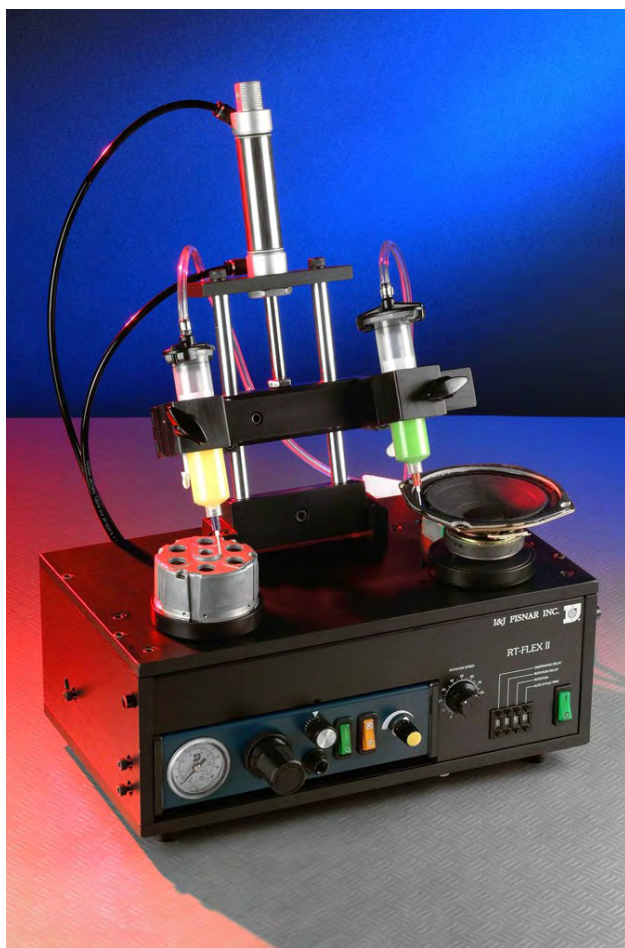


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REV B JULY 98
REV A AUG. 97

AUGUST 2003

RT404-FLEX II ROTARY TABLE OPERATING MANUAL



CE



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RT404-FLEX II ROTARY TABLE

NOTE:

Unlike the basic unit, with the FLEX II unit, you can adjust the holding block "TOWER" to different angles. The "TOWER" can be adjusted from a vertical to a horizontal position. Also, you can adjust the "BARREL HOLDER" to different angles.

SAFETY FEATURES:

RT404-FLEX II unit is equipped with two manual finger switches. While operating the unit in this mode, start buttons each side of unit must be pressed together to activate the unit.

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1. INTRODUCTION

The RT404-FLEX II Rotary Table offers a convenient way to dispense material in a circular pattern.

SPECIFICATION:

SIZE	WIDTH=14 1/8" (359 mm) DEPTH=10 1/2" (267mm) HEIGHT= 20" (508 mm)
WEIGHT	26.5 lb. (12 kg)- without dispenser
AIR INPUT	70-90 psi (5-7 bar)

FEATURES:

- ◇ 2 dispensing heads and rotating platforms
- ◇ dispense circles from 0 to 900 degrees
- ◇ accepts items 6" (152 mm) diameter by 2" (51 mm) high
- ◇ variable speed 3 to 60 rpm
- ◇ adjustable time between cycles
- ◇ easy to set-up and operate

DSP501A/DSPE501A is required. It is not included with the RT404-FLEX II.

2. SET UP

- 2.1 Carefully unpack the rotary table and parts and check the contents fig 1A & 1B.
- 2.2 To install the cylinder assembly please refer to the fig 2 and follow steps (a) through (e).
 - a. Remove the (2) screws from the top of sliding block shafts.
 - b. Rest the mounting plate with cylinder on the sliding block shafts. Screw the cylinder shaft into the sliding block assembly.
 - c. Tighten the nut against the sliding block

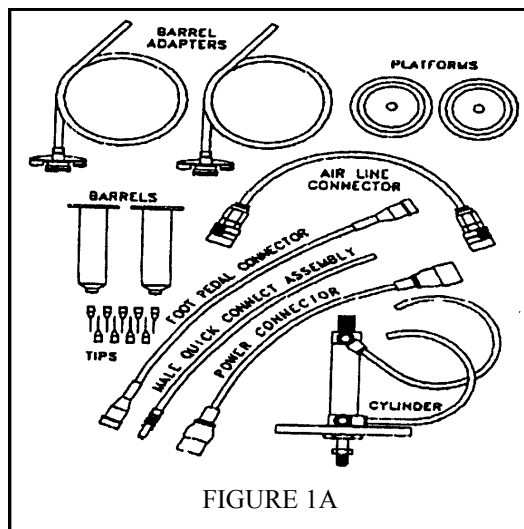


FIGURE 1A

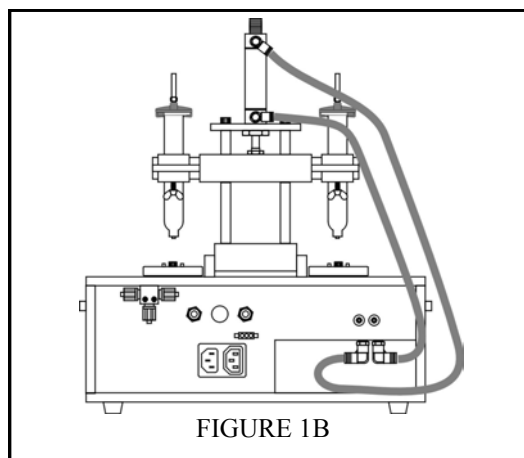


FIGURE 1B

to secure the cylinder shaft. 1/2" of height adjustment can be set on the depth the shaft is secured into the sliding block.

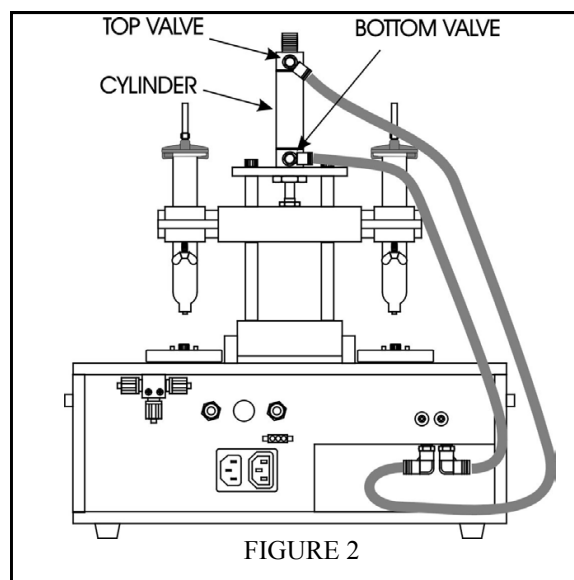
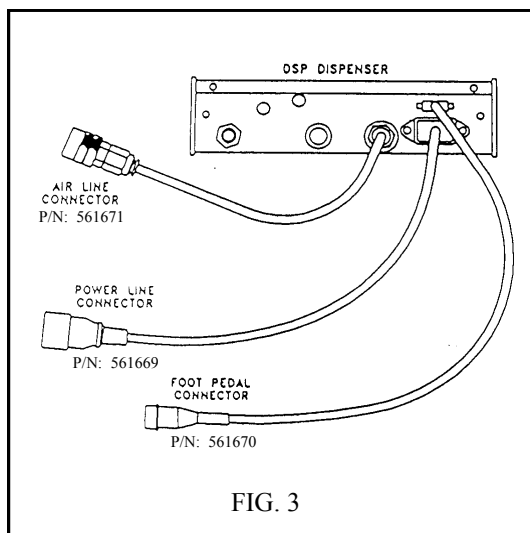


