**INSTALLATION INSTRUCTIONS**

**TW1 PENDANT WITH P1EM HANGING SYSTEM**

These Instructions cover the TWIN LUMINAIRE with the following options:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SERIES | HANGING SYSTEM | SIZE | LIGHT SOURCE | CIRCUIT  OPTION | CONTROL | WIRE DIAGRAM |
| TW1(TWIN) | P1EM: PENDANT WITH VERTICAL AIRCRAFT CABLES TO SEPARATE MOUNTING POINTS AND POWER CORD TO CANOPY | 24” | STATIC WHITE | SINGLE CIRCUIT | 0-10V DIM 1% (DM1) | WIRE DIAGRAM ON PAGE 7 |
| 36” |
| 48” |
| 60” | DUAL CIRCUIT | WIRE DIAGRAM ON PAGE 8 |
| 72” |

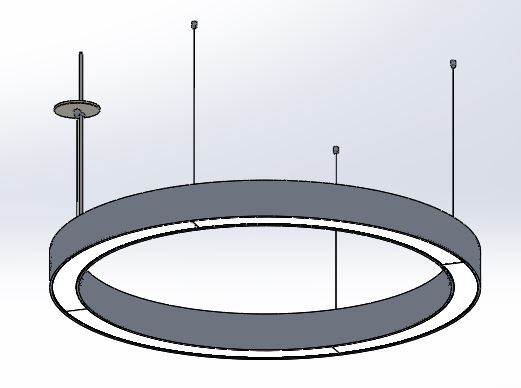


FIG. 1 – TW1-P1EM-XX-MW-XXX-LEDX\_XXK-UNV-XX-DM~

**GENERAL NOTES:**

1. PLEASE COMPLETELY READ THE INSTALL INSTRUCTIONS BEFORE STARTING INSTALLATION.
2. TURN OFF POWER TO CIRCUIT FIXTURE WHILE IT IS BEING INSTALLED.
3. INSTALL IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES CONSULT WITH A QUALIFIED ELECTRICIAN FOR PROPER INSTALLATION.
4. CAREFULLY UNPACK ALL CONTENTS; SOME COMPONENTS MAY HAVE BEEN SHIPPED IN SEPARATE BOXES. MOST FIXTURES ARE SHIPPED PARTIALLY ASSEMBLED. SOME UNASSEMBLY MAY BE REQUIRED FOR INSTALLATION.
5. DO NOT LET THE TWIN LUMINAIRE HANG FREE UNTIL ALL THE AIRCRAFT CABLES ARE SECURED AND EVENLY TENSIONED.
6. DUE TO A CHANGE IN NEC SECTION 410.69 EFFECTIVE IN 2022, THE COLOR PINK WILL BE USED IN PLACE OF GRAY FOR 0-10V CONTROL. NOTE THAT EXISTING SYSTEMS AND FIXTURES MANUFACTURED PRIOR TO 2022 MAY STILL USE GRAY WIRE AS AN UNGROUNDED CONDUCTOR FOR 0-10V CONTROL. CARE SHOULD BE TAKEN WHEN WORKING ON EXISTING SYSTEMS.

Table of Contents

[GENERAL INFORMATION: 3](#_Toc43320870)

[MOUNTING: 4](#_Toc43320871)

[**TWIN MOUNTING [HARD CEILING]:** 5](#_Toc43320872)

[**TWIN MOUNTING [GRID CEILING]:** 5](#_Toc43320873)

[**TWIN MOUNTING [NON-POWERED POINT AIRCRAFT CABLE]:** 5](#_Toc43320874)

[**TWIN MOUNTING [CANOPY]:** 5](#_Toc43320875)

**GENERAL INFORMATION:**

You will receive the following with each TWIN P1EM series pendant fixture:

