



LG

Life's Good

OWNER'S MANUAL

AD BOX FOR TRANSPARENT DISPLAY

Please read this manual carefully before operating your set and retain it for future reference.

AD BOX FOR TRANSPARENT DISPLAY MODELS
TSP300

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LICENSES

Supported licenses may differ by model. For more information about the licenses, visit www.lg.com.



The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



NOTE

- The warranty will not cover any damages caused by using the product in an excessively dusty environment.

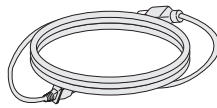
ASSEMBLING AND PREPARING

Accessories

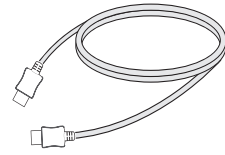
Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and accessories.



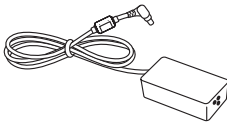
**CD (Owner's Manual) /
Cards**



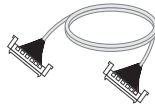
Power Cord



HDMI Cable



AC/DC Adapter



LVDS Cable for FHD



CAUTION

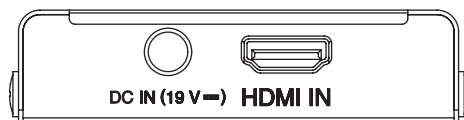
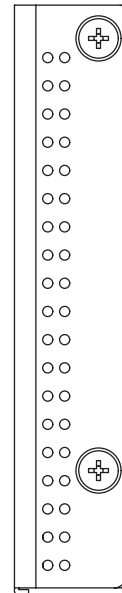
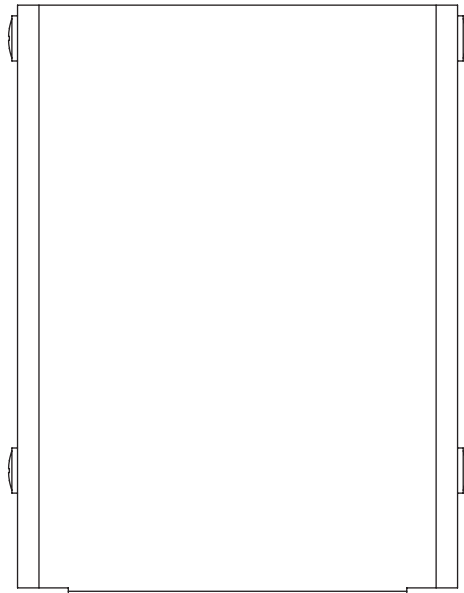
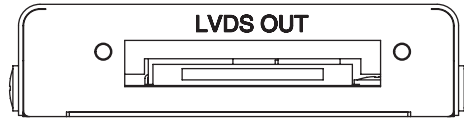
- Do not use any unauthorized items to ensure the safety and product life span.
- Any damages or injuries by using unauthorized items are not covered by the warranty.



NOTE

- The accessories supplied with your product may vary depending on the model.
- Product specifications or contents in this manual may be changed without prior notice due to upgrade of product functions.

Parts



USING THE TSP300 SET

Connecting to a PC

The TSP300 does not include the monitor. You can connect TSP300 to a transparent open frame (model: 26TS30MF, 47TS30MF, 47TS50MF, 32LW55A) to view the picture on it.

Your TSP300 set supports the Plug & Play* feature.

* Plug & Play: A PC will have a built-in driver for TSP300, no extra software is needed.



NOTE

- It is recommended to use the TSP300 set with an HDMI connection for the best image quality.
- Use the cable provided with the product to maintain standard compliance for the product.
- If you turn the TSP300 set on when the TSP300 is cold, the screen may flicker. This is normal.
- Some red, green, or blue spots may appear on the screen. This is normal.
- It operates as a normal HDMI Compliant Sink only when it is connected to a transparent open-frame model (26TS30MF, 47TS30MF, 47TS50MF, 32LW55A).

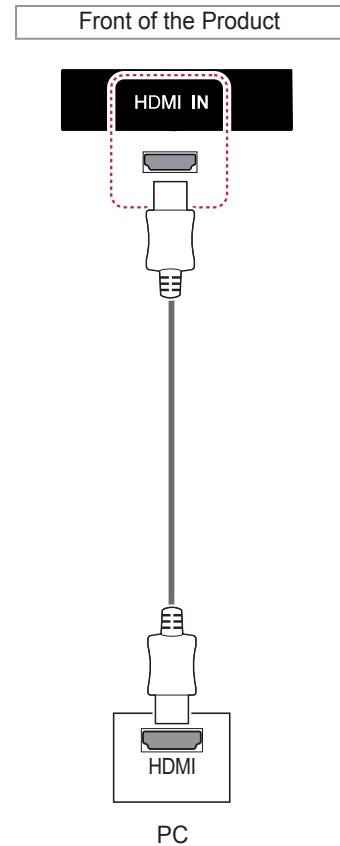


CAUTION

- Do not press the screen with your finger for a long time as this may result in temporary distortion on the screen.
- Avoid displaying a fixed image on the screen for a long period of time to prevent image burn. Use a screensaver if possible.

