



Effective September 2023
This guide supersedes all previous versions

3842 Redman Drive Fort Collins, CO 80524 MODEL COVERED: KL450A

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.



3842 Redman Drive Fort Collins, CO 80524

PHONE: 1-800-797-7974 FAX: 1-970-297-7099

WEB: www.CommandLight.com



PERSONAL RESPONSIBILITY CODE

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

- 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

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WARNING Read this manual before installing or operating the *COMMAND LIGHT KNIGHT*².

Save this guide for future reference.

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COMMAND LIGHT 5 YEAR LIMITED WARRANTY

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. The responsibility of **COMMAND LIGHT** under this limited warranty is limited to the repair and replacement of parts found to be defective by **COMMAND LIGHT**.

Any parts damaged in shipping or by improper installation, overloading, abuse, or accident of any type or cause are not covered by this warranty. If equipment has been damaged in transit, a claim should be made against the carrier within three days, as we assume no responsibility for such damage.

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 the *COMMAND LIGHT* warranty.

- 1. Contact us immediately for initial diagnosis at **info@commandlight.com** or **800-797-7974**; or if parts are needed contact **parts@commandlight.com**.
- 2. You will need to have immediate access to the light tower and the serial number. 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 an authorized technician dispatched (if needed) with a written work authorization number and a base number of hours allotted to do repair. Hourly rates for service are to be determined at the time of authorization by *COMMAND LIGHT*, travel time is paid at a maximum of 50% of the authorized service rate.
- 4. We remain available for service support via phone, email, or video conference while the technician completes the repair, also to extend the original time allotted if additional issues arise. Immediate support cannot be guaranteed unless a time is scheduled prior to service.
- 5. Let us know when the repair is completed and reference the work authorization number. Email an invoice to **info@commandlight.com** or **parts@commandlight.com**. If you are unable to create an invoice email us for instructions for payment. Make sure any parts we have requested to be returned have been shipped back to the provided shipping address. If a return label is issued it must be used.

6. Finally, we will pay by mailing a check or crediting the account of the person, department, or company doing the repair. Payments will not be made until all requested parts have been returned.

Please contact us as soon as problems arise in order to execute our warranty. We must have knowledge of the issue and provide a work authorization in order to pay or reimburse labor or travel time.

Any unauthorized service voids this warranty. No work is authorized until written consent is provided by *COMMAND LIGHT*.

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

*Excludes light producing components (bulbs, lasers, LEDs) These components may 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 sometime 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.

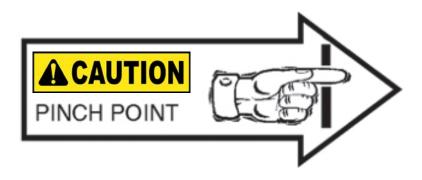
MARNING

Product Safety Precautions

- Never operate the *COMMAND LIGHT KNIGHT*² near overhead high voltage power lines. The *COMMAND LIGHT KNIGHT*² is manufactured from electrically conductive materials.
- Do not use the *COMMAND LIGHT KNIGHT*² for uses other than its intended purpose.
- On not move emergency vehicle with the light extended. Visually verify that the light is completely nested before moving vehicle.



- O not change light position while people are located within its operating envelope. There are numerous pinch points that can cause serious bodily injury.
- O not use a high-pressure washer or subject the light to high volumes of water when cleaning.
- Never use the *COMMAND LIGHT KNIGHT*² as a lifting device or mobile arm.
- Do not use a *COMMAND LIGHT KNIGHT*² that has been damaged or is not fully functional, including non-working indicator lamps.
- Never hold any part of the *COMMAND LIGHT KNIGHT*² with a hand or foot while it is in motion.
- The *COMMAND LIGHT KNIGHT*² has numerous pinch points. Keep loose clothing, hands and feet clear of moving parts.



General Description and Specifications

The *KNIGHT*² is designed to provide high intensity emergency scene lighting with quick precision. As with any electromechanical device, take precautionary steps to ensure safe operation.

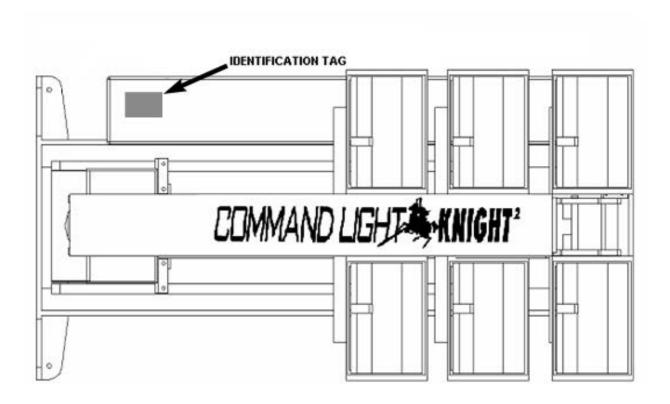
EXAMPLE 1 Wever operate the **KNIGHT**² near overhead power lines.

There are several standard lighting options available for the *KNIGHT*².

| Model # | Description | Minimum Power Requirements |
|---------|-------------|--------------------------------|
| KL450A | 6 x 500W | 3 kW Generator, 120 or 240 VAC |

The emergency vehicle provides power for the 12 VDC elevated warning device circuitry. The umbilical corded control unit is powered via 12 VDC eliminating hazardous voltage levels within the hand held control box.

The *KNIGHT*² is manufactured to provide years of service with a minimum of maintenance.



Operation

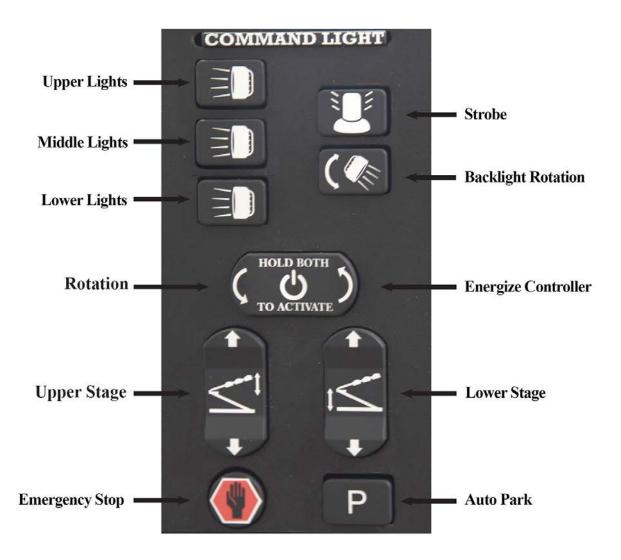
Raising the light from the nested position

Using the control box, raise the lower or upper stage. You may also activate both stages simultaneously. Control switches are of momentary action style and must be held in the "on" position to actuate the stages.

The *KNIGHT*² has an override system that precludes rotation of the upper stage until the lower stage has elevated approximately 16" from the nested position. When the lower stage is below 16" the following conditions exist:

- Upper stage is prevented from rotating.
- All lights are turned off, including strobe light if equipped, regardless of light switch positions.
- Prevents the upper stage from moving down if upper stage is not centered.

If the supply from the generator is marginal, position the **KNIGHT**² before turning on lights.



Returning the light to the nested position

The *KNIGHT*² is equipped with an Autopark function as a standard feature. The "P" button on the control box initiates the Autopark sequence. Once initiated, the "Emergency Stop" button indicator is illuminated. Pressing the "Emergency Stop" button will cancel the Autopark sequence.

Autopark Sequence

Press green button on the controller once. It does not need to be held in position. The Autopark sequence begins:

- 1. "Emergency Stop" \| light is illuminated.
- 2. Lamps are extinguished.
- 3. Upper stage begins rotation to the center position. If equipped with back light option, back light begins oscillation and returns to the home position.
- 4. Once upper stage is centered, rotation stops, lower stage begins retracting.
- 5. After lower stage has fully retracted, upper stage begins retracting. Upon upper stage retracting fully, "Emergency Stop" light turns off.

Installation ACAUTION

The **KNIGHT**² must be installed by a designated installation facility by qualified personnel only. All safety precautions must be thoroughly understood before installation. Please consult the factory for additional installation information assistance.

Installation Kit

Included with the *KNIGHT*² is an installation kit. Verify that the kit contains the following items:

(1) 50 feet of 2GA-2 Conductor power cable (1) 50 feet of 22GA-20 conductor cable

(1) Pre-wired HOLSTER BOX w/cover

(1) Handheld Controller

(1) Small hardware parts bag with:

(4) mounting spacers (4) 5/16-18" nylon lock nuts (4) $5/16-18 \times 2^{1/2}$ " bolts (8) 5/16" flat washers

(4) large diameter flat washers

(2) ½-20 x 5/8" Phillips pan head machine screws

(4) 1/4" flat washers

(2) 1/4-20" nylon lock nuts

(3) ½" 90° sealing connector w/nut

(1) 1" 90° sealing connector w/ nut

Tools Required

Lifting device (crane, forklift, block and tackle, etc.)

Sling for lifting

Drill

²¹/₆₄", ¹⁷/₆₄" drill bits

Hole punch for metal with ⁷/8" and ¹⁵/₁₆" 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

ACAUTION The *KNIGHT*² weighs approximately 165 pounds. Use mechanical assistance to lift the light into installation position such as a forklift or crane.

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

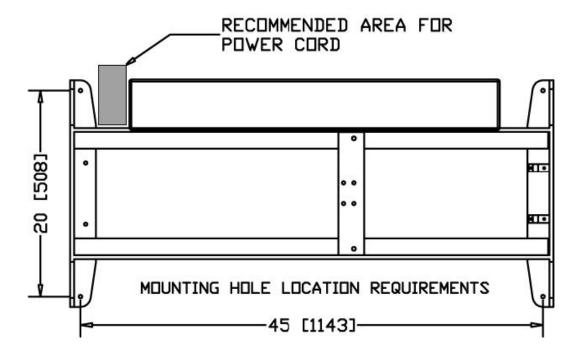
When routing the connecting electrical wires take care to avoid sharp bends, hot components or other hazards to the wire.

