

EXTERIOR CONTROLUX AIR NODE

SKL V3.1 Model B

EXTERIOR LIGHTING CONTROLS

OVERVIEW

Controlux Air Node is a plug-and-play wireless lighting controller for the monitoring and control of the outdoor lighting fixtures. It creates a smart, energy-efficient and safe environment, and serves as an ideal foundation for a Smart City.

Controlux supports seamless communication with other Holophane products, such as CitySense Plus and Controlux Air Gateway, and can be managed remotely via CityManager.

Remotely programmable lighting schedules allow the users to reduce energy consumption by up to 80% in a safe and comfortable manner. The in-built monitoring tools notify users (via CityManager) about the lighting-related faults such as a lamp or ballast failures. This greatly reduces the need for expensive visual inspections and enables a reduction of operation and maintenance costs.

Controlux Air Node serves as a perfect platform for various Smart City devices and applications (Holophane or third-party) enabling environmental monitoring, traffic control, asset management, and more.

features

- Wireless Outdoor Lighting Controller
- Remote Management & Control via CityManager and 3rd Party Software
- Advanced Dimming & Adaptive Lighting Schedule
- Energy monitoring
- Universal Lamp Compatibility
- Open Interfaces For Third-party Compatibility (API)
- Automatic Failure and Status Reports via CityManager
- Inbuilt Astronomical Clock with Backup Battery
- Plug & Play Installation
- Fail Proof: 3-Level Back-Up System

benefits

- Up to 80% energy savings
- Up to 50% maintenance cost reduction
- Reduce light pollution and CO₂ emissions
- Wireless platform for Smart City



EXTERIOR LIGHTING CONTROLS

specifications

product

- Wireless communication and lighting control
- Model B: external mounting with a 5,5m pre-wired power and control cable for ease of installation

input voltage

- 230 VAC or 115 VAC, 50/ 60 Hz (depending on variant)

power consumption

- <2W

DALI Loads

- Max.1

dimming control

- 0-10 V or DALI

surge protection

- 110 Joule (6 kA), 2 kV Combination wave

controller

- ARM Cortex-M3 CPU

electrical protection

- Class II: (overload-short circuit)

electrical safety

- Galvanic isolation between high-voltage and low-voltage terminals

operating conditions

- -20°C to +70°C operating; -40°C to +85°C storage; 20% to 90%,
- Rh non-condensing

product mounting

- Model B: On the pole

housing

- IP20 (Model A) , IP65 (Model B)

antenna

- Model B: Antenna integrated inside product

dimensions

- 160mm x 110mm x 60mm (Model B)

product compatibility

- Compatibility with conventional (PLL, HID, HPS) and LED lights
- Direct wireless communication with CitySense and Gateway, communication with CityManager: through Gateway

wireless communication

- 2.4 GHz IEEE 802.15.4 Self-forming, self-healing wireless network
- Depending on variant: +9.5 dBm max. transmit power, -96 dBm receiver sensitivity, up to 150 meter open field range or + 22 dBm transmit power, -100 dBm max. receiver sensitivity, up to 1 Km open field range up to 250 kbps microcontroller RF data rate 32-bit microcontroller, 64 kB Flash and 16 kB RAM

network security

- 128 AES Multi-layer security Configuration, software as well as firmware can be updated remotely

over-the-air update

- ensuring up to date network infrastructure.

server communication

- Via Gateway

device to gateway ratio

- 200:1

remote monitoring

- Via CityManager or similar third-party management software. CityManager enables remote management, monitoring, control, and configuration of lamps on individual and group level.

safety mode

- Auto-safe: in a case of network loss, brightness will go to a pre-defined level depending on the settings. Astro clock based scheduling is still possible.

certification

- CE, CB, ENEC (model A), EN61547, EN55015, EN60950-1, EN61347-2-11, EN 301 489-1/17, EN 300 328, RoHS. RF transceiver compliant with US (FCC), Canadian (IC), European (ETSI), and Japanese (Telec) standards.

manufacturing

- ISO 9001:2008, Made in Europe

AstroClock

- Battery backed real-time clock: Astro-clock feature
- Able to switch on/off the lamps at sunset/sunrise and adjust them seasonally (summer-winter time). Eliminates the need for conventional photocell

