

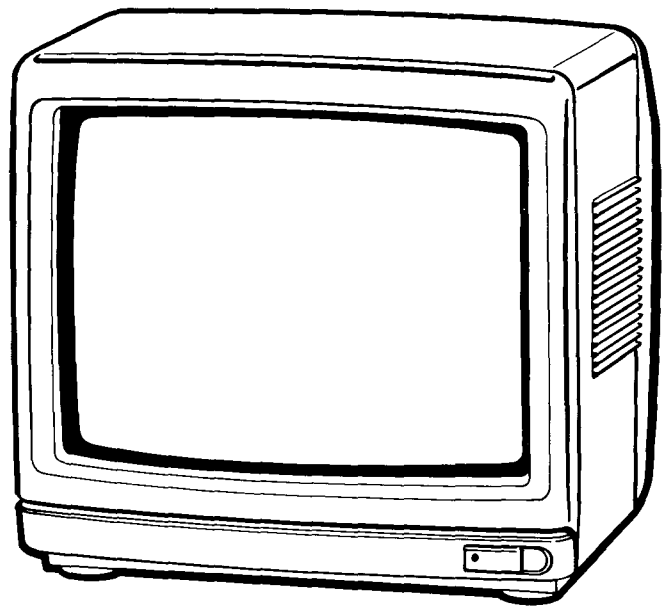
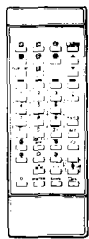
# SANYO

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**Instruction  
Manual**

**Colour  
Television**

**Model CZP3024TX  
CZP6024TX**



**TELETEXT (FLOF)  
SPECIAL FUNCTIONS  
CHANNEL SCANNING  
AV INPUT TERMINALS**

## Electric Mains

The TV receiver is manufactured to utilize an AC VOLTAGE SOURCE of 220 to 240 Volts, 50Hz.

Range of operation: 160V(min.) – 290V(max.)

### 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.

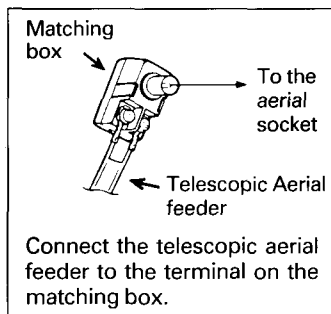
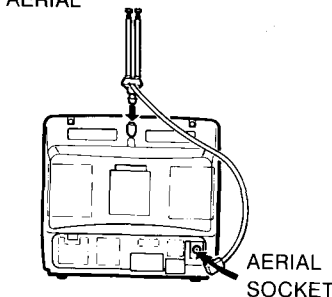
High voltages are used in the operation of this TV set.

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  $\pi$  aerial socket on the cabinet back.

### MOUNTING TELESCOPIC AERIAL



Note: The telescopic aerial of the model CZP6024TX is an optional extra.

- 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.

## Specifications

Power Source ..... AC 220 to 240V, 50Hz.

Range of operation: 160V(min.) – 290V(max.)

Television System ..... System B/G

Colour System ..... PAL

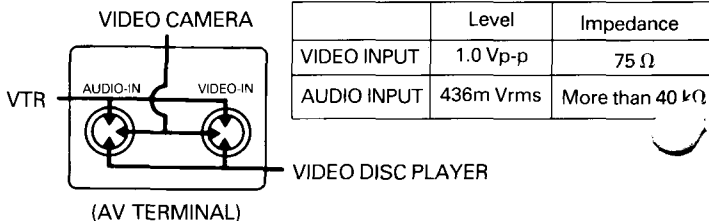
Channel Coverage ..... VHF: 1 – 11

UHF: 21 – 69

Aerial Input Impedance .... 75 ohm

## Video/Audio Input Connection

### VIDEO/AUDIO Input level

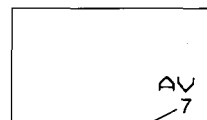


- Connect the video and audio outputs of a VTR, video disk player, etc. to the input jack of this TV set. Tapes and discs can be played back.
- To watch the input picture, press TV/AV Selector **5**.
- To return to the TV mode, press TV/AV Selector **5** again.

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

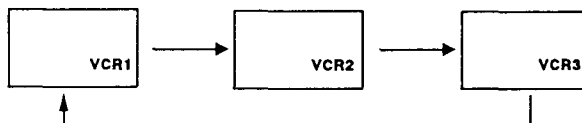
- 2 Press TV/AV Selector **5**, and the picture of the programme position "7" will appear.



