

Access
600™



Installation Instructions
ED5200N Series Exit Devices
For 9600 TCRNE1 Series Trims
M812 - iCLASS® Reader Option
(Includes: Rim and SecureBolt™)

**Corbin
Russwin**

ASSA ABLOY

FM314 6/09 (617419070)

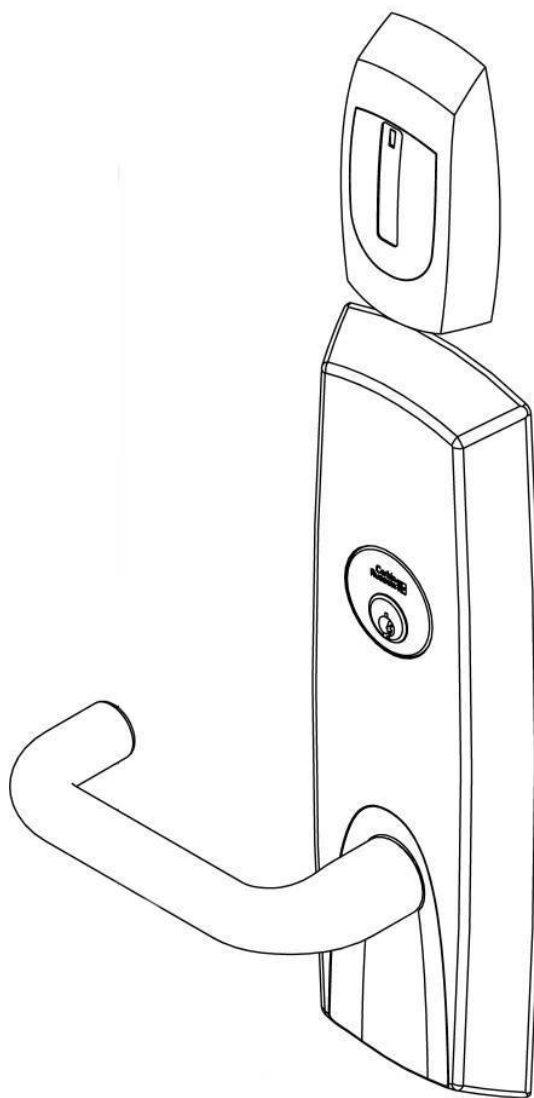
Attention Installer

Please read these instructions carefully to prevent missing important steps.

Please Note: Improper installations may result in damage to the lock and void the factory warranty.

Important: The accuracy of the door preparation is critical for proper functioning and security of this lock.

Misalignment can cause premature wear and a lessening of security.



For Technical Assistance call Corbin Russwin at 1-800-810-WIRE (9473)

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1) Warning

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

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.

Note: 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 the 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 technician for help

The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met. This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. 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.

Cet appareillage numérique de la classe B répond à toutes les exigences de l’interférence canadienne causant des règlements d’équipement. L’opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l’interférence nocive, et (2) ce dispositif doit accepter n’importe quelle interférence reçue, y compris l’interférence qui peut causer l’opération peu désirée.



2
Observe precautions for handling electrostatic sensitive devices.

2) General Description

The Corbin Russwin Access 600 TCRNE1 Series exit device is designed to interface with existing Wiegand Electrical Access Control (EAC) panels. The reader requires 12 or 24VDC for power and is compatible with HID iCLASS 13.56 technology. The Access 600 technology is designed around Corbin Russwin's Grade 1 hardware. The exit device comes with touch bar monitoring (REX) and is provided with an external Door Position Switch (DPS). The exit device trim is operated by a 24VDC solenoid and is offered in fail safe and fail secure versions. Weatherseal gaskets are also included for outdoor applications. The Access 600 iCLASS reader provides visual (LED) and audible indication of lock state (locked/unlocked).

3) Specifications / Features

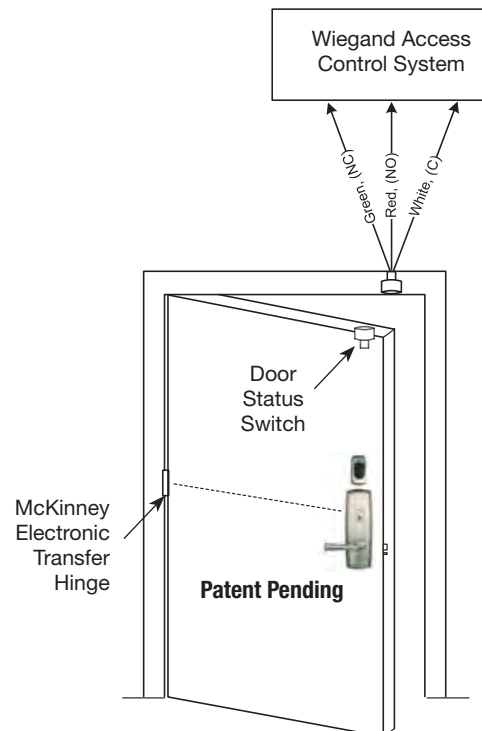
- Door Thickness – 1-3/4" Standard; Can be furnished for other door thicknesses upon request. Consult factory.
- Outside lever controlled by reader or key allows lever to retract latch.
- Inside push bar produces REX (request to exit) signal and retracts latch.
- Fail Safe or Fail Secure Operation (must specify).
- UL fire listed available.
- Wire from EAC Panel to door must be shielded with a drain. Drain terminated at EAC Panel controller.
- Wires directly to EAC panels.
- Accepts all HID standard iCLASS bit formats.
- QC12 Hinge with ElectroLynx plug and play .

12 or 24VDC System with 24VDC Solenoid

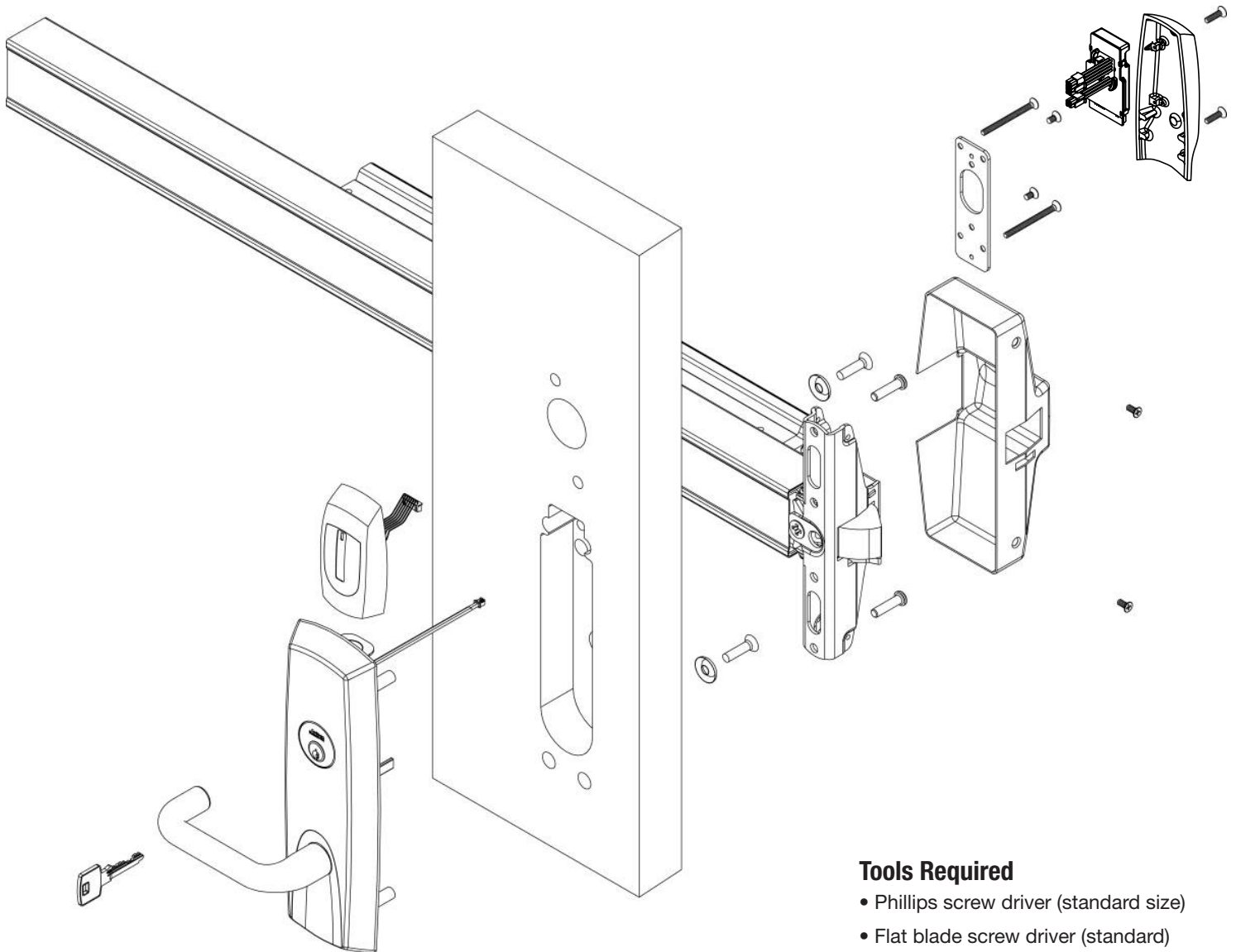
- Reader Draw = 125mA
- 24VDC Solenoid Draw = 330mA
- Total System Draw = 455mA