application

- Outdoor street lighting, Area lighting



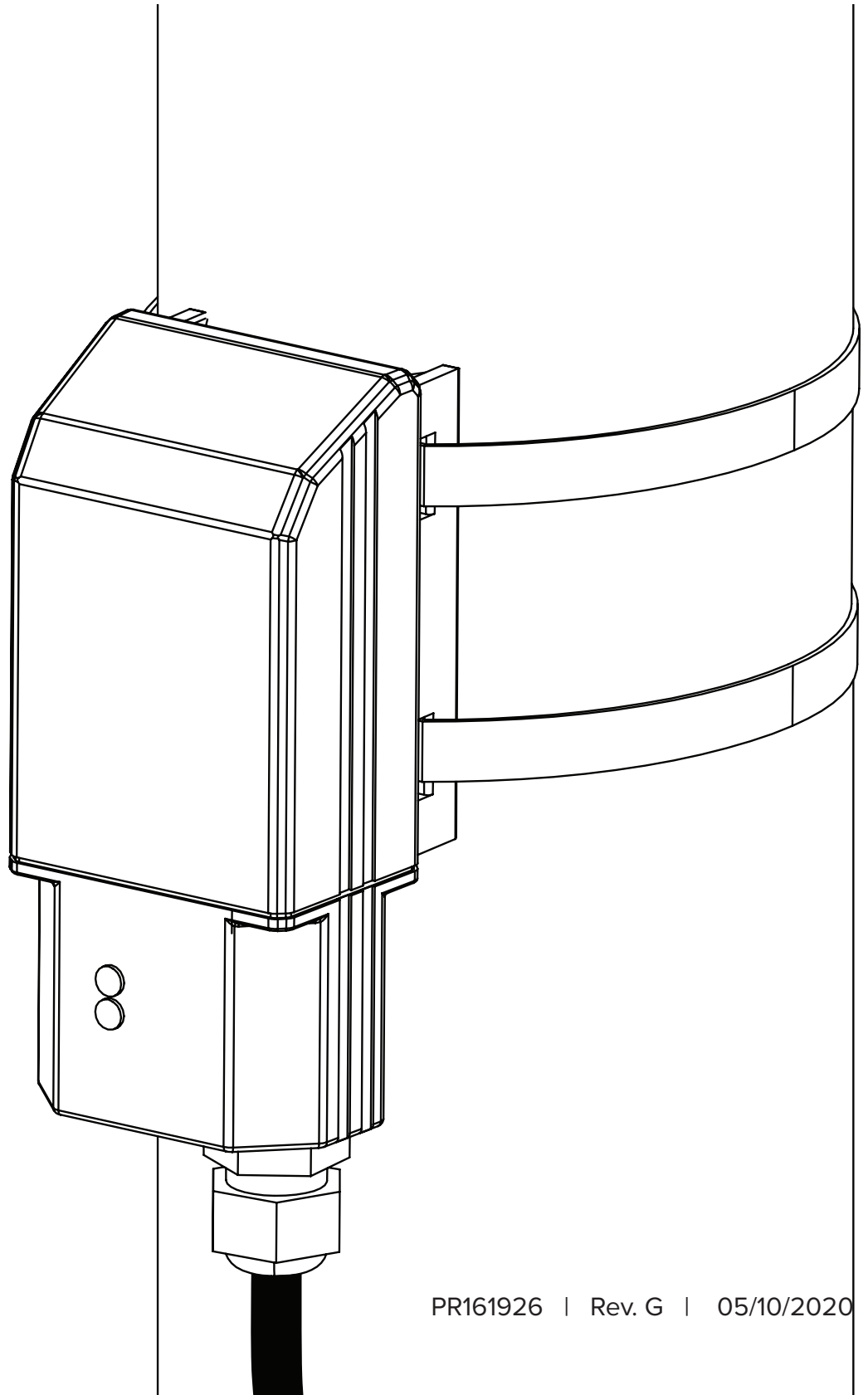
TVILIGHT



English

SkyLite V3.1 External

Installation Manual





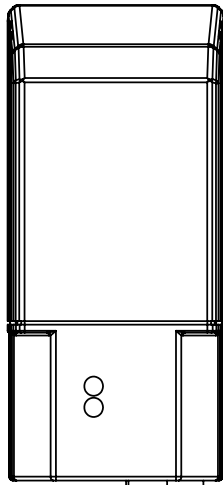
ATTENTION:

- In order to function properly, SkyLite v3.1 **must** be connected to a dimmable driver/ballast.

NOTE: Some dimmable drivers/ballasts **must** be programmed/set to dimmable mode. If this has not been done, SkyLite v3.1 will not be able to dim the connected luminaire.

In box:

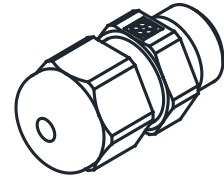
SkyLite V3.1



Pole ID Label

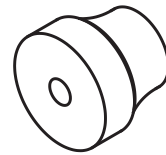


M16 Cable Gland

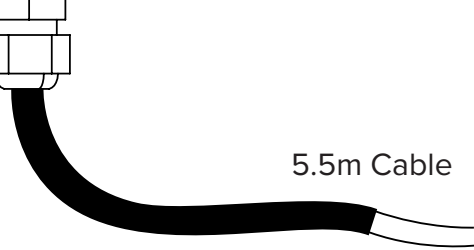


OR

16 mm Grommet

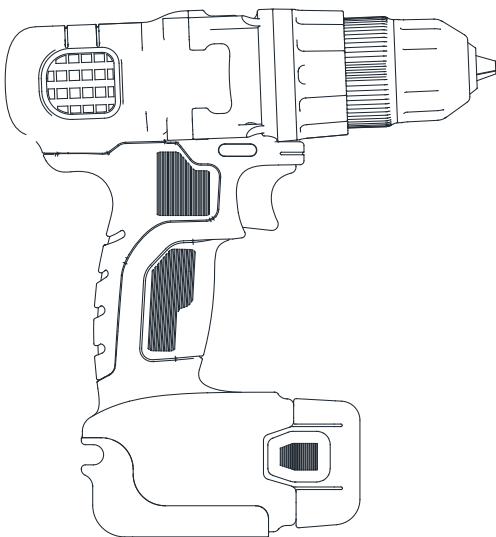


5.5m Cable

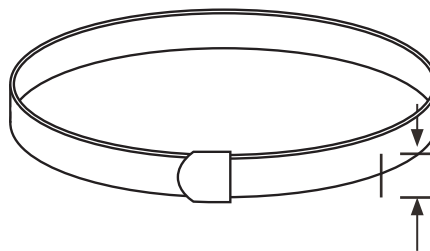


You'll need:

Drill



Generic Strap x 2



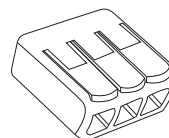
Max = 11mm
Min = 8mm

Scan&Go App



Available in the
Apple App Store
and in the
Google Play Store

Wago x 2

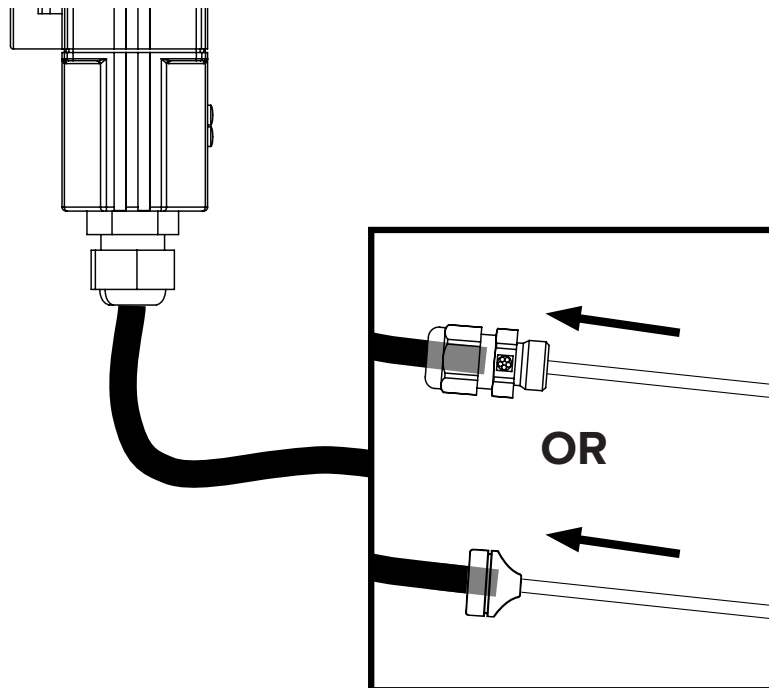


M16 Threaded
OR
16 mm



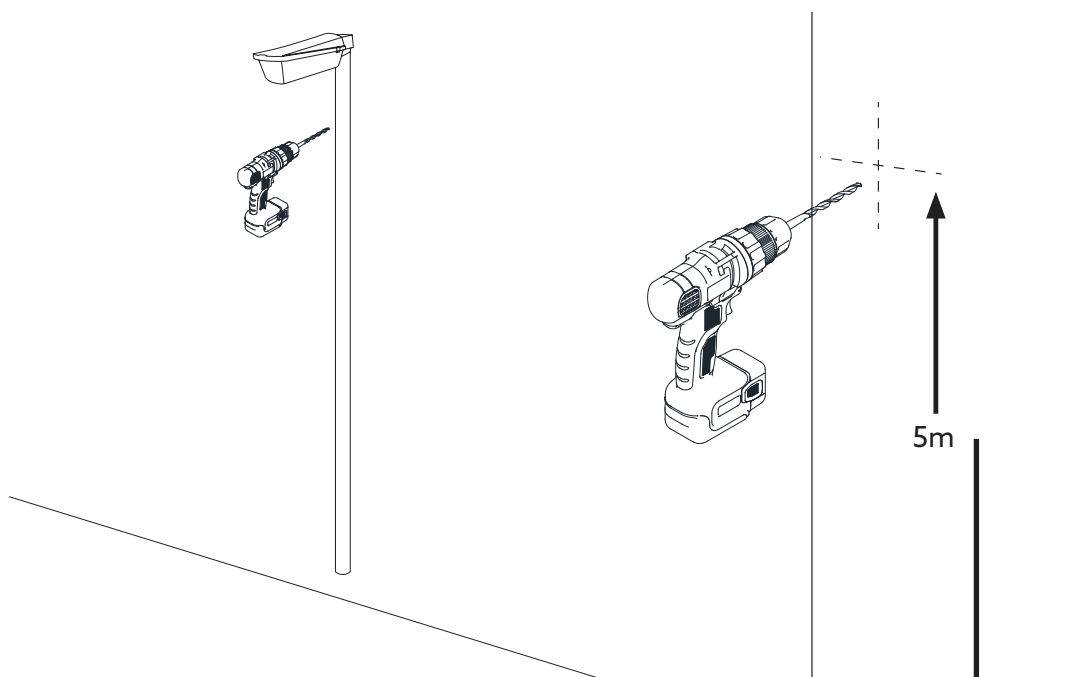
1. Push Cable Gland/Grommet over the cable and UV Protective Sleeve

Note: Leave some UV Sleeve in the Cable Gland/Grommet.

