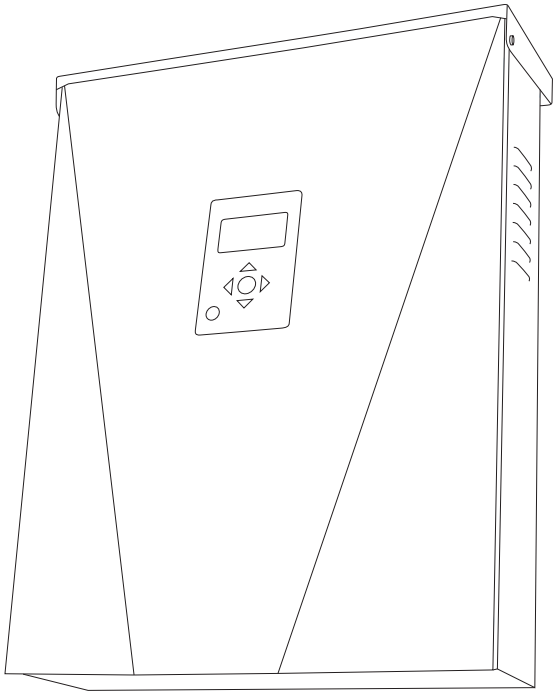
Owner's Manual

Generac PWRcell™ Inverter



009954

⚠WARNING

Loss of life. This product is not intended to be used in a critical life support application. Failure to adhere to this warning could result in death or serious injury. (000209b)

Register your Generac product at:

https://pwrfleet.generac.com

1-888-GENERAC
(888-436-3722)

Para español, visita: http://www.generac.com/service-support/product-support-lookup

Pour le français, visiter: http://www.generac.com/service-support/product-support-lookup

SAVE THIS MANUAL FOR FUTURE REFERENCE

Use this page to record important information about your Generac Product

Record the information found on your unit data label on this page. See ***Serial Number Locations***.

When contacting an Independent Authorized Service Dealer (IASD) or Generac Customer Service, always supply the complete model number and serial number of the unit.

Table 1: Generac PWRcell Inverter Important Information

Unit Model Number	
Unit Serial Number	
Date Purchased	
Commissioning Date	

⚠WARNING

CANCER AND REPRODUCTIVE HARM

www.P65Warnings.ca.gov.

(000393a)

Section 1: Introduction and Safety

Section 2: General Information

Section 3: Operation

Section 4: Maintenance

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Section 1: Introduction and Safety

Introduction

Thank you for purchasing a Generac PWRcell™ product. The PWRcell inverter is a storage-ready inverter that connects to PV Link™ optimizers and PWRcell batteries to form the PWRcell system.

This owner's manual provides instructions for programming, configuring, registering and commissioning the PWRcell Inverter. See the Generac PWRcell Inverter Installation Manual for installation instructions.

The information in this manual is accurate based on products produced at the time of publication. The manufacturer reserves the right to make technical updates, corrections, and product revisions at any time without notice.

Read This Manual Thoroughly

⚠WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

If any section of this manual is not understood, contact the nearest Independent Authorized Service Dealer (IASD) or Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or visit ***www.generac.com*** for assistance. The owner is responsible for correct maintenance and safe use of the unit.

This manual must be used in conjunction with all other supporting product documentation supplied with the product.

SAVE THESE INSTRUCTIONS for future reference. This manual contains important instructions that must be followed during placement, operation, and maintenance of the unit and its components. Always supply this manual to any individual that will use this unit, and instruct them on how to correctly start, operate, and stop the unit in case of emergency. The contents of this manual are applicable to PWRcell Inverters operating with software version > 13120.

NOTE: Verify the latest software version is installed to ensure the most up to date features and functionality are available. See the Inverter Installation Manual for more information on verifying the inverter software version. To get the latest software version go to ***www.generac.com/pwrcell/update*** and follow the instructions, or call 1-855-395-7841 for additional help or questions.

Safety Rules

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The alerts in this manual, and on tags and decals affixed to the unit, are not all inclusive. If using a procedure, work method, or operating technique that the manufacturer does not specifically recommend, verify that it is safe for others and does not render the equipment unsafe.

Throughout this publication, and on tags and decals affixed to the unit, DANGER, WARNING, CAUTION, and NOTE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Alert definitions are as follows:

⚠DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

(000001)

⚠WARNING

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

(000002)

⚠CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

(000003)

NOTE: Notes contain additional information important to a procedure and will be found within the regular text of this manual.

These safety alerts cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

How to Obtain Service

For assistance, contact the nearest Independent Authorized Service Dealer (IASD) or Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or visit ***www.generac.com***.

When contacting an IASD or Generac Customer Service, always supply the complete model and serial number of the unit as given on its data decal located on the unit. Record the model and serial numbers in the spaces provided on the front cover of this manual.

General Hazards

⚠DANGER

Electrocution. Do not wear jewelry while working on this equipment. Doing so will result in death or serious injury.

(000188)

⚠DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury.

(000191)

⚠WARNING

Risk of injury. Do not operate or service this machine if not fully alert. Fatigue can impair the ability to operate or service this equipment and could result in death or serious injury.

(000215a)

⚠WARNING

Loss of life. This product is not intended to be used in a critical life support application. Failure to adhere to this warning could result in death or serious injury.

(000209b)

⚠WARNING

Equipment damage. Only qualified service personnel may install, operate, and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and equipment or property damage.

(000182a)

⚠WARNING

Electric shock. Only a trained and licensed electrician should perform wiring and connections to unit. Failure to follow proper installation requirements could result in death, serious injury, and equipment or property damage.

(000155a)

⚠WARNING

Electrocution. Potentially lethal voltages are generated by this equipment. Render the equipment safe before attempting repairs or maintenance. Failure to do so could result in death or serious injury.

(000187)

⚠CAUTION

Equipment damage. Connect only to REbus-compatible devices to the DC bus. Never connect to any other DC power source. Connecting to other DC power sources could result in equipment damage.

(000598a)

- Connecting the PWRcell system to the electric utility grid must only be done after receiving prior approval from the utility company.
- Only competent, qualified personnel should install, operate, and service this equipment. Strictly comply to local, state, and national electrical and building codes. When using this equipment, comply with regulations established by the National Electrical Code (NEC), CSA Standard; the Occupational Safety and Health Administration (OSHA), or the local agency for workplace health and safety.
- Protection against lightning surges in accordance with local electric codes is the responsibility of the installer.

