Blackboard

transaction *System*

SE3-RDR100

Installation Guide

Commerce Suite

Bb

Blackboard

Contents

DRAFT

Bb

Blackboard

Figures

Blackboard Inc.	SE3-RDR100
FC Tested To Comply With FCC Standards	
FOR HOME OR OFFICE USE	

This Class B digital apparatus complies with Canadian ICES-003

Cet appareill numérique de la classes B est conform à la norme NMB-003 du Canada

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.

Part 15.21: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

This equipment complies with the FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Blackboard

SE3-RDR100 INSTALLATION GUIDE

The Blackboard SE3-RDR100 is a Door Access Reader that supports contactless card technology. Contactless Card Technology offers the following advantages vs. magnetic stripe:

• Higher security as data on card is accessed with encrypted keys

• Cards cannot be as easily duplicated

• Use of contactless cards virtually eliminates reader wear and tear (card need not contact the reader)

Figure 1-1 SE3-RDR100 Reader

The SE3-RDR100 Card Reader may be mounted onto a 2" wide mullion or a single gang box using the included backing plate.

The following items are included with the SE3-RDR100:

• 4-40 x .500 FH Tamper Screw (1)

• Mounting Plate (1)

• Backing Plate (single gang box installation) (1)

• 1 x 5, 3.5MM Terminal Block (1)

• Security Screw Cover Decals (2)

• 6-32 x 3/4" Screws (2)

> *SE3-RDR100 wiring requires Belden 8723 cable or equivalent from the reader to the Door Controller. Cable length must not exceed 4000 feet.*

INSTALL THE SE3-RDR100

UL Considerations:

Attention to Installers: All field wiring/cabling connections made to the Controller need to use shielded cable with one of the shielded ends connected to earth ground.

- To surface mount the reader, see: Surface Mount the SE3-RDR100 (page 1-3)

- To mount the reader onto a single gang box, see: Single Gang Box Mount the SE3-RDR100 (page 1-6)

Surface Mount the SE3-RDR100

The mounting plate is secured using #6 flat head hardware. Select hardware based on the mounting material.

To surface mount the SE3-RDR100

1   Use the mounting plate as a template to mark mounting holes and a cable routing hole.
Put the cable hole near the center of the mounting plate window.

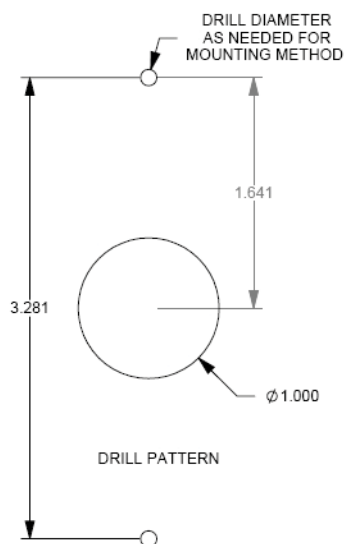**2**   Drill the holes for the mounting hardware (#6 flathead screws) and the cable.

Figure 1-2 Mounting Drill Pattern

Blackboard

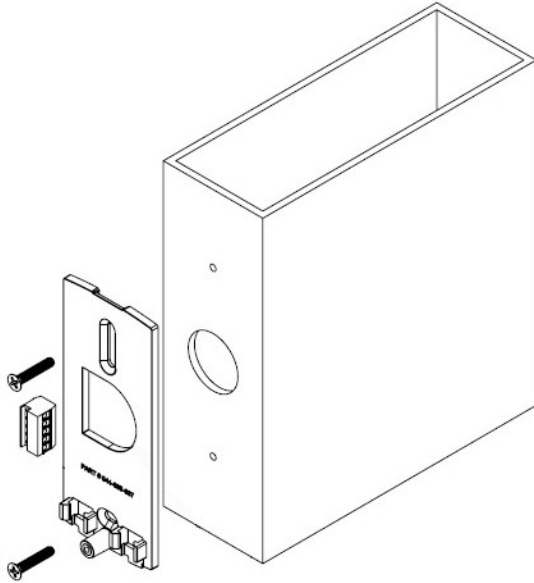**3**   Secure the mounting plate with the chosen hardware.

Figure 1-3 Mounting Plate Installation - Mullion

In outdoor installations, use a bead of silicone sealer between the mounting plate and the installation surface to protect the Reader from moisture.

---

4   Pull the cable through the hole, and then wire to the 5-pin terminal block.

See: **SE3-RDR100 Wiring** *(page 1-8).*

The 5-pin Terminal Block is supplied in the hardware kit.