The *KNIGHT*² is not designed to be operated in a raised position while the vehicle is in motion.

The KNIGHT² includes warning circuit wiring to enable a warning device.

Location Requirements

The standard *KNIGHT*² *KL450* model can be mounted on any location that is 47" x 25", additionally allow for a minimum of 3" of space around the perimeter of the nested tower. The surface should be flat or have only a slight crown. For a recessed installation, allow for a minimum of 3" of space around the perimeter of the tower taking into consideration the dimensions of the tower both fully nested and fully elevated. Consult with factory before construction of recessed installation. Verify all dimensions before installation to ensure proper operation of light will not infringe on other installed components. For all other installations refer to the dimensional drawing on page 22 of this guide that represents your particular model of light. The drawings reflect the dimensions of the "working envelope" of a typical light tower. Make certain sufficient clearances are incorporated in your installation to allow for variations (vehicle body flex, environmental conditions, future servicing needs, etc.) If your light model is not represented, call or email the factory prior to beginning any construction of a recessed installation.



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

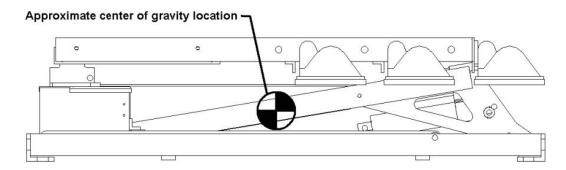
Access holes for the power cord cabling should be in close proximity to the relay box access holes on the light. Installing the cords with a sweeping 90° or 180° bend will provide better results.

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 *KNIGHT*². The center of gravity (balance point) is slightly behind the lower bank of lights.



ACAUTION Slowly lift the *KNIGHT*² and check for balanced lifting. Lower and make any necessary adjustments to the lift points.

Lift and place the *KNIGHT*² into position above the spacers. Before placing the full weight of the unit on the spacers align spacers with the holes in the end frame castings.

Drill ²¹/₆₄" holes in the mounting surface using the end casting holes as a template.

Fasten the light using the provided hardware. To ensure 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 *KNIGHT*².

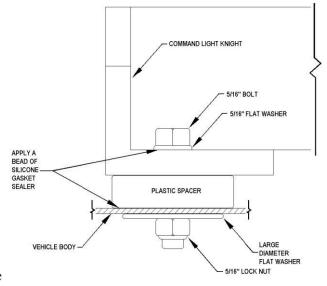
Locate and drill the wire feed holes.

Holster Mounting

Using the holster mount as a template, mark hole locations.

Drill ¹⁷/₆₄" mounting holes.

Drill any holes required to route the control cable from the holster to the *KNIGHT*² relay box. Attach the holster to the holster mount with the provided hardware.



Electrical Wiring

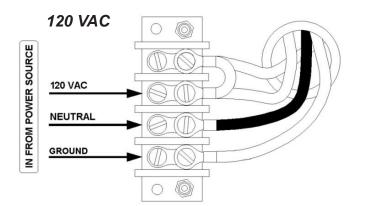
Please Note: Detailed internal wiring schematics are located at the back of this user guide.

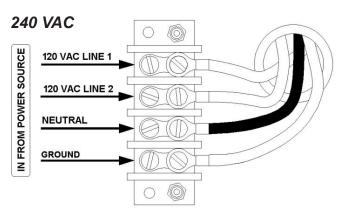
Run the control wire from the control box holster to the *KNIGHT*².

Run the power wire from the breaker box or generator to the *KNIGHT*². A 20 Amp breaker is recommended on AC models with LED fixtures.

Make the control connections in the *KNIGHT*² relay box.

The standard model KL450A series *KNIGHT*² comes pre-wired to connect to 120 VAC. It is necessary to remove the jumper connecting the red and black terminals for 240 VAC operation.

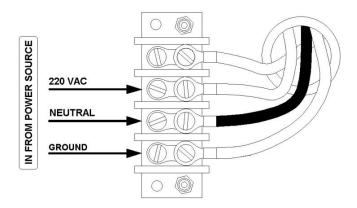




If 240 VAC operation is desired, remove the jumper wire between the red and black leads.

220 VAC European

If the light tower is ordered with 220 VAC (Single Hot Leg) wiring, only use a single hot conductor from the power source, the other is not needed.



Holster Wiring

Determine if an elevated warning device will be used in conjunction with the light tower. If a warning device will be used, use the wiring diagram on the next page, otherwise, use the wiring diagram in the back of the user guide.

After routing the control cable into the holster through the sealing connector, attach individual wires to the provided connectors and insert the connectors into the proper ports on the circuit board.

Warning Device Installation

Tools Required:

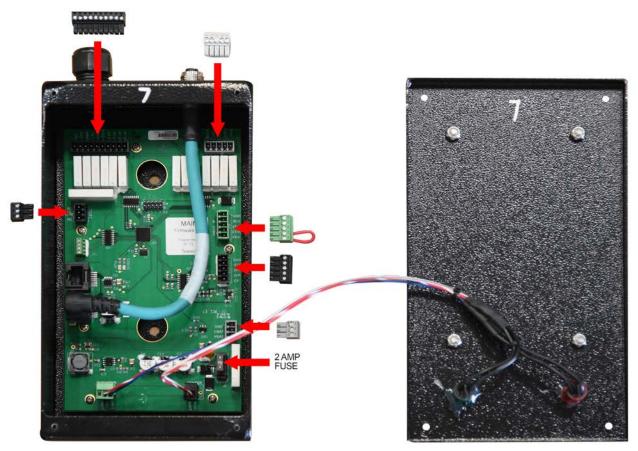
- 3/32" Flathead Screwdriver
- Wire Strippers
- Small Torch or Lighter



Make sure Truck 12V power is OFF until wiring is complete at the holster circuit board and the light tower.

Incorrect wiring or live wires during install can cause damage to circuitry.

Wire the gray 22-20 control cable wires to the small connectors using the wiring schematics provided on pages 41 and 42. There are 2 different schematics, one is the standard version and the other is the version for dual control with wireless controllers or V-Mux control. The standard schematic will be used for V-Mux or any other multiplex system if it is only being used for elevated warning. A V-Mux wiring schematic and circuit board troubleshooting guide are included.



Detaching & Attaching the Controller







Make sure the tab on the coil cord connector lines up with the slot on the controller connector. Rotate the coil cord connector clockwise until finger tight. **DO NOT** use tools to tighten this connector.

Maintenance

Cleaning

The *KNIGHT*² 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 ensure 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.

Upper and lower stage actuators are sealed units and do not require adjustment or lubrication. The actuators have slip-clutches to compensate for minor stroke tolerances at the limits of its travel. The actuator may produce a ratcheting sound at each end of the stroke which is normal. The actuators should not be made to ratchet excessively, this can lead to premature actuator clutch failure.

All pivot points on the *KNIGHT*² are self-lubricating thermal polymer. Periodic cleaning with a moisture displacing cleaner and soft bristle brush, without disassembly, to remove accumulated dirt and debris will minimize wear.

Center Switch Adjustment

WATCH THE VIDEO AT WWW.COMMANDLIGHT.COM/TECHNICAL-VIDEOS/

Caution: For best results, angle of vehicle should be less than 10 degrees.

- 1. Raise lower section high enough to comfortably work on, and above the set safety limit (i.e. Lights will turn on), then raise lamp tree to a 45 degree angle.
- 2. Visually verify the centering cam on the rotation spindle is contacting the roller of the center switch arm.
- 3. Ensure that when the point of the centering cam is aligned with the roller of the center switch arm, there is some play in the center switch arm. Without this play, the switch could be crushed or damaged during rotation.
- 4. Rotate off center, then press the auto park button and let light tower proceed through sequence until the lamp tree is a couple inches above the nested position, hit emergency stop.
- 5. Visually determine which side the lamp tree will be hitting the lift arm, then lower lamp tree completely using the motion switch on the handheld controller.
- 6. Raise lower section above safety limit and to comfortable working height.
- 7. Make reference marks with a permanent marker on both sides of the cam.
- 8. Loosen screw on center switch cam slightly.
- 9. Tap centering cam toward the side that the lamp tree is hitting the lift arm.
- 10. Fully tighten the screw holding the center switch cam.
- 11. Raise lamp tree to a 45 degree angle, rotate off center.
- 12. Repeat steps 4-9 until satisfied with centering of the lamp tree.
- 13. If it looks like center is now adjusted properly, raise lamp tree to a 45 degree angle, and lower stage all the way up, press autopark and let it go through the entire sequence.
- 14. If it is still hitting off center, repeat previous steps.
- 15. If problems adjusting center still persist you may need to adjust the center switch bracket, or call Command Light at 1-800-797-7974 for further assistance.

Notes:

 Making a mark next to the cam on the bottom of the spindle will make judging the adjustments much easier.





With the centering cam slightly loose, it may be easier to adjust its position by tapping on its edge with the assistance of a socket driver rather than attempting to move by hand.

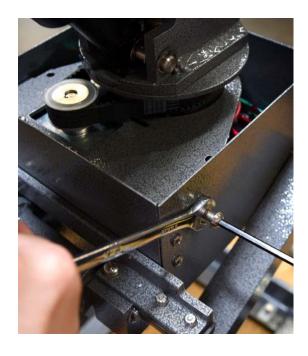
• Having the lamp tree at either extreme of fully up or down, will affect the degree of centering. Setting center while the lamp tree at a 45 degree angle produces the best results.

If problems persist, please call Command Light at 1-800-797-7974.

