

MAXI LITE® ML FCS SERIES OPERATOR'S MANUAL

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RECORD IMPORTANT INFORMATION

Recording the equipment information will help, when placing an order for replacement parts and/ or decals.

Company Equipment No:———		
Unit model No:		
Unit Vin:		
Engine Model No: ————	Serial No:	
Generator Model No:	Serial No:	
Accessories:		

A WARNING

CALIFORNIA PROPOSITION 65

Diesel engine exhaust and some of its constituents are know to the State of California to cause cancer, birth defects, and other reproductive harm.

A WARNING

CALIFORNIA PROPOSITION 65

Battery post, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.

Wash hand after handling.

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INTRODUCTION

Congratulations on the purchase of your new Allmand **MAXI-LITE ML FCS SERIES** light tower and welcome to the Allmand Family of equipment owners.

The Allmand MAXI-LITE ML FCS SERIES light tower offers many advantages to make operation safer, more convenient and more cost effective. The MAXI-LITE ML FCS SERIES light tower will provide you with high quality performance and durability which translates into more productivity on the job site.

ABOUT THIS MANUAL

Take time to read this manual thoroughly.

This *Operator's Manual* provides information necessary for the safe operation of the Allmand Bros. inc. **MAXI-LITE ML FCS SERIES** light tower.

NOTICE

Keep this manual accessible during operation to provide convenient reference. Store this manual in a safe place for future reference.

If you are uncertain about any of the information in the manual, contact Allmand Service Department at 1-800-562-1373 or your Allmand dealer for clarification before operation.

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.

Engine - specific operating instructions and specifications are contained in the engine owner's manual provided in your owners kit. Always refer to the engine owner's manual for operation and maintenance procedures.

The graphics and text in this manual generally describe the Allmand **MAXI-LITE ML FCS SERIES** light tower. Allmand light towers differ by model and optionally installed equipment. Your Allmand light tower may not exactly match the graphics and /or text descriptions in this manual.

NOTICE

The information found in this manual was in effect at the time of printing. Allmand Bros. may change contents without notice and incurring obligation.

NOTICE

Any reference in this manual to left or right shall be determined by looking at the trailer from the rear.

NOTE: On the MAXI-LITE ML FCS SERIES

Light Tower Trailer there are two styles of Vertical Tower mast: a 7-section Tower (older model) or a 6-section Tower (newer model) and there are two options of the Laydown Tower mast: a Manual Winch or an Electric Winch.



SAFETY DEFINITIONS

Safety statements are one of the primary ways to call your attention to potential hazards. Follow the precautions listed throughout the manual before operation, during operation and during periodic maintenance procedures for your safety, the safety of others and to protect the performance of equipment. Keep the decals from becoming dirty or torn and replace them if they are lost or damaged. Also, if a part needs to be replaced that has a decal attached to it, make sure to order the new part and decal at the same time.



This safety alert symbol appears with most safety statements. It means attention,

become alert, your safety is involved! Read and abide by the message that follows the safety alert symbol.

A DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING

Indicates a hazardous situation which, if not avoided, **could** result in death or serious injury.

A CAUTION

Indicates a hazardous situation which, if not avoided, **could** result in minor or serious injury.

NOTICE

Indicates a situation which can cause damage to the equipment, personal property and/or the environment, or cause the equipment to operate improperly.

NOTE: provides key information to make procedures easier or clearer.

SAFETY PRECAUTIONS

There is no substitute for common sense and careful practices. This information contains general safety precautions and guidelines that must be followed to reduce risk to personal safety. Special safety precautions are listed in specific procedures. Read and understand all of the safety precautions before operating or performing repairs or maintenance. This safety section cannot cover every situation that may occur that is incidental to the use of the equipment.

If you are uncertain about any of the information in the manual, contact Allmand service department at 1-800-562-1373, for clarification.

A DANGER

The safety messages that follow have DANGER level hazards.

ELECTROCUTION HAZARD



Always check overhead wires and obstructions before raising or lowering the light tower.

Allow 35 feet (10.6 m) of clearance.

- High voltage is present when engine is running. Never attempt to service electrical components while engine is running.
- Do not operate the light tower if the insulation on the electrical cord or other electrical wiring is cut or worn or if bare wires are exposed. Repair or replace damaged wiring before starting the engine.

A WARNING

The safety messages that follow have WARNING level hazards.

UNSAFE OPERATION HAZARD

- Never permit anyone to install or operate the equipment without proper training.
- Read and understand this Operator's
 Manual, the Engine Operator's Manual
 before operating or servicing the light tower
 to ensure that safe operating practices and
 maintenance procedures are followed.
- Safety signs and decals are additional reminders for safe operating and maintenance techniques.

FALL HAZARD

Never carry riders on the equipment

MODIFICATION HAZARD

 Never modify the equipment without written consent of the manufacturer. Any modification can effect the safe operation of the equipment.

EXPOSURE HAZARD



Always wear personal protective equipment, including appropriate clothing, gloves, work shoes, and eye and hearing protection, as required by the task at hand.

ROLLOVER HAZARD

- Do not raise, lower or use light tower unless all outriggers and jacks are positioned on firm ground.
- Never move or reposition the light tower while the light tower is extended in the vertical position.

EXPLOSION HAZARD



- While the engine is running or the battery is charging, hydrogen gas is being produced and can be easily Ignited. Keep the area around the battery well ventilated and keep sparks, open flame and any other form of ignition out of the area.
- Always disconnect the negative (-) battery cable before servicing equipment.
- Only use the starting procedure as described in the Engine Operator's Manual to start the engine.
- Never charge a frozen battery. Always slowly warm the battery to room temperature before charging.

FIRE AND EXPLOSION HAZARD

- Diesel fuel is flammable and explosive under certain conditions.
- Never use a shop rag to catch the fuel.
- Wipe up all spills immediately.
- Never refuel with the engine running.
- Store any containers containing fuel in a well ventilated area, away from any combustibles or sources of ignition.

A WARNING

The safety messages that follow have WARNING level hazards.

EXHAUST HAZARD



- All internal combustion engines create carbon monoxide gas during operation and special precautions are required to avoid carbon monoxide poisoning.
- Never block windows, vents or other means of ventilation if the equipment is operating in an enclosed area.
- Always ensure that all connections are tightened to specifications after repair is made to the exhaust system.

ENTANGLEMENT / SEVER HAZARD



- Always stop the engine before beginning service.
- If the engine must be service while it is operating, remove all jewelry, tie back long hair and keep hands, other body parts and clothing away from moving/rotating parts.
- Verify that all guards and covers are attached properly to the equipment before starting the engine. Do not start the engine if any guards are or covers are not properly installed on the equipment.
- Attach a "Do Not Operate" tag near the key switch while performing maintenance on the equipment.

ALCOHOL AND DRUG HAZARD



Never operate the light tower while under the influence of alcohol or drugs, or when ill.

PIERCING HAZARD



- Avoid skin contact with high pressure hydraulic fluid or diesel fuel spray caused by a hydraulic or fuel system leak such as a broken hydraulic hose or fuel injection line. High pressure hydraulic fluid or fuel can penetrate your skin and result in serious injury. If you are exposed to high pressure hydraulic fluid or fuel spray, obtain prompt medical treatment.
- Never check for a hydraulic fluid or fuel leak with your hands. Always use a piece of wood or cardboard.

FLYING OBJECT HAZARD



Always wear eye protection when cleaning the equipment with compressed air or high pressure water. Dust, flying debris, compressed air, pressurized water or steam may injure your eyes.

COOLANT HAZARD



Wear eye protection and rubber gloves when handling engine coolant. If contact with the eyes or skin should occur, flush eyes and wash immediately with clean water.

BURN HAZARD



- light fixtures and some of the engine surfaces become very hot during operation and shortly after shutdown.
- Keep hands and other body parts away from hot engine surfaces.

A WARNING

The safety messages that follow have WARNING level hazards.

BURN HAZARD

 Handle hot components, such as light fixtures, with heat resistant gloves.

A CAUTION

The safety messages that follow have CAUTION level hazards.

TOOL HAZARD

 Always use tools appropriate for the task at hand and use the correct size tool for loosening or tightening equipment parts.

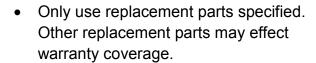
SLIP HAZARD

- Immediately clean up any spilled liquid on the shop floor.
- Clean up accumulated dirt and debris on the shop floor at the end of each shift.

NOTICE

The safety messages that follow have NOTICE level hazards.

- Any part which is found defective as a result of inspection or any part whose measured value does not satisfy the standard or limit MUST be replaced.
- Always tighten components to the specified torque. Loose parts can cause equipment damage or cause it to operate improperly.
 - Follow the guidelines of the EPA or other governmental agencies for the proper disposal of hazardous materials such as engine oil, diesel fuel and engine coolant. Consult the local authorities or reclamation facility.



- Clean all accumulated dirt and debris away
 from the body of the equipment and is
 components before you inspect the
 equipment or perform preventative
 maintenance procedures or repairs. Operating equipment with accumulated dirt and
 debris will cause premature wear of
 equipment components. Accumulated dirt
 and debris also hinders effective equipment
 inspection.
- Never dispose of hazardous materials by dumping them into a sewer, on the ground, or into groundwater or waterways.
- Retrieve any tools or parts that may have dropped inside of the equipment to avoid improper equipment operation.
- If any alert indicator illuminates during equipment operation, stop the engine immediately. Determine the cause and repair the problem before continuing to operate the equipment.

SAFETY LABELS

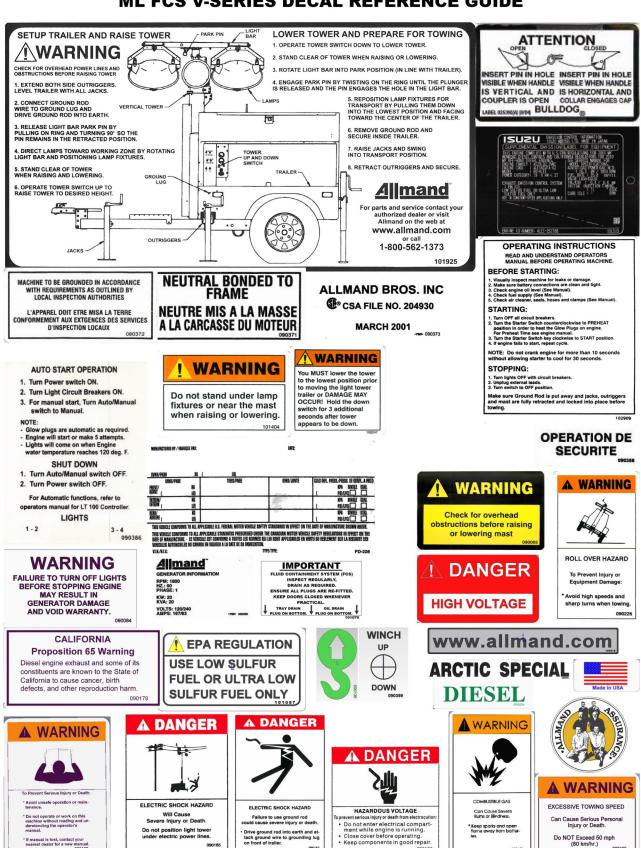
WARNING

UNSAFE OPERATIONAL HAZARD
Always replace any safety and instruction decals that become damaged, painted or otherwise illegible.

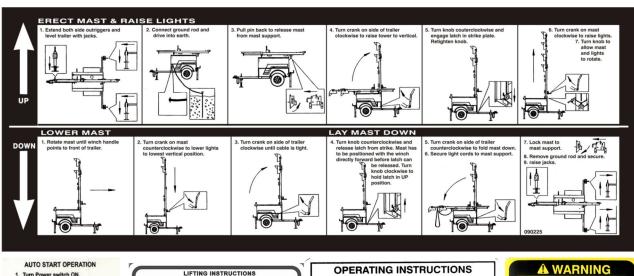
Refer to These representations of the safety warning decals used on the **MAXI-LITE ML FCS SERIES** light tower. To insure correct ordering if replacing becomes necessary.



ML FCS V-SERIES DECAL REFERENCE GUIDE



ML FCS MANUAL TOWER DECAL REFERENCE





For Automatic functions, refer to rs manual for LT 100 Controlle LIGHTS 1-2

WARNING

FAILURE TO TURN OFF LIGHTS BEFORE STOPPING ENGINE MAY RESULT IN GENERATOR DAMAGE AND VOID WARRANTY.



READ AND UNDERSTAND OPERATORS MANUAL BEFORE OPERATING MACHINE.

REFORE STARTING:

- Visually inspect machine for leaks or damage.
 Make sure battery connections are clean and tight.
 Check enjine oil level (See Manual).
 Check tuel supply (See Manual).
 Check tiel cleaner, seals, hoses and clamps (See Manual).

STARTING:

- Turn OFF all circuit breakers.
 Turn the Starter Switch counterclockwise to PREHEAT position in order to heat the Glow Plugs on engine. For Preheat Time see engine manual.
 Turn the Starter Switch key clockwise to START position.
 If engine falls to start, repeat cycle.

NOTE: Do not crank engine for more than 10 seconds without allowing starter to cool for 30 seconds.

STOPPING:

- Turn lights OFF with circuit breakers.
 Unplug external leads.
 Turn switch to OFF position.

Make sure Ground Rod is put away and jacks, outriggers and mast are fully retracted and locked into place before







Do not stand in front of Mast or underneath rear of Mast when raising or lowering.



CAUTION

Winch will be used

WARNING



NON-VERTICAL TOWER Can Cause Severe Injury or Death. Keep all persons clear before raising or lowering mast.



ROLL OVER HAZARD

To Prevent Injury or

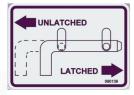
Avoid high speeds and



! DANGER

HIGH VOLTAGE





ARCTIC SPECIAL

CALIFORNIA Proposition 65 Warning esel engine exhaust and some of its astituents are known to the State of lifornia to cause cancer, birth ects, and other reproduction harm.

FPA REGULATION USE LOW SULFUR **FUEL OR ULTRA LOW** SULFUR FUEL ONLY

GROUNDING

LUG

Allmand on the web at www.allmand.com

Made in USA

WARNING EXCESSIVE TOWING SPEED Can Cause Serious Persona Injury or Death.

A DANGER

ELECTRIC SHOCK HAZARD Will Cause Severe Injury or Death.



A DANGER

HAZARDOUS VOLTAGE

o prevent serious injury or death from electrocutic

Do not enter electrical compartment while engine is running.

Close cover before operating.

Keep components in good repair.

WARNING

COMBUSTIBLE GAS

1 OVERHEAD HAZARD

WARNING

To Prevent Serious Injury or Death:

Do not raise, lower or use light tower unless all outriggers and jacks are positioned on firm ground.

Level trailer before use.



Failure to use ground rod ld cause severe injury or death

PREPARING THE UNIT FOR DELIVERY OR RENTAL

The MAXI-LITE ML FCS SERIES light tower requires service as well as proper operation in order to provide the performance and safety it has been designed for. Never deliver or put machine into service with known defects or missing instructions or decals. Always instruct the customer in proper operation and safety procedures as described in this *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 light tower locking bar latch assembly which locks the light tower in the vertical position for proper operation.
- Check the hitch assembly and safety 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.

A DANGER

ELECTROCUTION HAZARD

Do not operate the light tower if the insulation on the electrical cord or other electrical wiring is cut or worn or if bare wires are exposed. Repair or replace damaged wiring before starting the engine.

- Check ground rod cable and the ground lug.
 Make sure they are clean, undamaged and functional.
- Inspect tires to insure good condition and proper inflation.
- Check engine oil, fuel, engine coolant levels and hydraulic fluid levels, if equipped.
- Check to make sure the Light Tower
 Operator's Manual and Generator
 Operator's Manual are with the equipment.
- Inspect the machine physically for damage and repair if necessary.

NOTICE

See appropriate section of the Engine Operator's Manual and generator Operator's Manual for additional pre-operation checks.

After completing the pre-operation check list, operate the tower through a complete operation cycle, following the operating instructions in the **MAXI-LITE ML FCS SERIES** Operator's Manual.

A WARNING

UNSAFE OPERATION HAZARD

Never permit anyone to install or operate the equipment without proper training.

ALWAYS READ AND UNDERSTAND THE INSTRUCTIONS FIRST.

Before trailering, transporting or lifting, read *Safety* on page 8.

The complete engine and generator set is housed in a lockable enclosure with the frame fabricated from heavy gauge steel mounted on a two-wheel, leaf spring axle.

BEFORE TRAILERING OR TRANS-PORTING

Perform the following before trailering / transporting:

- Lower the light tower and shut down the tower lights and the engine; See Shutdownprepare for trailering on page 15.
- Visually inspect the trailer and equipment for damage. Repair or replace any components as needed before trailering.
- Check the trailer lights for proper operation
- Inspect the tires to insure good condition and proper inflation.
- Inspect trailer springs and undercarriage for damage or loose parts.
- Check the hitch assembly and safety chains.
- Ensure the outriggers and jacks are properly stowed.
- Ensure the ground rod and cable are disconnected and properly stowed.
- Clean any spills from inside the trailer bilge area around the outside of the trailer; they may have occurred during operation.
- Ensure all compartment doors are closed and securely locked.

SHUTDOWN - Prepare for trailering

1. With the tower lights off, lower the light tower to the full DOWN position; See Raising and lowering the light tower on page 38-41.

NOTICE

See appropriate section of the Engine Operator's Manual and generator Operator's Manual for additional pre-operation checks.

- 2. Turn the engine off . Refer to your *Engine Operator's Manual* for stopping procedure.
- 3. Adjust the light bar and light fixtures for trailering; See *Tower Lights-Stowage for trailering* on page 16-17.

NOTICE

Visually inspect the light mounting brackets and hardware for loose fasteners or damaged brackets. Repair any problems before trailering.

- 4. Secure the light cords into the hook on the rear tower support.(Laydown Tower Only)
- Disconnect the ground rod cable rod the ground lug. Remove the ground rod from the earth and clean and secure the ground rod and cable in the trailer.
- 6. Close, secure and lock all compartment doors.

NOTICE

Be sure each outrigger jack is securely latched in transporting position by installing the outrigger lock pins before transporting.

7. Raise each outrigger stabilizer jack and rotate into trailering position (horizontal with outrigger bar).

8. Retract each outrigger bar and secure in the stowed position with latch pin.

VERTICAL TOWER LIGHTS - Stowage for Trailering

The light bar and fixtures must be stowed before trailering or transporting.

1. Ensure lights are off and tower is lowered to the full DOWN position; See *Raising and Lowering the Light Tower* on page 38-41.

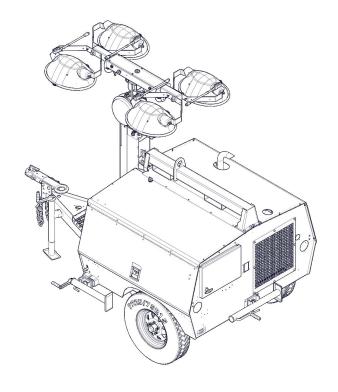
A WARNING

BURN HAZARD

The light fixtures become extremely hot during use. Always use caution and heat-resistant gloves when handling the lights or allow the lights to cool down before handling.

- Release the light bar park pin by pulling the ring and turning it 90° so that the pin remains in the retracted position.
- 3. Rotate the light bar into the trailering/ transporting park position (inline with the trailer) and engage the park pin by twisting the park pin ring until the plunger is released and the pin engages and locks into the hole in the light bar.
- Reposition the light fixtures for trailering/ transporting by pulling them down into the lowest position and face the fixtures toward the center of the trailer. (See Right)

NOTE: If lights are to be removed for trailering/ transporting, See *Tower Lights - Removal for Trailering/ Transporting* on page 18.



LAYDOWN TOWER LIGHTS - Stowage for Trailering

The light bar and fixtures must be stowed before trailering or transporting.

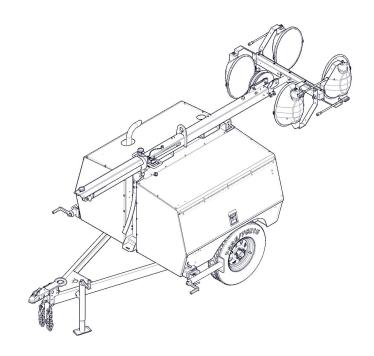
A WARNING

BURN HAZARD

The light fixtures become extremely hot during use. Always use caution and heat-resistant gloves when handling the lights or allow the lights to cool down before handling.

- 1. Ensure lights are off and tower is lowered to the full DOWN position: See *Raising and Lowering the Light Tower* on page 38-41.
- Rotate the light bar into the trailering/ transporting park position (inline with the front of the trailer) and tighten the tower lock knob.
- Reposition the light fixtures for trailering/ transporting by facing the fixtures toward the mast (See right)
- 4. Lower the tower into the rear tower support and engage tower lock.

NOTE: If lights are to be removed for trailering/ transporting, See *Tower Lights* - Removal for trailering/ transporting (optional) on page 18.



TOWER LIGHTS - Removal for Trailering/ Transporting (optional)

Your light tower may be equipped with lights that can be removed for trailering/ transporting or for theft protection.

A WARNING

BURN HAZARD

The light fixtures become extremely hot during use. Always use caution and heat-resistant gloves when handling the lights or allow the lights to cool down before handling.

- 1. Ensure lights are off and tower is lowered to the full DOWN position; See Raising and Lowering the light tower on page 38-41.
- 2. Disconnect the electrical cord from each light fixture.
- 3. While supporting the light fixture, remove the nut and washer for each assembly fastening the main light fixture bracket to the light bar.
- 4. Store each light fixture to avoid any damage during transport

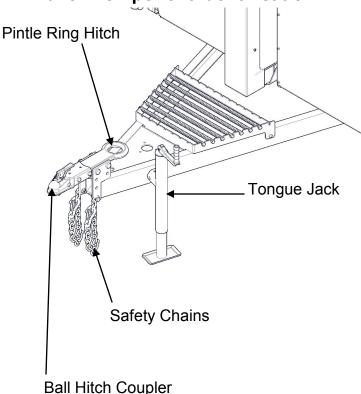
TRAILERING / TOWING

Before trailering / towing the light tower trailer, read Before Trailering / Transporting on page 15 and read Safety on page 8.

NOTICE

Maximum highway speed is 60mph (97 km/h) and maximum off highway speed is 20 mph (32 km/h). Do not exceed these limits or damage to the light tower may occur.

Trailer Component Identification





Towing Vehicle and Hitch Considerations

A WARNING

CONTROL HAZARD

Never pull a trailer load that exceeds the vehicle's towing capacity.

The towing vehicle must be able to safely pull the full trailer load. Never pull a trailer load that exceeds the vehicle's towing capacity; you risk losing control of the trailer and/or vehicle. Before trailering, always check your vehicle owners manual for maximum towing/ trailering load specifications and maximum gross vehicle weight specifications that include the fully loaded trailer.

A WARNING

CONTROL HAZARD

A vehicle hitch that is underrated or improperly installed can lead to loss of control of the trailer and/ or the vehicle. Never use a hitch size or rating that does not match the trailer coupler specifications.

The vehicle must have a towing hitch that is capable of safely handling the trailer load and tongue weight of the trailer.

Connecting the Trailer Hitch Coupler and Lights

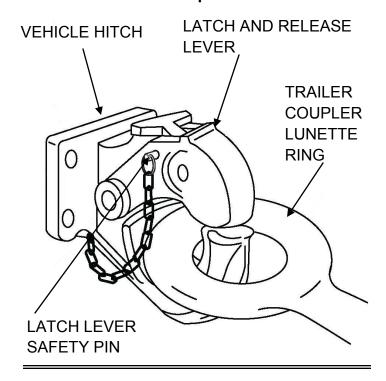
The trailer is equipped with a combination trailer coupler for a two inch ball hitch and a 3 inch lunette ring for a pintle hitch.

WARNING

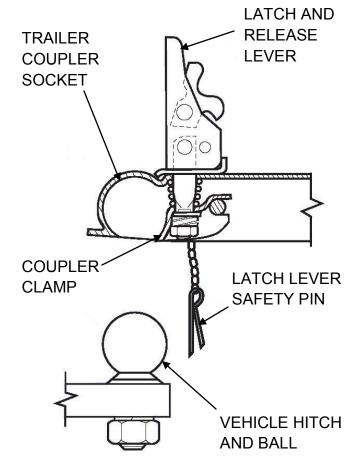
CONTROL HAZARD

Ensure the coupler bolts are tightened before trailering.

Typical Lunette Ring Pintle type Hitch and Coupler



Typical Ball Type Hitch And Coupler



The trailer coupler must be reversed to use either the ball or lunette hitch coupler. To reverse the coupler, remove the two bolts and reposition the coupler as needed.

NOTICE

Safety chains must be rated at the same or greater weight capacity as the trailer's GVWR.

The trailer's safety chains prevent the trailer from completely detaching from the vehicle when underway.

 Connect the tow vehicle hitch to the trailer coupler. Make sure the coupler is securely attached to the tow vehicle's hitch.

A WARNING

CONTROL HAZARD

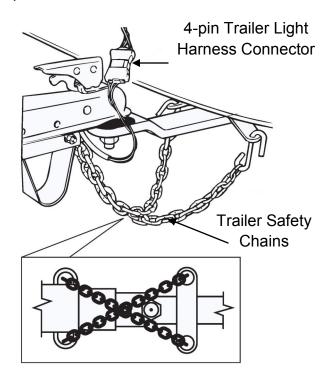
Attach the safety chains properly and securely between the towing vehicle and the trailer before trailering. Never allow the chains to drag on the ground when trailering.

- Connect the safety chains to the vehicle's hitch frame and crisscross the chains under the trailer tongue to prevent the tongue from dropping to the road if the trailer separates from the hitch ball. Rig the chains as tight as possible with enough slack to permit free turning.
- Connect the four pin light connector from the vehicle harness to the trailer harness.

NOTICE

Do not allow excessive harness slack or the harness ca be damaged from scraping on the ground.

- 4. Ensure there is adequate slack in the harness to prevent binding or disconnection when turning.
- 5. Before trailering, check all lights for proper operation.



LIFTING THE LIGHT TOWER

The approximate fully loaded weight of the light tower and trailer is:

Vertical tower - 2,803lbs (1,271.4 kg)

Laydown tower - 2,588 lbs (1,173.9 kg)

The **MAXI-LITE ML FCS SERIES** light tower is equipped with top forklift pockets and a lifting eye for lifting or hoisting.

A WARNING

ROLLOVER HAZARD

Before lifting, lower the light tower and shut down tower lights and the engine: See SHUT -DOWN-prepare for trailering.

WARNING

CRUSH HAZARD

Always make sure the lifting devise you are using is in good condition and is rated for the maximum capacity of the task to safely lift the light tower trailer.

A WARNING

CRUSH HAZARD

Always acquire assistance when using a forklift, crane or hoist and when loading and unloading.

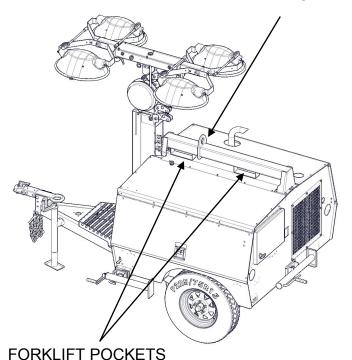
A WARNING

CRUSH HAZARD

Only use the lifting eye on the lifting bar to lift or hoist the unit with a hoist or crane.

LIFTING ATTACHMENT POINTS - Vertical Tower

LIFTING EYE



A WARNING

CRUSH HAZARD

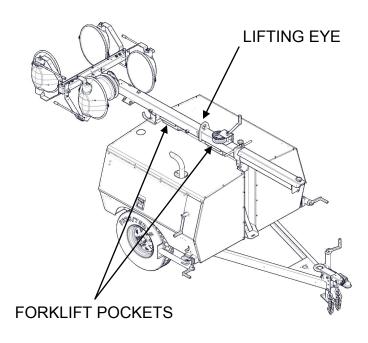
Do not stand or walk under the unit when lifted and keep others away.

A WARNING

CRUSH HAZARD

Always use shackles or a locking type hook when lifting.

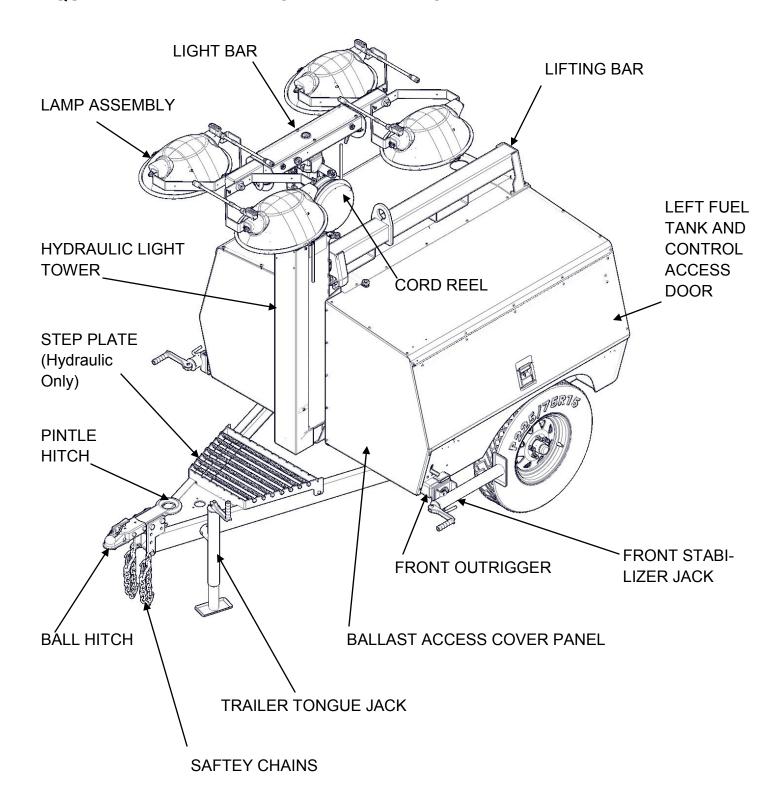
LIFTING ATTACHMENT POINTS - Laydown Tower



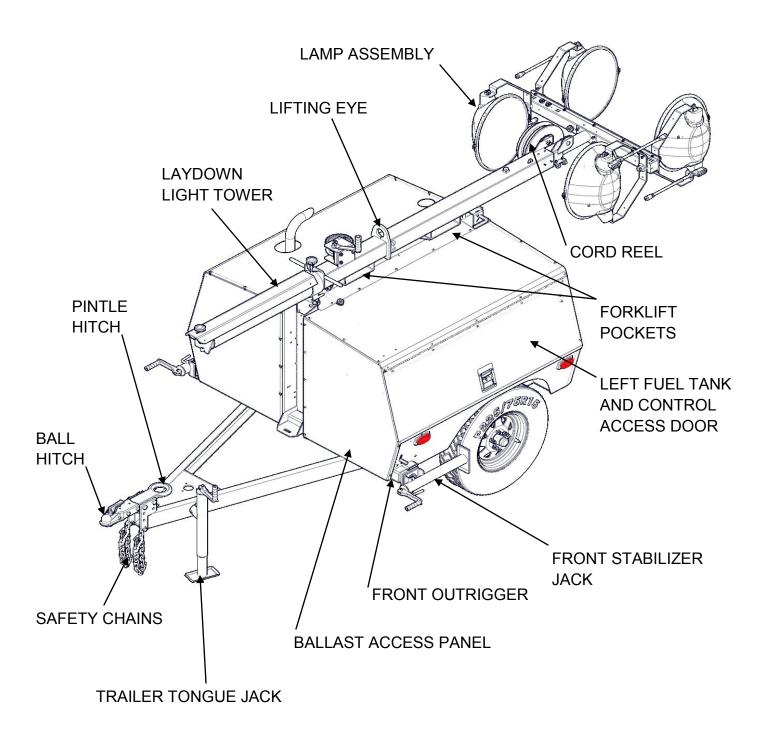
TRANSPORTING ON A TRAILER

When transporting on a truck or a trailer, always secure the unit using properly rated tie-down chains or straps connecting the light tower frame using tie-down loops to the towing trailer. The operator of the towing vehicle is responsible for securing the load properly.

EQUIPMENT IDENTIFICATION- VERTICAL TOWER



EQUIPMENT IDENTIFICATION- LAYDOWN TOWER



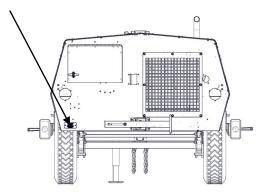
MODEL AND SERIAL NUMBERS

Model and serial number information is required for product support and repair parts. The following descriptions show model and serial number locations of the primary components.

Trailer

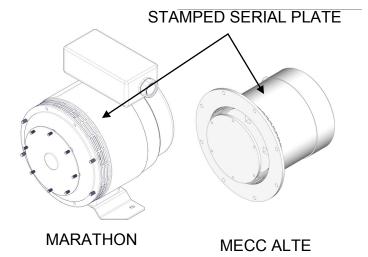
All **MAXI-LITE ML FCS SERIES** light tower trailers have a serial number plate attached to the rear panel.



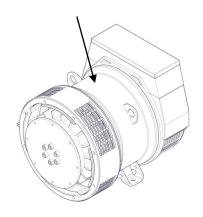


Generator

The generator has a serial number plate attached to the side of the housing.



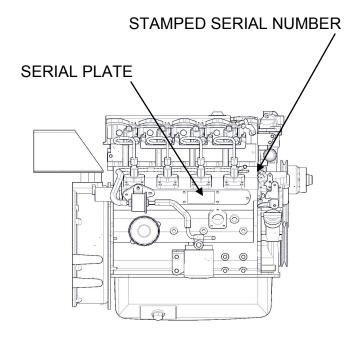
STAMPED SERIAL PLATE



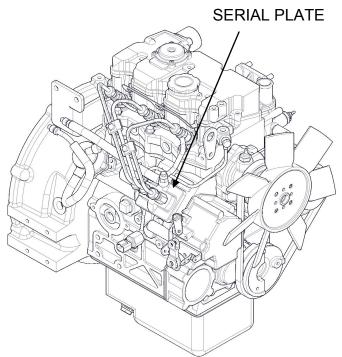
CUMMINS

Engine

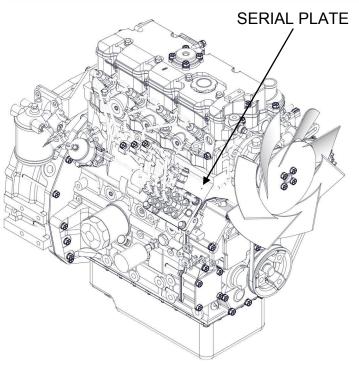
The ISUZU Engine has the serial number plate attached to left side of the engine block by the oil filter.



The CATERPILLAR engine has a serial number plate attached on the upper right side of the engine block above the fuel injection pump.



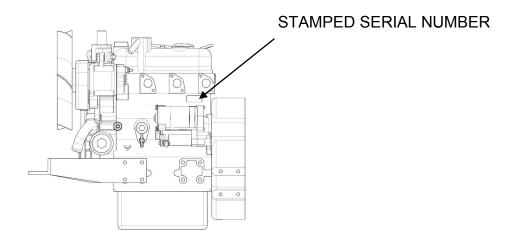
CAT ENGINE C1.1



CAT ENGINE C2.2

Engine

The KUBOTA engine has the serial number stamped on the engine block just below the exhaust manifold.



SPECIFICATIONS (STANDARD AND OPTIONAL FEATURES)

NOTICE

Refer to the Engine Operator's Manual or Generator Operator's Manual for specific Engine or Generator specifications.

