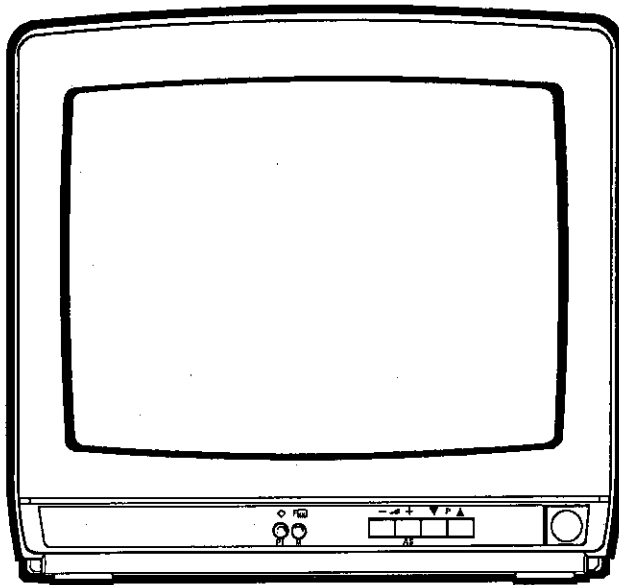


SANYO

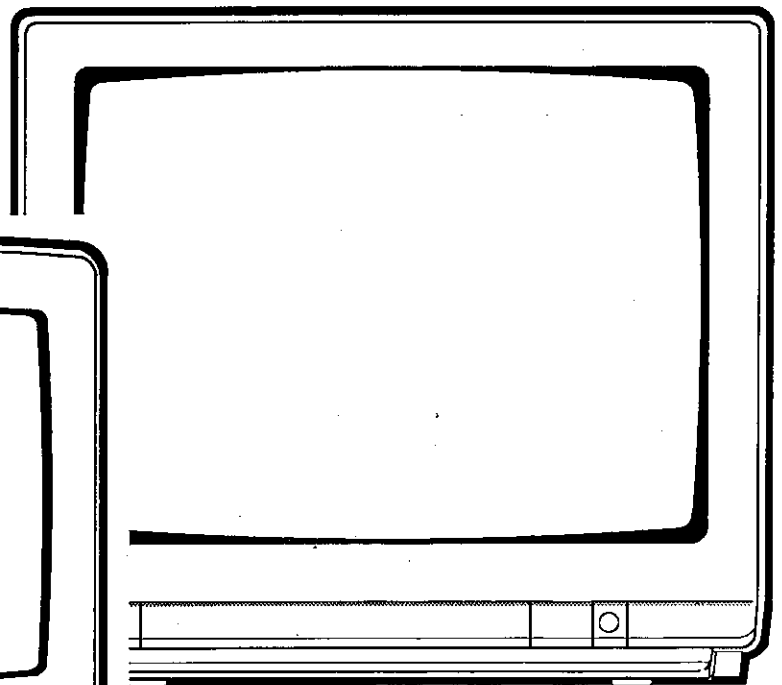
INSTRUCTION MANUAL

C14PA20 C20PE20

Colour Television



C14PA20



C20PE20

*Remote Control
Special Function
AV Input and Output Terminals*

Contents

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Warning

To prevent fire or shock hazard, do not expose the unit to rain or moisture.
High voltages are used in the operation of this TV set. Do not remove the cabinet back from your set. Refer servicing to qualified service personnel.

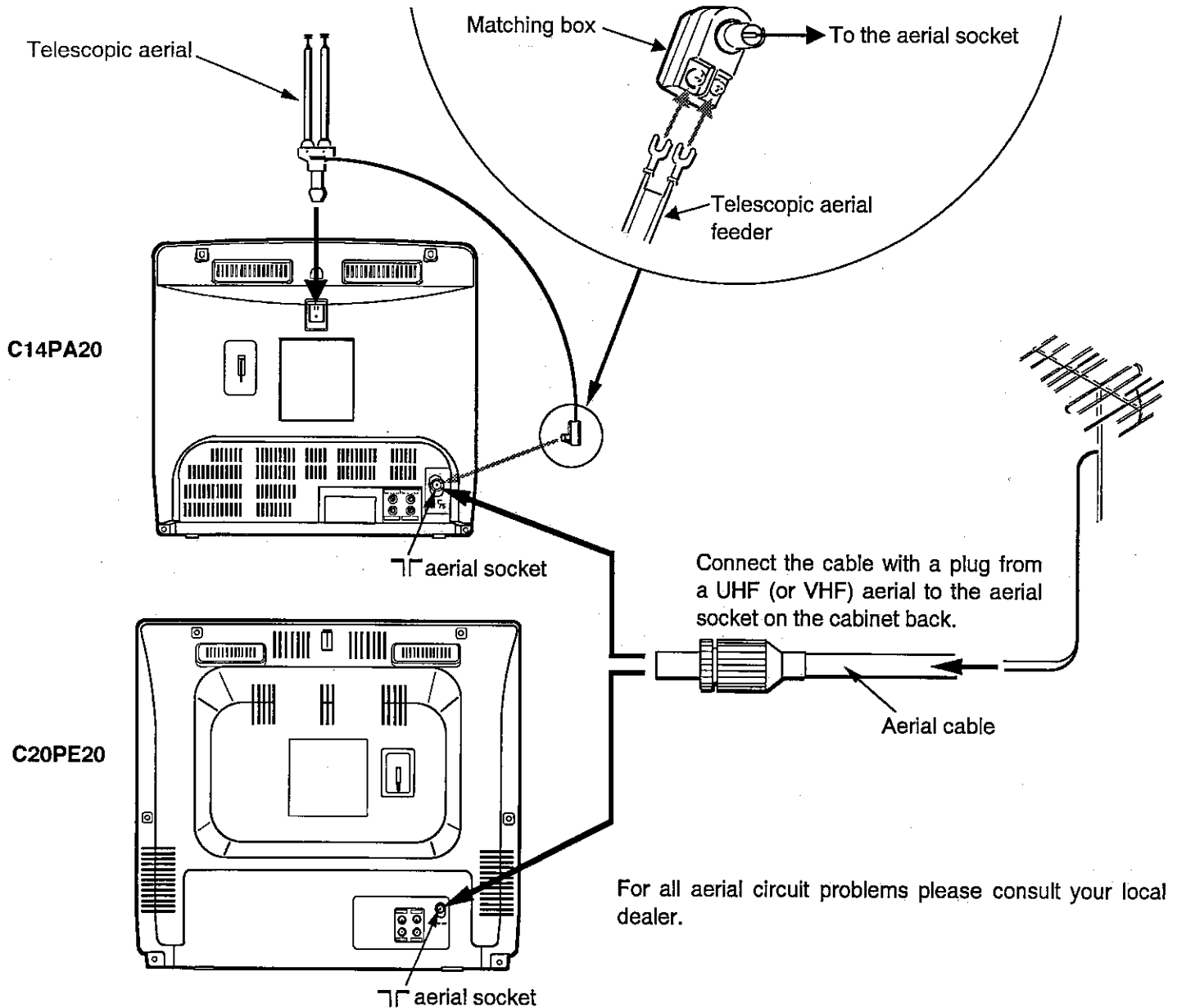
Precautions

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

Electric Mains

The receiver is designed to operate on an A.C. mains supply of 220-240Volts 50Hz.

