



Owner's Manual



Model 4660HD

Revision M46-006-4660HD-111005

Important Safety Instructions

Dear SunBriteTV Customer:

Congratulations on the ownership of Model 4660HD all-weather outdoor LCD TV, and welcome to the family of satisfied SunBrite customers. You are in great company with thousands of homeowners and esteemed commercial facilities such as Yankee Stadium, Fenway Park, Disney World, and Sea World who have trusted us to deliver superior performance, lasting durability and the enjoyment of superb television viewing in the great outdoors.

With a traditional sense of customer satisfaction and attention to detail, our products are designed to withstand the rigors of the outdoor environment and provide our customers with many years of optimum viewing.

To ensure safety and long product life, please read the Important Safety Instructions and complete manual carefully before using the TV. If you have any questions about the installation procedures, please contact our qualified SunBriteTV Customer Support Team at 886.357.8688.

IMPORTANT SAFETY INSTRUCTIONS

- 1) Read the entire owner's manual, and keep the manual for future reference.
- 2) Heed all warnings and follow all instructions.
- 3) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 4) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 5) 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 the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 6) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and where the cord exits from the apparatus.
- 7) Only use attachments/accessories specified by the manufacturer.
- 8) 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.
- 9) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 10) 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.



where the cord exits

WARNING: TV must be plugged into a GFCI receptacle. TV and GFCI RECEPTACLE MUST BE INSTALLED NO LESS THAN 5 FEET FROM ANY BODY OF WATER (SUCH AS POOL OR SPA). Check local building codes for proper installation guidelines.

WARNING: This unit is equipped with a 3-pin grounded plug. The plug will only fit into a grounded power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician. Do not alter this plug, as this will defeat the safety feature.

WARNING: The mains plug is used as the disconnect device and shall remain readily operable.

WARNING: This product shall be connected to a mains socket outlet with a protective earthing connection.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

WARNING: FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

NOTE TO CATV SYSTEM INSTALLER: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code 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: To reduce the risk of fire or electric shock, do not expose the inside of this apparatus to rain or moisture.

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

This product utilizes tin-lead solder, and fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eia.org.

Disclaimer: While SunBriteTV LLC intends to make this manual accurate and complete, we do not make claims that the information contained within covers all details, conditions or variations, nor does it provide for every possible contingency in connection with the installation or use of this product. And, the information contained in this manual may change without notice.

Important Safety Instructions

Cleaning Instructions: Use a soft cloth with mild detergent in warm water to clean the SunBriteTV screen. Remove any dirt and salt deposits from the unit, being careful to rinse the cloth frequently to avoid scratching the screen surface. Avoid using harsh chemicals, ammonia, abrasives, or solvents when cleaning any surface on the screen. When the TV is not in use, it is important to keep it covered with the SunBriteTV fitted Outdoor Dust Cover. Use a soft brush or towel to remove snow and ice from the TV. In areas where dust or salt air is prevalent, it is recommended that the fiber filter be cleaned regularly (see instructions on Page 42).

Attachments: Do not use attachments not specifically recommended by the manufacturer. Use of improper attachments can result in accidents.

Power Source: SunBriteTV must operate on a power source indicated on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company. When using the TV outdoors, you must use a GFI-protected AC outlet with "in-use" waterproof cover.

Installation: Do not place the product on an unstable cart, stand, tripod, table, or anywhere the unit is not permanently installed. Placing the product on an unstable place can cause the product to fall, resulting in potential serious personal injuries, as well as damage to the product.

Precautions when Transporting the TV: Carrying the television requires at least two people.

WARNING: DO NOT IMMERSE TELEVISION IN WATER OR OTHER LIQUID. DO NOT INSTALL TV WITHIN 5 FEET OF BODY OF WATER (SUCH AS SPA OR POOL).

CAUTION
RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK), FROM THE TELEVISION OR EXTERNAL POWER PACK, EXCEPT WHERE SPECIFIED IN THE MANUAL. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrow-head symbol, within an equilateral triangle, 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.

The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FCC Statement

This equipment complies 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 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 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:

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

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.



IMPORTANT SAFETY PRECAUTIONS

■ If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code 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.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE

NEC—NATIONAL ELECTRICAL CODE

■ For added protection for this television equipment 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. This will prevent damage to the equipment due to lightning and power-line surges.

■ 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.

Important Safety Instructions

Ventilation: Adequate ventilation must be maintained to ensure reliable and continued operation and to protect the television from overheating. Do not block ventilation slots and openings with objects, or install the television in a place where ventilation may be hindered. **SunBriteTV is not designed for built-in installation.** Do not place the product in an enclosed place such as bookcase or rack.

Power cord protection: The power cord must be routed properly to prevent people from stepping on it, or objects from resting on it. Check the cords at the plugs and product.

Power source: This product must operate on a power source specified on the specification label. If you are unsure of the type of power supply used in your home, consult your dealer or local power company.

Do not let metal pieces or objects of any kind fall into the television from ventilation holes. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts.

Do not mount SunBriteTV near a motor or transformer where strong magnetism is generated. Images on the television will become distorted and the color irregular.

Do not mount SunBriteTV near heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).

Do not submerge SunBriteTV in water: The SunBriteTV will resist water exposure from normal rain, sprinklers, garden hoses, etc.; However, it is not designed to be submerged in water.

Do not pressure-wash SunBriteTV: SunBriteTV will resist water exposure from normal rain, sprinklers, garden hoses, etc.; However, it is not designed to withstand pressure washers, high-pressure water jets, or hurricane-type weather.

Do not service SunBriteTV yourself: Removal of the television screen cover may expose you to high voltage or other dangerous risks. Refer all servicing to a qualified service professional. Warranty will not be honored if you service the unit yourself.

Repair: If any of the following conditions occurs, unplug the power cord, and call a qualified service professional to perform repairs:

When power cord or plug is damaged.

When objects have fallen into the product.

If unit was submerged in water or pressure-washed.

When product does not operate properly as described in the operating instructions. Do not touch the controls other than as described in the operating instructions. Improper adjustments of controls not described in the instructions can cause damage, which can require extensive repair work by a qualified technician.

When the product has been dropped or damaged.

When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.

Replacement parts: In case the product needs replacement parts, make sure that the service person uses replacement parts provided by SunBriteTV. Use of unauthorized parts can result in fire, electric shock and/or other danger.

Safety checks: Upon completion of service or repair work, ask the service technician to perform safety checks to ensure that the product is in proper operating condition.

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Supplied Accessories

Unpacking

After unpacking the SunBriteTV television, please make sure that the following items are included in the carton and that they are in good condition. If items are damaged or missing, contact your dealer immediately.

SunBriteTV LCD Television Model 4660HD

Remote Control with Batteries

Operator's Manual

Outdoor Dust Cover



Model 4660HD



Outdoor Dust Cover



Operator's
Manual



Water-Resistant
Wireless Remote
Control

Choose a Location for the TV

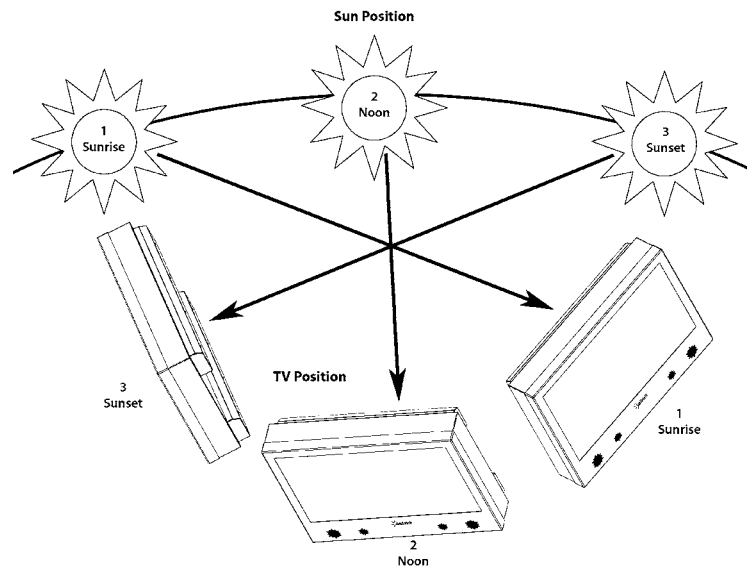
Important: The TV must be installed at least 5 feet from pool, spa, or other body of water.

The TV should be installed so the screen is not facing direct sunlight, or can be easily turned away from direct sunlight.

Ideal placement is in an area where the TV is shaded by trees, landscape and/or structures, or under a patio cover or gazebo.

If the sun shines directly on the screen for long periods of time, dark areas may develop on the screen. This is a normal reaction for the LCD panel, and will not cause damage to the screen. Either turn the screen away from the sun, or apply shade to the TV, and the dark areas will quickly disappear.

Important! To protect the life of the LCD screen, keep the dust cover on the TV when the TV is not in use.



TV Installation – Rear Panel Internal Connect Source

Rear Panel Connections

WARNING: Do not connect the power source before making connections.

Internal Connect Source

The Internal Connect Source allows you to easily connect to the Audio, Video, S-Video, SVGA, HDMI, Audio Out, RF, RS232, and 12 VDC connectors, and the IR emitter window. The Internal Connect Source is inside the Cable Cover located on the back of the unit (Figure 1).

