Power Tech Generator

A powerful, quiet and reliable. **Power Tech Diesel Generator** can power your MAX Mobile LED Trailer for up to 30 hours on a full tank of fuel.

Ease of maintenance, simple startup, and shut down processes are a few key features included in this **Generator Package**.

Power Tech Generator

Specifications Page

Key specifications of the **Power Tech 8K Diesel Generator** are shown on this page:

SPECIFICATIONS

ENGINE	
Make	Kubota
Model	D1105
Cylinders	3
Aspiration	Natural Aspiration
EPA Tier	Tier 4
HP @ 1800rpm (Continuous Duty)	13.5
Approximate Fuel Consumption	0.4 gal/hr @ ½ Load 0.8 gal/hr @ Full Load
Starting Voltage	12VDC
Battery Cable Gauge	2 AWG Minimum
Oil Capacity	Approx. 4.0 Qts (3.8 L)
Cooling System Capacity	Approx. 6.5 Qts (6.1 L)

GENERATOR	
Generator Type	Brushless with Automatic Voltage Regulator
Generator Output (Continuous Prime)	8000W @ 60Hz 6600W @ 50Hz (Optional)

MAINTENANCE PARTS	
Replacement Air Filter Element	04FA221
Replacement Primary Fuel Filter	08FF17
Replacement Inline Fuel Filter	08FFG17B
Replacement Oil Filter	01FO05S
These and other additional parts available at powertechgenerators.com.	

***Noise level is rated at 68dB (at 7 meters)**

Power Tech Generator

Specifications Page

Key specifications of the **Power Tech 12K Diesel Generator** are shown on this page:

SPECIFICATIONS

ENGINE	
Make	Kubota
Model	V1505
Cylinders	4
Aspiration	Natural Aspiration
EPA Tier	Tier 4
HP @ 1800rpm (Continuous Duty)	18.0
Approximate Fuel Consumption	0.47 gal/hr @ ½ Load 1.1 gal/hr @ Full Load
Starting Voltage	12VDC
Battery Cable Gauge	2 AWG Minimum
Oil Capacity	Approx. 4.5 Qts (4.3 L)
Cooling System Capacity	Approx. 6.5 Qts (6.1 L)

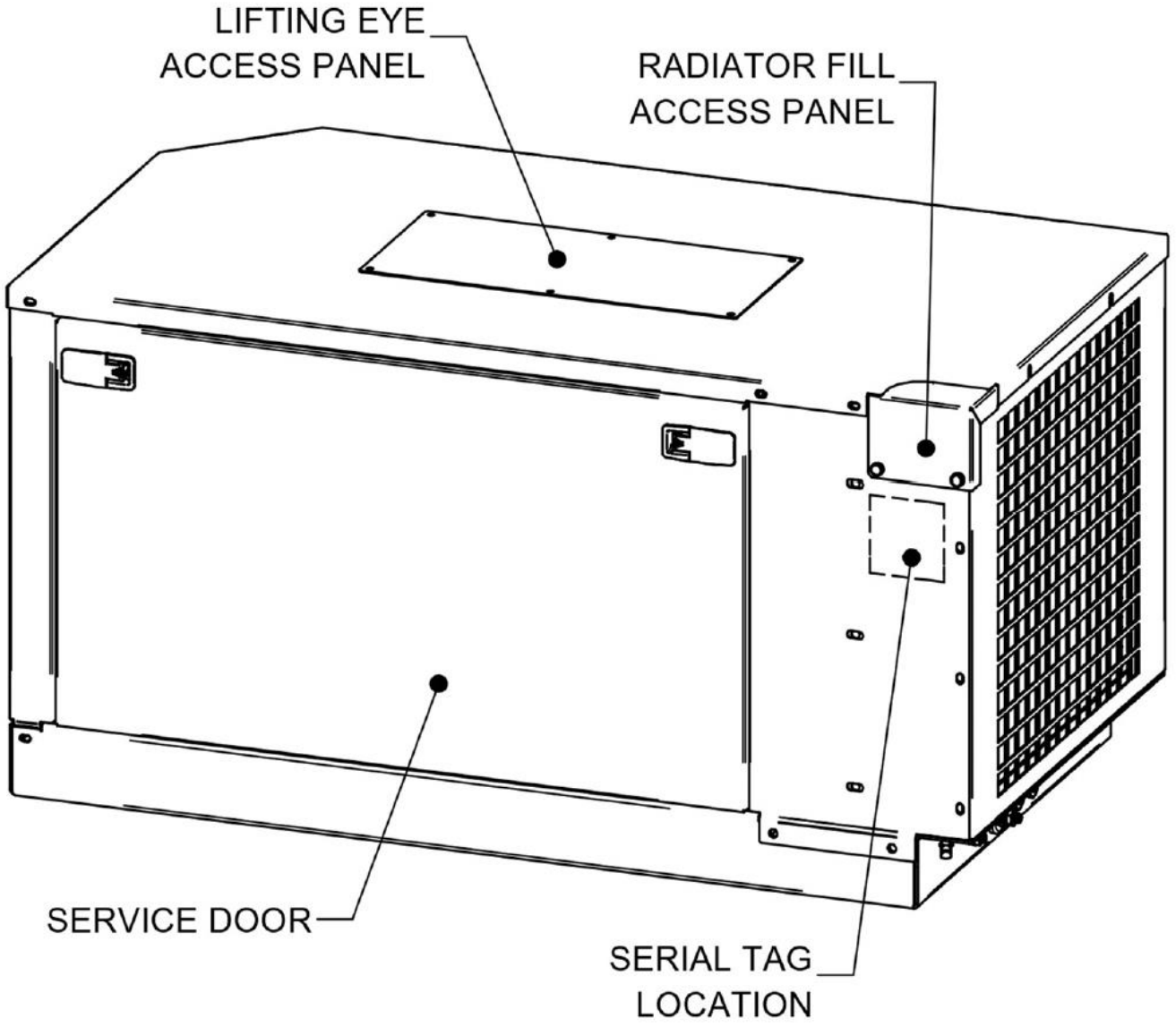
GENERATOR		
Generator Type		Brushless with Automatic Voltage Regulator
Generator Output (Continuous Prime)	PT-10KSIC	10000W @ 60Hz 8300W @ 50Hz (Optional)
	PT-12KSIC	12000W @ 60Hz 10000W @ 50Hz (Optional)

MAINTENANCE PARTS	
Replacement Air Filter Element	04FA221
Replacement Primary Fuel Filter	08FF17
Replacement Inline Fuel Filter	08FFG17B
Replacement Oil Filter	01FO05S
These and other additional parts available at powertechgenerators.com.	

