

**CHAPTER 2
INSTALLATION**

2.1 INITIAL INSPECTION

WARNING!
Do not connect press to power source until told to do so in this manual.

Your Model-83 Punch Press was thoroughly inspected and tested before shipment and it should reach you in excellent condition. Occasionally, however, a unit is damaged in transit.

Contact Spartanics Ltd. or your service representative immediately if you find that your punch press has been damaged in transit.

Unpack the Model-83 Punch Press and its accessories from the shipping crate and visually inspect the press and accessories for damage. Also, check the completeness of the shipment by comparing the number labeled on each item with the shipping list (Table 2.1 A). If possible, save the shipping crate for future use.

Table 2.1 A

Item #	Description	Quantity
*SP0001	8-32 X 3/16" Socket Head Set Screw	4
*SP0002	6-32 X 1/4" Socket Head Cap Screw	4
*SP0003	1/4-20 X 7/8" Socket Head Cap Screw	4
*SP0004	1/4" Siewek Hardened Flat Washers	4
*SP0005	1/4-20 X 1/2" Socket Head Cap Screw	8
*SP0006	10-32 X 1/4" Socket Head Cap Screw	4
*SP0007	10-32 Flat Washer	2
*SP0008	1/4-20 X 1/2" Hex Head Bolt	2
*SP0009	1/4-20 Nut	2
*SP0010	3/8-16 Nut	2
*SP0011	6-32 X 3/16" Button Head Cap Screw	4
*SP0012	6-32 Flat Washers	4
*SP0013	8-32 X 1/4" Button Head Cap Screw	2
*SP0014	1/4-20-1/2" Button Head Cap Screw	4
SP0015	Crank Tool	1
**SP0016	Test Fixture	1
SP0017	Die Tool	1
SP0018	Machinist's Tool	1
***SP0019	Light Filter Assembly	2
SP0020	Stripper Retaining Spring	10
SP0021	Manual	1
****SP0022	Can of Alumicut	1
*SP0023	Hold-Down Spring	1
SP0024	3/8" Box-End Wrench	1
*SP0025	7/8", 3/4" Open-End Brake Wrench	1
*SP0026	Allen Wrench Set	1
*SP0027	Box-End Wrench Set	1

*Note: For foreign presses only.

**Note: Provided only when ordered by customer.

***Note: For VM and NP presses only.

****Note: For NP presses only.

2.2 MOVING THE PRESS

Caution

Press is heavy (725 lbs.)[330kg.]. Use equipment rated at better than 2 tons [1800 kg.] to move press around.

Move the press to its proper location as follows:

Tools Needed:

- 7/8" open-end wrench (an adjustable end wrench will also work)
- medium size flat-tip screwdriver
- regular pliers
- overhead crane or fork-lift truck with hooked chain

1. Remove press shipping nuts with 7/8" wrench. See Figure 2.2 A.
2. Pull nail out of base of foot switch with pliers. See Figure 2.2 A.

3. Unscrew the top panel screws with screwdriver and remove top panel. See Figure 2.2 A.
4. Hook chain to eyebolt on top of press. See Figure 2.2 A.
5. Move press to new location.
6. Remove chain but *do not* reattach top panel yet.
7. If press is wobbly, insert shims under wobbly corner. Press does not have to be perfectly level.



Make sure press is bolted to the floor if it is installed in an earthquake prone area. Press is top heavy and can tip over in an earthquake.

