

**E8361A-10****S E R V I C E N O T E**Supersedes:  
NONE**E8361A PNA Series RF Network Analyzers****Serial Numbers:** US00000000 - US43140947**Add-on mechanical components to enhance instrument reliability****To Be Performed By:** Agilent-Qualified Personnel or Customer with specific product repair knowledge – requires instrument disassembly and component replacement.**Parts Required:**

| <b>P/N</b>                                           | <b>Description</b>         | <b>Qty.</b> |
|------------------------------------------------------|----------------------------|-------------|
| Enhancement No.1 (Applies to all models and options) |                            |             |
| E8364-00021                                          | Ribbon Cable Clamp         | 1           |
| 0515-0374                                            | Screw, M3.0x10mm, Pan Head | 1           |

Enhancement No.2 (Applies to all models and options)

|             |                                                             |   |
|-------------|-------------------------------------------------------------|---|
| E8361-20067 | Retainer Clip                                               | 2 |
| 0515-1644   | Machine Screw, M3.0 x 12mm<br>Flat Head (For Retainer Clip) | 2 |

**ADMINISTRATIVE INFORMATION**

|                                                                                                                                                                                                                                                                                     |                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| SERVICE NOTE CLASSIFICATION:                                                                                                                                                                                                                                                        |                                                                  |
| <b>MODIFICATION AVAILABLE</b>                                                                                                                                                                                                                                                       |                                                                  |
| ACTION<br>CATEGORY::      AGREEABLE TIME                                                                                                                                                                                                                                            | X PERFORMANCE ENHANCEMENT<br>X SERVICE / RELIABILITY ENHANCEMENT |
| LOCATION<br>CATEGORY:      X ON-SITE<br>X SERVICE CENTER                                                                                                                                                                                                                            | AVAILABILITY: Support Life                                       |
| AUTHOR: DYCS                                                                                                                                                                                                                                                                        | PRODUCT LINE: WN                                                 |
| ADDITIONAL INFORMATION: This service note applies to all E8361A being manufactured before serial number US43140948. The serial number is found at the back of the instrument. This Service Note must go along together with the instrument model Service Guide during modification. |                                                                  |

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**Enhancement No.3 (Applies to all models and options)**

|           |                                                                   |   |
|-----------|-------------------------------------------------------------------|---|
| 0515-2799 | Patch-lock Screw, M3.0x 10mm<br>Pan Head (For Cable Hold<br>Wire) | 2 |
| 3050-0891 | Flat Washer (For Patch-lock<br>Screw)                             | 2 |

**Situation:**

Further design review has suggested the addition of a clamping mechanism to ensure that the 8121-0118 ribbon cable can not vibrate loose from the Test Set Motherboard connector during extreme handling.

New clamps and locking screws are being added to ensure that those printed circuit assemblies can not vibrate loose from their connectors during extreme handling.

**Solution/Action:****Enhancement No.1 (Applies to all Options)****1. Required Tool for Ribbon Cable Clamp**

- a. Gather a standard 10 lb-in breakaway wrench (used for semi-rigid cables).



- b. Remove the open end head by loosening set screw. It will be replaced with L-Key shown below.