Wire Guage Charts

Total One-Way Length of Wire Run (ft)	Load Current @ 24VDC							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	24	20	18	18	16	16	14	12
150	22	18	16	16	14	14	12	10
200	20	18	16	14	14	12	12	10
250	18	16	14	14	12	12	12	10
300	18	16	14	12	12	12	10	—
400	18	14	12	12	10	10	—	—
500	16	14	12	10	10	—	—	—
750	14	12	10	10	—	—	—	—
1,000	14	10	10	—	—	—	—	—
1,500	12	10	—	—	—	—	—	—



4) Product Illustration

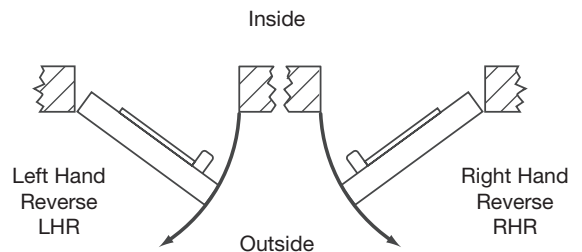


Tools Required

- Phillips screw driver (standard size)
- Flat blade screw driver (standard)

5) Installation Instructions

1. Verify Hand and Bevel of door:
Door should be fitted and hung.
Verify box label for size of exit device,
function and hand.



5) Installation Instructions

2. Trim Assembly Instructions:

a. Check cylinder components:

Cylinders longer than 1-1/8" (29mm) require collars.

Refer to Cylinder Collar Chart (Fig. 2a).

b. If required, modify by cutting cylinder tailpeice:

Correct length is 1/16" to 3/16" (2 to 5mm)
beyond cylinder housing cam.

c. Assemble cylinder:

1. Insert cylinder housing prongs into matching notches of escutcheon.

2. Pass cylinder tailpeice through cylinder collar (if required) and slot in cylinder cam.

3. Fasten cylinder in escutcheon recess or collar using 2 mounting screws.

Do not overtighten screws.

d. **Escutcheon Assembly (Fig. 2b):

The lever is handed (LHR shown).

Note: Lever Return Spring is handed.

Hand cannot be changed without correct spring.

Lever Return Spring handing can be identified by the color of the spring:

- LHR: Part Number 651F618 (Red)
- RHR: Part Number 651F628 (Blue)

Cylinder Collar Chart		
Cylinder Length		Collar
Inches	Millimeters	
1-1/8"	29mm	None
1-1/4"	32mm	422F88*
1-1/2"	38mm	686F98*

*Specify Finish

Fig. 2a

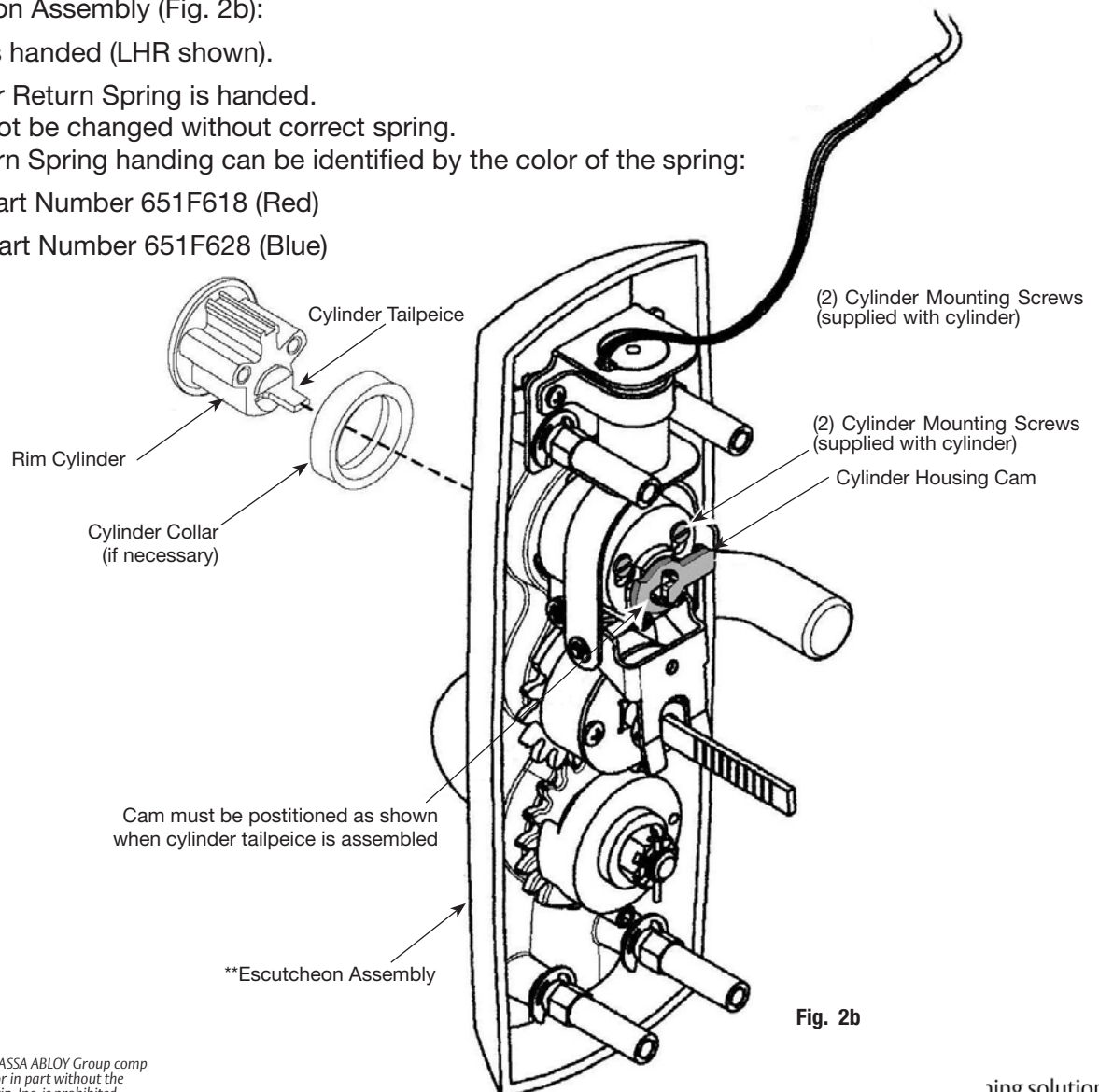


Fig. 2b

5) Installation Instructions (Continued)

3. Install Outside Trim

- a. Make sure tailpiece is oriented vertically.
- b. Feed trim wire harness through wire harness hole (Fig. 3a).
- c. Mount trim assembly to door pulling slack wire towards device side of door.
Note: Be careful not to pinch wire harness.
- d. When mounting trim, lift tailpiece to pass through hole on device side.
Note: Make sure tailpiece is still oriented vertically.
- e. Fasten trim assembly to door using (2) 1/4-20 oval head screws and (2) finish washers (Fig. 3b).
Note: Finger tighten only.

