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 #

AA2/3MLED

SERIAL #

PURCHASE DATE

PURCHASED FROM
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RETURN MERCHANDISE AUTHORIZATION (RMA) FORMS
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OL1VLED2 (L810 SINGLE OBSTRUCTION LIGHT).........................100656 (REV E)
JUNCTION AND STRAIN RELIEF BOXES................................................. 100089 (REV A)
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1.0 GENERAL INFORMATION

The TWR Lighting®, Inc. (TWR®), Model AA2/3MLED, Controller is for A2 lighting of towers 351’ to 700’ above ground level (AGL) in accordance with the FAA Advisory Circular 70/7460-1K. One (1) LED beacon should be placed at the top and two (2) LED beacons at mid-level. Obstruction lights should be placed at the ¾ and ¼ intervals with respect to overall tower height.

The flash rate of the LED beacons is 30 per minute. The LED beacons flash synchronized to one another. The LED sidelights burn steady.

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 the switch up to “On” position.

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

Power supplied to the controller shall be 120V AC single phase.

The controller housing is rated at NEMA 4X. It is suitable for indoor or outdoor mounting.

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

**POWER FAILURE**
Monitors 120V AC to the controller. Alarms in the event of power failure or tripped circuit breaker.

**LIGHTS “ON”**
Gives an indication whenever the controller is activated.

**LED BEACONS**
Will give an alarm in the event any of the LED beacons fail, along with visual indicator for that circuit.

**FLASHER FAILURE**
Will give an alarm in the event of failure of flasher.

**OBSTRUCTION LIGHTS**
Will give an alarm when one (1) of three (3) LED sidelights fails.
2.0 INSTALLATION INSTRUCTIONS

2.1 MOUNTING THE CONTROL CABINET
(Refer to Drawing 1204-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 1204-R. Power wiring to the control cabinet should 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 should be mounted vertically on ½” conduit outside the building above the eaves facing north. Wiring from the photocell socket to the control cabinet should consist of one (1) each, red, black, and white wires. The white wire is connected to the socket terminal marked “N,” the black wire is connected to the socket terminal marked “Li,” and the red wire is connected to the socket terminal marked “Lo.” Care must be taken to assure that the photocell does not “see” any ambient light that would prevent it from switching into the nightmode.

2.1.2 If the control cabinet is mounted outside an equipment building, the photocell should be mounted vertically on ½” conduit so the photocell is above the control cabinet. As above, the photocell should be positioned so that it does not “see” ambient light, which would prevent it from switching to the nightmode. The photocell wiring is the same as in 2.1.1.

2.1.3 The wiring from the photocell, the service breaker, the red incandescent beacons, and the sidelights should 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 breakers located at the bottom of the chassis. These connections are made as follows:

2.2 EXTERNAL PHOTOCELL WIRING
(Refer to Drawing 1204-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.”

2.3 POWER WIRING
(Refer to Drawing 1204-R)

2.3.1 Power wiring to the control cabinet should be in accordance with local methods and National Electrical Codes.

2.3.2 Circuit breaker needs to be a one (1) pole common trip rated at 10 amps.

2.3.3 Connect incoming 120V AC “Hot” to terminal block TB1 marked “L.”

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

2.3.5 Connect the AC ground to the aluminum mounting plate.

2.4 LED BEACONS AND LED SIDELIGHTS WIRING
(Refer to Drawings 1204-R, 801-01, or 801-02)

2.4.1 Connect the BLACK wire from LED Beacon #1 to the circuit breaker marked “B1.”

2.4.2 Connect the BLUE wire from LED Beacon #2 and LED Beacon #3 to the circuit breaker marked “B2-B3.”

2.4.3 Connect the RED wire from LED sidelight group #1 to the circuit breaker marked “S1.”

2.4.4 Connect the YELLOW wire from LED sidelight group #2 to the circuit breaker marked “S2.”

2.4.5 Connect the WHITE neutral wire(s) to one (1) or more of the terminals market “N.”
2.4.6 Connect the ground wires to the ground lug located to the left of “TB2.”

