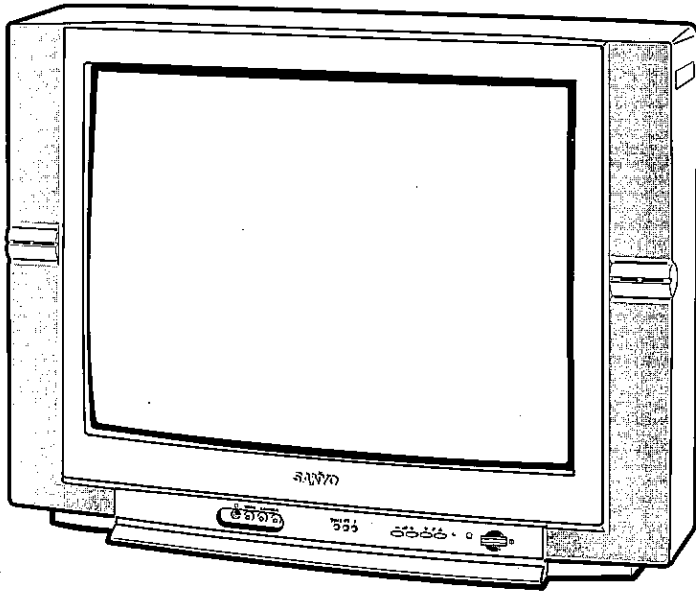


SANYO

INSTRUCTION MANUAL

CP29KX2 CP29KX3T

Colour Television



CATV Hyper Band

100 Programmes with Automatic Tuning.

3D Surround sound System

Model CP29KX3T: Equipped with A2 Stereo and NICAM Stereo Decoder, and Teletext Decoder.

Model CP29KX2: AV Stereo Sound System (This model can reproduce a stereo sound only when a stereo signal is inputted from audio input jacks of AV terminal.)

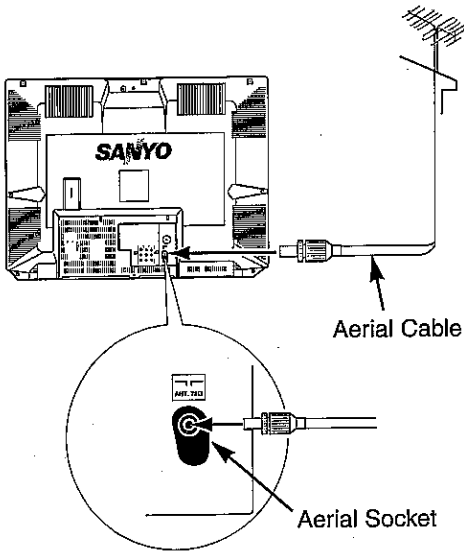
Contents

Aerial Connection	3
Plug & Play	3
Front Controls	4
Warnings and Cautions	5
Remote Control Transmitter	6-7
Battery Installation of the Remote Control Transmitter	7
General Operation	
Power ON/OFF	8
Auto Shut Off Function	8
Direct Programme Selection	8
Programme UP and Down	8
Channel Scanning	8
Volume Control	9
Bass Expander	9
Recall	9
Alternate	9
Sound Mute	9
A2 Stereo, NICAM Stereo and Bilingual Broadcast Receiving (Model CP29KX3T only)	9-10
3D Surround ON/OFF	10
Quick Picture Controls	11
Picture and Sound Adjustment	11
Off Timer	12
On Timer	12
Tuning of the Channels	
Automatic Tuning	13
Semi-Auto Tuning	14
Manual Tuning	15
Channel Copy	16
Channel Swapping	16
Skip Channel Set and Cancel	17
Teletext (Model CP29KX3T only)	
Teletext Control	18
Switching to teletext	18
Index Page Selection	18
Page Selection	18
Page Alternate	19
Hold	19
Double Letter Height	19
Viewing TV while searching for a page	19
Sub Page Access	19-20
Displaying Concealed Information	20
Updated Pages	20-21
Time Call	21
Setting of the Private Position	22
Special Functions	23
Connecting other Equipment	
Connecting to the AV1 Input Jacks	24-25
Connecting to the Rear AV2 Input Jacks	25
Connecting to the Front AV2 Input Jacks	25
Selecting the Colour System in AV mode	26
Connecting to the Monitor Output Jacks	26
AV Connection to the Aerial Socket	26
Helpful Hints-Problems/Solutions	27
Specifications	Last Page
Care and Cleaning	Last Page

Aerial Connection

Connecting Outdoor Aerial

Connect the cable with a plug from a UHF (or VHF) aerial to the aerial socket on the cabinet back.



For all aerial circuit problems please consult your local dealer.

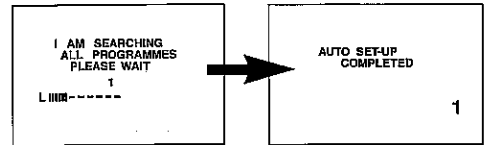
Plug & Play

Automatic setting up channels

This TV set provides a self-automatic tuning and sorting system function called "Plug & Play". It automatically begins searching and storing of all available channels when switching-on the TV set for the first time.

Let's start !

- 1 Connect power cord of the TV set to a wall outlet, and turn on the TV set by pressing the **Mains ON/OFF** button. Self-automatic tuning system will be started as follows;



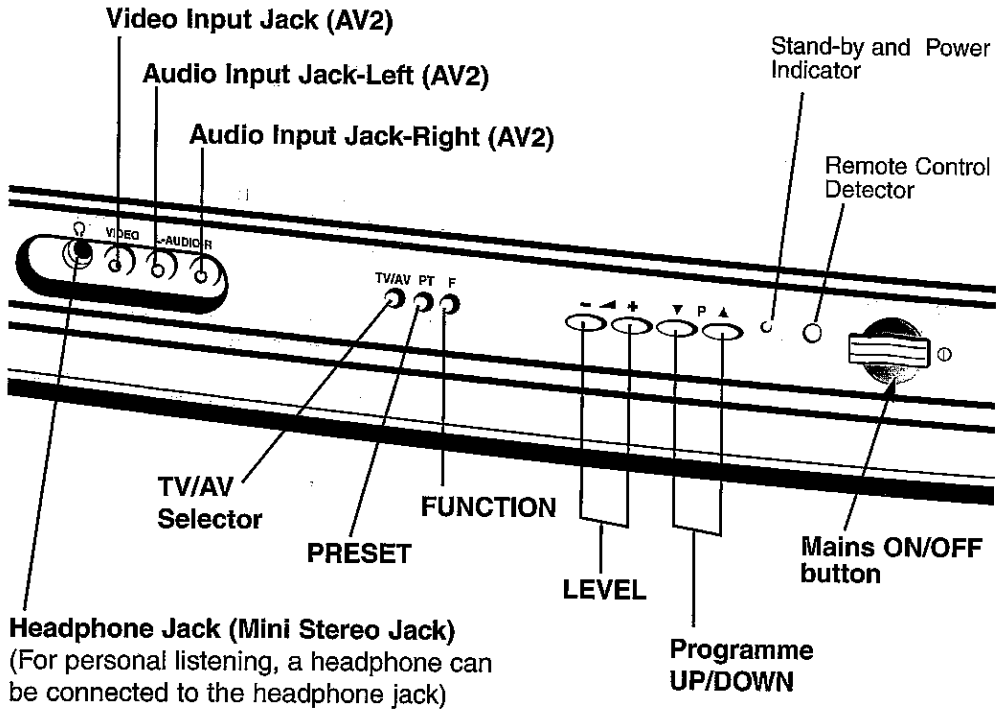
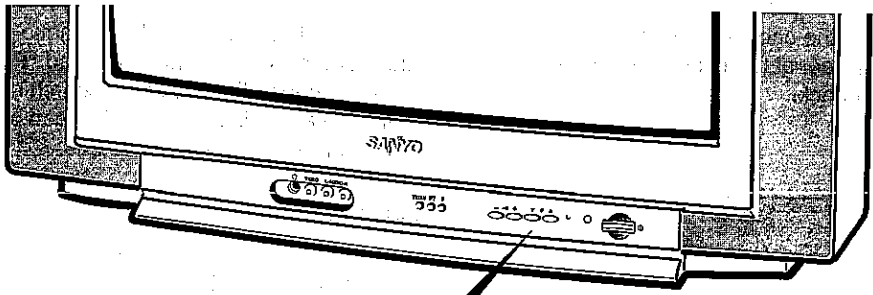
After completing this procedure, the programme position 1 is selected and the ending messages on the screen.

- 2 Press any of the control buttons to make the ending message disappear. (Or will automatically return to normal TV display after 10 seconds.)