1. TWIN LUMINAIRE with CORD attached. (Pre-assembled as shown in FIG. 2)
2. INSTALLATION INSTRUCTIONS (shown in FIG. 3) - Please completely read the install instructions before starting installation.
3. RED BAG (shown in FIG. 3) contains below following items.
   1. CANOPY (as shown in FIG. 4)
   2. MOUNTING KIT (as shown in FIG. 5)
      1. STRAIN RELIEF
      2. MOUNTING BRACKET ASSEMBLY
      3. THREE (3) CEILING COUPLER (CC)
      4. FOUR (4) AIRCRAFT CABLE

**WARNING: Examine all components for any damage before beginning installation.**

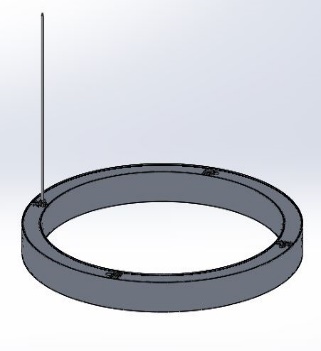
**WARNING: This fixture should be installed by a licensed electrician only.**

**WARNING: Be careful not to scratch or damage any finished parts.**

TWIN  
 LUMINAIRE

CORD

FIG. 2 - TWIN LUMINAIRE (PRE-ASSEMBLED)



INSTALLATION INSTRUCTIONS

RED BAG

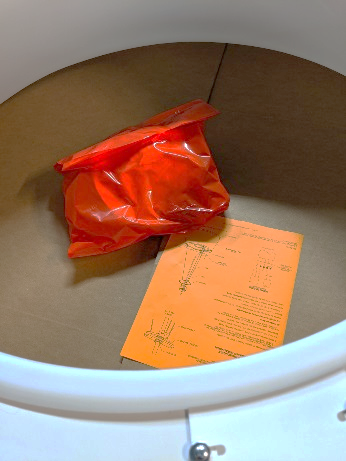


FIG.3 RED BAG AND INSTALLATION INSTRUCTIONS



AIRCRAFT CABLE  
 (4 PLCS)

FIG. 5 - MOUNTING KIT CONTENTS

MOUNTING  
 BRACKET ASSEMBLY

STRAIN RELIEF

SLIP RING COUPLER

CEILING COUPLER (3 PLCS)

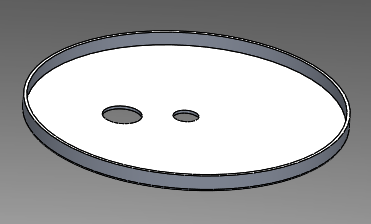


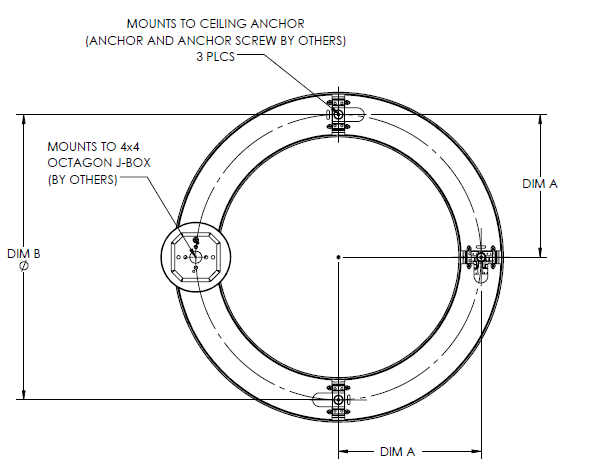
FIG. 4 - CANOPY

**MOUNTING:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| TW1 MOUNTING INFORMATION TABLE | | | | | | |
| SERIES | **FIXTURE DIAMETER** | **FIXTURE WEIGHT** | **MOUNTING DISTANCE** | | **MOUNTING POINT** | **MIN/MAX**  **OAH** |
| **A** | **B** |
| TW1(TWIN) | 24” | 35LBS | 10.375” | Ø 20.75” | 4 | 12”/144” |
| 36” | 50LBS | 16.375” | Ø 32.75” | 4 | 12”/144” |
| 48” | 65LBS | 22.375” | Ø 44.75” | 4 | 12”/144” |
| 60” | 80LBS | 28.375” | Ø 56.75” | 4 | 12”/144” |
| 72” | 95LBS | 34.375” | Ø 68.75” | 4 | 12”/144” |

