

TWR Lighting, Inc.

Enlightened Technology^{S.M.}

4300 WINDFERN RD #100 HOUSTON TX 77041-8943

VOICE (713) 973-6905 FAX (713) 973-9352

web: www.twrlighting.com

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 # AA0MTSS NEMA 7

SERIAL # _____

PURCHASE DATE _____

PURCHASED FROM _____

TWR Lighting, Inc.

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AA0MTSS NEMA 7 CONTROLLER

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WARRANTY & RETURN POLICY

RETURN MERCHANDISE AUTHORIZATION (RMA) FORM

TWR Lighting, Inc.

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AA0MTSS NEMA 7 CONTROLLER

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TWR Lighting, Inc.

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AA0MTSS NEMA 7 CONTROLLER

1.0 GENERAL INFORMATION

The TWR Lighting Inc. (TWR) Model AA0MTSS NEMA 7 Controller is for applications of two (2) through sixteen (16) L-810 single obstruction light fixtures.

The obstruction lights burn steady. Each fixture requires two (2) 116W, 120V bulbs.

An ON/OFF switch (SW1) is installed at the front of the door of the unit. SW1 should always be in the “on” position, and the Indicator Pilot Light (PL1) should be lit.

A photocell by-pass switch (SW2), mounted on front of the door of the unit, allows the controller to be turned on during daylight hours without covering the photocell. SW2 can be operated by turning it to the “on” position. Also, Indicator Pilot Light (PL2) will light up.

NOTE: The enclosure provided is for Class I an II, Div. 1, and 2, Groups B, C, D, E, F, and G, as well as Class III, per NEC for hazardous locations (Article 500). Conduit seals are required within 18” from the enclosure on each conduit run (Article 501-5).

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

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.
OBSTRUCTION LIGHTS	Will give an alarm when one (1) of the group of sidelights fails.

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AA0MTSS NEMA 7 CONTROLLER

2.0 INSTALLATION

2.1 MOUNTING THE CONTROL CABINET

(Refer to Drawing 1243-R)

The power supply control cabinet can be located at the base of the structure, or outside an equipment building. Mounting footprints are shown on Drawing 1243-R. Power wiring to the control cabinet should be in accordance with local methods and National Electrical Codes (NEC).

2.1.1 The photocell should be mounted vertically on $\frac{3}{4}$ " 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 would prevent it from switching into the nightmode.

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

2.2 EXTERNAL PHOTOCELL WIRING

(Refer to Drawing 1243-R)

2.2.1 Connect the **BLACK** wire from the photocell to terminal block TB2, marked "L1."

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."

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2.3 POWER WIRING

(Refer to Drawing 1243-R)

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

2.3.2 Circuit breaker needs to be rated at 25 amps.

2.3.3 Connect incoming 120V AC line 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 SIDELIGHT WIRING

(Refer to Drawing T-1293)

2.5 SIDELIGHT ALARM WIRING

(Refer to Drawings 1243-R and 1243-S)

ALARM WIRING

Sidelight Lamp Burnout: Sidelight alarms are summed. Connect common wire to Pin #1, on relay K3. Connect alarm wire to Pin #4, on relay K3, for normally closed monitoring, or Pin #3, for normally open monitoring.

NOTE: Module "M1," in the AA0MTSS NEMA 7 Controller will not create an alarm until one (1) of the three (3) secondary bulbs burns out in any of the OL2TR NEMA 7 Controllers.

Power Failure Alarm: Connect to relay K1, terminal #3, for normally open, or terminal #6, for normally closed monitoring.

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Lights “ON” Alarm: Connect to relay K2, terminal #3, for normally open, or terminal #6, for normally closed monitoring.

TESTING To test alarms, follow the procedures using the “ohm” meter between alarm common and alarm points.

Power Failure Pull circuit breaker at electrical panel.

Lights “ON” Operate photocell by-pass switch (SW2) or cover the photocell.

Sidelights Trip circuit breaker on the controller panel.

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AA0MTSS NEMA 7 CONTROLLER

3.0 THEORY OF OPERATION

3.1 Power Supply

120V AC enters the controller from the circuit breaker panel. Line sits at the PRD, waiting to be switched, and also keeps the power failure relay K1 energized. When the 102FAA-EP photocell is activated, line SSR energizes K2 “Lights On” relay. This can also be accomplished by using the photocell by-pass switch (SW2).

3.2 Sidelights

Lines LD1, and LD2 are being sent to Modules M1 – M4, through the toridal sensing coil, then to circuit breakers S1 – S4. Modules M1 – M4 are current sensors for the sidelights. If one (1) sidelight within the group burns out, then that particular module will send 120V to the on-board relay coil, which will cause a contact closure for sidelight alarm.

3.3 OL2TR NEMA 7

(Refer to Drawings 1243-R and 1242-R)

S1/L enters through the bottom of the OL2TR NEMA 7 from the Controller AA0MTSS NEMA 7's “S1” circuit breaker. When Module M5, in the OL2TR NEMA 7, detects a main bulb failure, then that particular OL2TR NEMA 7 will transfer voltage to the secondary bulb. **NOTE:** Module M1, in the AA0MTSS NEMA 7, will **not** create an alarm until a secondary bulb in any of the three (3) OL2TR NEMA 7 burns out.

AA0MTSS NEMA 7 CONTROLLER

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 Loosen the 1/4 – 20 set screw.

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 Reinstall the lens, making sure it is seated properly on the base.

4.2.6 Retighten the 1/4 – 20 set screw.

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.