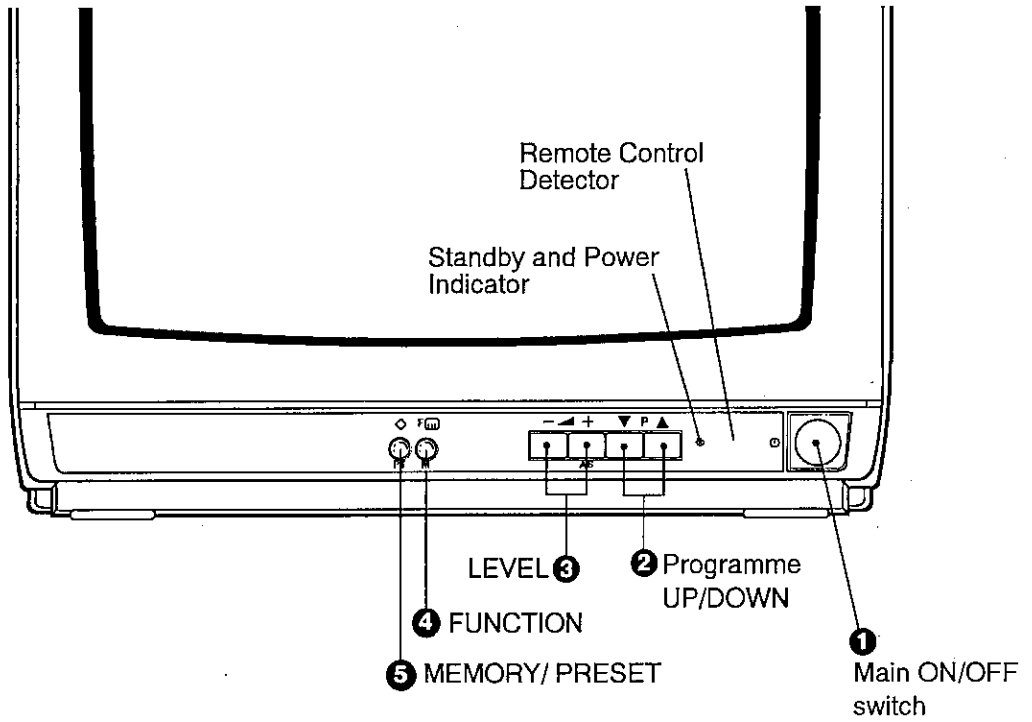
Aerial Connection



For all aerial circuit problems please consult your local dealer.

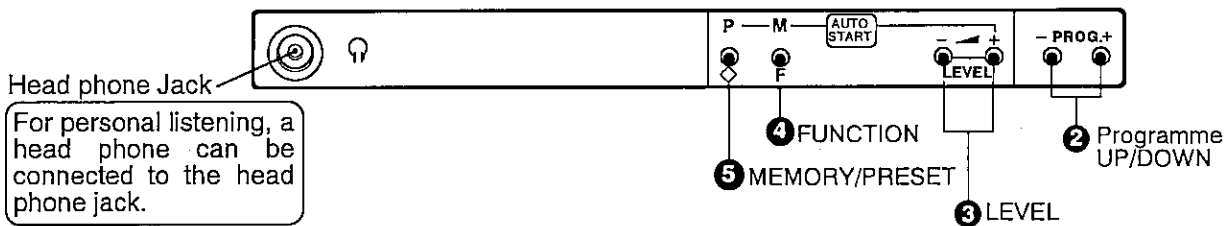
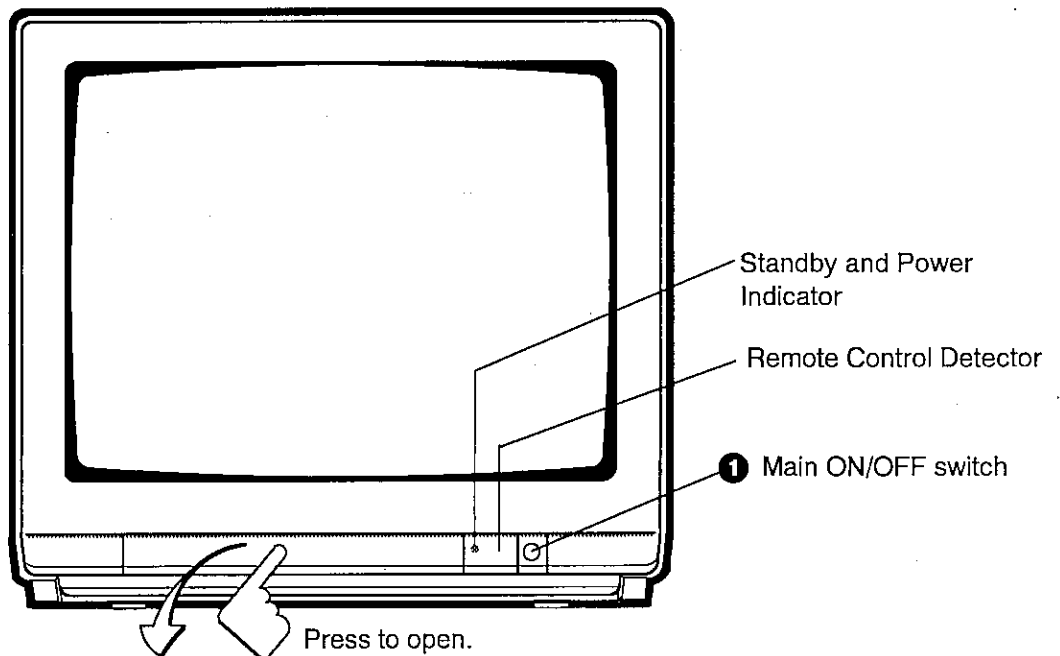
Controls