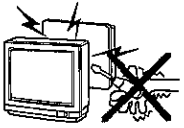
☞ This procedure only appears at the first switch-on time.

Front Controls

Each button listed in this section has the same function as its corresponding button on the remote control.



Warnings and Cautions



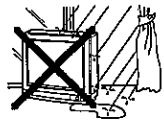
Warning

High voltages are used in the operation of this television receiver. Do not remove the cabinet back from your set. Refer servicing to qualified service personnel.



Warning

Do not drop or push objects into the television cabinet slots or openings. Never spill any kind of liquid on the television receiver.



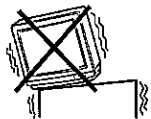
Warning

To prevent fire or electrical shock hazard, do not expose the television receiver to rain or moisture.



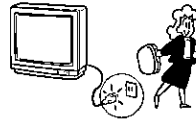
Caution

Never stand on, lean on or push suddenly the television or its stand. You should pay special attention to children. Serious injury may result if it should fall.



Caution

Do not place your television on an unstable cart, stand, shelf or table. Serious injury to an individual, and damage to the television, may result if it should fall.



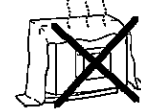
Caution

When the television receiver is not used for an extended period of time, it is advisable to disconnect the AC power cord from the AC outlet.



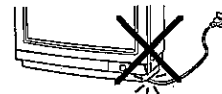
Caution

Avoid exposing the television receiver to direct sunlight and other source of the heat. Do not stand the television receiver directly on other products which give off heat. E.g. video cassette players, audio amplifiers.



Caution

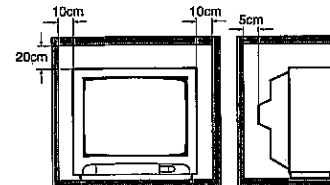
Do not block the ventilation holes in the back cover. Adequate ventilation is essential to prevent failure of electrical components.



Caution

Do not squash power supply cord under the television receiver.

Minimum distances

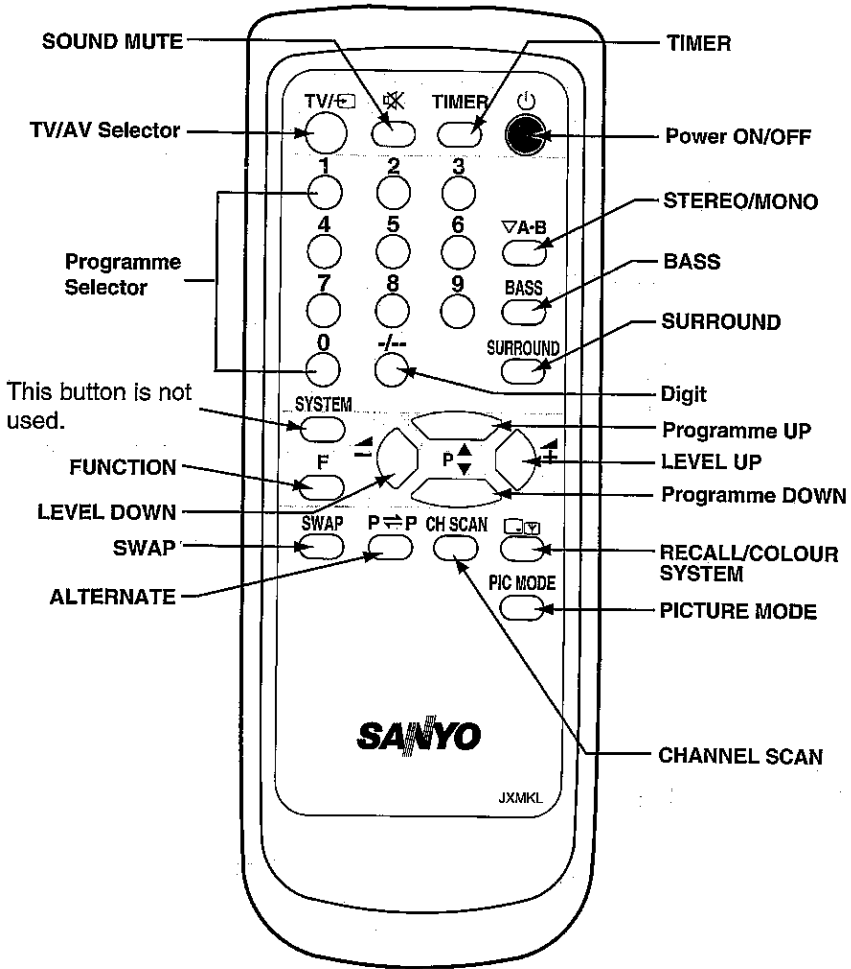


Caution

If the television is to be built into a compartment or similarly enclosed, the minimum distances must be maintained. Heat build-up can reduce the service life of your television, and can also be dangerous.

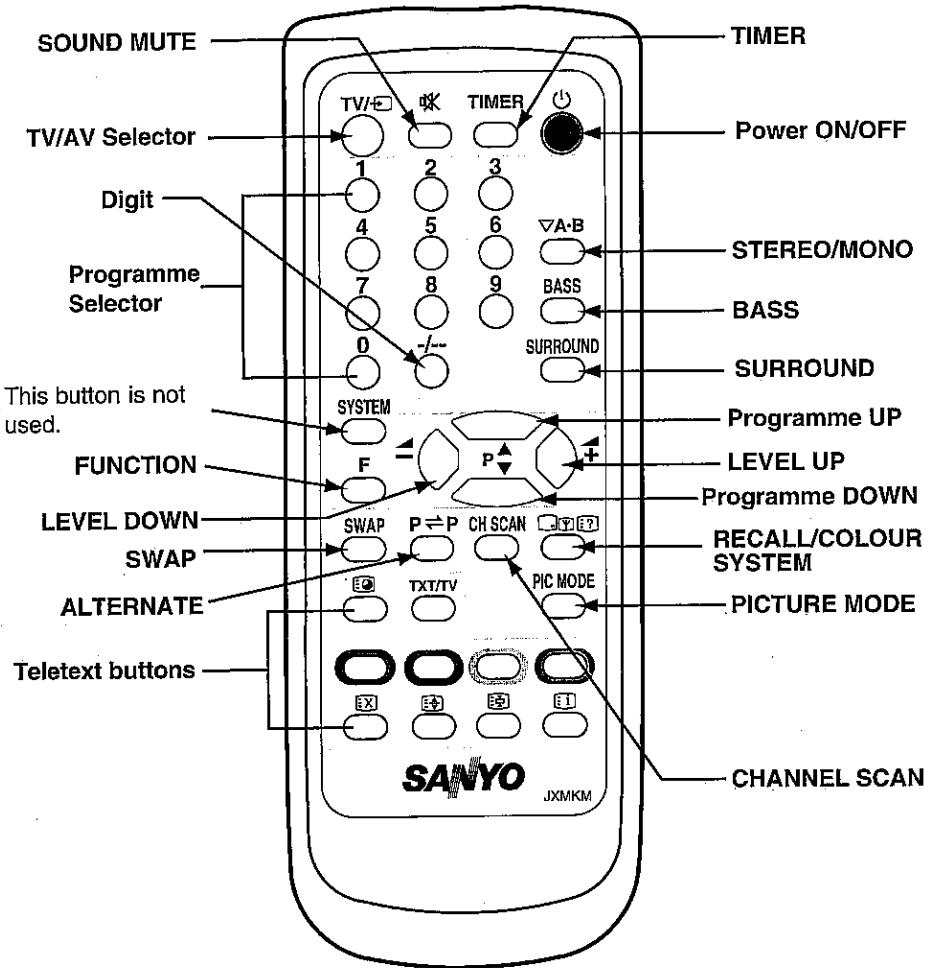
Remote Control Transmitter

This remote control transmitter is used for model CP29KX2.



Remote Control Transmitter

This remote control transmitter is used for model CP29KX3T.

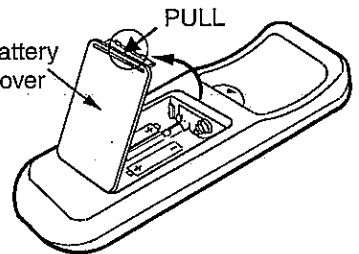


Battery Installation of the Remote Control Transmitter

1. Open the battery cover.
2. Install two "AA" 1.5 volt batteries so that the "+" and "-" marks on the batteries match the "+" and "-" marks inside the unit.

3. Close the battery cover.

Note: Replace the batteries when the TV set is showing the following symptoms:
 Operation is unsteady or erratic, sometimes the TV set does not work with transmitter.
 Discharged batteries may leak and damage the unit. The normal life of batteries should be from nine to ten months.



