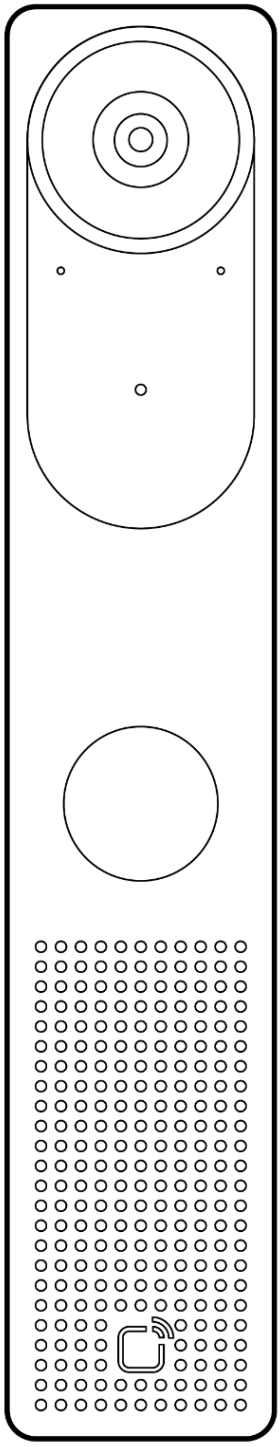
Install Guide

TD33 Video Intercom



Document

Document Details

Document ID: TD33 Install Guide

Version

V1.2 (20241122)
(V1.0 published 202401113)

Firmware

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

Product Models

This install guide pertains to model TD33-HW.

UL294 Performance Levels

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

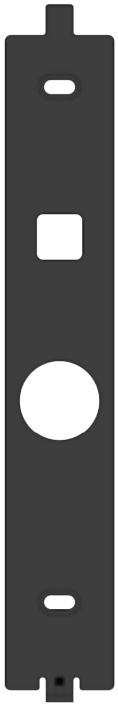
CAN/ULC-60839-11-1

Environmental Level: Outdoor

- Grade assignment: Grade I

What's in the box

Video Intercom



Mount Plate

Machine Screws (2 pcs)
Length: 25.4mm **Drive:** #2 Phillips

Wall Screws (2 pcs)
Length: 25.4 **Drive:** #2 Phillips

Wall Anchors (2 pcs)
Length: 25mm

T10 Security Torx Screwdriver

What you'll need

- A smartphone or laptop
- 1/4 inch (6.5mm) drill bit for wall anchors
- 1/8 inch (3mm) drill bit for pilot holes
- 7/8 inch (22mm) drill bit for pigtail pass through
- A Cat5 or Cat6 Ethernet cable with a 0.2-0.25 inch diameter (5-6.5mm)
- A level

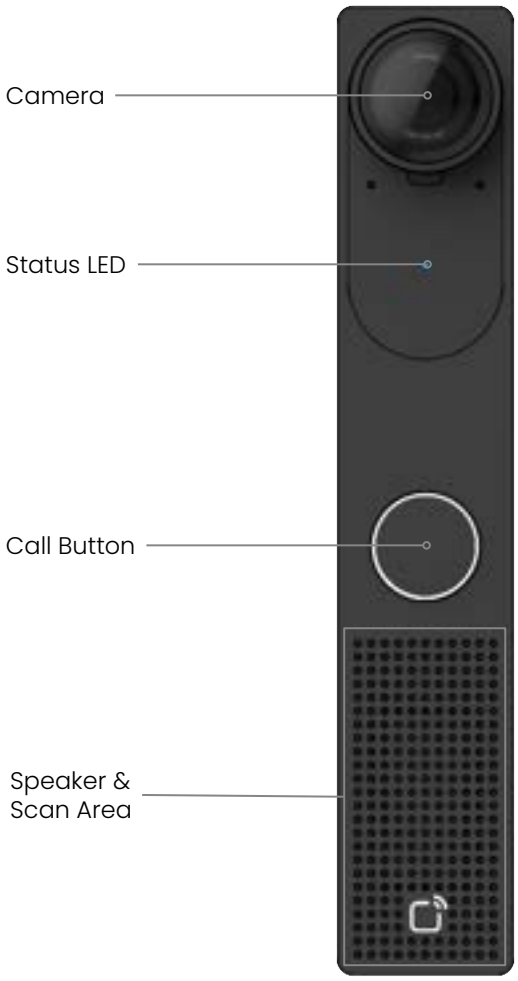
Connect

Connect the TD33 to your network using the Ethernet port located on the pigtail. TD33 supports PoE.

