

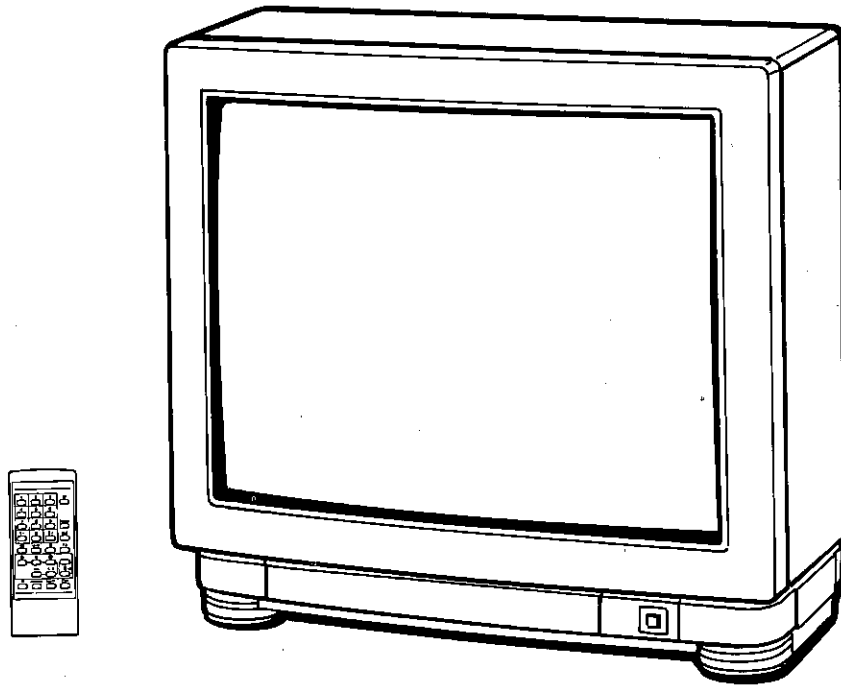
# SANYO

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**Instruction  
Manual**

**Colour  
Television**

**Model CAX2141  
CAX2141A  
CAX2141F  
CAX2141FP**



**14 SYSTEMS  
SPECIAL FUNCTIONS  
CHANNEL SCANNING**

# Introduction

## 14 Systems

Of the colour broadcasting systems, VCR and Video disc. player playback signals now in use throughout the world, this multi-system colour television receiver has been designed for reception of any of the 14 different systems listed below.

1. PAL — B/G (broadcast signal and playback signal, B/G system VCR and video disc).
2. PAL — D/K (broadcast signal and playback signal, D/K system VCR and video disc).
3. PAL — I (broadcast signal and playback signal, I system VCR and video disc).
4. SECAM — B/G (broadcast signal and playback signal, B/G system VCR and video disc).
5. SECAM — D/K, K' (broadcast signal and playback signal, D/K system VCR and video disc).
6. NTSC — M/M (broadcast signal and playback signal, M/M system VCR and video disc).
7. Modified NTSC 4.43/5.5 MHz (NTSC playback signal from B/G system VCR).
8. Modified NTSC 4.43/6.5 MHz (NTSC playback signal from D/K and K' system VCR).
9. PAL-60Hz, 5.5MHz: If NTSC soft disc is played back by PAL-B/G VHD player.
10. PAL-60Hz, 6.0MHz: If NTSC soft disc is played back by PAL-I VHD player.
11. PAL-60Hz, 6.5MHz: If NTSC soft disc is played back by PAL-D/K VHD player.
12. SECAM-60Hz, 5.5MHz: If NTSC soft disc is played back by SECAM-B/G VHD player.
13. SECAM-60Hz, 6.5MHz: If NTSC soft disc is played back by SECAM-D/K VHD player.
14. NTSC-50Hz, 4.5MHz: If PAL/SECAM soft disc is played back by NTSC VHD player.

# Electric Mains

The TV receiver is manufactured to utilize an AC VOLTAGE SOURCE of 110/127/220/240 Volts, 50Hz/60Hz. (range of operation: 80Vmin. — 290Vmax.)

## Safety Precaution

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.

# WARNING

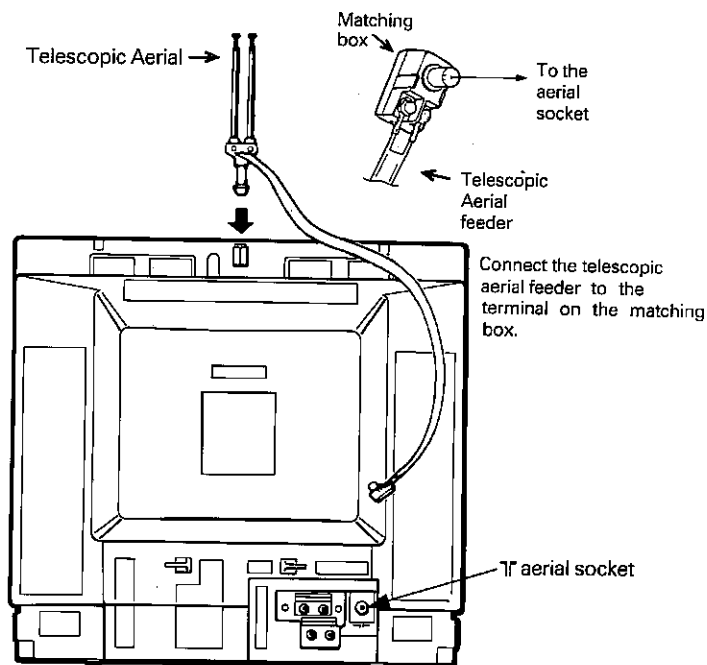
To prevent fire or shock hazard, do not expose the unit to rain or moisture.

