

Short Lead Kit Contents

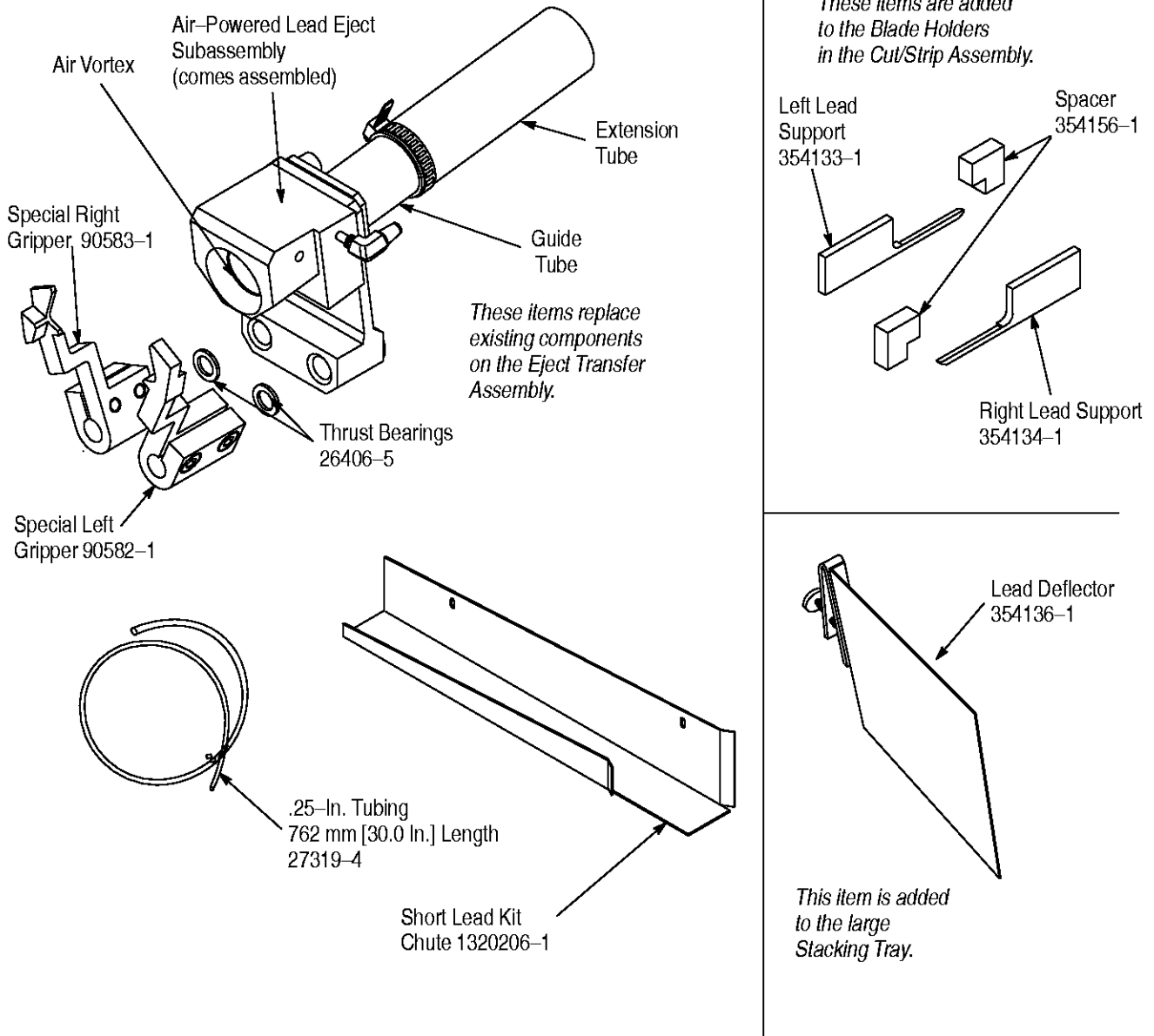


Figure 1

1. INTRODUCTION

These instructions cover installation and adjustment of AMP* Short Lead Kit 318095-1, which is used on AMPOMATOR CLS Lead-Making Machines.

