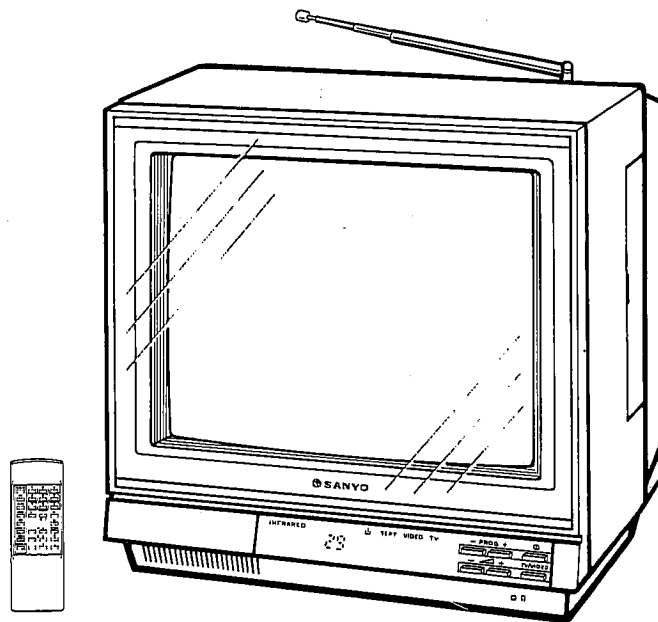




# SANYO

## CZP 1505V



# SANYO COLOUR TELEVISION

## OPERATING INSTRUCTIONS

*Please read this booklet before attempting to operate your T.V. set.*

---

## **Teletext Option**

This set will display teletext information if it is fitted with a:—  
TELETEXT DECODER TYPE TXNZ215A

## **Important Note**

It is possible to switch the set to the teletext mode without a TELETEXT DECODER being fitted, this text mode being indicated by the green text light being on.

Under this condition some of the remote control functions will not operate. The set may be returned to the TV mode by pressing the TV/MIX/TX button once or twice until the green text light goes out and the red TV light is on. Switching the set off and on again using the remote control or the mains switch will also restore the set to the TV mode.

---

## Introduction

We congratulate you on the acquisition of your colour television set. It has been manufactured by using the most advanced technical knowledge available and with the most modern production and testing methods.

The equipped AV terminals can be connected a VCR, video disc player or other AV apparatus.

## Mains Supply

The TV set is designed to operate an A.C. mains supply of 220 volts 50Hz.

## Important

- \* Please pay particular attention to existing regulations regarding the registration and operation of this TV set.
- \* We guarantee this set for 12 months as explained in our guarantee. Please read it carefully. All internal adjustment knobs, even if accessible from the outside with a screwdriver, must not be changed. Any damage caused by the aforesaid is not covered by the guarantee.

## Aerial

The type of aerial required depends on factors such as the site, its distance and direction from the transmitter, local interference etc. Your dealer will advise you the best type of aerial to used.

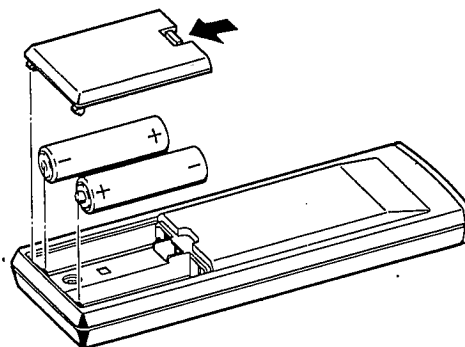
The aerial socket is on the back panel of the TV set.

The aerial connection is equivalent to DIN 45 325 for a combined UHF/VHF aerial with 75-ohm coaxial connections.

## Battery Installation

1. Remove the battery cover by lifting the tab on the battery cover.
2. Install two leakproof "AA" 1.5 volt batteries so that 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.



## Operation

### Power On-Off (⏻)

To switch the TV set on, press the main switch (⏻). The programme number "1" appears in the Programme indicator. To switch the TV set off, press it again.

### Programme Selection

Press the right side (+) of the Programme selector, and the TV set will step up to the next station, i.e.: 1, 2, 3 ... 29, A0, A1, A2; 1, 2, 3 ... Press the left side (-), and the TV set will step down to the previous station i.e.: 1; A2, A1, A0, 29 ... 1; A2, A1, A0, 29 ... The number of the programme selected will appear in the programme indicator. To set the TV stations in your area, refer to the instructions for "Station Settings." (Page 8.)

### Volume (▲)

Volume can be adjusted by using the + and - buttons to increase or decrease the sound volume.

### Headphone (🎧)

A Headphone Connection allows you to listen to the TV without disturbing others. Simply insert the plug of your headphone into the socket.

The TV set speaker automatically switched off.

- To adjust the other control knobs, open the door on the side of the set by pulling out on the groove in the door.

### Colour Saturation (🎨)

Adjust the picture's colour saturation by using the + and - buttons, while observing the flesh tones of a human face on the screen.