1. Unscrew the three gray Thumb Screws (Figure 1), and pull the cover towards you.
2. Route the cables to the proper inputs, and place the cable cords over the Rubber Sealing Gasket (Figure 2).

Note: There is an Indentation on the Rubber Sealing Gasket (on the bottom portion of the right and left sides). Make sure cable cords **are not placed on the Indentation**.

3. Close the cover (Figure 3).
4. Press firmly on the cover, and secure the Thumb Screws tightly (Figure 4).

Figure 1

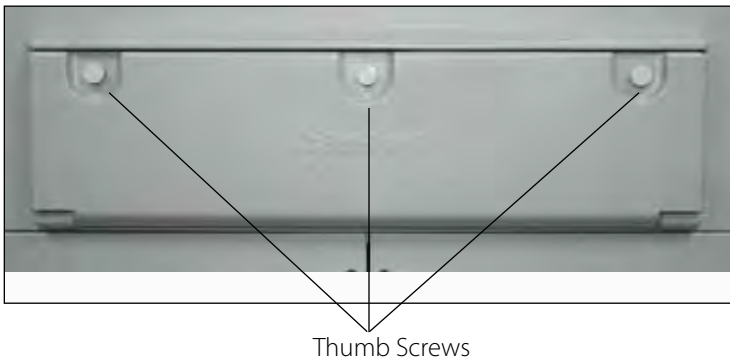


Figure 2
Cables are to be placed over the Rubber Sealing Gasket

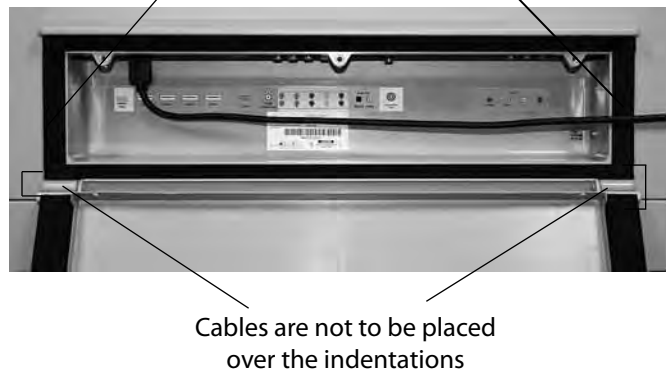


Figure 3

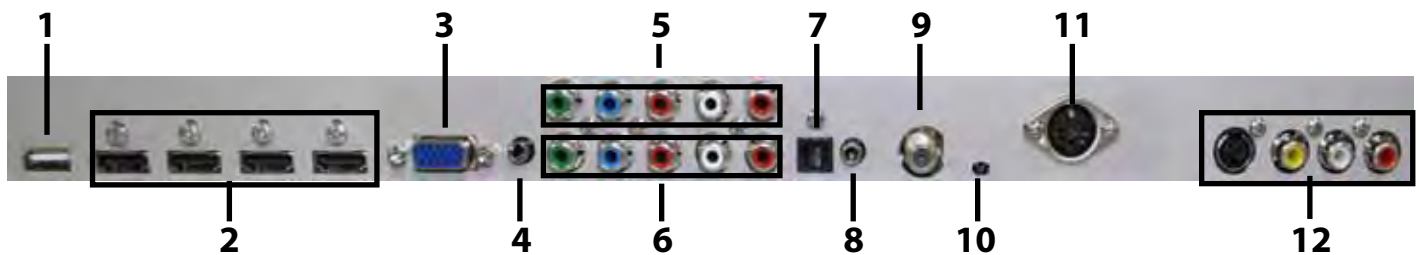


Figure 4



Press firmly on the cover, and secure the Thumb Screws tightly.

TV Installation – Rear Panel Connections






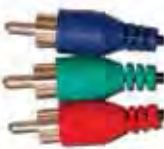





- 1. USB:** This port is used for factory firmware upgrades.
- 2. HDMI (4):** HDMI connects to devices that use HDMI cable, such as Blue-ray or HD DVD player, or HD cable/satellite set-top box. This connection port receives pure digital audio and high definition signal through one single cable. This port also can accept a HDCP video device for video.
- 3. VGA:** This connection port connects to a PC for video using VGA cable. Be sure to connect your audio cable to the VGA Stereo input if you want sound out of VGA video source.
- 4. VGA Stereo Input:** This connection port is for people who want to provide audio to the TV when using a PC or DVI video device. The sources use 3.5 mini-jack audio cable.
- 5. Component 1 (YPbPr1)** - This connection port is for DVD players or satellite/cable set-top boxes that use component cables. From left to right, connect green, blue and red for video, and then connect white for left channel audio and red for right channel audio.
- 6. Component 2 (YPbPr2)** - This connection port is for DVD players or satellite/cable set-top boxes that use component cables. From left to right, connect green, blue and red for video, and then connect white for left channel audio and red for right channel audio.
- 7. Audio Out-TOSLink:** This connection port is used for sending out digital audio signals to digital surround sound receivers. The black connector cover needs to be pulled out and the port sends out either bit-stream or PCM digital sound signal to a home theater receiver with digital input.
- 8. Analog Audio Out:** This connection is used for connecting a headphone or amplifier to the TV
- 9. NTSC/ATSC (TV):** This connection is for digital or analog cable without the cable box or over-the-airwave antennas. The tuner is a hybrid tuner that tunes to both analog and digital channels. This connection uses coaxial RF cable. For over the airwave digital stations please check <http://www.antennaweb.org>.
- 10. IR Window:** The Internal Infrared (IR) Control Window allows the TV to be controlled from a remote system using IR commands. (*To install IR Emitter, see Page 42.*)
- 11. Speaker:** This connection is to be used with SunBriteTV Model 4660HD speaker module only.
- 12. AV1 (CVBS or S-Video):** Connects to devices that use composite or s-video cables such as VCR or camcorder or video game consoles. Connect the video portion with either the yellow connector or the S-Video connector. Do NOT connect both video connectors. Use the SOURCE button to select AV1 (CVBS) on your MAIN SOURCE if you are using the yellow plug for video, use the SOURCE button to select AV1 (S-Video) on your MAIN Source if you are using the S-Video connector to view this connection.




TV Installation – Rear Panel Connections

Connection Descriptions:

Port Quality & Name	Port Picture	Cable Used & Resolution	Devices that use this Port
Best HDMI 1, 2, 3 (Digital HD Capable)		HDMI 1080p, 1080i, 720p, 480p, 480i	Blu-ray DVD Player, HD-DVD Player, HD Cable or HD Satellite Set-top Box, HDCP devices, PC
Best/Fair ATSC/NTSC (Digital HD Capable)		Coaxial RF 1080i, 720p, 480p, 480i	Antenna or Digital Cable with out the cable box
Best VGA (HD Capable)		VGA 1920x1080 or lower	PC or MAC with VGA connection
Better COMPONENT 1 & 2 (HD Capable)		YPBPR 1080p, 1080i, 720p, 480p, 480i	DVD Player, Video Game Console, High Definition Cable or Satellite Set-top Box
Good AV 1, 2 (Non-HD)		S-Video 480i only	Non High Definition Cable or Satellite Set-top Box, VCR, S-Video VCR
Fair AV 1 & 2 (Non-HD)		Composite 480i only	Non High Definition Cable or Satellite Set-top Box, VCR, Old Game Console, Camcorder

Cable Descriptions:

Cable Name	Cable Picture
HDMI	
Coaxial RF	
VGA	
YPBPR	 Blue Green Red
S-Video	
Composite	 Yellow
3.5 mm Mini-jack	 Green
RCA Audio	 White Red
TOS Link	

Port Quality, Type & Name	Port Picture	Cable Used & Resolution	Devices that use this Port
Good VGA STEREO INPUT (Audio)		3.5mm mini-jack	HDCP devices, PC, MAC
Best TOS LINK (Digital Audio)		TOS Link	Receiver with Digital Surround Sound Decoding
Not Available		Service Port	This port is for SBTV technicians only.

TV Installation – Rear Panel Connections

Switching Sources for Ports:

Model 4660HD offers several options when connecting your devices to the TV. The chart below will help you understand which source you switch to for each of the ports.

Port Picture	Cable Used	Source Name to Switch to
	HDMI or HDMI-DVI	HDMI 1 or HDMI 2
	COAXIAL RF	TV (CABLE / AIR)
	VGA	VGA
	YPBPR	YPBPR 1 or YPBPR 2
	S-VIDEO	AV 1 (S-VIDEO) or AV 2 (S-VIDEO)
	COMPOSITE	AV 1 (CBVS) or AV 2 (CVBS)

CONNECTING TO AN ANTENNA



Connecting to Digital Cable without Cable Box or Antenna:

Note: For ease of install, SunBriteTV has included a Push-on Coaxial Adapter.



1. Make sure the power to the TV is turned off.
- 2-a. Connect the Coaxial RF cable from your antenna or digital cable to the Push-on Coaxial Adapter that was shipped with the TV.
- 2-b. Slip on the Push-on Coaxial Adapter and Coax onto the NTSC/ATSC port on the back of the TV.
3. Turn on the TV.
4. Select TV Air/Cable in the Menu/TV /Tuner mode.
5. Use the On-Screen Display to scan for channels (Setup/ TV/Channel Scan)

Please Note :

1. Not all broadcasts are in High Definition (HD). Please refer to your local broadcasting stations for more information.
2. The TV's tuner is designed for HDTV therefore requires a stronger signal than normal TVs. If you cannot achieve that signal level with your antenna or cable, your 4660HD might lose picture or sound.

