



NIGHT-LITE PRO CE VERTICAL TOWER SERIES OPERATOR'S MANUAL

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 **NIGHT-LITE SERIES**
Part No. 103404

INSPECTION CHECK LIST

FOR PREPARING THE NIGHT-LITE PRO FOR DELIVERY OR RENTAL

The **NIGHT-LITE PRO** requires service as well as proper operation in order to provide the performance and safety it has been designed for. Never deliver or put a machine into service with known defects or missing instructions or decals. Always instruct the customer in the proper operation and safety procedures as described in the operator's manual. Always provide the manual with the equipment for proper and safe operation.

CHECK LIST:

- Visually inspect the equipment to ensure that all instructions and decals are in place and legible.
- Inspect the tower, pulleys, and cables for proper operation.
- Check the hitch assembly and safety tow chains.
- Check the outriggers and jacks to make sure they operate properly.
- Inspect the light assemblies for damage and test for proper operation.
- Inspect the electrical wiring for signs of damage.
- Check the ground rod cable and the ground lug. Make sure they are clean, undamaged, and functional.
- Inspect the tires to ensure good condition and proper inflation.
- Check oil, fuel, coolant levels, and hydraulic fluid levels.
- Check to make sure the operator's manual is with the equipment.
- Inspect the machine physically for damage and repair if necessary.

NOTE: See appropriate section of manual for scheduled maintenance intervals.

After completing the inspection check list, operate the tower through a complete operation cycle, following the operating instructions in the operator's manual.



WARNING

**NEVER ALLOW ANYONE TO OPERATE THE EQUIPMENT WITHOUT
PROPER TRAINING!**

ALWAYS READ THE INSTRUCTIONS FIRST!

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INTRODUCTION

- This manual provides the information necessary for the safe operation of the Allmand Bros., Inc., **NIGHT-LITE PRO** light tower.
- The **NIGHT-LITE PRO** vertical tower configuration is operated with a single electric winch used to raise and lower the tower.
- Specific operating instructions and specifications are contained in this publication to familiarize the operator and maintenance personnel with the correct and safe procedures necessary to maintain and operate the equipment.

Take time to read this book thoroughly. If you are uncertain about any of the information presented in the manual, contact the factory or your dealer for clarification before operation.

SAFETY SYMBOLS

The purpose of the **SAFETY INFORMATION SYMBOL** shown below is to attract your special attention to safety related information contained in the text.



FAILURE TO UNDERSTAND AND COMPLY WITH SAFETY RELATED INFORMATIONAL INSTRUCTIONS MAY RESULT IN INJURY TO OPERATOR OR OTHERS. IF YOU DO NOT UNDERSTAND ANY PART OF THIS INFORMATION CONTACT YOUR DEALER FOR CLARIFICATION PRIOR TO OPERATING EQUIPMENT.

NOTE

The word **NOTE** is used to bring your attention to supplementary information in relation to various aspects of proper operation and maintenance.

NOTE: Keep this manual accessible during operation to provide convenient reference.

NOTE: Any reference in this manual to **LEFT** or **RIGHT** shall be determined by looking at the trailer from the rear.

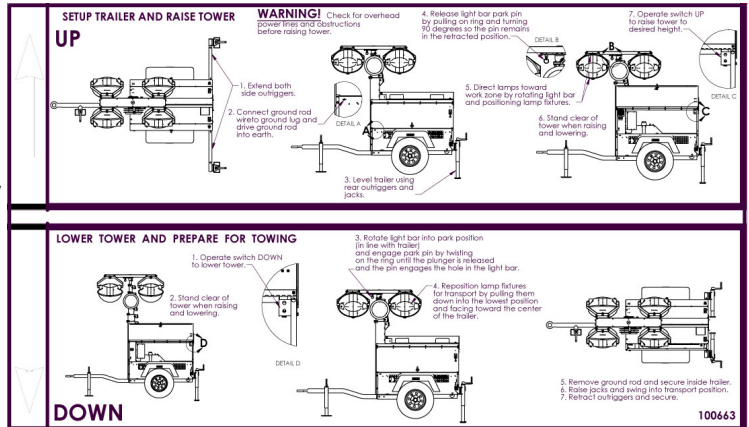
SAFETY AND WARNING DECALS



SAFETY WARNING

ALWAYS REPLACE ANY SAFETY AND INSTRUCTION DECALS THAT BECOME DAMAGED, PAINTED, OR OTHERWISE ILLEGIBLE.

Refer to these representations of the safety warning decals used on the NIGHT-LITE to insure correct ordering if replacing becomes necessary.

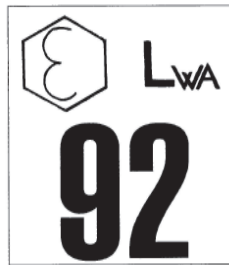


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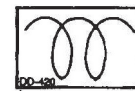
VERTICAL TOWER OPERATING INSTRUCTIONS



090423
COMBUSTIBLE GAS
(EXPLOSION HAZARD)



090422
SOUND POWER LEVEL



090420
GLOW PLUG INDICATOR



ELECTRIC SHOCK HAZARD
Failure to use ground rod could cause severe injury or death.
* Drive ground rod into earth and attach ground wire to grounding lug on front of trailer.

090163
FAILURE TO USE
GROUND ROD



090421
TRAILER IDENTIFICATION TAG



090441
OUTLET VOLTAGE



090440
OUTLET VOLTAGE



090442
OUTLET VOLTAGE

SAFETY AND WARNING DECALS



090413
OFF POWER



090412
ON POWER



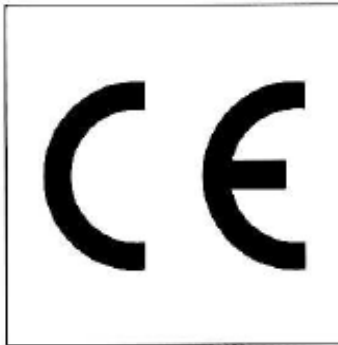
090409
FORK LIFT
POINT



090410
FORK LIFT
POINT (LEFT)



090416
PROTEC-
TIVE EARTH



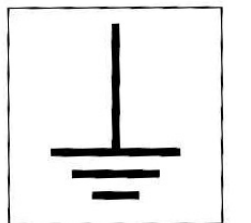
090415
CE APPROVAL
MARK



090414
EMERGENCY
STOP



090411
LIFT POINT



090419
EARTH
GROUND



090418
DO NOT
TOUCH



090417
BURN HAZARD
HOT SURFACE

SAFETY AND WARNING DECALS



090402
HAND ENTANGLEMENT
BELT DRIVE



090401
ENGINE FAN



090400
DO NOT OPERATE WITH
GUARD REMOVED



090405
STAY CLEAR



090404
CONSULT SERVICE MAN-
UAL



090403
CONSULT OPERATOR'S
MANUAL



090408
ELECTRIC SHOCK



090407
BODY CRUSH
TIP HAZARD



090406
BODY CRUSH
FORCE FROM ABOVE

ELECTRIC WINCH VERTICAL MAST OPERATION

DESCRIPTION OF OPERATION

The Allmand **NIGHT-LITE** tower assembly consists of a seven section telescoping mast which can be extended by operating a single electric winch mounted inside the enclosure. The winch and cable are protected by an integral clutch and a circuit breaker. The clutch is designed to slip when the mast reaches full extension. The circuit breaker is a safeguard for the clutch. If the clutch is misadjusted or inoperative the circuit breaker should trip to protect the system from overload. The electric winch operates off the 120 volt circuit breaker along with 120 volt receptacle thus requiring **that the 120 volt circuit breaker switch must be on to operate the winch.** The light bar assembly can be rotated into position by releasing the light bar park pin. To release the park pin, pull the ring and turn it 90 degrees so that the pin remains in the retracted position. The light bar is designed to rotate with enough resistance so that the bar will stay in the desired position once the operator has directed the lights on the work zone. if the light bar rotates too easily or does not stay in position, remove the cap plug from the center of the light bar cover and tighten the nut to achieve the desired resistance and replace the cap plug.



SAFETY WARNING!

- **ALWAYS CHECK FOR OVERHEAD OBSTRUCTIONS BEFORE RAISING AND LOWERING MAST. ALLOW 35' CLEARANCE. AVOID ALL OVERHEAD ELECTRICAL WIRES.**
- **TO PREVENT INSTABILITY AND HELP ENSURE SAFE OPERATION, ALWAYS PROVIDE PROPER GROUND SUPPORT BEFORE RAISING MAST.**

BEFORE RAISING MAST, VISUALLY INSPECT EQUIPMENT FOR DAMAGE OR WEAR. FAMILIARIZE YOURSELF WITH THE LOCATION AND FUNCTION OF ALL OPERATING PARTS BY STUDYING THIS MANUAL. OBSERVE ALL CAUTION DECALS LOCATED ON EQUIPMENT

TO SET UP TOWER AND RAISE LIGHTS

1. Extend both side outrigger jacks, rear jack and tongue jack to stabilize and level the trailer.

NOTE: Jacks should be placed only on firm footing.



SAFETY WARNING!

THE SUPPLEMENTAL GROUND ROD IS A SAFETY DEVICE THAT MAY REDUCE THE CHANCE OF PERSONAL INJURY FROM STRAY ELECTRICAL CURRENT. Therefore, Allmand recommends using the ground rod. However, it is the user's responsibility to determine the requirements and/or applicability of local, state, or national electrical code which governs the use of the ground rod.

2. Attach the ground rod to the grounding lug, and drive the ground rod fully for adequate electrical ground, as required by local, state, or national code.
3. Start engine and switch electric winch switch to ON.
4. While the tower is still in the down position, position the light bar and lamps so they are aimed at the work zone and tilted at the approximate angle to get maximum coverage once the tower is raised.
5. Stand clear of the tower when raising and lowering the lights.

ELECTRIC WINCH VERTICAL MAST OPERATION

6. Operate the electric winch switch to the “up” position to raise tower to the desired height.
7. If lights need to be adjusted for better lighting of the work zone after raising the tower, lower the tower using the “down” switch position and make desired adjustments to the light bar and light fixtures. Raise the tower into position. Repeat this step if necessary.



SAFETY WARNING!

VISUALLY INSPECT EQUIPMENT FOR DAMAGE BEFORE OPERATING. ALLOW ADEQUATE CLEARANCE AROUND TRAILER FOR TOWER AND INSURE THAT NO PERSONS ARE STANDING UNDER THE LIGHTS WHEN LOWERING.

TO LOWER TOWER AND LIGHTS

1. Turn off lights.
2. Operate the electric winch switch in the down position to lower the lights to the lowest vertical position.
3. Stop engine.
4. Rotate the light bar in to the transport park position (in line with trailer) and engage the park pin by twisting on the park pin ring until the plunger is released and the pin engages the hole in the light bar.
5. Reposition the lamp fixtures for transport by pulling them down into the lowest position and face the fixtures toward the center of the trailer.
6. Remove ground rod from earth. Disconnect wire from ground lug and secure in trailer
7. Raise jacks and rear stand, retract outriggers and secure for towing

NOTE: Ensure the detent pins are properly engaged in the outriggers before towing.

AUXILIARY HANDLE

An emergency crank handle is provided

1. Remove the electrical power from the winch by shutting the circuit breaker off and the engine off.
2. Insert the handle so that it completely engages with the driveshaft. The handle can be cranked in either direction with the clutch in the engaged position.
3. Always remove the handle from the winch after use.

ELECTRIC WINCH ADJUSTMENT

ELECTRIC WINCH CLUTCH SETTING PROCEDURE

PURPOSE

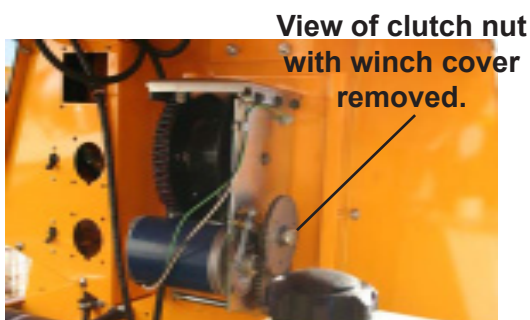
1. Adjustment of the winch clutch nut is necessary to limit the power of the winch. The clutch nut must be tight enough to prevent clutch slippage when raising the tower and loose enough so that the clutch does slip if the tower should come in contact with some overhead obstruction or be extended past the upper limit switch which would cause the tower to stop against the dead stop bolt.

2. The clutch nut torque value is approximately 28 to 30 in lbs. **(DO NOT OVER TIGHTEN)**

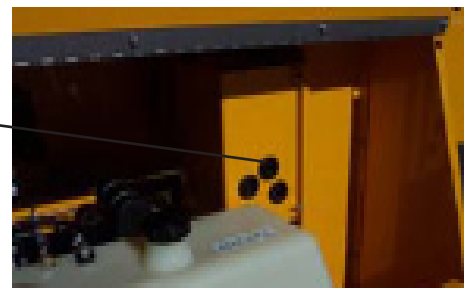
NOTE: The nut may seem loose when it is properly set. **DO NOT ADJUST;** further tightening may cause cable failure.

INSTRUCTIONS FOR SETTING THE CLUTCH UNDER FIELD CONDITIONS WITHOUT A TORQUE WRENCH

1. Loosen clutch nut approximately $\frac{1}{2}$ turn.
2. Stand clear of the tower when raising or lowering tower.
3. Start engine and operate the winch in the up direction. The winch should run but the tower should not move. **(At this time the clutch nut should be loose enough to let the clutch slip, if not, back off the clutch nut just enough so the clutch does slip).**
4. Start the clutch nut setting procedure by making a slight tightening adjustment until the tower starts to rise.
5. The tower may again stall even while the winch continues to run. If so, lower the tower and make another slight adjustment to the clutch nut, by tightening in the clockwise direction approximately 10 to 20 degrees.
6. Repeat the previous step until the tower reaches full elevation without stalling. Do not make large adjustments to the clutch nut as it would be easy to over tighten the nut.
7. Run the tower up and down at least 5 times to ensure consistent full elevation.
8. The clutch is a serviceable part and may require slight adjustments periodically.



Remove this plastic plug to access clutch nut.



HYDRAULIC LIFT VERTICAL MAST OPERATION

DESCRIPTION OF OPERATION

The Allmand **NIGHT-LITE V Series** hydraulic lift tower assembly consists of a seven section telescoping mast which can be extended by operating a single hydraulic cylinder. The light bar assembly can be rotated into position by releasing the light bar park pin. To release the park pin, pull the ring and turn it 90 degrees so that the pin remains in the retracted position. The light bar is designed to rotate with enough resistance so that the bar will stay in the desired position once the operator has directed the lights on the work zone. If the light bar rotates too easily or does not stay in position, remove the cap plug from the center of the light bar cover and tighten the nut to achieve the desired resistance and replace the cap plug.



SAFETY WARNING!

- **ALWAYS CHECK FOR OVERHEAD OBSTRUCTIONS BEFORE RAISING AND LOWERING MAST. ALLOW 35' CLEARANCE. AVOID ALL OVERHEAD ELECTRICAL WIRES.**
- **TO PREVENT INSTABILITY AND HELP ENSURE SAFE OPERATION, ALWAYS PROVIDE PROPER GROUND SUPPORT BEFORE RAISING MAST.**

BEFORE RAISING MAST, VISUALLY INSPECT EQUIPMENT FOR DAMAGE OR WEAR. FAMILIARIZE YOURSELF WITH THE LOCATION AND FUNCTION OF ALL OPERATING PARTS BY STUDYING THIS MANUAL. OBSERVE ALL CAUTION DECALS LOCATED ON EQUIPMENT

TO SET UP TOWER AND RAISE LIGHTS

1. Extend both side outrigger jacks, rear jack and tongue jack to stabilize and level the trailer.

NOTE: Jacks should be placed only on firm footing.



SAFETY WARNING!

THE SUPPLEMENTAL GROUND ROD IS A SAFETY DEVICE THAT MAY REDUCE THE CHANCE OF PERSONAL INJURY FROM STRAY ELECTRICAL CURRENT. Therefore, Allmand recommends using the ground rod. However, it is the user's responsibility to determine the requirements and/or applicability of local, state, or national electrical code which governs the use of the ground rod.

2. Attach the ground rod to the grounding lug, and drive the ground rod fully for adequate electrical ground, as required by local, state, or national code.
3. Start engine. (NOTE: Tower may be raised and lowered as needed without engine running.)
4. While the tower is still in the down position, position the light bar and lamps so they are aimed at the work zone and tilted at the approximate angle to get maximum coverage once the tower is raised.
5. Stand clear of the tower when raising and lowering the lights.

HYDRAULIC LIFT VERTICAL MAST OPERATION

6. Operate the hydraulic lift switch to the “up” position to raise tower to the desired height.
7. If lights need to be adjusted for better lighting of the work zone after raising the tower, lower the tower using the “down” switch position and make desired adjustments to the light bar and light fixtures. Raise the tower into position. Repeat this step if necessary.

NOTE: Ensure the detent pins are properly engaged in the outriggers before towing.



SAFETY WARNING!

VISUALLY INSPECT EQUIPMENT FOR DAMAGE BEFORE OPERATING. ALLOW ADEQUATE CLEARANCE AROUND TRAILER FOR TOWER AND INSURE THAT NO PERSONS ARE STANDING IN UNDER THE LIGHTS WHEN LOWERING.

TO LOWER TOWER AND LIGHTS

1. Turn off lights.
2. Operate the hydraulic lift switch in the down position to lower the lights to the lowest vertical position.
3. Stop engine.
4. Rotate the light bar into the transport park position (in line with trailer) and engage the park pin by twisting on the park pin ring until the plunger is released and the pin engages the hole in the light bar.
5. Reposition the lamp fixtures for transport by pulling them down into the lowest position and face the fixtures toward the center of the trailer.
6. Remove ground rod from earth. Disconnect wire from ground lug and secure in trailer
7. Raise jacks and rear stand, retract outriggers and secure for towing

HYDRAULIC TOWER POWER UNIT

GENERAL START UP INSTRUCTIONS

NOTE: The ports are marked on the casing UP and DN. When facing the power unit with the motor up, plug the right hand, or DN port Jog the motor until the oil flows from the left hand, or up port. If oil does not flow from the UP port, reverse the wire leads on the motor, and repeat. The pump is now primed. Connect the hose (or tubing) to the UP port and tighten. Connect the other hose end to the blind end of a fully retracted hydraulic cylinder. With the hose fitting loose, operate the power unit until oil (and no air) bleeds from the fitting. Tighten the fitting. Refill the reservoir.

HYDRAULIC PUMP

Hydraulic Oil Specifications

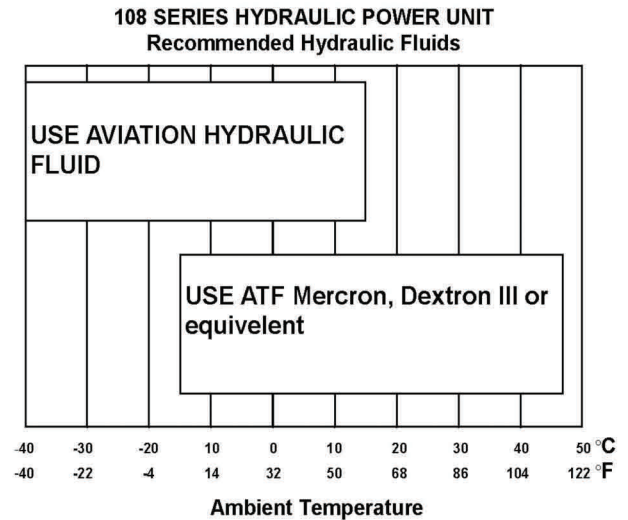


Figure 31

Adding Hydraulic Oil

Fill the reservoir with automatic transmission fluid or any clean hydraulic fluid having a viscosity index that is suitable for the climate conditions in which the unit will be operated. Standard units are supplied with automatic transmission fluid (ATF), and arctic units are supplied with aviation hydraulic fluid (see Figure 31).

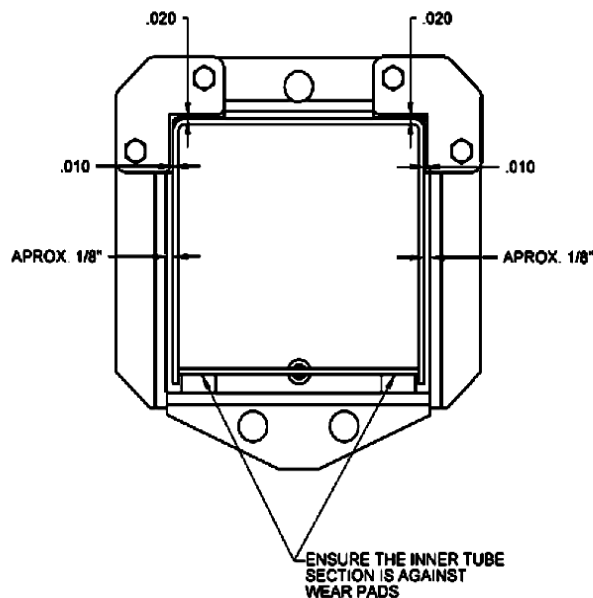


Figure 32

VERTICAL TOWER ADJUSTMENTS

VERTICAL TOWER CORNER FRICTION BLOCK ADJUSTMENT

1. Make sure the corner friction block cover plate is on top of the UHMW (plastic) corner friction block and a 3/8 internal star washer is between the friction block and the friction block mounting flange of the tower. This washer is necessary to insure a grip between the friction block and the metal flange of the tower.
2. Use 1/8" spacers to center the inside tower in the middle of the outside tower. SEE ILLUSTRATION.
3. Using a .010" shim and .020" shim for spacers, place a .010" shim between the friction block and the inner tower section sides. SEE ILLUSTRATION.
4. Make sure the inner tower is against the 3/8" thick UHMW blocks mounted inside the outer tower and use the .020" shim to set the friction block distance from the inner tower section. SEE ILLUSTRATION.
5. Tighten the 1/4-20 nuts. And continue to set all corner friction blocks on all sections using this procedure.



MANUAL WINCH VERTICAL MAST OPERATION

DESCRIPTION OF OPERATION



SAFETY WARNING

- ALWAYS CHECK FOR OVERHEAD OBSTRUCTIONS BEFORE RAISING AND LOWERING MAST. ALLOW 35' CLEARANCE. AVOID ALL OVERHEAD ELECTRICAL WIRES.
- TO PREVENT INSTABILITY AND HELP ENSURE SAFE OPERATION, ALWAYS PROVIDE PROPER GROUND SUPPORT BEFORE RAISING MAST.
- BEFORE RAISING MAST, VISUALLY INSPECT EQUIPMENT FOR DAMAGE OR WEAR. FAMILIARIZE YOURSELF WITH THE LOCATION AND FUNCTION OF ALL OPERATING PARTS BY STUDYING THIS MANUAL. OBSERVE ALL CAUTION DECALS LOCATED ON EQUIPMENT

TO ERECT MAST AND RAISE LIGHTS

1. Extend both side outrigger jacks and tongue jack to stabilize and level the trailer.

NOTE: Jacks should be placed only on firm footing.



SAFETY WARNING

- THE SUPPLEMENTAL GROUND ROD IS A SAFETY DEVICE THAT MAY REDUCE THE CHANCE OF PERSONAL INJURY FROM STRAY ELECTRICAL CURRENT. Therefore, Allmand recommends using the ground rod. However, it is the user's responsibility to determine the requirements and/or applicability of local, state, or national electrical code which governs the use of the ground rod.
2. Attach the ground rod to the grounding lug, and drive the ground rod fully for adequate electrical ground, as required by local, state, or national code.

3. While the tower is still in the down position, position the light bar and lamps so they are aimed at the work zone and tilted at the approximate angle to get maximum coverage once the tower is raised.
4. Stand clear of the tower when raising and lowering the lights.
5. To turn on lights, flip the breaker switches to the up position. (SEE FIG. 1)
6. Operate the hand crank to raise tower to the desired height.
7. If lights need to be adjusted for better lighting of the work zone after raising the tower, lower the tower and make desired adjustments to the light bar and light fixtures. Raise the tower into position. Repeat this step if necessary.

TO LOWER TOWER AND LIGHTS

1. Turn off lights.
2. Operate the hand crank to lower the lights to the lowest vertical position.
3. Stop engine.
4. Rotate the light bar into the transport park position (in line with trailer) and engage the park pin by twisting on the park pin ring until the plunger is released and the pin engages the hole in the light bar.
5. Reposition the lamp fixtures for transport by pulling them down into the lowest position and face the fixtures toward the center of the trailer.
6. Remove ground rod from earth. Disconnect wire from ground lug and secure in trailer
7. Raise jacks and rear stand, retract outriggers and secure for towing

NOTE: Ensure the detent pins are properly engaged in the outriggers before towing.

NOTE: Visually inspect the flood light mounting yokes for loose hardware. This could prevent a broken fixture during towing.

OVERALL DIMENSIONS

- Weight 1800 LBS (820 kg)
- Length 9' 5" (2.90 m)
- Height lowered 7' (2.13 m)
- Height extended 25' (7.62 m)
- Width (outriggers retracted) 4' 6" (1.372 m)
- Width (outriggers extended) 7' 9" (2.36 m)
- Wheels and tires P155/R13

SPECIFICATIONS

MODEL	KUBOTA D1105	LOMBARDINI LDW 1003	CAT C1.1
TYPE	Water-cooled 4-cycle diesel	Water-cooled 4-cycle diesel	Water-cooled 4-cycle diesel
BORE	2.99" (76 mm)	2.96" (75 mm)	3.03" (77 mm)
STROKE	2.90" (73.6 mm)	3.05" (77.6 mm)	3.19" (81 mm)
DISPLACEMENT	61.1 cu. In. (1002 cc)	62.6 cu. In. (1028 cc)	69 cu. In. (1130 cc)
POWER @ 1800 RPM	13.6 HP (11.4 kW)	13.4 HP (11.2 kW)	14.3 HP (11.9 kW)
POWER OUTPUT DERATING	3% per 1000 ft above 360 ft, 1% per 10° abpve 77° F	3% per 1000 ft above 360 ft, 1% per 10° abpve 77° F	3% per 1000 ft above 360 ft, 1% per 10° abpve 77° F
FUEL SYSTEM	Indirect injected diesel	Indirect injected diesel	Casette-type fuel injected diesel
STARTING SYSTEM	12 volt DC	12 volt DC	12 volt DC
COMPRESSION RATIO	22:1	22.8:1	22:1
WEIGHT	205 lbs. (93 kg)	191 lbs. (87 kg)	191 lbs. (87 kg)
OIL CAPACITY	5.4 qt. (5.1 L)	2.5 qt. (2.4 L)	3.9 qt. (3.7 L)
LUBRICATION	Forced lubrication by pump	Forced lubrication by pump	Forced lubrication by pump
OIL FILTRATION	Cartridge type	Cartridge type	Cartridge type
COOLING SYSTEM	Pressurized radiator, forced circulation with water pump	Pressurized radiator, forced circulation with water pump	Pressurized radiator, forced circulation with water pump
COOLANT CAPACITY	.82 gal. (3.1 L)	.82 gal. (3.1 L)	.82 gal. (3.1 L)

- Low oil pressure and high engine temperature shut-downs are standard equipment. Both The Kubota, CAT, and Lombardini diesel are equipped with glow plug cold start assist as standard equipment.

NOTE: See the appropriate section of this manual for cold weather starting instructions or consult the Operators Manual for your particular engine application.

Horsepower ratings are established in accordance with Society of Automotive Engineers Small Engine Test Code- J1349 GROSS.

SPECIFICATIONS

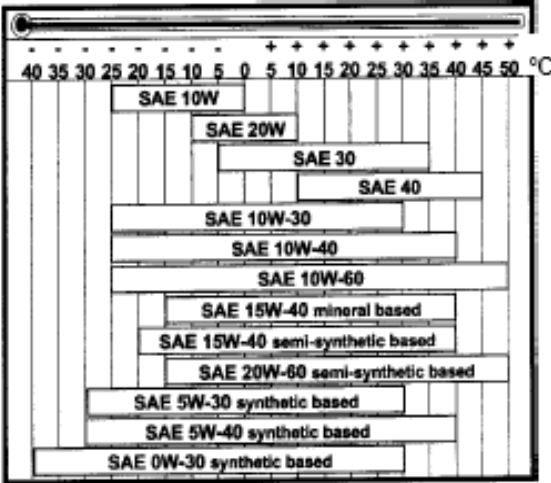
GENERATOR

- 7.5 kw and 8 kw models available
- 60 hz and 50 hz models available

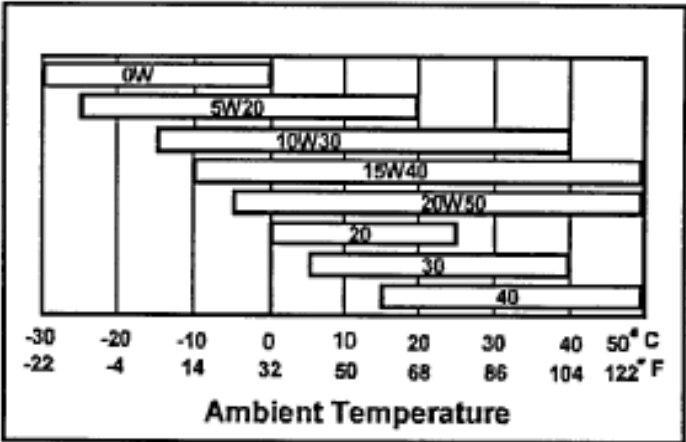
FUEL REQUIREMENTS

Use a clean No. 2 Diesel fuel oil (SAE J313 JUN87) according to ASTM D975. Do not use alternative fuel, because its quality is unknown or it may be inferior in quality, and kerosene, which is very low in cetane rating, adversely affects the engine. Refer to the Kubota, CAT, or Isuzu Operators Manual for more detailed fuel requirements.

LOMBARDINI LUBRICATION CHART



CAT LUBRICATION CHART



KUBOTA LUBRICATION CHART

above 77°F (25°C)	SAE30 or SAE10W-30 SAE10W-40
32°F (0°C) to 77°F (25°C)	SAE20 or SAE10W-30 SAE10W-40
below 32°F (0°C)	SAE10W or SAE10W-30 SAE10W-40

TRAILER

The engine-generator set is housed in a fully banded two wheel trailer fabricated from heavy gauge steel. The design enables the trailer to contain the outriggers in a simple, compact position.

MAST

When the mast is in the operating position it is located in the middle of a three point outrigger system for optimum balance and stability.