## 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.

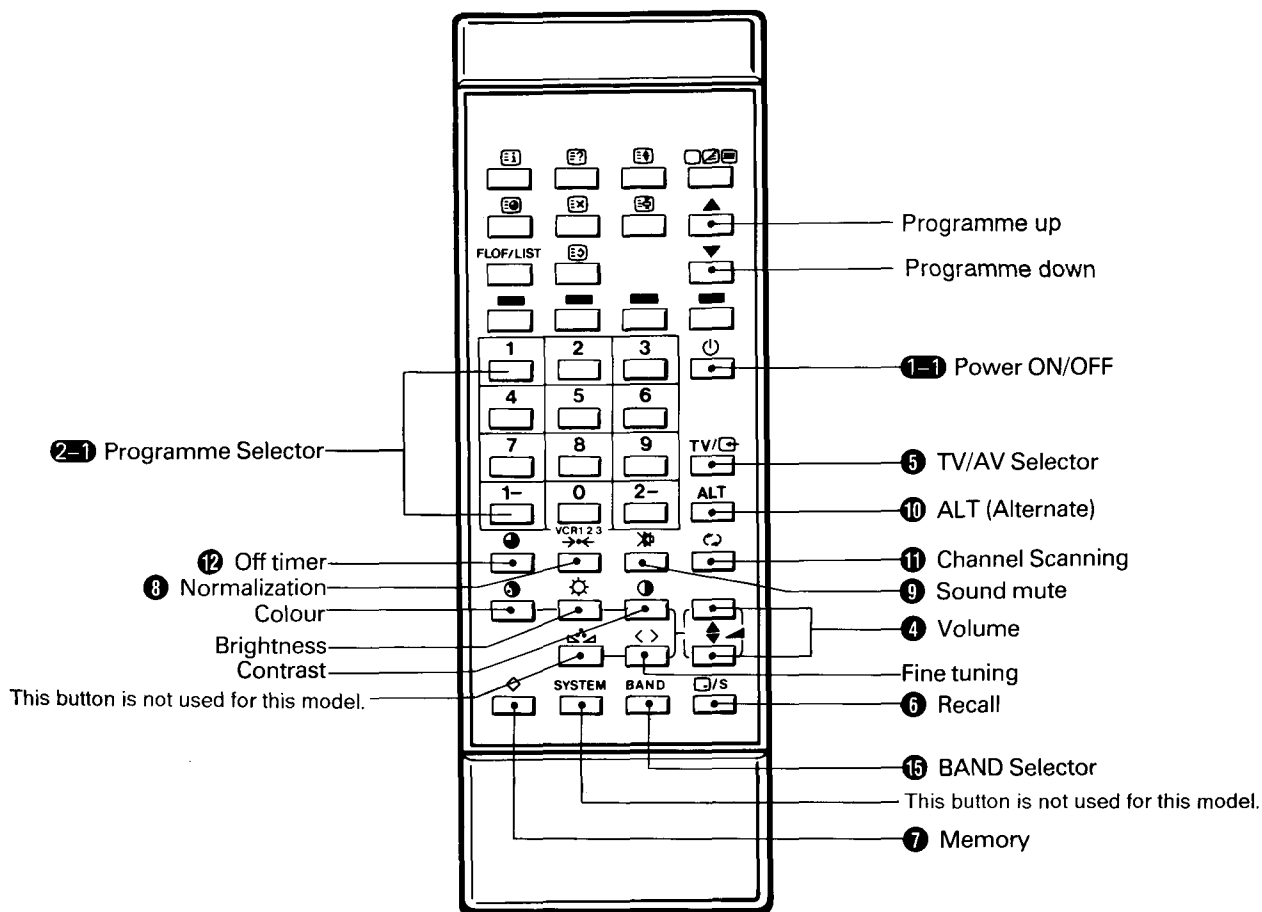
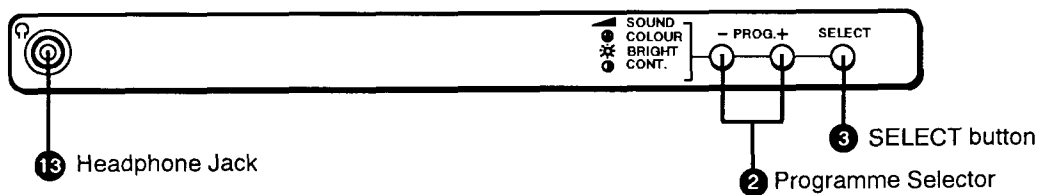
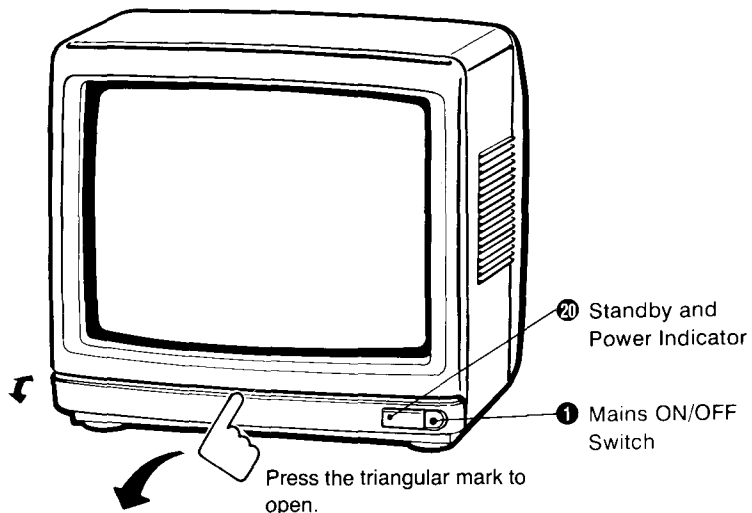
Each time "0" key is pressed, VCR Position changes as follows:



