IMPORTANT!!!

PLEASE TAKE THE TIME TO FILL OUT THIS FORM COMPLETELY. FILE IT IN A SAFE PLACE. IN THE EVENT YOU EXPERIENCE PROBLEMS WITH OR HAVE QUESTIONS CONCERNING YOUR CONTROLLER, THE FOLLOWING INFORMATION IS NECESSARY TO OBTAIN PROPER SERVICE AND PARTS.

MODEL #     AA0-M W/FXFER

SERIAL #

PURCHASE DATE

PURCHASED FROM
# TABLE OF CONTENTS

1.0 GENERAL INFORMATION ........................................................................................................ 1

2.0 INSTALLATION .................................................................................................................. 2
  2.1 MOUNTING THE CONTROL CABINET ............................................................................. 2
  2.2 EXTERNAL PHOTCELL WIRING .................................................................................. 2
  2.3 OBSTRUCTION LIGHT WIRING ................................................................................... 3
  2.4 OBSTRUCTION LIGHT ALARM WIRING ..................................................................... 3

3.0 THEORY OF OPERATION .................................................................................................. 4
  3.1 POWER SUPPLY .......................................................................................................... 4
  3.2 L-810 OBSTRUCTION LIGHTS .................................................................................... 4

4.0 MAINTENANCE GUIDE ..................................................................................................... 5
  4.1 RED OBSTRUCTION LIGHTING .................................................................................... 5
  4.2 L-810 LAMP REPLACEMENT ...................................................................................... 5
  4.3 CONTROLLER .............................................................................................................. 5
  4.4 PHOTOCCELL .............................................................................................................. 5

5.0 MAJOR COMPONENTS PARTS LIST .............................................................................. 6

6.0 SUGGESTED SPARE PARTS LIST .................................................................................... 7

WARRANTY & RETURN POLICY

RETURN MERCHANDISE AUTHORIZATION (RMA) FORMS (2)
APPENDIX

CHASSIS COMPONENT LAYOUT .................................................................1125-R
SCHEMATIC LAYOUT .................................................................................1125-S
TROUBLE SHOOTING FLOW CHART .......................................................1125-F
PHOTOCCELL HOUSING DETAIL ...............................................................100239
TOWER LIGHTING KITS 21’ TO 100’ .........................................................258-01
TOWER LIGHTING KITS 101’ TO 150’ .......................................................258-02
L-810 OL-1 SINGLE OBSTRUCTION LIGHT ............................................FM10018R
L-810 OL-1 SINGLE OBSTRUCTION LIGHT DETAIL ...............................279-OL
L-810 OL-2 DOUBLE OBSTRUCTION LIGHT ............................................FM10020
L-810 OL-2 DOUBLE OBSTRUCTION LIGHT DETAIL ...............................310
L-810 OBSTRUCTION WIRING DETAIL .....................................................274 S
JUNCTION BOX DETAIL ............................................................................100089
1.0 GENERAL INFORMATION

TWR Lighting Inc.'s Model AA0-M w/FXFER Controller is for A0 lighting of towers up to 150' AGL (Above Ground Level). Two (2) obstruction lights must be placed at the top of the structure.

The flash rate of the obstruction light is thirty (30) flashes per minute.

Each sidelight requires one (1) 116 watt 120V bulb. (116A21TS).

A by-pass switch (SW1) allows the controller to be turned on during daylight hours without covering the photocell. This is particularly helpful since the controller can be mounted indoors while the photocell is outdoors. SW1 can be operated by turning “on” the toggle switch, which is mounted on the panel of the controller.

The photocell is the three (3) blade, twist to lock, type.

Power supplied to the controller shall be 120V 50/60 Hz.

The controller housing is rated at NEMA 4X, and is suitable for outdoor mounting.

