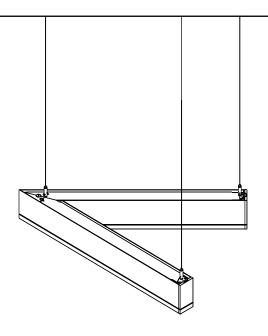
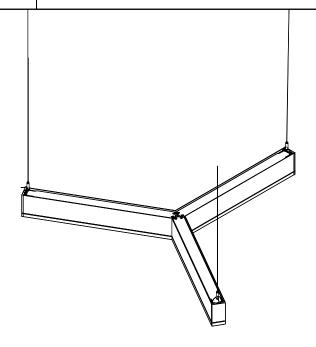


Architectural Linear

TruGroove Micro Shapes

ID – TM Shapes Suspended

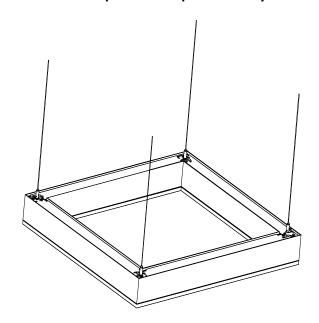




Open shape 2-way

Open shape 4-way

Open shape 3-way



Closed shapes

IMPORTANT: Read all instructions including fixture/sensor wiring AND mechanical details **before** beginning installation.

!

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interreference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



IMPORTANT:

Disconnect or turn off power before attempting any installation, service or maintenance.





IMPORTANT:

Fixture must be connected to building ground via the provided ground wire before re-connecting to mains power supply.



Installation Warning

Single Point Mount: Do not install the fixture near vents. Air movement may cause fixture to sway or rotate.



Power Label Location

For D/I symmetric and asymmetric fixtures, power labels can be found on lower light engine pans or under end louver modules.

For Direct and D/I-Unlit fixtures, power labels can be found on upper pan.

Power Feed Location

Standalone fixtures are prewired for specific power drop points (except for the horizontal 2-way shapes). These cannot be changed in the field.

Installation

Read all instructions including fixture/sensor wiring AND mechanical details **before** beginning installation.

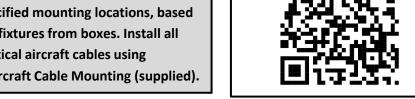
Beware of sharp edges on fixture.

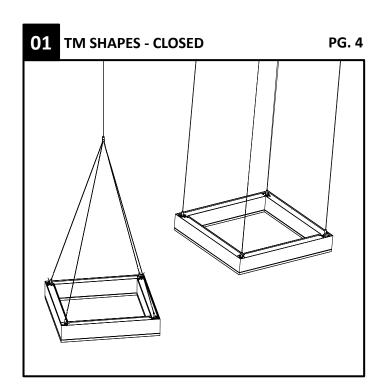
Installation Notes

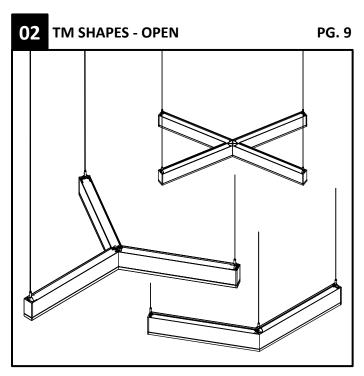
Arrange boxed fixtures on floor in specified mounting locations, based on supplied layout drawings. Remove fixtures from boxes. Install all ceiling mounting components and vertical aircraft cables using separate installation instruction for Aircraft Cable Mounting (supplied).

Ceiling Mount Installation









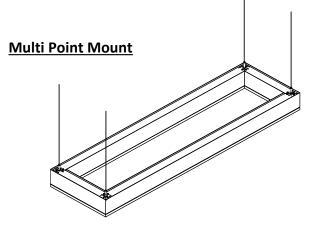
Closed Shapes

System Overview

These instructions review how to install TruGroove Micro closed shape fixtures. These fixtures are standalone by nature, so they only require the ceiling mounting kits in addition to the fixture. The mounting option for this line includes **single point and multi point mounting**.

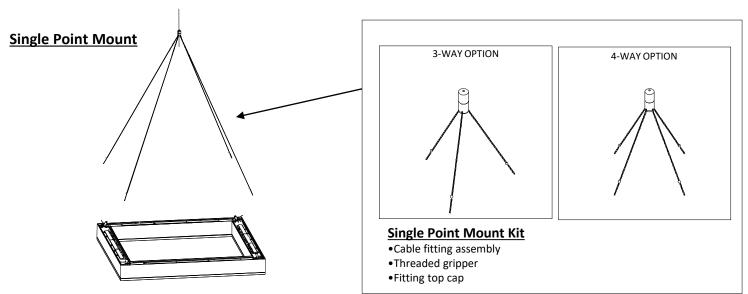


IMPORTANT: Read all instructions including fixture/sensor wiring AND mechanical details before beginning installation.



