# JVC

*T·V LINK*

# AV-32EX5BK
# AV-28EX5BK

INSTRUCTIONS

## DVB
### Digital Video Broadcasting

*Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996) Number: 3533, 3534*

### ◼ 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 $\perp$ 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, use only a correctly rated approved type and always 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

---
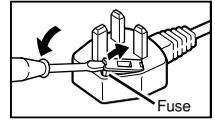
### ◼ Guidelines for safe operation

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.
- 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.

**2**

## How to move the TV

When moving the TV, make sure that it is held by two people as shown in the illustration. Be careful not to trap your hands when putting the TV down.

1
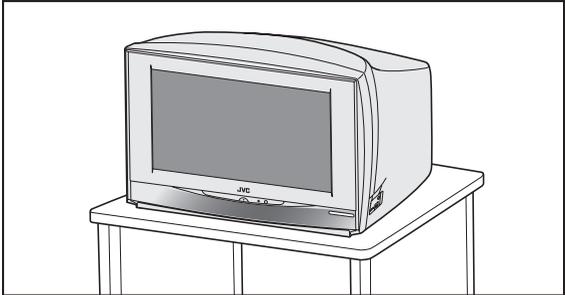
2
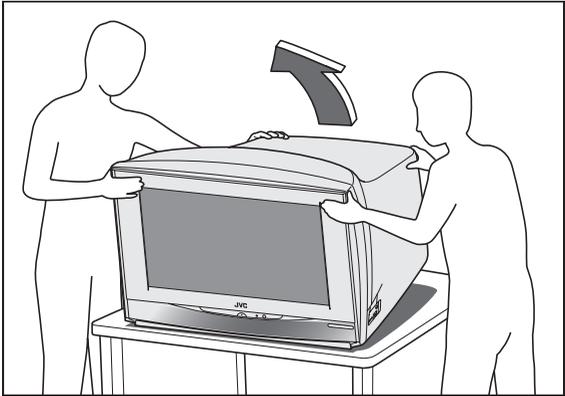
3
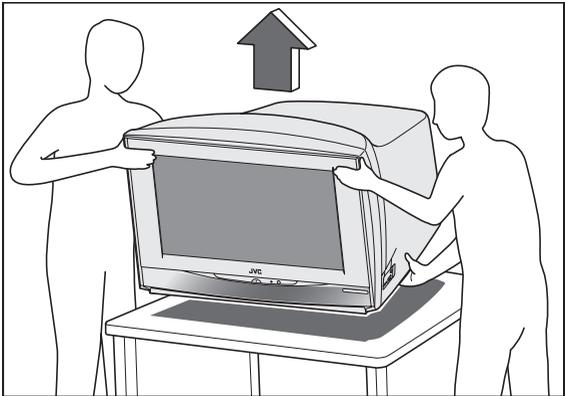
Thank you for buying this JVC colour television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

## 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.
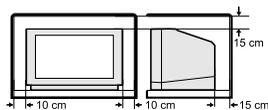


## Failure to heed the following precautions may result in damage to the TV or remote control.

**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.

## NOTE:

Due to static electricity, the TV may be covered with dust.
If this happens, wipe the TV with a soft cloth being careful not to scratch the TV.

**Digital terrestrial broadcasting (DVB-T) service area**
Although this TV can receive both Digital terrestrial broadcasting (DVB-T) and Analogue terrestrial broadcasting, depending on the area in which you live, you may not be able to receive Digital terrestrial broadcasting (DVB-T).
For details of the Digital terrestrial broadcasting (DVB-T) service area, refer to the FREEVIEW website etc.

**4**

# CONTENTS

# Setting up your TV

## Connecting the aerial

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

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

■ **If you connect via a device with an antenna terminal such as a VCR, follow Ⓐ → Ⓑ → Ⓒ in the diagram opposite.**

■ **If you connect the antenna directly to the TV, follow ①.**

- To connect more equipment, please see "Connecting the external devices" on page 53.
- To connect additional audio equipment, see "Connecting Speakers/Amplifier" on page 55.
- When receiving Digital terrestrial broadcasting (DVB-T), reception can suddenly be lost if the signal becomes weak. Use a correctly installed high-performance antenna.
- When connecting via a device with an antenna terminal such as a VCR, depending on the connection method, the signal may be weakened. If this happens, use a booster to increase the signal strength.
- In areas with a lot of radio communication such as near ports or airports, noise may be introduced into the picture or sound. In such cases, reception may be improved by using a high-performance antenna.
- Read the instruction manual of the devices which you connect to the TV.





**6**
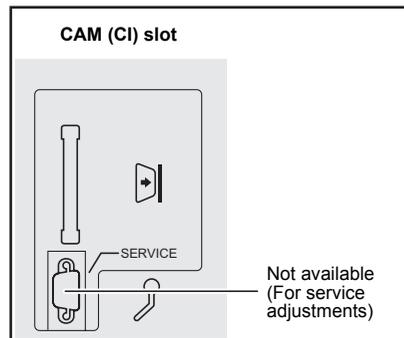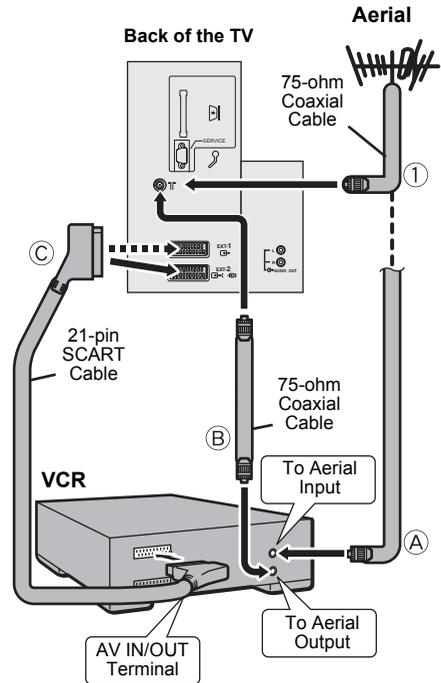
## To view the pay-per-view of the Digital Terrestrial broadcasting

It is required to subscribe to a pay-per-view company to view the pay-per-views of the Digital Terrestrial broadcasting.
Obtain the Conditional Access Module (CAM) and the Viewing card by subscribing to a pay-per-view company, then insert those to the Television using the following procedure.

**1 Switch off the TV and unplug from the mains.**

**2 Insert the Viewing Card to the CAM.**
   • The Viewing Card should be inserted straight into the slot.

**3 Insert the CAM to the slot of the TV.**
   • The CAM should be correctly inserted, it is impossible to insert fully if reversed. The CAM or the TV terminal may be damaged if the CAM is forcefully inserted.

**4 Connect the TV to the mains supply, switch on, and then wait for few moments until the card is activated.**
   • Some CAMs may require the following set up.
      Please set the CAM by entering the DTV menu, Common Interface then pressing **OK** button. (CAM set up menu is not displayed when it is not required.)
   • To see the viewing contract information, press **MENU**, Select DTV and Press **OK**, then Select Common Interface and press **OK**.

## Connecting the power cord to the AC outlet

Insert the AC plug on the power cord from the TV into an 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.
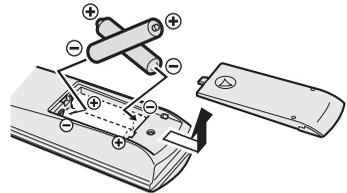


• Follow the warnings printed on the batteries.
• Battery life is about six months to one year, depending on how much you use the remote control.
• The batteries we supply are only for setting up and testing your TV, please replace them as soon as you need to.
• If the remote control does not work properly,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

**7**

# Initial settings

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

*TV/DTV*

OK
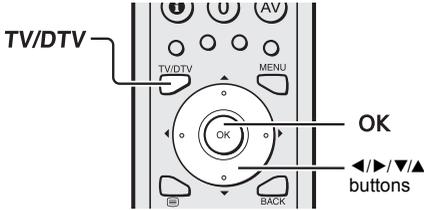
◄/►/▼/▲ buttons

## 1 Press the Main power button on the TV

The Power lamp lights green and the JVC logo is displayed.

**JVC**
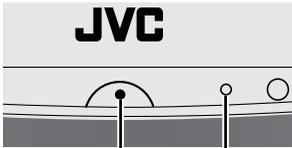
Main power button

Power lamp

• If the JVC logo does not appear this is because your TV has already been turned on for the first time:
Perform the initial settings with "Installation" (see page 30) in the DTV menu and "AUTO PROGRAM" (see page 48) in the INSTALL menu.

## 2 Press the OK button

The Digital terrestrial broadcasting (DVB-T) Automatic Search starts.
The Digital terrestrial broadcasting (DVB-T) channels which can be received are automatically registered.

• In some parts of the UK, Digital terrestrial broadcasting (DVB-T) cannot be received.
If you are in these areas, continue to step 4.

Installation > Automatic Search

Channels:
BBC ONE
BBC TWO
BBC THREE
BBC NEWS 24
BBCi
CBBC Channel

UHF            CH:68
100%

BACK Cancel, go to Installation     MENU Cancel, go to DTV
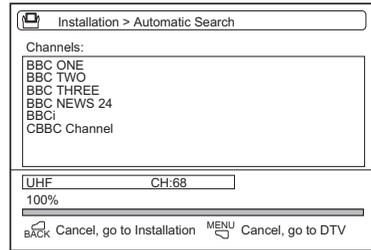
D0201-EN

**When the Automatic Search has finished, the EDIT PR LIST menu appears**

1   BBC ONE            EDIT PR LIST

1. BBC ONE
2. BBC TWO
7. BBC THREE
30. CBBC Channel
40. BBC NEWS 24
51. BBCi

Select      Delete     Edit Name     Lock     Favourites

Select function   Select PR   Watch PR   More..
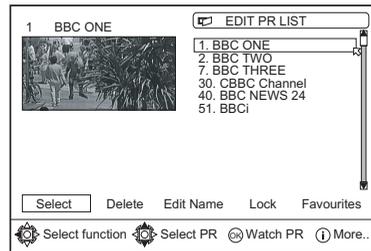
D0202-EN

• If you want to, you can now edit the programme numbers (PR) using the EDIT PR LIST function. For details, see "Edit PR List" on page 28.
• If you do not want to edit programme numbers (PR), go to the next step.

**3 Press the MENU button**

The Analogue terrestrial broadcasting AUTO PROGRAM starts.
The AUTO PROGRAM menu appears and received TV channels are automatically stored in the programme numbers (PR).

AUTO PROGRAM

CH 10

20%
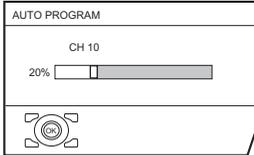
D5004-EN

- To cancel the AUTO PROGRAM function:
  Press the **TV/DTV** button.

