

# Installation and User Instructions for S874-EX Keypad Readers

The S874 is a contactless smart-card reader, with LED's and keypad. The reader can be set to use Wiegand or 20mA current loop communications.

The S874 reader will read smartMAX encoded MIFARE cards and card serial numbers from most ISO 14443A smart cards which have a 4-byte UID (User Identification). The reader may be configured to read other card types by presenting a programming card to the reader during start up.

For additional information regarding the installation, configuration and proper use of this product:

SMS User Guide, P/N 9600-0429, M2150 Access Control Design Guide, P/N 9600-0420,

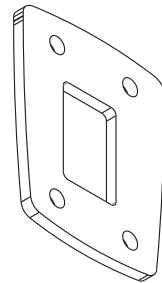


## 1 Fit The Weather Proofing Kit

When mounting outside, the gasket kit must be fitted:

- Remove the backplate from the reader after screwing the securing screw 'C' fully **IN**.
- Position the gasket between the back plate and the mounting surface.

**Note:** For UL listed applications, use only manufacturer provided gasket, P/N 87X-GASKET.



## 2 Mount the Backplate

Mount the backplate using countersunk headed screws adjacent to the opening edge of the door.

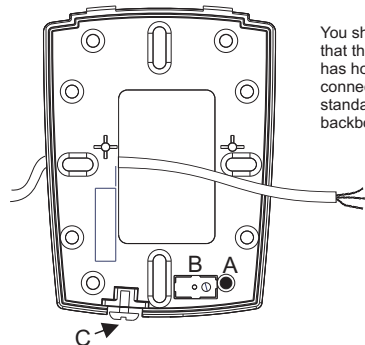
If fixing hole 'A' is used then the breakout must be removed and the screw must not protrude.

Feed the cable from the controller through the backplate.

If the wall tamper function is to be used then the small hole in breakout 'B' may be used to mark the position of the wall screw before the breakout is removed. An appropriate wall screw should then be adjusted in height to protrude through the hole to activate the tamper lever.

The front cover is secured to the backplate by **UNSCREWING** the securing screw 'C' via the small hole in the enclosure so that the screw head locates in the counterbored hole on the inside of the enclosure.

The screw should not be removed from the backplate.



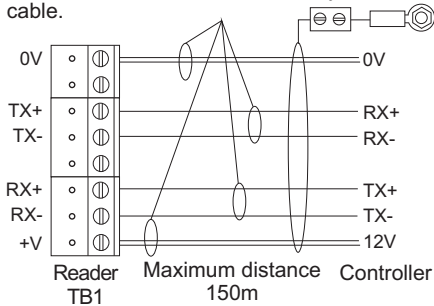
You should find that the backplate has holes for connection to most standard electrical backboxes.

### 3 Reader Connections

#### 20mA current loop

Twisted pairs (use Belden 9504) cable or other UL Listed style 2464 (DUZX) cable.

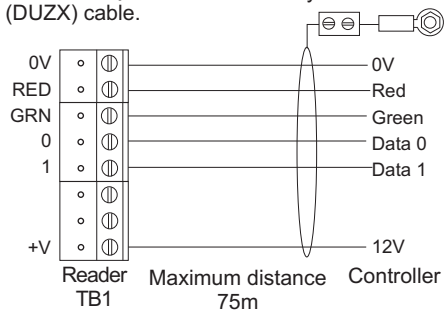
Connect shield at controller end only.



#### Wiegand

Multi conductor (Use Belden 9537) or other UL Listed style 2464 (DUZX) cable.

Connect shield at controller end only.



**Note:** Use SW1 switch2 to select the communications mode (See Step 5).

**Note:** The FERRITE must be fitted!

Slide the ferrite sleeve onto cable before wiring terminal block. Ferrite to be placed 50mm (2") up cable and held in place with cable ties.

### 4 Reader Links

Set SW1 switch2 (COM) to W for Wiegand communications, or C for 20mA current loop communications. Set SW1 switch1 (USER F/B - audio feedback) to 1 for sound on, or 0 for sound off.

### 5 Using / Testing the Reader

Present the card face-on to the reader until you hear a "bleep". The reader is now working correctly. Cards can be presented in rapid succession; there is no need, for example, to wait for "GREEN LED's" to disappear before presenting another.

If the reader has been enabled for user-code mode at the controller, you can gain access by pressing the ✕ key, entering your card number, then pressing the ✓ key.

When faulted, the reader can not accept a card read. Check wiring for faults or replace reader.

#### LED Status Indicator

**GREEN** – The lock is released and you may open the door.

**RED** – You do not have access rights to gain entry, or the reader did not read your card properly (in this case, present it again).

**YELLOW** – Enter your PIN. If you make a mistake, the RED LED's are momentarily displayed, followed by YELLOW LED's, to prompt you to try again.

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**FCC Notice:** 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.

Any unauthorized modification to this device may void the authority of the user to operate it. All trademarks acknowledged.

#### Specifications

Input voltage: 9-14Vdc.

Input current: 120mA @ nom. 12Vdc.

Operating temperature: -40 to 158°F (-40 to 70°C)

Operating humidity: 15 to 90%, non-condensing.

Maximum read range: 4" (100mm).

Approvals: EN302291, EN301489