For easy registration and setup, scan the QR code on the product.

If you prefer to manually register your product, please proceed to: verkada.com/start

Overview



Status LED Behaviors

Solid Orange
Video Intercom is on and booting up.

Flashing Orange
Video Intercom is updating firmware.

Solid Blue
Video Intercom is running and online.

Flashing Blue
Video Intercom is running and offline.

Call Button LED Behaviors

Solid White
Intercom is powered

Solid Green
Access granted

Solid Red
Access denied

Spinning Blue
Calling

Solid Blue
Call Connected

Introduction

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	5m
Onboard Storage	512GB
Audio Streaming	Two-way, full duplex with echo cancellation and noise suppression
Audio Output	2W speaker ; 80dB SPL at 1m / 3.3ft
Audio Input	1 digital MEM microphone
Inputs / Outputs	2x dry inputs 1x dry relay, 30VDC @ 1A (resistive load) 1x RS-485 port, 12V @ 250mA output
Dimensions	238mm (L) x 42mm (W) x 29mm (H)
Weight	600g/1.3 lbs
Supported Credential Technologies	Low Frequency (125 kHz) High Frequency (13.56 MHz) Mobile NFC (13.56MHz) Bluetooth Low Energy (2.4GHz)
Tamper Detection	Yes
Resistance Rating	IK07, IP65
Operating Specs	Power: 11.5W (IEEE 802.3af PoE); Temperature: -20°C – 55°C / -4°F – 122°F, PoE 802.3af ; Humidity: 93%
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
Mounting Options	Surface mount plate (included accessory), Angle mount box (separate accessory)

Installation

Mullion Mounting (1/2)

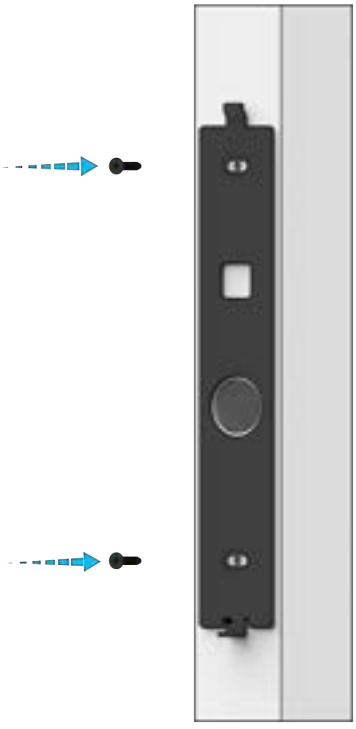
Use the mount plate as a template to mark mounting holes and the pigtail passthrough hole.

For the pigtail passthrough, drill a 7/8" (22mm) hole.

Drill 1/8 inch (3mm) pilot holes.

Use the machine screws to secure the mount plate onto the mullion.

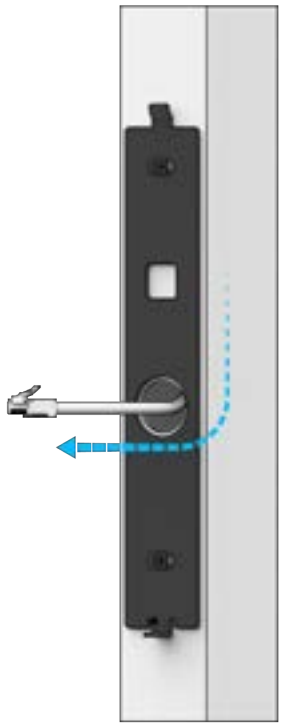
Note: The hardware in the Install Kit is appropriate for common install scenarios. In uncommon or specialized install cases, please determine the suitable hardware needed.



Mullion Mounting (2/2)

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

The PoE cable and any low voltage cables used should all route through the pigtail passthrough hole.



