

LG STB1000 HD Commercial Interface STB Warranty



Broadcast Products Welcome to the LG family! We believe that you will be pleased with your new STB1000 HD Commercial Interface STB. Please read this warranty carefully, it is a "LIMITED WARRANTY" as defined under Federal Law. This warranty gives you specific legal rights, and you may also have other rights that vary from state-to-state within the U.S.A.

LG's RESPONSIBILITY

- Warranty Term** One year parts and labor from date of purchase or delivery date.
- Parts** New or remanufactured replacements for factory-defective parts may be used. Such replacement parts are warranted for the remaining portion of the original warranty period.
- Warranty Service** Warranty service is provided at LG. Customer pays for shipping charges to LG; LG pays for return shipping charges to return STB1000 to customer. Call **1-888-865-3026** for further information.
- Not Covered** This warranty covers manufacturing defects and does not cover installation, adjustment of customer controls, installation or repair of antenna systems, cable converters or cable company-supplied equipment; it also does not cover damage due to misuse, abuse, negligence, acts of God or other causes beyond the control of LG. Any alteration of the product after manufacture voids this warranty in its entirety.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND LG SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES OF ANY KIND, INCLUDING LOST REVENUES OR PROFITS IN CONNECTION WITH THIS PRODUCT. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

OWNER'S RESPONSIBILITY

- Effective Warranty Date** Warranty begins on the date of delivery of the STB1000.
For your convenience, keep the dealer's dated bill of sale or delivery ticket as evidence of the purchase date.
- Installation Guide** Read the Installation & Setup Guide carefully so that you will understand the operation of the STB1000 and how to adjust the controls.
- Antenna** Reception problems caused by inadequate antenna or faulty antenna connections are the owner's responsibility.
- Warranty Service** **For warranty service information, call 1-888-865-3026.** Parts and service labor that are LG's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, call **1-888-865-3026**. You must provide the model number, serial number and date of purchase or date of original installation.

For Customer Support/Service, please call:

1-888-865-3026

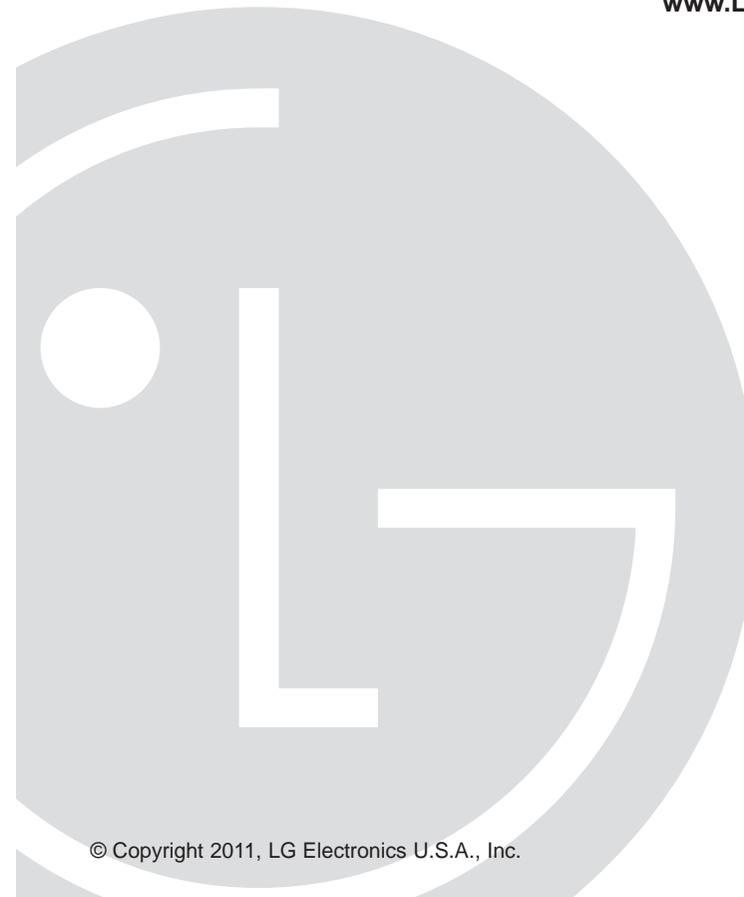
www.LGsolutions.com

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STB1000 HD Commercial Interface Set-top Box for use in Lodging Environments

Installation & Setup Quick Reference | Warranty

The latest product information and documentation is available online at:
www.LGsolutions.com/products





WARNING:

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



The lightning flash with arrowhead 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 an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

POWER CORD POLARIZATION:

This product is equipped with a 3-wire grounding-type alternating current power plug. This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the 3-wire grounding-type plug.

NOTE TO CABLE TV INSTALLER:

This reminder is provided to call the cable TV system installer's attention to Article 820-40 of the National Electric Code (U.S.A.). The code 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 the cable entry as practical.

REGULATORY INFORMATION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CAUTION:

Do not attempt to modify this product in any way without written authorization from LG Electronics U.S.A., Inc. Unauthorized modification could void the user's authority to operate this product.

COMPLIANCE:

The responsible party for this product's compliance is: LG Electronics U.S.A., Inc. 2000 Millbrook Drive, Lincolnshire, IL 60069, USA • Phone: 1-847-941-8000

This section provides Learning and Teaching overviews.

