

INSTALLATION MANUAL

TX300 & TX150 COMMERCIAL SOLAR LIGHTING SYSTEM



IMPORTANT: Always install the system assembly on the pole before inserting the batteries. The assembly system should never be handled when the batteries are installed inside.

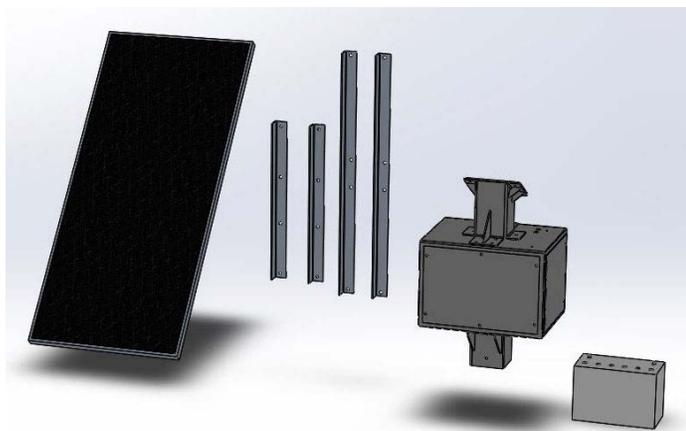
LIST OF MATERIAL BY MODEL

TX150 SYSTEM:	TX300 SYSTEM:
Battery/Control main enclosure	Battery/Control main enclosure
Battery, 12V (1 per system)	Battery, 12V (2 per system, in series)
L shape profile, 30in long (2 per system)	L shape profile, 30in long (2 per system)
L shape profile, 26in long (2 per system)	L shape profile, 53in long (2 per system)
Solar Module 150W (1 per system)	Solar Module 150W (2 per system)
3/8" stainless steel hardware for assembly	3/8" 5/16 stainless steel hardware for assembly
5/16" stainless steel hardware for solar module assembly	5/16" stainless steel hardware for solar module assembly
LED luminaire, 12Vdc compatible	LED luminaire, 24Vdc compatible
2ft Elliptical tube mounting arm (Hardware not included)	2ft Elliptical tube mounting arm (Hardware not included)

Note 1: The TX150 system is a 12Vdc system with one (1) 12V battery and one (1) 150W solar module. This system is compatible with an LED luminaire operating at 12Vdc only.

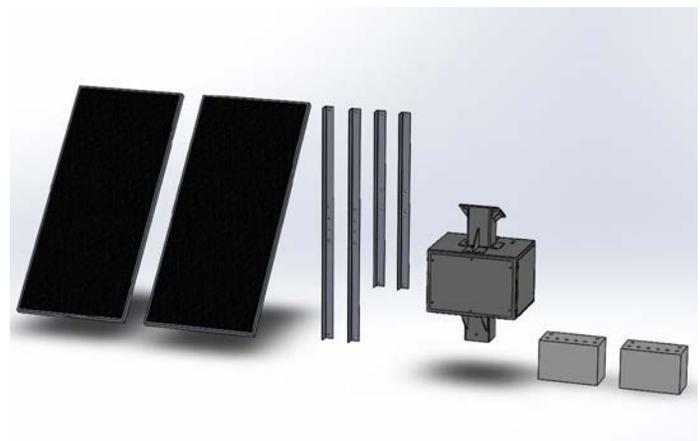
Note 2: The TX300 system is a 24Vdc system with two (2) 12V batteries in series and two (2) 150W solar modules. This system is compatible with an LED luminaire operating at 24Vdc. **Do not use a 12Vdc luminaire on a 24Vdc system. This will cause permanent damage to the LED driver.**

TX150 System Components



*Elliptical tube mounting arm and luminaire NOT shown

TX300 System Components



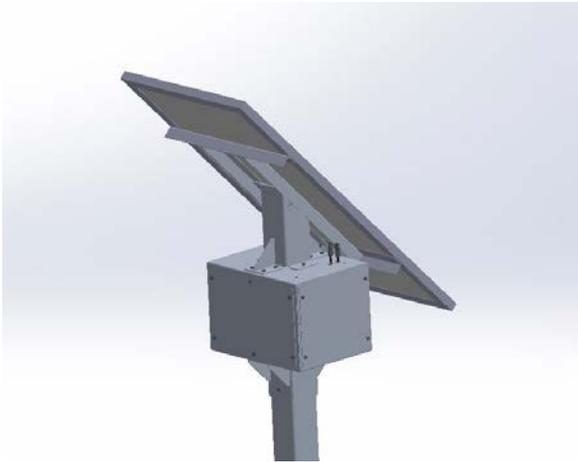
*Elliptical tube mounting arm and luminaire NOT shown

