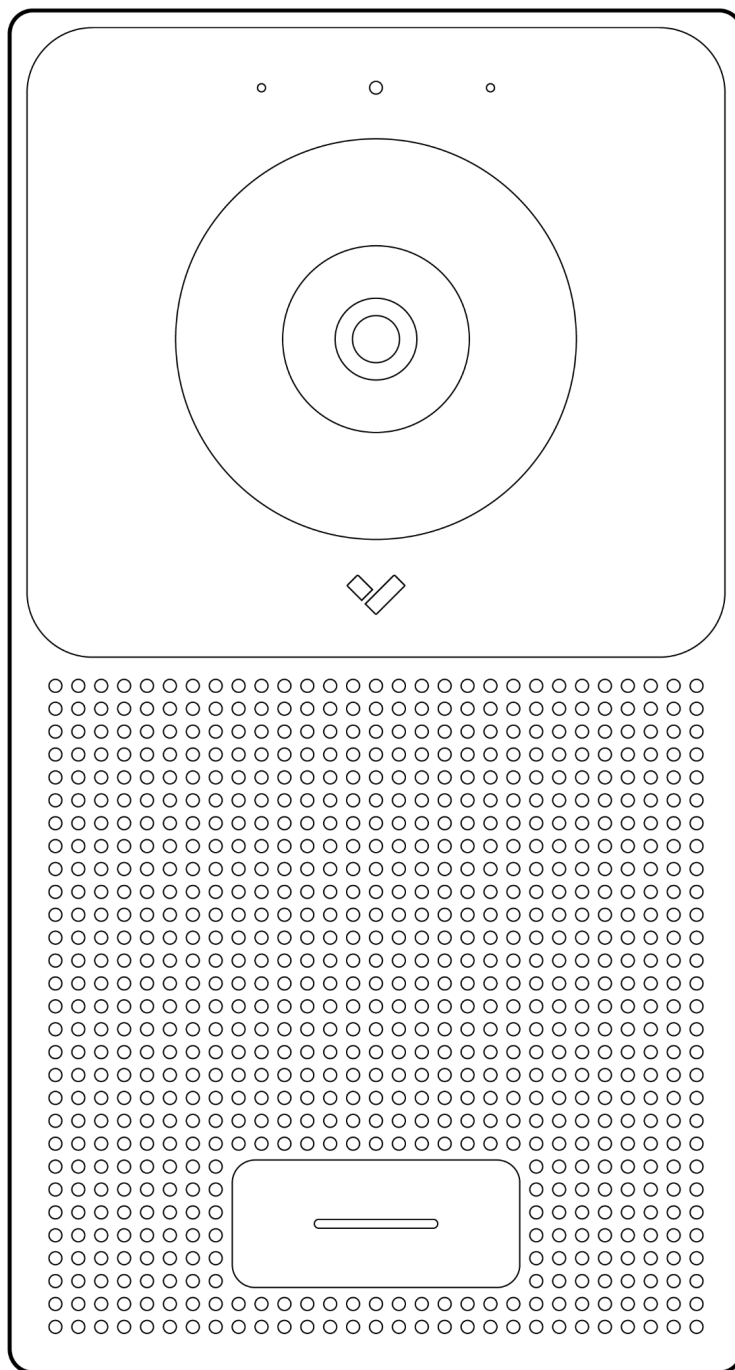


TD52 Video Intercom



Document Details

V2.0 (20231010)

(V1.0 first published 20230214)

Firmware

Firmware version can be verified on Verkada Command command.verkada.com.

Product Models

This install guide pertains to TD52-HW.

UL294 Performance Levels

- Attack Level: Level I
- Endurance Level: Level I
- Line Security Level: Level I
- Standby Power Level: Level I

CAN/ULC-60839-11-1

- Environmental Level: Outdoor
- Grade assignment: Grade I

Note: Video, audio, and intercom performance were not evaluated by UL. Additionally, PoE+ functionality (extended temperature range) was not evaluated by UL.



