

SANYO

INSTRUCTION MANUAL

CP21AF2

Colour Television

Flat Screen

CATV Hyper Band

100 Programmes with Automatic Tuning

Equipped with S-Video Terminal

BBE Sound System for Live Presence

AV Stereo Sound System

(AV stereo sound system can reproduce a stereo sound only when a stereo signal is inputted from audio input jacks of the AV terminal.)

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BBE^{II}

BBE is a circuit developed by BBE Sound, Inc.. The BBE circuit reproduces the human voice and music with extremely high fidelity.

Licensed by BBE Sound, Inc. under USP4638258 and 4482866.

The word "BBE" and the BBE symbol are trademarks of BBE Sound.

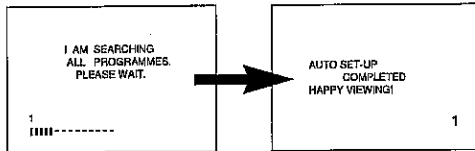
Plug & Play

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;

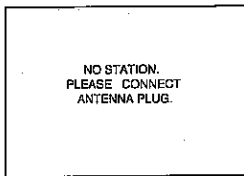


After completing this procedure, the programme position 1 is selected and the ending messages on the screen.

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

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

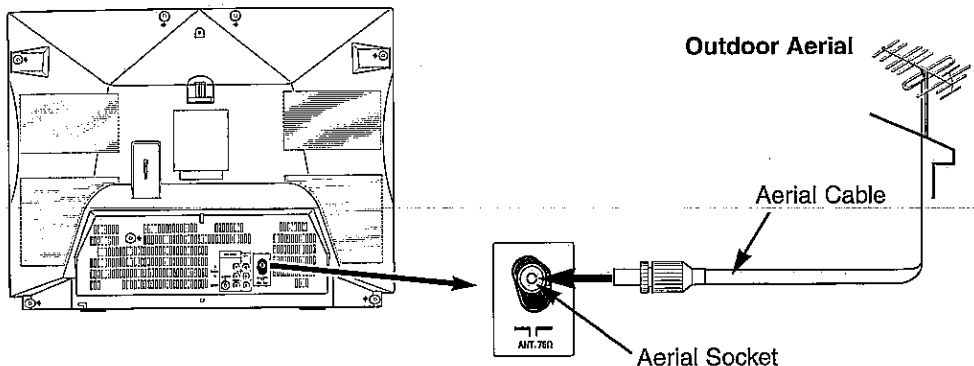
- If no TV stations are found, the display shown below will appear. Please check if the antenna is connected properly.



If it isn't connected properly, connect antenna and Automatic Tuning will be reset.

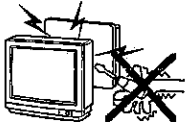
Aerial Connection

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.

Warnings and Cautions



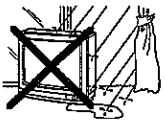
Warning

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.



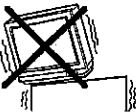
Warning

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



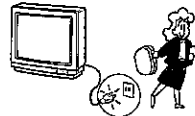
Caution

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.



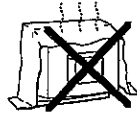
Caution

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.



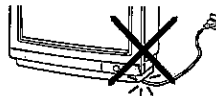
Caution

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.



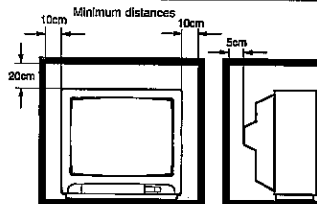
Caution

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.

