

6300 Series Full Feature Low Energy Operator Programming Instructions Onboard or Wi-Fi Smart Device



WARNING

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65warnings.ca.gov.

Pour la version française voir www.nortondoorcontrols.com.

READ AND FOLLOW ALL INSTRUCTIONS.
SAVE THESE INSTRUCTIONS.



These programming instructions guide setup of the 6300 operator via the onboard LCD screen or a Wi-Fi smart device.

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FCC:

Class B Equipment:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning:

Changes or modifications to this device may void the user's authority to operate the equipment.

Industry Canada:

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Cet appareillage numérique de la classe A répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement.

Declaración de México:

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Initial Setup

1. With building power feed turned off, route 120VAC wiring through conduit hole in backplate. (Figure 1)
2. Connect 120VAC power to power supply: HOT to "L", NEUTRAL to "N", GROUND to Ground. (Figure 1)
3. Use supplied green connectors to wire in any devices needing outputs, such as electric strikes, mag locks, exit devices, door open position output, etc. (Figure 2) See Input Connections on page 10 and Output Connections on page 11 for information.
4. Turn on building power feed. Power will normally be "On" for operator. Power can be turned on or off by pressing power button. (Figure 2)

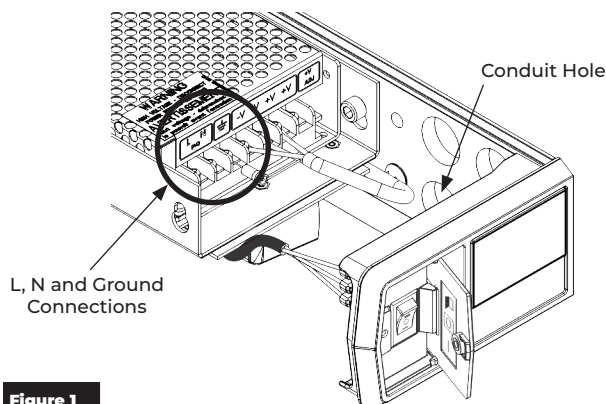


Figure 1

- NOTES:**
- On control board there should be one solid red LED for POWER and one white LED that flashes every 1.5 - 2 seconds for STATUS. CLOSE button of Setup Buttons should be flashing orange continuously. (Figure 2)
 - If red LED is flashing, refer to Troubleshooting section of this manual or contact Technical Product Support.
5. Confirm ON/OFF/HO switch is in the ON position. (Figure 3)

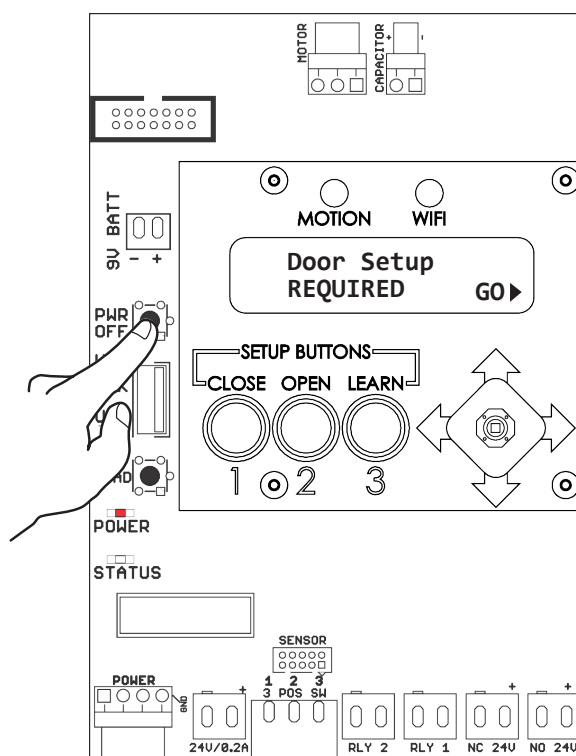


Figure 2

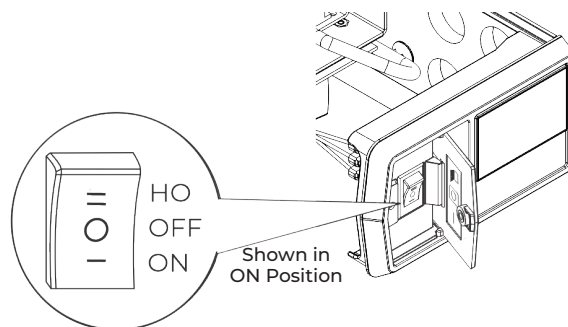


Figure 3

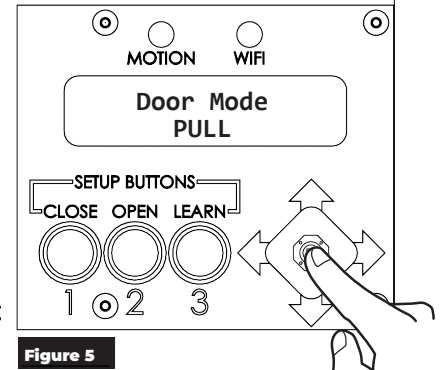
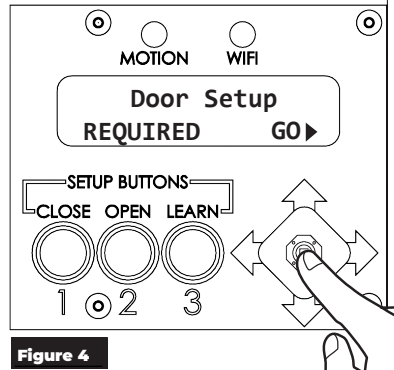
Onboard Programming Method

Setup Using LCD Screen

Follow these steps after the operator has been successfully installed and power has been turned on (see Page 3, Initial Setup):

A. Select arm type.

1. Select GO from the Door Setup REQUIRED menu by pushing joystick to the right. (Figure 4)
2. Depending on your application, select PUSH or PULL by moving joystick LEFT or RIGHT. (Figure 5)
3. After setting arm type, push joystick UP to continue Door Setup.



B. Set door open and door closed positions.

1. To set closed position, fully close door. Press and release CLOSE button on board. Flashing ORANGE LED should turn solid. (Figure 6)
2. GREEN OPEN LED should now be flashing.
3. To set the fully open position, manually open door to open position and hold door there.

NOTE: Any time door is in closed position, orange LED should be solid.

NOTE: If there is a wall or door stop at open position, hold door slightly away from wall or stop.

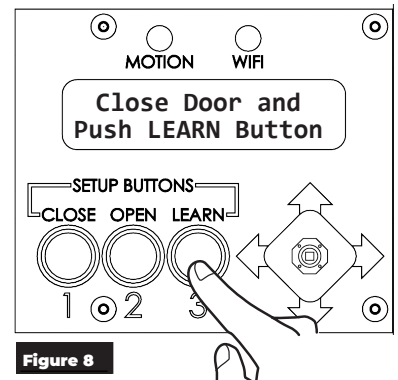
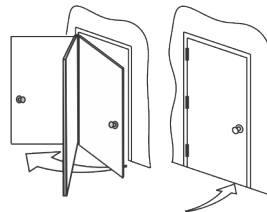
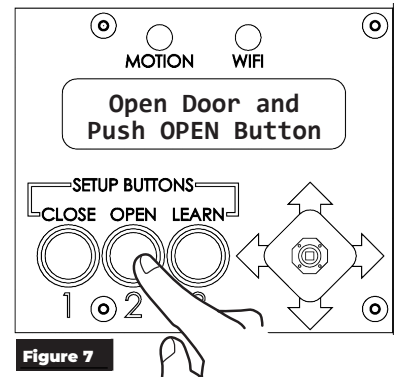
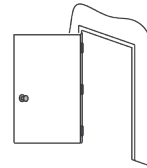
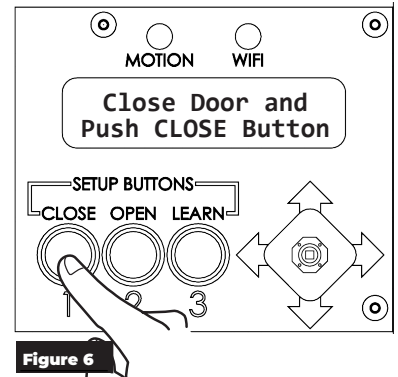
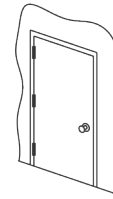
4. Press and release OPEN button on board. Flashing GREEN OPEN LED should turn solid. Let door close. (Figure 7)

NOTES:

- Any time door is in open position, green LED should be solid.
- If open position is not set within 30 seconds of setting closed position, closed position must set again.
- Once door has fully closed, make sure there are no obstructions that could prevent door from opening. Latching hardware must not prevent door from opening during following step.

5. Operator must now learn its internal settings. Press and release LEARN button on board. BLUE LEARN LED will start flashing and door will open in small increments. Allow door to open and close without interference. (Figure 8)


NOTE: After operator has learned settings, if spring is adjusted or accessories are attached to door that would make door heavier, operator MUST relearn internal settings by repeating step 5.

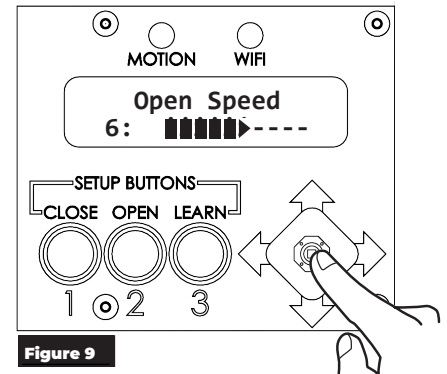
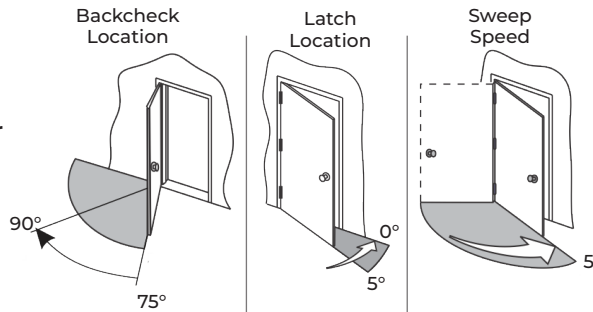


Setup Using LCD Screen (cont.)

