

Panasonic

Colour Television **TC-AV26ZR**
TC-AV29ZR

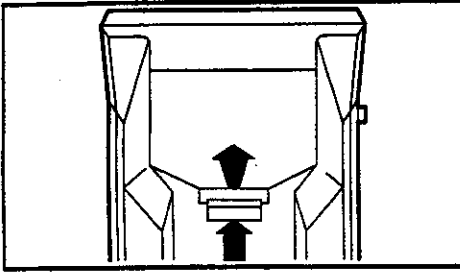
Operating Instructions

Please read these instructions completely before operating this set.

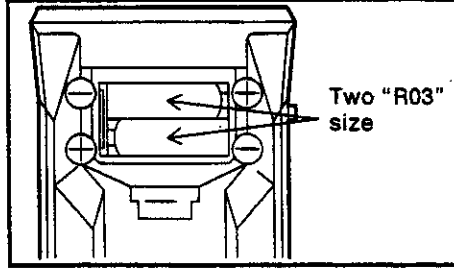
TQB620709

Battery Installation and Replacement (Infrared Remote Controller)

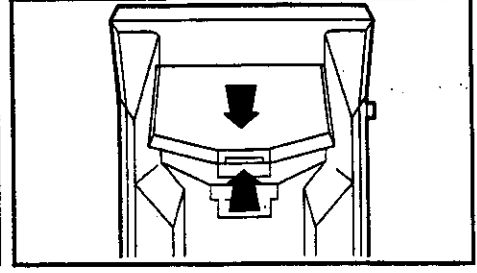
Batteries : Use two "R03" size dry cells. (Supplied)



1. Open the cover.
(Push down stopper and remove the cover.)



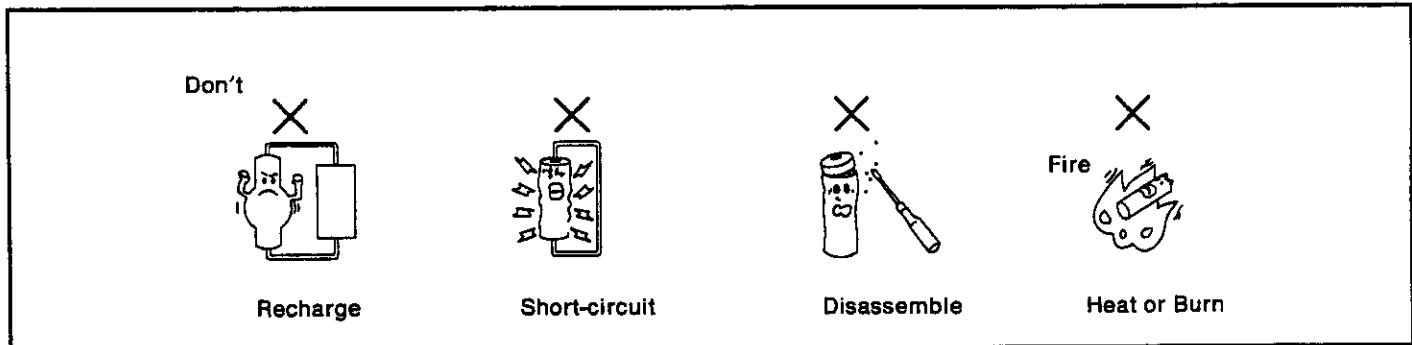
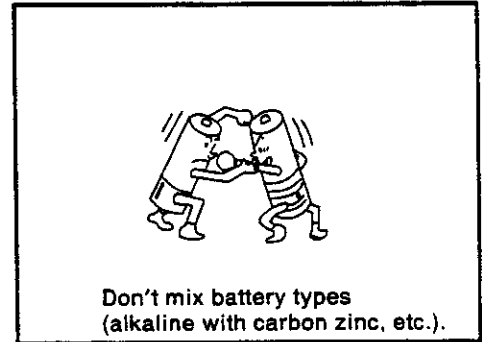
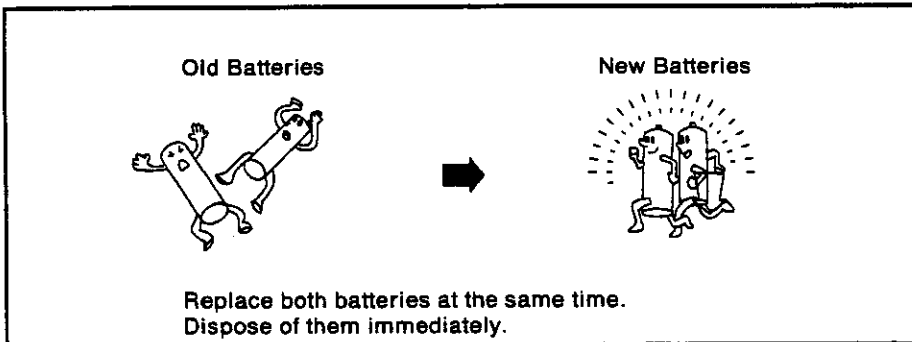
2. Replace the batteries.
(Insert the batteries with the correct polarity as indicated by the (+) and (-) symbols.)



3. Replace the cover.

Battery precautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the remote control transmitter or cause the batteries to burst. The following precautions must be observed carefully.



Notes:

1. The remote control transmitter should be placed to avoid direct sunlight or heat.
2. Direct sunlight or intense light to the infrared remote control sensor of the receiver may lead to malfunction of the remote control transmitter.
3. Pressing more than two buttons at a time, can lead to operating malfunction.