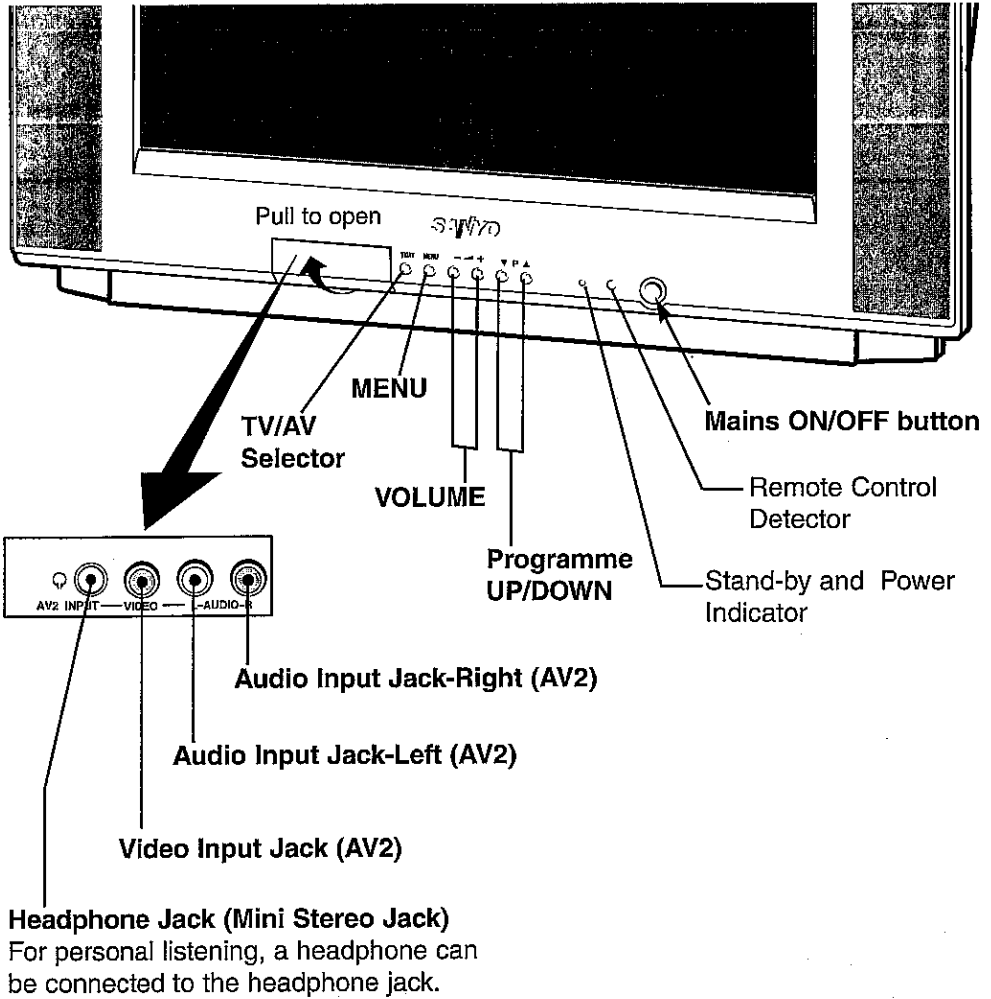


Caution

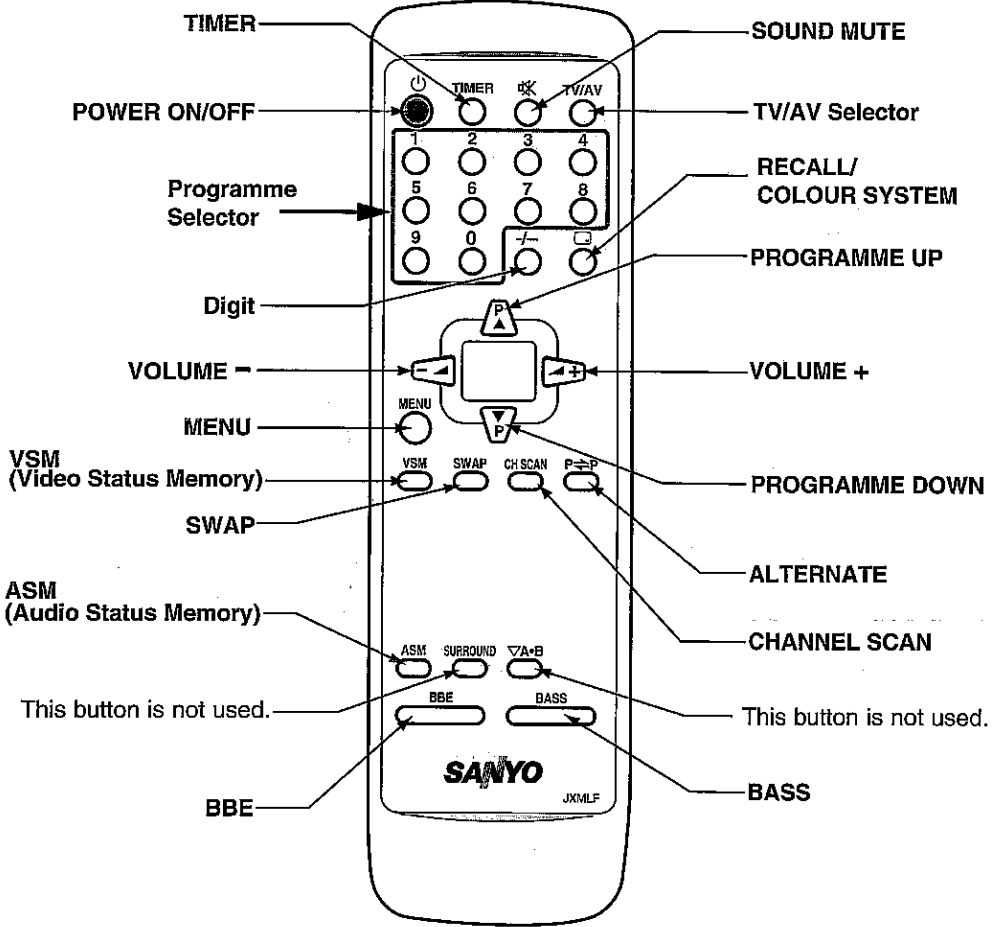
If the television is to be built into a compartment or similarly enclosed, the minimum distances must be maintained. Heat build-up can reduce the service life of your television, and can also be dangerous.

Front Controls

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



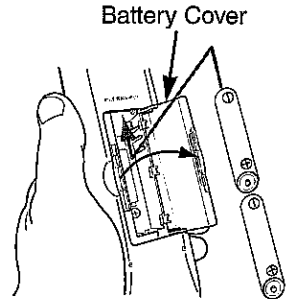
Remote Control Transmitter



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.



[Opening Battery Cover]

General Operation

Power ON/OFF

To switch on or off the TV ;

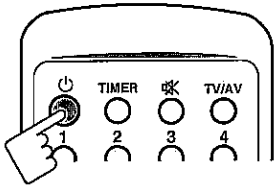
Press the **Mains ON/OFF** button.

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.

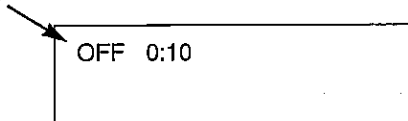
- **Power ON/OFF** button of the remote control transmitter.
- **Programme UP/DOWN** of the remote control transmitter or the TV set.
- **1 to 9, 0** button on the remote control transmitter.

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

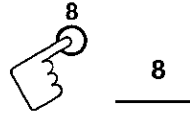
This TV set incorporates the **AUTO SHUT OFF** function. Even if the TV is left on after you have gone to sleep, the TV set changes to the standby mode within 10 minutes after all broadcasts have ended.



Direct Programme Selection

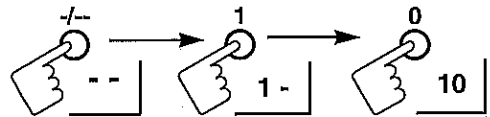
Example

To select programme position 8;



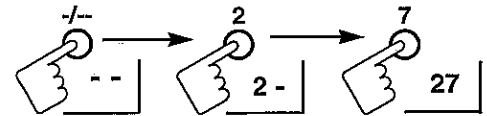
Press "8" button.

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.

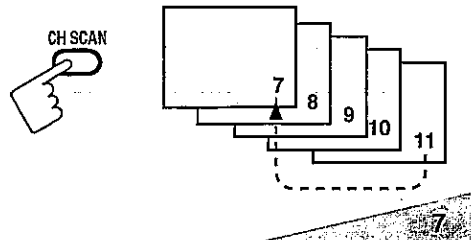
Programme Up and Down

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

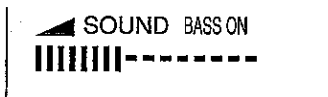
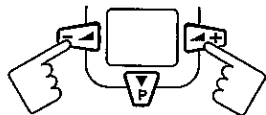
Press the **CHANNEL SCAN** button to search for a programme. The channel positions are automatically scanned, and the channel scanning will stop at the position where it began. To stop at the position you want, press this button again.