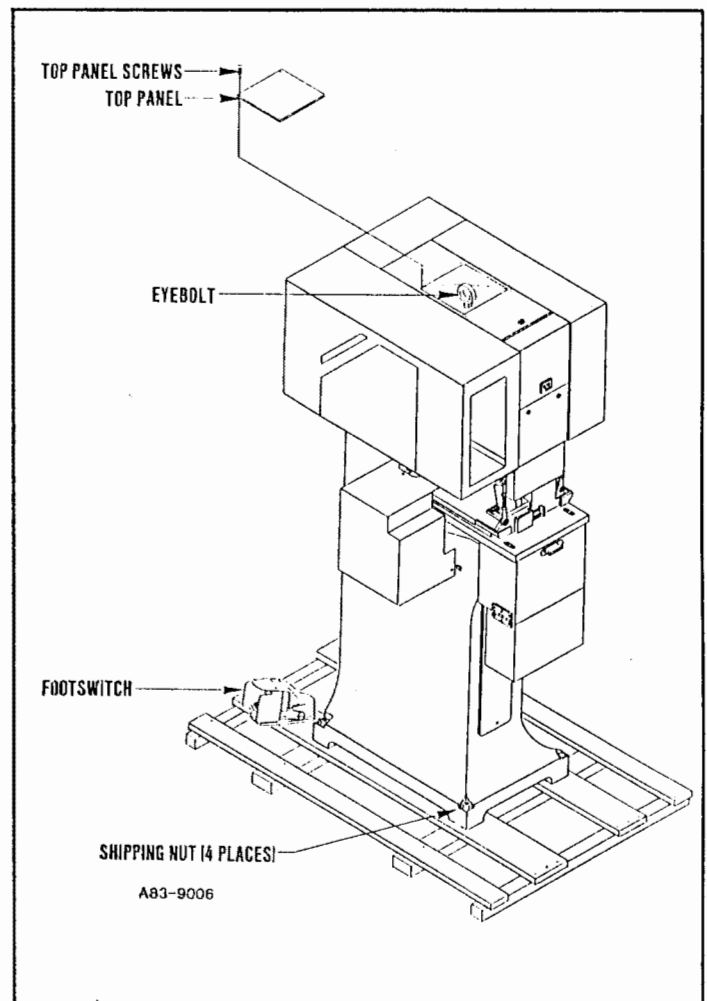


Figure 2.2 A

2.3 INSTALLING ELECTRONICS PACKAGE

Install the electronics package as follows:

Tools Needed:

- > 3/16" hex wrench (Allen wrench)

1. Slide electronics package into brake guard as shown in Figure 2.3 A.
2. Secure the electronics package in place with two 1/4-20 bolts (#SP0005 in Table 2.1 A) as shown in Figure 2.3 B.
3. Hook the press's cables up to the electronics package as shown in Figure 2.3 B.

