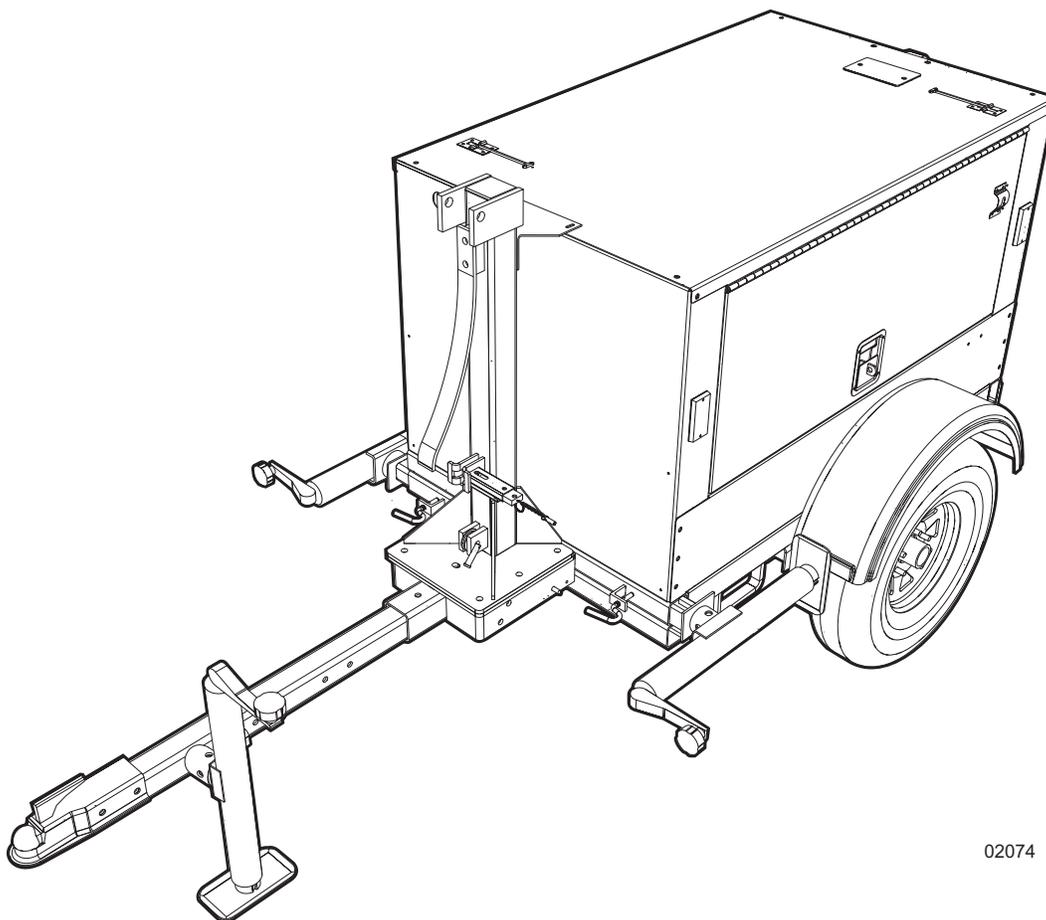


# **GENERAC<sup>®</sup>** | **MAGNUM**

## **DIESEL GENERATOR MLG6K**



02074

## **OPERATING MANUAL**

Parts manuals available online at [www.generacmobile.com](http://www.generacmobile.com)

**⚠ WARNING**

**CALIFORNIA PROPOSITION 65 WARNING: Diesel engine exhaust and some of its constituents are known to the state of California to cause cancer, birth defects, and other reproductive harm.**

**⚠ WARNING**

**CALIFORNIA PROPOSITION 65 WARNING: This product contains or emits chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.**

**⚠ 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.**

## Introduction

This manual provides information and procedures to safely operate and maintain the Generac Mobile Products unit. For your own safety and protection from physical injury, carefully read, understand, and observe the safety instructions described in this manual. Keep a copy of this manual with the unit at all times. Additional copies are available from Generac Mobile Products, or can be found at [www.generacmobile.com](http://www.generacmobile.com). *The information contained in this manual was based on machines in production at the time of publication. Generac Mobile Products reserves the right to change any portion of this information without notice.*

Read all of the manuals included with the unit. Each manual details specific information regarding items such as setup, use and service requirements. An engine operator's manual provides detailed operation and maintenance procedures for the engine. Additional copies of the engine operator's manual are available from the engine manufacturer.

**DO NOT MODIFY** or use this equipment for any application other than for which it was designed.

Only a trained and licensed electrician should perform wiring and connections to unit. Wiring must be in compliance with National Electrical Code (NEC), state and local regulations, as well as Occupational Safety and Health Administration (OSHA) guidelines.

### **GENERAC MOBILE PRODUCTS LLC**

**215 Power Drive • Berlin, WI 54923**

**U.S.A.**

**Phone: 920-361-4442**

**FAX: 920-361-4416**

**Toll Free: 1-800-926-9768**

**[www.generacmobile.com](http://www.generacmobile.com)**

**For technical or parts QUESTIONS, please contact the Generac Mobile Products Technical Service team at 1-800-926-9768. Please have your serial number available.**

**To ORDER SERVICE PARTS, please contact the dealer from which you purchased the unit, or call Generac Mobile Products to locate a dealer in your area.**

Engine Make: \_\_\_\_\_

Engine Serial Number: \_\_\_\_\_

Engine Model Number: \_\_\_\_\_

Generator Make: \_\_\_\_\_

Generator Model Number: \_\_\_\_\_

Generator Serial Number: \_\_\_\_\_

Unit Model Number: \_\_\_\_\_

Unit Serial Number: \_\_\_\_\_

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# Section 1 - Safety

## SAFETY NOTES



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, WARNINGS, CAUTIONS, NOTICES and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury or death. The following formatting options will apply when calling the readers attention to the DANGERS, WARNINGS, CAUTIONS, NOTICES and NOTES.

### **⚠ DANGER**

**INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.**

### **⚠ WARNING**

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

### **⚠ CAUTION**

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

### **NOTICE**

Indicates a hazardous situation which, if not avoided, could result in property or equipment damage.

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

## OPERATING SAFETY



Before using the unit, be sure you read and understand all of the instructions. This equipment was designed for specific applications; **DO NOT** modify or use this equipment for any application other than which it was designed for. Equipment operated improperly or by untrained personnel can be dangerous. Read the operating instructions and familiarize yourself with the location and proper use of all instruments and controls. Inexperienced operators should receive instruction from someone familiar with the equipment before being allowed to operate or set up the unit. The following points should be practiced at all times:

- The area immediately surrounding the unit should be dry, clean, and free of debris.
- Position and operate the unit on a firm, level surface.
- **DO NOT** start a unit in need of repair.
- If the unit is equipped with a frame grounding stud, follow any local, state, and National Electrical Code (NEC) guidelines when connecting.
- **DO NOT** operate the unit on a combustible surface.
- **DO NOT** operate a unit while tired, distracted, or under the influence of drugs or alcohol.
- Keep all body parts, clothing and other loose items away from moving parts.
- **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.
- Shut the engine down if any of the following conditions exist during operation:

1. Noticeable change in engine speed.
2. Loss of electrical output.
3. Equipment connected to the unit overheats.
4. Sparking occurs.
5. Engine misfires or there is excessive engine/generator vibration.
6. Protective covers are loose or missing.
7. If the ambient air temperature is above 120°F (49°C).

### 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 warnings 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 unless exhaust hoses are used. Engine exhaust contains carbon monoxide, a deadly, odorless and colorless gas which, if inhaled, can cause nausea, fainting or death. Make sure engine exhaust cannot seep into closed rooms or ventilation equipment.
- **DO NOT** touch or lean against hot exhaust pipes or engine components.
- **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.
- Prolonged exposure to sound levels in excess of 85 dB(A) can cause permanent hearing loss. Wear hearing protection when working around a running engine.
- Batteries contain sulfuric acid which can cause severe injury or death. Sulfuric acid can cause eye damage, burn flesh or eat holes in clothing. Protective eye wear and clothing are necessary when working on or around the battery. Always disconnect the negative (-) battery cable from the corresponding terminal before performing any service on the engine or other components.
- **DO NOT** open the radiator cap or oil drain plug while the engine is running or before the engine has cooled down. Pressurized coolant and hot engine oil can cause severe burns. Allow the unit to cool completely before attempting any service work.
- Keep area around exhaust pipes and air ducts free of debris to reduce the chance of an accidental fire.