Technical Specifications

Sensor Resolution	5MP (2688 x 1944)
Lens Type	Fixed
Image Sensor	1/2.8" Progressive CMOS
Focal Length	2.12mm
Iris	Fixed
Aperture	F2.0
Field of View	Horizontal: 130° Vertical: 100° Diagonal: 160°
IR Range	15m / 50ft in low light
Onboard Storage	256GB
Audio Streaming	Two-way, full duplex with echo cancellation and noise suppression
Audio Output	5W speaker ; 90dB SPL at 1m / 3.3ft
Audio Input	2 omnidirectional digital MEMs microphones
Inputs / Outputs	2x dry inputs 1x dry relay, 30VDC @ 1A (resistive load) 1x RS-485 port, 12V @ 250mA output
Dimensions	238mm (L) x 128mm (W) x 44mm (H) 9.4in (L) x 5in(W) x 1.7in (H)
Weight	1.1kg/2.3lb
Tamper Detection	Yes
Resistance Rating	IK08, IP66
Operating Specs	Power: 11.5W (IEEE 802.3af PoE) ; Extended Temperature Range: 25.5W (IEEE 802.3at PoE) Temperature: -20°C – 50°C / -4°F – 122°F, PoE 802.3af ; -40°C – 50°C / -40°F – 122°F, PoE 802.3at Humidity: 90%
Compliance	FCC Part 15B Class B, ICES-003 Class B, CE, UKCA, KCC, RCM, VCCI, UL/IEC 62368-1, CSA NO22.2 62368-1, UL 294, ULC-60839-11-1 Outdoor
Connectivity	Ethernet: 10/100Mbps RJ-45 cable connector for Network/PoE connection
Included Accessories	T10 screwdriver, mounting hardware kit, grommet punch
Mounting Options	Flush mount plate (included), surface mount box (separate accessory), angle mount box (separate accessory), trim plate (separate accessory), rain hood (separate accessory)

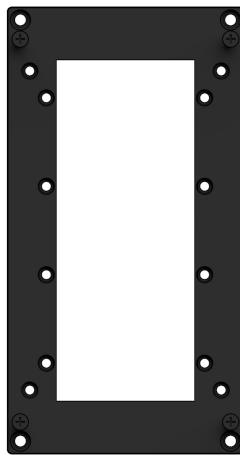


Introduction

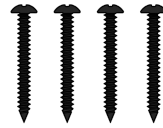
What's in the box



TD52



Flush Mount Plate



Drywall Screws (4 pcs)



Drywall Anchors (4 pcs)



Grommets (2 pcs)



Grommet Punch (1 pcs)



T10 Security Torx Screwdriver (1 pcs)



M4x18mm Machine Screws (silver) (4 pcs)



8-32 3/4" Machine Screws (black) (4 pcs)

What you'll need

- A working internet connection
- A smartphone or laptop
- A #2 Phillips head and power drill
- A level

Connect

Connect the TD52 to your network using the Ethernet port located behind the rear door of the device.

Supports PoE and PoE+. PoE+ required for full functionality, including extended temperature range (down to -40C/-40F) and RS-485 support. Shall be powered by an UL294 and ULC-68039-11 certified PoE Power Supply. Note, PoE+ ratings were not evaluated by UL.

After connecting the TD52 to network and power, visit: verkada.com/start

For detailed installation instructions, visit: verkada.com/support



Overview



Status LED Behavior

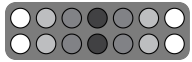
-  **Solid Orange**
Intercom is on and booting up.
-  **Flashing Orange**
Intercom is updating firmware.
-  **Flashing Blue**
Intercom is managing doors, but cannot reach the server.
-  **Solid Blue**
Intercom is managing doors and connected to the server.
-  **Flashing Pink**
Identify.

Call Button LED Behavior

-  **Off**
Intercom is unpowered
-  **On**
Intercom is powered

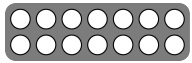
Feedback LEDs

Normal Behavior



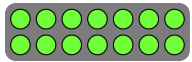
Cascading White

The call button has been pressed and the intercom is making a call.



Solid White

The call has been connected and audio/video is being shared.



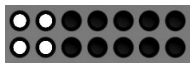
Solid Green

The door has been unlocked.

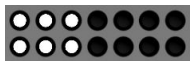
Setup Behavior



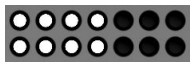
Intercom is connected to power and booted



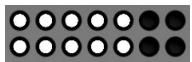
Intercom has an IP address



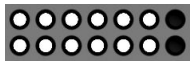
Intercom has connected to Verkada's server



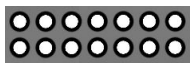
Intercom has commissioned and has an authentication token



Intercom can connect to Twilio's server and register with SIP



Intercom has all required ports enabled



Intercom has a valid receiver and is ready to make a call

Installation

Connect

To add the TD52 to your Verkada Command account, go to:
command.verkada.com/add-device

Enter the serial number printed on the back of the device, the packaging, or the order number.

If you would like to update and configure TD52 before mounting it, connect the device to your network using the Ethernet port located in the cable bay on the back of the device.

Serial Number



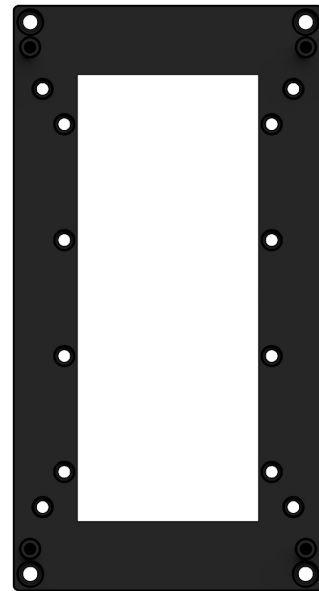
Installation

Mounting 1/7

The flush mount plate has holes configured for the following mounting conditions:

- A/B** Legacy intercom back box
Direct wall mounting
- C** 4-gang junction box mounting

Use the corresponding holes to mount to an existing intercom back box **(A/B)** or 4-gang junction box **(C)**.