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AA0MTSS NEMA 7 CONTROLLER

5.0 MAJOR COMPONENTS PARTS LIST

QUANTITY	PART NUMBER	DESCRIPTION
1	102FAA-EP	Explosion Proof Photocell
1	EXB16166N34	Explosion Proof Enclosure
4	PB27E122	Octal Sockets (K1 – K4)
7	8WA1204	Terminal Blocks (TB1 & TB2)
4	S261D10	10 amp Circuit Breaker (S1 - S4)
2	8WA1808	End Stop
2	KRPA5AG120V	SPDT Relay (K1 & K2)
4	SCR430T	Current Sensors (M1 – M4)
1	SPEC 224	Time Delay Relay (K4)
1	KRPA11AG120V	DPDT Relay (K3)
1	PRD7AGO	120V Contact Relay
1	TERMBLK141-8	Terminal Block (TB3)
2	GOB3G23CN34	Green Indicators NEMA 7 (PL1, PL2)
1	GO1-KX3CN34	Reset/Momentary Switch (SW3)
2	GO52A3FN34	SPSP Switch NEMA 7 (SW1, SW2)
1	GOB3R23CN34	Red Indicator NEMA 7 (PL3)

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6.0 SUGGESTED SPARE PARTS LIST

QUANTITY	PART NUMBER	DESCRIPTION
1	102FAA-EP	Explosion Proof Photocell
2	KRPA5AG120V	SPDT Relay (K1 & K2)
4	PB27E122	Octal Sockets (K1 – K4)
4	S261D10	10 amp Circuit Breaker (S1 - S4)
4	SCR430T	Current Sensors (M1 – M4)
1	SPEC 224	Time Delay Relay (K4)
1	KRPA11AG120V	DPDT Relay (K3)
1	PRD7AGO	120V Contact Relay

Warranty & Return Policy

TWR Lighting, Inc.

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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.

TWR Lighting, Inc.

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AA0MTSS NEMA 7 CONTROLLER

Warranty & Return Policy (continued)

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.

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Warranty & Return Policy (continued)

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.

TWR Lighting, Inc.

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AA0MTSS NEMA 7 CONTROLLER

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: _____

TWR Lighting, Inc.

