bluefin
Custom LCD Solutions

BrightSign Built-in
Manual & Specifications

3008 Series / Version 3.0 / November 11th, 2019

Table of Contents

Overview

BrightSign Built-In screens offer the power of a BrightSign HD media player and the dependability of an industrial style LCD screen in a single unit built for convenience.

Screens are available in two form factors; Finished screens designed with a sleek exterior for wall mounting, and Frameless screens which can be built into kiosks and point of purchase displays.

Additional options include capacitive touch screens available in every size and power over ethernet up to 32'' screens. All BrightSign Built-In screens are fully compatible with BrightSign's ecosystem of services and partnered third-party CMS solutions.

BrightAuthor and Configuration

BrightAuthor Setup

BrightAuthor is a free content management and publishing desktop application which can be used to configure players and upload playlists of scheduled content to one, or a network, of players. To download BrightAuthor, visit:
https://www.brightsign.biz/downloads/dsm-series
And download the most recent official release.

Creating a Presentation

When starting a project in BrightAuthor, set the presentation to the following parameters:

BrightSign Model: HS124
Connector Type: HDMI
Screen Resolution: 1920x1080x60 (1280x800x60 on 10.1'' Screens)
Monitor Orientation: Landscape or Portrait (Bottom on Right)

Ultrawide Presentations

For Ultrawide screens, continue to use the 1920x1080x60p resolution. Within the presentation, edit your zone to be the pixel height of the display and move it to the top of your presentation.

Learn BrightAuthor

To learn more about creating BrightSign presentations, visit:

https://www.brightsign.biz/support/training/tutorial-videos

http://docs.brightsign.biz/

for tutorial videos, user guides, troubleshooting and documentation.

BrightSign Player Setup

To set up a BSBI player, navigate to Tools from the menu, and select Setup BrightSign Unit.

Under Name Specification, select a name for your player. Select "Use name only" to display only the selected name during local network publishing, or "Append unit ID" to insert the player's unique ID at the end of its name.

Under Network Properties, select Enable Wireless and fill out the SSID and password if you want your player to communicate over a wireless network. Further network settings, both Wired and Wireless, can be found under Advanced Network Setup.

Under Unit Configuration, you may select one of three publishing options.

- Select "Standalone" to only allow the player to be updated directly from an SD card or USB Drive

- Select "Networked with Local File Networking" to allow publishing directly from BrightAuthor over a network connection

- Select "Simple File Networking" to publish from a web server

Select "Create Setup Files" when you are satisfied with your settings, and select a folder, USB or SD card location to write the setup files. You may then insert the SD card or USB drive containing the set-up files into your BrightSign player. A message will display informing you that setup is complete, and you may reboot the player and publish content to it.

Note: USB updating still requires an SD card to be present within the unit.

BrightSign Player Publishing

To publish a BrightAuthor presentation, navigate to the Publish Tab.
Select your publishing method from directly underneath the Publish tab, either Local Storage, Local Network, or Simple File Network
Browse to the folder containing your project.
Select your project from the list. By default, the selected presentation will display always, indefinitely. You may schedule this presentation to only play during certain times via the schedule to the right or schedule the player to switch between multiple presentations.

For Local Storage:
Browse to an SD card, USB drive or folder you wish to write the published presentation to.
Select Standalone unit to only publish the presentation.
Select Standalone unit with setup to include player setup with the presentation.

For Local Network:
Select the unit or multiple units you wish to publish to from the populated list. The units name and/or appended ID will appear if the player was set up for Local Network publishing and is on the same network as your computer.
If your unit does not appear in the list, turn on the player without its micro SD card inserted. At the start-up screen, note the players IP address.
Select the + icon under the Networked Units list in BrightAuthor and type the player's IP address.

For Simple File Network:
Select "Set Parameters"
Type the URL for the web folder to which you are publishing
Set the frequency at which the player will check for updates to that folder.
Browse to the SD card or folder you wish to publish to and place the published files in your web folder.

