

AMP MANUAL
ARBOR FRAME
ASSEMBLY
91085-2

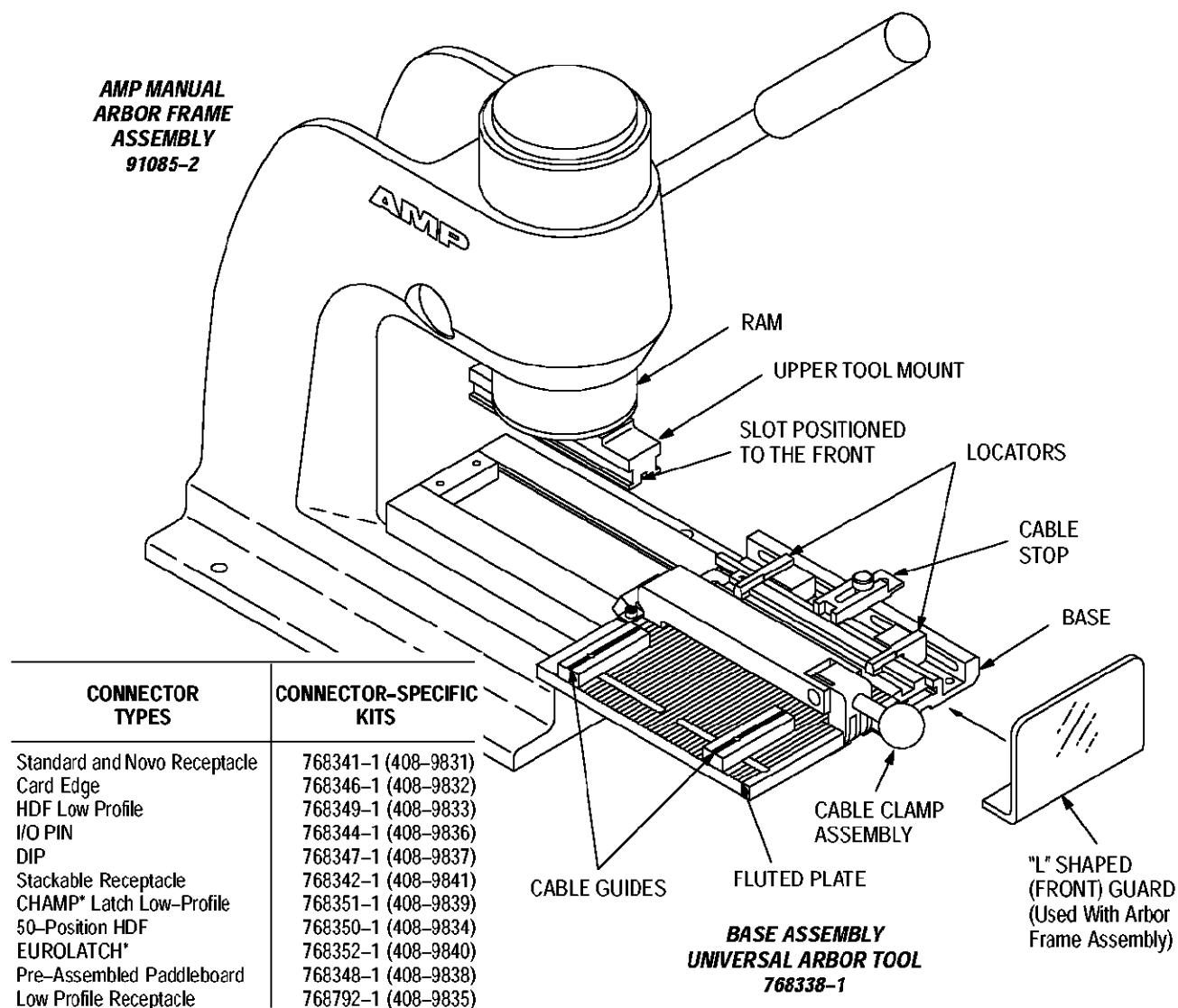


Figure 1

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1. INTRODUCTION

These instructions cover installation, setup, and termination procedures for Base Assembly Universal Arbor Tool 768338-1. The tooling assembly is used with a Connector-Specific Kit to terminate AMP-LATCH* and CHAMP Latch Low-Profile Connectors having 1.27 mm [.050 in.] centerline spacing. See Figure 1. The tooling assemblies are used in conjunction with AMP Manual Arbor Frame Assembly 91085-2 or AMP Pneumatic Auto-Cycle Unit 91112-3.