NOTE: Lightning damage is not covered by warranty.

- Never work on this equipment while physically or mentally fatigued.
- Any voltage measurements should be performed with a meter that meets UL3111 safety standards, and meets or exceeds overvoltage class CAT III.

Electrical Hazards

⚠DANGER

Electrocution. Water contact with a power source, if not avoided, will result in death or serious injury.

(000104)

⚠DANGER

Electrocution. PWRcell Battery front cover should be removed by a qualified technician only. Removing the front cover could result in death, serious injury, equipment or property damage.

(000604)

⚠DANGER

Electrocution. In the event of electrical accident, immediately shut power OFF. Use non-conductive implements to free victim from live conductor. Apply first aid and get medical help. Failure to do so will result in death or serious injury.

(000145)

⚠DANGER

Electrocution. Turn battery disconnect OFF and de-energize REbus before touching terminals. Failure to do so will result in death, serious injury, equipment and property damage.

(000599)

⚠DANGER

Electrocution. Verify electrical system is properly grounded before applying power. Failure to do so will result in death or serious injury.

(000152)

Section 2: General Information

Specifications

Description	Units	X7602	X11402
Max. cont. grid-tied AC power @ 122º F (50º C)	kW	7.6	11.4
Max. cont. islanded AC power without an external transfer switch[1]	kW	7.6	7.6
Max. cont. islanded AC power w/ external transfer switch and single 6 module battery cabinet[2]	kW	9.0	9.0
Max. cont. islanded AC power w/ external transfer switch and 2 battery cabinets (8 modules minimum)[2]	kW	11.0	Range 9.6 to 11.0*
Peak motor starting current (2 sec)	A rms	50	
Normal output frequency AC	Hz	60	
Grid Voltage Line to Neutral (L-N)	VAC	120	
Grid Voltage Line to Line (L-L)	VAC	240	208
Peak efficiency	%	97.3	97.7
Allowable split phase imbalance	%	Up to 30%	
CEC weighted efficiency	%	96.5	97.5
AC terminals wire size	AWG	14 to 6	
DC terminals wire size	AWG	18 to 6	
STOP terminals wire size	AWG	30 to 14	
Weight	lb (kg)	70.9 (32.1)	
Thermal management	-	forced convection	
Weatherization rating	-	NEMA Type 3R	
Enclosure Material	-	powder-coated steel	

Description	Units	Min	Nominal	Max
REbus voltage	V	360	380	420
REbus current	A			30†
REbus Input short circuit current[3]	A			30
REbus Input source backfeed current to input source	A			30
Output power factor rating AC	-			1
Operating voltage range AC, X7602 Series (L-N)	V rms	106	120	132
Operating voltage range AC, X7602 Series (L-L)	V rms	212	240	264
Operating voltage range AC, X11402 Series (L-N)	V rms	106	120	132
Operating output voltage range AC, X11402 Series (L-L)	V rms	184	208	228
Continuous output current AC islanded[1]	A rms			32
PCS controlled current grid-tied	A rms			32
Continuous output current AC grid-tied	A rms			42
Output fault current duration	A / ms		50 / 2000	
Full Power operating ambient temperature range[4]	°F (°C)	-4 (-20)		+122 (+50)
Utility interconnection voltage and frequency trip limits and trip times	See Voltage and Frequency Trip Thresholds in the PWRcell Inverter Installation Manual for more information.			
Trip voltage and frequency limits				
Trip voltage accuracy				
Trip time accuracy	-	2% +/-2 cycles		

[1] When islanded, continuous power output is restricted to 7.68kW unless backup power is routed through an external transfer switch.

[2] Peak performance, values provided for 104º F (40º C)

[3] Rating for one DC input. Four total.

[4] Includes ambient temperature rising from inverter operation.

** In Island mode XVT11402 Protected loads only supply 2 phases 120 VAC L-N, 208 L-L which results in lower power than in grid tied 3 phase mode. The low value of the range is for full L-L loading while high value of the range is full L-N loading.*

† Inverter limits its REbus current to adhere to its AC power rating. **Total REbus current capability from multiple REbus sources may safely exceed this value as the inverter safely limits the amount utilized.**

Serial Number Location

Refer to ***Figure 2-2*** to locate unit serial number (A). Record the information from this tag in ***Table 1: PWRcell Inverter Important Information*** on the inside front cover of this manual.

Unit Dimensions

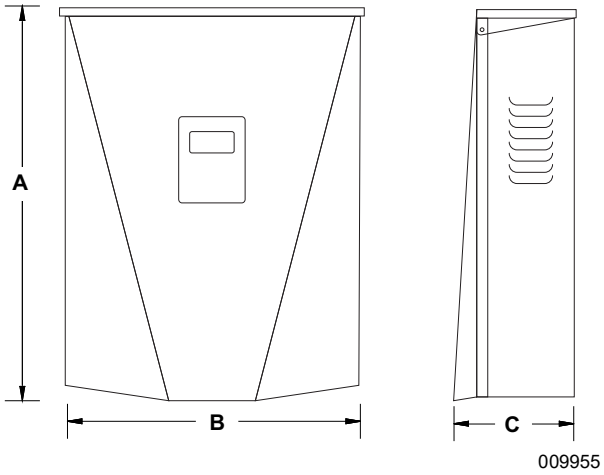


Figure 2-1. Unit Dimension

A 24-3/4 in (628 mm)
B 19-3/8 in (491 mm)
C 8-3/8 in (214 mm)

Component Locations

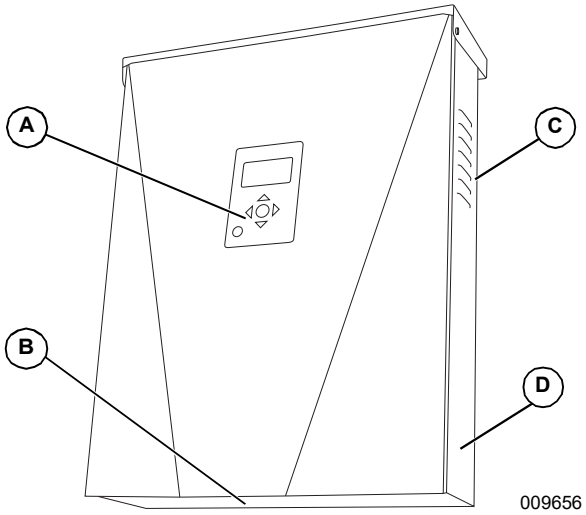


Figure 2-2. Component Locations

A Control Panel
B Intake Filter
C Exhaust Vent
D Serial Number Tag

About PWRcell Inverters

The PWRcell inverter connects to PV Link™ optimizers and PWRcell batteries to form the PWRcell system for grid-interactive solar-plus-storage.