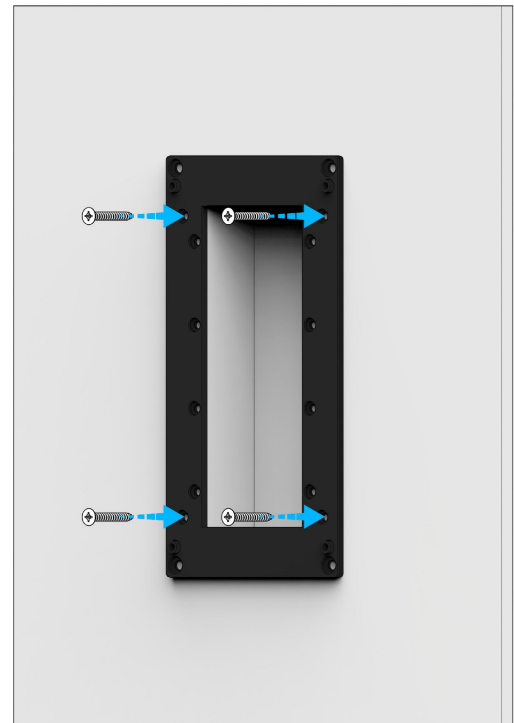
Direct wall mounting

To mount directly to a wall, use the mount plate as a template to mark mounting holes **(B)** and the center cutout.

Use the marks to drill pilot holes for the mount plate. For direct mounting, drill 3mm pilot holes. When using wall anchors, drill 6mm pilot holes.

Use the supplied screws to install the mount plate onto the wall. Ensure that the labels (A, B, C) on the mount plate are facing away from the wall.

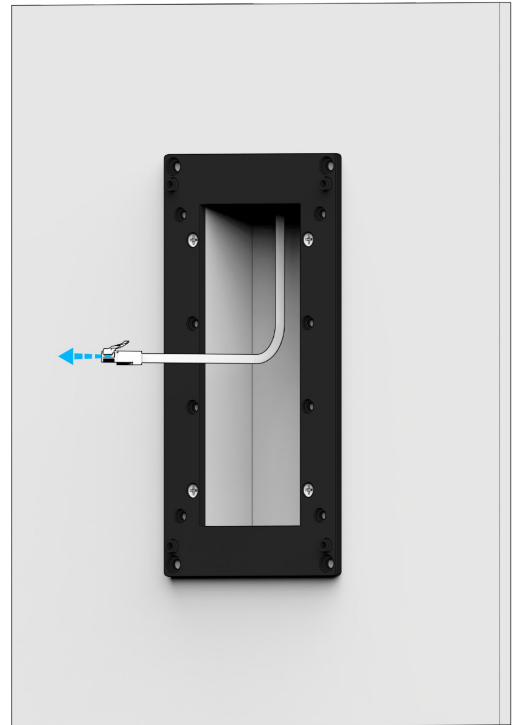
Please note: The supplied screws are intended to cover most possible install cases. Be sure to use the best screws for your specific job.



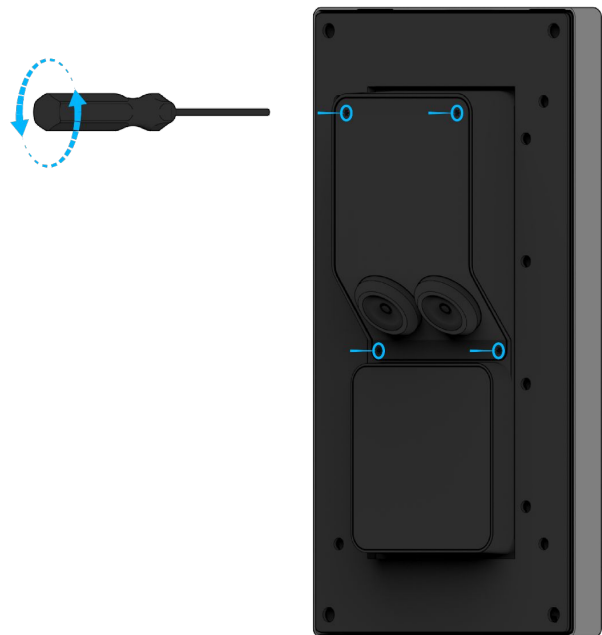
Installation

Mounting 2/7

Route the building-side cable through the hole in the center of the mount plate.



