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# RCI 3525PRX Electro Mechanical Rack Handle Lock With Reader Installation Guide

**RCI 3525PRX Electro Mechanical Rack Handle Lock With Reader**

## INSTALLTION

3525PRX / DFR / iCL
ELECTROMECHANICAL RACK HANDLE LOCK WITH READER

| Actuator Module | |
| --- | --- |
| **Supply Voltage** | 12VDC to 24VDC (NOTE: Status LED will blink red if the supply voltage is out of range.) |
| **Standby Current** | 50mA maximum at 12VDC" |
| **Operating Current** | see chart below |
| **Stall Current** | 1A maximum at 12VDC (limited to 2 seconds) |
| **Operating Transit Time** | 1 second maximum (**NOTE:** Power must be present during transit times. If power is removed while the lock slide is in transit, it will complete it's cycle when power is restored.) |
| **Electronic Unlock Time** | 3 seconds minimum |
| **Open Collector Outputs** | Rated for supply voltage, maximum load |
| **Alarm Outputs** | 100mA/ output maximum |

Fig. 1

## Specifications

**Package Contents**

- 3525 Electromechanical Rack Handle Lock with Reader
- M3x25 Mounting Screws (qty 4)
- M3x14 Mounting Screw
- Rotation Limiter Standard
- Rotation Limiter – Extended (for thicker panels)
- Cam Bolt
- Top Mounting Bracket
- Bottom Mounting Bracket
- Installation Instructions
- Keys (qty 3)

| Reader | PRX | DFR | iCL |
|---|---|---|---|
| **Voltage** | 12VDC ~ 24VDC | | |
| **Operating Current** | 20 mA<br><br>No External Load | 125 mA<br><br>No External Load | 60mA<br><br>No External Load |
| **Transmit Frequency** | 125 kHz FSK | 13.56 MHz / 125 kHz | 13.56 MHz |
| **DATA Signal Voltage** | 5VDC | | |
| **DATA Pulse Interval Time** | 40µs | | |
| **DATA Signal Delay** | 2ms | | |
| **Output Format** | N/A | Reverse Byte Order (13.5MHz cards) Most Significant Bit First (125kHz cards) Upper and Lower Parity Bit Included | Reverse Byte Order with Upper and Lower Parity Bits |
| **Overall Dimensions** | 8-1/4" H x 1-1/2" W x 1" D 210mm x 37mm x 25mm (Depth from Cabinet Face) | | |

**Handle Mounting**

Fig. 2
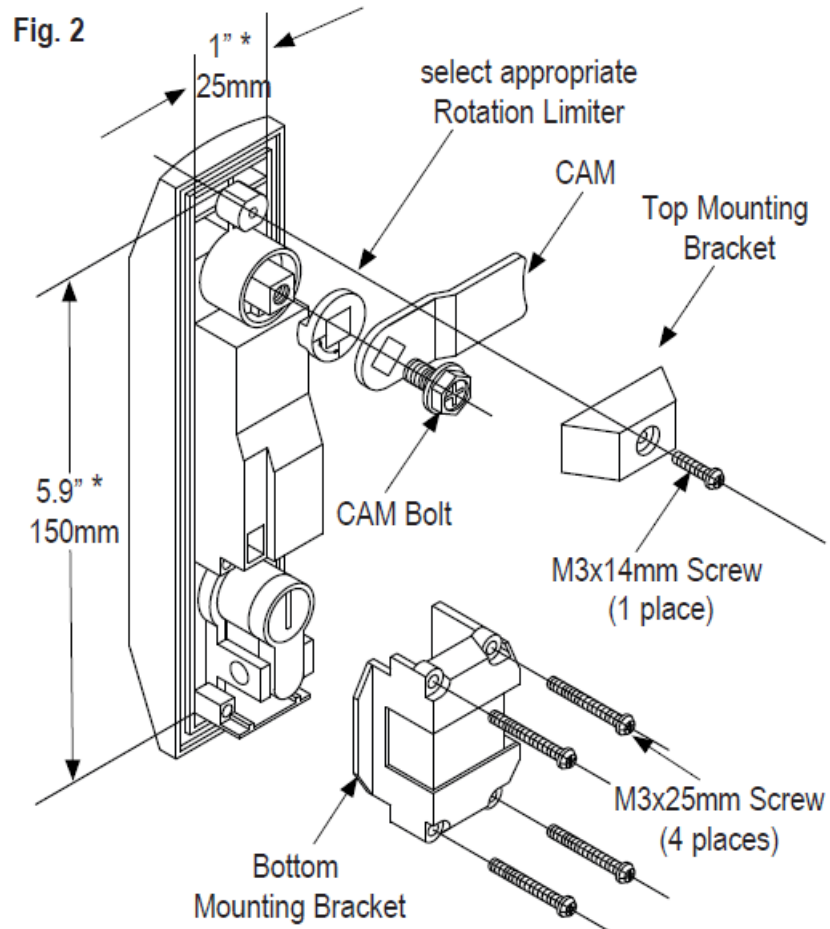
**NOTES:**

- Cut-out dimensions.*
- Handling is determined by rotation limiter and bottom mounting bracket.