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TX150 FINAL ASSEMBLY



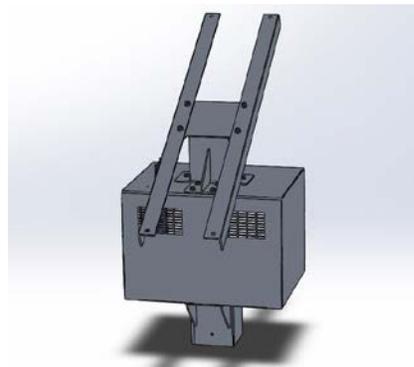
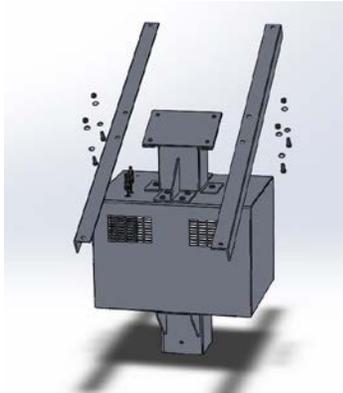
TX300 FINAL ASSEMBLY



STEP 1:

Using the 3/8-16 x 1 1/4" bolts and hardware (hex bolt, flat washer, lock washer and hex nut), tighten the two 30in "L" channels to the "main support" as indicated on the image.

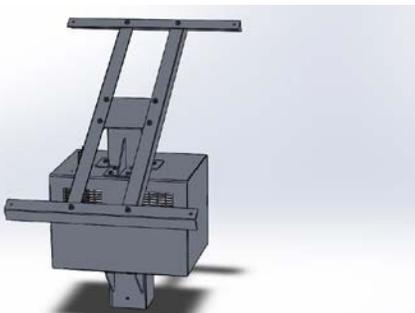
This step is identical for the TX150 & TX300



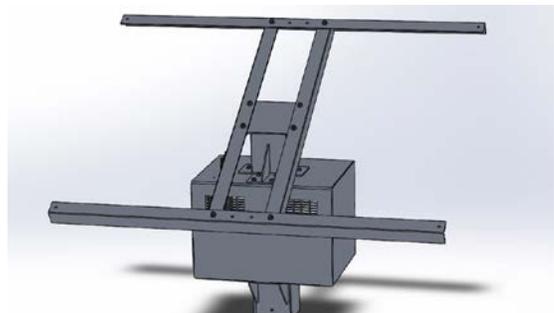
STEP 2:

Using the 3/8-16 x 1" bolts and hardware (hex bolt, flat washer, lock washer and hex nut), tighten the two "L" channels (26in or 53in according to model) to the "30in L channel" as indicated on the image.

TX150



TX300



INSTALLATION MANUAL

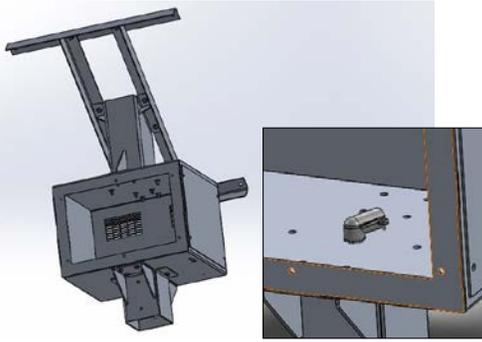
TX300 & TX150 COMMERCIAL SOLAR LIGHTING SYSTEM



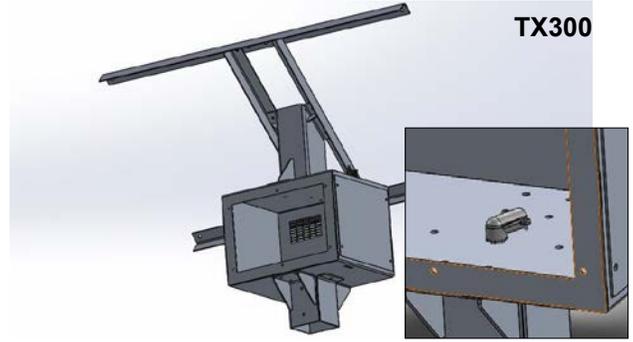
STEP 3:

Pass through the luminaire power cable (preinstalled in the battery box) into the 90 degree connector to make it available for the luminaire connection. 10FT, #16 AWG is pre-wired.

