

MISSION-CRITICAL
INTERCONNECT
SOLUTIONS



Glenair
SIGNATURE SERIES



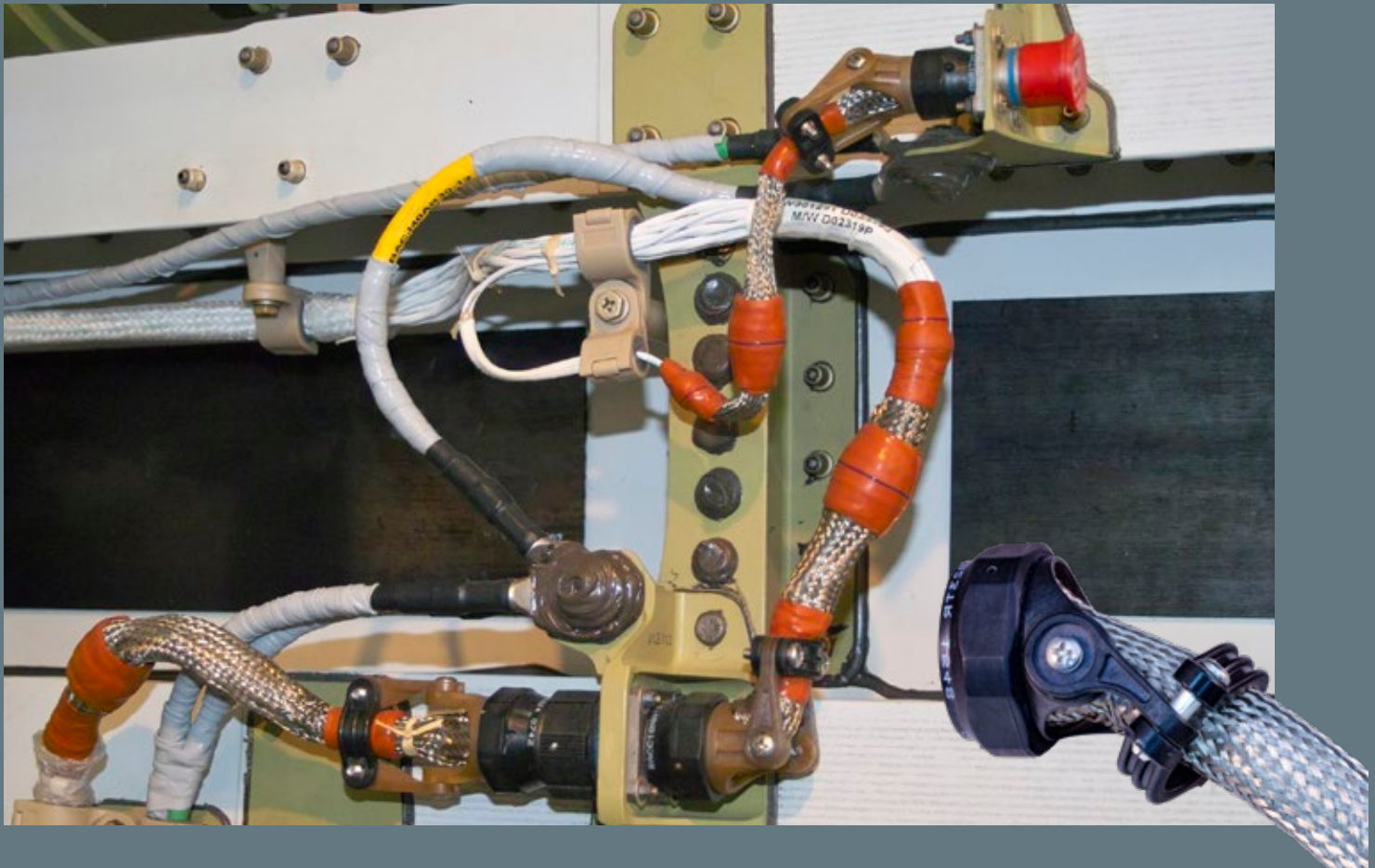
Swing-Arm 3-in-1 Articulating Strain Relief

Signature Interconnect Technology for Urban Air Mobility

WIRE AND CABLE
PROTECTION
AND MANAGEMENT
TECHNOLOGY

SWING ARM®

3-in-1 lightweight composite backshell with
optional drop-in braid termination follower



Glenair's composite Swing-Arm® strain relief backshell is a lightweight and corrosion-free cable clamp with cable shield termination options for a wide range of EWIS applications. This innovative backshell has become the standard shield termination device for weight reduction in both military and commercial airframe applications. Made from temperature-tolerant composite thermoplastic, rugged Swing-Arm® backshells offer easy installation, long-term performance, and outstanding weight and SKU reduction. Performance tested to stringent AS85049 mechanical and electrical standards and available for all commonly-specified mil-standard and commercial cylindrical connectors including MIL-DTL-38999, SuperNine, and Series 806 Mil-Aero.

