

# Trinitron Colour Television

Instruction Manual

GB

**KV-28DX20U KV-32DX20U** 

© 1999 by Sony Corporation Printed in UK



This Instruction Manual has been produced using Totally chlorine free (TCF) 100% Re-cycled paper to comply with our commitment to the use of environmentally friendly materials in our products.

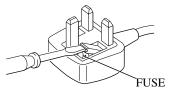
#### NOTICE FOR CUSTOMERS IN THE UNITED KINGDOM

A molded plug complying with BS1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS 1362 (i.e. marked with ♠ or ♥) must be used.

When an alternative type of plug is used it should be fitted with a 5 AMP FUSE, otherwise the circuit should be protected by a 5 AMP FUSE at the distribution board.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.



#### How to replace the Fuse

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

#### IMPORTANT

If the plug supplied is not suitable for the socket outlet in your home, it should be cut off and an appropriate plug fitted in accordance with the following instructions:

The wires in this mains lead are coloured in accordance with the following code:

Blue Neutral Brown Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings 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. Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol  $\pm$  or coloured green or green and yellow.

#### <u>WARNING</u>

- To prevent shock hazard, do not insert the plug cut off from the mains lead into a socket outlet. This plug cannot be used and should be destroyed.
- To prevent fire or shock hazard, do not expose the unit to rain or moisture.
- Dangerously high voltages are present inside the set. Do not open the cabinet. Refer servicing to qualified personnel only.

Instruction Manual GB

### For your safety

All TVs operate on extremely high voltages. To prevent fire or electric shock, please follow the safety procedures indicated below.

#### For General Safety

- Do not expose the TV set to rain or moisture.
- Do not remove the rear cover.
- For your protection, refer all servicing to qualified personnel only.

#### For Safe Installation

- Do not install the TV in hot, humid or excessively dusty places.
- Do not block or cover the ventilation openings. For ventilation, leave a space of at least 10 cm all around the set.
- Do not install the TV where it may be exposed to mechanical vibrations.
- Place the TV set only on a stable stand designed for the weight and dimensions of the TV.

#### **For Safe Operation**

- Do not operate the TV set on anything other than a 220-240V AC, 50Hz supply.
- Do not operate the TV if any liquid or solid objects fall in through the ventilation slots. Have it checked immediately.
- For environmental and safety reasons, it is recommended that the TV set is not left in standby mode when not in use. Switch off at the mains.
- Do not disconnect the TV by pulling on the power cable. Disconnect by removing the mains plug.
- In case of a thunderstorm, disconnect the TV set from the main supply and the aerial. Otherwise the set may be damaged by a stroke of lightning.

#### For Maintenance

- When the TV is switched off, clean the TV screen with a soft dampened cloth. Do not use any abrasive cleaners.
- Dust and nicotine deposits may cause heat accumulation inside the TV set. In the long term this could be a safety risk and may shorten the lifetime of your TV set. Therefore have your set serviced about every five years.

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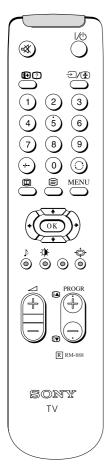
#### **Quick Start Guide**

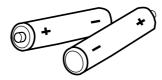
Follow steps 1-5 to: Check the accessories supplied

Insert batteries into your remote control

Connect the aerial to your TV Plug in and switch on the TV View programmes on your TV

# 1. Checking the accessories supplied

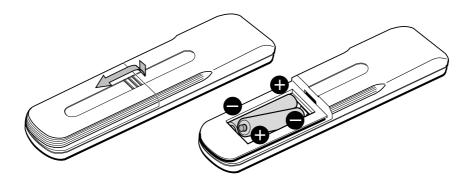




**Batteries** 

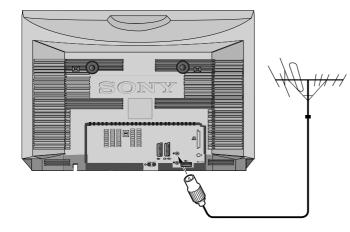
Remote control

# 2. Inserting batteries into the remote control



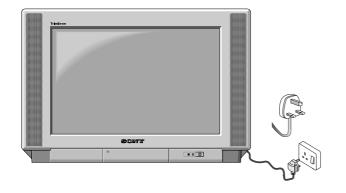
Always remember to dispose of used batteries in an environmentally friendly way.

# 3. Connecting the aerial

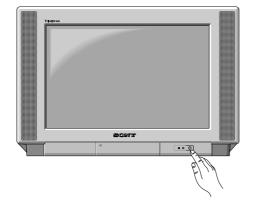


Connect a conventional aerial to the socket marked -**T** on the rear of the TV.

# 4. Switching on the TV



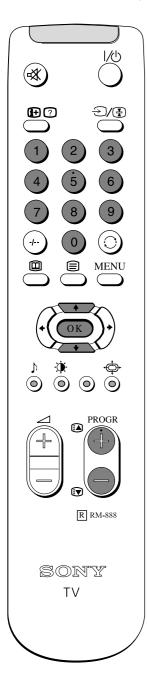
Connect the TV plug to the mains socket (220-240V AC, 50Hz) and switch on.



Push in the on/off switch on the front of the TV.

# 5. Automatically tuning the TV

When you first switch on the TV, the following sequence of menu screens appear on the TV enabling you to 1) choose a language for the TV menu screens, 2) tune channels to the TV, 3) arrange the channels.



- When switching on the TV for the first time, the 'LANGUAGE' menu appears automatically on the TV screen enabling you to select in which language you wish to read the TV menu screens. Press the ♠ or ♥ buttons on the remote control to select your chosen language then press the OK button to confirm your selection.
- 2. The 'AUTO TUNE' menu appears on the TV screen in your selected language. Press the ♠ or ♥ buttons to select 'YES' then press the OK button to confirm.
- 3. Ensure the antenna is connected as instructed, then press the OK button to confirm. The TV starts to automatically search and store all available channels for you. Please be patient and do not press any buttons.

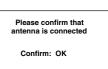
  The digital channels will be stored on programme.

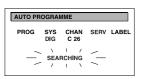
The digital channels will be stored on programme numbers 1-90 and the analogue channels on programme numbers 91-99.

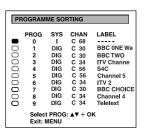
**Note:** If any digital channels are stored on programme numbers 91-99 during the Automatic Tuning procedure, then no analogue channels will be allocated. If this happens, please refer to the section 'Manually Tuning the TV' on page 20 of this manual to tune in and store the analogue channels.

- 4. When the TV has finished tuning in all available channels, the 'PROGRAMME SORTING' menu appears on the TV screen enabling you to change the order of the channels on your TV. If you wish to change the channel order, press the ♠ or ♥ buttons on your remote control to select the channel you want to move, then press the OK button. Press the ♠ or ♥ buttons to select the new programme number position for your selected channel then press the OK button to confirm. The selected channel now moves to its new programme position and the other channels move accordingly. Repeat this procedure if you wish to sort the order of other channels on your TV.
- 5. Press the MENU button to remove the menu from the TV screen.
- 6. Press the PROGR+/- or the numbered buttons on the remote control to view the TV channels.