2.5 LED BEACONS AND LED SIDELIGHTS ALARM WIRING
(Refer to Drawings 1204-R and 1204-S)

2.5.1 Alarm relays K1-K3, and alarm Modules M2-M5, are provided for independent contact closures for: Power Failure, Lights “On,” Flasher Failure, B1 Burnout, B2-B3 Burnout, S1 Lamp Burnout, and S2 Lamp Burnout.

2.5.2 Alarm Wiring: To utilize all of the red light alarms, the customer will need seven (7) pairs of wires to interface with his alarm device. One (1) wire from each of the seven (7) pairs will terminate at the points marking common (C). The remaining wire from each pair will terminate as follows:

**Power Failure Alarm:** Connect to relay K1, terminal #3, for normally open (OR) terminal #6, for normally closed monitoring.

**Lights “On” Alarm:** Connect to relay K2, terminal #3, for normally open (OR) terminal #6, for normally closed monitoring.

**Flasher Failure:** Connect to relay K3, terminal #6, for normally open (OR) terminal #3, for normally closed monitoring.

**B1 Burnout:** Connect to module M4, terminal #24, for normally open (OR) terminal #22, for normally closed monitoring.

**B2 and B3 Burnout:** Connect to module M5, terminal #24, for normally open (OR) terminal #22, for normally closed monitoring.

**S1 Lamp Burnout:** Connect to module M2, terminal #24, for normally open (OR) terminal #22, for normally closed monitoring.
S2 Lamp Burnout: Connect to module M3, terminal #24, for normally open (OR) terminal #22, for normally closed monitoring.

2.5.3 Alarm Testing: To test alarms, follow the procedures using an “ohm” meter between alarm common and alarm points.

Power Failure: Pull circuit breaker at electrical panel.

Lights “On”: Operate photocell by-pass switch SW1 or cover the photocell.

LED Beacons and LED Sidelights: Trip breakers on the controller panel.
3.0 THEORY OF OPERATION

3.1 POWER SUPPLY

120V AC enters the controller from the circuit breaker panel. Line “L” sits at the PRD, waiting to be switched, and also keeps the power failure relay K1 energized. When the 6390-FAA photocell is activated, Line “SSR” energizes the coil of the PRD and K2 “Lights On” relay. This also can be accomplished by using the photocell by-pass switch (SW1).

3.2 LED SIDE LIGHTS

Line LDS is sent to Modules M2 and M3, which are current sensing modules for LED sidelights. Each RM22JA31MR monitors one (1) level of LED sidelights, and will provide a contact closure along a visual indication if one (1) or more lamps fail.

3.3 LED BEACONS

Line LDB is sent to Modules M1, M4, and M5. M1 is the primary flasher for all of the LED beacons. The output of this module is sent through the current sensing Modules M4, and M5, then to the circuit breaker outputs B1, and B2-B3. If Modules M4, or M5, detect an LED beacon burnout, then that particular module would provide a contact closure along with a visual indication for that circuit.

Relay K3 is a flasher failure relay for all the LED beacons. If Relay K3 detects a flasher failure, it would then provide a contact closure for the flasher circuit.
4.0  MAINTENANCE