The mast consists of seven fabricated steel sections that telescope to 25 ft and self-lubricating UHMW plastic guide pads to provide smooth operation and reduced friction. The mast sections are extended with an electric winch. The winch design includes limit switches that turn the winch off when the mast reaches full extension or is fully retracted.

STABILIZERS

The three point outrigger design consists of two retractable side outriggers and a tongue jack.

FLOOD LIGHT ASSEMBLY

The flood light assembly consists of four 1000 watt lamp fixtures sealed for all weather use. SHO 1000 fixture - BT - 37 lamp, Metal Halide
Laboratory rated life is 10,000 hours.

- Lumen rating: 110,000
- Warm up time: 2-4 minutes
- Restart time: 10-15 minutes

TOWING INSTRUCTIONS

Before towing the Night-Lite Pro the trailer should be inspected visually to insure that the following operations have been completed:

1. Hitch is securely attached to the towing vehicle
2. All outriggers and jacks are retracted and secured.
3. Light fixtures are positioned for transport.
4. Doors are closed and secure.
5. Check for adequate tire pressure.
6. Tail lights are connected and operational.
7. Ground rod is removed from ground and secured in trailer.

STARTING INSTRUCTIONS

BEFORE STARTING:

1. Fill the engine with the right grade of lubricating oil (refer to the proper page of this manual or the Kubota, CAT, or Lombardini diesel operators manual for oil specifications)
2. Ensure there is an adequate supply of diesel fuel.
3. Ensure that the air cleaner is firmly attached and air cleaner seals and hose clamps are properly sealed. Air cleaner element should be checked and replaced if necessary.

STARTING ENGINE

NOTE: The **Kubota** diesel engine includes a glow plug cold start system controlled by the yellow **preheat** button on the control panel. Glow plugs are not needed on a warm engine or if the ambient temperature is above 50 degrees F. The **CAT C1.1 and Lombardini LDW 1003** diesel engines include a glow plug cold start system controlled by the ignition switch on the control panel. Glow plugs are not needed on a warm engine or if the ambient temperature is above 50 degrees F.

COLD WEATHER STARTING: KUBOTA (for temperatures below 32° F/ 0° C)

1. Turn the on-off switch to the **ON** position.
2. Press the yellow **PREHEAT** button for 5 seconds (10 seconds below 23° F maximum 20 seconds continuous).
3. Press the green **START** button to crank engine until the engine starts.
4. If engine fails to start, it may be necessary to recycle the **PREHEAT** and Start steps #2 and #3 above

COLD WEATHER STARTING: LOMBARDINI LDW 1003 (for temperatures below 32° F/ 0° C)

1. Turn the key switch to the PREHEAT position, hold until the glow plug indicator lamp goes out, then release switch.
2. Turn the key switch to the START position and the engine should start. Release the key immediately when the engine starts. If engine fails to start it may be necessary to cycle the glow plugs again (see chart below)

COLD WEATHER STARTING CAT C1.1 (for temperatures below 32° F/ 0° C)

1. If the engine is cold, turn the key switch counterclockwise to the “preheat” position until the glow plug indicator turns red. **CAUTION: Never heat glow plugs more than 30 seconds or damage to the glow plugs may occur.**
2. Turn the key switch to the “start” position and start the engine immediately once the indicator turns red.

AMBIENT TEMPERATURE	PREHEATING TIME	
	Ordinary heat type	With glow plug timer
Above 50°F (10°C)	NO NEED	Automatic preheating is made for about 6 seconds when starter switch key is turned to preheating position
50°F (10°C) to 23°F (-5°C)	Approx. 5 seconds	
Below 23°F (-5°C)	Approx. 10 seconds	
Limit of continuous use	20 to 30 seconds	

NOTE: Do not operate starter for more than 10 seconds without allowing 30 seconds to pass between starting attempts. Possible starter damage could result from excessive heat caused by cranking too long.

NOTE: If the engine develops sufficient speed to disengage the starter but does not keep running (a false start), the engine rotation must be allowed to come to a complete stop before attempting to restart the engine. If starter is engaged while the flywheel is rotating, the starter pinion and flywheel ring gear may clash, resulting in damage to the starter or flywheel ring gear.

NOTE: If the starter does not turn the engine over, stop cranking immediately. Do not make further attempts to start the engine until the condition is corrected. See your local Kubota, CAT, or Lombardini Engine Service Dealer for trouble analysis.

STARTING INSTRUCTIONS

FOR A WARM ENGINE (Kubota engines)

- Follow the same procedure as described for cold weather starting, skipping step 2.
Use of the glow plugs is not recommended when engine is warm.

LOW OIL PRESSURE SHUT-OFF SYSTEM

Should a low oil pressure condition occur, the control module breaks the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shut-off position.

HIGH COOLANT TEMPERATURE SHUT-OFF SYSTEM

Should a high coolant temperature condition occur, the control module breaks the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shut-off position.

STOPPING THE ENGINE

To stop the engine turn the on-off switch to the off position, this breaks the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shut-off position

SERIAL NUMBER LOCATION

Trailer: All NIGHT-LITE PRO series trailers have a serial number plate attached to the rear tower support below the tower lock. (See illustration)



SERIAL NUMBER LOCATIONS

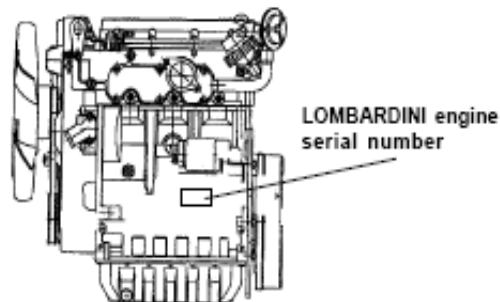
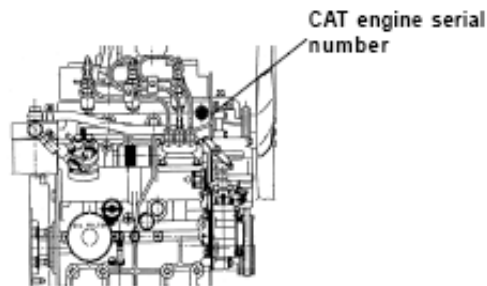
SERIAL NUMBER LOCATION

Generator: The generator has a plate attached to the side of the housing.

Engine: The **KUBOTA** engine has the serial number stamped on the engine block just below the exhaust manifold. (see illustration below)

The **CAT** engines have the serial number stamped on the right side of the engine block just ahead of the first cylinder. (see illustration below)

The **LOMBARDINI** engine has the serial number tag located on the right side of the engine block. (see illustration below)



CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 1. CONTROL PANEL (Kubota)

1. **Breaker Switch**
Controls lights 1 and 2
2. **Breaker Switch**
Controls lights 3 and 4
3. **Electric Winch On/Off Switch**
4. **Control Panel** (see close up below)

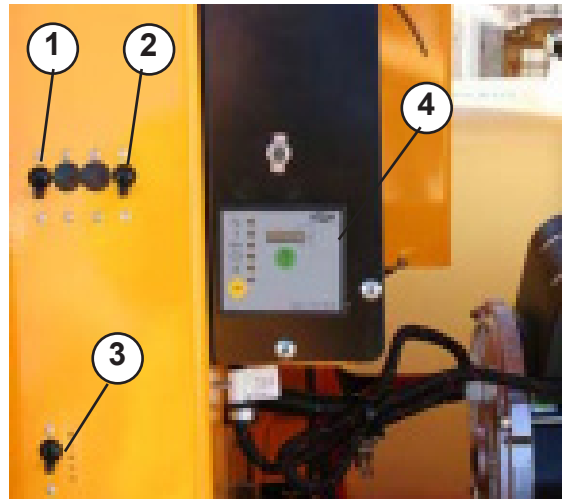


Fig. 1 Control Panel

FIG. 1a. CONTROL PANEL (Kubota) CLOSE UP

1. **Ignition On switch**
Must be in ON position to start engine
2. **Engine Start Button**

NOTE: Release button as soon as engine fires.

3. **Glow Plug Preheat Button**
4. **Engine Function Indicator Lights** come on when there is a fault.
5. **Hour Meter** shows the total elapsed hours of engine operation

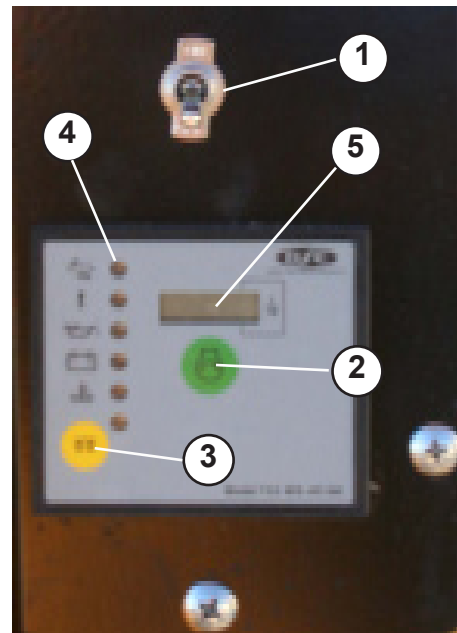


Fig. 1a Control Panel Close Up

FIG. 1b. CONTROL PANEL (CAT)

1. **Breaker Switch**
Controls lights 1 and 2
2. **Breaker Switch**
Controls lights 3 and 4
3. **Hour Meter**
4. **Key Switch**
5. **Glow Plug Indicator**

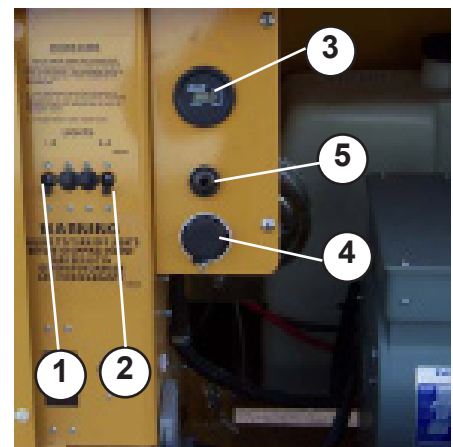


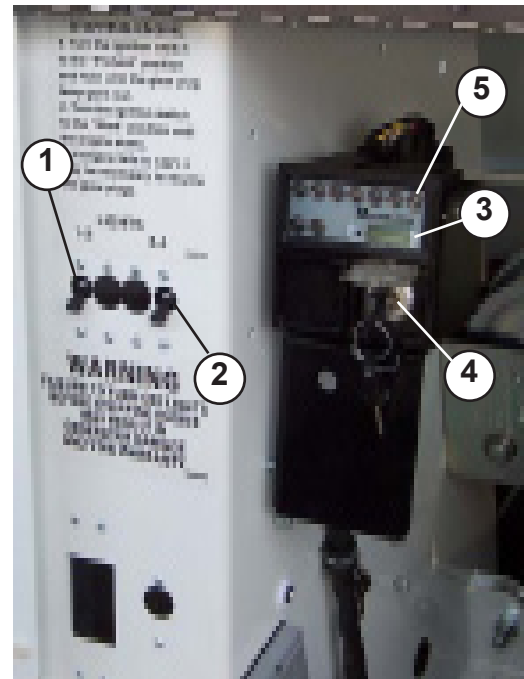
FIG. 1a (CAT)

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 1c. A.C./D.C.CONTROL PANEL (Lombardini)

- 1. Breaker Switch**
Controls lights 1 and 2
- 2. Breaker Switch**
Controls lights 3 and 4
- 3. Hour Meter**
Shows the total elapsed hours of engine operation.
- 4. Key Switch**
Turn key clockwise one click to activate the glow plugs.
- 5. Glow Plug Lamp**



NOTE: Release key as soon as the engine fires.

FIG. 2. Winch Switch and Breaker (Electric Winch Model)

- 1. Breaker (5 Amp)**
- 2. Electric Winch Up/Down Switch**
Controls raising and lowering of tower

(Hydraulic Lift Model)

- 1. Breaker (5 Amp)(not used)**
- 2. Hydraulic Lift Up/Down Switch**

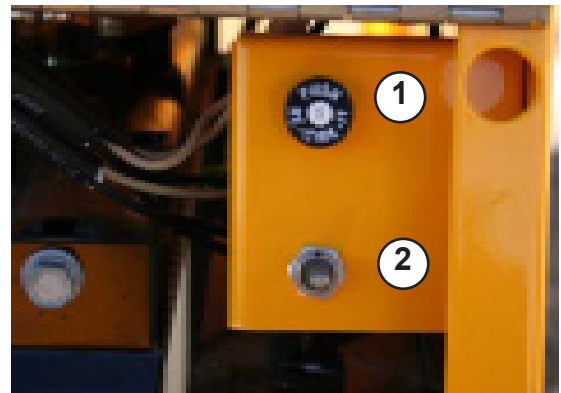
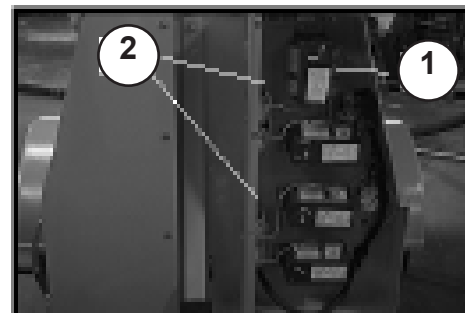


FIG. 3. BALLAST PANEL

- 1. Transformer (lights 1 thru 4)**
- 2. Capacitors (lights 1 thru 4)**



CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 4. GROUND ROD LOCATION

1. Ground rod should be attached to grounding lug with wire provided and ground rod and then driven fully into the earth for adequate electrical ground, as required by local, state, or national electrical code.

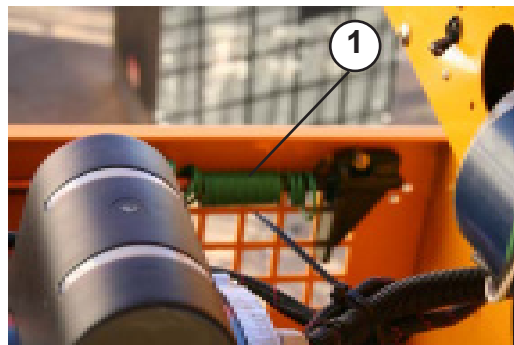


FIG. 4

FIG. 5A ENGINE COMPONENT IDENTIFICATION (KUBOTA)

1. Water temp switch
2. Alternator
3. Starter
4. Air cleaner

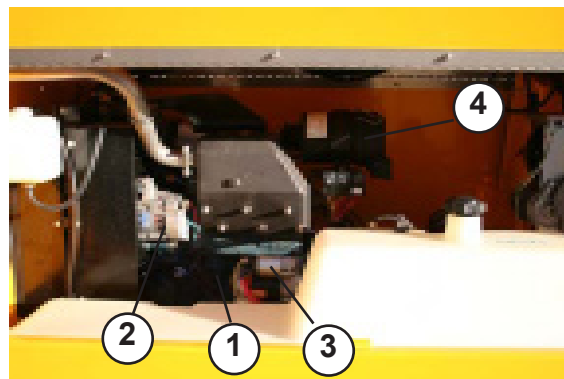


FIG. 5A

FIG. 5B. ENGINE COMPONENT IDENTIFICATION (KUBOTA)

1. Oil fill
2. Glow plugs
3. Fuel solenoid
4. Fuel filter
5. Oil filter

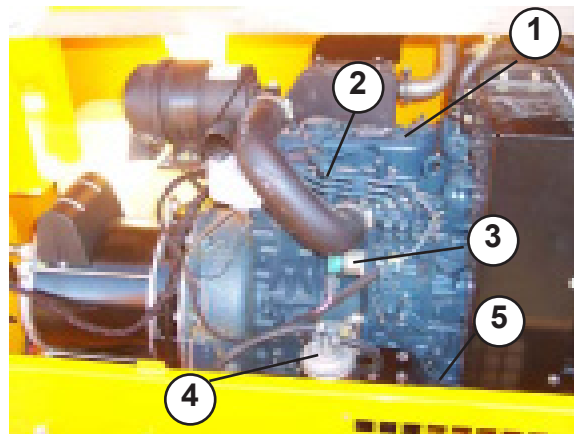


FIG. 5B

FIG. 5C. ENGINE COMPONENT IDENTIFICATION (KUBOTA)

1. Fuel filter
2. Electric fuel pump

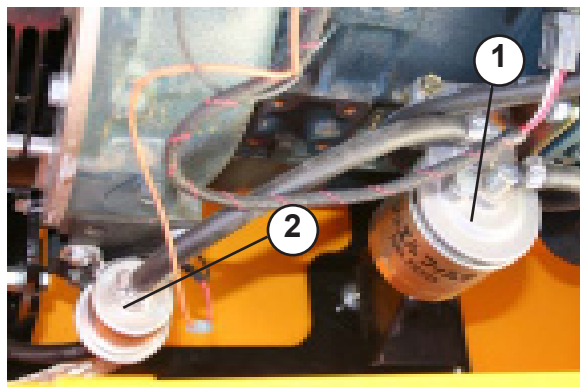


FIG. 5C

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 6A ENGINE COMPONENT IDENTIFICATION (KUBOTA)

1. Water temp switch
2. Alternator
3. Starter
4. Air cleaner

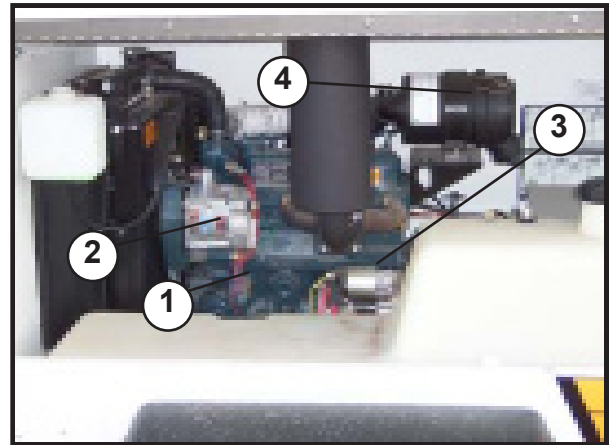


FIG. 6A

FIG. 6B ENGINE COMPONENT IDENTIFICATION (CAT)

1. Water temp switch
2. Alternator
3. Starter
4. Air cleaner

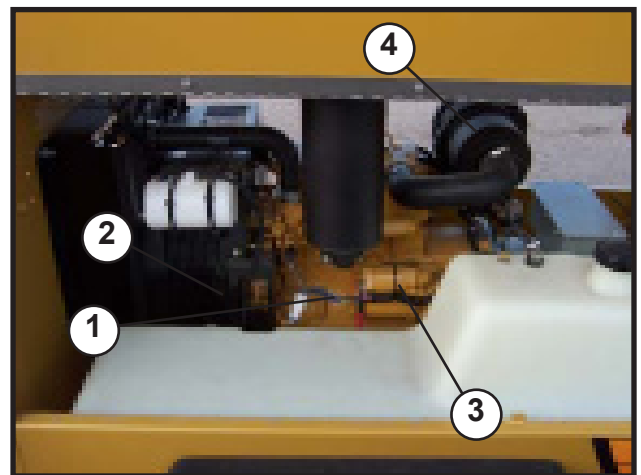


FIG. 6B

FIG. 6C ENGINE COMPONENT IDENTIFICATION (LOMBARDINI)

1. Muffler
2. Alternator
3. Oil Filter
4. Air cleaner (not shown)

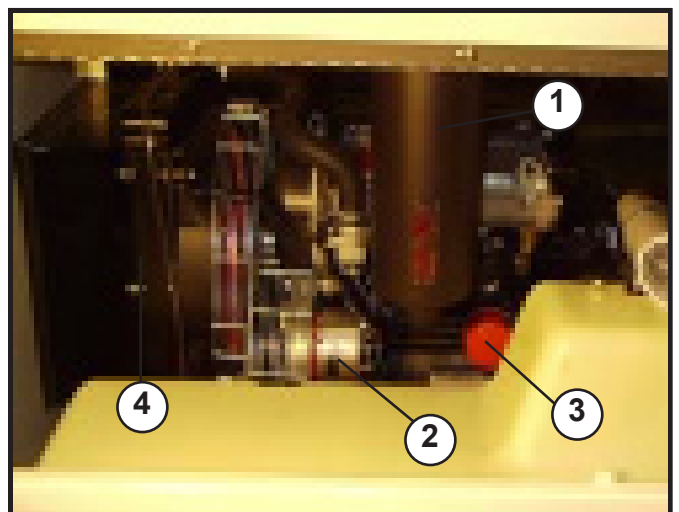


FIG. 6C

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 7A. ENGINE COMPONENT IDENTIFICATION (KUBOTA cont'd)

1. Oil fill
2. Glow plugs
3. Fuel solenoid
4. Electric Fuel Pump
5. Fuel filter
6. Oil filter

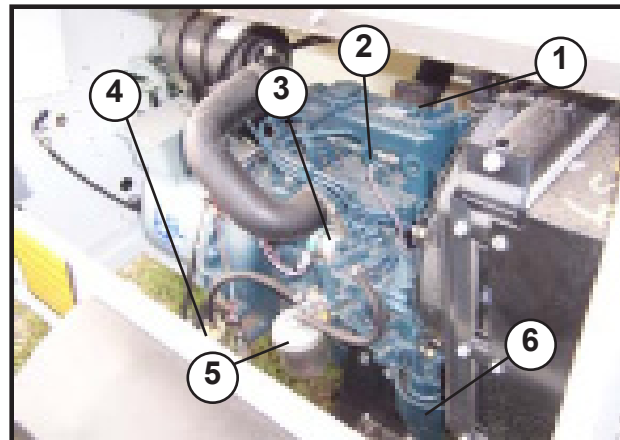


FIG. 7A

FIG. 7B. ENGINE COMPONENT IDENTIFICATION (CAT cont'd)

1. Oil fill
2. Glow plugs
3. Fuel solenoid
4. Fuel pump
5. Fuel filter
6. Oil filter

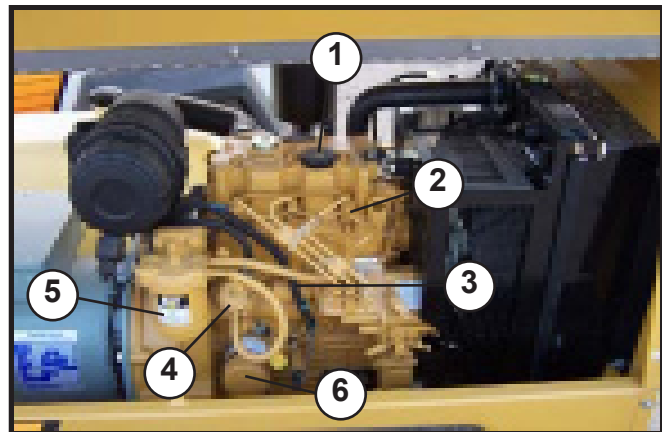


FIG. 7B

FIG. 7C. ENGINE COMPONENT IDENTIFICATION (LOMBARDINI cont'd)

1. Air Cleaner
2. Starter
3. Fuel pump
4. Fuel filter
5. Cooling Fan

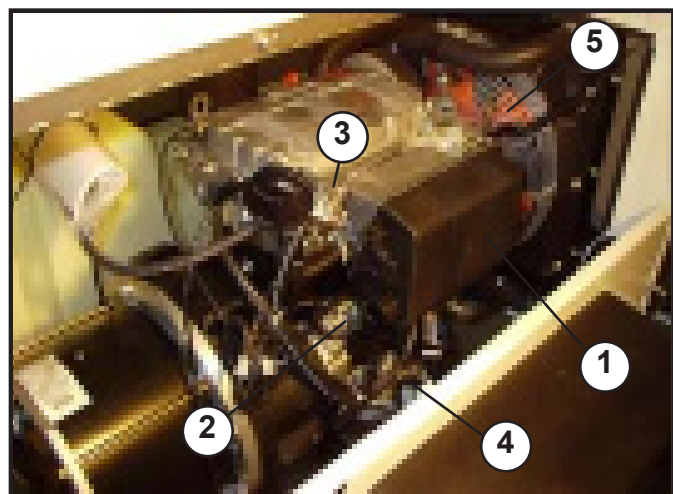


FIG. 7C

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 8a. REMOTE OIL DRAIN LOCATION

1. Remote oil drain valve (Kubota)

Open illustrated valve (1) in engine oil pan to drain oil from engine.

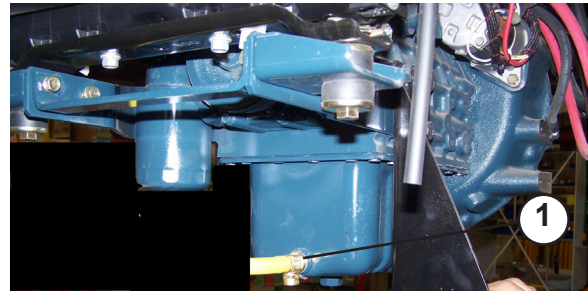


FIG. 8a

FIG. 8b. REMOTE OIL DRAIN LOCATION

1. Remote oil drain valve (CAT)

Open illustrated valve (1) in engine oil pan to drain oil from engine.

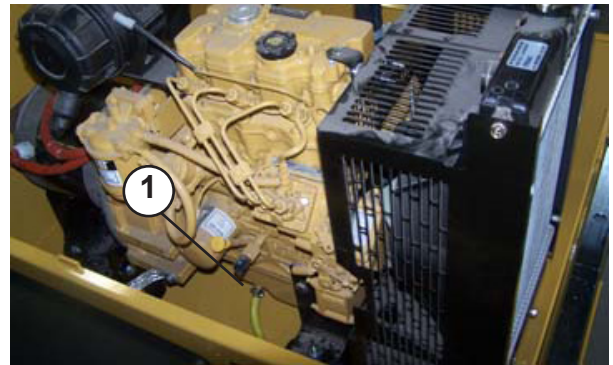


FIG. 8b

FIG. 8c. REMOTE OIL DRAIN LOCATION

1. Remote oil drain valve (Lombardini)

Open illustrated valve in engine oil pan to drain oil from engine.

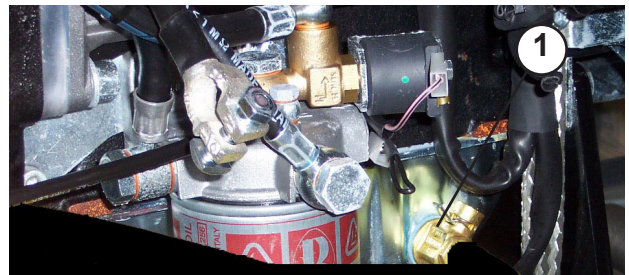


FIG. 8c

FIG. 8d. REMOTE OIL DRAIN LOCATION

1. Remote oil drain (all models)

Remove cap to drain engine oil



FIG. 8d

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 8 Rear Panel

1. Rear Panel
3. Serial Number Tag
3. Exhaust Outlet

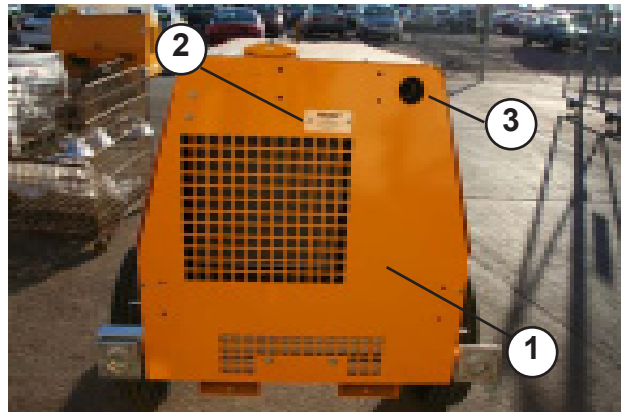


FIG. 8

FIG. 9. REAR OUTRIGGERS

1. Jack Handle
Crank handle to raise or lower foot of jack to level trailer
2. Jack Pin
Pull to allow jack to rotate
3. Outrigger Storage Latch
Retains outriggers while in the stored or travel mode

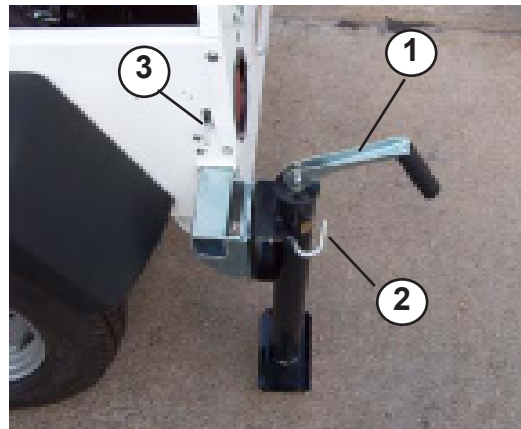


FIG. 9

 **SAFETY WARNING**

Be sure outrigger jack and outriggers are securely latched before towing.

