COSEC PATH
The Compact Door Controller

COSEC PATH DCFE/DCFM/DCFI
COSEC PATH RDFE/RDFM/RDFI

COSEC PATH DCCE/DCCM/DCCI
COSEC PATH RDCE/RDCM/RDCI

Quick Installation Guide

MATRIX
SECURITY SOLUTIONS

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.

⚡ 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.

CONTENTS

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.

Know your PATH Controller

COSEC DCFX/RDFX   **COSEC DCCX/RDCX**

LED Indicator

RF Card Sensor

Fingerprint Sensor
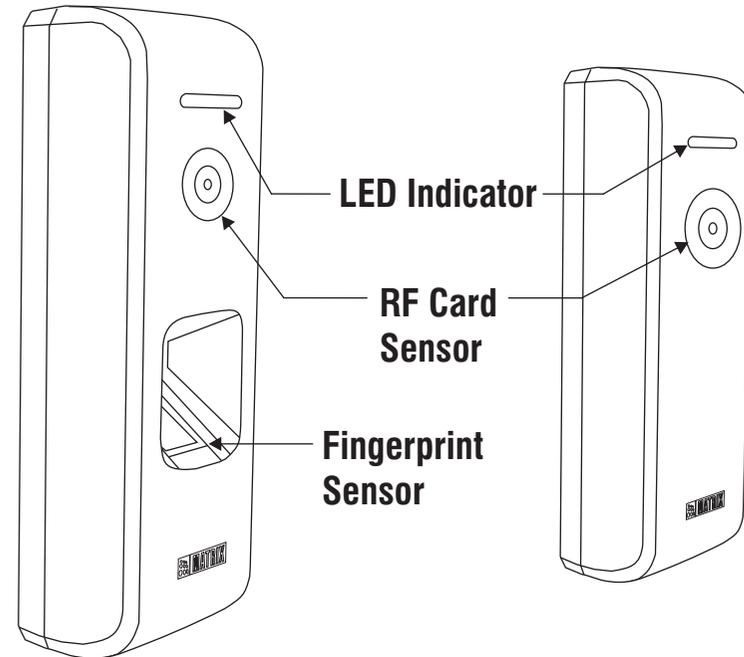
COSEC PATH Variants

COSEC PATH Door Controller (DC) Variants: DCF**X**, DCC**X**
COSEC PATH Reader (RD) Variants: RDF**X**, RDC**X**

Here **X** stands for **E/M/I** where, **E** stands for **E**M Prox, **M** for **MIFARE**®
and **I** for HID **i**CLASS; types of a card.

What your Package contains

DCFX/DCCX

- COSEC PATH Unit
- Power Adapter 12VDC, 2 Amp
- Mounting Plate
- 2 Screws 5/25
- 2 Screw Grips
- Power Supply Cable with DC Jack
- Ethernet Port Cable with RJ45 Plug

- 10 Pin Cable Assembly with Strip Connector
- 5 Pin Cable Assembly with Strip Connector
- 120 E, 1%, 0.25W RS-485 Termination Resistor

RDFX/RDCX

- COSEC PATH Unit
- Mounting Plate
- 2 Screws 5/25
- 2 Screw Grips
- 15 Pin CDC to CDC Cable Assembly
- 15 Pin CDC Converter Cable Assembly.

Things You will Need

- A Power Hand Drill
- A wire Stripper
- A Screw Driver Set
- Insulation Tap
- Access to the COSEC Server Application to configure COSEC PATH on to Server.
- A Stand-alone Computer with a Web Browser to change the Network Settings of COSEC PATH.

The Usage of a COSEC PATH

The COSEC PATH can be used as a 'Door Controller' as well as a 'Reader' .

