

**PROPER USE GUIDELINES**

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. AMP hand tools are intended for occasional use and low volume applications. AMP offers a wide selection of powered application equipment for extended-use, production operations.

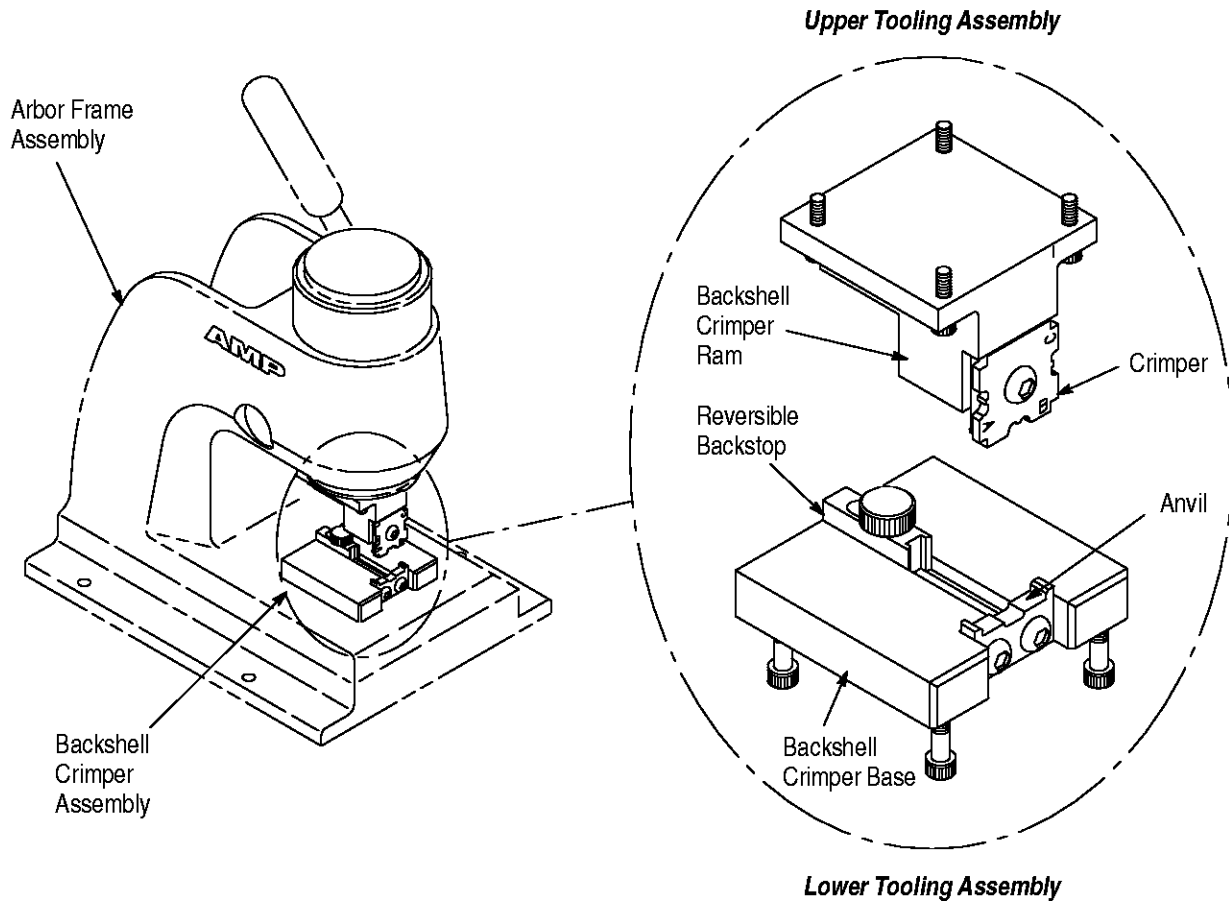


Figure 1

**1. INTRODUCTION**

This instruction sheet covers the setup, operation, and maintenance of AMP\* Backshell Crimper Assembly 1214695-1. The crimper assembly is used in conjunction with Manual Arbor Frame Assembly 91085-2 or Manual Arbor Frame Assembly 58024-1 to crimp AMP Universal Serial Bus (USB) Type A and B backshells (Figure 5) onto cable with USB connectors.

Refer to instruction sheet 408-7777 (supplied with Manual Arbor Frame Assembly 91085-2) or 408-6923 (supplied with Manual Arbor Frame Assembly 58024-1) for tooling information. Refer to 114-40059 for details concerning product information.