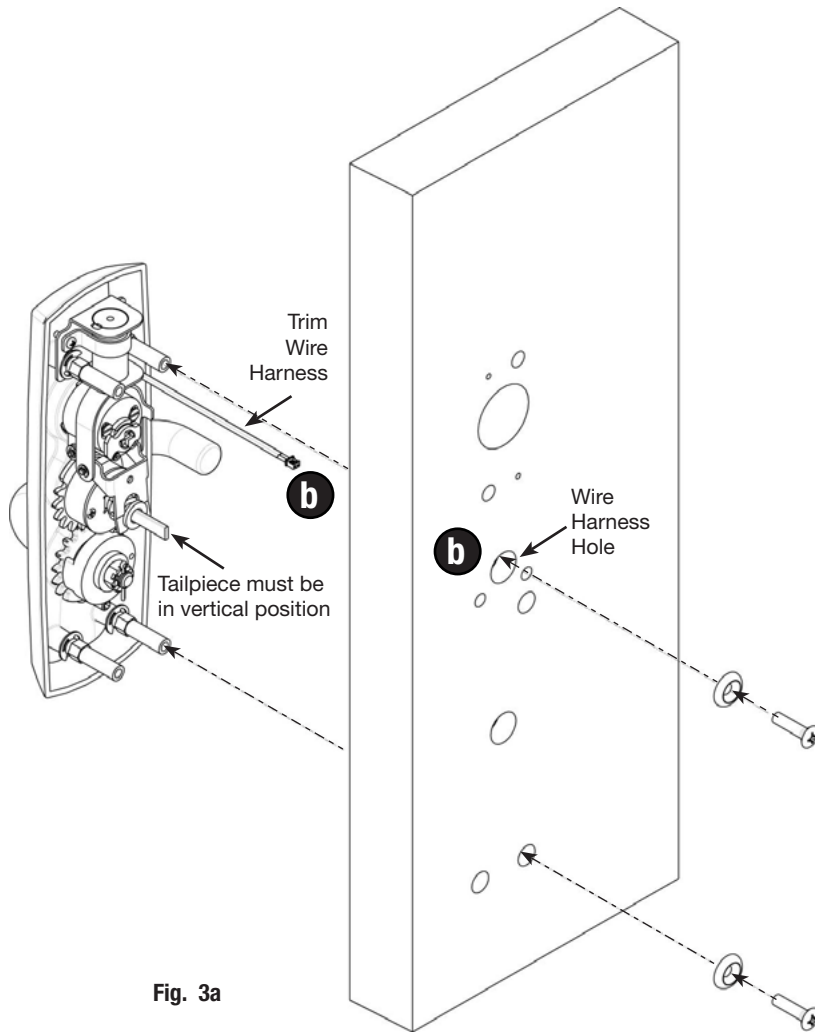


Fig. 3a

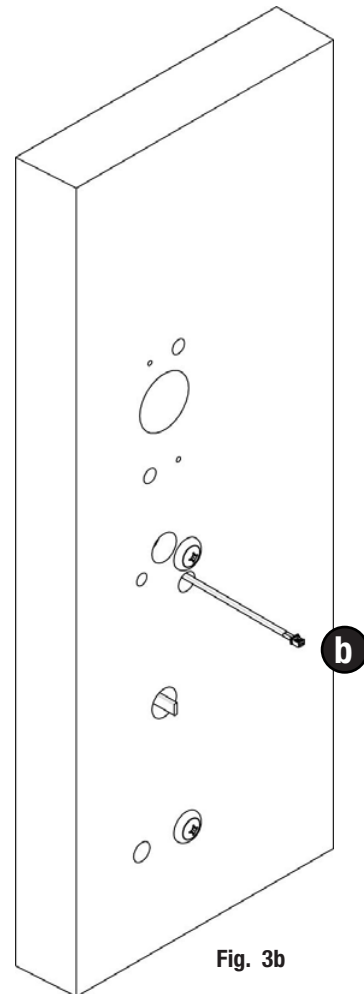


Fig. 3b

5) Installation Instructions (Continued)

4. Install Exit Device:
 - a. Seat device against door being careful to align vertical trim tailpiece to engage with cross hole of device cam.
 - b. Fasten device to trim assembly using (2) 1/4-20 pan head screws.
 - c. Follow instructions packed with device to secure device to door.
 - d. Tighten all 4 screws.

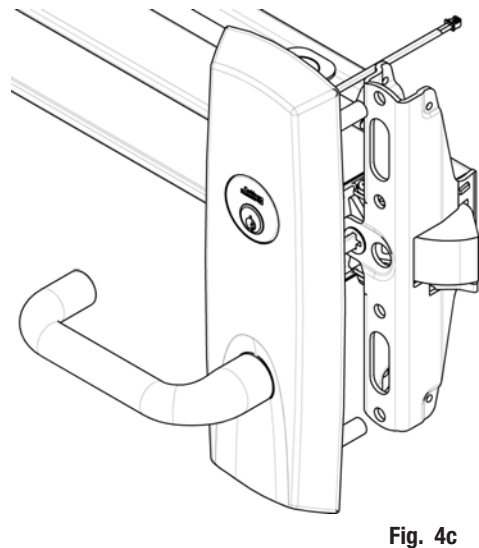
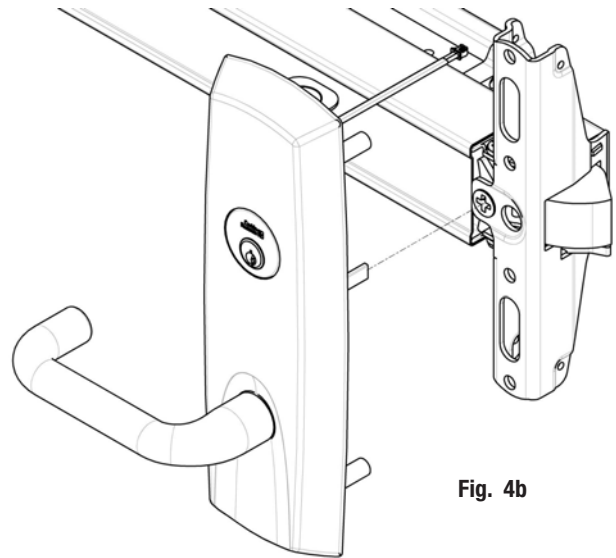
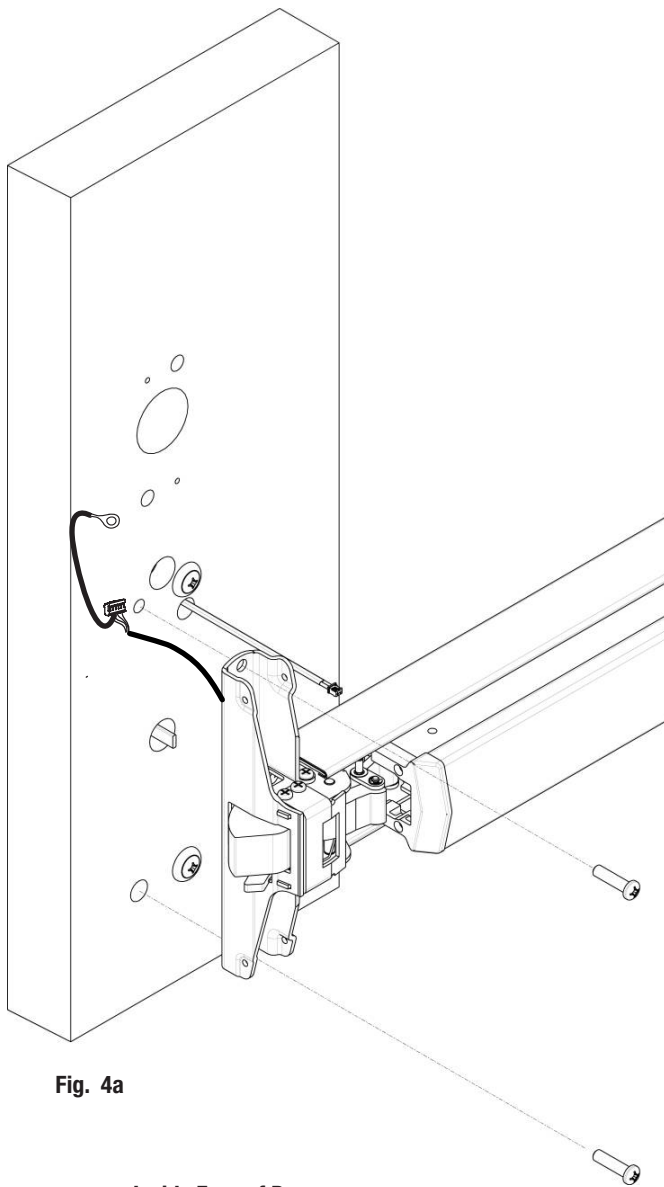


Fig. 3c

5) Installation Instructions (Continued)

5. Install Head Cover:
- Lay wire harnesses (trim harness and device harness) across $\frac{3}{4}$ " hole (Fig. 5a).
 - Tuck wires into hole when installing cover so that wires are not pinched between head cover and door.
 - Attach head cover using (2) #8-32 flat head screws (Fig. 5b).

