

INSTALLATION INSTRUCTIONS

29EA SERIES – EXIT/DOOR PROP ALARM



Model 29EA-SN



Model 29EA-KS



Model 29EA-MKNC
 (cylinder not included)

The Hager 29EA Series offers Exit Alarm, Forced Door Alarm, and Door Propped/Held Open Alarm monitoring capabilities to any controlled opening. It may be used as a standalone device or easily integrates with any access control system. Units are typically mounted adjacent to the opening, and provide local visual and audible alarm annunciation. An integral key switch is available for local bypass & alarm reset controls. A built-in alarm relay is also included for remote monitoring.

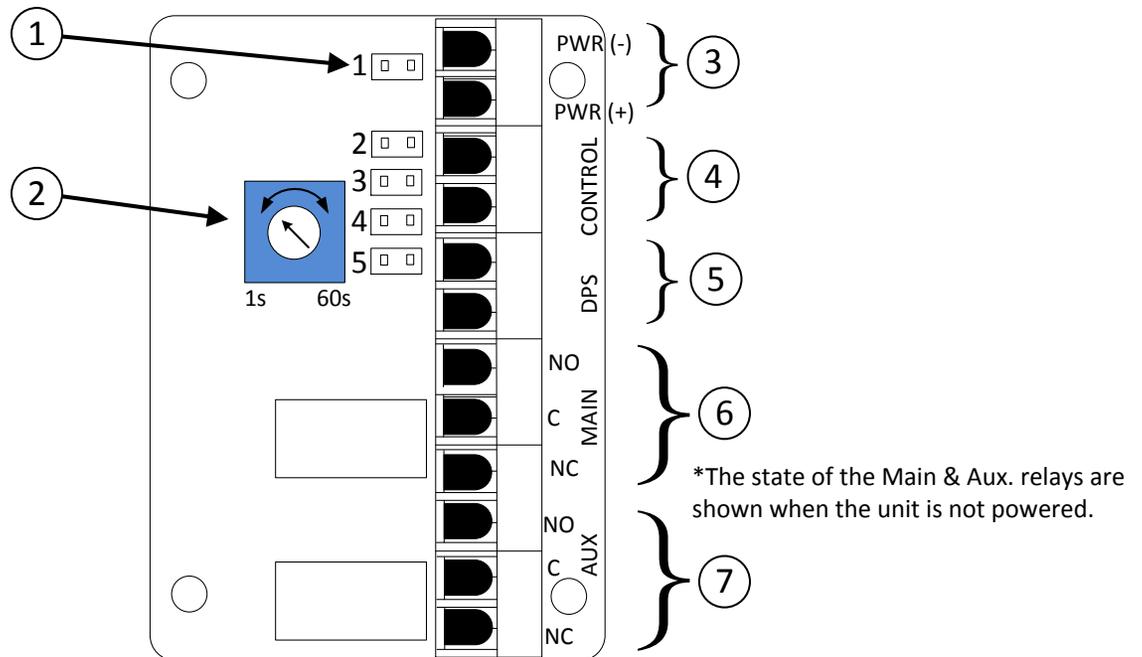
FEATURES

- Exit alarm on door opening
- Door prop alarm after adjustable timed delay
- Manual or automatic alarm reset
- Local 85dB Piezo buzzer alarm
- Integral LED status indicator
- Main relay output for remote alarm notification
- Auxiliary relay output for door position status or bypass/alarm status
- Optional key reset/bypass switch
- Compact universal mounting