Rotation Belt Adjustment / Tightening

WATCH THE VIDEO AT WWW.COMMANDLIGHT.COM/TECHNICAL-VIDEOS/

- 1. Raise lamp tree 45° and rotate away from motor to access rotation motor screws.
- 2. Remove the (4) screws from the front midplate cover.
- 3. Loosen, but do not remove, screws that retain rotation motor.
- 4. Using a 1/2" wrench, loosen the jam nut on the belt tensioner bolt. Using a 3/16" Allen socket tighten the tensioner bolt to 20 inch pounds. Tighten the jam nut to lock bolt in place. Use caution to not over tighten drive belt. Rotate lamp tree 180 degrees to verify that belt is not too tight. If belt is too tight, rotation motor noise level will rise noticeably.
- 5. Replace the cover before returning light tower to active service.



Power Failure

The *KNIGHT*² 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.

Note: Disconnect power source from the *KNIGHT*² before manual operation.

WATCH THE VIDEO AT WWW.COMMANDLIGHT.COM/TECHNICAL-VIDEOS/

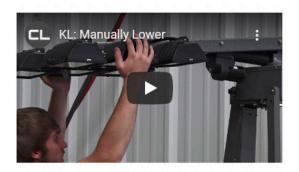
Retract the Upper stage

Locate the black, plastic literature canister mounted to the side of the base of the tower, it contains a 90-degree 3/16 allen wrench and a 3/8th drive ½" allen socket.

Use the 90-degree allen wrench to remove the outer cover screw on the upper actuator.

Insert the ¼" socket into drive socket in the actuator gear box and rotate clockwise to retract the ram until lamp tree is fully lowered.

Replace the cover screw! The actuator may become damaged if the cover screw is not replaced.



KL SERIES: MANUAL LIGHT TOWER LOWERING

In the event your tower loses power or your controller breaks, this Technical Video shows responders how to manually lower the KL Series light tower so that both crew and truck can return to the fire department for further diagnosis.

Rotate to Center

Slowly apply pressure to the lamp tree to manually rotate to the centered position. Trying to rotate too quickly or with too much pressure can break the rotation motor shaft. Be certain that you rotate in the proper direction; the upper stage can rotate a full 360°. Generally, you need to rotate the lamp tree in the direction that requires the least amount of travel in order to reach a centered position.

If manual rotation causes the rotation belt to slip, this is alright if minimized. Excessive slippage on the belt may cause enough damage for the need of belt replacement.

Retract the Lower Stage

Using the same allen tools as before, remove the cover screw and retract the ram of the actuator as far as possible for safe travel back to station or repair facility.



Be careful not to hit the lower lamps on main electrical box if your tower has the Backlight option and the lamps are not flush with the fixed lamps.

If needed the Backlight may be rotated back to the home position where it is flush with the fixed lamps. Slowly apply pressure to the Backlight lamps to manually rotate to the home position. Trying to rotate too quickly or with too much pressure can break the Backlight motor shaft.

Replace the cover screw on the actuator!

IN THE EVENT THAT ALLEN WRENCHES FOR LOWERING THE TOWER CANNOT BE FOUND THE TOWER MUST BE LOWERED BY REMOVING THE ACTUATOR MOUNT PINS:

Rotate to center without the lowering tools

Slowly apply pressure to the rotation platform to manually rotate to the centered position. Trying to rotate the platform too quickly or with too much pressure can break the rotation motor shaft or cause the toothed drive belt to shear a tooth. The upper stage can be rotated in either direction.

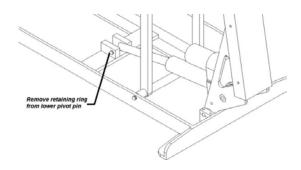
Generally, you need to rotate the platform in the direction that requires the least amount of travel in order to center the platform.

Retract the lower stage without the lowering tools

Support the Midplate (rotation) assembly with temporary blocking to relieve the tension on the lower actuator pivot pins.

Using a small flat blade screwdriver or needle-nose pliers, remove the retaining rings that secure the lower pivot pin in place.

Use a brass drift punch to remove the pivot pin from the extension end of the actuator. Avoid using a hardened steel punch which could peen the end of the shaft thus damaging the bore within the aluminum pivot blocks.



ACAUTION The light weighs in excess of 100 pounds, use caution. Apply upward pressure on the main lift arm to remove support blocking then slowly lower the lift arm allowing the actuator shaft to extend past the lower pivot blocks.

Retract the upper stage without the lowering tools

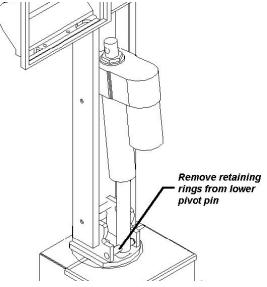
Support the lamp tree with temporary blocking to relieve the tension on the upper actuator pivot pins. Using a small flat blade screwdriver or needle-nose pliers, remove the 4 e-clips securing the lower pin of the upper actuator.

Support the lamp tree. Depending on configuration, the weight of the lamp tree may exceed 50 lbs. Use a brass drift punch to remove the pin.

Lift up on lamp tree to remove support blocking. Rotate the actuator towards the front of the light. The upper stage will not be completely lowered but should provide ample clearance to transport the light.

Cushion and secure the actuators and other components as necessary before transporting.

New retaining rings must be installed before returning light to service.

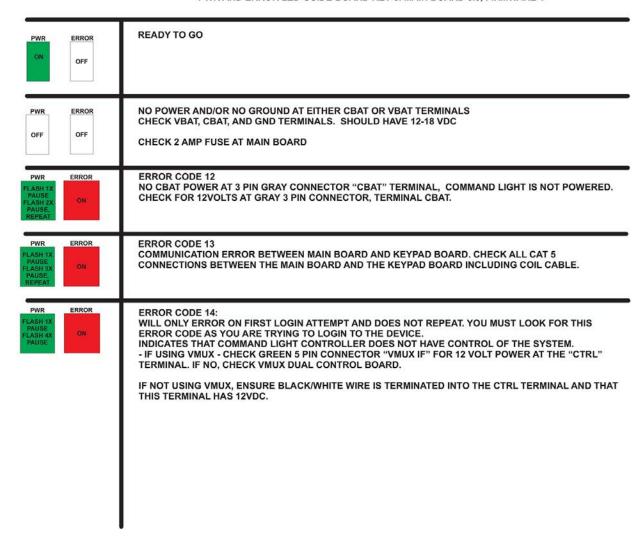


Troubleshooting

| Problem | Possible Cause | Solution |
|---------------------------------|----------------------------------|--|
| Unit will not extend | No power to the unit | Check power input connections. |
| | Incorrect installation | Refer to installation instructions. |
| Upper stage will not rotate | Lower stage not raised above | Raise lower stage higher. |
| | safety limit (16" above base) | |
| | Rotation motor failure. | Consult with factory. |
| Lights will not illuminate. | Lower stage not raised above | Raise lower stage higher. |
| | safety limit (16" above base) | |
| | Circuit breaker tripped. | Check circuit breaker at power supply. |
| | Lamp filament broken. | Replace lamp. |
| Rotation coasts after switch is | Rotation belt is loose. | Adjust belt to provide no more |
| released | | than ¼" slack |
| Unit will not nest | Upper stage not centered. | Raise lower stage higher than |
| | | 16". Center upper stage (green |
| | | light illuminated) |
| | Unit being operated on a slope | Lower lamp tree to horizontal. |
| | >5°. | Using a pike pole, hold unit level |
| | | while lowering to nest position. |
| Autopark button must be held in | Faulty or stuck nest switch. | Check nest switch ground and |
| to park unit | | operation. Rubber boot may have |
| | | shrunk and is holding in switch. |
| | Water in electronics. | Remove moisture from ground |
| | | points and electronics. Do not |
| | | use a pressure washer to clean |
| | | unit. |
| Upper Actuator & Rotation start | Down limit switch stuck or | Aluminum plunger which acti- |
| at the same time | damaged. | vates down limit switch should |
| | | move freely. Verify proper switch |
| | | operation. |
| Wires on back light catching | Check for 90 degree sealing con- | Contact factory for replacement |
| | nector on lamp tree. | part. |
| No lights or rotation | Check safety limit sensor, bad, | Contact factory for replacement |
| 1: 22 | etc. | part. |
| Autopark is off Center | Center switch out of | Refer to instructions on page 15 |
| | alignment. | and 16. |
| Popping noise during Back | Switch boots stuck, faulty rota- | Replace switch boots. Contact |
| Light Rotation | tion relay. | factory for replacements parts. |



PWR AND ERROR LED GUIDE BOARD REV 5. MAIN BOARD 5.3, FIRMWARE 4



Technical Specifications – Standard AC Models (450A)

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

| | Height(Depth) | Length | Width |
|------------------------------|---------------|--------|-------------|
| Retracted | 12" | 47" | 23" |
| Extended | 88" | 52" | 23" |
| Recessed installation | 13" | 58" | 32" Minimum |

Weight: 165 pounds

Wiring:

Main Power VAC10/4 SO cord50' providedControl wiring22/20 PVC Jacketed50' provided

Relay protection:

LightsCole-Hersey3055100 ampsOther electricalCole-Hersey305540 amp

Current Draw / Power Requirements:

| | Average | Generator Requirement |
|--------------|-----------------|------------------------------|
| 350 Watt LED | 120 VAC/18 amps | 2.5 kW minimum |
| 500 Watt LED | 120 VAC/25 amps | 3 kW minimum |
| 750 Watt LED | 120 VAC/38 amps | 4.5 kW minimum |

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 minute)
Upper stage 1:3 (90 seconds maximum per 5 minute)

Rotation 5-6 Revolutions

Motor Speed:

Lower stage1.0 inches per minute12 seconds to full extensionUpper stage0.5 inches per minute12 seconds to full extension

