

**SAFETY PRECAUTIONS**

Thorough understanding of the operator manual and health and safety manual is necessary before operating the generator set. Safe operation and proper performance can only be obtained when the generator set is operated and maintained properly.

**PRE-START CHECKLIST**

	Generator set engine is properly serviced with oil.
	All generator set covers and safety shields are installed correctly.
	All fuel shutoff valves are operational and in the open position.
	The installation is compliant with state and local codes and regulations.
	Remove any debris that has accumulated around the generator set.

**SELECTING AN OPERATING MODE**

**Note:** When changing operating modes, the generator set can start or stop without warning (for example, if *Standby* mode is selected and utility power is not connected, the generator set will attempt to start). *Make sure there is no danger to personnel or equipment if the generator set starts or stops.*

**SETTING THE REMOTE AND STANDBY MODES**

Enable/Disable Remote or Standby (Local Display)	Enable/Disable Standby (Remote Display)
<ol style="list-style-type: none"> <li>1. From any screen, select the <b>Mode</b> key to get to the Mode screen.</li> <li>2. Use the arrow keys to enable or disable the Remote mode. Select the <b>Next</b> key to go to the next screen.</li> <li>3. Use the arrow keys to enable or disable the Standby mode.</li> <li>4. Whenever Standby is enabled, the Remote mode will also automatically be enabled.</li> <li>5. Keep pressing the <b>Back</b> button to save the settings and return to the Main screen.</li> </ol>	<ol style="list-style-type: none"> <li>1. From any screen, select the <b>Mode</b> key to get to the Mode screen.</li> <li>2. Use the arrow keys to enable or disable the Standby mode. (Local display needs to be in remote to enable or disable Standby.)</li> <li>3. Keep pressing the <b>Back</b> button to save the settings and return to the Main screen.</li> </ol>

**BASIC SEQUENCE OF OPERATION**

When the generator set is equipped with a transfer switch and the generator set is in *Standby* mode:

Utility power goes out:	<ol style="list-style-type: none"> <li>1. The generator set starts.</li> <li>2. After the generator set reaches rated voltage and frequency, the transfer switch transfers the building load to the generator set. The building's electrical power is now provided by the generator set.</li> </ol>
Utility power returns:	<ol style="list-style-type: none"> <li>1. The sequence to transfer building load to the utility begins.</li> <li>2. The generator set continues to run and waits for utility power to stabilize.</li> <li>3. When utility power is stable for 5 minutes, the transfer switch connects the building load back to utility power.</li> <li>4. The generator set runs an additional 5 minutes to cool down and then shuts off.</li> <li>5. Normal operation resumes.</li> </ol>

**EXERCISING THE GENERATOR SET**

When in the *Standby* mode, the generator set will exercise at the scheduled time for the duration set in the generator set control or transfer device. Refer to the operator manual to understand and/or modify the settings for the exercising schedule.

**MANUAL STARTING AND STOPPING**

Action	Manual Start (Local Display)	Manual Start (Remote Display)
<i>Start</i>	<ol style="list-style-type: none"> <li>1. From the Main screen, select the <b>START</b> key.</li> <li>2. A second screen appears notifying the operator that Standby will be disabled. Select the <b>START</b> key again to start the generator set.</li> <li>3. After the generator set reaches rated voltage and frequency, the transfer switch transfers the building load to the generator set. The building's electrical power is now provided by the generator set.</li> </ol>	Remote mode must be enabled on the local display to allow manual start and stop from the Remote display. The manual start and stop sequences are the same for the Remote display and the Local display.
<i>Stop</i>	<p>Press the red <b>STOP</b> button on the local display. The generator set will stop immediately and the building load will be transferred to the utility.</p> <p><b>Note:</b> For normal operation to resume, Standby mode will need to be enabled.</p>	

**Additional Information**

If you have any questions regarding the installation, contact your nearest authorized Cummins distributor or dealer. For additional information, refer to the A051X874 Operator Manual. For more information on Cummins products and services, go to [power.cummins.com](http://power.cummins.com).

**Note:** Press the generator set's red STOP button on the local display to stop the generator set, which will disable both Remote and Standby Modes.