TX150

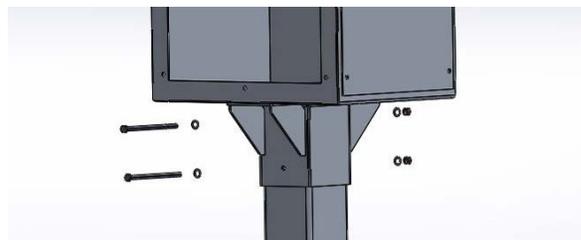


TX300



STEP 4:

1. Determine the system's orientation so that the solar panels are facing South.
2. Once the orientation is determined, use the drilling guide at the end of the document to drill holes at the proper location.
3. Slide the system on the pole and use the 3/8"-16 x 6 1/2" bolts and hardware to secure the system into position. Bolts cross the pole.



STEP 5:

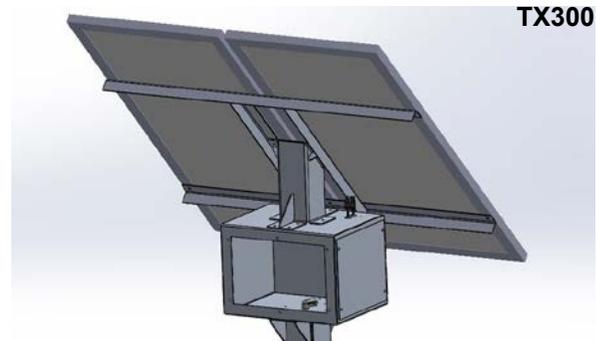
Using the 5/16-18 x 1" bolts and hardware (hex bolt, flat washer, lock washer and hex nut), install the solar panels using their precut frame holes.

Note: The solar panel junction boxe needs to be on the down side.

TX150



TX300



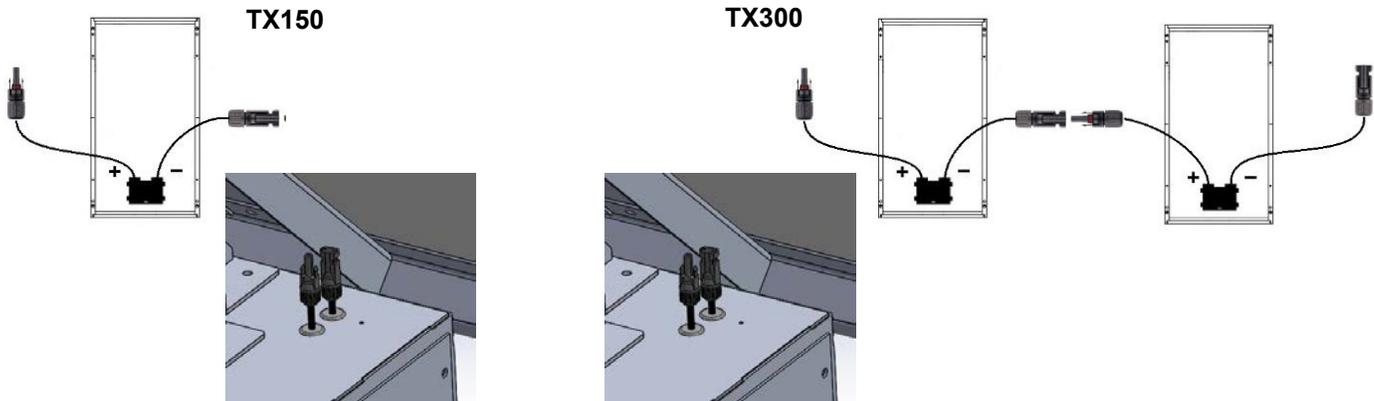
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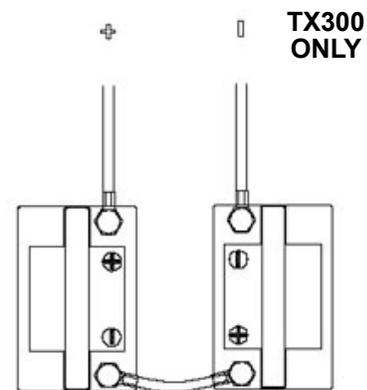
STEP 6:

1. For the TX300 only, make a serial connection between the solar panels, as shown in the picture (The positive cable of one panel with the negative cable of the other panel).
2. Then connect the two remaining cables to the MC4 (pre-wired) connector on the main battery compartment as shown on the image.



