

**SONY**<sup>®</sup>

4-204-789-65



# ***Trinitron Colour Television***

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
*Instruction Manual*

**GB**

***KV-28FX20U  
KV-32FX20U***

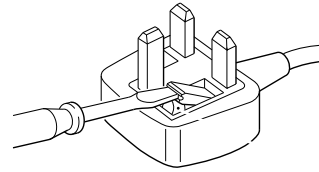
## NOTICE FOR CUSTOMERS IN THE UNITED KINGDOM

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  or coloured green or green and yellow.

### **WARNING**

- 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.



# 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

- 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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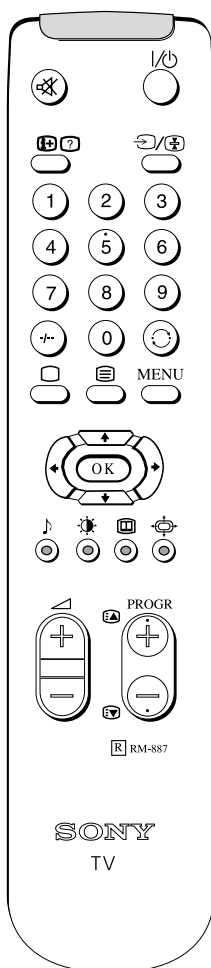
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## Quick Start Guide

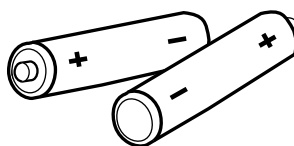
Follow steps 1-5 to:

- 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

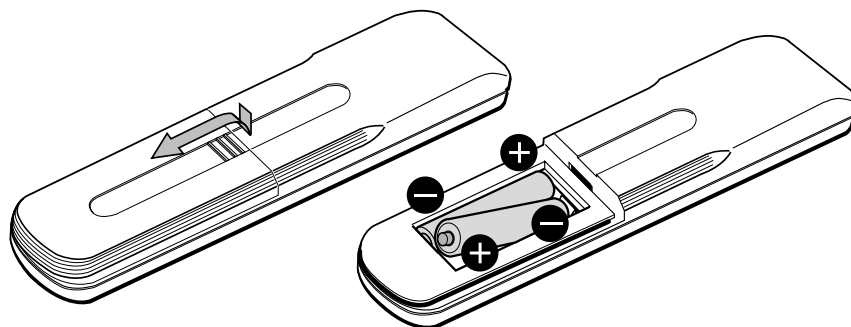


Remote control



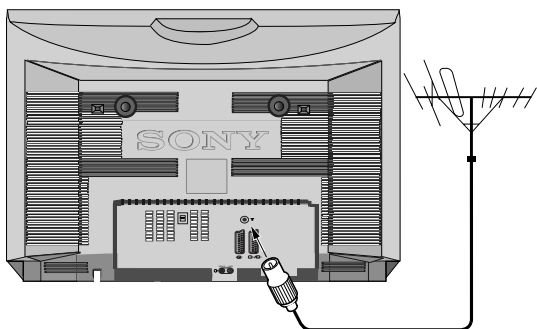
Batteries


# 2. Inserting batteries into the remote control



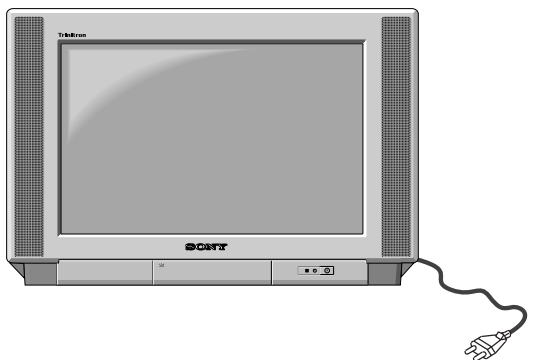
Always remember to dispose of used batteries in an environmental friendly way.

### 3. Connecting the aerial

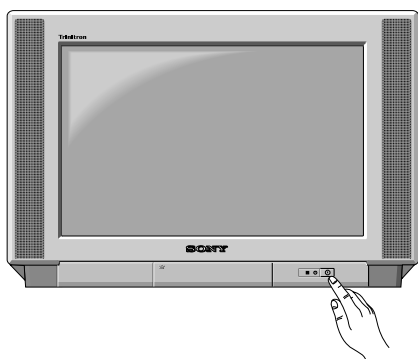


Connect a conventional aerial to the socket marked  on the rear of the TV.

### 4. Switching on the TV



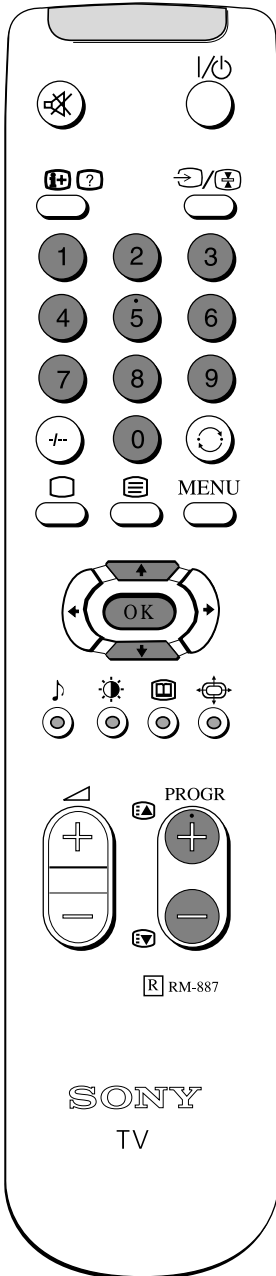
Connect the TV plug to the mains socket (220-240V AC, 50Hz) and switch on.



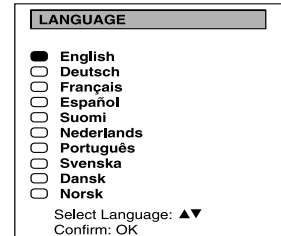
Push in the on/off switch on the front of the TV.

# Automatically tuning the TV

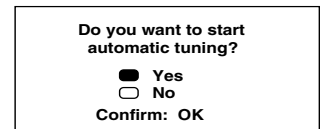
When you first switch on the TV, the following sequence of menu screens appear on the TV enabling you to 1) choose a language for the TV menu screens, 2) add channels to the TV, 3) arrange the channels.



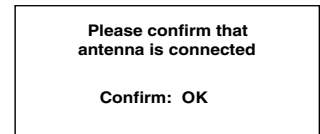
1. When switching on the TV for the first time, the 'LANGUAGE' menu appears automatically on the TV screen enabling you to select in which language you wish to read the TV menu screens. Press the UP or DOWN arrow keys on the remote control to select your chosen language then press the OK button to confirm your selection.



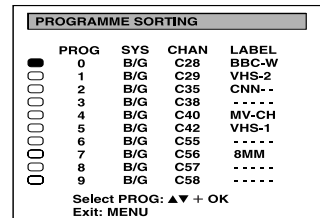
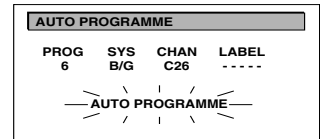
2. The 'AUTO TUNE' menu appears on the TV screen in your selected language. Press the UP or DOWN arrow keys to select 'YES' then press the OK button to confirm.



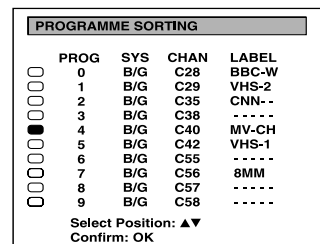
3. A new menu screen appears asking you to check that the antenna is connected. Ensure the antenna is connected then press the OK button to confirm. The TV now starts to automatically search and store all available channels for you. Please be patient and do not press any buttons.



4. When the TV has finished tuning in all available channels, the 'PROGRAMME SORTING' menu appears on the TV screen which enables you to change the order of the channels on your TV. If you wish to change the channel order, press the UP or DOWN arrow keys on your remote control until the channel you wish to rearrange appears on the screen then press the OK button. Press the UP or DOWN arrow keys 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.



