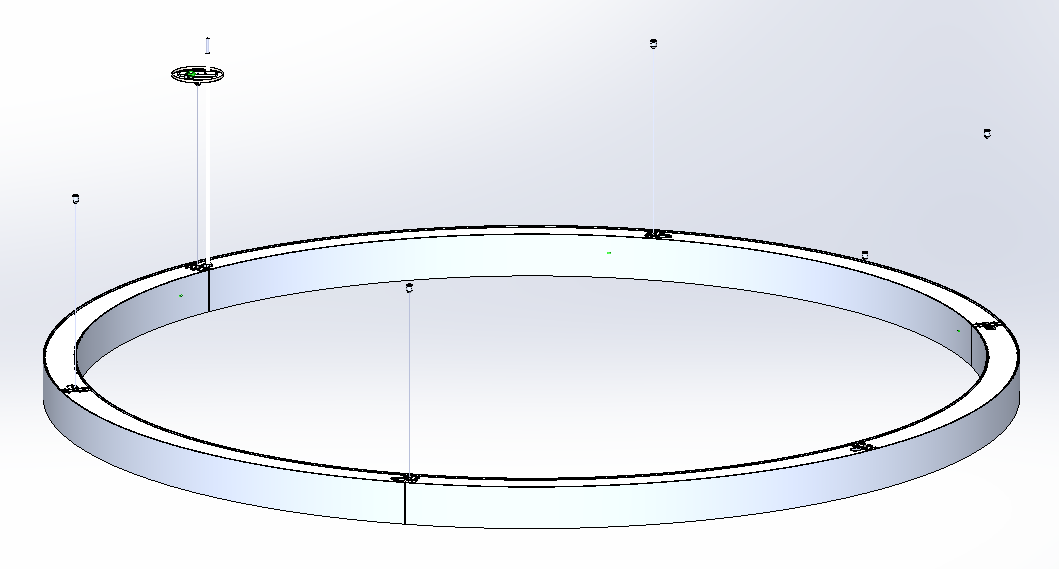
**INSTALLATION INSTRUCTIONS**

**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 | 96” | STATIC WHITE | SINGLE CIRCUIT | 0-10V DIM 1% (DM1) | WIRE DIAGRAM ON PAGE 8 |
| DUAL CIRCUIT | WIRE DIAGRAM ON PAGE 8 |

FIG. 1 – TW1-P1EM-96-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.

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[**TWIN MOUNTING [GRID CEILING]: 5**](#_Toc43396414)

[**TWIN MOUNTING [NON-POWERED POINT AIRCRAFT CABLE]: 5**](#_Toc43396415)

[**TWIN MOUNTING [CANOPY]: 5**](#_Toc43396416)

**GENERAL INFORMATION:**

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

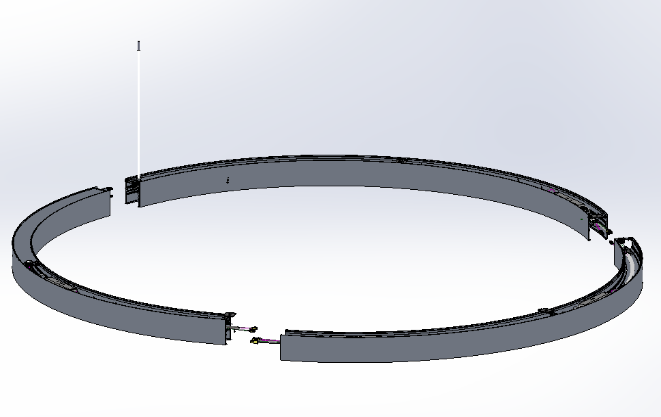
1. TWIN LUMINAIRE SECTIONS (shown in FIG. 2)
2. INSTALLATION INSTRUCTIONS (shown in FIG. 3) - Please completely read the install instructions before starting installation.
3. FOUR (4) ACRYLIC PANELS AND SIX (6) TOP PLATES (shown in FIG. 6)
4. RED BAG (shown in FIG. 3) contains below following items.
   1. CANOPY (as shown in FIG. 4)
   2. MOUNTING KIT (as shown in FIG. 5)
      1. STRAIN RELIEF
      2. MOUNTING BRACKET ASSEMBLY
      3. FIVE (5) CEILING COUPLER (CC)
      4. SIX (6) 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.**