TV Installation – Rear Panel Connections

CONNECTING TO A DVD PLAYER



1. Make sure the power of the TV and your DVD player is turned off.
2. Connect a HDMI cable to the HDMI port of your DVD player and the other end to the HDMI port off the back of your TV.
3. Turn on the TV and your DVD player.
4. Use the remote control's source button or the source button on the TV to switch to HDMI.

Please Note :

Refer to the DVD player's manual to make sure the DVD player is configured to output correctly to the TV.

Please Note :

1. Refer to the DVD player's manual to make sure the DVD player is configured to output correctly to the TV.
2. This TV does not decode Bit stream digital audio, so make sure the DVD is setup for PCM digital audio through HDMI.
3. If HDMI 1 is occupied, use HDMI 2 as your connection port.



1. Make sure the power of TV and your DVD player is turned off.
2. With a Component Cable, connect the green connector to the DVD player and Component 1's green connector port on the TV.
3. Connect the blue color connector to your DVD player and Component 1's blue connector port on the TV.
4. Connect the red color connector to both your DVD player and Component 1's red connector port on the TV.
5. With an RCA Audio Cable, connect the white color connector to both your DVD player and Component 1's white connector port on the TV.
6. Connect the red color connector to both your DVD player and Component 1's red connector port on the TV.
7. Turn on the TV and your DVD player.
8. Use the remote control's source button or the source button on the TV to switch to YPbPr.

Please Note :

1. If Component 1 is already occupied, please use Component 2 as your connection port and switch to source YPbPr2.
2. Refer to the DVD player's manual to make sure the DVD player is configured to output correctly to the TV.
4. This TV will turn off automatically if there's no signal present for more than 15 minutes.

TV Installation – Rear Panel Connections

CONNECTING TO A DVD PLAYER (Continued)

Connecting with S-Video (Fair)



1. Make sure the power of the TV and your DVD player is turned off.
2. Obtain an S-Video Cable. Connect the S-Video connector to both your DVD player and Composite's S-Video connector port off the back of your MODEL 4660HD.
3. Obtain a RCA Audio Cable. Connect the white color connector to both your DVD player and Composite's white connector port off the back of your MODEL 4660HD.
4. Connect the red color connector to both your DVD player and Composite's red connector port off the back of your TV.
5. Turn on the TV and your DVD player.
6. Use the remote control's source button or the source button on the right side of the TV to switch to AV1 (S-Video).

Please note:

1. If AV 1 is already occupied, use AV2, as your connection port, and switch source to AV 2 (S-Video)
2. Reference the DVD player's manual to make sure the DVD player is configured to output correctly to the TV.
3. This TV will turn off automatically if there's no signal present for more than 15 minutes.

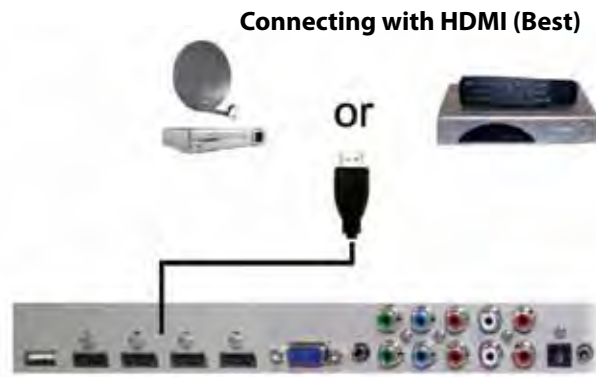
Connecting with Composite (Fair)



1. Make sure the power of the TV and your DVD player is turned off.
2. Obtain a Yellow Video Cable. Connect the Yellow Video connector to both your DVD player and Composite's Yellow Video connector port off the back of your TV.
3. Obtain a RCA Audio Cable. Connect the white color connector to both your DVD player and Composite's white connector port off the back of your TV.
4. Connect the red color connector to both your DVD player and Composite's red connector port off the back of your TV.
5. Turn on the TV and your DVD player.
6. Use the remote control's source button or the source button on the right side of the TV to switch to AV1 (CVBS).

TV Installation – Rear Panel Connections

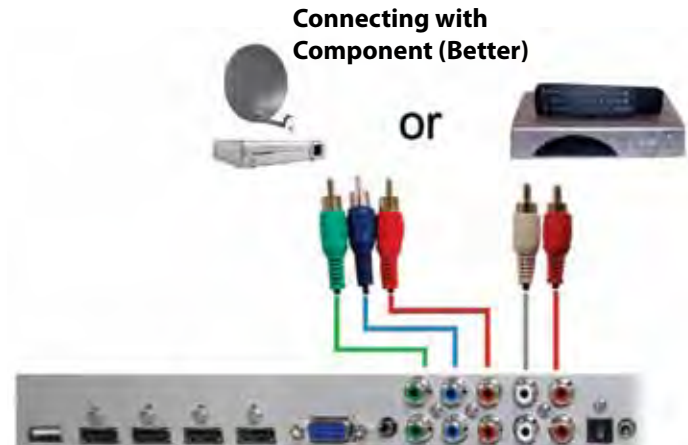
CONNECTING TO A SATELLITE OR CABLE SET-TOP BOX



1. Make sure the power of the TV and your set-top box is turned off.
2. Connect a HDMI cable to the HDMI output of your set-top box and the other end to the HDMI port off the back of your TV.
3. Turn on the TV and your set-top box.
4. Use the remote control's source button or the source button on the right side of the TV to switch to HDMI 1.

Please Note :

1. Refer to the set-top box's manual, to make sure the set-top box is configured to output correctly to the TV.
2. If HDMI 1 is already occupied, use HDMI 1 as your connection port and switch source to HDMI 2.
3. SunBriteTV's MODEL 4660HD supports SONY's universal remote code. Please look up SONY's codes in your universal remote's hand book.
4. This TV will turn off automatically if there's no signal present for more than 15 minutes.



1. Make sure the power of TV and your set-top box is turned off.
2. Obtain a Component Cable. Connect the green color connector to both your set-top box and Component 1's green connector port off the back of your TV.
3. Connect the blue color connector to both your set-top box and Component 1's blue connector port off the back of your TV.
4. Connect the red color connector to both your set-top box and Component 1's red connector port off the back of your TV.
5. Obtain a RCA Audio Cable. Connect the white color connector to both your set-top box and Component 1's white connector port off the back of your TV to the right side of your green, blue, red component connection.
6. Connect the red color connector to both your set-top box and Component 1's red connector port off the back of your TV to the right side of your green, blue, red component connection.
7. Turn on the TV and your set-top box.
8. Use the remote control's source button or the source button on the TV to switch to YPbPr1.

Please Note :

1. If Component 1 is already occupied, please use Component 2 as your connection port and switch to source YPbPr2.
2. Please refer to the set-top box's manual to make sure the set-top box is configured to output correctly to the TV.
3. SunBriteTV's MODEL 4660HD supports SONY's universal remote code. Please look up SONY's codes in your universal remote's hand book.
4. This TV will turn off automatically if there's no signal present for more than 15 minutes.

TV Installation – Rear Panel Connections

CONNECTING TO A SATELLITE OR CABLE SET-TOP BOX (Continued)

Connecting with S-Video (Fair)



1. Make sure the power of the TV and your DVD player is turned off.
2. Obtain an S-Video Cable. Connect the S-Video connector to both your DVD player and Composite's S-Video connector port off the back of your MODEL 4660HD.
3. Obtain a RCA Audio Cable. Connect the white color connector to both your DVD player and Composite's white connector port off the back of your MODEL 4660HD.
4. Connect the red color connector to both your DVD player and Composite's red connector port off the back of your TV.
5. Turn on the TV and your DVD player.
6. Use the remote control's source button or the source button on the right side of the TV to switch to AV1 (S-Video).

Please Note :

1. If AV 1 is already occupied, use AV 2 as your connection port and switch source to AV 2 (S-Video).
2. Refer to the set-top box's manual to make sure the set-top box is configured to output correctly to the TV.
3. SunBriteTV's MODEL 4660HD supports SONY's universal remote code. Please look up SONY's codes in your universal remote's hand book.
4. This TV will turn off automatically if there's no signal present for more than 15 minutes.

Connecting with Composite (Fair)



1. Make sure the power of the TV and your DVD player is turned off.
2. Obtain a Yellow Video Cable. Connect the Yellow Video connector to both your DVD player and Composite's Yellow Video connector port off the back of your TV.
3. Obtain a RCA Audio Cable. Connect the white color connector to both your DVD player and Composite's white connector port off the back of your TV.
4. Connect the red color connector to both your DVD player and Composite's red connector port off the back of your TV.
5. Turn on the TV and your DVD player.
6. Use the remote control's source button or the source button on the right side of the TV to switch to AV1 (CVBS).

Please Note :

1. If AV 1 is already occupied, use AV 2 as your connection port and switch source to AV 2 (S-Video).
2. Refer to the set-top box's manual to make sure the set-top box is configured to output correctly to the TV.
3. SunBriteTV's MODEL 4660HD supports SONY's universal remote code. Please look up SONY's codes in your universal remote's hand book.
4. This TV will turn off automatically if there's no signal present for more than 15 minutes.