Overall Dimensions

	Hydraulic Tower	Laydown Tower
Height Light Tower Lowered	7 Ft 8 in. (2.34 m)	5 ft. 7in. (1.7 m)
Height Light Tower Raised	25 ft 6in. (7.8 m)	30 ft. (9.14 m)
Width (outriggers retracted)	74 in. (1.9 m)	76 ft. 3/4 in. (1.95 m) Manual Winch
		74 in. (1.87 m) Electric Winch
Width (outriggers extended)	12 ft 10 in. (3.91 m)	12 ft. 10 in. (3.91 m)
Length w/o Fixtures	10 ft 4 in. (3.14 m)	13 ft. 6 in. (4.1 m)
Length with Fixtures	10 ft 4 in. (3.14 m)	14 ft. 9 in (4.5 m)
Dry Weight (4 lights)	2,503 lbs (1,036 kg)	2,288 lbs (1,038 kg)
Dry Weight (6 lights)	2,537 lbs (1,050 kg)	

Trailer

Hitch Coupler	Adjustable height, reversable
	combination, 2 in. (50 mm) ball,
	3 in. (75 mm) pintle hitch
Max. Road Speed	
(paved road)	60 mph (97 km/h)
Max. Off - road Speed	20 mph (32 km/h)
Number of Axles	1
Axle Rating	5000 lbs (907.1 kg)
Tire Size & Rating	15 inch C
Max Tire Pressure	See Tire Manufacture Specification
Door Locks	Standard
Trailer Lights: Stop,	
Turn and Running	D.O.T. Approved
Trailer ILight Connector	4 - Pin Plug
Lifting Eye	Standard
Tie - Down Rings	Standard
Rear Forklift Pockets	Standard
Side Forklift Pockets	Standard
Top Forklift Pockets	Standard
Number of Stablizers	4
Number of Outrigger	
Stabilizers	2
Tongue Jack	Standard
Ground Rod	Standard

Light Tower– Vertical

Sections	7
Hydraulic Cylinder	Standard
Vertical	Standard
Max Wind Load 53 mph	
(85.3 km/h)	Standard
Light Bar Rotation	360°
Tower Cord Reel	Standard

Light Tower– Laydown

Sections	3
Hydraulic Cylinder	N/A
Rear Tower Support	Standard
Max Wind Load 53 mph	
(85.3 km/h)	Standard
Light Fixture Rotation	360°
Tower Cord Reel	Standard
Manual Winch	Standard
Electric Winch	Option

Tower Lights

SHO - HD 1250W Metal Halide (lumen rating: 150,000)	Standard
SHO - HD 1000W Metal Halide (lumen rating: 110,000)	Optional
SHO - HD 1000W and 1250W Metal Halide	Warm - up time: 2-4 minutes
SHO - HD 1000W and 1205W Metal Halide	Re - start time: 10 to 15 minutes
Four Fixtures	Standard (sealed for all weather use)
Light Fixture Weight	15 lbs (6.75 kg)
Indivdual Light Switches	
1000W Light Switch (2 per 4 lights)	Standard
1000W Light Switch (4 per 4 lights)	Optional
1250W Light Switch (2 per light)	Standard
Individual Ballast (1 ballast per light)	Standard

Generator

20 kW	Standard
120VAC Convenience Outlet	Standard
125/250 VAC TWIST - LOCK Convenience Outlet	Standard
50A Service Outlet	Standard
208VAC 1-Phase Twist - Lock Outlet	Standard
240VAC 3-Phase Convenience Outlet	Option
240V 1-Phase Convenience Outlet	N/A
Main Disconnect Breaker	Standard

AS3000 Generator

7.5 kW	Standard
8 kW	Optional
120VAC Convenience Outlet	Standard
125/250VAC Twist - Lock	
50A Service Outlet	
220VAC 1-Phase Twist - Lock Outlet	Optional
220VAC 3-Phase Convenience Outlet	
240V 1-Phase Convenience Outlet	
Main Disconnect Breaker	

Model	ISUZU 4LE1				
Туре	Water - Cooled 4 Cycle Diesel				
Bore	3.35 in. (85mm)				
Stroke	3.78in. (96mm)				
Displacement	133cu. In. (2179cc)				
Power @ 1800 rpm	31.4 bhp				
Power Output Derating	3.5% per 1000 ft above (305m) / 1% per 10?F above 77?F				
Note: Horse power ratings are established in accordance with Society of Automotive Engineers					
Small EngineTest Code - J1349 GROSS.					
Fuel System	Indirect Injected Diesel				
Starting System	12VDC Negative Ground				
Electrical System	12VDC Negative Ground				
Battery Type	Group 24				
Battery Rating	450 CCA				
Number of Batteries	1				
Compression Ratio	21.5:1				
Weight	387 lbs (175 kg)				
Oil Capacity	MAX. 8.5 qts (8.0 l), MIN.5.6 qts. (5.3 l)				
Lubrication	Forced Lubrication by pump				
Oil Filtration	Cartridge Type				
Cooling System	Pressurized Radiator Forced Circulationwith Water Pump				
Low Pressure					
Engine Shutdown					
High Engine	Standard (All Engines)				
Temperature					
Shutdown					
Glow Plug Cold Start					
Assist					
Fuel	Use a Clean No.2 Diesel Fuel Oil (SAE J313 JUN87) according to ASTM D975.				
	engine, Refer to the Engine Operator's Manual for more detailed fuel requirements.				
Engine Oil	Use a high Quality Engine Oil of API (American Petroleum Institute) service class CC/CD/CE.				
	Refer to the Engine Operator's Manual for more Detailed Fuel Requirements.				
Fuel Tank	50 GAL., (70 Gal. option) / 189 l., (264 l)				
Coolling System	See Engine Operator's Manual				
Engine Oil	See Engine Operator's Manual				

	SEIVERAL SERVICE IN ORMATION				
Model	CAT C1.1				
Туре	Water Cooled 4 - Cycle Diesel				
Bore	3.03 in. (77mm)				
Stroke	3.19 in. (81mm)				
Displacement	69 cu. In. (1100cc)				
Power @ 1800 rpm	14.3 hp (11.9 kW)				
Power Output	3% per 1000 ft above 360ft				
Derating	1% per 10° above 77° F				
Note: Horse power ratio	ngs are established in accordance with Society of				
Automotive Engineers S	Small Engine Test Code - J1349 GROSS				
Fuel System	Cassette type fuel injected diesel				
Starting System	12VDC Negative Ground				
Electrical System	12VDC Negative Ground				
Battery Type	Group 24				
Battery Rating	550 CCA				
Number of Batteries	1				
Compression Ratio	22:01				
Weight	191 lb (87 kg)				
Oil Capacity	3.9 qt (3.7 L)				
Lubrication	Forced lubrication by Pump				
Oil Filteration	Cartridge Type				
Cooling System	Pressurized radiator forced circulation with water pump				
Low Oil Pressure					
Engine Shutdown					
High Engine	Standard				
Tempurature					
Shutdown					
Glow Plug Cold Start					
Assist					
Fuel	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, kerosene, which is very low in cetane rating, adversely affects the				
	engine. Refer to the Engine Operator's Manual for more dtailed fuel				
	requirements.				
Engine Oil	Use a high quality engine oil of API (American Petroleum Institute) servuce class				
	CC/CD/CE. Refer to the Engines Operator's Manual for a more detailed engine oil				
	requirements.				
Fuel Tank	50 gal (189 L), 70 gal option (264 L)				
Cooling System	See Engine Operator's Manual				
Engine Oil	See Engine Operator's Manual				

Model	CAT C2.2				
Туре					
Bore	Water Cooled 4 - Cycle Diesel 3.31 in. (84mm)				
Stroke					
Displacement	3.94 in. (100.0mm)				
Power @ 1800 rpm	1352 cu. In. (2216cc) 35 hp (26.1 kW)				
Power Output	35 np (26.1 kW) 3% per 1000 ft above 360ft				
Derating	·				
	1% per 10° above 77° F ngs are established in accordance with Society of				
·	·				
	notive Engineers Small Engine Test Code - J1349 GROSS				
Fuel System	Cassette type fuel injected diesel				
Starting System	12VDC Negative Ground				
Electrical System	12VDC Negative Ground				
Battery Type	Group 24				
Battery Rating	550 CCA				
Number of Batteries	1				
Compression Ratio	23.3:1				
Weight	406 lb 184kg)				
Oil Capacity	11.2 qt (10.6 L)				
Lubrication	Forced lubrication by Pump				
Oil Filteration	Cartridge Type				
Cooling System	Pressurized radiator forced circulation with water pump				
Low Oil Pressure					
Engine Shutdown					
High Engine	Standard				
Tempurature					
Shutdown					
Glow Plug Cold Start					
Assist					
Fuel	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, kerosene, which is very low in cetane rating, adversely affects the				
	engine. Refer to the Engine Operator's Manual for more dtailed fuel				
	requirements.				
Engine Oil	Use a high quality engine oil of API (American Petroleum Institute) servuce class				
	CC/CD/CE. Refer to the Engines Operator's Manual for a more detailed engine oil				
	requirements.				
Fuel Tank	50 gal (189 L), 70 gal option (264 L)				
Cooling System					
Engine Oil	See Engine Operator's Manual				
	200 2.16.110 Operator o manage				

Engine

	Kubata D110EDO	Lambardini LDW 1000	Cat C1 1		
Model	Kubota D1105BG (Optional)	Lombardini LDW 1003 (Standard)	Cat C1.1 (Optional)		
Туре	Water-cooled 4-cycle diesel				
Bore	2.99 in. (76 mm)	2.96 in. (75 mm)	3.03 in. (77 mm)		
Stroke	2.90 in. (73.6 mm)	3.05 in. (77.6 mm)	3.19 in. (81 mm)		
Displacement	61.1 cu. in. (1002 cc)	62.6 cu. in. (1028 cc)	69 cu. in. (1100 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° above 77° F				
Note: Horsepower ratings are established in accordance with Society of Automotive Engineers Small Engine Test Code - J1349 GROSS.					
Fuel System	Indirect injected diesel Cassette type fuel injected diesel				
Starting System	12VDC Negative Ground				
Electrical System	12VDC Negative Ground				
Battery Type	Group 24				
Battery Rating	550 CCA				
Number of Batteries	1				
Compression Ratio	22:1	22.8:1	22:1		
Weight	205 lb (93 kg)	191 lb (87 kg)	191 lb (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				
Oil Filtration	Cartridge type				
Cooling System	Pressurized radiator forced circulation with water pump				
Low oil pressure engine shutdown					
High engine	Standard				
temperature shutdown	(All Engines)				
Glow plug cold start assist					
Fuel	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 <i>Engine Operator's Manual</i> for more detailed fuel requirements.				
Engine Oil	Use a high-quality engine oil of API (American Petroleum Institute) service class CC/CD/CE. Refer to the <i>Engine Operator's Manual</i> for more detailed engine oil requirements.				
Fuel Tank	30 gal (114 L)				
Cooling System	S	ee Engine Operator's Manu	ıal		
Engine Oil	See Engine Operator's Manual				

OPTIONAL ACCESSORY EQUIPMENT

- Saf -T-Visor™
- Electric Winch Tower
- Hydraulic Tower
- LSC100™ Light Sequence Commander
- Heavy Duty Battery (700 CCA)
- Battery Heating Pad
- Engine Block Heater
- Sound Attenuation package
- Four or Six Metal Halide or High Pressure Sodium Lamps (5,000, 6,000 or 7,000 Watts Total)
- 7-Blade RV Taillight Connector
- 50 or 70 gal. Fuel Tank
- Bulldog Hitch (ball/pintle)
- VIN Package (for licensing)
- Quick Disconnect Lamp Fixtures

Before performing any operation procedures, read *Safety* on page 8.

PRE-OPERATION SETUP

Work site safety considerations

Height





ELECTROCUTION HAZARD

Always check overhead wires and obstructions before raising or lowering the light tower. Allow 35 feet (10.6 m) of clearance.

Ground Surface

A WARNING

ROLLOVER HAZARD

Do not set up on an incline of more than 5° front-to-back and side-to-side.

WARNING

ROLLOVER HAZARD

Do not position or set up on unlevel or unstable ground. Only set up on smooth, flat and solid ground surfaces.

Wind

A WARNING

ROLLOVER HAZARD

Do not operate with the light tower extended in winds exceeding 53 mph (85.3 km/h).

When the light tower is in the operating position with the light tower extended to full height and the outriggers in position. It is located in the middle of a three point outrigger system for optimum balance and stability. This system was engineered to allow the light tower to remain operational in sustained winds of 53 mph (85.3 km/h) with the light tower extended to full height and the outriggers in position.

Pre - Operation Check list

Always perform the following checks before traveling to the work site and before operation. Repair or replace any components as required before operation.

NOTICE

See appropriate section of the Engine Operator's Manual and generator Operator's Manual for additional pre-operation checks.

OPERATION

After completing the pre-operation check list, operate the light tower through a complete operation cycle.

- Visually inspect the equipment to ensure that all instructions and decals are in place and legible.
- Inspect the light tower locking bar latch assembly, which locks the light tower in the vertical position for proper operation. (Laydown Tower only).
- Check the hitch assembly and safety chains.
- Check the outriggers and jacks to make sure they operate properly.
- Inspect the light assemblies for damage and test for proper operation.

A WARNING

ELECTROCUTION HAZARD

Do not operate the light tower if the insulation on the electrical cord or other electrical wiring is cut or worn or if bare wires are exposed.

- Inspect the electrical wiring for signs of damage.
- Check the ground rod cable and ground lug.
 Make sure they are clean, undamaged and functional.
- Inspect the tires to ensure good condition and proper inflation.
- Check engine oil, fuel, engine coolant levels and hydraulic fluid levels, if equipped.
- Check to make sure the Light Tower
 Operator's Manual, Engine Operator's
 Manual and Generator Operator's Manual
 are with the equipment.

 Physically inspect the machine for damage and repair if necessary.

Leveling and Stabilizing the Trailer

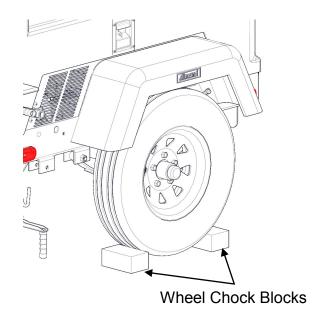
WARNING

ROLLOVER HAZARD

Do not set up on unlevel or unstable ground. Only set up on smooth, flat and solid ground surfaces. Always level the light tower trailer before raising the light tower.

The **MAXI-LITE ML FCS SERIES** must be leveled to 5° or less, front-to-back and side-to-side.

- 1. Position the **MAXI-LITE ML FCS SERIES** on an adequate site: See *Work Site Safety Considerations* on page 32.
- 2. Block each wheel on each side with a suitable wheel chock.



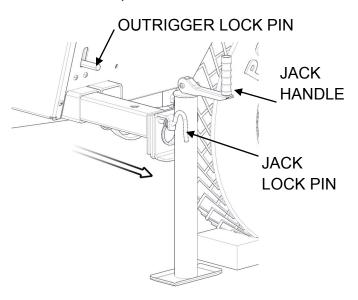
OPERATION

A WARNING

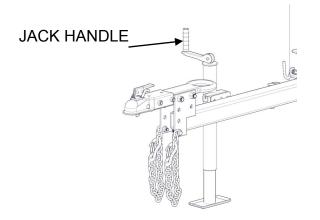
ROLLOVER HAZARD

All stabilizer jacks must be supported by a flat, level solid ground surface.

3. Extend the front outrigger stabilizers out and lock in place.



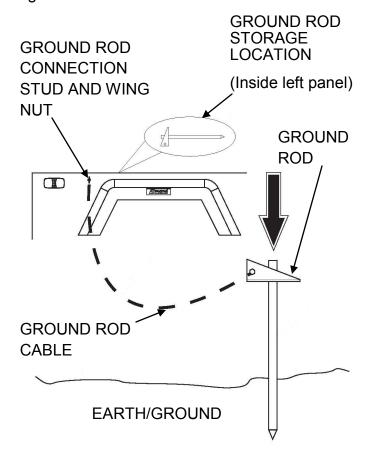
- 4. Rotate the rear stabilizer jack perpendicular with the ground and lock in place.
- Adjust each front stabilizer jack and the tongue jack to achieve proper leveling. Turning the handles clockwise will raise the jacks and counterclockwise will lower the jacks.



Installing the Ground Rod

The ground rod is a safety devise 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.

Drive the ground rod fully into the ground using a hammer. Attach the supplied cable to the rod and then attach the cable to the ground lug on the unit. Make sure the cable connections are tightened.



ENGINE OPERATION

Before starting the engine or operating the light tower, review *Safety* on page 8.

The Allmand **MAXI-LITE ML FCS SERIES** light tower is powered by a diesel engine and generator unit.

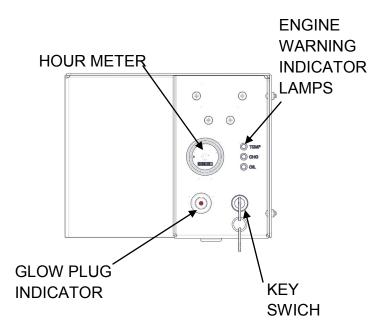
Pre-Start Checks

- 1. Check the engine oil and add oil if required. Fill the engine with the proper grade of lubricating oil: refer to *Engine Operator's Manual* for oil specifications.
- 2. Check and add diesel fuel as required.
- 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.

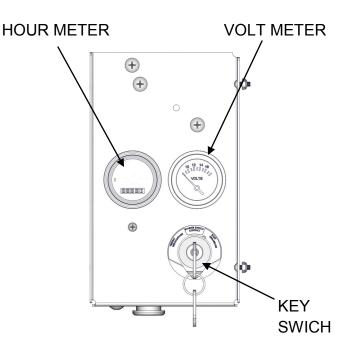
Engine Control Panels

The engine control panel consist of the engine start/stop key or button, hour meter, glow plug indicator and engine warning indicators.

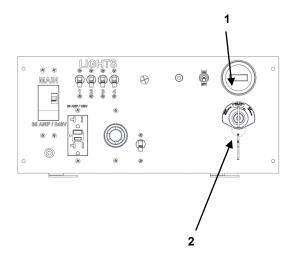
ISUZU control panel



CAT control panel (AS3000)



KUBOTA Control Panel



- 1. Hour Meter Shows the total elapsed hours of engine operation.
- 2. Key Switch.

Starting the Engine

The Starting procedure is different Depending on the engine model used. Refer to your *Engine Operator's Manual* for the starting procedure.

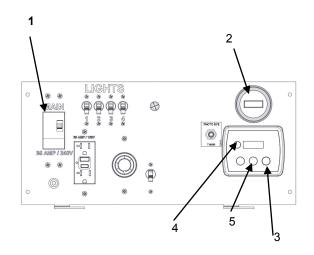
Cold - Weather Starting

The cold-weather Staring procedure is different depending on the engine model used. Refer to your *Engine Operator's Manual* for the cold-starting procedure.

If Engine has Run Out of Fuel

- **1.** Refill the fuel tank.
- **2.** Refer to your *Engine Operator's Manual* for the starting procedure.

KUBOTA Deep Sea Control Panel (OPTION)



- 1. Main Panel ON/OFF Switch.
- 2. Hour Meter Shows the total elapsed hours of engine operation.
- 3. Start Button.
- 4. Engine Warning Indicator Lights.
- 5. Glow Plug Indicator.

NOTICE

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.

NOTICE

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 flywheels rotating, the starter pinion and flywheel ring gear may clash, resulting in damage to the starter or flywheel ring gear.

Stopping the Engine

The engine stopping procedure may differ depending on the engine model. Refer to your *Engine Operator's Manual* for engine stopping procedures.

Automatic Engine shutdown System

The engine is equipped with an automatic engine shutdown system to prevent excessive engine damage in the event of a low oil or overheat condition. For additional information, refer to your *Engine Operator's Manual*.

Low Oil Pressure Shutoff

Should a low oil pressure condition occur, the oil pressure sending unit breaks the circuit between the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shutoff position.

High Coolant Temperature Shutoff

Should a high coolant temperature condition occur, the temperature sending unit breaks the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shutoff position.

TOWER AND LIGHT OPERATION

VERTICAL

Before operating the tower lights, review *Safety* on page 8.

The vertical tower is raised and lowered by a hydraulic pump actuating a six section telescoping mast.

A WARNING

ROLLOVER HAZARD

Before raising, lowering or operating the tower lights, the trailer must be set up, properly leveled and stabilized and ground rod installed; See *Pre-Operation Setup*.

A WARNING

CRUSH HAZARD

Allow adequate clearance around and above trailer when raising or lowering the light tower. Ensure that there are no obstructions or persons near the light tower when raising or lowering the light tower.

TOWER AND LIGHT OPERATION

LAYDOWN

Before operating the tower lights, review *Safety* on page 8.

The laydown light tower is raised and lowered by a manual winch actuating a three section telescoping mast.

A WARNING

ROLLOVER HAZARD

Before raising, lowering or operating the tower lights, the trailer must be set up, properly leveled and stabilized and ground rod installed; See *Pre-Operation Setup*.

A WARNING

CRUSH HAZARD

Allow adequate clearance around and above trailer when raising or lowering the light tower. Ensure that there are no obstructions or persons near the light tower when raising or lowering the light tower.

Light Bar and Light Fixture Adjustment-Vertical

Lights-Work Site Adjustment

The light bar and light fixtures must be adjusted to the desired work angle before raising the light tower.

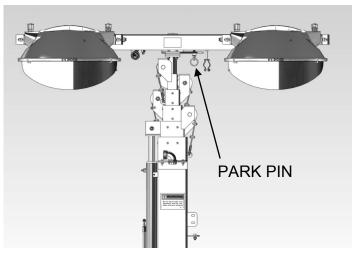
A WARNING

BURN HAZARD

The light fixtures become extremely hot during use. Always use caution and heat-resistant gloves when handling the lights or allow the lights to cool down before handling.

With the light tower fully lowered and the lights off, the light bar assembly and light fixtures can be manually rotated into the desired position.

To adjust the light bar, release the light bar park pin by pulling the ring and turning it 90° so that the pin remains in the retracted position.

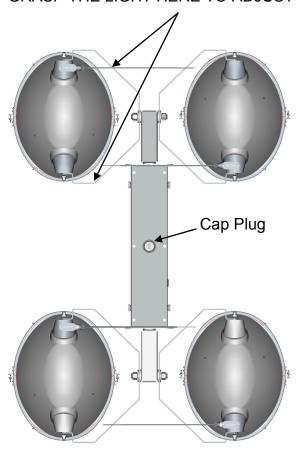


With the light bar park pin released, the light bar is designed to be manually rotated with enough resistance so that the bar will stay in the desired position once the operator has directed the lights on the work zone.

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.

To adjust each light fixture, manually swivel each light fixture at its base into the desired working position.

GRASP THE LIGHT HERE TO ADJUST



The light bar and light fixtures must be stowed properly for trailering or transporting. See *Tower Lights-Stowage for trailering-Vertical on page 16.*

Light Bar and Light Fixture Adjustment-Laydown

Lights- Work Site Adjustment

The light bar and light fixtures must be adjusted to the desired work angle before raising the light tower.

A WARNING

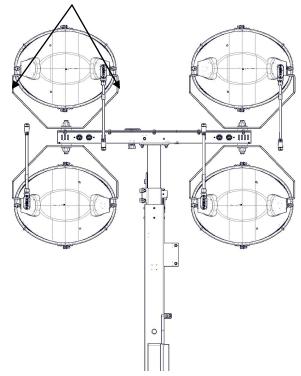
BURN HAZARD

The light fixtures become extremely hot during use. Always use caution and heat-resistant gloves when handling the lights or allow the lights to cool down before handling.

With The Light tower fully lowered and the lights off, the light fixtures can be manually rotated into the desired working position.

To adjust each light fixture, manually swivel each light fixture at its base into the desired position.

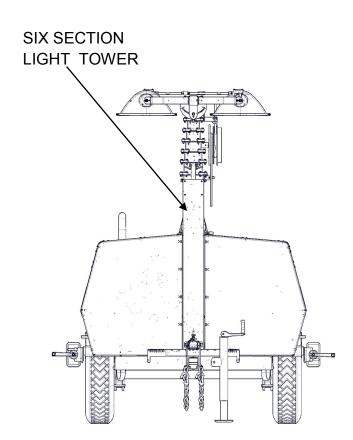
GRASP THE LIGHT HERE TO ADJUST



The light bar and light fixtures must be stowed properly for trailering or transporting. See Tower Lights— Stowage for trailering-Laydown on page 17.

Raising and Lowering the Vertical Tower

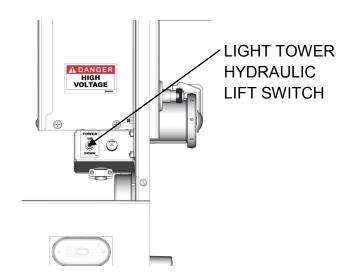
NOTE: The Hydraulic actuated light tower uses 12VDC Battery power to operate. The light tower may be raised and lowered as needed without the engine running.



NOTICE

Before raising the light tower, visually inspect equipment for damage or wear and repair or replace components as required. Never operate the light tower with damaged components.

- 1. Before raising the light tower, adjust the tower lights to the desired work position; see *Light Bar and Light Fixture Adjustment-Vertical* on page 37.
- If required, start engine. Refer to your Engine Operator's Manual for starting procedure.
- 3. Turn the lights off; see *Light Control Panel* on page 42.
- 4. Press the light tower lift switch up to raise the light tower to the desired height.



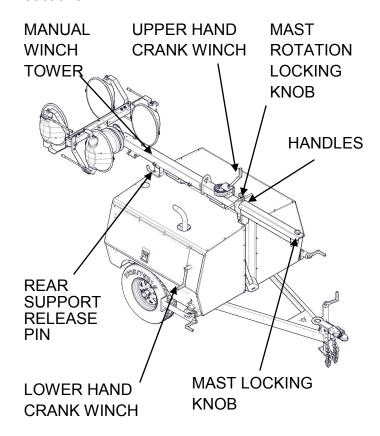
Lowering

- If required, start engine. Refer to your Engine Operator's Manual for starting procedure.
- 2. Turn the lights off; see *Light Control Panel* on page 42.
- Press the tower light hydraulic lift switch down to lower the light tower to the desired height or to the full DOWN position.
- 4. When tower reaches the bottom, run switch for three additional seconds to ensure that the tower is at its lowest possible position.
- 5. Stop engine.

Raising and Lowering the Manual Winch Light Tower– Laydown

Manual Winch Light Tower

NOTE: The manual winch tower can be raised and extended by operating two hand crank winches. One winch, mounted with the handle extending through the left side of the trailer frame, raises and lowers the mast from horizontal towing position to the vertical position and back. The second winch mounted on the tower extends and retracts the telescoping sections.



Raising

- **1.** Before raising the light tower, adjust the tower lights to desired position; see *Light Bar and Light Fixture Adjustment-Laydown* on page 38.
- **2.** Turn the lights off; see *Light Control Panel* on page 42.

- 3. Release the pin that secures the mast to the rear mast support.
- 4. Operate the hand crank on the left side of the trailer to raise the mast from horizontal to vertical.
- 5. Engage automatic mast locking pin.
- 6. Operate the hand crank winch on the tower clockwise to raise the lights vertically.
- 7. To rotate lights to desired position, turn mast rotation locking knob counterclockwise and turn the tower with handles provided.

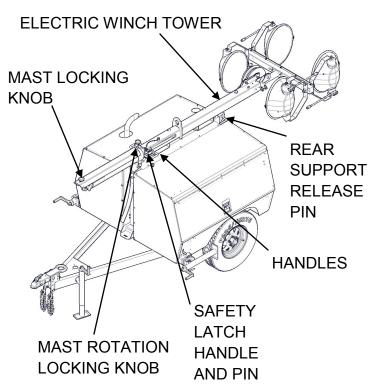
Lowering

- Turn lights off; see Light Control Panel on page 42.
- Loosen mast rotation locking knob and rotate tower until the handles are parallel with the front of the trailer and retighten mast rotation locking knob.
- Operate hand crank winch on tower counterclockwise to lower the lights to the lowest vertical position.
- Operate lower hand crank winch on the left side of the trailer clockwise to take up any slack in the cable.
- 5. Disengage automatic mast locking pin.
- Operate the lower hand crank on the left side of the trailer counterclockwise to lower the mast into the horizontal towing position.
- Secure light cords into hook on the rear mast support.
- Secure rear mast support release pin. Locking the mast to the rear mast support for towing.

Raising and Lowering the Electric Winch Light Tower– Laydown

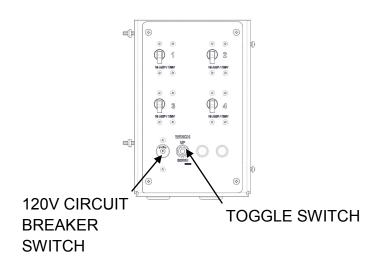
Electric Winch Light Tower

NOTE: The electric winch tower can be raised and extended by operating a single electric switch mounted on the light switch control panel.



Raising

- Before raising the light tower, adjust the tower lights to the desired work position; see Light Bar and Light Fixture Adjustment-Laydown on page 38.
- If required, start engine. Refer to your Engine Operator's Manual for starting procedure.
- 3. Switch the 120V circuit breaker switch to the ON position .



- 4. Release the pin that secures the mast to the rear tower support.
- 5. Push the toggle switch in the up position to raise the tower from horizontal to vertical.
- 6. Turn lower black knob counterclockwise and engage latch in strike plate. Retighten knob.
- 7. Remove Safety Latch pin
- Release the latch by squeezing the handle and push the toggle switch to the UP position to raise the lights.
- 9. To rotate the lights. Turn upper black knob counterclockwise to loosen. Use handles and turn to desired position.

Lowering

- If required, start engine. Refer to your Engine Operator's Manual for starting procedure.
- Turn the lights off; see Light Control Panel on page 42.
- Loosen upper black knob. Rotate tower by handles until handles are parallel with the front of the trailer. Retighten knob.
- Push toggle switch in the DOWN position to lower the light to the lowest vertical position until the safety latch "clicks".

- 5. Push toggle switch in the UP position to lessen slack in the cable.
- 6. Turn lower black knob counterclockwise and lift to release the latch pin from the strike plate. Retighten the lower knob with the latch disengaged from the strike plate.
- Push toggle switch to the DOWN position to lower the mast into a horizontal towing position.
- Secure cord onto hook on the rear tower support.
- 9. Secure rear support release pin, locking mast to rear tower support for towing.

AUXILIARY HANDLE - Electric winch

An emergency crank handle is provided for use in the event of a power failure.

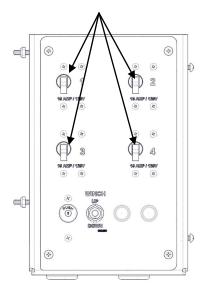
- 1. Remove electrical power from the winch.
- Insert the handle so that it completely engages with the drive shaft. The handle can be cranked in either direction with the clutch in the engaged position.
- 3. Always remove the emergency handle after use to avoid damage.

Light Control Panel

The tower light control panel consist of the breaker switches.

The four light fixtures are controlled and protected by four breaker switches located on the light control panel.

LIGHT BREAKER SWITCHES



Lights On

NOTICE

Before turning the lights on, the engine *MUST* be running and should be allowed to reach normal operating temperature.

Turn on one, two, three or four light breaker switches to the ON position.

Lights Off

Turn all light breaker switches to the OFF position.

NOTICE

Failure to turn off lights before stopping the engine *MAY* result in generator damage and void warranty.

SHUTDOWN PROCEDURE

Shutdown - Short period

When shutting down the light tower for a short period, perform the following procedures.

- 1. With the lights off, lower the light tower to the full DOWN position; see *Raising and Lowering the Light Tower* on page 38-41.
- 2. Turn the engine off. Refer to your *Engine Operator's Manual* for stopping procedure.

Shutdown - Long - Term or Prepare for Trail- ering

When shutting down the light tower for long periods of time or when preparing to trailer; see Long-Term Storage section on page 48or Shutdown-Prepare for Trailering section on page 15.

AUXILIARY AC OUTLET OPERATION

Depending on model options, the 240VAC 1 - phase rear outlet panel is equipped with four 240VAC outlets and two 110VAC GFCI outlets for powering accessories from the generator. Power is supplied to the outlets only when the engine / generator is running and the main circuit breaker is in the ON position.

The 240VAC outlet is protected by a 30A circuit breaker.

The 110VAC GFCI outlet is protected by a 20A push button type circuit breaker.

The main circuit breaker is a 90A DPST circuit breaker.

If any of the outlet circuit breakers trip, switch off the lights, remove the load to the outlets and wait 10 minutes for the bulbs to cool before turning them back on.

MAIN OUTLET

- 1. Disconnect the load from the outlet.
- Turn off the tower lights (if used).
- Correct the excessive load problem and wait 10 minutes, to allow the generator to cool down before reconnecting the load.

PANEL 90A
CIRCUIT
BREAKERS
FOR 240VAC
OUTLET

BREAKER(PUSH
BUTTON)

240VAC OUTLET

110VAC GFCI
OUTLET

OUTLET

Before performing any maintenance procedures, read *Safety* on page 8.

Scheduled maintenance prevents unexpected downtime, reduces the number of accidents due to poor equipment performance and helps extend the life of the light tower. Proper maintenance and care of your light tower and trailer is a must for safe and reliable operation. Use the following maintenance and care guidelines in addition to those scheduled by your shop equipment maintenance schedule.

Where equipment is operated under severe conditions (very dusty, extreme heat or cold, etc.), affected items should be serviced more frequently.

ENGINE

Refer to the *Engine Operator's Manual* for all engine scheduled maintenance procedures.

Changing and Adding Engine Oil

NOTICE

Follow the guidelines of the EPA or other governmental agencies foe the proper disposal of hazardous materials such as engine oil, diesel fuel and engine coolant.

Consult the local authorities or reclamation facility.

Use a high-quality engine oil of API (American Petroleum Institute) service class CC/CD/CE. Refer to the *Engine Operator's Manual* for detailed engine oil specifications and service procedures.

All models have the remote oil drain option.

Engine Filters

Refer to the *Engine Operator's Manual* for air, oil and fuel filter service procedures.

ELECTRICAL SYSTEM

Refer to the *Generator Operator's Manual* for all general scheduled maintenance procedures.

Ballast Panel

There are two ballast panels. One on the right front and one on the left front of the light tower trailer. The panels can be accessed by opening the right and left door. Each ballast contains two tower light lamp ballast and two capacitors. For additional wiring information, see schematics or contact Allmand Bros. or your Allmand dealer.

A WARNING

ELECTROCUTION HAZARD

Only qualified electricians should service or perform replacement procedures. Ballast and capacitors are capable of discharging high voltage. Always use appropriate personal safety clothing and gear when servicing electrical equipment.

WARNING

ELECTROCUTION HAZARD

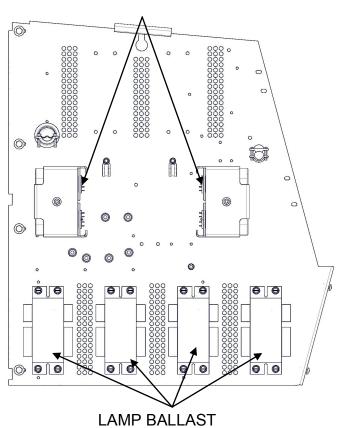
High Voltage is present when engine is running. Never attempt to service electrical components while engine is running.

A WARNING

ELECTROCUTION HAZARD

Do not operate the light tower if the insulation on the electrical wiring is cut or worn, or if bare wires are exposed. Repair or replace damaged wiring before starting the engine.

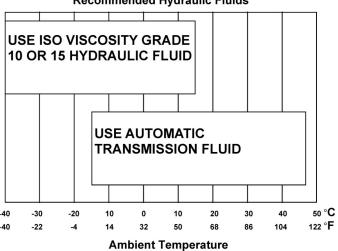
CAPACITORS



HYDRAULIC PUMP

Hydraulic Oil Specification

108 SERIES HYDRAULIC POWER UNIT Recommended Hydraulic Fluids



Adding Hydraulic Oil

Fill the reservoir with aviation hydraulic 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.



Priming the Hydraulic Pump

The ports are marked on the hydraulic power unit casting: 'UP' and 'DN'. When facing the power unit with the motor up, plug the right hand, or 'DN' port. Jog the motor until 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.

LIGHT TOWER AND LAMPS

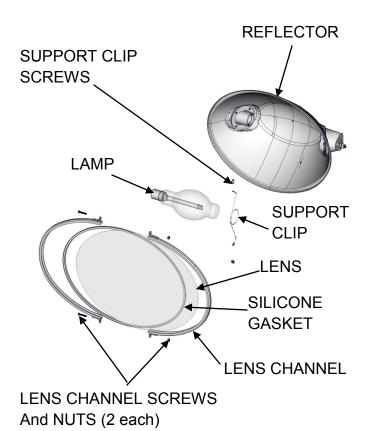
Changing Lamps

A WARNING

BURN HAZARD

The light bulbs and the fixtures become extremely hot during use. Allow the bulbs and fixtures to sufficiently cool down before changing bulbs or severe burn may occur.

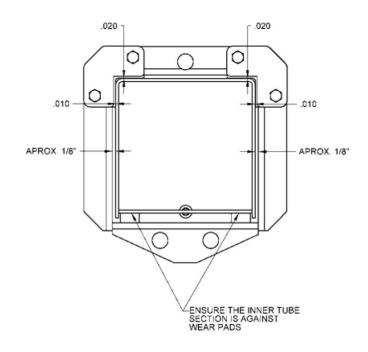
- 1. Turn off the lights and shut off the engine.
 Allow the bulbs and fixtures to cool.
- 2. Lower the light tower to the full DOWN position.
- 3. Loosen the lens channel screws to allow the removal of the lens channel.



- Remove the silicone gasket and lens.
- 5. Remove the support clip screws and support clip.
- Carefully remove the old lamp and install the correct replacement lamp.
- Clean reflector and lens.
- 8. Install support clip and screws.
- 9. Install the silicone gasket and lens; replace if damaged or as needed.
- 10. Install lens channel and screws.
- 11. Test the new lamp to ensure proper operation.

Tower Corner Guide Block Adjustment - Seven Section Vertical Tower

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



TRAILER

Proper maintenance and care of your trailer is a must for safe and reliable operation. Follow these maintenance and care guidelines in addition to those scheduled by your shop equipment maintenance schedule.

Frame

- 1. Check the coupler operation, and for corrosion or damage; replace as needed.
- Inspect the lifting bar for corrosion or damage; replace as needed.
- Inspect the trailer frame and body panels for rust, nicks and chips. Use the proper touch up paint to touch up nicks or scratches. Contact your dealer for additional information.
- 4. Inspect the axle, springs and undercarriage for wear and damage; replace as needed.
- Inspect the outrigger bars, front and rear stabilizer jacks and locking mechanisms for proper operation, wear and damage; replace as needed.

6. Inspect the safety chains for wear, corrosion or damage; replace as needed.

Grease Points

Use N.G.L.I. consistency #2 high-temperature anti- friction bearing lubricating grease for all trailer mechanical pivot points.

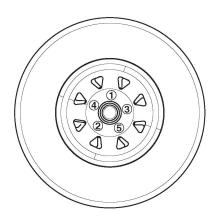
Trailer Wheels and Tires

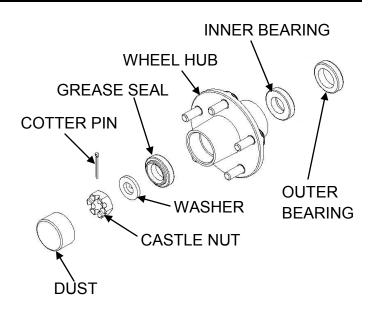
A WARNING

TOWING HAZARD

Never tow the trailer with inoperable trailer lights.

- Check the tires for any cracks, cuts or damage. Repair or replace the damaged tires before towing.
- Check the air pressure of the trailer tires when cold. The correct air pressure for the tire is specified on the tire. Never over or under inflate tires.
- 3. Check the wheel rims for any cracks or damage.
- Make sure all the lug nuts are in place.
 Never tow the trailer with missing or improperly tightened lug nuts.
- Check that the lug nuts are tightened properly. The correct torque for the lug nuts is 90 lb-ft (122N-m).





Wheel Bearings

Wheel bearings require periodic maintenance and scheduled replacement; more frequent service may be required under extremely dust or damp operating conditions. The best protection against failure is to keep the wheel bearings clean and fully lubricated.

When replacing or repacking wheel bearings, always:

- Use a high quality wheel bearing grease.
- Avoid mixing grease types.
- Clean all components thoroughly of all grease and inspect for damage and wear; replace as needed.
- Always use a new grease seal and cotter pin.
- Keep all components clean during assembly.
- Replace any component that is operationally questionable.
- Pack grease into the bearing before installing it.

- Always replace bearings and races as a set.
 Never mix bearings and races. Bearing part numbers are sometimes found on the bearing races; always use the correct bearing set.
- Do not over or under tighten the bearing nut.
 Wheel bearings should only be tightened by hand (spin the wheel while tightening). Back off the nut to insert the cotter pin. The wheel should spin freely but without play.
- Pack some grease in the inner hub area and dust cap and ensure the dust cap fits tightly.

Trailer Lighting

A WARNING

TOWING HAZARD

Never tow the trailer with inoperable trailer lights.

Lights are a vital safety feature of your trailer and are also required by state law. Keep the lights in proper working order.

- Check the trailer lights and harness for damage or wear; replace or replace as needed.
- Ensure the harness is secured into the trailer and does not hang down onto the ground.
- Check the taillight housing assemblies for leaks. Use silicone or rubber sealant to seal the lens or harness, as required, or replace the housing assembly. Electrical grease will help protect the sockets and prevent their corrosion.
- When replacing bulbs, ensure the proper bulb is used and use a small amount of electrical grease in the sockets to prevent corrosion.

For trailer light wiring schematic information, See *Tail lamp* wiring schematic on page 63.

LONG TERM STORAGE

Proper maintenance is required when the light tower and trailer will be stored or removed from operation for long periods of time.

Refer to the *Engine Operator's Manual* and the *Generator Operator's Manual* for all engine and generator long term storage procedures.

- 1. Lower the light tower to the full DOWN position.
- 2. Make any repairs necessary to ensure the equipment is fully functional upon returning the unit back into commission.
- Clean and wash the frame and body panels.
 Apply an anticorrosion coating to all Surfaces where applicable.
- 4. Clean any oil or liquid spills inside the engine compartment.
- 5. Clean all electrical wiring and components by hand using a non-corrosive cleaner.
- 6. Clean the light tower and light fixture assemblies.
- 7. Disconnect and remove battery.
- 8. Use suitable cover to protect the light tower and trailer.
- Properly support the trailer axle on jack stands or other suitable supports to allow the tires to remain off the ground during storage.

CLEANING

Keeping the light tower clean is important to ensure proper operation. Dirt and dust buildup acts as an insulator and may cause the engine, generator and light assemblies to operate at excessively high temperatures.

Use the following guidelines:

- Use caution when using compressed air or water/steam pressure washers. Do not pressure clean electrical components as this may damage electrical equipment.
- Clean the light tower and remove all dust, dirt or other foreign material.
- Inspect and clean the cooling air intake and exhaust louvers of the enclosure. Make sure they are clean. Remove dirt or any buildup that may restrict the cooling air flow.
- Clean the light tower and its components with a damp cloth or sponge.
- Inspect and clean all engine linkages so they operate properly.

Cleaning and Draining the Trailer Bilge

The Allmand MAXI-LITE FCS SERIES light towers have a fuel containment tray option, designed to catch fuel, oil or coolant spills. Should a spill occur, position a suitable container beneath the unit and remove the containment tray drain plug. After the fluid has been drained, reinstall the drain plug and dispose of the fluid properly in accordance with EPA or other governmental guidelines.

Before performing any troubleshooting procedures, read the following safety messages and read *Safety* on page 8.

For engine and generator troubleshooting, see the *Engine Operator's Manual* and *The Generator Operator's Manual* or contact Allmand Bros. Service Department or your Allmand dealer.

WARNING

ELECTROCUTION HAZARD

Only qualified electricians should service or perform replacement procedures. Ballast and capacitors are capable of discharging high voltage. Always use appropriate personal safety clothing and gear when servicing electrical equipment.

A WARNING

ELECTROCUTION HAZARD

High Voltage is present when engine is running. Never attempt to service electrical components while engine is running.

A WARNING

ELECTROCUTION HAZARD

Do not operate the light tower if the insulation on the electrical wiring is cut or worn, or if bare wires are exposed. Repair or replace damaged wiring before starting the engine.

Always follow the electrical component manufacture specifications for voltage and test procedures.

TROUBLESHOOTING

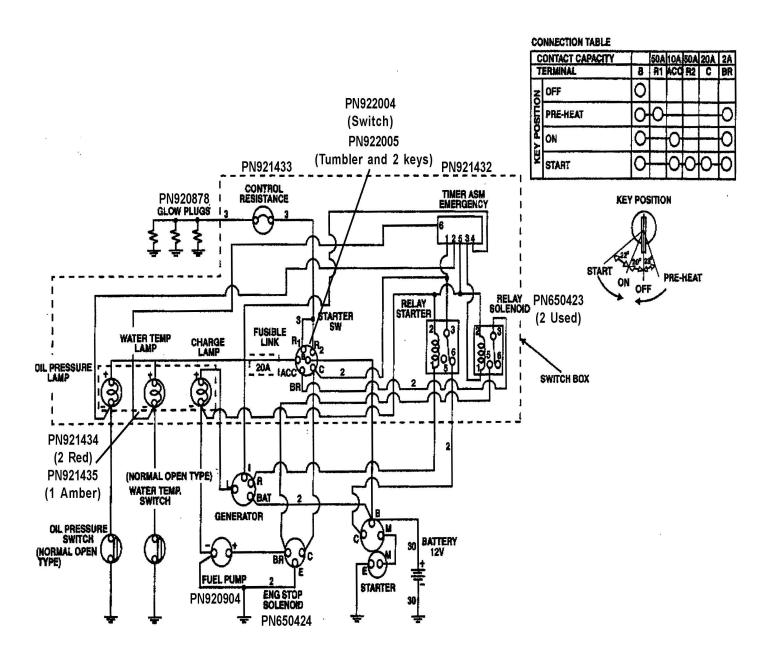
TROUBLESHOOTING CHART

PROBLEM	POSSIBLE CAUSE		
	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.		
NO LIGHT (ONE OR MORE	6. The temperature of the ballast is below -20°F (-29°C). The efficiency of the capacitors in the ballast is not enough to ignite the lamps. For operations where the temperature of the ballast falls below -20°F (-29°C), some means of warming the ballast must be used.		
LIGHTS)	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 has failed.		
	15. Corrosion has occurred on the lamp bases.		

