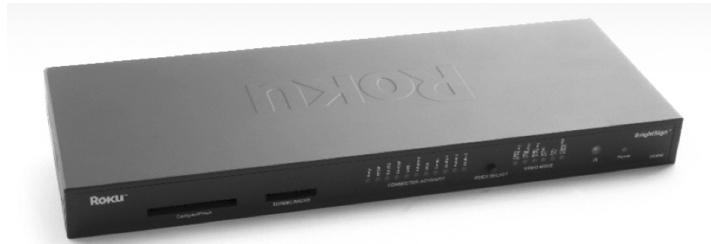


BrightSign

Installation and Regulatory Guide



ROKU™

Introduction

Roku BrightSign is a solid state media player that supports standard and high-definition video, photos, music and interactivity. Its ease of use and reliable design makes it the perfect solution for high-impact digital signs, interactive kiosks, point-of-purchase displays and museum exhibits. Simply insert a removable flash card to display looping playback of content, or add interactivity with state-based tables or scripts. This guide supports both the BrightSign HD600 and HD2000 models.

Carton Contents and Options

The BrightSign carton should include the following items:

- BrightSign main unit
- Power supply with plug adaptors for USA/Canada, UK, Europe and Australia type electric outlets
- Two Shelf/Wall Mountable Brackets
- One Left Rack Mountable Bracket (HD600 only)
- One Right Rack Mountable Bracket (HD600 only)
- Four screws
- Installation and Regulatory Guide

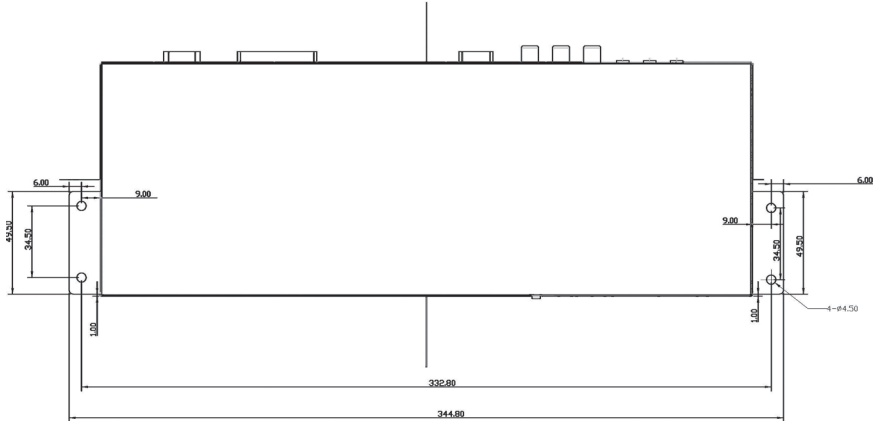
The following options are available directly from Roku:

- IR Remote Control
- LED and Button Test demonstration and test PCBA for use with the DB25 Control Connector

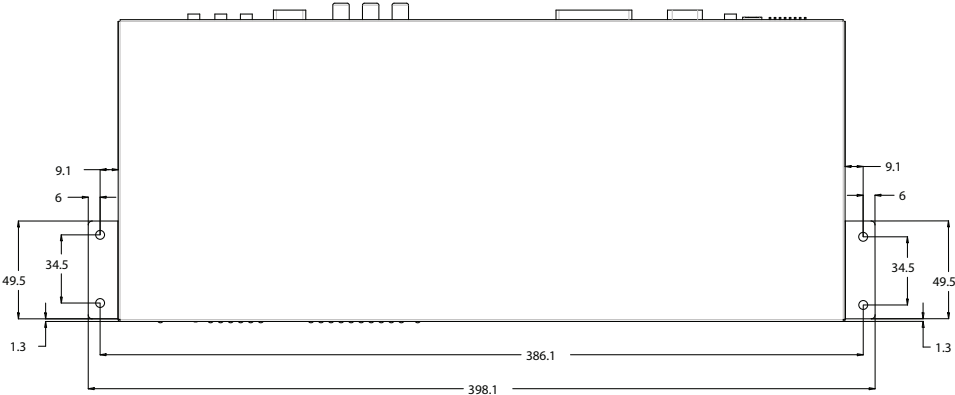
Wall Mount Dimensions

The wall mount brackets screw in to the bottom of the main BrightSign unit (two screws per side). The brackets provide two additional screw holes for mounting on a wall or other surface.