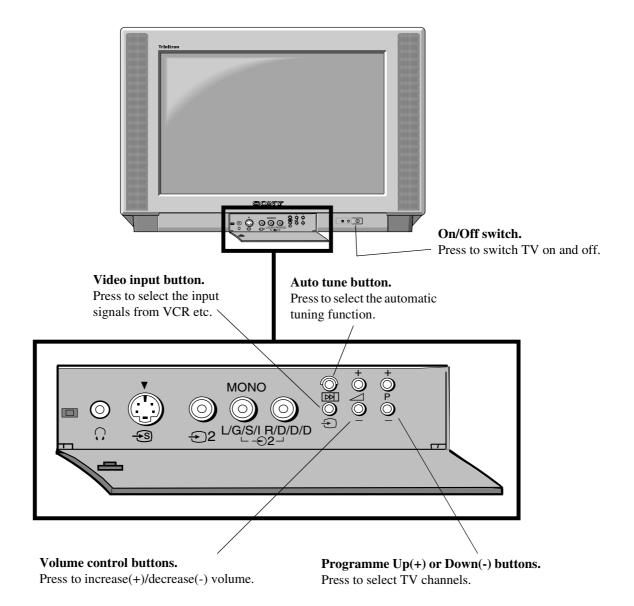




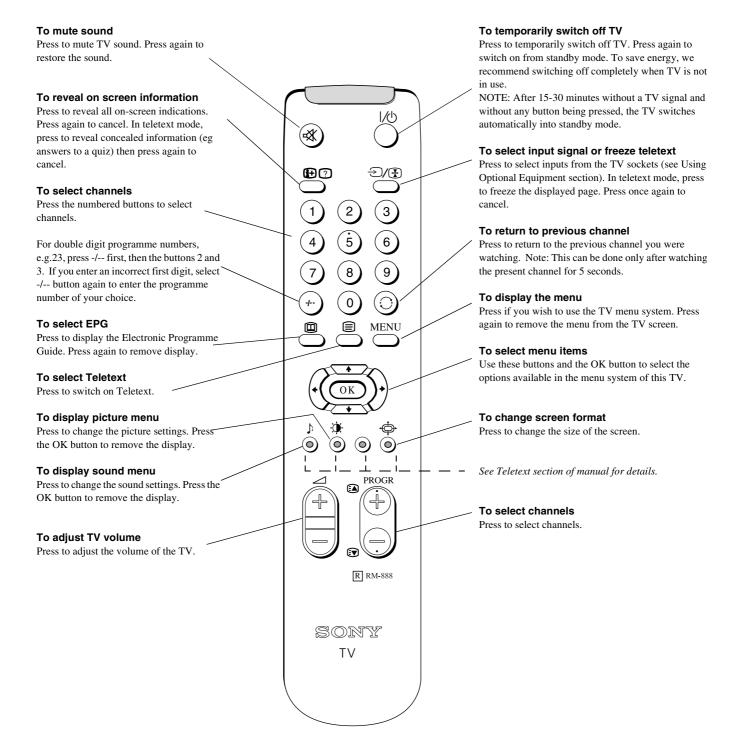




# **Overview of the TV set buttons**

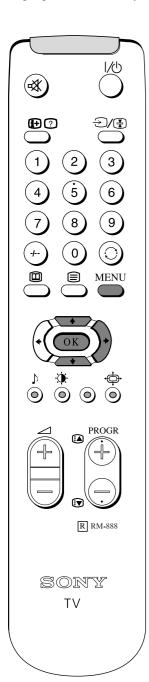


# Overview of the remote control buttons



# Choosing a language for the TV menu screens

The TV consists of a menu system which can appear on screen in a variety of languages. Use the following feature to select the language that best suits you.



- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- PICTURE CONTROL

  Picture Mode

  Presonal

  Peed

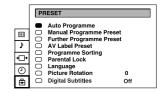
  Peed

  Peed

  Digital Signal

  Composite

  Composite
- 2. Press the ♠ or ♥ buttons to select the 🖨 symbol on the menu screen then press the ♦ button to enter the 'PRESET' menu.



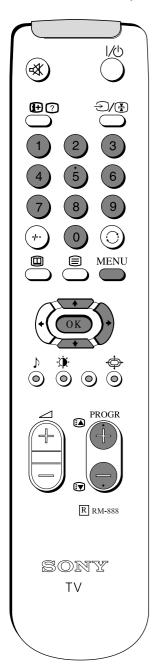
3. Press the ♠ or ♥ buttons to select 'Language' on the menu screen then press the ▶ button to enter the 'LANGUAGE' menu.



- 4. Press the ♠ or ♥ buttons to select your chosen language.
- 5. Press the OK button to confirm your selection.
- 6. Press the MENU button to remove the display from the TV screen.

# **Automatically tuning the TV**

You have already tuned in all available channels using the 'Automatically tuning the TV' section at the start of this manual. If you need to repeat the tuning procedure however, follow the instructions below and the TV automatically searches and stores all available channels for you.



- Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button on the remote control to select the 
  symbol on the menu screen then press the ▶ button to 
  enter the 'PRESET'' menu.
- 3. Press the ★ or ♥ button to select 'Auto Programme' then press the ▶ button to display the autotune menu.
- 4. Press the ♠ or ♥ buttons to select 'YES' then press the OK button to confirm.
- 5. Ensure the antenna is connected as instructed, then press the OK button to confirm. The TV starts to automatically search and store all available channels for you. Please be patient and do not press any buttons.

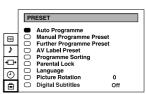
The digital channels will be stored on programme numbers 1-90 and the analogue channels on programme numbers 91-99.

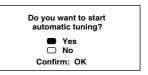
**Note:** If any digital channels are stored on programme numbers 91-99 during the Automatic Tuning procedure, then no analogue channels will be allocated. If this happens, please refer to the section 'Manually Tuning the TV' on page 20 of this manual to tune in and store the analogue channels.

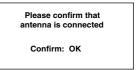
6. When the automatic tuning procedure is complete, the menu disappears from the TV screen. Press the PROGR+/- or the numbered buttons on the remote control to view the TV channels. PICTURE CONTROL

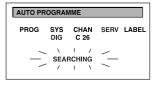
Picture Mode
Contrast
J Reset
Objetal Signal
Composite

Digital Signal
Composite





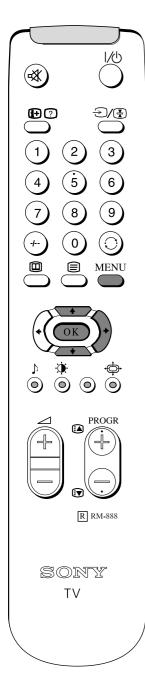




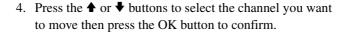
**Note:** Press the MENU button if you wish to stop the automatic tuning procedure.

# Re-arranging the TV channels

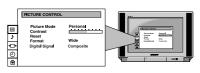
After tuning the TV, you can use this feature to change the channel order.



- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button on the remote control to select the 
  symbol on the menu screen then press the ▶ button to 
  enter the 'PRESET' menu.
- 3. Press the ♥ button to select 'Programme Sorting' then press the ❖ button to enter the 'PROGRAMME SORTING' menu.