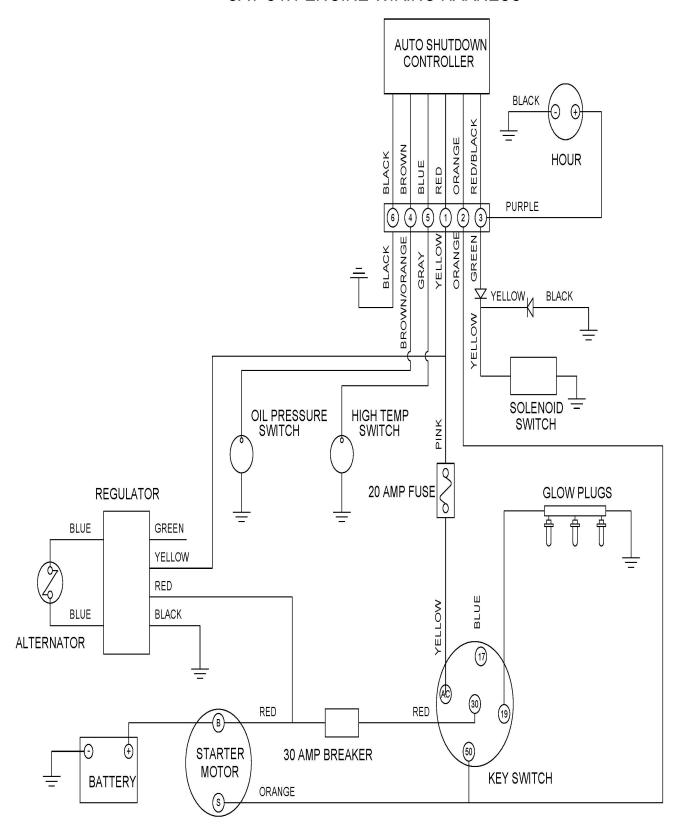
MAINTENANCE RECORD

DATE	SERVICE DESCRIPTION	SERVICED BY

ISUZU 4LE1 ENGINE

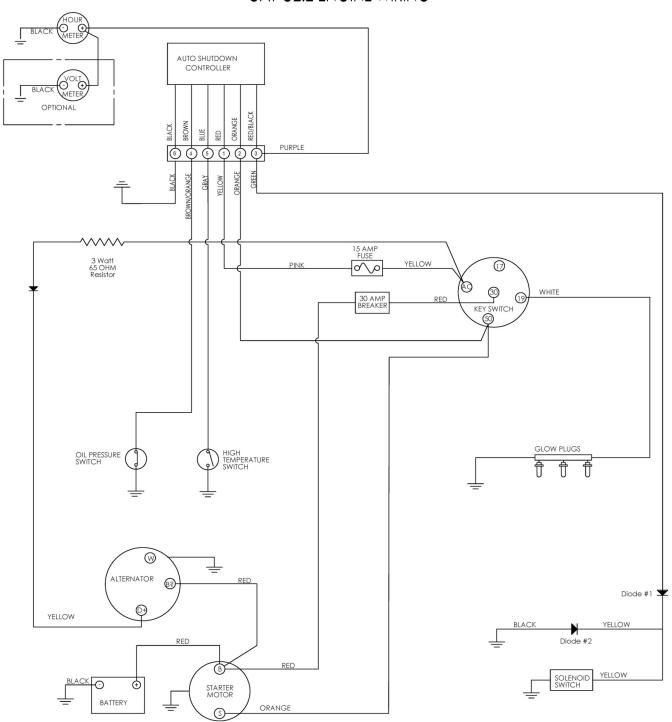


CAT C1.1 ENGINE WIRING HARNESS



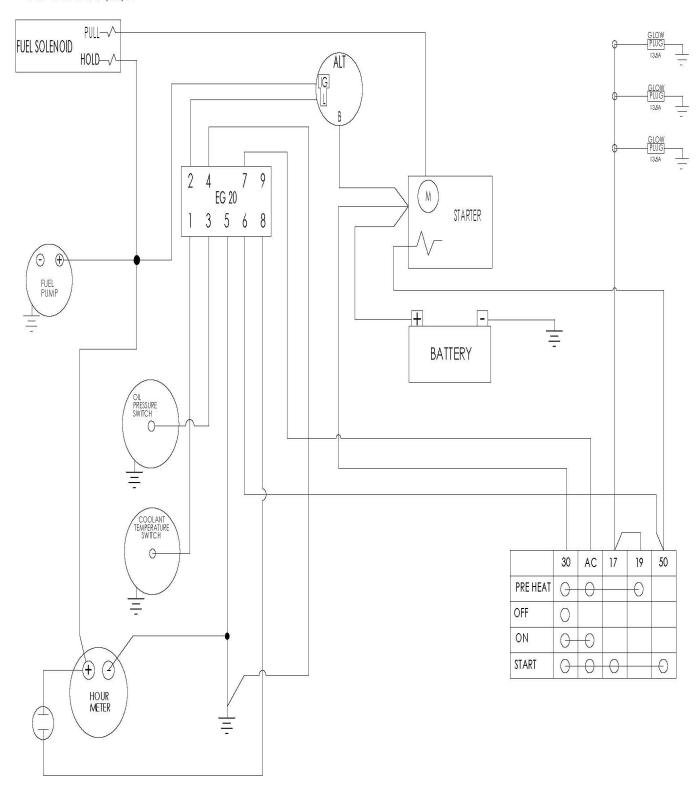
SCHEMATIC

CAT C2.2 ENGINE WIRING



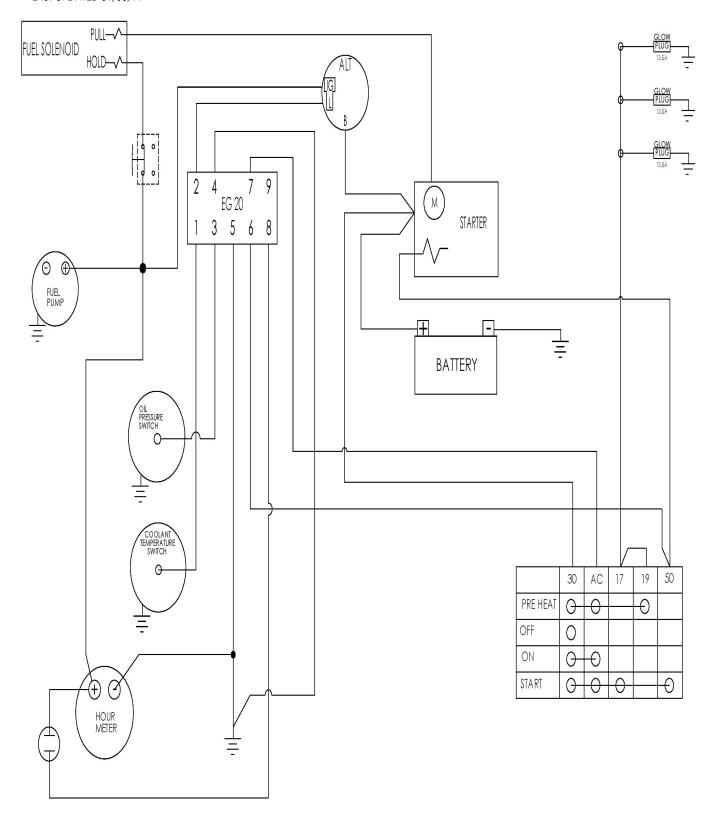
KUBOTA KEYED SWITCH

ALLMAND 1105 WIRING SCHEMATIC WITH KUBOTA TIMER MODULE LAST UPDATED 01/06/11



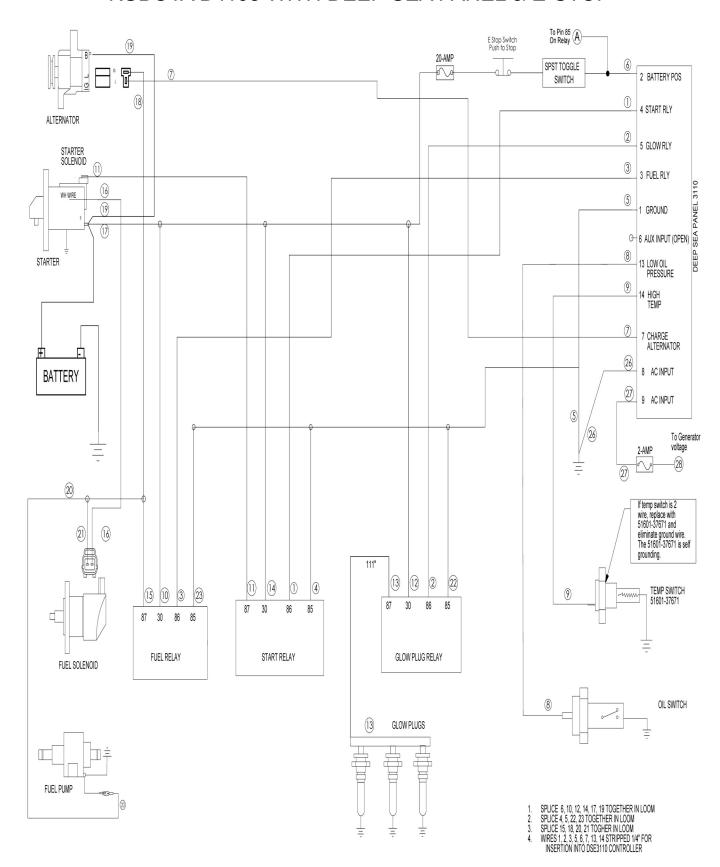
KUBOTA KEYED SWITCH WITH E-STOP

ALLMAND 1105 WIRING SCHEMATIC WITH KUBOTA TIMER MODULE LAST UPDATED 01/06/11

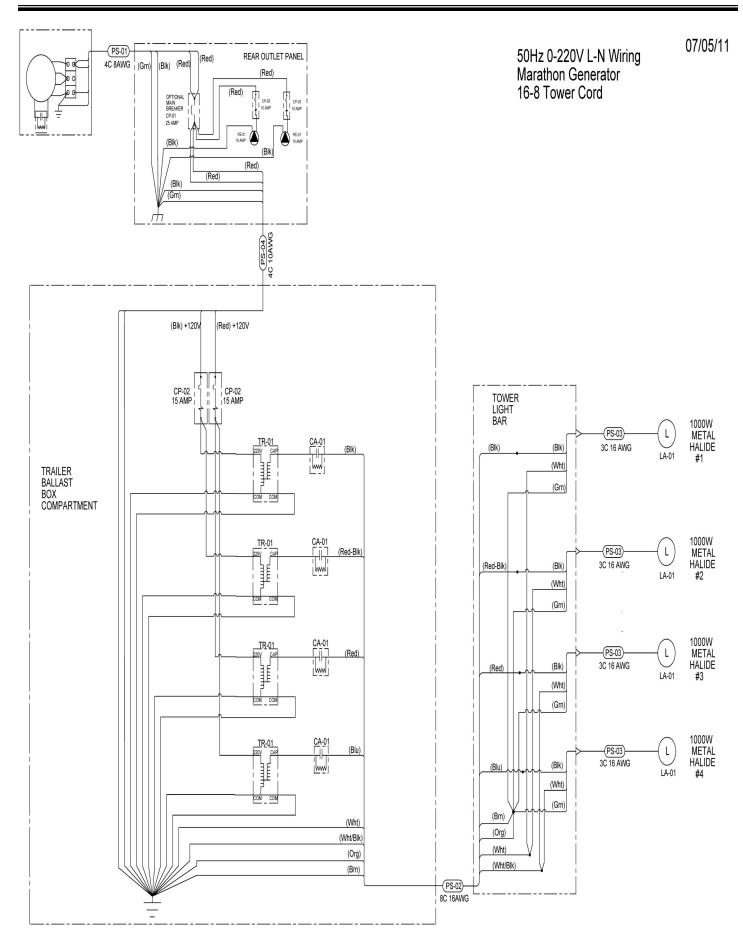


SCHEMATIC

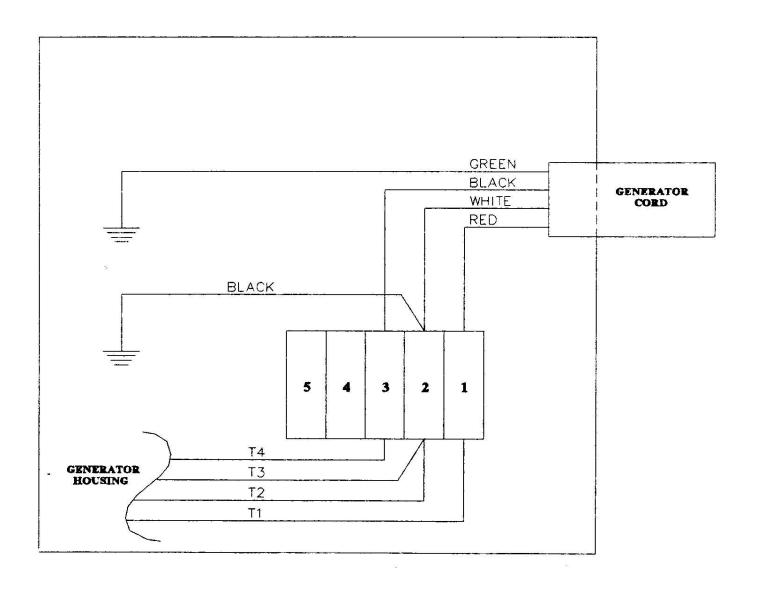
KUBOTA D1105 WITH DEEP SEA PANEL & E-STOP



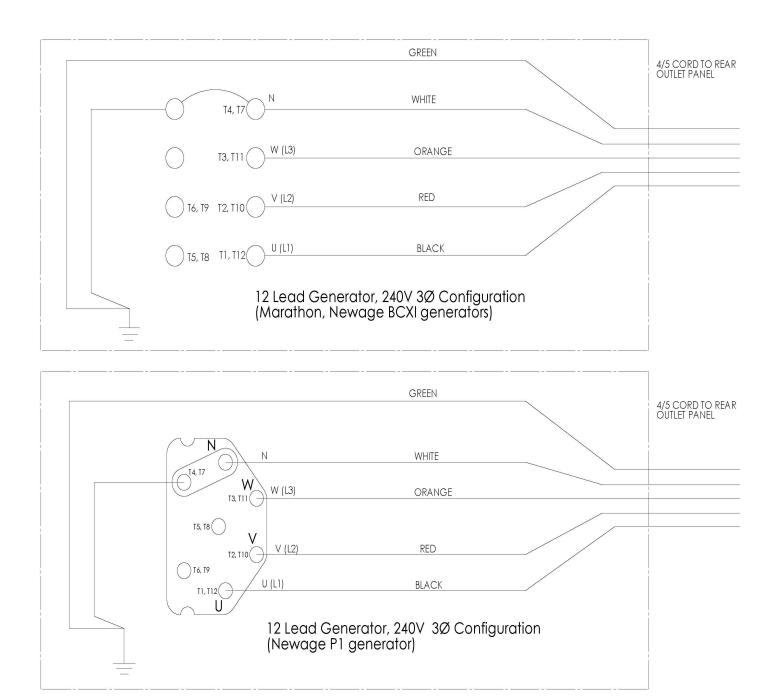
Kubota D1105 with 3110 Deep Sea Panel Wiring Rev 06/14/10



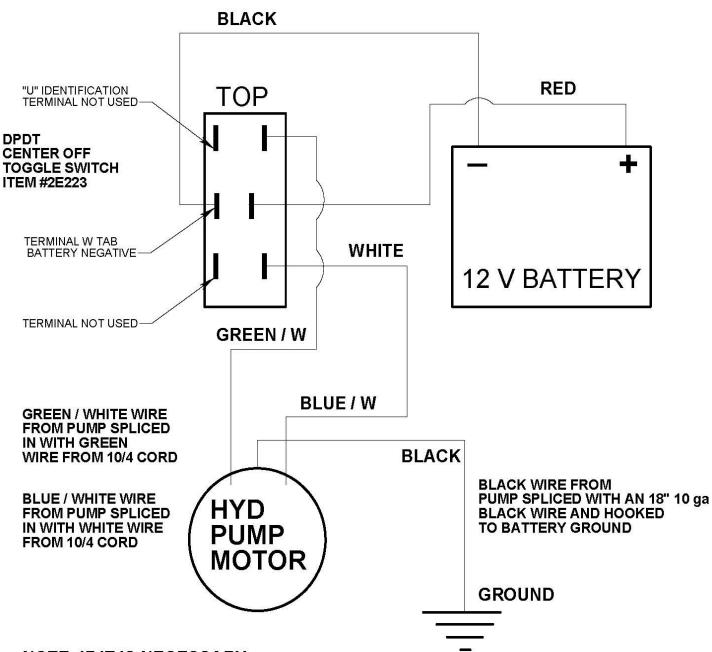
MARATHON GENERATOR 4 LEAD SINGLE PHASE



240 3-PHASE GENERATOR HIGH DELTA

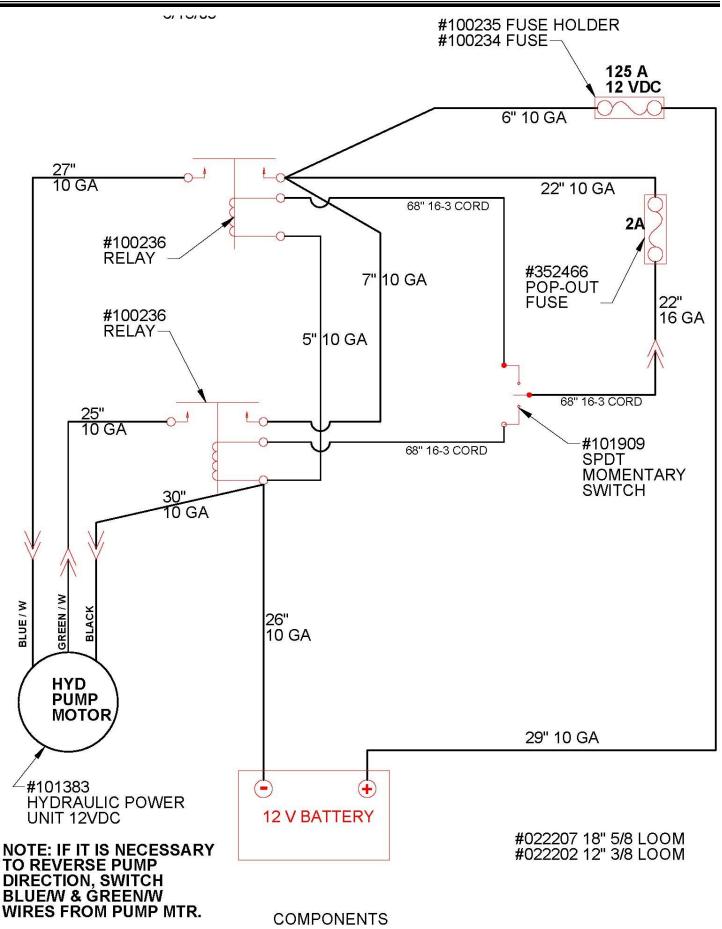


HYDRAULIC PUMP

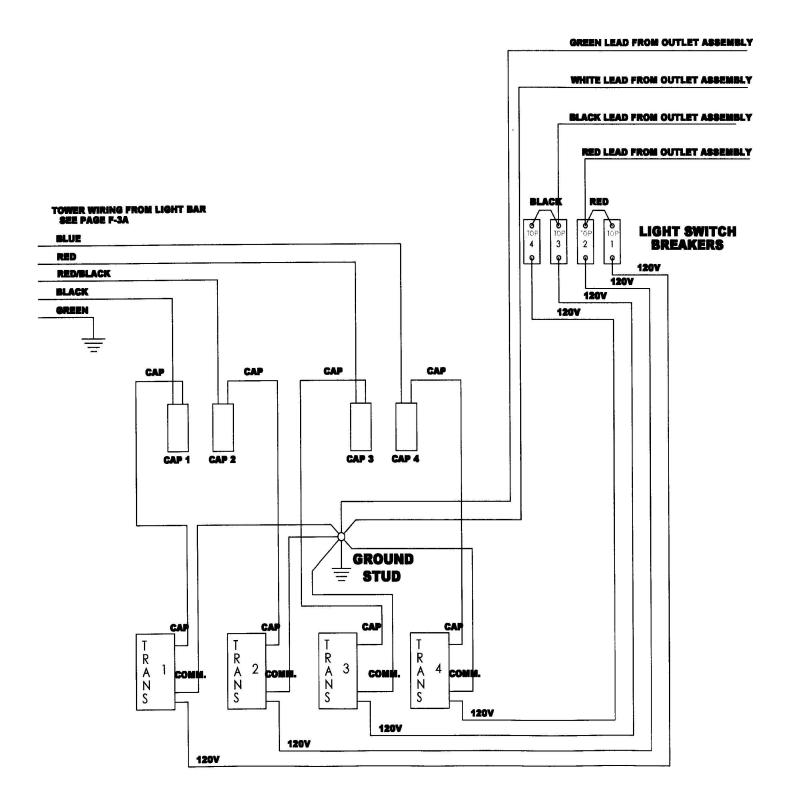


NOTE: IF IT IS NECESSARY TO REVERSE PUMP DIRECTION, SWITCH BLUE/W & GREEN/W WIRE ON SWITCH.

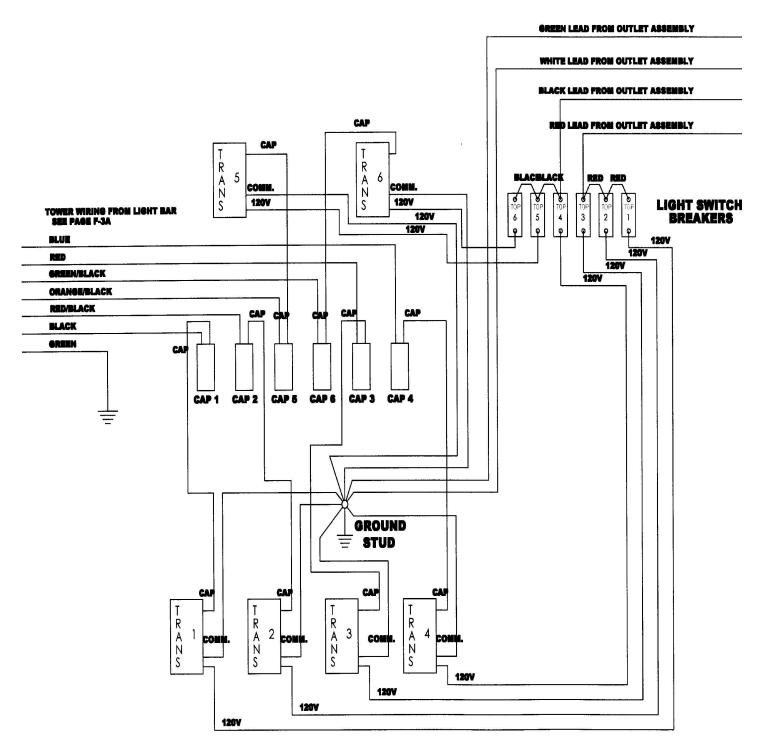
SCHEMATIC



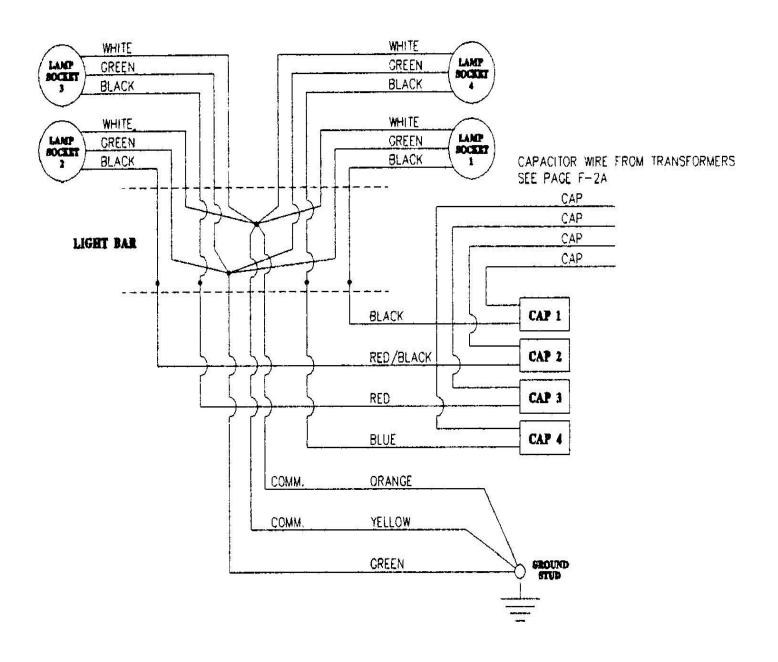
4-LIGHT BALLAST CSA



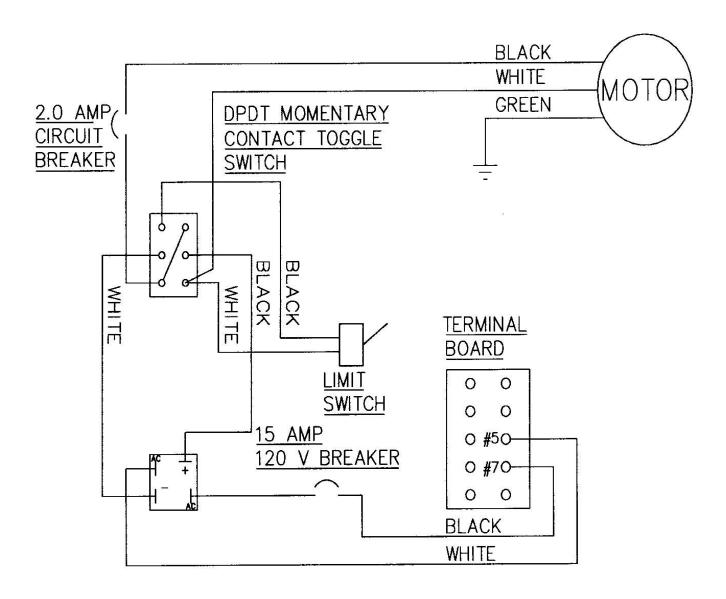
6 LIGHT BALLAST ASSEMBLY CSA



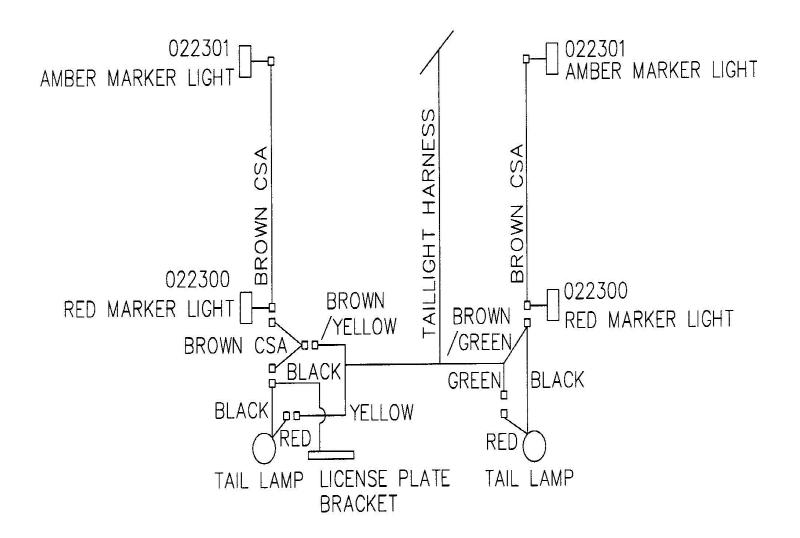
4 LIGHT BALLAST COMPARTMENT/LAMP SOCKET



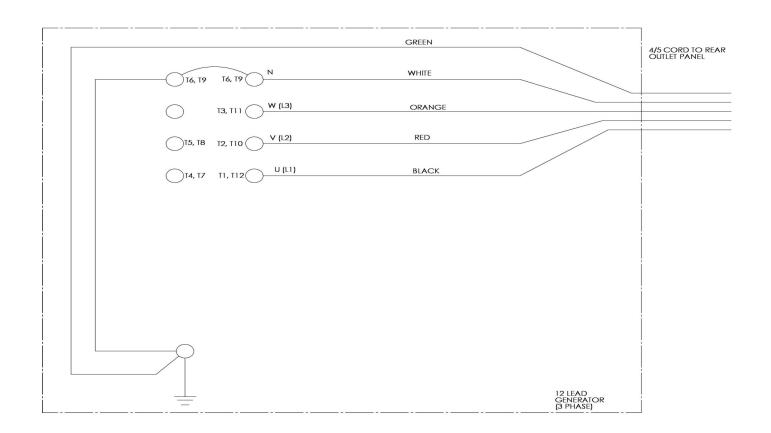
ELECTRIC WINCH

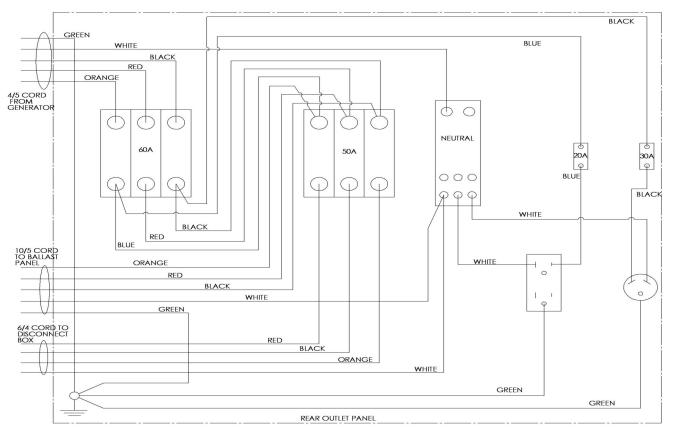


TAILLIGHTS WITH MARKER LIGHTS CSA



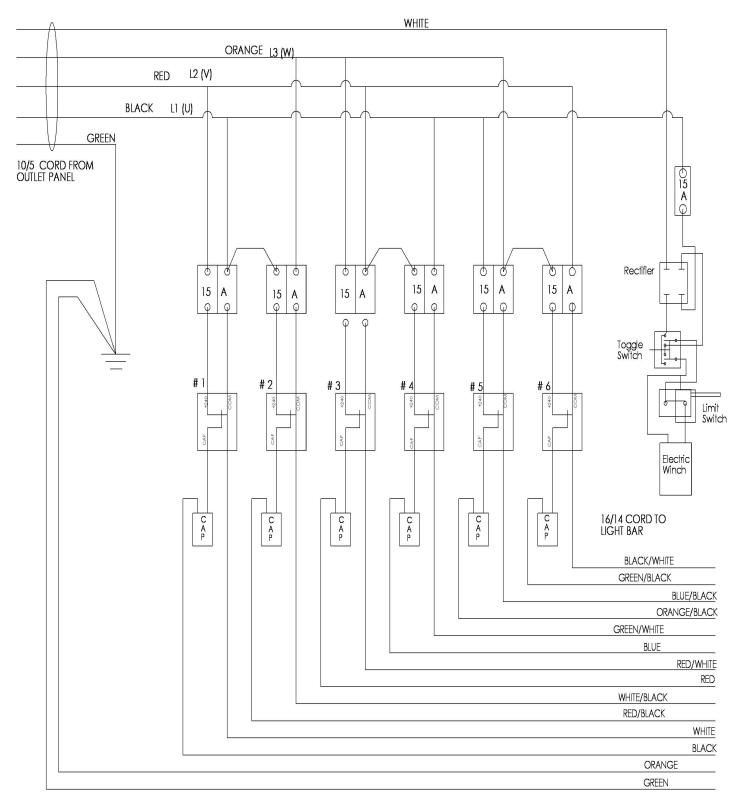
240V 3 PHASE ELECTRIC WINCH 4 LIGHT



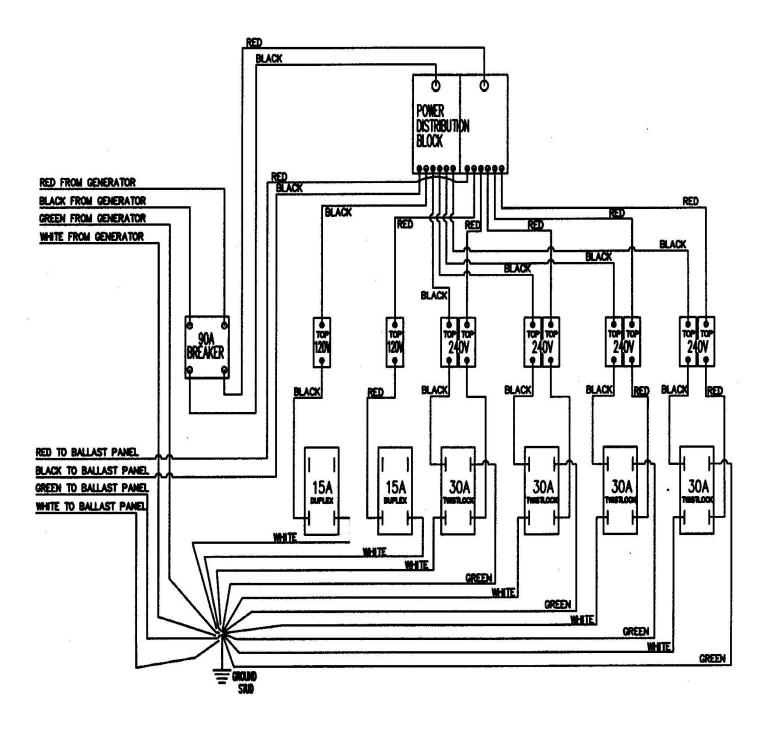


WIRING SCHEMATIC

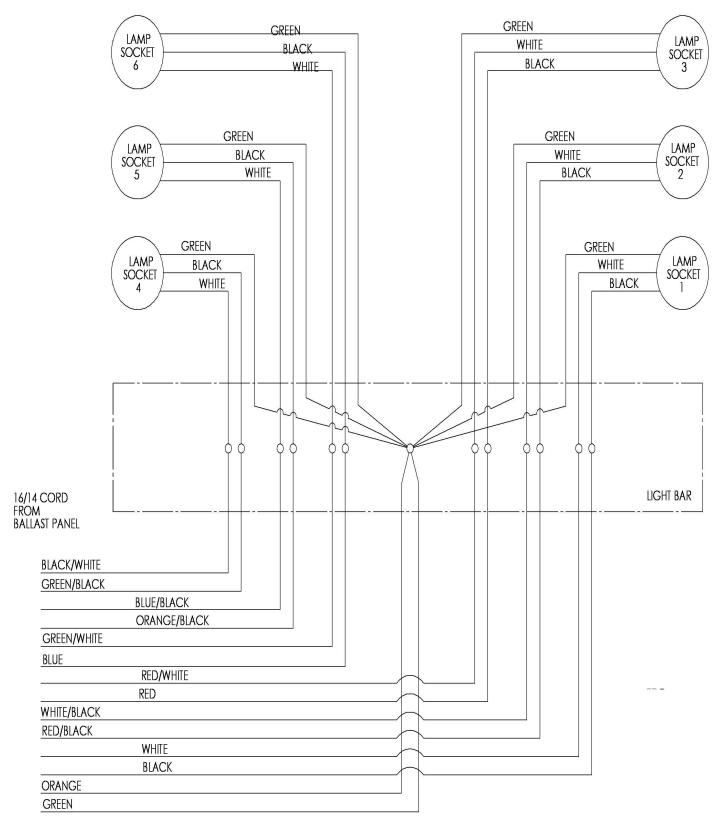
240V 3 PHASE ELECTRIC WINCH 6 LIGHT BALLAST PANEL



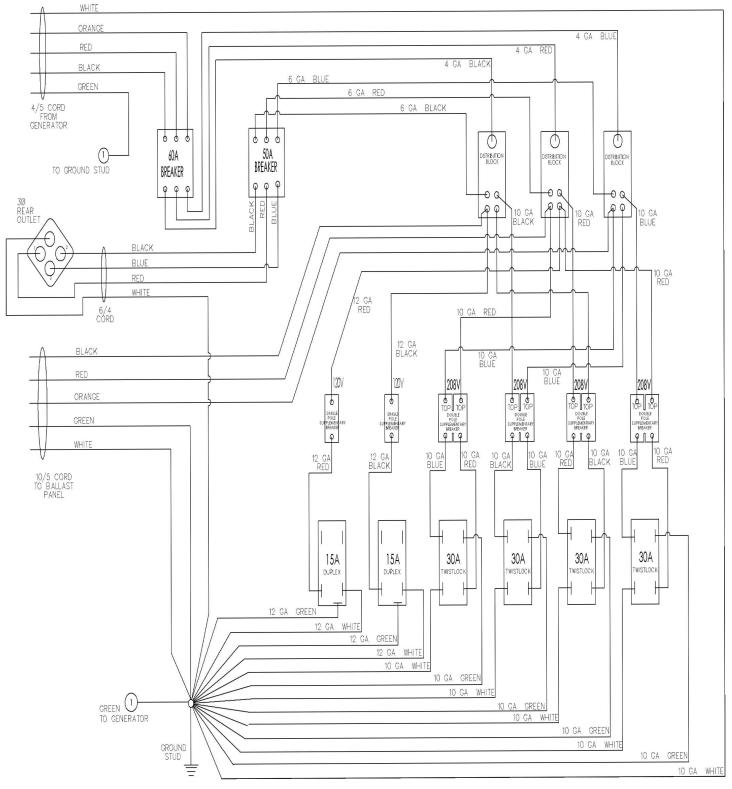
240V REAR OUTLET PANEL SINGLE PHASE



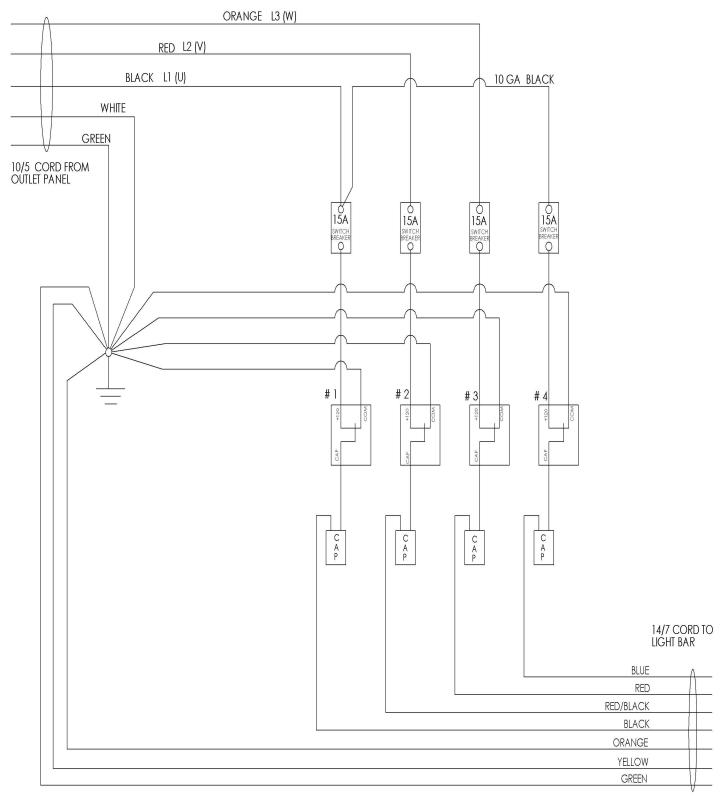
240V 3 PHASE ELECTRIC WINCH 6 LIGHT LIGHT BAR



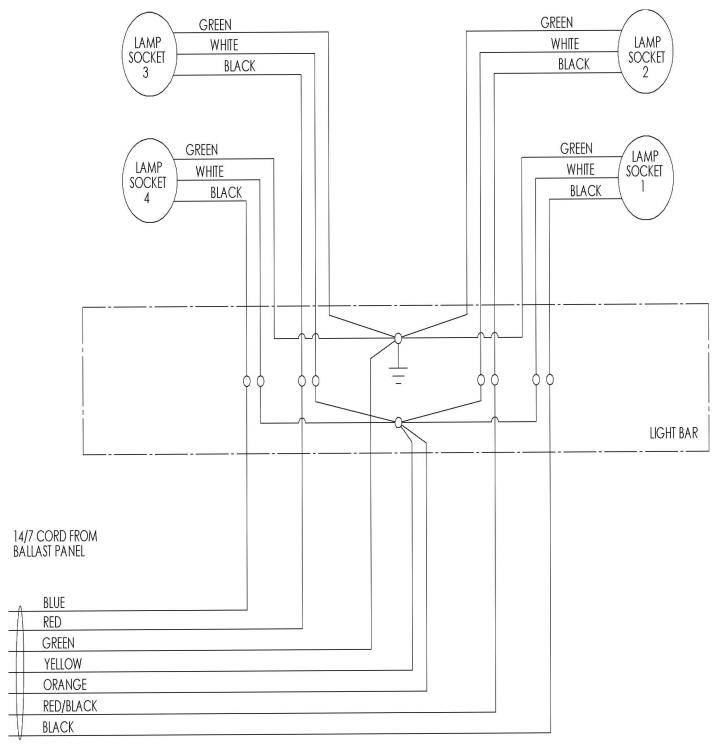
208V 3 PHASE REAR OUTLET PANEL



208V 3 PHASE 4 LIGHT MANUAL WINCH BALLAST PANEL

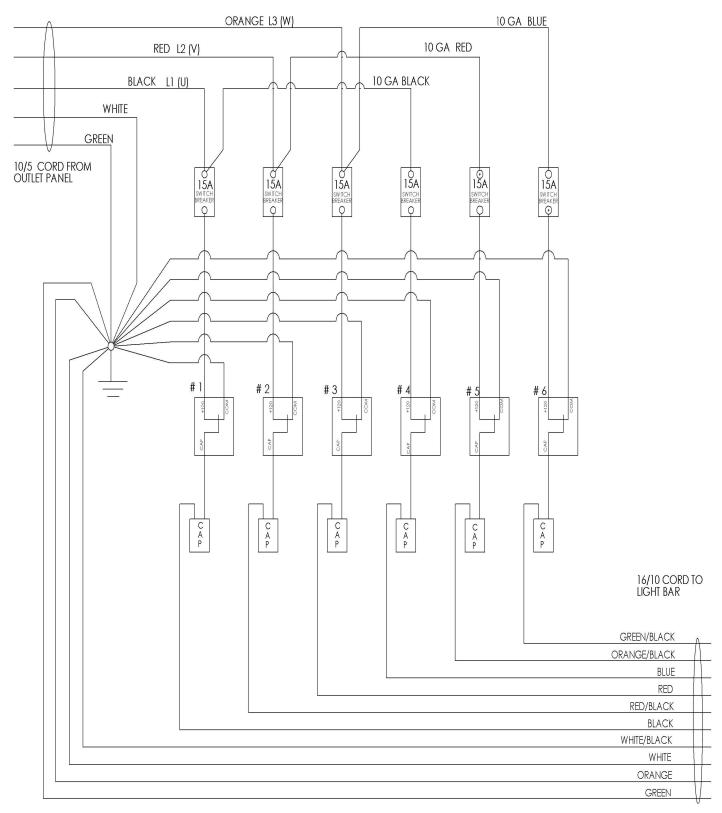


4 LIGHT FIXTURE LIGHT BAR 1000W HID

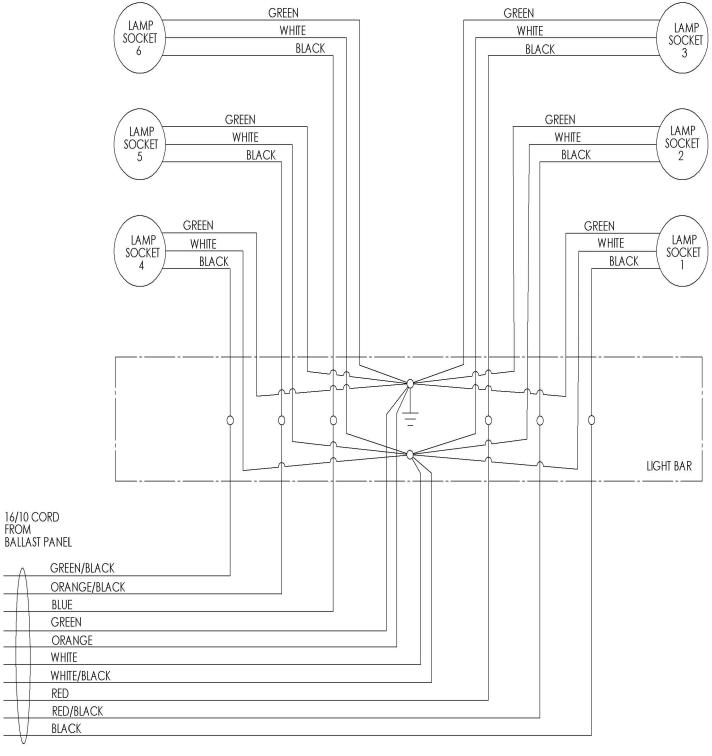


WIRING SCHEMATIC

208V 3 PHASE 6 LIGHT MANUAL WINCH BALLAST PANEL



6 LIGHT LIGHT BAR 1000W HID



WARRANTY

ALLMAND LIGHTING SYSTEMS LIMITED WARRANTY UNITED STATES and U.S. TERRITORIES

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 NOT COVERED BY THIS WARRANTY. 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 no later than five days following the date of sale agreement or invoice unless the purchase agreement or invoice specifically states a later delivery date in which case such delivery date shall control. The original purchaser shall be deemed to be a person who places the goods or products in actual use, and any person holding such goods solely for wholesale or retail sale purposes shall not constitute an original purchaser. PROVIDED, any leasing of these goods or other use beyond normal demonstration of same shall be deemed to be in use by an original purchaser and all warranty periods shall commence at the time of such use. 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. The manufacturer shall in no event pay mileage expenses, but will warrant outbound ground freight. 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.