For information regarding the setup and operation of the arbor frame assembly, refer to instruction sheet 408-7777 and 408-6732 for the auto-cycle unit.

Read these instructions thoroughly before installing the tooling and terminating any connectors.

Reasons for reissue are provided in Section 8, REVISION SUMMARY.

NOTE

Dimensions are in metric units [with U.S. customary units in brackets].

2. DESCRIPTION (Figure 1)

The tooling assembly consists of a base, a fluted plate, two cable guides, a cable clamp, a cable stop, two locators, an upper tool mount, and two guards. The base allows the tooling to be moved into and out of the crimping area of the arbor frame assembly. The fluted plate is designed to provide proper seating of

the ribbon cable. The cable guides aid in positioning the ribbon cable with the connector assembly, and the cable clamp holds the ribbon cable in position. The locators provide proper positioning of the connector assembly with the ribbon cable. The cable stop provides proper positioning of the ribbon cable for flush terminations. The upper tool mount provides a quick connect/disconnect for the connector-specific upper tool. The "L" shaped guard is used with the arbor frame assembly and the "U" shaped guard is used with the auto-cycle unit.

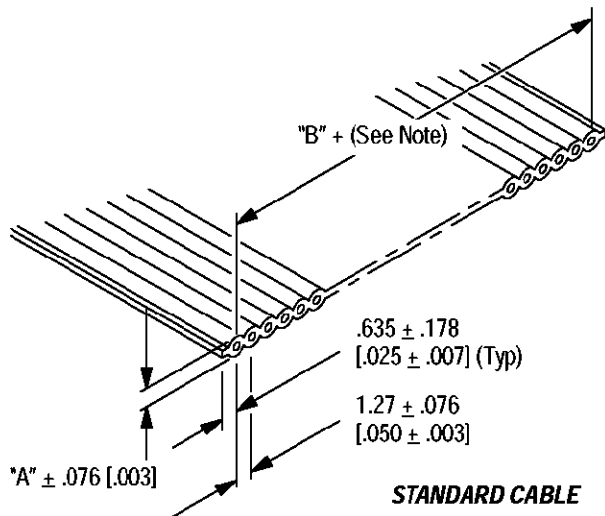
3. CABLE REQUIREMENTS (Figure 2)

The tooling assembly will terminate ribbon cable with 26 AWG solid or stranded conductors, 28 AWG solid or stranded conductors, or 30 AWG solid conductors to the connectors listed in Figure 1. Refer to Figure 2 for the recommended cable dimensions.

NOTE

The cable end must be cut 90° to the edge of the cable; otherwise an improper termination will result. AMP recommends the use of a guillotine-type cable cutter, such as the Carpenter Model 95, which may be purchased from:

*Carpenter Manufacturing Company, Inc.
Fairgrounds Drive
Manlius, NY 13207*



NOTE

ACCUMULATIVE TOLERANCE FOR CABLE CONDUCTORS 1 THROUGH 34 IS + .254 [.010] AND THROUGH 60 IS + .38 [.015].

CONDUCTOR		DIMENSION	
SIZE (AWG)	TYPE	"A"	"B"
26	Stranded or Solid	0.889 mm [.035 IN.]	1.27 mm [.050 IN.] X (Total No. of Conductors Minus One)
28	Stranded or Solid		
30	Solid		

Figure 2

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4. SETUP (Refer to Figure 1)

A. Installation of Base Assembly Universal Arbor Tool

DANGER

If using the Pneumatic Auto-Cycle Unit, DISCONNECT air from main air line.

1. Secure the upper tool mount to the ram with the two socket head cap screws.

NOTE

The slot on the upper tool mount must face toward the FRONT of the frame assembly.

2. Remove the tool stop from the front of the slide base.
3. Position lower tooling assembly onto the slide base of the frame assembly and slide into position.
4. Replace the tool stop and tighten to secure the lower tooling assembly.

B. Typical Installation of Connector-Specific Kit (Figure 3)

This procedure is typical for most connector-specific kits. However, additional adjustments may be required when using AMP Connector-Specific Kits 768347-1, 768348-1, and 768349-1. Refer to Section C for these adjustments.

