

# COSEC Reader CB



Quick Installation Guide



## Safety Instructions

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss.

### **Cautions**

Do not install the device:

- On unstable surface.
- Where ferromagnetic field or noise is induced.
- Where static is created, such as desks made of plastics, carpets.
- Near volatile inflammable materials or inflammable goods such as drapes.
- Where volatile gas and/or inflammable gas is created.

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### **WARNING**

- Installing and servicing should be done only by qualified technician.
- There are no user-serviceable parts inside.
- Opening or removing the device cover may result in electric shock or exposure to other hazards.
- Use the device only for the purpose for which it was designed.

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Please read this guide first for correct installation and retain it for future reference. The information in this guide is prevailing at the time of publication. However, Matrix Comsec reserves the right to make changes in product design and specifications without prior notice.

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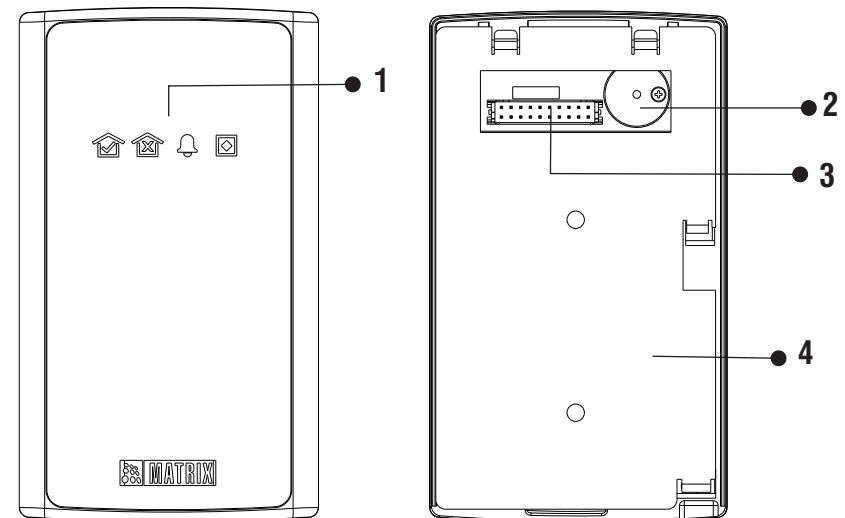
## Warranty

Limited Warranty. Valid only if primary protection is provided, mains supply is within limit and protected, and environment conditions maintained within product specifications. Complete warranty statement is available on our website:

[www.matrixaccesscontrol.com](http://www.matrixaccesscontrol.com)

## Know your Reader

- A COSEC Reader CB is a slave reader which can work with COSEC DOORS, COSEC VEGA, COSEC PATH, COSEC PVR using RS-232 and with COSEC ARC using RS-485. It can also work with 3<sup>rd</sup> party Wiegand interfaced Access control panel.
- Here C=Card and B=Bluetooth in Reader CB.
- It is an intelligent compact Access control device which supports Bluetooth and Card Credentials for Access Control and Time & Attendance.



COSEC Reader CB- Front View

Figure 1

COSEC Reader CB- Rear View

Figure 2

1. LED indicators
2. Buzzer
3. Cable Assembly slot
4. Mounting Plate

## What your Package contains

- Reader CB Unit
- Wall mounting Screws (2 nos.)
- Plastic screw grips (2 nos.)
- Cable Assembly

## Things You will Need

- A power drill
- A screwdriver set
- A Wire Stripper
- Insulation Tap
- Necessary Cabling
- Wiegand supported device
- Access to COSEC Server Application to configure COSEC Reader CB

### Before you start:

Please make sure:

- The device in the package is in good condition and all the assembly parts are included.
- All the related equipments are powered-off before installation.

Before starting with installation, Configure CPM as shown:

## Inserting Card Personality Module

### Step 1: Removing Mounting Plate

From the bottom of the Reader CB, open the Mounting screw with the help of screw driver. Separate the Mounting plate from the Reader CB by slightly sliding it downwards as shown in figure.