ALLMAND LIMITED WARRANTY 1YR LIGHTING SYSTEMS 5/08

WARRANTY

LIGHTING SYSTEMS LIMITED WARRANTY ADDENDUM

THIS IS AN ADDENDUM TO THE BASIC ALLMAND LIMITED WARRANTY OF TWO (2) YEARS AFTER DELIVERY TO THE ORIGINAL PURCHASER.

The following manufacturers limited warranty policy warrants their components to be free from defects in material and workmanship from date of manufacture as follows (see specific manufacturer's warranty for details):

CATERPILLAR	TWO (2) YEAR LIMITED	2000 HOURS
KUBOTA	THREE (3) YEAR LIMITED	3000 HOURS
LOMBARDINI	THREE (3) YEAR LIMITED	3000 HOURS
ISUZU 3CD	TWO (2) YEAR LIMITED	2000 HOURS
ISUZU 4LE	FIVE (5) YEAR LIMITED	5000 HOURS

ADVANCE BALLAST	TWO (2) YEAR LIMITED	
MARATHON	TWO (2) YEAR LIMITED	1000 HOURS
MECC ALTE	ONE (1) YEAR LIMITED	
STAMFORD	ONE (1) YEAR LIMITED	=
LIGHT TOWER ASSEMBLY	TEN (10) YEARS	FAILURE TO OPERATE DUE TO CORROSION

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 failure.

Please call the Allmand Service and Warranty Department for specific manufacturer's warranty terms and schedules. All warranties are subject to change without notice.

Limited Warranty LIGHTING SYSTEMS Addendum 4/08



MAXI LITE ML FCS SERIES PARTS MANUAL

ALLMAND BROTHERS INC. P.O. BOX 888 HOLDREGE, NE 68949

PHONE: (308) 995-4495, 1-800-562-1373

ALLMAND FAX: (308) 995-5887

ALLMAND PARTS DEPT. FAX: (308) 995-4883

www.allmand.com

PART NO. 103408 REVISED APRIL 2012

MAXI LITE ML FCS SERIES

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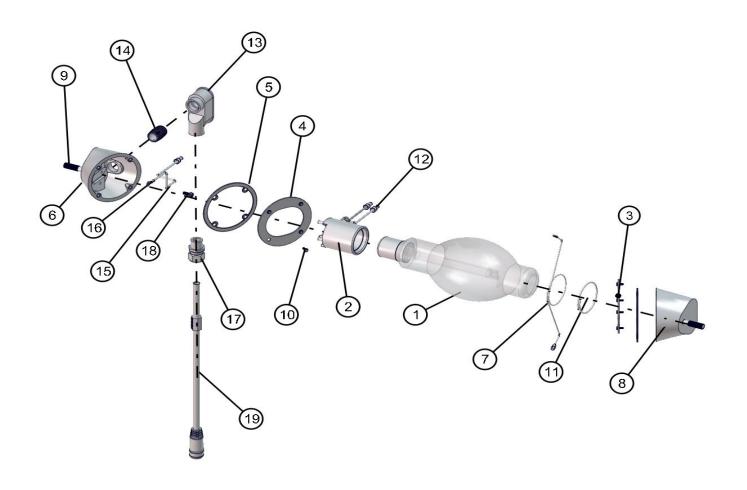
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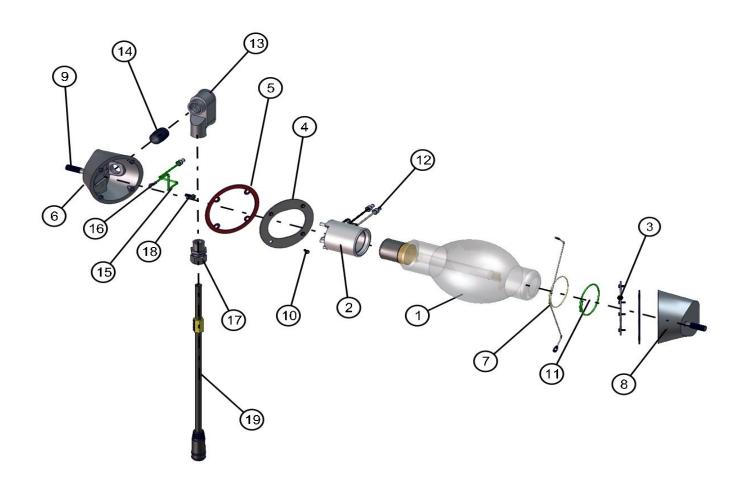
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NO	QTY	PARTNO	DESCRIPTION
1	1	610211	LAMP 1000W BT37(MH)
2	1	610212	CERAMIC SOCKET
3	1	610207	INTERIOR COVER PLATE
4	1	610208	INTERIOR COVER PLATE
5	2	610213	GASKET
6	1	610205	SOCKET END CAP
7	1	610209	LAMP SUPPORT TIP
8	1	610206	SOCKET END CAP
9	2	045142	STUD 3/8-24 X 3/8-16 X 2"
10	8	041028	10-24 X 1/2 HEX MACH SCREW

NO	QTY	PARTNO	DESCRIPTION
11	1	610210	FIBERGLASS MESS TUBE 12"
12	3	022060	WIRE CAP SMALL
13	1	610214	ELBOW
14	1	610215	NIPPLE
15	1	610219	14 AWG GREEN 6"
16	1	022155	#10 ELEC. RING
17	1	510007	1/2 DIA CORD GRIP
18	1	041257	10-32 GROUND SCREW
19	1	310434	MALE CONNECTOR CABLE (OPTION)

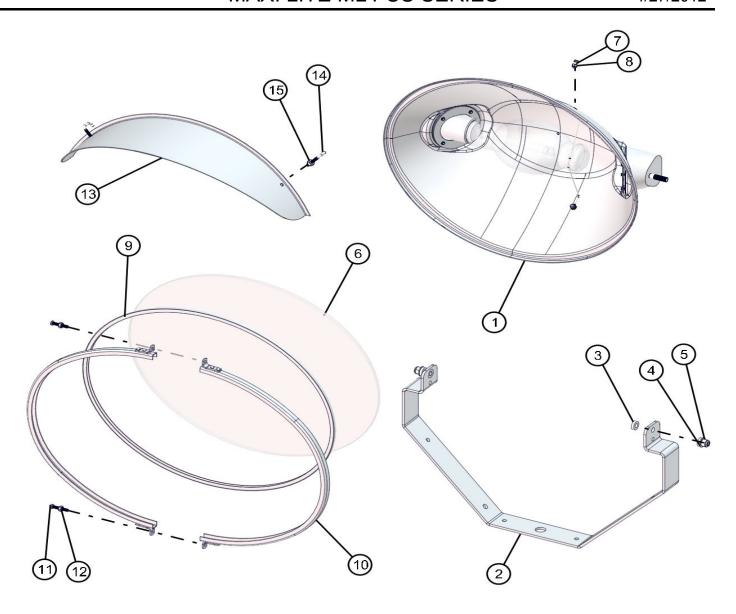
610250 - 1000W LAMPHOLDER ASSEMBLY W/ QD, YOKE, LAMP



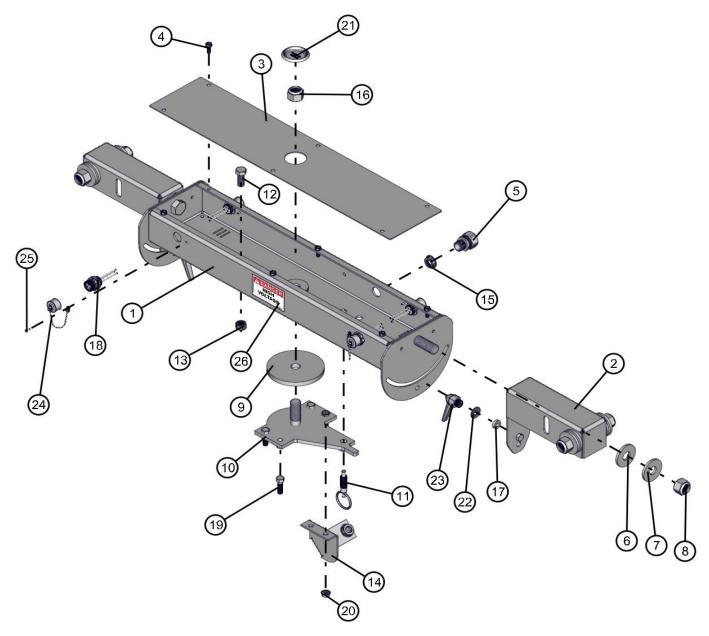
NO	QTY	PARTNO	DESCRIPTION
1	1	610221	LAMP 1250W BT37
2	1	610212	CERAMIC SOCKET
3	1	610207	INTERIOR COVER PLATE
4	1	610208	INTERIOR COVER PLATE
5	2	610213	GASKET
6	1	610205	SOCKET END CAP, w. STOP BOSS
7	1	610209	LAMP SUPPORT TIP
8	1	610206	SOCKET END CAP, w. STOP BOSS
9	2	045142	STUD 3/8-24 X 3/8-16 X 2"
10	8	041028	10-24 X 1/2 HEX MACH SCREW

NO	QTY	PARTNO	DESCRIPTION
11	1	610210	FIBERGLASS MESS TUBE 12"
12	3	022060	WIRE CAP SMALL
13	1	610214	ELBOW
14	1	610215	NIPPLE
15	1	610219	14 AWG GREEN 6"
16	1	022155	#10 ELEC. RING
17	1	510007	1/2 DIA CORD GRIP
18	1	041257	10-32 GROUND SCREW
19	1	310434	MALE CONNECTOR CABLE (OPTION)

100623 - LAMPHOLDER W/ QD, YOKE, LAMP



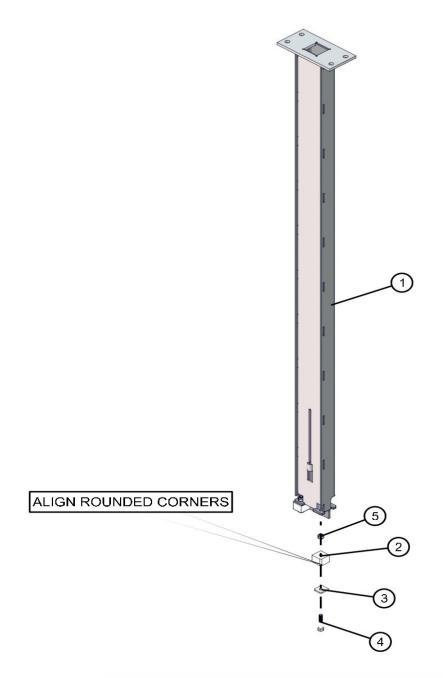
NO	QTY	PARTNO	DESCRIPTION
1	1	610201	REFLECTOR
2	1	660130P	SOLID MOUNT YOKE
3	4	047019	3/4 OD X .385 ID NYLON BUSHING
4	2	047016	3/8 SAE FLAT WASHER
5	2	044037	3/8-24 NYLOC HEX NUT
6	1	610203	LENS FROSTED
7	2	041200	8-32 X 1/2 HEX HEAD MS
8	2	044013	#8-32 NYLOCK HEX NUT
9	1	610217	SILICONE GASKET
10	2	610202	LENS CHANNEL
11	2	041036	10-24 X 1 1/4 PH-ROUND HEAD MS SS
12	2	044019	10-24 NYLOC HEX NUT
13	1	610017	SAF-T VISOR (OPTION)
14	2	045070	#10-24 HOOK SQ BD BOLT (OPTION)
15	2	044023	1/4-20 NYLOCK HEX NUT (OPTION)



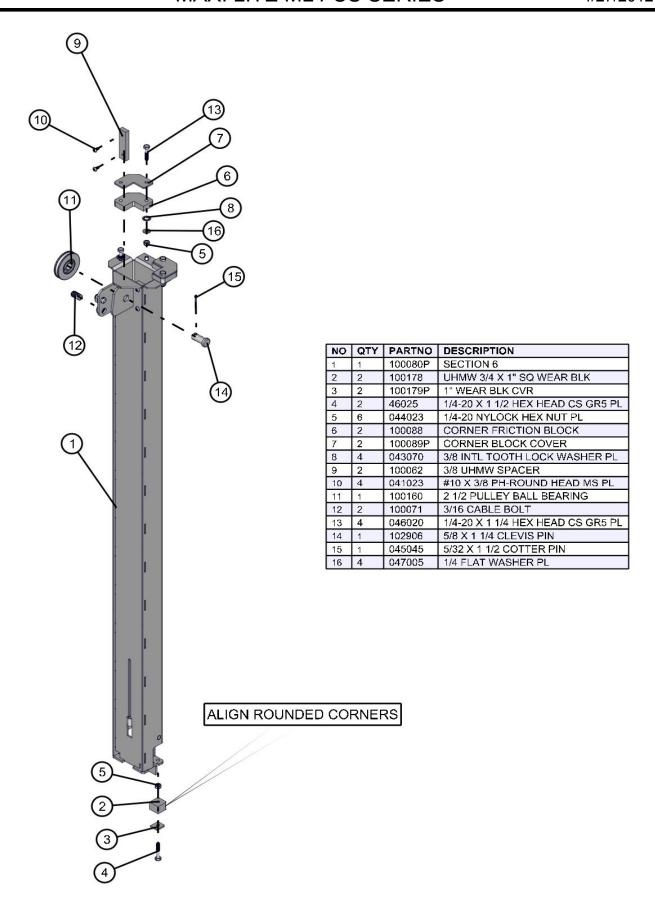
VERTICAL TOWER ONLY

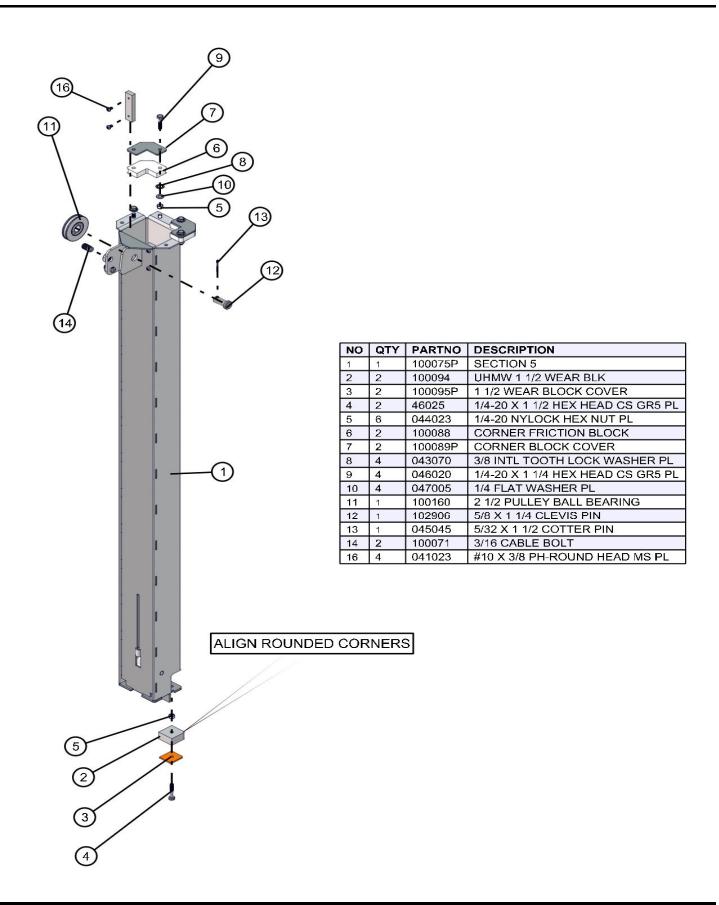
NO	QTY	PARTNO	DESCRIPTION
1	1	101930P	LIGHT BAR
2	2	101931P	LAMP MOUNT
3	1	101929P	COVER
4	6	041070	1/4-20 x 3/4 SL-HEX WASHER HEAD MS TP F
5	2	310033	1/2 CORD GRIP
6	7	650550	.785" x 2" HDPE WA\$HER
7	7	047035	3/4 FLAT WASHER PL
8	6	044058	3/4-10 NYLOCK HEX NUT PL
9	1	100147	UHMW BEARING
10	1	100143-15	ROTATION MOUNT
11	1	100148	SPRING LOCK 1/2-13 X 1.4
12	1	046180	1/2-13 X 1 1/4 HEX HEAD CS GR5 PL
13	1	044045	1/2-13 HEX NUT PL
14	1	100154P	BRACKET

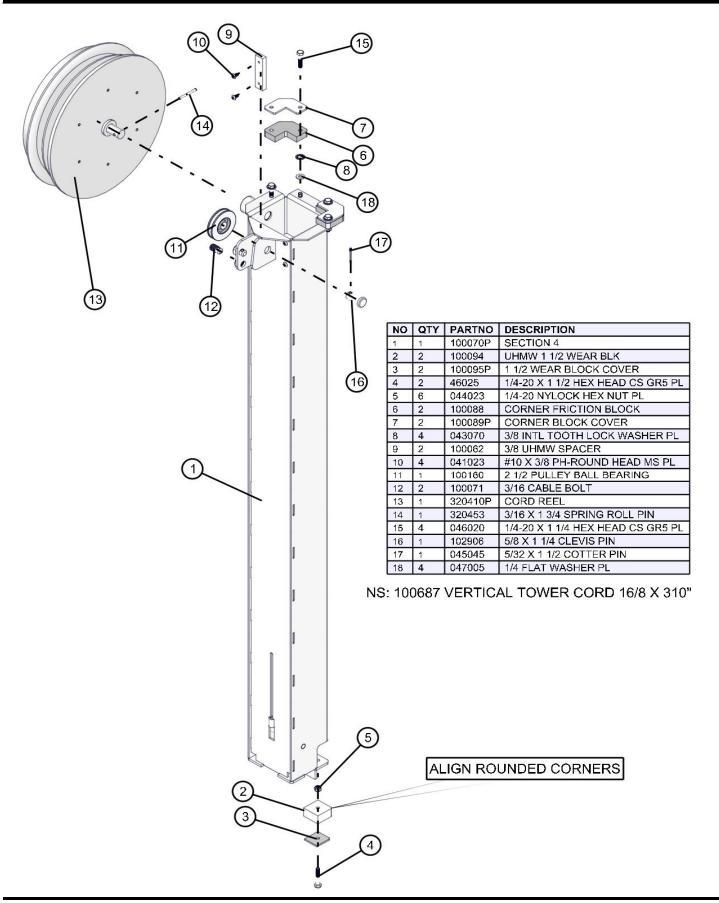
NO	QTY	PARTNO	DESCRIPTION
15	2	022415	1/2 INSULATING BUSHING
16	1	044058	3/4-10 NYLOCK HEX NUT PL
17	2	047019	3/4 OD X .385 ID NYLON BUSHING
18	4	310414	QD CONNECTOR FEMALE
19	4	046115	3/8-16 X 1 1/4 HEX HEAD CS GR5 PL
20	4	044036	3/8-16 KEPS HEX NUT PL
21	1	680878	1 3/4 CAPLUG
22	2	047015	3/8 FLAT WASHER PL
23	2	102361	ADJUSTABLE LEVER
24	4	310413	CAP
25	4	045116	1/8 X 1/4 BLIND RIVET
26	2	090002	HIGH VOLTAGE DECAL

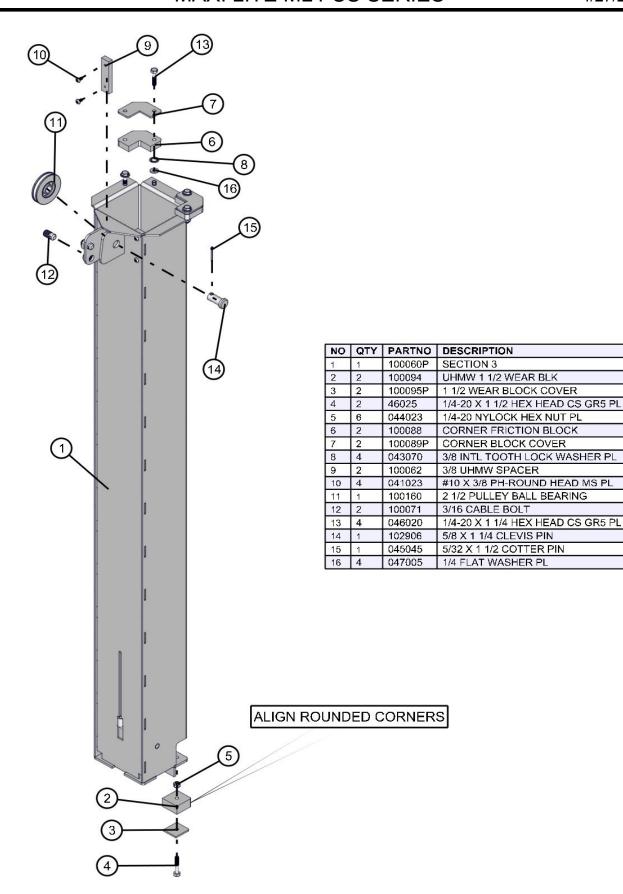


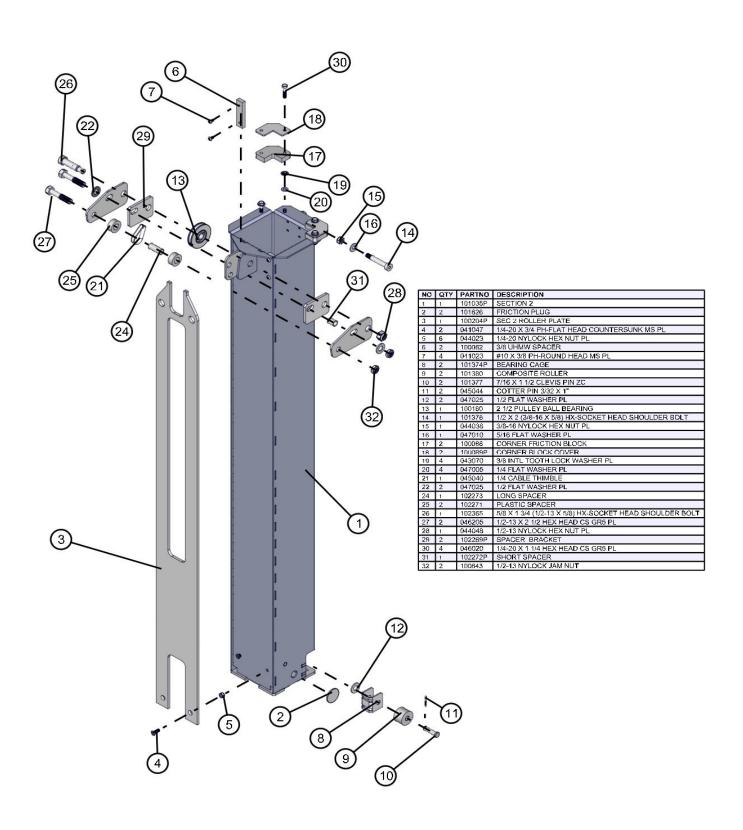
NO	QTY	PARTNO	DESCRIPTION
1	1	100085P	SECTION 7
2	2	100178	UHMW 3/4 X 1" SQ WEAR BLK
3	2	100179P	1" WEAR BLK CVR
4	2	46025	1/4-20 X 1 1/2 HEX HEAD CS GR5 PL
5	2	044023	1/4-20 NYLOCK HEX NUT PL

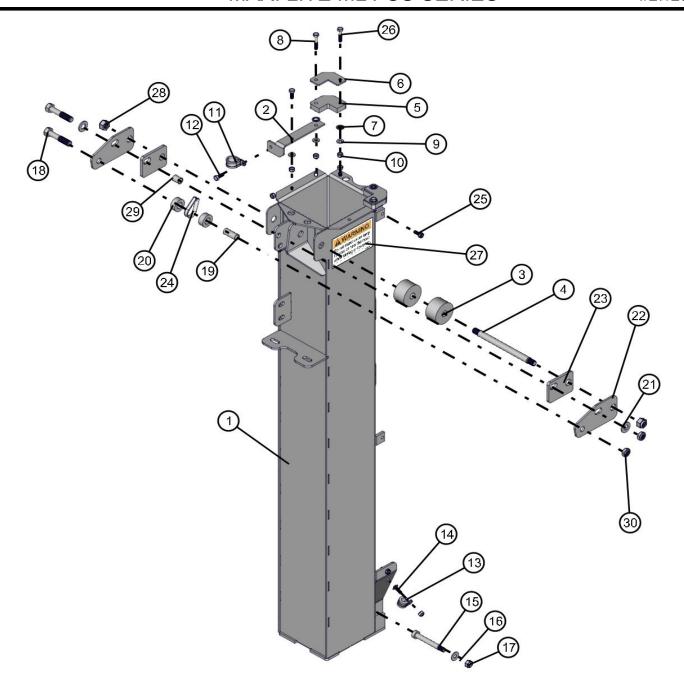








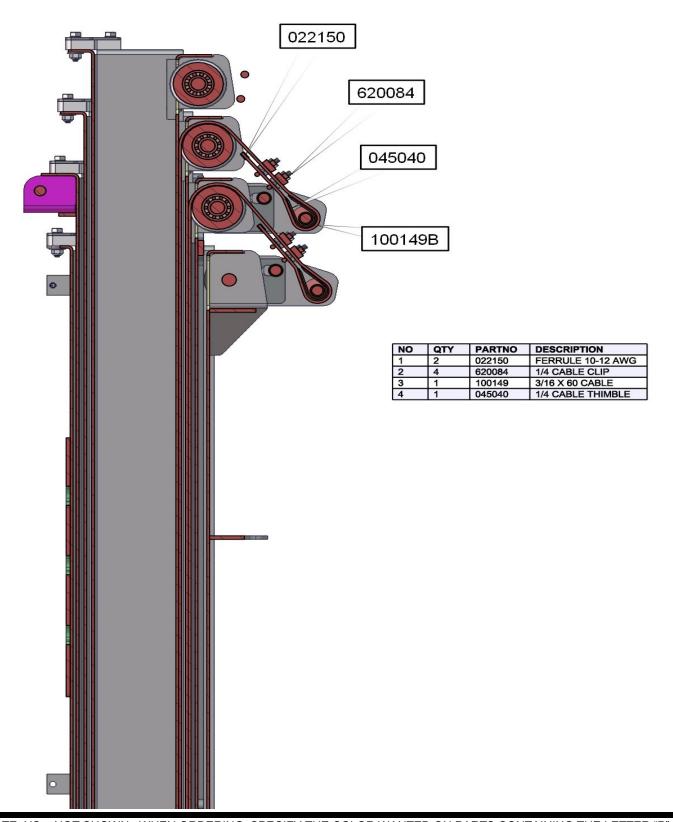




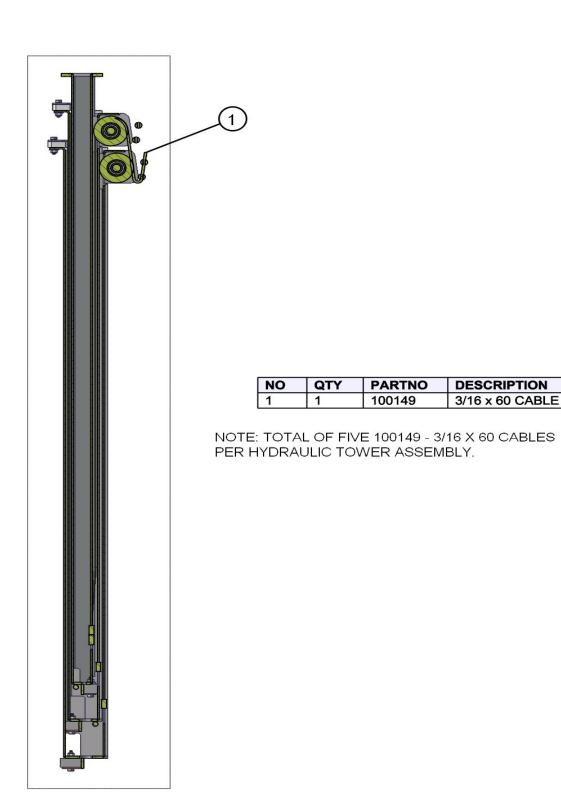
NO	QTY	PARTNO	DESCRIPTION	
1	1	101034P	SECTION 1	
2	1	101403P	CORD GUIDE BRACKET	
3	2	100203	ROLLER	
4	1	102696	IDLER SHAFT	
5	2	100088	CORNER FRICTION BLOCK	
6	2	100089P	CORNER BLOCK COVER	
7	4	043070	3/8 INTL TOOTH LOCK WASHER PL	
8	1	46025	1/4-20 X 1 1/2 HEX HEAD CS GR5 PL	
9	5	047005	1/4 FLAT WASHER PL	
10	7	044023	1/4-20 NYLOCK HEX NUT PL	
11	1	022024	#12 CUSHION CLAMP	
12	2	046010	1/4-20 X 3/4 HEX HEAD CS GR5 SS	
13	1	3 102 12	#10 CUSH CLAMP 1/4 HOLE	
14	1	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS	
15	1	101379	1/2 X 2 3/4 (3/8-16 X 5/8) HX-SOCKET HEAD SHOULDER BOLT	
16	1	047010	5/16 FLAT WASHER PL	

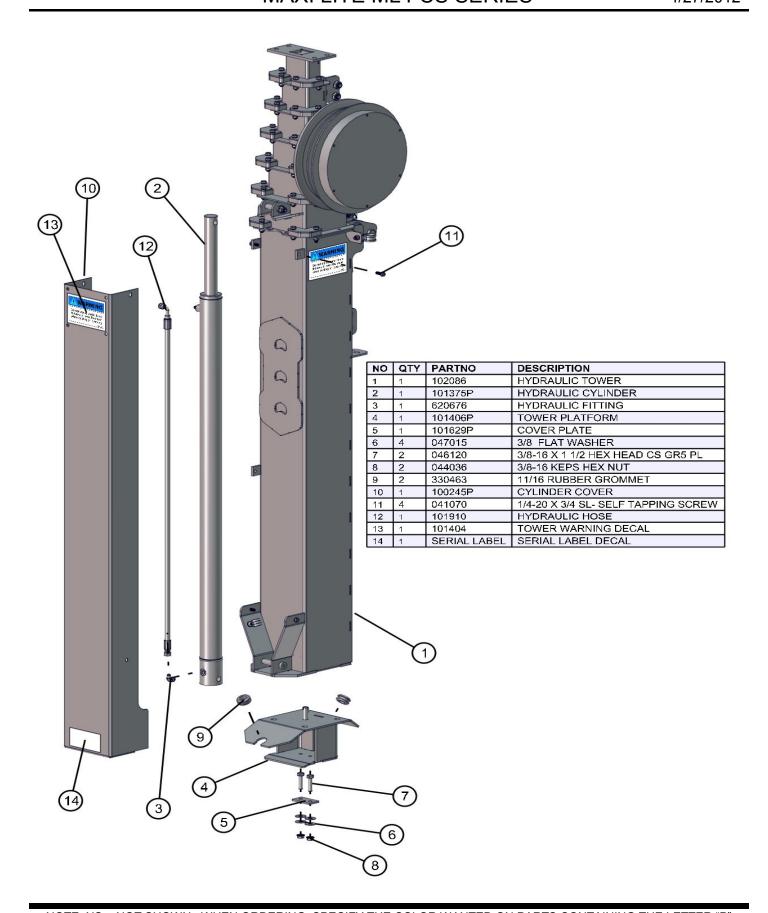
NO	QTY	PARTNO	DESCRIPTION	
17	1	044038	3/8-16 NYLOCK HEX NUT PL	
18	2	046205	1/2-13 X 2 1/2 HEX HEAD CS GR5 PL	
19	1	102273	LONG SPACER	
20	2	102271	PLASTIC SPACER	
21	2	047025	1/2 FLAT WASHER PL	
22	2	102270P	CABLE BRACKET	
23	2	102269P	SPACER BRACKET	
24	1	045040	1/4 CABLE THIMBLE	
25	4	041070	1/4-20 x 3/4 SL-HEX WASHER HEAD MS TP F	
26	3	046020	1/4-20 X 1 1/4 HEX HEAD CS GR5 PL	
27	2	101404	DO NOT STAND DECAL	
28	2	044048	1/2-13 NYLOCK HEX NUT PL	
29	1	102272P	SHORT SPACER	
30	2	100643	1/2-13 NYLOCK JAM NUT	