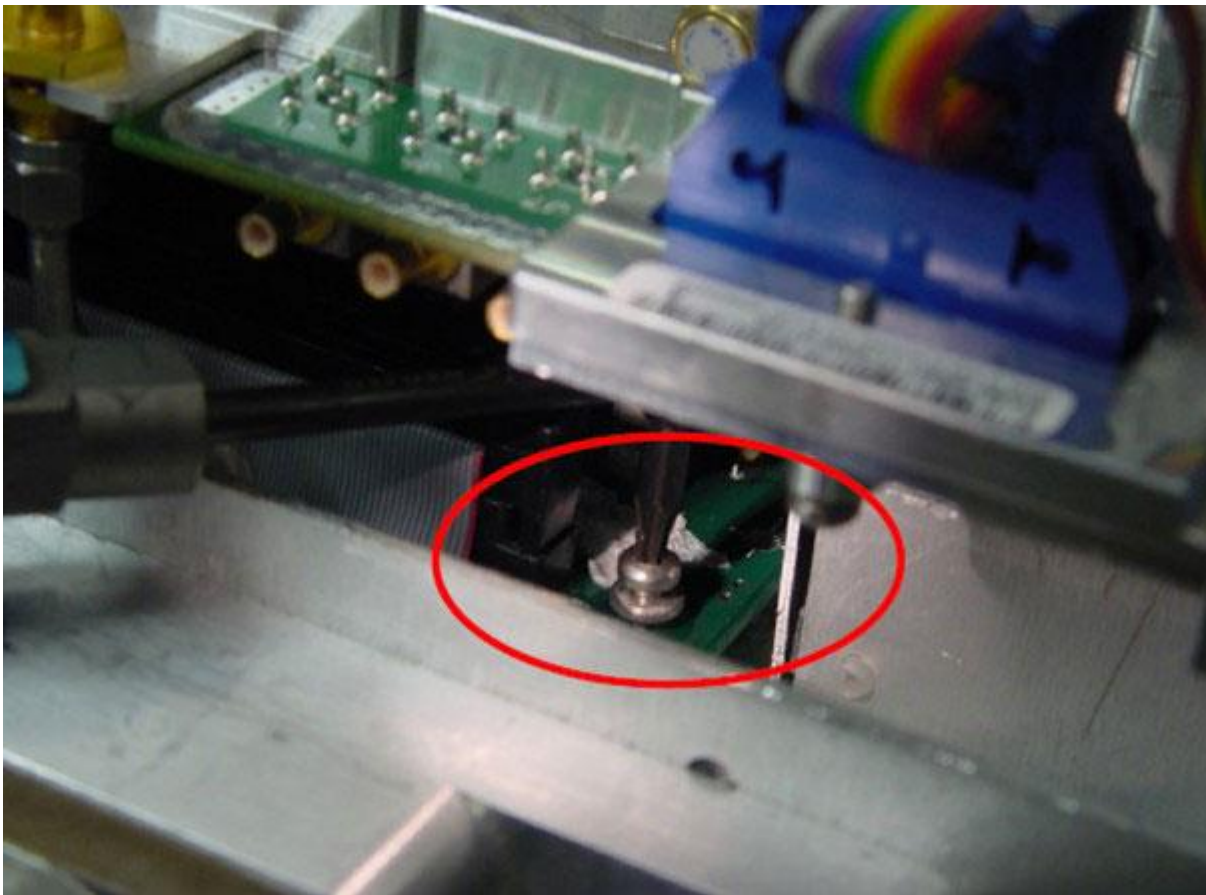
McMaster Carr item 6959A18 (T-10 torx size L-key)

