# Proximity/Smart Reader Operation Manual

**Model: 6610E/M** 







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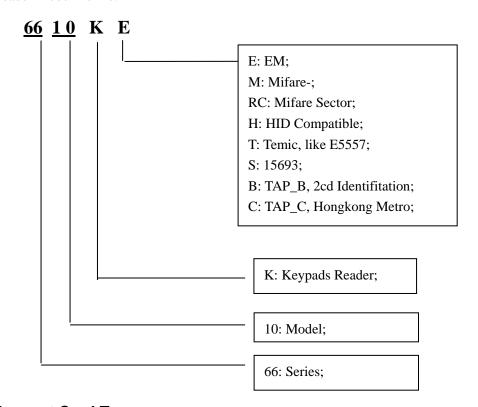
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## **Chapter 1: Summarize**

## 1.1 Summarize

Reader Model Define:



#### **Support Card Type:**

E: EM; For example: EM4100, TK4100 series.

M: Mifare-; For example: Philips S50, S70 series smart cards.

RC: Mifare Sector; For example: Philips S50, S70 series smart cards.

H: HID Compatible; For example: 1326, 1386 and tags.

T: Temic, like E5557;

S: 15693; For example: Ti series cards.

B: TAP\_B, For example: Chinese 2cd Identifitation;

C: TAP\_C, Hongkong Metro;



## 1.2 System Characteristics

**Technical Parameters:** 

● Power: 12 VDC ± 10%, 200mA

● Dimensions: 86mm (H) x 42mm (W) x 15mm (D)

Weight: 300 gramsOperating Frequency:

125KHZ:

E: EM;

H: HID;

T: Temic;

#### 13.56MHZ:

B: TAP\_B;

C: TAP\_C;

M: Mifare;

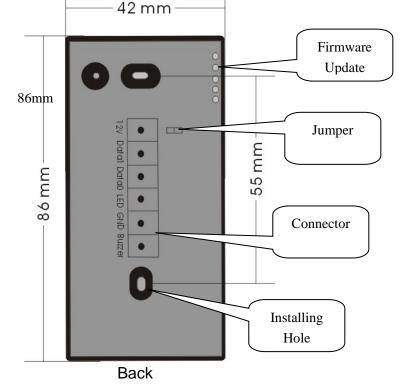
RC: Mifare Sector;

S: 15693;

Read Range: 5 to 15 cm

LED indicators: Dual LEDs, Blue&Green.



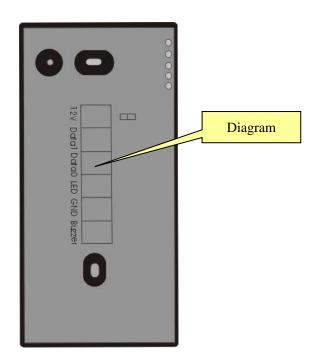




## **Chapter 2: 6610 Reader Instructions:**

### 2.1 6610 surface:

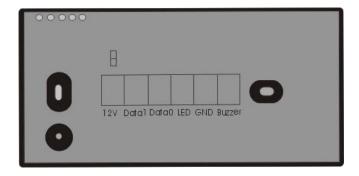




#### LED:

- Blue LED for power indication.
- Green LED for card reading indication.

## 2.2 6610 Wiring:



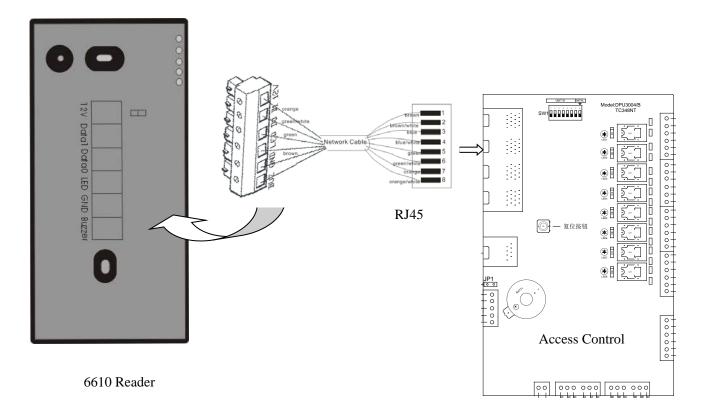
#### **Definition of wiring:**





No.	Mark	Definition	Note
1	+12V	Power Supply	
2	D1	Data 1	
3	D0	Data 0	
4	LED	LED control, when it was shorted with GND, then LED will change the color.	
5	GND	GND, Ground Wire	
6	BUZ	Buzzer control, when it was shorted with GND, then Buzzer will beep.	







## 2.3 Mode setting:

Jumper Setting (JP1, valid for 6610E, 6610M only):

- None: the reader will output Wiegand 26 bits format.
- Short: the reader will output Wiegand 34 bits format.

