
SCXI-1383 Power Supply/Float Charger

This guide describes how to install and use the SCXI-1383 power supply/float charger with the SCXI-1000DC chassis. In addition to the SCXI-1383 kit contents, you will need an SCXI-1000DC chassis.

Introduction

The SCXI-1383 is a 13.8 V, 4 A power supply/float charger that operates at 115/230 VAC, 60/50 Hz line input. The SCXI-1383 functions as a power supply when connected directly to the SCXI-1000DC chassis. The SCXI-1383 functions as a float charger when used with the SCXI-1382 battery pack; this configuration provides the chassis with uninterrupted power even if the AC line power fails.

What Your Kit Should Contain

Your kit contains one of the following power cords, depending on the power requirements of your geographical region:

- United States/Japan power cord
- Switzerland power cord
- Australia power cord
- Universal Euro power cord
- North America power cord
- United Kingdom power cord

In addition to the power cord, each kit contains the SCXI-1383 power supply/float charger and the *SCXI-1383 Power Supply/Float Charger Installation Guide*.

If your kit is missing any of the components, contact National Instruments.

Installation

Connecting the SCXI-1383 to the SCXI-1000DC Chassis in Power Supply Mode

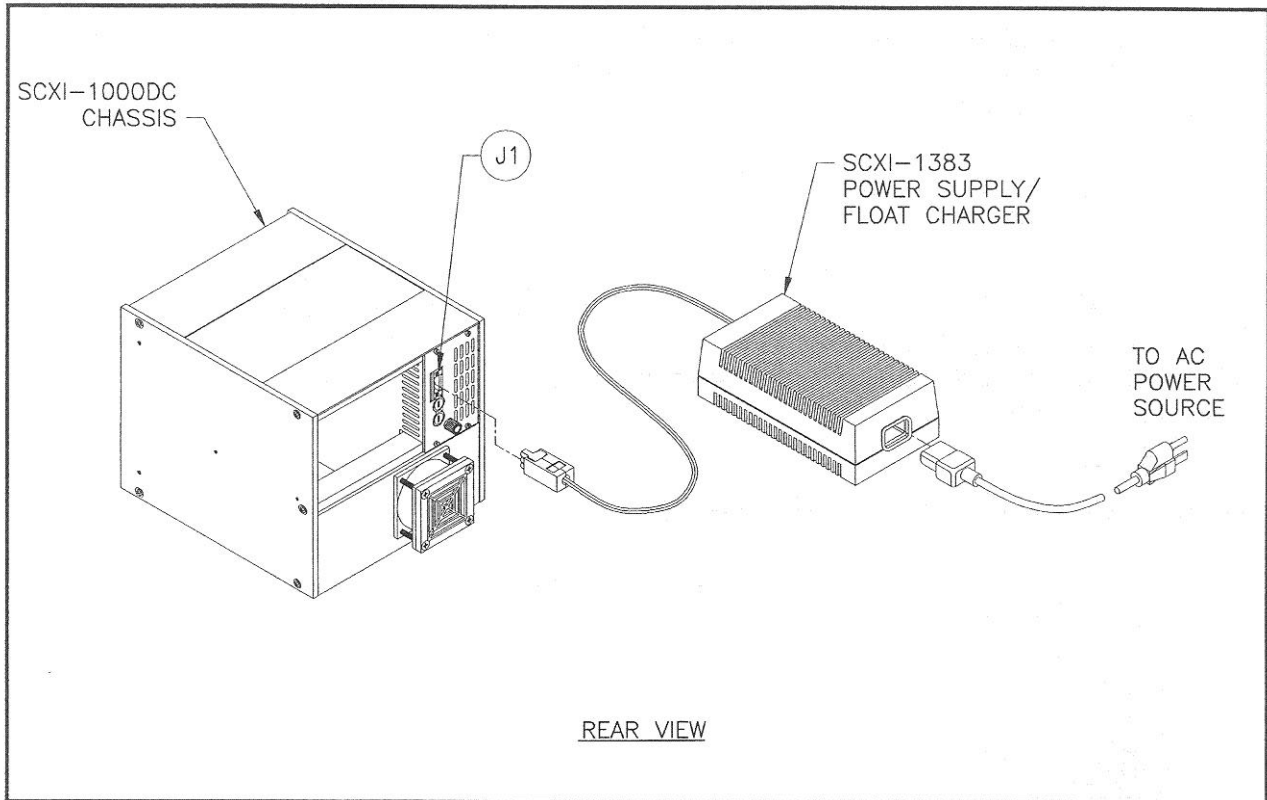


Figure 1. Connecting the SCXI-1383 to the SCXI-1000DC Chassis in Power Supply Mode