Upon the loss of grid power, PWRcell inverters disconnect from the grid and provide AC power to support protected loads when configured to do so.

All PWRcell products use the REbus™ 380 VDC nanogrid to connect to each other. The REbus nanogrid automates the flow of power to enable plug-and-play setup and operation of PWRcell equipment. For more information about REbus, visit ***www.generac.com***.

In ***Figure 2-3*** PWRcell inverter (E) is directly connected to PV Link optimizers (B) and PWRcell battery (C) on DC (REbus) line (D). To the right of the inverter are AC lines: 120/240 VAC for grid and home loads (G) and protected loads (H).

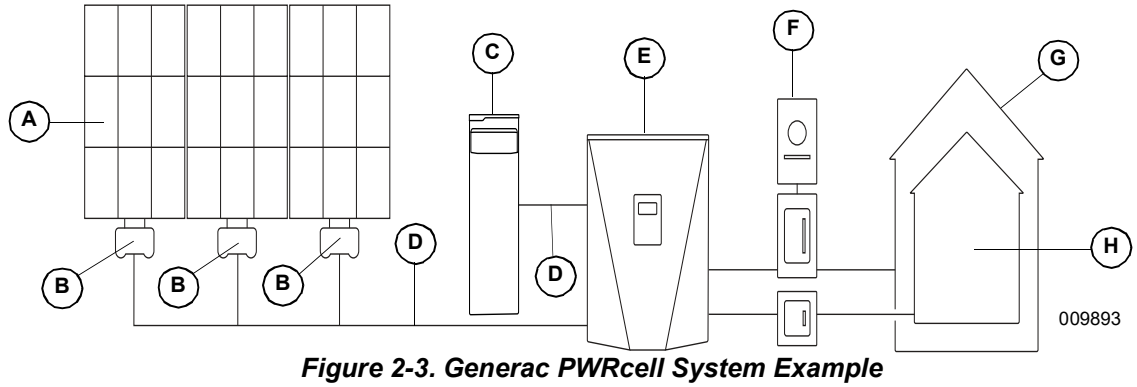


Figure 2-3. Generac PWRcell System Example

A Solar Panels
B PV Link
C PWRcell Battery
D REbus
E PWRcell Inverter
F Grid
G Loads
H Protected Loads

Inverter Control Panel

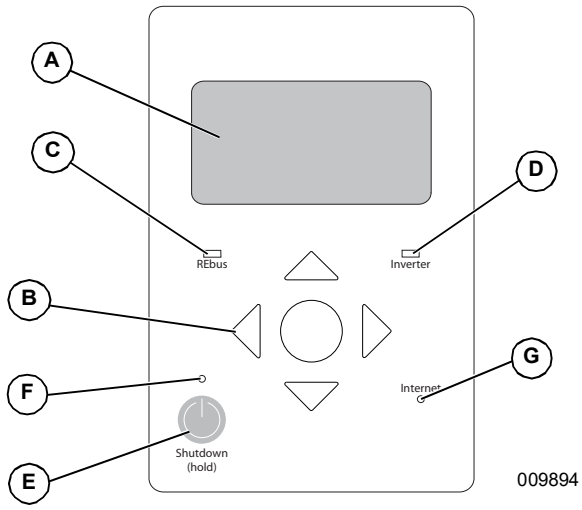


Figure 2-4. Inverter Control Panel

A LCD Display
B Navigation Keys
C REbus Status LED
D Inverter LED
E Shutdown
F Shutdown LED
G Internet LED

See ***Figure 2-4***. The PWRcell system is controlled through the PWRcell inverter control panel. The inverter control panel is used for adjusting system settings and for interacting with devices.

REbus Status LED

REbus Status LED (C) communicates REbus nanogrid status through LED color.

- Green – all devices are functioning normally and PV Links are generating power on REbus.
- Yellow – no PV Links are generating power from PV on REbus.
- Red – one or more REbus device has a fault that requires attention before operation will continue.

NOTE: A red LED can also indicate a fault with the REbus wiring itself. See display (A) for more information about the specific fault detected.

Inverter LED

Inverter LED (D) communicates the status of the utility grid and/or inverter through LED color and state.

- Green – the inverter is enabled and functioning properly in either state “grid connected” or state “islanded.”
- Yellow – utility grid is not within normal conditions, but user intervention typically is not required. The inverter will restart as soon as the utility grid returns to normal conditions.
- Red – a serious fault with the utility grid or inverter has been detected and user attention is required before the unit will resume operation. See display (A) for more information about the fault detected.
- No light – the inverter is disabled or powered off.

Internet LED

Internet LED (G) is illuminated when the inverter is connected to a router and has an IP address. See ***Ethernet Configuration***.

NOTE: A blue Internet LED does not mean that the inverter has connected with the Generac server.

Shutdown Mode

⚠DANGER

Electrocution. Initiate a system-wide shutdown and turn the PWRcell DC Disconnect Switch OFF on all connected batteries before performing service. Failure to do so will result in death, serious injury, or equipment and property damage.

(000600)

NOTE: A loss of grid power will not de-energize REbus in a PWRcell system configured to island with enabled energy storage.

Shutdown button (E) activates a transition to shutdown system mode. Disabled PWRcell equipment will limit output voltages to a safe level for servicing.

To enter shutdown, press and hold shutdown button (E).

In shutdown mode:

- PWRcell inverter will stop sourcing power to REbus, and immediately disable all communicating power sources on REbus by sending a system-wide system mode change signal.

NOTE: Successful signal transmission relies upon proper configuration of PLM channels across REbus devices (PV Links and Batteries).

- Shutdown LED (F) will illuminate.
- Inverter screen (A) will display REbus DC bus voltage and text indicting shutdown mode has been initiated.

NOTE: The AC section of the inverter will still be energized unless the building AC disconnect or main service breaker is shut off.

System Modes Overview

Generac PWRcell offers several system modes for various installation configurations, markets, and applications. Connected REbus devices work together to manage the distribution of power based on the selected system mode.

Some modes interact with PWRcell batteries to store power and/or balance production and consumption.

See ***Table 2-1*** and ***Table 2-2*** for an overview of available system modes.

