Installation Note

Agilent Technologies
8560EC Series Spectrum Analyzers
Power Supply and Display Driver Board
Upgrade Kit

Agilent Technologies

Part Number 08563-90249
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Power Supply/Display Driver Upgrade Kit

Products Affected:	8560EC Spectrum analyzer 8561EC Spectrum analyzer 8562EC Spectrum analyzer 8563EC Spectrum analyzer 8564EC Spectrum analyzer 8565EC Spectrum analyzer
Serial Numbers:	8560EC 0000A00000/4121A00414 8561EC 0000A00000/4121A00393 8562EC 0000A00000/4121A00587 8563EC 0000A00000/4121A01407 8560EC 0000A00000/4121A00547 8560EC 0000A00000/4121A00565
To Be Performed By:	(X) Agilent Service Center (X) Personnel Qualified by Agilent (X) Customer
Estimated Installation Time:	1.0 Hour

Introduction

This kit contains the parts and instructions to install the display driver board, the power supply board, and the display driver power cable to reduce 60 Hz-related sidebands.

Installation Kit Parts List for 08563-60180

Upgrade Kit Contents

Quantity	Part Number	Description
1	08564-60034	Power supply board
1	08563-60177	Display driver board
1	5022-6195	Display power cable
1	08563-90249	Installation Note

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 documentation that pertains to your instrument for information about static-safe workstations and ordering static-safe accessories.

Procedure

Dress Cover Removal

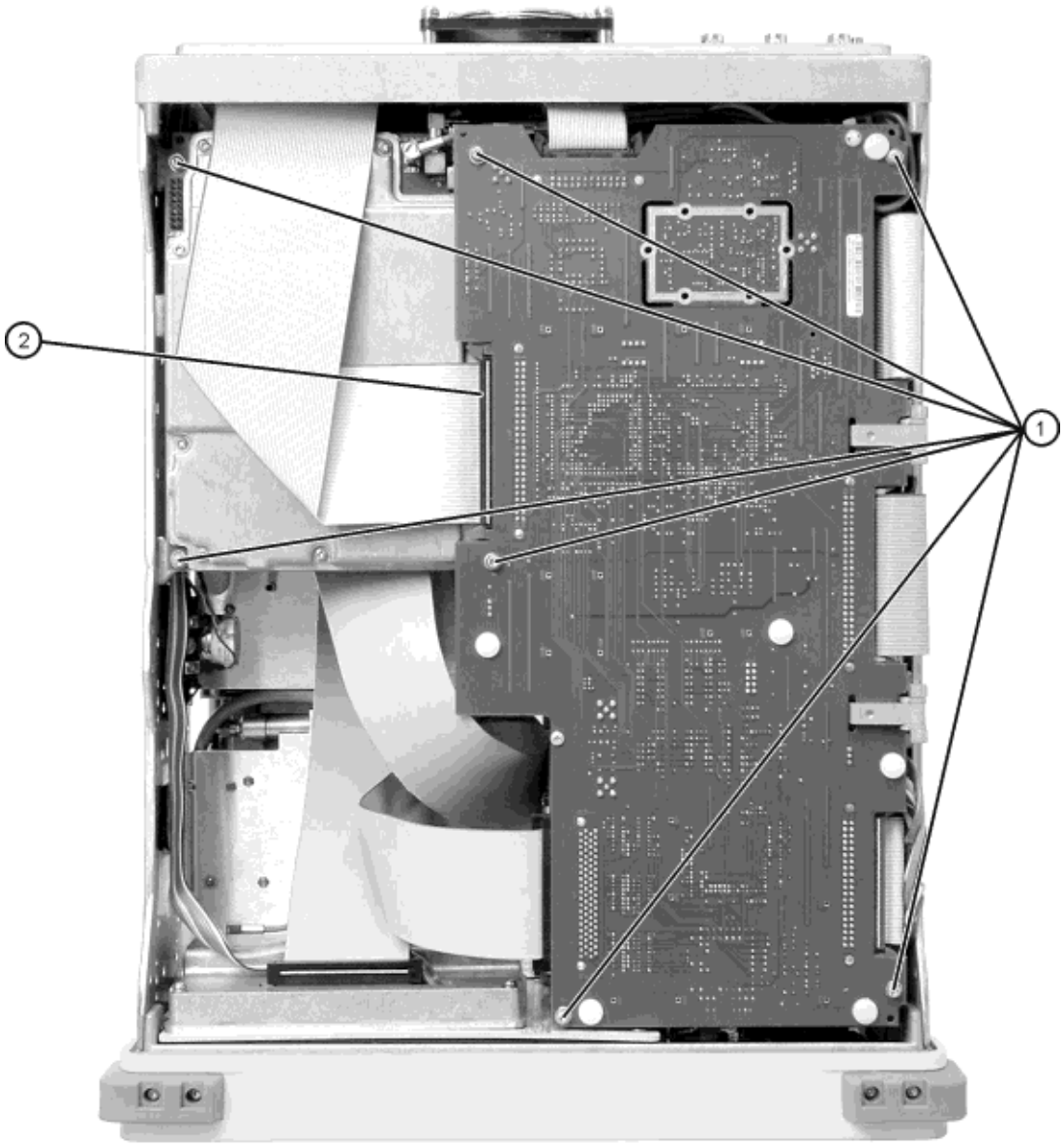
1. Disconnect the analyzer from ac power and remove any cables or adapters connected to the front panel.
2. Carefully place the analyzer on a work surface with the front frame facing down.
3. If an 85620A Mass Memory Module or 85629A Test and Adjustment Module is mounted on the rear panel, remove it.
4. Referring to Figure 1, loosen, but do not remove, the 4 screws **(1)** using a 4 mm hex wrench.
5. Remove the dress cover by sliding it off towards the rear of the analyzer.