- 5. Press the ♠ or ♥ buttons to select the new programme position (eg PROG 4) for your selected channel then press the OK button to confirm. The selected channel now moves to its new programme position and the other channels move accordingly.
- 6. Repeat steps 4 and 5 if you wish to sort other channels.
- 7. Press the MENU button to remove the menu from the TV screen.





PROGRAMME SORTING				
■000000000	PROG 0 1 2 3 4 5 6 7 8 9	SYS I DIG DIG DIG DIG DIG DIG DIG	CHAN C 68 C 30 C 30 C 34 C 56 C 56 C 34 C 30 C 34	BBC ONE Wa BBC TWO ITV Channe S4C Channel 5 ITV 2 BBC CHOICE Channel 4 Teletext

PROGRAMME SORTING				
00000000	PROG 0 1 2 3 4 5 6 7 8	SYS I DIG DIG DIG DIG DIG DIG DIG DIG DIG D	CHAN C 68 C 30 C 30 C 34 C 56 C 56 C 34 C 30 C 34 C 34	BBC ONE Wa BBC TWO ITV Channe S4C Channel 5 ITV 2 BBC CHOICE Channel 4 Teletext

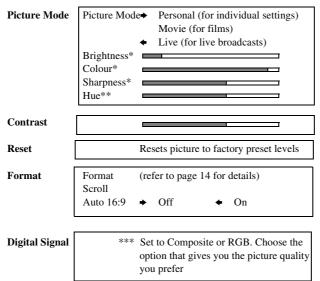
PF	PROGRAMME SORTING					
0000000000	PROG 0 1 2 3 4 5 6 7 8	SYS I DIG DIG DIG DIG DIG DIG DIG DIG DIG	CHAN C 68 C 30 C 30 C 34 C 56 C 56 C 34 C 30 C 34 C 34	BBC ONE Wa BBC TWO ITV Channe S4C Channel 5 ITV 2 BBC CHOICE Channel 4 Teletext		

### Adjusting the picture

Although the picture is adjusted at the factory, you can modify it to suit your own taste.



- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♠ or ♥ button on the remote control to select the symbol on the menu screen then press the ▶ button to enter the 'PICTURE CONTROL' menu.
- Press the ♠ or ♥ buttons to select the item on the screen you wish to adjust then press the ▶ button to confirm. For a description of the menu items and their effects, see the table below.
- 4. If you selected 'Picture Mode' or 'Format' in step 3, press the 
  ♠ or ♥ buttons to select the item on the screen you wish to adjust then press the ▶ button to confirm.
- 5. Press the → or ← buttons to adjust your selected item.
- 6. As soon as you have adjusted the item, press the OK button to store the new setting.
- 7. If you selected 'Picture Mode' or 'Format' in step 3, press the button to return to the 'PICTURE CONTROL' menu.
- 8. Repeat steps 3-7 to adjust the other items.
- Press the MENU button to remove the menu from the TV screen.



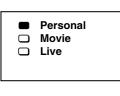
\*Only if you select 'Personal' in 'Picture Mode'.

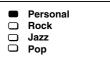
#### Changing picture and sound modes quickly

You can quickly change the Picture Mode or the Equalizer Mode without entering the 'PICTURE CONTROL' or the 'SOUND CONTROL' menu screens.

- 1. Press the ★ symbol on the remote control for picture modes or the ↑ symbol for equalizer modes.
- 2. Press the ♠ or ♥ buttons to select the desired mode.
- 3. Press the OK button to remove the display from the TV screen.

PICTURE CONTROL  Picture Mode Contract Reset Format Uide Digital Signal Composite	To the second se
PICTURE CONTROL	Personal





<sup>\*\*</sup> Available for NTSC colour system only.

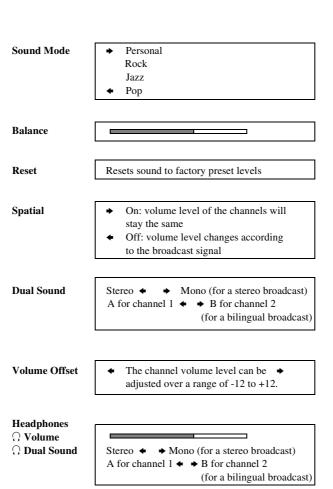
<sup>\*\*\*</sup> If you select the RGB option, any changes made to the Colour, Sharpness and Hue levels will have no effect

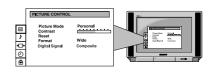
# Adjusting the sound

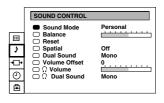
Although the sound is adjusted at the factory, you can modify it to suit your own taste.



- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♠ or ♥ button on the remote control to select the ♪ symbol on the menu screen then press the ▶ button to enter the 'SOUND CONTROL' menu.
- 3. Press the ♠ or ♥ buttons to select the item on the screen you wish to adjust then press the ▶ button to confirm. For a description of the menu items and their effects, see the table below.
- 4. If you selected 'Sound Mode' in step 3, press the ♠ or ♥ buttons to select the item on the screen you wish to adjust then press the ♥ button to confirm.
- 5. Press the → or ← buttons to adjust your selected item.
- 6. As soon as you have adjusted the item, press the OK button to store the new setting.
- 7. If you selected 'Sound Mode' in step 3, press the ◆ button to return to the 'SOUND CONTROL' menu.
- 8. Repeat steps 3-7 to adjust the other items.
- 9. Press the MENU button to remove the menu from the TV screen.

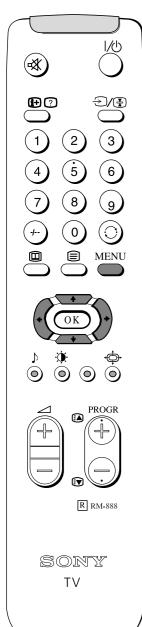






### Changing the screen mode

Using this Screen Mode feature you can change the aspect ratio of the screen.



- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♠ or ♥ button on the remote control to select the symbol on the menu screen then press the ➡ button to enter the 'PICTURE CONTROL' menu.
- 3. Press the ♥ button to select 'Format' on the menu screen then press the ▶ button to enter the 'FORMAT' menu.

#### 4. Format

Press the ♠ or ♥ button to select 'Format' then press the ▶ button to enter. Press the ▶ or ◆ button repeatedly to select one of the following modes then press the OK button to store the chosen mode:

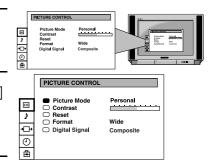
- smart imitation of wide screen effect (16:9) for 4:3 broadcasts
- wide for 16:9 broadcasts
- zoom imitation of wide screen effect (16:9) for movies broadcast in cinemascopic format
- 14:9 compromise between 4:3 and 16:9 format for conventional 14:9 picture
- 4:3 conventional 4:3 picture

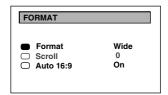
#### 5. Scroll

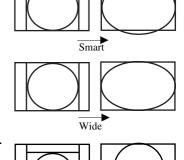
Press the ♥ button to select 'Scroll'. If you selected zoom mode, 14:9 mode or smart mode in step 4, you can use 'Scroll' to move the screen up- or downwards in order to see the cut-off parts (eg to read subtitles). Press the ➡ button to highlight the options then press the ➡ or ➡ buttons to adjust the screen position over a range of -5 to +5. Press the OK button to store.