High voltages are used in the operation of this TV set.

Do not remove the back from your set. Refer servicing to qualified service personnel.

# Aerial Connection

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



- For all aerial circuit problems please consult your local dealer.

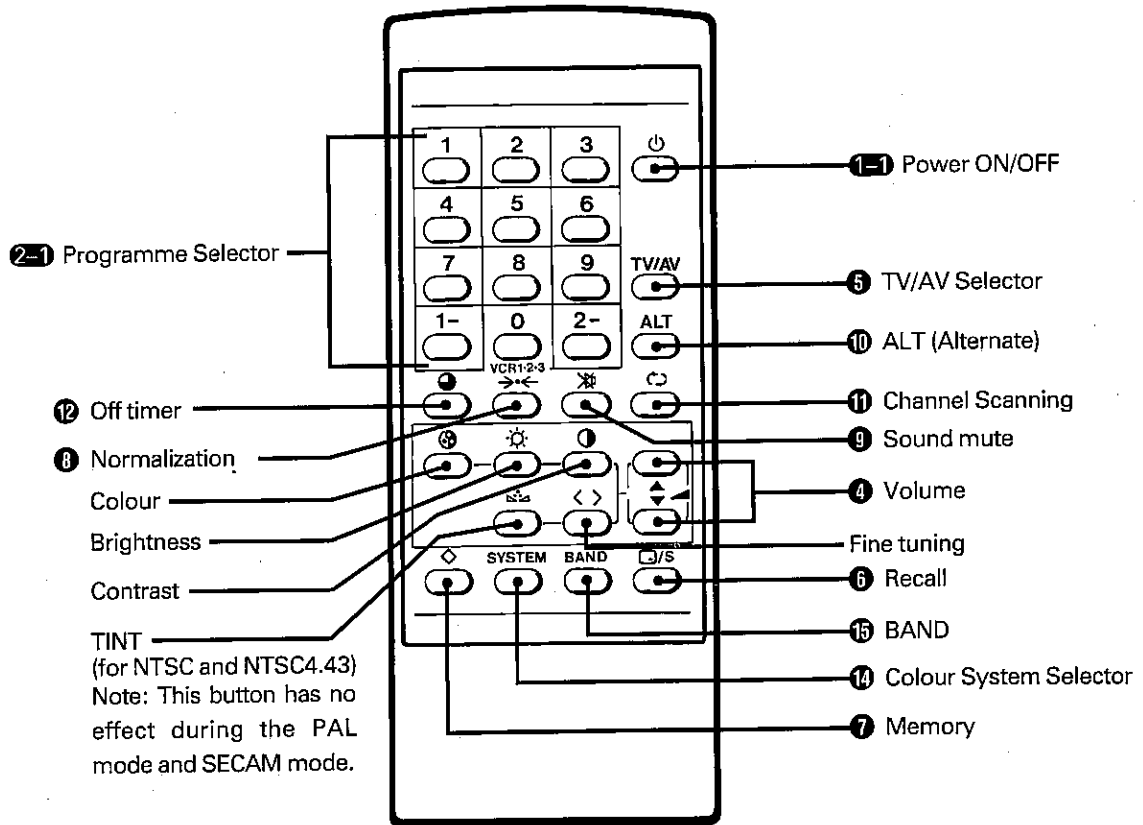
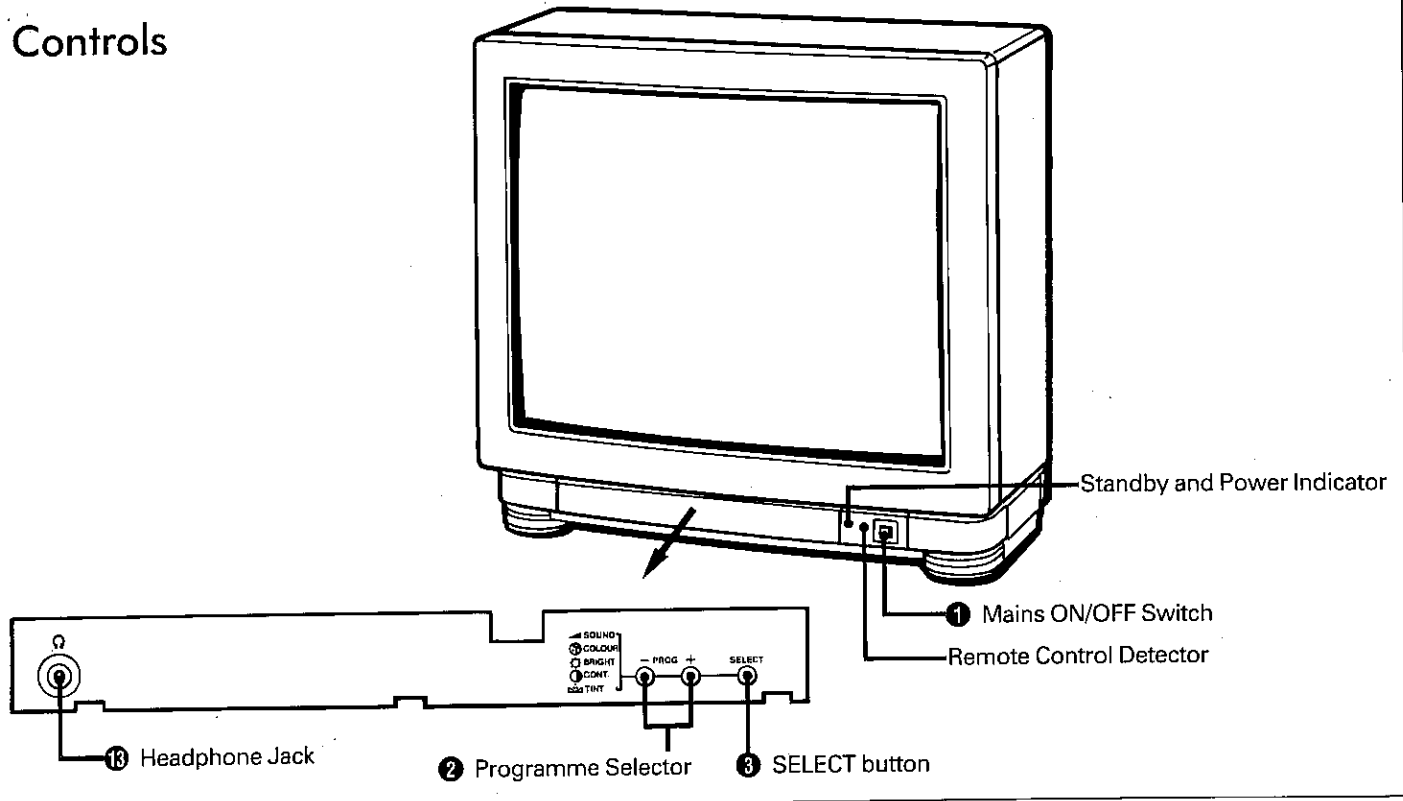
## Battery Installation (Remote Control Transmitter)