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 10 POSITIVE DOOR LATCH

1. Positive door latch

Locks door in the open position

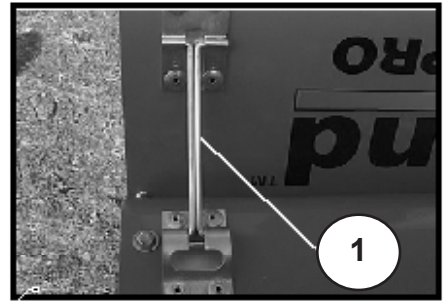


FIG. 10

FIG. 11 MANUAL WINCH

1. Manual Winch—Used to raise and lower vertical mast (shown with safety cover)

2. Manual Winch Handle

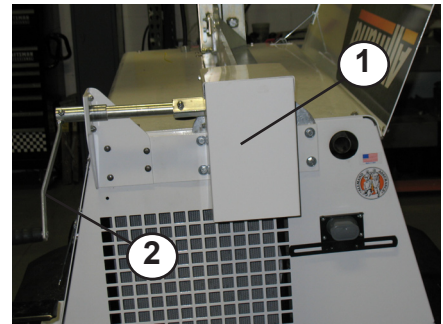


FIG. 11

FIG. 11a MANUAL WINCH

1. Manual Winch—Used to raise and lower vertical mast (shown with safety cover)

2. Manual Winch Handle

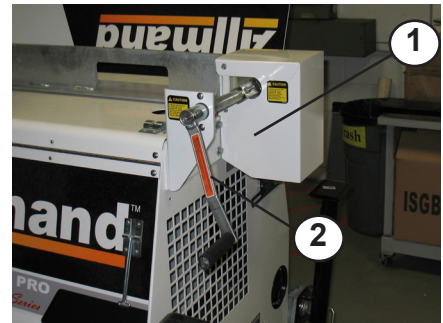


FIG. 11a

FIG. 11b-11c HYDRAULIC TOWER

1. Hydraulic Pump—Used to raise and lower hydraulic lift vertical mast

2. Hydraulic Cylinder—Used to raise and lower hydraulic lift vertical mast

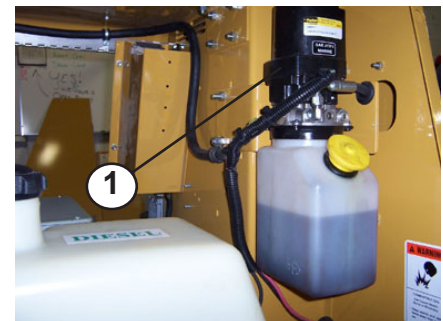


FIG. 11b

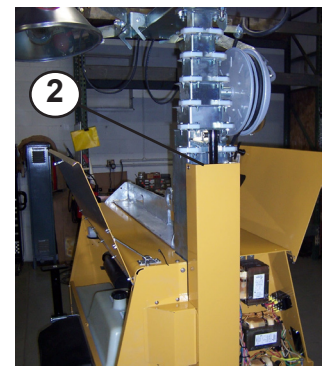


FIG. 11c

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW
NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 12 ELECTRIC WINCH

1. **Electric Winch**—Used to raise and lower vertical mast (shown without safety cover for clarity)
2. **Breaker Switches for outlets**

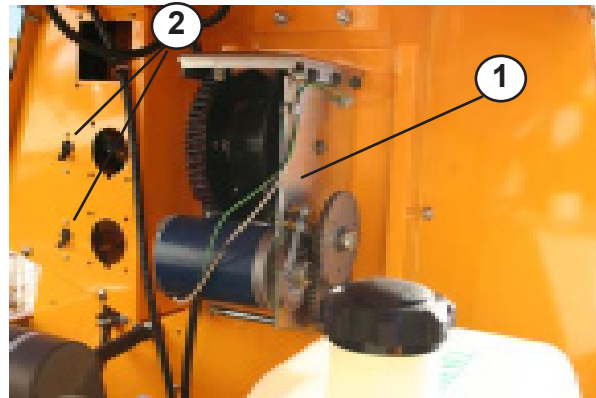


FIG. 12

FIG. 12a. ELECTRIC WINCH

1. **Safety Cover Installed (Left side view)**



FIG. 12a

FIG. 12b. ELECTRIC WINCH

1. **Safety Cover Installed (right sideview)**

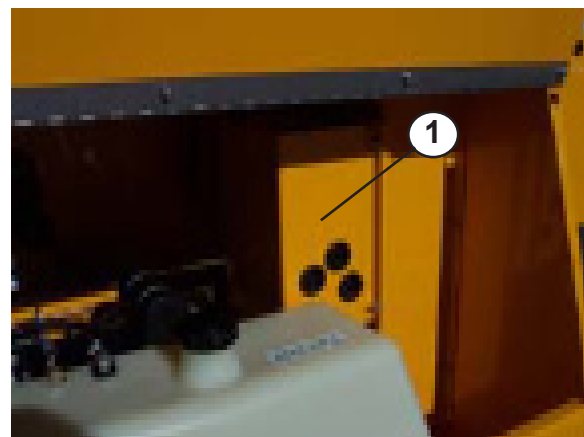


FIG. 12b

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 13. Electric Relay Assembly
1. Relays (Kubota Only)

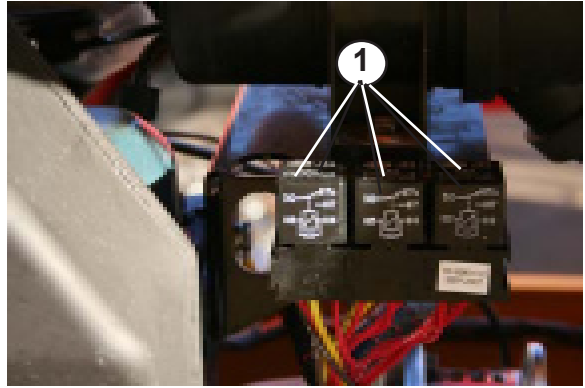


FIG. 13

FIG. 14. Tower Cord Reel Location
1. Cord Reel



FIG. 14

FIG. 15. LIFTING ATTACHMENT POINTS
1. Forklift Lifting Pockets
Used to lift light tower using forklift to ease loading and unloading

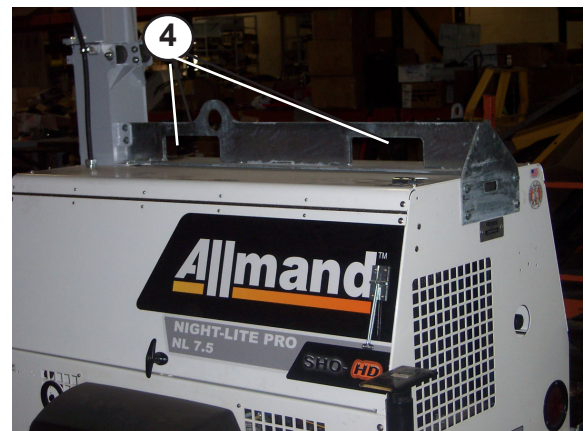


FIG. 15

CONTROLS AND COMPONENTS

NOTE: COMPONENTS SHOWN ARE STANDARD. PICTURES MAY VARY WITH DIFFERENT OPTIONS.

FIG. 17 Vertical Tower

1. Seven Section Vertical Tower
2. Light Mounting Locations --Mount lights here for use during operation
3. Light connector sockets—attach light leads to light bar at these female receptacles
4. Cord Reel

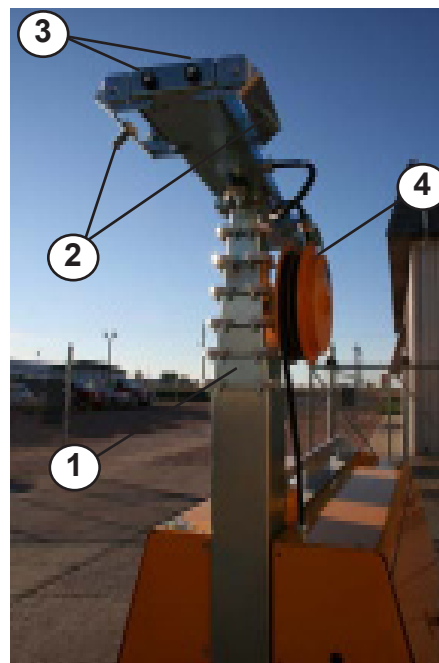


FIG. 17

FIG. 18 and 18a Light Bar and Mounting Locations

1. Light Bar
2. Light mounting locations —Mount lights here for use during operation
3. Light connector sockets—attach light leads to light bar at these female receptacles

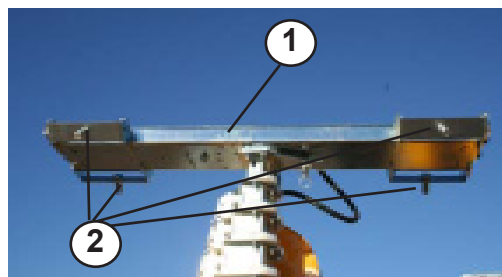


FIG. 18

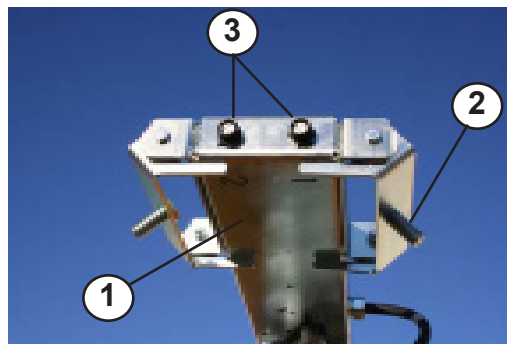
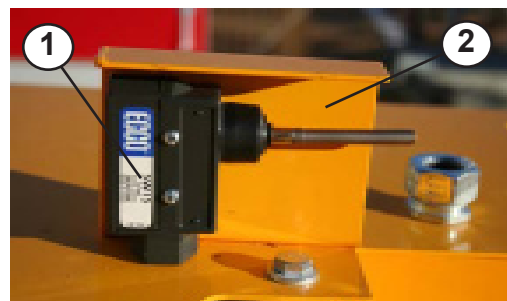


FIG. 18a

FIG. 19 Tower Limit Switch Assembly

1. Tower Limit Switch
2. Tower Limit Switch Housing



ROUTINE MAINTENANCE

KUBOTA D905, D1105, CAT C1.1, and LOMBARDINI LDW 1003

INSPECTION AND LUBRICATION SCHEDULE

Check condition of the steel cable and make sure it is properly secured. Check hydraulic fluid level.

Service intervals shown below have been established for operation under normal conditions. Where equipment is operated under severe conditions (very dusty, extreme heat or cold, etc.) affected items should be serviced more frequently.

KUBOTA

INTERVAL	ITEM	PROCEDURE
Daily or 10 Hr.	Fuel level	Check and fill as necessary
	Lubricating oil	Check level and condition
100 Hr.	All 10 Hr. items	as above
	Air cleaner	Service as required. Service requirements may be accelerated
	Battery	Check level of electrolyte
	Engine Generator assembly	Check for fuel and lubricating oil leaks
200 Hr.	All 100 Hr. items	As above
	Engine lubricating oil system	Drain lubricating oil, flush out system, renew filter element and refill with correct grade and type oil.
	Coolant	Check level and condition
400 Hr.	Fuel filter	Replace with new
500 Hr.	All 200 Hr. items	as above
	Fan belt	Check tension and condition
1000 Hr. or yearly	Radiator	Clean out fins with water or air
	All 500 Hr. items	as above
	Engine valves	Adjust clearance
	Cable pulley at the bottom of the front mast support	Remove, clean and grease
	Cable pulleys on mast	Inspect for wear. Clean and lubricate
	Axle Wheel bearings	Clean and repack
	Fuel system	Clean sediment from tank

CAT ONLY

Every Day or every 8 hours	First Service - (20/50 hours)	Every 100 hours or 3 months	Every 200 hours or 6 months	Every 400 hours or 12 months	Every 800 hours or 18 months	Check level of coolant (Top up with coolant only)
•	•	•	•	•	•	Check concentration of coolant
•	•	•	•	•	•	Renew Coolant (FILL SLOWLY, ENSURE CORRECT QUANTITY IS USED)
•	•	•	•	•	•	Check engine lubricating oil level
•	•	•	•	•	•	Renew engine oil (FILL SLOWLY, ENSURE CORRECT QUANTITY IS USED)
•	•	•	•	•	•	Renew engine oil filter
•	•	•	•	•	•	Drain water from fuel filter and pre-filter
•	•	•	•	•	•	Renew fuel filter canister (N.B. Air vent screws on filter and fuel pump)
•	•	•	•	•	•	Check tension of alternator drive belt
•	•	•	•	•	•	Check alternator drive belt for wear
•	•	•	•	•	•	Renew alternator drive belt
•	•	•	•	•	•	Check and adjust idle speed
•	•	•	•	•	•	Tighten cylinder head
•	•	•	•	•	•	Check and adjust valve clearances
•	•	•	•	•	•	Check electrical systems
•	•	•	•	•	•	Check all nuts/bolts for tightness
•	•	•	•	•	•	Check injectors for performance
•	•	•	•	•	•	Clean air filter (earlier check may be necessary)
•	•	•	•	•	•	Renew air filter element
•	•	•	•	•	•	Check and correct any leaks or engine damage

LOMBARDINI ONLY

MAINTENANCE OPERATION	MAINTENANCE INTERVAL						
	10 hours or DAILY	50 hours	125 hours	250 hours	500 hours	1000 hours	2500 hours
OIL LEVEL CHECK (D)	•						
COOLANT LEVEL CHECK (D)	•						
FAN/ ALTERNATOR BELT INSPECTION (+)	•						
AIR FILTER ELEMENT CHECK (DRY TYPE) (*)	see note						
AIR FILTER CHECK (OIL BATH TYPE) (**)	•						
RADIATOR CORE INSPECTION (⊙)	•						
FLUID LEAK INSPECTION- GENERAL (+)	•						
SAFETY GUARD INSPECTION (+)	•						
OIL REPLACEMENT- INITIAL ONLY-(see RECOMMENDED OIL TYPE)		•					
OIL FILTER REPLACEMENT - INITIAL ONLY		•					
OIL REPLACEMENT- (see RECOMMENDED OIL TYPE)			•				
OIL FILTER REPLACEMENT				•			
FUEL FILTER REPLACEMENT					•		
COOLANT HOSE INSPECTION						•	
FAN/ ALTERNATOR BELT TENSION ADJUSTMENT							•
VALVE ADJUSTMENT							•
FAN/ ALTERNATOR BELT REPLACEMENT							•
FUEL INJECTION SYSTEM ADJUSTMENT							•
CLEAN FUEL TANK (⊙)							•
COOLANT REPLACEMENT (***)							•
REPLACE TIMING BELT							•

TROUBLESHOOTING



DANGER!

HIGH VOLTAGE! DO NOT ATTEMPT TO TEST AND REPAIR GENERATOR AND BALLAST ELECTRICAL SYSTEMS UNLESS YOU UNDERSTAND AND ARE QUALIFIED TO WORK ON SUCH SYSTEMS.

DO NOT WEAR JEWELRY WHILE WORKING WITH ELECTRICITY! If the following procedures do not solve your problem, have the circuit tested by a licensed electrician. **DO NOT** attempt to test generator voltage or ballast electrical systems unless you are a qualified electrician. Consult the factory for voltage specifications and test procedures

PROBLEM	POSSIBLE CAUSE
ONE OR MORE LIGHTS DO NOT LIGHT UP.	1. Circuit breakers in the outlet box are not turned on or have tripped.
	2. Lamps are not allowed time to cool after last being lit. You must allow 15 minutes between the time the lights are shut off and the time they are restarted.
	3. The lamp or lamps are burned out or broken.
	4. One or more of the lamps are not screwed in securely.
	5. Plug and socket at light bar not securely pushed together and locked.
	6. The temperature of the ballast is below -20 degrees F. the efficiency of the capacitors in the ballast is not enough to ignite the lamps. For operations where the temperatures of the ballasts falls below -20 degrees F. some means of warming the ballast must be used.
	7. Low electrical system voltage.
	8. A loose connection in the back of the lamp socket in the lamp holder.
	9. A circuit breaker or breakers are defective.
	10. A loose connection on the terminal board.
	11. The engine and generator are not running up to speed (1800 RPM)
	12. A wrong style replacement lamp (requiring a different ballast) has been installed.
	13. Too much power is being drawn from the auxiliary outlets.
	14. Capacitor or transformer have failed.
	15. Corrosion has occurred on the lamp bases.

For engine and generator troubleshooting, see engine and generator manuals or contact your dealer.



**NIGHT-LITE PRO
PARTS MANUAL
VERTICAL TOWER
MODEL**

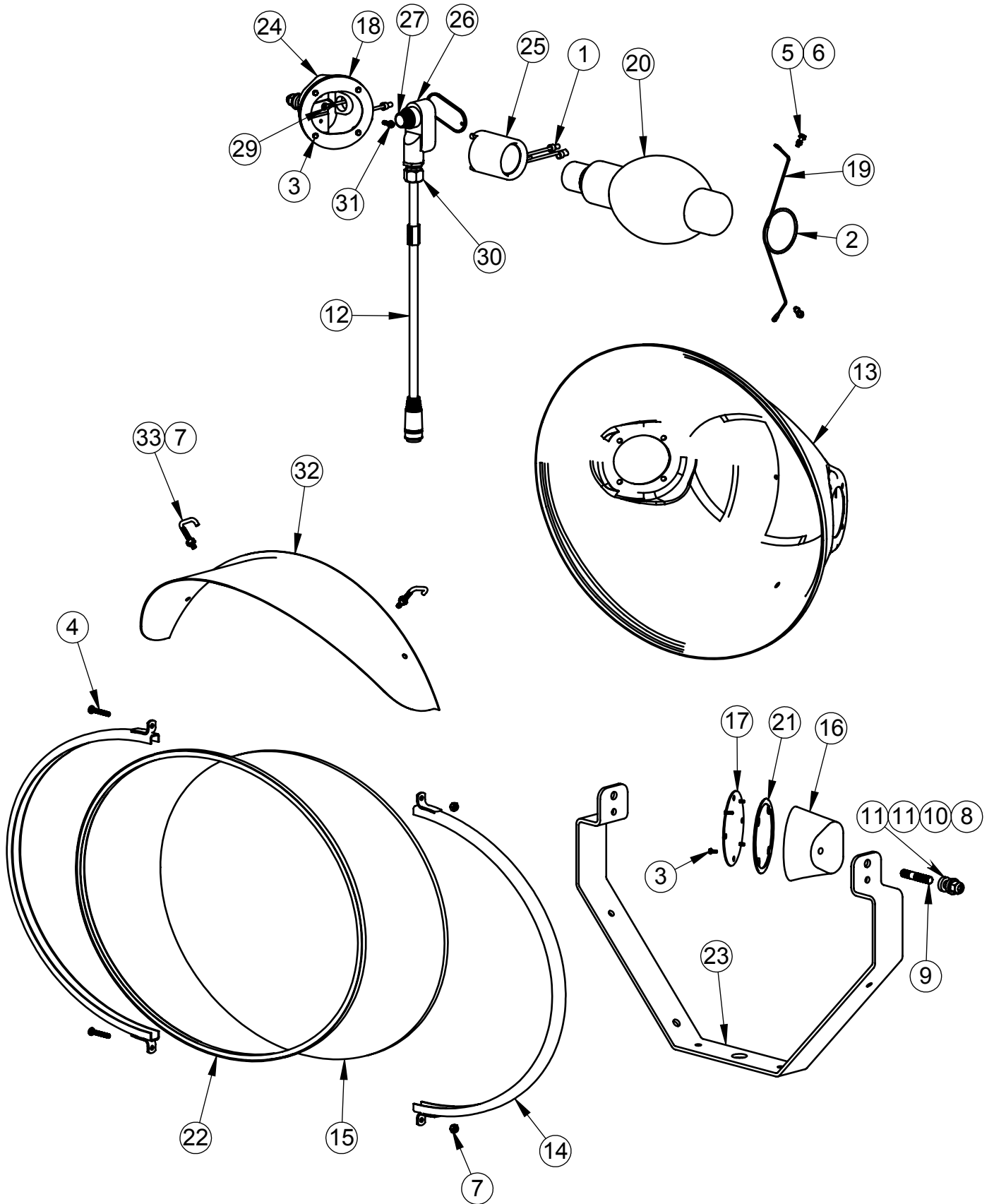
**ALLMAND BROS. INC
P.O. BOX 888
HOLDREGE, NE 68949**

**PHONE: 308/995-4495, 1-800/562-1373
ALLMAND FAX: 308/995-5887
ALLMAND PARTS FAX: 308/995-4883**

AllmandTM NIGHT-LITE PRO SERIES

NIGHT-LITE PRO V-SERIES CE

SHO 1000 LAMPHOLDER



A-1A

NIGHT-LITE PRO V-SERIES CE

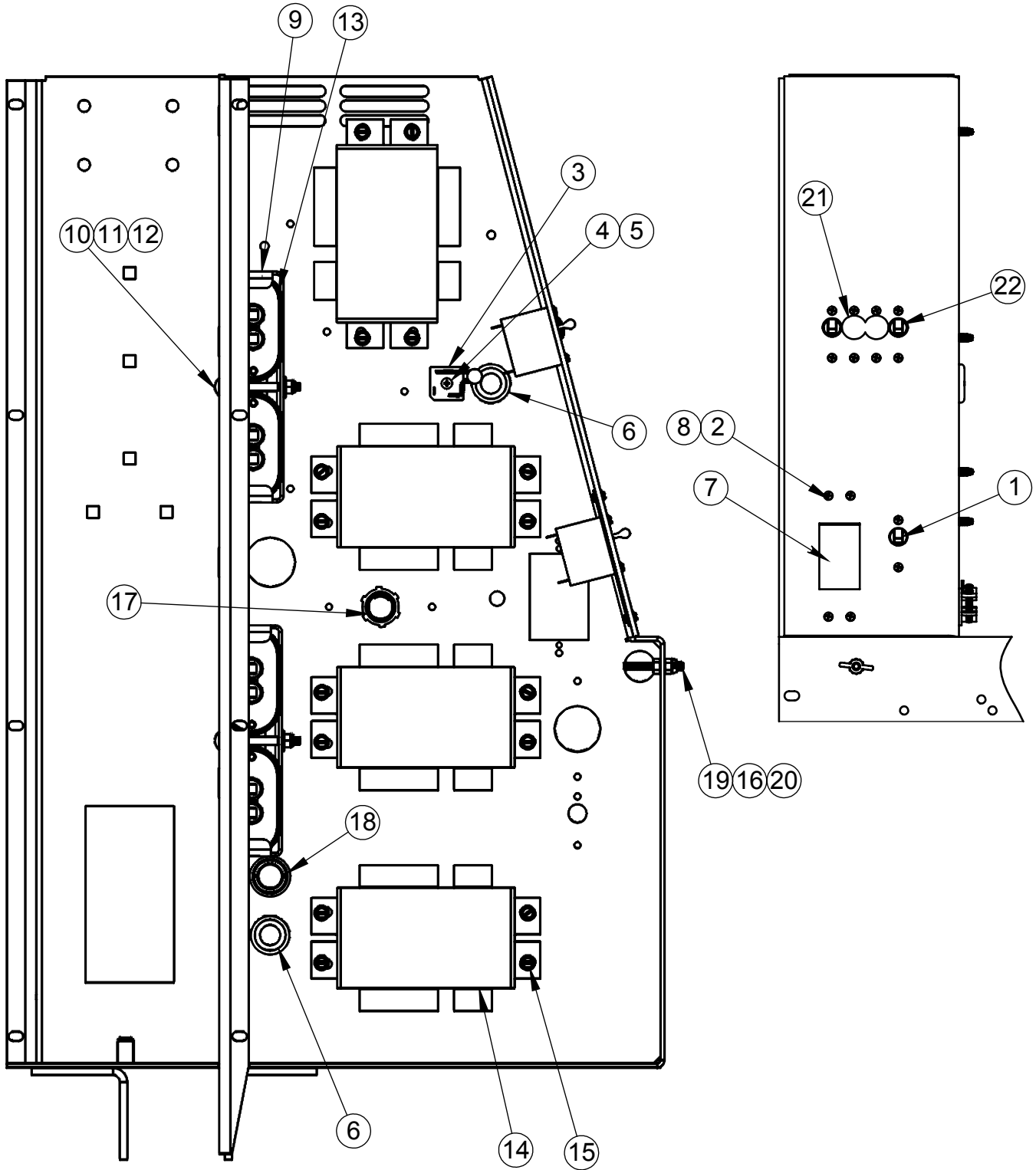
SHO 1000 LAMPHOLDER

NO.	QTY.	PART NO.	DESCRIPTION
1	3	022060	WIRE CAP SMALL
2	1	610210	FIBERGLASS TUBE X 12"
3	8	041028	10-24 X 1/2 HEX MACH SCREW
4	2	041036	10-24 X 1 1/4 SS RHMSPH
5	2	041200	8-32 X 1/2 HEX MACH SCREW
6	2	044013	NUT #8-32 NYLOC HEX SS
7	4	044019	10-24 NYLOC NUT
8	2	044037	3/8-24 NYLOC NUT
9	2	045142	STUD 3/8-24 X 3/8-16 X 2"
10	2	047016	3/8 SAE FLAT WASHER
11	4	047019	3/4 OD X .385 ID NYLON BUSHING
12	1	310434	MALE CONNECTOR CABLE
13	1	610201	REFLECTOR
14	2	610202	LENS CHANNEL
15	1	610203	LENS
16	1	610206	END CAP
17	1	610207	INTERIOR COVER PLATE
18	1	610208	INTERIOR COVER PLATE
19	1	610209	LAMP SUPPORT TIP
20	1	610221	LAMP 1000W BT37(MH)
21	2	610213	GASKET
22	1	610217	SILICONE GASKET
23	1	660130-20	YOKE, MOUNT
24	1	610205	END CAP
25	1	610212	CERAMIC SOCKET
26	1	610214	ELBOW
27	1	610215	NIPPLE
28	1	020113	14 AWG GREEN 6"
29	1	022155	#10 ELEC. RING
30	1	510007	1/2 DIA CORD GRIP
NS		100632	LAMPHOLDER ASSEMBLY 1250w W/YOKE/LAMP/QD
NS		100633	LAMPHOLDER ASSEMBLY 1250w W/YOKE/LAMP
32	1	610017	SAF-T VISOR
31	1	041257	10-32 GROUND SCREW
33	2	045070	#10-24 HOOK SQ BD BOLT

LEGEND:
 NS=NOT SHOWN
 WHEN ORDERING, SPECIFY THE
 COLOR WANTED ON PARTS
 CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES CE

BALLAST PANEL



NIGHT-LITE PRO V-SERIES CE

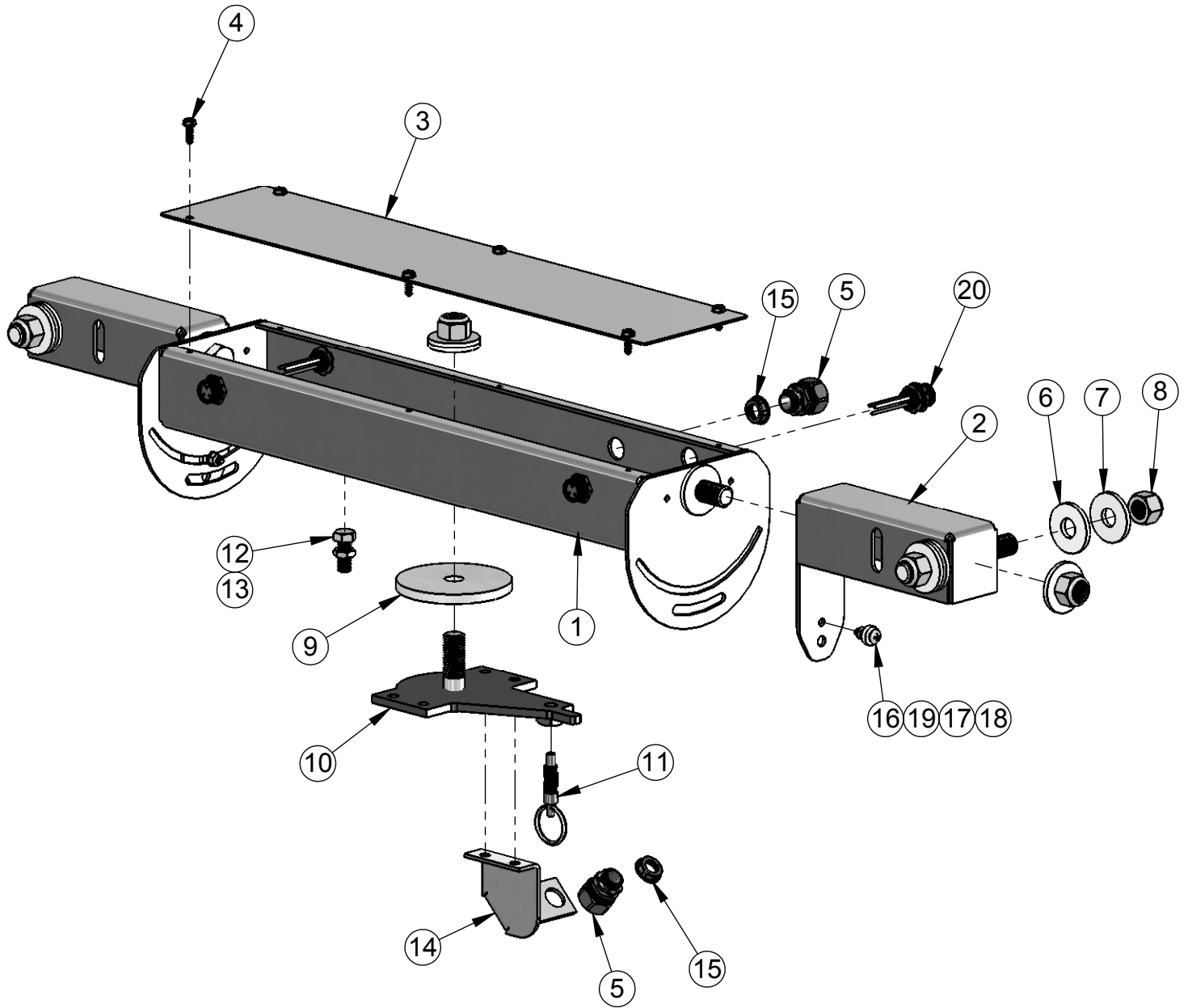
BALLAST PANEL

NO.	QTY.	PART NO.	DESCRIPTION
1	1	650151	15 AMP SPST CIRCUIT BREAKER
2	14	041017	6-32 X 3/8 MACH SCREW PLT
3	1	630157A	DIODE BRIDGE
4	1	041027	10-24 x 3/4" PHILIPS HEAD MS
5	1	044016	10-24 KEPS NUT
6	2	330463	RUBBER GROMMET
7	1	651243P	BREAKER COVER PLATE
8	6	044004	6-32 KEPS NUT
9	2	100392P	CLAMP CAPACITOR (HPS)
10	2	100718	1/4-20 x 2 1/4 CARR BOLT
11	2	047008	1/4" FLAT WASHER SS
12	2	044023	1/4-20 NYLOCK NUT
13	4	100329	CAPACITOR 28 uF (HD 1250W)
14	4	100328	BALLAST 1250W 60 Hz W/28uF CAPACITOR(HD)
15	16	041070	1/4 - 20 x 3/4" SELF TAPPING SCREW
16	1	330494	1/4-20 WING NUT
17	1	022025	2-SCREW ROMEX CLAMP, 3/4"
18	1	064025	1 1/16" PLASTIC PLUG
19	1	045004	1/4-20 X 2" STUD
20	2	044021	1/4-20 KEPS NUT
21	2	433329	5/8" PLASTIC PLUG
22	2	650127	25 AMP SPST CIRCUIT BREAKER

LEGEND:
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 COLOR WANTED ON PARTS
 CONTAINING THE LETTER "P"