[Battery cover removal]

General Operation

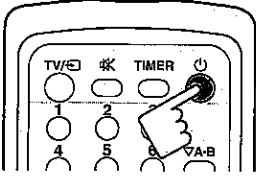
Power ON/OFF

To switch on or off the TV ;

Press the **Mains ON/OFF** button.
The power of the TV is turned on or off completely. If no picture appears but the Standby and Power indicator illuminates, press the **Power ON/OFF** button of the remote control transmitter as the TV set is in standby mode.

To set the TV to standby mode;

Press the **Power ON/OFF** button.
During Standby mode the Standby and Power indicator illuminates more brightly.



To turn on the TV from the standby mode, press any of the following button.

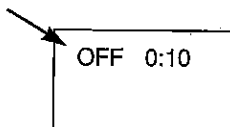
- **Power ON/OFF** button of the remote control transmitter.
- **Programme UP/DOWN** of the remote control transmitter or the TV set.
- **1 to 9, 0** button on the remote control transmitter.

Important !

Be sure to set the **Mains ON/OFF** switch to the off position, if the power failure occurs while viewing.

Auto Shut Off Function

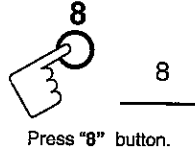
This TV set incorporates the **AUTO SHUT OFF** function. Even if the TV is left on after you have gone to sleep, the TV set changes to the standby mode within 10 minutes after all broadcasts have ended.



Direct Programme Selection

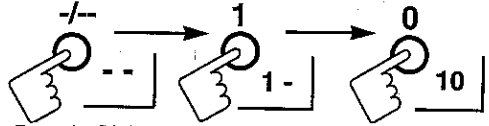
Example

To select programme position 8;



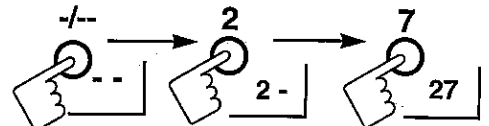
Press "8" button.

To select programme position 10;



Press the Digit button. Press "1" button. Press "0" button.

To select programme position 27;



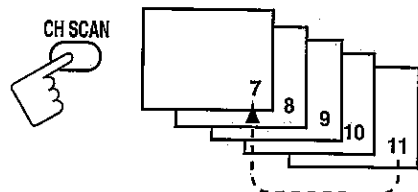
Press the Digit button. Press "2" button. Press "7" button.

Programme Up and Down

Press the **Programme UP** (P▲) button to select the next programme position.
Press the **Programme DOWN** (P▼) button to select the previous programme position.

Channel Scanning

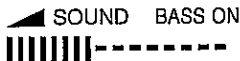
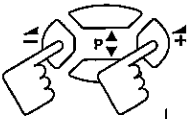
Press the **CHANNEL SCAN** button to search for a programme. The channel positions are automatically scanned, and the channel scanning will stop at the position where it began. To stop at the position you want, press this button again.



General Operation

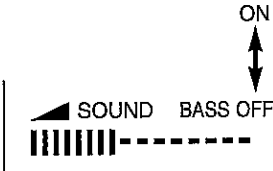
Volume Control

Increase or decrease the sound volume level by pressing the **LEVEL** (+ or -) buttons.



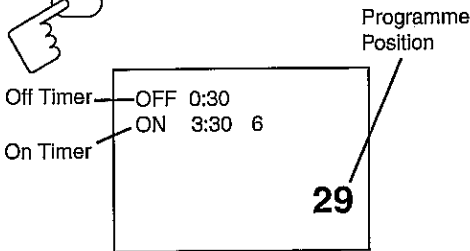
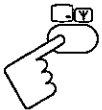
Bass Expander

To get a emphasis bass sound, press the **BASS** button.



RECALL

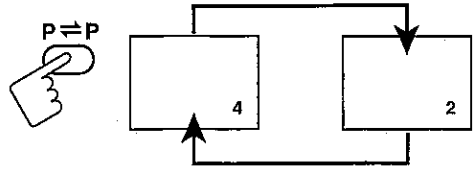
To display the on screen indications, press the **RECALL/COLOUR SYSTEM** button.



Screen display disappears after about 5 seconds.

ALTERNATE

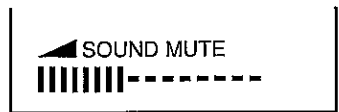
Press the **ALTERNATE** button, and the programme position will alternately select the previous position and the present position.



Sound Mute

Should you wish to mute the sound (e.g. While talking on the telephone), press the **SOUND MUTE** button.

To switch the sound back on, press the **SOUND MUTE** button again.

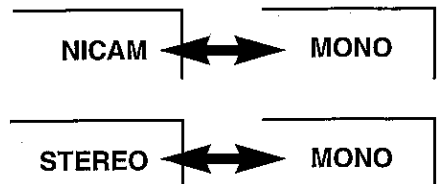


A2 Stereo, NICAM Stereo and Bilingual Broadcast Receiving (Model CP29KX3T only)

■ A2 Stereo and NICAM Stereo sound reception

When receiving NICAM stereo broadcast, **NICAM** will be displayed in the top right corner of the screen. For A2 (German) stereo broadcasts, **STEREO** will be displayed.

When a clear stereo sound cannot be obtained during NICAM or A2 (German) stereo broadcast due to poor signal reception, press the **STEREO/MONO** button to select mono mode.



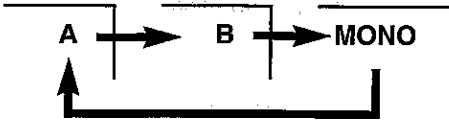
General Operation

■ Bilingual reception

If the TV receives bilingual programs, the TV initially selects language A and displays "A" on the screen briefly. If you want to switch to language B or MONO (only available in NICAM reception), press the **STEREO/ MONO** button.



NICAM bilingual reception



A2 (German) bilingual reception



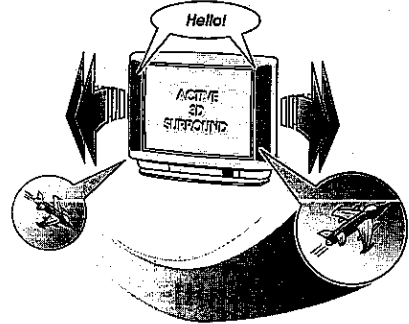
Note: While receiving bilingual broadcast, 3D Surround does not operate.

3D Surround ON/OFF

This TV provides an active 3D surround processor which can realise an incredible 3 dimensional sound effect.

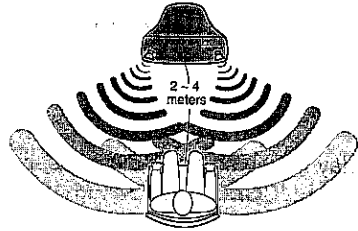
What is Active 3D Surround ?

Conventional stereo surround sound creates a stereo effect by moving sound between the left and right channels for a deep, realistic tone that sounds like it's coming from several feet behind the monitor. Using the latest in Active 3D Surround technology, we are now able to bring you even greater levels of audio impact. Active 3D Surround literally envelops you, with sound coming from not only the sides, but also from right above and behind you. Imagine the impact of a jet fighter as it approaches from a distance, screams right past your head, and fades into the distance. Active 3D Surround puts this kind of thrill into everything you watch!

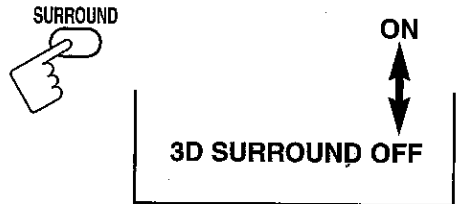


Guidance for the best enjoyment of active 3D Surround

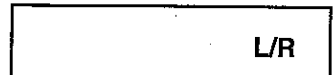
- Keep a distance of 2 to 4 meters approx. from the TV set.
- There should be no obstruction between you and the TV set.
- Listen facing centre of the TV set.



Press the **SURROUND** button to switch on or off the 3D surround effect.



Note: In AV mode, 3D Surround will only work, when the the L/R audio channel is selected as shown below.