C. Adjust opening and closing.

Using joystick, make selections to adjust backcheck, latch and sweep.
(Figure 9)

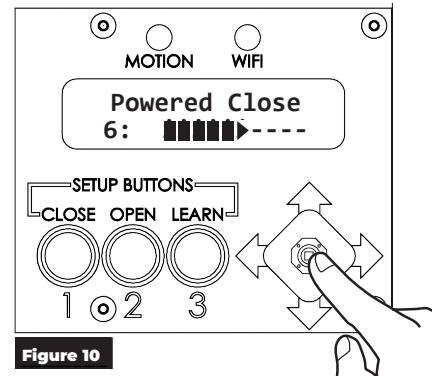
 **Speed/Force and Timing/Location settings must be adjusted to meet ANSI BHMA A159.19 (American National Standard for Power Assist and Low Energy Power Operated Doors) requirements for opening and closing based on door weight and width.**



D. Set options.

Using joystick, set options. (Figure 10)

- **Latch Assist:** At closed position, after an activation, the door is pulled in. After the door has closed, the door is pulled in to assist with latch release/engagement.
- **Obstruction Detect While Closing:** Door will reverse to open position if it hits an obstruction while closing.
- **Push and Go:** As the door is manually opened, the operator “senses” movement and opens door to the full-open position.
- **Powered Close:** Additional force to assist door closing between 7° and 2°.
- **Power Assist:** Senses the door is being opened manually and applies small amount of power to assist user in opening the door with force less than 5 lbs. Door opens only as far as it is moved manually, then closes once released.
- **Ignore Obstruction <10° From Closed:** Used with door mounted presence sensor. Operator will ignore obstruction input from sensor in the last 10 degrees of closing.
- **Ignore Obstruction <30° From Open:** Used with door mounted presence sensor. Operator will ignore obstruction input from sensor in the last 30 degrees of opening.
- **Energize 24V Output <20°:** 24V outputs will change state when the door is 20 degrees from close after a manual or automatic cycle.
- **Audible Beep:** Turn audible beep feedback from interface PCB off/on.



Continue with Input Connections on page 10

Wi-Fi Programming Method

Setup Using Wi-Fi

Follow these steps after operator has been successfully installed and power has been turned on (see Page 3, Initial Setup):

1. Turn on Operator Wi-Fi

With cover off:

Using joystick, scroll to Wi-Fi Link menu on LCD screen. Select ON by pushing joystick RIGHT or LEFT. Red LED indicates ON. (Figure 11)

With cover on:

Toggle 3 Position switch on end cap 3 times. (Figure 12)

NOTES:

- Operator will emit a long beep when Wi-Fi has been successfully turned on.
 - Wi-Fi automatically turns off after 20 minutes of inactivity.
 - For further security, Wi-Fi can be turned off immediately by selecting OFF on LCD screen or toggling 3 Position switch again. Operator will emit a short beep when Wi-Fi has been successfully turned off.
 - Operator serial number, password and IP address are located inside end cap. (Figure 13)
- From your smart device open Wi-Fi Networks to search for operator SSID. Once your specific ID beginning with NDC6300_ is found, connect to network.
 - Enter operator password.
 - On the web browser, enter 192.168.1.1 into search bar.
 - The 6300 Series Operator homepage is indication of a successful connection. (Figure 14)

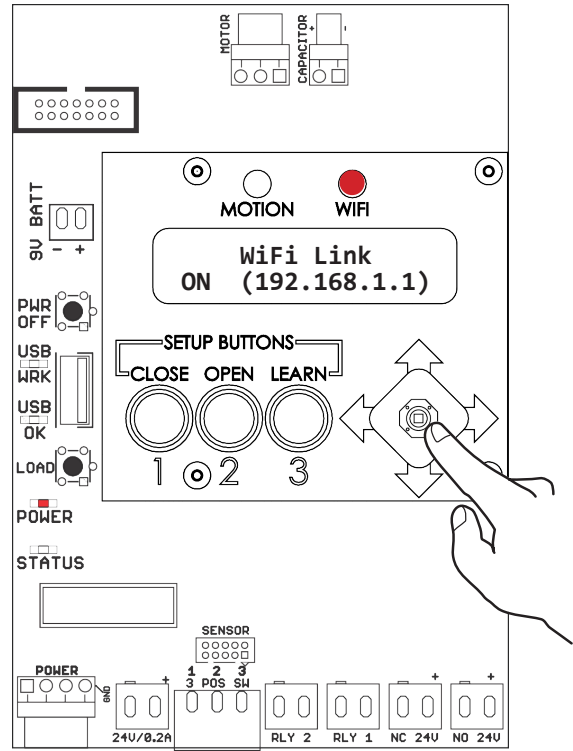


Figure 11

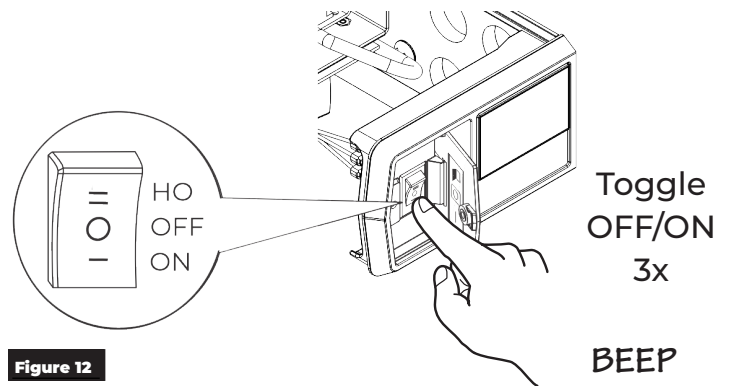


Figure 12

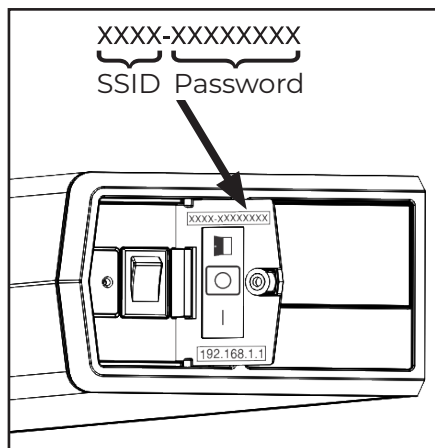


Figure 13

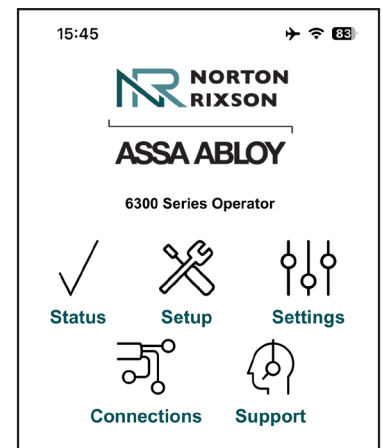


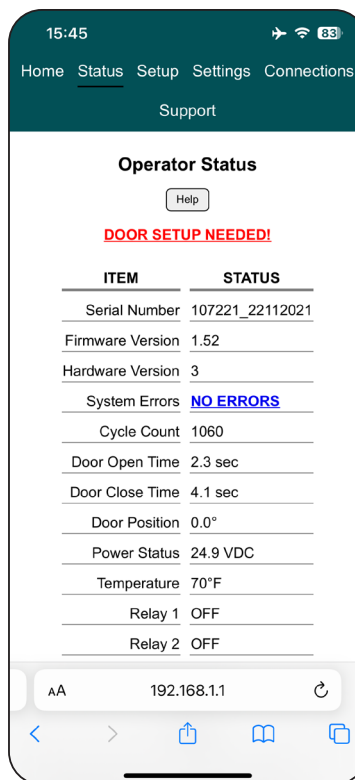
Figure 14

Wi-Fi Programming Options

Status

Use Status page to quickly access important information about your operator.

NOTE: “Door Setup Needed” will be displayed if door setup has not been completed.



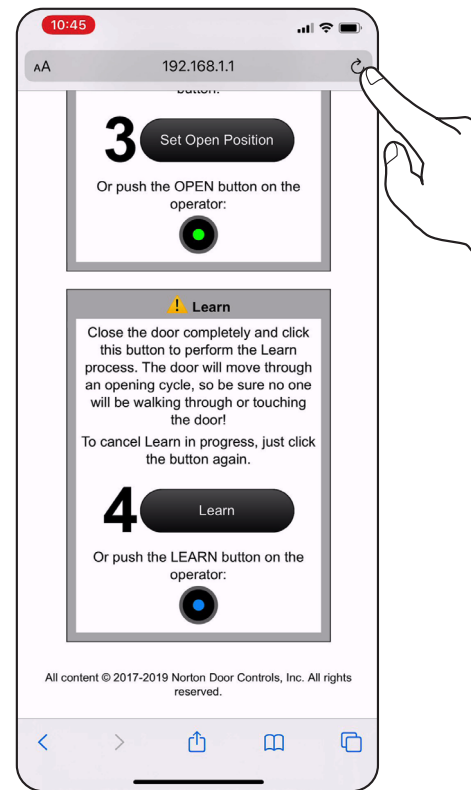
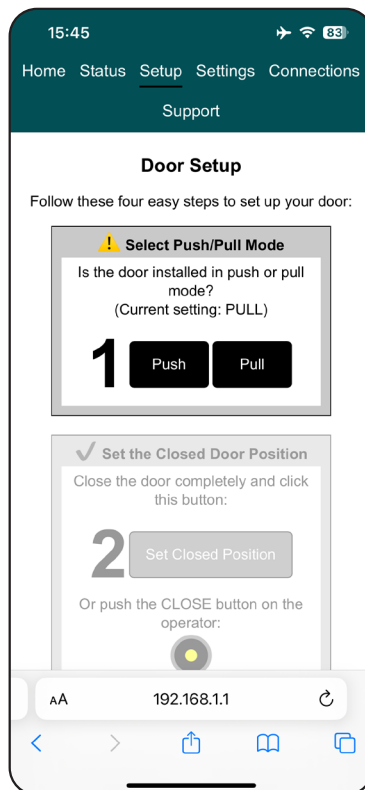
Setup Options

To set up your operator, select Setup page and proceed through the following steps.

1. Select “Push/Pull Mode” based on door handing.
2. Manually close door and select “Set Closed Position”.
3. Open door to fully open position. While holding door open, select “Set Open Position”.
4. Close door completely and select “Learn” to perform Learn process.

NOTE: Door will automatically move through an opening cycle. Be sure there is no obstruction.

5. Refresh browser page to confirm all steps have ✓ indicating setup has been successful.



Wi-Fi Programming Options (cont.)