### SERVICE SAFETY



All service work must be performed by qualified personnel who are familiar with the equipment. Only a qualified electrician should troubleshoot or repair electrical problems occurring in this equipment. Follow the safety guidelines described below to prevent hazardous situations which could result in severe injury or death.

- **NEVER** wash the unit with high pressure hoses, power washers, or steam cleaners. Water may collect in the unit, causing damage to electrical parts.
- **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.
- Replace all missing and hard to read decals. Decals provide important operating instructions and warn of dangers and hazards.
- Before servicing the unit, verify the Key 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.
- **DO NOT** start the unit under load. The circuit breakers must be in the OFF (O) position when starting the unit.

## 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.

- Verify the hitch and coupling on the towing vehicle are rated equal to, or greater than, the trailer's Gross Vehicle Weight Rating (GVWR).
- Check trailer tires for wear and proper inflation.
- **DO NOT** tow trailer using defective parts. Inspect the hitch and coupling for wear or damage.
- Verify the trailer hitch and the coupling are compatible. Make sure the coupling is securely fastened to the vehicle.
- Verify directional and brake lights on the trailer are connected and working properly.
- Verify wheel lug nuts are present and tightened to the specified torque.
- Maximum recommended speed for highway towing is 45 mph (72 km/h). Recommended off-road towing speed is 10 mph (16 km/h) or less, depending on terrain.
- When towing, maintain extra space between vehicles and avoid soft shoulders, curbs and sudden lane changes. Practice turning, stopping and backing up in an area away from heavy traffic prior to transporting the unit.
- Wipe the coupler clean and apply fresh grease each time the trailer is towed to eliminate squeaking.
- Connect safety chains in a crossing pattern under the tongue.
- Before towing the trailer, verify that 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.

## 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 Products LLC.

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 dealer, or Generac Mobile Products LLC.

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 SYMBOL SUMMARY**

The safety and operating decals affixed to the unit provide important instructions and warn of dangers and hazards. Replace any missing or hard-to-read decals and use care when washing or cleaning the unit. Decal placement and part numbers can be found in the online parts manual at [www.generacmobile.com](http://www.generacmobile.com). Below is a summary of the intended meanings for the symbols used on the decals.

|   |  |   |   |
|---|--|---|---|
|    | Safety alert symbol; used to alert you to potential personal injury hazards. |    | Asphyxiation hazard; operate in well ventilated area.                     |
|    | Hot surface(s) nearby.   |    | Dangerous voltage may be present.   |
|    | Belt/entanglement hazard; keep body parts clear of this area.                |    | Anchor/tie down point.  |
|    | Fan hazard; keep body parts clear of this area.                              |    | Forklift here only.   |
|   | Crush hazard; keep body parts clear of this area.                            |   | Use clean diesel fuel only.   |
|  | Ultraviolet radiation hazard; operate only with lens intact.                 |  | Burn/scald hazard; pressurized steam.                                     |
|  | Stop engine before fueling.  |  | Read and understand the supplied operator's manual before operating unit. |
|  | Fire/explosion hazard; keep open flames away from unit.                      |  | Unit electrical ground.   |
|  | Lift here only.  |   |   |

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**Figure 1 - Safety Symbols Summary**

# Section 2 - General Information

## SPECIFICATIONS

### GENERAC MODEL

### MLG6K

#### Engine

|  |                   |
|--|-------------------|
| Make/Brand.....                                      | Kubota            |
| Model.....   | D1005-E3BG1-MGM-1 |
| EPA Tier.....  | 4f                |
| Horsepower - Prime <b>hp (kW)</b> .....              | 11.7 (8.7)        |
| Horsepower - Standby <b>hp (kW)</b> .....            | 13.1 (9.8)        |
| Operating Speed <b>rpm</b> .....                     | 1800              |
| Displacement <b>in<sup>3</sup> (L)</b> .....         | 61.08 (1.00)      |
| Cylinders - qty.....                                 | 3                 |
| Fuel Consumption - 100% Prime <b>gph (Lph)</b> ..... | 0.50 (1.89)       |
| Battery Type - Group Number.....                     | 24                |
| Battery Voltage (quantity per unit).....             | 12V (1)           |
| Battery Rating.....                                  | 440 CCA           |

#### Generator

|                       |                   |
|-----------------------|-------------------|
| Make/Brand.....       | Marathon Electric |
| Model.....            | 201CSA5411        |
| Type, Insulation..... | Brushless, F      |

#### Generator Set (Engine/Generator)

|   |                       |
|---|-----------------------|
| Output - Standby <b>kW (kVA)</b> .....    | 6.0 (6.0)             |
| Output Voltage <b>V</b> .....             | 120/240, single phase |
| Output Amperes <b>120V (240V) A</b> ..... | 50 (25)               |
| Frequency <b>Hz</b> .....                 | 60                    |
| Power Factor.....                         | 1 (1Ø)                |

#### Weights

|  |            |
|--|------------|
| Dry Weight <b>lbs (kg)</b> .....       | 1640 (744) |
| Operating Weight <b>lbs (kg)</b> ..... | 1856 (842) |

\*Standard trailer only. Consult factory for custom trailer weights.

#### Capacities

|  |           |
|--|-----------|
| Fuel Tank Volume <b>gal (L)</b> .....      | 30 (114)  |
| Usable Fuel Volume <b>gal (L)</b> .....    | 30 (114)  |
| Coolant (incl. engine) <b>qt (L)</b> ..... | 4.8 (4.5) |
| Oil (incl. filter) <b>qt (L)</b> .....     | 5.4 (5.1) |
| Maximum Run Time <b>hrs</b> .....          | 60        |

#### AC Distribution

|                            |                  |
|----------------------------|------------------|
| Circuit Breaker Size.....  | 30               |
| Voltage Regulation.....    | Capacitor +/- 6% |
| Voltages Available 1Ø..... | 120, 240         |

#### Trailer

|  |            |
|--|------------|
| Number of Axles.....                         | 1          |
| Capacity - Axle Rating <b>lbs (kg)</b> ..... | 2200 (998) |
| Tire Size <b>in</b> .....                    | 13         |
| Hitch - Standard.....                        | 2" ball    |
| Maximum Tire Pressure <b>psi</b> .....       | 50         |

