

INSTALLATION MANUAL

TX360 & TX180 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.

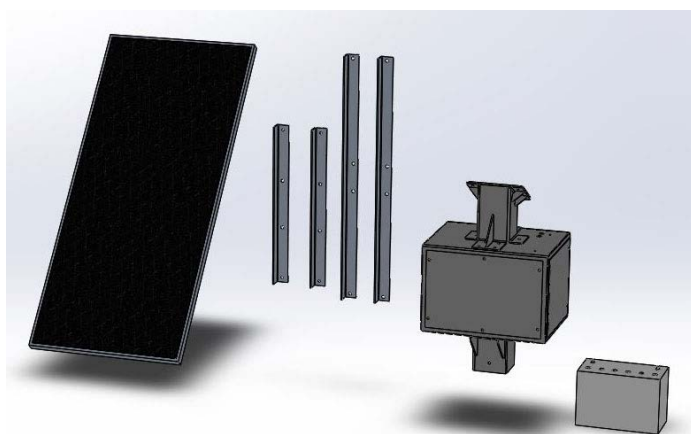
LIST OF MATERIAL BY MODEL

TX180 SYSTEM:	TX360 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 180W (1 per system)	Solar Module 180W (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, with tenon	LED luminaire, 24Vdc compatible, with tenon

Note 1: The TX180 system is a 12Vdc system with one (1) 12V battery and one (1) 180W solar module. This system is compatible with an LED luminaire operating at 12Vdc only.

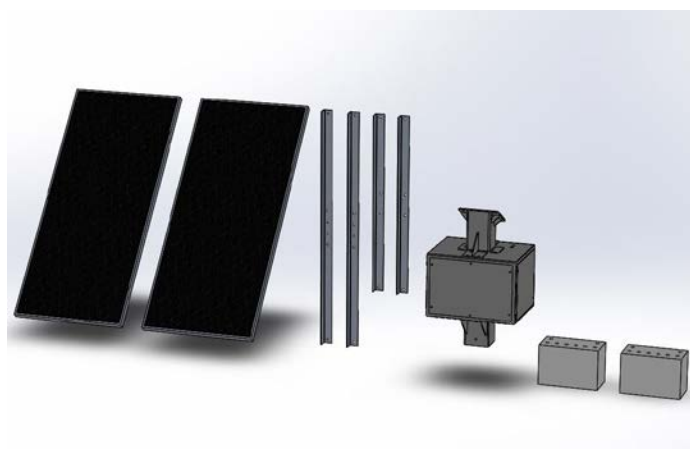
Note 2: The TX360 system is a 24Vdc system with two (2) 12V batteries in series and two (2) 180W solar modules. This system is compatible with an LED luminaire operating at 24Vdc. **Do not use a 12Vdc luminaire on a 24Vdc system. This will cause permanent damage to the LED driver.**

