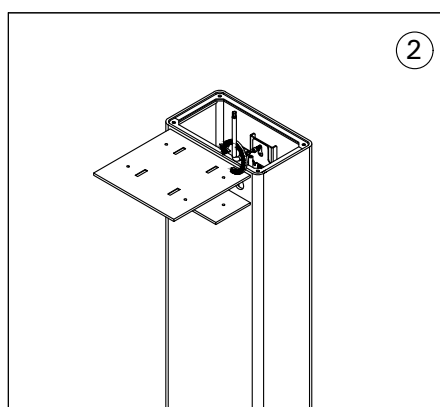
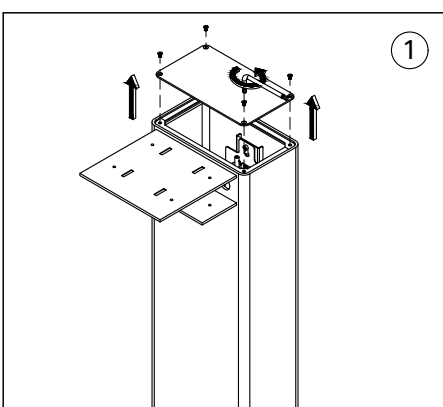
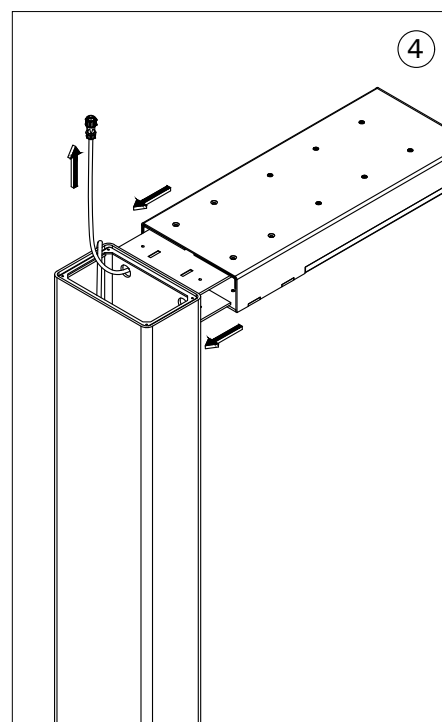
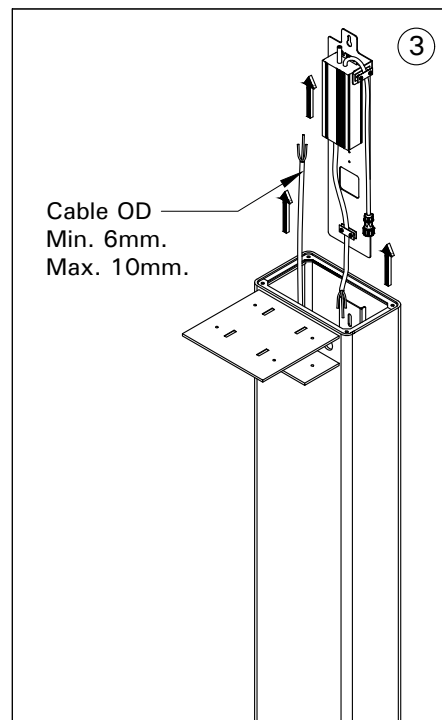
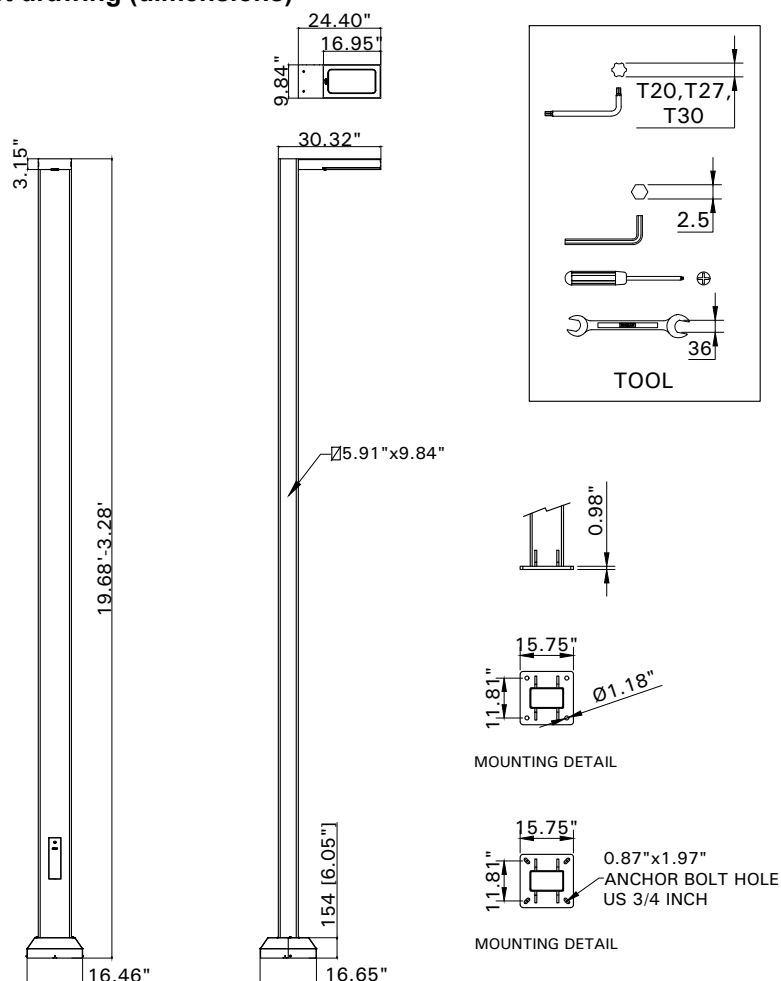