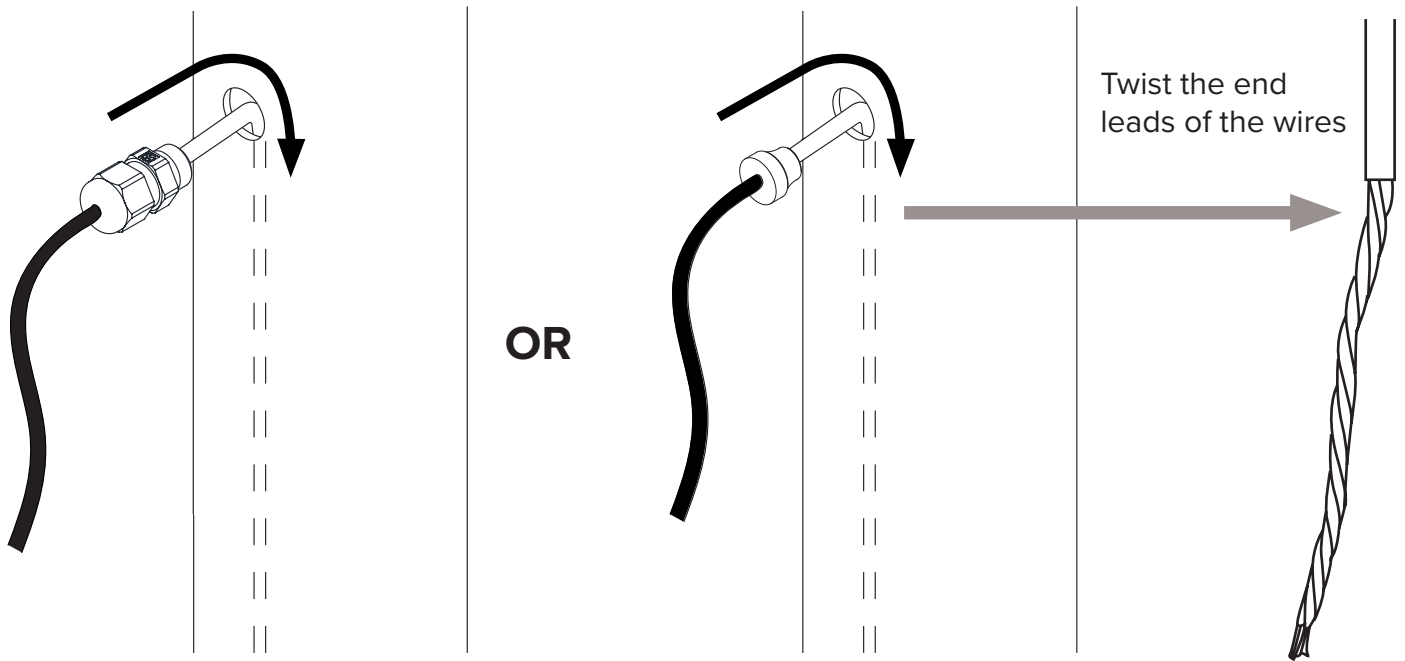


2. Drill hole into the pole: - M16 threaded (Cable Gland) OR - 16 mm (Grommet)

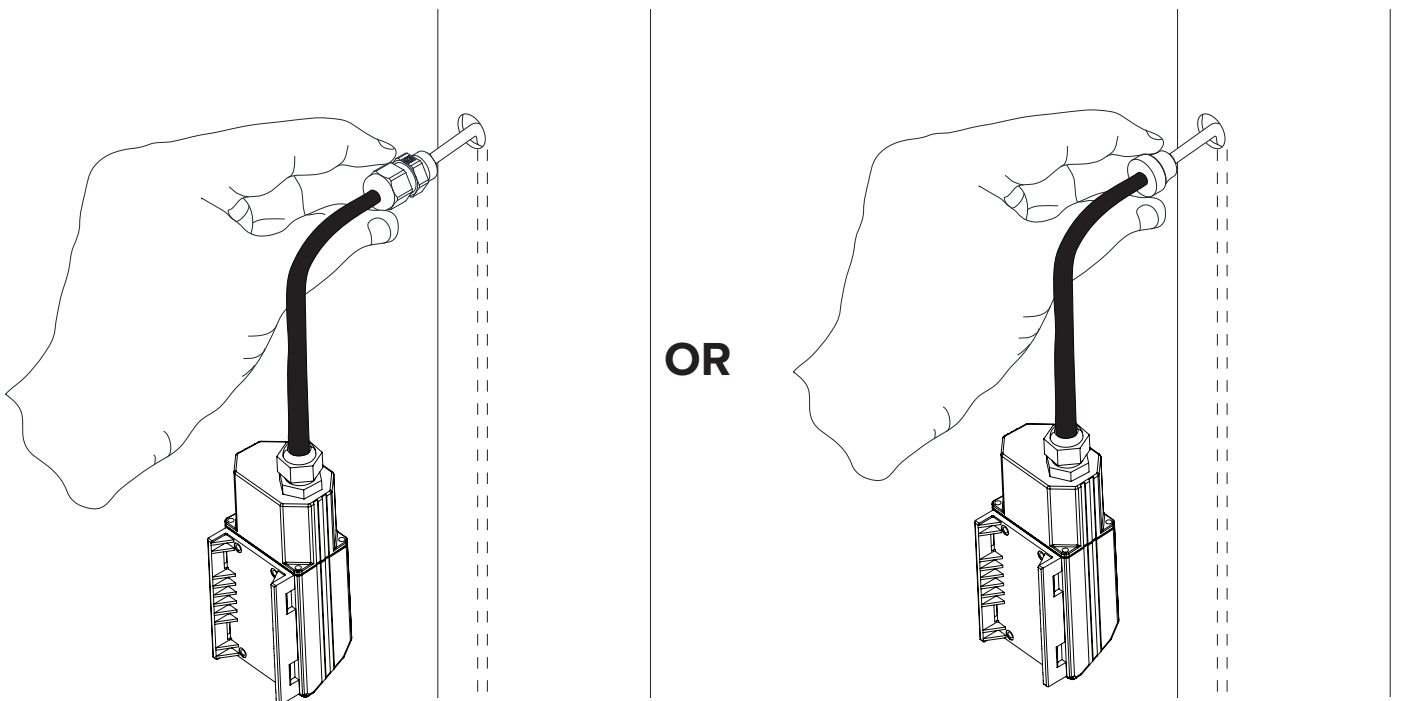
Note: For added protection against rust, the use of an anti-corrosion spray such as WD40 Corrosion inhibitor or equal is recommended.