FIGURE 2

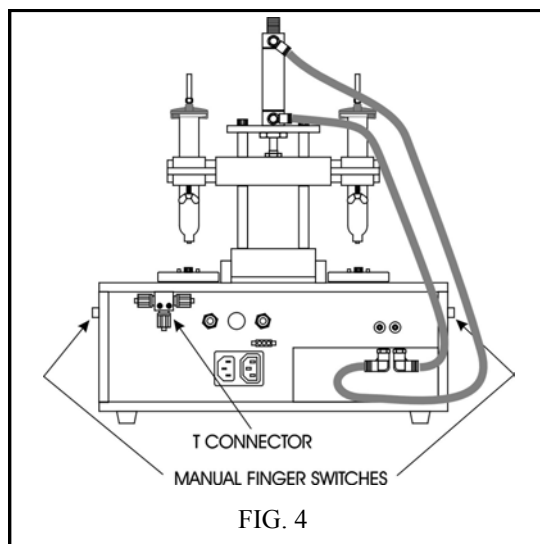
- d. Attach mounting plate with cylinder to the sliding block shafts using the (2) screws removed at step (a) in such a way that the air lines are pointed to the back of the table. Tighten screws.
- e. Attach plastic cylinder tubing to back of the RT table by pushing into fittings for solenoid valve as shown in fig 2.

2.3 DISPENSER SET UP

- a. DSP501A (110V) or DSPE501A (220V) is required and not supplied with the RT404-FLEX II.
- b. Attach the following parts supplied with the RT table to the back of DSP dispenser as shown in figure 3.



- c. Attach (2) hoses from barrel adapter assemblies to "T" connector on back panel as shown in fig. 4.
- d. Attach tube with male quick connect to bottom of the "T" connector.



- e. Back out the (2) hex screws on the left side of the RT404-FLEX II, so that the DSP dispenser can be inserted with ease (see fig. 5).
- f. Insert the DSP dispenser into the opening in the front of the RT table.
- g. Position the "stop" screw as required:

POSITION A: DSP unit protrudes 0.75 inches in front of the RT404-FLEX II table. DSP led light can be seen (see fig. 5).

POSITION B: DSP unit is flush with front of RT404-FLEX II table. DSP led light can not be seen (see fig. 5).

- h. Lock the dispenser in place using the (2) side hex screws (see fig. 5). DO NOT OVERTIGHTEN.
- i. Attach the air line connector from the dispenser to the back of the table at AIR SUPPLY TO DISPENSER. Be sure to remove the rubber plug from the connector first (fig. 6).
- j. Attach the foot pedal connector from the dispenser to DISPENSER INTERFACE at the back of the RT Table (fig. 6).
- k. Attach the power connector from the dispenser to POWER TO DISPENSER at the back of the RT Table (fig. 6).

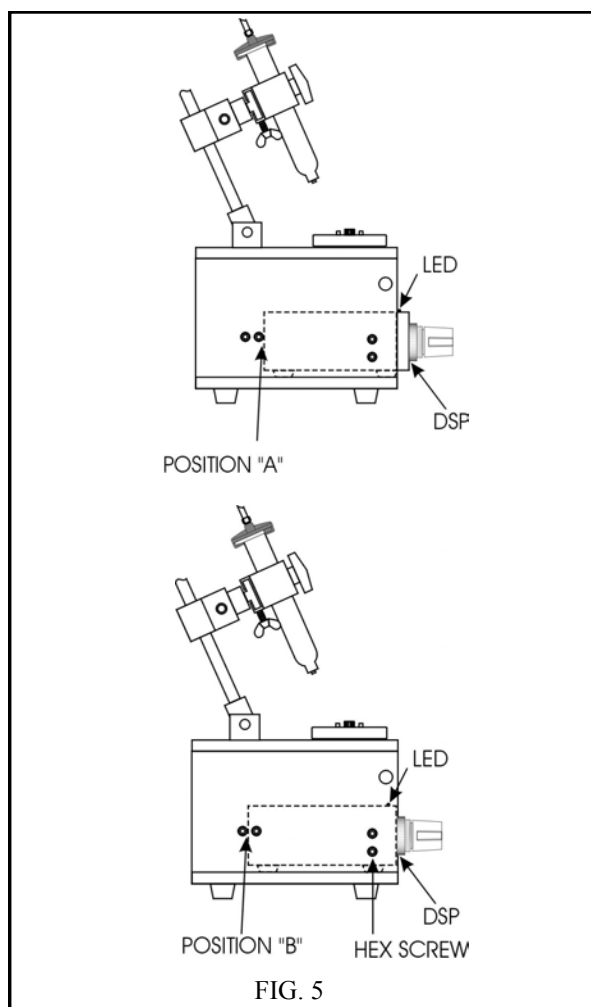


FIG. 5

- l. Attach the male end of the quick connect assembly to the front of the DSP Dispenser.
- m. Attach air hose to AIR IN (Max 90 psi) on the back of the RT table.

CAUTION:

STAY CLEAR OF RT404-FLEX II UNIT WHEN ATTACHING THE AIR LINE TO THE UNIT.

SUPPLYING AIR TO THE UNIT WILL SUDDENLY BRING THE SLIDING BLOCK TO THE UP-MOST POSITION. AIR SUPPLY TO THE ROTARY TABLE SHOULD BE 70 TO 90 PSI (5-7 BAR) AT AIR IN.

PLANT AIR SUPPLY SHOULD PROVIDE DRY, FILTERED AIR WITH PRESSURE NOT TO EXCEED 90 PSI. IF PLANT AIR IS NOT DRY AND FILTERED, FISNAR INC. 5 MICRON AIR FILTER P/N 580101 OR EQUIVALENT MUST BE USED TO MEET WARRANTY REQUIREMENTS. INSTALL FILTER IF REQUIRED, AS CLOSE TO SUPPLY OUTLET AS POSSIBLE.

- n. Connect the power cable to the back of the Rotary Table at POWER IN (fig. 6). Power cable is supplied with DSP501A or DSPE501A.