SECTION 3



SECTION 1 (WITH CORD ATTACHED)

SECTION 2

FIG. 2 - TWIN LUMINAIRE SECTIONS

INSTALLATION INSTRUCTIONS

RED BAG

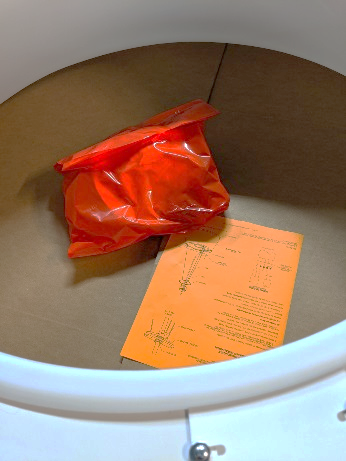


FIG.3 RED BAG AND INSTALLATION INSTRUCTIONS

TOP PLATES 6 PLCS

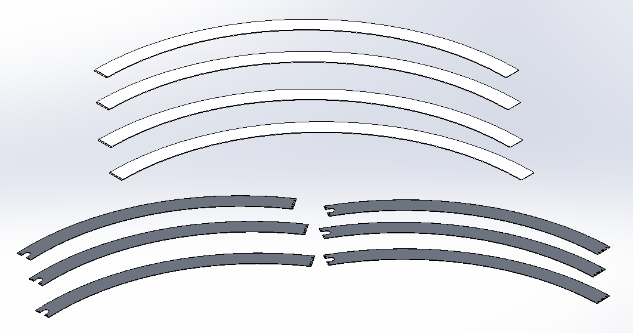


FIG. 6 – ACRYLIC PANELS & TOP PLATES

ACRYLIC PANELS 4 PLCS

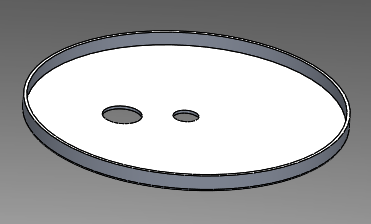
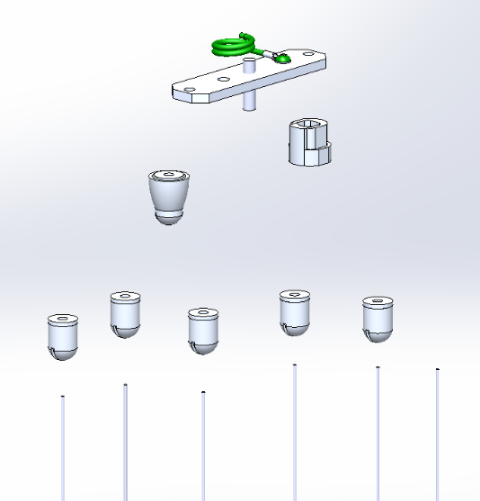


FIG. 4 - CANOPY



AIRCRAFT CABLE  
 (6 PLCS)

FIG. 5 - MOUNTING KIT CONTENTS

MOUNTING  
 BRACKET ASSEMBLY

STRAIN RELIEF

SLIP RING COUPLER

CEILING COUPLER (5 PLCS)

**MOUNTING:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| MOUNTING INFORMATION TABLE | | | | | | | |
| SERIES | **FIXTURE DIAMETER** | **FIXTURE WEIGHT** | **MOUNTING DISTANCE** | | | **MOUNTING POINT** | **MIN/MAX**  **OAH** |
| **A** | **B** | **C** |
| TW1(TWIN) | 96” | 110LBS | 23.188” | 46.375” | 40.125” | 6 | 12”/144” |