- 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.

# Controls



## Remote Control Transmitter

# General Operation

Usually the Remote Control Transmitter is all that is needed to watch the TV.

Please refer to the illustration on page 2, whilst reading these instructions.

## Switching on/off

### ● To turn on the TV:

Press **Mains ON/OFF** switch ①.

### ● To turn off the TV:

Press the **Power ON/OFF** button ①-1 on the remote control transmitter, and the TV changes to the standby mode. During the standby mode, the standby and power indicator illuminates more brightly than during the power-ON mode.

Press this button to turn off the unit for short periods of the time.

### ● To turn on the TV from the standby mode:

Press one of these button.

- Power ON/OFF ①-1
- Programme Selector ②-1 (except buttons "1-" and "2-")
- Programme Selector ②

### ● To cut off the mains power completely:

Press the **Mains ON/OFF** switch ①.

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

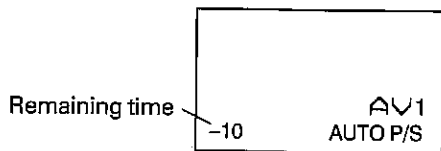
### ● AUTO SHUT OFF

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.**

Note: AUTO SHUT OFF also functions for the AV mode even when there is no signal being transmitted.

The remaining time for AUTO SHUT OFF is displayed on the screen.



## Programme selection

● e.g. To select programme number 17, press "1-" button and then press "7" button ②-1 within five seconds.

To select programme number 27, press "2-" button and then press "7" button ②-1 within five seconds.

● To scan the programmes:

Press the right side (+) of the programme selector ② of the TV set, and the TV set will step up to the next station, i.e; 1, 2, 3 ... 29, VCR1, VCR2, VCR3, 1, 2, 3 ...

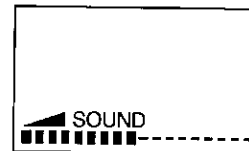
Press the left side (-), and the TV set will step down to the previous station.

## Picture and sound adjustments

(Use the remote control transmitter.)

● To adjust the sound volume:

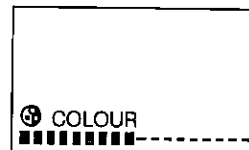
Press ▲ (up) or ▼ (down) volume ④ button.



● To adjust the colour intensity:

Press ⊕ (Colour) button.

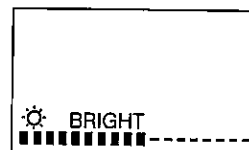
↓  
Press ▲ or ▼ volume button.