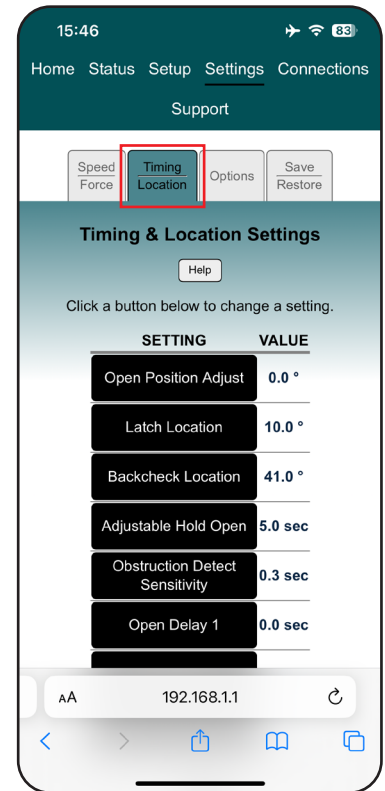
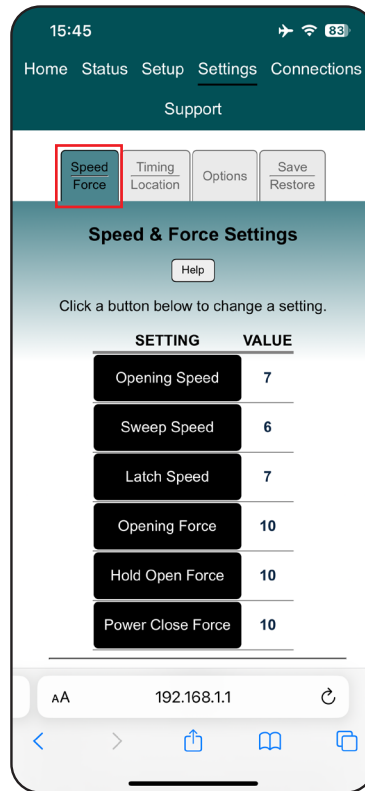
Settings

Speed/Force and **Timing/Location** can be adjusted to meet BHMA requirements.

Select setting and adjust slider to desired value then save.



Speed/Force and Timing/Location settings must be adjusted to meet ANSI BHMA A159.19 (American National Standard for Power Assist and Low Energy Power Operated Doors) requirements for opening and closing based on door weight and width.



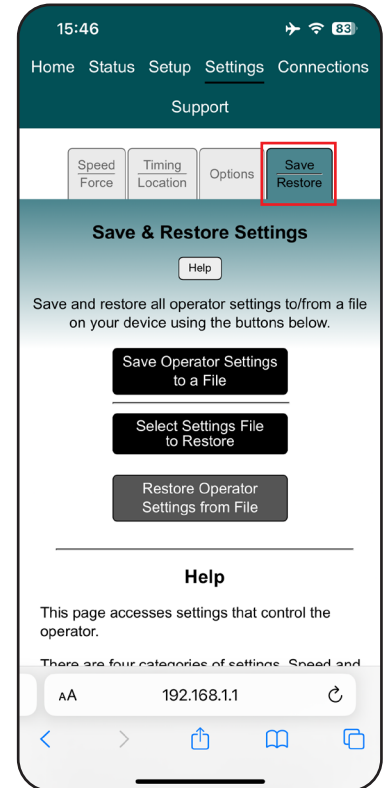
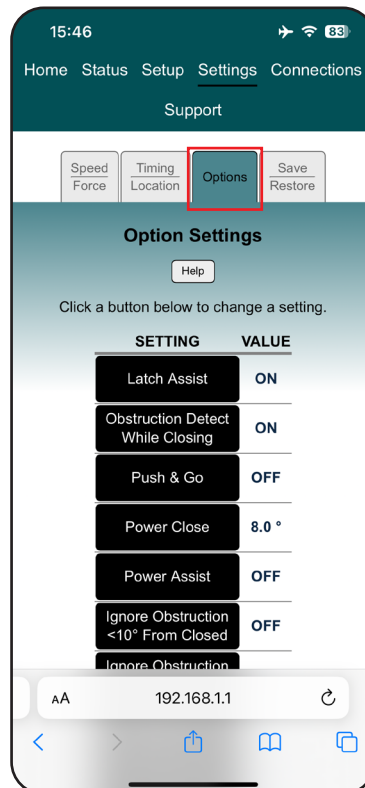
Options:

Select setting and change value then save.

Save/Restore:

Use this page to transfer settings setup from one operator to another.

1. Save settings to a file by selecting "Save Operator Settings to a File".
2. Connect to receiving operator's Wi-Fi.
3. Select the "Select Setting file to Restore" option and choose file saved in step 1.
4. Select "Restore Operator Settings from File" to load new settings.



Wi-Fi Programming Options (cont.)

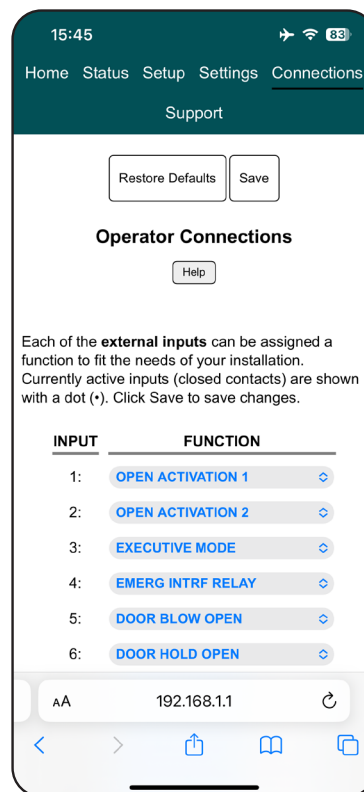
Connections

Operator inputs and outputs can be customized from Connections page.

NOTE: Input numbers are labeled on input PCB. Outputs are labeled on main PCB.

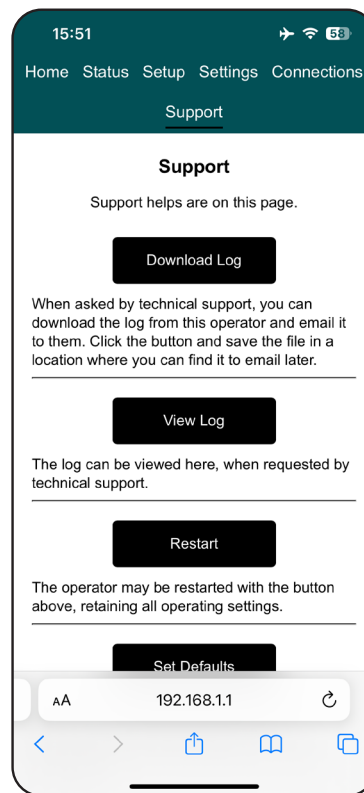
To change function, select input or output then scroll through drop-down menu to select function.

NOTE: For definitions, see Input Connections on page 10 and Output Connections on page 11.



Support

Support page can be used to restart or restore settings to factory defaults.



Input Connections (Default)

Use green 2-position connectors on control board to add any necessary inputs. (Figure 15)

NOTE: Inputs 1-11 can be configured to a desired setting using LCD or WiFi programming.

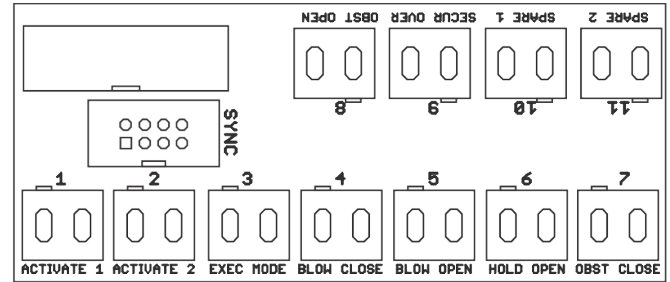


Figure 15

Input 1: Activation 1

Momentary contact closure of this input cycles door through an automatic open / close cycle. Tied to Open Delay 1.

Input 2: Activation 2

Momentary contact closure of this input cycles the door through an automatic open / close cycle. Tied to Open Delay 2.

Input 3: Toggle / Executive Mode

Momentary contact closure of this input sends a closed door to open position or an open door to closed position.

Input 4: Emergency Interface Relay

Continuous contact closure of this input puts operator in a passive closer mode, where door functions as a typical door closer and accepts no activations. Once contact is removed, unit goes back to operator mode.

Input 5: Blow Open

Continuous contact closure of this input triggers operator to go to open position and stay there until contact is removed. If door is pulled away from open position, operator will go back to open from any point.

Input 6: Hold Open

Continuous contact closure of this input triggers operator to go to open position and stay there until contact is removed. If door is pulled away from open position, operator will close completely and reopen to open position and stay in open position until contact is removed.

Input 7: Closing Obstruction

Contact closure of this input while door is open or closing triggers operator to return to open position. This is used in conjunction with presence sensors mounted to closing side of a door to prevent door from hitting an obstruction.

Input 8: Opening Obstruction

Contact closure of this input while door is closed or opening triggers operator to stall. If contact is not removed after 10 seconds of closure, operator will return to closed position. This is used in conjunction with presence sensors mounted to opening side of a door to prevent door from hitting an obstruction.

Input 9: Outside Button Disable

Continuous contact closure of this input triggers operator to disable Input 2 / Activation 2. This is typically used for switching off an outside wall plate.

Input 10: Access Control

When this contact is closed, the 24 volt control output is activated to release door locking hardware, allowing the door to open when the AC Activate contact is also closed. There is also an adjustable delay timer (Access Control Delay) that keeps the 24 volt control output activated for some time after this input subsides. Using the Access Control and AC Activate inputs and the Access Control Delay timer, a secure access controlled door system is possible.

Input 11: AC Activation

When this contact is closed, and an input configured as Access Control is also closed, the 24 volt control output is activated (to release door locking hardware) and the door opens.

Output Connections (Default)

Use green 2-position connectors on control board to add any necessary outputs, such as electric strikes, mag locks, exit devices, door open position output, etc. (Figure 16)

NOTE: Relay outputs can be customized.

Relay 1 Output:

Normally open relay that closes for 3 seconds after an activation to open.

Relay 2 Output:

Normally open relay that closes when door is in open position.

Normally Open:

24VDC output up to 1.3 Amp draw that closes after an activation to open.

Normally Closed:

24VDC output up to 1.3 Amp draw that opens for 5 seconds after an activation to open.