Note: Both the TLL-1100A and LT2002 have an internal clock that can be set from the Master STB1000's clock. You can then use the clone programmer to set the time on a Target STB, if desired. Refer to the **STB1000 Installation & Setup Guide** for further information on reading/transferring clock data to/from a clone programmer.

Learn Setup from Master STB1000

1. If an analog channel is not available, direct tune the Master STB1000 to an Aux source, or select an Aux source, such as AV-1. Then, plug one end of the MPI cable into the MPI port on the STB jack panel.
2. (TLL-1100A only) Turn ON the TLL-1100A, select **Clone Mode**, and select the Memory CBank in which to store the Master Setup. Then, plug the other end of the MPI cable into the MPI port on the bottom of the TLL-1100A.
3. Access the Clone Selection Menu, and press **1** on the Installer Remote to select **LEARN FROM TV** from the Clone Selection Menu. Then, press **ENTER**.
4. (LT2002 only) Select the Memory Bank in which to store the Master STB1000 Setup, and press **ENTER**. Then, press **POWER** to initiate Learning.
5. Learning usually takes about 90 seconds. "LEARNING IN PROGRESS" will be displayed on the screen while the clone programmer copies the Master Setup. When the Learning process is complete, a "LEARNING COMPLETE" message will be displayed. When Learning is complete, disconnect the MPI cable from the Master STB1000.

Teach Master STB1000 Setup to Target STB1000

1. Use the Installer Remote to enter the Target STB1000 Installer Menu. Set Installer Menu item **117 FACT DEFAULT** to **001**, and press **ENTER**.
2. Tune/set the STB to an analog channel or Aux source, and then connect the MPI cable to the MPI port on the Target STB jack panel.
Note: (TLL-1100A only) Ensure the correct Memory CBank is selected.
3. Press **2** on the Installer Remote to select **TEACH TO TV** from the Clone Selection Menu. Then, press **ENTER**.
4. (LT2002 only) Select the Memory Bank in which the Master STB1000 Setup is located, and press **ENTER**. Then, press **POWER** to initiate Teaching.
5. Teaching usually takes 3 to 4 minutes. "TEACHING IN PROGRESS" will be displayed on the screen during Teaching. When the Teaching process is complete, a "TEACHING COMPLETE" message will be displayed.
When Teaching is done, disconnect the MPI cable from the Target STB1000, turn OFF the STB, and unplug the STB's power cord for 15 seconds.
6. Reconnect the STB power cord, and turn ON the STB/display panel. The Master STB1000 Setup should be resident on the Target STB1000.

Cloning Using a USB Memory Device

This section provides Learning and Teaching overviews.

Note: It is not possible to clone a Master STB1000's clock using a USB memory device. Either set a Target STB's clock manually or use the Auto Clock setting in the STB setup menus. Refer to the *STB1000 Installation & Setup Guide* for further information.

Learn Setup from Master STB1000

1. Plug the USB memory device into the USB port on the Master STB1000 rear panel.
2. Press **MENU** on the Installer Remote to display the STB setup menus, use the arrow navigation keys to select/highlight the **Option** menu icon, and then press the number "7" key a total of seven times to display the USB Download Menu.
3. To gain access to the "Learn From TV" option in the USB Download Menu, key in the password used to enter the Installer Menu (Example: Press **9-8-7-6**).
4. Use the Up/Down arrow keys to select **Learn From TV**, and then press **ENTER**.
5. Press **ENTER** again when you are ready to initiate Learning.
Learning status will be shown on the progress bar. When the Learning process is complete, the USB Download menu will reappear on screen.
6. Remove the USB memory device from the Master STB1000.

Teach Master STB1000 Setup to Target STB1000

1. Use the Installer Remote to enter the Target STB1000 Installer Menu. Set Installer Menu item **117 FACT DEFAULT** to **001**, and press **ENTER**.
2. Plug the USB memory device with the Master STB1000 Setup file into the Target STB1000 USB port.
3. Press **MENU** on the Installer Remote to display the STB setup menus, use the arrow navigation keys to select/highlight the **Option** menu icon, and then press the number "7" key a total of seven times to display the USB Download Menu.
4. Use the Up/Down arrow keys to select **Teach To TV**, and then press **ENTER**.
5. Use the Up/Down arrow keys to select the Master STB1000 Setup you want to install, and then press **ENTER**.
Teaching status will be shown on the progress bar. When the Teaching process is complete, the USB Download menu will reappear on screen.
6. When Teaching is done, remove the USB memory device from the Target STB1000, turn OFF the STB, and unplug the STB's power cord for 15 seconds.
7. Reconnect the STB power cord, and turn ON the STB/display panel. The Master STB1000 Setup should be resident on the Target STB1000.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or 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.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with 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 in order to avoid injury from tip-over.
13. 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.
14. Never touch this apparatus or antenna during a thunder or lightning storm.
15. When mounting an STB on the wall, make sure not to install the STB by the hanging power and signal cables on the back of the STB.
16. Do not allow an impact shock or any objects to fall into the product.
17. **Power Cord**
Caution: It is recommended that appliances be placed upon a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the appliance specifications.
Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer. Protect the power cord from physical or mechanical abuse, such as twisting, kinking, or pinching or being closed in a door or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.
Do not use a damaged or loose power cord. Be sure to grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the STB.
18. **Overloading**
Do not connect too many appliances to the same AC power outlet as this could result in fire or electric shock. Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in fire or electric shock.



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19. Outdoor Use/Wet Location



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

Do not touch the STB with wet hands. Do not install this product near flammable objects such as gasoline or candles or expose the STB to direct air conditioning.

Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc., on or over the apparatus (e.g., on shelves above the unit).

20. Grounding

Ensure that you connect the earth ground wire to prevent possible electric shock (i.e., an STB with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet). If grounding methods are not possible, have a qualified electrician install a separate circuit breaker. Do not try to ground the unit by connecting it to telephone wires, lightning rods, or gas pipes.

21. Disconnect Device

The mains plug is the disconnecting device. The plug must remain readily operable.

As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by SWITCH.

22. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, follow the precautions below.

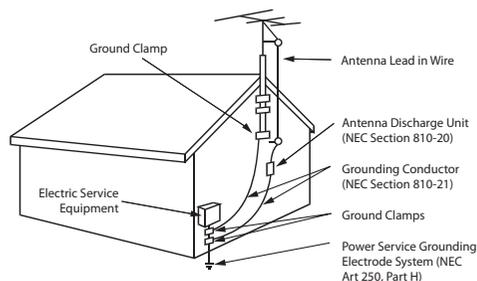
An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits or where it can come into contact with such power lines or circuits as death or serious injury can occur.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Article 810 of the National Electrical Code (NEC) in the U.S.A. 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.

Antenna Grounding According to NEC, ANSI/NFPA 70



23. Cleaning

When cleaning, unplug the power cord and rub gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the STB as electric shock may occur. Do not clean with chemicals such as alcohol, thinners, or benzene.

24. Transporting Product

Make sure the product is turned Off and unplugged and that all cables have been removed. Do not press against or put stress on the STB.

25. Ventilation

Install the STB where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the product with cloth or other materials (e.g., plastic) while it is plugged in. Do not install in excessively dusty places.

26. Do not touch the ventilation openings, as they may become hot while the STB is operating.

27. If you smell smoke or other odors coming from the STB or hear strange sounds, unplug the power cord, and contact an authorized service center.

28. Keep the product away from direct sunlight.



Warning: Copying a blank or incorrect memory into the STB1000 will cause the STB to operate erratically or become inoperable.



Warning: Do not connect a clone programmer to the STB1000 MPI/GAME CONTROL port while the STB is in LodgeNet PPV Mode, as this will damage the clone programmer.

This section provides an overview of cloning requirements and procedures. Use one of the following options to Learn and Teach the Master STB1000 Setup:

- USB memory device. Ensure the USB device has been formatted with FAT format.
- TLL-1100A clone programmer. Ensure the TLL-1100A is either fully charged or connected to AC power.
- LT2002 clone programmer. The LT2002 requires four (4) high-quality alkaline AA batteries in order to operate.

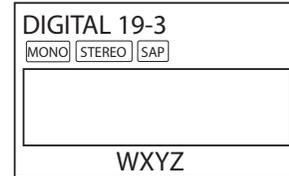
Refer to the **STB1000 Installation & Setup Guide** for detailed cloning instructions and for a listing of clonable menu features.

Before you begin cloning:

- Complete the Master STB1000 Setup procedure.
- Ensure Installer Menu items on Target STB1000s are set/restored to factory default settings (i.e., set Installer Menu item 117 FACT DEFAULT to 001 on Target STBs) before Teaching is initiated.
- All equipment should be connected to power and turned ON.
- Learning and Teaching is only possible between identical model STBs.
- For both Master and Target STB1000s—The STB EBL must be in Pass-through Mode.
- For both Master and Target STB1000s—If using a clone programmer, ensure the STB signal source is either an Aux or TV (RF) source. If a TV (RF) source, the STB must be tuned to an analog (not a digital) channel.
- LT2002 only—Make sure the batteries are fresh. If batteries are removed, the clone programmer clock time (if set) will be lost. See also note on page 19 regarding the clone programmer clock.
- Do not unplug the STB1000 power cord or remove/disconnect the USB memory device/clone programmer while Learning or Teaching, as doing so may cause the STB to malfunction or harm the USB device/clone programmer, respectively.

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- 4. Transfer the STB1000 Setup to the internal STB controller (PTC): 2-5-5 + MENU Mode**
 After the STB channel lineup has been edited and channel labels added, enter the Installer Menu. Once in the Installer Menu, press **2-5-5 + MENU** on the Installer Remote to initiate the transfer of the Master STB Setup to the PTC. The STB exits the Installer Menu and then tunes through the channels in the channel lineup during the transfer. When the transfer is complete, the TV tunes back to the channel that was tuned before the transfer began.



Custom Text Label "WXYZ" created in 2-5-4 + MENU (Add Channel Label) Mode.

Note: The maximum number of active channels that can be transferred is 141. Total channels numbering more than 141 will result in erratic STB operation.

- 5. Add Custom Channel and Aux Source Labels for Analog Channels: 2-5-4 + MENU Mode**
 Enter the Installer Menu, and press **2-5-4 + MENU** on the Installer Remote. Add/edit custom text labels to channel on-screen displays. Note that digital channels often have a broadcaster generated label. When you are finished, press **MENU** to exit 2-5-4 + MENU Mode.



After verifying the STB1000 Setup, set Installer Menu item 028 CH. OVERRIDE to 000. *

* This step prevents end users from accessing channel settings (i.e., the Channel Menu will be inaccessible/grayed out).

