



MOBILE GENERATION MG80

Introducing CoolTech's in-chassis, integrated Mobile Generation (MG) system.

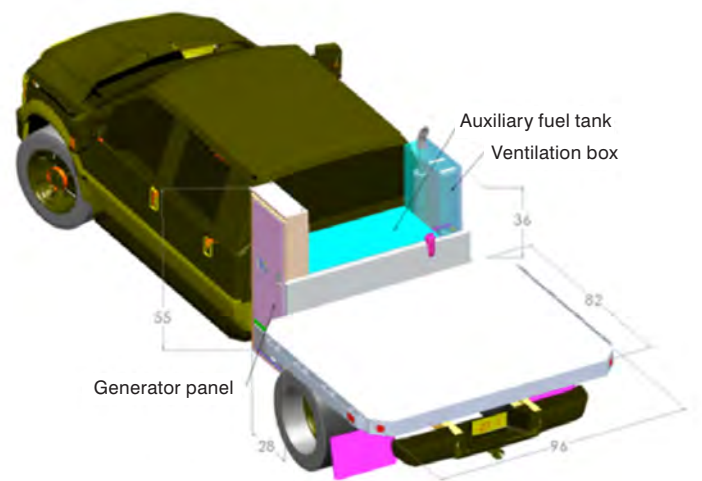
Mobile Generation

CoolTech's MG 80 system uses the truck's engine to power a generator installed in the chassis. This provides a huge 3,500 lb. weight savings compared to a tow behind generator with a similar output. Eliminating the tow behind generator improves gas mileage by up to 50%. Plus, the truck now has the ability to tow other equipment.

Applicable Trucks

The MG kit can retrofit all Ford F-350 to 550 Trucks that meet the following specifications:

- Chassis or Crew Cab
- Two or four-wheel drive
- Diesel engine



Before



After

Wherever you can drive a truck, you can generate power

Technical features**(common to all MG models):**

- Generator type: brushless alternator, synchronous salient 4-pole
- Insulation: Class H
- Stator: 12-wire, 2/3 pitch (low third harmonic)
- Generator excitation is provided through the digital voltage regulator by both voltage and current source windings. This dual-source excitation system helps the generator recover voltage during applications of large loads as additional excitation is provided from the current source winding.
- Voltage selection via the 3-position rotary switch:
 - 3-phase voltages: 208, 220, 240, 416, 440, 480
 - 1-phase voltage: 120, 139, 208, 220, 240, 277
- Voltage regulation: $\pm 0.5\%$
- Current transformer protection
- Digitally adjustable voltage
- Circuit breakers for single-phase receptacles
- Single-phase receptacles are powered during all voltage configurations.
- Total harmonic distortion: $< 5\%$
- Power factor: 0.8
- Generator powered by vehicle's transmission. At low loads use low speeds, not 1,800 rpm.
- Full-feature generator panel, just like a tow-behind. However, the MG has a superior user interface: a touchscreen control panel.

MG SYSTEM SPECIFICATIONS

Model	MG80
Output:	
3-Phase: Standby (kVA/kW) — 60 Hz	79.5 / 63
3-Phase: Prime (kVA/kW) — 60 Hz	75 / 60
1-Phase: Standby (kVA/kW) — 60 Hz	47.7 / 38.2
1-Phase: Prime (kVA/kW) — 60 Hz	45/36
Size and Weight:	
Weight (lb)	1076
Bed Space (occupied)	—
Fuel Consumption and Run Time:	
Fuel Consumption (gph) — @ Standby	6.3
Total Fuel Capacity (gallons)	120
Approximate Run Time @ Standby	19.3
AC Distribution	
Main Breaker Rating (Amp)	225
120 V — 20-Amp Duplex	2
240 V — 50-Amp Twist Lock	3



Control System

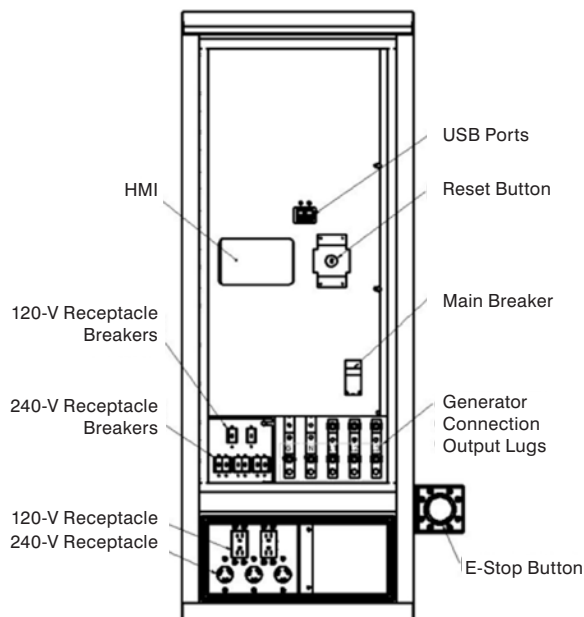
- Fully integrated control system with a 32-bit microprocessor.
- Integration with vehicle via the CAN bus.
- The digital voltage regulator interfaces with the CAN bus to provide in-cab and optional panel door control of generator and vehicle operations.
- Vehicle operations displayed include engine speed, engine temperature and transmission status.
- Generator operations displayed include line voltage, phase current, real power, reactive power and load power factor.

Generator Panel

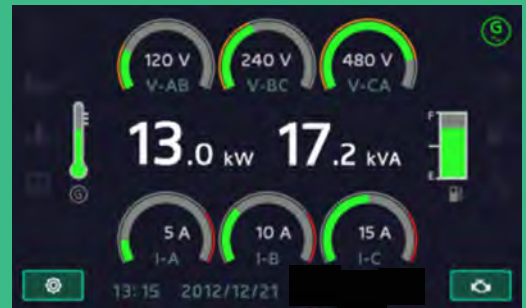
Control features include the touchscreen display (HMI), USB port, system reset button and main breaker.

Users are protected from exposure to high voltage by a non-conductive, front safety panel. The panel door is lockable and interlocked to prevent entry to the panel when the system is energized.

Generator-output connection lugs included to connect heavy-duty cables. A separate compartment provides access to standard 120 and 240 VAC NEMA receptacles. Enables quick connection of cables and tools.



USER INTERFACE



- 7-inch color displays with intuitive touchscreen interface (one in cab and optional one in the generator panel)
- Displays both generator and vehicle information
- CAN bus communication controls voltage regulator settings and 3-position rotary switch
- User can control the system from the cab
- Multi-level password protection ensures operation by authorized users
- Integrated safety checks prevent unsafe operation
- User-adjustable brightness settings for day or nighttime operation
- Ruggedized IP-67 enclosures
- Updatable Firmware



Telematics — Remote Control and Monitoring

- Fleet management
- Vehicle tracking
- System diagnostics with push alerts to any computer and mobile device
- Remote monitoring via the same user interface on the touchscreen display
- Fuel management (monitors fuel consumption and refill schedule)
- Automated refill notifications
- Motor pool/daily rental
- Energy metering for accurate billing/cost monitoring
- Maintenance scheduling and tracking
- Automated maintenance notifications
- Data logging and analysis for fleet use optimization
- Geofencing
- Remote system disable to prevent unauthorized use
- Recover stolen vehicles

Find out more.

CoolTech has a better answer in mobile power generation. A game-changing answer. Contact us today: info@cooltechnologiesinc.com.

ENERGY EFFICIENT.
MARKET DRIVEN.