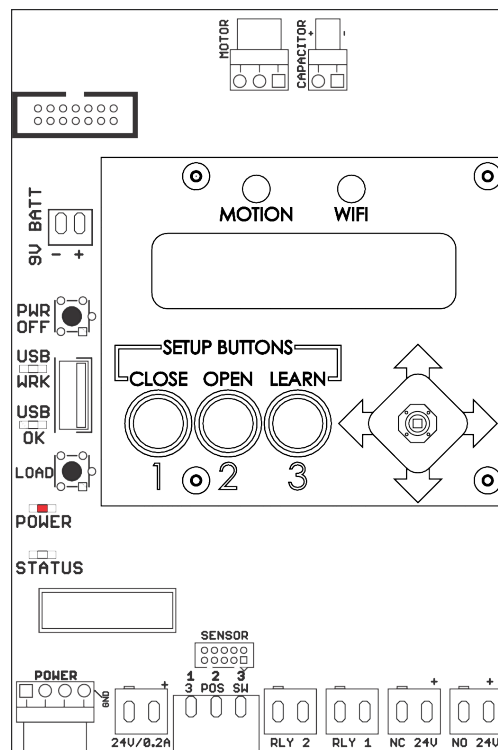
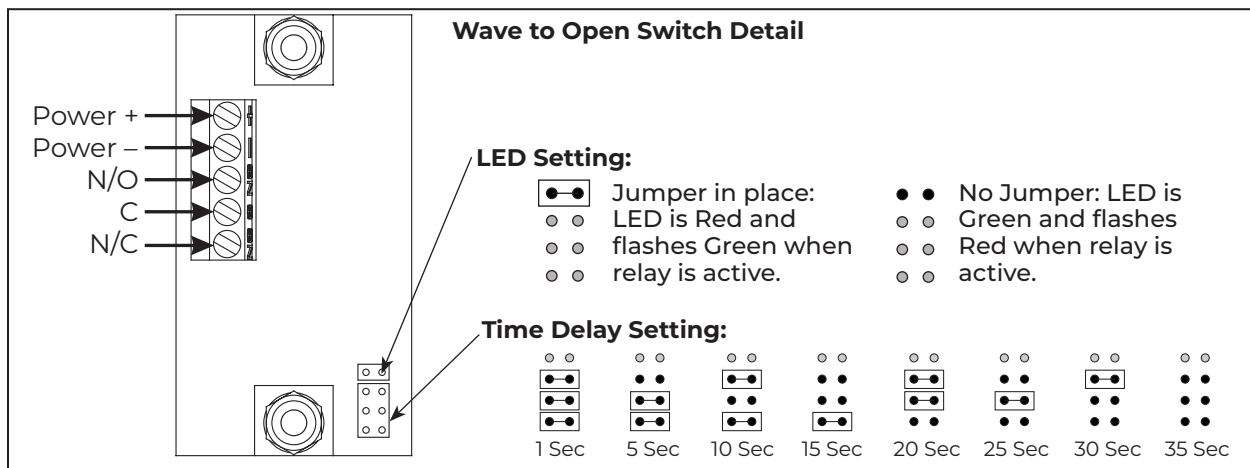
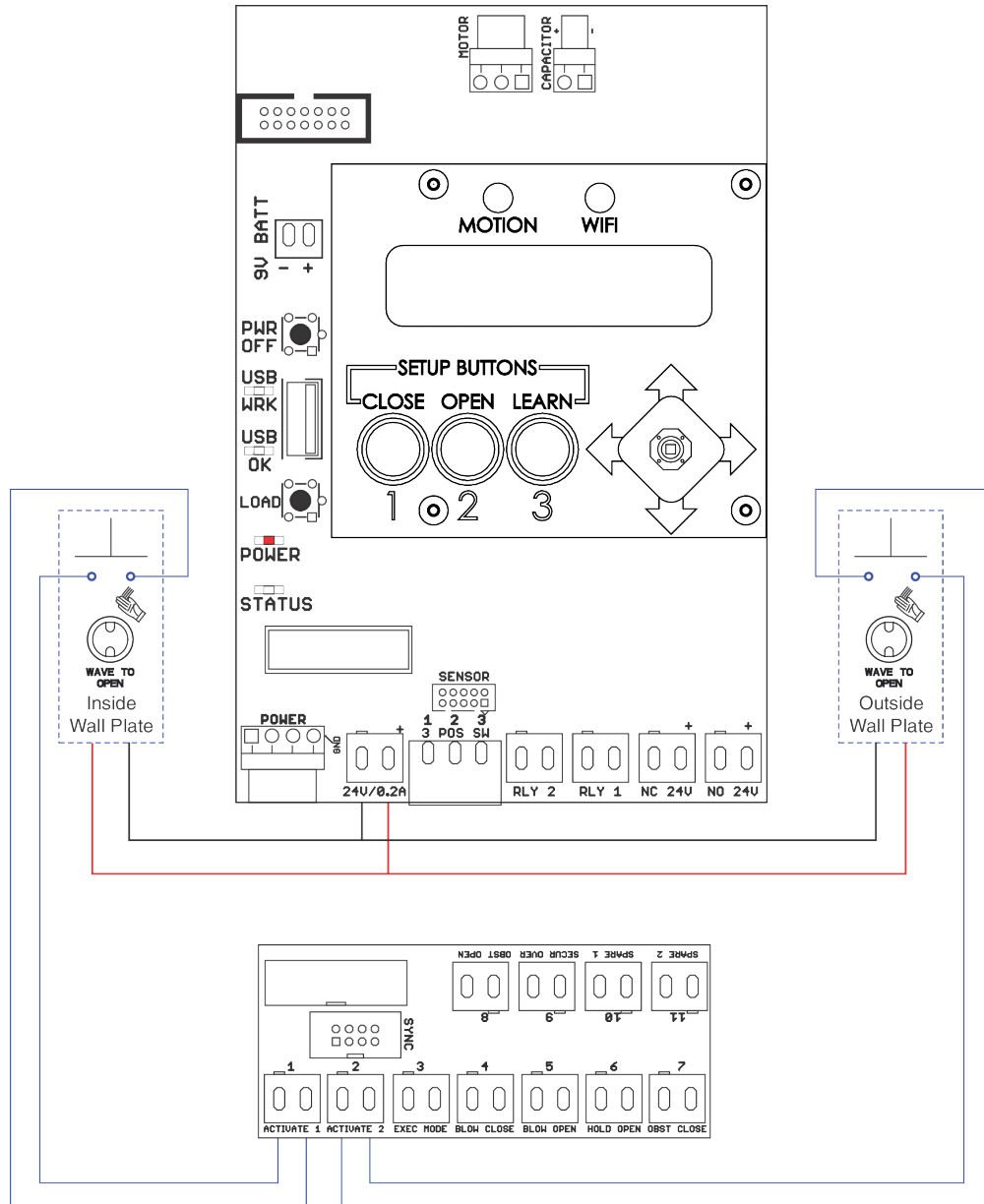


Figure 16

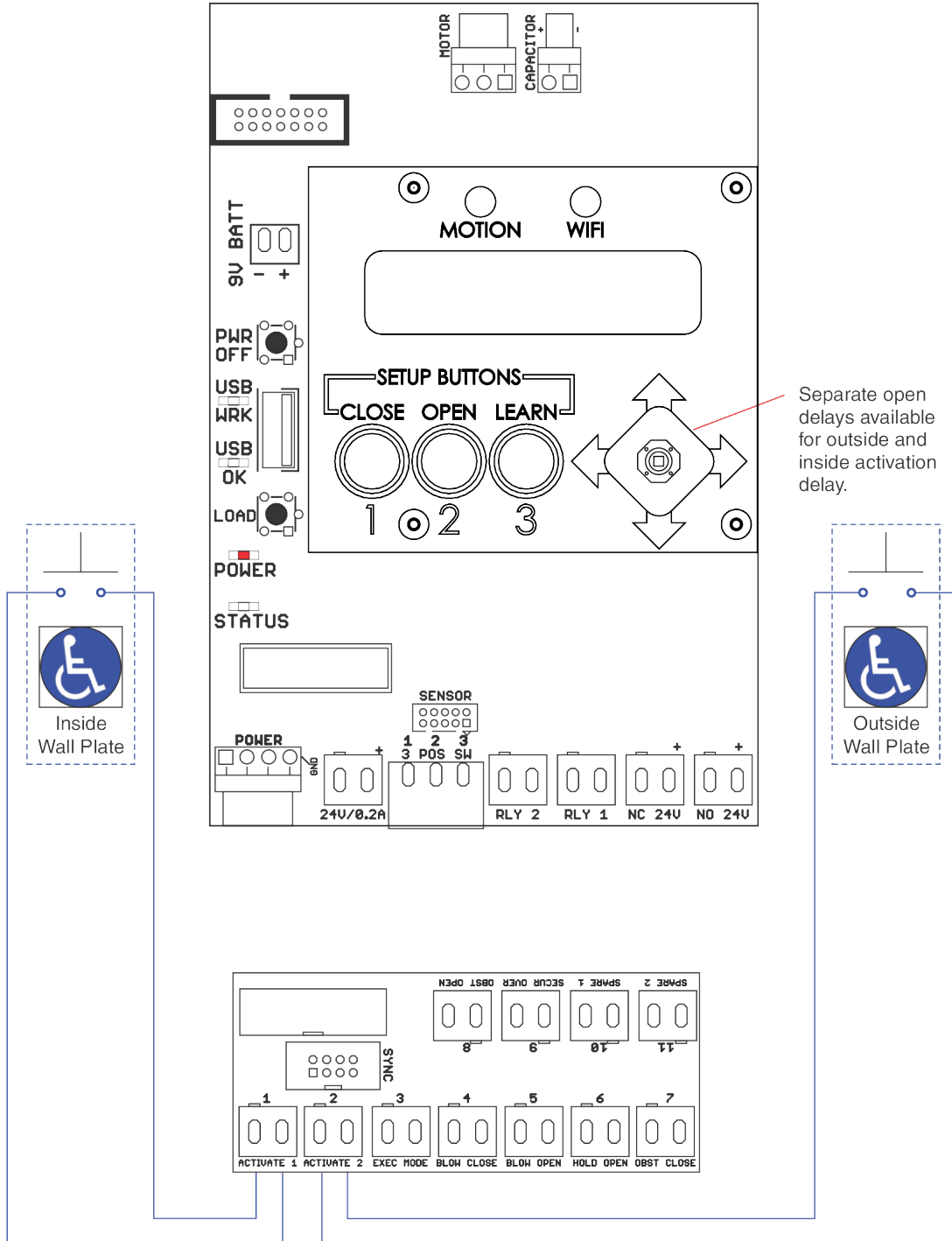
Troubleshooting

Error Codes for RED POWER LED Flashes		
Number of Flashes	Cause	Solution
1		Reset back to factory defaults by pressing and holding POWER button until all LEDs light up then release. Unit will reset and CLOSE button will be flashing. Repeat step to set Open and Closed Positions and Learn process.
2	24VDC power error too high or too low.	Check incoming voltage to power supply and from power supply to board.
3	Error occurred during Learning process.	If door hit obstruction, reset to factory defaults by pressing and holding POWER button until all LEDs light up, then release. Repeat steps to set Open and Closed Positions and Learn process.
		If door did not hit obstruction, inspect hinges or door / frame for excessive wear, misalignment, etc. Replace worn components and repeat steps to set Open and Closed Positions and Learn.
4		Ensure all harnesses are plugged in and secure - focus on motor wires.
5		Ensure all harnesses are plugged in and secure - focus on harnesses attached to backplate.
6		Ensure all harnesses are plugged in and secure - focus on main board harnesses.
7	Motor overheating.	
8		Ensure all harnesses are plugged in and secure - focus on harnesses attached to backplate.
9	TEMP connector not plugged in.	Plug in TEMP connector on backplate.

