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Find the *National Instruments SCXI-1382* at our website: *Click HERE*

SCXI™-1382 Battery Pack Installation Guide

This guide describes how to install and use the SCXI-1382 battery pack with the SCXI-1000DC chassis.

The SCXI-1382 is a battery pack containing a 12 V sealed lead-acid battery with a capacity of 26 Ah at a 20 hr rate. This battery pack can power the SCXI-1000DC chassis when other power sources are unavailable. You can combine the SCXI-1383 with the SCXI-1382 to charge the SCXI-1382 or to operate in float mode for uninterruptable power to an SCXI-1000DC chassis. The SCXI-1383 is a constant voltage, current-limited charger.

There are two versions of the SCXI-1382 battery pack kit. One kit requires an SCXI-1383 and one does not. If the kit contains an SCXI-1383 power supply/float charger refer to the *SCXI-1383 Power Supply/Float Charger Installation Guide* when setting up the system.

Conventions

The following conventions are used in this guide

» The **»** symbol leads you through nested menu items and dialog box options to a final action. The sequence **File»Page Setup»Options** directs you to pull down the **File** menu, select the **Page Setup** item, and select **Options** from the last dialog box.



This icon denotes a note, which alerts you to important information.



This icon denotes a caution, which advises you of precautions to take to avoid injury, data loss, or a system crash. When this symbol is marked on the product, refer to the *Read Me First: Safety and Radio-Frequency Interference* document, shipped with the product, for precautions to take.

bold Bold text denotes items that you must select or click in the software, such as menu items and dialog box options. Bold text also denotes parameter names.

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NATIONAL INSTRUMENTS™

italic	Italic text denotes variables, emphasis, a cross reference, or an introduction to a key concept. This font also denotes text that is a placeholder for a word or value that you must supply.
`monospace`	Text in this font denotes text or characters that you should enter from the keyboard, sections of code, programming examples, and syntax examples. This font is also used for the proper names of disk drives, paths, directories, programs, subprograms, subroutines, device names, functions, operations, variables, filenames and extensions, and code excerpts.

What You Need to Get Started

To set up and use the SCXI-1382 battery pack, you need the following:

- ❑ SCXI-1382 kit
  - SCXI-1382 battery pack
  - Mounting bracket for the SCXI-1382 battery pack (attached to the battery pack)
  - Screws, 8-32 × 5/16 in. flathead
  - Screw, 6-32 × 1/4 in. flathead
  - *SCXI-1382 Battery Pack Installation Guide*
  - *Read Me First: Safety and Radio-Frequency Interference*



Notes Some kits also contain the SCXI-1383 power supply/float charger, a power cord U.S. 120 VAC/Japan 100 VAC, and the *SCXI-1383 Power Supply/Float Charger Installation Guide*.

If your kit is missing any of its components, contact NI. You can download NI documents from `ni.com/manuals`.

- ❑ Required, sold separately
  - SCXI-1000DC chassis
  - Phillips number 2 screwdriver
- ❑ Recommended, sold separately with country appropriate power cord options
  - SCXI-1383 power supply/float charger

Before using the SCXI-1382 battery pack for the first time, charge it for at least 24 hours to reach the full charge capacity.



Note Refer to the *Charging the Battery Pack* section for charging instructions.

Battery Pack Safety Information

Note Refer to the *Read Me First: Safety and Radio-Frequency Interference* document before removing equipment covers or connecting or disconnecting any power wires or signal wires.

Cautions The battery pack contains a sealed lead-acid non-wet, nonspillable battery.

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

Do *not* carry the battery pack onto a passenger plane. You must ship the battery pack as cargo.

You must recycle or properly dispose of the battery. In the United States, call 1-800-RE-USE-Pb (1-800-738-7372) for more information.

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

Do *not* use the battery pack if it appears damaged.