General Operation

Volume Control

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

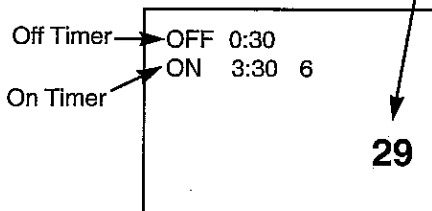


RECALL

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



Programme Position

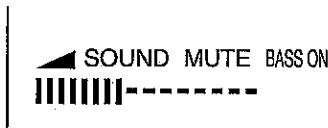


Screen display disappears after about 5 seconds.

Sound Mute

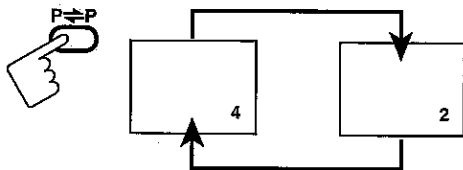
Should you wish to mute the sound (e.g. While talking on the telephone), press the **SOUND MUTE** button.

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



ALTERNATE

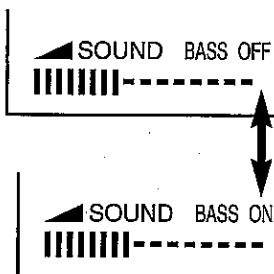
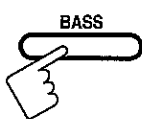
Press the **ALTERNATE** button, and the programme position will alternately select the previous position and the present position.



For example, now you are watching programme position "4" but watched programme position "2" previously. If you press the **ALTERNATE** button, programme position "2" immediately appears.

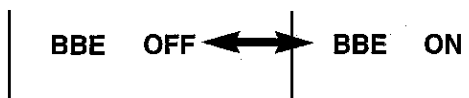
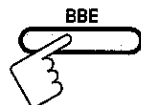
Bass Expander

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



Setting BBE

Press the **BBE** button, and set the BBE to "ON". The BBE circuit reproduces the human voice and music with extremely high fidelity.

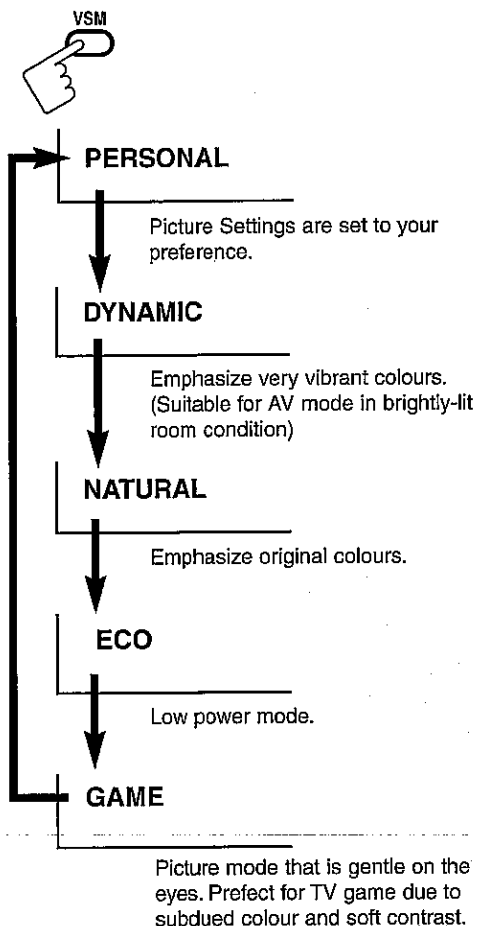


General Operation

Quick Picture Controls

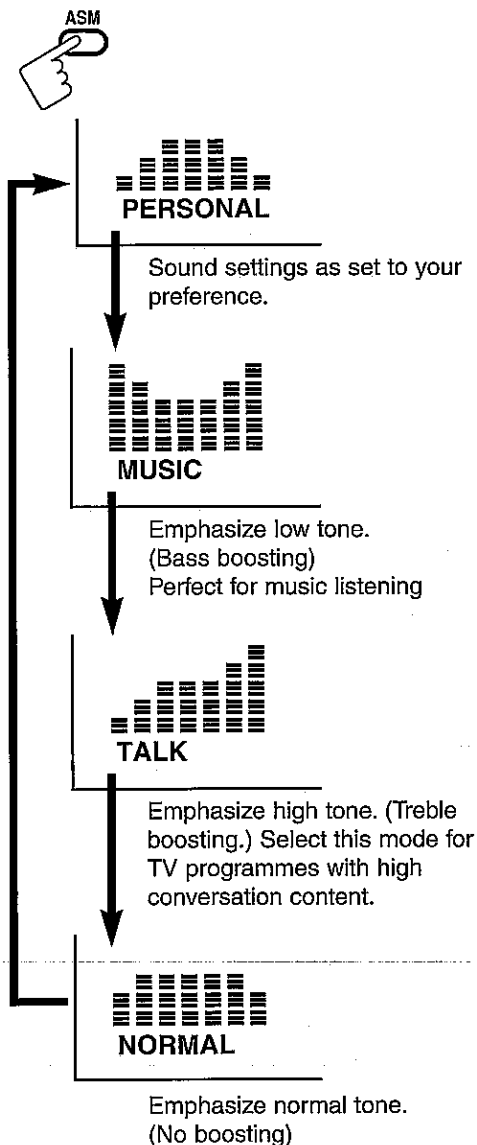
Press the **VSM (Video Status Memory)** button to select the following picture modes; "PERSONAL", "DYNAMIC", "NATURAL", "ECO" and "GAME". Select picture modes to suit picture type you are watching.

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



Quick Sound Controls

Simply press the **ASM (Audio Status Memory)** button to select the following audio modes: **PERSONAL**, **MUSIC**, **TALK**, and **NORMAL**.