---

5   Plug the terminal block onto the SE3-RDR100.

6   Place SE3-RDR100 at an angle over the mounting plate, and then slide down to engage the clip onto the mounting plate notch.
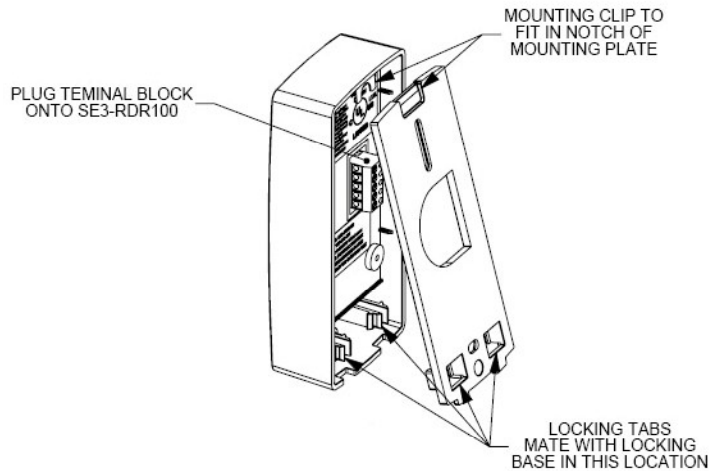
Blackboard

Figure 1-4 Mounting Plate Installation - Surface Mount

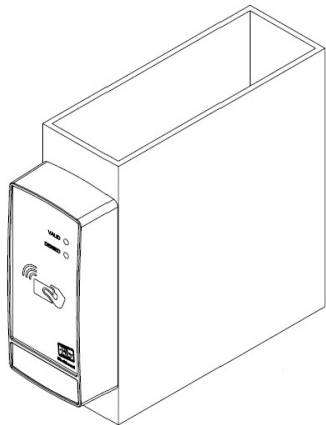**7** Push the bottom of the reader onto the mounting plate to lock the unit to the plate.

Figure 1-5 Mullion Installation

8 Test the SE3-RDR100 for proper operation.

9 Optionally secure the reader to the mounting plate using the security screw supplied in the hardware kit.

10 Apply the Security Screw Cover Decal.

If a second SE3-RDR100 or SE3/CSPP reader is installed, wire the readers in parallel. Connect a jumper wire across pins 1 and 5 of the terminal block to configure the second reader. The jumper configures the reader address to allow communication on a half-duplex RS-485 bus so both will not transmit concurrently.

Blackboard

Single Gang Box Mount the SE3-RDR100

To mount the SE3-RDR100 onto a single gang box

1   Secure the backing and mounting plates with the appropriate hardware to the single gang box.

In outdoor installations, use a bead of silicone sealer between the backing plate and the installation surface to protect the reader from moisture.
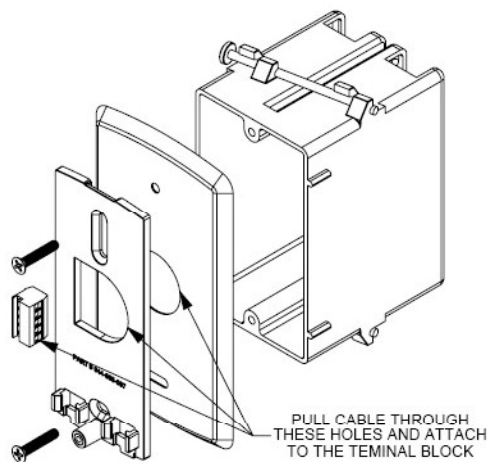

Figure 1-6 Single Gang Box Mount Assembly

2   Pull cable through mounting plate, and then connect to 5-pin terminal block, see: **SE3-RDR100 Wiring** (page 1-8).

The 5-pin Terminal Block is supplied in the hardware kit.

3   Plug the terminal block onto the SE3-RDR100.

4   Place SE3-RDR100 at an angle over the mounting plate, and then slide down to engage the clip onto the mounting plate notch.
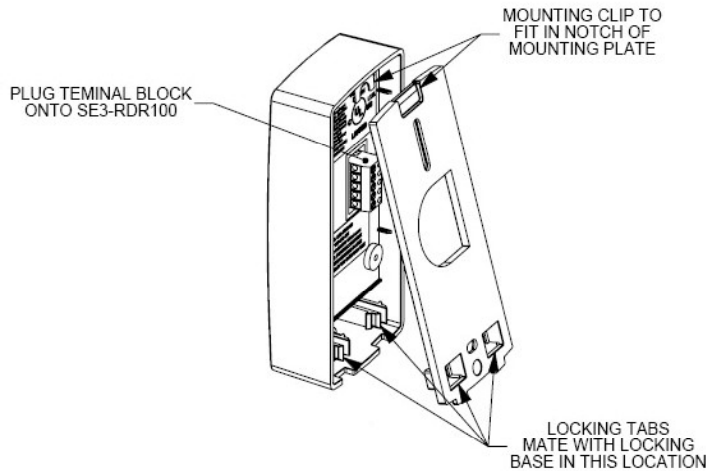
Blackboard

