Errata

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**Manual Part Number:** 05342-90037

**Revision Date:** August 1981

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5342A
Option 006
Microwave Limiter
5342A
OPTION 006 MICROWAVE LIMITER

OPERATING AND SERVICE MANUAL

First Edition — August 1981

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Microfiche Part Number 05342-90038
5342A OPTION 006
MICROWAVE LIMITER

1-1. INTRODUCTION

1-2. This manual provides information pertaining to the specifications, operation, removal, testing, and installation of the Microwave Limiter in the 5342A Frequency Counter.

1-3. SPECIFICATIONS

1-4. Table 1-1 is a chart of the new specifications for the 5342A Frequency Counter with the Microwave Limiter installed.

<table>
<thead>
<tr>
<th>Table 1-1. 5342A Specifications with Option 006 Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5342A</strong></td>
</tr>
<tr>
<td><strong>DAMAGE LEVEL</strong> CN</td>
</tr>
<tr>
<td>+39 dBm (8W), 500 MHz - 6 GHz</td>
</tr>
<tr>
<td>+36 dBm (4W), 6-18 GHz</td>
</tr>
<tr>
<td><strong>SENSITIVITY</strong></td>
</tr>
<tr>
<td>-21 dBm, 500 MHz - 12.4 GHz</td>
</tr>
<tr>
<td>-15 dBm, 12.4 - 18 GHz</td>
</tr>
<tr>
<td><strong>SWR TYPICAL</strong></td>
</tr>
<tr>
<td>&lt; 2.5:1, 500 MHz - 10 GHz</td>
</tr>
<tr>
<td>&lt; 3.5:1, 10 - 18 GHz</td>
</tr>
<tr>
<td><strong>OPTION 006 COMPATIBILITY</strong></td>
</tr>
<tr>
<td>Cannot be ordered with Option 002 Amplitude or Option 003 Extended Dynamic Range. Also cannot be ordered with Option 005 24 GHz Frequency Range but consult factory special to combine Option 005 and 006.</td>
</tr>
</tbody>
</table>

1-5. OPERATION

1-6. Operation of the 5342A Frequency Counter remains unchanged except as specified in Table 1-1.

1-7. REMOVAL

1-8. Use the following steps to remove or install the Option 006 Microwave Limiter:

a. Remove the plastic feet from 5342A (removal instructions molded into each foot).

b. Loosen the 6-32 machine screw at the rear of the bottom cover and slide the bottom cover off the instrument. Position the instrument on its side, with the top oriented to the left.

Note

For convenience and accessibility to the limiter, it may be desirable to disconnect various cables.

Note

When removing or installing the limiter, refer to Figure 1-1.

c. To remove the limiter, hold the connector at point 1 stationary with a 1/4-inch wrench while loosing the connector at point 2 with a 5/16-inch wrench.

d. Loosen the ring nut on the type "N" input connector on the front panel. Continue unscrewing the ring nut approximately five or more turns to allow free movement of the rigid coax.
Figure 1-1. Location of the Option 006 Microwave Limiter Installed in the 5342A
e. While unscrewing the connector at point ② with one hand, gently press upward with the other hand at the 90 degree bend of the rigid coax. The connector will unseat.

f. Hold the connector at point ③ stationary with a 1/4-inch wrench and loosen the connector at point ① with the 5/16-inch wrench.

g. Unscrew the connector and remove the limiter (point ④).

**NOTE**
See Figure 1-2 and Table 1-2 for full part identification.

1-9. The following is the part number for the part that has been deleted to accommodate the Option 006 Limiter.

Cable Assembly, semi-rigid 8120-2482

1-10. The following procedure describes the steps for removing the cable assembly listed in paragraph 1-10.

**CAUTION**
Protect the font panel against scratches.

a. Unscrew the SMA connector at point ⑤ in Figure 1-1. Use a 5/16-inch wrench.

b. Unscrew the ring nut on the type "N" connector on the front panel. Use a 3/4-inch wrench.

1-11. **INSTALLATION**

**NOTE**
The limiter is nondirectional. It may be connected into the circuit in either direction.

1-12. Use the following steps to install the limiter in the 5342A. The following instructions refer to Figure 1-1.

a. Install (or tighten) the right angle connector at point ⑥.

b. Insure the type "N" connector is loose.

c. Attach Option 006 Microwave Limiter (⑦) and tighten connectors ④ and ⑤. Use 5/16-inch and 1/4-inch wrenches respectively.

d. Connect and tighten connectors ① and ② as in Step c.

e. Tighten the ring nut on the type "N" connector on the front panel.

f. Install bottom cover and plastic feet.

1-13. **TESTING**


1-15. Refer to Table 1-1 for the new specifications for the 5342A with the Option 006 Microwave Limiter installed.
Figure 1-2. Components Required to Install the Option 006 Microwave Limiter

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hex Nut, Brass, Nickel plated, 5/8 - 24 THD</td>
<td>2950-0079</td>
</tr>
<tr>
<td>2</td>
<td>Cable Assembly</td>
<td>8120-3219</td>
</tr>
<tr>
<td>3</td>
<td>Microwave Limiter Assembly</td>
<td>5088-7049</td>
</tr>
<tr>
<td>4</td>
<td>Connector, Right Angle</td>
<td>1250-1741</td>
</tr>
</tbody>
</table>