With the kit installed, the machine will be capable of manufacturing leads to the following specifications:

- Lead Length: 41.15 mm [1.62 in.] to 76.2 mm [2.99 in.] – both ends or feed end
- Wire Size Range: 14 AWG to 26 AWG
- Insulation OD: 1.02 mm [.040 in.] to 5.08 mm [.200 in.]
- Terminal Type: Open or Closed Barrel
- Terminal Size: 11.43 mm [.450 in.]

NOTE Software revision 3.01 or higher is required to run Short Lead Kit 318095-1. Contact your local AMP representative or the Tooling Assistance Center number located at the bottom of Page 1 for information regarding machine software or software upgrades to existing machines.

2. DESCRIPTION (Figure 1)

AMP Short Lead Kit 318095-1 contains items that replace existing components on the eject transfer assembly, a lead deflector that is added to the large stacking tray, and spacers/lead supports that are added to the blade holders in the cut/strip assembly. In addition, kit installation requires disabling and partial removal of part of the eject assembly.

Special grippers are designed to grip the short leads and release them near the air vortex of the air-powered lead eject subassembly. The leads are then propelled by an air blast through the guide tube and the extension. Leads are then moved through the chute, which is mounted on the conveyor assembly, toward the deflector, which is installed in the stacking tray. Here the leads are deflected down onto the tray. Use of the deflector is necessary; otherwise, the speed of the conveyor will propel the leads beyond the stacking tray.

NOTE Stacking of finished leads is not uniform.

3. MACHINE PREPARATION

Provide adequate working space for kit installation by moving the eject transfer assembly to the terminating position, and moving (floating) out the eject-side terminating unit. Refer to the appropriate customer manual for machine operation.

Adjust the tonk lever on the eject-side terminating unit to its fully raised position. This will effectively disable the tonk feature for kit installation. After installation, the tonk lever may be adjusted for operation with open barrel product only.

CAUTION The tonk lever on the eject-side terminating unit must remain in its fully raised position to prevent damage to the eject transfer assembly during kit installation.

4. INSTALLATION

DANGER To avoid personal injury, disable the machine by pushing an emergency stop button or opening a guard (make certain that the DISABLE GUARDS screen has not been activated).

NOTE This procedure requires disassembly of existing tooling and installation of new tooling. Allow at least one-half hour to perform the conversion and adjust the replacement tooling.

Proceed as follows:

Existing Components on Gripper Arms of Eject Transfer Assembly

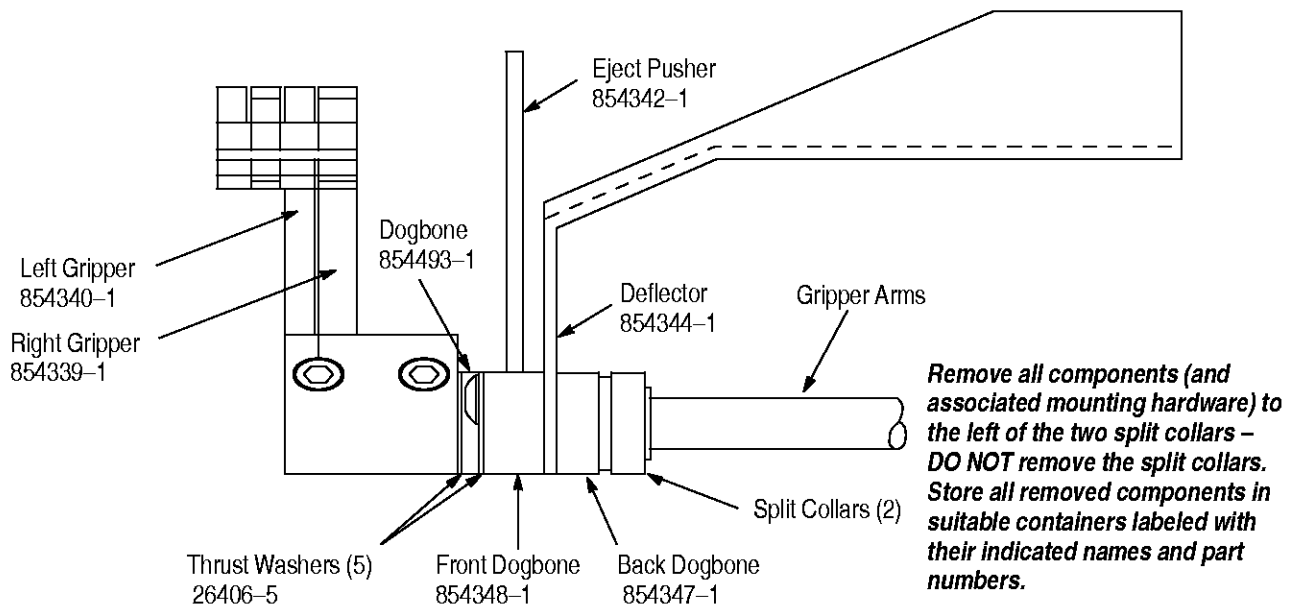


Figure 2

Existing Components on Eject Assembly

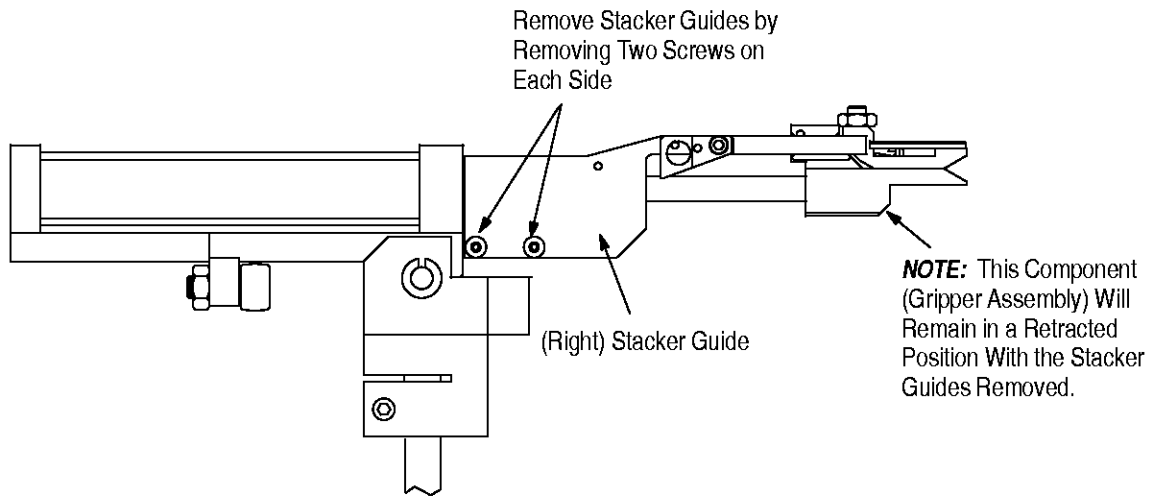


Figure 3

4.1. Existing Component Removal

1. Refer to Figure 2, which shows the existing components that are mounted on the gripper arms of the eject transfer assembly, and carefully remove all components (and associated mounting hardware) to the left of the two split collars. **DO NOT** remove the split collars.

NOTE

It is recommended that any components removed from an assembly be placed in containers which have been labeled with the assembly name and part number, since they may eventually be re-installed on the machine.

2. Refer to Figure 3, which shows the existing components on the eject assembly, and carefully remove the right and left stacker guides. Place them in a suitable container.

4.2. Eject Transfer Assembly Modification

1. Refer to Figure 1 and familiarize yourself with the kit components that are to be added to the eject transfer assembly.

2. Position the air-powered lead eject subassembly, thrust bearings, and special grippers onto the gripper arms of the eject transfer assembly as shown in Figure 4. **DO NOT** tighten the screws of the special grippers at this time.

3. Rotate the gears of the eject transfer assembly to the closed position, then back off gears the distance of one tooth.

4. Close and hold the special gripper jaws in their fully closed (vertical) position and tighten their screws. Make sure the gears do not rotate while performing this step.

5. Refer to Figure 5 and connect one end of the .25-in. tubing to the quick-connect elbow and pass the other end through the clearance slot in the machine base.

