

# SONY

3-755-729-22 (1)

LCD Color TV-AM/FM Stereo Tuner

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# FDL-3500

## Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

## Owner's Record

The model number is located at the top and bottom and the serial number 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.

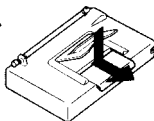
Model No. FDL-3500 Serial No. \_\_\_\_\_

# color watchman

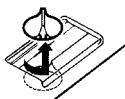
# Preparation

## Installing a Lithium Battery

- 1** Open the battery compartment lid.

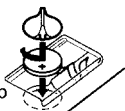


- 2** Open the lithium battery compartment lid.



- 3** Install the lithium battery supplied (CR2032).

with the + side facing up



- 4** Close and lock the lid.



### When to replace the lithium battery

Normally the lithium battery lasts for about 1 year. When the clock loses, replace the lithium battery with a new one (Sony CR2032, not supplied). Use of another battery may present a risk of fire or explosion. When replacing the lithium battery, the unit returns to its initial condition, thus canceling the settings such as time setting, alarm or sleep timer setting. In this case, store the setting into memory again.

### Notes on a lithium battery

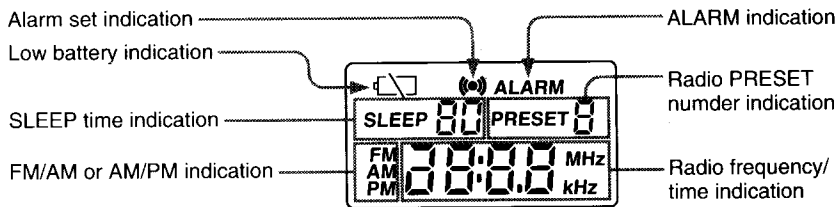
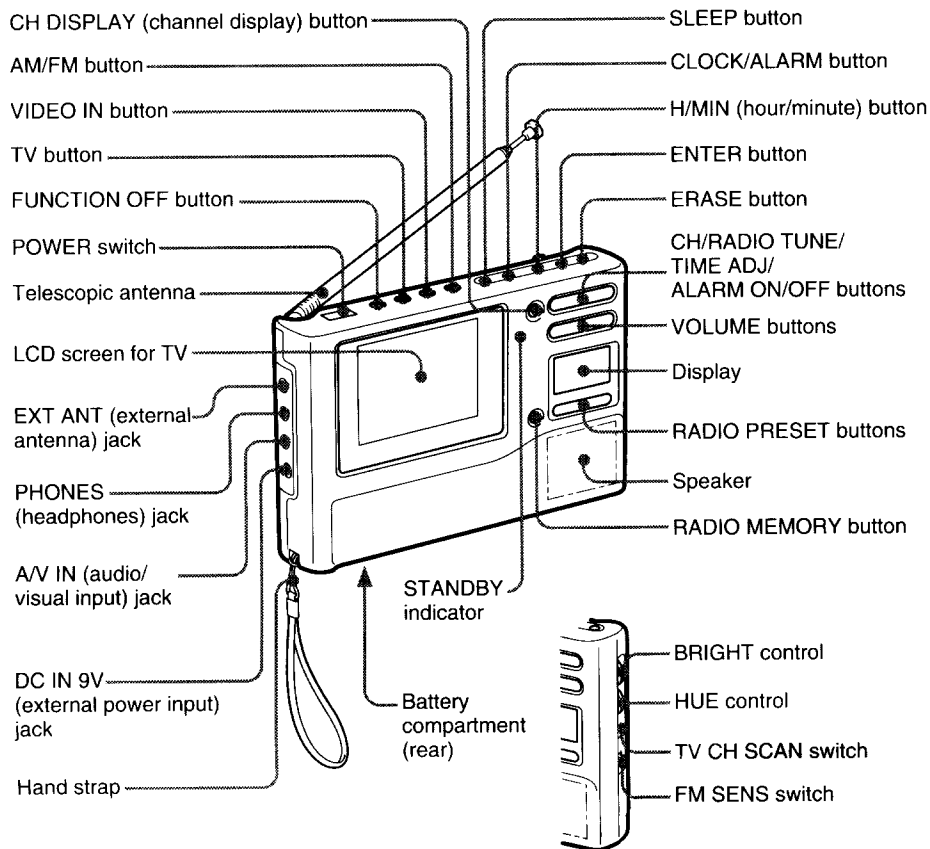
- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to assure a good contact.
- Be sure to install the battery with the correct polarity.
- Do not hold the battery with metallic tweezers as doing so may cause a short-circuit.

