



# Installation Guide/Owner's Manual

## Strait Secure Ceiling Slot

Technical Support: 313-259-6400, Press 5

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## INSTALLATION GUIDE/OWNER'S MANUAL

### 1.0 OWNER/USER RESPONSIBILITY

It is the responsibility of the contractor, installer, buyer, owner and user to install, maintain, and operate this luminaire in accordance with all applicable laws, regulations and local electrical safety authority requirements.

This product is only to be installed by a qualified electrician.

#### IMPORTANT!

Thoroughly read the entire instructions guide and warnings before beginning installation. The instructions provided are intended to assist in the installation and service of the corresponding product. Failure to follow the instructions may result in product malfunction, damage, injury or death. Contact your Kirlin service representative for replacement parts and procedures.

### 2.0 SAFETY & IMPORTANT INFORMATION



Risk of fire or electric shock. Ensure all power is disconnected during installation process. Refer to wiring diagrams to prevent damages and malfunctions.



This luminaire may only be connected and installed by a qualified electrician. This luminaire requires knowledge of luminaires and electrical systems. If not qualified, do not attempt installation or maintenance. All applicable regulations, legislation, and building codes must be observed.



Connecting fixtures with power **ON** will “hot plug” the LEDs and cause damage.



To prevent wiring damage or abrasion, do not expose wiring to edges metal or other sharp objects.

### 3.0 STANDARDS & COMPLIANCE

UL Listed	UL 1598
Restriction of hazardous substances	RoHS Compliant

### 4.0 ELECTRICAL REQUIREMENTS

Nominal input voltage range AC	120 - 277V
Input frequency range	50 - 60Hz
Maximum wattage	16.2 W/ft (VRL-02SWM) 5.83 W/ft (VRL-02CCM all on)
Power factor at full load	> 0.95
Surge protection	1kV differential mode (DM) 2kV common mode (CM)

## 5.0 BEFORE YOU BEGIN

### Before You Begin

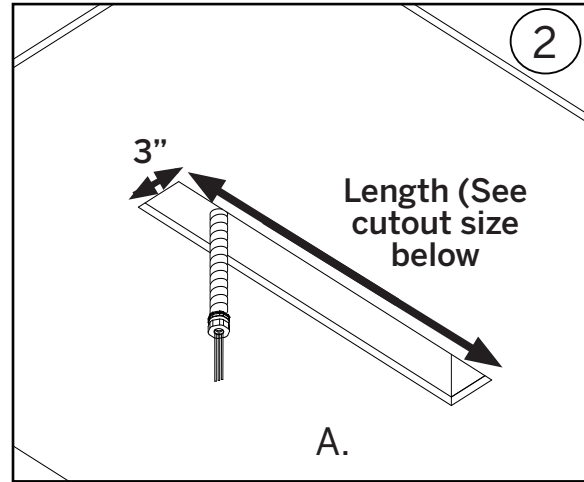
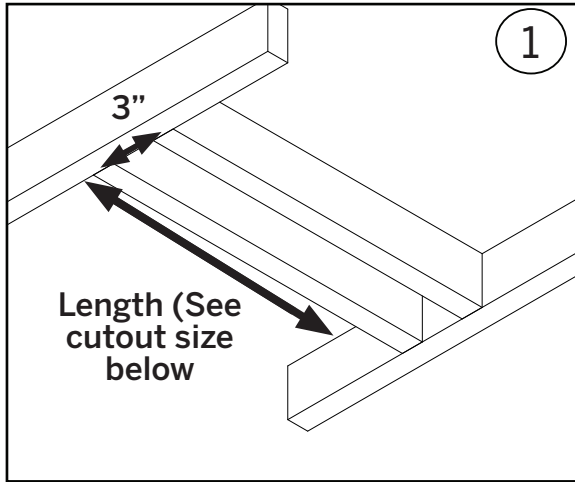
- Shut **OFF** power at fuse box or circuit breaker before installation, inspection or removal.
- To reduce the risk of fire or electric shock, **NEVER** interconnect or short output terminations.

### Environmental Conditions

Luminaire operating ambient temperature (Ta) range	-30°C to +60°C
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**6.0 FRAMING - HARD LID**



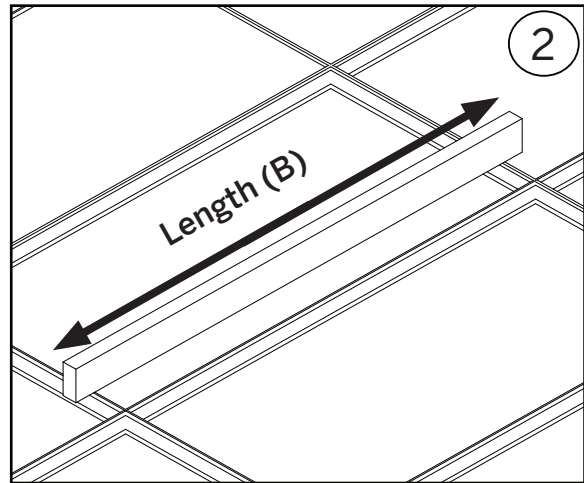
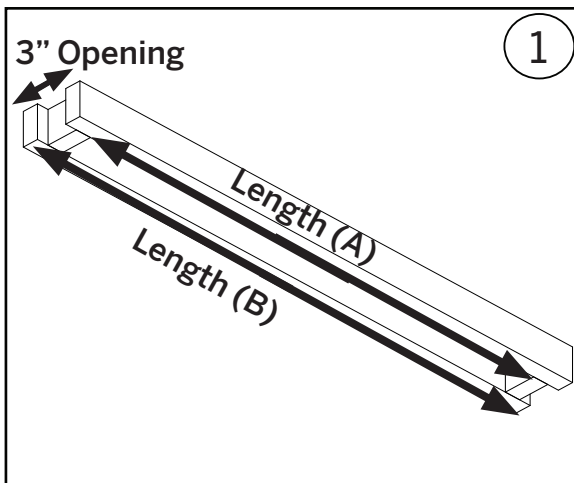
Prepare framing in ceiling with an opening width of 3.0 inches and a length from the table below for the corresponding fixture length.

