place any naked flame sources, such as lighted candles, on the TV.

The surface of the TV screen is easily damaged. Be very careful with it when handling the TV.
Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully.
Never use any cleaner or detergent on it.

In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

2

■ **Warning**

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or adaptor or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If a new mains plug has to be fitted, then follow the instruction given below:

Important

Do not make any connection to the larger terminal which is marked with the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:
Blue: Neutral
Brown: Live

As these colours may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
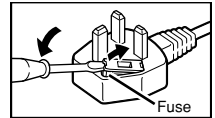
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

■ **If in doubt — consult a competent electrician.**

How to replace the fuse
Open the fuse compartment with a blade screwdriver, and replace the fuse.

Fuse

■ **Guidelines for safe operation**

This equipment has been designed and manufactured to comply with international safety standards. However, as with any electrical appliance, care must be taken to ensure optimal results and operational safety.

- Before attempting to use this equipment, read the operating instructions thoroughly.
- Ensure that all electrical connections (including the mains plug, extension leads, etc.) have been made in accordance with the manufacturer's instructions.
- If ever in doubt about the installation, operation or safety of this equipment, consult your dealer.
- Handle all glass panels or covers with care.
- Never operate this equipment if it appears damaged or operates abnormally. Turn the power off, disconnect the main power plug and consult your dealer.
- Never remove any affixed panels or covers. Doing so may result in electrical shock.
- Never leave this equipment operating unattended unless otherwise specifically stated that it is designed to do so or in standby mode. Only use the designated power switch to turn off the power and ensure that all potential users are instructed how to do so. Make special arrangements for infirm or handicapped persons.
- Never watch TV while operating a motor vehicle. It is illegal to watch TV while driving.
- Never listen to headphones at high volume. Doing so may damage your hearing.

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- Never obstruct the ventilation of this equipment. Doing so may cause overheating and result in a malfunction or damage.
- Never use makeshift stands or attempt to affix legs with wood screws. When using a manufacturer's approved stand or legs, use only the fixtures provided and follow the installation instructions.
- Never allow this equipment to be exposed to rain or moisture.
- Never allow anyone, especially children, to insert anything into an opening in the case. Doing so may result in a fatal electrical shock.
- Never guess or take chances with electrical equipment of any kind. It is better to be safe than sorry.

Setting up your TV

Caution
• Turn off all the equipment including the TV before connecting anything.

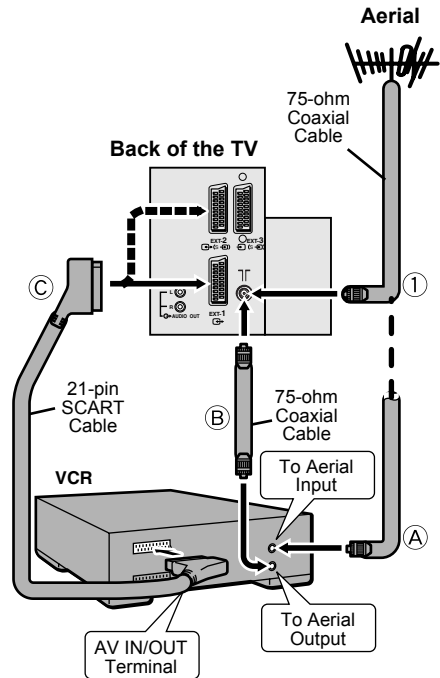## Connecting the aerial and video cassette recorder (VCR)

• The connecting cables are not provided.
• For further details, refer to the manuals provided with the devices to be connected.

■ **If you are connecting a VCR, follow Ⓐ → Ⓑ → Ⓒ → Ⓓ in the diagram opposite.**
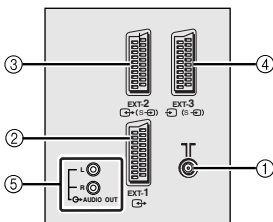
■ **If you are not connecting a VCR, follow ①.**

To use the T-V LINK functions, you must have a T-V LINK compatible VCR connected by a SCART cable Ⓒ to the EXT-2 terminal on the TV. For details about T-V LINK functions, see "T-V LINK functions" on page 8.

• You can watch a video using the VCR without doing Ⓒ. For details, see your VCR instruction manual.
• To connect more equipment, please see "Additional preparation" on page 34.
• To connect external speakers and an audio system, please see "Connecting speakers/amplifier" on page 35.
• If you connect a decoder to a T-V LINK compatible VCR, set the DECODER (EXT-2) function to ON. For details, see "Using the DECODER (EXT-2) function" on page 32.
Otherwise, you will not be able to watch scrambled channels.

Aerial

75-ohm Coaxial Cable

Back of the TV

Ⓒ

21-pin SCART Cable

VCR

Ⓑ 75-ohm Coaxial Cable

To Aerial Input

Ⓐ

①

AV IN/OUT Terminal

To Aerial Output

■ **Rear Panel**
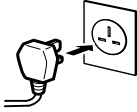

① Aerial socket (page 5)
② EXT-1 terminal (pages 5, 22, 34)
③ EXT-2 terminal (pages 5, 8, 22, 34)
④ EXT-3 terminal (pages 22, 34)
⑤ AUDIO OUT terminal (page 35)

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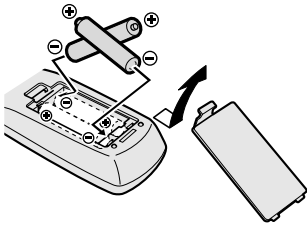## Connecting the power cord to the AC outlet

Caution
• Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
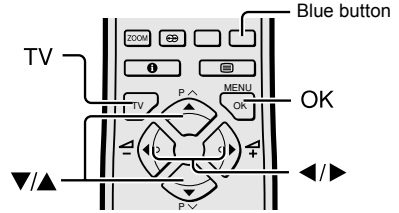
Putting the batteries into the Remote control

Use two AA/R6 dry cell batteries.
Insert the batteries from the $\ominus$ end, making sure the $\oplus$ and $\ominus$ polarities are correct.

• Follow the warnings printed on the batteries.
• Battery life is about six months to one year, depending on how much you use the remote control.
• The batteries we supply are only for setting up and testing your TV, please replace them as soon as you need to.
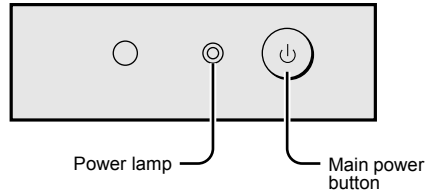• If the remote control does not work properly, replace the batteries.

Initial settings

When the TV is first turned on, it goes into the initial setting mode, and you will see the JVC logo. Follow the instructions on the screen display to make the initial settings.

1 Press the Main power button on the TV

The Power lamp lights red (for power on), then green (for TV on) and the JVC logo appears.

• If the power lamp stays red and does not change to green:
your TV is in the standby mode. Press the $\circlearrowleft$/I (standby) button on the remote control to turn your TV on.
• If the JVC logo does not appear this is because your TV has already been turned on for the first time:
use the "LANGUAGE" and "AUTO PROGRAM" functions to make the initial settings. For details, see "INSTALL" on page 26.

6

2 Press the OK button

The LANGUAGE menu appears.

```
  LANGUAGE
O ENGLISH
  FRANÇAIS
  DEUTSCH
  ITALIANO
  CASTELLANO
  NEDERLANDS
  DANSK
  NORSK
  SVENSKA
  SUOMI
  TV  VCR
```

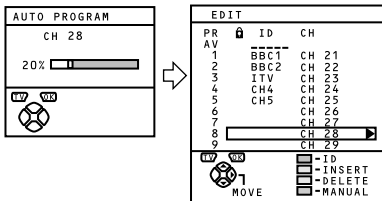**3 Press the ▼/▲ buttons to choose ENGLISH**

The on-screen display will then be in English.

To receive SKY 1 you need a satellite tuner. You must have the satellite tuner set to SKY 1 before starting the AUTO PROGRAM function which follows.

4 Press the OK button to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears and received TV channels are automatically stored in the programme numbers (PR).
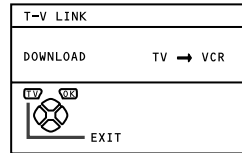
• To cancel the AUTO PROGRAM function:
 Press the *TV* button.

```
AUTO PROGRAM           EDIT
  CH 28            PR  🔒 ID   CH
                   AV
 20% ▭             1    BBC1  CH 21
                   2    BBC2  CH 22
 TV  VCR           3    ITV   CH 23
                   4    CH4   CH 24
                   5    CH5   CH 25
                   6          CH 26
                   7          CH 27
                   8          CH 28  ▶
                   9          CH 29
                   TV  VCR          ▭-ID
                                    ▭-INSERT
                                    ▭-DELETE
                     MOVE           ▭-MANUAL
```

After the TV channels have been registered in the programme numbers (PR), the EDIT menu appears

• If you want to, you can now edit the programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 27.

• If you do not want to edit programme numbers (PR), go to the next step.

5 Press the OK button to display the T-V LINK menu

```
T-V LINK

DOWNLOAD      TV ➡ VCR

TV  VCR
             EXIT
```

6 If you do not have a T-V LINK compatible VCR connected:

Press the *TV* button to exit the T-V LINK menu.

The T-V LINK menu disappears.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:

Follow the operating procedure "Downloading data to a VCR" on page 32 to transmit the programme number (PR) data.

7

Now, the initial settings are complete, and you can watch the TV

BBC1, BBC2, ITV, Channel 4 and Channel 5 are automatically set to the programme numbers PR1 to PR5. If the TV doesn't receive one of these TV channels, that programme number (PR) will not be set. Programme number PR6 is not normally set.