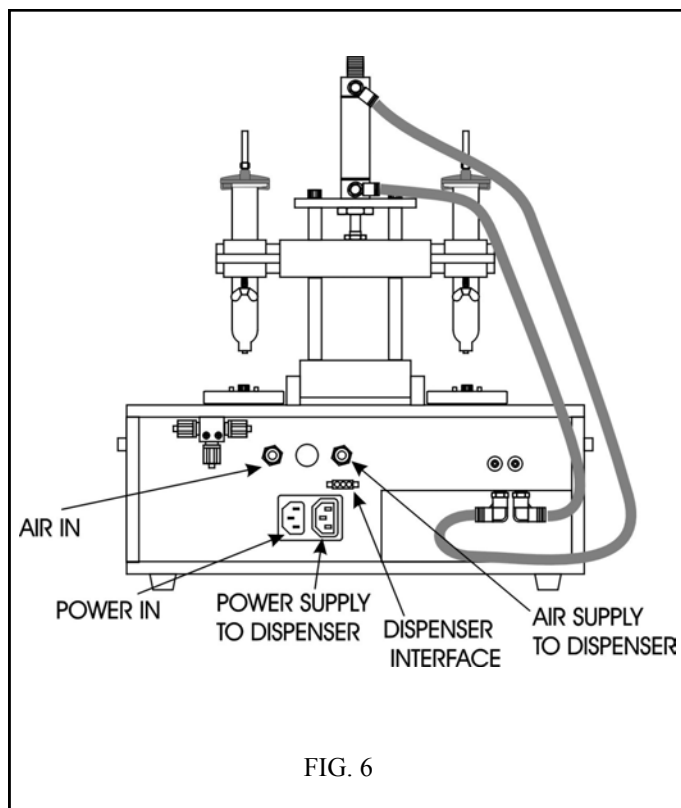


FIG. 6

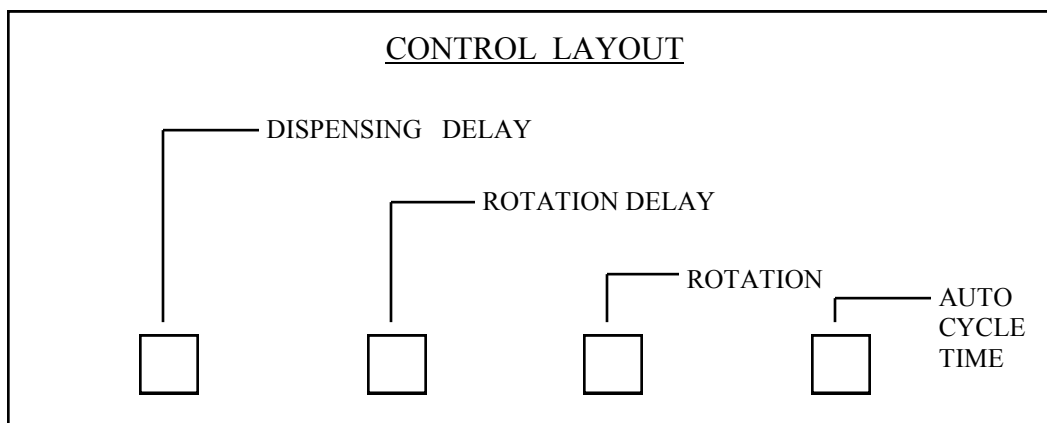
BEFORE CONNECTING TO A POWER SOURCE

- ⇒ MAKE SURE RT404-FLEX II IS OF CORRECT VOLTAGE.
- ⇒ MAKE SURE THE “GREEN” POWER SWITCH ON THE ROTARY TABLE AND THE DISPENSER IS IN THE “O” (OFF) POSITION.

o. Connect the power cord to power source.

RT404-FLEX II is now ready to be set-up for dispensing.

3. SET UP FOR DISPENSING



DISPENSING DELAY:

To delay the start of the dispensing initiation relative to action of cylinder. If this switch is set to value (0), the unit will not rotate and dispense.

ROTATION DELAY:

To delay the start of rotation relative to the dispensing initiation. i.e. at “0” the rotation and dispensing will start at the same time.

ROTATION:

increasing the value of the rotation by one digit increments the rotation by 90 degrees.

AUTOCYCLE TIME:

VALUE	0= Manual activation
	1=Automatic
	2=Automatic
	3=Automatic
	4=Automatic
	5=Automatic
	6=Automatic
	7=Automatic
	8=Automatic
	9=Automatic

WAIT PERIOD
INCREASE IN
B E T W E E N
CYCLES

EXAMPLES:

1 = 90°	2 = 180°
3 = 270°	4 = 360°
5 = 450°	6 = 540°
7 = 630°	8 = 720°
9 = 810°	0 = 900°

Once you are familiar with the CONTROL LAYOUT, proceed as per the following instructions.

1. Set ROTATION SPEED to (0).
2. Set DISPENSE DELAY to (2).
3. Set ROTATION to (4) for 360 degree rotation.
4. Set AUTO CYCLE TIME to (0) for manual operation.
5. Switch on the power.
6. Place the PLATFORM (fig. 1) onto the right table. Place piece part to be dispensed into the right PLATFORM. Piece part= Max 6" (152 mm and 2"(51 mm) height.
7. Press the two manual finger switches together. The sliding block will come down to its lowest position.
8. Insert 30 cc barrel with dispensing material into the right block, position over the area to be dispensed and position to proper height and radial position. Radial position is held by the white wing screws on the bottom of the barrel holder. The barrel height is controlled by black wing knobs on the front of the barrel holder (do not over-tighten). When in position- rotate the left platform by hand clockwise to make sure the dispensing needle in the right barrel clears the piece part. When the piece parts rotates 360 degrees the sliding block will automatically rise.
9. Set ROTATION SPEED to (50).
10. Press the two manual finger switches together. Then block / barrel will automatically lower to position. The platform will rotate and after a full 360 degree rotation the block / barrel will rise. Repeat, if necessary to make sure needle clears the piece part.
11. Reset ROTATION SPEED back to (0).
12. Repeat step 6 to 11 with the left hand platform to position the left block and barrel with dispensing needle.
13. Attach the barrel adapters to both barrels.
14. Switch off the power.

4. DURATION OF DISPENSING

FULL 360 DEGREE DISPENSING

- ⇒ Place dispenser green power switch to "I" position (green light on).
- ⇒ Place dispenser orange timer switch to "no time" mode (amber light on). There is an Allen bolt located on the rotating platform on the right side of the RT Table. This bolt must be "in-line" with the "PROXIMITY SWITCH".

NOTE: DISPENSING DURATION CONTROL BY THE RT TABLE.

PARTIAL DISPENSING

There are two methods for Partial Dispensing.

Method 1

- ⇒ Place dispenser green power switch to "I" position (green light on).
- ⇒ Place dispenser orange timer switch to timer mode (amber light off). Adjust dispensing duration using the duration dial on the DSP dispenser.

NOTE: DISPENSING DURATION CONTROL BY THE DISPENSER.