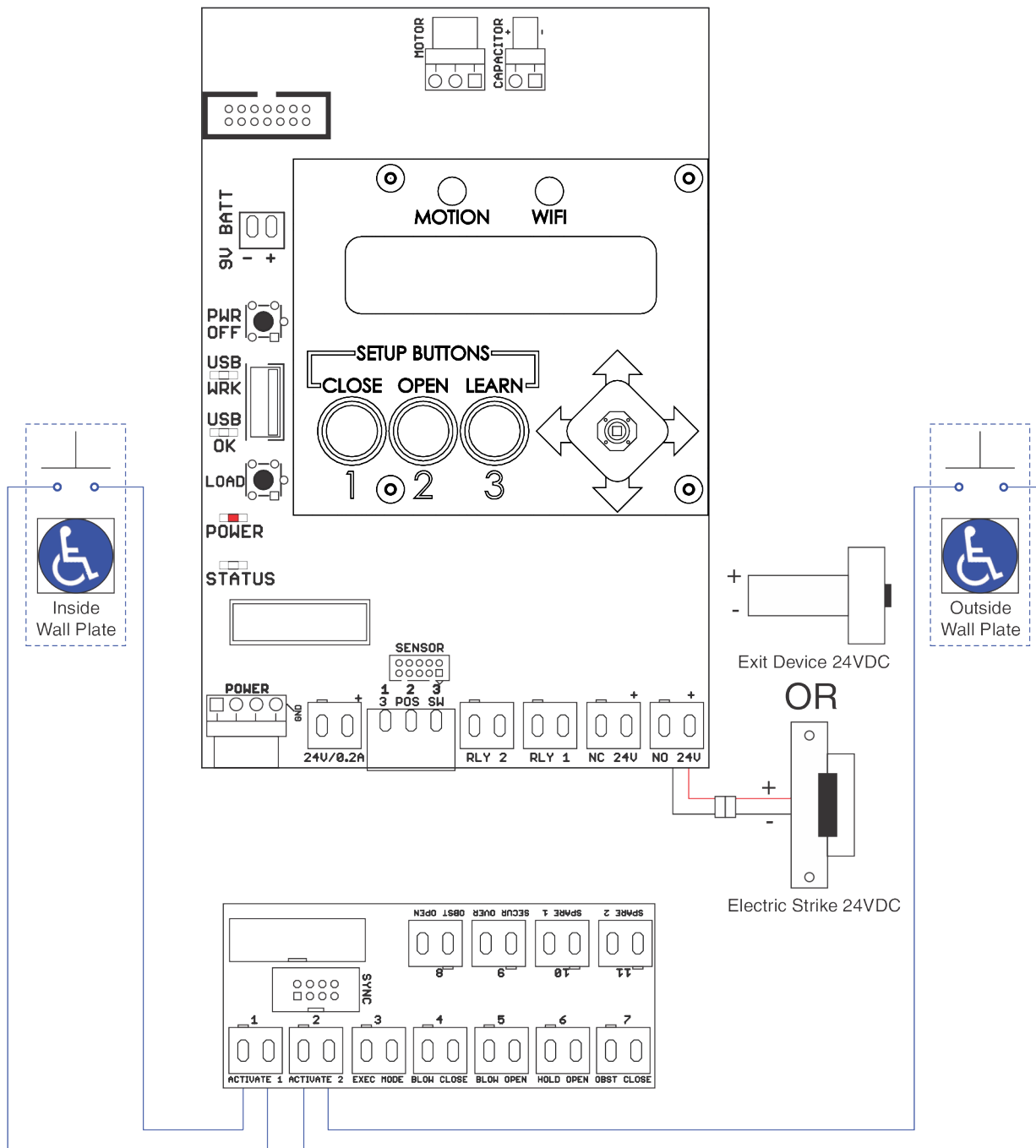
Wave to Open Wiring Diagram



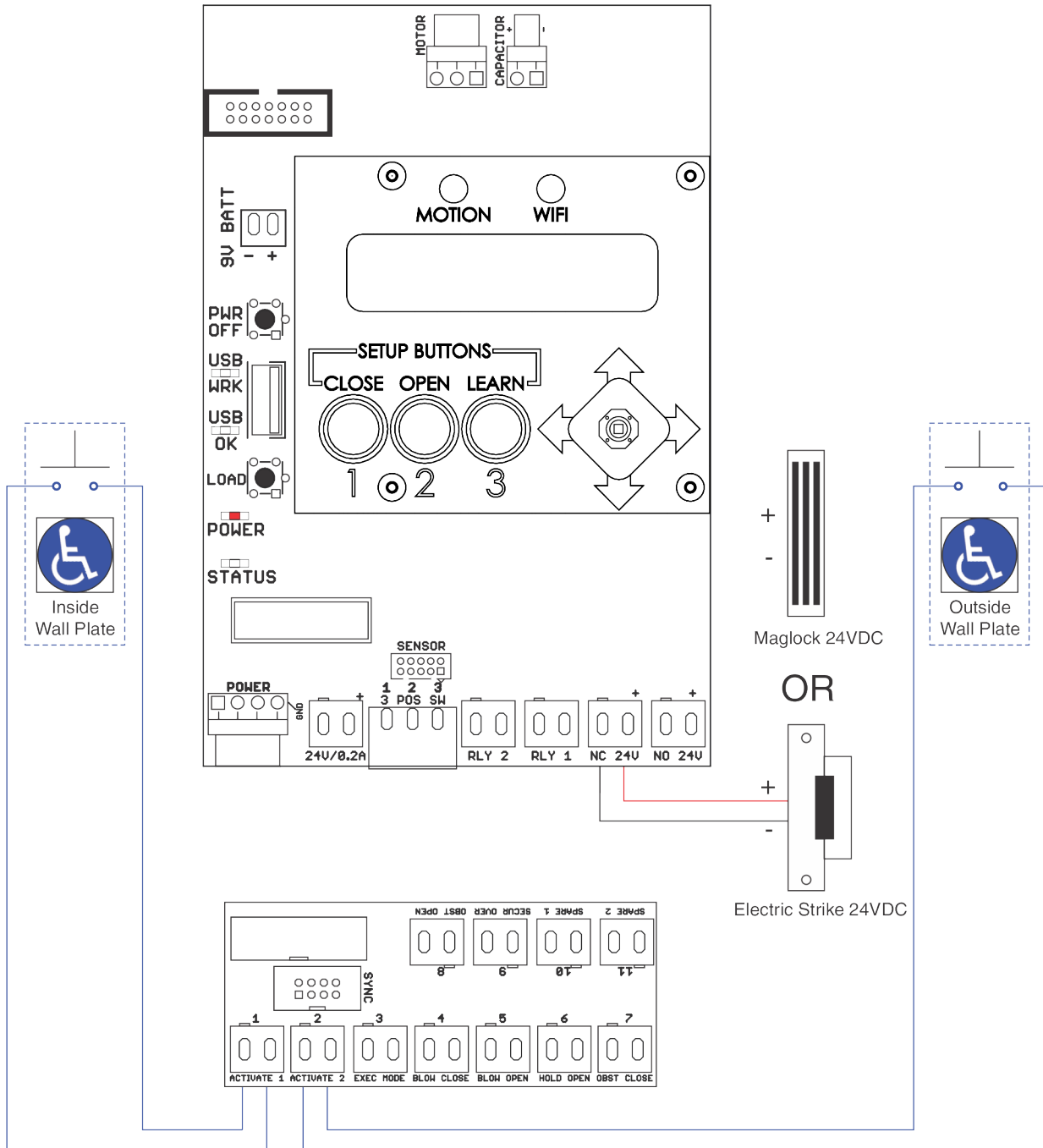
Standard Activation Wiring Diagram



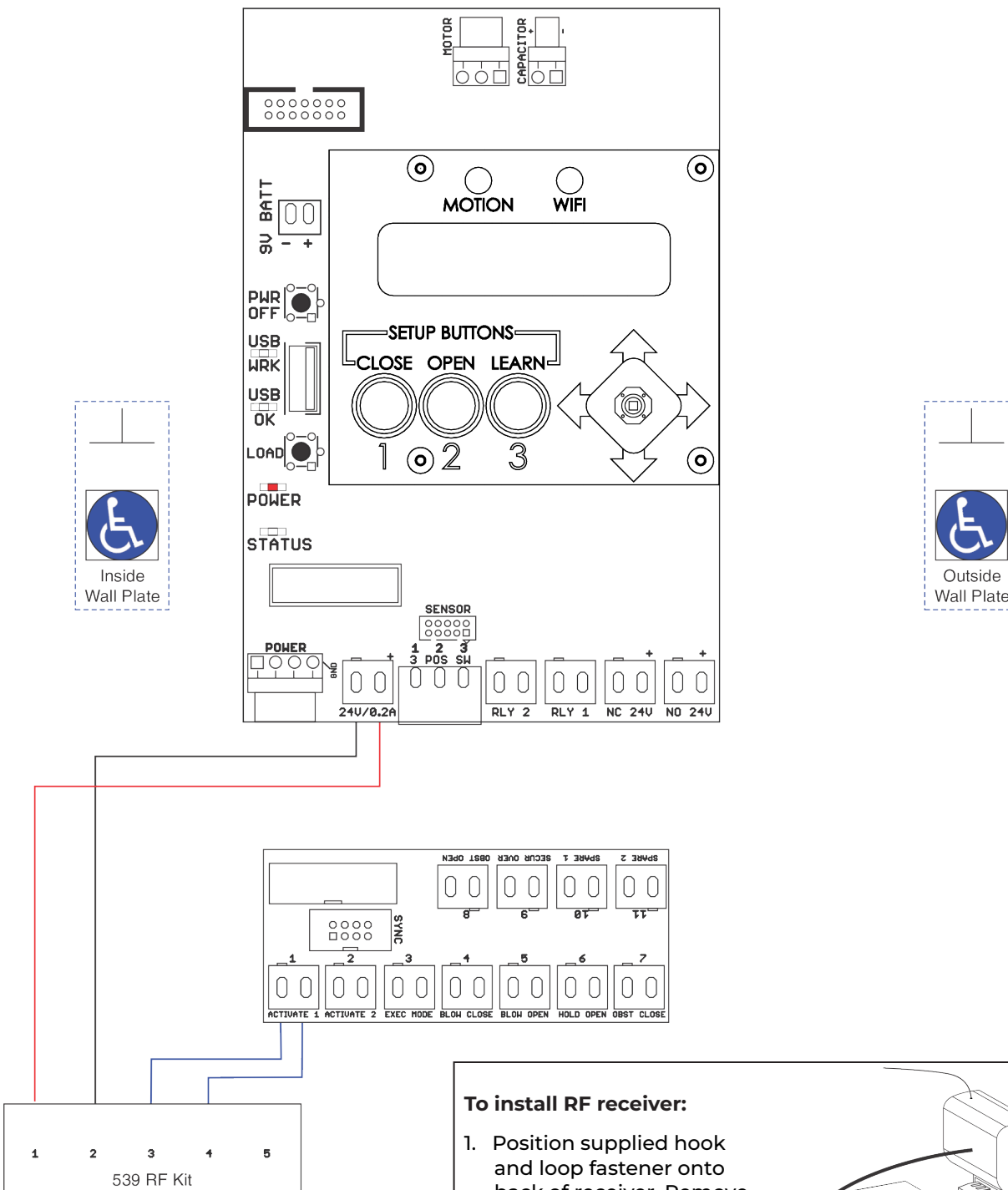
24VDC Fail Secure Electric Strike or Electric Exit Device Wiring Diagram