Enlightened TechnologySM

AA0MTSS NEMA 7 CONTROLLER

RETURN MERCHANDISE AUTHORIZATION (RMA) FORM

RMA#: _____ **DATE:** _____

CUSTOMER: _____

CONTACT: _____ **PHONE NO.:** _____

ITEM DESCRIPTION (PART NO.): _____

MODEL NO.: _____ **SERIAL NO.:** _____

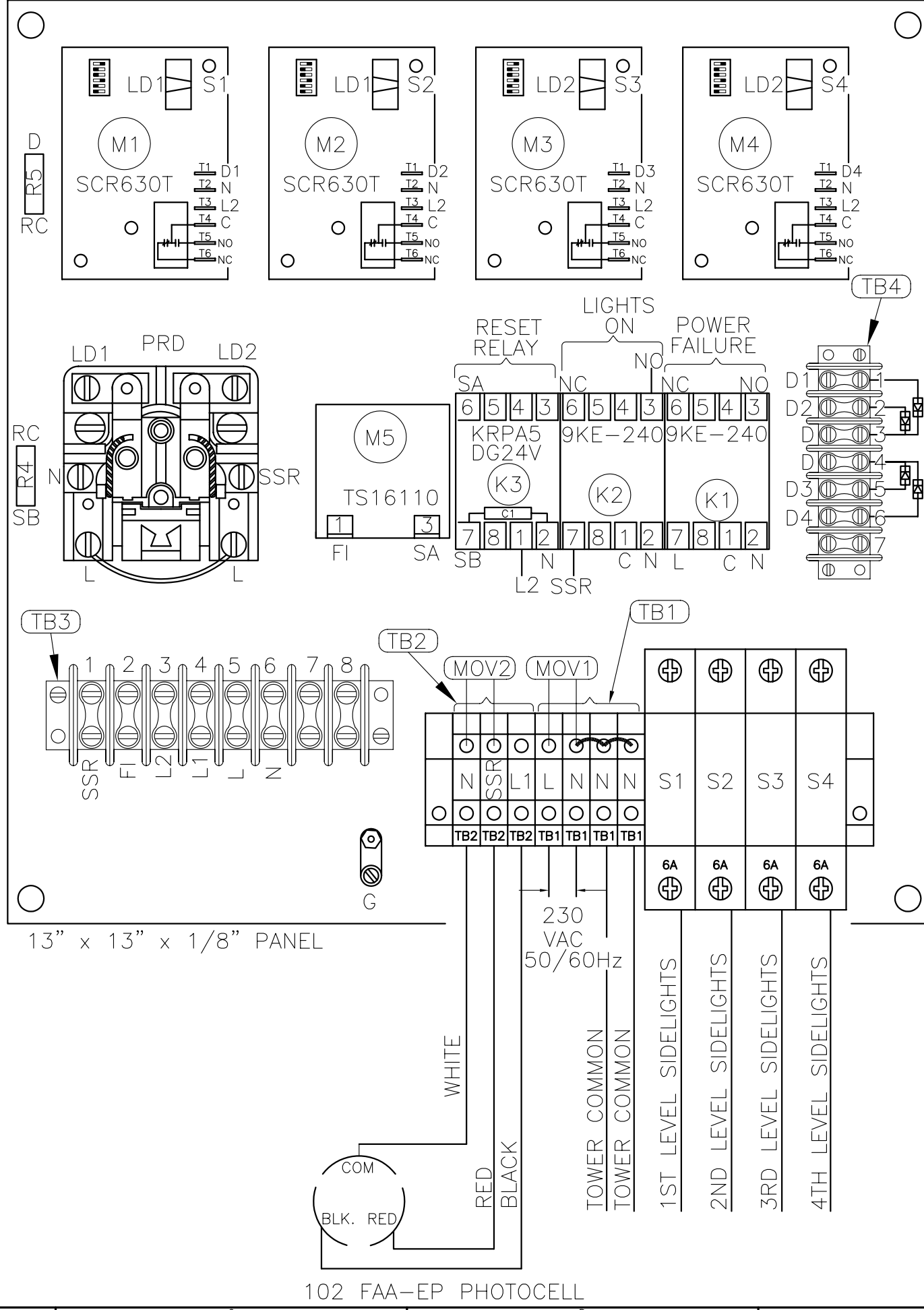
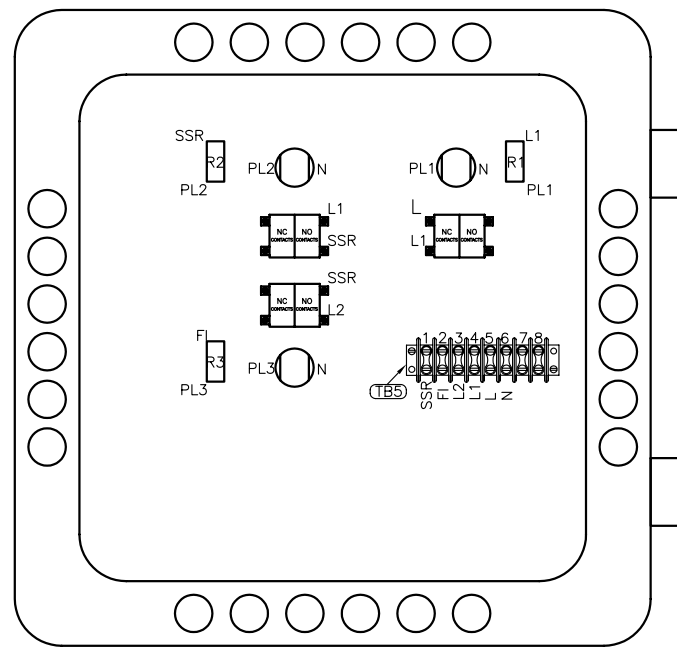
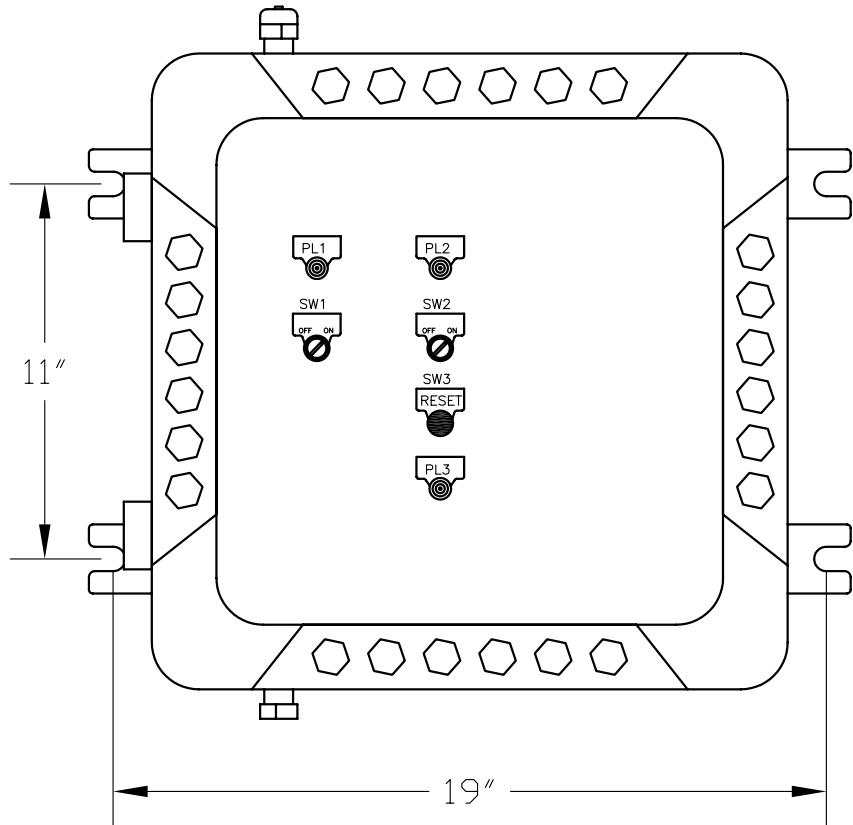
ORIGINAL TWR INVOICE NO.: _____ **DATED:** _____

DESCRIPTION OF PROBLEM: _____

SIGNED: _____ **DATE NEEDED:** _____

RETURN ADDRESS: _____

MOUNTING DIMENSIONS



CUSTOMER ALARM POINTS

- C=ALARM COMMON
- NC=NORMALLY CLOSED
- NO=NORMALLY OPEN
- K1=POWER FAILURE
- K2=LIGHTS ON
- M1-M4=SIDE LIGHTS FAILURE

NOTES:

- 1) WIRES ARE CONNECTED LETTER TO LETTER. (EXAMPLE) L1 TO L1 TO L1.
- 2) THE ENCLOSURE PROVIDED IS FOR CLASS I, DIV. I AND II GROUPS B, C & D: CLASS II, DIV. I AND II GROUPS E, F & G: AS WELL AS CLASS III PER UL APPROVALS.