STEP 7:

1. Following the + and - (positive and negative) orientation as indicated in the battery compartment, insert the batteries.
2. For the TX300 only, using the supplied cable, make a serial connection between the batteries (The positive terminal of one battery with the negative terminal of the other battery).
3. Then, by respecting the cable polarities, complete the batteries connection by using the pre wired cables in the battery compartment.



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STEP 8:

Close the battery compartment door using the 1/4"-20 bolts and neopren washers.

STEP 9:

Install the pole arm and the luminaire at the desired location, approximately 24in underneath the battery compartment.

Hardware not provided for the pole arm.

Pole arm and luminaire specifications are included herein.

The DC lighting fixture has 3 wires:

Positive Red(+), Negative Black(-), and Dimming White (signal). Please make all 3 connections for proper operation.

DAY-NIGHT TRANSITION

The TX300 solar system uses the solar panel to detect day and night periods. The night transition requires a very low brightness level for 5 continuous minutes. This constraint prevents false night transitions that could be caused by storm clouds in the evening. If the solar module is covered with debris, the solar module voltage may be too low and may cause light synchronization errors. If the light works erratically, make sure the solar module is clean. The light automatically corrects synchronization errors within 24 hours.

IMPORTANT

If you wish to store the batteries, they need to be recharged before storing for a period of 15 days or more in order to prevent damage to the battery. The batteries must be stored at 20°C room temperature.

The light must be installed in an open area, no trees or nearby structure, this could favor snow accumulation and shading.

Never manipulate the battery compartment when the batteries are inside. Use the quick access door to remove the batteries before handling. **Failing to follow these recommendations can result in serious danger and damage.**

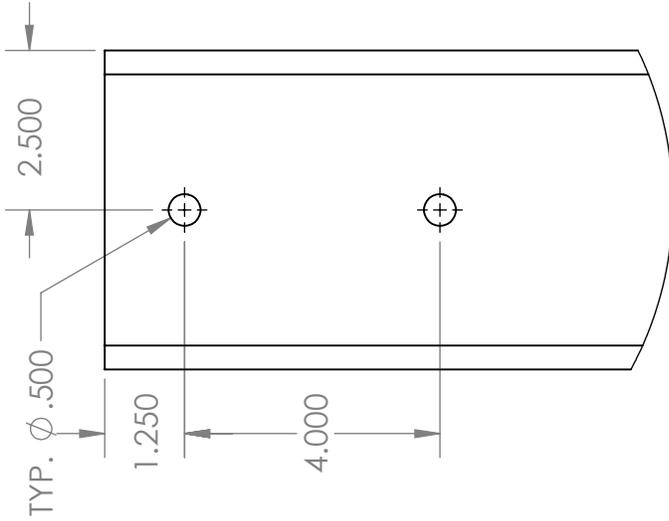
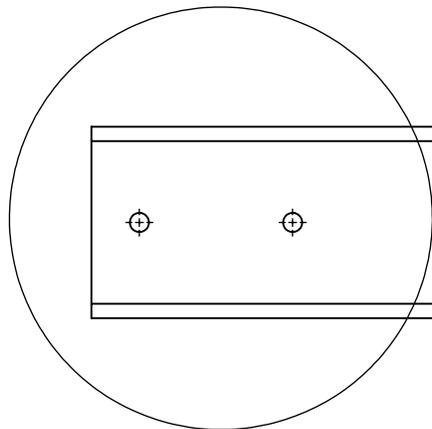
SOLAR PANNEL ORIENTATION AND AUTONOMY

Orientation	Period	Autonomy losses
South (≈ optimal)	Annual	0%
	Summer	0%
	Winter	0%
East / West	Annual	-21%
	Summer	-15%
	Winter	-40%
North	Annual	-50%
	Summer	-41%
	Winter	-72%

1

2

B



NOTE:

The installation of the battery box on the top of the lamp post requires drilling the post as per the presented drilling pattern. The lamp will be secured using 2 bolts through the lamp post.

Drill on the 4 faces to facilitate the installation.