BrightSign Firmware Update

For players which have not been published to before, or if you have downloaded a new version of BrightAuthor, select "Specify Firmware Update" below your publishing options.

1. Ensure the Update type at the top is set to "Standard"

2. Navigate to the top left-hand section with the label HS124

3. Select "Production Release"

4. Select "Okay" to finalize your settings.

The firmware update will be included with your published presentation.

Controlling Room Scheduler LED's

These Instructions only apply to the BSBI Room Scheduler Screen.

The Room Scheduler unit comes with four LED strips on the sides of the screen, which can display in green or red. These LED's can be controlled via the GPIO commands in BrightAuthor.

To enable LED control
Open a BrightSign presentation in BrightAuthor and select File > Presentation Settings. Navigate to the I/O tab. Select "Output" next to GPIO 2 and 3. The lights will be turned off by default when running this presentation.

To Activate LED's within a Presentation
Double click the state or event where you want the LED to activate. Select the Advanced tab from the window that appears. Click the + button to add a new command.

To Display Green LED's, set this command to "GPIO > On > 3"

To Display Red LED's, set this command to "GPIO > On > 2"

To Display Yellow LED's, set both commands

To Turn Off LEDs, set any On's to Off.

Screen Menu

The screen menu provides configuration options for the monitor outside of BrightSign's configurations. This includes color correction, brightness, and CEC controls. To enter the menu, press the **MENU** key four times.

(Note: If you received your screen before August 2018, the sequence may be MENU UP UP UP)

Use the **UP** and **DOWN** buttons to navigate up and down, and the **VOL-** and **VOL+** to navigate left and right respectively. Return to the previous screen with **MENU**, or select an option with **SELECT.**

Page 1: Color Correction

Picture Mode: Adjust settings for Contrast, Brightness, Saturation, and Sharpness.

Color Temperature: Adjust the RGB levels.

Backlight: Turn the LCD backlight on or off

Page 2: Accessibility

OSD Language: Choose your language for the menu options

Restore Factory Default: Restore factory default settings for the screen

HDMI CEC: Enable and configure CEC controls between the screen and the BrightSign Built-In player. To enable CEC controls, select HDMI CEC from the menu, and press VOL+ to enable. If necessary, navigate down and press VOL+ to disable specific commands.
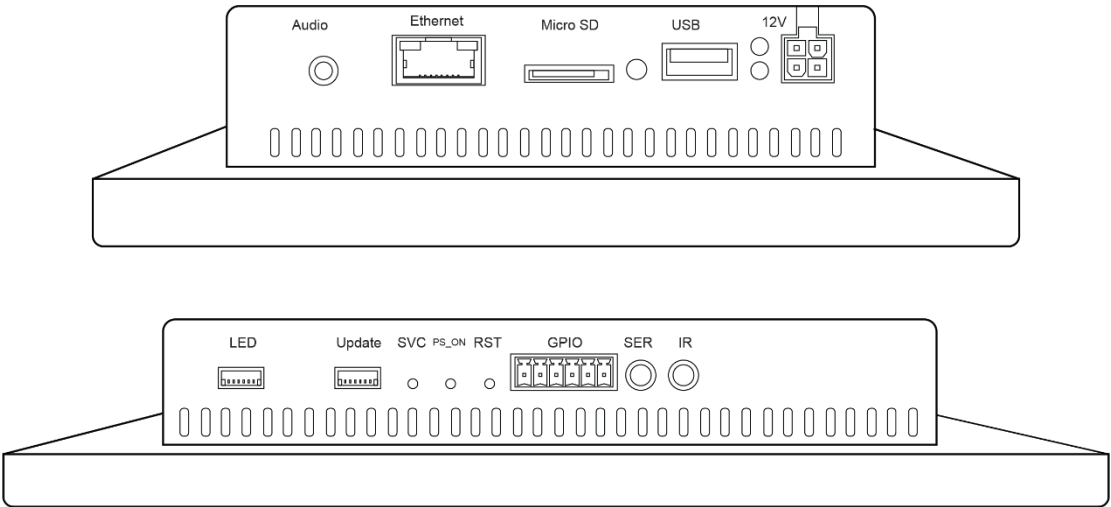
Page 3: Input

DMP and Input Source settings are not available on BrightSign Built-In units. **These settings should not be changed.**

Page 4: Software Update

Configure a screen software update via the 6-pin JST connector. This feature should not be utilized.