> If you have any problems setting up your new TV, please call the **JVC** Helpline on **0870 330 5000**.

T-V LINK functions

When you have a T-V LINK compatible VCR connected to the EXT-2 Terminal on the TV, it is easier to set up the VCR and to view videos. T-V LINK uses the following features:

To use T-V LINK functions:
A "T-V LINK compatible VCR" means a JVC video cassette recorder with the T-V LINK logo, or with one of the following logos. However, these VCRs may support some or all of the features described earlier. For details, see your VCR instruction manual.

"Q-LINK" (a trademark of Panasonic Corporation)
"Data Logic" (a trademark of Metz Corporation)
"Easy Link" (a trademark of Phillips Corporation)
"Megalogic" (a trademark of Grundig Corporation)
"SMARTLINK" (a trademark of Sony Corporation).

■ Pre-set download
The VCR will automatically download the registered data on the TV channels from the TV. This means you do not need to set up the program channels on your VCR manually. The preset download function automatically begins when the initial setting is complete or whenever you carry out the AUTO PROGRAM or EDIT/MANUAL functions.

You can also carry out this function using your VCR controls.

When "FEATURE NOT AVAILABLE" is displayed:
If "FEATURE NOT AVAILABLE" is displayed, the download was not performed correctly. Before trying to download again, check that:
• the VCR power is turned on
• the VCR is T-V LINK compatible
• the VCR is connected to the EXT-2 terminal
• the SCART cable is fully wired.

◼ Direct Rec

"What You See Is What You Record"

You can easily record to VCR the images that you are watching on the TV.

For details, read the manual for your VCR. Use your VCR controls. "VCR IS RECORDING" is displayed.

In the following situations, the VCR will stop recording if the TV is turned off, if the TV channel or input is changed, or if the menu is displayed on the TV:

• when recording images from an external device connected to the TV (for example a camcorder)
• when recording a TV channel after it has been unscrambled on a decoder
• when recording a TV channel by using the TV's output because the VCR's own tuner cannot properly receive that channel.

You cannot carry out Direct Rec using your TV's control.

Generally, the VCR cannot record a TV channel that it cannot receive properly on its own tuner, even if you can view that TV channel on the TV. However, some VCRs can record a TV channel by using the TV's output if that channel can be viewed on the TV. For details, see your VCR instruction manual.
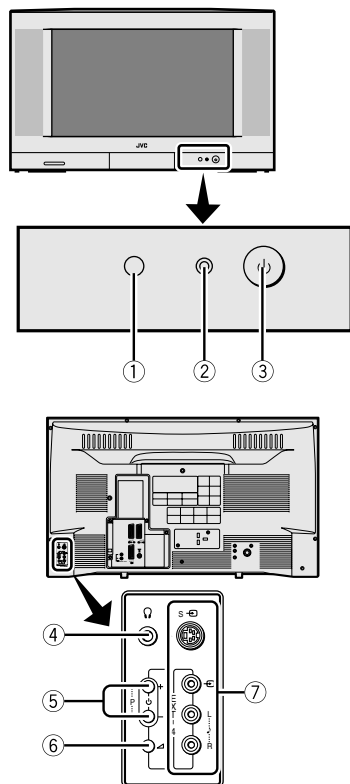
◼ TV auto power on/VCR image view

When the VCR starts playing, the TV automatically turns on and the images from the EXT-2 terminal appear on the screen.

When the VCR menu is operated, the TV automatically turns on and the images from the EXT-2 terminal appear on the screen.

• This function does not happen if your TV's main power is turned off. Set your TV's main power to on (standby mode).

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TV buttons and functions

Refer to the pages in brackets for details.

① Remote control sensor
② Power lamp (6, 10)
③ Main power button (6, 10)
④ Headphone jack (mini jack) (34)
⑤ P ∨/∧ buttons/ −/+ buttons (11)
⑥ ⊿ (Volume) button (10)
⑦ EXT-4 terminal (22, 34)

Turn the main power on

Press the Main power button on the TV.
The power lamp lights red and your TV is in the standby mode.
• If the power lamp lights green, the TV is already on.

To turn the main power off:
Press the main power button again.
The power lamp goes off.

Caution
• The main power button on the TV does not fully isolate the TV from the AC supply. If you are not going to use the TV for a long period of time, be sure to disconnect the AC plug from the AC socket.

Turn the TV on from standby mode

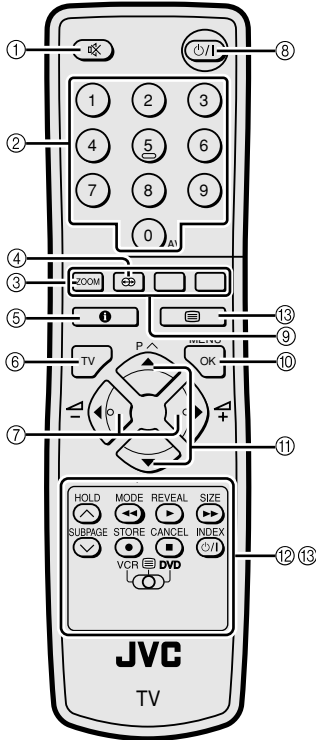**Press the P ∨/∧ buttons to turn the TV on from standby mode**

Choose a TV channel

Press the P ∨/∧ buttons to choose a programme number (PR) or an EXT terminal

Adjust the volume

1 Press the ⊿ (Volume) button
The volume level indicator appears.

2 Press the −/+ buttons while the volume level indicator is on screen

Remote control buttons and functions

① Muting button
② Number buttons
③ ZOOM button
④ 3D SOUND button
⑤ Information button
⑥ TV button
⑦ ◄/► buttons
⑧ Standby button
⑨ Colour buttons
⑩ **OK** button
⑪ ▼/▲ buttons
⑫ VCR/DVD/Teletext control button
⑬ VCR ▤ DVD switch
   ▤ (Text) button

Turn the TV on or off from standby mode

Press the ⏻/l (standby) button to turn the TV on or off.
When the TV is turned on, the power lamp changes from red to green.
• The power can be turned on by pressing the **TV** button, ▼/▲ buttons or Number buttons.

Choose a TV channel

■ **Use the number buttons:**
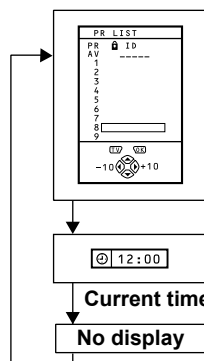**Enter the programme number (PR) of the channel using the number buttons.**
Example:
• PR6 → press **6**
• PR12 → press **1** and **2**

■ **Use the ▼/▲ buttons:**
Press the ▼/▲ buttons to choose the programme number (PR) you want.

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■ Use the PR LIST:

1 Press the ⓘ (Information) button to display the PR LIST

Pressing the ⓘ (information) button changes the display as follows:

```
 ┌──────────────────────┐
 │  PR LIST             │
 │ PR  🔒 ID            │
 │ AV    _____          │
 │ 1                    │
 │ 2                    │
 │ 3                    │
 │ 4                    │
 │ 5                    │
 │ 6                    │
 │ 7                    │
 │ 8                    │
 │ 9                    │
 │   [📺]  [📺]         │
 │  −10 ⊕ +10           │
 └──────────────────────┘
          ↓
 ┌──────────────────────┐
 │   🕐 12:00           │
 └──────────────────────┘
     Current time
          ↓
 ┌──────────────────────┐
 │   No display         │
 └──────────────────────┘
```

2 Press the ◄/► and ▼/▲ buttons to choose a programme number (PR). Then press the OK button

- For programme numbers (PR) with the CHILD LOCK function set, the 🔒 (CHILD LOCK) mark appears next to the Programme number (PR) in the PR LIST.
- You cannot use the ▼/▲ buttons to choose a programme number (PR) with the CHILD LOCK set.
- Even if you try to choose a programme number (PR) with the CHILD LOCK set, the 🔒 (CHILD LOCK) mark will appear, and you cannot watch the TV channel. To watch the TV channel, see "CHILD LOCK" on page 25.
- If the picture is tilted, correct it. See "PICTURE TILT (Only for AV-32T67SKE)" on page 21.

Adjust the volume

Press the ◄/► buttons to adjust the volume.

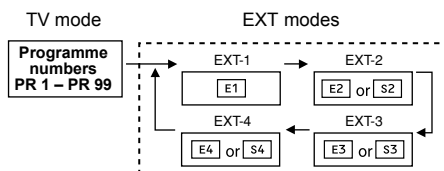The volume indicator appears and the volume changes as you press the −/+ buttons.

■ Muting the sound
Press the ⚊ (muting) button to turn off the sound.

Pressing the ⚊ (muting) button again restores the previous volume level.

Watch images from external equipment

■ Use the ⓪ (AV) button:
Press the ⓪ (AV) button to choose an EXT terminal.

TV mode   EXT modes

```
┌──────────┐    ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
│Programme │      EXT-1    →    EXT-2
│numbers   │─→ │ [E1]         [E2] or [S2]  │
│PR 1 – PR 99│      ↑                 ↓
└──────────┘    │  EXT-4            EXT-3     │
         └──── [E4] or [S4]    [E3] or [S3]
                └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
```

■ Use the ▼/▲ buttons:
Press the ▼/▲ buttons to choose an EXT terminal.

