



Westinghouse

USER'S MANUAL

P2650HR

P3250HR

Commercial HDTV

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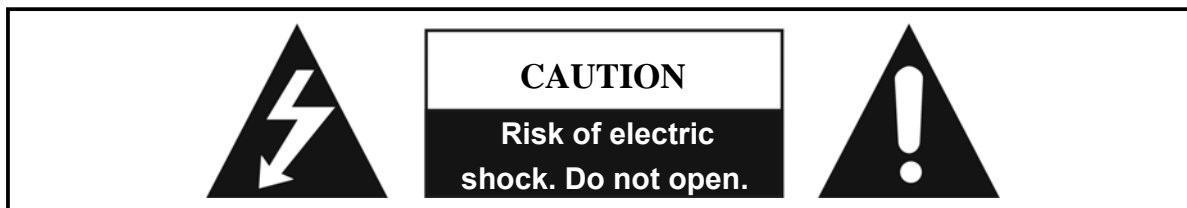
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IMPORTANT SAFETY AND PRECAUTIONS

This wide active matrix TFT (thin film transistor) liquid crystal monitor is designed for use as a stand alone TV as well as a display device for video electronics appliances and personal computers.

Important Information

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



Caution : To reduce the risk of electric shock, do not attempt to disassemble or modify this device. There are no user-serviceable parts inside. Refer any service issues to qualified service personnel.

Caution : FCC/ CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

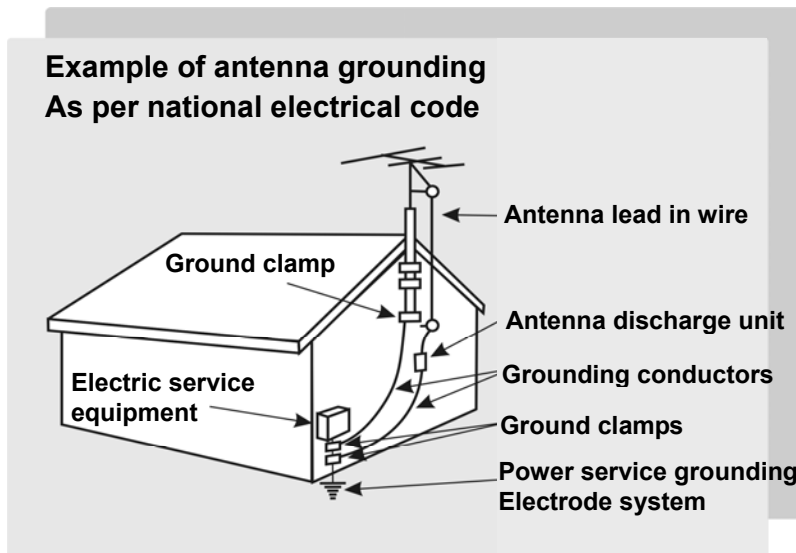
Important: One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws. Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

Warning : Do not leave stationary images, patterns, PIP windows, or letterbox images on the screen for prolonged periods of time as this may result in permanent damage to the LCD panel. This type of damage is not covered under warranty. The following are examples of, but not limited to, potentially hazardous display output: side bar images, video game patterns, closed captioning, channel logos and letterbox black bars. To prevent this type of damage, it is recommended to display constantly moving images that fill the screen as often as possible.

According to industrial standards for LCD display technology; there are a certain number of allowable defective pixels. Although we produce panels with more than 99.9% active cells, there still may be some cells that do not produce light or remain constantly lit. For further information, please contact sales or technical support.

Safety Precautions

1. Cleaning : Unplug the power cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
2. Water and moisture : Do not use the product near water or areas of high moisture content such as swimming pools, bathtubs or wet basements.
3. Ensure that no water droplets remain on the screen. Water can cause permanent discoloration.
4. Heat sources : Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).
5. For added protection during a lightning storm or for extended periods of non-use, unplug the power cord from the wall outlet and disconnect the antenna (if used). This will prevent damage to the product due to power line surges.
6. If an outside antenna is connected to the product, make sure the antenna is properly grounded so as to provide some protection against voltage surges. (Coaxial connector shielding from cable distribution system should be probably earthed.)



7. Stand : Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. Use only mounting hardware recommended by the manufacturer.



8. Use care when moving the product on a rolling cart. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.

9. Ventilation : The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings as insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surfaces since they can block ventilation openings. This product was not designed to operate in an enclosed environment. Don't place the product in an enclosed space such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.

10. The LCD panel used in this product is made of glass. Therefore, it can break if the product is dropped or struck.

11. During the LCD panel lifespan it is normal for a few pixels to become defective. Non-active pixels may appear on the screen as fixed points of red, blue or green. Refer pixel policy questions to the reseller for further clarification on acceptable loss.

12. An outside antenna system should not be located in the vicinity of overhead power lines or other electrical conduits. When installing an outside antenna, use extreme caution to prevent the antenna from coming into contact with said items, as contact with them may be fatal.

Image Retention

Please be aware that LCD Technology may experience a phenomenon known as Image Retention. When LCD panel is operated continuously for long hours, a trace of electric charge remains near the electrode inside LCD, and residual or "ghost" image of previous image may be observed. When a fixed image is displayed for a longer period, ionic impurities inside LCD are accumulated along the displayed image, and it is observed permanently. The best way to protect your monitor from Image retention is to turn

Power off, or set your PC, or System to operate a Screen Saver program when you are not using it. Image retention may not occur when a LCD panel is operated under normal conditions. Normal conditions are defined as continuously changing video patterns and periodically turning off the display for several hours. Also Warranty service will be limited based on instruction guide.

