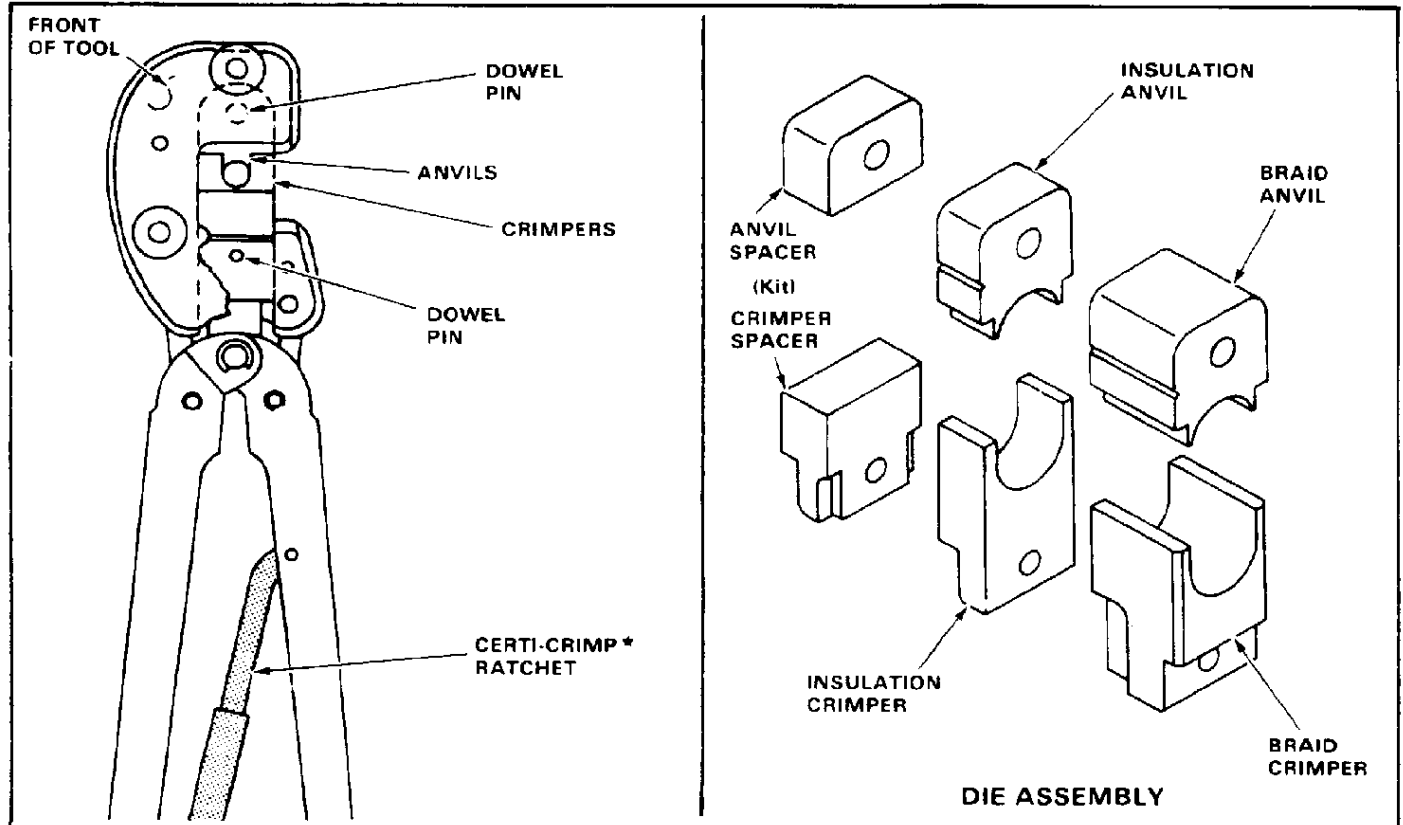


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Section I of this instruction sheet provides application procedures for AMP hand crimping tools.

Section II provides maintenance and inspection procedures for AMP hand crimping tools.



