



Installation Instructions

Trane Rental Service

Start-Up and Shutdown - RSGP0450F5 Generator



SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.



Introduction

Read this manual thoroughly before operating or servicing this unit.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

NOTICE Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs and HCFCs such as saturated or unsaturated HFCs and HCFCs.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury. All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in **NEC** and your local/state electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labeling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING**Follow EHS Policies!**

Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

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Note: *Replace Manual in Cabinet After Use!*



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Human Machine Interface

Figure 1. Human machine interface



This control system includes an intuitive operator interface panel that allows for complete genset control as well as system metering, fault annunciation, configuration and diagnostics.

The interface includes five genset status LED lamps with both internationally accepted symbols and English text to comply with customer's needs. The interface also includes an LED backlit LCD display with tactile feel soft-switches for easy operation and screen navigation. It is configurable for units of measurement and has adjustable screen contrast and brightness. All data on the control can be viewed by scrolling through screens with the navigation keys. The control displays the current active fault and a time-ordered history of the five previous faults.

Installation/Setup

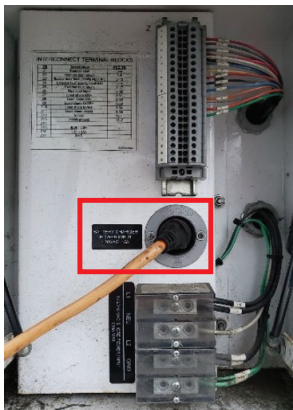
1. Level the generator using appropriate cribbing and front leveling jacks. Wheels must be checked.

Important: Ensure the generator is grounded according to local code.

2. Remove and install ladder, hand-rail from the driver side door of generator.



3. Plug in battery charger to 120 Vac power receptacle. Plug is located on passenger side of generator behind small enclosure door.



Note: Battery disconnect switch is located inside the passenger side door above batteries.

Important: When the generator is off and a 120 Vac receptacle is not available, the battery disconnect switch must be **OFF**.

4. Locate oil maintainer and **OPEN** valve.

Oil maintainer and valve are located just inside the driver side door on left.



Note: Picture on right shows valve in the **CLOSED** position.

5. Locate camlock connections on passenger side of the generator.



Important: Once final connections are made, ensure the connection door is closed and latched to prevent **Buss bar door open** fault.

6. Connect cables to the generator and the load.



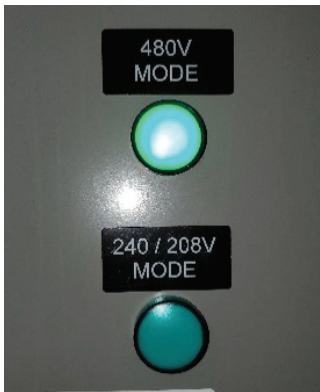
Important: Refer to local codes and regulations when determining size and number of cables required.

- Verify all cables are correctly connected at both the generator and load.
- Locate the battery disconnect switch on the passenger side of the engine and turn the switch **ON**.



- Verify generator voltage by checking the voltage indicator lamps on the breaker cabinet.

Note: Breaker cabinet located on the right side of the display cabinet.



Important: If the voltage setting is incorrect, refer to instructions located on breaker cabinet for switching voltages.

- Press the **OK** button.



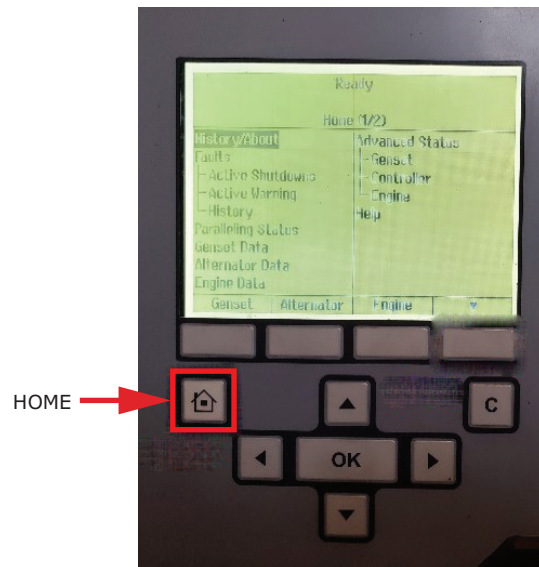
- Verify the display is not showing any faults.

