PAT 1121
Installation Manual

Rev1.0
31st Aug 2005

Package Details

- PAT 1121
- Mounting plate and screws
- Test card (contactless)
- Installation manual

Recommendations

- Cable, 10 conductor (Wiegand/Magstripe), 22GA Shielded, Upto 150 mtrs, Line Resistance 2.5 ohms
- Cable, 8 conductor (RS485), 22AWG twisted pair, Upto 4000 feet
- Regulated DC power supply unit

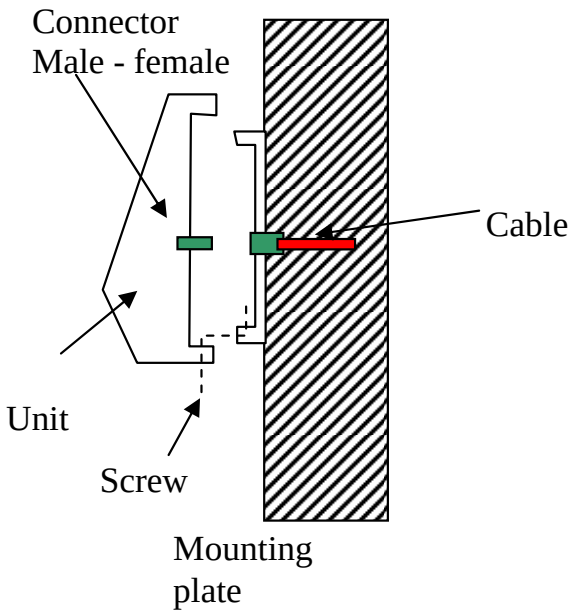
Specifications:

Host Interface	• Wiegand/Magstripe (CLK/Data) • RS485 (2 or 4 wires) • 3 relay inputs to set reader state
SAM	• ISO 7816 1-3 • T=0, T=1 protocol support (5V card) • Communication speed up to 344,086 bps
Contactless	• ISO 14443 Type A and B (13.56 MHz) • Supports ISO 14443 part 1 to 4 • Operating distance: 1 inch • Communication speed: 106 Kbps • Internal 3DES for card authentication (DESFire)
Keypad	• Standard telephone layout (0-9, Clear and Enter) • Robust hard cap, silicon keypad
Human Interface	• 1 LED beam (green and red) for access information (granted and denied) • 1 LED per media type (contactless and keypad) to indicate the type of requested operation • Buzzer for user acoustic feedback
Application	• Full SDK (software development kit) available • Field Secure firmware upgrade
Dimensions	• LWH 148x84x46 mm
Power	• 10V to 16V DC- 200mA
Approvals	• FCC, UL294, CE

Installation Instructions:

- Fix the mounting plate in an appropriate position on the wall, where the cable can be easily connected to the back of the reader.
- Place the reader on the mounting plate and fix it by using mounting screw.

This is shown in the picture below.



Mounting plate details

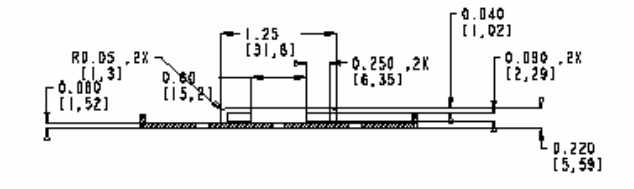


Fig 1.1 Mounting plate (Horizontal view)

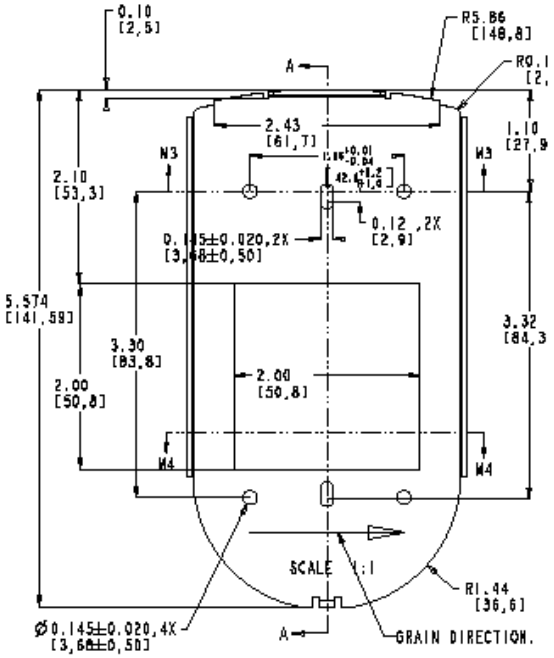


Fig 1.2 Mounting plate (Normal view)