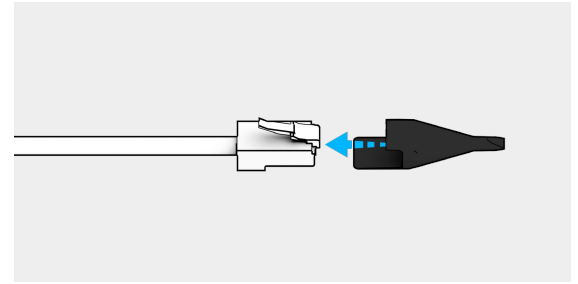
On the rear of the device, loosen the four T10 Torx Security screws on the cable bay door to access the ethernet and I/O ports.



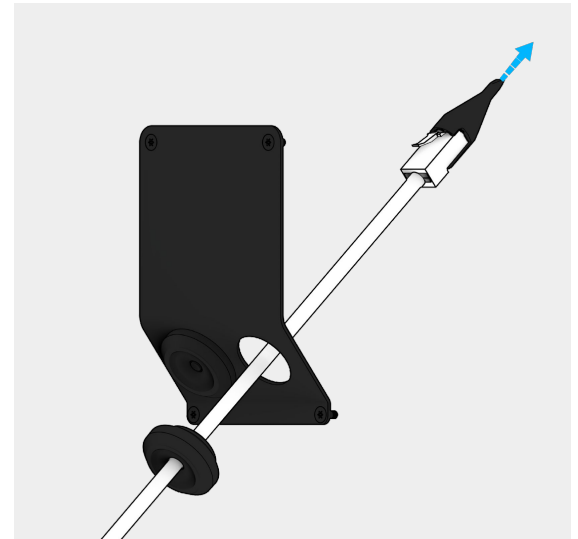
Installation

Mounting 3/7

Attach grommet punch to the RJ-45 cable.



Insert the RJ-45 ethernet cable through the right grommet using the included grommet punch and pass through the cable bay door.

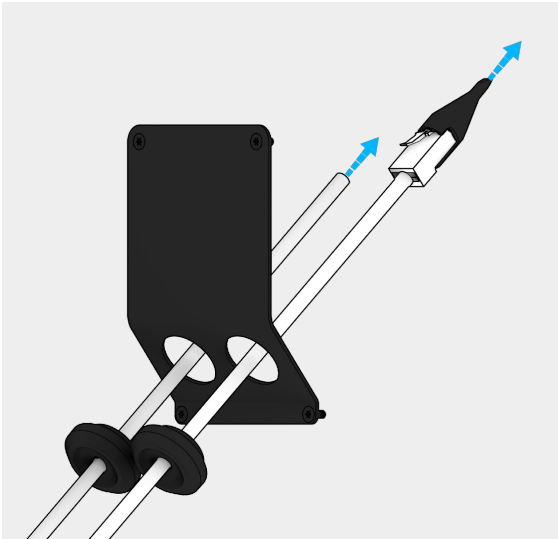


Remove the grommet punch and Insert the RJ-45 ethernet cable into the PoE port.

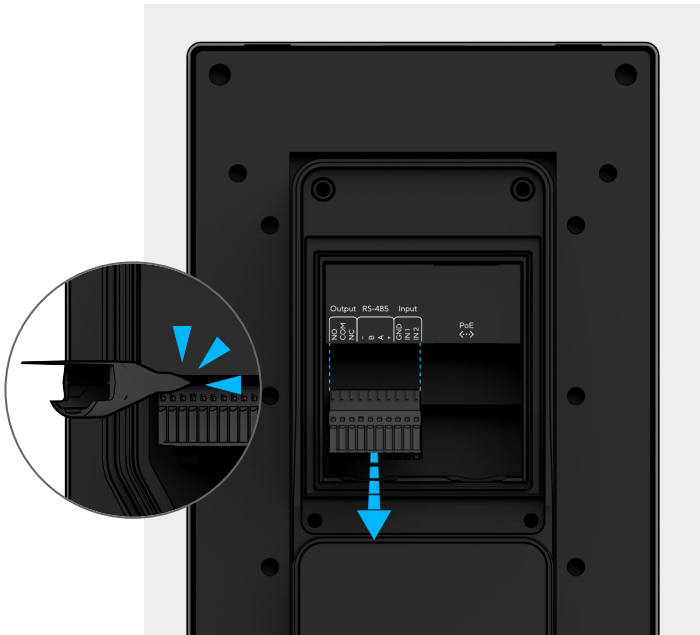


Mounting 4/7

If the installation requires the use of the I/O terminal block, insert I/O wires through the left grommet and pass through the cable bay door.



Remove the I/O terminal block with a flat head screwdriver or the end of the grommet punch tool for easier installation.