4.1  RED OBSTRUCTION LIGHTING

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

TOOLS REQUIRED:  NONE

4.2  L-864 LED BEACON REPLACEMENT

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

4.3  L-864 CONTROLLER

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

4.4  PHOTOCCELL

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>QTY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6390-FAA (This replaces the 102-FAA Photocell)</td>
<td>120 – 240V Photocell</td>
</tr>
<tr>
<td>1</td>
<td>PF-250 (This replaces the FS155-30T Module)</td>
<td>Solid State Flasher (M1)</td>
</tr>
<tr>
<td>1</td>
<td>B12J2K5</td>
<td>2,500 ohm 12 watt Resistor (R1)</td>
</tr>
<tr>
<td>1</td>
<td>PRD7AG0</td>
<td>Mechanical Load Contactor (PRD)</td>
</tr>
<tr>
<td>3</td>
<td>PB27E122</td>
<td>Octal Sockets</td>
</tr>
<tr>
<td>2</td>
<td>KRPA5AG120V</td>
<td>SPDT Relay (K1 &amp; K2)</td>
</tr>
<tr>
<td>1</td>
<td>SPEC 224</td>
<td>Time Delay Relay (K3)</td>
</tr>
<tr>
<td>1</td>
<td>STJ01002</td>
<td>Switch (SW1)</td>
</tr>
<tr>
<td>1</td>
<td>VJ1412HWPL2</td>
<td>Enclosure</td>
</tr>
<tr>
<td>6</td>
<td>8WA1204</td>
<td>Terminal Block (TB1 &amp; TB2)</td>
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<tr>
<td>2</td>
<td>8WA1802</td>
<td>Rail Link</td>
</tr>
<tr>
<td>2</td>
<td>8WA1808</td>
<td>Terminal Block End Stop</td>
</tr>
<tr>
<td>1</td>
<td>S261D1.5</td>
<td>1.5 amp Circuit Breaker (B2-B3)</td>
</tr>
<tr>
<td>4</td>
<td>RM22JA31MR</td>
<td>LED Sidelight Current Sensors (M2, and M3), and LED Beacon Current Sensors (M4, and M5)</td>
</tr>
<tr>
<td>3</td>
<td>S261D1</td>
<td>1 amp Circuit Breakers (B1, S1-S2)</td>
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</table>
6.0 **SUGGESTED SPARE PARTS LIST**

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<th>QTY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
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<td>KRPA5AG120V</td>
<td>SPDT Relay (K1 &amp; K2)</td>
</tr>
<tr>
<td>1</td>
<td>SPEC 224</td>
<td>Time Delay Relay (K3)</td>
</tr>
<tr>
<td>1</td>
<td>RM22JA31MR</td>
<td>LED Sidelight Current Sensors (M2, and M3), and LED Beacon Current Sensors (M4, and M5)</td>
</tr>
</tbody>
</table>
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 75% of the minimum intensity requirements as defined in the FAA Advisory Circular 150/5345-43G dated 09/26/12. 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.
Warranty & Return Policy

Field Service – Labor, Travel, and Tower Climb are not covered under warranty. Customer shall be obligated to pay for all incurred charges. An extensive network of certified and insured Service Representatives is available if requested.

Repair, Replacement or Product Return RMA 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 or
- 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., 10810 W. LITTLE YORK RD. #130, HOUSTON, TX 77041-4051, 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).
Warranty & Return Policy
(continued)

**RMA 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 **$75.00 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.

**RMA 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 **$75.00 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.

**RMA Return to Stock** – Any product order that is returned to TWR® for part(s) ordered incorrectly or found to be unneeded upon receipt by the customer, the customer may be required to pay a minimum **20% restocking fee.** Product returned for credit must be returned within 60-days of original purchase, be in new and resalable condition, and in original packaging. Once the product is received by TWR it’s condition will be evaluated and a credit will be issued only once it is determined that the RMA Return Terms have been 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.
Warranty & Return Policy
(continued)

**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.**
RETURN MERCHANDISE AUTHORIZATION (RMA) FORM

RMA#: ___________________________ DATE: ___________________________

CUSTOMER: __________________________________________________________

_____________________________________________________________________

CONTACT: ___________________________ PHONE NO.: _______________________

ITEM DESCRIPTION (PART NO.): __________________________________________

_____________________________________________________________________

MODEL NO.: __________________________ SERIAL NO.: ______________________

ORIGINAL TWR INVOICE NO.: __________ DATED: _________________________

DESCRIPTION OF PROBLEM: ___________________________________________

_____________________________________________________________________

_____________________________________________________________________

SIGNED ___________________________ DATE NEEDED ________________

RETURN ADDRESS: _____________________________________________________

PLEASE RETURN PRODUCT TO: 10810 W. LITTLE YORK RD. #130 HOUSTON, TX 77041-4051
RETURN MERCHANDISE AUTHORIZATION (RMA) FORM