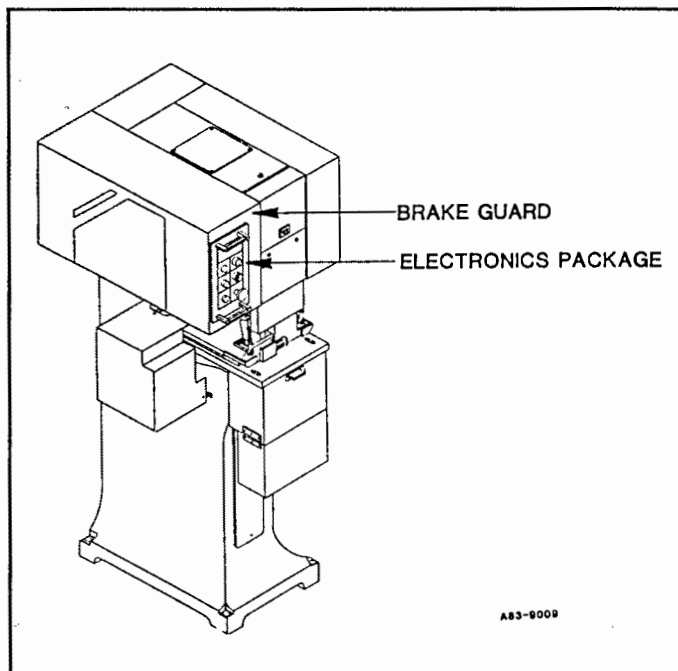


Figure 2.3 A

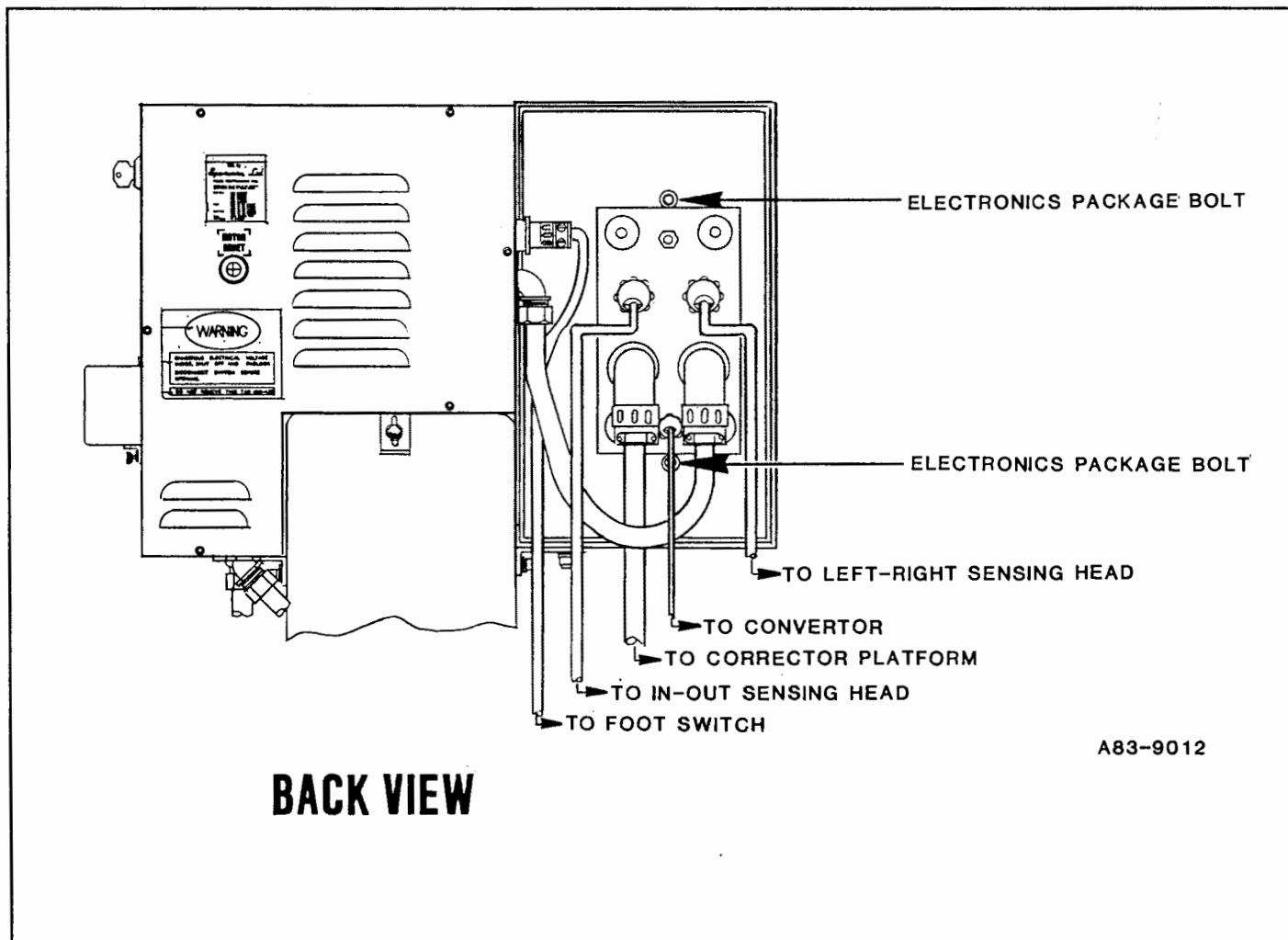


Figure 2.3 B

2.4 HOOKING UP AIR SUPPLY

Note

Air supply has to be regulated between 75 psi and 125 psi [3880mmHg and 6500 mmHg] or press will not work properly.

Hook air supply up to press as follows:

Tools Needed:

- Adjustable-End Wrench

Materials Needed:

- Pipe Joint Compound
- 3/8" NPT Air Nipple

1. Apply pipe joint compound to threads of air nipple and screw nipple into press as shown in Figure 2.4 A.
2. Hook air hose up to back of press.