Recommendations

For preventing the fast transition to Image Retention, and for longer life usage of LCD, the following are recommended:

- Reducing the environmental temperature is effective for long life use. When Protection board (glass, acryl) is installed over the LCD surface, enclosed into the box / wall, or stack the monitor, please make sure the temperature around the display is within the parameters of the operating specifications.
- The monitor should not be left on 24 hours a day. Turn off the monitor for as long as the previous image was displayed.
- Display moving images and use a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use.
- Fixed image should not be displayed for long period, and changed to another images with short cycle
- Avoid using a combination of characters and background color with large difference in luminance.
- Avoid using Grey colors, which can cause Image retention easily.
- Avoid colors with big difference in luminance (Black & White, Grey). Use Bright colors with little difference in luminance

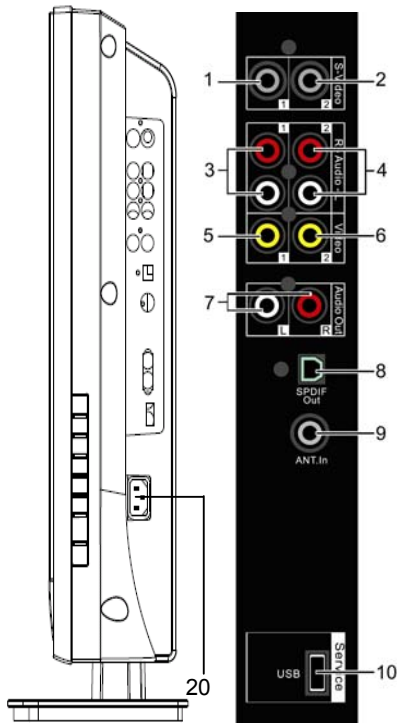
GENERAL INFORMATION

Feature

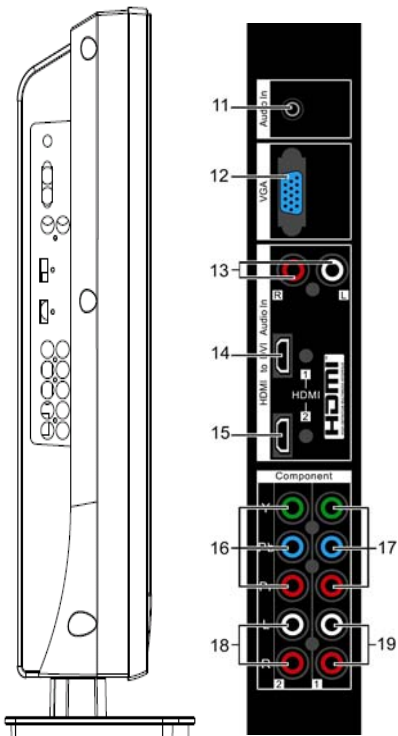
Your TV is designed with the latest technology and is a high-performance unit that includes the following special feature:

- Multiple sources input included RF IN, D-SUB, HDMIx2, Compositex2, S-Videox2, and Componentx2.
- Built-in combo tuner is able to receive ATSC, NTSC and Clear QAM cable signals.
- Built-in 10W dual channel speakers.
- Embedded video enhance and noise reduction features for the colorful and clearest picture possible.
- Provided multi-channel sound decoder for stereo and bilingual broadcasts.
- Automatic sleep timer control.
- Component video input for high definition TV programming (HDTV ready), resolution up to 720p, 1080i.
- RS232 connection for bi-directional command control and query
- Dynamic Setup Menu and Installer Menu features for specialized commercial applications

Side Panel Views

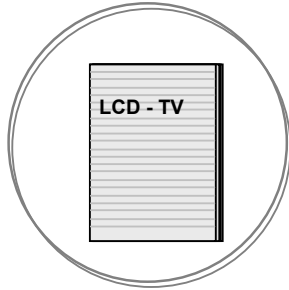


1. S-Video1 input
Connect to a legacy video device such as a VCR or video game system.
2. S-Video2 input
3. Video1 & S-Video1 Audio input
Connect an external audio source to this jack.
4. Video2 & S-Video2 Audio input
Connect an external audio source to this jack.
5. Video1 input
Connect the Composite video to a legacy video such as a VCR or video game system.
6. Video2 input
7. Audio output(R/L)
Connect this output to an external stereo audio amplifier, receiver or surround sound processor with R/L audio inputs.
8. SPDIF output(Optical)
Connect this output to an external stereo audio amplifier, receiver or surround sound processor with SPDIF optical input.
9. ANT.(RF input)
Connect the LCD TV to an over-the-air antenna or cable service to view NTSC and ATSC(HDTV) content.
10. USB
Factory service port. Plug USB converter here for control.



11. VGA Audio in
Connect to the audio out(Green) from a computer.
12. VGA
Using a 15-pin VGA cable, connect to a computer.
13. HDMI Audio input(R/L)
Connect the audio input if you using a DVI-to-HDMI converter.
14. HDMI1 input
Connect to an external video device such as HD digital cable/satellite receiver, HD STB, Media center PC, or DVD player.
15. HDMI2 input
16. YPbPr2 input
Connect an external video device with component output to this jack.
17. YPbPr1 input
18. YPbPr2 Audio2 input(L/R)
Connect an external audio source to this jack.
19. YPbPr1 Audio1 input(L/R)
20. AC power in
Connect power cable to AC inlet.