*Specifications are subject to change without notice.*

Unit Dimensions

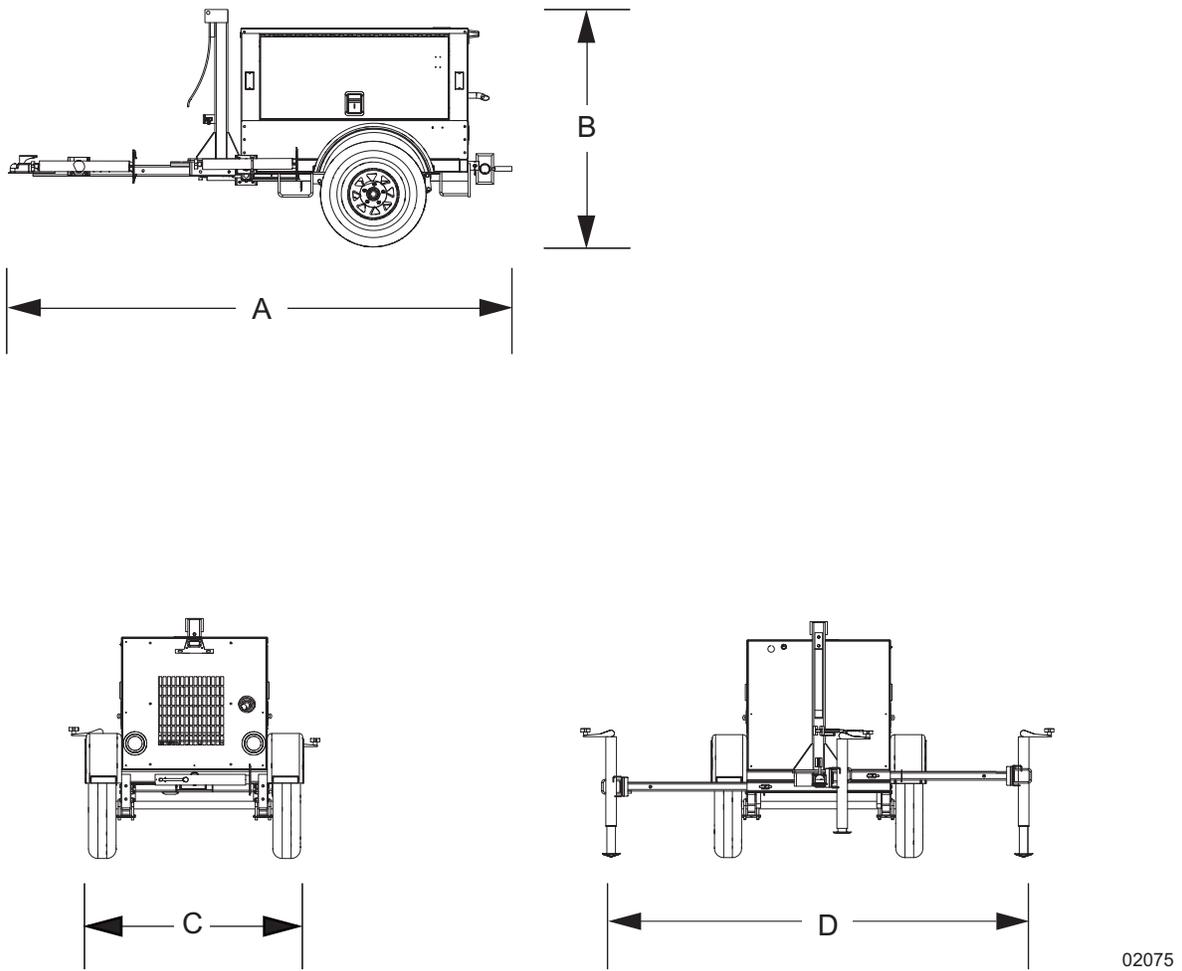


Figure 2 - Unit Dimensions

|              | A                | B               | C               | D               |
|--------------|------------------|-----------------|-----------------|-----------------|
| <b>MLG6K</b> | 110 in. (2.79 m) | 53 in. (1.35 m) | 49 in. (1.24 m) | 98 in. (2.49 m) |

Specifications are subject to change without notice.

## UNIT SERIAL NUMBER LOCATIONS

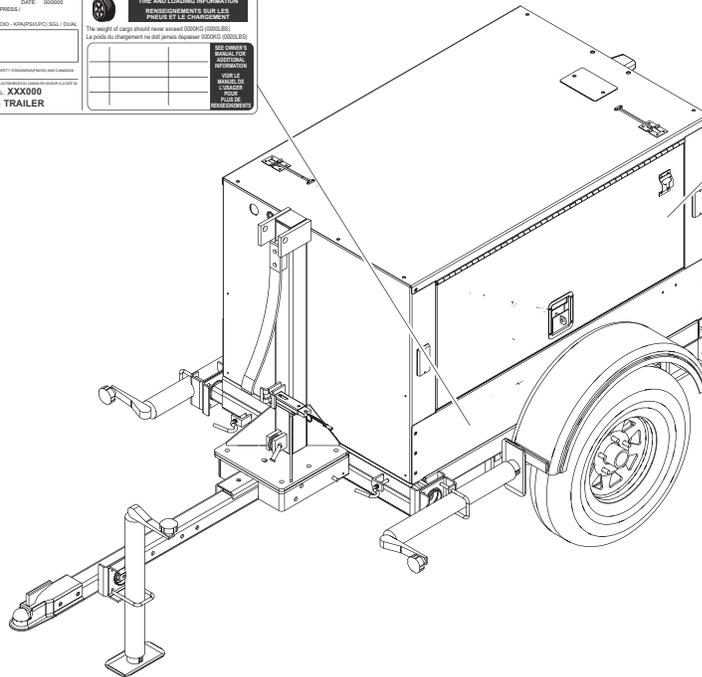
Refer to the illustration to locate the unit ID tag and Vehicle Identification Number (VIN) tag on the unit. Important information, such as the unit serial number, model number, VIN and tire loading information are found on these tags. Record the information from these tags so it is available if the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

Vin Tag

|  |  |                |  |
|--|--|----------------|--|
| MANUFACTURED BY/FABRIQUE PAR: Generac Mobile Products, LLC |  | DATE: 00/00/00 | <b>TIRE AND LOADING INFORMATION</b><br>RECHARGEMENT EN COURS<br>PRIUS DE LE CHARGEMENT<br>The weight of cargo should never exceed 2000KG (4400LBS)<br>Le poids de chargement ne doit jamais dépasser 2000KG (4400LBS)<br>SEE OWNER'S MANUAL FOR TIRE INFORMATION<br>VOIR LE MANUEL D'UTILISATEUR POUR LES INFORMATIONS SUR LES PNEUS |
| COULD BE PRESENT / PEUT ÊTRE PRÉSENT                       | GAWR (PNB) TIRE (PNEU) RW (JANTE)<br>GAWR A (PNEU) A (PNEUS) (PNEUS) (JANTE) |                |  |
| AXLE AXLE  | VIN: 1X1 00000000000000000000<br>MODEL: XXX000<br>TYPE: TRAILER              |                |  |

Unit ID Tag  
Located on inside of front panel

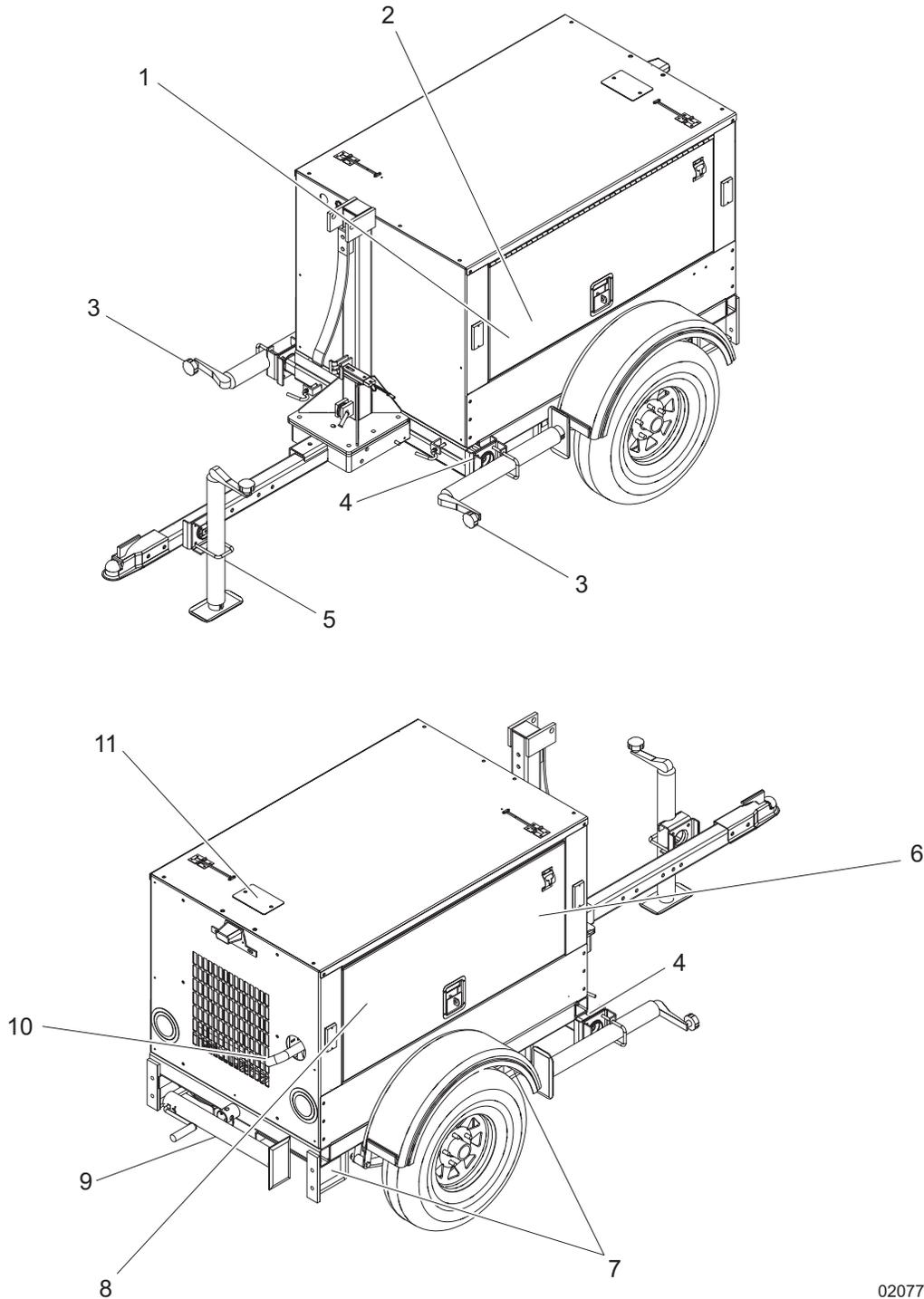
|  |                |                |             |
|--|----------------|----------------|-------------|
| Manufactured by GENERAC MOBILE PRODUCTS, LLC |                |                |             |
| (000 361-4442)                               | Model          | (000 505-0768) |             |
| Country of Origin                            | Serial Number  |                |             |
| Manufacturing Code                           | Model (Suffix) | PMF/Impurity   |             |
|  |                | Part No.       |             |
| KW   | 1 ph. 1.0PF    | 3 ph. 0PF      | 3 ph. 1.0PF |
| KVA  |                |                |             |
| V  |                |                |             |
| A  |                |                |             |
|  |                |                | Int. Class  |