1. Mark location for the NON-POWERED MOUNTING POINT according to the MOUNTING INFORMATION TABLE and FIG. 6.

FIG. 6 - TOP VIEW SHOWING MOUNTING VIEW INFORMATION



CC- BASE

CC- HOLDER

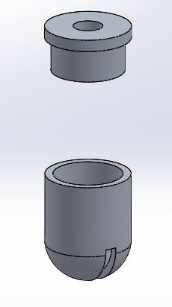


FIG. 7 - CEILING COUPLER ASSEMBLY

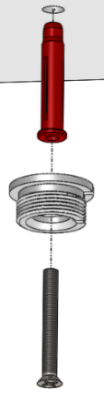
1. Dis-assemble the CEILING COUPLER into two components CC-BASE,

CC-HOLDER as shown in FIG. 7.

For TWIN MOUNTING [HARD CEILING] see steps 3 and 4,

For TWIN MOUNTING [GRID CEILING] see steps 5 and 6.

**TWIN MOUNTING [HARD CEILING]:**



CC- BASE

#8 FLAT HEAD ANCHOR SCREW (BY OTHERS)

#8 FLAT HEAD ANCHOR (BY OTHER)

FIG. 8- HARD CEILING INSTALLATION

1. For hard ceiling install #8 FLAT HEAD ANCHOR (by others into ceiling at the

non-powered mounting location as per the mounting information chart (page 4).

**WARNING: Anchors (by others) must be rated to 50lbs each and**

**suitable for ceiling material at the non-powered**

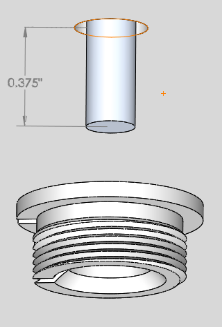
**mounting location.**

1. Install the CC-BASE to the #8 FLAT HEAD ANCHOR (by others) previously

installed at the non-powered mounting location and secure with the

#8 FLAT HEAD ANCHOR SCREW (by others) as shown in FIG. 8.

**TWIN MOUNTING [GRID CEILING]:**



1/4-20 ROD (BY OTHERS)

CC-BASE

FIG. 9 – GRID CEILING INSTALLATION

1. For grid ceiling install 1/4-20 ROD (by others) at the non-powered

mounting location as per the mounting information chart (page 4).

1/4-20 ROD should protrude past the bottom of the ceiling surface

0.375”.

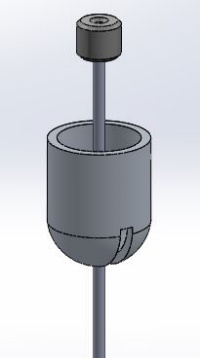
**WARNING: Make sure each threaded rod is mounted to structural**

**member rated to at least 50lbs.**

1. Add a light thread locking compound to the 1/4-20 ROD (by others).

Then thread CC-BASE to 1/4-20 ROD protruding through the ceiling

material as shown in FIG. 9.



AIRCRAFT CABLE

CC-HOLDER

FIG. 10 – SS ROPE CABLE INSTALLATION

**TWIN MOUNTING [NON-POWERED POINT AIRCRAFT CABLE]:**

1. Locate the AIRCRAFT CABLE mounted to the TWIN fixture.
2. Feed all the AIRCRAFT CABLE through the CC-HOLDER. Once fed all the  
   way through, screw CC-BASE and CC-HOLDER together as shown in FIG. 10.

**TWIN MOUNTING [CANOPY]:**

1. Remove STRAIN RELIEF placed around the CORD in the CANOPY. Dis-assemble the SLIP RING COUPLER (1) into three components SRC-BASE, SRC-HOLDER and SRC-FINIAL as shown below in FIG.11.
2. Assemble the SRC BASE to the SCREW (Available in mounting bracket assembly) as shown below in FIG.12.