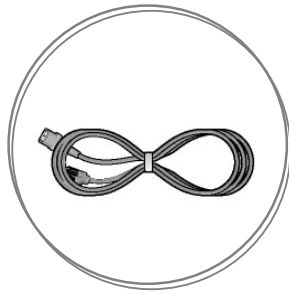
Accessories



User's Manual



Remote Control & Batteries



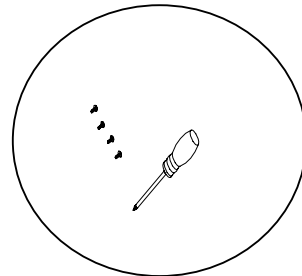
Power Cord



USB-RS232 Converter

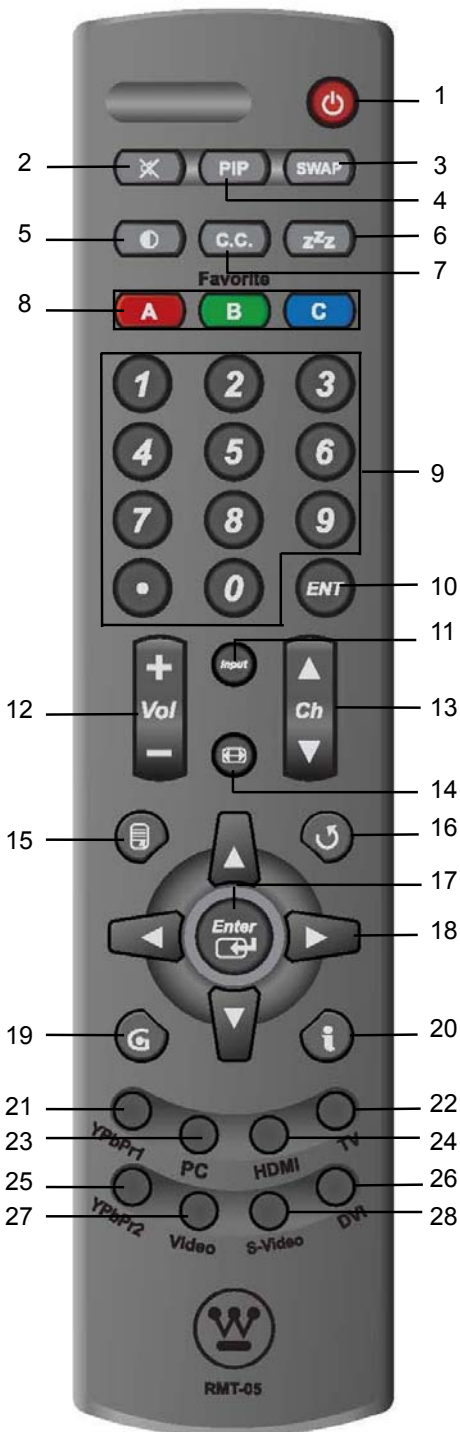


Warranty Card

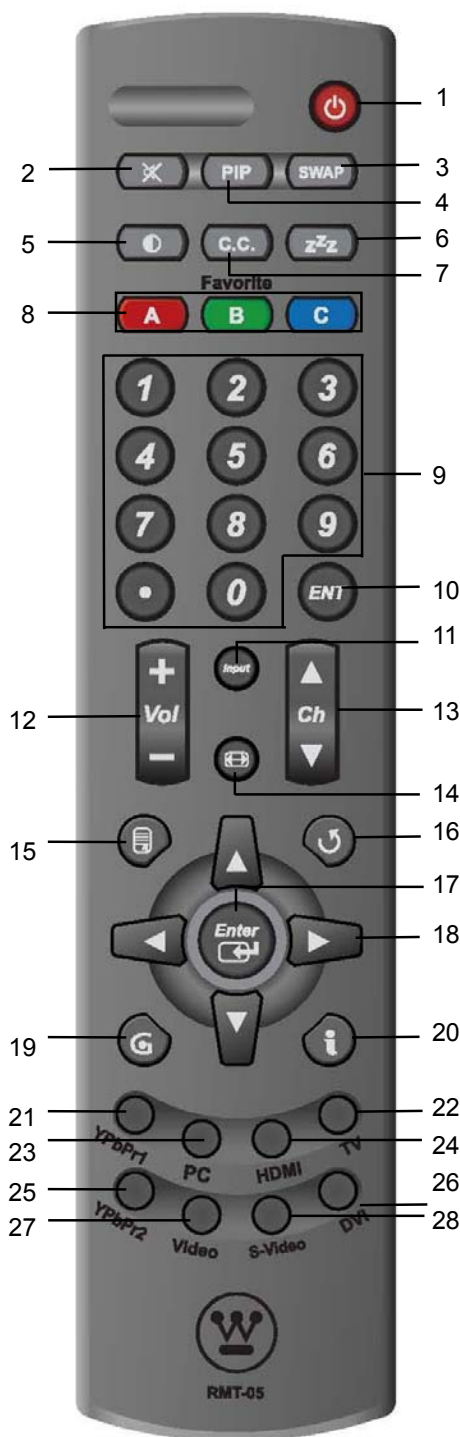


Screw driver & Screws x4 (base)
Not required for all models.

Remote Control



1	Power
	Switch TV power on/off.
2	Mute
	Turn the sound on/off.
3	Swap
	No support
4	PIP
	No support
5	Backlight
	No support
6	Sleep
	Press to select a preset time interval for automatic power down.
7	CC
	Press to enable or disabled closed caption.
8	Favorite
	Select, remove or add your favorite channel. Press Favorite(A, B, C)key to access favorite list. Use arrow keys and enter key to select, add or remove the channel from favorite list.
9	Channel number keys
	Select specific channel.
10	Enter
	Execute a command.
11	Input
	Select input source.
12	VOL +/-
	Volume Up/Down adjustment.
13	CH +/-
	TV channel Up/Down adjustment.
14	Screen Fit
	Select video display format "Standard" or "Fill".
15	Menu
	Display the User setup menu.
16	Last CH
	Switch to previous channel.
17	Enter
	Execute a command.
18	▲/▼/◀/▶
	OSD manual control(▲/▼:TV channel Up/Down; ◀/▶ :Volume Up/Down)



