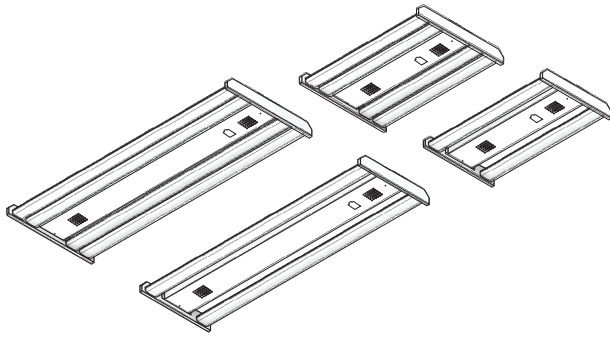


Includes: FLHS2D110, FLHS2D162, FLHS2D223, FLHS4D223, FLHS4D321, FLHS4D420



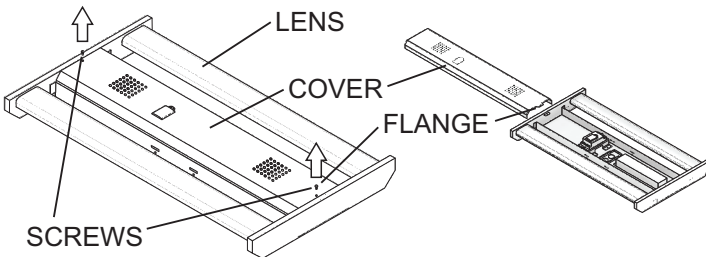
CAUTION: PLEASE FOLLOW THIS INSTRUCTION MANUAL CAREFULLY TO PREVENT ANY INJURIES OR COMPLICATIONS THAT MAY ARISE.
WARNING: Before installing or maintaining the luminary, make sure all power is **TURNUED OFF**.
 Verify that supply voltage is correct by comparing it with the label information on all fixtures.
 Make all connections in accordance with the NEC requirements, and make sure all luminaries are properly secured to prevent any wire complications. This luminary is to always be installed with the lens facing down and it is not to exceed the maximum ambient temperature rating noted on the specification sheet.

Microwave Motion Sensor

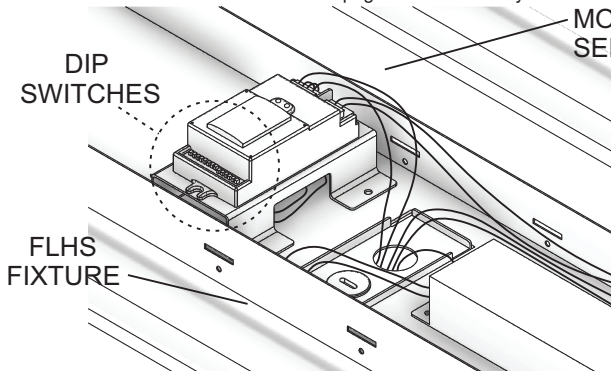
The Integrated Microwave Motion Sensor is a programmable motion detector. The default factory settings are as follows: Detection Area=100%, Hold Time=5 sec, Stand-By Period=5 sec, Daylight (Photo) Sensor=Disable, and Stand-By Dimming Level=10%.

Note: If the default settings are acceptable, the following steps can be skipped and one can continue onto the next page for the mounting installation.

1 Turn over the FLHS Fixture showing the Lens side. Remove the Screws (2) from the Cover Panel. Next to where the Screws are removed, on one side, a flange extends into the Fixture Frame that is partially visible. Lift the opposite side of the cover slightly with a flat head screw driver or flat edge. Slide the Cover Panel away from the FLHS Fixture Frame to remove. The Fixture is now open to adjust the Motion Sensor setting. The process is the same for all FLHS Fixtures.



2 The default settings can be changed by adjusting the DIP Switches on the Motion Sensor. Please refer to the table on this page and also directly on the Motion Sensor.



Microwave Motion Sensor Dip Pin Setting

By selecting the combination on the DIP switches, sensor data can be precisely set for each specific application as seen below.