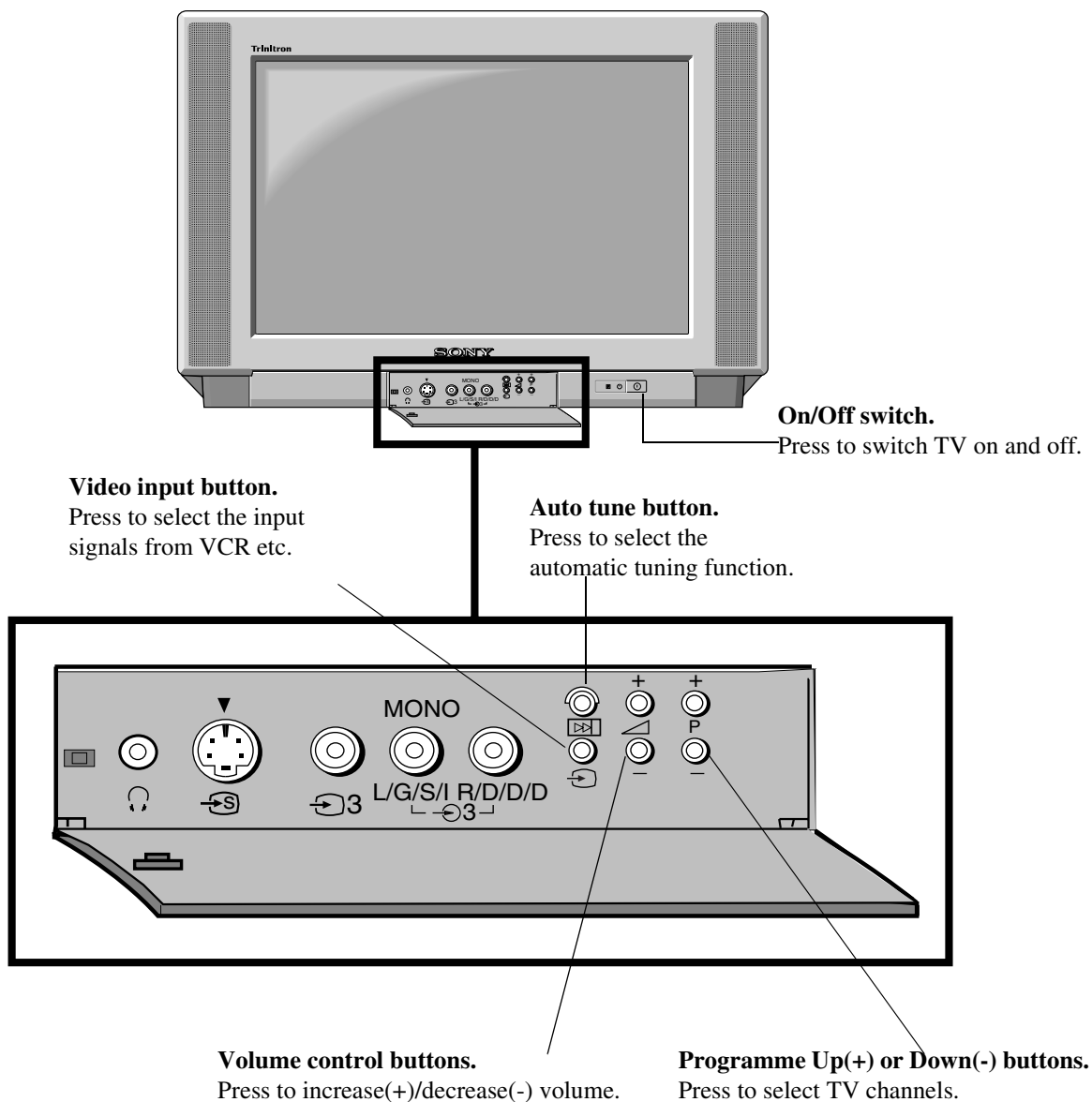
5. Press the MENU button to remove the menu from the TV screen.



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

**To mute sound**

Press to mute TV sound. Press again to restore the sound.

**To reveal on screen information**

Press to reveal all on-screen indications. Press again to cancel. In teletext mode, press to reveal concealed information (eg answers to a quiz) then press again to cancel.

**To select channels**

Press the numbered buttons to select channels.

For double digit programme numbers, e.g.23, press -/-- first, then the buttons 2 and 3. If you enter an incorrect first digit, select -/-- button again to enter the programme number of your choice.

**To return to TV mode**

Press to return to the normal operation from teletext mode or standby mode.

**To select Teletext**

Press to switch on Teletext.

**To display picture menu**

Press to change the picture settings. Press the OK button to remove the display.

**To display sound menu**

Press to change the sound settings. Press the OK button to remove the display.

**To adjust TV volume**

Press to adjust the volume of the TV.

**To temporarily switch off TV**

Press to temporarily switch off TV. Press again to switch on from standby mode. To save energy, we recommend switching off completely when TV is not in use.

NOTE: After 15-30 minutes without a TV signal and without any button being pressed, the TV switches automatically into standby mode.

**To select input signal or freeze teletext**

Press to select inputs from the TV sockets (see Using Optional Equipment section). In teletext mode, press to freeze the displayed page. press once again to cancel.

**To return to previous channel**

Press to return to the previous channel you were watching. Note: This can be done only after watching the present channel for 5 seconds.

**To display the menu**

Press if you wish to use the TV menu system. Press again to remove the menu from the TV screen.

**To select menu items**

Use the OK button and arrow keys to select the options available in the menu system of this TV.

This button has no function.

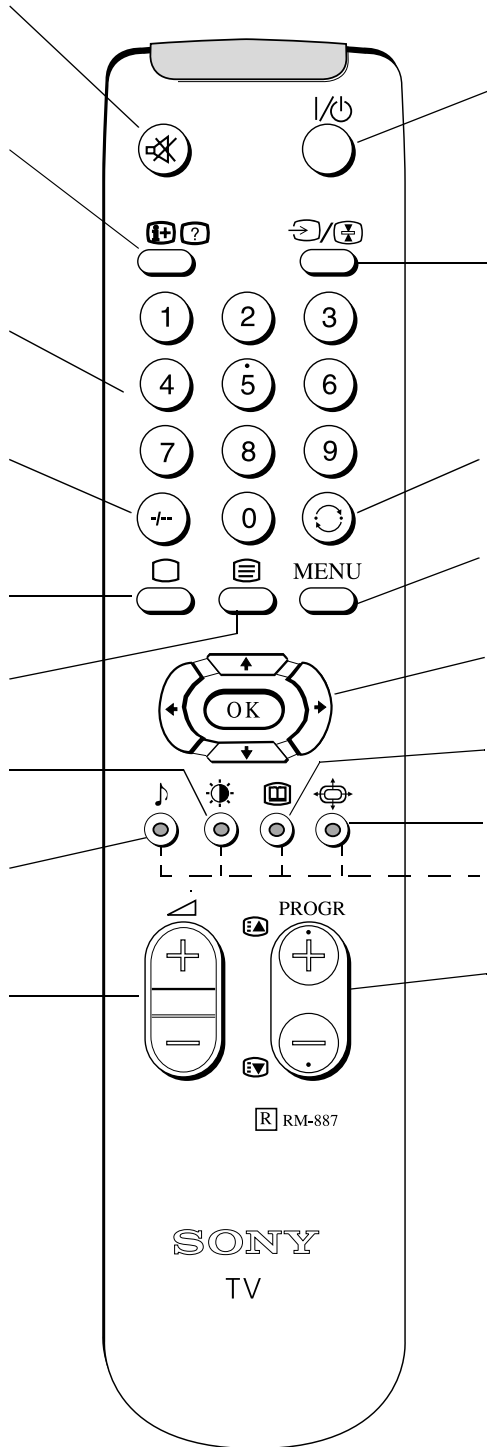
**To change screen format**

Press to change the size of the screen.

See Teletext section of manual for details.

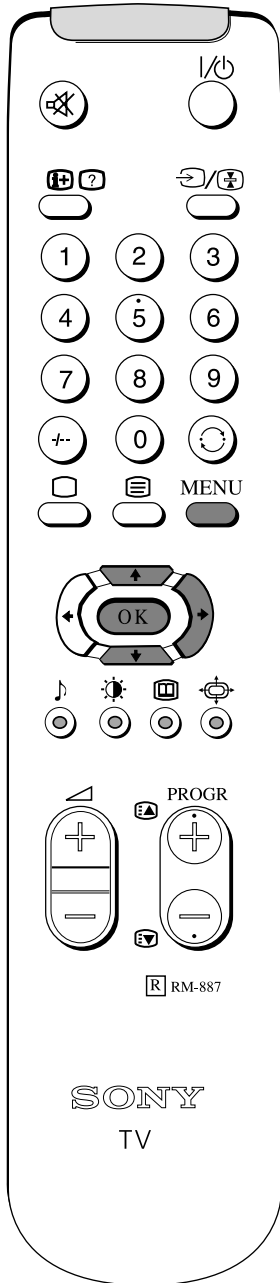
**To select channels**

Press to select channels.

