

SONY

TRINITRON® COLOR TV

**KV-1311CR
(CABLE COMPATIBLE TV)**

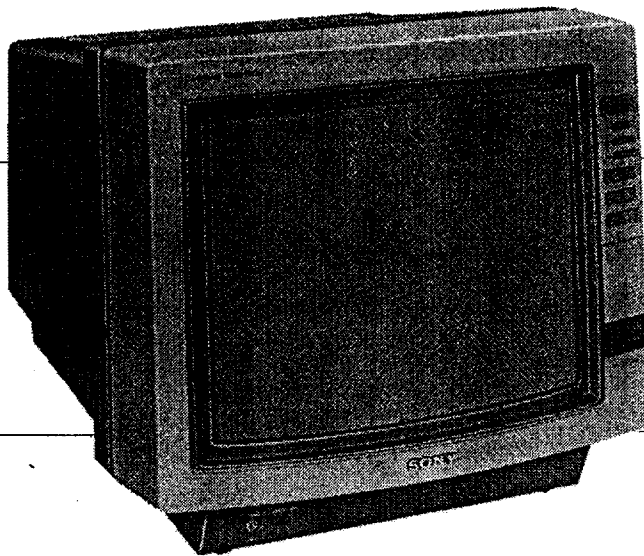
OPERATING INSTRUCTIONS

Welcome to the advanced world of Sony TV. For the best results and the utmost satisfaction from your new set, please read this manual thoroughly and retain it for future reference.

OWNER'S RECORD

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. KV-1311CR Serial No. _____

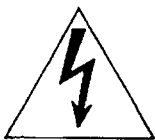
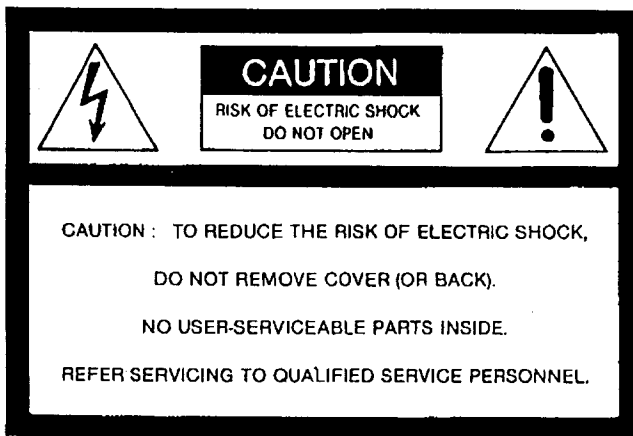


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WARNING

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



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna

Relocate the equipment with respect to the receiver

Move the equipment away from the receiver

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart J of Part 15 of FCC Rules.

PRECAUTIONS

Safety

- Operate the set only on 120 V AC.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified personnel before operating it any further.
- Unplug the set from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the set in a hot or humid place or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the set with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the cabinet.

Repacking

Retain the original carton and packing materials for safe transport of this set in the future.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

FEATURES

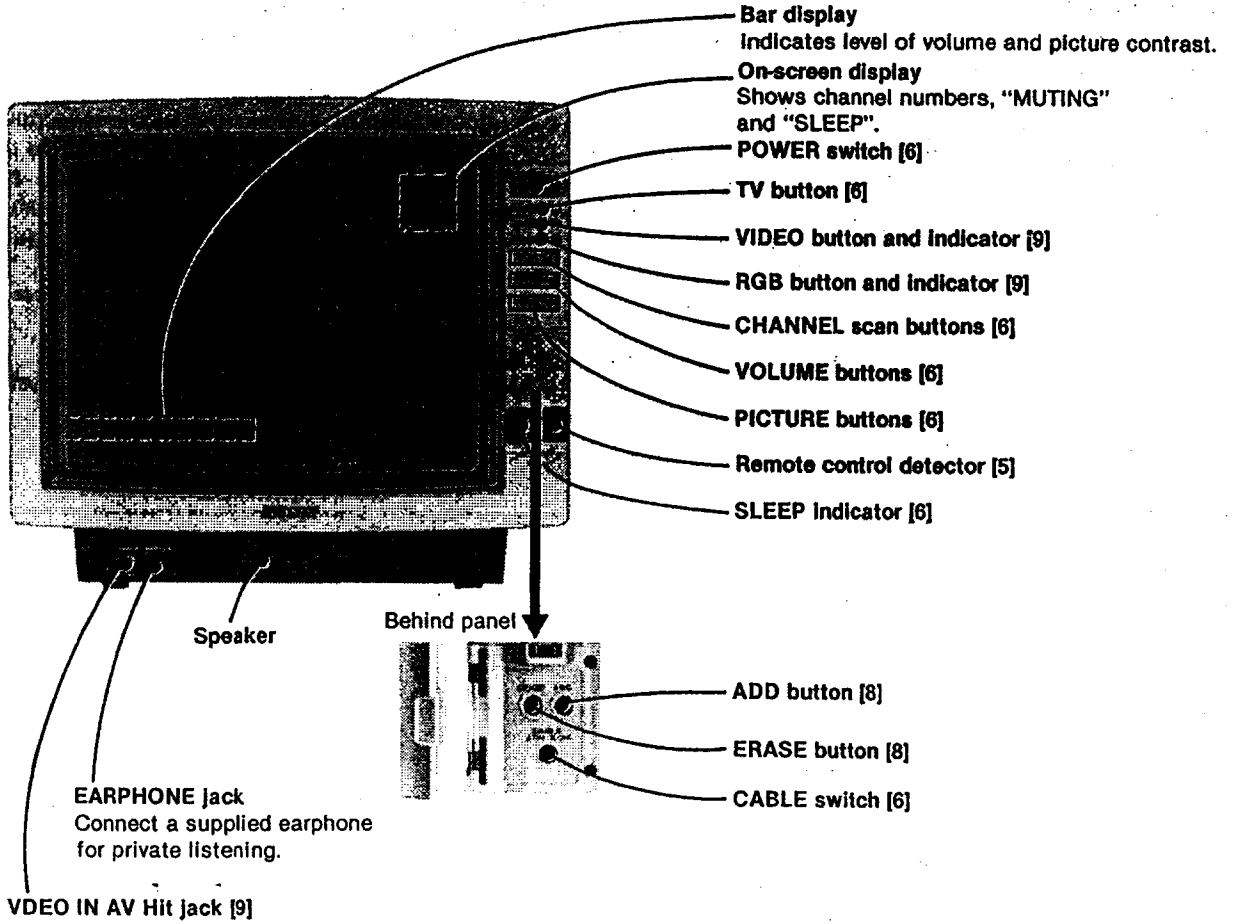
New Microblack™ Trinitron® picture tube for higher resolution, higher contrast picture

- **Multi-band VHF/UHF/CATV tuning**
- **Remote control supplied**
- **Digital RGB Input (8-pin) and analog RGB multi-connector (34-pin)** for connecting a microcomputer or teletext unit
- **Front-mounted VIDEO IN AV HiT Jack**, which allows easy connection of a video game, microcomputer or a portable video cassette recorder with a single cable
- **MPX (multiplex) OUT Jack**, which allows a special adaptor (optional) to be connected for any future multichannel TV sound (MTS) stereo or bilingual broadcasts
- **Phono-type audio/video input or output jacks:** video inputs, monitor outputs and TV outputs.
- **On-screen display of channel number, etc.**
- **Sleep timer**, which automatically turns the set off after one hour