### WARNING

Battery may explode if mistreated.

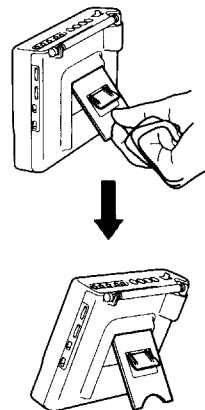
Do not recharge, disassemble or dispose of in fire.

# Parts Identification

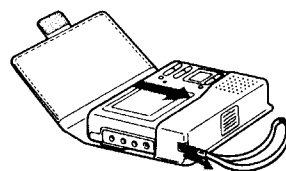


## How to Use the Stand

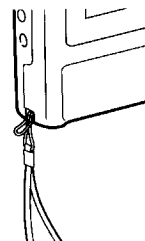
You can adjust the stand in two angles.



## Using the Carrying Case



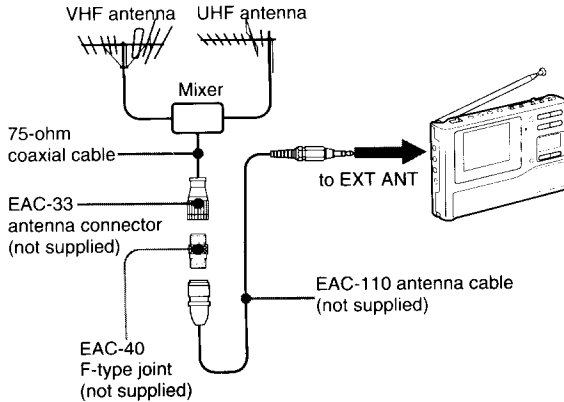
## Attaching the Hand Strap



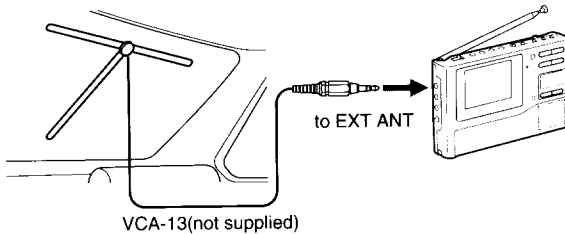
# Connecting an External Antenna

TV and FM receiving will improve.

## Connecting the Outdoor Antenna



## Connecting the Car Antenna



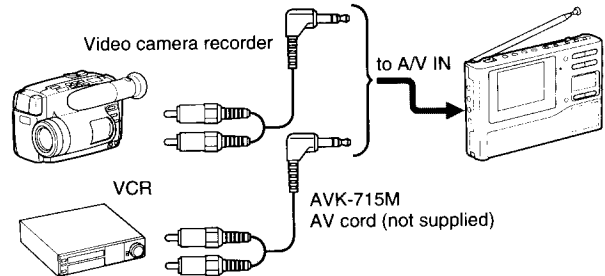
# Using as a Monitor

You can use the unit as a color monitor for your VCR or video camera recorder.

- 1 Turn off the unit and the VCR.
- 2 Connect the VCR to the A/V IN jack.
- 3 Turn on the unit.
- 4 Press the VIDEO IN button.
- 5 Turn on the VCR.

### Notes

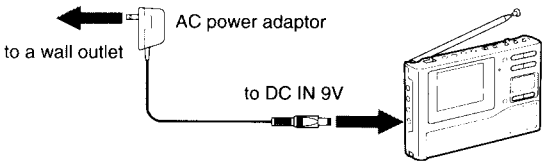
- If the picture is distorted or noisy, move the unit away from the VCR.
- You can watch TV while the cord is connected to the A/V IN jack. Press the TV button.