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Figure 3 - Serial Number Locations

## COMPONENT LOCATIONS

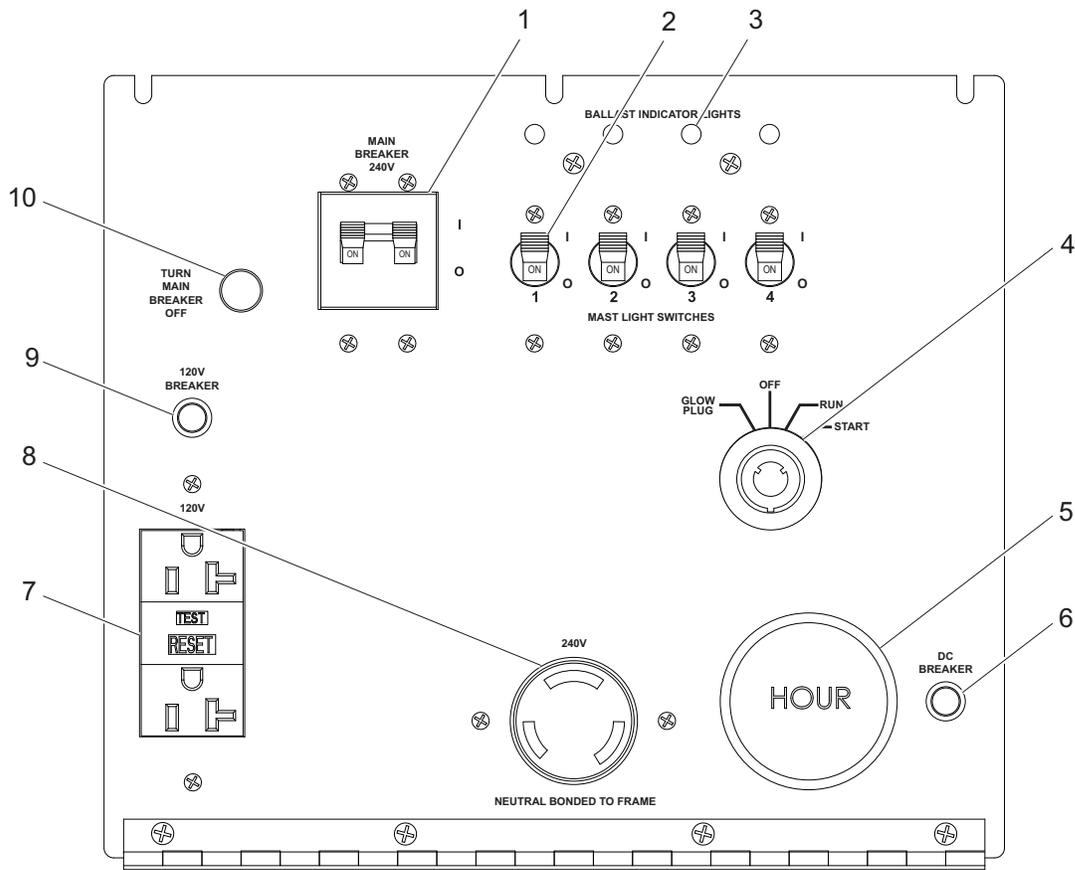


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**Figure 4 - Component Locations**

- |                        |                     |
|------------------------|---------------------|
| 1. Control box access  | 7. Forklift pockets |
| 2. Battery access      | 8. Engine access    |
| 3. Outrigger jacks (2) | 9. Rear jack        |
| 4. Outriggers (2)      | 10. Engine exhaust  |
| 5. Tongue jack         | 11. Radiator access |
| 6. Fuel fill access    |                     |

**CONTROL PANEL**



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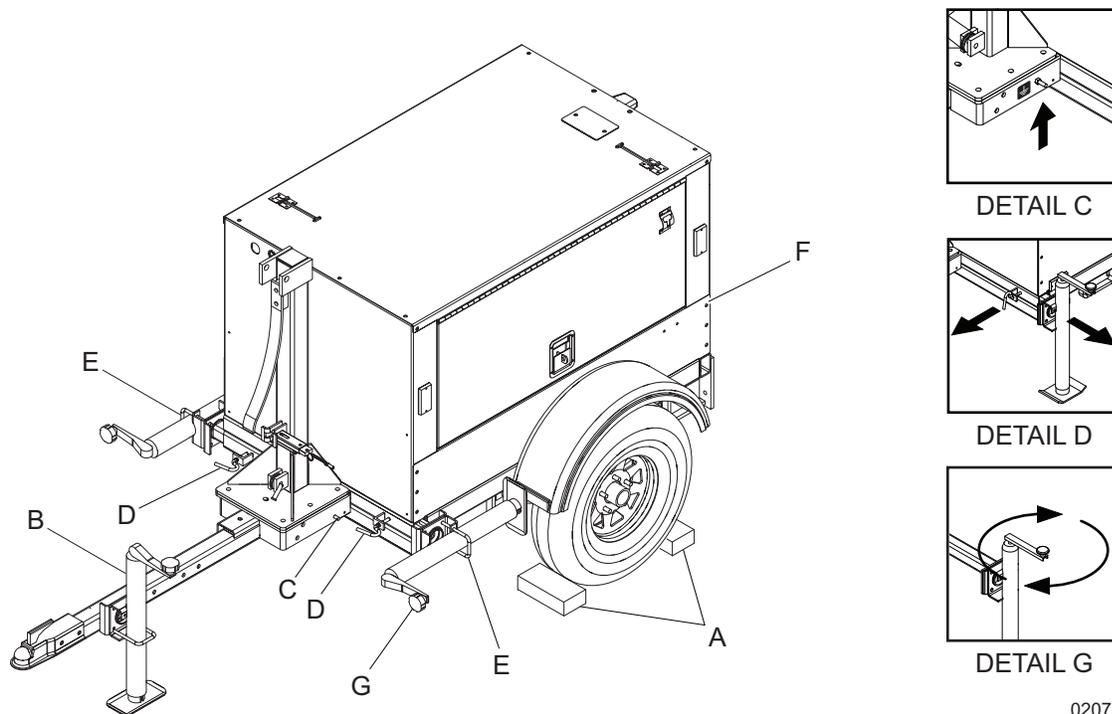
**Figure 5 - Control Panel Component Locations**

- |                         |                                     |
|-------------------------|-------------------------------------|
| 1. Main circuit breaker | 6. DC breaker                       |
| 2. Aux switches         | 7. 120V duplex receptacle           |
| 3. Aux indicator lights | 8. 240V twist-lock receptacle       |
| 4. Control power switch | 9. 120V breaker                     |
| 5. Engine hour meter    | 10. Circuit breaker indicator light |

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# Section 3 - Operation

## UNIT SET UP



**Figure 6 - Set Up of Outriggers and Jacks**

1. Place the unit on firm ground that is relatively flat, then block the wheels to keep it from moving (A). This will make it easier to level the unit.
2. Pull the locking pin on the tongue jack and rotate the jack 90°. Replace the locking pin (B). Turn the jack handle clockwise to raise the trailer tongue off of the towing vehicle.
3. A grounding stud is located on the frame of the trailer at the base of the mast post (C). For grounding requirements, follow any local, state, or National Electrical Code (NEC) guidelines.
4. Pull the locking pin (D) on the outrigger (E) and pull each outrigger out until the spring loaded locking pin snaps back into place. Pull the locking pin on the outrigger jack and rotate each jack 90° so the jack pad is facing down. Replace the locking pin.
5. Pull the locking pin on the rear jack (F) and rotate the jack 90°. Replace the locking pin. Turn the jack handle clockwise to start leveling the trailer. Adjust all four jacks by turning their handles clockwise (G) until they are firmly in contact with the ground and the trailer is as level as possible.