Installation

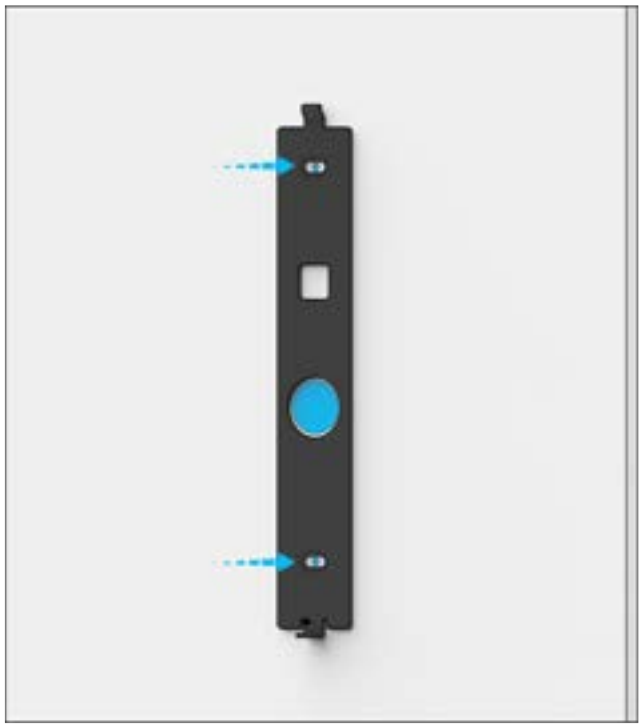
Wall Mounting (1/2)

Use the mount plate as a template to mark mounting holes and the pigtail passthrough hole.

For the pigtail passthrough, drill a 7/8" (22mm) hole.

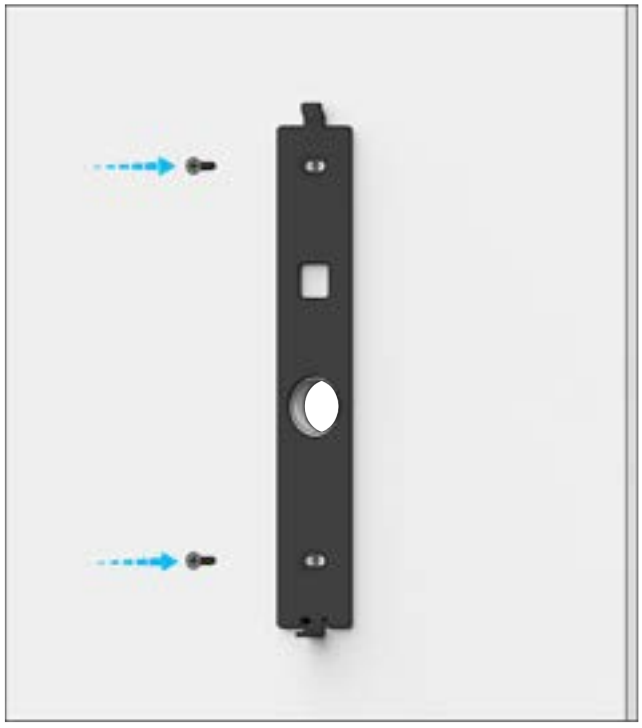
Drill 1/8 inch (3mm) pilot holes.

If using wall anchors, drill 1/4" (6mm) pilot holes.



Use the wall screws to secure the mount plate onto the wall.

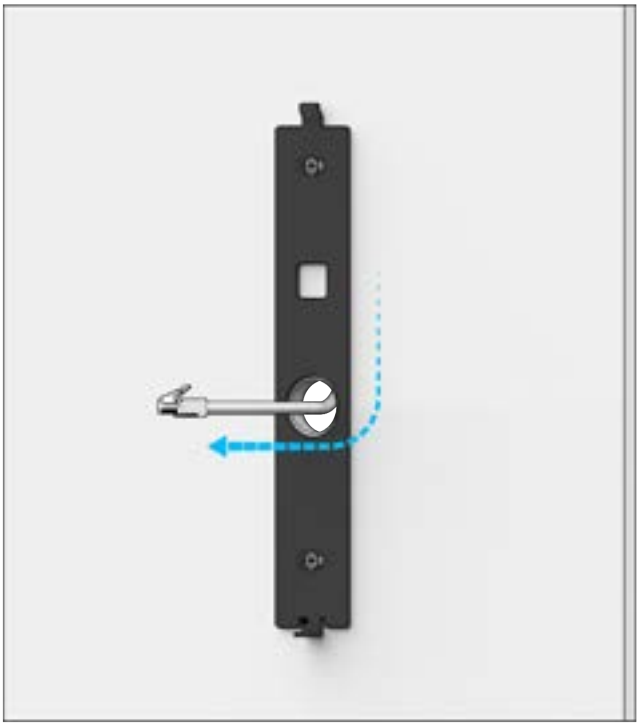
Note: The hardware in the Install Kit is appropriate for common install scenarios. In uncommon or specialized install cases, please determine the suitable hardware needed.



