TouchSecure® Connectivity User Manual

Ver2.0

TouchSecure® Connectivity User Manual

Version History

Date	Version	Description of Changes	Author
22-May-13	1.0	Initial version	Sixtus
17-Jul-13	2.0	1. ICES-003 Statement removed. 2. French translation added for RSS-GEN 3. Added FCC statement	Sixtus

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1.0   Introduction

This document details the Physical Access Control Reader TouchSecure® and its basic operational and installation procedures. It covers the details of the Wallmount form-factor reader **Model: Connectivity WM**

The reader comes in two variants for interfacing with the control panel

- Pigtail
- Phoenix connectors

2.0   Reader

2.1   Functionality

TouchSecure® is a physical access reader that can read HF and LF contactless credentials .The reader can interface with an access control system equipped with a Wiegand or RS485 serial interface Control Panel. It can also be interfaced with a Host Sever / Control Panel that supports Ethernet interface. User interfaces include RGB LED's and Buzzer.

The reader consists of the following main parts.

2.2   TouchSecure® reader with Casing

2.3 Back Plate

3.0 Product details

Model Name : Connectivity WM

Device Type : RFID reader, 13.56MHz (HF) / 125 KHz (LF)
Physical Access control   Reader (accessory equipment)

Type of equipment : Potted reader. Suitable for Indoor / Controlled Outdoor use

Interface Type : Pigtail Cable (11 Core + Drain) or Phoenix connectors and RJ45

Voltage Rating : 5-16V DC   or 48VDC on RJ45 Connector

Current Rating @12V : Pk Current – 180mA , Average Current 120mA

Communication protocol : Wiegand, RS485 (2wire - Half Duplex) , 10BaseT ETH

4.0   Specifications

Model	Op Voltage	Current @ 12V	Op temp	Cable Length
Connectivity WM	5-16 VDC or POE@ 48VDC	Av -120mA Pk -180mA	-35 to +65 Deg C	RS485 - 4000ft (24AWG) Wiegand -500ft (22AWG)/ 300ft (24AWG)

Table 1

5.0   Installation details

5.1   Parts List

- TouchSecure® reader -1
- Screws (A #6-18X1.5" SS) - 4Nos – Back Plate mounting screws for Wall
- Snake Eye Screw (SMF #6-32X5/16" SS) – 1 No- Top casing mounting security screw
- Screws (SMF #6-32x3/8" SS) - 3 No's - 1 casing to back plate mounting screw and 2 Junction Box   mounting screws
- Nylon anchor plug -4 Nos
- 6 pin phoenix plug (Phoenix connector version only) – 2 Nos
- Back Plate

5.2   Recommended Infrastructure

- Cable Wiegand   - 22AWG for 500Ft / 24AWG for 300Ft with Foil Shield
- Cable RS485   - RS485 for 1000m** (4000ft) 24AWG STP
- Cable RJ45   - Cat5e / Cat6
- Linear DC PS   - 5-16 V, 1A min.
- POE Adaptor Kit   - TL-POE200A

** Tested in lab conditions upto 115Kbaud

5.3   Wiring Information

5.3.1   Cable Color codes for Pig Tail Reader

Red **&**	+ VDC 12V (nominal)	
Black & White	Ground	
Green	Wiegand Data 0	
White	Wiegand Data 1	
Orange	LED Green	
Yellow	Buzzer	
Blue	Hold	
Brown	LED Red	
Grey	RS485 -	
Pink	RS 485 +	
Violet	Tamper Output	
Black / Drain	Shield Ground	

