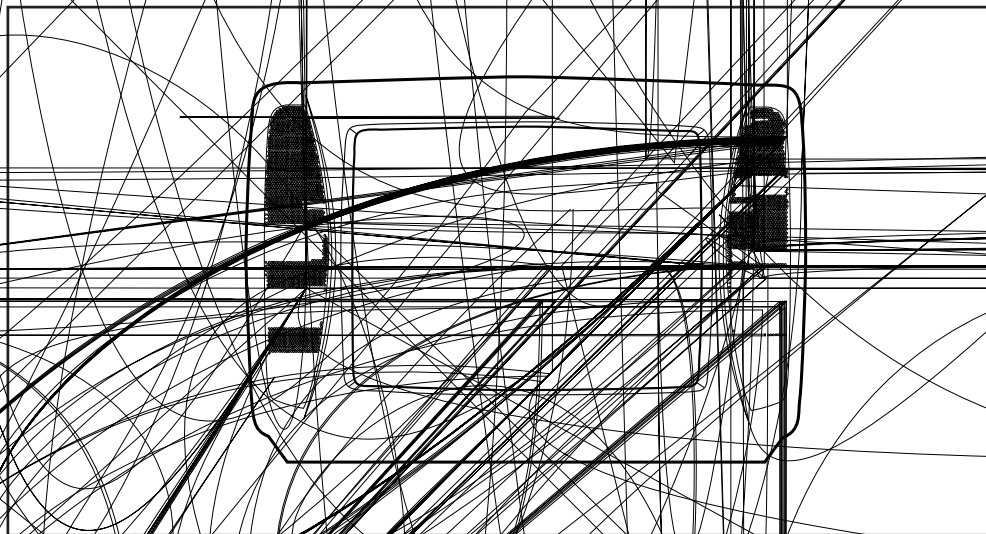




ORION

Operating Instructions

AC/DC
COLOR TELEVISION



Before operating the unit, please read this manual thoroughly.

WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

DO NOT REMOVE COVER, NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE ENGINEER. DISCONNECT FROM MAINS SUPPLY WHEN NOT IN USE FOR LONG PERIODS.

POWER SOURCES

AC 110-240 Volts 50Hz or DC 12 Volts Only

WARNING

Never connect the AC power cord to any other voltages other than the one specified. Use the attached power cord only.

NOTE:

Disconnect from the housing outlet when not in use for a long time.

SAFETY INSTRUCTIONS

1. Read Instructions Carefully - All the safety and operating instructions should be read before the appliance is operated.
2. Operating Instructions Manual - The manual should be kept for future reference.
3. Moisture - The unit should be used in such a way that it is protected from moisture. e.g. condensation, splashed water, etc.
4. Heat - The appliance should be placed away from heat sources such as radiators or electric/gas fires and direct sunlight from windows.
5. When not in use - The power cord of the appliance should be unplugged from the Power outlet when left unused for a long period of time.
6. Power Sources - The appliance should only be connected to a mains power supply as specified in the operating instructions or as marked on the appliance.
7. Ventilation - The ventilation holes in the rear casing prevent overheating. Do not block or cover these holes, especially with cloth or paper.

FEATURES

- AC/DC Power Operation
- On Screen Programming
- Daily 4 event Programmable ON/OFF Timer
- Auto Tuning for Channel Presetting
- 110 Preset Channel
- Sleep Timer (Up to 120 minutes)
- Child Lock (Hotel Lock)
- Automatic Power Shut Off
- 24:00 Clock Timer
- 2 Speaker
- AUDIO/VIDEO IN & OUT Jack
- 5 Language on Screen Menu
- Picture Adjustment
- CATV Capability
- NTSC 3.58/4.43 - PLAYBACK ON PAL 60Hz