3. Run wire into hole in the pole

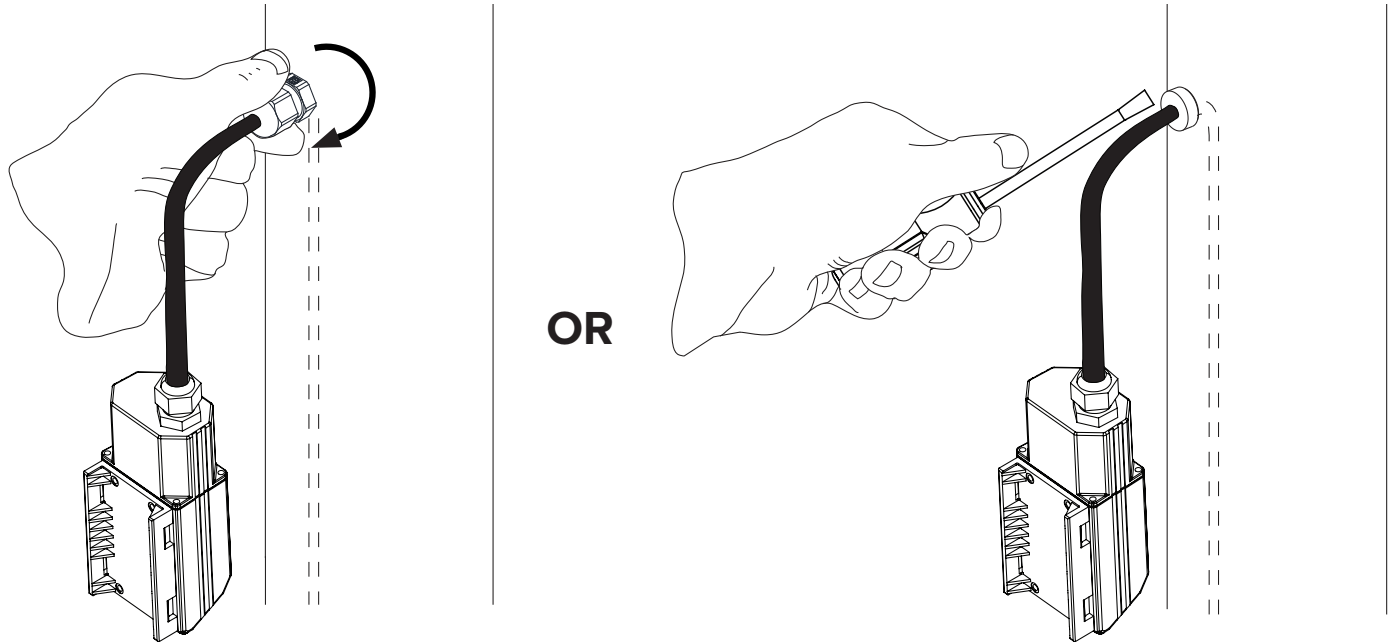


4. Insert Cable Gland/Grommet into hole in the pole

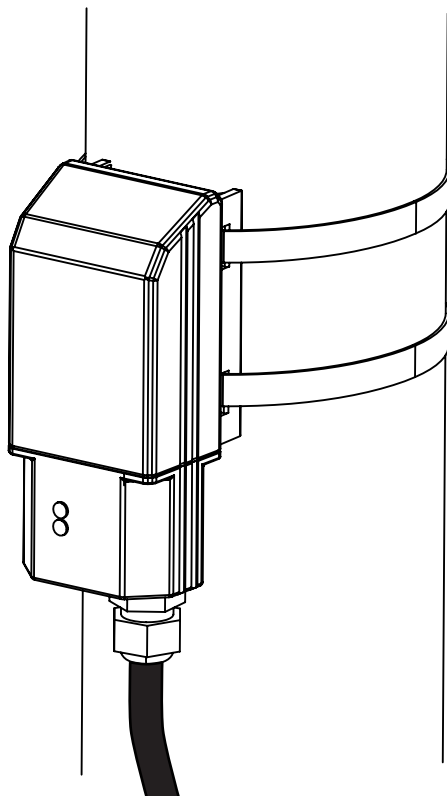


5. Screw Cable Gland OR press Grommet into the pole

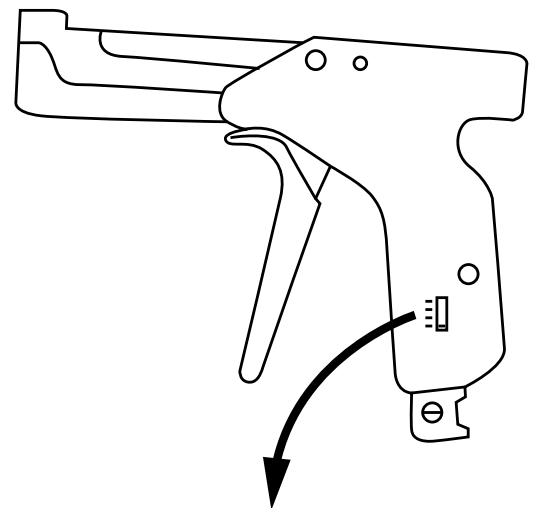
NOTE: Make sure the UV Protective Sleeve is inside the Cable Gland/Grommet when tightening.