## PRESTART CHECKLIST

Before starting the unit, all items in the prestart checklist must be completed.

- Read and understand **ALL** safety sections at the beginning of this manual.
- 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. Verify if any water is inside, on, 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 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.
- Verify the engine fan belt tension and condition.
- Verify the engine fan belt guard.
- Verify the engine exhaust system for loose or rusted components.
- Verify all covers are in place and secure.

## STARTING THE UNIT

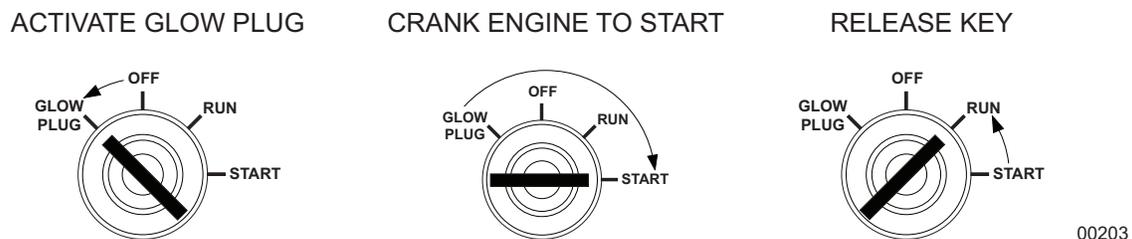
**Note:** If the engine was run out of fuel or the fuel tank was drained, it may be necessary to bleed the fuel lines. Refer to the engine operator’s manual supplied with the unit.

1. Check that the main circuit breaker is in the OFF (O) position.

**Note:** When the red Turn Main Breaker Off light is illuminated, the main circuit breaker must be turned OFF (O).

2. Turn the key on the Control Power switch to the left Glow Plug position and hold the key in place for five seconds. Turn the key to the right Start position and hold it until the engine cranks and starts running. Release the key, it will move to the Run position.

**Note:** For cold weather conditions, refer to the OEM engine operator’s manual for appropriate glow plug interval.



**Figure 7 - Key Locations to Starting the Unit**

### NOTICE

Do not crank the engine longer than 10 seconds at a time. If the engine will not start, wait 30 seconds to allow the starter motor to cool and then repeat the starting procedure.

Excessive cranking will cause damage to the starter.

**Note:** If oil pressure is not obtained within 15 seconds after the key is switched to the Run position, the low oil automatic shutdown will turn off the fuel supply, stopping the engine. Check the oil level and turn the key to the OFF position to reset the oil pressure timer before attempting to restart the engine.

3. Once the engine is running, allow it to reach normal operating temperature before switching on any loads.

## DERATING FOR ALTITUDE

All units are subject to derating for altitude and temperature; this will reduce the available power for operating tools and accessories connected to the receptacles. Typical reductions in performance are 2-4% for every 1000 ft (305 m) of elevation and 1% per 10°F (5.6°C) increase in ambient air temperature over 72°F (22°C).

## WET STACKING

The unit is powered by a diesel engine. Diesel engines are susceptible to wet stacking if lightly loaded. Wet stacking occurs when an engine is run at less than 30% of its full load capacity, causing unburned fuel to accumulate in the exhaust system. Wet stacking can be detected by continuous black exhaust when the unit is under a constant load. It can also cause fouling of injectors and buildup on engine valves. Diesel engines operate properly when applied loads are between 30% and 100% capacity. Appropriate generator sizing is determined by the anticipated load. If the unit is in a wet stack condition, load the unit heavily for five hours or until the exhaust is clear.

## CUSTOMER CONVENIENCE RECEPTACLES

The receptacle panel is equipped with two receptacles for running accessories or tools from the generator. Power is supplied to the receptacles any time the engine is running and the main circuit breaker switched to the ON (I) position.

**Note:** Should the breaker trip, remove some of the load to the receptacles before turning them back on.

**Note:** To ensure proper grounding, anytime the generator is providing power to any equipment or load panels that do not have a grounded plug, a ground wire **MUST BE** added between the equipment and the grounding stud on the unit per the National Electrical Code (NEC), state and local regulations.

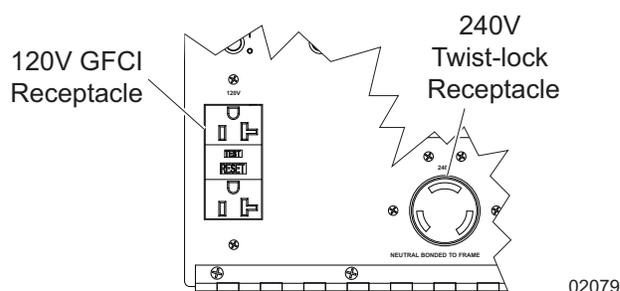


Figure 8 - Location of Receptacles

## SHUTTING DOWN THE UNIT

Prior to shutting down the unit, check with personnel using power supplied by the unit and let them know the power is going to be turned off. Make sure the power shut down will not create any hazards by accidentally turning off equipment that needs to be kept on (pumps, compressors, lights, etc.).

When you have finished using the unit, proceed with shut down as follows:

1. Remove any loads from the receptacles.
2. Switch the individual circuit breakers for each receptacle to the OFF (O) position.
3. Switch the main circuit breaker to the OFF (O) position.
4. Turn the Control Power switch to the OFF (O) position.

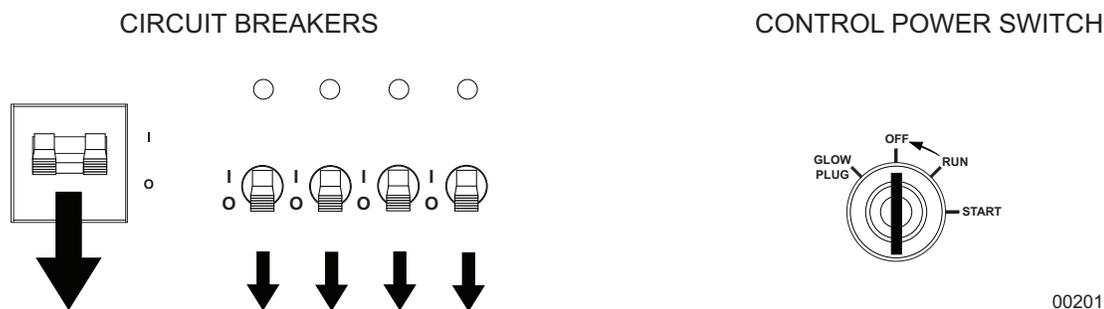


Figure 9 - Breakers and Control Power Switch

**Note:** For extended storage time, disconnect the battery. For extended storage requirements, refer to the engine operator's manual.

## 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 OFF position to reset the unit after you have determined the cause of the shutdown.

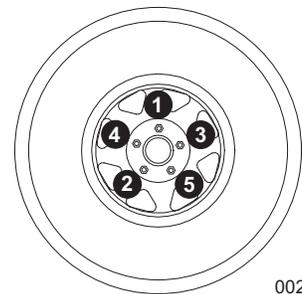
## TOWING THE UNIT

Once the engine is shut down, follow these steps to prepare the unit for towing.

1. Raise the rear jack completely and release the locking pin to rotate it up into the travel position. Make sure the locking pin snaps into place.
2. Raise the outrigger jacks completely and release the locking pins to rotate them up into the travel position. Make sure the locking pins snap into place. Release the outrigger locking pins and slide the outriggers into the trailer frame until the locking pins snap into place.
3. 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.

**Note:** A film of grease on the coupler will extend coupler life and eliminate squeaking. Wipe the coupler clean and apply fresh grease each time the unit is towed.

4. To ensure proper operation of the jacks, lube the grease fittings located on the leveling jacks. Refer to *“Jack Maintenance”*. For maintenance interval information, refer to Basic Maintenance Schedules beginning on *“Basic Maintenance Schedule”*.
5. Connect any trailer wiring to the tow vehicle. Check for proper operation of the directional and brake lights.
6. Make sure the doors are properly latched.
7. Check for proper inflation of the trailer tires. For maximum tire pressures, refer to *“Specifications”*.
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:
  - 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).



