customer manual

SAFETY PRECAUTIONS AVOID INJURY

Safeguards are designed into this application equipment to protect operators and maintenance personnel from most hazards during equipment operation. However, certain safety precautions must be taken by the operator and repair personnel to avoid personal injury, as well as damage to the equipment. For best results, application equipment must be operated in a dry, dust–free environment. Do not operate equipment in a gaseous or hazardous environment.

Carefully observe the following safety precautions before and during operation of the equipment:

- ALWAYS wear appropriate ear protection.
- ALWAYS wear approved eye protection when operating powered equipment.
- ALWAYS keep guard(s) in place during normal operation.
- ALWAYS insert power plug into a properly grounded receptacle to avoid electrical shock.
- ALWAYS turn off the main power switch and disconnect electrical cord from the power source when performing maintenance on the equipment.
- NEVER wear loose clothing or jewelry that may catch in moving parts of the application equipment.
- NEVER insert hands into installed application equipment.
- NEVER alter, modify, or misuse the application equipment.

TOOLING ASSISTANCE CENTER

CALL TOLL FREE 1–800–722–1111 (CONTINENTAL UNITED STATES AND PUERTO RICO ONLY)

The **Tooling Assistance Center** offers a means of providing technical assistance when required.

In addition, Field Service Engineers are available to provide assistance in the adjustment or repair of the application equipment when problems arise which your maintenance personnel are unable to correct.

INFORMATION REQUIRED WHEN CONTACTING THE TOOLING ASSISTANCE CENTER

When calling the Tooling Assistance Center regarding service to equipment, it is suggested that a person familiar with the device be present with a copy of the manual (and drawings) to receive instructions. Many difficulties can be avoided in this manner.

When calling the Tooling Assistance Center, be ready with the following information:

1. Customer name
2. Customer address
3. Person to contact (name, title, telephone number, and extension)
4. Person calling
5. Equipment number (and serial number if applicable)
6. Product part number (and serial number if applicable)
7. Urgency of request
8. Nature of problem
9. Description of inoperative component(s)
10. Additional information/comments that may be helpful