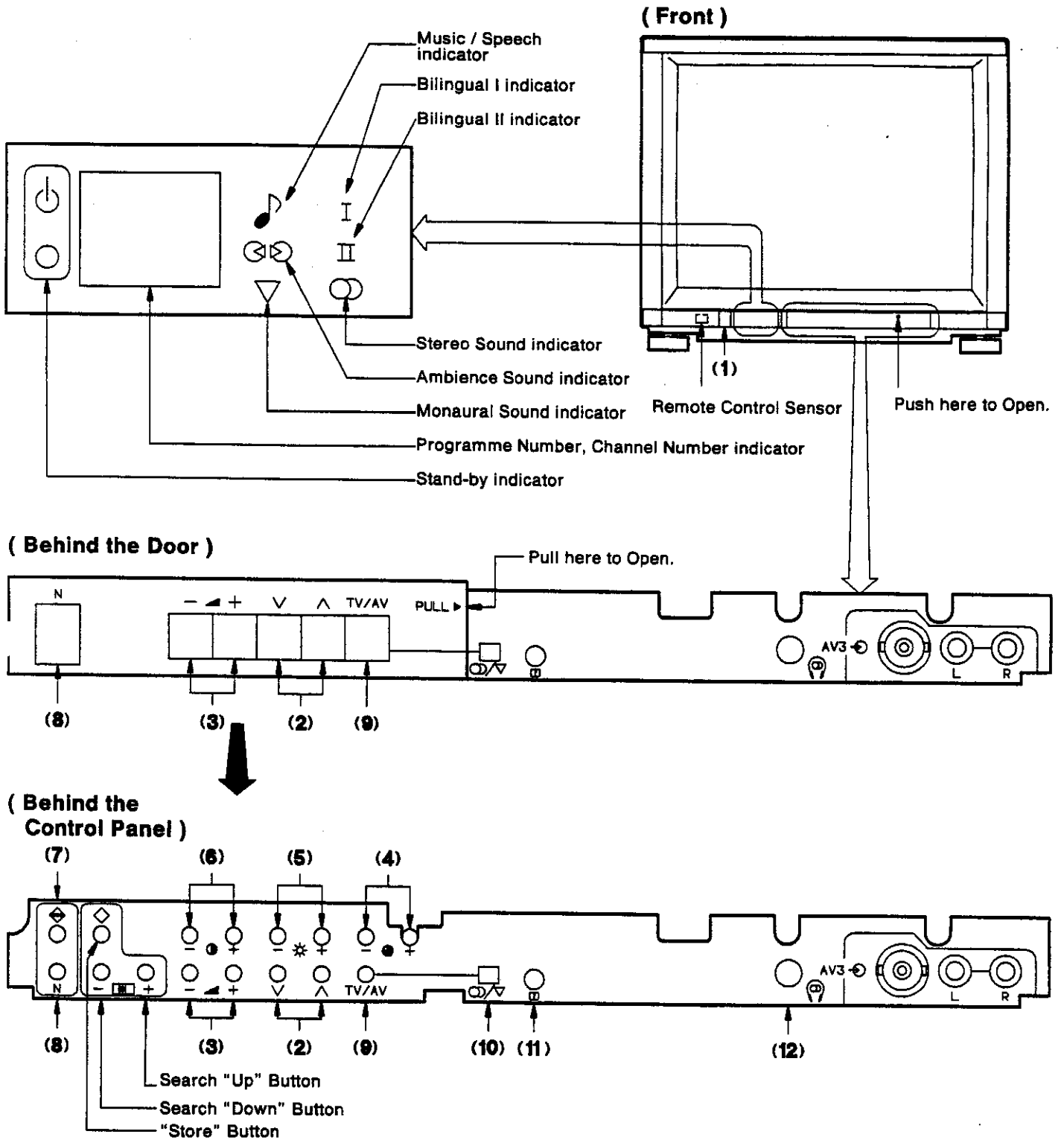
Do not use rechargeable (Ni-Cd) batteries.
They are partially different in shape and performance and may fail to ensure the desired function.

IMPORTANT:

If power is removed from the set by any means other than switching off using the Power Switch it is recommended that before resuming viewing, the TV is first switched off and then on again using the Power switch to avoid any malfunction.

Location of Controls (Front and Control Panel)

(The numbers on this page are explained on page 9.)

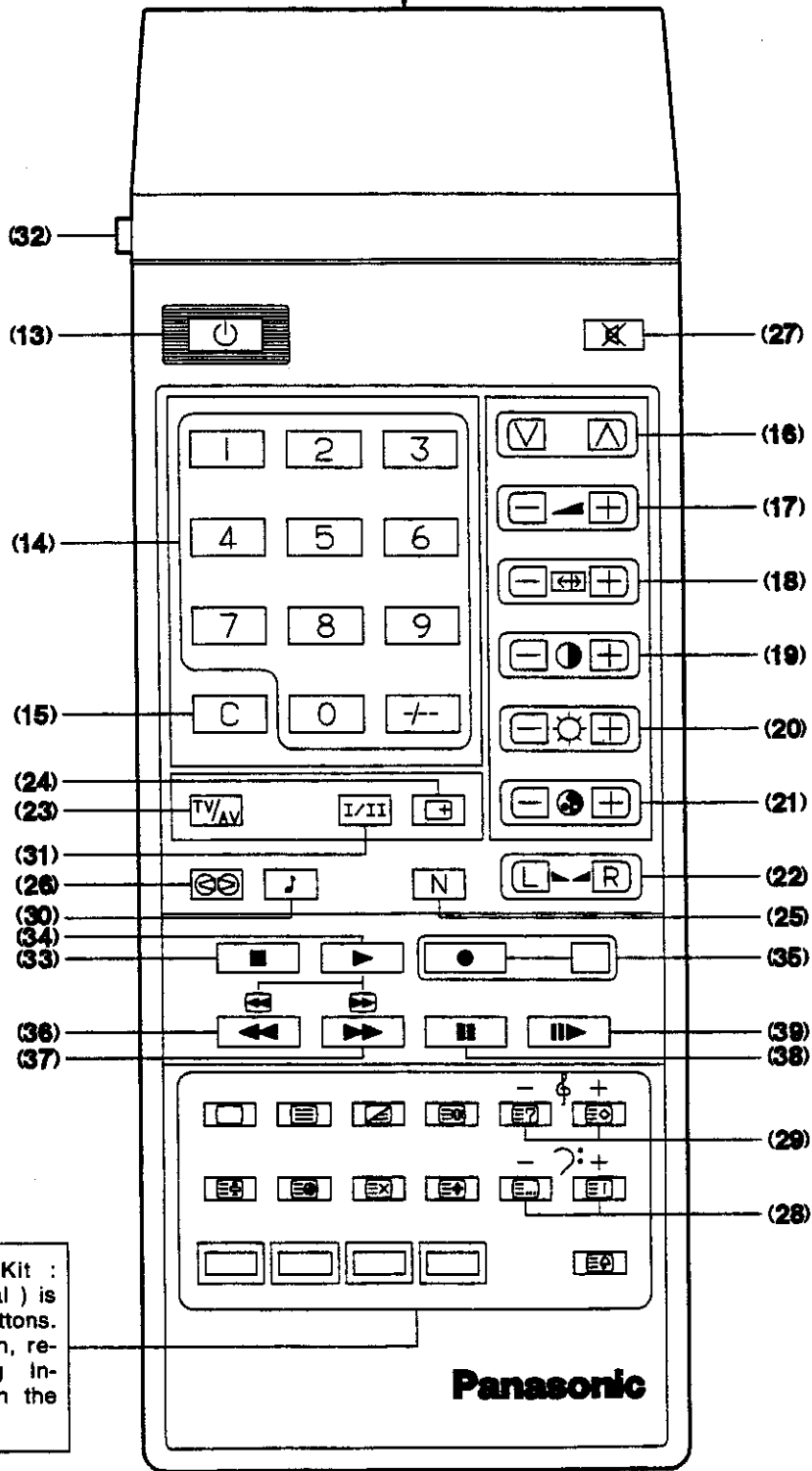


Location of Controls (Infrared Remote Controller)

(The numbers on this page are explained on pages 10 to 15.)