TX180 System Components



*Elliptical tube mounting arm and luminaire NOT shown

TX360 System Components



*Elliptical tube mounting arm and luminaire NOT shown

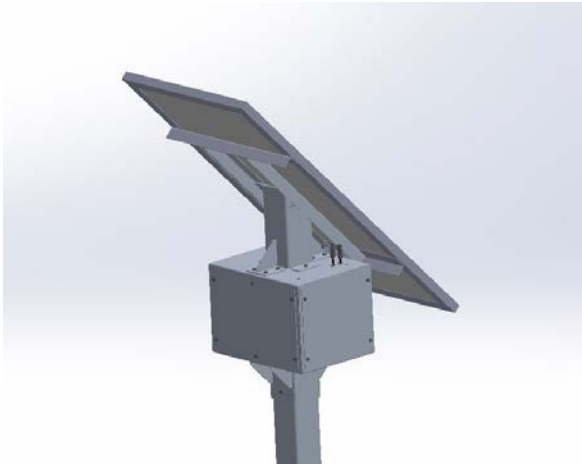
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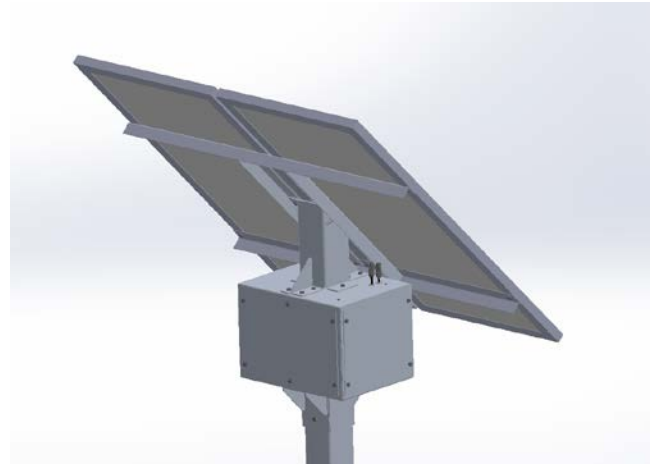


MADE IN CANADA

TX180 FINAL ASSEMBLY



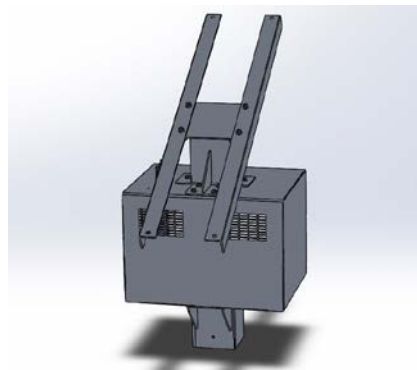
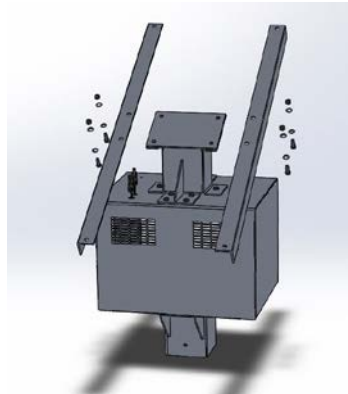
TX360 FINAL ASSEMBLY



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.

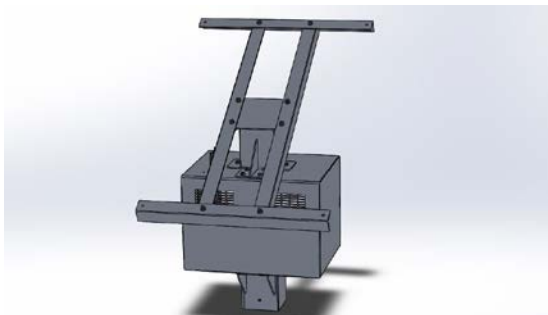
This step is identical for the TX180 & TX360



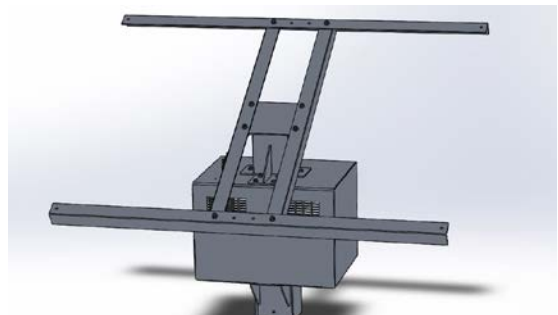
STEP 2:

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.