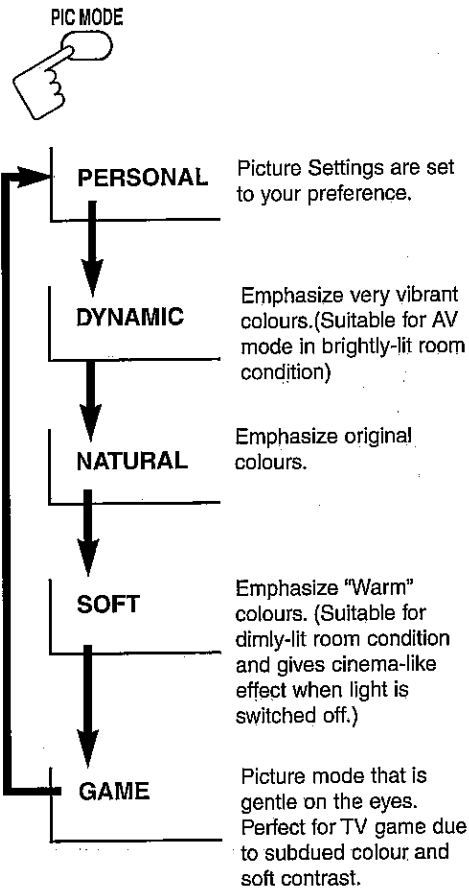


General Operation

Quick Picture Controls

Press the **PICTURE MODE** button to select the following picture modes; "**PERSONAL**", "**DYNAMIC**", "**NATURAL**", "**SOFT**" and "**GAME**". Select picture modes to suit picture type you are watching.

Each time the **PICTURE MODE** button is pressed, picture settings changes as follows;



Note:

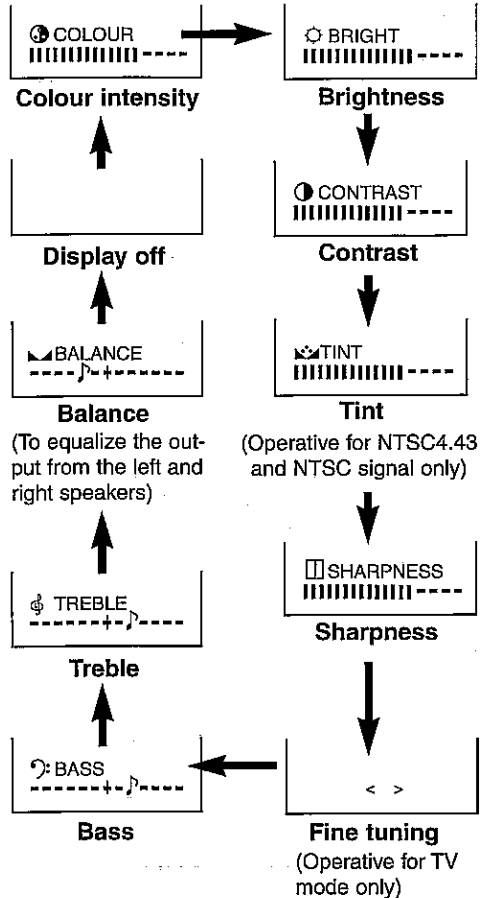
The new settings of the picture adjustment will be stored into the **PERSONAL** mode in the Quick Picture Control.

Picture and Sound Adjustment

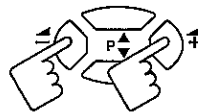
1 Press the **FUNCTION** button repeatedly to select your desired control.



Each time the **FUNCTION** button is pressed, function choice will change as follows;



2 Press the **LEVEL +** or **-** button to adjust the selected control level.



General Operation

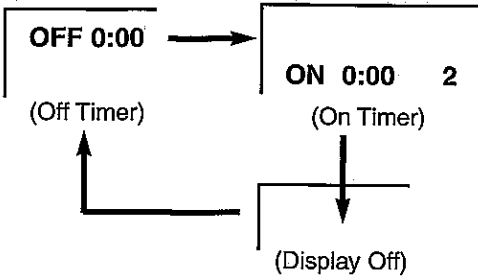
OFF TIMER

The OFF TIMER will switch off the TV automatically after 30 minutes, 1 hour, 1 hour and 30 minutes, or 2 hours.

1 Press the **TIMER** button.

OFF 0:00 (OFF TIMER setting mode)

Each time the **TIMER** button is pressed, timer function is changed as follows;



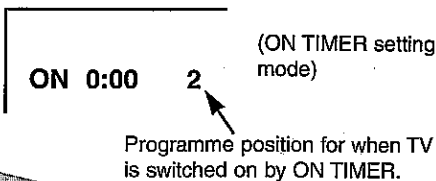
2 Press the **LEVEL (+ or -)** button to select the time period.

- Just one minute before switching off the TV, "OFF 0:01" will be display on the screen.
- To cancel the OFF TIMER, select "OFF 0:00" by pressing the **LEVEL (+ or -)** button.
- The OFF TIMER cancels when the TV set is turned off or if a power failure occurs.

ON TIMER

When the ON TIMER is set. TV will automatically be switched on to the selected programme position when the specified time has elapsed.

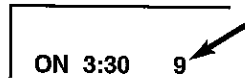
1 Press the **TIMER** button twice.



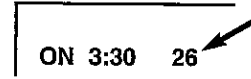
2 Press the **LEVEL (+ or -)** button. The set time will be increased or decreased by 10 minutes each time the button is pressed ; the maximum time which can be set is 24 hours. When the ON-TIMER has been set, the colour of Standby and Power Indicator changes to yellow.

Setting programme position for when TV is switched on by ON TIMER

To set programme position to between 0 and 9, press the desired number button "0" - "9" while the ON TIMER screen is shown.

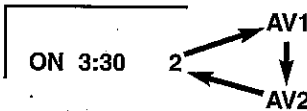


For example, to set programme position 26, press the **Digit** button, "2" button then "6" button while the ON TIMER screen is shown.



It is also possible to set the programme position by pressing the **PROGRAMME UP** or **DOWN** button.

To set an AV position for when the TV is switched on by the ON TIMER, press the **TV/AV Selector** while the ON TIMER screen is shown to select position AV1 or AV2.



- If no operation is performed after the TV has been switched on by the ON TIMER, such as if you are not at home, the TV will be automatically switched off after approximately 2 hours.
- If the TV is already switched on when the time set for the ON TIMER has been reached, only the programme position will be changed to the set programme position.
- **Cancelling ON TIMER**
To cancel the ON TIMER, either press the **LEVEL (+ or -)** button to set it to "ON 0:00" or press the **ALTERNATE** button while the ON TIMER screen is shown. Switching off the TV by pressing the **Mains ON/OFF** button will also cancel the ON TIMER settings.

Tuning of the Channels

Up to 100 broadcast stations in your reception area can be stored in the electronic memory.

There are three ways of tuning as follows;

1. Automatic Tuning (the basic way):

All receivable channels are automatically tuned in and memorized in consecutive programme position.

2. Semi-Auto Tuning:

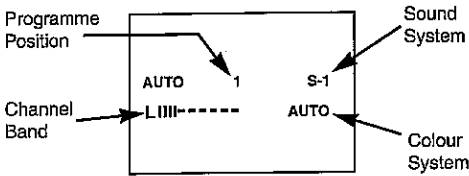
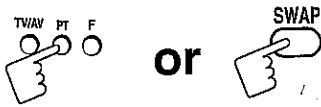
Use to preset a receivable channel in any desired programme position, e.g. the position with the same number as the channel.

3. Manual Tuning:

Manually tune a channel if it cannot be automatically tuned, such as when the signal is poor.

Automatic Tuning

1 Press and hold the **PRESET** button for more than 1 second, or press and hold the **SWAP** button for more than 2 seconds.

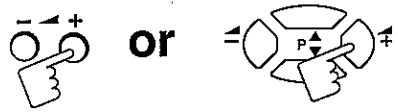


Normally, set the colour system to "AUTO", if the clear picture cannot be obtained, change the colour system until the optimum image can be produced.

Normally, set the sound system to "S-1" (AUTO), if the sound is not clear or no sound is produced on a programme number position, change the sound system until the clear sound is obtained.

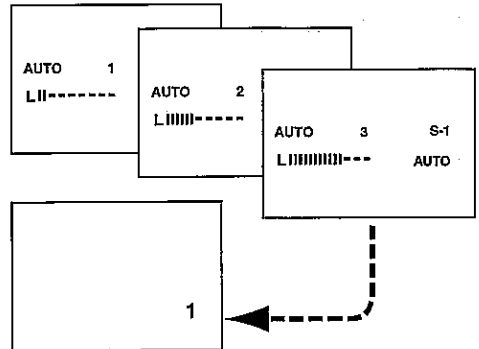
For colour and sound system operation, refer to page 12.

2 Press the **LEVEL(+)** button on the remote control or TV set.



The channels are preset in consecutive position beginning from the programme position "1".

After all available channels have been preset, the unit returns to the position "1".



To cancel automatic tuning midway, press the **PRESET** button or turn off the TV by pressing the **Power ON/OFF** button.