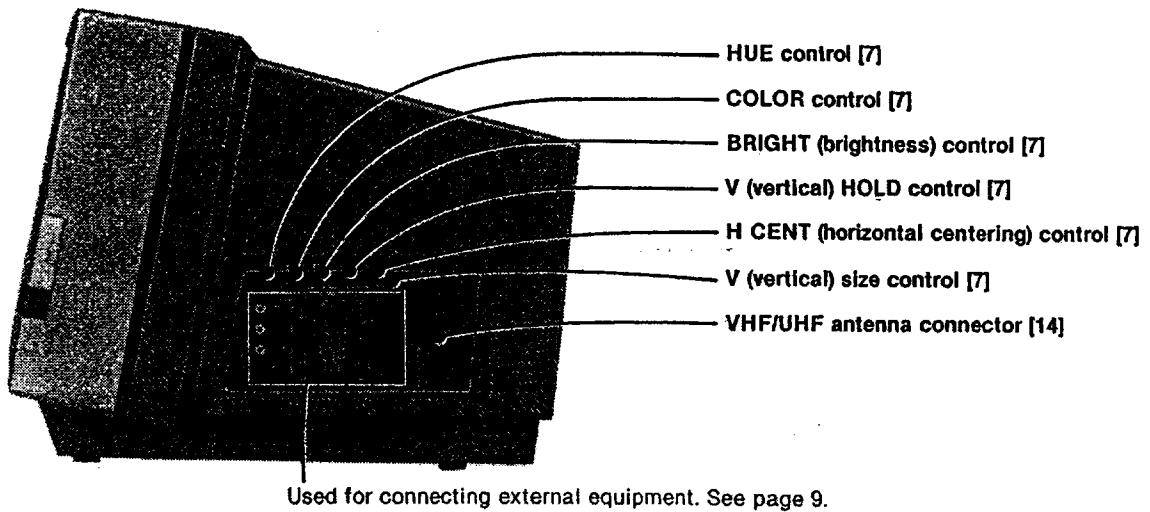
LOCATION OF CONTROLS

For details on the use of each control, refer to the pages indicated in brackets.

Front



Right side



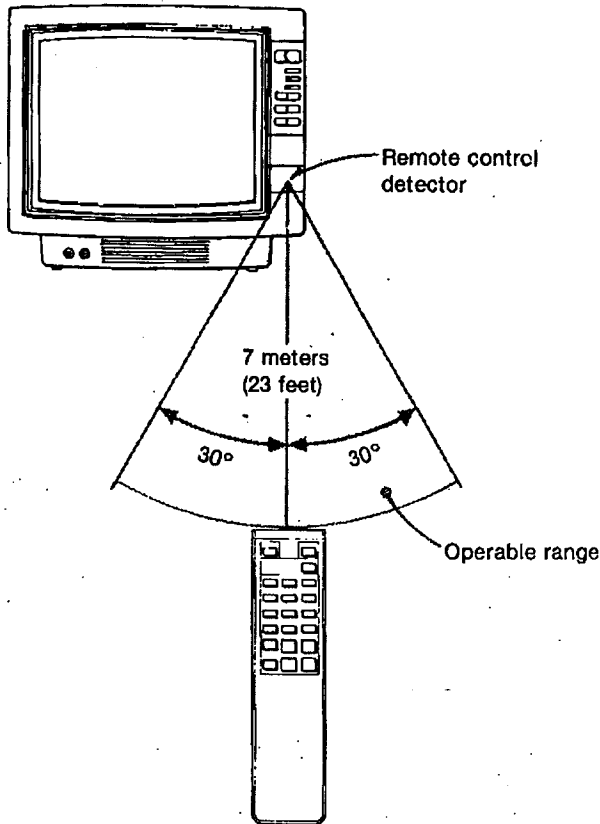
SET-UP

REMOTE COMMANDER

- 1 Turn the Remote Commander face down, press the tab and lift the cover.
- 2 Place batteries in the Commander with the polarities in the correct directions, as illustrated inside the case.
- 3 Replace the cover.

Notes

- Use 2 size AA batteries (IEC designation R6).
- In normal operation, batteries will last up to half a year. If the set does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Commander and the TV.
- Operable range is limited.

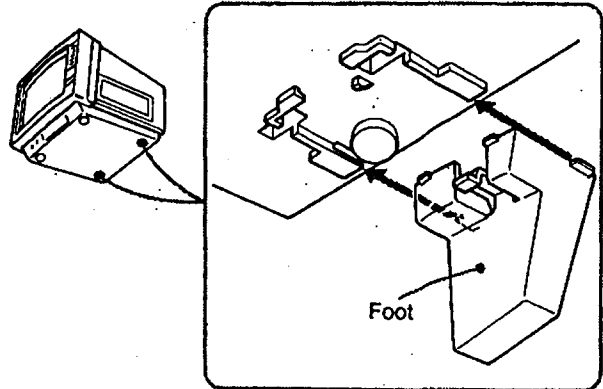


FEET

To set the screen vertically

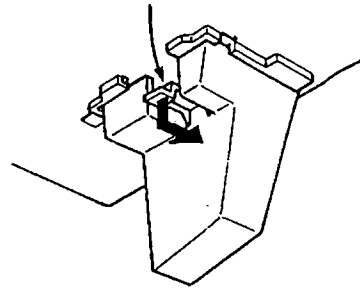
Attach the supplied feet to the bottom of the TV as illustrated.

Attach the foot indicated "R" to the right and the one indicated "L" to the left. Fully insert the projections of the foot into the hooks.



To remove

While pressing down the tab, pull out the foot.

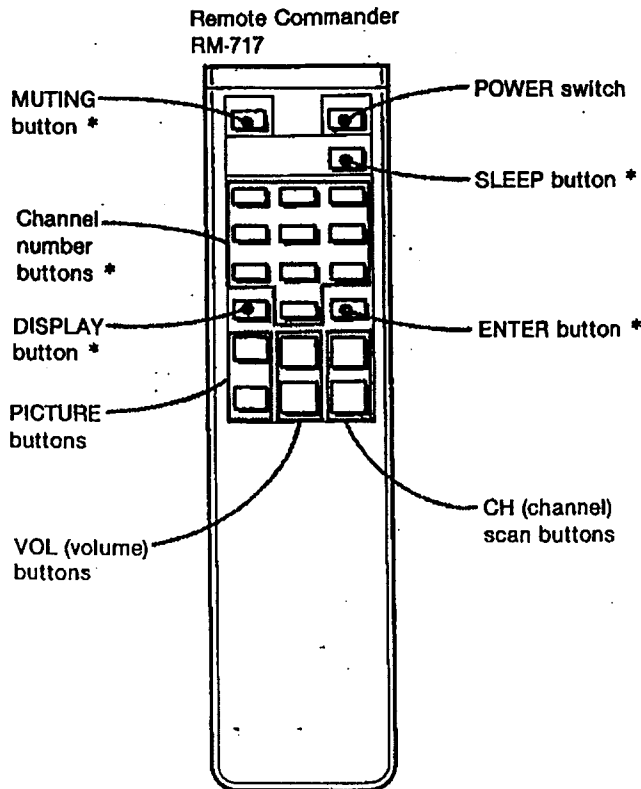


OPERATION

VIEWING TV PROGRAMS

This TV set is capable of receiving normal VHF and UHF broadcasts plus cable TV channels (see "Cable TV channel chart" below).