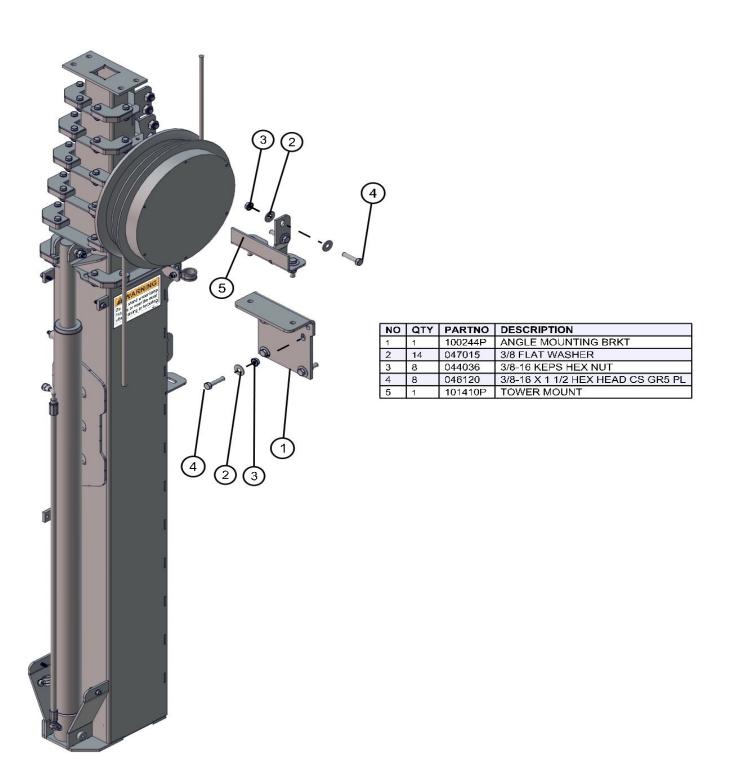
CABLE ROUTING SECTIONS 1-4 VERTICAL TOWER VT1 MAXI LITE ML FCS SERIES 4/27/2012

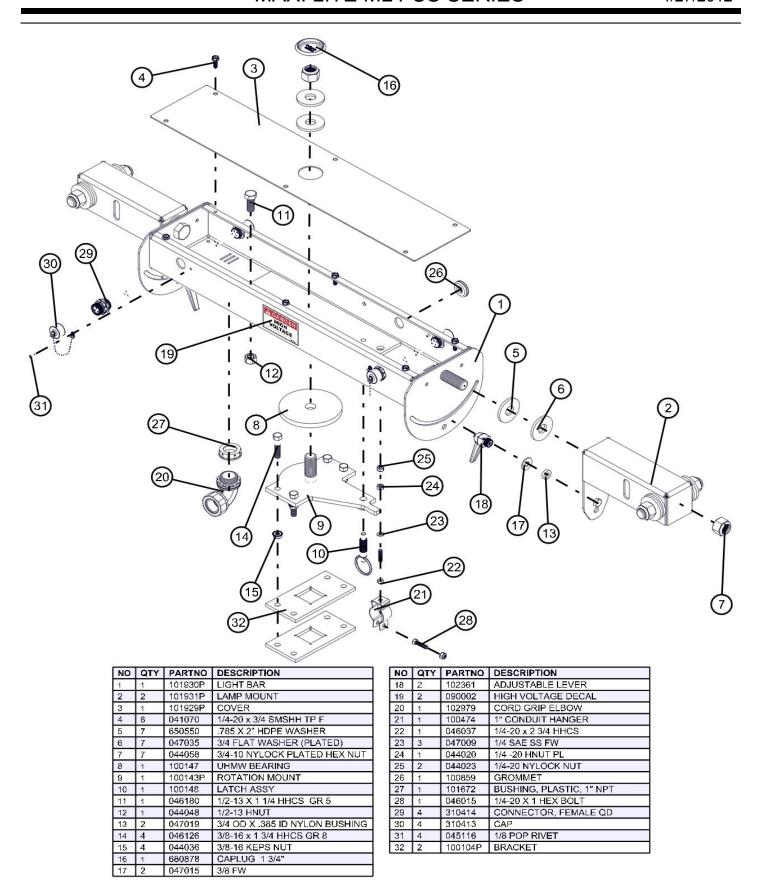


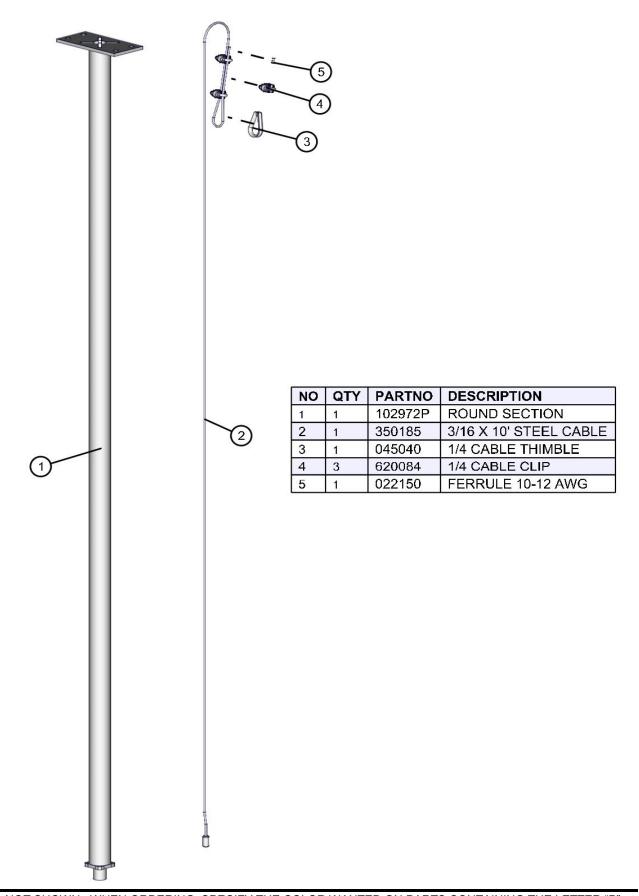
CABLE ROUTING SECTIONS 5-7 VERTICAL TOWER VT1 MAXI LITE ML FCS SERIES 4/27/2012

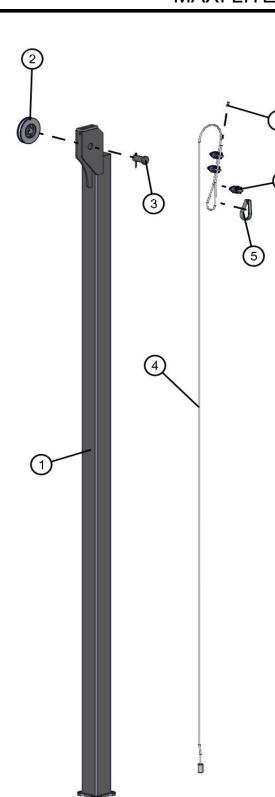




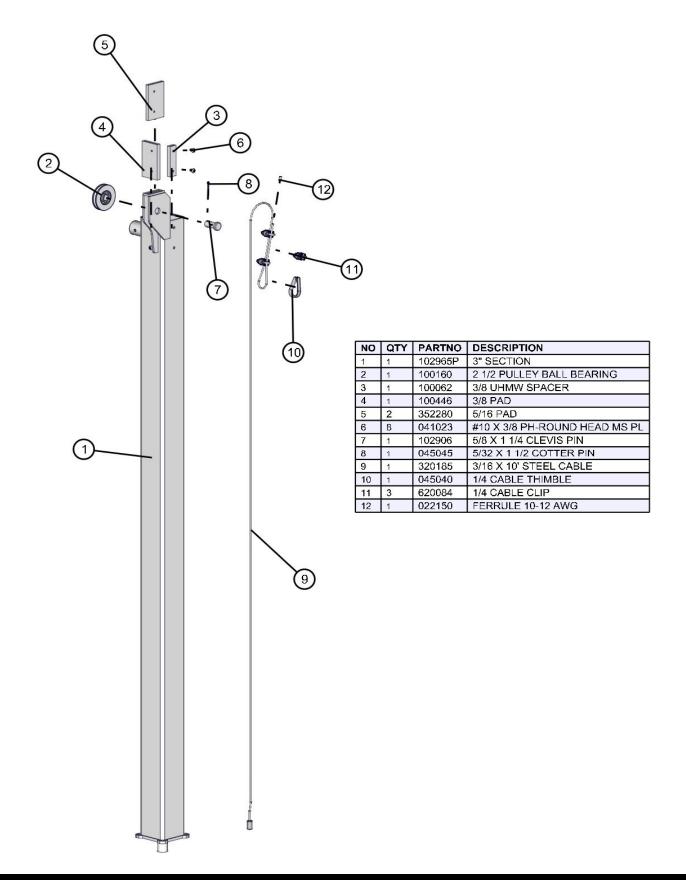


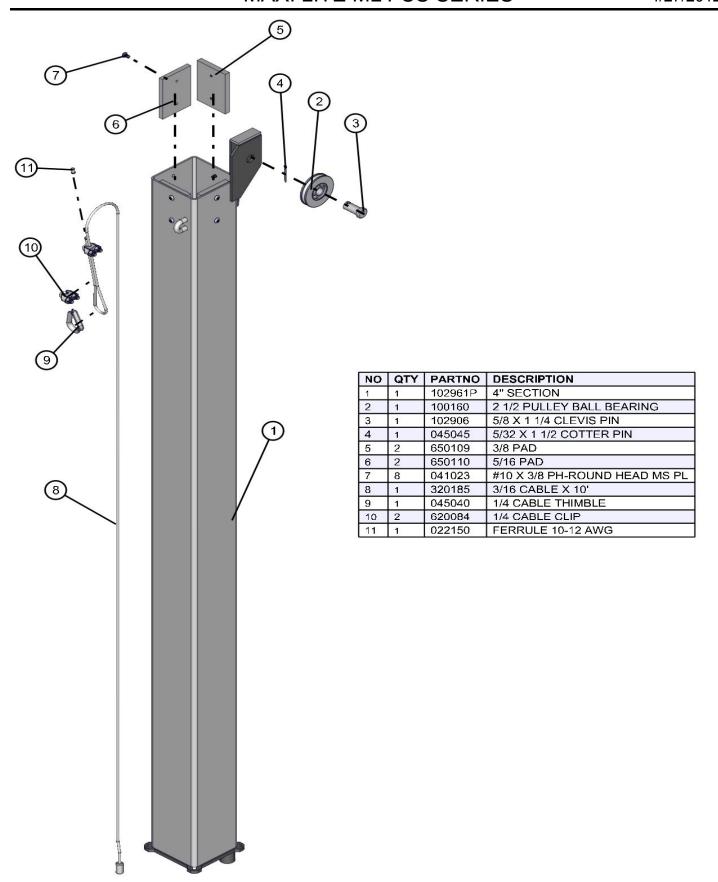


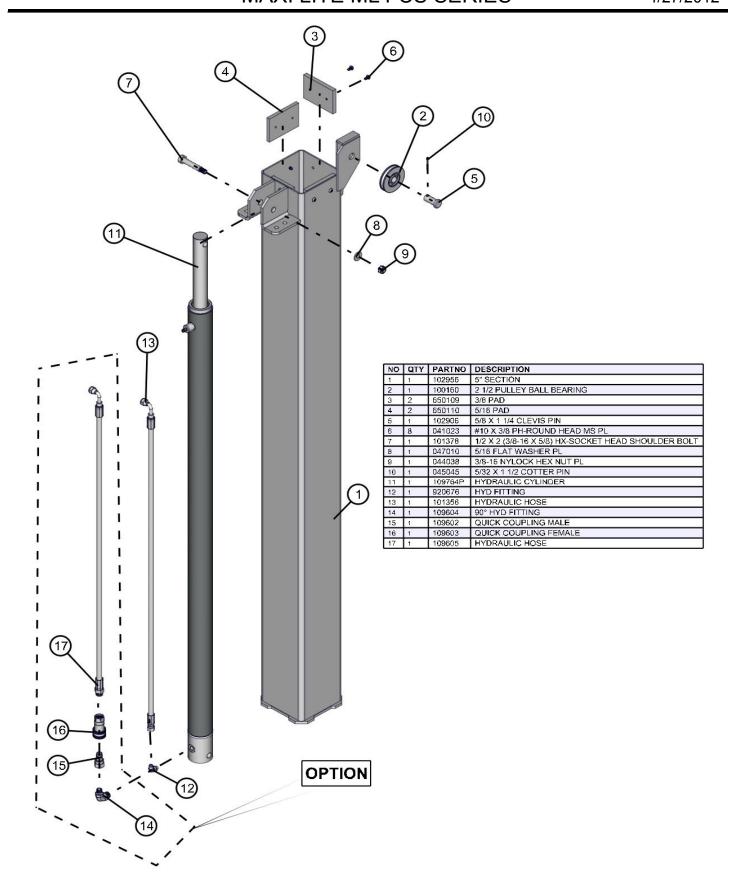


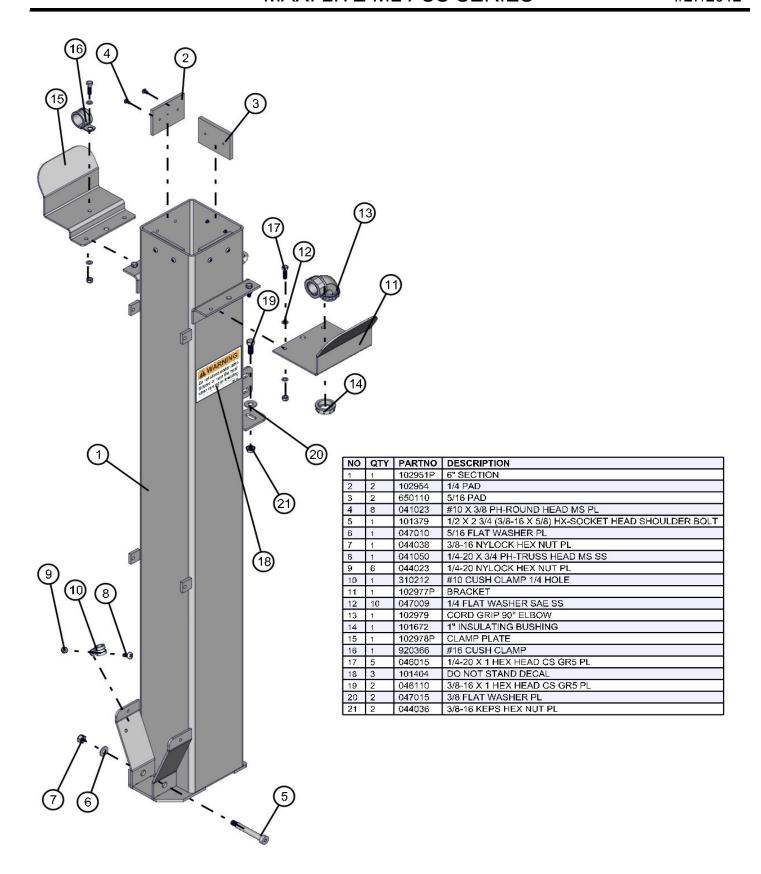


NO	QTY	PARTNO	DESCRIPTION
1	1	102968P	2" SECTION
2	1	100160	2 1/2 PULLEY BALL BEARING
3	1	102906	5/8 X 1 1/4 CLEVIS PIN
4	1	320185	3/16 X 10' STEEL CABLE
5	1	045040	1/4 CABLE THIMBLE
6	3	620084	1/4 CABLE CLIP
7	1	022150	FERRULE 10-12 AWG









INSTRUCTIONS FOR REPLACING STEEL CABLES MAXI LITE ML FCS SERIES

4/27/2012

HYDRAULIC VERTICAL TOWER

Section 6 -

Remove cable clamps (2) from section 4.

Remove section 6.

Remove all broken and frayed cable.

Replace new cable into slot in the bottom of section 6.

Replace section 6 into section 5.

Route cable through pulley bracket on section 5.

With all sections pushed together tight, insert cable through half-link on section 5.

Replace cable clips.

Section 5 -

Remove cable clamps (2) from section 3.

Remove machine screws (8) and pads (4) from section 4. Being careful not to drop them into lower tower sections

Remove section 5.

Remove all broken and frayed cable.

Replace new cable into slot in the bottom of section 5.

Replace section 5 into section 4.

Route cable through pulley bracket on section 4.

With all sections pushed together tight, insert cable through half-link on section 3.

Replace cable clips.

Replace tower pads and screws. Be careful not to drop them into lower tower sections.

Section 4 -

Remove cable clamps (2) from section 2.

Remove machine screws (8) and pads (4) from section 3. Being careful not to drop into lower tower sections

Remove section 4.

Remove all broken and frayed cable.

Replace new cable into slot in the bottom of section 4.

Replace section 4 into section 3.

Route cable through pulley bracket on section 3.

With all sections pushed together tight, insert cable through half-link on section 2.

Replace cable clips.

Replace tower pads and screws. Be careful not to drop them into lower tower sections.

INSTRUCTIONS FOR REPLACING STEEL CABLES MAXI LITE ML FCS SERIES

4/27/2012

HYDRAULIC VERTICAL TOWER

Section 3 -

Remove cable clamps (2) from section 1.

Remove machine screws (8) and pads (4) from section 2. Being care full not to drop into lower tower sections

Remove section 3.

Remove all broken and frayed cable.

Replace new cable into slot in the bottom of section 3.

Replace section 3 into section 2.

Route cable through pulley bracket on section2.

With all sections pushed together tight, insert cable through half-link on section 1.

Replace cable clips.

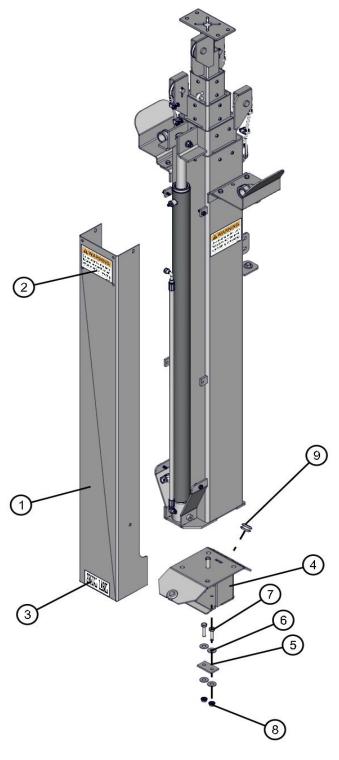
Replace tower pads and screws. Be careful not to drop them into lower tower sections.

Note:

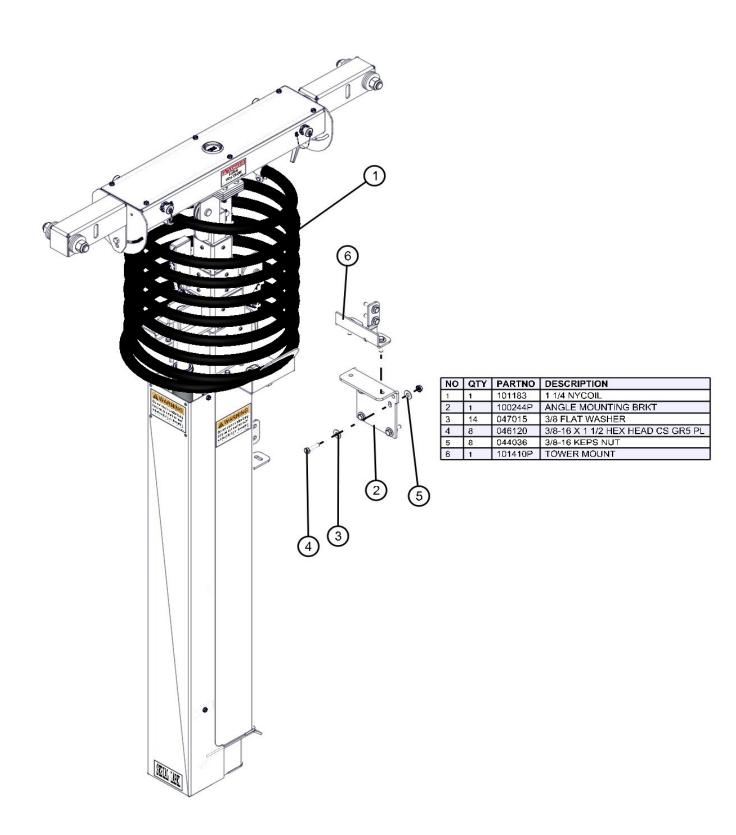
If broken cable, tower pads or pad screw happen to fall into lower sections they must be retrieved. Damage to tower sections or other moving parts may occur.

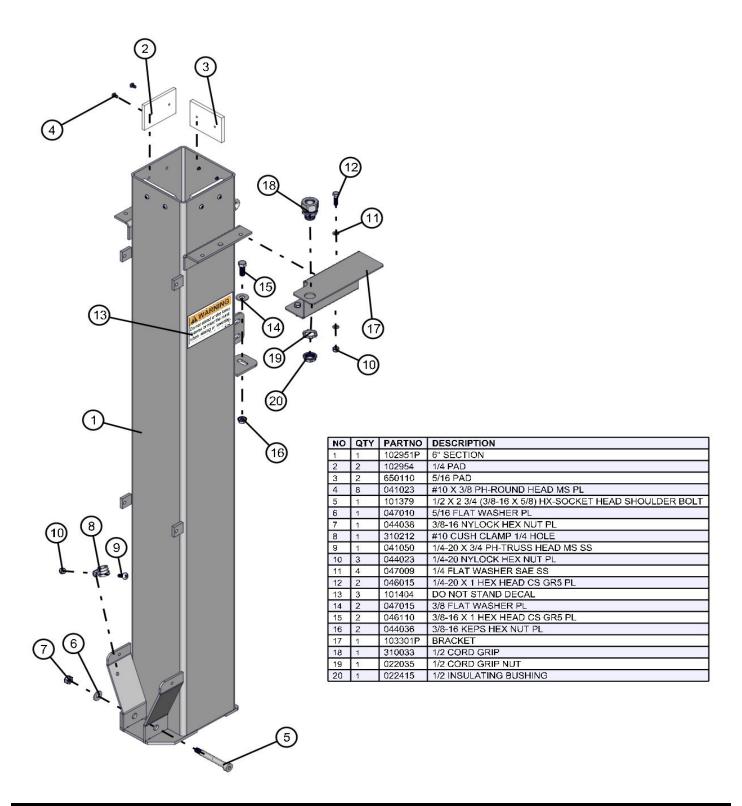
Note:

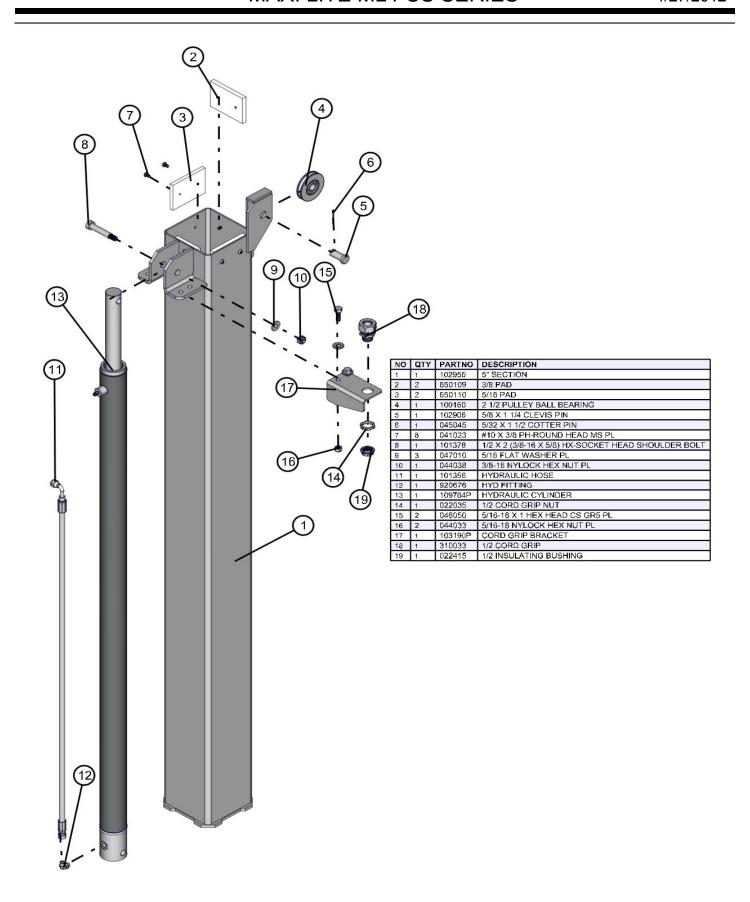
When replacing tower section cables, the tower sections above the cable being replaced should be removed.

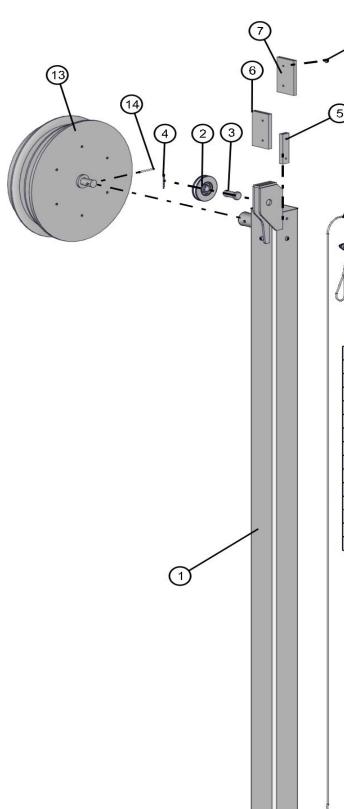


NO	QTY	PARTNO	DESCRIPTION
1	1	100245P	CYLINDER COVER
2	1	101404	DO NOT STAND
3	1	\$ERIAL LABEL	SERIAL LABEL
4	1	101406P	TOWER PLATFORM
5	1	101629P	COVER PLATE
6	4	047015	3/8 FLAT WASHER
7	2	046120	3/8-16 X 1 1/2 HEX HEAD CS GR5 PL
8	2	044036	3/8-16 KEPS NUT
9	2	330463	11/16 RUBBER GROMMET



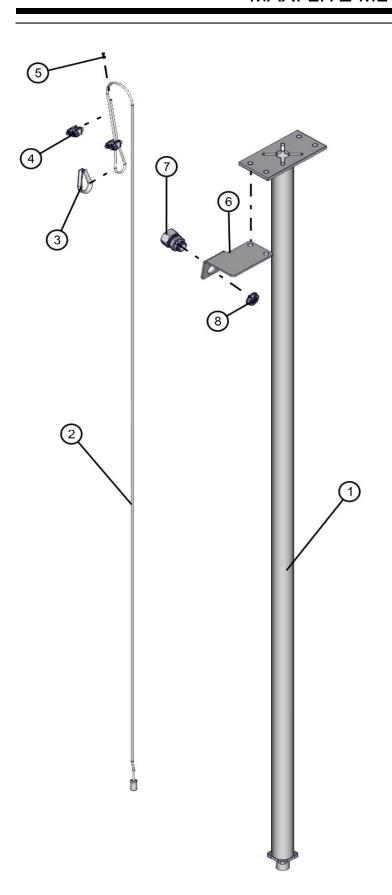






NO	QTY	PARTNO	DESCRIPTION
1	1	102965P	3" SECTION
2	1	100160	2 1/2 PULLEY BALL BEARING
3	1	102906	5/8 X 1 1/4 CLEVIS PIN
4	1	045045	5/32 X 1 1/2 COTTER PIN
5	1	100062	3/8 UHMW SPACER
6	1	100446	3/8 PAD
7	2	352280	5/16 PAD
8	8	041023	#10 X 3/8 PH-ROUND HEAD MS PL
9	1	320185	3/16 CABLE X 10'
10	1	045040	1/4 CABLE THIMBLE
11	2	620084	1/4 CABLE CLIP
12	1	022150	FERRULE 10-12 AWG
13	1	320410P	CORD REEL (OPTION)
14	1	320453	3/16 X 1 3/4 SPRING ROLL PIN

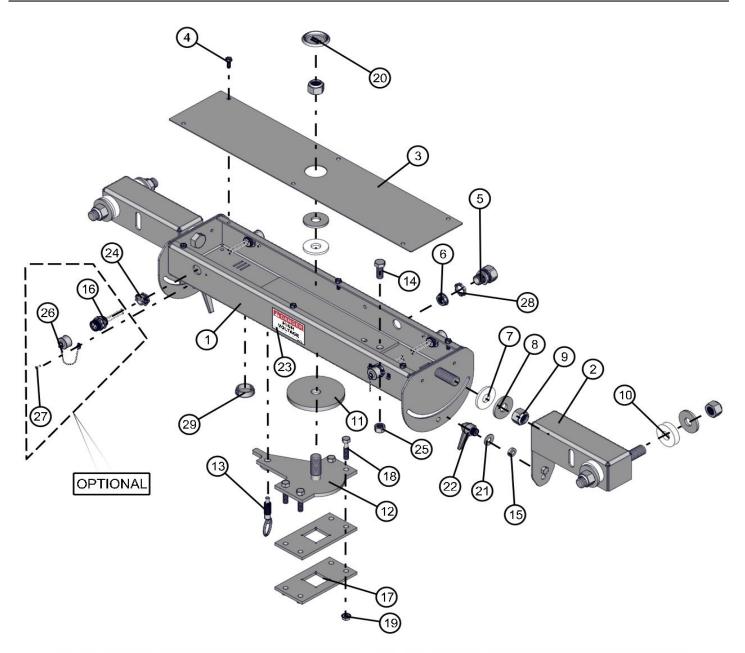
103353 CORD REEL AND CORD 103542 AS3000 CORD REEL AND CORD



NO	QTY	PARTNO	DESCRIPTION
1	1	102972P	ROUND SECTION
2	1	350185	3/16 CABLE X 10'
3	1	045040	1/4 CABLE THIMBLE
4	2	620084	1/4 CABLE CLIP
5	1	022150	FERRULE 10-12 AWG
6	1	103191P	BRACKET
7	1	310033	1/2 CORD GRIP
8	1	022415	1/2 INSULATING BUSHING

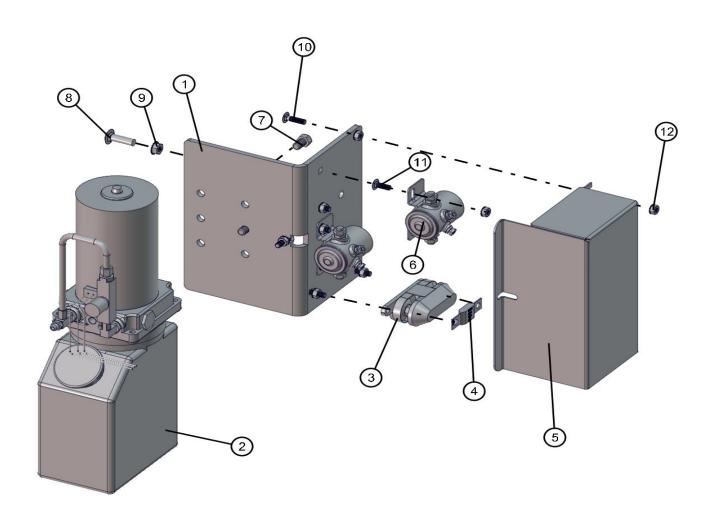


103304—16/8 CORD (CORD REEL)

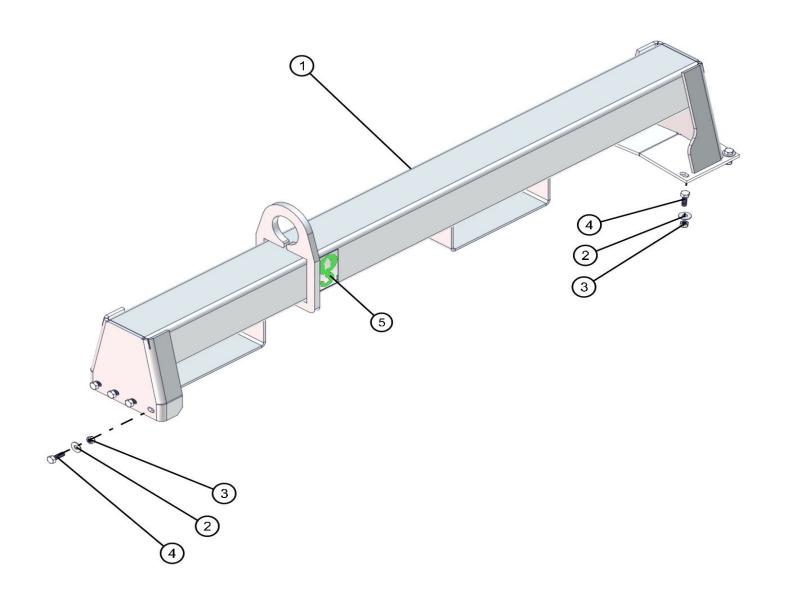


NO	QTY	PARTNO	DESCRIPTION
1	1	101930P	LIGHT BAR
2	2	101931P	LAMP MOUNT
3	1	101929P	COVER
4	6	041070	1/4-20 x 3/4 SL-HEX WASHER HEAD MS TP F
5	1	310033	1/2 CORD GRIP
6	1	022415	1/2 INSULATING BUSHING
7	3	650550	.785" x 2" HDPE WASHER
8	7	047035	3/4 FLAT WASHER PL
9	7	044058	3/4-10 NYLOCK HEX NUT PL
10	4	101813	.781 ID x 2 OD x 1/2 HDPE WASHER
11	1	100147	UHMW BEARING
12	1	100143-15	ROTATION MOUNT
13	1	100148	SPRING LOCK 1/2-13 X 1.4
14	1	046180	1/2-13 X 1 1/4 HEX HEAD CS GR5 PL
15	2	047019	3/4 OD X .385 ID NYLON BUSHING

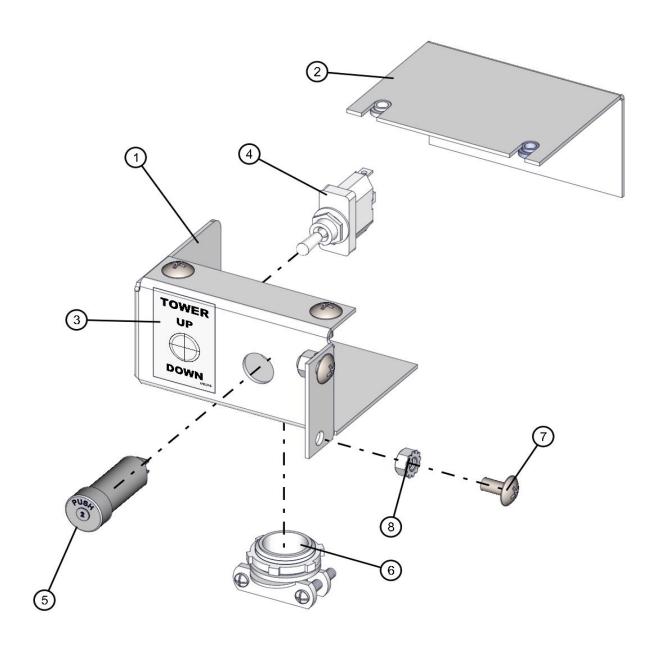
NO	QTY	PARTNO	DESCRIPTION
16	4	310414	QD CONNECTOR FEMALE
17	2	100104P	BRACKET
18	4	046126	3/8-16 x 1 3/4 HEX HEAD CS GR5 PL
19	4	044036	3/8-16 KEPS HEX NUT PL
20	1	680878	1 3/4 CAPLUG
21	2	047015	3/8 FLAT WASHER PL
22	2	102361	ADJUSTABLE LEVER
23	2	090002	HIGH VOLTAGE DECAL
24	4	022020	3/8 2 SCREW CLAMP
25	1	044045	1/2-13 HEX NUT PL
26	4	310413	CAP
27	4	045116	1/8 X 1/4 BLIND RIVET
28	1	022035	1/2 CORD GRIP NUT
29	1	064040	1 3/8 CAP PLUG



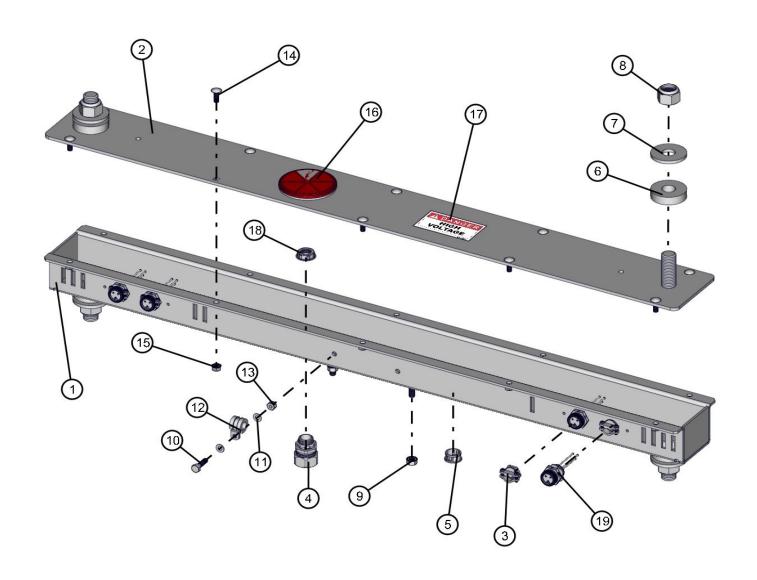
NO	QTY	PARTNO	DESCRIPTION
1	1	101839P	BRACKET
2	1	101383	POWER UNIT
3	1	100235	FUSE HOLDER
4	1	100234	125A FUSE LINK
5	1	102191P	COVER
6	2	100236	12 VDC RELAY
7	2	101384	3/8-16 x 5/8 HEX HEAD CS GR5
8	2	100670	3/8-16 X 1 1/4 CARRIAGE BOLT
9	2	044036	3/8-16 KEPS HEX NUT PL
10	4	100342	1/4-20 X 1 CARRIAGE BOLT PL
11	4	053006	1/4-20 X 3/4 CARRIAGE BOLT
12	9	044021	1/4-20 KEPS HEX NUT PL



NO	QTY	PARTNO	DESCRIPTION
1	1	101917P	LIFT BAR
2	10	047010	5/16 FLAT WASHER
3	10	044030	5/16-18 HEX NUT
4	10	046050	BOLT CS 5/16-18 X 1 HEX GR5 PL
5	2	090136	LIFT POINT DECAL



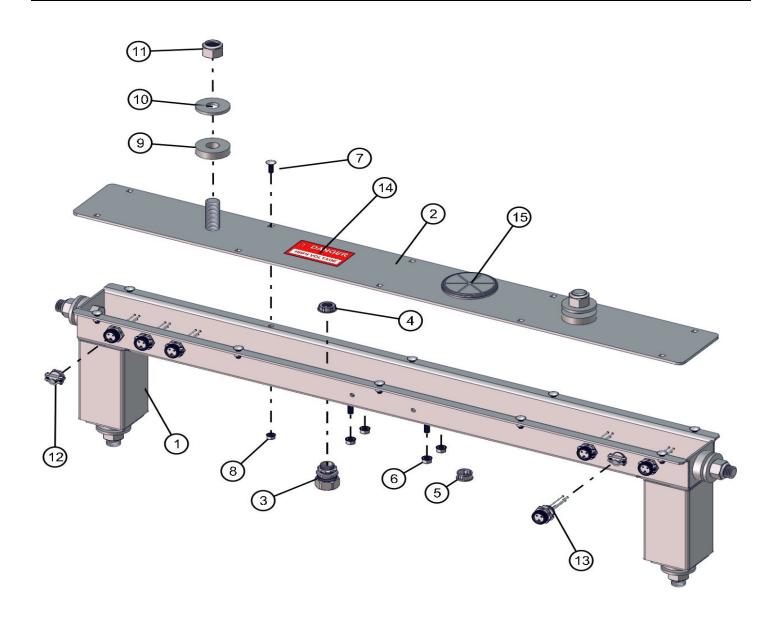
NO	QTY	DESCRIPTION	PARTNO
1	1	SWITCH BRACKET	102671P
2	1	SWTICH COVER	102673P
3	1	UP & DOWN DECAL	090399
4	1	TOGGLE SWITCH	102453
5	1	CIRCUIT BREAKER 2 AMP	352466
6	1	3/4 2-SCREW ROMEX CLAMP	022025
7	4	1/4-20 X 1/2 PH-TRUSS HEAD MS SS	041078
8	2	1/4-20 KEPS HEX NUT PL	044021



LAYDOWN TOWER ONLY

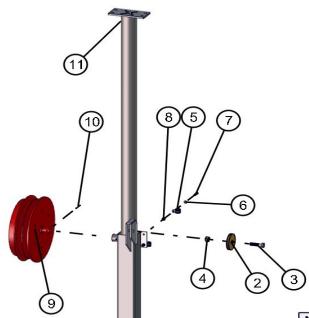
NO	Qty	PARTNO	DESCRIPTION
1	1	650319P	FRAME
2	1	620537P	COVER
3	4	022020	2 SCREW CLAMP 3/8
4	1	310033	1/2 CORD GRIP
5	1	711029	7/8 LOCKING HOLE PLUG
6	4	101813	.781 ID x 2 OD x 1/2 HDPE WASHER
7	4	047035	3/4 FLAT WASHER PL
8	4	044121	3/4-10 NYLOCK HEX NUT SS
9	4	044031	5/16 -18 KEPS HEX NUT PL
10	1	046015	1/4-20 X 1 HEX HEAD CS GR5 PL

NO	Qty	PARTNO	DESCRIPTION
11	2	047009	1/4 FLAT WASHER SAE SS
12	1	310212	#10 CUSH CLAMP 1/4 HOLE
13	1	044023	NUT NYLOCK 1/4-20 HEX NUT PL
14	10	053006	1/4-20 X 3/4 CARRIAGE BOLT
15	10	044021	1/4-20 KEPS HEX NUT PL
16	1	330037	REFLECTOR RED 3"
17	1	090002	HIGH VOLTAGE DECAL
18	1	022415	1/2 INSULATING BUSHING
19	4	310414	QD CONNECTOR FEMALE (OPTIONAL)



LAYDOWN TOWER ONLY

NO	QTY	PARTNO	DESCRIPTION
1	1	352030P	6-LIGHT REMOVEABLE LIGHT BAR
2	1	352031P	COVER
3	1	310033	1/2 CORD GRIP
4	1	022415	BUSHING THREADED
5	1	711029	7/8" LOCKING HOLE PLUG
6	4	044031	5/16 -18 KEPS NUT
7	10	053006	1/4-20 X 3/4 RHSSN BOLT
8	10	044021	1/4-20 KEPS NUT
9	6	101813	.781"ID x 2"OD x 1/2" HDPE WASHER
10	6	047035	3/4 FLAT WASHER PLTD
11	6	044058	3/4-10 NYLOCK PLATED HEX NUT
12	6	022020	2 SCREW CLAMP, 3/8" (HARDWIRED ONLY)
13	6	310414	QD CONNECTOR FEMALE
14	1	090002	HIGH VOLTAGE DECAL
15	1	330037	REFLECTOR RED 3"



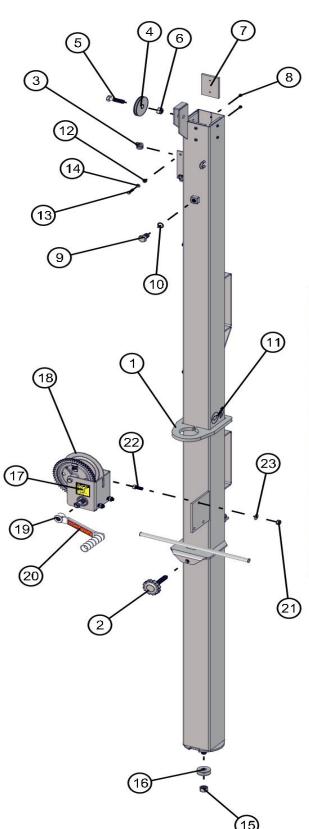
NO	QTY	PARTNO	DESCRIPTION
1	1	680180P	3" SECTION MANUAL TOWER
2	1	320110	PULLEY 3 OD W/BUSHING
3	1	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 PL
4	1	044048	1/2-13 NYLOCK HEX NUT PL
5	2	310212	#10 CUSH CLAMP 1/4 HOLE
6	2	047009	1/4 FLAT WASHER SAE SS
7	2	046015	1/4-20 X 1 HEX HEAD CS GR5
8	2	044023	1/4-20 NYLOCK HEX NUT
9	1	320410P	CORD REEL (OPTIONAL)
10	1	320453	3/16 X 1 3/4 SPRING PIN (OPTIONAL)
11	1	352017P	2 5/8" ROUND SECTION

NS:

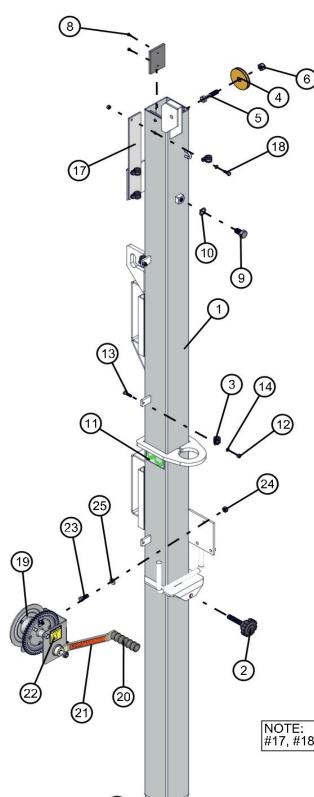
1

020220 MAST WIRING - 16/8 X 330" (STRAIGHT CORD 4 LIGHT) 680555 MAST WIRING - 16/10 X 336" (STRAIGHT CORD 6 LIGHT) 020220 MAST WIRING - 16/8 X 350" (CORD REEL 4 LIGHT) 352083 MAST WIRING - 16/10 X 344" (CORD REEL 6 LIGHT)

COMPLETE MANUAL TOWER ASSEMBLIES, INCLUDING LIGHT BAR ASSEMBLY. 109755P STRAIGHT CORD TOWER (4 LIGHT) 109758P CORD REEL TOWER (4 LIGHT) 680213P STRAIGHT CORD TOWER (6 LIGHT) 680214P CORD REEL TOWER (6 LIGHT)



NO	QTY	PARTNO	DESCRIPTION	
1	1	680102P	4" SECTION MANUAL TOWER	
2	1	620550	1/2-13 X 2 1/8" LOCKING KNOB	
3	5	310212	#10 CUSH CLAMP 1/4 HOLE	
4	1	320110	PULLEY 3 OD W/BUSHING	
5	1	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 (PLATED)	
6	1	044048	1/2-13 NYLOCK HEX NUT PL	
7	4	650110	TOWER PAD .312	
8	8	041023	#10-24 x 3/8 ROUND HEAD MACHINE SCREW	
9	1	046242	5/8-11 X 1" HEX HEAD CS GR 5	
10	1	043100	5/8 INT LOCK WASHER	
11	2	090136	LIFT POINT DECAL	
12	5	044023	1/4-20 NYLOCK HEX NUT	
13	5	046015	1/4-20 X 1 HEX HEAD CS GR5	
14	5	047009	1/4 FLAT WASHER SAE SS	
15	1	044053	5/8-11 NC NYLON INSERT NUT	
16	2	047030	5/8 FLAT WASHER	
17	1	090474	WINCH CAUTION DECAL	
18	1	610531	DBL 1200 WINCH	
19	1	712032	WINCH DBL 1200 7	
20	1	204358C	WINCH ACCIDENT DECAL	
21	3	044038	3/8-16 NYLOCK HEX NUT	
22	3	046110	3/8-16 X 1 HEX HEAD CS GR5 PL	
23	3	047010	5/16 FLAT WASHER	



NO	QTY	PARTNO	DESCRIPTION	
1	1	102943P	4" SECTION	
2	1	620550	1/2-13 X 2 1/8 LOCKING KNOB	
3	6	310212	#10 CUSH CLAMP 1/4 HOLE	
4	1	320110	PULLEY 3 OD W/ BUSHING	
5	1	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 PL	
6	1	044048	1/2-13 NYLOCK HEX NUT PL	
8	8	041023	#10 X 3/8 PH-ROUND HEAD MS PL	
9	1	046242	5/8-11 X 1 HEX HEAD CS GR5 PL	
10	1	043100	5/8 INTL TOOTH LOCK WASHER PL	
11	2	090136	LIFT POINT DECAL	
12	6	044023	1/4-20 NYLOCK HEX NUT PL	
13	5	046015	1/4-20 X 1 HEX HEAD CS GR5 PL	
14	6	047009	1/4 FLAT WASHER SAE SS	
15	1	044053	5/8-11 NYLOCK HEX NUT PL	
16	2	047030	5/8 FLAT WASHER PL	
17	1	102677P	CORD BRACKET	
18	1	046010	1/4-20 X 3/4 HEX HEAD CS GR5 SS	
19	1	610531	DL-1200 WINCH	
20	1	712032	WINCH HANDLE	
21	1	204358C	WINCH ACCIDENT DECAL	
22	1	090474	WINCH CAUTION DECAL	
23	3	046110	3/8-16 X 1 HEX HEAD CS GR5 PL	
24	3	044038	3/8-16 NYLOCK HEX NUT PL	
25	3	047010	5/16 FLAT WASHER PL	

NOTE: #17, #18, 1-#3, 1-#6, 1-#14 NOT USED WITH CORD REEL TOWER.