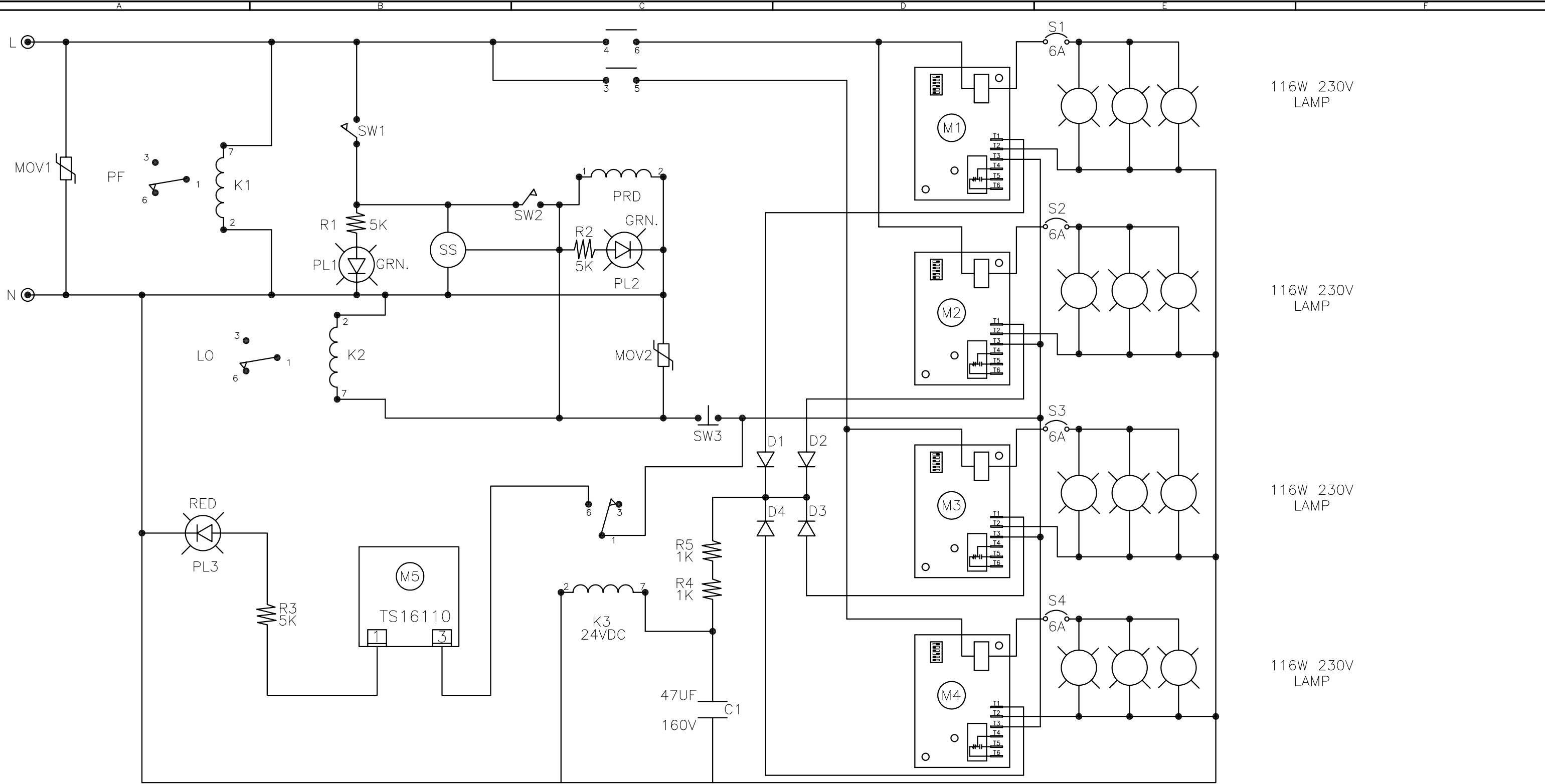
AAOMTSSNEMA7230V CONTROLLER
CHASSIS LAYOUT 230V 50/60HZ

TWR Lighting, Inc.

APP'D	ENGINEER	CHK'D BY
DRAWN BY J.L.BUSTAMANTE	SHEET SIZE B	SHEET QTY. 1 OF 1
DATE 06/27/07	SCALE N.T.S.	DRAWING NO. 1243-R

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102 FAA-EP PHOTOCCELL



116W 230V
LAMP

116W 230V
LAMP

116W 230V
LAMP

116W 230V
LAMP

AAOMTSSNEMA7230V SCHEMATIC			
230V 50/60HZ			
PROD DEPT	TWR Lighting, Inc. <i>Enlightened Technology</i>		
SERV DEPT			
ENGINEER			
DRAWN BY	J.L.BUSTAMANTE	SHEET SIZE	SHEET QTY.
DATE	06/28/07	SCALE	N.T.S.
		DWG. NO.	1243-S

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.
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BILL OF MATERIALS