6. Gain access to the pneumatics panel and locate air valve 324.

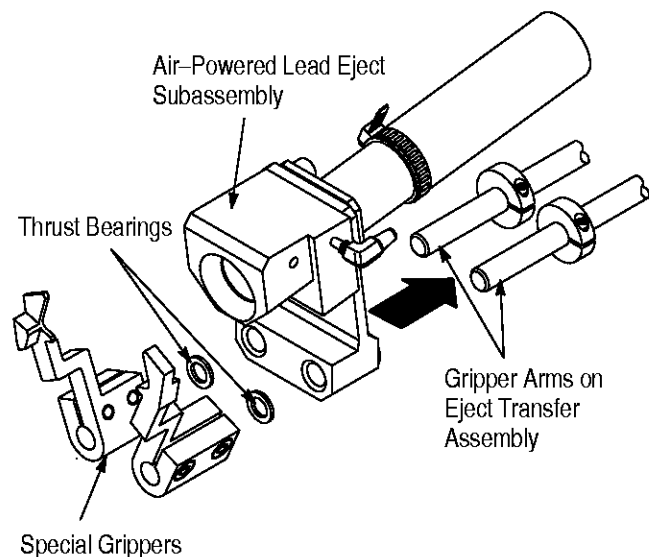


Figure 4

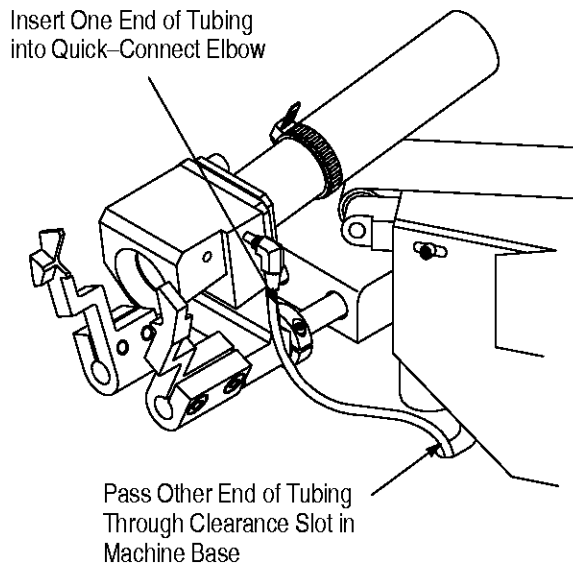


Figure 5

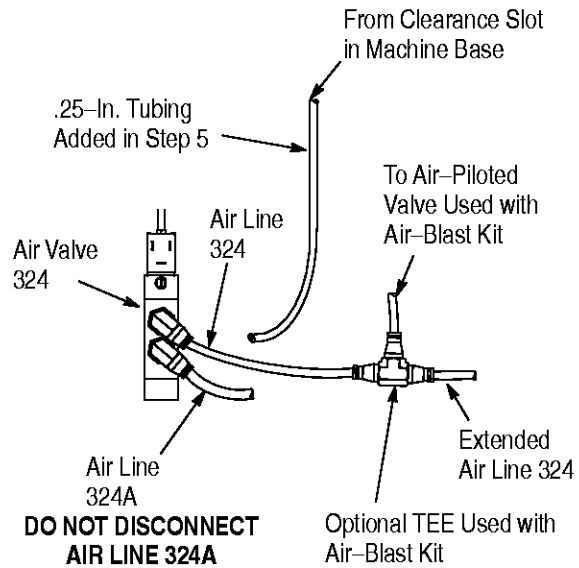


Figure 6

7. Feed the free end of the .25-in. tubing (connected in Step 5) to air valve 324 location.

8. If optional air-blast kit is NOT installed, disconnect air line 324 directly from air valve 324 and connect the free end of the .25-in. tubing in its place. If optional air-blast kit is installed, disconnect the extended air line 324 from the optional TEE and connect the free end of the .25-in. tubing in its place. Refer to Figure 6.

NOTE

The air line disconnected in Step 8 will remain disconnected as long as the short lead kit is installed. It is recommended to loop and tie this line to a convenient location on the pneumatics panel.