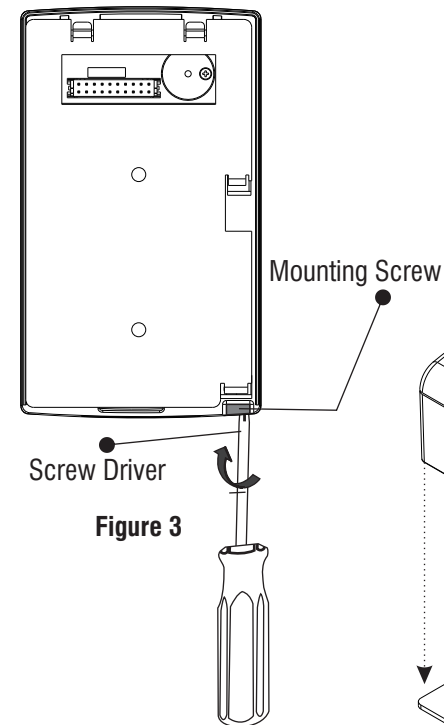


Figure 3

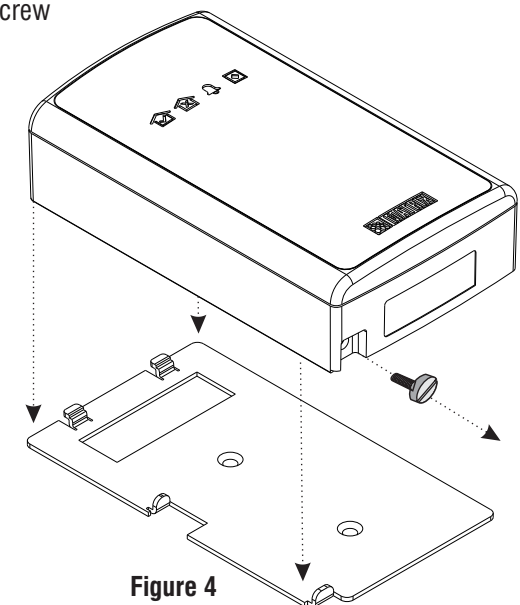


Figure 4

## Step 2: Inserting Card Personality Module

Take Card Personality Module and place it in the hollow space given as shown in the figure. Press a Little for Fixing it completely into Reader CB.

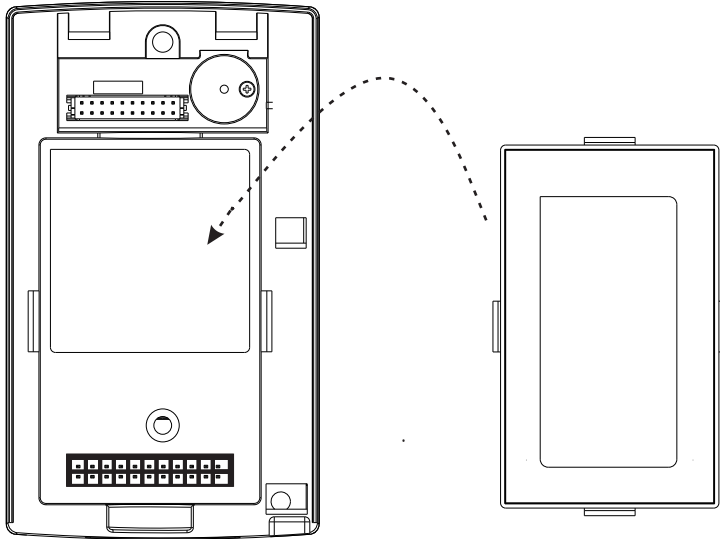


Figure 5

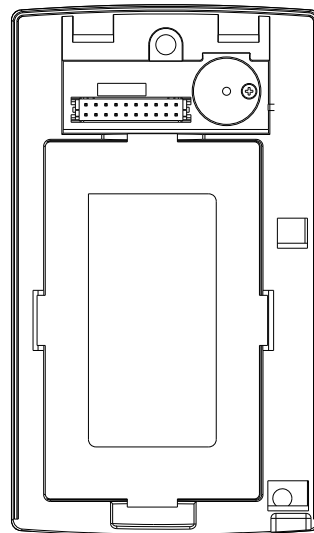



Figure 6

After inserting Card Personality module, Procedure for Installation can be done.

 Card Personality Module is not available in the package. It must be ordered separately.

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## Installation

These steps can be followed in case of direct Installation of Reader CB (Considering that no Card Personality Module is inserted.)

### Step 1: Removing Mounting Plate

(Same as Step 1 of **Inserting Card Personality Module**)

From the bottom of the Reader CB, open the Mounting screw with the help of screw driver. Separate the Mounting plate from the Reader CB by pulling mounting plate downwards.

## Step 2: Tracing Screw Holes

Take Mounting plate. Trace screw holes **A** and **B** of Mounting plate on wall. Trace out the rectangular opening **C** also. Drill screw holes along the trace marking.