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

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

# 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.

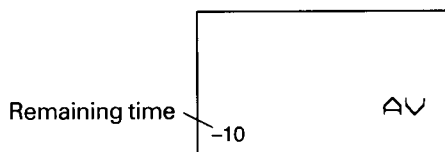
## AUTO SHUT OFF

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 ...

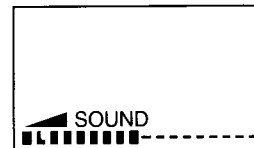
Press the left side (-), and the TV set will step down to the previous station.

## Picture and sound adjustments

(Use the remote control transmitter.)

### To adjust the sound volume:

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



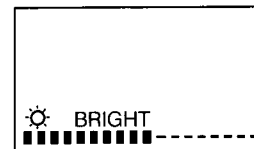
### To adjust the colour intensity:

Press ⊕ (Colour) button.  
↓  
Press ▲ or ▼ volume button.



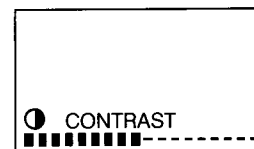
### To adjust the brightness:

Press ☀ (Brightness) button.  
↓  
Press ▲ or ▼ volume button.



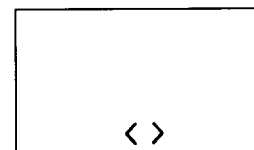
### To adjust the picture contrast:

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 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;

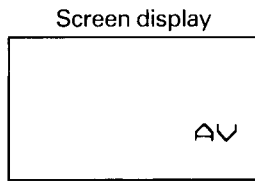


② Press Programme Selector ② (+ or -), and adjust the sound volume, colour, brightness or contrast.

# (General Operation)

## 5 .... TV/AV Selector

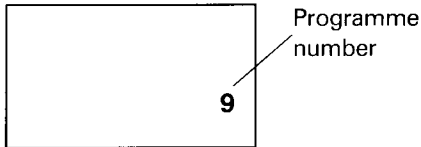
To watch television programmes leave this switch in the TV mode. When this switch is set to the AV mode you can enjoy the playback from VCR or other AV equipment connected to the AV input terminals.



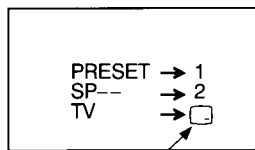
## 6 .... Recall □/S

To display the on-screen indications, press this button.

The display disappears after five seconds.



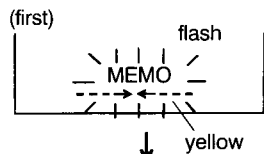
Note: When this button is pressed for more than 2 seconds, a menu display such as that shown at the right will appear. This menu display is used for presetting of stations and when setting special functions.



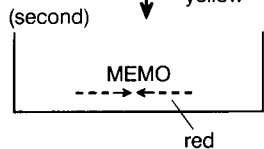
To return to the ordinary TV mode, press Recall button 6 once again.

## 7 .... Memory ◇

Present sound volume, colour, brightness and contrast levels can be stored into the memory by pressing ◇ (Memory) button twice, and these control levels can be recalled by pressing Normalization 8 button.



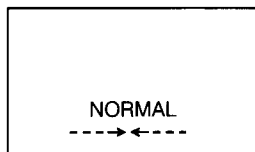
- Press MEMORY button once. The "MEMO" display flashes in yellow.



- Press MEMORY button again to complete memorizing. The "MEMO" display changes to red.

## 8 .... Normalization →•←

When this button is pressed, sound volume, colour, brightness and contrast levels which are memorized by pressing Memory 7 button are recalled.



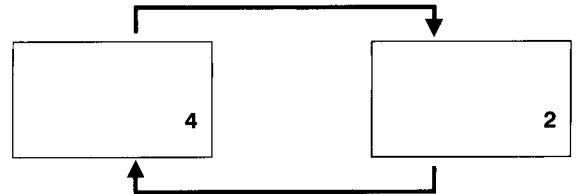
## 9 .... Sound mute ✕

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 10 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.