Table 2-1. Most Common System Inverter Modes

Priority	Grid Tie	Clean Backup	Priority Backup	Self Supply
1	Support local loads	Charge batteries from bus	Charge batteries from bus	Support local loads
2	Export to grid	Support local loads	Charge batteries from grid	Charge batteries from bus
3	-	Export to grid	Support local loads	Export to grid
4	-	-	Export to grid	-

Table 2-2. Optimal Configuration for Goal

Goal	Optimal Inverter Configuration
Keep batteries charged as much as possible	Priority Backup
Keep batteries charged using only solar power	Clean Backup
Net-metering solar energy without a battery	Grid Tie
Use grid as little as possible	Self Supply

Grid Tie

In Grid Tie mode, the PWRcell inverter functions as a conventional grid-tied inverter system. The system powers local loads and when generation exceeds load demand, excess power is exported to the utility for net metering and other credits.

NOTE: Grid Tie is intended for use with systems that do not include a PWRcell battery. For systems where a PWRcell battery will be connected at a later date, operate in Grid Tie mode until the battery is installed.

Clean Backup

NOTE: Grid power is not used to charge batteries in this mode.

See ***Figure 2-5***. In Clean Backup mode, the inverter prioritizes keeping the battery charged and ready for a grid interruption using solar power only. If the battery is not fully charged, the inverter uses all available solar power to charge the battery.

See ***Figure 2-6***. When the battery is fully charged, solar power will flow to local loads and the grid.

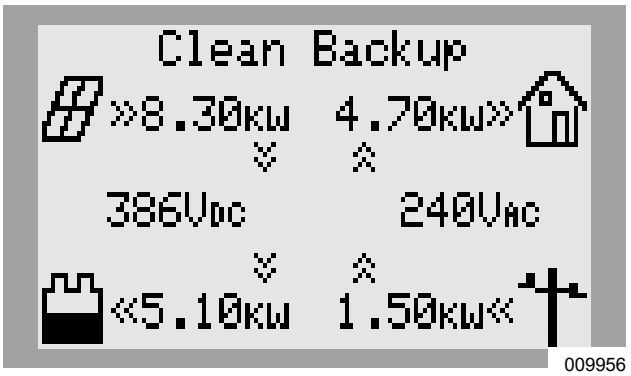


Figure 2-5. Clean Backup (1 of 3)

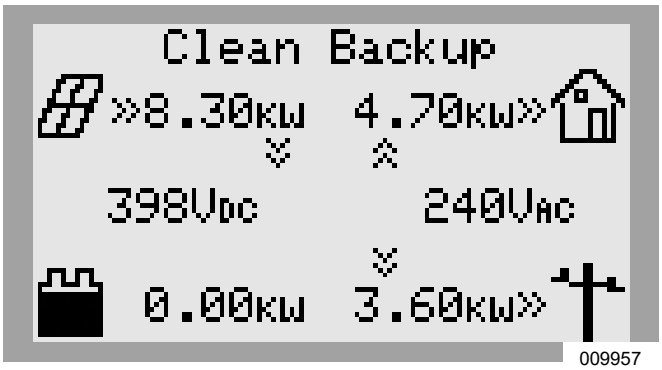


Figure 2-6. Clean Backup (2 of 3)

See ***Figure 2-7***. When grid service is interrupted, the system enters Islanding mode. In Islanding mode, protected loads are supported by solar and battery power. If enough solar power is available, the solar will simultaneously charge the battery and support the loads.

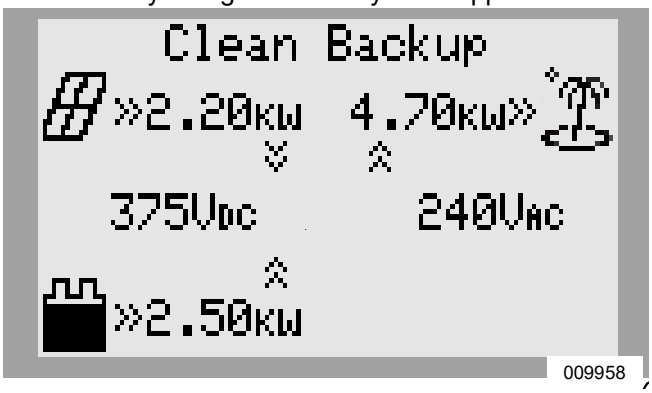


Figure 2-7. Clean Backup (3 of 3)

Priority Backup

In Priority Backup mode, the inverter prioritizes keeping batteries charged and ready for grid interruption using solar or grid power. If the battery is not fully charged, all available solar power is used to charge the battery. When the available solar power is lower than the battery input power rating, the inverter uses grid power to expedite battery charging.

See ***Figure 2-8***. If solar and grid power are available, both can charge the battery. The system displays the amount of power being drawn from the grid and the amount of power being consumed by local loads before reaching the battery.

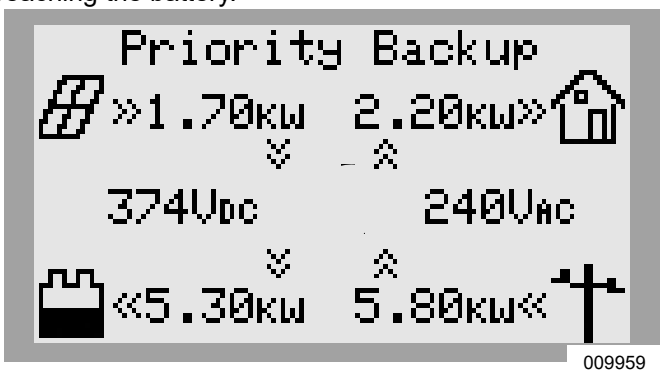


Figure 2-8. Priority Backup (1 of 2)

See ***Figure 2-9***. In the event of grid failure, the inverter enters Islanding mode. Protected loads are supported by solar and battery power. If enough solar power is available, the solar simultaneously charges the battery and supports the loads.

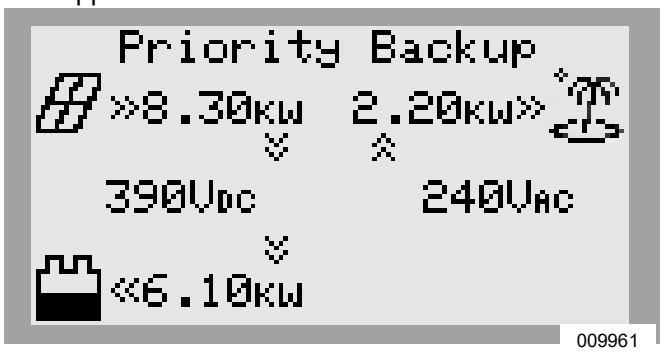


Figure 2-9. Priority Backup (2 of 2)

Self Supply

In Self Supply mode, the inverter prioritizes powering local loads using solar and/or stored power first. This mode is optimal in markets where net metering is unavailable or unfavorable, making battery-stored power more economically attractive than grid-provided power.

