Installation Note

Agilent Technologies 8560 and 8590 Series Spectrum Analyzers and E4900A Spectrum Monitoring System Rack Mount Kit

Option 909 Rack Mount Kit, part number 5062-4840 (includes rack flange/handle kit, part number 5062-3985)

Option 908 Rack Mount Kit, part number 5062-4841 (includes rack flange/handle kit, part number 5062-3979)



Part Number 5067-8588 Supersedes: November 1999 Printed in USA April 2006

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| PRODUCTS AFFECTED: | Agilent 8560 Series spectrum analyzer Agilent 8590 Series spectrum analyzer Agilent E4900A spectrum monitoring system |
|------------------------------|---|
| Serial Numbers: | 0000A00000-9999A99999 0000U00000-9999U99999 |
| Options: | 908 and 909 |
| To Be Performed By: | [X] Agilent Service Center[X] Personnel Qualified by Agilent[X] Agilent Personnel On-site |
| ESTIMATED INSTALLATION TIME: | 1.25 hours Add 0.25 hours if installing the slide kit |

Description

The following installation instructions apply to rack mount kits which mount the instrument in a rack with 482.6 mm (19 in.) spacing.

Tools Required

| Description | Part Number |
|--------------------------------|-------------|
| 7-mm nut driver | 8710-1217 |
| 4-mm hex (Allen) wrench | 8710-1755 |
| Large #2 Pozidrive screwdriver | 8710-0900 |
| Needlenose Pliers | 8710-0595 |
| TORX driver T-10 | 8710-1623 |
| TORX driver T-15 | 8710-1622 |

Installation Kit Parts List

| Part Number | Quantity | Description | |
|--|-----------------|-----------------------------------|--|
| number | | | |
| (includes part number 5062-3985, rack flange/handle Kit) | | | |
| 0510-1148 | 7 | Push on Retainer | |
| 0515-0049 | 5 | Screw-M5 x 12MM-LG HX SKT HD | |
| 0515-0372 | 5 | Screw-MM3.0 8 CWPNTX | |
| 0515-0458 | 9 | Screw-MM3.5 8 CWPNTX | |
| 0515-1400 | 9 | Screw-MM3.5 8 PCFLTX | |
| 0515-2086 | 17 | Screw-MM4.0 7 PCFLTX | |
| 0515-0383 | 2 | Screw-SMM4.0 16 CWPNTX | |
| 0535 - 0082 | 7 | Nut with Lockwasher M4 | |
| 2190-0587 | 5 | Lockwasher M5 | |
| 3050-0894 | 5 | Flatwasher M5 | |
| 5002 - 0637 | 1 | Rear Support | |
| 5002 - 0639 | 1 | Panel-Dress | |
| 5002 - 0638 | 1 | Subpanel | |
| 5021 - 8407 | 1 | Frame-Front | |
| 5021 - 5808 | 1 | Frame-Rear | |
| 5021 - 5836 | 4 | Corner Strut | |
| 5062 - 3985 | 1 | Flange Handle Kit | |
| 8710-1755 | 1 | Hex Key, 4MM | |
| | | | |
| 5067-8588 | 1 | Installation note | |
| pa | art number 506 | 2-4841, Option 908 rack mount kit | |
| 0510,1140 | Includes part n | umber 5062-3979, rack hange kit) | |
| 0510-1148 | 7 | Push on Retainer | |
| 0515-0049 | 5 | Screw-M5 x 12MM-LG HX SKT HD | |
| 0515-0372 | Ð | Screw-MM3.0 8 CWPNTX | |
| 0515-0458 | 9 | Screw-MM3.5 8 UW PNTX | |
| 0515-1400 | 9 | Screw-MM3.5 8 PUFLIX | |
| 0515-2086 | 17 | Screw-MM4.0 7 PUFLIX | |
| 0515-0383 | 2 | Screw-SMM4.0 16 CWPNTX | |
| 0535-0082 | 1 | Nut with Lockwasner M4 | |
| 2190-0587 | 5 | Lockwasher Mo | |
| 3050-0894 | 5 | Flatwasher Mo | |
| 5002-0637 | 1 | Rear Support | |
| 5002-0639 | 1 | Panei-Dress | |
| 5002-0638 | 1 | Subpanel | |
| 5021-8407 | | Frame-Front | |
| 5021-5808 | | Frame-Rear | |
| 5021-5836 | 4 | Corner Strut | |
| 5062-3979 | | Flange Kit | |
| 8710-1755 | 1 | Hex Key, 4MM | |
| 5067-8588 | 1 | Installation note | |