SHELL SIZE (Posn)	CABLE RANGE (OD)	FERRULE NUMBER	CRIMPING DIES	
			INSULATION	BRAID
6*	.200-.250	102985-3	1-527116-8	527116-4
6*	.170-.195	1-102903-8	1- -9	-4
8 thru 20 ↓	.370-.420	102789-3	1- -4	-3
	.310-.360	102903-3	1- -5	-3
	.250-.300	102903-9	1- -6	-3
	.190-.240	1-102903-5	1- -7	-3
26 thru 40 ↓	.430-.460	102789-6	1- -1	-2
	.380-.420	2-102903-1	1- -2	-2
	.320-.370	2-102903-4	1- -3	-2
	.470-.520	102789-9	1- -0	-1
50 ↓	.430-.460	2-102903-7	1- -1	-1
	.380-.420	3-102903-0	1- -2	-1

* REQUIRES SPACER KIT, PART NO. 527116-9, WITH CRIMPING DIES.

Fig. I-1

SECTION I APPLICATION

I-1. INTRODUCTION

This instruction sheet (IS) covers the use of AMP Hand Crimping Tool 91410-1 which is used to crimp AMPMODU★ Mass Terminated (MT) ferrules to their shield assemblies.

Read this material carefully before crimping the ferrules.

NOTE

All dimensions on this instruction sheet are in inches.

I-2. DESCRIPTION (Figures I-1 and I-2)

The hand crimping tool features insulation and braid die sets, and a spacer kit for the 6-position shield size.

The cable is positioned on the FRONT side of the tool. The shielded connector is positioned on the BACK side of tool.

The dies crimp ferrules for the 6- through 50-position connectors. The fixed dies (anvils) and the movable dies (crimpers) are inserted and removed from the hand tool through the use of two dowel pins which are supplied with the tool. A retaining plate is fastened to the front of the two with two button head screws.

A CERTI-CRIMP ratchet assures full crimping of the ferrule. Once engaged, the ratchet will not release until the tool handles have been FULLY closed.

CAUTION The crimping dies bottom before the CERTI-CRIMP ratchet releases. Do NOT re-adjust the ratchet.

I-3. DIE INSTALLATION

The anvils and crimpers can be removed from the tool by removing the retaining plate and the two dowel pins used to hold the dies in the tool.

NOTE Before removing or installing the dies, make sure the tool handles are FULLY opened.

Refer to the chart in Figure I-1 and select the appropriate die sets for the ferrules being crimped, and for the size of the connector.

I-4. CRIMPING PROCEDURE

NOTE Position ferrule on cable prior to terminating the connector.

Using the chart in Figure I-1, check to be sure the cable is within the specified range and select the applicable ferrules. Prepare the cable and the inner

and outer shielded shells, according to the instructions in AMP Instruction Sheet IS 6682, and proceed as follows:

1. Make sure CERTI-CRIMP ratchet is released by squeezing crimping tool handles together and opening them FULLY.
2. Position cable assembly into the tool as shown in Figure I-2.

NOTE The edge of the ferrule closest to the shields must be flush with the edge of the crimping dies.

3. Hold cable and ferrule in this position and squeeze tool handles together until ratchet releases.
4. Open tool handles FULLY and remove crimped assembly from tool.

I-5. DAILY MAINTENANCE

Remove all foreign particles with a clean, soft brush, or a clean, soft, lint-free cloth. Make sure the proper retaining pins are in place, and secured with the proper retaining rings. If foreign matter cannot be removed easily, or if the proper replacement parts are not available, return the tool to your supervisor.

Make certain all pivot points and bearing surfaces are protected with a THIN coat of good SAE No. 20 motor oil. Do NOT oil excessively. When the tool is not in use, keep the handles closed to prevent objects from becoming lodged between the crimping dies, and store the tool in a clean, dry area.