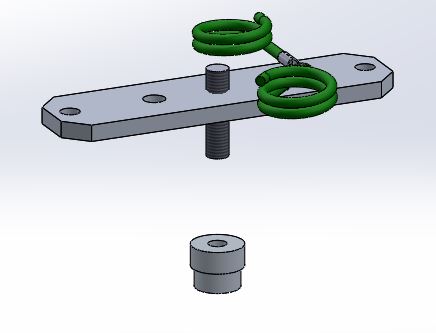
SRC-BASE

SRC-HOLDER

SRC-FINIAL

FIG. 11 – SLIP RING COUPLER (1) CONTENTS

MOUNTING   
BRACKET ASSEMBLY



SRC-BASE

SCREW

FIG. 12 –SRC-BASE INSTALLATION

1. Assemble the MOUNTING BRACKET ASSEMBLY to the JUNCTION BOX the fixture will mount to (by others) with screws (by others) as shown in below FIG. 13 below.
2. Feed the AIRCRAFT CBALE through the SRC-HOLDER and assemble the SRC-HOLDER to SRC-BASE as shown below in FIG. 14.

SRC  
HOLDER

SRC-FINIAL

CANOPY

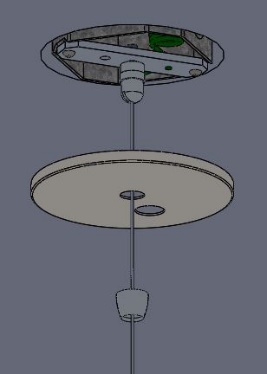
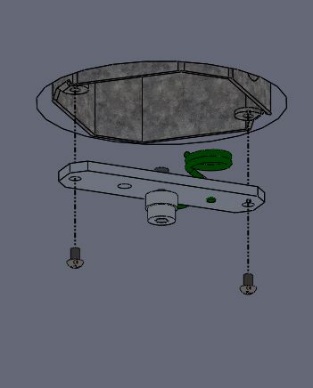


FIG. 15 – CANOPY INSTALLATION



JUNCTION BOX (BY OTHERS)

MOUNTING   
BRACKET ASSEMBLY

FIG. 13 – MOUNTING BRACKET ASSEMBLY INSTALLATION

SCREWS (BY OTHERS)

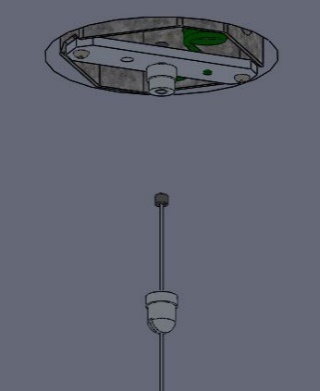


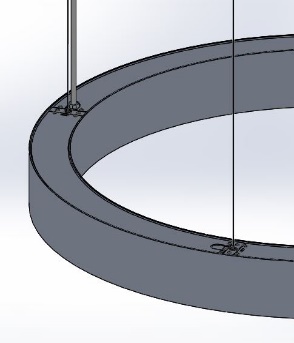
FIG. 14– AIRCRAFT CABLE INSTALLATION

SRC-HOLDER

AIRCRAFT CABLE

SRC-BASE

1. Pass the remaining Aircraft cable through the canopy and SRC-FINIAL.  
   Loosely secure CANOPY to the ceiling by threading the SRC-FINIAL  
   to the SRC-HOLDER as shown in FIG. 15.
2. Raise the fixture with multiple people and feed all the  
   AIRCRAFT CABLE into the GRIPLOCKS by pressing the  
   plunger of the GRIPLOCK and insert the AIRCRAFT CABLE  
   into the body of the GRIPLOCK and adjust fixture drop to   
   desired height as shown in FIG. 16.