Ports

Power in

CN1: DC 12V Molex 4 pin input

NO.	DEFINATION	DESCRIPTION
1	12V	+12V DC Power supply
2	GND	Ground
3	12V	+12V DC Power supply
4	GND	Ground

Ethernet

RJ45 ethernet. POE+ power input on applicable screens up to 19.5''. POE++ power input on applicable screens up to 32.0''

Micro SD

Micro SD card slot. Protective cover on Finished units.

USB

1x USB 2.0 host port

Status LEDs

Power, Error, Busy, Update

SVC, PS_ON, RST

Service, Power Signal, Reset

Wi-Fi / Bluetooth

M.2 (E) Keyed Wi-Fi/Bluetooth connector

External antenna connector optional

Audio

3.5mm Audio Out (Analog and Digital)

Power out /LED

J10: DC 12V 6 pin output

NO.	DEFINATION	DESCRIPTION
1	GND	GND
2	GND	GND
3	GND	GND
4	VDD12V	VDD12V
5	VDD12V	VDD12V
6	VDD12V	VDD12V

Update

Update port for LCD chipset

GPIO

CON4: general input and output with power supply

PIN1-6 from left to right have the following definition.

NO.	DEFINATION	DESCRIPTION
1	GND	GND
2	3.3V	3.3V
3	GPIO	GPIOX0
4	GPIO	GPIOX1
5	GPIO	GPIOX2
6	GPIO	GPIOX3

Serial port

3.5mm RS-232 Serial Port

IR

BrightSign infrared remote-control input

SPK L / R

Amplified audio L / R output to 3W speaker – Only on Frameless screens

Player Specifications

Video Engine Decoder: Single 1080p60 video decoding

Media Formats:

Video Codecs: H.265, H.264 (MPEG-4, Part 10) MPEG-2, MPEG-1
Video Containers: .ts, .mpg, .vob, .mov, .mp4, .m2ts, .wmv
Images: BMP, JPEG, PNG
Audio: MP2, MP3, AAC, WAV (AC3 Pass Through)
HTML5: Mainstream Support

Hardware Capable Interfaces:

External micro SD Slot. SDHC up to 32GB, SDXC up to 2TB

USB 2.0 High Speed Host Port

Phoenix GPIO Port (4-pin bi-directional terminal block)

RS-232 Serial Port

IR In/Out

Audio Out (Analog and Digital)

Ethernet

M.2 (E) Keyed Wi-Fi/Bluetooth Connector (For Optional Wi-Fi Module)

Status LEDs: Power, Error, Busy, Update

Reset and Service Buttons

Real Time Clock

Screen Specifications

Parameters

Type	Description
Power Supply	+12V/24V @2A-5A
Audio Out	3.5mm Digital and Analog
Ethernet	1000BASE-T
SD/microSD	4-bit transfers, UHS-1 up to DDR50
USB 2.0	1x High Speed USB 2.0
LCD resolution	1920x1080
Brightness	>250 nits
Viewing angle	>85

Absolute maximum ratings

Parameters	Value	Unit
Power supply	12/24	Voltage
Storage temperature	-10~+60	Degree C
Operating temperature	0~+40	Degree C
Humidity	20~80	%RH

Installation and Safety

Choosing a Location

Do not install the display in a location where a door or object could hit it.

Do not install the display in an area where it will be subjected to strong vibrations or dust.

Do not install the display near strong light sources such as sunlight or strong overhead lighting.

Do not install the display near the entry of the building's main power supply.

Ensure adequate ventilation and climate. See "Safe Operating Temperature" for details.