● To adjust the brightness:

Press ☀ (Brightness) button.

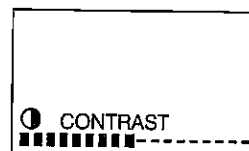
↓  
Press ▲ or ▼ volume button.



● To adjust the picture contrast:

Press ⊖ (Contrast) button.

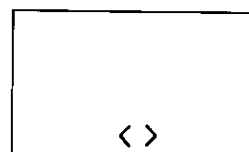
↓  
Press ▲ or ▼ volume button.



● Fine tuning

Press < > (Fine tuning) button.

↓  
Press ▲ or ▼ volume button.



Note: Normally fine tuning is not required for this TV. However, in some case (such as radio interference) picture may become more clear by detuning from the best tuned frequency.

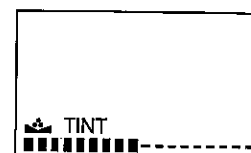
In such case, you can use this fine tuning to eliminate some interference beat pattern.

● To adjust tint:

(NTSC and NTSC 4.43 colour system only)

Press ⊕ (TINT) button.

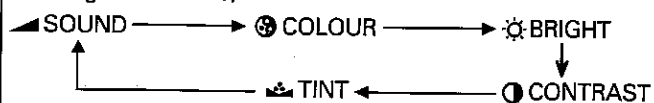
↓  
Press ▲ or ▼ volume button.



## To adjust the picture and sound by using the front controls of the TV set:

① Select the control function by pressing SELECT button ③.

\*Each time SELECT button ③ is pressed, the control function changes as follows;

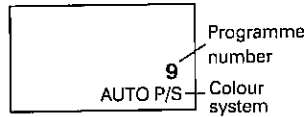


② Press Programme Selector ② (+ or -), and adjust the sound volume, colour, brightness, contrast or tint.

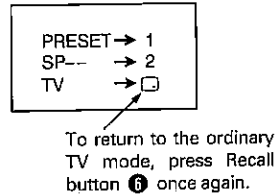
# (General Operation)

## 6 .... Recall /S



To display the on-screen indications, press this button. The display disappears after five seconds.

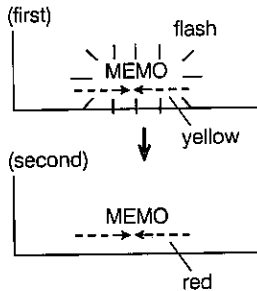


Note: When this button is pressed for more than 2 seconds, a menu display such as that shown at the right will appear. This menu display is used for presetting of stations and when setting special functions.




## 7 .... Memory

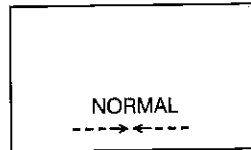
Present sound volume, colour, brightness, contrast and tint levels can be stored into the memory by pressing  (Memory) button twice, and these control levels can be recalled by pressing Normalization  button.



- Press MEMORY button once. The "MEMO" display flashes in yellow.
- Press MEMORY button again to complete memorizing. The "MEMO" display changes to red.

## 8 .... Normalization

When this button is pressed, sound volume, colour, brightness, contrast and tint levels which are memorized by pressing Memory  button are recalled.




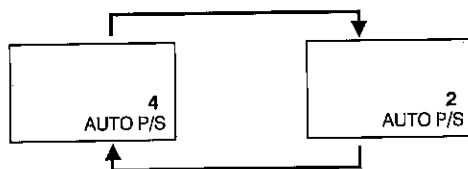
## 9 .... Sound mute

Should you wish to mute the sound (e.g. While talking on the telephone), press this button once. To switch the sound back on, press it again.




## 10 .... ALT (Alternate)

Press the "ALT (Alternate)" button  and the TV set will alternately select the previous channel and the present channel. For example, now you are watching channel 4 but you watched channel 2 previously. If you press the "ALT Key", channel 2 immediately appears.




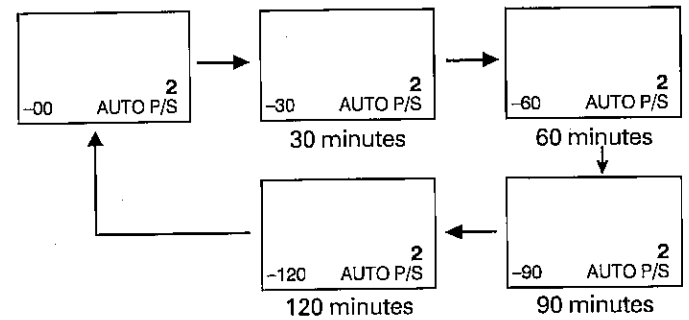
## 11 .... Channel Scanning

Press Channel Scanning 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.

## 12 .... Off timer

After a set time has elapsed, the power of the TV receiver is switched off automatically.

- Each time Off timer button  is pressed, the set time changes as follows:



With the off timer being set and the channel display reset, the remaining time is displayed by pressing the off timer button again.