**After the AUTO PROGRAM has finished, the EDIT menu appears**

| PR | 🔒 | ID | | CH | |
|----|----|----|----|----|----|
| AV | | ------ | | | |
| 01 | | BBC1 | | CH | 21 |
| 02 | | BBC2 | | CH | 22 |
| 03 | | ITV | | CH | 23 |
| 04 | | CH4 | | CH | 24 |
| 05 | | CH5 | | CH | 25 |
| 06 | | | | CH | 26 |
| 07 | | | | CH | 27 |
| 08 | | | | CH | 28 |
| 09 | | | | CH | 29 |

MOVE

ID        MANUAL

INSERT   DELETE
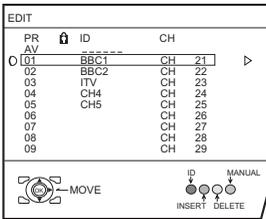
D0038-EN

- If you want to, you can now edit the programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 49.
- If you do not want to edit programme numbers (PR), go to the next step.

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

T-V LINK

DOWNLOAD  TV → RECORDING DEVICE

EXIT

D0005-EN

- **If you do not have a T-V LINK compatible VCR connected:**
Press the **TV/DTV** 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 10 to transmit the Programme number (PR) data.

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

- The Analogue terrestrial broadcasting channels 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.
- 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.

If you have any problems setting up your new TV, please call the **JVC** Helpline on **0870 330 5000**.

**9**

■ **Downloading the data to VCR**

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

- This only works 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 → RECORDING DEVICE

                                  EXIT

D0005-EN
```
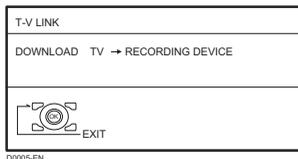
**1  Turn on the VCR**

**2  Press the OK button**

The data transmission begins.

```
TV → RECORDING DEVICE
TRANSFER. . . . .
D0037-EN
```
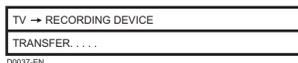
The T-V LINK menu disappears once the data transmission ends.

**When the T-V LINK menu is changed 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 ◄ 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 is connected to the EXT-2 terminal to T-V LINK compatible VCR have all its proper connections?

# 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 Analogue terrestrial broadcasting 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.

**10**

### ■ 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. "DEVICE IS RECORDING" is displayed.

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.

**Do not turn the TV off in the following cases.**

- 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.
- when recording Digital terrestrial broadcasting (DVB-T).

**If you change channels or perform other operations while a Digital terrestrial broadcasting (DVB-T) channel is being recorded, a window appears asking whether to stop the recording.**

**Press the OK button to stop the recording, or the TV/DTV button to continue the recording.**

When the VCR is not ready, the following messages are displayed.

| ERROR MESSAGE | Cause and countermeasure |
|---|---|
| NO RECORDING | The VCR is not able to record. Check the VCR. |
| NO RECORDING, MEDIA PROBLEM | The RECORDING DEVICE is not ready to record. Check the VCR tape. |
| NO RECORDING, DEVICE BUSY | The RECORDING DEVICE cannot record as it is recording or playing. Check the VCR. |

Refer to the 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).

**11**

# Basic operations (TV)
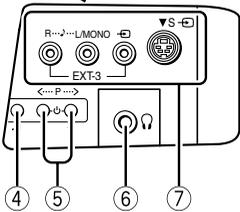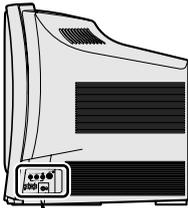


Refer to the pages in parentheses for details.

① Main power button (8, 12)
② Power lamp (8, 12)
③ Remote control sensor
④ ◿ (Volume) button (13)
⑤ P ∨/∧ buttons/ −/+ buttons (13)
⑥ Headphone jack (mini jack) (53)
⑦ EXT-3 terminal (43, 53)

## 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.

## Turn the TV on from standby mode

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

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

### Power lamp condition

| Status | | Power lamp condition |
|---|---|---|
| On | normal | Green |
| | when timer is set | Green |
| | 3 minutes before timer starts | Flashing in green |
| | while timer recording in progress | Green |
| Standby | normal | Red |
| | when timer is set | Red |
| | 3 minutes before timer starts | Flashing in Red |
| | while timer recording in progress | Orange |

# Choose a TV channel

**Press the P ∨/∧ buttons to choose a programme number (PR) or an EXT terminal**
The EXT terminal cannot be chosen when watching Digital terrestrial broadcasting (DVB-T).

■ **Switching between Digital terrestrial broadcasting (DVB-T) and Analogue terrestrial broadcasting.**

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

**2 Press the ◿ (Volume) button while the volume level indicator is displayed**

# Adjust the volume

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

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

**13**

# Basic operations (Remote control)
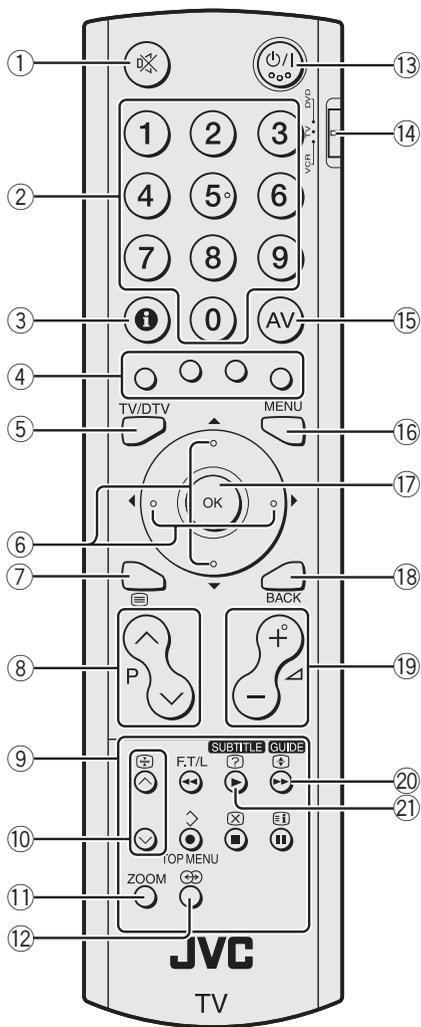


① Muting button
② Number buttons
③ Information button
④ Colour button
⑤ **TV/DTV** button
⑥ ◄/►/▼/▲ buttons
⑦ 🗐 (Text) button
⑧ **P** ∨/∧ buttons
⑨ VCR/DVD/Teletext control buttons
⑩ ∨/∧ buttons
⑪ **ZOOM** button
⑫ ⊕ (3D CINEMA SOUND) button
⑬ ⏻/I (Standby) button
⑭ VCR/TV/DVD switch
⑮ **AV** button
⑯ **MENU** button
⑰ **OK** button
⑱ **BACK** button
⑲ ◿ (Volume) −/+ buttons
⑳ **GUIDE** button
㉑ **SUBTITLE** button

## Turn the TV on or off from standby mode

**Press the ⏻/❘ (standby) button to turn the TV on or off.**
When the TV is turned on, the power lamp lights green.
• The power can be turned on by pressing the **TV/DTV** button, **P** ∨/∧ buttons or Number buttons.

To turn the TV on or off, set the VCR/TV/DVD switch on the remote control to the TV position and press the ⏻/❘ button.
If the VCR/TV/DVD switch on the remote control is set to a position other than TV, the TV will not be turned on or off even if the ⏻/❘ button is pressed.

## Choose a TV channel and watch images from external devices

■ **Switching between Digital terrestrial broadcasting (DVB-T) and Analogue terrestrial broadcasting.**

**Press the TV/DTV button.**
The broadcasting is switched every time the button is pressed.

■ **Use the number buttons:**
**Enter the programme number (PR) of the channel using the number buttons.**
Example:
• PR 6 → press **6**
• PR 12 → press **1** and **2**
• PR 123 → press **1**, **2** and **3**

■ **Use the P ∨/∧ buttons:**
**Press the P ∨/∧ buttons to choose the programme number (PR) you want.**
• For Digital terrestrial broadcasting (DVB-T), if the FAVOURITE setting in the "Edit PR List" (see page 28) has been set, only that programme number (PR) can be chosen.
• For Analogue terrestrial broadcasting, an EXT terminal can also be chosen.

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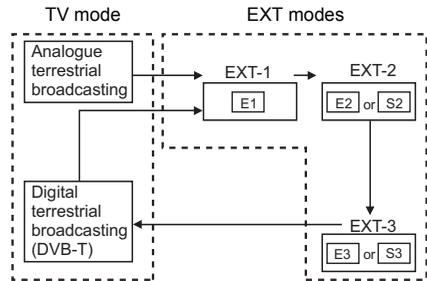


• You can choose a video input signal from the S-VIDEO signal (Y/C signal) and regular video signal (composite signal). For details, see "S-IN (S-VIDEO input)" on page 43.
• If you do not have a clear picture or no colour appears, change the colour system manually. See "COLOUR SYSTEM" on page 39.
• If 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-3 terminal does not support this function.)

**15**

**To return to a TV channel:**
Press the **TV/DTV** button, the **P** ∨/∧ 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 49.
Pressing the **AV** button changes the choice as follows:
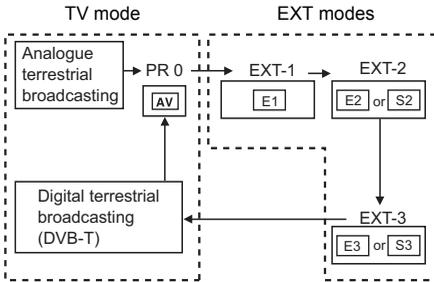


- The VCR sends its playback image along the aerial cable as an RF (radio frequency) signal.
- Also see your VCR instruction manual.

## Adjust the volume

**Press the ∠ −/+ buttons to adjust the volume.**
The volume level 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.

## ZOOM function

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

**AUTO:**
When a WSS (Wide Screen Signalling) signal, which shows the aspect ratio of the picture, is included in the broadcast signal or the signal from an external device, the TV automatically changes the ZOOM mode to 16:9 ZOOM mode or FULL mode according to the WSS signal.
If a WSS signal is not included, the picture is displayed according to the ZOOM mode set with the 4:3 AUTO ASPECT function.

- For details of the 4:3 AUTO ASPECT function, see "4:3 AUTO ASPECT" on page 40.
- When the AUTO (WSS) mode does not function correctly due to poor WSS signal quality or when you want to change the ZOOM mode, press the **ZOOM** button and change to another ZOOM mode.
- When watching a 16:9 FULL programme with Digital terrestrial broadcasting (DVB-T), the aspect ratio is FULL.

**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.



"This mode may result in information such as headlines or rolling text at the very top or bottom of the screen not being fully viewable on some programmes.
In such cases the picture can be moved up or down using ▼/▲ keys, alternatively switch to FULL mode."

**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.
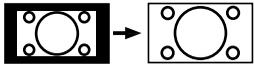


**16:9 ZOOM SUBTITLE:**
This zooms up the wide picture (16:9 aspect ratio) with subtitles to the full screen.



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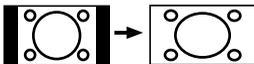


• For 16:9 aspect ratio pictures that have been squeezed into a normal picture (4:3 aspect ratio), use the FULL mode to restore the picture to its original shape.

• When you use this TV's output signal to record a Digital terrestrial broadcasting (DVB-T) 16:9 broadcast, it will be recorded with its picture squeezed into a 4:3 aspect ratio picture.
Use the FULL mode to restore the picture to its original shape when playing the recording.

■ **Choose the ZOOM mode**

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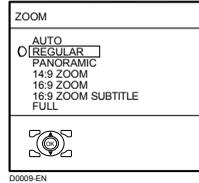


**2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button**

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

• The ZOOM mode may be automatically changed by the control signal from an external device. When you want to return to the previous ZOOM mode, choose the ZOOM mode again.

■ **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.
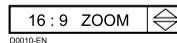


**3 While it is displayed, press the ▼/▲ buttons to change the position of the picture**

• You cannot adjust the visible area in REGULAR or FULL mode.

**17**

- The visible area adjustment is saved even after the TV channel is changed. However, it is cancelled if the following operations are performed.
  – The power is turned off/on
  – The ZOOM mode is changed
  – The ▤ (Text) button is pressed
  – The TV is switched between TV mode and EXT mode
- Some menu displays can be cut off when you move the visible area up or down while watching Digital terrestrial broadcasting (DVB-T).

## 3D CINEMA SOUND function

You can enjoy sounds with a wider ambience.

**Press the ⊕ (3D CINEMA SOUND) button to turn the 3D CINEMA SOUND function on or off**

- The 3D CINEMA SOUND effect can be adjusted with the "3D CINEMA SOUND" menu (see page 42).
- The 3D CINEMA SOUND function does not work properly with mono sound.
- If the audio is mono sound, use "HYPER SOUND" (see page 41) to enjoy a simulated stereo experience.
- When 3D CINEMA SOUND is turned on, HYPER SOUND turns off, and when HYPER SOUND is turned on, 3D CINEMA SOUND turns off.

**18**

# Operation while watching DTV

## Information function

When the ⓘ (Information) button is pressed, the programme information appears for approximately 1 minute.

