

COMFORT CRIMP® SHURE STAKE® OPERATING INSTRUCTIONS

CAT. NOS. ERG4811, ERG4801, ERG4802, ERG4804 & ERG4806



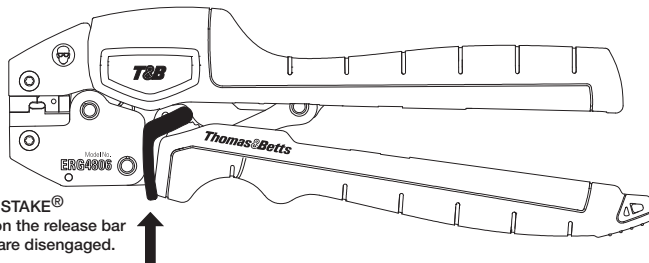
IMPORTANT: Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.



WARNING
KEEP ALL BODY PARTS AWAY FROM DIE NEST
DURING GAGING OR CRIMPING PROCEDURE.



WARNING
HANDLES ARE NON-INSULATING.
DO NOT CRIMP ON HOT ENERGIZED WIRES.



To release the SHURE STAKE® mechanism, push up on the release bar until the ratchet teeth are disengaged.

Figure 1

GENERAL SAFETY RULES:

1. **FAMILIARIZE YOURSELF WITH THE TOOL.** Read this Instruction Sheet. Become aware of proper tool usage as well as the potential hazards that could occur.
2. **DO NOT ABUSE TOOL.** Prevent damage by handling with reasonable care.
3. **MAINTAIN TOOL WITH CARE.** Keep tool in good condition at all times. Keep it clean for proper performance.
4. **KEEP WORK AREA CLEAN AND WELL LIT.** Poor lighting and cluttered area invite accidents.
5. **USE SAFETY GLASSES.**
6. **DO NOT OVER-REACH.** Keep proper footing and balance at all times.
7. **NEVER ATTEMPT TO MAKE A CONNECTION TO A "HOT" LINE.** Never assume the power is OFF! Determine beforehand if any electrical hazard could exist before making a connection to a line or wire.

DESCRIPTION:

Each tool in this series, see Figure 1, is a hand operated crimping tool utilizing non-interchangeable dies for installing certain Thomas & Betts insulation piercing connectors on magnet wire. Incorporated in each tool is a ratchet type SHURE STAKE® mechanism which prevents opening of the dies until a preset crimping pressure is reached, at which point the handles can be released and the tool opened. For certain wire combinations the dies will bottom (close), while for others, because of the wire fill factor and type of wire, the dies will not bottom. In order to produce an acceptable connection it is necessary to operate the crimping tool with suitable hand pressure which is controlled by the SHURE STAKE® mechanism. The tool should be checked periodically to ensure proper adjustment. This procedure is described in succeeding paragraphs.

1.0

INSTRUCTIONS FOR USE

1.1

1. Refer to the instruction sheet enclosed with the connectors.
2. Select proper connector to be installed on wire(s).
3. Select proper installing tool. (Refer to table 1).
4. Open tool handles fully.
5. Position connector barrel in center of die nest with bottom of barrel resting on die indenter, and open end of barrel facing into die nest.
6. Insert wire(s) into the connector. Refer to connector instruction sheet for proper wire arrangement, see note at right.
7. Compress the connector by squeezing tool handles until the SHURE STAKE® mechanism cycle has been completed. Release handles to open tool.
8. Remove crimped connector from tool.

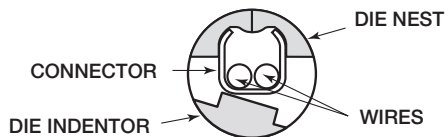


Figure 2

NOTE: For convenience, before placing wire(s) in the connector, partially close the handles of the tool until indenter die touches the connector.

2.0 OPERATIONAL CHECK, MAINTENANCE, & GAUGING

2.1 OPERATION CHECK

IMPORTANT: Crimped connector gaging should be checked regularly to ensure that acceptable connections are being made.

1. Check operation of the tool periodically to ensure its proper adjustment. Continuous use of the tool will cause gradual wear of movable parts. This in turn will cause the preset crimping pressure to gradually decrease and the connector gaging to increase.
2. Once the connector gaging exceeds a specific value (based on the size and type of wire), the connection will no longer be acceptable.
3. At this point, discontinue use of the tool.
4. To check the operation of the SHURE STAKE® mechanism and connector gaging, a specific connector/wire combination should be crimped and its gaging measured. ERG4811 can be gauged in a conventional manner by measuring the die opening of a closed tool with standard

gaging pins. (Refer to table 1, figure 3 and figure 4, for specific wire combinations and only use copper.)

2.2 MAINTENANCE

1. Remove dust, moisture, and other contaminants with a clean brush or a soft, lint-free cloth.
2. DO NOT use on objects that could damage the tool.
3. Make certain all pins, pivot points, and bearing surfaces are protected with a THIN coat of any good SAE No. 20 motor oil. DO NOT oil excessively.
4. Keep handles closed when not in use to prevent objects from becoming lodged in the crimping dies.
5. Store tool in a cool, dry area.

2.3 22L001, 22L002, 22L004 Series Connectors

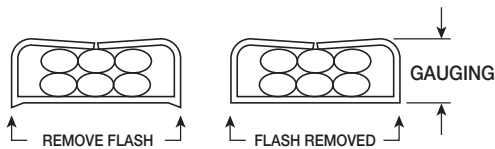


Figure 3

1. With a file, remove flash from connector edges.
2. Measure connector gaging with a standard micrometer. The gaging surfaces of the connector are illustrated in Figure 3.

22L006 Series Connectors

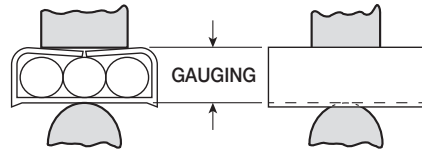


Figure 4

Measure connector gaging with a ball micrometer, or equivalent, having a spindle diameter of 0.250. The gaging surfaces of the connector are illustrated in Figure 4.

TABLE 1

Tool	Connector Series	Copper Wire Combination	Maximum Gaging
ERG4801	22L001	(6) #24 Cu	0.068
ERG4802	22L002	(6) #20 Cu	0.075
ERG4804	22L004	(6) #32 Cu	0.033
ERG4806	22L006	(3) #16 Cu	0.097
ERG4811	214420	N/A	0.103

For parts, service, repair and calibration, contact the Thomas & Betts Tool Service Center at 1-800-284-TOOL (8665).

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