Tuning of the Channels

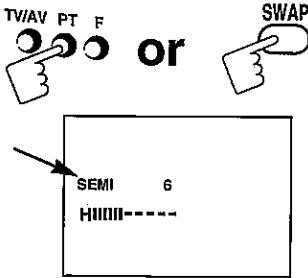
Semi-Auto Tuning

Example: To preset a channel in programme position 6

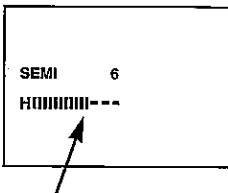
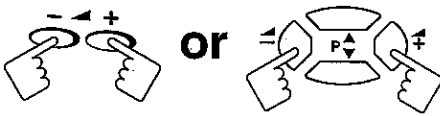
- 1** Select programme position 6.



- 2** Press and hold the **PRESET** button for more than 1 second, or press and hold the **SWAP** button for more than 2 seconds, then press the **PRESET** or **SWAP** button again.

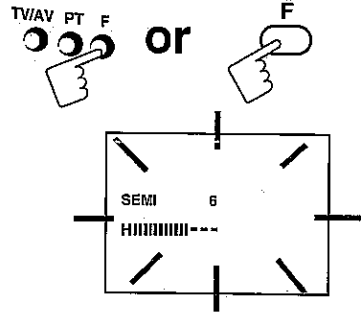


- 3** Press the **LEVEL (+ or -)** button on the remote control or TV set.

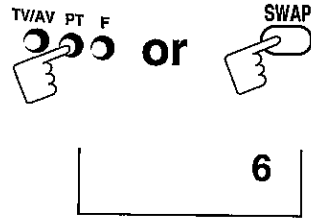


When the station is found, searching stops automatically.

- 4** Press the **FUNCTION** button.



- 5** Press the **PRESET** or **SWAP** button twice to return to the normal TV mode. This completes the presenting.



Repeat steps 1 to 5 for other desired channels.

Tuning of the Channels

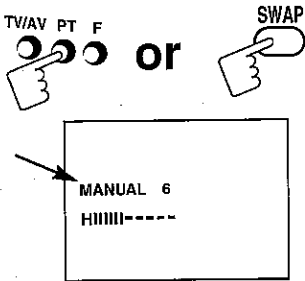
Manual Tuning

Example: To preset a channel in programme position 6

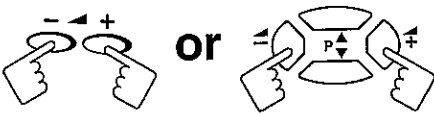
- 1 Select programme position 6.



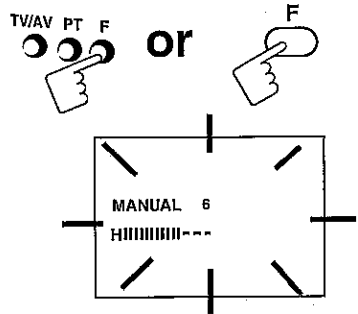
- 2 Press and hold the **PRESET** button for more than 1 second, or press and hold the **SWAP** button for more than 2 seconds, then press the **PRESET** or **SWAP** button twice.



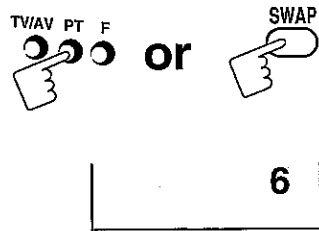
- 3 Press and hold the **LEVEL (+ or -)** button until desired station appears.



- 4 Press the **FUNCTION** button.



- 5 Press the **PRESET** or **SWAP** button to return to the normal TV mode. This completes the presenting.



Repeat steps 1 to 5 for other desired channels.

Tuning of the Channels

Channel Copy

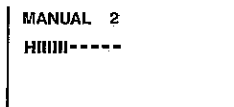
This function can be utilized after Automatic Tuning.

For example, to copy a TV channel on programme position "2" onto programme position "6";

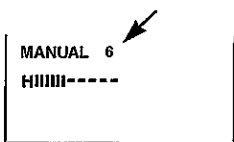
- 1 Select programme position "2" .



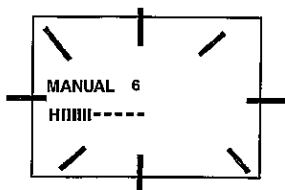
- 2 Enter to SEMI-AUTO or MANUAL tuning mode. (Refer to page 14 or 15.)



- 3 Select programme position "6" using the Programme UP/DOWN button on the remote control or the TV set.



- 4 Press the FUNCTION button .



- 5 Press the PRESET or SWAP button to return to the normal TV mode. This completes the channel copy.

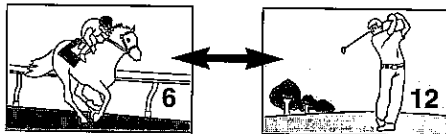


Repeat steps 1 to 5 for other desired channels.

Channel Swapping

Use this channel swapping feature to swap the channels between two stored programme position. This feature is particularly useful after automatic tuning.

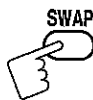
For example, to swap the channel between programme position "6" and programme position "12".



- 1 Select programme position "6" .



- 2 Press the SWAP button.



- 3 Press the Digit button, "1" button and then "2" button on the remote control to enter programme number 12. (For example, to enter programme number "3", press "3" button only.)



- 4 Press the SWAP button.



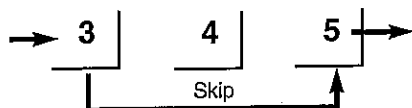
The two TV channels will now have changed places.



Tuning of the Channels

Skip Channel Set and Cancel

When there is a position you do not use, Position 4 for example, by setting the SKIP Channel function it is possible to jump over this position, when you are selecting a channel using the **PROGRAMME UP/DOWN** or **CHANNEL SCAN** button.

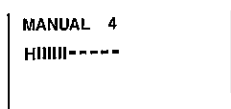


For example, to set programme position "4" as Skip channel ;

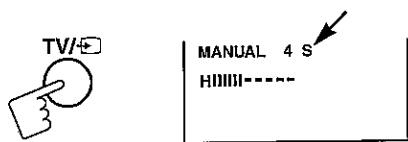
- 1 Select programme position 4.



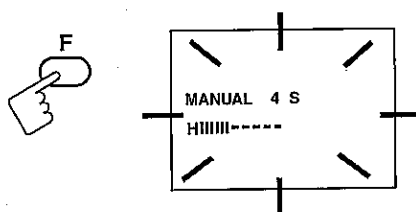
- 2 Enter to SEMI-AUTO or MANUAL tuning mode. (Refer to page 14 or 15.)



- 3 Press the **TV/AV Selector**, and "S" is appears on the screen. To cancel the skip channel, remove character "S" by pressing the **TV/AV Selector**.

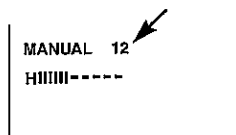


- 4 Press the **FUNCTION** button .

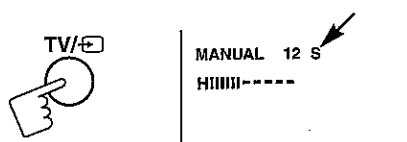


For setting up **SKIP CHANNEL** continuously;

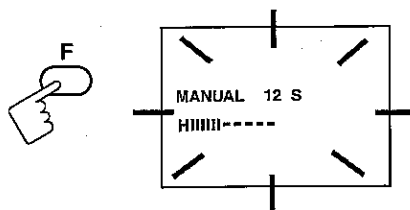
1. Input a desired programme number using the **Digit** button and **Programme Selector** (numerical buttons) .



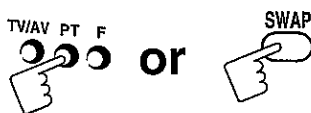
2. Press the **TV/AV Selector**, and "S" is appears on the screen.



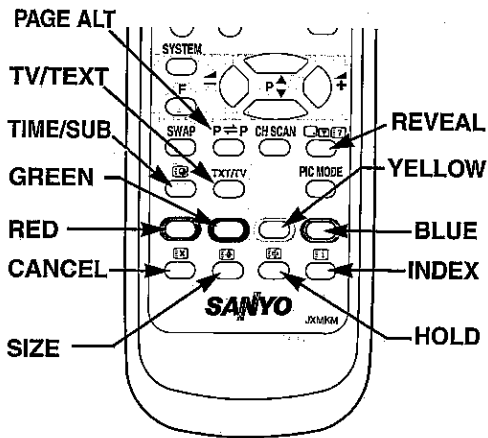
3. Press the **FUNCTION** button .



- 5 Press the **PRESET** or **SWAP** button to return to the normal TV mode.



Teletext Controls



Page Selection

Direct page access

Enter a page number directly using the **0-9 numeric buttons**. e.g. To select page 301, press 3 then 0 and then 1.

Up/down page access

Press the Programme UP ▲ or DOWN ▼ button to select the next or previous page number.