### Brightness (☀️)

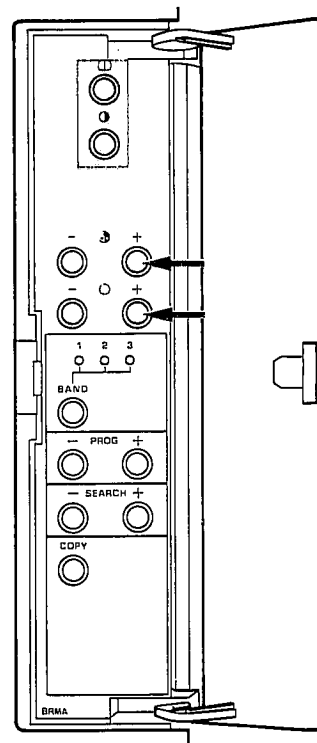
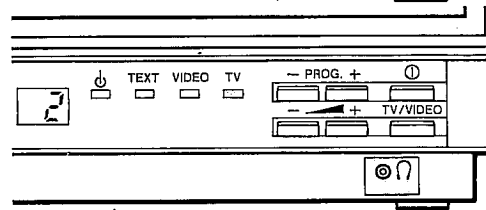
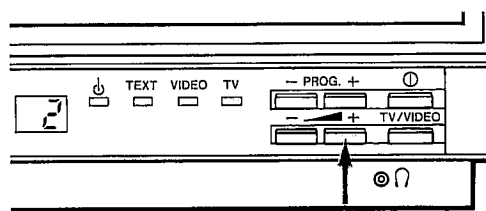
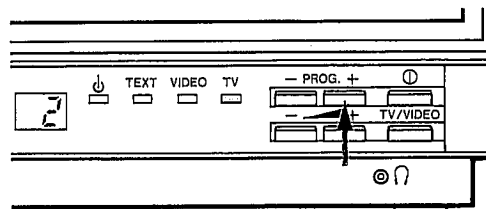
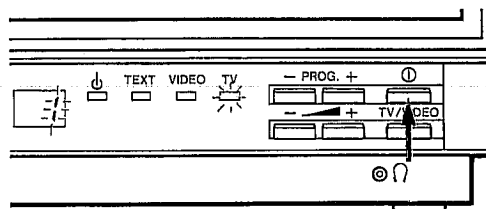
The brightness of the picture can be adjusted by using the + and - buttons.

### Contrast (🎯)

The contrast is the difference between darker and lighter portions of the picture, and can be adjusted by using the contrast control knob.

### Vertical Hold (📺)

When the picture rolls up or down on the screen, adjust this control knob until the picture becomes steady.



## Selection of Video Source

### AV Button (A0-1-2)

When using a VCR connected to the aerial socket, you must select programme position "A0, A1 or A2" by pressing the AV button on the remote control. For further details concerning this connection and adjustment, refer to the operating instructions for the VCR.

### TV/VIDEO Button

When using a VCR connected to the Audio/Video input terminal, you must select video mode by pressing the "TV/VIDEO" button on the remote control or TV side. The number "AU" will appear in the Programme indicator. (When you use an AV apparatus, refer to the "Use of AV Equipment" on the page 9).

## Remote Control

### Remote Control operation

The main ON/OFF switch of the TV set must be in the "ON" position before remote control operation.

Point the transmitter toward the TV set, then press the appropriate function button. The remote control indicator illuminates when a button of the transmitter is properly pressed.

### Power ON/OFF (⏻)

To switch the TV set on, press the power switch (⏻). To switch the TV set off, press it again.

Note: The stand-by indicator will remain illuminated when the TV set is switched off with this button. This is to indicate that the TV set is still partially energized.

To disconnect the TV set completely from mains, switch off with the main switch.

### Programme Selection

Press the required programme button 1, 2 . . . 9, AV. If the required programme is 10 . . . 19 or 20 . . . 29, press the "1-" or "2-" button and then press button 0 . . . 9 within five seconds. The TV set will automatically switch to the required programme and the number of the button pressed will be displayed in the programme indicator.