### OPTIONAL REMOTE MONITORING SYSTEM (RMS) ACCOUNT SETUP AND GENERATOR SET CONTROL CONNECTION

1. Prior to setting up the account, ensure that the generator set control is connected to the Internet via an Ethernet cable between the generator set control and the home's router.
2. Access the Cummins ConnectCloud website by navigating to [ConnectCloud.Cummins.com](http://ConnectCloud.Cummins.com).
3. Click on **Register** to create your account.
4. Add a generator set to your account, using the Serial Number and Customer Access Code from your generator set. The Serial Number and Customer Access Code can be found on the display in the **Menu/About** section.

**Note:** Android and iPhone apps for the Cummins ConnectCloud are also available.

### LOADING THE GENERATOR SET

The amount of load that can be applied to the generator set depends upon its power rating. If the total load exceeds the rated generator set power:

- The load management control will activate (if it is installed)
- The generator set may shut down
- The generator set circuit breaker may trip

If the load exceeds the generator set rating, it may be necessary to use Cummins' load management kit (A051C329). For more information about load management, see the operator manual.

### OPERATING IN COLD WEATHER

If operating in temperatures below -17 °C (0 °F), replace crankcase oil with 0W30 oil (see the operator manual for specifications).

### OPERATING IN DUSTY ENVIRONMENTS

Pay particular attention to the following items when operating the generator set in dusty environments:

- Do not let dirt and debris accumulate inside the generator set compartment. Keep the generator set clean.
- Perform air cleaner maintenance and change the engine oil more often.

### CONDUCTING GENERAL INSPECTIONS

Inspect the generator set after every eight hours of operation.

<b>Battery Connections</b>	Check the battery terminals for clean, tight connections. Loose or corroded connections have high electrical resistance which makes starting of the generator set harder.
<b>Lubrication Oil System</b>	Check for oil leaks, leaks should be repaired immediately. Check engine oil level. If low, fill to proper level, with recommended oil.
<b>Fuel System</b>	Check for leaks at the hose, tube, and pipe fittings in the fuel supply system. If leaks are identified, immediately turn off the fuel supply ahead of the leak. Repair any leaks before operating the generator set again. Check flexible fuel hose sections for cuts, cracks, and abrasions. Make sure the fuel line is not rubbing against other parts. Replace worn or damaged fuel line parts before leaks occur.
<b>Exhaust System</b>	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 again.
<b>Mechanical</b>	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 with debris or blocked. Verify that fuel and electrical lines and connections are in their intended positions. These parts may be excessively strained as the result of movement or settling at the installation site. Repair as necessary to return the system to safe operating condition.