ITEM NO.	QTY.	TWR PART NO.	DESCRIPTION
1	3	BEACON	300 MM BEACON RED
2	6	700PS40P230V	700 WATT 230 VOLT LAMP
3	6	OL1	3/4"(19.05mm) OBSTRUCTION LIGHT
4	6	116A21TS230V	116 WATT 230 VOLT LAMP
5	3	CGB295SA	3/4"(19.05mm) CORD CONNECTOR (.5"- .62")
6	4	CGB396SA	1" (25.4mm) CORD CONNECTOR (.625"- .75")
7	2	CG87125	1-1/4" (31.5mm) CORD CONNECTOR (.875"-1")
8	2	CG100125	1-1/4" (31.5mm) CORD CONNECTOR (1"-1.25")
9	2	JB8	1" (25.40mm) JUNCTION BOX
10	2	JB8114	1-1/4" (31.5mm) JUNCTION BOX
11	2	T27CG	3/4"(19.05mm) CONDULET W/COVER & GASKET
12	2	N34T4	3/4" x 4" (19.05mm x 10.16cm) NIPPLE
13	1	RE32	1" (25.40mm) TO 3/4" (19.05mm) REDUCER
14	2	RE42	1-1/4" (31.5mm) TO 3/4" (19.05mm) REDUCER
15	1	SS10012	WRAPLOCK 100' (30.5M)
* 16	1	PIPDOP	4 oz. (118mL) PIPE DOPE
17	5	A314	3/4"(19.05mm) CONDUIT LOCKNUTS
18	4	CPLG1	1" (25.4mm) GALVANIZED COUPLING
19	4	CPLG114	1-1/4" (31.5mm) GALVANIZED COUPLING
20	4	N1T12	1" x 12" (25.40mm x 30.48cm) NIPPLE
21	4	N114T12	1-1/4" x 12" (31.5mm x 30.48cm) NIPPLE
22	2	EL3430	3/4" 30° ELBOW
23	6	HC402	3/4" NO THREAD CONNECTOR
24	3	SLPIGTAIL50	50' SIDELIGHT PIGTAIL
25	-	-	-
26	3	CABLEGRIP3	SINGLE EYE LACE MESH (.63" - .74")
27	4	CABLEGRIP6	SINGLE EYE LACE MESH (.75" - .99")
28	2	CABLEGRIP7	SINGLE EYE LACE MESH (1.00" - 1.24")
29	-	STCABLIE	CABLE TIES (TWR. HT. x 2.5 ÷ 5)
30	-	-	-
* 31	1	AA3_230V	AA3_230V CONTROLLER W/BOOST
32	-	CS010/4	4 - #10 WIRE CABLE (3/4 TWR. HT. + 30' =9.1M)
33	-	CS008/3	3 - #8 WIRE CABLE (TWR. HT. + 30' =9.1M)
34	-	CS08/4	4 - #8 WIRE CABLE (1/2 TWR. HT. + 30' =9.1M)
35	60	CONDUIT34	3/4" CONDUIT (FOR LOWER OL1 MOUNTING)