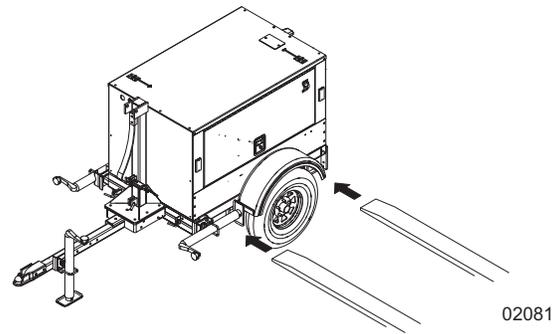
**Note:** After the first road use, re-torque the lug nuts in sequence.

**Figure 10 - Lug Sequence**

9. Maximum recommended speed for highway towing is 45 mph (72 km/h). Recommended off-road towing speed is not to exceed 10 mph (16 km/h) or less, depending on the terrain.

## LIFTING THE UNIT

Lift the unit only if the devices are in good condition and the equipment being used to raise the unit has sufficient capacity. For approximate weights, refer to "*Specifications*". Always remain aware of people and objects around when moving or lifting the unit. Keep the doors closed and locked. Use the lower forklift pockets with care. Approach the unit as perpendicular as possible to avoid any damage to the unit. Make sure any obstructions are clear of the forklift tines before lifting.



**Figure 11 - Lifting Points**

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# Section 4 - Maintenance

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. It is strongly recommended that the equipment be periodically checked by a Generac Mobile Products Authorized Dealer.

## DAILY WALK AROUND INSPECTION

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 electrical connections.

Visually inspect the fan belt for cracks, fraying, stretching, and verify the belt is properly seated in the pulley grooves. Replace the belt according to the manufacturer's recommendations.

**Note:** At the 500 hour/12 month service interval, it is recommended that the belt be removed and checked for wear. While the belt is removed, inspect pulleys and bearings. Rotate and feel for hard turning or unusual sounds. If pulleys or bearings need replacement, contact the engine manufacturer.

### NOTICE

Failure to perform a daily inspection may result in serious damage to the prime mover.

## 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/filter changes, cleaning, etc.) unless all electrical components are shut off. Before servicing the unit, always follow the instructions listed below.

- Verify the Control Power switch is turned to the OFF (O) position.
- Verify the circuit breakers are turned to the OFF (O) position.
- Disconnect the negative (-) terminal on the battery.
- 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.
- Do not wash the unit with a high pressure hose or with any kind of 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.
- 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 the wheel lugs. Refer to "[Towing the Unit](#)".
- Verify the coolant level daily. Refer to the engine operator's manual for coolant recommendations and proper mixture.
  - Coolant is checked visually by inspecting the level in coolant overflow jug located near the radiator.
  - Normal operating level is between the full and add markings on the overflow jug known as normal range.
  - **WHEN ENGINE IS STOPPED AND COMPLETELY COOL**, coolant may be added directly to the coolant overflow jug.
- Verify the oil level daily. Refer to the engine operator's manual for the proper viscosity grade of oil, including 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.

## Maintenance

**DO NOT OVERFILL** the crankcase.

- Verify the fuel level.

**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.

## BASIC MAINTENANCE SCHEDULE

### NOTICE

Refer to the original equipment 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 table as a guide for regular maintenance intervals. For additional or replacement copies of the engine operator's manual, contact an authorized dealer in your area.

**Table 1: Basic Maintenance Guide**

| Item  | Daily | 50 Hours | 100 Hours | 200 Hours | 400 Hours | 500 Hours | 1 Year |
|---|-------|----------|-----------|-----------|-----------|-----------|--------|
| Check Oil Level                                     | ◆     |          |           |           |           |           |        |
| Check Coolant Level                                 | ◆     |          |           |           |           |           |        |
| Check Fuel Level                                    | ◆     |          |           |           |           |           |        |
| Check Tire Pressure                                 | ◆     |          |           |           |           |           |        |
| Check All Electrical Connections                    | ◆     |          |           |           |           |           |        |
| Inspect Radiator Fins For Debris, Clean As Required | ◆     |          |           |           |           |           |        |
| Check Fuel Pipes and Clamp Bands                    |       | ◆        |           |           |           |           |        |
| Clean Air Cleaner Element                           |       |          | ◆         |           |           |           |        |
| Clean Fuel Filter                                   |       |          | ◆         |           |           |           |        |
| Check Fan Belt Tightness                            |       |          | ◆         |           |           |           |        |
| Drain Water Separator                               |       |          | ◆         |           |           |           |        |
| Check Radiator Hoses and Clamp Bands                |       |          |           | ◆         |           |           |        |
| Change Engine Oil                                   |       |          |           | ◆*        |           |           |        |
| Check Intake Air Line                               |       |          |           | ◆         |           |           |        |
| Replace Oil Filter Cartridge                        |       |          |           |           | ◆*        |           |        |
| Replace Fuel Filter Cartridge                       |       |          |           |           | ◆         |           |        |
| Clean Water Separator                               |       |          |           |           | ◆         |           |        |
| Lubricate Leveling Jacks                            |       |          |           |           |           | ◆         |        |
| Remove Sediment In Fuel Tank                        |       |          |           |           |           | ◆         |        |
| Replace Fan Belt                                    |       |          |           |           |           | ◆         |        |
| Replace Air Filter Element                          |       |          |           |           |           |           | ◆**    |

\* Change the engine oil and oil filter after the initial 50 hours of operation, then at the appropriate interval thereafter.

\*\* Replace the air cleaner element yearly, or after six cleanings, whichever occurs first.

## JACK MAINTENANCE

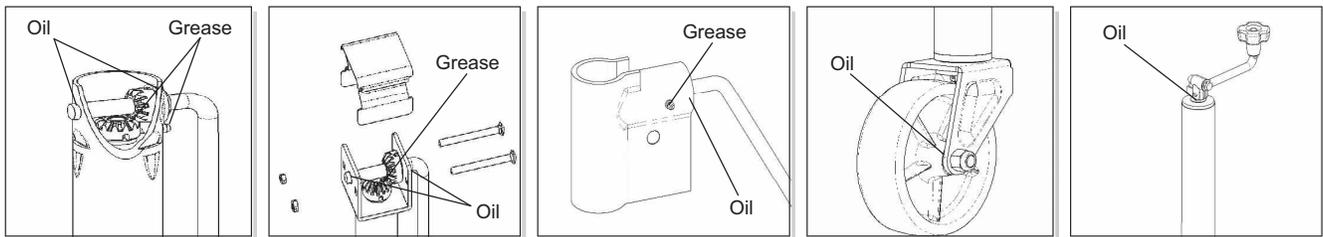
The following procedures should be performed at least annually.

### Side-Wind Models

- The internal gearing and bushings of the jack must be kept lubricated. Apply a small amount of automotive grease to the internal gearing by removing the jack cover, or if equipped, use a needle nose applicator or standard grease gun on the lubrication point found on the side of the jack near the crank. Rotate the jack handle to distribute the grease evenly.
- A lightweight oil must be applied to the handle unit at both sides of the tube.
- If equipped, the axle bolt and nut assembly of the caster wheel must also be lubricated with the same lightweight oil.

### Top-Wind Models

- Apply a lightweight oil to the screw stem.



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**Figure 12 - Lubrication Points**

### TRAILER WHEEL BEARINGS

The trailer axles are equipped with a grease fitting to allow lubrication of the wheel bearings without the need to disassemble the axle hub. To lubricate the axle bearings, remove the small rubber plug on the grease cap, attach a standard grease gun fitting to the grease fitting and pump grease into the fitting until new grease is visible around the nozzle of the grease gun. Use only a high quality grease made specifically for lubrication of wheel bearings. Wipe any excess grease from the hub with a clean cloth and replace the rubber plug when finished. 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.

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# 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 trained technician.