Figure 1 Dress Cover Screws

Opening the Instrument

1. Referring to Figure 2, remove the 7 screws **(1)** attaching the A2, A3, A4, and A5 assemblies to the analyzer chassis.
2. Disconnect the ribbon cable **(2)** from the A2 board.

Figure 2 A2, A3, A4, and A5 Screws and Cable



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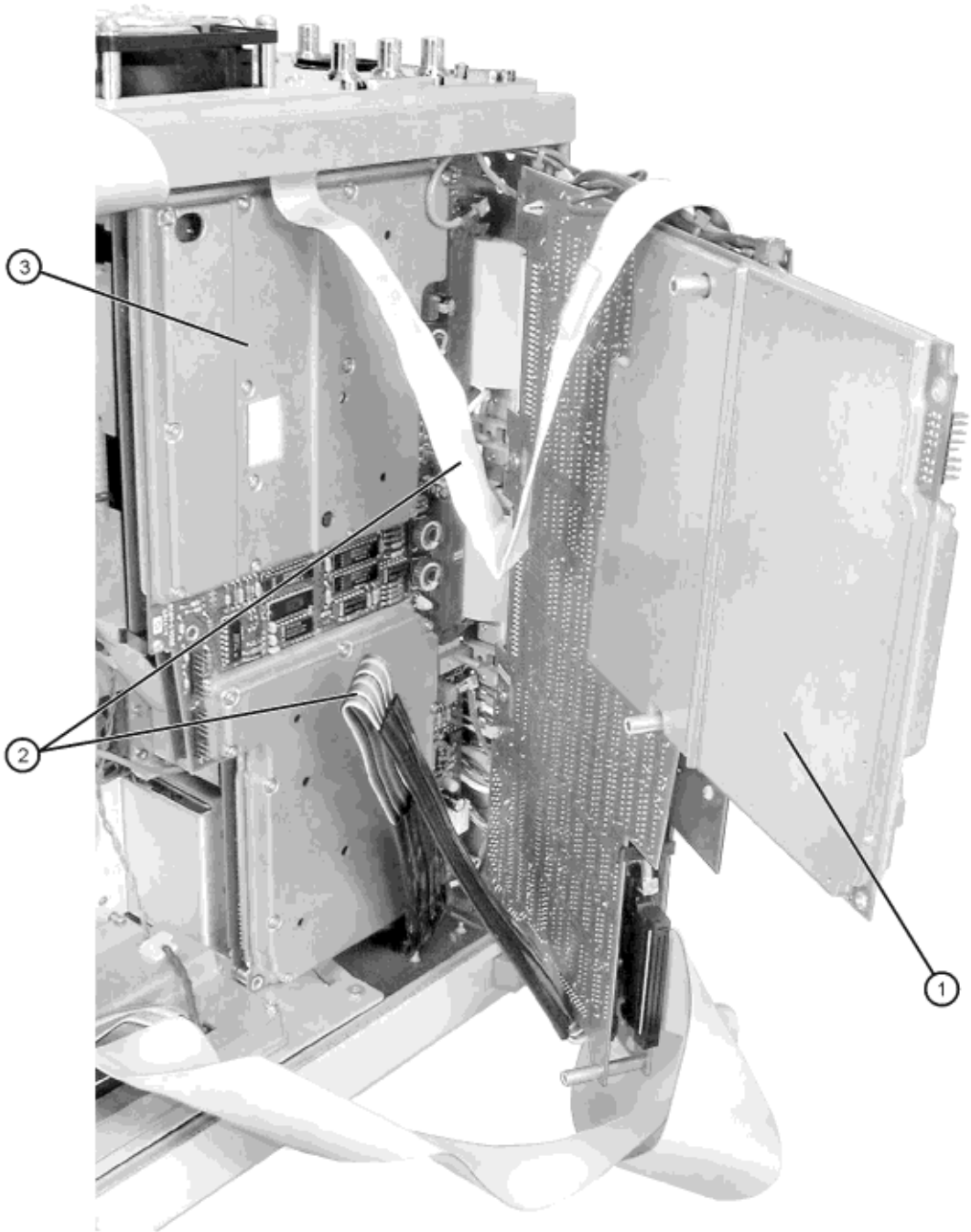
3. Referring to Figure 3, carefully fold out the A2 and A3 assemblies **(1)**. Pay close attention to how the ribbon cables **(2)** are dressed.
4. Fold out the A4 and A5 assemblies **(3)**. This will provide access to the power supply and display assemblies.

