

COMMAND LIGHT

Shadow Series



Effective March 2020
This guide supersedes all previous versions

MODELS COVERED:
SL445A SL447A

3842 Redman Drive
Fort Collins, CO 80524

1-800-797-7974
www.CommandLight.com

THANK YOU

Please allow us to express a simple thank you for investing in a **COMMAND LIGHT** product. As a company we are dedicated to producing the very best and most versatile flood lighting package available. We take great pride in the quality of our work and hope that you will find many years of satisfaction from the use of this equipment.

Should you have any problems with your product please do not hesitate to contact us.

COMMAND LIGHT

3842 Redman Drive
Fort Collins, CO 80524

PHONE: 1-800-797-7974
FAX: 1-970-297-7099
WEB: www.CommandLight.com



DANGER

PERSONAL RESPONSIBILITY CODE

The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

1. Firefighting and Emergency Response are inherently dangerous activities requiring proper training in their hazards and the use of extreme caution at all times.
2. It is your responsibility to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called upon to use.
3. It is your responsibility to know that you have been properly trained in Firefighting and/or Emergency Response and in the use, precautions, and care of any equipment you may be called upon to use.
4. It is your responsibility to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. It is your responsibility to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns or other severe injury.



Fire and Emergency Manufacturers and Services Association, Inc.
P.O. Box 147, Lynnfield, MA 01940 www.FEMSA.org

Copyright 2006 FEMSA. All Rights Reserved

Please take the time to read this manual before installing or operating the *Shadow^{RTB}*.
Save this guide for future reference.

Contents

Warranty	5
Warranty/Service	6
Breakage or Damage During Shipment	6
Product Safety Precautions	7
General Description and Specifications	8
Operation	8
Raising the light from the nested position	8
Returning the light to the nested position	8
Installation	9
Installation Kit	9
Tools Required.....	9
Installation Notes	10
Location Requirements	10
Mounting.....	11
Control Box Holster Mounting	11
Electrical Wiring	12
120/240 VAC 220 (Euro) VAC	12
Warning Device Installation	12
Maintenance	13
Cleaning	13
Power Failure	13
Troubleshooting	14
Technical Specifications – Standard AC Model (SL455A, SL4427A)	15
Specifications	16
Parts Lists - Exploded Views	17-22
Wiring Schematics	23-27



Command Light
Fort Collins, CO 80524

PHONE: 1-800-797-7974
WEB: www.CommandLight.com

LIMITED WARRANTY

Five Year

COMMAND LIGHT warrants that the equipment is free from defects in materials and workmanship when used and operated for a period of five years. The responsibility of **COMMAND LIGHT** under this limited warranty is limited to the repair and replacement of any parts found defective. Parts must be returned to **COMMAND LIGHT** at 3842 Redman Drive, Ft Collins, Colorado 80524 with transportation charges prepaid (**C.O.D. shipments will not be accepted**).

Prior to returning defective parts to **COMMAND LIGHT**, the original purchaser shall make a claim in writing to **COMMAND LIGHT** at the above address indicating the model number, serial number and type of defect. No parts or equipment will be received by **COMMAND LIGHT** for repair or replacement under this warranty without specific written authority from it in advance.

Any parts damaged by improper installation, overloading, abuse or accident of any type or cause are not covered by this warranty.

All equipment manufactured by us is tested before leaving our plant, and is shipped in good working order and condition. We therefore extend to the original purchasers the following Limited Warranty for the period of five years from the original date of purchase:

1. This warranty does not apply to defects caused by accident, misuse, neglect, or wear and tear, nor can we be held responsible for incidental and consequential expense and loss, nor does this warranty apply to equipment where alterations have been executed without our knowledge or consent. These conditions are readily discernable when the equipment is returned to us for inspection.
2. On all component parts not manufactured by **COMMAND LIGHT**, their warranty is to the extent that the manufacturer of such component warrants them to **COMMAND LIGHT**, if at all. Look in your local business telephone directory for the nearest repair station for the brand of parts you have or write to us for the address.
3. If equipment received has been damaged in transit, a claim should be made against the carrier within three days, as we assume no responsibility for such damage.
4. Any service other than our Authorized Service voids this warranty.
5. This warranty is in lieu of and is intended to exclude all other warranties, express or implied, oral or written, including any warranties of MERCHANTIBILITY or FITNESS for a particular purpose.
6. Travel time paid at a maximum of 50% and only if pre-approved.

Warranty/Service

COMMAND LIGHT products* come with an industry leading 5 year warranty against any defects in materials and workmanship when used and operated for a period of five years. If during this time period, you have any malfunctions not related to misuse, accident, neglect, or normal wear and tear, please take the following steps in order to have your light tower serviced under **COMMAND LIGHT'S** warranty.

1. Contact us immediately for initial diagnosis and parts if needed at 800-797-7974 or info@commandlight.com
 2. You will need to have immediate access to light tower. This process can be done by individuals with little mechanical ability. (Involves pushing buttons and telling us what the light tower is doing or not doing)
 3. We then send parts (if needed) and have a technician dispatched (if needed) with a written work authorization number and a base amount of hours allotted to do repair
 4. We remain available for service support via phone, email, or video conference while technician completes repair, also to extend original time allotted if additional issues arise
 5. Mark repair as completed and validate the work authorization number for hours of labor / travel rates as agreed during diagnosis
 6. Finally, we will pay out or credit the invoice when we receive it from person/company performing the repair
- Please make contact with us as soon as problems arise in order to execute our warranty. We must have knowledge of the issue and a work order in place in order to pay or reimburse the department with the issue. Any unauthorized service voids this warranty. (No work is authorized until the call is made to us)

Contact Us Early – before any work is done – **We'd love to help!**

*excludes light producing components (bulbs, lasers, LEDs) These components come with their own manufacturer warranty. Contact us and we can help get it.

Breakage or Damage During Shipment

The transportation company is fully responsible for all shipping damage and will resolve problems promptly if you handle it correctly. Please read these instructions carefully.

Examine the contents of all shipping cases. If you find any damage, call your transportation agent at once and have them make a description on the freight or express bill describing the damage and the number of pieces. Then contact us and we will send you the original bill of lading. Also promptly contact the transportation company and follow their procedure for filing a claim. Each company will have a unique procedure to follow.

Please note, we cannot and will not enter claims for damages. If we filed a claim here, it would be sent to your local freight agent for verification and investigation. This time can be saved by you filing the claim directly. Every consignee is on the ground floor, in contact with the local agent who inspects the damaged goods, and thus, each claim can be given individual attention.

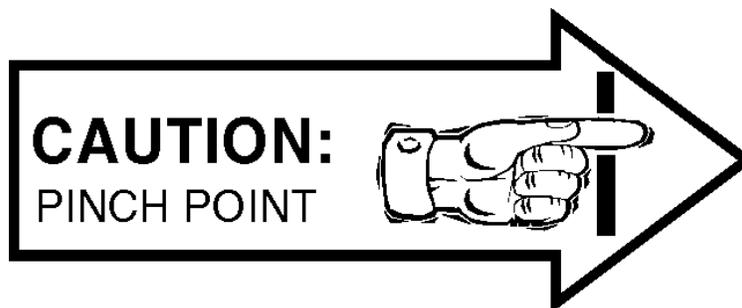
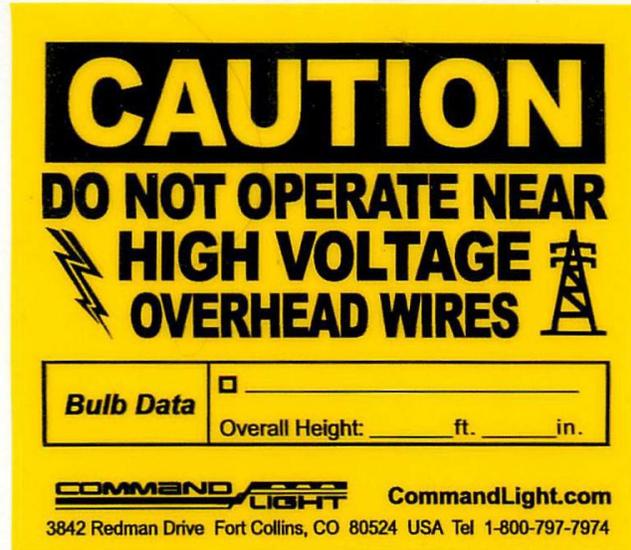
Since our goods are packed to comply with the regulations of all railroad, truck, and express companies, we cannot allow deduction from any invoice because of any damage, however, be sure to file your claim promptly. Our goods are sold F.O.B. factory. We take receipt from the transportation company certifying that the goods were delivered to them in good order and our responsibility ceases.