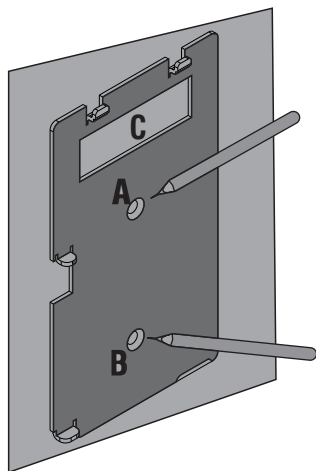


Figure 7

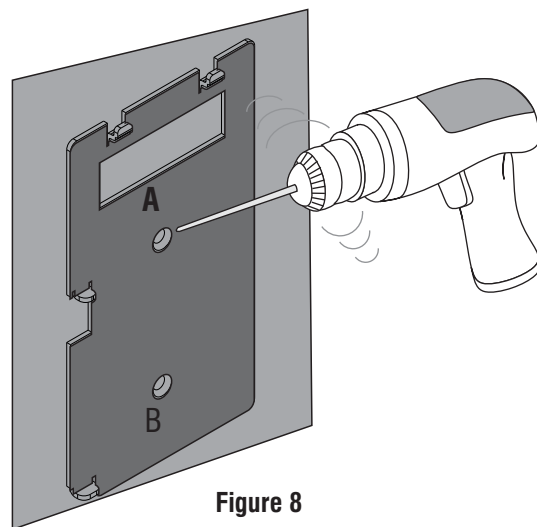


Figure 8

## Step 3: Fixing Mounting Plate

Fix Mounting plate with supplied plastic screw grips and screws.

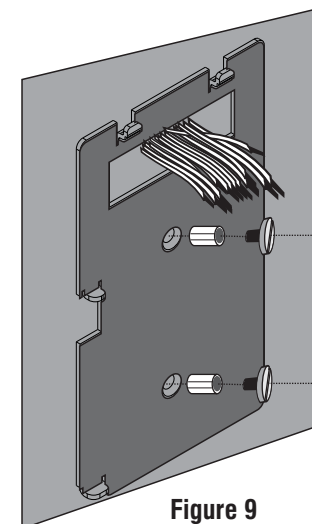
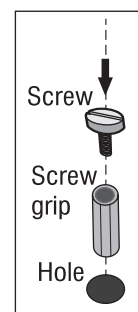


Figure 9

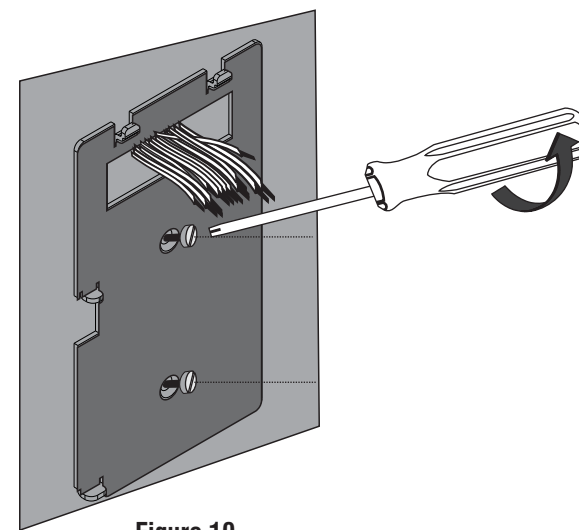


Figure 10

## Step 4: Connecting Cables

Connect cables of Master Device and lead all the cables through rectangular space into electrical box recessed in the wall.