B

DETAIL B

SCALE 1 : 3

POLE NOT INCLUDED
Tenon drilling pattern not shown here.

A

A

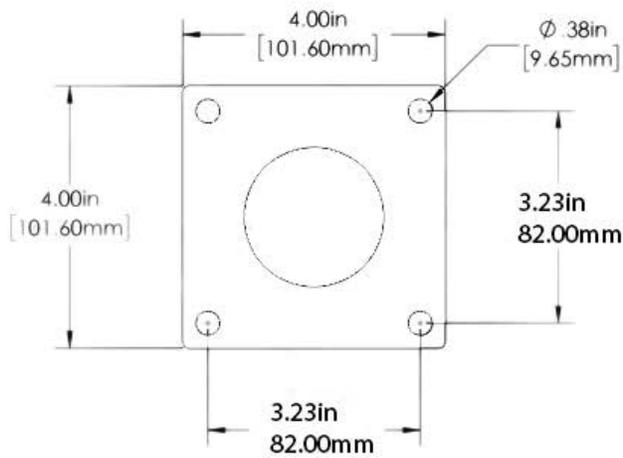
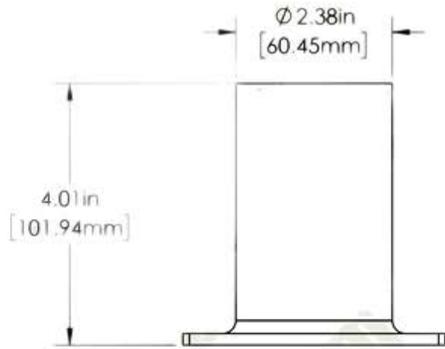
UNLESS OTHERWISE SPECIFIED:		NAME	DATE	COMMENT
DIMENSIONS ARE IN INCHES		JFOL	27 JUN 19	
TOLERANCES:		JFOL	27 JUN 19	
ANGULAR: +1				TITLE
TWO PLACE DECIMAL ±0.6"				TX300/TX150
THREE PLACE DECIMAL ±0.31"				5 INCH POST
HOLES: ±0.05"				DRILLING PATTERN
INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			
MATERIAL	PROPRIETARY AND CONFIDENTIAL			
FINISH	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLAR VISION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLAR VISION IS PROHIBITED.			
DO NOT SCALE DRAWING				
	SIZE	DWG NO.	REV	
	A	TX300/150-02-EN	1	
	SCALE: 1:5	WEIGHT:		SHEET 1 OF 1

2

1

TENON

Hardware 1/4-20x1" (4x) included for installing the tenon. Please coordinate drilling holes with your pole manufacturer.



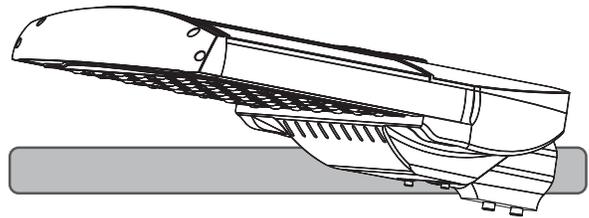
IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

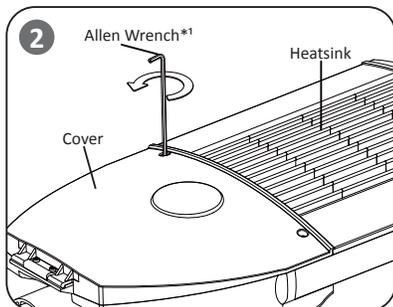
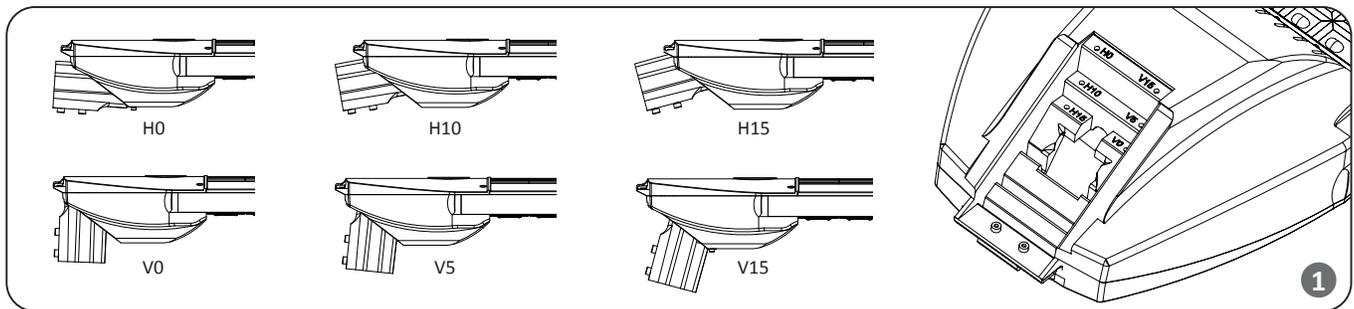
1. To avoid the possibility of electrical shock, turn off power supply before installation or servicing. Installation and servicing should be performed by qualified personnel.
2. When closing cover of fixture, be sure all wires are inside housing to avoid pinching wires.
3. If Photo Receptacle is installed refer to "Photo Control" section for instructions.
4. Product must be installed in accordance with your local electrical code. If you are not familiar with these codes and requirements, consult a qualified electrician.
5. Do not change the structure or any components of the fixture to ensure safety.