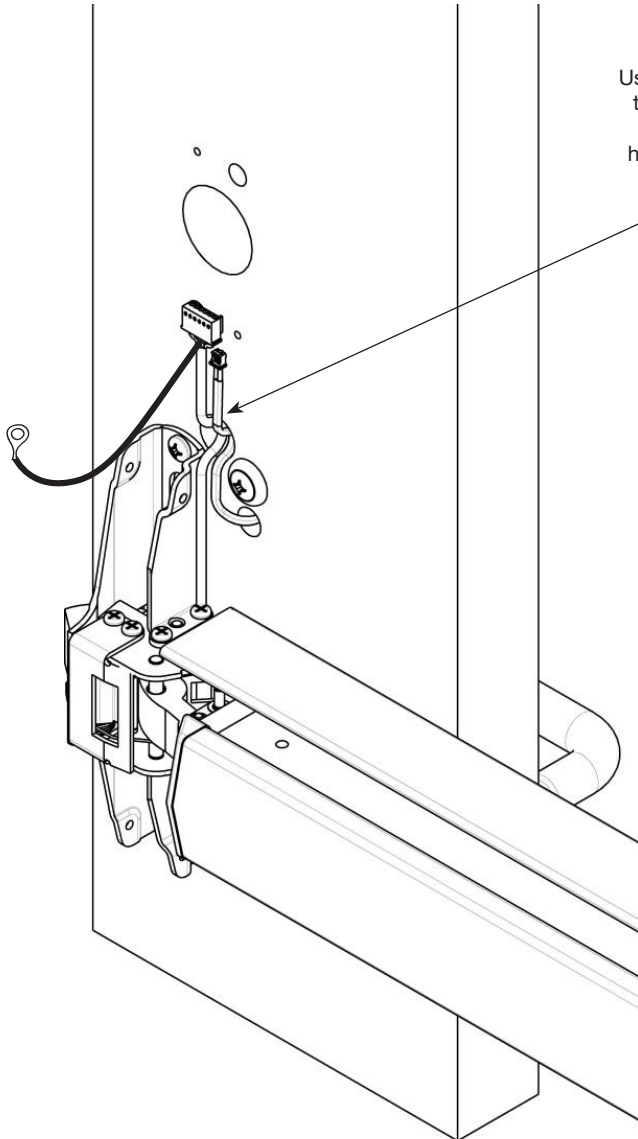


Fig. 5a

Use $\frac{3}{4}$ " hole to
tuck trim and
device wire
harness under
head cover,

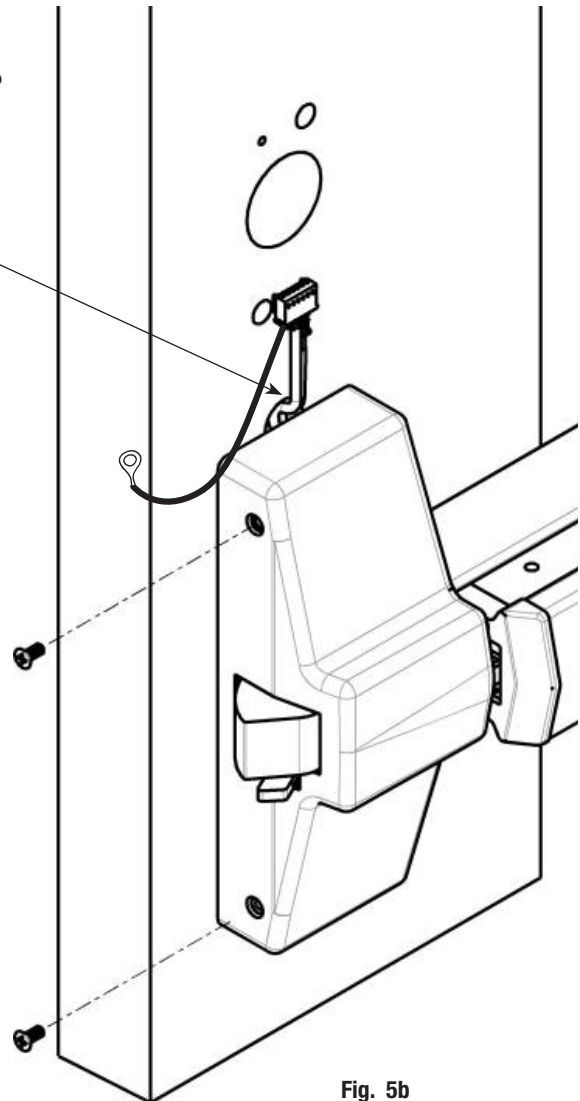


Fig. 5b

5) Installation Instructions (Continued)

6. Install Outside Reader and Inside Mounting Plate

- Feed Reader wire harness through door and through hole in mounting plate (Fig. 6a).
- Insert two #8 x 1-3/4" flat head through mounting plate and into escutcheon (Fig. 6a and 6b).
- Connect pin 5 green/yellow ground wire ring terminal to top right screw (Fig. 6b and 6c).

Note: Be careful not to pinch wires under mounting plate.

- Check that Reader is straight on door then tighten screws.
- Drill two 1/8" diameter holes and install (2) #8 x 3/4" combination screws through plate and into face of door.

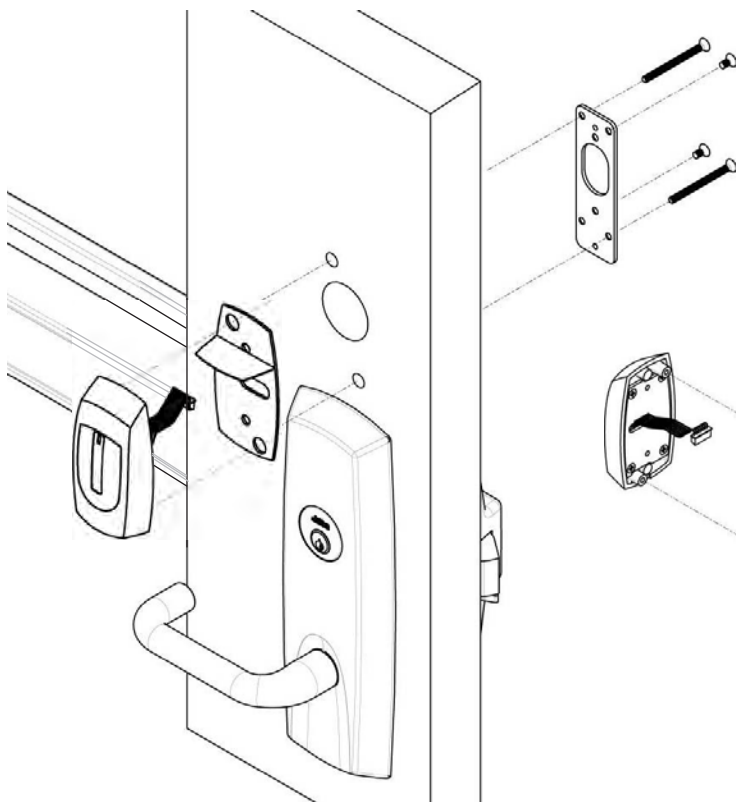


Fig. 6a

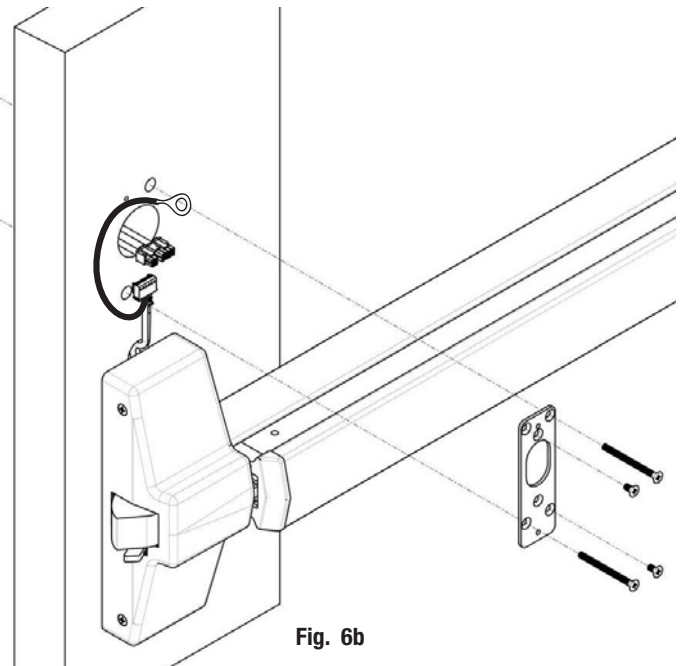


Fig. 6b

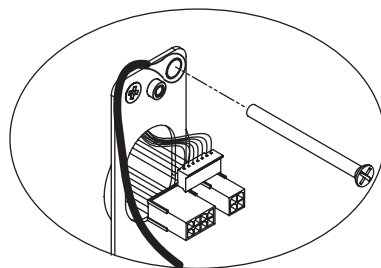


Fig. 6c Detail

5) Installation Instructions (Continued)

7. Install Gasket:
- Add Gasket (if necessary):
- Remember the inside gasket must be used when installing in an outdoor application.
- Remove backing and place gasket on door (Fig. 7).

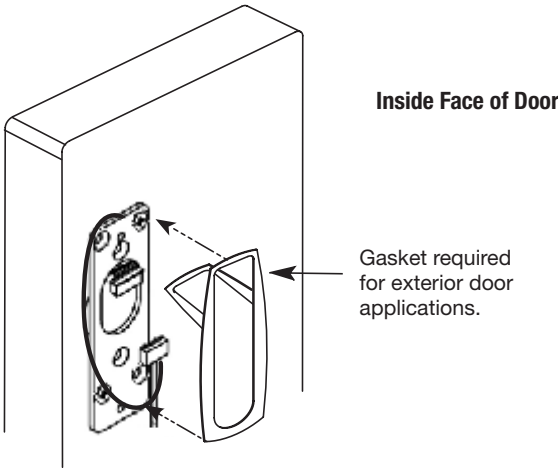


Fig. 7

8. Connector Attachment (Interior PCB Assembly):

1. Connect P3 (2-pin connector) from lockbody to J3 on module (Fig. 8).
2. Connect P4 (6-pin connector) from lockbody to J4 on module (Fig.8).
3. Connect ElectroLynx harness (4 and 8-pin) from door harness to ElectroLynx harness on interior PCB assembly (Fig 8).

NOTES:

Neatly fold the wires onto themselves and into the remaining space to prevent pinching wires when mounting escutcheon.

Do not tuck extra mortise lockbody wires back inside the lock body cylinder hole.

Connectors go on only one way.

Do not offset connector and be sure they are completely seated.

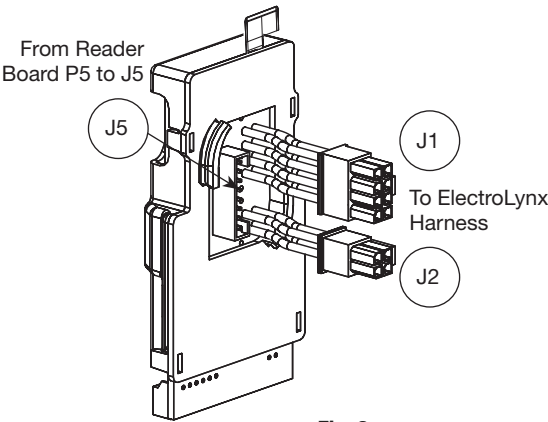


Fig. 8

PCB Layout - Wire Assignments - ElectroLynx Assembly (Molex)					
J2		J1			
1-Violet Lock Neg (Solenoid, neg)	3-Pink N/A	1- Black PWR NEG	3-White DATA 1	5-Orange RX (NO)	7-Brown EGND
2-Gray Lock Pos (Solenoid, pos)	4-Tan N/A	2-Red PWR POS	4-Green DATA 0	6-Blue RX (COM)	8-Yellow LED

5) Installation Instructions (Continued)

9. Outside Wire Positioning:

Please follow these steps prior to installing inside escutcheon to prevent any damage caused by pinching wires:

1. Once wires are arranged (Fig. 9a), position piece at a rotated angle against the door, under earth ground wire.
2. Press piece against door while turning clockwise (Fig. 9b).
3. Twist into place, perpendicular with door (Fig. 9c).