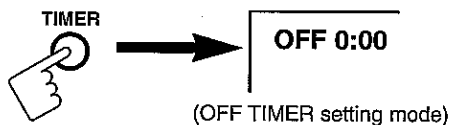


General Operation

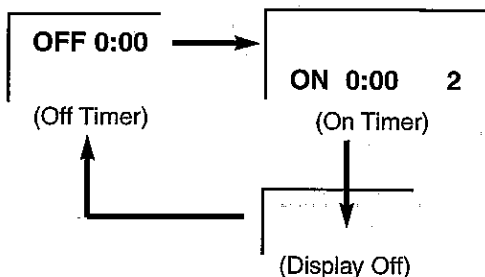
OFF TIMER

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

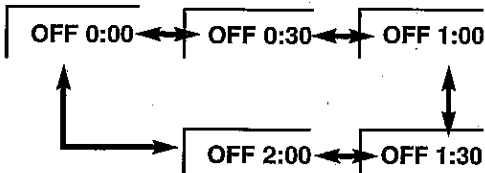
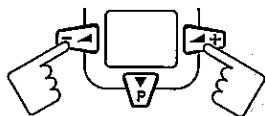
- 1 Press the **TIMER** button.



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



- 2 Press the **VOLUME (+ or -)** button to select the time period and change it as follows;



- Just one minute before switching off the TV, "OFF 0:01" will be display on the screen.

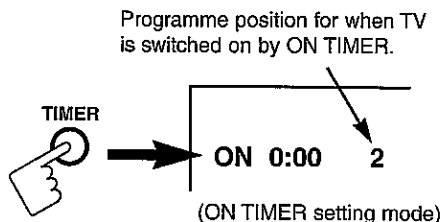
OFF 0:01

- To cancel the OFF TIMER, select "OFF 0:00" by pressing the **VOLUME (+ or -)** button.
- The OFF TIMER cancels when the TV set is turned off or if a power failure occurs.

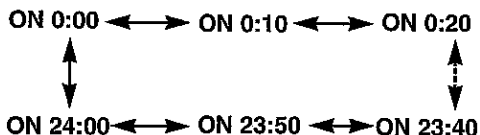
ON TIMER

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.

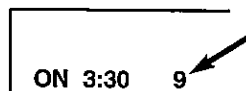


- 2 Press the **VOLUME (+ or -)** button. The set time will be increased or decreased by 10 minutes each time the button is pressed ; the maximum time which can be set is 24 hours. When the ON-TIMER has been set, the colour of Standby and Power Indicator changes to yellow.

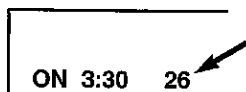


Setting programme position for when TV is switched on by ON TIMER

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

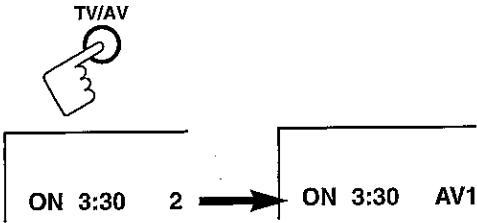


For example, to set programme position 26, press the **Digit** button, "2" button then "6" button while the ON TIMER screen is shown.



General Operation

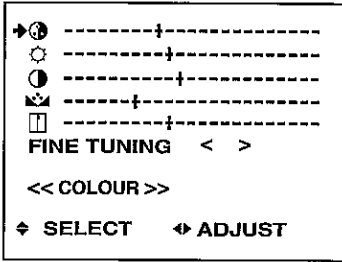
To set an AV position when the TV is switched on by the ON TIMER, press the **TV/AV Selector** while the ON TIMER screen is shown to select position AV.



- 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 **VOLUME (+ 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.

Picture Adjustment

Picture Adjustment Menu



Picture Adjustment Item

- COLOUR
- ☀ BRIGHTNESS
- ◐ CONTRAST
- 👑 TINT (Displayed only on NTSC or NTSC4.43 system signal reception.)
- ▭ SHARPNESS

FINE TUNING

..... Fine tuning in case of weak broadcast signal or poor reception. Only displayed in TV mode. Will not be displayed in AV mode.

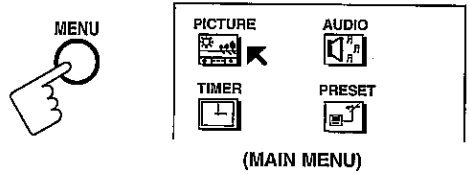
The picture adjustment data (Colour, Brightness, Contrast, Tint and Sharpness) is automatically stored in PERSONAL mode of the Quick Picture Controls (See page 9). These settings will be used when PERSONAL mode is selected.



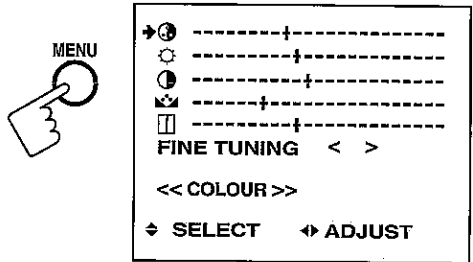
PERSONAL

Basic picture adjustment operation

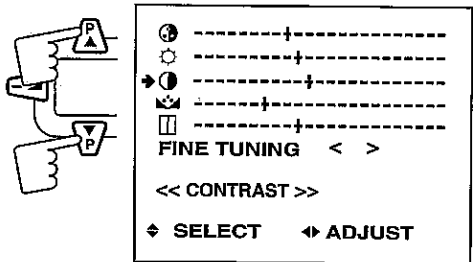
- 1 Press the **MENU** button for MAIN menu display.



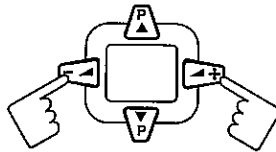
- 2 Press the **MENU** button again to enter to Picture Adjustment mode.



- 3 Select desired control by pressing the **PROGRAMME UP** or **DOWN** button.



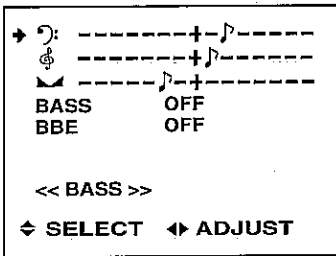
- 4 Press the **VOLUME +** or **-** button to alter settings.



- 5 When adjustment is completed, press the **MENU** button to return to normal TV display. (Or will automatically return to TV display after 20 seconds.)

Audio Adjustment

Audio Adjustment Menu



Audio Adjustment Item

- ↗ : Bass Adjustment
- ↗ : Treble Adjustment
- ↘ : Left/right speaker volume balance adjustment

BASS : Operates BASS EXPANDER on and off.

