

Parametric Curve Tracer Configurations

Quick Start Guide

Keithley Instruments, Inc.
 28775 Aurora Road
 Cleveland, Ohio 44139
 1-888-KEITHLEY
 www.keithley.com

Introduction

For power device testing and characterization, the Keithley 26XX series and the 4200-SCS Semiconductor Characterization System are the core building blocks for configuring a power device Parametric Curve Tracer test stand. Keithley has created seven bundles that include everything necessary for you to build a complete test stand. The bundles include instruments, cables, adaptors, test fixture, software, and sample libraries, as well as parts for getting started. The basic bundles are described in Table 1. However, any bundle can be upgraded or configured by you to get the right amount of test capability.

Table 1: Parametric Curve Tracer bundles

Model →	2600-PCT-1	2600-PCT-2	2600-PCT-3	2600-PCT-4	4200-PCT-2	4200-PCT-3	4200-PCT-4
Capability →	(200V/10A)	(200V/50A)	(3KV/10A)	(3KV/50A)	(200V/50A/400V-CV)	(3KV/1A/400V-CV)	(3KV/50A/400V-CV)
2636B SourceMeter	✓	✓	✓	✓			
2651A SourceMeter		✓		✓	✓		✓
2657A SourceMeter			✓	✓		✓	✓
4200-SCS					✓	✓	✓
8010 test fixture	✓	✓	✓	✓	✓	✓	✓
All cables and adaptors	✓	✓	✓	✓	✓	✓	✓
ACS Basic 2.0	✓	✓	✓	✓	✓	✓	✓
Misc sample parts	✓	✓	✓	✓	✓	✓	✓

Installation Steps for a Keithley Parametric Curve Trace:

1. Open the 26XX SourceMeter boxes (and/or the 4200-SCS box) and remove the instrument and cables. Locate the Quick Start Guide(s) for each instrument. These guides will give you instructions on the basic setup of the instruments. If your configuration includes more than one Series 26XX SourceMeter instrument, refer to the Series 26XX Reference Manual¹ for information on how to setup and configure a TSP-Link network. Note that the order in which the instruments are connected through TSP-Link does not matter. However, each instrument must have a unique node number and the master node (the instrument that is connected to the PC/4200) must be assigned node number 1.
2. Open the 8010 High Power Device Test Fixture box and remove the contents. Locate the 8010 Interconnection Reference Guide. This guide will instruct you on connecting all of the instruments (26XX and/or 4200-SCS) to the 8010 test fixture.
3. (**NOTE:** If your configuration utilizes the 4200-SCS, the GPIB adaptor is already installed and you can skip this step.) Install the GPIB adaptor on your PC following the GPIB Adaptor User Manual. If you are using a Keithley GPIB adaptor you will need to install the CEC compatible driver. **NOTE:** While it is possible to control the instruments using the LXI interface, the GPIB interface is recommended for use with ACS Basic.
4. Open the ACS Basic (version 2.0 or greater) box and locate the ACS Basic Quick Start Guide. This guide will help you install ACS Basic on your PC or 4200-SCS. **NOTE:** It is recommended that you first install the GPIB adaptor on your PC **BEFORE** you install ACS Basic.
5. Connect the controller (either PC or 4200-SCS) to the Master 26XX using a GPIB cable.
6. Following the instructions in the ACS Basic Quick Start Guide, run the ACS Basic software and verify that ACS Basic recognizes the instruments are attached.
7. Select a sample device and install it in the Model 8010 test fixture. Using the Model 8010 Interconnect Reference Guide, wire the the test fixture appropriately for the selected device.
8. Select the appropriate test in ACS Basic and begin testing.

If you have questions after reviewing this information, contact your local Keithley Instruments representative or call Keithley Instruments corporate headquarters (toll-free inside the U.S. and Canada only) at 1-888-KEITHLEY (1-888-534-8453), or from outside the U.S. at +1-440-248-0400.



¹ Depending on the instruments that you are using for testing, make sure that you refer to the appropriate Series 26XX Reference manual.