TV Installation – Rear Panel Connections

CONNECTING TO AN EXTERNAL AMPLIFIER OR AMPLIFIED SPEAKERS

Connecting with TOSLink Digital (Best)



1. Make sure the power of the TV and your receiver is turned off.
2. Obtain a Coaxial SPDIF cable, connect it to your receiver's coaxial SPDIF digital input and the Coaxial SPDIF connection on the LINE OUT port off the back of the TV.
3. Turn on the TV and your receiver.

Please Note :

1. If you want pure digital stream for your receiver to decode, you must also configure the TV's OSD Sound->Digital Audio Out function. Make sure the option is on Bit Stream.
2. If your receiver is making static noises when receiving Bit Stream, you must use the PCM option instead.
3. Refer to the receiver's manual to make sure the receiver is configured to receive signals correctly from the TV

Connecting with RCA Audio Analog (Good)



1. Make sure the power of the TV and your receiver is turned off.
2. Obtain a 3.5mm stereo/audio cable (if your amplifier audio connection requires RCA audio out jacks you will need to obtain a 1/8" Stereo Mini Plug to RCA adapter cable). Connect it to your receiver's audio input connection and the 3.5mm stereo/audio connection on the Analog Audio port on the back of the TV.
3. Turn on the TV and your receiver.

Please Note :

1. If you want pure digital stream for your receiver to decode, you must also configure the TV's OSD Sound->Digital Audio Out function. Make sure the option is on Bit Stream.
2. If your receiver is making static noises when receiving Bit Stream, you must use the PCM option instead.
3. Refer to the receiver's manual to make sure the receiver is configured to receive signals correctly from the TV

CONNECTING TO A PC

Connecting with RCA Audio Analog



1. Make sure the power of the TV and your PC is turned off.
2. Obtain a 15-pin D-Sub VGA cable, connect to the VGA output of your PC and the other end to the VGA port off the back of your TV.
3. Obtain a 3.5 mm Mini-jack, connect to the audio out of your PC and the other end to the VGA Stereo Input port.
4. Turn on the power of the TV and your PC.
5. Use the remote control's source button or the source button the TV to switch to VGA.

Please Note :

1. For the best results, please set your PC resolution to 1920 x 1080 at 60 Hz. Refer to the PC or graphic card's manual for further instructions on how to set your resolution and refresh rate.
2. Refer to your PC manual for video output requirements of the video card.
3. The VGA port of the TV features a power saving mode which will automatically turn off the TV if there is no signal provided for more than 15 minutes.

Starting the TV

1. Make sure your power cable is connected and the standby red light in the front of the TV is lit up.
2. Check all your connection cables off the side or the back of your TV and also your AV devices. Make sure they are all connected securely.
3. Turn on your TV and other AV devices if necessary.
4. Select the correct source according to the Connecting pages.

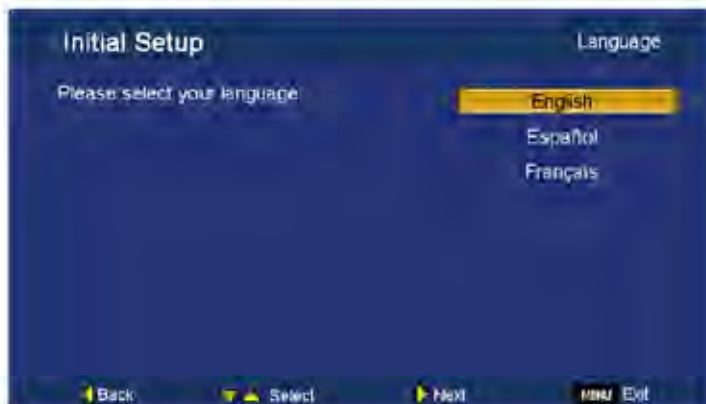
If you've connected Antenna or Cable to the TV

If an antenna or cable (**without a cable box**) is connected to your TV's tuner, you will need to go through an INITIAL SETUP process in order to watch the TV. When you turn on the TV for the first time, the INITIAL SETUP screen will come up. Follow through the instructions to complete the setup and your TV will be ready for viewing.

1. Press ENTER to start the setup.



2. Use the ▲ ▼ buttons to select your language and press ↵.



3. Use the ▲▼ buttons to select your time zone and press ↵.



4. Use the ▲▼ buttons to select your tuner type and press ↵.



5. Use the ▲▼ buttons to select Scan and press ↵ to scan for channels.



6. Once the scanning finishes, press ↵ to exit the INITIAL SETUP.



Please Note :

- Not all broadcasts are in High Definition (HD). Please refer to your local broadcasting stations for more information.
- The LCD HDTV's tuner is designed for HDTV therefore requires a stronger signal than normal TVs. If you cannot achieve that signal level with your antenna or cable, your LCD HDTV might lose picture or sound.
- **To skip the process, please follow through the entire phase, while you are scanning for channels, stop scanning mid-way and skip. This will permanently avoid the entire process.**

TV Installation--Starting the TV

Connecting the Power Cord

WARNING:

TV AND GFCI RECEPTACLE MUST BE INSTALLED AT LEAST 5 FEET AWAY FROM STANDING WATER , SUCH AS (BUT NOT LIMITED TO) A POOL OR SPA.

Connect the power cord after you have made connections to your video equipment.



Connect the Power Cord to a GFCI-protected AC outlet with "in-use" waterproof cover.

Warning: TV must be installed at least 5 feet away from standing water, such as (but not limited to) a pool or spa.

Power Cord

Back Panel



Power	Turns TV on/off.
Menu	Displays the On-Screen Display (OSD) menu. In OSD menu, press key to return to pre-phase.
Vol+ /Vol-	Adjusts volume. In OSD menu, both keys are used to navigate within menu. Vol+ is used to select the highlighted options.
CH+/CH-	Adjusts channels. In OSD menu, both keys are used to navigate within the menu.
Source	Press to change the input sources.



IR Sensor

Remote Control Guide



ON – Powers the TV On.

OFF – Powers the TV Off.

0~9 – Sets the channels.

Dash (-) – Inserts the dash for selecting digital channels directly.

R – Returns to the previous channel.

FREEZE – Freezes the TV picture. **CC** – Cycles between different closed captioning modes.

SLEEP – Sets the Sleep timer.

CC – Selects Closed Caption.

V+ – Functions the Volume Up and Menu Right.

V- – Functions the Volume Down and Menu Left.

MUTE – Mutes the TV's Audio.

MENU – Opens / Exits the TV menu.

CH+ – Functions the Channel Up and Menu Up.

CH- – Functions the Channel Down and Menu Down.

MTS – Selects stereo, mono, or second audio programming.

SRS – Sets Surround Sound.

DNR – Enables the Digital Noise Reduction on the TV.

ADD/Del – Adds or deletes the current channel.

CH Lock – Locks the current channel you are on, so that kids cannot view the locked channel unless unlocked by a password. You will also need to input a password when locking the channel.

↑ / ↓ / ← / → / ↗ – Allow you to navigate inside the OSD menu. They also function as CH+/- for digital channels in the tuner.

↵ (Enter) – Allows you to select functions inside the OSD menu, acts as the Enter button for OSD menu for changing channels.

SOUND – Selects various preset sound settings.

EXIT – Allows you to quit from the OSD menu..

PICTURE – Selects various preset picture settings.

GUIDE – Opens the current digital channel information guide.

SOURCE – Cycles between different inputs of the TV.

INFO – Shows current channel information, display input and resolution.

SHIFT – Used with the 0-9 numeric pad to select inputs.

ASPECT – Changes the TV between different display modes.

FAVORITE ▲/▼ – Changes the channel up or down from you Favorite channel list.

FAVORITE ADD / DEL – Adds or deletes the current channel from the favorites channel list.

Picture In Picture/Picture On Picture (PIP and POP) Functions

AUDIO – Switches Audio from the TV and PIP or POP windows.

VIDEO – Switches video from the PIP window to the main screen.

SOURCE – Changes the input source of the PIP window and POP window.

ON/OFF – Turns on or off the PIP and POP window.

SIZE – Changes size of the PIP window.

POS – Changes the position of the PIP window.

Remote Control Guide



This remote control follows Sony's TV remote codes with discrete on/off and input select. Direct TV code is 10,000

About the Water-Resistant Remote Control

The SunBriteTV® Water-Resistant Remote Controller is engineered to give you many years of service.

"Water-resistant" means that the remote control can be in water for short periods of time without damaging the internal workings of the unit. It can be left in the rain, and even dropped in water, as long as it is retrieved quickly. **The remote control should not be left floating in water.**

The functionality of the remote control is under warranty for one year. If the remote control malfunctions within the one-year warranty period, replace the batteries with new long-life alkaline batteries.

If the problem is not solved with new batteries, contact the SunBriteTV Customer Support Team. SunBriteTV will repair or replace the remote control at SunBriteTV's option.

If you have a warranty claim, contact the SunBriteTV Customer Support Team for further instructions.

866.357.8688






www.sunbrite.com


On-Screen Display Controls


Via Remote Control

In order to adjust most of the options inside the On Screen Display (OSD), the picture below shows all the buttons used on the remote control.



-  – This button functions as up direction in the OSD.
-  – This button functions as down direction in the OSD.
-  – This button functions as left direction in the OSD.
-  – This button functions as right direction in the OSD.
-  – This button changes the channel in conjunction with the number pad and also functions as enter for selecting options in the OSD.

 This button opens the OSD and also exits the OSD by going to the previous level of the OSD.

 This button exits the OSD entirely.