When the button is pressed again within three seconds after the button was first pressed in above manner, the time is set to an upper time which is most close to the remaining time.

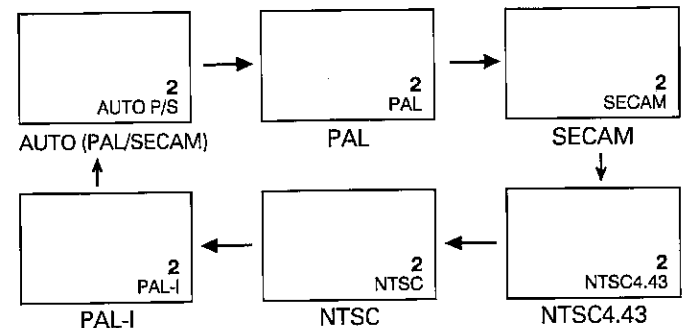
- Just one minute before switching off, "01" and programme number you are watching are displayed on the screen.
- The timer setting will be cancelled if the power is switched off.

## 13 .... Headphone Jack

Inserting the headphone (option) to the outlet provides personal listening, (or recording purpose with the appropriate lead.) The TV set speaker is automatically switched off.

## 14 .... Colour System Selector

Each time Colour System Selector  is pressed in the TV mode, the colour system changes as follows:



When the colour system is set to "AUTO P/S" position, this TV receiver can receive colour programmes of both PAL or SECAM systems. If the receiving signal quality is poor (such as weak, ghost or distorted). In this case, the colour system shall be set at either PAL or SECAM position according to the colour system of your receiving television signal.

Note: A colour system entry to the memory cannot be made during the TV mode, make it during the pre-set mode. (Refer to the section concerning pre-setting of stations, on page 7.)

# Special Functions

- You can set the Special Functions to input the Special Codes.

The Special Codes and the Special Functions are as follows.

SPECIAL CODE	SPECIAL FUNCTIONS
00	Re-set all Special Functions (The start condition for the TV power is changed to the standby start.)
01	Re-set all Special Functions
70	Search for the Channel Scanning
71	Memory Delete for the Channel Scanning (Used to delete a programme position from the channel scanning positions.)
72	Memory Add for the Channel Scanning (Used to add a programme position to the channel scanning positions.)

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

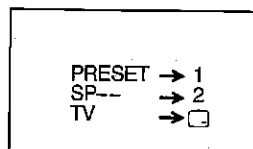
## Search for the Channel Scanning (SPECIAL CODE "70")

- When SPECIAL CODE "70" is input, all the programme positions are automatically scanned, and the active programme positions are stored in memory.

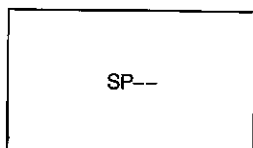
Once this programming is completed, the TV receiver will select only the stored programme positions when Channel Scanning key **1** is pressed.

To input Special Code "70":

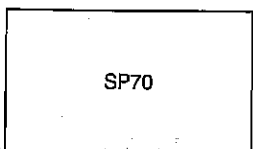
- Press and hold **□/S** (Recall) button **6** of the remote control transmitter for more than 2 seconds.



- Press "2" button of the programme selector **2-1**.

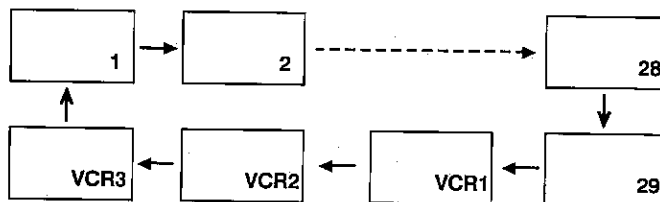


- Press "7" button, next press "0" button of the programme selector **2-1**.



- Press **◇** (Memory) button **7**. The programme positions are then automatically scanned, and the active programme positions are stored in the memory.

The channel scanning will then stop at the position where it started scanning.



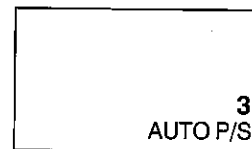
Search for the Channel Scanning is now completed.

## Memory Delete for the Channel Scanning (SPECIAL CODE "71")

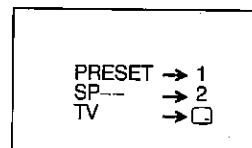
- This function is used to delete a programme position from the channel scanning positions, so it will not be scanned when Channel Scanning button **1** is pressed.

**For example, to delete position "3" from the channel scanning positions:**

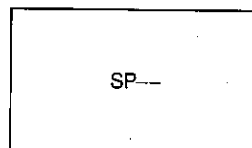
- Select programme position "3" using the Programme Selector **2** or **2-1**.



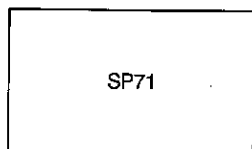
- Press and hold **□/S** (Recall) button **6** for more than 2 seconds.



- Press "2" button of the programme selector **2-1**.