NIGHT-LITE PRO V SERIES CE LIGHT BAR

1/26/2010



NIGHT-LITE PRO V SERIES CE LIGHT BAR

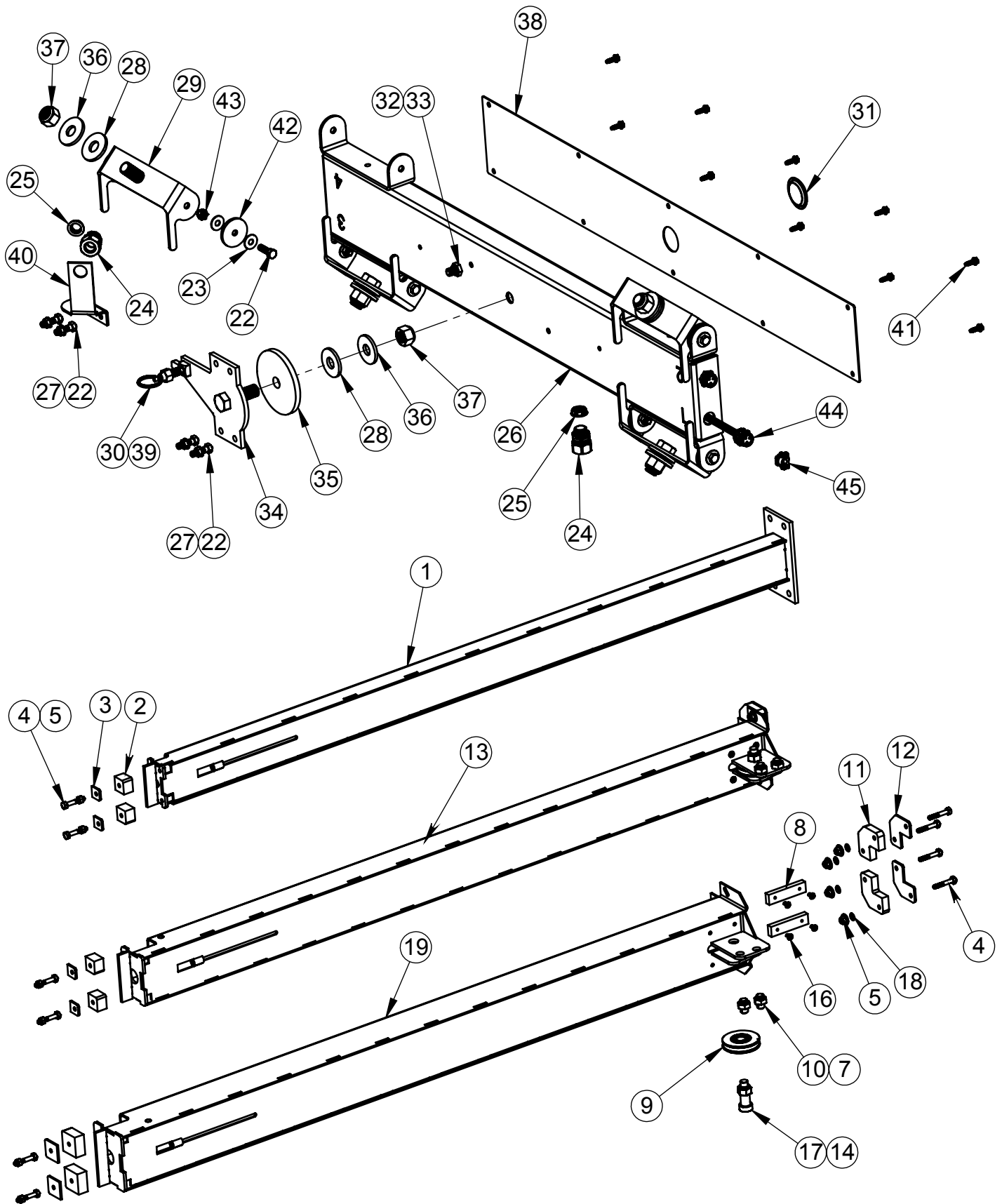
1/26/2010

NO.	QTY.	PART NO.	DESCRIPTION
1	1	101930P	LIGHT BAR
2	2	101931P	LAMP MOUNT
3	1	101929P	COVER
4	6	041070	1/4-20 X 3/4 SMSHH TP F
5	2	330031	1/2" CORD GRIP
6	7	650550	.785ID X 2OD HDPE WASHER
7	7	047035	3/4 FLAT WASHER (PLATED)
8	7	044121	3/4-10 NYLOCK SS HEX NUT
9	1	100147	UHMW BEARING
10	1	100143P	ROTATION MOUNT
11	1	100148	LATCH ASSY
12	1	046180	1/2-13 X 1 1/4 HHCS GR 5
13	1	100643	1/2-13 NYLOCK
14	1	100154P	BRACKET
15	2	022415	BUSHING THREADED
16	2	041080	1/4-20 X 1" TRUSS SCREW
17	2	047070	WASHER, FLAT 1/4" SS
18	2	044023	1/4-20 NYLOCK NUT
19	2	047019	3/4 OD X .385 ID NYLON BUSHING
20	4	310414	CONNECTOR, FEMALE QD

LEGEND:
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NIGHT-LITE PRO V-SERIES CE

100399 UPPER SECTIONS



NIGHT-LITE PRO V-SERIES CE

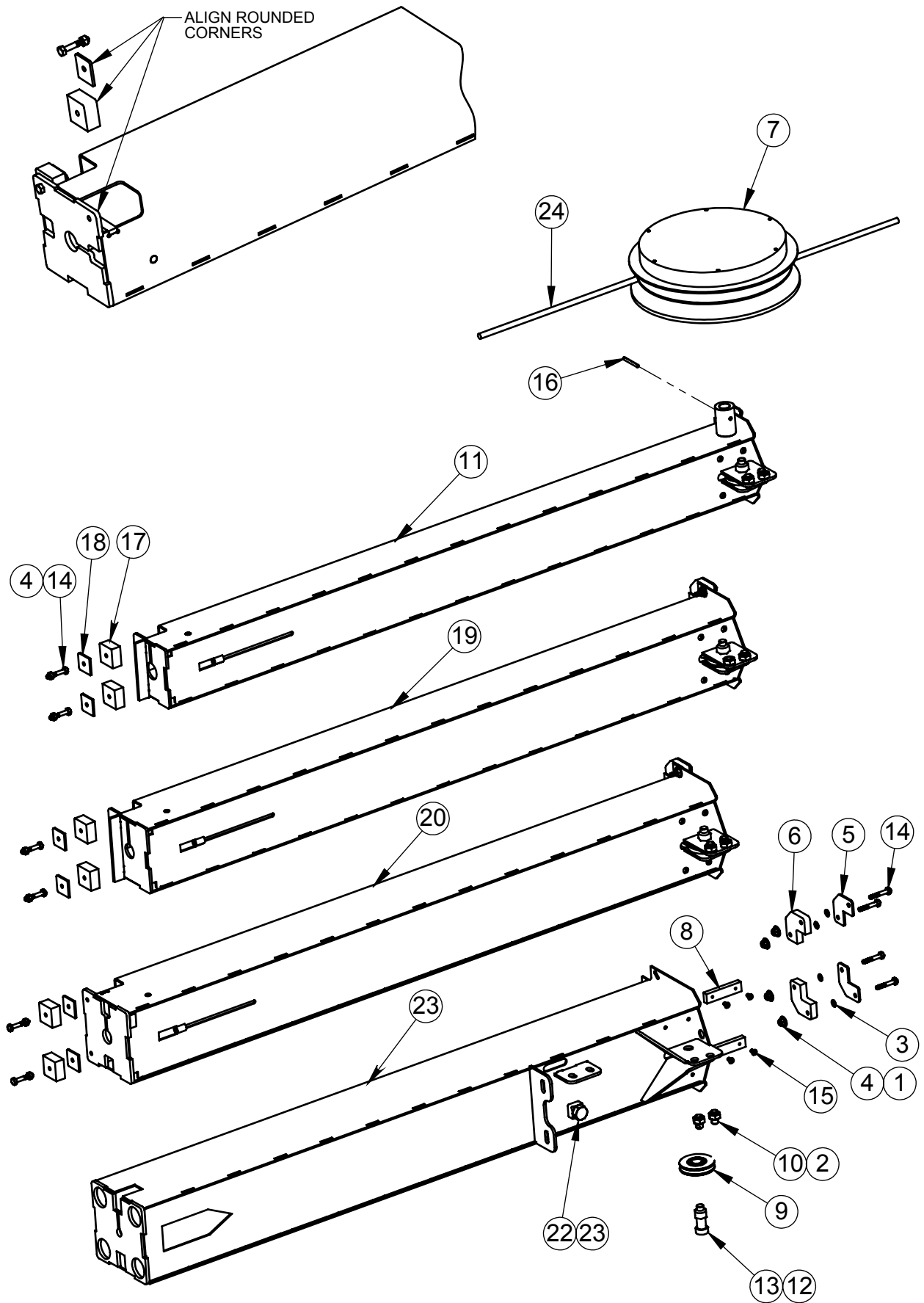
100399 UPPER SECTIONS

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100085-15	SEC 7
2	4	100178	UHMW 3/4 X 1" SQ WEAR BLK
3	4	100179-15	1" WEAR BLK CVR
4	13	046025	1/4-20 X 1 1/2" HEX BOLT
5	14	044023	1/4-20 NYLOCK NUT
6	8	047005	1/4 FLAT WASHER
7	4	044096	1/2-20 HEX NUT PL
8	4	100062	SPACER, 3/8" UHMW
9	2	100160	2 1/2" PULLEY
10	4	100071	3/16 CABLE BOLT
11	4	100088	BLOCK, CORNER FRICTION
12	4	100089-15	COVER, CORNER BLOCK
13	1	100080-15	SEC 6
14	2	044048	NUT NYLOCK 1/2-13 HEX PL
15	1	100149	CABLE ASSY.
16	8	041023	#10 X 3/8 PLS
17	2	100642	5/8 X 1 SHOULDER BOLT
18	8	043060	3/8 INT STAR WASHER
19	1	100075-15	SEC 5
20	2	100094	UHMW 1 1/2" WEAR BLK
21	2	100095-15	1 1/2" WEAR BLK CVR
22	12	046115	3/8-16 X 1 1/4 HHCS
23	16	047015	3/8 FLAT WASHER
24	2	330031	1/2" CORD GRIP
25	2	022415	BUSHING THREADED
26	1	100113-15	WELD LIGHT BAR
27	4	044036	3/8-16 KEPS NUT
28	5	650550	.785 X 2" HDPE WASHER
29	4	100157-15	WELD, LIMITER BKT
30	1	100148	LATCH ASSY
31	1	680878	CAPLUG 1 3/4"
32	1	046180	1/2-13 X 1 1/4 HHCS GR 5
33	1	100643	1/2-13 NYLOCK JAMB NUT
34	1	100143-15	WELD, ROTATION MOUNT
35	1	100147	UHMW BEARING
36	5	047035	3/4 FLAT WASHER (PLATED)
37	5	044121	3/4-10 NYLOCK SS HEX NUT
38	1	100106-15	LIGHT BAR COVER
39	1	044045	1/2-13 PL HEX HUT
40	1	100154-15	TWR TO CORD ANGLE
41	10	041070	1/4 - 20 x 3/4" SELF TAPPING SCREW
42	8	100673	.385 X 2 X 3/16 PC WASHER
43	8	044038	3/8-16 NYLON INSERT NUT
44	4	310414	CONNECTOR, FEMALE QD
45	4	022020	2 SCREW CLAMP, 3/8"

LEGEND:
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COLOR WANTED ON PARTS
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NIGHT-LITE PRO V-SERIES CE

100399 LOWER SECTIONS



NIGHT-LITE PRO V-SERIES CE

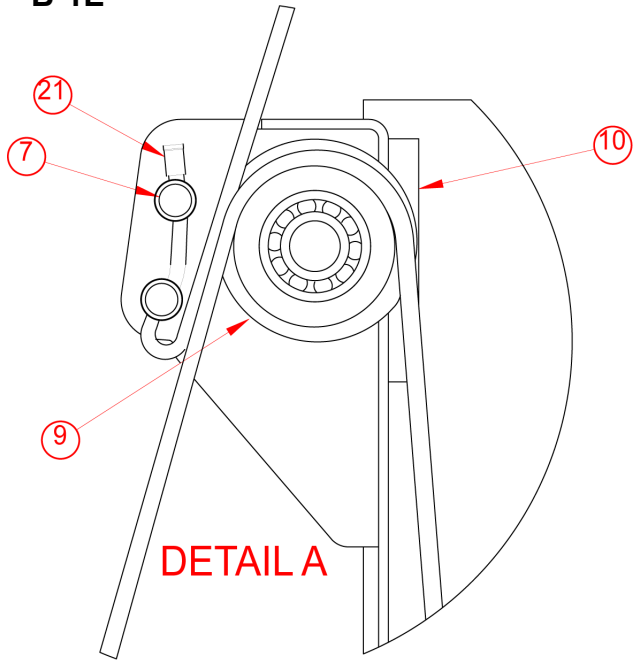
100399 LOWER SECTIONS

NO.	QTY.	PART NO.	DESCRIPTION
1	16	047005	1/4 FLAT WASHER
2	8	044096	1/2-20 HEX NUT PL
3	16	043060	3/8 INT STAR WASHER
4	22	044023	1/4-20 NYLOCK NUT
5	8	100089-15	COVER, CORNER BLOCK
6	8	100088	BLOCK, CORNER FRICTION
7	1	320410P	CORD REEL
8	8	100062	SPACER, 3/8" UHMW
9	4	100160	2 1/2" PULLEY
10	8	100071	3/16 CABLE BOLT
11	1	100070-15	SEC 4
12	4	044048	NUT NYLOCK 1/2-13 HEX PL
13	4	100642	5/8 X 1 SHOULDER BOLT
14	22	046025	1/4-20 X 1 1/2" HEX BOLT
15	16	041023	#10 X 3/8 PLS
16	1	320453	3/16 X 1 3/4" ROLL PIN
17	6	100094	UHMW 1 1/2" WEAR BLK
18	6	100095-15	1 1/2" WEAR BLK CVR
19	1	100060-15	WELD, SEC 3
20	1	100055-15	SEC 2
21	1	043100	5/8 INT LOCK WASHER
22	1	046242	5/8-11 X 1" GR 5 HEX BOLT
23	1	100081-15	SEC 1
24	1	100687	VERTICAL TOWER CORD 16/8 X 310"

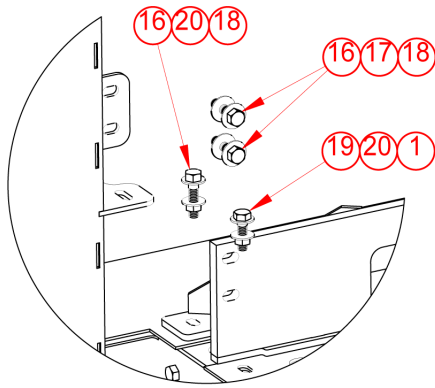
LEGEND:
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NIGHT-LITE PRO SERIES TOWER CABLE ROUTING

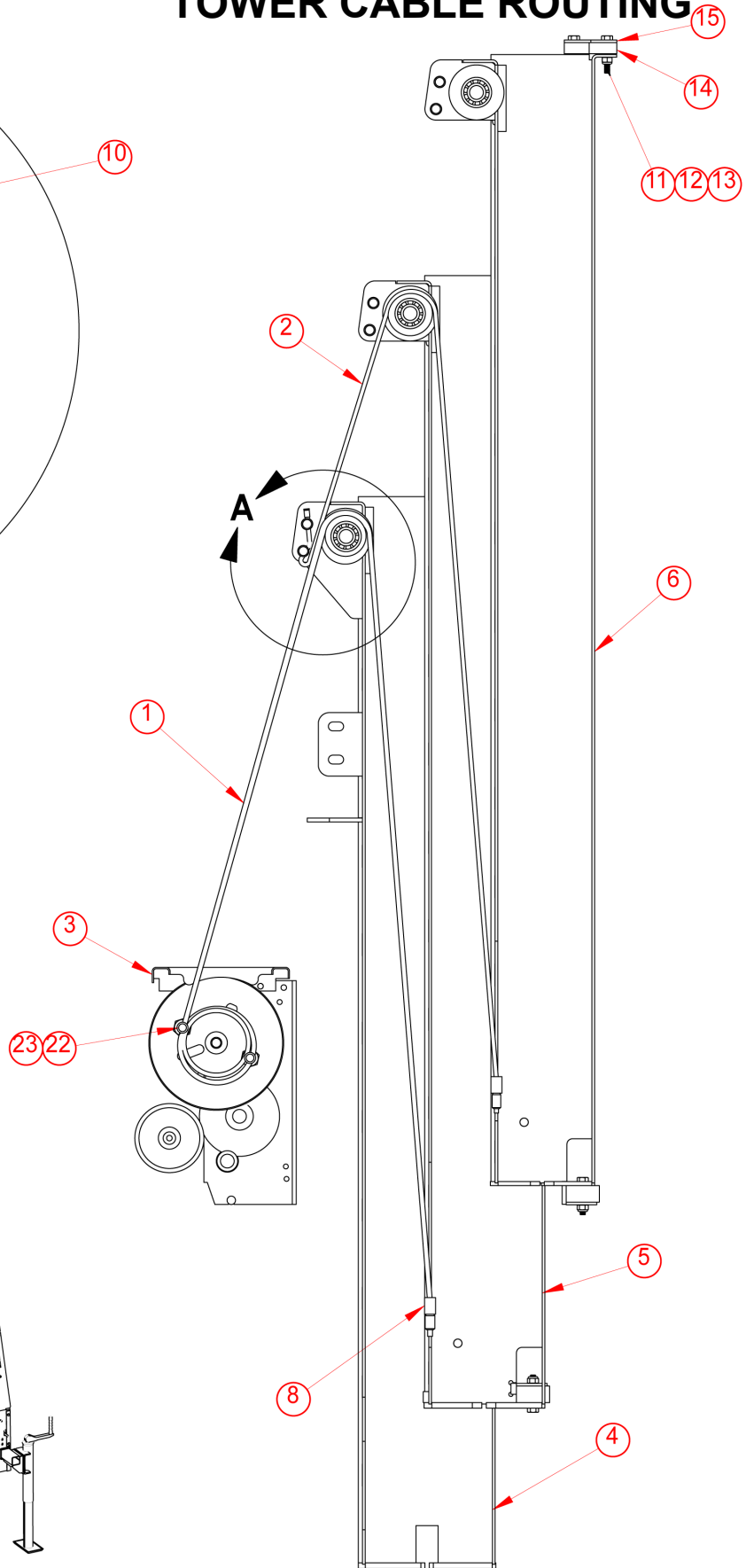
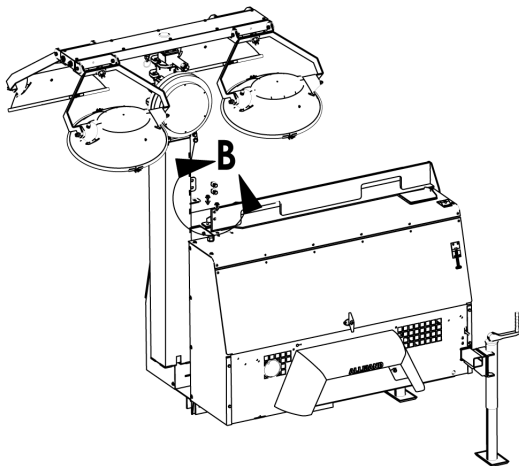
B-1E



DETAIL A



DETAIL B



NIGHT-LITE PRO SERIES TOWER CABLE ROUTING

NO	PART NO	DESCRIPTION
1	100150	7/32" CABLE
2	100149	3/16" CABLE
3	100146	ASSY, ELEC WINCH
4	100081-15	TOWER SECTION 1
5	100055-15	TOWER SECTION 2
6	100060-15	TOWER SECTION 3
7	100071	1/2-20 CABLE BOLT (USE WITH 3/16 CABLE ONLY)
8	N/A	CABLE ANCHOR
9	100160	2 1/2" PULLEY
10	100062	SPACER, 3/8" UHMW
NS	041023	#10 X 3/8" PLS
11	046025	1/4-20 x 1 1/2" HEX BOLT
12	043060	3/8" INTERNAL TOOTH WASHER
13	044023	1/4-20 NYLOCK NUT
14	100088	CORNER FRICTION BLOCK
15	100089-15	CORNER BLOCK COVER
16	046120	3/8-16 X 1 1/2 HEX BOLT
17	047015	3/8 FLAT WASHER
18	044036	3/8-16 KEPS NUT
19	046115	3/8-16 X 1 1/4 HEX BOLT
20	047010	5/16 FLAT WASHERS
21	022150	SPLICE CAP(use with cables 100149 and 100150 above)
22	100993	1/2-13 CABLE BOLT(USE WITH 7/32 CABLE ONLY)
23	044045	1/2-13 NUT

B-1F

INSTRUCTIONS FOR REPLACING STEEL CABLES

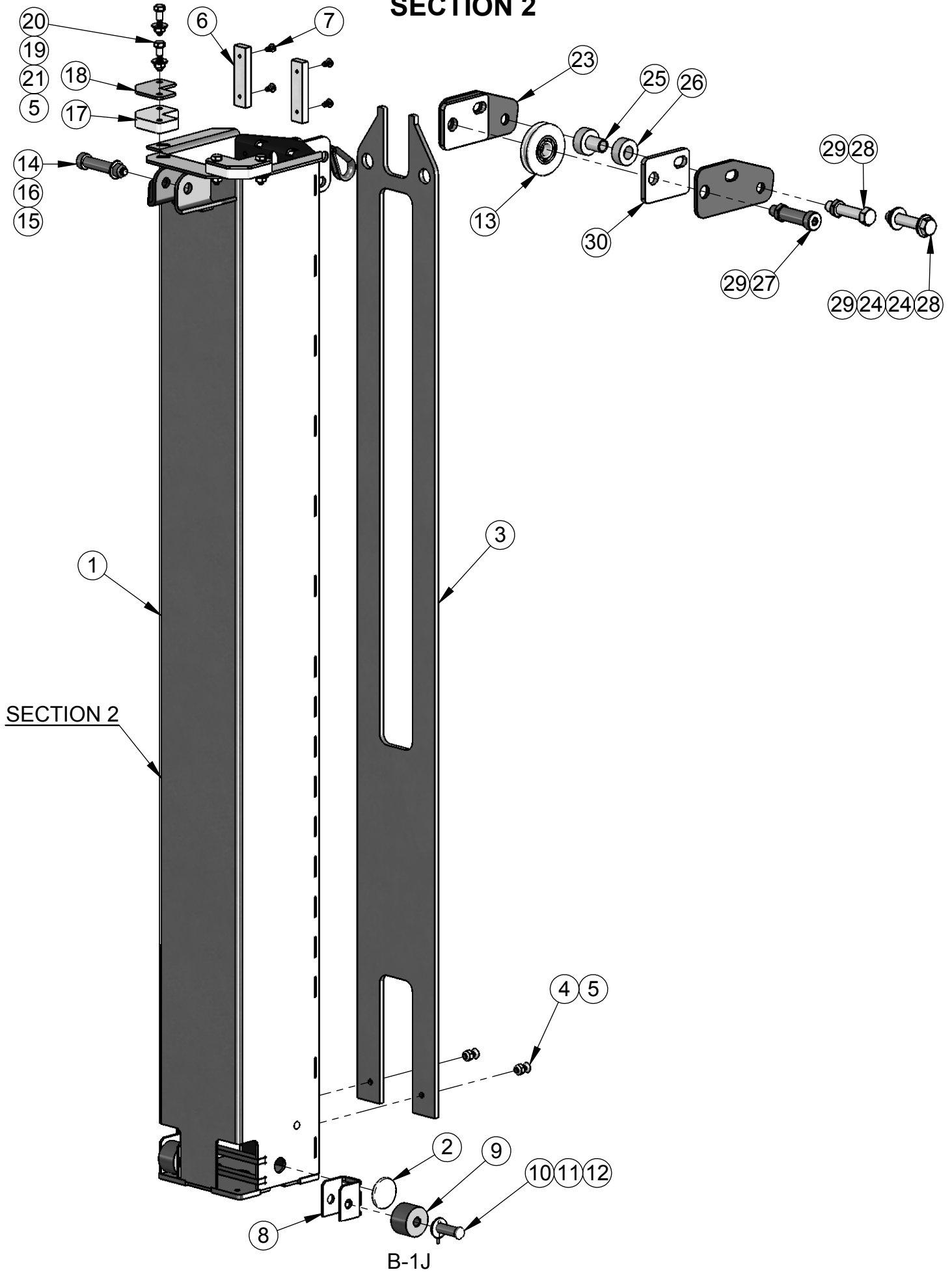
1. REMOVE VERTICAL TOWER WIRING FROM THE LIGHT BAR ASSEMBLY(NOT SHOWN) AND THE TRAILER (BEHIND THE LEFT FRONT PANEL).
2. REMOVE 7/32 CABLE(ITEM 1) FROM WINCH BY LOOSENING ITEMS 22 AND 23
3. REMOVE ENTIRE VERTICAL TOWER FROM TRAILER BY REMOVING BOLTS, NUTS, AND WASHERS (ITEMS 16,17,18,19, AND 20) AND LIFTING OFF OF THE STUD ON THE TRAILER FRAME (REFER TO DEATAIL B)
4. REMOVE THE STEEL CABLE FROM THE CABLE BOLTS (ITEM 7).
5. REMOVE THE #10 SCREWS (NOT SHOWN) AND THE UHMW SPACERS (ITEM 10).
6. REMOVE CORNER FRICTION BLOCKS (ITEM 14) BY REMOVING BOLTS (ITEM 11), NUTS (ITEM 13), WASHER (ITEM 12), AND COVER (ITEM 15)
7. SLIDE OUT THE SECTION WITH THE CABLE THAT IS BEING REPLACED
8. PULL THE STEEL CABLE THROUGH THE CABLE ANCHOR (ITEM 8).
9. RUN THE NEW STEEL CABLE THROUGH THE CABLE ANCHOR (ITEM 8)UNTIL THE STOP ON THE CABLE IS SEATED.
10. INSERT THE TOWER SECTION WITH THE CABLE INTO POSITON.
11. ATTACH THE UHMW SPACERS (ITEM 10) WITH THE #10 SCREWS.
12. ATTACH CORNER FRICTION BLOCKS (ITEM 14) USING BOLTS (ITEM 11),NUTS (ITEM 13), WASHER (ITEM 12), AND COVER (ITEM 15)
13. ATTACH THE CABLE BOLTS TO THE CABLE AND TOWER SECTION. BEFORE TIGHT ENING THE CABLE BOLTS, REMOVE ANY SLACK FROM THE STEEL CABLE. **TIGHTEN CABLE BOLTS TO 20-25 ft/lbs.**
14. **CRIMP ON SPLICE CAPS (ITEM 21) TO THE END OF THE CABLE.**
15. ATTACH ENTIRE VERTICAL TOWER TO THE TRAILER USING BOLTS, NUTS, AND WASHERS (ITEMS 16,17,18,19, AND 20).
16. ATTACH THE 7/32 CABLE (ITEM 1) TO WINCH WITN BOLTS(ITEMS 22 AND 23)
17. ATTACH THE VERTICAL TOWER WIRING

WHEN ORDERING, SPECIFY COLOR WANTED
ON PART NUMBERS CONTAINING THE
LETTER P

NIGHT-LITE PRO-V SERIES CE

5/14/2010

SECTION 2



NIGHT-LITE PRO V-SERIES CE

5/14/2010

SECTION 2

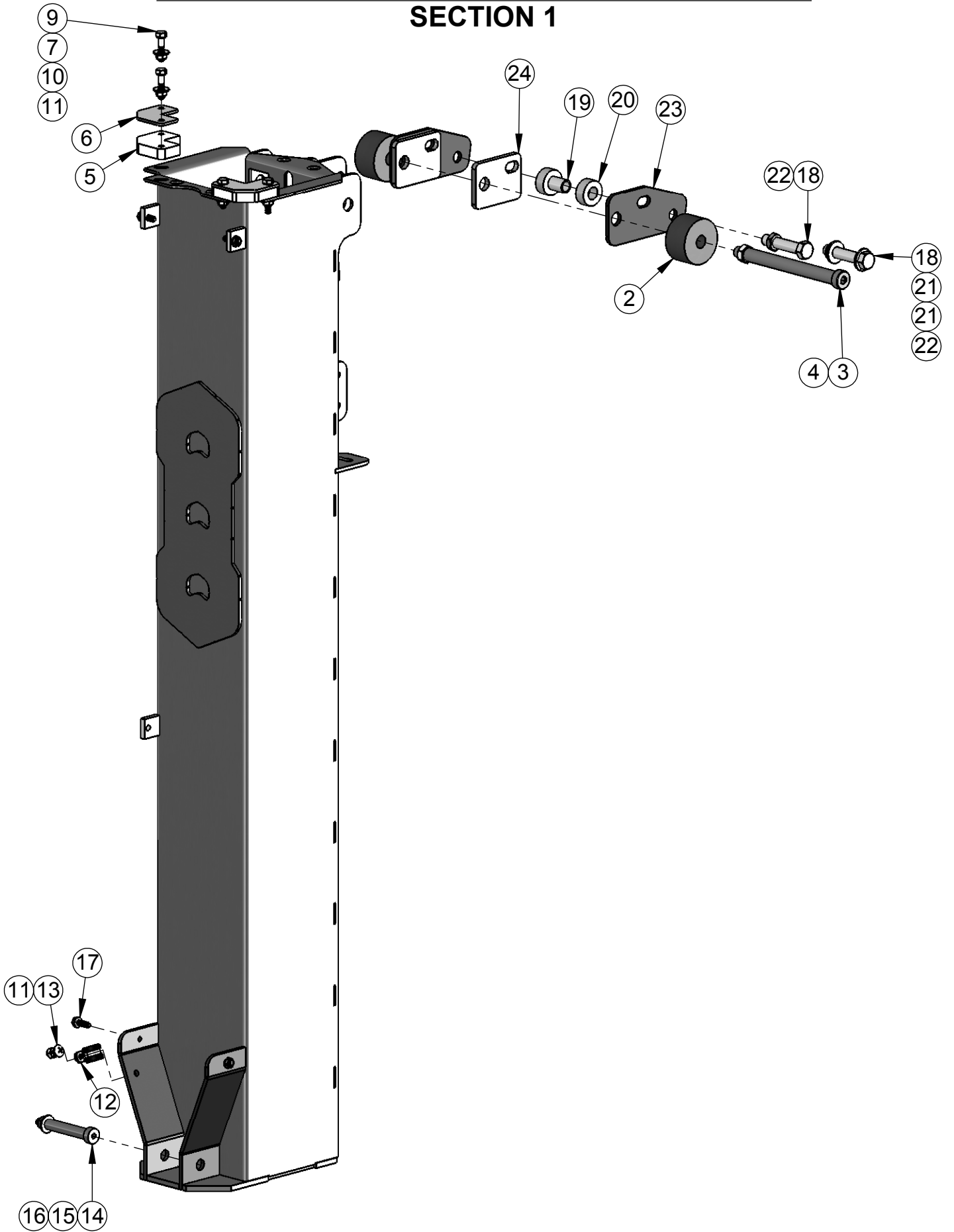
NO.	QTY.	PART NO.	DESCRIPTION
1	1	101035P	SECTION 2
2	2	101626	FRICTION PLUG
3	1	100204P	SEC 2 ROLLER PLATE
4	2	041047	1/4-20 X 3/4 PH CSK
5	6	044023	1/4-20 NYLOCK NUT
6	2	100062	3/8 UHMW SPACER
7	4	041023	#10 X 3/8 PLS
8	2	101374P	BEARING CAGE
9	2	101380	COMPOSITE ROLLER
10	2	101377	CLEVIS PIN 7/16 X 1 1/2
11	2	047015	3/8 FLAT WASHER
12	2	045044	COTTER PIN
13	1	100160	2 1/2 PULLEY
14	1	101378	1/2 X 2 SH BOLT
15	1	044038	3/8-16 NYLOCK NUT PL
16	1	047010	5/16 FLAT WASHER
17	2	100088	CORNER FRICTION BLOCK
18	2	100089P	CORNER BLOCK COVER
19	4	043060	3/8 INT STAR WASHER
20	4	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
21	4	047005	1/4 FLAT WASHER
22	1	045040	1/4 CABLE THIMBLE
23	2	102270P	CABLE BRACKET
24	2	047025	1/2" FLAT WASHER
25	1	102273	LONG SPACER
26	2	102271	PLASTIC SPACER
27	1	102365	5/8 X 1 SHOULDER BOLT
28	2	046205	1/2-13 X 2 1/2 HEX BOLT GR5 PL
29	3	100643	1/2-13 NYLOCK
30	2	102269P	SPACER BRACKET

