

Open Technology **SSW-iLW**





SSiLW (ILLUMINATED WEATHER RESISTANT) Installation Manual

Features:

- ❖ Vandal resistant metal case
- ❖ Illuminated Backlit Hardened Keys
- ❖ Heavy Traffic Application
- ❖ Flush Mount
- ❖ Indoor / outdoor Applications
- ❖ Fully encapsulated

Installation:

- ❑ **Section 1: Unpacking and checking the packing list.**
- ❑ **Section 2: Mounting the SSiLW.**
- ❑ **Section 3: Wiring the SSiLW.**
 - a) **To an IEI controller.**
 - b) **To Wiegand controller.**
 - c) **Wiring the IEI controller.**
 - **To electromagnetic door lock**
 - **To integrated electromagnetic door lock**
 - **To door strike**
 - **To integrated door strike**
- ❑ **Section 4: Programming**
- ❑ **Section 5: Troubleshooting.**
- ❑ **Page 12: Warranty**
- ❑ **Page 13: Template**

- ❑ **Section 1: Unpacking and checking the packing list**
Open the box, and inside you will find:

- 1 SSiLW keypad
- 1 6 Conductor wire harness
- 2 1 1/4" black, socket cap flat head machine screws
- 2 1 1/4" black, Phillips flat head sheet metal screws
- 1 11/64" Allen wrench
- 1 Installation Manual for SSiLW

Also Included when using model: 212 SiL

- Programming controller
- Four conductor wire harness (1)
- Three conductor wire harness(4)
- Command and control features and programming guide

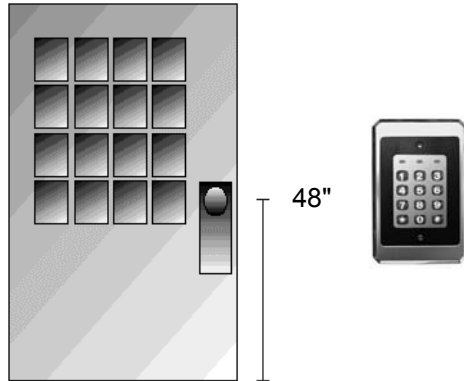
Also Included when using model: 232 SiL

- Programming controller
- Four conductor wire harness(1)
- Three conductor wire harness(4)
- Self contained access control features and programming guide

Please check the contents of this package and verify all components in the packing list are present. Taking this inventory will familiarize you with the components as well as ensure that you have a complete parts list.

□ **Section 2: Mounting the SSiLW (212-SiL & 232-SiL)**

1. Select the appropriate location for the SSiLW. Mounting height is the same for an electrical switch, 48" on center.
The SSiLW should be mounted to a standard single gang electrical box (with the small slot in the trim ring facing down), but it also is able to mount directly to a flat surface with the provided mounting screws.



Dimensions: 3 3/8" x 5 1/8" x 5/8"

Note: When mounting the SSiLW please use the template on p. 13 for drilling of mounting holes.
(When not using a single gang box.)

□ **Section 3: Wiring**

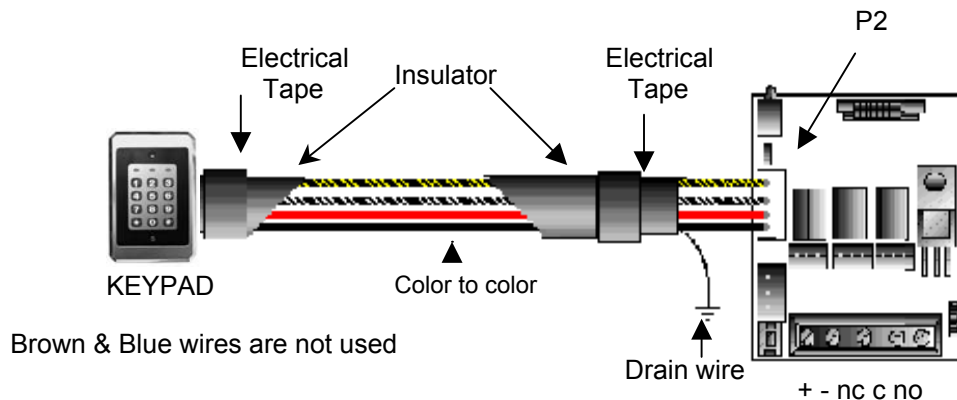
Electrical Specifications:

Operating Voltage: 5VDC – 12 VDC (Recommended Regulated power supply)

Maximum Current draw: 145 ma @ 5vdc ; 130 ma @ 24 vdc

Temperature Tolerance: 20 F To 130 F

Wiring the SSiLW to an IEl controller



Wiring the design series SSiLW to an IEl controller requires a 4 conductor **stranded shielded cable** between the keypad and controller. Maximum distance between the two are as follows.