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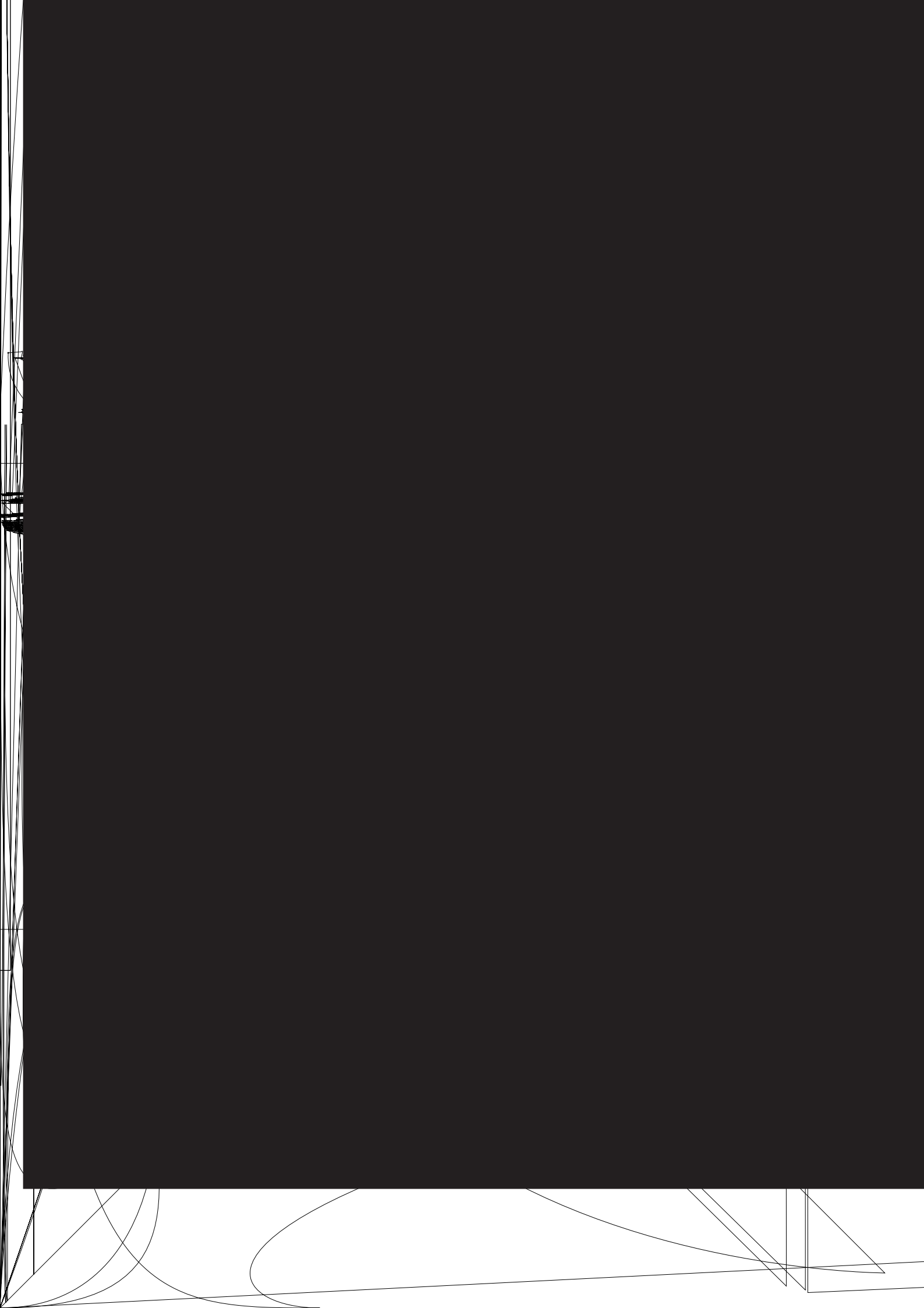
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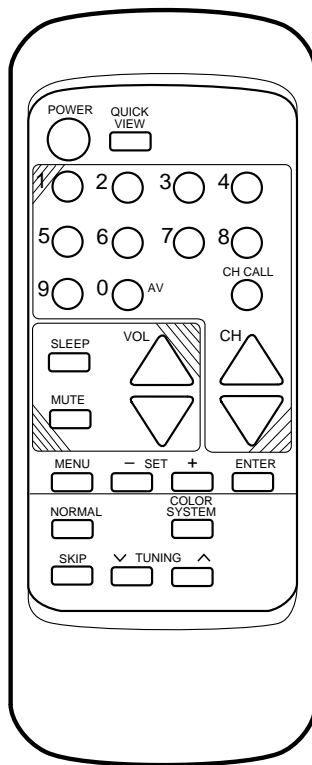
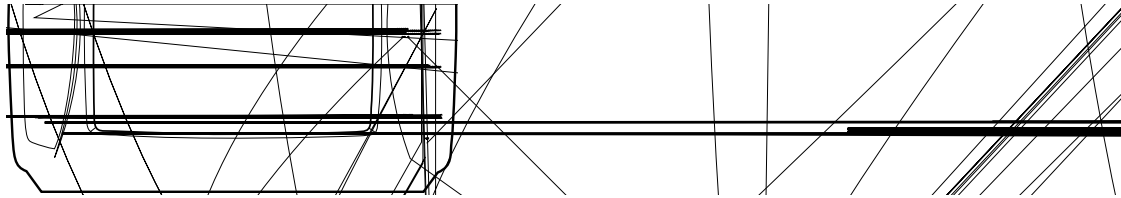
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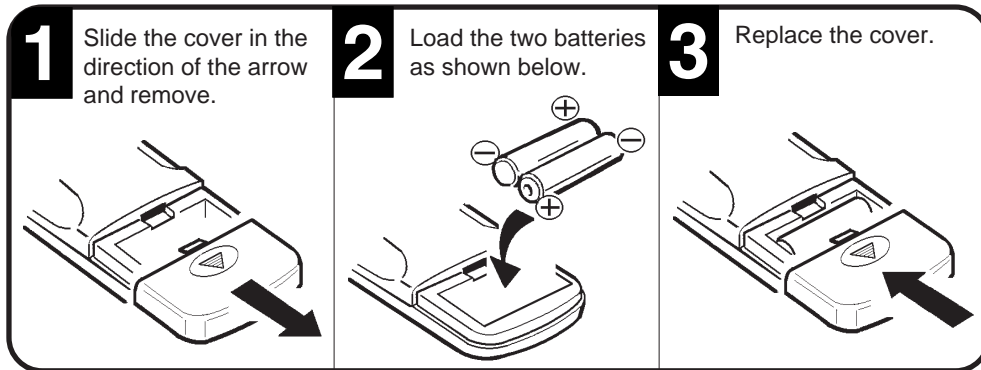


REMOTE CONTROL

(Continued)

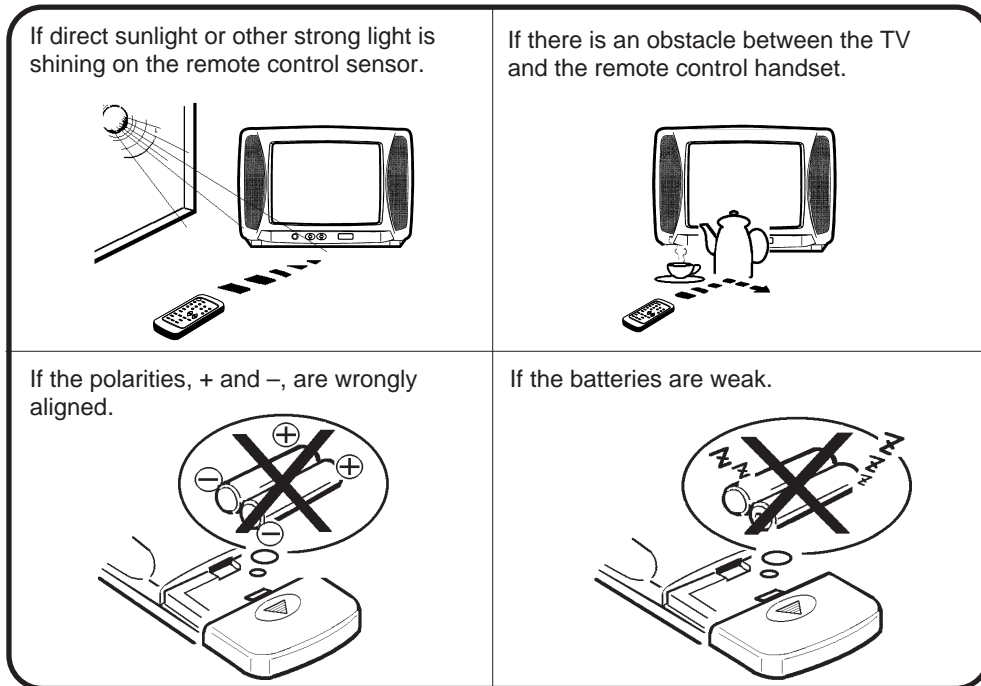
BATTERY INSTALLATION

Use two "UM-4" size batteries.