If **Local E-stop** is displayed, pull the **EMERGENCY STOP** button located near controller/display.

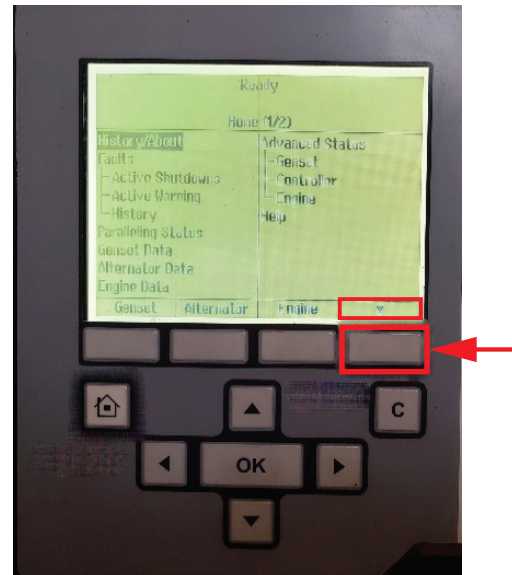
If **Remote E-stop** is displayed, verify both **EMERGENCY STOP** buttons are pulled out. These are located on the outside of generator.

Note: One button is located on the driver side door and the other button is located on the passenger side door.

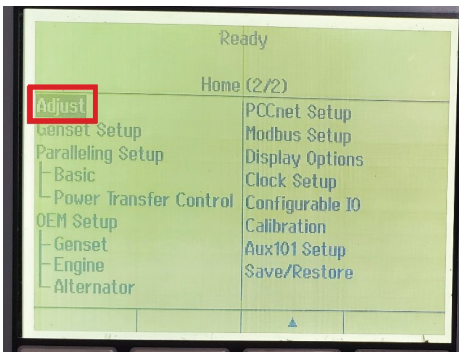
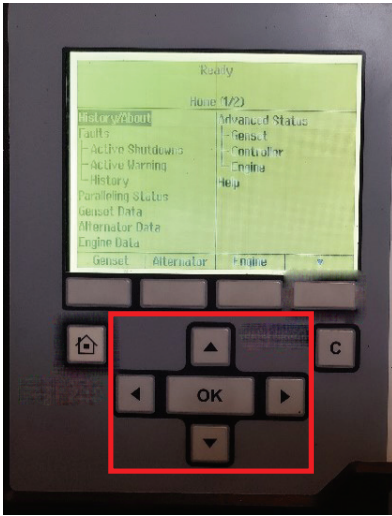
- Press the **RESET** button.
- Press the **HOME** button.



- On the home screen, press the **PAGE DOWN** button.

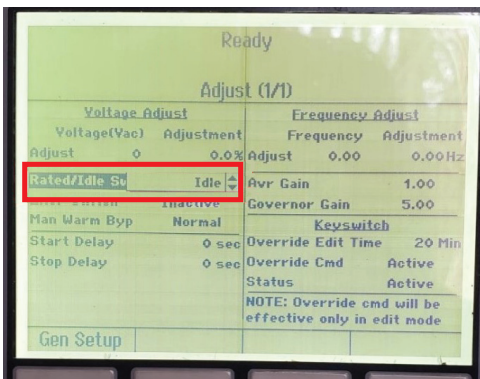


15. Press the **UP** and **DOWN** buttons to highlight **ADJUST**.



16. Press the **OK** button.

17. Press the **DOWN** button to highlight **Rated/Idle Sw**.



18. Press the **OK** button.

19. If not already selected, press the **UP** button to select **IDLE**.

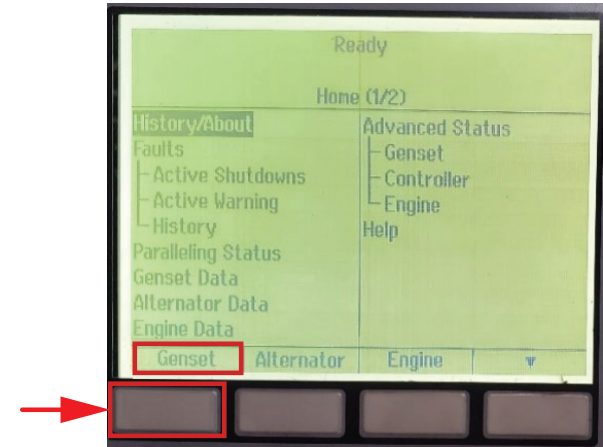
20. Press the **OK** button.