TX180



TX360



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TX360 & TX180 COMMERCIAL SOLAR LIGHTING SYSTEM

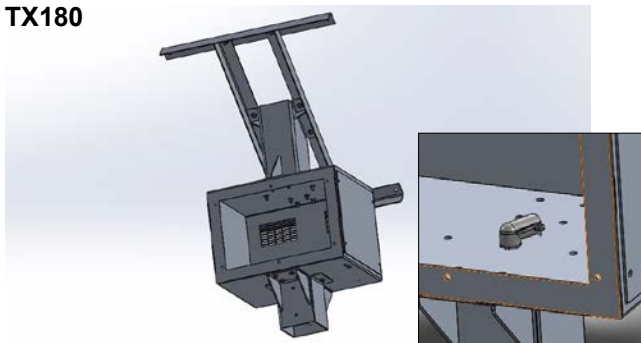


MADE IN CANADA

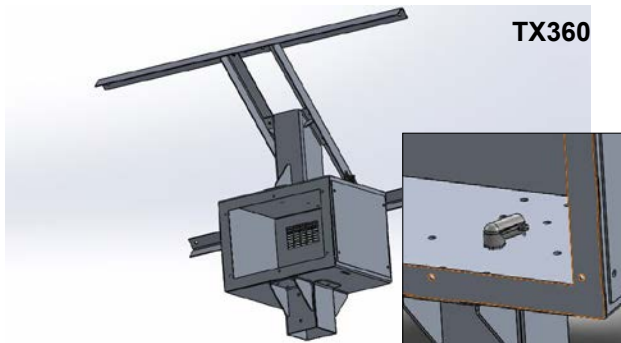
STEP 3:

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.

TX180

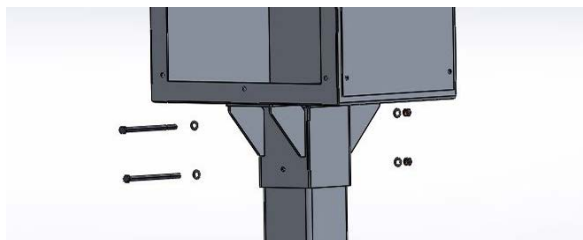


TX360



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:

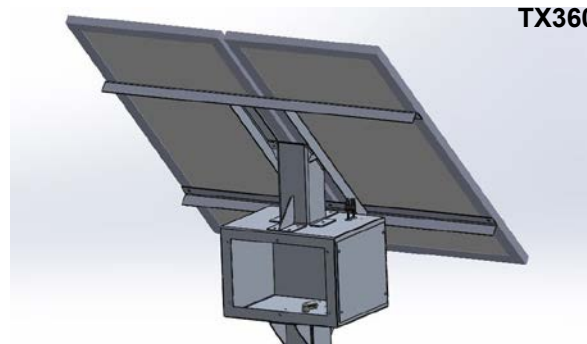
Using the 5/16-18 x 1" bolts and hardware (hex bolt, flat washer, lock washer and hex nut), install the solar panels using their precut frame holes.

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

TX180



TX360



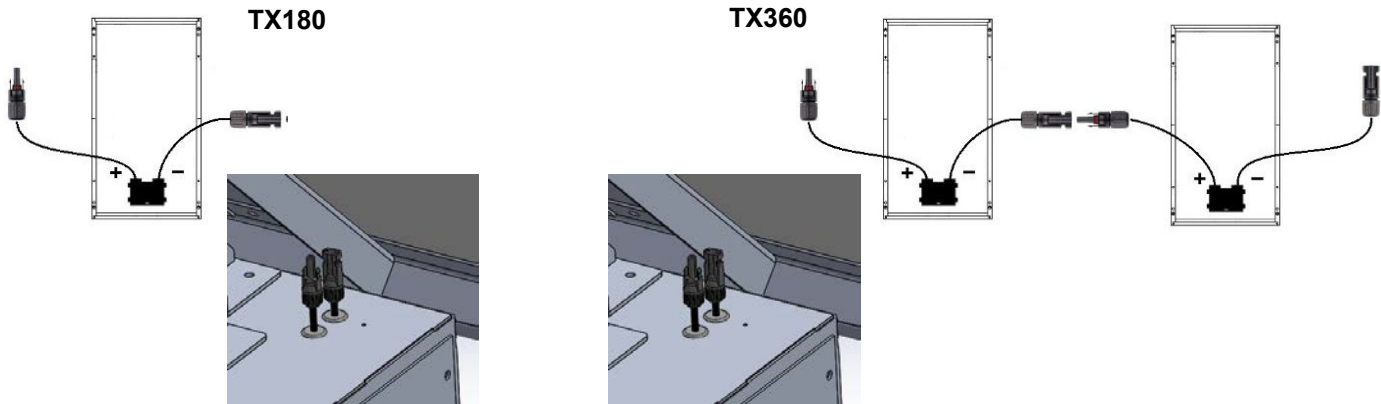
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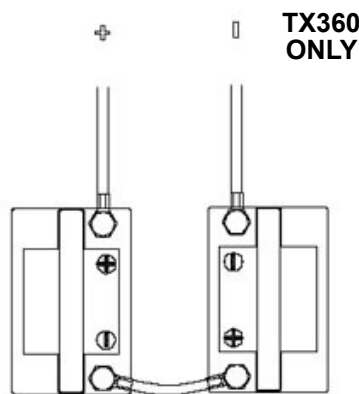
STEP 6:

1. For the TX360 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.
4. Be sure to torque all **battery terminals to 8 ft.-lbs** to ensure proper system operation and battery lifespan.



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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, minimum 18in 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 TX360 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

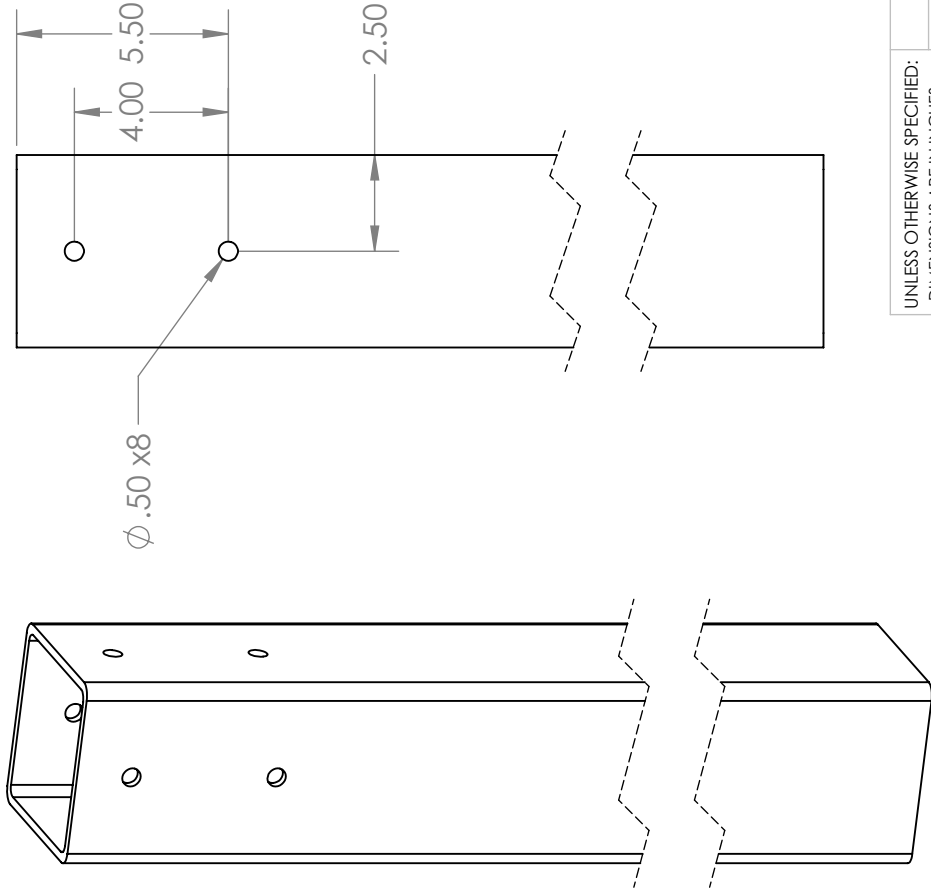
If you wish to store the batteries, they need to be recharged before storing for a period of 15 days or more in order to prevent damage to the battery. The batteries must be stored at 20°C room temperature.