NOTE:

Your TV will not work in the following cases. Check them carefully.



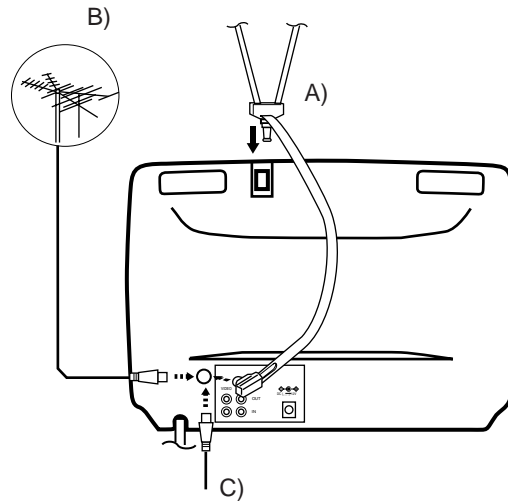
ANTENNA CONNECTIONS

Connect the cable from the outdoor or indoor antenna to the antenna jack on the rear panel as shown below. For all antenna circuit problems, please consult your local dealer.

- A)** A twin-lead telescopic antenna is supplied with the unit. Insert the antenna post into the mounting hole on the back cabinet until it locks into place. Insert the antenna adaptor (supplied) to the antenna jack. Adjust the length and angle of both antenna rods to receive the best possible picture.

- B) EXTERNAL ANTENNA**
The antenna connection is equivalent to DIN 45 325 for a combined UHF/VHF antenna with 75 ohm coaxial cable.

- C) CATV cable**
To receive special channels connect the CATV cable to the antenna jack.



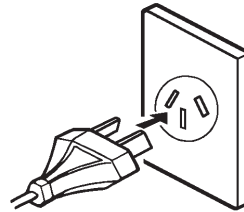
POWER SOURCES

TO USE AC POWER SOURCE

Use the AC line cord provided for operation on AC. Insert the AC cord plug into a AC outlet.

NOTE:

1. NEVER CONNECT THE AC POWER CORD TO ANYTHING OTHER THAN THE SPECIFIED VOLTAGE. USE THE ATTACHED POWER CORD ONLY.
2. IF YOU EXPERIENCE A STATIC DISCHARGE WHEN TOUCHING THE UNIT, AND THE UNIT FAILS TO FUNCTION, SIMPLY UNPLUG THE AC POWER CORD FROM THE AC OUTLET, AND PLUG IT IN AGAIN. THE UNIT SHOULD RETURN TO NORMAL OPERATION.



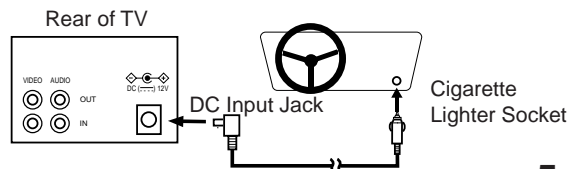
TO USE DC POWER

By using the DC car cord supplied with the TV, you can operate this TV from a cigarette lighter socket in any vehicle that utilizes a negative grounding system. The fused 12V DC car cord has been designed to power the unit from the external DC power (12 volt negative ground) through the DC input jack.

Connect the smaller plug on the end of the cord to the DC input jack on the rear of the TV, then insert the other end of the car cord into the cigarette lighter socket of your car.

NOTE:

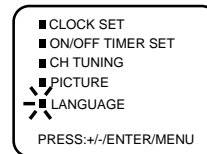
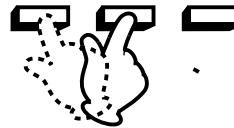
- Use the supplied car cord only and do not use it with a DC 24V type battery such as bus or truck.
- Use the TV while the car engine is on.



SETTING LANGUAGE

This TV has 5 different languages for MENU set up which can be selected through ON Screen Display: English, German, French, Italian or Spanish.

1



3

To select the desired language, English (ENGLISH), Spanish (ESPAÑOL), French (FRANCAIS), German (DEUTSCH) or Italian (ITALIANO), press the SET UP or DOWN button. Then press the ENTER button.

4

Press the MENU button to return to the normal TV screen.



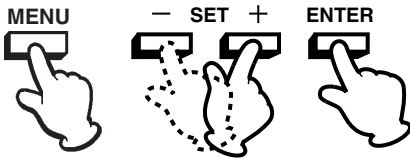
PRESETTING THE CHANNELS

After connecting, preset the desired channel (up to 110 channels) in the following procedure. There are two types of station presettings you may choose from:

- **Automatic tuning** All stations will be preset in sequence available in your area.
- **Manual tuning** You activate the auto search function until your preferred station is tuned in. Then you memorize this station into the chosen channel memory. For each station you repeat the same procedure.

AUTOMATIC TUNING

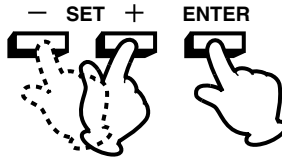
1 Press the MENU button. Press SET UP or DOWN button to select the CH TUNING mode, then press the ENTER button.



- CLOCK SET
- ON/OFF TIMER SET
- ▶ CH TUNING
- PICTURE
- LANGUAGE

PRESS: +/-/ENTER/MENU

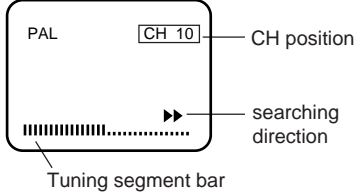
2 Press the SET UP or DOWN button to select the AUTO mode, then press the ENTER button.