DANGER

If using the Pneumatic Auto-Cycle Unit, DISCONNECT air from main air line.

1. Remove cable stop.
2. Rotate cable clamp lever and pull up on it to open the cable clamp assembly. See Figure 3.
3. Slide upper tool onto upper tool mount, as shown in Figure 3.
4. Slide lower insert into the slot of the lower tooling assembly. Secure into position with the two setscrews. See Figure 3.
5. Slide lower tooling assembly under upper tool to ensure proper clearance of the upper and lower tool. If interference exists, a ram height adjustment may be required. Refer to 408-7777 or 408-6732 for instructions.
6. After tooling is properly installed, install the guards. For the arbor frame assembly, install the front guard (see Figure 1) and for the auto-cycle unit, install the frame guard (see Figure 4).

C. Setup Adjustments for Connector-Specific Kits 768347-1, 768348-1, and 768349-1

1. Insert upper tool so that the bottom side edges of the upper tool are approximately .81 mm [.032 in.] below the top of the connector.
 - a. If using the arbor frame assembly, hold the tooling in position.

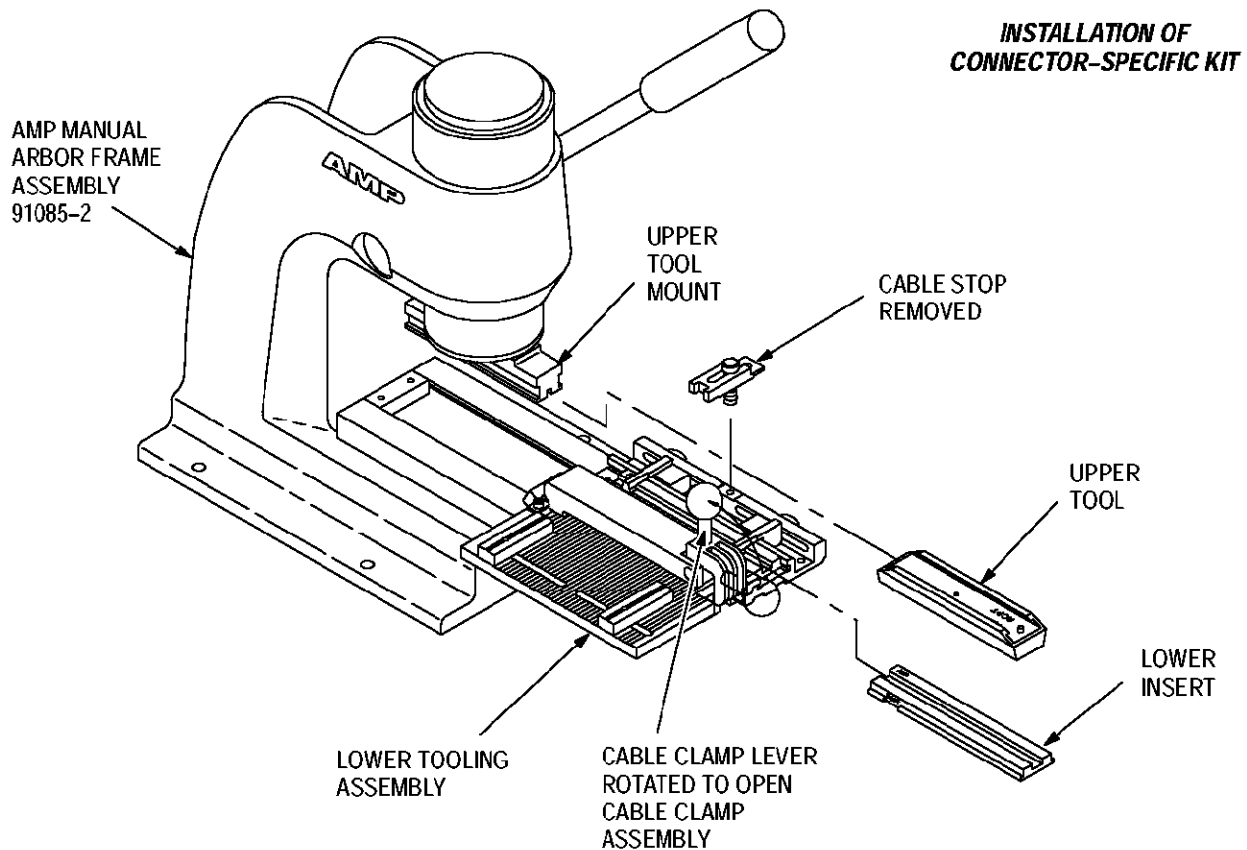


Figure 3

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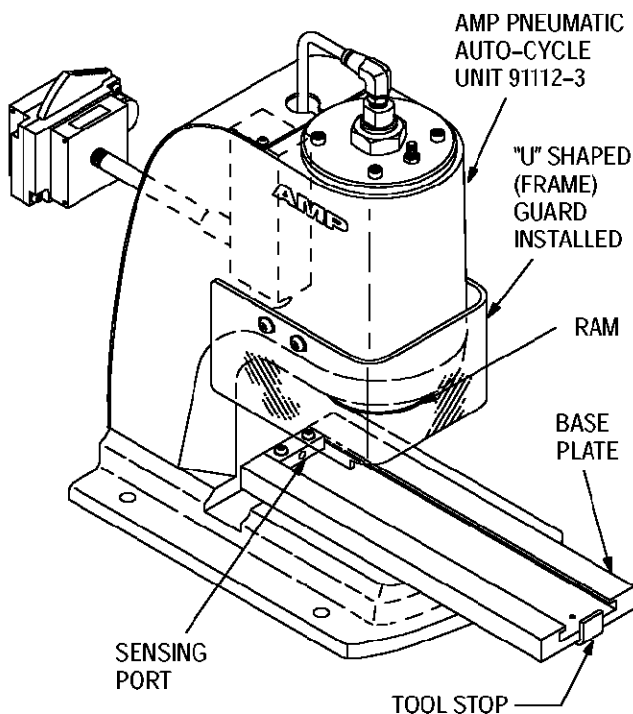


Figure 4

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b. If using the auto-cycle unit, set the ram height adjustment by rotating the 1/4-in. set-screw on the top of the ram. Rotate the screw **CLOCKWISE** to lower the ram and **COUNTER-CLOCKWISE** to raise the ram. After proper ram height adjustment is attained, lock the setscrew in position.

2. Slowly push lower base tooling under upper tooling. If interference exists, slide lower base tooling out from under the upper tooling and perform the following:

- a. Remove upper tool.
- b. Loosen the two screws holding the upper tool mount to the ram so that the tool mount can be moved with little effort.
- c. Replace the upper tool.
- d. Slowly push the lower base tooling under the upper tool and move the tooling until the proper clearance is attained. If no interference exists, secure the upper tool mount in this position. If interference still exists at this point, perform the following:

- (1) Remove lower base tooling from frame assembly.

- (2) Loosen two screws holding the upper tool mount in position.

- (3) Loosen the four screws holding the slide plate in position to the point where the slide plate may be moved about with little effort.
- (4) Replace the lower base tooling onto the slide base and secure. Slowly move the lower base tooling and slide the plate around until there is no interference with the upper tool.
- (5) When the proper clearance is attained, secure the slide plate and the upper tool mount.