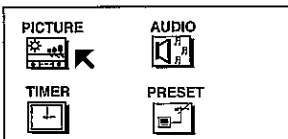
BBE : Operates the BBE on and off.
 Press the **VOLUME (+ or -)** buttons, and set the BBE to "ON". The BBE circuit reproduces the human voice and music with extremely high fidelity.

The Audio Adjustment data (Bass, Treble, Balance) is automatically stored in PERSONAL mode of the Quick Sound Controls (See Page 9). These settings will be used when PERSONAL mode is selected.

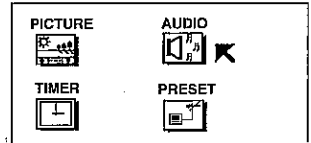
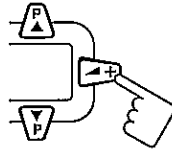


Basic audio adjustment operation

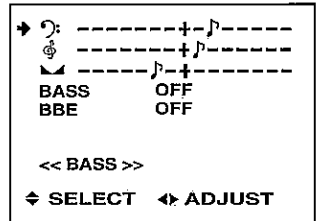
1 Press the **MENU** button for MAIN menu display.



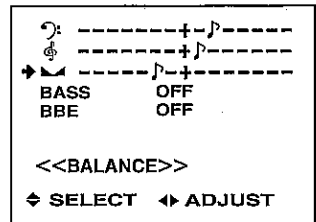
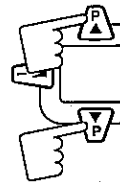
2 Select **AUDIO** menu by pressing the **VOLUME +** button.



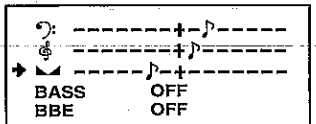
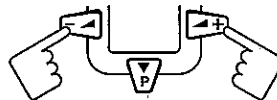
3 Press the **MENU** button for Audio Adjustment menu display.



4 Select desired control by pressing the **PROGRAMME UP** or **DOWN** button.



5 Press the **VOLUME + or -** button to alter settings.



6 When adjustment is completed, press the **MENU** button to return to normal TV display. (Or will automatically return to TV display after 20 seconds.)

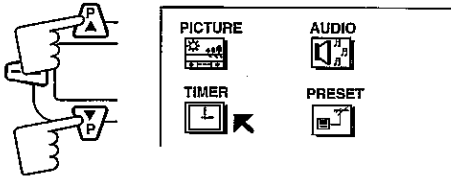
Timer Setting by On-screen Menu

Use Timer Menu to set OFF TIMER and ON TIMER.

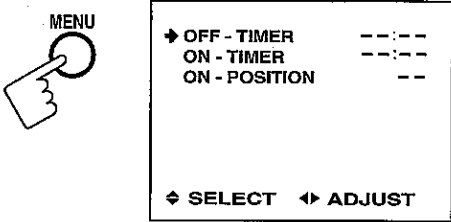
Setting Off Timer

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

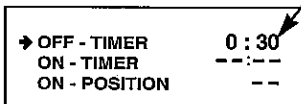
- 1 Press the **MENU** button for MAIN menu display.
- 2 Select **TIMER** menu by pressing the **PROGRAMME UP** or **DOWN** button.



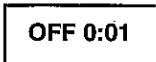
- 3 Press the **MENU** button for **TIMER** menu display.



- 4 Press the **VOLUME +** or **-** button to set OFF TIMER. The set display time changes in 30 minutes steps to a maximum of two hours (120 minutes).



- Just one minute before switching off the TV, "OFF 0:01" will be display on the screen.

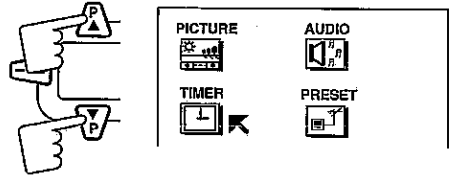


- To cancel the OFF TIMER, set display to "OFF-TIMER ---:--" by pressing the **VOLUME (+ or -)** button. The OFF TIMER also cancels when the TV set is turned off or if a power failure occurs.

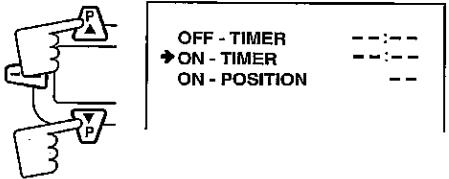
Setting On Timer

Once ON-TIMER is set, the TV set will be switched on automatically to the pre-set channel, when the specific time has elapsed.

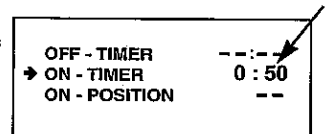
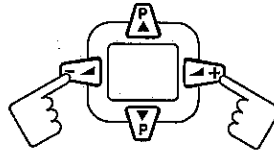
- 1 Press the **MENU** button for MAIN menu display.
- 2 Select **TIMER** menu by pressing the **PROGRAMME UP** or **DOWN** button.



- 3 Press the **MENU** button for **TIMER** menu display.
- 4 Select **ON-TIMER** by pressing the **PROGRAMME UP** or **DOWN** button.

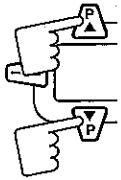


- 5 Press the **VOLUME (+ or -)** button to set ON-TIMER. The set time will be increased or decreased by 10 minutes each time the button is pressed ; the maximum time which can be set is 24 hours. When the ON-TIMER has been set, the colour of Standby and Power Indicator changes to yellow.



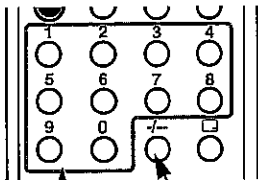
Timer Setting by On-screen Menu

- 6** After ON-TIMER is set, select desired Programme Position.
Select ON-POSITION with the **PROGRAMME UP** or **DOWN** button.



| | |
|-----------------|--------|
| OFF - TIMER | ---- |
| ON - TIMER | 0 : 50 |
| → ON - POSITION | 3 |

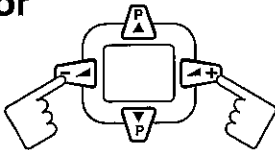
- 7** Select the desired programme position with the **VOLUME (+ or -)** button or **Programme Selector** and **Digit** button.