### PERIODIC MAINTENANCE SCHEDULE TABLE

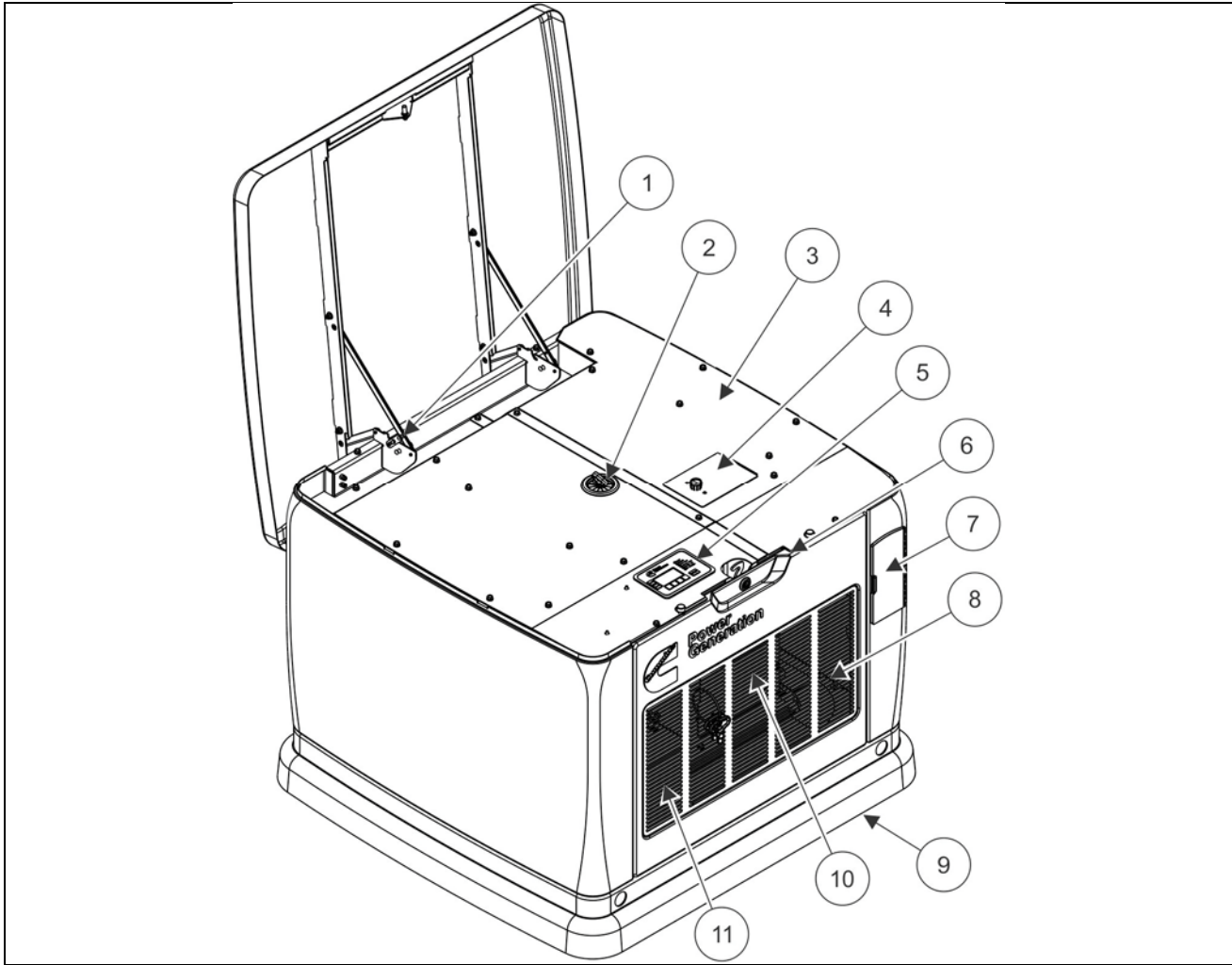
**Note:** Perform all service at the time period indicated, or after the number of operating hours indicated, whichever comes first.

**Note:** Items found to be worn, damaged, or malfunctioning during periodic maintenance inspections must be repaired or replaced.

Maintenance Task	Maintenance Frequency (Running Time)			Every 2 Years
	First 25 Hours and 100 Hours	Every 24 Hours	Every 200 Hours	
Check Engine Oil Level		■ <sup>2,3</sup>		
Change Engine Oil and Oil Filter	■		■ <sup>4</sup>	■ <sup>4</sup>
Adjust Engine Valve Clearance	■ <sup>1,6</sup>		■ <sup>1,6</sup>	
Replace Engine Air Filter			■ <sup>4</sup>	■ <sup>4</sup>
Clean and Check Starting Battery			■	

Maintenance Task	Maintenance Frequency (Running Time)			Every 2 Years
	First 25 Hours and 100 Hours	Every 24 Hours	Every 200 Hours	
Complete System Test			■ <sup>5,6</sup>	■ <sup>5,6</sup>
<ol style="list-style-type: none"> <li>1. Perform sooner if engine performance deteriorates.</li> <li>2. Perform more often when operating in high temperature conditions.</li> <li>3. Check daily during power outages, or monthly without power outages.</li> <li>4. Perform more often when operating in dusty conditions.</li> <li>5. See the automatic transfer switch manual for testing of load transfer.</li> <li>6. Must be performed by a qualified service technician (authorized Cummins Power Generation dealer).</li> </ol>				

**TYPICAL GENERATOR SET**



No.	Description	No.	Description	No.	Description
1	Hinge Lock	5	Control Panel	9	Mounting Pad
2	Oil Dipstick Location	6	Cover Lock	10	Oil Filter (behind Panels)
3	Air Cleaner (under Panel)	7	Circuit Breaker Box	11	Battery
4	Oil Fill Location	8	Air Inlet		