

## FUNAI CORPORATION LIMITED WARRANTY

FUNAI CORP. will repair this product, free of charge in the USA in the event of defect in materials or workmanship as follows:

### DURATION:

**PARTS:** FUNAI CORP. will provide parts to replace defective parts without charge for one (1) year from the date of original retail purchase. Two (2) years for Picture Tube. Certain parts are excluded from this warranty.

**LABOR:** FUNAI CORP. will provide the labor without charge for a period of ninety (90) days from the date of original retail purchase.

### LIMITS AND EXCLUSIONS:

This warranty is extended only to the original retail purchaser. A purchase receipt or other proof of original retail purchase will be required together with the product to obtain service under this warranty.

This warranty shall not be extended to any other person or transferee.

This warranty is void and of no effect if any serial numbers on FUNAI/SYMPHONIC product are altered, replaced, defaced or missing. This FUNAI CORPORATION Limited warranty does not apply to any FUNAI/SYMPHONIC product not purchased and used in the United States.

This warranty only covers failures due to defects in material or workmanship which occurs during normal use. It does not cover damage which occurs in shipment, or failures which are caused by repairs, alterations or product not supplied by FUNAI CORP., or damage which results from accident, misuse, abuse, mishandling, misapplication, alteration, faulty installation, improper maintenance, commercial use such as hotel, rental or office use of this product or damage which results from fire, flood, lightning or other acts of God.

THIS WARRANTY DOES NOT COVER PACKING MATERIALS, ANY ACCESSORIES (EXCEPT REMOTE CONTROL), ANY COSMETIC PARTS, COMPLETE ASSEMBLY PARTS, DEMO OR FLOOR MODELS.

FUNAI CORP. AND ITS REPRESENTATIVES OR AGENTS SHALL IN NO EVENT BE LIABLE FOR ANY GENERAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR OCCASIONED BY THE USE OF OR THE INABILITY TO USE THIS PRODUCT. THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND OF ALL OTHER LIABILITIES ON THE PART OF FUNAI. ALL OTHER WARRANTIES INCLUDING THE WARRANTY OF MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED BY FUNAI AND ITS REPRESENTATIVES IN THE UNITED STATES. ALL WARRANTY INSPECTIONS AND REPAIRS MUST BE PERFORMED BY FUNAI AUTHORIZED SERVICE CENTER. THIS WARRANTY IS VALID WHEN THE UNIT IS CARRIED-IN TO FUNAI AUTHORIZED SERVICE FACILITY.

WHEN YOU ARE RETURNING THE PRODUCT FOR SERVICE TO FACTORY SERVICE CENTER, PLEASE CONTACT THE FUNAI SERVICE DEPARTMENT TO RECEIVE M.R.A. (MERCHANDISE RETURN AUTHORIZATION) NUMBER PRIOR TO SHIPPING. ANY POSTAGE, INSURANCE AND SHIPPING COST, INCURRED IN PRESENTING OR SENDING YOUR FUNAI/SYMPHONIC PRODUCT FOR SERVICE ARE SHIPPER'S RESPONSIBILITY.

CAREFULLY PACK WITH PROPER PACKING MATERIALS, PREFERABLY IN THE ORIGINAL CARTON.

ATTACH WRITTEN DOCUMENTATION DETAILING THE COMPLAINT, TO THE OUTSIDE OR INSIDE OF THE CARTON.

THE PRODUCT MUST BE ACCOMPANIED BY A COPY OF THE ORIGINAL RETAIL PURCHASE RECEIPT. IF NO PROOF OF PURCHASE IS ATTACHED, THE WARRANTY WILL NOT BE HONORED AND REPAIRS COSTS WILL BE CHARGED.

### IMPORTANT:

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE. IF, AT ANY TIME DURING THE WARRANTY PERIOD, YOU ARE UNABLE TO OBTAIN SATISFACTION WITH THE REPAIR OF THIS PRODUCT, PLEASE CONTACT FUNAI CORP.

### ATTENTION:

FUNAI CORP. RESERVES THE RIGHT TO MODIFY ANY DESIGN OF THIS PRODUCT WITHOUT PRIOR NOTICE.