Install hard ceiling with cutout size with a width of 3.0 inches and a length from the table below for the corresponding fixture length. Drop conduit (supplied by others) through cutout to attach to the fixture.

Fixture Length	Length
2 ft	23.25"
4 ft	47.25"
6 ft	71.25"

For other lengths, consult factory.

**6.1 FRAMING - T-GRID**



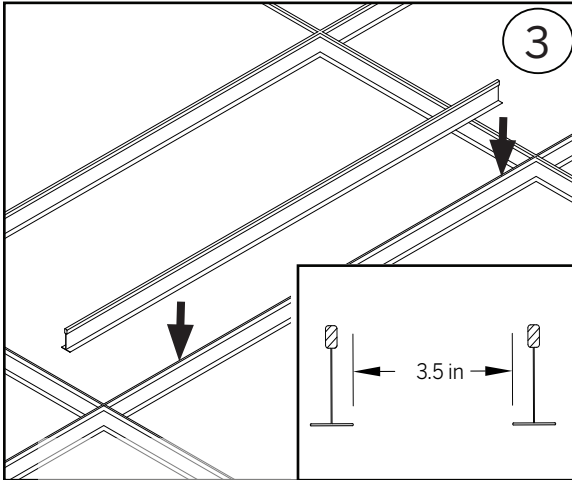
Prepare framing in ceiling with an opening width of 3.0 inches and length (A) from the table below for the corresponding fixture length. Ensure that board length (B) is 4.0 inches longer than the T-grid spacing.

Ensure that board length (B) is 4.0 inches longer than the T-grid spacing.

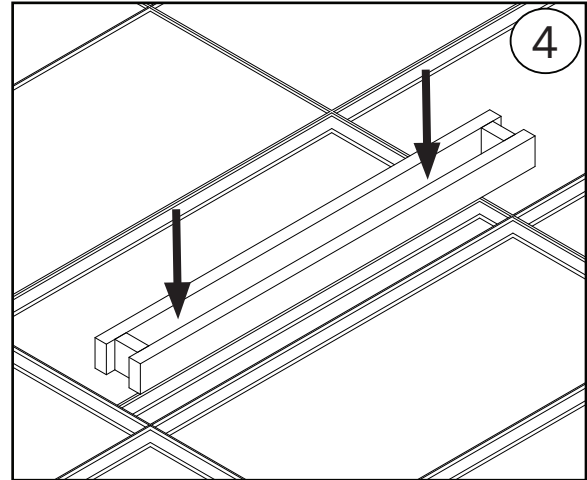
Fixture Length	Length
2 ft	23.25"
4 ft	47.25"
6 ft	71.25"

For other lengths, consult factory.

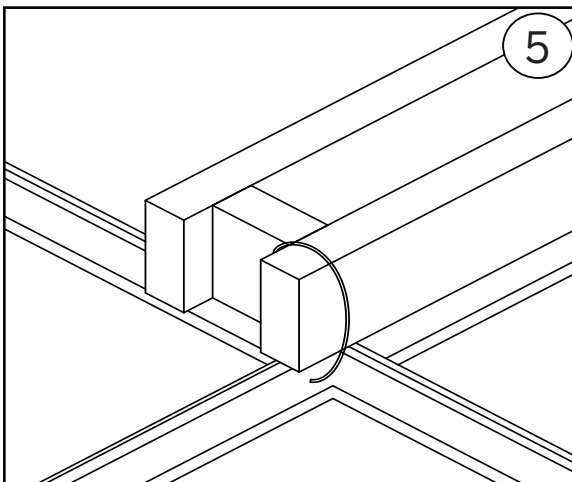
**6.1 FRAMING - T-GRID (Continued)**



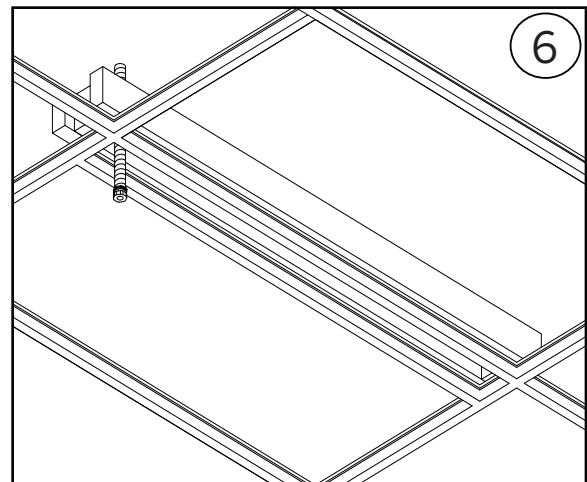
Set in T-grid cross brace with 3.5" spacing.