LEGEND:
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NIGHT-LITE PRO V-SERIES CE

5/14/2010

SECTION 1



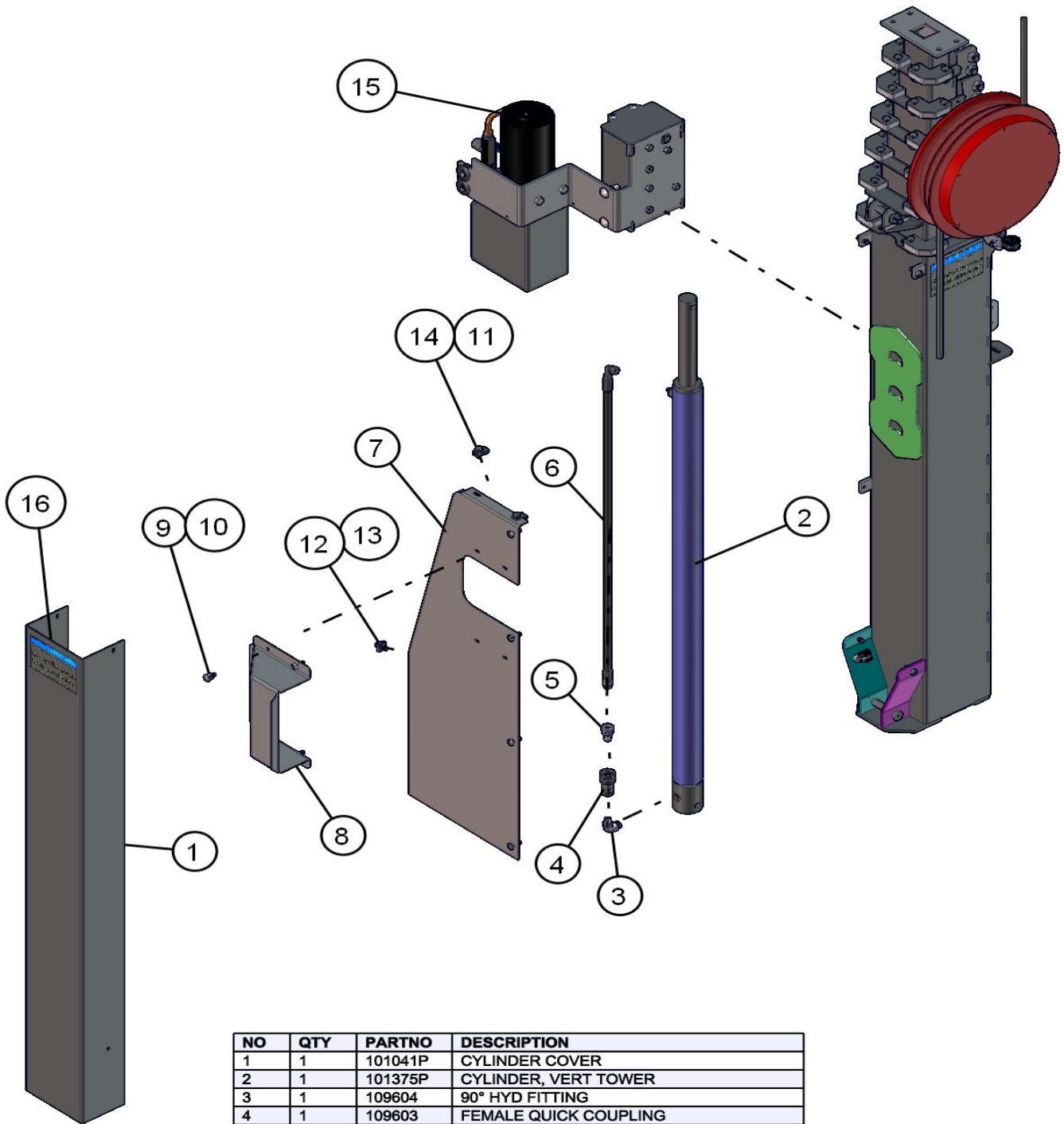
SECTION 1

NO.	QTY.	PART NO.	DESCRIPTION
1	1	101034P	SECTION 1
2	2	100203	ROLLER
3	1	100202	5/8 X 6 SS SH BOLT
4	1	044096	1/2-20 HEX NUT PL
5	2	100088	CORNER FRICTION BLOCK
6	2	100089P	CORNER BLOCK COVER
7	4	043060	3/8 INT STAR WASHER
8	1	046025	1/4-20 X 1 1/2 HEX BOLT
9	3	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
10	4	047005	1/4 FLAT WASHER
11	5	044023	1/4-20 NYLOCK NUT
12	1	310212	#10 CUSHION CLAMP
13	1	041050	1/4-20 X 3/4 TRUSS BOLT
14	1	101379	1/2 X 2.75 SH BOLT
15	1	047010	5/16 FLAT WASHER
16	1	044038	3/8-16 NYLOCK NUT PL
17	4	041070	1/4-20 X 3/4 SMSHH TP F
18	2	046205	1/2-13 X 2 1/2 HEX BOLT GR5 PL
19	1	102273	LONG SPACER
20	2	102271	PLASTIC SPACER
21	2	047025	1/2" FLAT WASHER
22	2	100643	1/2-13 NYLOCK
23	2	102270P	CABLE BRACKET
24	2	102269P	SPACER BRACKET

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NIGHT-LITE PRO V SERIES CE HYDRAULIC TOWER

11/4/2010



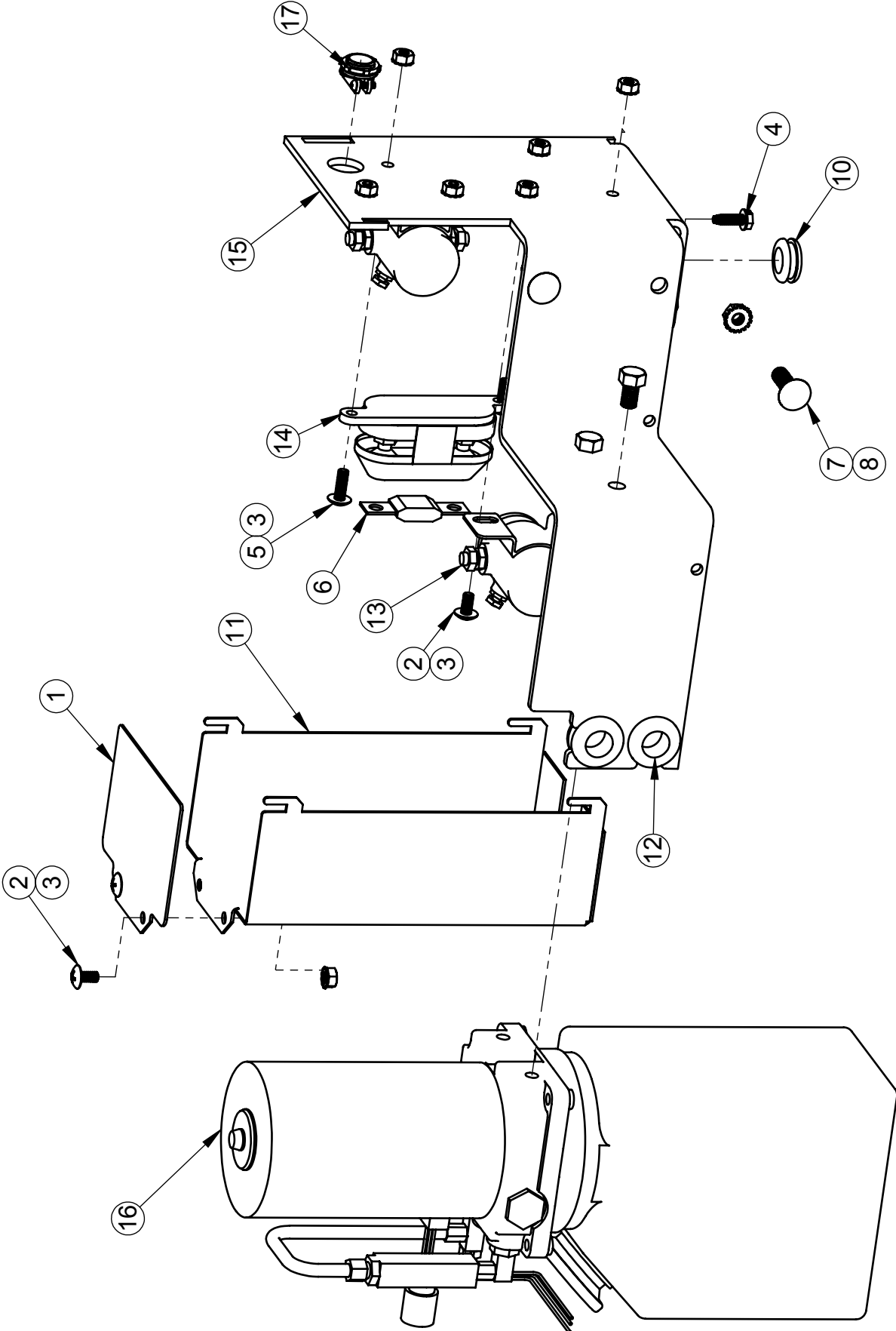
NO	QTY	PARTNO	DESCRIPTION
1	1	101041P	CYLINDER COVER
2	1	101375P	CYLINDER, VERT TOWER
3	1	109604	90° HYD FITTING
4	1	109603	FEMALE QUICK COUPLING
5	1	109602	MALE QUICK DISCONNECT
6	1	109605	HYDRAULIC HOSE
7	1	100132P	R FRONT COVER PANEL
8	1	101328P	HOSE SHIELD
9	4	041050	1/4-20 X 3/4 TRUSS BOLT
10	4	044023	1/4-20 NYLOCK NUT
11	6	044106	1/4-20 TINNEMAN NUT
12	2	045216	1/4-20 TINNEMAN NUT
13	8	047009	1/4 SAE SS FW
14	8	046010	1/4-20 X 3/4 HEX BOLT SS
15	1	100242	HYDRAULIC PUMP / ELECTRICAL ASSEMBLY
16	3	101404	TOWER WARNING DECAL

LEGEND:
NS= NOT SHOWN
WHEN ORDERING, SPECIFY
COLOR WANTED ON PARTS
CONTAINING THE LETTER "P"

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NIGHT-LITE PRO V-SERIES CE

100242 HYDRAULIC PUMP

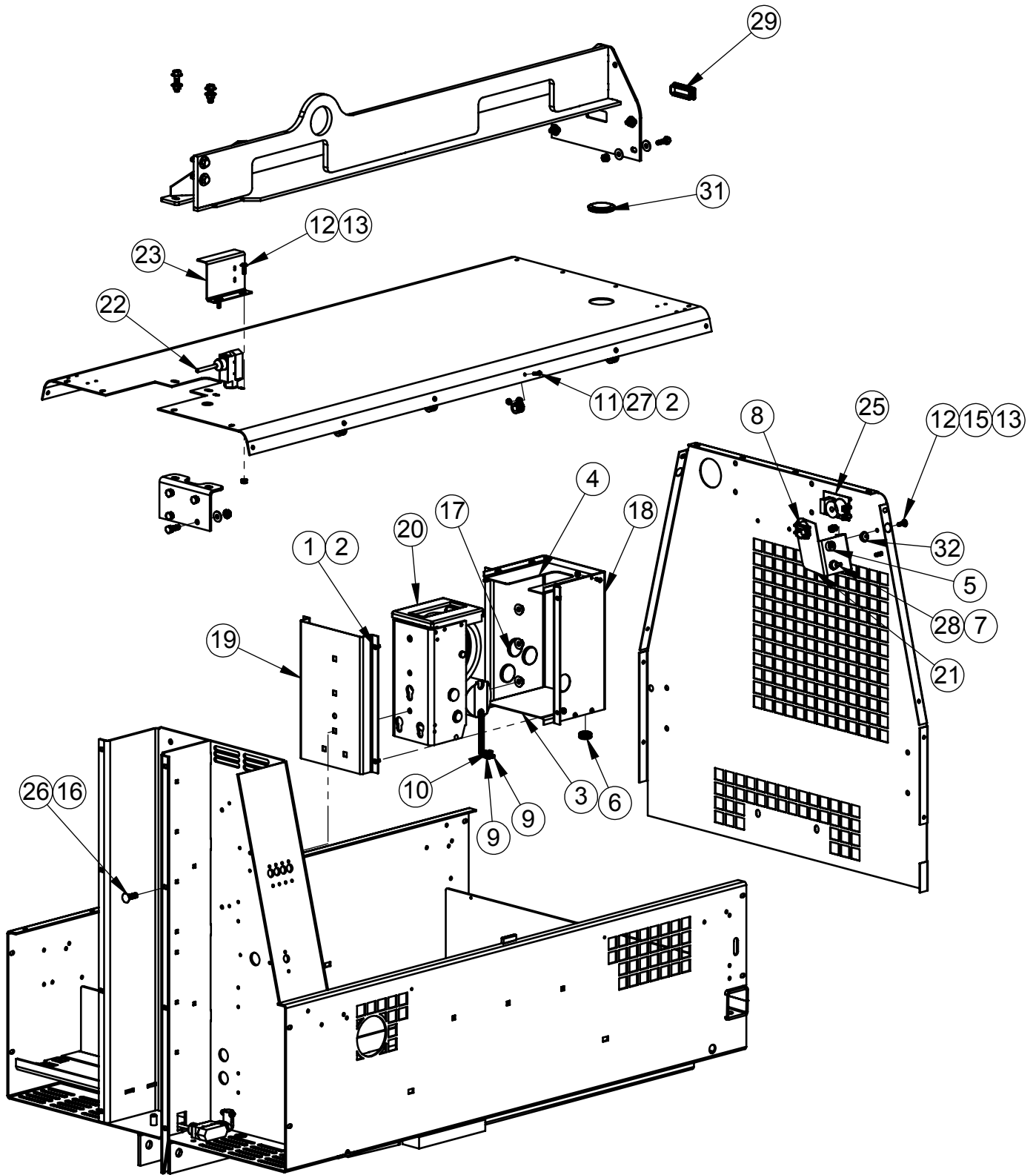


NIGHT-LITE PRO V-SERIES CE

100242 HYDRAULIC PUMP

NO.	QTY.	PART NO.	DESCRIPTION
1	1	101914	LID
2	6	041078	1/4-20 X 1/2 PH TRUSS SCREW
3	8	044021	1/4-20 KEPS NUT
4	2	041070	1/4-20x3/4 TAP SCREW
5	2	041050	1/4-20 X 3/4 TRUSS BOLT
6	1	100234	125A FUSE LINK
7	2	100670	3/8-16 X 1 1/4 CARR BOLT
8	2	044036	3/8-16 KEPS NUT
9	2	101384	3/8 - 16 x 5/8" GRADE 5 HEX BOLT
10	1	711028	7/8 GROMMET
11	1	100250	RELAY / FUSE COVER
12	2	330463	RUBBER GROMMET
13	2	100236	12 VDC RELAY
14	1	100235	FUSE HOLDER
15	1	100241	PUMP MT BKT
16	1	101383	HYD POWER UNIT
17	1	022020	2 SCREW CLAMP, 3/8"

NIGHT-LITE PRO V-SERIES CE ELECTRIC WINCH



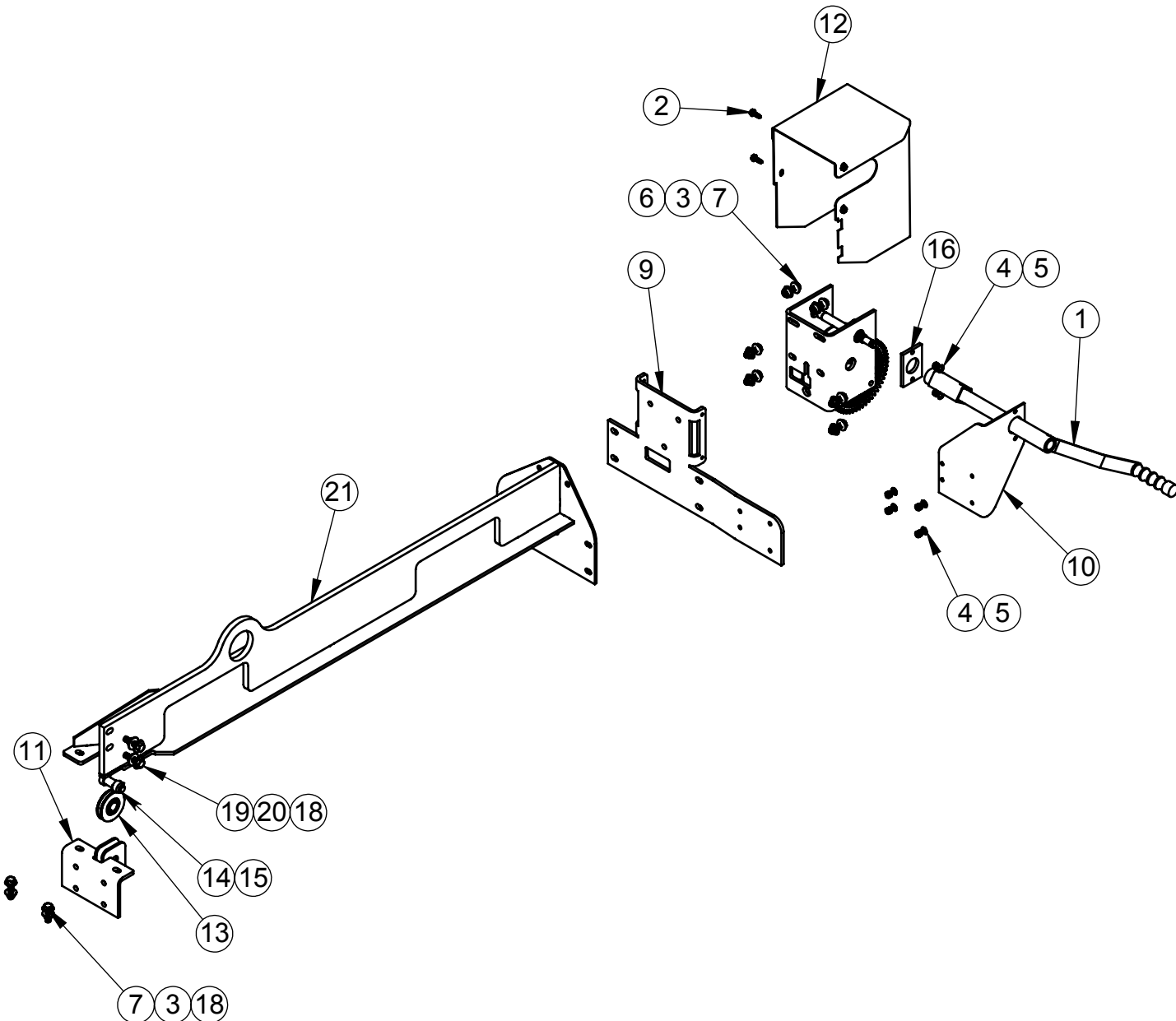
NIGHT-LITE PRO V-SERIES CE

ELECTRIC WINCH

NO.	QTY.	PART NO.	DESCRIPTION
1	11	041024	RHMS 10-24 X .5
2	15	044016	10-24 KEPS NUT
3	1	100107P	COVER, BOT ELEC WINCH
4	1	100108P	COVER, TOP ELEC WINCH
5	1	100889	CIRCUIT BREAKER 7 AMP
6	1	711028	GROMMET
7	1	101382	SWITCH BOOT
8	1	022025	2-SCREW ROMEX CLAMP, 3/4"
9	3	022320	SPADE TERM 1/4" FEMALE 14-16 AWG
10	2	022336	SPADE TERM 1/4" 14-16 AWG
11	4	041027	10-24 x 3/4" PHILIPS HEAD MS
12	4	041050	1/4-20 X 3/4 TRUSS BOLT
13	4	044021	1/4-20 KEPS NUT
14	5	044036	3/8-16 KEPS NUT
15	2	043050	WASHER LOCK
16	7	047010	5/16 FLAT WASHER
17	3	064035	1 1/2" CAPLUG
18	1	100109P	COVER, ELEC WINCH
19	1	100110P	BASE, ELEC WINCH COVER
20	1	100146	ASSY, ELEC WINCH
21	1	100158P	SWITCH BRACKET
22	2	100164	SWITCH - TWR LIMIT
23	1	100165P	LIMIT SW MT & COVER
24	1	100641	90 DEGREE FLEXCON
25	1	100662	ALARM TWR VERTICAL
26	3	100670	3/8-16 X 1 1/4 CARR BOLT
27	4	310212	#10 CUSHION CLAMP
28	1	310544	SWITCH MOMENTARY DPDT
29	1	101222	RECT POLY PLUG
30	2	047015	3/8 FLAT WASHER
31	1	640555	PLUG 2"
32	1	433329	5/8" PLASTIC PLUG

LEGEND:
 NS=NOT SHOWN
 WHEN ORDERING, SPECIFY THE
 COLOR WANTED ON PARTS
 CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES DOMESTIC MANUAL WINCH



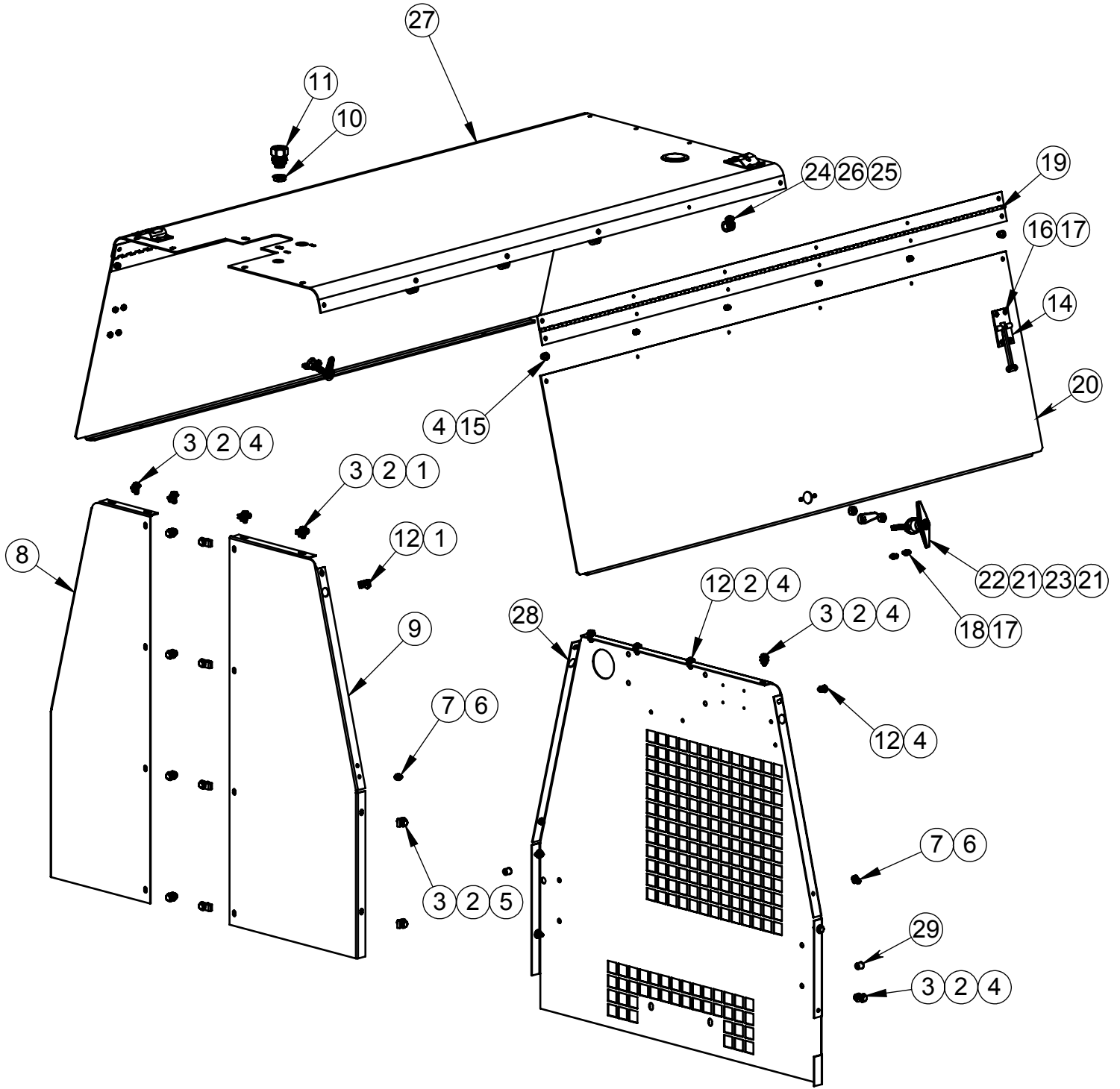
NIGHT-LITE PRO V-SERIES CE

MANUAL WINCH

NO.	QTY.	PART NO.	DESCRIPTION
1	1	650136	HANDLE EXTENDED WINCH KIT
2	4	041070	1/4 - 20 x 3/4" SELF TAPPING SCREW
3	16	047010	5/16 FLAT WASHER
4	6	041050	1/4-20 X 3/4 TRUSS BOLT
5	6	044023	1/4-20 NYLOCK NUT
6	2	044038	3/8-16 NYLON INSERT NUT
7	7	046115	3/8-16 X 1 1/4 HHCS
8	1	100145	WINCH, DLB 2500A
9	1	101013P	WINCH BRACKET
10	1	101008P	WINCH SUPPORT BKT
11	1	101012P	WELD, PULLY BKT
12	1	101010P	WELD WINCH COVER
13	1	100160	2 1/2" PULLY
14	1	100642	5/8 X 1 SHOULDER BOLT
15	1	044048	NUT NYLOCK 1/2-13 HEX PL
16	1	650106	GUIDE BLOCK
17	4	044031	5/16 -18 KEPTS NUT
18	4	044036	3/8-16 KEPS NUT
19	3	046120	3/8-16 X 1 1/2 HEX BOLT
20	4	047015	3/8 FLAT WASHER
21	1	100118-20	WELD, LIFT BAR

LEGEND:
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 COLOR WANTED ON PARTS
 CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES CE PANELS