EA SERIES TECHNICAL SPECIFICATIONS

Input Power:	60mA @ 12 or 24VDC (Auto-sensing)
Mounting:	29EA-NS : Single Gang, 1/4" Thick aluminum plate w/ security screws (2-1/8" depth recommended) -KS, -MKNC : Double Gang, 1/4" Thick aluminum plate w/ security screws
Alarm Sound Level:	85dB @ 3ft, Piezo Buzzer
Status Indicator:	Bi-color LED
Trigger (DPS) Input:	Dry, N/C or N/O, field selectable
Reset/Bypass (Control) Input:	Dry, N/O or N/C, field selectable
Alarm (Main) Output:	Form C, 2A @ 30VDC (Resistive)
Auxiliary Output:	Form C, 2A @ 30VDC (Resistive)
Wiring:	Screw terminals
Overall Dimensions:	29EA-NS : 5"h x 3.25"w x 1.625" d 29EA-KS, -MKNC : 5"h x 5"w x 1.875" d

Board Layout (Back View):



① **Configuration Jumpers** – Numbered 1 through 5. By default, all jumpers have been set to OFF. Use the (5) supplied jumpers, as required. See the table below for a functional description of each jumper.

Configuration Jumpers	 Jumper OFF	 Jumper ON
1= Latching Alarm	Disabled (Alarm resets on door closure)	Enabled. (Requires use of Control Input to reset an alarm OR Jumper #2)
2= Alarm Auto Reset	Disabled	Auto-reset 60 sec. after door closure. (Requires Jumper #1 to be ON)
3= Control Input Polarity	Normally Open	Normally Closed
4= DPS Input Polarity	Normally Closed	Normally Open
5= Aux. Relay Function	Follows DPS Input	Follows Bypass/Alarm State

② **Adjustable Alarm Timer** – Determines the amount of time a door can be propped open before an alarm is activated. Adjustable from 1 to 60 seconds. Turn clockwise to increase time.

③ **Input Power Terminals** – Requires a 12 or 24VDC +/- 10% power supply (auto-sensing).

④ **Control Input Terminals** – Dry input used for bypass & alarm reset. Field-selectable as normally open (default) or normally closed. In a secure state, a held input will bypass the unit. In an alarm state, a momentary input will reset the alarm providing the door is closed. This input is factory pre-wired for key switch model EA-728.

⑤ **Door Contact Input** – Required for all models. Monitors the open/closed status of the door. Field-selectable as normally open or normally closed (default).

⑥ **Alarm Relay Output** – Relay is energized when the unit is powered. An alarm state or loss of power will de-energize the relay.

⑦ **Auxiliary Relay Output** – Relay may be configured to follow the DPS input OR to follow a bypass/alarm state.

LED Status Indicator:

Door Status	Unit Condition	LED Status	Main Relay	Aux. Relay* (Jumper 5 OFF)	Aux. Relay (Jumper 5 ON)
Closed	Secure	Solid Green 	Energized	De-energized	Energized
Open	Pre-alarm (1-60 sec.)	Solid Green 	Energized	Energized	Energized
Open	Alarm	Solid Red 	De-energized	Energized	De-energized
Closed	Bypassed	Flashing Green 	Energized	De-energized	De-energized
Open	Bypassed	Flashing Green 	Energized	Energized	De-energized

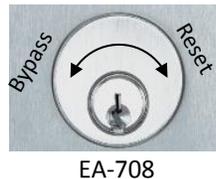
*Relay state shown with N/C Door Contact

Key Switch Operation (29EA-KS or MKNC only):

NOTE: Unit must be Secure to be Bypassed. Door must be closed to reset an alarm condition.