Model C14PA20



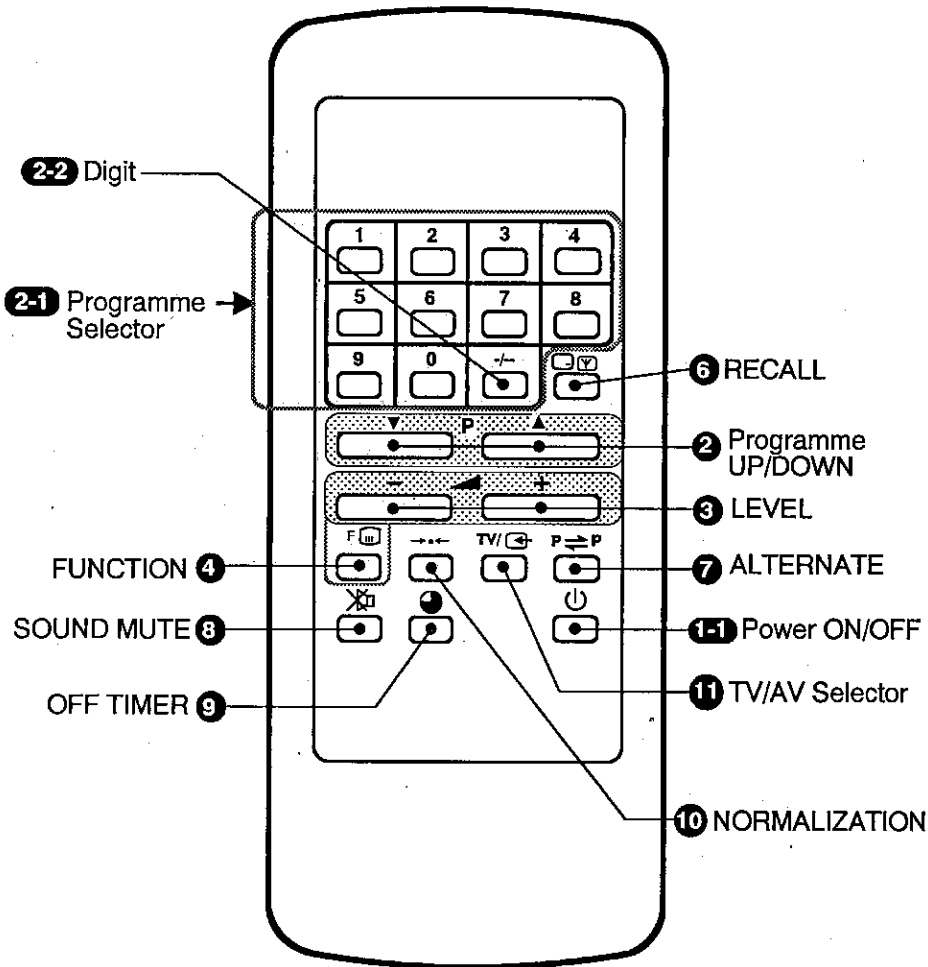
Controls

Model C20PE20



For personal listening, a head phone can be connected to the head phone jack.

Remote Control Transmitter



Battery installation of the Remote Control Transmitter

- 1 Remove the battery cover by sliding.
- 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.

General Operation

POWER ON/OFF

To switch on or off the TV;

(C14PA20)

(C20PE20)

Press the Main ON/OFF **1** button.

The power of the TV is turned on, or off completely.

To set the TV to standby mode;

Press the Power ON/OFF button **1-1**.
To turn on the TV, press again.

To turn on the TV from standby mode;

Press Power ON/OFF **1-1** (remote control transmitter)

or Programme UP/DOWN **2** (remote control transmitter)

OR 1 to 9, 0 Key (remote control transmitter)

or the Programme UP/DOWN **2** button of the TV set.

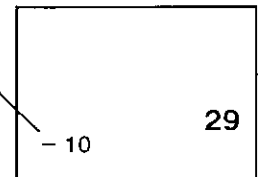
Important !

Be sure to set the Main ON/OFF switch **1** to the off position, if the power failure occurs while viewing.

AUTO SHUT OFF

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.

Remaining time



PROGRAMME SELECTION (Direct Selection)

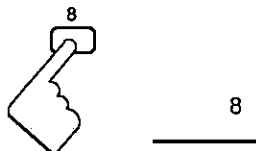
To select a programme directly

For example; .

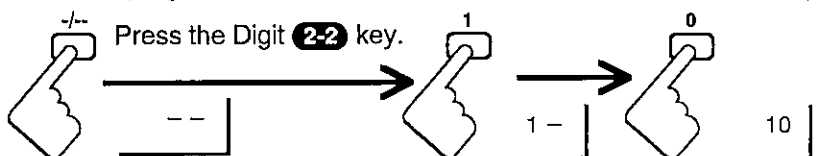
2-1 Programme Selector

2-2 Digit

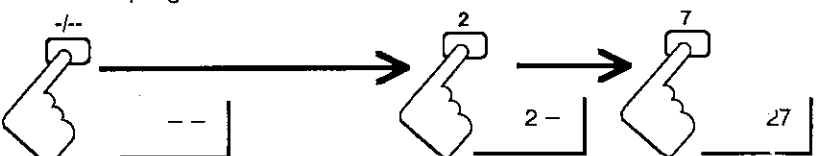
To select a programme 8



To select a programme 10



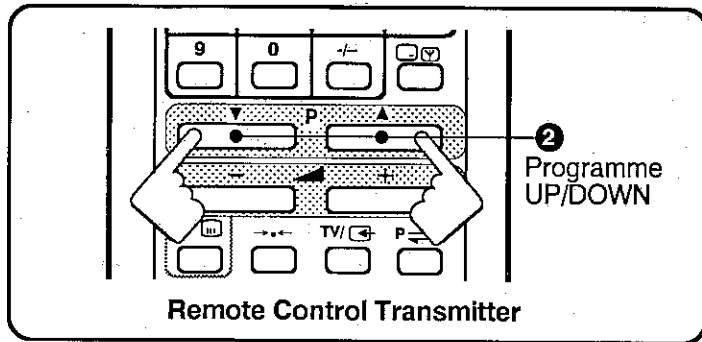
To select a programme 27



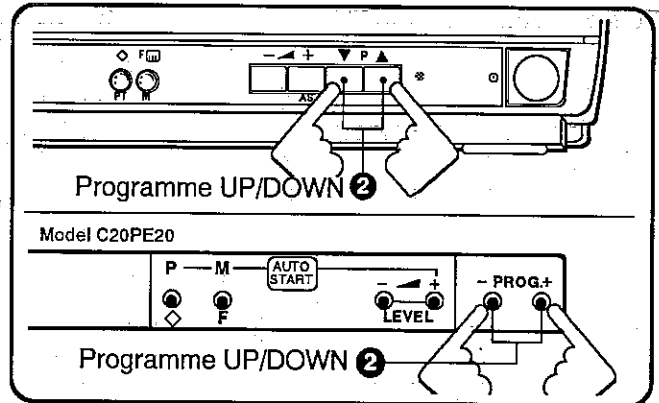
General Operation

Programme Selection (Programme UP and Down)

To select a channel

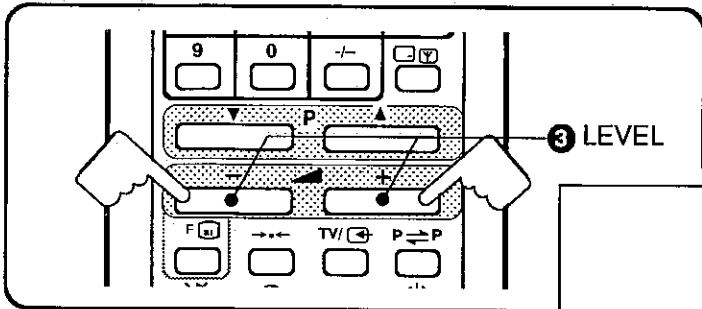


or

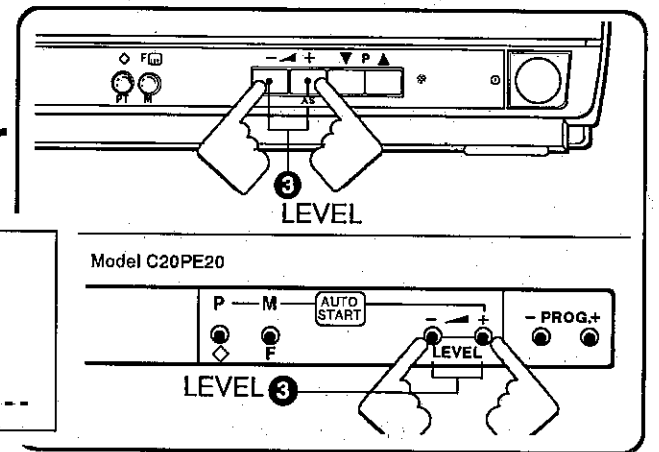


Volume Control

To adjust the sound volume

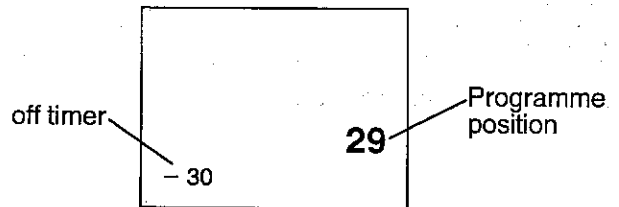
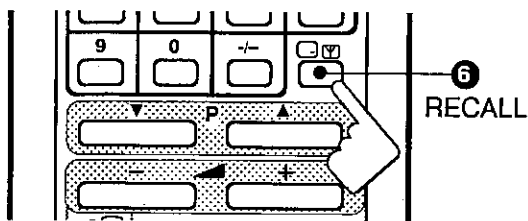