COSEC PATH as a Door Controller (DCFX/DCCX)

To External Reader

Mounting Hook

DC Power Jack

DC 12V Power Supply

❶ PWR
PWR GND	Black
+12VDC IN	Red

EXTERNAL READER

❺
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
+12VRDR	Red

Using 12VDC of the Door

12V/24V

+12V LOCK
GND
RLY NC
RLY COM

EM Lock

Using External Power Supply

RLY NC
RLY COM

EM Lock

❷ EM LOCK SIGNALS
+12V LOCK	Red
+12V LOCK	Red
GND	Black
GND	Black
DOOR STS	White
GND	Black
RLY NC	Blue
RLY COM	Brown
RLY NO	Yellow
GND	Light Blue

❺ ❹ ❸ ❷ ❶ CN2 CN1

Exit Switch

Exit

Panel200

RS-485

Reset

RJ-45 Plug

Ethernet Cable

❸ ETHERNET
TX-	Light Brown
TX+	Brown
RX-	Light Blue
RX+	Blue
COM1	Green
COM1	Green
COM2	Yellow
COM2	Yellow

❹ RS-485 + EXIT SW
RS-485 A	Blue
RS-485 B	Brown
SHLD	Yellow
EXIT SW	White
GND	Black

COSEC PATH DCFX/DCCX (Rear View)

7

8

COSEC PATH as a Reader (RDFX/RDCX)

EXTERNAL READER   ❻

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
+12VRDR	Red

To Any COSEC Door Controller

RS-485 + RDR PWR   ❼

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

MATRIX
COSEC ARC

RS-485
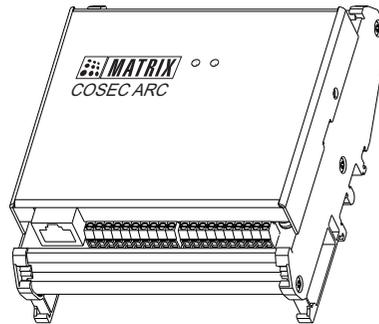
To COSEC ARC Controller

❻

❼

CN2 CN1

Reset
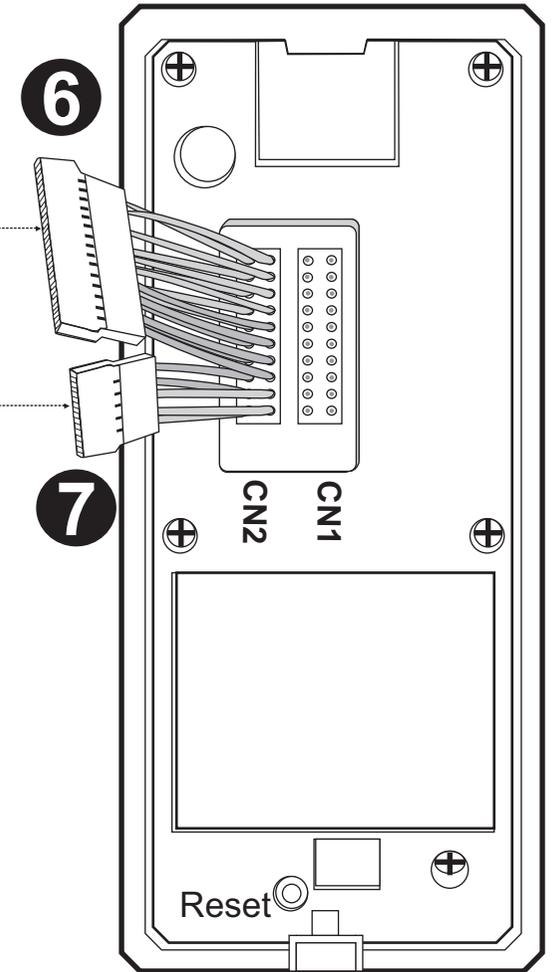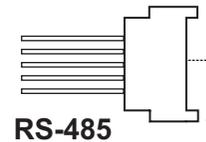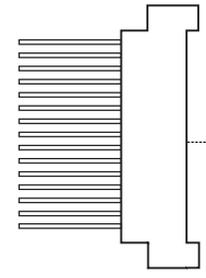
COSEC PATH RDFX/RDCX (Rear View)

Installation

Path can be installed as a Concealed and Non-concealed wiring as described below.