- CH TUNING
- ▶ MANUAL
- ▶ AUTO
- ▶ CH ALLOCATION


PRESS: +/-/ENTER/MENU

3 All available channels in your area are automatically scanned and stored in the memory of the TV. When the TV find the broadcasting channel, ▶▶ mark disappears. After scanning, the previous step 2 screen appears.



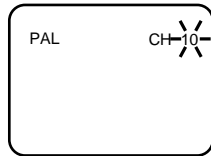
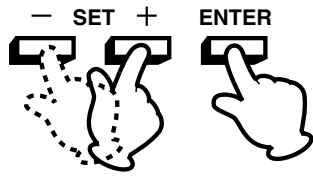
Labels in diagram:
 PAL [CH 10] — CH position
 ▶▶ — searching direction
 Tuning segment bar

4 Press the MENU button twice. The TV will return to normal TV screen.

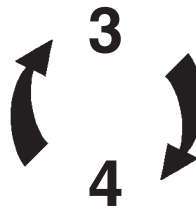


NOTE: • If you want to skip the channel, refer to page 16.
 • When the unit is in the AV mode, you can't preset the channels.

4 Press the SET UP or DOWN button to select channel position No.10, then press the ENTER button.



5 Repeat step 3 through 4 until all the required channels have been stored.



6 When all desired channels have been set in your required position, press the MENU button three times to return to normal TV screen.



PRESETTING THE CHANNELS

(Continued)

TO CHANGE THE CHANNELS

EXAMPLE: Changing of channel position from CH2 to CH5.

1 Press the MENU button. Press the SET UP or DOWN button to select the CH TUNING mode, then press the ENTER button.

2 Press the SET UP or DOWN button to select the CH ALLOCATION mode, then press the ENTER button.

3 Press the SET UP or DOWN button to select the channel position No. (broadcasting) which you want to change. Then press the ENTER button.

4 Press the SET UP or DOWN button to select the channel allocation No. which you want to change.

5 Press the ENTER button. The broadcasting stations are changed. Repeat step 3 - 4 to change the other channel. Then press the MENU button three times to return to normal TV screen.

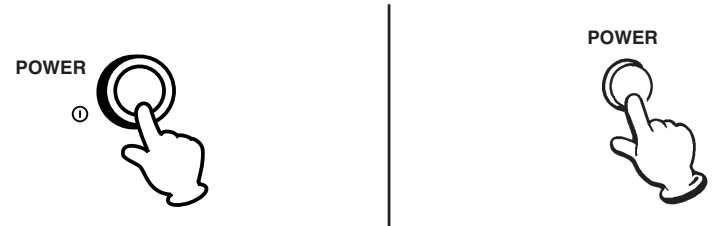
Before setting

After setting

TV OPERATIONS

After completing the connection and presetting the channels, follow these steps for viewing.

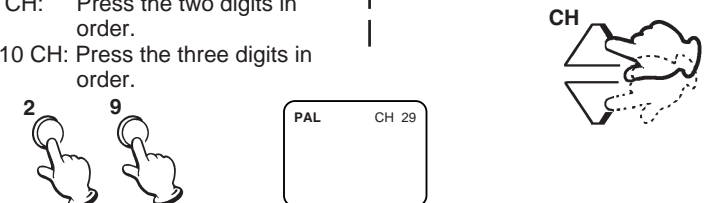
1 Press the POWER button on the TV. Then press POWER button on the remote control to turn off (STAND BY indication will light up) or on (STAND BY indication will go off).




2 **Direct Channel Selection buttons (0-9)** Press the Direct Channel Selection button on the remote control.

- 1-9 CH: Press your required number only.
- 10-99 CH: Press the two digits in order.
- 100-110 CH: Press the three digits in order.

CHANNEL UP and DOWN buttons Press CHANNEL UP/DOWN button on the remote control.



3 The VOLUME can be adjusted by pressing the VOLUME UP/DOWN button on the remote control.



NOTE: On screen display will disappear after 4 seconds.

Automatic Power Shut Off

If a station being viewed stops broadcasting for about 15 minutes, the TV will automatically shut itself off and go into stand by mode.

all timed functions and

UP or DOWN button
LOCK SET mode,
ENTER button.

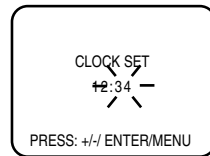
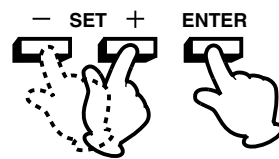
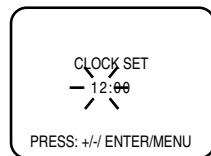
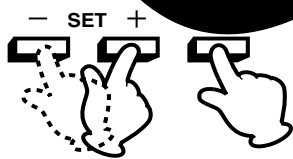
ENTER

LOCK SET
OF TIMER SET
NING

3

To set
SET UP
the pres
ENTER b

press the SET UP or DOWN
button to set the present minute,
then press the ENTER button.
The clock will begin operation.