or



RECALL

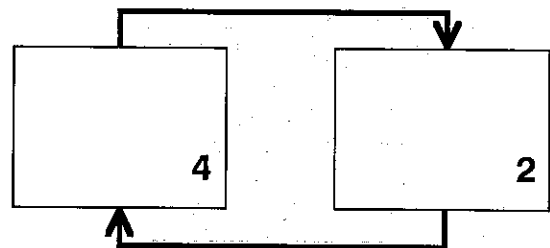
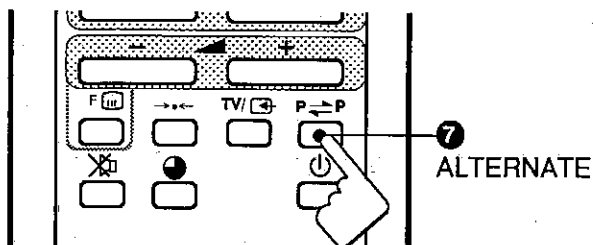
To display the on screen indications, press the RECALL key.



Screen display disappears after about 5 seconds.

ALTERNATE

Press the ALTERNATE **7** key, and the programme position will alternately select the previous position and the present position.

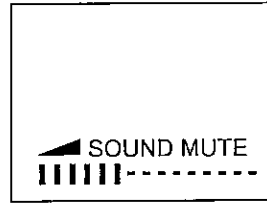
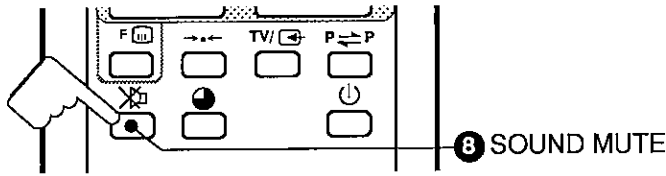


For example, now you are watching programme position "4" but you watched programme position "2" previously. If you press the ALTERNATE key, programme position "2" immediately appears.

General Operation

SOUND MUTE

Should you wish to mute the sound (e.g. While talking on the telephone), press the SOUND MUTE **8** key.

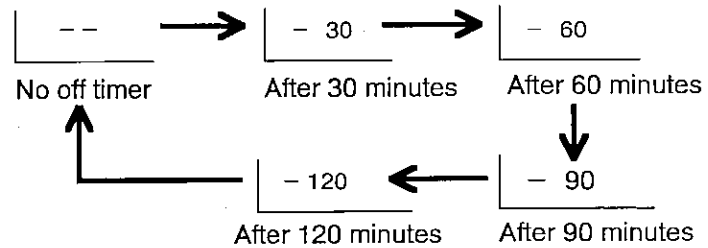
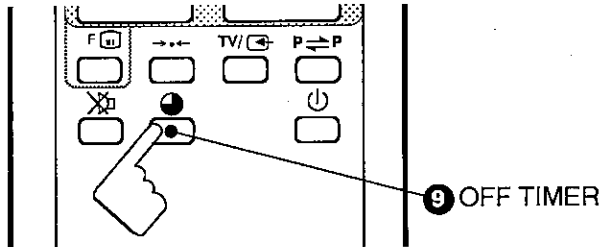


To switch the sound back on, press SOUND MUTE key again.

OFF TIMER

The TV set will be turned off after about 30, 60, 90 or 120 minutes.

Press the OFF TIMER **9** key.



To cancel the OFF TIMER

Press the OFF TIMER key until "--" appears.

Just one minute before switching off the TV, "-- 01" and channel number will be displayed on the screen.

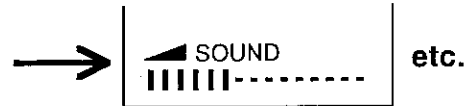


MEMORY

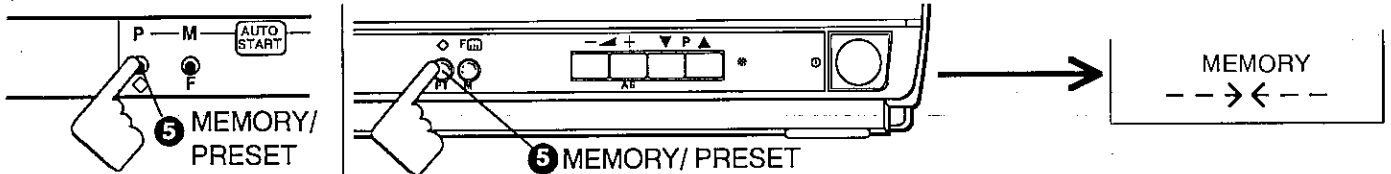
This function lets you store the settings (for colour, brightness, contrast, sharpness, sound volume) in memory for both picture and the sound, and these setting levels can be recalled by pressing the NORMALIZATION **10** key of the remote control transmitter.

To store the picture and sound settings

(1) Set the picture and sound to the desired levels.

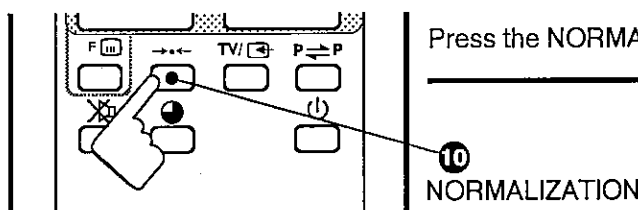


(2) Press the MEMORY/PRESET **5** button while the control function display is still visible on the screen.

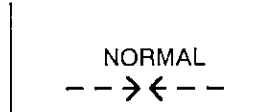


NOTE: The control settings will not be saved if the MEMORY button is pressed after the control function display has left the screen.

NORMALIZATION



Press the NORMALIZATION **10** key.

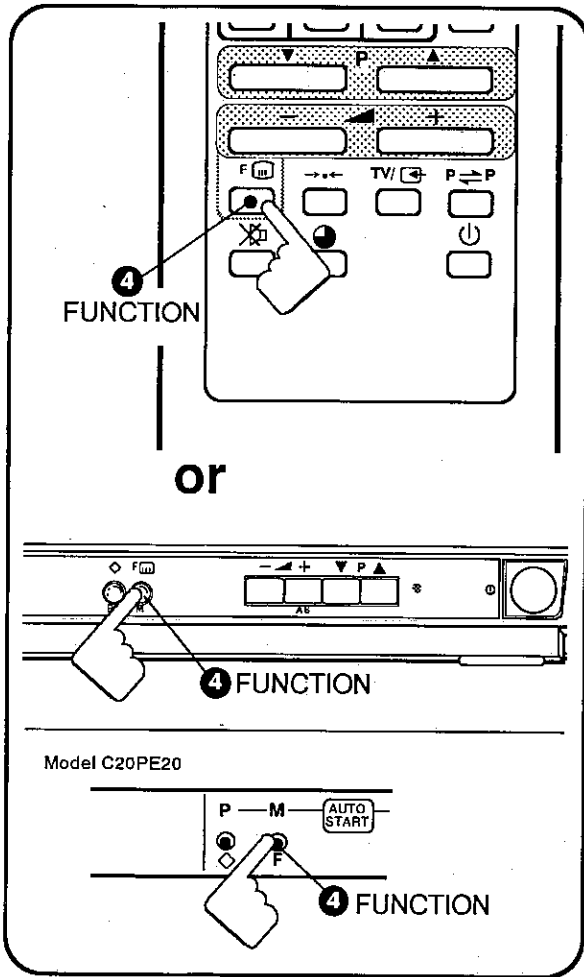


The colour, brightness, contrast, sharpness and sound volume settings which you stored using the MEMORY button are recalled.

