

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 that is in the kit to strap the battery pack and a DAQPad device together to facilitate carrying and stacking them.

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

What Your Kit Should Contain

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

Detailed specifications of the BP-1 battery pack are in the *BP-1 Battery Pack Specifications* section of this guide.

Warnings to BP-1 Users



Warnings 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.



The battery pack has a sealed lead-acid battery that contains toxic material (lead) and corrosive fluid (sulfuric acid). Charge the battery in a well-ventilated area away from sparks, flames, or smoke. Do *not* puncture, disassemble, mutilate, or incinerate the battery pack. Batteries 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 E.U., return your battery pack to your nearest National Instruments Branch Office or your local disposal agency.

Recharging the BP-1 Battery Pack



Warning 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.



Warning 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 2 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 rear panel of a DAQPad device.
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 therefore, the recommended discharge time, diminishes.

2. Recharge the battery pack soon after using it, especially if you deep discharge your battery pack. Failing to recharge soon after using may result in extended recharging times.
3. Recharge the battery pack completely. Repeated incomplete recharging of the battery pack reduces the capacity of the battery pack.
4. We recommend that you recharge your 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 ₂ SO ₄)
Voltage.....	12 VDC
Capacity	3.2 Ah at 20 h rate, 25 °C (77 °F)
Dimensions	14.5 by 21.3 by 3.8 cm (1.5 by 5.8 by 8.4 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)