HDMI Connection

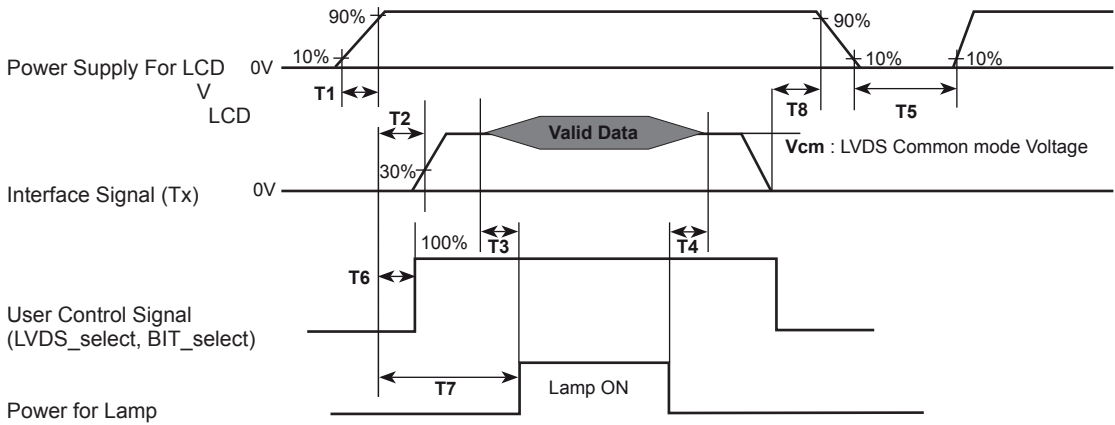
Transmits digital video and audio signals from your PC to the TSP300 set. Connect the PC and the TSP300 set with an HDMI cable as shown in the following illustrations. Select HDMI input.



Power Sequence

CAUTION

- TSP300 requires additional transparent display and backlight in order to display the image properly.
- If you do not follow the booting sequence below while launching the backlight, the screen may display abnormally (blinking or vertical stripes).



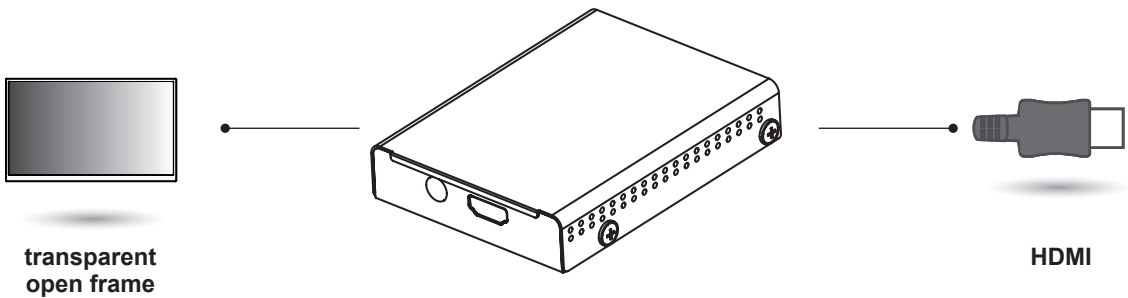
Parameter	Value			Unit	Notes
	Min	Typ	Max		
T1	0.5	-	20	ms	
T2	0	-	-	ms	4
T3	200	-	-	ms	3
T4	200	-	-	ms	3
T5	1.0	-	-	s	5
T6	-	-	T2	ms	4
T7	0.5	-	-	s	
T8	100	-	-	ms	6

- T3 and T4 are the recommended values. In the event the minimum specification is not met, an abnormal display will result. This is not a reliability problem.

MAKING CONNECTIONS

Connect various external devices to the ports on the TSP300 set's panel.

- 1 Find an external device you want to connect to your TSP300 set shown on the following illustration.
- 2 Check the connection type of the external device.
- 3 Go to the appropriate illustration and check the connection details.



! NOTE

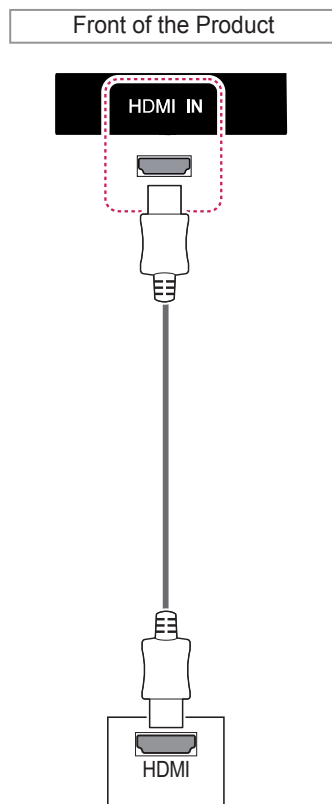
- If you connect a gaming device to the TSP300 set, use the cable supplied with the gaming device.