Required tools

- · Philips #2 screwdriver
- Heyco PN0019(R12) crimping pliers
- Wire stripper/cutter
- Level
- Pliers



Module options

TruGroove Micro closed shapes come in rectangle (1'x4' and 2x4'), square (2'x2' and 4'x4'), and triangle (2'x2'x2') options.

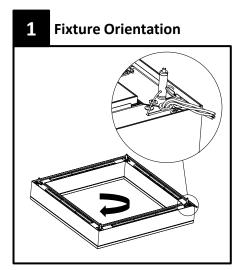
Note on single-point mount: All mounting options require ceiling mount kits, which contains the vertical aircraft cable and ceiling interface. Single point mount further requires a single point mount kit to connect to the fixture.

Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture configuration.

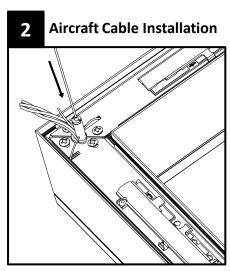


Closed Shapes – Multi-Point Mount

Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.

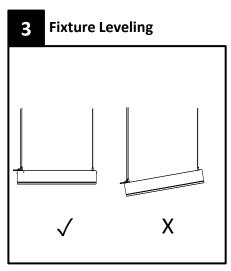


Locate power drop location(s) on fixture indicated by protruding wires at the corner(s). Orient fixture for desired power drop orientation.



Lift fixture to installation position. Insert suspension cable into the cable grippers already attached to the housing. Repeat step for all suspension points.

NOTE: if cable cutting is required, follow the cable cutting steps in the ceiling mount installation instructions.

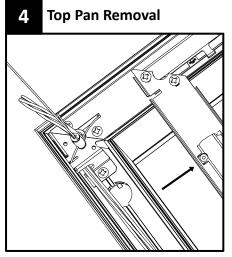


Ensure fixture is installed level. Do not install at an angle.

Note: see leveling instructions.

Leveling Instructions

IMPORTANT: For side to side adjustment of the cable gripper, loosen adjustment screw at bottom of cable gripper. For vertical leveling, support bottom of fixture, press plunger on top of cable gripper and slowly lift/lower fixture to desired position. Release plunger when complete. Ensure fixture is secure before removing support. Repeat the same process around the fixture. When complete, re-tighten side to side adjustment screw on each gripper by hand.



Partially remove both top pans adjacent to the power drop to locate which side the power drop wires route from. Completely remove the top pan from the side the wires are routed from. Set aside top pan on the housing so it is securely supported. **Do not hang the light engine from the DC wires.**

Power Cable Routing

Pull out factory installed wires back into the housing cavity through the corner bracket. Feed supplied power cord through the corner bracket and into the fixture wiring cavity.

Closed Shapes – Multi-Point Mount

Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.

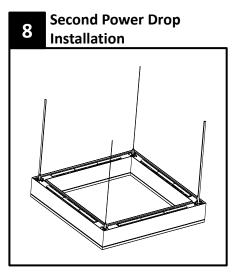
6 Electrical Connecting

Connect the power cord to the fixture wires using wire nuts (supplied by installer). Install supplied strain relief crimp as shown using a Heyco PN0019(R12) (note orientation).

7 Top Pan Reinstall

Re-install top pan and screws removed in step 4.

Optional: Use cable ties to secure power cord to aircraft cable as required.



Repeat steps 4 to 7 for 2 circuit fixtures to install the second power drop (if applicable).

9 Finishing

- Ensure all fixtures are level.
- Ensure top pan is properly installed.
- Power fixtures on and check all modules light up.
- Ensure lens are securely installed.
- Tuck in excess suspension cable under top pan

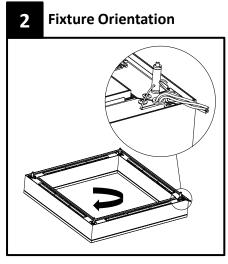
Closed Shapes – Single-Point Mount

Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.

Warning! Step 1 is critical to the safety of the product installation. Follow closely.

