

M78082

# **045 KIT**

**P6204 Flexible Circuit  
Board Replacement**

P6204 B012172 - B014681

A new flexible circuit board, part number 670-9726-14, replaces previous versions of the circuit board which are no longer available. Installation of the new flexible circuit board requires the addition of a pin strip on the Main circuit board.

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## Kit Parts List:

Quantity	Part Number	Description
1 ea.	131-5252-00	Strip, pin: 8 leads
1 ea.	670-9726-14	Circuit board assembly: flexible

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## Tools Required

Compensation box cover release tool (Tektronix part number 003-1383-00)  
Suction-type desoldering tool  
Soldering iron with a maximum tip temperature of 600° F  
P6204 FET Probe Instruction Manual (Tektronix part number 070-6949-00)

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## Instructions



*All circuit assemblies in the P6204 FET Probe are susceptible to static damage. Service the probe only in a static-free environment and always wear a grounded wrist and foot strap. Observe standard handling precautions for static-sensitive devices while installing this kit.*



*The flexible circuit board and Main circuit board are easily damaged by excessive heat. To prevent damage to the P6204 FET Probe, observe the following precautions:*

1. Use only silver solder and a temperature controlled soldering iron with a maximum tip temperature of 600° F.
2. Keep the soldering iron contact as brief as possible.
3. Observe and note the position of all connections. Check that there are no shorts or opens before assembling the probe.

**WARNING**

To prevent electric shock or shorting of components, disconnect the P6204 FET Probe from the oscilloscope before removing the compensation box covers.

**CAUTION**

To avoid damaging the flexible circuit board located below the Main circuit board, hold the cable-boot and BNC assemblies in the compensation box bottom cover while removing the top cover in the following steps.

- Step 1:** Insert the release tool into the two slots along the side and near the top of the compensation box top cover. Press firmly on both tabs while prying upward to separate the top and bottom covers. Refer to Figure 1.

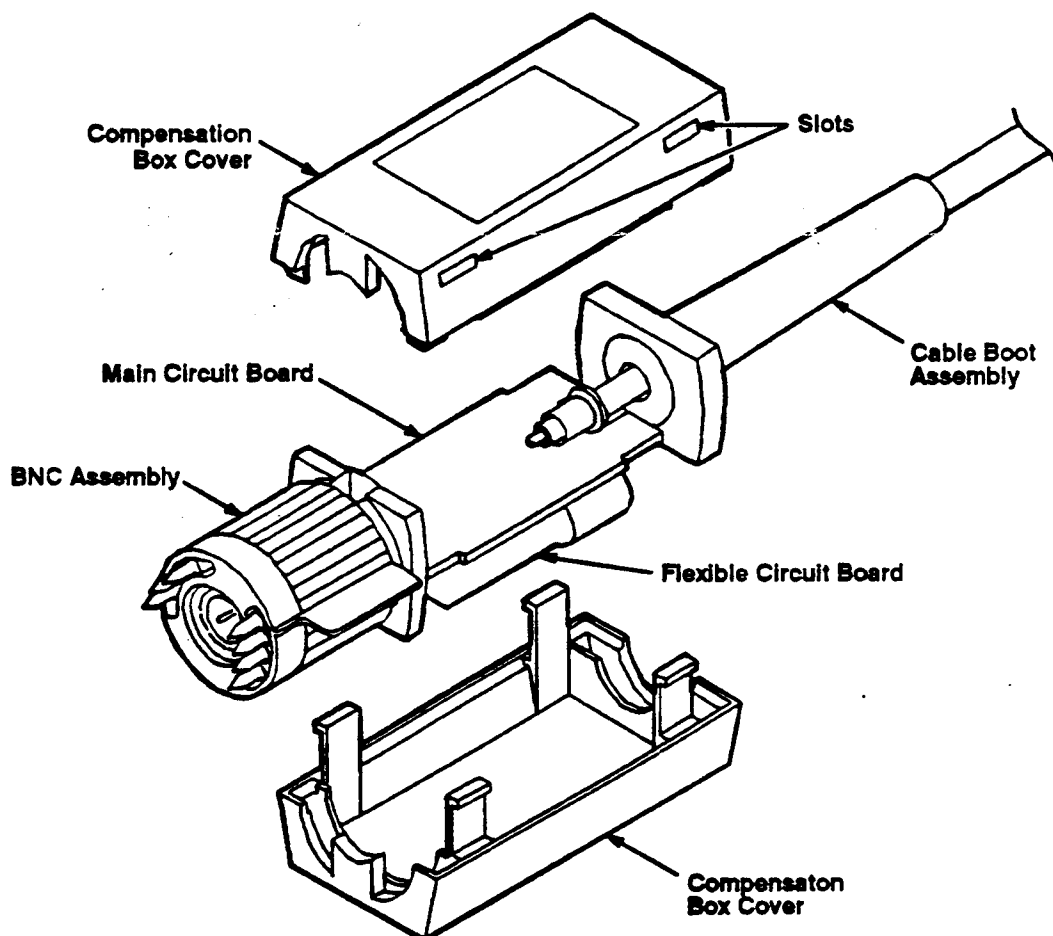
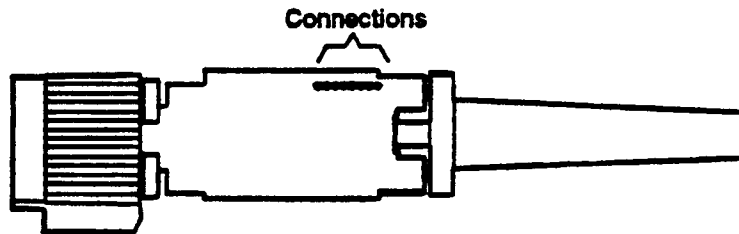


