

AMP* MODULAR PLUG CONNECTOR
TERMINATING TOOLS
WITH BASE PART NUMBER 231652

1. GENERAL

- 1.01 This section is a cover sheet for the AMP* Modular Plug Connector Terminating Tools With Base Part Number 231652. This AMP Incorporated practice is equivalent to Southwestern Bell Telephone practice number AMPP 081-020-800SW.
- 1.02 Whenever this section is reissued the reason(s) for reissues will be listed in this paragraph.
- 1.03 AMP terminating tools with base part number 231652 are designed to trim the cable, strip the cable jacket insulation, and terminate 2-position through 8-position modular plug connectors.
- 1.04 Only AMP Modular Plugs should be used with AMP Modular Plug Handtools.
- 1.05 If corrections are required in the attached document, use Form E-3973 as described in Section 000-010-015.
- 1.06 If equipment design and/or manufacturing problems should occur, refer to Section SW 010-522-906 for procedures on filing an Engineering Complaint.

2. ORDERING PROCEDURE

- 2.01 The AMP* Modular Plug Connector may be ordered via the Southwestern Inventory Management System (SWIMS).

3. REPAIR/RETURN

- 3.01 Paragraph 11 describes the AMP Incorporated repair/return policy.

Attachment: AMP* Modular Plug Connector Terminating Tools with Base Part Number 231652

PROPRIETARY

Not for use or disclosure outside Southwestern Bell Telephone Company except under written agreement.

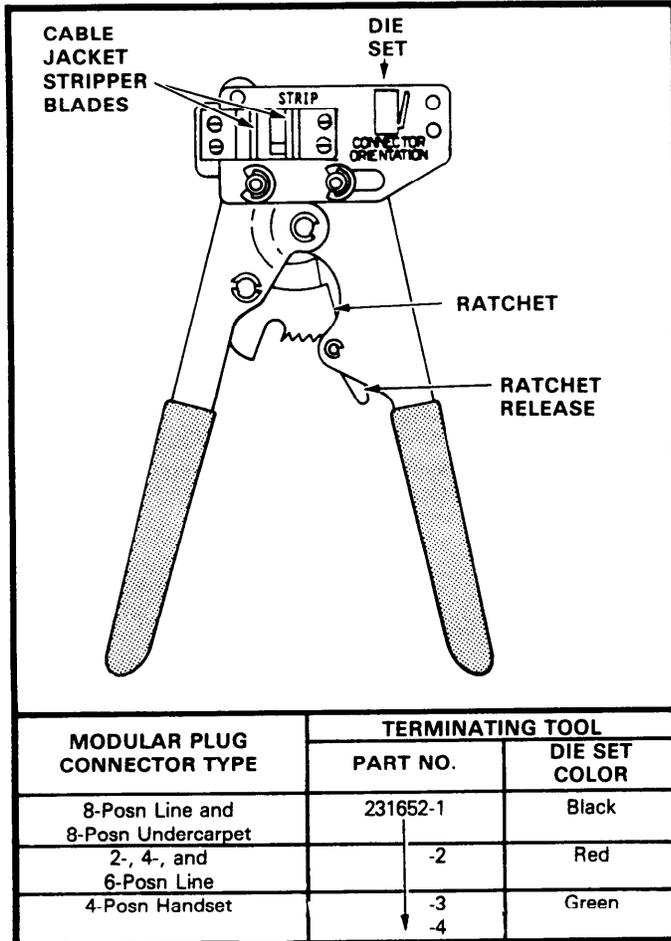


Fig. 1

1. INTRODUCTION

AMP terminating tools with base part number 231652 are designed to trim the cable, strip the cable jacket insulation, and terminate 2-position through 8-position modular plug connectors. Read this sheet thoroughly before using the tool.

NOTE All dimensions presented on this sheet are in inches.

2. DESCRIPTION (Figure 1)

NOTE Each tool includes the applicable die set for the connector size(s) or application selected. Adapter kits (die sets) are available for converting any hand tool to accept other connector sizes, see Paragraph 6, TOOL CONVERSION.

Each tool features a die set (color coded), a cable cutter, a cable jacket stripper, a ratchet to assure full connector termination, and spring-actuated handles with cushioned hand grips. The ratchet release will allow disengagement of the ratchet in the event of a faulty termination.