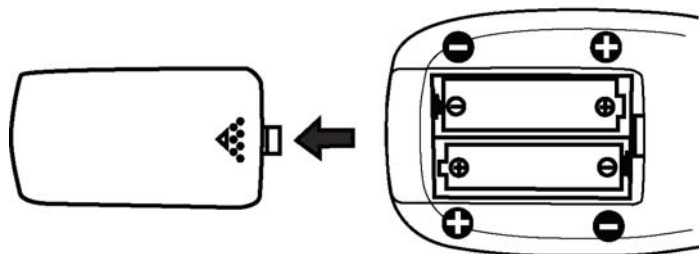
19	Guide	
	Switch TV program on/off.	
20	Info.	
	Display the source and channel information.	
21	YPbPr1	
	Select YPbPr1 or 2 source input.	
22	TV	
	Select TV(NTSC/ATSC) source input.	
23	PC	
	Select VGA source input.	
24	HDMI	
	Select HDMI 1 or 2source input.	
25	YPbPr2	
	Select YPbPr2 source input.	
26	DVI	
	Select DVI source input.	
27	Video	
	Select video source input.	
9	Channel Number Keys	
28	S-Video	
	Select S-Video 1 or 2 input.	
10	Enter	
	Execute a command.	
11	Input	
	Select input source.	
12	VOL +/-	
	Volume Up/Down adjustment.	
13	CH +/-	
	TV channel Up/Down adjustment.	
14	Aspect ratio	
	Select video display format "Stand" or "Fill".	
15	Menu	
	Display the On Screen Display(OSD).	
16	Last CH	
	Switch to previous channel.	
17	Enter	
	Execute a command.	
18	▲/▼/◀/▶	
	OSD manual control(▲/▼:TV channel Up/Down; ▶/▶:Volume Up/Down)	

INSTALLATION AND FUNCTION ADJUSTMENT

Installation

1. Insert Batteries into Remote Control

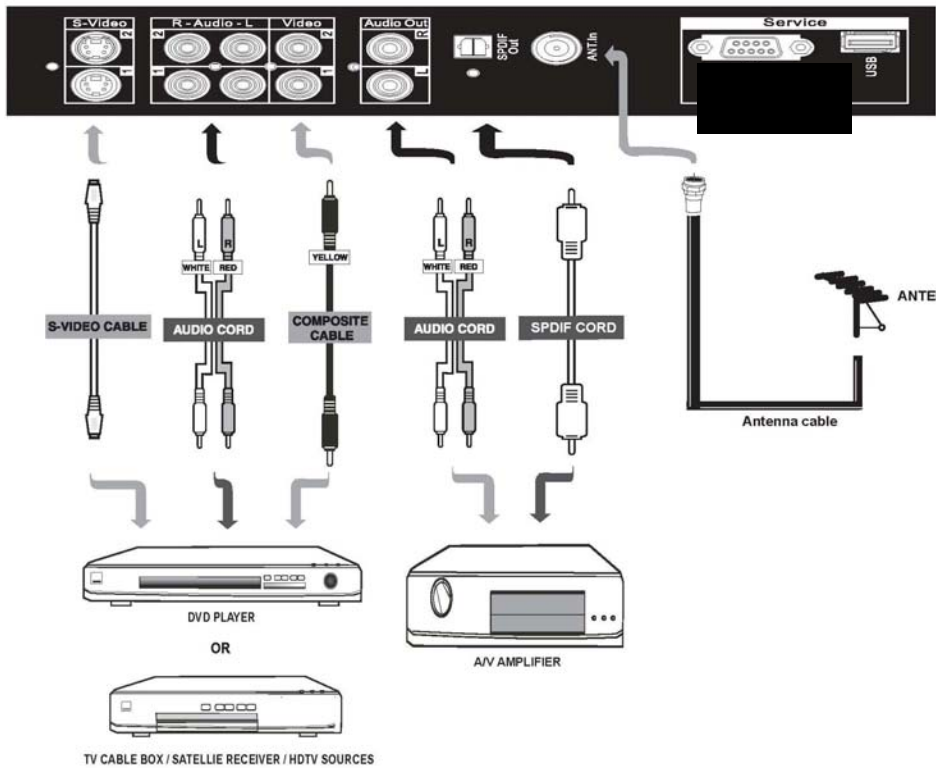
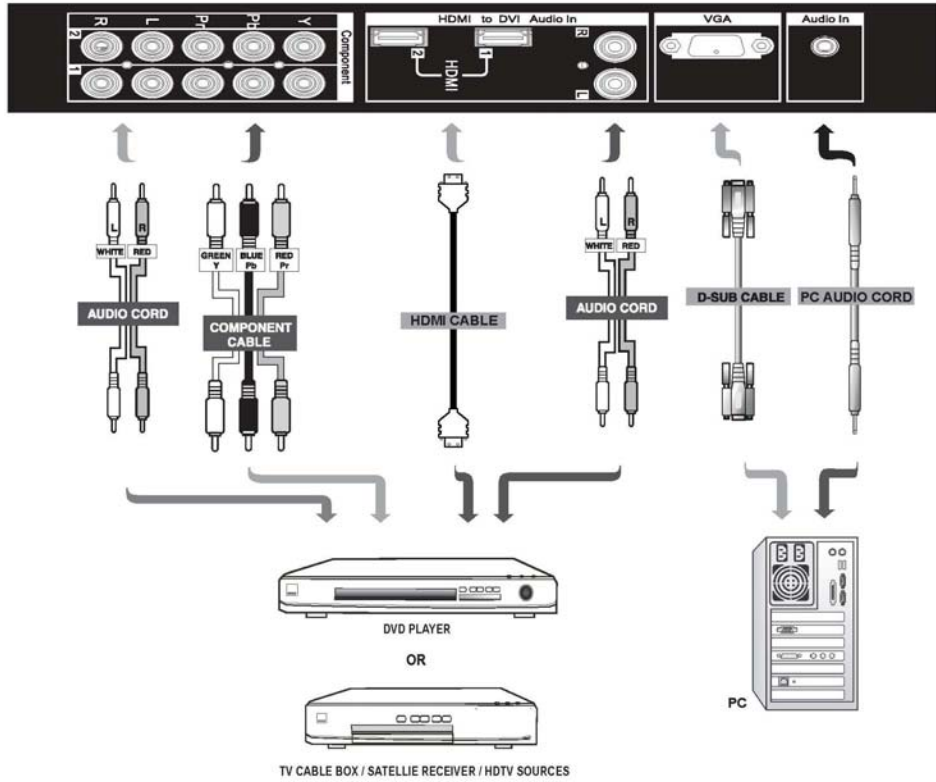
1. Remove the battery cover.
2. Insert two size AAA batteries corresponding to (+) and (-) marks on the battery compartment.



