



Operating in Cold Weather

- Verify the fuel and engine oil are appropriate for ambient operating temperature.
- Check the altitude setting as necessary (if equipped).
- Perform spark plug (if equipped) and battery maintenance according to the maintenance schedule in the Operator's Manual.

Operating in Hot Weather

- Make sure nothing blocks airflow into and out of the generator set.
- Verify the fuel and engine oil are appropriate for ambient operating temperature.

Operating in Dusty Environments

- Do not let dirt and debris accumulate inside the generator set compartment.
- Perform air cleaner maintenance more often.
- Change engine oil more according to the maintenance schedule in the Operator's manual.
- Keep new maintenance parts and fluids free of dirt and debris before use.

Resetting Circuit Breakers

If a circuit breaker trips (circuit shorted or too many appliances running), disconnect or turn off as many loads as possible and reset the circuit breaker. Note that the generator set will continue to run after a circuit breaker trips. Push the circuit breaker to OFF to reset it, and push ON to reconnect the circuit. If the circuit breaker trips right away, either the appliance (or electrical load) has a short or the circuit breaker is faulty. Call a qualified technician.

Power vs. Altitude

The air density decreases as altitude increases, causing the generator set's engine power to decrease. Power decreases approximately 3.5 percent of rated power for each increase of 305 m (1000 feet). It may be necessary to run fewer appliances at higher altitudes.

Storing the Generator Set

Proper storage is essential for preserving top generator set performance and reliability when the generator set cannot be exercised regularly and will be unused for more than 120 days. See the Operator's Manual for proper storage procedures.

Manufacturer Name and Address

Cummins Inc.
1400 73rd Ave NE Fridley, MN 55432

Online Access to Information

To order a hardcopy manual, please visit the Elander's online ordering system
<https://cummins.elandersamerica.com>.

Manuals are updated to reflect any changes in the equipment and its specifications. The most up-to-date versions of the manuals are found on the Cummins QuickServe Online website <https://quickserve.cummins.com> and <https://www.cummins.com/rv-generator-manuals>.

To find your local Dealer or Distributor, please visit
<https://www.cummins.com/sales-and-service>.

Onan Generator Set Quick Start Guide



Generator Set Model and Nameplate

Each Cummins Onan generator set has a spec number description, which is shown on the serial number tag attached to the generator.

1400 73 rd Ave.NE Minneapolis, MN 55432 Made in U.S.A.		
Model No: 80HDKAK1046J		Spec: J
S/N: F990 123456		
AC Volts:	kVA:	Kw:
Amps:	Pf:	RP M
Fuel: DIESEL	Hz: 60 Hz	Bat: 12 V
Options:	Wiring Diagram:	
Insulation – NE MA Class F	Ambient 40 ^o C	
THIS ENGINE MEETS 1995-1999 CALIFORNIA EMISSION REGULATIONS FOR ULGE ENGINES		
SKB719U6D2RA		719 cc
REFER TO OPERATOR'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.		
99-2495 URC		

Figure 1. Nameplate Example

Installation

Do not attempt to install the generator set before reading the Installation Manual.

Note: RV generator sets must be installed, operated and maintained in accordance with Cummins Inc. written instructions for use in recreational vehicles ("Pour usage dans les véhicules récréatifs").

Carbon Monoxide (CO)

Carbon Monoxide (CO) is present in the exhaust of the generator set. Carbon Monoxide is poisonous and deadly.

- Do not operate the generator set when the vehicle is in a confined space, such as a garage.
- Inspect the generator set exhaust system for leaks before starting the generator set and after eight hours of operating the generator set.
- If CO detectors are not installed in the vehicle, never occupy the vehicle while the generator set is running.
- If CO detectors are installed in the vehicle, test the CO detectors for correct operation before starting the generator set and after eight hours of operating the generator set according to manufacturer's instructions.
- Never use engine cooling air to heat working or living spaces or compartments.
- Disable automatic starting features before storing or parking the vehicle in a garage or other confined space.

Conducting General Inspections

Inspect the generator set before the first start of the day and after every eight hours of operation.

- ☐ Check generator set engine oil level.
- ☐ Check the coolant level and look for leaking coolant. Minor leaks can be replenished by daily additions of coolant in the recovery tank. Leaks should be serviced by a qualified service technician as soon as possible. Larger leaks are cause for shutting down the generator set until it can be serviced.
- ☐ Look and listen for exhaust system leaks while the generator set is running. Shut down the generator set if a leak is found and have it serviced before operating the generator set.
- ☐ Check for leaks on the fuel hose, tube and pipe fittings in the fuel supply system while the generator set is running and while it is stopped.
- ☐ Check the battery terminals for clean, tight connections. Loose or corroded connections have high electrical resistance which makes starting of the generator set harder.
- ☐ Start the generator set and check for unusual noises and vibrations. Check the generator set mounting bolts to make sure they are secure. Check to see that the generator set air inlet and outlet openings are not clogged or blocked. Check the engine gauges from time to time while the generator set is running (if equipped).
- ☐ Replace the pressure cap (if equipped) every two years.