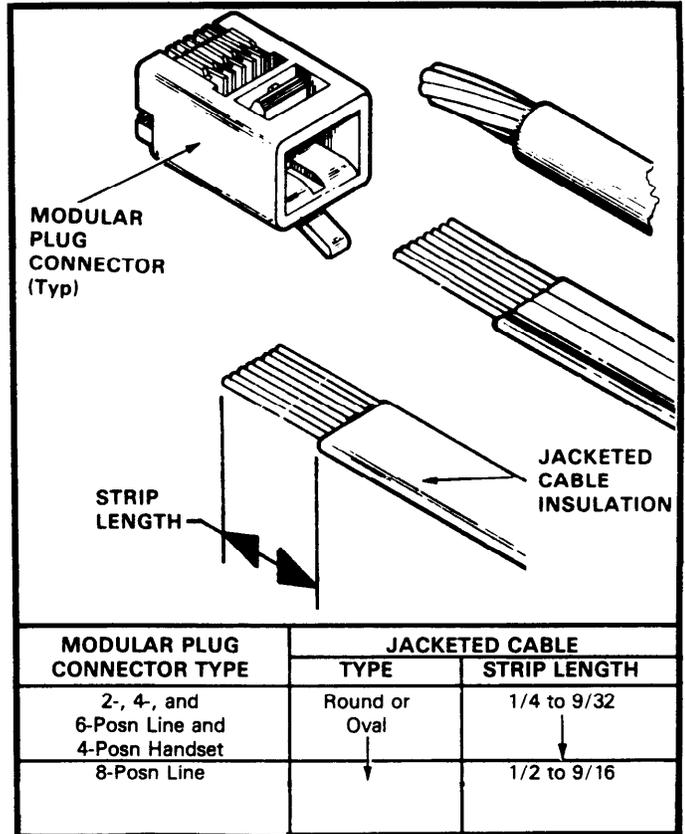


Fig. 2

3. CABLE REQUIREMENTS AND STRIPPING

Refer to the chart in Figure 2 for the recommended cable and conductor dimensions and the specified cable jacket insulation strip length. Make sure the cable has the appropriate number of conductors for the connector size to be terminated. Trim and strip cable as follows:

1. To trim cable flush, insert cable into side of tool with cutter blade and squeeze tool handles together until ratchet releases.

2. Strip cable jacket from conductors — WITHOUT REMOVING CONDUCTOR INSULATION. Insert cable into stripping cavity according to cable size noted below and as shown in Figure 3.

NOTE For 2-, 4-, or 6-position cable, insert cable into cavity until it butts against shallow cable stop.

For 8-position cable, insert cable into cavity until it butts against deepest cable stop.

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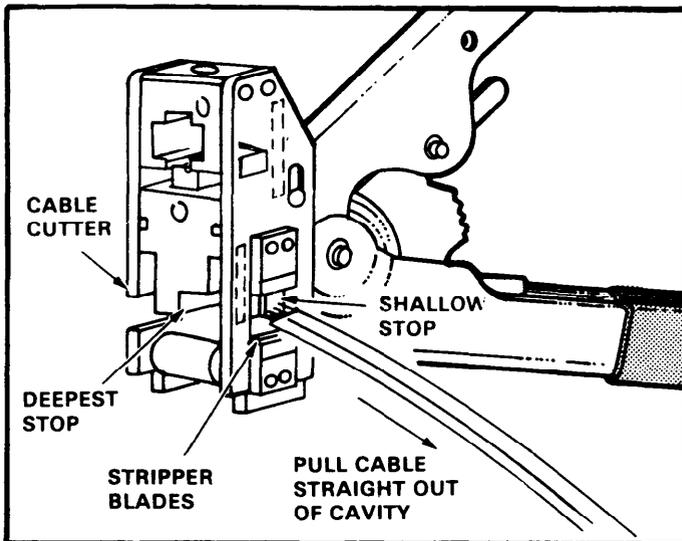


Fig. 3

3. Holding cable against stop, squeeze tool handles together until tool reaches the bottom position, without releasing the ratchet. **DO NOT SQUEEZE HANDLES WHILE STRIPPING CABLE.** Strip cable jacket by GRIPPING HEAD OF TOOL AND PULLING CABLE STRAIGHT OUT OF CAVITY.

4. After stripping cable, squeeze handles together until ratchet releases and allow handles to open fully.

4. TERMINATION PROCEDURES

Refer to the chart in Figure 1 and check to be sure that the selected connector and the hand tool to be used are compatible.

NOTE

Hand tool may be converted by adapter kit (die set) to make it compatible with selected connector. See Paragraph 6, **TOOL CONVERSION.**

Do NOT strip insulation from conductors. Fan the conductors (8-position) slightly to aid insertion into connector.