1. Assemble handle according to the proper handing required.
2. Rotation Limiter & Bottom Mounting bracket determines handing.(Fig. 3)
3. If existing cam or rod mechanism are installed on original handle remove and install on new handle. (minimum torque 4Nm)
4. Ensure the proper cutout in the door. (See Fig. 2)
5. Install handle through cutout and install top & bottom mounting brackets. (Pozidrive with maximum 0.5Nm)
6. Install wiring harness and route to hinge side of door securing in place to ensure that nothing will bind or catch.
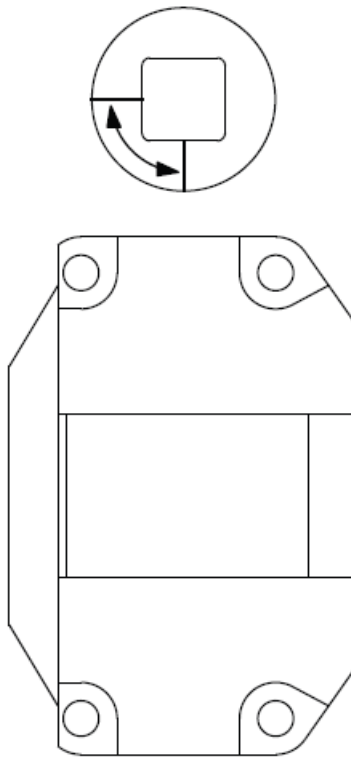7. Proceed to wiring. (See Figs. 4, 5 & 6)

**Rotation Limiter**
Viewed from back. Handle rotation is counter clockwise from front.
**Bottom Mounting Bracket**
Viewed from back.
Key rotation is counter clockwise from front.

**Rotation Limiter**
Viewed from back. Handle rotation is clockwise from front.
**Bottom Mounting Bracket**
Viewed from back.
Key rotation is clockwise from front.

**Wiring**

The 3525PRX/DFR/iCL contain two separate functional modules:
The reader modules read the contents of a compatible proximity card and converts it to Wiegand format.
The actuator module controls and monitors the locking function of the swinghandle.
These two modules operate independently of each other and require connection to an access control unit (not provided), to be fully functional.
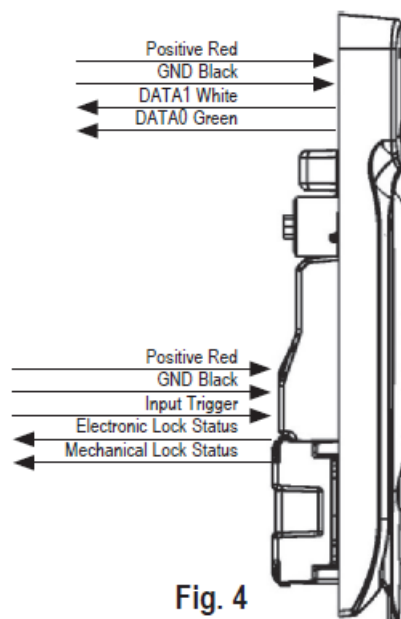


Fig. 4

The reader modules of the swinghandle is accessed with a four pin connector attached to a harness connected to the module's circuit board. The module's connector pinout is:

| Wire Color | Description | Note |
|---|---|---|
| Black | GND | ground |
| Red | Positive | 12 to 24VDC power supply input |
| Green | DATA0 | DATA0 output |
| White | DATA1 | DATA1 output |

The actuator module of the swinghandle is accessed with a six pin connector on the rear of the unit, shown below.

| Wire Color | Description | Note |
|---|---|---|
| Black | GND | ground |
| Red | Positive | 12 to 24 VDC power supply input |
| Pin 3 | N/C | no connect |
| Orange | Input Trigger | command input (9VDC up to supply voltage, 100 milliseconds minimum) |
| Brown | Electronic Lock Status | open collector output (sink to ground, 100mA max. load) |
| Blue | Mechanical Lock Status | open collector output (sink to ground, 100mA max. load) |

