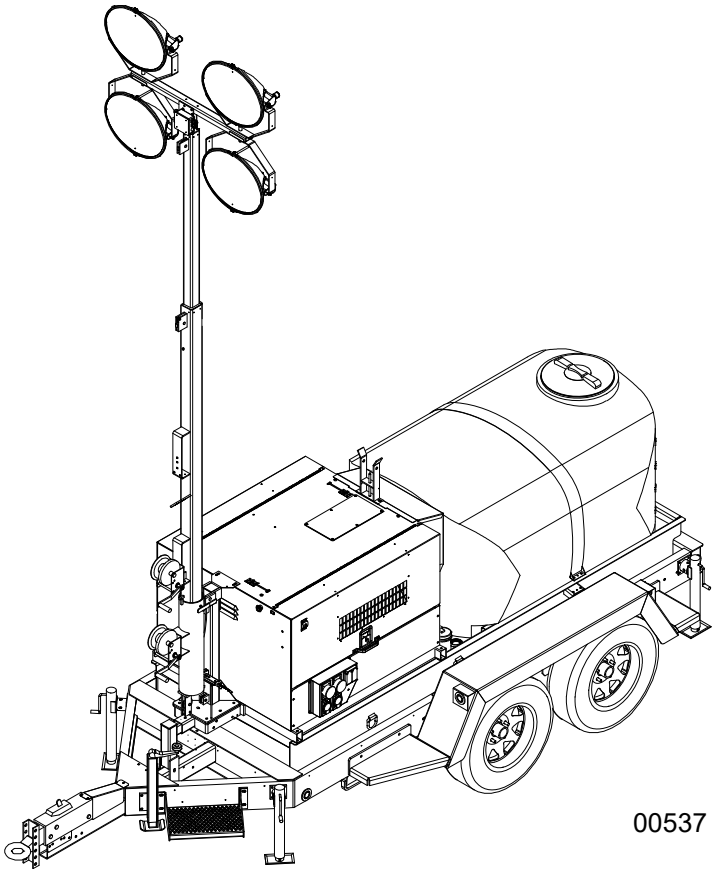
GENERAC® | MOBILE

Owner's Manual

Combination Light Tower, Generator, and Water Trailer

MTT15

SN 3004595385 and higher



00537

For technical assistance contact:

www.generacmobileproducts.com

Technical Support

1-800-926-9768

SAVE THIS MANUAL FOR FUTURE REFERENCE

Use this page to record important information about your unit

Unit Model No.	
Unit Serial No.	
Engine Model No.	
Engine Serial No.	
Generator Model No.	
Generator Serial No.	

Record the information found on your unit data label on this page. See ***Unit Serial Number Locations***.

Engine and generator serial numbers are located on data plates affixed to the engine and generator, respectively. When contacting a Generac Mobile Authorized Service Dealer (GMASD) about parts and service, always provide the unit model and serial number.

Operation and Maintenance: Proper maintenance and care of the unit ensures a minimum number of problems and keeps operating expenses at a minimum. It is the operator's responsibility to perform all safety checks, to verify that all maintenance for safe operation is performed promptly, and to have the equipment checked periodically by a GMASD. Normal maintenance, service, and replacement of parts are the responsibility of the owner/operator and, as such, are not considered defects in materials or workmanship within the terms of the warranty. Individual operating habits and usage may contribute to the need for additional maintenance or service.

⚠WARNING

CANCER AND REPRODUCTIVE HARM
www.P65Warnings.ca.gov.

(000393a)

⚠WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65Warnings.ca.gov/diesel. (000394)

Table of Contents

Section 1: Introduction and Safety

Introduction

Thank you for purchasing a Generac Mobile product. This unit has been designed to provide high performance, efficient operation, and years of use when maintained properly.

The information in this manual is accurate based on products produced at the time of publication. The manufacturer reserves the right to make technical updates, corrections, and product revisions at any time without notice.

Read This Manual Thoroughly

⚠WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury.

(000100a)

If any section of the manual is not understood, contact your nearest GMASD, or contact Generac Mobile technical service at 1-800-926-9768 or ***www.generacmobileproducts.com***.

The owner is responsible for proper maintenance and safe use of the equipment. Comply with regulations the Occupational Safety and Health Administration (OSHA) has established, or with equivalent standards. Also, verify that the unit is applied, used, and maintained in accordance with the manufacturer's instructions and recommendations. Do nothing that might alter safe application/usage and render the unit in noncompliance with the aforementioned codes, standards, laws, and regulations.

Save these instructions for future reference. This manual contains important instructions for the unit that should be followed during setup, operation and maintenance of the unit and battery. ALWAYS supply this manual to any individual that will use this machine.

How to Obtain Service

When the unit requires servicing or repairs, contact a GMASD for assistance. Service technicians are factory-trained and are capable of handling all service needs. For assistance locating a GMASD, go to ***www.generacmobileproducts.com/parts-service/find-service***. When contacting a GMASD about parts and service, always supply the complete model number and serial number of the unit as given on its data decal located on the unit. Record the model number and serial numbers in the spaces provided on the inside front cover of this manual.

Safety Rules

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The warnings in this manual, and on tags and decals affixed to the unit are, therefore, not all inclusive. If using a procedure, work method or operating technique that the manufacturer does not specifically recommend, verify that it is safe for others. Also make sure the procedure, work method or operating technique utilized does not render the equipment unsafe.

Throughout this publication, and on tags and decals affixed to the unit, DANGER, WARNING, CAUTION and NOTE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Their definitions are as follows:

⚠DANGER

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

(000001)

⚠WARNING

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

(000002)

⚠CAUTION

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

(000003)

NOTE: Notes contain additional information important to a procedure and will be found within the regular text of this manual.

These safety alerts cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

General Hazards

⚠DANGER

Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury.

(000103)

⚠WARNING

Hearing Loss. Hearing protection is recommended when using this machine. Failure to wear hearing protection could result in permanant hearing loss.

(000107)

⚠WARNING

Moving Parts. Keep clothing, hair, and appendages away from moving parts. Failure to do so could result in death or serious injury.

(000111)

⚠WARNING

Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire.

(000108)

⚠WARNING

Risk of injury. Do not operate or service this machine if not fully alert. Fatigue can impair the ability to service this equipment and could result in death or serious injury.

(000215)

⚠WARNING

Risk of burns. Allow engine to cool before draining oil or coolant. Failure to do so could result in death or serious injury.

(000139)

Explosion and Fire Hazards

⚠DANGER

Explosion and Fire. Fuel and vapors are extremely flammable and explosive. Add fuel in a well ventilated area. Keep fire and spark away. Failure to do so will result in death or serious injury.

(000105)

⚠WARNING

Risk of Fire. Unit must be positioned in a manner that prevents combustible material accumulation underneath. Failure to do so could result in death or serious injury.

(000147)

⚠WARNING

Risk of Fire. Hot surfaces could ignite combustibles, resulting in fire. Fire could result in death or serious injury.

(000110)

Trailer Hazards

⚠WARNING

Personal injury. Trailer must be securely coupled to the hitch with the chains correctly attached. Uncoupled or unchained towing could result in death or serious injury.

(000233a)

⚠WARNING

Personal injury. Do not operate unit during transport. Doing so could result in death, serious injury, or property damage.

(000231a)

⚠WARNING

Crushing hazard. Verify unit is properly secured and on level ground. An unsecured unit can suddenly roll or move, causing death or serious injury.

(000234a)

⚠WARNING

Property or Equipment Damage. Tighten wheel lug nuts after first 50 miles to factory specifications. Failure to do so could result in death, serious injury, property or equipment damage.

(000235)

Electrical Hazards

⚠DANGER

Electrocution. In the event of electrical accident, immediately shut power OFF. Use non-conductive implements to free victim from live conductor. Apply first aid and get medical help. Failure to do so will result in death or serious injury. (000145)

⚠DANGER

Electrocution. Water contact with a power source, if not avoided, will result in death or serious injury.

(000104)

⚠DANGER

Electrocution. Contact with bare wires, terminals, and connections while generator is running will result in death or serious injury.

(000144)

⚠DANGER

Electrocution. Verify electrical system is properly grounded before applying power. Failure to do so will result in death or serious injury.

(000152)

⚠DANGER

Electrocution. Do not wear jewelry while working on this equipment. Doing so will result in death or serious injury.

(000188)

⚠DANGER

Electrocution. DO NOT use the unit if electrical cord is cut or worn through. Doing so will result in death or serious injury.

(000263a)

Battery Hazards

⚠DANGER

Electrocution. Do not wear jewelry while working on this equipment. Doing so will result in death or serious injury.

(000188)

⚠WARNING

Explosion. Batteries emit explosive gases while charging. Keep fire and spark away. Wear protective gear when working with batteries. Failure to do so could result in death or serious injury.

(000137a)

⚠WARNING

Explosion. Do not dispose of batteries in a fire. Batteries are explosive. Electrolyte solution can cause burns and blindness. If electrolyte contacts skin or eyes, flush with water and seek immediate medical attention.

(000162)

⚠WARNING

Risk of burn. Do not open or mutilate batteries. Batteries contain electrolyte solution which can cause burns and blindness. If electrolyte contacts skin or eyes, flush with water and seek immediate medical attention. (000163a)

⚠WARNING

Environmental Hazard. Always recycle batteries at an official recycling center in accordance with all local laws and regulations. Failure to do so could result in environmental damage, death, or serious injury. (000228)

Always recycle batteries in accordance with local laws and regulations. Contact your local solid waste collection site or recycling facility to obtain information on local recycling processes. For more information on battery recycling, visit the Battery Council International website at: ***http://batterycouncil.org***

Fuel Hazards

⚠DANGER

Explosion and fire. Fuel and vapors are extremely flammable and explosive. No leakage of fuel is permitted. Keep fire and spark away. Failure to do so will result in death or serious injury.

(000192)

⚠DANGER

Risk of fire. Allow fuel spills to completely dry before starting engine. Failure to do so will result in death or serious injury.

(000174)

- **DO NOT** fill fuel tank near an open flame, while smoking, or while engine is running. **DO NOT** fill tank in an enclosed area with poor ventilation.
- **DO NOT** operate with the fuel tank cap loose or missing.

Engine Safety

Internal combustion engines present special hazards during operation and fueling. Failure to follow the safety guidelines described below could result in severe injury or death. Read and follow all safety alerts described in the engine operator's manual. A copy of this manual was supplied with the unit when it was shipped from the factory.

- **DO NOT** run engine indoors or in an area with poor ventilation. Make sure engine exhaust cannot seep into closed rooms or ventilation equipment.
- **DO NOT** clean air filter with gasoline or other types of low flash point solvents.
- **DO NOT** operate the unit without a functional exhaust system.
- Shut the engine down if any of the following conditions exist during operation:
  - Abnormal change in engine speed.
  - Loss of electrical output.
  - Equipment connected to the unit overheats.
  - Sparking occurs.
  - Engine misfires or there is excessive engine/ generator vibration.
  - Protective covers are loose or missing.
  - Ambient air temperature is above 120°F (49°C).

Operating Safety

Positioning the Unit

⚠DANGER

High Voltage. Verify area above unit is clear of overhead wires and obstructions. Contact with high-voltage power lines will result in death or serious injury.

(000260a)

- The area immediately surrounding the unit should be dry, clean, and free of debris.
- Position and operate the unit on a firm, level surface.
- If the unit is equipped with a frame grounding stud, follow any local, state, and National Electrical Code (NEC) guidelines when connecting.

Starting the Unit

⚠DANGER

Electrocution. DO NOT use the unit if electrical cord is cut or worn through. Doing so will result in death or serious injury.

(000263a)

- **DO NOT** start a unit in need of repair.

Raising and Lowering the Mast

⚠WARNING

Electrocution. Do not set up or operate this unit if severe weather is expected. Lightning strikes can kill or cause severe injury even if you are not touching the unit. (000296)

⚠WARNING

Do not set up the unit if high winds are expected. High winds can cause the unit to tip or fall, causing severe injury or machine damage. (000297)

⚠WARNING

Personal Injury. Stop immediately if the mast hangs up or the winch cable develops slack. Excess slack could cause the mast to collapse, resulting in personal injury or equipment damage. (000265)

⚠WARNING

Machine damage. Do not extend the mast beyond the colored mark. Overextension can stretch or break electrical cables or winch cables, and may damage mast hardware. (000372)

- Keep area around the unit clear of people while raising and lowering the mast.
- **ALWAYS** lower the mast when not in use.

Service Safety

This unit uses high voltage circuits capable of causing serious injury or death. Only a qualified and licensed electrician should troubleshoot or repair problems occurring in this equipment.

- Before servicing the unit, verify the Control Power switch and circuit breakers are in the OFF (O) position, and the negative (-) terminal on the battery is disconnected. **DO NOT** perform even routine service (oil/filter changes, cleaning, etc.) unless all electrical components are shut down.
- **ALWAYS** use extreme caution when servicing this unit in damp conditions. Do not service the unit if your skin or clothing is wet. Do not allow water to collect around the base of the unit.
- **DO NOT** wash the unit with high pressure hoses, power washers, or steam cleaners. Water may collect in the unit, causing damage to electrical parts.
- Replace all missing and hard to read decals. Decals provide important operating instructions and warn of dangers and hazards.
- Wear heavy leather gloves when handling winch cables. Never let cables slip through bare hands.
- Only use mild soap and water to clean the lens covers. Other chemicals may damage the lens covers.

Towing Safety

Towing a trailer requires care. Both the trailer and vehicle must be in good condition and securely fastened to each other to reduce the possibility of an accident. Some states require that large trailers be registered and licensed. Contact your local Department of Transportation office to check on license requirements for your particular unit.

Hitch and Coupling

- Verify the hitch and coupling on the towing vehicle are rated equal to, or greater than, the trailer's Gross Vehicle Weight Rating (GVWR).
- Verify the trailer hitch and the coupling are compatible. Make sure the coupling is securely fastened to the vehicle.
- **DO NOT** tow trailer using defective parts. Inspect the hitch and coupling for wear or damage.
- Connect safety chains in a crossing pattern under the tongue.
- Before towing the trailer, verify the weight of the trailer is equal across all tires. On trailers with adjustable height hitches, adjust the angle of the trailer tongue to keep the trailer as level as possible.
- Check surge brake fluid level; add as needed.