For information of your nearest FUNAI Authorized Service Center or general service procedure, please call or write to the following:

FUNAI CORPORATION, INC.  
Corporate Headquarters & Factory Service Center  
Address :100 North Street Teterboro, NJ 07608  
Tel :201-288-2666  
(Eastern Time 9:00 AM - 4:30 PM)



## OWNER'S MANUAL

19 INCH  
COLOR TELEVISION

FT1931C

## FEATURES

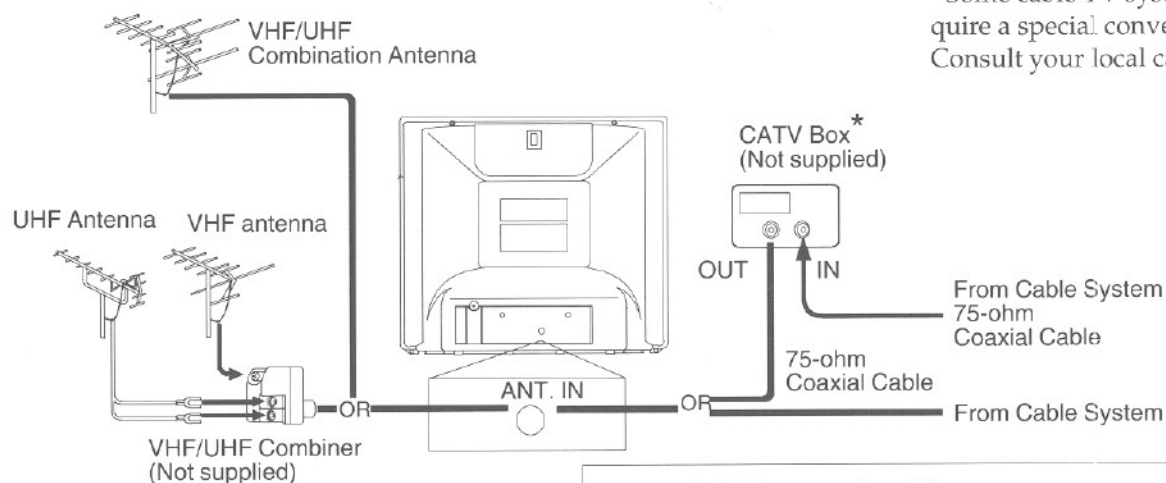
- ◆ Tinted, Bright Black Matrix Picture tube
- ◆ 181 channel selection-All VHF/UHF channels plus up to 125 cable channels.
- ◆ PLL Frequency Synthesized Tuning-The latest PLL frequency synthesized electronic tuning system provides free and easy channel selection, and lets you tune directly to any channel using the 10-key push buttons on the remote control.
- ◆ On-Screen function display.
- ◆ Full-Function Remote Control
- ◆ Sleep timer
- ◆ CCS (Closed Caption System)- You may view specially labeled (cc) TV programs, movies, news, prerecorded tapes, ect. with either a dialogue caption or text display added to the program.

## PRECAUTION

- ◆ Place your TV in a room with adequate ventilation.
  - ◆ Keep your TV set away from sources of direct heat, such as heat registers or direct sunlight.
  - ◆ Do not place your TV on soft surfaces, such as rugs or blankets.
  - ◆ Leave enough room for air to circulate around the bottom, top and back of the set.
- The serial number of this product may be found on the back of the TV. No others have the same serial number as yours. You should record the number and other vital information here and retain this book as a permanent record of your purchase to aid identification in case of theft.

Date of Purchase	
Dealer Purchases from	
Dealer Address	
Dealer Phone No.	
Model No.	FT1931C
Serial No.	

# ANTENNA CONNECTIONS



\*Some cable TV systems use scrambled signals and require a special converter to receive these channels. Consult your local cable company.

## Note to CATV system installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 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.

# CLOSED CAPTION

This TV can receive channels 1 and 2 (C1 and C2) of Caption and Text on Field 1 (Line 21).

## Caption Mode

- (1)Text can be displayed on the TV screen when the received broadcast signal contains the Caption Signals.
  - (2)**Paint-on mode:** Displays input text on the screen immediately.  
**Pop-on mode:** Once text is stored in memory, it is displayed all at once.  
**Roll-up mode:** Displays the text continuously by scrolling (max. 4 lines)
- Note:** If the channel is set to C1 or C2 which does not include the caption signal, text will not be displayed.

## Text Mode

- (1)Displays the full text on the screen by scrolling (max. 15 lines)

- (2)If the received broadcast signal does not contain the caption or text signal, no change will occur.  
If the received broadcast signal only contains the caption signal, a black box will only be displayed.  
If the text signal is included only in channel C1 if text is selected, and if channel C2 is selected, a black box will only be displayed. If channel C1 is selected, text will be displayed.

## NOTES:

- (1)When your TV receives a special effects playback signal (i.e., Search, Slow, Still) from a VCR's video output CHANNEL (CH3 or CH4), your TV may not display the correct caption or text.
- (2)Captions and texts may not match the TV voice exactly.
- (3)Interference may cause the closed caption system not to function properly.
- (4)This TV cannot show an OSD display when it is in the caption or text mode.
- (5)If you press the Display button on the remote control or the POWER button on the TV for 5 seconds, the TV will start an automatic Demonstration. It can be canceled by turning off the TV.