1. Mark location for the NON-POWERED MOUNTING POINT according to the MOUNTING INFORMATION TABLE and FIG. 7.

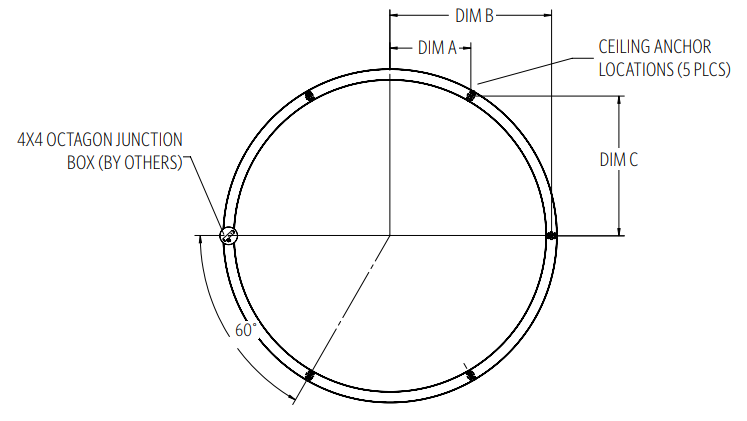


FIG. 7 - TOP VIEW SHOWING MOUNTING VIEW INFORMATION

CC- BASE

CC- HOLDER

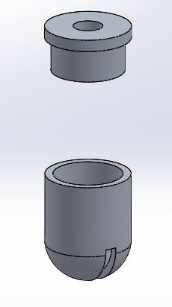


FIG. 8 - CEILING COUPLER ASSEMBLY

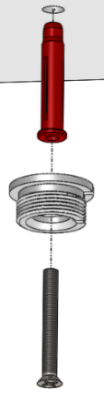
1. Dis-assemble the CEILING COUPLER into two components CC-BASE,

CC-HOLDER as shown in FIG. 8.

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. 9- 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**

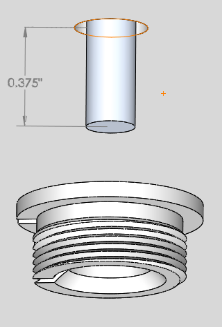
**mounting location.**

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. 9.

**TWIN MOUNTING [GRID CEILING]:**



1/4-20 ROD (BY OTHERS)

CC-BASE

FIG. 10 – 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”.

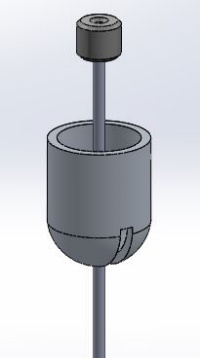
**WARNING: Make sure each threaded rod is mounted to structural**

**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. 10.



AIRCRAFT CABLE

CC-HOLDER

FIG. 11 – SS ROPE CABLE INSTALLATION

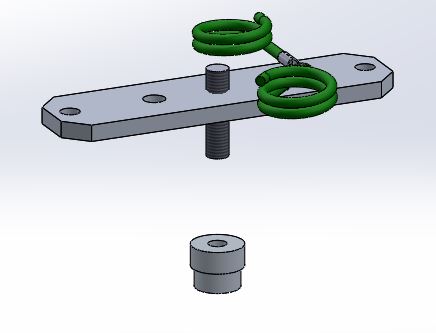
**TWIN MOUNTING [NON-POWERED POINT AIRCRAFT CABLE]:**

1. Locate the AIRCRAFT CABLES. 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. 11.
2. Repeat step 7 for the remaining 4 AIRCRAFT CABLES.

**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.12.
2. Assemble the SRC BASE to the SCREW (Available in mounting bracket assembly) as shown below in FIG.13.

MOUNTING   
BRACKET ASSEMBLY



SRC-BASE

SCREW

FIG. 13 –SRC-BASE INSTALLATION



SRC-BASE

SRC-HOLDER

SRC-FINIAL

FIG. 12 – SLIP RING COUPLER (1) CONTENTS

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. 14 below.
2. Feed the AIRCRAFT CBALE through the SRC-HOLDER and assemble the SRC-HOLDER to SRC-BASE as shown below in FIG. 15.