NIGHT-LITE PRO V-SERIES CE

PANELS

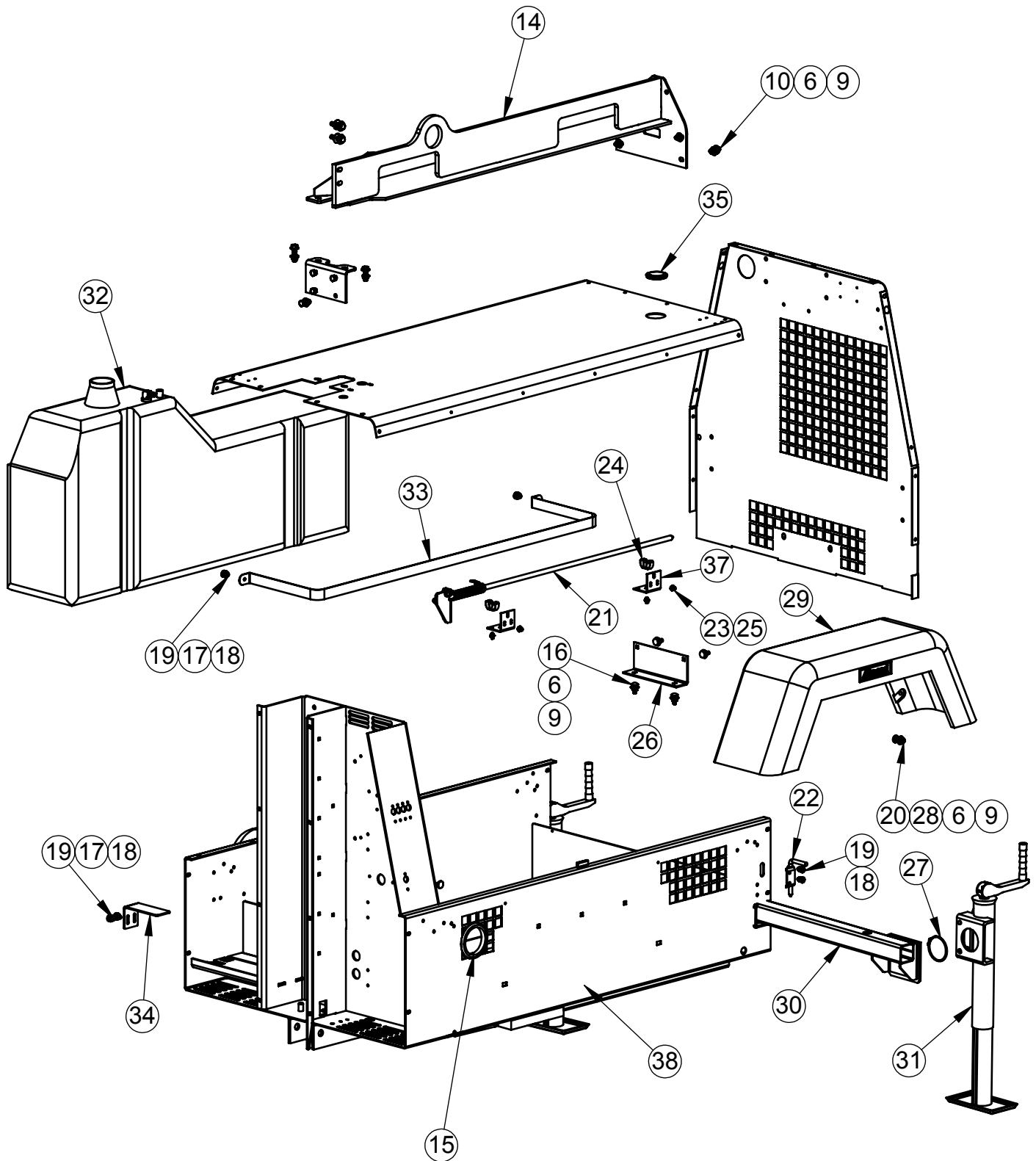
12-08-2010

NO.	QTY.	PART NO.	DESCRIPTION
1	7	044106	1/4 TINNERMAN NUT
2	40	047008	1/4" FLAT WASHER SS
3	22	046010	1/4-20 X 3/4 HEX BOLT SS
4	23	044023	1/4-20 NYLOCK NUT
5	2	045216	1/4-20 TINNERMAN NUT
6	4	044021	1/4-20 KEPS NUT
7	4	041250	SCREW, NYLON, 1/4-20 X
8	1	650206P	PANEL RIGHT FRONT
9	1	650207P	PANEL LEFT FRONT
10	1	022415	BUSHING THREADED
11	1	310033	1/2" CORD GRIP
12	6	041050	1/4-20 X 3/4 TRUSS BOLT
13	1	640555	PLUG 2"
14	3	660170	DOOR HOLDER
15	4	041078	1/4-20 X 1/2 PH TRUSS SCREW
16	28	041024	RHMS 10-24 X .5
17	32	044019	10-24 NYLOC NUT
18	4	041026	10-24 X 3/4 SL-FHMS
19	2	650211	HINGE
20	2	100126P	DOOR PANEL
21	4	044042	3/8-24 PLATED NUT
22	2	650131	DOOR LOCK ASSEMBLY
23	2	650132	DOOR LATCH CAM
24	4	041027	10-24 x 3/4" PHILIPS HEAD MS
25	4	044016	10-24 KEPS NUT
26	4	310212	#10 CUSHION CLAMP
27	1	100699P	ROOF PANEL-KUBOTA
NS	1	101018P	REAR PANEL-LOMBARDINI
NS	1	100331P	ROOF PANEL CAT
NS	1	100332P	REAR PANEL CAT
28	1	100163P	REAR PANEL-KUBOTA
29	2	045231	RIVNUT M8 X 1.25

LEGEND:
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CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES CE

FRAME COMPONENTS



NIGHT-LITE PRO V-SERIES CE

FRAME COMPONENTS

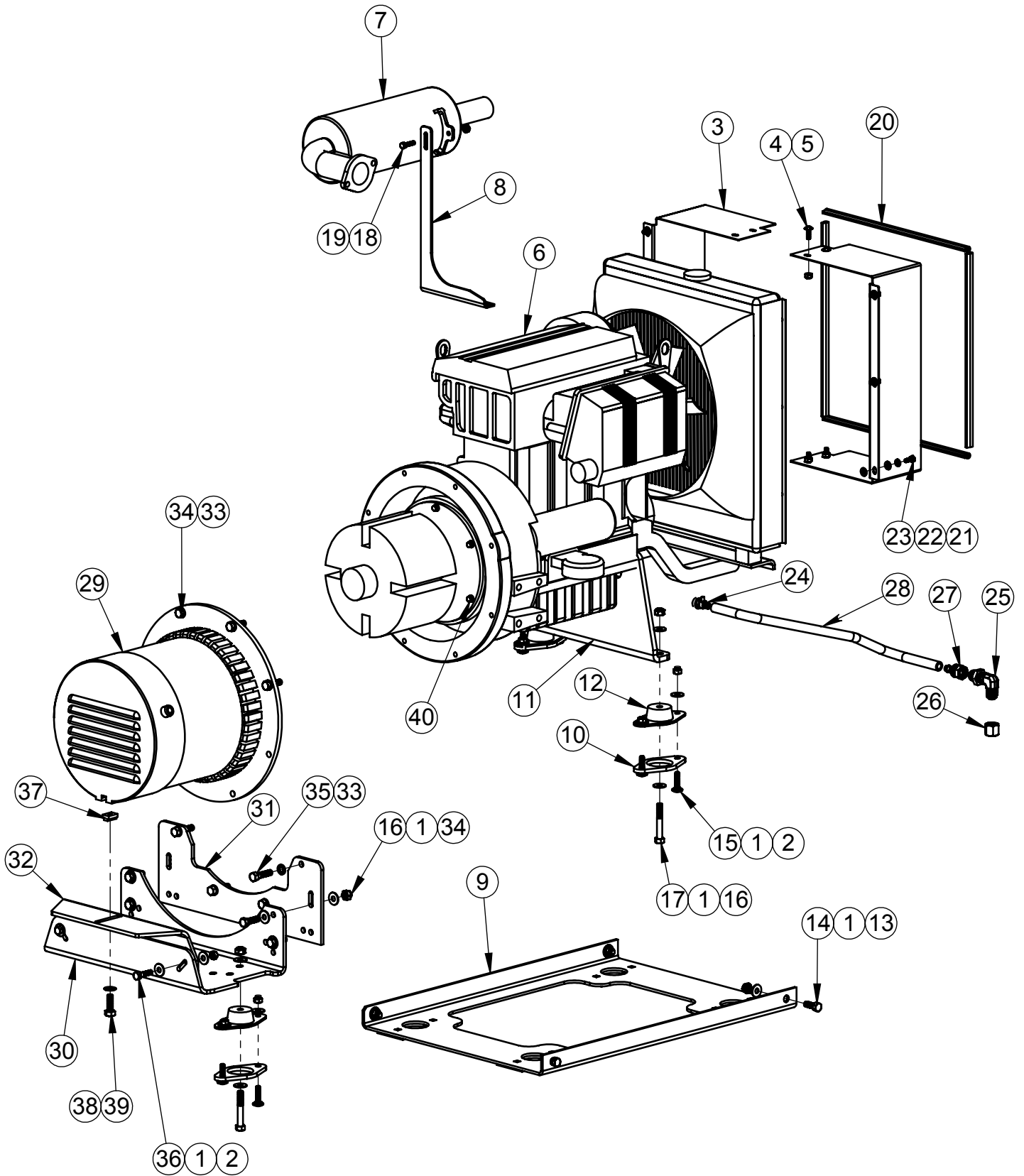
NO.	QTY.	PART NO.	DESCRIPTION
1	1	100889	CIRCUIT BREAKER 7 AMP
2	1	022320	SPADE TERM 1/4" FEMALE 14-16 A
3	2	022336	SPADE TERM 1/4" 14-16 AWG
4	8	044036	3/8-16 KEPS NUT
5	4	046110	3/8-16 X 1" HHCS GR5 PLATED
6	30	047010	5/16 FLAT WASHER
7	1	100123P	BRACKET, TOWER ANGLE
8	1	310544	SWITCH MOMENTARY DPDT
9	18	044031	5/16 -18 KEPTS NUT
10	4	046050	BOLT CS 5/16-18 X 1 HEX GR5 PL
11	1	046115	3/8-16 X 1 1/4 HHCS
12	3	046120	3/8-16 X 1 1/2 HEX BOLT
13	4	047015	3/8 FLAT WASHER
14	1	100118-15	WELD, LIFT BAR
15	1	100917	GROMMET 3" ID
16	4	053020	5/16-18 X 1" CARR BOLT
17	8	047008	1/4" FLAT WASHER SS
18	8	044023	1/4-20 NYLOCK NUT
19	8	041050	1/4-20 X 3/4 TRUSS BOLT
20	10	053022	5/16-18 X 1 1/4 CARR BOLT
21	1	340058	GROUND ROD
22	1	650722	SPRING PIN L/R
23	4	041024	RHMS 10-24 X .5
24	2	330481	GROUND ROD CLIP
25	4	044016	10-24 KEPS NUT
26	1	100153P	REAR ANGLE BKT
27	2	330014	RING, JACK RETAINING SNAP
28	4	100644	RUBBER WASHER
29	2	650297	FENDER
30	2	650115-15	OUTRIGGER
31	2	330010	JACK, TOP CRANK SIDE MOUNT
32	1	650108	TANK, PRO, 30 GAL
33	1	100136P	STRAP, FUEL TANK
34	1	100167P	BATTERY HOLD DOWN
35	1	640555	PLUG 2"
36	2	047003	#10 SAE FLAT WASHER
37	2	680507	BRACKET
38	1	100125P	PRO -BUNDED FRAME

LEGEND:
NS=NOT SHOWN
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CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES CE

LOMBARDINI

11/10/10



NIGHT-LITE PRO V-SERIES CE

LOMBARDINI

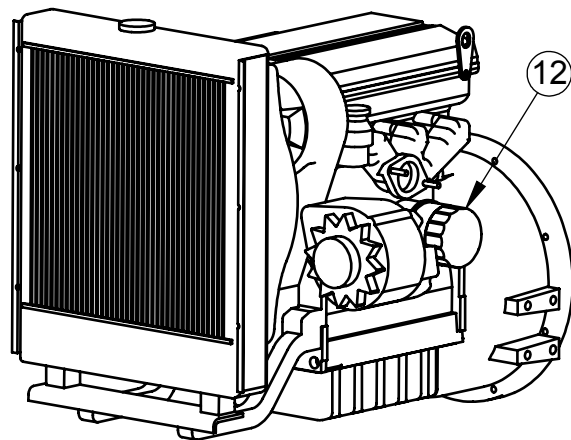
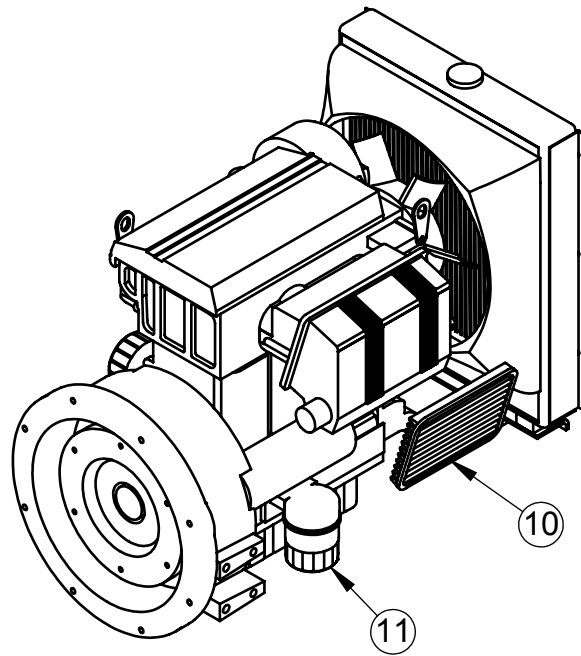
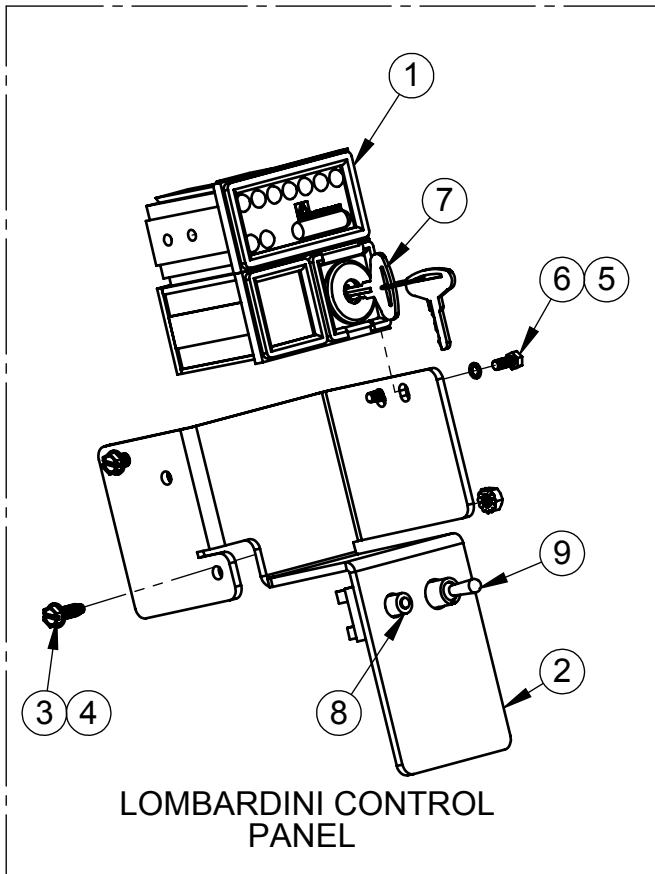
11/10/10

NO.	QTY.	PART NO.	DESCRIPTION
1	32	047010	5/16 FLAT WASHER
2	10	044039	5/16 - 18 LOCK NUT
3	2	650567P	SHROUD, RADIATOR LEFT/RIGHT
4	4	041050	1/4-20 X 3/4 TRUSS BOLT
5	4	044023	1/4-20 NYLOCK NUT
6	1	650830	LOMBARDINI LDW 1003 W/HOUR METER
7	1	100984	LOMBARDINI MUFFLER
8	1	100707P	MUFFLER BRACKET
9	1	100129P	WELD, ENGINE PLATE
10	4	100152P	ENG. MT SPACER
11	1	650562P	ENGINE MOUNT LDW 1003
12	4	650259	RUBBER ENG MT - 120 LB
13	4	044036	3/8-16 KEPS NUT
14	4	046110	3/8-16 X 1" HHCS GR5 PLATED
15	8	053020	5/16-18 X 1 CARR BOLT
16	8	044038	3/8-16 NYLON INSERT NUT
17	4	046134	3/8-16 X 2 1/2 GR 8 HEX BOLT
18	1	046015	1/4-20 X 1 HEX BOLT
19	1	044021	1/4-20 KEPS NUT
20	1	030052	TRIMLOCK
21	12	047070	WASHER, FLAT 1/4" SS
22	6	043020	1/4" SPLIT LOCK WASHER
23	6	042019	6mm X 1.0 X 16mm GR 8.8 HEX BOLT
24	1	100901	LOMBARDINI FUMOTO VALVE
25	1	100601	JIC 90 DEG FITTING
26	1	100602	JIC CAP
27	1	100603	JIC TO BARGED FITTING
28	1	081017	3/8" YEL HOSE 20"
29	1	100349	MECC ALTE GENERATOR 6KW 50 HZ
30	1	100352P	BOTTOM PLATE
31	1	100353P	TOP PLATE
32	1	100354P	BACK PLATE
33	8	043065	3/8 SPLIT LOCK WASHER
34	8	046115	3/8-16 X 1 1/4 HHCS
35	4	046120	3/8-16 X 1 1/2 HEX BOLT
36	2	046055	5/16-18 X 1 1/4 HHCS
37	1	100614	5/16-18 T-SLOT NUT
38	1	047016	3/8 SAE FLAT WASHER
39	1	046045	5/16-18 X 3/4 HHCS GR5 PLTD
40	6	046041	5/16 - 18 X 1/2" 12 PT FLANGE HEAD BOLT

LEGEND:
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COLOR WANTED ON PARTS
CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES CE

LOMBARDINI CONTROLS



NIGHT-LITE PRO V-SERIES CE

LOMBARDINI CONTROLS

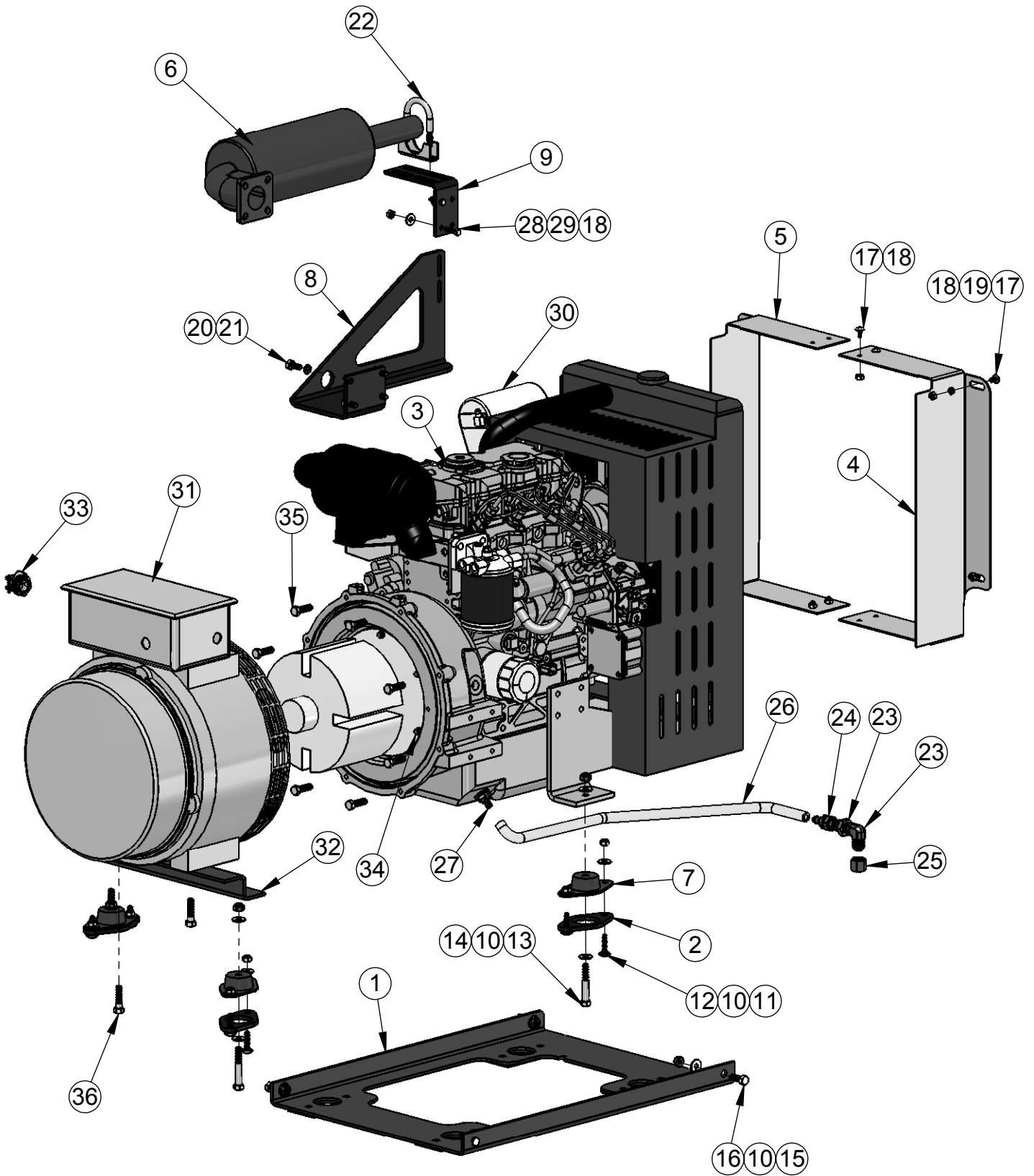
NO.	QTY.	PART NO.	DESCRIPTION
1	1	650831	LOMBARDINI CONTROL W/HOUR METER
2	1	650761P	LOMBARDINI CONTROL
3	2	041070	1/4 - 20 x 3/4" SELF TAPPING SCREW
4	3	044021	1/4-20 KEPS NUT
5	2	043015	#10 INT TOOTH LOCK WASHER
6	2	046426	5mm X .8 X 12mm HEX BOLT
7	1	650833	KEY SINGLE SIDE IGNITION
8	1	650105	15A CIRCUIT BREAKER
9	1	310544	DPDT MOM'TRY CONTACT SW
NS	1	650832	IGNITION SWITCH W/ KEYS DOUBLE SIDED
NS	1	650013	GLOW PLUG
10	1	650012	LOMBARDINI AIR FILTER
11	1	650010	LOMBARDINI FUEL FILTER
12	1	650011	LOMBARDINI OIL FILTER
NS	1	713098	CABLE BATTERY BLACK NEGATIVE
NS	1	027031	CABLE BATTERY RED POSITIVE
NS	1	340105	GROUND STRAP
NS	1	081016	1/4" BLACK FUEL LINE 24"
NS	1	689503	1/4" BLACK FUEL LINE 55"

LEGEND:
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 WHEN ORDERING, SPECIFY THE
 COLOR WANTED ON PARTS
 CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES CE

3/17/2010

CAT



NIGHT-LITE PRO V SERIES CE

CAT

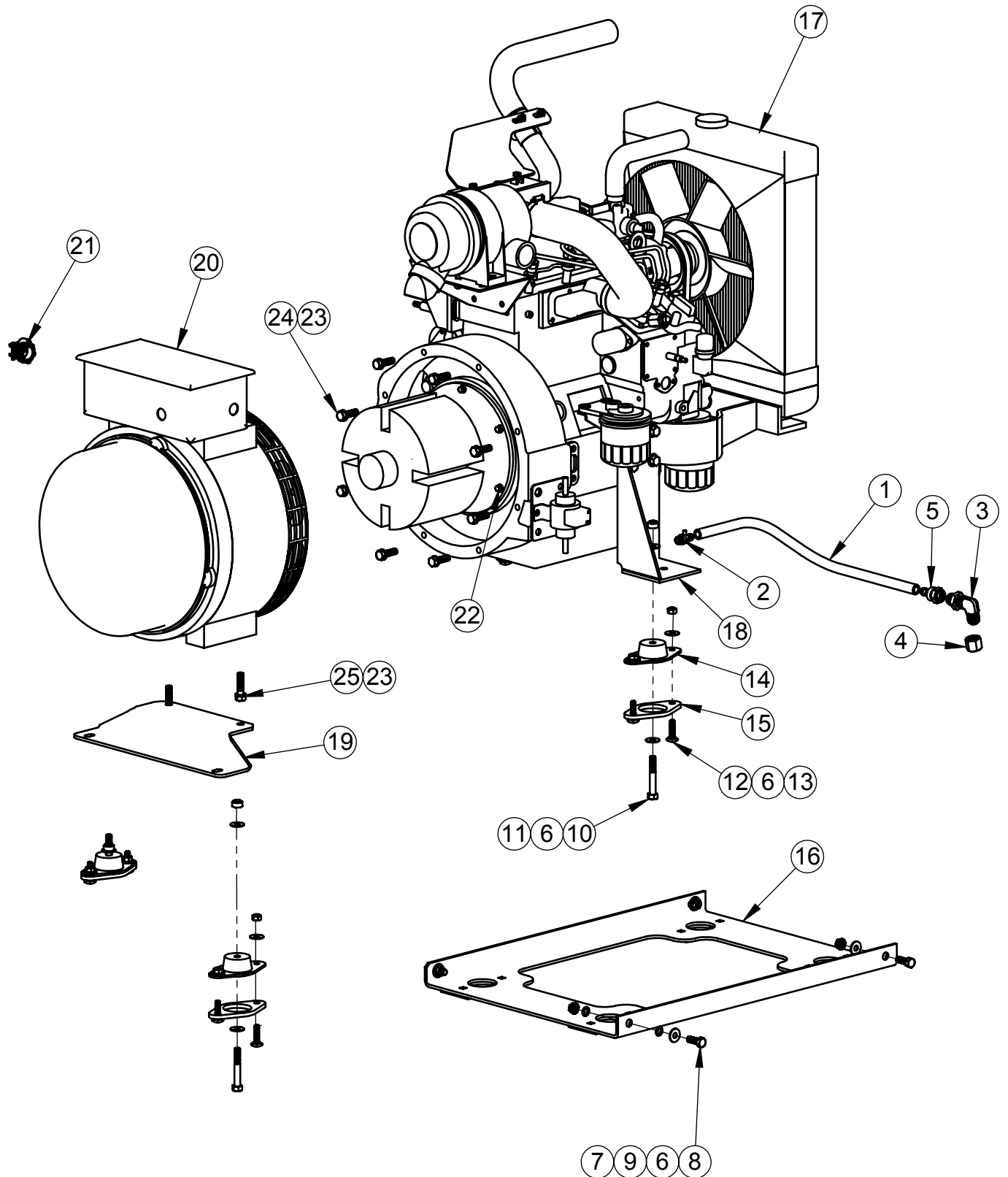
3/17/2010

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100699P	WELD, ENGINE PLATE
2	4	100152P	ENGINE MOUNT SPACER
3	1	352236	CAT 3011C 8 KW HH-249
4	1	100702P	RADIATOR SHROUD
5	1	100700P	RADIATOR SHROUD
6	1	101082	NETT MUFFLER
7	4	650259	RUBBER ENG MT - 120 LB
8	1	100705P	CAT MUFFLER BKT
9	1	100706P	MUFFLER BRACKET
10	20	047010	5/16 FLAT WASHER
11	8	044039	5/16 - 18 LOCK NUT
12	8	053020	5/16-18 X 1 CARR BOLT
13	4	046134	3/8-16 X 2 1/2 GR 8 HEX BOLT
14	4	044038	3/8-16 NYLOCK NUT PL
15	4	044036	3/8-16 KEPS NUT
16	4	046110	3/8-16 X 1" HHCS GR5 PLATED
17	8	041078	1/4-20 X 1/2 PH TRUSS SCREW
18	10	044021	1/4-20 KEPS NUT
19	4	044015	8-32 KEPS NUT SS
20	4	043055	5/16 SPLIT LOCK WASHER
21	4	042027	8mm X 1.25 X 16mm GR 10.9 HEX BOLT
22	1	340111	1 1/2" CLAMP MUFFLER
23	1	100601	JIC 90 DEG FITTING
24	1	100603	JIC TO BARBED FITTING
25	1	100602	JIC CAP
26	1	081017	3/8" YELLOW HOSE 24"
27	1	651193	CAT FUMOTO VALVE
28	2	046015	1/4-20 X 1 HEX BOLT
29	2	047005	1/4 FLAT WASHER
30	1	920472	RECOVERY TANK W/PLUG
31	1	101075	8KW 60 HZ MARATHON GEN 201CSA
32	1	651012P	MOUNT, GENERATOR, CAT
33	1	022025	2-SCREW ROMEX CLAMP, 3/4"
34	6	046041	5/16-18x1/2" 12 PT FLANGE HEAD BOLT
35	8	046115	3/8-16 X 1 1/4 HHCS
36	2	046120	3/8-16 X 1 1/2 HEX BOLT

NOTE: 102692 ATHALON GENERATOR CAN BE USED IN PLACE OF 101075 MARATHON GENERATOR.

NIGHT-LITE PRO V-SERIES CE

KUBOTA



NIGHT-LITE PRO V-SERIES CE

KUBOTA

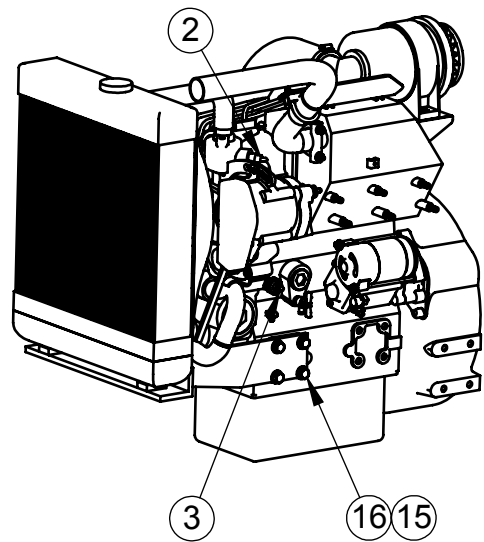
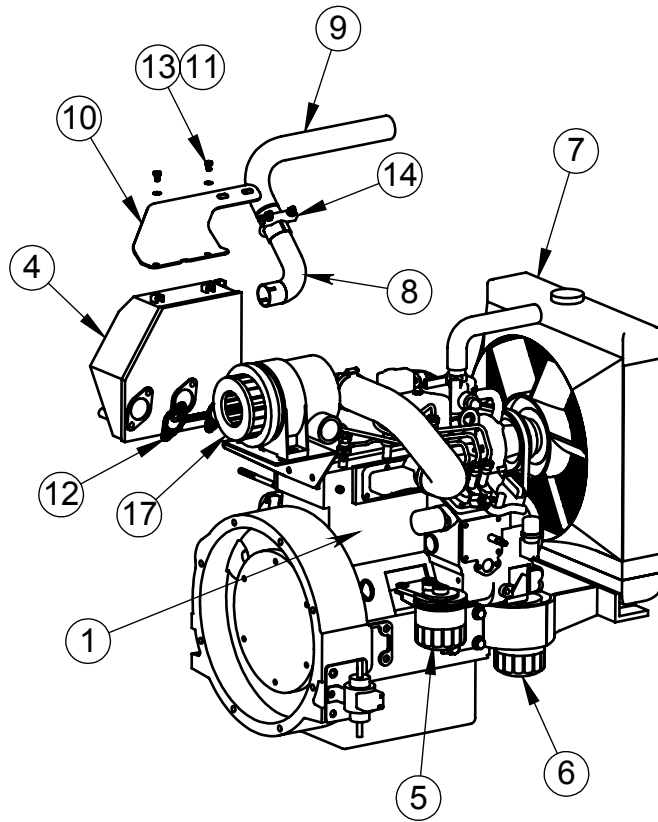
NO.	QTY.	PART NO.	DESCRIPTION
1	1	081017	3/8 YELLOW HOSE X 18"
2	1	848299	KUBOTA FUMOTO VALVE
3	1	100601	JIC 90 DEG FITTING
4	1	100602	JIC CAP
5	1	100603	JIC TO BARGED FITTING
6	20	047010	5/16 FLAT WASHER
7	4	044036	3/8-16 KEPS NUT
8	4	046110	3/8-16 X 1" HHCS GR5 PLATED
9	2	043070	3/8 INTERNAL TOOTH LOCK WASHER
10	4	046134	3/8-16 X 2 1/2 GR 8 HEX BOLT
11	4	044038	3/8-16 NYLON INSERT NUT
12	8	053020	5/16 - 18 X 1 CARR BOLT
13	8	044039	5/16 - 18 LOCK NUT
14	4	650259	RUBBER ENG MT - 120 LB
15	4	100152P	ENG. MT SPACER
16	1	100129P	WELD, ENGINE PLATE
17	1	100989	KUBOTA 1105
18	2	651201P	905-1105 KUBOTA ENGINE MOUNT
19	1	651202P	OFFSET GENERATOR PLATE
20	1	101075	8KW 60 HZ MARATHON GEN 201CSA
21	1	022025	2-SCREW ROMEX CLAMP, 3/4"
22	6	046041	5/16 - 18 X 1/2"
23	10	043065	3/8 SPLIT LOCK WASHER
NS	1	640158	CAPACITOR 25uf
22	6	046041	5/16 - 18 X 1/2"
23	10	043065	3/8 SPLIT LOCK WASHER

NOTE: 102692 ATHALON GENERATOR CAN BE USED IN PLACE OF 101075 MARATHON GENERATOR.