Controller functions that are monitored by remote alarms in the form of dry contact closures are as follows:

OBSTRUCTION LIGHTS Will give an alarm when the main bulb fails.
2.0 INSTALLATION

2.1 MOUNTING THE CONTROL CABINET
(Refer to Drawing 1125-R)

The power supply control cabinet can be located at the base of the structure, or in an equipment building. Mounting footprints are shown on Drawing 1125-R. Power wiring to the control cabinet must be in accordance with local methods and National Electrical Codes (NEC).

2.1.1 If the control cabinet is mounted inside an equipment building, the photocell shall be mounted vertically on ½” conduit outside the building above the eaves facing north. Wiring from the photocell socket to the control cabinet shall consist of one (1) each, red, black, and white wire. The white wire is connected to the socket terminal marked “COM,” the black wire is connected to the socket terminal marked “B,” and the red wire is connected to the socket terminal marked “R.” These socket connections are made by using .25” quick connect terminals, which must be crimped to the wires. The photocell shall be positioned so that it does not “see” ambient light, which will prevent it from switching to the nightmode.

2.1.2 If the control cabinet is mounted outside an equipment building, the photocell shall be mounted vertically on ½” conduit so the photocell is above the control cabinet. Care must be taken to assure that the photocell does not “see” any ambient light that can prevent it from switching into the nightmode. The photocell wiring is the same as in 2.1.1.

The wiring from the photocell, the service breaker, and the sidelights must enter the control cabinet through the watertight connectors in the bottom of the cabinet. Inside the cabinet, the connections will be made on the terminal strips and circuit breaker located at the bottom of the chassis. These connections are made as follows:

2.2 EXTERNAL PHOTOCELL WIRING
(Refer to Drawing 1125-R)

2.2.1 Connect the **BLACK** wire from the photocell to terminal block TB2 marked “L.”

2.2.2 Connect the **RED** wire from the photocell to terminal block TB2 marked “SSR.”
2.2.3 Connect the **WHITE** wire from the photocell to terminal block TB2 marked “N.”

2.2.4 Connect the neutral wire to one (1) of the terminal blocks on TB1 marked “N.”

2.2.5 Connect the AC ground to the aluminum mounting plate.

2.3 **OBSTRUCTION LIGHT WIRING**
(Refer to Drawings 1125-R, 258-01, and 258-02)

2.3.1 Connect the wire from mail bulb to terminal block TB1 marked “MB.”

2.3.2 Connect the wire from spare bulb to terminal block TB1 marked “SB.”

2.3.3 Connect the neutral wire to one (1) of the terminal blocks on TB1 marked “N.”

2.4 **OBSTRUCTION LIGHT ALARM WIRING**
(Refer to Drawing 1125-R)

2.4.1 **Alarm Wiring.** To utilize the alarm, the customer will need one (1) pair of wires to interface with the alarm device. One (1) wire from the customer’s pair will terminate at common terminal on Module M2. The remaining wire will terminate as follows:

   2.4.1.1 **Obstruction Burnout Alarm** - Connect alarm wire to terminal marked “NO” on Module M2.

2.4.2 **Alarm Testing.** To test alarm, follow the procedures using an “ohm” meter between alarm common and alarm point. When failure occurs, meter will show a short.

   2.4.2.1 **Obstruction Light** – Remove load on controller panel.
3.0 THEORY OF OPERATION

3.1 Power Supply

120V AC enters the controller from the circuit breaker panel. Line sits at the 102FAA photocell waiting to be switched. When the 102FAA photocell is activated, SSR is sent to the input of Modules M1 and M2. This can also be accomplished by using the photocell by-pass switch (SW1).