- c. Secure and orient the L-Key to the breakaway handle

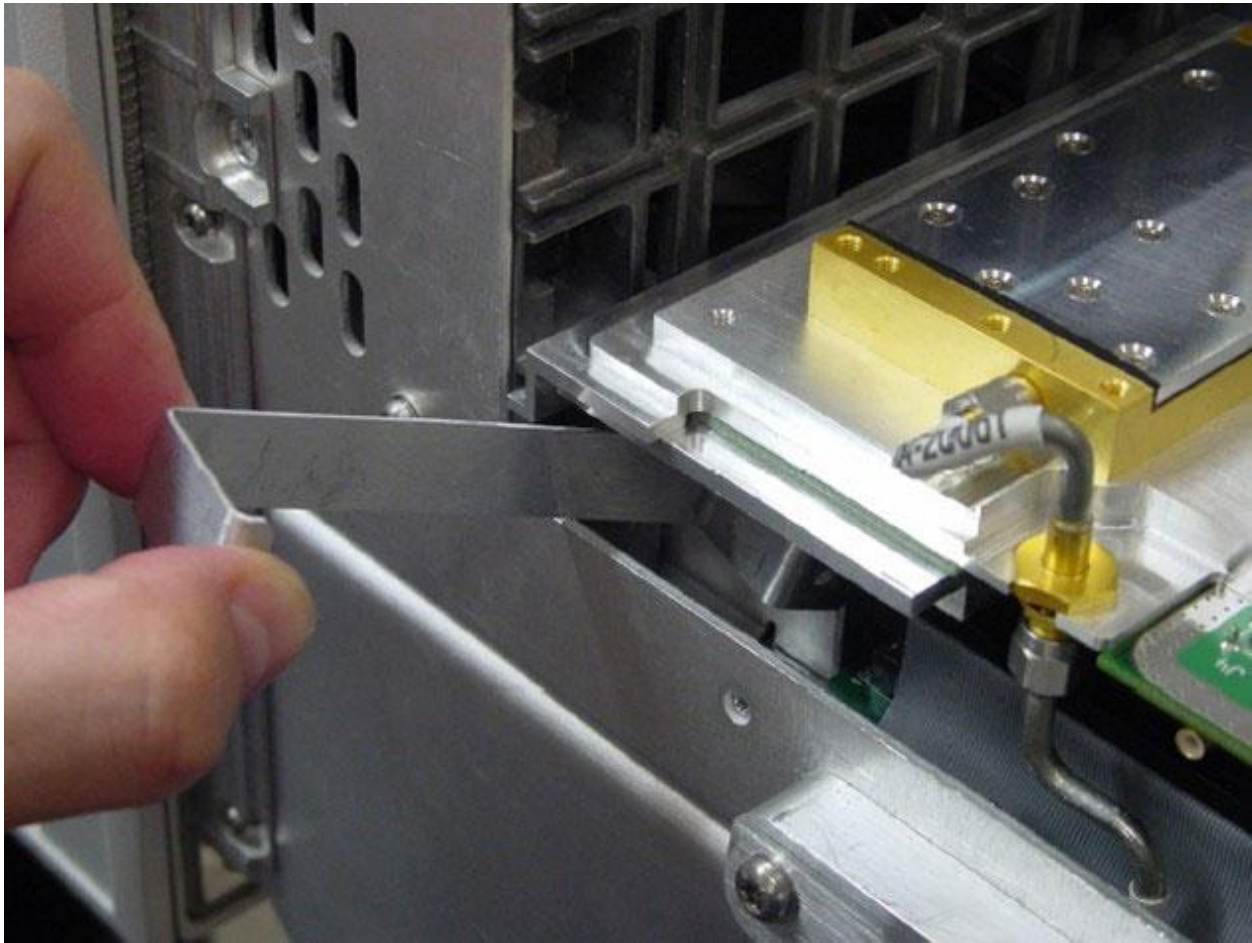


**2. Ribbon Cable Clamp Installation Instructions**

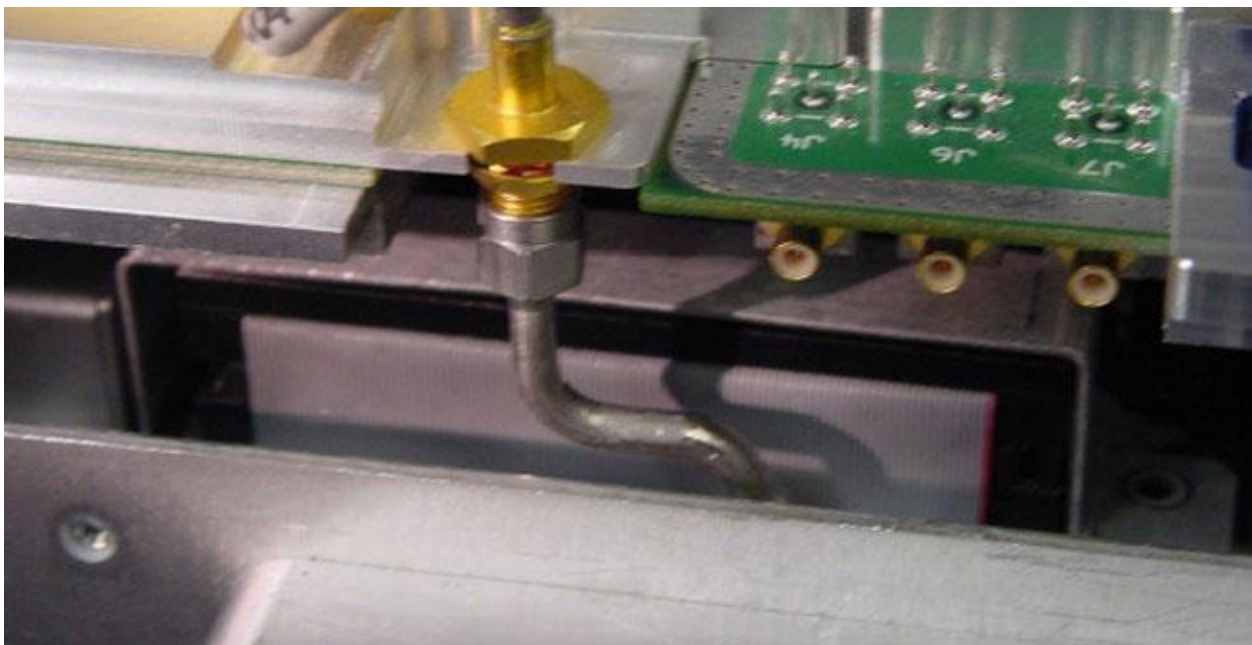
- a. Remove and discard existing screw near ribbon cable connector on System Motherboard. See below.



- b. Insert Ribbon Cable Clamp under Source Assembly as shown.