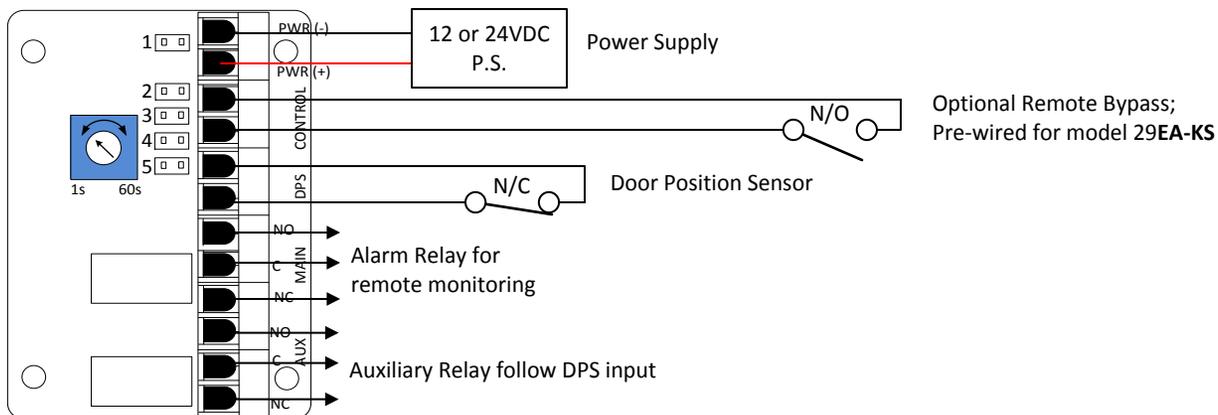
- Bypass (Maintained) – 90° Counter-clockwise. Key may be removed. Return to vertical position to re-secure.
- Alarm Reset (Momentary) – 45° Clockwise. Key returns to vertical position upon release.



- See Page 5 for Mortise Key Cylinder installation
- Bypass (Maintained) – Turn counter-clockwise until ON/OFF switch is activated. Reactivate the switch to re-secure.
- Alarm Reset (Momentary) – Turn clockwise until momentary switch is activated.

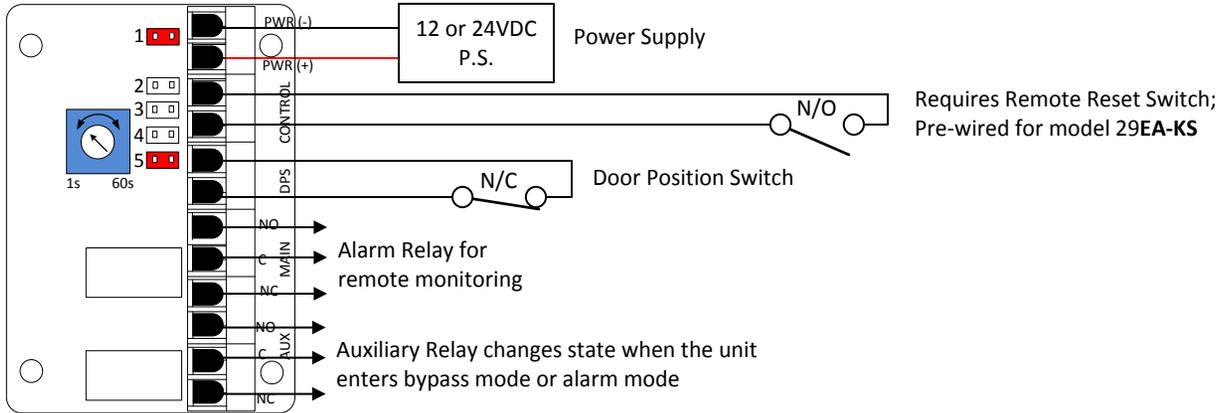
EA Series Operational Modes:

Wiring Example #1 – Non-latching (auto-resetting) Exit Alarm or Door Prop Alarm. Opening the door will initiate the pre-alarm timer. Closing the door before the timer expires resets the timer. If the door remains open and the timer expires, an audible alarm will sound and the Main Relay will trigger. Alarm resets on door closure. Bypass the alarm by activating the integral key switch or via remote bypass switch.