**WARNING:**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**CAUTION**

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**

**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



THIS SYMBOL INDICATES THAT DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT.



THIS SYMBOL INDICATES THAT THERE ARE IMPORTANT OPERATING AND MAINTENANCE INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

The important note is located on the rear of the cabinet.

## "IMPORTANT SAFEGUARDS"

1. Read instructions-All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions-The safety and operating instructions should be retained for future reference.
3. Heed Warnings-All warnings on the appliance and in the operating instructions should be adhered to.

4. Follow Instructions-All operating and use instructions should be followed.

5. Cleaning-Unplug TV from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

**EXCEPTION:** A product that is meant for uninterrupted service and that for some specific reason, such as the possibility of the loss of an authorization code for a CATV converter, is not intended to be unplugged by the user for cleaning or any other purpose, may exclude the reference to unplugging the appliance in the cleaning description otherwise required in item 5.

6. Attachments-Do not use attachments not recommended by the TV manufacturer as they may cause hazards.
7. Water and Moisture-Do not use this TV near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

8. Accessories-Do not place this TV on an unstable cart, stand, tripod, bracket, or table. The TV may fall, causing serious injury to someone, and serious

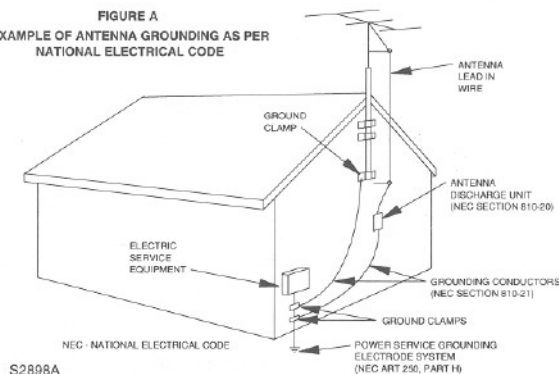
damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the TV. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

9. Ventilation-Slots and openings in the cabinet and the back or bottom are provided for ventilation and to ensure reliable operation of the TV and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the TV on a bed, sofa, rug, or other similar surface. This TV should never be placed near or over a radiator or heat register. This TV should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

10. Power Sources-This TV should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For TVs intended to operate from battery power, or other sources, refer to the operating instructions.

11. Grounding or Polarization-This TV is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to

FIGURE A  
EXAMPLE OF ANTENNA GROUNDING AS PER  
NATIONAL ELECTRICAL CODE



insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact you electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

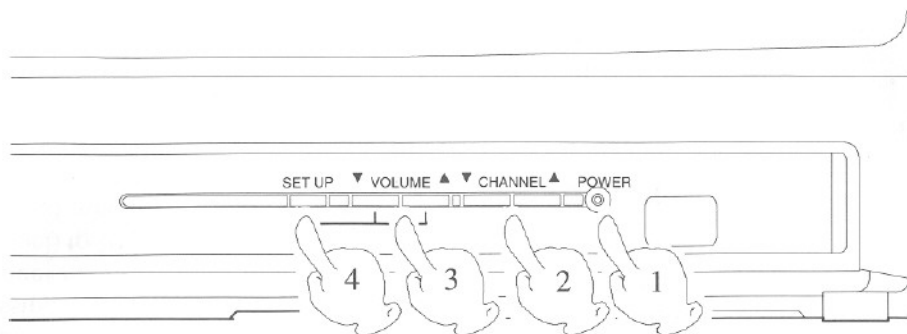
12. Power-Cord Protection-Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Outdoor Antenna grounding-If an outside antenna or cable system is connected to the TV, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. (Fig. A)
14. Lightning-For added protection for this TV receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the TV due to lightning and power-line surges.
15. Power Lines-An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
16. Overloading-Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

17. Object and Liquid Entry-Never push objects of any kind into this TV through opening as they may touch dangerous voltage points or shortout parts that could result in a fire or electric shock. Never spill liquid of any kind on the TV.
18. Servicing-Do not attempt to service this TV yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. Damage Requiring Service-Unplug this TV from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power supply cord or plug is damaged or frayed.
  - b. If liquid has been spilled, or objects have fallen into the TV.
  - c. If the TV has been exposed to rain or water.
  - d. If the TV does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV to its normal operation.
  - e. If the TV has been dropped or the cabinet has been damaged.
  - f. When the TV exhibits a distinct change in performance-this indicates a need for service.
20. Replacement Parts-When replacement parts are required, be sure the service technician had used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, injury to persons or other hazards.
21. Safety Check-Upon completion of any service or repairs to this TV, ask the service technician to perform routine safety checks to determine that the TV is in proper operating condition.