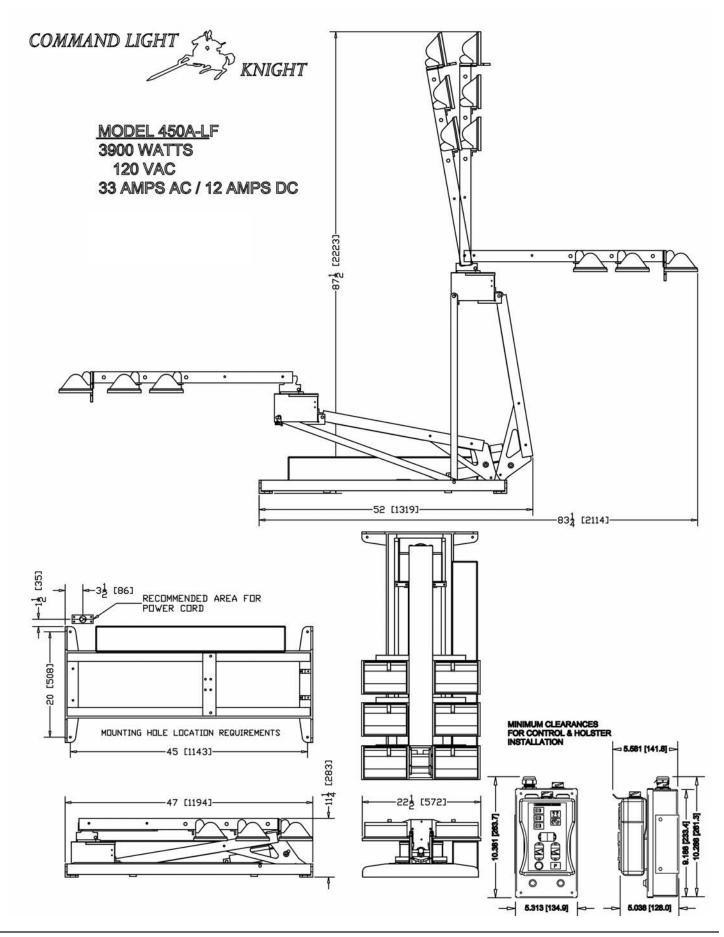
Rotation 2.75 RPM at lamp tree

Operation:

Angle of vehicle 10° maximum incline

Wind load:

Design maximum 60 mph **Maximum tested** 90 mph

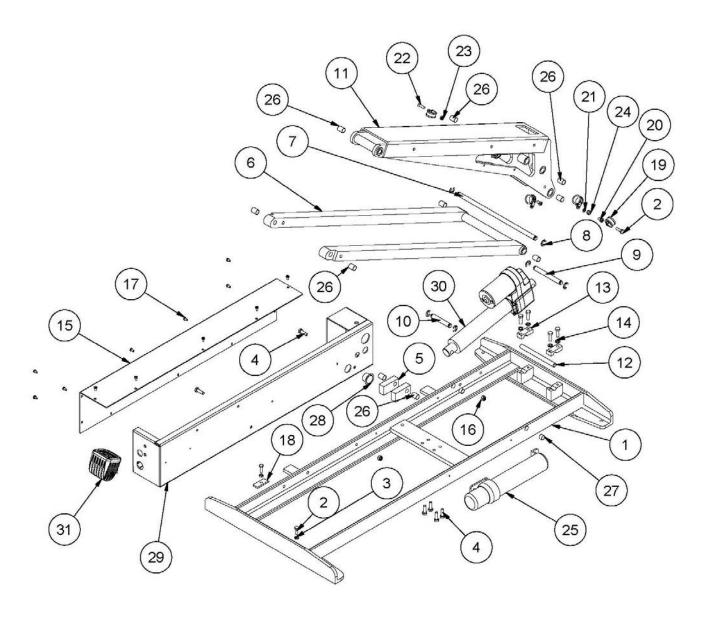


EXPLODED VIEWS AND WIRING SCHEMATICS

Parts List - (Base)

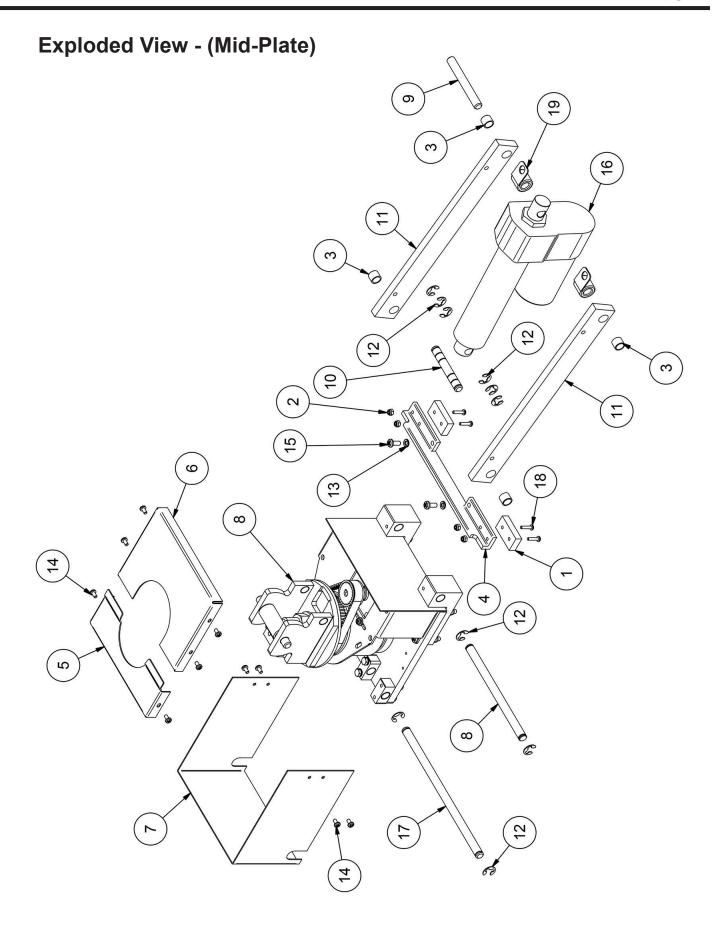
| ITEM | QTY | PART NUMBER | DESCRIPTION |
|------|-----|---------------|---------------------------------------|
| 1 | 1 | 075-01000A | FRAME, COMPLETE, WELDMENT, KNIGHT2 |
| 2 | 4 | 034-13033 | SCREW,HH,1/4-20x7/8,SS |
| 3 | 2 | 034-11112 | Nut,HEX,FULL,1/4-20UNC,SS |
| 4 | | 034-11042 | SCREW,HH,5/16-18x1,SS |
| 5 | | 075-01600 | BLOCK,PIVOT,LOWER ACTUATOR, KNIGHT2 |
| 6 | 1 | 075-01700W | ARM, STABILIZER, WELDMENT, KNIGHT2 |
| 7 | 1 | 075-06010 | PIN,STABALIZER,LOWER |
| 8 | | 069-15336 | E-Ring, 5133-50, .044T, SS |
| 9 | | 075-06050 | PIN,LOWER ACTUATOR,UPPER LIFT ARM |
| 10 | | 075-06080 | PIN,LOWER ACTUATOR,KNIGHT 2 |
| 11 | | 075-02000WRDC | ARM,LIFT,KNIGHT,2GEN DC |
| 12 | | 075-06040 | PIN,MAIN LIFT,LOWER,KNIGHT2 |
| 13 | | 075-01300 | CAP,MAIN LIFT PIN |
| 14 | | 034-11053 | WASHER,LOCK,SPRING,REGULAR, 5/16", SS |
| 15 | | 075-07300 | COVER,RELAY BOX,KL4XX |
| 16 | | 034-11057 | NUT,NYLOCK, 5/16-18 UNC,SS |
| 17 | | 034-10961 | SCREW,PHP,10-24 UNCx0.375 |
| 18 | | 075-06500 | PLATE, PLUNGER STRIKE, KNIGHT2 |
| 19 | | 065-12861 | CLAMP,LOOM,#8,SS |
| 20 | | 034-11001 | SCREW,PHP,1/4-20 UNCx0.5 |
| 21 | | 034-11028 | WASHER,LOCK,SPRING,REGULAR, 1/4", SS |
| 22 | | 034-13668 | SCREW,FHPMS,1/4-20 UNC x 7/8 in,SS |
| 23 | | 034-11116 | NUT,NYLOCK,THIN, 1/4-20 UNC,SS |
| 24 | | 034-11033 | NUT,NYLOCK, 1/4-20 UNC,SS |
| 25 | | 065-15001 | CANISTER, DOCUMENT, BLACK |
| 26 | | 065-13846 | BUSHING, .5 X .75 X .03125 |
| 27 | | 065-13845 | BUSHING5 X.375 X .03125 |
| 28 | | 065-13851 | PLUG,RELAYBOX,KNIGHTLIGHT |
| 29 | | 075-07203 | WELDMENT, BOX, RELAY, BASE, KL4XX |
| 30 | | 069-15384 | ACTUATOR,6",12 VOLT,KL LOWER,BEAR |
| 31 | 1 | 065-14784 | LOOK UP LIGHT,4 RD,48 IN CABLE,FRC,CL |

Exploded View - (Base)



Parts List - (Mid-Plate)