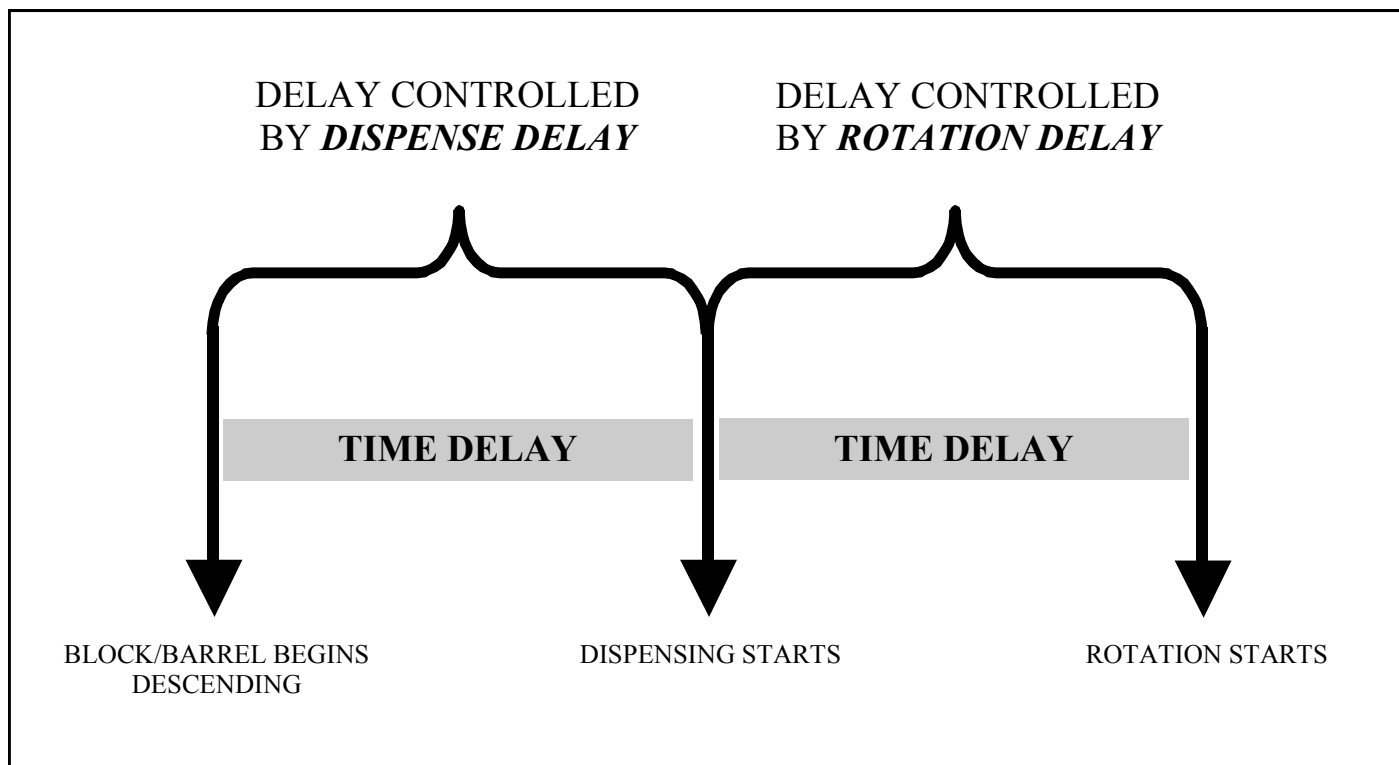
Method 2

- ⇒ Place dispenser green power switch to “I” position (green light on). Place dispenser orange timer switch to “no timer” mode (amber light on).
- ⇒ Set **DISPENSE DELAY** to (2). Set **ROTATION** to (4) for 360 degree rotation. Set **AUTO CYCLE TIME** to (0) for manual operation. Turn **ON/OFF** switch ON.
- ⇒ Press the two manual finger switches together once to rotate the platform so that it returns to the “home” position.
- ⇒ There is an Allen bolt located on the rotating platform on the right side of the RT Table. This bolt should be “in-line” with the "PROXIMITY SWITCH".
- ⇒ The bolt should be in the 12 o’clock position. This bolt secures a sleeve which surrounds the platform.

- ⇒ Loosen the Allen bolt. With the Allen bolt loose, the outer sleeve should move freely. Turning the sleeve clockwise will shorten the dispensing interval. When the bolt is in line with the green sensor (at 12 o’clock), material will be dispensed during the entire rotation period. If the sleeve is advanced clockwise 1/2 a rotation (so that the bolt is at 6 o’clock), material will be dispensed from the beginning of the rotation to the 1/2 point. Adjust the sleeve to the desired position.
- ⇒ Tighten the Allen bolt.

5. PROCEDURE FOR SETTING DISPENSING MODE

There are (4) dials on the front of the RT table which affect the timing of each operation of the unit. Please see the figure below.



ROTATION SPEED

This dial sets the speed at which the rotary table platforms will rotate. If set to the minimum value (0), the platforms will not rotate at all. If set to the maximum value (100), the platforms will rotate at 60 rpm.

After setting the rotation speed, secure the speed knob from turning by screwing in the speed-locking button (see figure below), while holding the speed knob with the other hand.

DO NOT OVERTIGHTEN.

DISPENSE DELAY

This switch controls the time delay between the start of the BLOCK / BARREL descent and the start of dispensing. If this switch is set to the minimum value (0), the unit will not dispense/rotate. If this switch is set to a value between (1) and (9), the following sequence of events will occur.

- The BLOCK/BARREL will begin descending.
- After a delay proportional to the DISPENSE DELAY value, dispensing will begin.
- After a delay proportional to the ROTATION DELAY value, the platform will rotate.

ROTATION DELAY

This switch controls the time delay between the start of dispensing and the start of the platform rotation.

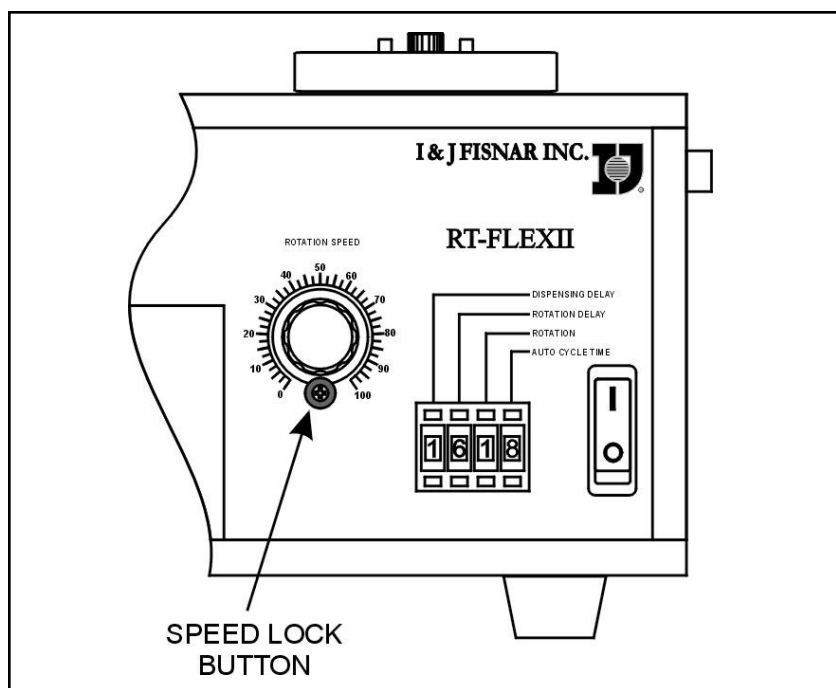
If this switch is set to the minimum value (0), rotation will begin at the same time as dispensing. If this switch is set to a value between (1) and (9), a delay proportional to that value will occur between dispensing and rotation.

6. AUTOMATIC MODE

For repeated automatic cycle place the AUTO CYCLE TIME switch to a value between (1) and (9).

- Adjust the **AUTO CYCLE TIME LOWER** to decrease the delay between cycles.
- Adjust the **AUTO CYCLE TIME HIGHER** to increase the delay between cycles.

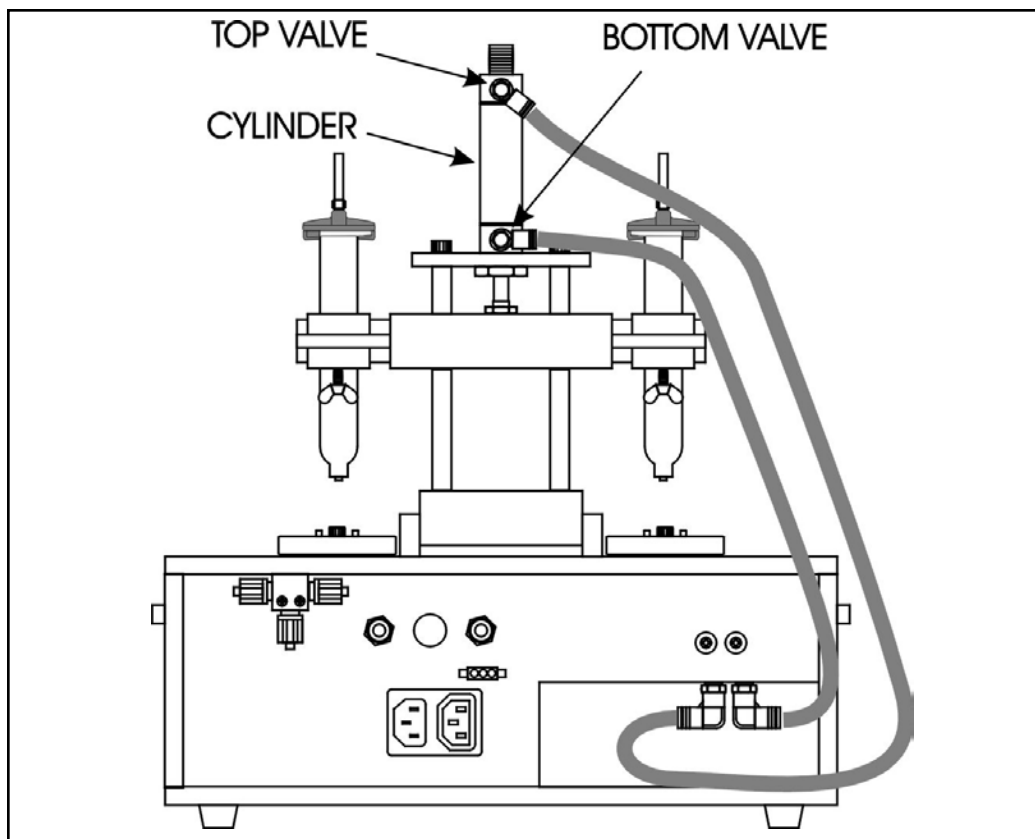
Setting the AUTO CYCLE TIME to (0) configures the unit for manual operation. While in manual mode, the unit will ROTATE / DISPENSE only when the two manual finger switches on the sides of the unit are pressed simultaneously.



7. SLIDING BLOCK VERTICAL SPEED

Please see the diagram below.

- 7.1 The SLIDING BLOCK to and from motion is set at the factory for the “optimum” speed. However, this can be changed.
- 7.2 There are two valves located on the cylinder body, where the air hoses connect to the cylinder, one at the top and one at the bottom.
- 7.3 The top valve controls the speed of the SLIDING BLOCK as it travels up. If the valve is almost fully closed, air will not be able to easily escape from the cylinder as the piston moves up, and the piston will move slowly.
- 7.4 To increase the speed of the SLIDING BLOCK as it travels up:
 - a. Release the locking nut on the valve at the top of the cylinder.
 - b. Turn the valve control counter-clockwise to open the valve more.
 - c. Tighten the locking nut on the valve.
- 7.5 To decrease the upward speed of the SLIDING BLOCK, follow the same procedure, but turn the valve control clockwise to close the valve.
- 7.6 The bottom valve controls the speed of the SLIDING BLOCK as it travels down. If the valve is almost fully closed, air will not be able to escape easily from the cylinder as the piston moves down and the piston will move slowly.
- 7.7 To increase the speed of the SLIDING BLOCK as it travels down:
 - a. Release the locking nut on the valve at the bottom of the cylinder.
 - b. Turn the valve control counter-clockwise to open the valve more.
 - c. Tighten the locking nut on the valve.
- 7.8 To decrease the downward speed of the SLIDING BLOCK, follow the same procedure; but turn the valve control clockwise to close the valve.