Usually the Remote Commander is all that is needed to operate the TV in everyday use.



*The functions of these buttons are not available on the TV.

Cable TV channel chart **

Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to this chart.

Number on this TV		1	5	6	14	15	16	17				
Corresponding CATV channel		A-8	A-7	A-6	A	B	C	D				
18	19	20	21	22	23	24	25	26	27	28	29	30
E	F	G	H	I	J	K	L	M	N	O	P	Q
31	32	33	34	35	36	37	38	39	.....	83	94
R	S	T	U	V	W	W+1	W+2	W+3	.....	W+57	W+58
95	96	97	98	99	100	101	102	.....	123	124	125
A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61	.....	W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

**The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

Note

Pay cable TV systems use scrambled or encoded signals and require special converters (decoders) in addition to the normal cable connection.

Preparation

Keep the CABLE switch on the TV released (OFF) for normal VHF and UHF programs or depress it (ON) for cable TV programs.

- Press POWER to turn on the TV.**

The channel number will be displayed on the screen and the SLEEP lamp will light up for several seconds. If the VIDEO or RGB Indicator lights, press TV.
- Select channels in one of the following two ways.**

 - Press the numeral(s) of the channel and then press ENTER.

Ex. To select channel 6, press 6 and then ENTER. To select channel 125, press 1, 2, 5 and then ENTER.

If you pressed a wrong numeral, wait for a few seconds and it will disappear. Then try again.
 - Press CHANNEL "+" for higher-numbered channels and "-" for lower-numbered channels. Preset channels will appear in sequence. (For presetting desired channels, see "PRESETTING CHANNELS".)
- Adjust volume and picture to your preference, if necessary.**

Press VOL "+" to increase volume, or "-" to decrease it. Press PICTURE "+" to increase picture contrast, or "-" to decrease it.

To mute the sound immediately, press MUTING. The "MUTING" display will appear on the screen. Press it again to restore the sound.

To turn off the set, press POWER again.

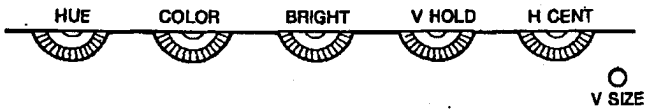
To have the set turn off automatically after one hour, press SLEEP.

The "SLEEP" display will appear on the screen a few seconds and the SLEEP indicator on the TV will remain lit for one hour.

PICTURE ADJUSTMENTS

Satisfactory results will usually be obtained with the controls set at the normal center or center detent position. If any adjustments are necessary, turn the controls as follows.

Right side



HUE: Turn to the left to make skin tones greenish or to the right to make them purplish.

COLOR: Turn to the left for more color intensity or to the right for less color intensity.

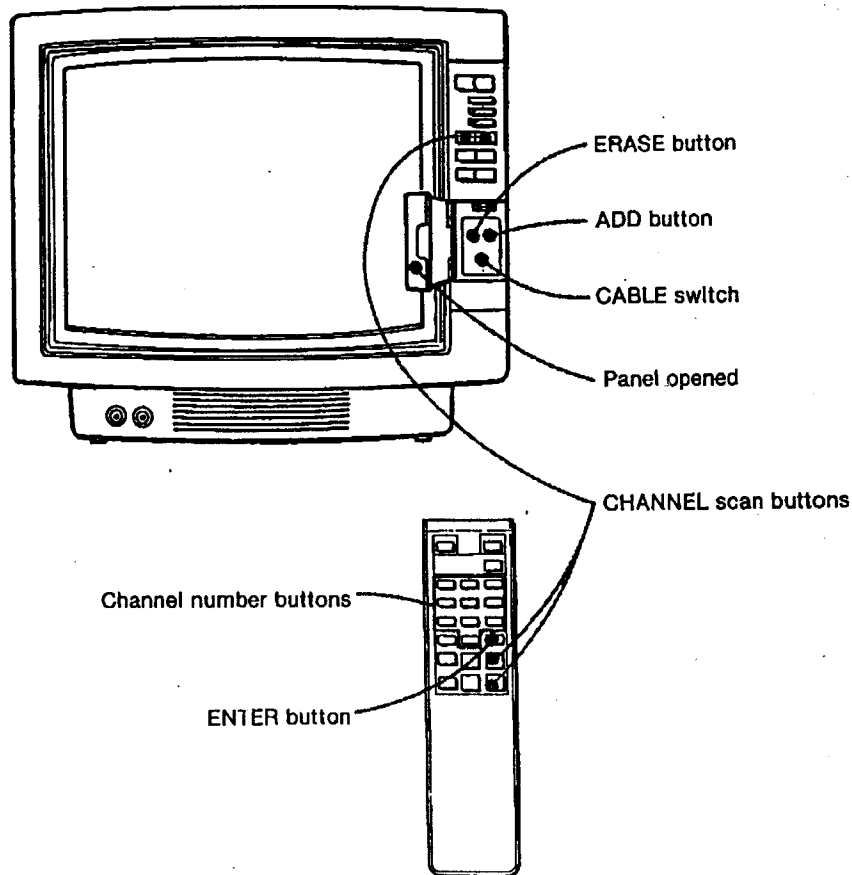
BRIGHT: Turn to the left for more brightness or to the right for less brightness.

V HOLD: Turn to the left or right to stabilize the picture if it rolls vertically.

H CENT: Turn to the left or right to center the picture if required. The picture moves more by turning the control to the right than turning it to the left.

V SIZE: Normally, turn this control fully clockwise. To reduce the picture size vertically, turn it counter-clockwise with a screwdriver.

PRESETTING CHANNELS



Receivable channels of your set are:

VHF: 2-13

UHF: 14-69

CATV: 1-125

By adding and erasing channels, you can preset your TV so that only the desired channels appear in sequence when CHANNEL +/- is pressed.

PREPARATION

- 1 Turn on TV.
- 2 Keep the CABLE switch released (□ OFF) for normal VHF and UHF programs or depress it (■ ON) for cable TV programs.

ADDING CHANNELS

- 1 Select the channel to be added by pressing the channel number buttons and then ENTER.
- 2 Press ADD.
A "+" indication will appear on the left of the channel display on the screen, indicating that the channel has been included in the proper numerical sequence when you press CHANNEL +/-.

Repeat steps 1 and 2 for other channels to be added.

ERASING CHANNELS

- 1 Select the channel to be erased.
- 2 Press ERASE.
A "-" indication will appear on the left of the channel display on the screen, indicating that the channel has been erased. When CHANNEL +/- is pressed, you will see that the channel is skipped over in the numerical sequence.

