



Flight Light Inc.
 2708 47th Ave.
 Sacramento, California, U.S.A.
 95822-3806



+1.800.806.3548
 +1.916.394.2800

www.flightlight.com
sales@flightlight.com

WCH Series Wind Cone AC and Solar Powered L-806 (Frangible)

L-806 & L-806(L) Wind Cone

Compliance

FAA: L-806 AC 150/5345-27
 (Current Edition)

FAA Engineering Brief 67

ETL Certified

Applications

Provides visual indication of wind direction and velocity at a location on an airfield. L-806 wind cones are used on smaller airfields, heliports and as supplemental wind indicators near runway touchdown areas on large airfields.

Key Specifications

- Available externally lighted, internally lighted, or unlighted.
- LED or halogen lamps.
- The LED models feature:
 - 50,000 to 100,000 hour lamp life, virtually maintenance free. 4 year warranty on lamps.
 - Multiple lamp circuits, for improved reliability.
 - 80-90% less power consumption than halogen lamps.
 - A long-life LED obstruction light.
 - Integral power adapter on series-circuit models.
- Incandescent L-810 obstruction light included on halogen-lighted models.
- Size 1 (18" diameter x 8' long) wind sock.
- 1.9 inch diameter steel pole, with frangible coupling at base.
- One piece welded aluminum basket with pre-installed bearings.

- Raincaps protect the bearings from weather.
- May be mounted directly to an L-867 light base, 2 inch NPT base-plate (sold separately).
- The nylon sock is treated for rot, mildew, and water repellency.
- Powder coat painted international orange.
- Marine Treated Option available for increased useful life in corrosive environments.



Marine Treated Option

Recommended for high salt and other corrosive environments. Includes: marine treated powder coat, stainless steel hardware throughout.



Solar Power Supply Option

A Solar Power Supply (SPS) is now available for WCH Series wind cones. See page 5 for details.



External LED Light



Internal LED Light

Visit our web site: www.flightlight.com



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**WCH Series Wind Cone
 AC and Solar Powered
 L-806 (Frangible)**

Ordering Code

See Notes	FAA Size	FAA Style	Power	Lamp Type	Total VA	Total Watts	Weight (lb.)	Lamp
UNLIGHTED								
	1	II Unlighted	None	None	0	0	45	None
EXTERNALLY LIGHTED								
	1	I-A External	108-132 VAC	LED	15	14	58	9200-0032
2	1	I-A External	207-253 VAC	LED	15	14	58	9200-0044
3	1	I-A External	2.8-6.6 AMP	LED	58	52	57	9200-0034
	1	I-A External	11.5-13 VDC	LED	6	6	57	9200-0033
INTERNALLY LIGHTED								
	1	I-B Internal	108-132 VAC	LED	32	19	59	9200-0038
2	1	I-B Internal	198-265 VAC	LED	40	21	59	9200-0045
3	1	I-B Internal	2.8-6.6 AMP	LED	72	65	57	9200-0039
	1	I-B Internal	11.5-13 VDC	LED	6	6	57	9200-0041
2	1	I-B Internal	108-132 VAC	Halogen	316	316	57	3400-0100

- Notes:
1. Power consumption specifications include the L-810 obstruction light.
 2. This FAA Style is not ETL certified.
 3. Requires 100 watt L-830 transformer, sold separately.
 4. Standard sock color is Orange. Add "-RW" for Red/White sock.
 5. Floor flange not included (WCH-1067-0002).
 6. Ships approximately 3 weeks after receipt of order.

Options & Spare Components

Description	Part Number
"Marine Treated" (recommended for corrosive environments, typically within 100 miles of saltwater). Includes: marine treated powder coat, stainless steel hardware throughout.	L806-Marine Treated
Floor Flange	WCH-1067-0002
Frangible Coupling	WCH-1800-0025
Hinge Plate (custom built to existing bolt pattern)	WCH-1049-0014
Anchor Cage (welded square assembly for embedding in concrete footing, fits floor flange mount)	WCH-806-AC
Lamp, 120V Incandescent Obstruction Light	LA-22483-2
Spare Wind Sock (18" dia. x 8 ft.)	WS-AS1896