CAUTION

- Only use AAA batteries.
- Do not mix new and old batteries. This may result in cracking or leakage, which may pose a fire risk or lead to personal injury.
- Insert batteries according to (+) and (-) markings. Inserting the batteries incorrectly may result in cracking or leakage, which may pose a fire risk or lead to personal injury.
- Dispose of used batteries in accordance with local laws and regulations.
- Keep batteries away from children and pets.
- When the remote control will not be used for an extended period, remove the batteries.

2. Connections



3. Connect USB converter

Connect the USB converter device into the USB port of the TV for command control functionality.

4. Connect power cables

Connect the power cord to the LCD TV then to a proper AC outlet.

IMPORTANT: The power input voltage for TV is 120Vac, before beginning; make sure all devices are turned off.

5. Turn Power On

Press the power button on the right side of the LCD TV, or press the power (Red) button on the remote control.

6. Select input source for the LCD TV using the OSD menu or remote control direct select buttons

7. If connecting to Antenna, Cable or other RF source on TV inputs:

See page 19 to scan and edit available channels.

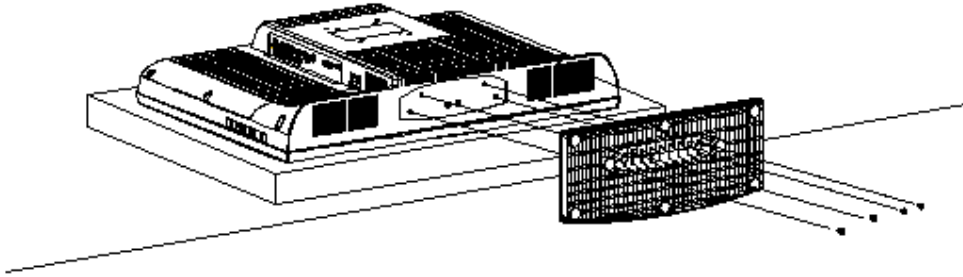
8. If connecting to a PC(VGA):

For the best picture quality, set the timing of your computer to 1366 x 768 at 60Hz.

Refer to the graphic card's user guide of your computer to set this timing.

How to remove the BASE

- a. Carefully place the TV face down on a soft clean surface.
- b. Remove the four screws underneath the BASE.
(See picture below)
- c. Pull out the BASE from the TV.

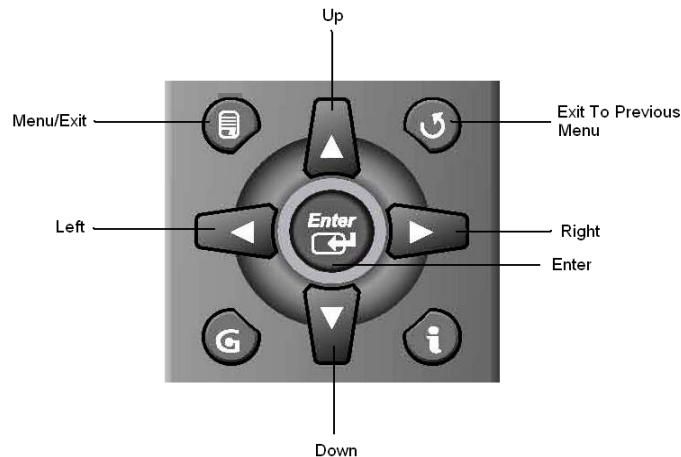


Function adjustment

There are four main Setup Menus; these are Settings, Channels, Locks and Guide. All the functions can be adjusted either by the remote control or by using the control keys on the LCD TV's right side.

Viewing OSD Menu

To display the main menu, press the Menu button on the right side of front control keys of the LCD TV or the MENU key on the remote control. Press arrow keys to select desired OSD menu and Enter key to select desired setting.



Video

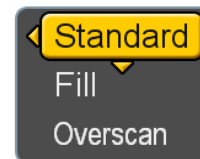
Video settings:

Press arrow keys to select or adjust your favorite picture settings. DONE button to close picture setting menu.



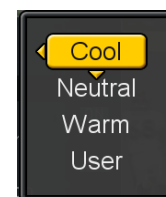
Aspect ratio:

Adjust your TV screen to handle different picture formats.
Standard/Fill/Overscan



Color Temp.:

Press arrow keys to select or adjust your preferred color temperature settings.
Cool/Neutral/Warm/User



3D Comb Filter:

Press arrow keys to select or adjust your preferred settings.

Off/Low/Medium/High



Temporal NR:

Press arrow keys to select or adjust your preferred settings.

Off/Low/Medium/High



Audio Setting

Bass, Treble & Balance

Use arrow keys to adjust the bass, treble and balance.



Optical Out

Select AC3/PCM



Analog Preference

Select an analog audio preference if TV signal is analog.

Mono/Stereo/SAP



Digital Preference

Select language preference for digital channels.

English/French/Spanish



Settings

Closed Caption

Basic Selection

Choose the type of closed caption settings to use for programs broadcast with basic caption.



Advanced Selection

Use arrow keys to adjust closed caption appearance such as font and size, each change can be previewed on bottom of menu.

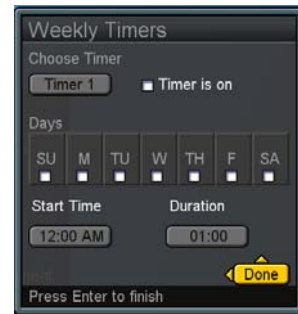


Caption Preference

Select Always Basic/Always Advanced/Automatic.

Timers

Select automatic power-on time.



Date & Time

Set Date & Time.