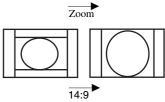
#### 6. Auto 16:9

Press the ♥ button to select 'Auto 16:9' then press the ▶ button to enter. Press the ▶ or ◆ buttons to select 'On' if you wish the TV set to switch automatically to wide format if a 16:9 broadcast is detected or 'Off' for normal mode. Press the OK button to store.







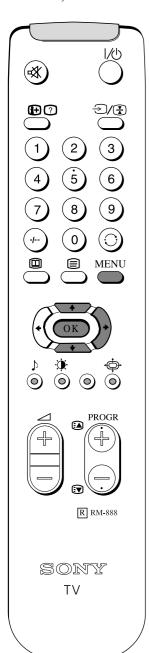




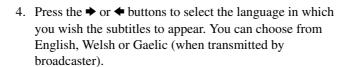
# Displaying subtitles for digital channels

With this feature you can view subtitles on the TV screen when watching digital channels.

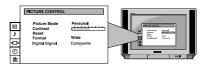
When watching analogue channels you can view subtitles via the teletext menu (see the teletext section of this instruction manual for details).

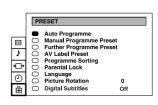


- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button to select the 🖨 symbol on the menu screen then press the ▶ button to enter the 'PRESET' menu.
- 3. Press the ♥ button to select 'Digital Subtitles' then press the ▶ button to enter.



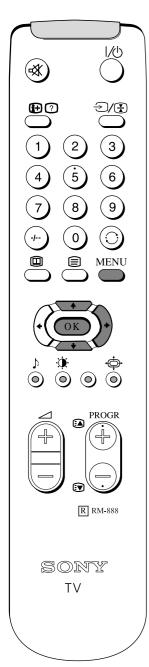
- 5. Press the OK button to confirm your selection.
- 6. Press the MENU button to remove the menu from the TV screen.
- 7. When you wish to cancel subtitles, repeat steps 1 6 and set to OFF in step 4.



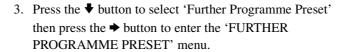


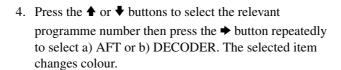
# Using the further programme preset feature

With this feature you can a) manually fine-tune the TV to obtain a better picture reception if the picture is distorted or b) preset the AV output for the programme positions of channels with scrambled signals (eg from a pay TV decoder). In this way a connected VCR records the unscrambled signal.



- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button to select the ♠ symbol on the menu screen then press the ♦ button to enter the 'PRESET' menu.



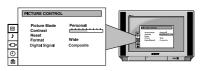


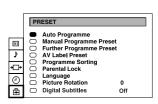
#### 5. a) **AFT**

Press the ♠ or ♥ buttons to fine tune the channel frequency over a range of -15 to +15. Press the OK button to confirm. Repeat steps 4 and 5a if you wish to fine tune other channels.

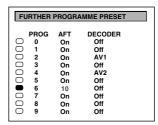
#### b) **DECODER**

Press the ♠ or ♥ buttons to select AV1 or AV2 for the programme position and press the OK button to confirm. You can now attach a decoder to the AV1 or the AV2 socket on the back of the TV and the picture from that decoder will appear on this programme number. Repeat steps 4 and 5b to preset the AV output for other programme positions.



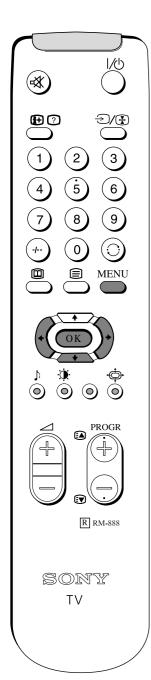


FURTHER PROGRAMME PRESET				
PROG 0 1 2 3 4 5 5 6 6 7 7 8 8 9 9	AFT On On On On On On On On	DECODER Off Off AV1 Off AV2 Off Off Off Off Off Off		

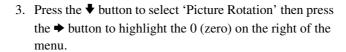


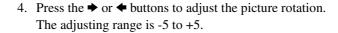
# Adjusting the picture rotation

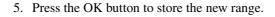
If, due to the earth's magnetic field, the picture slants, you can use this feature to readjust the picture.

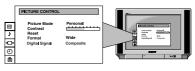


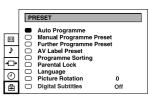
- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button to select the 🖹 symbol on the menu screen then press the ♦ button to enter the 'PRESET' menu.

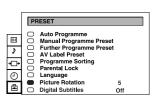






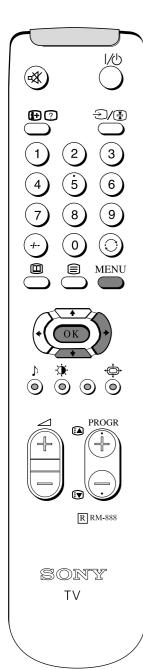




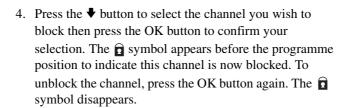


# Using the parental lock

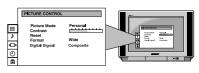
This feature enables you to prevent undesirable broadcasts appearing on the TV.

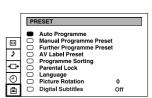


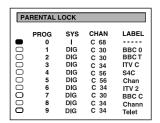
- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button on the remote control to select the 
  symbol on the menu screen then press the ▶ button to 
  enter the 'PRESET' menu.
- 3. Press the ♥ button to select 'Parental Lock' then press the ▶ button to enter the 'PARENTAL LOCK' menu.

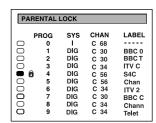






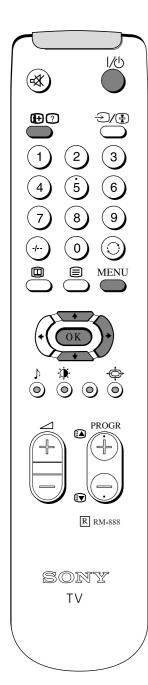




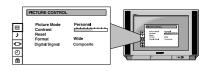


# Using the sleep timer

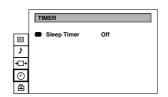
The TV can be set to switch automatically to standby mode after a length of time chosen by you. You may set the time in 30 minute steps up to 4 hours.



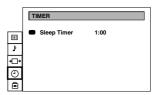
1. Press the MENU button on the remote control to display the menu on the TV screen.



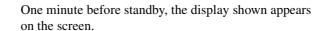
2. Press the ♥ button on the remote control to select the ⊕ symbol on the TV screen then press the ▶ button twice.

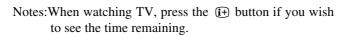


3. Press the → or ← buttons repeatedly until the required amount of time delay appears on the screen.



- 4. Once the time delay has been selected, press the OK button to enter.
- 5. Press the MENU button to remove the menu from the TV screen.