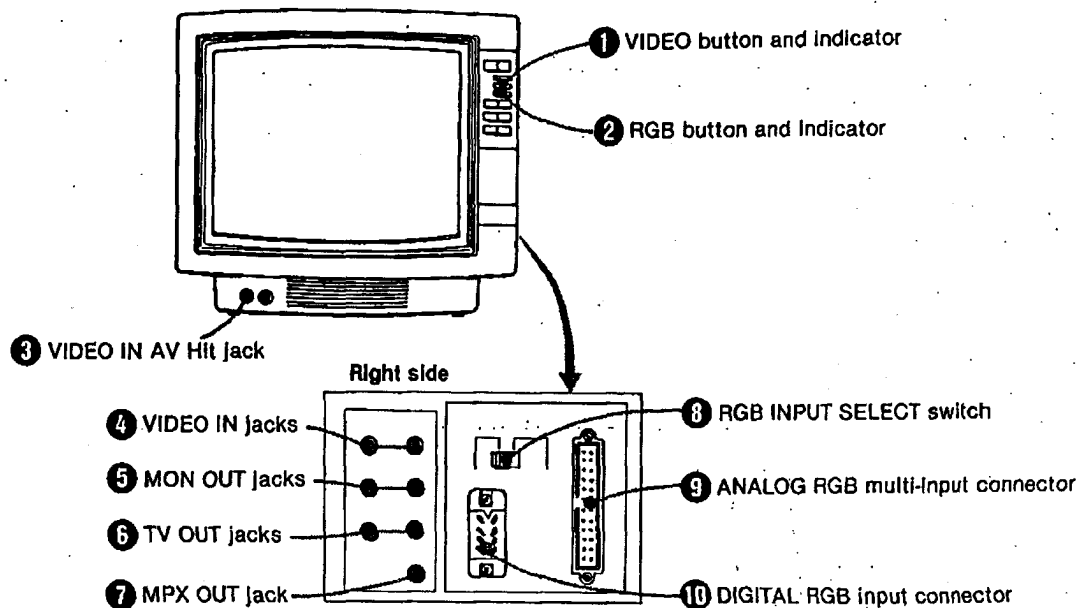
Repeat steps 1 and 2 for other channels to be erased. To add erased channels again, follow the steps in "ADDING CHANNELS".

Note

You cannot erase a VHF or UHF channel from the memory and retain the cable TV channel which has the same number, or vice versa. If either a VHF/UHF channel or a cable TV channel with the same number is to be kept in the memory, do not erase the number.

CONNECTION AND USE OF EXTERNAL EQUIPMENT

LOCATION AND FUNCTION OF CONNECTORS



1 VIDEO button and indicator

Press to view the signals from the VIDEO IN AV Hit jack or the VIDEO IN jacks. The built-in indicator lights up.

2 RGB button and indicator

Press to view the signals from the ANALOG RGB multi-input connector or the DIGITAL RGB input connector. The built-in indicator lights up.

3 VIDEO IN AV Hit Jack (AV minijack)

Connect to the output jack of a video cassette recorder or microcomputer. Video and audio signals are transmitted simultaneously.

4 VIDEO IN jacks (phono jack)

Connect to the video and audio outputs of a video cassette recorder.

5 MON (monitor) OUT jacks (phono jack)

Connect to the video and audio inputs of a video cassette recorder or color monitor. Either the TV or VCR signal, selected by the TV or VIDEO button, is supplied. RGB signal cannot be supplied even when the RGB button is pressed.

6 TV OUT jacks (phono jack)

Connect to the video and audio inputs of a video cassette recorder, etc. The TV signal is always supplied even while other signals are being viewed on the screen.

7 MPX (multiplex) OUT Jack (phono jack)

Connect to an optional multichannel TV sound adaptor for any future multichannel TV sound (stereo or bilingual) broadcasts.

8 RGB INPUT SELECT switch

Selects the RGB input from the ANALOG RGB multi-input or the DIGITAL RGB input connector.

9 ANALOG RGB multi-Input connector (34 pin)

Connect to the RGB multi-output connector of a microcomputer, teletext unit, etc.

10 DIGITAL RGB input connector (8 pin)

Connect to the digital RGB output connector of a microcomputer.

VCR CONNECTION

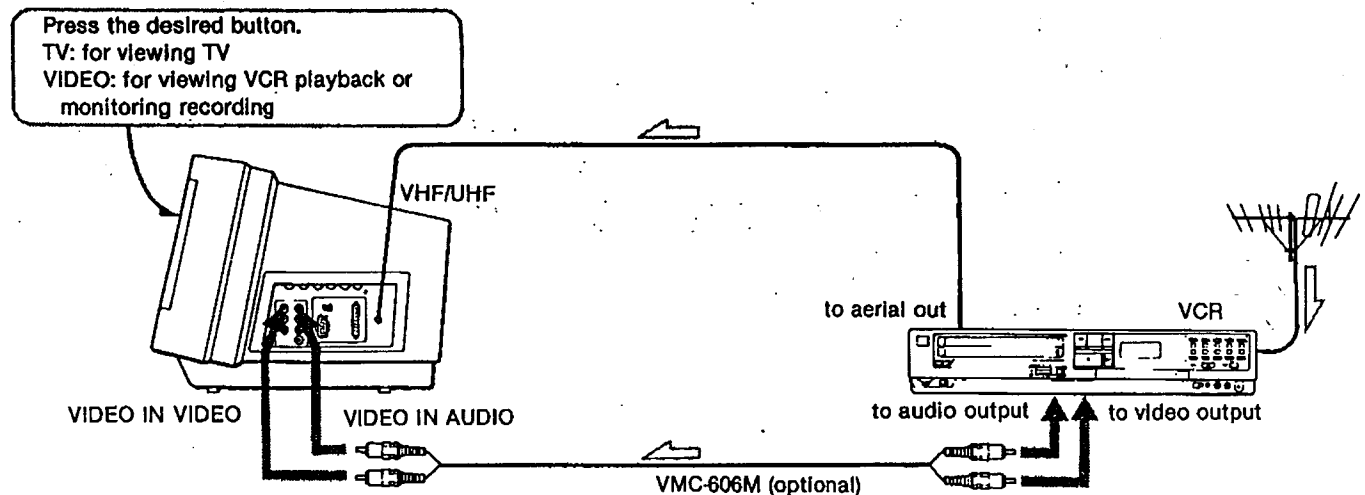
Be sure to use a connecting cable that matches the connector of your VCR (or portable VCR). Read the instruction manual of the VCR if you are not sure what type of connectors your VCR has.

Keep the VCR away from the TV, if the display or sound is affected.

NOTES ON CONNECTION

- Before connecting, make sure that the power to each piece of equipment is turned off.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Match the color when connecting the plugs to jacks.