Figure 1-7 Mounting Plate Installation - Gang Box Mount

5   Push the bottom of the SE3-RDR100 onto the mounting plate to lock the unit to the plate.
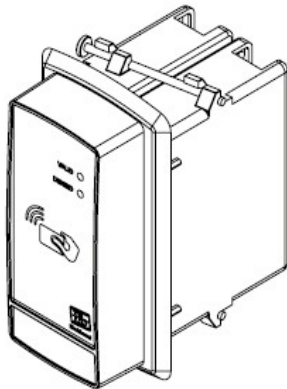

Figure 1-8 Single Gang Box Mount

6   Test the reader for proper operation.

7   Optionally secure the reader to the mounting plate using the security screw supplied in the hardware kit.

8   Apply the Security Screw Cover Decal.

If a second SE3-RDR100 or SE3/CSPP Reader is installed, wire the readers in parallel. Connect a jumper wire across pins 1 and 5 of the terminal block to configure as a second reader. The jumper configures the reader address to allow communication on a half-duplex RS-485 bus so readers do not transmit concurrently.
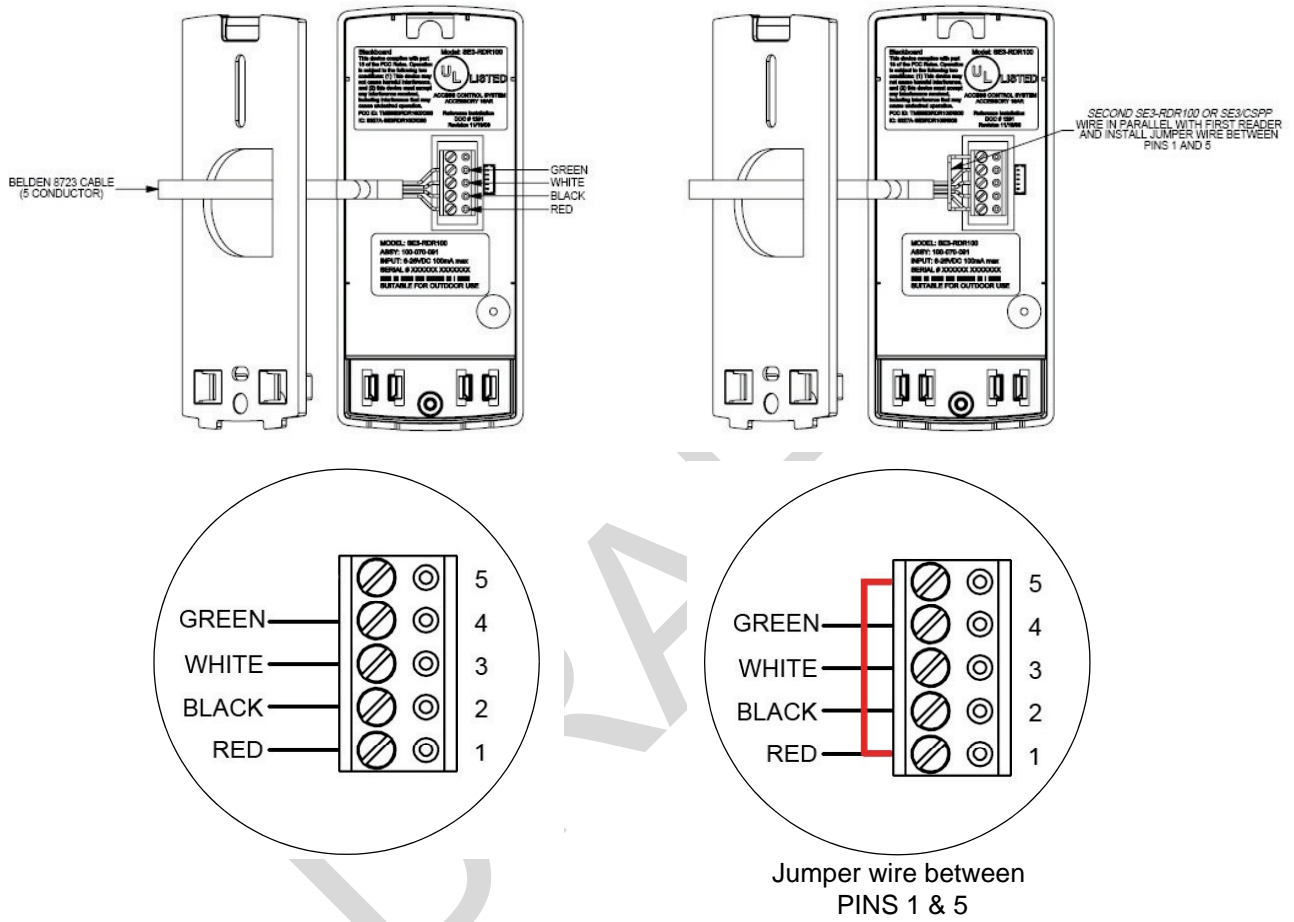
Figure 1-9 SE3-RDR100 Wiring