Introducing Swing-Arm FLEX®, Glenair Next- Generation Composite Swing-Arm® Strain Relief

- Significant weight reduction: no saddle bars or hardware
- Rapid assembly: cable self-centers on bundle, little or no wrapping tape required
- Braid sock and drop-in band termination follower versions for EMI/RFI applications
- Internal conductive ground path



SWING ARM®
COMPOSITE THREE-IN-ONE BACKSHELL
FLEX

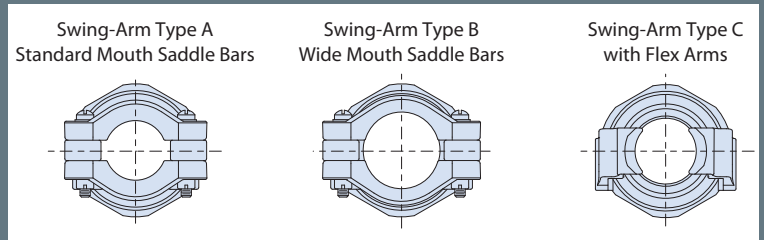
User-configurable straight, 45°, and 90° cable routing

Swing-Arm 3-in-1 lightweight composite thermoplastic strain-relief and EMI/RFI shield termination backshell



THREE STYLES OF SWING-ARM STRAIN RELIEF CLAMPS

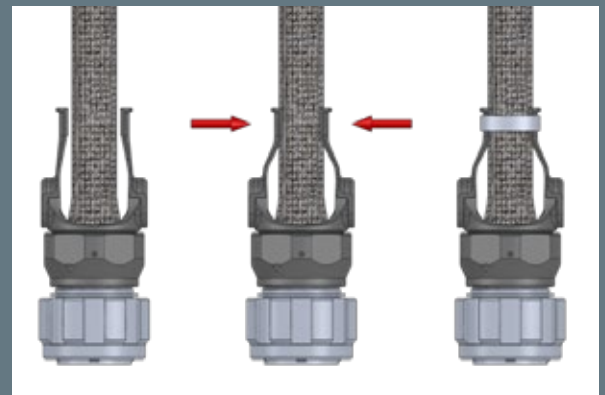
- Style A - standard mouth, rigid saddle bars
- Style B - wide mouth (for larger cable diameters), rigid saddle bars
- Style C Swing-Arm FLEX - no saddle bars, self-centering round cable strain relief



SWING-ARM VERSATILITY: FROM SIMPLE CABLE STRAIN RELIEF TO EMI/RFI SHIELD TERMINATION



Fast and reliable termination of individual wire and overall EMI cable shielding with industry-standard Band-Master ATS® tools and straps. New slim profile bands eliminate sharp strap cutoff for improved safety.



DROP-IN FOLLOWER FOR DIRECT TERMINATION OF OVERALL OR INDIVIDUAL WIRE SHIELDING

Two drop-in-follower designs, solid and slotted are available for all Swing-Arm styles (A, B, and C).



SWING-ARM AND SWING-ARM FLEX WITH OPTIONAL INTEGRATED SHIELD SOCK

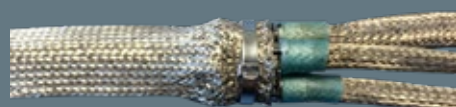
For fast and reliable EMI/RFI shield termination of individual wire and overall cable shielding