# Power Sources

## Using on House Current (120V AC)

Use the supplied AC power adaptor.



### Notes

- Use only the supplied AC power adaptor. Do not use any other AC power adaptor.

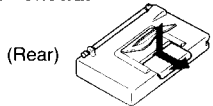


- When the unit is not to be used for a long period of time, remove the batteries to avoid unit damage caused by battery leakage and corrosion.

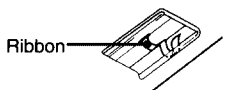
## Using on the Alkaline Batteries

Insert six size AA (LR 6) batteries (not supplied).

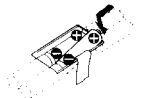
### 1 Remove the battery compartment lid.



### 2 Lay the ribbon.



### 3 Insert the batteries with correct polarities.





### 4 Close the lid.

## To remove the batteries

Pull the ribbon. The batteries will come out of the compartment.

## Battery replacement

When the batteries are used up,  indication appears on the display. In this case, replace all the alkaline batteries with new ones. Radio listening is still possible even after the  indication appears when you watch TV or VCR connected to the A/V IN jack.

## Alkaline battery life

You can use the unit for approximately following hours continuously.

TV	Radio
2 hours	20 hours

The battery life becomes shorter in a cold place.

## Using in a Car

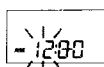
Use the DCC-E190L car battery cord (not supplied).

# Setting the Clock

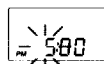
Example: To set the clock at 5:30 PM

**1** Set the **POWER** switch to **STANDBY**.

**2** Press the **H/MIN** button for about 3 seconds.



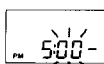
**3** Adjust the hour.



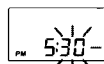
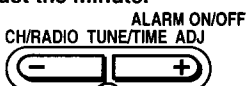
Press the **TIME ADJ -** or **+** button until "PM 5" appears.

When pressing the **TIME ADJ +** button, the indication changes in the order of AM11 → AM12 (noon) → PM 1 → PM 11 → AM 12 (midnight) → AM1 ...

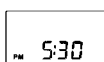
**4** Press the **H/MIN** button.



**5** Adjust the minute.



**6** Press the **ENTER** button.



AM12:00=midnight  
PM12:00=noon

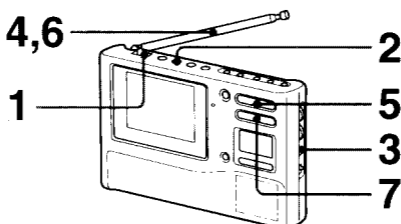
**To correct the hour or minute setting**

Repeat the steps from 1.

## Notes

- When you are listening to the radio, press the **CLOCK/ALARM** button before proceeding. The display changes from frequency indication to time indication.
- To check the current time while listening to the radio, press the **CLOCK/ALARM** button. When you press the **CLOCK/ALARM** button again, alarm setting indication will appear. Then the indication will return to radio frequency indication after about 10 seconds.

# Watching TV



- 1** Set the **POWER** switch to **STANDBY**.
- 2** Press the **TV** button.
- 3** Set the **TV CH SCAN** switch to **MEMORY** or **ALL**.  
**MEMORY:** When selecting channels which you have stored into memory (See "Storing TV channels into memory").  
**ALL:** When selecting channels from among all the channels.
- 4** Pull out the **antenna** fully.
- 5** Press the **CH -** or **+** button to select a channel. When you keep pressing the button, channels change continuously.
- 6** Adjust the **length** and **direction** of the antenna.
- 7** Adjust the **volume**.

To turn off the TV, set the **POWER** switch to **OFF**, and fold the antenna.

When you want to activate the alarm, leave the **POWER** switch set to **STANDBY** and press the **FUNCTION OFF** button. The indicator lights up.

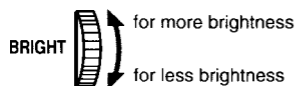
## If the channel changes

If the power is momentarily lost because of a mechanical shock, the unit may go to standby condition. In this case, press the **TV** button.

