

Swinger-90W Ver. 1

Setup Instructions



Overview:

Thank you for purchasing this from KRN Solutions LLC. This control is unique to what you may have used before, So I would recommend reading this setup instructions completely before going to any job site. The most current version and other supporting documents can be found at www.krnsolutionsllc.com.

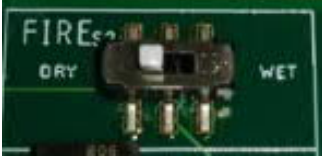

This control is a microprocessor base control. This allows flexibility in functions for both current and future features. All adjustments can be made without a handheld/computer. It uses a 24 VDC regulated power supply. It can be used with panic bars using a motor activation such as Von Duprin QEL, Sargent, Detex panics, and 24VDC magnetic locks or strikes.

Startup:



There is a 15 second delay on power up/fire alarm recovery. On power up/fire alarm recovery. All of the input LEDs and watchdog LED will be on. The input LEDs will go out one by one. When they are all out the Watchdog LED will start to blink. The control is now working.

Inputs:

Each input has an LED to indicate input statuses. Control also has a power and watchdog (WD) LEDs. This WD LED will blink indicating the control has power and the program is running.

Label	Function
FIRE DRY INPUT	Fire System Setup: Dry, normally closed contact from fire system. Set switch as shown. 
FIRE 24VDC INPUT	Fire System Setup: 24VDC from fire system. Note: When set for 24 VDC in, if polarity is wrong, control will work, but LED will not light. Set switch as shown. 
T CLOCK Time Clock	Dry contact, that is to be normally open. When closed, removes/applies power to MAG/STRIKE output only. This will also enable the EXT. PP input. Usage: Day/Night on a door is used for both security and fire with positive latching.
INT. PP Interior Push Plate/Sensor	Dry contact, that is to be normally open. When closed, removes/applies power to MAG/STRIKE , applies power to PANIC 1, PANIC 2 outputs and close both ACTIVATION outputs. Usage: Card reader, inside push plate. Outside push plate, if it is to be active 24/7.
EXT. PP Exterior Push Plate/Sensor	Dry contact, that is to be normally open. When closed, closes both ACTIVATION outputs. <u>ONLY</u> if the T CLOCK or CARD inputs where activated first. Usage: Outside push plate that is to be disabled at night.
CARD Card Reader	Dry contact, that is to be normally open. When closed, removes/applies power to MAG/STRIKE , output, and applies power to PANIC 1 and PANIC 2 outputs. This will also enable the EXT. PP input. Usage: Day/Night on a non-fire rated door, Card reader.

Outputs: Each output has an LED to indicate output statuses.

Label	Function
+ MAG -	MAGNETIC LOCKS/STRIKE: Can be set for, fail safe or fail secure 24 VDC locks. See below for settings. Max 1.5 amp output.
+ P1 -	PANIC 1: This is 24 VDC for the first panic. Max 1.5 amp output.
+ P2 -	PANIC 2: This is 24 VDC for the second panic. Max 1.5 amp output.
ACT.1	ACTIVATION 1: Dry contact, that is normally open. Activation for primary automatic door control. Max 1 amp.
ACT.2	ACTIVATION 2: Dry contact, that is normally open. Activation of a secondary automatic door control or other device(s). Max 1 amp.
	DOGGED PANICS: Some doorways can be dogged/unlatched till there is a fire. This saves wear and tear on the panic(s) and reduces the noise during operation. Move switch 1 to ON to enable this function.
	Fail Safe/Fail Secure Setting. This selects the type of lock connected to the Mag/Strike output. Set switch 2 to OFF for fail secure locks. Set to ON for fail safe locks.
+ 24 -	This is a constant 24VDC at 1.5 amps for power to delay egress magnetic locks. This is removed when the fire alarm input is deactive.
NC Com NO	This is an SPDT relay contact that will change state with the MAG/Strike output. It is for release of delayed egress magnetic locks. Set switch 2 to ON for fail safe locks.

Adjustments:

Label	Function
PANIC 2 ON DELAY	This is an on delay from MAG/STRIKE and PANIC 1 to PANIC 2 output. If only a strike/mag is used, set to min delay. This delay is adjustable from .25 to 2 seconds.
ACTIVATION ON DELAY #1	This is an on delay from PANIC 2 to ACTIVATION #1 output. This delay is adjustable from .25 to 2 seconds.
ACTIVATION ON DELAY #2	This is an on delay from PANIC 2 to ACTIVATION #2 output. This delay is adjustable from .25 to 2 seconds.
ACTIVATION OFF DELAY	This is an off delay for the ACTIVATION outputs. This delay is adjustable from .25 to 10 seconds. This is also the amount of time the EXT. PP input is active.
LOCK OFF DELAY	This is the time the MAG/STRIKE, PANIC 1 and PANIC 2 outputs will hold active. It is a combination of both ACT. OFF DELAY and LOCK OFF DELAY settings. This delay is adjustable from .25 to 20 seconds.
STRIKE VOLTAGE	This sets the Mag/Strike output voltage after 5 seconds. This will reduce the heat produced by the strike. Leave fully clockwise for magnet locks.