Running Lights

Verify directional and brake lights on the trailer are connected and working properly

Wheels and Tires

- Check trailer tires for wear and proper inflation.
- Verify wheel lug nuts are present and tightened to the specified torque.

Safe Towing Techniques

- Practice turning, stopping and backing up in an area away from heavy traffic prior to transporting the unit.
- Maximum recommended speeds for highway towing are as follows:
  - With the tank empty, improved road: 55 mph (89 km/h)
  - With the tank full, improved road: 45 mph (72 km/h)
  - With the tank 1/2 full, improved road: 45 mph (72 km/h)
  - Any towing on unimproved roads: 20 mph (32 km/h) or less
- When towing, maintain extra space between vehicles and avoid soft shoulders, curbs and sudden lane changes.

Reporting Trailer Safety Defects

If you believe your trailer has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Generac Mobile.

If NHTSA receives similar complaints, it may open an investigation; and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in an individual problem between you, your ASD, or Generac Mobile.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-888-327-4236 (TTY:1-800-424-9153), go to ***http://www.safercar.gov***; or write to:

Administrator
NHTSA
1200 New Jersey Avenue S.E.
Washington, DC 20590

You can also obtain other information about motor vehicle safety from ***http://www.safercar.gov***.

Safety and Operating Decals

See ***Figure 1-1*** through ***Figure 1-3***. This unit features numerous safety and operating decals. These decals provide important operating instructions and warn of dangers and hazards. The following diagrams illustrate decal locations and descriptions.

Replace any missing or hard-to-read decals and use care when washing or cleaning the unit. Decal part numbers can be found in the parts manual at ***www.generacmobile.com.***

ID	Description	ID	Description
1	Danger–Overhead Wires	**17**	Consult Manual
2	Not a Lift Point	**18**	Danger–Falling Mast
3	Warning–Pinch Point, Secure Mast	**19**	Warning–Crushing Hazard
4	Danger–Do Not Remove	**20**	Align Before Tilting Mast Down
5	Danger–Electrocution, Consult Manual	**21**	Warning–Stand Clear When Tilting Mast
6	Mast Junction Box Wiring	**22**	Warning–Ultraviolet Radiation
7	Clean Water Only	**23**	Danger–Completely Lower Tower Before Tilting Mast
8	Number Set 20	**24**	Instruction–Tower Setup
9	Danger–Stay Out of Tank	**25**	Danger–Do Not Move Unit With Tower Up
10	Warning–Hot Surface, Moving Parts	**26**	Warning–Secure Mast, Crushing Hazard
11	Danger–Diesel Fuel, Asphyxiation, No Open Flames, Consult Manual	**27**	Warning–Hot Surface
12	Grounding Stud	**28**	Instruction–Towing Instructions
13	Not a Step	**29**	Pump OFF and ON
14	Danger–Electrocution	**30**	Pressure Feed Tap 1 and 2
15	Instruction–Engine Operation	**31**	Gravity Feed Tap 1 and 2
16	Breaker Safety Decals	**32**	Warning–Do Not Drink Water From Tank

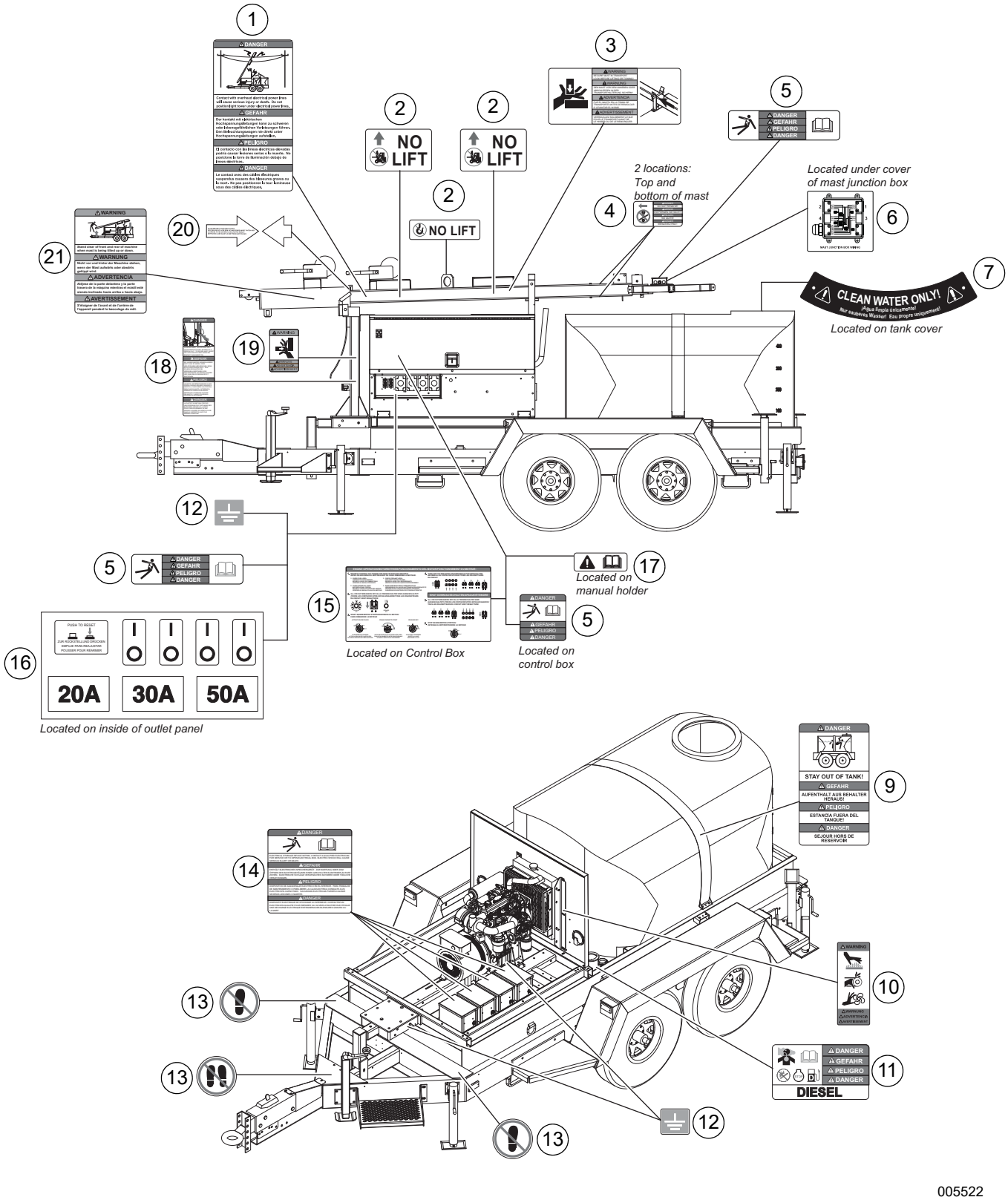


Figure 1-1. Decal Locations (1 of 3)

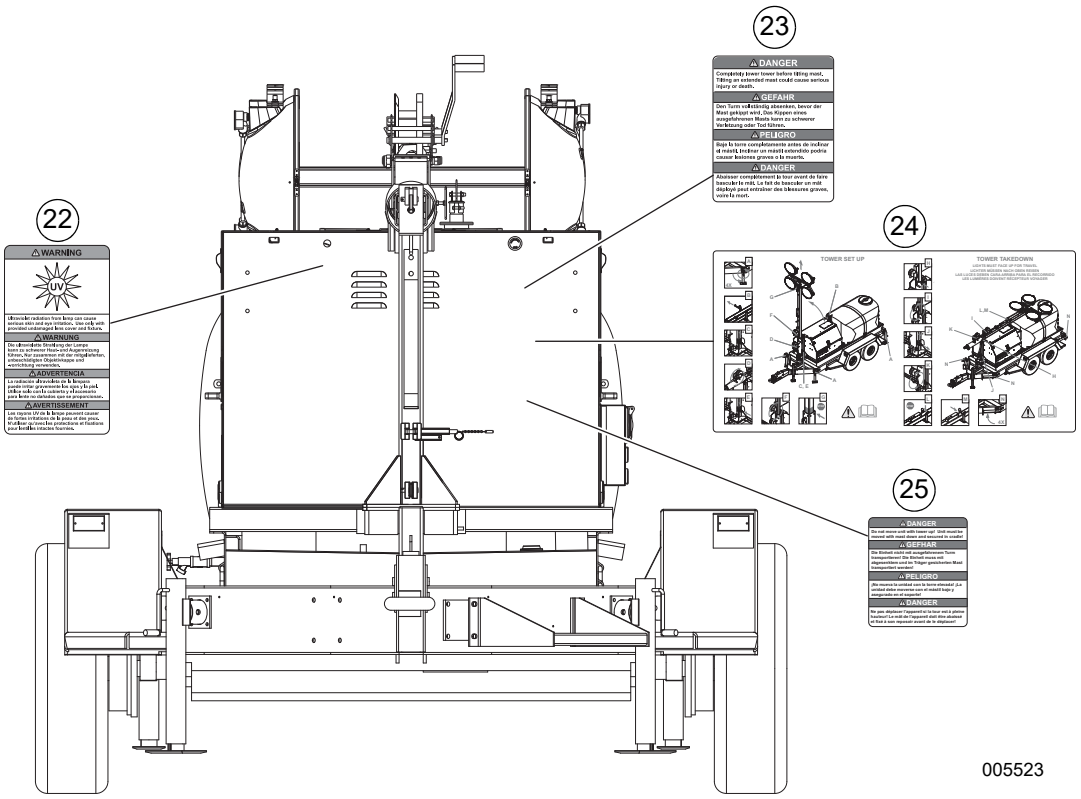


Figure 1-2. Decal Locations (2 of 3)

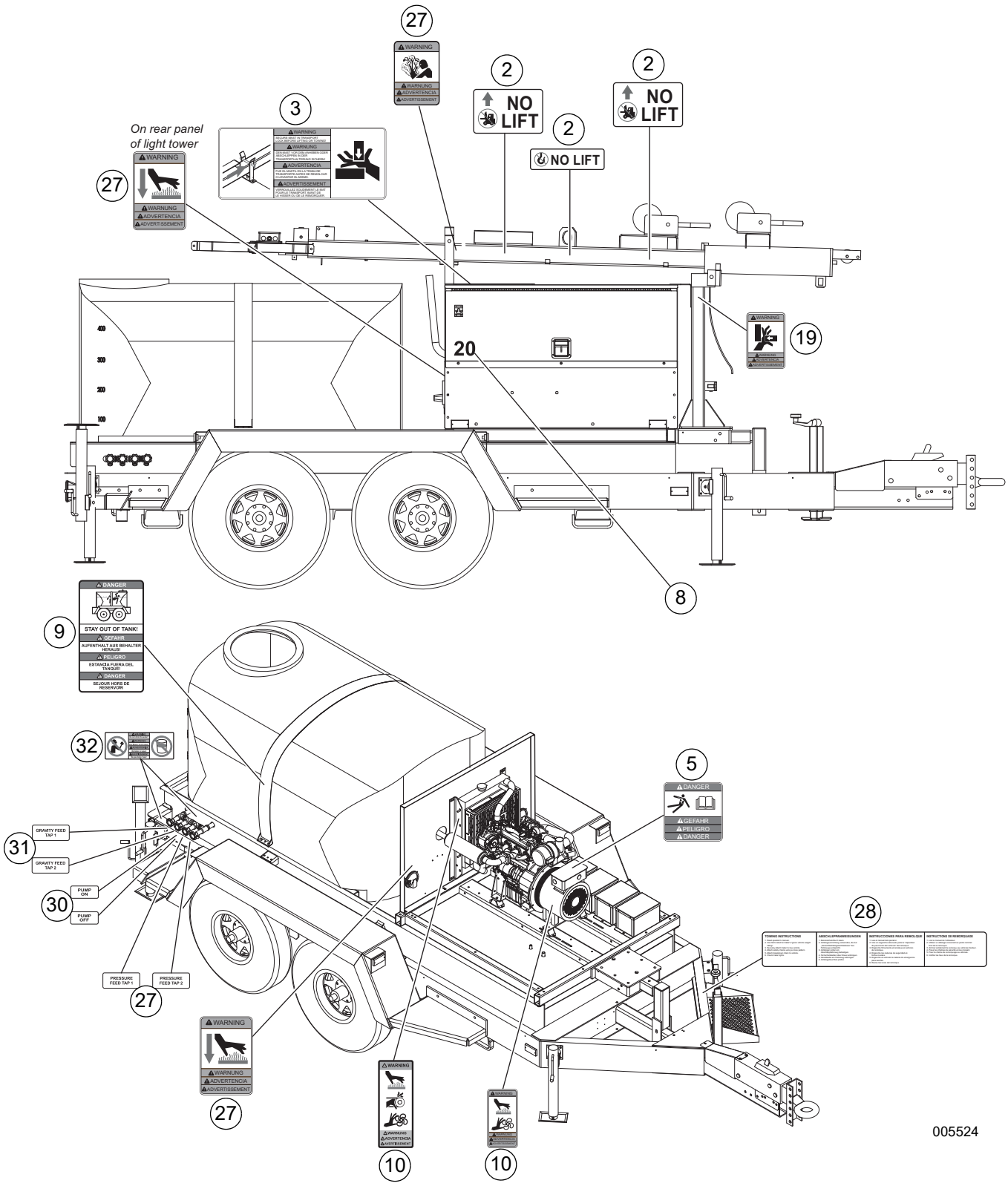


Figure 1-3. Decal Locations (3 of 3)

Specifications

Description	Unit of Measure	MTT15
Engine		
Make (Model)	—	Mitsubishi® (S4L2)
EPA Certification	Tier	4 Final
Fuel Consumption—100% Prime	gal/hr (L/hr)	1.35 (5.1)
Battery Type—Group Number	—	24
Battery Voltage	VDC	12
Battery Rating	CCA	720
Capacities		
Fuel Tank—Total	gal (L)	246 (931)
Fuel Tank—Usable	gal (L)	229 (867)
Water Tank	gal (L)	500 (1895)
Coolant (Including Engine)	gal (L)	11.6 (11.0)
Oil (Including Filter)	gal (L)	8.5 (8.0)
Maximum Run Time—Prime	hr	170
Generator		
Make (Model)	—	Marathon Electric® (333CSA3024)
Frequency	Hz	60
Output Voltage		120/240, single
Power Output—Standby	kW (kVA)	15.0 (15.0)
Output amperes—**120V (240V)**	A	126 (63)
Lights		
Bulb Type, Ballast Type (Watts Per Bulb)	—	Metal halide, coil and core (1,100)
Brightness	lm	528,000
Water System		
Flow Rate	gal/min (L/min)	3.3 (12.5)
Flow Rate At Hose Bibb	gal/min (L/min)	3.0 (11.4)
AC Distribution		
Circuit Breaker Size	A	70
Trailer		
Hitch—Standard	—	3 in. ring
Maximum Tire Pressure	psi (kPA)	75 (517)
Unit Weight		
Dry	lb (kg)	4,702 (2,133)
Operating	lb (kg)	10,442 (4,736)

Specifications are subject to change without notice.