MANUAL LAYDOWN TOWER WINCH ONLY

NS	REQ'D	PART NO	DESCRIPTION
	3	620084	WIRE ROPE CLIP 3/16"
	1	045040	WIRE ROPE THIMBLE 1/4"
	1	620076	STEEL CABLE 3/16 X 11'
	1	650133	STEEL CABLE 3/16 X 17'9"
	1	320185	STEEL CABLE 3/16 X 10'

3/16 X 11'

REMOVE THE CUSHION CLAMPS AND MAST WIRING FROM 3" MAST SECTION.

REMOVE THE WIRE ROPE CLIPS AT TOP END OF THE 4" MAST SECTION.

REMOVE THE 3" PULLEY AT THE END OF THE 3" MAST SECTION.

REMOVE THE 2 5/8" ROUND MAST SECTION.

REMOVE ALL THE BROKEN AND FRAYED CABLE.

REPLACE NEW CABLE THROUGH SLOT AND EYELET IN THE ROUND MAST SECTION.

REPLACE 2 5/8" ROUND MAST SECTION IN THE 3" MAST SECTION.

ROUTE CABLE THROUGH PULLEY AND BRACKETS AND INSTALL 3" PULLEY.

WITH ALL SECTIONS PUSHED TOGETHER TIGHT, INSERT CABLE THROUGH HALF-LINK AND INSTALL WIRE ROPE CLIPS.

REINSTALL CUSHION CLAMPS AND MAST WIRING ON THE 3" MAST SECTION.

3/16 X 17' 9"

REMOVE MAST WIRING FROM BALLAST COMPARTMENT. (SEE ELECTRICAL SCHEMATIC)

REMOVE THE CUSHION CLAMPS AND MAST WIRING FROM 4" MAST SECTION.

REMOVE STOP BOLT AND WASHER.

REMOVE 4 TOWER PADS AND 3" PULLEY AT THE END OF THE 4" MAST SECTION.

REMOVE THE 2 5/8" ROUND AND THE 3" MAST SECTIONS TOGETHER.

REMOVE ALL THE BROKEN AND FRAYED CABLE.

REPLACE NEW CABLE THROUGH SLOT AND EYELET IN THE 3" MAST SECTION AND THROUGH PULLEY BRACKETS.

REPLACE 2 5/8" ROUND AND 3" MAST SECTIONS.

REPLACE 3" PULLEY AND TOWER PADS.

ATTACH CABLE TO WINCH AND WIND IN A CLOCKWISE DIRECTION UNTILL ALL SLACK IS OUT.

REPLACE STOP BOLT AND WASHER.

REPLACE CUSHION CLAMPS AND MAST WIRING ON 4" MAST SECTION.

REPLACE MAST WIRING IN BALLAST COMPARTMENT. (SEE ELECTRICAL SECHEMATIC)

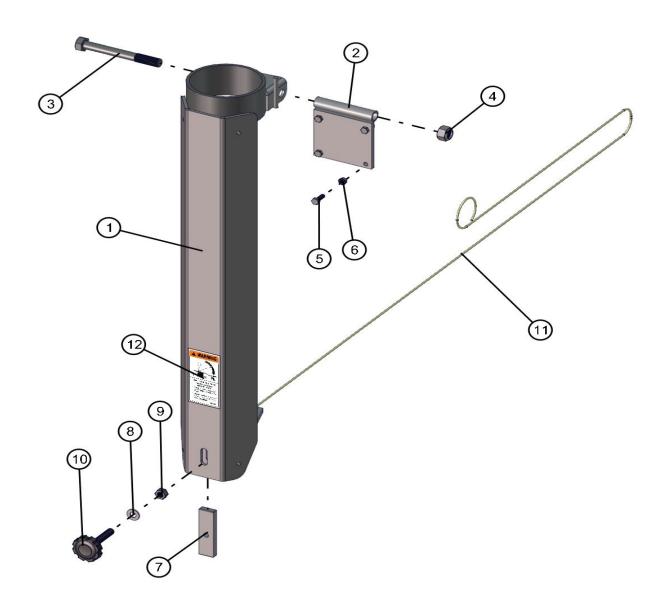
3/16 X 10'

REMOVE ALL BROKEN AND FRAYED CABLE.

FEED NEW CABLE THROUGH EYELET IN MAST PIVOT SECTION.

FEED THROUGH PULLEY BRACKETS AND AROUND PULLEY IN FRONT UPRIGHTS.

ATTACH CABLE TO WINCH AND WIND IN A CLOCKWISE DIRECTION UNTILL ALL SLACK IS OUT.



NO	QTY	PARTNO	DESCRIPTION
1	1	109746P	MANUAL MAST PIVOT
2	1	680111P	TOWER PIVOT
3	1	046286	3/4-10 X 6 1/2 HEX HEAD CS GR 5
4	1	044058	3/4-10 NYLOCK PLATED HEX NUT
5	4	046050	5/16-18 X 1 HEX HEAD CS GR5 PL
6	4	044031	5/16 -18 KEPS HEX NUT
7	1	650145	LOCKING BAR
8	1	047025	1/2 FW PL
9	1	044048	1/2-13 NYLOCK HEX NUT PL
10	1	620550	1/2-13 X 2 1/8 LOCKING KNOB
11	1	320185	WINCH CABLE
12	1	090164	DEATH OR INJURY DECAL

MANUAL LAYDOWN TOWER WINCH ONLY

NS	REQ'D	PART NO	DESCRIPTION
	3	620084	WIRE ROPE CLIP 3/16"
	1	045040	WIRE ROPE THIMBLE 1/4"
	1	620076	STEEL CABLE 3/16 X 11'
	1	650133	STEEL CABLE 3/16 X 17'9"
	1	320185	STEEL CABLE 3/16 X 10'

3/16 X 11'

REMOVE THE CUSHION CLAMPS AND MAST WIRING FROM 3" MAST SECTION.

REMOVE THE WIRE ROPE CLIPS AT TOP END OF THE 4" MAST SECTION.

REMOVE THE 3" PULLEY AT THE END OF THE 3" MAST SECTION.

REMOVE THE 2 5/8" ROUND MAST SECTION.

REMOVE ALL THE BROKEN AND FRAYED CABLE.

REPLACE NEW CABLE THROUGH SLOT AND EYELET IN THE ROUND MAST SECTION.

REPLACE 2 5/8" ROUND MAST SECTION IN THE 3" MAST SECTION.

ROUTE CABLE THROUGH PULLEY AND BRACKETS AND INSTALL 3" PULLEY.

WITH ALL SECTIONS PUSHED TOGETHER TIGHT, INSERT CABLE THROUGH HALF-LINK AND INSTALL WIRE ROPE CLIPS.

REINSTALL CUSHION CLAMPS AND MAST WIRING ON THE 3" MAST SECTION.

3/16 X 17' 9"

REMOVE MAST WIRING FROM BALLAST COMPARTMENT. (SEE ELECTRICAL SCHEMATIC)

REMOVE THE CUSHION CLAMPS AND MAST WIRING FROM 4" MAST SECTION.

REMOVE STOP BOLT AND WASHER.

REMOVE 4 TOWER PADS AND 3" PULLEY AT THE END OF THE 4" MAST SECTION.

REMOVE THE 2 5/8" ROUND AND THE 3" MAST SECTIONS TOGETHER.

REMOVE ALL THE BROKEN AND FRAYED CABLE.

REPLACE NEW CABLE THROUGH SLOT AND EYELET IN THE 3" MAST SECTION AND THROUGH PULLEY BRACKETS.

REPLACE 2 5/8" ROUND AND 3" MAST SECTIONS.

REPLACE 3" PULLEY AND TOWER PADS.

ATTACH CABLE TO WINCH AND WIND IN A CLOCKWISE DIRECTION UNTILL ALL SLACK IS OUT.

REPLACE STOP BOLT AND WASHER.

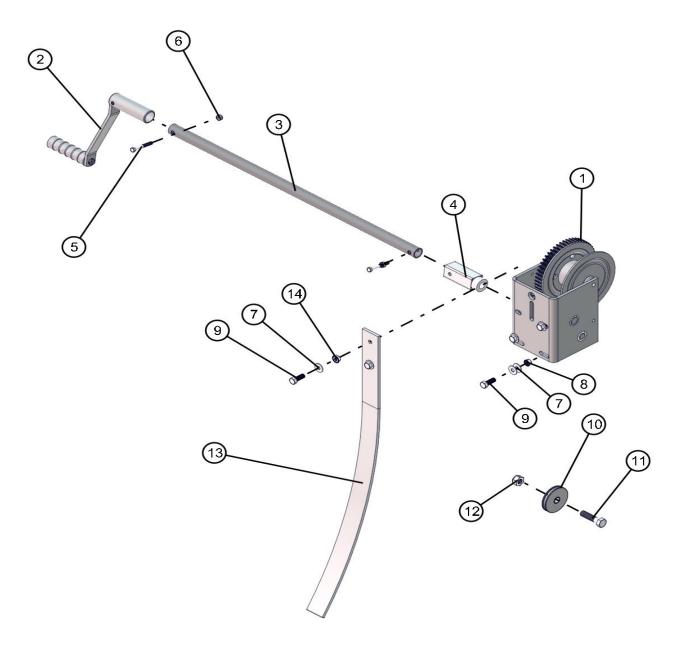
REPLACE CUSHION CLAMPS AND MAST WIRING ON 4" MAST SECTION.

REPLACE MAST WIRING IN BALLAST COMPARTMENT. (SEE ELECTRICAL SECHEMATIC)

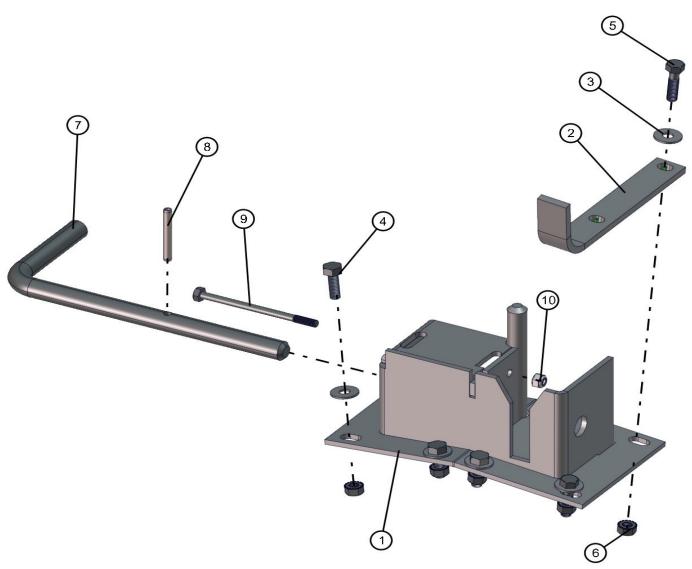
3/16 X 10'

REMOVE ALL BROKEN AND FRAYED CABLE.

FEED NEW CABLE THROUGH EYELET IN MAST PIVOT SECTION.

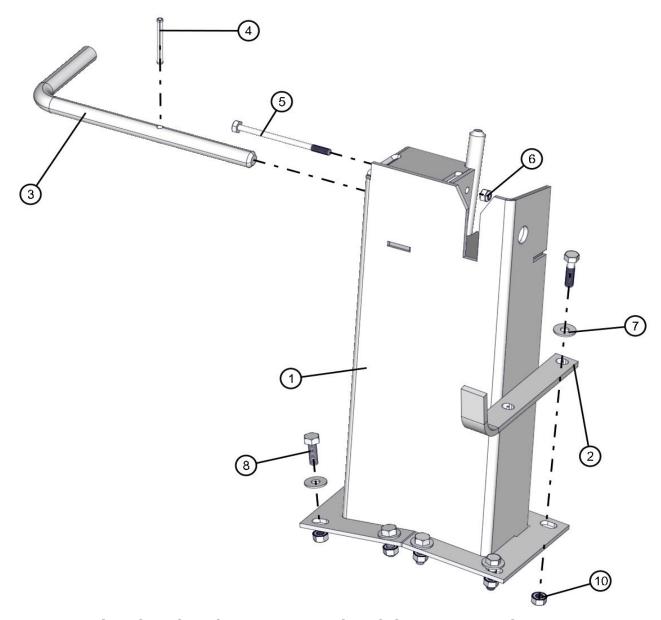


NO	QTY	PARTNO	DESCRIPTION
1	1	352482	WINCH 2500 DLB
2	1	650470	HANDLE
3	1	680474-15	HANDLE EXTENSION
4	1	660144P	DRIVE HUB
5	2	046035	1/4-20 X 2 HEX HEAD CS GR5 PL
6	2	044023	1/4-20 NYLOCK NUT
7	8	047010	5/16 FLAT WASHER
8	3	044031	5/16 -18 KEPS NUT
9	5	046110	3/8-16 X 1 HEX HEAD CS GR5 PL
10	1	320112	2-1/2" STEEL SHEAVE
11	1	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 PL
12	1	044048	1/2-13 NYLOCK HEX NUT PL
13	1	630555P	KICK OUT SPRING
14	2	044036	3/8-16 KEPS HEX NUT



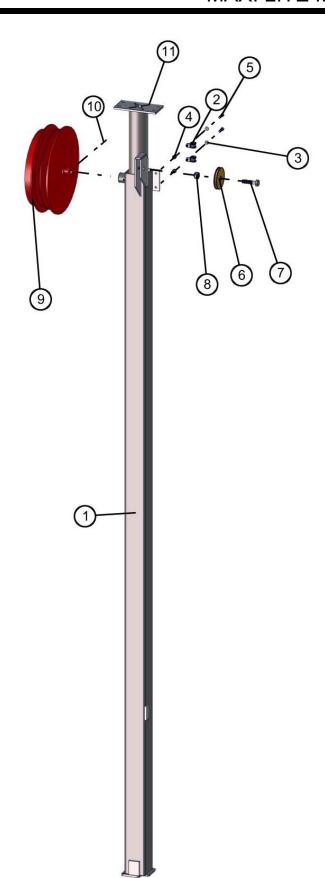
USED ONLY WITH ELECTRIC OR MANUAL LAYDOWN TOWER

NO	QTY	PARTNO	DESCRIPTION	
1	1	680110P	REAR TOWER SUPPORT	
2	1	680105P	CORD HOLDER	
3	6	047010	5/16 FLAT WASHER PL	
4	4	046050	5/16-18 X 1 HEX HEAD CS GR5 PL	
5	2	046055	5/16-18 X 1 1/4 HEX HEAD CS GR5 PL	
6	6	044031	5/16 -18 KEPS HEX NUT PL	
7	1	330450	LOCKING PIN	
8	1	045156	1/4 X 2 SPRING ROLL PIN	
9	1	046039	1/4-20 X 4 HEX HEAD CS Z5	
10	1	044023	044023 1/4-20 NYLOCK HEX NUT PL	

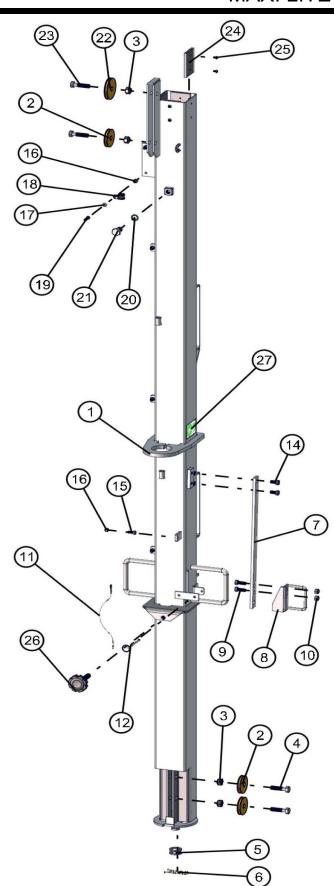


OPTION USED ONLY WITH ELECTRIC OR MANUAL TOWER

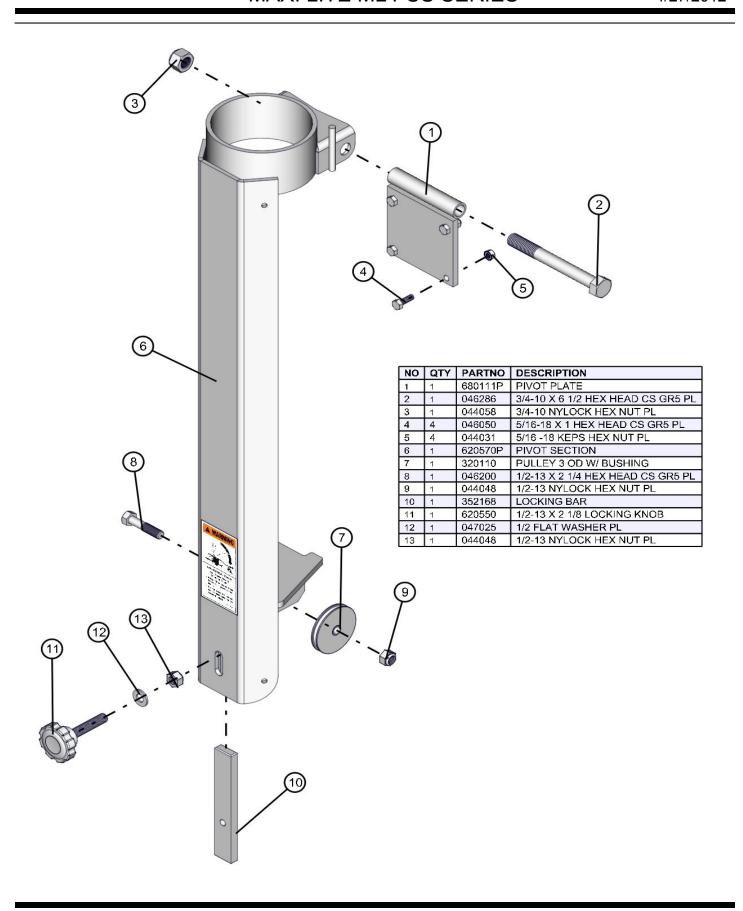
NO	QTY	PARTNO	DESCRIPTION
1	1	680540P	EXTENDED TOWER
2	1	680105P	CORD HOLDER
3	1	330450	LOCKING PIN
4	1	045156	1/4 X 2 SPRING ROLL PIN
5	1	046039	1/4-20 X 4 HEX HEAD CS Z5
6	1	044023	1/4-20 NYLOCK HEX NUT PL
7	6	047010	5/16 FLAT WASHER PL
8	4	046050	5/16-18 X 1 HEX HEAD CS GR5 PL
10	6	044031	5/16 -18 KEPS HEX NUT PL



NO	QTY	PARTNO	DESCRIPTION
1	1	680185P	3" SQ TOWER SECTION
2	2	022022	#8 CUSH CLAMP 1/4 HOLE
3	2	047009	1/4 FLAT WASHER SAE SS
4	2	044023	1/4-20 NYLOCK HEX NUT
5	2	046015	1/4-20 X 1 HEX HEAD CS GR5
6	1	320110	PULLEY 3 OD W/BUSHING
7	1	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 PL
8	1	044048	1/2-13 NYLOCK HEX NUT PL
9	1	320410P	CORD REEL (OPTIONAL)
10	1	320453	3/16 X 1 3/4 ROLL PIN (OPTIONAL)
11	1	352050P 2 5/8" TOWER SECTION ROUND	



NO	QTY	PARTNO	DESCRIPTION	
1	1	680184P	4" ELECTRIC TOWER	
2	3	320112	2-1/2" STEEL SHEAVE	
3	4	044048	1/2-13 NYLOCK HEX NUT PL	
4	2	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 PL	
5	2	047055	1" NARROW RIM BUSHING	
6	1	620545	3/4" HAIR PIN CLIP PL	
7	1	620579P	1 X 1/4 X 19" LEAF SPRING	
8	1	620577P	SPRING LATCH	
9	2	046110	3/8-16 X 1 HEX HEAD CS GR5 PL	
10	2	044080	3/8-16 NYLOCK HEX NUT	
11	1	712061	LANYARD, STEEL	
12	1	046438	1/4" x 3" QUICK RELEASE PIN	
14	2	046105	3/8 - 16 x 3/4" HEX HEAD CS GR 5	
15	1	046010	1/4-20 X 3/4" HEX HEAD CS	
16	7	044023	1/4-20 NYLOCK HEX NUT	
17	6	047009	1/4 FLAT WASHER SAE SS	
18	6	022022	#8 CUSH CLAMP 1/4 HOLE	
19	6	046015	1/4-20 X 1 HEX HEAD CS GR5	
20	1	043100	5/8 INT TOOTH LOCK WASHER	
21	1	046242	5/8-11 X 1" HEX HEAD CS GR 5	
22	1	320110	PULLEY 3 OD W/BUSHING	
23	2	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 PL	
24	4	650110	TOWER PAD .312	
25	8	041023	#10 X 3/8 PH-ROUND HEAD MS	
26	1	620550	1/2-13 X 2 1/8" LOCKING KNOB	
27	2	090136	LIFT POINT DECAL	



INSTUCTIONS FOR REPLACING STEEL CABLES MAXI LITE ML FCS SERIES

4/27/2012

ELECTRIC LAYDOWN TOWER WINCH ONLY

NS	REQ'D	PART NO	DESCRIPTION
	3	620084	WIRE ROPE CLIP 3/16"
	1	045040	WIRE ROPE THIMBLE 1/4"
	1	620076	STEEL CABLE 3/16 X 10'
	1	650133	STEEL CABLE 7/32 X 26'

3/16 X 10'

REMOVE THE CUSHION CLAMPS AND MAST WIRING FROM 3" MAST SECTION.

REMOVE LIGHT BAR BY REMOVING 4 NUTS ON AND LAY BAR ON GROUND.

REMOVE THE WIRE ROPE CLIPS AT TOP END OF THE 4" MAST SECTION.

REMOVE THE 3" PULLEY AT THE END OF THE 3" MAST SECTION.

REMOVE THE 2 5/8" ROUND SECTION.

REMOVE ALL BROKEN AND FRAYED CABLE.

REPLACCE NEW CABLE THROUGH SLOT AND EYELET IN THE ROUND MAST SECTION.

REPLACE 2 5/8" ROUND MAST SECTION IN THE 3" MAST SECTION.

ROUTE CABLE THROUGH PULLEY BRACKETS AND INSTALL 3" PULLEY.

WITH ALL SECTIONS PUSHED TOGETHER TIGHT, INSERT CABLE THROUGH HALF-LINK AND REINSTALL WIRE ROPE CLIPS.

REINSTALL CUSHION CLAMPS AND MAST WIRING ON THE 3" MAST SECTION.

7/32 X 26'

REMOVE CABLE FROM WINCH.

REMOVE MAST WIRING FROM BALLAST COMPARTMENT. (SEE ELECTRICAL SCHEMATIC)

REMOVE TOWER ASSEMBLY FROM TRAILER.

REMOVE STOP BOLT AND WASHER.

REMOVE 4 NYLON ROLLERS AND 3" PULLEY AT TOP END OF 3" SQUARE SECTION.

REMOVE THE 2 5/8" ROUND AND 3" MAST SECTIONS TOGETHER.

REMOVE 2 1/2" PULLEY FROM END OF 4" MAST SECTION.

REMOVE ALL BROKEN AND FRAYED CABLE.

REPLACE NEW CABLE THROUGH SLOT AND EYELET IN THE 3" MAST SECTION AND TRHOUGH PULLEY BRACKETS.

REPLACE 2 5/8" ROUND AND 3" MAST SECTIONS.

REPLACE STOP BOLT AND WASHER.

RUN NEW CABLE ON OUTSIDE OF 4" MAST SECTION.

REPLACE 2 1/2" PULLEY.

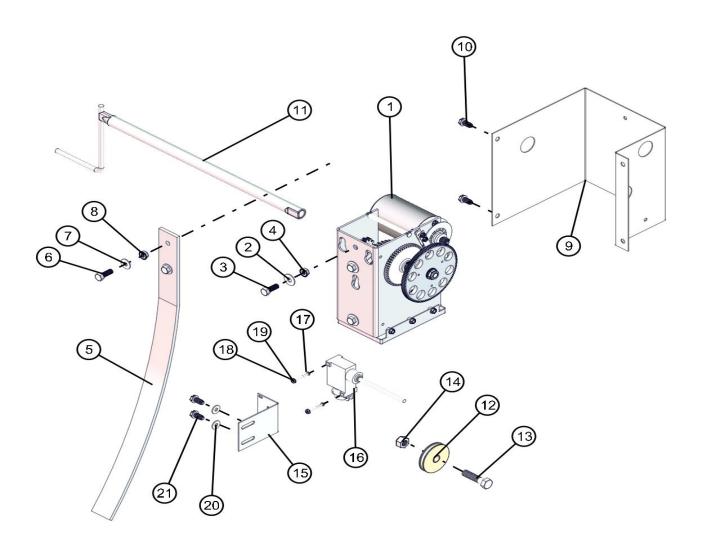
REPLACE TOWER ASSEMBLY ON TRAILER.

REPLACE MAST WIRING IN BALLAST COMPARTMENT. (SEE ELECTRICAL SCHEMATIC)

RUN NEW CABLE TROUGH PULLEY BRACKETS IN FRONT OF TRAILER.

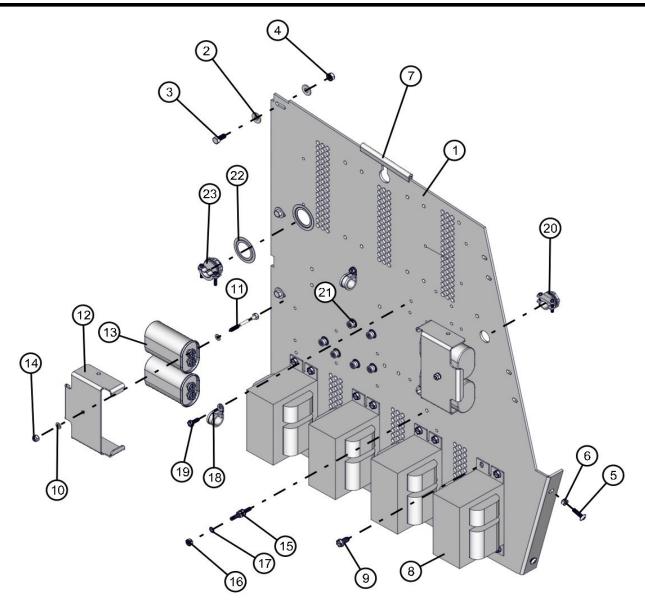
ATTACH CABLE TO WINCH.

WIND IN A CLOCKWISE DIRECTION UNTILL ALL SLACK IS OUT.



NO	QTY	PARTNO	DESCRIPTION
1	1	630157	WINCH ELECTRIC
2	3	047015	1/4 FLAT WASHER
3	3	046110	3/8-16 X 1 HEX HEAD CS GR5 PL
4	3	044036	3/8-16 KEPS HEX NUT
5	1	352089P	SPRING KICKOUT SHORT
6	2	046110	3/8-16 X 1 HEX HEAD CS GR5 PL
7	2	047010	5/16 FLAT WASHER
8	2	044036	3/8-16 KEPS HEX NUT
9	1	680142P	COVER
10	2	041075	5/16-18 X 3/4 SL- HEX WASHER HEAD SELF TAP MS
11	1	352478	EMERGENCY WINCH HANDLE

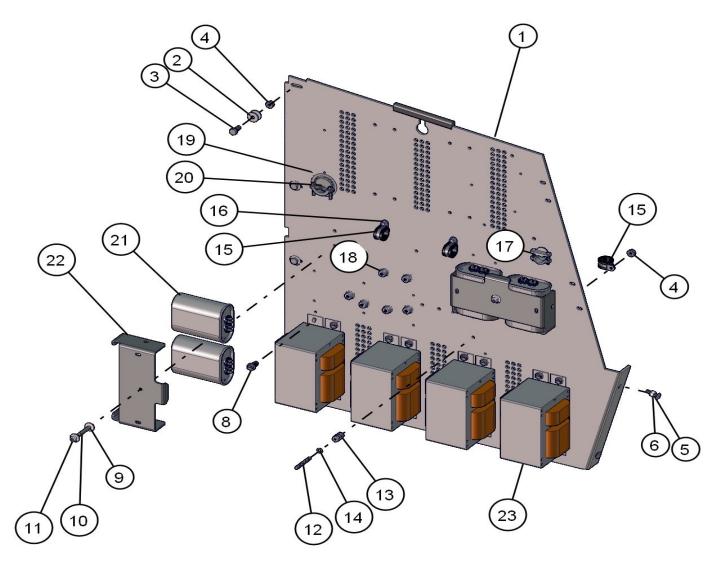
NO	QTY	PARTNO	DESCRIPTION
12	1	320112	2-1/2" STEEL SHEAVE
13	1	046200	1/2-13 X 2 1/4 HEX HEAD CS GR5 PL
14	1	044048	1/2-13 NYLOCK HEX NUT PL
15	1	352056P	BRACKET
16	1	466093	SWITCH SLACK CABLE
17	2	041007	6-32 X 1-1/2 PH-PAN HEAD MS
18	2	047047	#8 FLAT WASHER SS
19	2	044004	#6-32 KEPS HEX NUT
20	2	047009	1/4 FLAT WASHER
21	2	041075	5/16-18 X 3/4 SL-HEX WASHER HEAD SELF TAP MS



NOTE: #24, #25 ARE FOR AS3000 SPECS. #21 TOP TWO ARE FOR 70GAL FUEL TANK BOTTOM FOUR ARE FOR 50GAL FUEL TANK.

NO	QTY	PARTNO	DESCRIPTION
1	1	109663P	BALLAST PANEL
2	8	047010	5/16 FLAT WASHER PL
3	4	046045	5/16-18 X 3/4 HEX HEAD CS GR5 PL
4	9	044031	5/16 -18 KEPS HEX NUT PL
5	2	041080	1/4-20 X 1 PH-TRUSS HEAD MS SS
6	2	044023	1/4-20 NYLOCK HEX NUT PL
7	1	030057	TRIM LOCK 5"
8	4	310124	TRANSFORMER 60 HZ
9	16	041075	5/16-18 X 3/4 SL-HEX WASHER HEAD TP F
10	4	047009	1/4 FLAT WASHER SAE SS
11	2	046036	1/4-20 X 2 1/2 HEX HEAD CS GR5 PL
12	2	680608P	CAPACITOR CLAMP

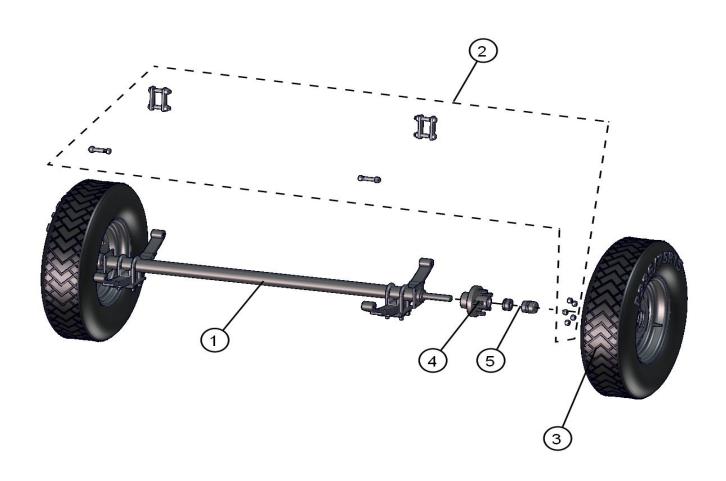
NO	QTY	PARTNO	DESCRIPTION
13	4	310115	CAPACITOR 24 uF(MH 1000W)
14	2	044023	1/4-20 NYLOCK HEX NUT PL
15	1	045004	1/4-20 X 2 STUD PL
16	3	044021	1/4-20 KEPS HEX NUT PL
17	1	043050	1/4 INTL TOOTH LOCK WASHER
18	7	022024	#12 CUSHION CLAMP
19	2	041070	1/4-20 x 3/4 SL-HEX WASHER HEAD MS TP F
20	1	022025	3/4 2-SCREW ROMEX CLAMP
21	6	045131	3/8-16 RIVNUT
22	2	022350	1 1/4 TO 1" REDUCING WASHER
23	1	022028	1" ROMEX CABLE CLAMP 2 SCREW



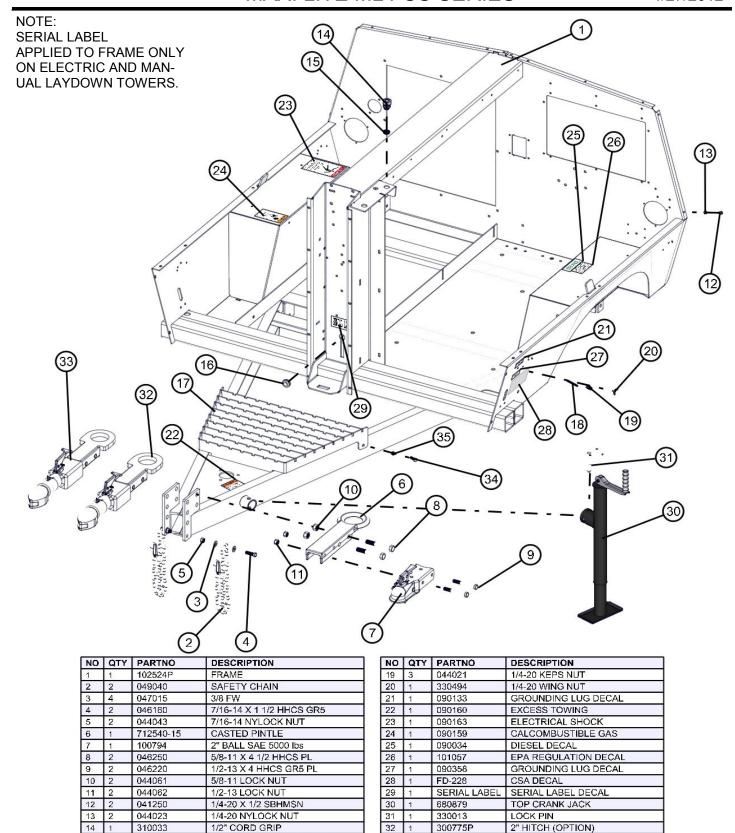
NOTE: #18 TOP 2 ARE FOR 70 GAL. FUEL TANK BOTTOM 4 ARE FOR 50 GAL. FUEL TANK

NO	QTY	PARTNO	DESCRIPTION
1	1	109663P	BALLAST PANEL
2	8	047010	5/16 FLAT WASHER
3	4	046045	5/16-18 X 3/4 HHCS GR5 PLATED
4	9	044031	5/16 -18 KEPS NUT
5	2	041080	1/4 - 20 X 1 THCS
6	2	044023	1/4-20 NYLOCK NUT
8	16	041075	5/16-18 X 3/4 SELF TAP SL-HHMS
9	4	047009	1/4 FLAT WASHER
10	2	046036	1/4 - 20 X 2 1/2 HHCS
11	2	044023	1/4-20 NYLOCK NUT
12	1	045004	1/4-20 X 2" STUD
13	3	044021	1/4-20 KEPS NUT

NO	QTY	PARTNO	DESCRIPTION
14	1	043050	1/4 INT TOOTH WASHER
15	7	022024	#12 CUSH CLAMP 1/4 HOLE
16	2	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
17	1	022025	3/4 2-SCREW ROMEX CLAMP
18	6	045131	3/8-16 RIVNUT
19	2	022350	1 1/4 X 1 WASHER REDUCER
20	1	022028	1" ROMEX CABLE CLAMP W/2 SC
21	4	100329	CAPACITOR 28 uF (HD 1250W)
22	2	100392P	TABBED CAPACITOR CLAMP
23	4	109606	BALLAST 1250W DUAL TAP 60Hz 120/240