## 2.3.1 Wiegand 26 Bits

Please keep nothing on the JP1, then the reader will output Wiegand 26 bits format.

## 2.3.2 Wiegand 34 Bits

Please keep a Jumper on the JP1 to short the 2 Pins, then the reader will output Wiegand 34 bits format.



## **Chapter 4: Installation**

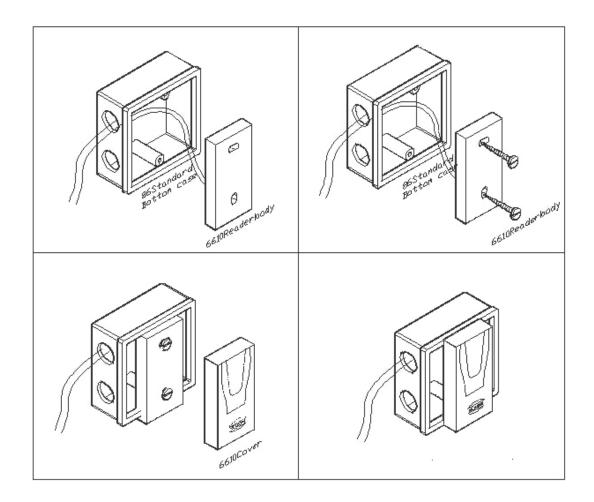
#### **Installation Procedure**

#### **Installation Procedure**

- 1. Determine an appropriate **mounting position** for the reader. The reader drawing below is actual size and may be used as a template. Install a single or double gang electrical box or drill the appropriate mounting for #6 fasteners. If mounting to a metal surface, drill two 7/64 (.109) inch holes and use the enclosed self tapping screws for mounting.
- 2. **Route** the interface cable from the reader and/or power supply to the Host.
- 3. **Prepare the cable** by cutting the cable jacket back 2 (two) inches and strip the wires 1/4 inch. Tinning the wires is not required.
- 4. Pry off the center face plate by placing a thin blade into the grove that outlines the face of the reader. Use care to avoid scratching the surface of the reader. The face plate is attached to the reader by friction only. The screws that hold the enclosure pieces together will be exposed. Loosen the four screws to open the enclosure (the enclosure screws are captive to the cover).
- 5. Install the cable fitting on the rear of the reader. Feed the cable through the cable fitting, tighten the fitting nut so the cable jacket is flush with the printed circuit board. Dress the cable conductors and connect the reader to the Host according to the terminal descriptions in the dimension diagram and wiring table. The descriptions are on the PCB guard in the reader. Connect the drain line of the shield to terminal 2 (Power Supply Ground). Terminal 5, Data Return, is to be connected to the ground of the Host if the power supply ground is not common with the Host. The opposite end of the drain line should be cut flush with the jacket and left disconnected.
- 6. **Mount the base** of the reader that holds the electronics to the gang box or surface using the two holes located on the center axis of the reader. Two #6-32 x 1 inch screws are provided for mounting to a gang box or metal surface.
- 7. Set the JUMPER switches according to the table in the section, Jumper Switch Settings.
- 8. After wiring the Reader and power supply, the Reader is ready to be tested. Power up the Reader and the LED and Beeper will flash and beep 1 times. This indicates that the micro-controller unit is working properly. If the switches have been set for external control only, the Reader will 3 shorts and a long. Present an ID card to the Reader and the LED should momentarily turn green, indicating a read of the card. If the Reader LED is controlled by the Host refer to the Host description of the LED operation.

Replace the top cover and face plate.







### 4.1 Cable Notes

#### **Cable Notes:**

- 1) When using 5 conductor cable, the power supply and Host must have a common ground common (voltage reference).
- 2) 6 conductor cable is required when controlling the red and green LED. (Alpha 1296 C or equivalent).
- 3) 7 conductor cable is required when both green and red LED's are controlled by the Host and the power supply and Host "ground" are separate. (Alpha 1297 C or equivalent)
- 4) A 22 AWG twisted pair, shielded, stranded cable is often required for the tamper switch tamper switch tamper switch. Follow the recommendations of the manufacturer of the Host system. If the tamper input is a supervised input the "end of line" resistors may be mounted in the enclosure. Use extreme care and shield any bare wire from the printed circuit assembly and its components.
- 5) The inner diameter of the cable fitting will accommodate a cable with an outer diameter of 300 inches (nominally).
- 6) Connect cable shield Connect cable shield Connect cable shield Connect cable shield by connecting drain wire to TB1-5 ground. Leave foil and drain wire disconnected at host end of cable by cutting them off at the end of the cable jacket.
- 7) When using the Buffered Direct Connect Proximity with a 20 conductor cable, DC+ and Power (Red and White / Red wires) must have a common connection to the host +DC power supply. The two ground wires (Black and White / Black) must have a common ground connection to the host +DC power supply.