Wall Mounting (2/2)

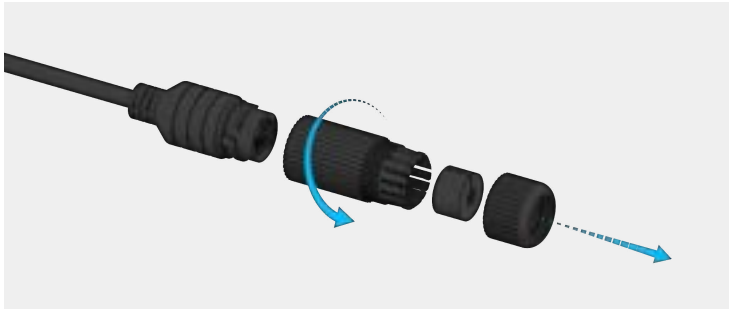
Route the building-side cable through the hole in the center of the mount plate.

The PoE cable and any low voltage cables used should all route through the pigtail passthrough hole.

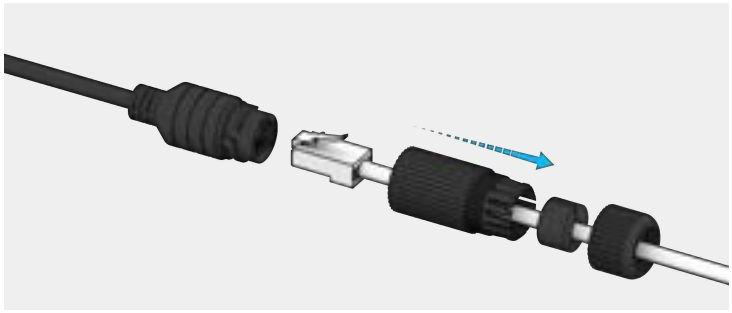


Wiring (1/2)

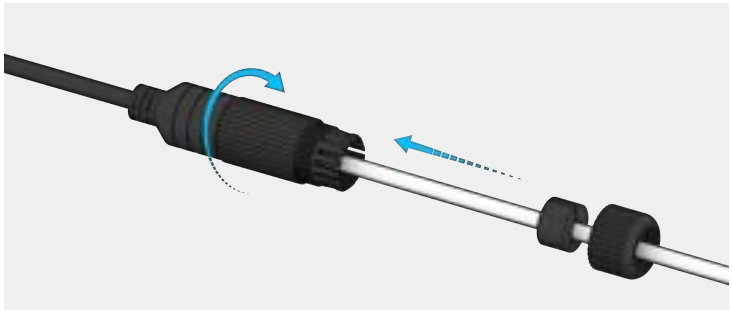
Disassemble the cable sealing assembly. Keep body, rubber seal, and cap on hand for later reassembly.



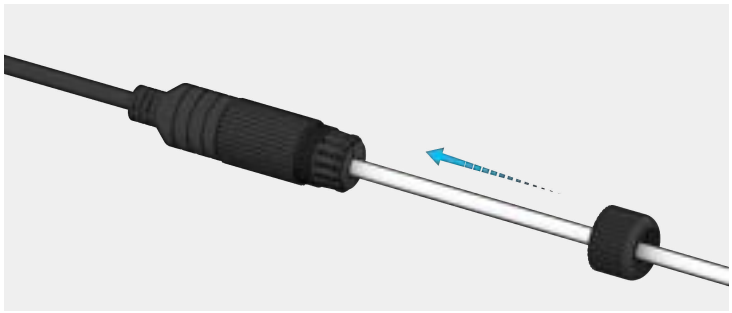
Thread cable-sealing components onto the PoE cable.