G912EA

# BASIC TV OPERATION



**1**

## POWER

Press to turn TV power ON and OFF.

**2**

## CHANNEL ▲ / ▼

Press to select the desired channel using the CHANNEL ▲ or ▼ buttons.

**3**

## VOLUME ▲ / ▼

Press to adjust the volume to desired listening level using the VOLUME ▲ or ▼ buttons.

**4**

## SET UP

Press to select picture adjustment controls for a natural looking image. Also, used to preset or change a preset channel. (See "SET UP MENU FUNCTION")

## SUPPLIED ACCESSORIES

Remote control unit  
(UREMT28MM001)

Batteries ("AA" × 2)



# CHANNEL CHART

The two charts below describe the channels, CH 1 through CH 125 you can receive. Select either TV/CATV mode by using the setup function.

## ◆ TV MODE

SELECTED CHANNEL INDICATION	2 ~ 13	14 ~ 69
CHANNEL BAND DESIGNATIONS	VHF	UHF
CHANNEL RECEIVED OFF THE AIR	2 ~ 13	14 ~ 69

## ◆ CATV MODE

SELECTED CHANNEL INDICATION	CHANNEL BAND DESIGNATION	CATV CHANNEL RECEIVED FROM CABLE
2 ~ 13	BROADCAST VHF	2 ~ 13
14 ~ 36	CATV MID/SUPER BANDS	A ~ W
37 ~ 65	CATV HYPER BAND	W+1 ~ W+29
95 ~ 99	CATV LOW BAND	A-5 ~ A-1
66 ~ 94	ULTRA BAND	W+30 ~ W+58
1	SPECIAL CATV CHANNEL	5A(between 4 and 5)
100~125	ULTRA BAND	W+59~W+84

## Notes:

- ◆ CATV channel designations are not standardized like broadcast channels, so Channel Band Designations at a selected channel may change according to the cable service.
- ◆ Consult your local cable TV company to find out which of these channels are receivable and which type of cable system is used in your area.
- ◆ Memorized channels may be lost if the TELEVISION is disconnected from the AC outlet or if a power failure occurs.

# SETUP MENU FUNCTION

## TEXT MODE

For each function you wish to change (CAPTION/TEXT, C1/C2, TV/CATV, AUTOMEMO, ADD/CLEAR, etc.) press the SETUP button first.

### Note:

If you pass the feature you wish, just press the SETUP button repeatedly and the feature will appear again.

## CHANNEL PRESETTING

To preset a channel or to change a preset channel, follow the procedure below.

1

Connect the power cord to a standard AC outlet.

2

Press the POWER button to ON.  
Channel "2" displays in LIGHT RED.

3

Press the SETUP button repeatedly until you see TV/CATV appearing at the bottom of the screen.

4

TV/CATV

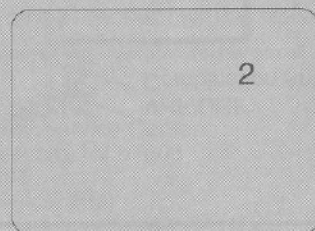
- ◆ Press the VOLUME ▲ if you have an Antenna connected to the TV.
- ◆ Press the VOLUME ▼ if you have CABLE TV connected to the TV.

The mode selected will light up in LIGHT RED.