Set the joist box onto the T-grid in the desired fixture location. Ensure the joists sit flush to the top of the T-grid.



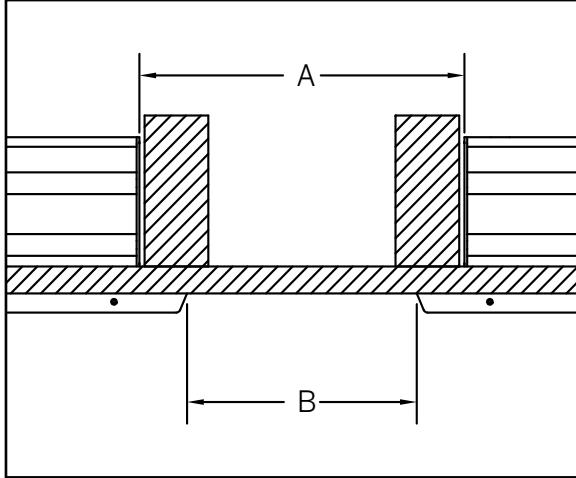
Brace all the corners of the framing to the T-grid and upper-ceiling or truss using typical galvanized steel straps and/or reinforced wires (supplied by others).



Drop conduit (supplied by others) through the joist box to attach to the fixture.

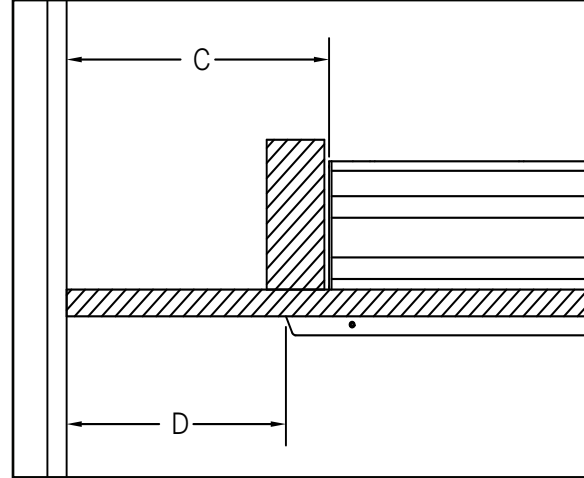
## 7.0 APPLICATION CLEARANCES

Fixture Frame to Fixture Frame



Minimum spacing between fixtures is dependent of tool usage. For closer fit and final tightening, use the provided L-key at the noted minimum dimensions. For quicker installation, use the provided flex drive and final tighten with L-key.

Fixture Frame to Wall

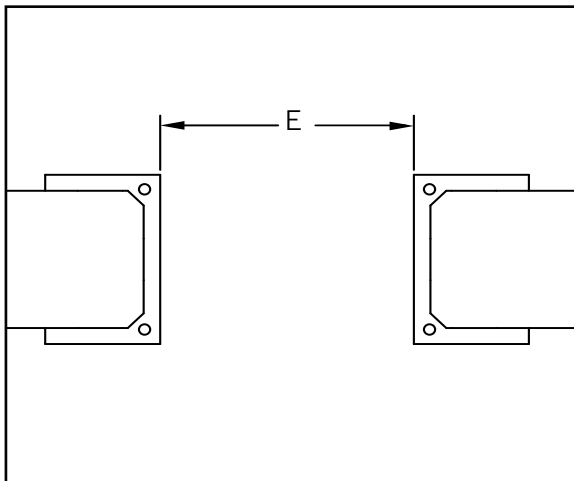


Minimum spacing between frame edges and walls.

### Minimum Clearance - Tool Usage

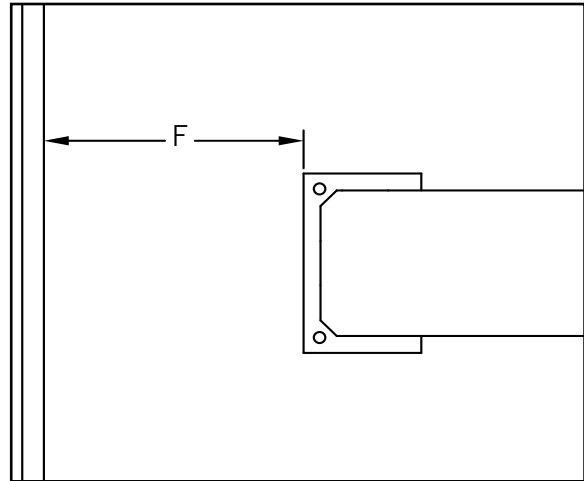
	Flex Drive	L-Key
A	8.75"	4"
B	6.5"	1.75"
C	7.125"	2.875"
D	6"	1.75"

Housing Bracket to Housing Bracket



Housing bracket dimensions for installation placement, fixture frames extend 1/4". Dimensions are dependent on tool usage.