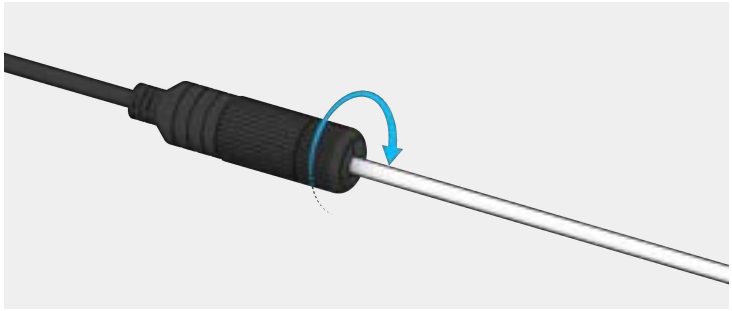
Insert PoE plug into the RJ45 jack.
Twist to lock the body onto the RJ45 jack.



Insert the rubber seal into the body.

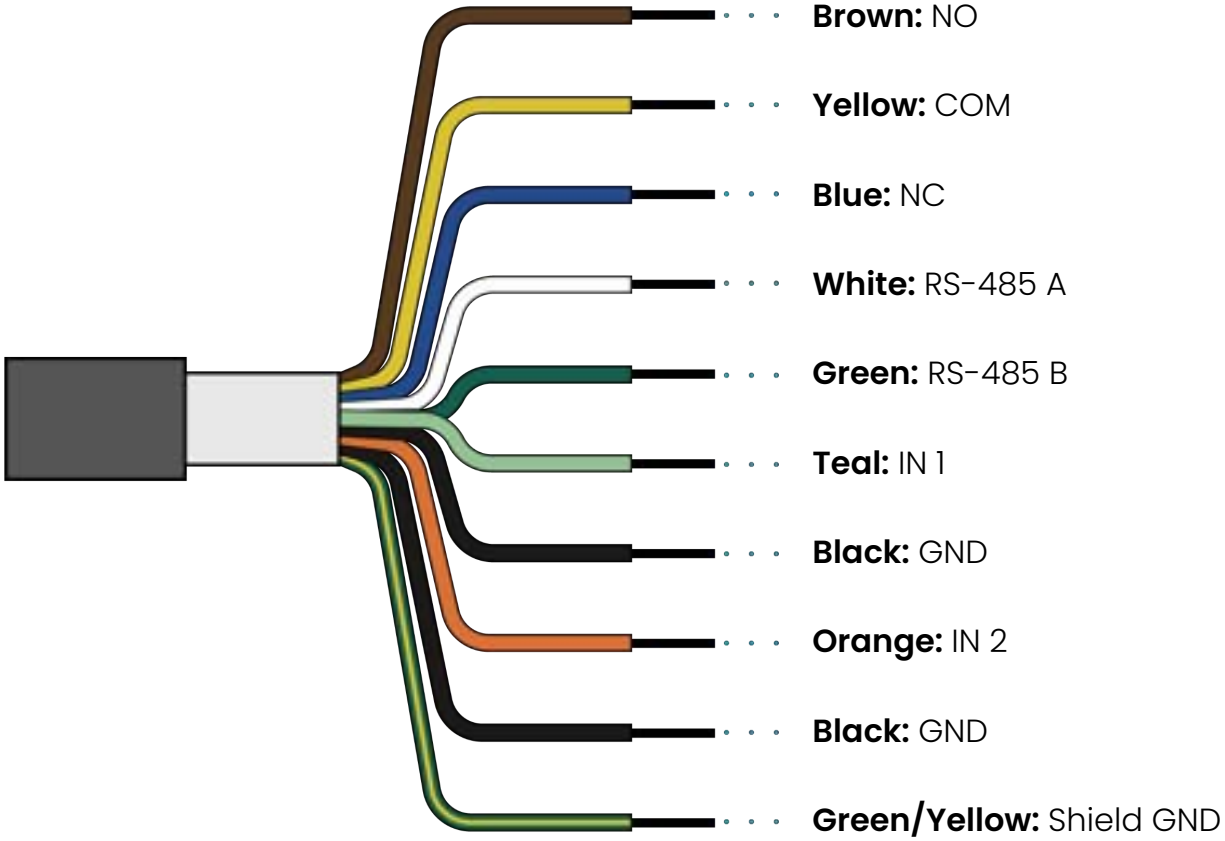


Screw the cap onto the body.