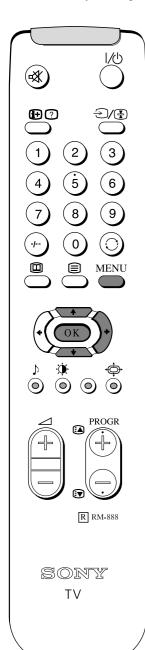


To return to normal operation from standby mode, press the  $| / \circlearrowleft |$  button.

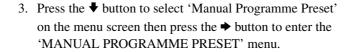


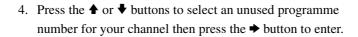
### Manually tuning the TV

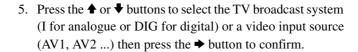
You have already tuned the TV automatically using the instructions at the start of this manual. You can however carry out this operation manually, adding channels to the TV, one at a time.



- Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button to select the 🖹 symbol on the TV screen then press the ♥ button to enter the PRESET menu.





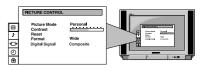


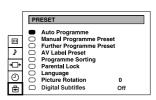
 Select the first number digit of 'CHAN' (channel) then the second number digit of 'CHAN' with the number buttons on the remote control

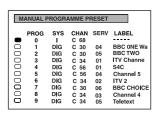
Press the  $\spadesuit$  or  $\blacktriangledown$  buttons to search for the next available channel.

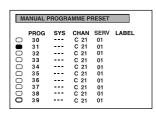
- 7. If you wish to change the 'SERV' service number, select each digit in turn and press the numbered buttons on the remote control to change to your desired service.
- 8. If you do not wish to store this channel on the programme number you selected, press the ♠ or ♥ buttons on the remote control to continue searching for the desired channel.
- 9. If this is the channel you wish to store, press the OK button.
- Repeat steps 4-8 if you wish to store more channels then press the MENU button to remove the menu from the TV screen.

**NOTE:** After manually tuning in the channels you require, you can sort the channels into the order you prefer by following the procedure 'Re-arranging the TV channels' on page 11.



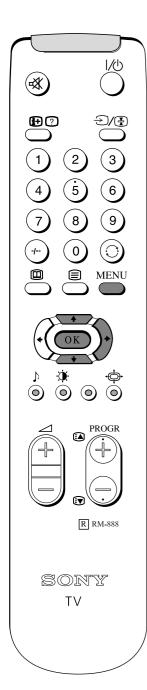






# **Skipping programme positions**

This function enables you to skip unused programme positions when selecting them with the PROGR+/- buttons. However, by using the number buttons you can still select the skipped programme position.

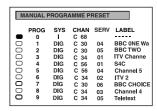


- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- Printer blode
  Contract

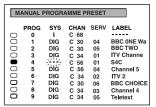
  Personal
  Personal
  Personal
  Personal
  Personal
  Personal
  Personal
  Porture Composite
  C
- 2. Press the ♥ button on the remote control to select the symbol on the menu screen then press the ▶ button to enter the 'PRESET' menu.



3. Press the ◆ button to select 'Manual Programme Preset' then press the ◆ button to enter the 'MANUAL PROGRAMME PRESET' menu.



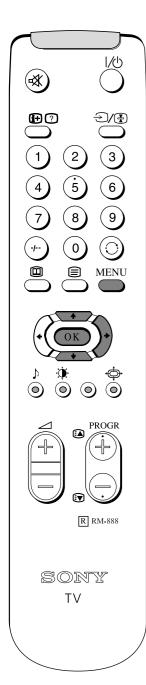
4. Press the ♠ or ♥ buttons to select the programme position you want to skip then press the ▶ button to enter the 'SYS' column.



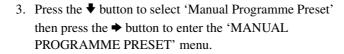
- 5. Press the ♥ button to select '---' then press the OK button to store.
- 6. Repeat steps 4 and 5 to skip other programme positions.
- 7. Press the MENU button to remove the menu from the TV screen.

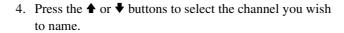
# Naming a channel (Analogue channels only)

Names for channels are usually taken automatically from Teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

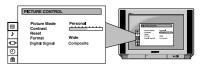


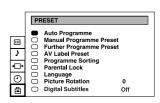
- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button to select the 🖨 symbol on the menu screen then press the ♦ button to enter the 'PRESET' menu.

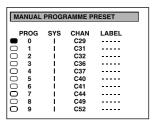


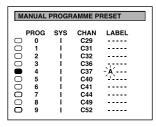


- 5. Press the → button repeatedly until the first element of the 'LABEL' column is highlighted.
- 6. Press the ♠ or ♥ buttons to select a letter or number (select '-' for a blank) then press the ▶ button to confirm. Select the other four characters in the same
- 7. After selecting all the characters, press the OK button.
- 8. Repeat steps 4 to 7 if you wish to label other channels.
- 9. Press the MENU button to remove the menu from the TV screen.



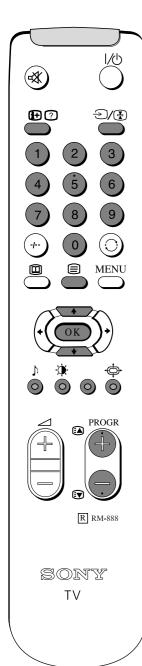






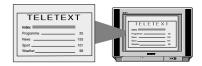
### **Viewing Standard Teletext**

Teletext is an information service transmitted by most TV stations.



#### **Selecting Teletext**

- 1. When viewing analogue channels press a numbered button on the remote control to select the channel which carries the teletext service you wish to receive.
- 2. Press the on the remote control to switch on teletext. Press the button again if you wish to superimpose teletext on to the TV screen.
- 3. Select the required page using the numbered buttons on the remote control. If you make an error, complete the number, then reenter the correct page number.









### **Using Other Standard Teletext Functions**

#### To move to the next or preceding page

Press the or buttons to select the previous or next page.

#### To freeze a Teletext page

Press the button to freeze the page. Press again to cancel the freeze.

#### Revealing concealed information (eg:answers to a quiz).

Press the ② button to reveal information. Press again to conceal the information.

#### Using colour buttons to access pages (Fastext)

When the colour coded menu appears at the bottom of a page, press the colour buttons (red, green, yellow or blue) on the control to access the corresponding page.

#### **Displaying TOP-Text (when available)**

With TOP-Text you can access pages easily by selecting blocks or groups of pages. The block is a category (for example Sports) which includes the groups (for example Football). When TOP-Text is broadcast, a colour coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the remote control. Press these coloured buttons to displayed the desired pages.

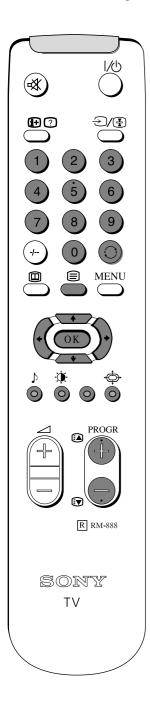
- 1. Press the \equiv button to display teletext.
- 2. Press the coloured buttons to search for the page you desire: Red: to go back to the previous page Green: to proceed to the next page.

Yellow: to proceed to the first page of the next group. Blue: to proceed to the first page of the next block.

