Installing Option Boards into an FS725

Option Boards

The FS725 can be configured with zero to three option boards. Each option board is identical, containing four 10MHz outputs, one 5MHz output, and one 1pps output. A connector board provides the signals and power from the main board to each of the option boards. One potentiometer on the main board adjusts the output voltage for all installed option board outputs.

Installation Instructions

Disassemble Unit

1. Remove power from the FS725 and wait at least 15 minutes for the unit to cool.
2. Remove the top and bottom covers by removing the 8 screws connecting them to the chassis.
3. Carefully remove the PRS10 from the unit by unscrewing the 4 screws connecting it to the chassis and sliding it out of the connector.

Prepare Unit for New Option Boards

4. Black face plates cover the output holes of uninstalled option boards. Remove one face plate for each option board to be installed, **starting at the bottom**. If only one option board is to be installed, remove the bottom face plate only. For two option boards, remove the bottom two face plates. For three option boards, remove all three face plates. Each face plate is removed by unscrewing the two black screws securing it to the back of the chassis.
5. Modify the Connector Board as follows:

Number of Option Boards to Install	Action
1	None
2	Remove C252
3	Remove C251 and C252

Install Option Boards

6. Install the option boards into the open slots. Secure all the BNC connectors to the chassis with the appropriate nuts and washers.
7. Install the appropriately modified connector board. The connector board is labeled to indicate which side should face up. It snaps onto the posts of the main board and the bottom option board. Make sure that each of the connectors mates with its appropriate option board correctly.

Partially Reassemble Unit

8. Carefully reinstall the PRS10 by sliding it back into its connector and securing it to chassis with the four small black screws.
9. Reinstall the bottom cover. Make sure the front lip slides under the Lexan® cover properly. The big black screws are used in the front, the smaller ones in the back.

Calibrate Option Boards

10. Reapply power to the FS725. Wait 15 minutes for the unit to completely warm up and stabilize.
11. Terminate one of the option board 10MHz outputs into 50Ω and observe the amplitude on a calibrated oscilloscope. Adjust the potentiometer P202 on the main board until the amplitude is 1.41Vpp (+7 dBm).
12. Test the outputs of all option boards to verify that they are working.

Final Assembly

13. Reinstall the top cover. Make sure the front lip slides under the Lexan® cover properly. The big black screws are used in the front, the smaller ones in the back.