SRC  
HOLDER

SRC-FINIAL

CANOPY

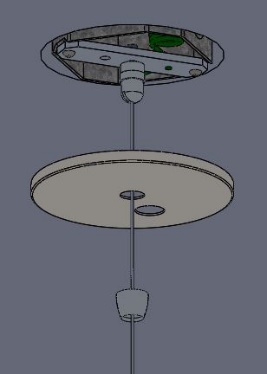
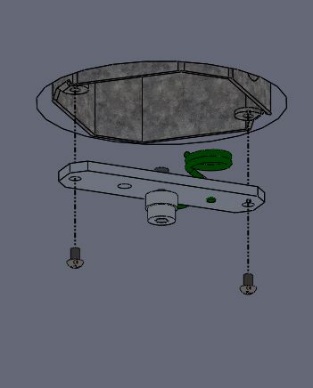


FIG. 16 – CANOPY INSTALLATION



JUNCTION BOX (BY OTHERS)

MOUNTING   
BRACKET ASSEMBLY

FIG. 14 – MOUNTING BRACKET ASSEMBLY INSTALLATION

SCREWS (BY OTHERS)

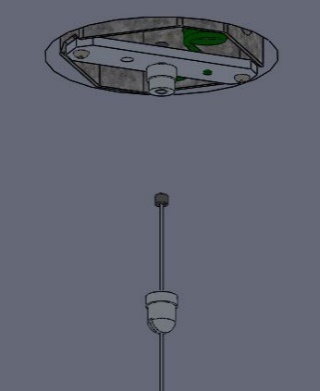


FIG. 15– AIRCRAFT CABLE INSTALLATION

SRC-HOLDER

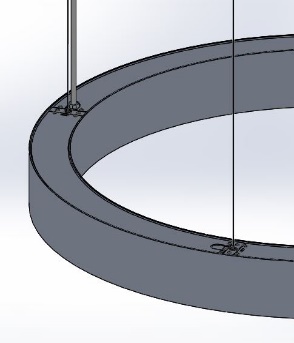
AIRCRAFT CABLE

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. 16.
2. Raise the first section of the fixture with multiple people and

feed the AIRCRAFT CABLES into the GRIPLOCKS by pressing the

plunger of the GRIPLOCK and insert the AIRCRAFT CABLE into



AIRCRAFT CABLE

GRIP  
LOCK

FIG. 17 – FIXTURE INSTALLATION

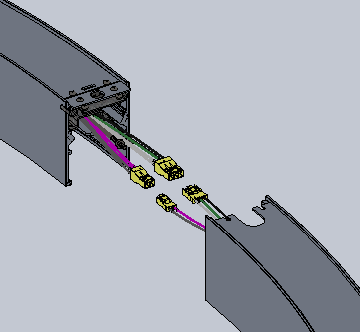
the body of the GRIPLOCK and adjust fixture drop to desired

height as shown in FIG. 17.

* 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. Repeat step 14 for the remaining two sections.



SECTION 2

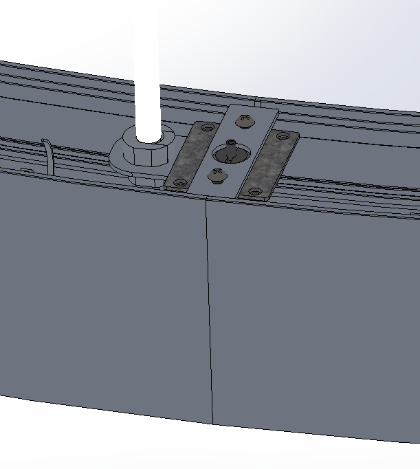
SECTION 2

HARNESS CONNECTED IN SERIES

1. Connect the Wire Harness in series from section 1 and section 2 as shown in FIG. 18.
2. Repeat the step 16 for remaining two sections.
3. Connect two sections by lining up the dowel pins and pushing the sections together. Install the 4" #10-32 bolt & nut and tighten as shown in FIG. 19. This pulls the sections together.

