# Introduction: Backshell to Connector Assembly Tools



### Glenair Tools Help Prevent False Tightening and Distortion

Backshell tightening tools designed by Glenair provide a full 360° gripping surface on backshell coupling nuts. These innovative tools minimize the possibility of coupling nut distortion and false tightening problems when mating backshells to circular connectors.

### Reliable Installation of Glenair Backshells on Circular Connectors

When used with the appropriate connector holders and torque wrenches, Glenair Backshell Assembly Tools provide the user with consistent, repeatable backshell installations. Designed primarily for production assembly use, the tools can also be used equally well for successful field maintenance operations.

Glenair Backshell Assembly Tools may also be utilized effectively with backshell rotatable couplers produced by other manufacturers. Consult the Glenair Backshell Assembly Tools, Banding Tools and Accessories catalog for details.

#### Wide Variety of Glenair Tools for Proper Backshell Installation

Glenair offers a variety of tools to accomplish proper tightening. Our 600 Series pliers with replaceable pads are configured to make maximum circumferential support to each specific size backshell to be tightened, and our TG70 strap wrench is intended for general use on any diameter between .50 to 3.00 inches. Hand-held and bench-mount torque wrenches accommodate our 600-005 plug or receptacle connector holders.

When tightening a backshell onto a connector, it is important to follow Glenair's recommended procedures for each tool being used. Our Backshell Assembly Tools, Banding Tools and Accessories catalog shows torque values for each specific connector series the backshell is being fastened onto. The recommended values are based on several factors, primarily the connector and backshell thread strengths. Torque values consider additional factors such as plug-to-receptacle alignment key strength, barrel hoop strength and material strength.



Glenair offers torque wrenches in three configurations. The hand-held torque wrench pictured above (top left), and the bench-mounted version (top center) are adjustable to a desired torque level of 20 to 360 inch pounds, and feature a 3/8" drive. A digital model (30-350 in/lbs) features LEDs, audible alarm, and user programmable pre-sets. A bench mount stand is available. A full range of receptacle and plug holders for Mil-Spec connectors and backshells is also offered as well as circular connector backshell assembly and composite hex coupling wrenches, strap wrenches, and soft-jaw pliers.

When tightening backshells with rotatable coupling nuts, Glenair recommends the backshell be hand tightened to engage the connector's interlocking teeth or spline features, making sure the teeth are fully engaged before fully torquing with our tools.

We suggest retorquing by removing the tool and reinstalling the tool approximately 90° away from the initial position and tightening to the recommended value. When applying torque with our TG70 strap wrench, allow for a slight torque variance between the Glenair torque wrench and the offset socket drive on the strap wrench. A strap wrench torque variance chart is provided on page 12 of this catalog.

© 2008 Glenair, Inc. CAGE Code 06324 Printed in U.S.A.



## Introduction: Backshell to Connector Assembly Tools



Glenair's selection of circular backshell assembly wrenches include round wrenches in all standard sizes that are designed to be employed with Glenair's handheld or bench-mounted torque wrenches. The round design assures even distribution of pressure around the backshell, thereby preventing false tightening and distortion problems. A hex design for Glenair composite coupling applications is offered. Strap wrenches, soft-jaw pliers and connector wrenches for a full range of Mil-Spec applications are available.



Glenair offers a full range of connector backshell assembly tools to serve virtually all Mil-Spec connectors and backshell accessories. The specially-designed round wrenches prevent false tightening and distortion problems by assuring even distribution of forces throughout the circumference of the backshell and connector.



Glenair's TG80 Tool Kit is designed for field use with circular electrical connectors. The products included with this kit fit most connectors covered by Military Specifications, and are used for holding during assembly and disassembly of rear clamp and adapter hardware, and to facilitate connector field repairs and servicing.

Contained in a rugged, compact foam-padded metal case, the kit includes two TG70 Strap Wrenches, a pair of TG69 Soft Jaw Pliers, a set of parallel jaw pliers and instructions.

Glenair also offers a selection of tool kits per MIL-T-83507. Details are available by contacting the factory, your local Glenair representative, or your local Glenair sales and engineering office.



BAND-IT® Pneumatic Banding Tools are offered in two designs, each of which can be enhanced by Band-It's optional foot pedal kit to free both of the operator's hands to help assure more accurate, reliable and faster shield terminations. The Standard Tie-Dex II® Pneumatic Banding Tool accommodates standard clamping bands in a tension range from 100-180 lbs. The Tie-Dex II® Pneumatic Banding Tool accommodates micro banding clamps in a tension range of 50 to 80 lbs. Each lightweight tool weighs only 2.52 lbs. (91.14 Kg); the control boxes weigh only 2.74 lbs. (1.24 Kg) each.

© 2008 Glenair, Inc. CAGE Code 06324 Printed in U.S.A.