4.3. Blade Holder Modification

Included in the Short Lead Kit are two modified spacers and two lead supports. As shown in Figure 7, these components are used to modify the blade holders in the machine's cut/strip assembly for short lead stripping. Install as follows:

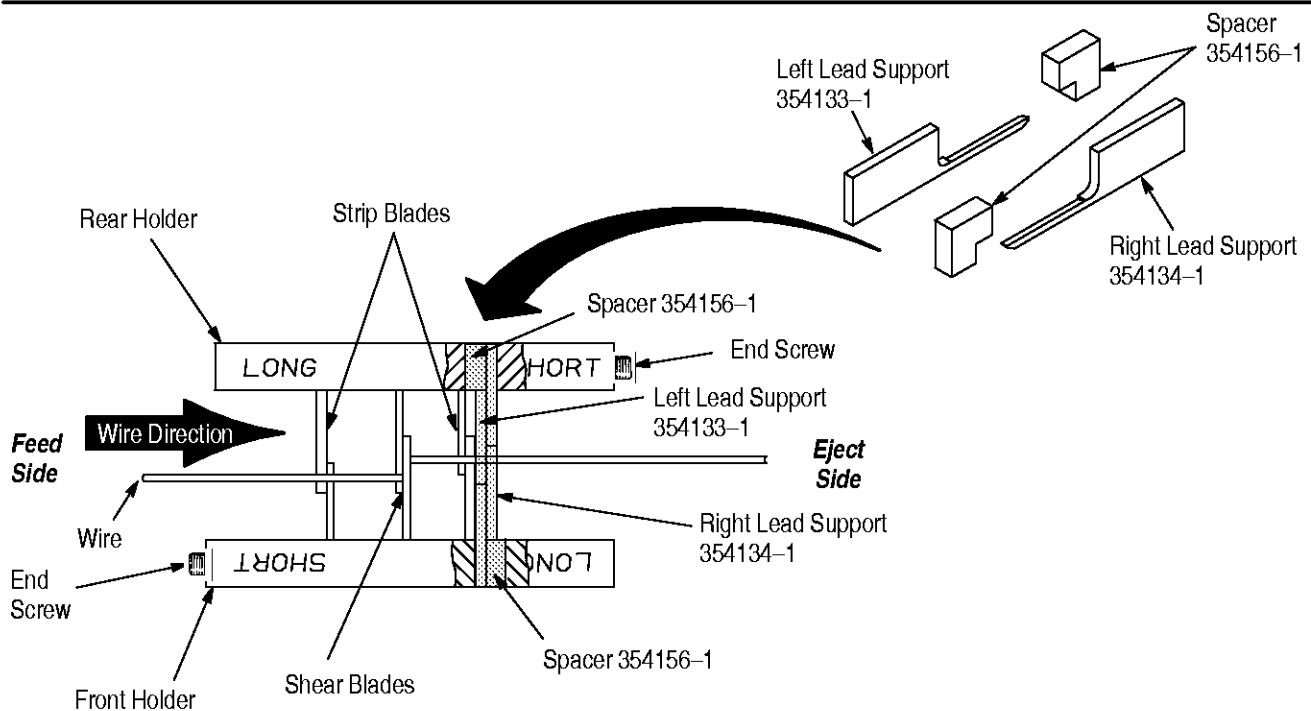


Figure 7

1. Remove the blade holders from the cut/strip assembly and orient them on a bench as shown in Figure 7.
2. Loosen the end screw on the rear holder and insert the right lead support and spacer as shown in the illustration. Tighten the end screw.
3. Loosen the end screw on the front holder and insert the left lead support and spacer as shown. Tighten the end screw.
4. Replace the modified strip blade holders in the machine.

4.4. Chute Installation

Remove Part Number 854717 from the conveyor assembly and replace with Short Lead Kit Chute 1320206-1.

Disconnect Circular Plastic Connector P52 from the back of the electrical panel to ensure that the conveyor is disabled while Short Lead Kit Chute 1320206-1 is in place.

CAUTION

Failure to disconnect circular plastic connector P52 will result in damage to the conveyor belt when the machine is run.

4.5. Lead Deflector Installation

Install the lead deflector on the machine's large stacking tray as shown in Figure 8. Slip the hanging bracket over the side of the stacking tray and tighten the thumbscrew to secure it in position. During operation, the deflection angle can be changed to ensure that the leads are properly deflected into the tray.

5. ADJUSTMENTS

Adjust the eject side transfer at the cut/strip blades as closely as possible, making sure that the vane is still in contact with the switch. The recommended minimum clearance between the eject side transfer jaws and the cut/strip blades or housing is **1.575 mm [0.062 in.]**. Depending on prior setups with the machine, the vane may need to be adjusted.