Wiring (2/2)

Attach the I/O wires according to the diagram below.

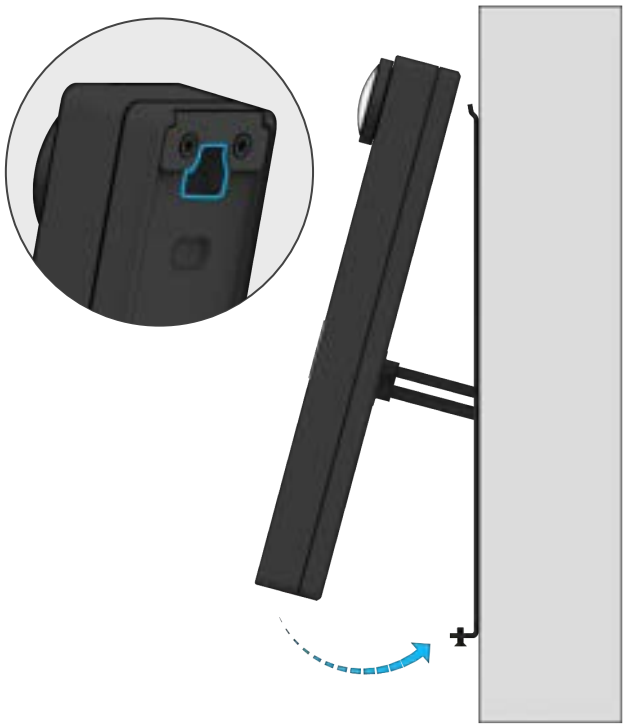


Secure

Guide the Intercom onto the hook on the top edge of the mount plate.

Feed the pigtail cables through the pigtail passthrough hole.

Gently swing the bottom edge of the intercom down, against the mount plate.



Secure the Intercom by tightening the T10 Security Torx screw at the bottom of the mount plate using the T10 Security Torx Screwdriver.

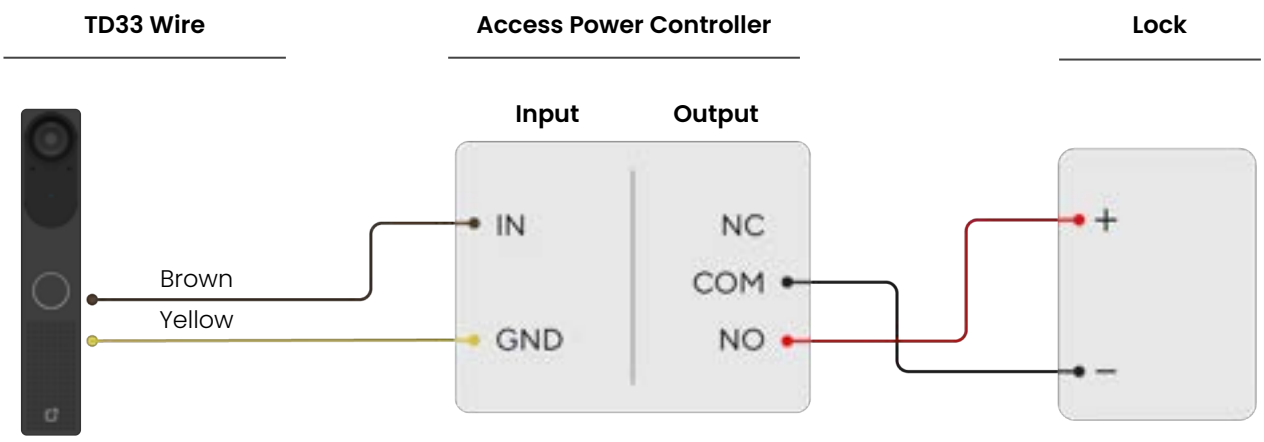
Connecting a Door (1/2)

