

21" Pure Flat Tube Stereo Television

TTM-2101L

WARNING

To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



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 "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

Caution: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Refer to the identification/rating label located on the back panel of your product for its proper operating voltage.

Caution: Using video games or any external accessory with fixed images for extended periods of time can cause them to be permanently imprinted on the picture tube (or projection TV picture tubes). ALSO, some network/program logos, phone numbers, etc. may cause similar damage. This damage is not covered by your warranty.

Cable TV Installer: This reminder is provided to call your attention to Article 820-40 of the National Electrical Code (Section 54 of the Canadian Electrical Code, Part 1) which 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.

Customer Record

You will find the model number and chassis number of your TV on the back of your TV set. Record these numbers in the spaces provided below. Refer to them whenever you call customer service or your dealer regarding this product.

Model Number: _____ Chassis Number: _____

PACKING LIST	
<u>Parts</u>	<u>QTY</u>
Color TV Receiver	1
Remote Control	1
Operation Manual	1
AAA Alkaline Batteries	2

Please read this manual carefully before operation.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. **Warning - This TV should only be serviced by an authorized and properly trained technician. Opening the cover or other attempts by the user to service this TV may result in serious injury or death from electrical shock, and may increase the risk of fire.**

FCC Warning

Class B Computing Device

Information to User

This equipment has been tested and found to comply with the limits for a Class B Digital Device pursuant to part 15 of 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 energy 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 receives interference while off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1) Reorient or relocate the receiving antenna.
- 2) Increase the separation between the equipment and TV.
- 3) Connect the equipment into an outlet on a circuit different from that to which the TV is connected.
- 4) Consult the dealer or an experienced radio/TV technician for help and for additional suggestions.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio - TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

FCC Warning

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE: In order for an installation of the product to maintain compliance with the limits for a Class B Device, shielded cables must be used.

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SPECIFICATIONS

MODEL	TTM-2101L
Television System	NTSC-M
Channel Coverage	VHF 2-13, UHF 14~69
Cable TV Coverage	Mid Band (A-8~A-1, A~I); Super Band (J~W) Hyper Band (AA~ZZ, AAA, BBB) Ultra Band (65~94, 100~125)
Channels Preset	181
Antenna Input	75 ohm (unbalanced)
Screen Dimensions	15.98 x 12.01 in. 406 x 305 mm
Audio Output	2W+2W
Total Harmonic Distortion	<7%
Power Source	120V~, 60Hz
Unit Weight	50.6 lbs. (23 kg)
Unit Dimensions	23.03 x 22.05 x 18.03 in. 585 x 560 x 458 mm
Packaged Dimensions	25.39 x 21.06 x 21.65 in. 645 x 535 x 550 mm
Power Consumption	90W

Feature Descriptions

181 Channel Tuner - total number of channels the TV can receive: 2-69 in Air mode, or 1-125 in Cable mode

AV Input (Rear) - input designed for use with A/V devices, such as a VCR or DVD player

AV Input (Side) - input designed for infrequent use, such as with a camcorder or video game unit

AV Output (Rear) - output signals from TV to devices such as VCR's

Channel Recall - instant return to the last channel viewed

Closed Caption Display - feature that displays the closed caption or text of a TV broadcast

Remote Control - A wireless remote control unit for the TV

On/Off Timer - feature that allows the user to set a time to turn on/off the TV

Parental Control - feature that allow parents to block out selected type of programming

RF IN Jack - standard coaxial antenna jack

S-Video Input - input designed for greater clarity and sharpness; also known as S-VHS

