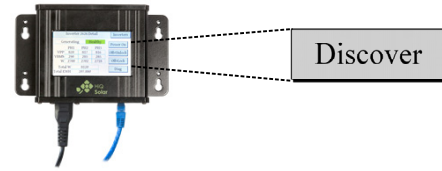
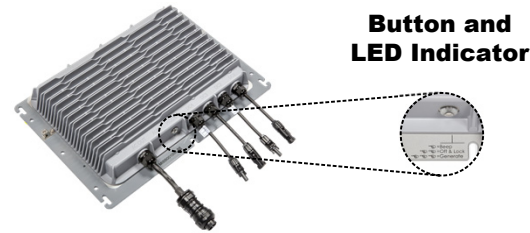


Buttons and Indicators

Gateway "Discover" Button	
Button State	Meaning
	Initial state
	Once pressed, unit is in the process of discovering inverters. Will return to the initial state (with empty serial number list) if no inverters are found.
	Error found; for example, "Signal Strength Low" or "Too Much Background Noise on Circuit". The red color only clears when the user re-tries this button and the fault condition no longer applies.
	Once discovery has successfully occurred, this button returns to the initial state.



Inverter Front Button	
Button Push	Result
1 press 	<ul style="list-style-type: none"> Make inverter beep; i.e. "Are you alive?"
2 presses 	<ul style="list-style-type: none"> "Off & Locked". Unit is disabled. <ul style="list-style-type: none"> Unit will not begin the 5-minute self-start.
3 presses 	<ul style="list-style-type: none"> Start generating immediately If locked, unlock and generate immediately <ul style="list-style-type: none"> If system is faulted, unit will unlock but will not generate
Long press (> 2 secs) 	<ul style="list-style-type: none"> "Alternate functions" mode: Ready to accept further button pushes. This times out after 10 seconds.
1 press (after long press) 	<ul style="list-style-type: none"> Clear latched faults; for example, after residual-current device (RCD) test or arc-fault test has initiated a fault condition.
3 presses (after long press) 	<ul style="list-style-type: none"> RCD-test activation. Successful activation of RCD test should cause a fault condition (rapid red flashing) until cleared.
4 presses (after long press) 	<ul style="list-style-type: none"> Arc-fault test activation. Successful activation of arc-fault detection should cause a fault condition (rapid red flashing) until cleared.



Inverter Indicators	
Indicator State	Meaning
Solid 	<ul style="list-style-type: none"> Powered up Not generating No faults
Left-right flash 	<ul style="list-style-type: none"> Power-on self-test <ul style="list-style-type: none"> Will take <1 minute
Green chaser 	<ul style="list-style-type: none"> Powered up Generating, no faults
Rapid flash 	<ul style="list-style-type: none"> Faulted; for example, arc fault detected
Mostly on 	<ul style="list-style-type: none"> "Off and Locked"; unit is disabled
Mostly off 	<ul style="list-style-type: none"> Sleeping Not generating

ProHarvest 480V

This guide provides instructions for installation and setup of the product. It assumes knowledge of features, functions, and general operation. This guide is a supplement for the purpose of expediting installation. For complete information, see the ProHarvest Installation and Safety Manual.

These instructions are for use by qualified personnel who meet all local and governmental code requirements for licensing and training for the installation of three-phase electrical power systems with AC and DC voltage up to 1000 volts.



CAUTION: EQUIPMENT DAMAGE

- This system is to be connected to 480 Vac 3-phase Wye input ONLY (three phases, neutral, ground).
- This product has no user-serviceable parts. Tampering with the product will void the warranty.
- Applying incorrect polarity to DC string inputs will result in damage. This will void the warranty.
- The Communications Gateway is for indoor use only.

A ProHarvest 480V Inverter

- PRO480-8k
- PRO480-8k-AUX

TOOL-KIT-1 (ordered separately)

Includes AC Connector Tool, DC Connector Tool

AC Cable (ordered separately)

- CBL-480A-05 (5')
- CBL-480A-15 (15')
- CBL-480A-30 (30')
- CBL-480A-50 (50')

AC Splice (optional component)

- PROSPL-60

Gateway (optional component)

- PROGW-A-277

Includes SD card, Ethernet cable, 277-volt cable

B Installation Notes:

- NEMA Type 6 rated
- Cooling is most efficient if this product is mounted vertically in shade, bolted to PV racking and with connectors pointed downward. However, any orientation is acceptable.
- Use mounting hardware sizes up to 5/16". This is the largest size that will fit the baseplate mounting slots.

C Grounding Notes:

- Metal enclosure must be grounded (NEC 690.43).
- AC connector provides equipment ground.
- Optional:** Grounding may be achieved by adding a lay-in lug (pictured, not provided) or by using mounting bolts. These must be attached to a grounded metal structure using paint-cutting washers.

