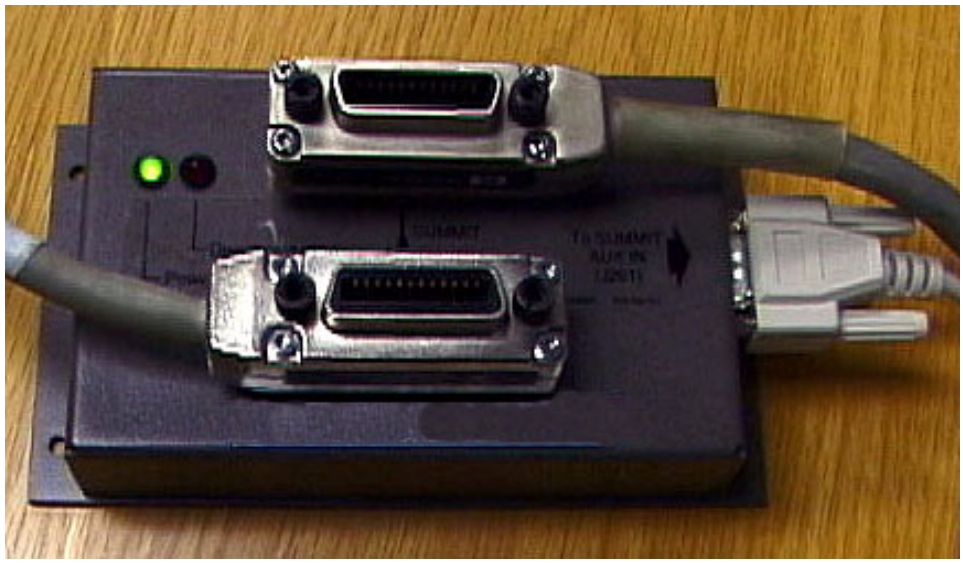
Technical Publication

CASCADE® MICROTECH

Innovating Test Technologies For Better Measurements Faster

GPIB Switch Box

Installation Guide



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Installation Instructions

The GPIB switch box breaks the GPIB connection between the remote host and the probe station's GPIB card. You need this box for applications requiring your probe station to act as both a GPIB instrument and as a GPIB controller. When the probe station is a GPIB instrument, the box maintains the connection between the host and the probe station computer. When the probe station is a GPIB controller, the box breaks the connection between the host and the computer. Typical applications for the switch box include using software on the probe station computer that calibrates a vector network analyzer or that sets temperatures on thermal equipment

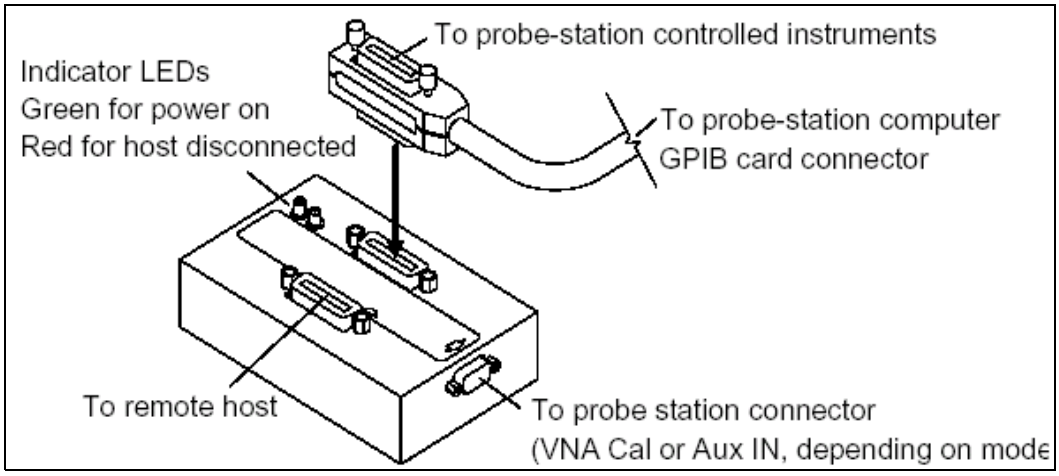


Figure 1. GPIB switch box hookup.