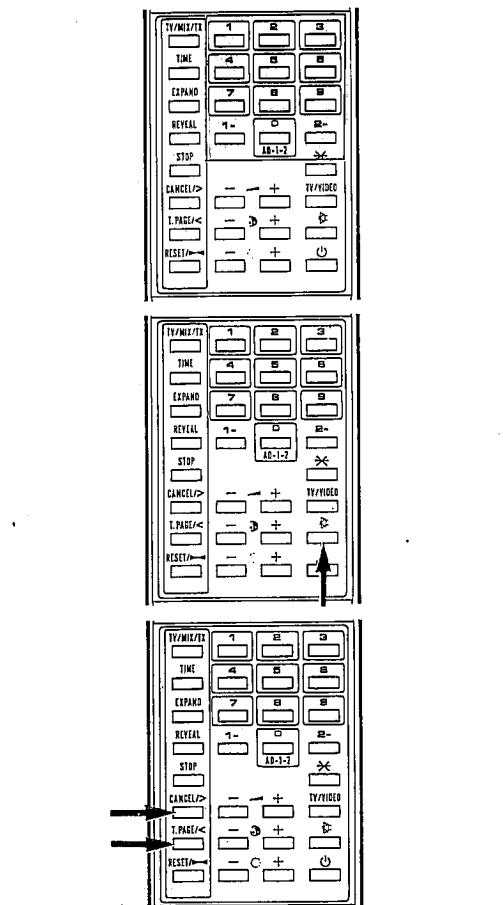
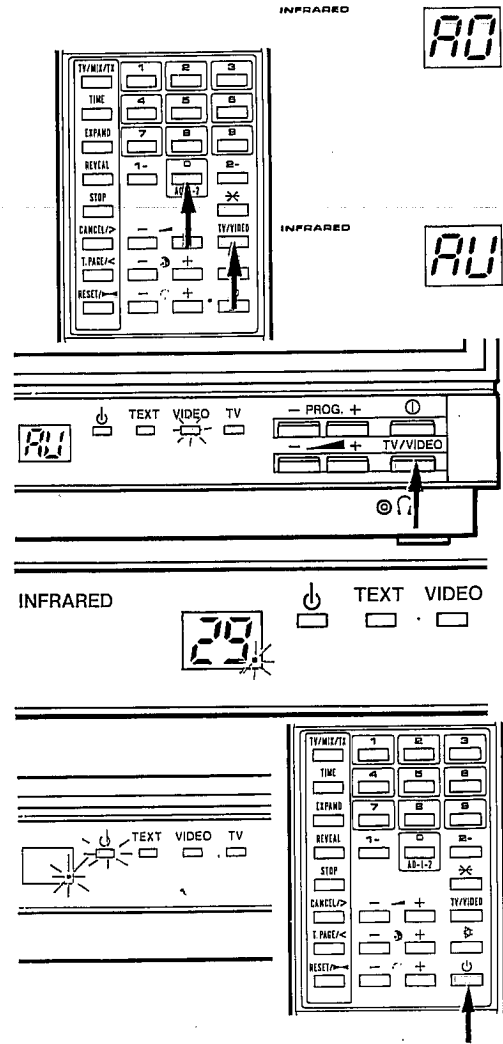
To select the AV position, press the "0/AV" button one or more times. The selection will change (A0 → A1 → A2 → A0) each time the button is pressed.

### Mute (⊗)

Should you wish to mute the sound press mute button once. To switch the sound back on press this button again.

### FINE TUNING (><)

Normally, the fine tuning will be automatically obtained the best position. However, under unusual conditions, such as a weak signal, unusual atmospheric conditions, an inadequate aerial system or strong adjacent channel interference, if the best picture or sound is not obtained, press either (>) or (<) fine tuning button on the remote control to obtain the better picture and sound.



## Teletext Mode (Option)

The teletext service are carried on the TV transmissions and therefore teletext will only be available when a TV programme (or test card) can be received on the screen. It presents in page form its own digest of news, views and a wide variety of other information, which is constantly being updated.

### Important

The teletext decoder cannot operate at telescopic aerial reception.

### Features

The teletext decoder incorporated in this TV set is a CCT (computer-controlled teletext) controlled by microcomputer, and has the following outstanding features.

- Very useful message, such as FOUND, STOP, UPDATE, etc., are displayed in the upper part of the screen.
- Improvement of the character matrix, and an easier to read character display.
- Automatic page advance by the "browse" function.

### TV/MIX/TX

Television mode is always obtained with the receiver is first switched on. When this button is pressed, the receiver is switched to MIX mode. If this button is pressed once again, it is switched to TELETEXT mode. When this button is pressed in teletext mode, it is switched to operate as a normal television receiver.

### MIX

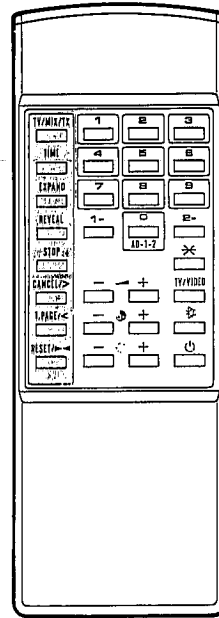
In normal teletext mode, picture video and character data are not displayed simultaneously. The MIX (superimpose) command restores the picture video so that the text is inlaid directly into the television picture.

### TEXT

When the "TV/MIX/TEXT" button is pressed to switch the system to the teletext mode, the page of the text is soon shown on the screen. The first line of each individual page is used for the requested page number, time-coded page number and status message. On the next line, the TV station, page counter, day, date and time are displayed.

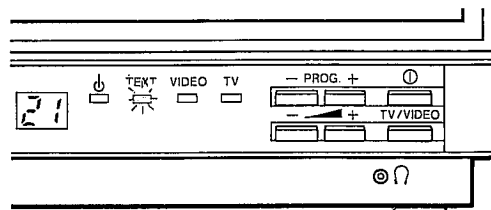
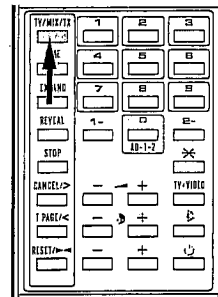
### TIME

If the time is required while a programme is being viewed press the button marked TIME. 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.



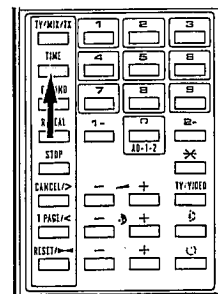
P100

CCT TELETEXT P100 Wed 16 Aug 18:46:05



P1

18:05:47



### Page Selection (1, 2 . . . 9, 0)

When teletext mode is first selected, the index page (p. 100) is automatically obtained. The requested page is obtained by simply pressing three number buttons in sequence. For example, if you wish to look at page 151, pressing the number, (1), (5) and (1) in turn.