See ***Figure 2-10***. If more power is being produced by the solar array than is needed by local loads, the inverter stores the energy in the battery for later use.

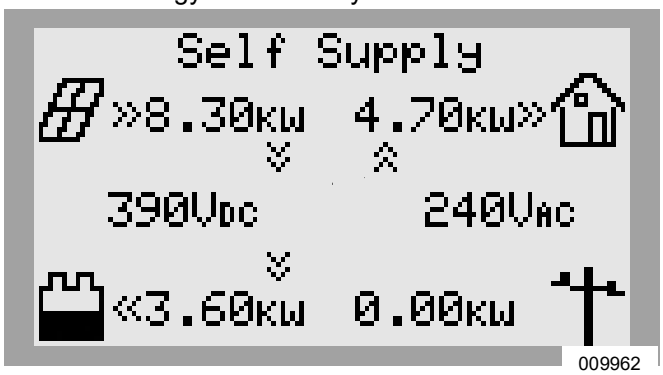


Figure 2-10. Self Supply (1 of 3)

See ***Figure 2-11***. When the battery is full and a surplus of power is available, that surplus is exported to the grid.

Figure 2-11. Self Supply (2 of 3)

See ***Figure 2-12***. When local demand exceeds available solar-generated power, the battery supplies power to support local loads. If the building requires more power than the battery and solar can provide, then the excess demand is drawn from the grid.

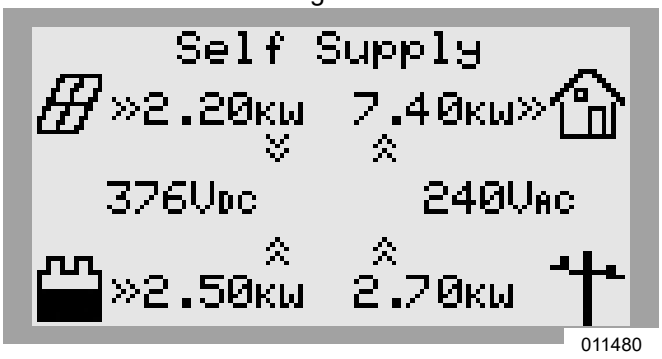


Figure 2-12. Self Supply (3 of 3)

Self Supply Setpoints

The TargMinImprtP and TargMaxImprtP setpoints allow the building to deliberately import power from the grid within certain limits. This is useful for specialized applications, such as peak avoidance.

These setpoints are relevant to Self Supply mode only, and are only used for specific applications. See ***Table 2-3: Self Supply Setpoints***.

Table 2-3. Self Supply Setpoints

Setpoint	Description	Default	Units
TargMaxImprtP	**Target Maximum Import Power** • Maximum power imported from the grid at any point. • When the overall building load exceeds this setpoint, the inverter will supply additional power from the battery and solar array to keep grid import power below this level. • This maximum is not guaranteed. If insufficient battery and solar power is available to cover the load, then the grid will supply the additional power.	0	W
TargMinImprtP	**Target Minimum Import Power** • Use this setpoint to charge the battery from the grid. • If the overall building load is less than this setpoint, the inverter will import power to the battery to keep the grid import power up to the setpoint. • If the building load is above the setpoint, the inverter will stop importing additional power to charge the battery. • This minimum is not guaranteed. Once the battery is full, grid import power may fall below this level.	0	W

Sell

Sell mode commands the system to export all available power to the grid. Any connected batteries drain to the grid until their state of charge reaches the MinSoCRsrv setpoint. Once a battery is depleted to this point, it will not charge again until either of the following are true:

- The solar energy available exceeds the inverter MAX AC Power.
- The inverter system mode is changed to a system mode prioritizing battery backup.

See the Generac PWRcell Battery Installation Manual for more information.

Export Override

NOTE: This feature requires CTs to be properly installed and calibrated prior to use. For more information on CT calibration, see the PWRcell Inverter Installation Manual.

NOTE: This feature is NOT intended to serve as a means of achieving compliance to Utility interconnection requirements. For information on export limiting settings related to Utility compliance, see the PWRcell Inverter Installation Manual.

When enabled, Export Override allows the user to restrict inverter export such that excess power is not sent back to the grid. The system limits solar power generation to match power consumption measured by the PWRcell CTs. This feature is suitable as a simple and easy option for systems pending permission to operate (PTO) where the Utility does not specify a requirement for the system to be de-energized or otherwise disabled pending approval. Using the Inverter control panel, a user can find this feature on the “Mod. Settings” sub-menu within the Inverter device page.

Section 3: Operation

Operation and User Interface

See ***Figure 3-1***. Generac PWRcell is controlled through the PWRcell inverter control panel. The inverter control panel is used for adjusting system settings and for interacting with devices.

- Use left and right arrows (A) to navigate between pages.
- Press center button (B) from a device page to modify device settings.

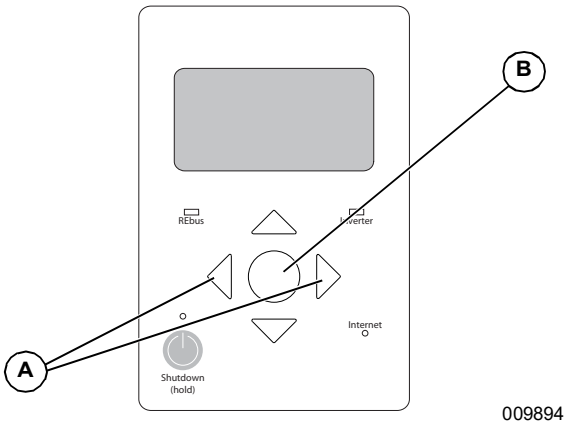


Figure 3-1. Inverter Control Panel

Home Screen

See ***Figure 3-2***. The power flow display on the home screen illustrates the flow of power in the system. As power is generated, stored and consumed, animated arrows indicate the flow and direction of power. System AC and DC voltage levels are displayed near the center of the screen. The current system mode is displayed at the top of the screen.