3.2 L-810 Obstruction Lights

SSR is sent to Modules M1 (pin #2) and M2 (pin #T3). Module M1 is the solid state flasher, while Module M2 is a torridal type current sensor with an onboard relay. The flashing output of Module M1 is sent through the torridal sensing coil of Module M2, and on to the main bulb of the L-810 fixture, as well as the wiper on relay K1. In the event the main bulb burns out, the Module M1 onboard relay will give a dry contact closure for remote monitoring purposes, as well as an output (pin #T1) to energize the transfer relay K1. Once the transfer has taken place, the spare bulb will then flash the same way the main lamp operated.
4.0 MAINTENANCE GUIDE

4.1 RED OBSTRUCTION LIGHTING

The only required maintenance needed to be performed is replacement of the lamps in the L-810 fixtures. Lamps should be replaced after being operated for not more than 75% of the rated life, or immediately upon failure, as per FAA Advisory Circular 70/7460-1K. By following these instructions, maximum safety and performance can be achieved.

TOOLS REQUIRED: NONE

4.2 L-810 LAMP REPLACEMENT

4.2.1 Unclasp the two (2) latches and let the bail recline back.

4.2.2 Lift the lens up and over the lamp, letting the lens hang from the safety cable.

4.2.3 Unscrew the lamp counter-clockwise and remove.

4.2.4 Install the new lamp by screwing the lamp clockwise.

4.2.5 Re-install the lens, making sure it is seated properly on the base.

4.3 CONTROLLER

No scheduled maintenance is required. Perform on an as needed basis.

4.4 PHOTOCELL

The photocell is a sealed unit. No maintenance is needed or required other than replacement as necessary.
5.0 MAJOR COMPONENTS PARTS LIST

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>102FAA</td>
<td>PHOTOCCELL</td>
</tr>
<tr>
<td>1</td>
<td>VJ1008HWPL1X004</td>
<td>ENCLOSURE</td>
</tr>
<tr>
<td>1</td>
<td>PB27E122</td>
<td>OCTAL SOCKET</td>
</tr>
<tr>
<td>1</td>
<td>FS155-30T</td>
<td>SOLID STATE FLASHER</td>
</tr>
<tr>
<td>1</td>
<td>X9KE-115V</td>
<td>SPDT RELAY</td>
</tr>
<tr>
<td>1</td>
<td>SCR430T</td>
<td>CURRENT SENSOR</td>
</tr>
<tr>
<td>2</td>
<td>116A21TS</td>
<td>116W 120V BULB</td>
</tr>
</tbody>
</table>
6.0 SUGGESTED SPARE PARTS LIST

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>102FAA</td>
<td>PHOTOCELL</td>
</tr>
<tr>
<td>1</td>
<td>FS155-30T</td>
<td>SOLID STATE FLASHER</td>
</tr>
<tr>
<td>2</td>
<td>116A21TS</td>
<td>116W 120V BULB</td>
</tr>
</tbody>
</table>
TWR Lighting, Inc.

Warranty & Return Policy

TWR Lighting, Inc. (“TWR”) warrants its products (other than “LED Product”) against defects in design, material (excluding incandescent bulbs) and workmanship for a period ending on the earlier of two (2) years from the date of shipment or one (1) year from the date of installation.

TWR Lighting, Inc. (“TWR”) warrants its “LED Product” against defects in design, material and workmanship for a period of five (5) years from the date of shipment. TWR, at its sole option, will, itself, or through others, repair, replace or refund the purchase price paid for “LED Product” that TWR verifies as being inoperable due to original design, material or workmanship. All warranty replacement “LED Product” is warranted only for the remainder of the original warranty of the “LED Product” replaced. Replacement “LED Product” will be equivalent in function, but not necessarily identical, to the replaced “LED Product.”

TWR Lighting, Inc. (“TWR”) warrants its “LED Product” against light degradation for a period of five (5) years from the date of installation. TWR, at its sole option, will, itself, or through others, repair, replace or refund the purchase price paid for “LED Product” that TWR verifies as failing to meet 70% of the minimum intensity requirements as defined in the FAA Advisory Circular 150/5345-43E dated 10/19/95. All warranty replacement “LED Product” is warranted only for the remainder of the original warranty of the “LED Product” replaced. Replacement “LED Product” will be equivalent in function, but not necessarily identical, to the replaced “LED Product.”