D. Setup Procedures for Cable Guides, Connector, Locators, and Cable Stop (Figure 5)

1. Place cable in flutes of base plate and center it with the cable stop slot.

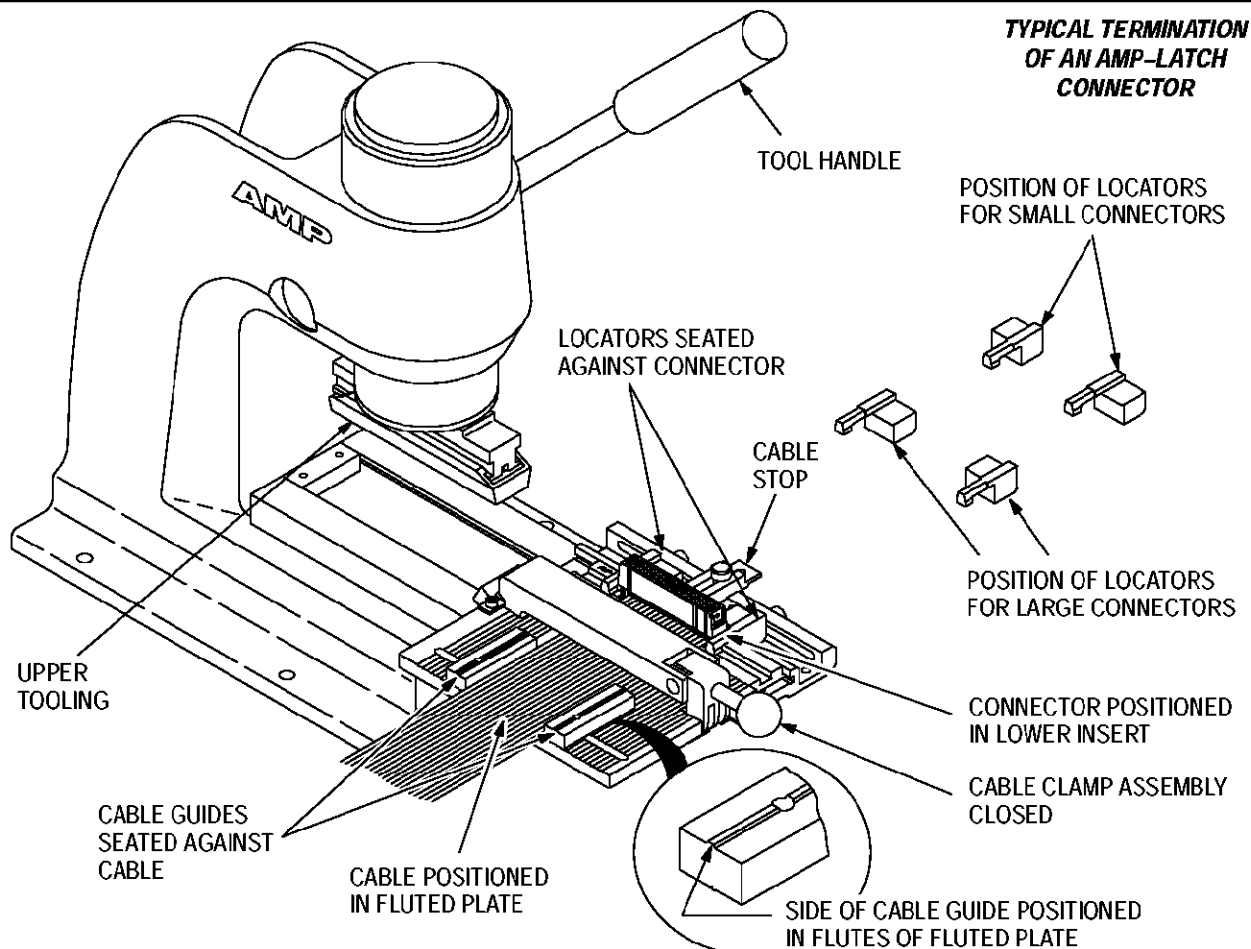
NOTE Cable conductors must stay in the same flutes for the entire length of the fluted plate.

2. Seat the cable guides along each side of the cable and lock into position. The double ridges on the cable guide must be positioned in the flutes of the fluted plate. See the inset drawing of Figure 5 for detail.

3. Remove cable from fluted plate.
4. Place the connector, cover down, into the lower insert and place the cable between the cable guides and into the flutes of the fluted plate. See Figure 5.
5. Slide the cable into the connector until the cable end is flush with the far side of the connector cover. Adjust the connector until the cable is seated in all connector cover flutes. See Figure 5.
6. Close the cable clamp assembly.
7. Seat the locators against the connector and secure in position. See Figure 5.

NOTE

The locators are offset to accommodate all connector sizes used in the tooling. For smaller connector sizes, the offset portion of the locator which rides in the channel of the tool base is placed OUTWARD so that the locator can be moved more closely to the center of the tooling (particularly if the cable stop is used). For larger connector sizes, the offset portion of the locator is placed INWARD, allowing the locator to be placed (if necessary) at the ends of the channel in the tool base. See the inset drawing of Figure 5 for detail.



NOTE: GUARD REMOVED FOR CLARITY

Figure 5

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8. Cable conductors must stay in the same flutes for the entire length of the fluted plate, and they should fill in all the flutes in the connector cover.