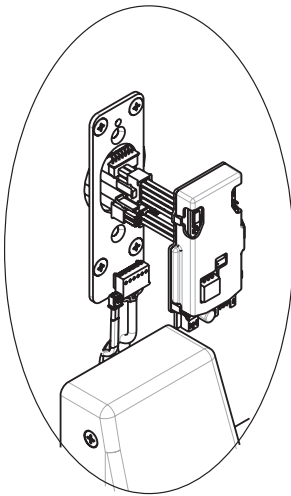


Fig. 9a Detail

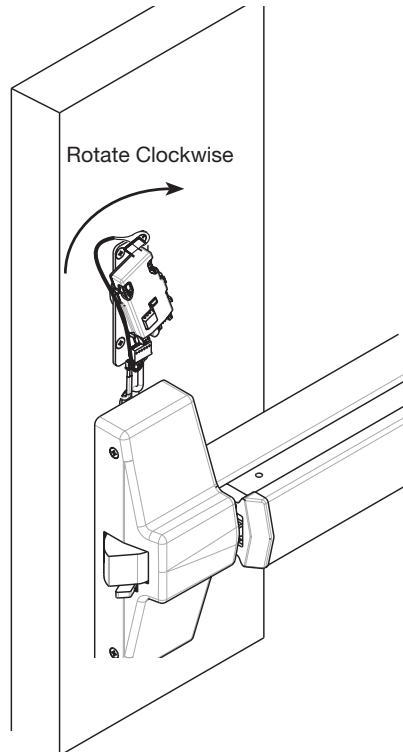


Fig. 9b

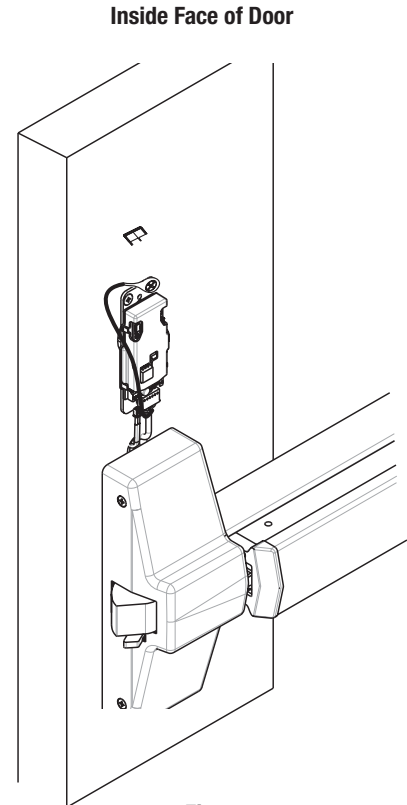


Fig. 9c

10. Connector Attachment (Exterior PCB Assembly)

- a. Connect P3 (2-pin connector) from lockbody to J3 on module (Fig. 10).
- b. Connect P4 (6-pin connector) from lockbody to J4 on module (Fig. 10).

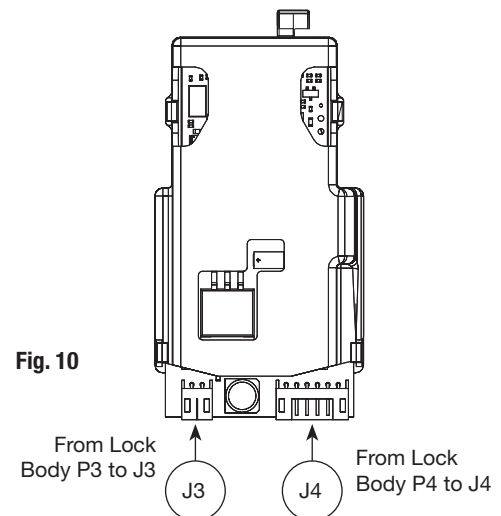


Fig. 10

5) Installation Instructions (Continued)

11. Install Inside Escutcheon:
- Make electrical connections (Steps 7 and 9).
 - Feed excess ElectroLynx® wire harness back into door.
 - Feed excess trim and exit device under head cover.
 - Install inside escutcheon using (2) #8-32 x 5/8" oval head screws.

Note: Be careful not to pinch wires between escutcheon and door surface.

Notes:

- Insert the 8- and 4-pin ElectroLynx connectors and establish their position inside the door prep.
- Neatly fold the wires onto themselves and into the remaining space to prevent pinching wires when mounting escutcheon.

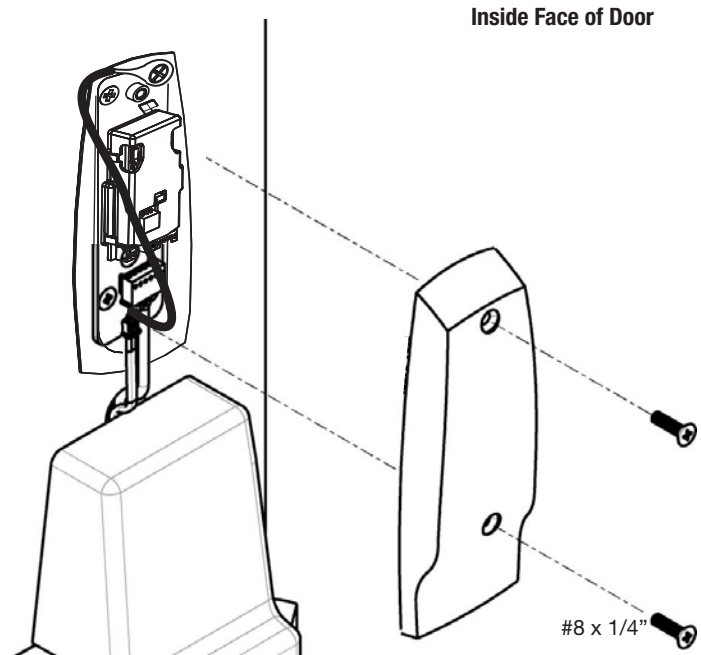


Fig. 11

6) Wiring Diagrams

Product	8 PIN CONNECTION								4 PIN CONNECTOR			
	1-Black	2-Red	3-White	4-Green	5-Orange	6-Blue	7-Brown	8-Yellow	9-Violet	10-Gray	11-Pink	12-Tan
ACCESS CONTROL DEVICES: ED5200N M812 iCLASS, ElectroLynx wire Color / Function assignments												
	12 /24VDC Reader Power		WIE- GAND	WIE- GAND	RX	RX	EGND	LED	24VDC (LOCK RELAY)		NOT USED	NOT USED
Corbin Russwin ED5200N (S)(A) M812 iCLASS	NEG	POS	DATA_1	DATA_0	NO	COM	EGND	REF. DIA- GRAMS	NEG	POS	N/A	N/A

Reader LED Configuration

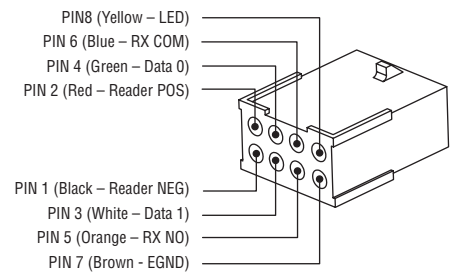
The Access 600 reader can be configured for (3) modes of LED operation. HID Programming cards are supported to configure the behavior for LED color activity.

Call 1-800-WIRE for details.

Mode 1:

- Red LED 'ON' when powered.
- Presenting a 13.56MHz proximity card will cause LED to 'FLICKER' green and return to red state.
- Reference Diagram #1 or Diagram #4 as a function of power requirement (12VDC or 24VDC).

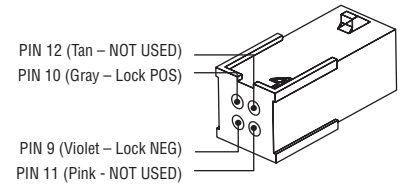
Note: LED wire is unconnected.



Mode 2:

- Green LED "ON" when powered.
- (No Flicker) after presenting valid 13.56MHz proximity card.
- Reference Diagram #2 or Diagram #5 as a function of power requirement (12VDC or 24VDC).

Note: LED wire must be connected to circuit GROUND of the system's power supply.



Mode 3:

- EAC Panel controls LED operation.
- Reference Diagram #3 or Diagram #6 as a function of power requirement (12VDC or 24VDC).

Note: Control of LED is a function of the EAC Panel equipment (ie. Relay) to toggle between green and red.

Note: When LED wire is tied directly into EAC panel relay, no AC signals should be applied on wire or door reader performance will be interfered (Ref. Diagram #3 or Diagram #6).