Figure 3 Folding Out the Assemblies



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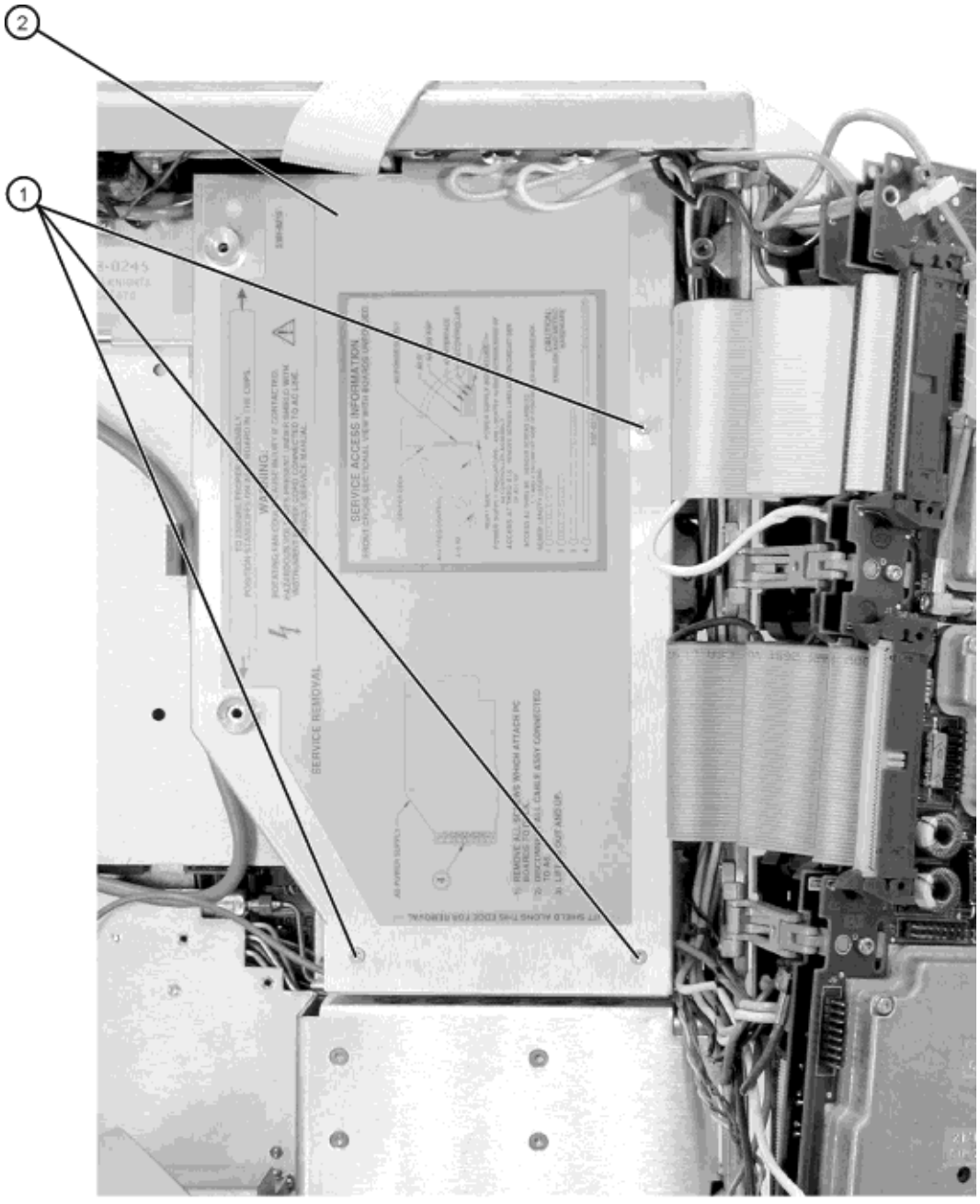
Replacing the Power Supply