- a. For flush end terminations, replace the cable stop and adjust to desired position.
- b. For daisy-chain terminations, the cable stop is not required.

5. TERMINATION PROCEDURE (Figure 5)

DANGER

To avoid personal injury, make sure that BOTH guards are installed when using the auto-cycle unit. See Figures 1 and 4 for guard mounting locations.

1. Open the cable clamp.
2. Place the connector, cover down, into the lower insert and between the locators, as shown in Figure 5.
3. Position cable between the cable guides and into the flutes of the fluted plate; then slide the cable into the connector.
4. Place the cable end in the connector as follows:
 - a. If making a flush termination, butt the cable end against the cable stop.
 - b. If making a daisy-chain termination, remove the cable stop and position the cable so that the connector is in the desired location on the cable.

NOTE

Cable conductors must stay in the same flutes for the entire length of the fluted plate, the cable conductors should fill in all the flutes of the connector cover.

5. After the cable is properly positioned, close the cable clamp assembly.
6. Slide the lower tooling assembly under the upper tooling to terminate the connector. To activate the crimp:
 - a. Pull down on the tool handle when using the arbor frame assembly, or
 - b. Slide the lower tooling assembly back against the sensing port when using the auto-cycle unit.
7. Slide the lower tooling assembly back out of the crimping area, open the cable clamp, and remove the terminated connector.

6. MAINTENANCE AND INSPECTION

A. Maintenance

Base Assembly Universal Arbor Tool 768338-1 requires little maintenance other than to keep it clean. Remove debris and contaminants from the tooling with a clean, soft, lint-free cloth or a clean, soft brush. Do not use objects that could damage the tooling and

do not use any solvents that could harm paint or plastic material. When not in use, store the tooling in a clean, dry area.

B. Inspection

The tooling should be inspected immediately upon arrival at your facility and at regularly-scheduled intervals thereafter to ensure that it has not been damaged. Examine the tooling for any signs of damage or excessive wear during inspections. If replacement of parts is necessary, refer to Figure 6 for the list of customer-replaceable items.

7. REPLACEMENT AND REPAIR

Figure 6 provides a list of customer-replaceable items available for the Base Assembly Universal Arbor Tool 768338-1. Order replacement parts through your local AMP representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