6) Wiring Diagrams (Continued)

Typical ED5200N M812 Series Lock Application Diagram 12VDC Reader Power and 24VDC Lock

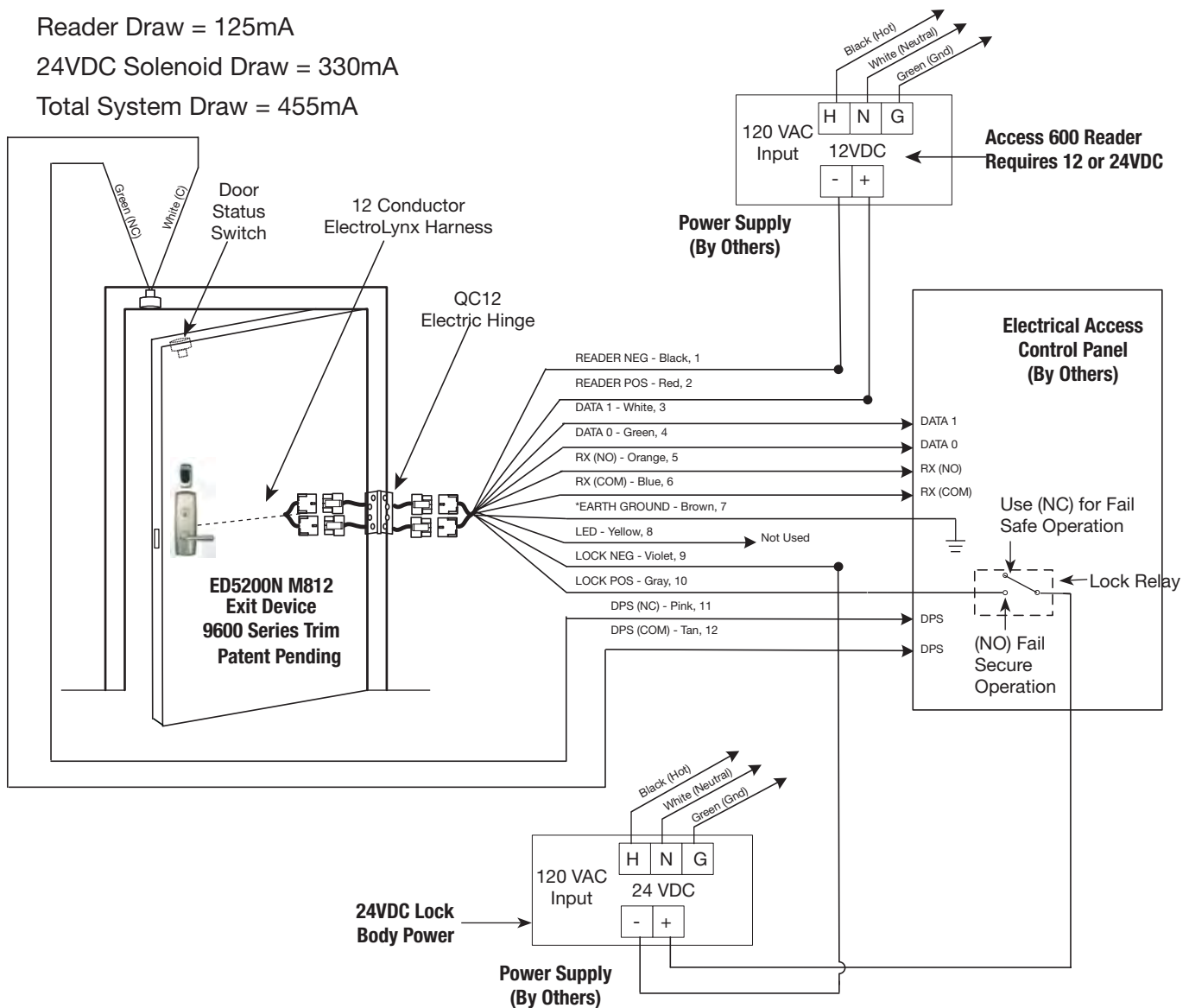
DIAGRAM #1 – MODE 1: LED WIRE NOT USED = RED LED ON WHEN POWERED

12VDC System With 24VDC Solenoid

Reader Draw = 125mA

24VDC Solenoid Draw = 330mA

Total System Draw = 455mA



***IMPORTANT:** Pin 7 must be tied to earth ground in the access control panel.

Failure to follow proper ESD safe grounding procedures could lead to equipment failure.

6) Wiring Diagrams (Continued)

Typical ED5200N M812 Series Lock Application Diagram 12VDC Reader Power and 24VDC Lock

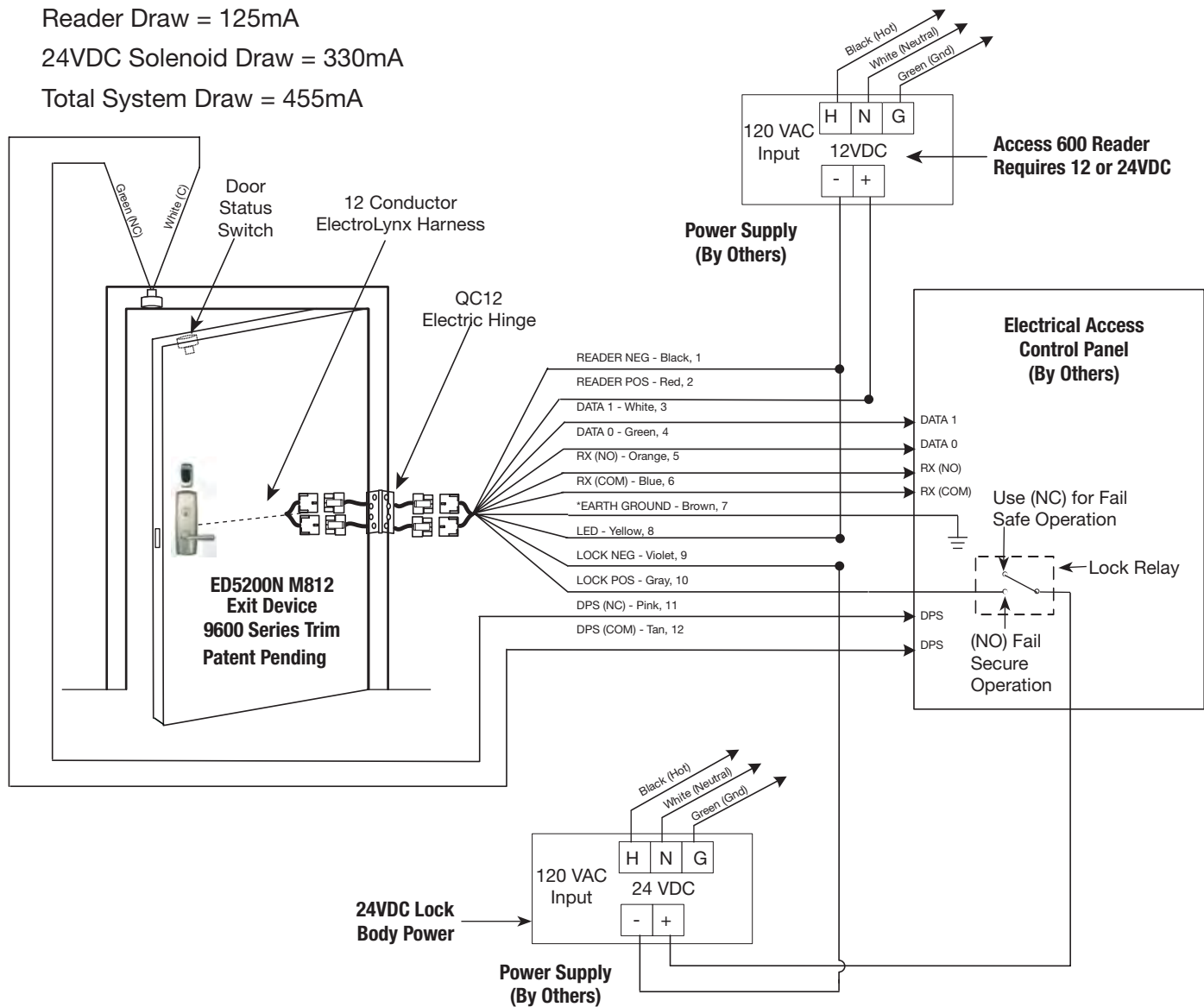
DIAGRAM #2 – MODE 2: LED WIRE TIED TO GROUND = GREEN LED 'ON' WHEN POWERED

12VDC System With 24VDC Solenoid

Reader Draw = 125mA

24VDC Solenoid Draw = 330mA

Total System Draw = 455mA



6) Wiring Diagrams (Continued)

Typical ED5200N M812 Series Lock Application Diagram 12VDC Reader Power With 24VDC Lock