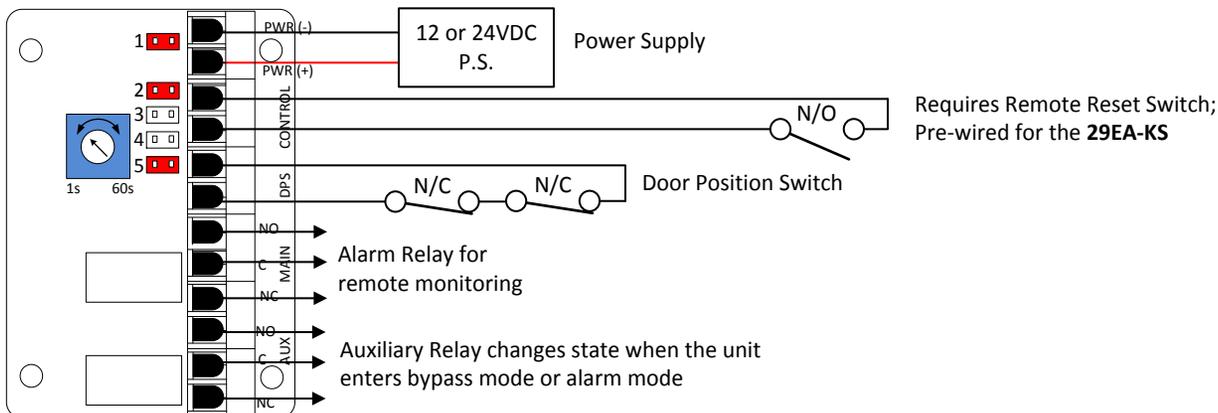
- All jumpers are set OFF (default)
- Adjust the alarm delay timer (1-60 seconds), as required.
- Install & terminate a N/C door contact.
- Install & terminate optional output relays, as needed. See page 2 for relay descriptions.
- Apply power & test.

Wiring Example #2 – Latching (Manually Reset) Exit Alarm/Door Prop Alarm. Opening the door will initiate the pre-alarm timer. Closing the door before the timer expires resets the timer. If the door remains open and the timer expires, an audible alarm will sound and the Main Relay will trigger & latch. Alarm must be reset by using the integral key switch (29EA-KS or 29EA-MKNC only), or by remote control switch. Bypass the alarm by activating the integral key switch or via remote switch.



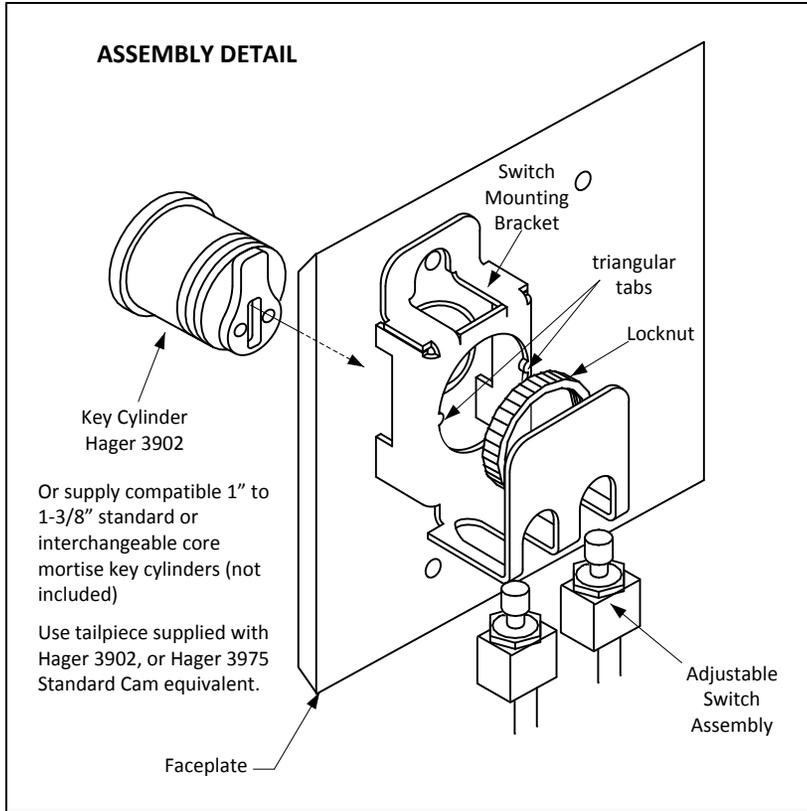
- (a) Jumpers 1 & 5 are installed. Jumpers 2, 3, & 4 are set OFF.
- (b) Adjust the alarm delay timer (1-60 seconds), as required.
- (c) Install Remote reset switch. Required for 29EA-NS; Optional for 29EA-KS or 29EA-MKNC.
- (d) Install & terminate a N/C door contact.
- (e) Install & terminate optional output relays, as needed. See page 2 for relay descriptions.
- (f) Apply power & test.

