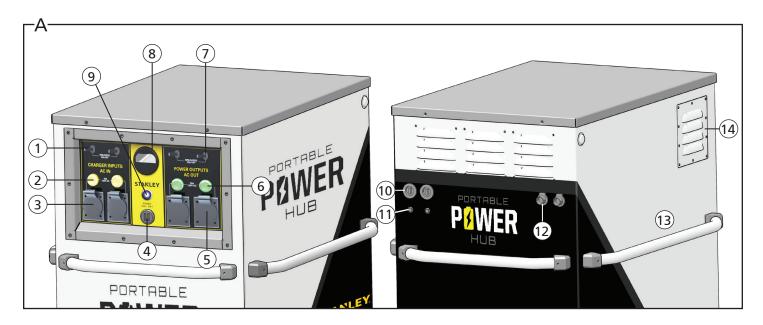
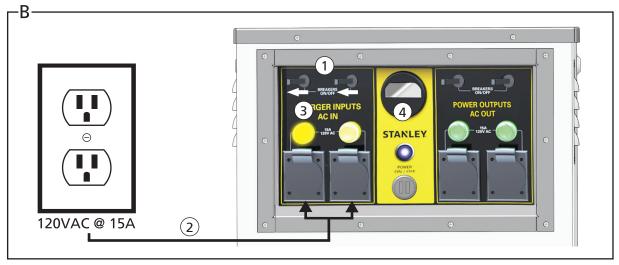
# **STANLEY**Infrastructure

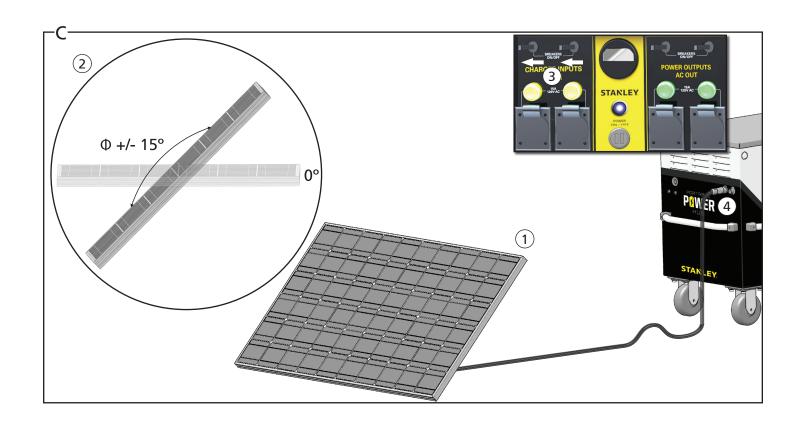
Safety, Operation & Maintenance

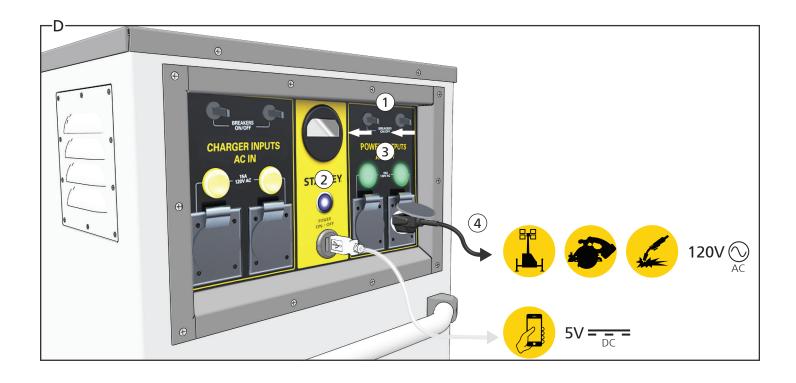
# Portable Power Hub

81442 User Manual 11/2018 Ver. 2









# **Safety Precautions**

lack	The Safety Alert Symbol alerts you to potential personal injury hazards. Obey all safety messages that follow to avoid possible injury or death.
<b>▲</b> DANGER	Indicates an imminently hazardous situation which will result in death or serious injury.
<b>▲</b> WARNING	Indicates a potentially hazardous situation which could result in death or serious injury
CAUTION	Indicates a potentially hazardous situation which could result in property damage.

Always observe safety symbols. They are included for your safety and for the protection of the tool.



WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

WARNING: To reduce the risk of injury, read the instruction manual.

#### General

- Do not discard safety instructions. Give to the operator.
- This tool will provide dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool before operation. Failure to do so could result in personal injury, electric shock or equipment damage.
- Establish a training program for all operators to ensure safe operation.
   Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Operators and maintenance personnel shall be able to physically handle the bulk, weight and power of the tool.
- Do not operate a damaged, improperly adjusted, modified or incompletely assembled tool.
- Do not operate or charge the tool in an explosive atmosphere, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Do not inspect, carry, clean, change accessories or perform maintenance the tool while the power source is connected or while the tool is powered on. Risk of electric shock.
- Do not operate this equipment if you are tired or under the influence of drugs or alcohol.
- Use and maintain the tool as stated in this manual. Misuse of the tool can cause serious injury.
- Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations.
- Maintain proper footing and balance at all times when using the tool.
- Be observant of cables and conduit lying about the work area, as they
  can be a tripping hazard.
- Ensure tools are working properly and safely by performing preventative maintenance (PM) procedures.
- Repair and service to this tool must only be performed by an authorized and certified dealer.