Note: The generator is now ready to be started in idle mode.

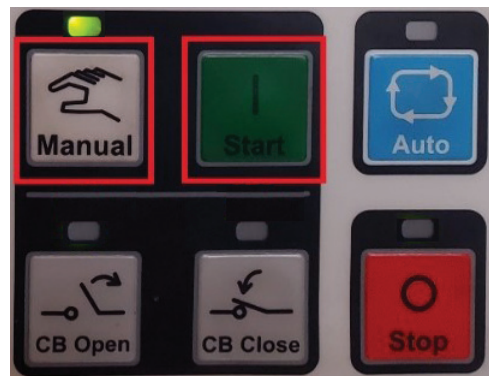
21. Press the **HOME** button to return to the main screen.

Start-Up

1. Press the **Genset** button.

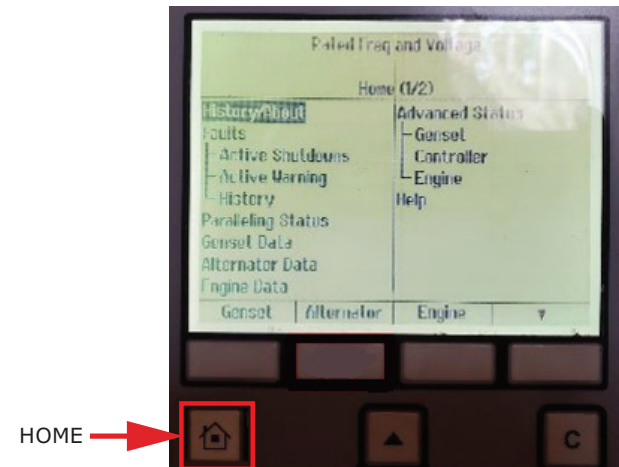


2. Press the **MANUAL** and the **START** button.



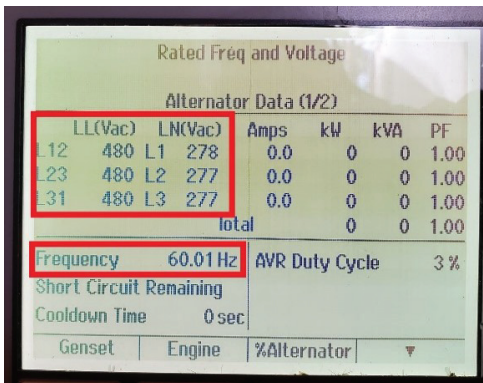
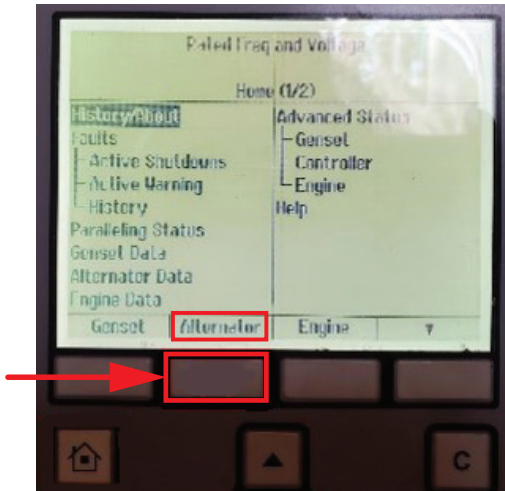
Note: Monitor the coolant temperature. When the coolant temperature reaches 100°F or five minutes have passed, repeat Step 13 to Step 21 to change the generator from **Idle** speed to **Rated** speed. This can be completed with the engine running.

3. Press the **HOME** button.



4. Press the **ALTERNATOR** button.

Important: Verify the generator is producing the correct voltage for the application (480 Vac, 60 Hz or 240 Vac, 60 Hz / 208 Vac, 60 Hz).