Basic Troubleshooting:

Power shuts off	If the power supply shut down, check green power LED are light. Check that 115/220 switch is in the 115 position located on top of power supply. Check for shorts in wires and devices.
No input or output LEDs	Check the WD LED is blinking. If it is not, check Fire Alarm input. Then remove power for 60 seconds. On power up, wait 60 seconds, if it still is not blinking. Replace lock control.

Optional Quick Mounting

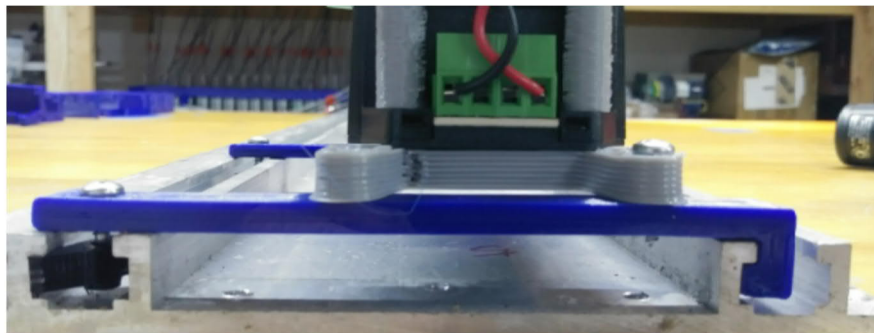
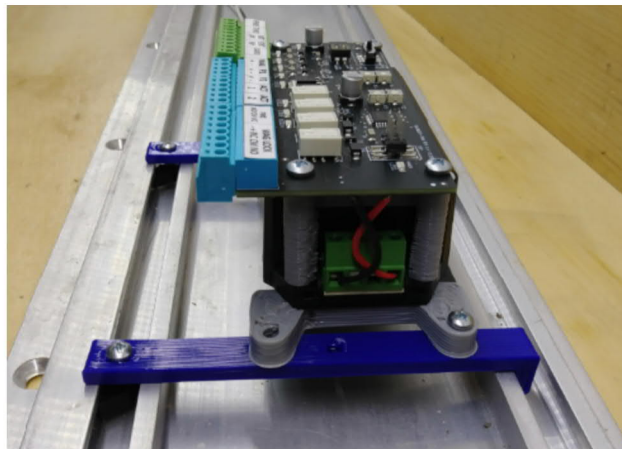
This plastic bracket set, gives you the options to mount this control in a header without the need to drill any holes.

This no-drill mounting system for:

QM-Horton for Horton

QM-Record for Record

QM-Besam for Besam



Above is a Horton header using the QM-Horton quick mount set.

Wiring of control inputs and outputs:

120 VAC Wiring:

1. For UL Installations, the power supply must be installed in the protected area within an Access Controlled room
2. Must be Installed within accordance with the National Electrical Code, ANSI/NFPA 70.
3. Must be Installed within accordance with Local authority having jurisdiction.
4. The AC input wiring shall
 - a. be in conduit,
 - b. be minimum No. 18 AWG wire,
 - c. maintain ¼ inch spacing between non power-limited wiring, and
 - d. be fail safe to meet the requirements of NFPA 101, Paragraph 7.2.1.6.

Electromagnetic Locks

Electromagnetic locks are often used for retrofit access control applications because the installation is relatively easy compared to other electrified locks.

The main requirements is that the electromagnetic locks to be released by any of the following:

1. A sensor initiated by an approaching occupant;
2. A marked emergency push button mounted beside the door, which unlocks the door for 30 seconds (independent of the access control system);
3. Actuation of the fire alarm.
4. Loss of power to the lock or control.

It is the responsible of the installer to verify that **ALL** of the above are met when this control is powering magnetic lock(s).

Motorized Panic Bars

Observed polarity when wiring. Output is limited to 3.0 amps combined for both panic bars. Most panics will only draw 1 amp. Some may have a setting to draw more than this. Do not use this setting, unless there is **ONLY** one panic bar.

Fire System Output:

This relay output is rated at 24VDC at 1 amp.

Used to disable automatic door control(s) by it's on/off or fire input. **DO NOT** break 120VAC with this relay.