Mounting

This product does not ship with mounting accessories. Only use commercially manufactured mounting accessories which meet the specifications of the screen and follow the manufacturer's installation instructions.

To prevent damage to the screen surface while installing mounting equipment, place the screen face-down on a clean, cushioned surface.

Do not install the monitor near any heat sources such as radiators, heat registers, stoves, amplifiers, or other devices which produce heat.

Do not place the monitor in areas exposed to direct sunlight, humidity, grease, dust, rain, smoke or steam.

The screen may be rotated 90 degrees clockwise or counterclockwise as desired for I/O placement.

Do not position the screen at an angle exceeding 15 degrees, as illustrated:
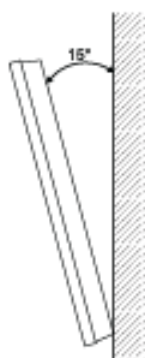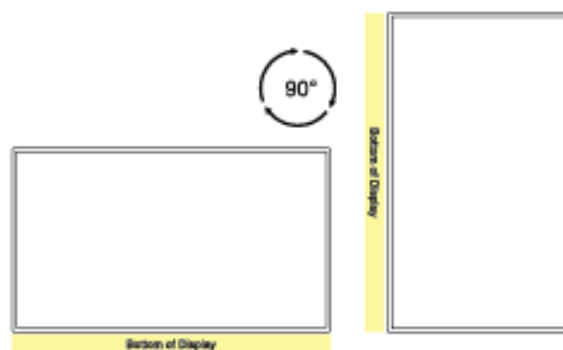
Figure 1.1

Figure 1.2

Safe Operating Temperature

BrightSign Built-In Screens require airflow in order to cool the HS124 chipset. Failure to provide enough airflow can cause the unit to reach temperatures above 50 degrees Celsius, which may cause areas of permanent LCD discoloration.

To maintain a safe operating temperature:

Provide a minimum of 6.35mm (.25'') **Figure A** between the back of the unit and the wall it is mounted to.
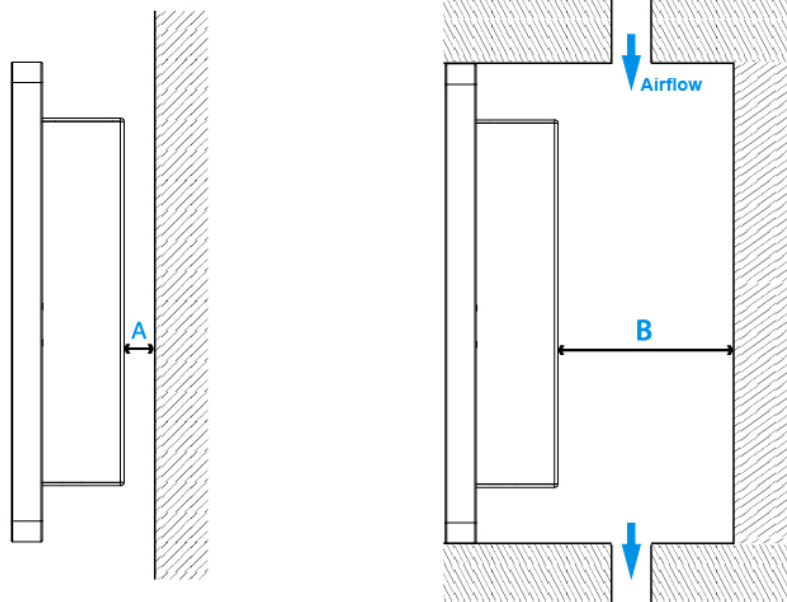
Do not install the monitor near any heat sources including but not limited to: radiators, heat registers, stoves, amplifiers, or other devices which produce heat.

Ensure the ambient temperature of the room containing the unit is kept below 35 degrees Celsius (95 degrees Fahrenheit)

Recessed Mounting

This item's warranty does not cover damage resulting from improper ventilation resulting in damage to the LCD.

Maintain a minimum of 10cm (4'') **Figure B** of space between the unit and the recessed wall to enable ventilation. Ensure there is enough airflow to prevent the unit from exceeding 50 degrees Celsius.