5. Press the **CB Close** button.



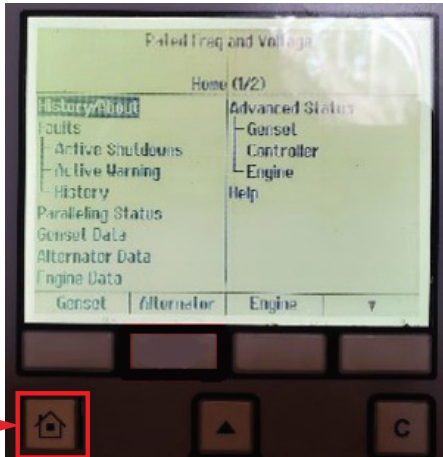
The generator is now supplying power to the load.

Shutdown

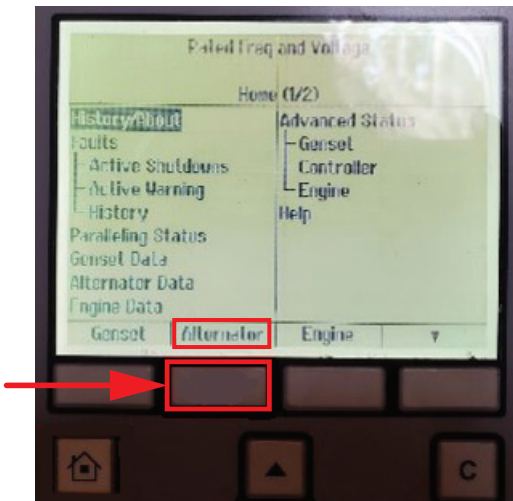
Follow the manufacturer's instructions to shutdown all equipment powered by the generator.

Important: Verify there is no generator load.

1. Press the **HOME** button.



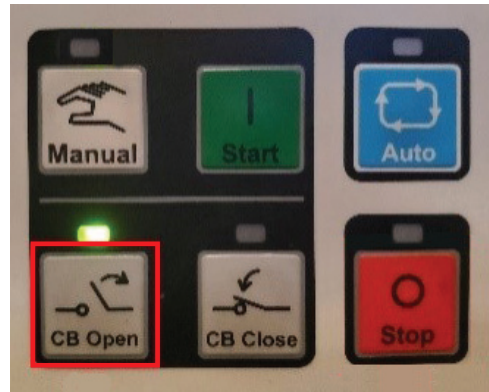
2. Press the **ALTERNATOR** button.



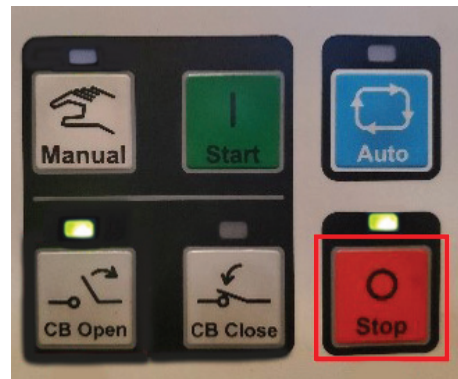
3. Verify amps and kW columns are **0**.

Rated Freq and Voltage		Alternator Data (1/2)						
LL(Vac)	LN(Vac)	L1	L2	L3	Amps	kW	kVA	PF
L12	480	L1	278		0.0	0	0	1.00
L23	480	L2	277		0.0	0	0	1.00
L31	480	L3	277		0.0	0	0	1.00
		Total			0	0	0	1.00
Frequency	60.01 Hz	AVR Duty Cycle		3 %				
Short Circuit Remaining								
Cooldown Time		0 sec						
Genset	Engine	%Alternator						

4. Press the **CB Open** button.



5. Press the **Stop** button.



Note: Genset will enter cooldown mode and continue to run for 3-5 minutes.

Important: If decommissioning this unit, continue to [Step 6](#).

6. Once engine stops, wait 60 seconds and turn the battery disconnect switch **OFF**.

Battery disconnect switch is located on the passenger side of engine.



7. Disconnect cabling from the generator, main generator output cables, battery charger cable, and generator grounding cable. Ensure all cable access doors are latched closed.

8. Locate and **CLOSE** oil maintainer shutoff valve.
Oil maintainer is located inside the driver side door on left.



9. Disassemble/re-stow ladder and hand rail on the driver side door.



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