Always use the supplied charger to charge the battery pack. Follow the documentation instructions. You can obtain NI documents at `ni.com` or by contacting an NI sales representative.

Charging the Battery Pack

The SCXI-1382 battery pack requires 12 to 14 VDC and at least 3.7 A of power for at least 12 to 14 hours to reach a full charge. Charge the battery pack as soon as possible after use. If the battery is fully charged, it can power the SCXI-1000DC chassis for more than five hours. However, NI recommends that you charge the battery after every three hours of use to extend the life of the battery pack.

Note NI recommends using the SCXI-1383 power supply/float charger to charge the SCXI-1382 battery pack. Refer to the *SCXI-1383 Power Supply/Float Charger Installation Guide* for charging instructions.

Caution The battery pack contains a sealed lead-acid battery that contains toxic material (lead) and corrosive fluid (sulfuric acid). Charging can produce explosive gases. Do *not* charge the battery in gas-tight enclosures. Charge the battery in a well ventilated area away from sparks, flames, or smoke. Do *not* short the battery pack terminals, as this can cause an explosion or fire. Do *not* store the battery pack in a discharged state. Do *not* puncture, disassemble, mutilate, or incinerate the battery pack. Recycle the battery or dispose of the

battery pack with automotive battery scrap. The battery charger dissipates heat. Use the charger in an area with ample air circulation.

Connecting the SCXI-1382 to the SCXI-1000DC Chassis

Caution Only qualified personnel should install the SCXI-1382 battery pack.

To connect the SCXI-1382 battery pack to the SCXI-1000DC, refer to Figure 1 and complete the following steps:

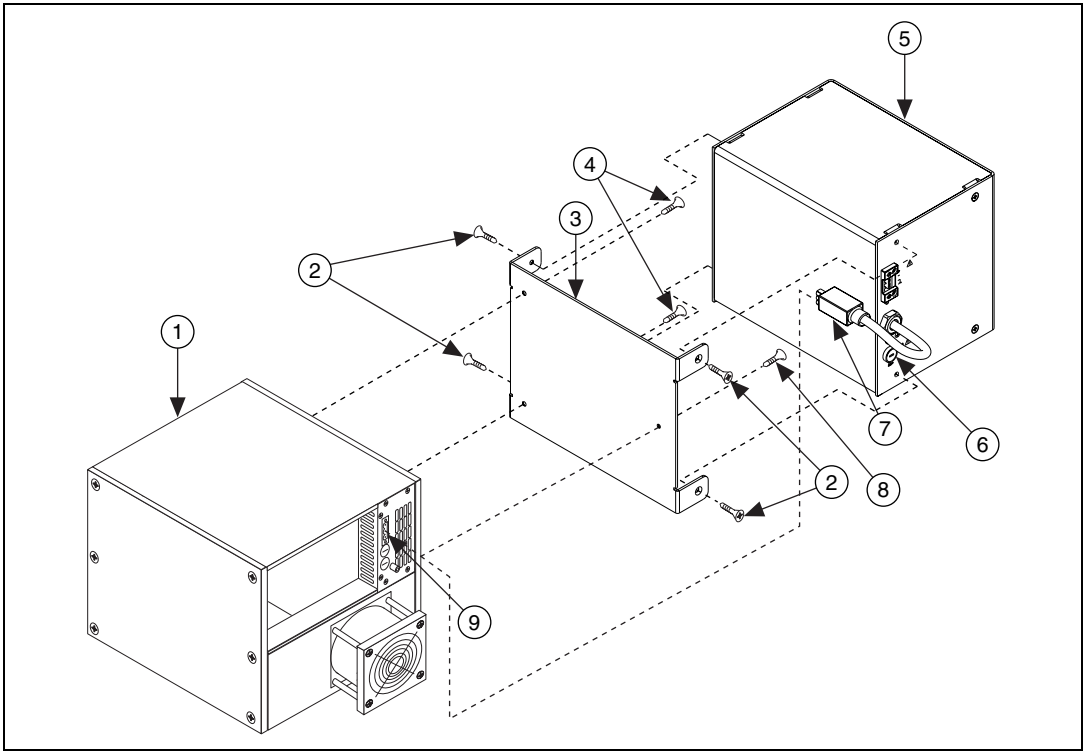
1. Power off the SCXI-1000DC chassis by switching the power switch on the SCXI-1000DC front panel to the O position.
2. Remove the four 8-32 × 7/16 in. screws that hold the mounting bracket to the SCXI-1382 battery pack.
3. Using the 8-32 × 5/16 in. and 6-32 × 1/4 in. screws, attach the mounting bracket to the SCXI-1000DC. Apply a torque of 1.2–1.4 N · m (10.5–12.3 lb · in.) to the screws to secure them.
4. Slide the battery pack assembly onto the mounting bracket and reinsert the four 8-32 × 7/16 in. screws. Apply a torque of 1.2–1.4 N · m (10.5–12.3 lb · in.) to the screws to secure them.
5. The chassis and the battery pack are ready for electrical connections. Connect the green DC power connector (P1) at the end of the cord on the SCXI-1382 battery pack to the corresponding connector (J1) on the rear panel of the SCXI-1000DC chassis.