Programme Selector

Digit

OR



| | |
|-----------------|--------|
| OFF - TIMER | ---- |
| ON - TIMER | 0 : 50 |
| → ON - POSITION | 17 |

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 AV.



| | |
|-----------------|--------|
| OFF - TIMER | ---- |
| ON - TIMER | 0 : 50 |
| → ON - POSITION | AV1 |

- 8** When adjustment is completed, press the **MENU** button to return to normal TV display. (Or will automatically return to TV display after 20 seconds.)

- 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.
- When the ON-TIMER activates while you are watching television, only the programme position will be changed to the set programme position. Use this function to ensure you do not miss any programmes you want to see.
- **Cancelling ON-TIMER**
To cancel the ON-TIMER, either press the **VOLUME(+ or -)** button to set it to "----" 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

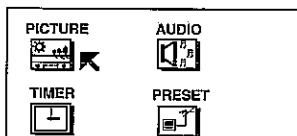
Up to 100 broadcast stations in your reception area can be stored in the electronic memory.

There are three ways of tuning as follows;

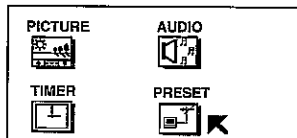
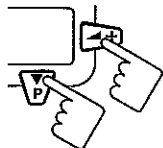
- 1. Automatic Tuning (the basic way):** All receivable channels are automatically tuned in and memorized in consecutive programme position.
- 2. Semi-Auto Tuning:** Use to preset a receivable channel in any desired programme position, e.g. the position with the same number as the channel.
- 3. Manual Tuning:** Manually tune a channel if it cannot be automatically tuned, such as when the signal is poor.

Automatic Tuning

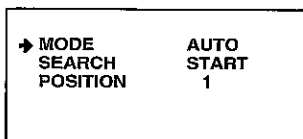
- 1 Press the **MENU** button for MAIN menu display.



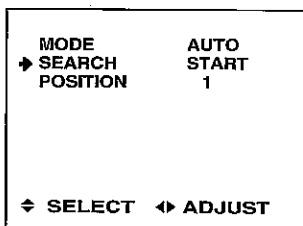
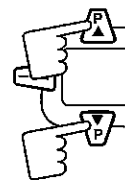
- 2 Select **PRESET** menu by pressing the **PROGRAMME UP** or **DOWN** button or **VOLUME (+, -)** button.



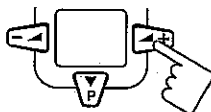
- 3 Press the **MENU** button for **PRESET** menu display. On entering **PRESET** display, **Automatic Tuning** will be selected initially.



- 4 Select **SEARCH** by pressing the **PROGRAMME UP** or **DOWN** button.



- 5 Press the **VOLUME (+)** button to start channel tuning.



1

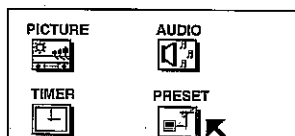
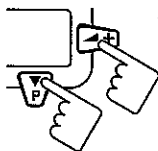
After all receivable channels have been found and stored, the TV set automatically returns to programme position "1".

- The **Automatic Tuning** operation can be cancelled at any time by pressing the **PROGRAMME UP** or **DOWN** button.

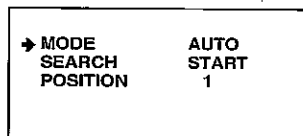
Semi-Auto Tuning and Manual Tuning

- 1 Press the **MENU** button for MAIN menu display.

- 2 Select **PRESET** menu by pressing the **PROGRAMME UP** or **DOWN** button or **VOLUME (+, -)** button.

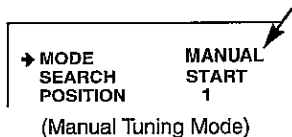
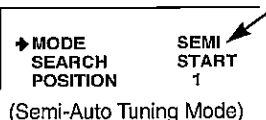
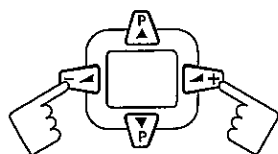


- 3 Press the **MENU** button for **PRESET** menu display. On entering **PRESET** display, **Automatic Tuning** will be selected initially.

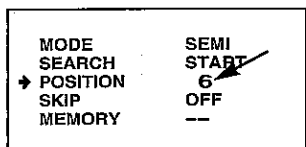


Tuning of the Channels

- 4** Select "SEMI" or "MANUAL" by pressing the **VOLUME +** or **-** button.



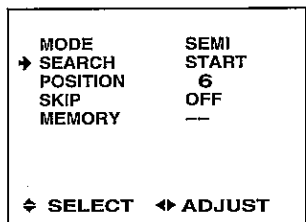
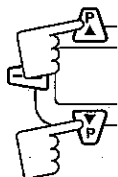
- 5** For example, to pre-set a required channel onto Programme Position 6, select "POSITION" with the **PROGRAMME UP** or **DOWN** button and press remote control button number **6** and enter 6. (In this case, the channel being watched will change to channel 6.)



For example, to enter Programme Position 27, press the **Digit** button, press the remote control button 2 followed by 7.

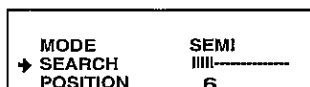
It is also possible to select the Programme position number by pressing either of the **VOLUME +** or **-** button. (Pressing the **VOLUME +** or **-** button will only alter the programme position number.)

- 6** Select "SEARCH" by pressing the **PROGRAMME UP** or **DOWN** button.



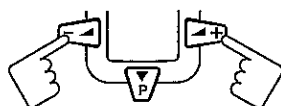
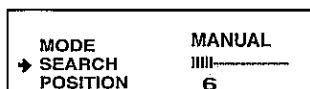
Semi-Auto Tuning:

Press and release the **VOLUME +** or **-** button to search for required TV station. Once a station is located, tuning will automatically stop. Continue till desired channel is located.



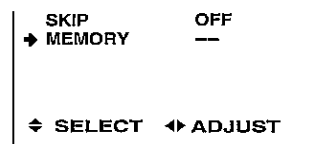
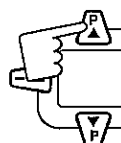
Manual Tuning :

Press and hold the **VOLUME +** or **-** button to search for required TV station.

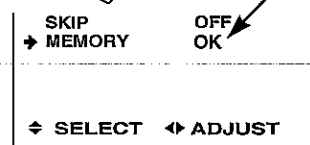
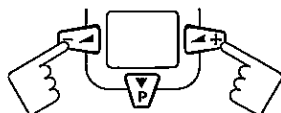


The **VOLUME +** button will move tuning toward the higher frequencies, and the **VOLUME -** button will move tuning toward the lower frequencies.