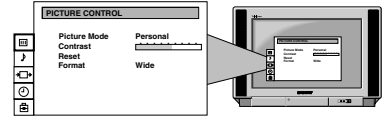



# Choosing a language for the TV menu screens

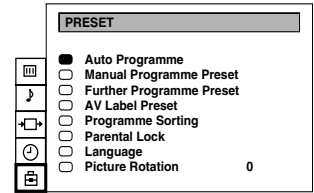
The TV consists of a menu system which can appear on screen in a variety of languages. Use the following feature to select the language that best suits you.



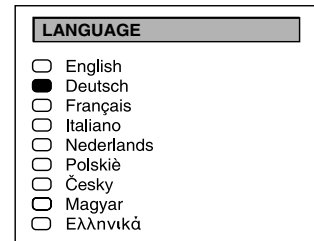
1. Press the MENU button on the remote control to display the menu on the TV screen.



2. Press the UP or DOWN arrow keys to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the UP or DOWN arrow keys to select 'Language' on the menu screen then press the RIGHT arrow key to enter the 'LANGUAGE' menu.



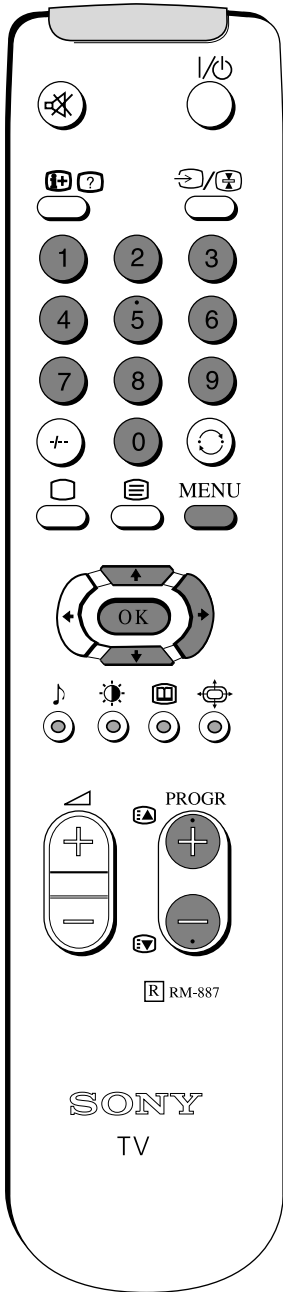
4. Press the UP or DOWN arrow keys to select your chosen language.

5. Press the OK button to confirm your selection.

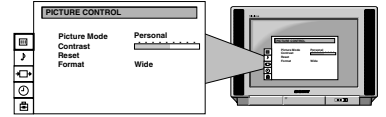
6. Press the MENU button to remove the display from the TV screen.


# Automatically tuning the TV

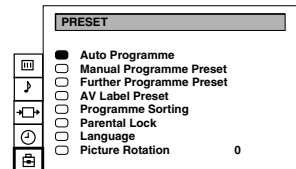
You have already tuned in all available channels using the 'Automatically tuning the TV' section at the start of this manual. If you need to repeat the tuning procedure however, follow the instructions below and the TV automatically searches and stores all available channels for you.



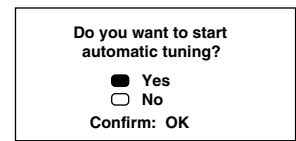
1. Press the MENU button on the remote control to display the menu on the TV screen.



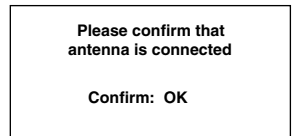
2. Press the DOWN arrow key on the remote control to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



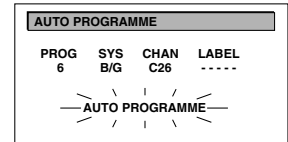
3. Press the UP or DOWN arrow key to select 'Auto Programme' then press the RIGHT arrow key to display the autotune menu.



4. Press the UP or DOWN arrow keys to select 'YES' then press the OK button to confirm.



5. A new menu appears asking you to check that the antenna is connected. Ensure the antenna is connected then press the OK button to confirm. The TV now starts to automatically search and store all available channels for you. Please be patient and do not press any buttons once this search and store operation has started.

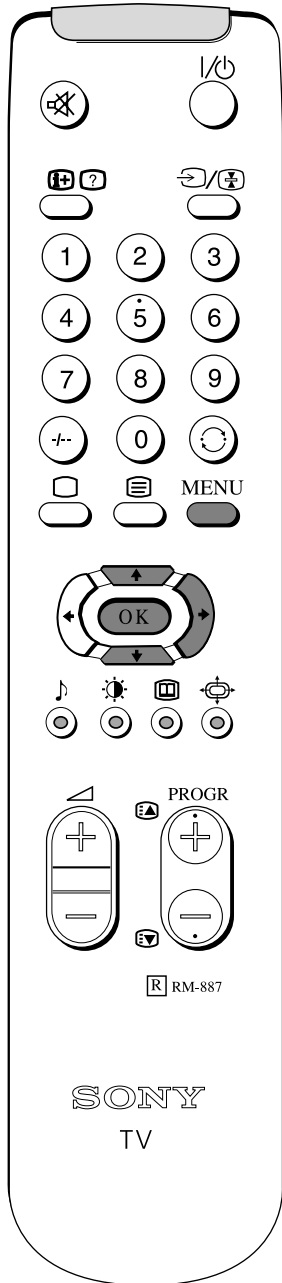


6. When the automatic tuning procedure is complete, the menu disappears from the TV screen. Press the PROG +/- or the numbered buttons on the remote control to view the TV channels.

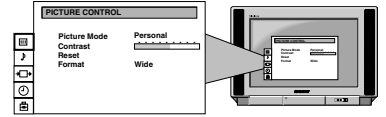
Note: Press the MENU button if you wish to stop the automatic tuning procedure.


# Re-arranging the TV channels

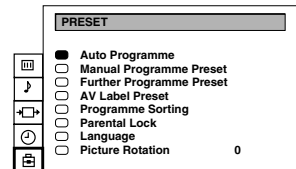
After tuning the TV, you can use this feature to change the channel order.



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



2. Press the DOWN arrow key on the remote control to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the DOWN arrow key to select 'Programme Sorting' then press the RIGHT arrow key to enter the 'PROGRAMME SORTING' menu.

PROGRAMME SORTING				
PROG	SYS	CHAN	LABEL	
<input checked="" type="checkbox"/>	0	BG	C28	BBC-W
<input type="checkbox"/>	1	BG	C29	VHS-2
<input type="checkbox"/>	2	BG	C35	CNN- -
<input type="checkbox"/>	3	BG	C38	----
<input type="checkbox"/>	4	BG	C40	MV-CH
<input type="checkbox"/>	5	BG	C42	VHS-1
<input type="checkbox"/>	6	BG	C55	----
<input type="checkbox"/>	7	BG	C56	8MM
<input type="checkbox"/>	8	BG	C57	----
<input type="checkbox"/>	9	BG	C58	----

4. Press the UP or DOWN arrow keys to select the channel you want to move then press the OK button to confirm.

PROGRAMME SORTING				
PROG	SYS	CHAN	LABEL	
<input type="checkbox"/>	0	BG	C28	BBC-W
<input type="checkbox"/>	1	BG	C29	VHS-2
<input type="checkbox"/>	2	BG	C35	CNN- -
<input type="checkbox"/>	3	BG	C38	----
<input type="checkbox"/>	4	BG	C40	MV-CH
<input type="checkbox"/>	5	BG	C42	VHS-1
<input type="checkbox"/>	6	BG	C55	----
<input type="checkbox"/>	7	BG	C56	8MM
<input checked="" type="checkbox"/>	8	BG	C57	----
<input type="checkbox"/>	9	BG	C58	----