Replacement parts (other than “LED Product”) are warranted for 90 days from the date of shipment.

Conditions not covered by this Warranty, or which might void this Warranty are as follows:

- Improper Installation or Operation
- Misuse
- Abuse
- Unauthorized or Improper Repair or Alteration
- Accident or Negligence in Use, Storage, Transportation, or Handling
- Any Acts of God or Nature
- Non-OEM Parts
  The use of non-OEM parts or modifications to original equipment design will void the manufacturer warranty and could invalidate the assurance of complying with FAA requirements as published in Advisory Circular 150/5345-43.

Field Service – Repairs are warranted for 90 days from the date of service, except where TWR has made recommendations that were not adhered to that may cause premature failure on previous repairs. Labor, Travel, and Tower Climb are not covered under warranty. Customer shall be obligated to pay for all incurred charges not related to warranty. All warranty repairs are performed by trained TWR personnel, or dispatched through an extensive network of certified and insured Service Representatives.
Return Policy

Return Terms – You must first contact our Customer Service Department at 713-973-6905 to acquire a Return Merchandise Authorization (RMA) number in order to return the product(s). Please have the following information available when requesting an RMA number:

- The contact name and phone number of the tower owner
- The contact name and phone number of the contractor
- The site name and number
- The part number(s)
- The serial number(s) (if any)
- A description of the problem
- The billing information
- The Ship To address

This RMA number must be clearly visible on the outside of the box. If the RMA number is not clearly labeled on the outside of the box, your shipment will be refused. Please ensure the material you are returning is packaged carefully. The warranty is null and void if the product(s) are damaged in the return shipment.

All RMAs must be received by TWR LIGHTING, INC., 4300 WINDFERN RD #100, HOUSTON TX 77041-8943, within 30 days of issuance.

Upon full compliance with the Return Terms, TWR will replace, repair and return, or credit product(s) returned by the customer. It is TWR’s sole discretion to determine the disposition of the returned item(s).

Replacements – Replacement part(s) will be shipped and billed to the customer for product(s) considered as Warranty, pending return of defective product(s). When available, a certified reconditioned part is shipped as warranty replacement with a Return Merchandise Authorization (RMA) number attached. Upon receipt of returned product(s), inspection, testing, and evaluation will be performed to determine the cause of defect. The customer is then notified of the determination of the testing.

- Product(s) that is deemed defective and/or unrepairable and covered under warranty - a credit will be issued to the customer’s account.
- Product(s) found to have no defect will be subject to a $60.00 per hour testing charge (1 hour minimum), which will be invoiced to the customer. At this time the customer may decide to have the tested part(s) returned and is responsible for the return charges.
- Product(s) under warranty, which the customer does not wish returned, the customer will be issued a credit against the replacement invoice.
Repair & Return – A Return Merchandise Authorization (RMA) will be issued for all part(s) returned to TWR for repair. Upon receipt of returned product(s), inspection, testing and evaluation will be performed to determine the cause of defect. The customer is then notified of the determination of the testing. If the returned part(s) is deemed unrepairable, or the returned part(s) is found to have no defect, the customer will be subject to a $60.00 per hour testing charge (1 hour minimum), which will be invoiced to the customer. Should the returned parts be determined to be repairable, a written estimated cost of repair will be sent to the customer for their written approval prior to any work being performed. In order to have the tested part(s) repaired and/or returned, the customer must issue a purchase order and is responsible for the return shipping charges.

Return to Stock – Any order that is returned to TWR for part(s) ordered incorrectly by the customer, or unneeded upon receipt, the customer is required to pay a 20% restocking fee. A credit will be issued once it is determined that the Return Terms are met.

Credits – Credits are issued once it is determined that all of the Warranty and Return Terms are met. All credits are processed on Fridays. In the event a Friday falls on a Holiday, the credit will be issued on the following Friday.