Programme UP ▲ : 301 → 302 → 303
399 → 300.....

Programme DOWN ▼ : 301 → 300 → 399
302 → 301.....

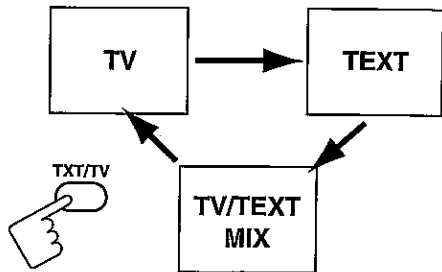
Coloured button page access

When a broadcasting station provides **FLOF** (Full level one feature) service, you can access the text pages you desire quickly and easily. Press one of the **4 coloured buttons** to select the topics shown at the bottom of the text screen. For example the Red topics can be selected using the **RED** button, the **BLUE** button, and so forth with the other colours.



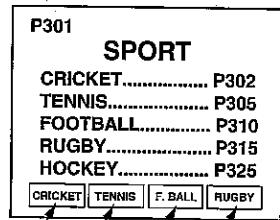
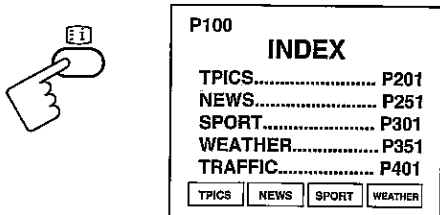
Switching to Teletext

Press the **TV/TEXT** button to select teletext. Press again to select teletext and TV picture. Press again to return to TV mode.



Index Page Selection

Press the **INDEX** button to select one of the teletext index pages.



Red Green Yellow Blue

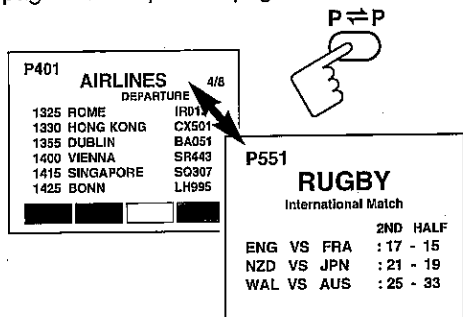
When the teletext service is not transmitting with the FLOF, 4 coloured page numbers will appear at the bottom of the screen instead of the topics.

Press the **INDEX** button to select one of the teletext index pages.

Teletext

Page Alternate

Press the **PAGE ALT** button, and the teletext page will alternately select the previous page and the present page.



P401 AIRLINES DEPARTURE 4/8


1325 ROME	IR013
1330 HONG KONG	CX501
1355 DUBLIN	BA051
1400 VIENNA	SR443
1415 SINGAPORE	SQ307
1425 BONN	LH995

P551 RUGBY International Match

ENG VS FRA	: 17 - 15
NZD VS JPN	: 21 - 19
WAL VS AUS	: 25 - 33

HOLD

Press the **HOLD** button to stop sub page changing. The word "HOLD" will appear instead of the page number.

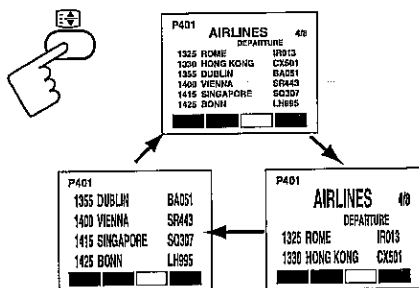


HOLD AIRLINES DEPARTURE 4/8

1325 ROME	IR013
1330 HONG KONG	CX501
1355 DUBLIN	BA051
1400 VIENNA	SR443
1415 SINGAPORE	SQ307
1425 BONN	LH995

Double Letter Height

Press the **SIZE** button to enlarge the top half of the text page.
Press the **SIZE** button again to enlarge the bottom half of the text page.
Press the **SIZE** button again to return to the normal size page.



P401 AIRLINES DEPARTURE 4/8

1325 ROME	IR013
1330 HONG KONG	CX501
1355 DUBLIN	BA051
1400 VIENNA	SR443
1415 SINGAPORE	SQ307
1425 BONN	LH995

P401

1355 DUBLIN	BA051
1400 VIENNA	SR443
1415 SINGAPORE	SQ307
1425 BONN	LH995

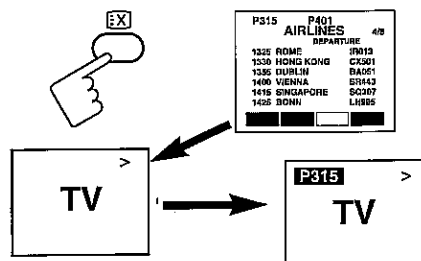
P401 AIRLINES DEPARTURE 4/8

1325 ROME	IR013
1330 HONG KONG	CX501

Viewing TV while searching for a page

Sometimes the page access can take some time. While waiting you can view the TV picture by pressing the **CANCEL** button.

- 1 Enter new page number. Press the **CANCEL** button.



EX

P315 P401 AIRLINES DEPARTURE 4/8

1325 ROME	IR013
1330 HONG KONG	CX501
1355 DUBLIN	BA051
1400 VIENNA	SR443
1415 SINGAPORE	SQ307
1425 BONN	LH995

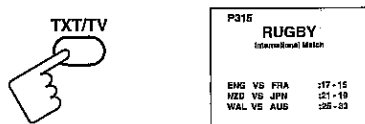
TV

P315

TV

When the page is found, the page number will appear over the TV picture.

- 2 Press the **TV/TEXT** button to view the page.



TXT/TV

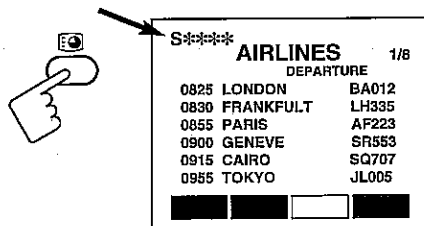
P315 RUGBY International Match

ENG VS FRA	: 17 - 15
NZD VS JPN	: 21 - 19
WAL VS AUS	: 25 - 33

Sub Page Access

With a teletext page selected which has sub pages, you may wish to read a known sub page number.

- 1 Press the **TIME/SUB** button.
"S****" will be displayed instead of the page number.



S****

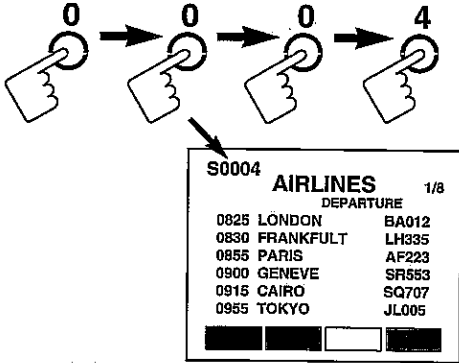
P401 AIRLINES DEPARTURE 1/8

0825 LONDON	BA012
0830 FRANKFULT	LH335
0855 PARIS	AF223
0900 GENEVE	SR553
0915 CAIRO	SQ707
0955 TOKYO	JL005

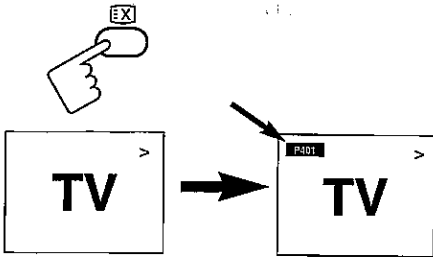
Teletext

2 Enter the sub page number by pressing the (0 - 9) buttons.

For example, to enter the sub page 4, press buttons **0**, **0**, **0** and **4**.



3 Press the **CANCEL** button to return to the normal TV picture.



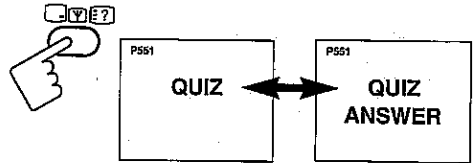
Immediately the correct sub-coded page is reached, the page number will appear on the TV picture.

4 Press the **TV/TEXT** button to view the sub-coded page.



Displaying Concealed Information

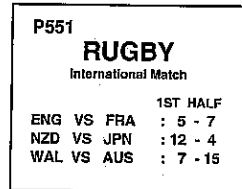
Press the **REVEAL** button to reveal hidden items on the text page. Some pages such as quiz pages have the answers hidden. The button may have to be held to keep the answer on the screen, or pressed again to remove the answers.



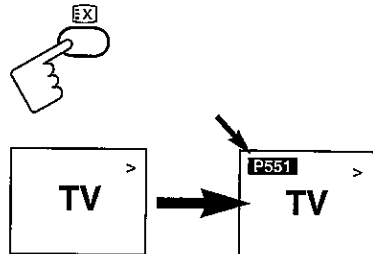
Updated Pages

Some text pages are updated such as latest sports scores or traffic news.