# INSTALLATION AND SERVICE MANUAL

**LIGMAN**  
LIGHTING USA

For Installation of Light linear pt-x area lighting luminaire LED.  
Model. ULI-21331 and ULI-21332

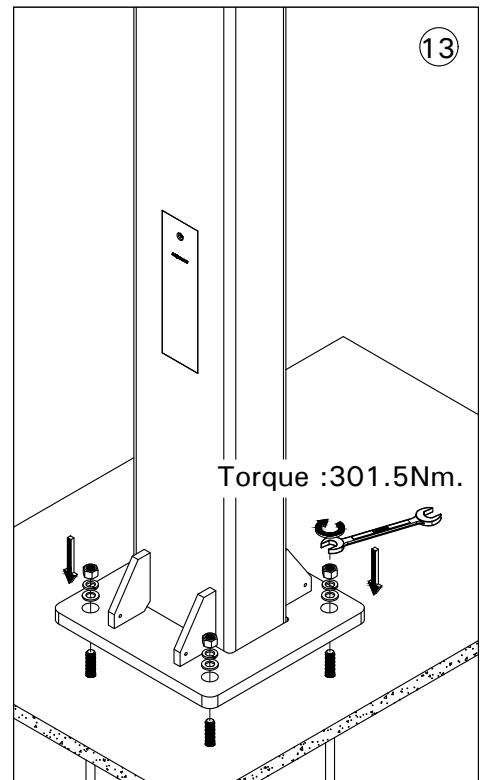