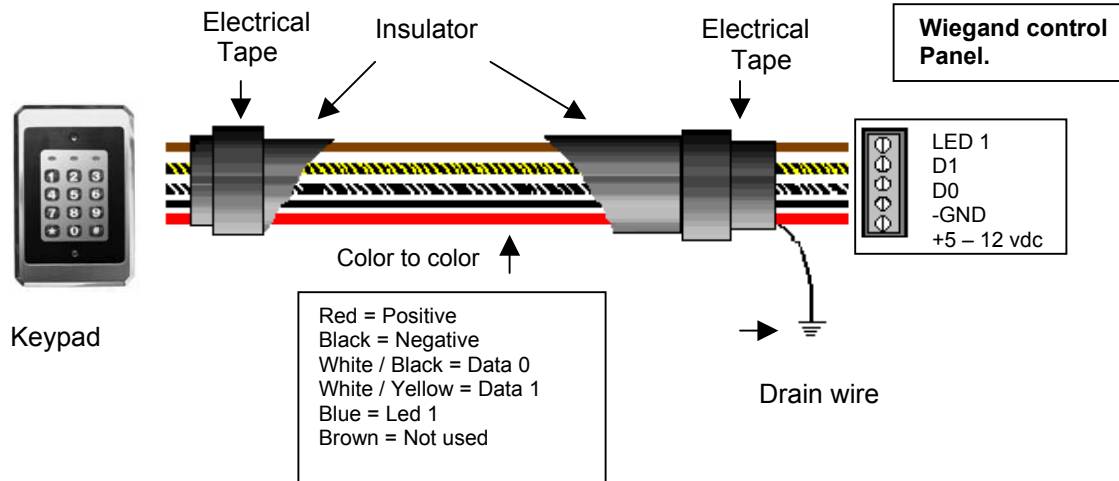
22 AWG stranded : 250 feet

20 AWG stranded: 500 feet

18 AWG stranded: 1000 feet

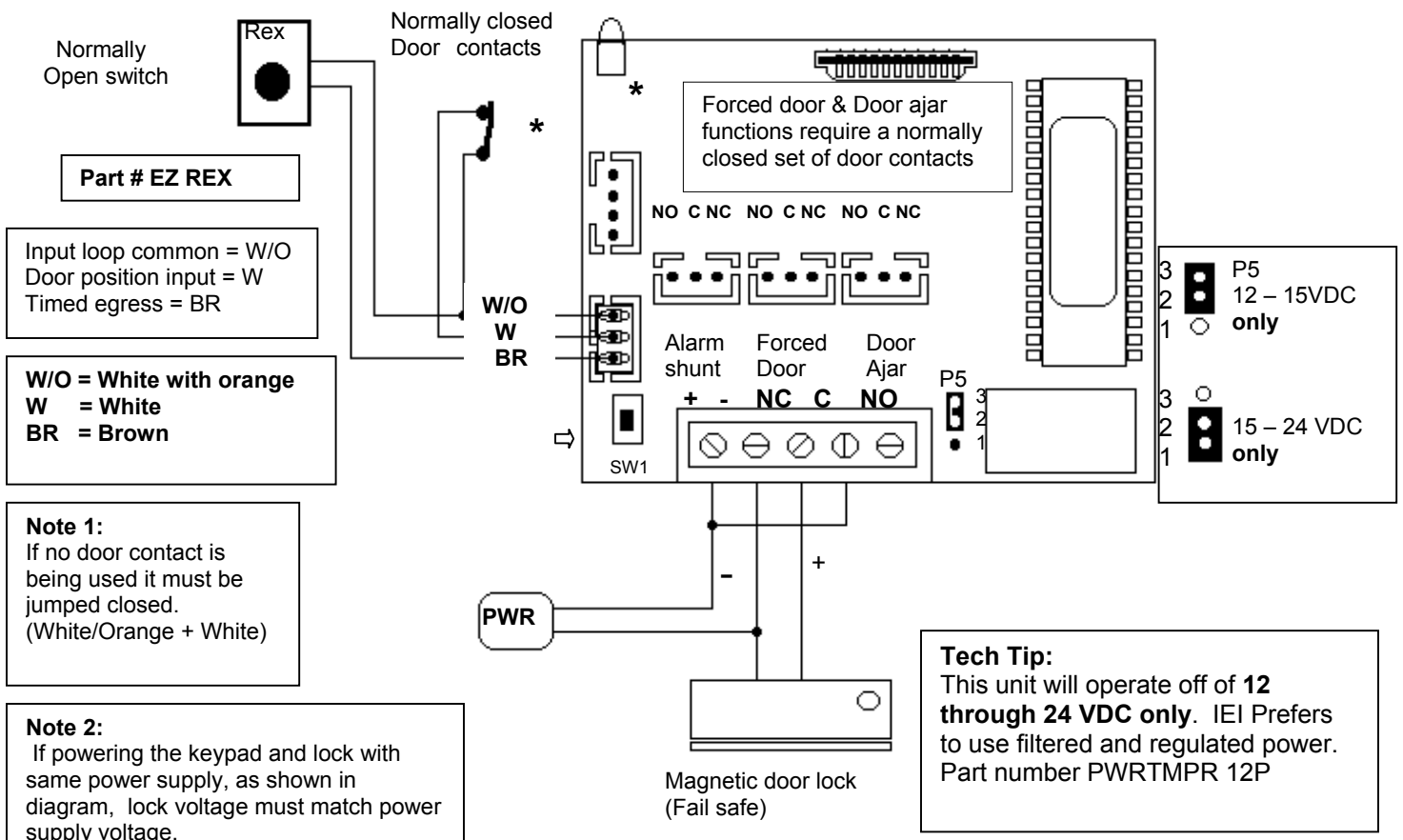
At the controller, connect the four conductor wire harness to the four pin connector labeled **p2** on the controllers relay board, as shown in the diagram above. The drain wire at the controller must be attached to earth ground. Ground is the v- on the terminal TS1 if the power supply is grounded. At the design series keypad, the drain wire and foil shield should be cut back and taped with electrical tape.