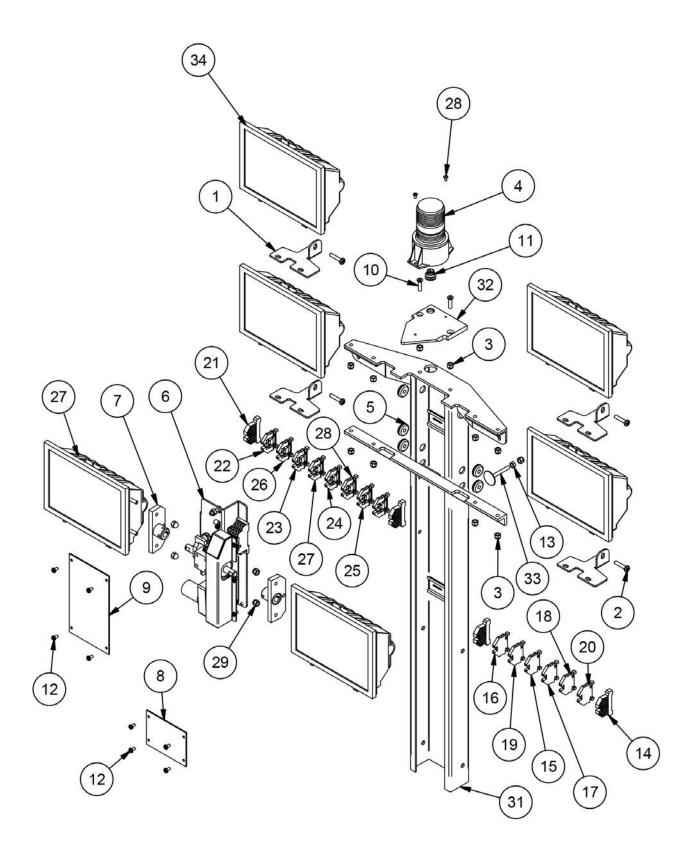
| ITEM | QTY | PART NUMBER | DESCRIPTION |
|------|-----|-------------|--------------------------------------|
| 1 | 2 | 065-13013 | FEET, RUBBER, RECTANGULAR, CL |
| 2 | 4 | 034-10951 | NUT,NYLOCK, 8-32 UNC,SS |
| 3 | 4 | 065-13847 | BUSHING, .500 X .500 X .0625 |
| 4 | 1 | 075-03531 | STOP, MIDPLATE, EXTENDED, KL2 |
| 5 | 1 | 075-03600 | COVER, REAR, MIDPLATE, SURROUND |
| 6 | 1 | 075-03605 | COVER,FRONT,SURROUND,KV2 |
| 7 | 1 | 075-03610 | SURROUND,MIDPLATE,KV2 |
| 8 | 1 | 075-03200A | ASSEMBLED, MIDPLATE, KNIGHT2 |
| 9 | 1 | 075-06060 | Pin, Tree Mount, Knight2 |
| 10 | 1 | 075-06070 | PIN, UPPER ACTUATOR, LOWER, KL4XX |
| 11 | 2 | 075-25000 | Arm, Mount, Tree, Knight2 |
| 12 | 10 | 069-15336 | E-Ring, 5133-50, .044T, SS |
| 13 | 2 | 034-11028 | WASHER,LOCK,SPRING,REGULAR, 1/4", SS |
| 14 | 10 | 034-10961 | SCREW,PHP,10-24 UNCx0.375 |
| 15 | 2 | 034-11002 | SCREW,PHP,1/4-20 UNCx0.625 |
| 16 | 1 | 069-15383 | ACTUATOR,UPPER,KL |
| 17 | 1 | 075-06021 | PIN,STABILIZER, REINFORCED,UPPER,KV2 |
| 18 | 4 | 034-10941 | SCREW,PHP,8-32 UNCx0.75 |
| 19 | 2 | 075-06112 | GUIDE,WIRE,SHORT,KL4XX |



Parts List - (Lamp Tree)

| 1 4 075-05213 REINFORCEMENT,LAMP,500W,KV2 2 4 034-13690 SCREW,PHP,1/4-20 UNCX1.25 3 11 034-11033 NUT,NYLOCK, 1/4-20 UNC,SS 4 1 065-12867 STROBE, PRE-WIRED, INDICATE COLOR 5 6 065-13843 Rubber Hole Gromet 6 1 075-12000A ASSEMBLY,BACKLIGHT, KL,V2 7 2 075-05610W MOUNT, BACKLIGHT, KNIGHT2, WELDMENT 8 1 075-05304 COVER,LOWER,TREE 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW,FHPMS,1/4-20 UNC x 1 in,SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCX0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20 UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10075 BRACKET,END,DIN,DN-T10-GREEN/BLACK 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T | ITEM | QTY | PART NUMBER | DESCRIPTION |
|---|------|-----|-------------|--|
| 3 11 034-11033 NUT,NYLOCK, 1/4-20 UNC,SS 4 1 065-12867 STROBE, PRE-WIRED, INDICATE COLOR 5 6 065-13843 Rubber Hole Gromet 6 1 075-12000A ASSEMBLY,BACKLIGHT, KL,V2 7 2 075-05610W MOUNT, BACKLIGHT, KNIGHT2, WELDMENT 8 1 075-05304 COVER,LOWER,TREE 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW,FHPMS,1/4-20 UNC x 1 in,SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCX0.375 13 1 034-1112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 16 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 10 1 065-10070 <t< td=""><td>1</td><td>4</td><td>075-05213</td><td>REINFORCEMENT,LAMP,500W,KV2</td></t<> | 1 | 4 | 075-05213 | REINFORCEMENT,LAMP,500W,KV2 |
| 4 1 065-12867 STROBE, PRE-WIRED, INDICATE COLOR 5 6 065-13843 Rubber Hole Gromet 6 1 075-12000A ASSEMBLY,BACKLIGHT,KL,V2 7 2 075-05610W MOUNT, BACKLIGHT, KNIGHT2, WELDMENT 8 1 075-05304 COVER,LOWER,TREE 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW,FHPMS,1/4-20 UNC x 1 in,SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCX0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10075 BRACKET,END,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 18 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 | 2 | 4 | 034-13690 | SCREW,PHP,1/4-20 UNCx1.25 |
| 5 6 065-13843 Rubber Hole Gromet 6 1 075-12000A ASSEMBLY,BACKLIGHT,KL,V2 7 2 075-05610W MOUNT, BACKLIGHT, KNIGHT2, WELDMENT 8 1 075-05304 COVER,LOWER,TREE 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW,FHPMS,1/4-20 UNC x 1 in,SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCX0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 18 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 21 2 065-10070 | 3 | 11 | 034-11033 | NUT,NYLOCK, 1/4-20 UNC,SS |
| 6 1 075-12000A ASSEMBLY,BACKLIGHT,KL,V2 7 2 075-05610W MOUNT, BACKLIGHT, KNIGHT2, WELDMENT 8 1 075-05304 COVER,LOWER,TREE 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW,FHPMS,1/4-20 UNC x 1 in,SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCx0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 0 | 4 | 1 | 065-12867 | STROBE, PRE-WIRED, INDICATE COLOR |
| 7 2 075-05610W MOUNT, BACKLIGHT, KNIGHT2, WELDMENT 8 1 075-05304 COVER, LOWER, TREE 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW, FHPMS, 1/4-20 UNC x 1 in, SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW, PHP, 10-24 UNCx0.375 13 1 034-11112 NUT, MS, HEX2, 1/4-20UNC, SS 14 2 065-10075 BRACKET, END, DIN, DN-EB35 15 1 065-10068 BLOCK, TERMINAL, DIN, DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK, TERMINAL, DIN, DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK, TERMINAL, DIN, DN-T10-GREEN/BLACK 18 1 065-10074 BLOCK, TERMINAL, DIN, DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK, TERMINAL, DIN, DN-T10-GREEN/WHITE 21 2 065-10070 BLOCK, TERMINAL, DIN, DN-T10-GREEN 22 1 065-10069 BLOCK, TERMINAL, DIN, DN-T10-GREEN | 5 | 6 | 065-13843 | Rubber Hole Gromet |
| 8 1 075-05304 COVER, LOWER, TREE 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW, FHPMS, 1/4-20 UNC x 1 in, SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW, PHP, 10-24 UNCX0.375 13 1 034-11112 NUT, MS, HEX2, 1/4-20UNC, SS 14 2 065-10075 BRACKET, END, DIN, DN-EB35 15 1 065-10068 BLOCK, TERMINAL, DIN, DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK, TERMINAL, DIN, DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK, TERMINAL, DIN, DN-T10-GREEN/WHITE 18 1 065-10074 BLOCK, TERMINAL, DIN, DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK, TERMINAL, DIN, DN-T10-GREEN 21 2 065-10070 BLOCK, TERMINAL, DIN, DN-T10-BLACK 23 1 065-10069 BLOCK, TERMINAL, DIN, DN-T10-BLUE 24 1 065-10067 BLOCK, TERMINAL, DIN, DN-T10-GREEN | 6 | 1 | 075-12000A | ASSEMBLY,BACKLIGHT,KL,V2 |
| 9 1 075-05305 COVER, UPPER, TREE, KL 10 2 034-10997 SCREW,FHPMS,1/4-20 UNC x 1 in,SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCx0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-BLACK 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 27 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 28 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 29 4 034-11100 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-WHITE 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 7 | 2 | 075-05610W | MOUNT, BACKLIGHT, KNIGHT2, WELDMENT |
| 10 2 034-10997 SCREW,FHPMS,1/4-20 UNC x 1 in,SS 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCx0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLUC 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-GREEN 25 2 | 8 | 1 | 075-05304 | COVER,LOWER,TREE |
| 11 1 069-15352 CONXALL, MINICON, 2 PIN, PANEL 12 8 034-10961 SCREW,PHP,10-24 UNCx0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLUE 23 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 | 9 | 1 | 075-05305 | COVER, UPPER, TREE, KL |
| 12 8 034-10961 SCREW,PHP,10-24 UNCx0.375 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 21 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLUE 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-GREEN 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GREEN 25 2 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 <td>10</td> <td>2</td> <td>034-10997</td> <td>SCREW,FHPMS,1/4-20 UNC x 1 in,SS</td> | 10 | 2 | 034-10997 | SCREW,FHPMS,1/4-20 UNC x 1 in,SS |
| 13 1 034-11112 NUT,MS,HEX2,1/4-20UNC,SS 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 21 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 22 1 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLUE 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 | 11 | 1 | 069-15352 | CONXALL, MINICON, 2 PIN, PANEL |
| 14 2 065-10075 BRACKET,END,DIN,DN-EB35 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLUE 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GREEN 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW <td< td=""><td>12</td><td>8</td><td>034-10961</td><td>SCREW,PHP,10-24 UNCx0.375</td></td<> | 12 | 8 | 034-10961 | SCREW,PHP,10-24 UNCx0.375 |
| 15 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 21 2 065-10075 BRACKET,END,DIN,DN-T10-GREEN 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-GRAY 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS | 13 | 1 | 034-11112 | NUT,MS,HEX2,1/4-20UNC,SS |
| 16 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-WHITE 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 <td>14</td> <td>2</td> <td>065-10075</td> <td>BRACKET,END,DIN,DN-EB35</td> | 14 | 2 | 065-10075 | BRACKET,END,DIN,DN-EB35 |
| 17 1 065-10071 BLOCK,TERMINAL,DIN,DN-T10-ORANGE 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10075 BRACKET,END,DIN,DN-T10-GREEN 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 | 15 | 1 | 065-10068 | BLOCK,TERMINAL,DIN,DN-T10-BLUE/WHITE |
| 18 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 | 16 | 1 | 065-10070 | BLOCK,TERMINAL,DIN,DN-T10-GREEN/BLACK |
| 19 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 <t< td=""><td>17</td><td>1</td><td>065-10071</td><td>BLOCK,TERMINAL,DIN,DN-T10-ORANGE</td></t<> | 17 | 1 | 065-10071 | BLOCK,TERMINAL,DIN,DN-T10-ORANGE |
| 20 1 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GREY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 27 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 18 | 1 | 065-10074 | BLOCK,TERMINAL,DIN,DN-T10-YELLOW/BLACK |
| 21 2 065-10075 BRACKET,END,DIN,DN-EB35 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 19 | 1 | 065-10070 | BLOCK,TERMINAL,DIN,DN-T10-GREEN/WHITE |
| 22 1 065-10069 BLOCK,TERMINAL,DIN,DN-T10-BLACK 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-WHITE 27 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 20 | 1 | 065-10070 | BLOCK,TERMINAL,DIN,DN-T10-GREEN |
| 23 1 065-10068 BLOCK,TERMINAL,DIN,DN-T10-BLUE 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-RED 27 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 21 | 2 | 065-10075 | BRACKET,END,DIN,DN-EB35 |
| 24 1 065-10067 BLOCK,TERMINAL,DIN,DN-T10-GRAY 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-RED 27 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 22 | 1 | 065-10069 | BLOCK,TERMINAL,DIN,DN-T10-BLACK |
| 25 2 065-10070 BLOCK,TERMINAL,DIN,DN-T10-GREEN 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-RED 27 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 23 | 1 | 065-10068 | BLOCK,TERMINAL,DIN,DN-T10-BLUE |
| 26 1 065-10072 BLOCK,TERMINAL,DIN,DN-T10-RED 27 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 24 | 1 | 065-10067 | BLOCK,TERMINAL,DIN,DN-T10-GRAY |
| 27 1 065-10073 BLOCK,TERMINAL,DIN,DN-T10-WHITE 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 25 | 2 | 065-10070 | BLOCK,TERMINAL,DIN,DN-T10-GREEN |
| 28 1 065-10074 BLOCK,TERMINAL,DIN,DN-T10-YELLOW 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 26 | 1 | 065-10072 | BLOCK,TERMINAL,DIN,DN-T10-RED |
| 29 4 034-11100 NUT,ACORN, 1/4-20 UNC, SS 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 27 | 1 | 065-10073 | BLOCK,TERMINAL,DIN,DN-T10-WHITE |
| 31 1 075-05301BL TREE,LAMP,WELDMENT,BL,KL4XX,CONEX 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 28 | 1 | 065-10074 | BLOCK,TERMINAL,DIN,DN-T10-YELLOW |
| 32 1 075-05400 Plate, Nest, Tree, Knight2 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 29 | 4 | 034-11100 | NUT,ACORN, 1/4-20 UNC, SS |
| 33 1 070-10001 PLUNGER. NEST, KL, CL 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 31 | 1 | 075-05301BL | TREE,LAMP,WELDMENT,BL,KL4XX,CONEX |
| 34 4 069-15332 Crouse-Hinds Lamp Head 500W 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 32 | 1 | 075-05400 | Plate, Nest, Tree, Knight2 |
| 27 2 075-450FIXT CROUSE-HINDS LAMP HEAD 500W | 33 | 1 | 070-10001 | PLUNGER. NEST, KL, CL |
| | 34 | 4 | 069-15332 | Crouse-Hinds Lamp Head 500W |
| 28 2 034-13092 SCREW,PPH,M4 X 8 | 27 | 2 | 075-450FIXT | CROUSE-HINDS LAMP HEAD 500W |
| | 28 | 2 | 034-13092 | SCREW,PPH,M4 X 8 |