Maintenance

Proper maintenance is critical to ensure maximum reliability, performance, and efficiency of the generator sets. Recommended maintenance schedules differ between the generator set models. Individualized maintenance schedules can be found in the Operator Manual of each generator set model.

Pre-Start Checks

- ☐ Make sure all vehicle CO detectors are working.
- ☐ Check for signs of fuel and exhaust leaks.
- ☐ Check for damage to the exhaust system.
- ☐ Make sure the generator set's normal ground clearance is not being reduced by sloping curbs, logs or other objects to prevent overheating.
- ☐ Turn off air conditioners and other large appliances.
- ☐ Check the generator set engine oil level.
- ☐ If the generator set (Commercial – Gasoline/LP) is equipped with a hydraulic pump, check and refill oil reservoir as necessary.

Priming the Fuel System (as necessary)

If the generator set has run out of fuel, prime the fuel system. Hold the control switch at STOP/PRIME for at least 30 seconds for gasoline generator sets, and 1 minute for diesel generator sets. The status indicator light stays on solid while the pump is on.

Starting the Generator Set

Start the generator set from the generator set control panel or the remote control panel inside the vehicle.

1. Push and hold the switch at START until the generator set starts. The status indicator light on the switch flashes during preheat and cranking. The preheat period may take up to 15 seconds before cranking begins. The status indicator will stay on continuously when the starter disconnects, indicating that the generator set is running.
2. Excessive cranking can overheat and damage the starter motor. The generator set will automatically stop cranking if it does not start within a set time. Wait at least 2 minutes before trying again. Refer to the troubleshooting guide in the Operator Manual if the generator set does not start after the required number of attempts.
3. For top performance and engine life, let the engine warm up for 2 minutes before applying the load.
4. Check for fuel, oil and exhaust leaks at the generator set. If leaks are found, stop the generator set immediately and have it serviced.

Stopping the Generator Set

Turn off the air conditioner and other large appliances. Let the generator set run for 2 minutes to cool down, then press the STOP switch to stop the generator set.

Breaking in a New Generator Set

Proper engine break-in on a new generator set or one with a rebuilt engine is essential for top engine performance and acceptable oil consumption. Run the generator set at approximately ½ rated power for the first 2 hours and then at ¾ rated power for 2 more hours. The oil and filter should be changed after the first 20 - 50 hours of run time, depending on the generator set model. Refer to the Operator's manual for specifications.

Loading the Generator Set

The generator set can power various appliances like AC motors, air conditioners, AC/DC converters, etc. The amount of load that can be applied depends upon the generator set power rating. The generator set will shut down or its circuit breakers will trip if the sum of the loads exceeds the rated generator set power.

Connecting to Utility/Shore Power

When the vehicle has provisions for connecting to utility power, such as a cord for plugging into a power outlet receptacle, it must also have an approved device to keep the generator set and utility from being interconnected. See the generator set Operator Manual for more information regarding operating with utility power.

Muffler

The muffler is mounted inside the generator housing. It has a USDA (Forest Service) spark arrestor and meets RVIA EGS-1 construction requirements.

Weight

In general, fixed mount Cummins RV generator sets weigh more than 110 pounds (50kg) and require approved lifting equipment to be handled.

Vapor Tightness and Exhaust Tailpipe Endings

(Diesel, Gasoline, and LP Exhaust)

If the generator set is mounted in a compartment on the floor of the vehicle, the entire compartment (except the floor) must be lined with vapor and fire resistive materials. All seams and openings in the barriers for wiring, mounting screws and so forth must be sealed. Use approved materials, see NFPA 1192 for details.

The generator set exhaust system must be gas-tight and designed to prevent entry of exhaust gases into the vehicle interior. Do not terminate the tailpipe underneath the vehicle. Extend it a minimum of 1 inch (25 mm) beyond the perimeter of the vehicle. Do not terminate the tailpipe underneath a slide-out room, unless the bottom of the slide-out, including skirts and moldings, is at least 3 feet above the end of the tailpipe. Also, do not terminate the exhaust tailpipe underneath the oil drain or such that it will restrict the air outlet.

Fuel Line Requirements

The generator set must never be connected to the fuel supply line of the vehicle engine. To prevent the generator set from running the vehicle out of fuel, do not extend the generator set fuel pickup tube down into the fuel tank as far as the pickup tube for the vehicle engine. Fuel lines must be secured, free of leaks, and separated or shielded from electrical wiring and engine exhaust components. Federal standards for vehicle fuel tanks may require the installation of an automatic shutoff valve at the generator set fuel tank pickup to prevent leakage in the event of a roll-over.