5. Press the UP or DOWN arrow keys 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.

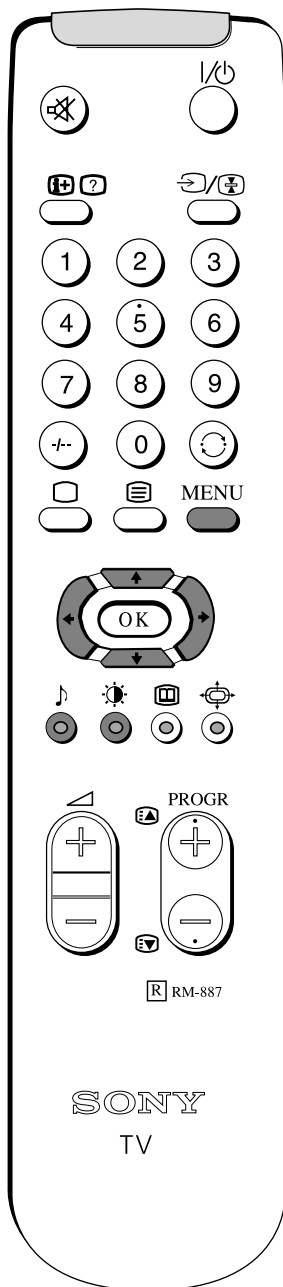
PROGRAMME SORTING				
PROG	SYS	CHAN	LABEL	
<input type="checkbox"/>	0	BG	C28	BBC-W
<input type="checkbox"/>	1	BG	C29	VHS-2
<input type="checkbox"/>	2	BG	C35	CNN- -
<input type="checkbox"/>	3	BG	C38	----
<input checked="" type="checkbox"/>	4	BG	C40	MV-CH
<input type="checkbox"/>	5	BG	C42	VHS-1
<input type="checkbox"/>	6	BG	C55	----
<input type="checkbox"/>	7	BG	C56	8MM
<input type="checkbox"/>	8	BG	C57	----
<input type="checkbox"/>	9	BG	C58	----

6. Repeat steps 4 and 5 if you wish to sort other channels.

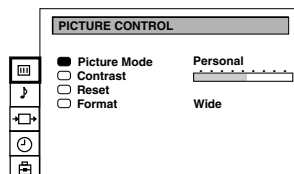
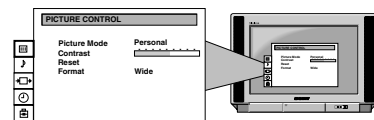
7. Press the MENU button to remove the menu from the TV screen.

# 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 UP or DOWN arrow key on the remote control to select the symbol on the menu screen then press the RIGHT arrow key to enter the 'PICTURE CONTROL' menu.
3. Press the UP or DOWN arrow keys to select the item on the screen you wish to adjust then press the RIGHT arrow key 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 UP or DOWN arrow keys to select the item on the screen you wish to adjust then press the RIGHT arrow key to confirm.
5. Press the RIGHT or LEFT arrow keys 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 LEFT arrow key to return to the 'PICTURE 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.



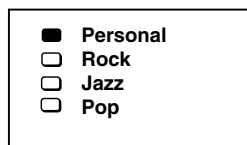
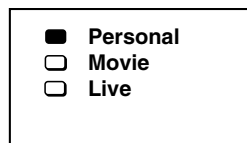
<b>Picture Mode</b>	Picture Mode → Personal (for individual settings) Movie (for films) ← Live (for live broadcasts)
	Brightness* Colour* Sharpness* Hue**
<b>Contrast</b>	
<b>Reset</b>	Resets picture to factory preset levels
<b>Format</b>	Format (refer to page 14 for details) Scroll Auto 16:9 ← Off → On

\*Only if you select 'Personal' in 'Picture Mode'.  
 \*\* Available for NTSC colour system only.

## Changing picture and sound modes quickly

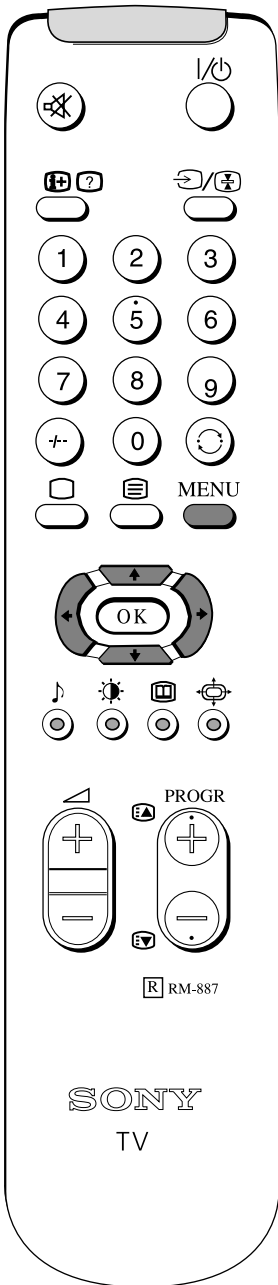
You can quickly change the Picture Mode or the Equalizer Mode without entering the 'PICTURE CONTROL' or the 'SOUND CONTROL' menu screens.

1. Press the symbol on the remote control for picture modes or the symbol for equalizer modes.
2. Press the UP or DOWN arrow keys to select the desired mode.
3. Press the OK button to remove the display from the TV screen.

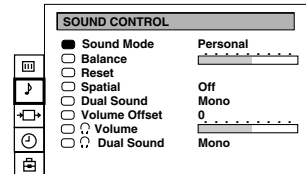
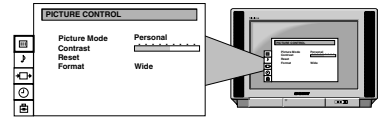




# Adjusting the sound

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



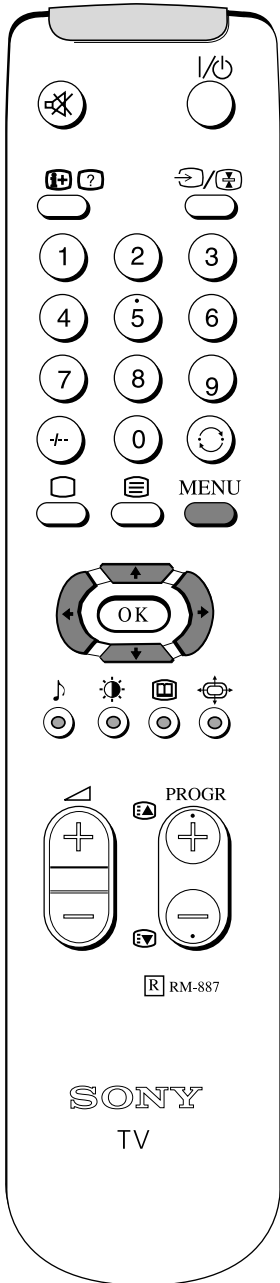
1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the UP or DOWN arrow key on the remote control to select the symbol on the menu screen then press the RIGHT arrow key to enter the 'SOUND CONTROL' menu.
3. Press the UP or DOWN arrow keys to select the item on the screen you wish to adjust then press the RIGHT arrow key 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 UP or DOWN arrow keys to select the item on the screen you wish to adjust then press the RIGHT arrow key to confirm.
5. Press the RIGHT or LEFT arrow keys 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 LEFT arrow key 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.



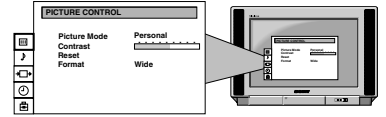
<b>Sound Mode</b>	<ul style="list-style-type: none"> <li>◀ Personal</li> <li>Rock</li> <li>Jazz</li> <li>▶ Pop</li> </ul>
<b>Balance</b>	
<b>Reset</b>	Resets picture to factory preset levels
<b>Spatial</b>	On: Special Acoustic Effect.
<b>Dual Sound</b>	Stereo ◀ ▶ Mono (for a stereo broadcast) A for channel 1 ◀ ▶ B for channel 2 (for a bilingual broadcast)
<b>Volume Offset</b>	◀ The channel volume level can be ▶ adjusted over a range of -12 to +12.
<b>Headphones</b> <b>Volume</b> <b>Dual Sound</b>	 Stereo ◀ ▶ Mono (for a stereo broadcast) A for channel 1 ◀ ▶ B for channel 2 (for a bilingual broadcast)


# Changing the screen mode

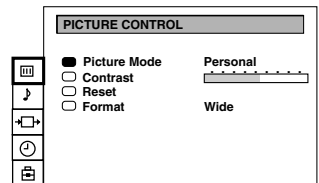
Using this Screen Mode feature you can change the aspect ratio of the screen.



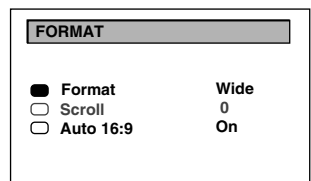
1. Press the MENU button on the remote control to display the menu on the TV screen.



2. Press the UP or DOWN arrow key on the remote control to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PICTURE CONTROL' menu.

