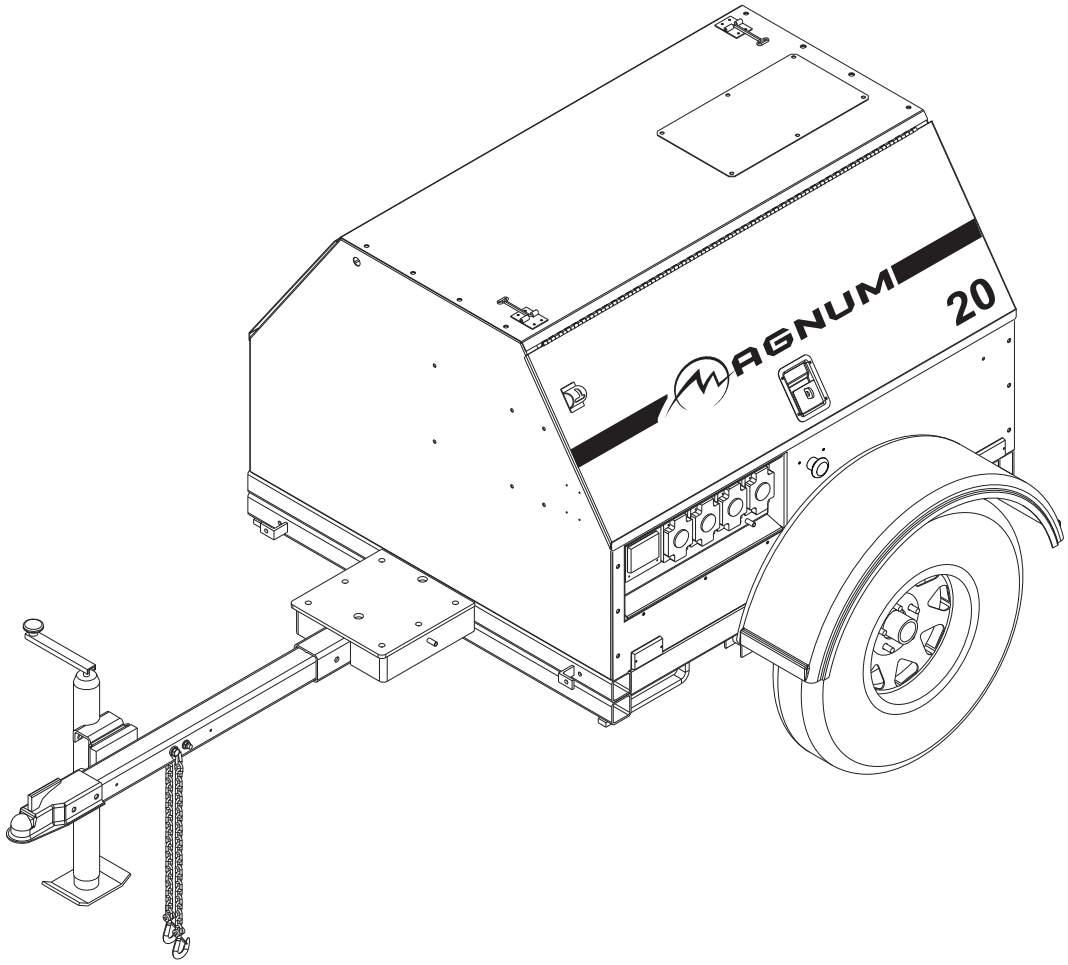
MAGNUM™
PRODUCTS LLC

DIESEL GENERATOR
MLG 8 • MLG 15 • MLG 20



OPERATING/PARTS MANUAL

INTRODUCTION

This manual provides information and procedures to safely operate and maintain the engine and generator. For your own safety and protection from physical injury, carefully read, understand, and observe the safety instructions described in this manual. *The information contained in this manual was based on machines in production at the time of publication. Magnum Products LLC reserves the right to change any portion of this information without notice.*

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

Magnum Products LLC recommends that a trained and licensed professional perform all electrical wiring and testing functions. Any wiring should be in compliance with the United States National Electric Code (NEC), state and local codes and Occupational Safety and Health Association (OSHA) guidelines.

Keep a copy of this manual with the unit at all times. Additional copies are available from Magnum Products LLC, or can be found at **www.m-p-llc.com**. An engine operators manual was also supplied with the unit at the time of shipment from the factory. The manual provides detailed operation and maintenance procedures for the engine. Additional copies of this manual are available from the engine manufacturer.

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WHEN CALLING FOR PARTS OR TECHNICAL SERVICE INFORMATION, PLEASE HAVE YOUR UNIT MODEL NUMBER AND SERIAL NUMBER READY.

Engine Make: _____
Engine Serial Number: _____
Engine Model Number: _____
Generator Make: _____
Generator Model Number: _____
Generator Serial Number: _____
Unit Model Number: _____
Unit Serial Number: _____

⚠ 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.

TABLE OF CONTENTS

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, may result in minor or moderate injury.

NOTICE

Indicates a hazardous situation which, if not avoided, may 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 generator 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 generator. The following points should be practiced at all times:

- The area immediately surrounding the generator should be dry, clean, and free of debris.
- **NEVER** start a unit in need of repair.
- Make certain the generator is securely fastened to a good earthen ground before use.
- **NEVER** operate the generator 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 generator overheats.
    4. Sparking occurs.
    5. Engine misfires or there is excessive engine/generator vibration.
    6. Operating on a combustible surface.
    7. Protective covers are loose or missing.
    8. If the ambient air temperature is above 110° F.

- Make sure slings, chains, hooks, ramps, jacks, and other types of lifting devices are attached securely and have enough weight-bearing capacity to lift or hold the equipment safely. Always remain aware of the position of other people around you when lifting the equipment.

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. Diesel 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** 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** touch or lean against hot exhaust pipes or engine cylinders.
- **DO NOT** clean air filter with gasoline or other types of low flash point solvents.
- **DO NOT** remove engine coolant cap while engine is hot.
- **DO NOT** operate the unit without a functional exhaust system. Prolonged exposure to sound levels in excess of 85 DBA can cause permanent hearing loss. Wear hearing protection when working around a running engine.
- Keep hands, feet and loose clothing away from moving parts on the generator and engine.
- Keep area around exhaust pipes and air ducts free of debris to reduce the chance of an accidental fire.
- 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.

SERVICE SAFETY

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

- Before servicing the generator, make sure engine start switch is turned to OFF, circuit breakers are open (off) and the negative terminal on the battery is disconnected. Open main circuit breaker before disconnecting battery cables. NEVER perform even routine service (oil/filter changes, cleaning, etc.) unless all electrical components are shut down.
- **NEVER** wash the unit with any high pressure hoses or power washers.
- **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.
- **NEVER** start the unit under load. The circuit breakers must be in the “OFF” position when starting the unit.
- **ALWAYS** disconnect the NEGATIVE (-) battery cable from the corresponding terminal before performing any service on the engine, generator or any other components. Remove the NEGATIVE (-) battery cable from the corresponding terminal if the unit is to be stored or transported.
- Replace all guards and safety devices immediately after servicing.
- **ALWAYS** connect the unit to a good earthen ground before use. Follow any local, state or United States National Electric Code (NEC) guidelines.

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. Also, 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.

- Check that the hitch and coupling on the towing vehicle are rated equal to, or greater than, the trailer's "gross vehicle weight rating" (GVWR).
- Check tires on trailer for tread wear, inflation, and condition.
- Inspect the hitch and coupling for wear or damage. **NEVER** tow trailer using defective parts!
- Make sure the trailer hitch and the coupling are compatible. Make sure the coupling is securely fastened to the vehicle.
- Connect safety chains in a crossing pattern under the tongue and attach the breakaway cable **TO THE REAR BUMPER OF THE TOWING VEHICLE.** Do not attach the cable to the trailer hitch.
- Make sure directional and brake lights on the trailer are connected and working properly.
- Check that the lug nuts holding the wheels on are tight and that none are missing.
- Maximum recommended speed for highway towing is 45 m.p.h. Recommended off-road towing speed is not to exceed 10 m.p.h. or less depending on terrain.

When towing, maintain extra space between vehicles and avoid soft shoulders, curbs and sudden lane changes. If you have not pulled a trailer before, practice turning, stopping, and backing up in an area away from heavy traffic.

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 trailer is towed.

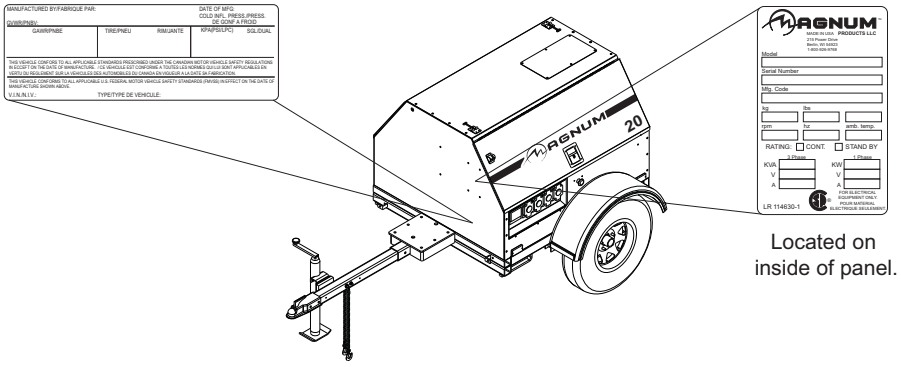
REPORTING TRAILER SAFETY DEFECTS

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 Magnum 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 individual problem between you, your dealer, or Magnum Products LLC.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-888-327-4236 or by fax at: (202)-366-7882. Additional contact information can be found at: www.nhtsa.dot.gov.

UNIT SERIAL NUMBER LOCATIONS

Refer to the locations illustrated below to find the ID tag, and trailer ID tag on your unit. Important information, such as the unit serial number, model number and Vehicle Identification Number (V.I.N.) for your trailer 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 technical service information, you may be asked to specify this information.



Located on inside of panel.

SAFETY SYMBOL SUMMARY

This equipment has been supplied with numerous safety and operating decals. These decals provide important operating 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 at the beginning of the parts section of this manual. 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.		Unit electrical ground.
	Stop engine before fueling.		Use clean diesel fuel only.
	Fire/explosion hazard; Keep open flames away from unit.		Burn/scald hazard; pressurized steam.
	Read and understand the supplied operator's manual before operating unit.		

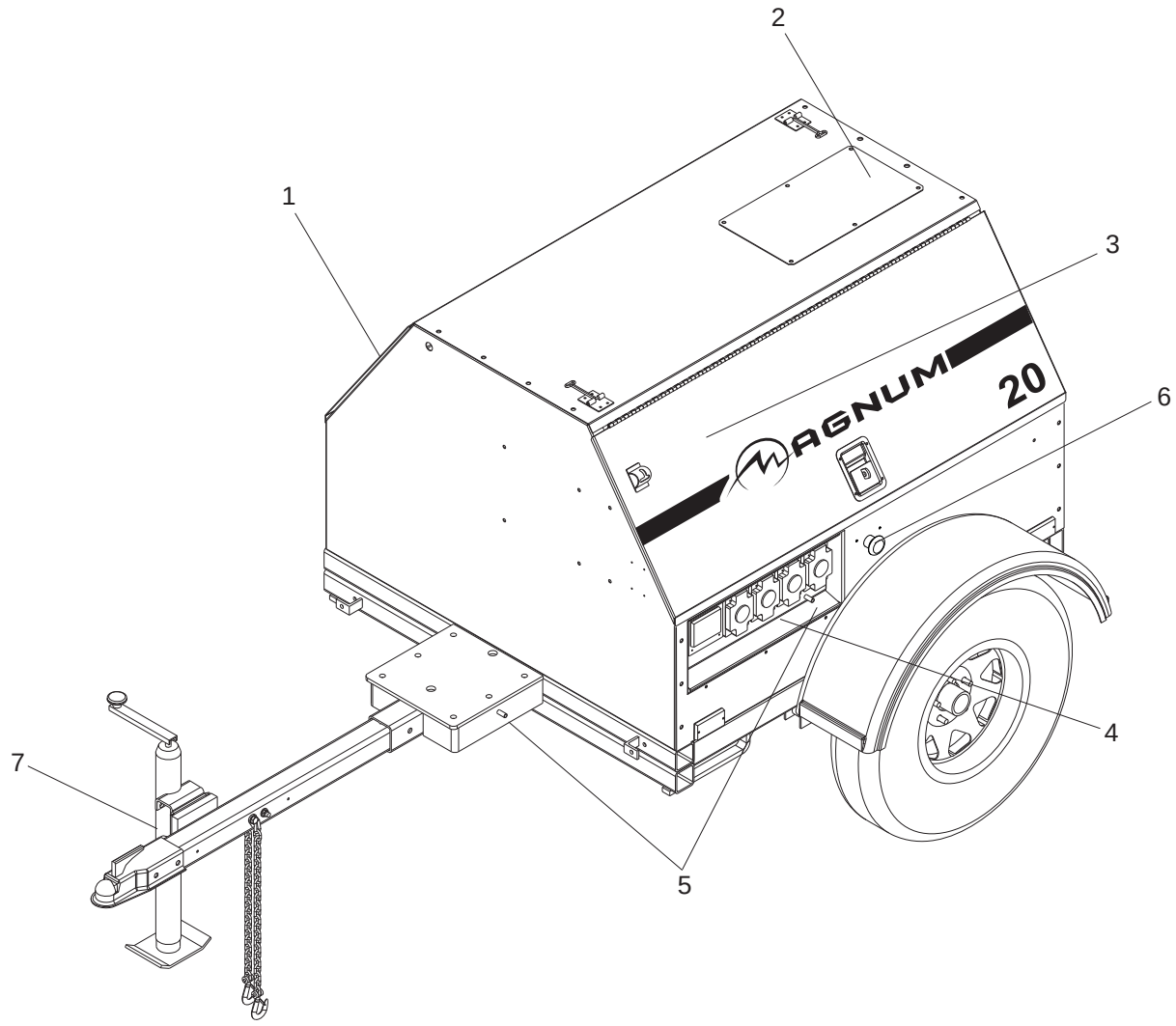
SPECIFICATIONS

Read this manual carefully before attempting to use this generator. The potential for property damage, personal injury or death exists if this equipment is misused or installed incorrectly. Read all of the manuals included with this unit. Each manual details specific information regarding items such as set up, use and service requirements.

MAGNUM MODEL	**MLG 8**	**MLG 15**	**MLG 20**
Engine			
Make/Brand	Mitsubishi	Mitsubishi	Isuzu
Model	L3E-W461ML	S4L2-Y461ML	4LE1-PV05
Horsepower - prime **hp (kW)**	10.5 (7.8)	22.3 (16.6)	31.5 (23.5)
Horsepower - standby **hp (kW)**	12.2 (9.1)	24.7 (18.4)	34.5 (25.7)
Operating Speed **rpm**	1800	1800	1800
Displacement **in³ (L)**	58 (1)	107 (1.8)	134 (2.2)
Cylinders - qty	3	4	4
Fuel Consumption - 100% prime **gph (Lph)**	0.63 (2.38)	1.30 (4.92)	1.80 (6.81)
Battery Type	Group 24	Group 24	Group 24
Battery Voltage (Quantity per Unit)	12V (1)	12V (1)	12V (1)
Battery Rating	440 CCA	440 CCA	720 CCA
Generator			
Make/Brand	Marathon Electric	Marathon Electric	Marathon Electric
Model	332CSA3020	333CSA3024	334CSA3028
Type, Insulation	Brushless, F	Brushless, F	Brushless, F
Generator Set (Engine/Generator)			
3Ø - Standby **kW (kVA)**	N/A	N/A	N/A
Amps - 3Ø Standby **480V (208V) A**	N/A	N/A	N/A
3Ø - Prime **kW (kVA)**	N/A	N/A	N/A
Amps - 3Ø Prime **480V (208V) A**	N/A	N/A	N/A
1Ø - Standby **kW (kVA)**	7.3 (7.3)	14.0 (14.0)	20.0 (20.0)
Amps - 1Ø Standby - 240V **A**	30	58	83
1Ø - Prime **kW (kVA)**	6.0 (6.0)	13.0 (13.0)	19.0 (19.0)
Amps - 1Ø Prime - 240V **A**	25	54	79
Frequency **Hz**	60	60	60
Power Factor	1 (1Ø)	1 (1Ø)	1 (1Ø)
Sound **dB(A) 23 ft @ prime**	70	68	68
Dimensions (L x W x H) in (m)	105 x 67 x 56 (2.67 x 1.70 x 1.42)	105 x 67 x 56 (2.67 x 1.70 x 1.42)	105 x 67 x 56 (2.67 x 1.70 x 1.42)
Weights			
Dry Weight **lbs (kg)**	1030 (467)	1425 (646)	1455 (660)
Operating Weight **lbs (kg)**	1250 (567)	1823 (827)	1853 (841)
Capacities			
Fuel Tank Volume **gal (L)**	30 (114)	56 (212)	56 (212)
Usable Fuel Volume **gal (L)**	30 (114)	56 (212)	56 (212)
Coolant (incl. engine) **qt (L)**	4.5 (4.2)	11.6 (11.0)	11.6 (11.0)
Oil (incl. filter) **qt (L)**	3.5 (3.3)	6.7 (6.3)	6.7 (6.3)
Maximum Run Time **hrs**	43	43	31
AC Distribution			
Circuit Breaker Size	40	70	100
Voltage Selection	N/A	N/A	N/A
Voltage Regulation	+/- 1%	+/-1%	+/- 1%
Voltages Available 1Ø	120, 240	120, 240	120, 240
Voltages Available 3Ø	N/A	N/A	N/A
Trailer			
Number of Axles	1	1	1
Capacity - Axle Rating **lbs (kg)**	2200 (998)	2200 (998)	2200 (998)
Tire Size **in**	13	15	15
Brakes	N/A	N/A	N/A
Hitch - Standard	2" Ball	2" Ball	2" Ball
Maximum Tire Pressure **psi**	50	50	50