## A. Concealed Wiring

Step 1

Trace holes A, B & C and Drill along the markings as shown below.

DCFX   **DCCX**
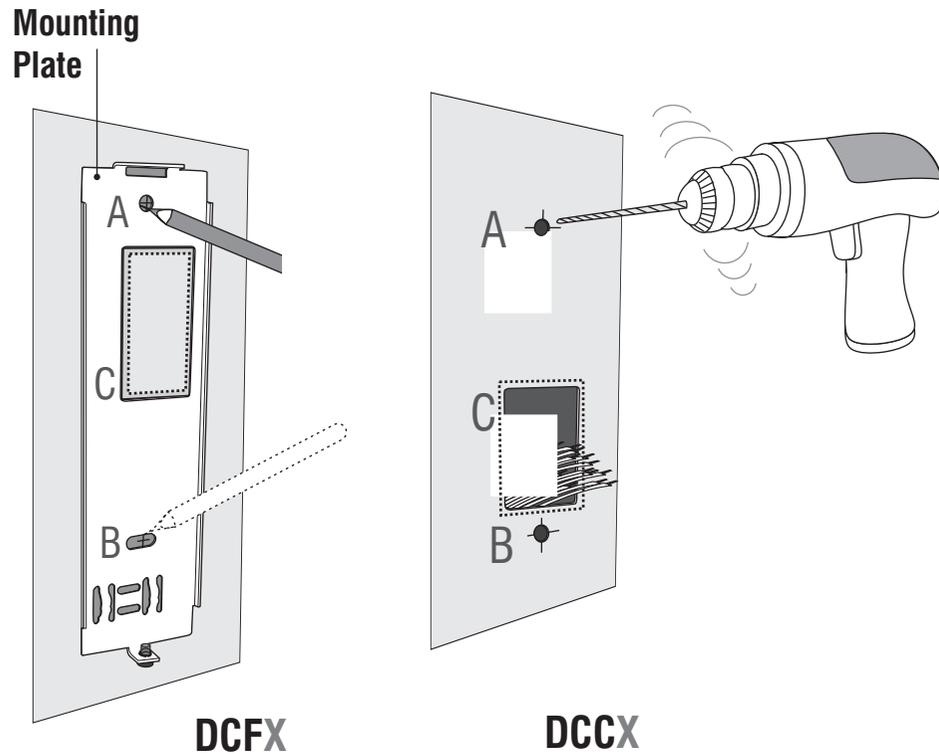
Step 2

Fix Mounting Plate with supplied screw grips & screws as illustrated below.