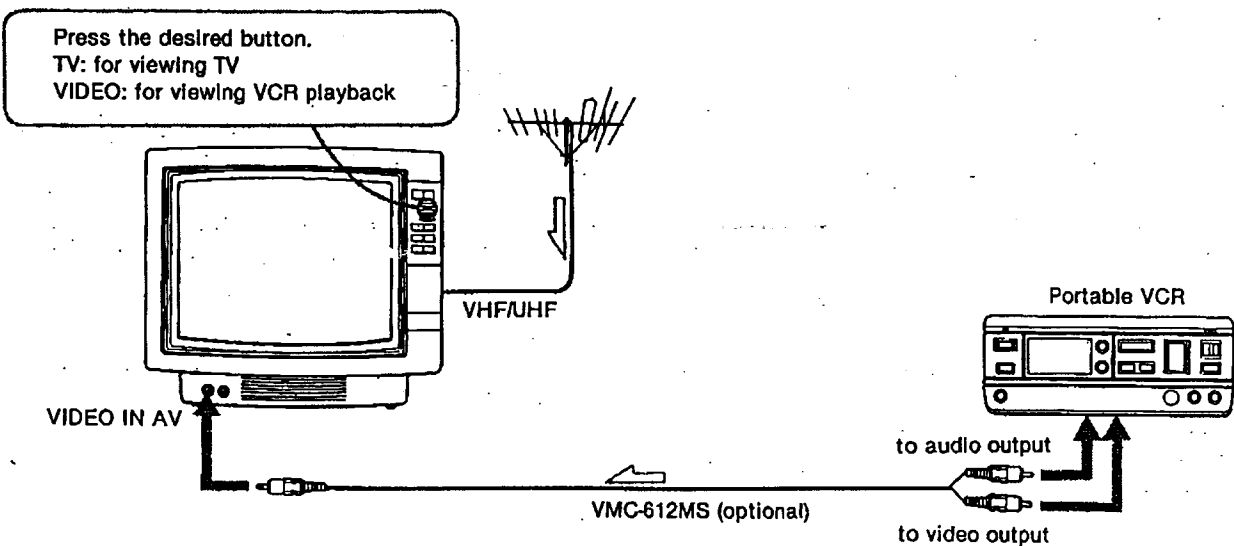
VCR equipped with a TV tuner — for playing back recorded tapes and recording TV programs



If the VCR is equipped with a mini-type audio output jack, use the optional PC-21M plug adaptor.

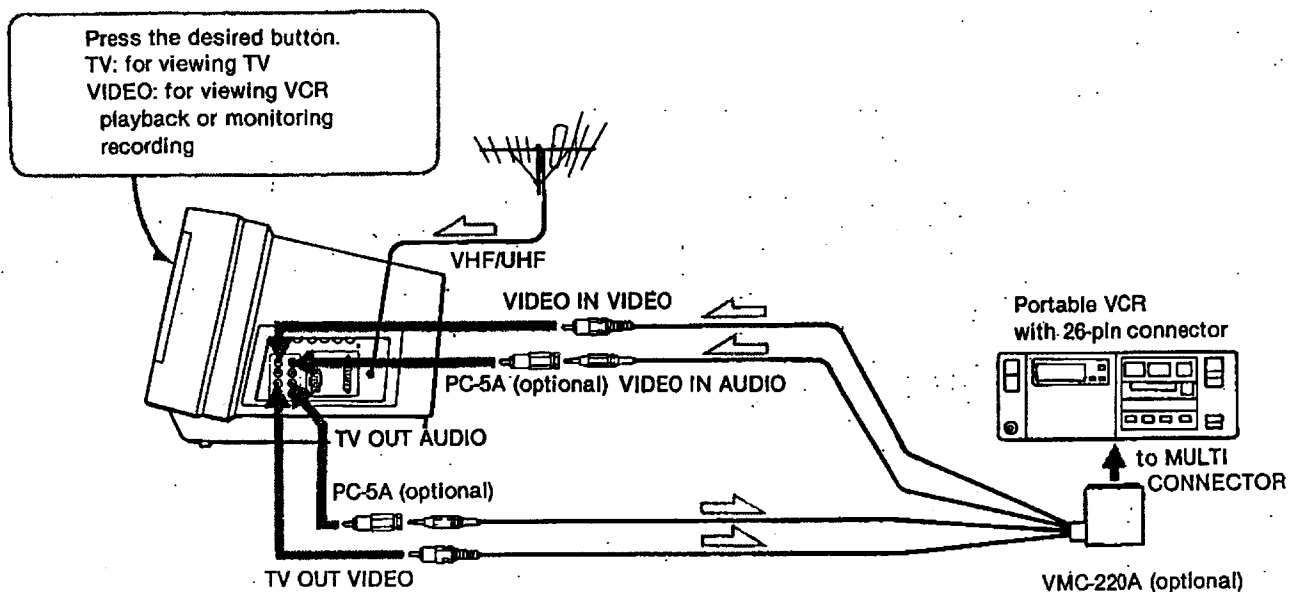
Portable VCR not equipped with a TV tuner

Connection 1 — for playing back recorded tapes



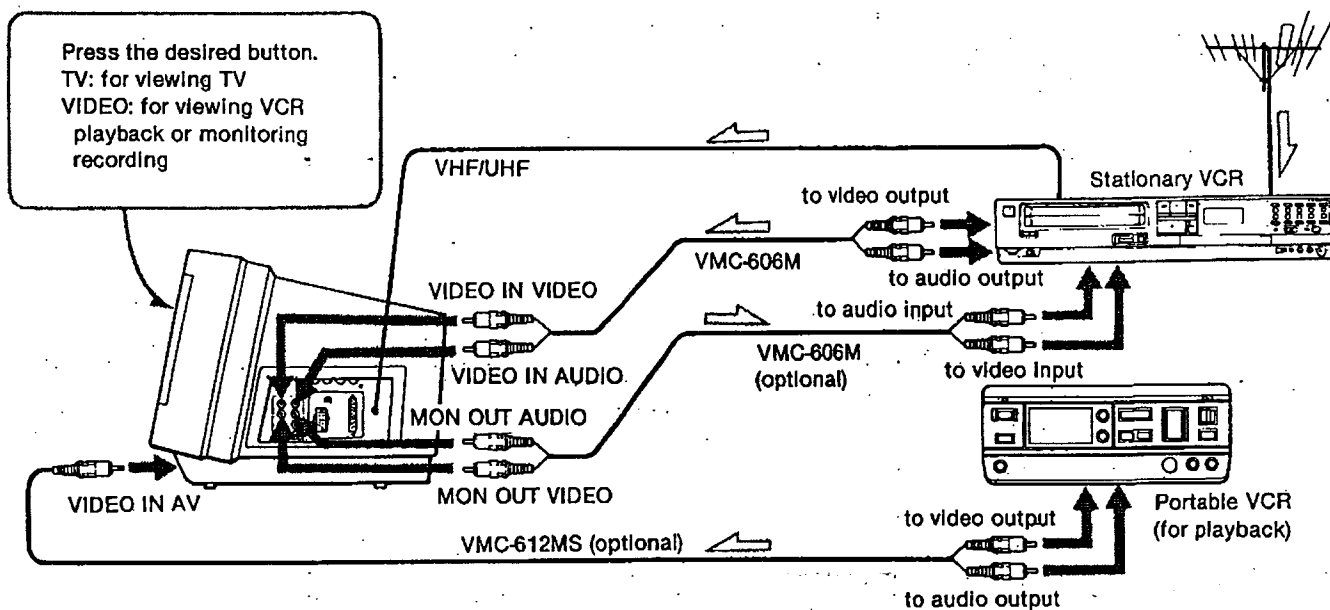
If the VCR is equipped with a mini-type audio output jack, use the plug adaptor supplied with the VMC-612MS video cable.