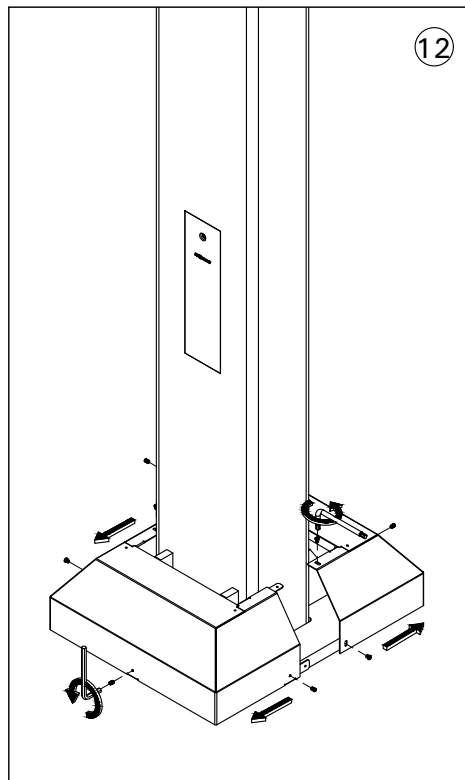
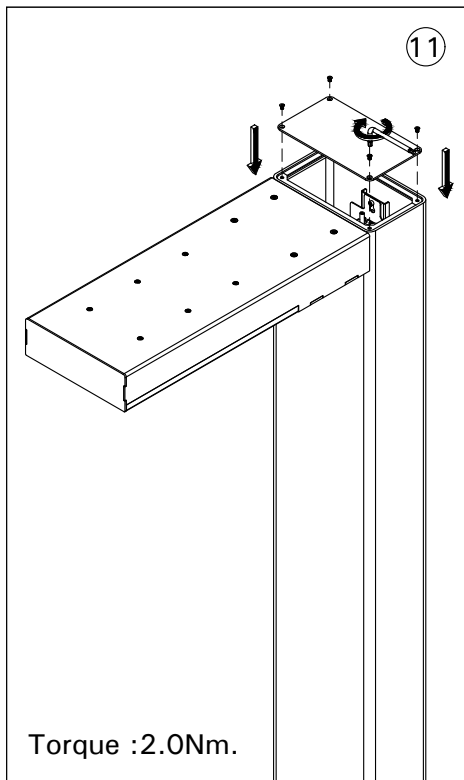
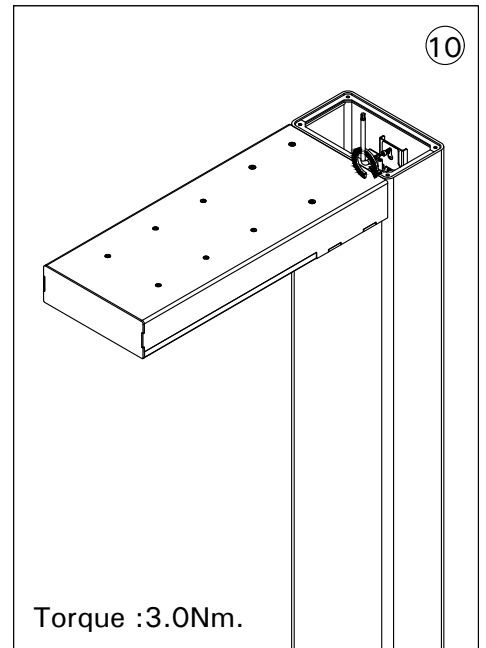
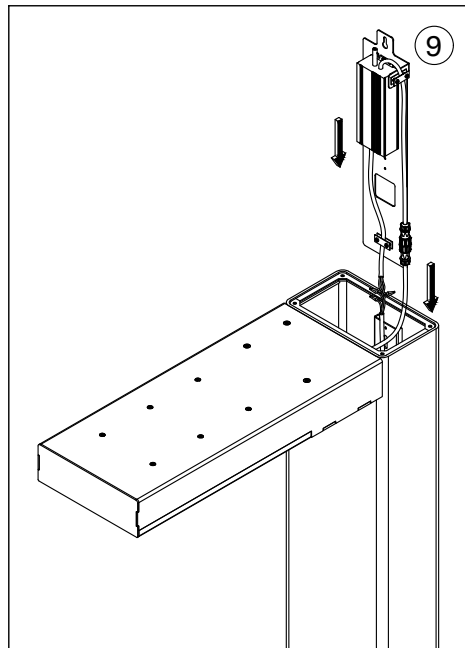