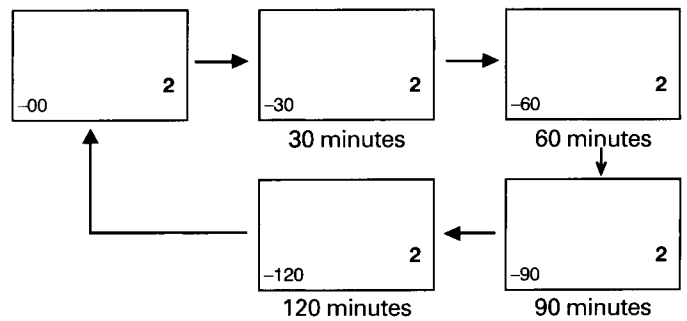
## 11 .... Channel Scanning ↻

Press Channel Scanning button 11 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 12 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.

# 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.)

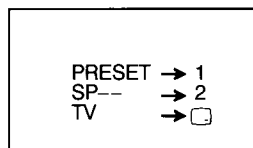
**NOTE:** Special functions are not cancelled when the power is turned off or when the AC power plug is disconnected from the mains.

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

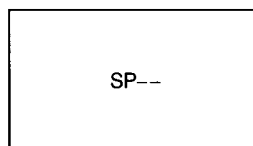
- When SPECIAL CODE "70" is input, all the programme positions are automatically scanned, and the active programme positions are stored in memory. Once this programming is completed, the TV receiver will select only the stored programme positions when Channel Scanning key **11** is pressed.

To input Special Code "70":

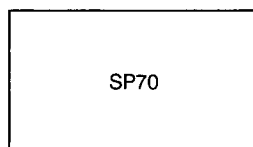
- Press and hold **□/S** (Recall) button **6** of the remote control transmitter for more than 2 seconds.



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

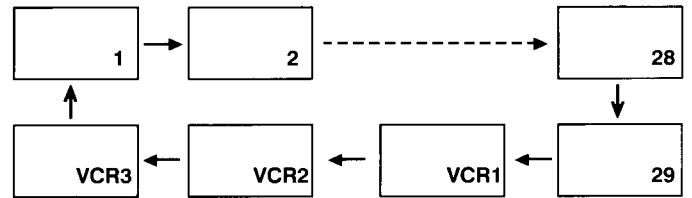


- Press "7" button, next press "0" button of the programme selector **2-1**.



- 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")

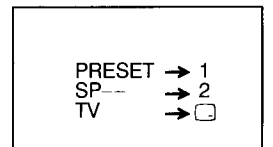
- This function is used to delete a programme position from the channel scanning positions, so it will not be scanned when Channel Scanning button **11** is pressed.

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

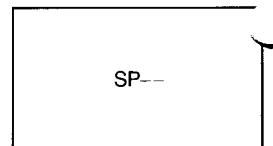
- Select programme position "3" using the Programme Selector **2** or **2-1**.



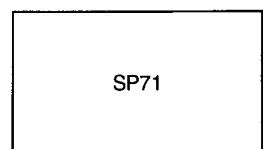
- Press and hold **□/S** (Recall) button **6** for more than 2 seconds.



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



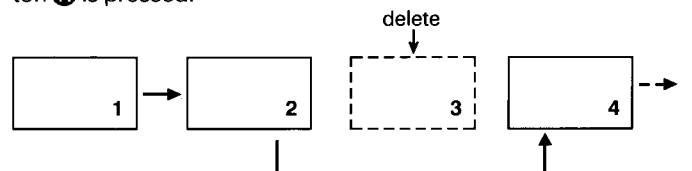
- Press "7" button, next press "1" button of the programme selector **2-1**.



- 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 **11** is pressed.



# (Special Functions)

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

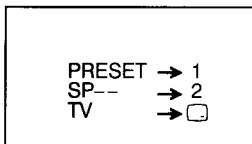
- This function is used to add a programme position to the channel scanning positions, so it will be scanned when Channel Scanning button **11** is pressed.

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

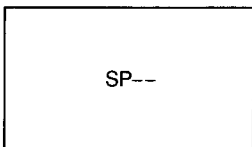
- 1 Select programme position "3" using the Programme Selector **2** or **2-1**.



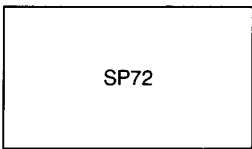
- 2 Press and hold **□/s** (Recall) button **6** for more than 2 seconds.