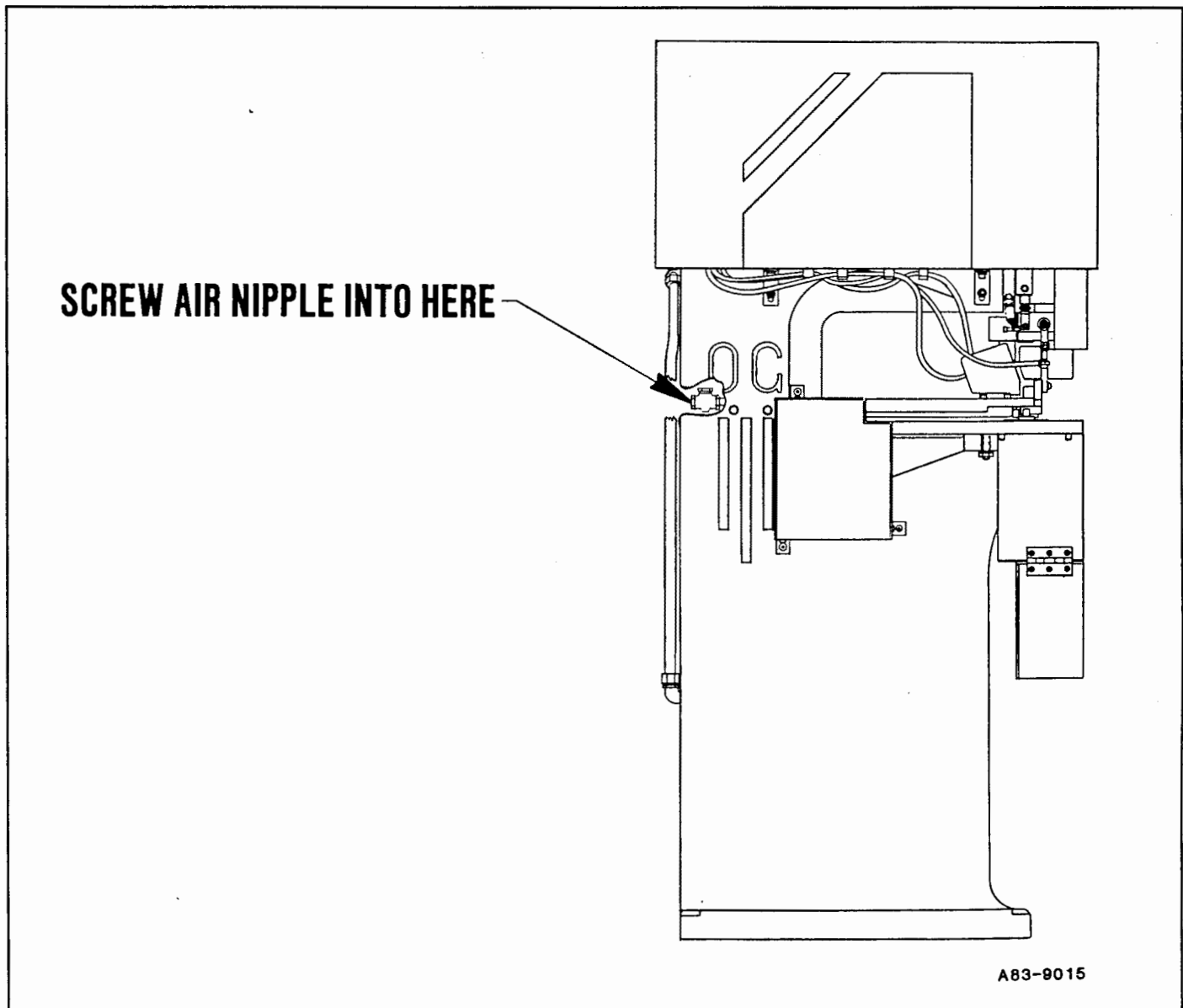
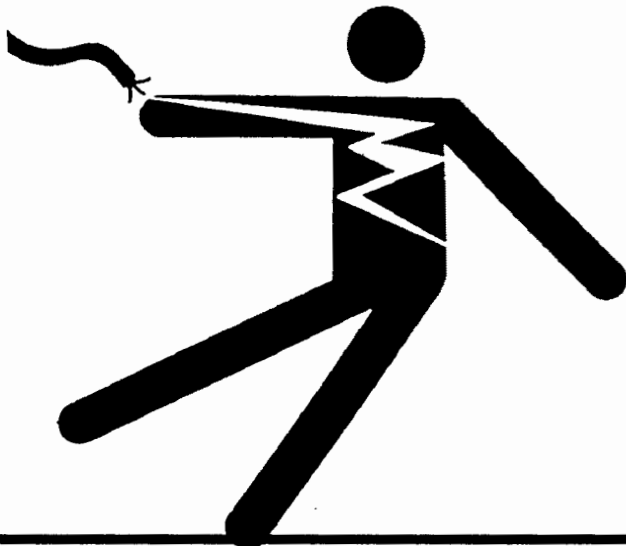


Figure 2.4 A

⚠ WARNING



Turn in-plant circuit breaker off before connecting power supply line to press. You can get fatally shocked if you do not.

2.5 HOOKING UP POWER SUPPLY

The M-83 operates from 120 to 600 VAC; 50 or 60 Hz; 1 or 3-phase power. The press must be hooked up to its power supply according to local and national codes. A yellow tag on the power disconnect switch tells what power specifications the press has been wired for at Spartanics.

Hook the press up to its power supply as follows:

Tools Needed:

- medium flat-tip screwdriver

Hook the press up to its power supply as follows:

1. If not already done so, turn in-plant circuit breaker for power supply line off.
2. Turn disconnect switch to "OFF" position and open disconnect switch door. See Figure 2.5 A. Door will not open unless switch is off.
3. Remove a knockout from disconnect box where conduit will be attached to box.