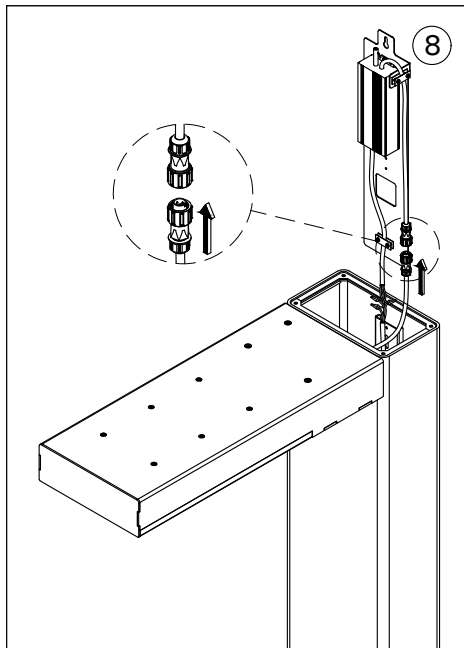
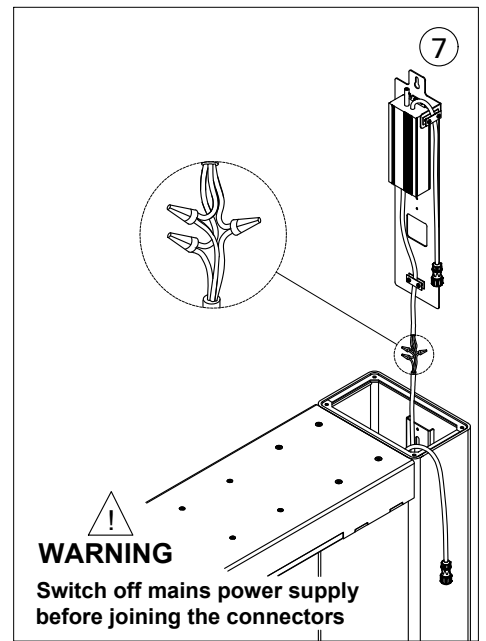
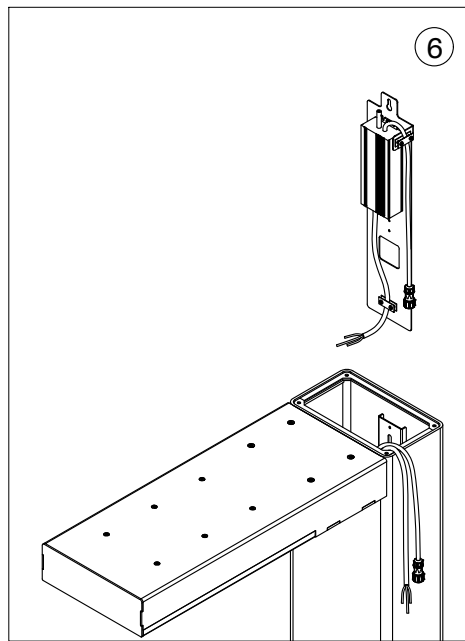
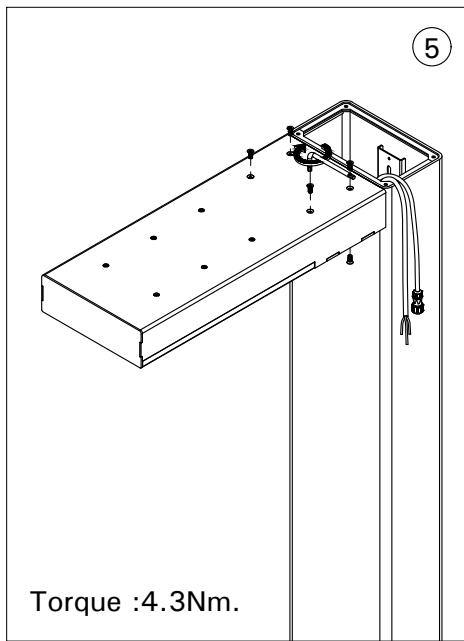
## Product drawing (dimensions)