NO = Normally Open

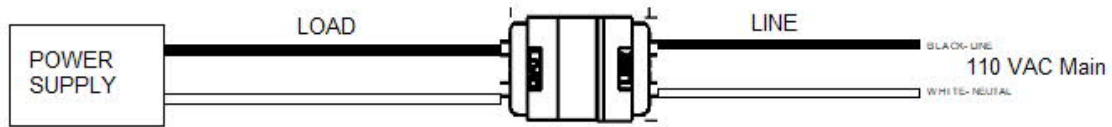
C= Common

NC = Normally. Closed

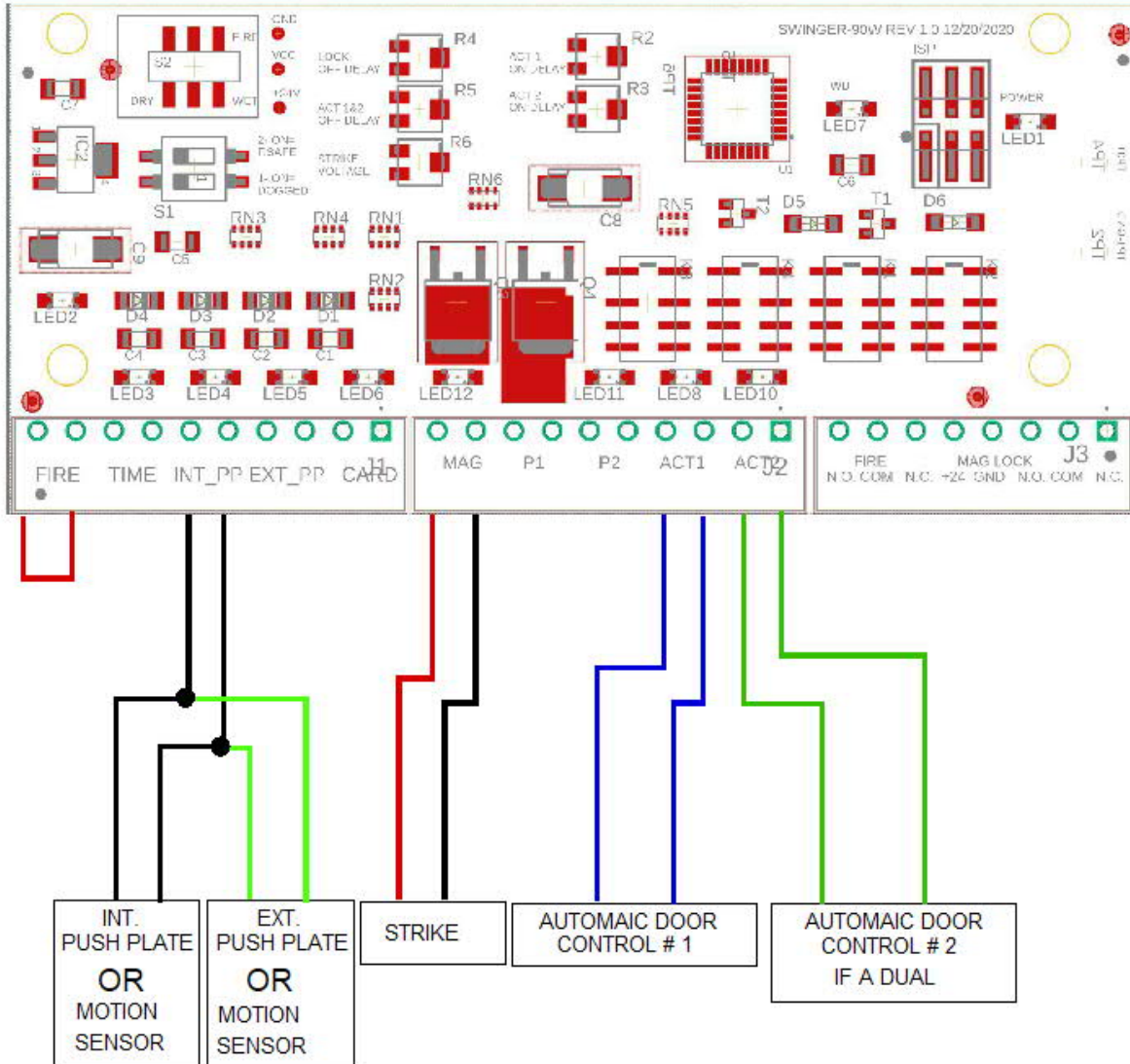
This is with the fire system in normal mode.