1 Select a latest page.



2 Press the **CANCEL** button to view the TV picture.



When the page is updated the page number will appear over the normal TV picture.

Teletext

- 3** Press the **TV/TEXT** button to view the updated page.

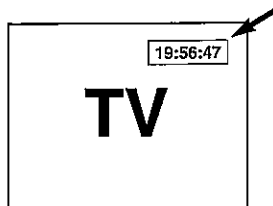


P551	
RUGBY	
International Match	
	2ND HALF
ENG VS FRA	: 17 - 15
NZD VS JPN	: 21 - 19
WAL VS AUS	: 25 - 33

If the page has sub pages the number will appear when the sub page is changed.

Time Call

In the TV mode, if the receiving programme has a teletext service then when the **TIME/SUB** button is pressed, the present time will be displayed on the screen for about 5 seconds.



The digits displayed represent hours/minutes/seconds.

CANCEL

When you press the **CANCEL** button, the TV picture appears on the screen, whilst in this mode you cannot select another TV programme because you are still in the teletext mode. You should first switch back to TV mode by pressing the **TV/TEXT** button if required.

Teletext reception

If your aerial signal is poor, the teletext reception may be poor.

Setting of the Private Position

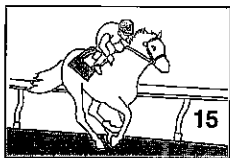
Private position is used to restrict of programme positions that you do not want others to watch.

Any position can be set as the Private position.

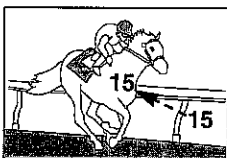
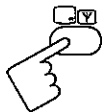
How to set the Private Position

For example, to set the programme position "15" as the private position.

- 1 Select programme position "15".

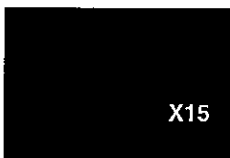


- 2 Press and hold the **RECALL/COLOUR SYSTEM** button for more than 2 seconds.



The programme number "15" will shift to centre of the screen.

- 3 Press the **FUNCTION** button.



The picture will disappear, and "X 15" will be display on the screen.

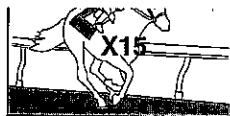
The private position setting is now completed.

To view a programme on Private Position

- 1 Select private position (In this case position "15").



- 2 Press and hold the **RECALL/COLOUR SYSTEM** button for more than 2 seconds.



- 3 Press the **RECALL/COLOUR** button for watching a TV programme.



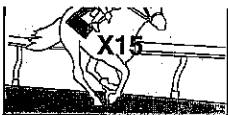
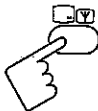
Note: The position "15" is still in the private position.

Canceling of the private position

- 1 Select private position (position "15").



- 2 Press and hold the **RECALL/COLOUR SYSTEM** button for more than 2 seconds.



- 3 Press the **FUNCTION** button .



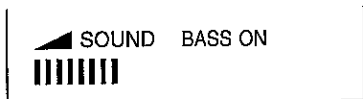
The private position is now cancelled.

Special Functions

The following special functions can be set up on this TV set.

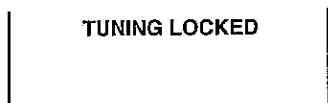
(1) Volume Lock setting

With this function, a maximum sound volume limit can be set at any level.



(2) Tuning Lock setting

Once TUNING LOCK is switched on, further channel tuning (Pre-set) is not possible. The Channel Swapping function also is not possible.



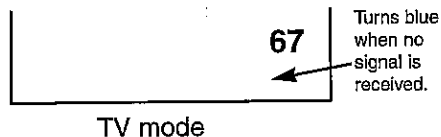
(3) AV Start setting

Set AV-START to ON and every time the TV set is switched on, AV1 position will be the initial programme position.



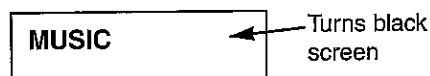
(4) Blue Back setting

When BLUE BACK is on, a blue background will appear, if a programme position that is not receiving a signal is selected.



(5) Music Mode setting

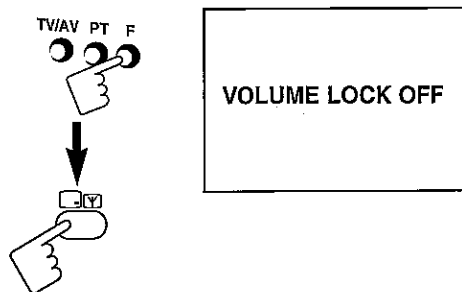
When Music Mode is ON, Programme position from "91" to "99" and "0" are set Music Mode. Only sound is provided and any picture is not on the screen under Music Mode.



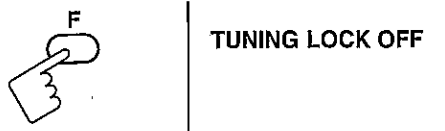
How to set the special function:

Note: When making the VOLUME LOCK setting, set the desired maximum sound volume by pressing the **VOLUME +** or **-** button before entering Special Function setting mode.

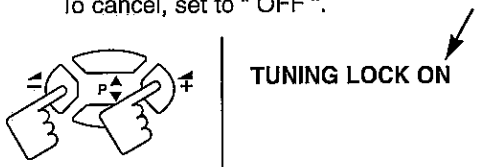
- 1 To enter into the special function setting mode, press and hold the **FUNCTION** button of the TV set, then press the remote control **RECALL/COLOUR SYSTEM** button.



- 2 Select an item of the special functions by pressing the **FUNCTION** button on the remote control or the TV set.



- 3 Set the selected special function "ON" by pressing the **LEVEL +** or **-** button. To cancel, set to "OFF".



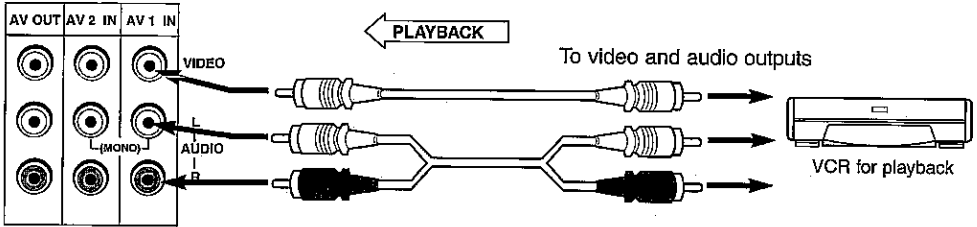
- 4 Press the **RECALL/COLOUR SYSTEM** button of the remote control to return to the normal TV mode.



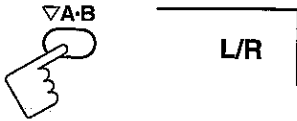
Connecting other Equipment

Connecting to the AV1 Input Jacks

Connect the video and audio outputs of a VCR, video disc player, etc. to the input jacks of this TV set. Tapes and discs can be played back.



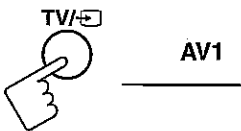
- If the audio signal from the VCR is stereo, be sure to connect the right and left channels to the respective right and left AUDIO-IN terminals. Then select "L/R" channel of the audio channel in the TV set with the remote control **STEREO/MONO** button.



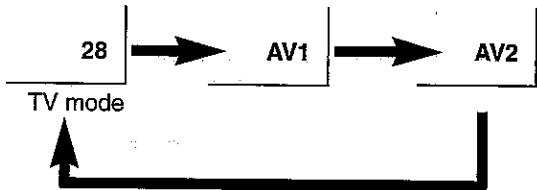
- If the external audio signal is a monaural one, connect it to the left terminal of AUDIO IN. Then select "L/R" or "L" channel of the audio channel in the TV set with the remote control **STEREO/MONO** button.



- To watch the AV1 video input picture; select AV1 position by pressing the **TV/AV Selector**.



Each time the **TV/AV Selector** is pressed, AV position is changed as follows;



Connecting other Equipment

- You can select a TV programme while watching a playback from a VCR

For example:

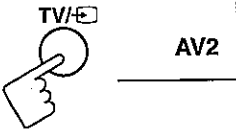
- To select programme position "9" while watching a playback from external VCR, press "9" button of the remote control. The TV set returns to the TV mode and programme "9" will be selected.
- To select the programme position "26", press **Digit** (--/-) button, "2" then "6" button. Then TV set returns to the TV mode and programme position "26" will be selected.

Note: Pressing either of the **PROGRAMME UP** or **DOWN** buttons of the remote control or the TV will return the TV to the TV mode.

