

QUICK START GUIDE



WHISPERWATT™ SERIES MODELS

DCA25SSIU4F

DCA45SSIU4F

60 Hz GENERATORS

(ISUZU 4LE2T/4LE2X DIESEL ENGINES)

Revision #0 (01/15/25)

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GENERATOR START-UP PROCEDURE (MANUAL)

WARNING

DO NOT operate this equipment without first reading and understanding all relevant safety information. Refer to the **Safety Information** section in the operation manual provided with this equipment.

NOTICE

Make sure all necessary setup and inspections have been performed prior to operating this equipment. Refer to the **Inspection/Setup** section in the operation manual.

BEFORE STARTING

CAUTION

The engine's exhaust contains harmful emissions. **ALWAYS** have adequate ventilation when operating. Direct exhaust away from nearby personnel.

WARNING

NEVER manually start the engine with the **main, GFCI or auxiliary** circuit breakers in the **ON** (closed) position.

1. Place the **main, auxiliary, and GFCI** circuit breakers (Figure 1) in the **OFF** position prior to starting the engine.

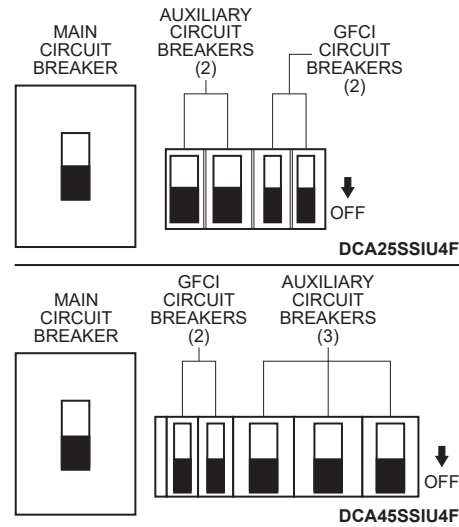


Figure 1. Main, Auxiliary, And GFCI Circuit Breakers (OFF)

2. Make sure the **Voltage Selector** switch has been configured for the desired output voltage.

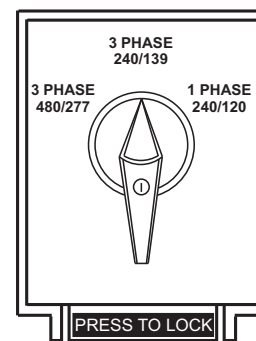


Figure 2. Voltage Selector Switch

GENERATOR START-UP PROCEDURE (MANUAL)

3. Make sure the **Diagnostic switch** (located inside the control box) is placed in the **OFF** position. See Figure 3. Make sure the control panel is closed properly before proceeding.

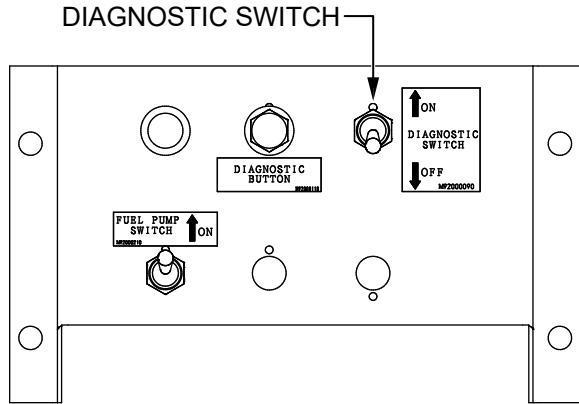


Figure 3. Diagnostic Switch (OFF Position)

4. Connect the load to the **receptacles, output terminal lugs, or optional cam-loks** as shown in Figure 4. These load connection points can be found on the output terminal panel and the output terminal panel's hard wire hookup panel.

