

Micro-D Backshells

General Information and Reference Data



About Micro-D Backshells

Micro-D EMI backshells connect cable shields to Micro-D connectors, providing strain relief and mechanical protection. These backshells are made out of aluminum alloy. Electroless nickel is the most widely used finish. These backshells are compatible with industry-standard metal shell M83513 type connectors. The following application notes explain how to select the right type of backshell.

EMI Versus Non-EMI Backshells

Select EMI backshells if your cable has a braided copper shield. The cable shield is secured to the backshell with a BandMaster™ ATS strap, supplied with the backshell or purchased separately.

Select a strain relief backshell if your connector has individual wires or if your wire bundle does not have a metal shield.

EMI backshells do not normally require additional strain relief. Micro-D wires are typically potted, and the shield braid is a sufficient strain relief. An optional ty-wrap leg is available if necessary. Add "S" to the end of the part number.



Standard Band Versus Micro Band

Most Micro-D EMI backshells feature low profile band platforms designed for narrow (.125" width) micro band. Some have a taller band platform which also accepts standard bands (.250" width). Please refer to the "Backshell Selection Guide" on the preceding page to identify which backshells are compatible with both the standard band and the micro band.



One Piece Backshell Versus Split Backshell

Use one piece backshells if in stock availability is important. Split backshells allow installation after the other end of the cable has been terminated. Some split backshells fit over the connector, eliminating the highly magnetic clip. Split versions also can accommodate screw locks.

Jackscrews and Screwlocks

Jackscrews are fixed in position and must be turned in order to mate the connectors together. Screwlocks float and allow the connectors to be coupled before the screwlocks are engaged. Screwlocks allow faster mating, while jackscrews offer less risk of contact damage.

Elliptical Versus Circular Cable Entry

Choose elliptical backshells if the wire bundle diameter is too big to fit in a circular cable entry. Large Micro-D connectors (51 pins and up) usually exceed the limits of the round entries. Refer to the cable entry and wire bundle tables in this section to find out if an elliptical entry is necessary.

The actual size illustrations to the right show the difference between round and elliptical cable entries. The round entry circular mil area = $\frac{1}{2}(\frac{1}{2}D)^2 = .11 \text{ In.}^2$. The formula for the area of an ellipse is $\frac{1}{2}(\text{Length})(\text{Width}) \div 4 = .36 \text{ In.}^2$



Round Cable Entry

100 Pin .375 Inch (9.5 mm.) Diameter



Elliptical Cable Entry

100 Pin .360 By 1.29 Inch (9.1 X 32.8 mm.)





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BandMaster® ATS Shield Termination System

Fast, Cost-Effective Shield Termination

Attach cable braid shields to EMI backshells with **BandMaster® ATS** stainless steel straps. The **Band-Master® ATS** system offers fast termination and the flexibility to handle different diameters with the same band.

The aerospace industry has adopted this system for every type of application where reliability and durability are essential.

IMPORTANT NOTE: ALWAYS DOUBLE-WRAP BANDS!

Contact Glenair or visit our website (www.glenair.com) to view our complete line of **BandMaster® ATS** products, including pneumatic tools for high production and calibration kits.

The New BandMaster™ ATS Micro Band Tool

Part Number **600-061**

without counter

Part Number **601-101**

with counter

Weight: 1.18 lbs.

See our full offering of Band-Master™ ATS tools and accessories at <http://www.glenair.com/catalogs/bandmaster.pdf>



Medium Micro Band

8.0 Inches (203.2 mm.) part

number **601-060** standard or

601-061 Pre-coiled up to

.88 Inches (22.4 mm.) Diameter



Long Micro Band

14.0 inches (355.6 mm.) part

Number **601-064** standard or

601-065 pre-coiled up to

1.88 Inches (47 mm) diameter



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Step One

Cable Prep

Lay individual shields over the band platform. Pull overall braid shield over the band platform so that all braid strands will be captured by the band.

Step Two

Install Band

Wrap the band through the buckle twice. Insert the working end into the banding tool in the direction shown on the tool. Squeeze the short grey handle to insert the band. Slide the band onto the cable. Close the blue handle repeatedly until the handle no longer opens. Close the long grey handle until the tool cuts the band. Remove the excess strap from the tool by closing the small grey handle.

*Visit the Glenair Website for video demonstrations of banding termination at <http://www.glenair.com/banding/index.htm>

Step Three

Trim Braid

It's a snap! Just trim the excess braid and you're done.