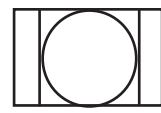


3. Press the DOWN arrow key to select 'Format' on the menu screen then press the RIGHT arrow key to enter the 'FORMAT' menu.



4. **Format**  
Press the UP or DOWN arrow key to select 'Format' then press the RIGHT arrow key to enter. Press the LEFT or RIGHT arrow key 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 DOWN arrow key 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 RIGHT arrow key to highlight the options then press the LEFT and RIGHT arrow keys to adjust the screen position over a range of -5 to +5. Press the OK button to store.

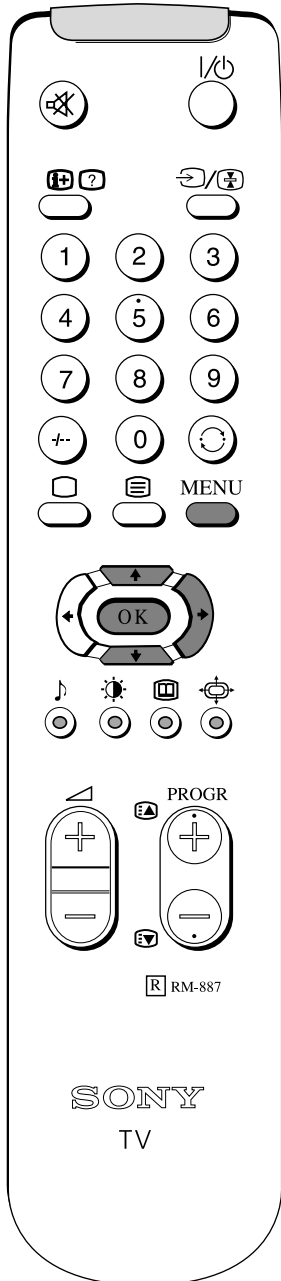
6. **Auto 16:9**  
Press the DOWN arrow key to select 'Auto 16:9' then press the RIGHT arrow key to enter. Press the LEFT or RIGHT arrow key to select 'On' if you wish the TV set to switch automatically to wide format if a 16:9 broadcast is detected or 'Off' for normal mode. Press the OK button to store.

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

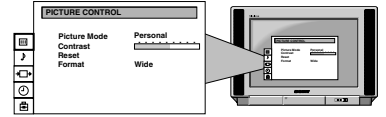



# Using the Further Programme Preset feature

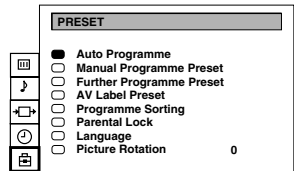
With this feature you can a) manually fine-tune the TV to obtain a better picture reception if the picture is distorted or b) preset the AV output for the programme positions of channels with scrambled signals (eg from a pay TV decoder). In this way a connected VCR records the unscrambled signal.



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



2. Press the DOWN arrow key to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the DOWN arrow key to select 'Further Programme Preset' then press the RIGHT arrow key to enter the 'FURTHER PROGRAMME PRESET' menu.

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

4. Press the UP or DOWN arrow keys to select the relevant programme number then press the RIGHT arrow key repeatedly to select a) AFT or b) DECODER. The selected item changes colour.

5. a) **AFT**  
Press the UP or DOWN arrow keys to fine tune the channel frequency 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.

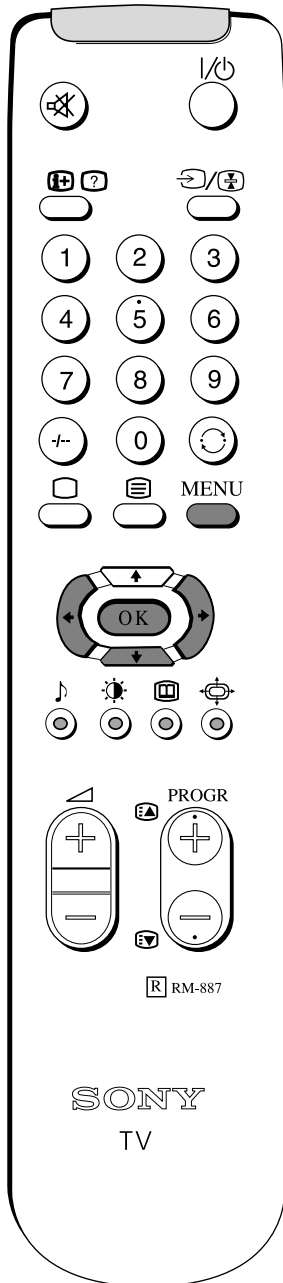
FURTHER PROGRAMME PRESET		
PROG	AFT	DECODER
0	On	Off
1	On	Off
2	On	AV1
3	On	Off
4	On	AV2
5	On	Off
6	10	Off
7	On	Off
8	On	Off
9	On	Off

b) **DECODER**  
Press the UP or DOWN arrow keys 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.

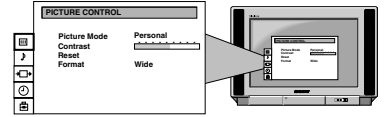
6. Press the MENU button to remove the menu from the TV screen.


# Adjusting the picture rotation

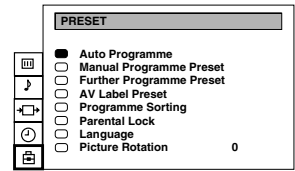
If, due to the earth's magnetic field, the picture slants, you can use this feature to readjust the picture.



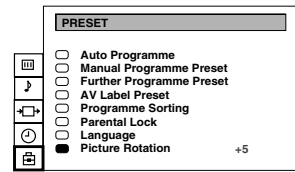
1. Press the MENU button on the remote control to display the menu on the TV screen.



2. Press the DOWN arrow key to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the DOWN arrow key to select 'Picture Rotation' then press the RIGHT arrow key to highlight the 0 (zero) on the right of the menu.



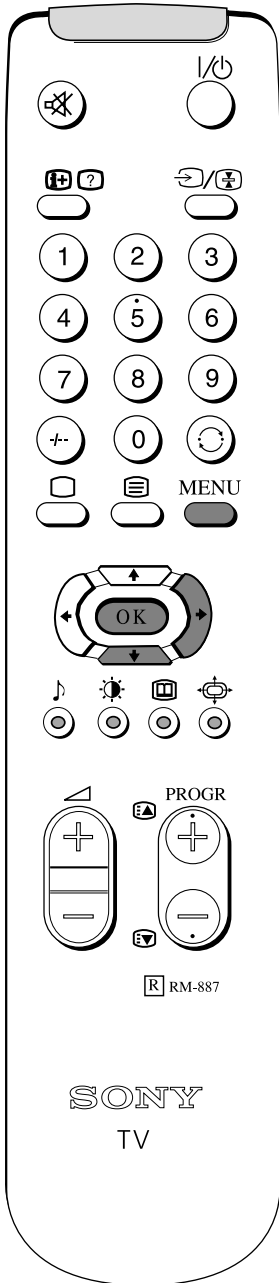
4. Press the RIGHT or LEFT arrow keys to adjust the picture rotation. The adjusting range is -5 to +5.

5. Press the OK button to store the new range.

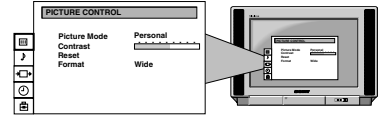
6. Press the MENU button to remove the menu from the TV screen.


# Using the parental lock

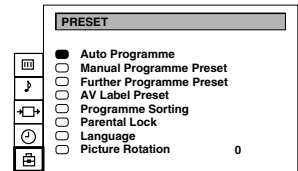
This feature enables you to prevent undesirable broadcasts appearing on the TV.



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





2. Press the DOWN arrow key on the remote control to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the DOWN arrow key to select 'Parental Lock' then press the RIGHT arrow key to enter the 'PARENTAL LOCK' menu.

PARENTAL LOCK			
	PROG	SYS	CHAN LABEL
<input checked="" type="checkbox"/>	0		C 28 ----
<input type="checkbox"/>	1		C 29 BBC1
<input type="checkbox"/>	2		C 35 BBC2
<input type="checkbox"/>	3		C 38 ITV
<input type="checkbox"/>	4		C 40 CH4
<input type="checkbox"/>	5		C 42 CH5
<input type="checkbox"/>	6		C 55 ----
<input type="checkbox"/>	7		C 56 ----
<input type="checkbox"/>	8		C 57 ----
<input type="checkbox"/>	9		C 58 ----

4. Press the DOWN arrow key to select the channel you wish to block then press the OK button to confirm your selection. The  symbol appears before the programme position to indicate this channel is now blocked. To unblock the channel, press the OK button again. The  symbol disappears.