Figure 1: Compensation Box Top Cover Removal



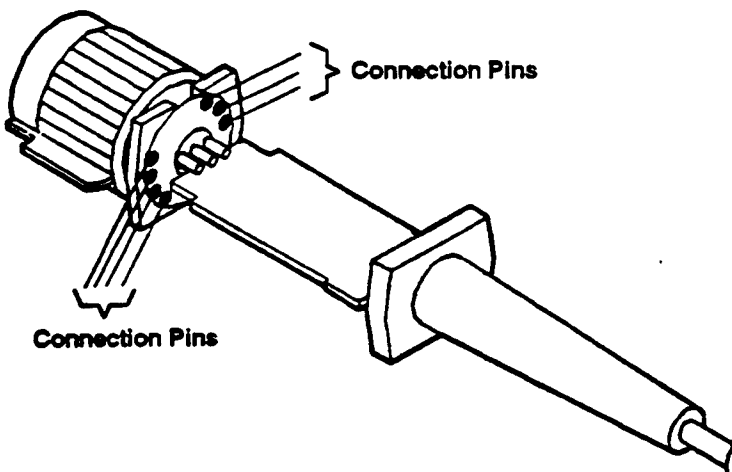
**Figure 2: Flexible Circuit Board Connections on the Main Board**

- Step 2:** While holding the top and bottom covers apart, repeat step 1 on the other side of the top cover. Gently work the top cover off while holding the cable-boot and BNC assemblies firmly in the bottom cover. Refer to Figure 1 to identify the different assemblies.
- Step 3:** Carefully pry up the Main circuit board, cable-boot assembly and BNC assembly, and gently remove them from the compensation box bottom cover.

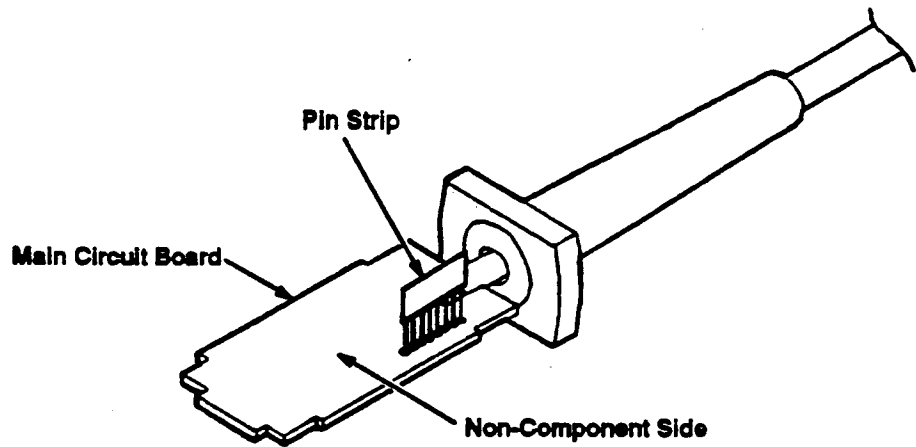
**CAUTION**

*When unsoldering connections, apply only enough heat to pull the solder from the board. Using excessive or prolonged heat will irreparably damage the multi-layer Main circuit board.*

- Step 4:** Use a desoldering tool to remove the solder from the flexible circuit board connections on the Main circuit board. Refer to Figure 2 for location of the eight connections.
- Step 5:** Use a desoldering tool on the component side of the Main circuit board to remove the solder from the flexible circuit board connections to the BNC assembly. Refer to Figure 3 for the location of the seven connections.



**Figure 3: Flexible Circuit Board Connections to BNC Assembly**



**Figure 4: Location of New Pin Strip**

- Step 6:** Clean the solder out of the connection holes of the Main circuit board.
- Step 7:** Insert the pin strip, provided in this kit, on the non-component side of the Main circuit board in the location where the flexible circuit board was connected. Refer to Figure 4.
- Step 8:** Solder the pin strip securely on the non-component side of the Main circuit board.
- Step 9:** When the pin strip is firmly soldered to the Main circuit board, break off the pin strip connecting strip.
- Step 10:** Line up the pins in the holes of the new flexible circuit board, included in this kit, and solder the eight connections.
- Step 11:** Solder the new flexible circuit board to the BNC connection pins.
- Step 12:** Inspect the solder connections for shorts or opens and fix any you find.
- Step 13:** Fit the assembly into the compensation box bottom cover.
- Step 14:** Place the top cover on the compensation box and press the top and bottom covers together until the two tabs on each side of the compensation box fit into their slots.
- Step 15:** Perform the Performance Check Procedure in Section 3 of the P6204 FET Probe Instruction Manual to verify that the probe is within specification limits. If adjustments are necessary, perform the Adjustment Procedure in Section 4 of the Instruction Manual.

045-0211-00