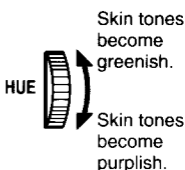
For your safety, do not watch the TV nor operate the controls while driving.

## Adjusting the Picture

### Brightness



### Hue



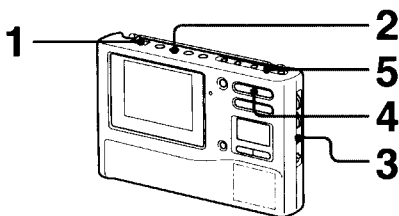
### To indicate the current channel

Press the **CH DISPLAY** button. The channel number appears on the TV screen.

Press again to make the channel indication disappear.

## Storing TV Channels into Memory

Once you store your desired channels into memory, you can easily select the channels from the next time.



**1** Set the **POWER** switch to **STANDBY**.

**2** Press the **TV** button.

**3** Set the **TV CH SCAN** switch to **ALL**.

**4** Press the **CH -** or **+** button to select a channel.

**5** Press the **ENTER** button.

Now the channel is stored into memory.

Repeat the steps 4 and 5 if you want to store other channels into memory.

Up to 12 channels can be stored into memory. "MEMORY FULL" indication will blink when you try to store the 13th channel into memory.

### Note

The channels will be selected in the numerical order when you press the CH - or + button, even though you store them into memory in random order.

### Erasing the stored channel

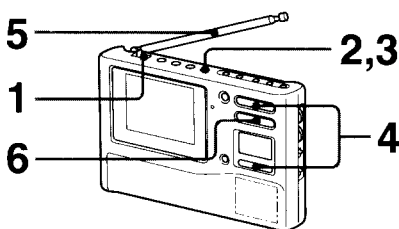
**1** Set the **TV CH SCAN** switch to **MEMORY**.

**2** Select the channel to be erased with the **CH -** or **+** button.

**3** Press the **ERASE** button. **ERASE** and channel number will appear.



# Listening to the Radio



- 1** Set the POWER switch to STANDBY.



- 2** Press the AM/FM button.

AM/FM



- 3** Press the AM/FM button to select the band, AM or FM.

AM/FM



- 4** Tune in a desired station.  
There are two methods for this.

**When selecting the frequency of a station**

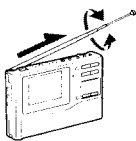


**When selecting the preset number in which you have stored a station** (See "Storing Radio Stations into Memory").

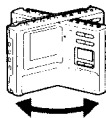


- 5** For FM reception, adjust the length and direction of the antenna.  
For AM reception, rotate the unit.

FM



AM



- 6** Adjust the volume.



**To turn off the radio**, set the POWER switch to OFF, and fold antenna.

When you want to activate the alarm, leave the POWER switch set to STANDBY and press the FUNCTION OFF button. The STANDBY indicator lights up.

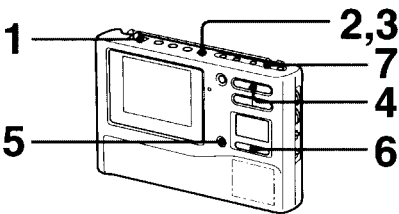
## To improve FM sensitivity

Normally set the FM SENS switch to DX.

If a very strong station signal causes noise, set it to LOCAL. The noise will be reduced.

## Storing Radio Stations into Memory

Once you store the frequency of your desired station, you can easily tune in the station from the next time.



**1** Set the **POWER** switch to **STANDBY**.

**2** Press the **AM/FM** button.

**3** Press the **AM/FM** button to select the band, **AM** or **FM**.

**4** Press the **RADIO TUNE -** or **+** button to tune in a desired station.

**5** Press the **RADIO MEMORY** button.

**6** Press the **RADIO PRESET -** or **+** button to select the preset number.

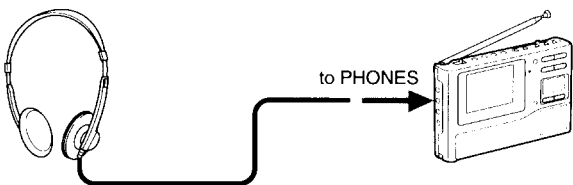
**7** Press the **ENTER** button.