FIG. 18 – HARNESS CONNECTION

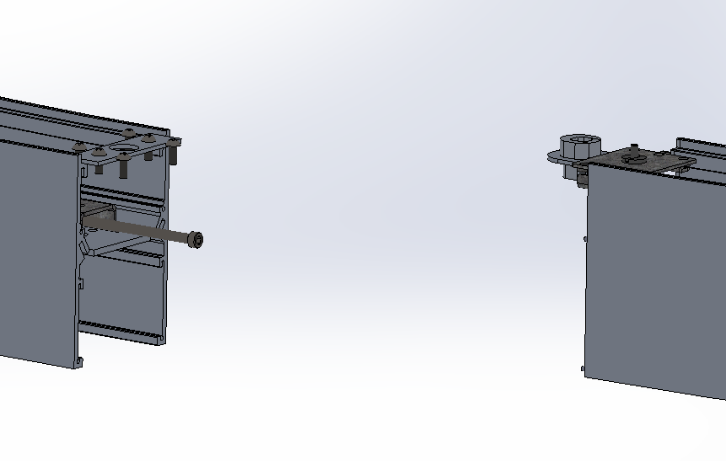
1. Loosen the 2 #8 screws on top of the hanging bracket and slide the bracket over so that it is centered over the seam between section 1 & section 2 as shown in FIG. 20. Tighten the #8 screws so the bracket stays in place.



SLIDE HANGING BRACKET OVER THE SEAM

#8 SCREWS

FIG. 20 – BRACKETS INSTALLATION



#10-32 BOLT

DOWEL PIN 4 PLCS

Section 2

Section 1 (Cord hidden for clarity)

FIG. 19 – SECTIONS INSTALLATION

1. Repeat steps 18 & 19 for attaching at the other two junctions.
2. Once the TWIN BODY is secured to the AIRCRAFT CABLE (5) at the GRIPLOCK (5) Unthread the FINIAL from the MOUNTING BRACKET ASSEMBLY and lower the CANOPY as shown below in FIG. 21.
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. 22.

SRC-HOLDER

SRC-FINIAL

CANOPY

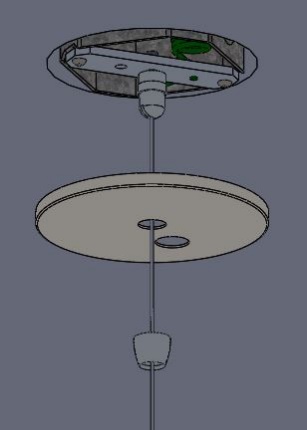
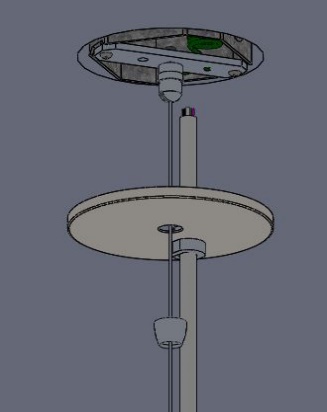


FIG. 21 – CANOPY DIS-ASSEMBLY



STRAIN  
RELIEF

SRC-FINIAL

CORD

CANOPY

FIG. 22 – CORD INSTALLATION

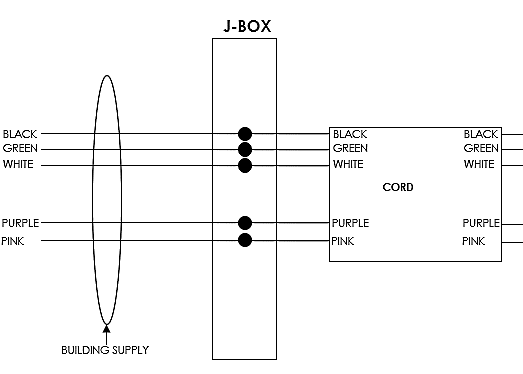
1. See WIRE DIAGRAM as shown in FIG. 23 and WIRE LABEL TABLE below for wire connections. Make all wire connections in accordance with the NATIONAL ELECTRICAL CODE and all applicable LOCAL AND STATE CODES.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SERIES | HANGING SYSTEM | SIZE | LIGHT SOURCE | DOWNLIGHT OPTION | CONTROL | WIRE DIAGRAM |
| TW1(TWIN) | P1EM: PENDANT WITH VERTICAL AIRCRAFT CABLES TO SEPARATE MOUNTING POINTS AND POWER CORD TO CANOPY | 96” | STATIC WHITE | SINGLE  CIRCUIT | 0-10V DIM 1% (DM1) | WIRE DIAGRAM ON PAGE 7 |
| DUAL CIRCUIT | WIRE DIAGRAM ON PAGE 8 |