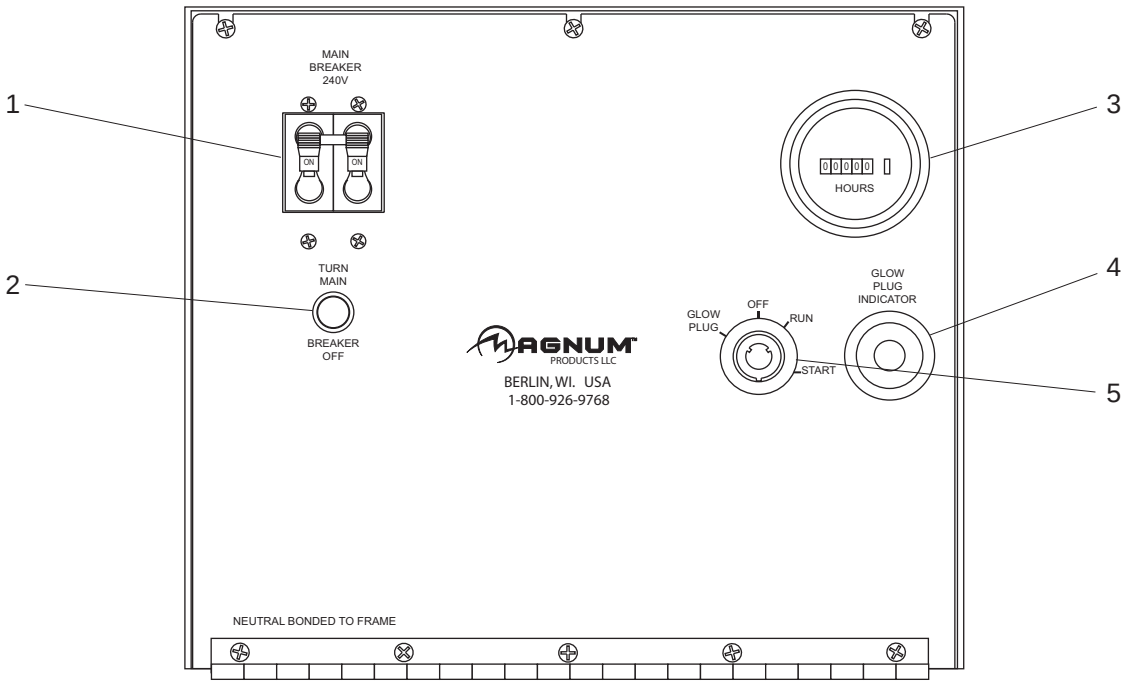
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

EXTERIOR COMPONENT LOCATIONS

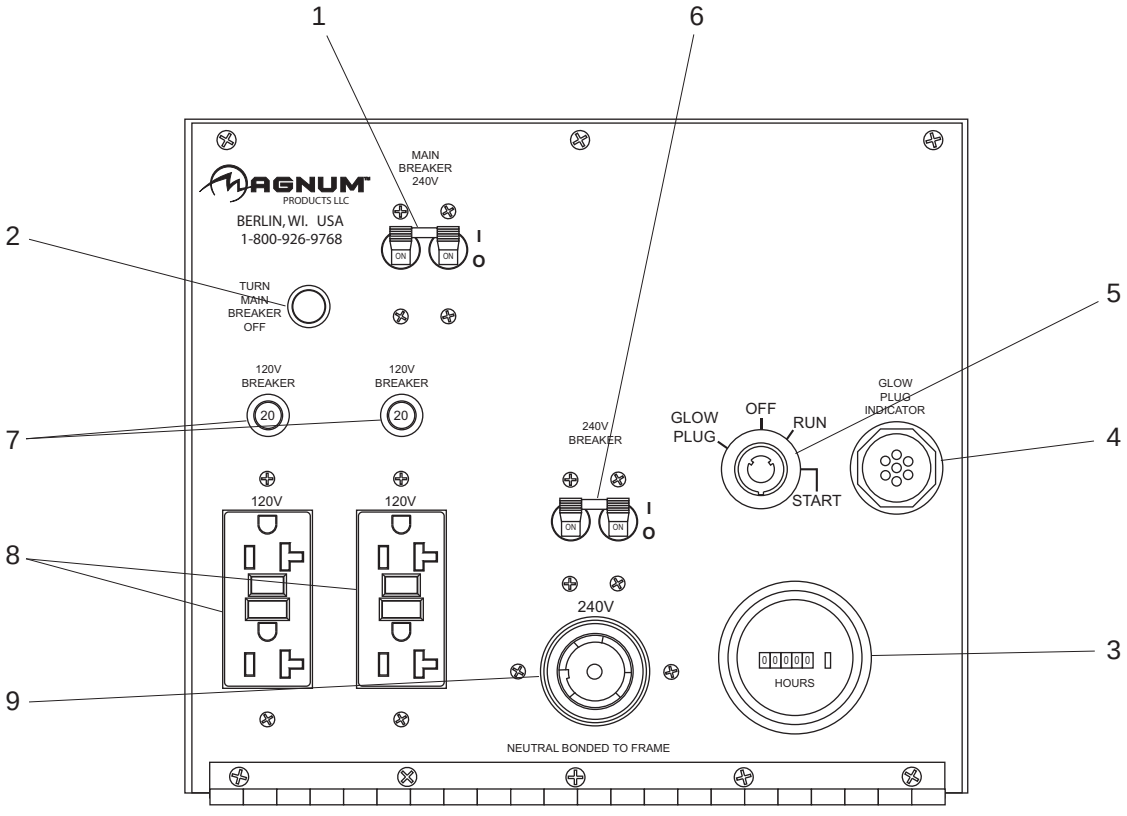


1. **FUEL FILLER LOCATION (under door):** Use clean **DIESEL FUEL ONLY**.
2. **RADIATOR ACCESS PANEL:** Remove this panel for engine coolant service.
3. **CONTROL PANEL LOCATION (under door):** Engine/generator controls and all circuit breakers.
4. **EQUIPMENT OUTLETS:** Circuit breaker protected outlets; 20, 30 and/or 50 amp ratings.
5. **GROUND STUDS (2):** For grounding generator and equipment connected to the equipment outlets.
6. **EMERGENCY STOP SWITCH:** For emergency shutdown; stops engine and trips main circuit breaker.
7. **TONGUE JACK:** Used to level generator before starting.

MAIN CONTROL PANELS



MLG 20 &15



MLG 8

1. **MAIN CIRCUIT BREAKER:** This breaker will disconnect power to the equipment outlets.

2. **CIRCUIT BREAKER INDICATOR LIGHT:** This light indicates that the main circuit breaker must be opened (switched off) before starting the engine.

3. **ENGINE HOUR METER:** Keeps track of engine hours for service.

4. **ENGINE GLOW PLUG INDICATOR:** Indicates operation of the engine glow plugs.

5. **ENGINE STARTING SWITCH:** Keyed switch operates glow plugs, starts and stops engine.

6. **OUTLET CIRCUIT BREAKER (30A):** This breaker is supplied for the standard 240V twist-lock outlet.

7. **OUTLET CIRCUIT BREAKER (20A):** These breakers are supplied for the standard 120V GFCI outlets.

8. **120V GFCI OUTLETS:** These supply power for accessories connected to the generator when the engine is running and the main circuit breaker is switched to the “ON” position.

9. **240V OUTLET:** This twist-lock outlet supplies power for accessories connected to the generator when the engine is running and the main circuit breaker is switched to the “ON” position.

GENERATOR START UP

Before starting the generator, carefully read the pre-start check list. Make sure that all of the items are checked before trying to start the generator. This check list applies for both manual and remote starting of the generator.

PRE-START CHECK LIST

1. Make sure the **engine start switch is in the OFF "O" position**.
2. Make sure that the **circuit breakers (main and equipment) are switched OFF "O"**.
3. Check that the **generator is properly grounded** to a good earthen ground per local and NEC regulations.
4. If equipped, is the voltage selector switch locked?
5. Is the generator sitting level?
6. Check for any water inside the unit, on or near the generator. Dry the unit before starting.
7. Check engine oil level, engine coolant level and engine battery connections.
8. Check engine fan belt tension and condition.
9. Check engine fan belt guard.
10. Check engine exhaust system for loose or rusted components.
11. Are any of the generator covers loose or missing?

ENGINE STARTING AND OPERATION

1. Check engine oil, fuel and coolant levels. ***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 operation manual supplied with the unit.*

2. Check the condition of the electrical cord on the inside of the unit.

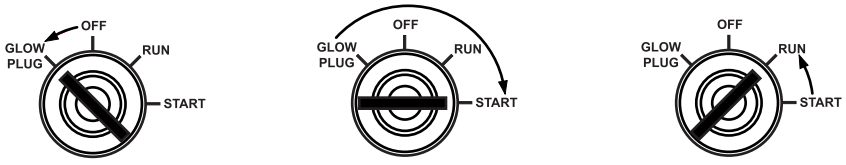
3. Check that the main circuit breaker and individual circuit breakers for each of the outlets are in the off/"O" position. ***Note:*** *If the red light on the control panel "TURN MAIN BREAKER OFF" is illuminated when the key is turned to the "START" position, the breaker is closed (switched on)*.

NOTICE

Never start the engine with any circuit breakers on! Any load on the generator during start up will cause severe damage or destroy the generator.

4. Turn the key on the engine start switch to the left "GLOW PLUG" position and hold the key in place until the glow plug indicator turns red. As soon as it is glowing, turn the key to the right to the "START" position and hold it until the engine cranks and starts running. Release the key, it will move to the "RUN" position.

ACTIVATE GLOW PLUGS **CRANK ENGINE TO START** **RELEASE KEY**



NOTICE

Do not crank the engine longer than 10 seconds at a time. If the engine does 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.

5. ***Note:*** *If oil pressure is not obtained within 30 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.*

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

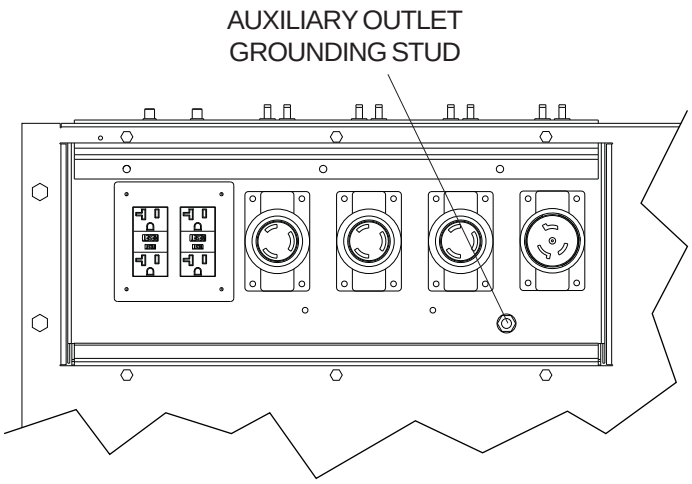
AUTOMATIC SHUTDOWN

This unit is equipped with a low oil pressure and high coolant temperature auto-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 switch to the "OFF" position to reset the unit after you have determined the cause of the shutdown.

AUXILIARY OUTLETS

The outlet panel is equipped with six outlets for running accessories or tools from the generator on MLG 20 and MLG 15 models. Power is supplied to the outlets any time the engine is running and the main circuit breaker is switched on "I". Each outlet has its own individual circuit breaker, located inside the cabinet under a flip-up cover. The circuit breakers correspond with each outlet located below on the outlet panel.

Should the main breaker trip, or any of the individual circuit breakers trip, remove some of the load to the outlets 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 outlet panel per any local, state or NEC codes and guidelines.*

VOLTAGE REGULATION

The electronic voltage regulator controls the output of the generator by regulating the current into the exciter field. The regulator has three screwdriver adjustable potentiometers that may be adjusted for voltage, stability and under frequency (U/F). The voltage regulator on your unit is adjusted before shipment from the factory. Contact Magnum Products LLC for additional information before attempting to adjust the voltage regulator.

DERATING FOR ALTITUDE

All generator sets are subject to derating for altitude and temperature; this will reduce the available power for operating tools and accessories connected to the auxiliary outlets. Typical reductions in performance are 2-4% for every 1000 ft. (305 meters) of elevation and 1% per 10º F (3-5º C) increase in ambient air temperature over 72º F (22.2º C).

SHUTTING DOWN

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

1. Remove any loads from the auxiliary outlets.
2. Switch the individual circuit breakers for each outlet to the off/"O" position.
3. Switch the main circuit breaker to the off/"O" position.
4. Turn the ENGINE START SWITCH to the "OFF" position.

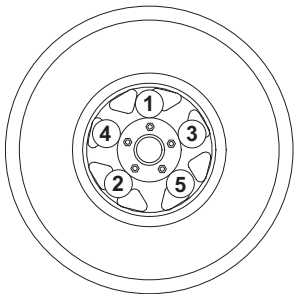
NOTICE

Always switch all circuit breakers to the off/"O" position to prevent starting the generator under load.

TOWING THE TRAILER

1. Use the 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. Release the jack locking pin and rotate the jack into the travel position. Make sure the locking pin snaps into place. To ensure proper operation of the jack, lube the grease fitting located on the leveling jack on the tongue.
2. Connect any trailer wiring to the tow vehicle. Check for proper operation of the stop and signal lights.
3. Make sure the doors are properly latched.
4. Check for proper inflation of the trailer tires. The maximum tire pressure is 50 psi.
5. Check the wheel lugs. Tighten or replace any 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, retorque the lug nuts in sequence.



6. Maximum recommended speed for highway towing is 45 mph. Recommended off-road towing speed is not to exceed 10 mph or less depending on terrain.

TRAILER WHEEL BEARINGS

Some trailers are equipped with a grease zerk 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 zerk 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; more frequent lubrication may be required under extremely dusty or damp operating conditions.

OPTIONAL LOWER RADIATOR HOSE HEATER USE AND MAINTENANCE

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

⚠ WARNING

Improper use of the lower radiator hose heater could result in serious personal injury.

- Ensure cooling system is full of proper mixture of water and engine coolant before each heater use.
- Heater is designed for all-night operation; however, 2-5 hours of heating just prior to starting is usually sufficient for proper engine starting.
- When heater is in operation, unit must be parked in a level position to maintain the proper orientation of the heater.
- Use only an undamaged extension cord, outdoors rated, three-prong grounded 120VAC cord with a minimum amperage rating of 10A. Connect to properly grounded 120VAC, GFCI outlet only.
- Unplug extension cord from power first; then unplug heater cordset from extension cord before starting the engine.

ENGINE BREAK-IN REQUIREMENTS

Note: *During the first 20 hours of operation, avoid long periods of no load or sustained maximum load operation. If the generator is to run for longer than five minutes without a load, shut the generator down.*

The engine is supplied with engine break-in oil from the factory. Extra care during the first 100 hours of engine operation will result in better performance and longer engine life. ***Note:*** *DO NOT exceed 100 hours of operation with the break-in oil. Operate the engine at heavy loads (60-90% of maximum) as much as possible.* If the engine has spent significant time at idle, constant speeds and/or light load or if makeup oil is required, a longer break in period may be needed. Consult the engine OPERATION AND MAINTENANCE MANUAL for a full description of necessary procedures on the addition of break-in oil and extension of the break-in period.

ENGINE AND GENERATOR 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. NEVER perform even routine service (oil/filter changes, cleaning, etc.) unless all electrical components are shut down. When servicing this equipment always follow the instructions listed below.

- Before servicing this machine, make sure the engine start switch is turned to the OFF “O” position.
- The circuit breakers are open (OFF, “O”).
- The emergency stop switch is activated (pushed in).
- The negative (-) terminal on battery is disconnected.
- 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.
- Never wash the unit with a high pressure hose or with any kind of power washer.
- Never 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 and dry the unit thoroughly before starting.

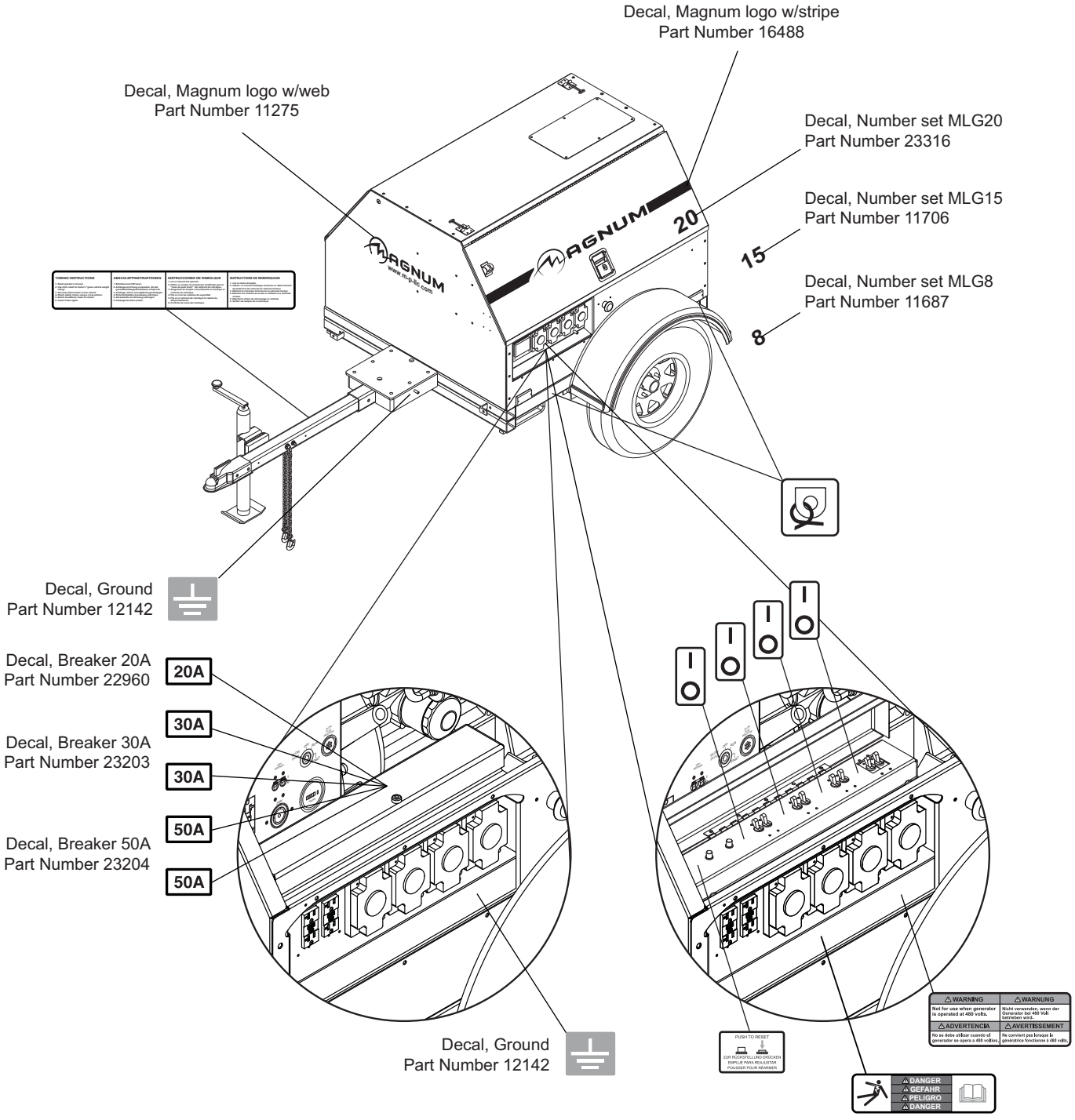
Use the schedule in the table below as a guide for regular maintenance intervals.

	Check Daily	Every 50 Hours	Every 250 Hours	Every 500 Hours	Every 1000 Hours	Every 2 Years
Check Tire Pressures	■					
Check Engine Oil Level	■					
Check Engine Coolant Level	■					
Check Fuel Level	■					
Check Alternator Belt	■					
Drain Fuel Filter*		■				
Check Radiator Hoses		■				
Change Engine Oil & Filter**		■	■			
Check All Electrical Connections			■			
Check For Fuel Leaks			■			
Replace Fuel Filter Element			■			
Inspect and Clean Radiator Fins				■		
Lubricate Leveling Jacks				■		
Clean Air Filter Element, replace if necessary				■		
Replace Alternator Belt				■		
Inspect Engine Starting Battery					■	
Check Valve Clearance						■
Drain and Clean Fuel Tank						■
Change Engine Coolant						■
Replace Radiator Hoses						■

* Drain daily in humid or rainy conditions.

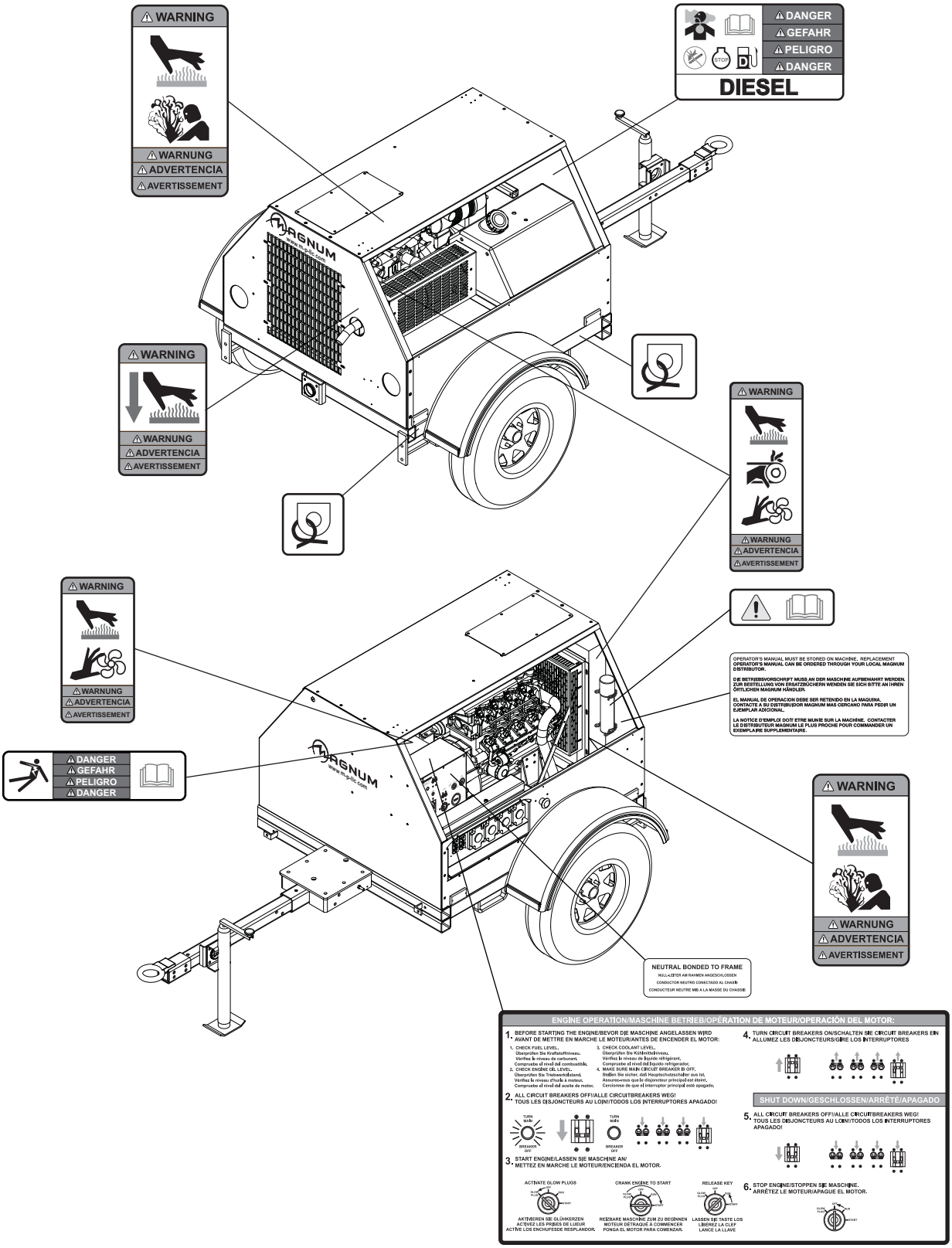
** Change the engine oil and filter after the first 50 hours of operation, then every 250 hours.

UNIT DECALS



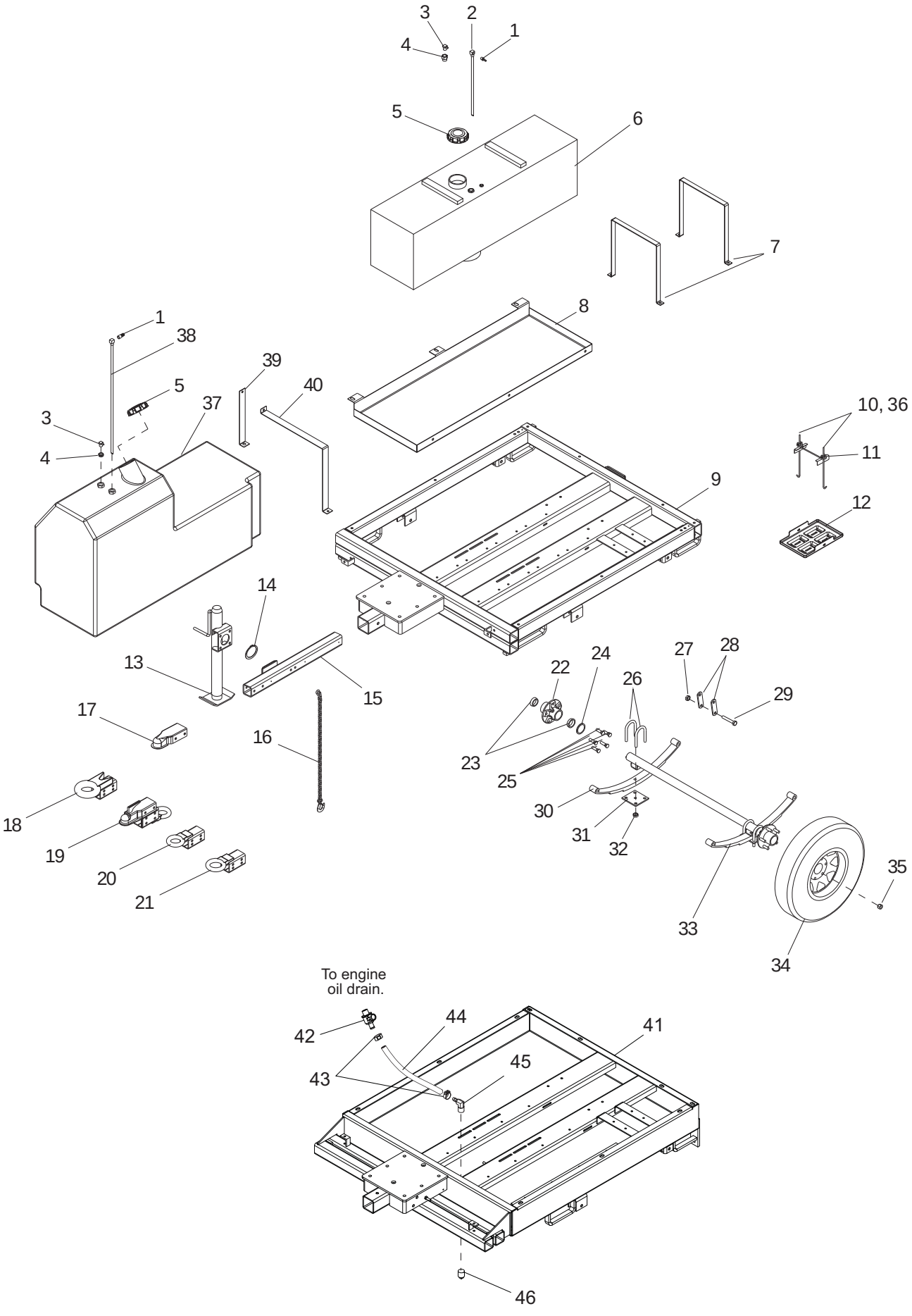
Note: *All safety and operating decals are located on decal sheet 10288, unless otherwise noted. The MLG8 is not equipped with an auxiliary outlet panel.*

UNIT DECALS



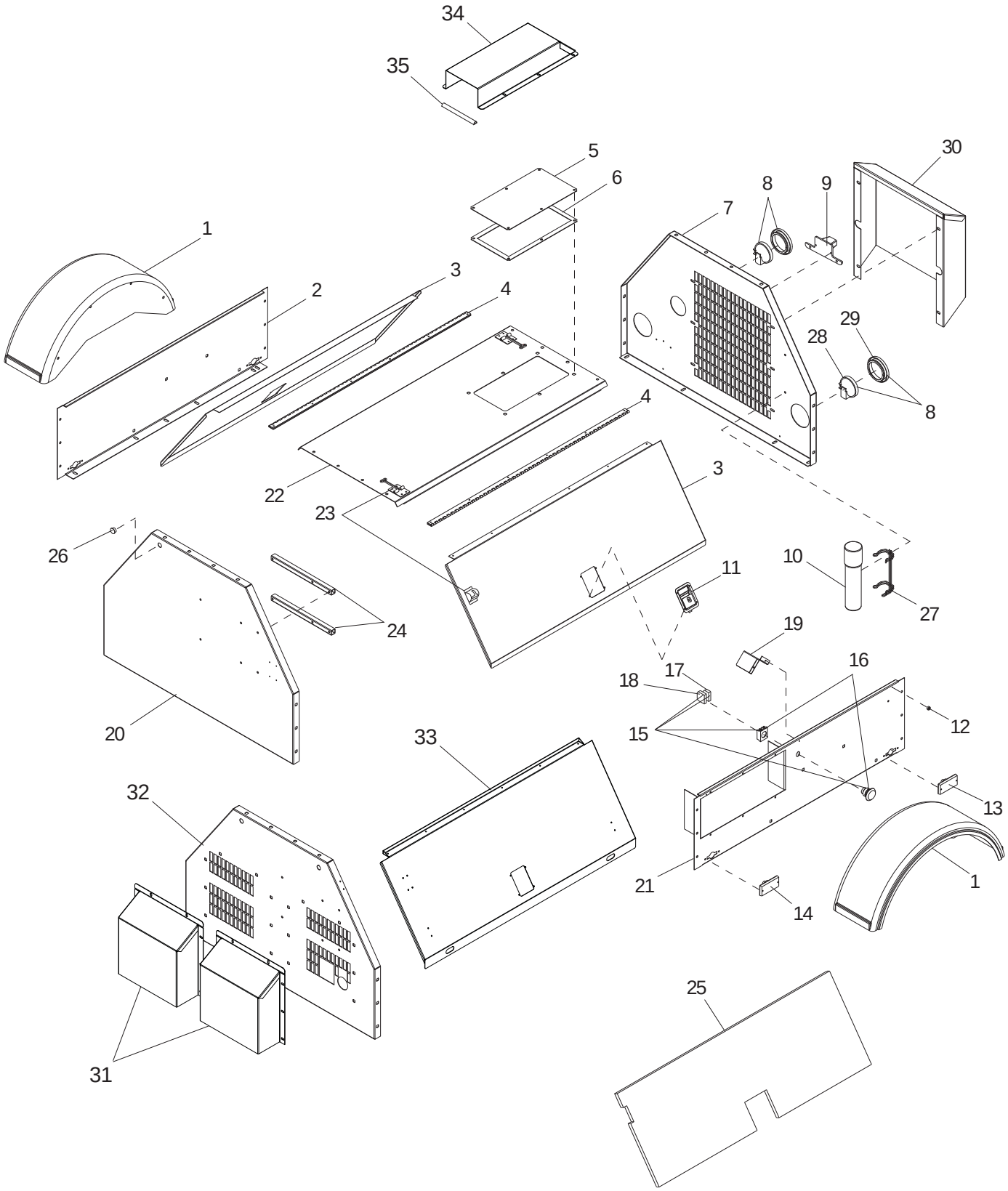
Note: *All safety and operating decals are located on decal sheet 10288, unless otherwise noted.*

FRAME ASSEMBLY



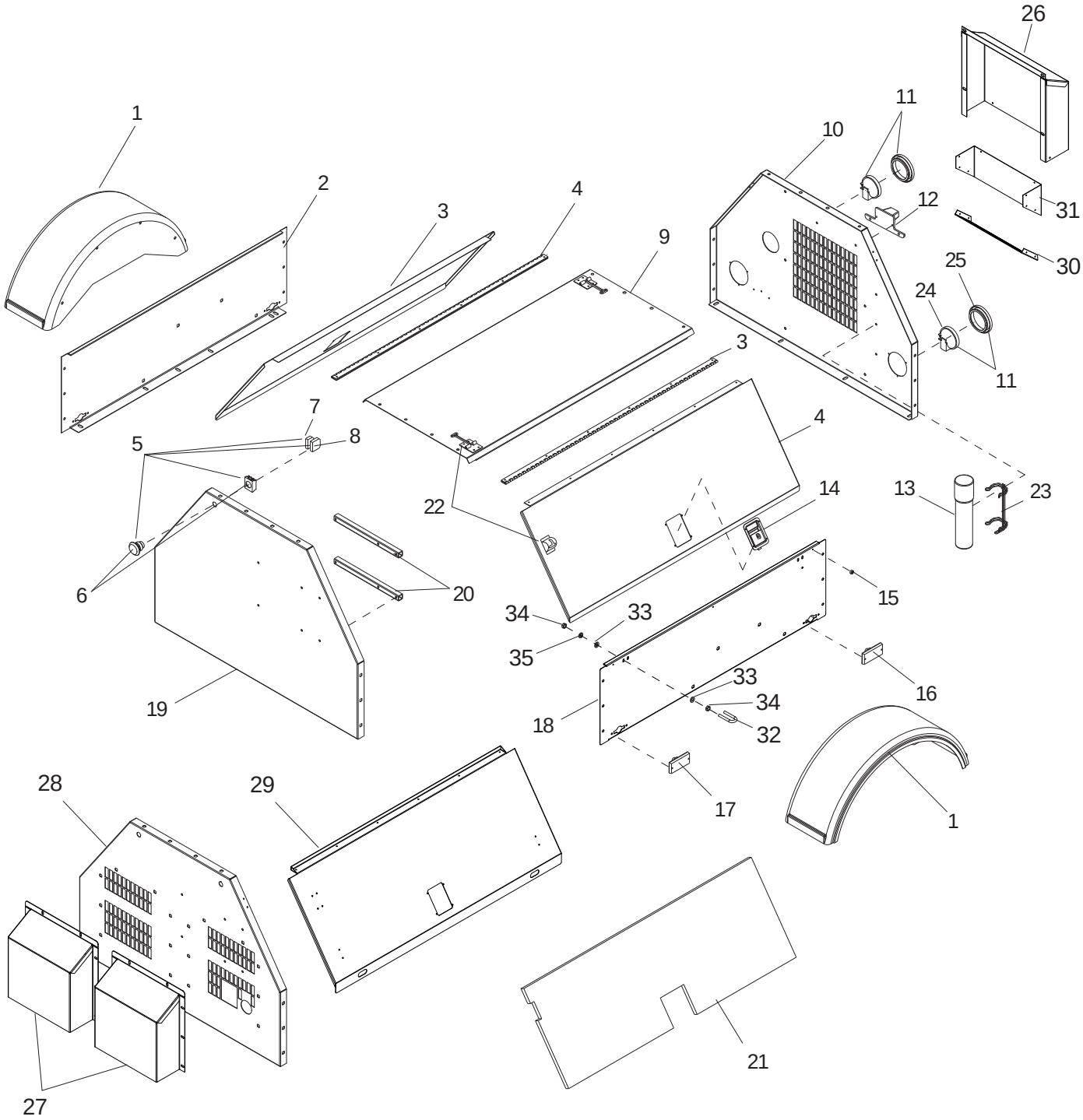
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	15142	1	Fitting, .250NPT x .312 hose barb
2	13500	1	Fuel, pick-up tube - 14.00 in.
3	16271	1	Fitting, 90-.250NPTX.188 barb
4	16270	1	Fitting, .375MNPT x .250FNPT
5	12080	1	Cap, fuel tank vented - 3.5 in. green
6	12646	1	Tank, fuel - 30 gal poly
7	13616B	2	Strap, fuel tank - 30 gal tank w/sump
8	12358B	1	Pan, fuel tank - flat frame
9	11563B	1	Weldment, lt/gen chassis
10	60820	2	Bolt, J - .250-20 x 9.00
11	14682	1	Bracket, battery hold down
12	14145	1	Battery tray, plastic
13	11681	1	Jack, side wind
14	14326	1	Ring, retaining
15	12420B	1	Weldment, removable tongue
16	23367	2	Chain, safety - 7.800 lbs.
17	16830	1	Coupler, 2 in. ball/2.5 in. channel
18	11672B	1	Weldment, hitch - 3.00x1.625 ring
19	16741B	1	Weldment, combo hitch - 2.5 in. tongue
20	16835B	1	Weldment, lunette ring - 3.00
21	16999B	1	Weldment, lunette ring - 2.50
22	11276	2	Hub, axle (w/ wheel studs & bearings)
23	11511	4	Axle roller bearing
24	11199	2	Seal, axle bearing
25	60674	10	Stud, wheel - .500-20
26	11277	4	U-bolt, axle
27	60504	6	Nut, .562-18 hx shackle lock
28	19637	4	Plate, shackle bracket
29	60503	6	Screw, .562-18 hx shackle
30	11280	2	Leaf spring 3500 lb
31	11278	2	Tie-plate 3500 lb
32	11279	8	Axle nut (u-bolt) 3500 lb
33	11385	1	Axle, 2200 lb. 58TC 45SC (MLG 20 & 15)
	16593	1	Axle, 2200 lb. 56TC 45SC (MLG 8 only)
34	15540	2	Wheel, 15", tire and rim (MLG 20 & 15)
	15976	2	Wheel, 13", tire and rim (MLG 8 only)
35	60096	10	Nut, .500-20 wheel lug
36	60984	2	Bolt, J- .250-20 X 7.00 (for gel cell battery option)
MLG 15 & 20:			
37	12162	1	Tank, fuel - 56 gallon poly
38	12259	1	Fuel pick-up tube, 24.00 in.
39	12361B	1	Weldment, fuel tank strap
40	12359B	1	Weldment, fuel tank strap (large)
OPTIONAL FEATURES			
For Containment/Silent Package:			
41	12666B	1	Weldment, chassis - 4000 60 gal. containment blk
42	60774	1	Valve, drain 22MM-1.5 w/nipple (MLG8 Kubota)
	60766	1	Valve, drain 18MM-1.5 w/nipple (MLG8 Mitsubishi)
	60760	1	Valve, drain 14MM-1.5 w/nipple (MLG 15 Mitsubishi)
	11952	1	Valve, drain 20X1.5MM thread/barb (MLG 20 Isuzu)
43	60777	2	Clamp, hose - .312 fuel hose crimp style
44	50051	3 ft.	Hose, fuel - .375 ID 50 PSI SAE 30R7
45	61157	1	Fitting, 90 - .375 barb X .750MNPT br
46	60498	1	Fitting, plug-.750NPT square drive

ENCLOSURE ASSEMBLY - MLG 20 & 15



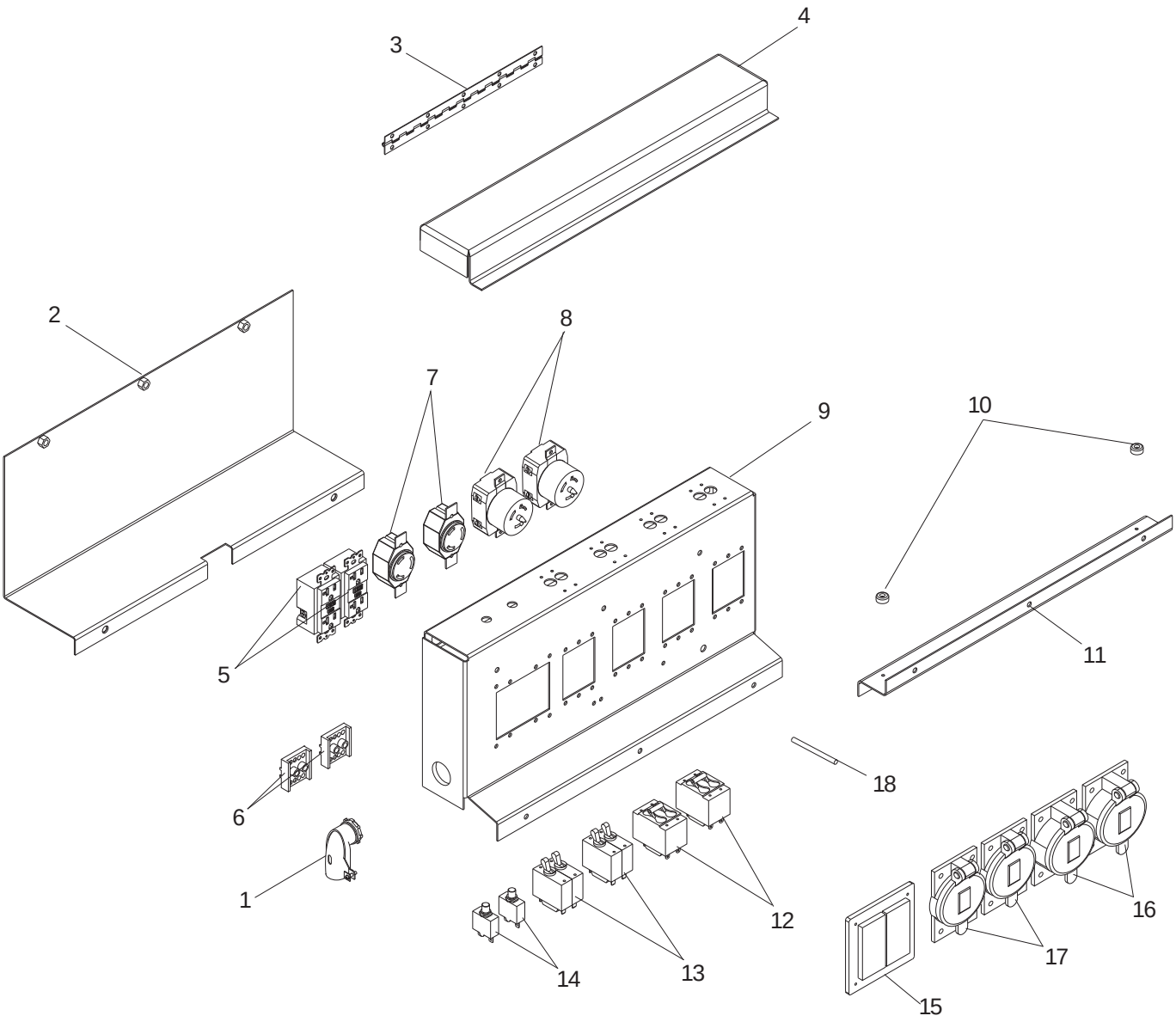
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	11381	2	Fender, plastic - single wall
2	11507W	1	Panel, right side sheet metal
3	16591W	2	Panel, door
4	16598	2	Hinge, door - .188 pin, 48.5 long
5	25333W	1	Panel, back access
6	12195	1	Gasket radiator access plate
7	10287W	1	Panel, rear - 4000 Isuzu
8	10219	2	Assy, rear tail/turn light
9	10223	1	Assy, license plate light/bracket
10	11121	1	Tube, black manual holder, 14”
11	15123	2	Latch, paddle
12	15215	6	Bumper, rubber
13	65406	2	Light, clearance marker - red
14	65407	2	Light, clearance marker - amber
15	22550	1	Switch, e-stop, 2NO/1NC (assembly)
16	65470	1	Switch, e-stop operator
17	65580	1	Block, e-stop contactor - N.C.(low voltage)
18	65584	1	Block, e-stop contactor - N.O / N.O
19	12604	1	Bracket, e-stop guard
20	12012W	1	Panel, front sheet metal
21	12257W	1	Panel, left side sheet metal w/ e-stop
22	10284W	1	Panel, roof w/access hole
23	12605	2	Latch, door SS - T-style
24	11543B	2	Spacer, control box
25	11724	2	Foam, door (MLG 20)
26	60733	1	Plug, hole (white) - .875
27	11222	1	Bracket, manual holder
28	10220	2	Light, rear tail/turn, no grommet
29	10221	2	Grommet, rear light, rubber 4.5”
OPTIONAL FEATURES			
For Containment/Silent Package:			
30	13101W	1	Duct, radiator guard
31	16469W	2	Duct, front
32	12754W	1	Panel, front 4000 containment
33	16739W	2	Panel, door - U bolt lock
34	13116W	1	Cowl, silent pack
35	50366	.66 ft.	Seal, door - “D” .468 x .312 black

ENCLOSURE ASSEMBLY - MLG 8



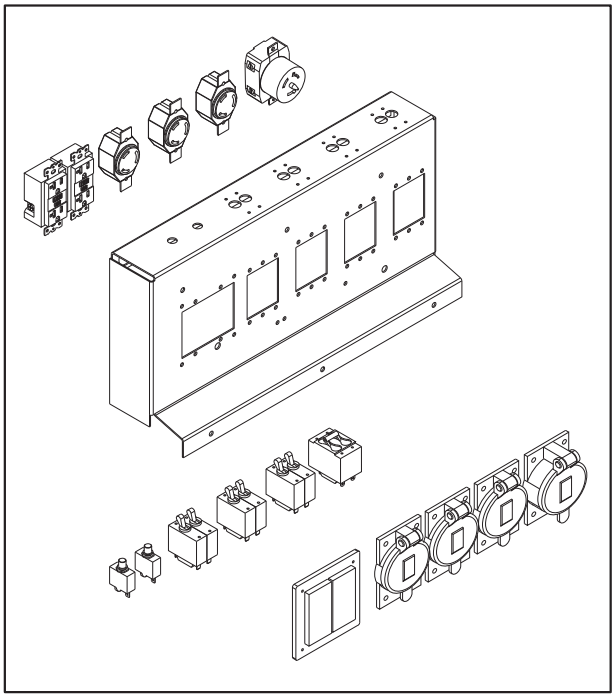
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	16560	2	Fender, plastic - single wall
2	12025W	1	Panel, right side sheet metal
3	16591W	2	Panel, door
4	16598	2	Hinge, door - .188 pin, 48.5 long
5	22550	1	Switch, estop, 2NO/1NC (assembly)
6	65470	1	Switch, e-stop operator
7	65580	1	Block, e-stop contactor - N.C.(low voltage)
8	65584	1	Block, e-stop contactor - N.O / N.O
9	16538W	1	Panel, top
10	11684W	1	Panel, rear
11	10219	2	Assy, rear tail/turn light
12	10223	1	Assy, license plate light/bracket
13	11121	1	Tube, black manual holder, 14"
14	15123	2	Latch, paddle
15	15215	6	Bumper, rubber
16	65406	2	Light, clearance marker - red
17	65407	2	Light, clearance marker - amber
18	11677W	1	Panel, left side MLG 6/8 kW
19	12012W	1	Panel, front sheet metal
20	11543B	2	Spacer, control box
21	11724	2	Foam, door
22	12605	2	Latch, door SS - T-style
23	11222	1	Bracket, manual holder
24	10220	2	Light, rear tail/turn, no grommet
25	10221	2	Grommet, rear light, rubber 4.5"
OPTIONAL FEATURES			
For Containment/Silent Pack:			
26	12189W	1	Duct, radiator guard
27	16469W	2	Duct, front
28	12754W	1	Panel, front 4000 containment
For Tamper Pack:			
29	16739W	2	Panel, door - U bolt lock
30	12837W	1	Grate, duct - white
31	13868W	1	Panel, duct grate bracket - tamper pack
32	60200	2	Bolt, U .250-20 X .750 X 1.25
33	60243	8	Washer, .250 flat .735/.060 USS
34	60284	8	Nut, .250-20 hex G5
35	60286	4	Washer, .250 split lock

AUXILIARY OUTLET PANEL ASSEMBLY - MLG 20 & 15

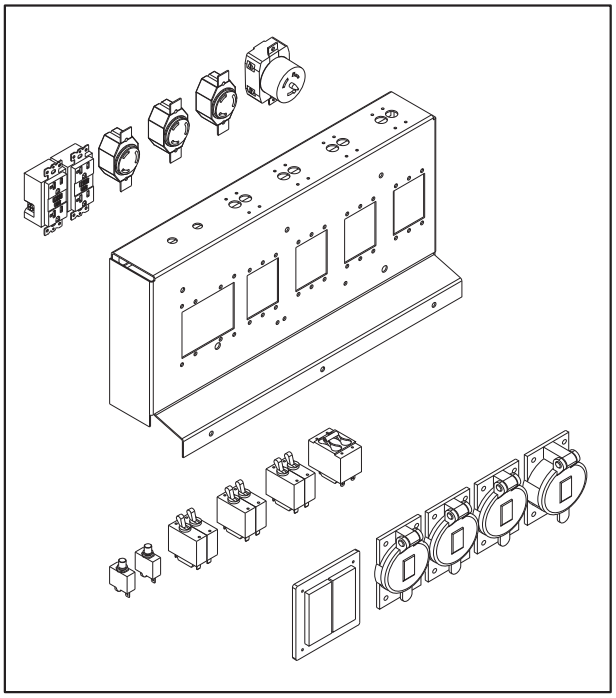


ITEM NO.	PART NO.	QTY	DESCRIPTION
1	65535	1	Clamp, 90° 3/4" 2 screw
2	12248B	1	Weldment, outlet cover
3	10081	1	Hinge, continuous - 11.00 in.
4	11484B	1	Cover, breaker
5	14130	2	Receptacle, 120V/20A GFCI
6	65530	2	Block, terminal - 2 pole lug type, 7 pos./pole
7	14137	2	Receptacle, 240V/30A twist lock
8	18089	2	Receptacle, 120/240V 50A twist lock
9	12246B	1	Weldment, outlet panel
10	15215	3	Bumper, rubber
11	11485B	1	Angle, mounting support
12	65492	2	Breaker, 50A 250V 2 pole aux contact
13	65851	2	Breaker, 30A, 250V, 2 pole, screw term w/ aux
14	65849	2	Breaker, 20A, 120V, 1 pole push button
15	15849	1	Cover, receptacle - weather proof
16	65467	2	Cover, receptacle 50A twist lock
17	65460	2	Cover, 20/30A 240V twist lock
18	18992	1	Stud, ground
--	12398	1	Receptacle panel (2x5-20R, 2xL6-30R, 2x50A)

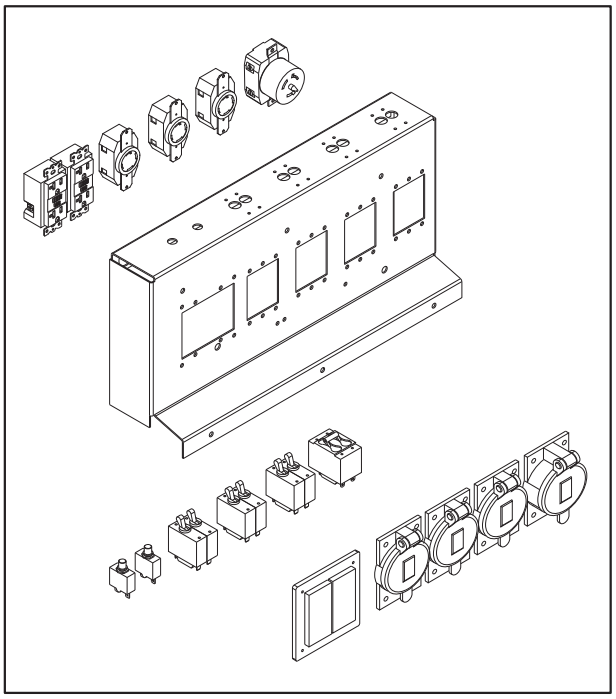
AUXILIARY OUTLET PANEL OPTIONS



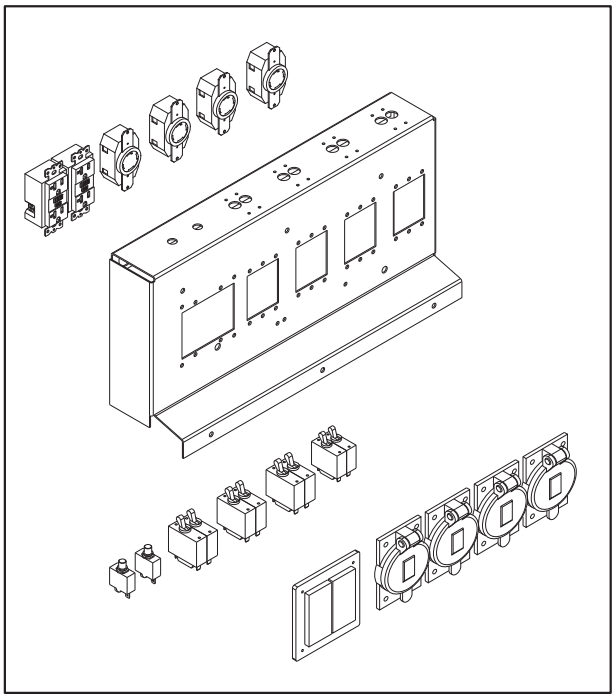
PART NUMBER 12399
Receptacle Panel (2x5-20R, 3xL6-30R, 1x50A)



PART NUMBER 12402
Receptacle Panel (2x5-20R, 3xL6-20R, 1x50A)

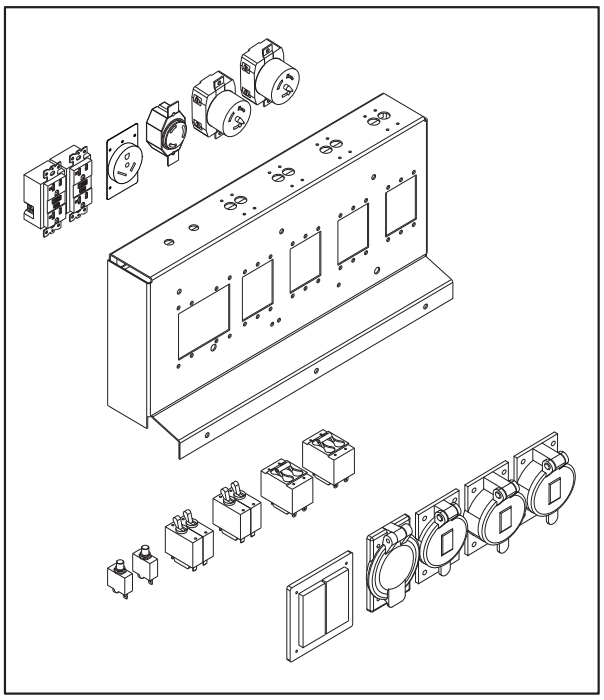


PART NUMBER 12400
Receptacle Panel (2x5-20R, 3xL14-30R, 1x50A)

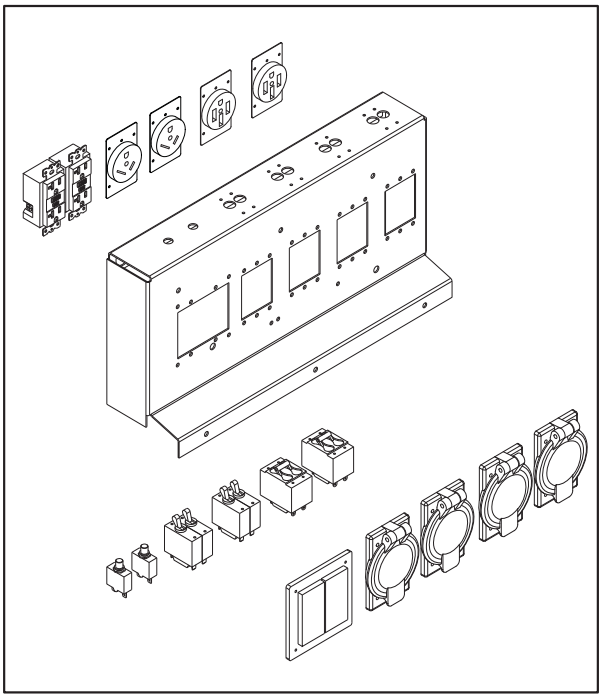


PART NUMBER 12401
Receptacle Panel (2x5-20R, 4xL14-30R)