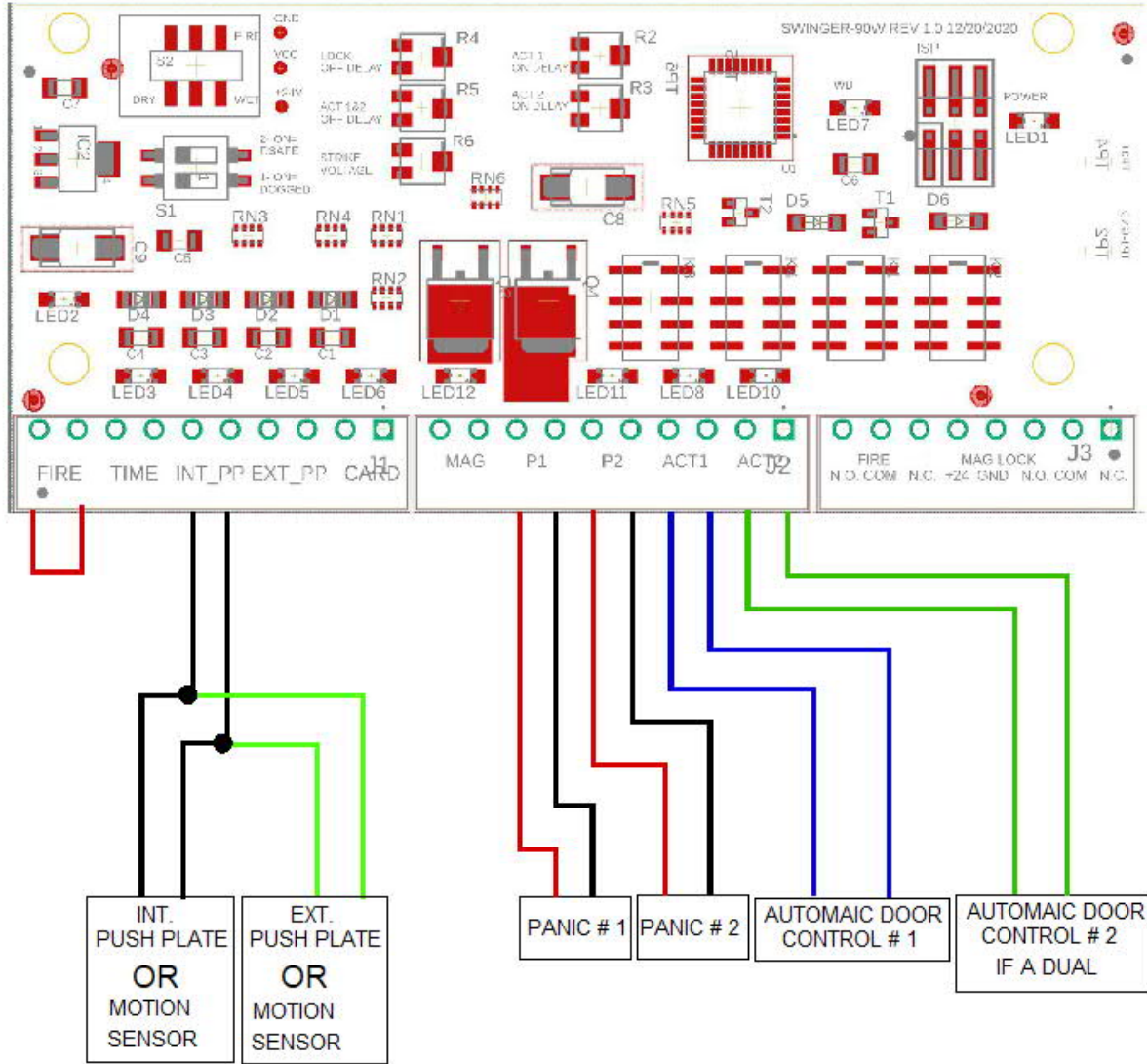
Wiring Diagrams



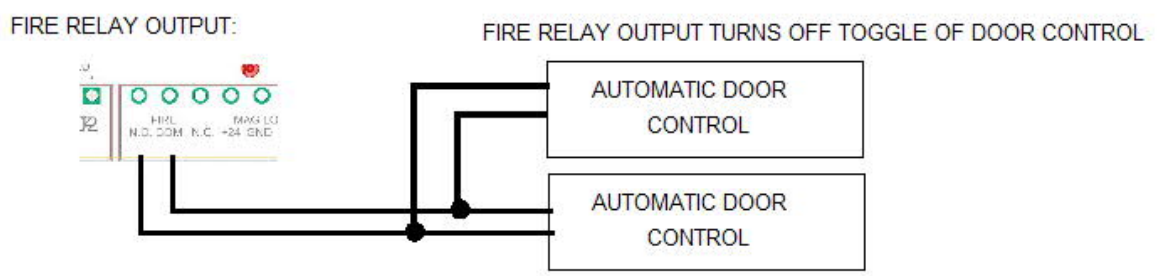