6. Strap product to the pole



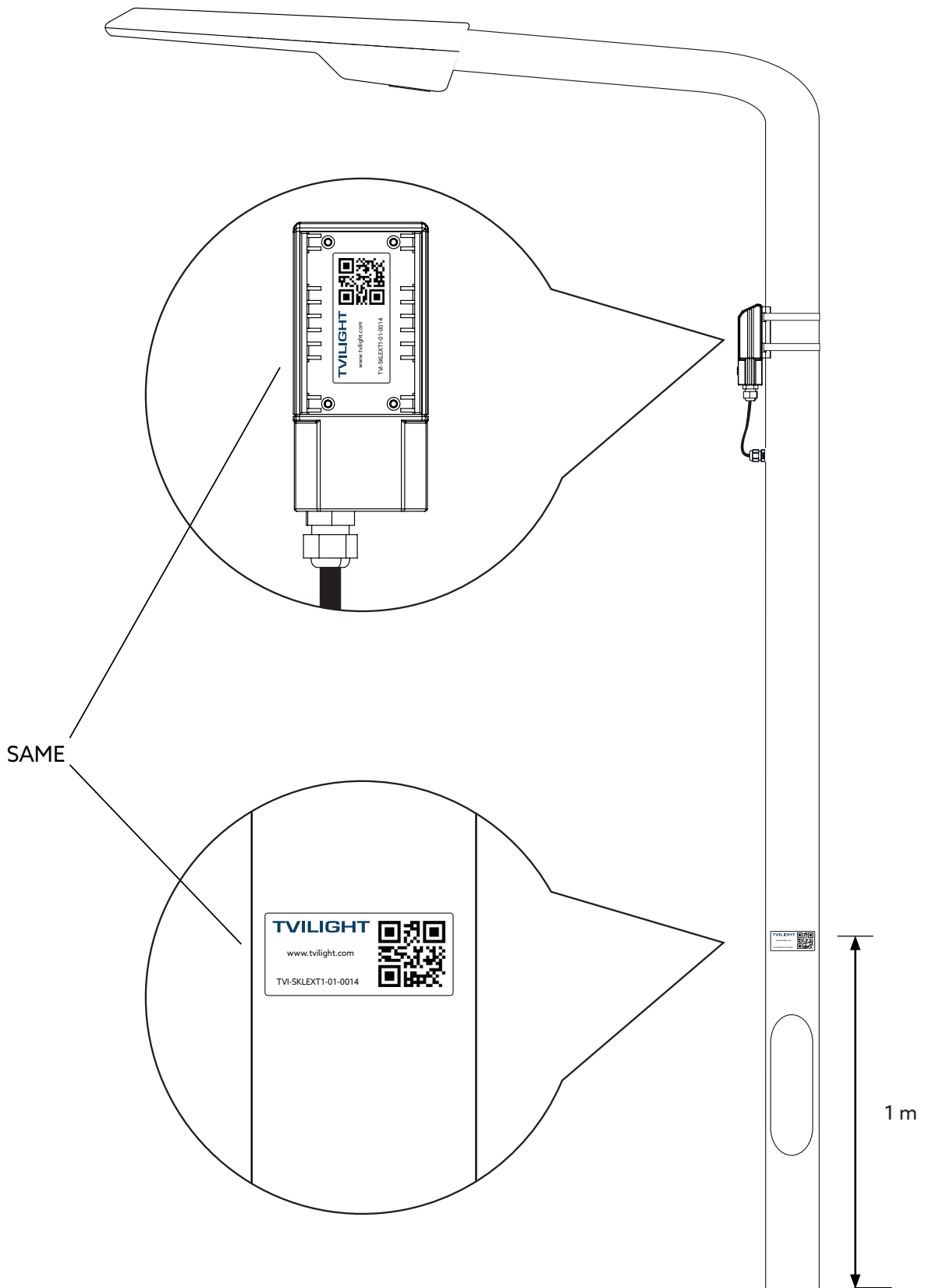
Tensioning Tool



* Ensure Tensioning Tool is set to maximum tension (#4)

7. Apply Pole ID Label to the pole

Ensure that the Product and Pole ID Labels match.



8. Add device to CityManager

1. Download Tvilight Scan&Go from Apple iOS App Store or from Google Play Store.
2. Login with your Username and Password.
3. Use the 'Add device' function in Scan&Go app to add the device to CityManager.