(Remote Control Transmitter)

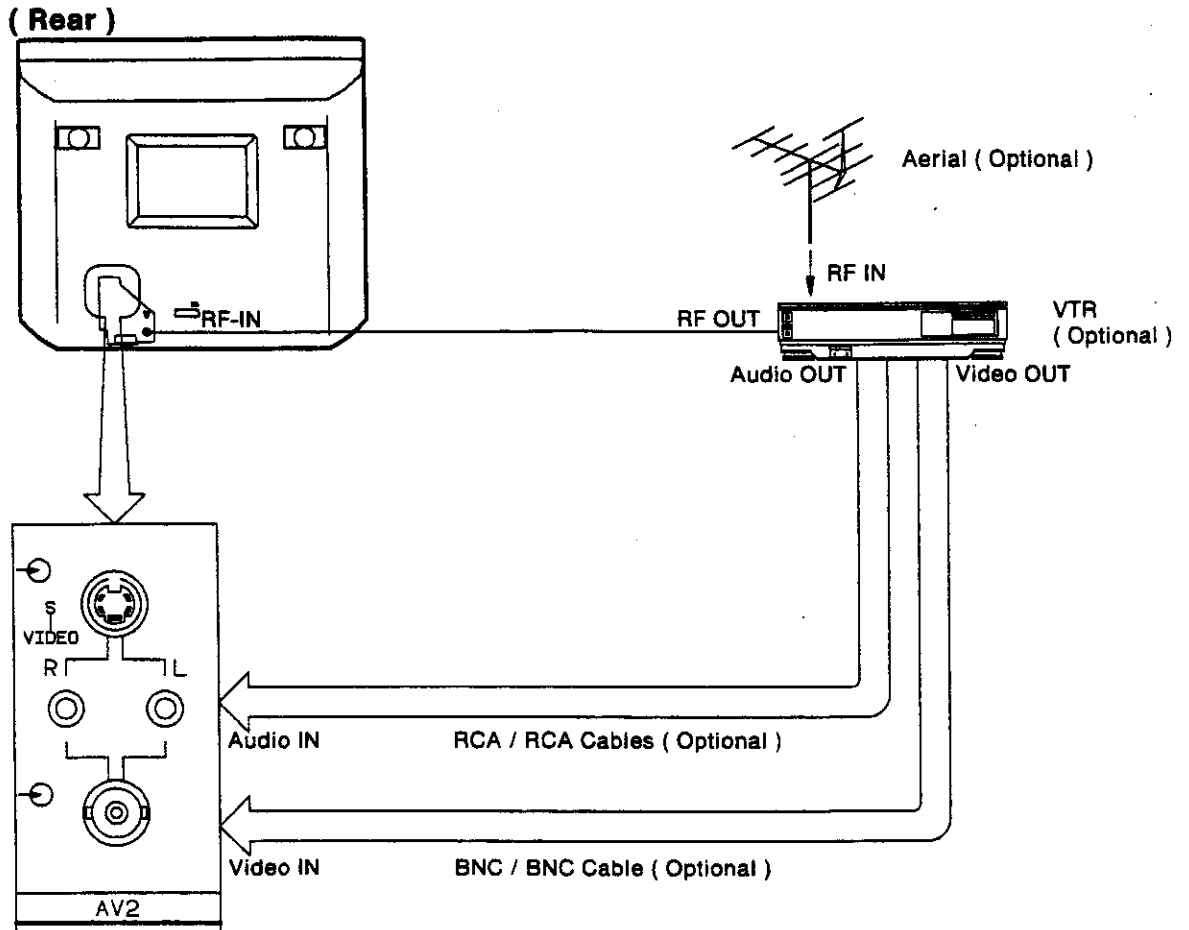
Point this end towards the remote control sensor.



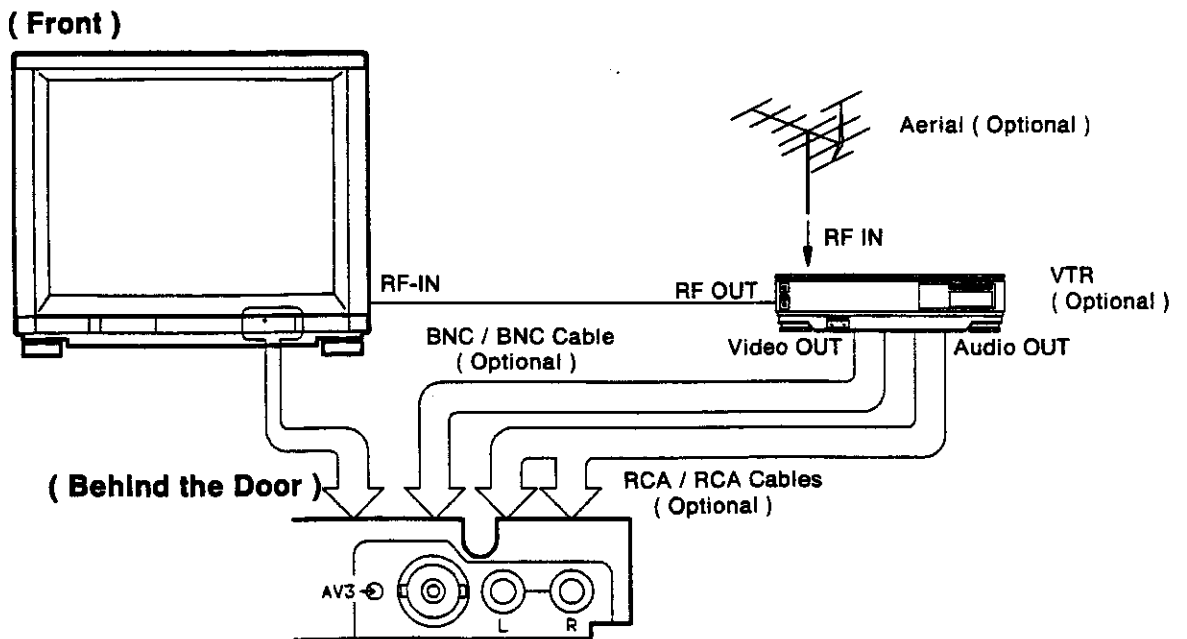
When the TELETEXT Kit : Model TY-TA1 (Optional) is adapted, use these buttons. For TELETEXT operation, refer to the Operating instructions supplied with the TELETEXT Kit.