* = ITEMS NOT SHOWN

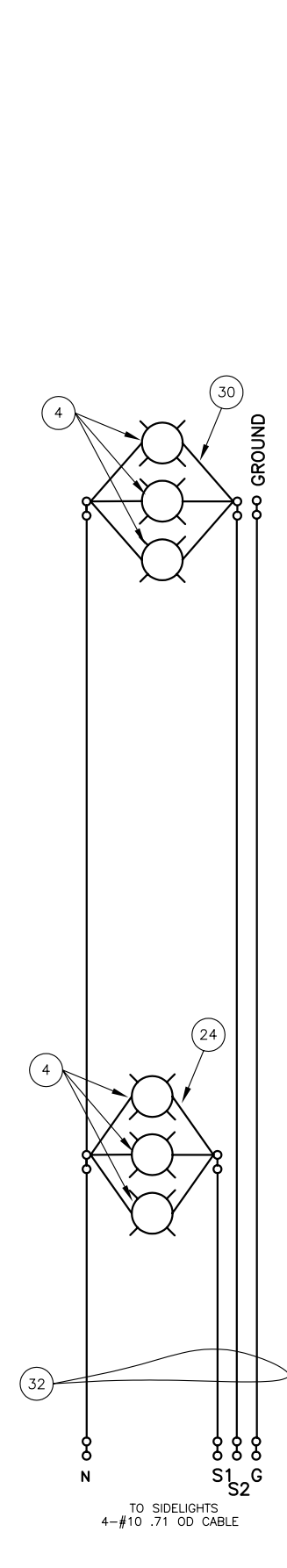
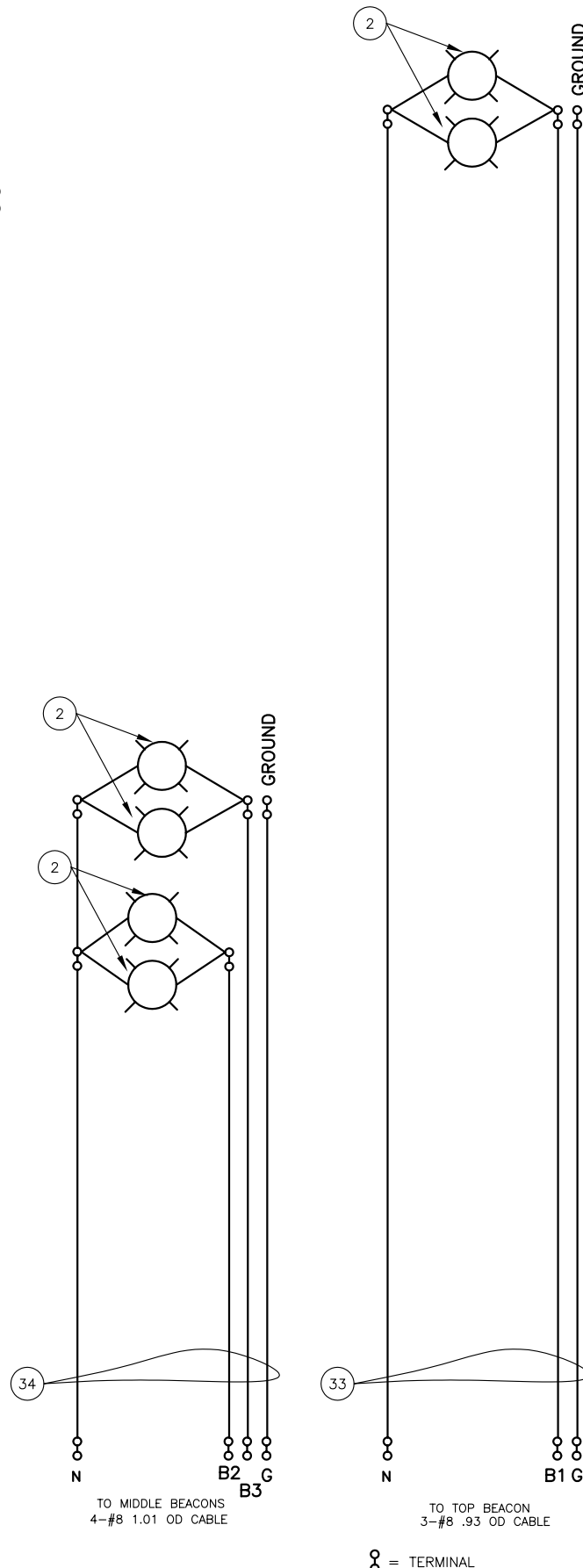
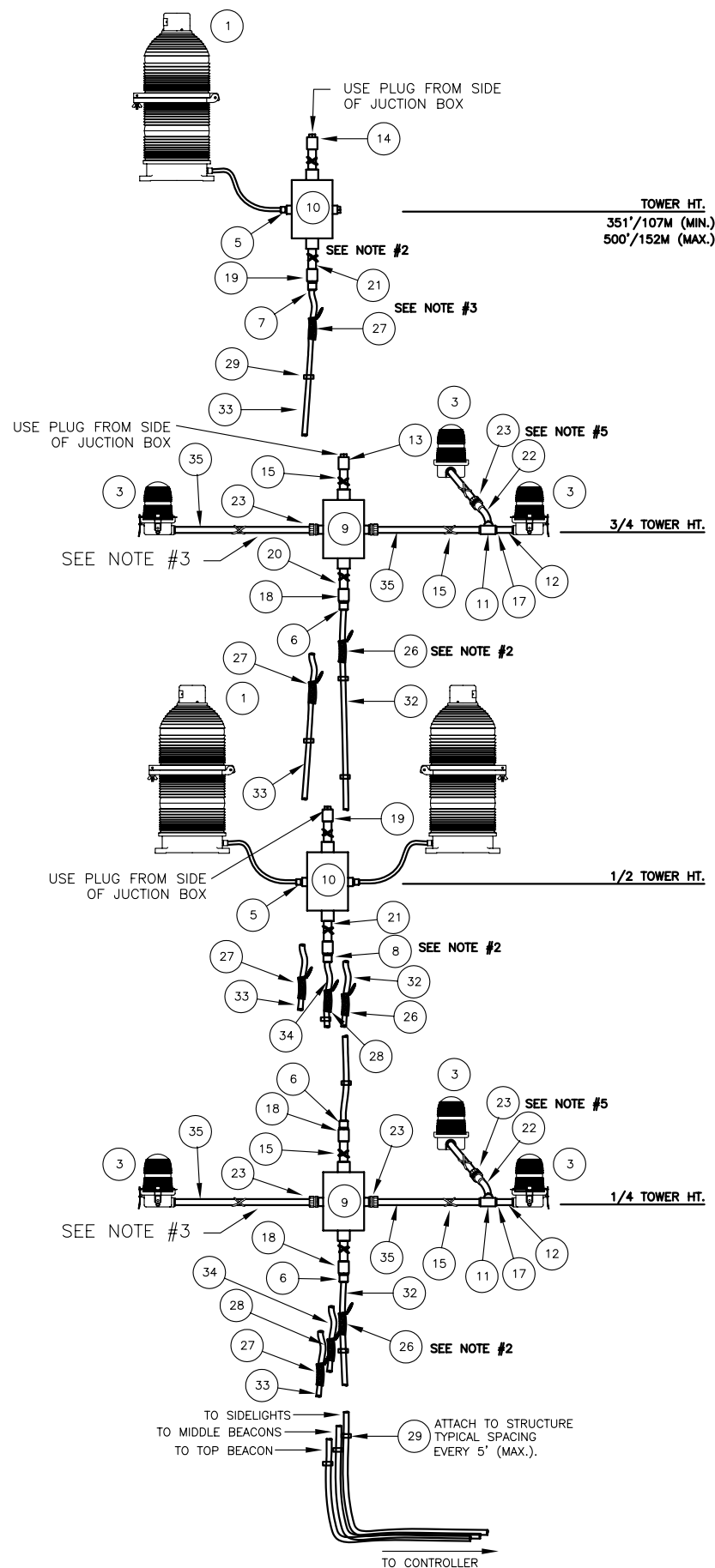
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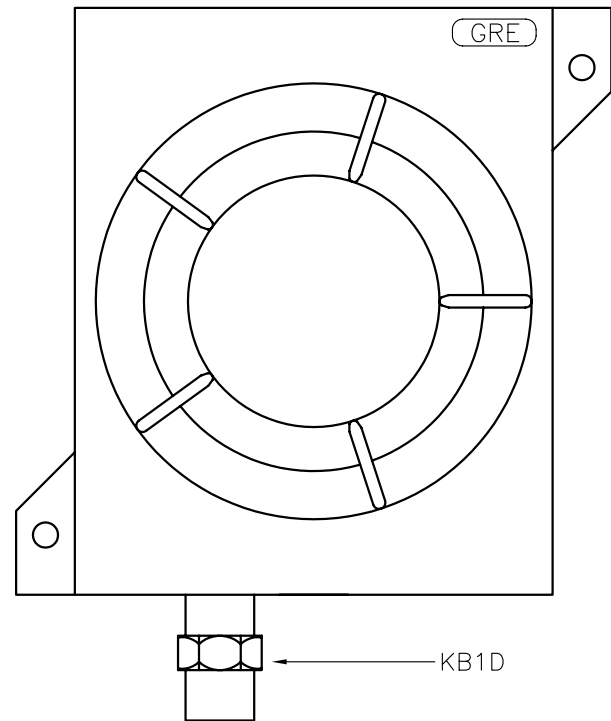
- 1) VERTICAL CONDUIT ATTACHED TO JUNCTION BOX TO BE WRAP LOCKED TO CYLINDRICAL OR ANGLE LEGS FOR JUNCTION BOX SUPPORT.
- 2) CABLE GRIPS ARE USED TO SUPPORT CABLE BEFORE CORD CONNECTOR AND SINGLE EYE LOOP SHOULD BE ATTACHED TO STRUCTURE SECURELY.
- 3) CONTROLLER MUST BE MODIFIED FOR TWO EACH 1-1/4" AND ONE EACH 1" CORD CONNECT ENTRANCES.
- 4) ITEM CONDUIT34 CUT TO LENGTH FOR PROPER EXTENSION OF OL1 (6"-12") FROM STRUCTURE. ATTACH ITEM HC402 TO UNTHREADED CONDUIT TO COMPLETE ASSEMBLY.
- 5) USE COUPLING THAT IS PROVIDED WITH ITEM CONDUIT34.