Table 2

& - Do not connect when reader is powered by Power over Ethernet

5.3.2   Pin out for Phoenix Connector Reader
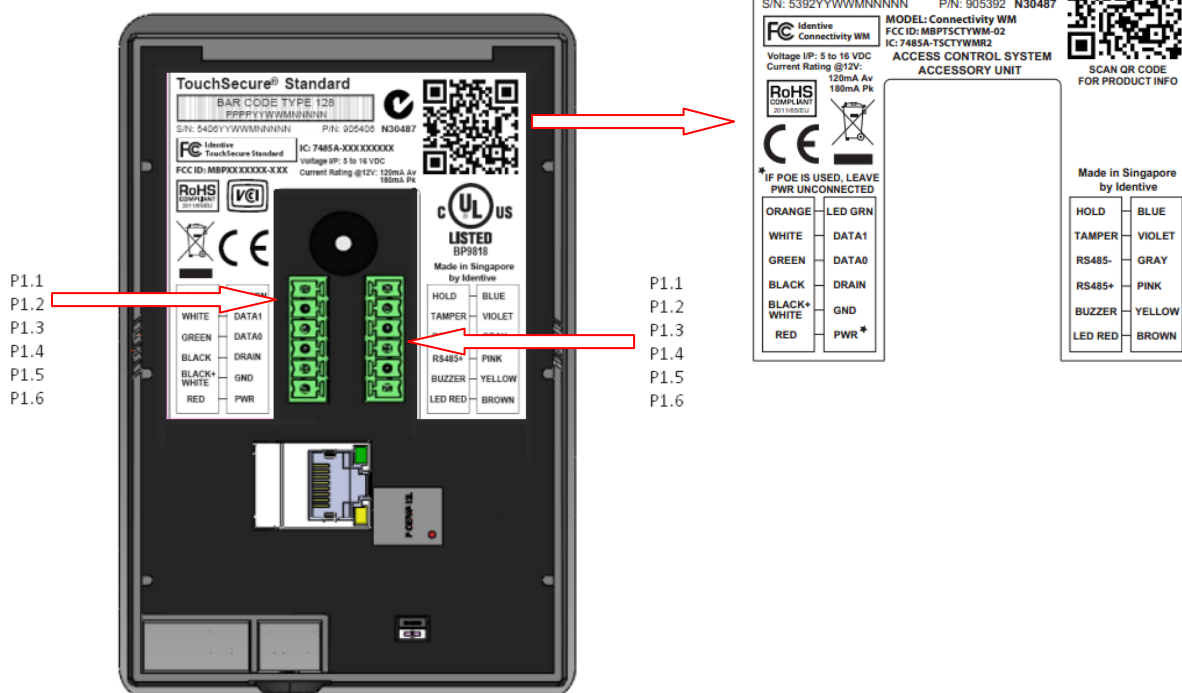
| Pin	Cable colour	Description	Comment
P1.1	Orange	LED Green	
P1.2	White	Data 1	
P1.3	Green	Data 0	
P1.4	Black	Drain	
P1.5	Black + White	Gnd	
P1.6	Red	Power	Do not connect when reader is powered by PoE
P2.1	Blue	Hold	
P2.2	Violet	Tamper	
P2.3	Gray	RS485-	
P2.4	Pink	RS485+	
P2.5	Yellow	Buzzer	
P2.6	Brown	LED Red	

Table 3

Caution:
During Wiring make sure that the +VDC lines does not make contact with any other cables, as it might affect reader functionality/ cause damage to the reader.