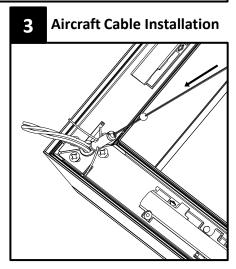
Prepare Mounting Top cap Compare Mounting Top cap Lower fitting

Prepare the single point mount converging cable kit by unthreading the top cap. Ensure the cable gripper bushing is bottomed out in the lower fitting tightly, then **loosely** thread the top cap back on.

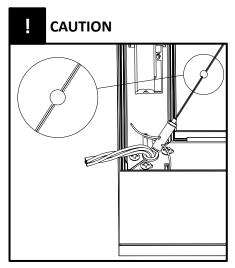


Locate power drop location(s) on fixture indicated by protruding wires at the corner(s). Orient fixture for desired power drop orientation.

NOTE: Refer to architectural drawings for fixture height/drop length.

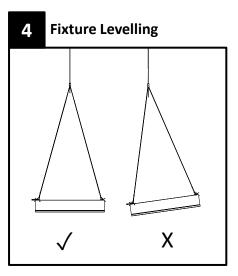


With the fixture on the ground, insert suspension cables into the cable grippers already attached to the housing. Lift fixture to installation position and install vertical suspension cable into the single point mount cable fitting assembly.



The stopper on the suspension cable is to limit the angle of the cables within a safe range.

NOTE: Do not remove or break the stopper.



Ensure fixture is installed level. Do not install at an angle.

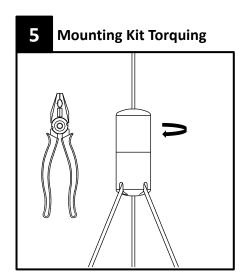
NOTE: See leveling instructions.

Leveling Instructions

IMPORTANT: Find the desired vertical drop for the vertical and converging sections of the suspension assembly. First, set the vertical solely by adjusting the vertical cable drop length. Next tighten up the converging cables so the converging vertical drop is achieved. Note that the cable limiting crimps are in place to limit the cable angle to stay within the allowable working load limits. Do not force the cable past these limiters. The converging cables are used to level the fixture. For side to side adjustment of the cable gripper, loosen adjustment screw at bottom of cable gripper. For vertical leveling, support bottom of fixture, press plunger on top of cable gripper and slowly lift/lower fixture to desired position. Release plunger when complete. Ensure fixture is secure before removing support. Repeat the same process around the fixture. When complete, re-tighten side to side adjustment screw on each gripper by hand.

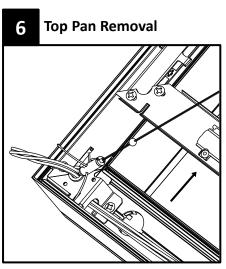
Closed Shapes – Single-Point Mount

Note: the installation steps figures might slightly differ from the actual fixture depending on the fixture option.

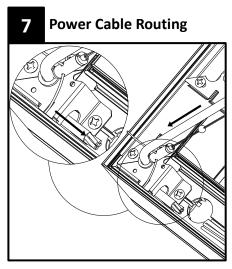


Use a cloth to protect the surface and a pair of pliers to tighten the assembly.

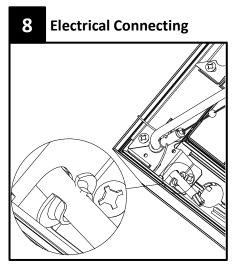
NOTE: if the center cable cutting is required, follow the cable cutting steps in the ceiling mount installation instructions.



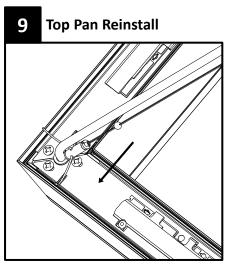
Partially remove both top pans adjacent to the power drop to locate which side the power drop wires route from. Completely remove the top pan from the side the wires are routed from. Set aside top pan on the housing so it is securely supported.



Pull out factory installed wires back into the housing cavity through the corner bracket. Feed supplied power cord through the corner bracket and into the fixture wiring cavity.

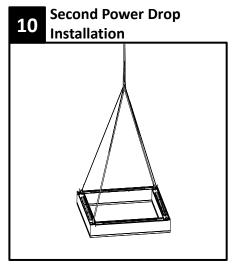


Connect the power cord to the fixture wires using wire nuts (supplied by installer). Install supplied strain relief crimp as shown using a Heyco PN0019(R12).



Re-install top pan and screws removed in step 5.

Optional: Use cable ties to secure power cord to aircraft cable as required.



Repeat steps 6 to 9 for 2 circuit fixtures to install the second power drop (if applicable).

!

FINISHING:

- Ensure all fixtures are level.
- Ensure top pan is properly installed.
- Power fixtures on and check all modules light up.
- Ensure lens are securely installed.
- Tuck in excess suspension cable under top pan

!