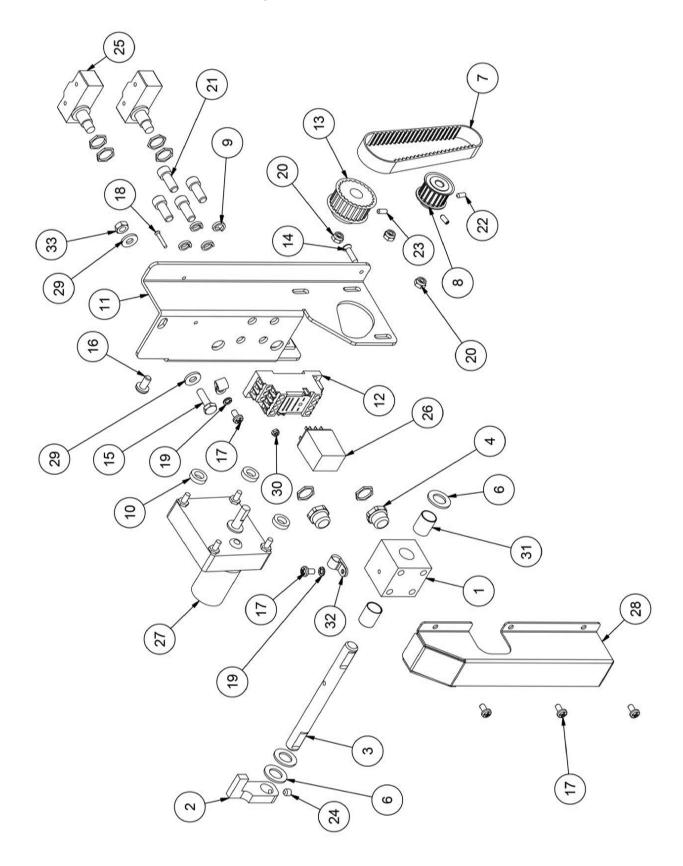
Exploded View - (Lamp Tree)



Parts List - (Backlight)

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|------|-----|-------------|--|
| 1 | 1 | 075-05603 | Block, Bearing, Backlight, Knight2 |
| 2 | 1 | 075-05604 | STRIKER, ROTATION, BACKLIGHT, KL4XX |
| 3 | 1 | 075-05504 | Shaft, Main, Backlight, Knight2 |
| 4 | 2 | 065-12935 | BOOT, PUSHBUTTON, BLK, BACK LIGHTS |
| 6 | 3 | 065-13840 | WASHER,1/2 HOLE,ID.515,OD.885,DELRIN,WHT |
| 7 | 1 | 069-14161 | BELT, BACK LIGHT, HEAVY DUTY, CL KL |
| 8 | 1 | 065-12378 | PULLEY,HTD,P5mm,W15mm,G17,DF,B8mm |
| 9 | 4 | 034-11221 | WASHER,LOCK,5/16,HI COLLAR,SS |
| 10 | 3 | 075-08098 | BUSHING, MOTOR, BL, KL4XX |
| 11 | 1 | 075-05598 | BRACKET,BACKLIGHT,REVISED,KLxxx |
| 12 | 1 | 065-14187 | RELAY SOCKET,3A,14 PIN,SRT BUILDS |
| 13 | 1 | 075-05506 | BACK LIGHT, DRIVE/ROTATION PULLEY, KL4XX |
| 14 | 1 | 034-10975 | SCREW,FHPMS,10-24 UNC x 3/4 in,SS |
| 15 | 1 | 034-13033 | SCREW,HH,1/4-20x7/8,SS |
| 16 | 2 | 034-11001 | SCREW,PHP,1/4-20 UNCx0.5 |
| 17 | 5 | 034-10961 | SCREW,PHP,10-24 UNCx0.375 |
| 18 | 1 | 034-14901 | SCREW,FHPMS,4-40 UNC x 3/4 in,SS |
| 19 | 2 | 034-10979 | WASHER,LOCK,SPRING,REGULAR, #10, SS |
| 20 | 3 | 034-10981 | NUT,NYLOCK, 10-24 UNC,SS |
| 21 | 4 | 034-11157 | SCREW,SHCS,5/16-18x3/4,SS |
| 22 | 2 | 034-11182 | SCREW,SH SET,M4x0.7 x 10mm,SS |
| 23 | 1 | 034-13084 | 8-32 UNC x 3/8 SH Set Screw SS |
| 24 | 1 | 034-13311 | 1/4-20 UNC x 1/4 SH Set Screw SS |
| 25 | 2 | 069-15360 | SWITCH, DOWN LIMIT / NEST / BL LIMIT |
| 26 | 1 | 065-14186 | RELAY,BL,AUTO PARK,CL,SRT,MY2KDC12 |
| 27 | 1 | 065-14185 | GEAR MOTOR,BACKLIGHT,CL,KL |
| 28 | 1 | 075-08111 | GAURD, BACKLIGHT, SOCKET RELAY, KNIGHT 2 |
| 29 | 2 | 034-11029 | WASHER,FLAT,SAE, 1/4", SS |
| 30 | 1 | 034-13672 | NUT,NYLOCK, 4-40 UNC,SS |
| 31 | 2 | 065-13846 | BUSHING, .5 X .75 X .03125 |
| 32 | 2 | 069-14205 | WIRE GUIDE CLIP, NYLON,5/16, W2 KL BL |
| 33 | 1 | 034-11112 | NUT,MS,HEX2,1/4-20UNC,SS |