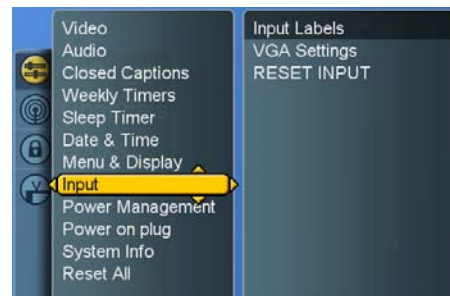
Menu Language

Use arrow keys to adjust Menu Language. Select OSD language.



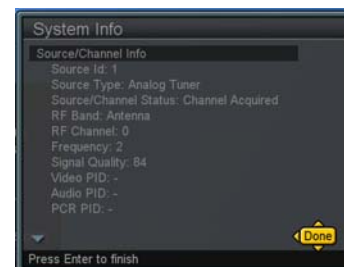
Input

Use arrow keys to adjust Input Source labels.



System Info

Display important system info, you may need the information when calling customer service or troubleshooting such as firmware version and micro version. Press DONE button or arrow key to previous menu.



Reset All

Reset all settings back to factory defaults. Reset will delete all settings you have made including channel list.



Power Management

TV power mode is set to Normal where there is a long boot-up time for initial boot, but a much faster Power On/Off time thereafter.

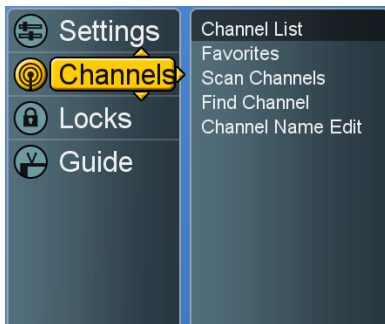
Power On Plug

Set TV power on memory when un-plug power cord and re-plug it (ON/automatic power-on memory; OFF/no automatic power-on).

Channels

Master Channel list

To display which channels have been scanned.



Scan Channels

To auto scan current available channels by using "Antenna or cable" scan.



Favorites

To display which channels have been set for Favorites.



Find Channel

Enter channel number via number key then press DONE button to find a channel. You may be required to enter four digits pin number if pin number was set before.



Channel Name Edit

Edit the channel name in channel list. Enter the edited channel, press “enter” button of remote control, shows “Change name” menu. You can compile the name you like, then press “Done” button, the edition is to be finished.



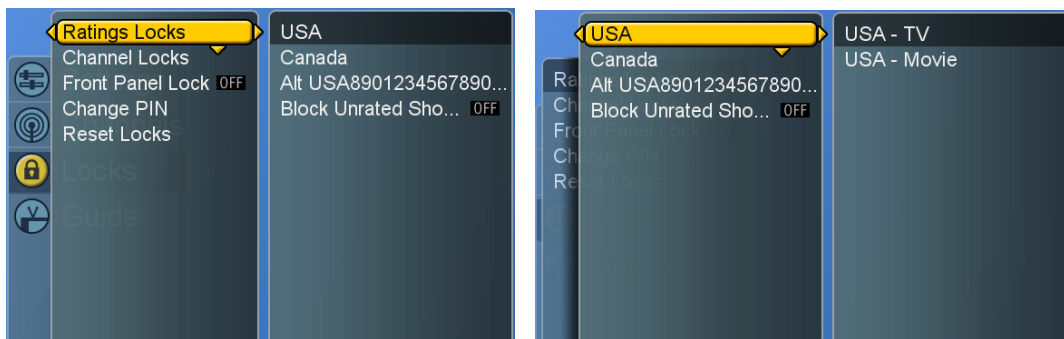
Locks

Lock feature prevents viewers from watching programs that are not age-appropriate, such as programs containing violence or adult language. The pin number is required when you want to enter Locks menu, just use the remote control to key in your pin number. The factory default pin number is 0000.



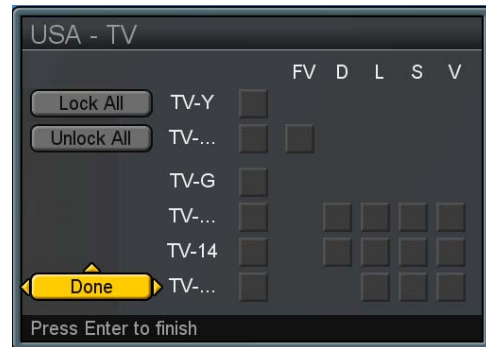
Rating Locks

Select which USA or Canada rating you want to set.



USA TV Rating

- TV Y All children
- TV Y7 For older children
- TV G General audience
- TV PG Parental guidance suggested
- TV 14 Parental strongly cautioned
- TV MA Mature audience only



USA Movie Rating

- G General audience
- PG Parental guidance suggested
- PG-13 Parental strongly cautioned
- R Restricted
- NC 17 No on 17 and under admitted
- X Adult audience only



Canada-French

- G General programming, suitable for all audience
- 8 ans+ Children eight years and older
- 13 ans+ Viewers 13 year and older
- 16 ans+ Viewers 16 year and older
- 18 ans+ Adult programming



Canada-English

- C Children
- C8+ Children eight years and older
- G General programming, suitable for all audience
- PG Parental guidance
- 14+ Viewers 14 year and older
- 18+ Adult programming



Channel Locks

To set which channels are locked, use arrow keys to lock one or more channels. Select button on menu to lock and unlock channels.



Guide

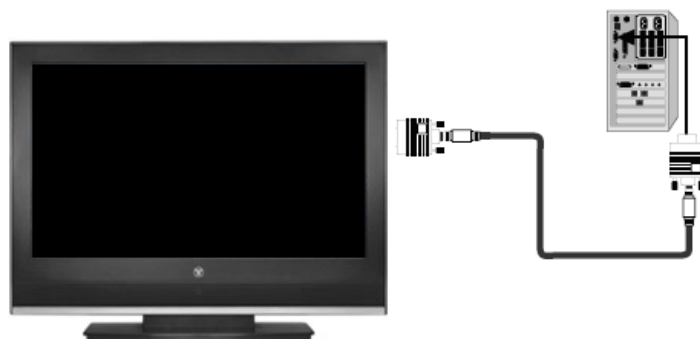
Show program information for the current channel, such as signal strength, resolution, channel number, V-chip, CC, and Program Title.