```
┌─────────────────────────────────────────┐
│  ╭──╮   ▭ ITV News          "A"  ▭▭▭▭▭  │
│ │ 41 │                       CH61         │
│  ╰──╯  13:19  Now: 13:00-14:00 Steve Scott│
│               Next: 14:00-14:30 Steve Scott│
└─────────────────────────────────────────┘
D0203-EN
```

• When the ⓘ (Information) button is pressed while the information is being displayed, the information disappears.

---

• The time display in the programme information uses the time information which is included in the Digital terrestrial broadcasting (DVB-T). Depending on the channel, the time information may not be correct.

## Using the Electronic Programme Guide (EPG)

The EPG screen appears when the **GUIDE** button is pressed while watching Digital terrestrial broadcasting (DVB-T).

①        ②              ③



```
┌─────────────────────────────────────────────────┐
│ ✍ Electronic Programme Guide   06:02  20/10/2005 │
│      GENRE                All                     │
│ 20/10 │ 1. BBC ONE      ▷│06:00-Breakfast         │
│ 21/10 │ 2. BBC TWO       │09:15-Animal Park        │
│ 22/10 │ 7. BBC THREE     │10:00-Escape to the Country│
│ 23/10 │ 30. CBBC Channel │11:00-Trading Up         │
│ 24/10 │ 40. BBC NEWS 24  │11:30-Car Booty          │
│ 25/10 │ 51. BBCi         │12:00-Bargain Hunt       │
│ 26/10 │ 89. BBC R Scotland│12:30-Eggheads          │
│ 27/10 │ 90. BBC R n Gaidheal│13:00-BBC News        │
│ 06:00-09:15   Breakfast                           │
│ Start your day with all the latest news,sport,business and weather│
│ from the BBC`s Breakfast team.Includes Reporting Scotland at 25│
│ and 55 minutes past each hour.                    │
│ ◉ Select PR     ● Genre ○○ Scroll ⓘ More..       │
└─────────────────────────────────────────────────┘
D0204-EN
```

④

① Date column
② Channel column
③ Programme column
④ Brief description of programme
The programme name, broadcast time and a brief description of the programme are displayed for the programme chosen from the date column, channel column and pogramme column.

Press the ⓘ (Information) button to display the help screen. Press it again to return to the EPG screen.

```
┌─────────────────────────────────────────────────┐
│ ✍ Electronic Programme Guide   06:06  20/10/2005 │
│      GENRE                All                     │
│ 20/10 │ 1. BBC ONE      │03:25-BBC News 24    ⏏│ │
│ 21/10 │ 2. BBC TWO      │06:00-Breakfast        │ │
│ 22/10 │ 7. BBC THREE    │09:15-Animal Park      │ │
│ 23/10 │ 30. CBBC Channel│10:00-Escape to the Country│
│ 24/10 │ 40. BBC NEWS 24 │11:00-Trading Up       │ │
│ 25/10 │ 51. BBCi        │11:30-Car Booty        │ │
│ ●●○○                                             │
│  MENU   DTV:Go to DTV                            │
│ ◁◉▷    Guide:Leave guide                         │
│        Back:Go to previous                       │
│                          i:Exit help             │
│                                    ⓘ More..      │
└─────────────────────────────────────────────────┘
D0205-EN
```
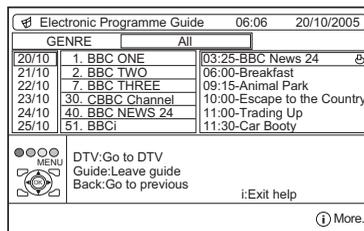
Help screen

## ■ Using the Set Reminder

When you schedule a programme, you will not miss a programme that you want to watch.

**1 Press the ▼/▲ buttons and choose the date from the Date column**

**2 Press the ▼/▲ buttons and choose the channel from the Channel column**

The list of programme names and the broadcast time of the chosen date appears on the Programme column.

**3 3 Press the ▼/▲ buttons and choose the program that you want to schedule from the Programme column**

The brief description of the programme are displayed.

• Press the yellow and blue buttons to scroll the channel column.

**4 Press the OK button**

The scheduled icon appears at the right of the chosen programme and the scheduling is completed.

Scheduled icon
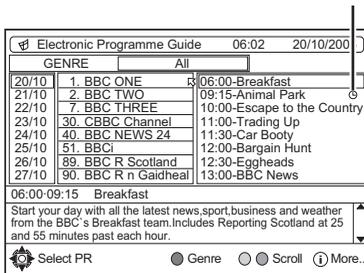


• Steps 1 to 4 can be repeated to schedule more programmes.
• When the **GUIDE**, **TV/DTV**, **MENU** or **BACK** buttons are pressed, the EPG screen disappears and the normal screen returns.

When the TV is being watched, it automatically changes to the channel of the scheduled programme when the start time of the scheduled program is reached.

• The scheduling function does not work when the TV is turned off.

**Cancelling a scheduled programme.**

Display the EPG screen, choose a programme which has the scheduled icon (⊙), and press the **OK** button.
The icon disappears and the scheduling is cancelled.

## ■ Using the Rec Timer

By setting the Rec Timer, you can record a Digital terrestrial broadcasting (DVB-T) programme with a VCR connected to EXT-2.

**1 Perform steps 1 ~ 3 of the "Using the Set Reminder"**

**2 Press the red button**

The timer setting window appears.
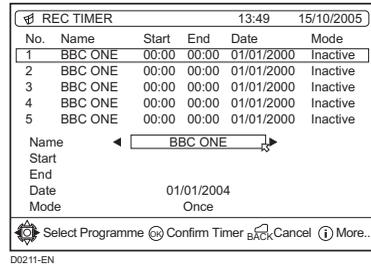


**3 Proceed to step 2 of the "Rec Timer" (page 23)**

• If "Maximum number of timers exceeded" is displayed, the memory is full.

• When the **GUIDE**, **TV/DTV**, **MENU** or **BACK** buttons are pressed, the EPG screen disappears and the normal screen returns.

• When the "Rec Timer" is set within the same period of time, the "Set Reminder" will be cancelled.
• For more information, see "Rec Timer" on page 23.

**20**

### ■ Using the Genre function

By using the Genre function you can sort programmes by genre.

**1 Press the green button**
The Genre window appears.

**2 Press the ▼/▲ buttons and choose the genre**

**3 Press the OK button**
The selected genre programme appears on the Programme column.

**Cancelling the Genre function.**
Display the Genre window and choose "All" for the genre.
Programmes of every genre appears on the Programme column.

## Displaying the Subtitles

With Digital terrestrial broadcasting (DVB-T), some programmes are broadcast with subtitles. Subtitles can be displayed when watching these programmes.

**Press the SUBTITLE button when watching Digital terrestrial broadcasting (DVB-T)**
"Subtitle ON" appears at the top-left of the screen and, when the programme has subtitles, the subtitles are displayed.

Subtitle ON

D0207-EN

- When the **SUBTITLE** button is pressed again, "Subtitle OFF" appears and the subtitles disappear.

**21**

# Digital Teletext function



VCR/TV/DVD switch

Number buttons

Colour buttons

◀/▶/▼/▲ buttons

F.T/L

JVC
TV
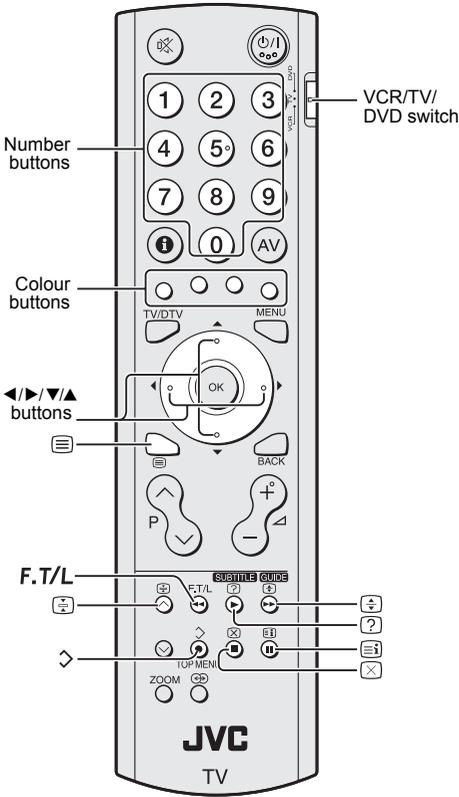
With Digital terrestrial broadcasting (DVB-T), in addition to pictures and sound, you can also watch digital teletext.
Digital teletext is sometimes broadcast at the same time as normal broadcasting.

**1 Press the 🗐 button**
The digital teletext information appears.



BBC ONE
Powers

For a full list of sections, press SELECT

Contact info
CBeebies Home
Music
🗐 Taking Care
NEWS
SPORT
WEATHER
MAIN MENU

Press TEXT to exit
B B C i

D0208-EN

**2 Operate it with the colour buttons, ◀/▶/▼/▲ buttons and OK button**
The operation method may differ depending on the contents of the digital teletext.
Follow the instructions displayed on digital teletext screen.
   • When "Press SELECT" or similar message appears on the screen, press the **OK** button.

• When the 🗐 (Text) button is pressed, the TV returns to television broadcasting.
• With Digital terrestrial broadcasting (DVB-T), in addition to digital teletext broadcasting at the same time as normal broadcasting, there are also channels with just digital teletext broadcasting.
• The aspect ratio when watching a channel with just digital teletext broadcasting is the same as the aspect ratio of the picture watched previously.
• When you press the 🗐 (Text) button while subtitles are on, the subtitles are turned off. When you press the 🗐 (Text) button again, the digital teletext screen is displayed.

# Operation with the DTV menu

### Buttons used to operate the menus
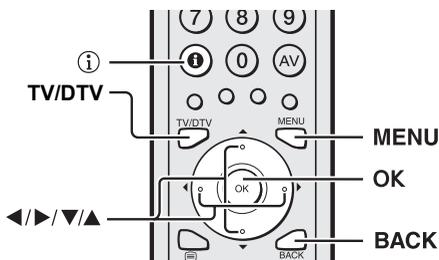


MENU
OK
BACK

## Displaying the DTV menu

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