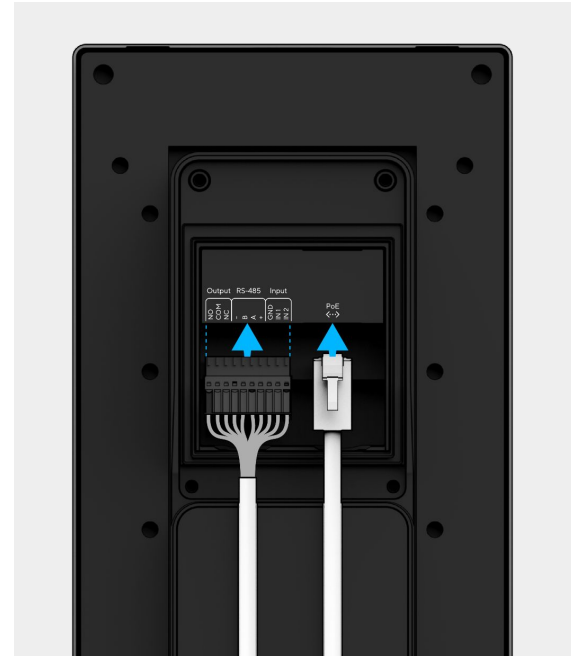
Attach I/O wires according to the pins below.

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10
NO	COM	NC	GND	B	A	12V	GND	IN 1	IN 2
Output			RS-485				Input		

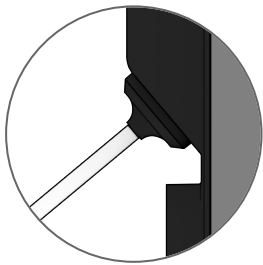


Mounting 5/7

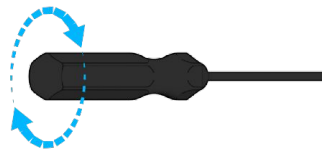
Plug in the RJ-45 and the I/O terminal block.



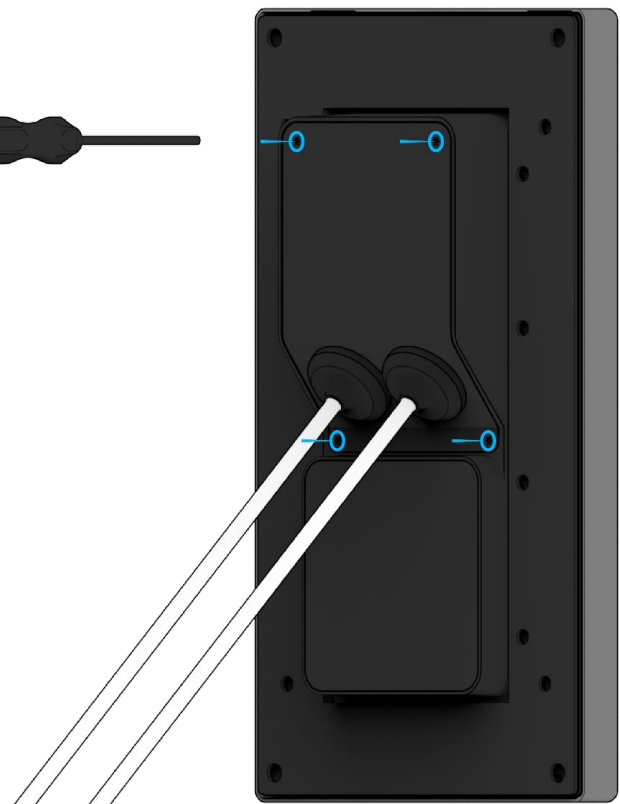
Return the grommets to the cable bay door. Make sure the grommet is installed in the right direction for proper sealing.



Please note: The tail of the grommet should be facing away from the device after installation for proper sealing.



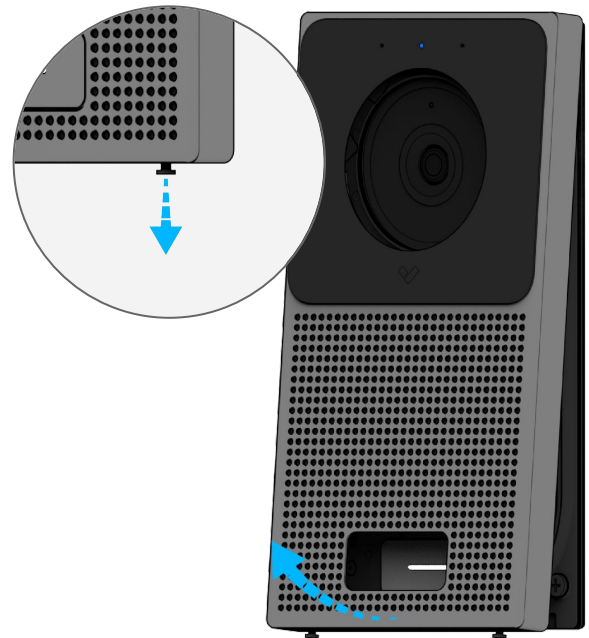
Secure the cable bay doors by tightening the four T10 Torx Security screws at each corner.