NO	QTY	PARTNO	DESCRIPTION
1	1	352021	AXLE
2	1	102106	AXLE MOUNTING HARDWARE incl. LUG NUTS
3	2	680124-13	ASSY, WHEEL & TIRE, 15"
4	2	330007	HUB W/ RACES
5	2	330005	BEARING SET



33

34 4

35 4

680489P

046050

044030

2 5/16" HITCH (OPTION)

5/16-18 HEX NUT

BOLT CS 5/16-18 X 1 HEX GR5 PL

15

16

17

022415

330463

101847P

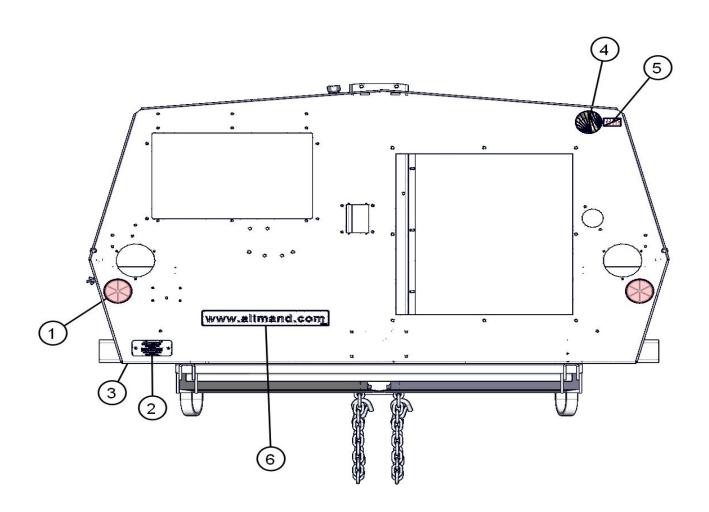
045004

BUSHING THREADED

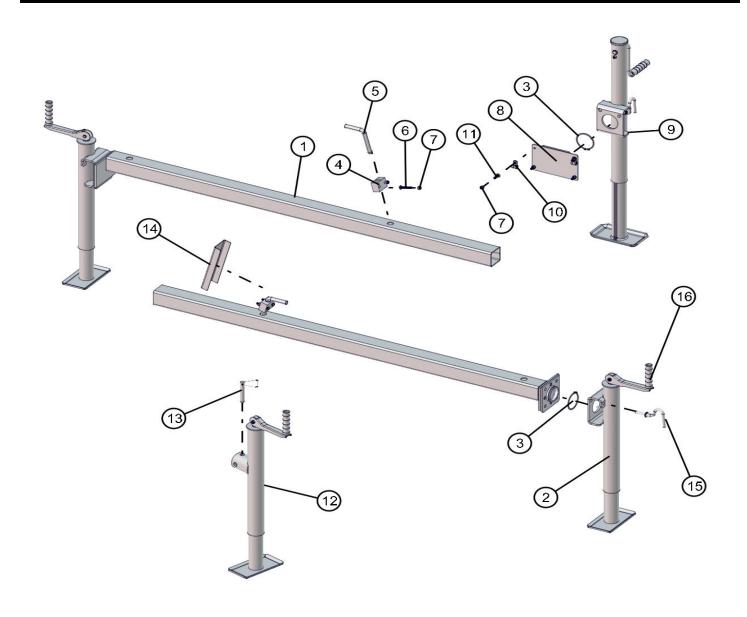
PLATFORM STEP

1/4-20 X 2" STUD

11/16 RUBBER GROMMET

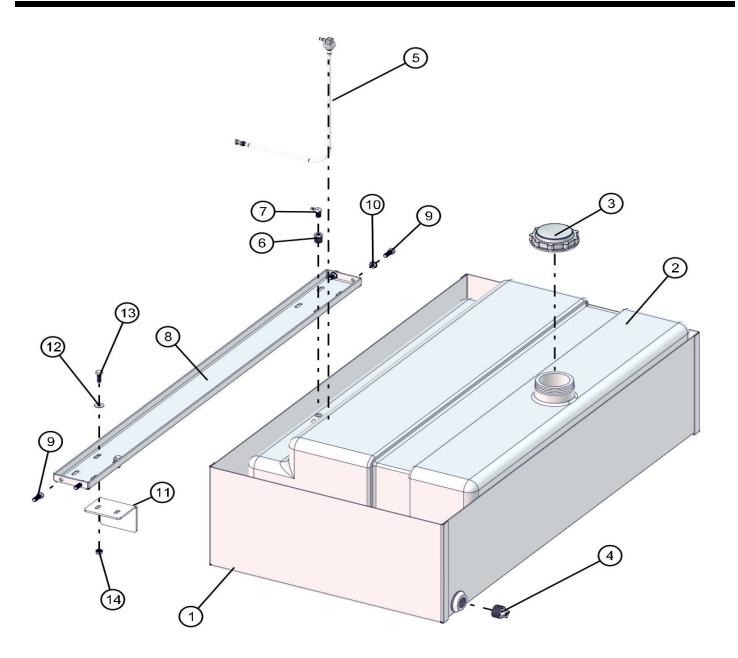


NO	QTY	PARTNO	DESCRIPTION
1	2	330037	REFLECTOR RED 3"
2	1	352395	ALLMAND SERIAL PLATE
3	2	0450110	3/16 RIVET
4	1	102088	3 GENERATIONS DECAL
5	1	090385	MADE IN USA DECAL
6	1	100919	WWW. ALLMAND.COM DECAL

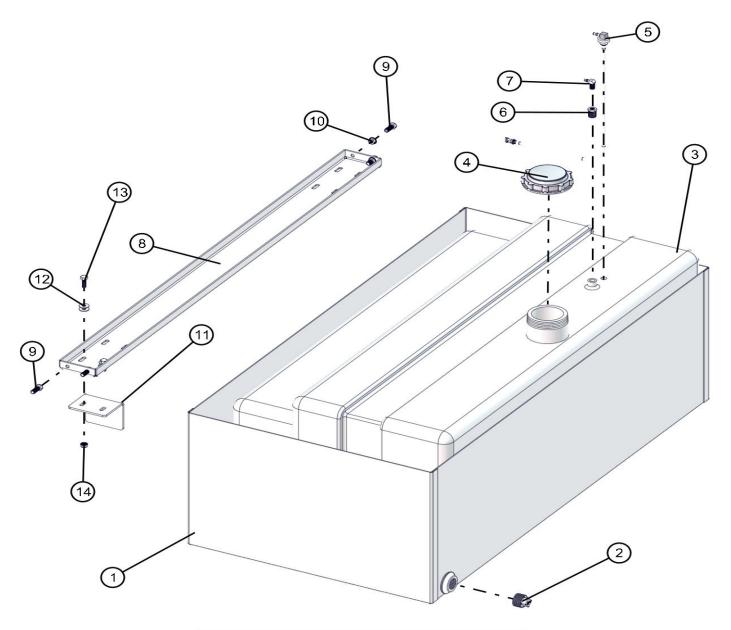


NO	QTY	PARTNO	DESCRIPTION
1	2	680113-15	OUTRIGGER
2	2	330010	LONG JACK
3	3	330014	2 5/6 XT JACK SNAP RING
4	2	330430	GUIDE BLOCK
5	2	330455	OUTRIGGER PIN
6	4	041053	1/4-20 x 1 3/4 PH TRUSS SCREW
7	8	044023	1/4-20 NYLOCK NUT
8	1	680112P	JACK MOUNT
9	1	352072	JACK SIDE CRANK SNAP RING

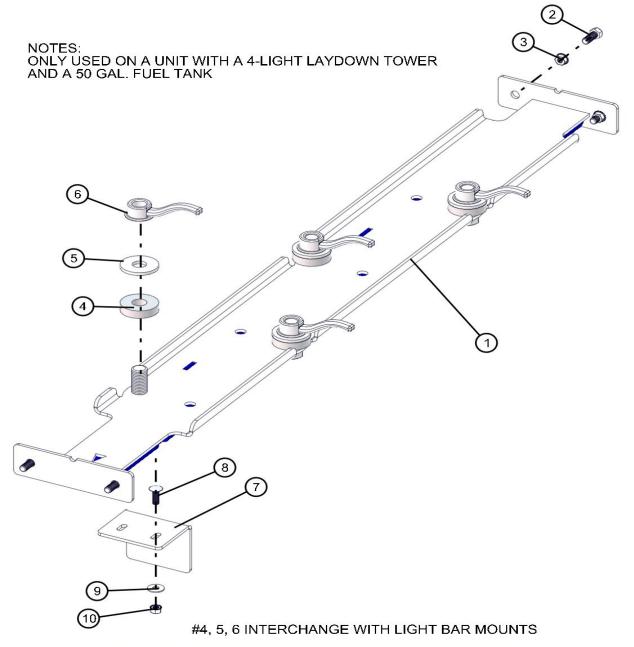
NO	QTY	PARTNO	DESCRIPTION
10	2	022015	#4 CUSHION CLAMP
11	4	041080	1/4 - 20 X 1 THCS
12	1	680879	TOP CRANK JACK, TUBE MOUNT
13	1	330013	LOCK PIN, TUBE MOUNT
14	1	109666P	SHIELD, SPLASH
15	1	330012A	LOCK HANDLE REPLACEMENT KIT
16	1	330012	REPLACEMENT JACK HANDLE KIT



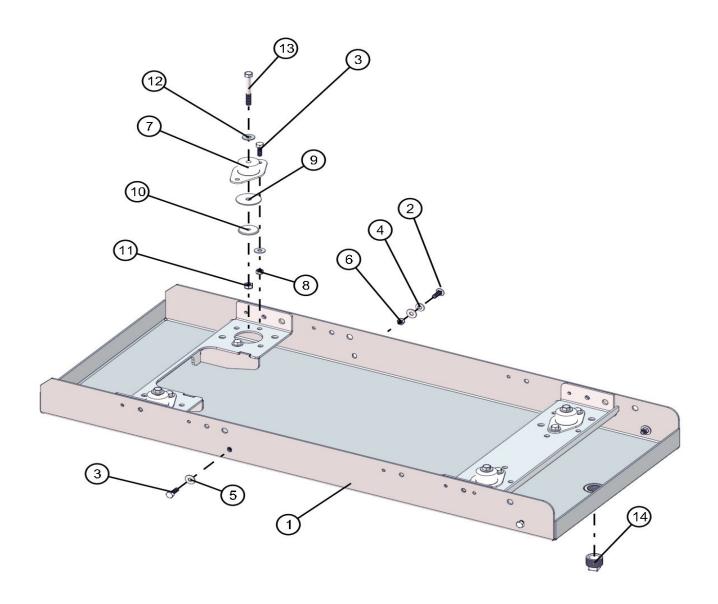
NO	QTY	PARTNO	DESCRIPTION
1	1	109739P	WLDMNT 50-GAL FUEL
2	1	340440	50 GAL FUEL TANK
3	1	340441	FUEL CAP
4	1	026108	1" NPT SQ HD PLUG
5	1	340025	FUEL SUCTION TUBE ASSEMBLY
6	1	100358	REDUCER 3/8 NPT X 1/8 NPT
7	1	930151	90 DEG HOSE BARB
8	1	109722P	HOLD DOWN
9	4	046110	3/8-16 X 1 HHCS GR5 PL
10	2	044036	3/8-16 KEPS HEX NUT
11	1	109748P	STOP, MOVEABLE
12	4	047010	5/16 FLAT WASHER
13	2	046050	BOLT CS 5/16-18 X 1 HEX GR5 PL
14	2	044031	5/16 -18 KEPS NUT



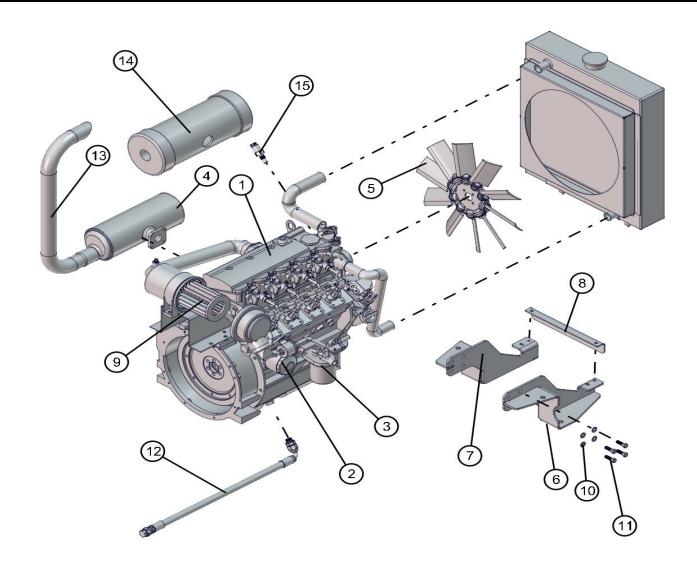
NO	QTY	PARTNO	DESCRIPTION
1	1	109674P	FUEL CONTAINMENT TRAY
2	1	026108	1" NPT SQ HD PLUG
3	1	101143	PLASTIC FUEL TANK
4	1	340441	FUEL CAP
5	1	340025	FUEL SUCTION TUBE ASSEMBLY
6	1	100358	REDUCER 3/8 NPT X 1/8 NPT
7	1	930151	90 DEG HOSE BARB
8	1	109722P	HOLD DOWN
9	4	046110	3/8-16 X 1 HHCS GR5 PL
10	2	044036	3/8-16 KEPS HEX NUT
11	1	109748P	STOP, MOVEABLE
12	4	047010	5/16 FLAT WASHER
13	2	046050	BOLT CS 5/16-18 X 1 HEX GR5 PL
14	2	044031	5/16 -18 KEPS NUT



NO	QTY	DESCRIPTION PART		
1	1	INSIDE LIGHT STORAGE BAR	109751P	
2	4	3/8-16 X 1 HEX HEAD CS GR5 PL	046110	
3	2	3/8-16 KEPS HEX NUT PL	044036	
4	4	.781 ID x 2 OD x 1/2 HDPE WASHER	101813	
5	4	3/4 FLAT WASHER PL	047035	
6	4	SHO HANDLE NUT	630728	
7	1	MOVEABLE STOP	109748P	
8	2	5/16-18 X 1 CARRIAGE BOLT PL	053020	
9	2	5/16 FLAT WASHER PL	047010	
10	2	5/16 -18 KEPS HEX NUT PL	044031	

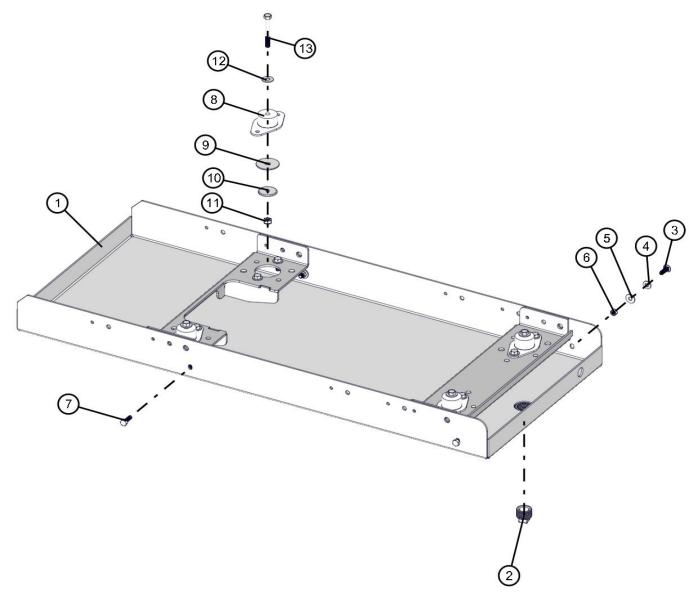


NO	QTY	PARTNO	DESCRIPTION
1	1	109675P	TRAY
2	2	053020	5/16-18 X 1" CARR BOLT
3	10	046050	BOLT CS 5/16-18 X 1 HEX GR5 PL
4	4	100644	RUBBER WASHER
5	12	047010	5/16 FLAT WASHER
6	4	044031	5/16-18 KEPS NUT
7	4	848997	VIBRATION ISOLATOR MOUNT
8	8	044031	5/16-18 KEPS NUT
9	4	640565	ENGINE MOUNT WASHER
10	4	650260	SNUBBING WASHER
11	4	044038	3/8-16 NYLOCK HNUT
12	4	047015	1/4 FLAT WASHER
13	4	046137	3/8-16 X 3 HEX BOLT GR 5
14	1	026108	1" NPT SQ HD PLUG

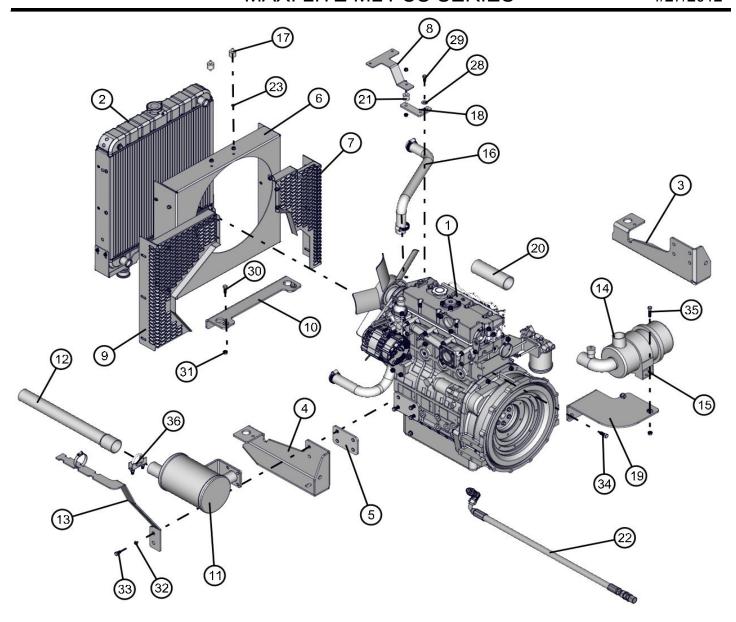


NO	QTY	PARTNO	DESCRIPTION
1	1	109697	ISUZU ENGINE 4LE
2	1	650221	OIL FILTER
3	1	650220	FUEL FILTER
4	1	680427	ISUZU MUFFLER
5	1	109696	BREEZA FAN ASSEMBLY
6	1	109733P	RT ENGINE FOOT
7	1	109730P	LT ENGINE FOOT
8	1	109738P	RADIATOR CROSSMEMBER
9	1	650290	AIR FILTER ELEMENT
10	8	047016	3/8 SAE FLAT WASHER
11	8	042038	10mm X 1.25 x20mm GR 8.8 HEX BOLT
12	1	680857	REMOTE OIL DRAIN
13	1	680298	TAIL PIPE
14	1	101365	INSULATED MUFFLER BLANKET
15	1	680334	TEMP SWITCH 230R NASON ISUZU

NS: 100683 EXTENDED DIPSTICK

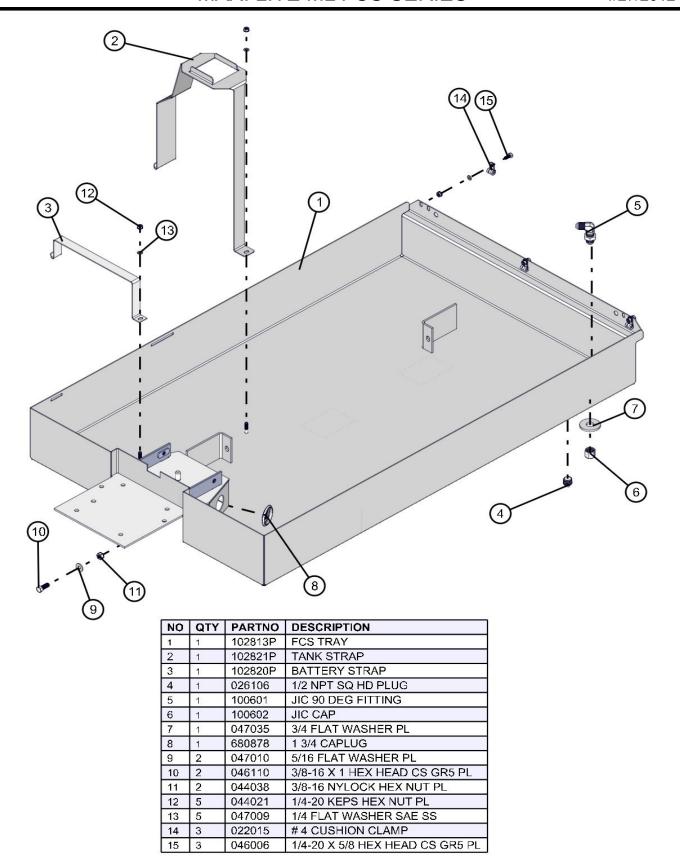


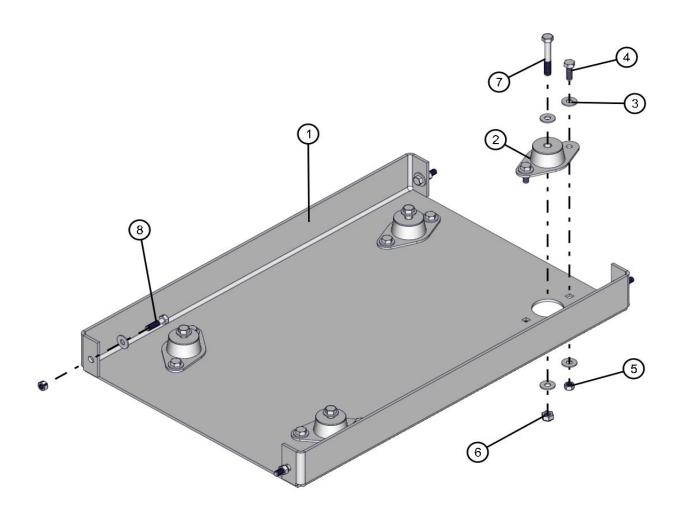
NO	QTY	PARTNO	DESCRIPTION
1	1	102503P	GENSET TRAY
2	1	026108	1" NPT SQ HD PLUG
3	2	053020	5/16-18 X 1 CARRIAGE BOLT PL
4	4	100644	RUBBER WASHER
5	12	047010	5/16 FLAT WASHER PL
6	12	044030	5/16-18 HEX NUT PL
7	10	046050	5/16-18 X 1 HEX HEAD CS GR5 PL
8	4	848997	VIBRATION ISOLATOR MOUNT
9	4	640565	ENGINE MOUNT WASHER
10	4	650260	SNUBBING WASHER
11	4	044038	3/8-16 NYLOCK HEX NUT PL
12	4	047015	3/8 FLAT WASHER PL
13	4	046137	3/8-16 X 3 HEX HEAD CS GR5 PL



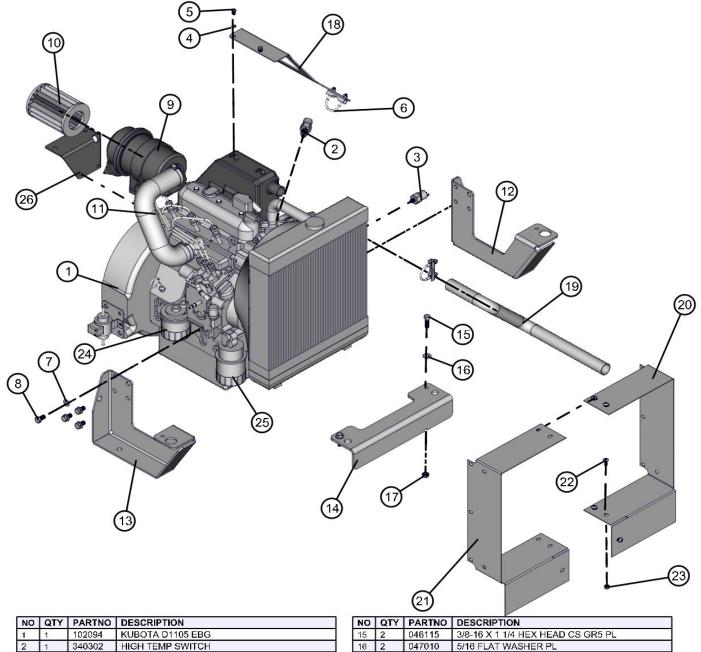
NO	QTY	PARTNO	DESCRIPTION
1	1	102530	CAT ENGINE C2.2NA
2	1	102539	RADIATOR RCP 79000598
3	1	102511P	ENGINE FOOT RT
4	1	102510P	ENGINE FOOT LT
5	4	102514P	SPACER PLATE
6	1	102982P	FAN SHROUD
7	1	102892P	LEFT FAN GUARD
8	1	102518P	RAD TOP SUPPORT
9	1	102889P	RT FAN GUARD
10	1	109695P	RADIATOR CROSS MEMBER
11	1	109770	MUFFLER
12	1	109771	TAIL PIPE
13	1	109808P	SUPPORT
14	1	921142	AIR CLEANER
15	1	921140	BAND MOUNT
16	1	109772	UPPER RADIATOR HOSE
17	2	330057	RUBBER BOX MOUNTS

NO	QTY	PARTNO	DESCRIPTION
18	1	102886P	BOTTOM BRACKET
19	1	109893P	AIR CLEANER BRACKET
20	1	101481	HOSE STR 2" X 3"
21	1	102390	RUBBER SHOCK MOUNT
22	1	103428	OIL DRAIN KIT
23	16	047009	1/4 FLAT WASHER SAE SS
28	1	047010	5/16 FLAT WASHER PL
29	2	046045	5/16-18 X 3/4 HEX HEAD CS GR5 PL
30	2	046050	5/16-18 X 1 HEX HEAD CS GR5 PL
31	4	044031	5/16 -18 KEPS HEX NUT PL
32	10	043055	5/16 SPLITLOCK WASHER
33	8	042027	M8 X 16mm X 1.25mm HEX HEAD CS GR10.9 PL
34	2	046110	3/8-16 X 1 HEX HEAD CS GR5 PL
35	2	046060	5/16-18 X 1 1/2 HEX HEAD CS GR5 PL
36	1	340111	1-1/2 MUFFLER CLAMP





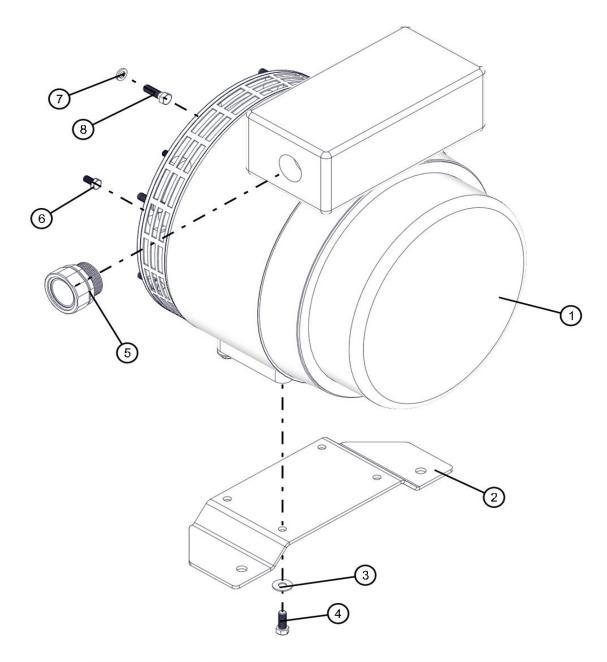
NO	QTY	PARTNO	DESCRIPTION
1	1	102822P	ENGINE PAN
2	4	650259	ENGINE MOUNT
3	28	047010	5/16 FLAT WASHER PL
4	8	046050	5/16-18 X 1 HEX HEAD CS GR5 PL
5	12	044030	5/16-18 HEX NUT PL
6	4	044038	3/8-16 NYLOCK HEX NUT PL
7	4	046134	3/8-16 X 2 1/2 HEX HEAD CS GR8 PL
8	4	046055	5/16-18 X 1 1/4 HEX HEAD CS GR5 PL



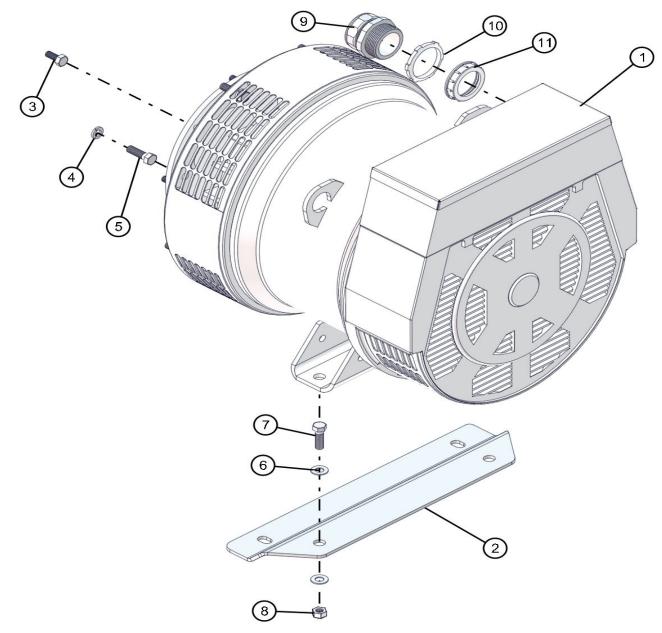
NO	QTY	PARTNO	DESCRIPTION
1	1	102094	KUBOTA D1105 EBG
2	1	340302	HIGH TEMP SWITCH
3	1	340301	OIL PRESSURE SWITCH
4	2	043050	1/4 INTL TOOTH LOCK WASHER
5	2	042018	M6 X 1.0mm X 10mm HEX HEAD CS GR8.8 PL
6	2	713086	1 3/8 MUFFLER CLAMP
7	8	047016	3/8 FLAT WASHER SAE PL
8	8	042038	M10 X 20mm X 1.25mm HEX HEAD CS GR8.8 PL
9	1	650262	AIR CLEANER
10	1	650290	AIR FILTER ELEMENT
11	1	101734	AIR CLEANER HOSE
12	1	109711P	LEFT FOOT
13	1	109710P	RIGHT FOOT
14	1	109709P	CROSSMEMBER

NO	QTY	PARTNO	DESCRIPTION
	7		
15	2	046115	3/8-16 X 1 1/4 HEX HEAD CS GR5 PL
16	2	047010	5/16 FLAT WASHER PL
17	2	044036	3/8-16 KEPS HEX NUT PL
18	1	103068P	TAILPIPE MOUNT
19	1	109800	TAIL PIPE
20	1	103055P	RIGHT SHROUD
21	1	103056P	LEFT \$HROUD
22	5	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
23	5	044021	1/4-20 KEPS HEX NUT PL
24	1	920745	FUEL FILTER
25	1	920743	OIL FILTER
26	1	103039P	MOUNT

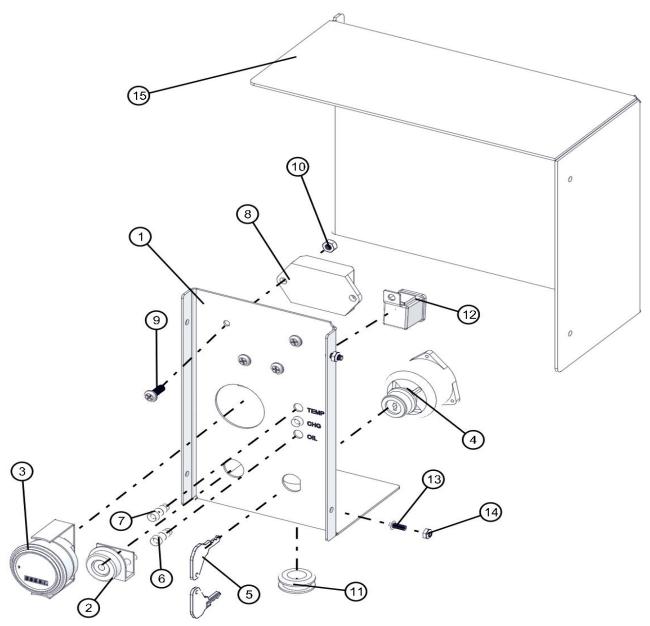
NS: 650027 KUBOTA RECOVERY TANK



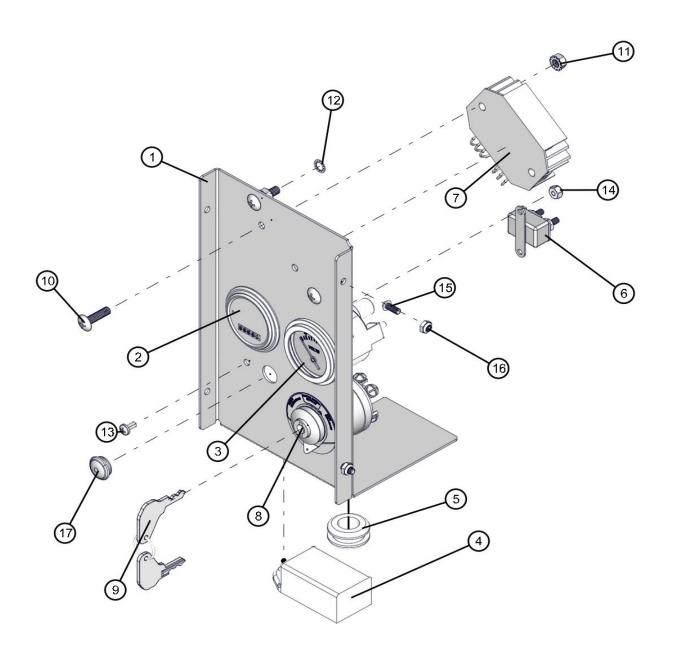
NO	QTY	PARTNO	DESCRIPTION
1	1	350356	15/20KW 1PH MARATHON GENERATOR
2	1	102509P	GENERATOR MOUNT
3	4	047015	3/8 FLAT WASHER PL
4	4	046110	3/8-16 X 1 HEX HEAD CS GR5 PL
5	1	101376	1 1/2 CORD GRIP 1.380-1.500
6	8	042027	M8 X 16mm X 1.25mm HEX HEAD CS GR10.9 PL
7	8	043065	3/8 SPLITLOCK WASHER PL
8	8	046115	3/8-16 X 1 1/4 HEX HEAD CS GR5 PL



NO	QTY	PARTNO	DESCRIPTION
1	1	102860	GENERATOR 20kW - CUMMINS
2	1	109700P	GENERATOR PLATE - CUMMINS
3	8	042027	8mm X 1.25 X 16mm GR 10.9 HEX BOLT
4	8	043065	3/8 SPLIT LOCK WASHER
5	8	046115	3/8-16 X 1 1/4 HHCS
6	4	047016	3/8 SAE FLAT WASHER
7	2	046115	3/8-16 X 1 1/4 HHCS
8	2	044038	3/8-16 NYLOCK HNUT
9	1	022231	1 3/8" CORD GRIP
10	1	022232	1 1/2" LOCK NUT
11	1	022233	1 1/2" PLASTIC NUT

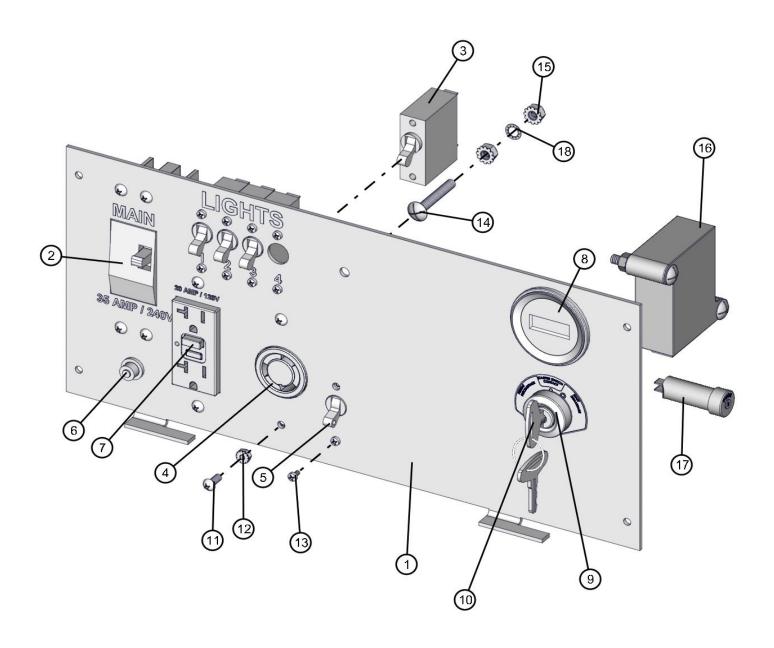


NO	QTY	PARTNO	DESCRIPTION
13	2	041021	#10-24 X 1/2 PH-ROUND HEAD MS PL
14	2	044018	#10-24 NYLOCK HEX NUT PL
10	4	044020	1/4-20 HEX NUT PL
15	1	100798P	REAR COVER
1	1	101372P	ISUZU CONTROL PANEL
11	1	330463	11/16 RUBBER GROMMET
3	1	340014	HOUR METER
12	2	650423	RELAY ASSEMBLY
8	1	921432	TIMER ASSEMBLY
2	1	921433	GLOW PLUG LAMP
7	1	921434	PILOT LAMP RED
6	2	921435	PILOT LAMP YELLOW
4	1	922004	IGNITION SWITCH
5	1	922005	ISUZU KEYS W/ TUMBLER
9	4	SUPPLIED BY ISUZU	1/4-20 X 3/4 CR-PAN HEAD MS PL



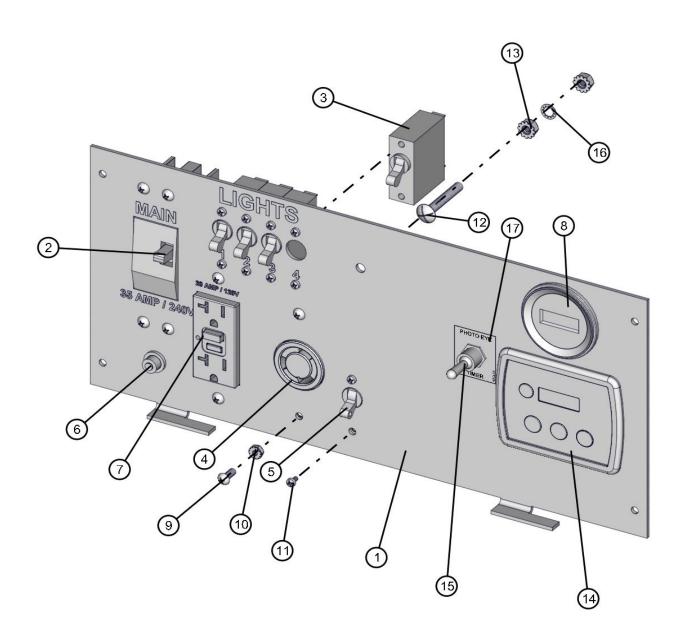
NO	QTY	PARTNO	DESCRIPTION
1	1	102904P	GAUGE PANEL
2	1	340014	HOUR METER
3	1	340413	VOLTMETER
4	1	650302	TIMER
5	1	330463	11/16 RUBBER GROMMET
6	1	650139	30A BREAKER
7	1	650446	VOLTAGE REGULATOR
8	1	650306	CAT IGNITION SWITCH W/ 2 KEYS
9	1	650307	CAT IGNITION KEY

NO	QTY	PARTNO	DESCRIPTION
10	4	041080	1/4-20 X 1 PH-TRUSS HEAD MS SS
11	5	044021	1/4-20 KEPS HEX NUT PL
12	1	043051	1/4 INTL TOOTH LOCK WASHER SS
13	1	041019	#10-32 X 3/8 PH-ROUND HEAD MS PL
14	1	044019	#10-32 NYLOC HEX NUT
15	2	041021	#10-24 X 1/2 PH-ROUND HEAD MS PL
16	2	044018	#10-24 NYLOCK HEX NUT PL
17	1	433329	5/8 PLASTIC PLUG



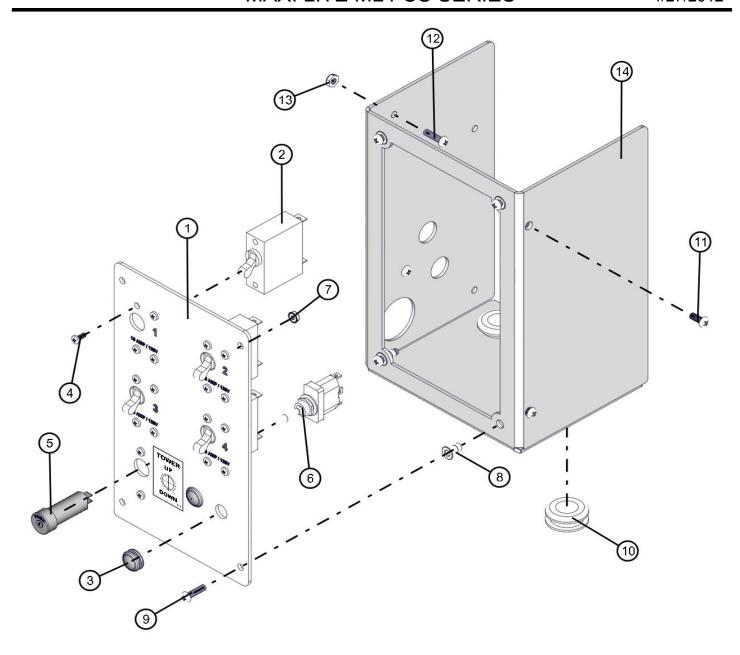
NO	QTY	PARTNO	DESCRIPTION
1	1	103038P	CAT C1.1 FACE
2	1	350354	35 AMP DOUBLE POLE BREAKER
3	4	330458	15A SPST BREAKER SWITCH
4	1	330491	30A 250V TWISTLOCK RECEPTACLE
5	1	330456	30A DPST CIRCUIT BREAKER
6	1	650138	CIRCUIT BREAKER 20A PUSH BUTTON
7	1	330499	20 A GFCI RECEPTACLE
8	1	340014	HOUR METER
9	1	920475	IGNITION SWITCH KUBOTA W/ KEYS
10	1	920474	IGNITION KEYS (2)