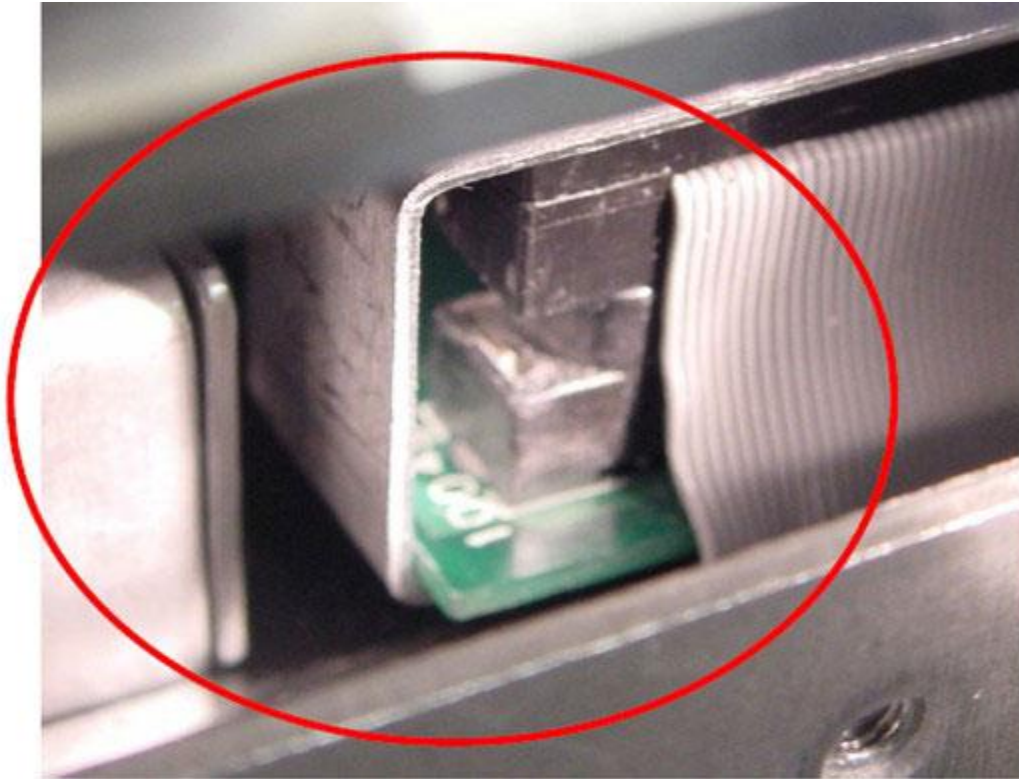


- c. Position the clamp over the Ribbon Connector. Use needle nose pliers if necessary to slide the clamp into place. Ensure that the edge of the clamp is parallel to the connector and not skewed.





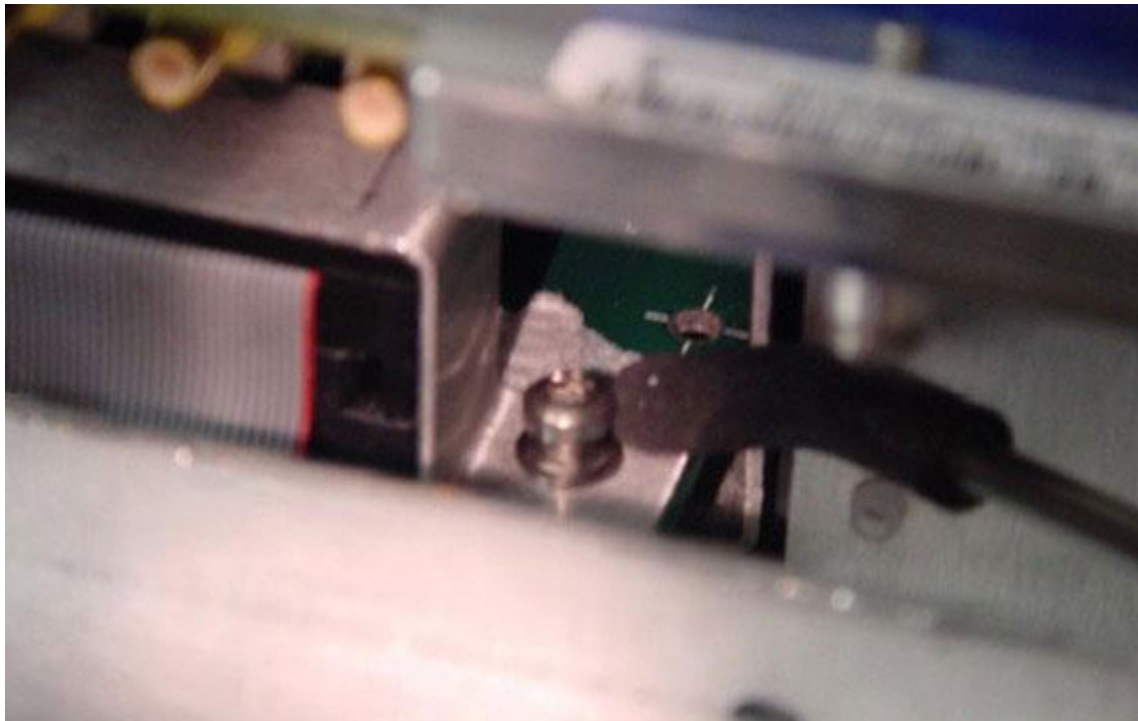
**NOTE:** Ensure that the Clamp Lip is secured **BELOW** the edge of the System Motherboard



- d. Using tweezers, install a new 0515-0374 screw through the hole in the bracket.



- e. Use a nut runner tool (T-316130) or alternatively a clean erasure end of a pencil to help run the screw.