24VDC Fail Safe Electric Strike or Electromagnetic Lock Wiring Diagram

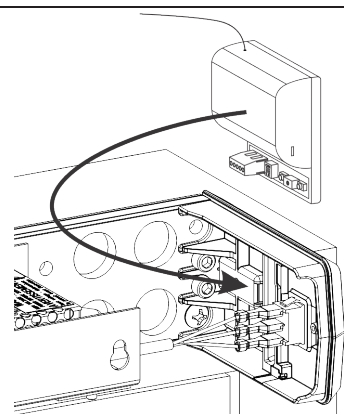


RF Wiring Diagram

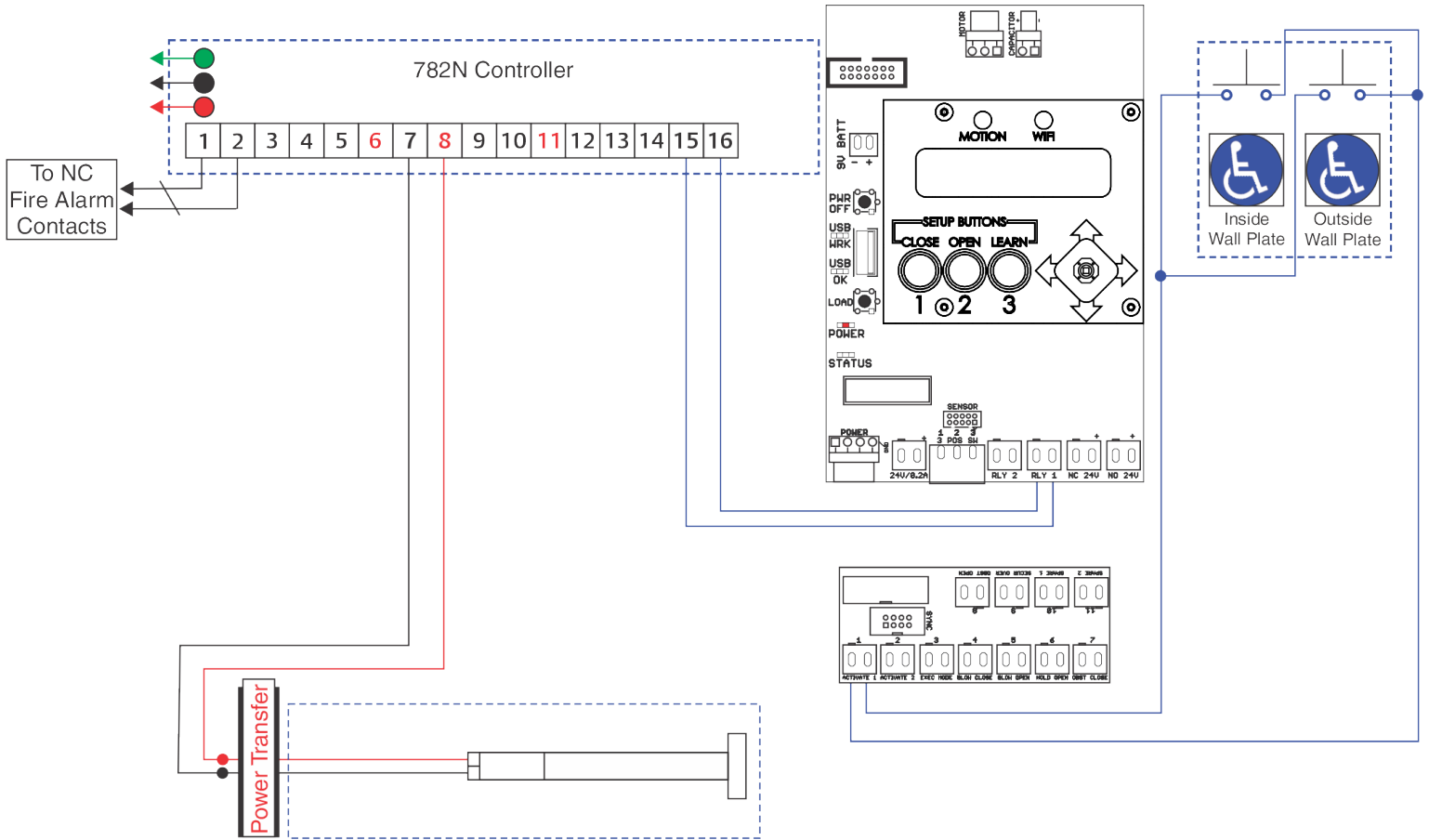


To install RF receiver:

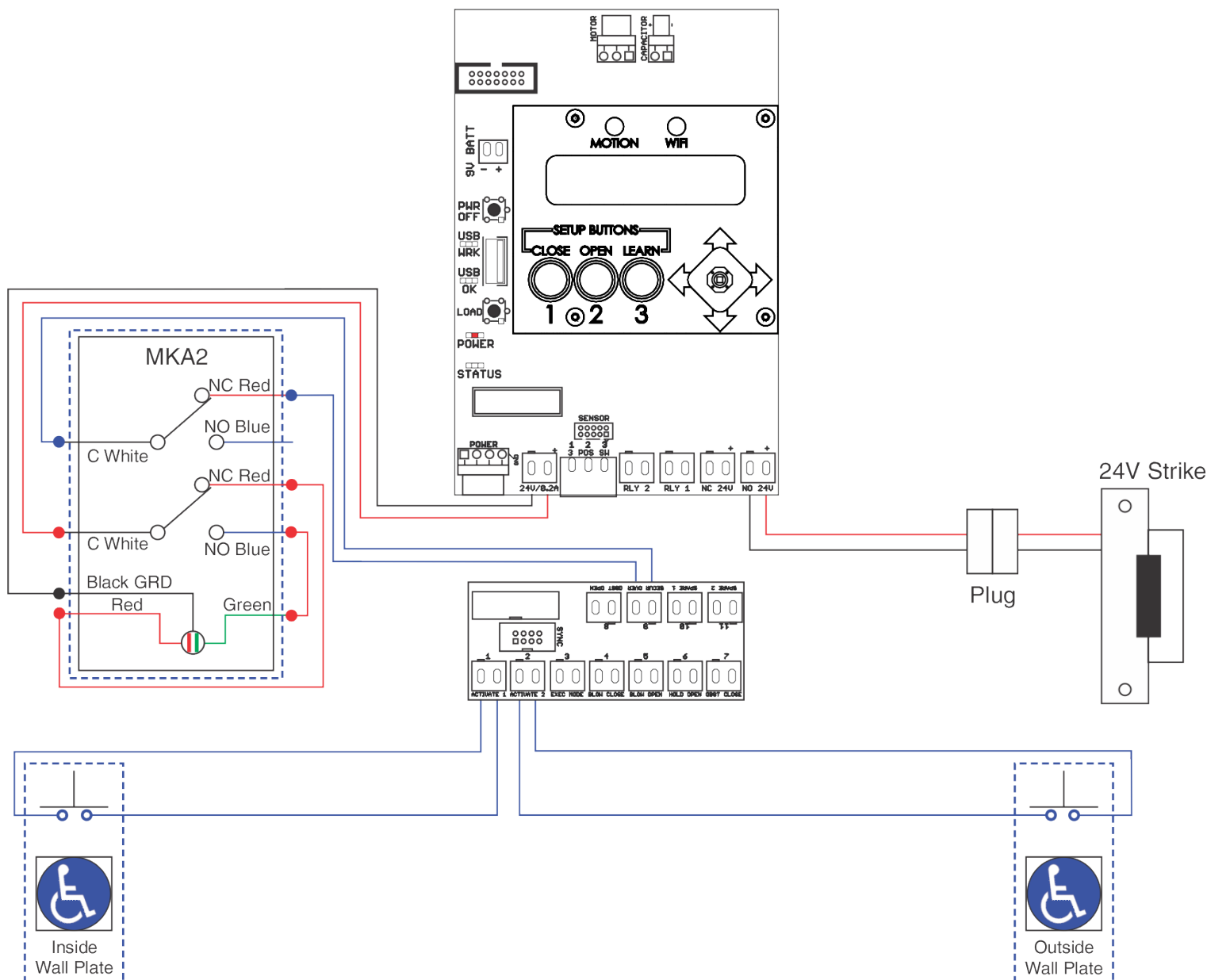
1. Position supplied hook and loop fastener onto back of receiver. Remove protective film.
2. Press receiver onto inside of end cap with green wire toward conduit hole.
3. Wire as shown above.