5. Referring to Figure 4, remove the 3 screws **(1)** and the power supply shield **(2)**.

Figure 4 Power Supply Shield



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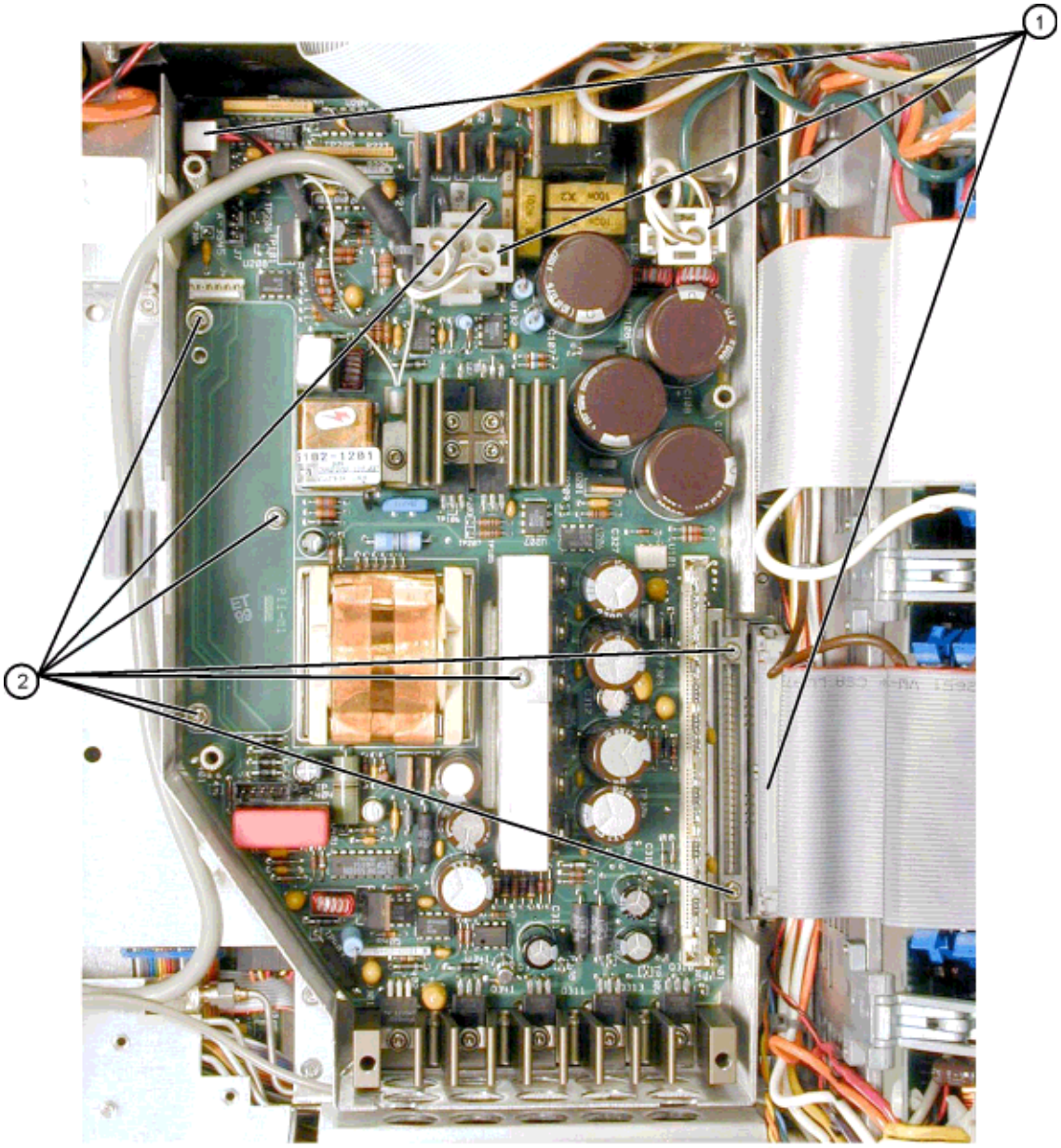
6. Referring to Figure 5, disconnect all cables **(1)** from the power supply assembly.
7. Remove the 7 screws **(2)** and remove the power supply assembly.
8. Install the new assembly and replace the 7 screws **(2)**.
9. Reconnect all the cables **(1)** and make sure they are properly routed to avoid pinching.