ON	I	1	2	
	ON	ON	ON	100%
	ON	ON	OFF	75%
	ON	OFF	ON	50%
	ON	OFF	OFF	10%

Detection Area

Detection area having motion and not enough ambient light will activate the sensor. The sensor can be set at 100%, 75%, 50%, or 10%.

ON	I	3	4	5
	ON	ON	ON	5S
	ON	ON	ON	30S
	ON	ON	OFF	30m
	ON	ON	OFF	20m
	ON	ON	OFF	5-∞

Hold Time

Hold Time refers to the time period the fixture remains at 100% illumination after motion is detected. Hold Time can range from 5s to 20 minutes. The fixture will remain at full illumination until 'Hold Time' ends, then reducing to Stand-By dimming level.

ON	I	6	7	8
	ON	ON	ON	5S
	ON	ON	ON	5m
	ON	ON	OFF	10m
	ON	ON	OFF	15
	ON	ON	OFF	∞

Stand-By Period

The Stand-By period begins when the 'Hold Time' ends. The fixture remains at a Stand-By Dimming Level before it completely switches off while motion is not present. When set to "+∞" mode, the low led light is held until motion is detected.

ON	I	1	2	3	4
	ON	ON	ON	ON	2lux
	ON	ON	ON	ON	3lux
	ON	ON	ON	OFF	10lux
	ON	ON	ON	OFF	20lux
	ON	ON	ON	OFF	50lux
	ON	ON	ON	OFF	100lux
	ON	ON	ON	OFF	Disable

Daylight (Photo) Sensor

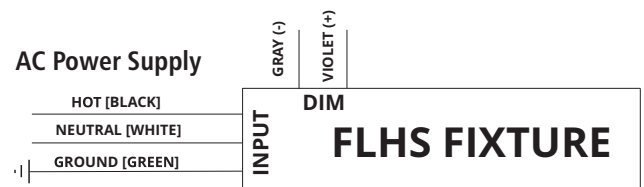
The Daylight Sensor, measured in LUX can be set to allow the fixture to illuminate below a surrounding minimum ambient brightness threshold. The sensor can be set from 2 to 100 LUX. When set to Disable mode, the Daylight Sensor will switch on the fixture when motion is detected regardless of ambient light.

ON	I	5	6
	ON	ON	90%
	ON	ON	80%
	ON	ON	20%
	ON	OFF	10%

Stand-By Dimming Level

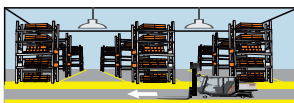
Stand-By Dimming Level is when 'Hold Time' has ended, there is no movement in the area and the light output is reduced. The Stand-By Dimming Level can be set at 50%, 30%, 20%, or 10%.

Connect the ACL and the ACN from the FLHS Fixture to the conduit with the AC Power Supply cords. Follow the Wiring Diagram provided.



Microwave Occupancy/Photo Sensor Bi-Level Dimming Function

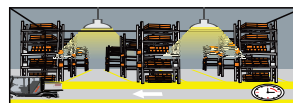
FLHS features an innovative and programmable motion detector with HF system 5.8GHz. Motion can be detected through plastic, glass and thin non-metal materials. It can be mounted as high as 50ft. The sensors allow energy savings without compromising comfort. With its signature Bi-Level dimming function, it is perfect for use in areas that require a light change notice before totally switching off the light. Daylight (on/off) sensor is integrated for maximum energy saving.



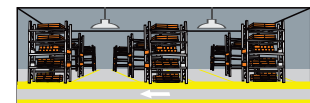
With sufficient ambient light, the sensor will not turn on the lighting fixture.



With insufficient ambient light, the sensor will turn on the lighting fixture when motion is detected.



After Hold Time, the sensor dims the fixture to a Stand-by dimming level if no new motion triggers.

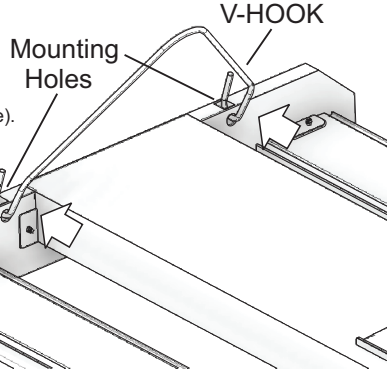


After Stand-by Period, the sensor turns off the fixture if no motion is detected in its detection zone.