Housing Bracket to Wall

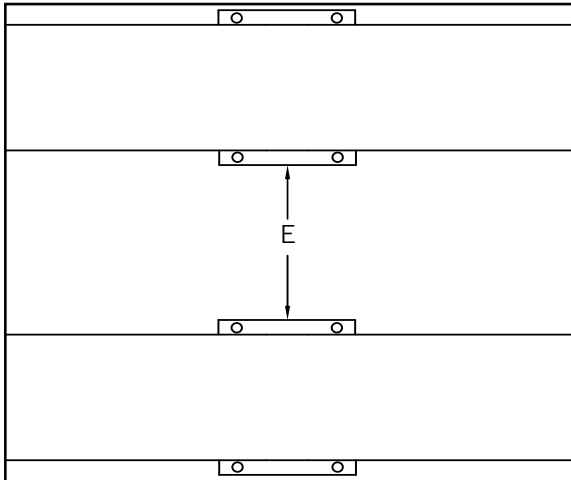


### Minimum Clearance - Tool Usage

	Flex Drive	L-Key
E	7"	2.25"
F	6.25"	2"

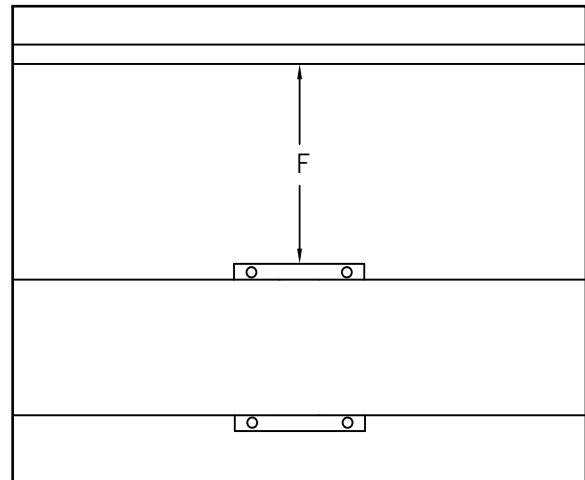
## 7.0 APPLICATION CLEARANCES (Continued)

Housing Edge to Housing Edge



Housing bracket dimensions for installation placement, fixture frames extend 1/4". Dimensions are dependent on tool usage.

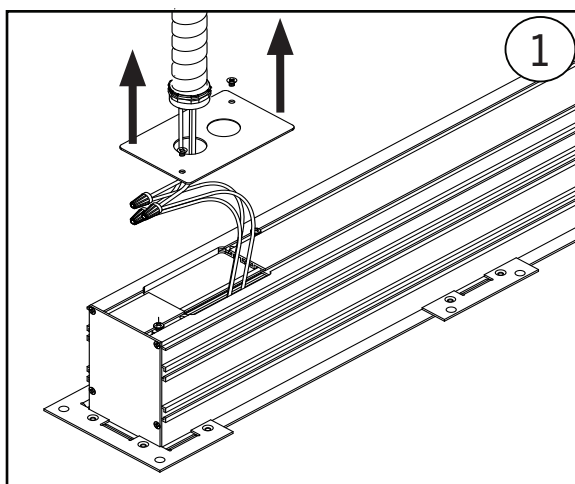
Housing Edge to Wall



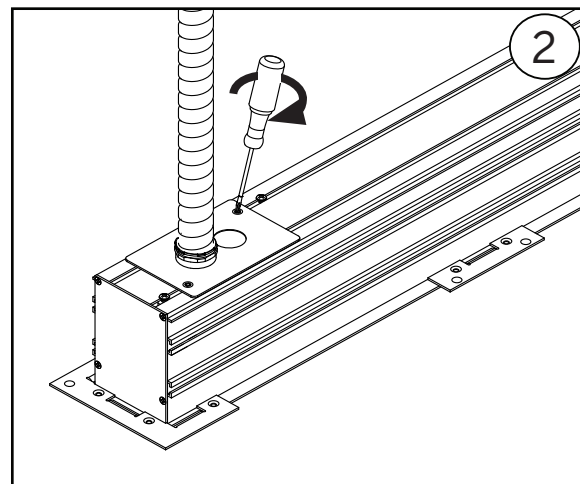
**Minimum Clearance - Tool Usage**

	Flex Drive	L-Key
E	7"	2.25"
F	6.25"	2"

## 8.0 WIRING



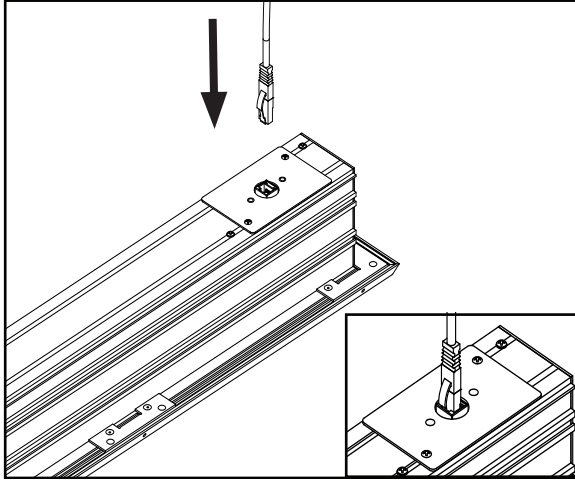
- A. Loosen 6-32 pan head fasteners x 2 to remove the wiring cover plate on the backside of the fixture.
- B. Connect power, ground, and any control wires.



Connect the conduit (supplied by others) to the cover plate from the incoming wires and remount the plate to the fixture.