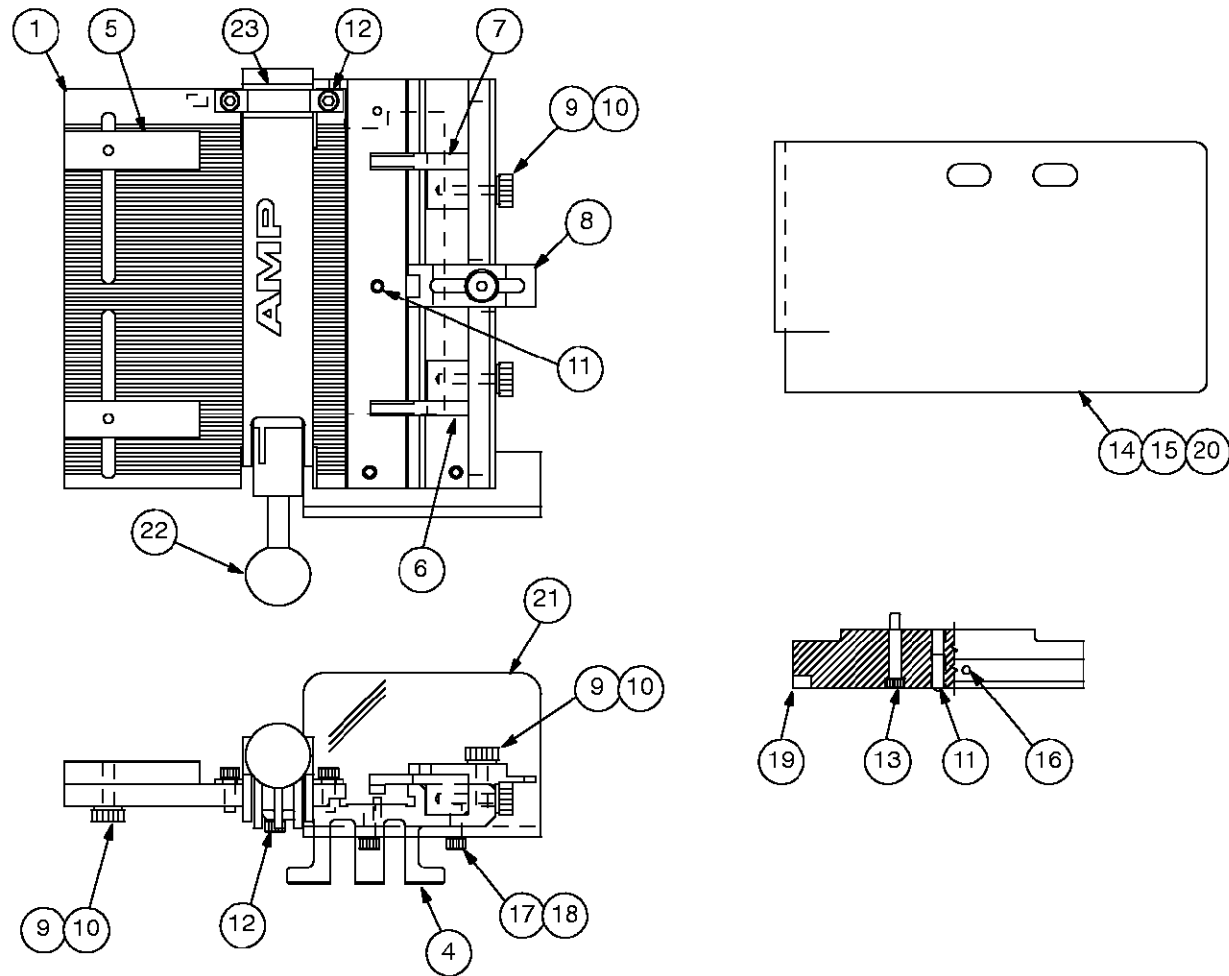
CUSTOMER SERVICE (38-35)
AMP INCORPORATED
P.O. BOX 3608
HARRISBURG, PA 17105-3608

Tools may also be returned to AMP for evaluation and repair. If repairs exceed the parts available on the list of customer-replaceable parts, or evaluation is desired, send the tool 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

- Changed tooling name to Base Assembly Universal Arbor Tool 768338-1.
- Changed IS prefix to 408 to comply with global numbering system.
- Revised Figure 3 to show installation of connector-specific kit.
- Revised Figure 4 to show installation of frame guard on auto-cycle unit.
- Revised Figure 5 to show typical termination of an AMP-LATCH connector.
- Revised Section 4, SETUP, to include these sections: Installation of Base Assembly Universal Arbor Tool, Typical Installation of Connector-Specific Kit, Setup Adjustments for Connector-Specific Kits 768347-1, 768348-1, and 768349-1, and Setup Procedures for Cable Guides, Connector, Locators, and Cable Stop.
- Changed item numbers in Figure 6 to correspond with customer drawing.
- Added Section 8, Revision Summary



ITEM	PART NUMBER	DESCRIPTION	QTY
1	768723-1	PLATE, Fluted	1
4	768599-1	BASE, Machined	1
5	768597-2	GUIDE, Cable	2
6	768607-1	LOCATOR, Front	1
7	768608-1	LOCATOR, Rear	1
8	768613-1	STOP, Cable	1
9	27708-2	KNOB, Thumbscrew, No. 6	5
10	2-21000-0	SCREW, Skt Hd 6-32 x .50L	5
11	23057-4	PLUNGER, Ball, SST	2
12	1-21000-9	SCREW, Skt Hd 6-32 x .38L	4
13	1-21000-7	SCREW, Skt Hd 4-40 x .75L	2
14	21055-7	WASHER, Flat No. 10	3
15	21002-7	SCREW, Skt Hd 10-32 x .50L	3
16	3-21028-4	PIN, Roll .093 x .38L	1
17	1-21000-8	SCREW, Skt Hd 6-32 x .25L	2
18	21055-5	WASHER, No. 6	2
19	314823-1	UPPER TOOL MOUNT	1
20	768602-1	GUARD, Frame	1
21	768707-1	GUARD, Front	1
22	768915-1	CABLE CLAMP ASSEMBLY	1
23	768603-1	PIN, Pivot	1

Figure 6

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