PACOM

PACOM 8707 Display Reader –
Installation Guide

Type Code	8707R-001
Supply Voltage	10-30VDC
Power Consumption (Typ.)	55mA@24VDC
Power Consumption (Max.)	100mA@24VDC
Reading distance (Typ.)	30mm
Keyboard Type	16 keys, backlit. Tactile indication on key 5.
Ingress Protection Rating	IP54 (with mounting plate)
Dimensions	(W x H x D) 74 x 134 x 31 mm
Weight	240 g
Operating Environment	-40 to +60°C
Colour	Black
Connection	4+6 way screw terminal block

INDICATIONS

Display	OLED B/W 128x64 px
Optical Indication	1 LED, multi-color
Acoustical Indicator	Built-in buzzer

OVERVIEW

Supported Card Formats
13,56Mhz Mifare Classic, Mifare Plus, DESFire EV1 + EV2

Signalling

| Interface	RS485, Wiegand
Communication	OSDP 2
Card Formats	26, 32, 34, 56 bits
Tamper	Yes

Cable Recommendation
RS485: Data cable shielded twisted pair 2x2x0.5 mm² (e.g. Belden 3107A)
Wiegand: Data cable shielded 8x1x0.25 mm2 (e.g. Belden 9538)

Wiring

PL1	Description
1	RS485 +
2	RS485 –
3	10-30VDC
4	0V

PL2	Description
1	Wiegand D0
2	Wiegand D1
3	Green LED
4	Red LED
5	Buzzer
6	Signal Ground
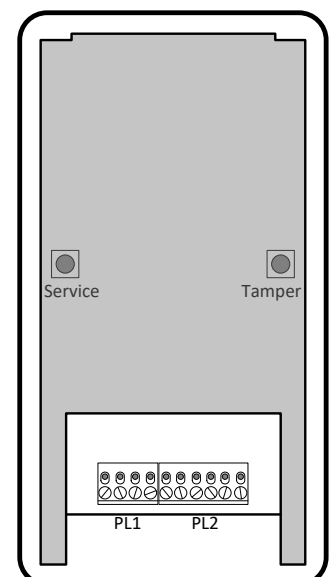
SETUP

Basic reader configuration is done through the setup menu.

To enter the setup menu, make sure that 1) The reader is powered up, and 2) The reader tamper switch is active.

Press and hold the *Service* button on the back of the reader for 5 seconds to bring up the "Enter Setup?" prompt. Confirm by pressing the ✓ key to enter the setup menu.

The contents of the setup menu may vary depending on reader firmware, but for most common installation scenarios with a single reader using OSDP communication, the default settings do not have to be changed.

To save the settings, press the ✓ key while in the main menu.

RS485 Addressing and Termination

Up to four readers can be used at the same time on the RS485 bus. If more than one reader is used, please make sure that each reader on the bus has its own unique address (1-4), and that the RS485 termination is set up correctly.

RS485 termination must be ON (Active) on the last device at each end of the bus. For a single reader connected to a Door Controller, RS485 termination should be ON for both the Door Controller and the Reader. For other connection scenarios, make sure that device at each end of the bus has termination ON to ensure communication is working properly.

RS485 Termination Examples
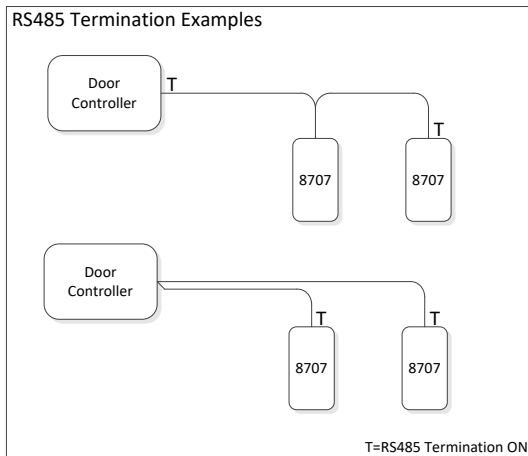
OSDP SECURE CHANNEL - MIFARE CARD ENCRYPTION KEYS & FIRMWARE DOWNLOAD

If OSDP Secure Channel is enabled, a set of encryption keys are exchanged between the Door Controller and the Pacom 8707 Reader. Once the encryption keys have been exchanged, the Door Controller and the Pacom 8707 Reader are paired, and are thereafter only able to communicate with each other.

If a Pacom 8707 Reader is to be moved to a different Door Controller once OSDP Secure Channel is enabled, it needs to be reset to factory default and the Secure Channel Base Key (SCBK) cleared. It can then be paired again to a different Door Controller (refer to system specific procedure on how to perform pairing operation).

Depending on the type of Door Controller and Management System used, the Pacom 8707 Reader is capable of download of MIFARE Card Encryption Keys as well as new firmware. Please contact Pacom Support for more information on which systems support these options.