DCFX   **DCCX**
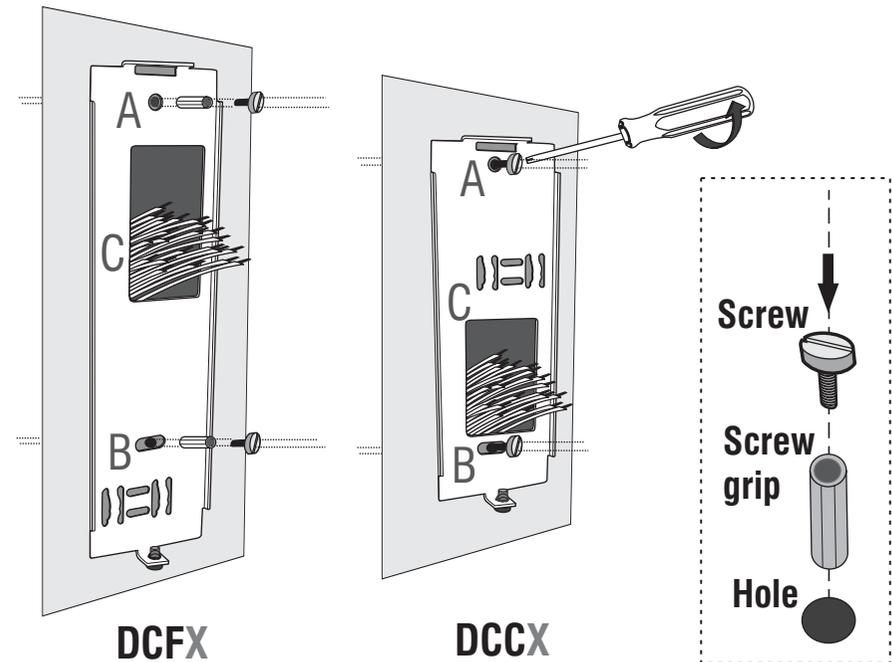
Step 3

1. Connect cables and lead them through the rectangular opening on the wall.
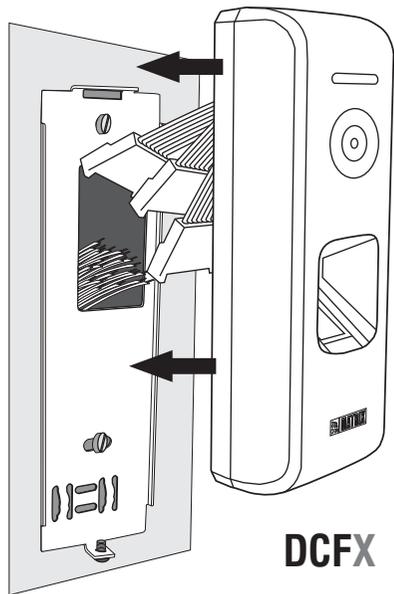
DCFX

2. Align COSEC PATH on mounting plate and slide it downwards as shown below.

Fix the Mounting Hook here

DCCX

Step 4

When in place, tighten captive screw at bottom.
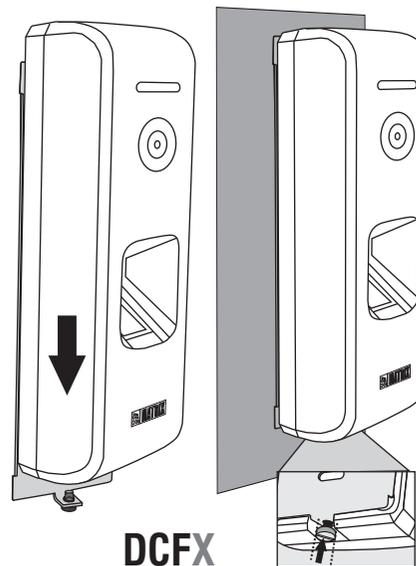
DCFX
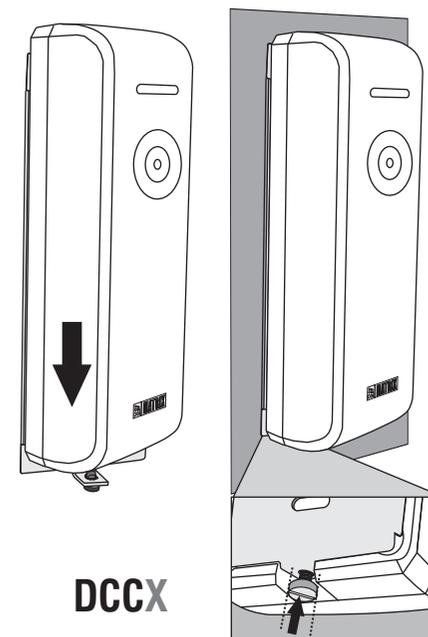
DCCX

B. Non-Concealed Wiring

Step 1

Fix Duct Box Base Plate on Installation Surface using supplied screws & screw grips as shown below.

