



## Installation of Solar Street Light: (Engineering Review)

### Part I: Installation of Ground Anchor

- A. Take off the two nuts and two washers from the steel rod. See Figure 1.
- B. Put the bends of the steel rod through the 4 holes on the Iron Plate A. See Figure 2.
- C. Put the 4 nuts on the steel rod to the position of 60mm (make sure that the nuts on the 4 steel rods keep the same distance to the top). See Figure 2. Then, put the Iron Plate B into the 4 steel rods, put on the nuts and screw up. See Figure 3.

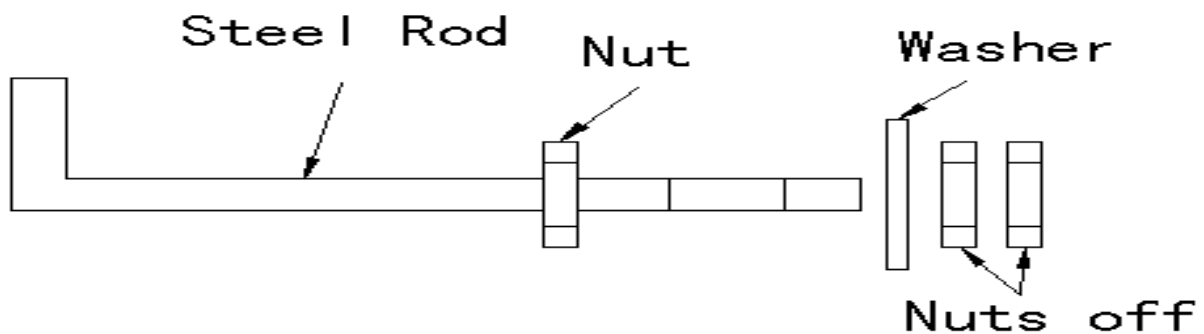


Figure 1

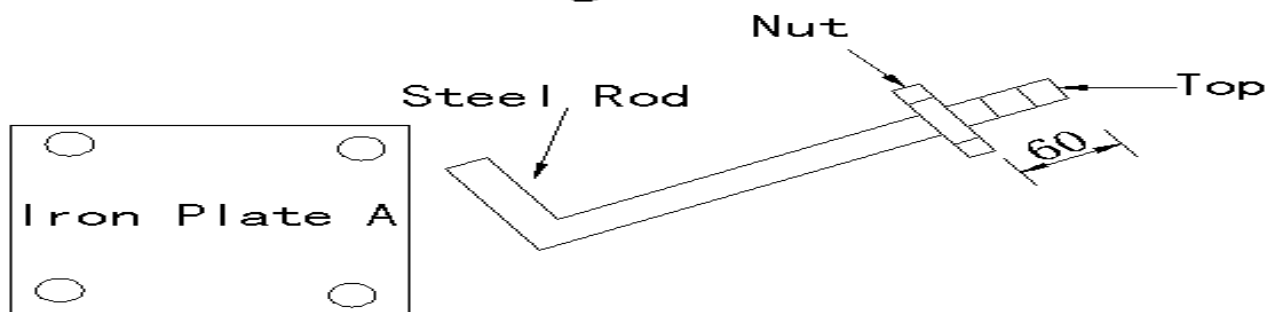


Figure 2

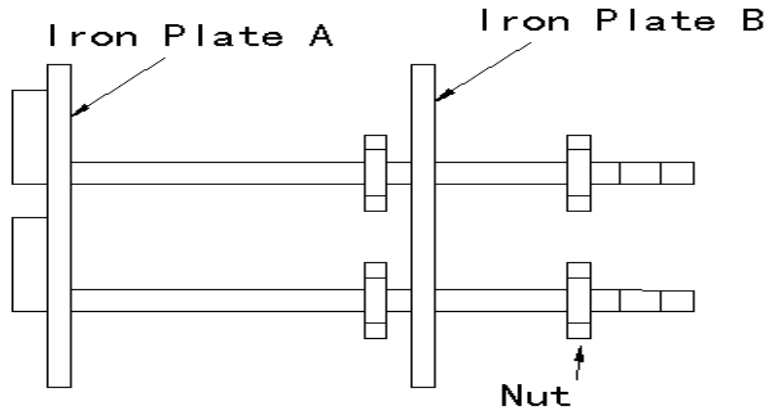


Figure 3

### Part II. Civil Works for the Ground Anchor

- Dig a hole of 600mm (Length) X 600mm (Width) X 1000mm (Depth) on a solid ground.
- Place the ground anchor into the hole together with concrete cement.
- Place the Iron Plate B by horizontal level ( water level) and press concrete cement to solid. See Figure 4

