Keithley Instruments
28775 Aurora Road
Cleveland, Ohio 44139
1-800-833-9200
tek.com/keithley

Introduction

These instructions provide information on packing and shipping a 4200A-SCS system. It also provides guidance on storing the 4200A-SCS.

If these instructions are not followed, the customer is responsible for any shipping damage to the 4200A-SCS.

Returning the 4200A-SCS for repair or calibration

To return your 4200A-SCS for repair or calibration, call 1-800-408-8165 or complete the form at tek.com/services/repair/rma-request. When you request service, you need the serial number and firmware or software version of the instrument.

To see the service status of your instrument or to create an on-demand price estimate, go to tek.com/service-quote.

When you return the instrument, attach the KCon configuration file or the System Profile to the Return Material Authorization (RMA) request. See the following instructions to generate the KCon configuration file or find the System Profile at `C:\kimfg\SystemProfile_xxxxxxx.html`, where *xxxxxxx* is the serial number of the chassis. If the configuration file or System Profile is not provided with the RMA request, the instrument configuration will be reviewed when the instrument arrives.

If you are returning the instrument for repair, also include:

- A description of the problem and a screenshot, if possible.
- A screenshot or list of the error codes from the KCon message area.
- The `K4200A_systemlog` file from `C:\s4200\sys\log`.
- If you ran Self Test and a module failed, indicate which module failed.
- The Technical Support Files. Refer to Generate Technical Support Files (on page 2).
- The password for the instrument if it was changed from the default.

Contact Keithley for options for shipping the 4200A-SCS.

CAUTION

If you installed software that is not part of the standard application software for the 4200A-SCS, the nonstandard software may be removed when the instrument is sent in for service. Back up the applications and any data related to them before sending the instrument in for service.

CAUTION

Remove any USB blocker or lockdown software. Keithley needs to use the USB ports to run calibration.

To retrieve the configuration file:

1. Start **KCon**.
2. Select **Summary**.
3. Select **Save Configuration As**.
4. Select a location (do not select `C:\`).
5. Select **Save**. The configuration is saved to an `html` file.

Generate Technical Support Files

The Technical Support Files option analyzes your 4200A-SCS. KCon stores the analysis results to a USB flash drive. You can then send the results to Keithley for review.

To generate a technical support file:

1. Insert a USB flash drive into one of the front-panel USB ports.
2. Select **Tools**.
3. Next to Technical Support Files, select **Generate.**
4. Select **Yes**.
5. After the System Audit window appears and indicates a successful analysis, select **OK**. The System Audit window closes.
6. Contact your local Keithley office, sales partner, or distributor for details on how to send the files.

Technical support personnel at Keithley will review the analysis information and assess the state of your 4200A-SCS.

Prepare for 4200A-SCS shipping

CAUTION

The 4200A-SCS Parameter Analyzer weighs more than 27 kilograms (60 pounds) and requires a two-person lift. Do not lift the 4200A-SCS alone and do not lift the instrument using the front bezel. Lifting the instrument by the front bezel can cause instrument damage.

Supplies needed:

- Shipping pallet with a minimum size of 92 cm × 92 cm × 13 cm (36" × 36" × 5").
- Original shipping box. If original box is not available, use an approximately 78 cm × 85 cm × 36 cm (30.5" × 33.5" × 14") box.
- Original foam inserts. If original inserts are not available, use 5 cm (2") polyurethane foam sheets, rated at minimum 2 lb./cubic foot, for the bottom, sides, and top of the box. Use a 2.5 cm (1") polyurethane foam sheet to protect the accessories.
- Stickers or other equivalent options for "This Side Up," "Fragile," "Do not Stack," "Electronic Material," and shock monitoring.

NOTE

For a fee, Keithley can provide cases or cartons for shipment. Contact Keithley at rmarequest@tektronix.com for information.