A

B

**Duct Box
Base Plate**

DCFX
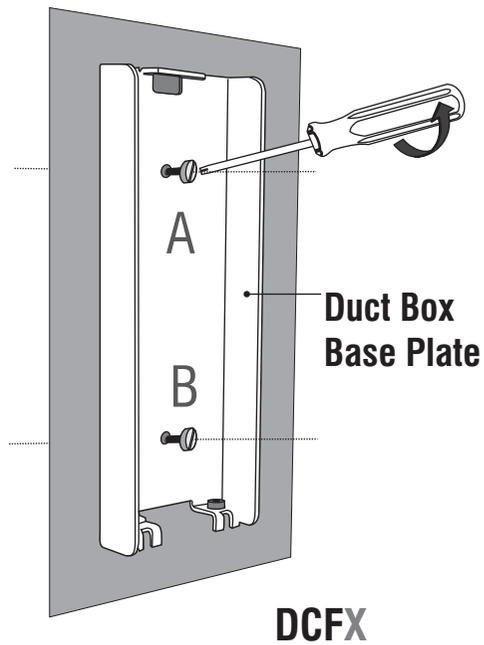
Step 2

Fix the Mounting Plate on Duct Box Top Cover.

*The duct box shown in the illustration is not a part of the product package and must be purchased separately.*

