DEFENDAS

Sentinel Series Smart Reader

Model: ST10-MEK

Quick Start Guide
Version1.0

www.ltsecurityinc.com

The Sentinel series stands out as one of the most compact multi-frequency RFID readers currently on the market. It boasts compatibility with various card types, along with the ability to recognize QR codes, and supports both NFC and Bluetooth Low Energy credentials. Furthermore, it offers Bluetooth support for DEFENDAS ID/DEFENDAS CONNECT.

Parts Included

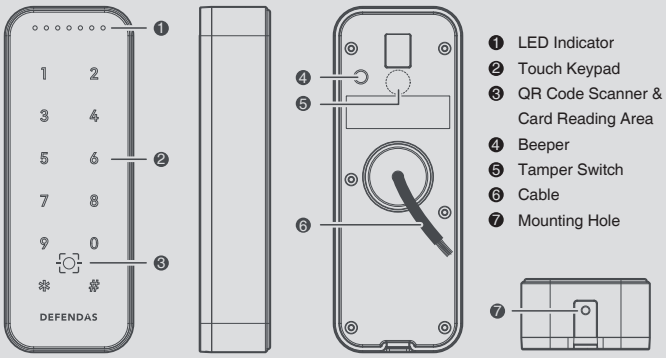
Make sure your box contains everything listed. If any pieces are missing, contact your dealer. Please save the original box and packing materials if you ever need to ship your device.

- ST10-MEK Reader (1pc)
- Quick Start Guide (1pc) and Mounting Template (1pc)
- Mounting Plate (1pc)
- Screwdriver (1pc)
- Grub screw/Countersunk KA3.6 x 1.57 inches (40mm) self – tapping screws (4pcs) and Anchors (4pcs) – for mounting directly to a wall (no junction box)
- Torx screw TM3 x 0.24 inches (6mm) (1pc) – for fixing the reader to the mounting plate

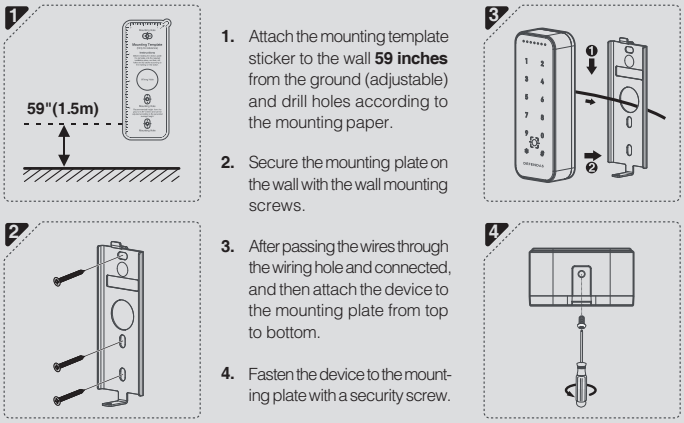
Recommended Parts(not supplied)

- Cable
  5-10 conductor (Wiegand)
  4 conductor Twisted Pair Over-All Shield and UL approved, Belden 3107A or equivalent (OSDP)
- Certified LPS DC power supply
- Metal or plastic junction box
- Drill with various bits for mounting hardware
- Mounting hardware

1 Product Overview



2 Installing The Reader On The Wall



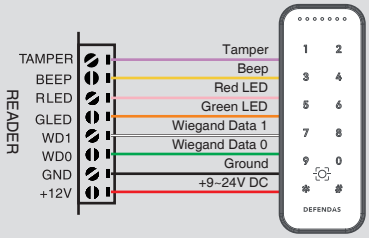
1. Attach the mounting template sticker to the wall **59 inches** from the ground (adjustable) and drill holes according to the mounting paper.
2. Secure the mounting plate on the wall with the wall mounting screws.
3. After passing the wires through the wiring hole and connected, and then attach the device to the mounting plate from top to bottom.
4. Fasten the device to the mounting plate with a security screw.

3 Reader Connection

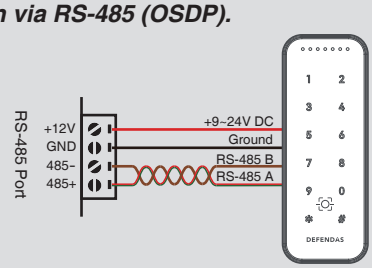
The Sentinel Series Reader communicates with the control panel using either RS-485 (OSDP) or Wiegand.

Pigtail	Description
Red	+9 - 24V DC
Black	Ground
Red/Green	RS-485 A
Brown	RS-485 B
Bare	Drain
Green	Wiegand Data 0
White	Wiegand Data1
Orange	Green LED Input
Pink	Red LED Input
Yellow	Beep Input
Violet	Tamper

1. Connection via Wiegand.



2. Connection via RS-485 (OSDP).



4 Using And Testing The Reader

Turn on the reader, and it will emit a beep while the LEDs flash.

DEFENDAS ID

Present the credential to the reader and you will hear a beep acknowledging the credential.

5 Frequency Bands And Maximum Output Power

Frequency bands	Maximum output power
2402MHz - 2480MHz (Bluetooth)	6.59dBm
125KHz (EM)	3.8dBuA/m@10m
13.56MHz (MF)	-22.20dBuA/m@10m

6 Certificate Information

RoHS

DEFENDAS

LT Security Inc www.ltsecurityinc.com E-mail: sales@ltsecurityinc.com

7 Dimensions

Specifications	
Sentinel Series	
Internal Number	ST10-MEK
Operating Frequency / Standards	125 kHz 13.56 MHz: ISO14443 types A & B, JIS X6319 2.4 GHz Bluetooth®
Functions	RFID, Bluetooth® and QR code
Keypad	Touch Keypad
QR Code Scanner	Supported
QR Code Scanning Pattern	Area image (640*480 pixel array)
QR Code Scan Angle	Horizontal: 73°/ Vertical: 54°
QR Code Capability	**One-Dimensional Code:** EAN-13, EAN-8, UPC-A, UPC-E, ISSN, ISBN, CodaBar, Code 128, Code93, ITF- 14, ITF-6, Interleaved 2 of 5, Industrial 2 of 5, Matrix 2 of 5, GS1 Databar(RSS), Code 39, Code 11, MSI-Plessey **Two-Deimensional Code:** QR Code, Data Matrix, PDF417, Micro QR
QR Code Scanning Performance	QR(15mil) 1.2"~5.5"(30~140mm) QR payment code(mobile code) 1.6"~9.8"(40~250mm) Data Matrix(10mil) 2.0"~4.3"(50~110mm) PDF 417(6.7mil) 2.0"~3.7"(50~95mm) EAN-13(13mil) 1.8"~8.2"(45~210mm) Code 39(8mil) 2.2"~3.9"(55~100mm) Code 128(15mil) 1.5"~8.3"(40~210mm)
Power Requirement / Power Supply	9 VDC to 24 VDC
Operating Temperature	-4°F to 122°F / -20°C to 50°C
Dimensions	4.78" W x 1.77" H x 0.96" D (121.5 x 45 x 24.5mm)

8 FCC Statement

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

"This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with a minimum distance of 7.87 inches (20cm) between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter."