



## Fitting Deuterium Lamp Background Correction to Agilent 50/55 AA Instruments

This instruction sheet describes how to install a deuterium lamp background correction upgrade to an Agilent 50/55 AA.

### Parts List

Description	Part Number	Description	Part Number
Assembly, mirror M5D2	0110598890	Screw (2 off) M5x30 countersunk	1510187300
Assembly, beamsplitter	0110599390	Screw (3 off) M4x12 pan	1510108200
Assembly, D <sub>2</sub> lamp	0110602800	Set screw (2 off) M4x16 cone point	1510180800
Assembly, loom D <sub>2</sub> lamp	0110613000	Set screw (2 off) M4x16 oval point	1510180900
Ball bearing	0310031100	Washer	1510126900
Bracket	0410293800	Hex nut M5	1510110200
Bracket, microswitch cover	0410309700	Window, UV silica	2010082600
Microswitch mounting plate	0810018700	Label, D <sub>2</sub> interlock	3110050300
Cover, D <sub>2</sub> lamp	0910106900	Spring (2 off)	4610016600
Mount plate	0910110700	Adhesive pad	4910012700
Screw (2 off) 8 BA	1510062600	Installation instructions	8510160900
Screw M4x30	1510109300	Insulating washer	21100002

### Installation

**To fit the deuterium lamp background correction upgrade:**

- 1 Unpack the contents of the kit (part number 9910092500).
- 2 Unplug the 50/55 AA instrument.

#### **WARNING**



#### **Electrical Shock Hazard**

**The instrument contains electrical circuits, devices and components that operate at dangerous voltages. Contact with these circuits, devices or components can cause death, serious injury or painful electric shock.**

- 3 Remove external covers and the optics cover as described in the Agilent 50/55/140/240/280 AA Service Manual.



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- 4 Using the supplied 8 BA screws, fit the D<sub>2</sub> interlock microswitch, its insulating washer and its cover plate to the lamp panel. Fit the supplied D<sub>2</sub> interlock label (part number 3110050300) to the supplied D<sub>2</sub> lamp cover (part number 0910106900). Fit the D<sub>2</sub> cover to the rear of the lamp panel.
- 5 Fit the supplied D<sub>2</sub> lamp assembly to the lamp panel. Connect the supplied D<sub>2</sub> loom to 2PL18 on the Control PWB.
- 6 Remove the blanking plate from the floor of the optics chassis above the D<sub>2</sub> lamp. It is fixed with double-sided adhesive tape and may be difficult to remove. Take care to avoid damage to the optics chassis casting. Fit the supplied adhesive pad (part number 4910012700), to the UV silica window (part number 2010082600). Fit the silica window to the optics chassis floor in place of the blanking plate.
- 7 Build the M5D2 assembly from these supplied parts:
  - assembly M5D2 mirror (part number 0110598890),
  - ball bearing (part number 0310031100),
  - mount plate (part number 0910110700),
  - screw M5x30 countersunk (part number 1510187300),
  - screw M4x12 pan (part number 1510108200),
  - washer (part number 1510126900),
  - hex nut M5 (part number 1510110200), and
  - spring (part number 4610016600).
- 8 Fit the M5D2 mirror assembly to the optics chassis.
- 9 If you are upgrading a 50 AA, remove the 'beamsplitter' (it is really a flat mirror) assembly from its bracket. Fit the replacement beamsplitter assembly (part number 0110599390) to the bracket. If you are upgrading a 55 AA, you do not need to do anything to the fitted beamsplitter, as it is already the right type.
- 10 You may need to fit a back-lighting assembly to align the M5D2 mirror and beamsplitter assemblies as described in Section 10.8 of the Agilent 50/55/140/240/280 AA Service Manual.
- 11 Refit all covers and power the instrument.

### Testing the Installation

Exercise the D<sub>2</sub> lamp using SpectrAA software or service diagnostics SVD.exe.

You have now finished installing this upgrade.

This information is subject to change without notice.



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