External Device Connection

Connect an HD receiver, DVD player, or VCR to the TSP300 set and select an appropriate input mode.

HDMI Connection

Transmits the digital video and audio signals from an external device to the TSP300 set. Connect the external device and the TSP300 set with the HDMI cable as shown on the following illustration.



! NOTE

- Use a High Speed HDMI™ Cable.
- High Speed HDMI™ Cables are tested to carry an HD signal up to 1080p and higher.

TROUBLESHOOTING

No image is displayed.

Problem	Resolution
Is the product power cord connected?	<ul style="list-style-type: none"> See if the power cord is properly connected to the outlet.
Power is on but the screen appears extremely dark.	<ul style="list-style-type: none"> Check if the backlight, which is a separate component, is turned on.
Does the Invalid Format message appear?	<ul style="list-style-type: none"> The signal from the PC (video card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this manual. * Maximum resolution 1920 x 1080 @ 60 Hz
Does the No signal message appear?	<ul style="list-style-type: none"> The signal cable between PC and product is not connected. Check the signal cable.

Unknown Product message appears when the product is connected.

Problem	Resolution
Did you install the driver?	<ul style="list-style-type: none"> See if the plug&play function is supported by referring to the video card user manual.

The screen image looks abnormal.

Problem	Resolution
The screen is displayed abnormally.	<ul style="list-style-type: none"> The proper input signal is not connected to the signal port. Connect the signal cable that matches with the source input signal.
Vertical, horizontal lines, and meshes appear on the screen momentarily and they are shaking.	<ul style="list-style-type: none"> Stop using items such as wireless telephones, hair dryers, or electrical drills, etc. because the problem is caused by high frequency electronic devices or strong electro-magnetic sources. If you use the product near these devices, it may be powered off.

After-image appears on the product.

Problem	Resolution
After-image appears when the product is turned off.	<ul style="list-style-type: none"> • If you use a fixed image for a long time, the pixels may be damaged quickly. Use the screen-saver function. • When a dark image is displayed on the screen after an image with high contrast (black and white or gray), this may cause image sticking. This is normal for LCD screen.

Screen color is abnormal.

Problem	Resolution
Screen has poor color resolution (16 colors).	<ul style="list-style-type: none"> • Set the number of colors to more than 24 bits (true color) Select Control Panel - Display - Settings - Color Table menu in Windows.
Screen color is unstable or mono-colored.	<ul style="list-style-type: none"> • Check the connection status of the signal cable. Or, re-insert the PC video card.
Do black spots appear on the screen?	<ul style="list-style-type: none"> • Several pixels (red, green, white, or black color) may appear on the screen, which can be attributable to the unique characteristics of the LCD panel. It is not a malfunction of the LCD.

SPECIFICATIONS

Video Signal	Max. Resolution	1920 x 1080 @ 60 Hz - It may not be supported depending on the OS or video card type.
	Recommended Resolution	1920 x 1080 @ 60 Hz - It may not be supported depending on the OS or video card type.
	Horizontal Frequency	30 kHz to 83 kHz
	Vertical Frequency	56 Hz to 60 Hz
	Synchronization Type	Separate Sync
Input Connector	HDMI (digital)	
Power	Rated Voltage	19 V --- 3.42 A
	Power Consumption	On Mode : 20 W (Max.)
AC/DC Adapter	DA-65G19 type, manufactured by APD Output: 19 V --- 3.42 A	
Environmental conditions	Operating Temperature	0 °C to 40 °C
	Operating Humidity	10 % to 80 %
	Storage Temperature	-20 °C to 60 °C
	Storage Humidity	5 % to 95 %
Dimensions (Width x Height x Depth) / Weight	103.3 mm x 78 mm x 19.9 mm / 180 g	

Product specifications shown above may be changed without prior notice due to upgrade of product functions.

HDMI (PC) Supported Mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
1920 x 1080	67.5	60

! NOTE

- **Vertical frequency:** To enable the user to watch the product display, screen image should be changed tens of times every second like a fluorescent lamp. The vertical frequency or refresh rate is the times of image display per second. The unit is Hz.
- **Horizontal frequency:** The horizontal interval is the time to display one vertical line. When 1 is divided by the horizontal interval, the number of horizontal lines displayed every second can be tabulated as the horizontal frequency. The unit is kHz.



Make sure to read the Safety Precautions before using the product. Keep the Owner's Manual(CD) in an accessible place for future reference. The model and serial number of the SET is located on the back and one side of the SET. Record it below should you ever need service.

MODEL _____

SERIAL _____

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit <http://opensource.lge.com>.

In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download. LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping and handling) upon email request to opensource@lge.com. This offer is valid for three (3) years from the date on which you purchased the product.

WARNING -This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Temporary noise is normal when powering ON or OFF this device.