8. DRAWINGS AND PART LIST



TECHNICAL SERVICE INFORMATION

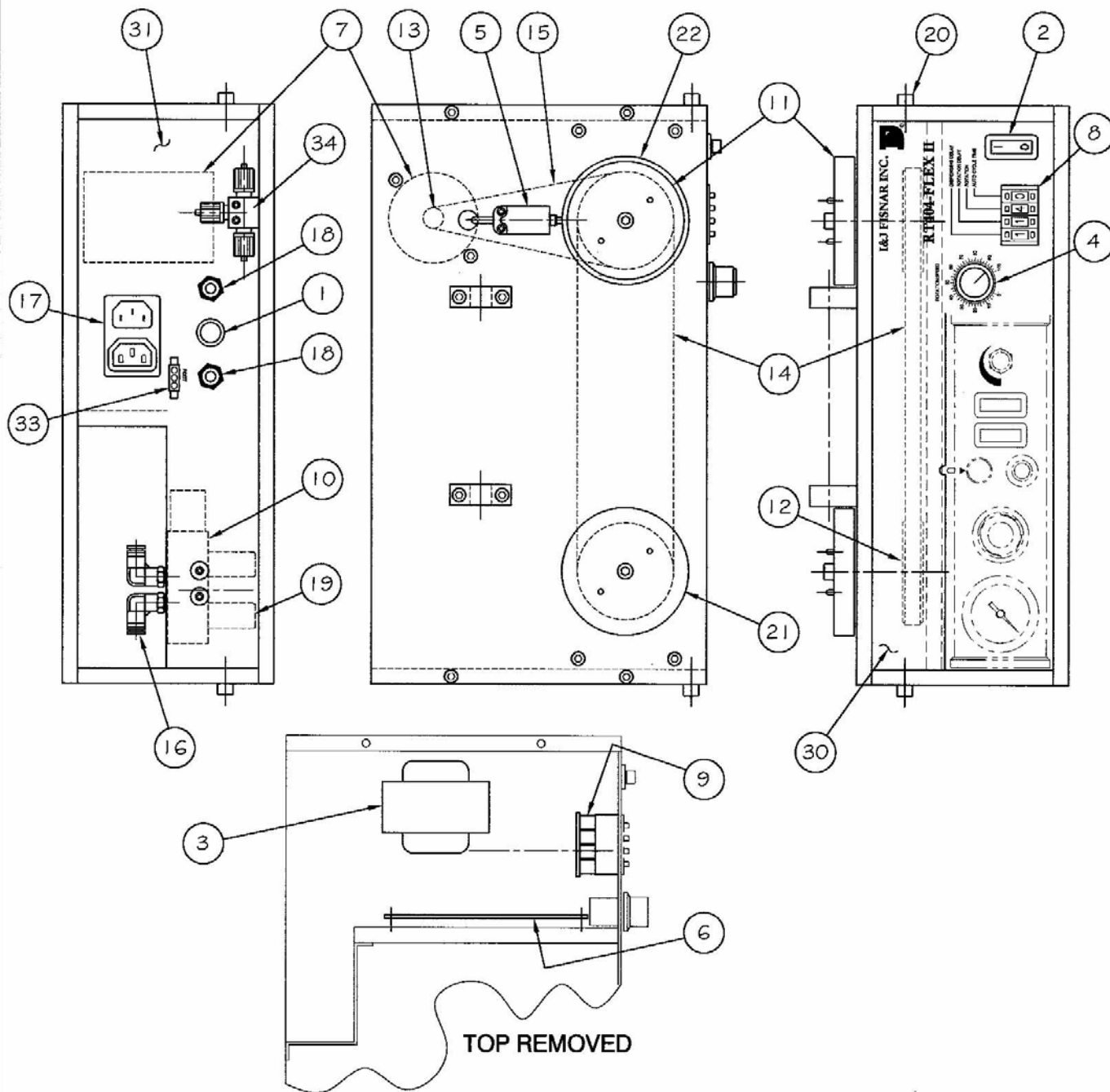
SHEET 1 OF 2

REVISION

A OCT 23, 2001

PRODUCT DESCRIPTION

RT404-FLEX II ROTARY TABLE



DRAWN BY: G.O. BEUTEL

DATE DRAWN: 7/30/01

FILE NAME:

\\RT404.DWG



TECHNICAL SERVICE INFORMATION

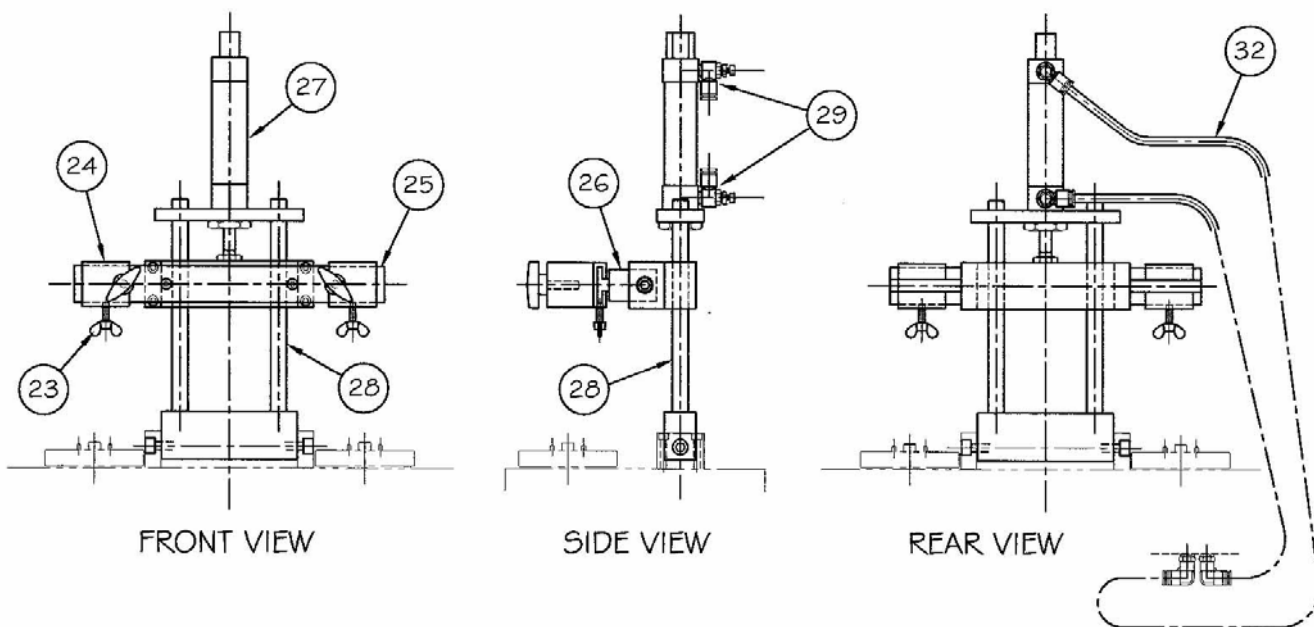
SHEET 2 OF 2

REVISION

A OCT 23, 2001

PRODUCT DESCRIPTION

RT404-FLEX II ROTARY TABLE

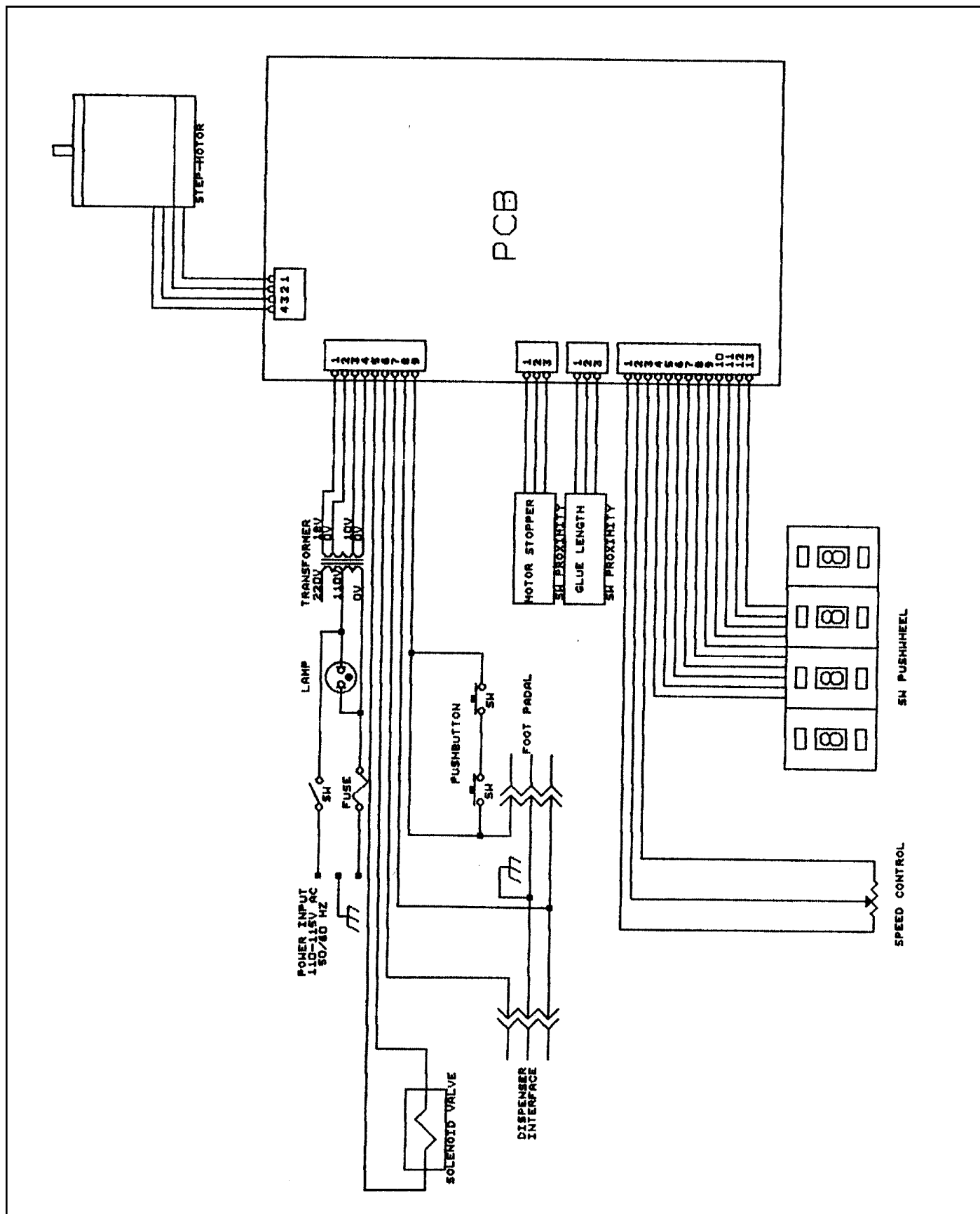


NO.	PART NUMBER	DESCRIPTION	QTY.	NO.	PART NUMBER	DESCRIPTION	QTY.
18	560815	AIR INLET ADAPTER	2	36			
17	561630	POWER AC INLET	1	35			
16	561784	AIR ADAPTER - SOLENOID	2	34	561672	2 PORT AIR MANIFOLD	1
15	560810	TIMING BELT (SMALL)	1	33	560765	PLUG	1
14	560809	TIMING BELT (LARGE)	1	32	560968	TUBING	2ft.
13	560808-FLEX II	GEAR FOR MOTOR	1	31	561674B	BACK SHEET METAL PLATE	1
12	560807	GEAR FOR PLATE	2	30	561674	FRONT SHEET METAL PLATE	1
11	560806-RIGHT	ROTARY METAL PLATFORM	1	29	560811	SPEED CONTROL VALVE	2
10	561778	SOLENOID VALVE	1	28	561628	RT404-FLEX II STANDARD POST	2
9	561668	PCB FOR DIP SWITCH	1	27	560800	AIR CYLINDER	1
8	561575	DIP SWITCH	1	26	561783	MOVING BLOCK	1
7	561501	MOTOR	1	25	561554	SLIDING BAR	1
6	561500	MAIN CONTROL UNIT (PCB)	1	24	560920A	BARREL HOLDER	2
5	560822	PROXIMITY SWITCH	2	23	560805	WHITE WING SCREW	2
4	560821	SC POTENTIOMETER	1	22	560806-RING	POSITIONING RING WITH SCREW	1
3	561502	TRANSFORMER	1	21	560806-LEFT	ROTARY METAL PLATFORM	1
2	560818	POWER SWITCH	1	20	561776	PUSHBUTTON SWITCH - MOMENTARY	2
1	560814	FUSE SET	1	19	560816	SILENCER	2