3. Press the \equiv button twice to return to normal TV.

### **Viewing Digital Teletext**

Most of the digital TV channels broadcast information via teletext. This digital service includes high quality text and graphics as well as advanced navigational options. Additionally, this television set has access to a dedicated digital teletext channel.



# Selecting the dedicated digital teletext channel

- To view the dedicated digital teletext service, press the numbered buttons on your remote control to select the relevant channel number. If you do not know the channel number, press the OK button to look for this channel in the channel table.
- Once the teletext channel is displayed, follow the instructions on-screen to display the teletext information, then press the ♠, ♣ or ▶ buttons to guide the on-screen cursor to the required area of the screen then press the OK button to display the chosen information.
- 3. Alternatively, you can use the number and colour buttons on the remote control to directly enter the page number required and to display the various pages of text information.
- 4. If when viewing the teletext pages, you are requested to select 'OK' or 'Cancel', press the OK button for 'OK' or the button for 'Cancel'.
- When you have finished viewing teletext, press the button or the PROG +/- buttons, and then select an alternative digital channel.

# Selecting teletext from the other digital channels

Normal teletext services may also be available on other digital channels. Sometimes this is indicated by a small symbol or text display on your TV screen, superimposed on the channel you are watching.

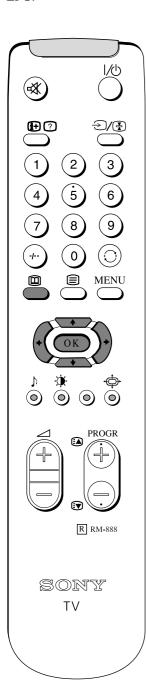
- 1. Press the ♠, ♣, ♠ or ▶ buttons to select the symbol then press the OK button to display the chosen information.
- 2. Alternatively, you may be requested to use the number and colour buttons on your remote control to display the various pages of text information. If when viewing the teletext pages, you are requested to select 'OK' or 'Cancel', press the OK button for 'OK' or the ① button for 'Cancel'.
- 3. Once the text information is displayed on screen, use the ♠, ♥, ♠ or ▶ buttons, the colour buttons and/or the number buttons to access the chosen information.
- 4. When you have finished viewing teletext, press the button and then select an alternative digital channel.

On other channels there may be no on-screen symbol, but you can see if there is a digital service as follows:

- When watching a digital TV channel, press the button on your remote control to display any text service which may be available.
- Press the number buttons to select the various pages of information available and/or the colour buttons for the functions shown on screen.
- When you have finished using the text service, press the button to return to normal TV.

# Electronic Programme Guide (EPG)

The Electronic Programme Guide (EPG) is a guide which provides programme information for all digital channels supporting EPG.



#### Displaying the EPG

- Press the button on the remote control to display the programme guide on the TV screen. You may see the message 'EPG INFORMATION IS TEMPORARILY UNAVAILABLE' whilst waiting for the EPG to appear on screen.
- 2. Press the ♠, ♣, ♠ or ▶ buttons on the remote control to move the on-screen cursor around the guide.
- 3. Press the button again to remove the programme guide from the TV screen.

Tue 22 DEC 15:20:40	EC Press O.K. to view data for all available chann Press to return to programme list.	els 12
22	2 BBC 2 International Cricket 19 International	NOW th 2h 335-18:25 000-16:30 30-17:10 55-16:15 55-16:15 30-17:30

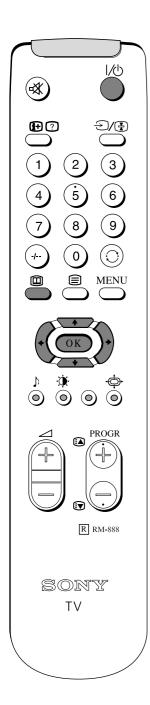
#### Viewing Information on the EPG

You can alter the type of information presented on the EPG by changing data in each of the EPG columns. You can for example display information for all sports programmes being shown tomorrow from 5.00pm onwards.

- Press the button on the remote control to display the EPG on the TV screen.
- 2. Press the ◆ or ◆ buttons to highlight the 'date' column then press the ◆ or ▼ buttons to select your chosen date.
- 3. Press the ◆ or ◆ buttons to highlight the 'time' column then press the ◆ or ▼ buttons to select your chosen time.
- Press the → button or press the OK button. The EPG will display programme information according to the date and time you selected.
- 5. Press the → button to highlight the 'programme type' column then press the ↑ or ▼ button to select ▲ News,
  Films, ¾ Sport, ♣ Entertainment, ↑ Lifestyle,
  Education or Childrens Programmes.
- 6. Press the ◆ or ▶ buttons or press the OK button to update the programme information accordingly. If you selected tomorrow's date, 17:00 and ¾ Sport, you should now be able to view all the sports programmes being shown tomorrow from 5.00 pm onwards.
- 7. Press the button on the remote control to remove the EPG from the TV screen.

Tue 22 DEC 15:20:40		Press O.K. to view data for all available channels Press to return to programme list.			12
			+	1h NOW 1h 2h	
22 Tues	6 ×46	2	BBC 2 International Cricket	13:35 - 18:25	ALL
23	9	4	Channel 4 Racing From Epsom	14:00 - 16:30	12
Wed 24	12 濼	5	C 5 Film: Rachel And The	15:30 - 17:10	#
Thu	16:00	1	BBC 1 The Little Pet Shop	15:50 - 16:00	<b>.</b>
25 Fri	18 🛖	3	HTV Bernards Watch	15:55 - 16:15	¥
26	21	1	BBC 1 Boger And Badger N	16:00 - 16:15	<b>F</b>
Sat 27	ور 24	1	BBC 1 Bailey Kippers Pov S	16:15 - 16:35	
Sun	3	3	HTV Sabrina The Teenage	16:15 - 16:40	*
28 Mon		4	BBC 1 Vets In Practice	16:30 - 17:30	Ö
			+		

### Electronic Programme Guide (EPG)

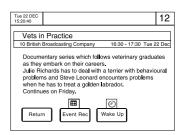


#### **Recording Programmes**

- 1 Press the <u>m</u> button on the remote control to display the EPG on the TV screen.
- 2 Press the ◆ or → buttons to highlight the 'programme' column then press the ♠ or ▼ buttons to select your desired programme.
- 3 Press the OK button. If the programme is currently being broadcast, it will be displayed on your TV. If not, the 'TIMER' menu will be displayed on the TV screen.
- 4 At the bottom of the timer page you can see the symbols [Return] (back to EPG), [Event Rec] (to record a programme) or [Wake Up] (to set the programme to switch on automatically).
- 5 Press the ◆ or ◆ buttons to select one of these symbols then press the OK button to confirm your selection. The EPG appears on screen with the relevant icon appearing next to the programme you selected in step 2.
- 6 If you wish to cancel a recording, select the relevant programme and press the OK button. A menu is displayed on screen requesting you to select 'Return' if you wish to continue to record the programme or 'Delete' if you wish to cancel the recording request.
- 7 After making your selection, press the OK button to confirm. The record icon disappears from the EPG if 'Delete' was selected in step 6.
- 8 If you have finished viewing programmes on your TV, press the 1/0 button before the timer recording starts to leave your TV in standby mode for the timer settings to be activated. If, however, you wish to continue watching other programmes after setting the timer, you can do so by changing programmes in the normal way. If you are watching another programme when the timer is due to start, a display will appear on screen advising you that, if you change channels, you automatically cancel the recording.
- 9 If you do not wish to cancel or view the recording, press the 1/0 button whilst one of the displays are still on screen to leave your TV in standby mode. The standby indicator on the front of the TV will flash to show that the timer record operation is active. If, however, you choose to change programmes, you automatically cancel the recording.