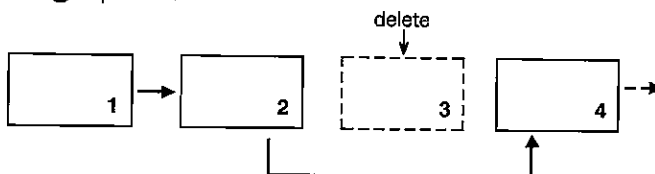
- Press "7" button, next press "1" button of the programme selector **2-1**.



- Press **◇** (Memory) button **7**. ("SP 71" disappears.)

Position "3" is now deleted from the channel scanning positions.

Position "3" will be passed over when Channel Scanning button **1** is pressed.




# (Special Functions)

## ■ Memory Add for the Channel Scanning (SPECIAL CODE "72")

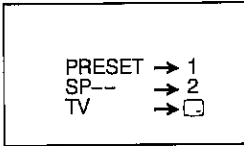
- This function is used to add a programme position to the channel scanning positions, so it will be scanned when Channel Scanning button ① is pressed.

For example, to add position "3" to the channel scanning positions:

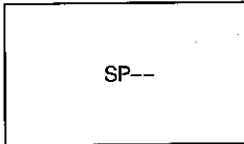
① Select programme position "3" using the Programme Selector ② or ②-1 .




② Press and hold □/s (Recall) button ⑥ for more than 2 seconds.



③ Press "2" button of the programme selector ②-1 .

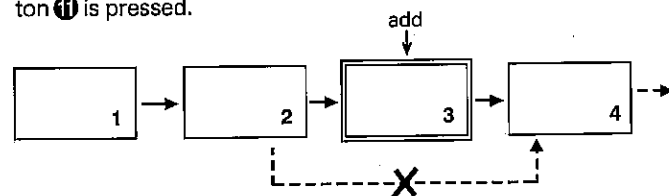


④ Press "7" button, next press "2" button of the programme selector ②-1 .



⑤ Press ◇ (Memory) button ⑦. ("SP 72" disappears.)

Position "3" is now added to the channel scanning positions. Position "3" will be scanned when the Channel Scanning button ① is pressed.

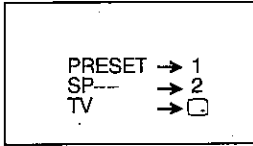


## ■ Re-set All Special Functions (SPECIAL CODE "01")

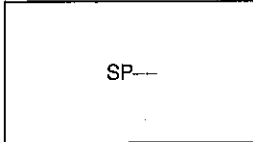
- When SPECIAL CODE "01" is input, all the special functions are re-set.

To input Special Code "01":

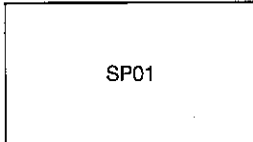
① Press and hold □/s (Recall) button ⑥ for more than 2 seconds.



② Press "2" button of the programme selector ②-1 .



③ Press "0" button, and then press "1" button of the programme selector ②-1 .



④ Press ◇ (Memory) button ⑦. ("SP01" disappears.) All the special functions are now re-set.

## ■ Re-set All Special Functions (Special Code "00")

- The Special Functions can also be cancelled by inputting Special Code "00".

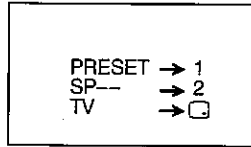
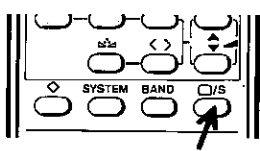
Note: When Special Functions are cancelled using Special Code "00", the start condition for TV power is changed to the standby start condition, meaning that the picture will not appear even when the Mains ON/OFF Switch ① is set to the on position. To turn on the TV set from the standby mode, press ①-1, ② or ②-1 button.

- Special Code "00" is input in the same manner as Special Code "01".

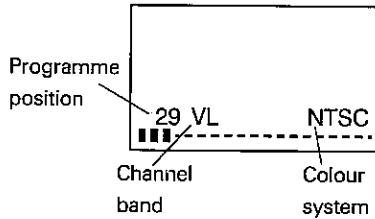
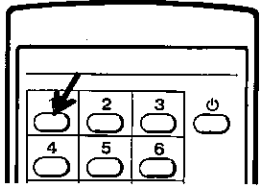
# Pre-Setting of Stations

Up to 32 broadcast stations in your reception area can be stored in the electronic memory.

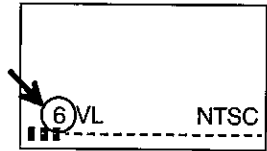
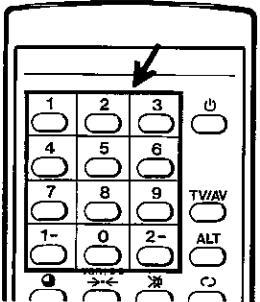
1 Press and hold /S (Recall) button ⑥ for more than 2 seconds.



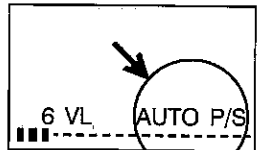
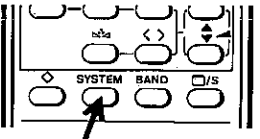
2 Press "1" button of the programme selector ②-1 to select the pre-set mode.