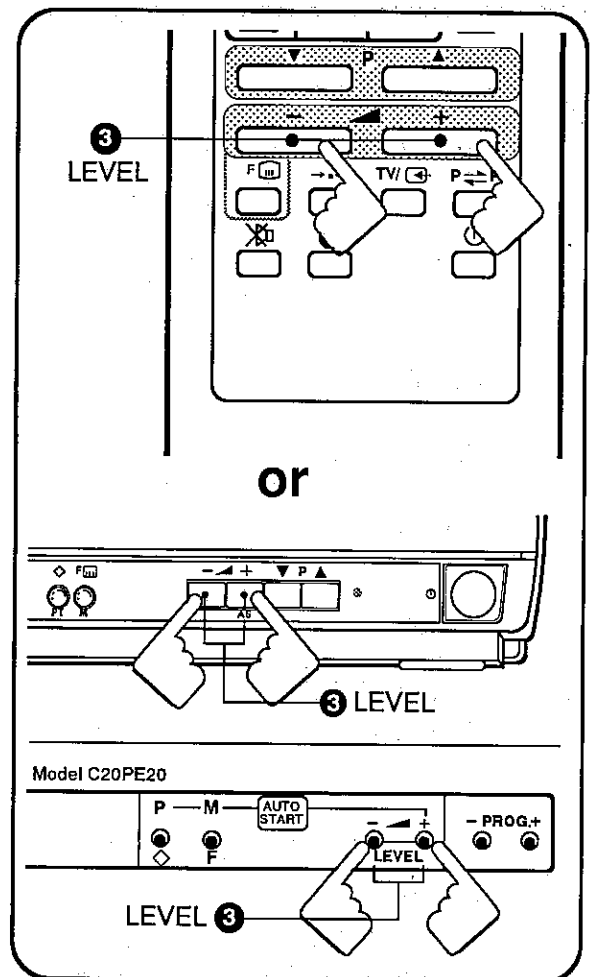
General Operation

PICTURE ADJUSTMENTS

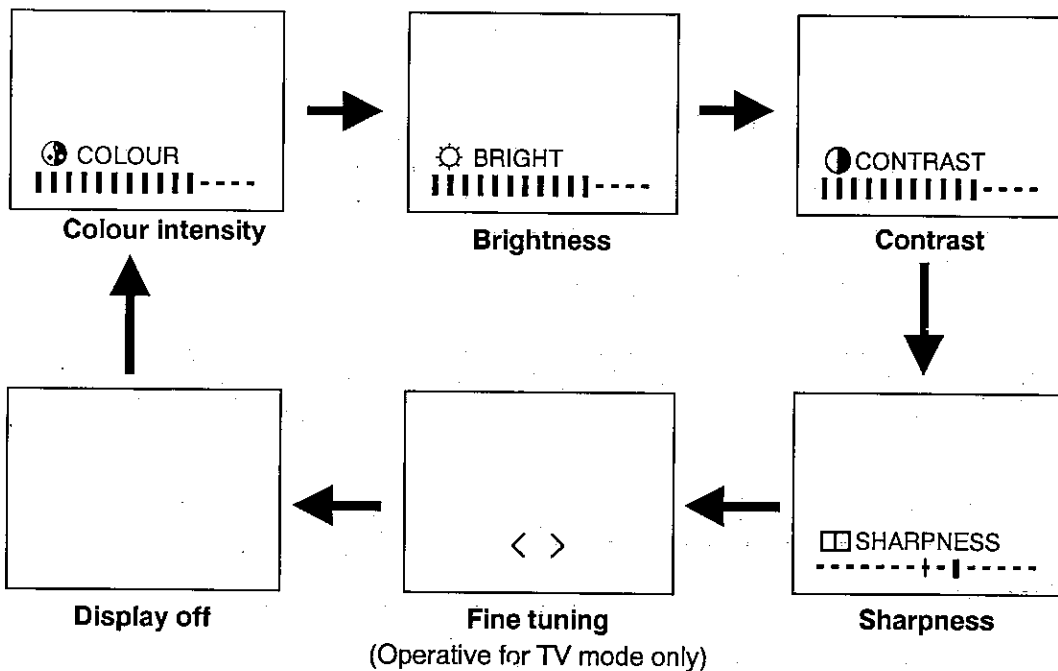
(1) Select the adjustment item using the **FUNCTION** **4** key.



(2) Adjust using the **LEVEL** **3** + and - key.



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



Special Functions

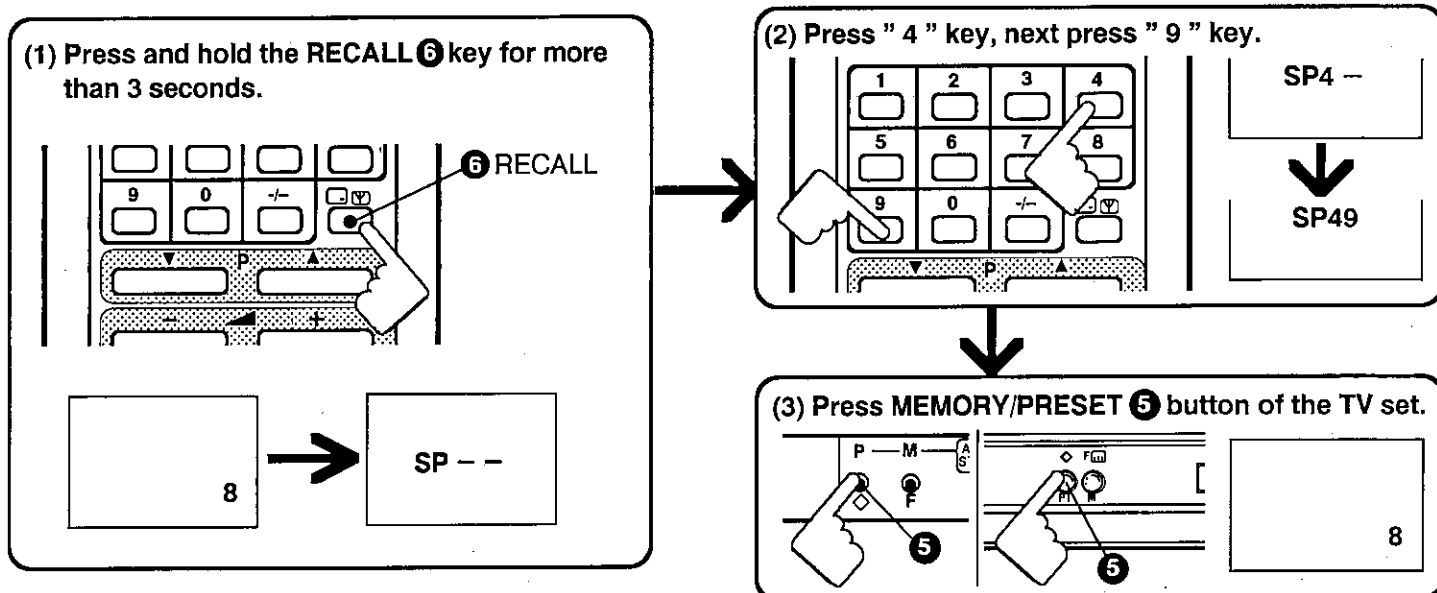
You can set the special functions by inputting the special codes using the RECALL **6** key and the Programme Selector **2-1** of the remote control transmitter.

