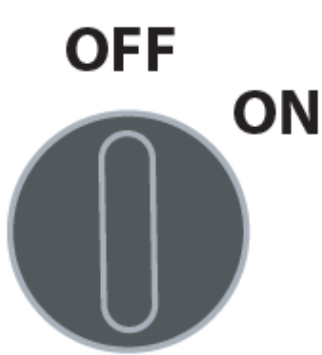


E20 Electric Excavator Quick Start Guide

Green Machine System – Operator Controls & Maintenance



Power Key Switch

OFF – position for stopping the motor and inserting or removing the key.

ON – position in which the motor is running. All electrical equipment is functional.

A START-UP DELAY OCCURS FOR 20 SECONDS WHEN E20 IS FIRST TURNED ON BEFORE OPERATION CAN BEGIN

When motor turns on after the **20s start-up delay**, lock down control lever to activate main machine controls. **All main controls work exactly the same as a diesel machine.**

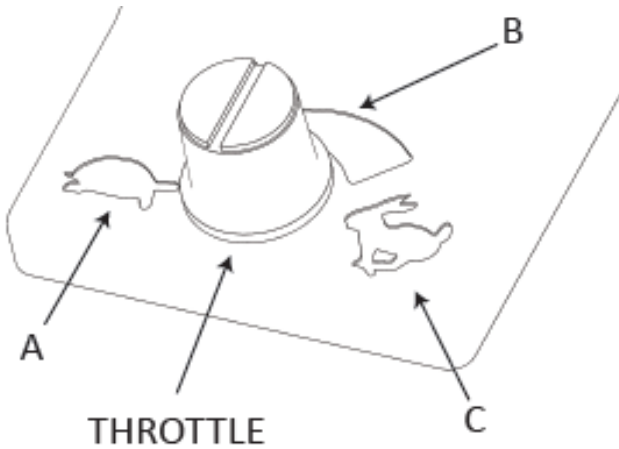
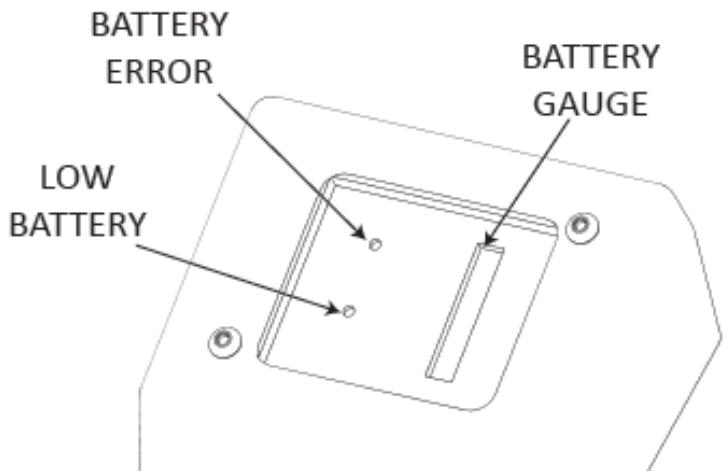


Display

Battery Gauge – shows the amount of battery remaining, like a fuel gauge.

Low Battery – orange light turns on when the battery level reaches 10%.

Battery Error – red light turns on if there is an error in the battery system.



Throttle

This controls the motor speed.

A – Motor is stopped.

B – Motor is at medium speed.

C – Motor is at maximum speed.

Emergency Stop Button

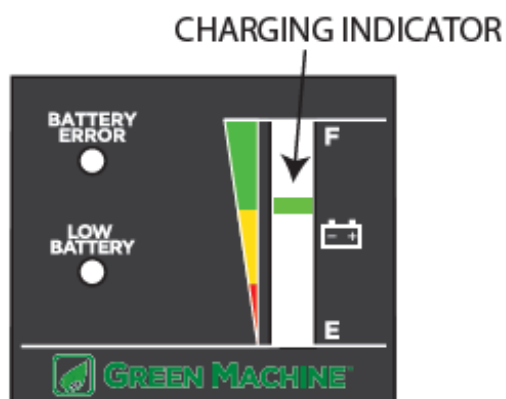
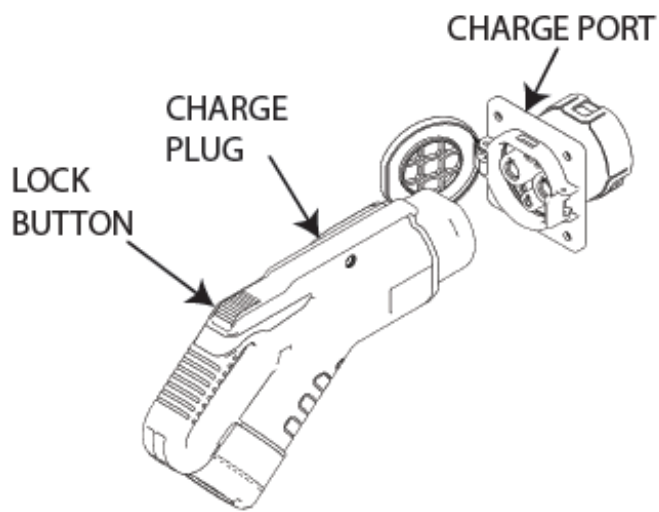
Press Button to engage Emergency Stop. This shuts off the motor immediately.

To restore motor functionality, turn machine off, **rotate Button clockwise** to disengage the Button, and turn machine back on.



12V Disconnect Switch

This acts as the main disconnect for the machine's 12V electrical system. When switched off, all 12V power is disconnected from the machine.



Charging Guide

ONLY USE E20 CHARGER FOR E20 MACHINE

Follow the instructions below to properly charge the E20 machine.

1. Turn off key switch.
2. Plug E20 Charger into 220VAC.
3. Press lock button on the CHARGE GUN and firmly press gun into charge port.
4. **Be sure the gun is fully seated in the port.** After 5 seconds, the gun will automatically lock into the charge port.
5. Indicator on charger display will blink when charging begins. **If indicator does not blink, check that gun is fully seated.**
6. **To stop charging**, press the round button on the charger to release the lock and remove the gun from the charge port

Any time the E20 is not in use for more than 24 hours, leave the machine on-charge until next use. This includes long-term storage for weeks or months. Charging will automatically stop when the battery is full.

The E20 will not run while charging. The drive system is deactivated while charging to prevent operation while connected to the charger.

Recharge the E20 as often as possible. When work is complete, plug in the E20 and recharge regardless of the battery level.

Towing

E20 weight:

4519 lb (2050 kg)

Load securement:

3/8" grade 70 transport chain with 3/8" ratchet binders 1x15' chain, 4x10' chains.

TROUBLESHOOTING

- If the E20 will not run:
 - Ensure throttle is not at zero.
 - Ensure battery gauge is not at zero.
 - Check for a battery error.
 - The E20 will not run if the battery temperature is below -4°F (-20°C). Move the E20 into a warmer space until the battery has warmed up.
- If the E20 will not charge:
 - Ensure a battery error is not present. If a battery error is present, unplug the charger and contact a service technician.
 - Ensure the wall outlet has power.
 - The E20 will not charge if the battery temperature is below -4°F (-20°C). Move the E20 into a warmer space and plug in the charger. The E20 will automatically begin to charge when the battery has warmed up.

For additional assistance, contact GME Customer Support at (716) 968-8658 x303.

Frequently Asked Questions

1. Does the Green Machine work the same as a diesel excavator?

Yes. All the controls work exactly the same, including the variable speed throttle. The hydraulic system is exactly the same as a diesel machine.

2. Can I operate the Green Machine in the rain?

Yes. You can operate the Green Machine in rain, dust, or any other condition that you would use a diesel machine.

3. Can I operate and charge the Green Machine in the cold?

Yes. The Green Machine can run or charge in temperatures down to -4°F (-20°C).

4. Does the Green Machine create any sparks?

No. The motor in the Green Machine is brushless, so it does not create any sparks. The battery and power electronics are sealed from the environment.

5. Is the Green Machine's battery safe from fires?

Yes. There are many types of Li-ion cells. Some are more volatile than others. The cells used in the Green Machine battery have been safety tested not to catch fire or explode from being shorted, crushed, dropped, overcharged, or overheated.

6. Do I need a special charge outlet?

No. The E20 charger will plug into a standard 220V/50A AC outlet.

7. Can I charge the E20 while it is operating?

No. Charging while operating is not currently supported.

8. Should I run the battery all the way down each time I use the machine?

No. the Li-ion batteries used in the Green Machine do not have "memory" like some other batteries. Use as little of the battery as you need, and then plug the machine back in to charge.

9. Do I need to unplug the Green Machine when it is done charging?

No. The Green Machine will automatically stop charging when it is done, even if it is still plugged in.

10. Will I hurt the battery if I run it down to zero?

No. The battery can be run to zero without being harmed.

11. How should I store the Green Machine?

Any time the Green Machine is not in use for more than 24 hours, connect the charger and leave the charger plugged in to the wall outlet. This includes long term storage for weeks or months.

12. Is there any maintenance I need to perform on the Green Machine?

The only maintenance on the electric drive system is ensuring the glycol coolant remains within the sight glass of the reservoir. The brushless electric motor does not need maintenance. The battery is automatically maintained by a sophisticated battery management system. Refer to the operator and service manual for scheduled hydraulic/machine maintenance.