Wiring the SSiLW to a Wiegand panel



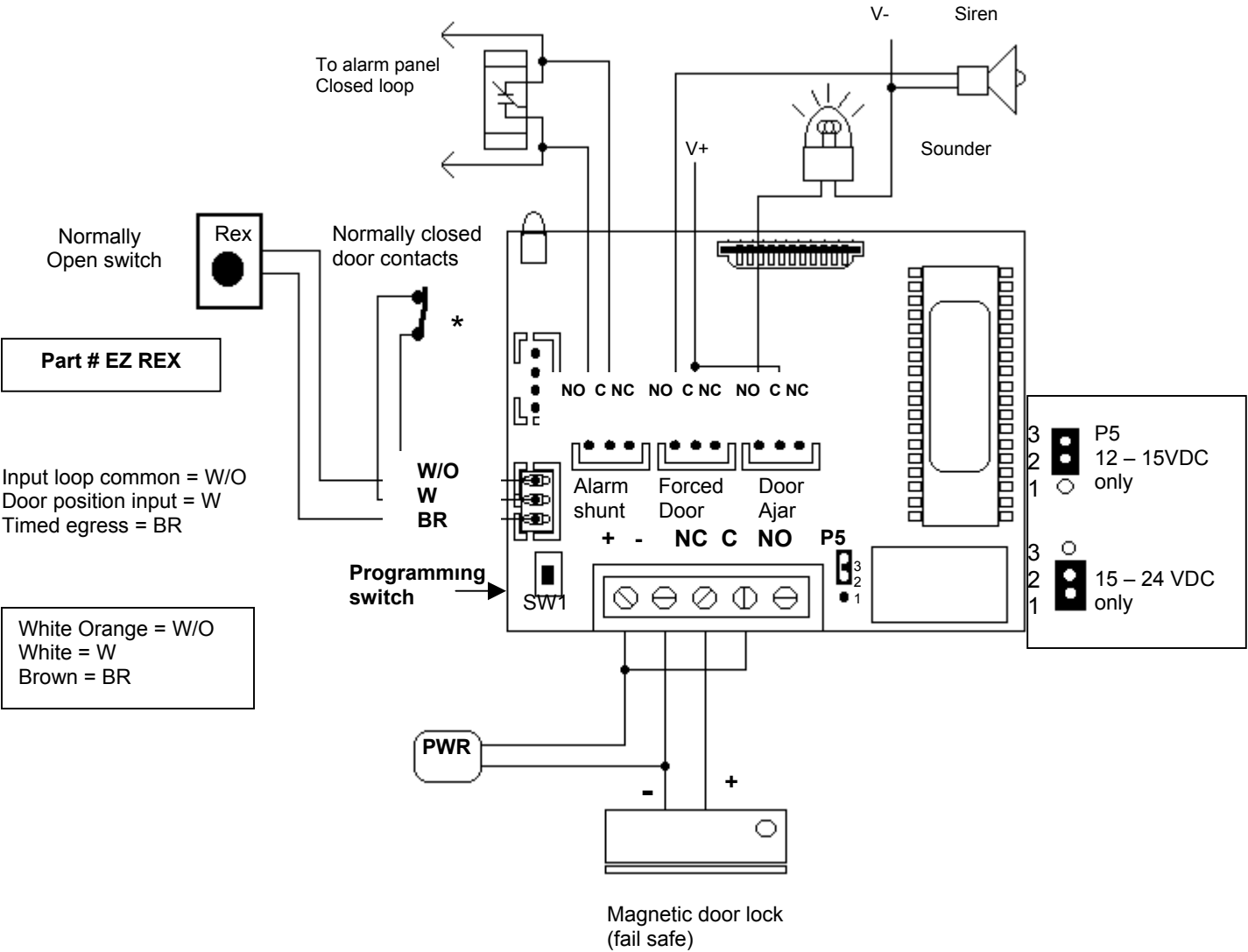
Wiring to the IEI Controller

Basic access control using an electromagnetic lock