Figure 5 Power Supply Assembly



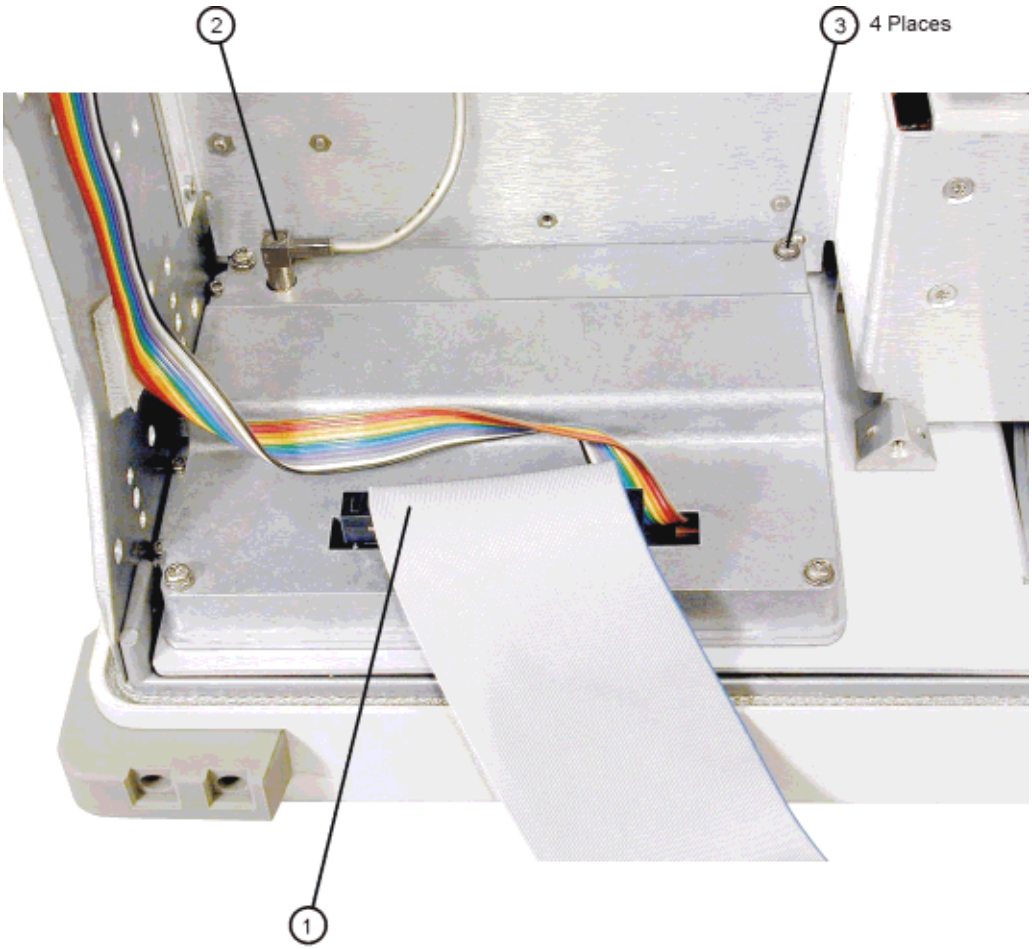
Replacing the Display Driver

Removal

NOTE This procedure can be completed without removing the front frame.

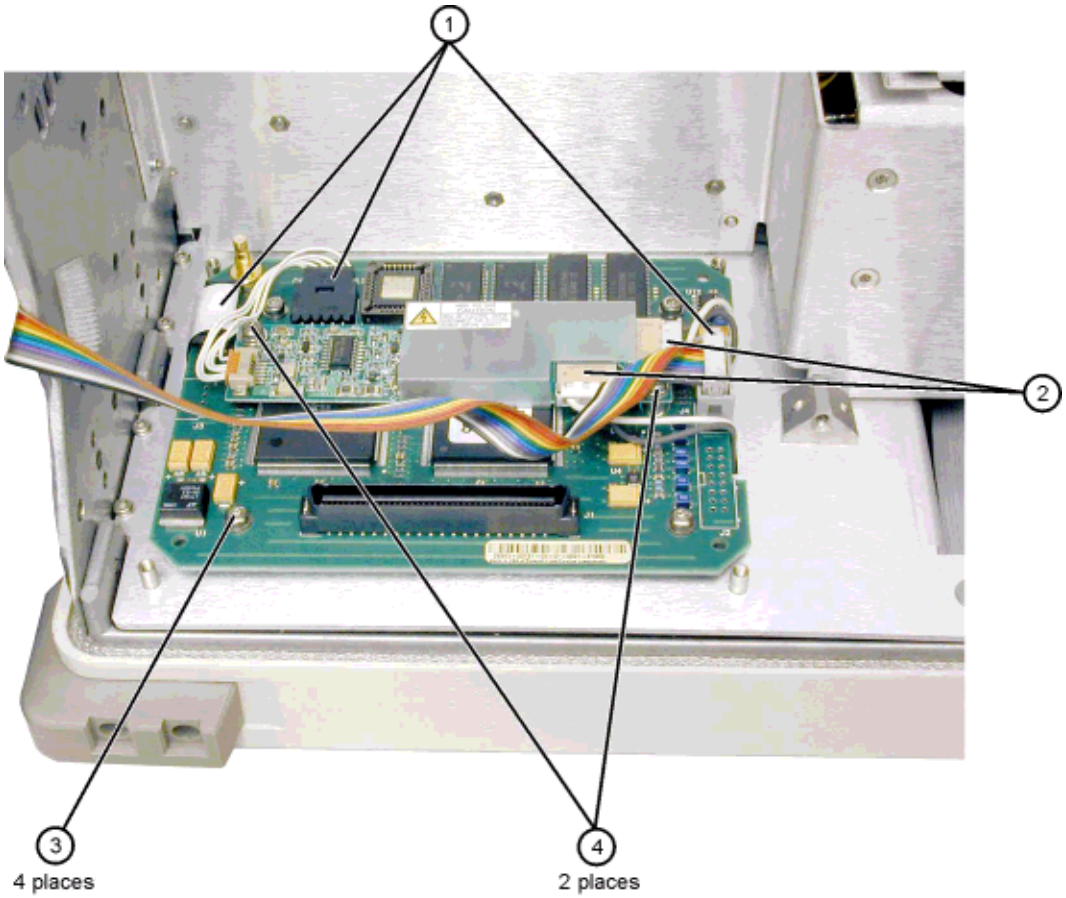
1. Referring to Figure 6, disconnect the ribbon cable **(1)** and the SMA cable **(2)** from the display driver assembly.
2. Remove the 4 screws **(3)** securing the casting to the front frame, and move the casting off to the side.