Unit Dimensions

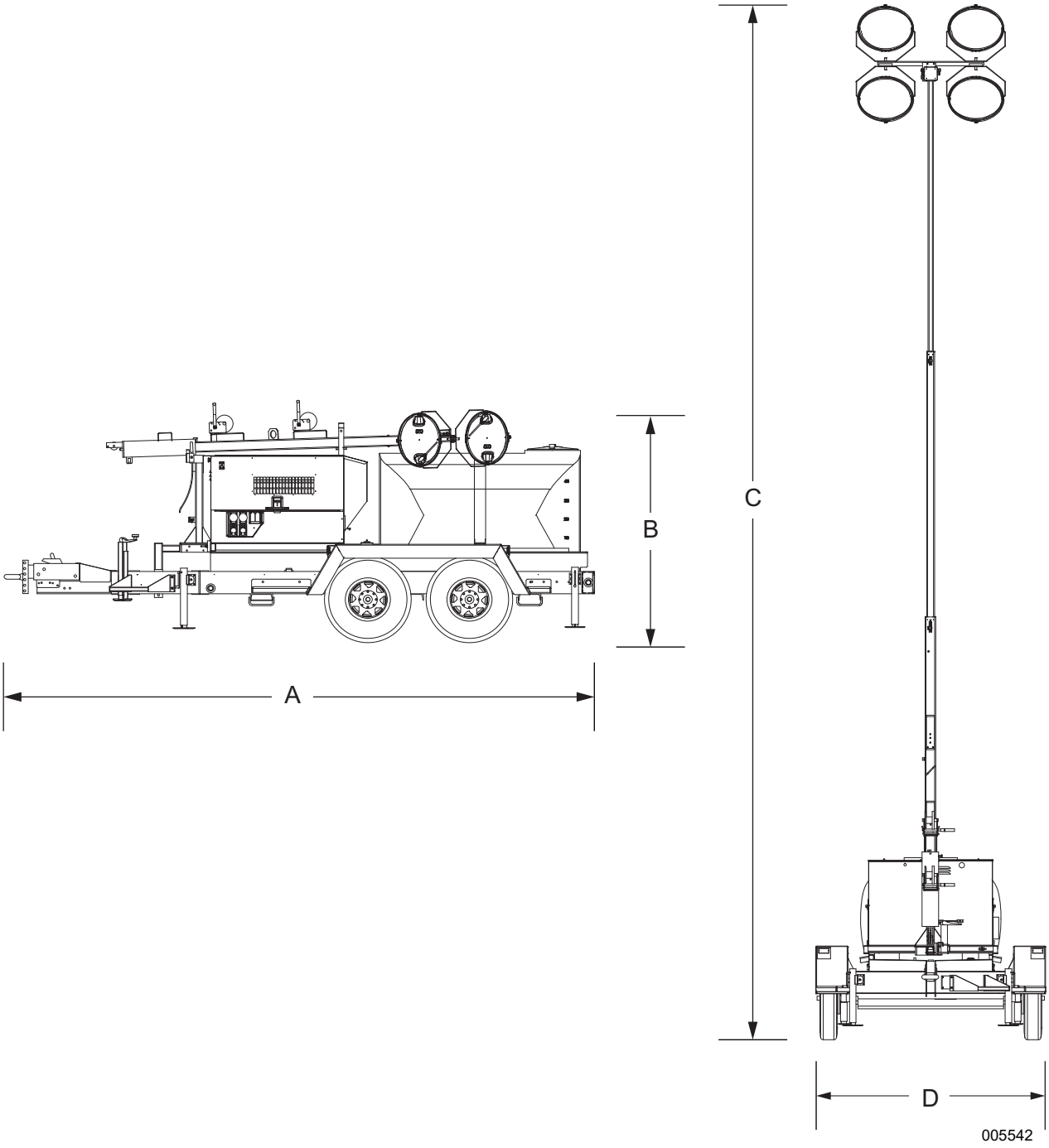


Figure 2-1. Unit Dimensions

A	B	C	D
210 in (5.3 m)	83 in (2.1 m)	31.5 ft (9.6 m)	86 in (2.18 m)

Specifications are subject to change without notice.

Unit Serial Number Locations

Refer to the illustration to locate the unit ID tag and Vehicle Identification Number (VIN) tag on the unit. Important information, such as the unit serial number, model number, VIN, and tire loading information are found on these tags. Record the information from these tags so it is available if the tags are lost or damaged. When ordering parts or requesting assistance, you may be asked to provide this information.

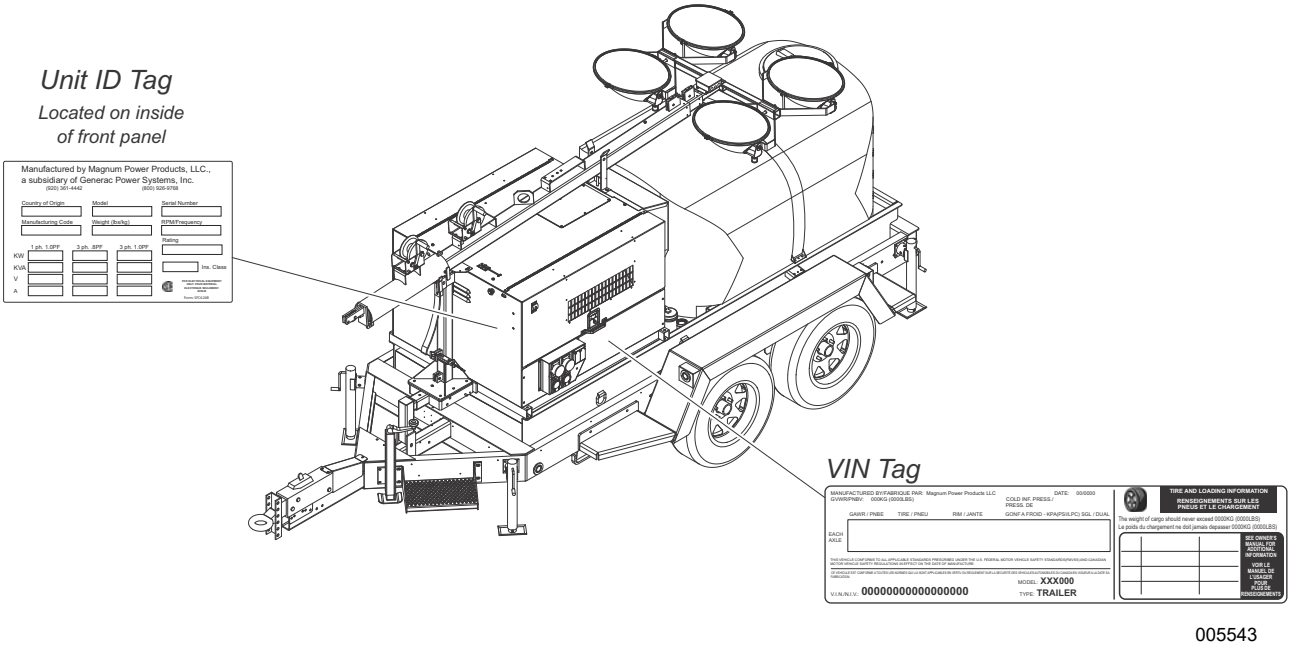


Figure 2-2. Serial Number Locations

Component Locations

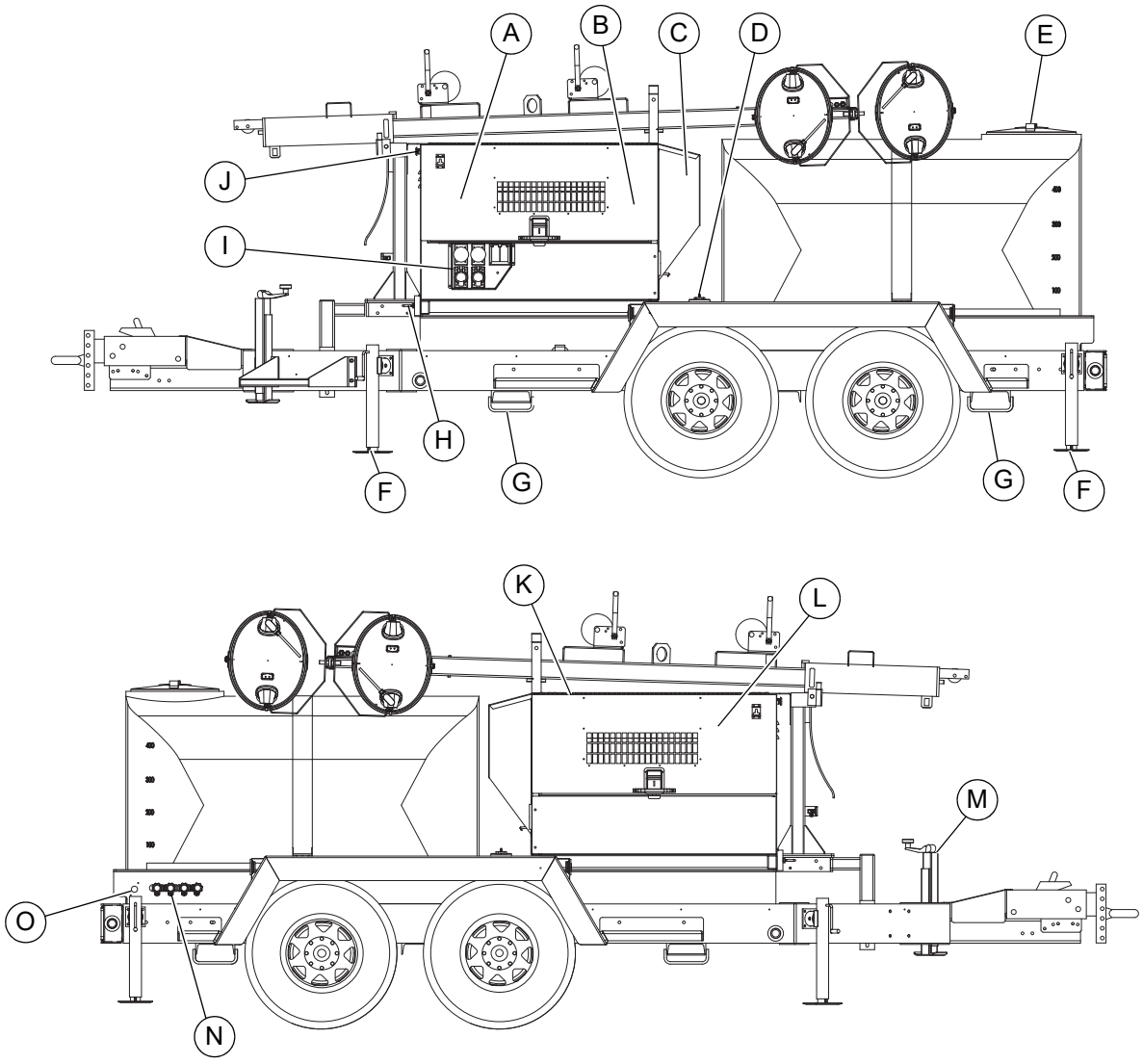


Figure 2-3. Component Locations

A Control panel (behind door)
B Battery (behind door)
C Engine exhaust
D Fuel fill
E Water tank cover
F Leveling jack
G Forklift pocket
H Grounding stud
I Receptacle panel
J Emergency stop switch
K Radiator access panel (on roof)
L Engine access door
M Tongue jack
N Hose bibbs
O Tank pump switch

Control Panel

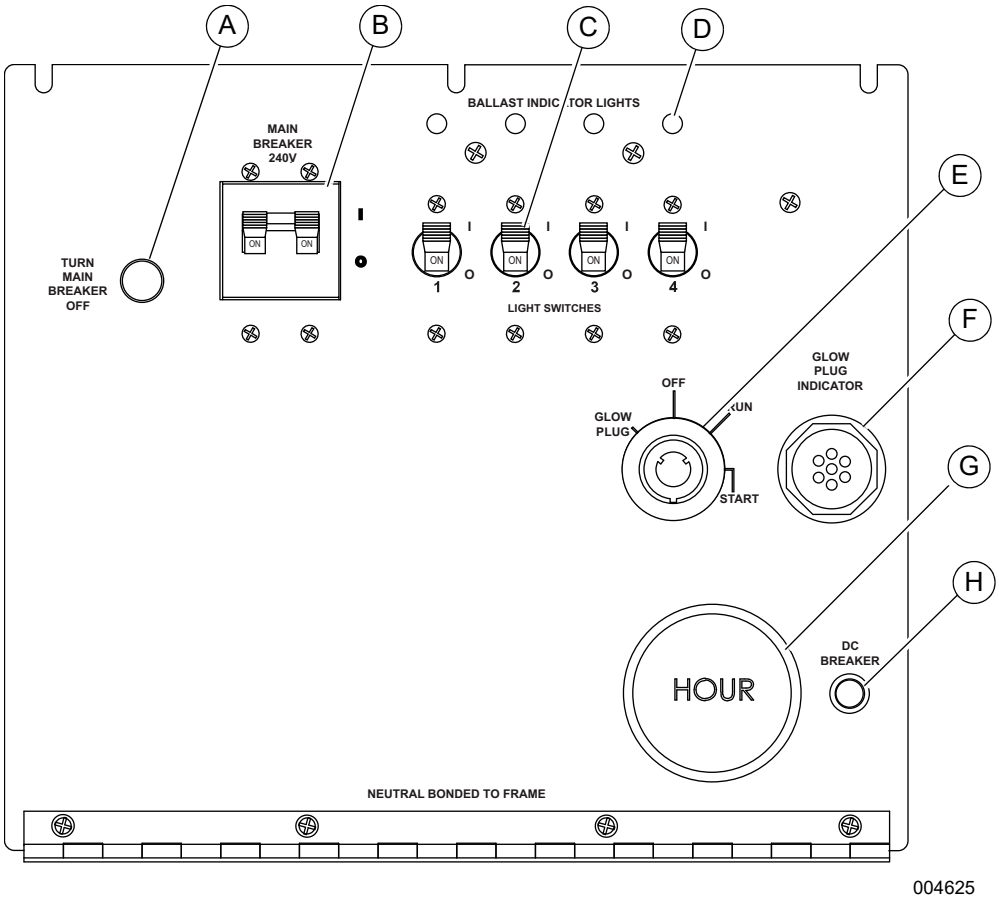


Figure 2-4. Control Panel

A	Circuit breaker indicator light[1]	**E**	Engine ignition switch (key activated)
B	Main circuit breaker[2]	**F**	Glow plug indicator
C	Light switch (4 locations)	**G**	Engine hour meter
D	Ballast indicator light (4 locations)	**H**	10 A circuit breaker