Read these instructions thoroughly before crimping any connectors.

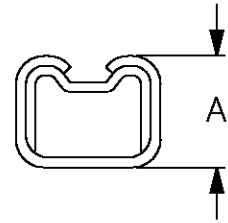
**NOTE**

*Dimensions are in millimeters [followed by inch equivalents in brackets].*

**2. DESCRIPTION (Figure 1)**

Backshell Crimper Assembly 1214695-1 tooling consists of an upper and lower tooling assembly. The upper tooling assembly features a ram and a crimper. The crimper is secured to the backshell crimper assembly ram, which is mounted to the ram of the arbor frame assembly with the socket head cap screws supplied with the crimper assembly. The crimper has three crimping profiles (A, B, and C) which can be easily changed to accommodate different cable sizes. The crimper nests into the anvil on the lower tooling, allowing crimper alignment after changing to a different profile.

CABLE●	CRIMPER SETTING	JACKET O.D. (mm [IN.])	"A" DIMENSION (mm [IN.])
Two Conductors — 20 AWG Two Conductors — 28 AWG	A	5.3 [.210]	4.2 [.165] — 4.4 [.175]
Two Conductors — 22 AWG Two Conductors — 28 AWG	A	5.1 [.200]	4.2 [.165] — 4.4 [.175]
Two Conductors — 24 AWG Two Conductors — 28 AWG	B	5.0 [.195]	3.9 [.155] — 4.2 [.165]
Two Conductors — 26 AWG Two Conductors — 28 AWG	B	4.7 [.185]	3.9 [.155] — 4.2 [.165]
Two Conductors — 28 AWG Two Conductors — 28 AWG	C	3.4 [.134] 4.6 [.180]	3.7 [.145] — 3.9 [.155]



● Each cable contains four conductors.

Figure 2

The lower tooling assembly mounts to the base of the arbor frame assembly. Lower tooling consists of a crimper assembly base, which houses the anvil and reversible backstop. The reversible backstop provides additional support for Type A backshells and acts as a stop for Type B backshells. The base is slotted to provide support for backshells during crimping.

**3. CRIMPER ASSEMBLY INSTALLATION**

To install the crimper assembly, refer to Figure 1 and proceed as follows:

1. Secure the arbor frame assembly to a work bench to ensure stability during operation.
2. Attach the crimper assembly ram to the arbor frame ram with four securing screws (Item 2, Figure 8), leaving the screws loose for crimper alignment.
3. Attach the crimper assembly base to the arbor frame base with four screws (Item 6, Figure 8). Tighten the screws.
4. Attach anvil to the crimper assembly base with the chamfers facing toward the rear. Tighten the securing screws.

**NOTE** If the anvil contains legs that do **not** span the entire width of the anvil, install the anvil so that the legs are toward the front.

5. Select the appropriate crimper setting (A, B, or C) from the table in Figure NO TAG and attach the crimper to the crimper assembly ram. The appropriate setting indicator should be located in the lower right hand corner of the crimper (Figure 3).

**NOTE** Do **NOT** tighten the screw securing the crimper to the crimper assembly ram.

6. Carefully lower the arbor frame ram until the crimper is seated squarely between the legs of the anvil. See Figure 3.

7. Align the crimper and anvil by moving the crimper and crimper assembly ram until the front surface of the crimper is flush with the front surface of the anvil.

**NOTE** Be sure the crimper is located between the legs of the anvil while aligning the crimper and anvil.

**NOTE** If the crimper assembly ram and crimper cannot be moved enough to align the crimper and the anvil, the base may be loosened and repositioned. Be sure to tighten the base again.