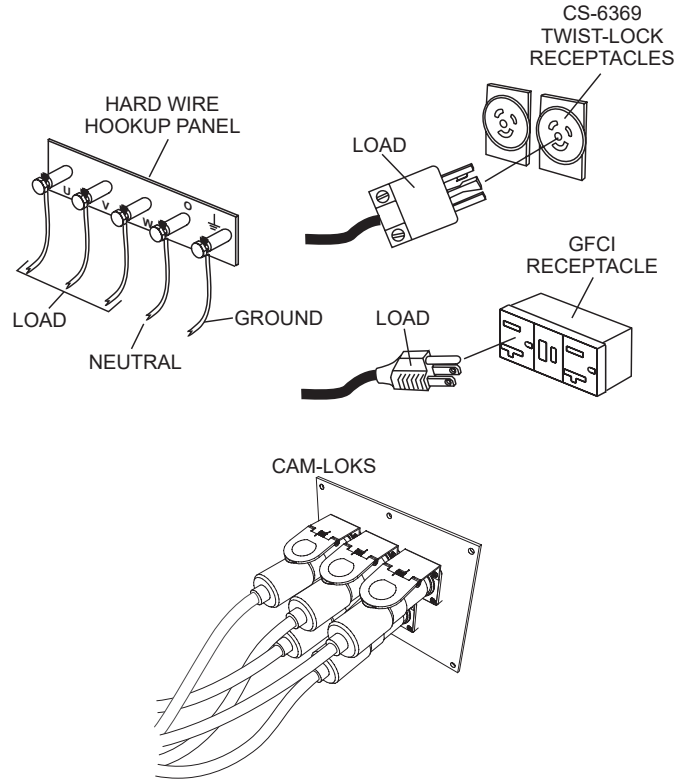
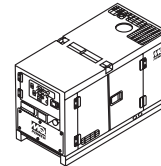
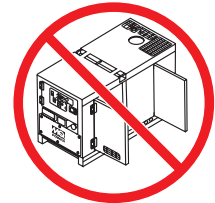


Figure 4. Connecting Loads

5. Close all engine enclosure doors (Figure 5).



CORRECT



INCORRECT

Figure 5. Engine Enclosure Doors

NOTICE

ALWAYS make sure that the connections to the UVWO terminals are **secure** and **tight**. The possibility exists of arcing that could cause a fire. Torque tie bolts as shown in Table 1.

Table 1. Output Terminal Tie Bolt Torque Specs

Model	Tie Bolt Torque Spec	
	lbf·in	N·m
DCA25SSIU4F	65.0	7.4
DCA45SSIU4F	130.1	14.7

GENERATOR START-UP PROCEDURE (MANUAL)

STARTING (MANUAL)

1. Place the **Engine Speed switch** in the **LOW** position (Figure 6).



Figure 6. Engine Speed Switch (Low Position)

2. To start the engine, place the **Auto Start/Stop switch** in the **MANUAL** position (Figure 7).

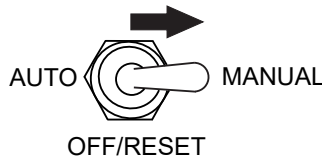


Figure 7. Auto Start/Stop Switch (Manual Position)

NOTICE

If the engine fails to start within three attempts, the Over Crank LED will turn on and the Auto Start/Stop switch must be placed in the Off/Reset position before the next attempt.

NOTICE

The engine will pre-heat automatically in cold weather conditions. The Pre-Heat lamp will turn **ON** indicating that the pre-heating process has started. The engine will start automatically after pre-heating.

NOTICE

Depending on the ambient temperature, the pre-heating process may still be performed even when the Preheat Lamp is **OFF**.

3. Once the engine starts, let the engine run for 1–2 minutes to warm up. For operation in below-freezing weather temperatures, this warmup period must be extended to 5–7 minutes. During the warmup period, check for any abnormal noise, vibration, or fluid leakage. If any abnormalities exist, shut down the engine and correct the problem.

4. After the warmup process has been completed, place the **Engine Speed switch** in the **HIGH** (up) position. The engine speed will increase to 1,800 rpm and the unit is now ready for operation.

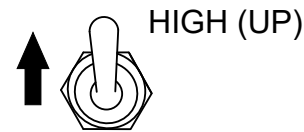


Figure 8. Engine Speed Switch (High Position)

5. The generator's **frequency meter** (Figure 9) should be displaying the 60-cycle output frequency in **HERTZ**.

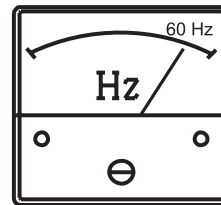


Figure 9. Frequency Meter

6. The generator's **AC voltmeter** (Figure 10) will display the generator's output in **VOLTS**.

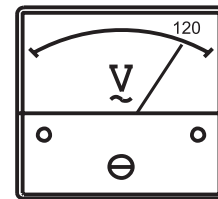


Figure 10. Voltmeter

7. If the voltage is not within the specified tolerance, use the **voltage regulator** (Figure 11) to increase or decrease the desired voltage.

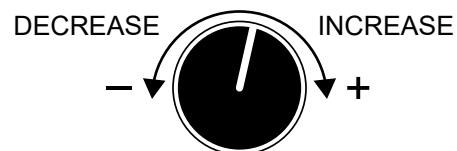


Figure 11. Voltage Regulator

GENERATOR START-UP PROCEDURE (MANUAL)

8. The **ammeter** (Figure 12) will indicate **zero amps** with no load applied. When a load is applied, the ammeter will indicate the amount of current that the load is drawing from the generator.

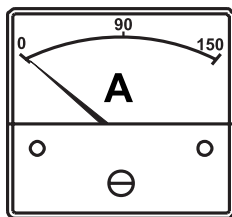


Figure 12. Ammeter (No Load)

9. The **engine oil pressure gauge** (Figure 13) will indicate the oil pressure of the engine. Under normal operating conditions the oil pressure should be approximately 50 psi (345 kPa). When starting the generator the oil pressure may read a little higher, but after the engine warms up the oil pressure should return to the correct pressure range.

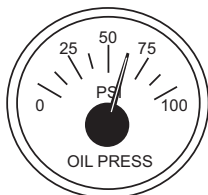


Figure 13. Oil Pressure Gauge

10. The **coolant temperature gauge** (Figure 14) will indicate the coolant temperature. Under normal operating conditions the coolant temperature should be approximately 180°F (82°C).

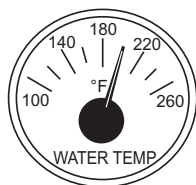


Figure 14. Coolant Temperature Gauge

11. The **tachometer gauge** (Figure 15) will indicate the speed of the engine in **RPM**. Under normal operating conditions this speed is approximately 1,800 rpm.

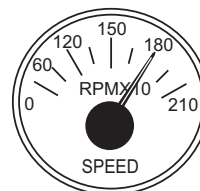


Figure 15. Engine Tachometer Gauge

12. Place the **main, auxiliary, and GFCI circuit breakers** in the **ON** position (Figure 16).

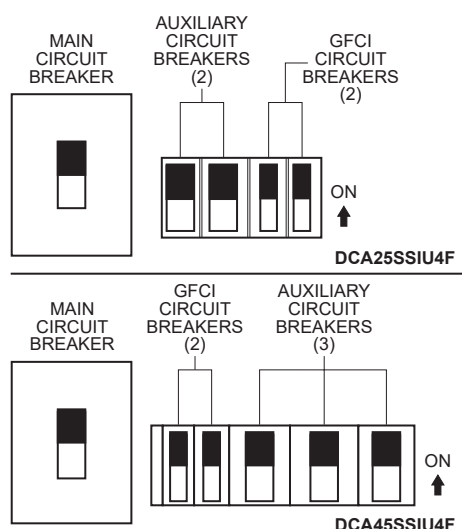


Figure 16. Main, Auxiliary, And GFCI Circuit Breakers (ON)

13. Observe the generator's ammeter (Figure 17) and verify it reads the anticipated amount of current with respect to the load. The ammeter will only display a current reading if a load is in use.

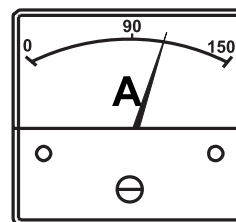


Figure 17. Ammeter (Load)

14. The generator will run until manually stopped or an abnormal condition occurs.

GENERATOR START-UP PROCEDURE (AUTO MODE)

STARTING (AUTO MODE)

DANGER



Before connecting this generator to any building's electrical system, a **licensed electrician** must install an **isolation (transfer) switch**. Serious damage to the building's electrical system may occur without this transfer switch.

NOTICE

When connecting the generator to an isolation (transfer) switch, **ALWAYS** have power applied to the generator's internal battery charger. This will ensure that the engine will not fail due to a dead battery.

NOTICE

When the generator is set to **AUTO** mode, the generator will **automatically start** in the event of commercial power falling below a prescribed level by means of a contact closure that is generated automatically by a transfer switch.

WARNING

When operating the generator in **AUTO** mode, remember that the generator can start up at any time without warning. **NEVER** attempt to perform any maintenance while the generator is in Auto mode.

CAUTION

The Engine Speed switch **must** be set to the **High position** when running in **Auto mode**. Failing to set the switch in the proper position can result in damage to the generator when it turns on.