HD600



HD2000



Heat Considerations

The device is cooled by free convection and has cooling slots on the sides. When mounting this device inside a cabinet, ensure there is adequate air flow. When mounting on the wall, it is best to mount the unit sideways so that one narrow side end is at the top and the other is at the bottom. This way, cool air will come in the air slots facing the ground and hot air will exit out the cooling slots facing up. To ensure reliable operation you should conduct thermal tests and measure the ambient temperature, especially if the device is mounted inside a cabinet. Ambient air temperature around the device should not exceed 40°C (104°F).

Power Considerations

The means of connection to the supply is the main plug of the direct plug-in power supply of the equipment. The socket-outlet should be installed near the equipment and should be easily accessible.

BrightSign HD600 and HD2000 external power supply:

UL and CE Listed Switching Power Supply PSA15R-050P of Phihong Technology Co, Ltd.

Rated: Input: 100-240 VAC, 0.5A, 50-60Hz -Output: 5VDC, 2.8A

HD600

In typical operation this device draws approximately 5 watts. The power supply is rated at 14W, which is the theoretical power draw under maximum load (for example, with USB devices drawing their max, with the DB25 Control port supplying power, playing video and audio on all channels, etc.).

HD2000

In typical operation this device draws approximately 10.5 watts. The power supply is rated at 14W. It is theoretically possible to configure your HD2000 and peripherals in a way that will draw more than 14W. Please ensure that the power draw under maximum load is less than 14W (these options draw power: USB devices, the DB25 Control port, playing video and audio on multiple channels, etc.).

Technical Documentation and Support

For complete documentation and forums visit www.rokulabs.com\brightsign for the following documents:

<ul style="list-style-type: none">• BrightSign User Guide• BrightSign BrightScript Reference Guide• BrightSign Object Reference Guide	<ul style="list-style-type: none">• BrightSign HD600 Hardware Guide• BrightSign HD600 Datasheet	<ul style="list-style-type: none">• BrightSign HD2000 Hardware Guide• BrightSign HD2000 Datasheet
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Regulatory

BrightSign is certified for use in most major countries around the world for consumer or industrial use. It is RoHS compliant, has the CE mark, passes FCC class B, and other EMI/EMC and safety standards. Note the following instructions required by various regulatory agencies..

FCC Rules, Part 15

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 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:

- 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

This device complies with Part 15 of the FCC rules

Operation is subject to the following two conditions:

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

Responsible party (contact for FCC matters only): Roku, LLC, 399 Sherman Ave. #12, Palo Alto, CA 94306, 650-321-1394.

For customer service questions go to: www.rokulabs.com/support

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada Class B Statement

This Class B device meets all requirements of the Canadian interference-causing equipment regulations. Cet appareil numérique de la Class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Community

Complies with EU Directive 89/336/EEC using EN55022:1998, EN55024:1998, EN61000-3-2:2000 and EN61000-3-3:1995.

CE Warning: This is a class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Important Safety Instructions

1. **Read Instructions** All the safety and operating instructions should be read before the product is operated.
2. **Retain Instructions** The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** All warnings on the product and in the operating instructions should be adhered to.
4. **Follow Instructions** All operating and use instructions should be followed. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
5. **Cleaning** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. **Water and Moisture** To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus. Do not use this product near water (for example, near a bathtub, wash bowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool; and the like).

7. **Accessories** not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. A product and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the product and cart combination to overturn.
8. **Power Sources** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.
9. **Grounding or Polarization** This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). 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, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
10. **Power Cord Protection** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles and the point where they exit from the product.

11. **Overloading** Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.
12. **Object and Liquid Entry** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
13. **Servicing** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
14. **Damage Requiring Service** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power-supply cord or plug is damaged
 - If liquid has been spilled or objects have fallen into the product
 - If the product has been exposed to rain or water
 - If the product does not operate normally by following the operating instructions
 - If the product has been dropped or damaged in any way
 - When the product exhibits a distinct change in performance
15. **Heat** The product should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

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Roku, LLC.
399 Sherman Avenue
Suite 12
Palo Alto, CA 94306

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```
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```

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- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

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However, linking a “work that uses the Library” with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a “work that uses the library”. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a “work that uses the Library” uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a “work that uses the Library” with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer’s own use and reverse engineering for debugging such modifications.

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- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes

- were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable “work that uses the Library”, as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user’s computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
 - c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
 - d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
 - e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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