■ Use the PR LIST:

1 Press the ⓘ (Information) button to display the PR LIST

2 Press the ◄/► and ▼/▲ buttons to choose an EXT terminal. Then press the OK button

- For programme numbers (PR) where you have the CHILD LOCK function set, the 🔒 (CHILD LOCK) mark appears next to the programme number (PR) in the PR LIST.
- You cannot use the ▼/▲ buttons to choose a Programme number (PR) which has the CHILD LOCK set.
- Even if you try to choose a programme number (PR) with the CHILD LOCK set, the 🔒 mark will appear, and you cannot watch the TV channel. To watch the TV channel, see "CHILD LOCK" on page 25.
- If the picture is tilted, correct it. See "PICTURE TILT (Only for AV-32T67SKE)" on page 21.
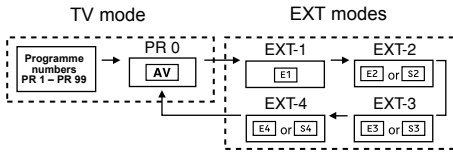
12

To return to a TV channel:
Press the *TV* button, the ▼/▲ buttons or the number buttons.

To use the programme number PR 0 (AV):
When the TV and VCR are connected only by the aerial cable, choosing the programme number PR 0 (AV) allows you to view images from the VCR. Set the VCR RF channel to the programme number PR 0 (AV) manually. For details, see "EDIT/ MANUAL" on page 27.
Pressing the *0 (AV)* button changes the choice as follows:

- The VCR sends its playback image along the aerial cable as an RF (radio frequency) signal.
- Also see your VCR instruction manual.

ZOOM function

You can change the screen size according to the picture aspect ratio. Choose the optimum one from the following ZOOM modes.

AUTO (WSS):
For any picture format except normal picture (4:3 aspect ratio), the picture will be automatically displayed in the ideal screen size.

For normal picture (4:3 Aspect Ratio), you can choose a ZOOM mode from the 4:3 AUTO ASPECT menu. For details, see "4:3 AUTO ASPECT" on page 21.

- AUTO may not work properly with poor signal quality. In this case, choose the best ZOOM mode manually.

- This TV supports WSS (wide-screen signals). When broadcasts with WSS are received with the ZOOM mode set at AUTO (WSS), the most suitable ZOOM mode is automatically chosen according to the WSS received.
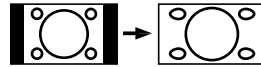
REGULAR:
Use to view a normal picture (4:3 aspect ratio) as this is its original shape.

PANORAMIC:
This stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the screen, without making the picture appear unnatural.

- The top and bottom of the picture are slightly cut off.

14:9 ZOOM:
This zooms up the wide picture (14:9 aspect ratio) to the upper and lower limits of the screen.

16:9 ZOOM:
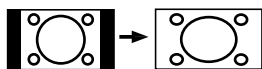This zooms up the wide picture (16:9 aspect ratio) to the full screen.

16:9 ZOOM SUBTITLE:
This zooms up the wide picture (16:9 aspect ratio) with subtitles to the full screen.
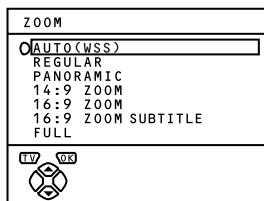

13

FULL:
This uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.

• For 16:9 aspect ratio pictures that have been squeezed into a normal picture (4:3 aspect ratio), use the FULL mode to restore the picture to its original shape.

■ Choose the ZOOM mode

1 Press the ZOOM button to display the ZOOM menu

```
ZOOM
○ AUTO(WSS)
  REGULAR
  PANORAMIC
  14:9 ZOOM
  16:9 ZOOM
  16:9 ZOOM SUBTITLE
  FULL

  TV   OK
```

2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button

The picture expands and the chosen ZOOM mode is displayed in about 5 seconds.

• You can pre-set a ZOOM mode for the normal picture. See "4:3 AUTO ASPECT" on page 21.

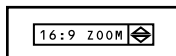#### ■ Adjusting the visible area of the picture

If subtitles or the top (or bottom) of the picture are cut off, you can adjust the visible area of the picture manually.

1 Press the ZOOM button
The ZOOM menu appears.

2 Press the OK button to display the ZOOM mode indicator.
The indicator appears.

```
16:9 ZOOM ⇔
```

3 While it is displayed, press the ▼/▲ buttons to change the height of the picture

• You cannot adjust the visible area in REGULAR or FULL mode.

3D SOUND function

You can enjoy sounds with a wider ambience.

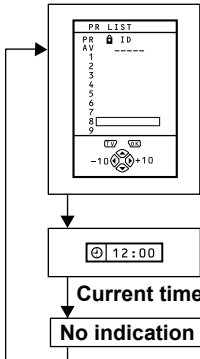**Press the ⊕ (3D SOUND) button to turn the 3D SOUND function on or off**

• The 3D SOUND function does not work properly with mono sound.
• The 3D SOUND function can be also turned on or off by using the SOUND SETTING menu. For details, see "3D SOUND" on page 22.
• When 3D SOUND is on, the balance cannot be adjusted.

Displaying the current time

You can display the current time on the screen.

Press the ⓘ (Information) button to display the current time

Pressing the ⓘ (Information) button changes the display as follows:

```
        PR LIST
     PR  🔒 ID
     AV    -----
     1
     2
     3
     4
     5
     6
     7
     8
     9
     ▭▭   ▭▭
     -10  +10
```

```
   🕐 12:00
```

Current time

No indication

- This TV uses teletext data to set the time. If the TV has not received a TV channel that has teletext programmes since it was turned on, the time display is blank. To see the time, choose a TV channel that has teletext programmes. The time will still be displayed as long as you do not turn off the TV, even if you choose other TV channels.
- When watching videos, an incorrect time is sometimes displayed.

Return to TV channel instantly

You can return to a TV channel instantly.

Press the *TV* button

The TV returns to the TV mode and a TV channel appears.

Operating a JVC brand VCR or DVD player

These buttons will operate a JVC brand VCR or DVD player. Pressing a button that looks the same as the device's original remote control button has the same effect as the original remote control.

1 Set the VCR ▤ DVD switch to the VCR or DVD position.

VCR:
When you are using a VCR, set the switch to the VCR position.

DVD:
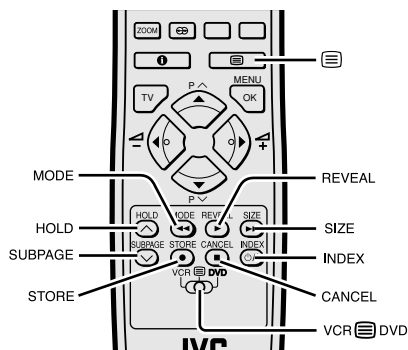When you are using a DVD player, set the switch to the DVD position.

▤ (Text):
When you are viewing Teletext programmes, set the switch to the ▤ (Text) position.

2 Press the VCR/DVD control button to control your VCR or DVD player

- If your device is not made by JVC, these buttons will not work.
- Even if your device is made by JVC, some of these buttons may not work, depending on the device you are using.
- You can use the ∨/∧ buttons to choose a TV channel the VCR will receive, or choose the chapter the DVD player plays back.
- Some models of DVD player use the ∨/∧ buttons for both operating the fast forward/backward functions and for choosing the chapter. In this case, the ◀◀/▶▶ buttons do not work.

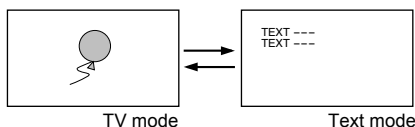# Teletext function

Basic operation

You can view two types of teletext broadcasts on the TV:
FLOF (Fastext) and WST.

1 Choose a TV channel with a teletext broadcast

2 Set the VCR 🗐 DVD switch to the 🗐 (Text) position

VCR 🗐 DVD

3 Press 🗐 (Text) button to display the teletext

Pressing 🗐 (Text) button changes the mode as follows:

TV mode   Text mode

4 Choose a teletext page by pressing the ▼/▲ buttons, number buttons or colour buttons

To return to the TV mode:
Press the *TV* button or 🗐 (Text) button.

• If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station.
• In Text mode, the ZOOM mode is fixed to FULL.
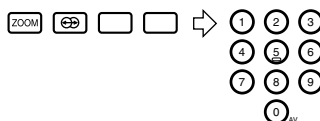• You cannot operate menus when viewing a teletext programme.

Using the List Mode

You can store the numbers of your favourite teletext pages in memory and call them up quickly using the colour buttons.

To store the page numbers:

1 Press the MODE button to go into the List mode

The page numbers you have stored are displayed at the bottom of the screen.

2 Press a colour button to choose a position. Then press the number buttons to enter the page number
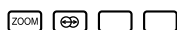

3 Press and hold down the STORE button

The four page numbers blink white to show that they are stored in memory.

To call up a stored page:

1 Press the MODE button to enter the List mode
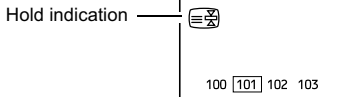
2 Press a colour button having a stored page

To leave the List mode:
Press the MODE button again.

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Hold

You can hold a teletext page on the screen for as long as you want, even while several other teletext pages are being received.

Press the HOLD button

Hold indication

100 [101] 102 103

To cancel the Hold function:
Press the **HOLD** button again.

Sub-page

Some teletext pages include sub-pages that are automatically displayed.
You can hold any sub-page, or view it at any time.

1 **Press the SUBPAGE button to operate the sub-page function**

2 **Press the Number buttons to enter a sub-page number**
   Example:
   • 3rd sub-page → press **0 (AV)**, **0 (AV)**, **0 (AV)** and **3**.