Caution The SCXI-1382 battery pack connector, J2, is an input-only connector for the SCXI-1383 power supply/float charger. Do *not* connect the SCXI chassis to this connector.

6. Power on the SCXI-1000DC chassis using the power switch on the front panel of the chassis.

Note If the SCXI-1000DC chassis does not power up, check the fuse (F3) on the SCXI-1382 battery pack.

Caution Always replace a bad fuse with a fuse of the same size and rating for continued fire protection.



1	SCXI-1000DC Chassis	4	8-32 x 5/16 in. Screws	7	P1
2	8-32 x 7/16 in. Screws	5	SCXI-1382 Battery Pack	8	6-32 x 1/4 in. Screw
3	Mounting Bracket	6	F3	9	J1

Figure 1. Connecting the SCXI-1382 to the SCXI-1000DC Chassis

Connecting the SCXI-1382 to the SCXI-1000DC Chassis and SCXI-1383 Power Supply/Float Charger in Float-Charging Mode

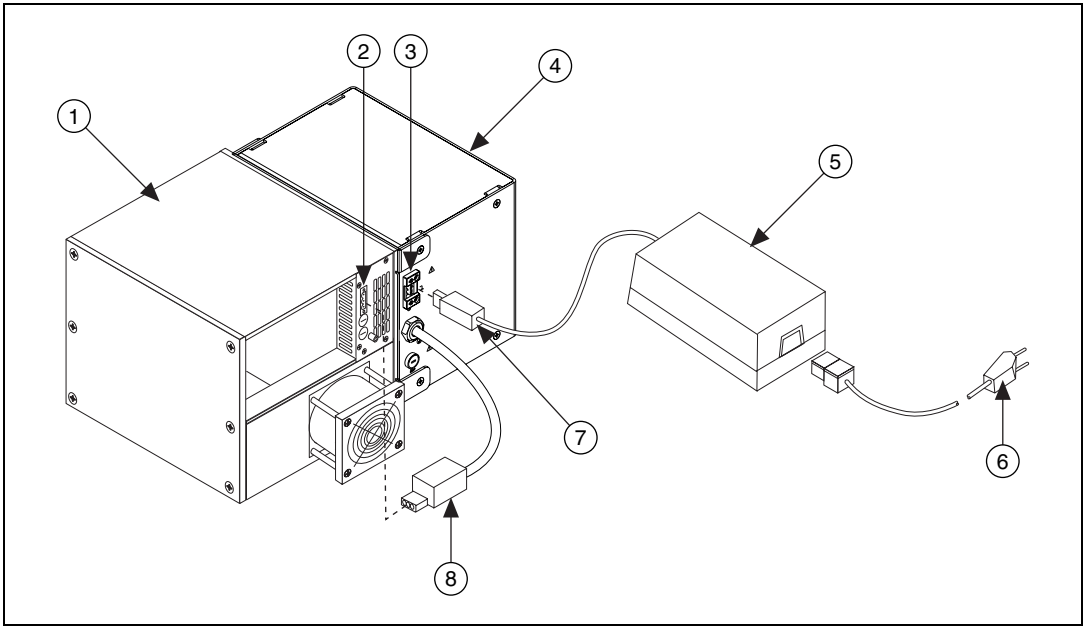
Note Refer to the *SCXI-1383 Power Supply/Float Charger Installation Guide* and the SCXI-1383 label for more information about the LEDs.

