

# TLA 700 Series P6417 & P6418 Probe Accessory Instructions

070-9948-01

## Leadset Connector Kits

These instructions support several probe accessory kits, which contain leadset connectors for the P6417 and P6418 Probes. The leadset connectors simplify connections between the logic analyzer and your target system. See Figures 1 and 2 for examples.

For further information about connecting the probe to the target system, refer to the TLA 700 online help or to the *P6417 & P6418 Logic Analyzer Probe Instructions*.

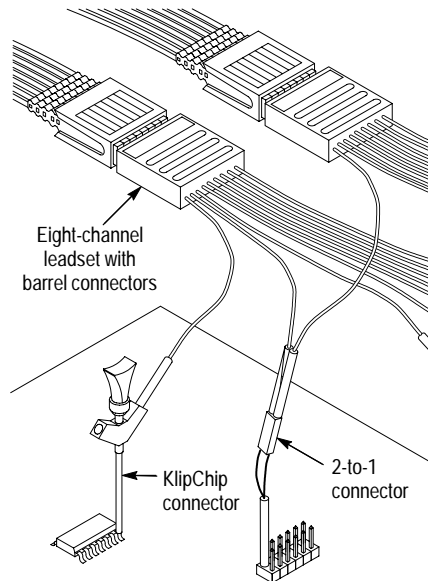


Figure 1: Leadset connections (barrel connectors shown)

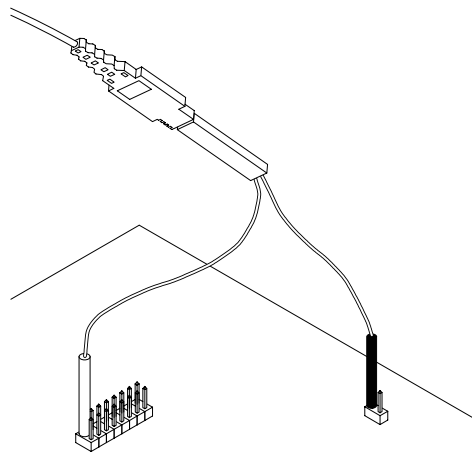


Figure 2: Single-channel leadset connection

## Parts Lists

Kit contents are listed below.

### P6417 & P6418 Probe accessories kit (020-2198-XX)

Use these connectors to connect the probes Probe leadsets to square pins or KlipChip connectors.

- 2 Eight-channel leadsets (barrel connectors)
- 1 Single-channel leadset (barrel connector)
- 20 SMT KlipChip connectors

### P6417 & P6418 Probe 34-channel probe interface kit barrel connectors (020-2199-XX)

Use these connectors to connect the probe leadsets to square pins or KlipChip connectors.

- 4 Eight-channel leadsets (barrel connectors)
- 2 Single-channel leadsets (barrel connectors)
- 1 Set of twelve 2-to-1 signal/ground leadsets (barrel connectors)
- 1 Set of four 4-to-1 signal/ground leadsets (barrel connectors)

### P6417 & P6418 Probe 34-channel probe interface kit mini-PV connectors (020-3000-XX)

Use these connectors to mass-terminate probe leadsets into a mini-PV terminal connector. One  $2 \times 20$  mini-PV terminal connector can accommodate three eight-channel leadsets.

The mini-PV terminal connectors are designed for use with 0.025-inch square pins set on 0.1-inch centers.

- 4 Eight-channel leadsets (mini-PV connectors)
- 2 Single-channel leadsets (mini-PV connectors)
- 1 Set of twelve 2-to-1 signal/ground leadsets (mini-PV connectors)
- 1 Set of four 4-to-1 signal/ground leadsets (mini-PV connectors)
- 1 Set of assorted mini-PV terminal connectors

## Safety Summary

Refer to the *General Safety Summary* in the *TLA 700 Series Logic Analyzer Installation Manual* for applicable safety information.

## Connection Procedure

Use the following connection procedure for either barrel connectors or mini-PV connectors. Steps that are specific to only one type of connector are noted.

To avoid static discharge damage, use a grounding wrist and foot strap, and follow appropriate antistatic precautions.

1. Power off the system under test.
2. Connect the logic analyzer probe leadsets to the accessory leadset connectors. See Figure 3.

**CAUTION.** Be sure that the logic analyzer podlets are connected to the 1 × 8 signal row and not to the ground row. Connecting signals to the ground row can result in damage to the logic analyzer or the system under test.

3. For mini-PV leadset connectors, insert the leads into the mini-PV terminal connector. See Figure 4. A properly inserted lead snaps into place and cannot be withdrawn. An improperly installed lead slides out easily.

If a lead is inserted in the wrong location, the lead can be removed by gently lifting the small plastic tab until the lead can be withdrawn. The tab can be lifted with a small pick or pointed knife tip. Do not lift the tab too far or too often, or the tab will break off or permanently deform.

4. If necessary, use the 2-to-1 or 4-to-1 connectors to connect multiple leads to a single pin on the system under test. Figure 1 on page 1 shows an example of a 2-to-1 connector in use.
5. Insert the leadset connector(s) onto the pins on the system under test.
6. Power on the system under test.