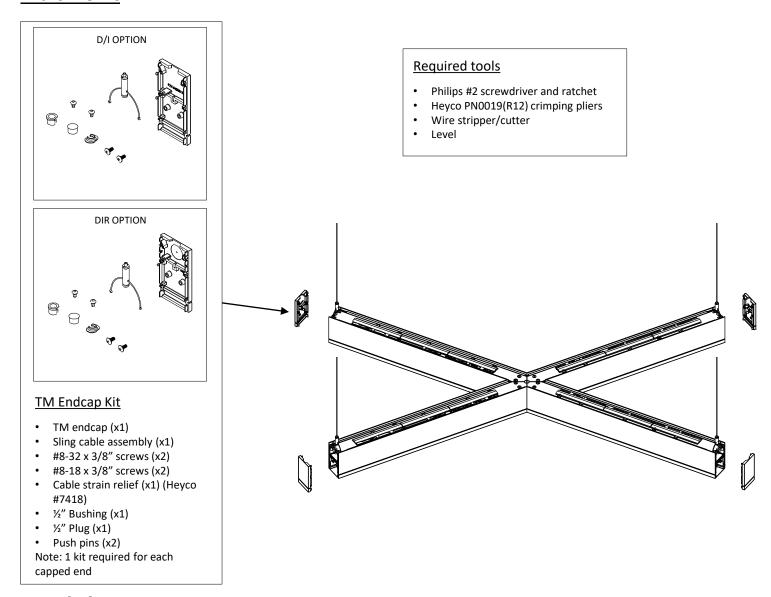
System Overview



These instructions review how to install TruGroove Micro 3/4-way shapes fixtures. Single and multipoint mounting options are available for standalone fixtures.

IMPORTANT: Read all instructions including fixture/sensor wiring AND mechanical details before beginning installation.

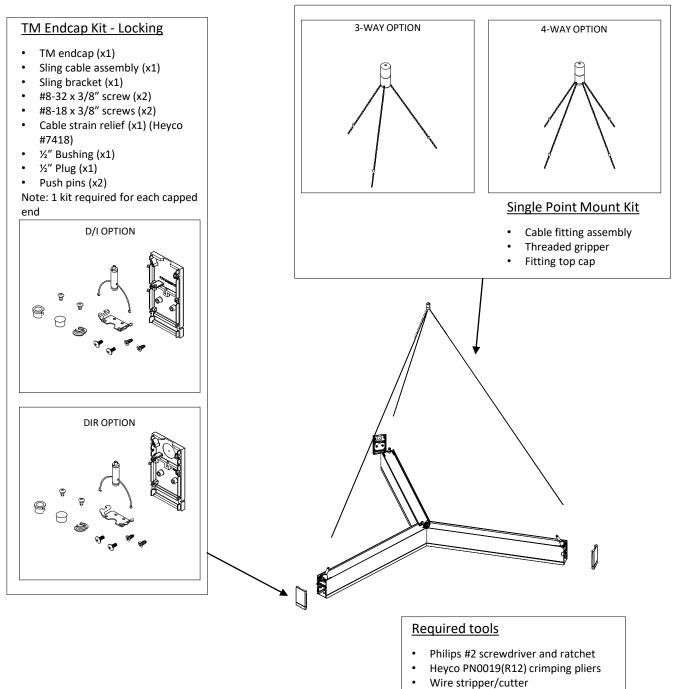
Multi Point



Module options

TruGroove 3/4-Way shapes consists of Y, T, +, and X for 3/4-way configurations as well as a vertical offering of 30° , 45° & 60° up for 2'x2' option.

Single Point

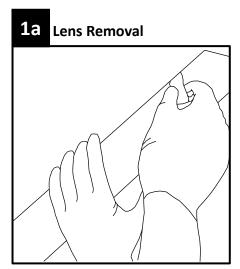


Note: The installation step figures might slightly differ from the actual fixture depending on the fixture option.

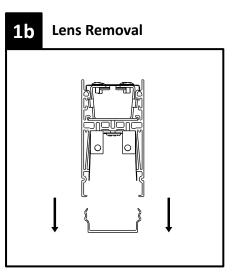
Level Pliers

Open Shapes – Multi Point Mount

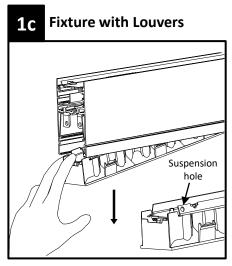
Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.



Lens Removal: To remove snap-in lens for maintenance purposes, insert a flat, smooth edged object between lens and housing (avoid screwdrivers). Twist to release pressure and remove lens.