LEGEND:
NS=NOT SHOWN
WHEN ORDERING, SPECIFY THE
COLOR WANTED ON PARTS
CONTAINING THE LETTER "P"

NIGHT-LITE PRO V-SERIES CE

KUBOTA PARTS



NIGHT-LITE PRO V-SERIES CE

KUBOTA PARTS

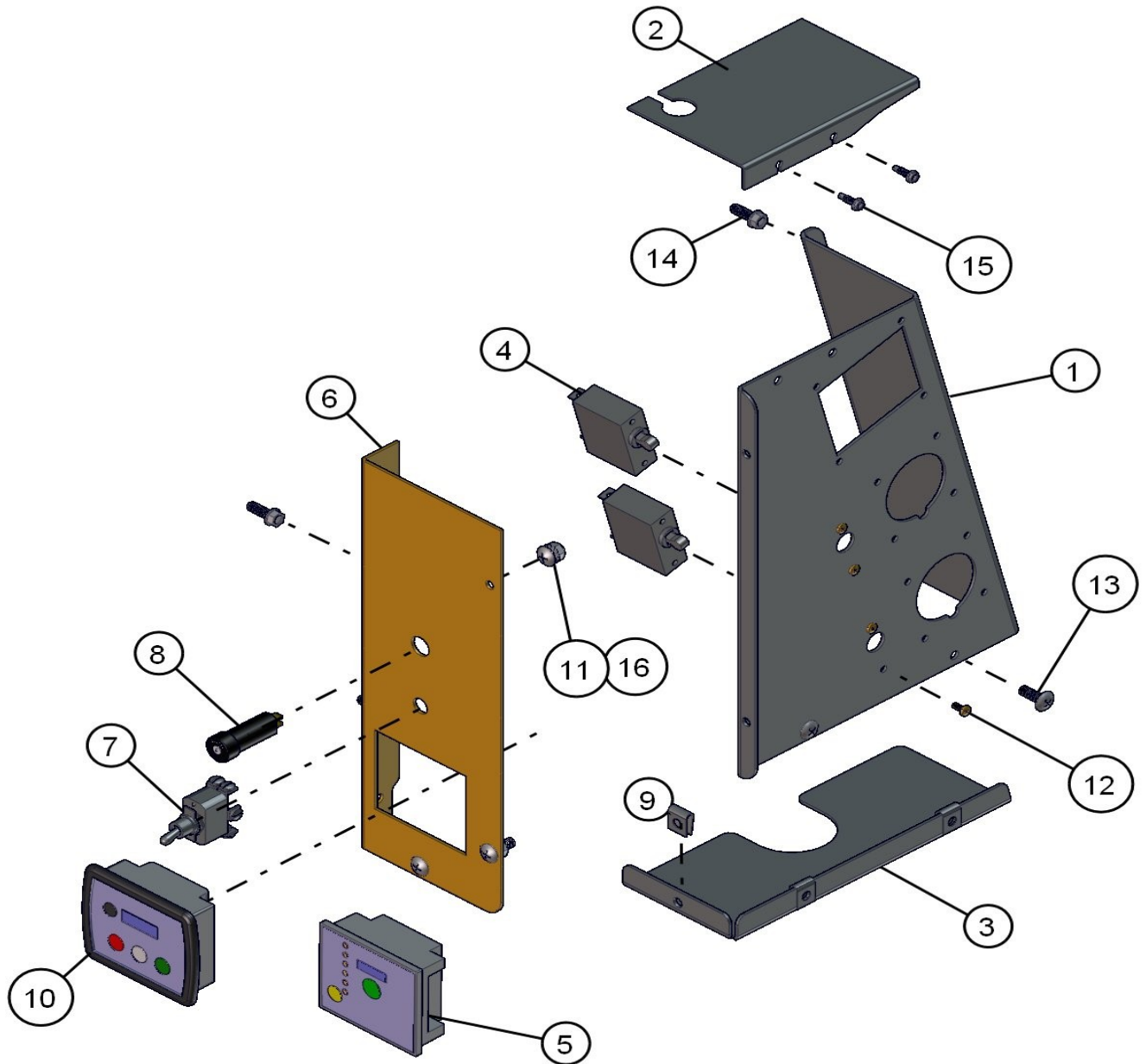
NO.	QTY.	PART NO.	DESCRIPTION
1	1	100991	KUBOTA D1105 50Hz W/DEEPSEA PANEL, BOX MUFFLER
2	1	340302	HIGH TEMP SWITCH KUBOTA
3	1	340301	OIL PRESSURE SWITCH KUBOTA
4	1	352139	KUBOTA BOX MUFFLER
5	1	920745	KUBOTA FUEL FILTER
6	1	920743	KUBOTA OIL FILTER
7	1	650001	RADIATOR KUBOTA
8	1	653113	ARC GEN EXHAUST
9	1	653114	ARC GEN REAR
10	1	651233P	BOX MUFFLER REAR
11	2	043050	WASHER LOCK
12	1	352135	EXHAUST GASKET KUBOTA
13	2	042018	6mm X 10mm HEX BOLT GR 8.8
14	2	713086	CLAMP 1 3/8" MUFFLER
15	8	047016	3/8 SAE FLAT WASHER
16	8	042038	10mm X 1.25 x20mm GR 8.8 HEX BOLT
17	1	650290	AIR FILTER ELEMENT KUBOTA

LEGEND:
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 CONTAINING THE LETTER "P"

NIGHT-LITE PRO V- SERIES CE

KUBOTA DEEP SEA CONTROL PANEL

11/4/2010



NO	QTY	PARTNO	DESCRIPTION
1	1	650614P	GAUGE PANEL COVER
2	1	100161P	COVER PANEL- TOP
3	1	650612P	COVER, BOTTOM
4	2	650151	15A SPST CIRCUIT BREAKER
5	1	101065	DEEP SEA CONTROLLER (OBSOLETE)
6	1	101234P	PANEL GAUGE DEEP SEA
7	1	310544	TOGGLE SWITCH
8	1	100610	CIRCUIT BREAKER 5 AMP
9	3	045216	1/4-20 TINNEMAN NUT
10	1	102537	DEEP SEA 3110 CONTROLLER
11	2	041078	1/4-20 X 1/2 CR-THMS PL
12	4	041017	6-32 X 3/8 MACH SCREW PLT
13	3	041050	1/4-20 X 3/4 TRUSS BOLT
14	4	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
15	2	041015	8-18 X 5/8 HHSTMS
16	2	044021	1/4-20 KEPS NUT

LEGEND:
 NS= NOT SHOWN
 WHEN ORDERING, SPECIFY
 COLOR WANTED ON PARTS
 CONTAINING THE LETTER "P"

NIGHT-LITE PRO SERIES

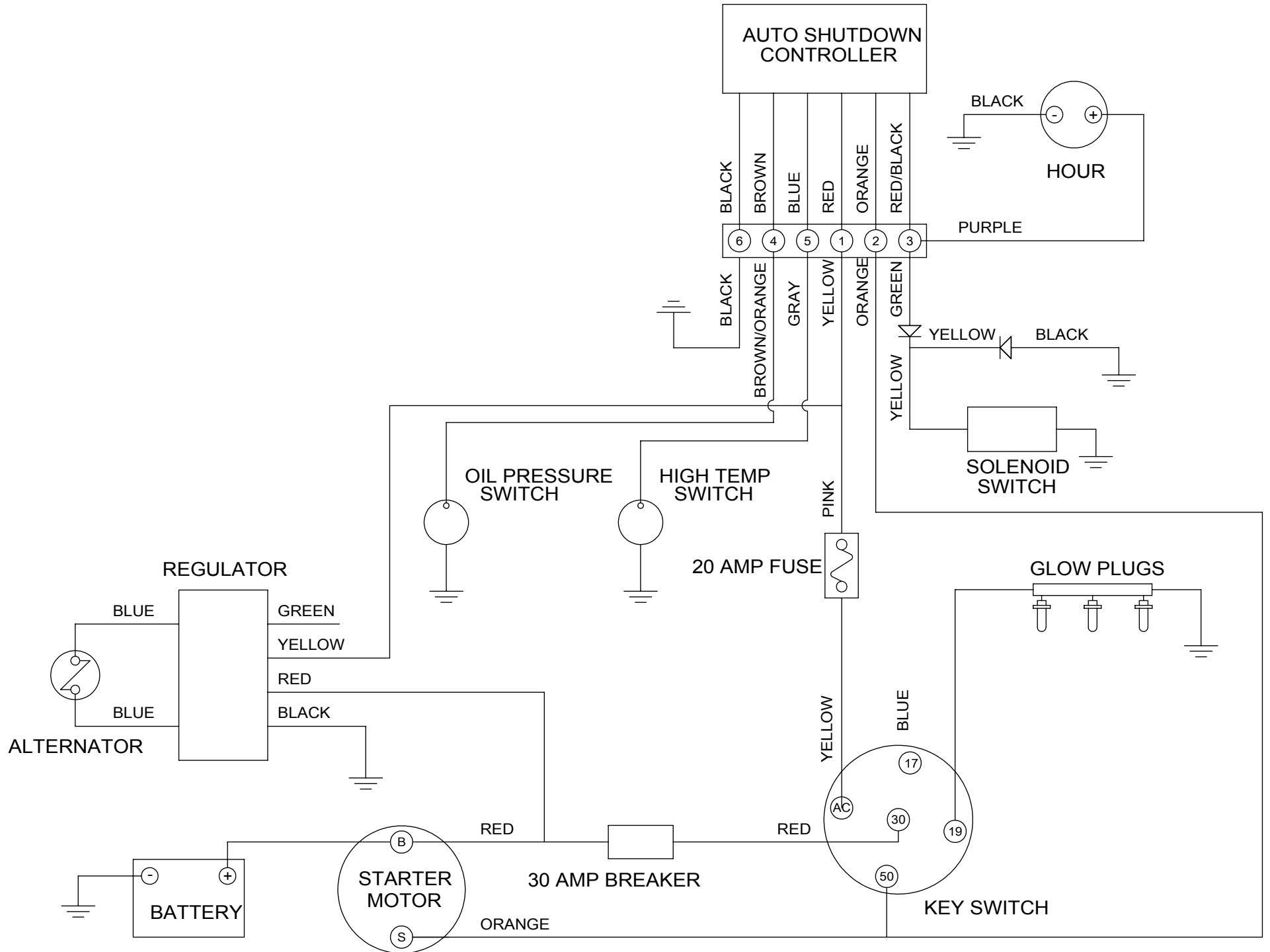
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NIGHT-LITE PRO SERIES DECALS

D-1A

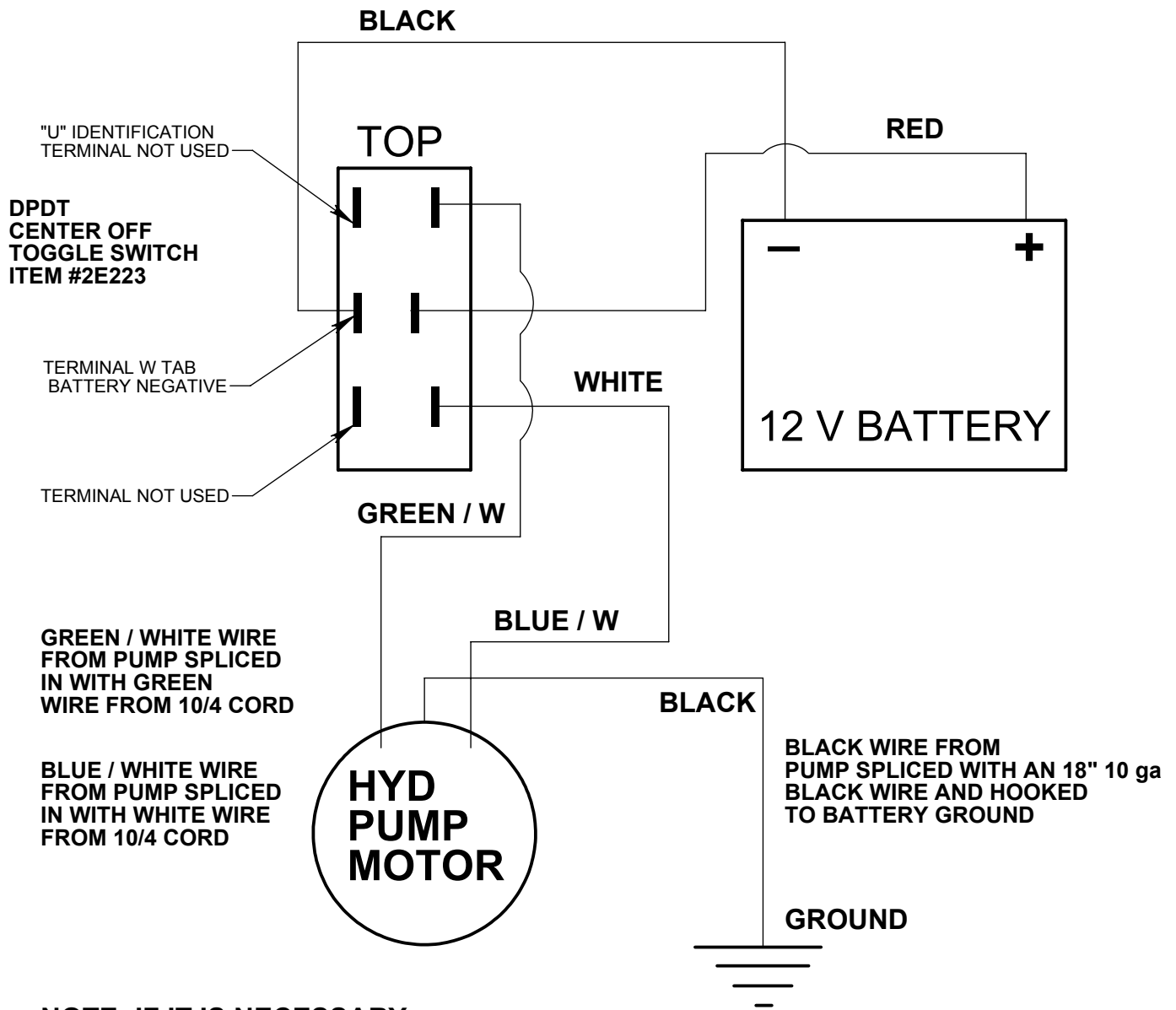
REQ'D	PART NO	DESCRIPTION
1	090177	ALIGNMENT ARROW
2	090276	NIGHT-LITE DECAL
2	090278	PRO SERIES DECAL
2	090256	LARGE ALLMAND DOOR DECAL
1	090420	DECAL CE GLOWPLUG
1	090421	DECAL CE TRAILER ID
1	090422	DECAL CE SOUND POWER LEVEL
1	090419	DECAL CE EARTH GROUND
1	090400	DECAL CE DO NOT OPERATE
1	090401	DECAL CE ENGINE FAN
1	090402	DECAL CE BELT DRIVE
1	090403	DECAL CE CONSULT OPERATORS MANUAL
1	090404	DECAL CE CONSULT SERVICE MANUAL
1	090405	DECAL CE STAY CLEAR
1	090406	DECAL CE BODY CRUSH
1	090407	DECAL CE BODY CRUSH TIP HAZARD
1	090408	DECAL CE ELECTRIC SHOCK
1	090409	DECAL CE RIGHT FORK LIFT POINT
1	090410	DECAL CE LEFT FORK LIFT POINT
1	090411	DECAL CE LIFT POINT
1	090412	DECAL CE POWER ON
1	090413	DECAL CE POWER OFF
1	090414	DECAL CE EMERGENCY STOP
1	090415	DECAL CE CE MARK LABEL
1	090416	DECAL CE PROTECTIVE GROUND EARTH
1	090417	DECAL CE BURN HAZARD HOT SURFACE
1	090418	DECAL CE DO NOT TOUCH
1	090423	DECAL CE EXPLOSION HAZARD
1	090163	DECAL FAILURE TO USE GROUND ROD
1	100663	DECAL VERTICAL TOWER
1	090165	DECAL DANGER ELECTRIC SHOCK HAZARD
1	090158	DECAL WARNING READ OP MANUAL
1	100334	DECAL STARTING INSTRUCTIONS
1	090084	DECAL WARNING SHUT OFF LIGHTS
1	090465	DECAL PARTS AND SERVICE CONTACT
1	100994	DECAL-ELECTRIC WINCH CLUTCH NUT ADJUSTMENTS
3	090005	DECAL-WARNING-CHECK FOR OVERHEAD OBSTRUCTIONS
1	101076	DECAL BUNDED TRAILER
1	100922	DECAL ALLMAND BANNER LEFT
1	100923	DECAL ALLMAND BANNER RIGHT
1	100919	DECAL WWW.ALLMAND.COM
	100671	DECAL KIT V-SERIES CE
1	090224	DECAL STARTING INSTRUCTIONS KUBOTA AND LOMBARDINI

CAT C1.1 ENGINE WIRING HARNESS



NIGHT-LITE PRO V-SERIES

V-SERIES HYDRAULIC WIRING SCHEMATIC 9/15/08

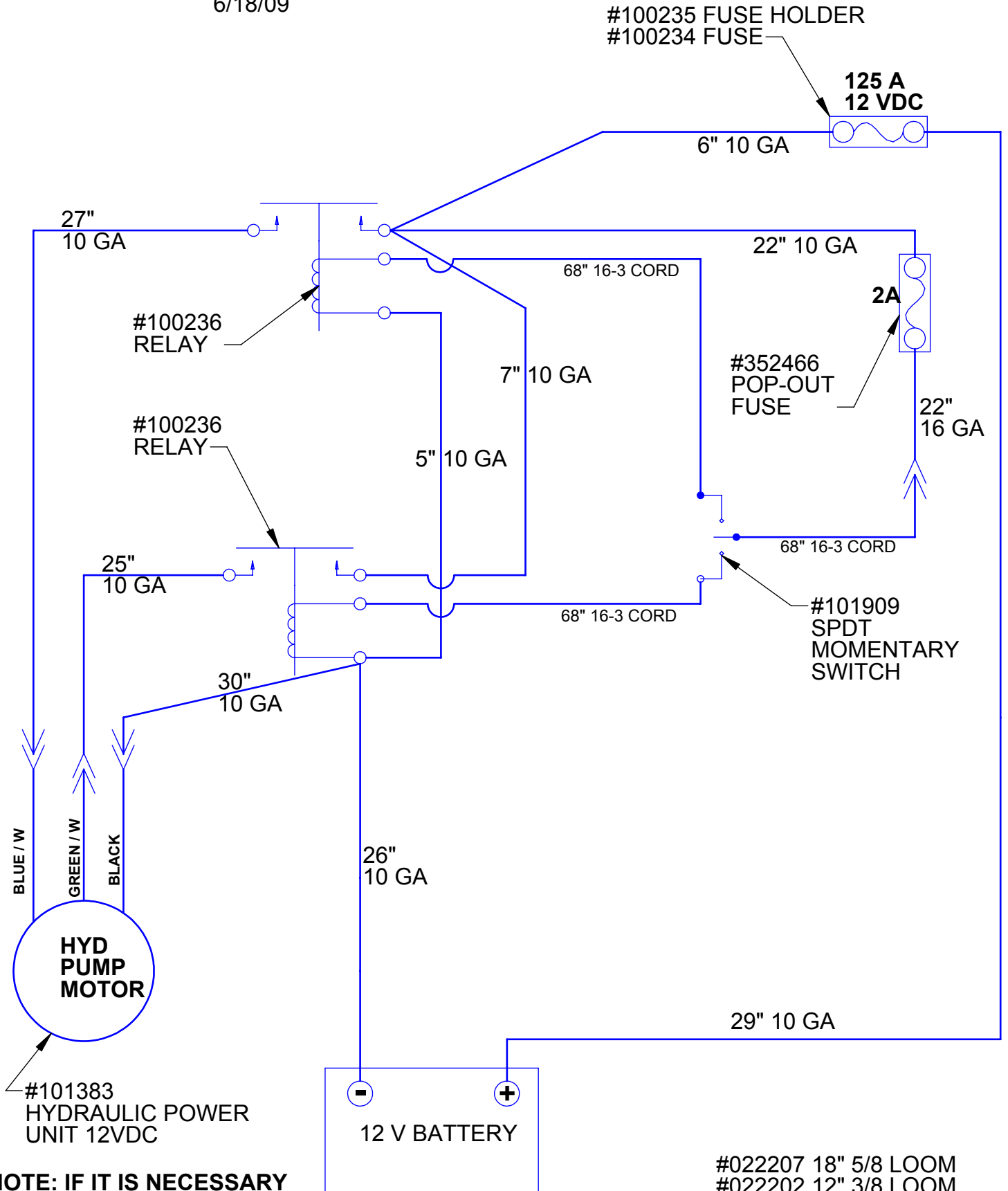


NOTE: IF IT IS NECESSARY TO REVERSE PUMP DIRECTION, SWITCH BLUE/W & GREEN/W WIRE ON SWITCH.

NOTE: SPDT SWITCH MAY BE USED IN THIS APPLIATION.

NIGHT-LITE PRO V-SERIES CE

V-SERIES PRO HYDRAULIC W RELAY CONTROL
WIRING SCHEMATIC - **COMPONENTS**
6/18/09



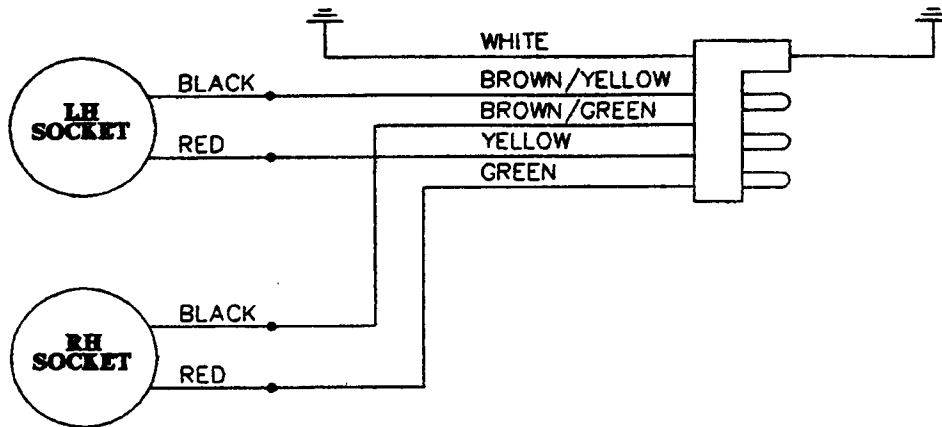
NOTE: IF IT IS NECESSARY TO REVERSE PUMP DIRECTION, SWITCH BLUE/W & GREEN/W WIRES FROM PUMP MTR.