It is seldom that any breakage or damage occurs in any of our shipments and in no case will the customer be out any expense if they follow the above instructions.

Be sure to keep all damaged goods subject to examination of the truck or express company inspector, who may call on you some time later. These damaged goods, of course, will belong to them, and they will inform you what to do with them. If you dispose of these damaged goods, your claim may not be paid.

Product Safety Precautions

- Never operate the **Command Light Shadow^{RTB}** near overhead high voltage power lines. The **Command Light Shadow^{RTB}** is manufactured from electrically conductive materials.
- Do not use the **Command Light Shadow^{RTB}** for uses other than its intended purpose.
- Do not move emergency vehicle with the light extended. Visually verify that the light is completely nested before moving vehicle.
- Do not change light position while people are located within its operating envelope. There are numerous pinch points that can cause serious bodily injury.
- Do not use a high-pressure washer or subject the light to high volumes of water when cleaning.
- Never use the **Command Light Shadow^{RTB}** as a lifting device or mobile arm.
- Do not use a **Command Light Shadow^{RTB}** that has been damaged or is not fully functional, including non-working indicator lamps.
- Never hold any part of the **Command Light Shadow^{RTB}** with a hand or foot while it is in motion.
- The **Command Light Shadow^{RTB}** has numerous pinch points. Keep loose clothing, hands and feet clear of moving parts.



General Description and Specifications

The **Shadow^{RTB}** is designed to provide high intensity emergency scene lighting with quick precision. As with any electromechanical device, take precautionary steps to ensure safe operation.

Model #	Description	Minimum Power Requirements
SL445A	4 x 500W	17 Amps, 120 VAC
SL447A	4 x 750W	25 Amps, 120 VAC

The vehicle provides power for the 12 VDC circuitry. A 15 Amp breaker is recommended. The umbilical corded control unit is powered via 12 VDC eliminating hazardous voltage levels within the hand held control box.

The **Shadow^{RTB}** is manufactured to provide years of service with a minimum of maintenance.

Operation

Raising the light from the nested position

Using the control box, raise the lower stage. Control switches are of momentary action style and must be held in the “on” position to actuate the tower.

The **Shadow^{RTB}** has an override system that precludes rotation of the lamp tree until the lower stage has elevated approximately 16” from the nested position. When the lower stage is below 16” the following conditions exist:

- Lamp Tree is prevented from rotating.
- All lights are turned off, including strobe light if equipped, regardless of light switch positions.
- Prevents the main arm from moving down if lamp tree is not centered.

If the supply from the vehicle is marginal, position the **Shadow^{RTB}** before turning on lights.

Returning the light to the nested position

The **Shadow^{RTB}** is equipped with an Autopark function as a standard feature. Releasing the Autopark button acts as an “Emergency Stop” and will cancel the Autopark sequence.

Autopark Sequence

Press and hold the black Autopark button on the controller. The Autopark sequence begins:

1. Lamps are extinguished.
2. Lamp tree begins rotation to the center position. If equipped with back light option, back light begins rotation and returns to the home position.
3. Once lamp tree is centered, rotation stops, green center indicator illuminates, and main arm begins retracting.
4. After main arm has fully retracted, the red nest indicator will be extinguished

Installation

The **Shadow^{RTB}** must be installed by a designated installation facility or by an EVT certified Level FA4 Technician. All safety precautions must be thoroughly understood before installation. Please consult the factory for additional installation information assistance.

Improper installation can cause overheating of electrical power wires that could catch fire and void the warranty.

Ensure all wiring is properly protected with correct sized breakers and fuses before connecting to the power source.

AC powered light towers require a high current draw to provide high levels of lighting. Verify all connected electrical components are able to handle the load for this light tower as listed in the Technical Specifications on page 15.

If in doubt, contact Command Light at 1-800-797-7974 or info@commandlight.com.

Installation Kit

Included with the **Shadow^{RT}** is an installation kit. Verify that the kit contains the following items:

- (1) 25 feet of 12GA-2 Conductor power cable
- (1) 25 feet of 10GA-4 Conductor power cable
- (1) Pre-wired HOLSTER BOX w/cover
- (1) Handheld Controller
- (1) Small hardware parts bag with:
 - (4) mounting spacers
 - (4) $\frac{5}{16}$ -18 nylon lock nuts
 - (4) large diameter flat washers
 - (4) $\frac{1}{4}$ " flat washers
 - (1) $\frac{1}{2}$ " 90° sealing connector w/nut
 - (4) $\frac{5}{16}$ -18 X 2 $\frac{1}{2}$ " bolts
 - (8) $\frac{5}{16}$ " flat washers
 - (2) $\frac{1}{4}$ -20 X $\frac{5}{8}$ " Phillips pan head machine screws
 - (2) $\frac{1}{4}$ -20 nylon lock nuts
 - (1) $\frac{3}{4}$ " 90° sealing connector w/nut

Tools Required

- Lifting device (crane, forklift, block and tackle, etc.)
- Sling for lifting
- Drill
- $\frac{21}{64}$ ", $\frac{17}{64}$ " drill bits
- Hole punch for metal with $\frac{7}{8}$ " and $1\frac{5}{16}$ " diameter capacity
- Phillips head screwdriver, #2
- Command Light** flat blade screwdriver (included with light)
- $\frac{7}{16}$ " and $\frac{1}{2}$ " combination wrenches and/or ratchet and $\frac{7}{16}$ " and $\frac{1}{2}$ " sockets
- 8" adjustable wrench
- Tongue and Groove Pliers
- Wire stripper or razor blade knife
- Solder-less wire connector crimp tool
- Silicone based gasket sealer, RTV™ recommended

Installation Notes

The **Shadow^{RTB}** weighs approximately 75 pounds. Use mechanical assistance such as a forklift or crane to lift the light into installation position.

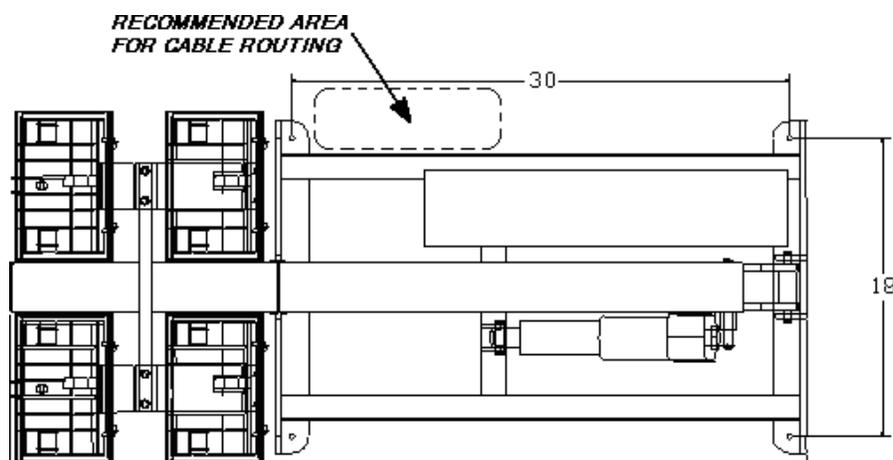
Use the provided fender washers under the mounting surface to distribute the weight load evenly.