Special codes and special functions are as follows

Special code	Special functions
SP 00	Reset all special functions (The start condition for the TV power is changed to the standby start).
SP 01	Reset all special functions.
SP 30	Cancellation special code "31".
SP 31	Maximum volume level setting and prohibition of channel tuning function.
SP 40	Setting of the start up condition for the TV programme. (Always switched on in previous programme position)
SP 41	Setting of the start up condition for the TV programme. (Always switched on in programme position "1")
SP 42	Setting of the start up condition for the TV programme. (Always switched on in programme position "2")
SP 43	Setting of the start up condition for the TV programme. (Always switched on in programme position "3")
SP 44	Setting of the start up condition for the TV programme. (Always switched on in programme position "4")
SP 45	Setting of the start up condition for the TV programme. (Always switched on in programme position "5")
SP 46	Setting of the start up condition for the TV programme. (Always switched on in programme position "6")
SP 47	Setting of the start up condition for the TV programme. (Always switched on in programme position "7")
SP 48	Setting of the start up condition for the TV programme. (Always switched on in programme position "8")
SP 49	Setting of the start up condition for the TV programme. (Always switched on in AV mode)
SP 50	Change of the start condition for the TV power (Setting to the standby start).
SP 51	Change of the start condition for the TV power (Setting to the normal start).
SP 60	Cancellation special function 61.
SP 61	Suppression of the auto shut off function.

Note: Special functions are not cancelled when the power is turned off or when the AC power plug is disconnected from the mains.

Example: To input special code "49" (The input method is the same for all the special codes.)



Special Functions

SP00 and SP01 (Reset all special functions)

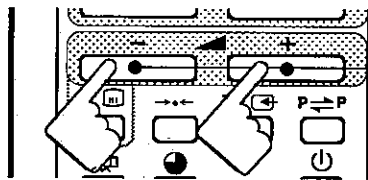
- When "SP01" is input, all special functions are reset.
- When "SP00" is input, all special functions are cancelled, and the start condition for TV power is changed to the standby start condition, meaning that the picture will not appear even when the mains ON/OFF switch ① is set at the on position. To turn on the TV set from the standby mode, press the Power ON/OFF ①-1, Programme UP/DOWN ② or Programme Selector ②-1 key.

SP 31 (Maximum volume level setting and suppression of channel tuning function)

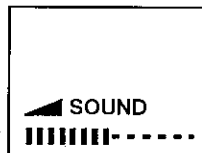
"SP31" is used to set a limit for the maximum volume level while keeping the current preset programme position in memory.

When "SP31" is entered, the volume output at the time of entering the code is placed in the memory as the maximum volume level. In other words, with this code it is possible to set the maximum volume at your preference. Entering this code automatically suppresses the preset function, so that even if the preset button is pressed, the preset mode will remain inactive.

(1) Set the desirable volume level using the LEVEL ③ key.



③ LEVEL



The volume level set in this procedure will be memorized as the maximum volume level.

(2) Input "SP31".

To cancell "SP 31", input "SP 30".

SP50 and 51 (Change of the start condition for the TV power)

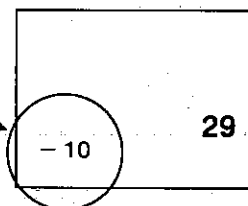
When "SP 50" is entered, the start condition of the TV power is set to the standby start condition, meaning that the picture will not appear even when the Mains ON/OFF switch ① is set at the on position (The TV set remains in standby mode).

To return the TV's power start condition to its original condition (normal start condition), input "SP51".

SP60 and SP61 (Suppression of the auto shut off function)

When "SP 61" is entered, the auto shut off function is suppressed.

AUTO SHUT OFF
(Refer to page 5)



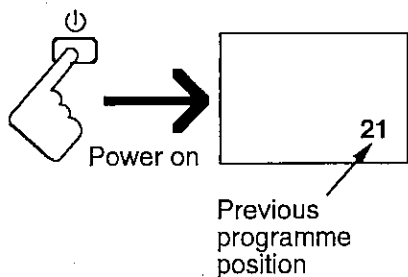
To cancell "SP61", input "SP60".

Special Functions

SP40 —SP49 (Start condition for TV programme)

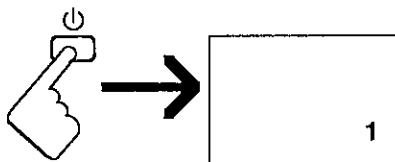
These functions can be used to change the start up condition of the TV set as follows;

When "SP40" is input



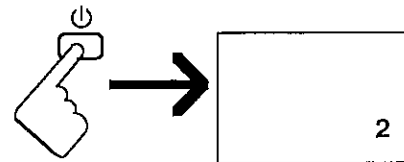
The previously viewed programme position is always selected.

When "SP41" is input



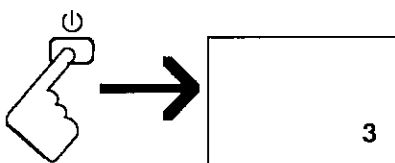
The TV will always switch on in programme position 1.

When "SP42" is input

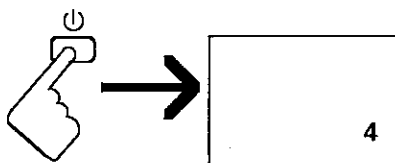


The TV will always switch on in programme position 2.

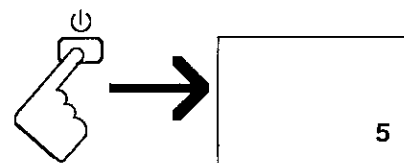
"SP43"



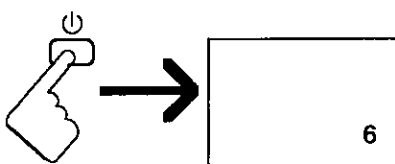
"SP44"



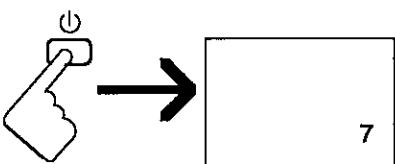
"SP45"



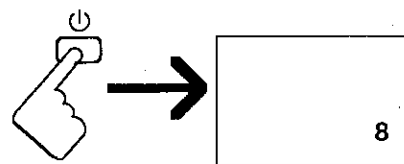
"SP46"



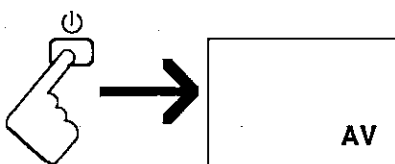
"SP47"



"SP48"



"SP49"



The TV will always switch on in AV mode.

Tuning of the Channels

Up to 30 broadcast stations in your reception area can be stored in the electronic memory.