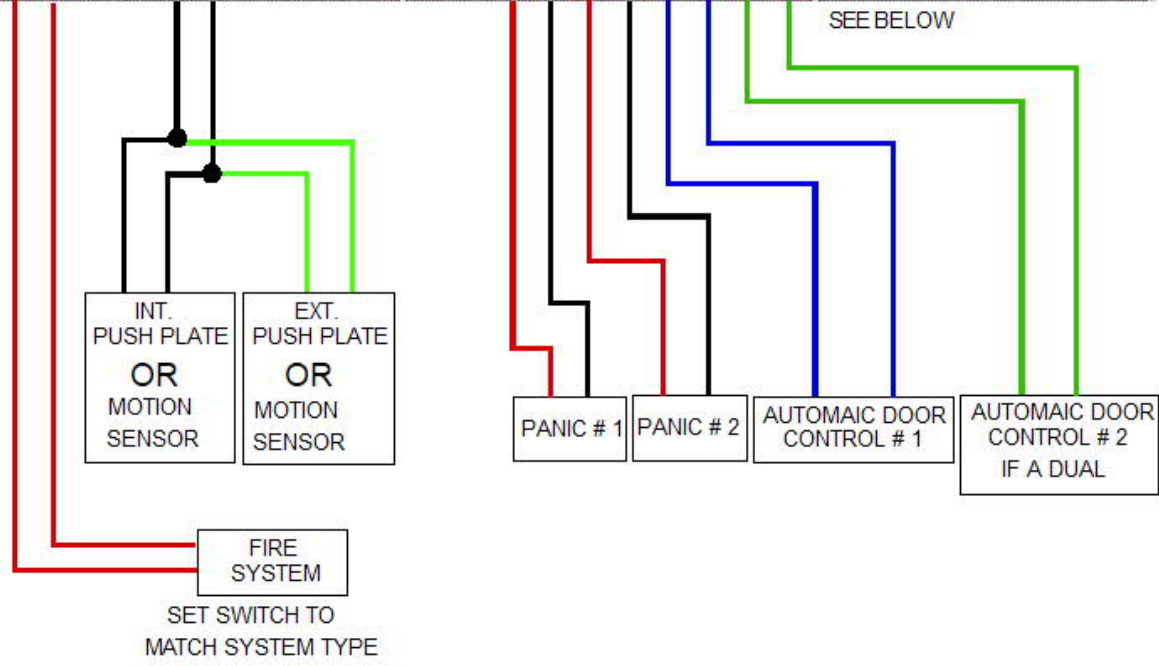
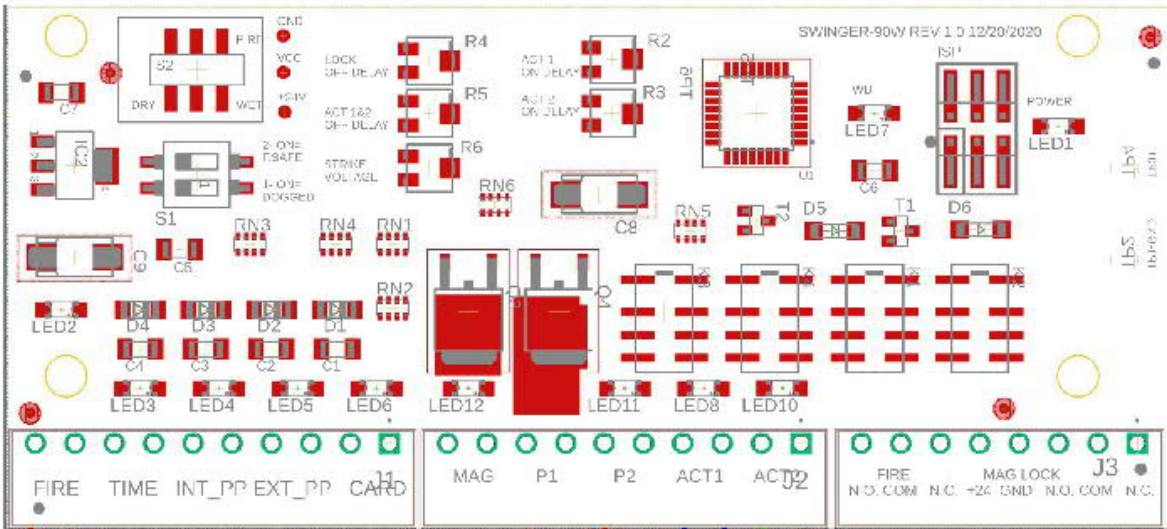
Full Power or Handycap Door with Strike