```
MENU
┌─────────────────────────────────┐
│ ▥ PICTURE SETTING   ▦ EXT SETTING│
│ ▤ PICTURE FEATURES  ▦ FEATURES   │
│ ♫ SOUND SETTING     ▦ INSTALL    │
│ ♫ 3D CINEMA SOUND   DVB DTV      │
│         ▧                        │
└─────────────────────────────────┘
D5105-EN
```
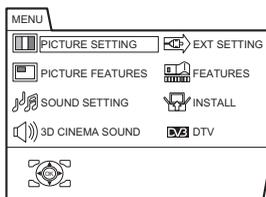
• DTV in the menu bar can only be chosen when watching Digital terrestrial broadcasting (DVB-T).

**2  Press the ◀/▶/▼/▲ buttons to choose the DTV**

**3  Press the OK button**

The DTV menu appears.

```
┌─────────────────────┐
│ DTV                 │
├─────────────────────┤
│ Rec Timer           │
│ Configuration       │
│ Edit PR List        │
│ Installation        │
│ Common Interface    │
└─────────────────────┘
D0209-EN
```
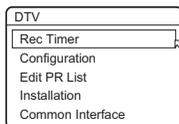
**4  Press the ▼/▲ buttons to choose the item**

• Press the **BACK** button to return to the previous menu.
• Press the **TV/DTV** or **MENU** button to exit from the menu.

• For menu items other than DTV, see page 36.

## Rec Timer

By setting the timer, you can record a Digital terrestrial broadcasting (DVB-T) programme with a VCR connected to EXT-2 while you are out.

• Before using DTV timer recording, the VCR and TV must be connected up correctly. For details, see "Connection when recording to VCR" on page 54.
• When you have a T-V LINK compatible VCR connected to EXT-2, all you need to do is set the TV timer settings and the programme will be recorded.
By using "Direct Rec" of the T-V LINK function, the Direct Rec commands are sent from the TV to the VCR to automatically start and end the recording. It is not necessary to set the timer on the VCR.
• When your VCR is not T-V LINK compatible, you also need to set the VCR timer settings to match the TV timer settings.
• The recording may not start and stop at exactly the right times for some programmes. It is recommended that you allow some leeway when setting the recording times.
• Provided that the days and times are not the same, you can set up to five timer settings.
• When subtitles are ON, the subtitles displayed with the broadcast will be recorded. When you do not want to record the subtitles, you need turn OFF the Subtitle setting beforehand (See "Displaying the Subtitles" on page 21.).
• During DTV timer recording, you are unable to view the EXT SETTING menu, INSTALL menu, or DTV menu.

**1 Choose Timers and press the OK button**

The TIMER menu appears.

| REC TIMER | | | 13:48 | 15/10/2005 |
|---|---|---|---|---|

| No. | Name | Start | End | Date | Mode |
|---|---|---|---|---|---|
| 1 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 2 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 3 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 4 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 5 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 6 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 7 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 8 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 9 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 10 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |

Change Mode  (OK) Edit timer settings  (i) More..

D0210-EN

• When the (i) (Information) button is pressed, the help screen appears. When it is pressed again, the previous screen is returned to.

**2 Press ▼/▲ buttons to choose the timer number, and then press the OK button**

The timer setting window appears.

| REC TIMER | | | 13:49 | 15/10/2005 |
|---|---|---|---|---|

| No. | Name | Start | End | Date | Mode |
|---|---|---|---|---|---|
| 1 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 2 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 3 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 4 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |
| 5 | BBC ONE | 00:00 | 00:00 | 01/01/2000 | Inactive |

| Name | ◄ | BBC ONE | ► |
|---|---|---|---|
| Start | | | |
| End | | | |
| Date | | 01/01/2004 | |
| Mode | | Once | |

Select Programme  (OK) Confirm Timer  BACK Cancel  (i) More..

D0211-EN

**3 Use the ◄/►/▼/▲ buttons, number buttons and OK button to set the timer**

• When setting the start time and end time, input 1200 for 12:00 PM, 1500 for 3:00 PM and 0000 for 12:00 AM.

**Name:**
Use the ◄/► buttons to choose the channel for which the timer is to be set.
Press the ▼ button.

**Start:**
Set the timer start time with the number buttons.

• When the ◄/► buttons are pressed, the input position moves.
Press the ▼ button.

**End:**
Set the timer end time with the number buttons.

• When the ◄/► buttons are pressed, the input position moves.
Press the ▼ button.

**Date:**
Set the date for the timer to work with the number buttons.

• When the ◄/► buttons are pressed, the input position moves.
Press the ▼ button.

**Mode:**
Use the ◄/► buttons to choose the timer mode (Once/Daily/Weekly), and then press the OK button.

**4 Prepare your VCR for recording**

**When recording on a T-V LINK compatible VCR:**

**1.** Insert the videotape for recording into the VCR and set the recording mode.

**2.** Make sure the VCR is ready to receive Direct Rec commands from the TV.
• Make sure other VCR timer settings do not coincide with the TV timer settings.
• For details, see your VCR instruction manual.

**When recording on a T-V LINK incompatible VCR:**

**1.** Insert the videotape for recording into the VCR and set the recording mode.

**2.** Set the VCR recording timer settings.
• Make the start and end time match that of the TV timer.
• Set the VCR to record the signal from the external input that the TV is connected to.
• For details, see your VCR instruction manual.

When you have finished Step 4, you have set the timer.

When you are not watching TV, make sure the TV is in standby.

The TV power lamp begins flashing at three minutes before the timer start time. If you are watching TV at the time, a message appears on the screen to inform you the timer is about to start.
If the TV is in Standby, the power lamp lights orange while timer recording is in progress.

---

• When performing timer recording with a T-V LINK compatible recording device, test the timer recording before you record the programme. There are some T-V LINK compatible recording device that will not correctly receive the Direct Rec command from the TV.
  In this case, follow the instructions of "When recording on a T-V LINK incompatible VCR:".

---

### While the timer is in operation:
• You can turn the TV on or off (Standby). WARNING: Do not turn off the main power.
• You can watch Analogue terrestrial broadcasting channels or the pictures via an EXT terminal.
• Please note that any programme information that appears on the screen, such as when making changes to the Digital terrestrial broadcasting (DVB-T) channel picture, will be superimposed over the picture in the VCR recording.
• You cannot change Digital terrestrial broadcasting (DVB-T) channels while recording.

### Cancelling and resetting the timer setting:

#### Cancelling the timer setting
Display the TIMER MENU and press the ▼/▲ buttons to choose which timer setting to cancel. Press the ◄/► buttons so that "Inactive" appears in the Mode column.

### Reactivating the cancelled timer setting
Display the TIMER MENU and press the ▼/▲ buttons to choose which timer setting to reactivate. Press the ◄/► buttons so that "Active" appears in the Mode column.

### Aborting timer recording
Display the Digital terrestrial broadcasting (DVB-T) channel picture on the screen and press the (i) (Information) button. A window will appear asking if you want to stop the recording. Press the **OK** button to abort the recording. If you want to continue recording, press the **TV/DTV** button.

---

• If, while attempting to perform timer recording to a T-V LINK compatible VCR, the TV timer operation starts but the VCR does not start recording, the problem is with the VCR. Resolve the VCR-related problem and see "Aborting timer recording" to abort the recording. After this is done, reset the timer.
• When you are watching TV at the recording start time, you may see an error message stating that recording could not start because of a VCR-related problem. See "Direct Rec" on page 11, which lists and explains each error message.

**25**

# Configuration

Set the basic setting for watching Digital terrestrial broadcasting (DVB-T).

### Choose configuration and press the OK button

CONFIGURATION appears.
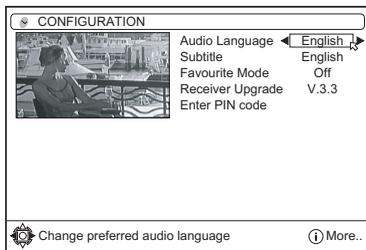


D0212-EN

- When the **BACK** button is pressed, the previous screen is returned to. When the **TV/DTV** or **MENU** buttons are pressed, the menu disappears.
- When the ⓘ (Information) button is pressed, the help screen appears. When it is pressed again, the previous screen is returned to.

### ■ Audio Language

With Digital terrestrial broadcasting (DVB-T), a number of languages can be broadcast at the same time. Choose the language you want to listen to when watching these broadcasts.

**1 Press the ▼/▲ buttons and choose Audio Language**

**2 Press the ◄/► buttons and choose the language**

The language changes every time the button is pressed.

- If the selected language is not broadcast, the default language will be played.

### ■ Subtitle language

With Digital terrestrial broadcasting (DVB-T), a number of subtitles can be broadcast at the same time. Choose the subtitle you want to display when watching these broadcasts.

**1 Press the ▼/▲ buttons and choose Subtitle**

**2 Press the ◄/► buttons and choose a subtitle language that appears when the SUBTITLE button is pressed**

The subtitle language changes every time the button is pressed.

### ■ Favourite Mode

Enable/disable the Edit PR List Favourites settings.

**1 Press the ▼/▲ buttons and choose Favourite Mode**

**2 Press the ◄/► buttons and choose ON or OFF**

**On:**
The Edit PR List Favourites settings are enabled.
When the **P** ∨/∧ button is pressed, only the channels chosen in the Edit PR List Favourites (those with the icon) can be chosen.

- For details on how to set your favourite channels, see "Setting the favourite channels" on page 30.

**Off:**
The Edit PR List Favourites settings are disabled
When the **P** ∨/∧ button is pressed, all the channels registered in the Edit PR List can be chosen.

#### ■ Receiver Upgrade

Set the method to upgrade the Digital terrestrial broadcasting (DVB-T) receiver software.

**1  Press the ▼/▲ buttons and choose Receiver Upgrade, and press the OK button**

The setting window appears.