#### Electrical

- Never open the case of the tool or attempt to access the batteries inside. Risk of electric shock. If you suspect battery damage, send to an authorized service center.
- Do not lay extension cords in water. Keep extension cord ends dry to reduce the risk of electric shock.
- Do not plug cords into the power inputs or outputs with wet hands to reduce the risk of electric shock.
- When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.
- Do not use damaged cords or plugs with this tool. Damaged cords increase the risk of electric shock.
- Disconnect all inputs/outputs and power down the unit before attempting to install, clean or maintain the tool to reduce the risk of electric shock.
- When charging using an AC power source, the power cable must be plugged into an outlet that is properly installed and grounded according

- to local codes.
- An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety. The smaller the gauge number of the wire, the greater the capacity of the cable. For example, a 16 gauge wire has more capacity than an 18 gauge wire. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The lower the gauge number, the heavier the cord. A proper extension cord will be marked with the suffix letter 'W' and with a tag stating 'Suitable for Use with Outdoor Appliances.

Minimum Extension Cord Wire Gauge Chart (AWG)						
	Length of Cord					
Ampere Rating (Range)	25 ft 50 ft 100 ft 150 ft 7.6 m 15.2 m 30.5 m 45.7 m					
0-6	18	16	16	14		
6-10	18	16	14	12		
10-12	16	16	14	12		
12-16	14 12 Not Recommended			mmended		

#### PPE

- Always wear safety equipment such as impact resistant goggles, ear protection, head protection, breathing protection and safety shoes at all times when operating tools that are powered by the Portable Power Hub
- Use PPE that conforms to standards ANSI Z87.1 (Eye and Face Protection), ANSI Z89.1 (Head Protection) and ANSI Z41.1 (Foot Protection).
- Do not wear loose fitting clothing or jewelry when operating tools powered by the Portable Power Hub.



M003 Wear Ear Protection



M004 Wear Eye Protection



M016 Wear a Mask

# What is the STANLEY Portable Power Hub?

Based on a platform of Lithium-Ion batteries, STANLEY Portable Power Hubs are portable power supply units designed to give you uninterrupted, pure sine-wave power over the course of your shift. Whether powering lighting, construction equipment, concessions, directional lighting or specialty power needs, the Portable Power Hub is your reliable, eco-friendly option.

Specifications			
Weight	120 Lbs (2k) 295 Lbs (5k)		
Size	32" x 22" x 23" (2k) 32" x 24" x 29" (5k)		
Charge Operating Temp.	-4°F - 122°F (-20°C - 50°C)		
Discharge Operating Temp.	32°F - 122°F (0°C - 50°C)		
AC Charging	1x 120VAC 15A, NEMA 5-15P Port (2k) 2x 120VAC 15A, NEMA 5-15P Ports (5k)		
AC Recharge Time	2.5 Hrs - 120VAC @ 10A (2k) 2.5 Hrs - 120VAC @ 20A (5k) 5 Hrs - 120VAC @ 10A (5k)		
Solar Charging	2.5 Hrs - 8.5 Hrs (Depending on panel wattage, size of panels and sunlight capacity)		
Max. Input Voltage	150VDC		
Max Input Current	25A (2k) 20A (5k)		
Max Input Short Circuit Current	30A		
Max. Output Source Back-Feed	25A		
Battery Type	Lithium-lon		
Estimated Life of Battery	5000 cycles		
Rated Output	2.4kW Pure Sine Wave Inverter (2k) 4.8kW Pure Sine Wave Inverter (5k)		
Surge Rating	3.5kW 5 seconds, 5kW peak (2k) 6kW 3 seconds, 8kW peak (5k)		
AC Output	2x 120VAC 20A, NEMA 5-20R Ports		
AC Output Time	120VAC @ 20A, Single Phase - 1 Hr continuous, single circuit (2k) 120VAC @ 40A (20A per circuit), Single Phase - 1 Hr continuous, dual circuit (5k)		
DC Output	1x 5VDC USB Port (2k) 2x 5VDC USB Port (5k)		
Carbon Offset	20 kg of CO²e every 8 hours (2k) 34 kg of CO²e every 8 hours (5k)		

# Tool Anatomy - Detail A

1	Input Breaker Switches
2	Charging Port Lights
3	Charging Ports
4	Front USB Ports
5	Power Output Ports
6	Output Port Lights
7	Output Breaker Switches

8	Battery Monitor
9	On/Off Button
10	Back USB Ports
11	Battery Light Viewing Ports
12	Solar Charging Ports
13	Handles
14	Air Vents

The STANLEY Portable Power Hub is shipped assembled and is ready to charge after it is removed from the packaging.