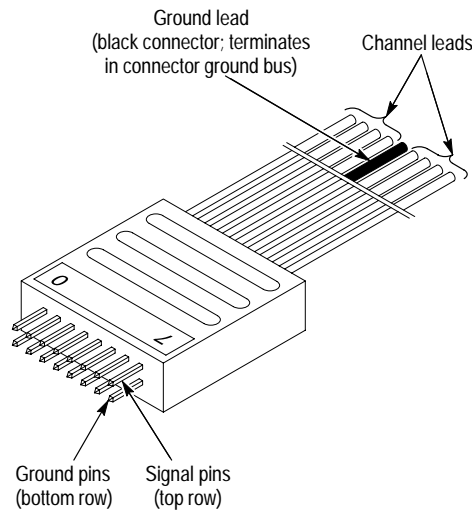


Figure 3: Eight-channel leadset connector

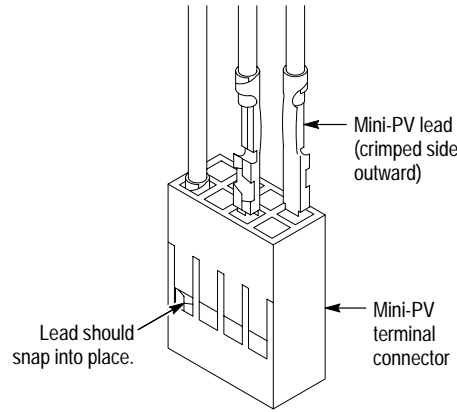


Figure 4: Mini-PV leads and terminal connector

## Characteristics

The characteristics listed in Table 1 apply to all kit connectors unless otherwise noted.

Table 1: Characteristics

Recommended usage	TTL and CMOS levels only. Ground leads should be connected to ground of system under test.
	Not recommended for signals with edge rates > 2 V/ns.
Maximum clock speed	50 MHz
AC loading	< 5 pF per channel as seen by the device under test (plus podlet)
DC loading	None
Termination (020-2198-XX and 020-2199-XX only)	Each signal lead on the eight-channel leadset contains a 100 Ω series termination near the end of the barrel connector to minimize signal reflections.
Dimensions	See Figures 5 through 8.

Figures 5 through 8 show the dimensions of the leadset connectors. Both top and side views are shown.

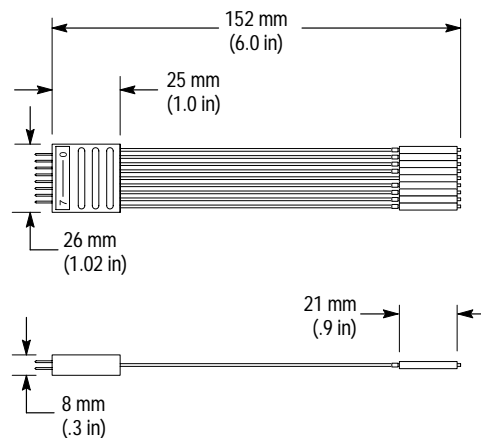


Figure 5: Eight-channel leadset (barrel connectors)

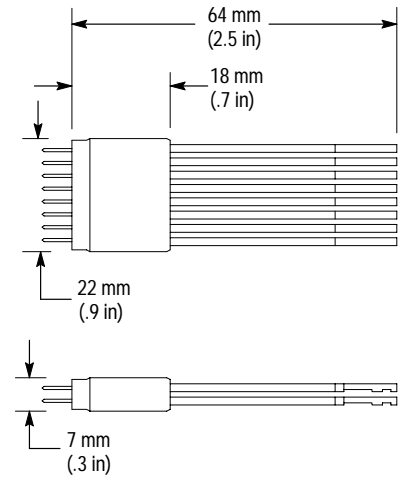


Figure 6: Eight-channel leadset (mini-PV connectors)

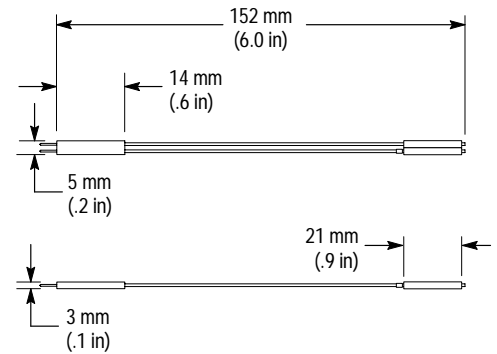


Figure 7: Single-channel leadset (barrel connectors)

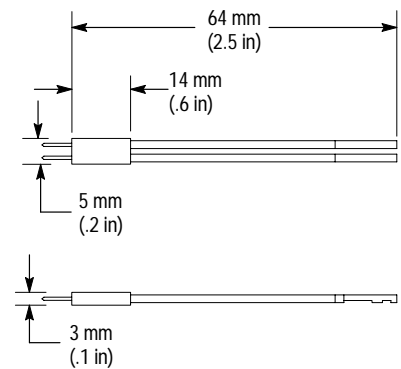


Figure 8: Single-channel leadset (mini-PV connectors)