**Duct Box
Top Cover**

A

B

DCFX
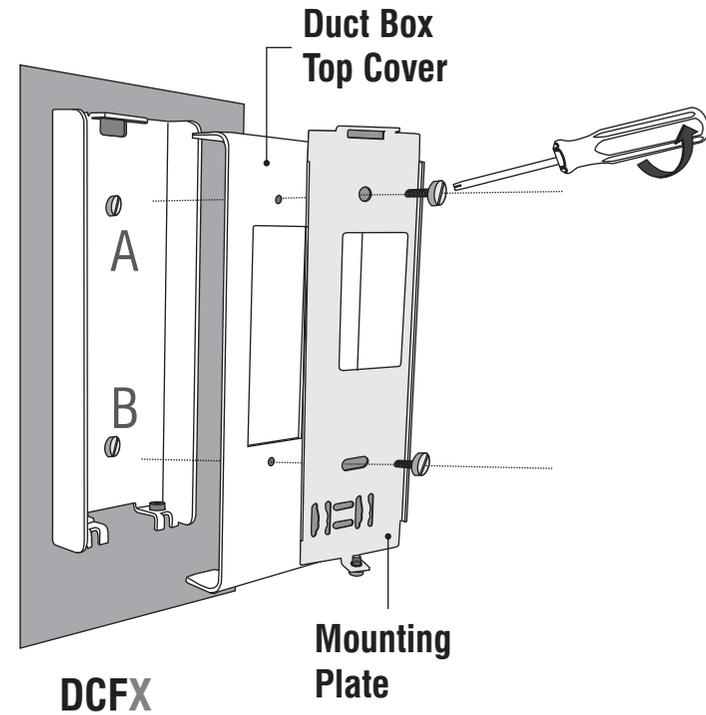
**Mounting
Plate**

Step 3

Align the COSEC PATH on mounting plate and slide it downwards as shown on Next Page.
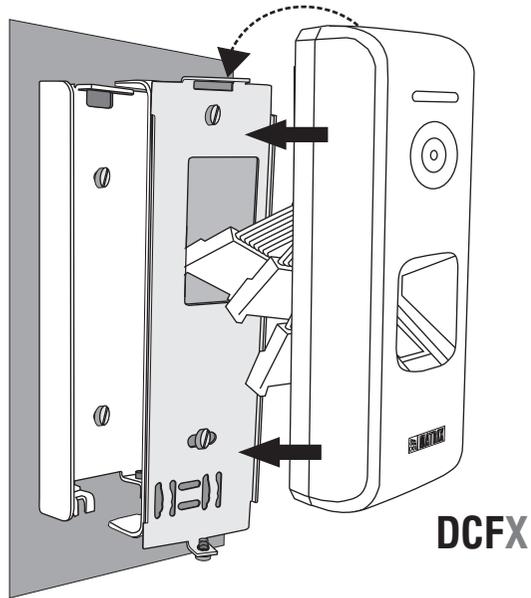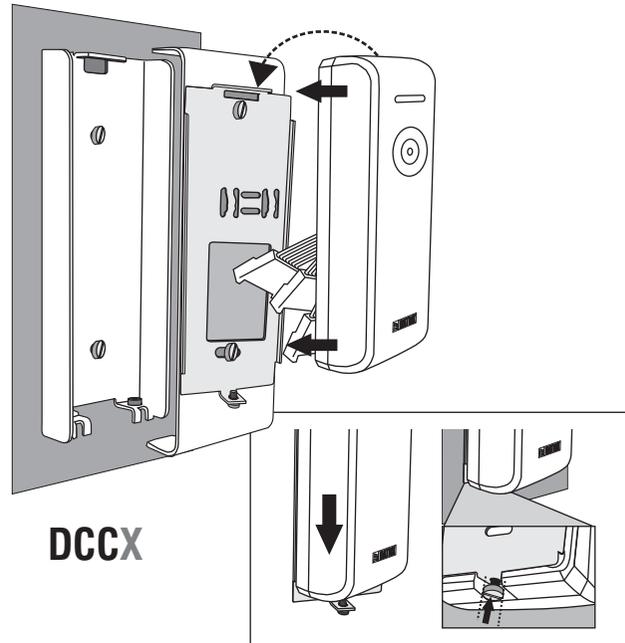
DCFX

DCCX

Step 4

Connect cables and lead them through the bottom opening of Duct Box as shown below.

Cables **DCFX**
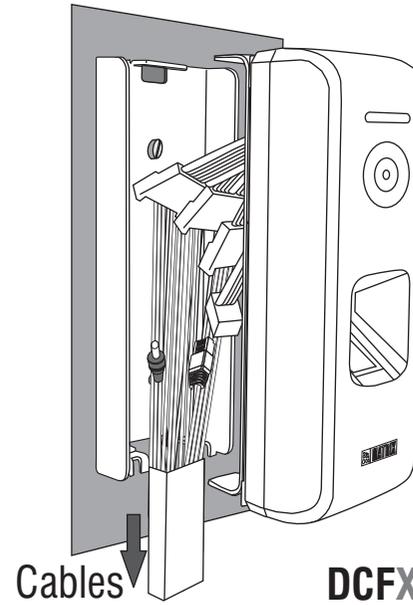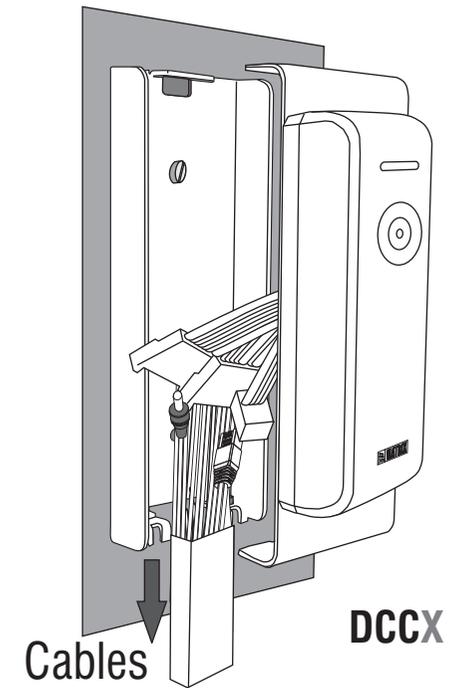
Cables **DCCX**