INSTALLER FUNCTIONS

RS232 Connection

The Westinghouse commercial display can be controlled by a personal computer with an RS-232C port. Plug the USB-RS232 converter into the USB port of the TV. This will enable RS232 communications to and from the TV. Connect the RS-232 input jack to an external control device. Connect the serial port of the control device to the RS-232 jack on the monitor connector jack (9 pins). **Please see Westinghouse Display Control Protocol document for the full list of commands.**



Dual Menu Mode




There are separate menus for normal users and professional installers. These menus are designed to give administrative rights to the installer so that they can choose what menus that the normal user will be able to access. This feature is not available on all commercial models. The menu is partitioned into two categories of menu types:

1. Standard Menu – the menu that the normal user will be able to see under normal TV usage.
2. Installer Menu – consists of the Installer features and the ability to remove standard menu functions so that they do not appear in the standard setup menu.

To access the Installer Menu:

- a. Use the remote control to enter Installer mode menu by hold down



(Enter) for 7 seconds, then press    (9 3 3).

Dynamic Setup Menu

The user is able to disable Standard Setup Menu features. When inside the Installer Setup Menu, the available options for each feature will be changed to two possible options: “Show” or “Hide”. By changing the option to “Hide”, that specific menu item will not appear anymore in the Standard Setup Menu. When every feature is set to “Hide”, the parent menu of that list will disappear.

Installer Features

The features in this section are for unique commercial applications and will be listed under the Install menu of the display. See below for a more detailed description of the Installer Features.

Front Panel Lockout

This feature disables all front panel control buttons. User can also enable and disable the function by holding down the front panel keys in the following combination: **CH+**, **CH-**, **VOL-** for 7 seconds.

Remote Lockout

This feature will block the IR receiver from accepting IR commands from the remote control except for the command to access installer menu. To disable this function, use the Installer Menu password to re-enter the menu.

Setup Menu Lockout

This feature will block access to the Setup menu but still allow access to the Installer Menu. To disable this function, use the Installer Menu password to re-enter the menu and set the feature to OFF.

Channel Lockout

Channel lockout will allow the installer to block users from accessing specific channels.

Start Input Source

Forces display to specified source input at each power up.

Start Channel

Forces display to specified channel at each power up. Setting this value to 0.0 or OFF (zero) will turn this feature OFF which means the TV will turn onto the last channel it was on prior to turning off the display.

Start Volume

Forces display to specified volume level on power up. Setting this value to OFF will set the TV to turn onto the last volume setting prior to turning off the display.

Volume Max

Feature will limit the highest volume level accessible by normal users.

Volume Min

Feature will limit the lowest volume level accessible by normal users.

Power On Plug

Forces the display to a specific power state when power is restored the unit.

1. ON – Forces the display on when power is restored
2. OFF – Forces the display into standby mode when power is restored. Panel backlight is off while the system is still ON.

Set ID

This feature will allow the installer to define a specific ID to a display so when the installer sends commands to every display, only the display with that ID will respond to the command. If you wish to control all units connected with serial cables regardless of the IDs, set the ID to "0".

TROUBLESHOOTING

There is no picture or sound.



- Make sure the AC adapter is connected.
- Verify that there is a valid source signal.
- Make sure the correct input mode is selected.

There is no picture from AV.



- Make sure the BRIGHTNESS is properly adjusted.
- The florescent lamp may have reached the end of its life. Contact an authorized service center.
- Make sure the video source is plugged into the composite video-in port.

There is no sound.



- Make sure the volume is not set to minimum.
- Make sure the sound is not muted

There is no picture or sound, just noise.



- The source signal may be weak.
- Your provider may be experiencing difficulties.
- Check your input connections.

Picture is not clear.



- The source signal may be weak.
- The provider may be experiencing difficulties.
- Check input connections.

Picture is light or improperly tinted.



- Check the Hue, Saturation and Color adjustments.
- Reset the TV to the factory default settings.

The picture is too dark.



- Select a different Video Preset mode.
- Check the Brightness of Picture Settings.
- The fluorescent lamp may have reached the end of its life.
Contact an authorized service center.

Remote control does not work.



- Install new batteries.
- Make sure the remote sensor window isn't blocked.
- Make sure the system is in the right mode (TV / VCR / CBL / AUX)

There are stripes on the screen or colors fade.



- There may be interference from other appliances.
- There may be interference between the video source cable and the power cable.
- Make sure the power and video cables are not touching.
Check the Hue, Saturation and Color adjustments

The picture is not sharp.



- The signal source may be weak.
- The provider may be experiencing difficulties.
- Check input connections.
- Check the Sharpness of Picture Settings.

The picture moves.



- The source signal may be weak.
- The provider may be experiencing difficulties.
- Check input connections.

The picture is doubled or tripled.



- The source signal may be weak.
- Check input connections.

The picture is spotted.



- There may be interference from other appliances nearby or around the LCD TV.