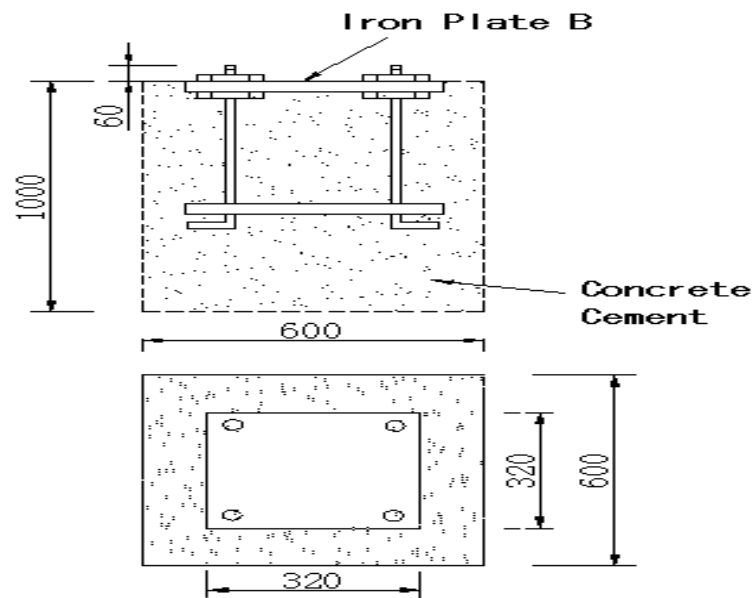


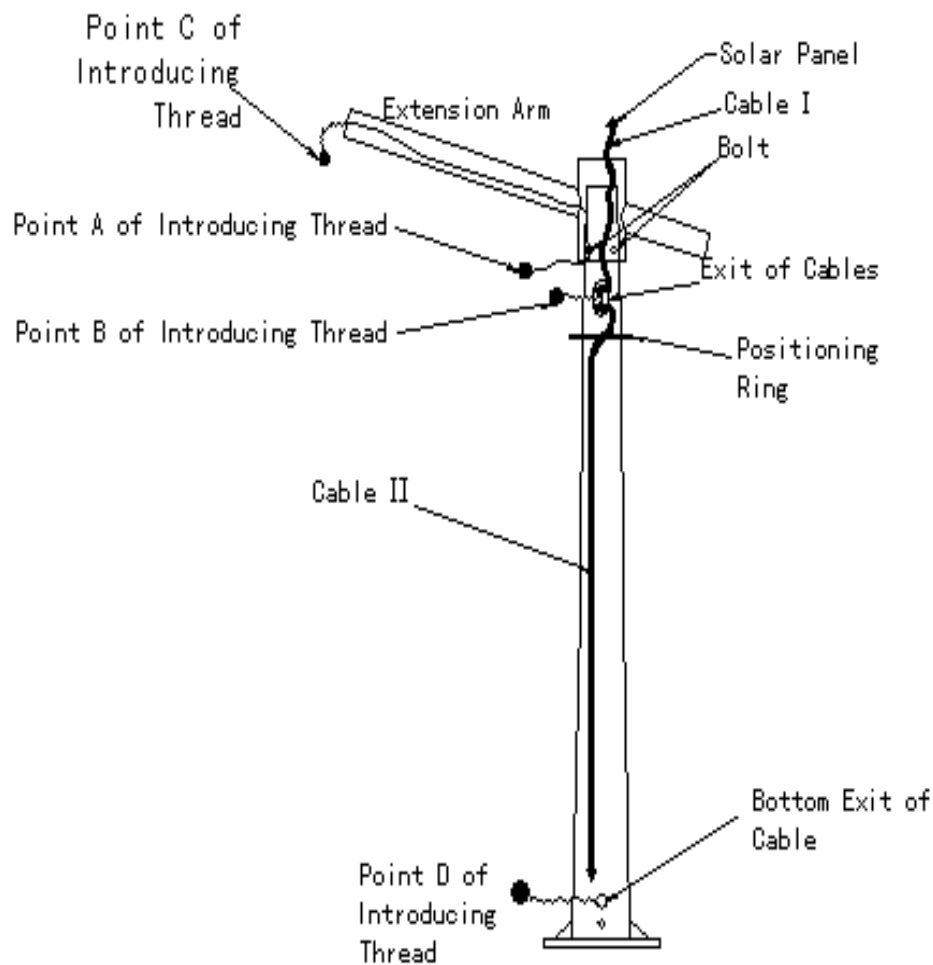
Figure 4

### Step III. Installation of the Pole and the Extension Arm

- There are two sets of cables inside the Pole ( Cable I and Cable II. Cable I is meant to connect the Solar Panel and Lampshade and Cable II is meant to connect the batteries to the Lampshade). Introducing Threads are fixed by the Pole and the Extension Arm. See Figure 5.
- Introducing Threads are fixed by the Extension arm. It is meant to pull out the two sets of cables from the Pole so as to connect the two cables to the Lampshade. ( See

Step V: Installation of Lampshade to check the connection of the cables to the Lampshade)

- Lay down the Pole horizontally. Make sure that the Exit of the Cables stays upward..
- Put the Extension Arm into the upper part of the Pole. Keep the bottom of the Extension Arm by 200mm away from the Positioning Ring.
- Connect Point A of the Introducing Thread on the Extension Arm to Point B of the Introducing Thread on the Pole ( Point B of the Introducing Thread on the Pole is already connected to the two sets of cables inside the Pole) See Figure 6.
- Move the Extension Arm to the Positioning Ring. Make sure that the Extension Arm is vertical to the Exit of the Cables. Screw the nuts tightly.
- Pull Point C of the Introducing Thread. If the plugs of the cables are found to be stopped or clamped inside the Pole, please try to pull Point C and Point D of the Introducing Thread to smooth the outlet.