```
┌─────────────────────────────────────────┐
│ ◎  CONFIGURATION                         │
│                                          │
│  ┌──────────┐   Audio Language   English │
│  │  Somos   │   Subtitle         English │
│  │          │   Favourite Mode   Off     │
│  │          │   Receiver Upgrade V.3.3   │
│  │          │   Enter PIN code           │
│  └──────────┘                            │
│                                          │
│  Automatic Download ◄  Enabled  ►        │
│  Search for New Version                  │
│                                          │
│ ◎ Switch automatic upgrade  ᴮᴬᶜᴷ Exit submenu  ⓘ More.. │
└─────────────────────────────────────────┘
```
D0213-EN
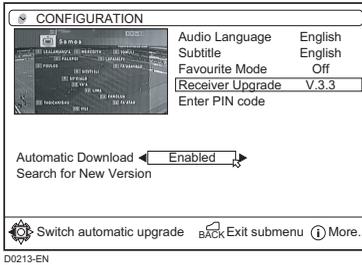
• The actual version may be different to the Receiver Upgrade version displayed above.

**2  Press the ▼/▲ buttons and choose Automatic Download, and press the ◄/► buttons to choose Enable or Disable**

**Enable (factory settings):**
The Digital terrestrial broadcasting (DVB-T) software is automatically updated every day at 3:00 am. When enabled, the TV also searches for new software whenever it goes to standby.

**Disable:**
The Digital terrestrial broadcasting (DVB-T) software is not automatically updated.

**Manually updating the Digital terrestrial broadcasting (DVB-T) information**

**Press the ▼/▲ buttons and choose Search for New Version, then press the OK button**

The Digital terrestrial broadcasting (DVB-T) information is updated.

In the future, there is a possibility that the Receiver Update function may also be able to be used to update the Digital terrestrial broadcasting (DVB-T) software and add new functions.

#### ■ Enter PIN code

Choose Enter PIN code to change the PIN code for the Edit PR List menu's "Lock". The PIN code factory setting (how it is set when you purchase the television) is 0000.

**1  Press the ▼/▲ buttons and choose Enter PIN code, then press OK button**

**2  Input the current PIN code**

When you are making this setting for the first time, input 0000.
When a PIN code has already been set, enter the correct PIN code.
The PIN code setting window appears.

```
┌─────────────────────────────────────────┐
│ ◎  CONFIGURATION                         │
│                                          │
│  ┌──────────┐   Audio Language   English │
│  │          │   Subtitle         English │
│  │          │   Favourite Mode   Off     │
│  │          │   Receiver Upgrade V.3.5   │
│  │          │   Menu Lock        Installation │
│  └──────────┘   Enter PIN code           │
│                                          │
│  PIN code:    ┌─ ─ ─ ─┐                   │
│  Confirm:     │─ ─ ─ ─│                   │
│               └───────┘                   │
│ ⓪..⑨ Enter PIN code  ᴮᴬᶜᴷ Exit PIN code menu  ⓘ More.. │
└─────────────────────────────────────────┘
```
D0225-EN
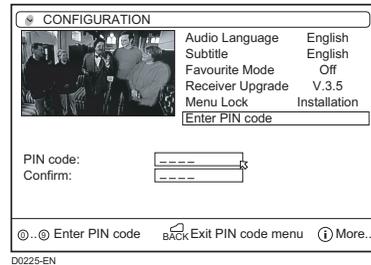
**3  Press the number buttons to input a new PIN code (password)**

**4  Input the new PIN code (password) again in the Confirm box**

Your newly chosen PIN code is now set. You will now need to use the PIN code (password) you chose here to lock or unlock the Edit PR List's "Lock".

**27**

# Edit PR List

The Edit PR List can be used to do the following:
- delete registered channels
- edit channel names
- lock channels so that they cannot be watched by children
- set Favorites so that you can easily choose from only the channels you often watch.

### Choose Edit PR List and press the OK button

EDIT PR LIST appears.

- Sometimes you may notice a drop in picture quality while watching your programme in the quarter-screen. This is not a fault.
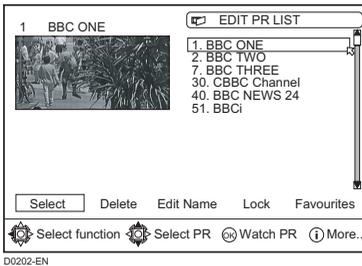


D0202-EN

- When the **BACK** button is pressed, the previous screen is returned to. When the **TV/DTV** or **MENU** buttons are pressed, the menu disappears.
- When the ⓘ (Information) button is pressed, the help screen appears. When it is pressed again, the previous screen is returned to.

## ■ Choosing a channel

The chosen channel is shown on the quarter-screen.

**1 Press the ◀/▶ buttons and choose Select on the bar at the bottom of the screen**

**2 Press the ▼/▲ buttons and choose a channel, and then press the OK button**

The picture of the chosen channel is shown on the quarter-screen.

## ■ Deleting a channel

**1 Press the ◀/▶ buttons and choose Delete on the bar at the bottom of the screen**

**2 Press the ▼/▲ buttons and choose the channel to be deleted, and then press the OK button**

The channel deletion confirmation window appears.
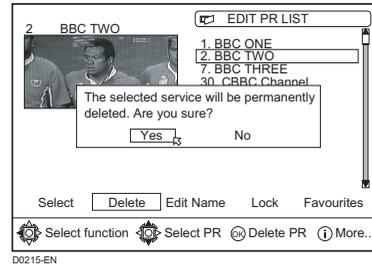


D0215-EN

**3 Choose Yes and press the OK button**

The chosen channel is deleted.

- If you do not want to delete the chosen channel, choose No and press the **OK** button.

- Perform "Installation" (see page 30) to re-register a channel that you have deleted.

**28**

■ **Editing a channel name**

**1 Press the ◀/▶ buttons and choose Edit Name on the bar at the bottom of the screen**

**2 Press the ▼/▲ buttons and choose the channel to be edited, and then press the OK button**

The edit window appears.
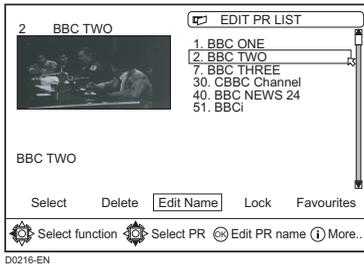
```
2   BBC TWO            [📺] EDIT PR LIST
                        1. BBC ONE
                        2. BBC TWO
                        7. BBC THREE
                        30. CBBC Channel
                        40. BBC NEWS 24
                        51. BBCi

BBC TWO

     Select   Delete   Edit Name   Lock   Favourites
 Select function  Select PR  Edit PR name  More..
D0216-EN
```

**3 Press the ▼/▲ buttons and choose a character, press the ◀/▶ buttons to move the cursor and edit the name, and then press the OK button**

The edited channel appears in the Edit PR List.

• Delete any unnecessary characters by entering spaces over them.

■ **Locking a channel**

Digital terrestrial broadcasting (DVB-T) channels can be locked in the same way as the FEATURES menu CHILD LOCK.

**1 Press the ◀/▶ buttons and choose Lock on the bar at the bottom of the screen**

**2 Press the ▼/▲ buttons and choose the channel to be locked, and then press the OK button**

The Enter PIN code input window appears.
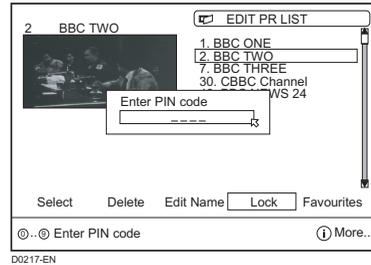
```
2   BBC TWO            [📺] EDIT PR LIST
                        1. BBC ONE
                        2. BBC TWO
                        7. BBC THREE
                        30. CBBC Channel
          Enter PIN code    WS 24

             — — — —

     Select   Delete   Edit Name   Lock   Favourites
  .. Enter PIN code                         More..
D0217-EN
```

**3 Press the number buttons to input the correct PIN code and press the OK button**

If you have not changed the PIN code in the CONFIGURATION menu's "Enter PIN code" (see page 27), input 0000.
If you have changed the PIN code in the CONFIGURATION menu's "Enter PIN code" (see page 27), input the PIN code you chose.
The lock icon appears next to the channel name in the Edit PR List.
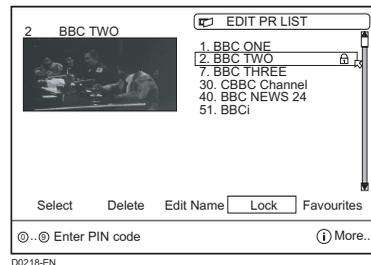
```
2   BBC TWO            [📺] EDIT PR LIST
                        1. BBC ONE
                        2. BBC TWO      🔒
                        7. BBC THREE
                        30. CBBC Channel
                        40. BBC NEWS 24
                        51. BBCi