- 7** Once desired channel is located, select "MEMORY" by pressing the **PROGRAMME UP** or **DOWN** button.



- 8** Press the **VOLUME +** or **-** button to enter the desired channel into Programme Position 6.



To pre-set other Programme Positions, repeat steps 5-8.

- 9** Press the **MENU** button to return to normal TV display.

Tuning of the Channels

Channel Copy

This function can be utilized after Automatic Tuning.

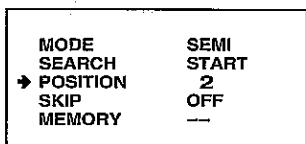
For example, to copy a TV channel on programme position "2" onto programme position "6";

- 1 Select programme position "2".

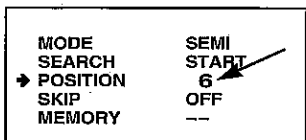
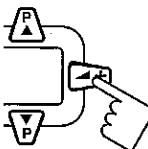


- 2 Enter to SEMI-AUTO or MANUAL tuning mode. (Refer to pages 16 and 17.)

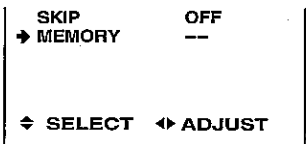
- 3 Select "POSITION" with the PROGRAMME UP or DOWN button.



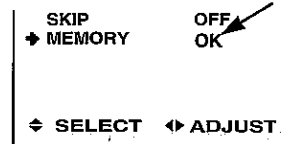
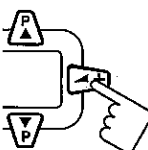
- 4 Select position "6" with the VOLUME + or - button.



- 5 Select "MEMORY" by pressing the PROGRAMME UP or DOWN button.



- 6 Press the VOLUME + or - button to memorize.

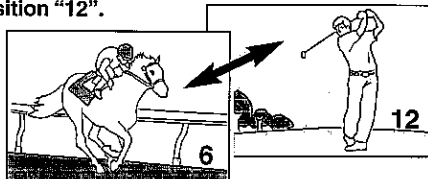


- 7 Press the MENU button to return to normal TV display.

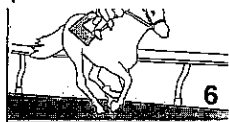
Channel Swapping

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".



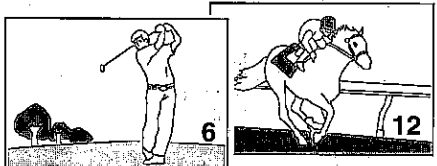
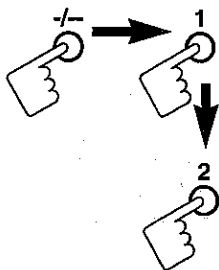
- 1 Select programme position "6".



- 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.)



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 Enter to SEMI-AUTO or MANUAL tuning mode. (Refer to pages 16 and 17.)

2 Select "POSITION" with the **PROGRAMME UP** or **DOWN** button.

| | |
|-------------|------------|
| MODE SEARCH | SEMI START |
| → POSITION | 1 |
| SKIP | OFF |

3 Press remote control "4" button to select Programme Position 4. Use the **Digit** button and **PROGRAMME SELECTOR** (Number buttons) to enter Programme Number. Do not use the **VOLUME +** or **-** button to enter programme position in this settings.

| | |
|-------------|------------|
| MODE SEARCH | SEMI START |
| → POSITION | 4 |
| SKIP | OFF |

4 Select "SKIP" by pressing the **PROGRAMME UP** or **DOWN** button, then press the **VOLUME +** or **-** button to set SKIP to ON. To cancel Skip Channel function, set to OFF.

| | |
|---------------|----|
| → SKIP MEMORY | ON |
| | -- |

5 Select "MEMORY" by pressing the **PROGRAMME UP** or **DOWN** button, then press the **VOLUME +** or **-** button for memory.

| | |
|---------------|----|
| → SKIP MEMORY | ON |
| | OK |

Any number of channels maybe set as Skip Channels.

6 Press the **MENU** button to return to normal TV display.

Setting of the Private Position

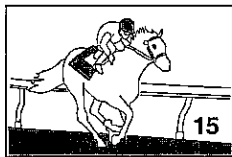
Private position is used to restrict of programme positions that you do not want others to watch.

Any position can be set as the Private position.

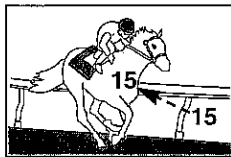
How to set the Private Position

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

1 Select programme position "15".

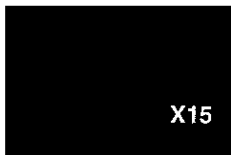


2 Press and hold the **RECALL/COLOUR SYSTEM** button for more than 2 seconds.



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

3 Press the **MENU** button.



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

The private position setting is now completed.

Setting of the Private Position

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 **MENU** 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.

TUNING LOCKED

(3) 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.

Turns black screen

MUSIC

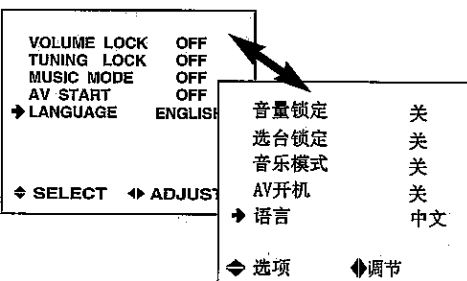
(4) AV Start setting

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

AV1

(5) Language selection for the on screen display

Either English or Chinese can be selected as the language of the screen display

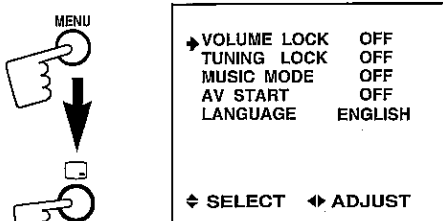


Special Functions

How to set the special function:

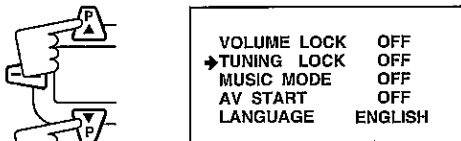
Note: When making the VOLUME LOCK setting, set the desired maximum sound volume by pressing the **VOLUME +** or **-** button before entering Special Function setting mode.