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



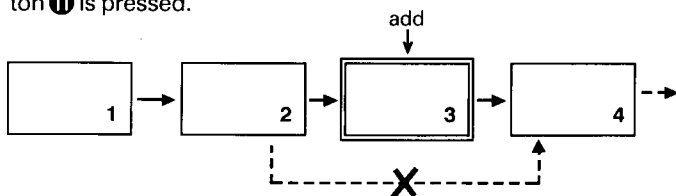
- 4 Press "7" button, next press "2" button of the programme selector **2-1**.



- 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 **11** is pressed.

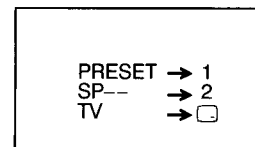


## ■ Re-set All Special Functions (SPECIAL CODE "01")

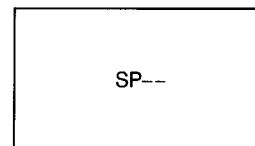
- When SPECIAL CODE "01" is input, all the special functions are re-set.

To input Special Code "01":

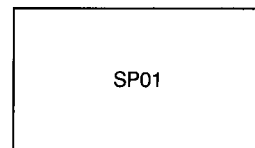
- 1 Press and hold **□/s** (Recall) button **6** for more than 2 seconds.



- 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")

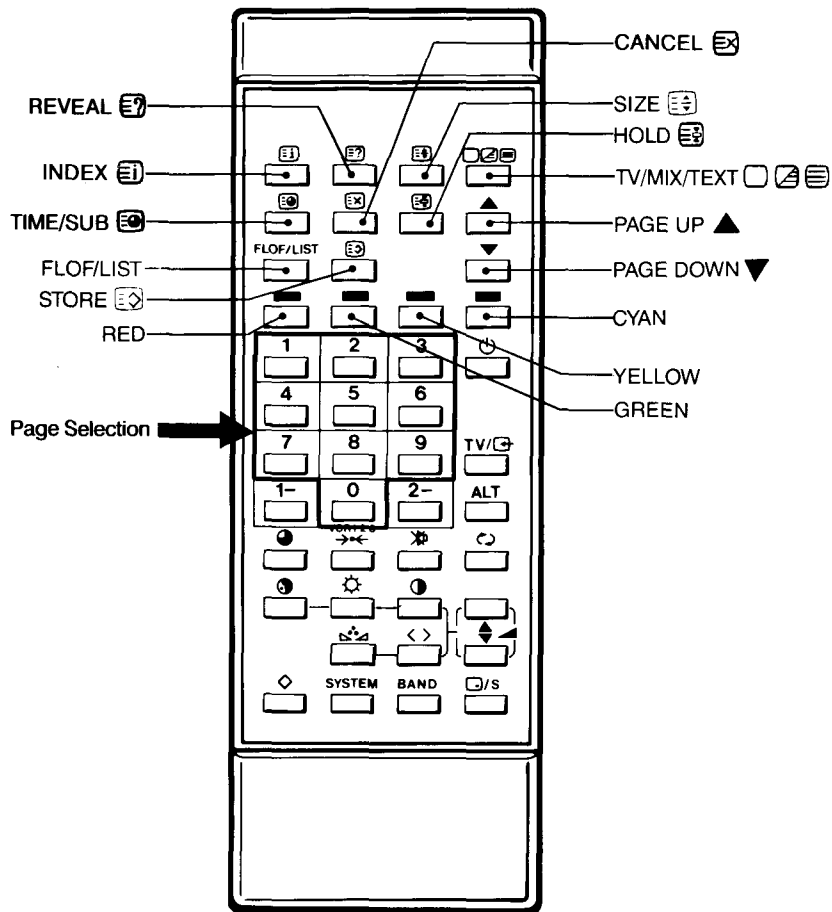
- The Special Functions can also be cancelled by inputting Special Code "00".

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".

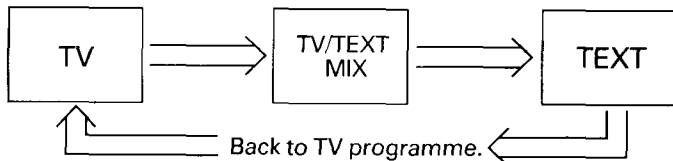
# TELETEXT USE

• Automatically adjust for displays in English, German, Swedish, French and Italian in accordance with the television broadcast signals.



## ■ Switching to the Teletext Mode

Press the TV/MIX/TEXT button, then the screen changes as follows:



## ■ Page Selection

### DIRECT PAGE ACCESS

A page can be selected with the 0~9 buttons. For example, to display page 120 press buttons 1, 2 and 0. The selected page number will appear on the screen.

### UP-DOWN PAGE ACCESS

If a page is displayed on the screen and you want to read the following page, you can press the UP button instead of selecting the page number. To bring back the previous page press the Down button. If you keep the UP or DOWN button pressed the page numbers will run up or down until you release the button.

The page number will change as follows by pressing the UP-DOWN button.