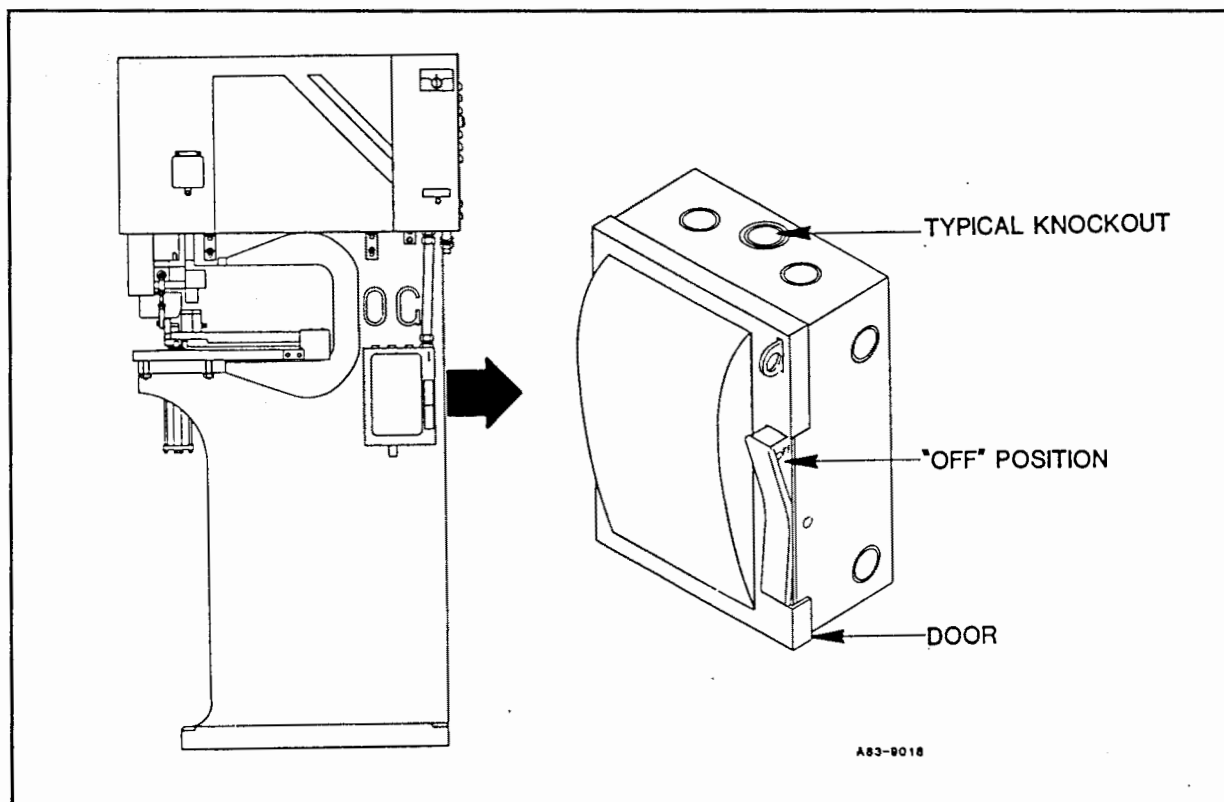


Figure 2.5 A

2.5 HOOKING UP POWER SUPPLY

4. Hook conduit up to disconnect box.
5. Open terminal door. See Figure 2.5 B.
6. Hook three power supply wires up to disconnect box and secure wires in place by tightening screws with screwdriver. See Figure 2.5 B.
7. Hook ground wire up to ground wire terminal and secure in place by tightening screw with screwdriver. See Figure 2.5 B.
8. Close terminal door.
9. Close disconnect switch door and turn disconnect switch to "ON" position. Switch will not work unless door is closed.
10. Turn power supply line circuit breaker on.
11. Check tooling alignment according to Section 8.11.4 and (if necessary) align tooling.