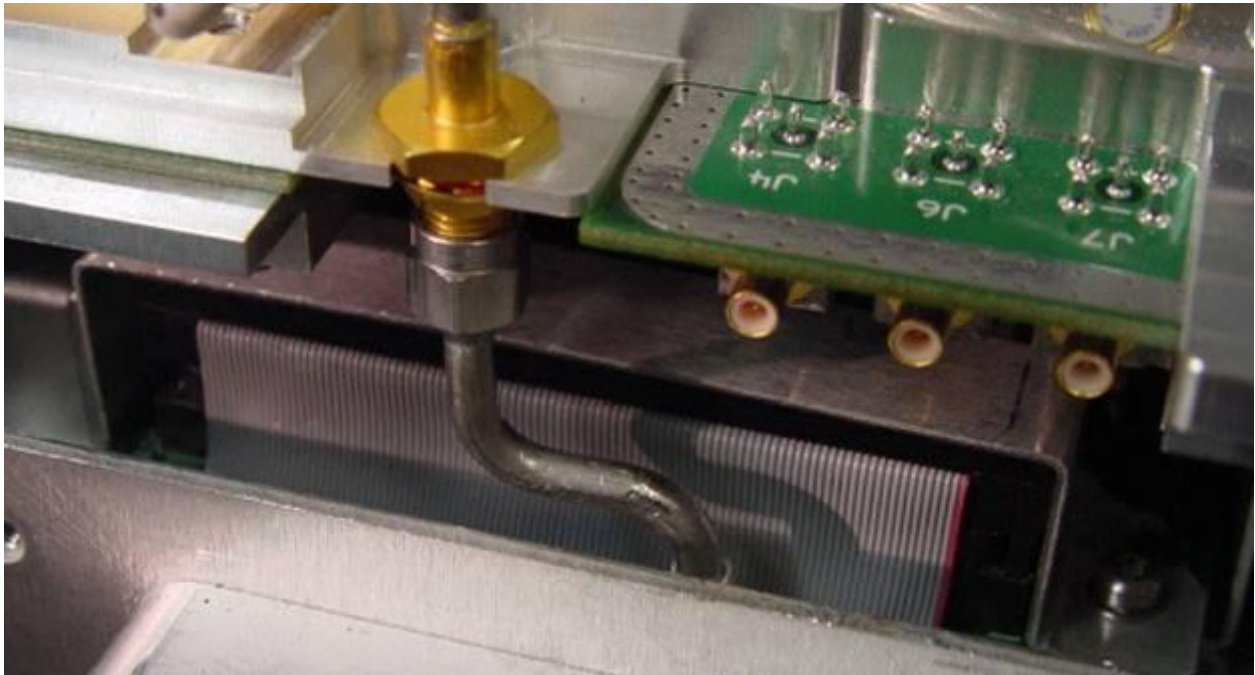




- f. Secure screw using the modified 10 lb-in breakaway wrench.