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%



NOTE:

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

POLE NOT INCLUDED
Tenon drilling pattern not shown here.

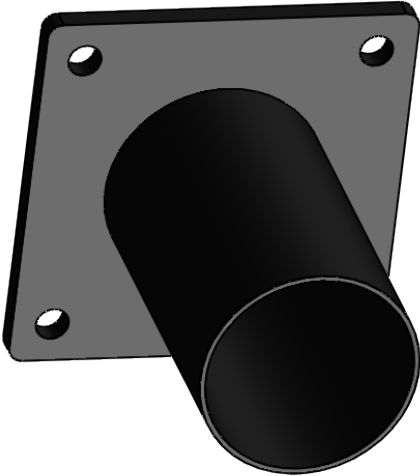
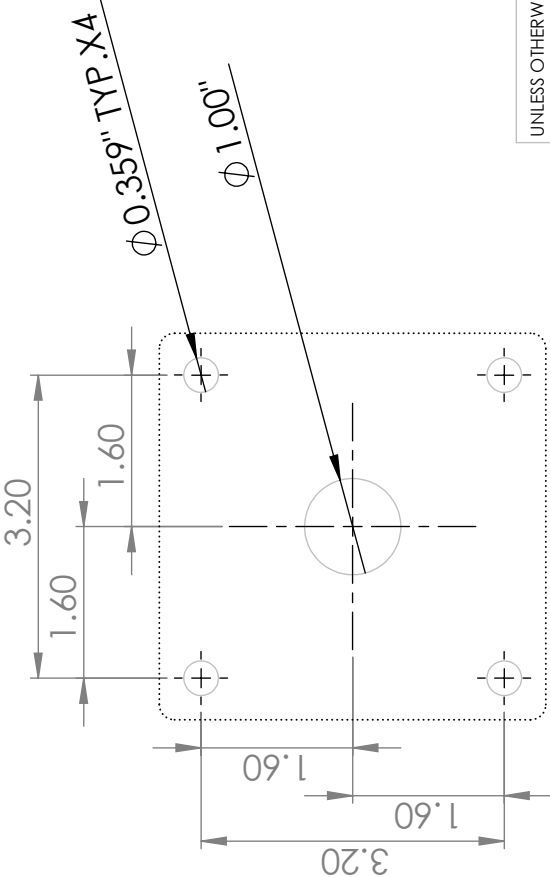
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		DRAWN	NAME	DATE	PROJECT:	
DEFAULT TOLERANCES: ANGULAR ±1° TWO PLACE DECIMAL ±.06" THREE PLACE DECIMAL ±.031" HOLES ±.005"		JFOL 26 MAR 2020				VS
MATERIAL		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF VISION SOLAIRE INC ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF VISION SOLAIRE COM IS PROHIBITED.				
THICKNESS		" "				
FINISH		" "				
DO NOT SCALE DRAWING		" "				
5	DISTANCE BETWEEN MOUNTING HOLES	3 AVR 2023	JFOL	TITLE:		
4	DRAWING PER MODEL	15 SEP 2022	JFOL	5IN POST		
3	SIMPLIFICATION OF THE DRILLING PATTERN	27 JUN 2022	JFOL	DRILLING PATTERN FOR TX		
2	HOLE SIZE AND POSITION ADJUSTED	13 OCT 2020	JFOL	SIZE	DWG. NO.	REV
1	UPDATE OF THE NOTE	26 MAR 2020	JFOL	A	H55S_DRL_TX	5
REV.	DESCRIPTION	DATE	PAR	SCALE: 1:5	WEIGHT: 44.52	SHEET 1 OF 1