SAVE THIS INSTRUCTIONS FOR FUTURE REFERENCE

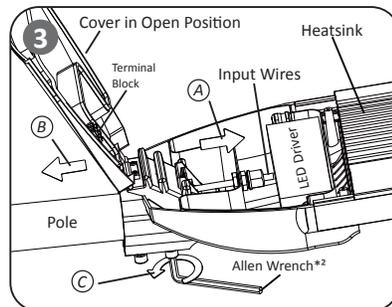


- *Max installation height: 15M
- *Pole fitter diameter: Φ 60mm (2.4") / *48mm diameter need longer screws
- *This product must be grounding

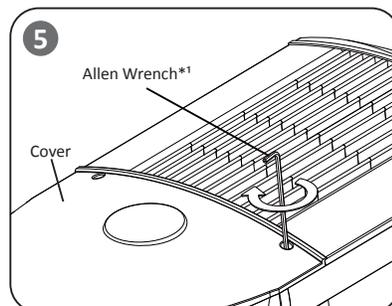
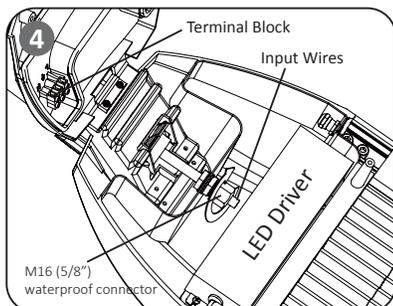
TO INSTALL:



- *1 Allen Wrench: 4mm (5/32")
- *1 Inner Hexagon Screw: M5 (3/16")



- *2 Allen Wrench: 6mm (7/32")
- *2 Inner Hexagon Screw: M8 (5/16")



STANDARD MOUNTING

STEP 1: Adjust the multi-angle fitter (**0, 5, 15 degree vertical** and **0, 10, 15 degree horizontal**) to proper position by 4mm (5/32") allen wrench.

STEP 2: To open cover, hold fixture by heatsink with the light modules **facing down**. Remove 2 screws on the cover by 4mm (5/32") allen wrench.

STEP 3: Keep the cover in open position, lead the **Input Wires** in through the M16 (5/8") water-proof connector (**see A**). Do not tighten. Slide fixture onto pole (**see B**) and adjust to level position. Once desired position is achieved, tighten (2) mounting bolts (**see C**).

STEP 4: Connect the **Input Wires** into **Terminal Block**, Reference "**Electrical Connections**" section for completing electrical connections.

STEP 5: Close the cover, tighten (2) mounting bolts.

IMPORTANT

DC(Direct Current) based system.

STEP 1:

Make the following Electrical Connections:

- Connect **INPUT POSITIVE(+)** conductor to **RED WIRE** position of the terminal block or POSITIVE(+) conductor of LED driver.
- Connect **INPUT NEGATIVE(-)** conductor to **BLACK WIRE** position of the terminal block or NEGATIVE(-) conductor of LED driver.
- Connect **INPUT DIM SIGNAL (WHITE WIRE)** to Dim signal of LED Driver.

STEP 2:

Make sure all excess input wires are pushed into pole, screws are tightened.