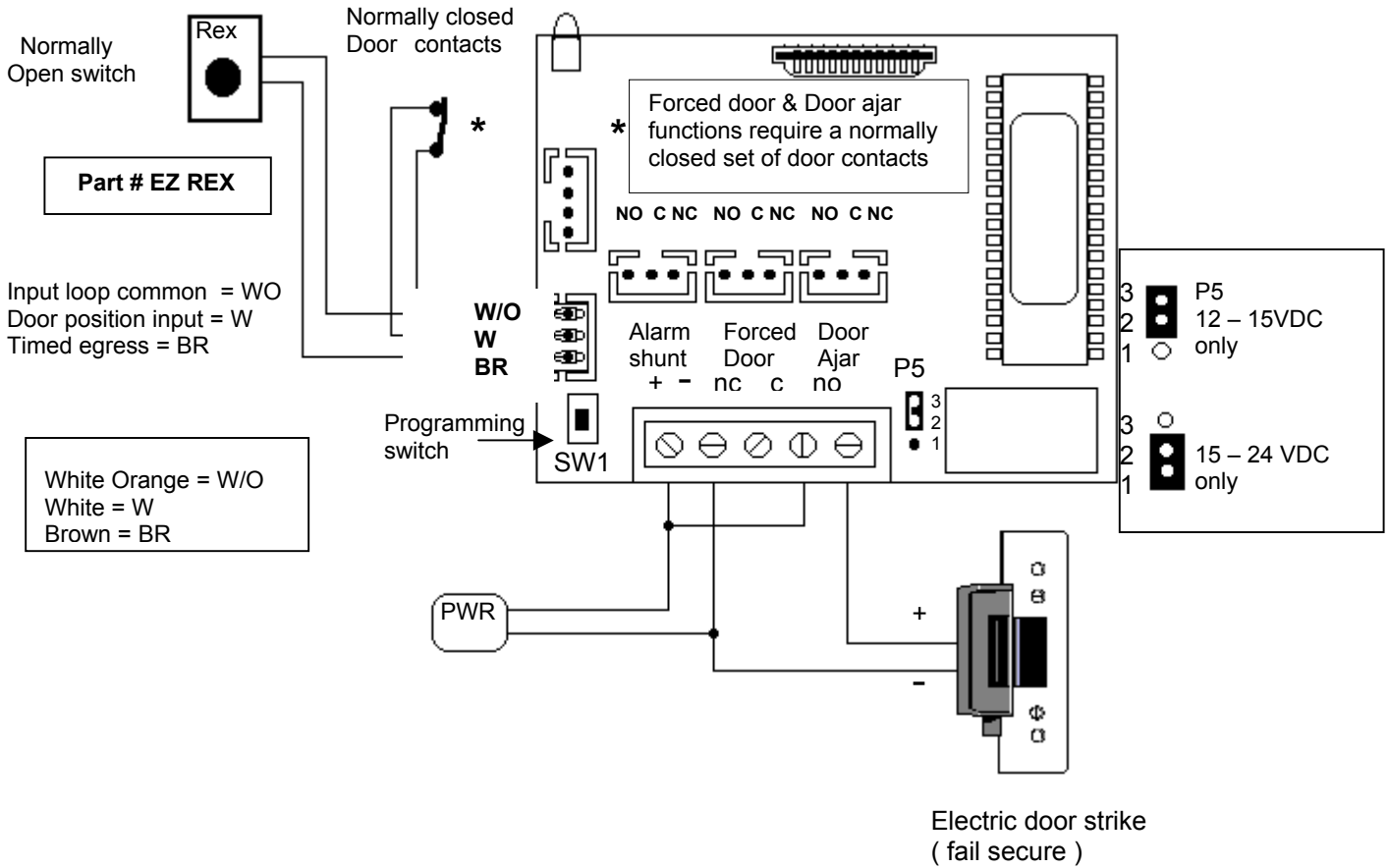
*** Forced door & Door ajar functions require a normally closed set of door contacts**