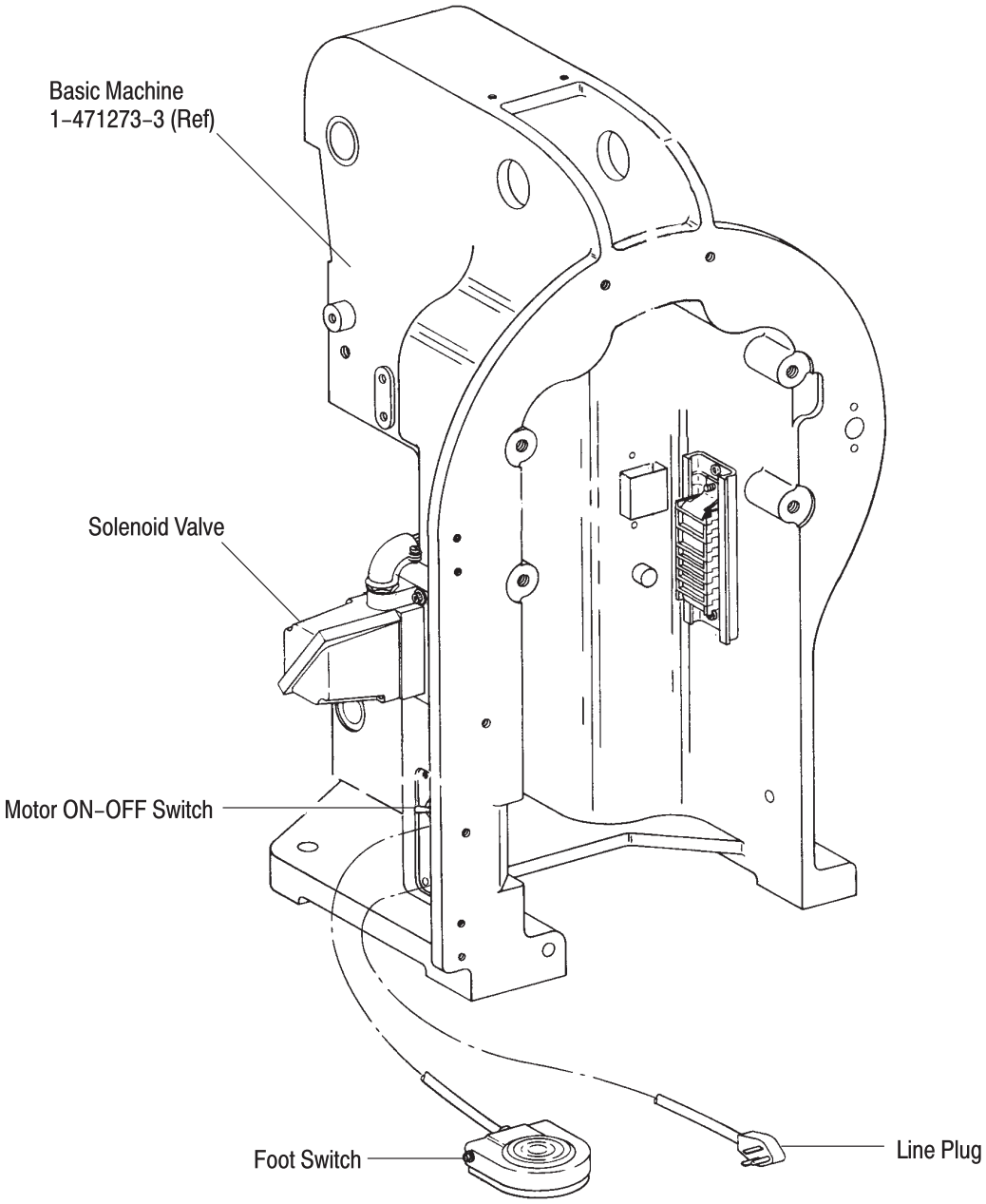


Figure 1

1. INTRODUCTION

This customer manual is a supplement to Customer Manual 409–5128 which covers basic AMP–O–LECTRIC Model “K” Terminating Machines 471273–[ ].

AMP–O–LECTRIC One–Valve Press 694234–7 (shown in Figure 1) is essentially the same as the basic machine with the exception of not having a mechanical or air feed and actuating components. In place of these, the one–valve press has a solenoid valve (L2), a cam on the eccentric arm of the transmission, a cam switch (S8), and a motor ON–OFF switch (S4)—refer to Figure 2 for location of these components.

The one–valve press is used as the main sub–assembly for many special machines and miniature applicators that require an air supply to air–operated components in conjunction with the cycling of the press. When used with miniature applicators, a conversion kit must be installed. Applicable conversion kits and instruction for installation of the conversion kit onto the basic machine is covered in Instruction Sheet 408–8022.

When reading this manual, pay particular attention to **DANGER, CAUTION, NOTE** statements.

Denotes an imminent hazard which may result in moderate or severe injury.

Denotes a condition which may result in product or equipment damage.

Highlights special or important information.

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

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

2. DESCRIPTION

2.1. Functional Description

The following describes the function of the one–valve press beyond the description of the basic press covered in 409–5128.

In the static condition, the cam switch (S8) is actuated OPEN by the cam on the transmission and the solenoid valve is de–energized, thus supplying air through the top front port and exhausting return air through the bottom front port and muffler to the atmosphere.

The press cycle begins the moment the foot switch (S3) is depressed. At approximately 4 degrees of the press flywheel rotation, the cam switch is de–actuated which CLOSES the circuit to energize the solenoid valve. This diverts air pressure out of the bottom front port of the solenoid valve and exhaust air back through the top front port and muffler to the atmosphere. The solenoid valve remains energized as the press ram bottoms and returns near the top of the upward stroke. At this point, the cam again actuates the cam switch and the circuit is OPENED to de–energize the solenoid valve as the press returns to the static condition. This completes a cycle of operation.

The purpose of the motor ON–OFF switch (S4) is to provide a means of stopping the motor for hand–cycling of the press during setup and adjustments of the special machine or miniature applicator. With this switch OFF and the main power switch (S2) ON, the solenoid valve is energized and de–energized during hand–cycling of the press in the same manner as during normal operation.

2.2. Electrical Description

The electrical system is basically the same as the basic machine covered in 409–5128 except with the addition of the solenoid valve (L2), cam switch (S8), and motor on–off switch (S4) as indicated in Figure 2.