When routing the connecting electrical wires take care to avoid sharp bends, hot components or other hazards to the wire.

The **Shadow^{RTB}** is not designed to be operated in a raised position while the vehicle is in motion. The **Shadow^{RTB}** includes warning circuit wiring to enable a warning device.

Location Requirements

The standard **Shadow^{RTB}** can be mounted on any location that is 54" x 22". The surface should be flat or have only a slight crown. Consult with factory before construction of recessed installation. Verify all dimensions before installation to assure proper operation of light will not infringe on other installed components. For all other installations refer to the dimensional drawing included in this guide that represents your particular model of light. The drawings reflect the dimensions of the "working envelope" of a typical light. Endure sufficient clearances are incorporated in your installation to allow for variations (vehicle body flex, environmental conditions, future servicing needs, etc.)



Four mounting bolts are required. Additional holes may be drilled in the frame ends if necessary to clear obstructions.

Access holes for the power cord cabling should be in close proximity to the entrance box on the light. Installing the cords with a sweeping 90° or 180° bend will provide better results.

The control box holster should be mounted in an area shielded from the weather. Allow a minimum of 10" clearance above the control box holster mounting location for easy access to the controller.

Mounting

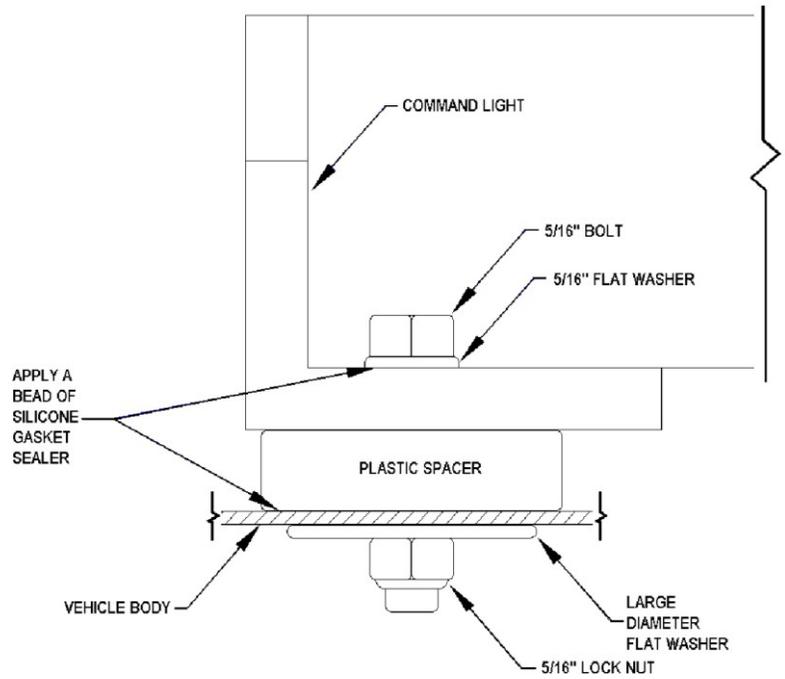
Place the provided spacers in the location of the light mounting holes. The spacers may be modified to conform to the contour of the mounting location.

Remove any obstructions below the mounting surface such as headliners.

Attach any necessary lifting attachments to the **Shadow^{RTB}**. The center of gravity (balance point) is slightly below the rotation assembly.

Slowly lift the **Shadow^{RTB}** and check for balanced lifting. Lower and make any necessary adjustments to the lift points.

Lift and place the **Shadow^{RTB}** into position above the spacers. Before placing the full weight of the light tower on the spacers, align spacers with the holes in the end frame castings.



Drill $2^{1/64}$ ” holes in the mounting surface using the end casting holes as a template.

Fasten the light using the provided hardware. To assure a weather-tight installation apply a thin bead of silicone based gasket sealer to the base of the spacer and underside of bolt head.

Remove any lifting straps and devices from the **Shadow^{RTB}**.

Locate and drill the wire feed holes.

Control Box Holster Mounting

Using the holster as a template, mark locations of holes.

Drill $1^{7/64}$ ” mounting holes.

Drill any holes required to route the control wire from the control box to the **Shadow^{RTB}**. Mount holster box with provided hardware.

Electrical Wiring

Please Note: Detailed internal wiring schematic for the light is found in the supplement pages found at the end of this document.

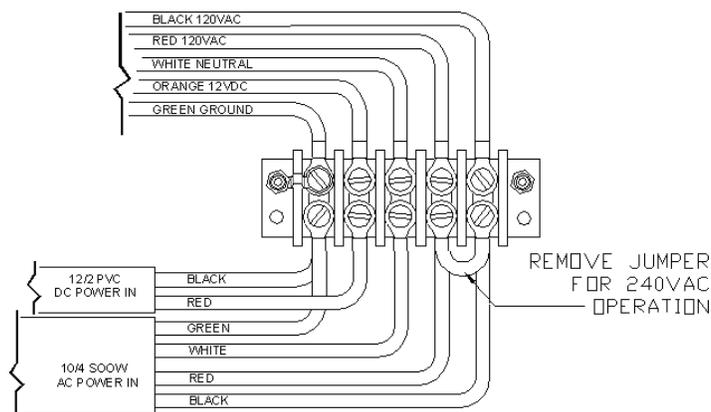
Run the control wire from the control box holster to the **Shadow^{RTB}**.

Run the power wire from the breaker box or generator to the **Shadow^{RTB}**. A 30 Amp breaker is recommended on AC Quartz Halogen models.

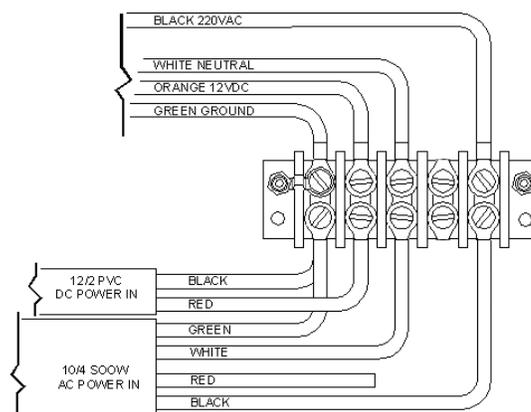
Make the control cable connections in the **Shadow^{RTB}** relay box by matching each control wire to its same color on the connector block of the **Shadow^{RTB}** relay box.

The **Shadow^{RTB}** models SL445A and SL447A comes pre-wired to connect to 120 VAC. For 240 VAC operation, remove the jumper between the two live wires at the AC input terminal block. If ordered with 220 VAC single leg (European) wiring, one wire in the AC input cable will not be used.

120/240 VAC



220 (Euro) VAC



Warning Device Installation

The **Shadow^{RTB}** nest sensor can be used to activate a warning device when the light is extended. Typically the vehicle will have a light or buzzer that activates when the compartment doors are open.

The connector for hooking up a warning device is located in the holster box that holds the control unit.

Maintenance

Cleaning

The **Shadow^{RTB}** is constructed with corrosion resistant aluminum and stainless steel fasteners. To further enhance corrosion resistance all exposed surfaces receive a powder coated paint finish. To assure years of trouble free service periodically clean all external surfaces with a mild detergent solution and a gentle spray of water. **DO NOT USE A HIGH-PRESSURE WASHER**, which will force water into sensitive electric circuitry.

Lamp lenses may be cleaned with any commercially available glass cleaner.

The lower stage actuator is a sealed unit and does not require adjustment or lubrication. They also have a slip-clutch to compensate for minor stroke tolerances at the limits of its travel as well as internal limit switches.

All pivot points on the **Shadow^{RTB}** are self-lubricating brass bushing. Periodic cleaning with a moisture displacing cleaner and soft bristle brush, without disassembly, to remove accumulated dirt and debris will minimize wear.

Power Failure

The **Shadow^{RTB}** can be retracted manually if power to the unit is lost. If power loss is temporary, reestablishing power may be easier than manually retracting the light.