Notes:

1 *When lit, indicates main circuit breaker must be opened (switched off) before starting engine.*

2 *This 240 V (70 A or 100 A) breaker is connected to lights and receptacles.*

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Unit Setup

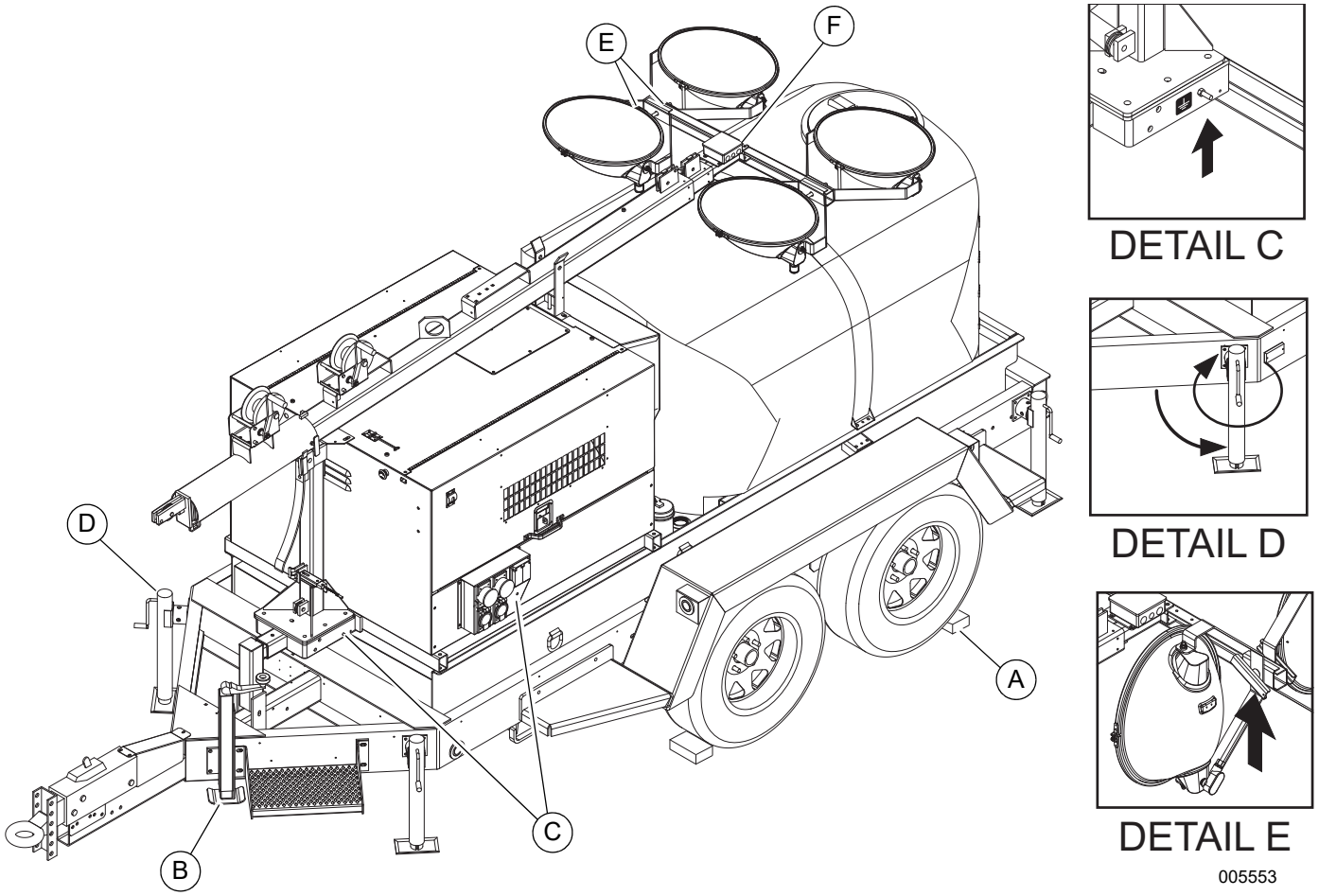

Figure 3-1. Setup Components

⚠DANGER

High Voltage. Verify area above unit is clear of overhead wires and obstructions. Contact with high-voltage power lines will result in death or serious injury. (000260a)

⚠WARNING

> 60 mph

Do not set up the unit if high winds are expected. High winds can cause the unit to tip or fall, causing severe injury or machine damage. (000297)

1. Position unit at ground level or higher than the area to be illuminated.
2. See ***Figure 3-1***. Place unit on relatively flat, firm ground. Block the wheels (A).
3. Deploy tongue jack (B): Remove locking pin. Lower jack support-foot to ground. Reinstall locking pin. Rotate jack handle clockwise to raise trailer hitch off towing vehicle.
4. Grounding studs (C) are on receptacle panel and on trailer frame at the base of the mast post. For grounding requirements, follow local, state, or National Electrical Code (NEC) guidelines.
5. Deploy four leveling jacks (D): Remove locking pins. Rotate each jack so support-foot faces down. Reinstall locking pins. Rotate each jack handle clockwise to start leveling the trailer. Adjust each jack until all support-feet firmly contact ground.
6. See Detail (E). Before raising mast, adjust lamps as desired.
7. Ensure lamp cables are securely installed to junction box (F).

Prestart Checklist

Before starting the unit, all items in the prestart checklist must be completed. This checklist applies to both manual and remote starting of the unit.

⚠WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

- ❒ Verify all maintenance procedures are up to date. For more information, refer to ***General Maintenance*** and ***Basic Maintenance Schedule***.
- ❒ The unit must be level.
- ❒ The unit must be dry. Look for water inside or near the unit; dry if needed.
- ❒ For grounding requirements, follow any local, state, or National Electrical Code (NEC) guidelines.
- ❒ Verify the Control Power switch is in the OFF (O) position.
- ❒ Verify all circuit breakers are in the OFF (O) position.
- ❒ Inspect all electrical cords; repair or replace any that are cut, worn, or bare.
- ❒ Verify all winch cables are in good condition and centered on each pulley. Do not use if cables are kinked or beginning to unravel.
- ❒ Check oil, coolant, and fuel levels. For more information, refer to ***General Maintenance***.
- ❒ Verify battery connections are secure.
- ❒ Turn the battery disconnect switch on, if equipped.
- ❒ Check the engine fan belt tension and condition.
- ❒ Check the engine fan belt guard.
- ❒ Check the engine exhaust system for loose or rusted components.
- ❒ Verify all covers are in place and secure.

Raising the Mast

⚠WARNING

> 60 mph

Do not set up the unit if high winds are expected. High winds can cause the unit to tip or fall, causing severe injury or machine damage. (000297)

⚠DANGER

Electrocution. DO NOT use the unit if electrical cord is cut or worn through. Doing so will result in death or serious injury. (000263a)

1. Set up the unit. See ***Unit Setup***.
2. See ***Figure 3-2***. Remove mast-cradle locking pin (A).

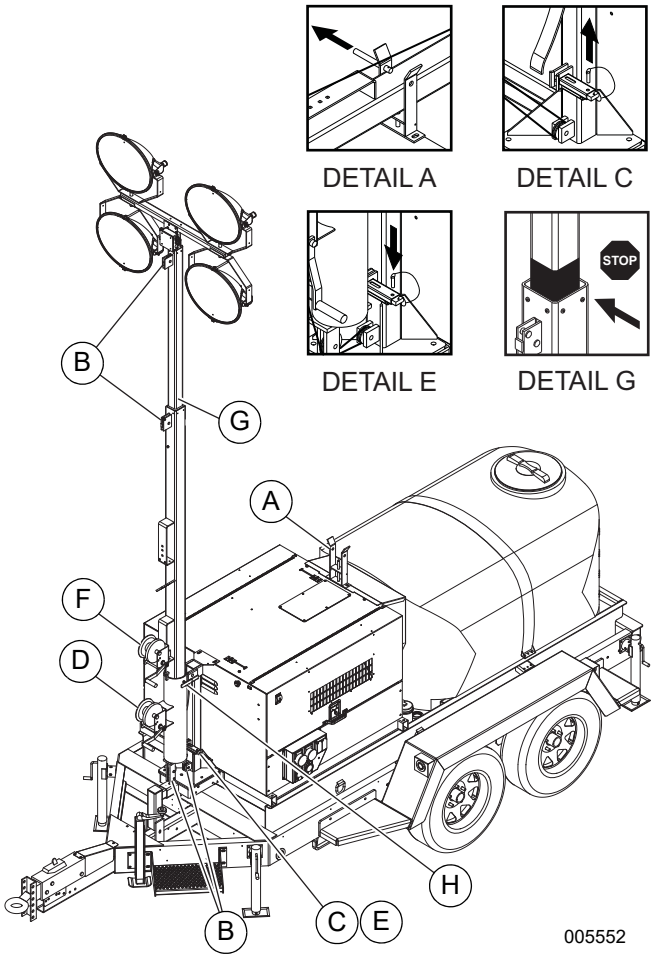

Figure 3-2. Raising Mast

3. Check mast cables for excess wear and damage. Ensure cables are centered in all four pulleys (B).
4. Check electrical coil-cord for damage.
5. Remove safety pin from mast lock bar (C). Slowly crank lower winch (D) until mast is vertical and the tab on the mast is positioned into the mast lock. The mast lock bar should automatically snap into place. Secure the lock with the safety pin (E).

6. Point lights in desired direction: Loosen mast rotation knob (H), then rotate mast as desired, then tighten mast rotation knob.
7. Slowly crank upper winch (F) until mast extends to desired height. Ensure electrical coil-cord is extending at the top mast sections. Stop cranking winch when colored mark on second mast section (G) is visible.

⚠WARNING

Personal Injury. Stop immediately if the mast hangs up or the winch cable develops slack. Excess slack could cause the mast to collapse, resulting in personal injury or equipment damage.

(000265)

⚠WARNING

Machine damage. Do not extend the mast beyond the colored mark. Overextension can stretch or break electrical cables or winch cables, and may damage mast hardware.

(000372)

⚠WARNING

Personal injury. Use caution when winding winch cable. Failure to do so could result in serious injury.

(000391)

8. See ***Figure 3-3***. Verify cable winds evenly around winch drum as shown (A) to prevent cable damage.

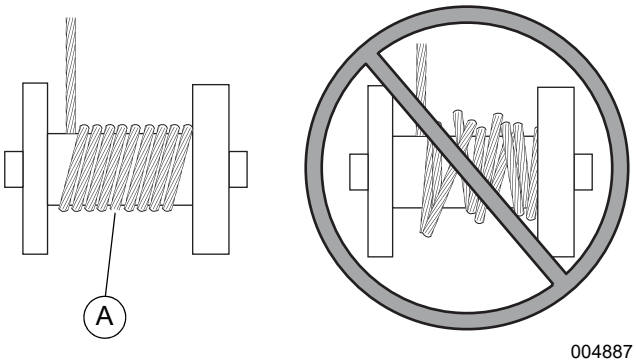

Figure 3-3. Winch Cable Alignment

IMPORTANT NOTE: Contact a GMASD **immediately** if the mast hangs up or the winch cable develops slack.

Transfer Switch

⚠DANGER

Electrocution, equipment and property damage. Handle transfer switches carefully when installing. Never install a damaged transfer switch. Doing so could result in death or serious injury, equipment and property damage.

(000195)

⚠DANGER

Electrical backfeed. Use only approved switchgear to isolate generator from the normal power source. Failure to do so will result in death, serious injury, and equipment damage.

(000237)

⚠WARNING

Electric shock. Only a trained and licensed electrician should perform wiring and connections to unit. Failure to follow proper installation requirements could result in death, serious injury, and equipment or property damage.

(000155a)

NOTE: The generator neutral is bonded to ground when shipped from the factory. The bonding plate will need to be removed when the generator is used as a standby power supply. Installation should be in compliance with the National Electrical Code (NEC), state and local regulations.

When the generator is used as a standby power supply, it must be equipped with a transfer switch which isolates it from the utility's distribution system. A transfer switch is designed to transfer electrical loads from the normal power source (utility) to the emergency power source (generator) when normal voltage falls below a prescribed level. The transfer switch automatically returns the load back to the normal source when power is restored back to operating levels.For information about any connected automatic transfer switch, consult the applicable transfer switch owner's manual.

Installation of a transfer switch or other type of remote starting device is the responsibility of the generator user. Installation of such devices must be performed by following all directions supplied by the manufacturer of the switch. If attaching the generator to a power supply normally serviced by a utility company, notify the utility company and check state and local regulations. Familiarize yourself with all instructions and warning labels supplied with the switch.

