

INSTRUCTION/INSTALLATION SHEET

HMS EZ-SCENE ALC LIGHTING INTERFACE

IS-0311 REV. A

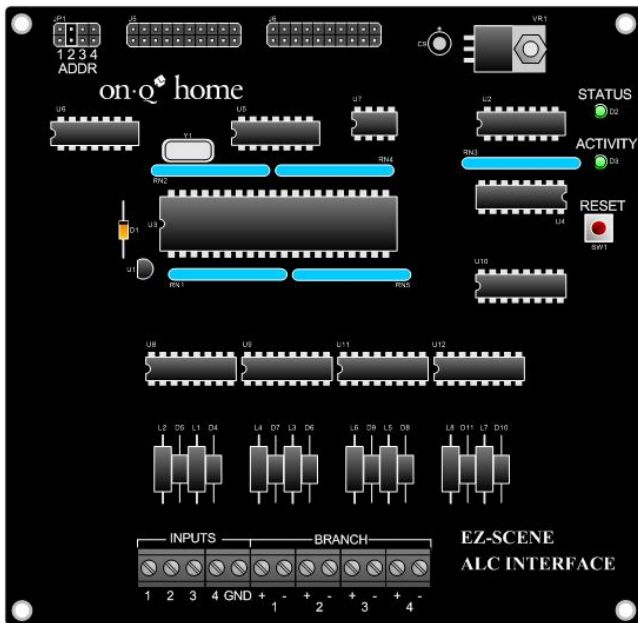


Figure 1. HMS EZ-Scene ALC Lighting Interface

1. Introduction

The part no. 364806 HMS EZ-Scene ALC Lighting Interface enables any On-Q HMS Controller or HAI OMNI controller to control On-Q's Advanced Lighting Controls. Additionally, the expansion module provides local lighting scene programming capability. EZ-Scene programming allows ALC 4-Button Scene Switches and RF Remote Controls to learn the lighting level settings of ALC Dimmers, Relay Switches and Non-Dimming controls independent of the HMS Controller.

The part no. 364806-01 1-Branch HMS EZ-Scene ALC Lighting Interface provides control of up to 31 ALC controls. The part no. 364806-02 4-Branch HMS EZ-Scene ALC Lighting Interface provides control of up to 124 ALC controls. Both expansion module part nos. support a total of 64 EZ-Scene local lighting scene programs.

The On-Q HMS Model 800 controller provides direct control of up to 16 ALC controls on branch no. 1. The HMS Model 950 controller provides direct control of 62 ALC controls on branch nos. 1 and 2. The HMS Model 1100 controller provides direct control of up to 248 ALC switches using up to two part no. 364806-02 EZ-Scene ALC Lighting Interface modules.

2. Installation

Note: If other expansion modules are connected to the HMS controller, the EZ-Scene ALC Lighting Interface must be installed first, that is directly above the HMS controller.

1. Remove 4 6/32 x 1/4 Phillips screws indicated as "A" in Figure 2. Replace the screws with the 4 supplied 6/32 x 1/2 male/female Hex Standoffs. Retain screws for future step.
2. Connect supplied cable to 20 pin connector on controller indicated as "B" in Figure 2.
3. Align the interface PCB with the hex standoffs and secure with the 4 screws removed in step 1.
4. Connect opposite end of supplied cable to the 20 pin connector on the interface PCB indicated as "C" in Figure 2.
5. Ensure that the address jumper indicated as "D" in Figure 2, is set to a unique address. Factory setting is address no. 2.

Note: This example is for the HMS 800. For Models 950 and 1100 mounting is to the right side of the controller, the same procedure should be followed.

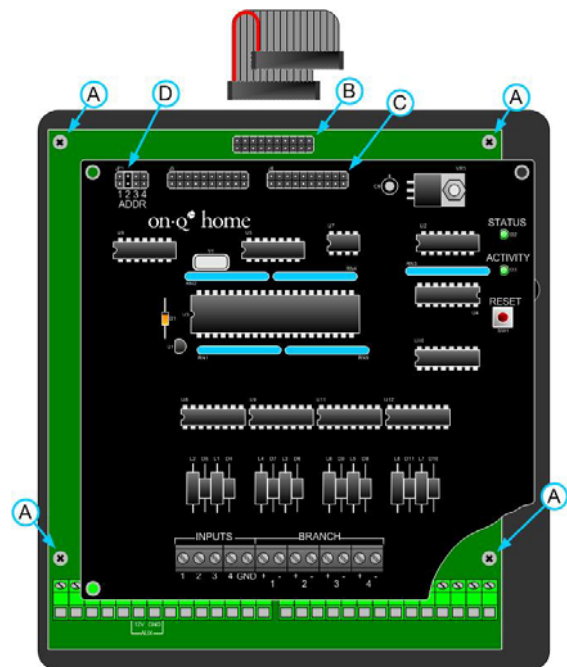


Figure 2. HMS EZ-Scene ALC Lighting Interface Mounting

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3. Control Connections

Terminals indicated as “A” in Figure 3, provide connections for communication to ALC controls. Branch nos. 1 - 4 can have up to 31 ALC controls directly connected to them via up to 500 feet of category rated cable.