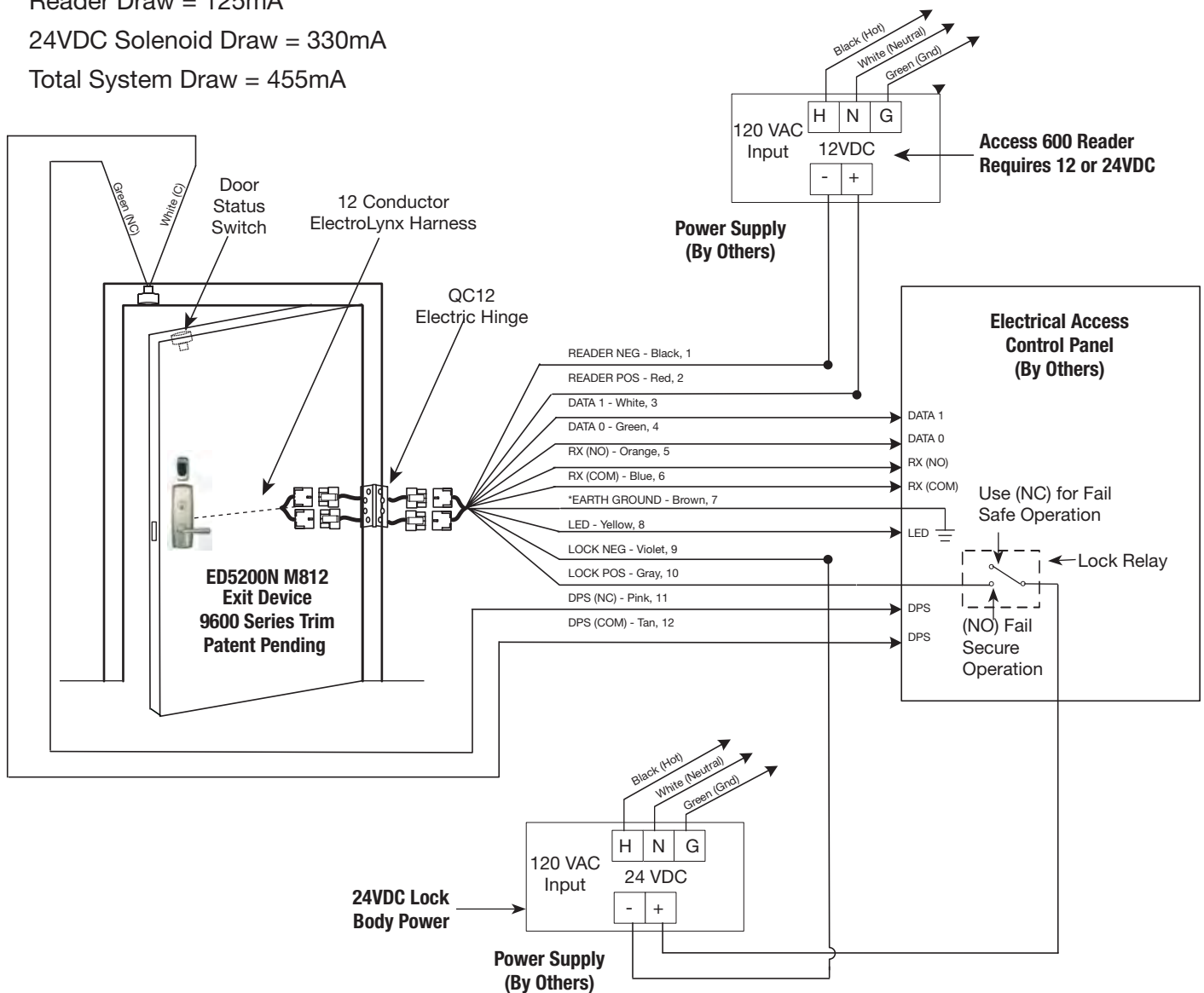
DIAGRAM #3 – MODE 3: LED WIRE TO EAC PANEL = EAC PANEL CONFIGURABLE

12VDC System With 24VDC Solenoid

Reader Draw = 125mA

24VDC Solenoid Draw = 330mA

Total System Draw = 455mA



***IMPORTANT:** Pin 7 must be tied to earth ground in the access control panel.

Failure to follow proper ESD safe grounding procedures could lead to equipment failure.

6) Wiring Diagrams (Continued)

Typical ED5200N M812 Series Lock Application Diagram 24VDC Reader Power With 24VDC Lock

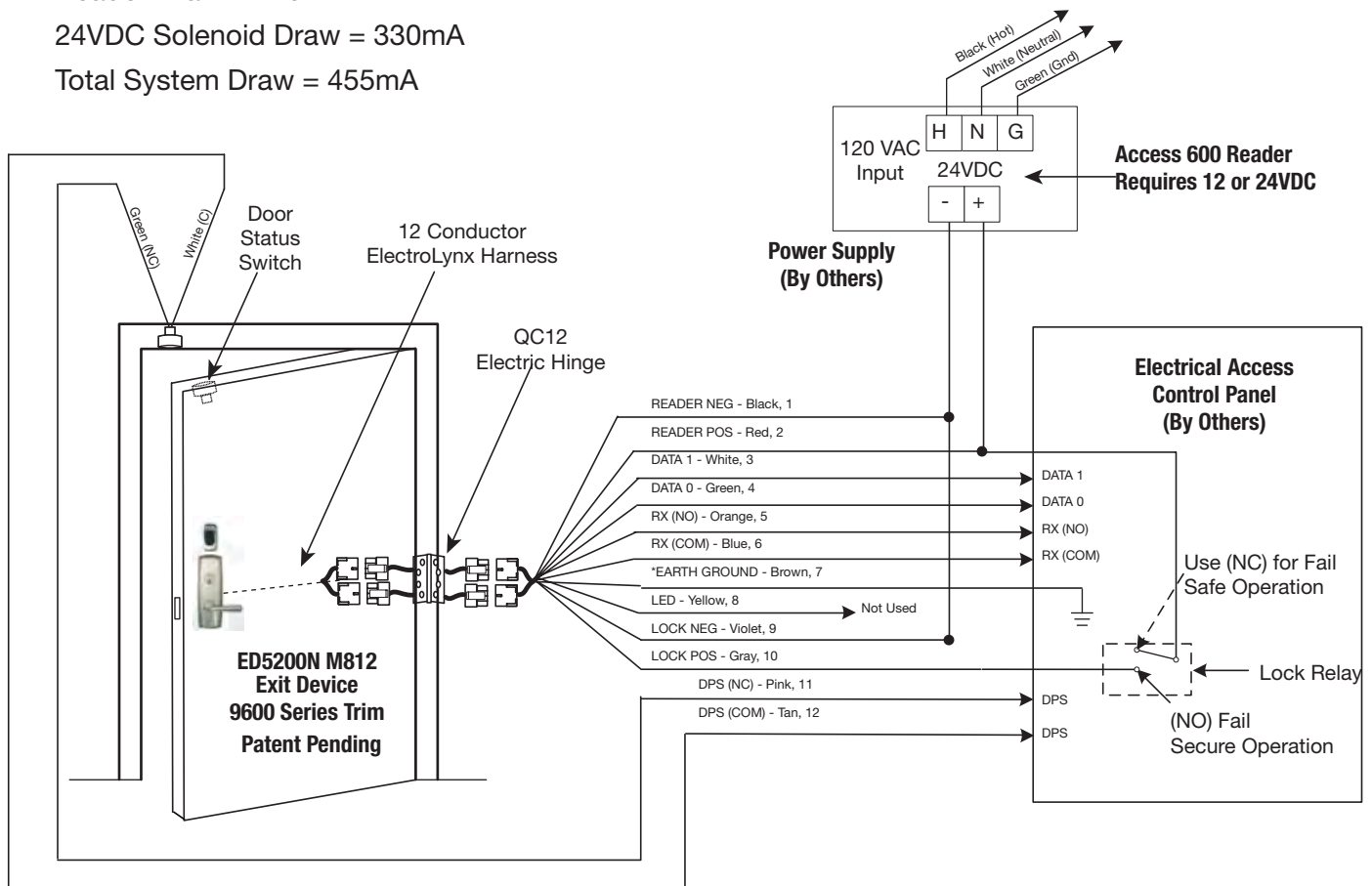
DIAGRAM #4 – MODE 1: LED WIRE NOT USED = RED LED ON WHEN POWERED

24VDC System

Reader Draw = 125mA

24VDC Solenoid Draw = 330mA

Total System Draw = 455mA



***IMPORTANT:** Pin 7 must be tied to earth ground in the access control panel.

Failure to follow proper ESD safe grounding procedures could lead to equipment failure.

