



### *ADD THIS DOCUMENT TO YOUR LUMINA ADVANCED APPLICATION GUIDE*

#### **Description**

The Lumina Version 3.2 firmware adds the following new features:

- Support for Clipsal C-Bus Lighting Control

\*The Lumina Version 3.1 firmware adds the following new features:

- Added HAI Trigger messages for simple integration with remote serial devices
- Added Z-Wave Status Request Command
- Added automatic polling for Z-Wave Thermostats

\*The Lumina Version 3.0 firmware adds the following new features:

- UPB Transmit Count to increase reliability on a large UPB network
- Support for HAI Access Control
- User Settings
- Enhanced Programming
- Real-Time operation status of thermostats
- Support for Omnistat2 Thermostats
- OmniTouch support for real-time cool/heat/humidify/dehumidify status
- Third-Party Protocol Enhancements

**Note:** Loading new screens into each OmniTouch touchscreen may be necessary to support new features in Version 3.0 Firmware. Ensure that each OmniTouch is running “Screens Version “9”. To check, press the “Setup” icon from the Home page. Next press the “Screen Setup” icon, followed by the “Next” button. The “Screens Version” should be displayed on the bottom left of the display. If the “Screens Version” is lower than “9” or if the text “Screens Version” is not displayed, the screens must be updated.

\*The Lumina Version 2.16 firmware adds the following new features:

- Omni-Link II Protocol
- TCP Network connections

\*See [www.homeauto.com](http://www.homeauto.com) for comprehensive list of firmware updates and descriptions.

## About Clipsal C-Bus

Clipsal C-Bus uses a network of low voltage wires for communications between C-Bus lighting devices and also provides a small amount of power to operate each C-Bus lighting devices in your home. Each switch or dimmer controls one lighting load in a Clipsal C-Bus system. They are used in place of standard light switches and allow local control as well as remote control from any of the Clipsal C-Bus keypads, an Lumina interface, or via programming in the Lumina controller.

## Clipsal C-Bus Format

Lumina groups devices by “House Code”, which consists of 4 consecutive unit numbers, starting at Unit 1. Each “House Code” can be configured to a different lighting protocol format such as: Standard X-10, Extended X-10, Lightolier Compose, UPB (open UPB format where you can use the programming capability in the Lumina controller to communicate with the UPB network), Lutron RadioRA, HAI Lighting Control (HLC), Centralite, Vizia RF Z-Wave, or Clipsal C-Bus.

Each HAI lighting unit can be associated with a corresponding C-Bus lighting group. Lumina supports 64 C-Bus lighting groups. HAI unit 1 corresponds to C-Bus lighting group address 1; HAI unit 2 corresponds to C-Bus lighting group address 2; and so on. C-Bus group address 0 is not supported. C-Bus lighting groups can be turned on, turned off, brightened, dimmed, set to a specific level, or toggled on/off. Lumina supports two-way integration with the Clipsal C-Bus lighting system. Individual lighting groups can be directly controlled and lighting scenes can be triggered by the HAI controller. Lumina monitors C-Bus lighting and can respond to changes.

## Clipsal C-Bus Setup

To configure House Codes to the Clipsal C-Bus Format, from the Set Up menu, press the 6 (MISC) key.

### House Codes 1-4 Format

House Codes 1-4 can be configured to use the Standard (Preset Dim Command), Extended Code (Level Command), Lightolier's Compose Mode, UPB (open transmission format), Lutron's RadioRA transmission format, HAI Lighting (HLC) format, Centralite format, Vizia RF Z-Wave, and Clipsal C-Bus lighting protocol.

```
HC 1 FORMAT:          5
HAI LIGHTING        #=CHNG ↓
```

To change format to Clipsal C-Bus for House Code 1, press the ' #' key, and then use the arrow keys to scroll to “CLIPSAL C-BUS”. Press the ' #' key to select. Press the down-arrow key to change format for the next House Code.

FORMAT	NUMBER	DESCRIPTION
STANDARD	0	Preset Dim Command (X-10, X-10 Pro, Leviton, PCS, etc.)
EXTENDED	1	Extended Code Level Command (Leviton)
COMPOSE	2	Compose Mode (Lightolier's Compose)
UPB	3	Universal Powerline Bus (open format)
RADIO RA	4	Lutron RadioRA
HAI LIGHTING	5	HAI Lighting Control (HLC)
CENTRALITE	6	Centralite Lighting
VIZIA RF Z-WAVE	7	Vizia RF Z-Wave
CLIPSAL C-BUS	9	Clipsal C-Bus

The default setting for HC 1-4 Format is 5.

**Note:** House Codes configured as Clipsal C-Bus do not respond to the All On and All Off commands.

## Controlling Clipsal C-Bus from an Omni Console

Use the Control menu to control lighting loads and Clipsal C-Bus devices. To enter the Control menu, from the top-level display or from the main menu, press the 1 (CTRL) key on the console keypad.

Lumina will automatically display the first named unit.

To control a lighting load or Clipsal C-Bus device, select it from the list of units, and then press the '#' key.

- Press 0 (OFF) to turn the selected lighting load off
- Press 1 (ON) to turn the selected lighting load on
- Press 2 (DIM) to dim the selected unit (1-9 steps, each step is 10% from its current level)
- Press 3 (BRT) to brighten the selected unit (1-9 steps, each step is 10% from its current level)
- Press 4 (LVL) to set the desired lighting level of the selected unit (0%-100%)
- 5 (RMP) is not used with Clipsal C-Bus
- Press 9 (TIM) to time the selected unit (On, Off, Dim, Brighten)
  - Timed commands may be from 1-99 seconds, 1-99 minutes or 1-18 hours
- Press # (STA) to see the status of the device.