As each command is accepted, the page number at the left-hand end of the header will be built up, digit by digit, until it is complete.

After the final entry has been registered, rolling page numbers are presented until the requested page is received. As soon as the two groups of numbers coincide, the information contained on page 151 appears.

Other pages of the same service can be obtained in this manner, using the appropriate number.

It is not necessary to go back to the index page each time; within any one service you can change direct from one page to another. After a new page has been entered, the previous page is displayed until the new page is received. On reception of the new page, the rolling page number stops, showing the requested page number.

Note: If the new page is a NEWSFLASH or SUBTITLE page, the television video is automatically turned on, and the newsflash or subtitle is displayed in a box within the picture. Conversely, if the old page was a newsflash or subtitle page, and new page is not, then the picture is turned off.

If the television video is being displayed while the system is in teletext mode, and a new page is requested, then a box is generated around the page header for five seconds, so that the page number being entered can be seen.

### BROWSE ( \* )

This function is used, when all page numbers and transmission order are not known beforehand, to automatically advance the page and to display on the screen the content of each page one after the other. This makes it possible to know an outline of the information contained on each page.

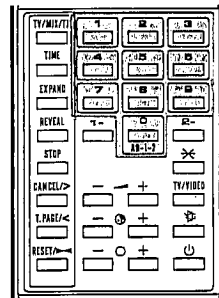
To use this function, use the 10 keys (0 to 9) and the ( \* ) button to input a 3-digit page number. (When this button is pressed, the \* mark will be displayed at that page number.) Examples: \*00, 1\*\*, 2\*1, etc. The digit where this \* mark is will be automatically rolled from 0 to 9, and the data corresponding to that page will be displayed on the screen.

When the "STOP" button is pressed, this automatic page-advance operation will stop, and the data for that page will be displayed. (Sometimes the data for the previous page may also remain.) To resume, press the "STOP" button once again.

P1  
CCT TELETEXT P100 Wed 16 Aug 18:48:22

P15  
CCT TELETEXT P100 Wed 16 Aug 18:48:24

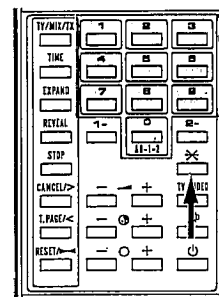
P151  
CCT TELETEXT P144 Wed 16 Aug 18:48:27



P2\*5  
CCT TELETEXT P205 Wed 16 Aug 20:08:16

P2\*5  
CCT TELETEXT P215 Wed 16 Aug 20:08:18

P2\*5  
CCT TELETEXT P225 Wed 16 Aug 20:08:20



## STOP

Some pages contain more information than can be displayed on the screen simultaneously and are therefore subdivided into a series of two or more sub-pages. The first sub-page of a series of four sub-pages, for example, has the indication 1/4 displayed at the top right of the screen (below the time).

These sub-pages are 'rotated', that is, each sub-page is displayed for a certain time (determined by the broadcasting authorities) before being replaced by the next sub-page. If it is desired to halt this rotation and retain a particular sub-page, the STOP button should be pressed. The word STOP now appear on the centre of the status messages row.

This command stops the reception of teletext data and can be used to prevent the updating of pages whenever required.

Normal operation is restored by pressing STOP button again or entering a new page number.

## Large Characters (EXPAND)

Normally small characters are used in teletext mode, but in some circumstances the 'double-height' facility may be useful; when the viewer is some distance from the receiver, for example. Either the top or bottom half of the display can be expanded by pressing the EXPAND button. When this 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 again.

If television mode is selected while large characters are being displayed, small characters will be displayed when the system is next returned to teletext mode.

## REVEAL

Some pages have part of the display concealed: a quiz page with concealed answers, for example. The command REVEAL displays the concealed text as long as REVEAL button remains depressed.

## CANCEL

The command CANCEL suppresses the text display and restores the television video while the system remains in teletext mode. The command TEXT or MIX restores the text display.

This facility allows the viewer to request teletext pages and alter teletext controls without interrupting a television programme. If a new page is requested, while the text is cancelled, the page header is displayed on the screen for five seconds. When the new page has been received, the new page number is displayed in a box on the screen.

This facility can also be used as an UPDATE control. For example, if P150 (Newsflash) is selected and then cancelled, as soon as the page is updated by the broadcasting authorities it will reappear on the screen. In the case of pages of normal text, when the page is updated the page number will appear in a box at the top left-hand corner of the screen.

