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INSTALLATION GUIDE

# BP-1 Battery Pack

This guide describes how to use the BP-1 battery pack with any of the DAQPad Series DAQ devices. The BP-1 battery pack is a portable power supply for the DAQPad Series DAQ devices.

## Introduction

The BP-1 is a rechargeable battery pack that you can use to power any of the DAQPad Series DAQ devices instead of the A/C power supply adapter that is in the DAQPad device kit.

The BP-1 battery pack contains a 12 V sealed lead-acid battery. You can use the Velcro strap in the kit to strap the battery pack and a DAQPad device together to facilitate carrying and stacking.

You can use the SCXI-1383 power supply and float charger to simultaneously charge the battery pack and power the DAQPad device.

## Kit Contents

Each BP-1 kit contains the BP-1 battery pack, and a Velcro strap. If your kit is missing any of the components or if you received the wrong version, contact National Instruments.

Refer to the *BP-1 Battery Pack Specifications* section of this guide for detailed specifications.

## Cautions to BP-1 Users



**Caution** The battery pack contains a sealed lead-acid battery classified as UN 2800: batteries wet, non-spillable, hazard class 8 corrosive.

Do not ship the battery pack without proper packaging or if damaged. Retain original packaging for future shipping.

Do not substitute a fuse with a rating other than shown in the specifications.

Do not carry the battery pack onto a passenger plane. It must be shipped as cargo.

Never expose batteries to fire. Never short-circuit the battery.

Do not use the battery pack if it appears damaged.

Only charge the battery pack with the offered National Instruments Float Charger as per instructions.

Charge the battery in a well-ventilated area away from sparks, flames, or smoke.

Do not puncture, disassemble, mutilate, or incinerate the battery pack.

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## Battery Disposal Information

After replacement, the original battery must be recycled or disposed of properly. In the U.S., call 1-800-RE-USE-Pb, or dispose of the battery pack with automotive battery scrap. In the European Union, for information about the available collection and recycling scheme and your nearest National Instruments Branch Office in a particular EU country, go to `ni.com/environment/weee`.

For additional information about Battery Directive compliance (Directive 2006/66/EC of the European Parliament and of the Council on batteries and accumulators and waste batteries and accumulators) and for end-user information, go to `ni.com/environment/batterydirective`.

## Recharging the BP-1 Battery Pack

**Caution** Charge the BP-1 battery pack only with the offered battery charger. National Instruments is not liable for any damage or injuries resulting from charging the BP-1 battery pack with any other battery charger or from using the National Instruments battery charger in any other application.

**Caution** Charge the BP-1 battery pack only in the horizontal orientation. Do not charge with the BP-1 battery back set on any edge or leakage may occur.

You must charge the BP-1 battery pack when you first receive the BP-1 kit and after each use of the battery pack with a DAQPad device.

To charge the BP-1 battery pack, connect the charger to the connector marked SCXI-1383 only.

You can charge the battery pack while the DAQPad is attached and operating. If the battery pack is not loaded with a DAQPad in operation, a full charge is obtained in under two hours.

The charge indicator includes a short list of indicator responses and their meanings.

## Powering the DAQPad Series Devices with the BP-1 Battery Pack

Use the following steps to connect the BP-1 battery pack to a DAQPad device:

1. Connect the battery pack rear panel plug P1 to the power jack on the DAQPad device rear panel.
2. Power on the DAQPad device. The power LED on the DAQPad device should light up immediately.

The power LED does not indicate the charge status of the battery pack. Therefore, it is important to always start with a fully charged battery pack and to time the battery usage with the DAQPad device to avoid losing data and possibly damaging the BP-1 battery pack. The recommended discharge time for your particular DAQPad device is in your particular DAQPad user manual.

## Taking Care of the BP-1 Battery Pack

Take the following precautions to ensure a long life for your battery pack:

1. Do *not* discharge the battery pack for longer than the recommended discharge time given in your particular DAQPad user manual. Repeated deep discharge of the battery pack can reduce the life expectancy of the lead-acid batteries.

**Note** As the battery pack ages, the capacity and discharge time diminishes.

2. Recharge the battery pack soon after using it, especially if you deep discharge the battery pack. Failing to recharge soon after using may result in extended recharging times.



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3. Recharge the battery pack completely. Repeated incomplete recharging of the battery pack reduces its capacity.
4. Recharge the battery pack every 18 months of storage if the battery pack has been stored in a low humidity, 20 °C atmosphere. For less ideal storage conditions, recharge more often.

## BP-1 Battery Pack Specifications

| | |
|---|---|
| Battery type | Sealed lead acid (Pb) with sulfuric acid electrolyte ($H_2SO_4$) |
| Voltage | 12 VDC |
| Capacity | 3.2 Ah at 20 h rate, 25 °C (77 °F) |
| Dimensions | 14.5 × 21.3 × 3.8 cm (5.7 × 8.4 × 1.5 in.) |
| Fuse | Internally fused at 2.5 A with a slow-blow 5 × 20 mm fuse. |
| Weight | 1.92 kg (4 lb. 3.5 oz.) |
| Storage temperature | –15 to 40 °C (5 to 104 °F) |
| Charging temperature | 0 to 35 °C (32 to 95 °F) |
| Discharging temperature | 0 to 40 °C (32 to 104 °F) |

## Environmental Management

NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to NI customers.

For additional environmental information, refer to the *NI and the Environment* Web page at `ni.com/environment`. This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

### Waste Electrical and Electronic Equipment (WEEE)

**EU Customers** At the end of their life cycle, all products *must* be sent to a WEEE recycling center. For more information about WEEE recycling centers and National Instruments WEEE initiatives, visit `ni.com/environment/weee`

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