Step 5

1. Fix the Top-Cover to Base Plate by sliding Mounting Hook of top-cover into the Mounting Slot of base plate.

2. Tighten screws at the bottom as shown on Next Page.
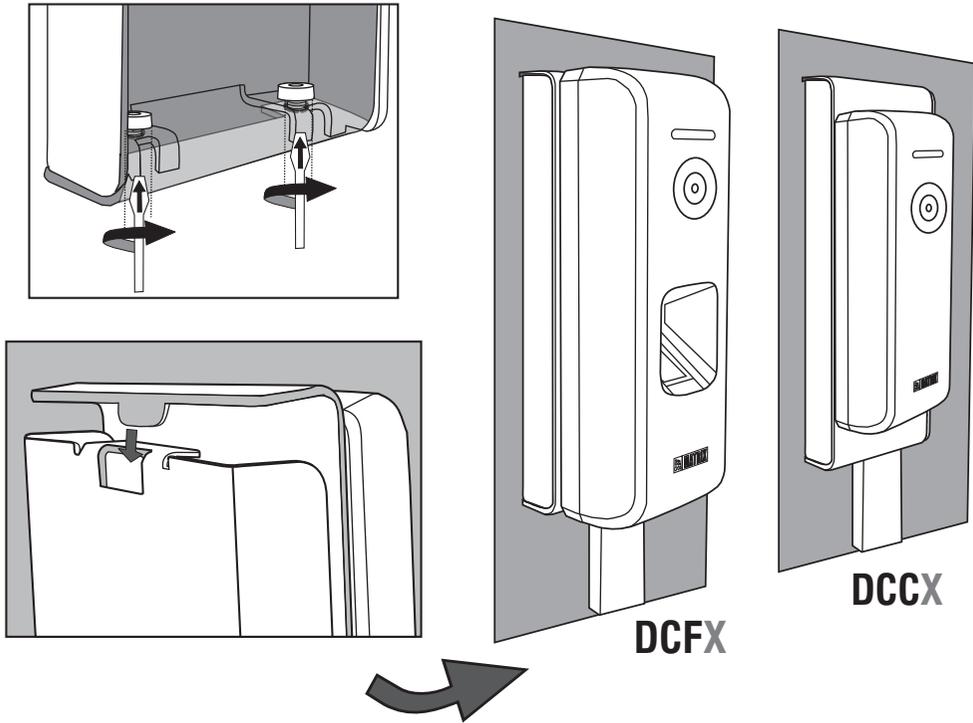
DCFX

DCCX

Connecting PATH with a COSEC Server

As a Direct Door

Ethernet Switch

COSEC Application Server

As a Panel Door
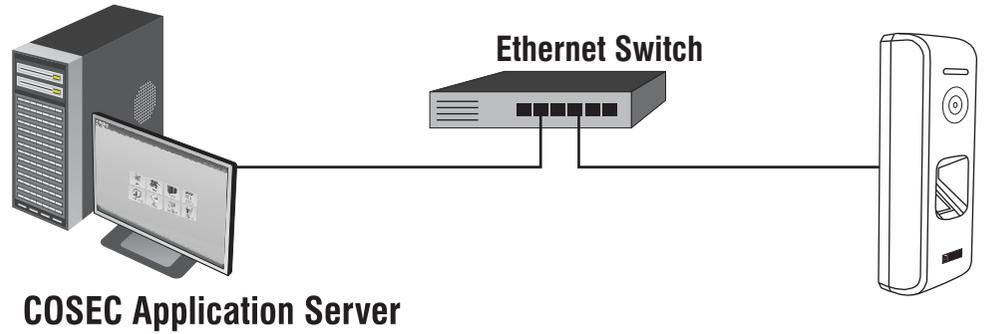
COSEC Panel

RS-485

COSEC Application Server

Ethernet Switch

Up to 255

Up to 32

Assigning IP Address and other Network Settings

- Open a Web browser on your computer.

- Enter the IP address of the PATH Controller, (default: **http://192.168.50.1**), in the address bar of the browser and press the Enter key on your computer keyboard.

- The Login page appears*
.
- Select the User Name as **Admin**.

- You need to set the password, hence enter the desired password in **New Password** and re-confirm the same in **Confirm Password**.

- Click **Login**.

- Click the **Network** tab and enter the required network configuration such as Door IP address, Server IP address etc.

- Save the Settings.

* In case of PATH V1, you need to enter the User Name as **admin** and Password as **1234**.