   To cancel the sub-page function:
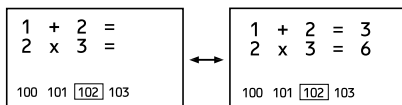   Press the **SUBPAGE** button again.
   • You can also choose a sub-page by pressing the red or green button.

Reveal

Some teletext pages include hidden text (such as the answers to a quiz).
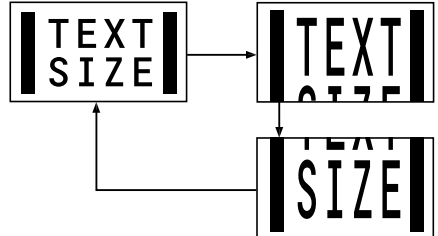You can display the hidden text.

Each time you press the REVEAL button, text is hidden or revealed

```
1 + 2 =
2 x 3 =

100 101 [102] 103
```
↔
```
1 + 2 = 3
2 x 3 = 6

100 101 [102] 103
```

Size

You can double the height of the teletext display.

Press the SIZE button.

Index

You can return to the index page instantly.

Press the INDEX button

FLOF (Fastext)/TOP/WST (World Standard Text):
Returns to page 100 or a previously specified page.

List mode:
Returns to the page number displayed in the lower left area of the screen.

Cancel

You can search for a teletext page while watching TV.

1 **Press the number button to enter a page number, or press a colour button**
   The TV searches for a teletext page.
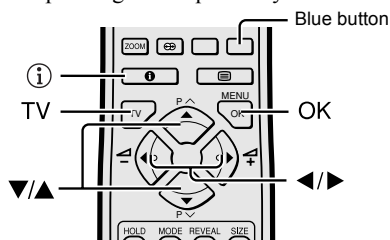
2 **Press the CANCEL button.**
   The TV programme appears. When the TV finds the teletext page, its page number appears in the upper left of the screen.

3 **Press the CANCEL button to return to a teletext page when the page number is on the screen**

   • The TV mode cannot be resumed by pressing the **CANCEL** button. To return to the TV mode press **TV**.
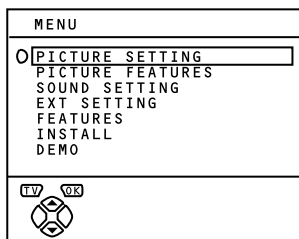
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Using the TV's menu

This TV has a number of functions you can operate using menus. To use all your TV's functions, you need to understand the basic menu operating techniques fully.
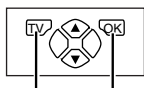

Blue button

ⓘ

TV

OK

▼/▲

◄/►

Basic operation

1 Press the OK button to display the MENU (main menu)

```
MENU

O PICTURE SETTING
  PICTURE FEATURES
  SOUND SETTING
  EXT SETTING
  FEATURES
  INSTALL
  DEMO

  TV  OK
```

• The display appearing at the bottom of a menu shows the buttons on the remote control you can use when you operate a chosen function.

TV button   **OK** button

When a menu is displayed on the screen, the ZOOM mode may be automatically changed to the FULL mode. This is not a malfunction. When the menu disappears, the ZOOM mode will return to the previously set ZOOM mode.

2 Press the ▼/▲ buttons to choose a menu title, and press the OK button
The menu appears.

To return to the previous menu:
Press the ⓘ (information) button.

To exit a menu instantly:
Press the **TV** button.

3 Press the ▼/▲ buttons to choose a function
• For details of the functions in the menus, see the following pages.

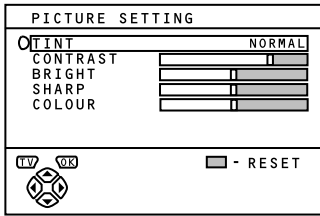**4 Press the ◄/► buttons to choose the setting of that function**
• If you want to operate a function which appears only with its name, follow the descriptions of that function on the following pages.
• The display appearing at the bottom of a menu shows you the button on the remote control that you can use when you operate a chosen function.

5 Press the OK button to complete the setting
The menu disappears.
• When watching the television with the NTSC system, the menus are displayed at about half of their normal vertical size.

PICTURE SETTING

```
   PICTURE SETTING

○ TINT            NORMAL
  CONTRAST        ┌──────┤ ┃ ├──┐
  BRIGHT          ├────┤ ┃ ├────┤
  SHARP           ├────┤ ┃ ├────┤
  COLOUR          ├────┤ ┃ ├────┤


 TV  OK           ▭ - RESET
  ◇
```

■ **TINT**

You can select one of three TINT modes (three kinds of picture settings) to adjust the picture settings automatically.

COOL:

A cool white colour base with a boost in the colour and contrast levels that creates a more vivid picture.

WARM:

A warm orange/red colour base that creates the appropriate colour and contrast levels for watching films.

NORMAL:

A normal white colour base with normal colour and contrast levels.

■ **Picture Adjustment**

You can change the picture settings of each TINT mode as you like.

CONTRAST

You can adjust the picture contrast.
◄ : lower
► : higher

BRIGHT

You can adjust the picture brightness.
◄ : darker
► : brighter

SHARP

You can adjust the picture sharpness.
◄ : softer
► : sharper

COLOUR

You can adjust the picture colour.
◄ : lighter
► : deeper

HUE

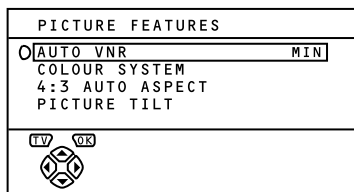You can adjust the picture tint.
◄ : reddish
► : greenish

• You can change the HUE setting (picture hue) only when the colour system is NTSC 3.58 or NTSC 4.43. (See "Specifications" on page 38.)

To return to the default settings in each TINT mode:

Press the blue button.

• This returns the picture settings in the TINT mode you have chosen to the default settings, and stores them in the TINT mode.

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PICTURE FEATURES

```
      PICTURE FEATURES

O AUTO VNR              MIN
  COLOUR SYSTEM
  4:3 AUTO ASPECT
  PICTURE TILT

 TV    OK
```

■ AUTO VNR

VNR Stands for "video noise reduction".

AUTO:

This mode reduces any "noise" (interference or snowing) in the current picture. The function also adjusts the optimum sharpness of the picture (SHARP).
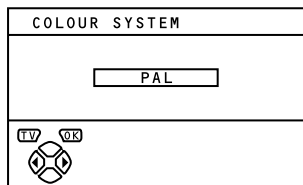
MIN:

The AUTO VNR function is cancelled. If you set the mode to AUTO but feel that the sharpness of the original picture has not been reproduced fully, change the mode to MIN. However, any noise remaining in the original picture may be emphasized.

MAX:

This mode always reduces any noise as much as possible, irrespective of state of the picture. When you set the mode to AUTO but still notice some noise, change the mode to MAX. However, this may reduce the sharpness of the picture.

■ COLOUR SYSTEM

The colour system is chosen automatically. However, if the picture is not clear or no colour appears, choose the colour system manually.

```
   COLOUR SYSTEM

          PAL

 TV    OK
```

1 Choose COLOUR SYSTEM then press the OK button

2 Press the ◄/► buttons to chose the appropriate colour system. Then press the OK button

PAL:
PAL system

NTSC 3.58:
NTSC 3.58 MHz system

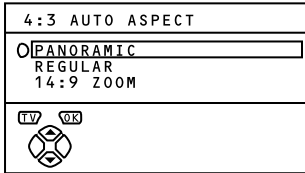### NTSC 4.43:
NTSC 4.43 MHz system

AUTO:
This function detects a colour system from the input signal. You can only use this when you are viewing a picture from programme number PR 0 (AV), or EXT terminal.

• The AUTO function may not work properly if you have poor signal quality. If the picture is abnormal in the AUTO function, choose another colour system manually.
• You cannot choose NTSC 3.58 or NTSC 4.43 for programme number PR 0 (AV) to PR 99.

20

■ 4:3 AUTO ASPECT

You can choose one of three ZOOM modes, REGULAR, PANORAMIC or 14:9 ZOOM, as the ZOOM mode for the normal picture (4:3 aspect ratio).

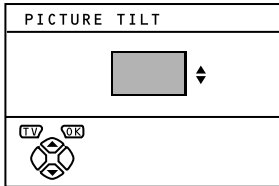**1 Choose 4:3 AUTO ASPECT then press the OK button**

```
4:3 AUTO ASPECT

O PANORAMIC
  REGULAR
  14:9 ZOOM

TV  OK
```

2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button
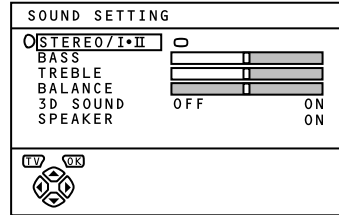
■ PICTURE TILT (Only for AV-32T67SKE)

Sometimes the Earth's own magnetic field may make the picture tilt. If this happens, you can correct the picture tilt.

1 Choose PICTURE TILT. Then press the OK button

```
PICTURE TILT

        ▲
        ▼

TV  OK
```

2 Press the ▼/▲ buttons until the picture becomes level. Then press the OK button

SOUND SETTING

```
SOUND SETTING

O STEREO/I•II   O
  BASS
  TREBLE
  BALANCE
  3D SOUND   OFF      ON
  SPEAKER             ON

TV  OK
```

■ STEREO / I • II

When you are viewing a bilingual broadcast programme, you can choose the sound from Bilingual I (Sub I) or Bilingual II (Sub II). If you have poor reception on a stereo broadcast, you can change from stereo to mono sound so that you can hear the broadcast more clearly and easily.