5

AUTO MEMO

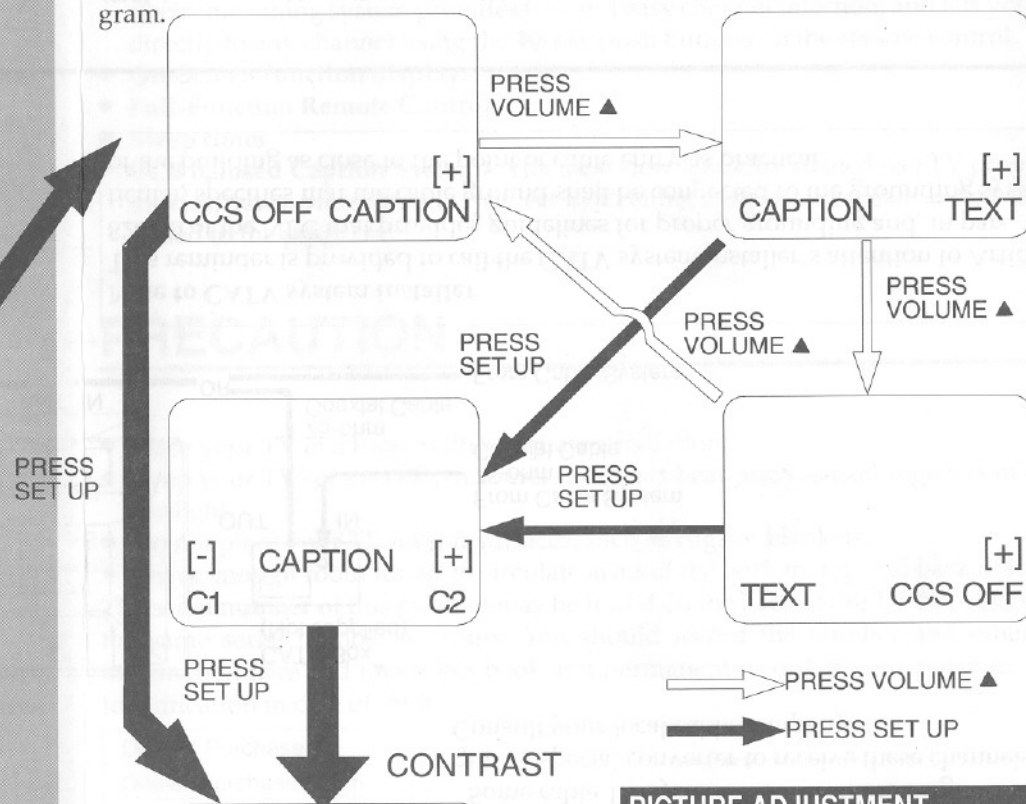
- ◆ Press the VOLUME ▲ to start automatic channel memorizing.  
When AUTOMEMO action is completed, the starting channel reappears



## CCS (Closed Caption System)

You may view specially labeled (cc) TV programs, movies, news, prerecorded tapes, ect. with either a dialogue caption or text display added to the program.

Select the CAPTION, TEXT or CCS OFF mode you wish with the SETUP and the VOLUME ▲ or ▼ buttons. The mode selected will light up in LIGHT RED.



→ PRESS VOLUME ▲  
→ PRESS SET UP

## PICTURE ADJUSTMENT

Select the feature you wish to adjust with the SETUP button and adjust it with the VOLUME ▲ or ▼ buttons.

# REMOTE CONTROL OPERATION

Some TV controls can only be adjusted by using the remote control.

## 1 CHANNEL NUMBER

Press two digits to directly access the desired channel. Remember to press a "0" before a single digit channel.

**+100**  
Press to select channels which are equal or greater than number 100.

## 2 SLEEP

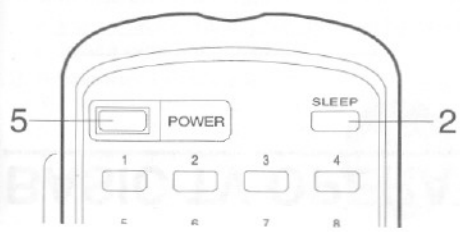
Press the SLEEP button to display the sleep timer and start the function. The shut off time can be determined by the number of times you press the button. (0, 90, 80, 70,.....10 minutes)

## 3 MUTE

Press the MUTE button to turn off the sound portion of the TV program. (Volume level display turns LIGHT RED from LIGHT BLUE.) Press the MUTE button again or press the VOLUME ▲/▼ to restore sound.

## 4 RECALL

Press this button to go back to the previously viewed channel. For example, pressing the RECALL button once will change channel display from 3 (present channel) to 10 (previously viewed channel), and pressing it a second time will return from 10 to 3.



The following functions can be controlled from the REMOTE CONTROL in addition to the SETUP MENU control on the TV set.

## 5 POWER

Press to turn the TV ON and OFF

## 6 DISPLAY

Press to display the channel number on the screen. If you press it again, the channel number will disappear.

## 7 TV/CATV

Press to select TV or CATV which appears alternately on the screen.

## 8 PICTURE

Press to adjust picture quality directly by using PICTURE SELECT and CONTROL +/- buttons. CONTRAST, BRIGHTNESS, COLOR, TINT will be displayed in sequence by pressing PICTURE SELECT button.

## 9 CHANNEL

Press ▲ or ▼ to select memorized channel.

## 10 ADD/CLEAR

Press to add desired channel, and to erase memorized channel.

## 11 AUTO MEMO

Press for more than one second to preset the tuner memory automatically.

## 12 VOLUME

Press ▲ or ▼ to control the volume level.