Freight – All warranty replacement part(s) will be shipped via ground delivery and paid for by TWR. Delivery other than ground is the responsibility of the customer.

REMEDIES UNDER THIS WARRANTY ARE LIMITED TO PROVISIONS OF REPLACEMENT PARTS AND REPAIRS AS SPECIFICALLY PROVIDED. IN NO EVENT SHALL TWR BE LIABLE FOR ANY OTHER LOSSES, DAMAGES, COSTS OR EXPENSES INCURRED BY THE CUSTOMER, INCLUDING BUT NOT LIMITED TO, LOSS FROM FAILURE OF THE PRODUCT(S) TO OPERATE FOR ANY TIME, AND ALL OTHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING ALL PERSONAL INJURY OR PROPERTY DAMAGE DUE TO ALLEGED NEGLIGENCE, OR ANY OTHER LEGAL THEORY WHATSOEVER. THIS WARRANTY IS MADE BY TWR EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, WITHOUT LIMITING THE GENERALITY OF THE FORGOING, TWR MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS OF THE PRODUCT(S) FOR ANY PARTICULAR PURPOSE. TWR EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES.
NOTES:

1) PLUG 102 FAA PHOTOCELL INTO 43109 RECEPTACLE AND TWIST TO LOCK.
2) WIRES ARE CONNECTED LETTER TO LETTER. (EXAMPLE) N TO N TO N.
3) WHEN REPLACING FS155-30T USE HEAT SINK COMPOUND BETWEEN MODULE AND ALUMINUM PLATE.
4) ALARM OCCURS UPON BURNOUT OF FIRST BULB.
TB1-L

120VAC 50/60Hz

SW1

TB2-L

TB2-N

102

FAA

MOV

CUSTOMER ALARM POINTS

120V 116 WATT SIDELIGHT LAMPS

MB

SB
NOTES:

1. ITEM #7 CAN BE USED TO REDUCE 3/4" CONDUIT TO 1/2" CONDUIT AT THE HOUSING OR AT THE CONTROLLER ITSELF.

2. IF ADDITIONAL WIRE IS REQUIRED OVER THE FACTORY 20', USE THE FOLLOWING CHART.
   - 21' TO 300' – 16 AWG TFFN
   - 301' TO 500' – 14 AWG TFFN
BILL OF MATERIALS

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>QTY</th>
<th>TWR PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>012</td>
<td>DOUBLE OBSTRUCTION LIGHT</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>116A21TS</td>
<td>116 WATT 120 VOLT LAMP</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>5012902</td>
<td>BREATHER</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>SS10012</td>
<td>WRAP LOCK</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>JB5</td>
<td>3/4&quot; JUNCTION BOX</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>PIDOP</td>
<td>4 oz. PIPE DPE</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>A314</td>
<td>3/4&quot; CONDUIT LOCKNUTS</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>EL3490</td>
<td>3/4&quot; 90° SHORT ELBOW</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>N3414</td>
<td>3/4&quot; X 4&quot; CONDUIT NIPPLE</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>OL2PGTAL</td>
<td>18&quot; OL2 PIGTAIL</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>UNY205</td>
<td>3/4&quot; UNION</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>AAOM</td>
<td>AAD-W ALARMD CONTROLLER</td>
</tr>
</tbody>
</table>

*ITEM NUMBERS #13-#15 ARE NOT INCLUDED IN THE KIT BUT ARE REQUIRED FOR INSTALLATION.

13. - CONDUIT34  3/4" CONDUIT (TWR HT + 30'/9M)
14. - 14THNW-T  #14 THHN WHT. WIRE (TWR HT.+40'/12M)
15. - 14THNBK  #14 THHN BLK. WIRE (TWR HT.+40'/12M)

* = ITEM NOT SHOWN

NOTES:
1) CONDUIT SIZE BASED ON USG V C TYPE THHN WIRE.
2) USE RIGID GALVANIZED STEEL CONDUIT.
3) BREATHERS ALLOW FOR CIRCULATION OF AIR TO PREVENT CONDENSATION.