Figure 6 Display Driver Assembly



3. Referring to Figure 7, disconnect the 3 cables **(1)** from the display driver board.
4. Disconnect the 2 two-wire backlight cables **(2)** from the inverter assembly.
5. Remove the 4 screws **(3)** securing the display driver board to the front frame, and remove it.
6. Remove the 2 screws **(4)** from the inverter assembly and transfer it to the new display driver board.
7. Replace the 2 screws **(4)**, and tighten them to 6 inch pounds.

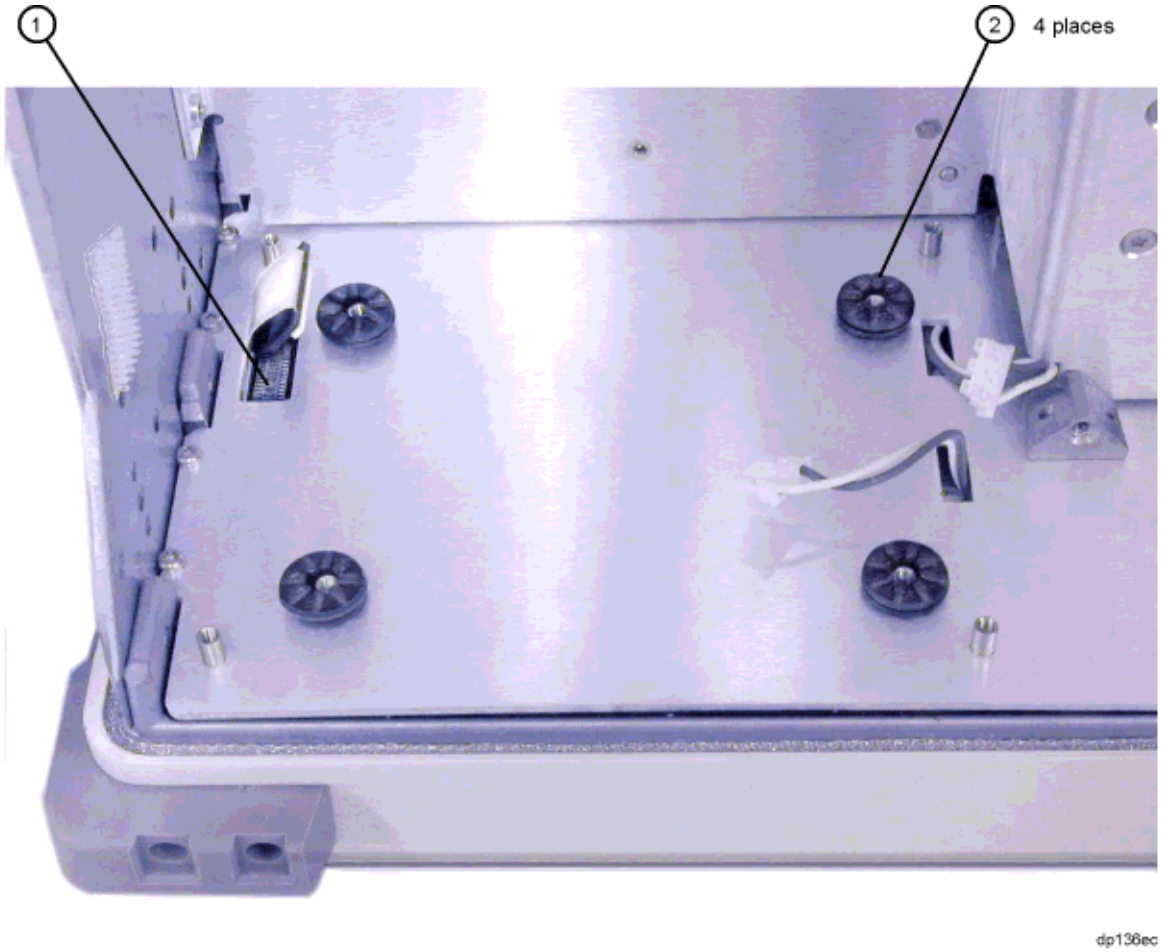
Figure 7 The Display Driver Board



Replacement

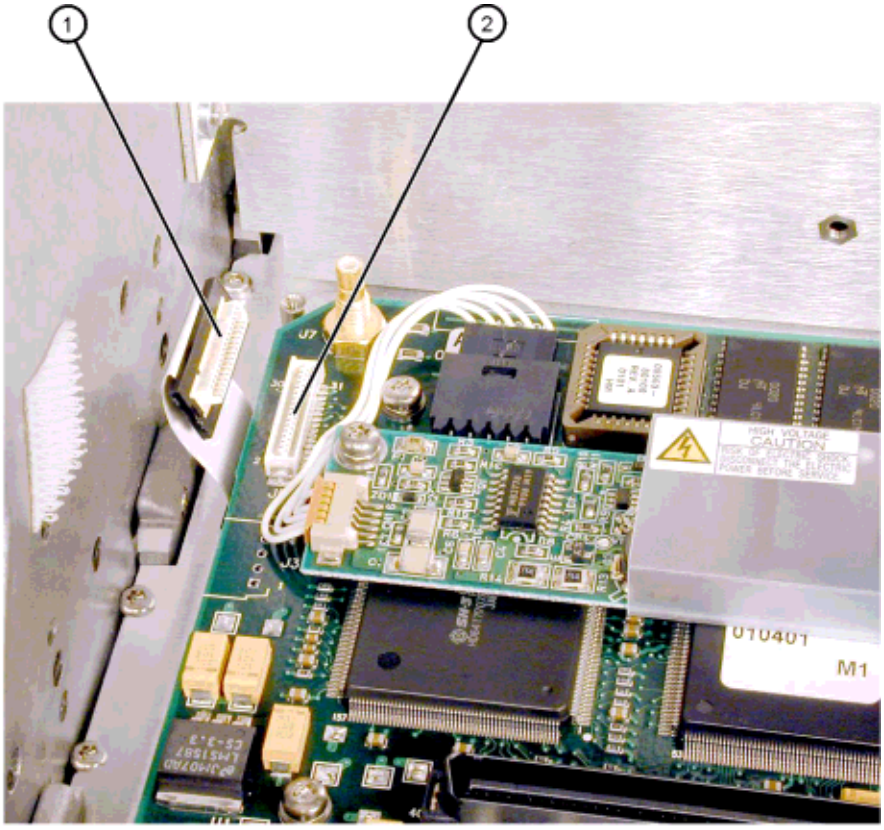