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### 8.1 WIRING - DMX DATA - EXTERNAL DRIVER

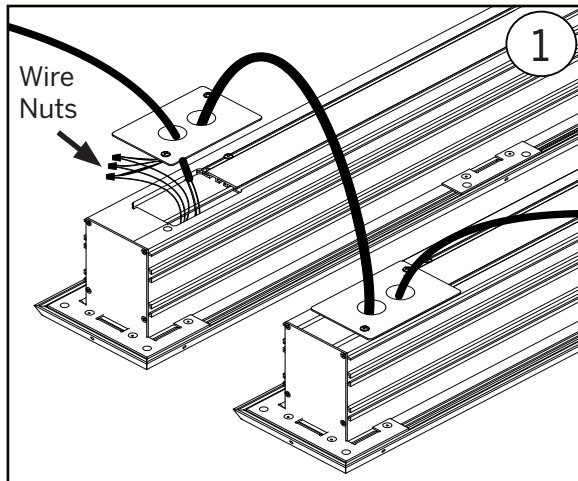


For driver-less fixtures, connect fixtures to remote drivers using the supplied shielded CAT cables.

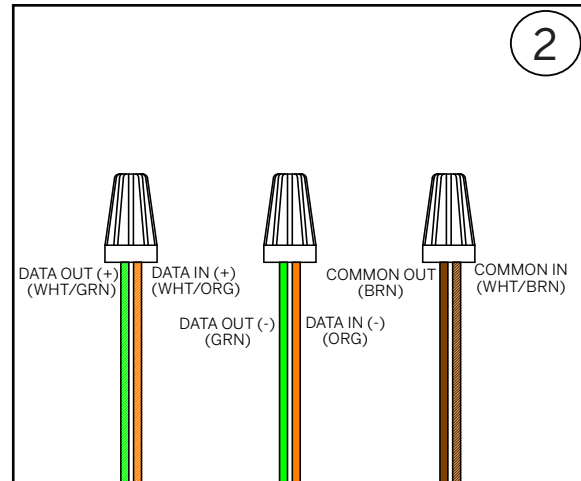
#### REM-DMXPS to VRL-02CCM-RD Configurations

Driver Module	Maximum Capacity	Fixture Qty
REM-DMXPS-2-0150	4 Foot Run	2ft + 2ft
		4ft
REM-DMXPS-3-0225	6 Foot Run	2ft + 2ft + 2ft
		2ft + 4ft
		6ft
REM-DMXPS-4-0300	8 Foot Run	2ft + 2ft + 2ft + 2ft
		2ft + 2ft + 4ft
		4ft + 4ft
		2ft + 6ft

### 8.2 WIRING - DMX DATA - INTERNAL DRIVER



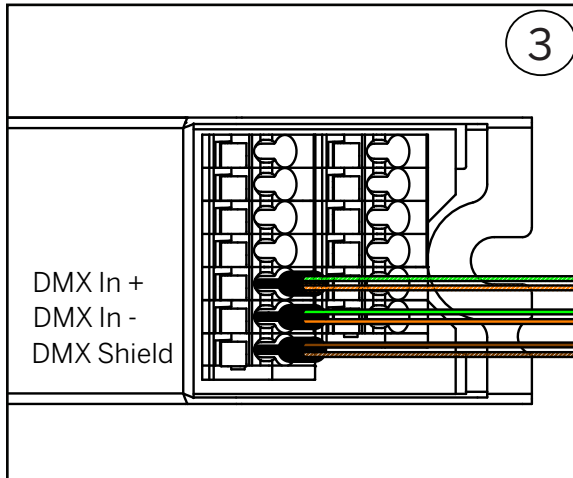
- A. When connecting multiple internal DMX driver fixtures together, ensure proper wiring of data cables using wire nuts (supplied by others).
- B. Ensure all wire connections are stored inside the fixtures and secured to 3/4" knockouts using 3/4" clamp connectors (supplied by others).



Ensure proper wiring of the positive, negative, and common data wires. Connect terminating 120 ohm resistor (supplied by others) at the end of the DMX chain.

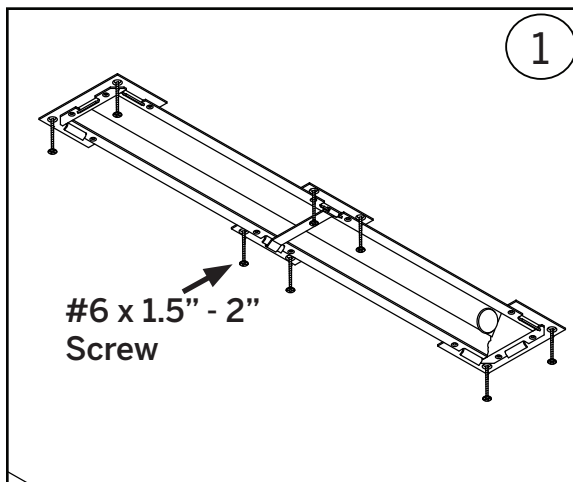


**8.2 WIRING - DMX DATA - INTERNAL DRIVER (Continued)**



DMX wire locations on the driver.

**9.0 INSTALLATION - HARD LID**

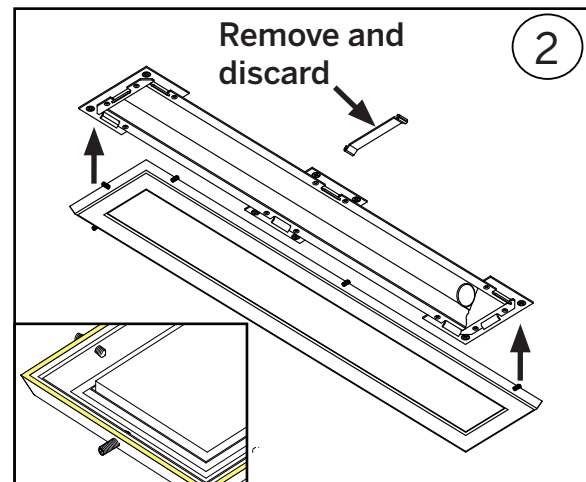


Insert the fixture into the hole in the ceiling and fasten with #6 x 1.5" - 2" drywall screws (supplied by others). Ensure fasteners are flush to brackets.