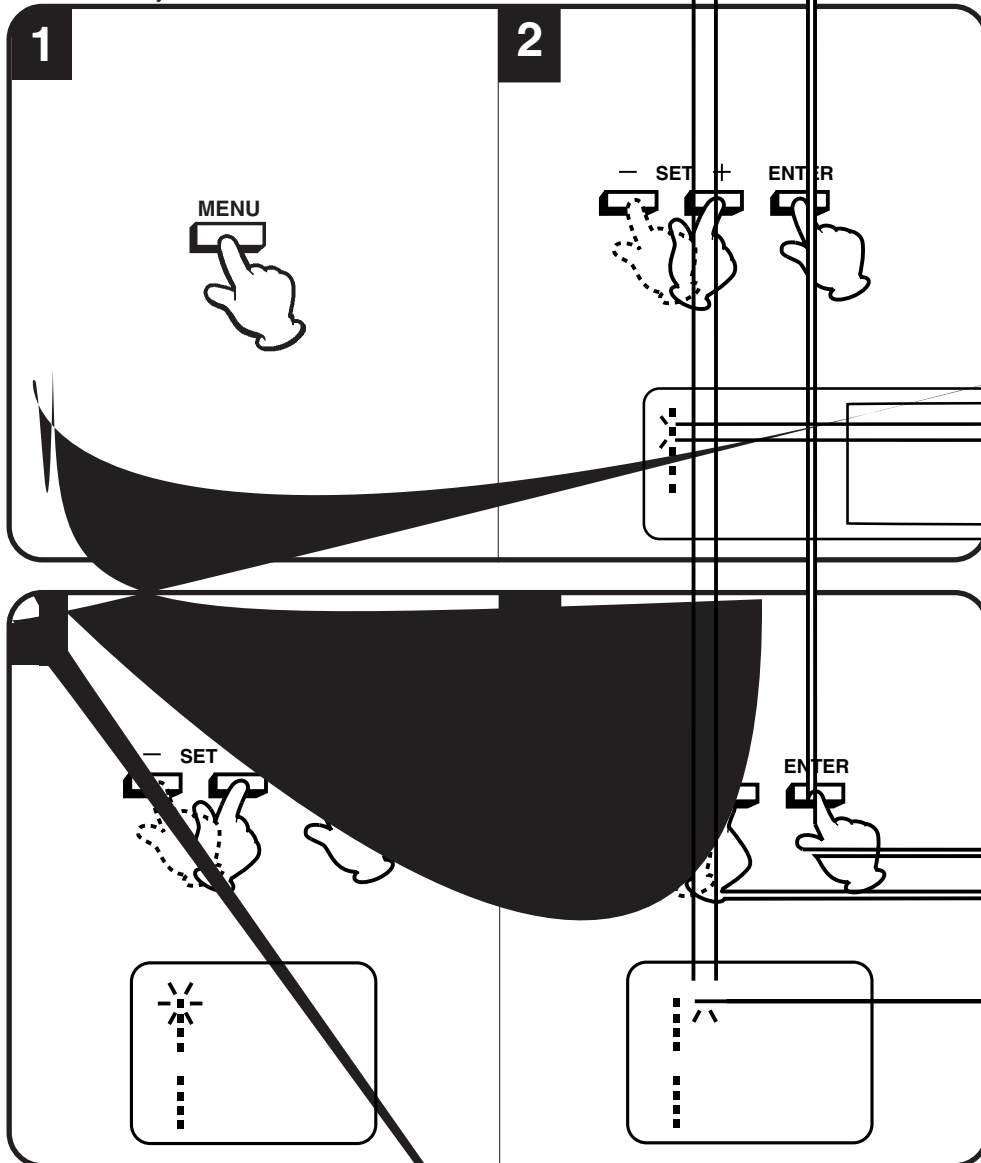


- NOTE:**
- To reset the clock, follow steps 1-4 above.
 - Resetting of the time is required after a power failure, disconnection of power plug.

SETTING THE ON / OFF TIMER

The built-in timer function allows the TV to automatically switch 'ON' (or 'OFF') of up to 4 programs daily. If you program the ON TIMER once, the TV will automatically turns on daily at the same time and to the same channel (If you program the OFF TIMER once, the TV will be turned off daily at the same time).

EXAMPLE: If you want to set channel 3 to come on at 7:30.

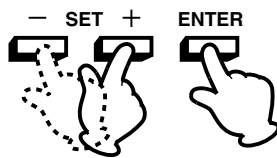


NOTE:

SETTING THE ON / OFF TIMER

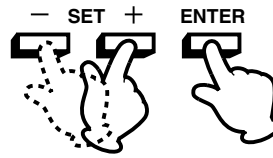
(Continued)

- 5** Press the SET UP or DOWN button to set the desired minute, then press the ENTER button.



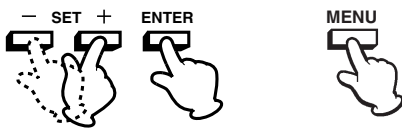
ON TIMER			
■	7:30	CH 1	CANCEL
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
OFF TIMER			
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	

- 6** Press the SET UP or DOWN button to set the desired channel (only to set the ON TIMER), then press the ENTER button.



ON TIMER			
■	7:30	CH 3	CANCEL
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
OFF TIMER			
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	

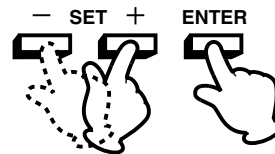
- 7** To set the desired time in the ON (or OFF) TIMER memory, press the SET UP or DOWN button to select the SET mode, then press the ENTER button. To return to the normal TV viewing, press the MENU button twice.



ON TIMER			
■	7:30	CH 1	SET
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
OFF TIMER			
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	

TO CANCEL THE ON / OFF TIMER

- Press the SET UP or DOWN button to select the CANCEL mode at step 7, then press the ENTER button.



ON TIMER			
■	7:30	CH 1	CANCEL
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
■	0:00	CH 1	CANCEL
OFF TIMER			
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	
■	0:00	CANCEL	

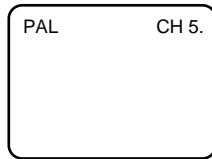
NOTE: If both the OFF TIMER and SLEEP TIMER are set at the same time, whichever set timer comes on first will shut off the TV.

CONVENIENT FUNCTIONS

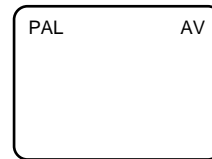
The following functions are available from the remote control handset only.

TV/AV Selection

For receiving the desired signal:
Press the AV select button to select the TV or AV mode.



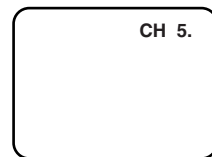
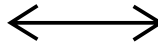
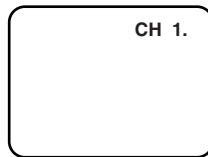
TV position - to view a normal TV.



AV position - to receive through the direct Video input. VIDEO indicator appears on the screen in AV mode.

QUICK VIEW

This button allows you to go back to the previous channel by pressing the QUICK VIEW button. Press this button again to return to the channel you were watching.



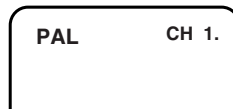
CH CALL

When you press this button once, the clock will appear. When you press this button twice, the channel number and color system will appear. Press this button again for the third time and the display will disappear.