OO : Stereo sound

O : mono sound

I : Bilingual I (sub I)

II : Bilingual II (sub II)

- The sound mode you can choose differs depending on the TV programme.
- This function does not work in the EXT modes. And this function does not appear in the SOUND SETTING menu.

■ Sound Adjustment

You can adjust the sound to your liking.

BASS
You can adjust the low tone of the sound.
◄ : weaker
► : strong

TREBLE
You can adjust the high tone of the sound.
◄ : weaker
► : strong

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BALANCE

You can adjust the volume balance between the left and right speaker.

◄ : turn the left speaker's volume level up.
► : turn the right speaker's volume level up.

• When 3D SOUND is on, BALANCE cannot be adjusted.

■ **3D SOUND**

You can enjoy sounds with a wider ambience.

ON:

This function is turned on.

OFF:

This function is turned off. The menu disappears.

• The 3D SOUND function does not work properly with mono sound.
• You can turn the 3D SOUND function on or off with a single press. For details, see "3D SOUND function" on page 14.
• When 3D SOUND is on, the balance cannot be adjusted.

■ **SPEAKER**

You can turn off the sound from the TV speakers; but you should only do this if you have connected an audio system to the TV instead of the TV speakers.
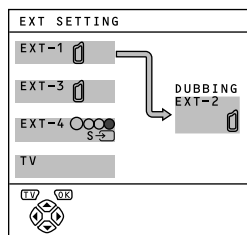
ON:

The TV speakers issue sound.

OFF:

The TV speakers do not issue sound.

• The ◄/► buttons of the TV remote control and the ◢ (volume) buttons at the front panel of your TV set can be used to control the volume of each speaker simultaneously.
• Setting the volume of the amplifier too high may damage the front speakers.

EXT SETTING

■ **S⊟ (S-VIDEO input)**

You can connect a device (such as an S-VHS VCR) to enjoy the high-quality picture of the S-VIDEO signal (Y/C signal).

Preparation:

• First read the device's instruction manual and "Additional preparation" on page 34 to connect the device to the TV properly. Second, follow the device's instruction manual to set the device so that it sends an S-VIDEO signal (Y/C signal) to the TV.
• Do not set S⊟ (S-VIDEO input) to an EXT terminal connected to a device which cannot output an S-VIDEO (Y/C signal). If it is set wrongly, a picture cannot appear.

1 Choose an EXT terminal

2 Press the yellow button and set the S⊟ (S-VIDEO input). Then press the OK button

An S⊟ (S-VIDEO input) mark is displayed. You can view an S-VIDEO signal (Y/C signal) instead of the regular video signal (composite signal).

To cancel the S⊖ (S-VIDEO input) setting:

Press the yellow button and turn off S⊖ (S-VIDEO input) mark. The regular video signal (composite signal) pictures are resumed.
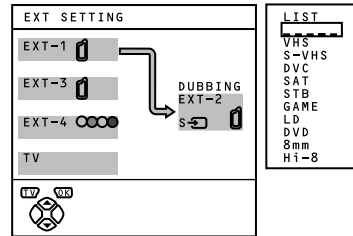

- The EXT-1 terminal does not support S-VIDEO signal (Y/C signal) and you cannot set S⊖ (S-VIDEO input) in the EXT-1 terminal.
- Setting S⊖ (S-VIDEO input) changes the head character from "E" to "S". When an EXT terminal receives a normal video signal, "E1", "E2", "E3" or "E4" appears on the display. This changes to "S2", "S3" or "S4" when it receives an S-VIDEO signal.
- Even a device which can output an S-VIDEO signal (Y/C signal) may output a regular video signal (composite signal) depending on the device setting. If a picture cannot appear because the S⊖ (S-VIDEO input) setting has been made, read the device instruction manual carefully again to check for the device settings.

■ LIST

You can store a name for each of the devices connected to each EXT terminal. Giving a name to an EXT terminal makes the EXT terminal number appear on the screen, together with its name.

1 Choose an EXT terminal

---

2 Press the blue button to display the name list (LIST)

---

3 Press the ▼/▲ buttons to choose a name. Then press the OK button

The LIST disappears and the name is assigned to the EXT terminal.

- You cannot choose an EXT terminal name that is not on the name list (LIST).

To erase a name assigned to the EXT terminal:

Choose a blank space.

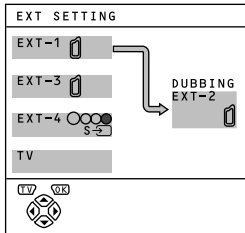**4 Press the OK button to complete the setting**

■ DUBBING

You can choose a signal source to be output from the EXT-2 terminal.

You can do this with the output signal of the device connected to another EXT terminal, or the picture and sound from a TV channel you are currently viewing.

---

1 Press the ◄/► buttons to choose the arrow from the menu

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**2 Press the ▼/▲ buttons to choose an EXT terminal or TV.
Then press the OK button**

```
EXT SETTING

EXT-1  🔲

EXT-3  🔲              DUBBING
                      EXT-2

EXT-4  ⬤⬤⬤⬤                🔲
       S⊖

TV

📺  🆗
  ⬖
```

The arrow in the menu represents a signal flow. The left side of the arrow shows a signal source output from the EXT-2 terminal.
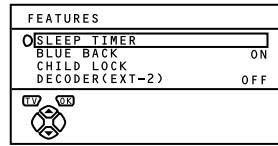
EXT-1/EXT-3/EXT-4:
The output signal of the device connected to an EXT terminal passes through the TV and is output from the EXT-2 terminal.

TV:
The picture and sound of the TV channel you are currently viewing are output from the EXT-2 terminal.

- During dubbing, you cannot turn off the TV. Turning off the TV also turns off the output from the EXT-2 terminal.
- When you choose an EXT terminal as an output, you can view a TV programme or a picture from the other EXT terminal while dubbing the picture from a device connected to the EXT terminal onto a VCR connected to the EXT-2 terminal.
- The RGB signals from TV games cannot be output.Teletext programmes cannot be output.
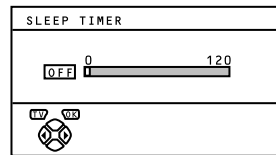
FEATURES

```
FEATURES

○ SLEEP TIMER
  BLUE BACK              ON
  CHILD LOCK
  DECODER(EXT-2)        OFF

📺  🆗
  ⬖
```

■ SLEEP TIMER
You can set the TV to automatically turn off after a specified period of time.

1 Choose SLEEP TIMER, then press the OK button

A Sub-menu of the SLEEP TIMER function appears.

```
SLEEP TIMER

            0            120
OFF  ▯

📺  🆗
  ⬖
```

**2 Press the ◄/► buttons to set the period of time.
Then press the OK button**

You can set the period of time a maximum of 120 minutes (2 hours) in 10 minute steps.

- One minute before the SLEEP TIMER function turns off the TV, "GOOD NIGHT!" appears.
- The SLEEP TIMER function cannot be used to turn off the TV's main power.
- When the SLEEP TIMER function is on, you can display the sub-menu of the SLEEP TIMER function again to confirm or change the remaining period of time of the SLEEP TIMER function. Press the OK button to leave the menu after confirming or changing the remaining time.

To cancel the SLEEP TIMER function:
Press the ◄ button to set a period of time to "OFF".

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■ **BLUE BACK**

You can set the TV to automatically change to a blue screen and mute the sound if the signal is weak or absent, or when there is no input from an external device.

ON:
This function is turned on.

OFF:
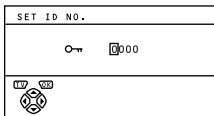This function is turned off.

■ **CHILD LOCK**

When there is a TV channel you do not want your children to watch, you can use the CHILD LOCK function to lock out the TV channel. Even when a child chooses a programme number (PR) for a locked TV channel the screen will change to blue and display 🔒 (CHILD LOCK) so the TV channel cannot be viewed. Unless you enter a pre-set ID number by a special operation, the lock cannot be released and the child cannot view the TV channel.

To set the CHILD LOCK function

1 Choose CHILD LOCK, then press the 0（AV）button

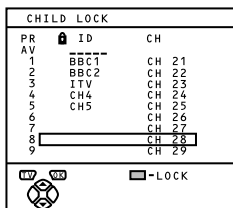"SET ID NO." (ID number setting screen) appears.

```
SET ID NO.

        O─┓   0000


🖵  🖵
  🔅
```

2 Set the ID number to your liking

1 Press the ▼/▲ buttons to choose a number.

2 Press the ◄/► buttons to move the cursor.

3 Press the OK button

The Sub-menu of CHILD LOCK appears.

```
CHILD LOCK
PR   🔒 ID      CH
AV
1      BBC1    CH 21
2      BBC2    CH 22
3      ITV     CH 23
4      CH4     CH 24
5      CH5     CH 25
6              CH 26
7              CH 27
8              CH 28
9              CH 29

🖵  🖵        ▭-LOCK
  🔅
```

4 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the Programme number (PR) changes, and the picture of the TV channel registered in the Programme number (PR) is displayed on the screen.

5 Press the blue button and set the CHILD LOCK function. Then press the OK button

🔒 (CHILD LOCK) appears and the TV channel is locked.

To reset the CHILD LOCK function:
Press the blue button again.
🔒 (CHILD LOCK) disappears.

To disable easy resetting of the CHILD LOCK function, the menu disappears if you choose the CHILD LOCK function and press the **OK** button.

To view a locked TV channel

1 Choose a programme number (PR) in which a TV channel locked with the number buttons or PR LIST

The screen changes to blue and the 🔒 (CHILD LOCK) appears. You cannot view the TV channel.

```
🔒 8
```

2 Press the ⓘ (Information) button to display "ID NO." (ID No. input screen).

```
🔒 8
ID NO.:----
```

3 Press the number buttons to enter the ID number

The lock is temporarily released so you can view the TV channel.