(▲) P200 – P201 – P202 – ..... – P299 – P200 – P201

(▼) P200 – P299 – P298 – ..... – P201 – P200 – P299

Note: In the FLOF/LIST mode, you can access the pages directly.



# (TELETEXT USE)

## ■ Sub-coded page access

For Teletext information which is longer than one page it may take some time for the automatic changing of sub pages to reach the sub page you require. It is possible, however, to enter the sub-page you require and then continue watching the normal television picture until the correct sub-page is reached.

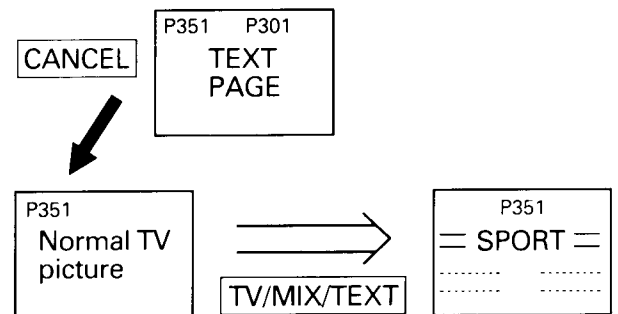
- A. Select the required page using the page selection button.
- B. Press the TIME/SUB button. The character "S" and sub code digits "\*\*\*\*\*" will be displayed in the top left of the screen.
- C. Enter the desired sub-page number before figure "S\*\*\*\*\*" disappears. For example, if you select sub-page 10 you must press 0, 0, 1 and 0 button.  
Then the character "+" is displayed following the page number.
- D. Press the CANCEL to return to normal television programme. When the correct sub-page is reached the page number will appear on the normal television picture.
- E. Press the TV/MIX/TEXT button to display the stored page.
- F. To clear the sub-coded page you must enter a new page number.

Note: It is not possible to select another television station during a sub-page access operation.

## VIEWING TV WHILE SEARCHING FOR A PAGE

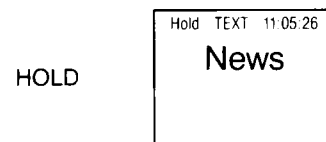
In some cases it can take some time to look for a page. In the interval you can view TV by pressing the CANCEL button. When the page arrives, the page number will appear on the normal TV picture. Press TV/MIX/TEXT button to display the page.

Note: When you press the CANCEL button, the green ">" mark is displayed at the top right of the screen. Whilst this ">" mark is displayed you can not select another TV channel.



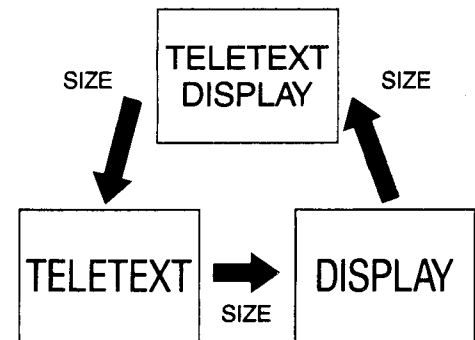
## ■ HOLD

If the teletext information is longer than one page, the pages are automatically changed. The automatic page changing can be cancelled by pressing the HOLD button. The word "HOLD" then appears on the top of the screen. Normal operation is restored by pressing the HOLD button again or entering a page number.



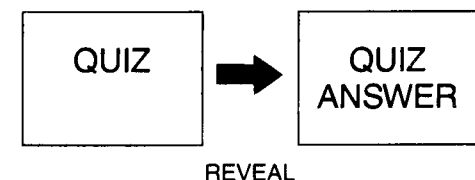
## ■ DOUBLE LETTER HEIGHT

Either the top or bottom half of the display can be expanded by pressing the SIZE button. When the SIZE button is pressed for the first time, the top half of the display is expanded. If it is pressed once again, the bottom half of the display is expanded. To return the display to normal-sized characters, this button should be pressed a third time.



## ■ DISPLAYING CONCEALED INFORMATION

In one of the lists of contents you may find the heading "QUIZ" (concealed information). If you have selected the relevant page number questions will appear on the screen. You can find out the correct answer to the questions by pressing the REVEAL button. Press the REVEAL button again to make the answers disappear.



# (TELETEXT USE)

## ■ ALARM CLOCK

The Alarm Clock Function can be set to operate at any requested time reminding viewers to carry out a specific task, i.e. making a phone call at a specified time.

First select either page 196 (BBC1) or page 296 (BBC2), using the page selection buttons. Press the TIME/SUB button, S\*\*\*\* will appear on the top of the screen. Select the time at which you require the alarm call.