There are three ways of tuning as follows;

Automatic Tuning (the basic way)

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

Search Tuning

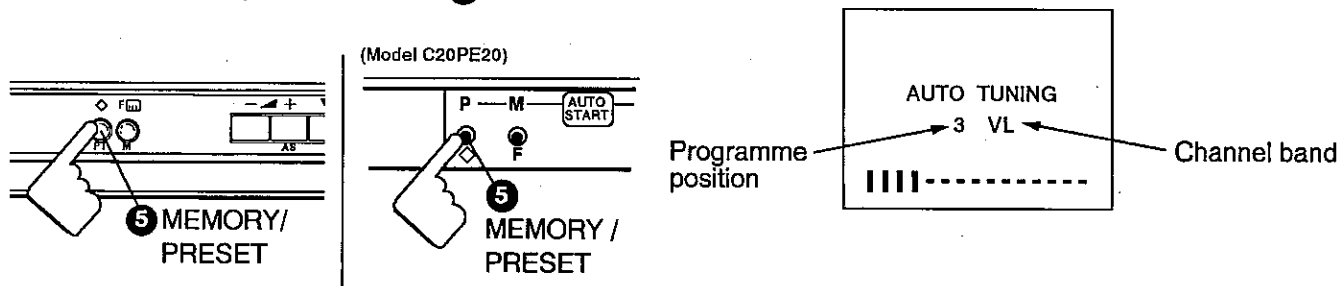
Use to preset a receivable channel in any desired programme position, e.g. the position with the same number as the channel.

Manual Tuning

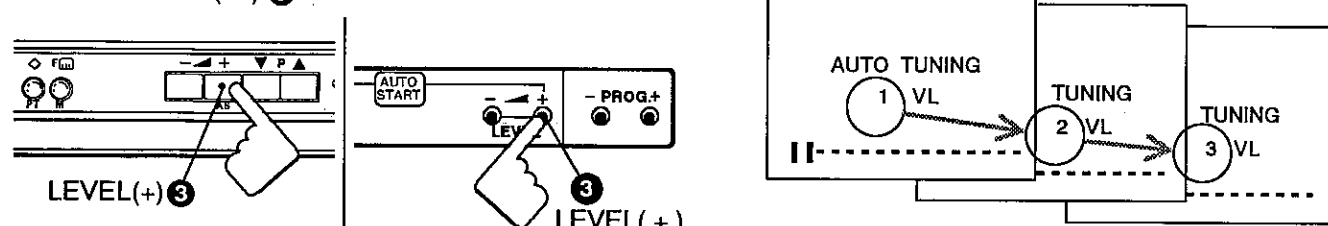
Manually tune a channel if it cannot be automatically tuned, such as when the signal is poor.

Automatic Tuning

(1) Press the MEMORY/PRESET button **5**.



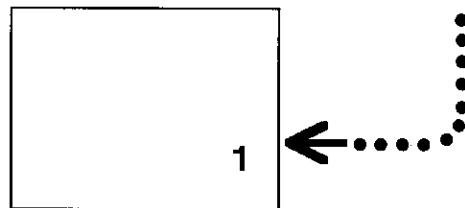
(2) Press the LEVEL(+) **3** button.



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

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

Note: To cancel automatic tuning midway, press the MEMORY/PRESET **5** or Power ON/OFF **1-1** button.



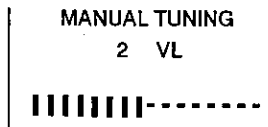
Channel Copy

Example: To copy the TV channel in the programme position 2 into the programme position 6

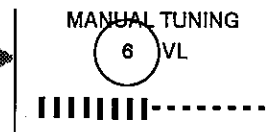
(1) Select programme position 2 using Programme selector **2-1**.



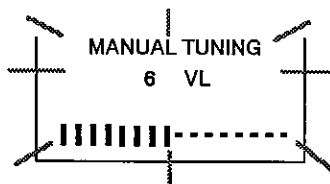
(2) Press the MEMORY/PRESET button **5** 3 times.



(3) Select the programme position 6 using Programme UP/DOWN **2** button of the TV set.



(4) Press FUNCTION button **4**.



(5) Press the MEMORY/PRESET button **5**.



Tuning of the Channels

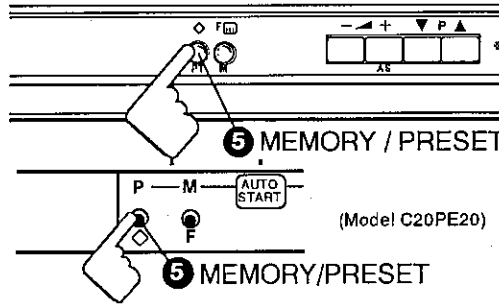
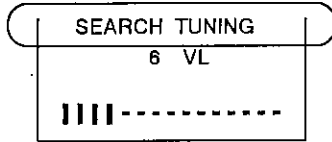
Search tuning & Manual Tuning

Example: To preset a channel in programme position 6

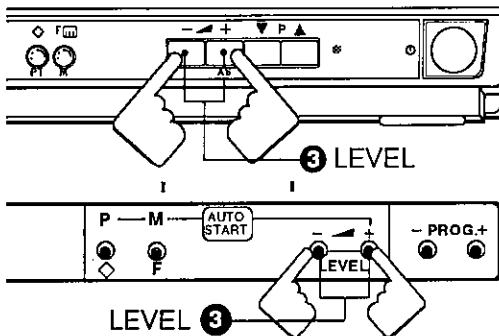
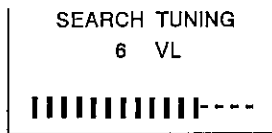
Search Tuning

(1) Select programme position 6 using Programme selector **2-1**.

(2) Press the MEMORY/PRESET button **5** twice.

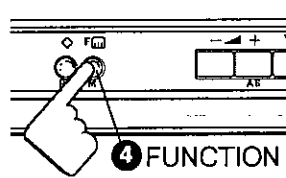
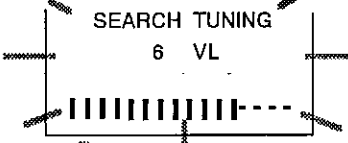


(3) Press the LEVEL(+) or (-) **3** button.



When a station is found, searching stops automatically.

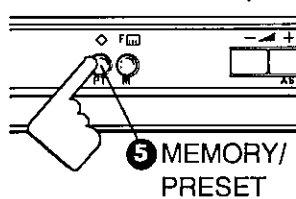
(4) Press FUNCTION button **4**.



(5) Press the MEMORY/PRESET button **5** twice.



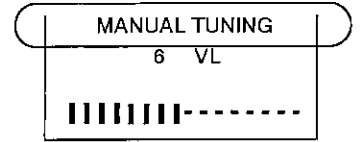
This completes the presetting.



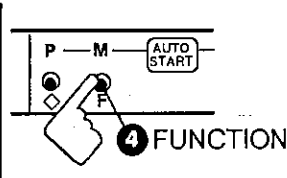
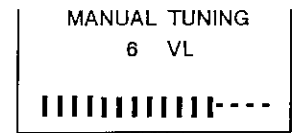
Manual Tuning

6

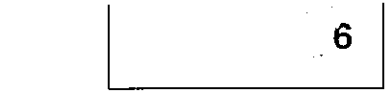
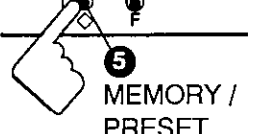
(2) Press the MEMORY/PRESET button **5** 3 times.