Support

BrightAuthor Support

For more information, troubleshooting, or support regarding BrightSign, BrightAuthor, presentations, or content management, visit https://www.brightsign.biz/about/contact-us

Bluefin Support

For information and support regarding a Bluefin product, contact support@thebluefin.com or visit our website at http://www.thebluefin.com/

Limited Warranty

There are no warranties, which extend beyond the description on the face hereof. Bluefin warrants products to be free of defects in material and workmanship for the specified warranty period of 1 year from date of shipment from Bluefin. During this period, Bluefin will at its option, repair or replace this product at no additional charge to the purchaser except as set forth below.

Bluefin, will, at its option, repair or replace products at no additional charge to the purchaser, if the defect is related to the Bluefin manufactured product, such as Power Supplies, Disk Drives, CPU Boards, Backplanes, Video Cards and other Peripheral Boards.

Bluefin warrants that the product is free from defects in material or workmanship under normal operation.

Replacement parts that are furnished at no-charge to the purchaser in completion of this warranty are warranted only for the unexpired time portion of the original warranty. Any repairs or services outside the scope of this limited warranty policy shall be at Bluefin normal rates with standard terms and conditions applicable.

Bluefin is unable to provide loaner units or advance replacements.

Repair parts and replacement products will be furnished on an exchange basis and will be either reconditioned or new. All replacement parts and products become the property of Bluefin.

Bluefin is not responsible for damages outside of Bluefin's control including, but not limited to, physical damage, modifications to products, or improper packaging and handling.

If items have been returned for warranty service and found not to be defective a nominal service expense will be charged to cover diagnoses, testing, return shipping and other related costs.

This limited warranty does not include service to repair damage to product resulting from accident, disaster, misuse, abuse, modification, alteration, or if unauthorized repairs have been attempted.

It is the customer's responsibility to back up the contents of their hard drive, including any data you have stored or software you have installed on the hard drive. Bluefin shall not be responsible for i) any loss of data due to storage media failure, ii) for any software programs, data or other information stored or used on any media or part of any product returned to Bluefin for warranty and non-warranty servicing. If during servicing the contents of the hard disk or any other data storage media are altered, deleted, modified or lost, Bluefin will not be held responsible. It is solely the customers/purchaser's responsibility to back up any software programs, data, or information stored on any storage media or any part of a product returned for servicing.

Limited warranty service may be obtained by returning the product during warranty period to Bluefin along with proof of purchase and a Returned Material Authorization (RMA) number. The RMA number is obtained in advance from Bluefin and is valid for 30 days. The RMA number should be clearly marked on the exterior of the shipping container or equivalent.

The customer or Purchaser prepays all inbound freight charges for both Warranty and Non-Warranty repairs. Bluefin is not responsible for damage during shipment. It is recommended that you either insure the product or assume full liability for loss or damage during transit.

Bluefin will cover the return freight via ground/surface service only to the original ship to address for warranty repairs within North America. If you require overnight, expedited or overseas shipments, this service will be extra and at the purchaser's expense. You may pay freight by issuing a purchase order, credit card or wire transfer. Return freight can also be covered by offering your own carrier account number (freight collect) with your specified services.

In no event will Bluefin be liable for any damages, including lost profits, lost business, lost savings, downtime, or delay, labor, repair or material cost, injury to person, property, or other incidental or consequential damages arising out of use of or inability to use such product, even if Bluefin has been advised of the possibility of such damages or losses, or for any claim by any other party. The above warranty is the only warranty authorized by Bluefin and is in lieu of any implied warranties, including implied warranty of merchant-ability and fitness for a particular purpose. Bluefin reserves the right to waive its warranty policy if the customer fails to pay invoice in full and/or on a timely basis as set out on the face of the invoice. How to Return Products for Servicing: To return products, you must obtain a valid RMA number. RMA numbers can be obtained by calling 770-205-6636 or email us at support@thebluefin.com.