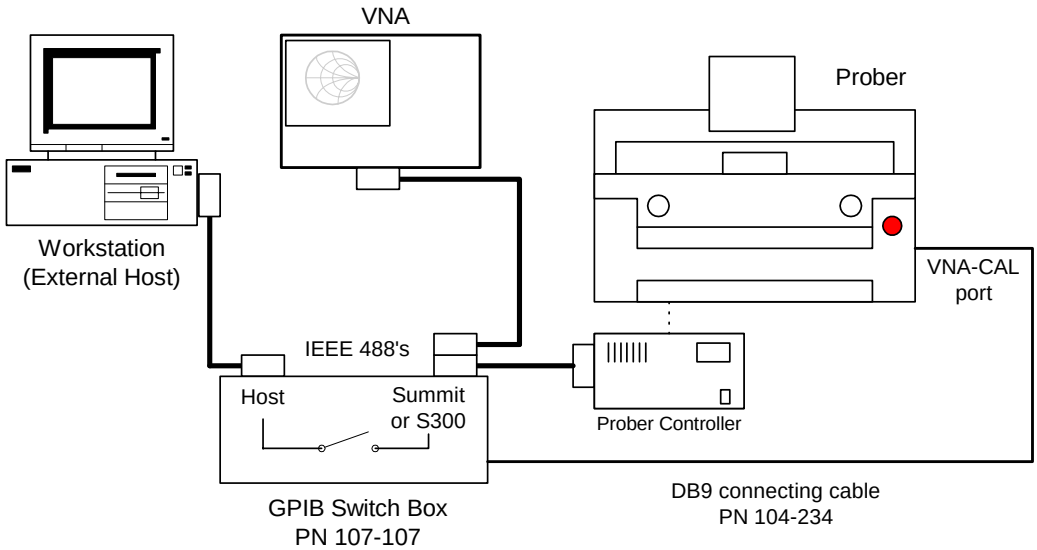


Figure 2. Summit and S300 configuration.

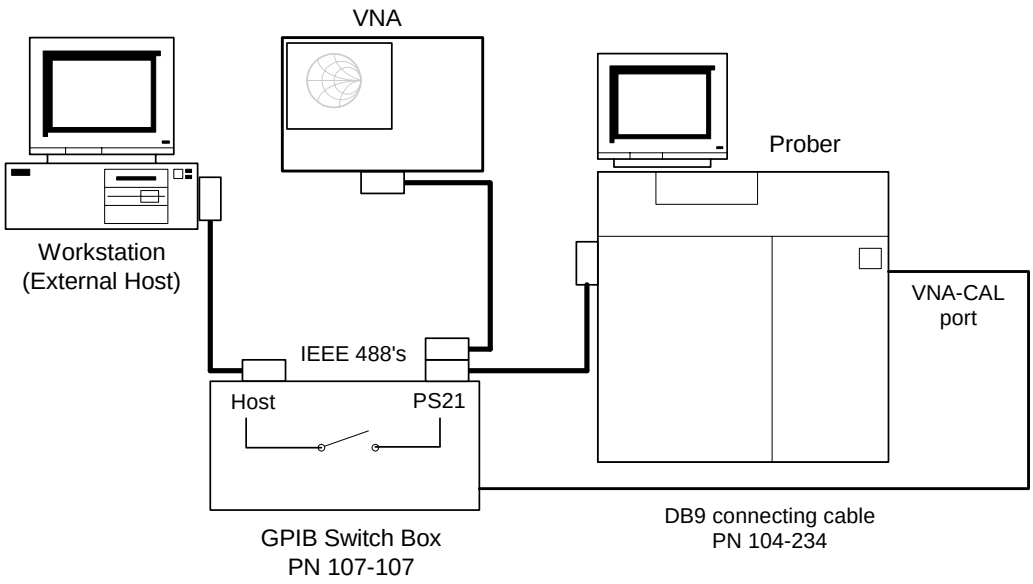


Figure 3. PS21 configuration.

To install the GPIB switch box:

1. Turn off the probe station computer and any other instruments connected to the GPIB.
2. If necessary, disconnect the host GPIB cable (and other instruments) from the probe station's GPIB cable connector.
3. Plug the DB 9-pin connector cable for the switch box into the side of the switch box and into the back of the probe station. The label on the probe-station connector depends on the model of probe station, and is usually either VNA Cal or Aux IN.
4. Plug the cable from the host GPIB into the connector labeled Host on top of the switch box. See figure 1.
5. Plug the GPIB cable into the Prober connector on top of the switch box, and plug the other end into the GPIB connector on the back of the probe station's controller.
6. If the probe station will be used to control other instruments, plug the other instrument GPIB cables into the piggy-back connector on top of the Prober connection.
7. If there are instruments that will be controlled only by the remote host, plug those instrument's GPIB cables into the piggy-back connector on top of the **Host** connection.

Instruments connected on the host side of the switch box are controlled only by the host. Probe station functions do not affect instruments connected on the host side of the switch box. The probe station controls only those instruments on the Summit side of the switch box. When the probe station is not controlling the bus, the remote host controls all instruments, regardless of whether they are connected on the host or Summit side of the switch box.

Two LEDs on top of the switch box indicate the state of the switch box. The green light comes on when the box is powered up. The red light comes on when the Prober to Host connection is broken and goes off again when the connection is re-established. So, the red light should be on whenever the probe station is acting as a GPIB controller, and off when it is acting as a GPIB instrument.