***Noise level is rated at 68dB (at 7 meters)**

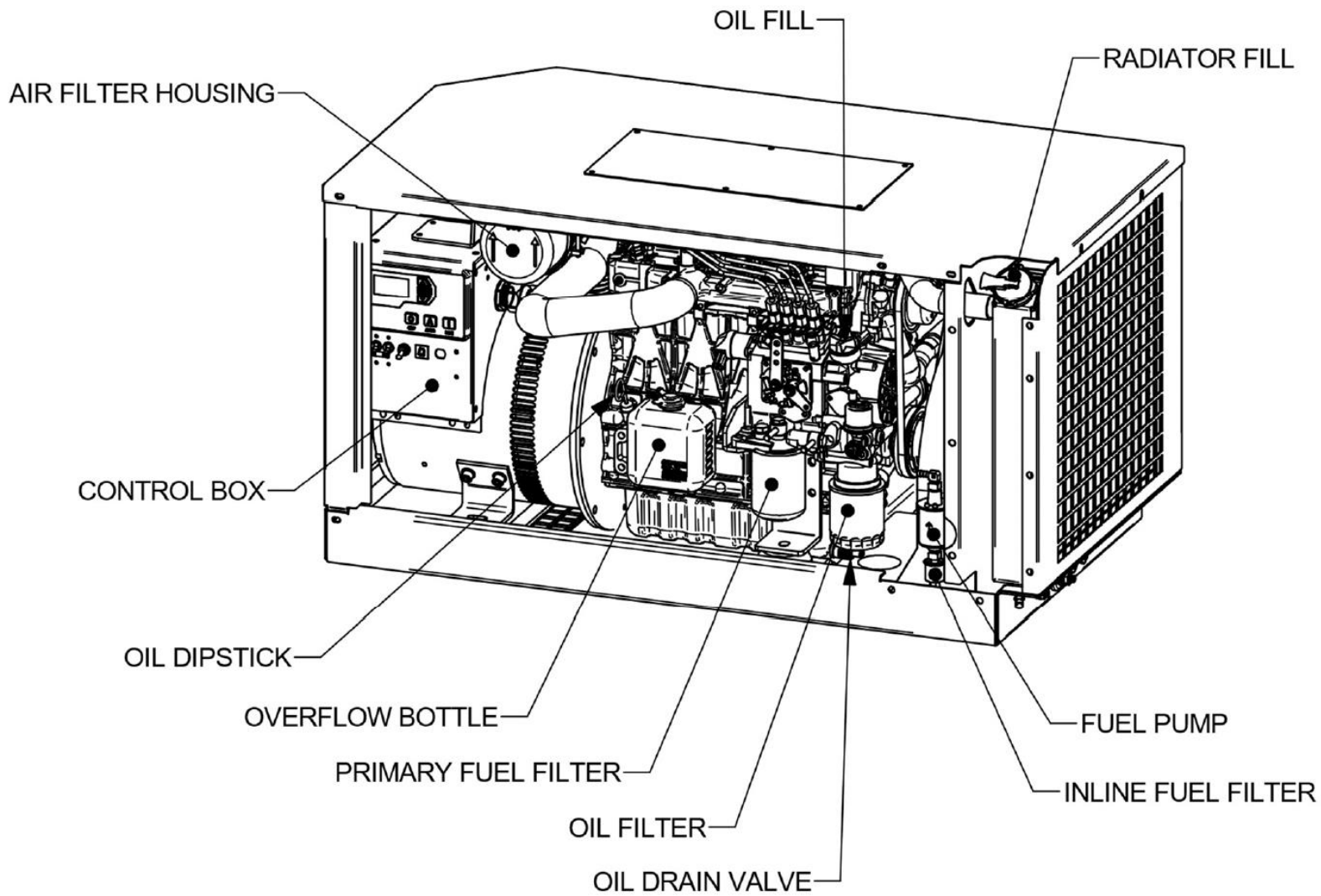
Power Tech Generator

Key components of the Power Tech Generator are shown in **Panel View**:



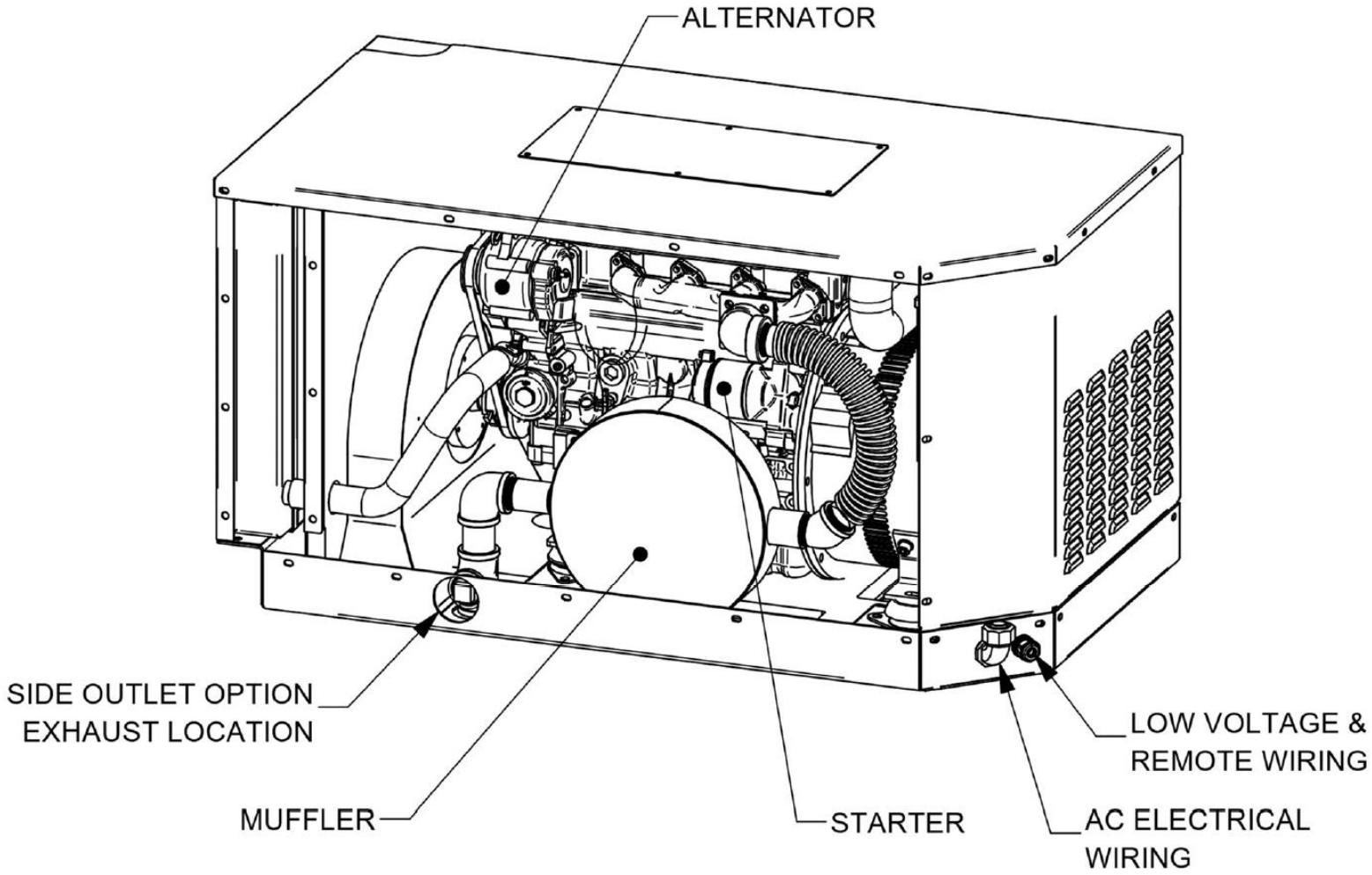
Power Tech Generator

Key components of the Power Tech Generator are shown in **Front View**:



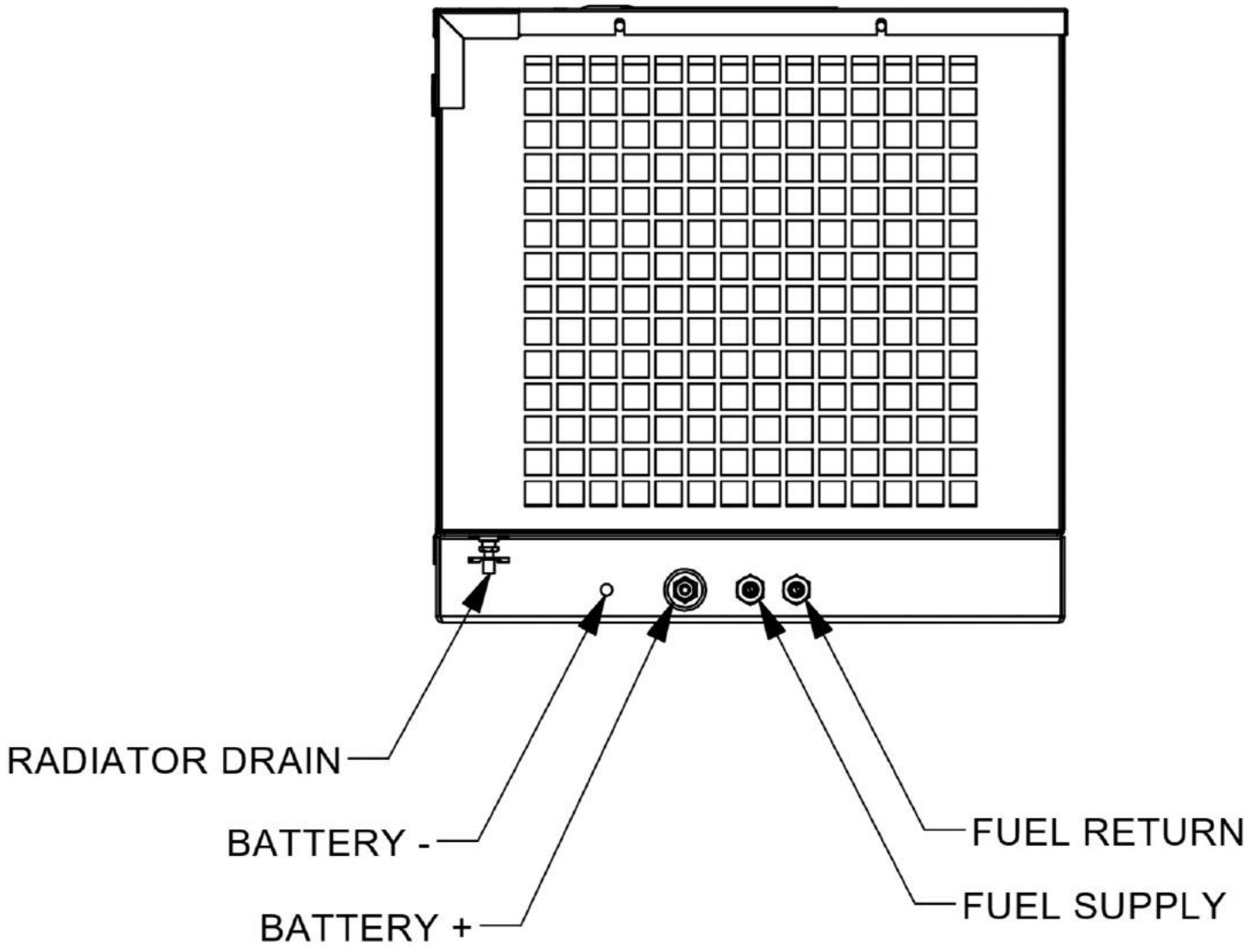
Power Tech Generator

Key components of the Power Tech Generator are shown in **Rear View**:



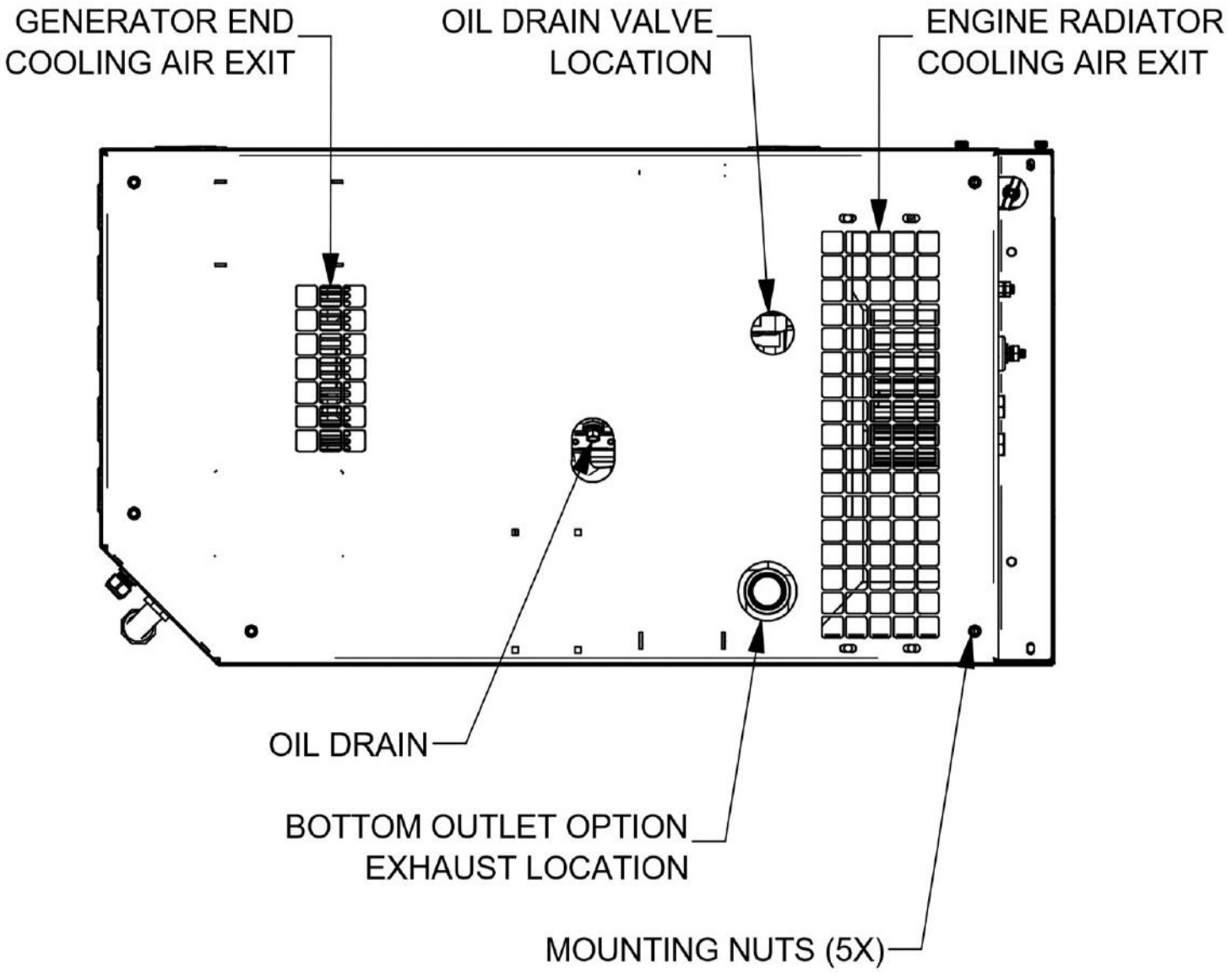
Power Tech Generator

Key components of the Power Tech Generator are shown in **Right Side View**:



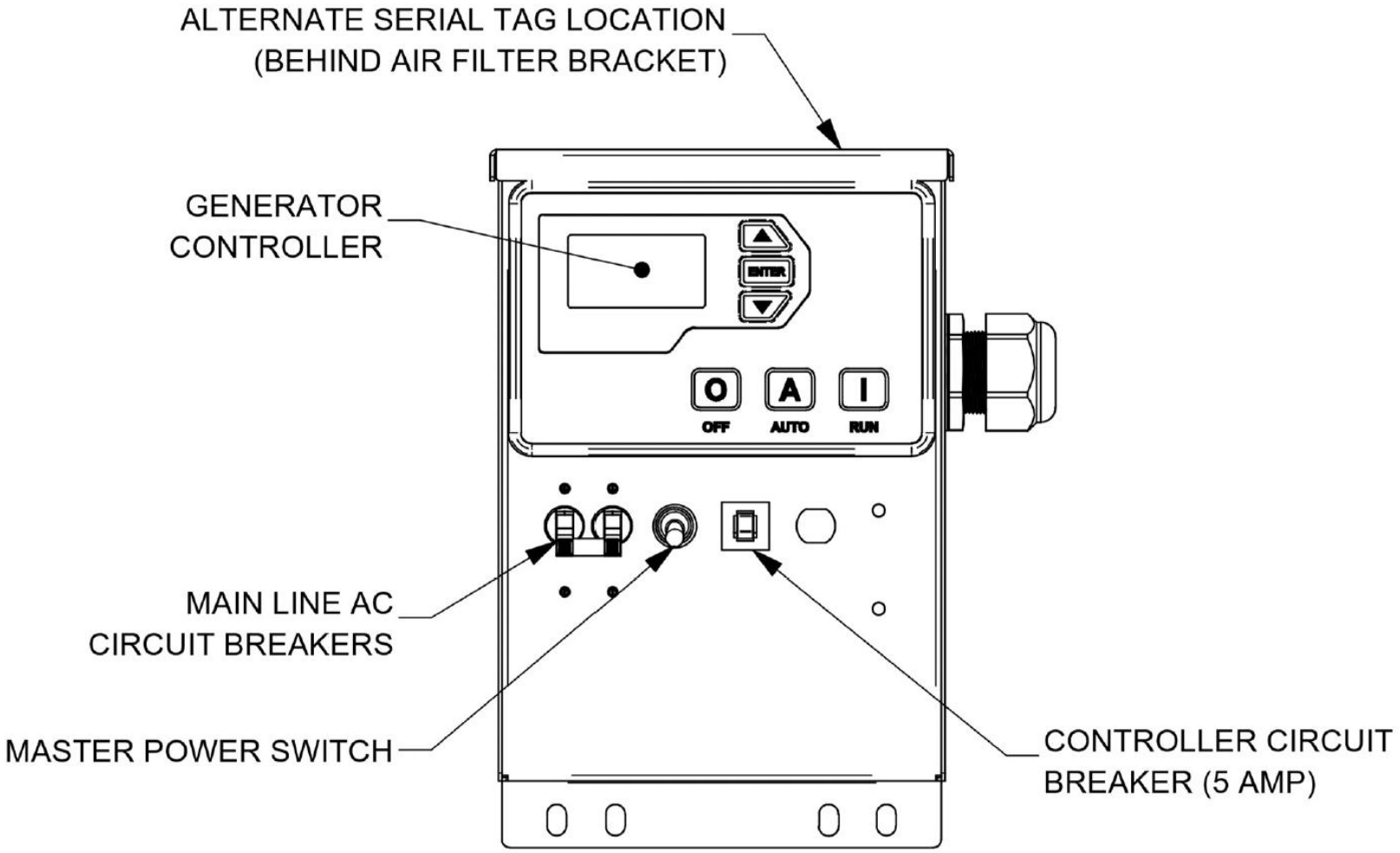
Power Tech Generator

Key components of the Power Tech Generator are shown in **Bottom View**:



Power Tech Generator

Key components of the **Generator Control System** are shown on this page:



Power Tech Generator

The **Generator Control Screen** is equipped with controls for easy operation and navigati of the
Power system.

Generator Control Screen

LED Status Light

In addition to the LCD Display, the PTG series controller also has a Status LED on the front face. The Status LED color changes to show the status of the generator set.

- Green = Engine running with no issues
- Amber = Engine running with one or more warnings
- Red = Engine shut down for a failure

Power Tech Generator

Key functions of the **Generator Control System** are shown in the image:

Item	Name	Description
	OFF Button	Used for turning off the generator set or exiting out of AUTO mode. **NOTE:** The OFF button is not intended to function as an Emergency Stop. There are conditions in which it will not shutdown the generator set.
	AUTO Button	Used for placing the controller into AUTO mode. Once in AUTO mode the controller waits for a start command to be received.
	RUN Button	Used to start the engine manually. The OFF button must be used to shut down the engine if manually started from front panel.
	UP Button	Used for moving around in the menu, changing a settings value, or changing the currently displayed parameter page.
	ENTER Button	Used for entering the menu system, accepting settings, or locking the LCD screen when viewing parameters.
	DOWN Button	Used for moving around in the menu, changing a settings value, or changing the currently displayed parameter page.

Power Tech Generator

Operation Modes of the Generator are shown in the image:

Mode / State	Description
OFF	When in the OFF mode, the generator set is shutdown and cannot be remotely started. The generator set can be started manually from the local controller.
AUTO	When in the AUTO mode, the controller waits to receive an external start signal from a remote panel, transfer switch or other device.
RUNNING	When the generator set is running, the controller monitors engine & generator parameters and waits to receive a stop command.
FAILURE	When a failure occurs, the controller shuts down the generator set and displays the reason for failure. The controller must be reset using the OFF button on the local controller. The controller cannot be reset or started from a remote source.

Power Tech Generator

Pre-start Checks must be completed prior to every start up to ensure safe and proper operation.

Pre-Start Checklist:

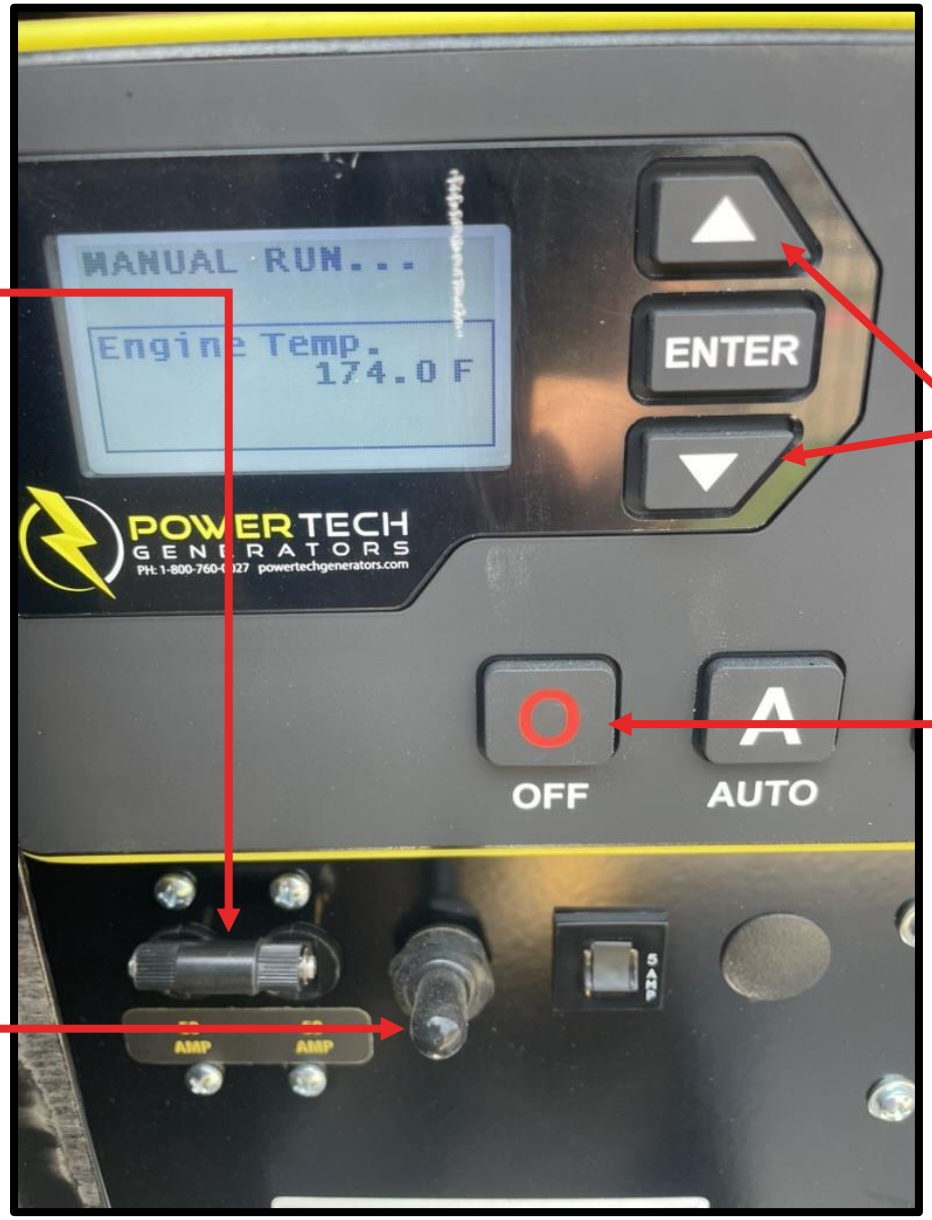
- Verify proper engine oil level and add if necessary. Use SAE 10W-30or 10W-40.
- Verify proper coolant level and add if necessary. Use a 50% mix of Antifreeze and water. CAUTION: DO NOT ATTEMPT TO REMOVE RADIATOR CAP IF GENERATOR IS WARM TO THE TOUCH
- Check for leaks and/or fluids. Clean and repair as needed.
- Check fuel level at gauge on trailer deck.
- Check battery cables and terminals for corrosion.
- Check the Controller for codes or failures.
- Check for water in fuel and drain.
- Check drive belt tension and all hoses for damage or wear.
- Inspect electrical wiring for damage.
- Ensure moving parts are free of loose objects.
- Verify all covers and guards are secure.

- NOTE: Refer to Generator Manufacturer Manual for detailed Safety Precautions prior to working on any component.

Power Tech Generator

To Start:

- Ensure **Circuit Breaker** on Generator is OFF
- Turn **Master Power Sw** ON (Up)
- Push **RUN** Button
- Turn on **Circuit Breaker** after 30-60 seconds of run time



During operation, access to data such as Temperatures, Amperages, and Run Hours may be accessed using the UP and DOWN buttons.

To Shut Down:

- Turn **Circuit Breaker** OFF
- Push **OFF Button**
- Turn off **Master Power Switch** (Down)

Note: Generator Display Screen is powered by 12VDC Battery on board. Ensure Master Power Switch is OFF when not in use

Power Tech Generator

Maintenance Schedule Page

Refer to **Main Control Screen** to log Engine Hours for adherence to maintenance schedule

For detailed Information regarding Maintenance, refer to the Power Tech Generator User Manual.

MAINTENANCE SCHEDULE

Maintenance Service Item	See notes	Daily	150 Hours	500 Hours	1000 Hours	Remarks
Check Engine Oil Level		◆				
Check Coolant Level		◆				
Check for Oil, Fuel, and Oil Leaks		◆				
Check Electrical Connections		◆				
Check Fuel Level		◆				
Check for Water in Fuel	◆	◆				
Change Engine Oil	◆		◆			At Least Every Year
Oil Filter Change			◆			At Least Every Year
Check Engine & Generator Mounts				◆		At Least Every Year
Replace Primary Fuel Filter	◆			◆		At Least Every Year
Replace In-Line Fuel Filter	◆			◆		At Least Every Year
Replace Air Filter Element	◆			◆		At Least Every Year
Replace Belts					◆	At Least Every Two Years
Change Coolant					◆	At Least Every Year
Replace Fuel Lines & Hoses					◆	At Least Every Two Years
Replace Coolant Hoses and Clamps					◆	At Least Every Year

Notes:

1. Engine Oil must be changed after the first 50 hours of service then in 150 hour intervals after the first 50 hours.
2. Filter replacement intervals may vary depending on the quality of air, fuel, etc. These service intervals are maximums and should be adjusted based on the operating conditions of the generator set.

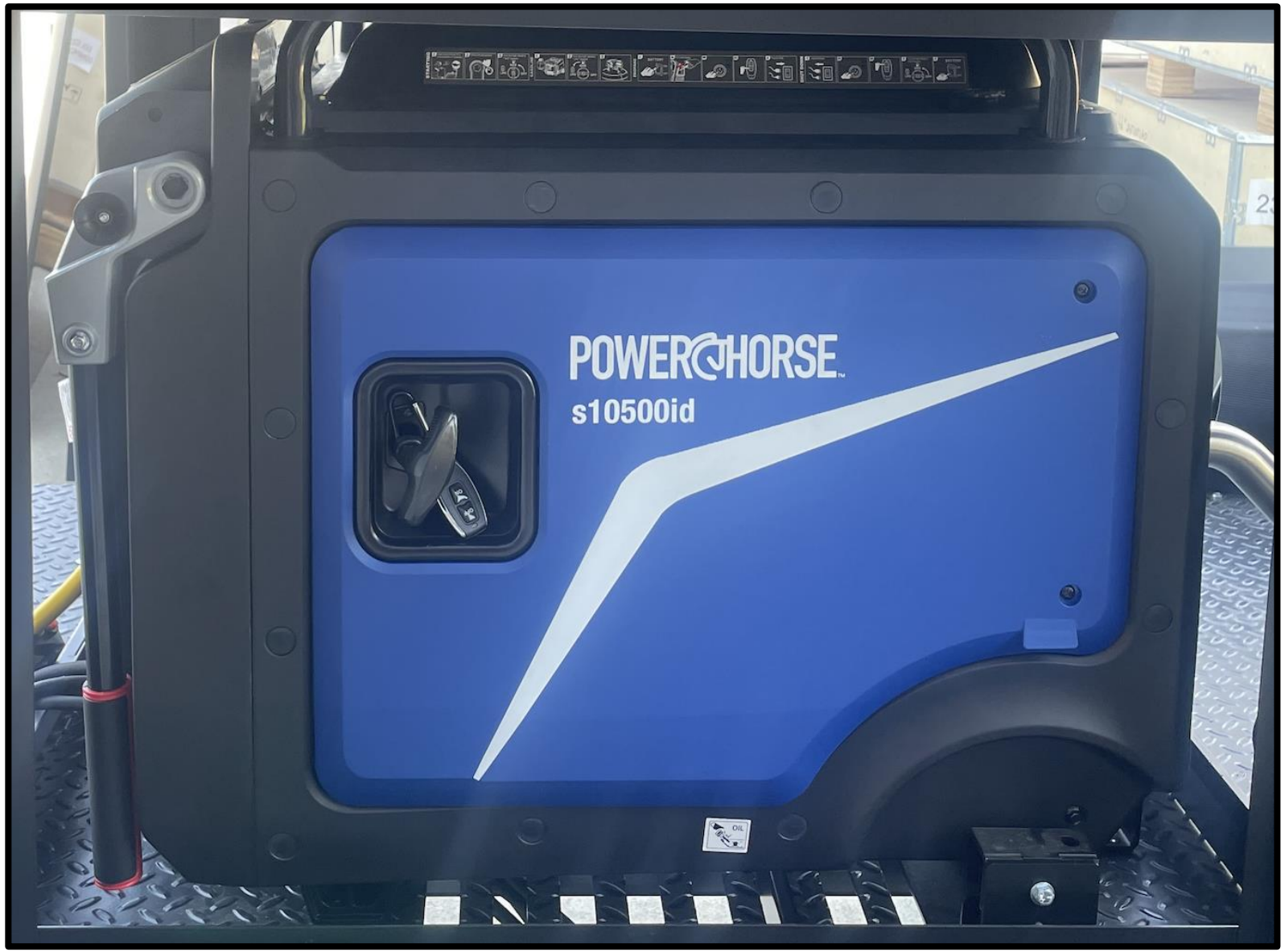
Change Oil and Filters after first 50 hours of operation.

After the first Oil Change, Change Oil and Filters every 150 hours of operation.

Power Horse Generator

A quiet but powerful 10,500W Power Horse gasoline generator is used on many of the MAX Mobile line of LED Trailers.

The **Power Horse Generator** is equipped with a flexible power dist system and operational simplicity you can rely on.



Power Horse Generator

Key features of the 10,500W **Power Horse Generator**:

*7.13-gal Gasoline Capacity

*65dBA sound rating

*Simple push, pull, or remote starting Capabilities

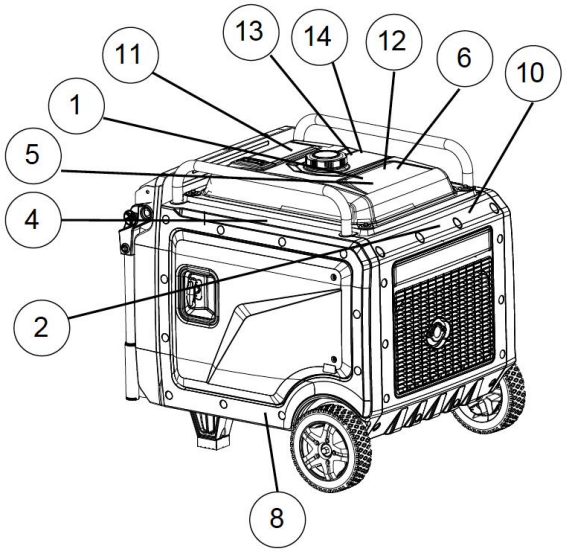
Other specifications are shown on this page

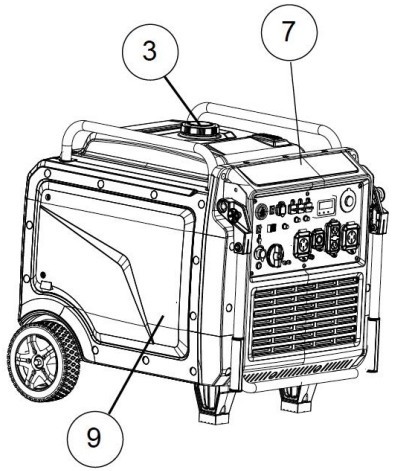
Item Number	#6075661
Maximum Output	GAS:10500 Watts LPG:9450 Watts
Continuous Output	GAS:8300 Watts LPG:7470 Watts
Voltage	240/120 Volt (V)
Phase	Single phase
Frequency	60 Hertz (Hz)
Power Factor	1.0 p.f.
Engine	Powerhorse 457cc
Engine Speed	3,600 RPM (with ESC button OFF)
Fuel Type	Non-leaded automobile gasoline
Fuel Capacity	7.13 US gallons (27L)
Oil Type	10W-30 (API Service SE type or higher)
Oil Capacity	1.32 US quarts (1.1L)
Noise Level	65 dBA @ 7 meters
Starting Method	Recoil/One push start/Rmote start
Dimensions	
Length	30.18”
Width	26.35”
Height	28.88”
Dry Weight	209.4 lbs.