8. Tighten crimper securing screw and the screws securing the the crimper assembly ram to the arbor frame ram.

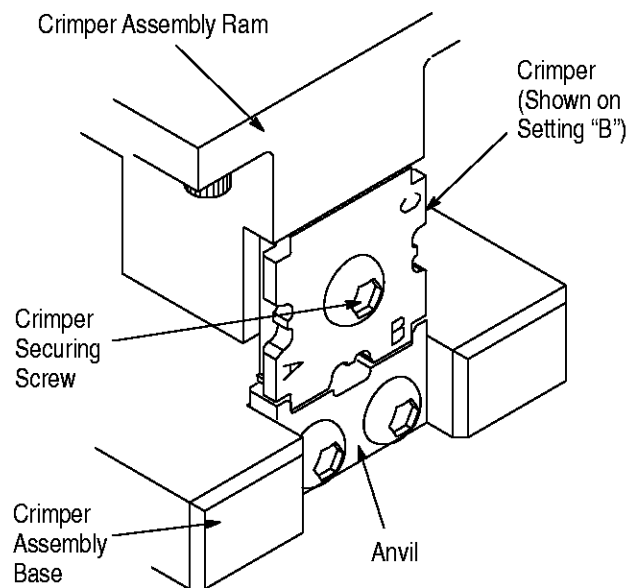


Figure 3

9. Raise and lower the arbor frame ram while checking the crimper/anvil alignment. The crimper must *not* hit the legs of the anvil upon the ram's decent. If the crimper hits the legs of anvil, loosen the crimper assembly ram and crimper and repeat Step 5 through Step 8.

#### 4. SETUP AND TERMINATION PROCEDURE

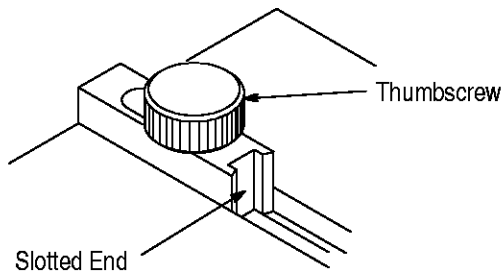
1. Determine the appropriate crimper setting using the table in Figure NO TAG. If necessary, loosen the crimper securing screw and change the crimper setting. Refer to Section 3, CRIMPER ASSEMBLY INSTALLATION, Step 5 through Step 8.

2. Loosen the thumbscrew on the backstop and set up the backstop for the backshells to be terminated.

#### NOTE

When terminating Type A backshells, the slotted end of the backstop should face the backshell; when terminating Type B backshells, the flat end of the backstop should face the backshell. See Figure 4.

#### Backstop Setup for Type A Backshells



#### Backstop Setup for Type B Backshells

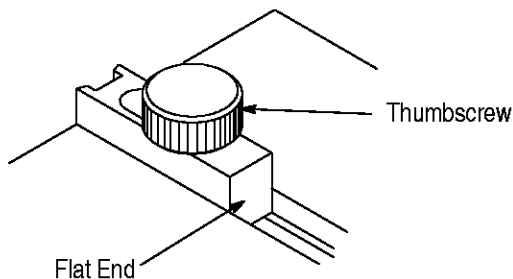


Figure 4

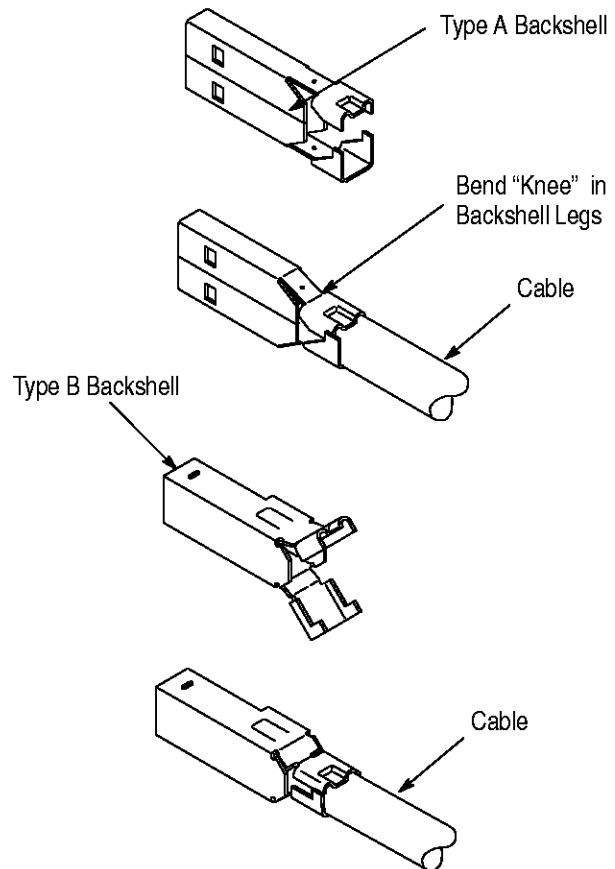


Figure 5

3. Place the backshell and cable onto the crimper assembly base over the anvil. Align the edge of the backshell with the front edge of the anvil (Figure 6).

4. Place backshell on the end of the cable and bend the legs of backshell around the cable. See Figure 5.

#### NOTE

It will be necessary to bend a "knee" in the legs of Type A backshells. Refer to Figure 5.