Tech Tip:
 This unit will operate off of **12 through 24 VDC only**. IEI prefers filtered and regulated power. Part # PWRTMPR 12P

Note 1:
 If door contact is not being used the white with orange stripe and the white wire should be spliced together.

Note 2: If power keypad and lock with same power source, the lock voltage must match the power supply voltage.

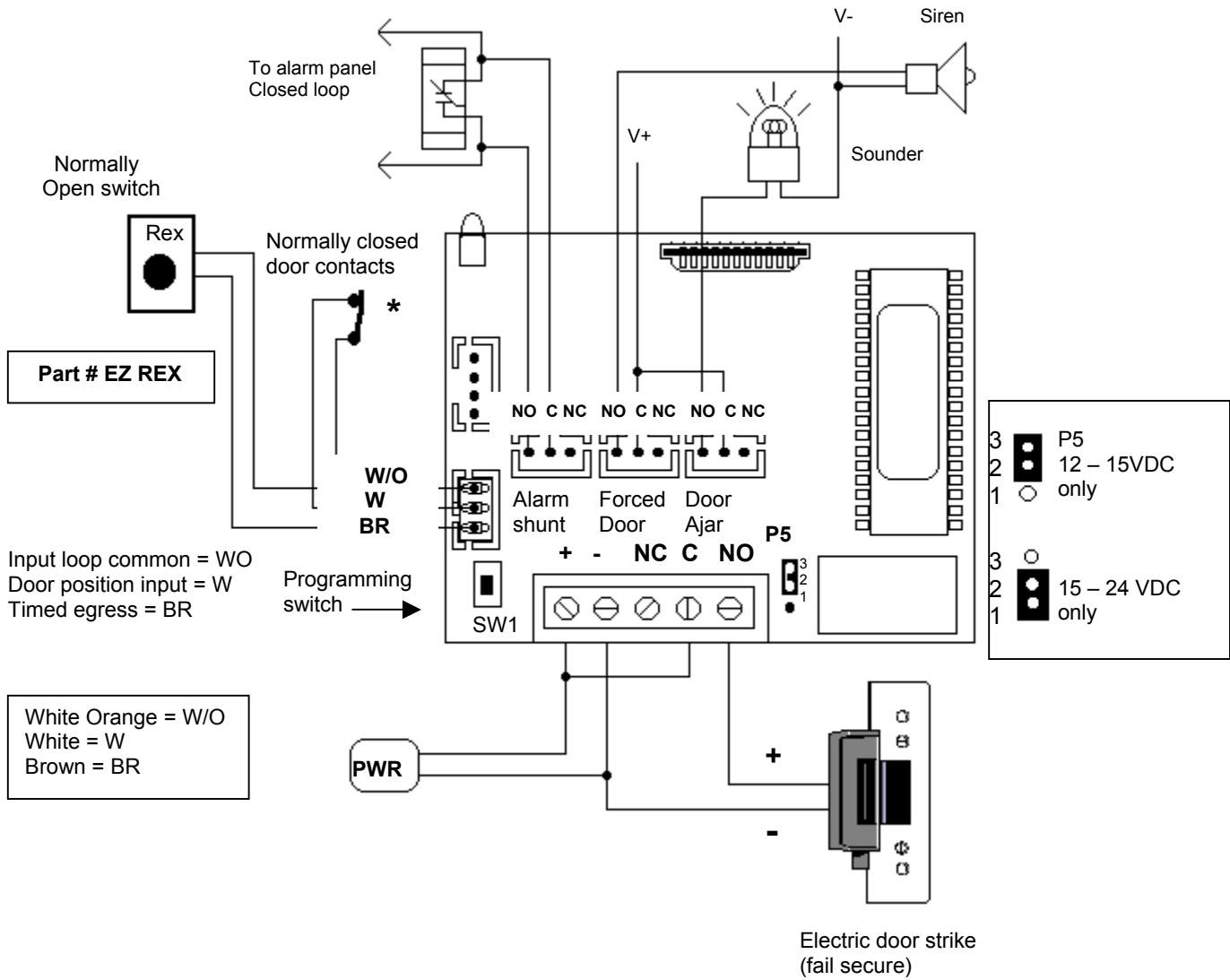


Tech Tip:
This unit will operate off of **12 through 24 VDC only**. IEI prefers filtered and regulated power. Part # PWR TMR 12

Note 1:
If door contact is not being used the white with orange stripe and the white wire should be spliced together.