- 1 To enter Special Function setting mode, press and hold the **MENU** button on the TV set, then press the remote control **RECALL/COLOUR SYSTEM** button.

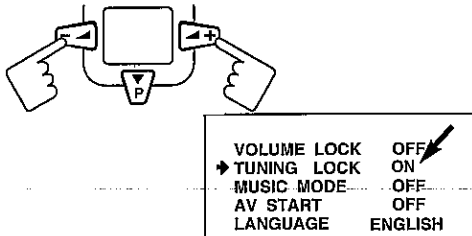


Special Function Setting Mode

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



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



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

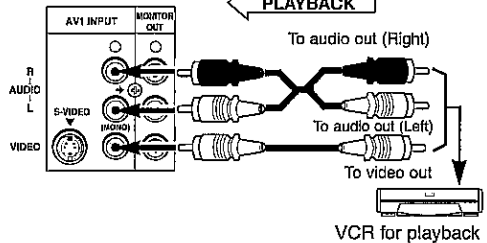


Connecting other Equipment

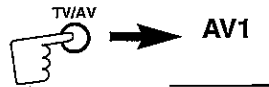
Connecting to the Rear AV1 Input Jacks

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.

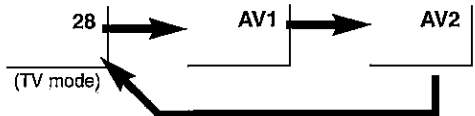
VCR Connection



- 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.
- If the external audio signal is a monaural one, connect it to the left terminal of AUDIO IN.
- To watch the AV1 video input picture, select AV1 position by pressing the **TV/AV Selector**.

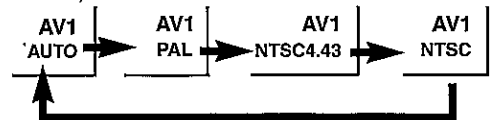


Each time the **TV/AV Selector** is pressed, AV position is changed as follows;



- 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 other Equipment

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

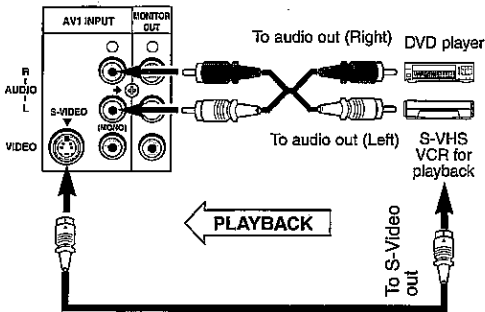
For example:

- 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.

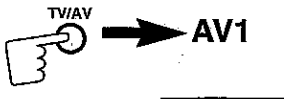
Note: Pressing either of the **PROGRAMME UP** or **DOWN** buttons of the remote control or the TV will return the TV to the TV mode.

S-VHS VCR / DVD Player Connection

- To display high grade picture S-VHS video, connect to S-VIDEO terminal.
- Using the S-VIDEO terminal to connect to a DVD player instead of the normal video input terminal provides a clearer video image.



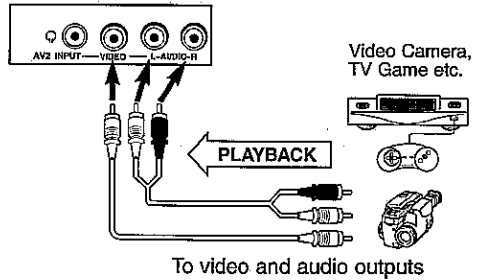
- To watch a S-VHS video or DVD with this connection, select AV1 position by pressing the **TV/AV Selector**.



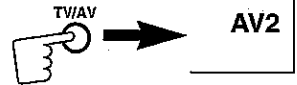
- S-VIDEO terminal takes priority over AV1 input. While a S-VIDEO terminal is connected, the AV1 terminal for normal VCR input can not be used. To use the AV1 terminal for normal VCR input, disconnect the S-VIDEO terminal.

Connecting to the Front AV2 Input jacks

It is convenient to use the AV2 input jack on the front panel for equipment that is often connected and disconnected.

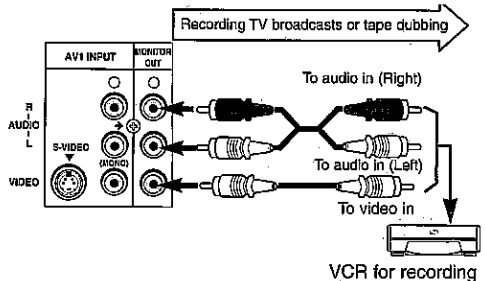


- To watch the Front AV2 video input picture, select AV2 position by pressing the **TV/AV Selector**.



Connecting to the Monitor Output Jacks

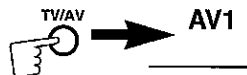
The picture signal being displayed on the TV screen is output through the Monitor Output Jacks. Use these terminals to record TV broadcasts and for video dubbing from AV input terminals.



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



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

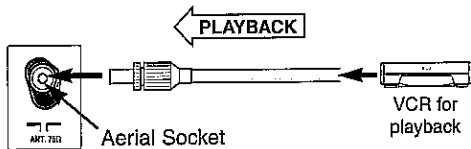


Connecting other Equipment

Specifications

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 and Manual Tuning on pages 16 and 17.)

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

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.*

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: 28 - 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) 3 W + 3W

Speaker 5 cm x 12 cm x 2 pcs.

Ext. terminals

Video inputs: Phone Jack x 2

(1.0Vp-p, impedance 75 Ω)

S-Video Input: Din 4 pin x 1 (Separated Y/C Signals Input)

Audio inputs: Phone Jack (R/L) x 2 (436mVrms, impedance more than 40K Ω)

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

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

Headphone Jack: Mini Stereo Jack x 1

Dimension 587(W) x 458(H) x 486(D) mm

Weight approx. 21.8Kg

Specifications subject to change without notice.

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 12.) ● Check aerial connection. |
| No colour, Picture OK | <ul style="list-style-type: none">● Adjust Colour or Tint control. ● Adjust Fine Tuning. (See page 12.)● 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 page 19.) ● 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 pages 19 and 20. |
| 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.

SANYO