To prepare the 4200A-SCS system for shipment:

1. Disconnect all cables and verify that the USB ports are empty.
2. Make sure the USB ports can be used.
3. If you do not have the original packaging insert, use a small flat-bladed screwdriver to remove the rear-panel bracket and preamplifiers from the 4200A-SCS. Wrap them in Bubble Wrap™ and tape the ends to seal.
4. Use nylon banding to attach the box to the pallet.
5. On the shipping label, write ATTENTION: REPAIR DEPARTMENT and the RMA number.

NOTE

You only need to return the 4200A-SCS and the installed and external modules, such as the preamplifiers, RPM units, and the 4200A-CVIV. You do not need to return power cord, connection cables, mounting hardware, keyboards, and other external equipment.

Pack and ship a 4200A-SCS using original packaging

To pack and ship a 4200A-SCS system using the original packaging:

1. Open the box and remove the top insert.

2. Make sure the lower insert is properly positioned in the box.

3. Place the box onto the pallet.

4. Line the box with antistatic wrap, as shown in the following figure.

5. Align the 4200A-SCS so the rear bracket is aligned with the insert.

6. Place the 4200A-SCS system into the cut out area, as shown in the following figure.

Figure 1: Place 4200A-SCS in box

7. Wrap the 4200A-SCS with the antistatic wrap.

8. Add the preamplifiers and any other external modules to the box as shown in the following figure.

Figure 2: 4200A-SCS in box with accessories

9. Add any paper records.

10. Place the top shipping insert on the instrument.

Figure 3: 4200A-SCS in box with top insert

11. Make sure the 4200A-SCS fits tightly in the box so that it does not shift during shipment.

12. Tape the box securely.

13. Label the box with "This Side Up," "Fragile," "Do not Stack," "Electronic Material," and shock monitoring labels or equivalent. Refer to the following figure for placement.

Figure 4: Box sealed and labeled

14. Use nylon banding to attach the box to the pallet.

15. On the shipping label, write ATTENTION: REPAIR DEPARTMENT, and the RMA number.

Pack and ship a 4200A-SCS using customer-supplied packaging

To pack and ship a 4200A-SCS system using your own packaging:

1. Wrap the instrument in Bubble Wrap™ with a minimum of one layer for each surface and tape to seal.
2. Place a 5 cm (2") polyurethane foam sheet in the bottom of the box.
3. Place sheets of 5 cm (2") foam around the sides of the box. Cut the foam so the unit fits snuggly in the box.
4. Place the box onto the pallet.
5. Line the box with a sheet of antistatic wrap that can completely enclose the instrument.
6. Place the 4200A-SCS system into the box.
7. Add any paper records.
8. Cover the instrument with the antistatic wrap and tape to secure.
9. Place a sheet of 5 cm (2") polyurethane foam on the instrument.
10. Place the rear panel bracket, preamplifiers, and any other external modules on top of the foam.
11. Place a 2.5 cm (1") slab of polyurethane foam on top of the accessories.
12. Make sure the 4200A-SCS fits tightly in the box so that it does not shift during shipment.
13. Close the box.
14. Tape the box securely.
15. Label the box with "This Side Up," "Fragile," "Do not Stack," "Electronic Material," and shock monitoring labels or equivalent.
16. Use nylon banding to attach the box to the pallet.
17. On the shipping label, write ATTENTION REPAIR DEPARTMENT, and the RMA number.

Storing the 4200A-SCS

If you need to store the 4200A-SCS, the environment must meet the following requirements:

- Temperature range: –15 °C to +60 °C
- Humidity range: 5% to 90% relative humidity, non-condensing
- Altitude: 0 to 4600 m

To store the 4200A-SCS for an extended period, pack the 4200A-SCS as described in Pack and ship a 4200A-SCS using original packaging (on page 4) or Pack and ship a 4200A-SCS using customer-supplied packaging (on page 6). Store it on a low rack or on the floor with nothing stacked on the box.

Contact information

If you have any questions after you review the information in this documentation, please contact your local Keithley Instruments office, sales partner, or distributor. You can also call the Tektronix corporate headquarters (toll-free inside the U.S. and Canada only) at 1-800-833-9200. For worldwide contact numbers, visit tek.com/contact-tek.