SWING-ARM SHIELD SOCK TERMINATION OPTIONS, STANDARD SPLIT RING OR STARSHIELD STAR



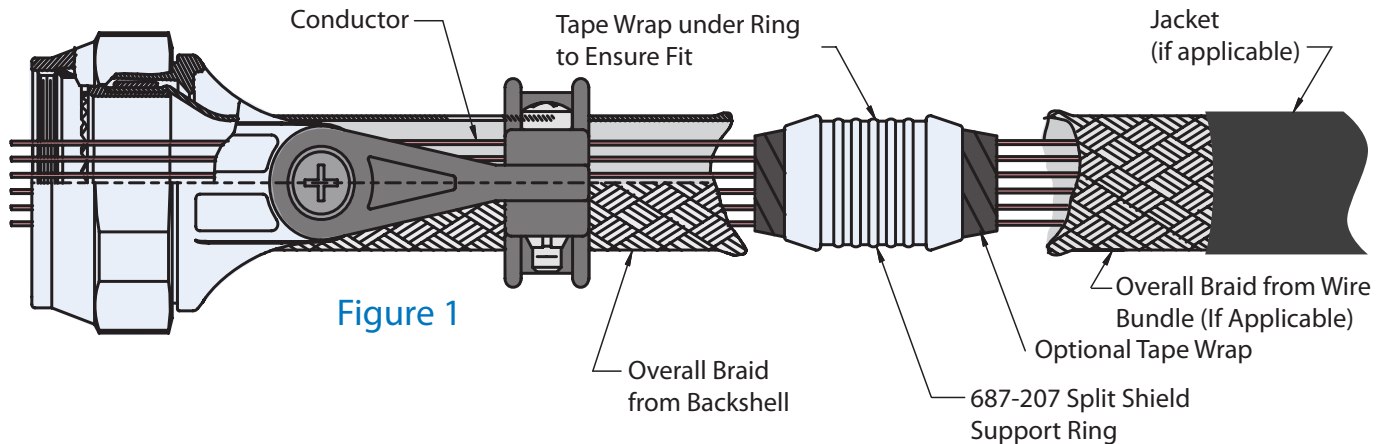
Termination of shield sock to cable shield with split support ring



Termination of shield sock to individual wire shields with auxiliary "flex shield" HST and StarShield™ Star

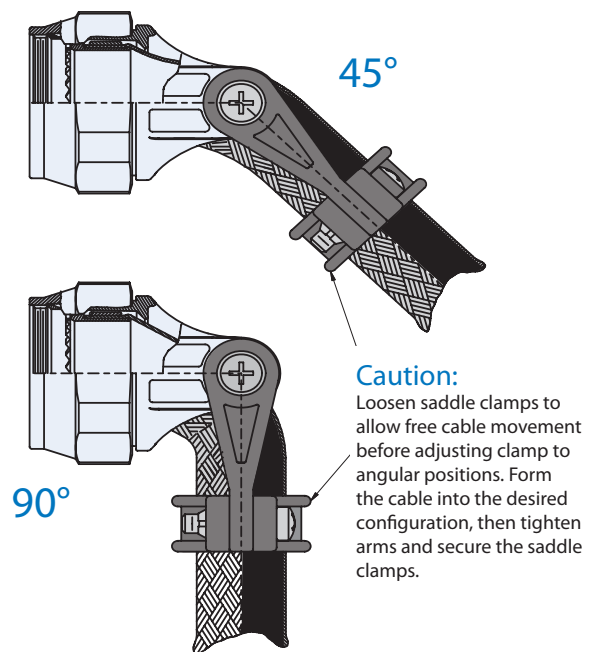


SWING-ARM COMPOSITE 3-IN-1 BACKSHELL SHIELD SOCK TERMINATION PROCEDURE

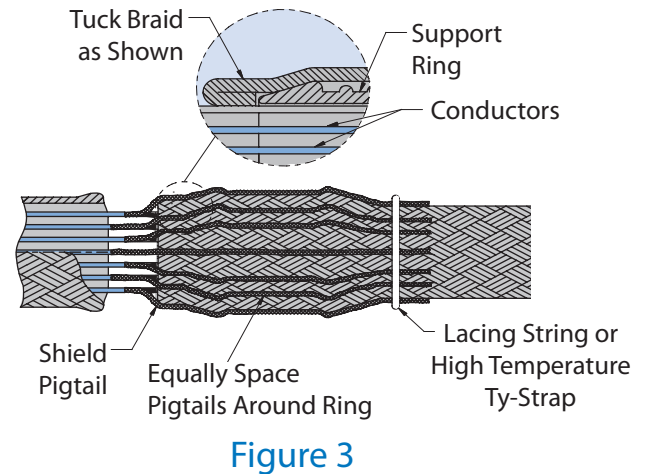
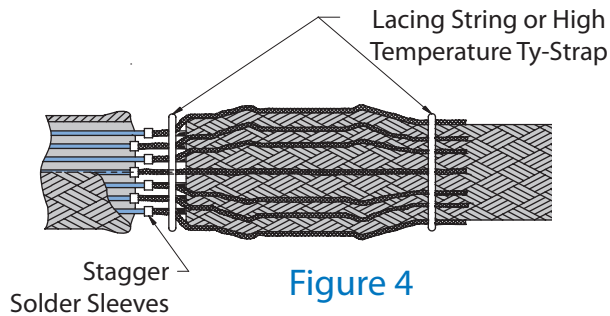
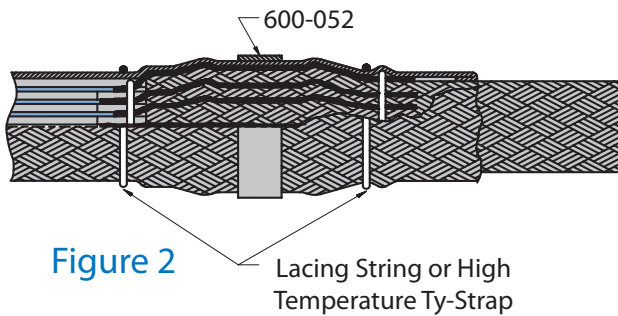