Via the TV's Side Panel Buttons

In order to provide more than one type of OSD control buttons, the side panel's buttons have also been made functional for adjusting the OSD.



MENU – This button opens the OSD.

CH(▲) – This button changes the channel to a higher number and also functions as up direction in the OSD.

CH(▼) – This button changes the channel to a lower number and also functions as down direction in the OSD.

VOL(+) – This button decreases the volume and functions as left direction in the OSD.

VOL(-) – This button decreases the volume and functions as right direction in the OSD.

On-Screen Display Menu



VIDEO – This main option has functions for changing the picture settings for all ports, such as tint, contrast, sharpness, digital noise reduction, adaptive luma control.

AUDIO – This main option has functions for changing sound settings for all ports, such as SPDIF Type, treble, bass, and acoustic cinema enhancement....etc.

TV – This main option has functions for the tuner port, such as scanning channels, editing channels, specific range scans, audio language, tuner mode....etc.

SETUP – This main option has functions for all ports, OSD language, caption styles, time setup, automatic synchronization, sleep timer and power on timer, power off timer.

PARENTAL – This main option has functions for only composite and TV port. The purpose of this option is to block TV inappropriate for children.

Video Menu

This option allows users to adjust the TV's picture sharpness, color, tint, and other various functions.



1. Press MENU to open the OSD.
2. Press ▲ or ▼ to move to PICTURE and press ↵.
3. Use ▲ or ▼ to select the one you want to adjust and use ◀ or ▶ to adjust them.
 - **PICTURE MODE** – This function allows you to adjust the video through preset modes, standard, custom, vivid, and mild.
 - **BRIGHTNESS** - This function adjusts the black level in a picture. The higher the brightness, the less detail you will have in dark objects.
 - **CONTRAST** – This function adjusts the white levels in a picture. The higher the contrast, the less detail you will see in bright white objects.
 - **SATURATION** - This function adjusts how strong your picture's colors are going to be.
 - **HUE** - This function adjusts your picture's overall color with everything looking green on one end and everything looking red on the other.
 - **SHARPNESS** – This function adjusts the picture's sharpness. The higher the sharpness, the more pixilation a picture will have.
 - **COLOR TEMPERATURE** - This function adjusts the white color's overall balance of white colors in a picture. The function changes the white color's overall balance in large increments.
 - I. **NORMAL** – This option will produce a picture with normal white color.
 - II. **COOL** – This option will produce a picture with overall bluish color.
 - III. **WARM** – This option will produce a picture with overall reddish

- **ADVANCE VIDEO** – This function adjusts the video processing options.



- I. **DNR** – Digital noise reduction adjusts how strong noise will be filtered. Stronger filter will make picture blurrier.
- II. **MPEG NR** – Adjusts noise associated to MPEG compression
- III. **ADAPTIVE LUMA CONTROL** – This option allows the TV to automatically change brightness / contrast to give the picture greater detail and depth.
- IV. **FLESH TONE** – This option adds more warmth (generally red color) to people's faces on TV.
- V. **BLUE BACK** – This function changes the NO SIGNAL background from black to blue.
- VI. **BACKLIGHT** – This function adjusts the strength of the backlight of the LCD panel directly.

Adjusting On-Screen Displays – Video Menu

- **VGA** – This option allows user to adjust the PC VGA signal.
This function is only available when switched to the VGA source.



- AUTO ADJUST** – This adjustment automatically makes the picture fit the screen and synchronizes with the signal so the words and pictures look clear on the screen.
- H.POSITION** – This adjusts the horizontal position of the picture.
- V.POSITION** – This adjusts the vertical position of the picture.
- PHASE** – This adjusts the signal of the picture by a small increment.
- CLOCK** – This adjusts the signal of the picture by a large increment.



Please Note :

- The native PC resolution of this TV is 1920x1080 at 60hz.
- Always use AUTO ADJUST over manual adjustment.

Adjusting On-Screen Displays – Audio Menu

AUDIO Menu

This option allows users to adjust the TV's sound functions.



1. Press MENU to open the OSD
2. Press ▲ or ▼ to move to AUDIO and press ↵.
3. Use ▲ or ▼ to select the option you want to adjust and use ◀ or ▶ to adjust them.
 - AUDIO MODE – This function allows you to adjust audio preset modes custom, standard, speech, movie, and music.
 - BALANCE – This function adjusts the balance of sound level between the left and right speaker of the TV.
 - BASS – This function adjusts the level of low pitch sound in a TV.
 - TREBLE – This function adjusts the level of a high pitch sound in a TV.
 - SURROUND SOUND – This function is not available on the SB4610HD
 - SPEAKER – This function turns the TV speakers on or off.
 - SPDIF TYPE – This function allows you to choose the digital audio output's data type between RAW and PCM.
 - AUTO VOLUME CONTROL – This function will compensate the volume of the speakers so they will not suddenly be too loud during commercials.

Adjusting On-Screen Displays – TV Menu

TV Menu

This option allows user to adjust the TV's tuner functions.

This function is only available when switched to the TV source.



1. Press MENU to open the OSD.
2. Press ▲ or ▼ to move to TV and press ↵.
3. Use ▲ or ▼ to select the one you want to adjust and use ◀ or ▶ to adjust them.
 - TUNER MODE – This function allows users to choose the tuner type
 - CHANNEL SCAN – This function finds all the channels from the tuner.
 - CHANNEL SKIP – This function allows users to skip unwanted channels
 - MTS – This function allows users to select second audio programming under analog channels.
 - AUDIO LANGUAGE – This function allows users to select second audio programming under digital channels.

Please Note:

- Second audio programming is dependent on the support of the TV station you are watching. If they do not have a second audio programming (SAP), this function will not work.

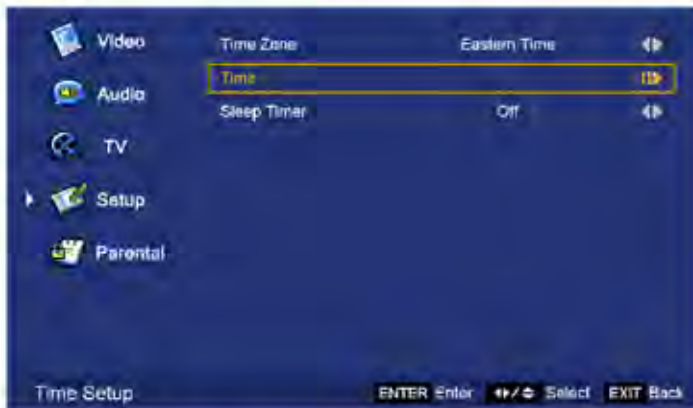
Adjusting On-Screen Displays – Set Up

Set Up Menu

This option allows user to adjust the TV's miscellaneous options.



1. Press MENU to open the OSD.
2. Press ◀ or ▶ to move to SETUP and press ↵.
3. Use ▲ or ▼ to select the one you want to adjust and use ◀ or ▶ to adjust them.
 - OSD LANGUAGE – This function changes the entire OSD's language.
 - TIME SETUP – This function adjusts the time, date, and other time related functions.



- i. TIME ZONE – This function lets you to select time zones for the TV's clock.
- ii. TIME – This function allows you adjust special time functions.
 - a. AUTO SYNCHRONIZATION – This function will automatically synchronize your TV's clock with the local TV station's signal.
 - i. DATE – If you disable AUTO SYNCHRONIZATION, you can enter the date manually using this function.
 - ii. TIME – If you disable AUTO SYNCHRONIZATION, you can enter the time manually using this function.

Adjusting On-Screen Displays – Set Up Menu

Set Up Menu



III. SLEEP TIMER – This function allows you to select the sleep timer for your TV.

CAPTION – This function adjusts digital and analog closed captioning of the TV.



I. ANALOG CLOSED CAPTION – This function cycles through different analog closed caption methods. U.S. usually uses CC1.

II. DIGITAL CLOSED CAPTION – This function cycles through different digital closed caption methods.

Adjusting On-Screen Displays – Set Up Menu / Parental Menu

Set Up Menu

- III. DIGITAL CAPTION STYLE – This function adjusts the digital closed caption viewing options.



- a. CAPTION STYLE – This option unlocks the captioning adjustments.
 - b. FONT SIZE – This option changes the size of your caption.
 - c. FONT COLOR – This option changes the color of your caption.
 - d. FONT OPACITY – This option changes the transparency of your caption.
 - e. BACKGROUND COLOR – This option changes the background color that holds the actual captions.
 - f. BACKGROUND OPACITY – This option changes the transparency of your background.
 - g. WINDOW COLOR – This option changes the color of the text window.
 - h. WINDOW OPACITY – This option changes the transparency of the text window.
- RESET DEFAULT – This function resets the options adjusted under the OSD to default.

Please Note:

- Closed captioning is only available under AV, S-Video, and TV ports.
- Closed captioning depends on your TV program's support. Sometimes due to the TV channel or the signal, closed captioning will not be available.
- In United States, closed captioning under analog signals is CC1.
- In United States, closed captioning under digital signal is Service1.
- **TEXT1-TEXT4 offers you local information; however it might not be support by your local broadcasting station. When no information is offered, you will see a large black box in the middle of the screen.**
- **If 1:1 pixel mapping is used on regular TV programming sometimes you will see lines or dotted lines on the edges of the screen, because of the broadcast stations syncing signal. This effect is considered normal because regular TV programming is not meant for 1:1 pixel mapping.**

Parental Menu

This option allows users to filter TV programs and movies while using the TV tuner. To use this option you will need to enter in the password first. **The default password is "1234".**



Adjusting On-Screen Displays – Parental Menu

Parental Menu

1. Press MENU to open the OSD.
2. Press ▲ or ▼ to move to PARENTAL and press ↵.
3. Press "1234" for the password.
4. Use ▲ or ▼ to select the one you want to adjust and use ◀ or ▶ to adjust them.