CH CALL



ONCE



TWICE



3 TIMES

CANCEL
CANCEL
CANCEL
CANCEL
L
L
L
L

CONVENIENT FUNCTIONS

(Continued)

MUTE

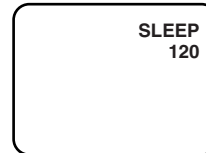
When the MUTE button is pressed, the TV sound system will be turned off completely. To disable this function, press the button again. To control the volume, press VOLUME UP/DOWN.



SLEEP



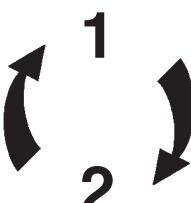
To set the sleep timer, press the SLEEP button on the remote control. The timer will change in step of 10 minutes each time the button is pressed in the order of 120, 110, 100,...20, 10, 0. After the sleep time is programmed, the display will disappear and will reappear momentarily at every 10 minutes. To confirm the sleep time setting, press the SLEEP button once and the remaining time will be momentarily displayed.

To cancel the sleep time, press the SLEEP button repeatedly until the display turns to 0.



SKIP FUNCTION

After all channels available in your area have been set in memory, you can skip unwanted channels as follows.

<p>1 Press the CHANNEL UP or DOWN button to select the channel which you want to skip.</p> 	<p>2 Press the SKIP button. When a channel is skipped, the channel number will blink.</p> 	<p>3 Skip all unwanted channels the same way following step 1-2.</p> 
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NOTE: To cancel the SKIP function, press the DIRECT CHANNEL SELECTION button (numeric buttons) to select the channel which you want to cancel, then press the SKIP button again.

(Continued)

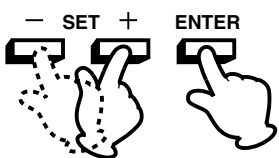
PICTURE CONTROL

The picture setting have been adjusted at the factory under optimum signal reception conditions. However, you can adjust for BRIGHTNESS, CONTRAST, COLOUR, SHARPNESS and TINT to your preference.

1 Press the MENU button.



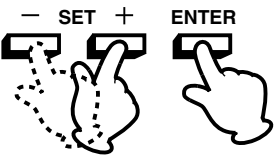
2 Press the SET UP or DOWN button to select the PICTURE mode, then press the ENTER button.



- CLOCK SET
- ON/OFF TIMER SET
- CH TUNING
- PICTURE
- LANGUAGE

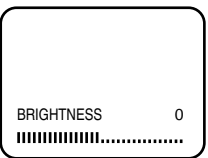
PRESS +/-/ENTER/MENU

3-a To adjust the BRIGHTNESS, press the SET UP or DOWN button, then press the ENTER button.



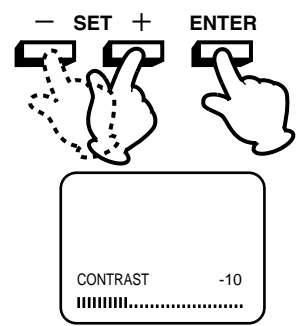
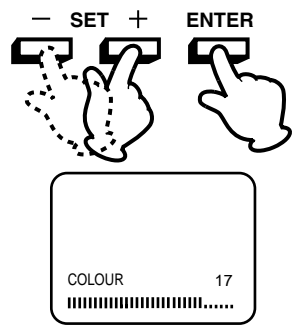
NOTE: Each time the ENTER button is pressed, the on screen display will change as shown below.

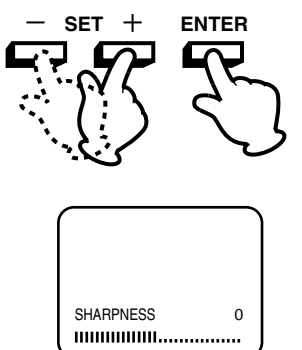

BRIGHTNESS → CONTRAST → COLOUR
↑ (TINT) ← SHARPNESS ←



NOTE:

- The picture setting can only be adjusted when they are displayed on screen.
- TINT will appear only when the NTSC Color System is selected.

<p>3-b To adjust the CONTRAST, press the SET UP or DOWN button, then press the ENTER button. Picture looks sharpest in the daytime by increasing the contrast. At night, the sharpest picture is obtained by reducing the contrast.</p> 	<p>3-c To adjust the COLOUR, press the SET UP or DOWN button, then press the ENTER button. The control should be set to where colors appear normal in intensity and brilliance.</p> 
---	--

<p>3-d To adjust the SHARPNESS, press the SET UP or DOWN button, then press the ENTER button. Increasing the number makes the picture clearer and decreasing the number makes it softer.</p> 	<p>4 Press the MENU button twice to return to the normal TV screen.</p> 
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NOTE: Pressing the NORMAL button will return all adjustments to their factory preadjusted levels. This function is available in picture control mode.

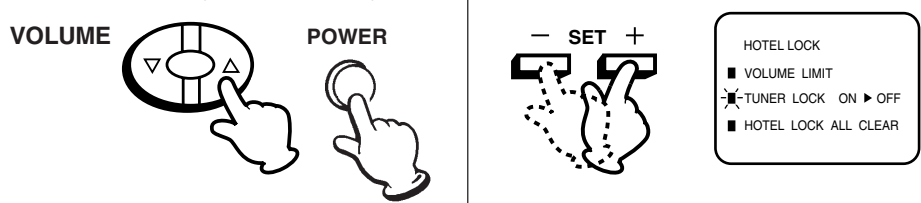


TUNER LOCK

Channel tuning once tuned in can be disabled by selecting the tuner lock to "ON" by following steps 1-3.

1 Press and hold the VOLUME UP button on the TV, and press the POWER button on the remote control simultaneously at the Stand By mode.