## 13 CAPTION/TEXT

Press to select CAPTION, TEXT or CCS OFF. CAPTION TEXT or CCS OFF will be

# SPECIFICATIONS

## GENERAL SPECIFICATIONS

Television system : NTSC-M  
TV Standard  
Closed Caption System : \$15.119/FCC  
Channel coverage  
VHF : 2 ~ 13  
UHF : 14 ~ 69  
CATV : 2 ~ 13, A ~ W, W+1 ~ W+84, A-5 ~ A-1, 5A  
Tuning System : 181 channel frequency synthesized tuning system  
Channel access : Direct access keyboard, programmable scan and up/down  
Antenna terminals : VHF/UHF/CATV 75 ohm unbalanced (F-type)

## OTHER SPECIFICATIONS

Remote control : Digital encoded infrared light system  
Operating temperature : 5°C to 40°C (41°F ~104°F)  
Power requirements : AC120V, 60Hz  
Power consumption (Maximum) : 96W  
Picture tube : 19"  
Dimensions  
H : 16-3/4" (424mm)  
W : 18-3/4" (475mm)  
D : 18" (454mm)  
Weight : 37lbs (16.7kg)  
Accessories : Remote Control unit with 2" AA batteries  
Owner's Manual

◆ Designs and specifications are subject to change without notice.

## ELECTRICAL SPECIFICATIONS

Sound output : 1W, 8 ohm

# TROUBLESHOOTING GUIDE

Sometimes a performance problem can be easily solved by checking seemingly apparent but often overlooked possibilities. Before arranging for service, check these items. It could save your time and money.

QUICK SERVICE CHECK LIST		PROBLEM	Control Doesn't Work	Screen Green	Screen Torted	Picture Is Vertically	No Picture on Some Channels	Picture Jere	Leakage in Picture	Picture Poor	Sound Poor	No Sound or Sound
--------------------------	--	---------	----------------------	--------------	---------------	-----------------------	-----------------------------	--------------	--------------------	--------------	------------	-------------------

on the screen.

**6**

## ADD/CLEAR

Use the CHANNEL ▲ and ▼ buttons to select the channel you wish to put into memory or to erase from memory.

- ◆ Press the VOLUME ▲ button if you wish to add the channel into memory. Displayed channel number will change to LIGHT BLUE and is now in memory.
- ◆ Press the VOLUME ▼ button if you wish to erase the channel from memory. Displayed channel number will change to LIGHT RED and is not in memory.

If you need to add or erase other channels, press the CHANNEL ▲ and ▼ buttons again to select the channel. Then, continue the above operation.

### Note:

When you press the CHANNEL ▲ and ▼ buttons before selecting AUTOMEMO, tuner stops at 1st available channel.

### (SEARCH MODE)

When you press the CHANNEL ▲ and ▼ buttons after selecting AUTOMEMO, tuner stops at the memorized channels only.

### (SKIP MODE)

### Note:

In the above steps, the display will disappear from the screen after a few seconds even though you may not be finished. Press SETUP repeatedly until the display returns to the screen.

## ADD/CLEAR

## AUTOMEMO

## TV/CATV

[-] ADD/CLR 2 [+]  
CLR ADD

AUTO MEMO [+]  
START

[-] TV/CATV [+]  
CATV TV

PRESS  
SET UP

PRESS  
SET UP

PRESS  
SET UP

SET UP

PRESS  
SET UP

PRESS  
SET UP

PRESS  
SET UP

PRESS  
SET UP

[-] CONTRAST [+]  
○○○○○○○○○■○○

## BRIGHTNESS

[-] BRIGHT [+]  
○○○○○○○■○○○○○○

## COLOR

[-] COLOR [+]  
○○○○○○○■○○○○○○

## TINT

[-] TINT [+]  
○○○○○○○■○○○○○○

## DISPLAY

[-] DISPLAY [+]  
OFF ON

**1**

## CONTRAST

Adjust to increase or decrease contrast.

- [+] : increase contrast
- [-] : decrease contrast

**2**

## BRIGHTNESS

Adjust until the whitest parts of the picture are as bright as you prefer.

- [+] : increase brightness
- [-] : decrease brightness

**3**

## COLOR

Adjust to be brilliant or pale color.

- [+] : brilliant color
- [-] : pale color

**4**

## TINT

Adjust to obtain natural skin tones.