**NOTE:** DO NOT OVER TIGHTEN TO PREVENT BRACKETS FROM BENDING.

**Drywall Hardware Qty.**

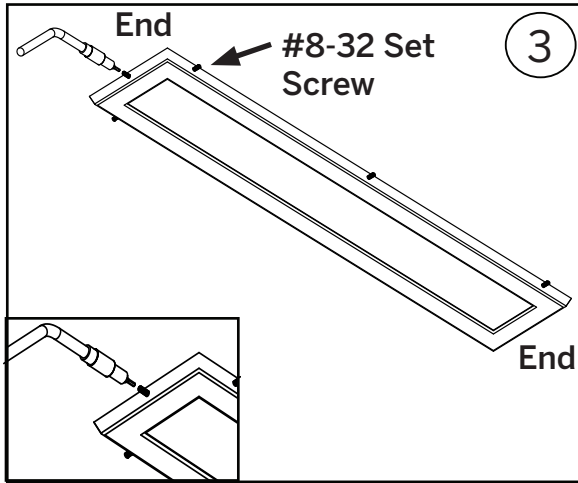
Fixture Length	Qty
2 ft	8
4 ft	16
6 ft	20



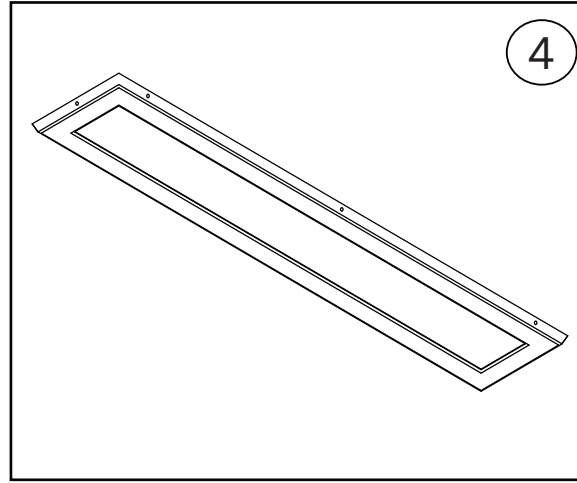
- A. The center support bracket is included and supplied on the fixture, and keeps the width of the housing uniform for proper frame fit. After fixture installation, remove center support bracket and discard.
- B. If using anti-pick caulking, apply to the highlighted surface.
- C. Line up the trim frame and lens onto the fixture. Trim frame will sit flush to the ceiling when sitting properly.

## INSTALLATION GUIDE/OWNER'S MANUAL

### 9.0 INSTALLATION - HARD LID (Continued)

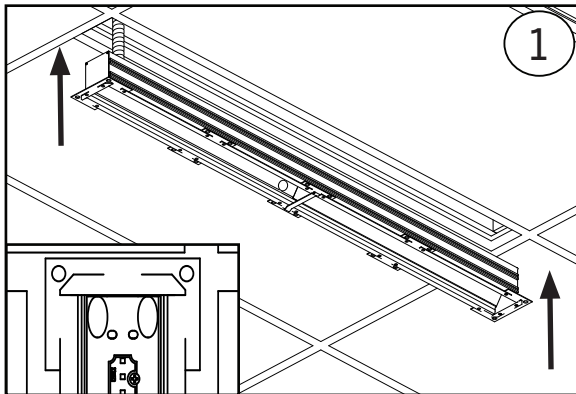


- A. Snug tighten end #8-32 set screws to hold trim frame in position using the provided flex bit.
- B. Gradually tighten each set screw, alternating sides, before fully fastening set screws using provided L-key for even installation. Set screws shall not extend from the trim frame when installed correctly.

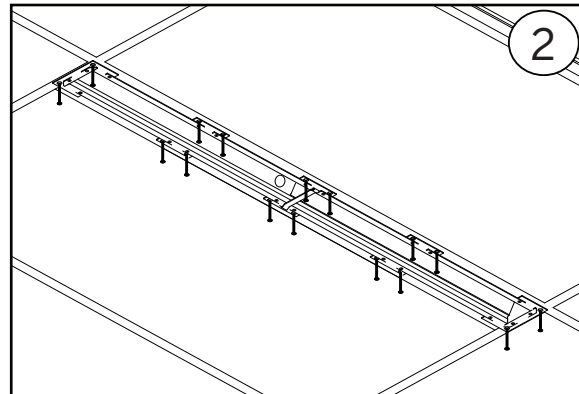


- A. Ensure fixture is sitting flush to the ceiling and all set screws are fully tightened into the trim frame.
- B. Wipe any excess caulking, if applicable.

### 9.1 INSTALLATION - T-GRID



- A. Raise the fixture into the framed slot.
- B. Mark and drill holes with no larger than 1/8" drill bit through the grid cross supports at the fixture mounting hole locations on the brackets.