782 Controller x Solenoid Exit Device Wiring Diagram



MKA2 x 24V Strike Wiring Diagram

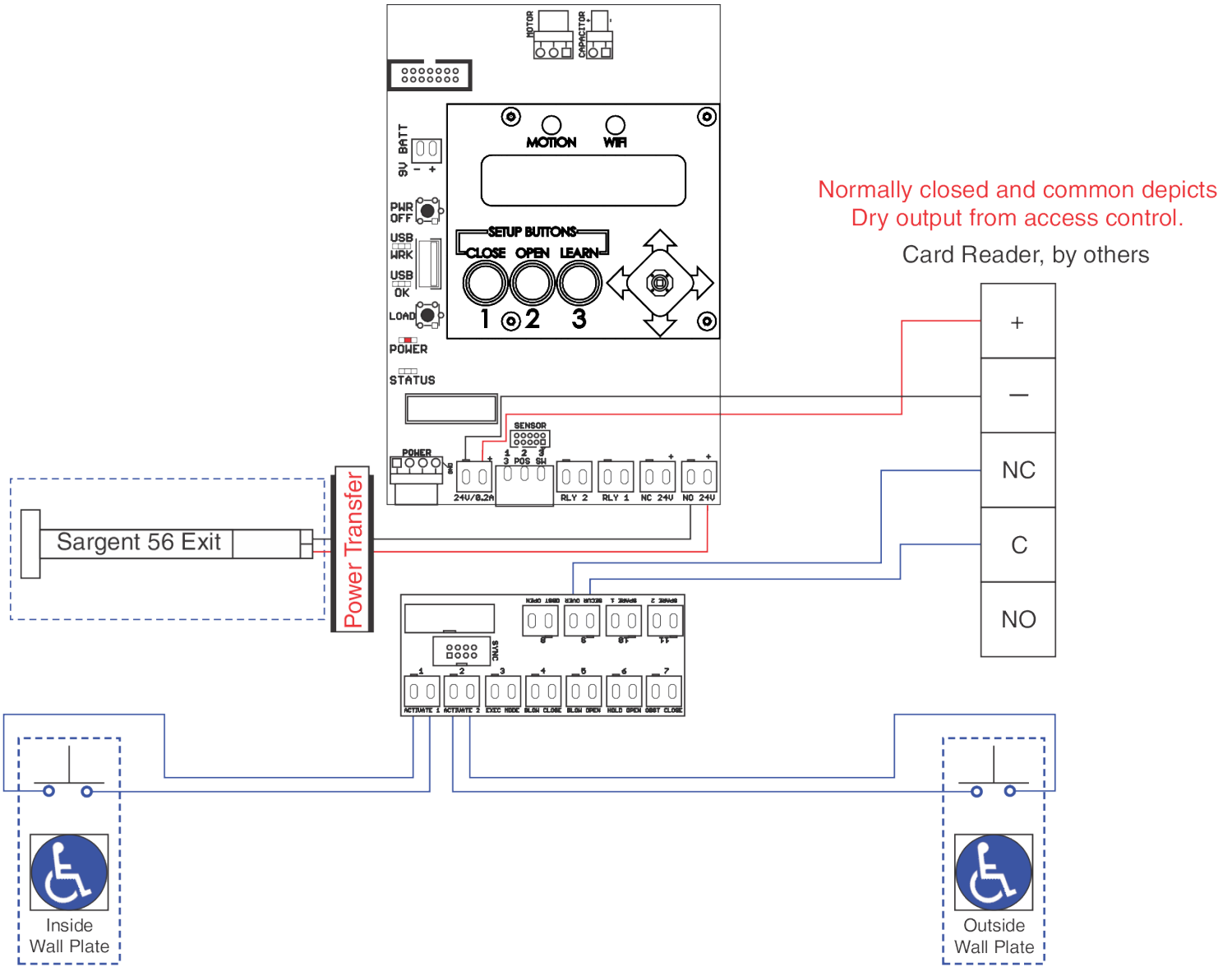


Input 9: Security Override

Continuous contact closure of this input triggers operator to disable input 2 / Activation 2. This is typically used for switching off an outside wall plate.

MKA2 shown is in Normally Closed position which has LED RED and Exterior Wall Switch disabled.

Card Reader x Motorized Exit Device Wiring Diagram

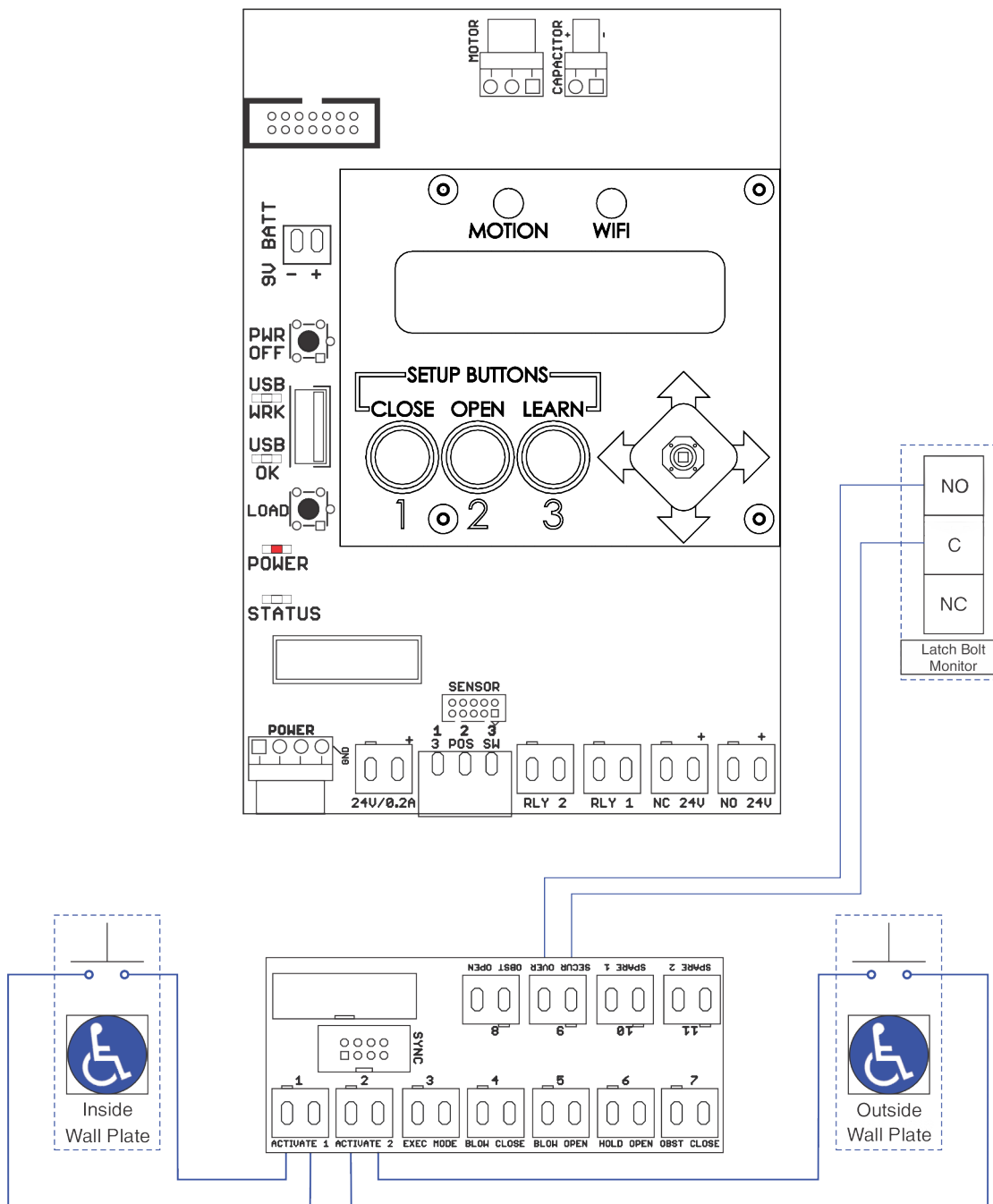


Input 9: Security Override

Continuous contact closure of this input triggers operator to disable input 2 / Activation 2. This is typically used for switching off an outside wall plate.

During "ON" hours Access Control will Open signal to Input (9). During "OFF" hours Access Control will have a Closed signal that will open with valid card read.

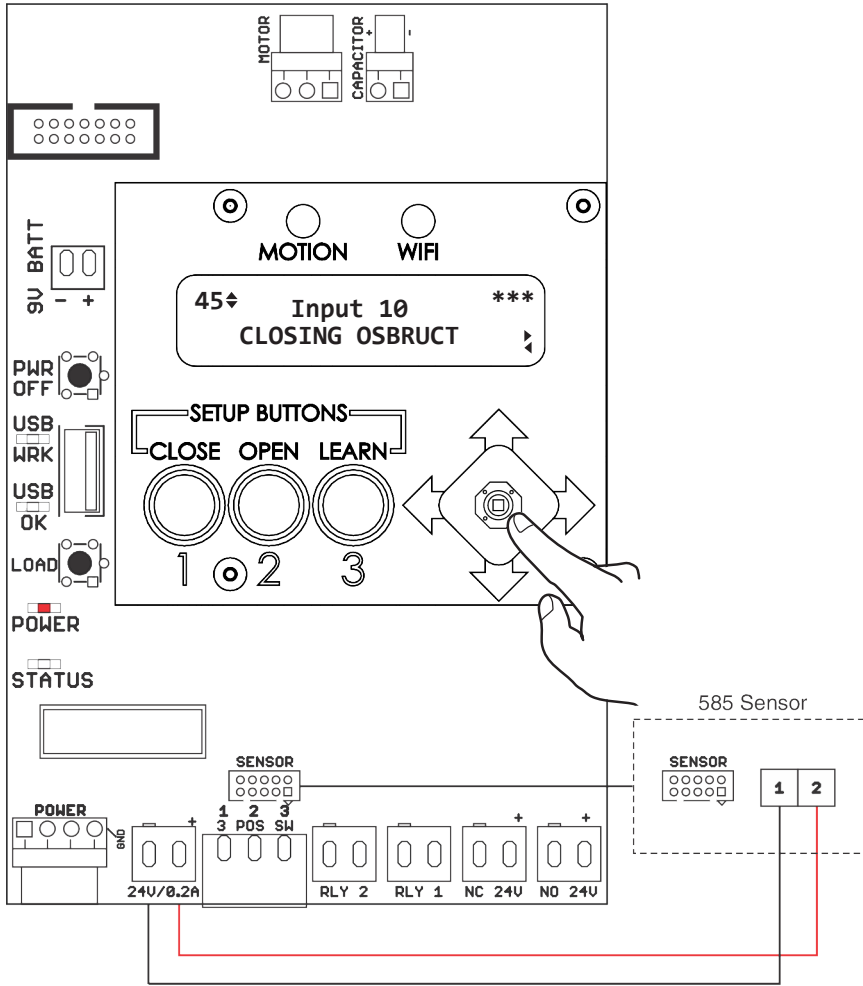
Latch Bolt Monitor Wiring Diagram



Input 9: Security Override

Continuous contact closure of this input triggers operator to disable input 2 / Activation 2. This is typically used for switching off an outside wall plate.