Blackboard

REMOVE THE SE3-RDR100

To remove the SE3-RDR100 from its mounting

1 If a security screw is installed, remove the Security Screw Cover Decal.
   Remove the Security Screw.

2 Insert the SE3-RDR100 key into the bottom slots.

Do not force the key into the reader.

3 Gently pull the bottom of the reader at an angle over the mounting plate, and then slide up to disengage the clip from the mounting plate.

4 Disconnect the terminal block.
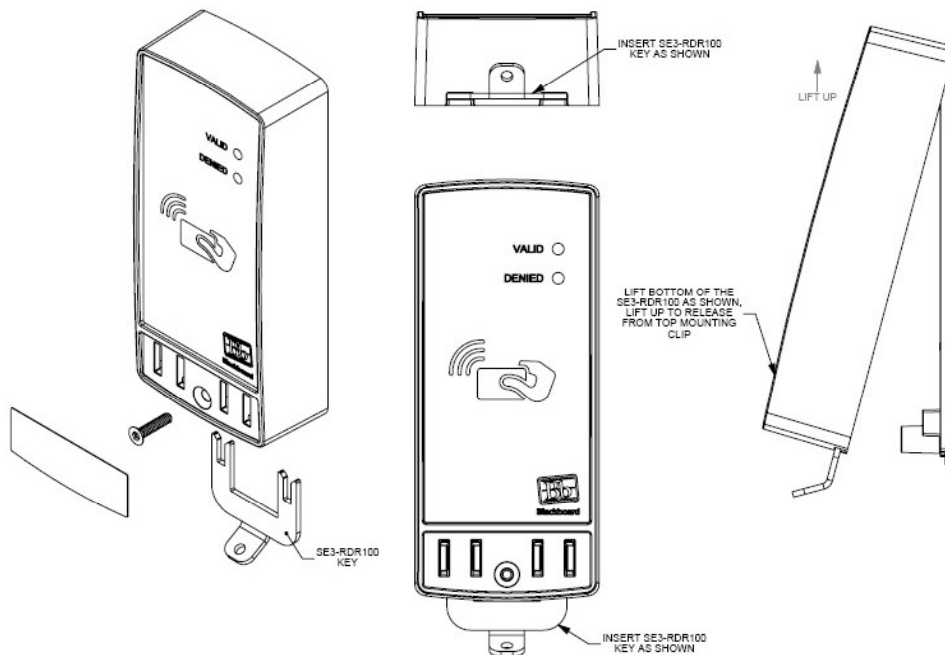
5 Remove the wall plate from the mounting if needed.

Figure 1-10 SE3-RDR100 Mounting Removal

Bb

Blackboard

SPECIFICATIONS

Physical Size: **Dimensions: 1.95" W x 4.5" H x 1.0" D**

                        Weight: 0.30 lbs

Input Power: **12VDC 150mA, 1.8 Watts Maximum**

Operating: **Temperature: -20 to 60+ degrees Celsius**

                        Relative Humidity: 0 to 95 percent, non-condensing

                        Altitude: 0 - 10,000 feet

Non-Operating: **Temperature: -20 to +70 degrees Celsius**

                        Relative Humidity: 0 to 95 percent, non-condensing

                        Altitude: 0 - 35,000 feet

This device contains an integrated lithium battery (BR2032). There is a risk of fire if the battery is replaced with an incorrect type. Proper disposal of a used battery is essential.