P173

CCT TELETEXT P173 Wed 16 Aug 10:56:05

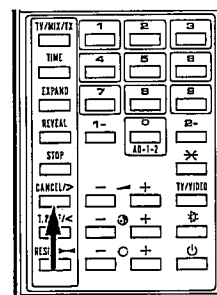
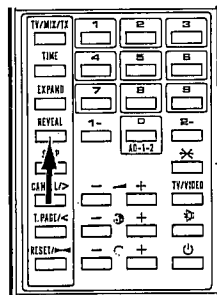
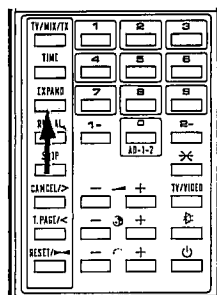
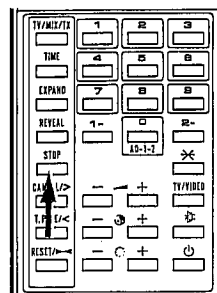
1/4

P173

STOP

CCT TELETEXT P173 Wed 16 Aug 10:56:06

1/4





### Time Coded Pages (T. PAGE ON/OFF)

Time coding enables the viewer to put into store a specific page of information ready for viewing at a pre-determined time.

#### IMPORTANT NOTE

With present transmissions this facility is limited to the 'Alarm Clock' pages. Please refer to the transmitted index for the appropriate page number.

The required page is selected in the usual manner and then the command T. PAGE (Time Page On) is entered. The time that the requested page should be received is then entered on the screen using the number keys two digits for hours and two digits for minutes, using the 24 hour clock system. The character 'T' preceeds the time digits to indicate that a time code and not the actual code is being displayed, also the four digits flash. After the time code has been entered rolling page numbers are presented. The cancel button is then pressed and the receiver reverts to picture. When the pre-set time is reached the page number will appear in the top left corner of the screen and the data can be seen by pressing cancel again. To clear the time code from the T.V. memory press T. PAGE button again. (Time Page Off).

It is important to remember that once the time coding has been set and the text cancelled pressing any buttons on the handset other than the Brightness, Colour, Volume and Mute may upset the pre-set time.

### RESET

When this button is pressed in teletext mode, several teletext functions are reset: the page memory is cleared, the command Time Page ON (T. PAGE) is cancelled, and the teletext decoder is set up to display the index page (P100).

## Station Settings

#### Basic information about TV broadcasts:

Television stations transmit on the normal standard channels of VHF and UHF, while CATV (Cable Television) stations use the special channels in VHF. All these channels are divided into the following groups:

#### VHF range

Band I (normal channels):  
Channels 1 ~ 3 (44 ~ 68 MHz)

Band III (normal channels):  
Channels 4 ~ 11 (174 ~ 230 MHz)

#### UHF range

Bands IV;V (normal channels).  
Channels 21 ~ 69 (470 ~ 860 MHz)

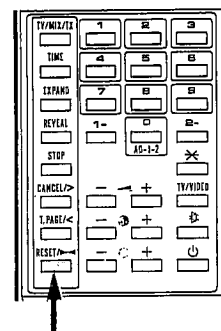
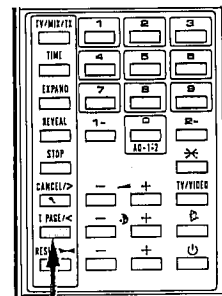
P160 T\*\*:\*\*  
CCT TELETEXT P160 Wed Aug 09:47:08

P160 T2\*\*:\*\*  
CCT TELETEXT P160 Wed 16 Aug 09:47:11

P160 T21:\*\*  
CCT TELETEXT P160 Wed 16 Aug 09:47:13

P160 T21:3\*  
CCT TELETEXT P160 Wed 16 Aug 09:47:16

P160 T21:35  
CCT TELETEXT P160 Wed 16 Aug 09:47:18



### Presetting of stations

When preset adjustment is necessary, open the control door on the side of the set by pulling out on the groove in the door.

- 1 Press either (+) or (-) PROG. button, step by step, until the desired programme number is displayed in the programme indicator.
- 2 Press the BAND button to the channel band corresponding to your desired channel. The channel band indicator shows which channel band (1, 2 or 3) is being selected. Channel bands 1, 2 and 3 are the channel groups shown below.

- 1 ... VHF channels 1 ~ 3
- 2 ... VHF channels 4 ~ 11
- 3 ... UHF channels 21 ~ 69

When the band is set using the BAND button, the frequency will be set to the lowest frequency in the set band.

- 3 For automatic tuning of the best possible picture and sound, press the (+) SEARCH button and release it as soon as the picture appears. The programme number will flash while the SEARCH button is pressed. If the (+) SEARCH button is pressed too long and station tuning weakens, press (-) SEARCH button to regain optimum tuning. If the station found above step is not one to be set at the programme number selected, press the (+) SEARCH button again until the desired station appears.

When the (+) or (-) SEARCH button is pressed and the highest or lowest frequency end in the set band is reached, the programme number will cease flashing.

Note: When the best picture and sound is obtained, the TV station will be automatically stored in the electronic memory.

- 4 Repeat steps 1 to 3 for the remaining programme numbers to be set.

