SB004-HA

Integration Module – Understanding and Installing a Door Release

I. Application/Purpose

The Unity Integration Module supports the use of one door release. Further door release connections can be added by cascading out to additional Selective Call Intercom Distribution Modules. Up to three modules can be added for a total of four door release connections per system (See NOTE).

NOTE: For information on understanding and installing a door release on our Selective Call Intercom Distribution Module, please see Support BulletinSB003-IC.

The Unity Integration Module has two sets of green terminal connectors located at the bottom of the device. These terminals are designated as "A" or "B" (See Figure 1). This bulletin will focus on the "A" terminal as its purpose is to allow for integration of a door release. Both terminal connectors function as open collector outputs. This bulletin will layout the proper connectivity needed as well as give a general overview of how the door release is enabled and activated on the Unity Integration Module.
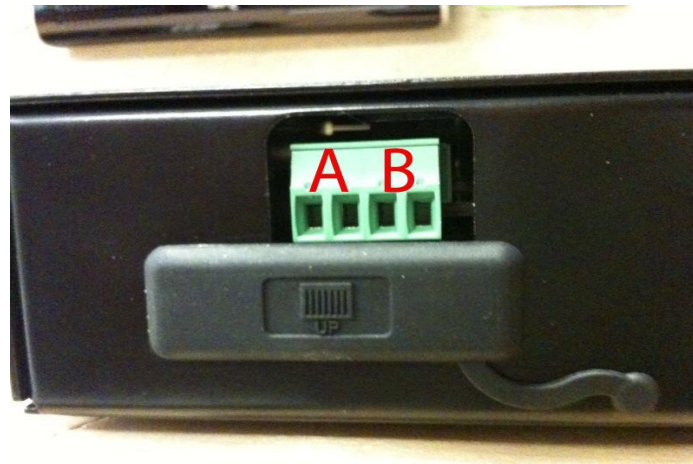

FIGURE 1

II. Associated Part Numbers

HA6001 – Unity Integration Module
PW1060 – 24v 2.5 Amp Power Supply
IC5000-xx – Selective Call Intercom Room Station
HA5000-xx – 7 Inch LCD Screen
Third-Party Single Pole Double Throw (SPDT) Relay
Power Supply (Voltage will depend on the type of door strike being used)
Third Party Door Strike

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III. Explanation

An open collector is a type of transistor circuit. Instead of outputting a specific voltage, the output signal in this case, is ground. This allows the open collector output to be used with a wide range of voltages.
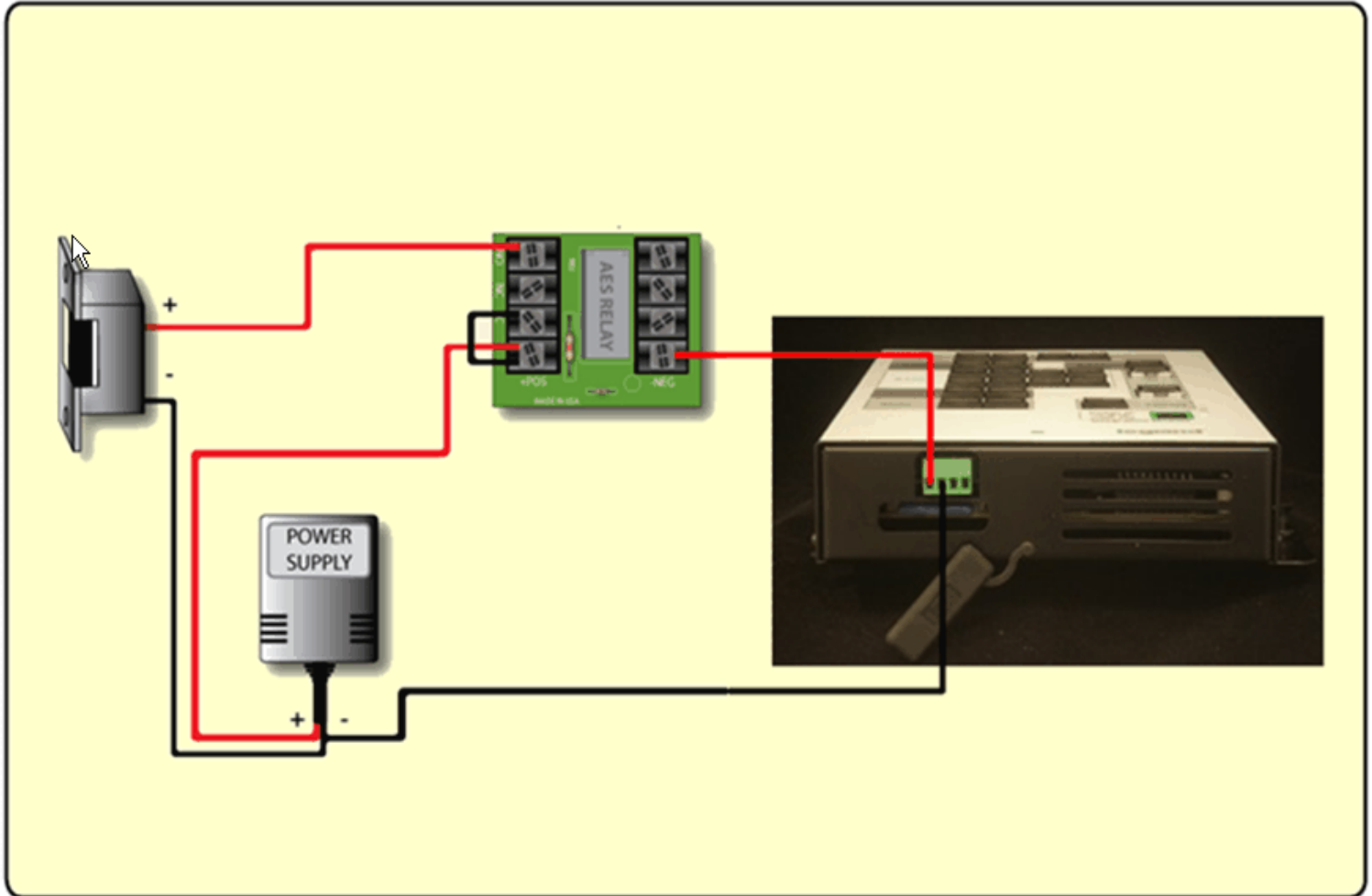
The "out" essentially acts as a short circuit to ground when a release is performed from the Selective Call Room Unit (IC5000-xx), an LCD (HA5000-xx, HA5009-xx, HA5010-xx) or TVDI (HA5201-xx). This output is considered a current sink. The amount of current in use will depend on the relay and its specifications. The max current we specify is 350ma.