**Figure 5**

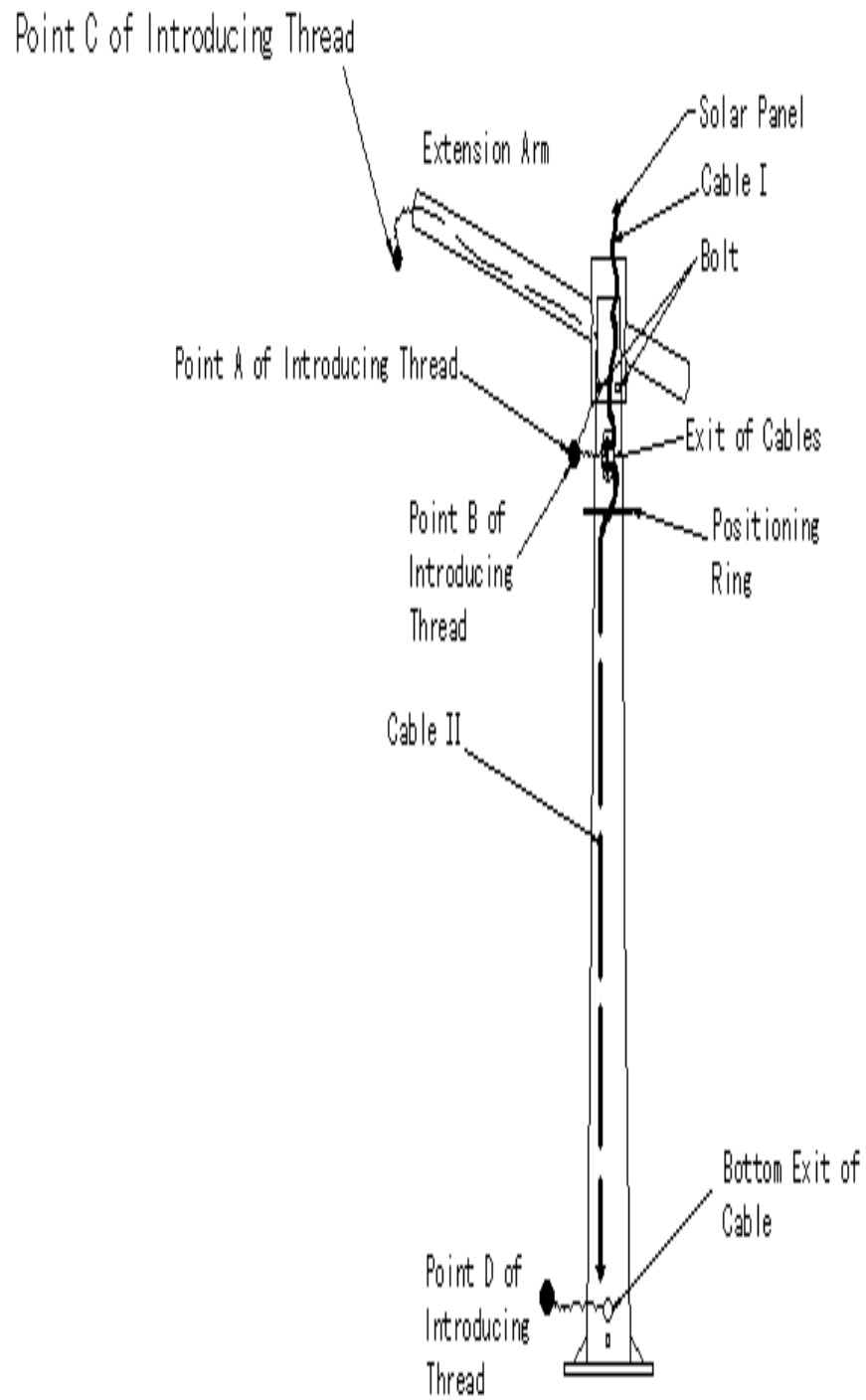


Figure 6

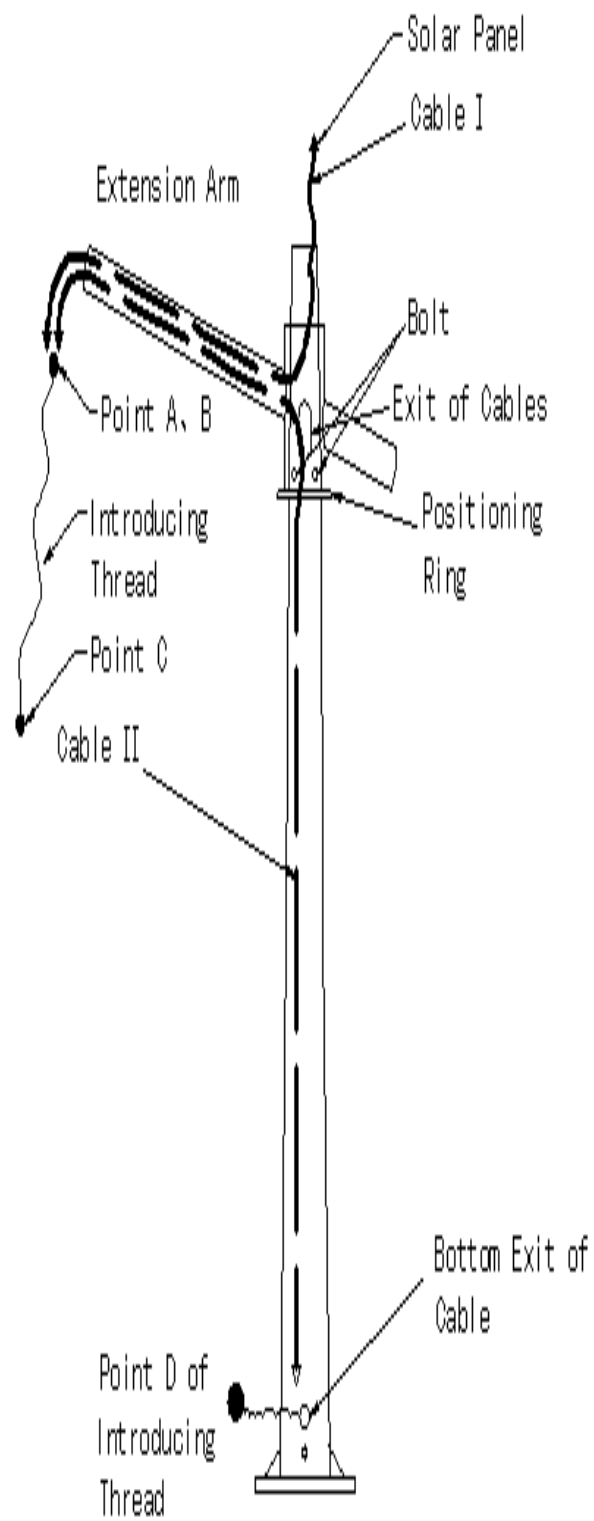


Figure 7

#### Step IV: Installation of Batteries and Battery Box

- Place the side with the hole of the Battery Box to the hole on the Pole. See Figure 8.
- Put the introducing thread of Point D through the Cable Hole and pull the thread inside the Battery Box so that the cables to batteries will get through into the Battery Box.
- Place the Battery Box by the bottom of the Pole. Align the cable holes and the 3 bolt holes to the Pole. See Figure 8.
- Put the 3 M8X25 bolts with 3 washers and rubber spacers through the Battery Box to the Pole and fix them tightly on the Pole.
- Take the 2 batteries of 12V100AH out of the package.
- Connect one terminal of the Brown Cable to "-" of Battery A and the other terminal to "+" of Battery B. See Figure 9.
- Connect the Red Battery Cable inside the Battery Box to "+" of Battery A and the Black Battery Cable to "-" of Battery B. See Figure 10.