Connecting to the Rear AV2 Input Jacks

To connect AV2 input terminals, use the same terminal connection method as for AV1.

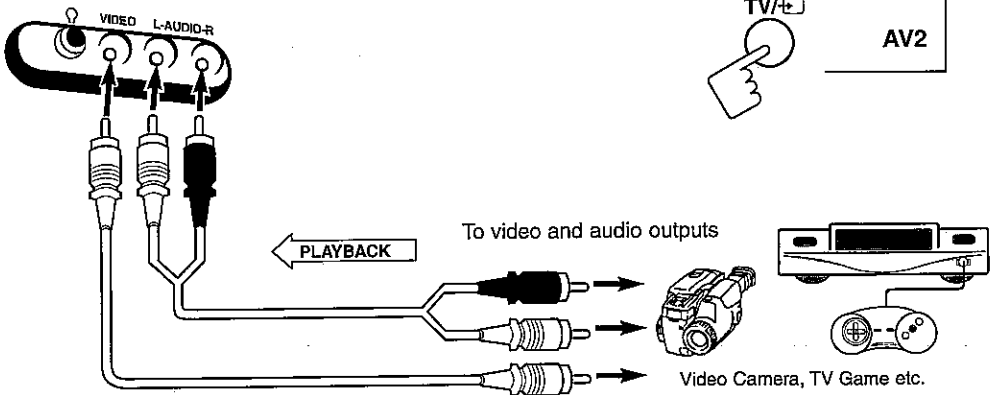
- Select "AV2" position by pressing the **TV/AV Selector** for watching.



Connecting to the Front AV2 Input Jacks

It is convenient to use the AV input jack on the front panel for equipment that is often connected and disconnected.

- Select "AV2" position by pressing the **TV/AV Selector** for watching.



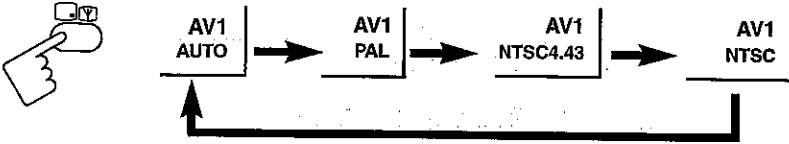
Note: When both the front AV2 input jacks and the rear AV2 input jacks are connected, the front AV2 input jacks takes priority.

Connecting other Equipment

Selecting the Colour System in AV mode

Depending on the type of video tape or connected AV equipment being used, it may be necessary to select colour system. In this case, press the **RECALL/COLOUR SYSTEM** button and select a suitable colour system.

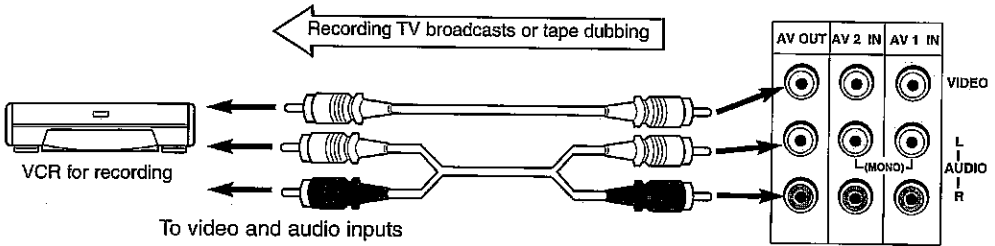
Each time the **RECALL/COLOUR SYSTEM** button is pressed, colour system is changed as follows;



Colour system setting for AV position is automatically stored in the memory.

Connecting to the Monitor Output Jacks

The picture signal being displayed on the TV screen is output through the Monitor Output Jacks. Use these terminals to record TV broadcasts and for video dubbing from AV1 or AV2 input terminals.



■ To record TV programme, select TV mode by pressing the **TV/AV Selector** and record the desired programme.

15 TV mode

■ To dub video from the AV1 terminal input, select AV1 position by pressing the **TV/AV Selector**.

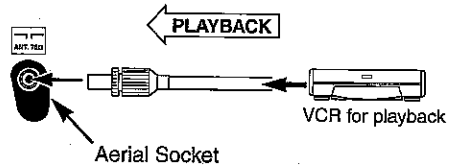
AV1

AV Connection to the Aerial Socket

The AV apparatus can also be connected to the aerial socket of your TV receiver.

Presetting to watch the video input

1. Playback the VCR .
2. Tune a VCR playback in programme position that you want. (See Semi-Auto Tuning on page 14 or Manual Tuning on page 15.)



For further details concerning this connection and adjustment, refer to the operating instructions for the AV equipment.

Helpful Hints - Problems/Solutions

BEFORE REQUESTING SERVICE CHECK THE FOLLOWING CHART.

Problem: Check these Conditions / Try these solutions:

No picture, no sound	<ul style="list-style-type: none"> ● Check if TV is plugged in. ● Try a different channel, if OK, probably station trouble.
Poor picture, sound OK	<ul style="list-style-type: none"> ● Adjust Brightness or Contrast control. ● Adjust Fine Tuning. (See page 11.) ● Check aerial connection.
No colour, Picture OK	<ul style="list-style-type: none"> ● Adjust Colour or Tint control. ● Adjust Fine Tuning. (See page 11.) ● Check aerial connection. ● Is the programme in colour? Try a different channel.
Weak picture	<ul style="list-style-type: none"> ● Check aerial connection on back of TV set. ● Check aerial for broken wires. ● Re-orient aerial.
No sound or poor sound.	<ul style="list-style-type: none"> ● Sound Mute may be on. Press the SOUND MUTE button on the remote control. ● Adjust Volume. ● May be station trouble. Try a different channel.
Remote Control will not work.	<ul style="list-style-type: none"> ● Check batteries. Replace batteries. ● Check if TV set is plugged in. Aim remote control towards front of TV.
Cannot select or scan some channels.	<ul style="list-style-type: none"> ● Channel may be removed from memory. Add channel to memory manually. (See "Skip Channel set and cancel" on page 17.) ● Check aerial connection.
Blue screen with AV1 or AV2 is displayed	<ul style="list-style-type: none"> ● Check AV connection. Press the TV/AV Selection button. ● Check external equipment. Switch on external equipment.
Black screen with X and programme position displayed.	<ul style="list-style-type: none"> ● Check to see if channel is set as the Private Position. See "Setting of the Private Position" on page 22.
Cabinet makes popping sound.	<ul style="list-style-type: none"> ● This is a normal condition during warm-up and cool down of the plastic cabinet parts.

The following faults are not caused by the receiver:

"GHOSTS"

Reflections of signals from mountains or high buildings will cause multiple images, called "Ghosts". These abnormal conditions can be reduced to minimum by repositioning aerial or by installing new one suited for your area.

"INTERFERENCE"

Interference may be caused by electrical appliances, car ignition systems, etc. This should normally be a temporary condition, but should this interference persist, contact your dealer.

Specifications

Power Source AC220-240 Volts, 50/60Hz

Colour System PAL (AV Input: PAL/NTSC4.43/NTSC/PAL-60Hz)

Sound System B/G

Channel Coverage **Australia**

VHF: 0-11, 5A

UHF: 29-69

CATV: S1-S41, X, Y, Z, Z+1, Z+2

New Zealand

VHF: 1-11

UHF: 21-69

CATV: S1-S41, X, Y, Z, Z+1, Z+2

Aerial input impedance 75 Ω

Audio output (Music) 7.5 W + 7.5W

Speakers 6 cm x 12 cm x 2 units

Ext. terminals

Video inputs: Phone Jack x 3 (1.0Vp-p, impedance 75 Ω)

Audio inputs: Phone Jack(L/R) x 3 (436mVrms, impedance more than 40K Ω)

Video monitor outputs: Phone Jack x 1 (1.0Vp-p, impedance 75 Ω)

Audio monitor outputs: Phone Jack(L/R) x 1 (436mVrms, impedance less than 600 Ω)

Headphone Jack: Mini Stereo Jack x 1

Dimension 770(W) x 590(H) x 499(D)mm

Weight approx. 38.4Kg

Specifications subject to change without notice.

Care and Cleaning

The surface of the cabinet can be damaged if not properly maintained. Many common household aerosol sprays, cleaning agents, solvents and polishes will cause permanent damage to the fine surface.

1. **Unplug the power cord before cleaning the Television.**
2. Clean the screen with a soft cloth dampened with glass cleaner or warm water.
3. Clean the cabinet with a soft cloth dampened with a mild household detergent and warm water. Dry thoroughly.

Note: *NEVER spray liquids on the screen because they can run down and drip onto the chassis. This may cause component failure not covered under Warranty.*

SANYO