5.4   Mounting the Reader

5.4.1   Location of mounting holes on wall
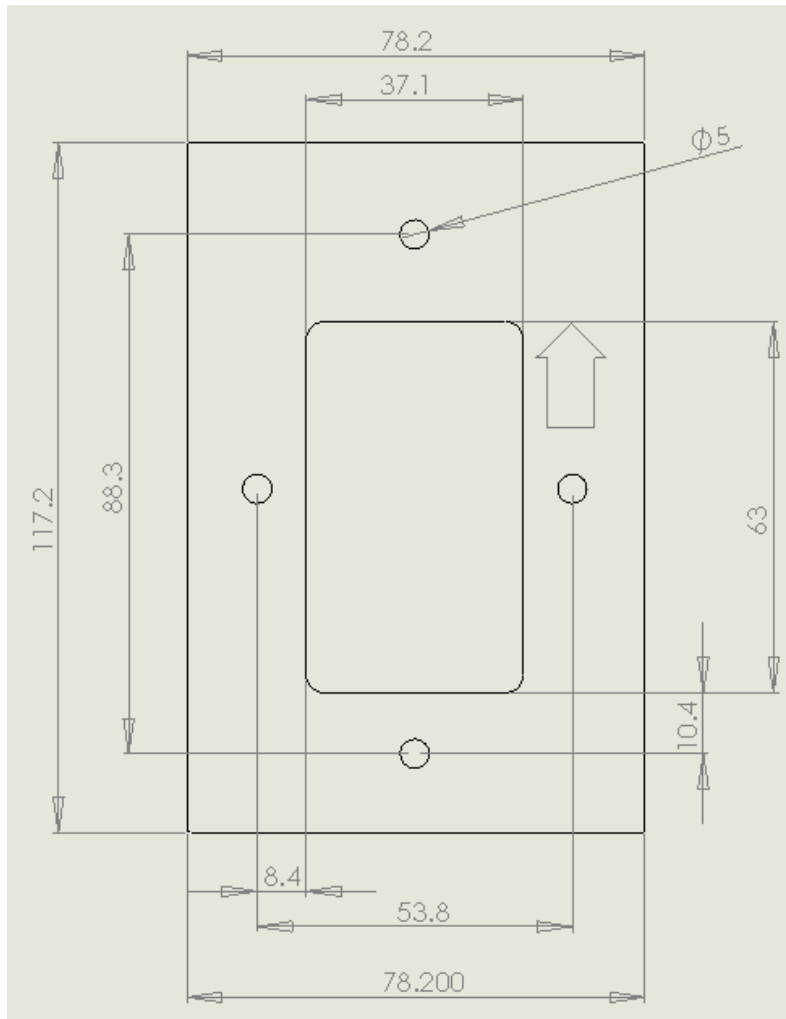
Phoenix connector Reader – 4 Holes and 1 Slot

5.4.2   Reader Installation Steps

a.   Make holes on the wall as per the image above.
b.   Insert the nylon screw plugs into the wall.
c.   Connect the wires as per the Table 2 or Table 3.
d.   TouchSecure® reader with Bottom Casing is to be now secured onto the wall using the Screws (A #6-18X1.5" SS)
e.   The top casing can be inserted onto the bottom casing
f.   Secure the Top and bottom casing by the Snake Eye Screw (SMF #6-32X5/16" SS)

Wall
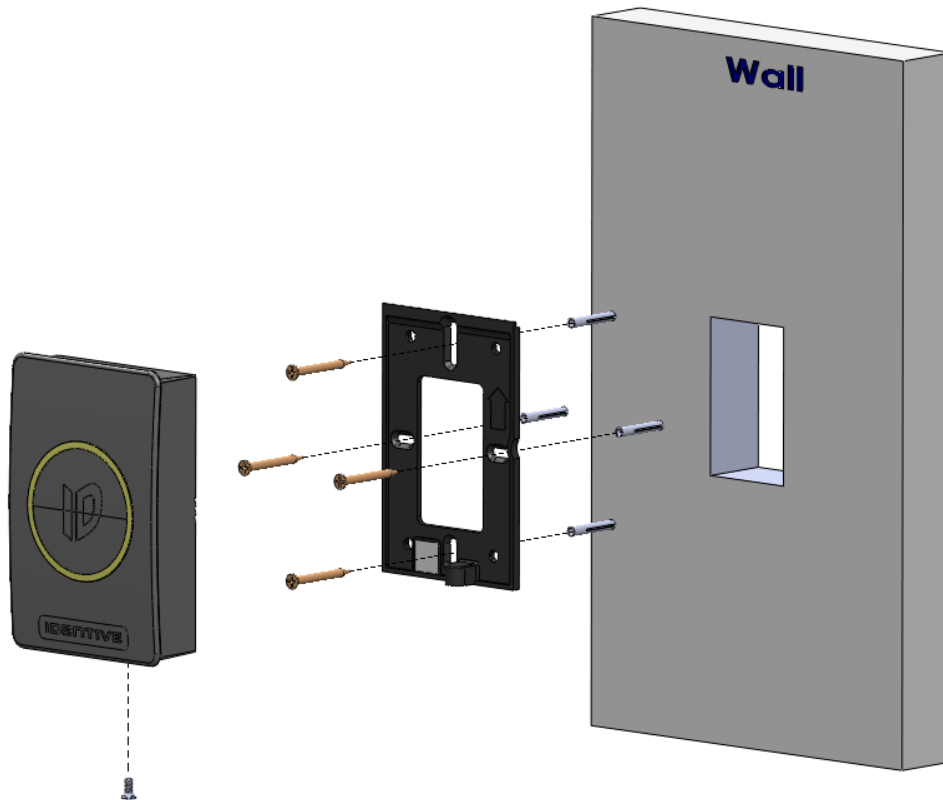
Reader Installation Steps - Phoenix Connector Version