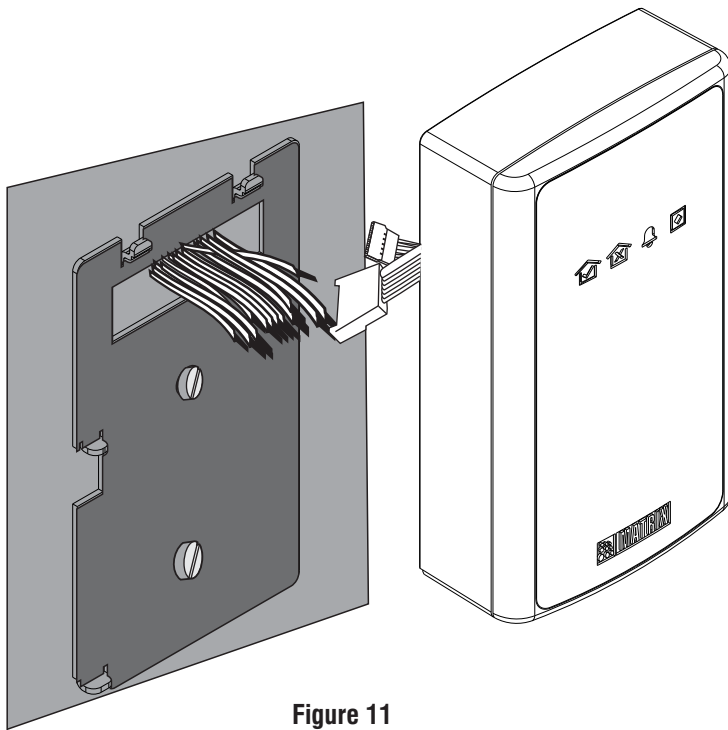


Figure 11

## Step 5: Fixing Reader CB

Align COSEC Reader CB on Mounting plate and slide downwards.

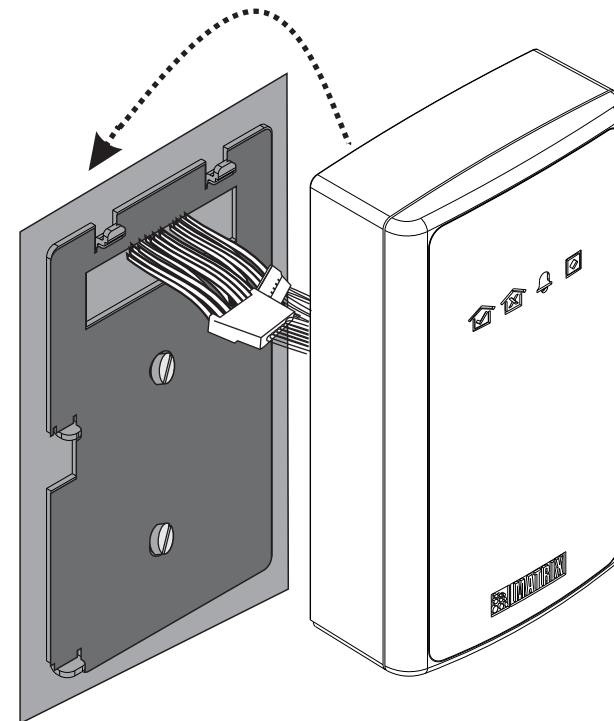


Figure 12

## Step 6: Inserting Mounting Screw

Fix the Reader CB by sliding it backward such that mounting slot of Reader and Mounting plate are in alignment. Insert the mounting screw back in its position from bottom of the device. Tighten the screw with 2 kgf-cm torque as shown in figure.

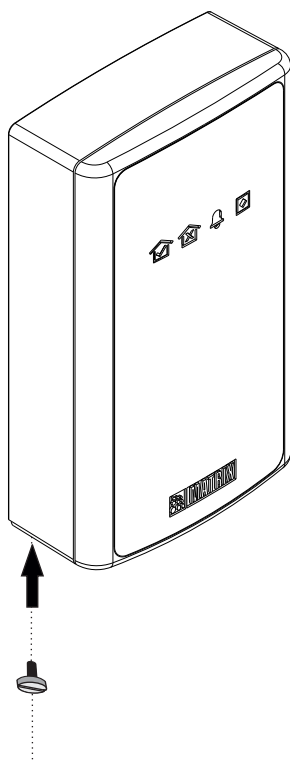


Figure 13

## Technical Specifications

Specification Parameters	Remarks
Credential Support	Card and Mobile credential over BLE
User Capacity	Depends on Master Device
Card storage Capacity	Depends on Master Device
Type of Card	EM Prox, HID Prox, Mifare, Desfire, HID IClass (CPM Module concept; Supports DOOR CPM Module)
Card Read Range	Upto 5cm
Reader Interface Type	RS- 232, RS- 485 and Wiegand
Interface Support Length	RS- 232 (10ft), RS- 485 (1200 meter) Wiegand (150 meter)
Input Power	5- 16 VDC @ max 150ma
Buzzer	Yes
LED	Yes (4 single color LEDs)
Built in Bluetooth	Yes BLE (4.0 and above)
Tamper Detection	Yes
Operating Temperature	0°C to +50°C
Humidity	10% to 95% RH Non- condensing

# LEDs



Allowed



Denied



Alarm



Network

## LED Indications at Power On

- At power on, all four LEDs will glow and will be turned off.
- At the end of reboot cycle, they will flash once and then will be turned off.
- The 'Network' LED will start blinking with regular cadence indicating the current network connection status as shown in the table below.