AIRCRAFT CABLE

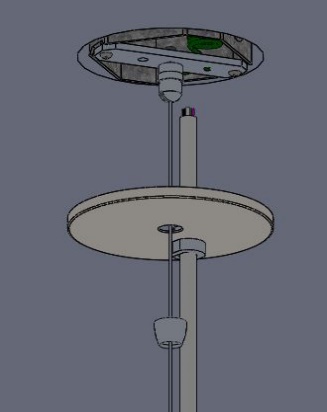
GRIP  
LOCK

FIG. 16 – FIXTURE INSTALLATION

* 1. AIRCRAFT CABLE must pass at least 1.75” beyond the  
     body of the GRIPLOCK. When cutting off excess cable   
     always leave at least 1” of cable showing.
  2. Cables may be cut using purpose-built cutters such as  
     Felco C7. Cable will not fray unless passed repeatedly  
     through the Gripper mechanism or otherwise abused.
  3. To prevent fraying of freshly cut ends, re-solder or apply  
     a drop of super-glue.
  4. Proper CABLE adjustment is critical for these FIXTURES.  
     Improper CABLE adjustment will result in uneven tension  
     and may cause the FIXTURE BODY to bow.

**WARNING:   
Do not let the TWIN LUMINAIRE hang free until all the AIRCRAFT CABLES are secured and evenly tensioned.**

1. Verify that the acrylic panels are lying flat and positioned evenly.
2. Once the TWIN BODY is secured to the AIRCRAFT CABLE (4) at the GRIPLOCK (4) Unthread the FINIAL from the MOUNTING BRACKET ASSEMBLY and lower the CANOPY as shown below in FIG. 17.
3. Feed POWER CORD through the second Hole in the CANOPY and secure CORD to CAOPY with CORD STRAIN RELIEF as shown below in FIG. 18.



STRAIN  
RELIEF

SRC-FINIAL

CORD

CANOPY

FIG. 18 – CORD INSTALLATION

SRC-HOLDER

SRC-FINIAL

CANOPY

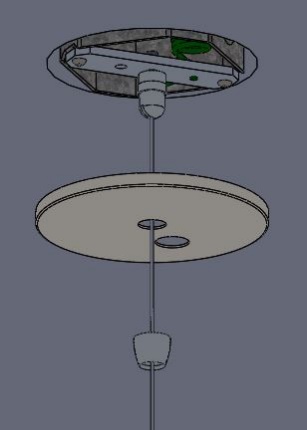


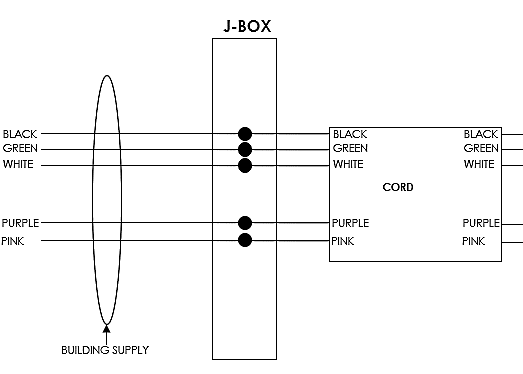
FIG. 17 – CANOPY DIS-ASSEMBLY

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SERIES | HANGING SYSTEM | SIZE | LIGHT SOURCE | CIRCUIT OPTION | CONTROL | WIRE DIAGRAM |
| TW1(TWIN) | P1EM: PENDANT WITH VERTICAL AIRCRAFT CABLES TO SEPARATE MOUNTING POINTS AND POWER CORD TO CANOPY | 24” | STATIC WHITE | SINGLE  CIRCUIT | 0-10V DIM 1% (DM1) | WIRE DIAGRAM ON PAGE 7 |
| 36” |
| 48” |
| 60” | DUAL CIRCUIT | WIRE DIAGRAM ON PAGE 8 |
| 72” |

1. See WIRE DIAGRAM as shown below and WIRE LABEL TABLE below for wire connections. Make all wire connections in accordance with the NATIONAL ELECTRICAL CODE and all applicable LOCAL AND STATE CODES.