Connection 2 — for playing back recorded tapes and recording TV programs



To connect two VCRs simultaneously

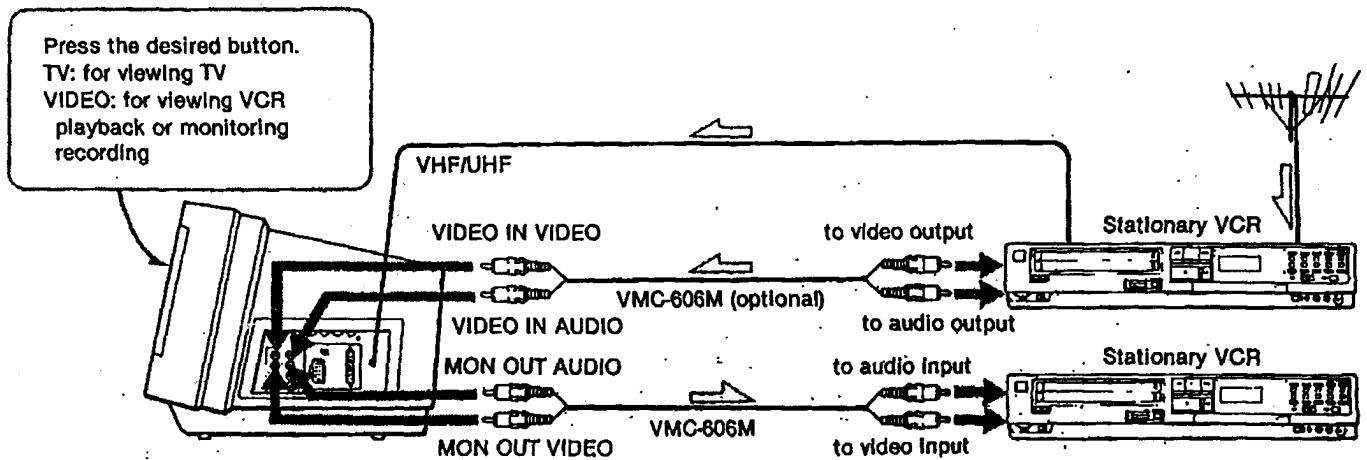
Connection 1 — for playing back recorded tapes, recording TV programs and editing tapes



Turn on the VCR whose program you want to view.
Be sure to turn off the other VCR. Otherwise the picture
may be affected.

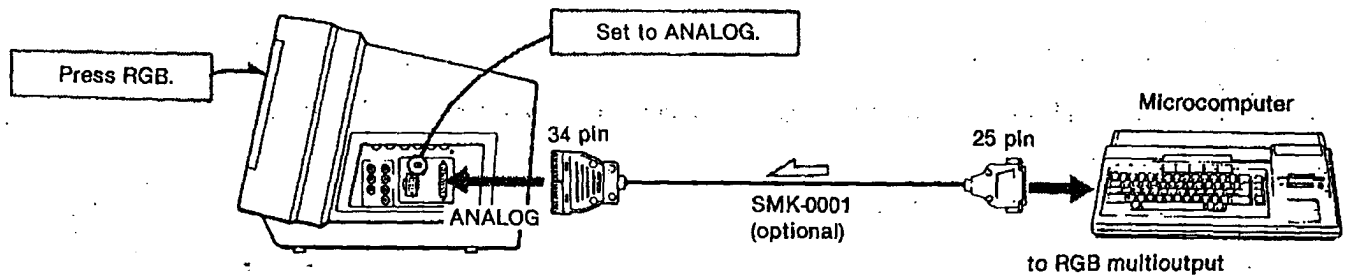
If the portable VCR is equipped with a mini-type audio
output jack, use the plug adaptor supplied with the
VMC-612MS.

Connection 2 — for playing back recorded tapes, recording TV programs and editing tapes.

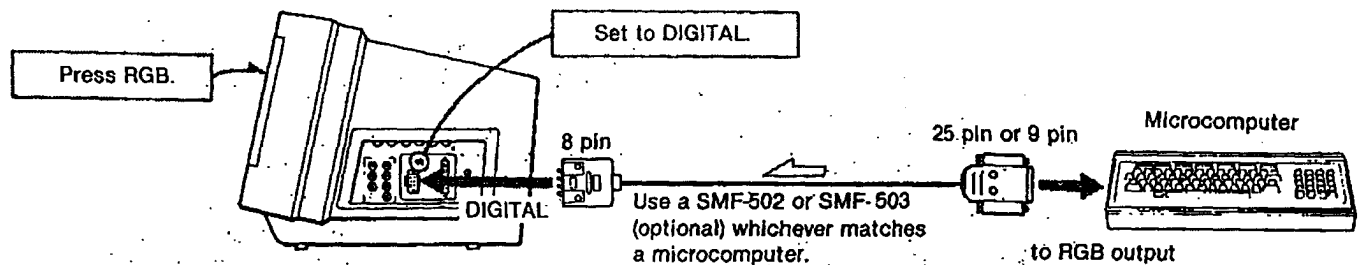


MICROCOMPUTER CONNECTION

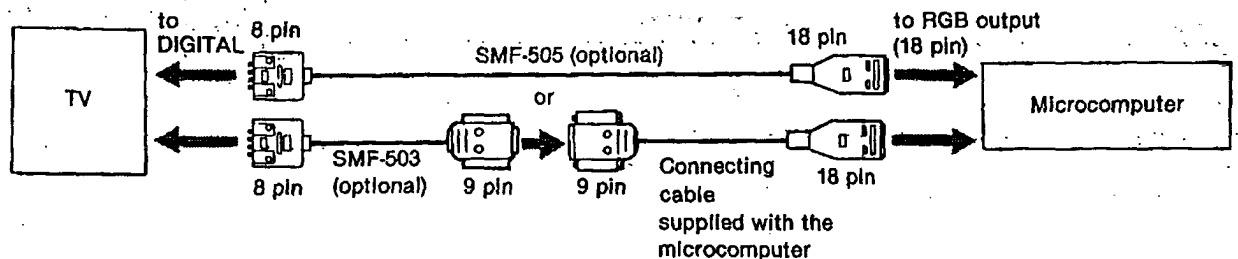
Microcomputer with analog RGB output



Microcomputer with digital RGB output

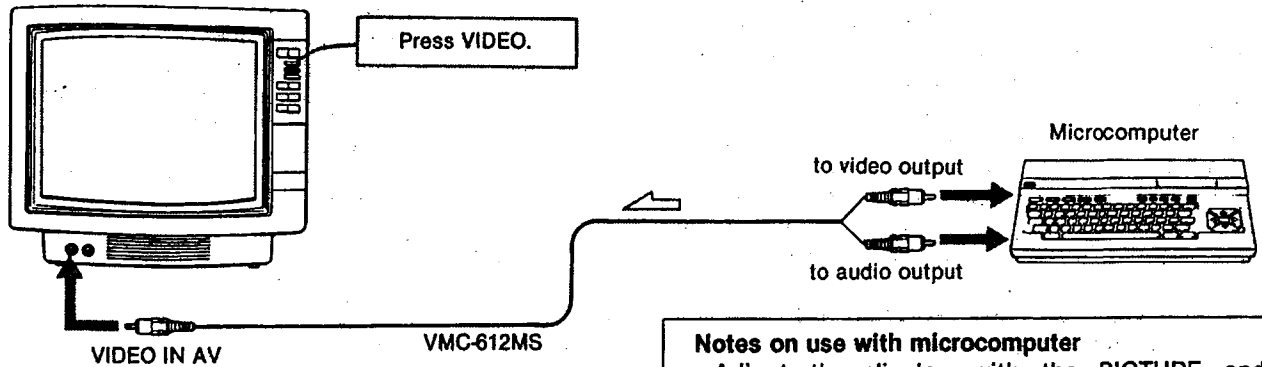


If the microcomputer is equipped with an 18-pin RGB output, connect as follows:



If the microcomputer is equipped with an audio output jack, the sound from the microcomputer can be heard by connecting the audio output jack to the VIDEO IN AUDIO jack of the TV.