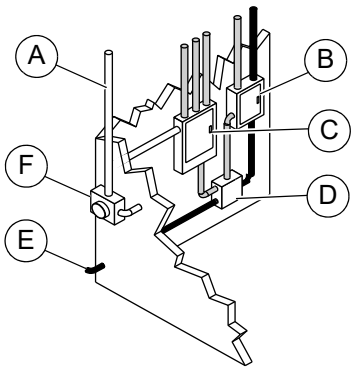

Figure 3-4. Transfer Switch Operation

A	Incoming utility power
B	Emergency distribution panel (generator power)
C	Main distribution panel (utility power)
D	Transfer switch
E	Power from generator
F	Utility meter
WHITE	Incoming utility power
GRAY	Normal utility power circuit
BLACK	Emergency generator power circuit

Shutting Down Unit

Check with personnel using power supplied by the unit and let them know the power is going to be turned off. Verify the power shutdown will not create any hazards by accidentally turning off equipment that needs to remain running (pumps, compressors, lights, etc.).

1. Remove all loads from the outlets.
2. Switch the lights off using the controller.
3. Switch the outlet breaker to the OFF (O) position.
4. Press the Stop (O) button.
5. After the unit shuts down, move the Control Power switch to the OFF (O) position.

NOTE: Disconnect the battery if the unit is to be stored for an extended period. Refer to the engine operator's manual for additional extended storage procedures.

Automatic Shutdown

This unit is equipped with a low oil pressure and high coolant temperature automatic shutdown system. This system will automatically shut off the fuel supply to stop the engine if oil pressure drops too low or the engine exceeds normal operating temperature. Return the Control Power switch to the STOP position to reset the unit after the cause of shutdown has been determined.

Using Emergency Stop Switch

⚠WARNING

Personal injury. Press the emergency stop button to stop the engine immediately in case of an emergency. Failure to do so could result in death or serious injury.

(000298a)

⚠CAUTION

Equipment Damage. The emergency stop switch is not to be used to power down the unit under normal operating circumstances. Doing so could result in equipment damage.

(000246b

See ***Figure 3-5***. The unit is equipped with an emergency stop switch (A). The switch can be accessed and activated with all doors closed and locked.

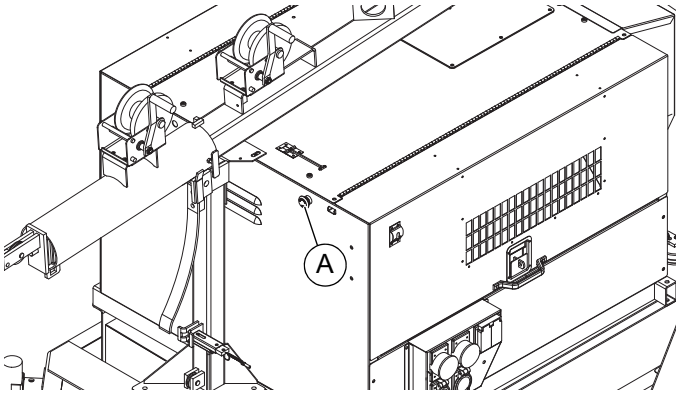

Figure 3-5. Emergency Stop Switch

Activate the emergency stop switch by pushing the button in until it locks down. This will trip the main circuit breaker which will open the contact, disconnecting the load to the connection lugs. This will also open the fuel circuit, shutting down the engine. The emergency stop fault will be displayed on the control panel. The switch will remain closed until it is pulled out.

Using Water Supply

⚠DANGER

Not for human consumption. Water in tank is not potable. Using tank water for human consumption will result in death or serious injury.

(000361)

The unit comes equipped with a 500 gallon (1,895 L) water tank and a manifold with four hose bibbs. This allows the water tank to be connected to a trailer or RV for water to be used in non-potable applications. Two bibbs (A) are for gravity feed only and two bibbs (B) are pressurized by the onboard pump (C). The pump only operates when the engine is running.

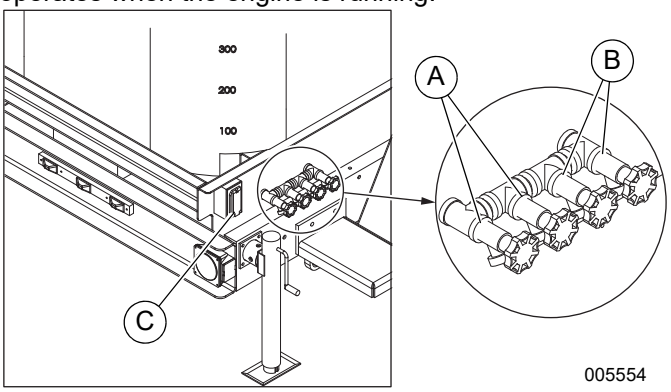

Figure 3-6. Pump Switch and Bibbs

Filling Water Tank

1. Close all hose bibbs.
2. Remove the tank cover. Leave the smaller inspection cap in the center of the cover in place.

Fill the tank from a water source.

Using Pressurized Water Supply Bibbs

1. Connect a hose from one of the pressure bibbs to the end location (trailer, RV, etc.).
2. Start the engine on the unit.
3. Switch the main circuit breaker to the ON (I) position.
4. Open the pressure bibb(s).
5. Switch the pump on; it will stop automatically when the water pressure reaches 35 psi (241 kPa).

Using Gravity Water Supply Bibbs

1. Connect a hose from one of the gravity bibbs to the end location.
2. Open the gravity bibb(s).

NOTE: Drain the tank when the temperature is expected to drop below 32°F (0°C) or if the unit is to be stored for a long period of time.

Using Lower Radiator Hose Heater (If Equipped)

The lower radiator hose heater is designed to prevent engine coolant from freezing in extreme cold weather conditions. While the heater is designed to be operated overnight if necessary, two to five hours of heating just prior to starting is usually sufficient for proper engine starting.

NOTE: Use the lower radiator hose heater only in its designated location. Improper use can damage the engine.

Perform the following steps when operating a unit equipped with a lower radiator hose heater.

1. Verify that the unit is level so as to maintain proper orientation of the heater while it is in operation.
2. Verify that the cooling system is full of the proper mixture of water and engine coolant before each heater use.
3. Use only an undamaged, outdoor rated, three-prong grounded 120VAC extension cord with a minimum amperage rating of 10A. Connect the cord to a properly grounded 120VAC, GFCI outlet.
4. Before starting the engine, unplug the extension cord from the power first, then unplug the heater cord set from the extension cord.

Lowering Mast

1. Shut down the lights and engine. See ***Shutting Down Unit***.

⚠WARNING

Burn Hazard. Allow bulb fixture to cool 10-15 minutes before handling or lowering mast. Failure to do so could result in serious injury.

(000358)

2. Loosen the mast rotation knob. Rotate the mast until the white arrows are aligned and the metal stop tabs are touching. Tighten the mast rotation knob.
3. Turn the upper mast winch handle counterclockwise to collapse the mast to its lowest position. Verify the electrical cord does not get caught in, or pinched by, the mast as it is being lowered.

⚠WARNING

Personal Injury. Stop immediately if the mast hangs up or the winch cable develops slack. Excess slack could cause the mast to collapse, resulting in personal injury or equipment damage.

(000265)

IMPORTANT NOTE: Contact a GMASD immediately if the mast hangs up or the winch cable develops slack.

4. Release the mast lock by pulling the safety pin on the mast lock and pulling the lock bar free. Turn the handle of the lower mast winch counterclockwise until the mast rests in the transport cradle.

NOTE: If the mast lock does not pull free, activate the lower winch slightly to relieve pressure on the mast bar.

5. After the mast is completely down, insert the mast cradle locking pin and secure it with the safety pin.

NOTE: If the trailer is going to be moved, Generac Mobile recommends removing the lights from the mast and stowing them for transportation. See ***Removing Lights for Transportation***.

Removing Lights for Transportation

1. On units equipped with quick disconnect fittings for the lights, disconnect the power cords from the junction box at the top of the mast. Replace the dust caps on the junction box. On hard wired units, remove the junction box cover, located on the top of the mast, and disconnect ONLY the mast light wires from the connectors. To release the mast light wires from the connectors, flip the locking levers down and pull out the appropriate wires.
2. Remove the lights by removing the nylock nut that holds the light fixture bracket to the cross tube. Attach the lights to the storage brackets (if equipped) located on the mast tube on either side of the central lift point.

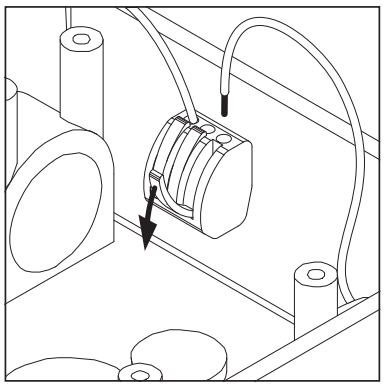

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Figure 3-7. Disconnect Power Cords

Towing Unit

Once the engine is shut down and the mast and lights are properly stowed, follow these steps to prepare the unit for towing.

1. Raise the jacks completely and release the locking pins to rotate them up into the travel position.
2. Use the tongue jack to raise or lower the trailer onto the hitch of the towing vehicle. Lock the hitch coupling and attach the safety chains or cables to the vehicle. Remove the tongue jack locking pin and rotate the jack into the travel position. Replace the locking pin.
3. To ensure proper operation of the jacks, lubricate the grease fittings located on the leveling jacks. Refer to ***Jack Maintenance***. For maintenance interval information, refer to ***Basic Maintenance Schedule***.
4. Connect any trailer wiring to the tow vehicle. Check for proper operation of the directional and brake lights.
5. Verify the enclosure is properly latched.
6. Check for proper inflation of the trailer tires. For maximum tire pressures, refer to ***Specifications***.
7. See ***Figure 3-8***. Check the wheel lugs. Tighten or replace any lugs that are loose or missing. If a tire has been removed for axle service or replaced, tighten the lugs, in the order shown, to the following specifications:

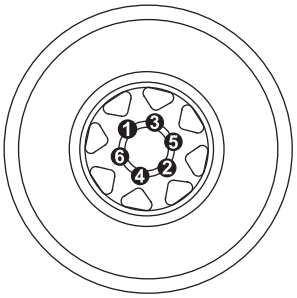

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Figure 3-8. Tightening Wheel Lugs

   a. Start all lug nuts by hand.
   b. First pass: tighten to 20-25 ft-lbs (27-33 Nm).
   c. Second pass: tighten to 50-60 ft-lbs (67-81 Nm).
   d. Third pass: tighten to 90-120 ft-lbs (122-162 Nm).

NOTE: After the first road use, tighten the lug nuts in sequence.

8. See ***Safe Towing Techniques*** for recommended speeds for highway towing.

Lifting Unit

Follow these steps to prepare the unit for lifting:

1. Verify the equipment being used to lift the unit is in good condition and has sufficient capacity. For approximate weights, refer to ***Specifications***.
2. Close and lock all doors.
3. Verify the cradle locking pin is in place.
4. Always remain aware of people and objects around the unit while preparing, maneuvering, and lifting the unit.
5. See ***Figure 3-9***. Use the forklift pockets (A) with care. Lift only from the side or the rear. Avoid approaching the unit at an angle, as this can permanently damage the forklift pockets, tires, or cabinet. Verify any obstructions are clear of the forklift tines before lifting.

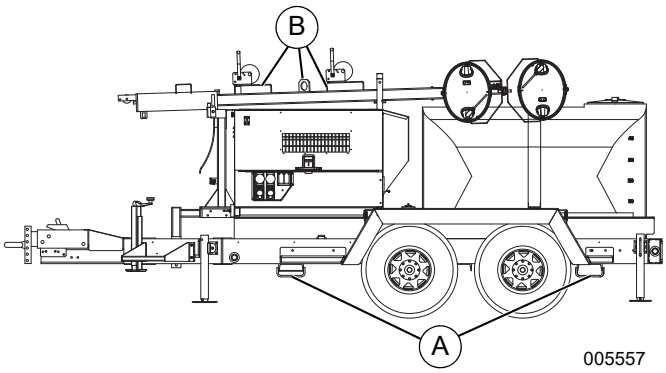

Figure 3-9. Lifting Point

IMPORTANT NOTE: DO NOT use the points on the mast (B) to lift the unit.

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Emissions Information

For warranty information, refer to the diesel engine manual supplied with this unit.

Daily Walk-Around Inspection

Perform a walk-around inspection of the unit every day before starting the unit. Look for conditions that could hinder performance or safety, such as (but not limited to) oil/coolant/fuel leakage, blocked vents, loose/missing hardware, and loose or broken electrical connections.

Inspect the fan belt for cracks, fraying, or stretching. Verify the belt is properly seated in the pulley grooves. Replace the belt according to the manufacturer's recommendations.

⚠CAUTION

Equipment Damage. Failure to perform a daily inspection could result in damage to the unit.

(000306)

General Maintenance

Poorly maintained equipment can become a safety hazard. In order for the equipment to operate safely and properly over a long period of time, periodic maintenance and occasional repairs are necessary. **DO NOT** perform routine service (oil and filter changes, cleaning, etc.) unless all electrical components are shut off.

Regular maintenance will improve performance and extend engine/equipment life. Generac Mobile recommends that all maintenance work be performed by a GMASD. Regular maintenance, replacement or repair of the emissions control devices and systems may be performed by any repair shop or person of the owner's choosing. However, to obtain emissions control warranty service free of charge, the work must be performed by a GMASD or authorized Isuzu engine dealer depending on the repair. See the emissions warranty.

Preparing for Service

Before servicing the unit, always follow the instructions listed below.

1. Verify the Control Power switch is OFF (O).
2. Verify the circuit breakers are OFF (O).
3. Activate (push in) the emergency stop switch.
4. Disconnect the negative (–) terminal on the battery.
5. Attach a "Do Not Start" sign to the control panel. This will notify everyone that the unit is being serviced and will reduce the chance of someone inadvertently trying to start the unit.

Cleaning Unit

Always clean the Light Tower after each use to remove dust, grease, mud, or spilled fuel or oil. Use soft, clean rags to wipe the cabinet exterior and control panel. Low-pressure compressed air (less than 40 PSI [276 kPa]) can also be used to remove dust and debris from the cabinet interior.

This unit contains sensitive electronic components that can be damaged by high pressure and heat. Therefore:

- Do not wash the unit with a high pressure hose or power washer.
- Do not wash the engine block or fuel tank with a power washer or steam cleaner. Water may enter the cabinet and collect in the generator windings or other electrical parts, causing damage.