Power Horse Generator

User-friendly operation is a key feature of the **Power Horse Generator**.

A diagram of all control Interfacing items are shown on this page:

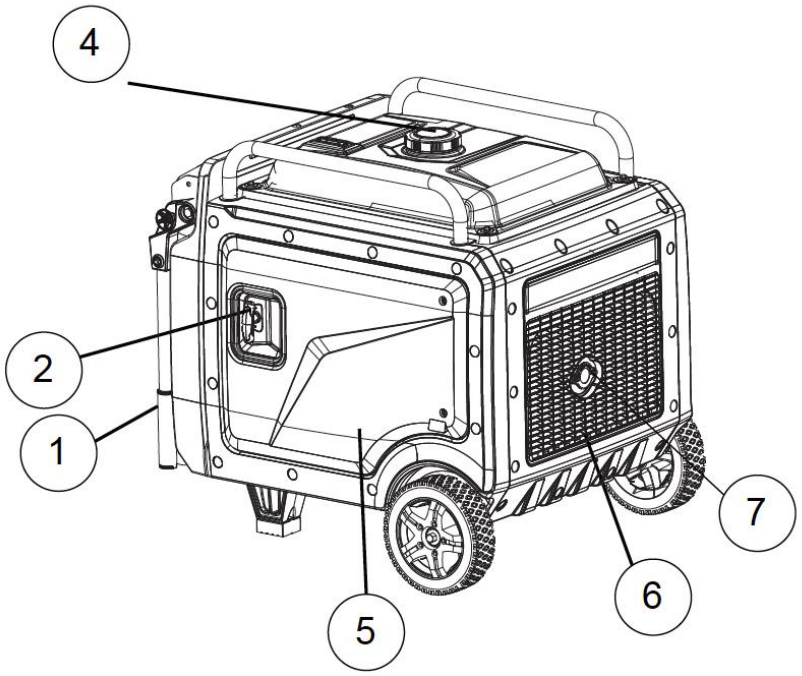


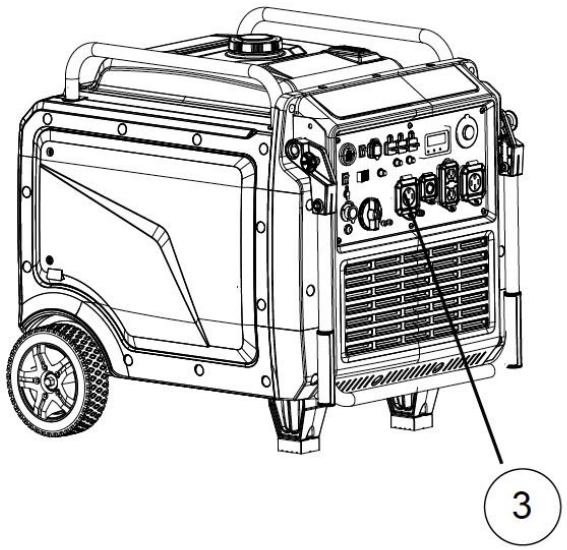


Ref#	Part #	Description	Qty
1	PHGNCOBWD	CO Battery Warning Decal	1
2	NA	Improper Connection Waring Decal	1
3	PH6075661.D3	Tank Cover Decal	1
4	PH6075661.D4	Starting Instruction Decal	1
5	PH6075661.D5	CPSC Decal	1
6	PH6075661.D6	10500W Nameplate	1
7	PH6075661.D7	Powerhorse Tank Decal	1
8	PH6075661.D8	Oil Level Decal	1
9	PH6075661.D9	EPA Decal	1
10	PHGNBWD2	Burn Warning Decal	1
11	NA	Spark Harzard Decal	1
12	PHGNSFD	Shock/Fire Decal	1
13	NA	QR Code Decal	1
14	NA	CO Waring Decal	1

Power Horse Generator

External components of the **Power Horse Generator** are shown on this page:



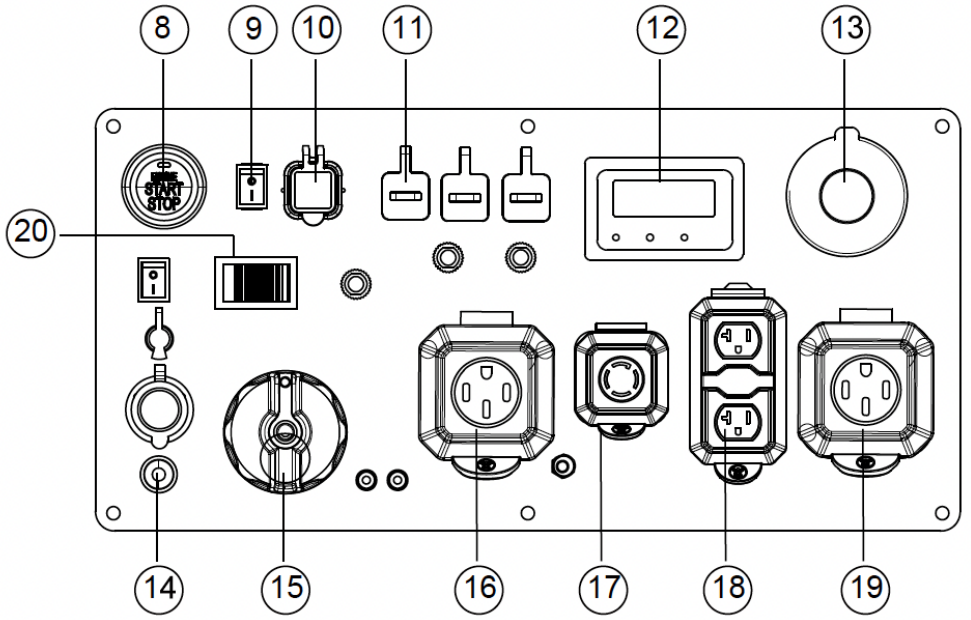


Ref.	Description	Ref.	Description
1	Carrying Handle	5	Right baffle board
2	Recoil Starter	6	Muffler baffle
3	Control Panel	7	Muffler
4	Fuel Tank Cap	8	One Push Start

Power Horse Generator

The Control Functions of the **Power Horse Generator** are shown on this page:

Please refer to all safety decals and warnings displayed on the generator.