     Select   Delete   Edit Name   Lock   Favourites
  .. Enter PIN code                         More..
D0218-EN
```

When a locked channel is chosen, the Enter PIN code input window will appear. If the correct PIN code is input, the picture appears.

• When you forget the PIN code for the "Lock", you can unlock locked channels by performing Automatic Search (see "Installation" on page 30).

**29**

### ■ Setting the favourite channels

Channels that you often watch can be set as favourite channels. You can choose from just those channels when the **P** ∨/∧ buttons are pressed.

• After setting the favourite channels, check that "Favourite Mode" in "Configuration" (see page 26) is set to ON.

**1 Press the ◀/▶ buttons and choose Favourites on the bar at the bottom of the screen**

**2 Press the ▼/▲ buttons and choose the channel to be registered as a favourite channel, and then press the OK button**

The favourite icon appears to the right of the chosen channel.

LIST
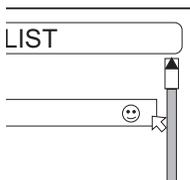
D0219-EN

## Installation

Use when re-registering a channel or when registering a new channel.

**1 Choose Installation and press the OK button**

The Installation menu appears.

Installation
Automatic Search
Manual Search
First Time Installation
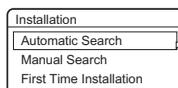
D0220-EN

**2 Press the ▼/▲ buttons and choose the channel registration method, and then press the OK button**

**Automatic Search:**
Choose to automatically register the channels that can be received.

When Automatic Search is chosen and the **OK** button is pressed, the confirmation window appears.

Start automatic search? Current PR list will be replaced.
Yes          No
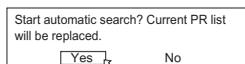
D0221-EN

To perform Automatic Search, choose Yes and press the **OK** button.
To cancel, choose No and press the **OK** button.

**Manual Search:**
Choose to register a particular channel.

Installation > Manual Search
Channel Number    61

Signal Level:
Signal Quality:

Move cursor ⊚..⊚ Enter CH number ⊛ Start ⓘ More..
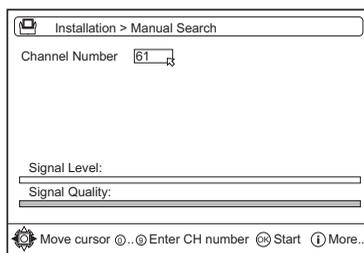
D0222-EN

Press the number buttons and input the channel that you want to register, and then press the **OK** button. The Manual Search starts and the input channel is registered if it can be received.

**First Time Installation:**
Choose when you have moved house etc and want to automatically re-register all the channels.
In addition to registering all the channels that can be received, it will reset the timer settings.

When Factory Settings is chosen and the **OK** button is pressed, the confirmation window appears.
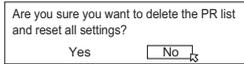
```
Are you sure you want to delete the PR list
and reset all settings?
        Yes              No
```
D0223-EN

To perform Factory Settings, choose Yes and press the **OK** button.
To cancel, choose No and press the **OK** button.

## Common Interface

Choose when CAM with the Viewing Card is inserted into the CAM slot on the back of the TV, and you want to set the module for pay-per-view.

When Common Interface is chosen and the **OK** button is pressed, the name of the inserted module appears. When the **OK** button is then pressed, the module setting menu appears.
• When no module is inserted, "No CI Module" appears.
• Refer to "To view the pay-per-view of the Digital Terrestrial broadcasting" on page 7 for deatils of the settings.

**31**

# Operation while watching analogue TV

## Information function

You can see the channel number of the programme you are watching, the current time or the PR LIST.
From the PR LIST, you can choose a channel or EXT terminal.

### Press the ⓘ (Information) button to display the information you want to see.

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



D0011-EN
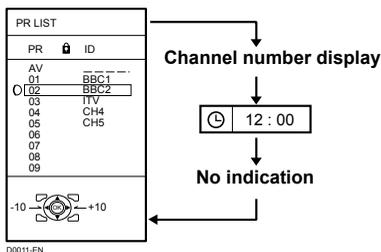
### Channel number display:
The channel number and channel name (when the channel name is registered) of the programme you are watching or the EXT terminal number is displayed.

### Time display:
The current time of the teletext data is displayed.
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.
• An incorrect current time is sometimes displayed when watching videos.

### PR LIST:
The programme number (PR) and EXT terminal list is displayed.
Pressing the **OK** button after choosing the programme number (PR) or EXT terminal with the ◄/►/▼/▲ buttons will display the chosen programme or EXT terminal.
• For programme numbers (PR) for which the CHILD LOCK function is set, the 🔒 (CHILD LOCK) mark is displayed. For details see "CHILD LOCK" on page 45.

# Analogue teletext function



Number buttons

Colour buttons

◀/▶/▼/▲ buttons

▤

F.T/L

◇
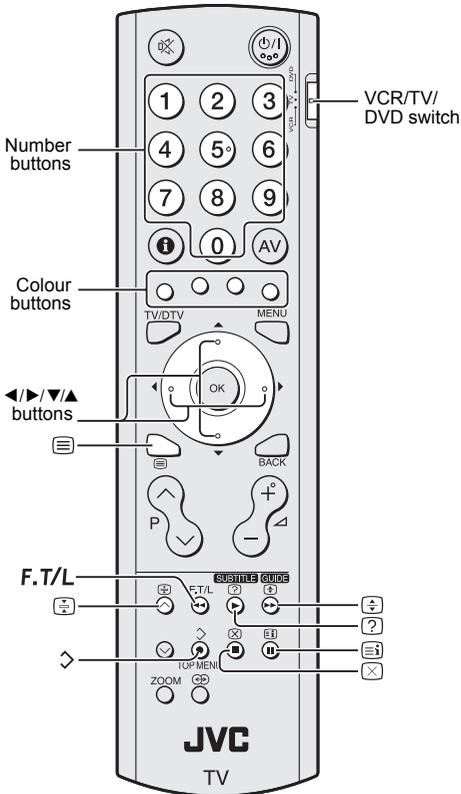
VCR/TV/ DVD switch

## Basic operation

**1 Choose a TV channel with a teletext broadcast**

**2 Set the VCR/TV/DVD switch to the TV position**



**3 Press ▤ (Text) button to display the teletext**

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



TV mode          TV and text mode

TEXT ---
TEXT ---

D1043-EN          Text mode
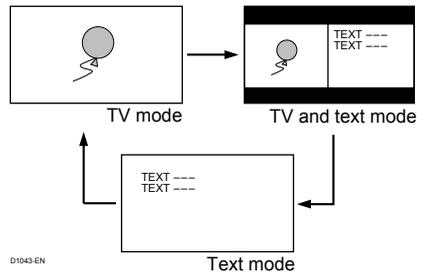
**4 Choose a teletext page by pressing the P ∨/∧ buttons, number buttons or colour buttons**

**To return to the TV mode:**
Press the **TV/DTV** button or ▤ (Text) button.

- If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station.
- The ZOOM function will not work in the TV and text mode or Text mode.
- 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 F.T/L 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 F.T/L button to enter the List mode**

**2 Press a colour button having a stored page**



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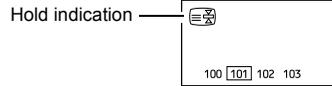
**To cancel the Hold function:**
Press ⊞ (Hold) button again.

# Sub-page

Some teletext pages include sub-pages that are automatically displayed.

**1 Choose a teletext page that includes sub-pages**

Sub-page numbers that can be viewed are automatically displayed at the top of the screen.

**2 Press the ◄/► buttons to choose a sub-page number**

# 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 =
2 x 3 =

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

100  101  102  103
```

**34**
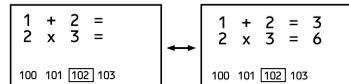
## Size

You can double the height of the teletext display.

### Press the ⬆ (Size) button
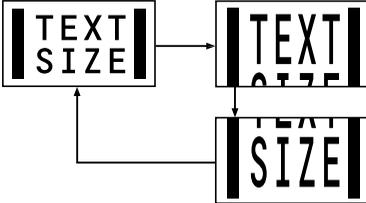


## Index

You can return to the index page instantly.

### Press the ▤ (Index) button

Returns to page 100 or a previously specified page.

## 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 by pressing the ⊠ (Cancel) button. To return to the TV mode press *TV*.

**35**

# Setting the TV

Call the menu and perform the settings for the picture and sound.

## Buttons used to operate the menus



## Basic operation

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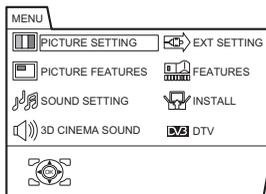


**2  Press the ◀/▶ and ▼/▲ buttons to choose a menu title, and press the OK button**

The menu appears.

**To return to the previous menu:**
Press the **BACK** button.

**To exit a menu instantly:**
Press the **TV/DTV** 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

Refer to "Setting the TV" (see page 36) for details of displaying the menu.



PICTURE SETTING

○ PICTURE MODE            BRIGHT
  CONTRAST
  BRIGHT
  SHARP
  COLOUR
  HUE
  COLOUR TEMP.            NORMAL

                          RESET
                          ●○○○
D0014-EN

## PICTURE MODE

You can choose one of three PICTURE MODEs to adjust the picture settings automatically.

**BRIGHT:**
Heightens contrast and sharpness.

**STANDARD:**
Standardizes picture adjustment.

**SOFT:**
Softens contrast and sharpness.

## Picture Adjustment

You can change the picture settings of each PICTURE MODE 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) when the colour system is NTSC 3.58, NTSC 4.43. (See "Specifications" on page 60)

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

## COLOUR TEMP.

You can select one of three COLOUR TEMP. modes (three tones of white) to adjust the white balance of the picture. Since white is the colour which is used as a reference for all the other colours, changing the COLOUR TEMP. mode affects the appearance of all the other colours on the screen.

**COOL:**
A bluish white. Using this mode when watching bright pictures allows you to enjoy a more vivid and bright picture.

**NORMAL:**
The normal white colour.

**WARM:**
A reddish white. Using this mode when watching films allows you to enjoy colours that are characteristic of films.

# PICTURE FEATURES

Refer to "Setting the TV" (see page 36) for details of displaying the menu.
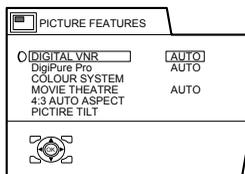
```
┌─────────────────────────────┐
│ ▣ PICTURE FEATURES          │
│                             │
│ ○ DIGITAL VNR        AUTO   │
│   DigiPure Pro       AUTO   │
│   COLOUR SYSTEM             │
│   MOVIE THEATRE      AUTO   │
│   4:3 AUTO ASPECT           │
│   PICTIRE TILT              │
│                             │
│   ◤◉◥                       │
└─────────────────────────────┘
 D1015-EN
```

• COLOUR SYSTEM cannot be chosen when watching Digital terrestrial broadcasting (DVB-T).

## DIGITAL VNR

The DIGITAL VNR function cuts down the amount of noise in the original picture.
You can choose from the three DIGITAL VNR function settings of AUTO, MIN and MAX.
The TV and external input may be given different DIGITAL VNR settings.