3. RECEIVING INSPECTION AND INSTALLATION

All receiving inspection and installation information contained in 409–5128 is applicable to the one–valve press.

The one–valve press must be installed as described in 409–5128, and the plug must be connected to an adequate and convenient electrical outlet with 115 Volts, 60 Hz, single phase, and a minimum continuous air supply of 620 kPa [90 psi] connected to the sleeve valve. The sleeve valve must be OPEN, and the main power switch (S2) and motor ON–OFF switch (S4) must be ON. With both switches ON, the motor runs continuously and electric power is supplied to the cam switch (S8).

4. OPERATION

All operating information contained in 409–5128 is applicable to the one–valve press.

Basic Press Wiring

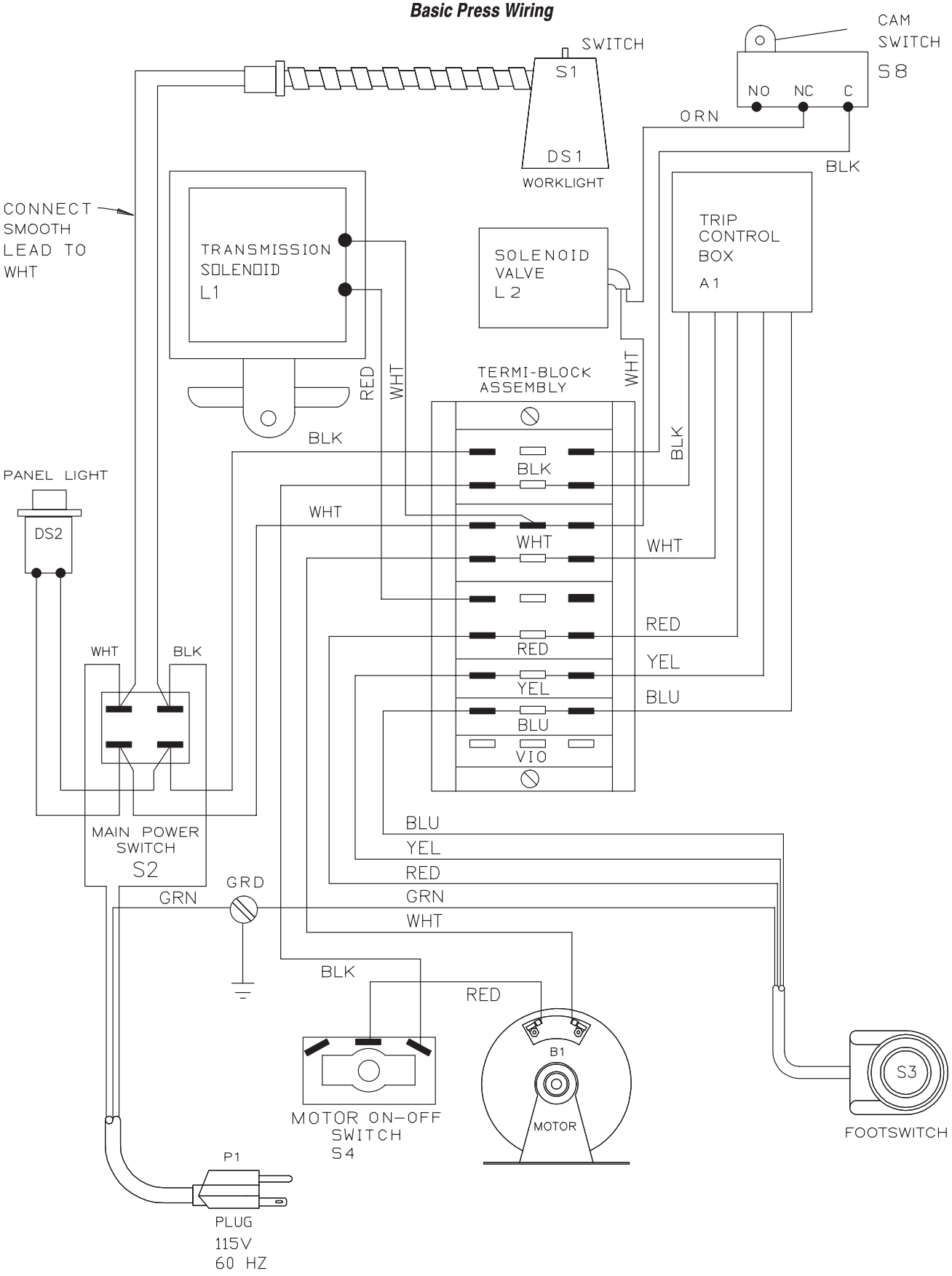


Figure 2

5. ADJUSTMENTS

To avoid personal injury, ALWAYS DISCONNECT the electrical and air supply, before performing any adjustment, unless otherwise specified.

Adjustments covered in 409–5128 apply to the one–valve press with the addition of the cam switch (S8) adjustment.

The cam switch (item 7, Figure 3), located inside the back of the press behind the flywheel, must be actuated by the cam (item 12, Figure 3) on the transmission. When actuated, it OPENS the circuit between the common post (C) and the normally closed post (NC) (see Figure 2). When de–actuated, this circuit is CLOSED to energize the solenoid valve (L2). If necessary, to adjust the cam switch, refer to Figure 3, and proceed as follows:

1. Gain access by removing the side access cover (item 4).
2. Loosen two screws (item 5), and move the cam switch (item 7) in the desired direction, then re–tighten the screws after the correct adjustment is made.
3. Re–install the side access cover.

6. PREVENTIVE MAINTENANCE