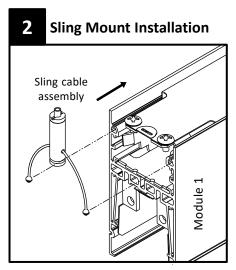


Remove lens from fixture and set aside until fixture installation is complete. Use cotton gloves to handle lenses and keep in a clean environment.

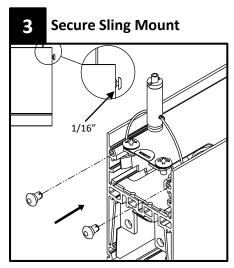


Remove one louver from end of fixture by pulling gently and temporarily suspend from available holes.

Do not allow the louver to hang from the electrical wires.

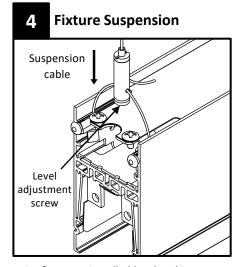


With module 1 on the ground, slide sling cable assembly into top fixture screw chase on all ends of the fixture.



Attach two push pins to the screw chase to secure each sling cable assembly inside fixture during installation process. Gently tap each push pin into the housing leaving a 1/16" gap for easier removal later.

NOTE: Make sure the sling has not come out of the screw chase while installing pins.

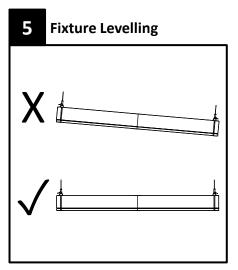


Raise fixture to installed level and insert suspension cable inside sling cable assembly. Ensure end of aircraft cable exits from sling cable assembly as shown.

NOTE: if cable cutting is required, follow the cable cutting steps in the ceiling mount installation instructions.

Open Shapes – Multi Point Mount

Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.

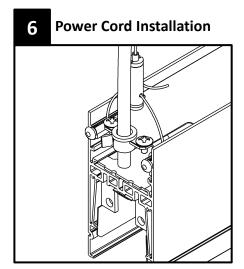


Ensure module 1 is installed level. Do not install at an angle.

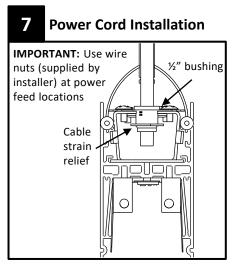
Note: See leveling instructions.

Leveling Instructions

IMPORTANT: For side to side adjustment of the cable gripper, loosen adjustment screw at bottom of cable gripper. For vertical leveling, support bottom of fixture, press plunger on top of cable gripper and slowly lift/lower fixture to desired position. Release plunger when complete. Ensure fixture is secure before removing support. Repeat the same process around the fixture. When complete, re-tighten side to side adjustment screw on each gripper by hand.

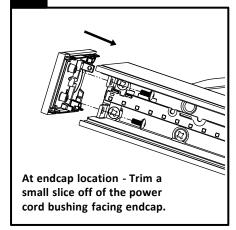


Determine power feed location and break ½" electrical knockout at required end. Install ½" bushing from above fixture as shown. Feed power cord from above into fixture wiring cavity.

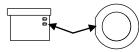


Install and crimp provided cable metal strain relief bushing to secure power cord below fixture reflector. Use a Heyco PN0019(R12) crimping tool to ensure proper installation.

8 Endcap Installation

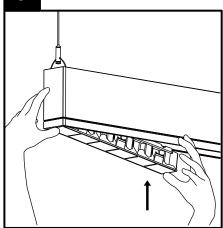


Remove pushpins and slide endcap onto each end of fixture module and secure from below using two #8-32 X 5/16" screws. Use ratchet to tighten screws until endcap seam is tight. **IMPORTANT: Do not overtighten.**

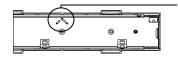


Trim ½" bushing as shown

9 Louver Installation



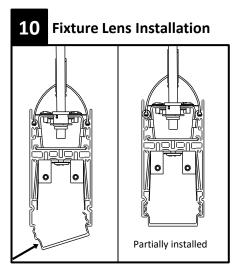
Installation Tip: For easier installation, start on one end of the louver pressing gently on side tabs. IMPORTANT: For asymmetric louver fixtures, orientate the arrows on the louver pan to point at the label on the outside of the housing.