RMA#: ______________________ DATE: ______________________

CUSTOMER: ________________________________________________

___________________________________________________________

CONTACT: __________________ PHONE NO.: __________________

ITEM DESCRIPTION (PART NO.): ________________________________

_________________________________________________________________________

MODEL NO.: ________________ SERIAL NO.: ________________________

ORIGINAL TWR INVOICE NO.: ________________ DATED: __________

DESCRIPTION OF PROBLEM: _______________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

SIGNED_________________________ DATE NEEDED _____________

RETURN ADDRESS: _____________________________________________

_________________________________________________________________________

PLEASE RETURN PRODUCT TO: 10810 W. LITTLE YORK RD. #130 HOUSTON, TX 77041-4051
CUSTOMER ALARM POINTS

C = ALARM COMMON
PFNO/FFNC = POWER FAILURE
LONO/D2NC = LIGHTS "ON"
FFNO/FFNC = FLASHER FAILURE
S1NO/S1NC = TOP LEVEL LED SIDE LIGHT BURNOUT
S2NO/S2NC = LOWER LEVEL LED SIDE LIGHT BURNOUT
B1NO/B1NC = TOP LEVEL LED BEACON BURNOUT
B2NO/B2NC = MID LEVEL LED BEACON BURNOUT
B3NO/B3NC = MID LEVEL LED BEACON BURNOUT
* ALARM OUTPUTS ARE FORM C.

NOTES:
1. WHEN REPLACING METAL BASE MODULES USE HEAT SINK COMPOUND BETWEEN MODULE AND ALUMINUM PLATE.
2. PLUG 6390–FAA PHOTOCELL INTO 43109 TWIST LOCK RECEPTACLE AND TWIST TO LOCK.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
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<td>PHOTOCELL</td>
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<tr>
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<td>2</td>
<td>6-32 x 1” SCREW</td>
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<tr>
<td>3</td>
<td>1</td>
<td>RECEPTACLE SOCKET</td>
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<tr>
<td>4</td>
<td>1</td>
<td>RECEPTACLE GASKET</td>
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<tr>
<td>5</td>
<td>1</td>
<td>RECEPTACLE HOUSING</td>
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<tr>
<td>6</td>
<td>1</td>
<td>1/2” CONDUIT LOCKNUT</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>3/4” TO .7/8” REDUCER</td>
</tr>
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**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
120VAC PRODUCT SPECIFIC SETTINGS

<table>
<thead>
<tr>
<th>QTY.</th>
<th>PART NO.</th>
<th>INPUT</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
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<td>TWR</td>
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<td>30</td>
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<td>ORGA</td>
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*NO MEMORY

FUNCTIONS
1) Configuration: Selection of operation mode
   (*<1 / >1 / >1<) with or without memory.
2) Adjustment of current threshold as % of setting range.
3) Hysteresis adjustment from 5% to 50%.
4) Time Delay adjustment from 0.1 to 30sec.
5) Diagnostic button.
6) Yellow indicator light (See conditions below)
7) Dial Pointer (Green) LED
   - Steady green LED indicates that supply to the RM22 is present
   - Flashing green LED indicates a setting has been changed that requires a power cycle.