Inspecting Unit

- ❒ If the unit is stored outside, check for water inside the cabinet and generator before each use. If wet, dry the unit thoroughly before starting.
- ❒ Inspect condition of electrical cords. **DO NOT** use the unit if insulation is cut or worn through.
- ❒ Verify winch cables are in good condition and centered on each pulley. **DO NOT** use a cable that is kinked or starting to unravel.
- ❒ Verify the safety pins for the mast lock rod and mast lock bar are present and secured with a chain. Check that the spring located in the mast lock bar is not broken or missing. Check the operation of the mast lock bar.
- ❒ Verify the wheel lugs are present and properly tightened. Refer to ***Towing Safety***.
- ❒ Check the coolant level daily by inspecting the level in coolant overflow jug located near the radiator. Refer to the engine operator's manual for coolant recommendations and proper mixture. Normal operating level is between the FULL and ADD markings on the overflow jug.
  - **AFTER ENGINE IS STOPPED AND COMPLETELY COOL**, coolant may be added directly to the coolant overflow jug.

- ❒ Check the oil level daily. Refer to the engine operator's manual for the appropriate oil specification. Make sure that the oil is correct for special operating conditions such as a change in season or climate.
  - **DO NOT** start the unit if the engine oil level is below the add mark on the dipstick.
  - Normal operating level is in the cross-hatch pattern between the full and add markings on the dipstick.
  - Add oil only if the oil level is below the add mark on the bottom of the cross-hatch pattern on the dipstick. **DO NOT OVERFILL** the crankcase.
- ❒ Check the fuel level.
- ❒ If the unit is connected to a remote start or transfer switch, make sure the remote switch is also off and tagged.

NOTE: If the engine was run out of fuel or the fuel tank was drained, it may be necessary to bleed the fuel lines. Refer to the engine operator's manual supplied with the unit.

Engine Break-In Requirements

The engine in this unit has an engine break-in duration that will prohibit the unit from providing rated standby power upon factory delivery. The unit is tested at the factory and is initially capable of a prime standby power output. The engine performance will increase to 95% of full rated power during the first 20 hours of loaded operation. The unit will provide full rated power after the complete engine break-in period of 70 hours of loaded operation.

Operate the engine at heavy loads (60–90% [24–36kW] of rated output maximum) as much as possible during the break-in period. If the engine has spent significant time at idle, constant speed(s) and/or light load or if makeup oil is required, a longer break-in period may be needed. Refer to the engine operator's manual for a full description of necessary procedures on the addition of oil and extension of the break-in period. For more information on regular maintenance intervals, see ***Basic Maintenance Schedule***.

Basic Maintenance Schedule

Refer to the diesel engine manufacturer's operating manual for a complete list of maintenance requirements. Failure to comply with the procedures as described in the engine operator's manual will nullify the warranty, decrease performance and cause equipment damage or premature equipment failure. Maintenance records may be required to complete a warranty request.

Use the schedule in the following tables as a guide for regular maintenance intervals. For additional or replacement copies of the engine operator's manual, contact a GMASD.

Winch Use, Operation, and Maintenance

Prior to Use

- Inspect cables and replace if damaged.
- Check mounting hardware for proper tightness and re-torque if necessary.
- Gears, ratchet pivot point, and shaft bushings must be kept lubricated with a thin film of oil or grease.

Raising the Mast

1. The cable must be securely fastened to the object being lifted and to the winch drum.
2. Verify the cable and cable attachments are not damaged. Contact Generac Mobile to order a replacement cable if necessary.
3. Referring to the “Lift / Let Down” decal on the winch, turn handle according to the specified direction to lift. The ratchet MUST make a loud clicking sound while winding the cable.

Lowering the Mast

Referring to the “Lift / Let Down” decal on the winch, turn handle according to the specified direction to lower. No clicking will be heard because the brake system is activated.

Maintenance

The following procedures should be performed at least annually:

1. The gears and bushings of the winch must be kept lubricated. Apply a thin film of grease to the gear teeth, and oil the bushings as needed.
2. The ratchet pawl pivot point must be kept lubricated with a thin oil.

NOTE: Do not get oil or grease on the brake mechanism.

Winch Maintenance Schedule

Maintenance Activity	After First Operation	Before Each Use	Semi-Annually
Check fasteners	♦		♦
Check condition of cables		♦	
Clean and grease brake assembly			♦
Visually check winch and control	♦	♦	♦

Jack Maintenance

Before each use, check each jack foot for damage and remove any mud or debris. The jacks must be clean and in good operating condition to properly support the unit.

Trailer Wheel Bearings

The trailer axles are equipped with a Zerk grease fitting to allow lubrication of the wheel bearings without the need to disassemble the axle hub. Use only a high quality grease made specifically for lubrication of wheel bearings, such as Valvoline W615 or equivalent.

To lubricate the wheel bearings:

1. See ***Figure 4-1***. Remove the small rubber plug (A) from the metal end cap (B).

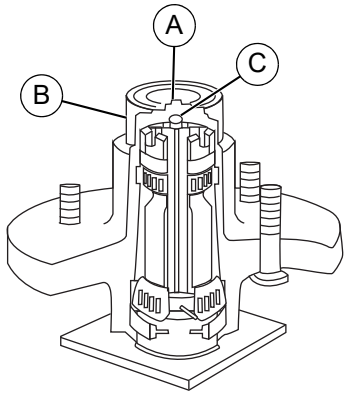

Figure 4-1. Wheel Bearing Cross Section

2. Attach a standard grease gun fitting to the Zerk grease fitting (C).
3. Pump grease into the Zerk fitting until fresh grease is visible around the nozzle of the grease gun.
4. Wipe any excess grease from the axle hub with a clean cloth and replace the rubber plug.

The minimum recommended lubrication is every 12 months or 12,000 miles (19,312 km). More frequent lubrication may be required under extremely dusty or damp operating conditions.

Every six months, or depending on usage, check for play in each bearing by jacking up the trailer, then trying to rock the wheel. If further assistance is required, contact Generac Mobile technical service at 1-800-926-9768.

Section 5: Troubleshooting

General Troubleshooting

Some of the more common problems are listed in the table below. This information is intended to be a check or verification that simple causes can be located and fixed. It does not cover all types of problems. Refer to the OEM engine operator's manual for additional troubleshooting information. Procedures that require in-depth knowledge or skills should be referred to a GMASD.

⚠WARNING

Equipment damage. Only qualified service personnel may install, operate, and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and equipment or property damage.

(000182a)

⚠WARNING

Electrocution. Potentially lethal voltages are generated by this equipment. Render the equipment safe before attempting repairs or maintenance. Failure to do so could result in death or serious injury.

(000187)

⚠WARNING

Risk of burns. Allow engine to cool before draining oil or coolant. Failure to do so could result in death or serious injury.

(000139)

General Troubleshooting Guide

Problem	Possible Cause	Solution
Engine cranks but does not start	Low fuel	Check fuel level in tank.
	Obstructed fuel flow	Check fuel pump operation.
		Inspect fuel supply hose from tank to fuel filter for cracks and abrasion.
		Check for gelled fuel in cold weather, especially at fuel filter.
	Air in fuel system	Bleed air from fuel system.
	Restricted air filter	Inspect air filter for blockage.
	Glow plug(s) inoperable	Refer to OEM engine operator's manual for additional information.
Engine starts, then stops	Ambient temperature too low	Check ECU codes Check if ambient temperature is within unit limits.
High coolant temperature shutdown	Low coolant level	Allow engine to cool. Check coolant level in radiator; add coolant if needed.
	Radiator blockage; external debris on radiator	Inspect radiator. Remove blockage and any debris.
	Broken coolant pump belt	Inspect for visible leaks. Check tension of water pump drive belt.
	Cooling fan inoperable	Remove load on generator and restart engine.
		Check coolant temperature and shut engine down immediately if it starts to overheat.
Low oil pressure shutdown	Oil level low	Check oil level. Add oil if necessary.
	Oil pump inoperable	Contact a GMASD.
Unit stalls when export power is used	Load exceeds unit rating	Turn outlet breaker ON and load sense switch OFF, confirm generator output is 60hz + or - 2hz. Reapply load.
One or more lights do not turn on	Light breaker tripped	Check light breakers.
	Lights not turned on	Check electronic control to see if lights are on. Turn lights on.
Lights are flashing	Generator frequency too low	Check if AC frequency is >40hz.

Troubleshooting the Lights

IMPORTANT NOTE: Only a qualified electrician should troubleshoot or repair electrical problems occurring in this equipment. Contact Generac Mobile Technical Service at 1-800-926-9768 for assistance if you have any questions, or if problems persist.

⚠WARNING

Burn hazard. Lamps become extremely hot while in use. Allow 10–15 minutes for cooling before handling or lowering mast. Touching a hot lens or fixture can cause severe burns.

(000278)

⚠WARNING

Electrocution. Potentially lethal voltages are generated by this equipment. Render the equipment safe before attempting repairs or maintenance. Failure to do so could result in death or serious injury.

(000187)

Mast Lights Troubleshooting Guide

Problem	Possible Cause	Solution
Mast Lights OFF, checking outside the control box	Light fixture too hot	Allow light to cool 10-15 minutes before restarting.
	Faulty lamp connection	Verify lamp is tight in socket.
	Broken lamp	Check for broken arc tube or outer lamp jacket, broken or loose components in lamp envelope, or blackening/deposits inside tube.
	Loose lighting connections	Check the connections inside the mast junction box and each mast light housing/socket.
	Damaged or loose electrical cord	Check the mast electrical cord for damage and check the cord connections inside the control box.
Mast lights ON but light output low	Dirty fixture and/or lens	Clean reflective surface inside fixture and both inside and outside surface of glass lens. Use mild soap and water to clean lens. Other chemicals may have an adverse effect on the glass.
	Lamp worn due to normal use	Replace lamp.
	Damaged or loose electrical connections	Check the mast coil cord, mast junction box and mast light connections.
	Generator output incorrect	Check the incoming voltage to the ballast. Incoming voltage should be 120V +/-5V. If the voltage is incorrect, the engine speed may need to be adjusted or the generator may require service.
	Low transformer output	The voltage from the transformer should read approximately 400VAC as the light “strikes” (induces an arc), then drop and slowly rise back up to stabilize at 240–260VAC. On hard wired models, remove the mast junction box cover and insert the wire probes into the connector blocks for the light and ground. If proper voltage is not achieved, perform capacitor check to determine if the capacitor or coil needs to be replaced.
One or more lights do not turn on	Light breaker tripped Lights not turned on	Check light breakers. Check electronic control to see if lights are on. Turn lights on. Check if cord is damaged.

Troubleshooting the Water System

Water System Troubleshooting Guide

Problem	Possible Cause	Solution
No water flow	Clogged hose bibb(s)	Check hose bibb(s) for obstruction—clear debris
	Engine not running; no power to onboard pump	Start engine to operate onboard pump
	Onboard pump fault	Repair or replace
	Empty water tank	Fill water tank.
Weak or interrupted water flow	Hose or hose connection leaks	Check for leaks—tighten loose connections; repair or replace damaged equipment
	Low water level	Fill water tank.
	Clogged hose or hose connection	Check hose and connections for obstruction—clear debris
Onboard pump does not shut off	Faulty pump—water pressure is not reaching 35 psi (241 kPa) to trigger automatic shutoff	Repair or replace onboard pump

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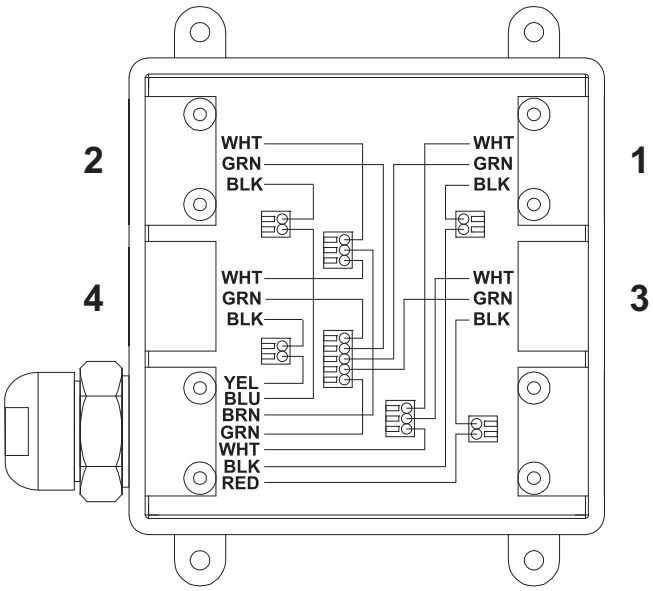
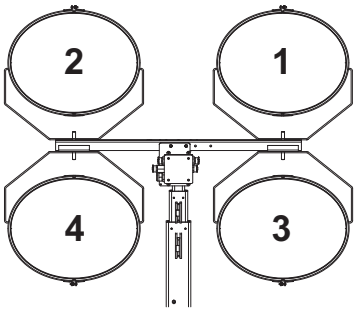
Mast Junction Box and Light Connections