A2/3 230V LIGHTING KIT W/CABLE FOR TOWERS 351'/107M TO 500'/152M

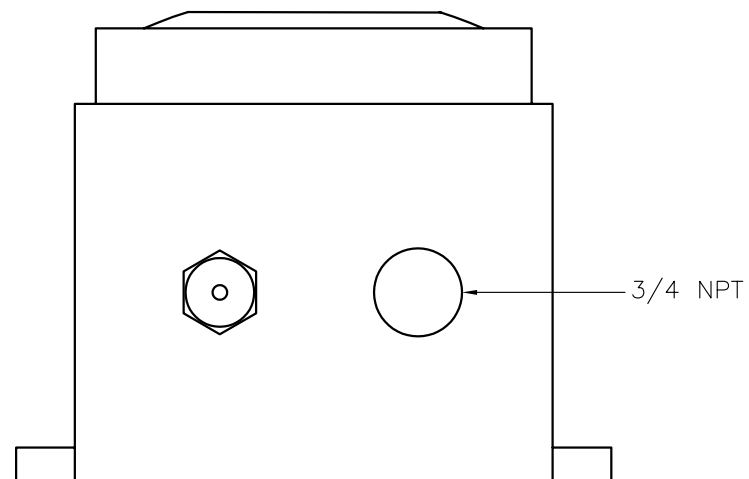
PROD DEPT	TWR Lighting, Inc. <i>Enlightened Technology</i>		
SERV DEPT			
ENGINEER			
DRAWN BY J.L.BUSTAMANTE	SHEET SIZE B	SHEET QTY. 1 OF 1	
DATE 06/26/07	SCALE N.T.S.	DWG. NO. T1293	

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.
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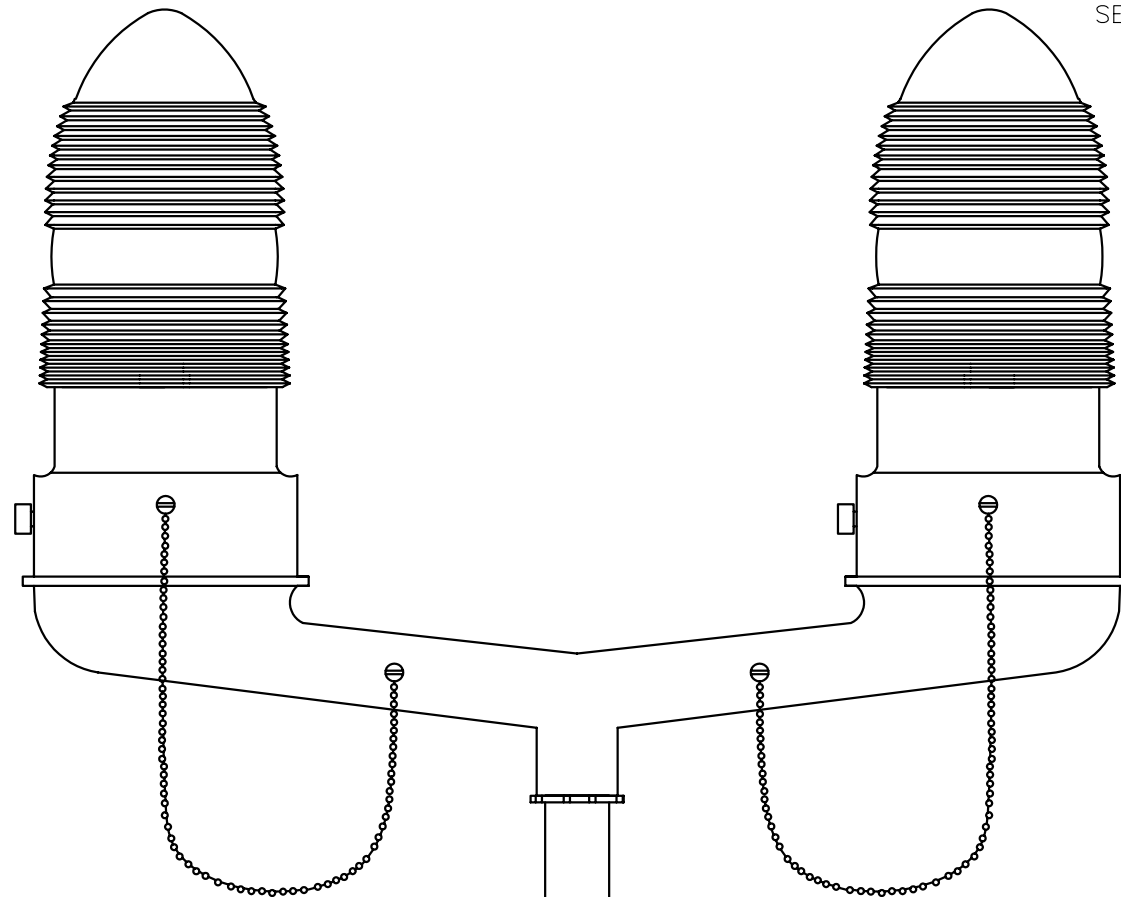