6) Wiring Diagrams (Continued)

Typical ED5200N M812 Series Lock Application Diagram

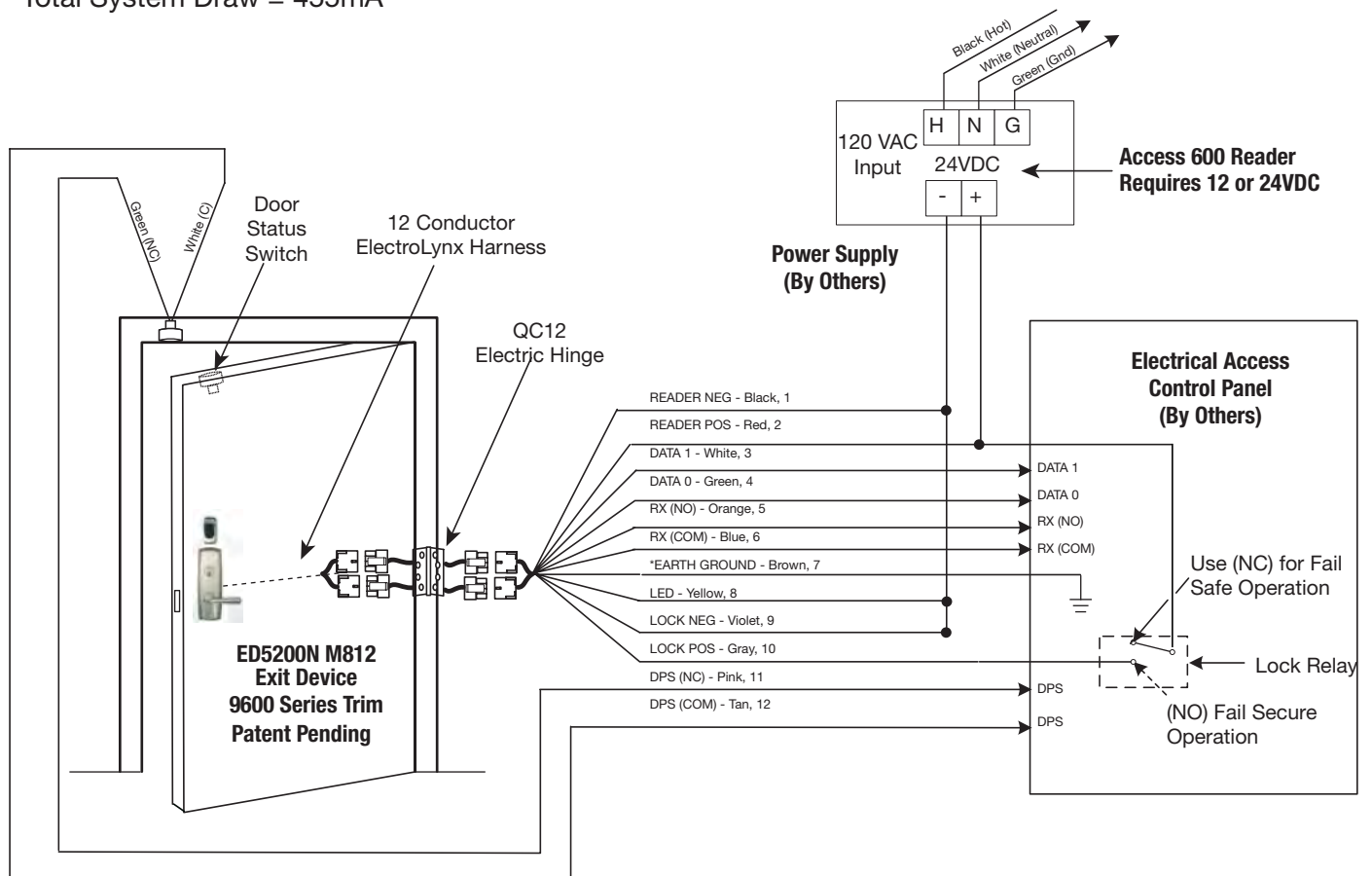
DIAGRAM #5 – MODE 2: LED WIRE TIED TO GROUND = GREEN LED ‘ON’ WHEN POWERED

24VDC System

Reader Draw = 125mA

24VDC Solenoid Draw = 330mA

Total System Draw = 455mA



***IMPORTANT:** Pin 7 must be tied to earth ground in the access control panel.

Failure to follow proper ESD safe grounding procedures could lead to equipment failure.

6) Wiring Diagrams (Continued)

Typical ED5200N M812 Series Lock Application Diagram 24VDC Reader Power With 24VDC Lock

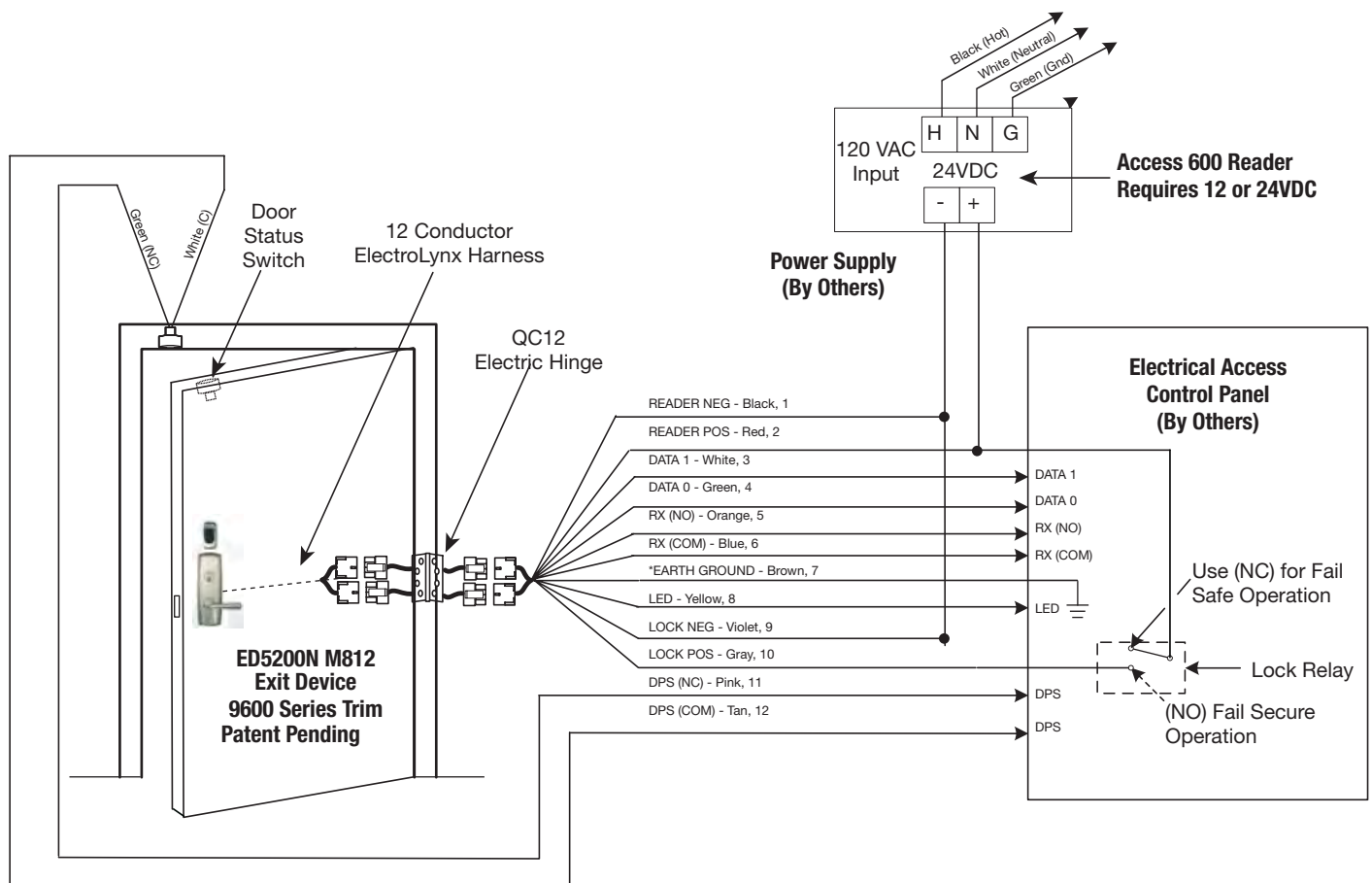
DIAGRAM #6 – MODE 3: LED WIRE TO EAC PANEL = EAC PANEL CONFIGURABLE

24VDC System

Reader Draw = 125mA

24VDC Solenoid Draw = 330mA

Total System Draw = 455mA

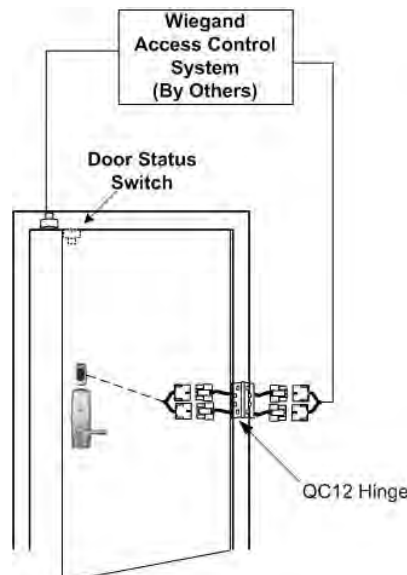


***IMPORTANT:** Pin 7 must be tied to earth ground in the access control panel.

Failure to follow proper ESD safe grounding procedures could lead to equipment failure.

7) Door Status Switch Installation

1. Install Door Status Switch supplied with product:
 - Drill 1" hole in door for magnet
 - Drill 1" hole in frame for switch
2. Wire to ElectroLynx frame harness as shown in wiring diagrams on previous pages.



8) Mechanical Operational Check

- a. Insert key into cylinder and rotate.
- b. With key rotated turn lever and check that latch retracts.
- c. Check that push bar fully retracts the latch.
- d. Close door: Ensure latch fully extends into strike and does not bind.

Note: For fail safe trim cylinder will have to be tested after wiring is complete and power is turned on.

9) Electrical Operational Check

Note: Once electrical wiring has been successfully completed according to proper application, follow the following steps:

- a. Turn power ON.
- b. Verify LED located on reader is ON (Red or Green depending on reader configuration (See reader LED Configuration)).
- c. Present proximity credential and verify LED and sounder activity.
- d. Verify valid card read at EAC Panel.
- e. Verify system operation functions; i.e., when prox credential is presented to reader that the door unlocks.