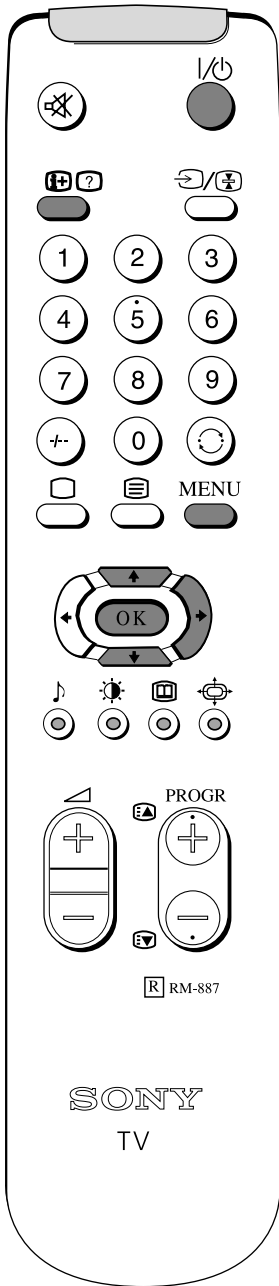
PARENTAL LOCK			
	PROG	SYS	CHAN LABEL
<input type="checkbox"/>	0		C 28 ----
<input type="checkbox"/>	1		C 29 BBC1
<input type="checkbox"/>	2		C 35 BBC2
<input type="checkbox"/>	3		C 38 ITV
<input checked="" type="checkbox"/>	4		C 40 CH4
<input type="checkbox"/>	5		C 42 CH5
<input type="checkbox"/>	6		C 55 ----
<input type="checkbox"/>	7		C 56 ----
<input type="checkbox"/>	8		C 57 ----
<input type="checkbox"/>	9		C 58 ----

5. Repeat step 4 if you wish to block other channels.

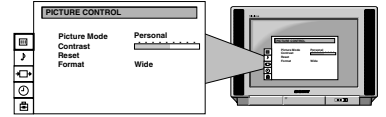
6. Press the MENU button to remove the menu from the TV screen.

# Using the sleep timer

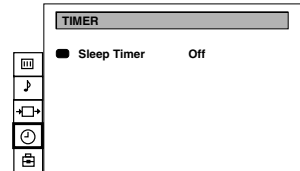
The TV can be set to switch automatically to standby mode after a length of time chosen by you. You may set the time in 30 minute steps up to 4 hours.



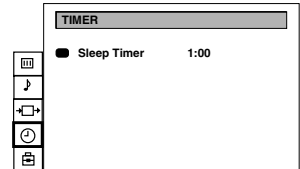
1. Press the MENU button on the remote control to display the menu on the TV screen.



2. Press the DOWN arrow key on the remote control to select the  $\ominus$  symbol on the TV screen then press the RIGHT arrow key twice.



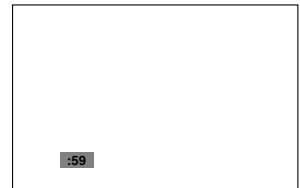
3. Press the LEFT or RIGHT arrow keys repeatedly until the required amount of time delay appears on the screen.



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.

One minute before standby, the display shown appears on the screen.

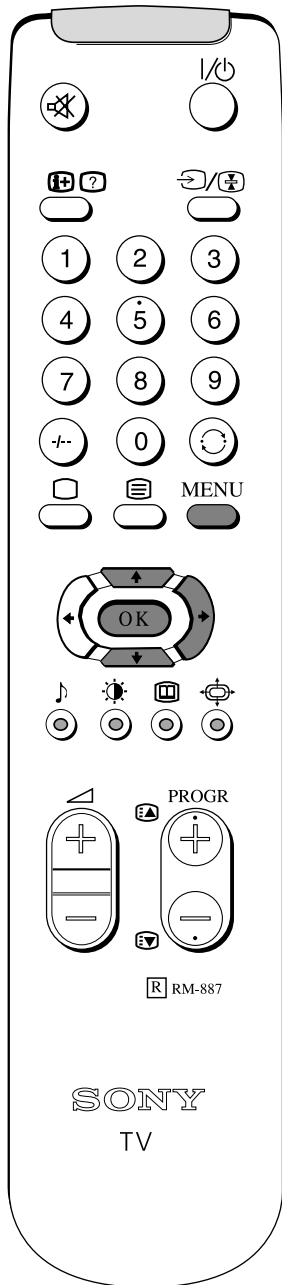


Notes: When watching TV, press the  $\text{f}+$  button if you wish to see the time remaining.

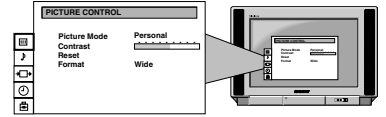
To return to normal operation from standby mode, press the  $\text{I}/\text{O}$  button.


# Manually tuning the TV

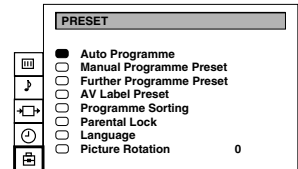
You have already tuned the TV automatically using the instructions at the start of this manual. You can however carry out this operation manually, adding channels to the TV, one at a time.



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



2. Press the DOWN arrow key to select the  symbol on the TV screen then press the RIGHT arrow key to enter the PRESET menu.



3. Press the DOWN arrow key to select 'Manual Programme Preset' on the menu screen then press the RIGHT arrow key to enter the 'MANUAL PROGRAMME PRESET' menu.

MANUAL PROGRAMME PRESET			
PROG	SYS	CHAN	LABEL
0	I	C 29	----
1	I	C 31	----
2	I	C 32	----
3	I	C 36	----
4	I	C 37	----
5	I	C 40	----
6	I	C 41	----
7	I	C 44	----
8	I	C 49	----
9	I	C 52	----

4. Press the UP or DOWN arrow keys to select a programme number for your channel (eg PROGR 1 for BBC1) then press the RIGHT arrow key to enter.

MANUAL PROGRAMME PRESET			
PROG	SYS	CHAN	LABEL
0	I	C 29	----
1	I	C 31	----
2	I	C 32	----
3	I	C 36	----
4	AV1		----
5	AV2		----
6	I	C 41	----
7	I	C 44	----
8	I	C 49	----
9	I	C 52	----

5. Press the UP or DOWN arrow keys to select the TV broadcast system or a video input source (AV1, AV2 ...) then press the RIGHT arrow key to confirm.

6. Select the first number digit of 'CHAN' (channel) then the second number digit of 'CHAN' with the number buttons on the remote control  
or  
Press the UP or DOWN arrow keys to search for the next available channel.

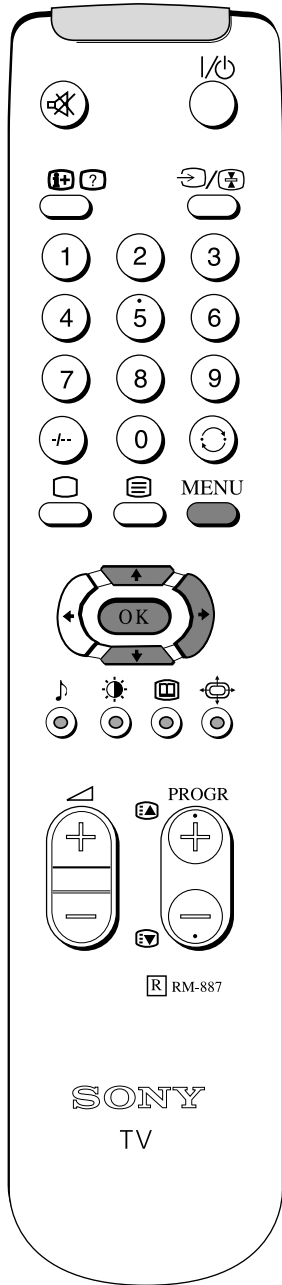
7. If you do not wish to store this channel on the programme number you selected, press the UP or DOWN arrow keys on the remote control to continue searching for the desired channel.

8. If this is the channel you wish to store, press the OK button.

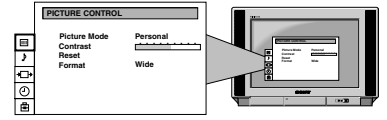
9. Repeat steps 4-8 if you wish to store more channels then press the MENU button to remove the menu from the TV screen.