Notes: If your video recorder (VCR) is not Smartlink-compatible, you will need to set your VCR to switch on and off automatically after setting the timer on the EPG. If you want to change channel once a digital programme has started recording, select the channel by using the remote control buttons as normal. The message 'STOP RECORDING' will be displayed on screen. Either do nothing to allow the recording to continue or select the required channel once more while the message is still displayed on screen. The recording will then be cancelled.

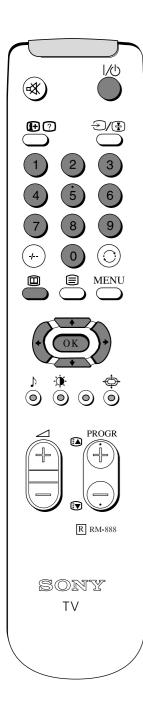




Timer Recording Event will begin soon.

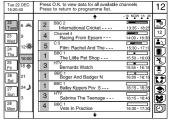
During this event you cannot select the channel

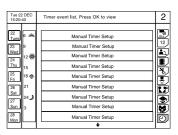
### **Electronic Programme Guide (EPG)**

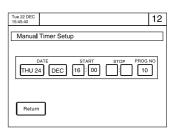


#### **Setting The Manual Timer**

- 1 Press the button on the remote control to display the EPG on the TV screen.
- 2 Press the ◆ or ◆ buttons to highlight the 'programme type' column then press the ◆ button to select the timer symbol ④.
- 3 Press the OK button to display a screen of 9 programme slots, each one indicating that it is either free for programming, or that it has a programme already stored in it.
- 4 Press the ◆ button to enter the 'programme' column.
- 5 Press the ♠ or ♥ buttons to select a free row then press the OK button to display the Set Timer screen. This screen asks you to confirm the date, programme number, start time and end time.
- 6 Press the button to select the date area then press the number buttons on the remote control to enter the date.
- Press the → button to confirm the date then press the ♠ or
   ↓ buttons to select the month.
- 8 Press the → button to confirm the month and to enter the start time.
- Press the number buttons to enter the time when you want the timer to switch on, preferably several minutes before you set your video recorder to start recording. If you wish to switch on at 8.25 pm, enter 2025.
- 10 Press the → button to confirm the entry and to enter the switch-off time.
- 11 Press the number buttons to enter the time you want the timer to switch off, preferably after your video has stopped recording. Again, you should enter 4 digits using the 24 hour format.
- 12 Press the → button to confirm the entry and to enter the programme number.
- 13 Press the OK button to save the settings then select and press OK button to return to the Manual Timer Setup menu.
- 14 Select another available slot if you wish to record a further programme. Otherwise, press the → button to enter the 'programme type' column then press the OK button to return to the EPG.
- 15 If you have finished viewing programmes on your TV, press the 1/0 button before the timer recording starts to leave your TV in standby mode for the timer settings to be activated. If, however, you wish to continue watching other programmes after setting a timer, you can do so by changing programmes in the normal way. If you are watching another programme when the timer is due to start a display will appear on screen advising you that, if you change channels now, you automatically cancel the recording.
- 16 If you do not wish to cancel or view the recording, press the 1/0 button whilst the display is still on screen to leave your TV in standby mode. The standby indicator on the front of the TV will flash to show that the timer record operation is active. If, however, you choose to change programmes, you automatically cancel the recording.







Timer Recording Event will begin soon.

During this event you cannot select the channel

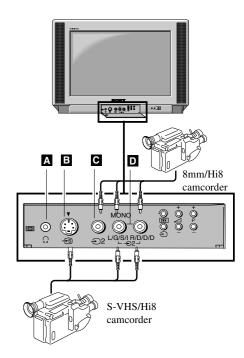
# **Connecting equipment to the TV**

Using the following instructions, you can connect a wide range of optional equipment to your TV.

#### Connecting equipment to the TV

- 1. Connect your equipment to the designated TV socket.
- 2. Press the Sobutton repeatedly on the remote control until the correct input symbol for your equipment appears on the TV screen:

Symbol	Input signals
<b>Đ</b> 1	Audio/video input signal through the scart connector
	RGB input signal through the scart connector
€2	• Audio/video input signal through the scart connector <b>G</b> or the phono sockets <b>C</b> and <b>D</b>
<del>-</del> §2	• S video input signal through the scart connector <b>©</b> or the phono sockets <b>B</b> and <b>D</b>
<b>⊕</b> 3	Audio/video input signal through the scart connector



- 3. Switch on the connected equipment.
- 4. To return to normal TV operation, keep pressing the € button on the remote control until the TV picture appears.

Note: To avoid picture distortion, do not connect equipment to the **B**, **C**, **D** and **G** sockets at the same time.

### Additional information when connecting equipment

#### Connecting a VCR

We recommend you connect your VCR to the **H** socket using a scart lead. If you do not have a scart lead, use the 'Manually Tuning the TV' section of this instruction manual to tune in the VCR signal to TV programme number'0'.

#### **Connecting headphones**

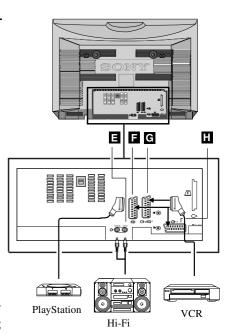
Plug in your headphones to the A socket on the front of the TV set.

#### Connecting to external audio equipment

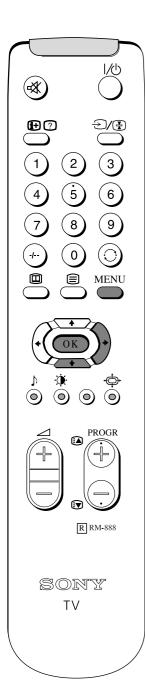
Plug in your hi-fi equipment to the **E** sockets on the rear of the TV if you wish to amplify the audio output from the TV. The output level from the **E** sockets can be varied by adjusting the volume of the headphones (refer to the 'Adjusting the sound' section of this manual).

#### For mono equipment

Connect the phono plug to the L/G/S/I socket on the front of the TV and select the  $\div 2$  input signal using the instructions on this page. Finally, refer to the 'Adjusting the sound' section of this manual and select 'A' on the sound menu screen.

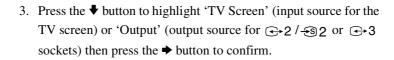


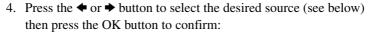
# Connecting equipment to the TV



# Selecting the output source for the scart sockets G or H

- Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♦ button to select the → symbol on the menu screen then press the ♦ button to enter the 'VIDEO CONNECTION' menu screen.