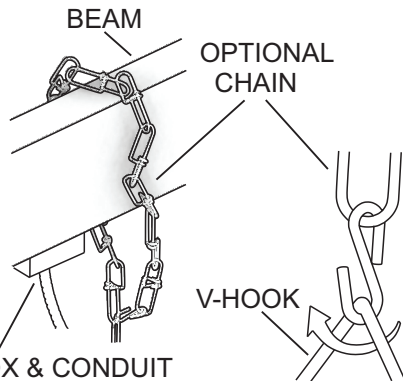
V-Hook Mounting Kit

1 Install the FLHS-VH (V-Hook) to the FLHS fixture. Use the Mounting Holes to install the V-Hook to the FLHS Luminaire. All FLHS fixtures have Mounting Holes (4) at the top (2 on each side).

FLHS LUMINAIRE



2 Wrap two pieces of 40 in. Chain (Optional AC-LHA-CHN) around a ceiling beam and extend the Chain down to the required mounting height.



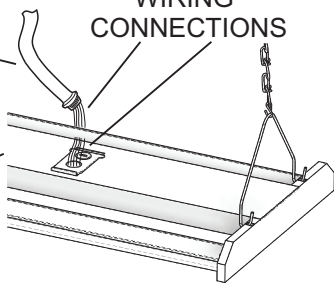
JUNCTION BOX & CONDUIT (NOT INCLUDED)

3 Access wires required for installation. Have an AC Power Supply Conduit with a Junction Box (Not Included) attached to the ceiling come down to approximately the same length of the chains. Use the Wiring Diagram provided to properly wire the FLHS Luminaire to the power supply. All wiring connections must be made either inside a Junction Box or to the back housing of the FLHS Luminaire.

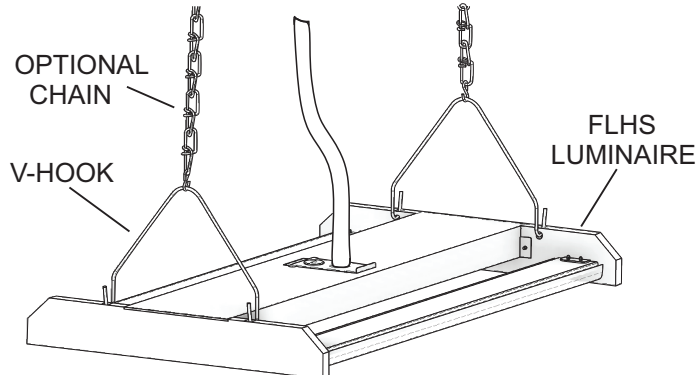
AC POWER SUPPLY CONDUIT

WIRING CONNECTIONS

FLHS LUMINAIRE

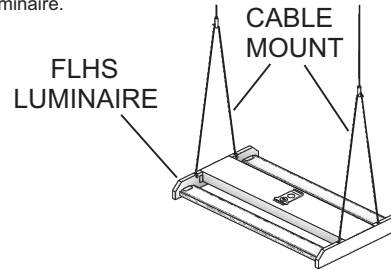


4 Complete Mounting and Power Supply installation.

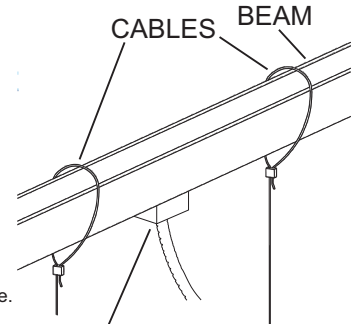


Optional Cable Mount Kit

The AC-LHS-AC is the Linear Highbay Cable Mount Kit for all FLHS Luminaire. The Cable Mount Kit includes 112 in. Aircraft Cable pair for mounting the FLHS Linear High Bay onto ceiling Beams. The installation process is the same for all FLHS Luminaire.



