S E R V I C E N O T E

SUPERSEDES: None

89410A Vector Signal Analyzer

Serial Numbers: See text for all applicable serial numbers.

Calibration failures caused by ADC shorting to heat sink

Duplicate Service Notes: 89410A-03, 89440A-03

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

Part No. Description 89410-44101 Silpad insulator

Situation:

Analyzers with an IF section serial number less than 3313A00220 may have calibration failures caused by the IF section's ADC shorting to its bottom heat sink. To solve this problem, an insulator needs to be placed between the A20 U17 ADC and its bottom heat sink.

Solution/Action:

Install a silpad insulator which is thermal conductive between the IF section's A20 U17 ADC and its bottom heat sink.

Continued

DATE: 01 June 1993

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
MODIFICATION RECOMMENDED		
ACTION CATEGORY:	☐ IMMEDIATELY ☐ ON SPECIFIED FAILURE ■ AGREEABLE TIME	STANDARDS: Labor 1.0 Hour
LOCATION CATEGORY:	■ CUSTOMER INSTALLABLE□ ON-SITE■ SERVICE CENTER	SERVICE ☐ RETURN USED ☐ RETURN INVENTORY: ☐ SCRAP PARTS: ☐ SCRAP SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: 01 June 1995
AUTHOR: CMG	ENTITY: A100	ADDITIONAL INFORMATION:

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If the analyzer has the optional second IF channel, perform steps for channel 1, then repeat steps for channel 2. Do not mix the A20 A/D Converter assemblies between channels. If the A/D Converter assemblies are mixed between channels, the adjustments for the Input and A/D Converter assemblies will need to be done.

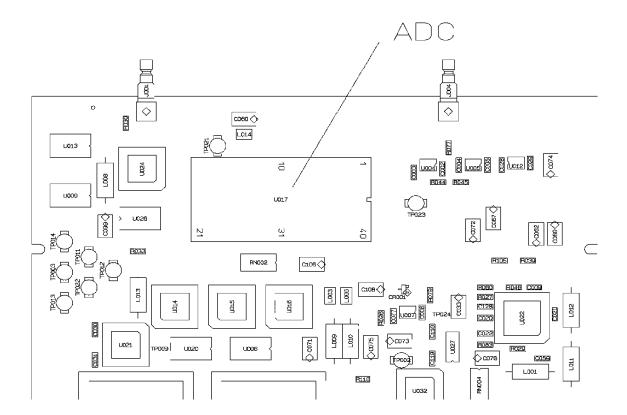
CAUTION

The following steps must be performed at a static protected site to prevent static discharge damage during the handling of the PC assembly.

STEP 1. Remove A/D assembly.

- 1. Set the IF section's power switch to OFF and remove the top cover.
- 2. Remove the card nest screws from the A20 A/D Converter assembly. See Replacing Assemblies in the 89440A Service Guide.

Figure 1



STEP 2. Install the silpad under A20 U17.

- 1. Remove the heat sink on top of A20 U17 using a T-8 Torx screw driver.
- 2. Remove A20 U17 from its socket.
- 3. Place the silpad on the bottom of A20 U17.
- 4. Install A20 U17 in its socket and replace the top heat sink.

STEP 3. Replace the A10 A/D Converter assembly in its card nest.

STEP 4. Connect the A10 and A20 cables as follows using the original SMB cables:

Channel 1:

Red cable A10 J2 to A20 J4 Orange cable A10 J3 to A36 J2 Yellow cable A20 J1 to A60 J3

Channel 2:

Red cable A10 J2 to A20 J4 Orange cable A10 J3 to A36 J5 Yellow cable A20 J1 to A60 J2

STEP 5. Clear the fault log and perform the self test by pressing the following keys:

```
[ System Utility ]
[ more ]
[ diagnostics ]
[ service functions ]
1125
[ enter ]
[ fault log ]
[ clear fault log ]
[ Return ]
[ test log ]
[ Return ]
[ functional tests ]
[ ALL ]
```

It takes about 2 minutes for the analyzer to run the long confidence self test.

STEP 6. Replace the A/D Converter's card nest screws and the top cover.