Caution Always power off the SCXI-1000DC and the SCXI-1383 before connecting or disconnecting to each other or to the SCXI-1382.

To connect the SCXI-1383 power supply/float charger to the SCXI-1000DC and the SCXI-1382 battery pack in float-charging mode, refer to Figures 1 and 2 and complete the following steps:

1. Follow steps 1 to 6 in the *Connecting the SCXI-1382 to the SCXI-1000DC Chassis* section.
2. Connect the green DC power connector of the SCXI-1383 power supply/float charger (P2) to its corresponding connector (J2) on the rear panel of the SCXI-1382 battery pack.
3. Connect the IEC 320-style connector of the power cord to its mating connector on the SCXI-1383 power supply/float charger.
4. Connect the AC power plug of the power cord to a 100 to 240 VAC, 50/60 Hz power source. Switch on the AC power source.
5. The SCXI-1383 power supply/float charger is now powered up and is float-charging the SCXI-1382 battery pack. Power on the SCXI-1000DC chassis using the power switch on the front panel.

Note While in float-charging mode, the green LED on the top of the SCXI-1383 case illuminates only if the battery is not fully charged.



1	SCXI-1000DC Chassis	4	SCXI-1382 Battery Pack	6	To VAC Power Source
2	J1	5	SCXI-1383 Power Supply/Float Charger	7	P2
3	J2			8	P1

Figure 2. Connecting the SCXI-1382 in the Float-Charging Mode to the SCXI-1000DC Chassis and the SCXI-1383 Power Supply/Float Charger

Specifications

All specifications are typical at 25 °C unless otherwise specified.

Note Refer to the *SCXI-1383 Power Supply/Float Charger Installation Guide* for its specifications.

Battery Pack

Battery type ..... Sealed lead-acid

Voltage ..... 12 V

Capacity at 20 hr rate ..... 26 Ah

Dimensions ..... 15.8 by 17.8 by 21.8 cm (6.2 by 7 by 8.6 in.)

Weight ..... 11 kg (24 lb)

Environmental

Operating temperature ..... 0 to 50 °C

Storage temperature ..... –20 to 70 °C

Humidity ..... 10 to 90% RH, noncondensing

Maximum altitude..... 2,000 meters

Pollution Degree 2
(indoor use only)

Safety

The SCXI-1382 is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 3111-1, UL 61010B-1
- CAN/CSA C22.2 No. 1010.1

Note For UL and other safety certifications, refer to the product label or to `ni.com`.

Electromagnetic Compatibility

Emissions ..... EN 55011 Class A at 10 meters.
FCC Part 15A above 1 GHz

Immunity ..... EN 61326:1997 + A2:2001, Table 1

EMC/EMI ..... CE, C-Tick and FCC Part 15 (Class A) Compliant

Note For EMC compliance, you *must* operate this device with shielded cabling.

CE Compliance

The SCXI-1382 meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

Low-Voltage Directive 73/23/EEC
(safety)

Electromagnetic 89/336/EEC
Compatibility Directive (EMC)

Note Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, click **Declarations of Conformity Information** at `ni.com/hardref.nsf/`.

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