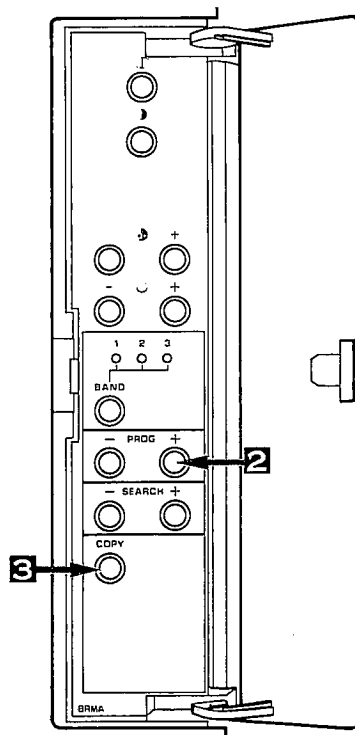
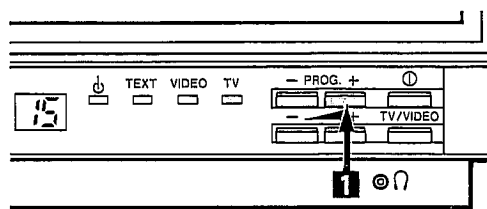
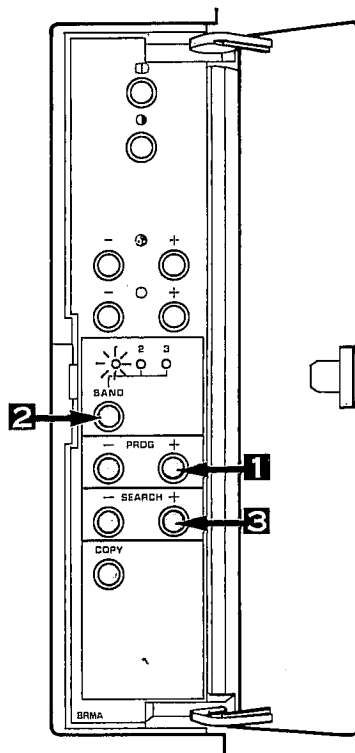
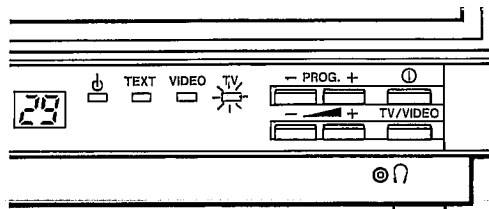
### NOTE:

If a connection is made from the output of a VCR or other equipment to the antenna terminal for tape playback, select the AV position (A0, A1 or A2) in step 1. This should give better picture and sound.

### How to copy the station

- 1 Press either (+) or (-) PROG. button on the front panel until the desired TV station appears on the screen.
- 2 Press either (+) or (-) PROG. button in the control box until the desired programme number is displayed in the programme indicator.
- 3 Press the COPY button,

When station setting is completed close the control door. Any channel can now be easily selected by using the programme selector on the TV set, or the remote control transmitter.



## Use of AV Equipment

If video equipment is connected

### A To playback video equipment

1. Press the "TV/VIDEO" button (on the remote-control unit) to select the video mode.  
"AU" will then appear in the Programme indicator.
2. Prepare the video equipment for play.

### B To record a TV programme

1. Select the TV programme to be recorded.
2. Prepare the video equipment for recording.

### C To record one programme while watching another

1. Press the "TV/VIDEO" button (on the remote-control unit) to select the video mode.  
"AU" will then appear in the Programme indicator.
2. Select (at the VCR) the TV programme to be recorded, and then prepare the VCR for recording.
3. Press the "TV/VIDEO" button (on the remote-control unit) to select the TV mode.
4. Select the TV programme to be watched.  
By following these steps, you can watch one programme while recording a different programme.