TV Screen	TV, AV1, RGB, AV2, YC2, AV3
Output	TV, AV1, AV2, YC2, AV3, AUTO

5. Press the MENU button to remove the menu from the TV screen.

#### **Smartlink**

Smartlink is a direct link between your TV set and VCR.

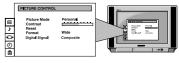
For Smartlink you need:

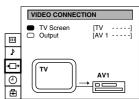
- a VCR which supports Smartlink, NexTView Link or Megalogic.
- A fully-wired 21-pin scart cable to connect your VCR to scart connector 
  →3.

The features of Smartlink are:

- tuning information such as the channel overview are downloaded from the TV set to the VCR.
- direct TV recording: While watching TV you need to press just one button on the VCR to record this programme.

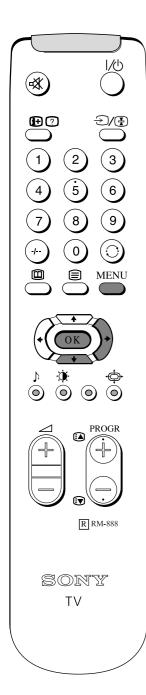
For more information on Smartlink please refer to your VCR instruction manual.



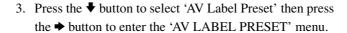


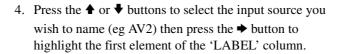
# **Using the AV Label Preset feature**

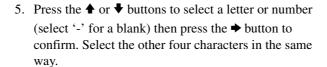
This function enables you to designate a name to the optional equipment you have connected to the sockets of this TV. This name can be up to 5 characters (letters or numbers) and will appear on screen whenever the equipment is selected for use.



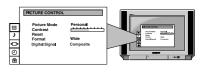
- 1. Press the MENU button on the remote control to display the menu on the TV screen.
- 2. Press the ♥ button to select the 🖨 symbol on the menu screen then press the ♦ button to enter the 'PRESET' menu.

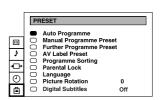


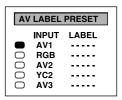


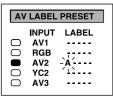


- 6. After selecting all the characters, press the OK button.
- 7. Repeat steps 4 to 6 if you wish to label other input sources.
- 8. Press the MENU button to remove the menu from the TV screen.









# **Specifications**

#### TV system

I/DVB-T

#### Colour system

**PAL** 

NTSC 3.58, 4.43 (only Video in)

#### Channel coverage

UHF:B21-B69

#### Picture tube

KV-28DX20U

FD Trinitron WIDE

Approx 71cm (28inches) (Approx 66cm picture measured diagonally),  $102^\circ$  deflection

KV-32DX20U

FD Trinitron WIDE

Approx 82cm (32 inches) (Approx 76cm picture measured diagonally), 102° deflection

#### **Rear Terminals**

21-pin Euro connector (CENELEC standard) including audio/video

input, RGB input, TV audio/video output.

2/- 2 21-pin Euro connector (CENELEC standard) including audio/video

input, S-video input, selectable audio/video output.

€→3 21-pin Euro connector (CENELEC standard) including audio/video

input, selectable audio/video output.

Audio outputs - phono jacks

#### **Front Terminals**

2 Video input -phono jack
 2 Audio inputs - phono jacks
 S video input - 4 pin DIN

∩ Headphones jack - minijack stereo

#### Sound output

Left/Right: 2x20W (music power) Sub woofer: 20W (music power)

#### **Power consumption**

KV-28DX20U: 195W KV-32DX20U: 185W

#### **Dimensions (wxhxd)**

KV-28DX20U: Approx. 761x496x525mm KV-32DX20U: Approx. 874x563x571mm

Weight

KV-28DX20U: Approx. 44.0kg KV-32DX20U: Approx. 62.0kg

#### **Accessories supplied**

RM-888 remote control (1)

IEC designated size AA battery (2)

#### Other features

Teletext

Smartlink

Design and specifications are subject to change without notice.

# **Troubleshooting**

Here are some simple solutions to problems which may affect the picture and sound.

Problem	Cause
No picture , no sound	<ul><li>Power off.</li><li>TV in standby.</li></ul>
Poor or no picture (screen is dark), but good sound. No picture on any channel after digital tuning.	<ul> <li>Aerial disconnected</li> <li>Picture preset level adjustment.</li> <li>No digital transmissions in your area.</li> <li>No digital transmissions from the transmitter you are currently using.</li> <li>Weak signal.</li> </ul>
Some channels are blank.	<ul> <li>Unsuitable aerial</li> <li>Scrambled/subscription-only channel.</li> <li>Programme used only for data (no picture or sound).</li> <li>Programme not being transmitted.</li> </ul>
Standby indicator flashing.	<ul> <li>Digital mode Timer Record active (regular flash).</li> <li>Fault (irregular flash).</li> </ul>
Good Picture, no sound. Poor picture quality No colour on colour programmes. Remote control does not function. Distorted picture when changing programmes or selecting Teletext.	<ul> <li>Volume control</li> <li>Wrong external mode selected on an RGB video source.</li> <li>Colour level setting.</li> <li>Batteries low.</li> <li>Inputs from external equipment not switched off.</li> </ul>
Cause	Solution
Power off. TV in standby.	<ul> <li>Plug in the TV.</li> <li>Press the ⊕ button on the front of the TV</li> <li>If the ⊕ indicator is on press the 1/⊕ button or a numbered button on the</li> </ul>
Aerial disconnected	remote control.  • Check the aerial connection.
Picture level adjustment	Select on the TV menu system then adjust the brightness, picture and colour balance levels
No digital transmissions in your area.	Tune in the analogue channels available using the 'Manually tuning the TV' instruction in this manual, then contact a local installer to find out when digital transmissions begin in your area.
No digital transmissions from the transmitter you are currently using. Unsuitable aerial.	<ul> <li>Contact a local installer to find out which transmitter you should be pointing your aerial at.</li> <li>Change your aerial to to cover the channels used by digital programmes</li> </ul>
Weak signal.	<ul> <li>(Contact a local installer)</li> <li>Ensure aerial is correctly aligned to transmitter.</li> <li>Ensure aerial is plugged directly into the TV (not through other equipment).</li> </ul>
Scrambled/subscription-only channel. Programme information without picture or sound.	<ul> <li>Upgrade to a higher gain aerial.</li> <li>Subscribe to pay-per-view broadcaster.</li> <li>See 'Skipping programme positions' section.</li> <li>See 'Re-arranging the TV channels' section.</li> </ul>
Fault.	<ul> <li>Do not open the cabinet, refer to qualified personnel.</li> <li>Contact your nearest Sony Service Centre.</li> </ul>
Volume control.	<ul> <li>Press the  → + button on the remote control.</li> <li>If  is displayed on the screen, press the  button on the remote control.</li> </ul>
Wrong external mode selected.	<ul> <li>Press the ⊕ button repeatedly until the RGB symbol — is displayed on screen.</li> </ul>
Colour level setting.	Select  on the TV menu system then adjust the colour setting

- If you continue to have these problems, have your TV serviced by qualified personnel or you can contact the Sony UK Digital HelpLine on 0870 600 1717.
- NEVER open the casing yourself.