1. Referring to Figure 8, check to make sure the other end of the cable to the display **(1)** is still plugged in securely and the mounting grommets **(2)** are still in place.

Figure 8 Inspecting the Display



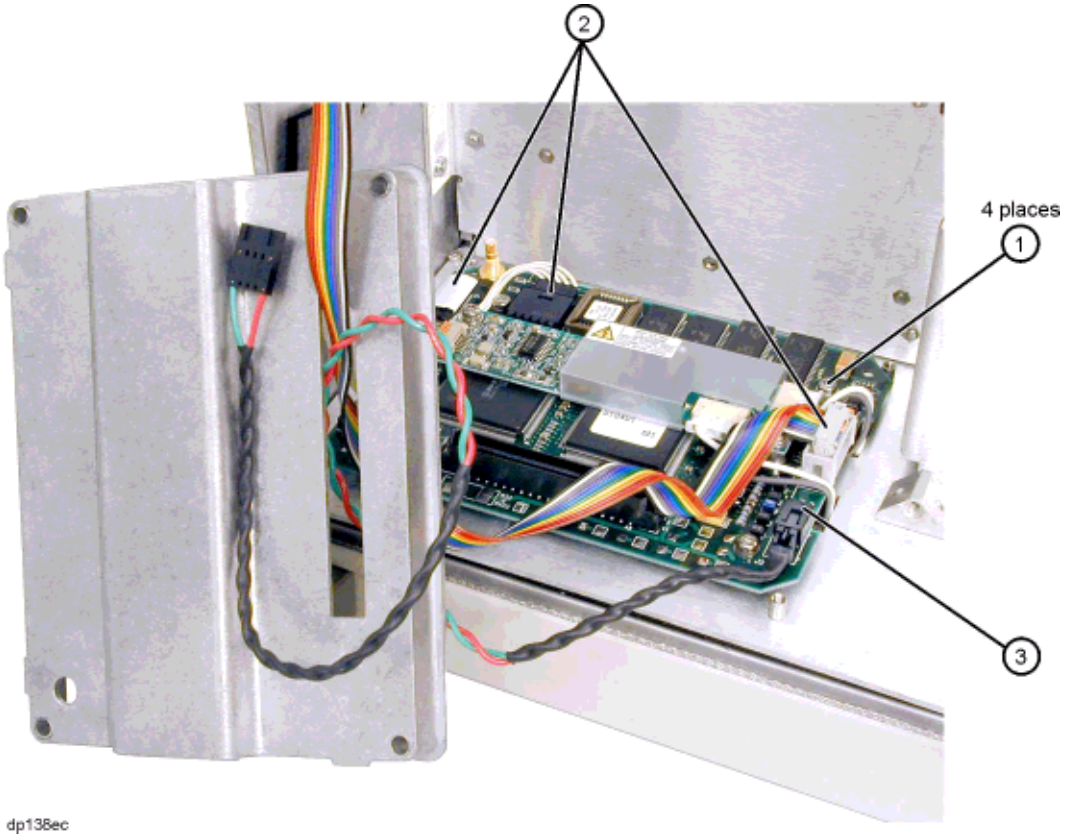
NOTE Be careful not to disturb the display cable connection at the display **(1)** as shown in Figure 8. It is easy to cause it to become partially disconnected. If that happens, there will most likely be problems with reliability. As you can see in Figure 9, the cable wraps over the connector **(2)** on the display driver board.