Screen Size - the diagonal size of the TV screen

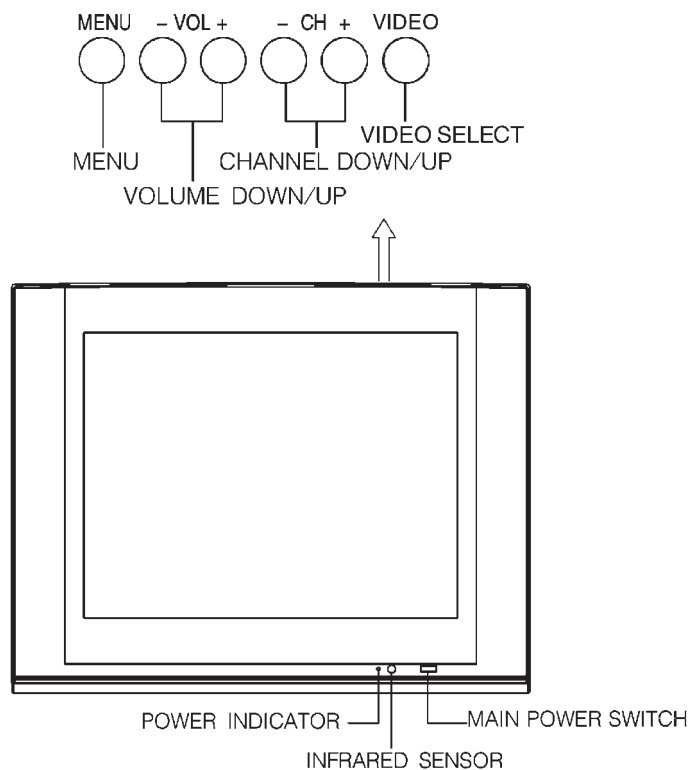
Selectable Picture Modes - preset standards for TV display: User, Normal, Movie and Sports

Trilingual On Screen Display (OSD) - TV's on screen display can be either English, French or Spanish

FEATURE	
181 Channel Tuner	1
AV Input (Rear)	1
AV Input (Front)	-
AV Input (Side)	1
AV Output (Rear)	1
Channel Recall	1
Closed Caption	1
Full Feature Remote	1
On/Off Timer	1
Parental Control	1
RF IN Jack	1
S-Video Input	1
Screen Size	20"
Picture Modes	1
Trilingual OSD	1