Size 1 Windsock



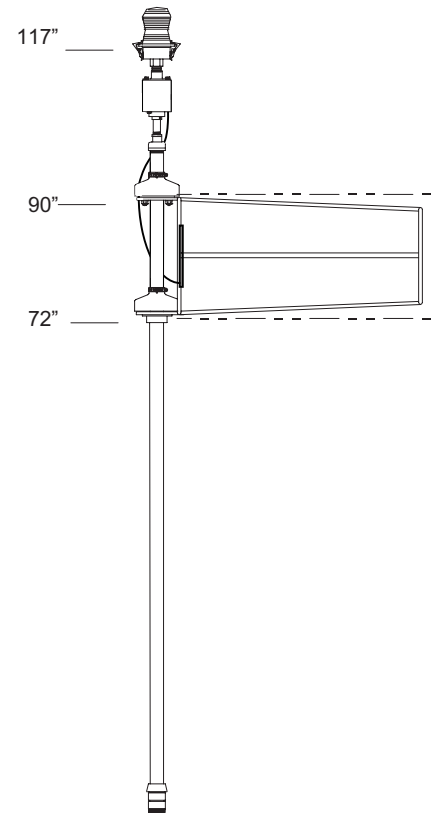
Floor Flange and Frangible Coupling



Hinge Plate



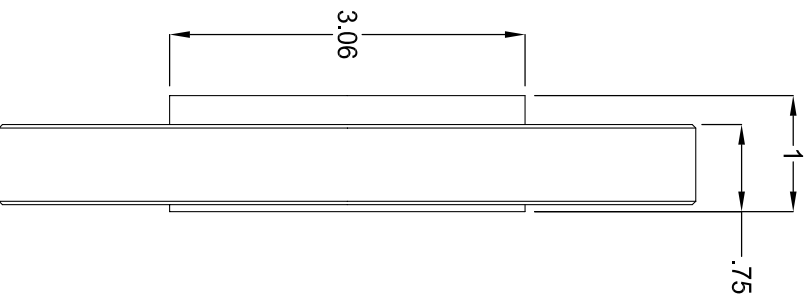
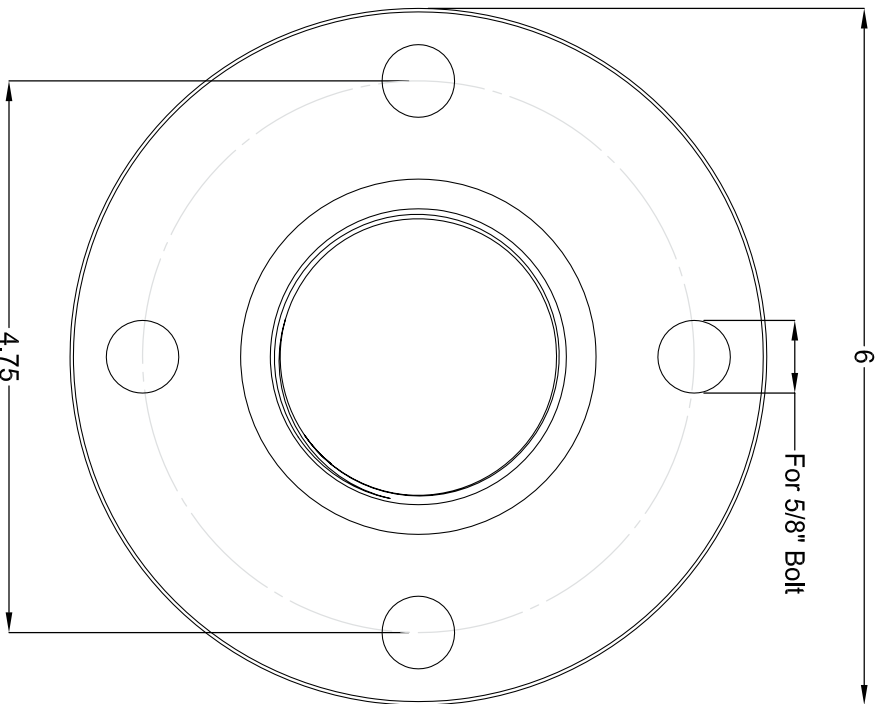
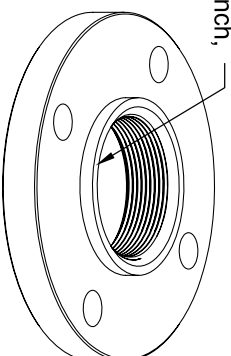
Anchor Cage



Visit our web site: www.flightlight.com

REVISIONS		DESCRIPTION	DATE	APPROVED
ZONE	REV			
N/A	0	Original Release	11/14/11	N/A

2 NPT Pipe Size, 11 1/2 Threads Per Inch,
0.76" Thread Engagement



Circular Floor Flange Anchor Bolts

It is recommended that 5/8" diameter anchor bolts be used with the L-806 Wind Cone Circular Floor Flange (WCH-1067-0002). It is also recommended that the top of those anchor bolts be left out of your concrete foundation approximately 2" so they do not interfere with the frangible coupling.

The length of the anchor bolts, depth and diameter of your concrete foundation should be sized accordingly by a local civil engineer that is aware of your soil types and conditions for proper installation needs.