- [+] : greenish tone
- [-] : reddish tone

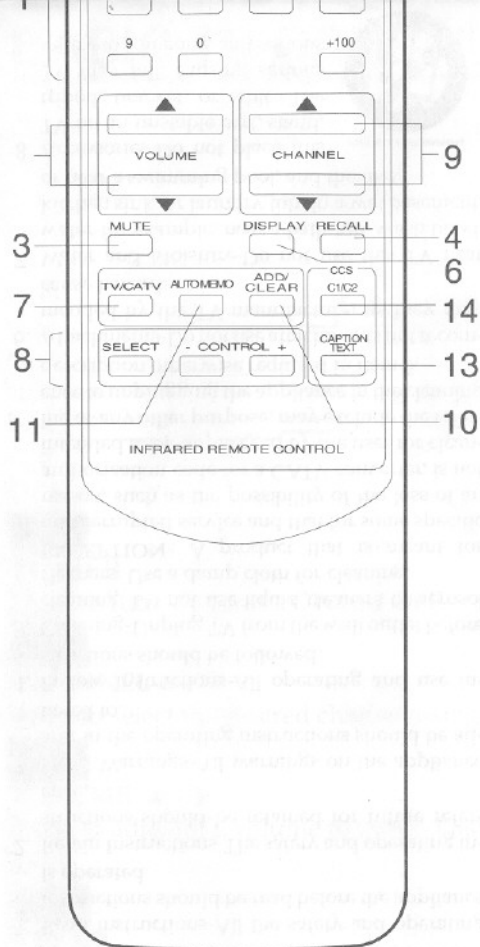
**5**

## DISPLAY

- ◆ Press the VOLUME ▲ button if you wish to have the selected channel number remain on the TV screen.
- ◆ Press the VOLUME ▼ button if you wish to turn off channel display.
- ◆ Display color for ON or OFF will light up in LIGHT RED.

### Note:

When you disconnect the unit from the AC outlet, or if you have a power failure, all memory, such as channel program, sleep time, will be lost. You must then repeat each preset procedure by using the setup menu function.



displayed in sequence by pressing CAPTION /TEXT button.

**14 C1/C2 (CHANNEL1/CHANNEL2)**  
Press to select C1 or C2 which appears alternately on the screen.

## INSTALLING THE BATTERIES

**1**

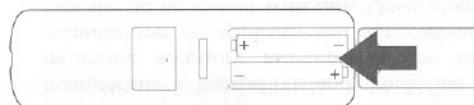
Slide the battery compartment cover on the remote unit.

**2**

Insert 2 "AA" penlight batteries into battery compartment in the direction as indicated by the polarity (+ / -) markings. Batteries installed with incorrect polarity may damage the remote unit.

**3**

Replace the cover.



## MAINTENANCE

### CABINET CLEANING

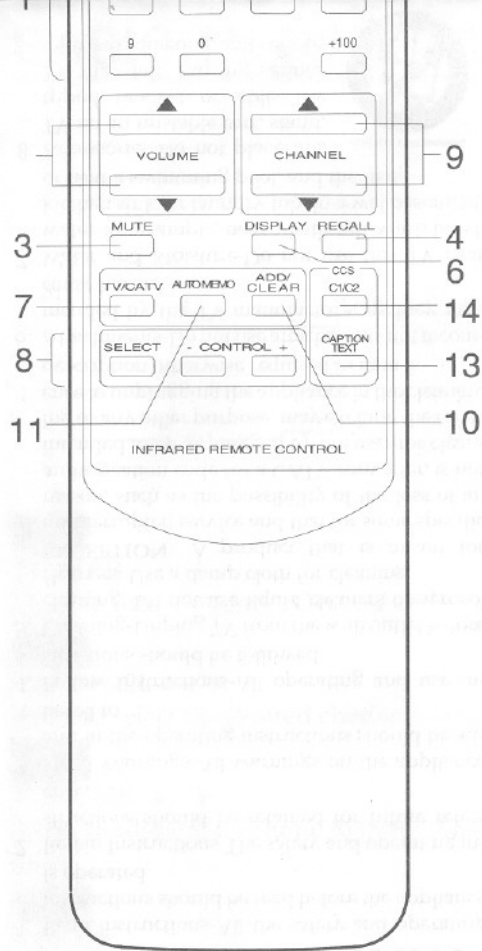
- ◆ Wipe the front panel and other exterior surfaces of the TV with a soft cloth immersed in lukewarm water and wrung dry.
- ◆ Never use a solvent or alcohol. Do not spray insecticide liquid near the TV. Such chemicals may cause damage and discoloration to the exposed surfaces.

### PICTURE TUBE CLEANING

Wipe the picture tube of the TV with a soft cloth. Before cleaning the picture tube, disconnect the power cord.