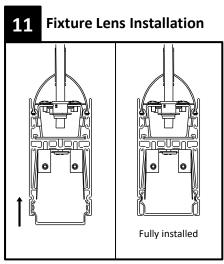
asymmetric arrow

Open Shapes – Multi Point Mount

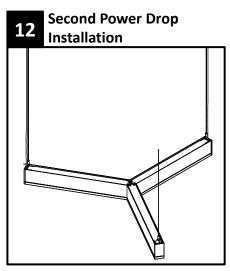
Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.



Install lenses removed in step 1. Installation Tip: For easier installation, start at a housing end or a joint by placing lens at an angle and squeezing in slightly from the other side to guide inside housing.



Once lens is positioned inside housing, starting on one end or joint, push upwards gently and work outward to complete the



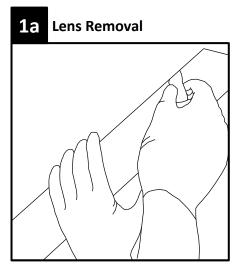
Repeat steps 6 and 7, for 2 circuit fixtures to install the second power drop (if applicable).

13 Finishing

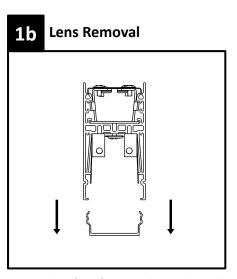
- Ensure all fixtures are level.
- Ensure top pan is properly installed.
- Power fixtures on and check all modules light up.
- Ensure lens are securely installed.
- Tuck in excess suspension cable under top pan

Open Shapes – Single Point Mount

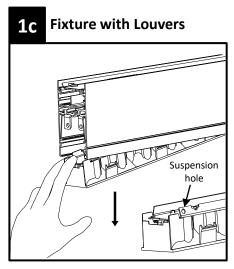
Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.



Lens Removal: To remove snap-in lens for maintenance purposes, insert a flat, smooth edged object between lens and housing (avoid screwdrivers). Twist to release pressure and remove lens.



Remove lens from fixture and set aside until fixture installation is complete. Use cotton gloves to handle lenses and keep in a clean environment.



Remove one louver from end of fixture by pulling gently and temporarily suspend from available holes.

Do not allow the louver to hang from the electrical wires.

Warning! Steps 3 - 6 & 8 are critical to the safety of the product installation. Follow closely.

Remove Top Pan

With module 1 on the ground, unscrew all the top screws and remove all top pans. Save screws for re-installation later.

Sling Mount Installation Sling cable assembly

With module 1 on the ground, slide sling cable assembly into top fixture screw chase. Repeat on all ends of the fixture.

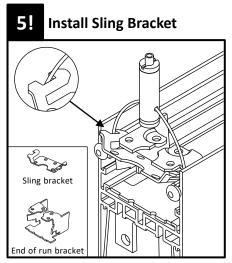
4! Secure Sling Mount

Attach two temporary push pins to the screw chase to prevent sling assembly from slipping out. Gently tap each push pin into the housing leaving a 1/16" gap for easy removal later.

NOTE: Make sure the sling has not come out of the screw chase while installing pins.

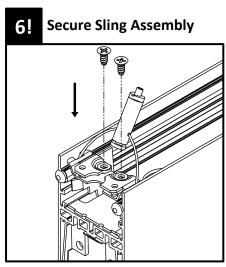
Open Shapes – Single Point Mount

Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.

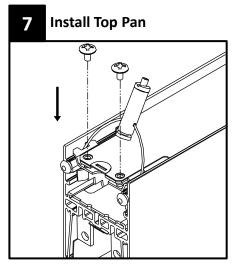


Fish the sling cable within the openings of the bracket. Slide the sling bracket into the housing. The sling bracket will sit within end of run bracket.

NOTE: Make sure the sling cable is in between the openings of the bracket.



Secure sling bracket using two #8-18 x 3/8 screws Phillips screws provided. Repeat on all ends of the fixture.

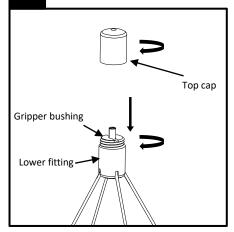


Reinstall top pan removed in step 2. Reinstall all screws previously removed.

CAUTION: Do not pinch any wires.

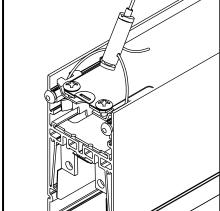
Warning! Steps 3 - 6 & 8 are critical to the safety of the product installation. Follow closely.

8! Prepare Mounting



Prepare the single point mount converging cable kit by unthreading the top cap. Ensure the cable gripper bushing is bottomed out in the lower fitting tightly, then **loosely** thread the top cap back on.