TOWER WIRING AND ASSEMBLY

LK1ADM & LK11C901M LIGHTING KIT W/ALARMD CONTROLLER (TOWERS 21'/6M TO 100'/31M)

TWR Lighting, Inc.
Enlightened Technology

04/24/96  REVISED B.O.M.
05/18/96  UPDATED B.O.M.
9/15/96  REWORK KIT PARTS
3/25/96  ADDED MATERIALS
DATE:  UK  REVISION

E.A. GALAZAN
N.T.S.

FOR PRINTING: THE INFORMATION SHOWN ON THIS PERSPECTIVE IS NOT FINAL FOR A REASONABLE PERIOD OF TIME. THE MANUFACTURER RESERVES THE RIGHT TO MAKE ANY CHANGES WITHOUT NOTICE. FOR THE MOST CURRENT INFORMATION CONTACT THE MANUFACTURER OR ITS AUTHORIZED DISTRIBUTOR. THIS PERSPECTIVE IS NOT INTENDED FOR USE IN THE CONSTRUCTION OF THE LIGHTING KIT. IT IS INTENDED FOR USE IN THE ASSEMBLY AND INSTALLATION OF THE LIGHTING KIT.
**BILL OF MATERIALS**

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>QTY</th>
<th>TWR PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>OL2</td>
<td>DOUBLE OBSTRUCTION LIGHT</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>116A21TS</td>
<td>116 WATT 120 VOLT LAMP</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>SG12902</td>
<td>BREATHER</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>SS10012</td>
<td>WIRELOCK</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>JB5</td>
<td>3/4&quot; JUNCTION BOX</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>JB0</td>
<td>3/4&quot; STRAIN RELIEF BOX</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>PIP00P</td>
<td>4 oz. PIPE DOP</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>A314</td>
<td>3/4&quot; CONDUIT LOCKNUTS</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>FL3490</td>
<td>3/4&quot; 90° SHORT ELBOW</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>N3414</td>
<td>3/4&quot; x 4&quot; CONDUIT NIPPLE</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>OL2PIGTAILEL</td>
<td>18&quot; O.L. PIGTAIL</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>UNY205</td>
<td>3/4&quot; UNION</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>AAGM-TSS</td>
<td>AAG-MTSS ALARMED CONTROLLER</td>
</tr>
</tbody>
</table>

* = ITEMS NOT SHOWN

ITEM NUMBERS #14-#16 ARE NOT INCLUDED IN THE KIT BUT ARE REQUIRED FOR INSTALLATION.

14 – CONDUIT34 3/4" CONDUIT (TWR HT + 30’/9M)
15 – 14THN-WHT #14 THHN WHT. WIRE (TWR HT + 40’/12M)
16 – 14THN-BLKLK #14 THHN BLK. WIRE (TWR HT + 40’/12M)

**NOTES:**

1) CONDUIT SIZE BASED ON USING TYPE THHN WIRE.
2) USE RIGID GALVANIZED STEEL CONDUIT.
3) BREATHERS ALLOW FOR CIRCULATION OF AIR TO PREVENT CONDENSATION.
TWR Lighting, Inc.
FAA Approved L-810
Single Obstruction Light Side Hub
OL1

For use as an obstruction light on towers, building, bridges, cooling towers. Meets or exceeds all FAA specs as found in AC 150/5345-43 Type L-810.

Our most popular light. The side hub allows for a straight run of conduit from the junction box for hook up.

High temperature, ultra pure FAA approved Aviation red, blue, yellow, or clear glass fresnel lens.

Can be used steady burning or flashing.

Copper free aluminum casting and all stainless steel latches and hardware for corrosion protection.

Neoprene gasket for weatherproofing.

Specify conduit size 3/4", 1", 1-1/4" NPT (19.055mm), (25.407mm), (31.758mm)

High quality porcelain receptacle.