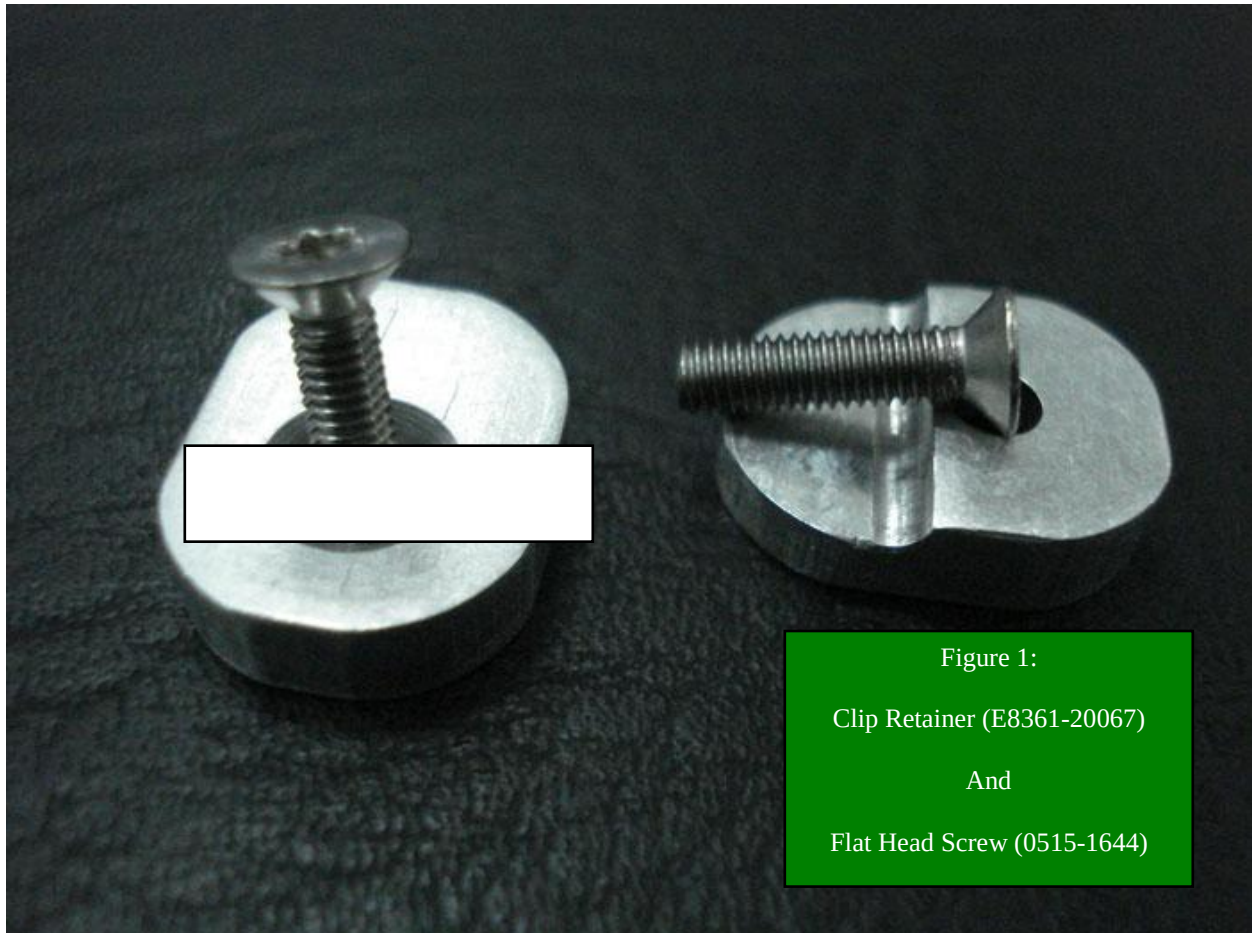


- g. This image shows the final position of the secured clamp.