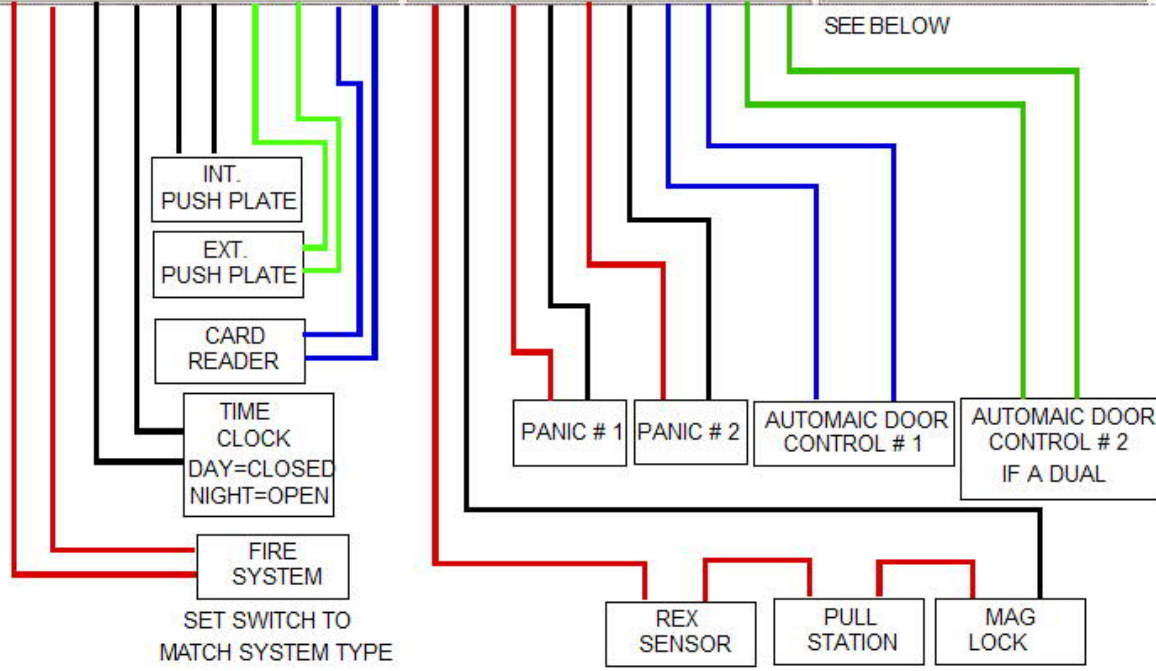
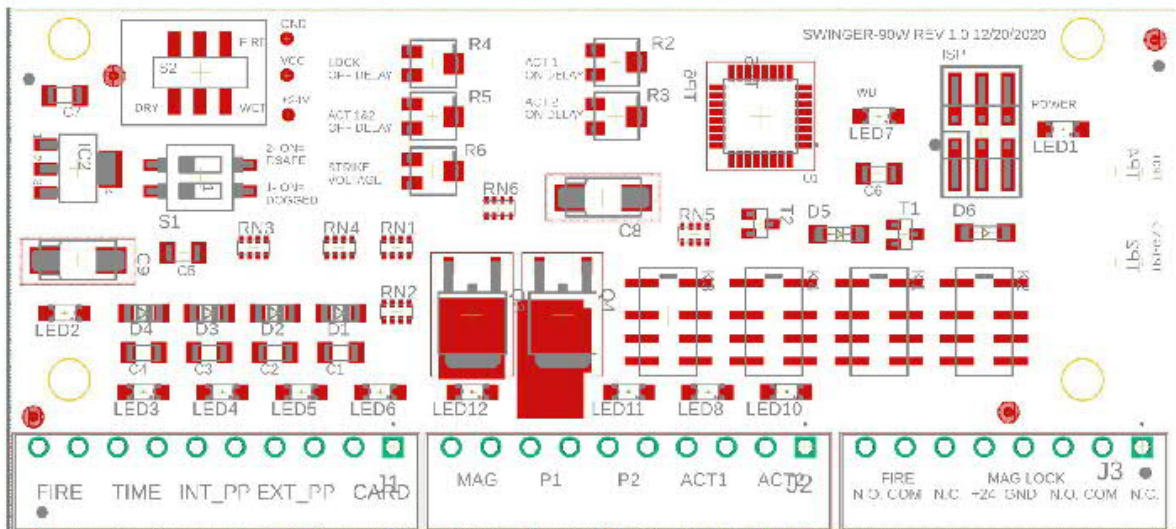
Full Power or Handicap Door with Panics.