Connections

(1) To VTR not equipped with 21-pin and S-VIDEO Sockets

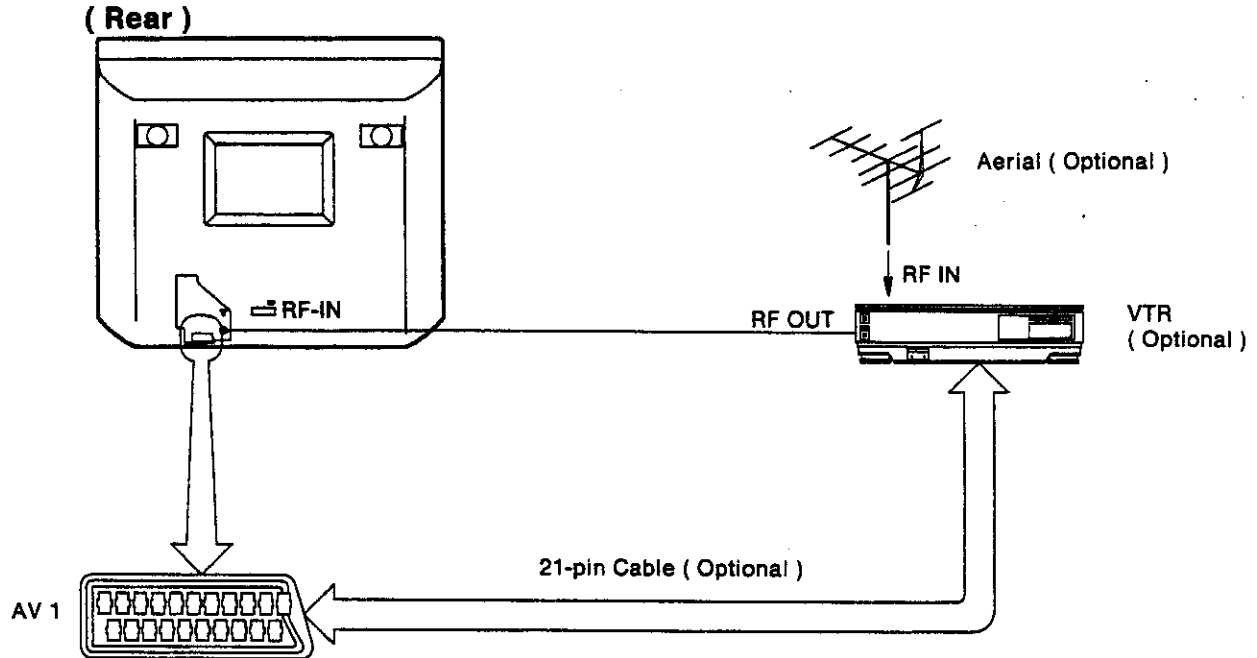


(2) To VTR not equipped with 21-pin and S-VIDEO Sockets



Connections

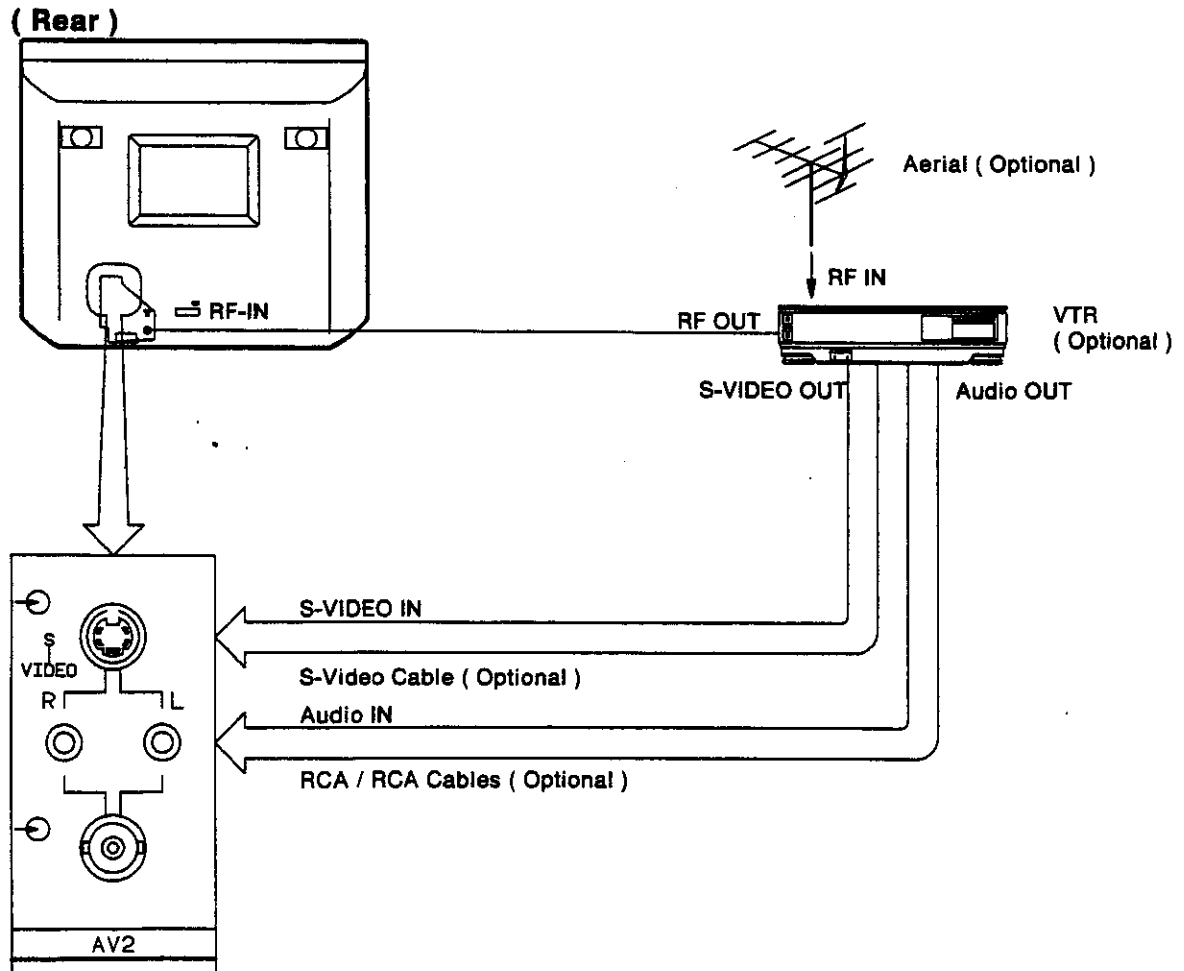
(3) To VTR equipped with 21-pin socket



Note :

Consult your dealer for suitable cables. Refer to operating instructions of VTR for details.