2 Press the SET UP or DOWN button to select the TUNER LOCK mode.

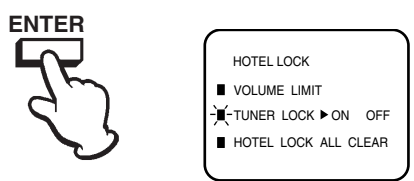


VOLUME POWER

— SET +

HOTEL LOCK
■ VOLUME LIMIT
☒ TUNER LOCK ON ► OFF
■ HOTEL LOCK ALL CLEAR

3 Press the ENTER button to select the TUNER LOCK "ON". Press the MENU button to return to normal TV screen.



ENTER

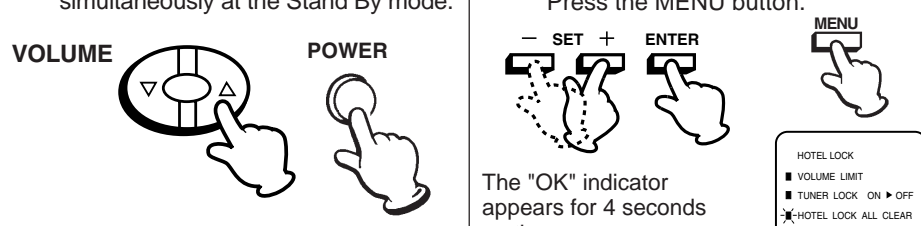
HOTEL LOCK
■ VOLUME LIMIT
☒ TUNER LOCK ► ON OFF
■ HOTEL LOCK ALL CLEAR

TO CANCEL HOTEL LOCK

Hotel lock can be cancelled by following steps 1-2.

1 Press and hold the VOLUME UP button on the TV, and press the POWER button on the remote control simultaneously at the Stand By mode.

2 Press the SET UP or DOWN button to select the HOTEL LOCK ALL CLEAR mode, then press the ENTER button. Press the MENU button.



VOLUME POWER

— SET + ENTER MENU

HOTEL LOCK
■ VOLUME LIMIT
☒ TUNER LOCK ON ► OFF
☒ HOTEL LOCK ALL CLEAR

The "OK" indicator appears for 4 seconds on the screen.

AV JACK CONNECTIONS

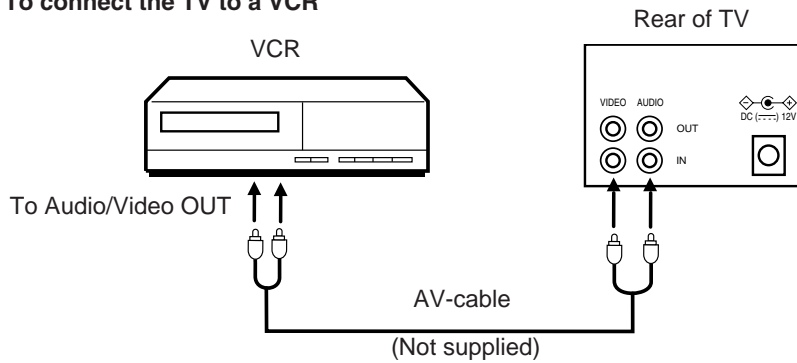
AV JACK CONNECTIONS

The exact arrangement you use to interconnect various video and audio components to the TV is dependent on the model and features of each component. Check the instruction book provided with each component for the location of video and audio inputs and outputs.

The connection diagrams in the following are offered as suggestions. You may need to modify them to accommodate your particular assortment of components. The diagrams are intended to show component video and audio interconnections only.

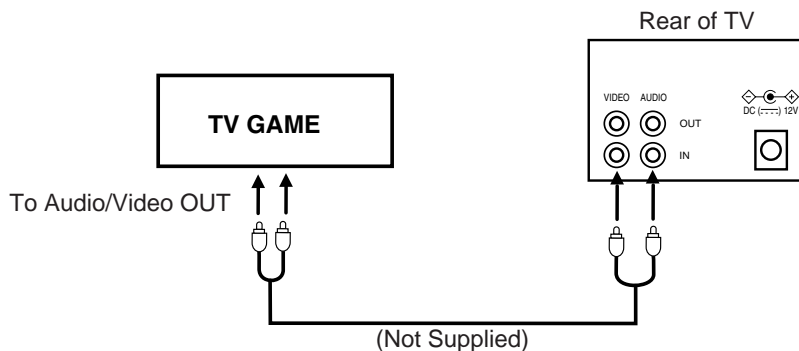
Press the AV select button to select the AV mode to use the TV as a monitor. The "AV" indicator will appear on the screen for approx. 4 seconds.

1. To connect the TV to a VCR



2. To connect the TV to a TV Game

The TV can also be used as a display device for many video games. However, due to the wide variety of different types of signal generated by these devices and subsequent hook-up variations required, they have not all been included in the suggested connection diagrams. You'll need to consult each component's Instruction book for additional information.

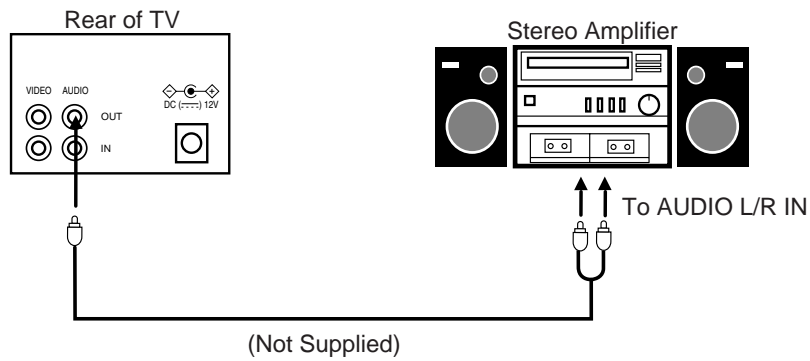


AV JACK CONNECTIONS

(Continued)

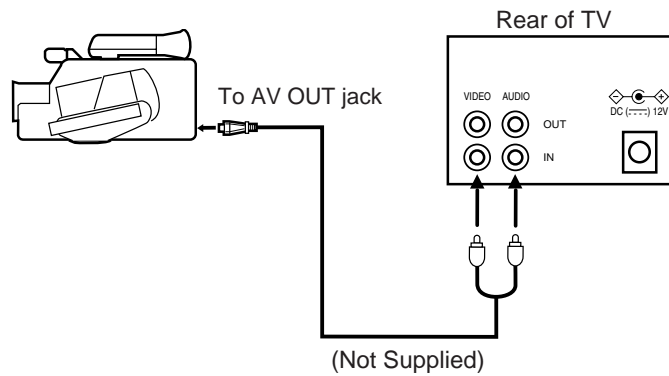
3. To connect the TV to an External Stereo Amplifier

The AUDIO OUT JACK from the TV can be connected to a Stereo amplifier, which allows a higher quality sound (Monaural) when watching your favorite program.