Now the frequency of the station is stored in the preset number you have selected.

Repeat the steps 3 to 7 if you want to store other stations into memory. Up to 18 stations (9 stations for AM and FM respectively) can be stored in PRESET 1 to PRESET 9.

## Listening with the Headphones (not supplied)

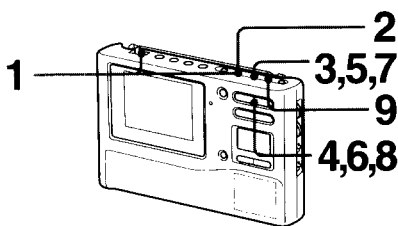
Connect the headphones plug to the **PHONES** jack. To listen to the FM stereo programs in stereo, use the headphones with the stereo miniplug.



# Using the Alarm

You can set the alarm even while watching TV or listening to the radio.

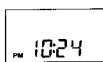
Example: To set the alarm at 6:45 AM



- 1** Set the **POWER** switch to **STANDBY**.



When you are listening to the radio, press the **CLOCK/ALARM** button.



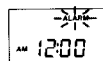
The display changes from frequency indication to current time indication.

- 2** Press the **CLOCK/ALARM** button.



- 3** Press the **H/MIN** button for about 3 seconds.

"ALARM" blinks.  
Radio turns off when you are listening to.



- 4** Press either **TIME ADJ -** or **+** button.

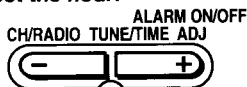


The (●) mark (alarm set indication) blinks, too.

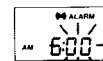
- 5** Press the **H/MIN** button.



- 6** Set the hour.

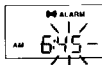


- 7** Press the **H/MIN** button.



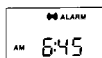
## 8 Set the minute.

ALARM ON/OFF  
CH/RADIO TUNE/TIME ADJ



## 9 Press the ENTER button.

ENTER



The (●) mark and "ALARM" stay lit.

About 10 seconds later, the display indication returns to the current time indication, and only the (●) mark stays lit showing that the alarm is set.

At the time you set, the beep will sound.

To stop the beep, press the CLOCK/ALARM button.

### Note

If you are watching TV or listening to the radio, press the FUNCTION OFF button when you turn off TV or radio. Do not set the POWER switch to OFF. The POWER switch should be set to STANDBY and the STANDBY indicator should be lit to activate the alarm.

## Canceling the Alarm

Once you set the alarm and the (●) mark appears, the beep will sound every day. To cancel the alarm, proceed as follows.

- 1 Set the POWER switch to STANDBY.
- 2 Press the CLOCK/ALARM button.
- 3 Press the H/MIN button for about 3 seconds.  
The (●) mark and "ALARM" blink.
- 4 Press either TIME ADJ – or + button.  
The (●) mark disappears, and "ALARM" still blinks.
- 5 Press the ENTER button.  
Only "ALARM" stays lit, and disappears 10 seconds later. The display indication returns to current time indication.

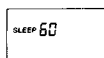
## Using the Sleep Timer

You can set the timer to turn off the unit after 30, 60 or 90 minutes.

While watching TV or listening to the radio, press the SLEEP button until your desired SLEEP time (30, 60 or 90 minutes) appears.

The unit will turn off automatically after the time you select.

SLEEP



12

# Specifications

TV standard	American TV standard
Color system	NTSC
Channel coverage	VHF channels 2-13 UHF channel 14-69
Radio frequency range	FM: 87.6-108 MHz (Stereo) AM: 530-1,710 kHz (Mono)
Antenna	VHF/UHF/FM: telescopic antenna AM: built-in ferrite bar antenna
Display	TN LCD/TFT active matrix method
Picture size	3-inch picture measured diagonally
Speaker	36 mm (1 <sup>7</sup> / <sub>16</sub> inches) dia.
Input	EXT ANT: minijack, impedance 75 ohms A/V IN: tripolar minijack, impedance Audio 47 kilohms/Video 75 ohms PHONES: stereo minijack, impedance 8-300 ohms
Output	9 V DC, See "Power Sources"
Power requirement	See "Power Sources"
Battery life	4.6W (9 V DC)
Power consumption	Approx. 175 × 111 × 38 mm (w/h/d) (7 × 4 <sup>3</sup> / <sub>8</sub> × 1 <sup>1</sup> / <sub>2</sub> inches) incl. projecting parts
Dimensions	Approx. 570g (1lb 4oz) incl. batteries
Mass	Supplied accessories
	AC power adaptor(1) Lithium battery CR 2032(1) Carrying case(1) Hand strap(1)