If you have forgotten the ID number:

Perform step 1 of "To set the CHILD LOCK function". After confirming the ID number, press the *TV* button to exit the menu.

- Even if you reset the lock temporarily, it does not mean that the CHILD LOCK function set for the TV channel is cancelled. The next time anyone tries to view the TV channel, it will be locked again.
- When you want to cancel the CHILD LOCK function, you must perform the operation "To set the CHILD LOCK function" again.
- To stop it being easy to choose the programme number (PR) of a locked TV channel, the programme number (PR) has been set so that it cannot be chosen by the ▼/▲ buttons or the buttons of the TV.
- To stop it being easy to reset the lock, "ID NO." (ID No. input screen) is set so that it cannot appear unless you press the ⓘ (Information) button.
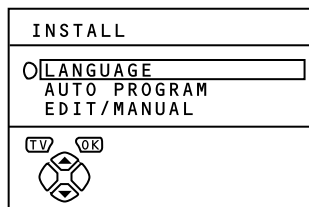
■ DECODER (EXT-2)

You can only use this function if you have a decoder connected to a T-V LINK compatible VCR, which in turn is connected to the EXT-2 terminal. To use this function, see "Using the DECODER (EXT-2) function" on page 32.

Caution

- If you have not connected a decoder with a T-V LINK compatible VCR to the EXT-2 terminal, setting this function to "ON" by mistake causes the picture/sound of a TV channel you are currently viewing to disappear.

INSTALL

```
INSTALL

○ LANGUAGE
  AUTO PROGRAM
  EDIT/MANUAL

TV   OK
```

■ LANGUAGE

You can choose the language you want to use for the on-screen display from the language list in a menu.

---

1 Choose LANGUAGE, then press the OK button

A sub-menu of the LANGUAGE function appears.

```
LANGUAGE

○ ENGLISH
  FRANÇAIS
  DEUTSCH
  ITALIANO
  CASTELLANO
  NEDERLANDS
  DANSK
  NORSK
  SVENSKA
  SUOMI

TV   VCR
```

**2 Press the ◄/► and ▼/▲ buttons to choose a language.
Then press the OK button**

■ AUTO PROGRAM

To receive SKY 1 you need a satellite tuner. You must have the satellite tuner set to SKY 1 before starting the AUTO PROGRAM function.
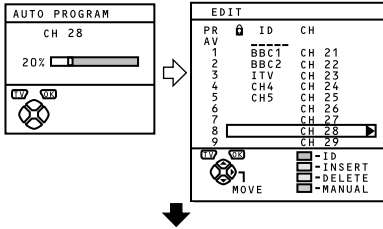
You can automatically store the TV channels for which you have the best reception. Store them in the TV's programme numbers (PR) list by doing the following.

---

1 Choose AUTO PROGRAM

---

2 Press the OK button to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears and the TV channels you receive are automatically registered in the programme numbers (PR) list.

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• To cancel the AUTO PROGRAM
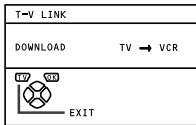function, press the **TV** button.

**After the TV channels have been
registered in the programme
numbers (PR), the EDIT menu
appears.**

• You can now edit the programme
numbers (PR) using the EDIT/
MANUAL function. For details, see
"EDIT/MANUAL" on page 27.

• If you do not need to use the EDIT/
MANUAL function, go to the next
step.

**3 Press the OK button to display the
T-V LINK menu**

**4 If you do not have a T-V LINK
compatible VCR connected:**
Press the **TV** button to leave the T-V
LINK menu.
The T-V LINK menu disappears and all
the settings are completed.

**If you have a T-V LINK compatible
VCR connected to the EXT-2
terminal:**
See "Downloading data to a VCR" on
page 32 to transmit the programme
number (PR) data to the VCR.

• If a TV channel you want to view is
not set to a programme number (PR),
set it manually using the MANUAL
function. For details, see "EDIT/
MANUAL" on page 27.

• The AUTO PROGRAM function does
not set the programme number PR 0
(AV) for your video cassette recorder.
You will need to set this using the
manual function.

• In some areas you may get TV
reception from more than one
transmitter, for example, different ITV
regions. In this case each TV channel
could be set twice. If this happens, the
first set of channels will have the
stronger signal. If you want to delete
the second set of channels, you will
have to do it manually (see page 30).

■ **EDIT/MANUAL**
The EDIT/MANUAL functions are divided
into two types:
• editing the current programme numbers
(PR) (EDIT functions); and
• manually storing a TV channel you want
to view a programme number (PR)
(MANUAL function).

Here are the details about these functions:

Caution
• Using the MOVE, DELETE or INSERT
functions rewrites the current programme
numbers (PR) list. Therefore, the
programme numbers (PR) of some of the
TV channels will change.
• Using the MANUAL function for a TV
channel for which the CHILD LOCK
function has been set cancels the CHILD
LOCK function for that channel.
• Using the MANUAL function for a TV
channel for which the DECODER (EXT-2)
function has been set to ON returns the
setting of the DECODER (EXT-2) function
for that channel to OFF.
• When a TV channel has already been
registered in PR 99, using the INSERT
function deletes that TV channel.

27

1 Choose EDIT/MANUAL, then press the OK button

```
     EDIT
PR   🔒 I D    C H
AV   ‾‾‾‾
 1   BBC1    CH 21
 2   BBC2    CH 22
 3   ITV     CH 23
 4   CH4     CH 24
 5   CH5     CH 25
 6           CH 26
 7           CH 27
 8           CH 28  ▶
 9           CH 29
 TV  VCR        ■=ID
                ■=INSERT
   ◈⌐           ■=DELETE
   MOVE         ■=MANUAL
```

• For programme number PR 0, "AV" appears in the programme numbers (PR) list.

• An EXT terminal number does not appear in the programme numbers (PR) list.

• The CH number is a number unique to the TV and corresponds to the channel number of a TV channel. For the relationship between a channel number and a CH number, see "CH NUMBER" on page 30.

2 Follow the description for a function you want to use

MOVE:
This function changes a programme number (PR) of a TV channel.

ID:
This function registers a channel name (ID) to a TV channel.

INSERT:
This function adds a new TV channel in the current programme numbers (PR) list by using the CH number.

• You cannot use the INSERT function if you do not know a channel number of a TV channel. Use the MANUAL function to register a TV channel in the programme number (PR).

DELETE:
This function deletes a TV channel you do not want to list.

MANUAL:
This function manually stores a new TV channel in a programme number (PR).

3 Press the OK button to complete the settings

The T-V LINK menu appears.

```
   T−V LINK

 DOWNLOAD       TV ➡ VCR

 TV  VCR
   ◈
        EXIT
```

4 If you do not have a T-V LINK compatible VCR connected:

Press the *TV* button to exit the T-V LINK menu.
The T-V LINK menu disappears and all the settings are completed.

If you have a T-V LINK compatible VCR connected:

Follow the operating procedure "Downloading data to a VCR" on page 32 to transmit the programme number (PR) data to the VCR.
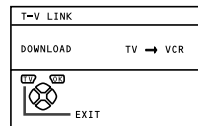
MOVE

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.

2 Press the ▶ button to start the MOVE function

```
     EDIT
PR   🔒 I D    C H
AV   ‾‾‾‾
 1   BBC1    CH 21
 2   BBC2    CH 22
 3   ITV     CH 23
 4   CH4     CH 24
 5   CH5     CH 25
 6           CH 26
 7           CH 27
 8           ◀▶          CH28
 9           CH 29
 TV  VCR
   ◈
   STORE
```

28

3 Press the ▼/▲ buttons to choose a new programme number (PR)

```
EDIT
PR  🔒  ID    CH
AV      -----
1       BBC1  CH 21
2       BBC2  CH 22
3             CH 27
4       ITV   CH 23
5       CH4   CH 24
6       CH5   CH 25
7             CH 26
8             CH 28
9             CH 29
📺 📼
    ◈
    STORE
```

To cancel the MOVE function:
Press the (i) (Information) button.

4 Press the ◄ button to change the programme number (PR) of a TV channel to a new programme number (PR)

ID

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.

2 Press the red button to start the ID function

```
EDIT
PR  🔒  ID    CH
AV      -----
1       BBC1  CH 21
2       BBC2  CH 22
3       ITV   CH 23
4       CH4   CH 24
5       CH5   CH 25
6             CH 26
7             CH 27
8             CH 28
9             CH 29
📺 📼          ▭-LIST
    ◈
```

3 Press the ▼/▲ buttons to choose the first character of a channel name (ID) you want to give the TV channel

```
EDIT
PR  🔒  ID    CH
AV      -----
1       BBC1  CH 21
2       BBC2  CH 22
3       ITV   CH 23
4       CH4   CH 24
5       CH5   CH 25
6             CH 26
7       M     CH 27
8             CH 28
9             CH 29
📺 📼
    ◈
```

4 Press the blue button to display the ID LIST (channel name list)

```
EDIT                      ID LIST
PR  🔒  ID    CH           M6
AV      -----              MCM
1       BBC1  CH 21        MDR
2       BBC2  CH 22        MTV
3       ITV   CH 23        MTV1
4       CH4   CH 24        MTV2
5       CH5   CH 25        MTV3
6             CH 26
7       M6    CH 27
8             CH 28
9             CH 29
📺 📼
    ◈
```

5 Press the ▼/▲ buttons to choose the channel name (ID)

To cancel the ID function:
Press the (i) (Information) button.