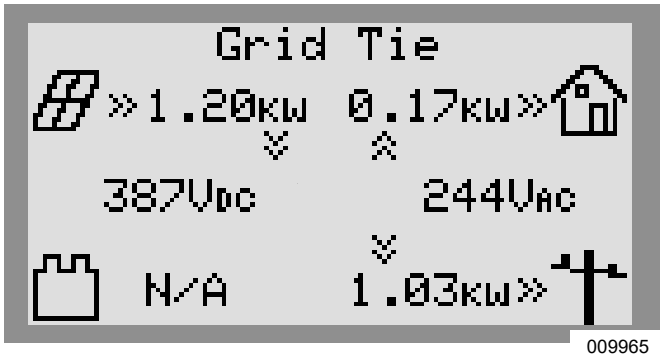


Figure 3-2. Home Screen

Selecting System Modes

Once a system is installed, a system mode that best suits the user's needs must be set. Once set, the system remains in that mode without needing to be changed.

NOTE: A system mode can be changed at any time.

To select a system mode:

1. See ***Figure 3-3***. While viewing the home screen press the center button.

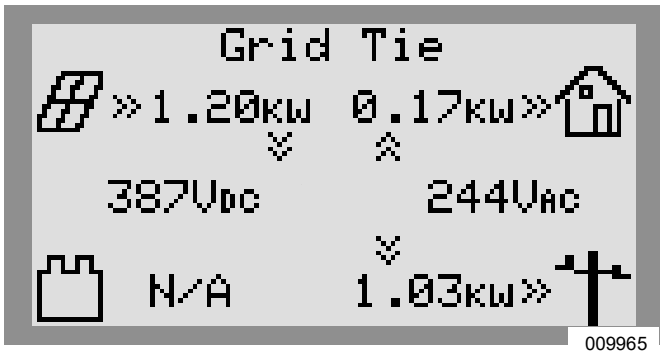


Figure 3-3. Selecting System Modes (1 of 5)

2. See ***Figure 3-4***. A list of system modes will be displayed with the current mode marked with an asterisk.

NOTE: The list of modes may not include all those shown in ***Figure 3-4***.

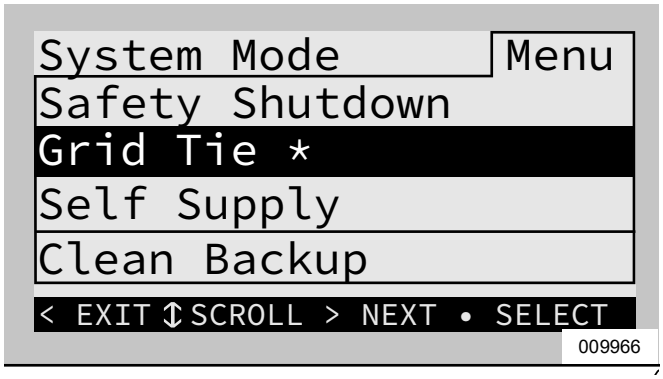


Figure 3-4. Selecting System Modes (2 of 5)

3. See ***Figure 3-5***. Use the up and down arrows to highlight the desired mode and press the center button to select it.

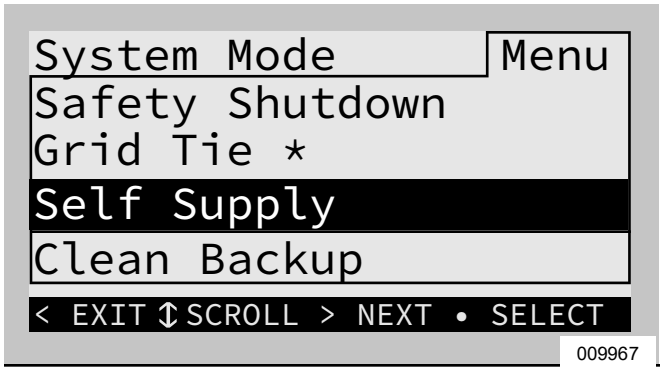


Figure 3-5. Selecting System Modes (3 of 5)

4. See ***Figure 3-6***. Arrow right and press the center button to select Confirm.

Figure 3-6. Selecting System Modes (4 of 5)

5. See ***Figure 3-7***. Verify the mode listed at the top of the home screen is the desired mode.

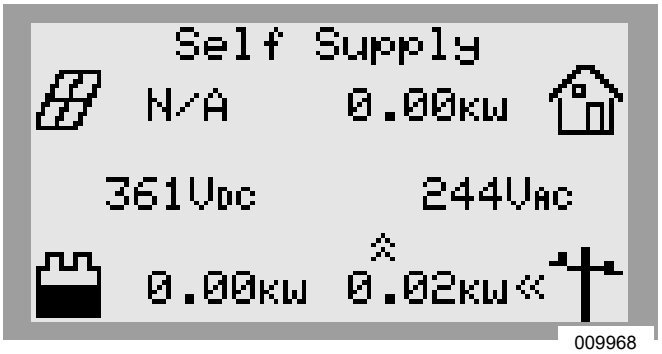


Figure 3-7. Selecting System Modes (5 of 5)

Device Pages

Each device connected to the system has its own device page. The device page contains basic information about the device, such as its power level and state.

- Use the left and right arrow keys to scroll through device pages.
- Press the center button to launch the main menu for that device.

NOTE: See ***Figure 3-8***. A Device Offline message indicates the device is disconnected or has lost communication with the inverter.

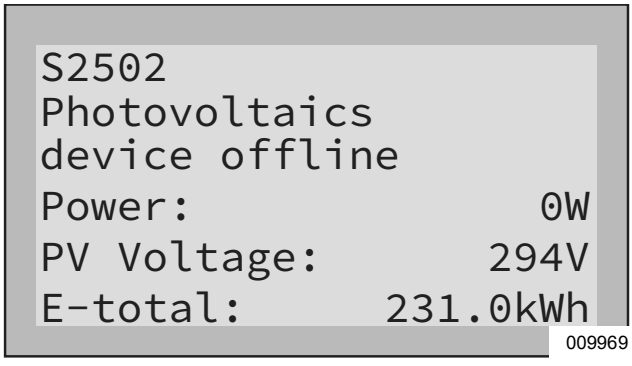


Figure 3-8. Device Offline

Enabling and Disabling Devices

DANGER

Electrocution. Initiate a system-wide shutdown and turn the PWRcell DC Disconnect Switch OFF on all connected batteries before performing service. Failure to do so will result in death, serious injury, or equipment and property damage.