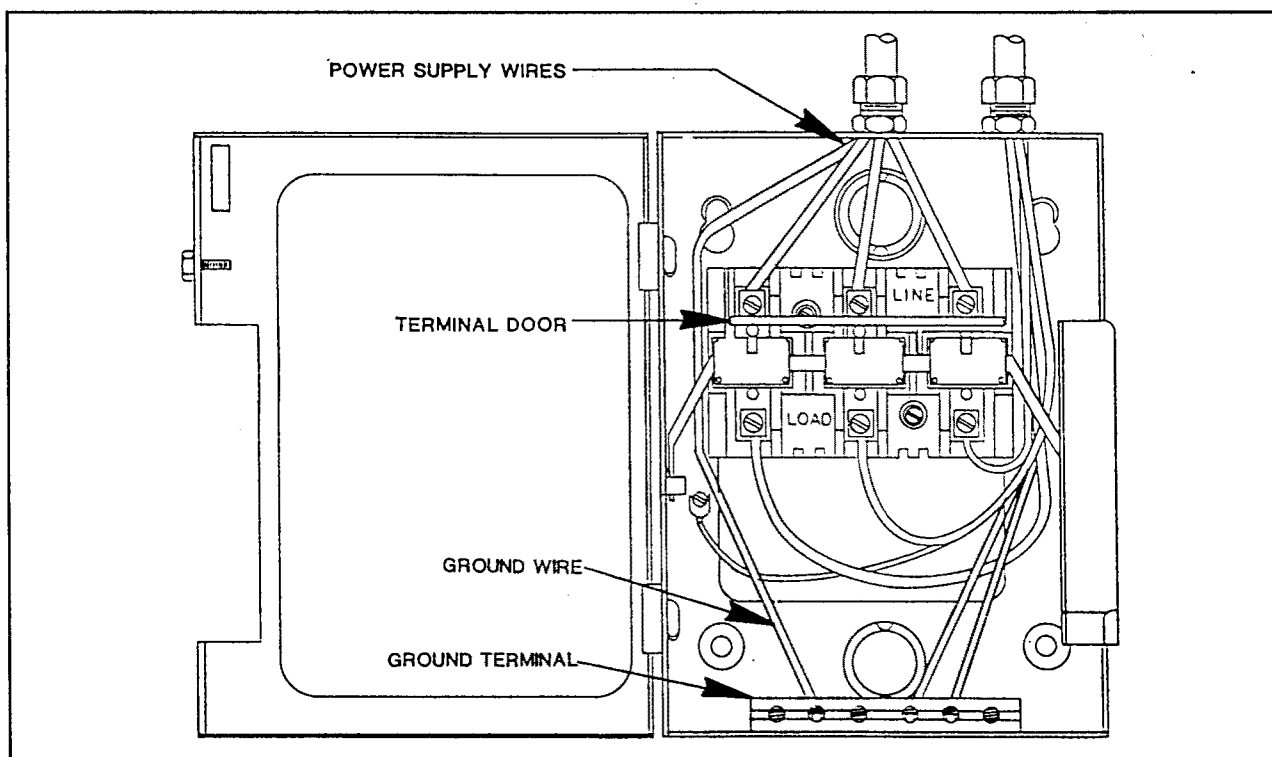
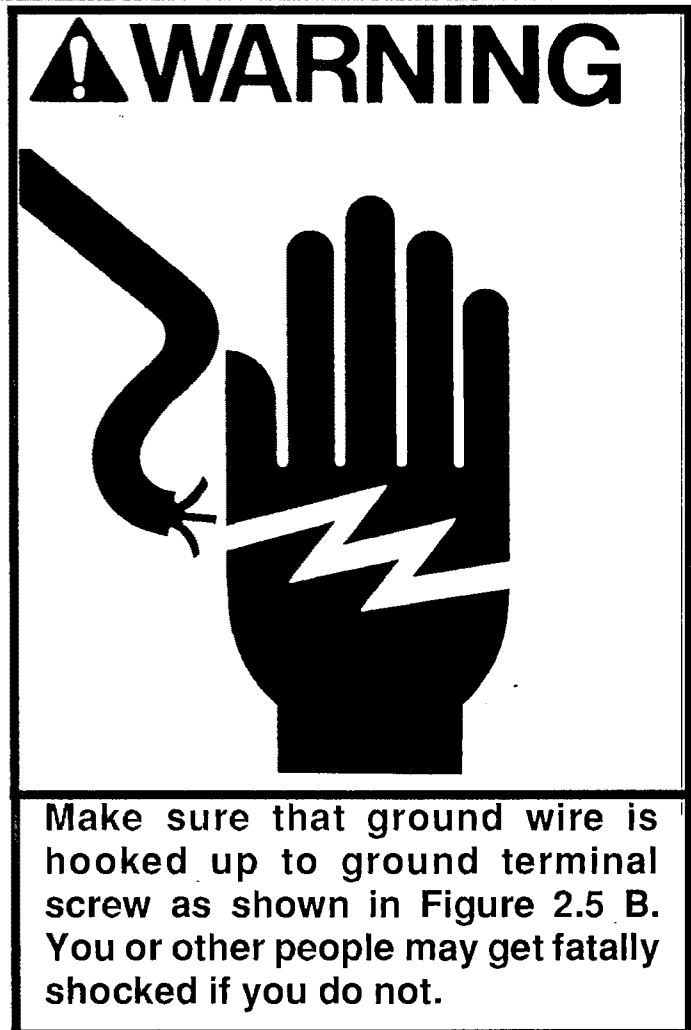


Figure 2.5 B

2.5 HOOKING UP POWER SUPPLY

Caution

Make sure that you check and (if necessary) align tooling according to Section 8.11.4 before going any further. The press can be seriously damaged if the tooling is not aligned properly.

12. Turn set up switch key to "RUN" position (refer to Section 3.1.2 for location of set up switch).

13. Press "ON" button on control panel.

14. Look through the hole in the top of the press and check the rotation of the flywheel. If the flywheel rotates in the direction shown in Figure 2.5 C, go to step 15. If the flywheel does not rotate in the direction shown, do the following:

a. Turn the in-plant power supply line circuit breaker off.

- b. Turn disconnect switch to "OFF" position.
- c. Open the disconnect switch door and reverse the position of any two power supply wires.
- d. Close the disconnect box.
- e. Turn the disconnect switch to the "ON" position.
- f. Turn the in-plant power supply line circuit breaker on.

15. Reattach the top panel to the press

16. Learn how to operate the press according to Chapter 3 and then adjust the sensing head dials according to Section 9.7.