**SINGLE CIRCUIT WIRE DIAGRAM**:

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

FIG. 23 – WIRE DIAGRAM



SEE GENERAL NOTE 6 ON PAGE 1

**DUAL CIRCUIT WIRE DIAGRAM**:

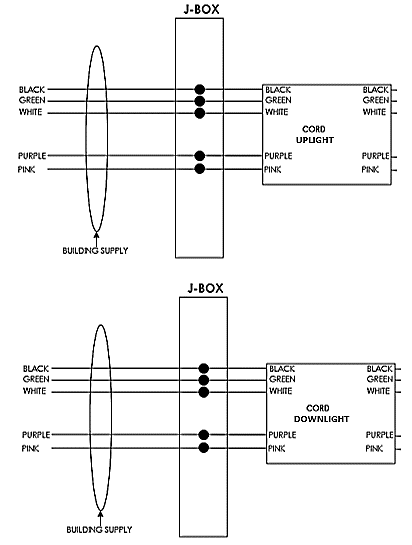


FIG. 25 – WIRE DIAGRAM FOR ALL MODELS

SEE GENERAL NOTE 6 ON PAGE 1

**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 (+)

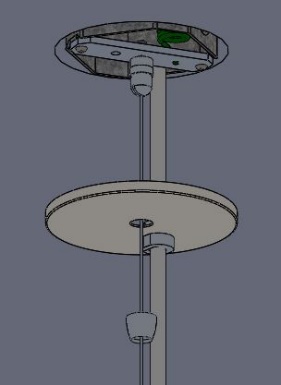
PINK WIRE = DOWNLIGHT 0-10V (-)

GREEN = UP AND DOWNLIGHT GROUND

WHITE WIRE = UP AND DOWNLIGHT NEUTRAL

FIG. 24 - WIRE CONNECTION FROM BUILDING SUPPLY TO DRIVER

1. Raise CANOPY and secure to ceiling by threading the SRC-FINIAL to SRC-HOLDER.as shown below in FIG.26.



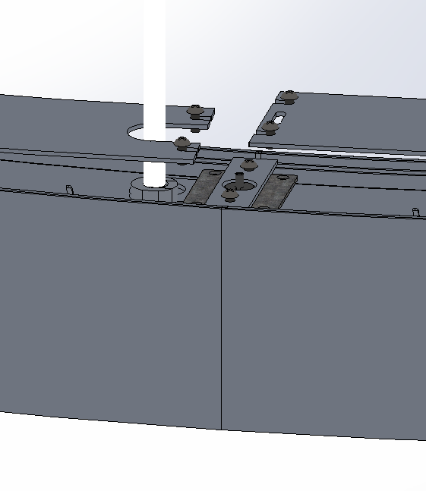
SRC-HOLDER

CANOPY

SRC-FINIAL

FIG. 26 – FINIAL INSTALLATION

1. Install the 6 Aluminum TOP PLATES with the #8 screws provided as shown in FIG. 27.



#8 SCREWS

Top Plate

FIG. 27 – TOP PLATE INSTALLATION

1. Install the ACRYLIC PANELS into the fixture. Make sure that the seams on the ACRYLIC PANELS overlap and there are no gaps in the seams. Verify that the ACRYLIC PANELS are lying flat and positioned evenly.
2. 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. 28 - COMPLETED INSTALLATION OF TW1 PENDANT WITH P1EM HANGING SYSTEM