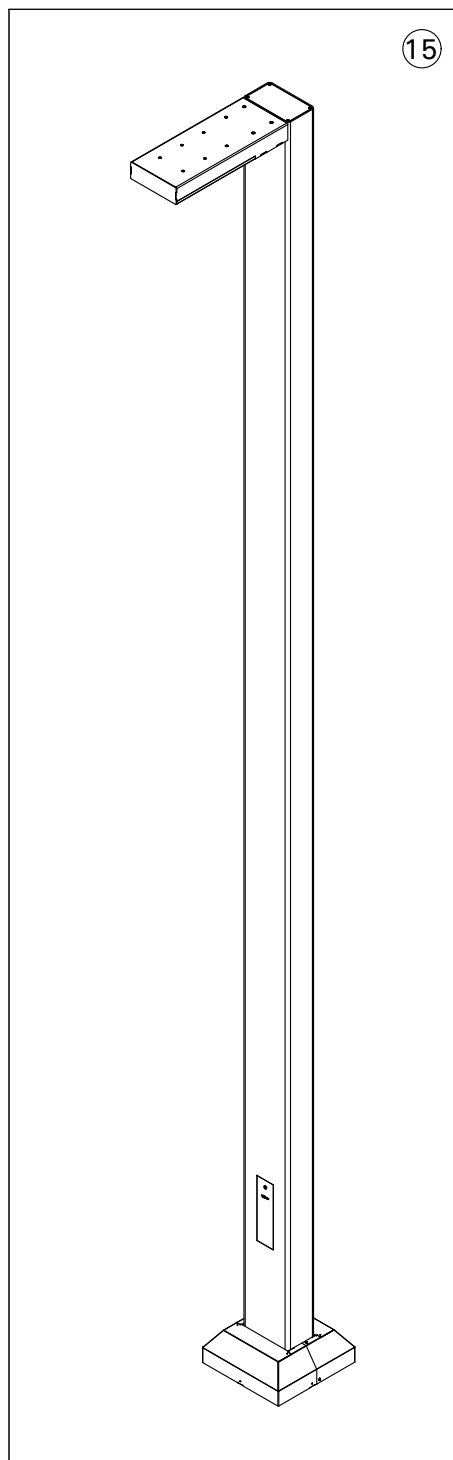
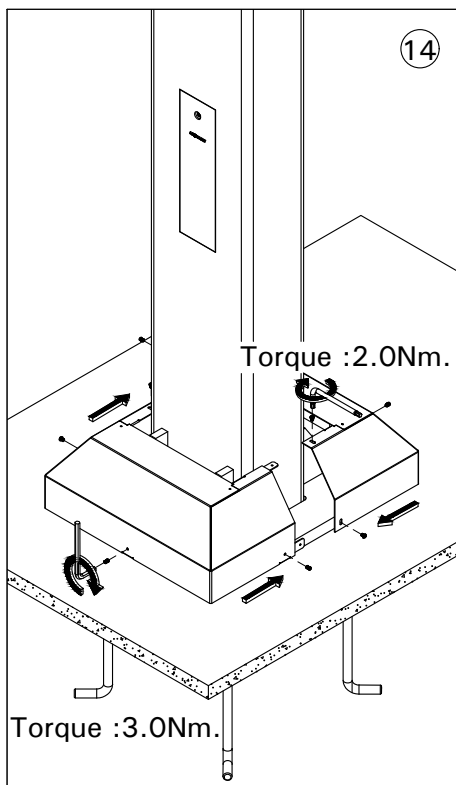