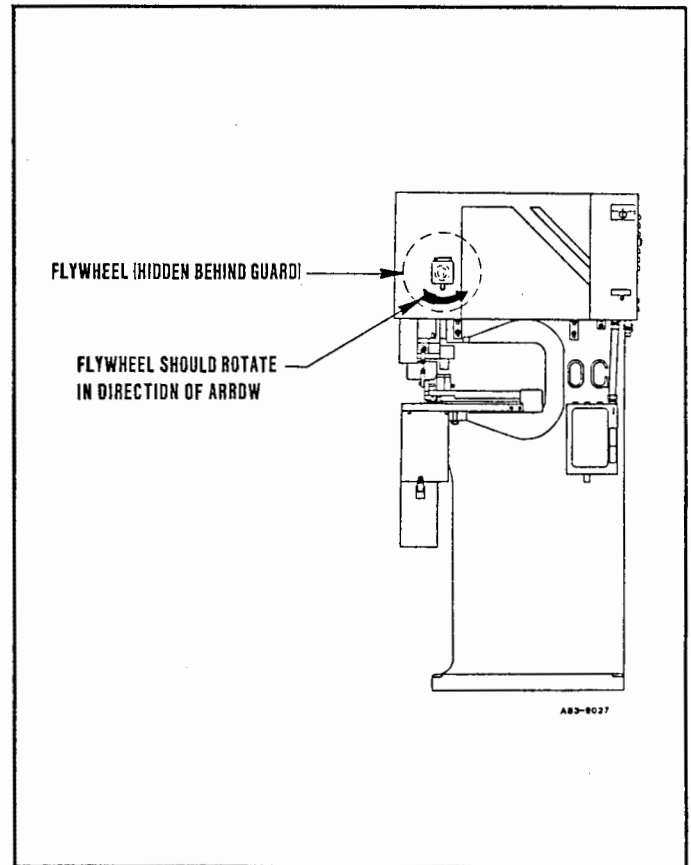
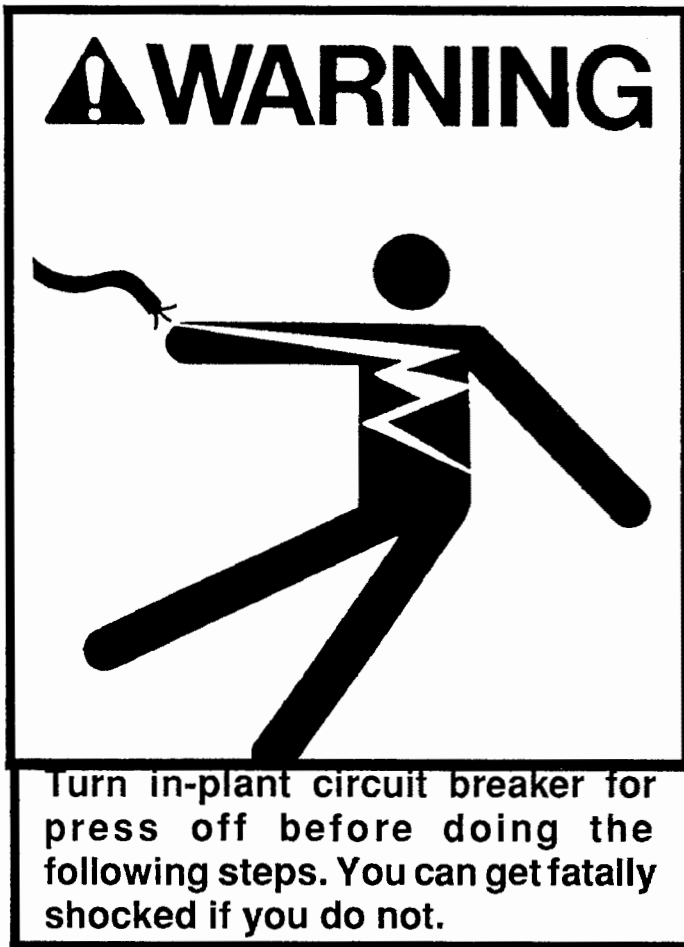


Figure 2.5 C

2.6 INSTALLING OPTIONS

The Model-83 punch press has six available options -- a converter, a set of film hold-downs, a single-axis corrector table, a rotation control table, a tracking backrail, and a special bolster plate. Only the single-axis corrector table and rotational control table have to be installed by the customer. Their installation is very similar.

Install the tables as follows:

Tools Required:

- 3/16" hex wrench (Allen wrench)

1. Hook the table onto the bolster plate as shown in Figure 2.6 A.
2. Tighten the bolster plate screws. Make sure the table is flush and level with the bolster plate before tightening the screws. See Figure 2.6 A.
3. Attach the support rod to the table and press as shown in Figure 2.6 A.
4. For rotation control tables, connect the light cable to the power transformer as shown in Figure 2.6 B.