LED	Color	Cadence	Meaning
Network	Red	Blinking	No Ethernet connection
	Orange	Blinking	Ethernet connection on, but not connected to COSEC Server
	Green	Blinking	Reader is connected to the COSEC Server

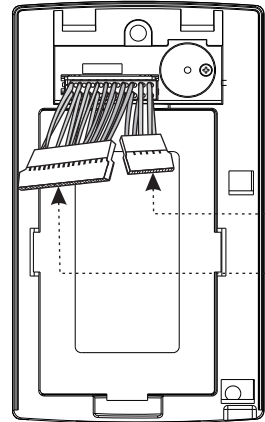
## LED Indications for Events in Normal State

LED	Color	Cadence	Meaning
Allowed	Green	Continuous ON	User Authenticated, allowed. Accompanied by a long beep.
Denied	Red	Blinking 200ms on - 200ms off	User Authentication failed, denied. Accompanied by three short beeps.
Alarm	Red	Blinking 200ms on - 200ms off	Major Alarm
	Red	Continuous ON	Critical Alarm



# Connecting the Reader

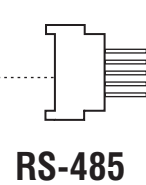
- A COSEC CB Reader is a slave reader which can be connected with COSEC DOORS, COSEC VEGA, COSEC PATH, COSEC PVR using RS-232 and with COSEC ARC using RS-485. It can also be connected with 3<sup>rd</sup> party Wiegand interfaced Access control panel.



**COSEC Reader CB**  
Figure 14

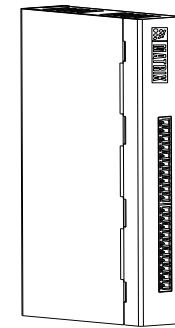


GND	Black
RS232 TX	Grey
RS232 RX	Pink
GND	Black
TMPR NC/NO	Light Blue
W DATA1	White
W DATA0	Green
HOLD	Blue
BEEPER	Yellow
ALARM	Violet
STATUS	Light Brown
RED LED	Brown
GREEN LED	Orange
GND	Black
+12V	Red



RS-485 A	Blue
RS-485 B	Brown
SHLD	Yellow
+12V	White
GND	Black

**RS-485**



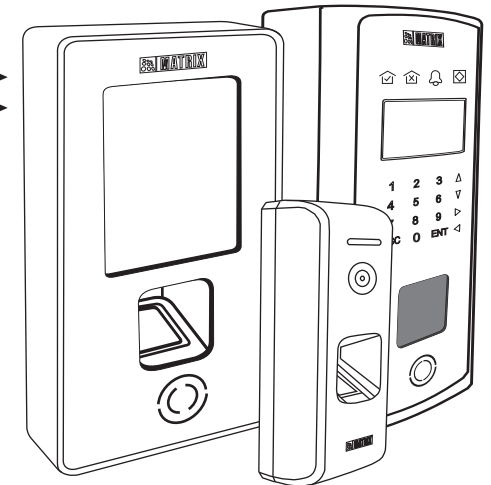
**TO COSEC ARC Controllers**  
Figure 15

**RS-232**

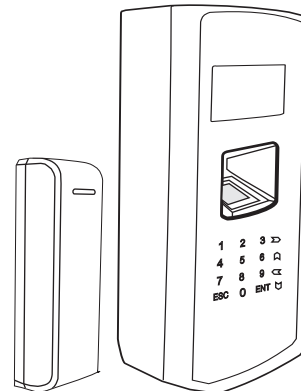
**D1**

**D0**

**Wiegand Interface**



**TO COSEC DOORs**  
Figure 16



**TO 3RD PARTY ACCESS CONTROL DEVICES**  
Figure 17

## **Disposal of Product after End-Of-Life**

### **WEEE Directive 2002/96/EC**

The product referred is covered by the waste Electrical and Electronic Equipment (WEEE) directive and must be disposed of in a responsible manner.

At the end of product life cycle; batteries, soldered boards, metal components and plastic components must be disposed through recyclers.

If you are unable to dispose-off the products or unable to locate e-waste recyclers, you may return the products to Matrix Return Material Authorization (RMA) department.



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*V.1, June '19*