5. Loosen the thumbscrew on the backstop and adjust the backstop until it butts against the backshell. See Figure 6. Tighten the thumbscrew.

6. Lower the arbor frame assembly ram to crimp metal backshell onto cable (Figure 7).

#### NOTE

Lower the ram until adjustment ring is flush with the top of the arbor frame assembly.

7. After backshell is crimped, use arbor frame handle to raise the ram. Remove the backshell.

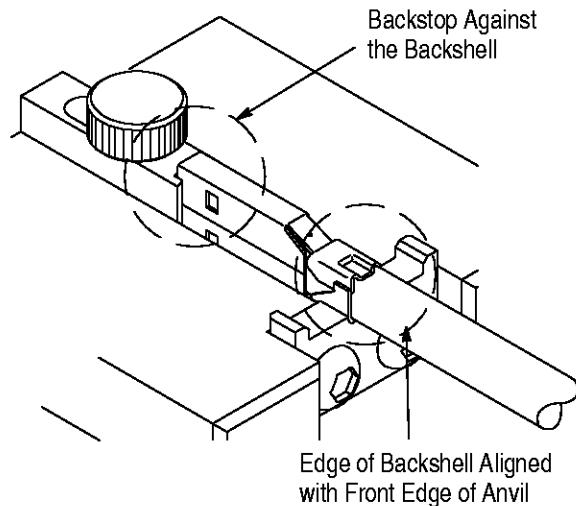


Figure 6

## 5. CRIMP HEIGHT INSPECTION AND ADJUSTMENT

To check the crimp height, a crimp should be made (as described in Section 4, SETUP AND TERMINATION PROCEDURE) then the crimp height of the backshell ferrule should be measured using calipers. Refer to Figure NO TAG and application specification 114-40059 for crimp height. If the actual crimp height does not conform to this dimension, adjust the ring on the frame assembly. Loosen setscrew on adjustment ring. Turn ring **CLOCKWISE** to increase crimp height or **COUNTERCLOCKWISE** to decrease crimp height. Re-tighten setscrew after ring is properly adjusted.

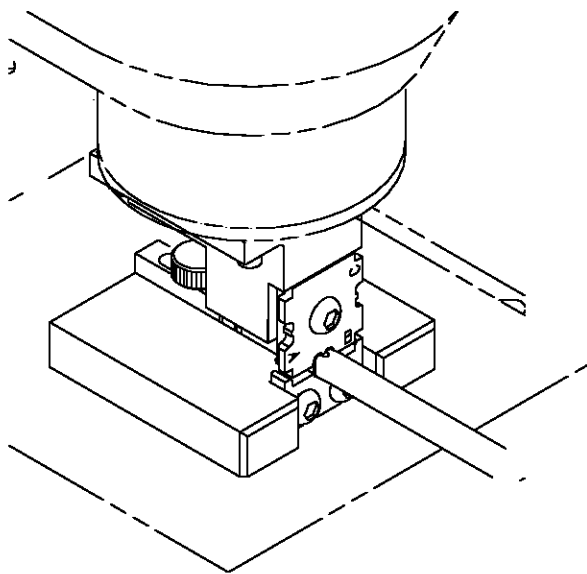


Figure 7

### NOTE

*The crimper and anvil are designed to bottom. Each crimp setting is designed to produce crimps on the tighter end of the application specification setting.*

## 6. MAINTENANCE AND INSPECTION PROCEDURE

Although Backshell Crimper Assembly 1214695-1 requires minimal maintenance, AMP recommends that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Frequency of inspection depends on:

1. The care, amount of use, and handling of the crimper assembly.
2. The presence of abnormal amounts of dust and dirt.
3. The degree of operator skill.
4. Your own established standards.

The crimper assembly is inspected before being shipped; however, AMP recommends that the assembly be inspected immediately upon its arrival at your facility to ensure that it has not been damaged during shipment.

See instruction sheet 408-6923 or 408-7777 for information on the care of the manual arbor frame assembly.

### 6.1. 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 crimper assembly.
2. Make certain that upper and lower assemblies are in place and properly secured.
3. When the assembly is not in use, store it in a clean, dry area.

### 6.2. Periodic Inspection

1. Remove all lubrication and accumulated film with a suitable commercial degreaser that will not affect paint or plastic material.
2. Make certain that all assembly components are in place. If replacements are necessary, refer to Section 7, REPLACEMENT AND REPAIR.
3. Inspect crimper assembly for worn, cracked, chipped, or broken areas. If damage is evident, return the assembly to AMP for evaluation and repair. See Section 7, REPLACEMENT AND REPAIR.