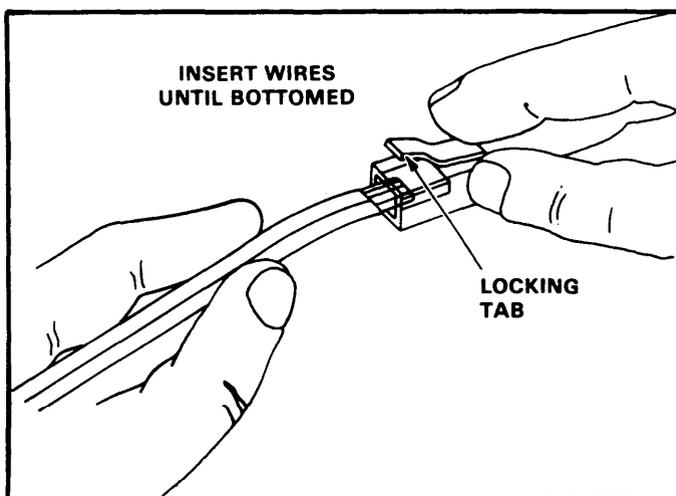


Fig. 4

Proceed as follows:

1. Taking care to maintain proper conductor polarity for application, insert conductors into wire slots in connector until wires are fully bottomed in connector. See Figure 4.

2. Hold tool as shown in Figure 5. Make sure ratchet is released — squeeze tool handles together and allow them to open fully.

3. Orient connector with die set cavity — locking tab facing upward — as shown in Figure 5. Insert connector straight into die set until it bottoms — **LOCKING TAB MUST SNAP INTO CAVITY.**

4. Squeeze tool handles together until ratchet releases. Allow tool handles to open FULLY, depress locking tab on connector, and remove terminated connector.

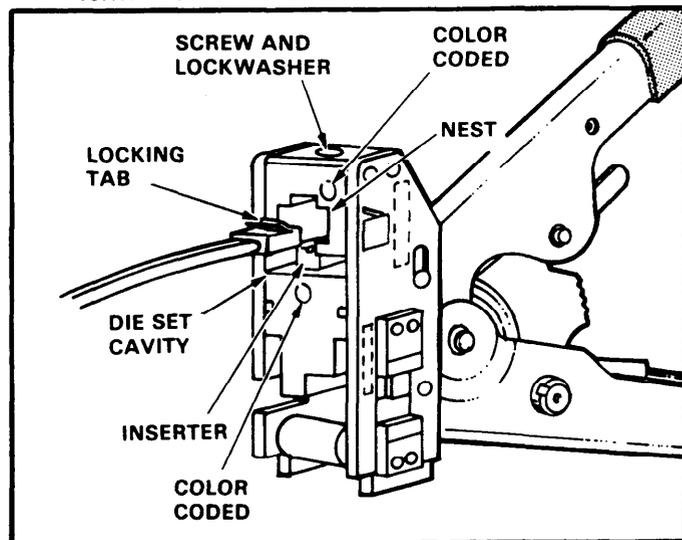


Fig. 5

5. INSPECTION OF TERMINATIONS

This inspection requires the use of a dial indicator (with needle points), or the construction of a suitable GO, NO-GO gage. Refer to Figure 6 for the crimp height dimension of the connector and the location of the points for measuring. To maintain proper crimp height, the tool ratchet should release just after the tool bottoms. If ratchet mechanism must be adjusted, refer to Paragraph 8, **RATCHET ADJUSTMENT.**

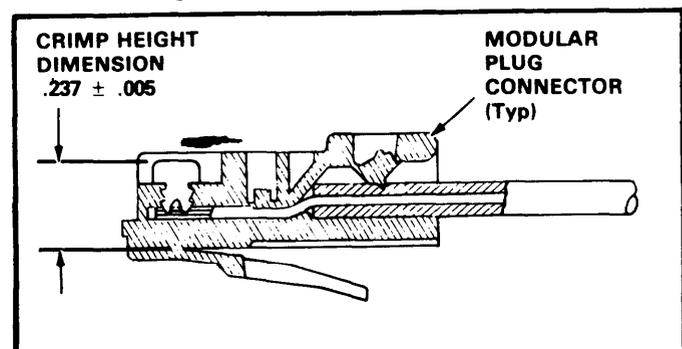


Fig. 6

6. TOOL CONVERSION

Adapter kits (die sets) are available for converting any hand tool to accept other connector sizes or applications. Refer to the chart in Figure 7 and select the adapter kit needed for the connector size that is to be terminated. Die sets are color coded, the inserter and nest color must match. To convert the tool, proceed as follows:

1. Remove die set screw and lockwasher. Slide die set (inserter and nest) out of tool. See Figure 5.
2. Insert new die set into tool and secure with screw and lockwasher.