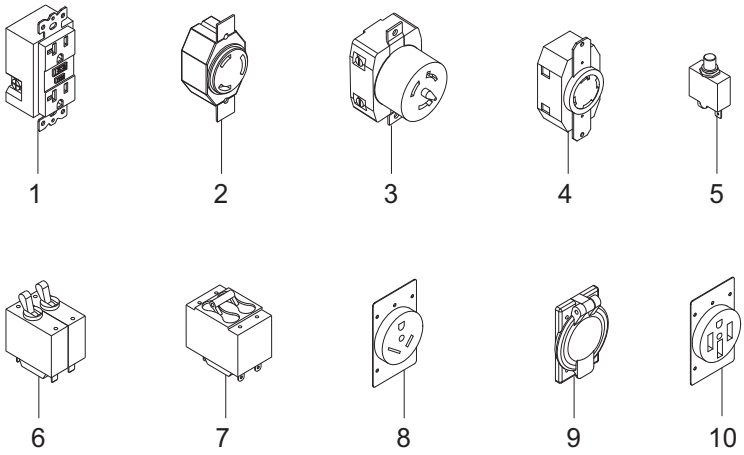
AUXILIARY OUTLET PANEL OPTIONS



PART NUMBER 13540
Receptacle Panel (2x5-20R, 1xTT-30R, 1xL6-30R, 2x50A)

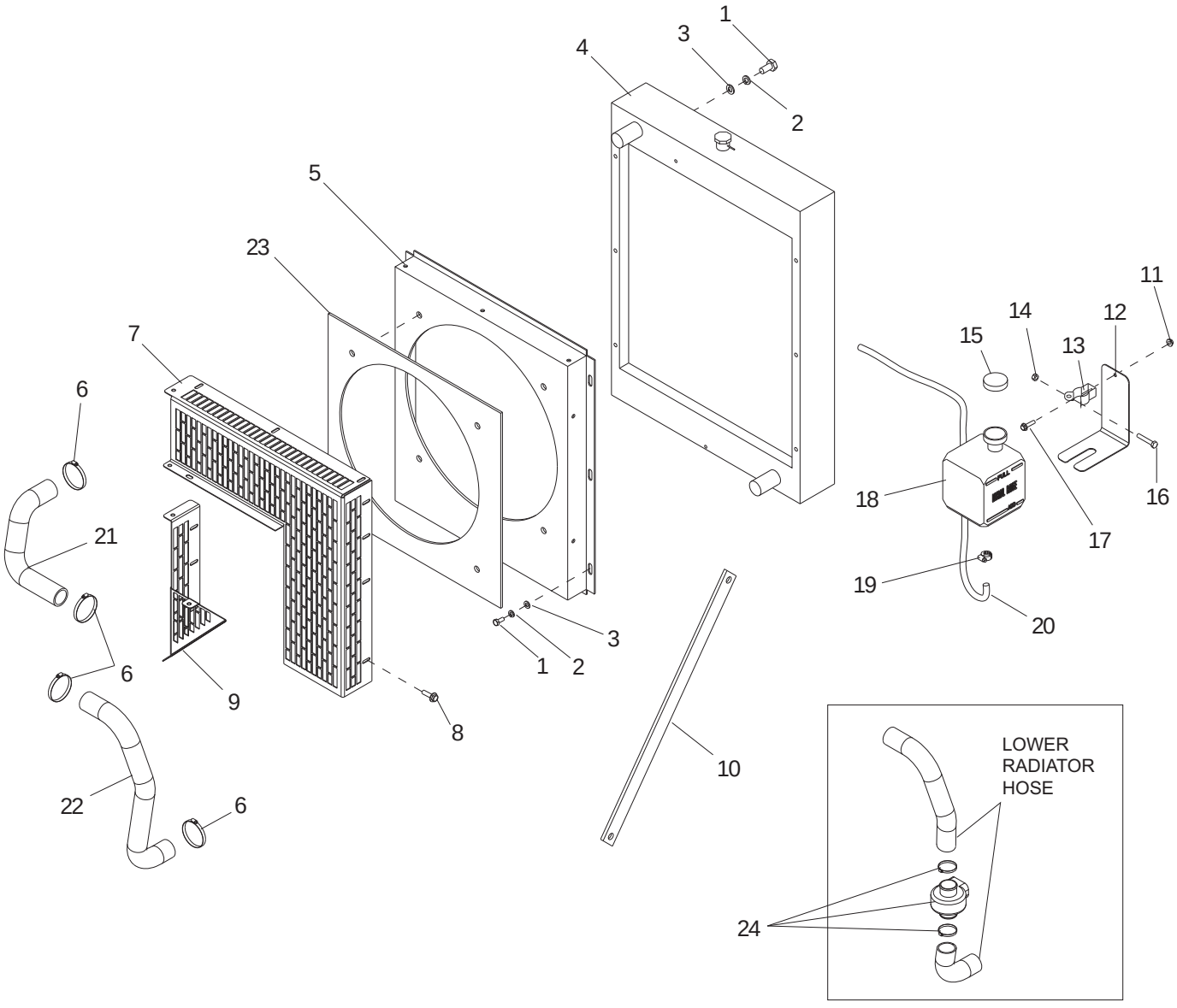


PART NUMBER 13893
Receptacle Panel (2x5-20R, 2xTT-30R, 2x14 - 50)



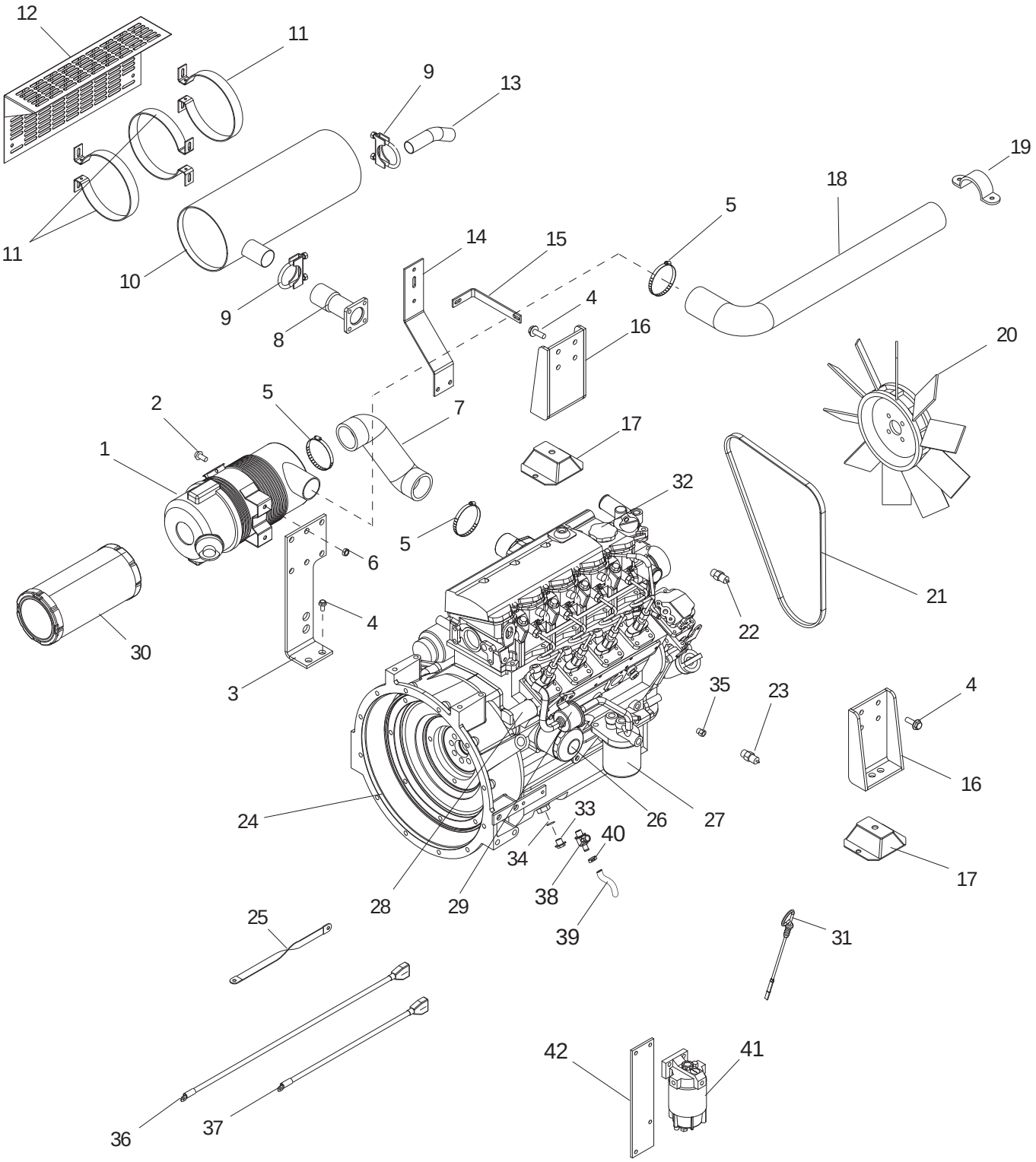
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	14130	2	Receptacle, 120V 20A GFCI
2	14137	-	Receptacle, 240V 30A twist lock
3	18089	-	Receptacle, 125/250V 50A twist lock
4	65488	-	Receptacle, 240V 30A twist lock
5	65849	2	Breaker, 20A, 120V, 1 pole, push button
6	65851	2	Breaker, 30A 250V 2 pole (JA) screw term, w/aux
7	65492	-	Breaker, 50A 250V 2 pole aux contact
8	65489	1	Receptacle, 120V/30A (TT-30R) (RV)
9	65520	1	Cover, receptacle - weather proof 50A 3-wire
10	65815	-	Receptacle, 240V/50A (14-50R) (RV)

ENGINE COOLING ASSEMBLY - MLG 20 & 15



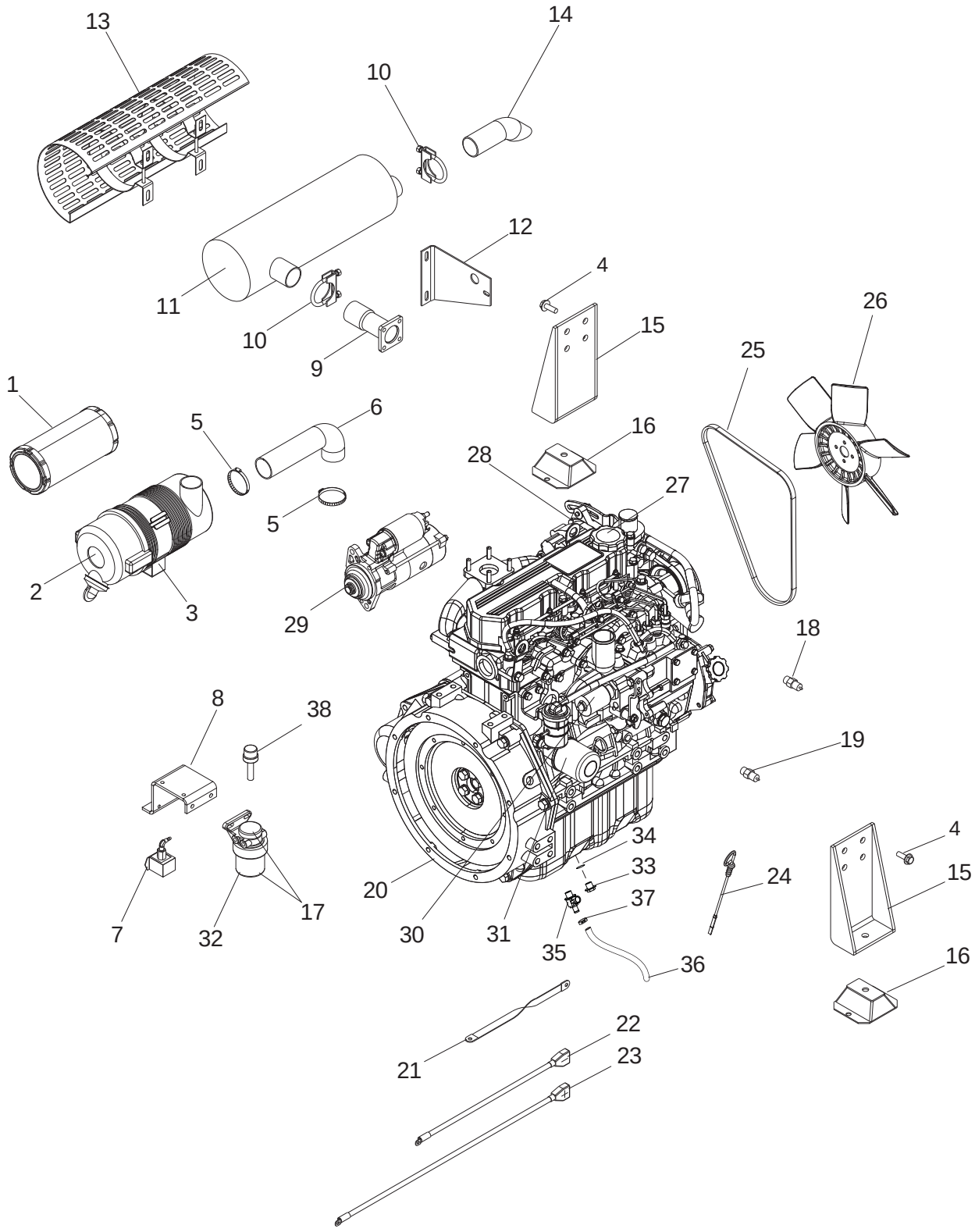
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	60034	12	Screw, .375-16X.750 hx ser flg
2	60206	12	Washer, split lock .375
3	60386	12	Washer, flat .375
4	26305	1	Radiator, aluminum
5	11626B	1	Weldment, fan shroud
6	15422	4	Clamp, hose SAE 20
7	11760B	1	Panel, fan guard, right
8	60175	8	Screw, .250-20X.500 sflg hex G5
9	11769B	1	Weldment, fan guard, left (MLG 20)
	11767B	1	Weldment, fan guard, left (MLG 15)
10	11596B	1	Strut, radiator support (MLG 20)
	11827B	1	Strut, radiator support (MLG 15)
11	60144	1	Nut, .250-20 nylock
12	22419B	1	Bracket, support overflow jug .5 gal.
13	19726	1	Clamp, overflow bottle
14	60144	1	Nut, .250-20 hx nylock
15	19714	1	Cap, overflow bottle
16	60518	1	Screw, .250-20 x 1.500 hx hd GR5 fully thd
17	60518	1	Screw, .250-20X1.500 hx hd
18	20287	1	Jug, overflow 2 qt. (.5 gal.)
19	60777	1	Clamp, hose - .312 fuel hose crimp style
20	50018	3 ft.	Hose, fuel - .312 ID 50 PSI SAE 30R7
21	12064	1	Hose, top radiator (MLG 20)
	11891	1	Hose, radiator upper (MLG 15)
22	12356	1	Hose, radiator lower (MLG 20)
	15185	1	Hose, lower radiator (MLG 15)
23	11757B	1	Plate, adapter shroud (MLG 15)
OPTIONAL FEATURES:			
24	65650	1	Heater, engine - lower radiator hose 1.5” (MLG 20)
	65648	1	Heater, engine - lower radiator hose 1.25” (MLG 15)