Option 1: Connect directly to door hardware

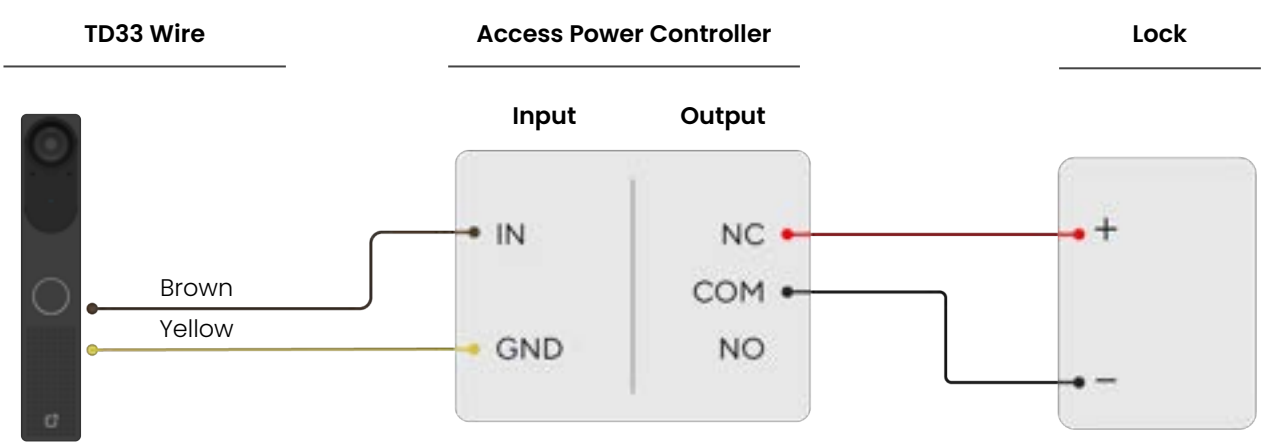
The device can be setup as Fail Safe or Fail Secure with an external power source.

Note: For ULC 60839-11-1 installations, release timing shall not be less than 3s.