## Accessories not supplied

Alkaline battery	size AA (LR6)
AV cord	AVK-715M
Car antenna	VCA-13
Headphones	MDR-34
Car battery cord	DCC-E190L

Design and specifications subject to change without notice.

# Troubleshooting

Symptom	Check and Adjust
The unit does not operate. (No picture nor sound)	<ul style="list-style-type: none"> <li>The polarity of the batteries is incorrect.</li> <li>The batteries are exhausted.</li> <li>The AC power adaptor is not firmly connected.</li> <li>Battery operation is attempted while the AC power adaptor or car battery cord is still connected to the DC IN 9 V jack.</li> </ul>
The picture disappears soon after the power is turned on.	<ul style="list-style-type: none"> <li>The batteries are exhausted.</li> </ul>
No color	<ul style="list-style-type: none"> <li>The program is not in color .</li> <li>Some stations in some area are not tuned in finely. (No adjustment is possible with this unit.)</li> </ul>
Snow and noise only	<ul style="list-style-type: none"> <li>The channel is not selected correctly.</li> </ul>
Indistinct picture, double images	<ul style="list-style-type: none"> <li>The channel is not tuned in accurately.</li> <li>Adjust the antenna.</li> </ul>
Dotted lines or stripes	<ul style="list-style-type: none"> <li>Often caused by interference from neon signs, hair dryers, etc. Move the unit to another spot.</li> </ul>

## Notes on the built-in small fluorescent lamp

When the picture becomes dim or goes out soon after you turn on the unit installed with new batteries, the built-in small fluorescent lamp (used in the internal lighting unit) has to be replaced with new one. When replacing, consult the nearest Sony dealer.

- The life of the lamp is about 4 years when you use the unit three hours a day.
- When the batteries are run down, the lamp goes out.
- If the unit is used in a cold place, the lamp may become dim. But as the temperature of the lamp goes up, it will be as bright as in a normal condition.

# Precautions

- Do not open the casing. Refer servicing to qualified personnel only.
- Operate the unit only on 9 V DC. For AC operation, use the supplied AC power adaptor. Do not use any other AC power adaptor. For car battery operation, use the optional Sony DCC-E190L car battery cord. Do not use any other car battery cord.
- Disconnect the AC power adaptor from the wall outlet when the unit is not to be used for an extended period of time.
- Avoid exposure to temperature extremes, direct sunlight, moisture, sand, dust, or mechanical shock. Never leave in a car parked in the sun.
- Do not place the unit in a hot place or in a place subject to excessive vibration.
- Avoid rough handling.
- Clean the unit with a soft cloth slightly dampened with a mild detergent solution. Never use strong solvents, such as thinner or benzine, as they may damage the finish.
- If you bring the unit directly from a cold place to a warm place, moisture may condense inside the unit. In this case, turn off the unit and wait until the moisture evaporates.

## On LCD

- Do not press the LCD screen forcibly, as it may cause poor picture and damage to the unit.
- Use the unit within a temperature range of 0°C to 45°C (32°F to 113°F).
- When you use the unit in a cold place, double images or delayed images may occur but this is not a malfunction.

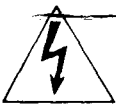
## On the AC power adaptor

- 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.

If you have any question or problem concerning your unit that is not covered in this manual, please consult the nearest Sony dealer.

# WARNING

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

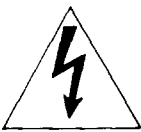


## CAUTION

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 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.

### 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.

## WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.