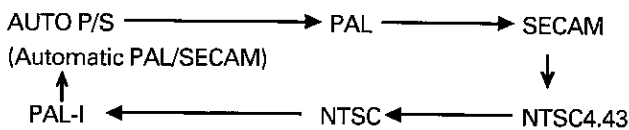
3 Press the programme selector ②-1 to select the desired programme position.



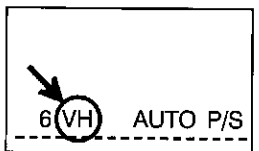
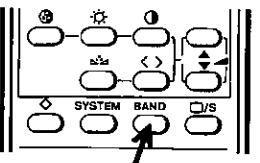
4 Press Colour System Selector ⑩ to select the colour system according to your receiving television signal.



• Each time Colour System Selector is pressed, the colour system changes as follows:



5 Press BAND selector ⑮ to select the channel band.

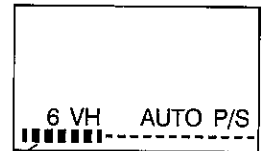
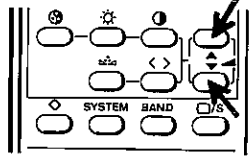


When BAND selector is pressed, the frequency will be set to the lowest frequency in the set band.

• Channel band VL, VH and U are for the following channel groups.

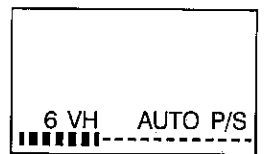
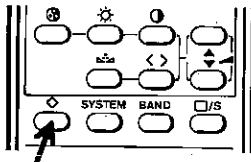
band	Region	Channel	Colour System
VHF Low	West Europe/Mid-East...	E2 ~ E4	(PAL/SECAM)
	U.S.A.....	A2 ~ A6	(NTSC)
	East Europe.....	R1 ~ R5	(SECAM)
	Japan .....	J1 ~ J3	(NTSC)
VHF High	West Europe/Mid-East...	E5 ~ E12	(PAL/SECAM)
	U.S.A.....	A7 ~ A13	(NTSC)
	East Europe.....	R6 ~ R12	(SECAM)
	Japan .....	J4 ~ J12	(NTSC)
	Ivory coast, Gabon etc...	K'4 ~ K'9	(SECAM)
UHF	West Europe/Mid-East...	E21 ~ E69	(PAL/SECAM)
	U.S.A.....	A14 ~ A78	(NTSC)
	East Europe.....	R21 ~ R69	(SECAM)
	U.K. ....	B21 ~ B69	(PAL-I)
	Japan .....	J13 ~ J62	(NTSC)

6 Press and hold (volume) button ④ until the desired station appears.



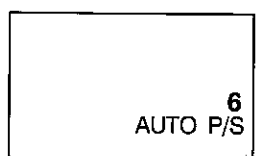
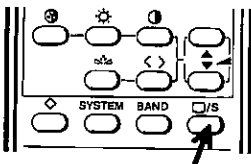
The number of upright segments increases for a higher-frequency channel.

7 Press (Memory) button ⑦.



8 Repeat steps 3 to 7 for other desired channels.

9 Press /S (Recall) button ⑥. This completes the pre-setting.



## Memory Copy

This TV tuning system has another advanced feature called "memory copy".

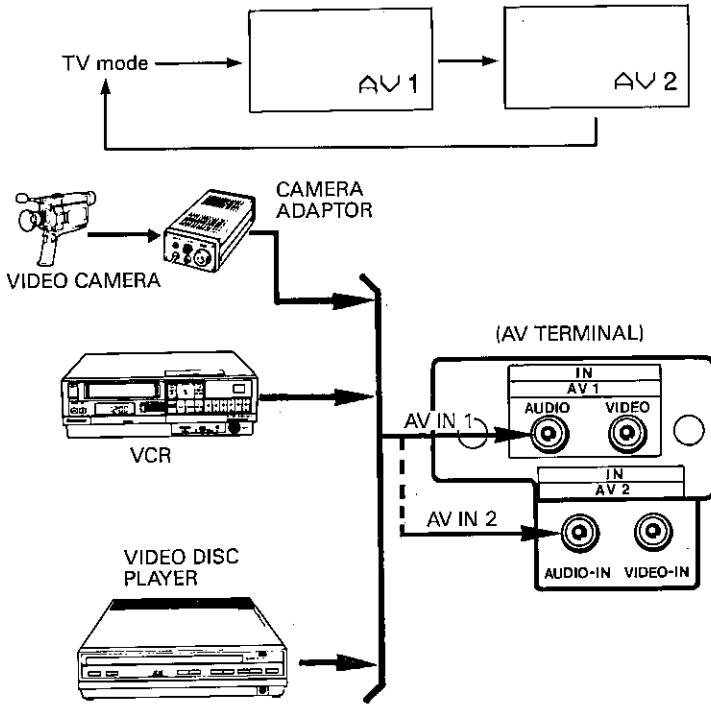
For example, if you wish to copy the TV channel in the programme position "2" into the programme position "6":

1. Select the programme position "2".
2. Press and hold /S (Recall) button ⑥ for more than 2 seconds.
3. Press "1" button of the programme selector ②-1 to select the pre-set mode.
4. Press "6" button of the programme selector ②-1.
5. Press (Memory) button ⑦.
6. Press /S (Recall) button ⑥.