585 Presence Sensor Wiring Diagram



To Use 585 Sensor with 6300:

1. Setup 6300 (Close, Open and Learn) before wiring 585 sensor to control board. See page 4, Onboard Method or page 7, Wi-Fi Method.
2. Change Input 10 value to Closing Obstruct using control board joystick and LCD screen (Figure 17) or refer to page 9, Wi-Fi Method.
3. Change Input 11 to Opening Obstruct using control board joystick and LCD screen (Figure 17) or refer to page 9, Wi-Fi Method.
4. Turn off external 120 VAC supplied to operator. (Figure 18)
5. Jumper Input 10/Spare 1 and Input 11/Spare 2. (Figure 17)
6. Plug in 585 Sensor 10 pin connector to 6300 control board. (Figure 17)
7. Wire 24VDC from 6300 control board to Pin 1 and Pin 2 on 585 Sensor. (Figure 17)
8. With door in closed position and no objects in the opening, turn on external 120 VAC supplied to operator. (Figure 18) The 585 Sensor will start flashing green to learn closed position.
9. After green light turns off, activate 6300 to open position. The 585 Sensor will start flashing green to learn open position.
10. 6300 will close door. Setup is complete.

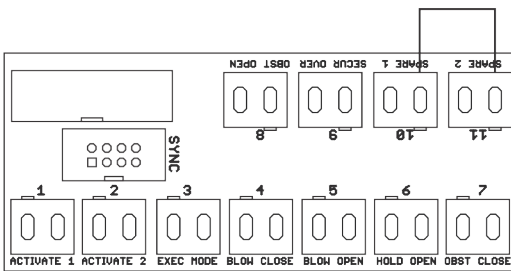


Figure 17

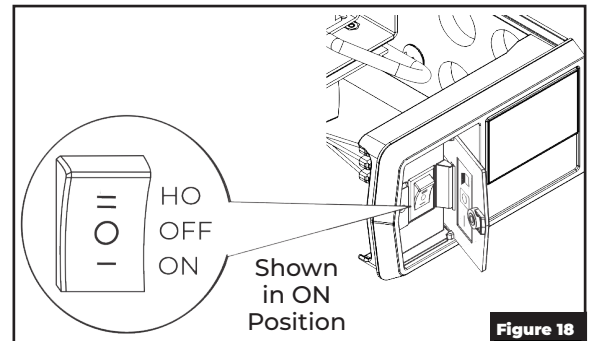
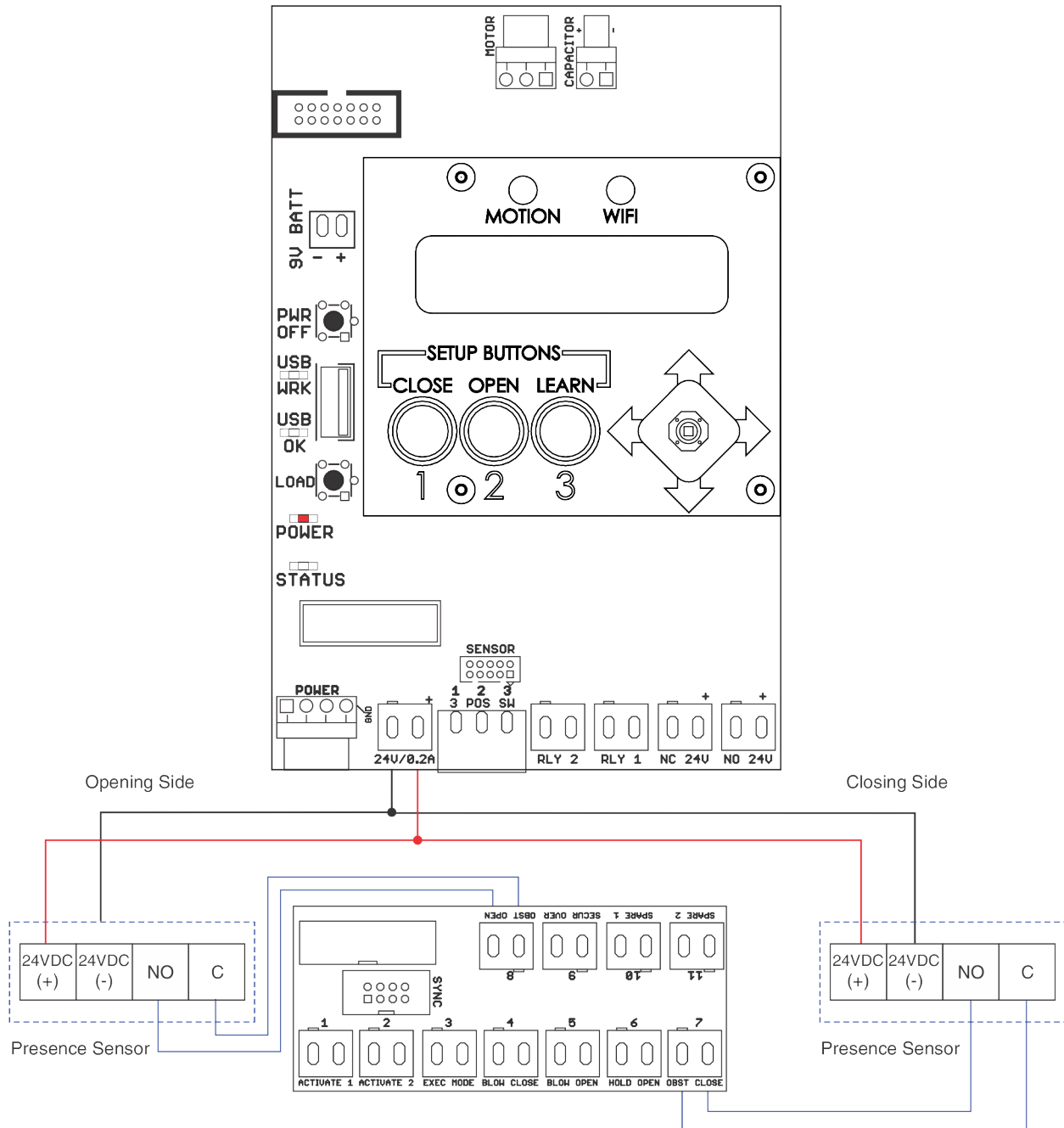


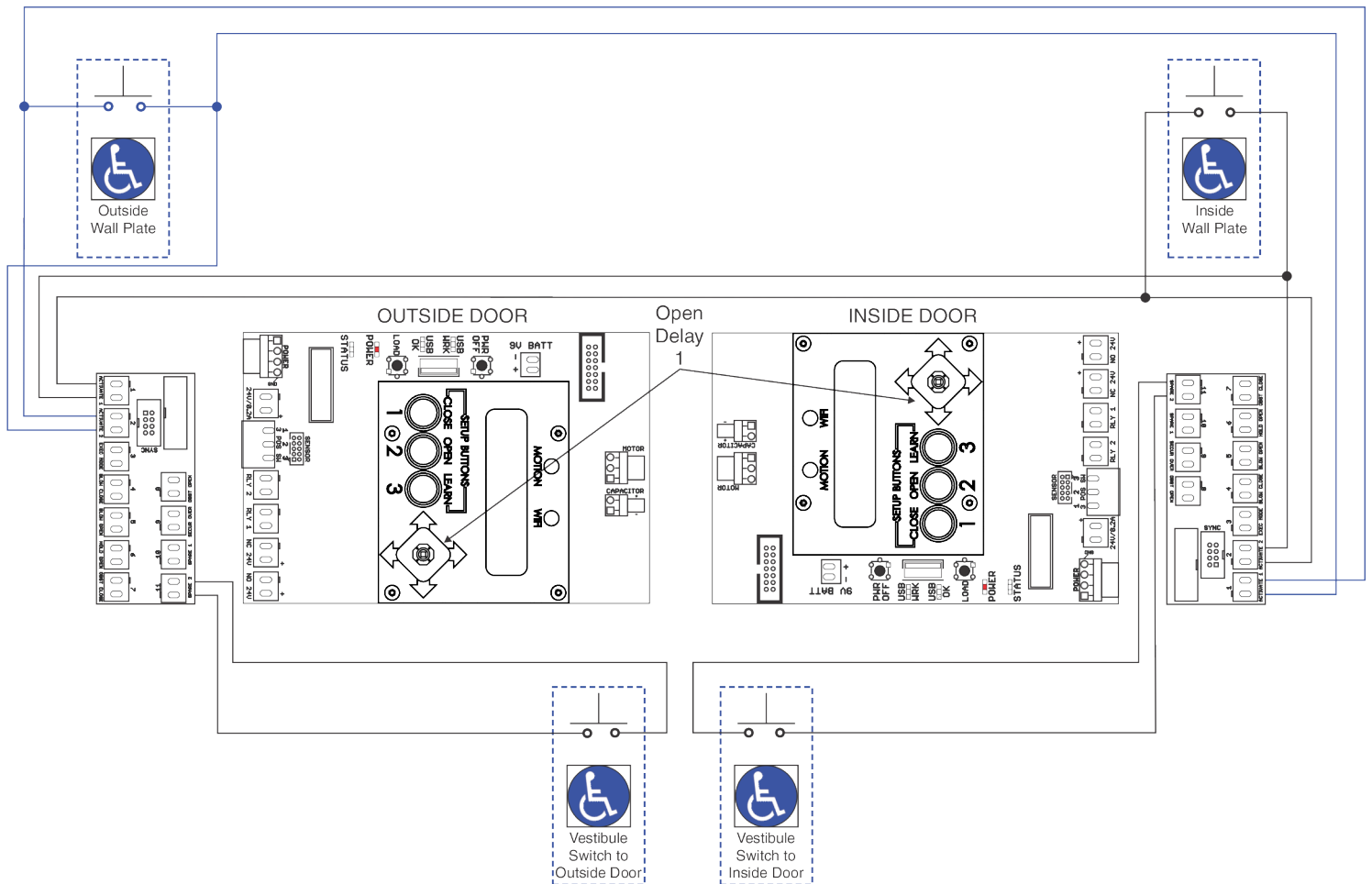
Figure 18

Inside and Outside Door Mounted Presence Sensor Wiring Diagram



The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.

Vestibule Function Wiring Diagram



Vestibule Function

Activating outside door switch will open outside door and send a signal to inside door to be opened. The inside door will open after Open Delay 1 time has elapsed.

Activating inside door switch will open inside door and send a signal to outside door to be opened. The outside door will open after Open Delay 1 time has elapsed.

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