All preventive maintenance information contained in 409–5128 is applicable to the one–valve press.

7. TROUBLESHOOTING

Troubleshooting covered in 409–5128 applies to the one–valve press with the addition of the information given below.

TROUBLE	CAUSE	REMEDY
The press motor does not run when both the control switch and motor ON–OFF switch are ON.	The motor ON–OFF switch is defective.	Replace the motor ON–OFF switch.
	The wiring is defective or there are loose connections.	Repair the wiring.
The solenoid valve does not operate during a press cycle.	There is low air pressure.	Check the air supply and/or adjust the regulator.
	There is excessive back pressure.	Remove the muffler.
	The cam switch is improperly adjusted.	Adjust the cam switch.
	The cam switch is defective.	Replace the cam switch.
	The wiring is defective or there are loose connections.	Repair the wiring.
	The solenoid valve is defective.	Replace the solenoid valve.

8. REPLACEMENT AND REPAIR

To avoid personal injury, ALWAYS disconnect electrical supply and air supply before performing any repairs or replacement of parts.

Replacement and repair information covered in 409–5128 apply to the one–valve press.

The parts list for basic AMP–O–LECTRIC Model “K” Terminating Machine 1–471273–3 covered in 409–5128 applies to the one–valve press with the addition of the parts given in Figure 3. These parts do not require a specific procedure for replacement.

9. REVISION SUMMARY

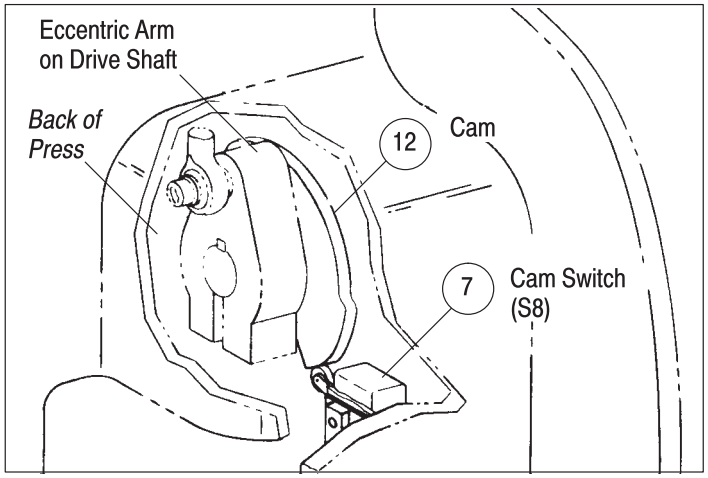
Revisions to this customer manual include:

- Updated document to corporate requirements
- Removed General Machine Policy and Field Service Request form
- Added Figure 1
- Removed part number 253588–1 from Figure 2
- Replaced Terminating Machine 1–471273–1 with 1–471273–3
- Corrected description of Items 7 and 12 in Figure 3