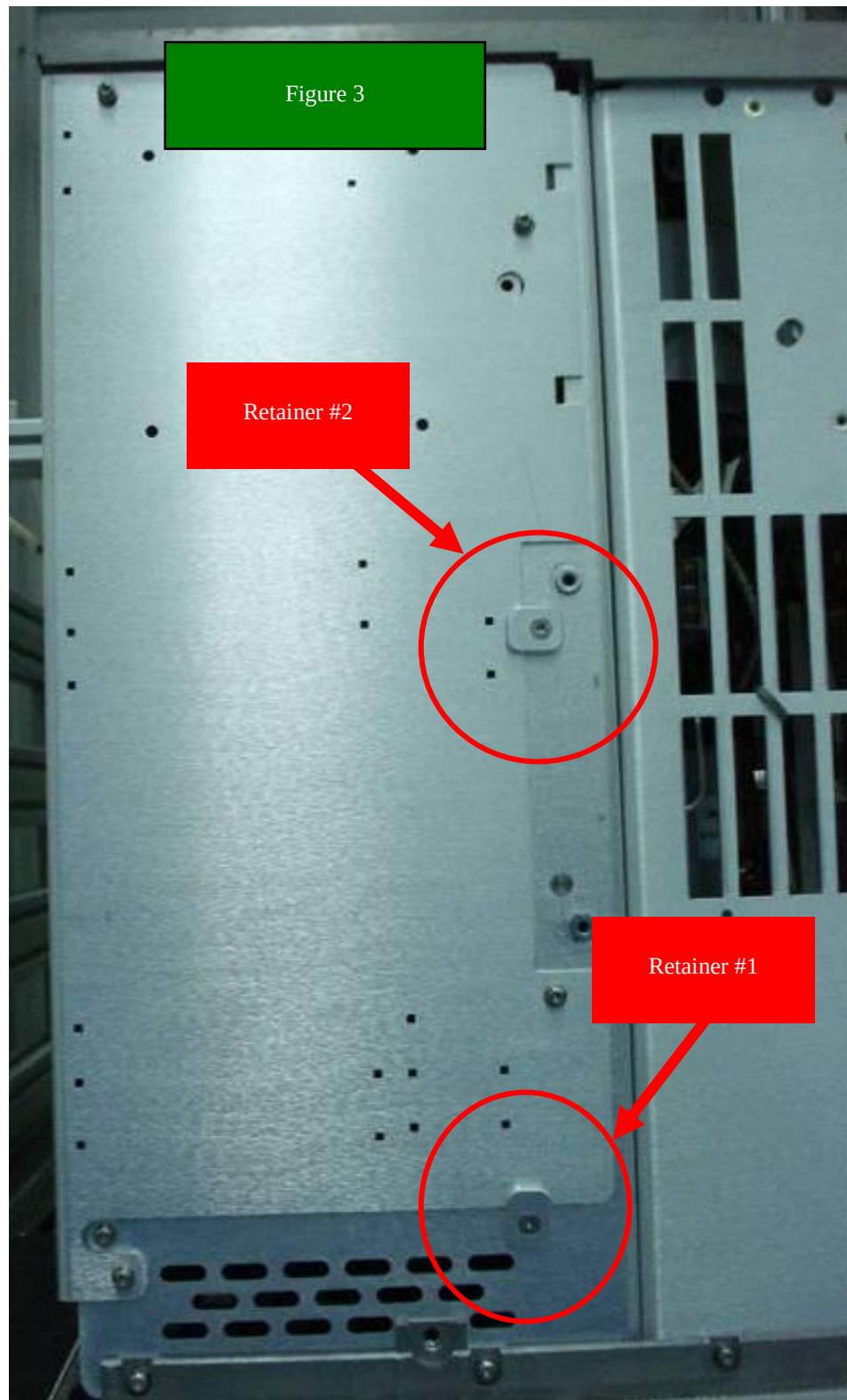


**Enhancement Issue No.2 (Applies to all models and options)**

The Clip Retainer (E8361-20067) to be secured with Flat Head screw (0515-1644) in 2 places at 9 lb-in. This Retainer Clip may naturally rotate a bit when being secured, which is acceptable. Note that the existing screw needs to be removed and discarded prior installing Retainer Clip #1 (shown below in Figure 2a, 2b, and 3).







**Enhancement No.3 (Applies to all models and options)**

The Patch-Lock Screw (0515-2799) and Flat Washer (3050-0891) to be used in 2 places and secured at 9 lb-in. These parts will replace existing screw (0515-0374) used in Step 3 and Step 4 (as shown in Figure 2) to secure the Phase Lock Board (E8364-60137).



Figure 1:  
Patch-Lock Screw (0515-2799)  
And  
Flat Washer (3050-0891)