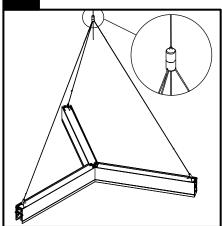
9 Aircraft Cable Installation



Insert converging suspension cables inside each sling cable assembly. Ensure end of aircraft cable exits from sling cable assembly as shown

NOTE: Refer to architectural drawings for fixture height/drop length.

10 Fixture Suspension



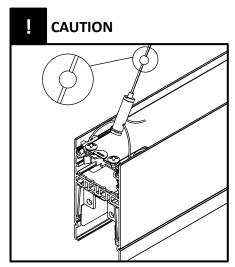
Carefully raise fixture to installed level and insert vertical suspension cable through the single point mounting assembly.

Remove push pins.

Note: if the center cable cutting is required, follow the cable cutting steps in the ceiling mount installation instructions.

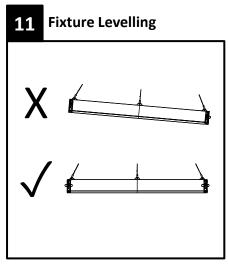
Open Shapes – Single Point Mount

Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.



The stopper on the suspension cable is to limit the angle of the cables within a safe range.

NOTE: Do not remove or break the stopper.

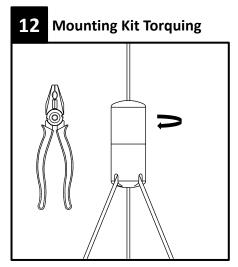


Ensure module 1 is installed level. Do not install at an angle.

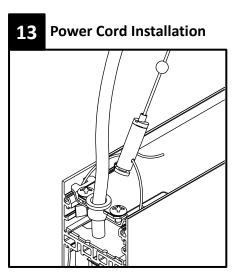
NOTE: See leveling instructions.

Leveling Instructions

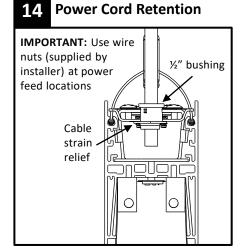
IMPORTANT: Find the desired vertical drop for the vertical and converging sections of the suspension assembly. First, set the vertical solely by adjusting the vertical cable drop length. Next tighten up the converging cables so the converging vertical drop is achieved. Note that the cable limiting crimps are in place to limit the cable angle to stay within the allowable working load limits. Do not force the cable past these limiters. The converging cables are used to level the fixture. For side to side adjustment of the cable gripper, loosen adjustment screw at bottom of cable gripper. For vertical leveling, support bottom of fixture, press plunger on top of cable gripper and slowly lift/lower fixture to desired position. Release plunger when complete. Ensure fixture is secure before removing support. Repeat the same process around the fixture. When complete, re-tighten side to side adjustment screw on each gripper by hand.



Use a cloth to protect the surface and a pair of pliers to tighten the assembly.



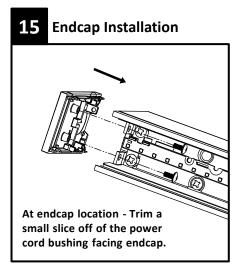
Determine power feed location and remove ½" electrical knockout at required end. Install ½" bushing from above fixture as shown. Feed power cord from above into fixture wiring cavity.



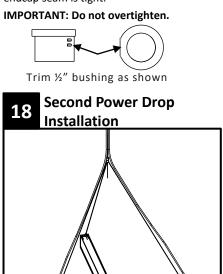
Install and crimp provided cable metal strain relief bushing to secure power cord below fixture reflector. Use a Heyco PN0019(R12) crimping tool to ensure proper installation. Optional: Use cable ties to secure power cord to aircraft cable as required.

Open Shapes - Single Point Mount

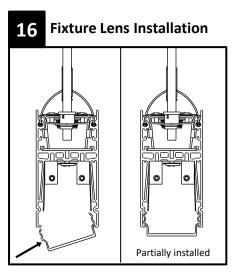
Note: The installation steps figures might slightly differ from the actual fixture depending on the fixture option.



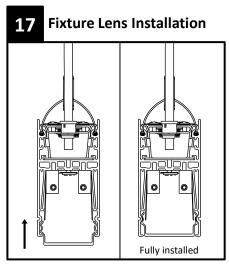
Slide endcap onto each end of fixture and secure from below using two #8-32 X 5/16" screws. Use ratchet to tighten screws until endcap seam is tight.



Repeat steps 13 and 14, for 2 circuit fixtures to install the second power drop (if applicable).



Install lenses removed in step 1.
Installation Tip: For easier installation, start at a housing end or a joint by placing lens at an angle and squeezing in slightly from the other side to guide inside housing.