Inspecting fuel Lines

Check for leaks by priming the fuel system in accordance with the generator operator manual. Fix all leaks before starting the generator.

Enclosure and Chassis

The generator set controls and electrical connections are contained within an enclosure to prevent damage. The enclosure, chassis, and muffler systems are designed to reduce noise and vibration. Do not operate the generator set without the enclosure.

Fuel Consumption and Battery Requirements

Fuel consumption will vary depending on the fuel type and model of the generator set. Cummins recommends a generator set starting battery of 600 Cold Cranking Amps. Access the specific generator set model operating Instructions for fuel consumption and battery requirements.

Status of the Neutral Conductor

Neutral conductor bonded to frame (NEUTRE MIS A LA MASSE AU CHASSIS) unless modified by or according to customer's requirements.

Compartment Ventilation and Clearance Requirements

Ground clearance of at least 12 inches (305 mm) is recommended to reduce dust pulled in by the cooling fan and airflow blocked by external objects. Proper clearances must be provided to the generator set within the generator set compartment. Detailed generator set clearance information can be found in the generator set Installation Manual or the following table.

Generator Set Compartment Clearances

Fuel Type	Model	Top	Front	Sides
Diesel	HDZAA	0.61 in (15.5 mm)	0.61 in (15.5 mm)	Left: 0.61 in (15.5 mm) Right: 3.5 in (89 mm)
	HDKCx	0.5 in (12.7 mm)	0.5 in (12.7 mm)	0.5 in (12.7 mm)
	HDKAH	0.5 in (12.7 mm)	0.25 in (6.4 mm)	0.25 in (6.4 mm)
	HDKAJ	0.5 in (12.7 mm)	0.25 in (6.4 mm)	0.25 in (6.4 mm)
	HDKAK	0.5 in (12.7 mm)	0.25 in (6.4 mm)	0.25 in (6.4 mm)
	HDKAT	0.5 in (12.7 mm)	0.25 in (6.4 mm)	0.25 in (6.4 mm)
	HDKAU	0.5 in (12.7 mm)	0.25 in (6.4 mm)	0.25 in (6.4 mm)
	HDKAV	0.5 in (12.7 mm)	0.25 in (6.4 mm)	0.25 in (6.4 mm)
	HDKAL	1 in (25.4 mm)	-	-
	HDKAS	1 in (25.4 mm)	-	-
	HDKAG	1 in (25.4 mm)	-	-
	HDKAW	2 in (50.8 mm)	1 in (25.4 mm)	-
Gasoline/LP	HGJBB	0.25 in (6.5 mm)	1.25 in (32 mm)	0.25 in (6.5 mm)
	KY	1 in (25.4 mm)	1.50 in (38 mm)	1 in (25 mm)
	HGJAx	0.5 in (12.7 mm)	0.5 in (12.7 mm)	0.5 in (12.7 mm)
	HGLAA	0.5 in (12.7 mm)	2 in (50.8 mm)	1 in (25.4 mm)

Table 1. Clearances

WARNING LABEL

This warning explains the generators users to not use generators manufactured specifically for recreational vehicle and commercial purposes on marine applications.

	WARNING	
Do not use this generator on a boat. Such use may violate U.S. Coast Guard regulations and can result in severe personal injury or death from fire, electrocution, or carbon monoxide poisoning. F-1260		

Generator Set Warning Labels

Warning Sign	Description
	Caution or Warning Indicates a risk of personal injury
	Caution or Warning of Temperature Hazard. Indicates a risk of personal injury from high temperature
	Caution or Warning of High Voltage Hazard. Indicates a risk of personal injury from electric shock or electrocution.
	Caution or Warning of Engine Coolant Pressure Hazard. Indicates a risk of personal injury from hot pressurized engine coolant.
	Caution or Warning. Indicates to read Operator Manual for additional information.
	Caution or Warning of No Step. Indicates a risk of personal injury or equipment damage from stepping on equipment.
	Caution or Warning of Combustion or Explosion Hazard. Indicates a risk of personal injury from explosion.
	Caution or Warning of Belt and Rotating Part Hazard. Indicates a risk of personal injury from entanglement in moving parts.
	Caution or Warning of Chemical (ingestion or burn) Hazard. Indicates a risk of personal injury or asphyxiation from poisonous fumes or toxic gases.
	Caution or Warning of High Voltage or Current Source Hazard. Indicates a risk of personal injury from electrical shock or electrocution.
	Caution or Warning of Fan and Rotating Part Hazard. Indicates a risk of personal injury from entanglement in moving parts.

Table 2. Warning Labels