PARTS LIST (In Addition to Parts List for Basic Machine 1–471273–3)			
ITEM	PART NUMBER	DESCRIPTION	QTY PER PRESS
1	23426–1	SWITCH, ON–OFF Plate	1
2	23485–1	SWITCH, ON–OFF Motor	1
3	2–21002–6	SCREW, Button Head Socket Cap, No. 10–32 × .375 in. L	2
4	473391–1	COVER, Side Access	1
5	2–21016–9	SCREW, Machined, No. 6–32 × 1 in. L	2
6	465803–1	PLATE, Nut	1
7	23792–1	SWITCH, Cam, Pressure Sensitive, Reverse Acting Roller Actuator	1
8	22885–1	FISHPAPER, Fyberoid, 50.8 × 50.8 in. [2 × 2 mm] Approx	1
9	3–21000–4	SCREW, Socket Head Cap, No. 10–32 × .375 in. L	2
10	376502	SWITCH, Bracket	1
11	3–21000–7	SCREW, Socket Head Cap, No. 10–32 × .75 in. L	2
12	385680–2	Cam	1
13	21001–7	SCREW, Socket Head Cap, $^{1}/_{4}$–in. 20 × 1.25 in. L	2
14	454724–1	SPACER, Lubricator	1
15	24042–2	VALVE, Sleeve	1
16	22306–5	ELBOW, Street, $^{1}/_{4}$–in. NPT	1
17	23759–1	FILTER–REGULATOR–LUBRICATOR, $^{1}/_{4}$–in. NPT	1
18	1–22294–1	ELBOW, Male, $^{1}/_{4}$ in. NPT × $^{3}/_{8}$–in. Tube	2
19	22620–2	TUBING, Polyethylene, $^{3}/_{8}$ in. × 152 mm [6 in.] L	1
20	25286–1	MUFFLER, Air Exhaust	1
21	22803–1	CONNECTOR, Box, 90°	1
22	4–21000–0	SCREW, Socket Head Cap, No. 10–32 × 1.25 in. L	2
23	686822–2	VALVE, 4–Way Terminated Solenoid	1

Figure 3 (Cont'd)

Detail A
Front View



Detail B
Right Side View

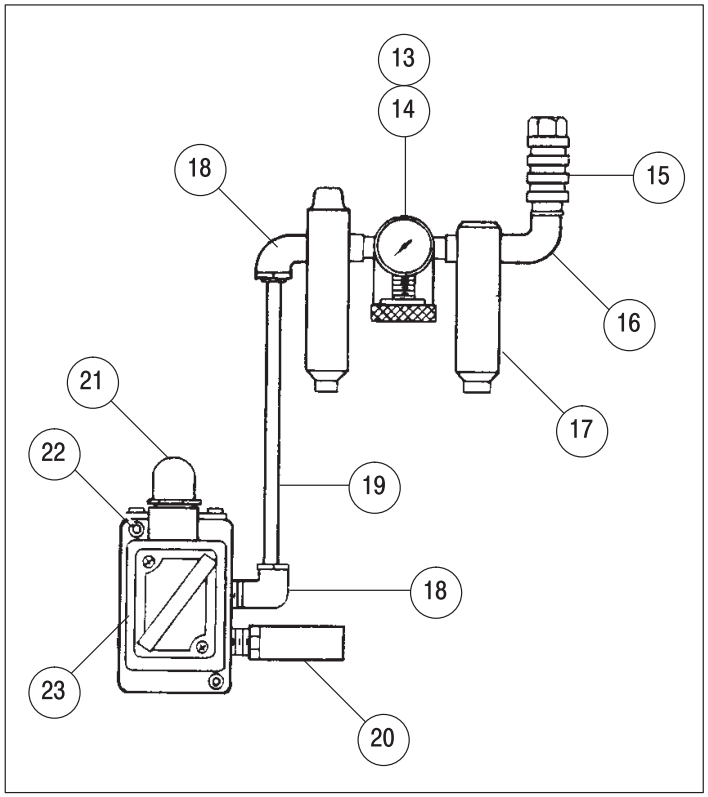


Figure 3 (Cont'd)