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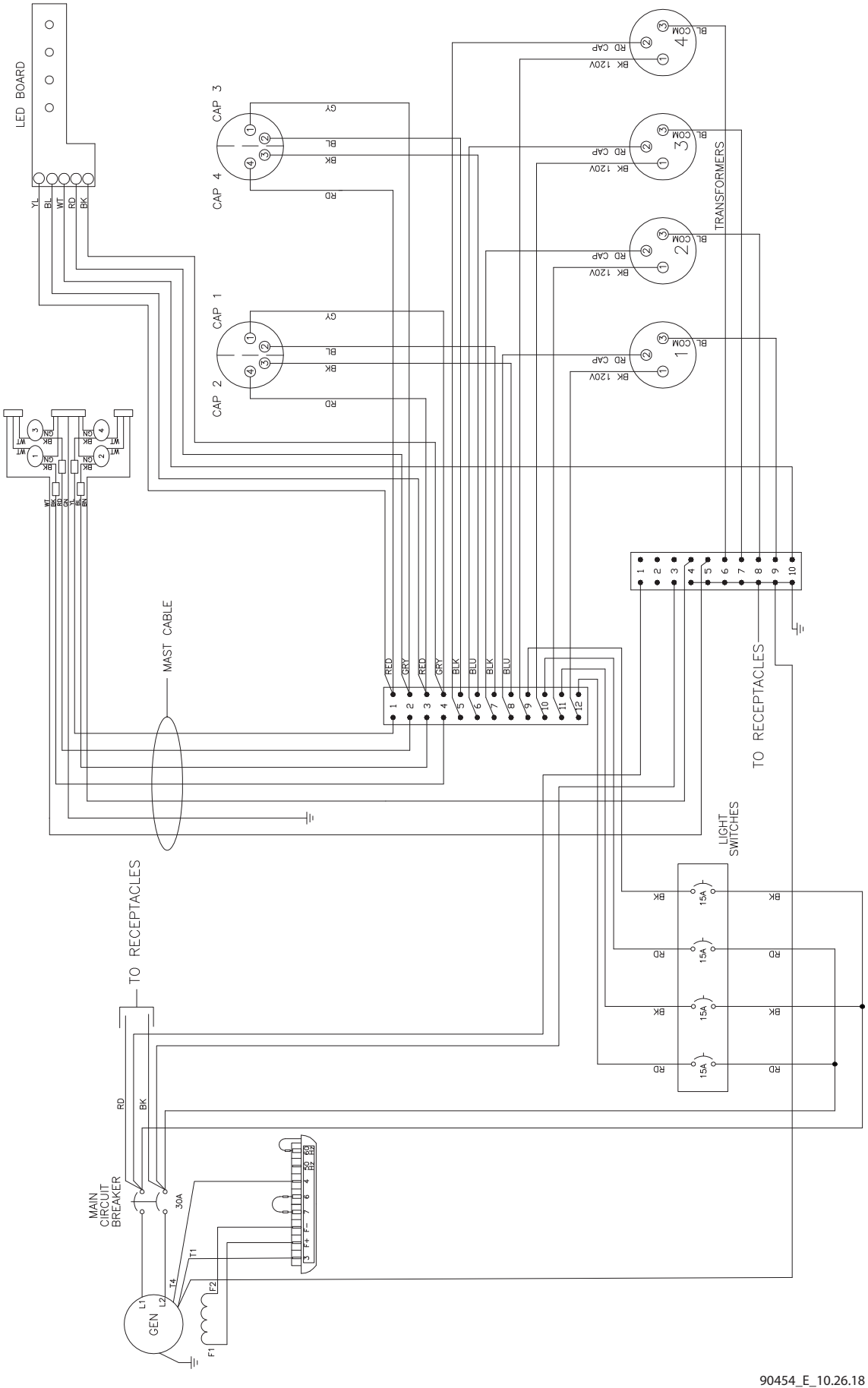
AC Wiring



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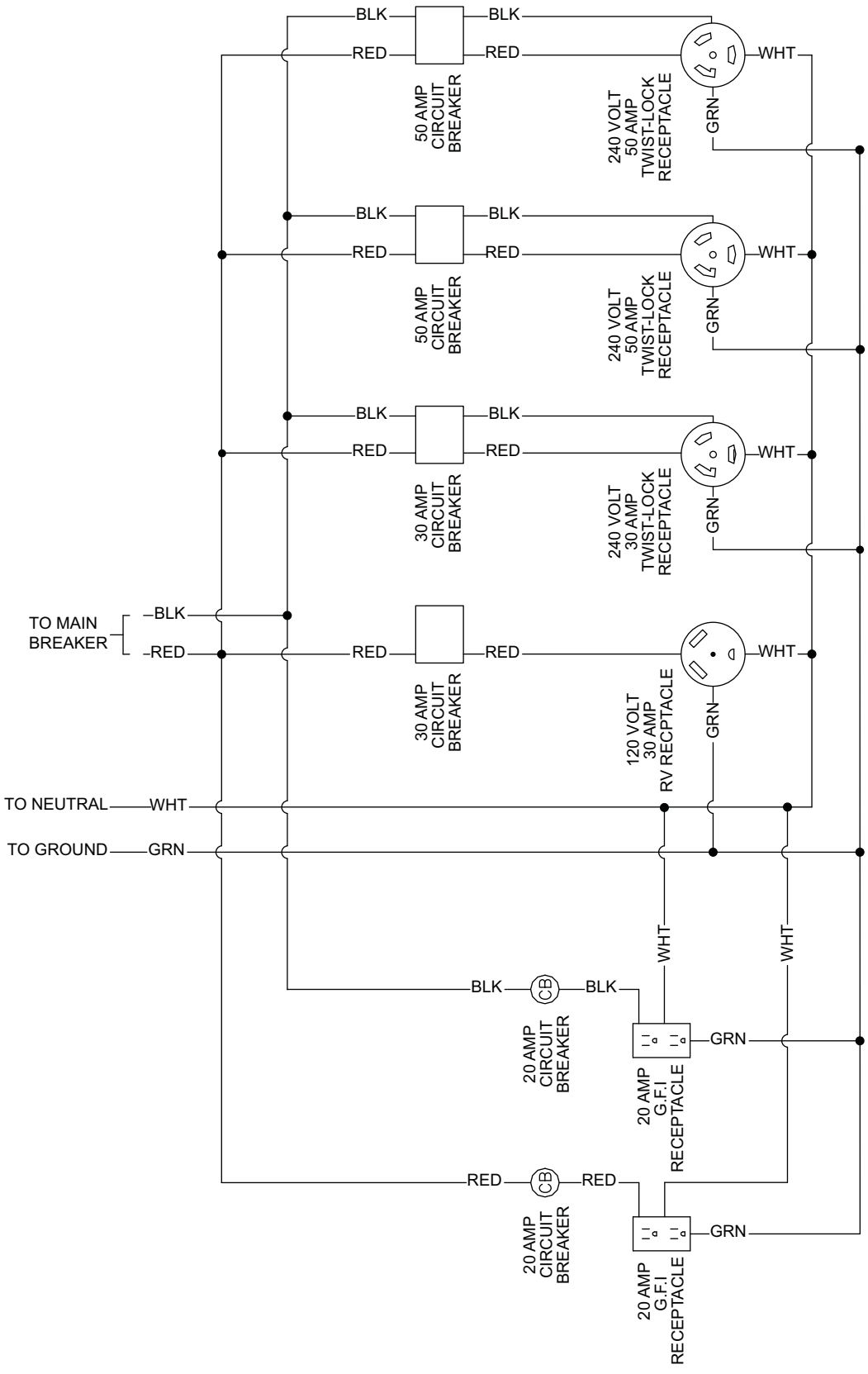
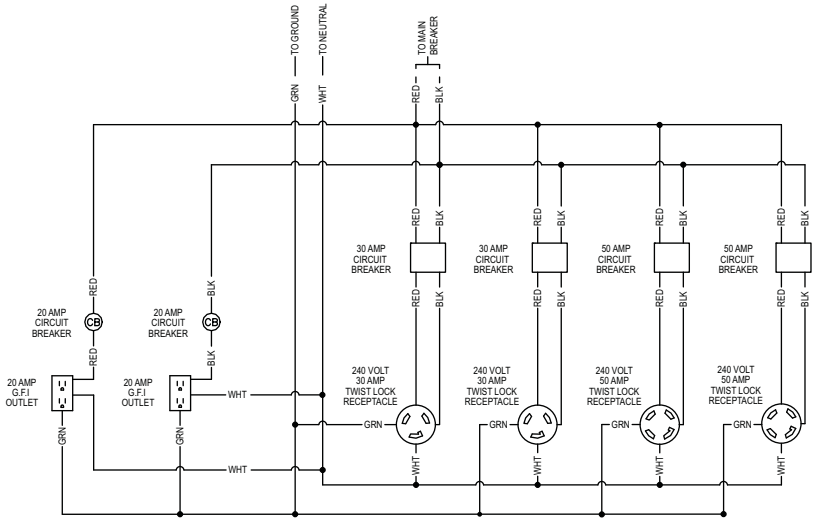
AC Wiring—Receptacle Panel



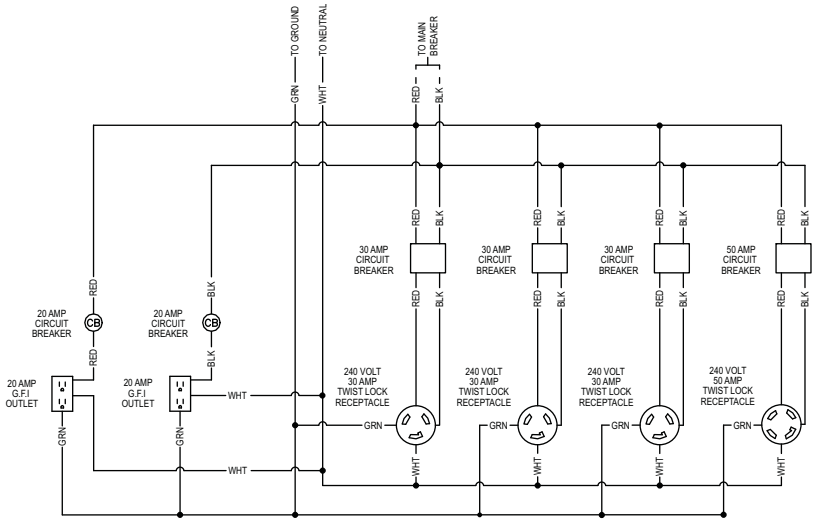
(2x5-20R, 1xTT-30, 1xL14-30R, 2x14-50)

90317_ORG_07.06.11

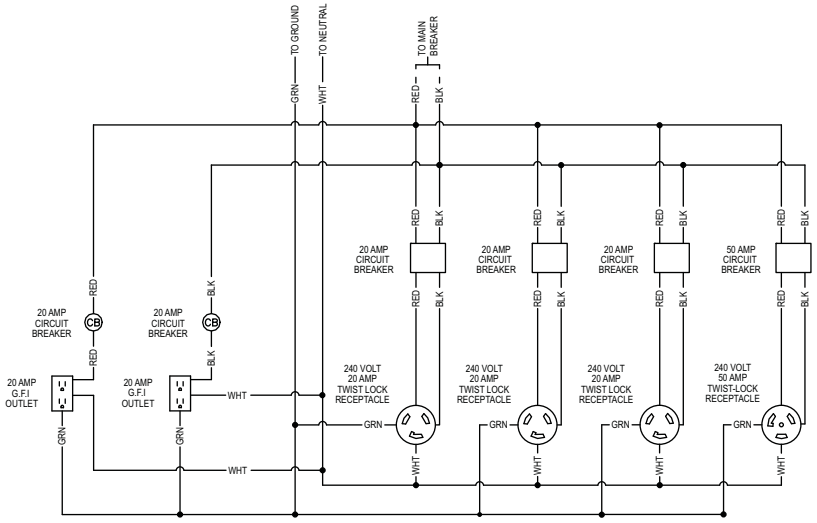
AC Wiring—Receptacle Panel Options (If Equipped) (1 of 2)



Receptacle Panel (2x5-20R, 2xL6-30R, 2xL14-50) 90315_ORG_10.14.11

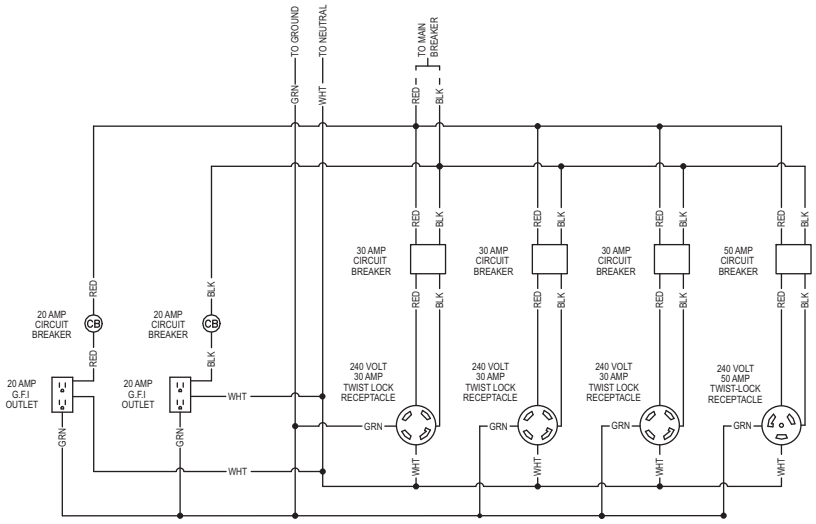


Receptacle Panel (2x5-20R, 3xL6-30R, 1xL14-50) 90318_ORG_07.06.11

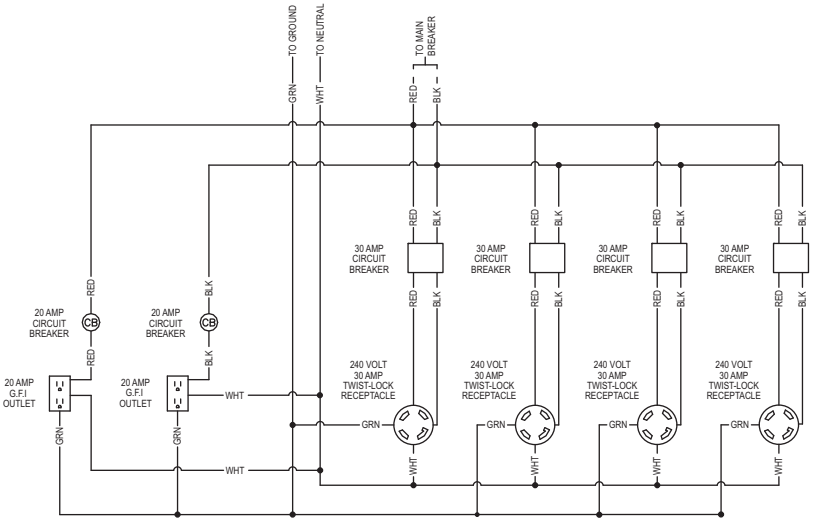


Receptacle Panel (2x5-20R, 3xL6-20R, 1x50A) 90319_ORG_07.06.11

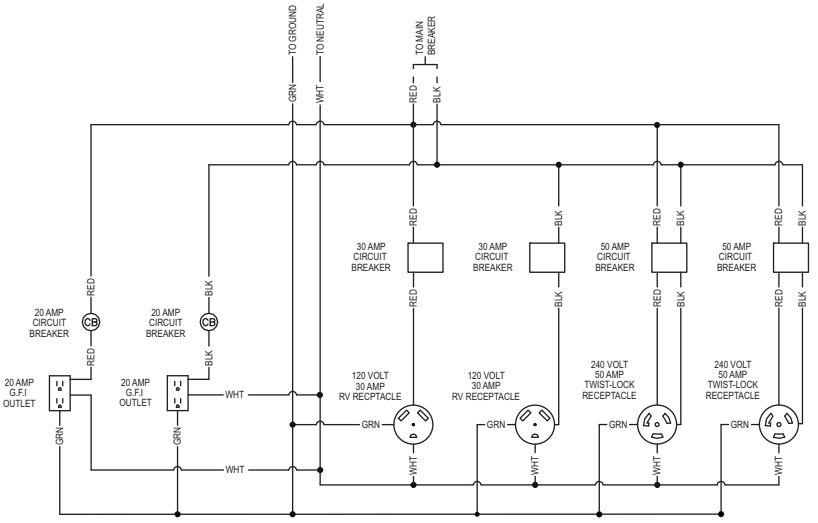
AC Wiring—Receptacle Panel Options (If Equipped) (2 of 2)