## Charging - Detail B & C

The Portable Power Hub batteries must be turned ON and charged when it's first received. Do not fully discharge the unit.

#### Turn on the Batteries

- 1. Remove the battery indicator light cover.
- If the battery indicator lights are OFF, press the power button on each battery.
- 3. Replace the battery indicator light cover.
- 4. Charge the unit before use.

#### AC Charging - Detail B

- 1. Ensure all input breaker switches are in the On position.
- 2. Plug an NEMA 5-15P extension cord into a grounded 120VAC, 15A power source, and then to the Portable Power Hub charging port.

Note: Some models have two AC charging ports. Both may be used at the same time.

- 3. A light above each charging port will illuminate when charging.
- 4. Charging is complete when the battery monitor shows full charge.
- You may continue to use the AC charging ports to extend the up time of the unit while powering outputs.

#### Solar Charging - Detail C

- Assemble solar panels in an area that has access to direct sunlight and as few hard shadows as possible.
- For maximum efficiency, set the angle of the solar panel equal to your latitude (Φ) minus 15° in summer -OR- latitude (Φ) plus 15° in winter.
- 3. Ensure all input breaker switches are in the On position.
- I. Plug the solar panel power cable into the solar charging port.
- 5. Charging is complete when the battery monitor shows full charge.

Note: You may charge the Portable Power Hub using solar and AC power at the same time. You may also charge using two solar panels at the same time.

You may continue to use the solar panels to extend the up time of the unit while powering outputs.

# Operation - Detail D

### CAUTION

Ensure all power output ports are unplugged during power up procedure. Damage to devices can occur.

#### Power Up and Use - Detail D

- 1. Ensure all output breaker switches are in the On position.
- 2. Press the On/Off button. The button will illuminate.

Note: Toggle the breaker switches to the OFF position to immediately power down.

3. Wait for the output port lights to illuminate.

# **AWARNING**

The output ports are now energized. Use caution when plugging in devices. Risk of electric shock.

 Plug in a NEMA 5-20R extension cord into the power output port to power 120VAC devices -OR- connect a standard USB cable into the USB ports to power 5VDC devices.

#### Power Down

Note: To extend battery up time, turn the unit off when not in use.

- 1. Unplug all input and output plugs.
- 2. Press the On/Off button. The button light will turn off.
- 3. Wait for the output port lights to turn off.

Note: Toggle the breaker switches to the OFF position to immediately power down.

- 4. Remove the battery indicator light cover.
- 5. Press the power button on each battery.
- 6. Replace the battery indicator light cover.

# **Common Applications**

Portable Power Hub - 2kW			
Device Wattage Run Time			
Cell Phone	6 Watts	400 Charge Cycles	
20 in Fan	106 Watts	23.6 Hours	
LED Light Tower	400 Watts	5 Hours	
Reciprocating Saw	960 Watts	10.4 Hours	

Portable Power Hub - 5kW			
Device Wattage Run Time			
Circular Saw	1800 Watts	11.1 Hours	
1 HP Pressure Washer	1200 Watts	8.3 Hours	
Bench Grinder	1400 Watts	14.3 Hours	
Air Compressor	2200 Watts	9.1 Hours	

### Storage

Before storage, fully charge the Portable Power Hub battery, then turn the batteries OFF. See "Power Down" on page 4. Store in a cool, clean and dry space, at 68° - 77°F (25° - 25°C).

# Troubleshooting

Problem	Solution	
The charging port lights don't illuminate during charging.	<ol> <li>Ensure the input breaker switches are in the On position.</li> <li>Ensure extension cords are in good condition and that the 120VAC 15A power source is working properly.</li> <li>Contact your service provider.</li> </ol>	
The unit is charging but the battery monitor never indicates full charge.	1. Ensure extension cords are in good condition and that the 120VAC 15A power source is working properly.  2. If you are powering outputs while charging, ensure that the power output is not greater than the charge input.	
The output port lights don't illuminate after pressing the On/Off button.	<ol> <li>Ensure the output breaker switches are in the On position.</li> <li>Ensure that the On/Off button is illuminated.</li> <li>Plug a device one of the output plugs to see if there is power to the plug. If so, contact your service provider to replace the light.</li> <li>Contact your service provider.</li> </ol>	
Nothing happens when the On/Off button is pressed, there is no power at the output ports or the battery doesn't last as long as normal.	<ol> <li>Remove the battery indicator light cover.</li> <li>If the battery indicator lights are OFF, press the power button on each battery.</li> <li>Replace the battery indicator light cover.</li> <li>Recharge the unit before use.</li> </ol>	

# **Tool Maintenance & Service**



Do not attempt to open the Portable Power Hub case or remove any component. Risk of electric shock. Contact an authorized service center for tool service.

- Ensure the unit is clean and the air vents are not clogged or blocked.
- Portable Power Hub requires no regular maintenance. However, repairs must be performed by an authorized STANLEY representative. To schedule service, call STANLEY Infrastructure Customer Service at (503) 659-5660.

# STANLEY

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