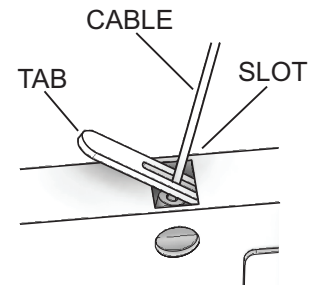
1 Wrap two pieces of Cables around a ceiling Beam and extend down to the required mounting height.



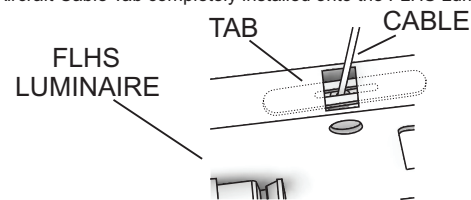
2 Run down the AC Power Supply wires inside a flexible Conduit to approximately the same length as the Cables. Refer to Optional V-Hook Mounting Kit Step 3. Use the Wiring Diagram provided for the FLHS Luminaire.

JUNCTION BOX & CONDUIT (NOT INCLUDED)

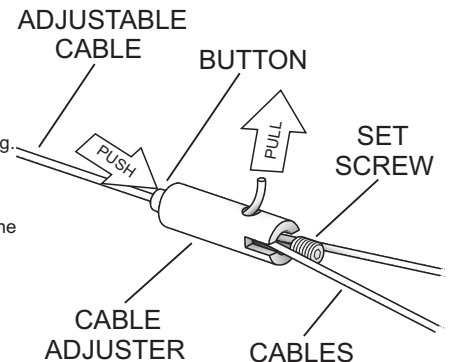
3 Using the Aircraft Cable (with two tabs on both ends), insert the two slot-shaped tabs into the FLHS Slots on both sides. This is accomplished by first inserting one end of the tab and using the slot to move the cable as desired to bring in the second end of the tab. Once this tab has been inserted into the luminaire it will be safely secured into place for mounting.



4 The Aircraft Cable Tab completely installed onto the FLHS Luminaire.



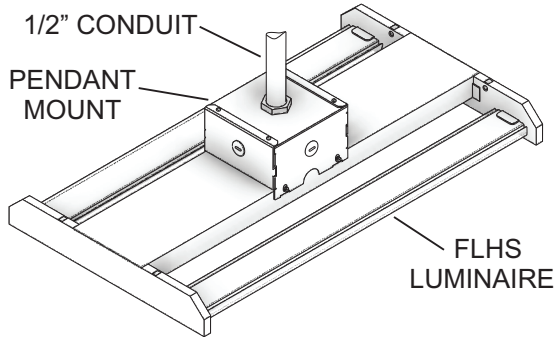
5 The mounting height of the FLHS Luminaire is adjusted at the Cable Adjuster. This can be done by pushing in the button on the Cable Adjuster in order to set the length of the cable that is suspended from the ceiling.



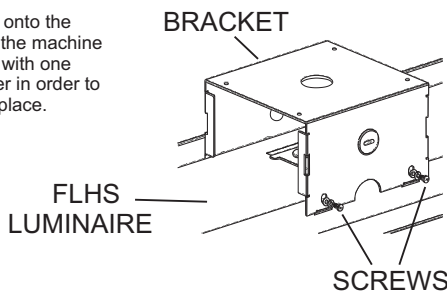
6 Remove the Set Screw on the Cable Adjuster using a wrench, insert the short cable member inside the two slotted sides and fasten the Set Screw. This is to union the two cable members together.

Optional Pendant Mount

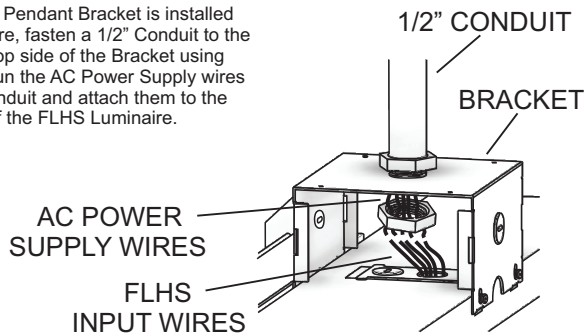
The AC-LHS-PEM is the Pendant Mount that is for all FLHS Luminaire. The Pendant Mount is installed on the top side of the FLHS Luminaire and is used to run the Power Supply wires through a 1/2" conduit which is then fastened to the top side of the mount. The installation is the same for all FLHS Luminaire.