6 Press the OK button to give a channel name (ID) to a TV channel

- You can give your own unique channel name (ID) to the TV channel. When you have finished step 3, do not go to step 4. Press the ◄/► buttons to move the cursor, and press the ▼/▲ buttons to choose each character of the channel name (ID). Then press the OK button to register the channel name (ID) to the TV channel.
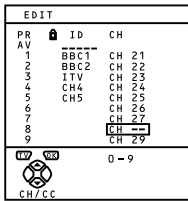
INSERT

Preparation:
- You need to find the CH number for the TV channel. Find the CH number from the "CH NUMBER" table on page 30 based on the channel number of the TV channel.

1 Press the ▼/▲ buttons to choose a programme number (PR) for which you will register a new TV channel

29

2 Press the green button and start the INSERT function.

To cancel the INSERT function:
Press the (i) (Information) button.

3 Press the number buttons to enter the remaining CH number
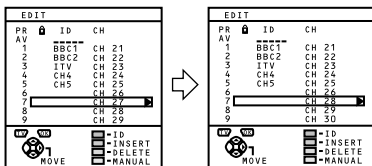
The TV shifts to registration mode. When the registration is completed, the picture of the TV channel appears on the screen.

• The CH number is a number given to each broadcast frequency that carries a TV channel. If the TV cannot detect the TV channel corresponding to the broadcast frequency indicated by the CH number, a "no-signal" picture appears.

DELETE

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.
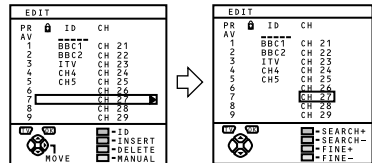

2 Press the yellow button to delete the TV channel

The TV channel is deleted from the programme numbers (PR) list.

MANUAL

1 Press the ▼/▲ buttons to choose a programme number (PR) for a new TV channel

2 Press the blue button to activate the MANUAL function

To cancel the MANUAL function:
Press the (i) (Information) button.

3 Press the green or red button to search for a TV channel
Scanning stops when the TV finds a TV channel. Then the TV channel is displayed.

4 Press the green or red button repeatedly until the TV channel you want appears

If the TV channel reception is poor:
Press the blue or yellow button to fine-tune the TV channel.

5 Press the OK button and register the TV channel to a programme number (PR)
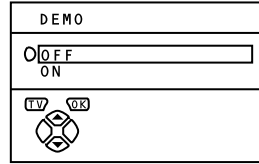The normal EDIT menu is resumed.

■ CH NUMBER
• When you want to use the INSERT function on page 29, find the CH number corresponding to the channel number of the TV channel from this table. If you want to know a particular TV channel's channel menu, look in TV listings magazines or contact the broadcaster.

CH	Channel
CH 21	E21
CH 22	E22
CH 23	E23
CH 24	E24
CH 25	E25
CH 26	E26
CH 27	E27
CH 28	E28
CH 29	E29
CH 30	E30
CH 31	E31
CH 32	E32
CH 33	E33
CH 34	E34
CH 35	E35
CH 36	E36
CH 37	E37
CH 38	E38
CH 39	E39
CH 40	E40
CH 41	E41
CH 42	E42
CH 43	E43
CH 44	E44
CH 45	E45
CH 46	E46
CH 47	E47
CH 48	E48
CH 49	E49
CH 50	E50

CH	Channel
CH 51	E51
CH 52	E52
CH 53	E53
CH 54	E54
CH 55	E55
CH 56	E56
CH 57	E57
CH 58	E58
CH 59	E59
CH 60	E60
CH 61	E61
CH 62	E62
CH 63	E63
CH 64	E64
CH 65	E65
CH 66	E66
CH 67	E67
CH 68	E68
CH 69	E69

DEMO

```
         DEMO

   O OFF
     ON

    TV    OK
```

The DEMO function automatically demonstrates some of the TV functions.

Choose ON or OFF. Then press the OK button
The DEMO function is set to ON, and the demonstration will start.

To stop the demonstration:
Press one of the buttons on the remote control.

When the DEMO function is set to ON:
Each time the TV is turned on, the demonstration starts automatically. If you do not want that to happen, cancel the DEMO function:
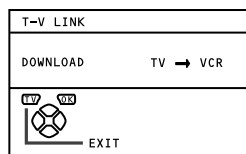
1 **Display the DEMO menu again**

2 **Press the ▼/▲ buttons to choose OFF**

3 **Press the OK button to cancel the DEMO function**

31

Additional menu operations

Downloading data to a VCR

You can send the latest programme numbers (PR) data to a VCR with the T-V LINK function.
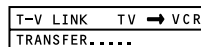
- You can only do this when a T-V LINK compatible VCR is connected to the EXT-2 terminal.
- This only works when the T-V LINK menu is being displayed.

```
T-V LINK

DOWNLOAD        TV  →  VCR

[icon]
            EXIT
```

1 Turn on the VCR

2 Press the **OK** button
The data transmission begins.

```
T-V LINK    TV  →  VCR
TRANSFER.....
```

The T-V LINK menu disappears once the data transmission ends.

When the T-V LINK menu changes over to another menu:
The TV has finished its menu. This new menu is operated from the VCR. See the VCR instruction manual for what to do next.

If "FEATURE NOT AVAILABLE" appears at the T-V LINK menu, check the following three items. Then press the **OK** button to retry data transmission.

- Has a T-V LINK compatible VCR been connected to the EXT-2 terminal?
- Has the VCR power been turned on?
- Does the SCART cable that connects the EXT-2 terminal to the T-V LINK compatible VCR have all its proper connections?

Using the DECODER (EXT-2) function

If you have a decoder connected to a T-V LINK compatible VCR, which in turn is connected to the EXT-2 terminal, use the DECODER (EXT-2) function to unscramble the scrambled TV channels.

1 Turn on the decoder power
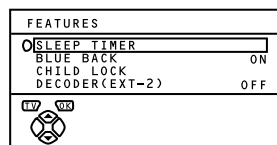
2 Display the scrambled TV channel on the TV
Even if the decoder is working, a scrambled picture appears.

3 Press the **OK** button to display the MENU
The MENU (main menu) appears.

4 Press the ▼/▲ buttons to choose FEATURES. Then press the **OK** button
The FEATURES menu appears.

```
FEATURES

O SLEEP TIMER
  BLUE BACK            ON
  CHILD LOCK
  DECODER(EXT-2)       OFF
[icon]
```

5 Press the ▼/▲ buttons to choose DECODER (EXT-2). Then press the ◀/▶ buttons to choose ON
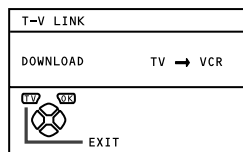An unscrambled picture appears.

To cancel the DECODER (EXT-2) function:
Press the ◀/▶ buttons to choose OFF.

6 Press the **OK** button to complete the setting
The T-V LINK menu appears.

```
T-V LINK

DOWNLOAD        TV  →  VCR

[icon]
            EXIT
```

7 Follow "Downloading data to a VCR" on page 32 to transmit the programme number (PR) data to the VCR

8 If you have another TV channel you want to unscramble using a decoder, repeat steps 2 to 7

If the DECODER (EXT-2) function has been set to "ON" but the TV channel cannot be unscrambled, check the following:

• Has the decoder been connected to the VCR properly according to the VCR and decoder instruction manuals?
• Has the decoder power been turned on?
• Can the TV channel be unscrambled with a decoder?
• Do you need to change the VCR settings in order to connect the decoder? Confirm that the VCR is set properly by rechecking the VCR Instruction manual.

33

Additional preparation
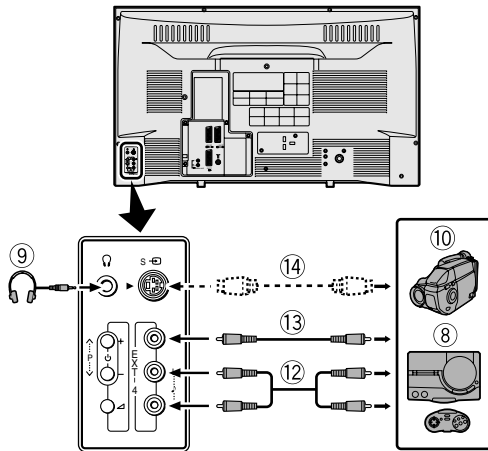
Connecting external equipment

Connect the equipment to the TV, making the correct rear panel and front panel connections.
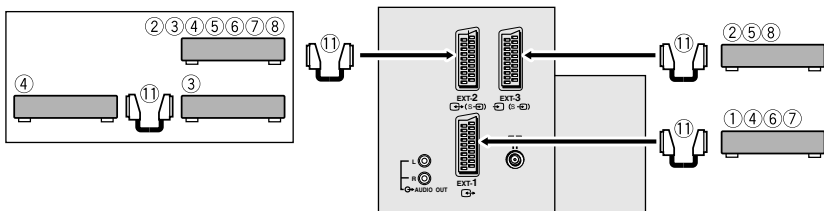
Before connecting anything:

• Read the manuals that came with the equipment.
Depending on the equipment, the connection method may be different from the diagram. Also, the equipment settings may need to change depending on the connection method.

• Turn off all the equipment including the TV.

• The "Specifications" on page 38 give the details of the EXT terminals. If you are connecting equipment not listed in the following connection diagram, see the table to choose the best EXT terminal.

• Connecting cables are not supplied.