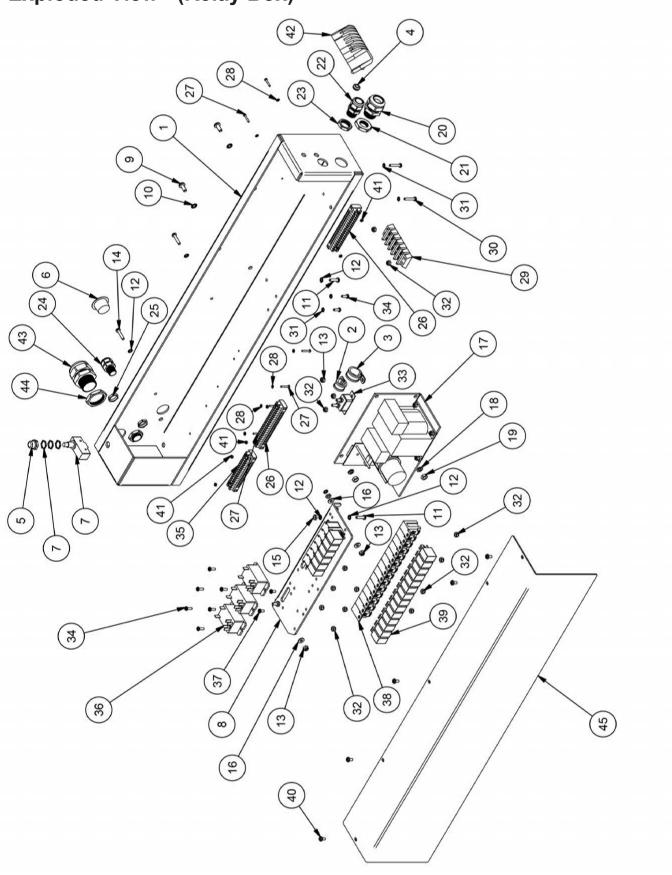
Exploded View - (Backlight)



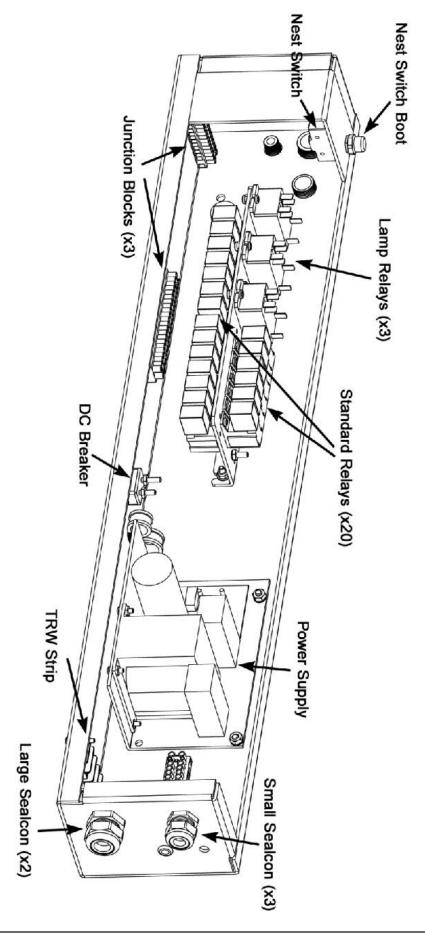
Parts List - (Relay Box)

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|----------|-----|--------------------------|--|
| 1 | 1 | 075-07203 | WELDMENT, BOX, RELAY, BASE, KL4XX |
| 2 | 1 | 065-12365 | CLAMP,LOOM,#6,SS |
| 3 | 1 | 065-12861 | CLAMP,LOOM,#8,SS |
| 4 | 1 | 9600K15 | GROMMET,PUSH-IN,0.2812 ID,0.5625 OD,0.0625 GROOVE |
| 5 | 1 | 065-12935 | BOOT, PUSHBUTTON, BLK, BACK LIGHTS |
| 6 | 1 | 065-13851 | PLUG,RELAYBOX,KNIGHTLIGHT |
| 7 | 1 | 069-15360 | SWITCH, DOWN LIMIT / NEST / BL LIMIT |
| 8 | 1 | 075-07100 | PLATE,RELAY MOUNT,KNIGHT V2 |
| 9 | 2 | 034-11002 | SCREW,PHP,1/4-20 UNCx0.625 |
| 10 | 2 | 034-10110 | WASHER,LOCK,18-8SS,INTERNAL,1/4in |
| 11 | 3 | 034-10966 | SCREW,PHP,10-24 UNCx0.75 |
| 12 | 9 | 034-10978 | WASHER,LOCK,18-8SS,INTERNAL,#10 |
| 13 | 3 | 034-10981 | NUT,NYLOCK, 10-24 UNC,SS |
| 14 | 2 | 034-10968 | SCREW,PHP,10-24 UNCx1 |
| 15 | 4 | 034-13100 | NUT,MS,HEX2,10-24UNC,SS |
| 16 | 4 | 034-10977 | WASHER,FLAT,SAE, #10, SS |
| 17 | 1 | 065-14577 | POWER SUPPLY, ASSEMBLED, CL, KL |
| 18 | 2 | 034-11028 | WASHER,LOCK,SPRING,REGULAR, 1/4", SS |
| 19 | 2 | 034-11112 | NUT,MS,HEX2,1/4-20UNC,SS |
| 20 | 1 | 065-12854 | STRAIN RELIEF, DOMED, SCR .5171,3/4 NPT, BLACK |
| 21 | 1 | 065-12857 | LOCKNUT,NYLON,3/4 NPT,BLACK |
| 22 | 2 | 065-12852 | STRAIN RELIEF, DOMED, SCR . 24 47, 1/2 NPT, BLACK |
| 23 | 2 | 065-12856 | LOCKNUT,NYLON,1/2 NPT,BLACK |
| 24 | 1 | 065-12875 | STRAIN RELIEF, DOMED, SCR .1631,3/8 NPT, BLACK |
| 25 | 2 | 065-12831 | LOCKNUT,NYLON,3/8 NPT,BLACK |
| 26 | 2 | 065-12890 | STRIP, BARRIER, 20 POLE |
| 27 | 6 | 034-13288 | SCREW,PHP,4-40 UNCx0.75 |
| 28 | 6 | 034-14283 | WASHER,LOCK,18-8SS,INTERNAL,#4 |
| 29 | 1 | 069-14322 | TERMINAL BLOCK,5 POLE |
| 30 | 2 | 034-10942 | SCREW,PHP,8-32 UNCx1 |
| 31 | 4 | 034-11175 | WASHER,LOCK,18-8SS,INTERNAL,#8 |
| 32 | 14 | 034-10951 | NUT,NYLOCK, 8-32 UNC,SS |
| 33 | 1 | 065-13529 | BREAKER, 12V 20A, SINGLE POLE |
| 34 | 10 | 034-10939 | SCREW,PHP,8-32 UNCx0.5 |
| 35 | 1 | 065-12828 | TERMINAL STRIP,16 POLE |
| 36 | 3 | 065-14020 | RELAY, DOUBLE POLE, 240VAC |
| 37 | 2 | 034-10938 | SCREW,PHP,8-32 UNCx0.375 |
| 38 | 20 | 065-13730 | SOCKET, SINGLE POLE, RELAY |
| 39 | 20 | 065-13738 | The state of the s |
| 40 | 5 | 034-10961 | RELAY, 12V, SINGLE POLE SCREW,PHP,10-24 UNCx0.375 |
| 41 | 6 | 034-10902 | NUT,MS,HEX2,4-40UNC,SS |
| 42 | 1 | 034-10902 | |
| 1.65.703 | | 065-12792 | LOOK UP LIGHT,4 RD,48 IN CABLE,TECNIQ |
| 43 | 1 | Constant to the constant | STRAIN RELIEF,DOMED,SCR .7198,1 NPT,BLACK |
| 44 | 1 | 065-12791 | LOCKNUT,NYLON,1 NPT,BLACK |
| 45 | 1 | 075-08099W | LID, RELAY BOX, KL4XX, CONFINED SPACE |

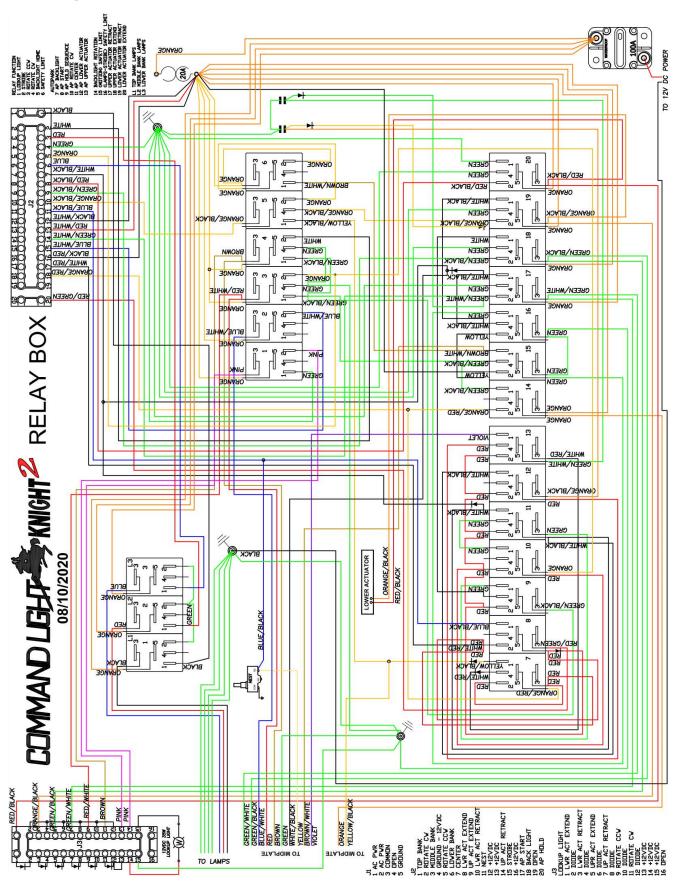
Exploded View - (Relay Box)