(000600)

DANGER

Electrocution. Never enable any device during an installation or while wires are exposed. Doing so will result in death, serious injury, or equipment or property damage.

(000627a)

NOTE: If a device has never been enabled, it remains disabled until enabled by a user.

After a system shutdown, each REbus device must be enabled by the user before the device will operate. If a device is disabled, the device will remain in a disabled state and will not resume operation until enabled by the user.

Once enabled, if grid power is present, the inverter will create DC voltage establishing the REbus nanogrid. All devices connected to REbus will wake up and begin communications.

To enable a device:

1. Use the right arrow key to scroll to the desired device page.
2. See ***Figure 3-9***. Verify the device status reads Disabled.

Figure 3-9. Enabling and Disabling Devices (1 of 3)

3. Press the center button.

4. See ***Figure 3-10***. Highlight Enable and press the center button.

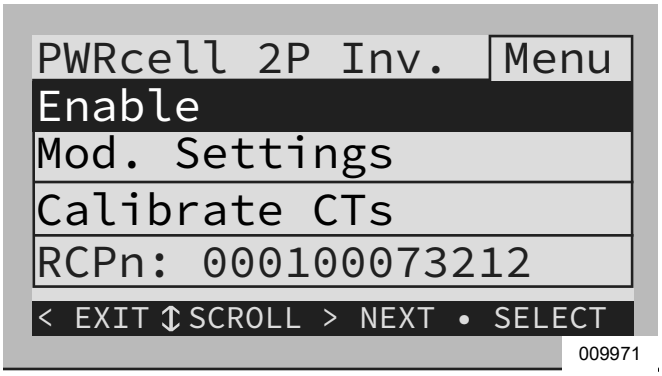


Figure 3-10. Enabling and Disabling Devices (2 of 3)

5. See ***Figure 3-11***. Arrow right and press the center button to select Confirm.

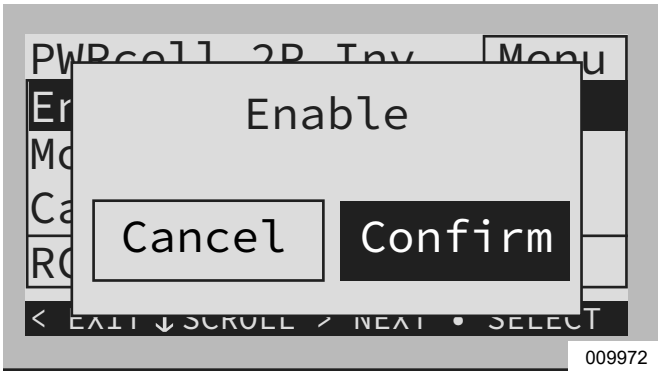


Figure 3-11. Enabling and Disabling Devices (3 of 3)

NOTE: Per UL1741, the PWRcell inverter may wait five minutes or longer before beginning to export power after the inverter has been enabled.

Mod. Settings Menu

Most REbus devices have user-adjustable parameters, such as setpoints for charge, startup voltage, or PLM channel. See ***Table 3-1*** for available inverter settings.

To access user-adjustable parameters:

1. Use the left and right arrows to navigate to the desired device page.
2. See ***Figure 3-12***. Highlight Mod. Settings and press the center button to select

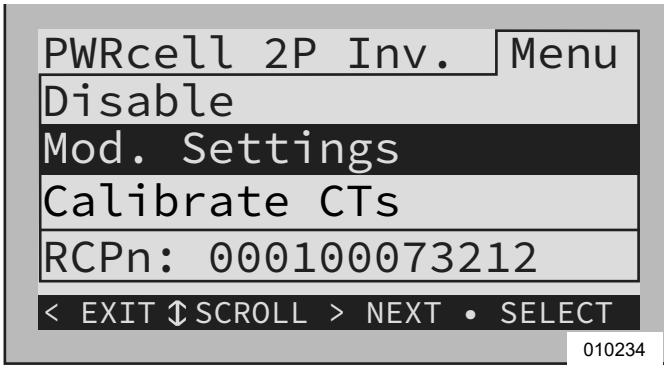


Figure 3-12. Internet Device Page

NOTE: After selecting Mod. Settings it may take a moment for the settings to load.

3. See ***Figure 3-13***. Use the up and down arrows to scroll through available settings.
4. Highlight the desired setting and press the center button to select.
5. Use the up and down arrow keys to adjust the setting.

NOTE: Press the center button to deselect a setting at any time.