- CHANNEL BLOCK – This function lets you block individual channels.
- PROGRAM BLOCK – This function lets you filter TV's movie and programming.



- I. RATING ENABLE – This enables filtering for all channels.
- II. US TV RATING – This function filters TV programs but not movies. You can filter by TV ratings (TV-Y ~ TV-MA) or filter by content (A~FV). To block something, highlight the box with the ▲ ▼ ◀ or ▶ buttons and press ↵.
 - a. To filter by TV ratings make sure the entire row of boxes is filled by the lock sign. I.e. Blocking TV-MA, the A, L, S, V boxes are all filled by the lock sign.
 - b. To filter by content, select individual contents you want to block out. I.e. Blocking adult language in TV-14, you would fill the box with the lock sign under L.

Adjusting On-Screen Displays – Parental Menu

Parental Menu



- III. **US MOVIE RATING** – This function enables you to filter movies. You can block by rating from G ~ X. To block something, highlight the box with the ▲▼◀ or ▶ buttons and press **↓**.



- IV. **BLOCK UNRATED** – This function blocks unrated programming.
- **CHANGE PASSWORD** – This function changes the parental password.
 - **RECALL ALL** – This function clears the TV settings back to factory default.

Please Note :

- Filters are only available under TV tuner connection.

Ratings / Aspect Ratio

Ratings

General Operation

To block channels you don't want your children to watch, you can filter them with the ratings function. MPAA lets you control ratings for movies. For regular TV programs you can use USTV settings. USTV settings lets you filter what content you want at each age level, TV-Y, to TV-MA (refer to definitions below). Below are definitions for each setting.

USTV Rating

TV-Y (USTV) – For All Children

This program is designed to be appropriate for all children. Whether animated or live-action, the themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6. This program is not expected to frighten younger children.

TV-Y7 (USTV) – Directed to Older Children

This program is designed for children age 7 and above. It may be more appropriate for children who have acquired the developmental skills needed to distinguish between make-believe and reality. Themes and elements in this program may include mild fantasy violence or comedic violence, or may frighten children under the age of 7. Therefore, parents may want to consider the suitability of this program for their very young children. Note: For those programs where fantasy violence may be more intense or more combative than other programs in this category, such programs will be designated TV-Y7-FV.

TV-G (USTV) – General Audience

Most parents would find this program suitable for all ages. Although this rating does not signify a program designed specifically for children, most parents may let younger children watch this program unattended. It contains little or no violence, no strong language and little or no sexual dialogue or situations.

TV-PG (USTV) – Parental Guidance Suggested

This program contains material that parents may find unsuitable for younger children. Many parents may want to watch it with their younger children. The theme itself may call for parental guidance and/or the program contains one or more of the following: moderate violence (V), some sexual situations (S), infrequent coarse language (L), or some suggestive dialogue (D).

TV-14 (USTV) – Parents Strongly Cautioned

This program contains some material that many parents would find unsuitable for children less than 14 years of age. Parents are strongly urged to exercise greater care in monitoring this program and are cautioned against letting children under the age of 14 watch unattended. This program contains one or more of the following: intense violence (V), intense sexual situations (S), strong coarse language (L), or intensely suggestive dialogue (D).

TV-MA (USTV) – Mature Audience Only

This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17. This program contains one or more of the following: graphic violence (V), explicit sexual activity (S), or crude indecent language (L).

TV program description

- FV - Fantasy Violence
- V - Violence
- S - Sexual Situations
- L - Adult Language
- D - Sexually Suggestive Dialogue

MPAA Rating

G (MPAA)

General audiences. All ages admitted.

PG (MPAA)

Parental guidance suggested. Some material may not be suitable for children.

PG-13 (MPAA)

Parents strongly cautioned. Some material may be inappropriate for children under 13.

R (MPAA)

Restricted. Under 17 requires accompanying parent or adult guardian (age varies in some jurisdictions).

NC-17 (MPAA)

No one 17 and under admitted.

X (MPAA)

X is an older rating that is unified with NC-17 but may be encoded in the data of older movies.

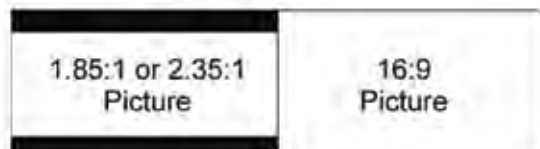
Aspect Ratio

Aspect Ratio Explained

The TV will display the TV channel's signal format automatically. There are mainly two types of signal format, 16:9 and 4:3.

1. FULL

This mode will stretch the picture to a widescreen ratio. If you have a perfect 16:9 ratio picture you will not see any black bars. If you are watching a widescreen movie in 1.85:1 or 2.35:1 ratio, you will still get black bars on the top and bottom of the screen. If you use this mode on 4:3 pictures they will be stretched and distorted horizontally.



2. 4:3

Most analog TV channels have 4:3 signal formats. If the original 4:3 aspect ratio (1.33:1 source) is preserved, black bars are added to the left and right of the display image. This aspect keeps the aspect ratio and shows you the black bars on the side.



Aspect Ratio Availability List

1. Analog Channels - Full, 4:3
2. Digital Channels - Full, 4:3
3. AV1 and AV2 (CVBS/S-Video) - Full, 4:3
4. YPbPr1 and YPbPr2 - Full, 4:3
5. VGA - N/A
6. HDMI1, HDMI2, HDMI3 - Full, 4:3

Closed Captioning (Digital and Analog Explained)

Your TV is equipped with an internal Closed Caption decoder. It allows you to view conversations, narration and sound effects as subtitles on your TV. Closed Captions are available on most TV program, and on some VHS home video tapes, at the election of the program provider.



CC – Press this button to enable the CC function. You can then use the ▲ ▼ buttons to select if you want CC off or CC on. You can use the ◀ ▶ buttons to select between different CC channels.

Please Note :

- Digital Closed Caption service is a new caption service available on digital TV programs (also at the election of the service provider). It is a more flexible system than the original Closed Caption system, because it allows a variety of caption sizes and font styles.
- Not all programs and VHS video tapes offer closed caption. Please look for the CC symbol to ensure that captions will be shown.
- In the Closed Caption system, there can be more than one caption service provided. Each is identified by its own number. The CC1 and CC2 services display subtitles of TV programs superimposed over the program's picture.
- In the Closed Caption system, the TEXT1 or TEXT2 services display text that is unrelated to the program being viewed (e.g., weather or news). These services are also superimposed over the program currently being viewed.
- Closed Captioning for this TV only works under sources TV, AV1, and AV2.

Shortcuts to Browsing Channels

Browsing through the entire channel list on the TV can be tedious. This TV features a favorite channel list, where you can add in channels that you always want to watch



TO ADD TO THE FAVORITE LIST

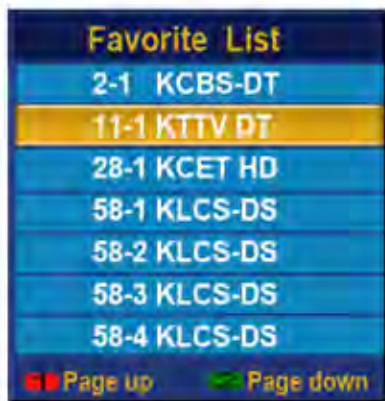
1. Go to any channel you would like to include in your favorites list.
2. Press the ADD button on the remote control. You will see a heart on the INFO banner denoting that this channel is in the favorites list.

TO DELETE FROM THE FAVORITE LIST

1. Go to any channel you would like to remove from your favorites list.
2. Press the DELETE button on the remote control. You will then see the heart disappear on the INFO banner denoting that this channel is no longer in the favorites list.

BROWSING CHANNELS WITH THE FAVORITE LIST

1. Press the FAVORITE button, and the list of channels you have added will be in a box on the lower left hand side of the TV screen.
2. Use the ▲ or ▼ buttons to select the channel you want to jump to and press ↵ to confirm.
3. You can also use the keypad numbers 1 and 2 as page up and page down if you have too many channel numbers in the list.



BROWSING CHANNELS WITHOUT THE FAVORITE LIST

1. You can also browse the channels without the favorite list by simply pressing the ↵ button.
2. A list of all the channels scanned in by the TV will appear on the lower left hand side of the TV screen.
3. Use the ▲ or ▼ buttons to select the channel you want to jump to and press ↵ to confirm.
4. You can also use the keypad numbers 1 and 2 as page up and page down if you have too many channel numbers in the list.

Shortcuts to Browsing Channels

INFO TITLE BAR WHILE USING ANTENNA

The Info bar provides information on the current digital channel you are watching.



1. Press the INFO button once to see the channel number and call sign.
2. Press the INFO button twice to see the additional audio information, time of the program, channel's broadcasting resolution, and closed captioning information.
3. Press the INFO button three times to see the current program's description.

CHANNEL GUIDE WHILE USING ANTENNA

The channel guide provides the program line up of the current channel.