	Remote C	Bars On S	Picture Di	Picture Re	No Color	Poor Rec	Weak Pic	Lines or S	Ghosts in	Picture Bl	Sound On	Picture O	No Picture
<b>Possible Remedy</b>													
Try a new channel, if OK, then possible station trouble.			X	X	X	X	X	X	X	X	X	X	X
Is TV plugged in? Power at outlet?	X												X
Is TV's POWER button on?													X
Is antenna connected to terminal on the back of the set?					X	X	X		X		X		X
If outside antenna is being used, check for broken wire.	X	X	X	X	X	X	X	X	X	X	X		X
Check for local interference.	X		X		X			X	X		X	X	
Turn off with POWER button and then turn it on after about a minute.													X
Adjust COLOR control.					X								
Adjust CONTRAST&BRIGHTNESS control.							X				X		
Check batteries in Remote Control.	X												

Closed Caption Problem	Possible Remedy
My TV is showing captions that are misspelled.	You are watching a live broadcast and spelling errors made by the closed captioning production company may pass through uncorrected. A prerecorded program will not show any misspelled words because of the normal time available for editing the captions.
My TV will not show the text in its entirety or there is a delay of what is being said.	Captions that are delayed a few seconds behind the actual dialogue are common for live broadcasts. Most captioning production companies can display a dialogue to a maximum of 220 words per minute. If a dialogue exceeds that rate, selective editing is used to insure that the captions remain up-to-date with the current TV screen dialogue.
My captions are scrambled with white boxes on the TV screen.	Interference caused by building, power lines, thunderstorms, etc. may cause scrambled or incomplete captions to appear.
My program guide listed a TV show as being closed captioned but none of the captions were displayed.	Broadcasters may at times use a time compression process to speed up the actual program so that additional advertising time can be given. Since the decoder cannot read the compressed information, captions will be lost.
My prerecorded videotape does not show any captions. The tape box mentions it being closed captioned.	The videotape was either an illegal copy or the tape duplicating company accidentally left out the captioning signals during the copying process.



displayed in sequence by pressing CAPTION /TEXT button.

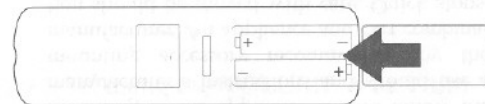
**14 C1/C2 (CHANNEL1/CHANNEL2)**  
Press to select C1 or C2 which appears alternately on the screen.

## INSTALLING THE BATTERIES

**1**  
Slide the battery compartment cover on the remote unit.

**2**  
Insert 2 "AA" penlight batteries into battery compartment in the direction as indicated by the polarity (+ / -) markings. Batteries installed with incorrect polarity may damage the remote unit.

**3**  
Replace the cover.



## MAINTENANCE

### CABINET CLEANING

- ◆ Wipe the front panel and other exterior surfaces of the TV with a soft cloth immersed in lukewarm water and wrung dry.
- ◆ Never use a solvent or alcohol. Do not spray insecticide liquid near the TV. Such chemicals may cause damage and discoloration to the exposed surfaces.

### PICTURE TUBE CLEANING

Wipe the picture tube of the TV with a soft cloth. Before cleaning the picture tube, disconnect the power cord.

	Remote C	Bars On S	Picture Di	Picture R	No Color	Poor Rec	Weak Pic	Lines or S	Ghosts in	Picture Bl	Sound OK	Picture O	No Picture
<b>Possible Remedy</b>													
Try a new channel, if OK, then possible station trouble.			X	X	X	X	X	X	X	X	X	X	X
Is TV plugged in? Power at outlet?	X												X
Is TV's POWER button on?													X
Is antenna connected to terminal on the back of the set?					X	X	X		X		X		X
If outside antenna is being used, check for broken wire.	X	X	X	X	X	X	X	X	X	X	X		X
Check for local interference.	X		X		X			X	X		X	X	
Turn off with POWER button and then turn it on after about a minute.													X
Adjust COLOR control.					X								
Adjust CONTRAST&BRIGHTNESS control.						X					X		
Check batteries in Remote Control.	X												

Closed Caption Problem	Possible Remedy
My TV is showing captions that are misspelled.	You are watching a live broadcast and spelling errors made by the closed captioning production company may pass through uncorrected. A prerecorded program will not show any misspelled words because of the normal time available for editing the captions.
My TV will not show the text in its entirety or there is a delay of what is being said.	Captions that are delayed a few seconds behind the actual dialogue are common for live broadcasts. Most captioning production companies can display a dialogue to a maximum of 220 words per minute. If a dialogue exceeds that rate, selective editing is used to insure that the captions remain up-to-date with the current TV screen dialogue.
My captions are scrambled with white boxes on the TV screen.	Interference caused by building, power lines, thunderstorms, etc. may cause scrambled or incomplete captions to appear.
My program guide listed a TV show as being closed captioned but none of the captions were displayed.	Broadcasters may at times use a time compression process to speed up the actual program so that additional advertising time can be given. Since the decoder cannot read the compressed information, captions will be lost.
My prerecorded videotape does not show any captions. The tape box mentions it being closed captioned.	The videotape was either an illegal copy or the tape duplicating company accidentally left out the captioning signals during the copying process.