# Skipping programme positions

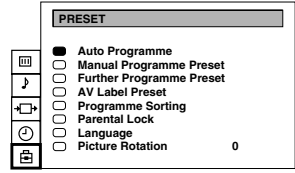
This function enables you to skip unused programme positions when selecting them with the PROGR+/- buttons. However, by using the number buttons you can still select the skipped programme position.



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



2. Press the DOWN arrow key on the remote control to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the DOWN arrow key to select 'Manual Programme Preset' then press the RIGHT arrow key to enter the 'MANUAL PROGRAMME PRESET' menu.

MANUAL PROGRAMME PRESET			
PROG	SYS	CHAN	LABEL
0		C 29	----
1		C 31	----
2		C 32	----
3		C 36	----
4		C 37	----
5		C 40	----
6		C 41	----
7		C 44	----
8		C 49	----
9		C 52	----

4. Press the UP or DOWN arrow keys to select the programme position you want to skip then press the RIGHT arrow key to enter the 'SYS' column.

MANUAL PROGRAMME PRESET			
PROG	SYS	CHAN	LABEL
0		C 29	----
1		C 31	----
2		C 32	----
3		C 36	----
4		C 37	----
5		C 40	----
6		C 41	----
7		C 44	----
8		C 49	----
9		C 52	----

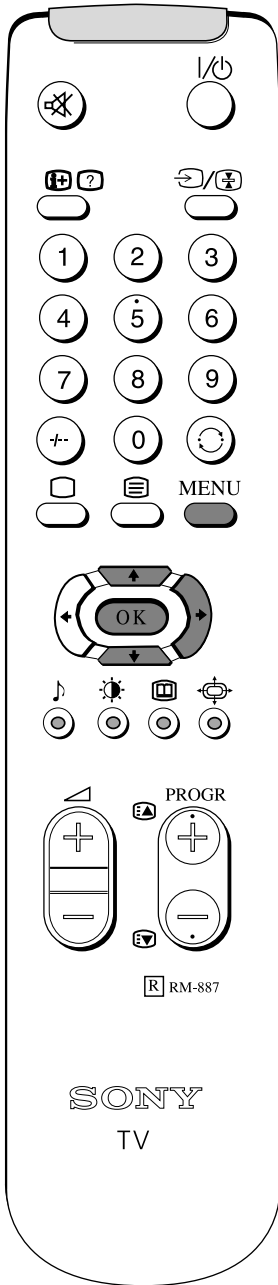
5. Press the DOWN arrow key to select '---' then press the OK button to store.

6. Repeat steps 4 and 5 to skip other programme positions.

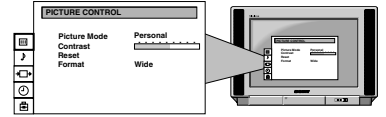
7. Press the MENU button to remove the menu from the TV screen.


# Naming a channel

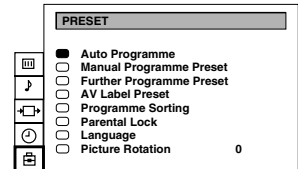
Names for channels are usually taken automatically from Teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).



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



2. Press the DOWN arrow key to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the DOWN arrow key to select 'Manual Programme' then press the RIGHT arrow key to enter the 'MANUAL PROGRAMME PRESET' menu.

MANUAL PROGRAMME PRESET			
PROG	SYS	CHAN	LABEL
0		C 29	----
1		C 31	----
2		C 32	----
3		C 36	----
4		C 37	----
5		C 40	----
6		C 41	----
7		C 44	----
8		C 49	----
9		C 52	----

4. Press the UP or DOWN arrow keys to select the channel you wish to name.

MANUAL PROGRAMME PRESET			
PROG	SYS	CHAN	LABEL
0		C 29	----
1		C 31	----
2		C 32	----
3		C 36	----
4		C 37	----
5		C 40	----
6		C 41	----
7		C 44	----
8		C 49	----
9		C 52	----

5. Press the RIGHT arrow key repeatedly until the first element of the 'LABEL' column is highlighted.

6. Press the UP or DOWN arrow keys to select a letter or number (select '-' for a blank) then press the RIGHT arrow key to confirm. Select the other four characters in the same way.

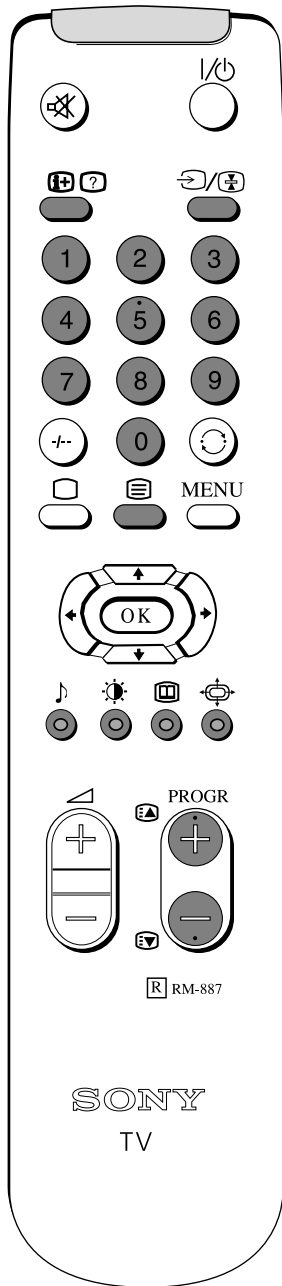
7. After selecting all the characters, press the OK button.

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.

# Teletext


Teletext is an information service transmitted by most TV stations.



## Switching Teletext on and off

1. When viewing channels, press a number button on the remote control to select the channel which carries the teletext service you wish to receive.


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2. Press the  button on the remote control to switch on teletext.

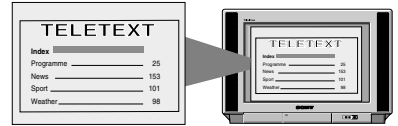
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3. Input three digits for the page number using the numbered buttons on the control. If you make a mistake, type in any three digits then re-enter the correct page number.

---



4. Press the  button to switch off teletext.

**Note:** Teletext errors may occur if the broadcasting signals are weak.





## Using Other Teletext Functions

### To superimpose Teletext on to the TV

Press the  button on the remote control once in teletext mode or twice in TV mode to superimpose teletext on to the TV screen. Press the  button once more to cancel.




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

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


(only available if the TV station broadcasts Fastext signals)  
When the colour coded menu appears at the bottom of a page, press the colour button (green, red, yellow or blue) on the control to access the corresponding page.










# 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  button repeatedly on the remote control until the correct input symbol for your equipment appears on the TV screen:

Symbol	Input signals
	• Audio/video input signal through the scart connector <b>F</b>
	• RGB input signal through the scart connector <b>F</b>
	• Audio/video input signal through the scart connector <b>G</b>
	• S video input signal through the scart connector <b>G</b>
	• Video input signal through the phono socket <b>C</b> and audio input signal through sockets <b>D</b> .
	• S video input signal through the socket <b>B</b> and audio input signal through sockets <b>D</b> .

3. Switch on the connected equipment.
4. To return to the normal TV picture, press the  button on the remote control.

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

## Additional information when connecting equipment

### Connecting a VCR

We recommend you connect your VCR to the **G** 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

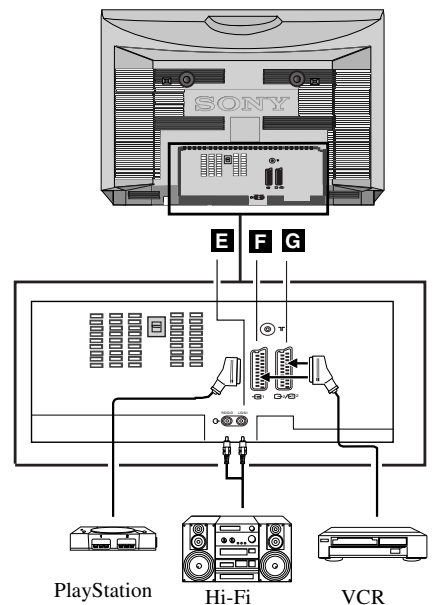
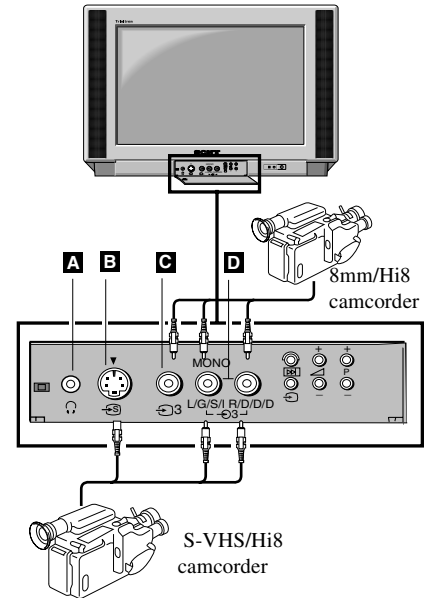
Plug in your headphones to the **A** socket on the front of the TV set.