① VCR (composite signal)
② VCR (composite signal/S-VIDEO signal)
③ T-V LINK compatible VCR (composite signal/S-VIDEO signal)
④ Decoder
⑤ DVD player (composite signal/S-VIDEO signal)
⑥ DVD player (composite signal/RGB signal)
⑦ TV game (composite signal/RGB signal)
⑧ TV game (composite signal/S-VIDEO signal)
⑨ Headphones
⑩ Camcorder (composite signal/S-VIDEO signal)
⑪ SCART cable
⑫ Audio cable
⑬ Video cable
⑭ S-VIDEO cable

Back of the TV

Back of the TV

■ **Equipment which can output the S-VIDEO signal (Y/C signal) such as an S-VHS VCR**

Connect the equipment to an EXT terminal (but not the EXT-1 terminal).

You can choose between an S-VIDEO signal (Y/C signal) and a regular video signal (composite signal). For details of how to operate the equipment, see "S⊡ (S-VIDEO input)" on page 22.

■ **T-V LINK compatible VCR**

Be sure to connect the T-V LINK compatible VCR to the EXT-2 terminal. If not, the T-V LINK function will not work properly.

• When connecting a T-V LINK compatible VCR to the EXT-2 terminal, be sure to connect the decoder to the VCR. If not, the T-V LINK function may not work properly. After you have stored TV channels in the programme numbers (PR) list, set the DECODER (EXT-2) function for the programme number (PR) to ON to unscramble a scrambled TV channel. For details, see "Using the DECODER (EXT-2) function" on page 32.

■ **Connecting headphones**

Connect the headphones with a stereo mini-jack (3.5 mm diameter) to the headphone jack at the TV front panel.

• When you connect the headphones, the TV speakers go off.

■ **Video or sound signal output from the EXT-2 terminal**

You can change over the output of the video/sound signal from the EXT-2 terminal. This is useful when you want to dub the video/sound from another device onto the VCR connected to the EXT-2 terminal. For details on how to do this, see "DUBBING" on page 23.

■ **TV output from the EXT-1 terminal**

The video/sound signal of a TV channel you are viewing is always output from the EXT-1 terminal.

• Changing over a programme number (PR) also changes over the TV output from the EXT-1 terminal.
• The video/sound signal from an EXT terminal cannot be output.
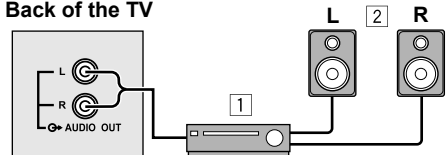• Teletext programmes cannot be output.

■ **Connecting speakers/amplifier**

See the audio equipment connection diagram and connect the audio equipment to the TV. You can use external front speakers to listen to the TV sound instead of the TV speakers.

Before connecting anything:

• Read the manuals provided with the amplifier and speakers.
• Turn the TV and amplifier off.
• To prevent magnetism from the speakers adversely effecting the TV screen, use magnetic-shielded speakers for the front speakers.
• Note that connecting cables are not supplied.

Back of the TV

1 Amplifier
2 Front speakers (Magnetic-shielded type)

• The output from the AUDIO OUT terminal is not interrupted by connecting headphones to the TV. You cannot cut the sound from the front speaker even if you connect a headphone to the TV.

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Troubleshooting

If a problem arises while you are using the TV, please read this troubleshooting guide carefully before you ask to have the TV repaired. You may be able to fix it easily by yourself. For example, if the mains plug is disconnected from the mains outlet, or the TV aerial has problems, you may think there is a problem with the TV itself.

Important:
• This troubleshooting guide only covers problems whose causes are not easy to decide. If you have a question when you are operating a function, read the page(s) for that function carefully, not this troubleshooting guide.
• If you follow the advice in this troubleshooting guide without any success, unplug the mains plug and ask for your TV to be repaired. Do not attempt to repair the TV by yourself or to remove the rear cover of the TV.

■ If you cannot turn on the TV
• Is the mains plug connected to the mains outlet?
• Is the power lamp lit? If not, press the main power button.

■ No picture or no sound
• Have you chosen a TV channel with very poor reception? If so, the BLUE BACK function will be activated: the entire screen becomes blue, and the sound is muted. If you still want to view the TV channel, follow the description "BLUE BACK" on page 25 to try to change the BLUE BACK function setting to OFF.
• Have you connected headphones to the TV?
Connecting headphones to the TV turns off the TV speakers.
• Have you set the SPEAKER function to OFF? Follow the description "SPEAKER" on page 22 to check the SPEAKER function setting.

■ Poor picture
• If noise (snow) totally block out the picture, there may be a problem with the aerial or aerial cable. Check the following to try to solve the problem:
  – Have the TV and aerial been connected properly?
  – Has the aerial cable been damaged?
  – Is the aerial pointing in the right direction?
  – Is the aerial itself faulty?

• If the TV or aerial suffers interference from other equipment, stripes or noise may appear in the picture. Move any equipment such as an amplifier, personal computer, or a hair drier, that can cause interference away from your TV. Or try moving the TV. If the aerial suffers interference from a radio tower or high-voltage wire, please contact your local dealer.
• If the TV suffers interference from signals reflecting from mountains or buildings, double-pictures (ghosting) will occur. Try to change the aerial's direction or replace it with one with better directionality.
• Are your COLOUR SYSTEM settings correct? Follow the description "COLOUR SYSTEM" on page 20 to try to solve the trouble.
• Have the COLOUR and BRIGHT settings been adjusted properly? Follow the description "Picture Adjustment" on page 19 to try to adjust them properly.
• Videotaping teletext is not recommended because it may not record correctly.
• When a white and bright still image (such as a white dress) is displayed on the screen, the white part may look as if it is coloured. This is unavoidable due to the nature of the picture tube itself, and not due to a TV failure. When the picture disappears from the screen, the unnatural colours will also disappear.

■ Poor sound

- Have you adjusted BASS or TREBLE properly? If not, follow the description "Sound Adjustment" on page 21.
- When TV channel reception is poor, it can be hard to hear stereo or bilingual sound. In this case, follow the description "STEREO / I • II" on page 21 to hear the sound more easily by changing it to a mono sound.

■ If the TV does not respond to the remote control

- Have the batteries of the remote control worn out? Follow the description "Putting the batteries into the Remote control" on page 6 and replace them with new batteries.
- Have you attempted to use the remote control from the sides or rear of the TV or from more than seven metres away from the TV? Use the remote control in the front of your TV or from less than seven metres away.
- When you are viewing a teletext programme, you cannot operate the menus. Press the **TV** button to return to the ordinary TV programme, and then try operating the menus.
- If the TV will not respond suddenly, press the main power button on the TV and turn off the main power. Press the main power button again to turn on the TV. If the TV returns to a normal state, it is not a failure.

■ Other issues

- When the SLEEP TIMER function operates, the TV is automatically turned off. If the TV is turned off suddenly, try to press the ⏻/l (standby) button to turn on the TV once again. If the TV goes back to normal, there is no problem.
- When the TV is receiving a wide-screen signal (WSS) or a signal from an external device affecting the screen size, the ZOOM mode automatically changes. When you want to resume the previous ZOOM mode, press the **ZOOM** button again.

- If you bring a magnetised equipment such as a speaker near to your TV, the picture may be warped or unnatural colours now appear at the corners of the screen. In this case, keep the equipment away from your TV. If speakers cause this to happen, use magnetic-shielded speakers instead.
- A picture may be tilted due to the earth's own magnetic field. If so, use the "PICTURE TILT (Only for AV-32T67SKE)" on page 21 to correct the tilt.
- The TV may make a crackling sound due to a sudden change in temperature. The picture or sound may be normal. If you hear crackling sounds frequently while you are viewing the TV, there may be other causes. As a precaution, ask your service technician to inspect it.
- Touching the screen may cause you to feel a slight electric shock due to its static electricity. This is unavoidable due to the construction of the picture tube. It is not a problem with the TV. You can rest assured that this static discharge is not harmful.

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Specifications

Item \ Model	AV-32T67SKE	AV-28T67SKE
Broadcasting systems	CCIR I	
Colour systems	PAL • The EXT terminals also support the NTSC 3.58/4.43 MHz system.	
Channels and frequencies	E21-E69	
Sound-multiplex systems	NICAM (I) system	
Teletext systems	FLOF (Fastext), WST (World Standard Text)	
Power requirements	220 - 240 V AC, 50 Hz	
Power consumption	Maximum: 180 W, Average: 120 W, Standby: 3 W	
Picture tube size	Viewable area 76 cm (measured diagonally)	Viewable area 66 cm (measured diagonally)
Audio output	Rated Power output: 10 W + 10 W	
Speakers	(13 cm × 6.5 cm) oval × 2	
EXT-1 terminal	Euroconnector (21-pin, SCART) • Video input, Audio L/R inputs and RGB inputs are available. • TV broadcast outputs (Video and Audio L/R) are available.	
EXT-2 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available. • Video and Audio L/R outputs are available. • T-V LINK functions are available.	
EXT-3 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
EXT-4 terminal	RCA connectors × 3 S-VIDEO connector × 1 • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
AUDIO OUT terminal	RCA connectors × 2 • Variable audio L/R outputs are available. • Variable out 0-1 Vrms, low impedance	
Headphone jack	Stereo mini-jack (3.5 mm in diameter)	
Dimensions (W × H × D)	946 mm × 562 mm × 457 mm	854 mm × 507 mm × 490 mm
Weight	54.5 kg	40.0 kg
Accessories	Remote control unit × 1 (RM-C1500) AA/R6 dry cell battery × 2	

We may change the design and specifications without notice.
Pictures displayed on the screen using this TV's ZOOM functions should not be shown for any commercial or demonstration purpose in public places (cafes, hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this would be an infringement of copyright.