Honeywell

RP2f/RP4f Mobile Printers

DC/DC Voltage Converter (12 V to 60 V)

Installation Guide

RPFVC-EN-II-02 Rev A
02/24

Safety Precautions

Failure to disconnect the vehicle's battery before installing the power converter may result in the injury or death of the installer by electric shock.

BEFORE ATTEMPTING INSTALLATION: Any mistake or lapse of judgment could result in damage to your equipment or facility, or result in severe injury. If you are unsure of your ability to install this accessory, do not attempt to do so. Honeywell is not liable for injury, loss, or damage of any kind incurred by an attempt to remove or install this accessory. Do not attempt this installation unless professionally trained as an installer or forklift repair technician.

Introduction

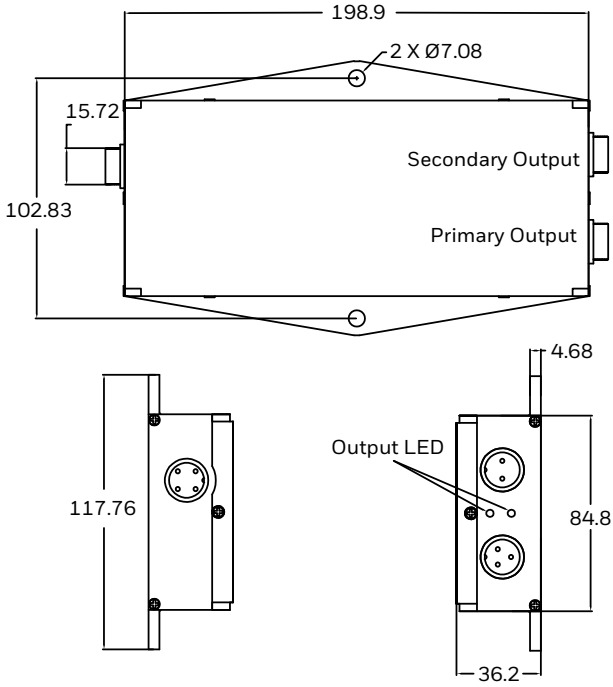
This Power Converter is intended for use on forklift and similar vehicles with a battery voltage of 12-60 VDC. Once the Power Converter is properly installed, it will reduce the voltage to the printer to 12 VDC, which is suitable for charging.

This document describes the installation and use of the Power Converter for the RP2f and RP4f mobile printers. Keep this documentation for future reference.

Mounting

Determine the best location for mounting the power converter, taking into consideration the ease of accessing the power converter and mounting requirements.

- Do not install or operate the converter if it appears damaged.
- Mount the converter away from high temperatures and excessive moisture.
- Check that any attached cables are routed so that they do not interfere with the operation of forks or other moving parts.
- When drilling holes in the chassis for installation, take precautions so as not to contact, damage or obstruct pipes, fuel lines, tanks or electrical wiring. Failure to take such precautions may result in fire.
- Both mounting holes must be used to secure the power converter. Use the correct mounting hardware that is provided with the power converter: cross recessed pan head screws (M3-I4) with metal gaskets. The use of thread locker compound is also recommended. The mounting hardware must be checked periodically and tightened if required.
- The power converter must be mounted to 330.2 to 406.4 square cm (130 to160 square in.) of metallic surface, aluminum material with a minimum 6.1 mm (0.24 in.) thickness.



Tolerances: ±0.25
Units: mm

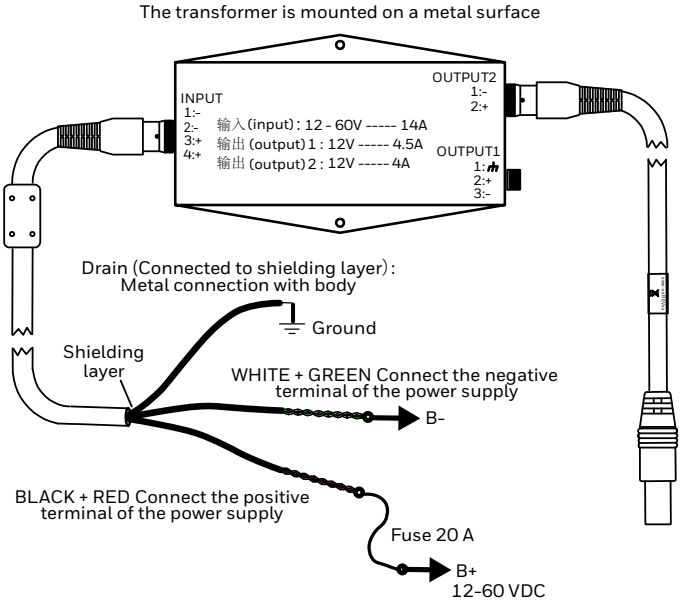
Cable Routing

The means of routing and securing the power input cable from the DC converter through to the vehicle power source is extremely important. Hazards associated with improper wiring can be severe.

