## Series 40 TAG® Ring Backshells Assembly Instructions



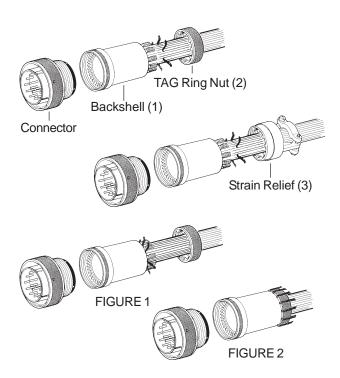
## **ASSEMBLY INSTRUCTIONS 40-1**

The following suggested procedure serves as a guide for proper assembly and installation of Glenair TAG® Ring Backshells. Actual termination and assembly methods will depend on the accepted techniques of the user. It is recommended that trial samples of appropriate cables or harnesses be used to determine proper trim dimensions of the conductor shields and individual conductors.

These instructions are based on using a self-pigtailing technique for the individual shields, with the location at which the conductors are extracted through the shields to be determined by the particular connector involved, as well as backshell length.

Solder sleeves and ground wires may be used as an alternate method of commonly grounding the individual conductor shields. A slight alteration of the following instructions will permit easy termination of these ground wires.

- a. Measure length of backshell (1) and determine length of conductor needed to terminate to connector and locate shield pigtails approximately adjacent to the slotted portion of the TAG® Ring backshell.
- b. Place backshell (1) and TAG<sup>®</sup> Ring nut (2) or strain relief (3) on wire bundle. Keep these components at a convenient distance from the end of the wire bundle so they will not interfere with subsequent assembly steps.
- c. If shielded conductors have an outer jacket, strip jacket to desired length. Extract conductors through shield at locations determined in step (a). Flatten shield pigtails and temporarily tie pigtails flat against wire bundle, with pigtail ends facing away from the connector.
- d. Prepare and terminate conductors to connector in accordance with established practices.
- e. Assemble backshell (1) to connector and tighten securely.
- f. Remove temporary tie from pigtails and flare flattened shields outward from wire bundle. Distribute shields as uniformly as possible among TAG® Ring backshell slots as shown in Figure 1. Grounding spring in TAG® Ring nut (2) or strain relief (3) compensates for differences in shield thickness of at least .020 inch (0.5 mm) between adjacent slots. If necessary, double back shields to achieve uniform shield thickness between adjacent slots.



- g. With shields in place in TAG<sup>®</sup> Ring backshell slots, engage TAG<sup>®</sup> Ring nut (2) or strain relief (3), aligning grounding spring tabs with slots. Tighten nut securely.
- h. Exposed shields may be trimmed flush with surface of TAG<sup>®</sup> Ring nut or strain relief body. However, if future repairability is desired, it is suggested that at least 1 to 2 inches (25 to 50 mm) of extra shield length be preserved. Simply lay the flattened shields against surface of the TAG<sup>®</sup> Ring nut and tie behind the nut against wire bundle as in Figure 2. If strain relief (3) is used, shield ends can be held in position under strain relief saddles.
- j. If desired, heat shrinkable sleeving may be installed over TAG® Ring nut to hold shields in place and to serve as a protective covering and strain relief.

NOTE: As with any electrical connector assembly procedure, be sure to use the proper tools. For convenient, reliable assembly of the connector and backshell, it is suggested that Glenair's connector holding tools, strap wrenches and connector pliers be used.