### Connecting to external audio equipment

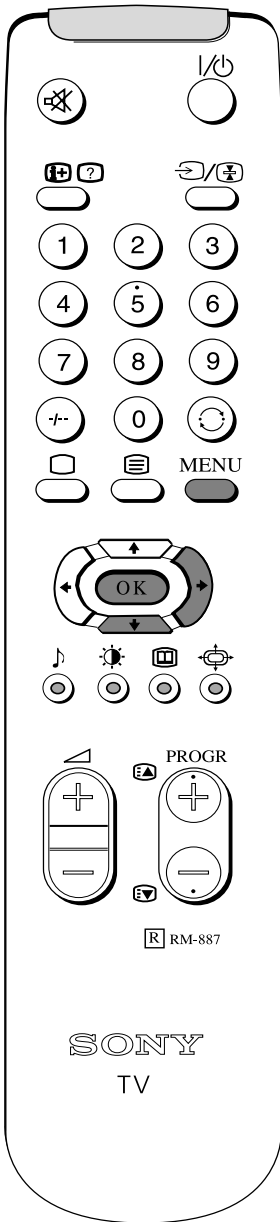
Plug in your hi-fi equipment to the **E** sockets on the rear of the TV if you wish to amplify the audio output from the TV. The output level from the **E** sockets can be varied by adjusting the volume of the headphones (refer to the 'Adjusting the sound' section of this manual).

### For mono equipment

Connect the phono plug to the L/G/S/I socket on the front of the TV and select the  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 socket

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

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2. Press the DOWN arrow key to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'VIDEO CONNECTION' menu screen.

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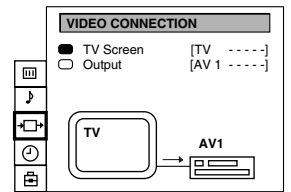
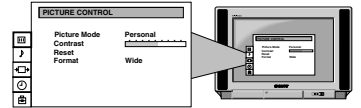
3. Press the DOWN arrow key to highlight 'TV Screen' (input source for the TV screen) or 'AV2 output' (output source for  socket) then press the RIGHT arrow key to confirm.

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4. Press the LEFT or RIGHT arrow key to select the desired source (see below) then press the OK button to confirm:

TV Screen	TV, AV1, RGB, AV2, YC2, AV3, YC3
Output	TV, AV1, AV2, YC2, AV3, YC3, 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 Megalocic.
- A fully-wired 21-pin scart cable to connect your VCR to scart connector .

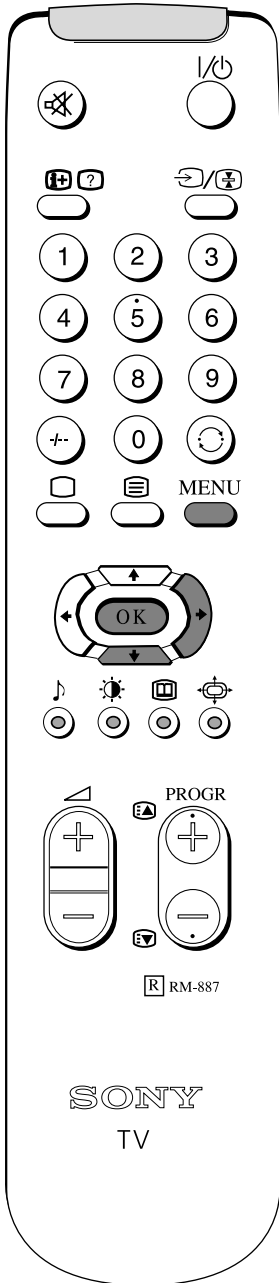
The features of Smartlink are:

- 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.

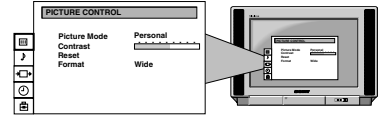
**For more information on Smartlink please refer to your VCR instruction manual.**


# Using the AV Label Preset feature

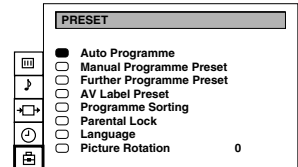
This function enables you to designate a name to the optional equipment you have connected to the sockets of this TV. This name can be up to 5 characters (letters or numbers) and will appear on screen whenever the equipment is selected for use.



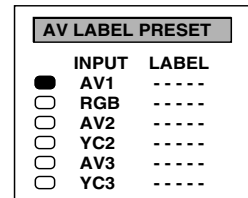
1. Press the MENU button on the remote control to display the menu on the TV screen.



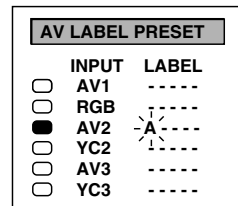
2. Press the DOWN arrow key to select the  symbol on the menu screen then press the RIGHT arrow key to enter the 'PRESET' menu.



3. Press the DOWN arrow key to select 'AV Label Preset' then press the RIGHT arrow key to enter the 'AV LABEL PRESET' menu.



4. Press the UP or DOWN arrow keys to select the input source you wish to name (eg AV2) then press the RIGHT arrow key to highlight the first element of the 'LABEL' column.



5. Press the UP or DOWN arrow keys to select a letter or number (select '-' for a blank) then press the RIGHT arrow key to confirm. Select the other four characters in the same way.

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

## Colour system

PAL

NTSC 3.58, 4.43 (only Video In)

## Channel coverage

UHF:B21-B69

## Picture tube

KV-28FX20U

FD Trinitron WIDE




Approx 71cm (28inches) (Approx 66cm picture measured diagonally), 102° deflection

KV-32FX20U





FD Trinitron WIDE

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

## Rear Terminals

-  1 21-pin Euro connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output.
-  2 21-pin Euro connector (CENELEC standard) including audio/video input, S-video input, Monitor audio/video output.
-  Audio outputs - phono jacks

## Front Terminals

-  3 Video input - phono jacks
-  3 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-28FX20U: 188W

KV-32FX20U: 176W

## Dimensions (wxhxd)

KV-28FX20U: Approx. 761x496x525mm

KV-32FX20U: Approx. 874x563x571mm

## Weight

KV-28FX20U: Approx. 44.0kg

KV-32FX20U: Approx. 62.0kg

## Accessories supplied

RM-887 remote control (1)

IEC designated size AA battery (2)











## Other features

Teletext

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	Solution
No picture (screen is dark), no sound	<ul style="list-style-type: none"> <li>• Plug the TV in.</li> <li>• Press the  button on the front of the TV.</li> <li>• If the  indicator is on press the  button or a numbered button on the remote control.</li> <li>• Check the aerial connection.</li> <li>• Turn the TV off for 3 or 4 seconds and then turn it on again using the  button on the front of the TV.</li> </ul>
Poor or no picture (screen is dark), but good sound.	<ul style="list-style-type: none"> <li>• Using the MENU system, select the Picture Adjustment display. Adjust the brightness, picture and colour balance levels.</li> <li>• From the Picture Adjustment display select RESET to return to the factory settings.</li> </ul>
Poor picture quality when watching an RGB video source.	<ul style="list-style-type: none"> <li>• Press the  button repeatedly on the remote control until the RGB symbol  is displayed on the screen.</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <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>
No colour on colour programmes	<ul style="list-style-type: none"> <li>• Using the MENU system, select the Picture Adjustment display and adjust the colour setting.</li> <li>• From the Picture Adjustment display select RESET to return to the factory settings.</li> </ul>
distorted picture when changing programmes or selecting Teletext	<ul style="list-style-type: none"> <li>• Turn off any equipment connected to the scart connectors on the rear of the TV.</li> </ul>
Remote control does not function	<ul style="list-style-type: none"> <li>• Replace the batteries.</li> </ul>
The standby indicator  on the TV flashes	<ul style="list-style-type: none"> <li>• Contact your nearest Sony service centre.</li> </ul>

- **If you continue to have these problems, have your TV serviced by qualified personnel.**
- **NEVER open the casing yourself.**