Note 2: If power keypad and lock with same power source, the lock voltage must match the power supply voltage.

* Forced door & Door ajar functions require a normally closed set of door contacts



Tech Tip:
This product will operate off of **12 through 24 VDC only**. IEI prefers filtered and regulated power. Part # PWR TMPR 12

Note 1:
If door contact is not being used the white with orange stripe and the white wire should be spliced together.

Note 2: If power keypad and lock with same power source, the lock voltage must match the power supply voltage.

Section: 4 Programming

If the pre-programmed default values must be changed,
Or additional functions are desired, the following options may be programmed.

To Enter SSiLW Keypad program mode: 099 # "program code" * *The keypads yellow LED will flash twice rapidly indicating that you are in program mode. (The program code for the SSiLW is 6789*)*

Change Program Code Press 90 # 0 # 0 # "new code" * "repeat code" *

Below for SS-iLW, 212 SiL & 232 SiL

Visual Key-press feedback on	Press 91 # 0 # 1 # **
Visual Key-press feedback off	Press 91 # 0 # 0 # **
Audible Key-press feedback on	Press 91 # 1 # 1 # **
Audible key-press feedback off	Press 91 # 1 # 0 # **

Below for SS-iLW Only

Output Selection - Wiegand	Press 91 # 3 # 1 # **
Output Selection IEI Secured Series	Press 91 # 3 # 0 # **
Secured Series Recording status OUT	Press 91 # 4 # 1 # **
Secured Series Recording Status IN	Press 91 # 4 # 0 # **

Below for SS-iLW Only

Wiegand Red led enable	Press 91 # 5 # 1 # **
Wiegand Red led disable	Press 91 # 5 # 0 # **
Wiegand Red led state High	Press 91 # 6 # 1 # **
Wiegand Red led state Low	Press 91 # 6 # 0 # **
Wiegand Green led enable	Press 91 # 7 # 1 # **
Wiegand Green led disable	Press 91 # 7 # 0 # **
Wiegand Green led state High	Press 91 # 8 # 1 # **
Wiegand Green led state Low	Press 91 # 8 # 0 # **

Below for SSiLW 212 SiL & 232 SiL

Keypad illumination enable	Press 91 # 11 # 1 # **
Keypad illumination disable	Press 91 # 11 # 0 # **
Keypad dimming enable	Press 91 # 12 # 1 # **
Keypad dimming disable (Bright all the time)	Press 91 # 12 # 0 # **
Default SSiLW keypad to IEI controller mode	Press 96 # 0 # 0 # **
Default SSiLW keypad to 26 bit wiegand mode	Press 96 # 1 # 1 # **

Exit programming Press * until yellow led stop s flashing

Notes: Programming user codes or relay times cannot be done from the SS-iLW. They must be changed from the controller.



If there is need to change your Wiegand format from 26 bit , use the chart below

92 #	Options #	Value # **
	1. -Wiegand format 2. -Inter Pulse spacing 3. -Pulse width	1 – 8 (Defaults to 1 = 26 Bit) 1 – 225 (Defaults to 32 = 640 usecs) 1 – 255 (Defaults to 8 = 160 usecs)
93 #	ID type #	ID Value # **
	0 – Site ID 1 – Group ID	0 – 999 (Deafults to 0) 0 – 999 Defaults to 0)

Wiegand Formats

Format	Frame size	PIN's	Sites	Groups
1	26 Bit	65536	256	N/A
2	28 Bit	32768	256	N/A
3	29 Bit	524288	256	N/A
4	30 Bit	65536	256	16
5	31 Bit	65336	256	32
6	32 Bit	65536	2048	64
7	36 Bit	1048576	256	N/A

Self Test: After installation it is recommended that you perform the self test mode. While the unit is powered up, enter the following on the SSiLW keypad: 7890#123456 * . If all 12 key presses have been verified, the keypad will enter self test mode. The LED's will alternate three times and the sounder will beep three times followed by a flickering yellow LED. Press any key to return to normal operation.

