

The DALI BusMaster is an integral DALI Power Supply and Programming Interface. It provides the DC voltage for the DALI bus and it allows for programming and control of DALI Ballasts through an RS-232 Serial Computer Interface.



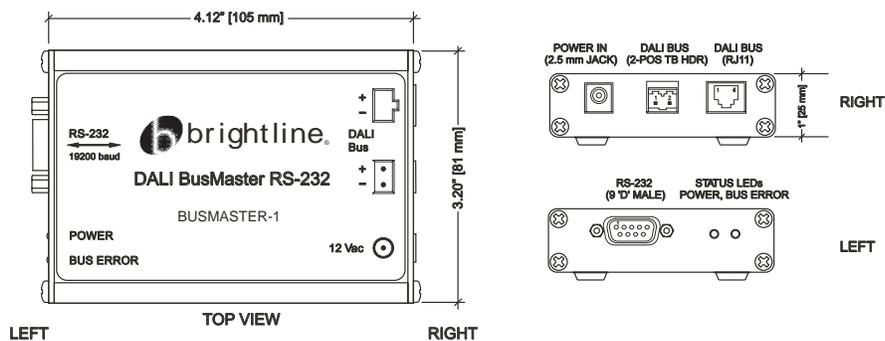
DALI (Digital Addressable Lighting Interface) is an international standard for controlling certain LED and fluorescent ballasts and other load devices. DALI ballasts are assigned an address by which they receive control commands. Up to 64 ballasts may be controlled on a DALI signal bus. The ballast only responds to commands addressed to it; therefore, the wiring topology is simple: a pair of wires transmit the signals to the fixtures. The DALI control wiring may be daisy-chained from fixture to fixture; they may be wired in a star fashion, all going back to a single wiring point; or any combination of the two. DALI ballasts are also capable of sending digital codes as well. It is possible to send a query to the ballasts on a signal bus to determine if any lamps have failed, or if there are any other problems with the system.

The BusMaster has an internal current-limited DC power supply that powers the data bus. The unit is capable of outputting 150 ma of DC power. The included external power supply is intended for 120V 60 Hz usage.

The RS-232 interface allows fixtures on the DALI data bus to be programmed and controlled by a Windows Personal Computer running WinDIM software. WinDIM can control the system, and can serve as a configuration tool. In addition, any device that has controllable RS-232 ports, such as an Audio-Visual Processor, can also control the system. The BusMaster is configured as a DTE device; therefore, a null-modem cable (supplied) is required. It operates at 19.2kb/sec.

The BusMaster can be hooked to the DALI bus either by its (removable) two-pin connector; or by the RJ-11 receptable.

The BusMaster Kit consists of the BusMaster, a 120V or 230V power supply and a null-modem cable. The Kit also includes a CD with WinDIM software, and an IOGear USB to Serial RS-232 Adapter. This adaptor is included in order to connect a laptop (or other Windows-based computer) that does not have a serial port to a BusMaster interface. This is a Plug n' Play device so the drivers will automatically install when the adaptor is plugged into a USB port. A null-modem cable (provided with the BusMaster) must also be used in order to connect. Other manufacturers' adaptors may or may not be able to connect. Before connecting, make sure that all other programs are closed. Drivers are available at <http://www.iogear.com/support/customerservice/faq-display.php?sku=GUC232A>



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## Win-Dim Software

WinDIM Software is intended to be used with the DALI BusMaster or the DALI Serial Programming Interface. It helps the installer configure a DALI System and after configuration provides for a user interface to control DALI Fixtures, Groups and Scenes.

If the DALI Lighting System was purchased without Control Stations or other methods of setting the lighting looks, WinDIM can operate on a Windows PC. WinDIM runs in the background and adds an icon to the System Tray. The user can make changes to a Group or to a Scene online. After the changes have been made, the program will go back to operating in the background.

## Configuration

The first step in configuring a DALI system is to make sure that all of the ballasts are addressed properly. As you configure the fixtures, make a note of the addresses.

In complex installations, you may want to add the fixtures to Groups. A Group consists of one or more fixtures that will always have the same lighting level. Using Groups can simplify the setup procedure. WinDIM provides a graphic tool to assign the fixtures to groups. A DALI System can have up to 16 Groups; WinDIM allows you to assign names to your groups if you wish.

A Scene on DALI is a lighting “look” that can be chosen by the user for a specific purpose. Once a Scene is selected, the dimming levels of the fixtures assigned to that Scene are selected and the dimming levels of the fixtures assigned to that Scene are recalled and set. As with the Groups, WinDIM provides a tool to set up and record Scenes. Up to 16 Scenes can be set.

## Operation

As mentioned above, WinDIM can be used as the primary controller for a DALI system. The screen to the right shows what you will see on your computer monitor. The buttons labeled G1 through G16 allow for control of the Groups. When a Group button is selected, its color will change from grey to green, indicating that it is active.

Using the pull-down box labeled “Go to Scene,” make a selection. The lights will go to the levels set for that Scene. Selecting other Scenes will make the lights go to the new levels. The use of the four arrow buttons in the center allows you to temporarily override the levels in the Scene. The On/Off button allows you to toggle the lights On or Off.

If you don’t want a Group to be involved in changes you are making, deselect the Group number. For example, if Group2 is not selected, its fixtures will not react to the “Go to Scene” command.

The Properties button opens a series of Tab Pages that are used in the Configuration process as described above.



Clicking anywhere on your monitor outside of the WinDIM box “hides” this display, and returns to normal Windows operation.

## System Status

You can query all of the fixtures on a DALI bus for any operational errors. WinDIM will indicate any error conditions that exist. For example, if a lamp is faulty, it will be reported back.

## Light Over Time

One of the useful functions of WinDIM is the Light Over Time mode. It allows for up to five groups of lights to dynamically change intensities of the groups that follow the values set on the graph. This function is particularly valuable when used with Red, Green, Blue or Red, Green, Blue, White color-changing fluorescent fixtures.