Note: Part no. 364806-01 provides a single ALC communication branch. Terminal connections for branches 2 - 4 will not be present. Part no. 364806-02 provides terminal connections for all four communication branches.

Inputs 1 - 4, indicated as “B” in Figure 3, provide terminal connections for On-Q’s part no. 364697-01 RF Remote Control Receiver or other external device outputs. These four logic-level inputs simulate the four buttons of an ALC Scene Switch. These inputs are referred to as Virtual Scene Switch Inputs. Each one of the four inputs can have an EZ-Scene program assigned to it. The external device may provide dry contact or voltage outputs (5-12VDC) to the inputs. The external device’s outputs must be configured as normally open/logic high (5-12VDC). A virtual switch press is registered when the external device’s outputs become closed/logic low (<0.8VDC) for at least 100msec. All contact closures or voltages are applied between each input connection and GND.

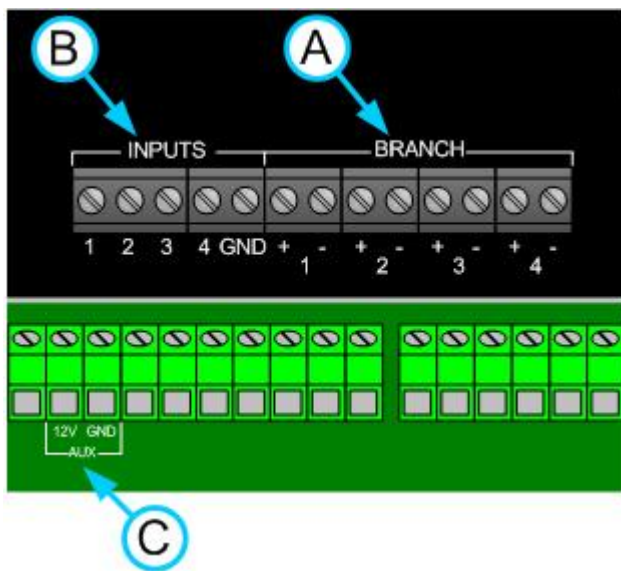


Figure 3. Input and Branch Communication Connections

External devices requiring 12VDC power, such as ALC Branch Hub (P/N 364677-01 and P/N364736-01) or RF Remote

Control Receiver (P/N364697-01), may draw their power from the HMS Controller’s AUX 12V and GND power connections. The 12VDC power connections are indicated as “C” in Figure 3.

Note: Do not exceed the HMS controller’s device load limit. Consult the HMS controller’s installation manual for device load ratings.

ALC controls may be connected directly to the branch communication terminal connections as shown in Figure 4. Correct polarity must be maintained.

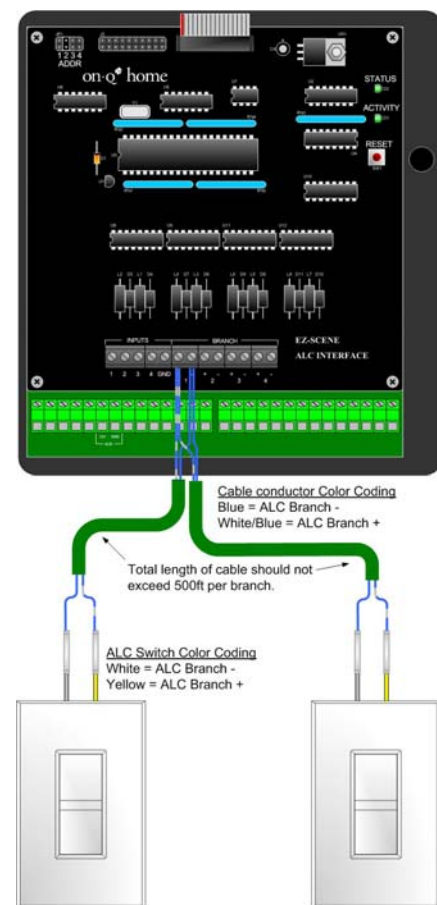


Figure 4. Direct ALC Communication Wiring

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ALC controls may also be connected to the EZ-Scene Interface via a Branch Hub (part nos. 364677-01 or 364736-01) as shown in Figure 5. Each Branch Hub supports an additional 500 ft. of category 3/5/5E branch communication cable in addition to providing a more structured installation. The HMS Controller can provide 12VDC power to each Branch Hub.