**7. REPLACEMENT AND REPAIR**

Replacement parts are listed in Figure 8. Parts other than those listed in Figure 8 should be replaced by AMP to ensure quality and reliability of the tool. Order replacement parts through your AMP representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (38-35)  
 AMP INCORPORATED  
 P.O. BOX 3608  
 HARRISBURG, PA 17105-3608

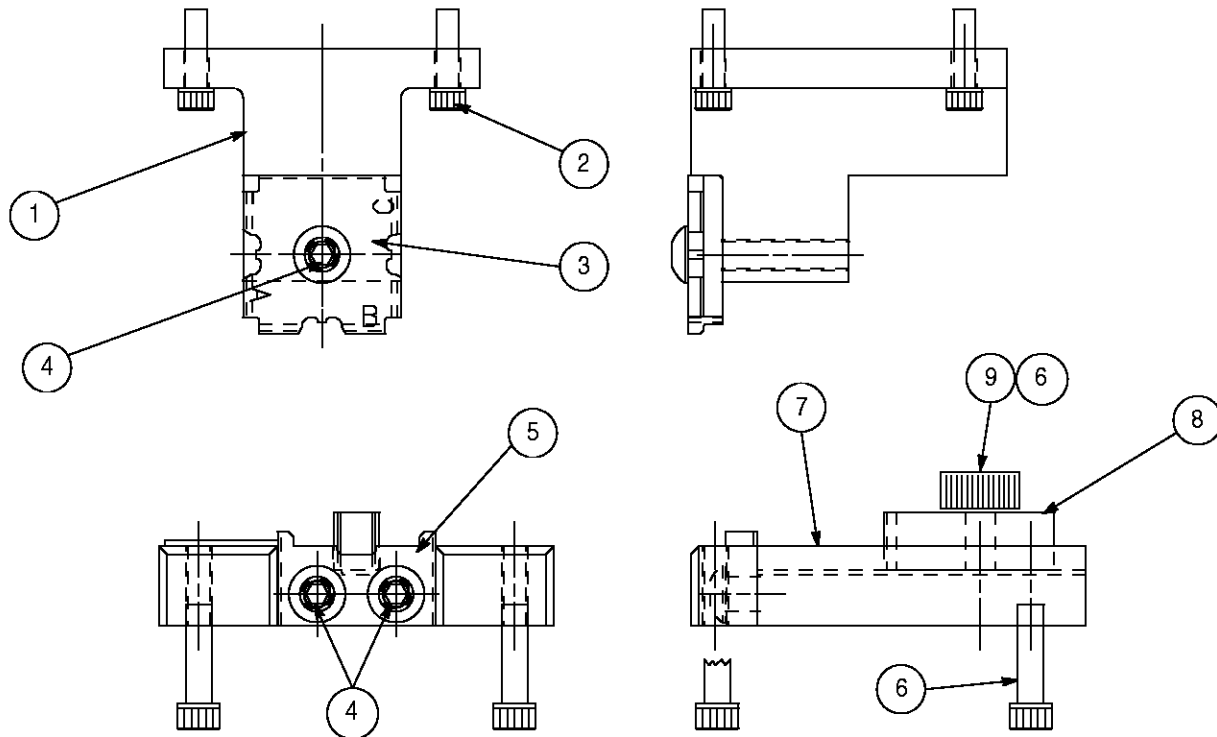
For repair service, return the assembly, with a written description of the problem, to:

CUSTOMER REPAIR (01-12)  
 AMP INCORPORATED  
 1523 NORTH 4TH STREET  
 HARRISBURG, PA 17102-1604

**8. REVISION SUMMARY**

Per EC 0990-1239-98

- Initial release of instruction sheet



ITEM NO.	AMP PART NO.	DESCRIPTION	QTY
1	1214696-1	RAM, Backshell Crimper Assembly	1
2	2-21000-0	SCREW, Skt Hd Cap No. 6-32 x .50 In. L	4
3	1214692-1	CRIMPER, Backshell	1
4	3-21000-5	SCREW, Btn Hd Cap No. 10-32 x .50 In. L	3
5	1214693-1	ANVIL, Backshell Crimper Assembly	1
6	2-21000-8	SCREW, Skt Hd Cap No. 8-32 x .62 In. L	5
7	124694-1	BASE, Backshell Crimper Assembly	1
8	1320174-1	BACKSTOP	1
9	27708-3	THUMBSCREW, No. 8	1

Figure 8