Fail Secure

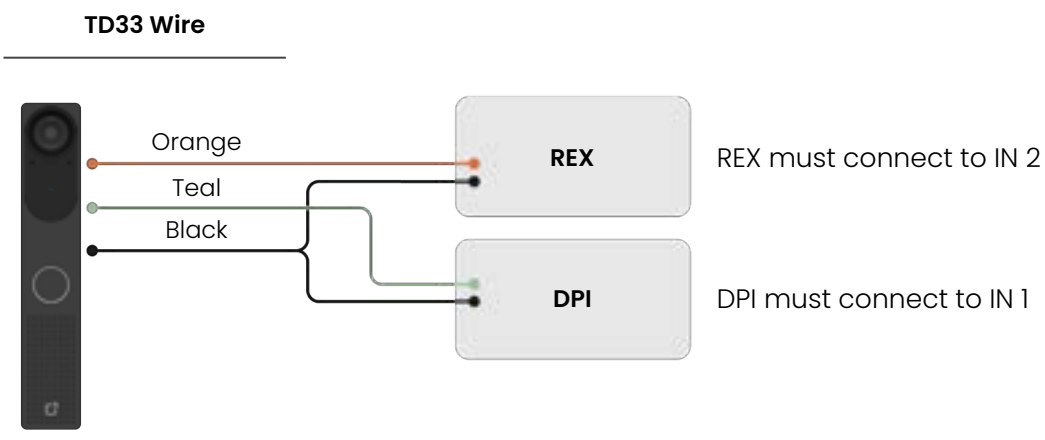


Fail Safe



Connect to DPI and REX

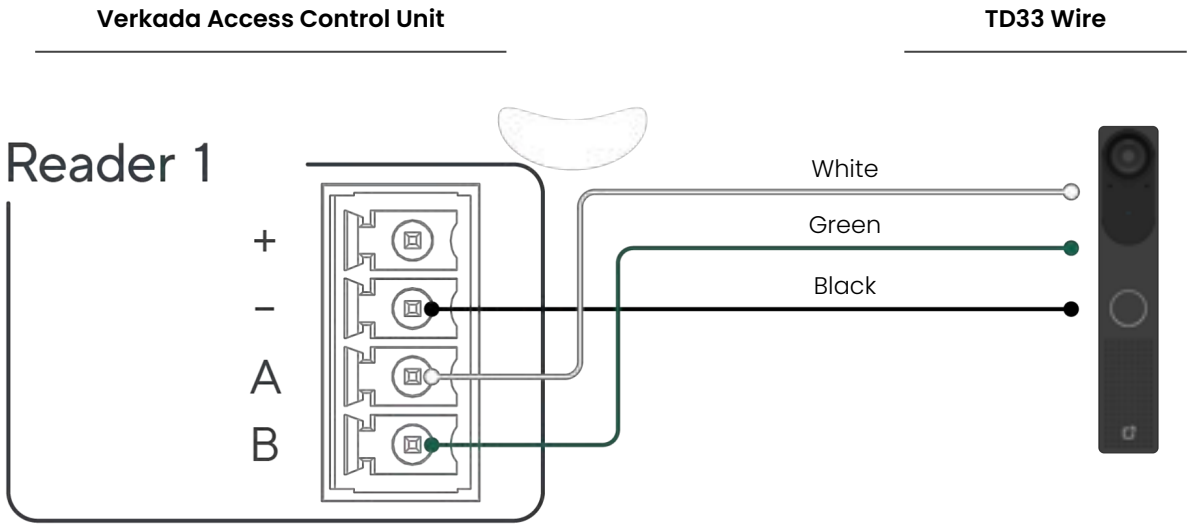
The device can be set up with a DPI and REX wired directly to the intercom.



Connecting a Door (2/2)

Option 2: Connect as an external badge reader

The device can be setup as a standalone badge reader with a Verkada Access Control Unit. Wire the terminal block to the ACU as shown below.



Anti-Passback

The TD33 supports anti-passback, allowing you to increase the security of an area by ensuring that a user properly enters the area before exiting, and properly exits the area before entering again.

Using anti-passback, you can prevent a user from entering an area and then passing their badge back to someone else to use to enter the same area. Additionally, anti-passback can help enforce a badge-out policy, whereby a user must badge when exiting an area or else they will violate anti-passback when they try to re-enter.

Anti-passback rules are based on the configuration of an access control area. An access control area is configured for a site, and is defined by a set of entrance doors and exit doors.

To set up anti-passback, follow the guides below in this order:
First, configure an access control area.
Then, secure the access control area with anti-passback.

Appendix

TD33 Compliance 1/2

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.

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement: The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual.

The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

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.

Radiation Exposure Statement: The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual.

The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations: Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.

Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel.

La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

Appendix

TD33 Compliance 2/2

IEC 62368-1	The device is only to be connected to PoE networks without routing to outside plants.
IEC 60825-1	Attempts to disassemble or repair the sealed areas of the device while powered on could result in hazardous exposure to infrared laser emissions that are not visible. CLASS 1 LASER PRODUCT
UL 294	Attack Level: Level I Endurance Level: Level I Line Security Level: Level I Standby Power Level: Level I The following functions were not subject to the requirements of UL294: - Video, audio, and intercom performance - PoE functionality - IK07 and IP65 ratings - Compliance to IEEE 802.3 This device accepts PoE. Use only UL listed class 2 power supply. Certification testing completed using PHIHONG TECHNOLOGY CO LTD Model POE60U-BTB (Verkada ACC-POE-60WHS) File E127643. PoE supply is for indoor use only. Power source for dry relay contacts shall be UL listed and having class 2 power limited output. Locations and wiring methods shall be in accordance with the National Electrical Code, ANSI/NFPA 70 Article 725.121, Power Sources for Class 2 and Class 3 Circuits. Category 5e cabling is the minimum performance category recommended. The performance category utilized should match the transmission speed required at the installation site. Minimum conductor gauge permitted between the PSE or power injector and the PD shall be AWG 26 (0.13mm^2) for patch cords; 24 AWG (0.21mm^2) for horizontal or riser cable. Electronic authorization details - Mobile device operating system requirements: Apple iOS 16.0 or later, Google Android 3.1.6 or later - Mobile app requirements: Verkada Pass App 4.7.13 or later - User verification method: User ID and password - Credential details: authentication/digital signature keys received from wireless electronic credential
CAN/ULC 60839-11-1	Environmental Level: Outdoor Grade assignment: Grade I

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