Receptacle Panel (2x5-20R, 3xL14-30R, 1x50A) 90320_ORG_07.06.11

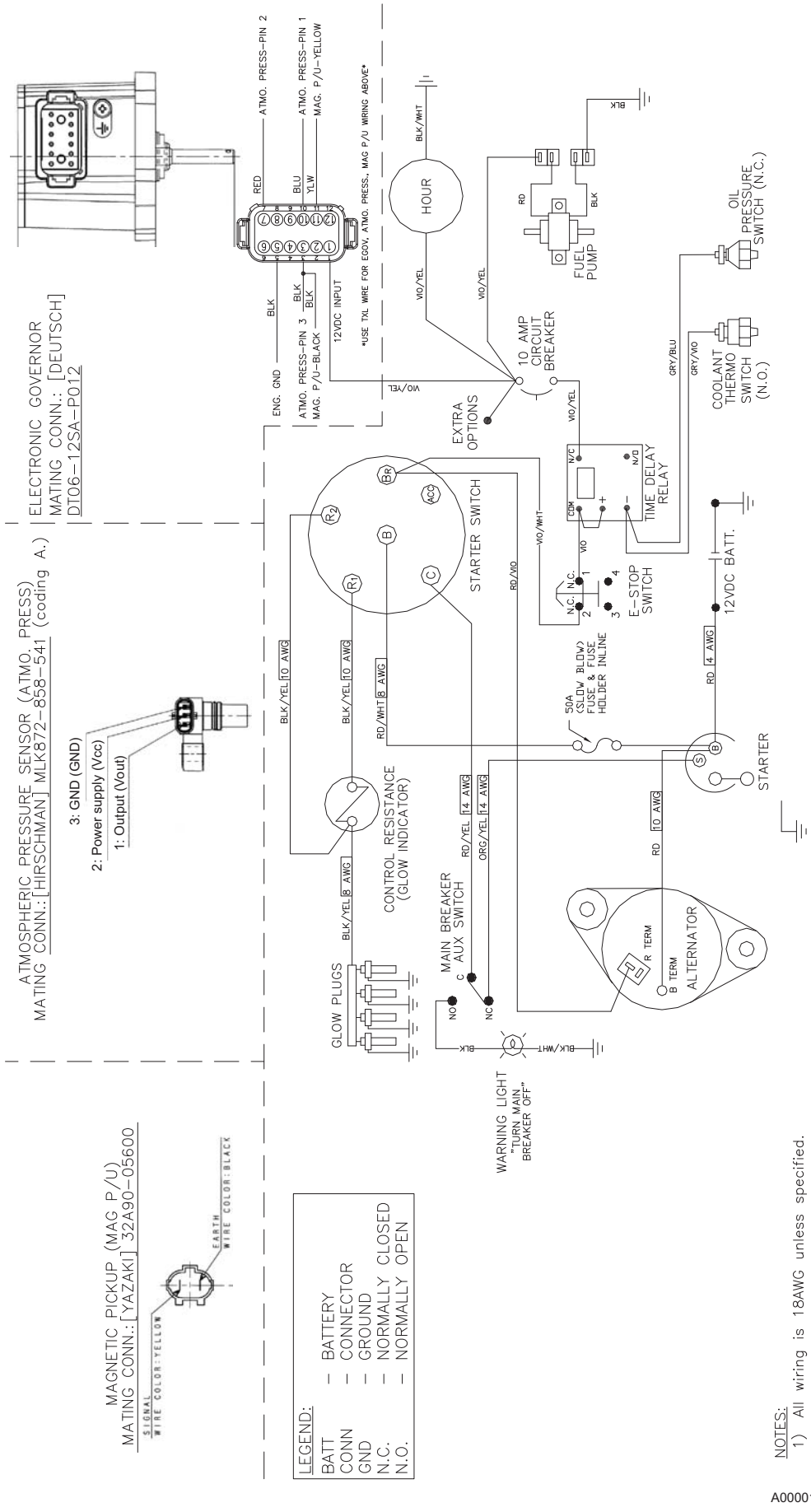


Receptacle Panel (2x5-20R, 4xL14-30R) 90321_ORG_07.06.11



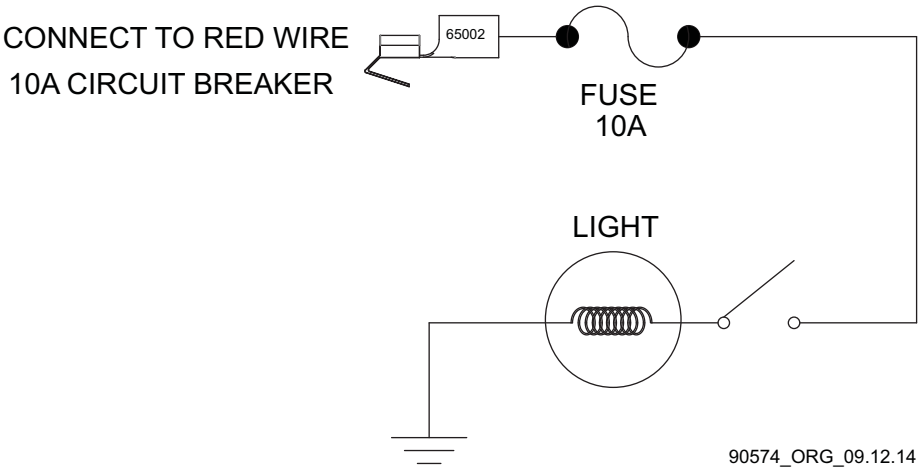
Receptacle Panel (2x5-20R, 2xTT-30, 2x14-50) 90355_ORG_07.06.11

DC Wiring

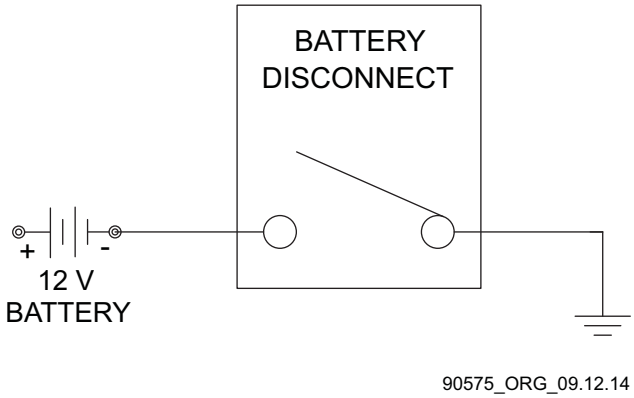


A0000148644_A_03.06.19

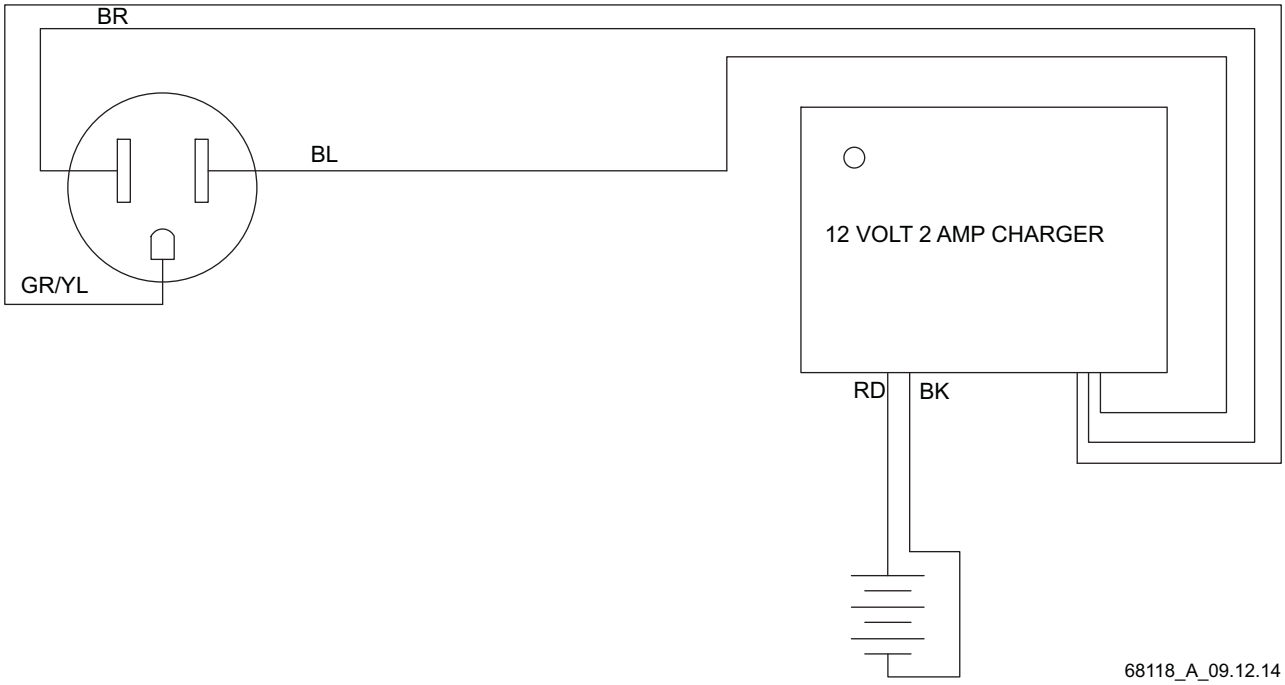
DC Wiring—Interior Light (If Equipped)



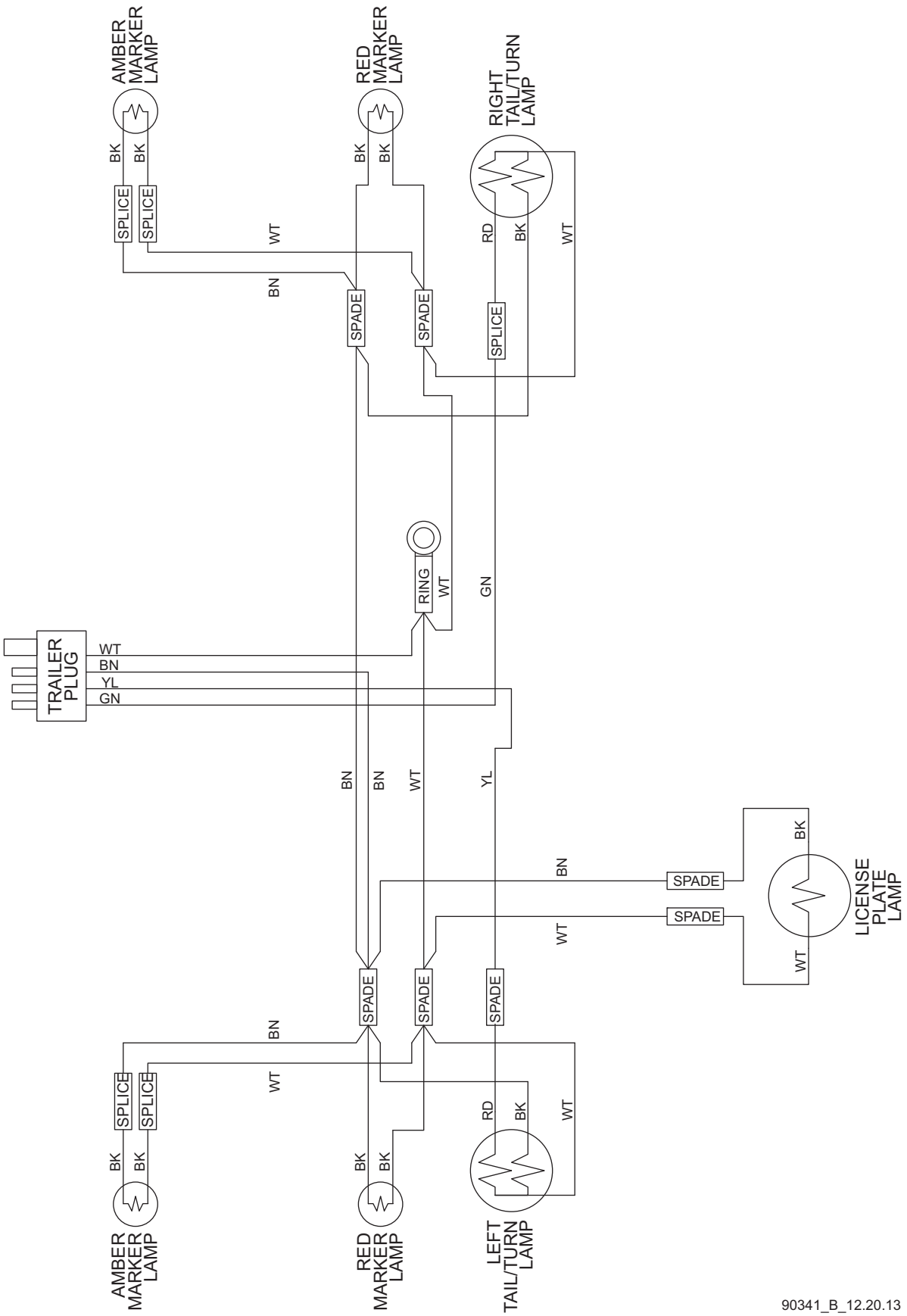
DC Wiring—Battery Disconnect (If Equipped)



DC Wiring—Battery Charger—If Equipped



Trailer Lights Wiring



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