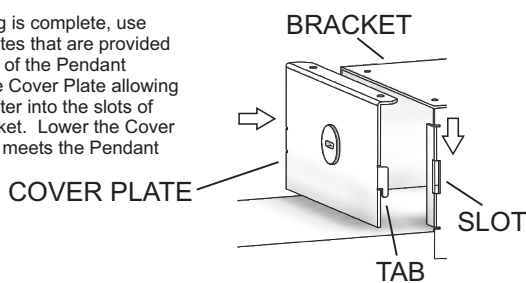
1 Fasten the Bracket onto the FLHS Luminaire using the machine screws provided along with one washer and lock washer in order to screw the bracket into place.



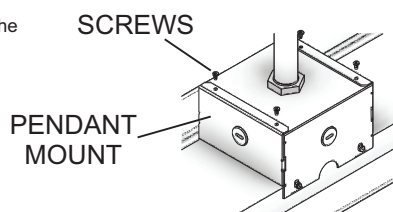
2 Once the Pendant Bracket is installed onto the fixture, fasten a 1/2" Conduit to the hole on the top side of the Bracket using lock nuts. Run the AC Power Supply wires down the Conduit and attach them to the input wires of the FLHS Luminaire.



3 Once all wiring is complete, use the two Cover Plates that are provided to cover the sides of the Pendant Bracket. Align the Cover Plate allowing the two tabs to enter into the slots of the Pendant Bracket. Lower the Cover Plate until the tab meets the Pendant Bracket.

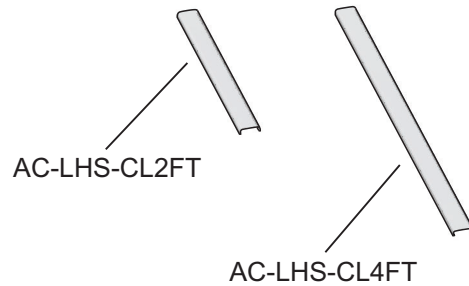


4 Use the screws (4) to fasten the Cover Plates into place.

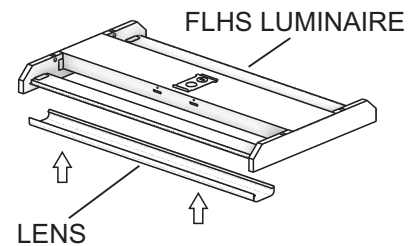


Clear Lens

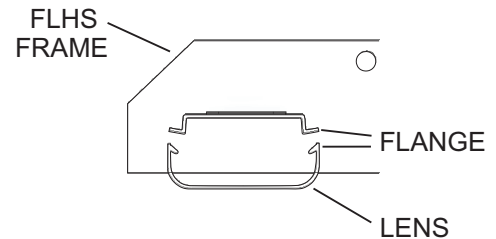
The AC-LHS-CL2FT is for the FLHS2D110 (Qty 2) and FLHS2D162/223 (Qty 4) Luminaire. The AC-LHS-CL4FT is for the FLHS4D223 (Qty 2) and FLHS4D321/410 (Qty 4) Luminaire. The installation process is the same for all FLHS Luminaire.



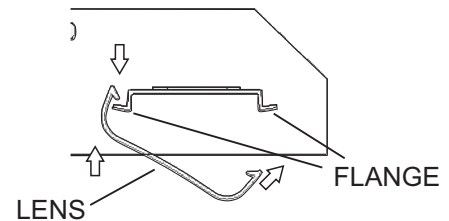
Placing the Clear Lens onto the FLHS Luminaire.



1 The FLHS frame has a flange on each side. The Clear Lens also has a flange on each side. This is where the Clear Lens can be placed by hand only! The Lens is flexible enough to install carefully without the need for tools onto the FLHS Luminaire.



2 Angle the Lens and place above the inside flange. Rotate upwards and hand press carefully until the lens sets into place onto the FLHS Luminaire.



3 The Clear Lens properly set onto the FLHS Luminaire.