System Defaults:

The SS-iLW series keypad is designed for easy installation in a minimum amount of time. The following values have been factory programmed.

Front end designation **HFE** (Hub front end)
 SS-iLW Keypad program code **6789**
 Audible keypress feedback **on**
 Visual keypress feedback **on**
 Log event recording **on**

If it is necessary to change any of these defaults, please refer to your programming options chart after you have familiarized yourself with the programming sections.



□ **Section 6: Trouble Shooting.**

Refer to this section if the SSiLW is not responding correctly to the operation outlined in this instruction manual. The SSiLW has been designed to operate with 5 - 12 VDC only. Verify that the voltage powering this keypad is within these parameters.

Situation 1: The Master code is not allowing access to the programming mode.

Reason: There are a few reasons that this situation could occur. The most common is that the Master code was programmed incorrectly. That is to say that someone used the incorrect user number to add a user code. The Master code is always kept in memory with user number "1".

Solution: The other reason this could happen is that the code was simply forgotten. Power down the keypad, connect the White / yellow to blue and brown wires on the SSiLW wire harness and power back up. The yellow LED will be flashing indicating that the keypad is now in programming mode. Change the Master code by press 1 # (New Master Code) * (Repeat Master Code) * *. When finished with programming, power down the unit, separate the blue and brown wires from the white yellow on the SSiLW harness and power back up. The keypad is now ready to use.

Situation 2: No LED's are lit on the keypad

Reason: Power is not reaching the keypad.

Solution: With a meter check the voltage connection at the SSiLW keypad on the Red & Black wires. Confirm that there is actually voltage at the keypad. If there is no voltage reading at the keypad, use the meter on the power supply to verify that voltage is leaving the power supply. If there is no voltage coming out of the power supply, call the manufacturer of that power supply. If there is voltage at the power supply, but not at the keypad, use the meter to test each of the wires for a break in the wire.

If this product does not seem to operate properly, please call our Technical support department Monday through Friday 8:00 am through 7:00 pm eastern standard time, at 1-800-733-9502 & 1- 800 – 343 - 9502 EXT 3. We understand your time is valuable and by calling Technical support we assure that we will be as quick and accurate as we possibly can.

Thank you for choosing IEI



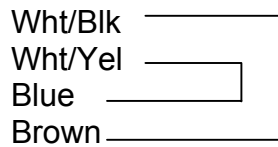
If the four data wires are shorted in one of the two configurations shown below on power up, the option will be set. Remove power after you hear the 3 beeps then reconnect the data lines to their proper working configuration.

System Defaulting the Design SSiLW wiring

Defaults Design Series and sets it in Hub Front End mode

Red - +5 – 12 VDC

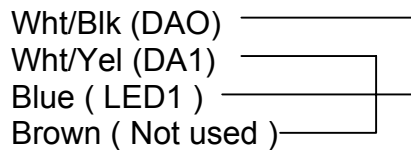
Black - GND



Defaults Design Series and sets it in Wiegand 26 bit mode

Red +5 – 12 VDC

Black - GND

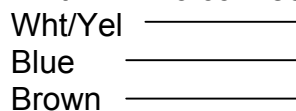


If the local program code is lost or forgotten, power down the system, connect the wire harness as shown below then power the system up. Change your local program code then power down the system and restore the wire harness to its original configuration and power back up.

Red - +5 – 12 VDC

Black - GND

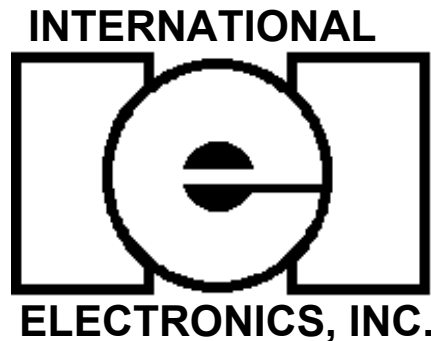
Wht/Blk - No connection



International Electronics Incorporated (IEI) warrants its products to be free from defects in material and workmanship, when they have been installed in accordance with the manufacturer's instructions, and have not been modified or tampered with. **IEI** *does not* assume any responsibility for damage or injury to person or property due to improper care, storage handling, abuse, misuse, normal wear and tear, or an act of God.