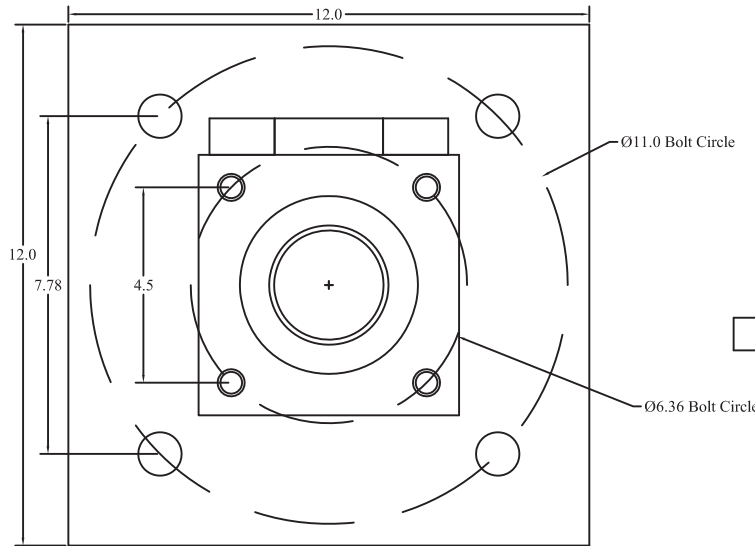
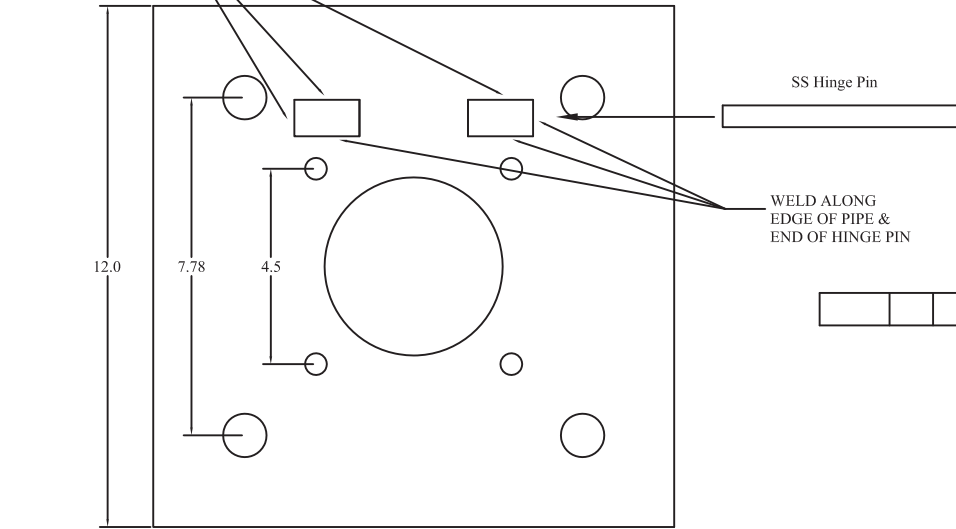
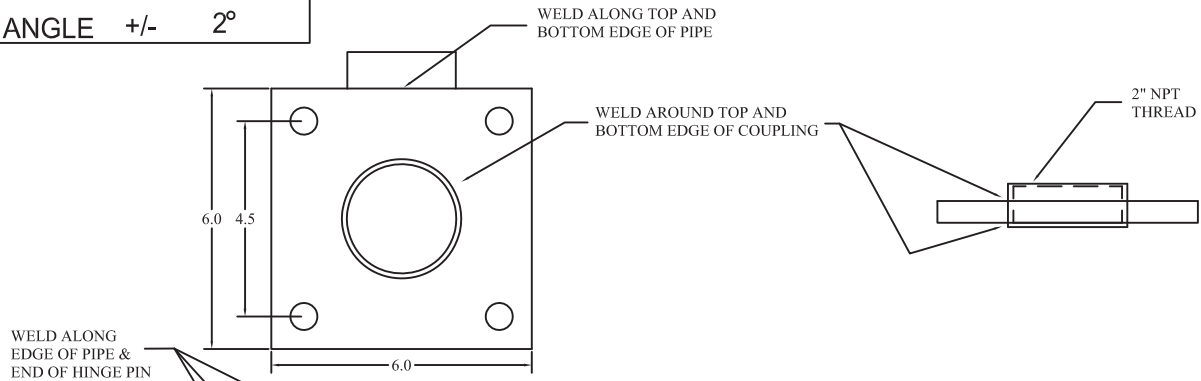
The L-806 frangible support will withstand a moment of 350 pound-feet (475 Nm) without damage and fail before a moment of 700 pound-feet (950 Nm).



