



Access Control H/W

Installation Instructions



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Dear Access Control System Installer,

Installation of the Hartmann-based POE-ODM access control unit will require the following additional information which will help an experienced installer complete the installation quickly.

1) POE-ODM Preprogrammed and Tested - Each POE-ODM unit is preprogrammed to be installed at a specific customer facility and door. The ODM settings are programmed to be unique to each school/location and door. The facility name, door and ODM mac address information are labelled on the ODM box and is also labelled on the back of each ChildPilot supplied ODM access controller.

2.) POE-ODM Remotely Programmable via POE Internet Connection - ChildPilot can change ODM programming remotely once the ODM unit is powered via POE enabled Internet connection. The CAT5/6 cable must be connected to the facility's POE (power over ethernet) enabled local area network with basic Internet access, so ChildPilot cloud servers are able to identify, communicate and update or change the POE-ODM unit programming (see Networking Examples on page 2 of Quick Start Guide).

3.) Read The Quick Start Guide - Before attempting ODM installation, please review the Hartmann POE-ODM Quick Start Guide placed within each controller box. The POE-ODM Quick Start Guide provides a variety of installation examples which will help an experienced installer select the appropriate installation approach. Since each location's access control system is unique or may be using existing magnetic locking hardware, the ODM Quick Start Guide should help you select the most appropriate ODM relays or striker power connections to use in triggering either a simple 12VDC striker or a more elaborate magnetic locking system.

4.) ODM Door Status Connectors - The POE-ODM unit has multiple inputs and outputs labelled P1-P7. See Quick Start Guide to determine the purpose of each of these connections. For control of door open/close status the ODM unit has two relays (P6-relay2 and P7-relay 3) and P1 - self-powered 12VDC power relay used for low-power striker control. Most ODM units are shipped with P6-Relay 2 enabled to control door open/close events. Also, if the installer requires door status information to be used to trigger alarms (door held open too long), the P2 connector must be connected to a door contact based magnetic reed switch as shown on page 2 of the ODM Quick Start Guide.

5.) 12VDC Power Lock Limitations - The ODM connector labelled P1 has a 500mA limit and can only be used with low-power 12VDC door strikers. This form of door access control is normally the least costly approach for single doors. If magnetic locking systems are utilized to control a single or dual door closed/open, a separate magnetic or compatible power supply must be supplied and billed by the installer in addition to a magnetic lock device. Relay 3 or Relay 2 can be programmed to be NO or NC for use in controlling magnetic locks.

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6.) Contact ChildPilot Sales or Engineering Rep for Questions – For technical support or ODM programming changes, please call or email the ChildPilot sales rep who sold your POE ODM unit. Your sales rep will answer basic questions and provide technical contract information to the installer. The facility owner or admin should have ChildPilot sales rep contact information. You can also email drice@childpilot.com for any technical questions or changes to ODM programming.

7.) ChildPilot H1-EM Keypad Installation & Programming – The ChildPilot H1-EM keypad pre-programmed to be compatible with the POS-ODM. Once properly connected to the ODM unit, the H1-EM keypad will power up and allows 4-6 digit code based control of the door striker events. The H1-EM is a Weigand compatible device as described below. Please review the H1-EM wiring instructions found in section 11 below if you are using a ChildPilot H1-EM keypad. The colors of the H1-EM wires are different than the wires shown in the POE-ODM Quick Start Guide. Also, note that the Hartmann POE-ODM unit uses an 8-bit Weigand protocol which may not be compatible Weigand compatible keypad which use a 4-bit data transmission protocol.

8.) Keypad Default Programming Code – Note that the default H1-EM programming password has been changed to 854189. You can review the documentation provided with your H1-EM keypad and modify this passcode or change feature to include forcing the keypad to keep background LED lights on as shown in Figure 1.

9.) Door Status Detector Installation – a separate two wire input located on ODM P2 connector labelled “Door Contact”, connector 2 (common) & connector 3, designed to provide Door help open alarms with required. Installers can use a simple magnetic reed switch, wired to the Door Contact inputs. Some customers ignore this state, others require it.

10.) Adding a Doorbell using H1-EM Keypad – The P3 Aux Input connectors (2&3) can be used to trigger a built in POE-ODM sound using one of 5 different sound options using the two doorbell wires labelled on the following page (dry contact). If the location of the ODM unit is placed in a remote location, we recommend using different relays and on ODM 12vdc power. Please contact us if you require a special configuration such as an old-fashioned AC transfer-based doorbell or newer electronic doorbell systems.

11.) H1-EM Keypad Wiring Instructions – below is the wiring instructions for the ChildPilot H1-EM keypad whose colors may not correspond to other Weigand 6 wire keypads. The installer may be free to use existing keypads that may be installed in with an earlier access control device so long as the keypad uses 8-bit data transmission mode. Many Weigand keypads use only 4-bit Weigand protocols which will fail to be recognized by the POE-ODM.

The H1-EM Keypad with doorbell button is compatible with Hartmann ODM access control hardware. However, H1-EM is multi-modal, programmable and includes 12 wires instead of the typical 6 wires used with Weigand compatible keypads. The purpose of this document is to show how to properly wire the H1- EM keypad. Since the H1-EM keypad is programmable for various options, prior to shipment, ChildPilot has preprogrammed your H1-EM keypads to make the H1 communicate using 8 bit mode to simplify installation. However, all of the documentation required for a professional installer to make changes H1 keypad programming such as alarm volume, and keypad backlight timing. See H1-EM documentation for programming options and programming details. Always contact ChildPilot support if there are any questions regarding installation.

Below is a simple diagram showing the 8 wires and colors that must be connected for proper operation of the keypad and the doorbell activation button.