Fire Door with Panic(s) dogged. Set S1-1 to "ON".

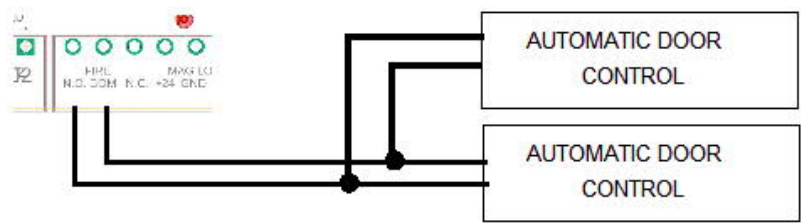


Day/Night Fire Door. Panic(s) always latched, Mag & Ext P.P on/off with Time Clock. Card unlocks & Enables Ext. P.P.

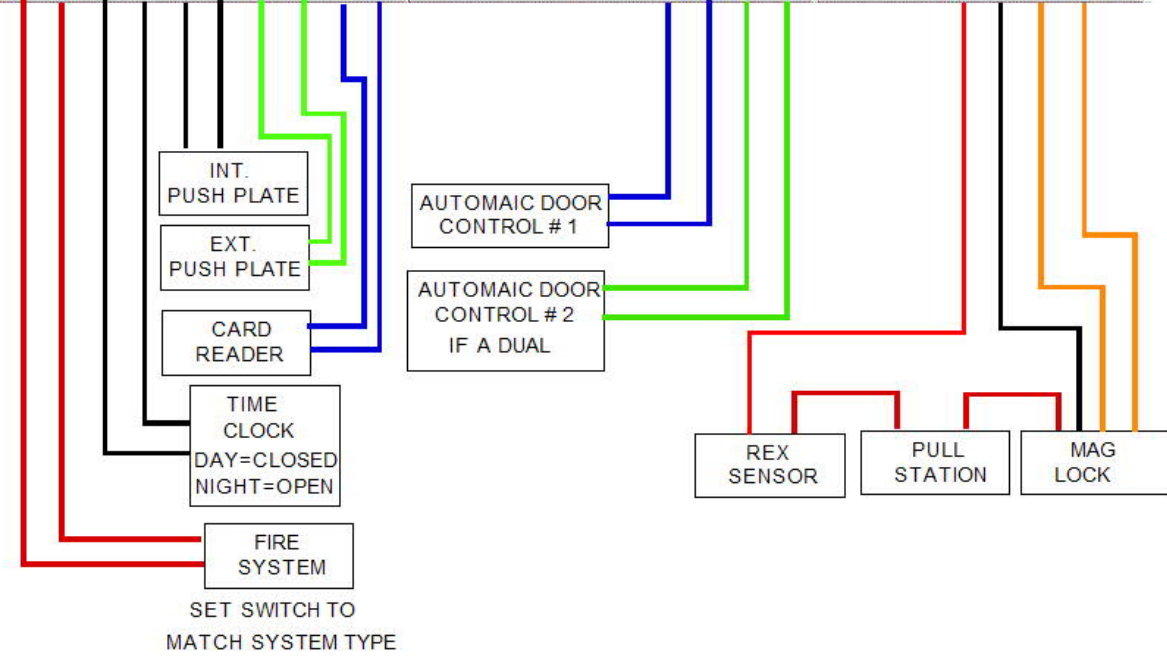
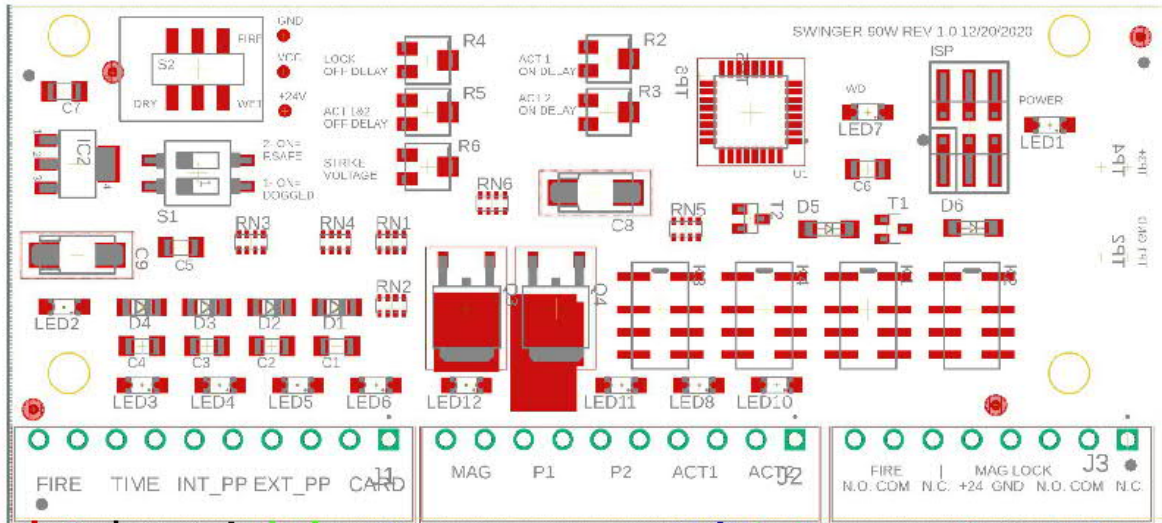