Microcomputer with video and audio outputs



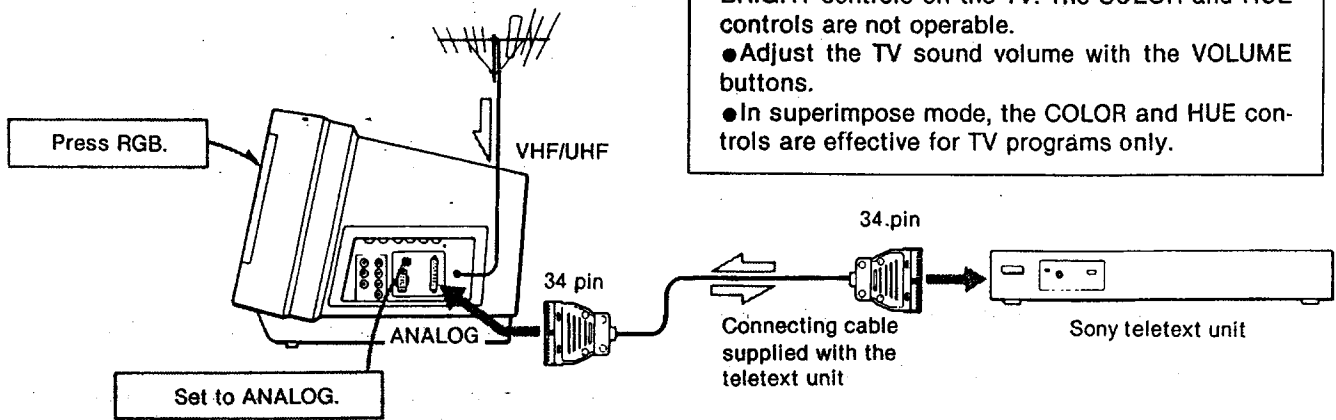
If your microcomputer is equipped with a mini-type audio output jack, use the plug adaptor supplied with the VMC-612MS video cable.

Notes on use with microcomputer

- Adjust the display with the PICTURE and BRIGHT controls on the TV. The COLOR and HUE controls are not operable.
- To center the display, adjust the H CENT control.
- When the microcomputer is connected to the VIDEO IN AV Hit jack and the VCR is connected to the VIDEO IN VIDEO and AUDIO jacks, turn on only the equipment to be used. Be sure to turn off the other equipment.

CONNECTION OF TELETXT UNIT *

By connecting a teletext unit, you can display teletext programs.

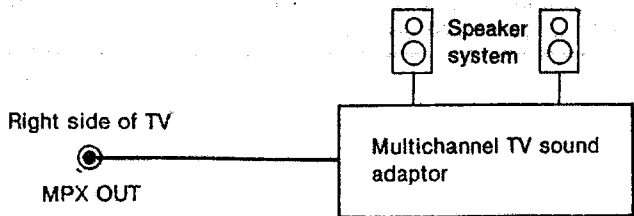


Notes on teletext operation

- Adjust the display with the PICTURE and BRIGHT controls on the TV. The COLOR and HUE controls are not operable.
- Adjust the TV sound volume with the VOLUME buttons.
- In superimpose mode, the COLOR and HUE controls are effective for TV programs only.

*Teletext operation is available in U.S.A. only.

MPX OUT JACK USAGE



Connect to the MPX OUT jack an optional multichannel TV sound adaptor for any future multichannel TV sound (stereo or bilingual) broadcasts.

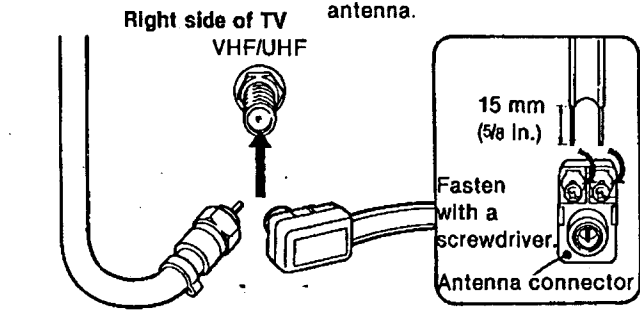
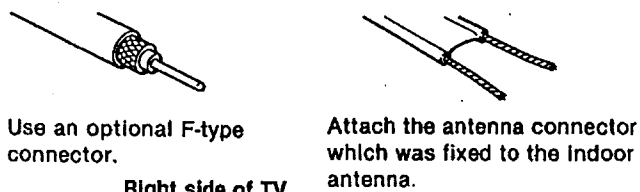
OUTDOOR ANTENNA/CABLE CONNECTION

If your local broadcast signals are strong, an indoor antenna may be sufficient to obtain a clear picture. If you cannot obtain satisfactory reception with an indoor antenna, using an outdoor antenna may be necessary. Cable TV reception is only possible by connecting a cable supplied by your local cable operator. Prepare the antenna or cable end using the appropriate connector, and connect the antenna or cable to the antenna terminal of the TV. (See A or B below.)

A **Combination VHF/UHF antenna*, VHF antenna, UHF antenna or CATV cable**

Select the proper connector according to the cable type.

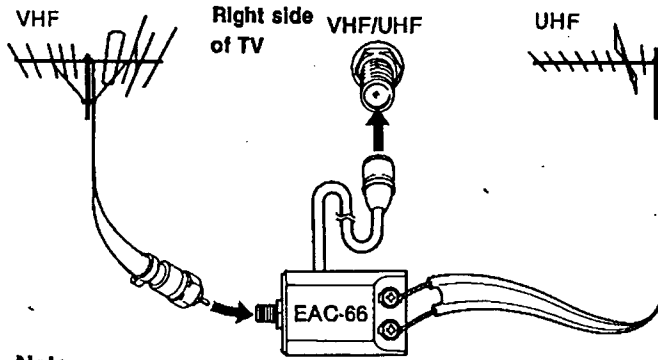
When the cable is a 75-ohm coaxial type (round) When the cable is a 300-ohm ribbon type lead-in (flat)



*Most combination antennas are equipped with a signal splitter. Take off the splitter and attach the proper connector.