PROVIDED BY DEFAULT FOR THE ZX & TX SERIES WHEN NO OTHER OPTIONAL POLE ARM IS PURCHASED

HARDWARE 1/4-20X1" (4X) INCLUDED FOR INSTALLING THE TENON

PLEASE COORDINATE DRILLING HOLES WITH YOUR POLE MANUFACTURER. THE FIXTURE'S TENON MUST BE INSTALLED AT A MINIMUM DISTANCE BELOW BELOW THE TOP OF THE POST AS PER THE FOLLOWING TABLE:

DISTANCE MIN.	MODÈLE
12" (305mm)	ZX30 & ZX60
18" (457mm)	ZX100, ZX170, TX150 & TX300



PERCEMENTS

1	MOUNTING LOCATION	25 MAI 2022	JFOL
0	ORIGINAL	2 AOÛT 2021	JFOL
REV.	DESCRIPTION	DATE	PAR

DIMENSIONS IN INCHES

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		DRAWN	NAME	DATE	PROJECT:
DEFAULT TOLERANCES: ANGULAR ±1° TWO PLACE DECIMAL ±.06" THREE PLACE DECIMAL ±.031" HOLES ±.005"		JFOL	JFOL	2 AUG 2021	ZX - TX
MATERIAL PAINTED STEEL		TITLE: DRILLING PATTERN HORIZONTAL TENON FOR 4" & 5" SQUARE POLE			
THICKNESS "		SIZE DWG. NO. REV			
FINISH		A TENSQ45 1			
DO NOT SCALE DRAWING		SCALE: 1:2 WEIGHT: SHEET 1 OF 1			



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LED STREET LIGHTS

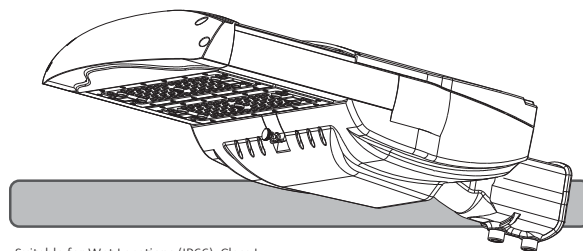
INSTALLATION INSTRUCTIONS

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. 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.
4. Do not change the structure or any components of the fixture to ensure safety.



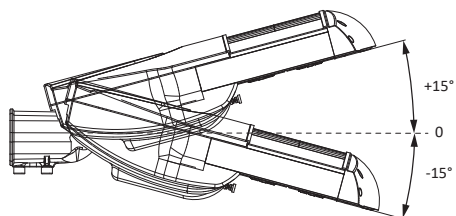
Suitable for Wet Locations (IP66), Class I

Power	Modules	Dimension	EPA	Weight
11W/15W/25W/35W/45W/60W	1	18.8"x12.4"x5.5"	1.7 pi ²	12.7 lb

SAVE THIS INSTRUCTIONS FOR FUTURE REFERENCE

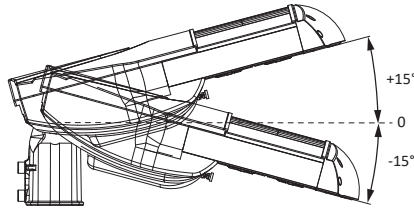
TO INSTALL:

Adjustable tilt angle: $\pm 0-5-10-15^\circ$

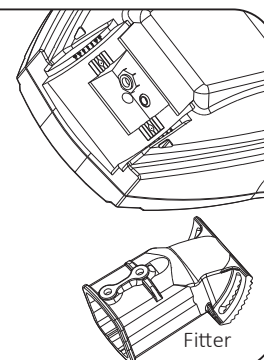


Horizontal Installation

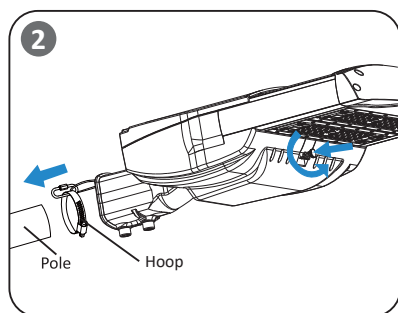
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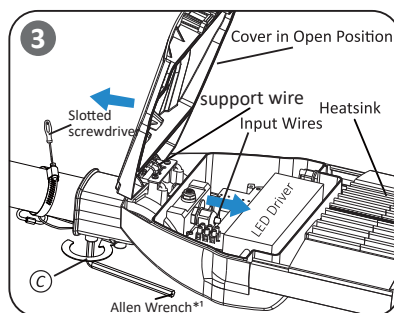
Vertical Installation