Front and Rear Unit Profiles

Front panel

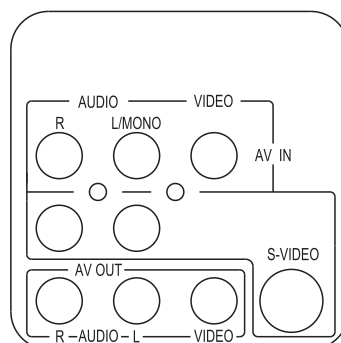


Side panel



AV IN on the side panel

Rear panel



Remote Control Features

FUNCTION Used for volume control and child lock

VIDEO Cycles through the Video/TV modes

DISPLAY Brings up the TV/Video display

ARROWS Used to navigate the TV menus

SCAN Scans all active channels

SLEEP Used to set the Sleep Off time

PICTURE Selects the various Picture Modes

CC Activates Closed Captioning

STANDBY Turns on/off the TV

KEYPAD Used to select channels by number

CH + / - Used to change the current channel

VOL + / - Used to adjust the volume level

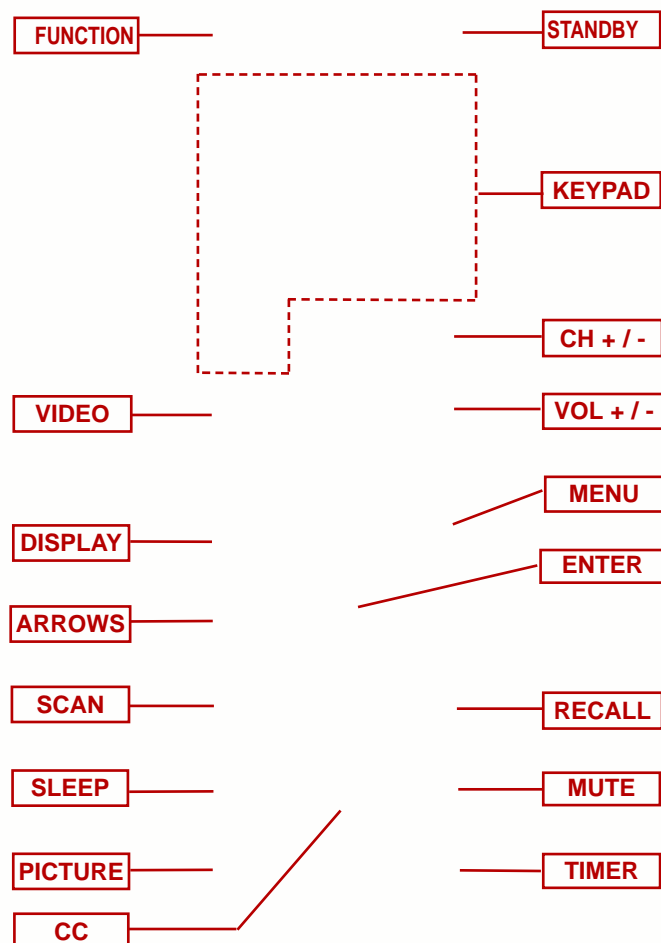
MENU Accesses the TV menus

ENTER Accesses the sub menu

RECALL Returns to the last channel viewed

MUTE Mutes or restores the TV volume

TIMER Accesses the Timer menu



INSTALLATION

- Please read the safety instructions in this manual completely before installation.
- Install your TV in an area where direct sunlight will not fall upon the screen.
- Soft, indirect light is best for television viewing.
- Allow enough space (at least 4 in.) between the TV and any walls or enclosures for proper ventilation.
- Optimum television viewing distance is 3-5 times the screen's size.

Auto-Degaussing

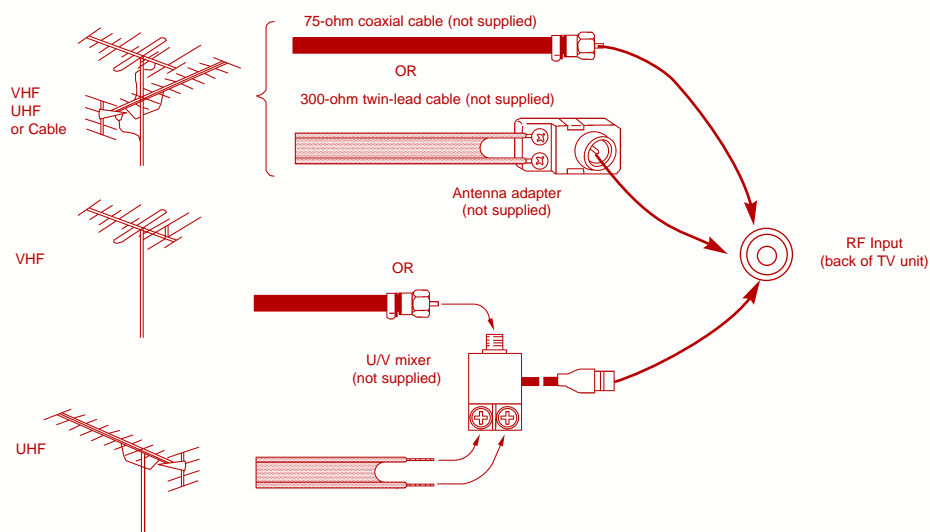
Color television can be easily affected by magnetism, which shows as color distortion on the screen. If your TV is affected by nearby magnetic components or appliances, turn it off for a few minutes. The built-in auto-degaussing circuit will eliminate the magnetic interference.

Auto off when no signal received

The TV set will automatically enter into Standby mode when the following conditions are met.

1. TV is in antenna mode.
2. Current channel has no signal.
3. No key is pressed within 15 minutes.

Connecting the Antenna



Notes:

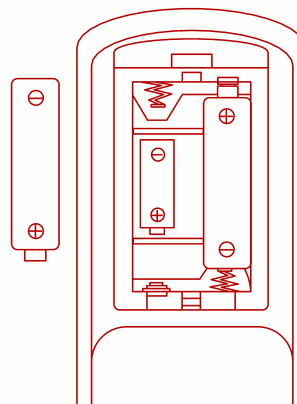
1. It is recommended that a 75 ohm coaxial cable be used in order to eliminate interference and noise which may occur due to nearby radio transmissions.
2. The antenna cable should not be tied together with other wiring.
3. Set up a lightning rod and check it regularly when an outdoor antenna is used.