Stainless steel safety cable.

General Specifications
Height 7.5 inches (19.055 cm)
Weight 3 lbs (1360.5442g)
Power 120, 230, or 240 volts AC
Uses 116W, 120V or 240V bulbs
Bulbs sold separately

No special tools required for maintenance.

TWR Lighting, Inc.
4300 Windfern Rd. #100
Houston, TX., 77041-8943
Phone: (713)973-6905
Fax: (713)973-9352
WEB SITE: http://www.twrlighting.com
©2003 TWR Lighting, Inc.
NOTE:
1. FAA APPROVED LIGHT USES THE 116A21TS LAMP.
   OTHER LAMPS ARE AVAILABLE TO MEET YOUR APPLICATION.
For use as an obstruction light on towers, buildings, etc. ETL approved to meet or exceed all FAA specifications as found in AC 150/5345–43 Type L–810.

When used with our AOXFR controller, when one bulb burns out, the unit automatically switches to backup bulb.

High temperature ultra pure
FAA approved aviation red, blue yellow and clear lenses.

High quality porcelain receptacle.
Neoprene gaskets for weatherproofing.
Stainless steel safety cable.

Stainless steel latches and hardware for corrosion protection.

Standard 3/4" NPT

General Specifications

Height 7 inches (38.1 cm)
Weight 10 lbs. (4.5 kg)
Power 120 to 240V AC, 50 or 60Hz
Uses 116W, 120 or 240V bulbs
Bulbs sold separately

No special tools required for maintenance.
OL2

3/4" OL-2 SIDELIGHT
ASSEMBLY DETAIL (PART # OL2)

NOTE:
1. FAA APPROVED LIGHT USES THE 116A21TS LAMP. OTHER LAMPS ARE AVAILABLE TO MEET YOUR APPLICATION.

TWR Lighting, Inc.
Enlightened Technology

11/08/96 (A) REVISED ITEM #15,#16
DATE: LTR. REVISION
NOTES:

1) DRAWING ILLUSTRATES METHOD OF STRAIN RELIEVING WIRE. USE THIS METHOD ON ALL JUNCTION BOXES.

2) THE NATIONAL ELECTRICAL CODE—ARTICLE 300-19-83 REQUIRES CONDUCTORS IN A VERTICAL CONDUIT BE SUPPORTED TO RELIEVE STRAIN ON TERMINAL BLOCK CONNECTIONS.

3) SKETCH ILLUSTRATES METHOD OF STRAIN RELIEVING A SINGLE CONDUCTOR. SEVERAL CONDUCTORS MAY BE GROUPED TOGETHER.

4) CONDUCTORS MAY BE MIXED BUT SHOULD NOT TAKE UP MORE THAN 40% OF CONDUIT’S INSIDE AREA.

<table>
<thead>
<tr>
<th>AWG WIRE SIZE</th>
<th>MAX. NUMBER WIRES IN 3/4&quot; CONDUIT</th>
<th>MAX. NUMBER WIRES IN 1&quot; CONDUIT</th>
<th>WIRE AREA SQ. INCHES</th>
<th>WEIGHT PER 100 FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 THHN</td>
<td>16</td>
<td>26</td>
<td>0.0117</td>
<td>2.50</td>
</tr>
<tr>
<td>10 THHN</td>
<td>10</td>
<td>17</td>
<td>0.0184</td>
<td>4.10</td>
</tr>
<tr>
<td>8 THHN</td>
<td>6</td>
<td>9</td>
<td>0.0373</td>
<td>6.70</td>
</tr>
<tr>
<td>6 THHN</td>
<td>4</td>
<td>7</td>
<td>0.0519</td>
<td>10.30</td>
</tr>
<tr>
<td>4 THHN</td>
<td>2</td>
<td>4</td>
<td>0.0845</td>
<td>16.20</td>
</tr>
</tbody>
</table>