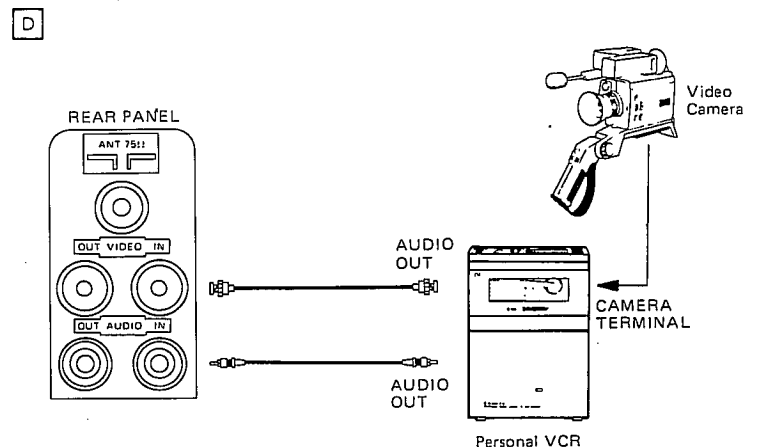
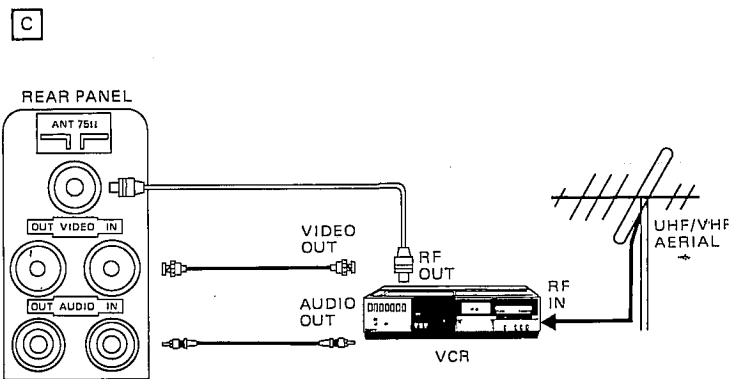
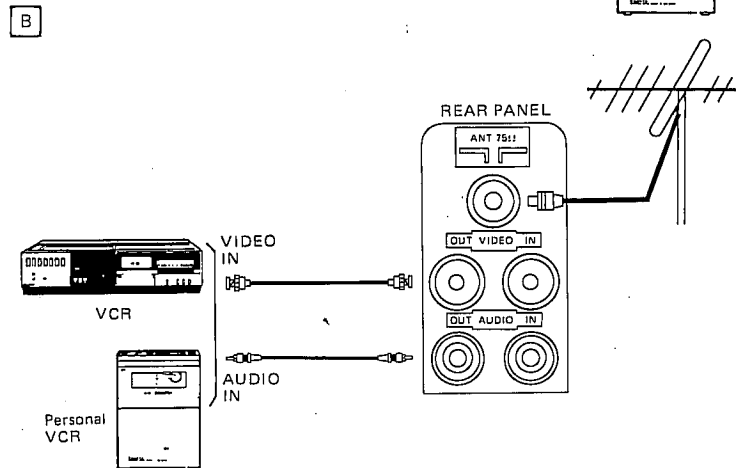
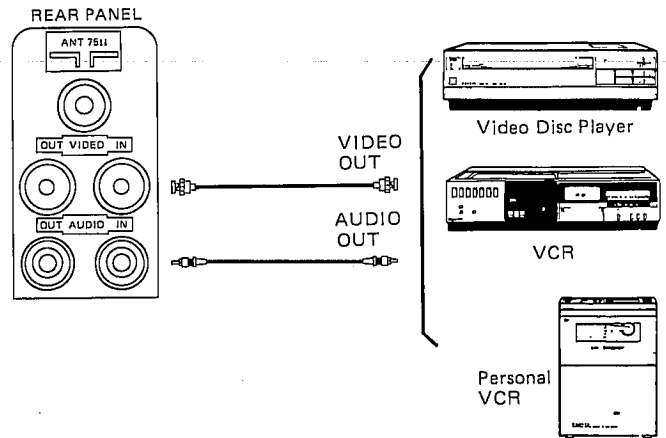
### D To record by a video camera while monitoring the recording on the TV

1. Press the "TV/VIDEO" button (on the remote-control unit) to select the video mode.  
"AU" will then appear in the Programme indicator.
2. Start the video camera and VCR.

#### NOTE:

"Howling" may occur between the TV speaker and the camera's microphone if the TV set's volume level is increased. To monitor the sound, therefore, use headphones or an ear-phone.

## A Video Apparatus Connections



If a personal computer is connected

**A** If an RF-output type of personal computer is used

1. Press the "TV/VIDEO" button (on the remote-control unit) to select the TV mode.
2. Tune to the output channel of the personal computer.
3. Operate the personal computer.

**B** If a video-output type of personal computer is used

1. Press the "TV/VIDEO" button (on the remote-control unit) to select the video mode.  
"AU" will then appear in the Programme indicator.
2. Operate the personal computer.

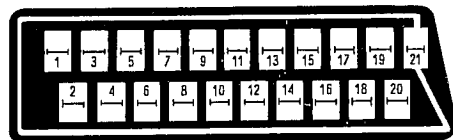
**NOTE:**

If an RGB-output type of personal computer is used, refer to the section "USE OF THE 21-PIN TERMINAL".

## 21-pin Socket

A personal computer, VCR, Video disc player or other AV apparatus can be connected to the 21-pin socket on the rear panel of the TV set.

- The connector (CENELEC standard 21-pin type) should be wired as illustrated below.
- The 21-pin plug with cable is obtainable from your local dealer.
- For this connection and adjustment, refer to the operating instructions for the personal computer etc..



### Connections

The specification of the 21-pin connector is as follows:

Pin No.	Signal	
1	Audio output	0.5 Vrms/under 1kΩ
2	Audio input	0.5 Vrms/upper 10kΩ
3	Audio output	0.5 Vrms/under 1kΩ
4	Earth (audio)	
5	Earth (blue)	
6	Audio input	0.5 Vrms/upper 10kΩ
7	Blue (B) input	0.7 Vp-p/75Ω
8	Function switching (video in/ext.)	L: 0 - 2V, H: 10 - 12V
9	Earth (green)	
10		
11	Green (G) input	0.7 Vp-p/75Ω
12		
13	Earth (red)	
14	Earth	
15	Red (R) input	0.7 Vp-p/75Ω
16	Fast blanking	L: 0 - 0.4V H: 1 - 3V
17	Earth (video)	
18	Earth	
19	Video/sync output	1 Vp-p/75Ω
20	Video/sync input	1 Vp-p/75Ω
21	Earth (case)	

### Use of the 21-pin Terminal

If the 21-pin terminal is used for connection of video equipment, audio equipment or a personal computer, note the following points.

#### A Use of video equipment

For playback of VCR tapes or video discs, use equipment which has a Pin-8 input function signal. When equipment which does not have this function signal is used, press the "TV/VIDEO" button to select the video mode.