Installing the Remote Control Batteries

1. Remove the battery compartment lid.
2. Insert two AAA batteries (included). Make sure the positive (+) and negative (-) polarities are correctly aligned.
3. Reattach the battery lid.

Notes:

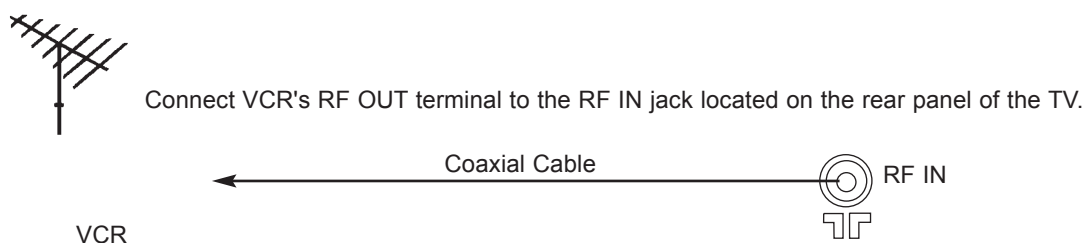
1. Alkaline batteries are recommended for longer life.
2. Always replace both batteries at the same time.
3. Do not expose batteries to fire or break them open.
4. To avoid battery leakage, remove batteries from the remote control when it is not being used for a long period of time.



INSTALLATION (continued)

Connecting A/V Equipment

The following are diagrams showing basic instructions for attaching external equipment, like a VCR or DVD player, to your TV set. Please refer to operation manuals of external audio/video equipment that will be connected to your set for additional instructions. PLEASE TURN OFF ALL POWER BEFORE CONNECTING DEVICES TOGETHER.



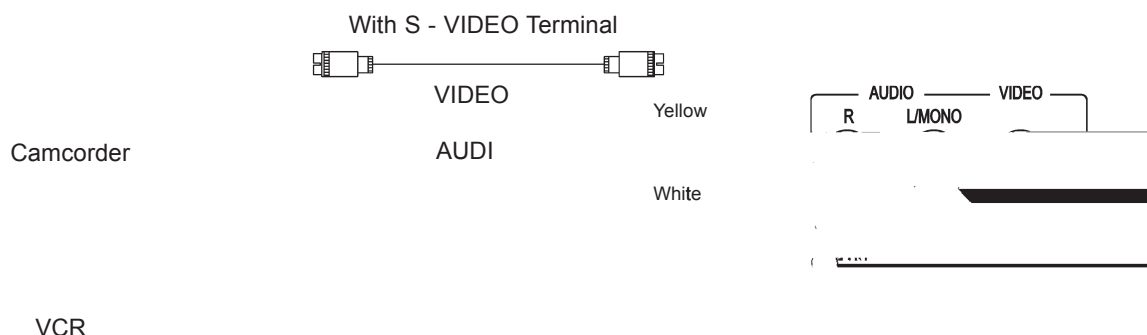
Input from Device to TV

AUDIO/VIDEO OUT



DVD Player

The side terminals may be easier to use with a camcorder. The connections are identical.



Output from TV to Device

AUDIO/VIDEO IN

VCR



FUNCTIONS & FEATURES

Turn On/Off

1. Turn On

Plug in the power cord, and the TV should enter into Standby mode. Pressing STANDBY key will turn on the TV and its power indicator light.

2. Standby

While the TV is on, press the STANDBY key will put the TV in Standby or off mode. The power indicator light on the TV set will turn off.

Basic Functions

Changing the Channel

While in Tuner mode, press the CH +/- keys to change the channel, or use the numeric keypad to enter a new channel.

Adjusting the Volume

To adjust the volume, press the VOL +/- keys. Also, you may press the FUNCTION (F) key along with the VOL +/- keys to adjust the volume in increments or decrements of 4.

Muting the Volume

To mute the volume, press the MUTE key. To restore the volume, press MUTE again or press the VOL + key.