**AUTO:**
The TV will automatically adjust the level of the DIGITAL VNR effect to match the amount of noise in the picture, giving you the best possible picture.

• If you set the DIGITAL VNR effect too high it can make the picture less sharp. It is recommended to use the AUTO setting if you can.

**MIN:**
The level of the DIGITAL VNR effect is set to the minimum. If you set the DIGITAL VNR function to AUTO but feel that the sharpness of the original picture has not been reproduced fully, change the setting from AUTO to MIN.

• The MIN setting is not suitable for low-quality pictures which contain a lot of noise.

**MAX:**
The level of the DIGITAL VNR effect is set to the maximum. If you set the DIGITAL VNR function to AUTO but still notice some noise, change the setting from AUTO to MAX.

• The MAX setting is not suitable for high-quality pictures which contain very little noise.

**OFF:**
The DIGITAL VNR function is turned off.

## DigiPure Pro

The DigiPure Pro function uses the latest in digital technology to give you a natural-looking picture.

**DigiPure function:**
This function helps to create a natural-looking picture by eliminating unnecessary edges from high-contrast and crisp images. For images with low-contrast, edges are added to produce a sharper, more detailed picture.
You can choose from the three DigiPure function settings of AUTO, MIN and MAX. The TV and external input may be given different DigiPure settings.

• If you set the DigiPure effect too high on a low-quality picture that contains a lot of noise, this may actually make the noise worse. We recommend you use the AUTO setting if you can.

**Picture motion compensation function:**
This function displays fast-moving pictures more smoothly and naturally on the screen.

• The effect level of the picture motion compensation function cannot be changed. The effect level is the same no matter which of the AUTO, MIN or MAX settings is used.

**1 Choose DigiPure Pro**

**2 Press the ◄/► buttons to choose a setting. Then press the OK button**

**AUTO:**
The TV will automatically adjust the level of the DigiPure effect to match the amount of noise in the picture, giving the best possible picture.

**MIN:**
The level of DigiPure effect is set to the minimum. When you set the DigiPure Pro function to AUTO and notice some noise, change the setting from AUTO to MIN.

• The MIN setting is not suitable for high-quality pictures which contain very little noise.

**38**

**MAX:**

The level of DigiPure effect is set to the maximum. If you set the DigiPure Pro function to AUTO but feel that the original picture quality has not been reproduced fully, change the setting from AUTO to MAX.

• The MAX setting is not suitable for low-quality pictures which contain a lot of noise.

**OFF:**

The DigiPure Pro function is turned off.

## 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
```
D1016-EN
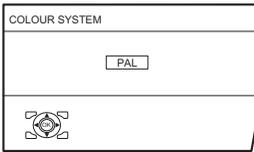
**1  Choose COLOUR SYSTEM then press the OK button**

**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. 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.

## MOVIE THEATRE

The MOVIE THEATRE function displays a cinema film picture more smoothly and naturally on the screen.

**AUTO:**
The television automatically recognizes the type of signal and turns the function on and off.

**ON:**
This function is turned on.

**OFF:**
This function is turned off.

• The motion may appear unnatural when viewing images with the NTSC colour system. When the MOVIE THEATRE function is set to AUTO or ON, the motion may appear unnatural when viewing images with the NTSC colour system.

**39**

# 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

        PANORAMIC
    ○  REGULAR
        14:9 ZOOM
```
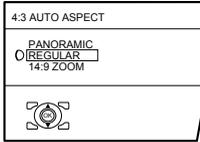
D0017-EN

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

# PICTURE TILT

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

          ▲

          ▼
```
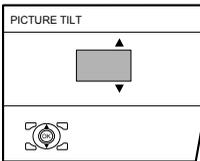
D0018-EN

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

**40**

# SOUND SETTING

Refer to "Setting the TV" (see page 36) for details of displaying the menu.

```
♪♫ SOUND SETTING
○ STEREO/ I · II    [○]      ○
  BASS
  TREBLE
  BALANCE
  HYPER SOUND     OFF          ON
```
D0019-EN
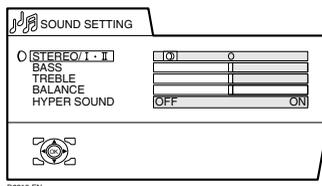
## STEREO / I • II

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.

○○: Stereo sound

○ : 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 and DTV 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.

## HYPER SOUND

Mono sound is converted to simulated stereo for a more enjoyable audio experience.

**ON:**
This function is turned on.

**OFF:**
This function is turned off.

- If the audio is stereo sound, the "3D CINEMA SOUND function" (see page 18) is the better choice as it makes your listening experience more akin to sitting in an actual cinema.
- When HYPER SOUND is turned on, 3D CINEMA SOUND turns off, and when 3D CINEMA SOUND is turned on, HYPER SOUND turns off.

# 3D CINEMA SOUND

Refer to "Setting the TV" (see page 36) for details of displaying the menu.



D0063-EN
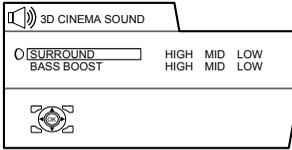
Adjust the 3D CINEMA SOUND effect. For details on how to turn 3D CINEMA SOUND on and off, read "3D CINEMA SOUND function" (see page 18).

- In order to experience true 3D CINEMA SOUND, the audio needs to be stereo sound.
- When the audio is mono sound, use "HYPER SOUND" (see page 41).

## SURROUND

Adjust the surround effect.
You can choose HIGH, MID or LOW. Choosing LOW will reduce the surround effect and choosing HIGH will increase the surround effect.

## BASS BOOST

Adjust the bass sound.
You can choose HIGH, MID or LOW. Choosing LOW will reduce the bass sound and choosing HIGH will increase the bass sound.

# EXT SETTING

Refer to "Setting the TV" (see page 36) for details of displaying the menu.
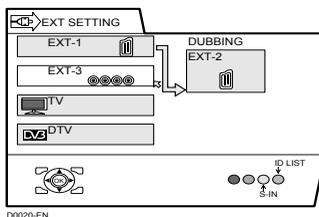


D0020-EN

## S-IN (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 53 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-IN (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-IN (S-VIDEO input).**
**Then press the OK button**
An S-IN (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-IN (S-VIDEO input) setting:
Press the yellow button and turn off S-IN (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-IN (S-VIDEO input) in the EXT-1 terminal.
• Setting S-IN (S-VIDEO input) changes the head character from "E" to "S". For example, "E2" is changed to "S2".
• Even a 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-IN (S-VIDEO input) setting has been made, read the device Instruction Manual carefully again to check for the device settings.

## 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)**



D0021-EN

**43**
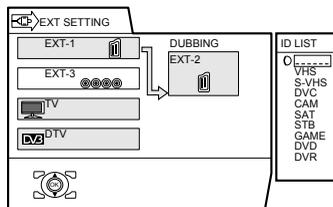
**3 Press the ▼/▲ buttons to choose a name. Then press the OK button**

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**
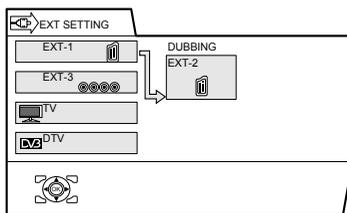


D0022-EN

**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:**

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.

**DTV:**

The picture and sound of the Digital terrestrial braodcasting (DVB-T)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.

**44**

# FEATURES

Refer to "Setting the TV" (see page 36) for details of displaying the menu.

```
[icon] FEATURES

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

   [icon]
```

D0023-EN
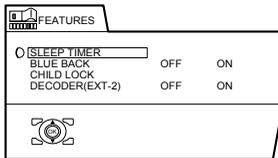
• BLUE BACK, CHILD LOCK, and DECODER (EXT-2) cannot be chosen when watching Digital terrestrial broadcasting (DVB-T).

## 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      [▯████████████████]

   [icon]
```

D0024-EN
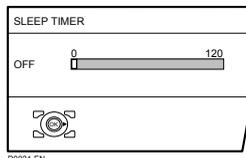
**2 Press the ◄/► buttons to set the period of time.**
**Then press the OK button**

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 light 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 button**

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

```
SET ID NO.

   🔑   [0]000

   [icon]
```

D0025-EN
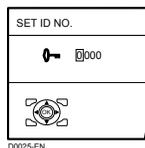
**2 Set the ID number to your liking**

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

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

**45**

**3 Press the OK button**

The Sub-menu of CHILD LOCK appears.
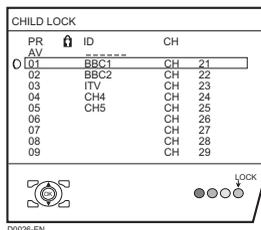


D0026-EN

**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 light blue and the 🔒 (CHILD LOCK) appears. You cannot view the TV channel.
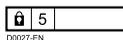


D0027-EN

**2 Press the ⓘ (Information) button while the 🔒 (CHILD LOCK) is displayed**

The "ID NO." (ID NO. input screen) appears.



D0028-EN

**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/DTV** 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.

**46**

## 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.

**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

Refer to "Setting the TV" (see page 36) for details of displaying the menu.
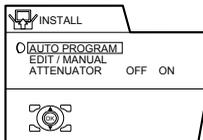


D0029-EN

• AUTO PROGRAM and EDIT/MANUAL cannot be chosen when watching Digital terrestrial broadcasting (DVB-T).

## 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 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.
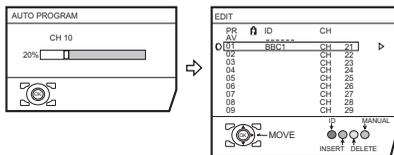


D0004-EN

**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 49.

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

**2  Press the OK button to display the T-V LINK menu**
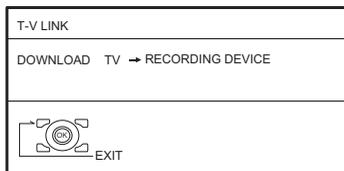


D0005-EN

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

Press the **TV/DTV** 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 10 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 49.

• 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 49.

# 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**
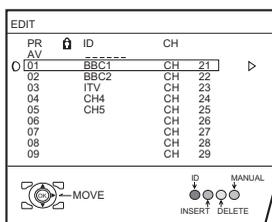


D0038-EN

- 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 between a TV channel. For the relationship of a Channel number and a CH number, see "CH numbers" on page 56.