1. Press the GUIDE button on the remote control to activate the guide.
2. Use the ▲ or ▼ buttons to browse the channel's broadcasting programs and their schedules.
3. Use the ◀ or ▶ buttons to switch to the previous or next channel.

Please Note :

- The info title bar and channel guide functions described above are only available when you are using the TV with the TV's own tuner and an antenna. The functions are not supported under cable.

Preset Modes Explained

The TV features different preset modes of settings for audio and video. For people who like to optimize the TV for whichever program it is playing but do not want to individually tweak every setting, the preset modes are used.

For Video

To switch between the various modes, press the PICTURE button continuously.

1. CUSTOM – This mode saves the user's tweaked settings. If you changed settings under the OSD VIDEO main option, the settings would be saved under CUSTOM mode.
2. MILD – This mode is mainly used for movies.
3. STANDARD – This mode is mainly used for regular television viewing and video gaming.
4. VIVID – This mode is mainly used for nature channels and sporting events.

Please Note:

- Each preset modes can be used to your preference. The preset mode descriptions are merely usage suggestions.

For Audio

To switch between the various modes, press the SOUND button continuously.

1. CUSTOM - This mode saves the user's tweaked settings. If you changed settings under the OSD AUDIO main option, the settings would be saved under CUSTOM mode.
2. STANDARD – This mode is mainly used for regular television viewing.
3. SPEECH – This mode is mainly used for news and commentary programs.
4. MOVIE – This mode is mainly used for movies, sporting events, and video gaming.
5. MUSIC – This mode is mainly used for music videos.

Please Note:

- Each preset modes can be used to your preference. The preset mode descriptions are merely usage suggestions.

TROUBLESHOOTING

The following table contains the common problems and the solutions to these problems. Please check this list before you contact the technicians.

Problems	Solutions
NO PICTURE	Connect power cord correctly.
	Turn on power.
	Connect video cable correctly.
	Select the input signal source with proper cable connection with the source button.
ABNORMAL COLORS	Match the colors on the cables to the ports off the back of the television. I.E. red cable to red colored port.
PICTURE IS TOO DARK	Adjust your contrast, brightness and lamp settings from the OSD Menu.
AUDIO ONLY NO PICTURE	Make sure you have connected both your video and audio cables. The TV's tuner signal must not be lower than 65 %.
PICTURE ONLY NO AUDIO	Make sure the audio cable is connected.
	Readjust your volume via the remote control.
	The TV's tuner signal must not be lower than 65 %.
REMOTE CONTROL DOES NOT WORK	Turn off the TV, unplug it from the socket. Remove the batteries out of the remote for 30 minutes. Press the remote buttons and the power button randomly for a good 2 seconds, and then reinstall the batteries. Try the remote to see if it works.
	The TV's remote sensor is also housed in the same place as the power indicator light. Please make sure there is line of sight from the remote control's front sensor to the remote sensor of the TV.
CANNOT RECEIVE SUFFICIENT CHANNELS THROUGH THE ATSC/NTSC TUNER	The TV's tuner signal must not be lower than 65 %. Change the direction of your antenna and rescan your channels. If you have cable call up your cable company and ask about signal strength of your local cable.
NO COLOR	Please adjust your picture setup and make sure the saturation and the RGB are not turned all the way down.
	The TV's tuner signal must not be lower than 65 %. Check your signal.
WEAK SIGNAL OR NO PROGRAM SYMBOL ON SCREEN	The TV's tuner signal must not be lower than 65 %. Change the direction of your antenna and rescan your channels. If you have cable call up your cable company and ask about signal strength of your local cable.
TV'S UNIVERSAL REMOTE CODE	This television follows SONY's universal remote code. To find the actual code you must read through your own universal remote's guide book.

TROUBLESHOOTING

Problems	Solutions
TV CHANNELS ARE BLOCKED	Check your auto lock function's settings inside the OSD. You may have locked up some channels but forgot about them.
UNIVERSAL REMOTE CODE	This TV follows SONY's universal remote code. Please check your hand book for SONY's codes then apply them.
THE TV TURNS ON OR OFF SLOWLY AND THE SCREEN SHOWS UP SLOWLY	This TV is a High Definition liquid crystal display panel TV. It requires a few more seconds than normal TVs to power up and show the picture.
NO SOUND ON PC	Make sure you have a 3.5 mm mini-jack cable connected from your pc's sound output to the TV's VGA STEREO INPUT.
HDCP VIDEO SAYS NO HDCP SUPPORT	Reboot your HDCP video device but turning them off and unplugging the power cord. Wait up to 8 minutes to plug the power back in to see if it works or not.
HDCP VIDEO HAS NO AUDIO	Make sure you have a 3.5 mm mini-jack cable connected from your HDCP video device's sound output to the TV's VGA STEREO INPUT. If your HDCP video device uses RCA AUDIO jacks, you'll need to obtain a RCA audio converted into 3.5 mm mini-jack cable.
CANNOT GET 1920X1080 ON PC VGA	Make sure the TV is recognized as plug and play monitor. Try updating your video card's drivers as well. If that does not help, most likely you'll need to upgrade your video card to a newer one.
PICTURE IS DISTORTED OR HAS ABNORMAL SOUND	This might be from interference from large electrical appliances, cars, motorcycles, or fluorescent lights. If the TV is close to the wall, try moving the TV to another room in your house to see if the problem still occurs.
PICTURE DOES NOT COVER THE ENTIRE SCREEN	If you're using HDMI or a TV digital channel make sure you use the ASPECT button to switch to 16:9 format. If you are using VGA, use the AUTO ADJUST function to adjust to the screen. Please Note : If you are using regular analog TV, AV, or component in 480i resolution, use the ASPECT button to switch to 16:9 in order to fill up the screen. Please Note : This note this feature will distort the picture.
PICTURE QUALITY IS HORRIBLE!!	For best image quality, view HD widescreen programs where possible. If HD content is not available view "Standard Definition" from a digital source. Standard, analog TV will always be noticeable inferior to HD because your LCD HDTV has video that is many times better than old TV's and so you can see interference and deficiencies you did not KNOW you had.
PICTURE HAS PIXELS THAT ARE ALWAYS DISPLAYING THE SAME COLOR	Your LCD HDTV is manufactured using an extremely high level of precision technology, however, sometimes some pixels of your LCD HDTV may not display. Pixels defects within industry specifications are inherent to this type of product and do not constitute a defective product.
I CANNOT CHANGE THE TIME MANUALLY	Your LCD HDTV syncs time automatically according to your local TV channel. This function only works while the TV's tuner is connected to an ANTENNA.
BIG BLACK BOX IN THE MIDDLE OF SCREEN	You have turned on closed captioning and are using TEXT1 – TEXT4. Change the setting to CC1 or turn off closed captioning and the box will disappear.

Problems	Solutions
SWITCHING A CHANNEL OR SOURCE CHANGES THE VOLUME	Different channels and inputs will sometimes have this effect because the channel signal's own volume is already loud. There is no way remove this completely. The TV has an AUTO VOLUME LEVEL function that can combat this type of effect. Please make sure that function is turned on.
THERE IS NOISE OR TRASH PIXELS ON THE SCREEN	When your LCD HDTV's resolution is higher than the digital channel's broadcast resolution, the signal is up-converted to match your TV's resolution. Up-converting can cause this type of effect.
TIPS FOR HIGH DEFINITION USERS	The LCD HDTV is an ideal platform for viewing High Definition Content. The best image quality can be achieved by HDMI, YPbPr (Component), then VGA. However, due to variances in broadcast practices, it is possible some image distortions can occur.
TIPS FOR LETTERBOX CONTENT USERS	Letterboxed (Widescreen) versions of DVD movies are most commonly formatted for standard 4:3 TVs. The 55" LCD HDTV has the capability of expanding this content so the entire screen is filled at the expense of the image proportion. To use this function press the aspect button on the remote control and cycle among the available options.
I CANNOT FIND THE VOLUME AND CHANNEL CHANGING BUTTONS	The buttons are represented by the ▲▼◀▶ buttons located on the remote control. ▲▼ changes the channels and ◀▶ changes the volume.
I CANNOT FIND ENTER BUTTON	The enter button has the symbol ↵. It is located in the center of the ▲▼◀▶ buttons.
TV TURNS OFF AUTOMATICALLY AFTER 5 MINUTES	The TV features a power saving mode which will automatically turn off the TV, if there's no signal provided for more than 5 minutes.

Caring for the LCD Panel:

1. Cleaning the LCD Panel:

Gently wipe the surface of the display panel with a soft cloth (cotton or flannel is best). Be sure the cloth is clean and does not contain liquid cleaners or other chemicals.

If the LCD panel is very dirty, use a soft damp (with water only) cloth to gently clean the panel.

2. When the TV is not in use, keep it covered with the SunBriteTV Outdoor Dust Cover

The fitted dust cover is designed to protect the LCD panel from the harmful UV rays from direct sunlight, and keeps wind-blown objects from scratching the surface of the panel.

To order a replacement Dust Cover, contact your Authorized SunBriteTV dealer or SunBriteTV's Customer Service at 866.357.8688.

General Cleaning

Remove any dirt and salt deposits from the cabinet, being careful to rinse the cloth frequently to avoid scratching the TV or screen surface. Avoid using harsh chemicals, abrasives, or solvents when cleaning any surface on the unit.

Snow and Ice

Use a soft brush and towel to remove snow and ice from the unit.