Example, for a call at 8.15 pm, press buttons 2015, watching that S\*\*\*\* changes to S20:15. Then press the CANCEL button to continue watching normal TV programmes. At 8:15 pm the words "ALARM CLOCK" in large letters will appear on the screen. Press the TV/MIX/TEXT button to return to normal teletext operation. It is not possible to select another TV programme when in the CANCEL mode.

## ■ NEWS FLASH

If you select the news flash page and view the TV programme by pressing the CANCEL button, the moment news comes in, the word "NEWS FLASH" and the news appears over the normal TV picture. If you want to make the news disappear press the CANCEL button again. To recall the news press the TV/MIX/TEXT button.

Note: It is not possible to select another TV station during a NEWS FLASH. You should first switch back to TV reception by pressing the TV/MIX/TEXT button. You can, however, change both the picture and sound settings.

## ■ UPDATED PAGES

There are pages which are updated as events progress, such as sports results, news reports and traffic information. If you have selected one of the above pages from the list of contents and you want to view television but still be kept informed about the other events, press the CANCEL button. The page will disappear and the TV station which will broadcast this will appear in the screen. As soon as this page is updated, the page number will appear on the normal TV picture. To display the updated page on the screen, press the TV/MIX/TEXT button. The page will disappear when the CANCEL button is pressed again.

Note: It is not possible to select another TV station during an UPDATE. You should first switch back to TV reception by pressing the TV/MIX/TEXT button. You can, however, change both the picture and sound settings.

## ■ FLOF AND LIST (FLOF: Full-level-one feature)

When a broadcasting station provides FLOF service, you can access the text pages you desire quickly and easily.

### FLOF

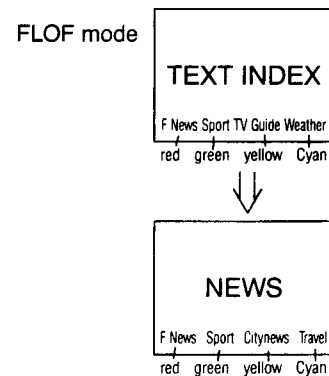
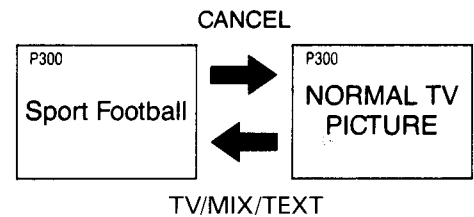
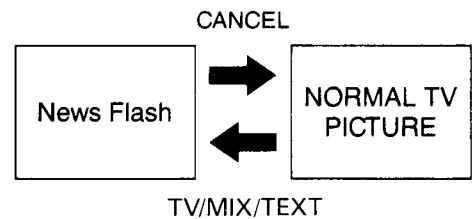
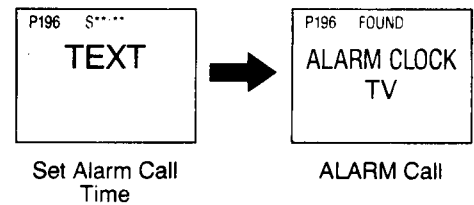
In the text mode, FLOF mode can be selected by pressing FLOF/LIST button.

Then the index page which the broadcasting station provides, appears on the screen. At the bottom of the screen, red, green, yellow and cyan letters and "F" letters are indicated.

You can select a programme out of four programmes, by pressing one of the coloured buttons on the R/C transmitter. (For example, when pressing red, the red colour programme is selected)

In the same way, you can select the programme which is indicated at the bottom of the screen by pressing the colour button.

To get back to the initial index page, press the "INDEX" button.



# (TELETEXT USE)

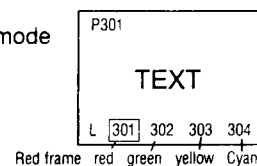
## LIST

In the LIST mode, the four coloured page numbers and "L" letter are indicated on the bottom of the screen. The number on the left side is enclosed by a red frame. First, input the page number you desire, into each coloured position using the digit button, then press the "STORE" button for more than two seconds.

When the page number is memorized, the four coloured numbers change into white frame momentarily.

After you memorize the four page numbers, you can select the page you desire by pressing the red, green, yellow or cyan button. Even if you select another page by inputting a new page number, (See direct page selection), the memorized pages return after switching power off or changing the programme position or pressing the INDEX button.

LIST mode



## NON FLOF SERVICE

When the station does not have FLOF service, and you press the FLOF/LIST button, the INDEX page (P100) is automatically displayed.

At the bottom of the screen, the four page numbers 100, 199, 101, 102, are also displayed.

Then, when you select a random page number out of the displayed four pages by pressing a colour button, the text of that page is displayed.

The selected page minus one, plus one, and plus two page numbers are displayed but their display order is at random. Of course at any time you can select new pages by inputting new page numbers.