Once lens is positioned inside housing, starting on one end or joint, push upwards gently and work outward to complete the section.

Fin

Finishing

- Ensure all fixtures are level.
- Ensure top pan is properly installed.
- Power fixtures on and check all modules light up.
- Ensure lens are securely installed.
- Tuck in excess suspension cable under top pan

*not for Enterprise or Signify Commissioned projects

To configure a lighting system with Interact sensors or RF nodes;

- Ensure the luminaires are installed and powered on.
- Download the Interact Pro app from either Apple's App Store (for iOS) or Google's Play Store.



- Register by tapping **Request access** on the login screen in the app.
- **Click** or **scan** the QR codes below to view instructions for setup.

Interact Pro Foundation Interact Pro Advanced **Quick Start Guide**



Interact Pro Documentation



Quick Start Guide



Interact Pro Setup Video



Contact Us



Sensors in Rows

Single Sensor Controlling Whole Row

- 1. Purple & brown (or purple & grey/pink) control wires <u>MUST</u> be connected between fixtures. Note:
 - A maximum of 8 drivers can be wired to one sensor; confirm fixture driver count with factory.



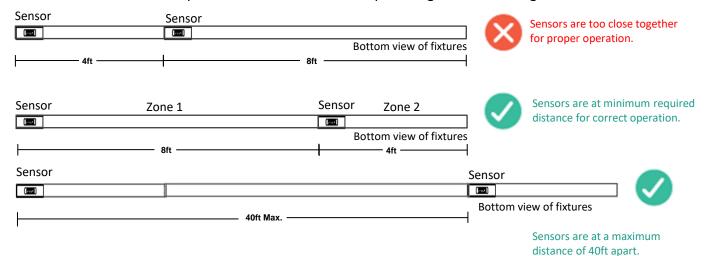
Multiple Sensors Controlling Separate Zones in a Row

- Purple & brown (or purple & grey/pink) control wires <u>MUST NOT</u> be connected between zones. Notes:
 - A maximum of 8 drivers can be wired to one sensor; confirm fixture driver count with factory.
 - Only one sensor is allowed on a wired zone. (Sensors can be paired together wirelessly via a mobile app).



Sensor Spacing

- For correct operation, sensors should be placed a minimum distance of 8ft apart.
- Wireless sensors should be placed no further than 40ft apart for good wireless signal connection.

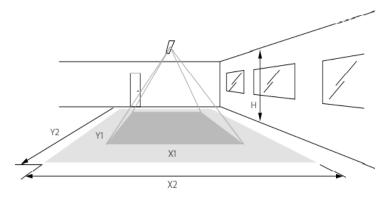


Important Consideration When Using Sensors in a Row

- For fixtures with wireless sensors (CS, SB or RA options):
 <u>DO NOT</u> connect fixture purple & brown (or purple & grey/pink) control wires to an external dimming switch.
 Fixture mains wiring should not be connected to a circuit with an external on/off switch.
- For best aesthetic condition, place sensors at ends of row only so as not to break the continuous lens.
- For better occupancy coverage in longer rows, sensors may be placed mid run, but keep in mind this will break the continuous lens into discrete sections.

Occupancy Sensor Coverage:

Note: Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of the luminaire.



151		<u> </u>		
Height	Minor movement		Major movement	
h	X1	Y1	X2	Y2
2.4 m (7.9 ft)	1.9 m (6.2 ft)	` '	2.9 m (9.5 ft)	4.3 m (14.1 ft)
3 m (9.8 ft)	2.4 m (7.9 ft)		3.6 m (11.8 ft)	

The detection area for the movement sensor can be roughly divided into two parts:

- Minor movement (person moving ≤3ft/s or 0.9m/s).
- Major movement (person moving ≥3ft/s or 0.9m/s).

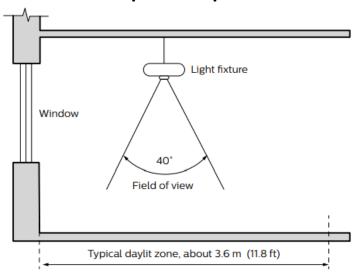
Daylight sensor

The light sensor measures the total amount of light in a circular field of approximately 80% of the PIR detection area. The following aspects should be observed during installation:

- Minimum distance from the window ≥2ft (0.6m).
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car hood) as this will lead to incorrect light regulation.

As a guideline the formula 0.72 x H can be used to calculate the minimum distance between the window and sensor whereby H is the height from the bottom of the window to the sensor.

Photosensor spatial response



ATTENTION: Install in accordance with local and national building and electrical codes.

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