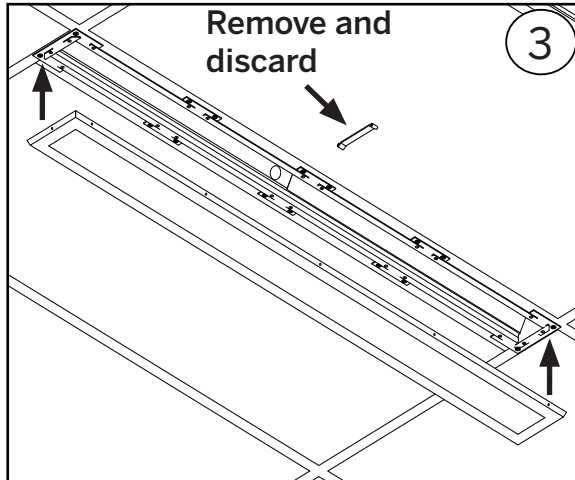
Support and fasten the fixture to framing with #6 drywall screws (supplied by others). Ensure fasteners are flush to the brackets.

**NOTE:** DO NOT OVER TIGHTEN TO PREVENT BRACKETS FROM BENDING.

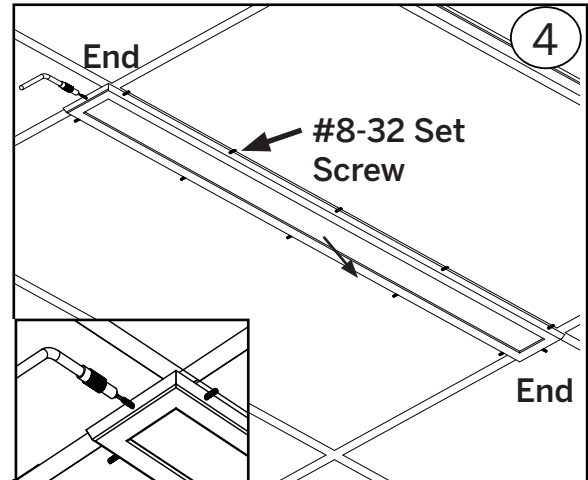
#### Drywall Hardware Qty.

Fixture Length	Qty
2 ft	8
4 ft	16
6 ft	20

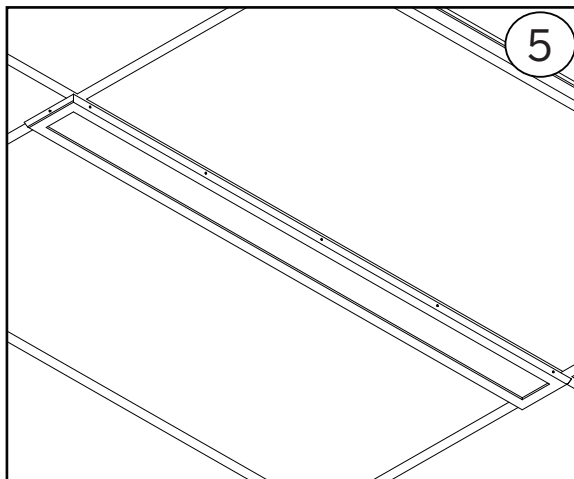
**9.1 INSTALLATION - T-GRID (Continued)**



- A. The center support bracket is included and supplied on the fixture, and keeps the width of the housing uniform for proper frame fit. After fixture installation, remove center support bracket and discard.
- B. Line up the trim frame and lens onto the fixture. Trim frame will sit flush to the T-grid when sitting properly.



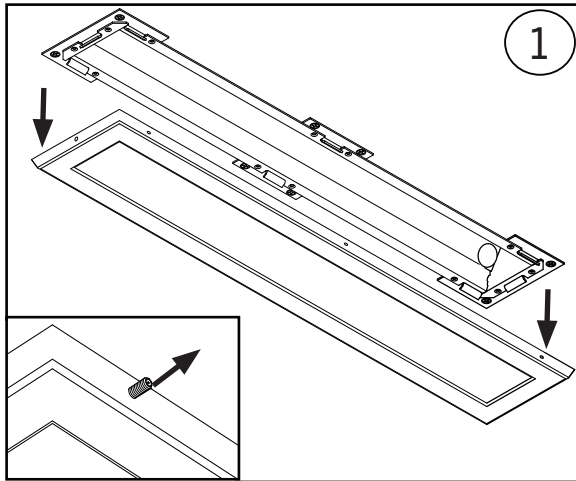
- A. Snug tighten end #8-32 set screws to hold trim frame in position using the provided flex bit.
- B. Gradually tighten each set screw, alternating sides, before fully fastening set screws using provided L-key for even installation. Set screws shall not extend from the trim frame when installed correctly.



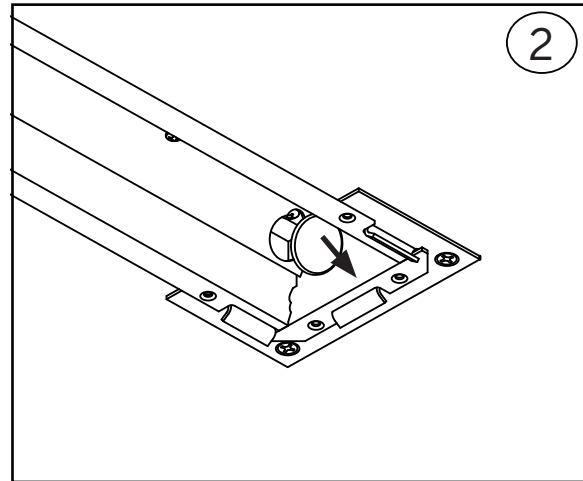
Ensure the fixture is sitting flush to the T-grid and all set screws are fully tightened into the frame.