4. To connect the TV to the Video Camera

To playback from the Video Camera, connect the Video Camera to the TV as shown.



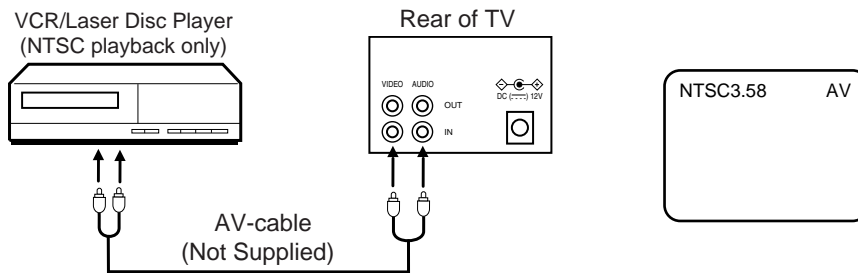
TO WATCH NTSC VIDEO LASER DISC, DVD AND RECORDED VIDEO TAPE

This TV has 4 COLOR SYSTEM (PAL, SECAM, NTSC 3.58/4.43) which allows you to watch Video Laser Disc and recorded video tapes.

To watch NTSC Video Laser Disc, DVD and Recorded Video Tapes, appropriate equipment with NTSC playback must be used.

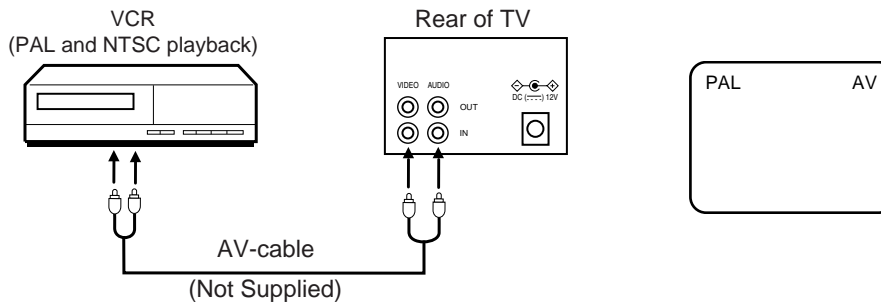
1. Connect with NTSC VCR.

1. Press the AV button to select the AV mode.
2. Press the COLOR SYSTEM button to select NTSC 3.58 VIDEO mode.
3. Operate the VCR as usual.



2. Connect a PAL type VCR which has NTSC playback function.

1. Press the AV button to select the AV mode.
2. Press the COLOR SYSTEM button to select PAL VIDEO mode.
3. Operate the VCR as usual.



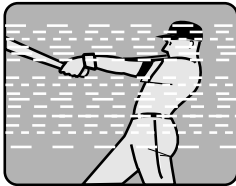
- NOTE:**
- After you have connected your VCR to this TV, please refer to VCR operation manual for VCR set up.
 - If your TV has no color, you'll need to refer to the VCR's Instruction Book for additional information.

NOTE: Each time the COLOR SYSTEM button is pressed, the COLOR SYSTEM will change as shown below. Select the correct COLOR SYSTEM.

PAL → SECAM → NTSC 3.58 → NTSC 4.43

RECEPTION OF INTERFERENCE

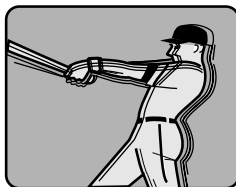
The most common types of television interference are as follows.



IGNITION

IGNITION

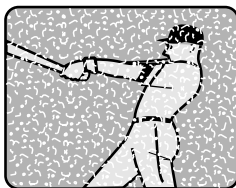
Black spots and horizontal streaks may appear, the picture may flutter or drift. This is usually caused by interference from car ignition system, neon lamps, electric drills or other electrical appliances.



GHOSTING

GHOSTING

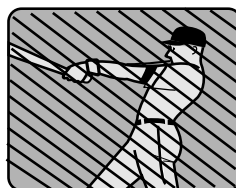
Ghosting is caused by the TV signal following two paths. One is the direct path and the other is reflected from tall buildings, hills or similar obstruction. Changing the direction and/or position of the aerial may improve reception.



SNOW

SNOW

If your TV is located on the fringe area of a TV station, where the signal is weak, your picture may be affected by the appearance of small dots (SNOW). It may be necessary to install a stronger aerial to improve the picture.



RADIO FREQUENCY INTERFERENCE

RADIO FREQUENCY INTERFERENCE

This kind of interference produces moving ripples or diagonal streaks and in some cases loss of contrast in the picture.

SPECIFICATIONS


Power Source:	AC 110-240V 50Hz, DC 12V
Power Consumption:	Approx. 36 W at 240V/DC 12V 10 W at 240V (STAND BY)
Operation Temperature:	5 °C - 40 °C
Storage Temperature:	-20°C - 60°C
System:	PAL B/G, D/K, I system NTSC 3.58/4.43
Picture Tube:	14" (measured diagonally), 90 degree deflection
Speaker:	(6 1/4 X 2 1/4 Inches Permanent Magnet Dynamic)x 2, 4 ohm
Output Power:	0.6 W x 2 (MAX)
Tuner Type:	Frequency Synthesized
Remote Control:	Infrared, Direct Access, 2 x UM-4 batteries
Frequency Range:	VHF 0, E2-S7, S8-S36 UHF S37-E69
Antenna:	75 ohm cable for external VHF/UHF antenna
Weight:	Approx. 9.5 kg
Dimensions:	460 (W) X 318 (H) X 362.5 (D) mm

Weight and dimensions are approximate. Because we continually strive to improve our products we may change specifications and designs without prior notice.

ACCESSORIES

Remote Control	1 Piece
Batteries (UM-4)	2 Pieces
Rod Antenna with Antenna Adapter	1 Piece
DC 12V Car Cord	1 Piece

ORION ELECTRIC CO., LTD. (JAPAN)

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