Disconnect power source from the **Shadow^{RTB}**.

Rotate to Center

Slowly apply pressure to the midplate to manually rotate to the centered position. Trying to rotate the midplate too quickly or with too much pressure can break the rotation motor shaft or strip the toothed belt. Be certain that you rotate the midplate in the proper direction as the lamp tree can rotate only 350°.

Retract the Lower Stage

Locate the silver plug located on the actuator below the actuator's motor. Use the provided hex tool (6mm hex bit) to remove silver plug. Be sure to not lose this plug. Use the same hex tool inserted into the opening to drive the internal gears of the actuator. Be sure to replace the silver plug after this actuator is fully retracted.

Troubleshooting

<i>Problem</i>	<i>Possible Cause</i>	<i>Solution</i>
Unit will not extend	No power to the unit	Check power input connections. Ensure internal breaker in main electrical box has not been tripped.
	Incorrect installation	Refer to installation instructions.
Lamp tree will not rotate	Lift arm not raised above 16"	Raise lift arm higher.
	Rotation motor failure.	Consult with factory.
Lights will not illuminate.	Lift arm not raised above 16"	Raise lift arm higher.
	Circuit breaker tripped.	Check circuit breaker at power supply.
	No power to the unit.	Check incoming A/C and D/C voltage.
Unit will not nest	Lamp tree not centered	Raise lift arm higher than 16". Center lamp tree (green light illuminated)
	Unit being operated on a slope >10°	Level Truck. If problem persists, rotate lamp tree to center, hold unit centered while lowering to nest position.
No lights or rotation	Check safety limit sensor, bad, etc.	Contact factory for adjustment replacement part.
Autoparking off Center	Center switch out of adjustment	Contact factory for adjustment replacement part.

Technical Specifications – Standard AC Model (SL445A, SL447A)

Dimensions (with strobe and ½” mounting spacers) – May vary by model and options:

	Height(Depth)	Length	Width	
Retracted	8”	54”	34”	
Extended	52”	56”	34”	
Recessed installation	10”	62”	40”	Minimums

Weight:

75 pounds

Wiring:

Main Power VDC	12/2 SO cord	25’ provided
Main Power VAC	10/4 SO cord	25’ provided
Control wiring	22/20 PVC Jacketed	25’ provided

Relay protection:

Lights Cole-Hersey 3055 40 amps

Current Draw / Power Requirements:

Fixture	Average
4 x 500 Watt	120 VAC/17 amps
4 x 750 Watt	120 VAC/25 amps

Lift actuators and rotation motor will cause higher current draw during use.

Motor Duty Cycle:

(All motors thermally protected, specifications are to thermal relay trip):

Lower stage	1:3 (90 seconds maximum per 5 minutes)
Rotation	5-6 Revolutions

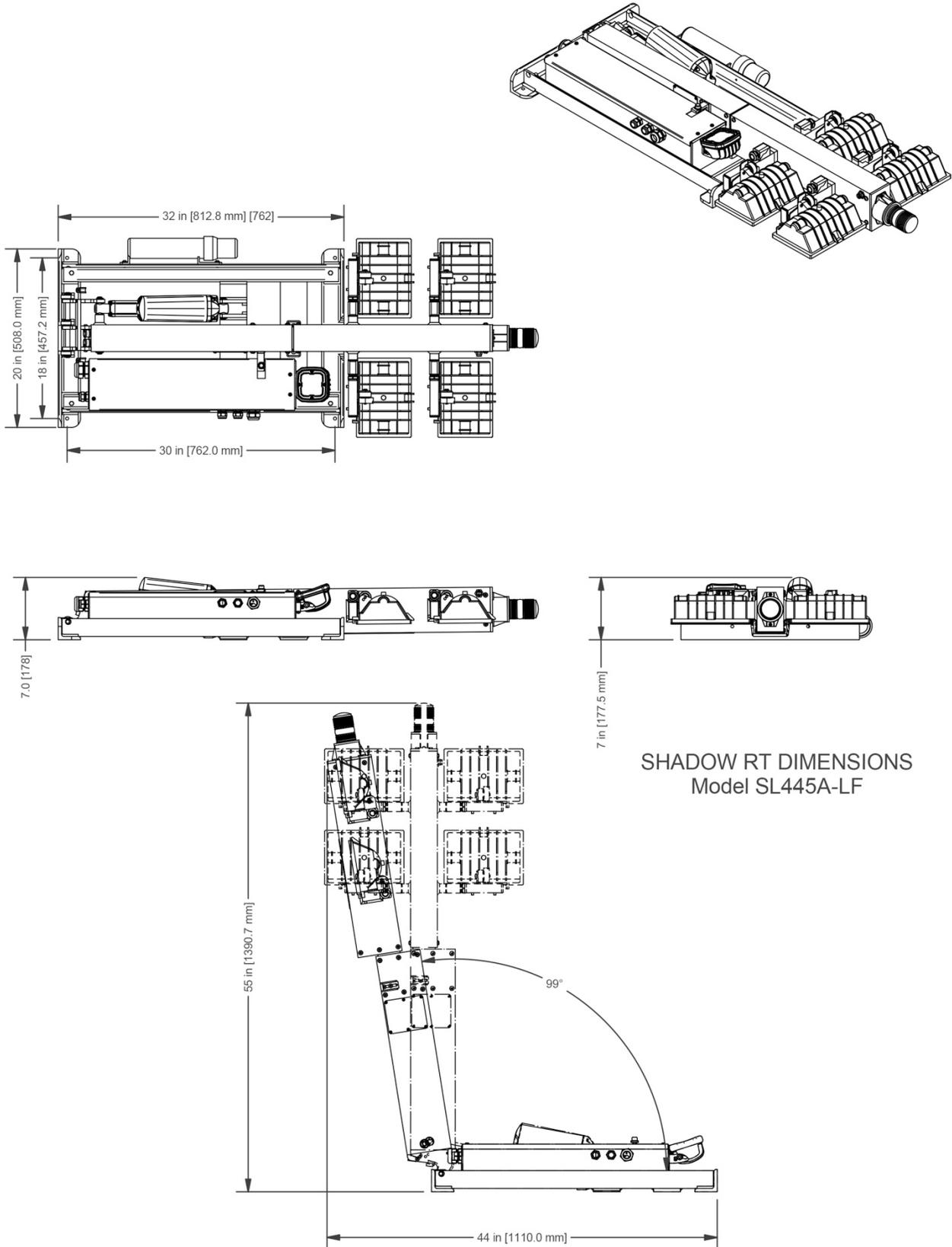
Motor Speed:

Lower stage	0.5 inch per second	14 seconds to full extension
Rotation	2.75 RPM at lamp tree	

Operation:

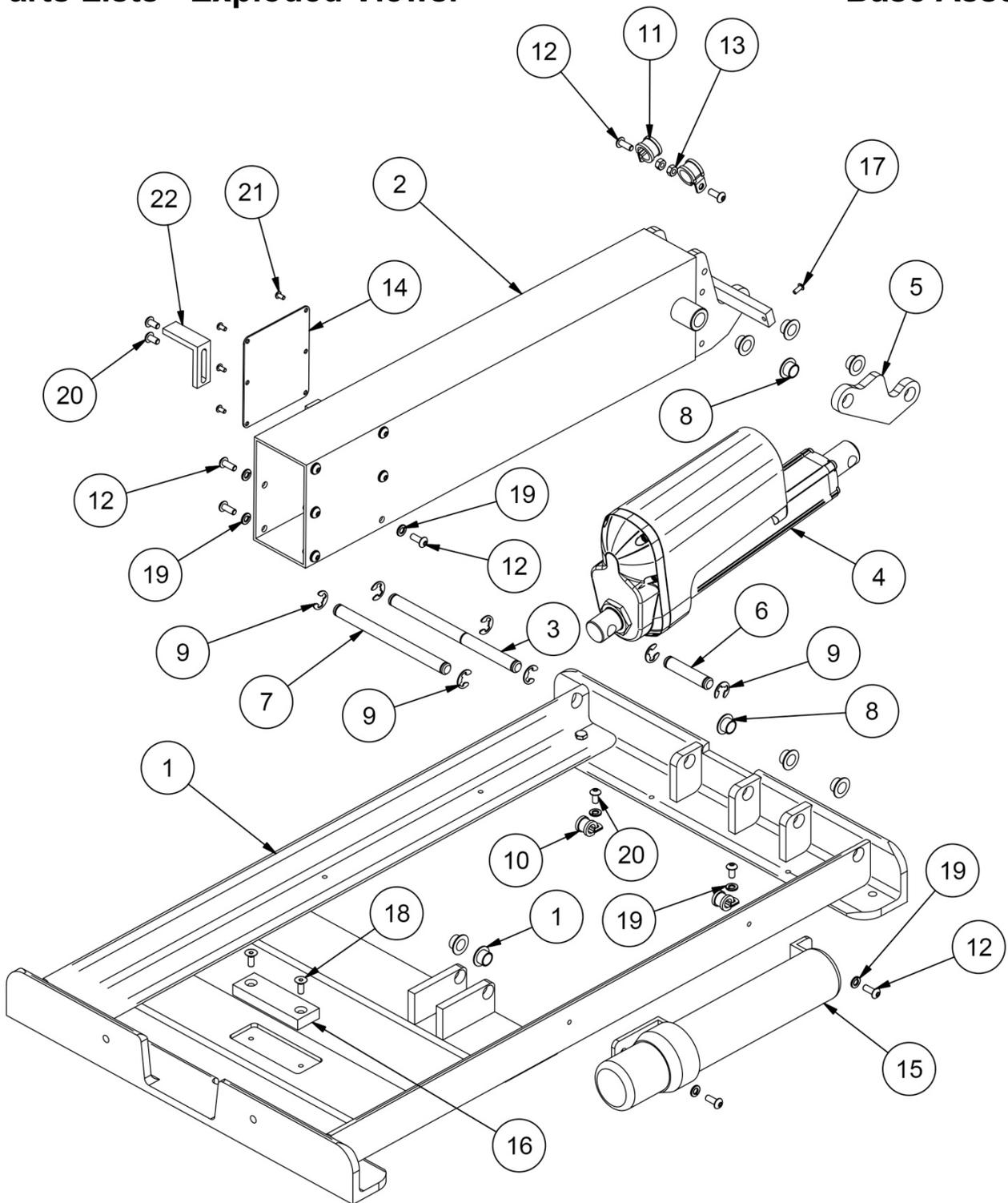
Angle of vehicle 10° maximum incline

Specifications



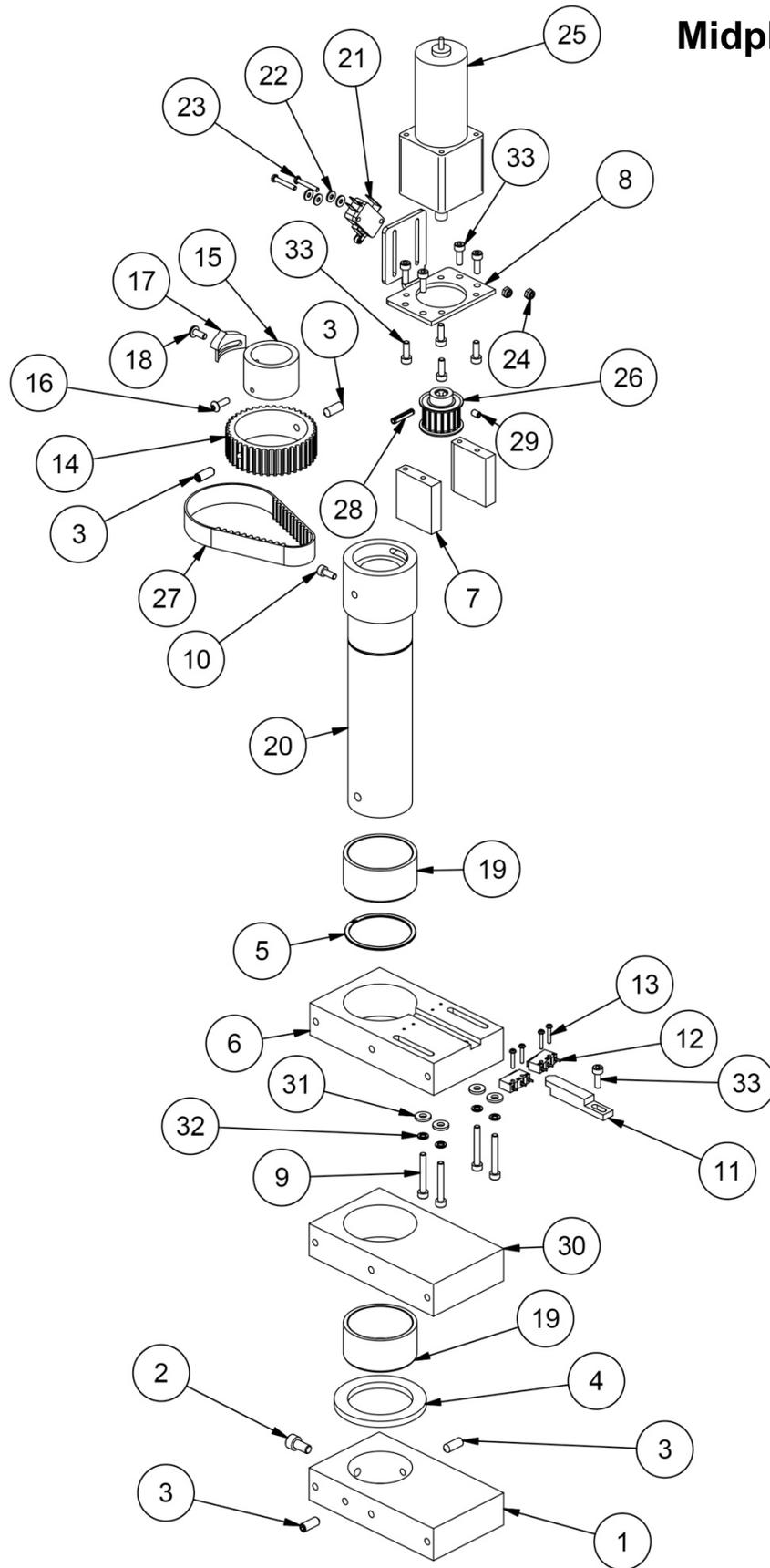
Parts Lists - Exploded Views.