B **When both VHF and UHF antennas are connected**

Prepare the VHF antenna end using the appropriate connector as illustrated in A. Attach an optional EAC-66 U/V mixer to the TV antenna terminal, and connect the cables to the U/V mixer.



Note
When the cable is connected to the TV with the U/V mixer, snow and noise may appear in the pictures of the cable TV channels over 37 (W + 1).

SPECIFICATIONS

Television system American TV standards
 Channel coverage VHF: 2-13
 UHF: 14-69
 Cable TV: 1-125
 Picture tube Fine-pitch Trinitron tube
 13-inch picture measured diagonally
 14-inch picture tube measured diagonally
 Antenna 75-ohm standard antenna socket for VHF/UHF

Inputs/outputs

	Type	Video	Audio
VIDEO IN AV	AV minijack	1 V p-p, 75 ohms unbalanced, sync negative, 1 kilohm	408 mV rms (100% modulation) 47 kilohms
VIDEO IN	Phono jacks		
MON OUT	Phono jacks		
TV OUT	Phono jacks		

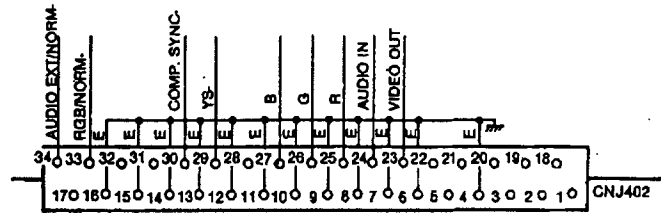
MPX OUT (phono jack)
 77.5 mV rms
 Load impedance 10 kilohms (main channel, 1 kHz, 100% modulation)
 EARPHONE (minijack) for 8-ohm earphone
 ANALOG RGB multi-input (34 pin)
 See "Signal assignment" on page 15.
 DIGITAL RGB input (8 pin)
 See "Signal assignment" on page 15.
 Power requirements 120 V AC, 60 Hz
 Power consumption 100 W (max)
 3 W (in standby condition)
 Dimensions Approx. 385 x 342 x 434 mm (w/h/d)
 (15 7/16 x 13 1/2 x 17 1/8 inches)
 Incl. projecting parts and controls
 Weight Approx. 12.8 kg (28 lb 4 oz)
 Accessories supplied Remote Commander RM-717 with 2 size AA batteries (1)
 Antenna connector (1)
 Foot (2)
 Earphone (1)

Design and specifications subject to change without notice.

Note to CATV system installer in the U.S.A.:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

SIGNAL ASSIGNMENT

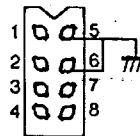


Analog RGB multi-Input connector

Pin No.	Signal	Signal level
1-3	Not in use	—
4	Ground	—
5	Not in use	—
6-16	Ground	—
17-22	Not in use	—
23	Composite video output	1 V p-p, NTSC, 75 ohms terminated, unbalanced, sync negative
24	Audio Input	408 mV rms (100% modulation) $Z_{in} > 47$ kilohms
25	Red Input	0.7 V p-p, 75 ohms terminated, linear only
26	Green Input	
27	Blue Input	
28	Not in use	—
29	Fast blanking Input	High state: RGB only, 1-3 V, 75 ohms terminated Low/open state: TV or video 0-0.4 V, 75 ohms terminated
30	Composite sync input	0.2 - 1.2 V p-p, 75 ohms terminated, sync negative
31	Not in use	—
32	Not in use	—
33	RGB/NORMAL mode select	High state (2.7-5V): RGB Inputs Low/open state (0-0.5 V): TV or video
34	Audio select	High state (2.7-5V): audio signal from the analog RGB multi-Input connector Low/open state (0-0.5V): TV sound or audio signal from the VIDEO IN AUDIO Jack

Digital RGB input connector

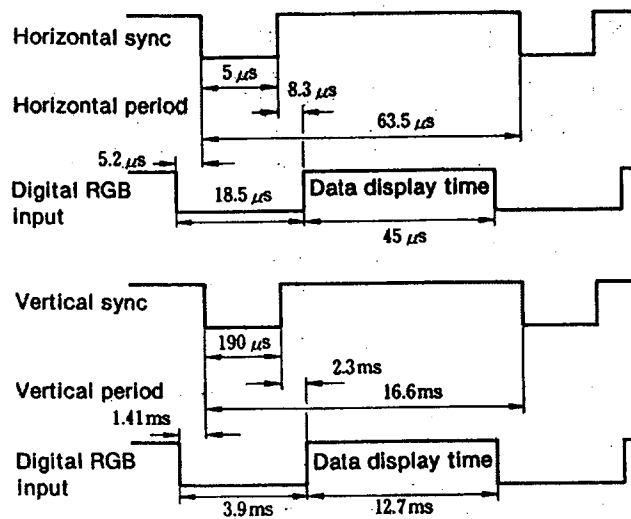
Pin No.	Signal	Signal level
1	Intensity Input	High: * Low: Half tone
2	Red Input	Positive polarity TTL level
3	Green input	
4	Blue input	
5	Ground	—
6	Ground	—
7	H. sync Input	TTL level
8	V. sync Input	



*When connecting a microcomputer with which +12 V DC is applied to 1 pin, use a connector with the 1 pin opened. Otherwise the protective Zener diode may be damaged.

TROUBLESHOOTING

Standard timing chart



Note

If the input signals are not recommended ones, the dimensions of the character display area may change or the picture may be decentered due to the timing of the connected microcomputer. This is not trouble of the TV.

OPTIONAL ACCESSORIES



Video cable

- VMC-606M (2 phono plugs to 2 phono plugs)
- VMC-612MS (AV miniplug to 2 phono plugs)
- VMC-220A (26-pin connector to two phono plugs and two miniplugs)
- SMK-0001 (34 pin to 25 pin)
- SMF-502 (8 pin to 25 pin)
- SMF-503 (8 pin to 9 pin)
- SMF-505 (8 pin to 18 pin)

Plug adaptor

- PC-5A (converts miniplug into phono plug)
- PC-21M (converts phono plug into miniplug)
- U/V mixer EAC-66

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

SYMPTOM	CHECK AND ADJUST
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> ● Adjust PICTURE. ● Adjust BRIGHT. ● Re-orient antenna. Check antenna connections.
Good picture, no sound	<ul style="list-style-type: none"> ● Press VOLUME +. ● Disconnect the earphone. ● Release MUTING on the Remote Commander.
No picture (screen not lit), no sound	<ul style="list-style-type: none"> ● Is POWER switched on? Power in outlet? ● Check TV, VIDEO or RGB button setting.
No color	<ul style="list-style-type: none"> ● Is it a color program? ● Adjust COLOR.
Snow and noise only	<ul style="list-style-type: none"> ● Is it an active or the correct channel? ● Check the CABLE switch setting. ● Check antenna connections.
Dotted lines or stripes	 <p>This is often caused by local interference. (e. g. cars, neon signs, hair-dryers, etc.) Adjust antenna for minimum interference.</p>
Double images or ghosts	 <ul style="list-style-type: none"> ● Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or CATV cable may improve the picture. ● When two VCRs are connected, turn off the VCR which is not in use.
Try another channel. It could be station trouble.	

If the problem still cannot be solved, contact your nearest service facility.