- 6. Verify the STB1000 setup.**
 At this point, verify that the channel lineup, channel icons, and custom labels are correct. Make sure the display features are set per your requirements.
- 7. Lock the channel lineup.**
 Enter the Installer Menu. Then, set item **028 CH. OVERRIDE** to **000** and press **ENTER** to lock the channel lineup and restrict access to the STB1000 setup menus. Press **ENTER** again to save your changes and exit the Installer Menu.*

The Master STB1000 Setup is now ready to be copied to a USB memory device or a clone programmer (see cloning overview information on pages 17 to 19).

Installation and Setup

- ___ Unpack the STB1000 and all accessories. Accessories provided:
 - 6 ft AC power cord
 - 5 ft RS-232C-F to RS-232C-F null-modem cable with 3.5 mm stereo plug
 - 5 ft RS-232C-M to RS-232C-F straight-through cable
 - 5 ft HDMI to DVI-M cable
 - 1 ft DVI-F to HDMI adapter cable
 - 5 ft Audio cable with 3.5 mm stereo plugs
 - IR receiver with attached 3.5 mm stereo plug cable (3 ft), plus mounting bracket
 - 5 wall mount brackets with 5 screws for attaching the STB1000 to a wall
 - Installer Remote with batteries
- ___ Determine installation location for the STB1000, display panel stand, or mount.
- ___ Determine mounting and installation requirements, for example, AC power source outlet, antenna/cable service connectors, any external equipment required for system operation, all necessary cables, wires, and connectors, and any other additional required hardware, etc.
- ___ Install batteries in the remote control.
- ___ Install display panel on VESA mount or stand, as necessary, following the manufacturer's instructions. Note: It may be advisable to make all cable connections before installing on VESA mount or stand.

Hardware Connections

- ___ Install any additional hardware as appropriate to your institution, LAN, etc.

STB1000 Cable Connections

- ___ Make all connections to the rear and jack panel connectors.
- ___ Connect the STB1000 to a standard 120V 60 Hz AC power source.

Commercial Mode Setup

- ___ Complete Commercial Mode setup (configure all relevant Installer Menu items as required of your institution and configure display features for the end user).

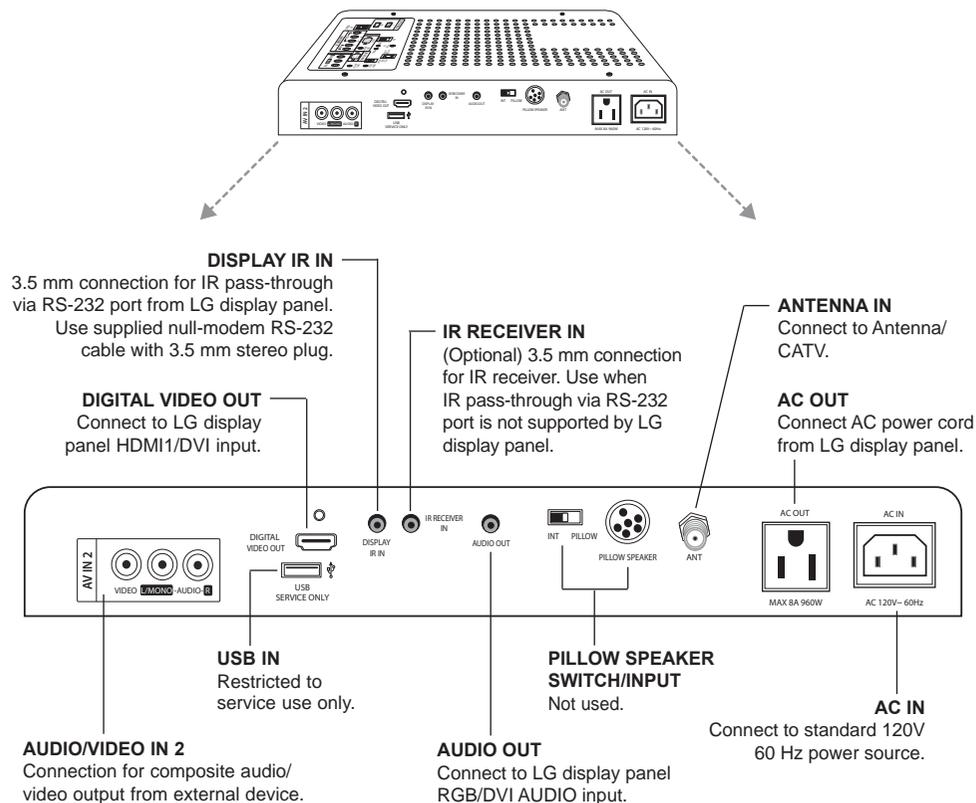
Software Installation

- ___ Install or configure any software as applicable, for example, PPV, etc.

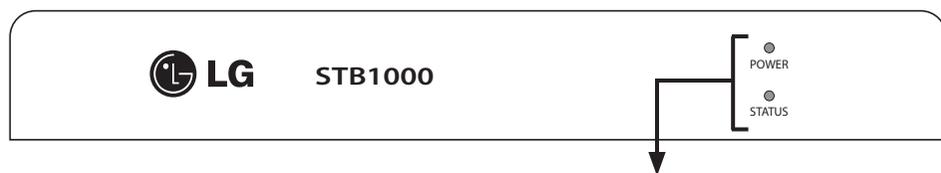
Refer to the **STB1000 Installation & Setup Guide** for further installation and configuration information. Product documentation is available online at: www.LGolutions.com/products. From the Products page, select **TVs, Systems & Solutions**, then **Interface / Control Boxes & Cards**, then **STB1000**. Click the **Literature & Downloads** tab at the bottom of the STB1000 page, and select the required document(s) from the Downloads list.