Fitter

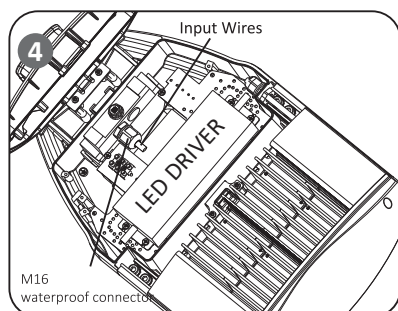


2

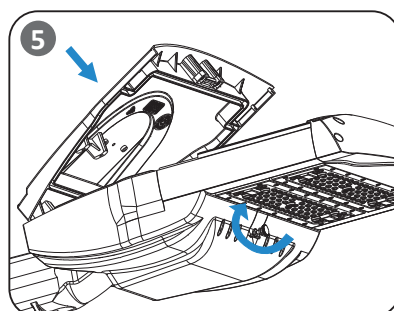


3

*Allen Wrench: 8mm



4



5

STANDARD MOUNTING

STEP 1:

Adjust the multi-angle fitter (**0, 5, 10, 15 degree vertical** and **0, 5, 10, 15 degree horizontal**) to proper position by 8mm allen wrench.

STEP 2:

Loosen the limit screw counterclockwise, press the screw to open the cover of driver box, make sure the support wire falls in the limit groove.

STEP 3:

Insert the pole and external power cord into the luminaire cavity and hoop of Anti-falling rope. Thread the power cord through the M16 wiring harness retainer. Reserve the related length of wire for connection. Once desired position is achieved, tighten (2) mounting bolts (see ②). Recommended torque: 17Nm $\pm$ 1Nm.

STEP 4:

Connect the **Input Wires** into **Terminal Block**, Reference "**Electrical Connections**" section for completing electrical connections. **Tighten the M16 water-proof connector, Make sure the input wires do not move.**

STEP 5:

Close the cover, tighten the limit screw clockwise.

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.

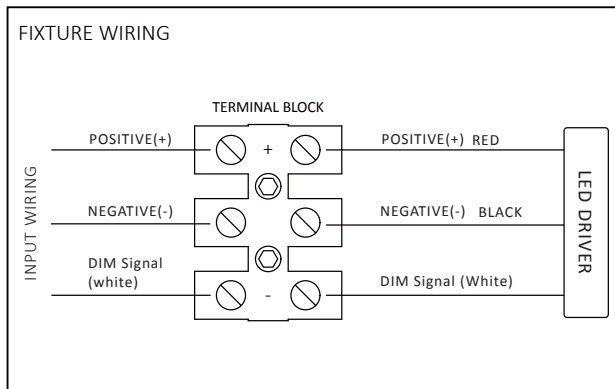
STEP 3:

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



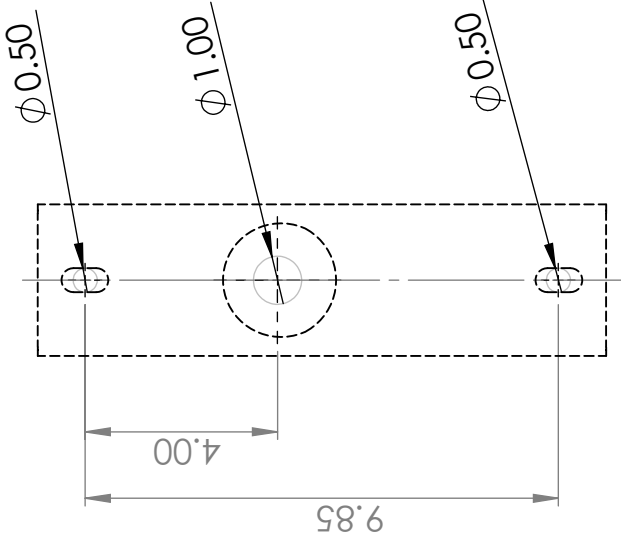
This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used 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 STRAIGHT POLE ARM AVAILABLE FOR THE ZX & TX SERIES