PC INPUT PRESET TIMMING TABLE

PC / Timing Table

No.	Mode Name Resolution	H.Freq. V.Fre.	H. Polarity V. Polarity	Pixel CLK (MHz)	Hor. Total CLK No.	Hor. Display CLK No.	Hor. Bck Porch CLK No.	Hor. Syth CLK No.	Vert. Total Line No.	Vert. Display Line No.	Vert. Bak Porch Line No.	Vert. Syc Width Line No.
1	VGA 70Hz 720*400	31.469 70.087	- +	28.322	900	720	54	108	449	400	35	2
2	VGA 60Hz 640*480	31.469 59.941	- -	25.175	800	640	48	96	525	480	33	2
3	VGA 67Hz 640*480	35.00 66.667	- -	30.24	864	640	96	64	525	480	39	3
4	VGA 72Hz 640*480	37.861 72.809	- -	31.5	832	640	120	40	520	480	20	3
5	VGA 75Hz 640*480	37.5 75.0	- -	31.5	840	640	120	64	500	480	16	3
6	SVGA 56Hz 800*600	35.156 56.25	+ +	36.0	1024	800	128	72	625	600	22	2
7	SVGA 60Hz 800*600	37.879 60.317	+ +	40.0	1056	800	88	128	628	600	23	4
8	SVGA 72Hz 800*600	48.077 72.188	+ +	50.0	1040	800	64	120	666	600	23	6
9	SVGA 75Hz 800*600	46.875 75.0	+ +	49.5	1056	800	160	80	625	600	21	3
10	XGA 60Hz 1024*768	48.363 60.004	- -	65.0	1344	1024	160	136	806	768	29	6
11	XGA 70Hz 1024*768	56.476 70.069	- -	75.0	1328	1024	144	136	806	768	29	6
12	XGA 75Hz 1024*768	60.023 75.029	+ +	78.75	1312	1024	176	96	800	768	28	3
13	60Hz 1280*720	44.76 60.0	- +	74.481	1664	1280	192	136	746	720	22	3
14	60Hz 1280*800	49.68 60.0	- +	83.462	1680	1280	200	136	828	800	24	3
15	60Hz 1360*768	47.368 59.959	+ -	72.0	1520	1360	80	32	790	768	15	5

* The resolution and the frequencies are displayed on the screen may not exactly same as this list.

PRODUCT SPECIFICATION

ITEMS		26" Commercial LCD TV	
Panel	Screen Size	26" LCD Panel	
	Aspect Ratio	16 : 9	
	Resolution	1366 x 768	
	Display colors	16.2M colors	
	Viewing Angle (CR>10)	170° Hor. / 170° Ver. (typ.)	
TV Function	Broadcasting System	Analog : NTSC M / N	Digital : ATSC/Clear QAM
	Receiving Channel	Analog : PLL181Ch., CATV 125Ch	Digital : 54M Hz~864M Hz
	Sound System	Analog : Multi-channel TV Sound	Digital : Multi-Track Sound
	Resolution	Analog : 480i	Digital : 1080i, 720p,480p, 480i
	Data Broadcasting	Close Caption , V - Chip	
Video Input	Composite Signal	CVBS	x 2
	Y, C Signal	S-Video	x 2
	Component Signal	Y Pb Pr	x 2 (720P / 1080i , HDTV ready)
PC Input	HDMI Connection	HDMI	x 2
	VGA Connection	D-Sub 15 pin	
	Scanning Frequency	$f_H = 31.5 \sim 60\text{KHz}$ / $f_V = 56 \sim 75\text{Hz}$	
Audio Input	Audio 1	Composite	
		S - Video	
	Audio 2	Component	
	Audio 3	HDMI to DVI & PC jack in	
Audio Output	Speaker (build-in)	10W + 10W (Average)	
	RCA Out	Left / Right	
	Digital Audio Out	SPDIF (DTV) .	
Feature	Function Keys	Power , Input , Menu , Up/Down(Channel) , +/- (Volume)	
	Video Performance	3D Comb-filter , 3D De-interlace , Aspect Ratio Control (ARC) , Auto Picture Control, Noise Reduction	
	Other Control	Sleep Timer, Timer On, Timer Off	
Power	Power Supply	AC 100V ~ 240V , 50 / 60Hz	
	Power Consumption	< 200W Typical (Blue LED)	
Dimension	W x H x D	655 mm * 505 mm * 175 mm	
Weight (net)	Without Accessories	11 Kg	

ITEMS		32" Commercial LCD TV	
Panel	Screen Size	32" LCD Panel	
	Aspect Ratio	16 : 9	
	Resolution	1366 x 768	
	Display colors	16.2M colors	
	Viewing Angle (CR>10)	170° Hor. / 170° Ver. (typ.)	
TV Function	Broadcasting System	Analog : NTSC M / N	Digital : ATSC/Clear QAM
	Receiving Channel	Analog : PLL181Ch., CATV 125Ch	Digital : 54M Hz~864M Hz
	Sound System	Analog : Multi-channel TV Sound	Digital : Multi-Track Sound
	Resolution	Analog : 480i	Digital : 1080i, 720p,480p, 480i
	Data Broadcasting	Close Caption , V - Chip	
Video Input	Composite Signal	CVBS	x 2
	Y, C Signal	S-Video	x 2
	Component Signal	Y Pb Pr	x 2 (720P / 1080i , HDTV ready)
PC Input	HDMI Connection	HDMI	x 2
	VGA Connection	D-Sub 15 pin	
	Scanning Frequency	$f_H = 31.5 \sim 60\text{KHz}$ / $f_V = 56 \sim 75\text{Hz}$	
Audio Input	Audio 1	Composite	
		S - Video	
	Audio 2	Component	
	Audio 3	HDMI to DVI & PC jack in	
Audio Output	Speaker (build-in)	10W + 10W (Average)	
	RCA Out	Left / Right	
	Digital Audio Out	SPDIF (DTV) .	
Feature	Function Keys	Power , Input , Menu , Up/Down(Channel) , +/- (Volume)	
	Video Performance	3D Comb-filter , 3D De-interlace , Aspect Ratio Control (ARC) , Auto Picture Control, Noise Reduction	
	Other Control	Sleep Timer, Timer On, Timer Off	
Power	Power Supply	AC 100V ~ 240V , 50 / 60Hz	
	Power Consumption	< 200W Typical (Blue LED)	
Dimension	W x H x D	798 mm * 619 mm * 226 mm	
Weight (net)	Without Accessories	14.5 Kg	



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