ENGINE ASSEMBLY - MLG 20



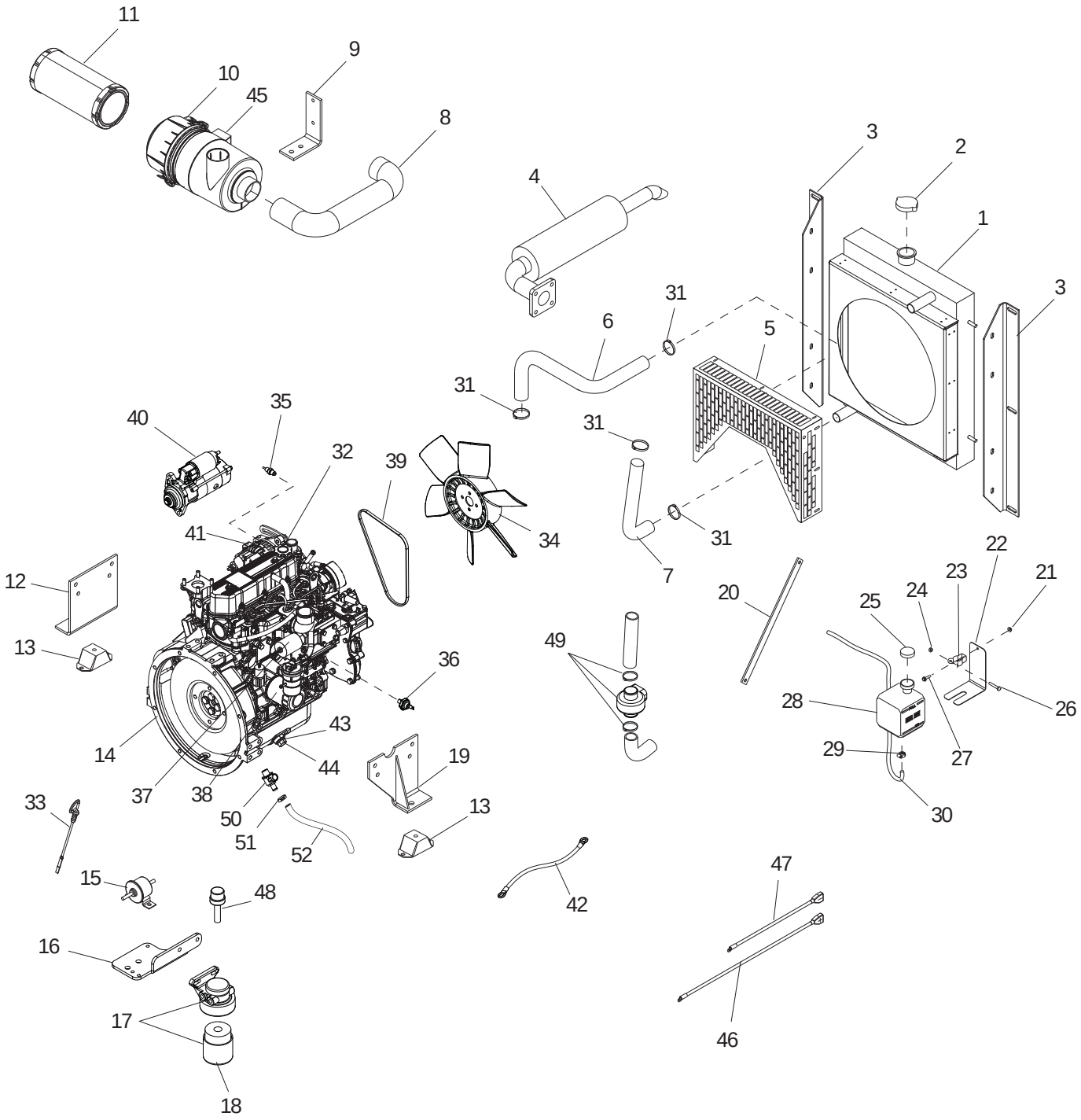
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	21505	1	Assembly, air filter
2	60009	2	Screw, M8X1.25X25 hx ser flg
3	12990B	1	Bracket, air filter
4	60018	14	Screw, M10X1.25X20 hx ser flg
5	60316	4	Clamp, hose - SAE 32
6	60342	2	Nut, M8X1.25 hx GR8.8 SS
7	22320	1	Hose, air filter
8	12421B	1	Weldment, exhaust flange
9	25455	2	Clamp, 1.5" muffler
10	12608	1	Muffler
11	12606B	3	Bracket, muffler
12	12612B	1	Heat shield
13	12683B	1	Pipe, exhaust
14	12634B	1	Bracket, muffler mounting
15	12635B	1	Bracket, muffler support
16	11471B	2	Weldment, engine mount
17	11524	2	Compression mount, 4.38x4.00x1.50
18	12637	1	Hose, air inlet
19	60821	1	Strap, plastic
20	19258	1	Fan, 15.75 in.
21	22258	1	Belt, fan - 4LE1-PV05
22	15370	1	Switch, water temp Isuzu
23	16677	1	Switch, oil pressure
24	18064	1	Engine, 4LE1PV05
25	19042	1	Strap, braided ground - 10 in.
26	15183	1	Filter, oil - Isuzu (3LB,3LD,4LE)
27	15331	1	Fuel filter element
28	22893	1	Solenoid, fuel shutdown - 4LE
29	16205	1	Pump, fuel - Isuzu 3LB1, 3LD1, 4LE1
30	21937	1	Element, air filter
31	23899	1	Dipstick, oil, Isuzu 4LEPV05
32	16184	1	Cap, oil filler, Isuzu
33	11040	1	Isuzu, plug, oil pan
34	11041	1	Isuzu, oil plug gasket
35	19232	1	Fitting, .125NPTF X .125-28 BSP male
36	15074	1	Cable, battery - 4 AWG X 36 in. red
37	15073	1	Cable, battery - 4 AWG X 25 in. blk
--	26049	1	Isuzu, alternator (not shown)
--	26033	1	Isuzu, starter assembly (not shown)
OPTIONAL FEATURES:			
38	11952	1	Valve, drain - 20X1.5MM thread/barb
39	50051	.25 ft.	Hose, fuel - .375 ID 50 PSI SAE 30R7
40	60777	1	Clamp, hose - .312 fuel hose crimp style
41	11607	1	Filter, fuel - heated
42	11941B	1	Plate, fuel filter mount
For Containment/Silent Package			
--	26306	1	Fan, 15.75 in. increasing arc (not shown)

ENGINE ASSEMBLY - MLG 15



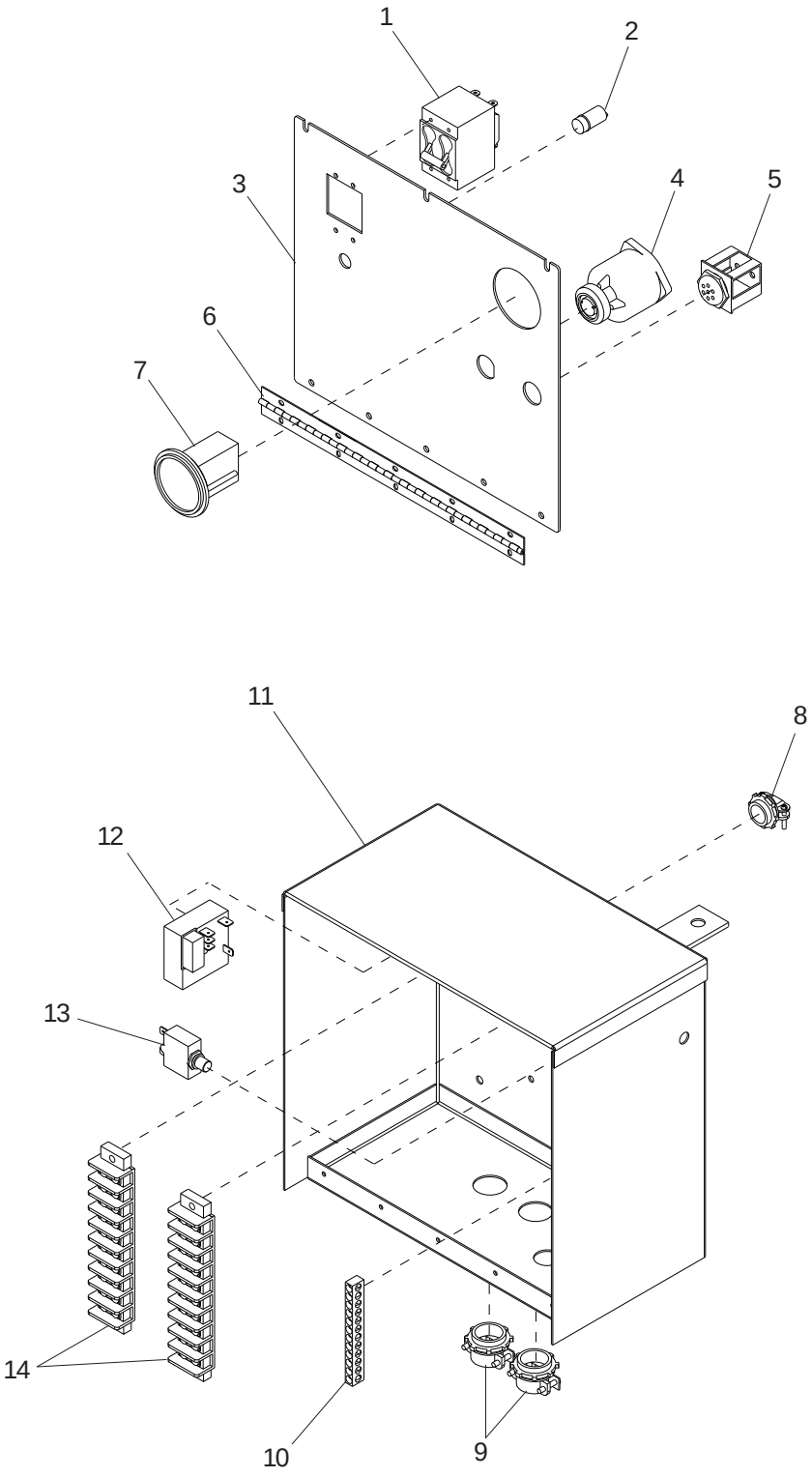
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	19270	1	Element, air filter
2	16443	1	Assembly, air filter with bracket
3	16445	1	Bracket, air cleaner housing
4	60018	14	Screw, M10X1.25X20 hx ser flg
5	60316	2	Clamp, hose - SAE 032 (1.56-2.50)
6	13695	1	Hose, air cleaner
7	16684	1	Kit, fuel feed with fittings
8	11745B	1	Bracket, fuel/air filter
9	11821B	1	Weldment, exhaust flange
10	18823	2	Clamp, 2 - in. muffler
11	18814	1	Muffler, residential grade
12	11474B	1	Weldment, muffler bracket
13	12108B	1	Weldment, heat shield
14	11478B	1	Pipe, exhaust
15	11732B	2	Weldment, engine mount
16	11524	2	Compression mount, 4.38x4.00x1.50
17	16685	1	Fuel filter, head, element & fitting
18	16678	1	Switch, coolant temperature
19	16677	1	Switch, oil pressure
20	13048	1	Engine, Mitsubishi S4L2 Interum Tier IV
21	22438	1	Strap, braided ground - 16 in.
22	12535	1	Cable, battery - 25" 4GA blk w/ boot 1/2" lug
23	15074	1	Cable, battery - 38" 4GA red 7/16" lug
24	12586	1	Mitsubishi, gauge, oil level
25	12746	1	Mitsubishi, V-belt, alternator
26	12648	1	Mitsubishi, fan - pusher
27	12582	1	Mitsubishi, cap, oil filler
28	12753	1	Mitsubishi, alternator assy, 12V
29	13266	1	Mitsubishi, starter assy
30	12829	1	Mitsubishi, solenoid, fuel shut-down
31	16691	1	Mitsubishi, filter, oil
32	16686	1	Mitsubishi, fuel filter element
33	13084	1	Mitsubishi, plug, oil drain
34	13085	1	Mitsubishi, gasket, oil drain
OPTIONAL FEATURES:			
35	60760	1	Valve, drain -14MMX1.5 w/nipple
36	12438	1	Hose, oil drain .375 x 30, 30R7
37	60777	1	Clamp, hose - .312 fuel hose crimp style
38	13876	1	Kit, heater - fuel filter

ENGINE & COOLING SYSTEM ASSEMBLY - MLG 8



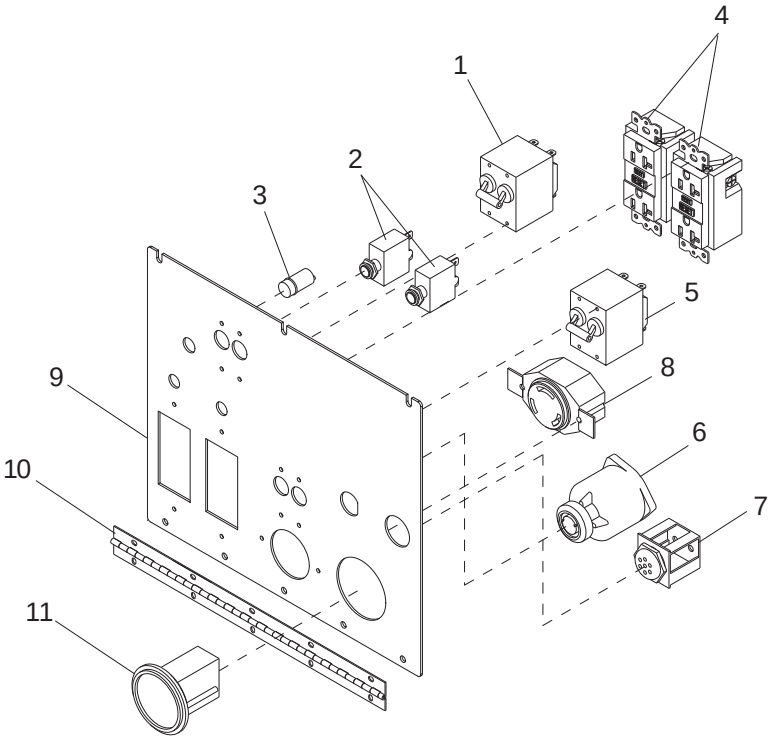
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	11768	1	Radiator, Mitsubishi L3E
2	19219	1	Cap, radiator
3	11683B	2	Bracket, radiator
4	15266	1	Muffler
5	11413B	1	Guard, fan
6	16687	1	Hose, radiator upper
7	16688	1	Hose, radiator lower
8	16589	1	Hose, air cleaner
9	16551B	1	Bracket, air filter
10	16443	1	Housing, air filter
11	16444	1	Element, air filter
12	16554B	1	Mount, engine (left)
13	15241	2	Mount, compression
14	13046	1	Engine, Mitsubishi - L3E interim Tier IV
15	13278	1	Fuel pump, electric
16	12838B	1	Bracket, fuel filter/pump - Mitsubishi L3E
17	16685	1	Mitsu fuel filter head, element, and fitting
18	16686	1	Element, fuel filter
19	16553B	1	Mount, engine (right)
20	12347B	1	Strut, radiator (MLG 8)
21	60144	1	Nut, .250-20 nylock
22	22419B	1	Bracket, support overflow jug .5 gal.
23	19726	1	Clamp, overflow bottle
24	60144	1	Nut,.250-20 hx nylock
25	19714	1	Cap, overflow bottle
26	60518	1	Screw, .250-20 x 1.500 hx hd GR5 full thd
27	60414	1	Screw, .250-20X1.500 hx hd
28	20287	1	Jug, overflow 2 qt. (.5 gal.)
29	60777	1	Clamp, hose - .312 fuel hose crimp style
30	50018	3 ft.	Hose, fuel - .312 ID 50 PSI SAE 30R7
31	19338	4	Clamp, hose - SAE 16 (.68-1.50)
32	11147	1	Cap, oil filler
33	11148	1	Dip stick, engine oil
34	16742	1	Fan, engine
35	16678	1	Switch, temperature
36	16677	1	Switch, oil pressure
37	16683	1	Mitsu, solenoid, fuel shutdown
38	16691	1	Filter, oil
39	16692	1	Belt, alternator
40	16833	1	Starter, engine Mitsubishi
41	16743	1	Alternator, Mitsubishi
42	16155	1	Assy, wire -eng/chassis ground
43	12889	1	Mitsubishi, gasket, oil drain
44	12888	1	Mitsubishi, plug, oil drain
45	16445	1	Bracket, air cleaner housing
46	15074	1	Cable, battery - 4 AWG X 36 in. red
47	15073	1	Cable, battery - 4 AWG X 25 in. blk
OPTIONAL FEATURES:			
48	13876	1	Kit, heater - fuel filter
49	65649	1	Heater, engine - low rad hose
50	60766	1	Valve, drain 18MM-1.5 w/nipple
51	12227	1	Hose, oil drain .375 X 20, 30R7
52	60777	1	Clamp, hose - .312 fuel hose crimp style

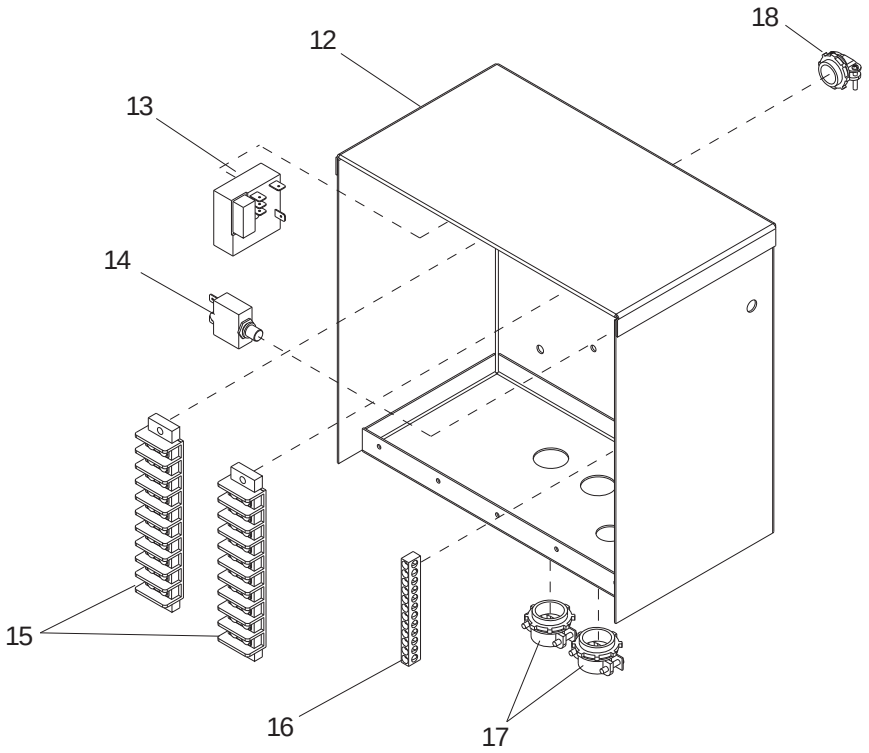
CONTROL BOX ASSEMBLY - MLG 20 & 15



ITEM NO.	PART NO.	QTY	DESCRIPTION
1	65429	1	Breaker, 100A 250V 2 pole (MLG 20)
	60736	1	Breaker, 70A 250V 2 pole (MLG 15)
2	65388	1	Light, indicator red - w/wire 12 VDC
3	10278	1	Panel, control - 20KW w/o light (MLG 20)
	11889	1	Panel, control - 15KW w/o light (MLG 15)
4	15195	1	Switch, key
5	24008	1	Isuzu, glow plug indicator 4LE (MLG 20)
	13264	1	Mitsubishi, glow plug indicator - S4L2 (MLG 15)
6	10081	1	Hinge, 11 in.
7	15085	1	Gauge, hour meter
8	14202	1	Strain relief, .375 Romex w/nut
9	14219	2	Strain relief, .75 Romex w/nut
10	14204	1	Kit, ground bar
11	14257B	1	Box, control
12	14201	1	Relay, 15 sec. fixed time delay 12VDC
13	14841	1	Breaker, push button 10A
14	14203	2	Block, terminal 10 pos