- LIGMAN standard products are supplied with the control gear 24Vdc.  
The control gear for other voltages and frequencies is available upon request, please consult us for more details.
- LIGMAN luminaires are designed to conform IEC 60598 2-18 standard.  
Technical amendments and modifications techniques reserved.

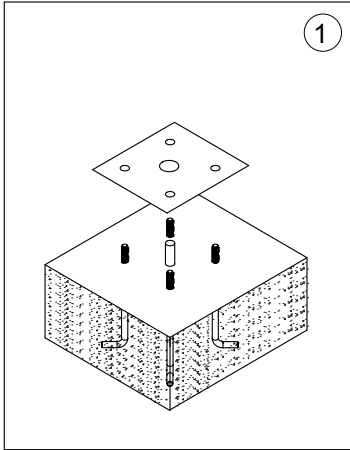
**Ligman Lighting USA**

7144 NE Progress Court, Hillsboro  
Oregon, 97124, USA  
Tel : 503 645 0500 | Fax : 503 645 8100





## USING LEVELING SHIMS

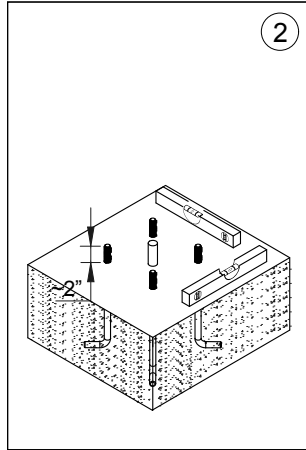


Use anchor bolt template to set anchor bolts into concrete as per civil engineering instructions.

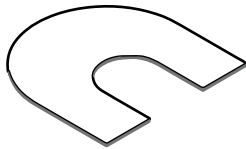
**Ligman does not provide foundation details. A local engineer that is familiar with the site soil conditions should provide this information.**

### NOTE:

Ligman does not recommend using leveling bolts for pole installations.

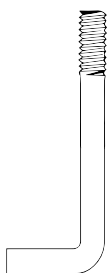


Ensure that the concrete is plumb using a level. Failing to do this will result in pole being uneven or tilted.

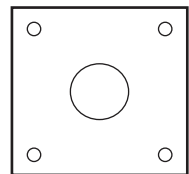
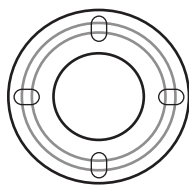


Leveling Shim Example

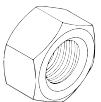
## What's Included Per Pole



x 4



x 4



x 4

A single anchor bolt template is provided per pole size to be used for the poles on the project.

Anchor bolt template may be round or square dependant upon which pole is being used.

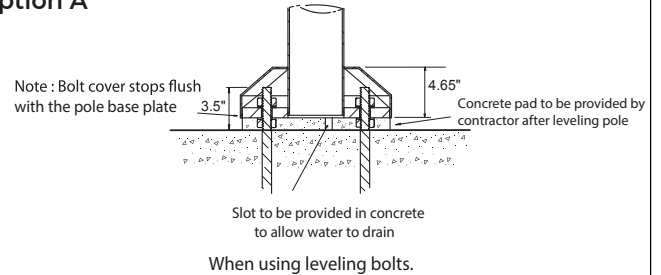
## USING LEVELING BOLTS

SHOULD THE CONTRACTOR SELECT TO USE THE LEVELING BOLT METHOD, AN ADDITIONAL 4 BOLTS NEED TO BE PURCHASED

In rare instances where leveling bolts have to be used, it is important that a flush concrete surface is created to mount the pole base plate.

**NOTE:** When using leveling bolts, bolt projection should be 3.5"

### Using Leveling Bolts Option A

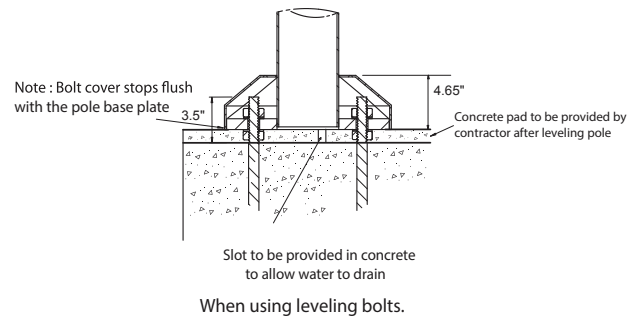


After establishing a level platform the space between the original concrete surface and the pole base should be filled with concrete and finished flush.

This provides a uniform load displacement pad for the forces created by wind and luminaire weight

Foundation and Design by Others

### Using Leveling Bolts Option B



After establishing a level platform the space between the original concrete surface and the pole base should be filled with concrete and finished flush.

This provides a uniform load displacement pad for the forces created by wind and luminaire weight