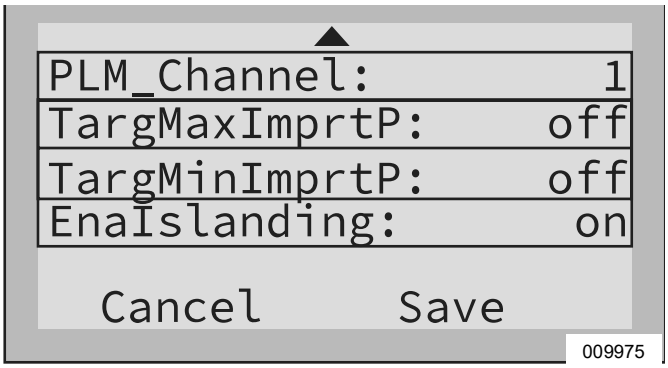


Figure 3-13. Mod. Settings Menu

6. To save the settings, highlight Commit and press the center button.

Table 3-1. Inverter Device Settings

Setpoint	Range	Default	Description
PLM_Channel	0 – 12	1	Channel for REbus communications. All devices in a system must use the same channel (except REbus Beacon). Do not set equipment to channel 0 unless performing Multiple Inverter System Commissioning Procedure. See installation manual for more details.
TargMaxImprtP	-30,000 to +30,000	0	Maximum Threshold for importing power before the battery will discharge in Self-Supply Mode to offset.
TargMinImprtP	-30,000 to +30,000	0	Minimum power import maintained by charging the battery from the grid in Supply Mode.
EnaIslanding	on / off	on	Allows system to island, providing backup power during a grid outage.
EnaExtTransfer	on / off	off	Turn on if an external automatic transfer switch (ATS) has been installed to operate with the Inverter.
ExtTransVolt	50 – 200 Volts	95	Minimum voltage from the utility that must be present for the inverter to reconnect an ATS back to the grid.
GridGoodTime	1 – 360 Seconds	15	Length of time the inverter will wait to trigger an ATS to reconnect to the utility upon sensing grid voltage return.
Export Override	on / off	off	Formerly called Zero Export, this setting will inhibit the PWRcell system from exporting power to the grid.
PLM_Disable	on / off	off	This setting will disable the power line communications coming from the inverter.
CalOverride	on / off	off	Overrides inverter logic for automatic detection of included Generac current transformers (CTs).
CTTurnsRatio	1,500 – 3,000 Turns	1,500	Allows a different turns ratio to be set for specific CTs.
EnaLoadShed	0, 1, 2	0	Select 1 if using SMM devices to shed loads. Select 2 if using the PWRcell ATS Controller to shed loads (with or without SMMs).
EnaACdump	on / off	off	When available this setting will shed AC coupled PV where necessary.
GridParInvrtrs	1 – 2	1	This setting allows for two inverters to share one set of CTs. Set to 2 if daisy chaining CTs between two inverters.

Ethernet Configuration

Ethernet Setup

For the inverter to communicate with the Generac server an Ethernet cable with a valid Internet connection must be plugged into the inverter Ethernet port.

- A blue Internet LED indicates the inverter has a successful connection to the PWRview server.
- If Internet LED is not illuminated, see the Generac PWRcell Inverter Installation Manual for troubleshooting and connection instructions.

NOTE: It is the installer's responsibility to make sure the Internet connection is reliable and secure. Generac recommends always using a hardwired connection. Generac does not recommend or support using any wireless or power line carrier network devices. Use these devices at your own discretion.

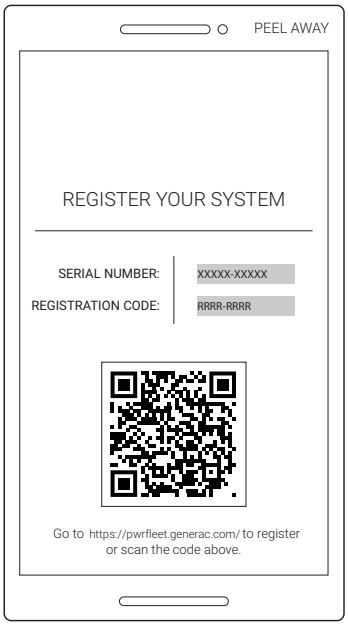
Serial Number and Registration

NOTE: Registering an inverter automatically registers all REbus system components connected to that inverter.

Every REbus-enabled device can be monitored from the PWRview™ online monitoring system and mobile app.

To register a system for PWRview monitoring:

1. See ***Figure 3-14***. Locate the serial number and registration code on the registration decal on the front of the inverter. This information will be required for registration.
2. Navigate to ***https://pwrfleet.generac.com*** or if using a mobile device scan the registration label QR code.
3. Follow the on-screen prompts to complete the profile.



009984

Figure 3-14. Serial Number and Registration

Other External Communications Generac Beacon

Generac Beacon allows the PWRcell system to manage energy production and storage over the course of the day. This is called Time of Use (TOU) energy management. To take advantage of this functionality, the PWRcell system must include a PWRcell battery and a reliable connection to the Internet via an Ethernet connection to a router.

See the Generac PWRcell Inverter Installation Manual for more information on configuring Generac Beacon.

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Section 4: Maintenance

⚠DANGER

Electrocution. Activate safety shutdown before performing emergency or service work. Failure to do so will result in death, serious injury, or equipment or property damage.

(000628a)

⚠WARNING

Electrocution. Only an authorized technician should attempt to service this equipment. Failure to follow proper service requirements could result in death, serious injury, or equipment or property damage.

(000629b)

Service

The PWRcell inverter must be serviced by a qualified technician. See the Generac PWRcell Inverter Installation Manual for information and instructions on service and field-replaceable parts.

One of the biggest reducers of system performance is dirty solar panels. Generac Power Systems, Inc. recommends solar panels be cleaned regularly by a qualified person to ensure optimum performance and maximum energy savings. Contact the nearest Independent Authorized Service Dealer (IASD), your system installer, or Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or visit ***www.generac.com*** for assistance.

Annual Maintenance

On an annual basis:

- Clean the exterior of the enclosure with a soft cloth.
- Ensure surrounding area is free of leaves, pet hair or other debris that could obstruct airflow in or out of the unit.
- Inspect the unit. Look for conditions that could hinder performance or safety, such as (but not limited to):
  - Blocked vents.
  - Dirty intake filter.
  - Loose/missing hardware.
  - Loose or broken electrical connections.

Inspecting Vents

See ***Figure 4-1***. Verify intake vent (A) and exhaust vent (B) are clear at all times.

Cleaning Intake Filter

See ***Figure 4-1***. Clean intake filter (A) with a soft brush or vacuum cleaner. If air filter is damaged or becomes difficult to clean contact the nearest Independent Authorized Service Dealer (IASD) or Generac Customer Service at 1-888-GENERAC (1-888-436-3722) or visit ***www.generac.com*** for a replacement filter.

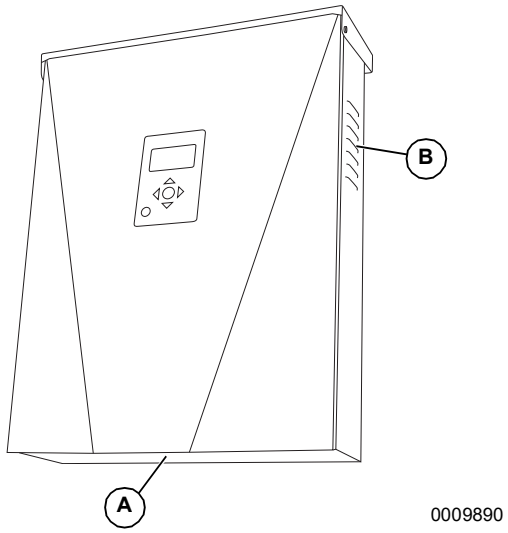

Figure 4-1. Intake Vent and Exhaust Vent

Recovery From an Error State

Error events will force the PWRcell inverter into an error state where no DC power is exported, though voltage may still be present on REbus from connected devices. To recover a device from an error state, disable then enable that device. See ***Enabling and Disabling Devices*** for more information.

If the system is unable to be accessed, but is connected to the Internet, contact the nearest Independent Authorized Service Dealer (IASD) or Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or visit ***www.generac.com*** for assistance.

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