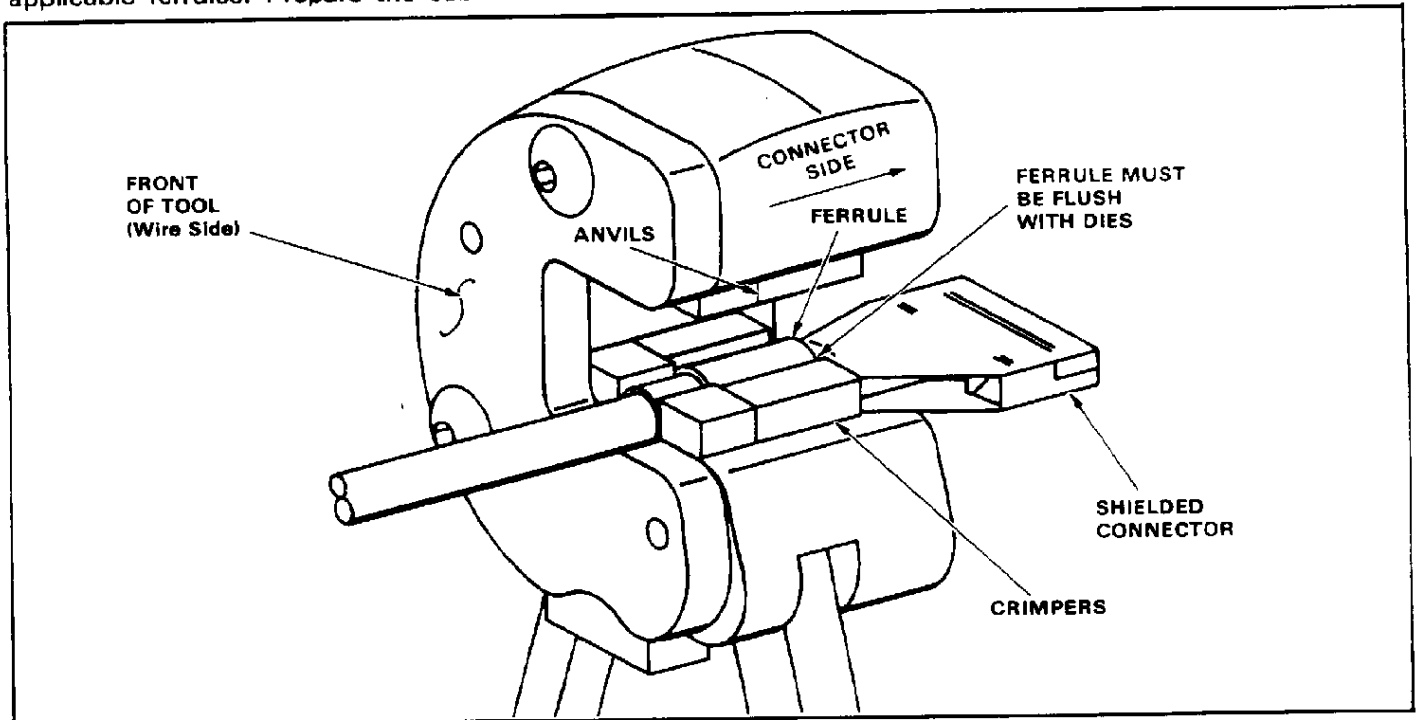