- During installation, disconnect the power cables. Verify power has been removed using a volt meter.
- Route wires away from high temperatures, moving parts or sharp edges. Use rubber grommets and cable ties/clamps where necessary to prevent damage.
- Cables or wiring that obstruct or hang up on places such as the steering wheel, gear lever, brake pedals, etc. can be extremely hazardous. Make sure that cable routing does not interfere with other equipment or vehicle controls.
- Bare or frayed wires can result in electrical short circuits, which can cause system or vehicle damage, or a fire hazard resulting in property damage, serious injury, and/or death.
- DO NOT wind a cable in and out of the mesh on a cage.
- DO NOT route the cables on the outside of the forklift or areas where the forklift may come in contact with objects.
- Ensure excess cabling is properly handled. Excess cable should be coiled, away from passenger feet (e.g. behind dashboard), and secured with cable ties.
- Never place excess cabling under floor mats.
- Strip the power cable jacket back 31 to 36 cm (12 to 14 in.).

- The red wire and black wire are connected to the fuse after twisted, and then connected to the positive terminal of the power supply.
- The white wire and the green wire are connected to the negative electrode of the power supply.
- The exposed part of the Drain should be covered with heat shrink tubing.
- Use a listed circuit breaker or non-renewable cartridge fuse suitable for DC branch circuit protection, rated 20 A, on the positive side of the supply.

Cable Connections



Determine the best method for connecting the power converter to the power source and for routing the cable, taking into consideration the following principles.

- On electric forklifts, connect the power as close to the battery as possible, but not directly from the battery terminals or before any main fuse.
- On gasoline, diesel or propane forklifts, connect the power as close to the battery terminals as possible, avoid using existing wiring.
- Ensure that the fuse is as close as possible to the power source. The fuse must be securely mounted and in an accessible location.

The ideal location for connecting the converter power input cable would be an accessory output in your forklift's fuse panel.

Be sure the circuit has a load capacity capable of supporting the converter. Refer to the Forklift Owner's Manual for identification of the circuit.

If a fused output is not available, the converter must be installed with an in-line fuse holder and UL Listed fuse.

Please note the following electrical ratings based on certain operating conditions:

- Input voltage 6 to 10 VDC, Output ratings = V1@4.5A; V2@0.0A
- Input voltage 10 to 60 VDC, Output ratings = V1@4.5A; V2@4.0A
- Operating temperature @ -30 to 30, Output ratings = V1@4.5A; V2@4.0A

- Operating temperature @ 30 to 60C, Output ratings = V1@4.5A;V2@0.0A

Shortening or modifying the cable(s) will void all warranties.

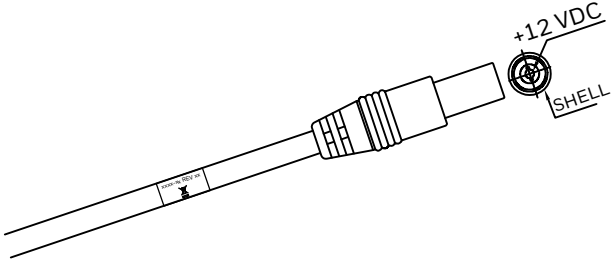
Connecting the Cables

Failure to disconnect the vehicle's battery before installing the power converter may result in the injury or death of the installer by electric shock.

1. Disconnect the forklift battery.
2. Connect the red wire and black wire to the forklift's positive (fused) power source.
3. Connect the white wire and green wire to the forklift's negative power source.
4. Connect the Drain wire to the chassis ground.
5. Ensure the wiring connections created are secure and sufficiently insulated from each other.
6. Mount the transformer on a metal surface.

Printer Connection

1. Connect the small cable with the DC jack to the DC converter cable. Route the cable to the power converter using the Cable Routing guidelines.
2. Re-check all connections. Reconnect the forklift battery.
3. STOP! After completing the installation of the converter and electrical connections: Using a voltage meter, take voltage measurements before connecting the printer. Center pin is always positive and should measure ~12 VDC. If ~12 VDC is not present or the voltage is out of range, re-check all connections.
4. Connect the cable to the printer. The printer should now begin charging.



Support

To search our knowledge base for a solution or to log in to the Technical Support portal and report a problem, go to honeywell.com/PSStechnicalsupport.

Documentation

Product documentation is available at sps.honeywell.com.

Limited Warranty

For warranty information, go to sps.honeywell.com and click **Support** > **Productivity** > **Warranties**.

Patents

For patent information, see www.hsmpats.com.

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