FRONT VIEW



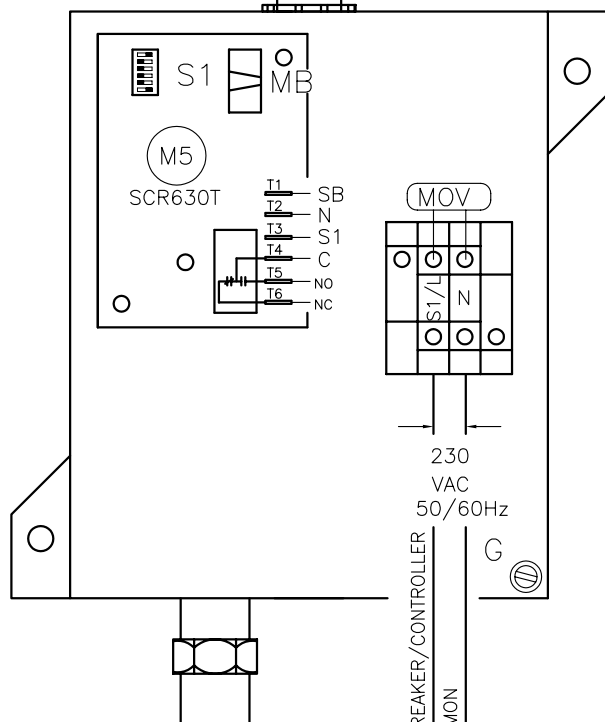
BOTTOM VIEW

MAIN BULB



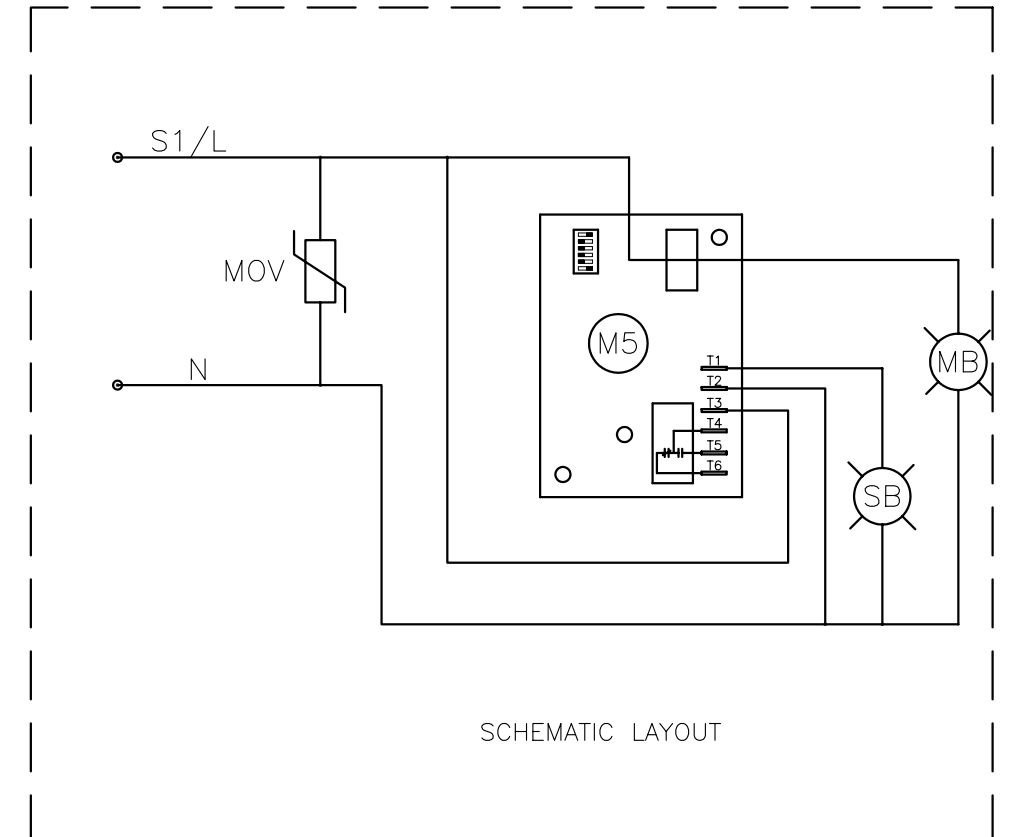
SECONDARY BULB

← 43961



CHASSIS LAYOUT

230
VAC
50/60Hz
G
FROM S1 BREAKER/CONTROLLER
TOWER COMMON



SCHEMATIC LAYOUT

OL2TRNEMA7230V CONTROLLER
230V 50/60HZ

PROD DEPT
SERV DEPT
ENGINEER

TWR Lighting, Inc.
Enlightened Technology

DRAWN BY J.L.BUSTAMANTE
DATE 06/27/07

SHEET SIZE B SHEET QTY. 1 OF 1
SCALE N.T.S. DWG. NO. 1242-R

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.
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