(4) To VTR equipped with S-VIDEO Socket

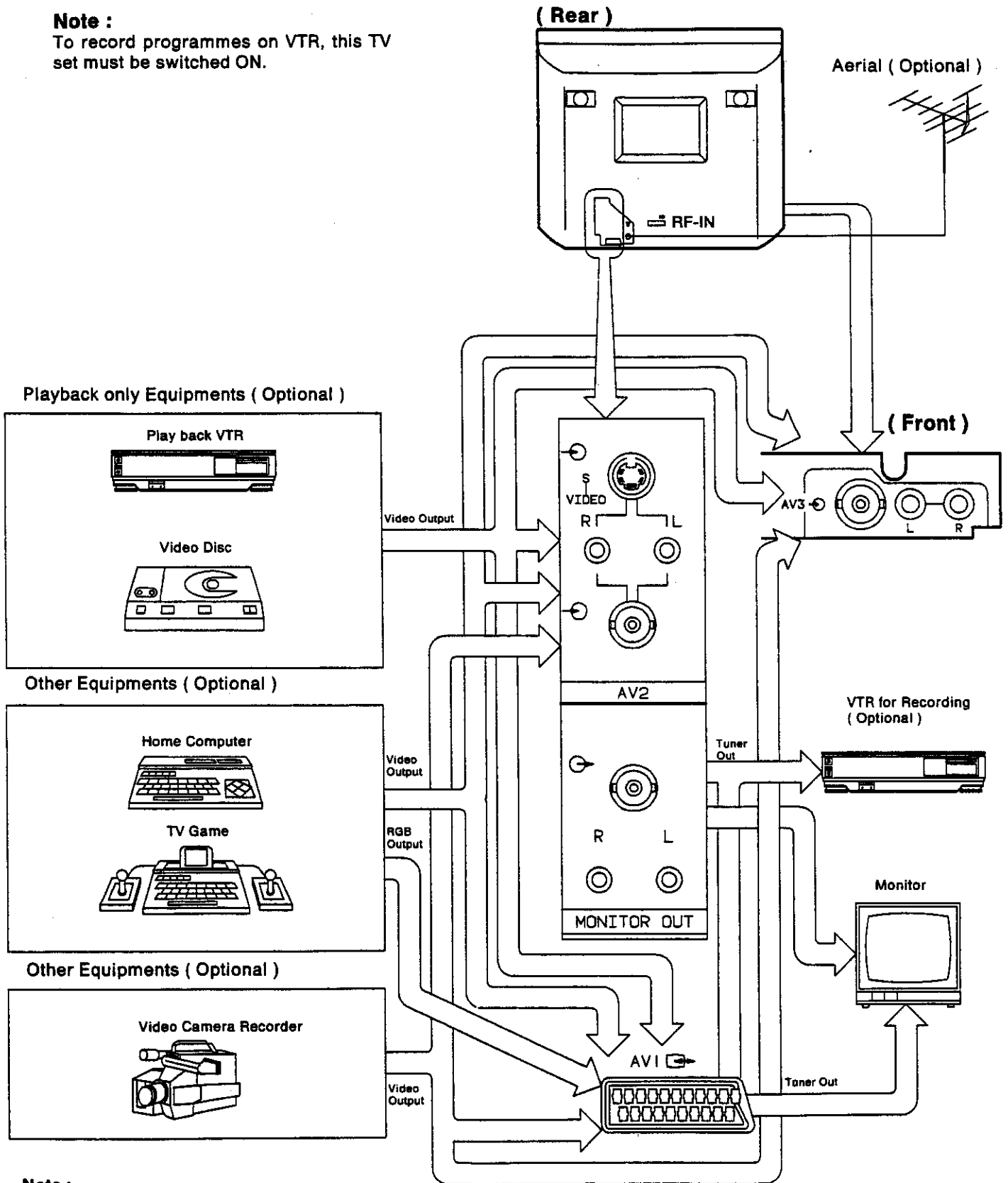


Connections

(5) To other optional equipments

Note :

To record programmes on VTR, this TV set must be switched ON.



Note :

- (1) Do not connect computer with TTL output (5 Volt) to this TV set.
- (2) "Tuner Out" Terminals contain signals from the TV's tuner only.
- (3) "Monitor Out" Terminals contain signals which are on the TV screen at that time, e.g. TV programmes or signals from AV1, AV2 or AV3 input. (Excluding RGB Input)

Tuning Procedure (By using Remote Controller or Controls Panel)

Method 1 : (If channel numbers of TV stations are known.)

Step 1 :

Select your desired programme number by using the remote control keys.

1. When selecting one-digit Programme Nos. 1 to 9 :
e.g. To select Programme "3" :
a) Push the button "3" on the remote control transmitter.
2. When selecting 2-digit Programme Nos. 10 to 50 :
e.g. To select Programme "25" :
a) Push the "-/-" Button on the remote control transmitter first.
b) Push the "2" Button second.
c) Push the "5" Button third.

Note : This is the indicator for the programme number only, not the actual channel number.

Step 2 :

Select the actual channel number which can be received in your area directly with the remote control.

- a) Push the "C" Button, Display panel will show "--".
 - b) Enter desired channel number.
- e.g. To tune to channel 36, push "3" and "6" Buttons consecutively.

Step 3 :

Push "STORE" Button on the controls panel of TV set. (Memory operation completed)

Step 4 :

Repeat **steps 1** through **3** to the remaining channels.
A maximum of 50 channels can be programmed.

Method 2 : (If channel numbers are not known.)

1. Select a desired programme number (1 through 50) indicated by the programme indicator by pushing the Programme Up "^" or Down "v" Button, or using **Step 1** above.
2. Push the Search Up "+" or Down "-" Button.
When either of these buttons is pushed the programme indicator will show the channel number of the TV station last stored.
The TV is now searching for the next channel that has a TV station available.
3. The TV will automatically stop searching when a channel has been found.
If this is not the desired channel push either Search Up "+" or Down "-" Button to start search again.
When the desired channel is found, push the "STORE" Button.
4. Repeat STEPS 1 through 3 for each programme number required.