#022207 18" 5/8 LOOM
#022202 12" 3/8 LOOM

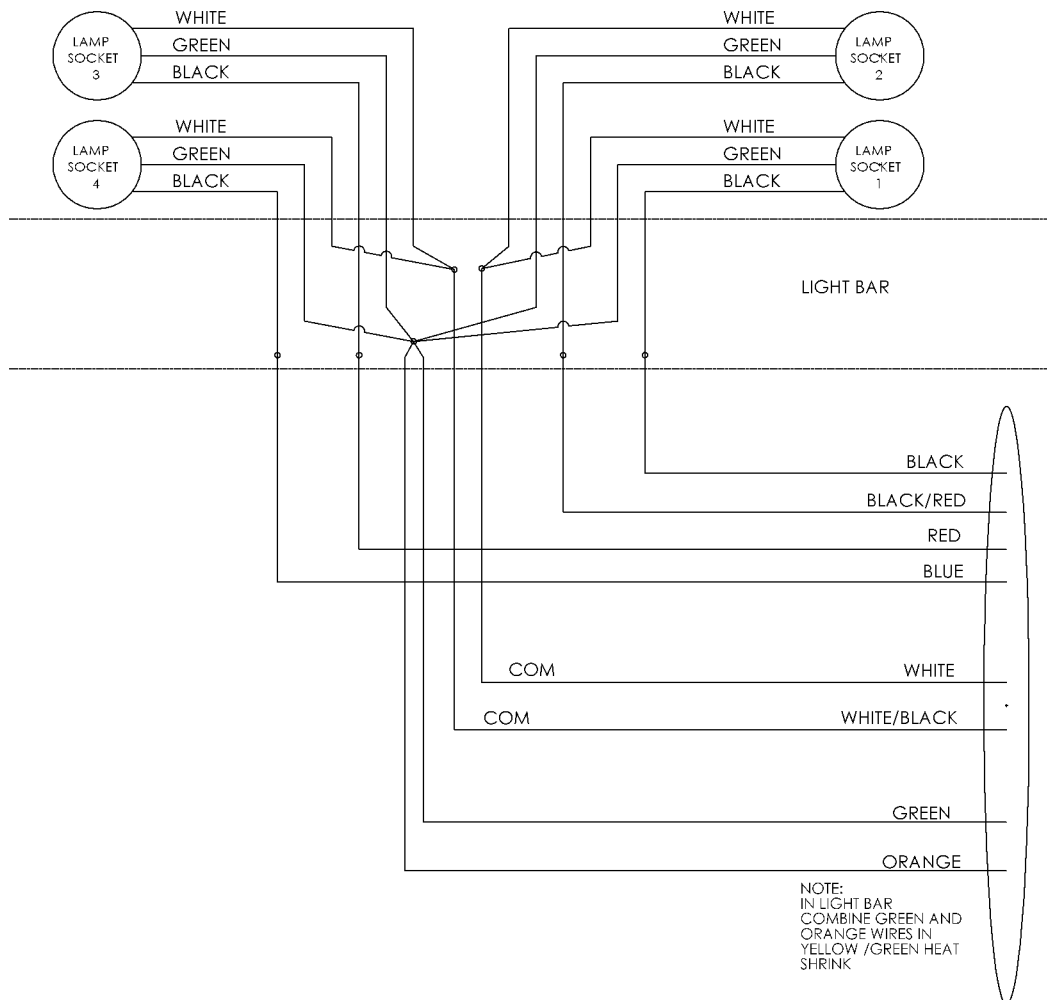
NIGHT-LITE PRO SERIES ELECTRICAL DIAGRAMS

E-1B

TAIL LAMP WIRING SCHEMATIC



LAMP SOCKET/TERMINAL BOARD WIRE SCHEMATIC

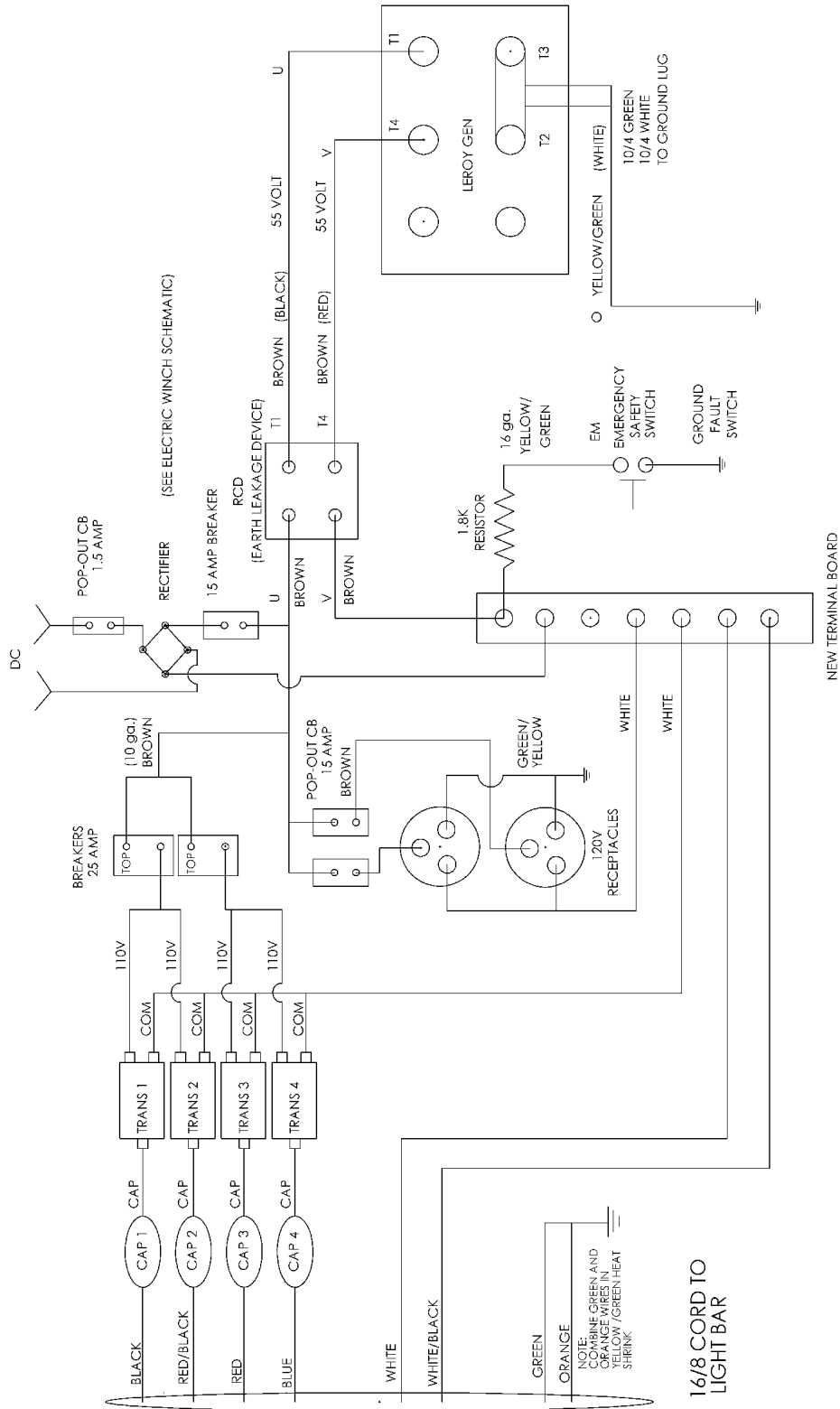


1/8 CORD FROM
BALLAST PANEL

NIGHT-LITE PRO SERIES ELECTRICAL DIAGRAMS

E-2A

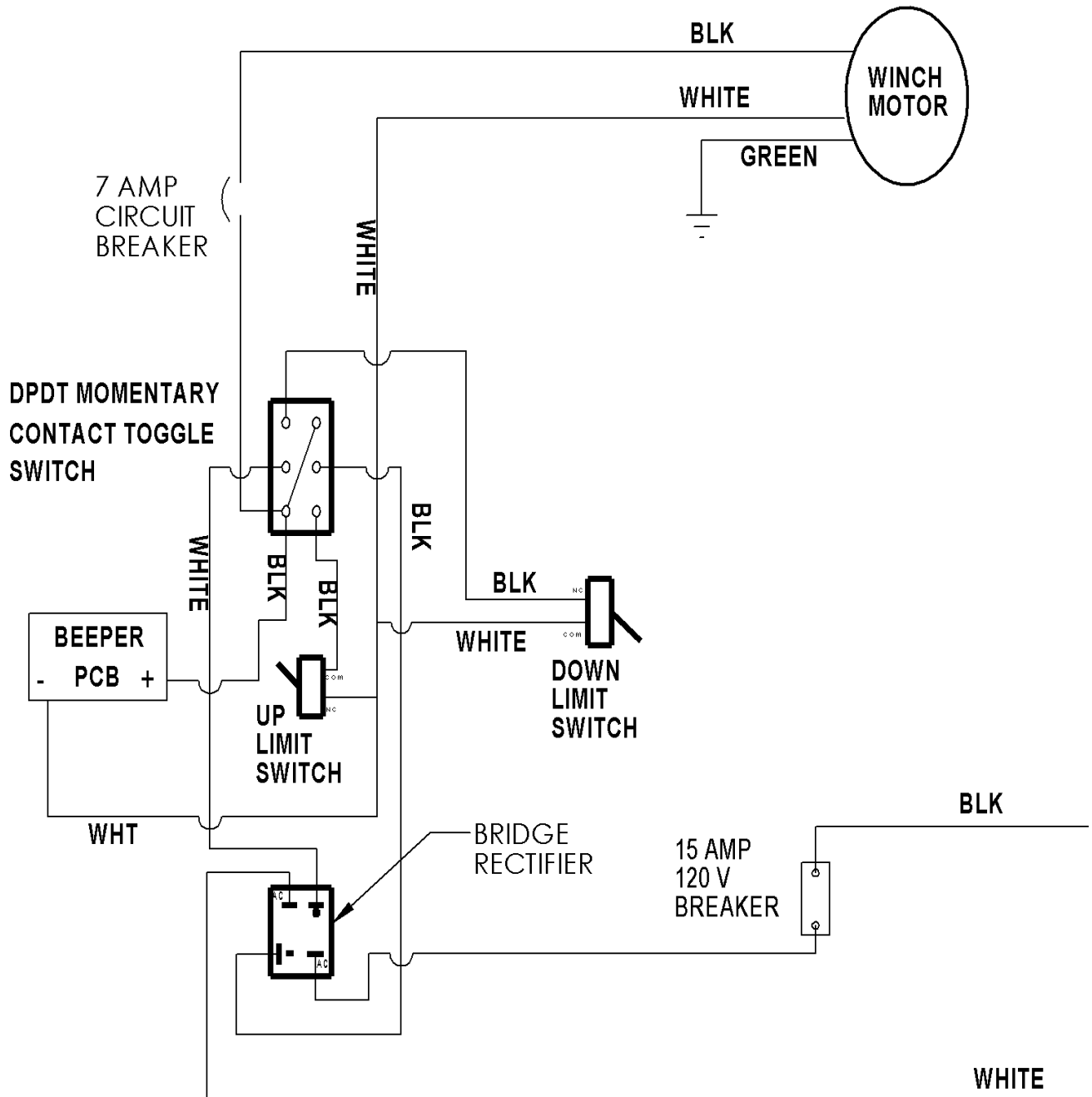
ARC GEN LEROY SOMER BALLAST WIRING DIAGRAM



NIGHT-LITE PRO SERIES ELECTRICAL DIAGRAMS

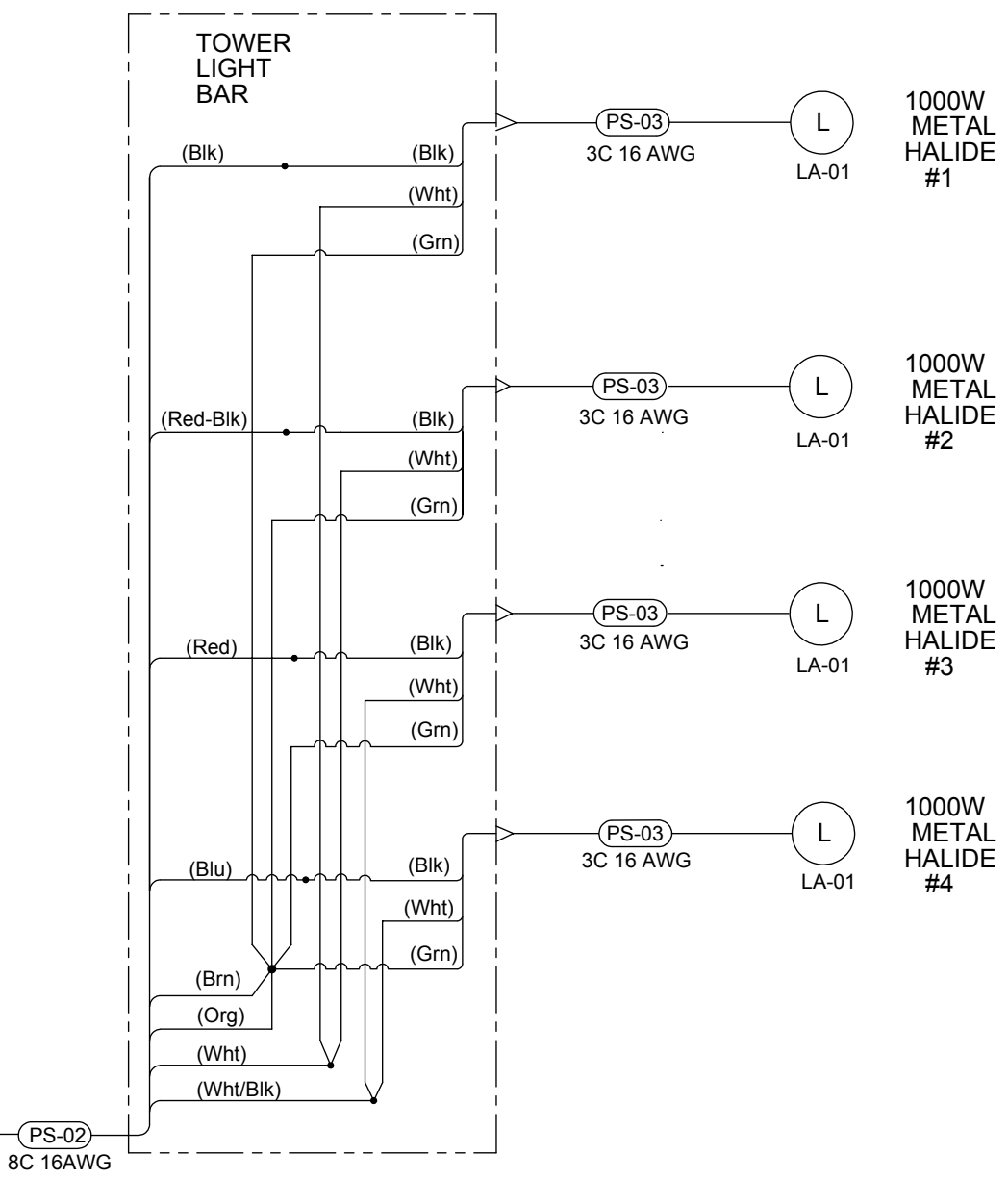
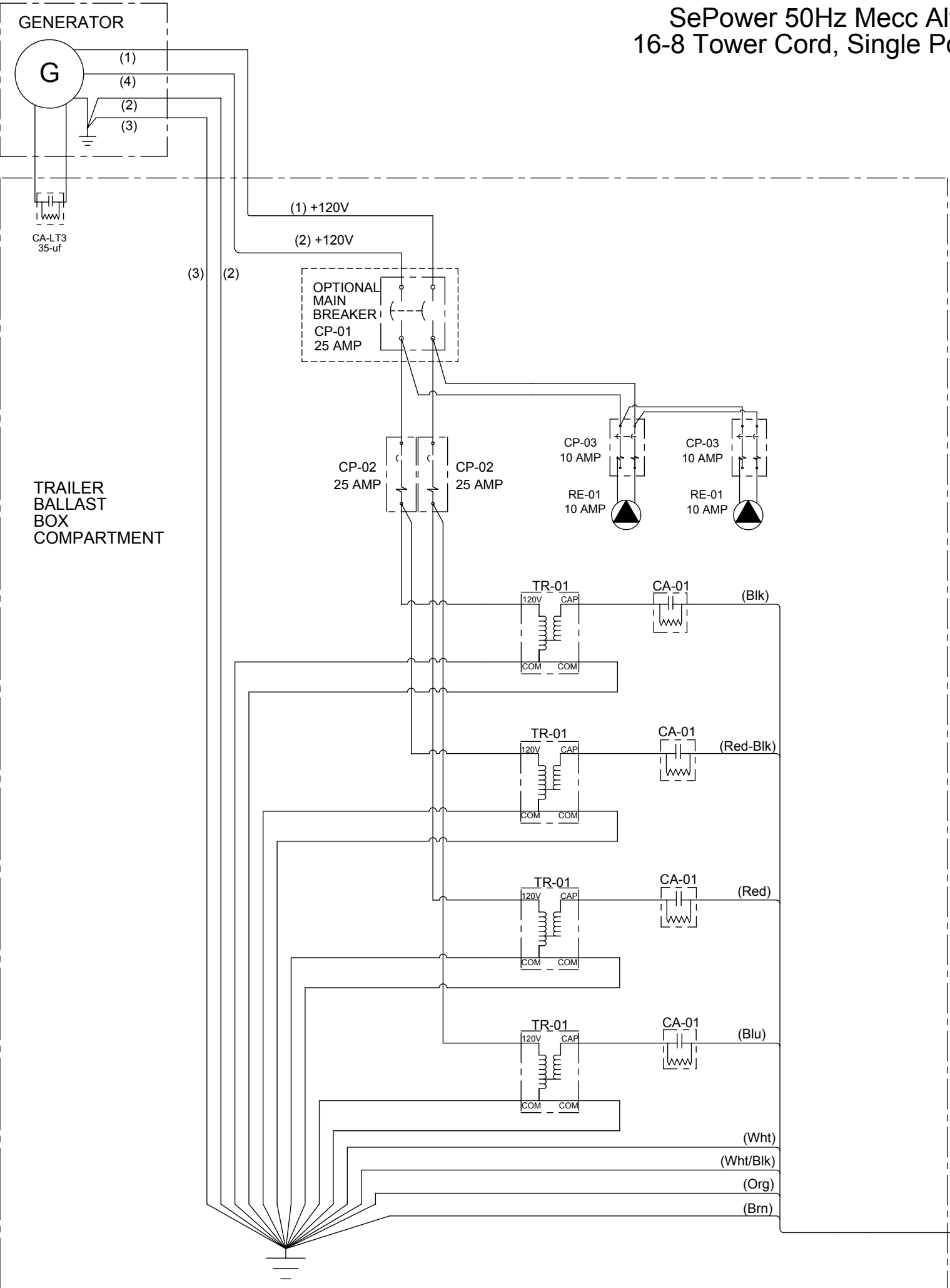
E-2B

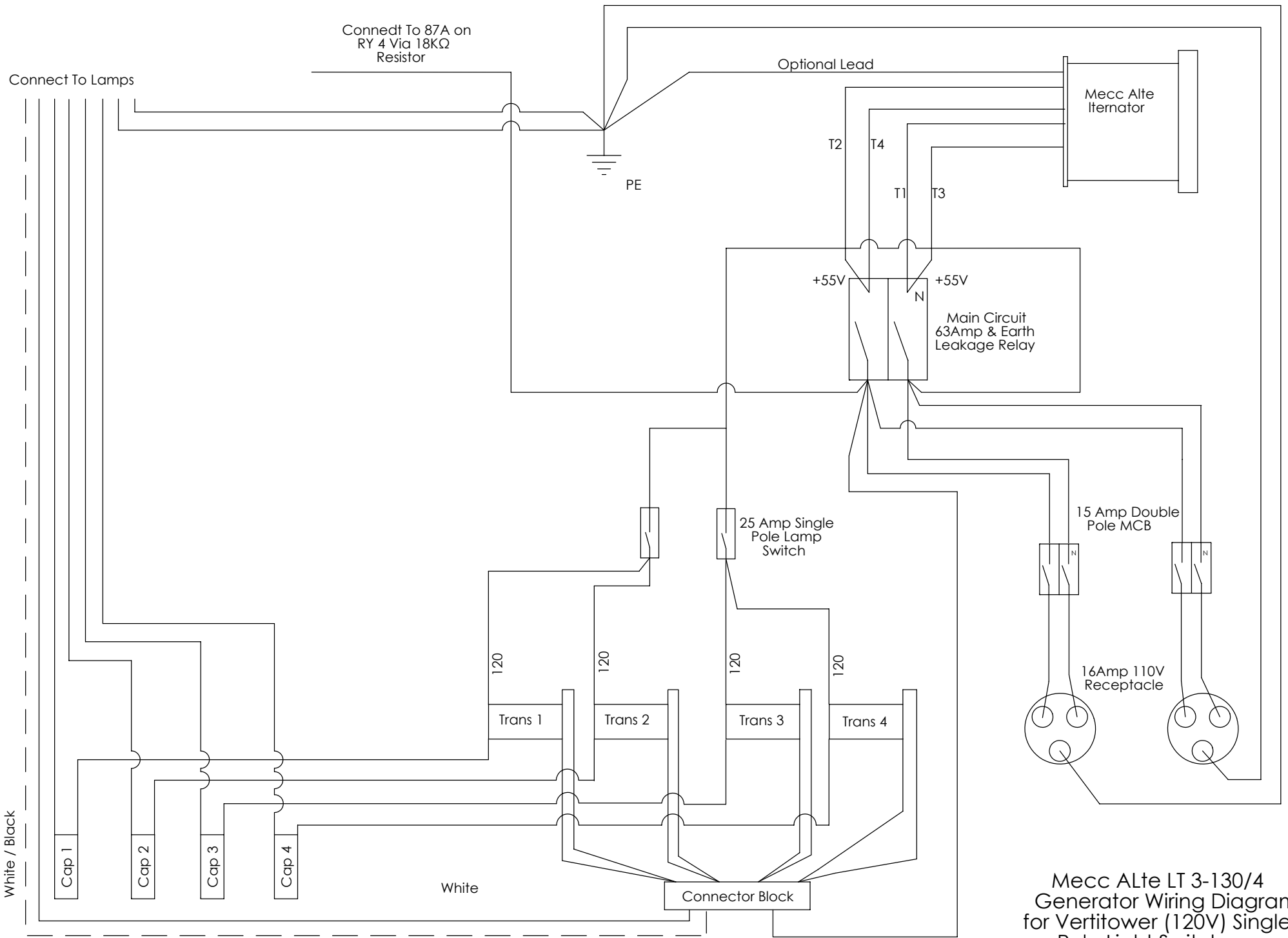
ELECTRIC WINCH WIRING DIAGRAM
DUTTON-LAINSON SA9000 WINCH SCHEMATIC
FOR USE ON VERTICAL TOWER TRAILER.



REVISED 7-24-08

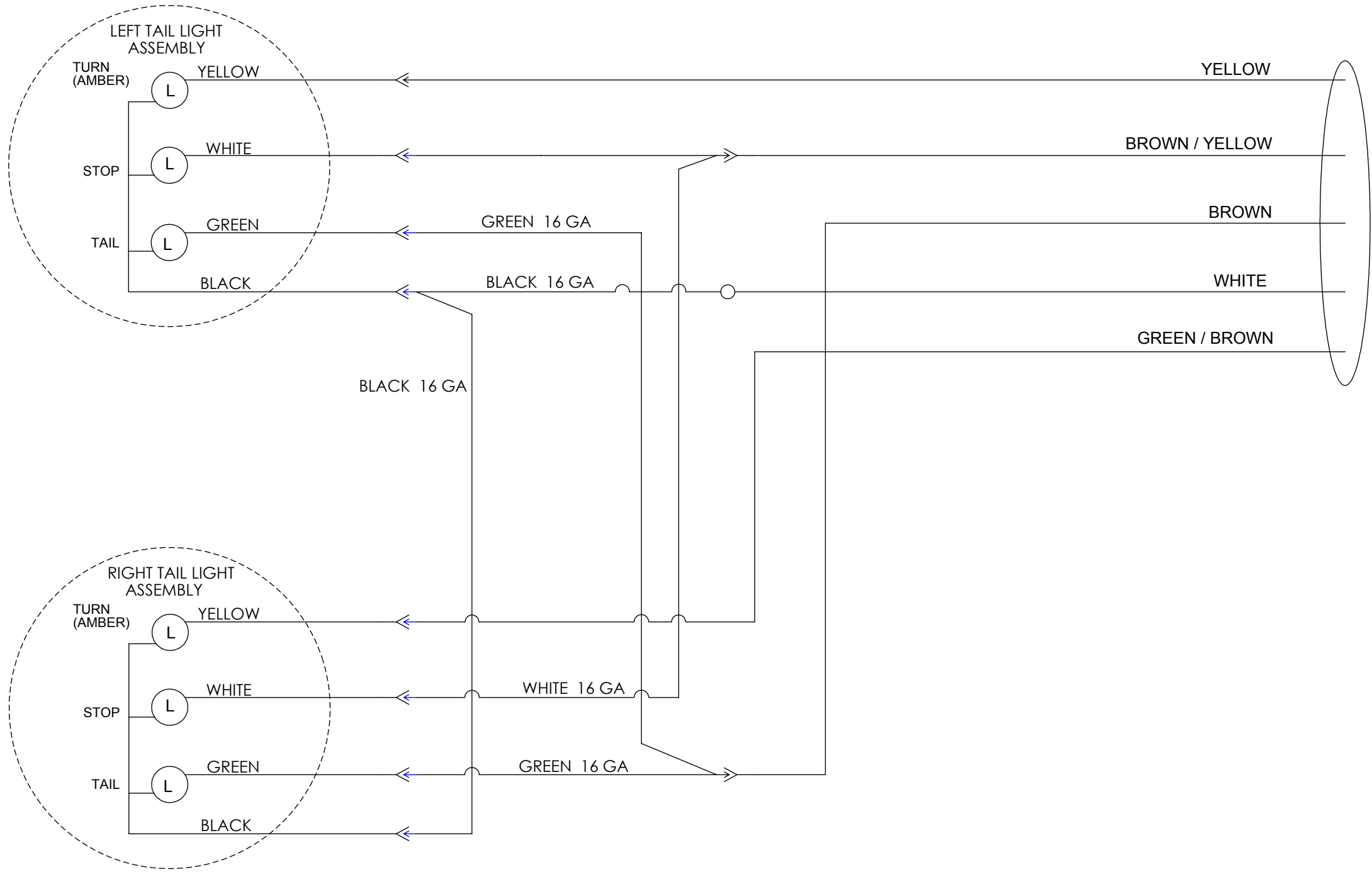
SePower 50Hz Mecc Alte Wiring 16-8 Tower Cord, Single Pole Breakers

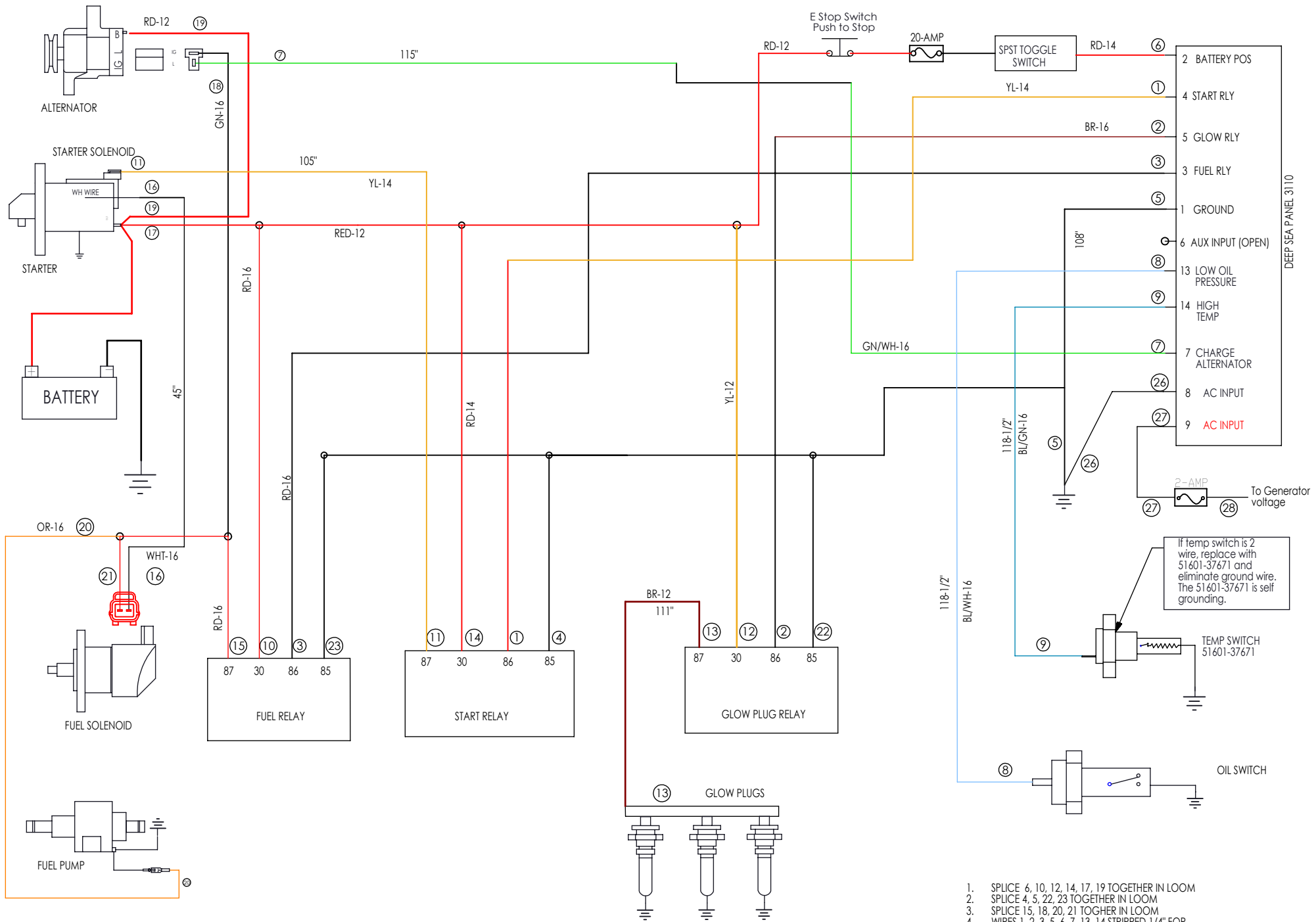




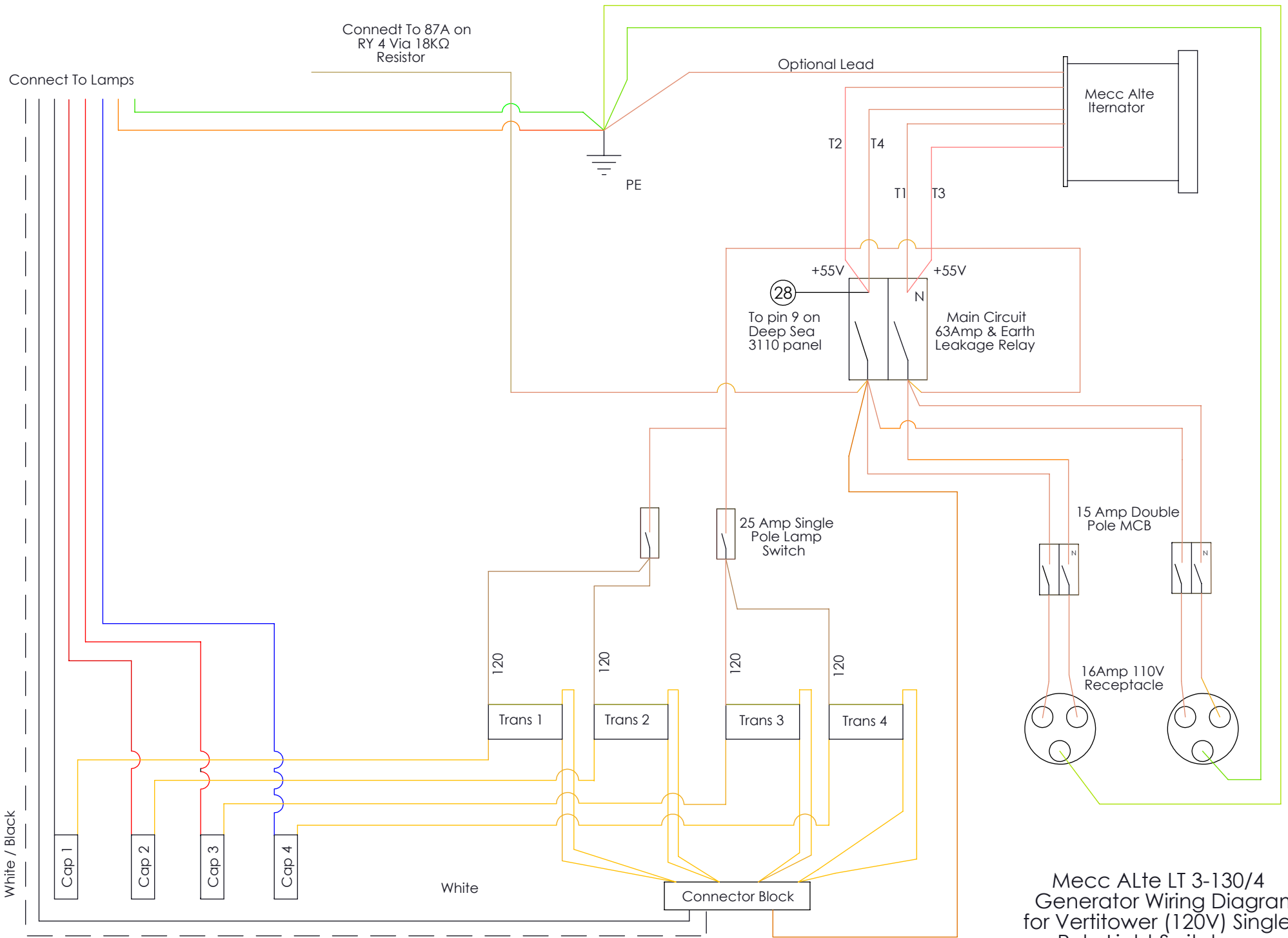
Mecc ALte LT 3-130/4
 Generator Wiring Diagram
 for Vertitower (120V) Single
 Pole Light Switches

TAIL LIGHT WIRING





3110 Deep Sea Panel w/ E-stop Rev 06/14/10



Mecc ALte LT 3-130/4
 Generator Wiring Diagram
 for Vertitower (120V) Single
 Pole Light Switches

**NIGHT-LITE PRO SERIES
LIMITED WARRANTY**

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ALLMAND LIGHTING SYSTEMS LIMITED WARRANTY INTERNATIONAL

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR PURPOSE AND ANY EXCEPTIONS ARE DESCRIBED IN THE PUBLISHED LIMITED WARRANTY ADDENDUM, AVAILABLE UPON REQUEST.

COMPONENTS, SUB-ASSEMBLIES, AND DEVICES MANUFACTURED BY OTHER MANUFACTURERS ARE COVERED BY EACH MANUFACTURERS OWN WARRANTY. HOWEVER, ALLMAND SUGGESTS THAT YOU WORK WITH YOUR ALLMAND WARRANTY REPRESENTATIVE TO EITHER CONTACT THESE OTHER MANUFACTURERS OR FOR ASSISTANCE IN SUBMITTING A CLAIM. ALL WARRANTY INFORMATION FROM SUCH OTHER MANUFACTURERS IS PROVIDED WITHIN OR ACCOMPANIES THESE GOODS.

Subject to the foregoing, the manufacturer, Allmand Bros. Inc., hereby warrants all light towers manufactured by Allmand Bros. Inc. after April 1, 2008 to be free from defects in material and workmanship for a period of (2) years after delivery to the original purchaser. The first year warranty would include parts and labor. The second year warranty would be limited to parts manufactured by Allmand Bros. Inc. and components warranted by the original equipment manufacturer for more than 12 months. Additionally, Allmand Bros. Inc. hereby warrants all replacement parts supplied by Allmand Bros. Inc. to be free from defects in material and workmanship for a period of 90 days after date of invoice. Delivery shall be deemed for the purposes of this warranty to have occurred on the date of invoice. During the warranty period any defective goods or parts hereof shall be repaired or replaced at manufacturer's discretion. In the event it is necessary to return such goods or parts to the factory, all transportation charges shall be prepaid. If it determined the parts are defective and thus warrantable the cost of freight to return the part will be credited back to the customer. The manufacturer shall in no event pay mileage expenses. The manufacturer shall in no event be responsible for down time and or lost revenue.

The obligations of the manufacturer is solely to repair or replace defective goods or parts or to refund the cost of the same if it is determined by the manufacturer that repair or replacement will not return the goods to proper working order or utility. **THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND MANUFACTURER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES. THE OBLIGATIONS OF THE MANUFACTURER HEREUNDER SHALL IN NO WAY EXCEED THE PRICE OF THE EQUIPMENT OR PART UPON WHICH SUCH LIABILITY IS BASED.**

The warranty shall not extend to tires, lamps, batteries, or parts that have been altered, changed, damaged, or improperly installed, repaired, operated or maintained. Provided, this exclusion shall not apply to installations, repairs or other work done at the manufacturer's plant or under direct manufacturer's supervision. The Operator's Manual, to the extent covered therein, is deemed to set forth the proper procedures for operation, repair, installation, and maintenance of these goods.

No representative, dealer or distributor of the company is authorized to make any changes or exceptions to this warranty unless expressly authorized in writing from the manufacturer. All warranty claims must be filed within thirty (30) days of the failure.