**10.0 SERVICING - LIGHT ENGINE REMOVAL**

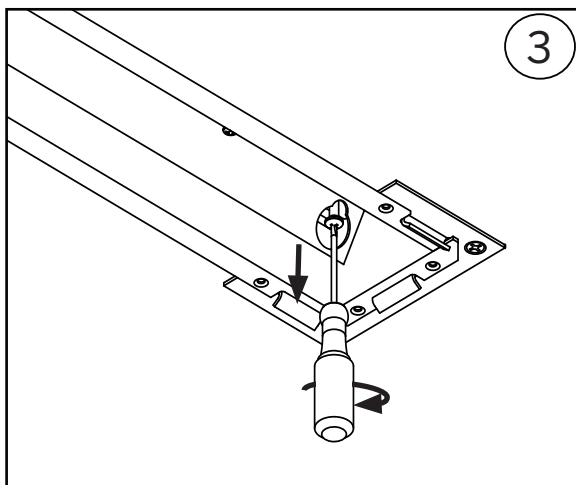
**TURN OFF ALL POWER BEFORE PERFORMING SERVICE!!!**



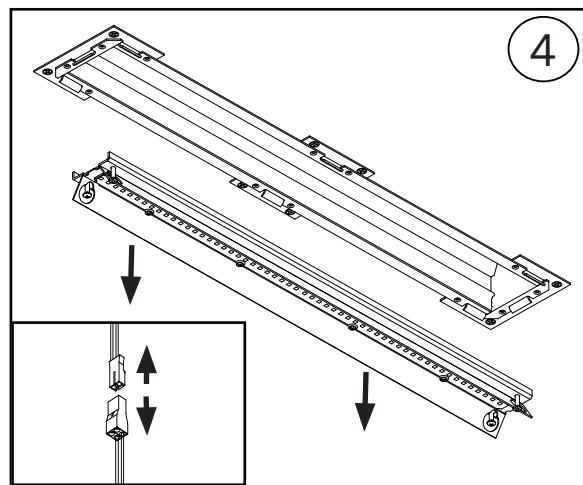
- A. Loosen all #8-32 set screws to remove trim and lens from fixture.
- B. Set screws do not need to be completely removed from threads.
- C. If any caulking was used, break the seal and remove. DO NOT BEND THE FRAME.



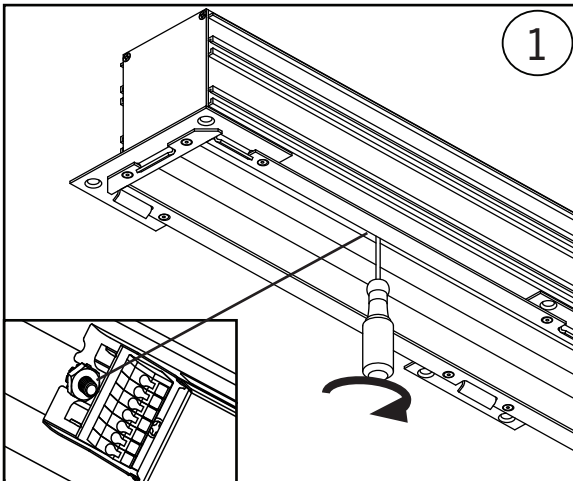
- A. Remove each supplied snap hole plug (x 4) to reveal mounting screw.
- B. Set snap hole plugs aside for reinstallation.



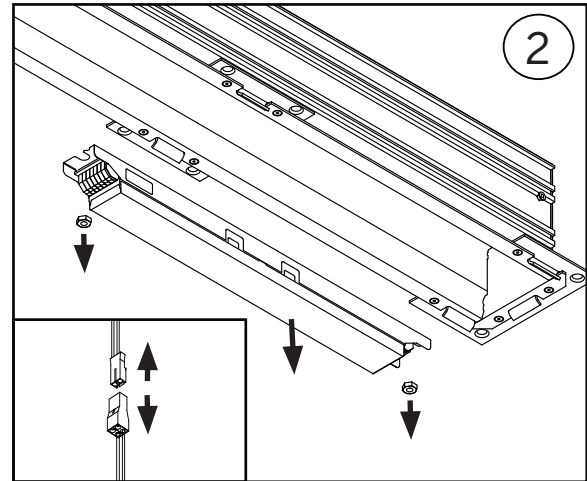
- A. Loosen each #8-32 mounting screw x 4 to remove the light engine from fixture. Mounting screws are captive; do not fully remove from light engine.
- B. Support the light engine while loosening screws to prevent light engine from falling or straining the wire leads. Avoid contact with LED boards to prevent damage.



- A. Lower the light engine and disconnect wire plug to free the light engine. There may be multiple plugs depending on your fixture type.
- B. Repeat steps in reverse to re-install light engine.

**10.1 SERVICING****TURN OFF ALL POWER BEFORE PERFORMING SERVICE!!!**

- A. For driver service, continue from previous service steps. Remove the #8-32 driver mounting nuts x 2 from both ends of the driver to remove the driver from the housing.
- B. Support the driver while loosening nuts to prevent the driver from falling or straining wire leads.



- A. Lower the driver from the fixture and keep nuts for reinstallation.
- B. Make note of and disconnect any wire connections where necessary.
- C. Repeat steps in reverse order to reinstall driver.

**11.0 USER NOTES**