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



(5) Press the MEMORY/PRESET button **5**.



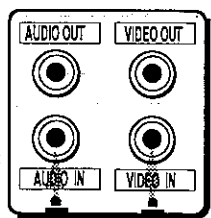
This completes the presetting.

Repeat steps 1 to 5 for other desired channels.

Connecting other Equipment

Connecting to the AV input jacks

(A/V terminal)



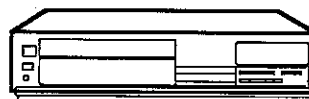
Connect the video and audio outputs of a VCR, video disc player, etc. to the input jacks of this TV set. Tapes and discs can be played back.

VIDEO/AUDIO Input level

	Level	Impedance
VIDEO INPUT	1.0Vp-p	75 Ω
AUDIO INPUT	436mVrms	More than 40K Ω

to Video Output ⇒

VCR for playback

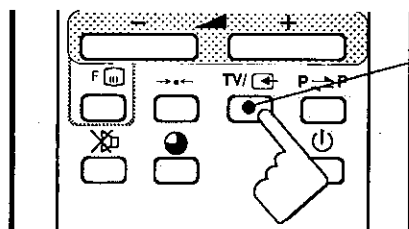


to Audio Output ⇒

PLAYBACK

To watch the video input picture

(1) Press the TV/AV Selector **11**.



11
TV/AV
Selector

28

AV

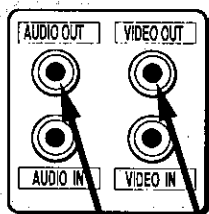
(2) Set the VCR to playback mode.

To return to the TV mode;

Press the TV/AV Selector again.

Connecting to the AV output jacks

(A/V Terminal)



The AV output terminal provides audio and video output for TV broadcasts being received. They are used to record TV broadcasts.

To record TV broadcasts, Select the TV mode using TV/AV Selector **11**.

VIDEO/AUDIO output level

	Level	Impedance
VIDEO OUTPUT	1.0Vp-p	75 Ω
AUDIO OUTPUT	436mVrms	Less than 600 Ω

to video input ⇒

VCR for recording

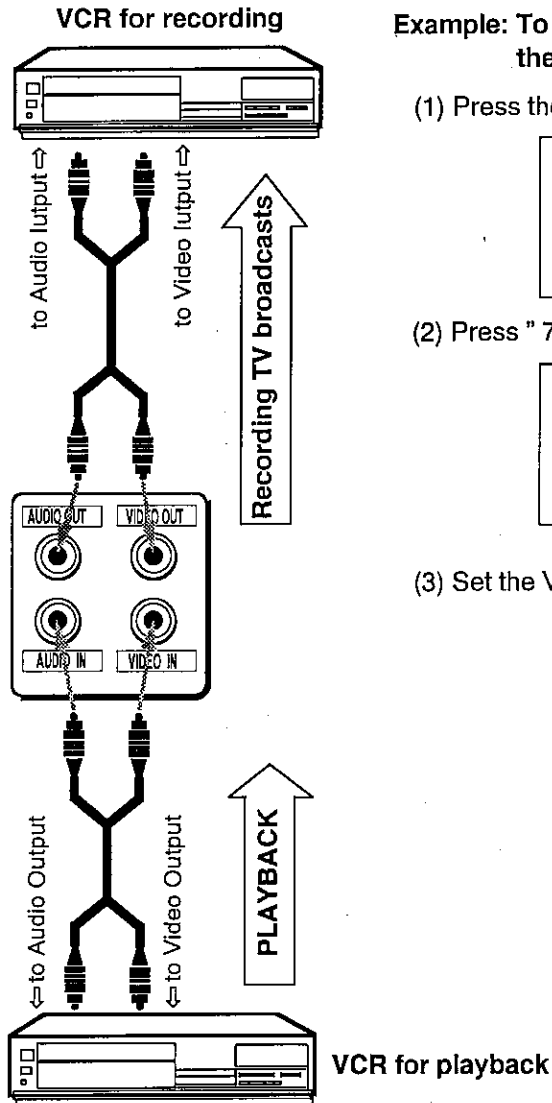


to audio input ⇒

Recording TV broadcasts

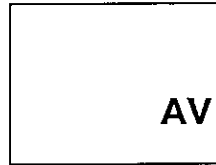
Connecting other Equipment

To record a TV broadcast while watching the playback from a VCR

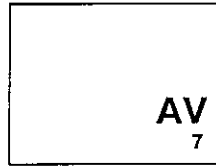


Example: To record a TV broadcast of programme position " 7 " while watching the playback from a VCR,

(1) Press the TV/AV Selector **1** , and set the VCR to playback mode.



(2) Press " 7 " key of the Programme Selector **2-1** .



(3) Set the VCR for recording to the recording mode.

AV connection to the aerial socket

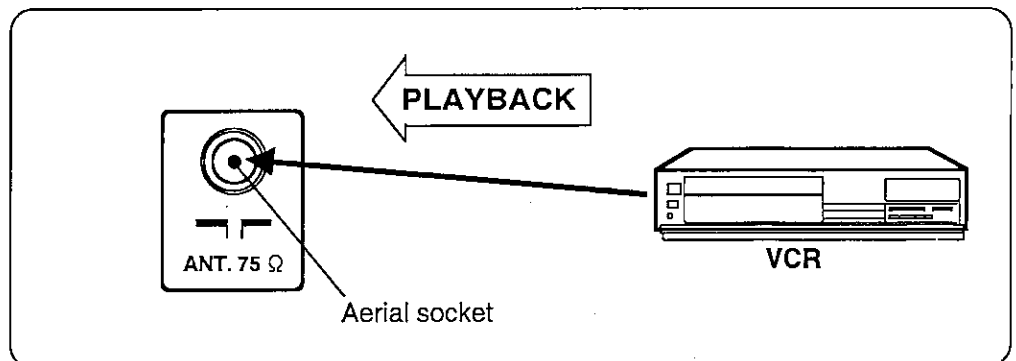
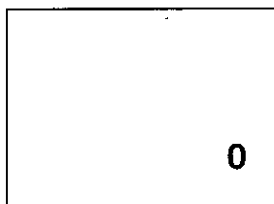
The AV apparatus can also be connected to the aerial socket of your TV receiver.

Presetting to watch the video input

- (1) Play back the VCR.
- (2) Tune a channel in programme position 0 (See Search tuning & Manual tuning on page 13).

Watching the video input

Select programme position 0.



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

Specifications

Power source	AC 220 – 240 Volts, 50Hz.
Receiving system	PAL-B/G
Channel Coverage	VHF : 0-5, 5A-11 UHF : 28 – 69
Aerial input impedance	75 Ω
Audio output	C14PA20: 3.0W C20PE20: 3.5W
Ext. terminals	AV inputs: Video input(Phono jack) x 1 Audio input(Phono jack) x 1 AV output: Video output(Phono jack) x 1 Audio output(Phono jack) x 1 Headphone Mini. jack x 1 (C20PE20 only)
Dimensions	C14PA20: 362.7(W) x 330(H) x 379.5(D)mm C20PE20: 494(W) x 441(H) x 472(D)mm
Weight	C14PA20: approx. 9.2Kg C20PE20: approx. 18Kg

Specifications subject to change without notice.

The SANYO logo consists of the word "SANYO" in a bold, sans-serif font. The letter "A" is stylized with three vertical lines passing through it.

SANYO ELECTRIC Co., Ltd