IMPORTANT:
Not intended for use with life support equipment.



Contact Technical Support:

Telephone: +1.360.618.4363
Email: Support@outbackpower.com
Website: www.outbackpower.com

Date and Revision

September 2016, Revision A

Installation

D Connecting to Grid

- Remove the sealing cap using the AC connector tool
 - Connect the inverter AC cable to the AC system.
- NOTE:** This connector is a certified disconnection method.

- When wiring:
 - Any colored conductor can connect to any phase (L1, L2, or L3).
 - The white conductor connects to neutral.
 - The green conductor connects to equipment ground.

- Connect the AC receptacles as shown to the right.

NOTE: The unit is only watertight when all connectors are fully engaged.

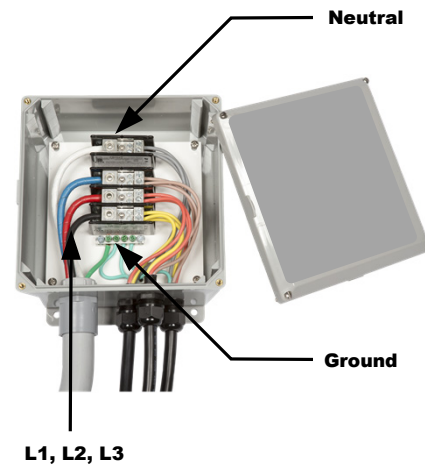


- To unmate the receptacles, see the image to the left. Insert the center pin of the AC connector tool into the hole in the connector collar. Turn the assembly.



E AC Splice

- The optional AC splice, PROSPL-60, may be used to combine up to three ProHarvest 480V inverters to one dedicated branch circuit.



F Connecting Gateway

- Using the Gateway AC cable, make connections to one AC phase through a 15 Aac OCPD.
 - This connection should be as close to the array as possible.
- White = neutral
- Green = ground
- Black = one phase

NOTES:

- Make certain to install the Gateway indoors.
- The Ethernet network connection can be made at this time.



G System Discovery

- Connect AC power to the Gateway and inverter(s).
- Press the "Discover" button (2). The Gateway will search for all ProHarvest inverters. Once discovered, it will determine if they are functional ("Healthy", 6).
- Press the "Detail" button (4) to bring up that screen. If a fault is indicated, check the AC wiring.
- Newly delivered inverters are in the "Off and Locked" state. See the Buttons and Indicators section.



Inverters			1 Array	Gateway
Serial#	Watts	Status	2 Discover	
			Update	
			3 Panels	
			4 Detail	

Inverter 2626 Detail				5 Inverters
Generating				6 Healthy
	PH1	PH2	PH3	Power On
VPP	820	817	816	Off+Unlock
VRMS	290	285	285	Off+Lock
W	2700	2702	2718	Diag
Total W	8120			
Total KWH	207.880			

H Connecting the PV Strings

- Disconnect AC power from the inverter.
- Remove connector end caps.
- Connect 2 PV strings as shown to the right.
- Secure the DC wiring to the array racking.
 - To unmate the receptacles, use the DC connector tool as shown to the far right.



NOTES:

- The front button will indicate an error at this stage. This is normal. See the Buttons and Indicators section.
- The unit is only watertight when all connectors are fully engaged.
- This connector is a certified DC disconnect. Additional disconnects are not needed.
- For PV string lengths, stacking, and so on, see the installation manual. Uneven string lengths are acceptable.
- This product is rated for 1,000 Vdc.



CAUTION: EQUIPMENT DAMAGE

Do not reverse the DC "+" and "-" input polarities. This will damage the inverter and void the warranty.

I Connecting the AC

- Reconnect AC power to the Gateway and inverter(s).
 - The system will initially show the "Off and Locked" state. See the Buttons and Indicators section.
- Press the "Array" button to enter the Array Summary screen. See item 1 in G.
- Press the "Off+Unlock" button (7) to unlock the power generation function.
 - The system will wait 5 minutes and then perform a self-test. (See the Buttons and Indicators section for self-test indications.)
 - It will then begin generating power.
- Press the "Inverters" button (5) to return to the previous screen. Press the "Panels" button to check the PV strings. See item 3 in G. Verify all items indicate Healthy (8).

Congratulations! The installation is complete.

1 Array Summary	5 Inverters	Gateway
PANELS	0	Power On
BALANCERS	0	Off+Unlock
INVERTERS	1	Off+Lock
W	8122	Clear Fault
KWH	12459.657	
STATUS	Healthy	

3 Inverter 2626 Panels	Inverters
String 1	String 2
560 V	560 V
7.4 A	7.2 A
4191 W	4047 W
Healthy	8 Healthy