L-806 Wind Cone
Circular Floor Flange
(WCH-1067-0002)

DIMENSION	TOLERANCE
X.XXX	+/- 0.005
X.XX	+/- 0.015
X.X	+/- 0.050
ANGLE	+/- 2°

REVISIONS			DATE	APPROVED
ZONE	REV	DESCRIPTION		
N/A	0	Original Release	5/27/09	N/A



NAME:		L806 Hinge Plate WCH-1049-0014		
SIZE	FSCM NO.	PART NO.	REV	
A			0	
Drawn By:	SCALE	DATE	SHEET	
	N/A	3/3/08		

WCH Series Wind Cone Solar Power Supply

Applications

The Solar Power Supply (SPS) is a self-contained photovoltaic power source for the WCH Series L-806 and L-807 wind cones.

Features

- Eliminates expensive underground trenching and wire installations for wind cones
- Easy installation: pre-set solar angle, pre-assembled anchor for easy mounting
- Fully sunlight powered, zero energy cost operation
- 10 day nominal battery autonomy
- Long life premium AGM solar batteries (5-10 years expectancy)
- 100 to 300 A-H AGM battery, designed for 4000 charge/discharge cycles
- 100 or 200 watt solar panel, with 12-year/90% and 25-year/80% power warranty
- Custom designed for the installation site, using 30-year worst case insolation and temperature extremes
- Insulated battery compartment to preserve battery life
- MPPT charge controller, with custom-programmed temperature compensation
- On-board indicators for battery, charging and system status
- Dual-post mount, with frangible couplings, designed to withstand ASCE Exposure C wind loads
- Temperature range: -49 to +131 °F (-45 to +55 °C)
- Marine treated option available for corrosive environments (upgrades enclosure to aluminum, stainless hardware throughout, marine treated powder coat)
- Manufactured in the USA

Installation Information

The SPS is attached to a 4-bolt anchor assembly (included), mounted in a concrete slab. Power is supplied to the wind cone by a cable in liquid-tight conduit through one of the SPS mounting legs.

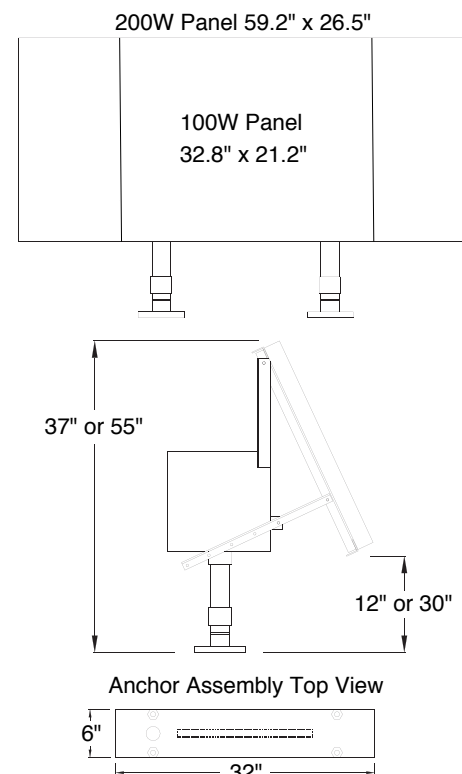
Ordering Information

Product	Description
WCH-SPS-100-2-12	100 Watt Panel, 2 Batteries, 12" Legs
WCH-SPS-100-2-30	100 Watt Panel, 2 Batteries, 30" Legs
WCH-SPS-200-2-12	200 Watt Panel, 2 Batteries, 12" Legs
WCH-SPS-200-2-30	200 Watt Panel, 2 Batteries, 30" Legs
WCH-SPS MARINE	Marine treated option for installations within 100 miles of the sea. Aluminum enclosure, marine treated powder coat, stainless steel hardware throughout.

NOTE: Each SPS is custom configured for the proper solar panel, battery, temperature compensation and height for the installation location. Please contact Flight Light to configure the correct model for your location.



WCH-SPS



Replacement Parts

Part #	Description
WCH-7800-0004	Solar Panel, 100 Watt
WCH-7800-0005	Solar Panel, 200 Watt
WCH-1300-0081	Battery, PVX-840T
WCH-4500-0020	Charge Controller
WCH-7800-0006	Photocell
WCH-1800-0036	Frangible Coupling
WCH-2300-0024	Fuse, 10A 32V

Shipping Information

- Unpackaged Weight: 186-268 lb.
 - Shipping Weight: 266-388 lb.
 - International Shipping Weight: 466-588 lb.
 - Shipping Volume: 60" L x 40" W x 44" H
- Can be shipped with wind cone in same crate.