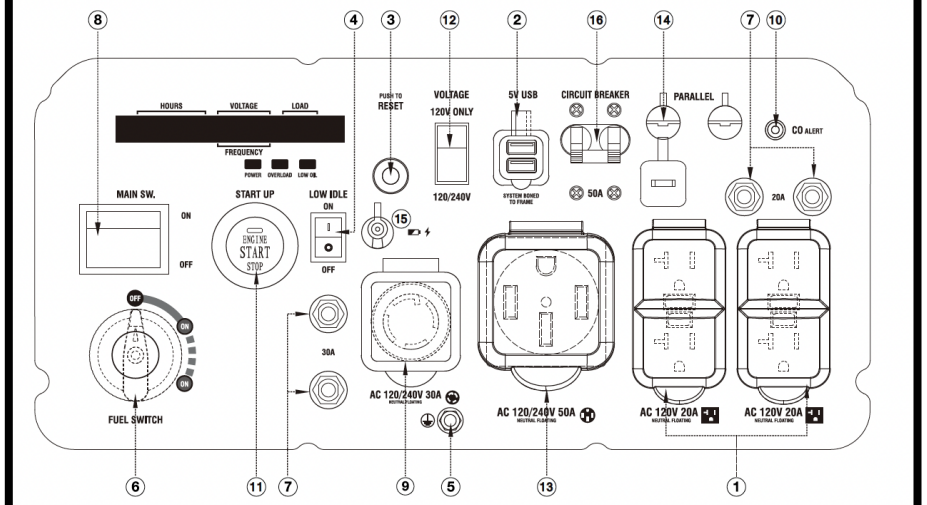


Ref.	Description	Ref.	Description
9	Battery Switch	15	Fuel Knob
10	5V DC USB	16	120/240V 34.2A Outlet(NEMA 14-50R)
11	Parallel Operation Outlets	17	120/240V, 30A Locking Outlet (NEMA L14-30R)
12	Multimeter (V.F.T)	18	120V, 20A Outlet (NEMA 5-20R) GFCI
13	LPG Connector	19	120V, 50A Outlet(NEMA 10-50R)
14	AC Reset	20	Voltage Selector

Power Horse Generator

A closer look at the control components of the Power Horse 10,500W generator:

CONTROL FUNCTIONS



CONTROL PANEL FEATURES GM9000iE

① **120V AC 20A 5-20R Outlet:** The outlet is capable of carrying a maximum of 20 amps.

② **USB Duplex:** 5V DC that come in 1 amps and 2.1 amps.

③ **Reset:** If the inverter is overloaded, the reset breaker will trip. The engine will continue to run, but there will be no output from the inverter. Unplug the devices and reduce the load. Push in the reset breaker to reset it.

④ **Low Idle:** When turned to the ON position, the engine will sense the load needed and run at a slower RPM to save fuel.

⑤ **Ground Terminal:** The ground terminal is used to externally ground the inverter.

⑥ **Fuel Switch:** Open the fuel.

⑦ **AC Breaker:** If the inverter is overloaded, the reset breaker will trip to block current.

⑧ **Main Switch:** Manage battery power and shutdown.

⑨ **120/240V AC 30A L14-30R Outlet:** The outlet is capable of carrying a maximum of 30 amps.

⑩ **CO Alarm:** Shuts down the engine in the event of CO buildup.

⑪ **One Push Start:** Press this button, the engine can start and stop.

⑫ **Voltage Switch:** Switch between 120V and 240V voltage as required.

⑬ **120/240V AC 50A 14-50R Outlet:** Receptacle can supply a maximum of

50 Amps.

⑭ **Parallel Connectors:** To increase AC power output, the connector sockets are used to connect the two same type generators with special parallel cable GM9000PK sold by GENMAX. The connector sockets is only used to connect two inverter generators. They can not used for AC power output. The special parallel cable GM9000PK shall be purchased separately, and they shall be approved by certification body.

⑮ **Battery Charging Port:** Charge the generator battery.

⑯ **Circuit Breaker:** A circuit breaker interrupts the current when the whole circuit is overloaded.

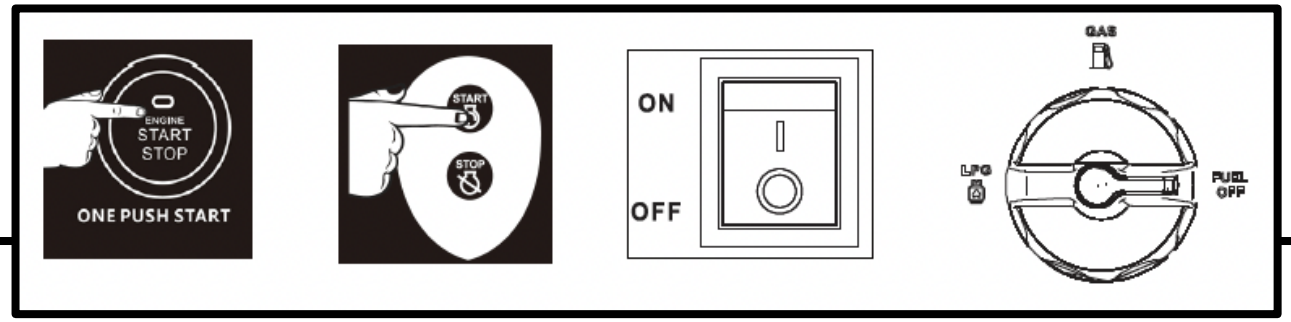
Power Horse Generator

The **Operational Start Up Checklist** is shown on this page:

Start Up Checklist

- Ensure covers are clear for air circulation. The generator is equipped with a CO detector for safety and may fault if a build up of Carbon Monoxide occurs during run time
- Turn fuel knob switch to Gasoline position
- Turn the battery switch to ON position
- Long press the one button start switch. If start fails, the engine will attempt to start again
- After generator starts, allow 1-3 minutes for proper voltage stabilization before powering components on board the MAX Mobile LED trailer.

Note: For manual start (if battery is not properly charged), open side panel and use pull cord to start. The Choke may be used if necessary.
Note: Remote start fob may be used in place of the one button start switch. To start, press start switch for 1 second.



Power Horse Generator

Proper maintenance of the **Powe Horse Generator** include a few simple steps
to ensure longevity and reliabl operation.

The oil fill and dipstick location is shown on this page. For more details on Maintenance items and procedures, please refer to the **Power Horse Generator User Manual**

General Maintenance Checklist

- Check oil on every refueling of the generator
- Change oil after the first 20 hours of operation, Change oil every 100 hours of operation thereafter. During maintenance, you must also:
  - Inspect all areas for leaks and repair as necessary
  - Use fuel stabilizer during long periods of non-operation (1-2 months or more)
  - Check/replace air filter
  - Clean/replace spark plug
  - Check/replace fuel tank filter
  - Clean muffler screen and spark arrester
  - General cleaning of all components