Note: Design and specifications subject to change without prior notice.

STB1000 Rear Panel



STB1000 Front Panel



POWER LED: Lit while the STB1000 and display panel are turned ON.
STATUS LED: Blinks rapidly if there is no Channel Map defined; blinks slowly if a Channel Map is defined.

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2. Set up display features.

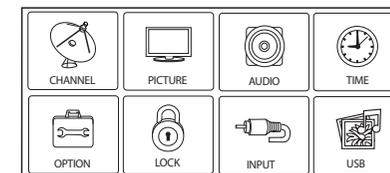
On-screen setup menus control the features of the STB1000. Press **MENU** on the Installer Remote to access the setup menus, and then set clonable Channel, Picture, Audio, Lock, Time, etc. options to the desired configurations.

Note: If desired, you can run Auto Tuning (see step 3) prior to completing this step.

3. Run Auto Tuning (Channel Search).

- Search for all available analog and digital channels: Go to the Channel Menu, select the **Auto Tuning** option, and follow the on-screen instructions.
- Use the **Channel Edit** option in the Channel Menu to edit the channel lineup, as necessary, to include free to guest channels only.

- Add/delete channels per your system requirements. Note that physical channel numbers are used to identify virtual channels. Also, channel numbers cannot be higher than 255.
- Use the **Channel Label** option in the Channel Menu to add familiar channel trademarks/logos, such as ABC, CBS, NBC, etc., to the Channel-Time on-screen display. Identifiable labels (logos) should enable the end user to readily know what common networks are available. (You can add channel logos or labels for channels without icons in step 5).



Set the display features to the desired configuration for the end user.



Run Auto Tuning, edit channels, and select familiar channel trademarks/logos using Channel Menu options.

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This section describes how to set up a Master STB1000 when the EBL is in Pass-through Mode. Refer to the **STB1000 Installation & Setup Guide**, as necessary, for detailed information on Installer Menu items and/or cloning.

Note: Disconnect all Aux inputs. Under certain conditions, Auto Tuning (Channel Search) is disabled if there is an Aux input active.

1. Set Installer Menu items.

This step provides specific instruction only on the Installer Menu items that should be set on a Master STB1000.

- a) Make sure the STB1000/display panel is ON. Then, use the Installer Remote to enter the STB1000 Installer Menu: Press **MENU** repeatedly until the on-screen setup menus lock up, and then press **9-8-7-6 + ENTER**.

- b) Set Installer Menu item **117 FACT DEFAULT** to **001** and press **ENTER** on the Installer Remote.

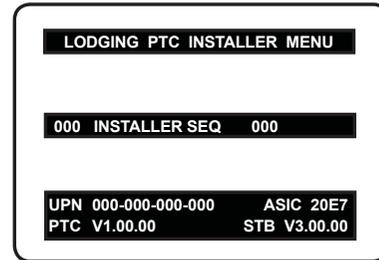
This exits the Installer Menu and then clears all Installer Menu custom settings, channel labels/icons, etc. and reloads factory default settings. The value will change back to 0 after the internal STB controller (Protocol Translator Card [PTC]) has been restored to factory default condition. This step ensures that the STB Channel Memory will be the active channel lineup.

- c) Re-enter the Installer Menu as described above, and set Installer Menu item **003 BAND/AFC**, as appropriate.

- Broadcast: Set to 000. • HRC: Set to 002.
- CATV: Set to 001 (default). • IRC: Set to 003.

- d) Set any other Installer Menu items that affect your programming network to the required configuration. For example, enable/disable Aux sources, set a Start Channel, etc.

- e) After you have adjusted all required Installer Menu item settings, press **ENTER** once on the Installer Remote to save your changes; then, press **ENTER** again to exit the menu and save your changes.