# Video/Audio Input Connection

- Connect the video and audio outputs of a VCR, video disc player, etc. to the input jack of this TV set. Tapes and discs can be played back.
- To watch the input picture, press TV/AV Selector **5**. Each time the TV/AV Selector **5** is pressed, the AV position changes as follows:



## VIDEO/AUDIO Input level

	Level	Impedance
VIDEO INPUT	1.0 Vp-p	75 Ω
AUDIO INPUT	436m Vrms	More than 40 kΩ

If necessary, press Colour System Selector **14** to select the desired colour system.

Each time Colour System Selector is pressed, the colour system changes as follows in the AV mode:

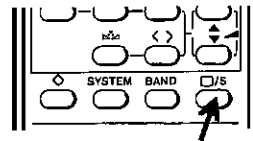


(AV mode)



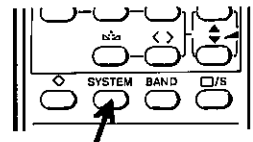
- To pre-set the colour system in the AV mode:

- 1 Press and hold **□/S** (Recall) button **6** for more than 2 seconds.



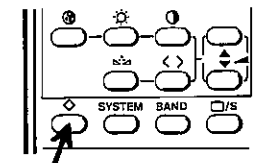
AV1 AUTO P/S

- 2 Press Colour System Selector **14** to select the colour system.



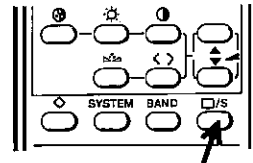
AV1 NTSC4.43

- 3 Press **◇** (Memory) button **7**.



AV1 NTSC4.43

- 4 Press **□/S** (Recall) button **6**. This completes the pre-setting.

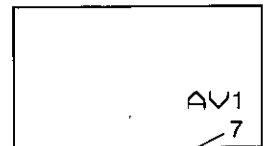


AV1  
NTSC4.43

Note: In the AV mode, you can select the TV programme.

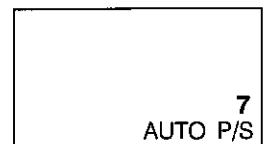
- For example, to select the programme position "7" in the AV mode (while watching the playback from a VTR):

- 1 Press "7" button of the programme selector **2-1**.



Programme number

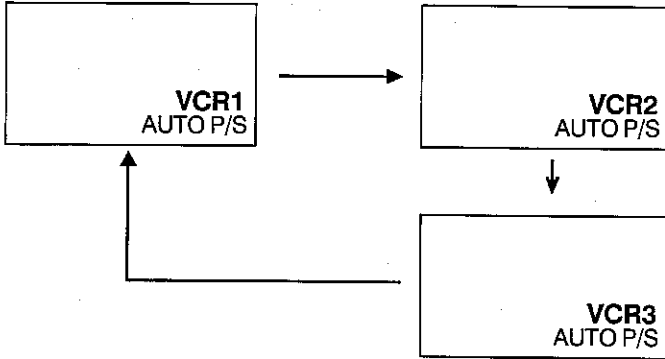
- 2 Press TV/AV Selector **5**, and the picture of the programme position "7" will appear.



# AV Connection to the Aerial Socket

- The A.V. apparatus can also be connected to the aerial socket of your TV receiver. In this case, it is advisable to select the "VCR1", "VCR2" or "VCR3" position for the best picture by pressing "0" key of the programme selector.

Each time "0" key is pressed, VCR Position changes as follows:



Note: VCR Position is specially designed for the playback of the AV equipments. The picture of the VCR playbaking may be distorted in other position.

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

# Specifications

- Power source AC 110/127/220/240 Volts, 50Hz/60Hz.  
(range of operation: 80Vmin. — 290Vmax.)
- Power consumption 81 Watts
- Television system B/G, I, M, D/K, K'
- Colour system PAL, SECAM, NTSC, NTSC4.43
- Channel coverage

Colour System	Television system	VHF	UHF
PAL/SECAM	B/G	E2 — E12	E21 — E69
PAL	I	—	B21 — B69
NTSC	M/M	A2 — A13 J1 — J12	A14 — A78 J13 — J62
PAL/SECAM	D/K	R1 — R12	R21 — R69
SECAM	K'	K'4 — K'9	—

If cable television is available in your area, it can be received on your new TV.

- Picture Tube 55 cm diagonal, 90 degree deflection.  
(Useful screen: 51cm diagonal)
- Aerial input impedance 75 ohm
- Audio output 3.0 watts
- Ext. terminals Video input (phono jack) × 2  
Audio input (phono jack) × 2
- Dimensions 506(Width) × 466(Height) × 483(depth) mm
- Weight 21 kg

*Specifications subject to change without notice.*