TO CONVERT TO	ORDER ADAPTER KIT PART NO. (Color)
8-Posn Line or 8-Posn Undercarpet Conn	231651-1 (Black)
2-, 4-, or 6-Posn Line Conn	-2 (Red)
4-Posn Handset Conn	-3 (Green)
6-Posn Undercarpet Conn	-4 (Blue)

Fig. 7

7. DAILY MAINTENANCE

It is recommended that each operator of the tool be made aware of — and responsible for the following steps of daily maintenance.

1. Remove dust, moisture, and other contaminants with a clean brush or a soft, lint-free cloth.
2. Lubricate all bearing surfaces, pivot points, and the ratchet area with a light oil or grease (see Figure 9). Do not oil excessively.

8. RATCHET ADJUSTMENT

If crimp height dimension is improper, the ratchet needs to be adjusted tighter (if crimp height is over .242 in.) or looser (if crimp height is under .232 in.). See Figure 6 for crimp height measurement.

1. Loosen ratchet nut on back of tool (see Figure 8).

NOTE

Ratchet adjustment screw should only be turned slightly, 1/4 turn or less for adjustment.

2. Turn ratchet adjustment screw **CLOCKWISE** to tighten ratchet or **COUNTERCLOCKWISE** to loosen ratchet.
3. Tighten nut. Terminate sample connector and check crimp height dimension.
4. Repeat Steps 1 through 3 until proper crimp height is obtained.

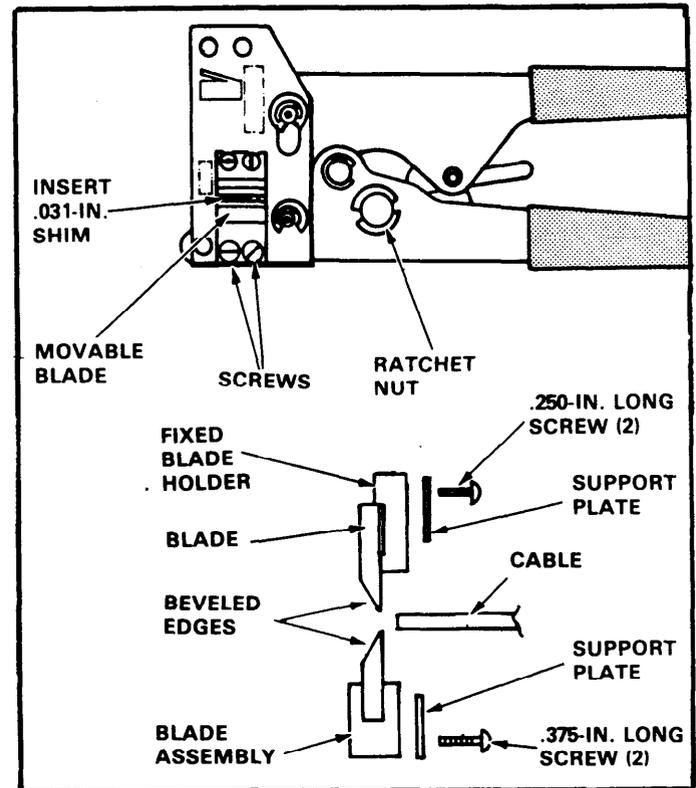


Fig. 8

9. CABLE STRIPPER ADJUSTMENT

If cable jacket insulation is cut so shallow that it doesn't strip off, or so deep that the blades cut into the conductor insulation, the cable stripper blades need to be adjusted. Refer to Figure 8 and proceed as follows:

1. Close tool until it bottoms, without releasing the ratchet.
2. Loosen the two screws securing the movable blade.
3. Insert a .031-in. shim (customer supplied) between the blades. Push movable blade against shim and tighten screws.