Note :

1. There are 50 programme numbers available. (1 through 50)
2. If the "STORE" Button is not pushed, the programme will remain on the TV screen until either the Search Up "+" or Down "-" Button is pushed again, or TV set is switched off, or programme position is changed.

General Operation of controls panel on TV Set

(Refer to diagram on page 3.)

(1) Power Switch

Push this button to turn the receiver on.
(Programme number indicator will light up.)
Push again to turn off.

(2) Programme Number Up and Down Buttons

Push the Programme Number Up “^” Button to select the higher programme numbers.
Push the Programme Number Down “v” Button to select the lower programme numbers.

(3) Volume Up “+” and Down “-” Buttons

Push the Volume Up “+” Button to increase the sound level.
Push the Volume Down “-” Button to decrease the sound level.

(4) Colour Up and Down Buttons

Push the Colour Up “+” Button to increase the colour (saturation) level.
Push the Colour Down “-” Button to decrease the colour (saturation) level.

(5) Brightness Up and Down Buttons

Push the Brightness Up “+” Button to increase the brightness level.
Push the Brightness Down “-” Button to decrease the brightness level.

(6) Contrast Up and Down Buttons

Push the Contrast Up “+” Button to increase the contrast level.
Push the Contrast Down “-” Button to decrease the contrast level.

(7) N-Store Button (Normalization Store Button)

By pushing the “N-STORE” Button on the TV set, you can memorise the following controls at desired levels : Volume, Contrast, Brightness, Colour, Balance, Bass and Treble.

Procedure

1. Set the above controls to the desired levels.
2. By pushing the “N-STORE” Button, all of the set levels of controls listed above will be memorised.

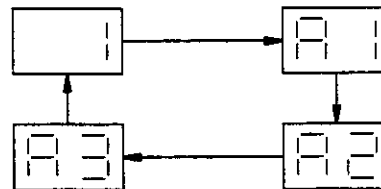
(8) Normalization Button

By pushing this button, the levels of Volume, Contrast, Brightness, Colour, Balance, Bass and Treble will be restored to the levels memorized in “N-STORE” Function.

(9) TV / AV Selection Button

By pushing this button, you can sequentially select TV and three AV modes (AV1, AV2, and AV3), as shown below.

Programme Number Indicator



Note :

TV mode showing programme number “1” selected.

(10) Stereo / Mono Selection Button

(AV mode only)

Normally, set the “Stereo / Mono Selection” Button to Stereo position.

Stereo position : Stereo indicator will light up.

Mono position : Monaural indicator will light up.

(11) Picture Control

Turn clockwise or anti-clockwise to adjust picture sharpness.

(12) Headphones (3 mm Stereo type)

When the Headphone plug is inserted into the Headphone socket, you can listen with the Headphones. (Optional)

Note :

The internal and external speakers sound will be cut off while headphones are connected to this socket.

Remote Control Operation for TV

(Refer to diagram on page 4.)

The Remote control can only be used when the "Power" Switch on TV set is in the ON position.

(13) TV ON / OFF Button

Push this button to turn the TV set off.
(The Stand-by Indicator will light up.)
Push It again to turn the TV set on.

Note :

Do not leave the TV set in the stand-by condition for a long period of time.
It is recommended to switch it off when you are away for extended period of time.

(14) Direct Programme Selection Buttons

1. One digit programme number

(Programme No. 0-9)

e.g. Selecting programme "3"

a) Push the "3" Button.

2. Two digit programme number

(Programme No. 10-50)

e.g. Selecting programme "23"

a) Push the "-/--" Button first.

b) Push the "2" Button second.

c) Push the "3" Button third.

(15) Direct Channel Selection

By pushing this button, the actual channel number can be entered directly.

a) Push the "C" Button, Display panel will show " _ _ ".

b) Enter desired channel number.

e.g. To tune to channel 36,

Push "3" and "6" Buttons consecutively.

Note:

The channel number indication changes to previously selected Programme number in a few seconds.

(16) Programme Number Up and Down Buttons

Push the Programme Number Up " ^ " Button to select the higher programme numbers.

Push the Programme Number Down " v " Button to select the lower programme numbers.

(17) Volume Up " + " and Down " - " Buttons

Push the Volume Up " + " Button to increase the sound level.

Push the Volume Down " - " Button to decrease the sound level.

(18) Fine Tuning Button

Use this button to eliminate or minimize interference.

Detuned position can be memorized by pushing "Store" Button on the set.

(19) Contrast Up and Down Buttons

Push the Contrast Up " + " Button to increase the contrast level.

Push the Contrast Down " - " Button to decrease the contrast level.

(20) Brightness Up and Down Buttons

Push the Brightness Up " + " Button to increase the brightness level.

Push the Brightness Down " - " Button to decrease the brightness level.

(21) Colour Up and Down Buttons

Push the Colour Up " + " Button to increase the colour (saturation) level.

Push the Colour Down " - " Button to decrease the colour (saturation) level.

(22) Balance R and L Buttons

Push the Balance (R) to bias sound to the right hand side.

Push the Balance (L) to bias sound to the left hand side.

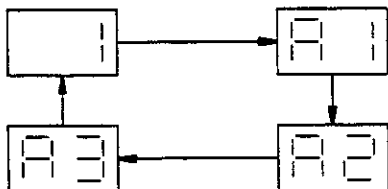
Remote Control Operation for TV

(Refer to diagram on page 4.)

(23) TV / AV Selection Button

By pushing this button, you can sequentially select TV and three AV modes (AV1, AV2, and AV3), as shown below.

Programme Number Indicator



Note :

TV mode showing programme number "1" selected.

(24) Status Button

By pushing this button, the actual channel Number will be displayed on the Programme Number / Channel Number indicator.

(25) Normalization Button

By pushing this button, the levels of Volume, Contrast, Brightness, Colour, Balance, Bass and Treble will be restored to the levels memorized in "N-STORE" Function.

(26) Ambience Button

Push the "Ambience" Button to obtain better acoustic sound from the speakers.

Ambience sound is dynamic sound system that give a feeling of greater acoustic presence.

(27) Mute Button

Push the "Sound Mute" Button once to mute the sound.

To return the sound to its previous or normal level, perform one of the following operations.

1. Push the "Sound Mute" Button again.
2. Push the "Power" Switch to turn the TV off and then switch on again.
3. Push the Volume Up "+" Button or the Volume Down "-" Button on the TV.
4. Push the "TV ON / OFF" Button on the remote controller to turn the TV to "STAND-BY", then turn the TV on again.
5. Push programme Up "^" or Down "v" or any one of channel selection buttons.
6. Push the Normalization "N" Button to return the sound to the normalized level.

(28) Bass Up and Down Buttons

Push the Bass Up "+" Button to increase the bass level.