Figure 9 Display Cable



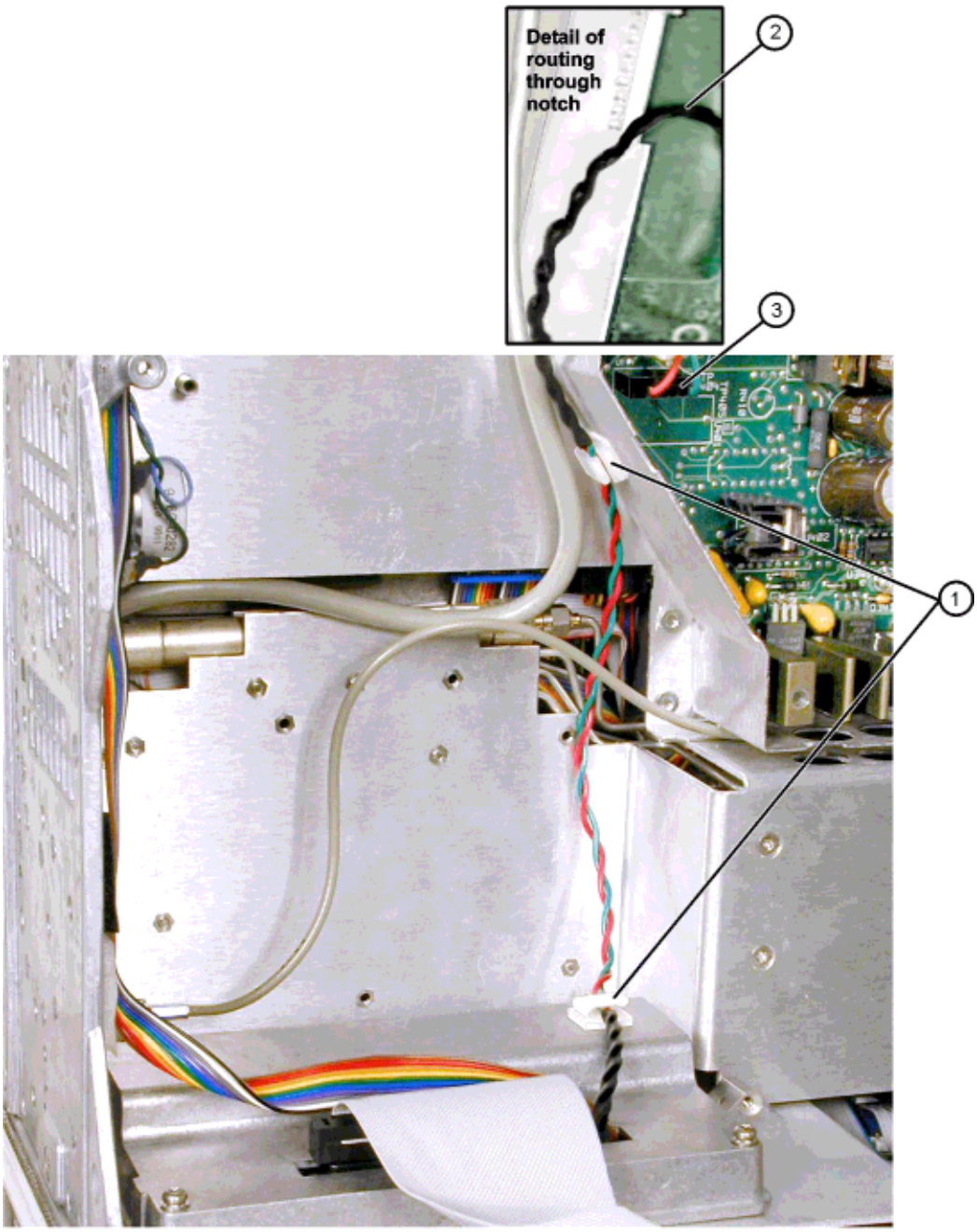
2. Referring to Figure 10, place the new display driver board on its mounts and secure with 4 screws **(1)**.
3. Re-attach the cables **(2)** to the display driver board.
4. Connect the new display power cable **(3)** and route it through the casting as shown.

Figure 10 Attaching the New Display Driver Board



5. Referring to Figure 11, attach the cable clamps **(1)** provided in this kit and secure the power supply cable in the clamps as shown.
6. Route the cable through the notch in the of the power supply shield **(2)** as shown.
7. Connect the other end of the cable to the power supply at A6J5 **(3)** as shown.

Figure 11 Routing the Power Supply Cable



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Closing Up the Analyzer

1. Replace the power supply cover **(2)** and secure with 3 screws **(1)** as shown in Figure 4 on page 7.
2. Using caution not to pinch any cables, fold in the A4 and A5 assemblies **(3)** and make sure they are seated properly. See Figure 3 on page 6.
3. While folding in the A2 and A3 assemblies **(1)**, dress the ribbon cables **(2)** as shown in Figure 3 on page 6.
4. Make sure there are no cables in danger of being pinched, then secure with the 7 screws **(1)** as shown in Figure 2 on page 5.
5. Reconnect the ribbon cable **(2)** to A2 board.
6. Make sure all cables and wires are dressed to avoid pinching. Then replace the dress cover as shown in Figure 12.
7. While tightening the Allen screws **(1)**, make sure the dress cover seats properly around the edges **(2)**.
8. Replace and accessories or modules previously removed.

Figure 12 Replacing the Dress Cover