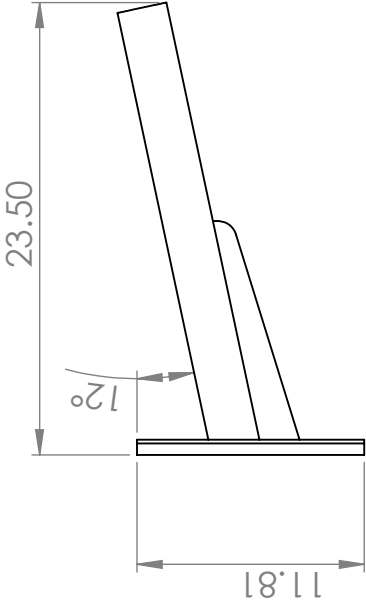
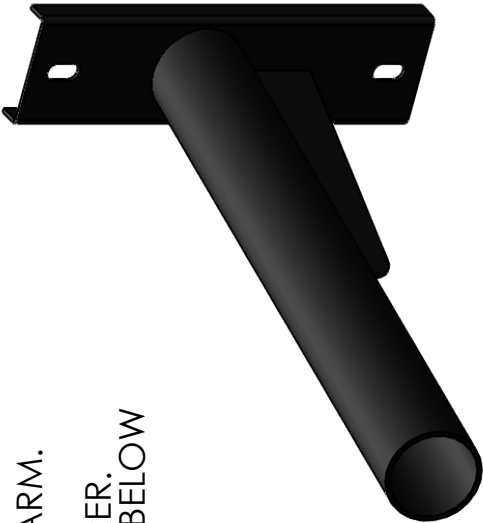
HARDWARE 3/8"-16X 1-3/4" (2X) INCLUDED FOR INSTALLING THE POLE ARM.

PLEASE COORDINATE DRILLING HOLES WITH YOUR POLE MANUFACTURER. THE FIXTURE'S POLE ARM MUST BE INSTALLED AT A MINIMUM DISTANCE BELOW THE TOP OF THE POST AS PER THE FOLLOWING TABLE:

DISTANCE MIN.	MODEL
12" (305mm)	ZX30 & ZX60
18" (457mm)	ZX100, ZX170, TX150 & TX300



DRILLING PATTERN



DIMENSIONS IN INCHES

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		DRAWN	NAME	JFOL	DATE	2 FEB 2022	PROJECT:	ZX - TX
DEFAULT TOLERANCES: ANGULAR ±1° TWO PLACE DECIMAL ±.06" THREE PLACE DECIMAL ±.031" HOLES ±.005"		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF VISION SOLAIRE INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF VISION SOLAIRE.COM IS PROHIBITED.					TITLE: DRILLING PATTERN 2 FT ARM @ 12DEG FOR 4" & 5" POLE	
MATERIAL PAINTED STEEL		VISION SOLAIRE					SIZE	DWG. NO.
THICKNESS "		RD212					A	REV
FINISH		DO NOT SCALE DRAWING					SCALE: 1:2	WEIGHT:
DATE		SHEET 1 OF 1					2	

2	MOUNTING LOCATION	25 MAY 2022	JFOL
1	DIMENSIONS UPDATE	4 MAY 2022	JFOL
0	ORIGINAL	2 FEB 2022	JFOL
REV.	DESCRIPTION	DATE	PAR