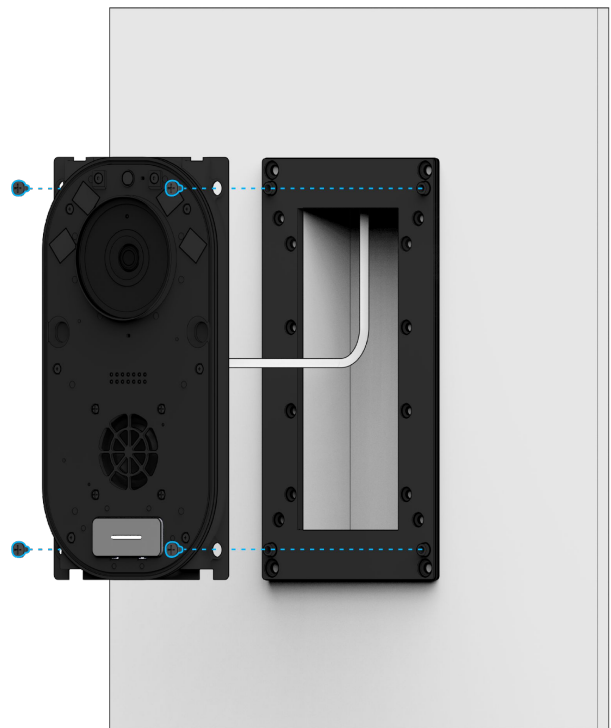
Installation

Mounting 6/7

On the bottom edge of the device, loosen the two T10 Torx Security screws and remove the faceplate.



Attach the device to the mount plate to the wall using the four provided M4 machine screws.

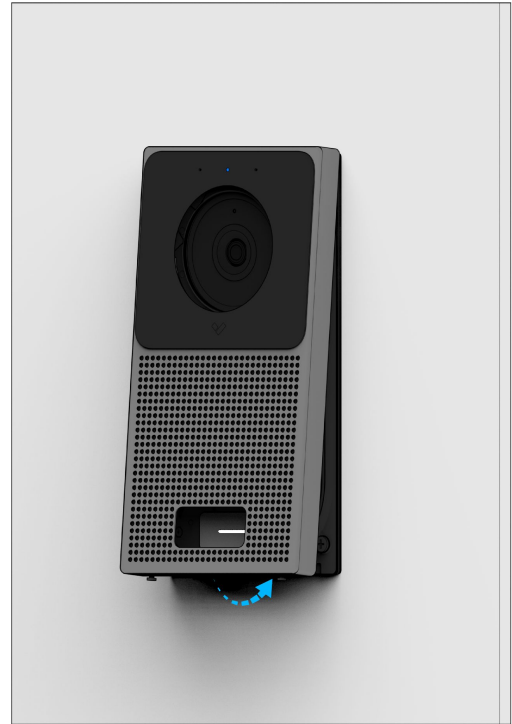


Installation

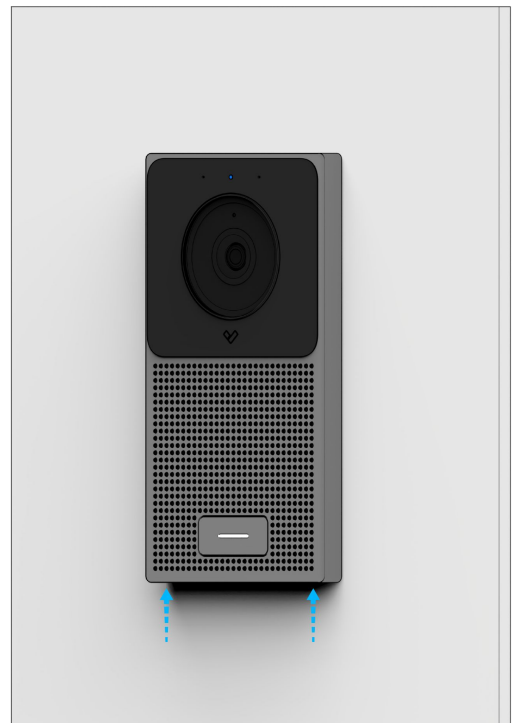
Mounting 7/7

Reattach the faceplate by engaging the hooks at the top.

Swing the faceplate down into position.