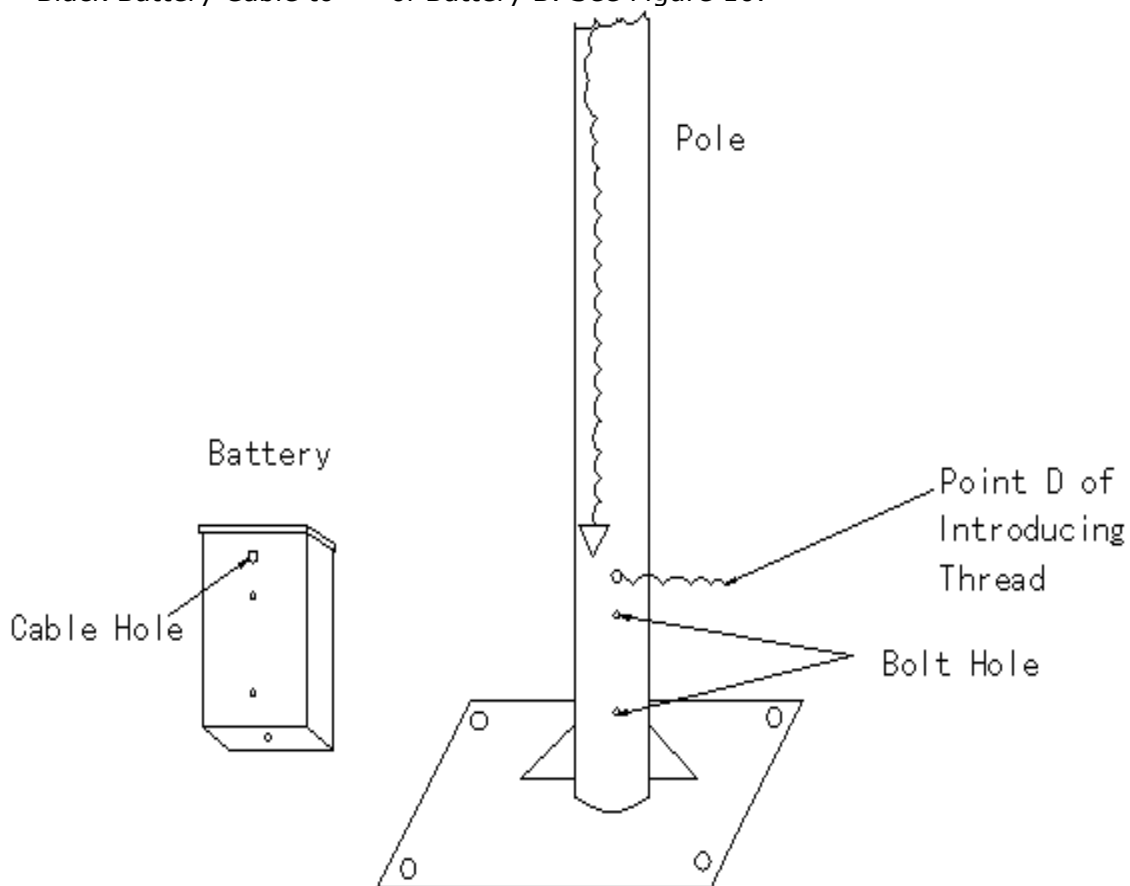
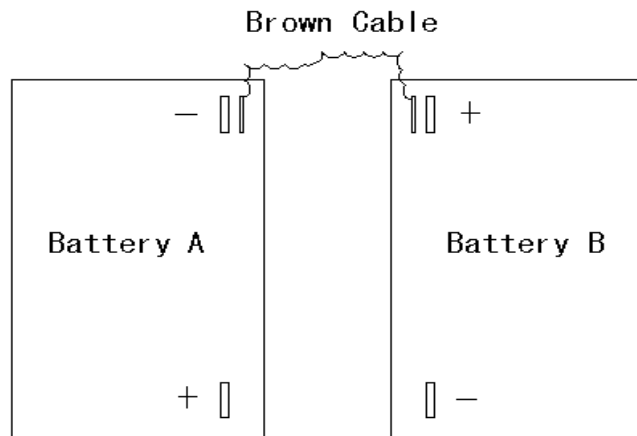
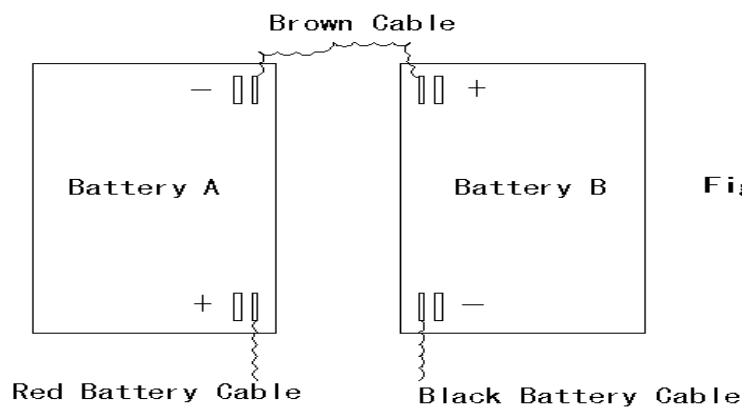


Figure 8



**Figure 9**



**Figure 10**

### **Step V. Installation of Lampshade**

- Cancel the introducing threads.
- Plug the 2 sets of the plugs into each other and put them into the Extension Arm. See Figure 11.
- Place the Lampshade into the Extension Arm and screw it tightly. Make sure that the Lampshade faces the ground by a proper angle. See Figure11.
- Cover the Photocell with black tape to test the light. The light should be turned on in 10 seconds (when the batteries have the voltage >24.5V). Take off the black tape when test is finished.