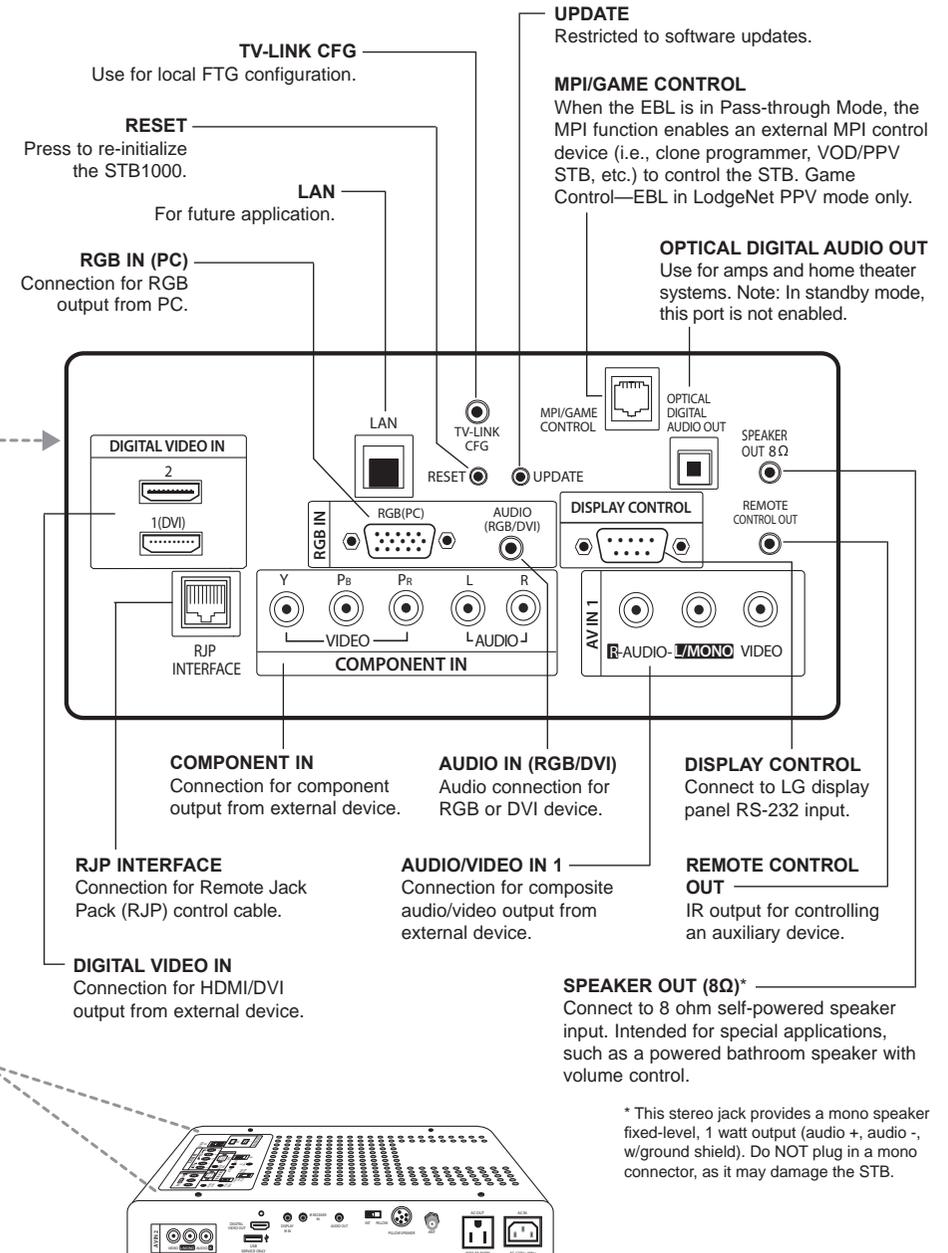


Typical Installer Menu



Adjust the settings for these Installer Menu items.

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The STB1000 generates heat during operation and needs to be provided with adequate ventilation to assure continued reliable operation. See recommendations below.

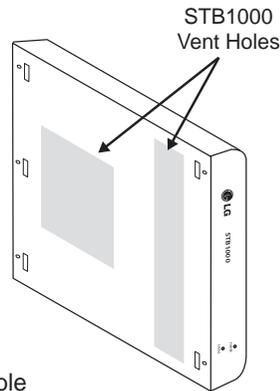
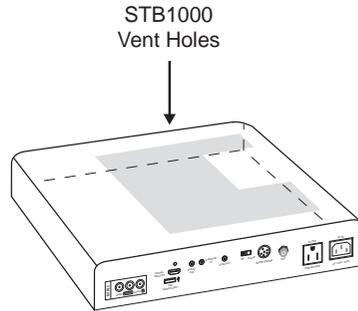
⚠ Proper clearance for air to flow around the STB1000 must be provided.

Note: While accommodating STB1000 ventilation requirements, also be sure proper ventilation is provided for the display panel. Refer to display panel installation documentation for ventilation requirements and specifications.

Note: In addition to the ventilation requirements indicated below, be sure to allow enough clearance (4 to 5 inches) for wiring clusters attached to the STB1000.

1. Ventilation holes on the top and bottom of the STB1000 are provided for ventilation cooling (see figures at right).
2. The vent holes should never be blocked or obstructed to airflow but have an unimpeded path through any enclosure back to room temperature air.
3. The unit and its venting, should not be installed near heat sources, such as radiators or heating ducts.
4. If the unit is placed in an enclosure, tests should be run to confirm that the ambient temperature around the unit under normal expected operating conditions is stable and does not exceed 40 degrees Celsius (104° F). The ambient temperature can be determined by placing a thermometer near the air intake vents in the proposed enclosure and measuring the temperature every hour, under normal operating conditions, until two successive readings repeat.

If the temperature does not stabilize but keeps increasing above 40 degrees Celsius (104° F), ventilation is inadequate and needs to be improved.
5. Always provide adequate air space between the ventilation areas and adjacent structures.



The LG Installer Remote illustrated below shows typical remote control functions and is provided for reference only. This Installer Remote may vary from the Installer Remote supplied with the STB1000.