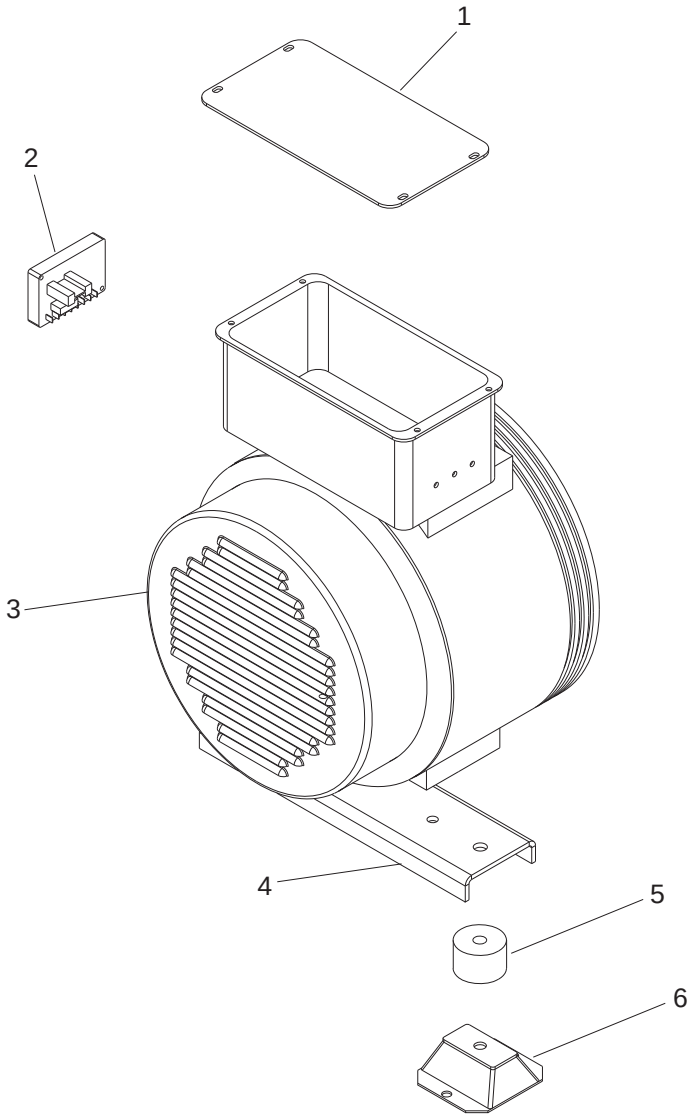
CONTROL BOX ASSEMBLY - MLG 8





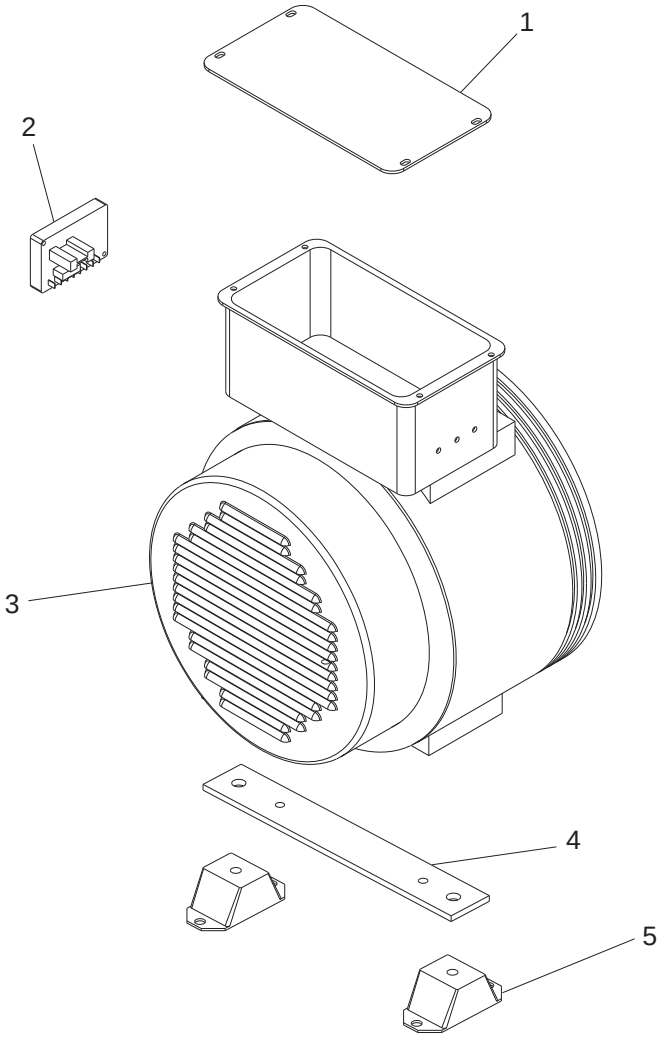
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	65865	1	Breaker, 40A, 250V 2-pole, screw terminals
2	65849	2	Breaker, 20A, 120V, 1 pole push button
3	65388	1	Light, indicator red - w/wire 12 volt DC
4	14130	2	Receptacle, 120V/20A GFI
5	65851	1	Breaker, 30A, 250V, 2pole, screw term w/ aux
6	15195	1	Switch, key - Isuzu, Mitsu
7	16694	1	Indicator, glow plug
8	14137	1	Receptacle, 240V/30A twist (L6-30R)
9	12250	1	Panel, control
10	10081	1	Hinge, continuous - 11.00
11	15085	1	Gauge, hourmeter
12	14257B	1	Box, control
13	14201	1	Relay, 15 sec fixed delay, 12VDC, 10 amp
14	14841	1	Breaker, push button - 10 amp
15	14203	2	Block, terminal - 10 pos.
16	14204	1	Kit, ground bar
17	14219	4	Strain relief - .75 Romex w/nut
18	14202	5	Strain relief - .375 Romex w/nut

GENERATOR ASSEMBLY - MLG 20



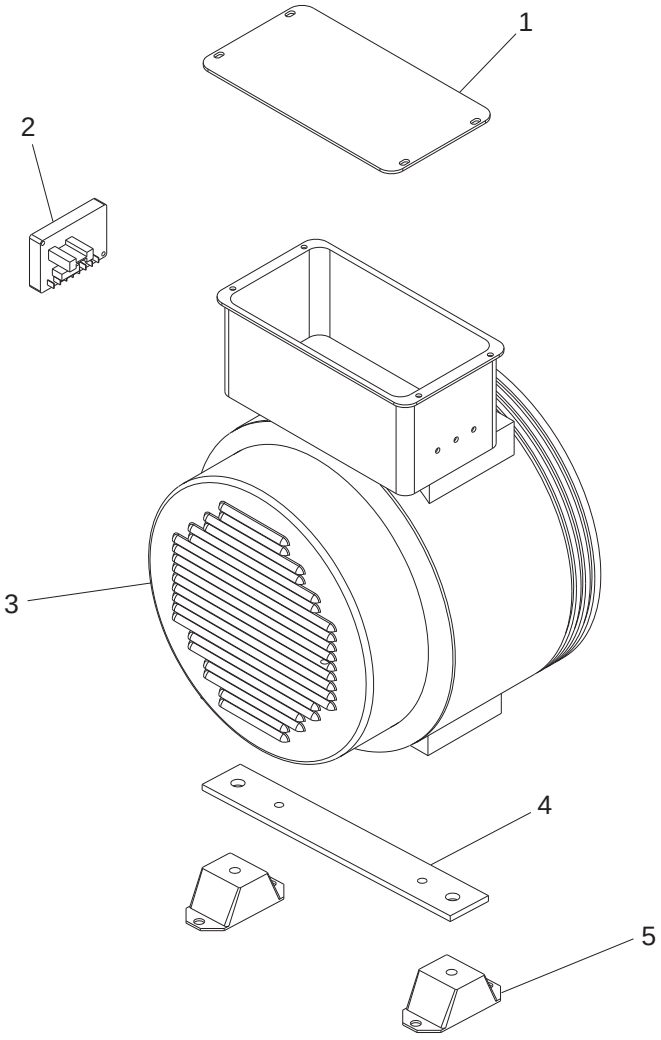
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	12736	1	Cover, generator box
2	18556	1	Regulator, voltage - SE 350
3	11481	1	Generator, 334CSA302Z8 20KW
4	11597B	1	Bracket, gen mount
5	11515B	2	Spacer, 2.00 dia x 1.00
6	11524	2	Compression mount, 4.38x4.00x1.50

GENERATOR ASSEMBLY - MLG 15



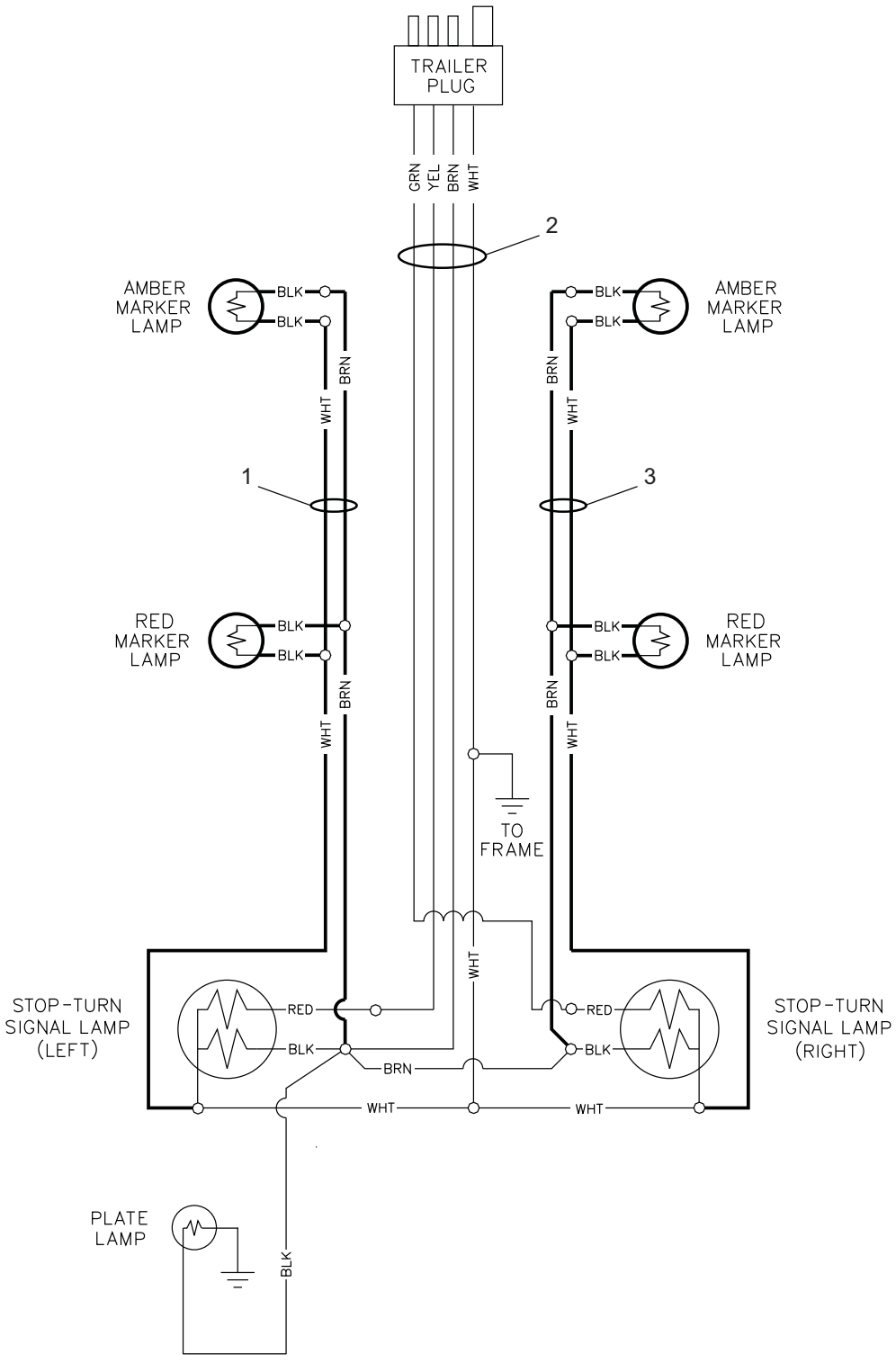
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	12736	1	Cover, generator box
2	18556	1	Regulator, voltage - SE 350
3	11327	1	Generator, 15 kw 60 hz regulated
4	11597B	1	Bracket, gen mount
5	11524	2	Compression mount, 4.38x4.00x1.50

GENERATOR ASSEMBLY - MLG 8



ITEM NO.	PART NO.	QTY	DESCRIPTION
1	12736	1	Cover, generator box
2	18556	1	Regulator, voltage - SE 350
3	12023	1	Generator, 10 kw 60 Hz regulated
4	11597B	1	Bracket, gen mount
5	15241	2	Compression mount, engine/generator

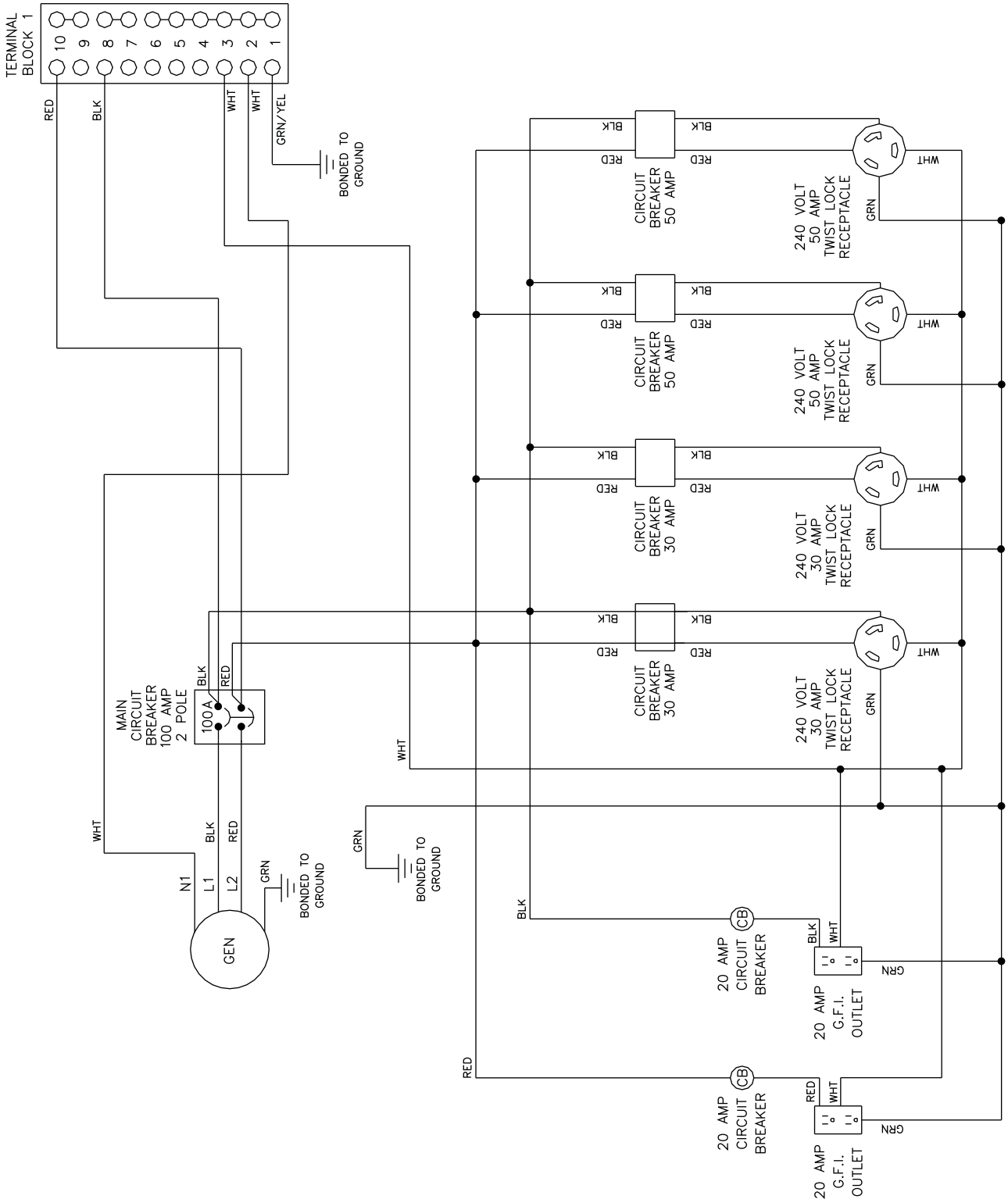
TRAILER LIGHTS WIRING DIAGRAM



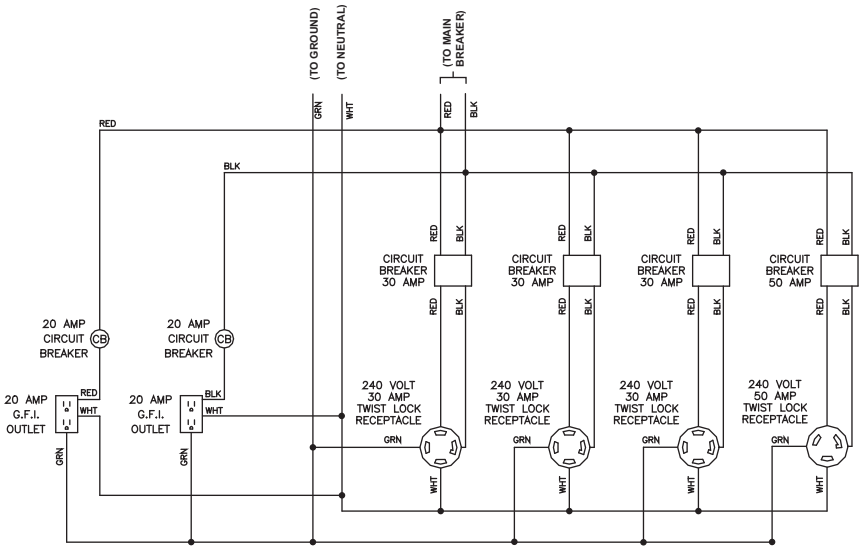
ITEM NO.	PART NO.	QTY	DESCRIPTION
1	10264	1	Harness, left side trailer
2	10261	1	Harness, main trailer 4000
3	10265	1	Harness, right side trailer
-	65465	-	Adapter, trailer wiring flat 4 to rnd 7 blade
-	65464	-	Adapter, trailer wiring flat 4 to rnd 7 pin
-	65463	-	Adapter, trailer wiring flat 4 to rnd 6 pin

AC WIRING DIAGRAM - MLG 20, MLG 15

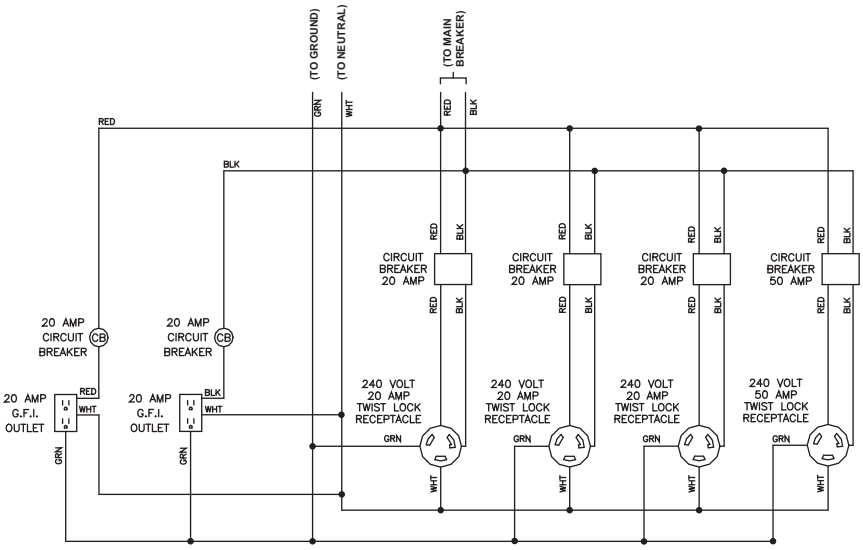
Receptacle panel part number 12398 shown (2x5-20R, 2xL6-30R, 2x50A).