When equipment which has this function signal is used, the TV set is automatically switched to the video mode, and the remote-control unit cannot be used for TV/video switching. (The indicator's indication will change however.)

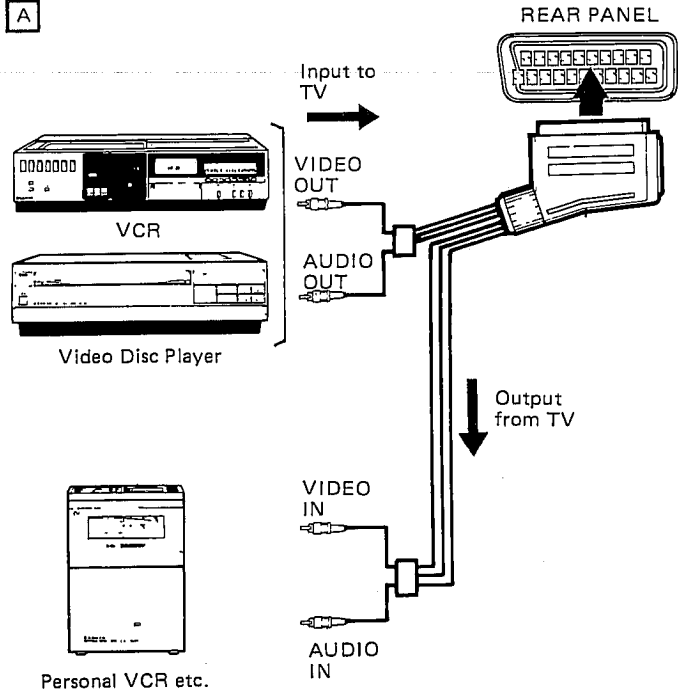
For VCR recording, the existence or not of the function signal has no effect.

#### B Use of a personal computer

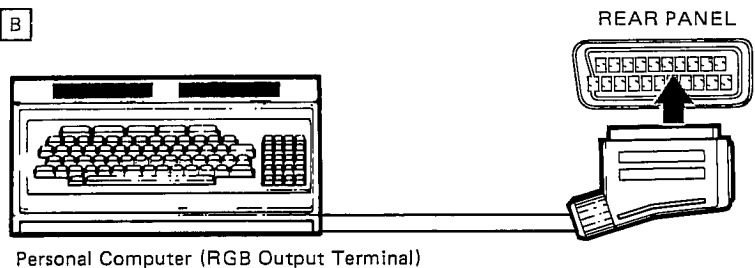
The personal computer must be the type which has an 8-pin function signal and a 16-pin fast signal (TV/RGB switching). A personal computer which does not have these two signals cannot be used. If the personal computer has a video or RF output terminal, it can be used by making the connection to the "VIDEO-IN" BNC terminal or the antenna terminal.

### 21P Connections

A



B



### Smoked Filter

The smoked filter can be detached easily.

When the surface of CRT is cleaned, handle the smoked filter according to the following procedures.

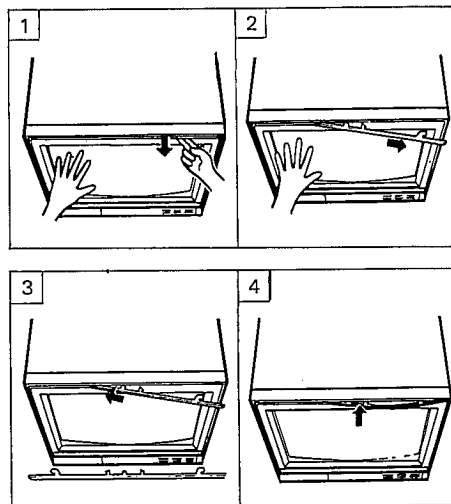
#### How to remove

- 1 After placing your fingers as shown in the figure, pull out the holder along the arrow direction.
- 2 Remove the holder, pulling out it along the arrow direction.  
Hold the smoked filter with your hand so that it does not fall down.

#### How to attach

- 3 Insert the protrusion on the left side of the holder at first.
- 4 Insert the protrusion on the right side of holder into the hole in the cabinet at last, then attach the holder, pushing in it as shown in the figure.

Caution: The smoked filter is made of glass, so be careful for handling it.



## Technical Data

Power Source ..... AC 230V, 50 Hz  
 Television System .... System-B/G  
 Colour System ..... PAL  
 Channel Coverage ... VHF 1-11  
                                   UHF 21-69  
 Ext. Terminals ..... Audio Input/Output:  
                                   Phono Type  
                                   Video Input/Output:  
                                   BNC Type  
                                   CENELEC 21-pin: for  
                                   Personal Computer etc.  
 Audio Output ..... 1.5 Watts undistorted

The set is constructed according to X-ray safety regulations. X-ray emissions are sufficiently shielded.

### VIDEO/AUDIO Input – Output level

		Level	Impedance
VIDEO	INPUT	1.0Vp-p	75Ω
	OUTPUT	1.0Vp-p	75Ω
AUDIO	INPUT	0.5Vrms	More than 40kΩ
	OUTPUT	0.5Vrms	Less than 600Ω (30kHz deviation)