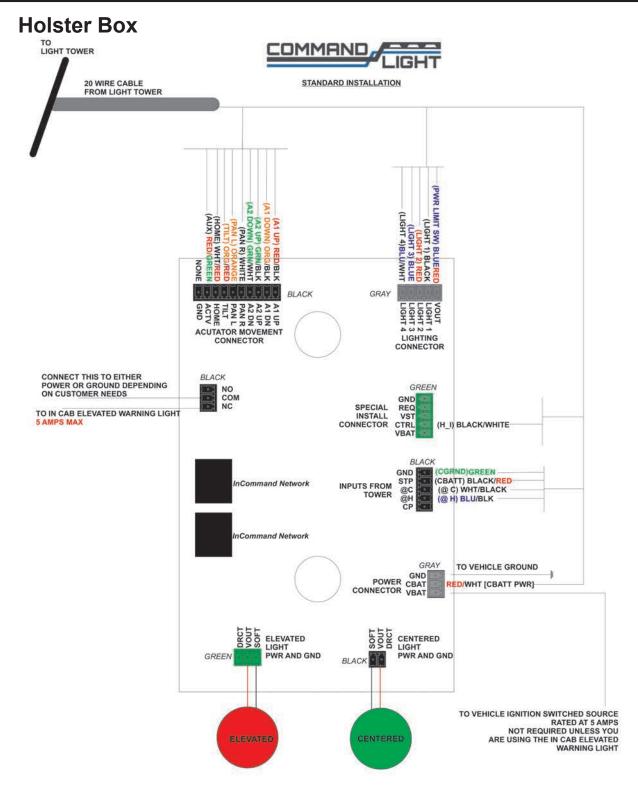


RELAY BOX TERMINOLOGY



Wiring Schematics

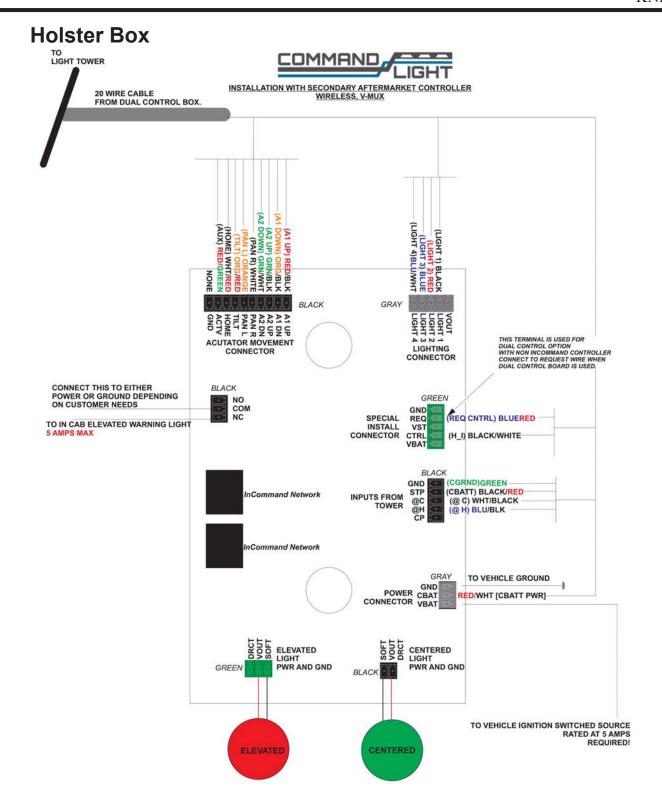




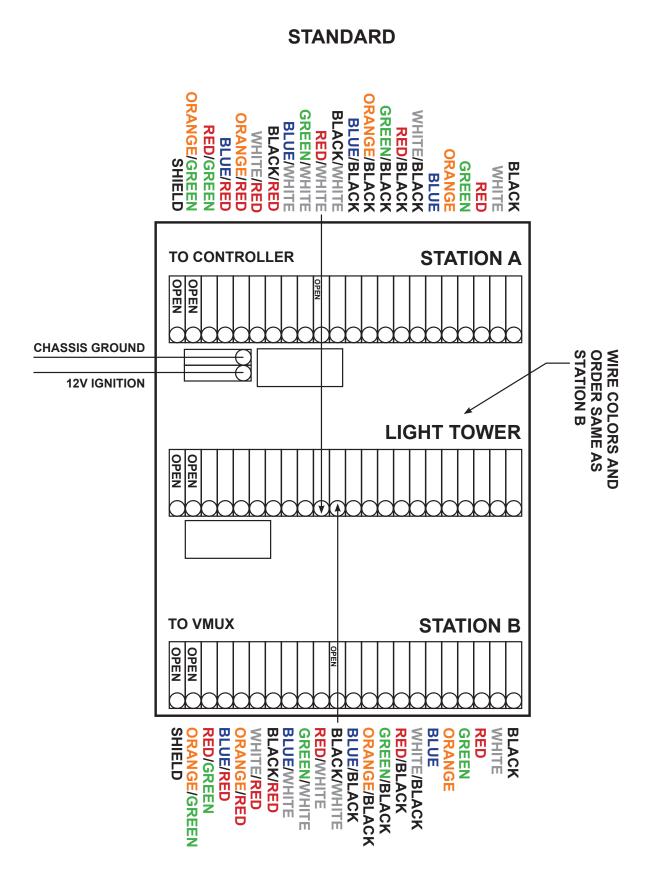
DIAGNOSTIC LIGHTS:
IF RED LED IS ON, GREEN LIGHT WILL FLASH A
DIAGNOSTIC NUMBER. FOR EXAMPLE, ERROR CODE
12 WILL BE INDICATED BY THE GREEN POWER LED
FLASHING ONCE, PAUSE, FLASH TWICE. PAUSE, AND THEN RESTART THAT SEQUENCE.

- 12: COMMAND LIGHT DOES NOT HAVE POWER
 13: COMMUNICATION ISSUE BETWEEN THE KEYPAD AND MAIN BOARD
 14: DOES NOT HAVE CONTROL OF SYSTEM (VMUX ONLY)

FOR USE WITH ALL COMMAND LIGHT MODELS MAIN BOARD REV 5.3.3, DIAGRAM REV 4, FIRMWARE 4.0



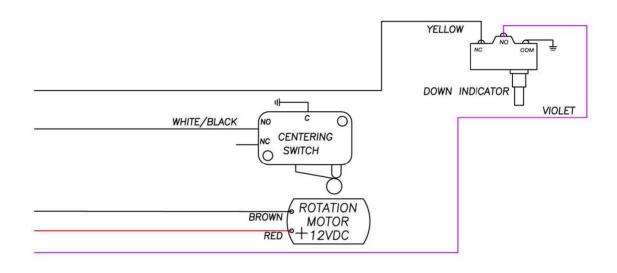
FOR USE WITH ALL COMMAND LIGHT MODELS MAIN BOARD REV 5.3, DIAGRAM REV 3



WIRELESS

CONTROL SPLITTER BOARD

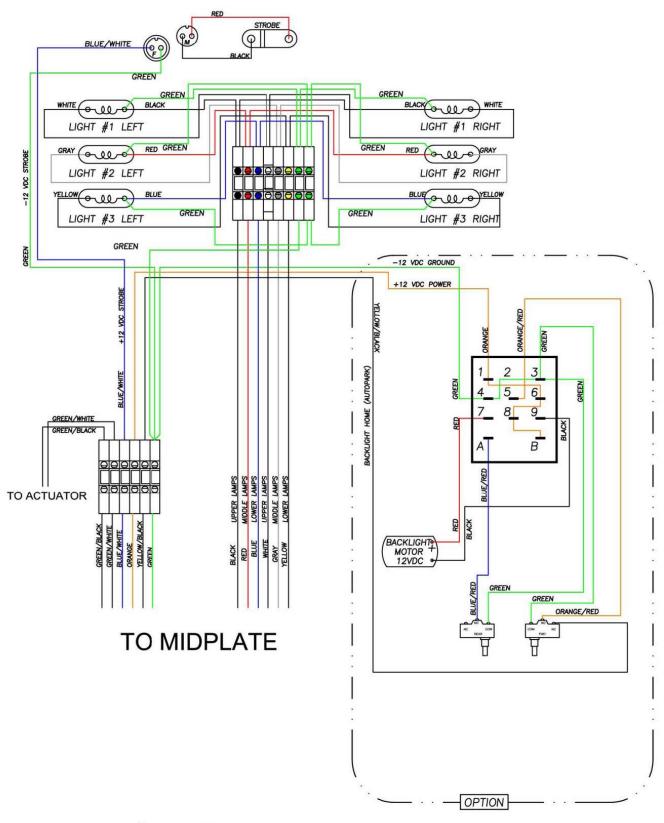




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| | GREEN/WHITE | | RING | UPPER ACTUATOR RETRACT | GREEN/WHITE |
|---|--------------|------|------|------------------------|--------------|
| Ţ | GREEN/BLACK | SLIP | | UPPER ACTUATOR EXTEND | GREEN/BLACK |
| | GREEN | | | GROUND | GREEN |
| | BLUE/WHITE | | | +12 VDC STROBE | BLUE/WHITE |
| | WHITE | | | UPPER LAMPS | WHITE |
| | GRAY | | | MIDDLE LAMPS | GRAY |
| | YELLOW | | | LOWER LAMPS | YELLOW |
| | BLUE | | | LOWER LAMPS | BLUE |
| | RED | | | MIDDLE LAMPS | RED |
| | BLACK | | | UPPER LAMPS | BLACK |
| | ORANGE | | | +12 VDC BACKLIGHT | ORANGE |
| | YELLOW/BLACK | | | BACKLIGHT HOME | YELLOW/BLACK |

MIDPLATE





LAMP TREE (STANDARD LAMPS)