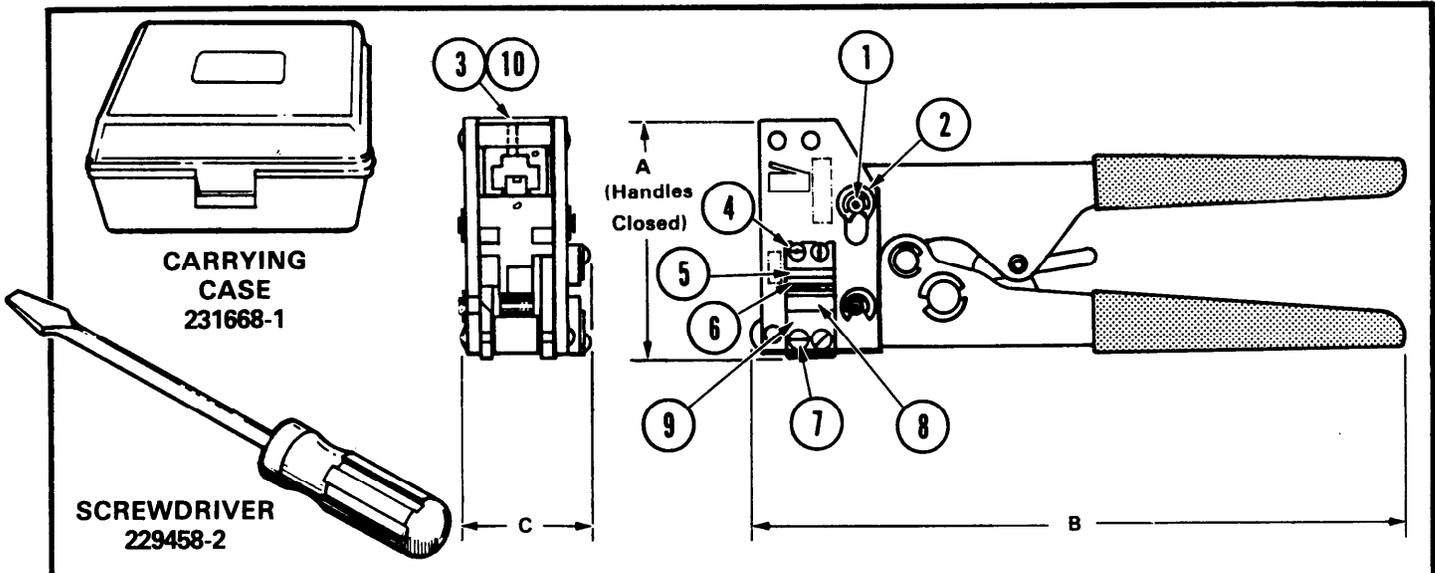
NOTE

For conductors with larger diameter insulation, set the gap between the blades accordingly.

10. CABLE STRIPPER REPLACEMENT

If the cable stripper blades become worn, replace the blade, the fixed blade holder, and the blade assembly as follows (see Figure 9 for applicable part numbers):

1. Remove screws securing movable blade assembly and fixed blade holder. Remove blades from tool.
2. Position new blades on tool with beveled edges inward, as shown in Figure 8.
3. Install screws and adjust cable stripper blades. Refer to Paragraph 9, CABLE STRIPPER ADJUSTMENT.



TOOL SPECIFICATIONS		CUSTOMER REPLACEABLE PARTS				
DIMENSION	WEIGHT	ITEM	PART NUMBER	DESCRIPTION	QTY	
A	2.62	12 oz	1	231430-2	PIN, .187 Dia	2
B	7.25		2	21045-3	RING, Retaining	4
C	1.20		3	4- 24364-3	SCREW, Pan Hd Mach, No. 4-40 x .312 L (Die Set)	1
Engineering Approval	Date		4	4- 24364-2	SCREW, Pan Hd Mach, No. 4-40 x .250 L (Fixed Blade Holder)*	2
			5	231477-1	HOLDER, Fixed Blade*	1
			6	231478-1	BLADE*	1
			7	4- 24364-4	SCREW, Pan Hd Mach, No. 4-40 x .375 L (Blade Assy)*	2
			8	231545-1	BLADE ASSY*	1
			9	231661-1	PLATE, Support*	2
			10	21074-2	WASHER, Spring Lock, Regular No. 4	1

* THESE ITEMS ARE AVAILABLE IN KIT FORM (With a Blade Set-Up Gage). ORDER BLADE KIT 231662-1.

NOTE: THE CARRYING CASE, SCREWDRIVER, AND BLADE KIT 231662-1 ARE AVAILABLE IN KIT FORM. ORDER TOOL KIT 231666-9.

Fig. 9

11. TOOL CERTIFICATION

AMP Modular Plug Connector Terminating Tools with base part number 231652 should be certified with the information in Figure 9. It is recommended that the tool be inspected immediately upon its arrival at your facility, and at regularly scheduled intervals, to ensure that the tool has not been damaged during handling.

The parts listed in Figure 9 are customer replaceable parts. Additional tools, adapter kits, and replaceable parts can be purchased from:

AMP Incorporated
 P.O. Box 3608
 Harrisburg, PA 17105

The tool can also be returned to AMP for evaluation and repair. Return the tool with a written description of the problem to:

AMP Incorporated
 Tool Repair
 1523 N. 4th Street
 Harrisburg, PA 17105