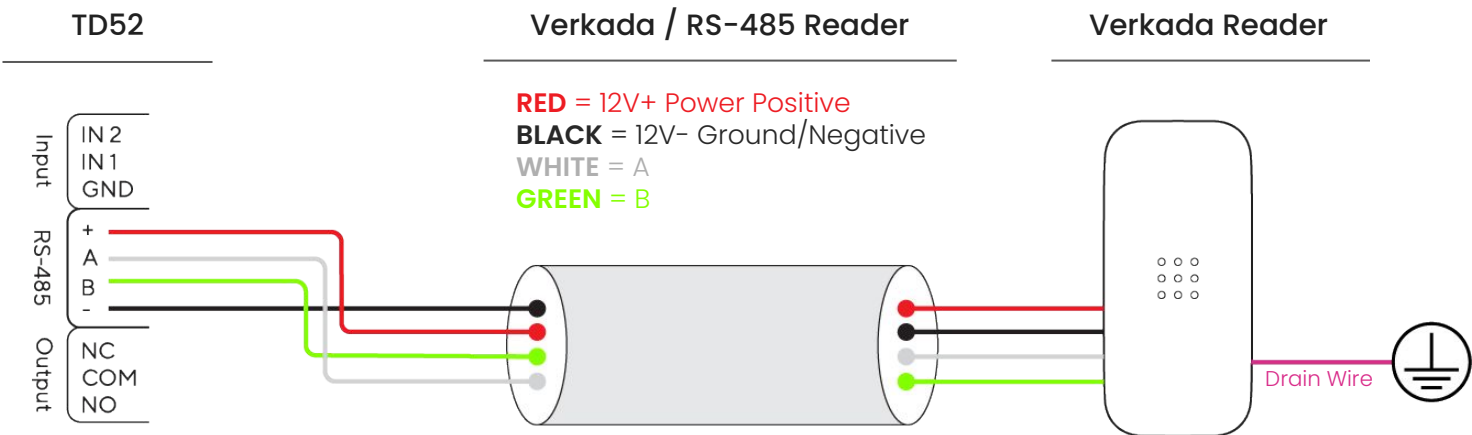
Tighten the two T10 Torx Security screws on the bottom edge of the device.



Wiring Instruction

Reader

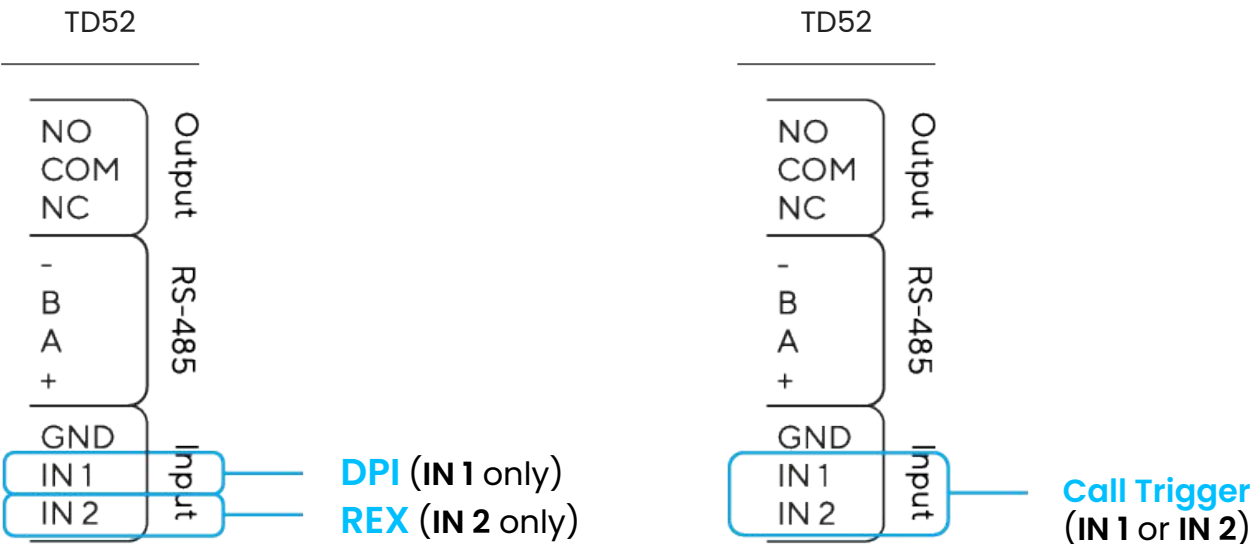
The TD52 is rated to power Verkada readers at 12V and 250mA via the (+) and (-) connection. It is recommended that the drain wire be connected to earth ground at the reader side. Note: 12V power should not to be used to power other peripheral devices, as it has latch-off current limiting.



Inputs

The TD52 has two general purpose dry inputs. Devices commonly connected to these dry contacts include Door Position Indicator (DPI), Request to Exit (REX), and external call triggers. Both inputs are expected to be **NORMALLY OPEN** (NO). For each input, one wire should be connected to the associated IN pin, and the other to the GND pin. All associated events will be logged in Command.