Function Selection Menus

To change the setting of any function, press the MENU key to bring up the main menu. Press the up or down arrow key to highlight the desire sub-menu and press the left or right arrow key (or ENTER key) to access. While in the sub-menu, use the up or down arrow key to select the item and the left or right arrow key to adjust the setting. Press the MENU key to return to the main menu and exit.

While in the setup menu, CH-/++ and VOL-/++ key on the front panel will function as the down/up/left/right arrow keys on the remote control.

Picture Menu

Features

This menu allows you to adjust the various picture settings. Use the up or down arrow key to move between the various settings, and the left or right arrow key to adjust them.

Tint: -31 (more purplish) to +31 (more greenish)


Brightness: 0 (dimpest) to 63 (brightest)

Contrast: 0 (minimum contrast) to 63 (maximum contrast)

Color: 0 (minimum color) to 63 (maximum color)

Sharpness: 0 (minimum sharpness) to 63 (maximum sharpness)

Picture

	Tint	00
	Brightness	32
	Contrast	32
	Color	32
	Sharpness	32

FUNCTIONS & FEATURES (continued)

Tuner Menu

Note: This menu is only accessible while the TV is in Tuner mode.

Channel: This feature allows you to change the channel displaying on screen. Use the left or right arrow key or the numeric keypad to change the channel.

Add/Erase: This feature allows you to add or remove the channel currently on display from the "active channel list". This is the list of channel available by pressing the CH+/- keys. Use the left or right arrow key to add or erase.

Antenna: This feature sets the TV tuner to an Air antenna or a Cable antenna. Please use *Air* mode when using an over-the-air antenna; use *Cable* mode for a cable hookup. Use the left or right arrow key to select between the two options.

Auto Program: This feature will setup the Active channel list for the user. The list will include only the channels with a signal detected. Press the right arrow key to begin and the left arrow key to stop the process.

Tuner	
Channel	2
Add/Erase	Add
Antenna	Air
Auto Program	
<div> ◀ Stop Start ▶ </div>	

Timer Menu

Press the TIMER key on the remote control to access this menu.

Time

This feature allows you to set the clock on the TV.

On Time

This feature allows you to preset a time when the TV set will turn on.

On Channel

This feature allows you to preset the channel on display when the On Time is activated.

Off Time

This feature allows you to preset a time when the TV set will turn off.

Timer

Timer can be set to *Once* or *Always*.

Timer	
Time	--:--
On Time	--:--
On Channel	-
Off Time	--:--
Timer	Once

System Menu

Language

This feature allows you to pick a language used for the on screen display (OSD). Use the left or right arrow key to select the language of your choice - English (Eng.), French (Fra.) or Spanish (Esp.).

Blue Back

This feature gives you the option to display a blue background on the TV screen when there is no signal present. Use the left or right arrow key to toggle between on and off.

CCD/Text

This is a feature that allows your TV set to display, on screen, the dialogue, narration, and sound effect of a TV program. It also allows you to display teletext signal. Text and caption will be displayed at either the top or the bottom of the screen. There is nine different setting for closed caption. You can set it to one of the 4 Closed Caption settings (CC1-4), one of the 4 Text settings (T1-4), or set this feature to off (CCD/Text off).

Notes: A Closed Caption signal may not be displayed under the following conditions:

- When there is no Closed Caption/Text signal to decode
- When the signal is weak or altered (due to interference or poor reception)
- When viewing a dubbed video tape

System	
Language	Eng. Fra. Esp.
Blue Back	On
CCD/Text	Off
Parental Guide	On
MPAA - X	TV - MA

FUNCTIONS & FEATURES (continued)

System Menu (continued)

Parental Guide

This feature allows parents to block certain programs from being viewed, based on the programs' rating. In order to access this menu, you must first enter a pass code. The factory default is **6688**. Enter the pass code while the Parental Guide is highlighted. Now, with Parental Guide set as On, press the right arrow key to access the TV Rating grid.

