

**RELAYS**  
**114, 124, 126, 174 AND 198 TYPES**  
**METHOD OF ATTACHING FLEXIBLE BONDING STRAPS**

**1. GENERAL**

- 1.01 This section describes the method of attaching flexible bonding straps to Nos. 114, 124, 126, 174 and 198 type relays which are equipped with a coiled retractile spring.
- 1.02 This section is reissued to cover the use of modified No. 97 cord tips on bonding straps instead of spade terminals. The modified No. 97 cord tips are identical in all respects to the No. 97 cord tips except that thinner material is used.
- 1.03 Bonding straps equipped with spade terminals are still satisfactory for use and their application should follow the general procedures covered herein.
- 1.04 These bonding straps are for use only in special cases where trouble is encountered due to improper electrical contact between the relay armature and relay shell and they should be applied only after receiving proper authorization for their use.
- 1.05 Since very fine gauge stranded wire is used for these bonding straps they should be handled very carefully to avoid breakage of the individual strands of wire.

**2. APPARATUS**

- 2.01 Flexible Bonding Straps per D-81764.
- 2.02 No. 349 Tool.
- 2.03 Screwdriver, 3-1/2" Cabinet.
- 2.04 Diagonal Pliers.
- 2.05 Long Nose Pliers.
- 2.06 For checking the adjustment of the relay after the bonding strap is in place, additional tools as covered by Section 040-220-701 will be required.

**3. METHOD**

- 3.01 For the purpose of this description, the relays are considered as being mounted with the pivot screws at the left, as shown in Figs. 1 and 2. There are cases, however, where the relays are mounted so that the pivot screws are at the top, to the right, or at the bottom.

**Relays With Feather Springs**

- 3.02 While holding the upper pivot screw securely with the long nose pliers, loosen the upper pivot screw lock nut with the No. 349 tool and insert one of the

cord tips of the bonding strap beneath it so that the wiring end of the terminal extends directly to the front. Retighten the lock nut, holding the screw in position with the pliers, making sure to provide for proper end play of the armature.

- 3.03 Loosen the feather spring screw with the screwdriver and place the cord tip at the other end of the bonding strap between the head of the screw and the feather spring, with the wiring end of the terminal extending directly to the left. Retighten the screw, taking care that the feather spring contact is properly centered with respect to the back contact screw. It will be found helpful while retightening the feather spring screw to hold the cord tip with the long nose pliers.

- 3.04 Dress the wire of the bonding strap across the face of the armature so that it will take the approximate position of that shown in Fig. 1.

- 3.05 Inspect the bonding strap to see if any of the individual strands of wire are broken. If any broken strands are detected they should be cut off.

- 3.06 After the above operations are completed check the mechanical and electrical adjustments of the relay and readjust if necessary. If for any reason the bonding strap is shifted thereafter, a recheck of the relay adjustments should be made.

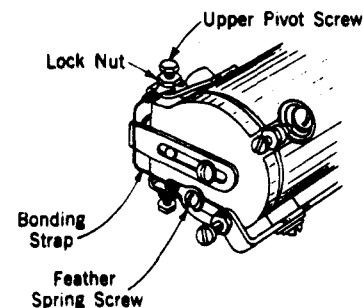


Fig. 1 - Flexible Bonding Strap in Place on Nos. 114, 124, 126, 174 and 198 Type Relays With Feather Springs.

**Relays Without Feather Springs**

- 3.07 Place one cord tip of the bonding strap beneath the upper pivot screw lock nut as described in paragraph 3.02.

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3.08 With the screwdriver loosen the retractile spring support screw indicated as A in Fig. 2. Place the other cord tip between the head of the screw and the washer which is regularly provided, with the wiring end of the terminal extending directly to the left. Retighten the screw.

3.09 Dress the wire so that it will take the approximate position shown in Fig. 2.

3.10 Inspect the bonding strap to see if any of the individual strands of wire are broken. If any broken strands are detected they should be cut off.

3.11 After the above operations are completed check the mechanical and electrical adjustments of the relay and readjust if necessary. If for any reason the

bonding strap is shifted thereafter, a recheck of the relay adjustments should be made.

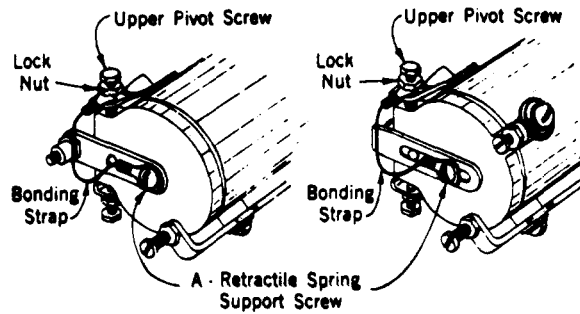


Fig. 2 - Flexible Bonding Strap in Place on Nos. 114, 124, 126, 174 and 198 Type Relays Without Feather Spring.