

Figure 1

cad

## 1. INTRODUCTION

This instruction sheet covers the installation and use of AMP Cable Clamp 768830-1, which is used in the CHAMPOMATOR\* 2.5 Bench Terminating Machine. The clamp permits the CHAMPOMATOR 2.5 Machine to apply discrete-wire, jacketed cable to AMPLIMITE\* .050 Series, AMPLIMITE HDE, and CHAMP\* Connectors.

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

### NOTE

*All dimensions on this sheet are in millimeters [with inch equivalents in brackets]. Figures and illustrations are for identification only and are not drawn to scale.*

### NOTE

*These instructions are supplied in the documentation package for CHAMPOMATOR 2.5 Bench Terminating Machine 762734-3. Make sure to retain all material in the documentation package for reference. For detailed information on the operation of the CHAMPOMATOR 2.5 Bench Terminating Machine, refer to AMP Customer Manual 409-5839, which is supplied with the machine.*

## 2. DESCRIPTION (Figure 1)

The cable clamp is capable of being adjusted to give a 180° cable breakout, and it can also be offset for the angle-exit option when applying AMPLIMITE .050 Series connectors with the machine. The clamp features a cam, a clamp lever, a wire locator, and a cable locator pin.

## 3. OPERATION

During operation, the operator places the cable into the cable clamp, actuates the clamp lever, and places the wires in the wire holder, which holds the cable wires in place during the termination process, helping to keep the loose wires out of the operator's way.

As the wires are terminated, the clamp follows the cam track and moves to provide the desired breakout length. The clamp eventually bottoms in the cam track, determining the position of the cable with respect to the connector.

After all terminations have been completed, the machine moves to the **forward** home position. At this time, the operator actuates the clamp lever to unclamp the cable, then presses the machine's "LOAD" button. The machine carriage and cable clamp then move to their respective home positions, permitting the operator to remove the completed cable assembly from the machine.

**CAUTION** Make sure that the cable assembly does not get caught on the cable clamp, or damage to the cable assembly could result. This is particularly important when processing the second-end connector on a short cable assembly.

**4. INSTALLATION PROCEDURE**

**DANGER** It is necessary to open or remove machine covers to perform the following procedures. Be sure to replace ALL covers BEFORE operating the machine.

The cable clamp's pivot bracket attaches to the machine carriage, and the cam track assembly mounts to the machine's base block assembly. To mount the clamp:

1. Turn off the machine's air supply by disengaging the air supply at the back of the machine.
2. Turn off the machine's electrical functions by switching the rocker switch on the back of the machine's control module.

**DANGER** Do NOT make adjustments to the machine or the cable clamp while the machine is operational. Make sure to disable the machine to prevent it from moving while adjustments are being made.

3. Attach the pivot bracket to the back of the machine carriage with the No. 10-32 screws provided. Refer to Figure 2. Tighten the screws with a 5/32-in. hex wrench.

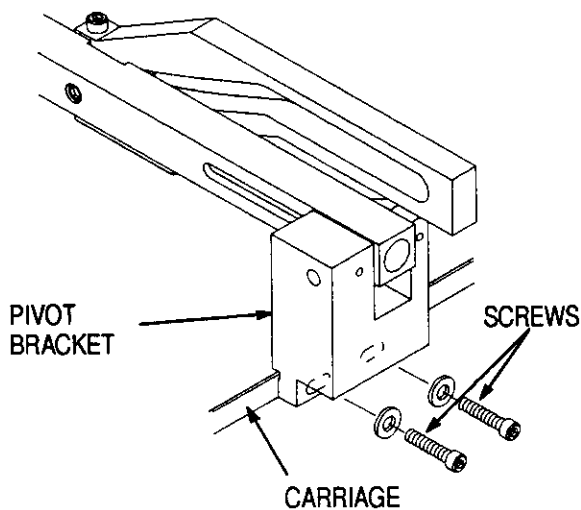


Figure 2

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4. Slide the bottom of the cam track assembly onto the rack portion of the base block assembly. Make sure that the cam track assembly mounting screw is raised to allow the cam track to slide.

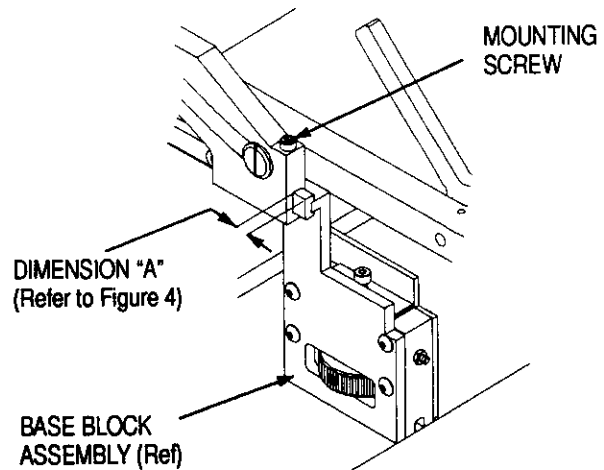


Figure 3

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5. Adjust the position of the cam track assembly to "dimension A," as shown in Figure 4, to ensure that the cable is located for either straight or angle exit.