4. The location of the new device is determined by Scan&Go's GPS and it will be indicated on the map.
5. The Device Serial Number will be added when scanning the QR-Code with the camera.
6. Fill in the required fields (the ones with an asterisk), select the device type and also select the type of ballast (PWM or DALI-Logarithmic or DALI-Linear).

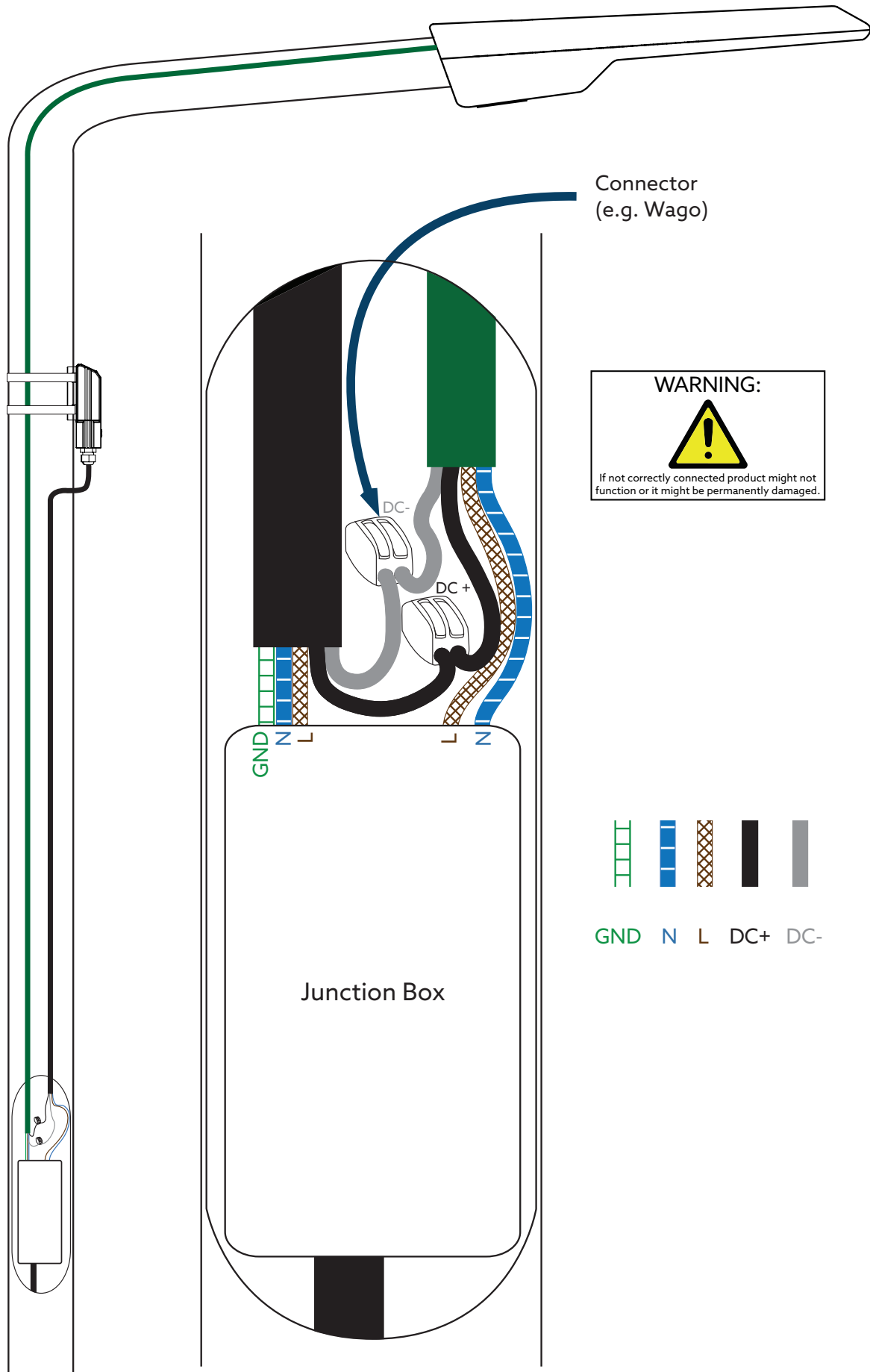
Note: The type of ballast must be known before installation.