NOTICE

When the **Auto Start/Stop switch** is placed in the **AUTO** position, the engine glow plugs will be warmed and the engine will start automatically.

1. Perform steps 1–5 under **Before Starting** in the **Generator Start-Up Procedure (Manual)** section.
2. Place the **Engine Speed switch** in the **HIGH** position (Figure 18).



Figure 18. Engine Speed Switch (High Position)

3. Place the **Auto Start/Stop switch** (Figure 19) in the **AUTO** position.



Figure 19. Auto Start/Stop Switch (Auto Position)

4. Once the start signal is received (the remote-start contacts are closed), the pre-heating process will begin. When the pre-heating process has completed, the engine will start automatically and accelerate to rated speed. When the remote-start contacts are opened, the engine will stop.
5. If the engine fails to start, perform the manual starting procedure.

GENERATOR SHUTDOWN PROCEDURE

NORMAL SHUTDOWN PROCEDURE

WARNING

NEVER stop the engine suddenly except in an emergency.

To shut down the generator, use the following procedure:

1. Place the load's ON/OFF switch in the **OFF** position.
2. Place the **main, auxiliary, and GFCI circuit breakers** in the **OFF** position (Figure 1).
3. Place the **Engine Speed switch** in the **LOW** position (Figure 20).



Figure 20. Engine Speed Switch (Low Position)

4. Let the engine cool by running it at low speed for 3–5 minutes with no load applied.
5. Place the **Auto Start/Stop switch** (Figure 21) in the **OFF/RESET** position.

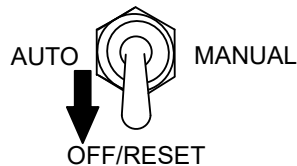


Figure 21. Auto Start/Stop Switch (Off/Reset Position)

NOTICE

DO NOT disconnect the battery cables immediately after the engine stops. Wait for at least 30 seconds before disconnecting the battery cables.

6. Allow adequate time for cooling, then inspect the entire generator for any damage or loosening of components that may have occurred during operation.

EMERGENCY SHUTDOWN PROCEDURE

NOTICE

The **Emergency Stop switch** should only be used to stop the engine in case of an emergency or to lock out operation during service. The Emergency Stop switch should **NEVER** be used for routine stopping of the engine.

1. To stop the engine in the event of an emergency, press the **Emergency Stop switch** (Figure 22), located on the side of the generator next to the output terminal panel.

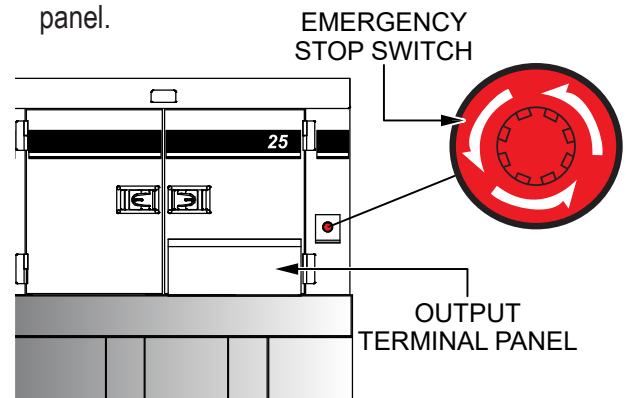


Figure 22. Emergency Stop Switch

2. Place the **main, auxiliary, and GFCI circuit breakers** in the **OFF** position as shown in Figure 1.
3. The Emergency Stop switch is a push-locked type switch. The switch contact can only be released by rotating the button in the clockwise direction. The engine cannot be restarted until the contact is released (closed).

AUTOMATIC SHUTDOWN SYSTEM

This unit is equipped with safety devices that will automatically shut down the engine in the event of low oil pressure (approximately 14 psi / 97 kPa), high water temperature (approximately 212°F/100°C), or over speed (approximately +15%). The alarm lamps on the ECU will illuminate to signify the reason for the shutdown.

NOTICE

Before inspecting the generator after an automatic shutdown, place the Auto Start/Stop switch in the **OFF/RESET** position, and place all circuit breakers in the **OFF** position. Allow adequate time for cooling before troubleshooting. When all faults have been cleared, restart the engine according to the **Generator Startup Procedure** section.

QUICK START GUIDE

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON HAND WHEN CALLING

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