FIG. 19 – WIRE DIAGRAM FOR ALL MODELS

SEE GENERAL NOTE 6 ON PAGE 1



|  |  |
| --- | --- |
| WIRE LABEL TABLE | |
| WIRE COLOR | **LABEL** |
| BLACK | LINE VOLTAGE |
| WHITE | NEUTRAL |
| GREEN | GROUND |
|  | |
| DM1 DIMMING OPTION | |
| PURPLE | 0-10V DIMMING (+) |
| PINK | 0-10V DIMMING (-) |

**SINGLE CIRCUIT WIRE DIAGRAM**:

**DUAL CIRCUIT WIRE DIAGRAM**:

**DUAL CIRCUIT (TWO CORDS)**

**CORD FOR UPLIGHT:**

BLACK WIRE = UPLIGHT LINE VOLTAGE

PURPLE WIRE = UPLIGHT 0-10V (+)

PINK WIRE = UPLIGHT 0-10V (-)

**CORD FOR DOWN LIGHT:**

BLACK WIRE = DOWNLIGHT LINE VOLTAGE

PURPLE WIRE = DOWNLIGHT 0-10V (+)

PINK WIRE = DOWNLIGHT 0-10V (-)

GREEN = UP AND DOWNLIGHT GROUND

WHITE WIRE = UP AND DOWNLIGHT NEUTRAL

FIG. 20 - WIRE CONNECTION FROM BUILDING SUPPLY TO DRIVER

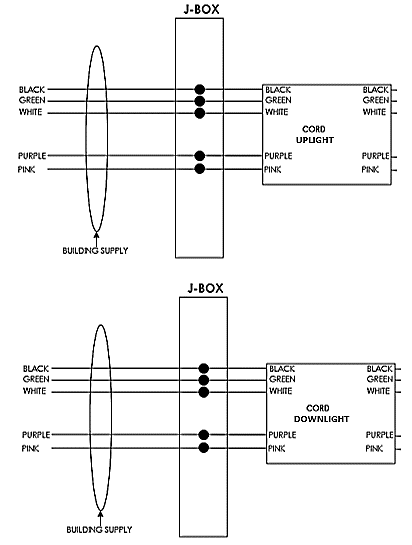
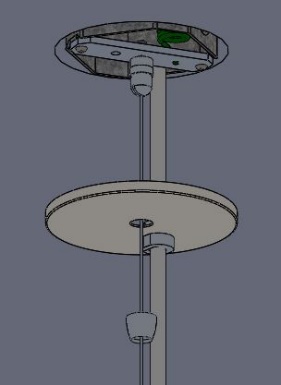


FIG. 21 – WIRE DIAGRAM FOR ALL MODELS

SEE GENERAL NOTE 6 ON PAGE 1

1. Raise CANOPY and secure to ceiling by threading the SRC-FINIAL to SRC-HOLDER.as shown below in FIG.22.



SRC-HOLDER

CANOPY

SRC-FINIAL

FIG. 22 – FINIAL INSTALLATION

1. Restore power to circuit the TWIN series pendant is connected to.  
   1. Test to see that the luminaire turns on after power is restored.
   2. Contact OCL for any Luminaire troubleshooting if a problem occurs.

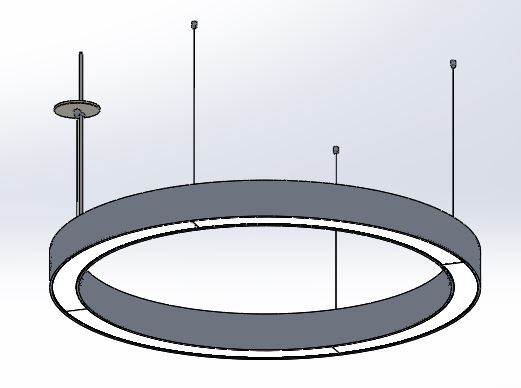


FIG. 23 - COMPLETED INSTALLATION OF TW1 PENDANT WITH P1EM HANGING SYSTEM