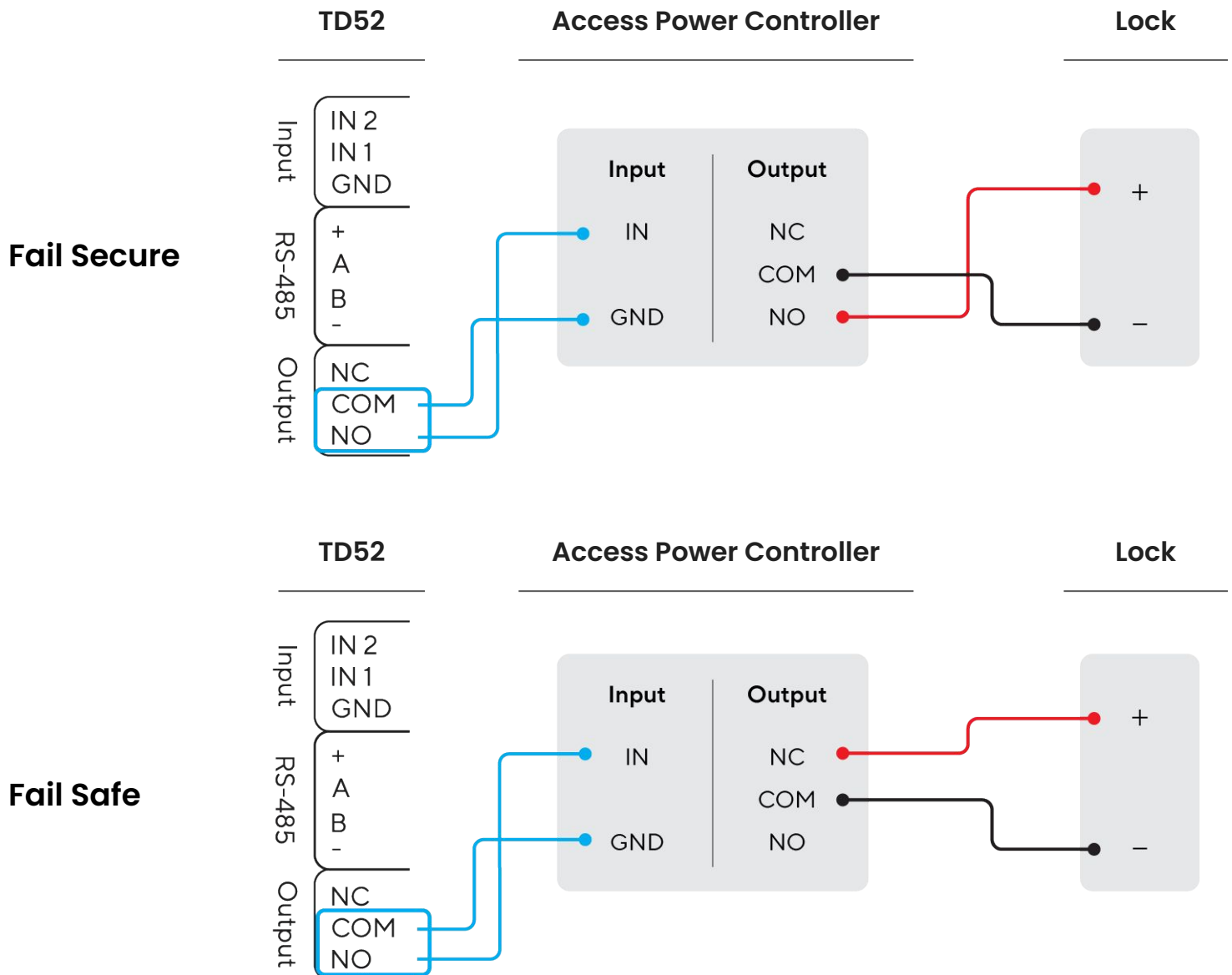
Note: When configuring the TD52 as a single door controller, the DPI should be connected to IN 1, while the REX should be connected to IN 2. Call Trigger can be connected to either IN 1 or IN 2.



Wiring Instruction

Output

The TD52 has one dry form C relay output, which can be configured as an access controller by connecting an access power controller to the output terminal as detailed below. The output relay can also be used as a general purpose output. For fail safe locks, + should be connected to NC to be locked by default. For fail secure locks, + should be connected to NO to be locked by default.



Note: To maintain UL294 compliance all devices connected to TD52 should be UL 294 and ULC 60839-11-1 Listed

TD52 Compliance

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. 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
IC Statement	This device complies with ISED's licence-exempt RSSs. 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. Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.



Appendix

Support

Thank you for purchasing this Verkada product. If for any reason you're experiencing issues or need assistance, please contact our 24/7 Technical Support Team immediately.

Sincerely,
The Verkada Team
verkada.com/support