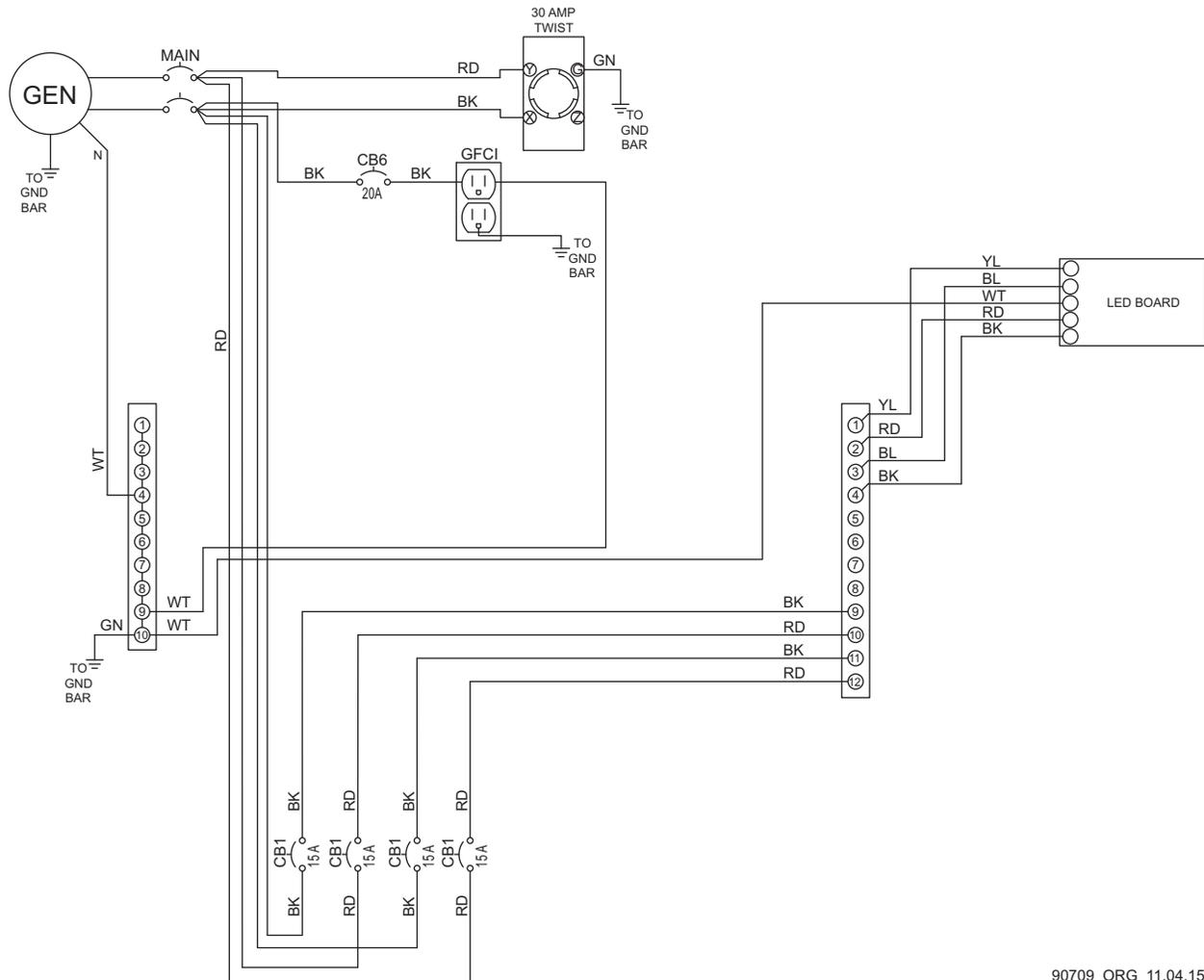
**Table 2 - General Troubleshooting Guide**

| Problem                           | Possible Cause  | Solution  |
|-----------------------------------|---|---|
| Low Oil Pressure Shutdown         | Low oil level   | Verify oil level on dipstick. Add oil, if needed.   |
|                                   | Oil leaking from engine                               | Visually inspect the engine for leaks. Restart unit and verify loss of pressure. Shut down immediately if pressure does not reach 5 psi (34 kPa) within five seconds.   |
|                                   | Oil pressure sender                                   | Refer to OEM engine operator's manual to identify corrective action.  |
| High Coolant Temperature Shutdown | Low coolant level                                     | Add coolant if needed. Allow engine to cool, then check coolant level in radiator. Restart engine and check coolant temperature (on controller). Stop engine immediately if coolant temperature is 210°F (99°C) or more.  |
|                                   | Blockage in radiator                                  | Verify radiator shroud and ducting for blockage and remove any foreign matter.  |
|                                   | Leakage in coolant hoses, engine block, or water pump | Inspect for visible leaks. Verify tension of water pump serpentine drive belt. Remove load on generator and restart engine. Verify coolant temperature and shut engine down immediately if it starts to overheat. Refer to the OEM engine operator's manual for additional information on engine overheating. |
| Overcrank Shutdown                | Fuel level low  | Verify fuel level in tank.<br>Verify fuel pump operation.<br>Verify air filter for blockage.<br>Refer to OEM engine operator's manual for additional information.   |
| Overspeed or Underspeed Shutdown  | Frequency setting incorrect                           | Disconnect all loads and restart unit. Read frequency (Hz) in the LCD window on controller. Frequency should read 60 Hz.<br>If frequency is above 60 Hz, engine speed will need to be adjusted. Refer to OEM engine operator's manual for throttle adjustment information.                                    |

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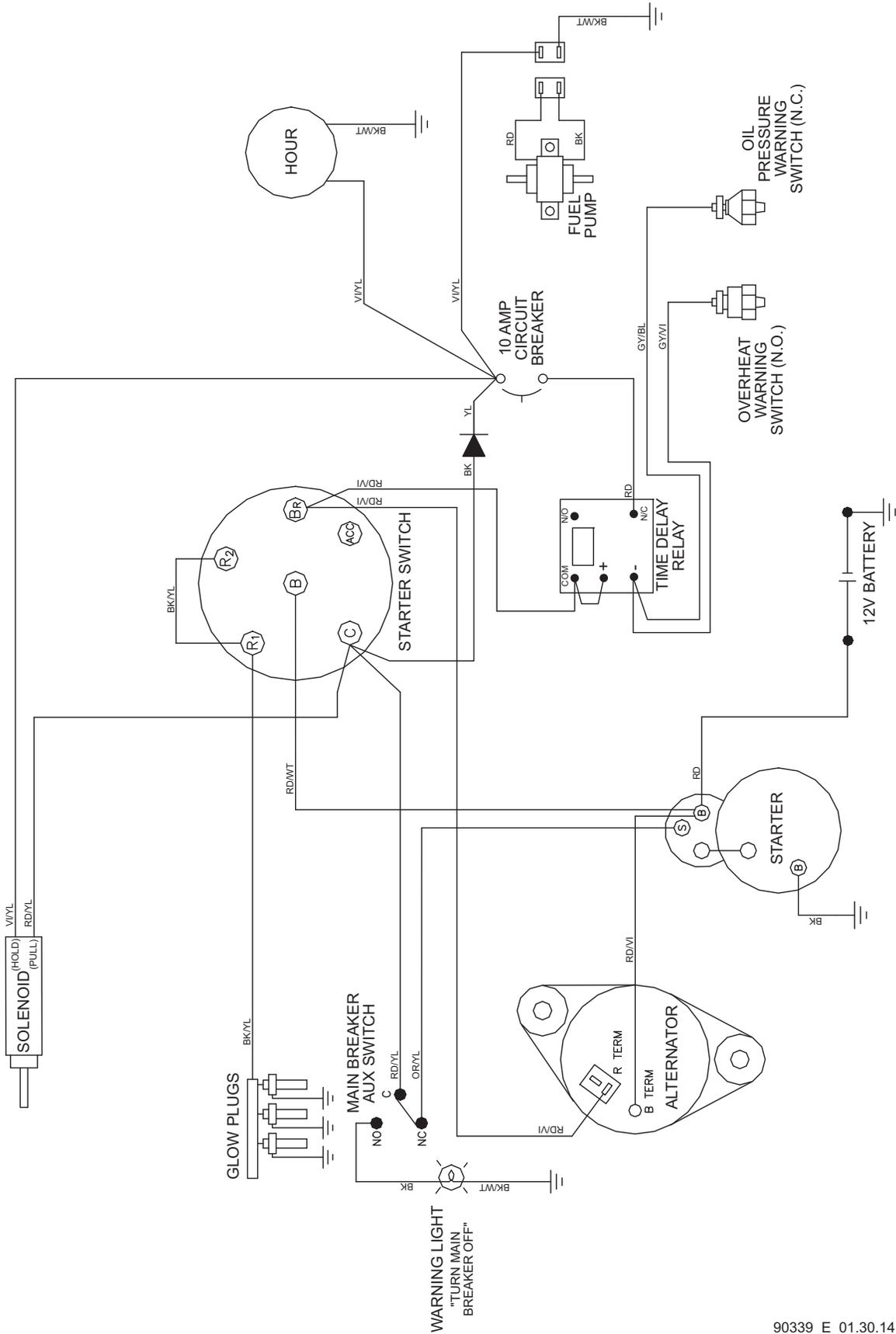
# Section 6 - Wiring Diagrams