LED Status Indicators

Device Status	LED Indication
Power ON	Blue ON/OFF
Online	Light Blue ON
Offline	Red ON
Degraded Mode	Orange ON

Technical Specifications-Door Controller

SPECIFICATIONS	COSEC PATH DOOR Controller Variants					
	DCFE	DCCE	DCFM	DCCM	DCFI	DCCI
GENERAL						
User Capacity	50,000					
Credential Supported	Card & Finger-print	Card	Card & Finger-print	Card	Card & Finger-print	Card
Template Storage Capacity	SFM 5030: 9600 (1:N) SFM 6030: 25,000 (1:N)					
Event Buffer	5,00,000					
Input Power	12 VDC @2A					
Communication	Ethernet & RS-485					
Built in WiFi	Yes (IEEE 802.11 a/b/g/n)					
Built in Bluetooth	Yes					
Types of Card	EM Prox		MIFARE®		HID i-class	
Battery Backup	Yes (6hrs of battery backup on COSEC PATH BBU & COSEC PATH PSBB)					
Tamper Detection	Yes					
Buzzer	Yes					
LED	Yes (2 LEDs with Tri-colour)					
READER						
Interface	RS - 232 and Wiegand					
Power Output	Internal 12 VDC @0.250A					

SPECIFICATIONS	COSEC PATH DOOR Controller Variants					
	DCFE	DCCE	DCFM	DCCM	DCFI	DCCI
IN/OUT						
Exit Switch Port	Yes					
Door Status Sense	Yes (2 State)					
Door Lock Relay	Yes					
Door Lock Power	Yes (Internal;12 VDC @0.5A)					
Aux Input Port	No					
Aux Output Port	No					
PHYSICAL						
Weight	DCFX: 375g DCCX: 154 g					
Dimensions (LxHxD)	DCFX: 50mm x 159mm x 42mm DCCX: 50mm x 136mm x 33mm					
ENVIRONMENTAL						
Operating Temperature	0° to 50°C				0° to 45°C	
Storage Temperature	Minus 20° to 60°C					
Humidity Range	5% to 95 % RH Non-Condensing					

**The above listed technical specifications of Door Controller is for the COSEC PATH V2 variants.*

**The COSEC PATH V2 Door Controller is similar to the COSEC PATH V1 with major improvements in its Processor and Communications.

**The COSEC PATH V1 variants has the User Capacity of 10,000 and Event Storage capacity of 50,000. Also, the communication facility with Wi-Fi and Bluetooth as well as the battery backup is not present in the PATH V1 Door Controller.

Technical Specifications-Reader

SPECIFICATIONS	COSEC PATH Reader Variants					
	RDFE	RDCE	RDFM	RDCM	RDFI	RDCI
GENERAL						
Credential Supported	Card & Finger-print	Card	Card & Finger-print	Card	Card & Finger-print	Card
Input Power	12 VDC @0.250A					
Communication	Ethernet & RS-485					
Built in WiFi	No					
Built in Bluetooth	No					
Types of Card	EM Prox	MIFARE®			HID i-class	
Tamper Detection	Yes					
Buzzer	Yes					
LED	Yes (2 LED with Tri-colour)					

SPECIFICATIONS	COSEC PATH Reader Variants					
	RDFE	RDCE	RDFM	RDCM	RDFI	RDCI
IN/OUT						
Aux Input Port	No					
Aux Output Port	No					
PHYSICAL						
Dimensions (LxHxD)	RDFX: 50mm x 160mm x 44mm RDCX: 50mm x 136mm x 31mm					
Weight	RDFX: 270 g RDCX: 180 g					
ENVIRONMENTAL						
Operating Temperature	0° to 50°C					
Storage Temperature	Minus 20° to 60°C					
Humidity Range	5% to 95 % RH Non-Condensing					

Disposal of Product after End-Of-Life
WEEE Directive 2002/96/EC

The product refered 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.

MATRIX SECURITY SOLUTIONS

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