NO	QTY	PARTNO	DESCRIPTION
11	8	041013	#8-32 X 1/2 PH-ROUND HEAD MS PL
12	8	044003	#8-32 KEPS HEX NUT PL
13	10	041018	#6-32 X 1/4 PH-ROUND HEAD MS PL
14	3	041053	1/4-20 x 1 3/4 PH-TRUSS HEAD MS SS
15	4	044021	1/4-20 KEPS HEX NUT PL
16	1	102577	KUBOTA TIMER MODULE
17	1	352466	CIRCUIT BREAKER 2 AMP
18	1	043050	1/4 INTL TOOTH LOCK WASHER



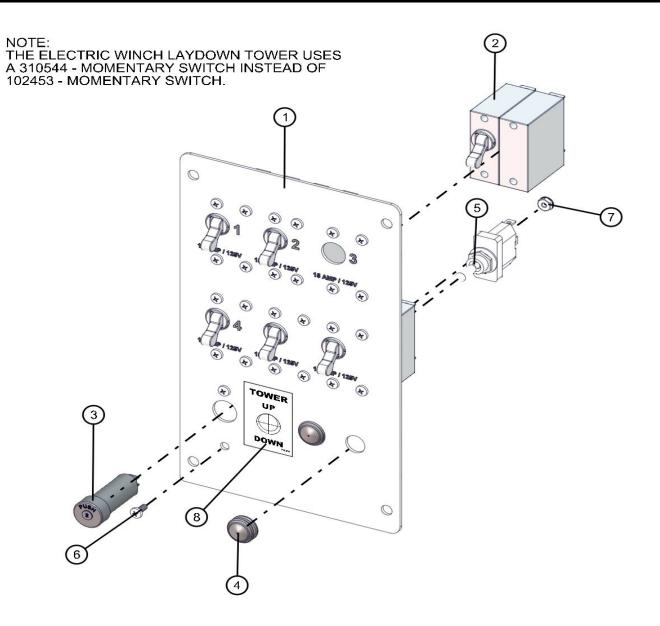
NO	QTY	PARTNO	DESCRIPTION
1	1	103079P	FACE PLATE
2	1	350354	35 AMP DOUBLE POLE BREAKER
3	4	330458	15A SPST BREAKER SWITCH
4	1	330491	30A 250V TWISTLOCK RECEPTACLE
5	1	330456	30A DPST CIRCUIT BREAKER
6	1	650138	CIRCUIT BREAKER 20A PUSH BUTTON
7	1	330499	20 A GFCI RECEPTACLE
8	1	340014	HOUR METER
9	8	041013	#8-32 X 1/2 PH-ROUND HEAD MS PL

NO	QTY	PARTNO	DESCRIPTION
10	8	044003	#8-32 KEPS HEX NUT PL
11	10	041018	#6-32 X 1/4 PH-ROUND HEAD MS PL
12	1	041053	1/4-20 x 1 3/4 PH-TRUSS HEAD MS SS
13	2	044021	1/4-20 KEPS HEX NUT PL
14	1	102537	DEEP SEA 3110 CONTROLLER
15	1	530123	20A TOGGLE SWITCH
16	1	043050	1/4 INTL TOOTH LOCK WASHER
17	1	090438	PHOTO EYE TIMER DECAL

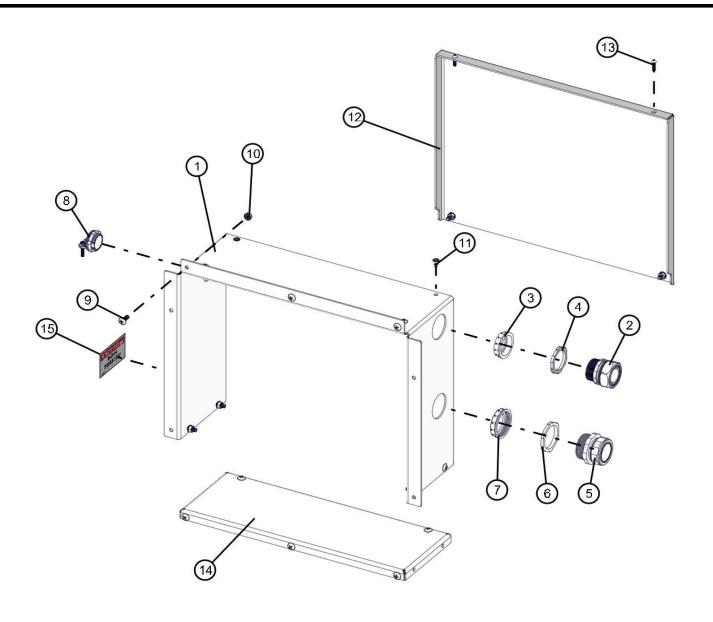


NO	QTY	PARTNO	DESCRIPTION
1	1	100801P	FACE PLATE
2	4	330458	15A SPST BREAKER SWITCH
3	2	433328	1/2 PLASTIC PLUG
4	18	041017	#6-32 X 3/8 PH-PAN HEAD MS PL
5	1	352466	CIRCUIT BREAKER 2 AMP
6	1	102453	TOGGLE SWITCH
7	10	044004	#6-32 KEPS HEX NUT PL
8	4	045135	#10-24 UNC RIVNUT

NQ	QTY	PARTNO	DESCRIPTION
9	4	041027	#10-24 X 3/4 PH-ROUND HEAD MS
10	2	330463	11/16 RUBBER GROMMET
11	2	041021	#10-24 X 1/2 PH-ROUND HEAD MS PL
12	2	041027	#10-24 X 3/4 PH-ROUND HEAD MS
13	4	044018	#10-24 NYLOCK HEX NUT PL
14	1	100797P	ENCLOSURE

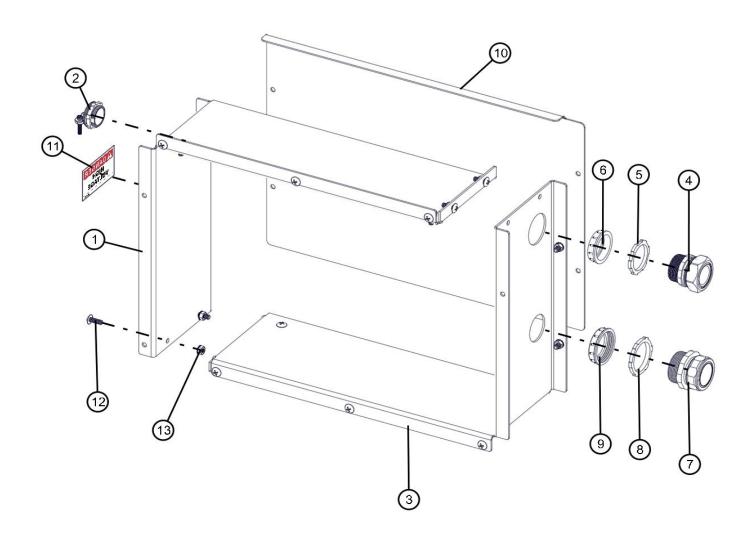


NO	QTY	PARTNO	DESCRIPTION
1	1	101899P	FACE PLATE
2	6	330459	30A DPST CIRCUIT BREAKER
3	1	352466	CIRCUIT BREAKER 2 AMP
4	2	433328	1/2 PLASTIC PLUG
5	1	102453	TOGGLE SWITCH
6	26	041017	#6-32 X 3/8 PH-PAN HEAD MS PL
7	2	044004	#6-32 KEPS HEX NUT PL
8	1	090399	UP & DOWN DECAL

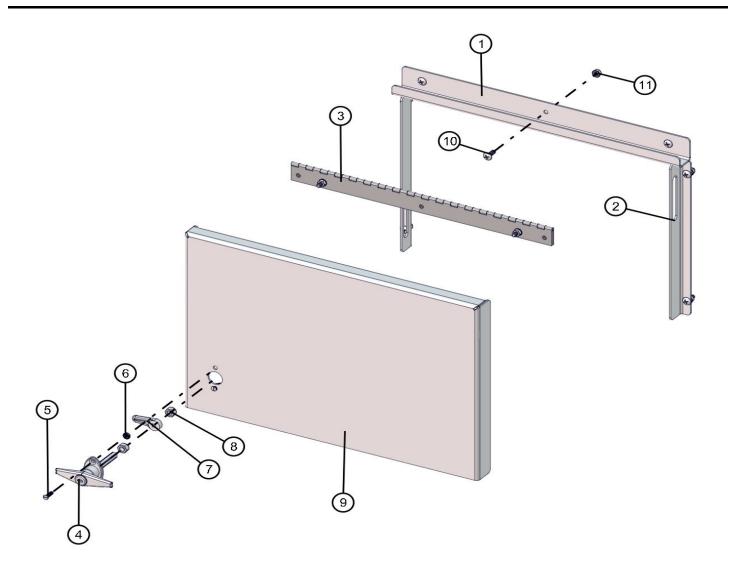


NO	QTY	PARTNO	DESCRIPTION
1	1	109716P	REAR ENCLOSURE
2	1	350361	1 1/4 CORD GRIP
3	1	022072	1 1/4 INSULATING BUSHING
4	1	350363	1 1/4 LOCK NUT
5	1	022231	1 3/8 CORD GRIP
6	1	022232	1 1/2 LOCK NUT
7	1	022233	1 1/2 INSULATING BUSHING
8	1	022028	1" ROMEX CABLE CLAMP 2 SCREW

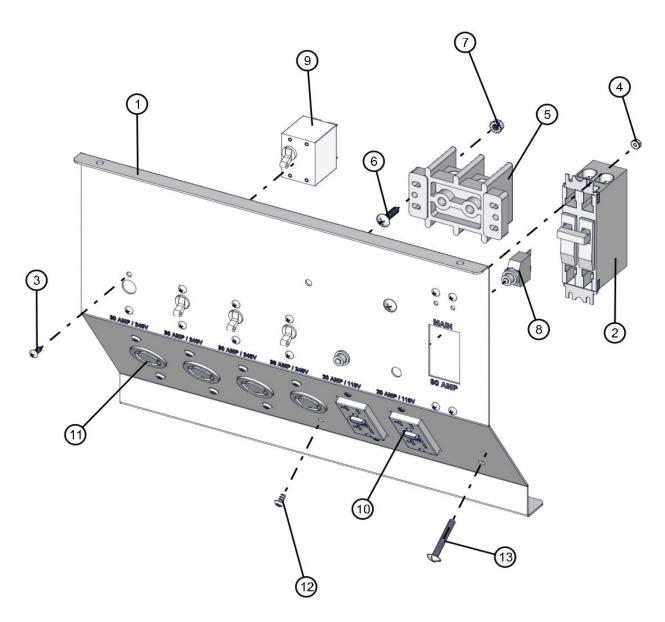
NO	QTY	PARTNO	DESCRIPTION
9	16	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
10	16	044021	1/4-20 KEPS HEX NUT PL
11	2	045135	#10-24 UNC RIVNUT
12	1	109720P	INSIDE COVER
13	2	041027	#10-24 X 3/4 PH-ROUND HEAD MS
14	1	109721P	BOTTOM PANEL
15	1	090002	HIGH VOLTAGE DECAL



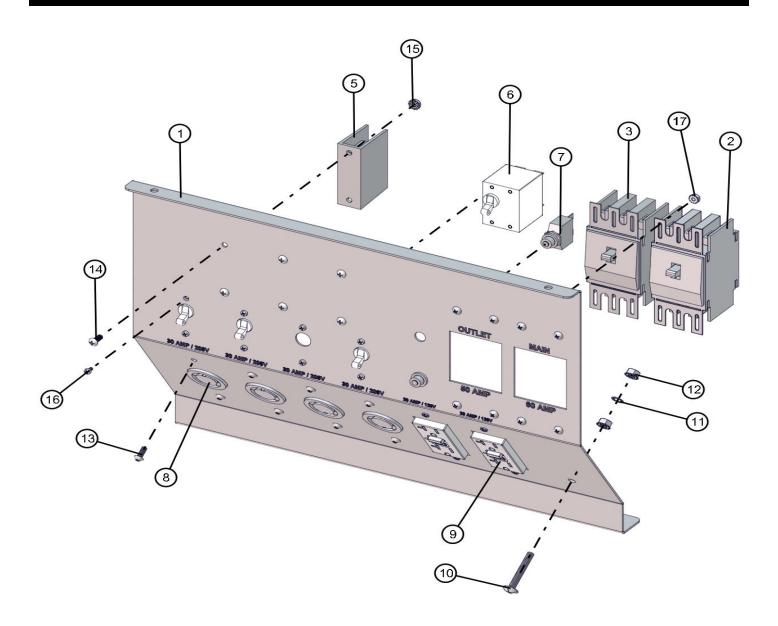
NO	QTY	PARTNO	DESCRIPTION
1	1	109766P	TOP
2	1	022028	1" ROMEX CABLE CLAMP 2 SCREW
3	1	109767P	воттом
4	1	350361	1 1/4 CORD GRIP
5	1	350363	1 1/4 LOCK NUT
6	1	022072	1 1/4 INSULATING BUSHING
7	1	022231	1 3/8 CORD GRIP
8	1	022232	1 1/2 LOCK NUT
9	1	022233	1 1/2 INSULATING BUSHING
10	1	109768P	PANEL COVER
11	1	090002	HIGH VOLTAGE DECAL
12	18	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
13	18	044021	1/4-20 KEPS HEX NUT PL



NO	QTY	PARTNO	DESCRIPTION
1	1	109723P	TOP GUTTER
2	2	109719P	SIDE GUTTER
3	1	353045	HINGE
4	1	650131	DOOR LOCK ASSEMBLY
5	2	041026	#10-24 X 3/4 SL-FLAT HEAD MS PL
6	2	044016	#10-24 KEPS HEX NUT PL
7	1	650132	DOOR LATCH CAM
8	2	044042	3/8-24 HEX NUT PL
9	1	109715P	DOOR
10	9	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
11	9	044021	1/4-20 KEPS HEX NUT PL

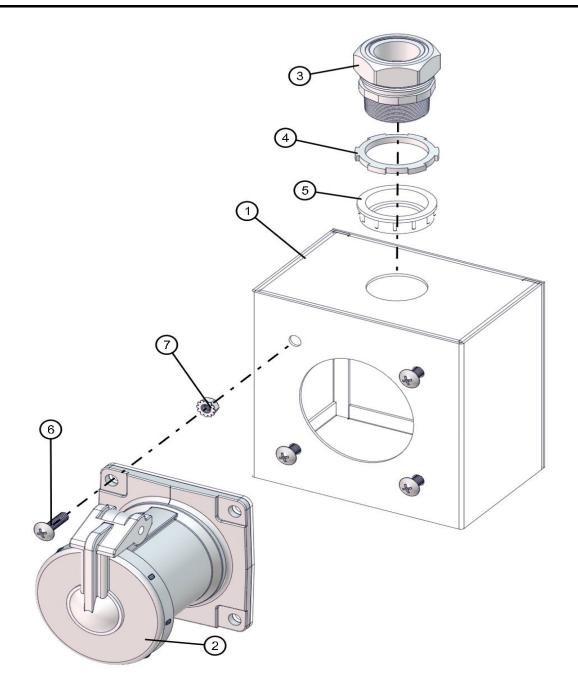


NO	QTY	PARTNO	DESCRIPTION
1	1	109745₽	OUTLET PANEL
2	1	353301	90 AMP 2 POLE BREAKER
3	12	041013	#8-32 X 1/2 PH-ROUND HEAD MS PL
4	12	044003	#8-32 KEPS HEX NUT PL
5	1	350360	POWER DISTRIBUTION BLOCK
6	2	041080	1/4-20 X 1 PH-TRUSS HEAD MS SS
7	4	044021	1/4-20 KEP\$ HEX NUT PL
8	2	650138	CIRCUIT BREAKER 20A PUSH BUTTON
9	4	330456	30A DPST CIRCUIT BREAKER
10	2	330499	20A GFCI RECEPTACLE
11	4	653102	OUTLET 125-250V 30A
12	8	041023	#10 X 3/8 PH-ROUND HEAD MS PL
13	1	041053	1/4-20 x 1 3/4 PH-TRUSS HEAD MS SS

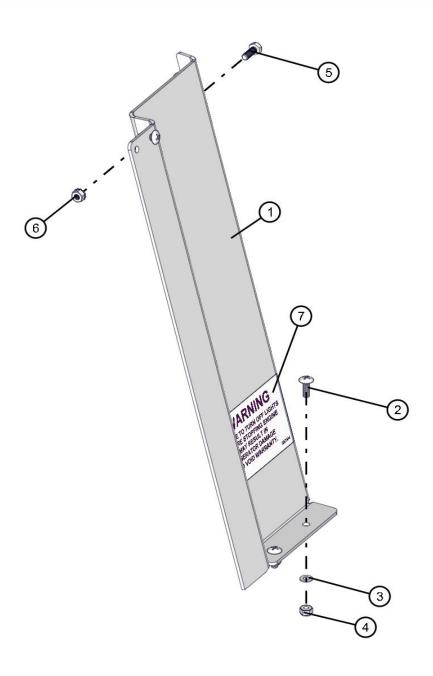


NO	QTY	PARTNO	DESCRIPTION
1	1	109717P	OUTLET PANEL
2	1	022235	BREAKER 60A 3PH 208V
3	1	022236	BREAKER 50A 3PH 208V
5	1	352397	DISTRIBUTION BLOCK 208V
6	4	330456	30A DPST CIRCUIT BREAKER
7	2	650138	CIRCUIT BREAKER 20A PUSH BUTTON
8	4	653102	OUTLET 125-250V 30A
9	2	330499	20A GFCI RECEPTACLE
10	1	041053	1/4-20 x 1 3/4 PH-TRUSS HEAD MS SS

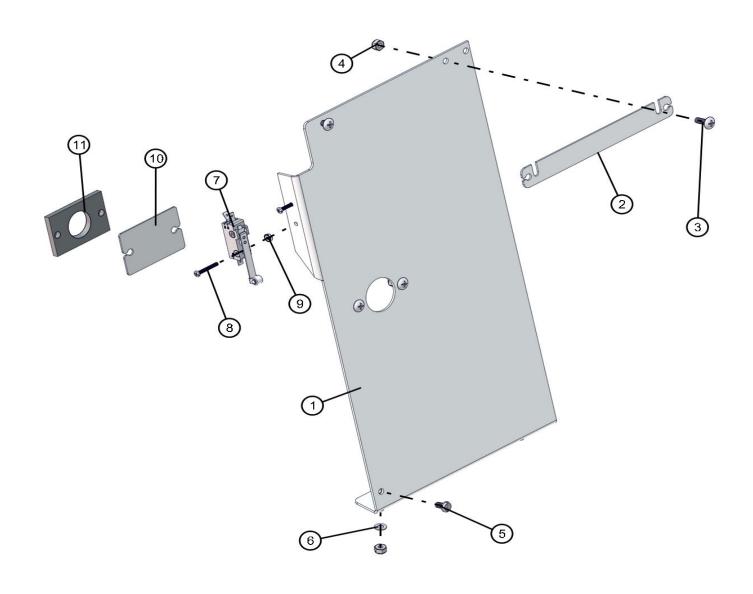
NO	QTY	PARTNO	DESCRIPTION
11	1	043050	1/4 INTL TOOTH LOCK WASHER
12	2	044021	1/4-20 KEPS HEX NUT PL
13	16	041013	#8-32 X 1/2 PH-ROUND HEAD MS PL
14	6	041021	#10-24 X 1/2 PH-ROUND HEAD MS PL
15	6	044016	#10-24 KEPS HEX NUT PL
16	8	041018	#6-32 X 1/4 PH-ROUND HEAD MS PL
17	16	044003	#8-32 KEPS HEX MUT PI



NO	QTY	PARTNO	DESCRIPTION
1	1	022424	JUNCTION BOX
2	1	680870	RECEPTICLE
3	1	350361	1 1/4 CORD GRIP
4	1	350363	1 1/4 LOCK NUT
5	1	022072	1 1/4 INSULATING BUSHING
6	4	041080	1/4-20 X 1 PH-TRUSS HEAD MS SS
7	4	044021	1/4-20 KEPS HEX NUT PL



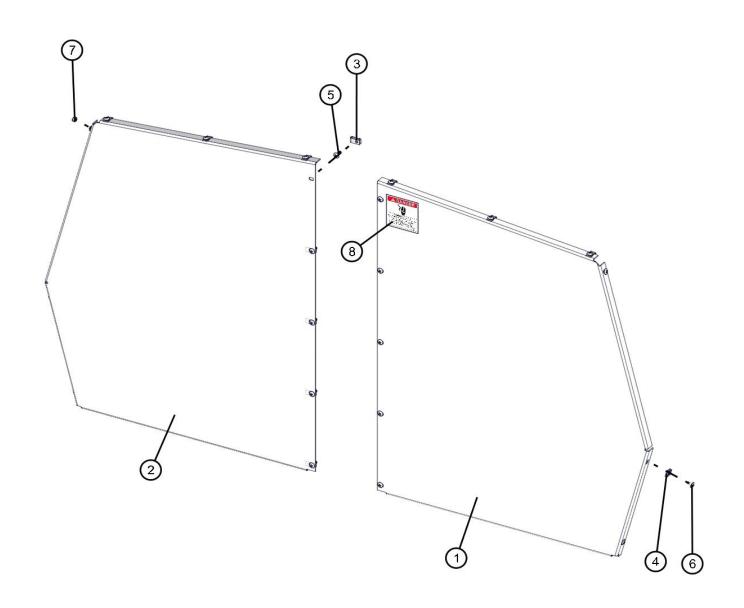
NO	QTY	PARTNO	DESCRIPTION
1	1	109714P	QUARTER PANEL
2	3	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
3	2	047009	1/4 FLAT WASHER SAE SS
4	3	044023	1/4-20 NYLOCK HEX NUT PL
5	2	046010	1/4-20 X 3/4 HEX HEAD CS GR5 SS
6	2	044021	1/4-20 KEPS HEX NUT PL
7	1	090084	TURN OFF LIGHTS DECAL



NOTE:

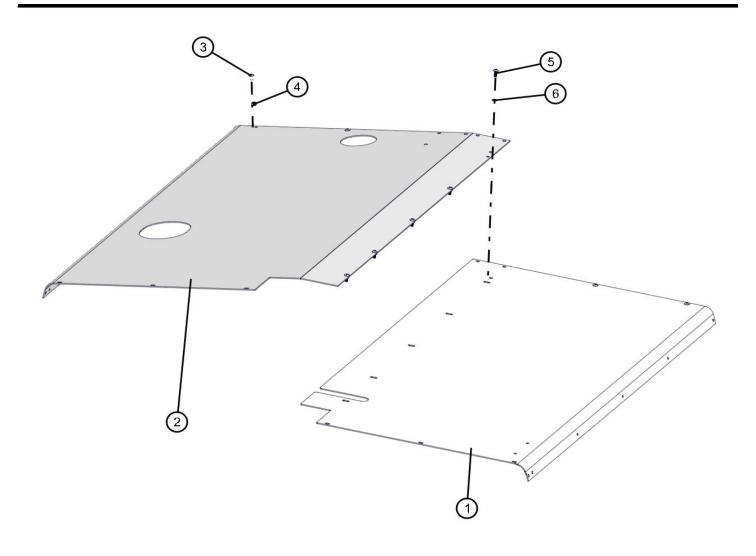
1. #11 USED WITH MANUAL WINCH ONLY. 2. #7, 8, 9 USED WITH INSIDE WORK LIGHT ONLY.

NO	QTY	PARTNO	DESCRIPTION
1	1	109708P	QUARTER PANEL
2	1	680341P	FRONT SPACER
3	6	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
4	7	044023	1/4-20 NYLOCK HEX NUT PL
5	1	041250	1/4-20 X 1/2 SL-BINDER HEAD MS NYLON
6	2	047009	1/4 FLAT WASHER SAE SS
7	1	830165	ROCKER SWITCH W/ ROLLER
8	2	041006	#6-32 X 1 1/4 SL-ROUND HEAD MS PL
9	2	044004	#6-32 KEPS HEX NUT PL
10	1	680329P	COVER PLATE
11	1	630547	GUIDE BLOCK

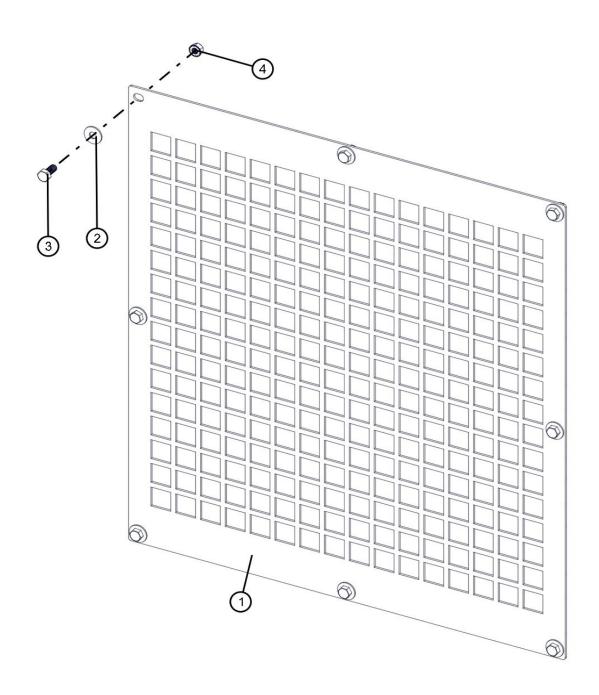


NO	QTY	PARTNO	DESCRIPTION
5	18	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
6	4	041078	1/4-20 X 1/2 PH-TRUSS HEAD MS SS
7	1	044023	1/4-20 NYLOCK HEX NUT PL
3	16	044106	1/4 TINNERMAN NUT
4	5	045216	1/4-20 TINNERMAN NUT
8	1	090162	HAZARDOUS VOLTAGE DECAL
1	1	109665P	LT FRONT PANEL
2	1	109744P	RT FRONT PANEL

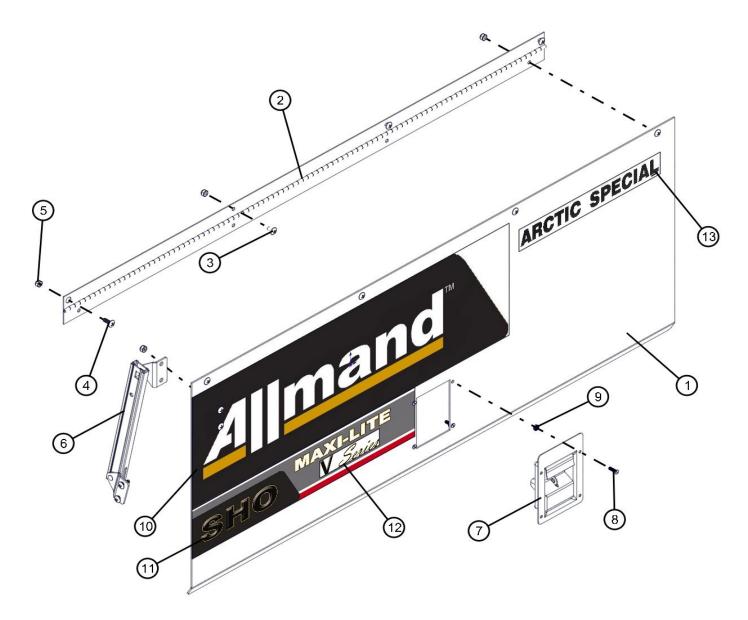
NS: 109744-00 RIGHT FRONT PANEL SPEEDLINER COATED (OPTION). NS: 109665-00 LEFT FRONT PANEL SPEEDLINER COATED (OPTION).



NO	QTY	PARTNO	DESCRIPTION
1	1	109660P	LEFT ROOF PANEL
2	1	680271P	RIGHT ROOF PANEL
3	4	041078	1/4-20 X 1/2 PH-TRUSS HEAD MS SS
4	9	044023	1/4-20 NYLOCK HEX NUT PL
5	5	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
6	5	047009	1/4 FLAT WASHER SAE SS



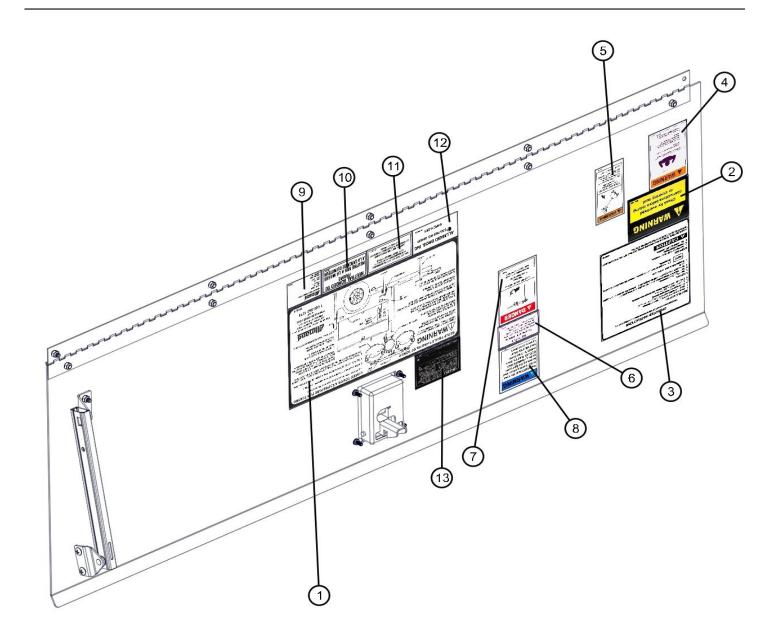
NO	QTY	PARTNO	DESCRIPTION
1	1	109662P	RADIATOR PANEL
2	8	047010	5/16 FLAT WASHER PL
3	8	046045	5/16-18 X 3/4 HEX HEAD CS GR5 PL
4	8	044031	5/16 -18 KEPS HEX NUT PL



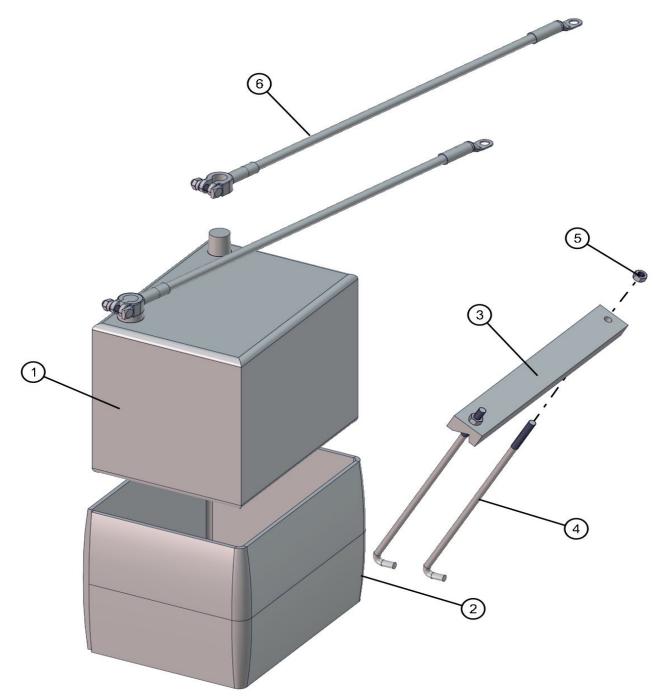
NO	QTY	PARTNO	DESCRIPTION	
1	1	109664P	RT DOOR	
2	1	680258	RIGHT HINGE	
3	7	041078	1/4-20 X 1/2 PH-TRUSS HEAD MS SS	
4	5	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS	
5	12	044023	1/4-20 NYLOCK HEX NUT PL	
6	1	352057	TELESCOPIC DOOR PROP	
7	1	680459	SLAM LATCH	
8	4	041026	#10-24 X 3/4 SL-FLAT HEAD MS PL	
9	4	044016	#10-24 KEPS HEX NUT PL	
10	1	100923	32" BANNER RIGHT DECAL	
11	1	102547	RIGHT SIDE BANNER DECAL	
12	1	102554	V SERIES DECAL	
13	1	090065	ARTIC SPECIAL DECAL	



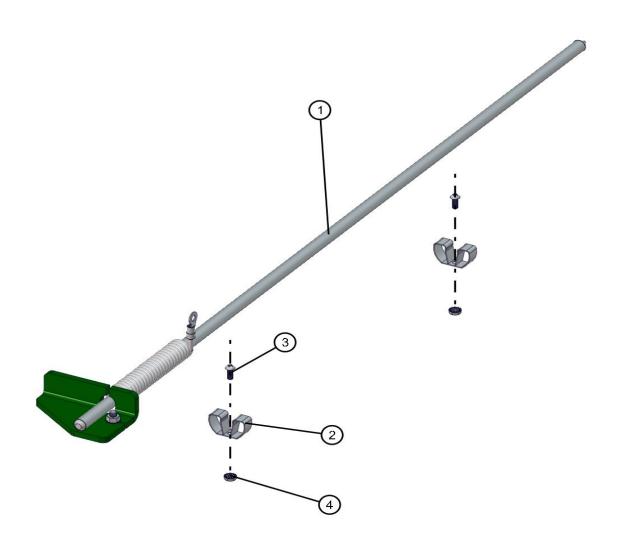
NO	QTY	PARTNO	DESCRIPTION
1	1	109656P	LT DOOR
2	1	352023	MAXI DOOR HINGE
3	11	0410	1/4-20 X
4	13	044023	1/4-20 NYLOCK HEX NUT PL
5	1	352057	TELESCOPIC DOOR PROP
6	2	041050	1/4-20 X 3/4 PH-TRUSS HEAD MS SS
7	1	680459	SLAM LATCH
8	4	041026	#10-24 X 3/4 SL-FLAT HEAD MS PL
9	4	044016	#10-24 KEPS HEX NUT PL
10	1	100922	32" BANNER LEFT DECAL
11	1	102546	LEFT SIDE BANNER DECAL
12	1	102554	V SERIES DECAL
13	1	090065	ARTIC SPECIAL DECAL



NO	QTY	PARTNO	DESCRIPTION
1	1	101925	SETUP DECAL
2	1	090005	CHECK OVERHEAD DECAL
3	1	090249	OPERATING DECAL
4	1	090158	OPERATORS MANUAL DECAL
5	1	090166	OVERHEAD HAZARD DECAL
6	1	090179	PROPOSITION 65 DECAL
7	1	090165	ELECTRICAL SHOCK
8	1	100247	DAMAGE MAY OCCUR DECAL
9	1	090466	GENERATOR INFO DECAL
10	1	090371	NEUTRAL BONDED DECAL
11	1	090372	TO BE GROUNDED DECAL
12	1	090373	CSA FILE NO. DECAL
13	1	10L315 ISUZU	10L315 ISUZU DECAL

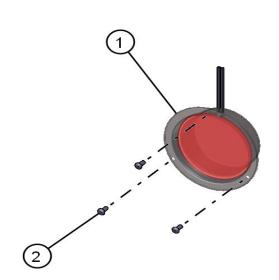


NO	QTY	PARTNO	DESCRIPTION
1	1	NOT SOLD BY ABI	BATTERY 12 VOLT HD 75
2	1	024010	BATTERY BLANKET 80W
6	2	027010	BATTERY CABLE
3	1	340017	HOLD DOWN
4	2	433507	J BOLT 5/16-18
5	2	044031	5/16-18 KEPS NUT



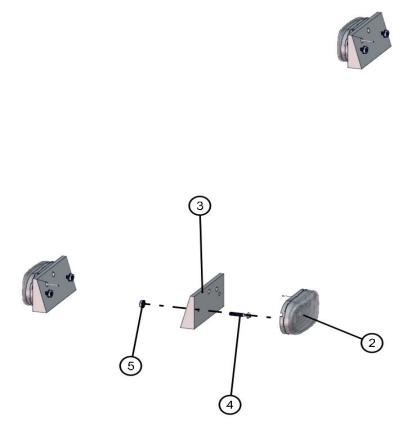
NO	QTY	PARTNO	DESCRIPTION	
1	1	340058	GROUND ROD	
2	2	330481	GROUND ROD CLIP	
3	2	041024	#10-24 X 1/2 PH-ROUND HEAD MS SS	
4	2	044016	#10-24 KEPS HEX NUT PL	





NO	QTY	PARTNO	DESCRIPTION
1	2	650129	TAIL LIGHT
2	6	0450110	3/16 RIVET

NS: 654003 TAIL LIGHT LED (OPTION)

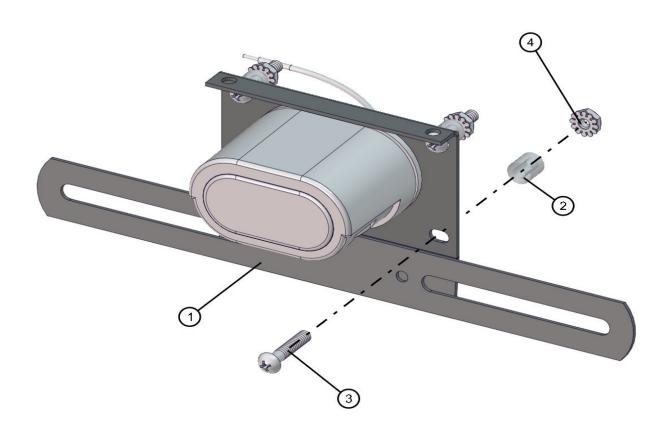






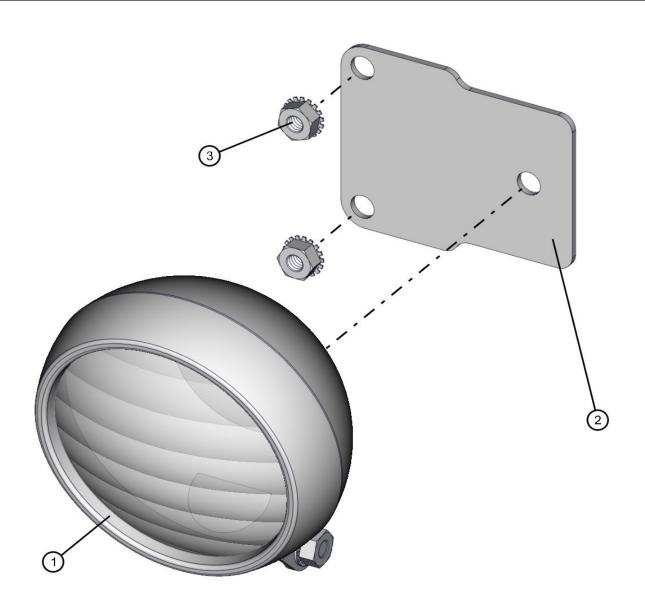
NO	QTY	PARTNO	DESCRIPTION	
1	2	022300	RED MARKER LIGHT	
2	2	022301	AMBER MARKER LIGHT	
3	4	064080	LIGHT SPACER	
4	8	041030	#10-24 X 1 PH-ROUND HEAD MS PL	
5	8	044016	#10-24 KEPS HEX NUT PL	

NS: (OPTION) 654001 LED MARKER LIGHT AMBER (OPTION) 654002 LED MARKER LIGHT RED



NO	QTY	PARTNO	DESCRIPTION	
1	1	032035	LICENSE PLATE LIGHT BRACKET	
2	4	022180	SPACER	
3	4	041030	#10-24 X 1 PH-ROUND HEAD MS PL	
4	4	044016	#10-24 KEPS HEX NUT PL	

NOTE: LICENSE PLATE BRACKET IS A VIN PACKAGE OPTION.



NO	QTY	PARTNO	DESCRIPTION
1	1	352151	WORK LAMP
2	1	352146P	FIXTURE BRACKET
3	2	044036	3/8-16 KEPS HEX NUT PL

NS: 711405 - INLINE FUSE HOLDER 711028 - 9/16ID X 7/8OD GROMMET 830165 - INTERLOCK SAFETY SWITCH (SHOWN ON RIGHT QUARTER PANEL)