TV Rating

Using the up or down arrow key to navigate between the ratings, press the MENU key to block out a particular rating completely. Or, if you wish, press the down arrow key to highlight an individual rating (anywhere a *U* is displayed in the middle of the grid.) Pressing the MENU key with one of these individual ratings highlighted will block only programs that feature that particular aspect. See the TV rating diagram at right for an example. TV ratings are defined in the charts below:

Age	Defined as
TV - Y	All Children
TV - Y7	Directed to Older Children (over 7)
TV - G	General Audience
TV - PG	Parental Guidance Suggested
TV - 14	Parents Strongly Cautioned
TV - MA	Mature Audience Only

Contents	Defined as
FV	Fantasy Violence
D	Sexual Dialogue
L	Adult Language
S	Sexual Situations
V	Violence

MPAA Rating

Press the right arrow key while in the TV Rating grid to access this grid. Use the up or down arrow key to navigate between the MPAA ratings. Pressing the MENU key with a rating highlighted will block that particular rating from being shown on this TV. A *B* will show in red next to the blocked rating. Please note that blocking a lower rating (for example, PG) will block all higher ratings (PG-13, R, NC-17, X.)

Pass Code Menu

This menu allows you to change the access code for the Parental Guide functions of the TV set. Press the MENU key when Pass Code Control is highlighted. This will turn on or off the Pass Code function. With the Pass Code function ON, you can also change the Pass Code. Use the down arrow key to highlight *Pass Code*, then enter the new Pass Code using the numeric keypad.

Note:

The factory pre-set password is **6688**. The initial password will be replaced when the new one is used. Please contact the service centre in case you forget the password.

System

Language Eng. Fra. Esp.
 Blue Back On
 CCD/Text Off
 Parental Guide On

MPAA-X TV-MA


Enter Pass Code - - - -

TV-Rating

Rating	FV	D	L	S	V
 TV-Y	U				
TV-Y7	U	U			
TV-G	U				
TV-PG	U		U	U	U
TV-14	B		B	B	B
TV-MA	B		B	B	B

Age Based Rating

MPAA - Rating

 Movie Rating

G	U
PG	U
PG-13	U
R	U
NC-17	U
X	U

Age Based Rating

Pass Code Menu

Pass Code Control
 Pass Code 6688

Enter Pass Code - - - -

FUNCTIONS & FEATURES (continued)

Useful Remote Control Features

DISPLAY

This key allows you to display the current information of the TV screen on the upper right hand corner of the screen. (channel, antenna mode, time, video, etc.)

TIMER

This key allows you to directly access the *Timer* menu. For an explanation of this menus features, please see page 10.

SCAN

Press the SCAN key twice, and the TV will begin to scan through all active channels. To stop the Scan, pressing any key can interrupt scanning. Please note that Scan will only work in Antenna mode.

PICTURE

Your TV has factory preset picture modes that allow you to optimize your TV viewing. To activate these picture modes, press this key, and you can choose among User, Normal, Movie and Sports.

RECALL

This key will allow you to return to the last channel you were viewing. Pressing it again will return you to the channel you just left.

CC

Pressing the CC key will activate the currently selected Closed Captions or Text under the System Menu. Pressing it again will turn off the Closed Captions or Text.

VIDEO

This key allows you to toggle between antenna and different video modes.

Child Lock

The Child Lock feature prevents unauthorized viewing of the TV. To activate, press and hold the F key, and then press MUTE. You should see a key symbol appear on the screen. This will lock out all remote functions (except for Standby). To unlock the TV, press and hold the F key and press MUTE. This will unlock the TV. Please note that the only way to activate or deactivate the Child Lock feature is via remote control - please insure that it is stored securely.

SLEEP

Press the **SLEEP** key repeatedly to switch the TV to one of the following modes :

-- → 15 → 30 → 45 → 60 → 90 → 120 → 150 → 180 (Unit: Minute)

The TV will automatically enter the Standby mode when the preset Sleep time is up.

The TV will display a message one minute before the Sleep timer runs out.

0-9

Press the 0-9 keys to enter channel numbers directly (2-69 in the Air mode or 1-125 in the Cable mode). Press the corresponding Number key(s) to enter a channel number from high-digit to low-digit. Each digit should be entered at 3 seconds time interval.