Base Assembly



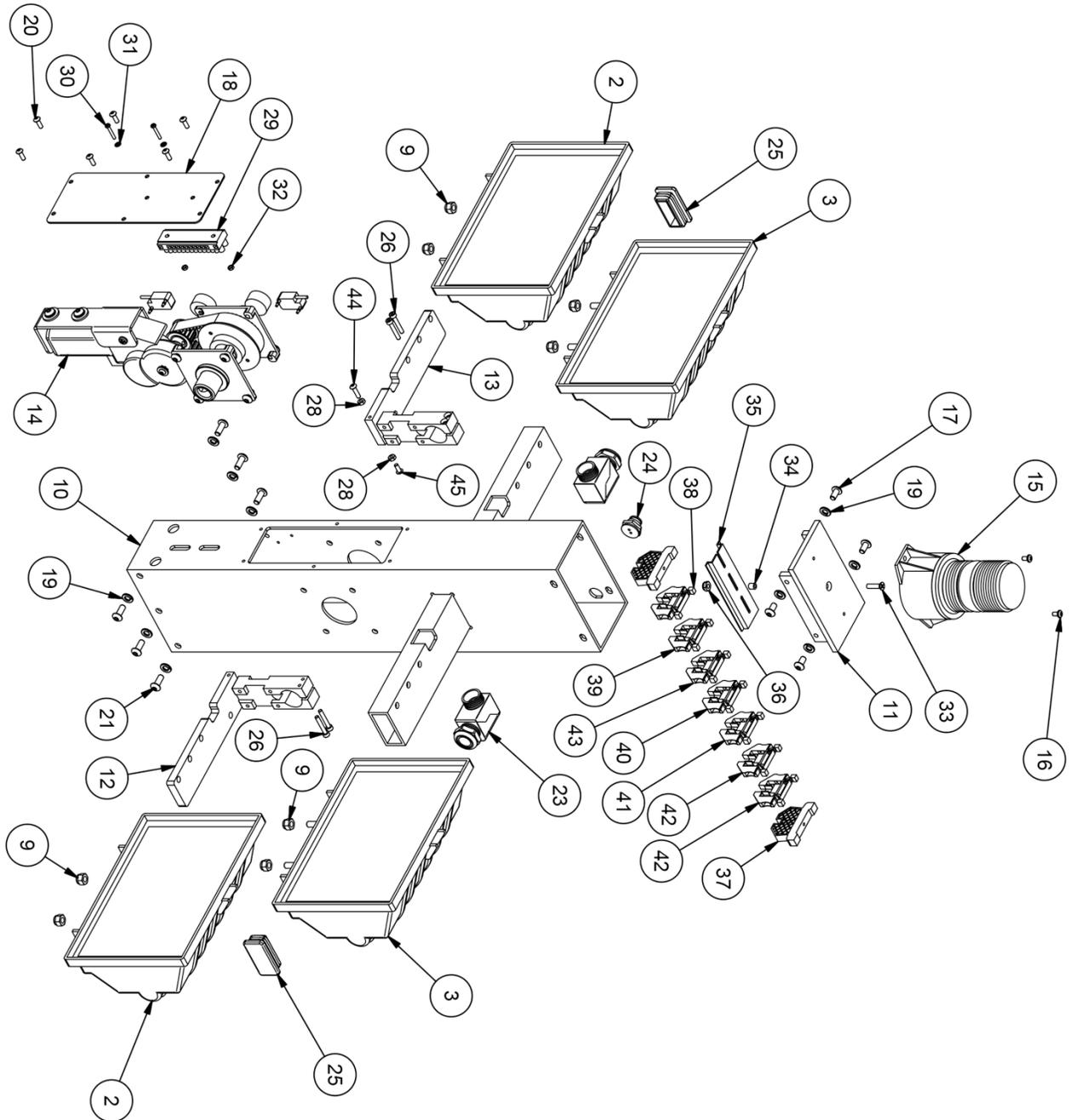
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	178-01100	FRAME,WELDMENT,SHADOW RTB
2	1	178-02300	ARM, MAIN LIFT, WELDMENT,SHADOW RTB
3	1	178-01502	PIN,LOWER,PIVOT,SHADOW RTB
4	1	069-15411	ACTUATOR,LINEAR,150MM,12VDC,LA36
5	1	178-01008	ARM,TRAILING,LIFT,SHADOW RTB
6	1	178-01501	PIN,LOWER,ACTUATOR,SHADOW RTB
7	1	178-01500	PIN,UPPER,ACTUATOR,SHADOW RTB
8	9	067-14200	BEARING,FLANGED,IGLIDE,JFI-0809-06
9	7	069-15336	E-Ring, 5133-50, .044T, SS
10	2	065-13084	CLAMP,LOOM,#4,SS
11	2	065-12365	CLAMP,LOOM,#6,SS
12	16	069-01140	SCREW,BH,HEX,6x1x16,SS
13	2	069-01126	Nut, MS, M6x1.00
14	1	178-02097	COVER,ACCESS PANEL,LIFT ARM,SHADOW RTB
15	1	065-15001	CANISTER,DOCUMENT,BLACK
16	1	178-04053	PAD, NEST, SHADOW RTB
17	1	069-01133	SCREW,BH,HEX,M4x0.7x10,SS
18	2	069-01114	SCREW,FHSH,M6x1x16
19	16	034-11028	WASHER,LOCK,SPRING,REGULAR, 1/4", SS
20	4	069-01103	SCREW,BH,HEX,6x1x12,SS
21	6	034-13092	SCREW,BH,HEX,M4x0.7x8,SS
22	1	178-02099	BRACKET, NEST SWITCH, SHADOW RTB

Midplate Assembly



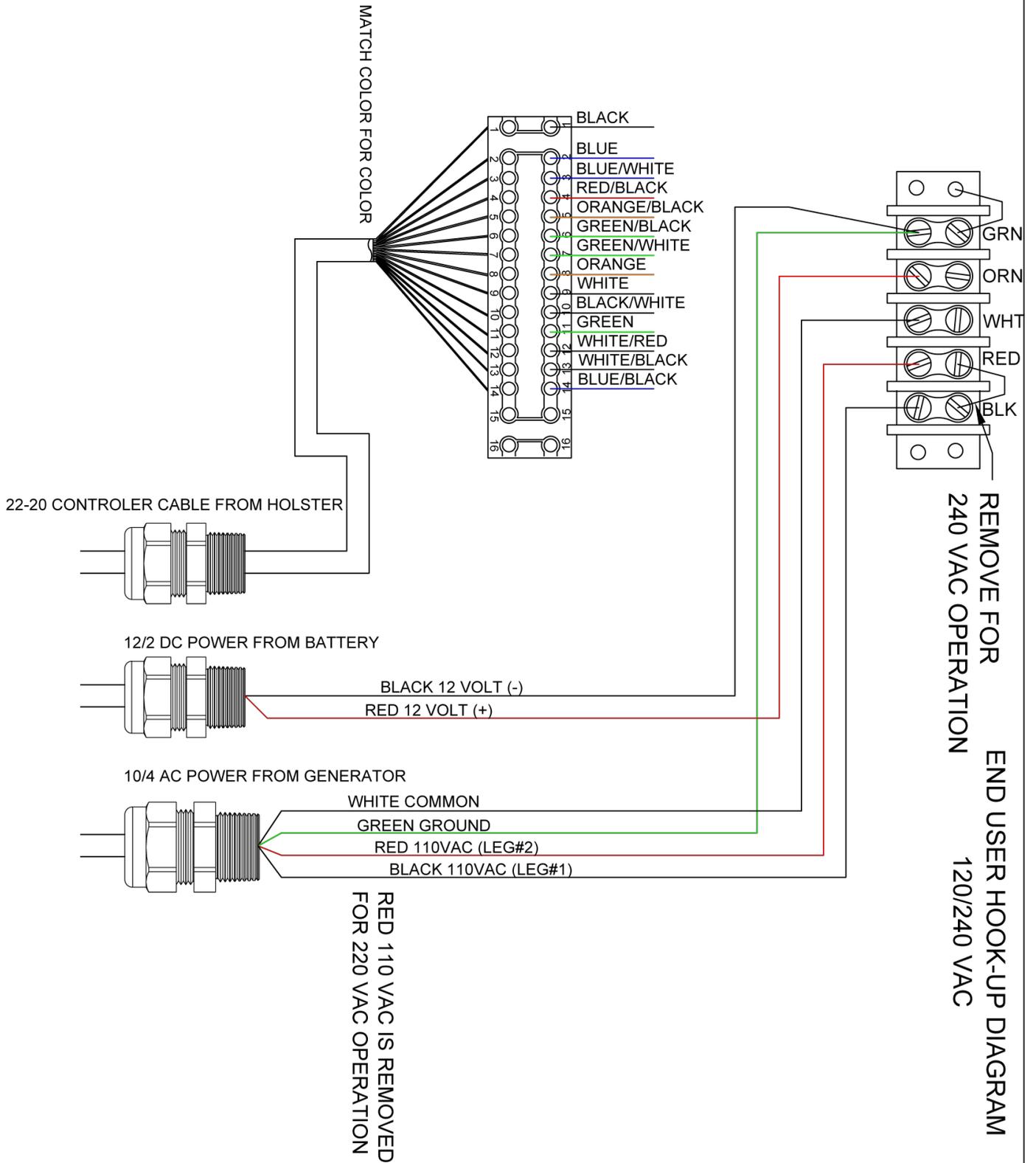
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	178-03002	PLATE, ROTATION DRIVEN, SHADOW RTB
2	1	069-01103	SCREW,SHCS,SHCS M6x1x12
3	5	034-13683	SCREW,SH SET,M6x1.0 x 16mm,SS
4	1	178-03010	BEARING,THRUST,ROTATION,SHADOW RTB
5	1	065-12382	RING,SPIROLOX,2-TURN,WS-175
6	1	178-03001	PLATE, ROTATION DRIVE, SHADOW RTB
7	2	178-03006	STANDOFF,MOTOR,ROTATION,SHADOW RTB
8	1	178-04084	MOUNT,MOTOR,ROTATION,SHADOW RTB
9	4	034-13063	SCREW,SHCS,SHCS M4x0.7x30
10	1	034-13066	SCREW,SHCS,SHCS M4x0.7x10
11	1	178-03005	STOP,ROTATION LIMIT,SHADOW RTB
12	2	065-12383	SWITCH,LIMIT,CHERRY,SPDT,5A,125V,SRTBL
13	4	034-03070	SCREW,PHP,2-56 UNCx0.5
14	1	178-03007	LARGE PULLEY,MID PLATE,SRTBL
15	1	178-03009	CAM,ROTATION CENTER,SHADOW RTB
16	1	069-01102	SCREW,BH,HEX,4x0.7x12,SS
17	1	178-04077	SWITCH,LIMIT,MIDPLATE,RTB
18	1	069-01139	SCREW,PPH,M4 X 10
19	2	065-12384	BUSHING,BRONZE,1.753 x 2.004 x 1,SRTBL
20	1	178-03003R3	SPINDLE,ROTATION W/BUSHING,SHADOW RTB
21	1	069-14229	SWITCH,SPDT,5A,250V,ON-MOM,QC
22	4	034-11211	WASHER,FLAT,SAE, #4, SS
23	2	034-11216	SCREW,HH,4-40x3/4,SS
24	2	034-13672	NUT,NYLOCK, 4-40 UNC,SS
25	1	069-01015	MOTOR,TRANSMOTEC,PDS4265-12-864-BF
26	1	065-12378	PULLEY,HTD,P5mm,W15mm,G17,DF,B8mm
27	1	065-12375	BELT,HTD,P5mm,W15mm,G053,SRT BL
28	1	034-13079	PIN,SPRING,5/32 x .75
29	1	034-10936	SCREW,SHS,8-32 UNC x 1/4,SS
30	1	178-03011	MIDPLATE, ROTATION, SHADOW RTB
31	4	034-10947	WASHER,FLAT,SAE, #8, SS
32	4	034-11175	WASHER,LOCK,SPRING,REGULAR, #8, SS
33	9	069-01139	SCREW,SHCS,SHCS M4x0.7x12