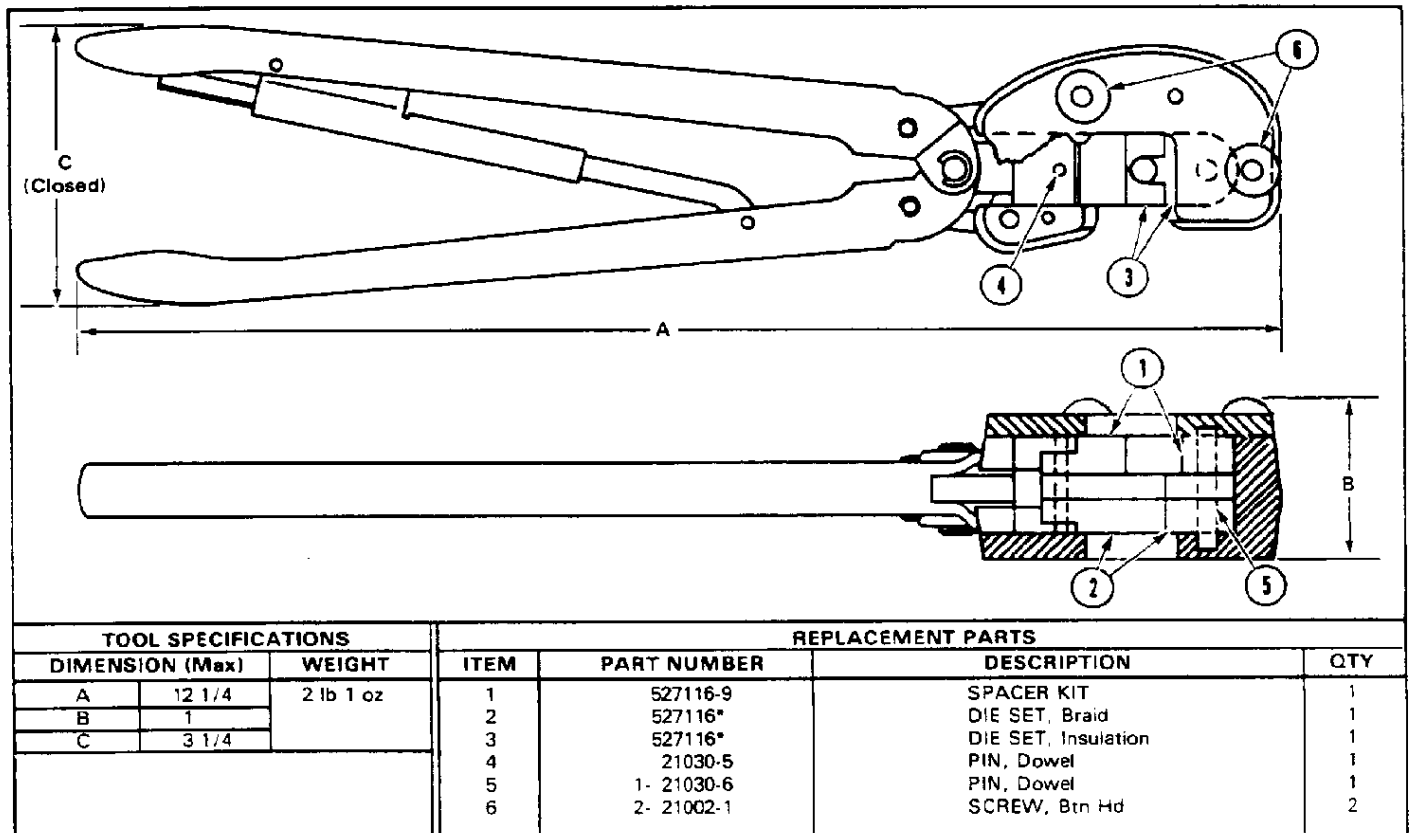