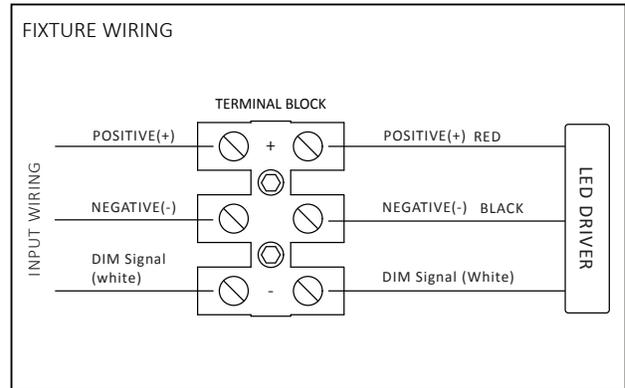
STEP 3:

Close cover by firmly pushing cover towards fixture, making sure that no wires are pinched and Sealing gasket are fully engaged.

STEP 4:

If the fixture without a terminal block, please insulate all electrical connections with wire nuts suitable for at least 90°C

DC BASED



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

OPTIONAL ACCESSORY

Elliptical pole arm : Supplied only when part #RE2MA is added to the order. This then replaces the standard tenon indicated previously in this guide.

Hardware not included for the pole arm installation. Please coordinate the hole drilling pattern with your pole supplier.

FEATURES & SPECIFICATIONS

APPLICATION

For round or square metal, aluminium or wood poles. Not for use with existing concrete poles.

CONSTRUCTION

Aluminum: Body is schedule 40 (T20) aluminum pipe 6063-T6. Welding follows industry standards best practices.

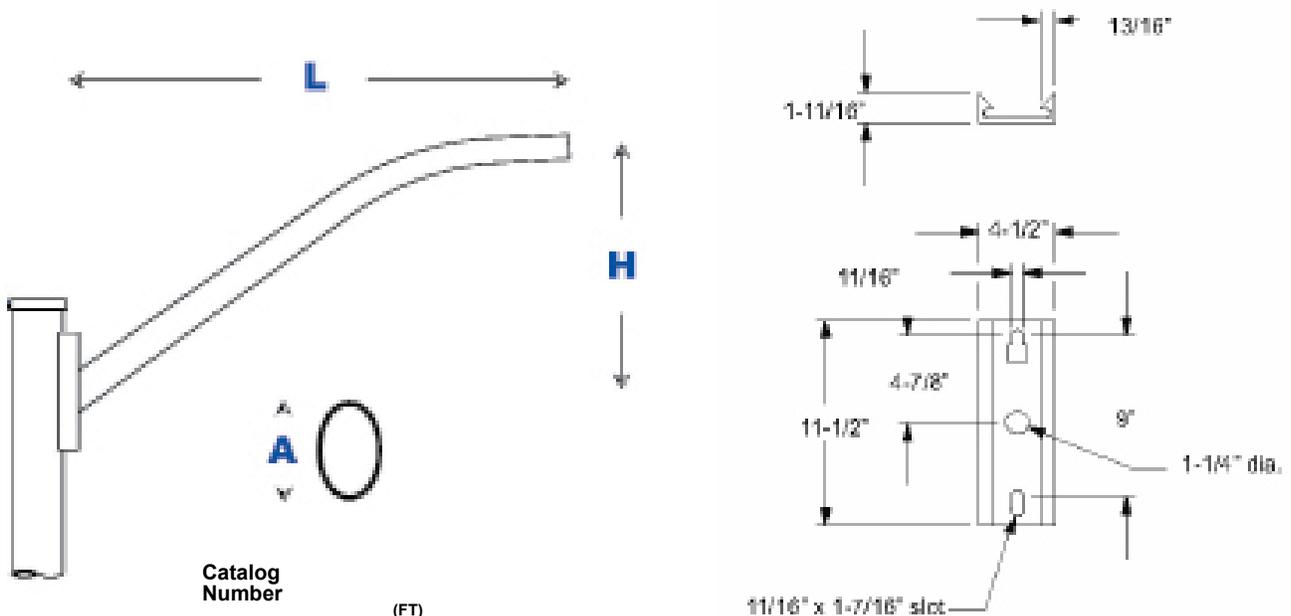
INSTALLATION

Mounting hardware is not included.

Installer to provide hardware based on pole size and type.

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.



Catalog Number (FT)
SPECIFICATIONS

	L	H (FT)	Progressive taper (IN)	WALL Thickness (IN)	A (IN)
RE2MA	2	1	3 - 2-3/8	0.125	2-1/2 - 3-3/8