<p>GUIDE Displays and removes the electronic program guide.</p> <p>PORTAL Displays and removes the interactive menu.</p> <p>INFO Displays channel information.</p> <p>Arrows (Up/Down/Left/Right) & ENTER Use to navigate on-screen menus and adjust STB settings to your requirements.</p> <p>VOLUME UP/DOWN Increases/decreases sound level.</p> <p>CC Press to activate subtitles.</p> <p>MUTE Switches sound ON or OFF.</p> <p>CHANNEL/PAGE UP/DOWN Changes the channel. Moves from one full set of screen information to the next.</p> <p>Color buttons access special functions in some menus.</p> <p>VCR/DVD BUTTONS Controls some video cassette recorders or DVD players.</p> <p>PIP Toggles through PIP options.</p> <p>PIP CH +/- Changes the PIP channel.</p> <p>PIP SWAP Exchange the main/sub images.</p> <p>PIP INPUT Select the connected input source for the sub-picture.</p>		<p>TV/STB/DVD/VCR Select the remote's operating mode: TV, STB (Cable), DVD, or VCR.</p> <p>POWER Turns STB or any other programmed equipment On or Off, depending on mode.</p> <p>RETURN Returns one level to the previous menu/display.</p> <p>MENU Displays STB setup menus on the screen. Also exits the on-screen menu system.</p> <p>INPUT Selects RGB, HDMI/DVI1, HDMI2, Component, AV1, and AV2 sources.</p> <p>NUMBER Buttons (0-9) DASH Use to enter a program number or channel. Dash is used for sub-channel numbers such as 2-1, 2-2, 9-1, 9-2, 100-3, 100-4, etc.</p> <p>FLASHBK (FLASHBACK) Returns to the previously tuned channel.</p> <p>RATIO Adjusts the picture aspect ratio.</p> <p>TIMER Sets the amount of time before the STB automatically turns itself OFF.</p> <p>SAP Analog Mode: Selects MTS sound (Mono, Stereo, or SAP). DTV Mode: Changes audio language, if additional languages are available.</p> <p>SAP notes</p> <ul style="list-style-type: none"> • If SAP is selected and no SAP is provided, sound may not be heard on channel. • Each analog channel may have its own SAP setting. • Digital channels will reset to default audio language with a power off/on.
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Installer Menu / Commercial Mode Setup

There are two modes available for setting up the STB1000 for Commercial Mode: either in the Embedded *b*-LAN™ (EBL) module's Pass-through Mode or its Free-To-Guest (FTG) Mode.

Note: The *b*-LAN module is internal to the STB1000 and allows the institution head end equipment to communicate with the STB for configuration and control. The *b*-LAN module also comprises the data tuner required for Pro:Centric™ operation.

- **Pass-through Mode:** This mode allows you to configure a Master STB1000 Setup for cloning purposes as well as external VOD/PPV control. Use the Installer Remote to configure Installer Menu items as required for STB1000 operation and set up display features (Channel, Picture, Audio, etc.). See Master STB1000 Setup procedure on pages 14 to 16.
- **FTG Mode:** This mode enables Pro:Idiom® decryption and also allows logical channel mapping of physical channels to remove the need for dash tuning. FTG Configuration Application software is used to configure and/or edit Channel Map and Installer Menu settings. See the **STB1000 Installation & Setup Guide** for further information on FTG Mode and local configuration using a PC with the FTG Configuration Application. Since the STB1000 is equipped with the EBL Module, it can also be broadcast configured in FTG Mode by a Free-To-Guest Management Appliance (FMA) head end device. Refer to the **Free-To-Guest (FTG) Configuration Application** manual and/or the Installation & Setup manual for the FMA device.

Installer Remote

The LG Installer Remote is supplied with and dedicated to operate the STB1000. See next page for typical key functions. Some DVD and VCR controls may be available for selected LG DVD/VCR products.

Cloning

Cloning refers to the process of capturing a Master STB1000 Setup and transferring it to a Target STB1000. The Master STB1000's clonable features need to be configured as part of the Commercial Mode Setup. This is a critical step. If the Master STB1000's clonable features—channel icons or labels, digital font options, etc.—are not set up correctly, the cloned STBs will all have problems. Pages 17 to 19 provide overviews of cloning requirements and procedures.

Pro:Centric Operation

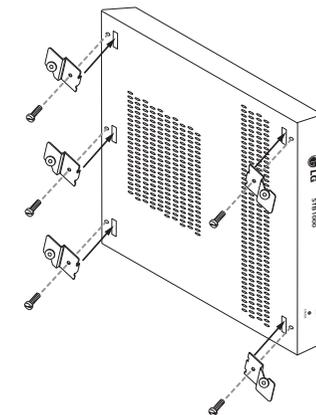
Pro:Centric operation requires that Installer Menu item 119 DATA CHANNEL be set appropriately and that the STB1000 be in PPV or FTG Mode.

Use the Installer Remote to operate both interactive menus and regular STB1000 features. Press **PORTAL** on the Installer Remote to access the interactive menus.

Vertical Installation (Wall Mount) Using Supplied Angled L-Brackets

Angled brackets are provided so that the STB1000 can be mounted on a flat vertical surface, like a wall. Install the angled brackets with the screws provided. Then, mount the STB1000 on the wall using appropriate screws.

Note: The brackets are designed to be mounted to typical 16-inch spaced wall studs. Do not mount the STB1000 on a weak wall surface. If wall studs are not available, use another appropriate fastening system.