Table 1. Rack Mount Kit

| Part Number | Quantity | Description |
|--------------------------------------|----------|------------------------------------|
| nart number 1494-0060 rack slide kit | | |
| | 9 | Slides (Not sold separately) |
| 0515-0949 | 1 | Serow-SMM5 0 14 PNPD |
| 0515-1013 | 4 | Screw-SMM5.0 14 FLPD |
| 0515-0909 | 4 | Screw-SMM4.0.12 PNPD |
| 0535-0080 | 8 | HexNut M4 W/LOCKWASHER |
| 2680-0143 | 4 | Screw 10-32 \times 9/16 in. PNPD |

Table 2. Rack Slide Kit

Safety Considerations

| Warning | Before you disassemble the instrument, turn the power switch OFF and unplug the instrument. Failure to unplug the instrument can result in personal injury. |
|---------|---|
| Caution | Electrostatic discharge (ESD) can damage or destroy electronic components. All work on electronic assemblies should be performed at a static-safe workstation. Refer to the documenttion that pertains to your instrument for information about static-safe workstations and ordering static-safe accessories. |

Installation Procedure

1. Remove the instrument's four front frame bumpers ①. See Figure 1.

Caution Use caution when placing the instrument dress panel face down on its finished surface. Use a soft cloth to protect the assembly from scratches or damage.

- 2. Place the kit's subpanel (2) face down on a clean flat surface such as a desk top.
- 3. Place the instrument face down into the subpanel. Be sure to orient the instrument in relation to the subpanel mount holes (9) as illustrated in Figure 1.
- 4. Attach the subpanel to the top of the instrument's front frame using four M3 8 mm pan-head screws ③. The screws mount into the front bumper mounting holes.
- 5. Use a 4-mm hex key to unscrew the four screws ④ attaching the instrument cover assembly ⑤ to the instrument. Pull the cover assembly off to the rear of the instrument.
- 6. Remove the two screws (6) attaching the rear feet (7) to the cover assembly and remove the rear feet.



Figure 1. Installing the Rack Kit Subpanel

7. Remove the two screws attaching the bail handle assembly (3) to the cover assembly. The screws are located on the inside of the cover assembly. Pull each handle side straight out from the side of the cover assembly.

Caution When replacing the instrument cover, use caution to protect the instrument's cable assemblies from damage.

8. Slide the cover assembly back on the instrument. If the cover assembly has a seam, locate the seam at the bottom side of the instrument. If the cover is seamless, locate the cover's air vent holes over the bottom side of the instrument.

Make sure that the instrument's cover assembly fits into the groove in the front frame all the way around the front frame.

9. Replace the four screws and washers and attach the instrument cover to the rear frame.



Figure 2. Assembling the Rack Frame

10. Assemble the rack kit frame as illustrated in Figure 2, using 16 (four on each side) M4 6 mm flat-head screws (see ① in Figure 2) and eight M3.5 8 mm pan-head screws. (See ② in Figure 2.)



Figure 3. Attaching the Rack Frame to the Instrument

- 11. Place the rack frame over the instrument as illustrated in Figure 3. The rack front frame should have a deeper groove on the bottom side.
- 12. Attach the rack frame to the front support using eight M3.5 8 mm flat-head screws ①. See Figure 3.
- 13. Attach the rack frame to the rear of the instrument using four M5 12-mm socket head cap screws, lock washers, and flat washers. Use the hex key to torque to 50 inch-pounds. See (2) in Figure 3.
- 14. Tip assembly on one side. Install the dress panel ③, and secure it with six nuts ④. Use a 7-mm driver. Torque to 6 inch-pounds maximum. *Do not* overtorque.



Figure 4. Installing Rack Flanges and Handles

- 15. Place the instrument in its operating position. See Figure 4. For part number 5062-4840 kits, mount the handles ① and rack flanges ② to the rack frame using six M4 16 mm pan-head screws ③. Part number 5062-4841 kits do not come with handles; the rack flanges mount directly to the rack frame using six M4 10 mm pan-head screws.
- 16. The instrument is now ready to mount into the systems rack.



Figure 5. Installing the Rack Slide Kit

Installing the Rack Slide Kit

- 1. Install the part number 5062-4841 or 5062-4840 rack mount kit as described above.
- 2. Expand each rack slide to its full length.
- 3. Separate the inner slide member ① from the outer slide member ② by pressing release button ③ and pulling the inner slide member out. See Figure 5. Due to space considerations, Figure 5 does not show the rack slide extended to its full length.
- 4. Attach an inner slide member to each side of the rack mount frame using two $M5 \times 0.8 \times 14$ mm pan-head screws per side. See (4) in Figure 5.
- 5. Insert two unistrut nuts (5) in each of the four vertical columns of the systems rack.
- 6. Compress each outer-slide member to its shortest length, revealing the holes for screws (6). Release button (8) may have to be pressed.
- 7. Attach an outer slide member to each side of the systems rack using two M4 12 mm flat-head screws (6) in the front and two M4 12 mm pan-head screws (7) in the rear.
- 8. Place the instrument into the rack by sliding the inner slide members into the outer slide members. Use the release buttons, located on the slides, to enable complete compression of the slides.