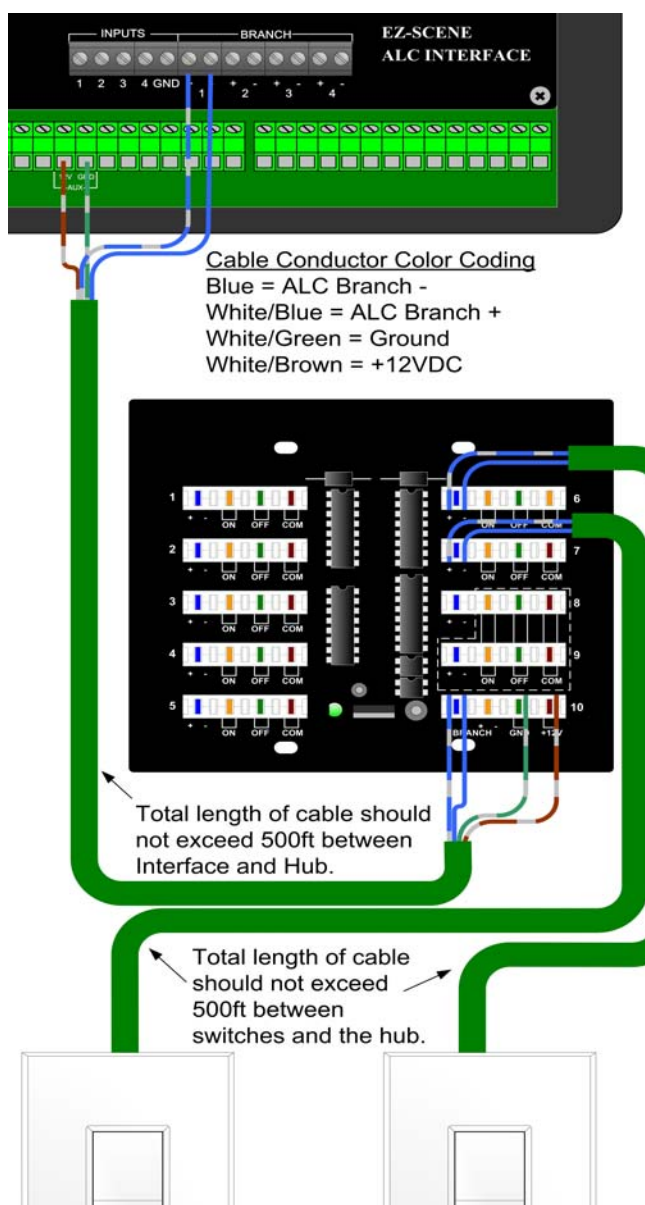


Figure 5. Branch Hub Connection

Note: Do not exceed the HMS controller's device load limit. Consult the HMS controller's installation manual for device load ratings.

Figure 6 illustrates connection of the RF Remote Control Receiver (part no. 364697-01) to the EZ-Scene Interface's inputs. The HMS Controller can provide 12VDC power to the RF Remote Control Receiver. All connections should be configured to the normally open position. All common points should be tied to circuit ground (GND).

Note: White/Green conductor terminates to R2 COMMON AND R4 COMMON. Green conductor terminates to R1 COMMON AND R3 COMMON.

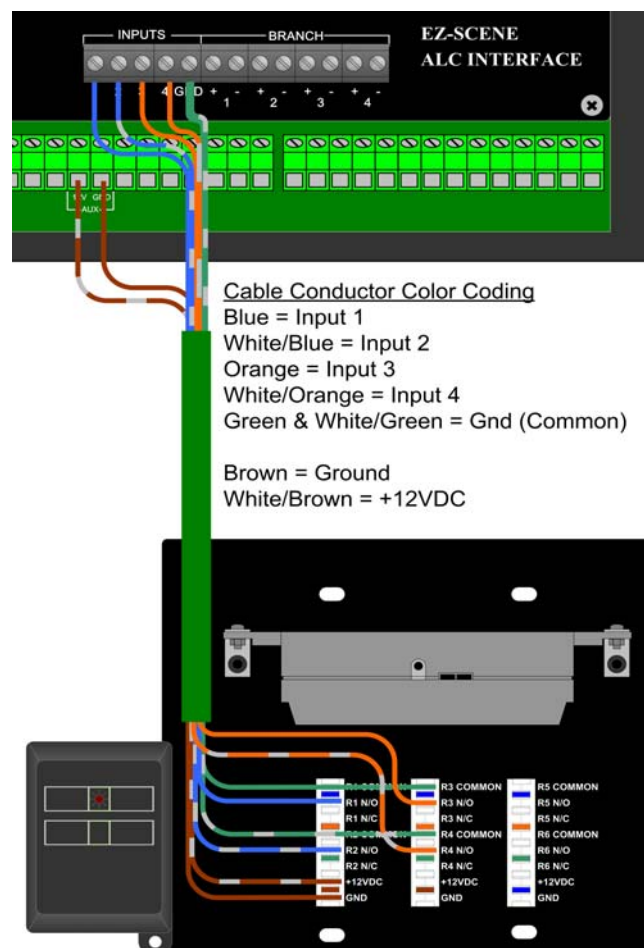


Figure 6. RF Remote Control Receiver

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4. Operation

Upon powering up the EZ-Scene Interface, the STATUS LED indicator will blink at a rate of approximately 1 blink per second. If the STATUS indicator remains On or Off, it is an indication of a fault. In the event of a fault, check all connections and power to the HMS Controller.