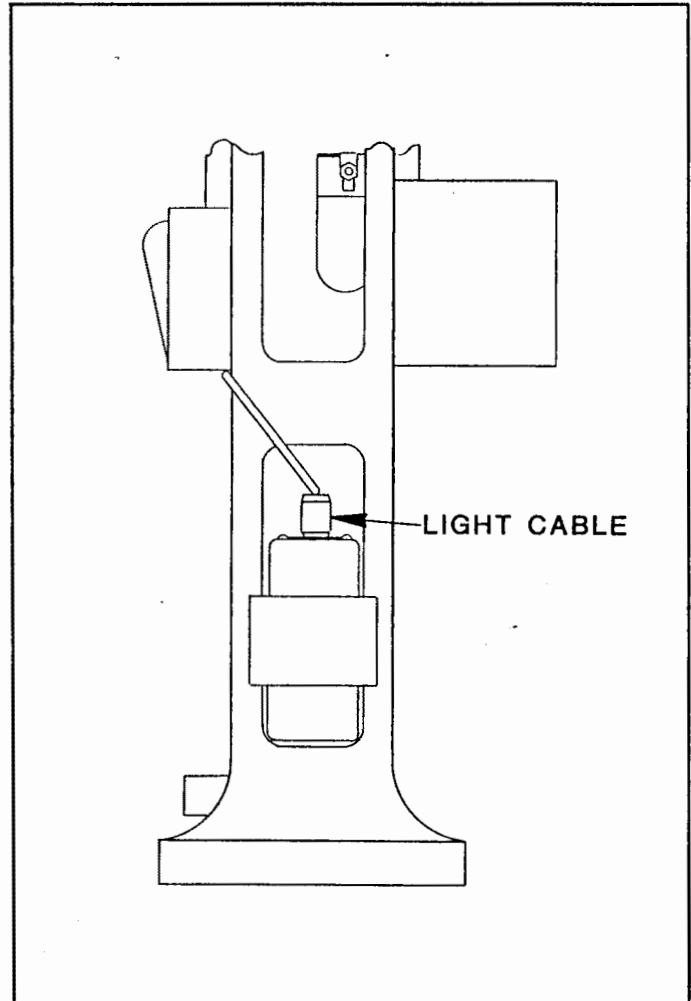


Figure 2.6 B

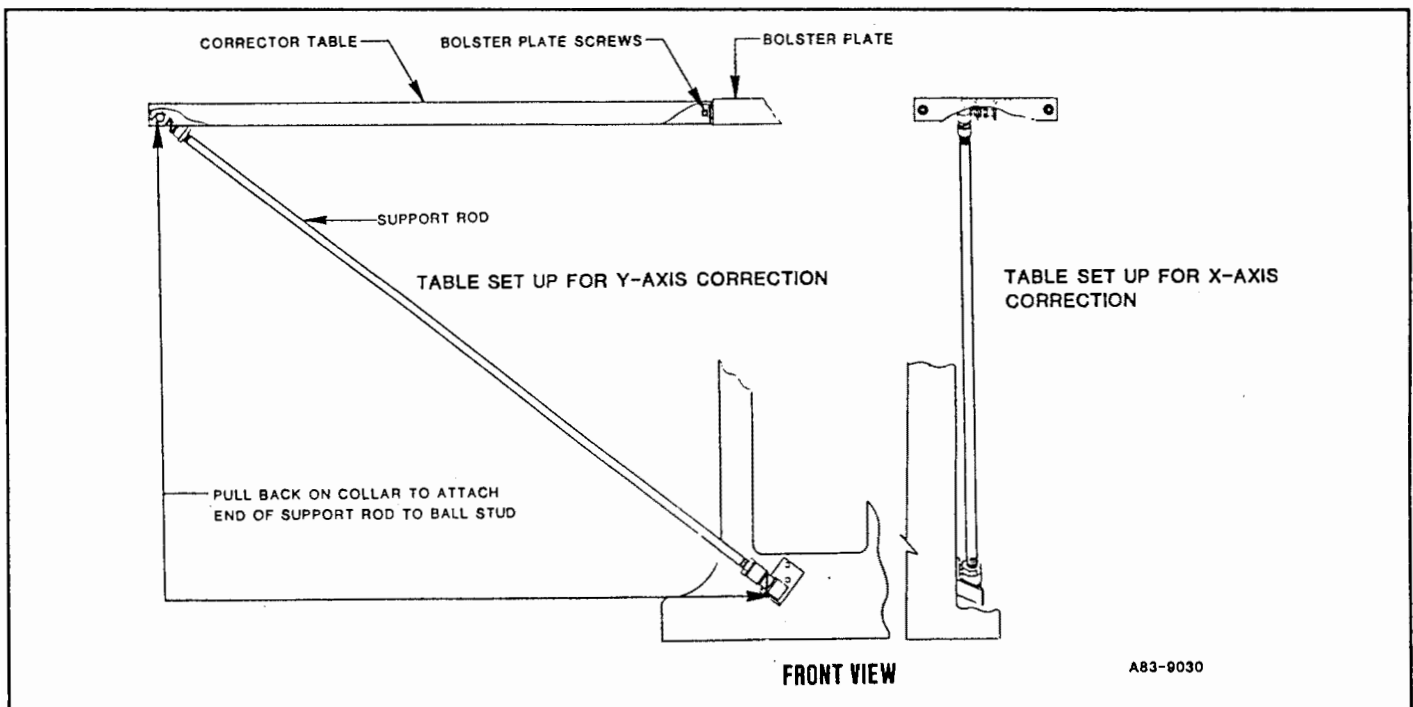


Figure 2.6 A