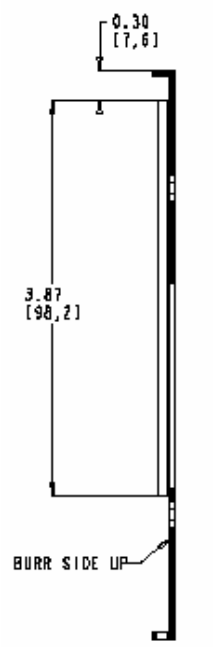


Fig 1.3 Mounting plate (Vertical view)

Connector details

Connector details for Wiegand/Magstripe – 10pin Terminal Block

Pin Number	Signal Name
1	Relay IN1
2	Relay IN2
3	Relay IN3
4	Relay GND
5	Wiegand Data0 / Mag Data
6	Wiegand Data1 / Mag CLK
7	Wiegand LED IN
8	Wiegand Buzzer IN
9	Wiegand GND
10	Wiegand +12V

Connector details for RS485 – 8pin Terminal Block

Pin Number	Signal Name (Full Duplex Operation)	Signal Name (Half Duplex Operation)
1	RX_A	RX/TX_A
2	RX_B	RX/TX_B
3	TX_A	No connection
4	TX_B	No connection
5	RS485 GND	RS485 GND
6	SHIELD	SHIELD
7	Power +12V	Power +12V
8	Power GND	Power GND

A – Non-inverted RS485 differential signal; B – Inverted RS485 differential signal

Configuration details for RS485 DIP switch - 8 position, Termination & Biasing Selection Switch.

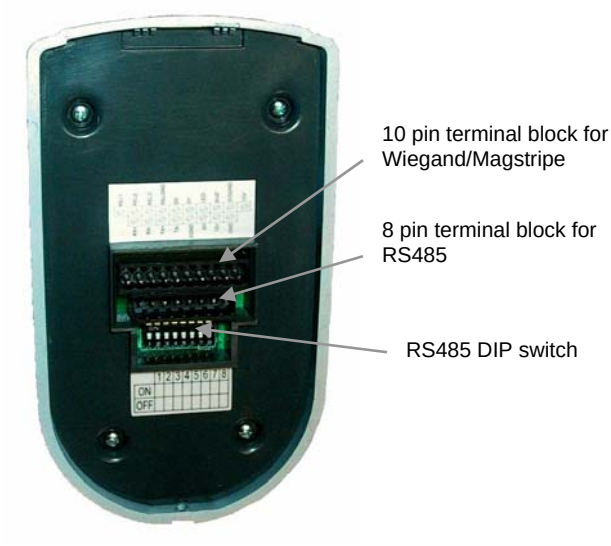
Switch Position	Full Duplex RS485		Half Duplex RS485	
	With Termination and Biasing OFF	With Termination and Biasing ON**	With Termination and Biasing OFF	With Termination and Biasing ON**
1	OFF	ON	OFF	ON
2	OFF	ON	OFF	ON
3	OFF	ON	OFF	ON
4	OFF	ON	OFF	OFF
5	OFF	OFF	ON	ON
6	OFF	OFF	ON	ON
7	ON	ON	OFF	OFF
8	OFF	OFF	ON	ON

**Only for reader installed at the ends in the RS485 network

Photographs of the Reader

Front view

Rear view



Testing:

- Connect the reader to the host through Wiegand/Magstripe/RS485 interface
- Switch on the power to the reader and check if the keypad LED glows. This signifies that the reader is waiting for the PIN
- Enter the PIN
- Check if the contactless LED glows. This activity of the reader signifies that the PIN has been successfully accepted and the reader is waiting for the contactless card.
- Wave the Contactless Test card in front of the reader.
- Check for the contact less LED to blink steadily .This activity of the reader signifies that the reader is reading the data from the card and passing it to the host.
- For a successful read, the access control LED bar should glow in GREEN and a short beep sound must be heard from the reader.

End of the document