Fiber Filter- In areas where dust or salt air is prevalent, it is recommended that the Fiber Filter be cleaned regularly. There are four Fiber Filters located on the back of the unit, that cover the vent openings. There are two Fiber Filters on the top of the unit, and two on the bottom of the TV (Figure 1).

CAUTION! NEVER SPRAY OR DIRECT A HOSE INTO THE VENT OPENING OF THE TV.

1. To clean the Fiber Filter, unscrew the Filter Holder (Figure 2), and lift the Filter Holder out of the TV (Figure 3).
2. Pull the Fiber Filter out of the Filter Holder (Figure 4).
3. Clean by removing the filter and washing with warm soapy water. Allow to completely air dry overnight prior to reinstalling. (Do not compress or squeeze filter as it will break down it's cellular structure.)

To Order Replacement Filters, contact your Authorized SunBriteTV Dealer or SunBriteTV's Customer Service at 866-357-8688.

4. Put the Fiber Filter back up into the Filter Holder and place the Filter Holder back into the TV. Screw securely.

Figure 1

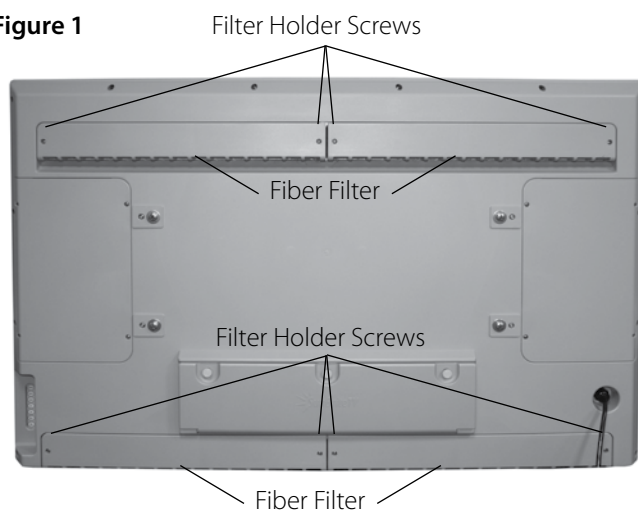


Figure 2



Figure 3

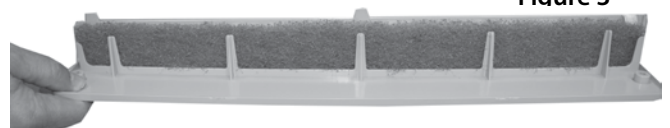
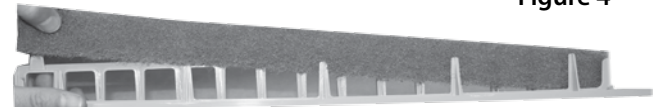


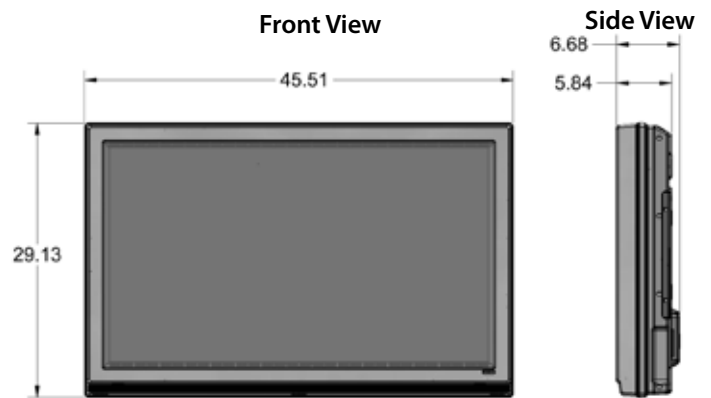
Figure 4



Specifications

Specifications for SunBriteTV Model 4660HD

LCD Screen	46-inch Diagonal TFT Active Matrix
Resolution	1920 x 1080 full-HD 1080p
Aspect Ratio	16:9
Contrast Ratio	4000:1
Viewing Angle	176° x 176°
Response Time	8.0 milliseconds
TV formats	1080p, 1080i, 720p, 480p, 480i
Anti-Reflective Window	Not Applicable
Input Connectors:	
RF	Antenna/CATV (ATSC/QAM/NTSC) x1
HDMI	HDMI™ Input x4
Video Composite	S-Video x1 and Composite Video x1, L/R Audio Inputs x1
Video Component	YPbPr plus Stereo Audio x2
PC	15-pin D-sub VGA plus Stereo Audio
Control Set	Discrete IR (Sony TV IR Code Set), Concealed IR Window
Audio Out	TosLink Digital Optical x1, Analog 1/8" Headphone Jack
Speakers	20-Watt Built-in Speakers
Exterior	Outdoor-rated ASA Plastic Resin
Input Power	100-240 VAC, 50-60 Hz 2.8 A Max
Operating Temp.	-10° to 122° F. (-23° to 50° C.) *
Non-op. Temp.	-10° to 140° F. (-23° to 60° C.)
Heater Board	Not Applicable
Accessories Included	Weather-Proof Remote Control, outdoor dust cover
TV Dimensions	45.51" W x 29.13" H x 6.68" D
Shipping Dimensions	52" W x 42" H x 13" D
Weight	65.0 lbs.
Shipping Weight	113.0 lbs.
Warranty	Two-year residential, in-factory, parts and labor



Dimensions with detachable speaker module.
All measurements are in inches

Specifications are subject to change.

*Temperature range is for operation in shaded location.

PC Timing Codes

800x600 @ 60

1024x768 @ 60

1280x1024 @ 60

1366x768 @ 60

1920x1080 @ 60 (native)

1600x1200 @ 60

Features Information and Instructions

Internal Climatic Control

If temperatures below -10° F. are expected, we recommend that you bring your SunBriteTV inside to prevent damage to the LCD screen.

Programming Other Manufacturers' Universal Remote Control Devices

When programming a DirectTV, local cable universal remote control or Control system, you may find that SunBriteTV may not be on the list of TV manufacturers. If that is the case, Model 4660HD supports SONY's universal remote code.

SunBriteTV Pixel Quality Policy

SunBriteTV's Pixel Quality Policy

(Applicable to LCD TVs sold within USA and Canada only.)

SunBriteTV™ LCD screens are manufactured with rigorous standards to maintain optimal viewing. However, the LCD screen may have minor defects that appear as a small bright or dark pixel. This is common to all LCD screens used in display and television products, and is not specific to SunBriteTV.

Bright dots are dots that appear bright and unchanged in size when a LCD TV screen displays a black pattern.

Dark dots are dots that appear dark and unchanged in size when a LCD TV screen displays a pure red, green, or blue pattern.

Adjacent dots are pixels located directly next to each other.

Your SunBriteTV will be replaced under warranty if it meets one of the following criteria:

—A total of 7 defective pixels, including both bright dots and dark dots are present. (Model 4660HD LCD TV screen has over a million pixels.)

—2 or more pairs of adjacent bright dots are present.

—3 adjacent bright dots are present.

—3 adjacent dark dots are present.

To locate defective pixels, the LCD panel should be examined under normal operating conditions, in its native display resolution, with a 90 degree viewing angle, from a distance of approximately 20 inches.

To qualify for replacement, a defective LCD screen must be reported to SunBriteTV within 14 days from the day the customer receives the TV.

For questions, please call our toll-free service number at 866.357.8688.

IR Emitter Installation

To install the IR Emitter:

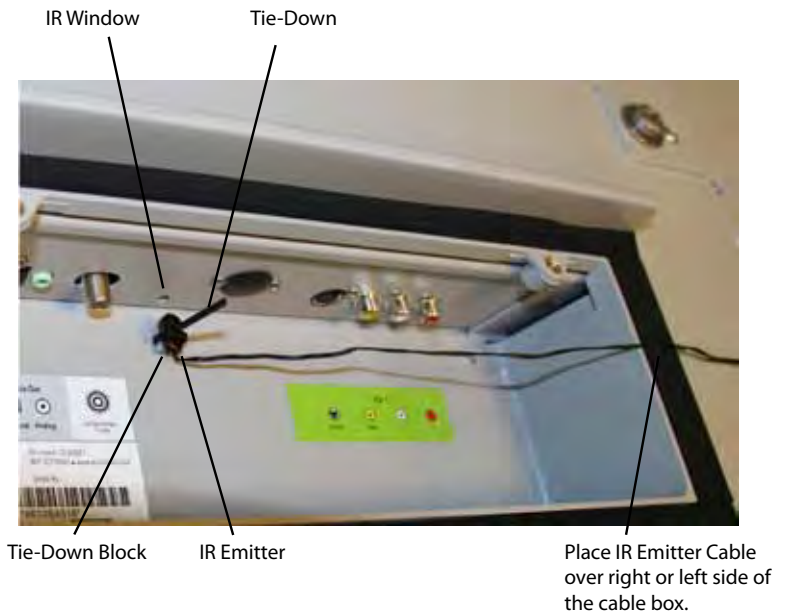
The photo to the right shows an IR Emitter* installed.

The end of the Emitter is to be mounted in front of the IR Emitter Window.

Place the emitter on the white tie-down block and use the tie-down to secure it in place.

Place the emitter cable over the right or left side of the cable box and connect the other end of the emitter to the appropriate control block*.

** Neither the emitter or control block are supplied by SunBriteTV. See instructions that come with your IR Emitter and control block to determine how to make the connections.*



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