Wall
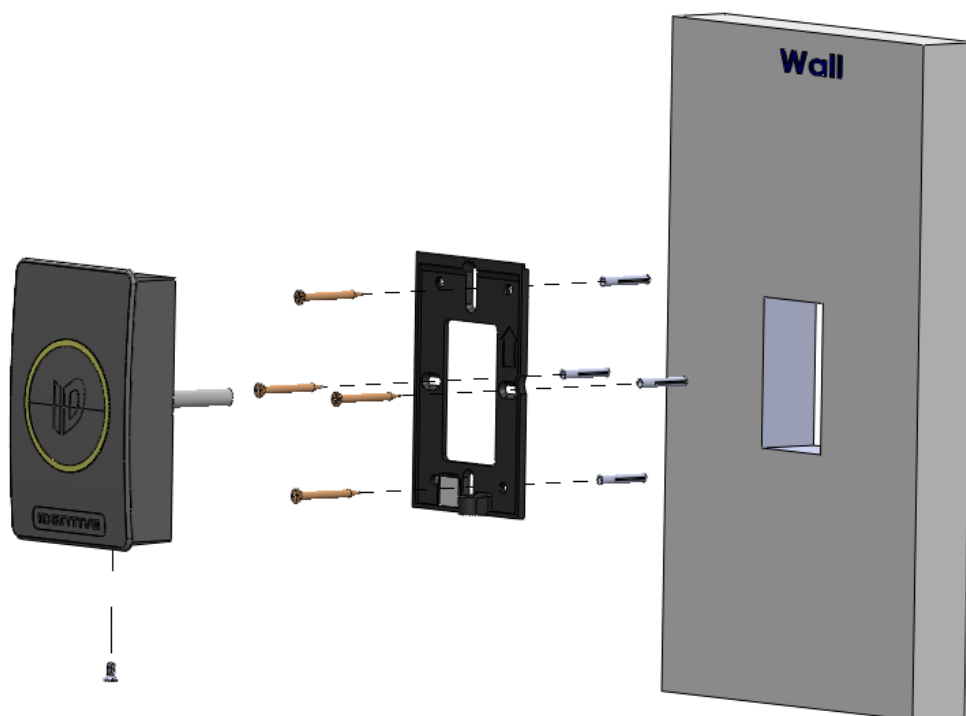
Reader Installation Steps - Pig Tail Version

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5.5   Power up and Testing

1   **Turn power on**
The LED blinks 3 times green with a long beep, then turns red

2   **Present a card**
The LED blinks green, and a short Beep is emitted

This is the default reader behavior.

6.0   Certifications

6.1   FCC

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

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.

Information to user

Changes or modifications not expressly approved by *Identive could* void the user's authority to operate the equipment.

6.2   IC

This device complies with Industry Canada license-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) This device may not cause interference
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

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6.3 CE

Identive hereby declares that the TouchSecure® Model: Connectivity WM device mentioned herein is in compliance with the essential requirements and other relevant portions of the Directive R&TTE 1999/5/EC.