Push the Bass Down "-" Button to decrease the bass level.

(29) Treble Up and Down Buttons

Push the Treble Up "+" Button to increase the treble level.

Push the Treble Down "-" Button to decrease the treble level.

Remote Control Operation for TV

(Refer to diagram on page 4.)

(30) Music / Speech

This button can be used to enhance the TV programme sound.

(The "Music / Speech" indicator on the front will light up according to the selected mode.)

Music Mode

To have a wider frequency range.

(The "Music / Speech" indicator will light up.)

Speech Mode

To have a soft tone for easier listening.

Note :

Bass, Treble can't operate even screen display come out on screen.

NICAM System

(Refer to diagram on pages 3 and 4.)

To receive NICAM broadcasts, the TC-AV29ZR incorporates a NICAM decoder.

When a stereo, dual-soundtrack or monaural NICAM programme is being received, the indicators light to inform you of the type of broadcasts.

(31) Sound Channel Selection Button



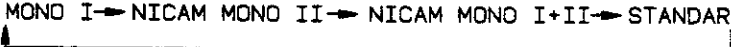
Sound output can be selected by pushing "Sound channel Selection" Button on the Remote Control Transmitter.

Note :

If the stereo signal is weak or the receiving condition extremely poor, it is recommendable to switch to the "Mono" Mode.

Independent Switching Operation of Receiving Signal

To carry out switching operation, use "Sound Channel Selection" Button of the Remote Control Transmitter. Sound will change as per the following with each press.

TYPE OF BROADCAST	SWITCHING OPERATION
REGULAR BROADCAST (STANDARD AUDIO)	STANDARD AUDIO
REGULAR+NICAM STEREO	STEREO → STANDARD AUDIO 
REGULAR+NICAM MONO I	NICAM MONO I → STANDARD AUDIO 
REGULAR+NICAM DUAL MONO	NICAM MONO I → NICAM MONO II → NICAM MONO I+II → STANDARD AUDIO 

Selection Mode & Receiving Signal Correlations

SELECTION MODE	TYPE OF BROADCAST			
	REGULAR BROADCAST	REGULAR+NICAM STEREO	REGULAR+NICAM MONO	REGULAR+NICAM DUAL MONO
REGULAR	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
NICAM STEREO	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO I
NICAM MONO I	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO I
NICAM MONO II	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO II
NICAM MONO I+II	STANDARD AUDIO	STEREO	NICAM MONO I	NICAM MONO I+II

Notes :

1. When the power is set ON, the mode is pre-set at "NICAM MONO I / STEREO".
2. Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
3. When the receiving conditions deteriorate, listening will be easier if the STANDARD AUDIO Mode is set at "MONO" position.

NICAM System

(Refer to diagram on pages 3 and 4.)

Correlations between Receiving Signal, Selection Mode, Indication and Sound Out

TYPE OF BROADCAST	SELECTING MODE	INDICATION	SOUND OUT			
			SPEAKER		HEADPHONE	
			L-CH	R-CH	L-CH	R-CH
REGULAR BROADCAST (STANDARD AUDIO)	REGULAR	NO INDICATION	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
REGULAR + NICAM STEREO	NICAM STEREO	⊙	STEREO L	STEREO R	STEREO L	STEREO R
	REGULAR	▽	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
REGULAR + NICAM MONO I	NICAM MONO I	I	NICAM MONO I	NICAM MONO I	NICAM MONO I	NICAM MONO I
	REGULAR	▽	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO	STANDARD AUDIO
REGULAR + NICAM DUAL MONO	NICAM MONO I	I	NICAM MONO I	NICAM MONO I	NICAM MONO I	NICAM MONO I
	NICAM MONO II	II	NICAM MONO II	NICAM MONO II	NICAM MONO II	NICAM MONO II
	NICAM MONO I+II	I II	NICAM MONO I	NICAM MONO II	NICAM MONO I	NICAM MONO II
	REGULAR	▽	REGULAR	REGULAR	REGULAR	REGULAR

Remote Control Operation for VTR

(Refer to diagram on page 4.)

Note:

This infrared remote control is designed specifically to be used with selected Panasonic VTRs, consult your dealer for details.

Some model VTR's have different functions, so please refer to the individual instruction booklet to ensure compatibility when using this remote control with Panasonic VTRs or consult your dealer for details.

To gain access to the VTR functions on the remote control, the VTR select button must also be pressed in, in conjunction with the appropriate function required.

e.g.

To select Stop, push "VTR" select Button and the Stop button simultaneously.

(32) VTR Select Button

Hold this button in while operating VTR functions.

(33) Stop Button

Push this button to stop the tape.

(34) Play Button

Push this button to playback the tape.

(35) Rec (Record) Buttons

Recording is started by pushing these 2 buttons at the same time.

(36) Rew (Rewind) / Review Button

Push this button to rewind the tape.
During the playback mode, holding this button down will allow you to view the picture in reverse rapidly. (Review)

(37) FF (Fast Forward) / Cue Button

Push this button to fast forward the tape.
During the playback mode, holding this button down will allow you to view the picture in the forward direction rapidly. (Cue)

(38) Pause / Still (Button)

Push to stop the tape temporarily during playback. A still-picture will be shown.