When operating the machine to produce leads terminated with flag terminals, it may be necessary to adjust the guide tube on the air-powered lead eject subassembly. The guide tube is adjusted horizontally by loosening the two shoulder screws, as shown in Figure 9.

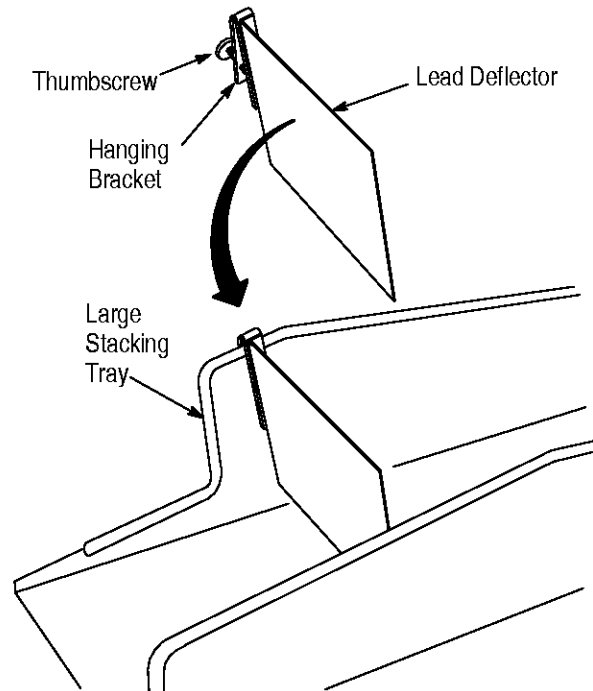


Figure 8

6. OPERATION

DANGER

To avoid personal injury, be sure that all tools and unused machine components have been removed from the area of the machine in which you have been working.

CAUTION

Flip the hinged upper deflector above the conveyor at the eject transfer over so that it does not interfere with the Short Lead Kit on the eject transfer. Failure to do this will result in damage to the tooling and machine.

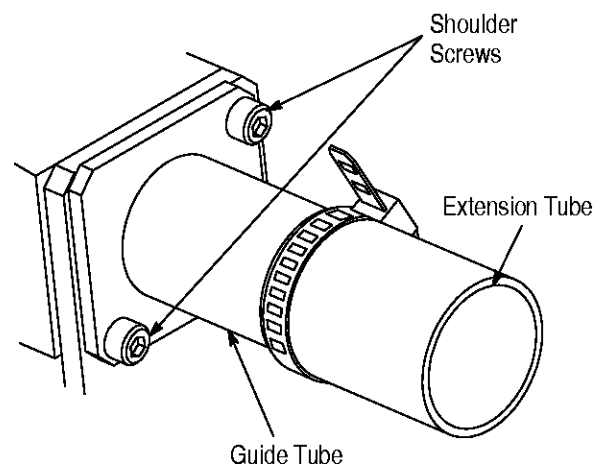


Figure 9

Power up the machine by resetting the emergency stop button (if pushed), closing the guard door, or simply returning power to the machine if it was turned off.

1. Float the terminating unit into its operating position.
2. Select **Short Lead Kit** from the **MACHINE OPTIONS** menu found under **SET UP** on the main menu.
3. Run some test leads to check the adjustment of the machine. If they are acceptable, the machine is ready for production.

NOTE *Jaw pressure on the eject side may need to be increased for better gripping due to insulation thickness and characteristics.*

NOTE *It is recommended that all leads being processed have a terminal applied on the feed side. In cases of single-ended leads, terminations should be done on the feed side terminator.*

NOTE

*For best wire control, **WIRE FEED RATE** should be set to 100 in./sec and **WIRE FEED ACCELERATION** to 1000 in./sec².*

NOTE

The elevator down motion may need to be slowed down. This is accomplished by adjusting the flow control clockwise until the down motion is smoothly controlled.

7. REVISION SUMMARY

Per EC 0990-1208-98:

- Revised Figure 1 to show Extension Tube and Short Lead Kit Chute 1320206-1
- Deleted specific AMPOMATOR CLS Lead-Making Machine part numbers from Section 1, INTRODUCTION
- Revised Figures 4, 5, and 9 to show Extension Tube
- Added Paragraph 4.4, Chute Installation
- Deleted a step from Section 6, OPERATION, and renumbered
- Added Section 7, REVISION SUMMARY