Lamp Tree Assembly

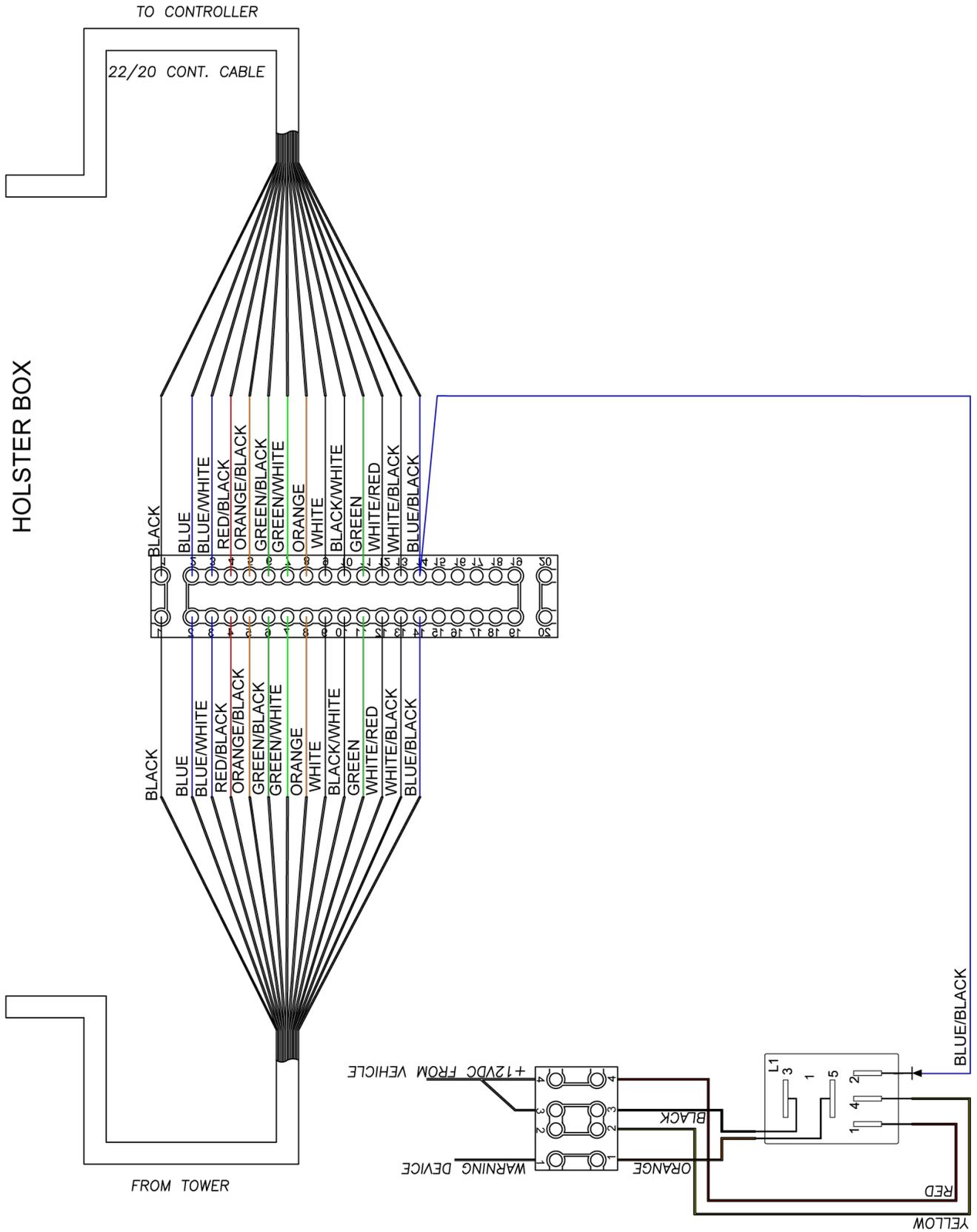


PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
2	2	178-445FIXT	LAMP,SUBASSEMBLY,BACKLIGHT,STD,SHADOW RTB
3	2	178-445FIXT	LAMP,SUBASSEMBLY,FIXED,STD,SHADOW RTB
9	8	034-11033	NUT,NYLOCK, 1/4-20 UNC,SS
10	1	178-04000	TREE,BARE,WELDMENT,SHADOW RTB
11	1	178-05100	MOUNT, STROBE, SHADOW RTB, WELDMENT
12	1	178-04017	MOUNT,LEFT,BACKLIGHT,SHADOW RTB
13	1	178-04018	MOUNT,RIGHT,BACKLIGHT,SHADOW RTB
14	1	RTB_BL_Assembly	
15	1	065-12867	STROBE, PRE-WIRED, INDICATE COLOR
16	2	034-13092	SCREW,PPH,M4 X 8
17	4	069-01103	SCREW,BH,HEX,6x1x12,SS
18	1	178-04009	COVER,ACCESS,LAMP TREE,SHADOW RTB
19	10	034-11028	WASHER,LOCK,SPRING,REGULAR, 1/4", SS
20	6	069-01102	SCREW,BH,HEX,4x0.7x12,SS
21	6	069-01140	SCREW,BH,HEX,6x1x16,SS
23	2	065-12851	STRAIN RELIEF,DOMED 90,SCR .39-.55,1/2 NPT,BLACK
24	1	069-15392	CONXALL, MINICON, 2 PIN, PANEL
25	2	065-12373	PLUG,FINISHING,1x2,SRT-BL,ROM CL
26	4	034-13062	SCREW,SHCS,SHCS M4x0.7x25
28	2	069-01125	Nut, MS, M4x0.7
29	1	065-12827	STRIP, BARRIER, 12 POLE
30	2	034-13288	SCREW,PHP,4-40 UNCx0.75
31	2	034-14283	WASHER,LOCK,18-8SS,INTERNAL,#4
32	2	034-10902	NUT,MS,HEX2,4-40UNC,SS
33	1	034-10975	SCREW,FHPMS,10-24 UNC x 3/4 in,SS
34	1	078-03013	SPACER,DIN RAIL,STROBE MOUNT
35	1	069-01000	RAIL, DIN, SLOTTED, 7.5MM X 35MM 4 in.
36	1	034-13081	NUT,NYLOCK,THIN, 10-24 UNC,SS
37	2	065-10075	BRACKET,END,DIN,DN-EB35
38	1	065-10069	BLOCK,TERMINAL,DIN,DN-T10-BLACK