Note: *The green LED of the SCXI-1383 lights up either if AC power is connected on the input or if the SCXI-1382 battery pack is connected on the output.*

Caution: *Always power off the SCXI-1000DC and the SCXI-1383 before you connect them to or disconnect them from each other.*

To connect the SCXI-1383 power supply/float charger to the SCXI-1000DC, refer to Figure 1 and perform the following steps:

1. Turn off the SCXI-1000DC chassis by switching the power switch on the SCXI-1000DC front panel to the O position.
2. Connect the green DC power connector of the SCXI-1383 power supply/float charger to its mating connector (J1) on the rear panel of the SCXI-1000DC chassis.

3. Connect the IEC 320-style connector of the power cord to its mating connector on the power supply/float charger.
4. Connect the AC power plug of the power cord to a 115/230 VAC, 50/60 Hz power source.
5. To turn on the SCXI-1000DC chassis, switch the power switch on the chassis front panel to the | position. When the SCXI-1383 power supply/float charger is powered on, the green LED on top of the SCXI-1383 case is lit.

Connecting the SCXI-1383 to the SCXI-1000DC Chassis and the SCXI-1382 Battery Pack in Float-Charging Mode

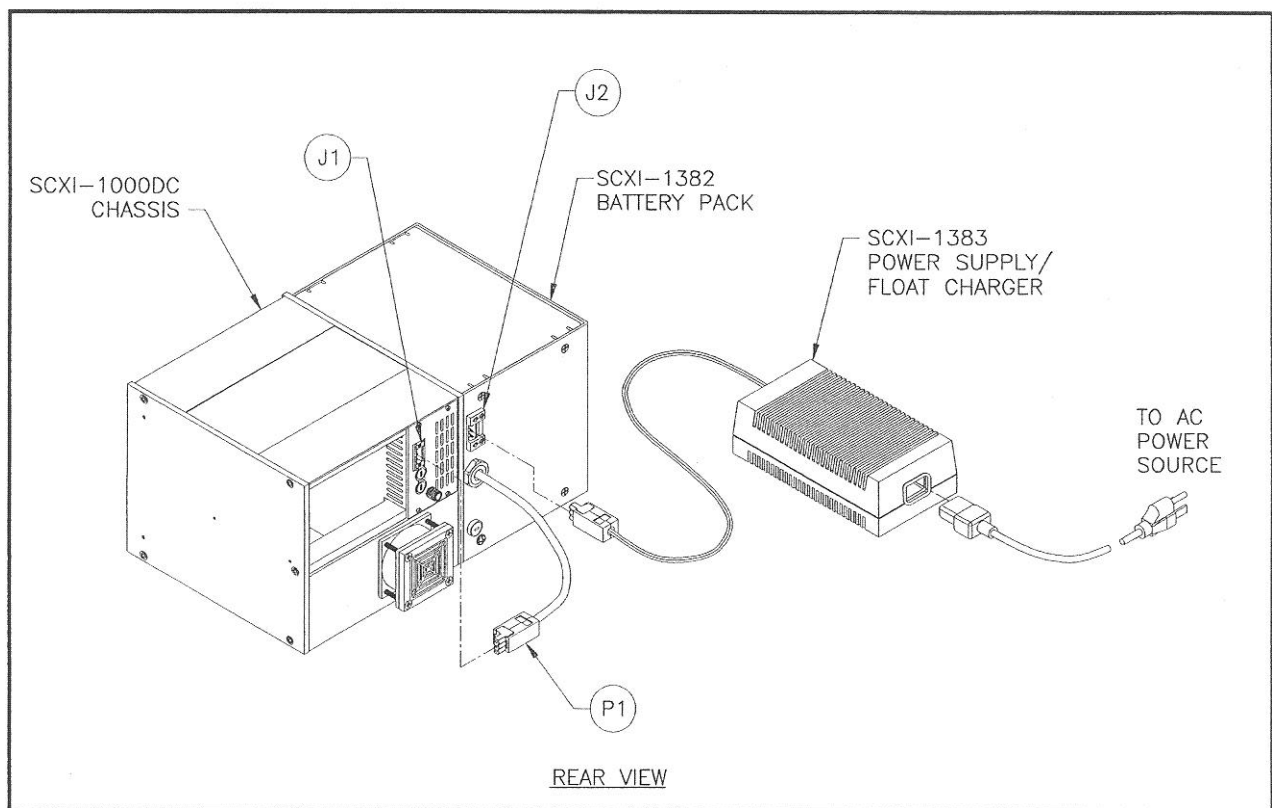


Figure 2. Connecting the SCXI-1383 Power Supply/Float Charger to the SCXI-1000DC Chassis and the SCXI-1382 Battery Pack in the Float-Charging Mode

Note: *The green LED of the SCXI-1383 lights up either if AC power is connected on the input or if the SCXI-1382 battery pack is connected on the output.*

Caution: *Always power off the SCXI-1000DC and the SCXI-1383 before you connect them to or disconnect them from each other or 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 Figure 2 and perform the following steps:

1. Before connecting the SCXI-1383 power supply/float charger to the SCXI-1382 battery pack, charge the battery pack fully with the dual-stage charger in the SCXI-1382 kit. Refer to the *SCXI-1382 Battery Pack Installation Guide* for instructions on how to charge the battery pack. Then disconnect the dual-stage charger from the battery pack.
2. Switch off the SCXI-1000DC chassis by switching the power switch on the SCXI-1000DC front panel to the O position.
3. Connect the green DC power connector (P1) on the SCXI-1382 battery pack to its mating connector (J1) on the rear panel of the SCXI-1000DC chassis.
4. Connect the green DC power connector of the SCXI-1383 power supply/float charger to its mating connector (J2) on the rear panel of the SCXI-1382 battery pack.
5. Connect the IEC 320-style connector of the power cord to its mating connector on the SCXI-1383 power supply/float charger.
6. Connect the AC power plug of the power cord to a 115/230 VAC, 50/60 Hz power source.
7. The SCXI-1383 power supply/float charger is now powered up, as indicated by the green LED on the top of the case of the SCXI-1383, and is float charging the SCXI-1382 battery pack. You can turn on the SCXI-1000DC chassis now by switching the power switch on the chassis front panel to the I position.

Specifications

Input

Input voltage	100 to 240 VAC (universal input)
Input frequency	50/60 Hz
Input current	2 A at 115 VAC or 1 A at 230 VAC (max)
Inrush current	<30 A at 115 VAC or 60 A at 230 VAC input

Output

Output voltage	Between 13.8 and 13.95 V (at 200 mA load) <14.1 V at no load
Charging current	Between 3.7 to 4.5 A when battery voltage is lower than 13.6 to 13.8 V Limited by Ohm's law when battery voltage is higher than 13.6 to 13.8 V

General Features

Efficiency	>75% at nominal line and 3.7 A output
Protections	2 A, 250 V ceramic input fuse

Reverse polarity protection performed by auto-recovery circuit
The unit protects itself in case of short circuit or if the battery voltage is below 5 to 7 V

Environment

Operating temperature..... 0° to 40° C
Storage temperature -40° to 85° C

International Standards

EMI standards Designed to meet the conducted limits of FCC Class B and VFG 243/1991

Physical

Dimensions..... 6.5 in. (16.5 cm) by 3.2 in. (8.0 cm) by 2.2 in. (5.7 cm)

Connectors

AC inlet IEC 320/CEE 22 standard
DC output Phoenix Contact Combicon connector with UL 1015, 16 AWG CSA, TEW 105° C, 600 V wires
Indicator The green light on the top of the box indicates that the AC power is on or the battery is connected



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