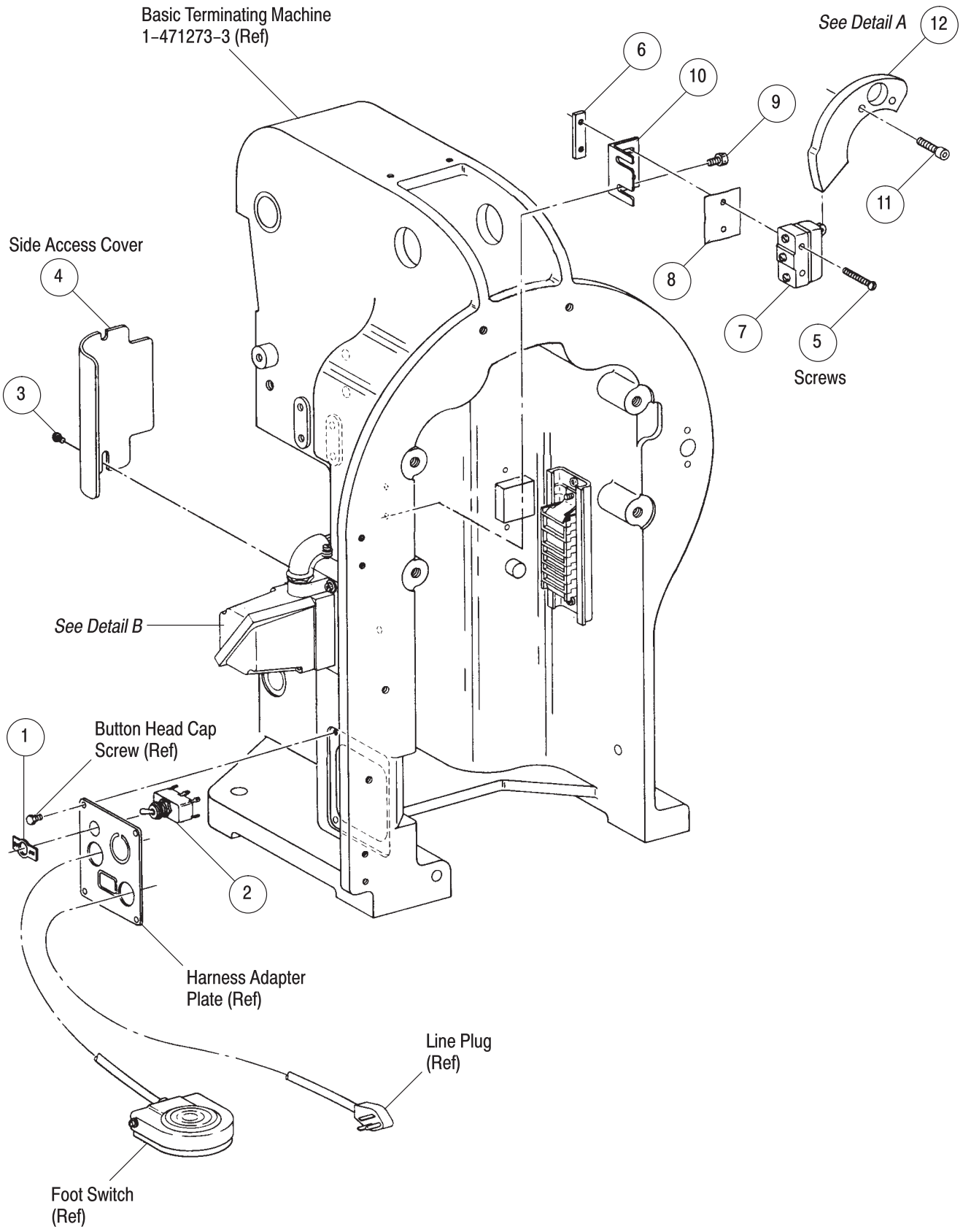

Basic Terminating Machine
1-471273-3 (Ref)
See Detail A
12
6
10
9
11
Side Access Cover
4
8
7
5
Screws
3
See Detail B
1
Button Head Cap
Screw (Ref)
2
Harness Adapter
Plate (Ref)
Line Plug
(Ref)
Foot Switch
(Ref)

Figure 3 (End)