Glenair recommends that trial samples of appropriate shield wire bundles be used to determine proper trim dimensions of the individual shields, conductors, and cable jacket (if applicable)

1. Choose Straight, 45° or 90° angle, and tighten screws to lock arms in place. Leave the saddle clamp hardware loose.
2. Next, insert the wire bundle into the backshell to determine if the braid transition angle from the backshell to wire bundle is less than 45°. If it is less than 45°, build up the wire bundle with tape and re-insert wire bundle into backshell to support the transition of overall braid from the backshell to the wire bundle.
3. Loosely assemble the adapter to the connector and push back the backshell braid. Insert the wire bundle into the adapter and bottom it against the connector. Holding the cable, mark or tag the location where the shield support ring (Glenair Part Number 687-207) will be located. This distance may vary depending on your technique and the flexibility of the wire bundle immediately to the rear of the saddles (Figure 1).
4. At the marked location, near the shield support ring, wrap tape around wire bundle for snug fit of shield support ring (Figure 1). Tape wrap is optional.
5. Slide the overall braid from the wire bundle side over the shield support ring, trimming the braid ends and tucking extra braid underneath itself for a clean appearance.



Shield sock termination assembly procedure



6. For pin connectors, slide the backshell forward, and hand tighten backshell to connector. Then, evenly space shield pigtails (Figure 3) or solder sleeve pigtails (Figure 4) around the shield support ring. Cut the pigtails so that their ends are approximately 1/2" beyond the end of the shield support ring.
7. Bring the shield sock from backshell and completely cover the pigtails and support ring. Trim and fold the braid as shown in Figure 2. Lace tie the shield adjacent to support ring ends.
8. Install a Glenair Band-Master ATS® band between the lace ties onto the center of the support ring as shown in Figure 2. 600 Series Band-Master ATS® hand banding tool or pneumatic banding tool is used for this process.
9. Wrap the shield support ring assembly with high-temperature tape. Place lacing cord, high-temperature tape, or high-temperature Ty-wraps in 1" increments starting at the braid transition at the rear of the backshell to secure overbraid on the wire bundle. Cover the overbraid with 102-080 braid sock extending approximately 1" past the shield support ring.
10. Tighten the adapter to the connector using Glenair 600-091 or 600-057 composite hex coupling torque wrench and related accessories to torque values in Table I below. Secure the strain relief saddle onto the wire bundle using TG69 soft jaw pliers. Torque the saddle screws to established values (Table I). Use Fluoropolymer tape wrap or M85049/127 bushing strip as needed to cushion the braid sock under the saddle clamps.

Your Swing-Arm strain relief installation is complete!

Table I: Torque Values

Connector Shell Size Ref.	Coupling Ring Installation Torque (in lb)	Hex Coupling Torque Wrench	Saddle Screw Size	Saddle Screw Installation Torque (in lb)	Arm Screw Size	Arm Screw Installation Torque (in lb)
08, 09, A	20/25	600-091-08 or 600-157-08	4	4	4	4
10, 11, B	20/30	600-091-10 or 600-157-10	4	4	4	4
12, 13, C	25/35	600-091-12 or 600-157-12	6	6	6	6
14, 15, D	25/35	600-091-14 or 600-157-14	6	6	6	6
16, 17, E	30/40	600-091-16 or 600-157-16	6	6	6	6
18, 19, F	30/40	600-091-18 or 600-157-18	6	6	6	6
20, 21, G	35/45	600-091-20 or 600-157-20	6	6	6	6
22, 23, H	35/45	600-091-22 or 600-157-22	6	6	6	6
24, 25, J	35/45	600-091-24 or 600-157-24	6	6	6	6
28	115/125	600-091-28 or 600-157-28	6	6	8	-



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