39	1	065-10068	BLOCK,TERMINAL,DIN,DN-T10-BLUE
40	1	065-10073	BLOCK,TERMINAL,DIN,DN-T10-WHITE
41	1	065-10074	BLOCK,TERMINAL,DIN,DN-T10-YELLOW
42	2	065-10070	BLOCK,TERMINAL,DIN,DN-T10-GREEN
43	1	065-10068	BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE
44	1	069-01134	SCREW,BH,HEX,M4x0.7x16,SS
45	1	069-01133	SCREW,BH,HEX,M4x0.7x10,SS

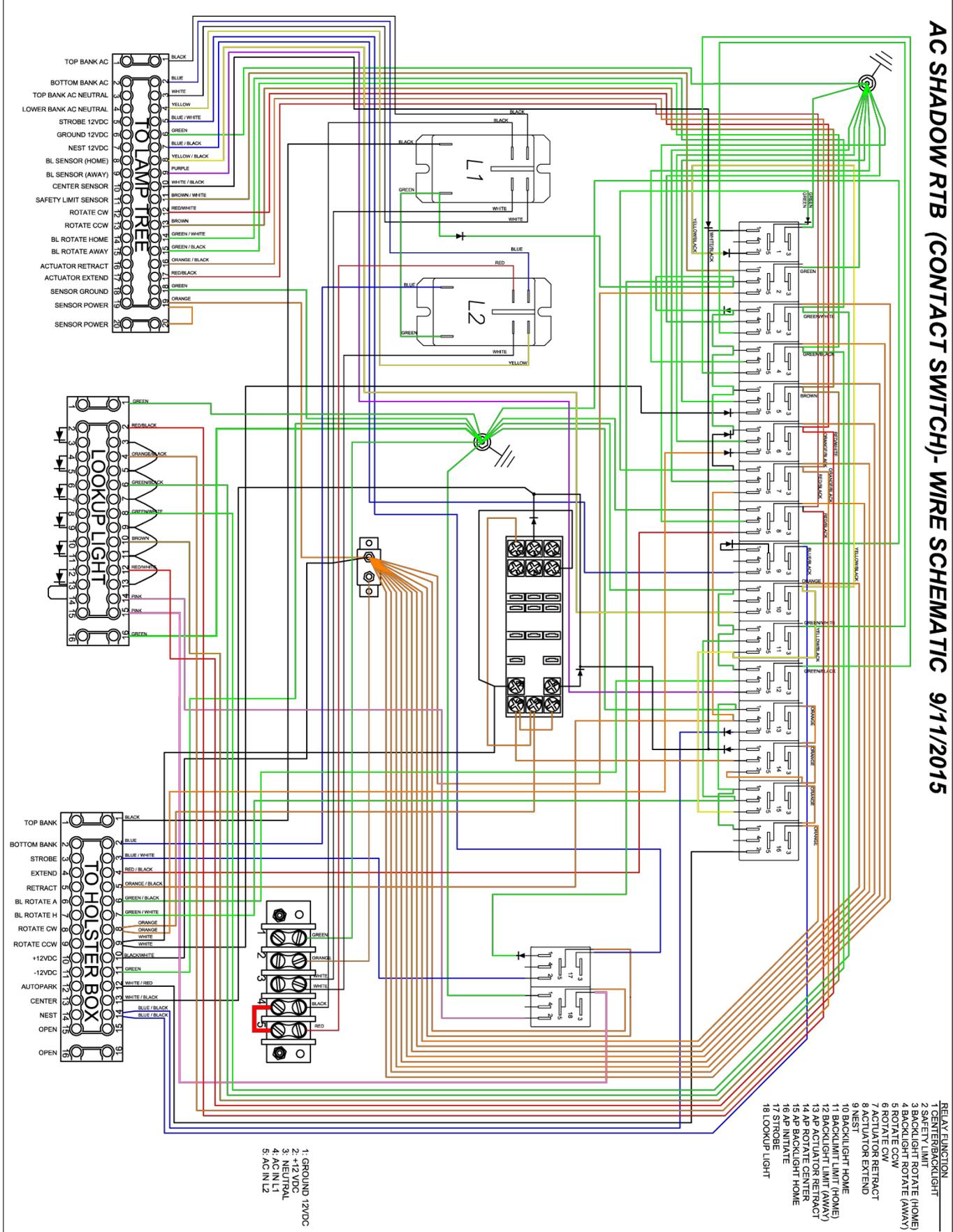
Wiring Schematics



HOLSTER BOX



AC SHADOW RTB (CONTACT SWITCH) - WIRE SCHEMATIC 9/11/2015



- RELAY FUNCTION**
- 1 CENTER/BACKLIGHT
 - 2 SAFETY LIMIT
 - 3 BACKLIGHT ROTATE (HOME)
 - 4 BACKLIGHT ROTATE (AWAY)
 - 5 ROTATE CW
 - 6 ROTATE CCW
 - 7 ACTUATOR RETRACT
 - 8 ACTUATOR EXTEND
 - 9 NEST
 - 10 BACKLIGHT HOME
 - 11 BACKLIGHT LIMIT (HOME)
 - 12 BACKLIGHT LIMIT (AWAY)
 - 13 AB ACTUATOR RETRACT
 - 14 AB ACTUATOR EXTEND
 - 15 AB BACKLIGHT HOME
 - 16 AB INITIATE
 - 17 STROBE
 - 18 LOOKUP LIGHT

- 1: GROUND 12VDC
- 2: +12VDC
- 3: NEUTRAL
- 4: AC IN L1
- 5: AC IN L2

AC SHADOW RTB (PROXIMITY SENSOR)- WIRE SCHEMATIC 9/11/2015

- RELAY FUNCTION**
- 1 CENTER/BACKLIGHT
 - 2 SAFETY LIMIT
 - 3 BACKLIGHT ROTATE (HOME)
 - 4 BACKLIGHT ROTATE (AWAY)
 - 5 ROTATE CW
 - 6 ROTATE CCW
 - 7 ACTUATOR RETRACT
 - 8 ACTUATOR EXTEND
 - 9 NEST
 - 10 BACKLIGHT HOME
 - 11 BACKLIMIT LIMIT (HOME)
 - 12 BACKLIMIT LIMIT (AWAY)
 - 13 AP ACTUATOR RETRACT
 - 14 AP ACTUATOR EXTEND
 - 15 AP BACKLIGHT HOME
 - 16 AP INITIATE
 - 17 CENTER STROBE
 - 18 STROBE
 - 19 LOOKUP LIGHT