NOTE: An open collector output is NOT contact closure and the outputs on the Selective Call Module are NOT considered to be dry contacts. A third party relay must be used in order to create these outputs.

The following image (see Figure 2 below) shows how to connect a relay from the "A" pair of terminal connectors on the Unity Integration Module. When the door release is triggered at a Selective Call Intercom Room Unit or from one of the LCD's with the Unity GUI (Graphic User Interface), the Open Collector will short to ground allowing voltage to pass through the relay. The relay will provide high current DC voltage to the door strike.

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FIGURE 2

Once the connectivity portion of the installation has been completed, the door release function must be enabled in the Unity GUI's setup menu. The proper output must be selected for the door release to function. The nomenclature used in the menu will begin with OUT, referring to the output. MA means MASTER module and A is the port on the back of the Selective Call Intercom Module that you will wire to. If you are using multiple modules, S1-A means the SLAVE 1 module. When adding additional modules, S2-A, means SLAVE 2 and S3-A means SLAVE 3.

When two or more independent Door Releases are required on a system HA5000 or HA6101 are required to be cascaded from the HA6001. Each cascade (or slave) module will provide an additional Door Release (for a total of four independent Door Releases per system). Please refer to the respective installation manual for proper cascade configuration.
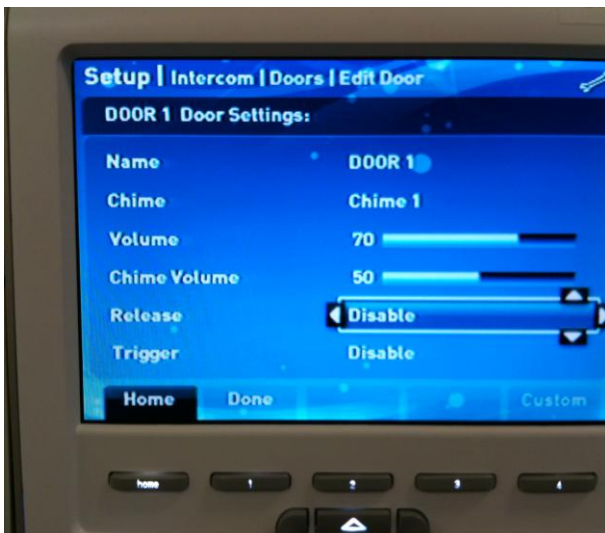
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The following steps must be completed from any LCD or TV Display Interface connection on the Unity system.

I.   Use the arrows to highlight "Setup" on the GUI and press the Talk/Select Button.
II.   Scroll down and select "Intercom" and press the Talk/Select Button.
III. Select "Door Options" and press the Talk/Select Button.
IV.   Select the Door Station that will be tied to the door release functionality.
V.   Highlight the "Disable" option next to the Release setting. (See Figure 3 below).
VI.   Using the Right Arrow key, select the OUT-XA where X is M, S1, S2 or S3. (See Figure 4 below)
VII. Press the "Done" button at the bottom of the screen to complete the setup.

To initiate the door release, the user will enter the Intercom menu from the Home screen on the GUI and highlight the "Release" item below the associated door and then press & hold the Talk/Select button. A warble tone will be heard at both the LCD/TVDI and the door unit as long as the button is held.

FIGURE 3

FIGURE 4