**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 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.
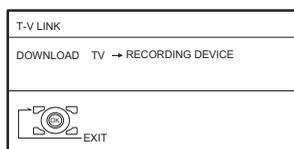


D0005-EN

**4 If you do not have a T-V LINK compatible VCR connected:**
Press the **TV/DTV** 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 to the EXT-2 terminal:**
Follow the operating procedure "Downloading the data to VCR" on page 10 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**



D0030-EN
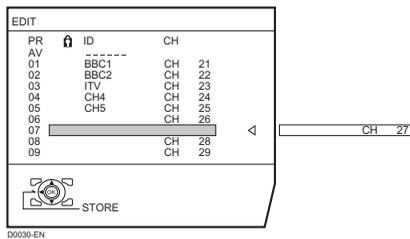
**3 Press the ▼/▲ buttons to choose a new Programme number (PR)**

**To cancel the MOVE function:**
Press the **BACK** 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**



D0031-EN
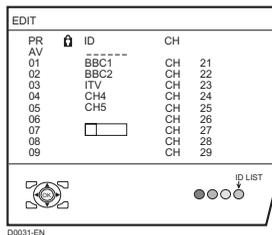
**3 Press the ▼/▲ buttons to choose the first character of a Channel name (ID) you want to attach to the TV channel**



D0032-EN
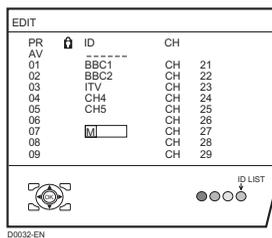
**4 Press the blue button to display the ID LIST (channel name list)**



D0033-EN

**50**
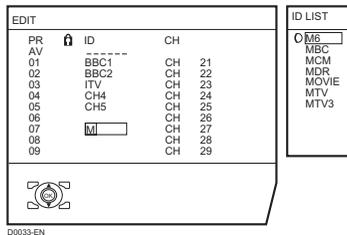
**5  Press the ▼/▲ buttons to choose the Channel name (ID)**

**To cancel the ID function:**
Press the **BACK** 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**

**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.**
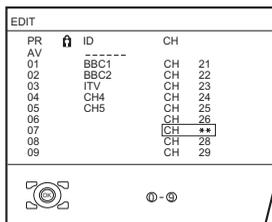

D0034-EN

**To cancel the INSERT function:**
Press the **BACK** 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 indicating the broadcast frequency to the TV. If the TV cannot detect the TV channel corresponding to the broadcast frequency indicated by the CH 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**

**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**
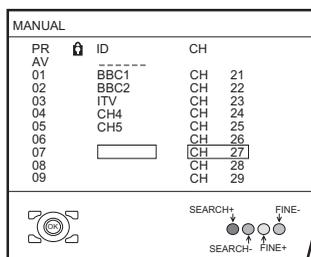

D0035-EN

**To cancel the MANUAL function:**
Press the **BACK** button.

**51**

**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.

## ATTENUATOR

Turn the attenuator ON when noise is introduced into the picture or sound due to strong electric fields.
Normally use the TV with the attenuator turned OFF.

# 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 60 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.
- If the VCR's audio output is in mono, connect the VCR's AUDIO OUT (audio output) terminal and the TV's EXT-3 AUDIO L/MONO terminal with an audio cable.

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

**Side of the TV**



**Back of the TV**

**53**
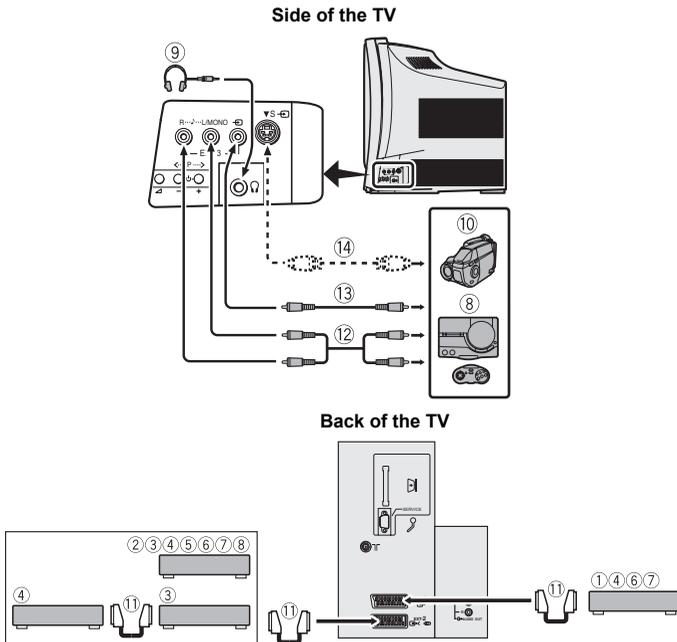
■ **Equipment which can output the S-VIDEO signal (Y/C signal)**

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-IN (S-VIDEO input)" on page 43.

■ **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.

• When you connect the decoder to the VCR, 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 "DECODER (EXT-2)" on page 47.

■ **Connecting headphones**

Connect the headphones with a stereo mini-jack (3.5 mm diameter) to the headphone jack socket.

• No sound comes from the TV speakers when the headphones are connected and only one screen is displayed.

■ **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 44.

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

The video/sound signal of a Analogue terrestrial broadcasting 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.

■ **Connection when recording to VCR**

• When recording an Analogue terrestrial broadcasting, connect to either terminal EXT-1 or EXT-2. If you connect to the EXT-2 terminal, make sure the "DUBBING" setting (see page 44) is set to "TV".

• Choose the EXT-2 terminal to connect to a T-V LINK compatible VCR.
When recording an Analogue terrestrial broadcasting, set the "DUBBING" setting (see page 44) to "TV".
When recording a Digital terrestrial broadcasting (DVB-T), set the "DUBBING" setting (see page 44) to "DTV".

**54**

### ■ 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**
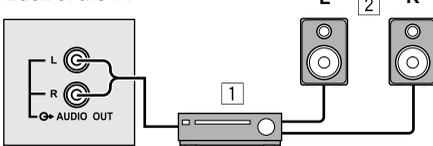


1 Amplifier
2 Front speakers (Magnetic-shielded type)

- 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.
- Adjust the volume of the external speakers with the amplifier.

# 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/TV/DVD Switch to the VCR or DVD position**

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

- You can turn the VCR on or off with the ⏻/I (standby) button.

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

- You can turn the DVD player on or off with the ⏻/I (standby) button.
- You can also press the **MENU** or **TOP MENU** button and display the DVD disc menu screen, and then operate by pressing the ◀/▶/▼/▲ buttons.

**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.

You cannot turn the TV on or off when the VCR/TV/DVD switch is set to the VCR or DVD position.
When you turn the TV on or off, set the VCR/TV/DVD switch to the TV position.

**55**

# CH numbers

When you want to use the INSERT function on page 51, find the CH number corresponding to the Channel number of the TV channel from this table.

| 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 | | |

# Troubleshooting

**Digital terrestrial broadcasting (DVB-T) service area**
Although this TV can receive both Digital terrestrial broadcasting (DVB-T) and Analogue terrestrial broadcasting, depending on the area in which you live, you may not be able to receive Digital terrestrial broadcasting (DVB-T).
For details of the Digital terrestrial broadcasting (DVB-T) service area, refer to the FREEVIEW website etc.

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 AC plug connected to the AC outlet?
- Is the Power lamp lit? If not, press the Main power button.
- Make sure you set the VCR/TV/DVD switch to the TV position. You cannot turn the TV on when the VCR/TV/DVD switch is set to the VCR or DVD position.

## ■ If you cannot turn off the TV
- Make sure you set the VCR/TV/DVD switch to the TV position. You cannot turn the TV off when the VCR/TV/DVD switch is set to the VCR or DVD position.

## ■ 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 45 to change the BLUE BACK function setting to OFF.

## ■ Poor picture
- If the Digital terrestrial broadcasting (DVB-T) picture is unnatural, 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. The picture may appear natural again.
- If noise (snow) totally blocks 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 39 to try to solve the trouble.
- Have the COLOUR and BRIGHT settings been adjusted properly? Follow the description "Picture Adjustment" on page 37 to try to adjust them properly.
- Videotaping teletext is not recommended because it may not record correctly.
- 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. There is nothing wrong with the TV.
- 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.

### ■ Poor sound
- Have you adjusted BASS or TREBLE properly? If not, follow the description "Sound Adjustment" on page 41.

### ■ 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 7 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 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/DTV** button to return to the ordinary TV programme, and then try operating the menus.
- If the TV suddenly stops responding, disconnect the power cord of the TV from the AC outlet. Connect them to the AC outlet 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 suddenly turns off, try to press the ⏻/⏽ (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.
- 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 fault. This is the time needed for the image to stabilise before it can be displayed.
- 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.
- 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.

**58**

- A picture may be tilted due to the influence of the earth's magnetism. In this case, use the "PICTURE TILT" on page 40 to complete the tilt.
- 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.
- If an error message appears on the screen when viewing Digital terrestrial broadcasting channel and does not disappear, because channel from the PR list may have been deleted. Try registering all the channels again using "Automatic Search:" on page 30 to solve the trouble.

# Specifications

| Item \ Model | AV-32EX5BK | AV-28EX5BK |
|---|---|---|
| Broadcasting systems | CCIR, I | |
| Colour systems | PAL<br>• The EXT terminals also support the NTSC 3.58/4.43 MHz system. | |
| Channels and frequencies | Analogue: E21-E69, Digital: 474 MHz - 850 MHz (channel 21 - 68) | |
| Sound-multiplex systems | NICAM (I) system, Digital (DVB-T): MHEG 5 UK profile | |
| Teletext systems | FLOF (Fastext), WST (World Standard System) | |
| Power requirements | 220 - 240 V AC, 50 Hz | |
| Power consumption | 138 W, Standby: 2.8 W | 134 W, Standby: 2.8 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)<br>• Video input, Audio L/R inputs and RGB inputs are available.<br>• TV broadcast outputs (Video and Audio L/R) are available. | |
| EXT-2 terminal | Euroconnector (21-pin, SCART)<br>• Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.<br>• Video and Audio L/R outputs are available.<br>• T-V LINK functions are available. | |
| EXT-3 terminal | RCA connectors × 3<br>S-VIDEO connector × 1<br>• Video input, S-VIDEO (Y/C) input, Audio L/MONO and R inputs are available. | |
| AUDIO OUT terminal | RCA connectors × 2<br>• Audio L/R outputs are available. | |
| Headphone jack | Stereo mini-jack (3.5 mm in diameter) | |
| Dimensions (W × H × D) | 864 mm × 587 mm × 550 mm | 762 mm × 528 mm × 493 mm |
| Weight | 54.0 kg | 40.0 kg |
| Accessories | Remote control unit × 1 (RM-C1814S)<br>AA/R6 dry cell battery × 2 | |

• This TV has the CAM (Conditional Access Module) slot for watching pay-per-view.
Please note that the CAM and Viewing Card must be purchased separately.

**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.

**JVC**