## MEMORY OF THE TEXT PAGES


When you assign a broadcasting station which is providing a TEXT service to some programme positions of your TV set, four pages of TEXT can be memorized on each programme position 1 ~ 16.

(To memorize the TEXT pages, see "LIST mode".) If it is required to have more than four instant text available from the same text service, tune the necessary number of programme positions to the same TV channel.


i.e. TV programme position 1 ... page, 300, 301, 302, 303  
2 ... page, 304, 305, 306, 307  
3 ... page, 308, 309, 310, 311  
.  
.  
16 ... page, 411, 412, 413, 414

The memory capacity is 16 programme positions and four pages per each position.

## TIME

If the time is required while a programme is being viewed press the **Recall**  /S button.

Providing that the channel being viewed is also transmitting teletext, the time will appear at the top righthand of the screen for five seconds. The digits displayed represent hours/minutes/seconds.




18:05:47

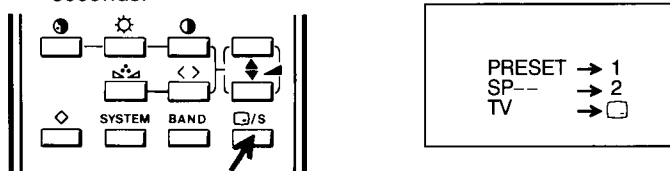
## Note:

The producer and dealer does not take any responsibility for errors concerning teletext caused by wrong written teletext, wrong antenna installation or not sufficient power of transmitter (poor signal).

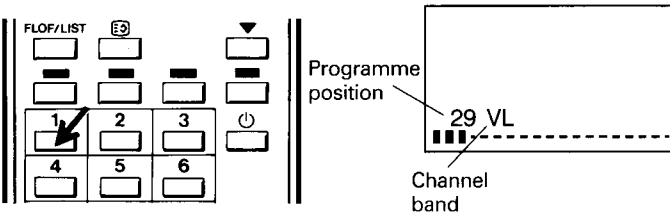
# Pre-Setting of Stations

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

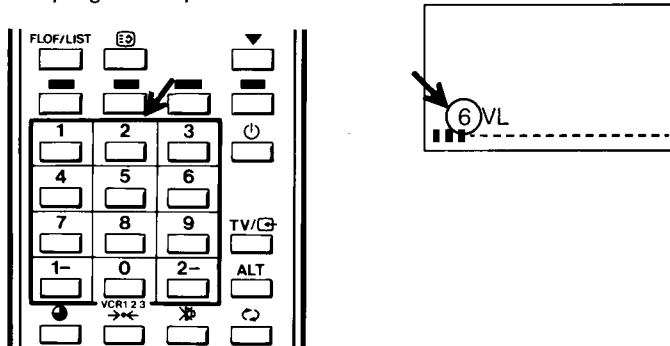
1 Press and hold /S (Recall) button **6** for more than 2 seconds.



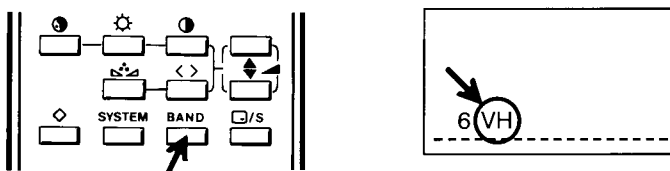
2 Press "1" button of the programme selector **2-1** to select the pre-set mode.



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



4 Press 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.

### VHF Range


VHF Low BAND: Channels 1 – 3

VHF High BAND: Channels 4 – 11

### UHF Range

UHF BAND: Channels 21 – 69

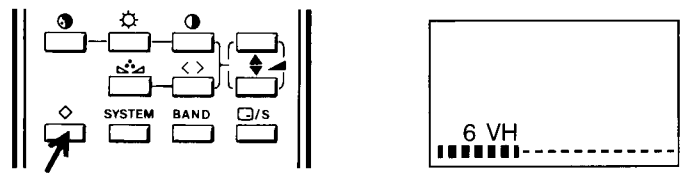
The channel (VL, VH or U) Band is displayed on the screen.

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




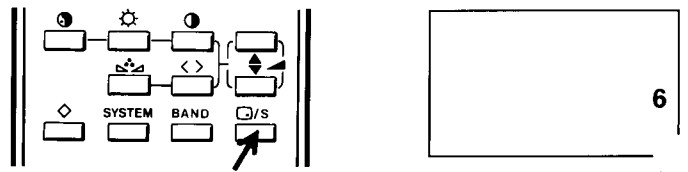
The number of upright segments increases for a higher-frequency channel.

6 Press  (Memory) button **7**.



7 Repeat steps **3** to **6** for other desired channels.




8 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**.

# SANYO

SANYO Electric Co., Ltd.

Part No. 4AA6P100770--E3CT(A3-B)