Subsequent to making any alterations to the system, such as an address change to an ALC control, the EZ-Scene Interface should be reset. Resetting can be accomplished either by removing power or by momentarily pressing the RESET button.

Note: Remove power to the Interface prior to connecting new devices. Verify all connections prior to restoring power

The ACTIVITY LED indicator serves as a diagnostic feature. The ACTIVITY LED will blink whenever ALC control activity is detected. The LED will also blink when activity is detected at any of the four inputs. The ACTIVITY LED is particularly useful in verifying proper connection of ALC controls. When any properly communicating ALC switch button is pressed or any properly connected input is activated, the ACTIVITY LED indicator will blink in response to the event.

HMS Lighting Control

Complete instructions for controlling and programming ALC controls from the HMS Controller and configuring the HMS controller for EZ-Scene Interface operation, can be found in the installation and owner's manuals included with each HMS controller.

Programming Local Lighting Scenes

A total of 64 lighting scenes can be programmed into each EZ-Scene Interface. All memorized lighting levels are retained in the EZ-Scene Interface's memory (EEPROM). All scene programs are preserved in the event of a power outage. Local lighting scene programming and operation is not limited by the unit control capacity of the HMS controller. For example, although the HMS Model 800 controller is limited to control of 16 ALC controls, up to 124 ALC controls can be included in locally programmed lighting scenes.

Note: Up to two EZ-Scene Interfaces may be connected to an HMS Model 1100 controller, however local lighting scene programming of each EZ-Scene Interface will function as an independent area.

The EZ-Scene Interface is placed into "Scene Learning Mode" in order to define the ALC lighting levels for a local lighting scene program. The user places the system into "Scene Learning Mode" by pressing and holding any ALC Scene Switch button or pulling Inputs 1 - 4 low (GND) for 15 seconds.

The LED indicator on the ALC Scene Switch blinks continuously when the button has been held long enough. Additionally, the EZ-Scene Interface module's ACTIVITY LED indicator will blink continuously to indicate that "Scene Learning Mode" has been entered.

After 15 seconds, the user should release the button or input to allow it to return to its normal state. The user then sets all lighting levels to be controlled by the lighting scene. The user must press each ALC Dimmer, Relay Switch or Non-Dimming control if it is to be included in the new local lighting scene program. The final output level of the selected ALC Dimmer, Relay Switch or Non-Dimming control will be stored in the local lighting scene program.

After setting all lighting levels of ALC controls that are intended to be included in the new local lighting scene program, the user should momentarily press and release the button to complete the programming operation. The EZ-Scene Interface's ACTIVITY LED and the ALC Scene Switches' LED indicator will stop blinking when the system leaves the Scene Learning Mode. Programming of the new lighting scene is now completed and stored in EEPROM memory.

While the system is in Scene Learning Mode, no other system functions may be performed during this time. If the user does not complete programming of the local lighting scene within 10 minutes, the system automatically leaves the Scene Learning Mode and no changes are made to any local lighting scenes.

Restoring Local Lighting Scenes

To restore a locally programmed lighting scene, the user momentarily presses and releases the desired Scene Switch or RF Remote Control button. All ALC lighting controls belonging to that scene are then set to their programmed levels. ALC lighting controls not belonging to the scene are not affected when the scene is restored.

Re-Programming Local Lighting Scenes

To change the ALC lighting controls or levels that are included in a scene, the user simply repeats the scene programming process. The lighting levels for the new local lighting scene will replace the old ones. To remove a local lighting scene from any button or input, simply enter Scene Learning Mode then press that button or input again without changing any lighting levels. That button or input will then be assigned an "empty" scene.

Warranty

On-Q warrants to the end-user, each new HMS EZ-Scene ALC Lighting Interface to be free of defects in materials or workmanship for a period of one year from the date of original purchase from On-Q or its authorized reseller or installer. Each product is deemed warrantable under conditions of normal use and when installed and operated within On-Q specifications and in accordance with the applicable National Electrical Code. When determined to be warrantable, On-Q shall at its option and expense, replace any defective product with a new or reconditioned product. On-Q will continue to warrant any replaced product for a period of ninety (90) days from shipment, or through the end of the original warranty period, whichever is longer.