**Input Trigger**

This signal is used to control the electronic lock slide position.
For UNLOCKED position: Supply 9VDC minimum (do not exceed supply voltage) for at least 100 milliseconds.
The lock will remain unlocked for as long as the signal is present, or a minimum of 3 seconds.
Signal timing can typically be adjusted through the access control device.
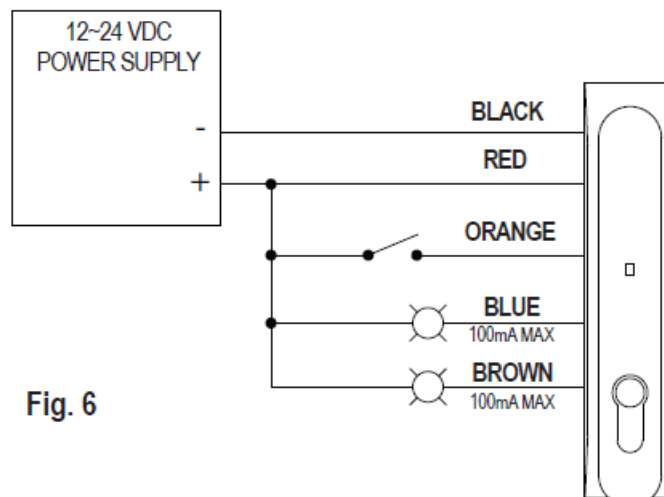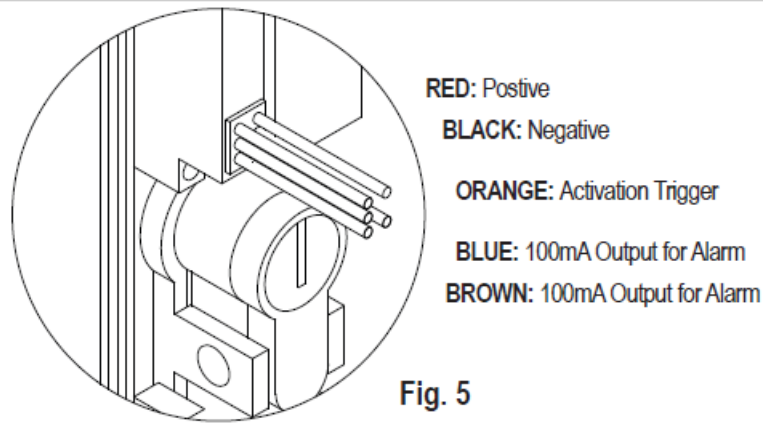The input trigger current draw is less than 10mA.
Electronic Lock Status Output Signal
This output will provide a 100mA MAX sink to GND when the lock slide is electromechanically moved to the unlocked position.
Mechanical Lock Status Output Signal
This output will provide a 100mA MAX sink to GND when the handle is in the open position or when the keylock in the actuator is manually unlocked.
**NOTE:** These outputs are open collector outputs rated for input voltage with a maximum load of 100mA. To avoid damage to the 3525PRX/DFR/iCL, do not exceed voltage and current ratings.

RED: Postive
BLACK: Negative
ORANGE: Activation Trigger
BLUE: 100mA Output for Alarm
BROWN: 100mA Output for Alarm

Fig. 5



12~24 VDC POWER SUPPLY

BLACK
RED
ORANGE
BLUE
100mA MAX
BROWN
100mA MAX

Fig. 6

## Federal Communication Commission Interference Statement

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 & 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.

**FCC Caution:**
To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example – use only shielded interface cables when connecting to computer or peripheral devices).
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.

- Red & Black are 12 to 24 VDC input voltage.

- Orange is a positive input with a Normally Open Switch. The lock will unlock for a minimum of 3 seconds on a momentary activation (50 millisecond minimum) or remain unlocked as long as the circuit is closed.
- Blue is an alarm that will activate when the key is used to unlock the cabinet or anytime the handle is not seated and locked.
- Brown is an alarm that will activate when the lock is electrically activated and will remain on until the lock electrically relocks.

| Lock Status | Latch LED | Alarm Wires |
|---|---|---|
| Secure | Steady Blue | Inactive |
| Electrically Released | Blue/ Magenta Flashing | Brown Active |
| Mechanically Released | Blue Flashing | Blue Active |
| Handle Not Fully Closed | Blue/Red Flashing | Blue/Brown Active |
| Supply Voltage out of spec | Flashing Red | N/A |

**NOTE:** The lock sensor is an optical device that senses the presence of the locking cam.  Reflectivity of the locking cam material can affect sensing. Keyed cylinder can affect sensing.

## Documents / Resources



**RCI 3525PRX Electro Mechanical Rack Handle Lock With Reader** [pdf] Installation Guide
RL601, 2AED9-RL601, 2AED9RL601, 3525PRX, Electro Mechanical Rack Handle Lock With Reader, 3525PRX Electro Mechanical Rack Handle Lock With Reader, DFR, iCL