CONNECTOR		DIM. "A," mm [in.]	
TYPE	SIZE	STRAIGHT	ANGLE
AMPLIMITE .050	20	2.54 [0.10]	1.27 [0.05]
	40	5.58 [0.22]	13.97 [0.55]
	50	8.38 [0.33]	15.24 [0.6]
	68	13.20 [0.52]	26.67 [1.05]
	80	17.01 [0.67]	34.29 [1.35]
	100	23.62 [0.93]	46.99 [1.85]
120	33.52 [1.32]	55.88 [2.20]	
AMPLIMITE HDE	All	18.54 [0.73]	--
CHAMP	All		

Figure 4

6. Using a 5/32-in. hex wrench, tighten the mounting screw to secure the cam track.

## 5. TOOLING ADJUSTMENTS

### 5.1. Cable Clamp Position

The position of the cable clamp can be adjusted to vary the cable exit position relative to the connector. To adjust this position, refer to Figure 3 and proceed as follows:

1. Return the machine to the LOAD position.
2. Using a 5/32-in. hex wrench, loosen the cam track mounting screw.
3. Adjust the cam track to Dimension "A" listed in Figure 4, or as desired.
4. Tighten the cam track mounting screw.

### 5.2. Cable Clamping Force

The cable clamping force can be adjusted to accommodate variation in outside jacket diameter of the cable to be terminated. To adjust the clamping force:

#### A. Fine Adjustment on a Specific Cable Diameter (Figure 5)

1. Load the cable jacket into the cable clamp and secure the cable by rotating the clamp lever.
2. Adjust the thumbscrews for the small jaw to balance the load on the cable.
3. Make sure that the cable is centered side-to-side on the connector to be terminated.

#### B. Coarse Adjustment for Changes in Cable Outside Diameter (Figures 5 and 6)

1. Using a 5/64-in. hex wrench, loosen the clamp lever pivot locking screw.
2. Using a 1/4-in. hex wrench, rotate the clamp lever pivot screw **CLOCKWISE** for larger-diameter cable, and **COUNTERCLOCKWISE** for smaller-diameter cable.
3. Load the cable jacket into the cable clamp and secure the cable by rotating the clamp lever.
4. Fine-adjust the clamp as described in Paragraph 5.2.A, Steps 2 and 3.
5. Tighten the clamp lever pivot locking screw.

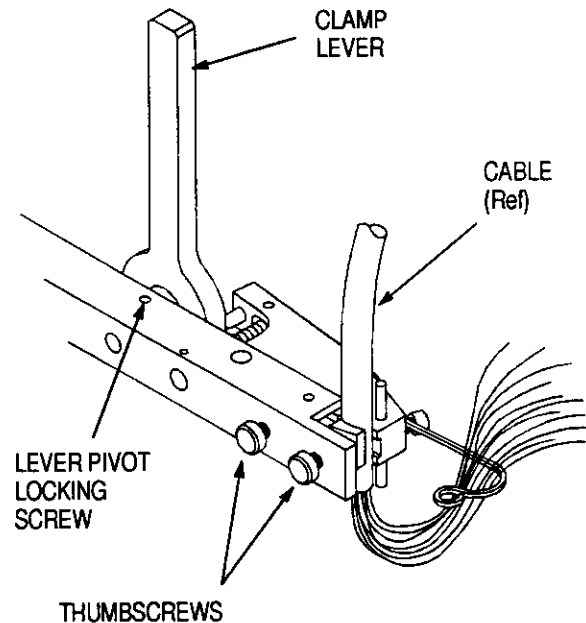


Figure 5

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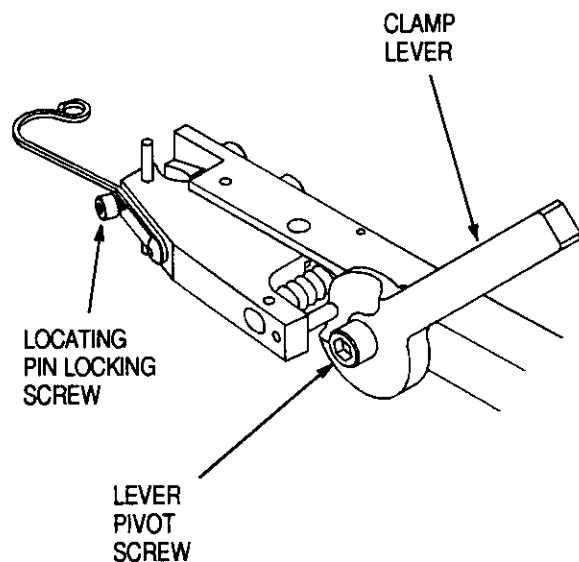


Figure 6

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### 5.3. Cable Locating Pin (Figure 6)

1. Loosen the locating pin locking screw.
2. Lower the locating pin to shorten the cable breakout dress. Raise the locating pin to increase the cable breakout length.
3. Secure the locating pin locking screw.

**6. MAINTENANCE**

Lubricate all pivot points, the cam track, and the clamp lever track with a good-quality light machine oil to ensure optimum service. Wipe off any excess oil.

**7. REPLACEMENT PARTS**

Replacement parts are listed in Figure 7. For location of parts, refer to the Customer Drawing supplied with the clamp.

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

PART NUMBER	DESCRIPTION
354038-1	HOLDER, Wire
22346-1	THUMBSCREW
2-22287-3	SPRING, Extension
230932-1	BEARING, Cup, Drawn

*Figure 7*

**8. REVISION SUMMARY**

Since the previous release, the following changes and additions were made to this sheet:

Per EC M-3057:

- Changed second note on Page 1 to indicate location of documentation package containing for this sheet.
- Added sentence in Section 2 regarding use of clamp for angle-exit option.
- Added column to table in Figure 4 (and changed Section 4, Step 5) to indicate correct dimensions for angle-exit option.

Per EC 0990-0252-93:

- Corrected line weights and callout fonts to current standard.
- Removed "(was IS 9851)" from masthead.
- Updated revision letter to Rev A.