**Note:** When a Clipsal C-Bus signal is received over the network, Lumina will automatically update the status of the device.

## Programming for Clipsal C-Bus Units

**Note:** To take advantage of the controlling Clipsal C-Bus s devices via Lumina programming, programs must be written using the HAI PC Access Software, Version 3.2 or later.

Lumina can be programmed to execute commands when a unit is turned on or off.

Likewise, Lumina can be programmed to control Clipsal C-Bus switches and dimmers (on, off, toggle, dim, brighten, setting to a specific level) and to control scenes.

Lumina also allows C-Bus lighting scenes to be activated through the use of C-Bus “triggers”. A C-Bus trigger command contains a Trigger/Scene Group and a Trigger/Scene Action. The combination of Trigger Group and Trigger Action is used to create scenes that may be considered mutually exclusive or scenes that are unrelated. Scenes that share the same Trigger Group number are considered mutually exclusive. Scenes that do not share the same Trigger Group number are considered unrelated. The Trigger Action is used to indicate what set of actions should be taken when the scene is triggered.

Mutually exclusive scenes may be used when it is desired that activating one of the scenes will cancel indicators for the other scenes. For example, there may be buttons on a keypad to select different lighting scenes in a room, such as OFF, ON, READ, and WATCH TV. Pressing one of the buttons will illuminate the indicator on the button and turn off the indicators on the other three buttons. These scenes share the same Trigger Group, but have different Trigger Actions to specify the desired scene.

HAI PC Access software may be used to create a Clipsal C-Bus scene command. This command includes the C-Bus Trigger/Scene Group (1-254) and Trigger/Scene Action (1-32). This command may then be included as part of a programming sequence or can be assigned to an HAI “button” for activation through an HAI user interface.

## Configuring Serial Communications Clipsal C-Bus

When connecting a Clipsal B-Bus lighting system to a serial interface on the Lumina controller, the serial interface must be configured to Clipsal C-Bus.

### Serial Module Setup

When connecting the Clipsal C-Bus lighting system to the HAI Model 10A17 Serial Interface Module, the “Module Type” must be configured as follows:

From the Installer Setup menu, select the 7 (EXP) key.

The Module Type defines the function of each expansion module on the controller. Module 1 is the module with the ADDR jumper set to 1. Set the module type from the list below. Press '#' to change the module type, then use the arrow keys to select the proper module type, then press '#' to enter:

```
MODULE 1 TYPE      3
OMNI-LINK          #=CHNG ↓
```

➤ For Clipsal C-Bus communications: set the Serial Interface Module to “21” (CLIPSAL C-BUS)

For example, when configuring the module to Clipsal C-Bus and if the jumper on the Serial Interface Module is set to 1, set “Module 1” Type to “21” (CLIPSAL C-BUS). The Serial Interface Module is now set to use the Clipsal C-Bus Protocol.

MODULE TYPES	NUMBER	DESCRIPTION
NOT USED	0	No module is installed
HARDWIRE EXPNDR	1	Model 10A06 Hardwire Expander installed
ALC	2	ALC Interface Module is installed
OMNI-LINK	3	Model 10A17 Serial Interface using the Omni-Link protocol
PRO-LINK	4	Model 10A17 Serial Interface using the Pro-Link protocol
UPB	5	Model 10A17 Serial Interface using the UPB protocol
RADIO RA	6	Model 10A17 Serial Interface using the RadioRA protocol
CENTRALITE	9	Model 10A17 Serial Interface using the CentraLite protocol
VIZIA RF Z-WAVE	10	Model 10A17 Serial Interface using the Z-Wave protocol
HAI HI-FI	11	Model 10A17 Serial Interface using the HAI Hi-Fi protocol
ACCESS CONTROL	18	Model 10A17 Serial Interface using the HAI Access Control protocol
CLIPSAL C-BUS	21	Model 10A17 Serial Interface using the Clipsal B-Bus protocol

## Serial Function Setup

When connecting the Clipsal C-Bus lighting system to one of the built-in serial ports (J1-J5 Serial) on the Lumina, the "Serial Function" selects the communication protocol that is used.

FUNCTION TYPES	NUMBER	DESCRIPTION
OMNI-LINK	3	Serial communication using the Omni-Link protocol
PRO-LINK	4	Serial communication using the Pro-Link protocol
UPB	5	Serial communication using the UPB protocol
RADIO RA	6	Serial communication using the RadioRA protocol
CENTRALITE	9	Serial communication using the CentraLite protocol
VIZIA RF Z-WAVE	10	Serial communication using the Z-Wave protocol
HAI HI-FI	11	Serial communication using the HAI Hi-Fi protocol
ACCESS CONTROL	18	Serial communication using the HAI Access Control protocol
CLIPSAL C-BUS	21	Serial communications using the Clipsal C-Bus protocol

➤ For Clipsal C-Bus communications: set the Serial Function to "21" (CLIPSAL C-BUS)

### Serial 1 Function

Select the function for the built-in serial interface from the list. Use the arrow keys to select the function then press the '#' key.

### Serial 2 - Serial 5 Function

The "Serial 2 Function" through "Serial 5 Function" selects the communication protocol used for the built-in serial interface ports (J2 Serial – J5 Serial, respectively) on the Lumina controller. Select the function for the built-in serial interface from the list.

### Note:

Lumina connects to the C-Bus Serial PC Interface using an HAI Model 36A05-4 Serial Connectivity Adapter Kit.