DRAWN BY: G.O. BEUTEL DATE DRAWN: 7/30/01 FILE NAME: \RT404.DWG

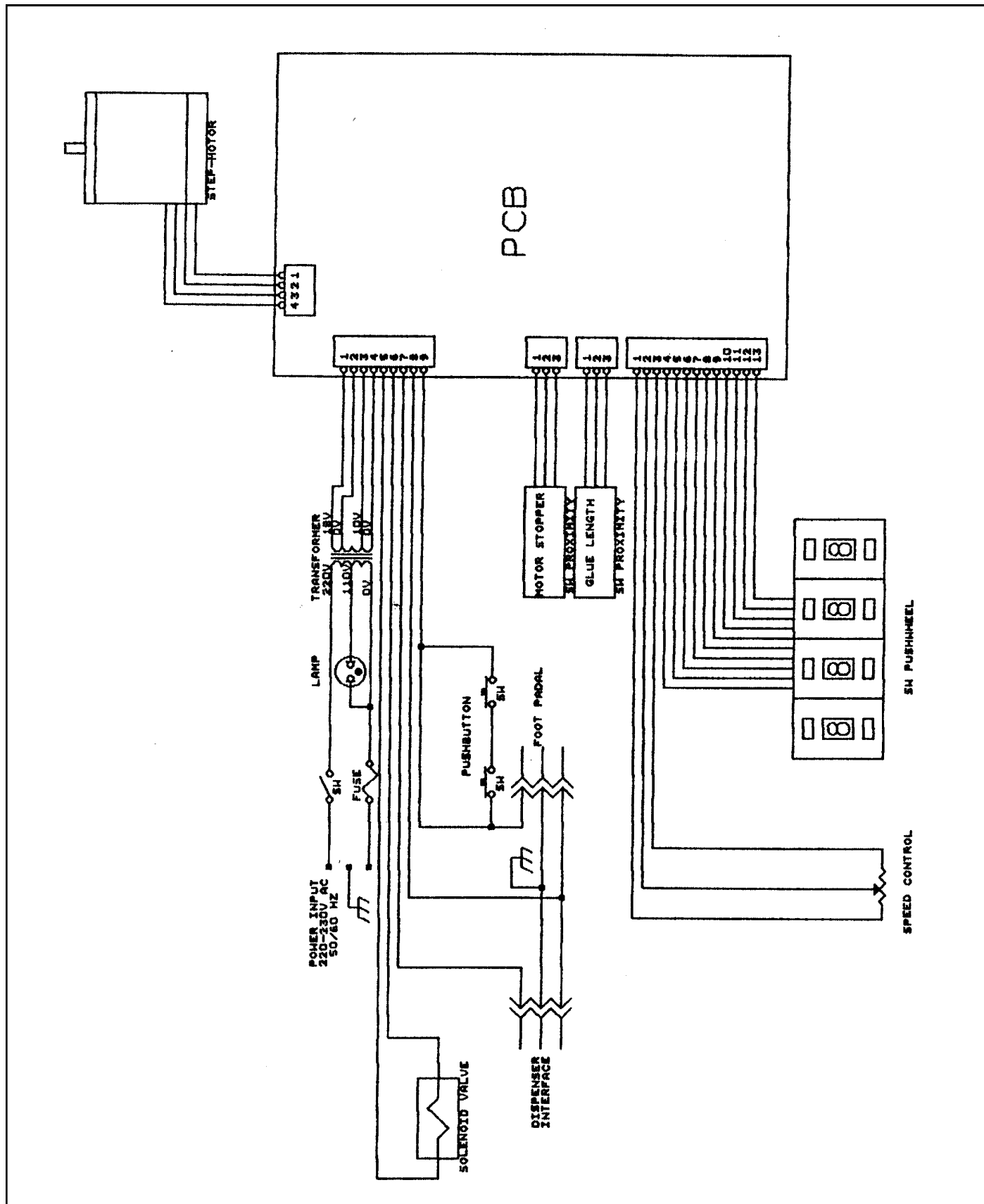
9. ELECTRIC SCHEMATIC

SCHEMATIC 1: (110V)

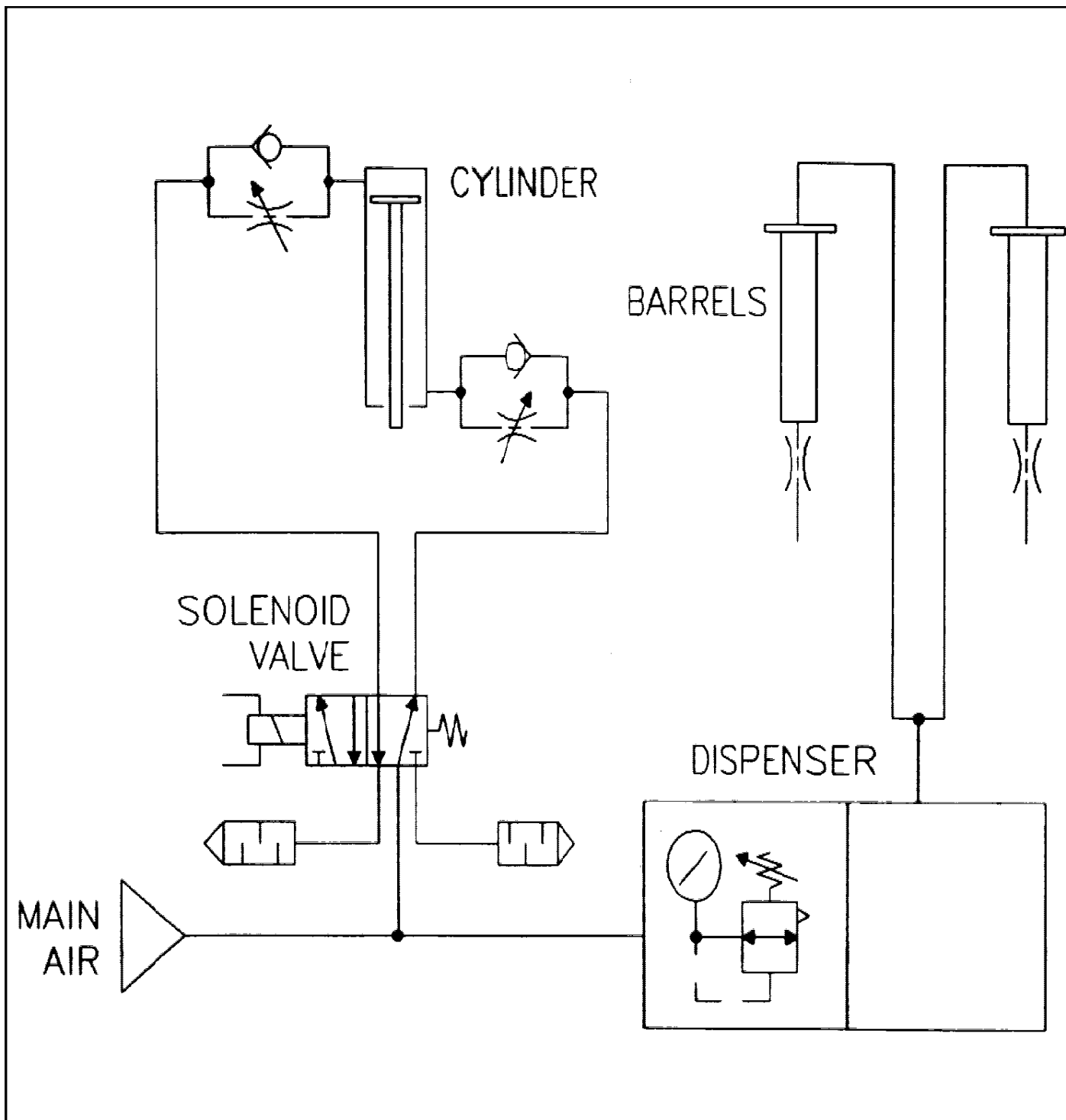


9. ELECTRIC SCHEMATIC (CONTINUED)

SCHEMATIC 2: (220V)



10. PNEUMATIC SCHEMATIC



RT404-FLEX II WARRANTY

Manufacturer warrants this product to the original purchaser for a period of one year from the date of purchase to be free from defects in material and workmanship, but not against damages by misuse, negligence, accident, faulty installation, abrasion, corrosion, or by “not” operating in accordance with factory recommendations and instructions. Manufacturer will repair or replace (at factory’s option) free of charge, any component of the equipment thus found to be defective on return of the component “PREPAID” to the factory during the warranty period. In no event shall any liability or obligation of Manufacturer arising from this warranty exceed the purchase price of the equipment. This warranty is only valid if the defective RT404-FLEX II is returned as a complete assembly without physical damage. The manufacturer’s liability, as stated herein, cannot be altered or enlarged except by a written statement signed by an officer of the company. In no event shall manufacturer be liable for consequential or incidental damages. A return authorization is required from FISNAR INC. prior to shipping a defective unit to the factory. Manufacturer reserves the right to make engineering or product modifications without notice.