Fig. I-2

Section I of this instruction sheet provides application procedures for AMP hand crimping tools. Section II provides maintenance and inspection procedures for AMP hand crimping tools.



* SEE FIGURE I-1 FOR DASH NUMBERS.

Fig. II-1

SECTION II MAINTENANCE/INSPECTION

II-1. TOOL CERTIFICATION

These instructions have been approved by AMP Design, Production, and Quality Control Engineers to provide documented maintenance and inspection procedures in accordance with AMP Corporate Policy No. 3-3. Through AMP test laboratories and the inspection of production assembly, the procedures described herein have been established to ensure quality and reliability of AMP hand crimping tools.

Customer replaceable parts (when applicable) are listed in Figure II-1. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary.

II-2. INSPECTION PROCEDURES

A. Daily Maintenance

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

1. Remove dust, moisture, and other contaminants with a clean brush, or a soft, lint-free

cloth. Do NOT use objects that could damage the tool.

2. Make sure the proper retaining pins are in place and secured with the proper retaining rings.
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. When the tool is not in use, keep the handles closed to prevent objects from becoming lodged in the crimping dies and store the tool in a clean, dry area.

B. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the tool and/or be supplied to supervisory personnel responsible for the tool. Though recommendations call for at least one inspection a month, the inspection frequency should be based on the amount of use, ambient working conditions, operator training and skill, and established company standards. These inspections should be performed in the following sequence:

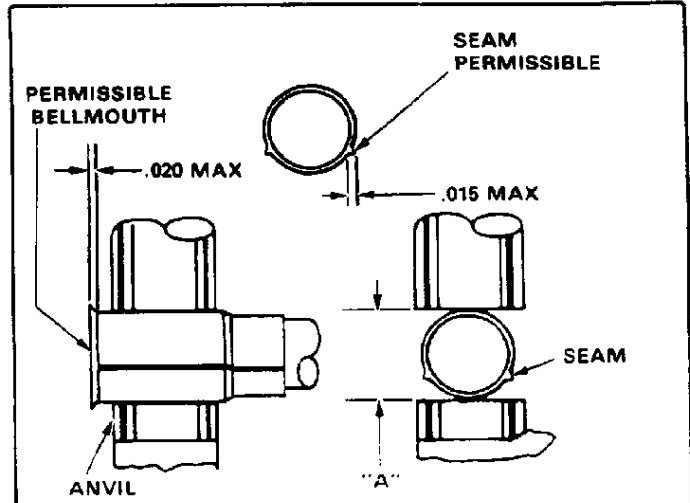
B-1. Visual Inspection

1. Remove all lubrication and accumulated film by immersing the tool (handles partially closed) in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make certain all retaining pins are in place and secured with retaining rings.
3. Inspect the head assembly, with special emphasis on checking for worn, cracked, or broken dies. If damage to any part of the head assembly is evident, return the tool to AMP for evaluation and repair (see Paragraph II-3, REPAIR).

B-2. Crimp Height Inspection

Proceed as follows:

1. Refer to the chart in Figure I-1, and select ferrules and a cable (maximum size) for the crimping dies, as listed in the chart.
2. Refer to Paragraph I-4, CRIMPING PROCEDURE, and crimp the ferrules accordingly.
3. Using a micrometer or vernier caliper, measure ferrule crimp height as shown in Figure II-2. If the crimp height conforms to that shown in the chart, the tool is considered dimensionally correct. If not, return the tool to AMP for evaluation and repair (see Paragraph II-3, REPAIR). The insulation crimp diameter will vary as cable material changes.



FERRULE NUMBER	CRIMP HEIGHT "A" DIM.	
	BRAID	INSULATION
102985-3	270 ± .005	216 REF
1-102903-8	.270	.185
102789-3	.430	.405
102903-3		.340
102903-9		.270
1-102903-5		.230
102789-6	.456	.440
2-102903-1		.398
2-102903-4		.340
102789-9	.520	.500
2-102903-7		.440
3-102903-0		.398

Fig. II-2

NOTE

Bellmouth on the end of the ferrule is permissible. This occurs when the ferrule is NOT flush with end of dies prior to crimping. Refer to Step 2 of Paragraph I-4, CRIMPING PROCEDURE.

B-3. CERTI-CRIMP Ratchet Inspection

Obtain a .001-in. shim that is suitable for checking the clearance between the bottoming surfaces of the crimping dies.

Proceed as follows:

1. Select ferrules and cable (maximum size) for the tool (see Figure I-1).
2. Position the ferrules and cable between the crimping dies, according to Paragraph I-4, CRIMPING PROCEDURE (Steps 1 and 2). Holding the ferrules in place, squeeze the tool handles together until the CERTI-CRIMP ratchet releases. Hold the tool handles in this position, maintaining just enough pressure to keep the dies closed.

3. Check the clearance between the bottoming surfaces of the crimping dies. If the clearance is .001 in. or less, the ratchet is satisfactory. If clearance exceeds .001 in., the ratchet is out of adjustment and must be repaired (see Paragraph II-3, REPAIR).

If the tool conforms to these inspection procedures, lubricate it with a THIN coat of any good SAE No. 20 motor oil and return it to service.

II-3. REPAIR

Parts other than those specified in Figure II-1 must be replaced by AMP to ensure certification of the tool. When repair is necessary, return the tool with a written description of the problem to:

AMP Incorporated
 Customer Repair
 1523 N. 4th St.
 Harrisburg, PA 17102-1604

or a wholly owned subsidiary of AMP Incorporated.