## AC WIRING



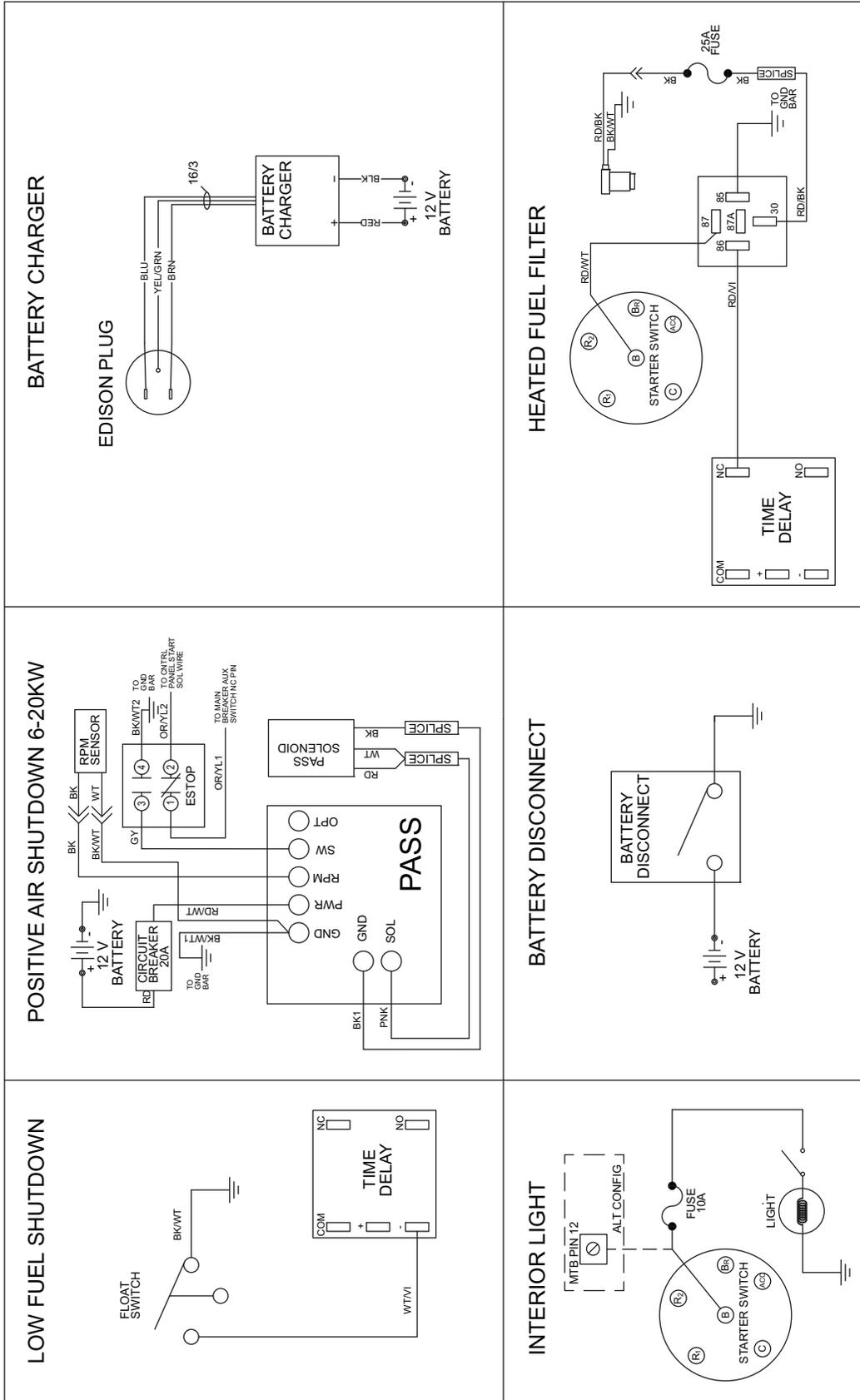
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DC WIRING



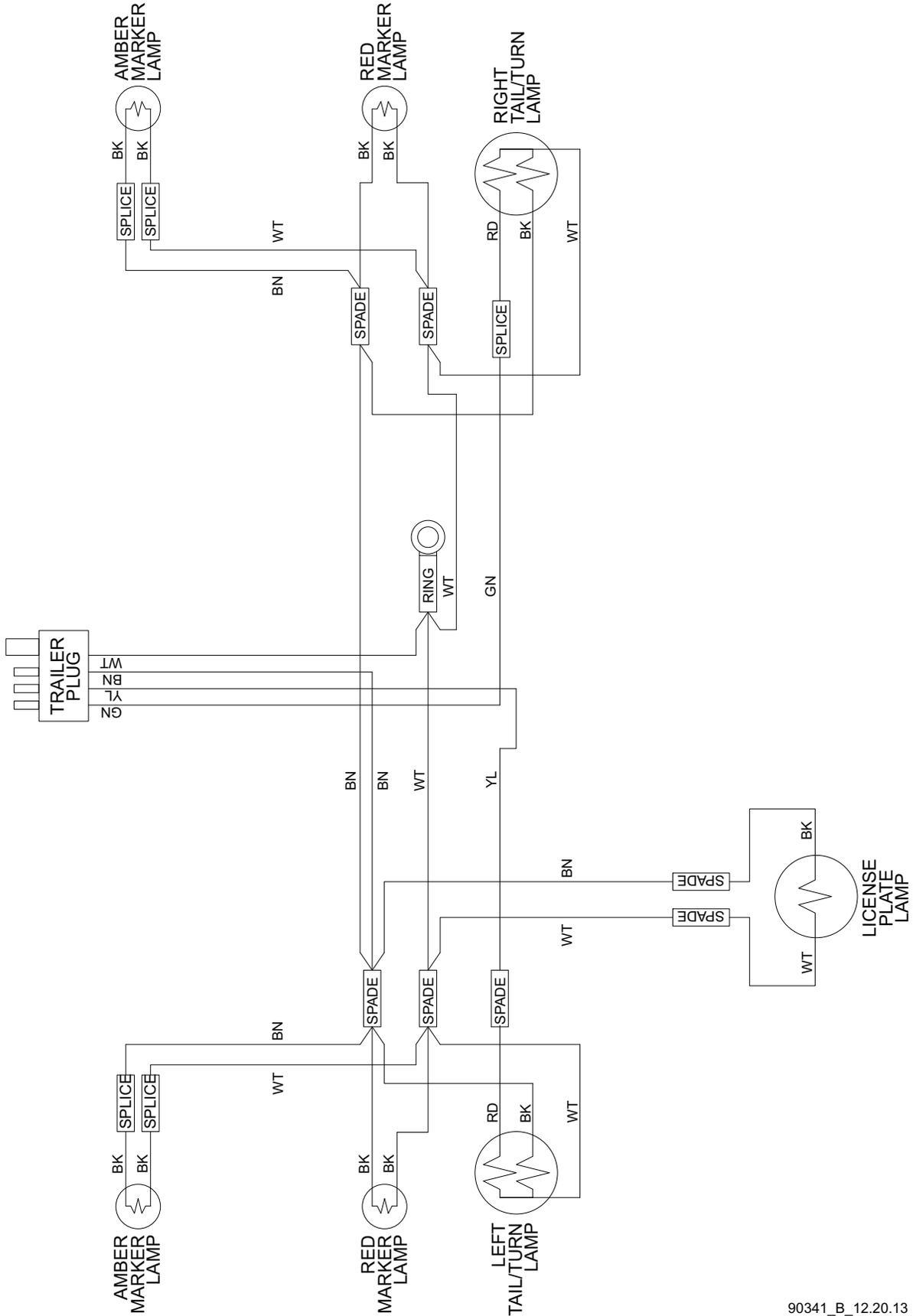
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DC WIRING OPTIONS



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**TRAILER LIGHTS WIRING**



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# Section 7 - Options & Accessories

## LOWER RADIATOR HOSE HEATER OPTION - USE AND MAINTENANCE

### **▲ CAUTION**

Improper use of the lower radiator hose heater could result in damage to the engine or personal injury. Do not modify the location of the lower radiator hose heater.

The following points should be followed when operating a unit equipped with a lower radiator hose heater.

- Ensure the cooling system is full of the proper mixture of water and engine coolant before each heater use.
- The heater is designed for all-night operation, however, 2-5 hours of heating just prior to starting is usually sufficient for proper engine starting.
- The unit must be level to maintain proper orientation of the heater while it is in operation.
- 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 receptacle.
- Before starting the engine, unplug the extension cord from the power first, then unplug the heater cordset from the extension cord.

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