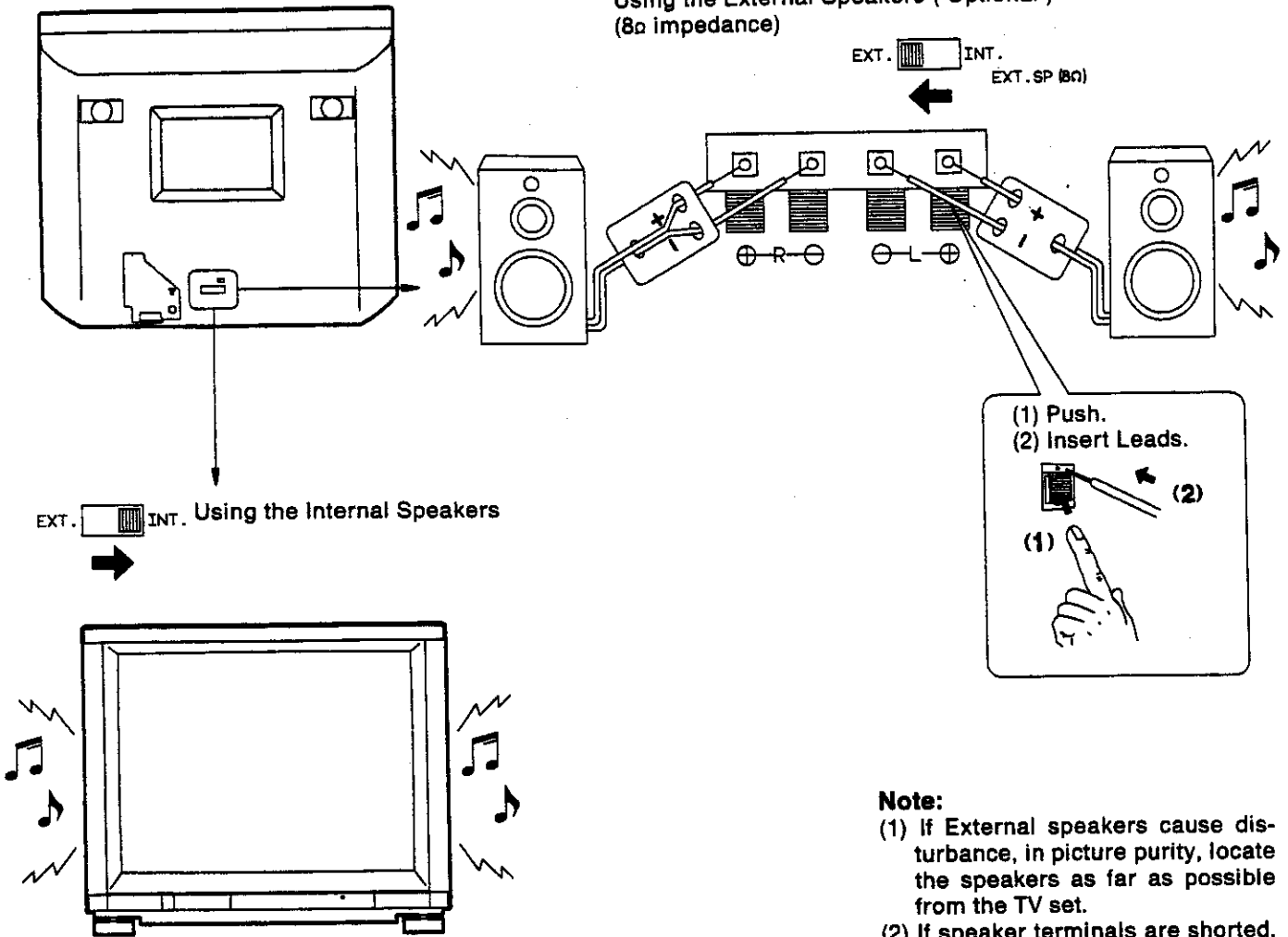
(39) Still Advance Button

While in the still mode, push this button to advance the picture one frame at a time.

Connections (External Speaker Terminals)

Using the External Speakers (Optional)
(8Ω impedance)

EXT. INT.
EXT. SP (8Ω)



EXT. INT. Using the Internal Speakers













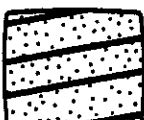



(1) Push.
(2) Insert Leads.

Note:

- (1) If External speakers cause disturbance, in picture purity, locate the speakers as far as possible from the TV set.
- (2) If speaker terminals are shorted, sound will be cut off. Turn the TV set off then turn on again to reset the protection circuit.

Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	Sound	
 <p>Snowy Picture</p>	 <p>Noisy Sound</p>	Aerial Location, direction or Connections
 <p>Multiple Image</p>	 <p>Normal Sound</p>	Aerial Location, direction or Connections
 <p>Interference</p>	 <p>Noisy Sound</p>	Electrical Appliances Cars / Motorcycles Fluorescent Lamps
 <p>Normal Picture</p>	 <p>No Sound</p>	Speaker select switch Volume (Check whether the mute function has been activated on the Remote Control.)
 <p>No Picture</p>	 <p>No Sound</p>	Not plugged into AC outlet Not switched on Contrast and Brightness / Volume setting (Check by pushing the Power Switch or (Stand-by) Button on the Remote Control.)
 <p>No Colour</p>	 <p>Normal Sound</p>	Colour Control
 <p>Scrambled</p>	 <p>Normal or Weak Sound</p>	Retune Channel
 <p>Coloured Patches</p>	 <p>Normal Sound</p>	Magnetic interference from unshielded equipment Receiver moved while "ON" (switch off for 10 mins.)

Specifications

Power Source :	AC 230 V, 50 Hz	
Power Consumption :	159 W (Stand-by condition 12 W)	
Receiving System :	CCIR : 625 Lines, PAL B & G	
Receiving Channels :	VHF 1 - 11 UHF 21 - 69	
Tuning System :	Frequency synthesized	
Picture Tube :	(TC-AV26ZR) 26 inches (66 cm) measured diagonally, 110° deflection	(TC-AV29ZR) 29 inches (72 cm) measured diagonally, 110° deflection
Audio Output :	Internal Speaker	2 x 7 W (Max.) Impedance 8 Ω
	External Speaker	2 x 7 W (Max.) Impedance 8 Ω
Aerial Impedance :	75 Ω Unbalanced coaxial	
Headphones :	Impedance 8 Ω	
Video/Audio Terminals :	AV1 IN	Video (21 pin) 1 Vp-p 75 Ω Audio (21 pin) 0.67 Vrms, 10 KΩ
	AV1 OUT	Video (21 pin) 1 Vp-p 75 Ω Audio (21 pin) 0.67 Vrms, (100 % modulation) 1 KΩ
	AV2 IN	Video (BNC) 1 Vp-p 75 Ω S-Video IN Y : 1.0 Vp-p, 75 Ω C : 0.3 Vp-p, 75 Ω Audio (Phono) 0.67Vrms, 10 KΩ
	AV3 IN	Video (BNC) 1 Vp-p 75 Ω Audio (Phono) 0.67 Vrms, 10 KΩ
	Monitor OUT	Video (BNC) 1 Vp-p 75 Ω Audio (Phono) 0.67 Vrms, (100 % modulation) 1 KΩ
Accessories supplied :	Remote controller X 1 "R03" Battery X 2	
Dimensions (W x D x H) :	(TC-AV26ZR) 671 X 493 X 567 mm	(TC-AV29ZR) 718 x 493 x 601 mm
Weight :	39.5 kg (NET)	46.6 kg (NET)

Note :

Design and Specifications are subject to change without notice.
Weight and dimensions shown are approximate.

Customer's Record

The serial number of this product may be found on its rear cover. You should note the number of this unit in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model Number

TC-AV26ZR / TC-AV29ZR

Serial Number

Matsushita Electric Industrial Co., Ltd.

Central P.O. Box 288, Osaka 530 - 91, Japan

Printed in Japan
S1289