



LP Liquid Generator Installation Checklist

This document is to help guide Clifford Power customers through the installation of a Generator and Automatic Transfer Switch (ATS). Throughout this document you will find links to our website providing more details on each topic. At any point of the process if you have questions feel free to contact us at:

1-800-324-0066 or ProjectManagement@CliffordPower.com

Step 1: Obtain the appropriate information and get it in the right hands

	Owner	General	Mechanical	Electrical
Submittal including Spec Sheet & Drawing are provided by Clifford Power.		X	X	X
Generac Installation Manual can be found on our website.			X	X
Generac Interconnect can be found on our website.				X
Owners Manual can be found in the high voltage connection panel.	X			
Planned Maintenance Agreement is acquired from Clifford Power.	X			

Step 2: Preparing the site for equipment

- Review dimensions and weight of Generator. *refer to Submittal Drawing*
- Determine stub up locations for electrical. *refer to Submittal Drawing*
- Determine foundation and mounting requirements. *refer to section 3 of the [Generac Installation Manual](#)*
 - **For Indoor installations only**
 - o Review air flow considerations. *refer to section 4 of the [Generac Installation Manual](#)*
 - Review specific air flow requirements for Generator. *refer to cooling section of [Spec Sheet](#)*
 - Review engine exhaust system installation considerations. *refer to section 5 of the [Generac Installation Manual](#)*
 - Review specific engine exhaust requirements for Generator. *refer to exhaust flow and temperature requirements section of [Spec Sheet](#)*

Step 3: Receiving the equipment

- Prepare to offload the unit. *refer to lifting guidelines section 2.4 of the [Generac Installation Manual](#)*

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- Inspect the equipment for freight damage. (Must document damage on bill of lading, take pictures of damaged area, and notify Clifford Power)
- Secure generator keys located on one of the external door latches.
- Secure the generator Owner's Manuals located in the low voltage connection box below the control panel.
- Secure any additional lose accessories or accessories boxed inside the enclosure.

Step 4: Installing the equipment

- Review mounting guidelines *refer to section 3.2 of the Generac Installation Manual*
- Make the appropriate High Voltage connections. *refer to section 8.4 of the Generac Installation Manual*
 - Run main output wire from Gen MLCB lugs to Emergency lugs in ATS. *Confirm lugs on equipment or lug sizing is available upon request*
 - Provide power to the Block Heater and Battery Charger circuit.
 - Determine the size of circuit needed for block heater. *refer to Clifford Power proposal or view tags on heaters to obtain V & W*
 - The battery charger circuit requires at least a 5A 120V circuit.
- Make the appropriate Low Voltage connections. *refer to section 8.6 of the Generac Installation Manual, or refer to the applicable control interconnections: H-Panel Control Interconnections or Power Zone Control Interconnections*
 - Run 2-wire start circuit between GEN and each ATS. 2-stranded wires min of 14ga
 - Run ATS position indication circuit between GEN and Primary ATS. 3-stranded wires min of 14ga
 - If equipped with a Remote Annunciator run power and communications. 2-stranded wires min of 14ga and 1-Belden #3105A communications cable
 - Note: 2-wire start, communications wire, and alarm wiring needs to be in a separate conduit with only low voltage wires.
 - Note: Use Belden #3105A for any RS-485 communications wiring.
 - Note: Do not connect the battery or energize auxiliary circuits until commissioning technician arrives.
- **LP Liquid Fuel Systems**
 - Determine fuel consumption rate in gallons per hour at 100% load and pressure range for the unit. *refer to fuel consumption rates section of Spec Sheet or view label next to fuel inlet on skid*
 - $GPH = \text{Cubic feet per hour} / 36.38$



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- Determine the appropriate pipe size according to the length between the unit and the LP tank. *refer to section 6.6.4 of the Generac Installation Manual for step by step process for pipe sizing.*
- Determine the appropriate tank size. For LP Liquid tank sizing, make sure the GPH consumption of the unit does not exceed the usable capacity in the tank.
 - $GPH / Usable\ Gallons = Run\ Time$
- ***Review example installation drawing on the following page***

Step 5: Commissioning the equipment

- Complete the [pre-startup checklist](#) and return it to Clifford Power. *see pages 6 & 7 or make contact with Clifford Power Sales Rep.*
- Clifford Power will contact you to schedule a start-up date.
- Customer orientation should be scheduled at time of start-up.
- A full system test will be required to complete the commissioning of the system. This will require a simulated power outage from the Utility source feed into the transfer switch.
 - If the ATS is service entrance rated, meaning it's the only means of utility disconnect, a Utility technician will be required to open Utility feed.
- Your warranty coverage starts the date of commissioning. *refer to the Owners Manual located in the voltage connection panel for details.*

Step 6: Maintaining the equipment

- Obtain a [Planned Maintenance Agreement](#) from Clifford Power. This ensures that your equipment warranty stays valid and gives you the peace of mind that the equipment will operate as designed when you need it. Contact one of our local Service Sales representatives for pricing.

Example of Standard LP Liquid Gen Set Install