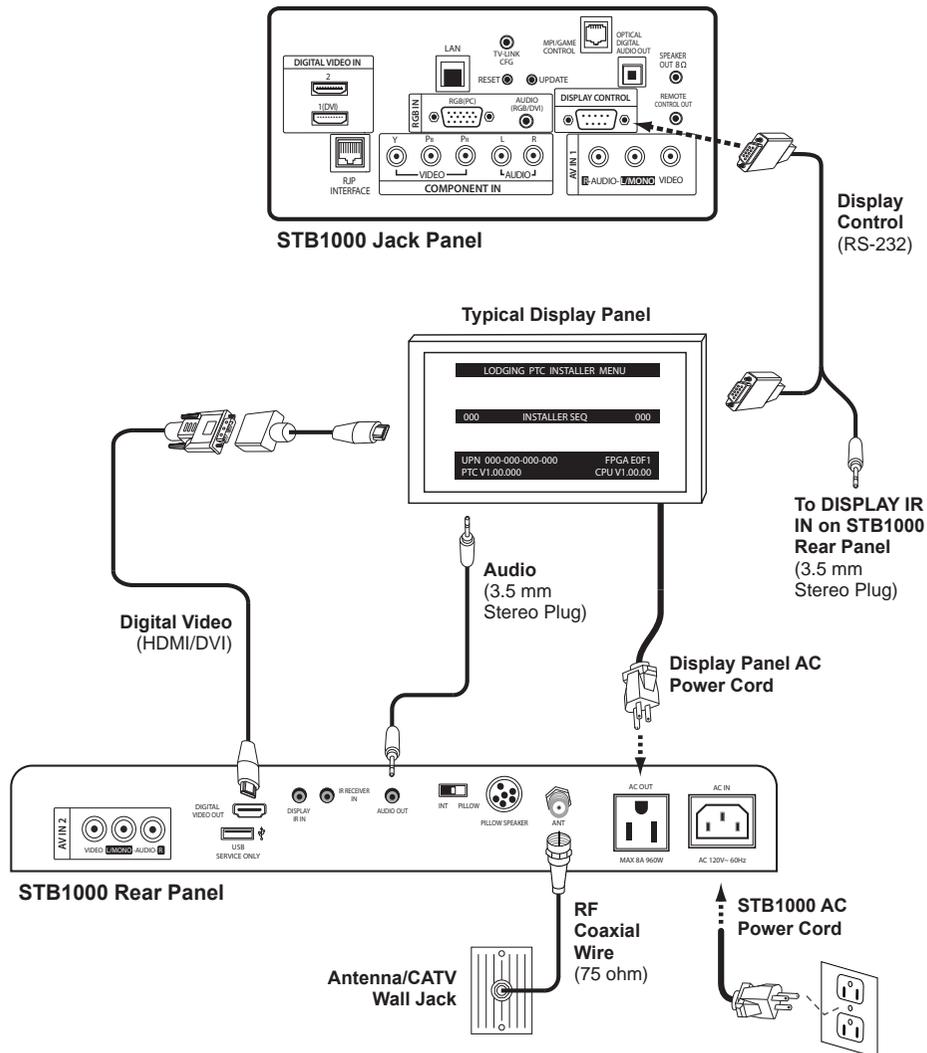
Monitor/STB1000 Wall Mounting System

The display panel and STB1000 can be mounted to a wall using an optional monitor/interface STB wall mounting system. For further information on the mounting system, contact your LG dealer.

Refer to the cabling diagram below, and complete the procedure on page 11 to connect the STB1000 to a compatible LG display panel.

Notes:

- This diagram shows a typical installation using the supplied RS-232 null-modem cable.
- Refer to the *STB1000 Installation & Setup Guide* for a list of compatible LG monitors/TVs.

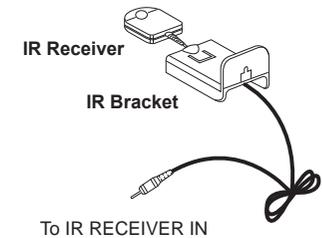


1. Use one of the supplied RS-232 cables—either the serial DB9-Female to DB9-Female null-modem cable or the DB9-Female to DB9-Male straight-through cable, depending on display panel requirements—to connect the DISPLAY CONTROL connector on the STB1000 jack panel to the RS-232 IN connector on the LG display panel.

Note: Once the RS-232 connection is made between the STB1000 and the LG display panel, the display panel functions can only be controlled by the STB1000 RS-232 commands.

2. Make the appropriate IR connection:
 - If the LG display panel supports IR pass-through and you are using the null-modem RS-232 cable with 3.5 mm stereo plug, connect the 3.5 mm plug to the DISPLAY IR IN jack on the STB1000 rear panel.
 - If the LG display panel does not support IR pass-through via the RS-232 port, attach the supplied IR receiver and bracket assembly (see diagram below) to the back of the display panel, and connect the 3.5 mm plug to the IR RECEIVER IN jack on the STB1000 rear panel.

The IR receiver should be installed in the IR bracket. When the IR bracket assembly is attached to the display, it should be mounted with two-sided tape on the bottom-back side of the display panel. The IR receiver should be aimed toward the TV viewer and be visible at the bottom front of the display, in order that it be able to receive IR signals from the user remote.



3. Use the supplied HDMI cable (with adapter, if necessary) to connect the DIGITAL VIDEO OUT connector on the STB1000 rear panel to the HDMI1/DVI input connector on the LG display panel.
4. Use the supplied Audio cable to connect the AUDIO OUT connector on the STB1000 rear panel to the RGB/DVI AUDIO input connector on the LG display panel.
5. Connect a 75 ohm coaxial wire from the Antenna/CATV wall jack to the ANT (Antenna In) jack on the STB1000 rear panel.
6. Plug the display panel AC power cord into the AC power outlet (AC OUT) provided on the STB1000 rear panel.
7. Plug the STB1000 AC power cord into a standard 120V 60 Hz power outlet. Once power is applied to the STB1000, the AC power outlet (AC OUT) is active. Also, the STATUS LED on the STB1000 front panel will begin blinking, indicating that the panel is in standby mode.
8. Use the supplied Installer Remote to turn ON the STB/display panel.