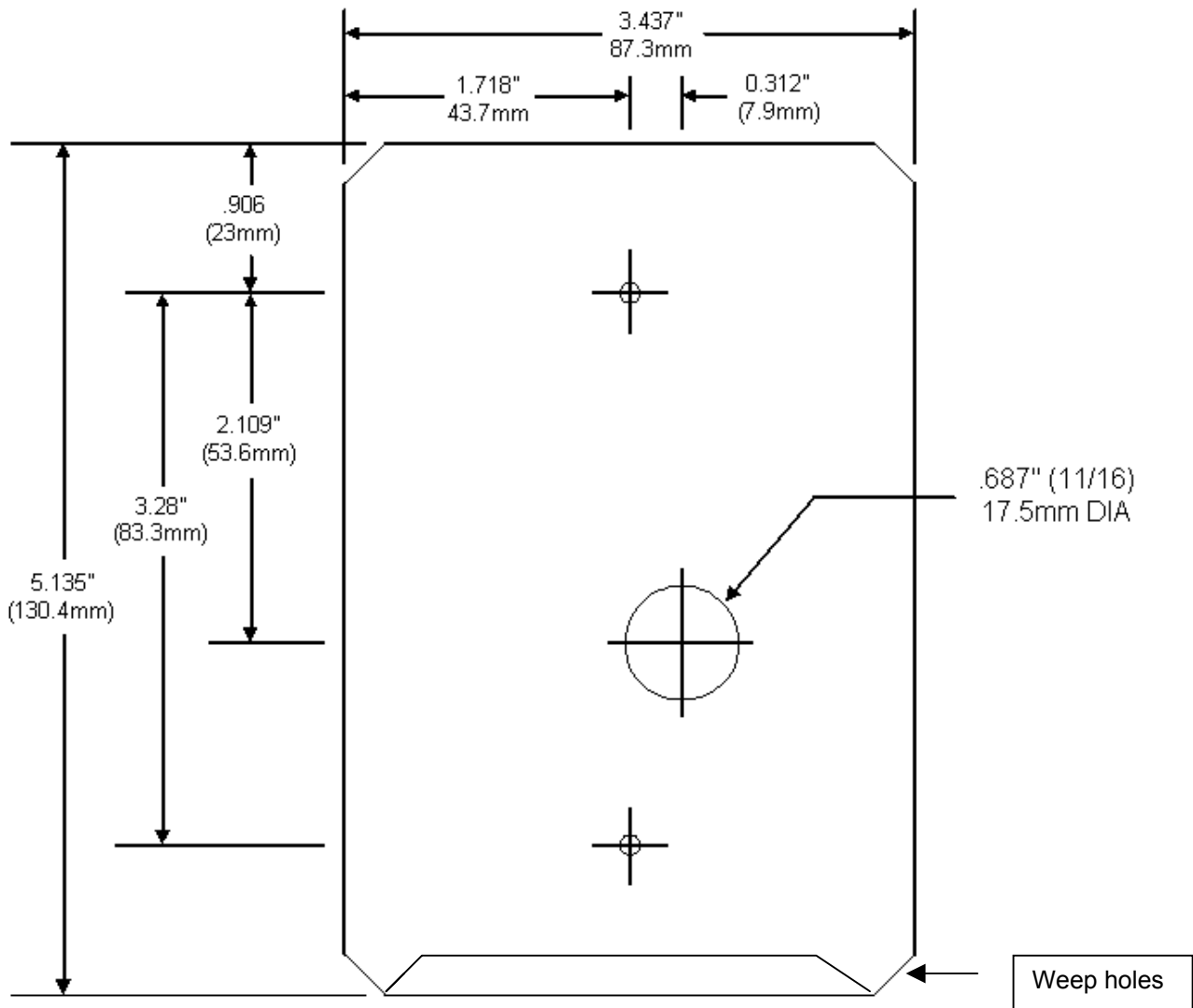
IEI's sole responsibility is limited to the repair (at **IEI's** option) or the replacement of the defective product or part when sent to **IEI's** facility (freight and insurance charges prepaid), **after** obtaining **IEI's** Return Merchandise Authorization. **IEI** WILL not be liable to the purchaser or any one else for incidental or consequential damages arising from any defect in, or malfunction of, it's products.

This warranty shall expire two years from mfg date code found on micro processor for Door Gard Keypads. Except as stated above, **IEI** makes no warranties, either expressed or implied, as to any matter whatsoever, including, without limitation to, the condition of its products, their merchantability, or fitness for any particular application.



427 Turnpike Street
Canton, MA 02021 U.S.A.
Phone: (781) 821-5566
(800) 733-9502 Sales in MA
(800) 343-9502 Sales
FAX: (781) 821-4443

Visit our Web Site at www.ieib.com



Note: Use this template to help drill holes for easy installation