7. Press save and move to next device.

For more information on how to use Scan&Go app, please visit:
<https://www.tvilight.com/scan-go/>

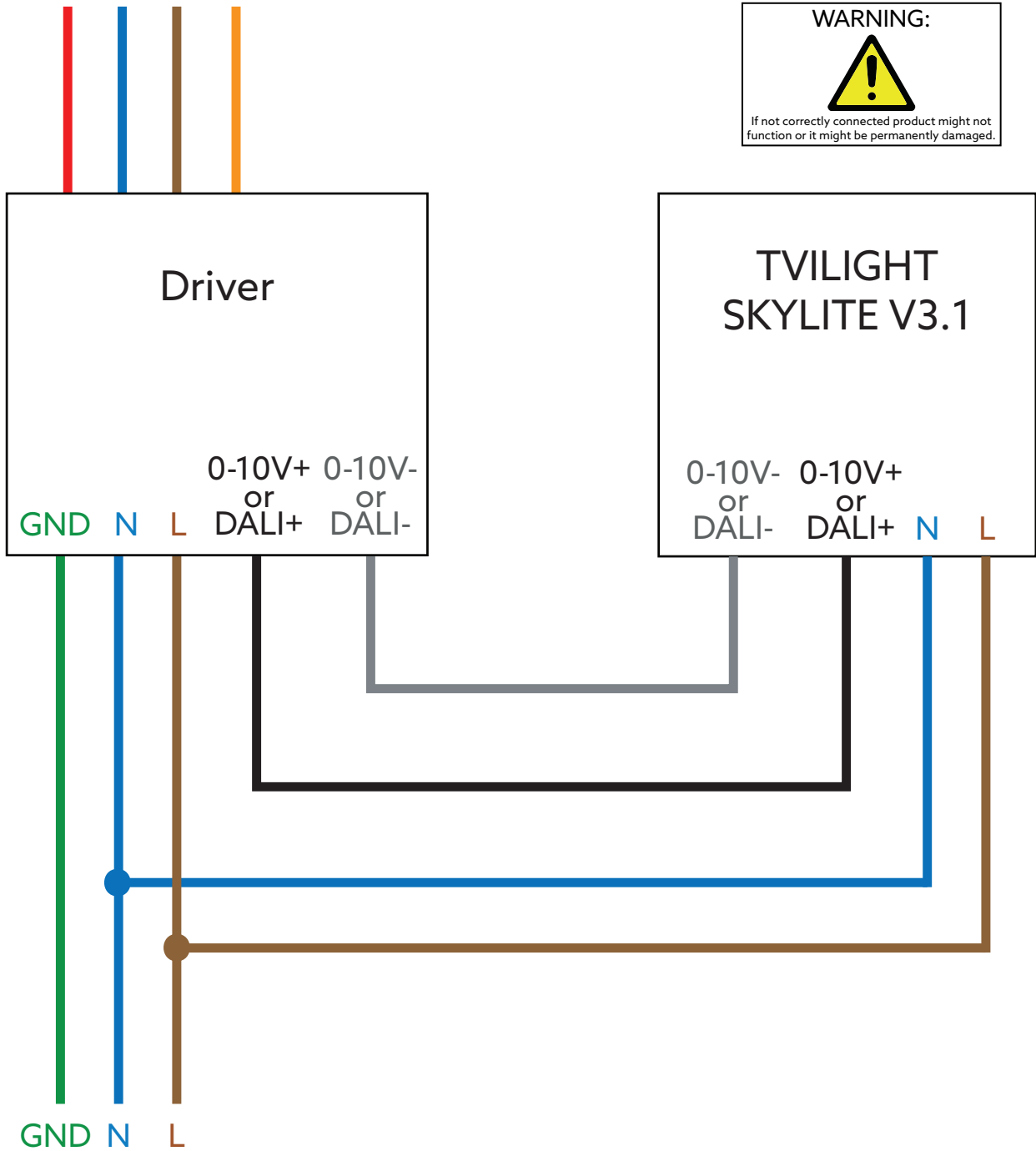


Wiring Diagram



Wiring Diagram

To Armature



To Mains

GND	N	L	0-10V+ or DALI+	0-10V- or DALI-
■	■	■	■	■
GREEN	BLUE	BROWN	BLACK	GREY

Note: For added protection, an external circuit breaker at the power input of the product is recommended. Circuit breakers such as the ELeQ LS-94 5L2408 or similar rated products are acceptable.