YELLOW LED CONDITIONS

Steady Burn Fixtures
- Yellow light on: Normal condition (no alarm)
- Yellow light flashing: Undercurrent condition detected and time delay initiated
- Yellow light off: Alarm condition

Flashing Fixtures
- Yellow light flashing inconsistent: Normal condition (no alarm)
- Yellow light flashing consistent: Under current condition detected and time delay initiated

NOTE: To help troubleshoot or to set the sense current, turn the time delay to 0sec. Adjusting the current setting should only be done if it is known that all the lights are functioning. For Steady Burn adjust the current until the yellow LED comes on, and the relay in not dropping in and out. For Flashing Fixtures adjust the current setting until the yellow light starts to flash. This is the normal condition setting. Return the time delay back to 30sec.

- Yellow light off: Alarm condition

Due to current draw tolerances slight adjustments to setting #2 may be needed for proper alarming.
**Parts List**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
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<tr>
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<td>GASKET NEOPRENE 13 1/8 OD X</td>
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<td>1/4-20 NUT W/NYLON INSERT 304</td>
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<td>8</td>
<td>1032X3PHAW</td>
<td>10-32X3/8 PHILLS HD CAPTIVE SCREW</td>
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* = ITEMS NOT SHOWN

---

**Drawing Information**

- **Title:** LEDBEACON2 ASSEMBLY
- **Date:** 11/6/2014
- **Author:** JZamorano
- **Revision:** C
- **Drawn by:** VHernandez
- **Checked by:** QAMFG
- **Approved:** 9/4/2007

**Scale:** 1/4

**Designation:**

- **HWK**
- **DATE**
- **AUTHOR**
- **REV**
- **DESCRIPTION**

**Title Block:**

- **Title:** LEDBEACON2 ASSEMBLY
- **Drawing No:** 100761
- **Rev:** C
- **Sheet:** 1 of 1

---

**Notes:**

- *GROUND WIRE MUST BE CONNECTED TO PROPERLY PROTECT POWER SUPPLY. FAILURE TO GROUND WILL VOID ALL WARRANTIES.*

---

**Dimensions:**

- Ø18.130 in (460.51)
- Ø.812" HOLES SPACED 90' ON 13.25" BOLT CIRCLE
- 2.000 in (50.80)
- 15.45 in (392.54)
- 8.117 in (206.18)
- 3.250 in (82.55)
- 16.076 in (408.32)

**Weight:** 46 LBS. (20.9 KG)
Parts List

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
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<th>DESCRIPTION</th>
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<td>OL GASKET</td>
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<td>BLUE WIRE NUT</td>
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* = ITEMS NOT SHOWN

* GROUND WIRE MUST BE CONNECTED TO PROPERLY PROTECT POWER SUPPLY. FAILURE TO GROUND WILL VOID ALL WARRANTIES.

LO1VLED2 120-240VAC FAA-OL16LED (L810 OBSTRUCTION LIGHT)
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>
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TOWER ANGLE BRACE

TYPICAL TECHNIQUE FOR APPLICATION OF WRAPLOCK

ELECTRICAL CONDUIT

FRONT SIDE VIEW

BACK SIDE VIEW

DIRECTIONS FOR USING WrapLock

CUT OFF BAND TO PROPER LENGTH.
(SEE TABLE ON COVER OF BOX)

1. — PASS ONE END THROUGH YOKE AND BEND BACK ABOUT 1 1/8" AND FLATTEN DOWN.

2. — PASS BAND AROUND WORK AND THROUGH YOKE.

3. — REPEAT AND PASS END THROUGH A SECOND TIME, DRAW UP FREE END SNUGLY WITH PLIERS.

4. — INSERT FREE END IN SLOT OF RATCHET.

5. — TURN DOWN UNTIL CLAMP IS TIGHT.

6. — BACK OFF SLIGHTLY TO REMOVE RATCHET. CLAMP IS NOW SECURELY LOCKED.

TO REMOVE WrapLock
UNCOIL END WITH RATCHET, PRESS DOWN AT POINT WHERE BAND METAL HAS BEEN FORCED THROUGH CURVED PART OF YOKE.

WRAPLOCK FASTENING DETAIL