FIRE RELAY OUTPUT:

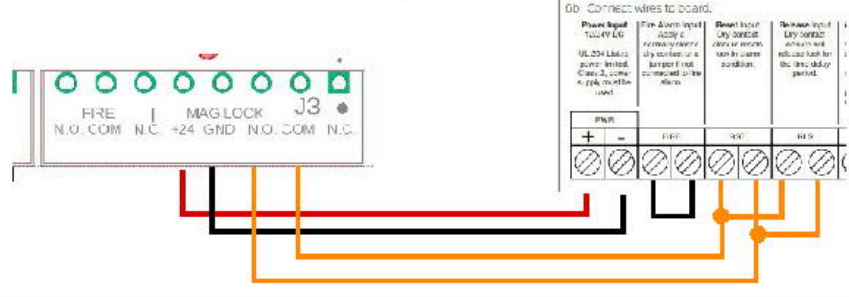
FIRE RELAY OUTPUT TURNS OFF TOGGLE OF DOOR CONTROL



Wiring for Delayed Egress Mag Lock



Wiring to reset, when in alarm. See mag lock instructions, as they maybe different.



LIMITED WARRANTY

KRN Solutions LLC ("Seller") warrants to the first purchaser of this product, for the installation in which this product is originally installed, that it will be free from any defect in materials and/or workmanship for a period of 12 full months from the date of purchase. The product must be used in complete accordance with included instructions for installation, operation and care. **The proper operation of this product is dependent on your compliance with the Owner's Manual instructions regarding installation, operation, maintenance and testing. Failure to comply strictly with those instructions will void this warranty in its entirety.**

If, during the limited warranty period, it appears as though this product contains a defect which is covered by this limited warranty, **CALL OUR number at 267-382-3900 or email krnsolutions.llc@gmail.com**. You will be advised of shipping instructions and address. Then send this product, prepaid and insured, to our service center for warranty repair. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product that is returned for warranty repair.

Products returned to Seller for warranty repair, which upon receipt by Seller are confirmed to be defective and covered by this limited warranty, will be repaired or replaced (at Seller's sole option) at no cost to you and returned pre-paid. Defective parts will be repaired or replaced with new or factory-rebuilt parts at Seller's sole option.

THIS LIMITED WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, AND OF ANY OTHER OBLIGATIONS OR LIABILITY ON SELLER'S PART. THIS LIMITED WARRANTY DOES NOT COVER NON-DEFECT DAMAGE, DAMAGE CAUSED BY IMPROPER INSTALLATION, OPERATION OR CARE (INCLUDING, BUT NOT LIMITED TO ABUSE, MISUSE, FAILURE TO PROVIDE REASONABLE AND NECESSARY MAINTENANCE, USE OF UNAUTHORIZED PARTS OR ACCESSORIES, UNAUTHORIZED REPAIRS, OR ANY ALTERATIONS TO THIS PRODUCT), LABOR CHARGES FOR DISMANTLING OR REINSTALLING.THE USE OF UNAUTHORIZED PARTS OR ACCESSORIES WILL VOID THIS LIMITED WARRANTY. If you have any questions as to whether accessories or replacement parts are authorized, please contact KRN Solutions LLC.

THIS LIMITED WARRANTY DOES NOT COVER ANY PROBLEMS WITH, OR, ANY SERVICE CALL THAT DETERMINES THE PROBLEM HAS BEEN CAUSED BY OTHER ITEMS THAT COULD RESULT IN A FEE TO YOU. UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES ARISING IN CONNECTION WITH THE USE OF, OR INABILITY TO USE, THIS PRODUCT. IN NO EVENT SHALL SELLER'S LIABILITY FOR BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE OR STRICT LIABILITY EXCEED THE COST OF THE PRODUCT COVERED HEREBY. NO PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS PRODUCT.

Some states do not allow the exclusion or limitation of consequential, incidental or special damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

KRN Solutions LLC is not responsible for any typographical errors.