Wiring Example #3 – Double-Door Latching Exit Alarm/Door Prop Alarm with Timed Reset. Opening the door will initiate the pre-alarm timer. Closing the door before the timer expires resets the timer. If the door remains open and the timer expires, an audible alarm will sound and the Main Relay will trigger & latch. The alarm will automatically reset 60 seconds after door closure. The alarm may also be reset by using the integral key switch (29EA-KS or 29EA-MKNC only), or by remote control switch. Bypass the alarm by activating the integral key switch or via remote bypass switch.



- (a) Jumpers 1, 2 & 5 are installed. Jumpers 3 & 4 are set OFF.
- (b) Adjust the alarm delay timer (1-60 seconds), as required.
- (c) Install Remote reset switch. Required for 29EA-NS; Optional for 29EA-KS or 29EA-MKNC .
- (d) Install & terminate N/C door contacts in series.
- (e) Install & terminate optional output relays, as needed. See page 2 for relay descriptions.
- (f) Apply power & test.

29EA-MKNC Mortise Key Cylinder Installation:



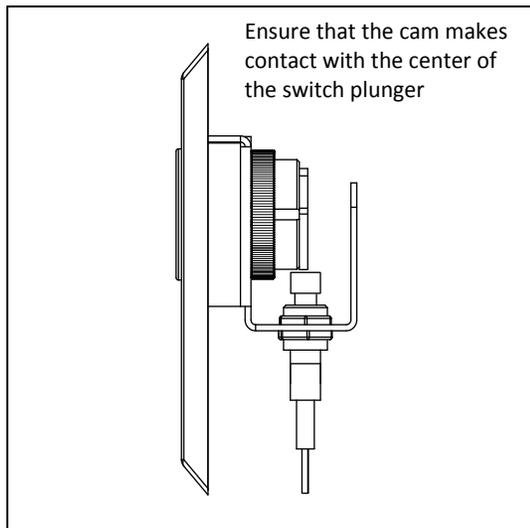
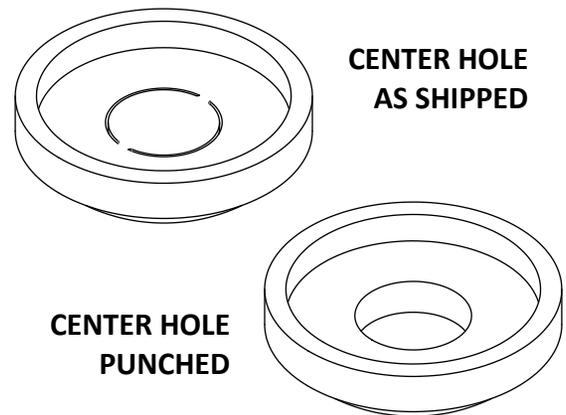
SOUND DAMPENER

All Exit Alarm Assemblies are shipped with a sound dampening cap loose in the box.

Install the unit without the cap for full volume.

Install the unit with the cap as shipped for complete dampening.

Install the unit with the center hole punched out for partial dampening



- Complete the wiring connections by carefully routing the (2) white & (2) yellow wire leads behind the board. Terminate the (2) yellow wires to Control terminal "A". Terminate the (2) white wires to Control terminal "B".