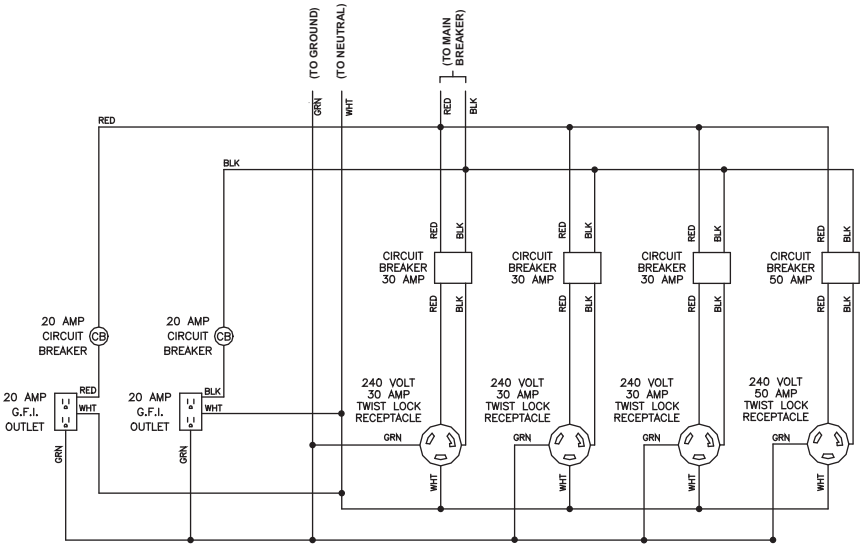
AC WIRING PANEL OPTIONS - MLG 20, MLG 15



PART NUMBER 12399; Receptacle Panel (2x5-20R, 3xL6-30R, 1x50A)

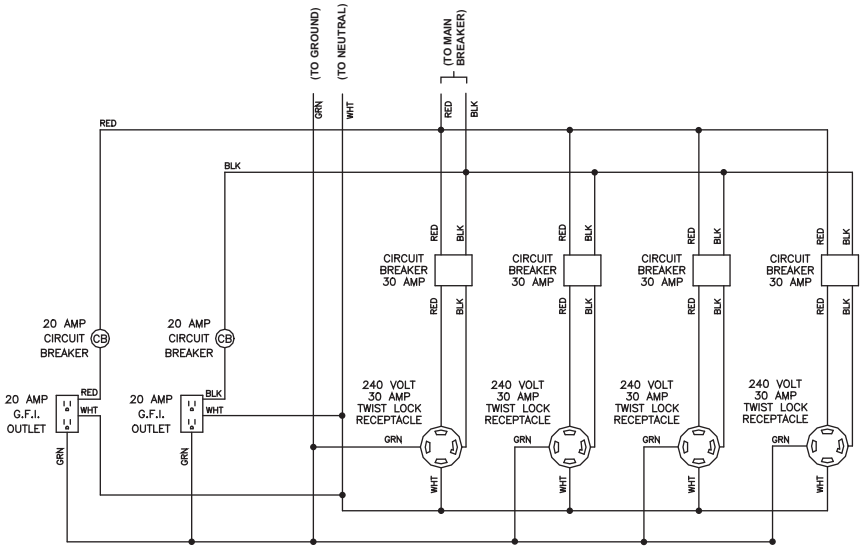


PART NUMBER 12402; Receptacle Panel (2x5-20R, 3xL6-20R, 1x50A)

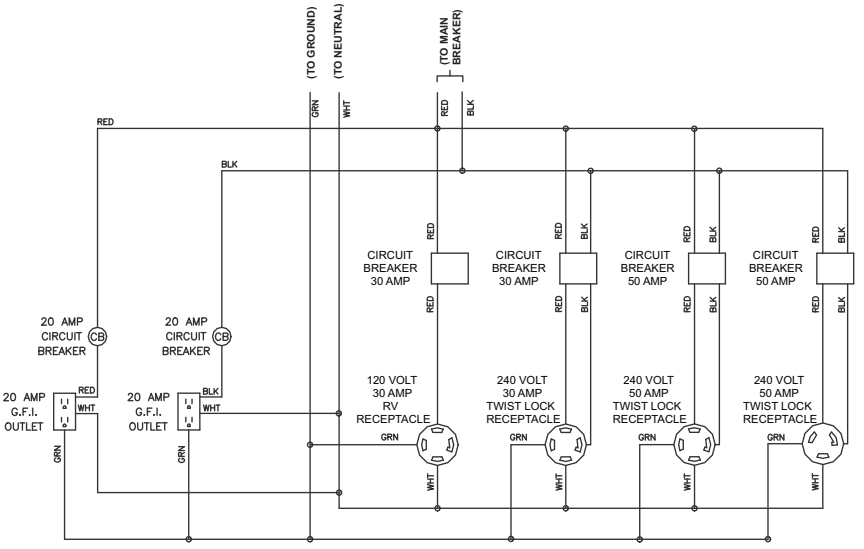


PART NUMBER 12400; Receptacle Panel (2x5-20R, 3xL14-30R, 1x50A)

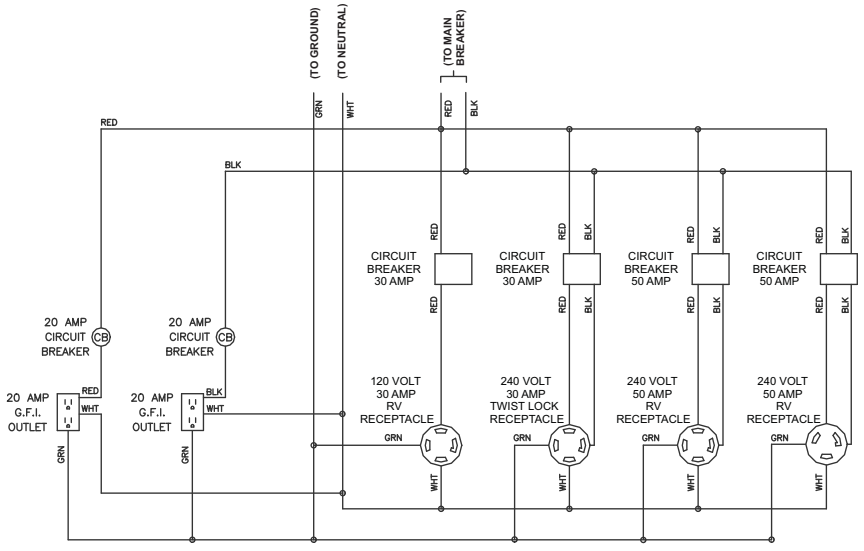
AC WIRING PANEL OPTIONS, CONTINUED



PART NUMBER 12401; Receptacle Panel (2x5-20R, 4xL14-30R)

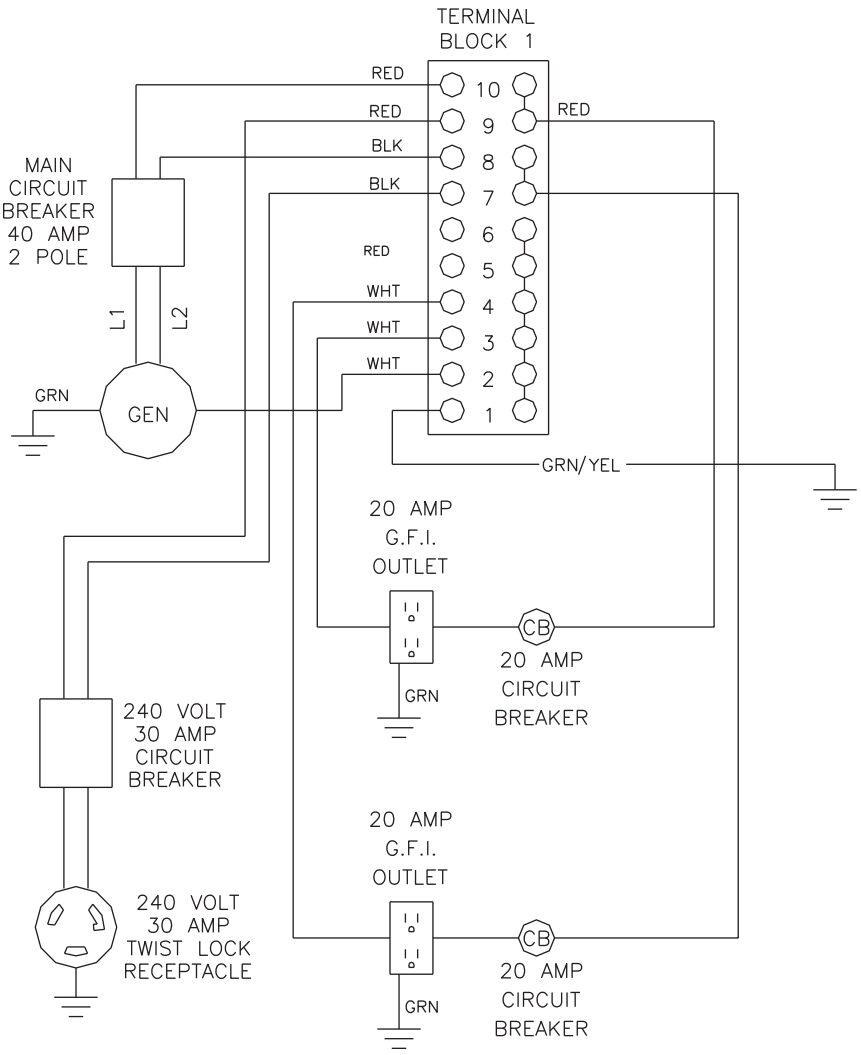


PART NUMBER 13540; Receptacle Panel (2x5-20R, 1xTT-30R, 1xL6-30R, 2x50A)

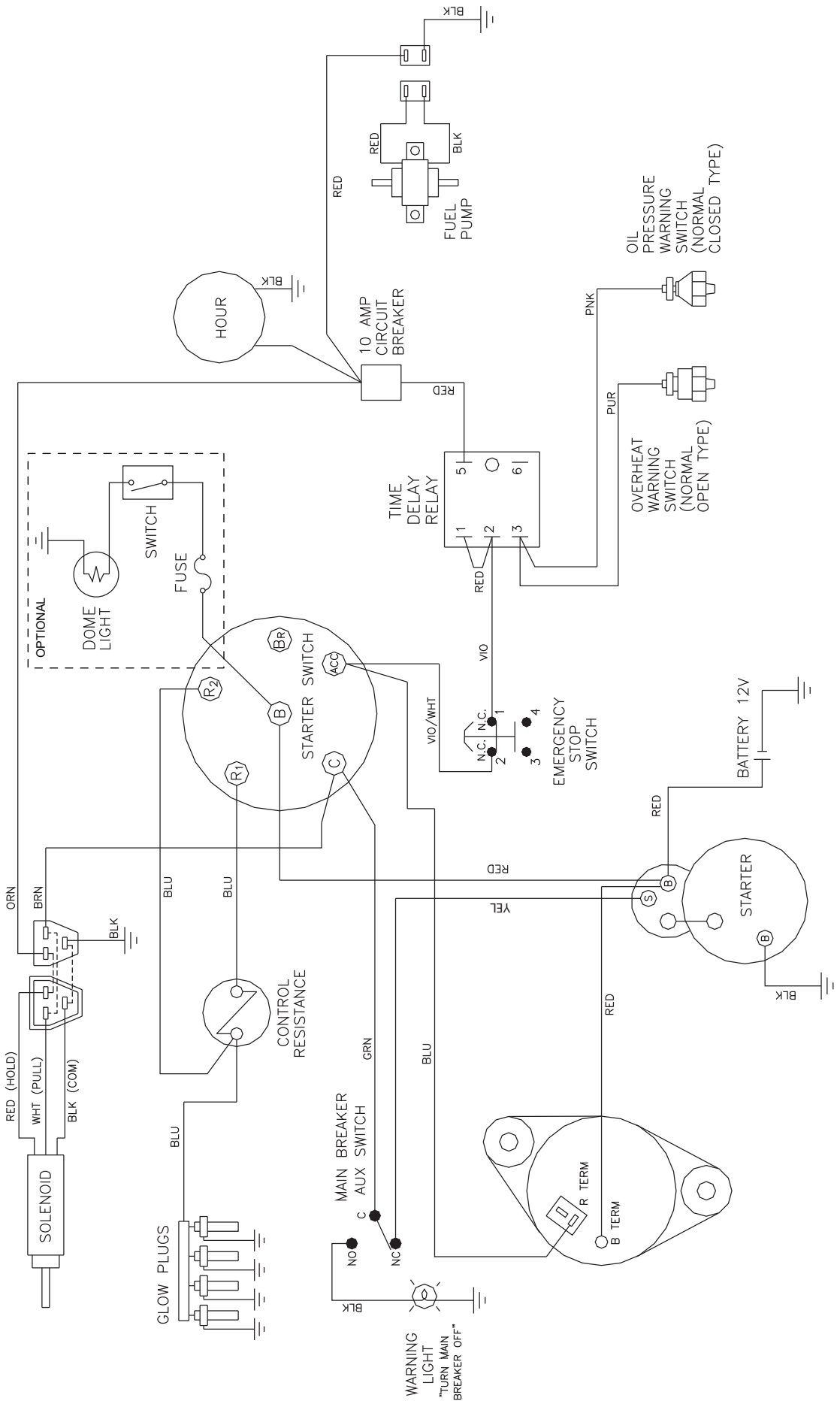


PART NUMBER 13893; Receptacle Panel (2x5-20R, 2xTT-30R, 2x14-50)

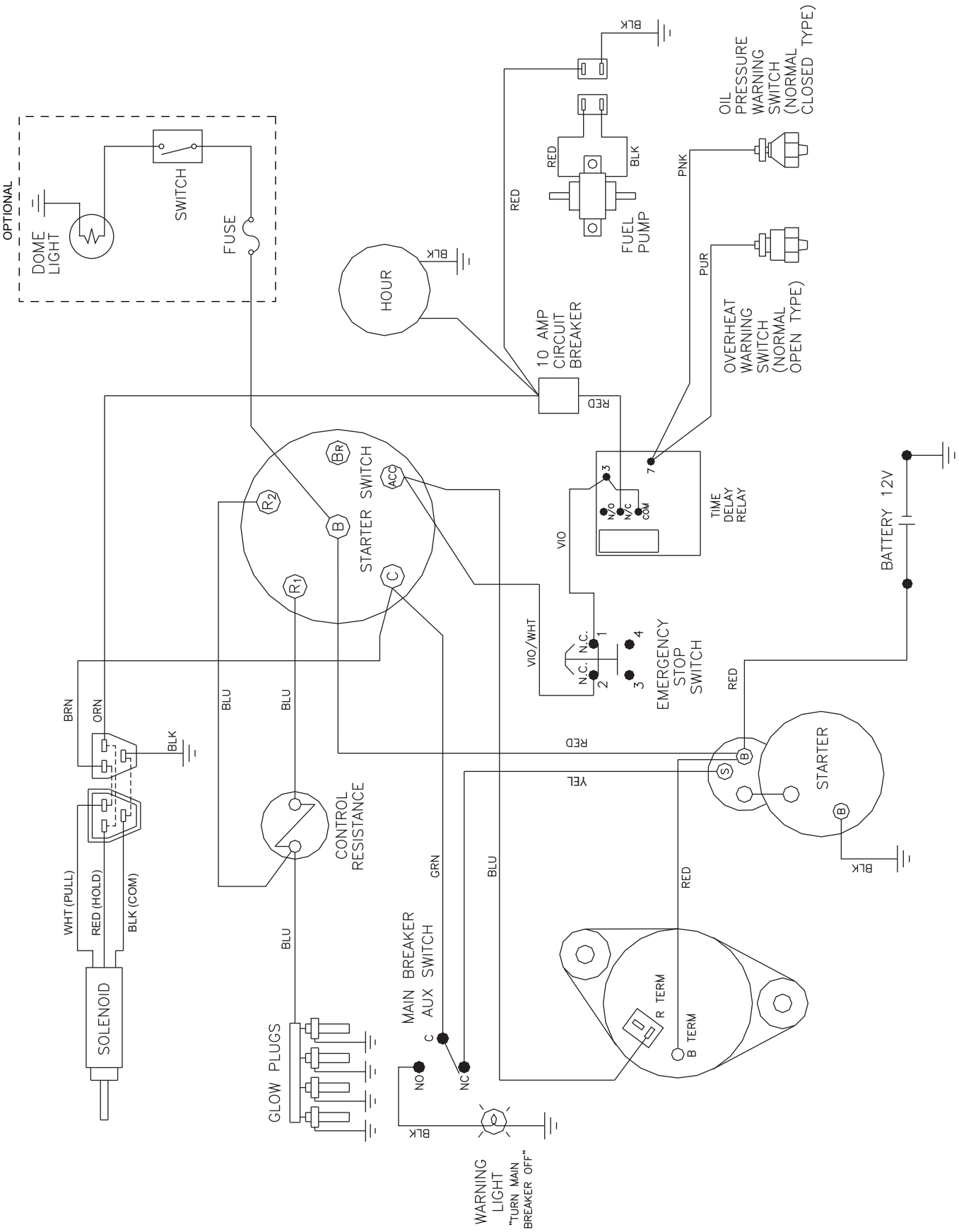
AC WIRING DIAGRAM - MLG 8



DC WIRING DIAGRAM - MLG 20



DC WIRING DIAGRAM - MLG 15, MLG 8



NOTES:

SERVICE LOG

OIL GRADE AND TYPE: _____ BRAND: _____
COOLANT MIXTURE: _____ BRAND: _____

Date	Hours to service	Oil level	Coolant level

Date	Hours to service	Oil level	Coolant level

REV: H
PART NO: 10289
10.14.08