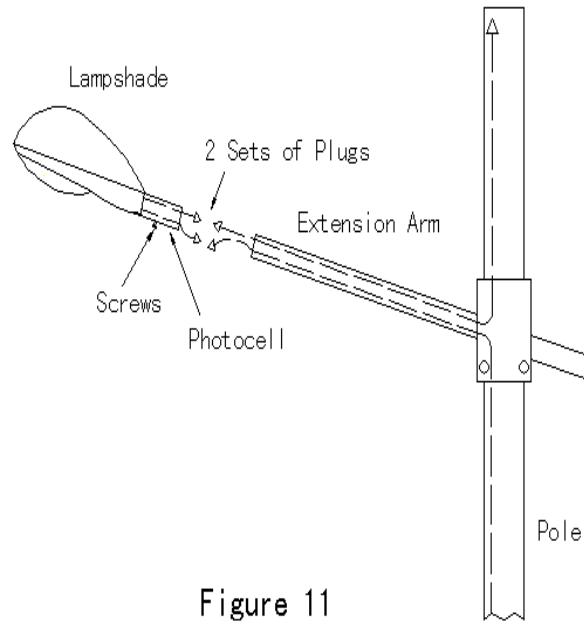


Figure 11

#### Step VI: Installation of Solar Panel ( Figure 12)

- Put the Solar Panel by the top of the Pole.
- Connect the plug on the Solar Panel to the plug inside the Pole by the top and place them into the Pole.
- Place the tube of the Solar Panel into the top of the Pole. Adjust the Pole so that it is vertical to the Sun at noon. Then fix the screws on the tube of the Solar Panel.

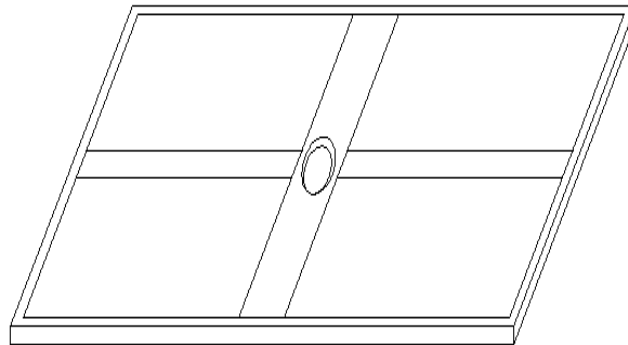


Figure 12

#### Step VII: Installation of the Pole ( Figure 13)

- It is prohibited to lift by the Extension Arm or the Solar Panel.
- Fix soft ropes by the upper part of the Pole. The ropes should be longer than 4 meters.
- Lift the Pole and place the base into the bolts of the anchor. Adjust it to be vertical by washers.
- Fix the 8 nuts of M20 tightly with the 4 washers.

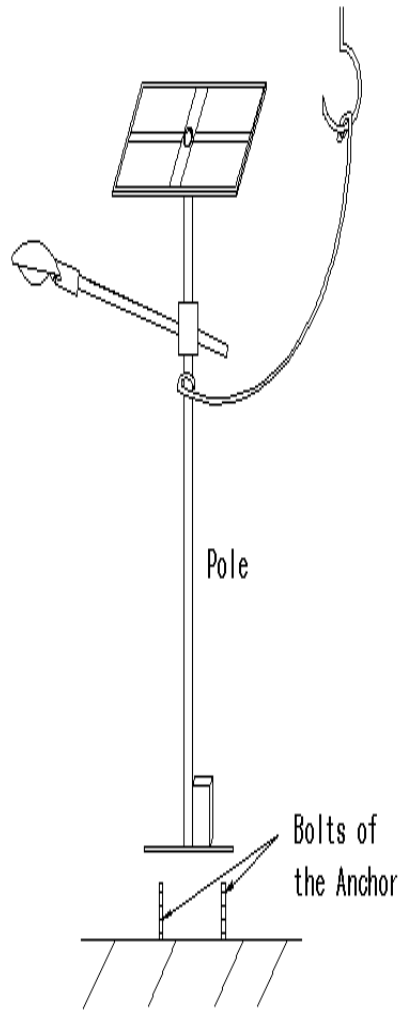


Figure 13