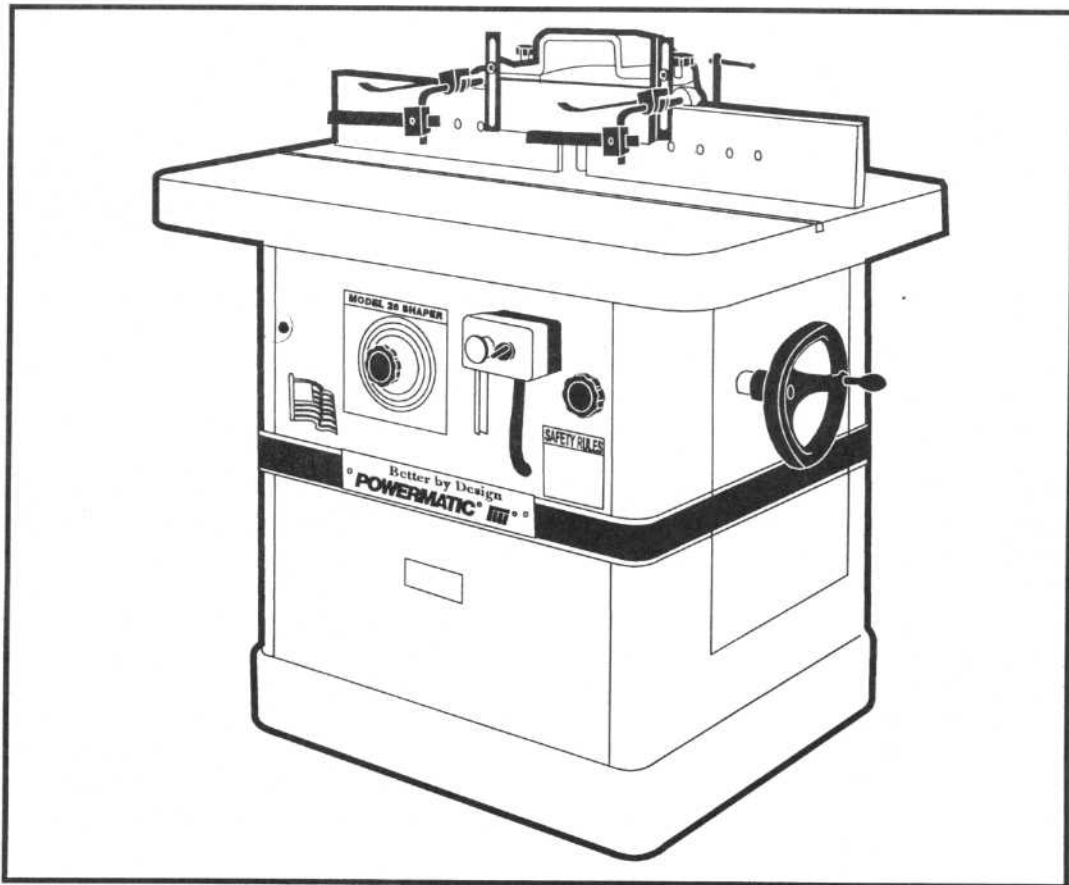


MODEL

28

SHAPER

MAINTENANCE INSTRUCTIONS AND PARTS LIST



Better By Design™

POWERMATIC®  **III®**

McMINNVILLE, TENNESSEE 37110

931-473-5551

FOREWORD

This manual has been prepared for the owner and those responsible for the operation of a Powermatic, Model 28, Shaper. Its purpose, aside from machine operation, is to promote safety through the use of accepted correct operating and maintenance procedures. Read the safety and maintenance instructions thoroughly before operating or servicing the machine. In order to obtain maximum life and efficiency from your Powermatic shaper and to aid in operating and maintaining the shaper with safety, read this manual thoroughly and follow all instructions carefully.

WARRANTY

Powermatic, a Division of DeVlieg-Bullard Inc., 619 Morrison Street, McMinnville, Tennessee 37110 ("Powermatic") warrants to its authorized distributors of Powermatic products and the original purchasers from such distributors, all products manufactured by Powermatic to be free of defects in material and workmanship for a period of twelve (12) months from the date of delivery from its authorized distributors or 2000 hours of use, whichever occurs first. During said warranty period Powermatic will, at its option, repair or replace any product (or component part thereof) proving defective during said period. This warranty applies only to products which are used in accordance with all instructions as to operation, maintenance and safety set forth in the catalogs, manuals, and/or instruction sets furnished by Powermatic. This warranty becomes effective only if the accompanying card is fully and properly completed and returned to Powermatic within ten (10) days from date of delivery to the original purchaser.

This warranty does not apply to items that would normally be consumed or require replacement due to normal wear (blades, lubricants, etc.); to electrical motors and components which are warranted by their manufacturer; or the costs of removal, shipment for service and reinstallation. Claims relating to electrical components must be taken to the component manufacturer's local authorized repair station for service.

This warranty is null and void if the product has been subjected to (1) misuse, abuse or improper service or storage; (2) accident, neglect, damage or other circumstances beyond Powermatic's control; (3) modifications, disassembly tampering, alterations or repairs outside of Powermatic's factory not authorized by Powermatic; or to any product not bearing its original serial number plate. This warranty does not apply to normal wear and tear, corrosion, abrasion, or repairs required due to natural causes or acts of God.

To obtain the fastest possible warranty service you must first notify in writing the authorized Powermatic distributor from whom you purchased the product specifying (1) the product by catalog number and serial number, (2) the date the product was delivered to you, (3) a description of the problem for which you seek warranty service, and (4) evidence of proof of purchase. Should circumstances prohibit you contacting the distributor then contact the Powermatic factory directly. If your claim is covered by this warranty, your Powermatic distributor will provide you with instructions as to how and where service will be provided. On simple warranty replacement or repairs, installations instructions will be provided to allow correction by customer personnel. Powermatic assumes no responsibility for products which are returned without its prior written authorization. Powermatic's obligation under this warranty shall be exclusively limited to repairing or replacing (at Powermatic's option) products which are determined by Powermatic to be defective upon delivery, F.O.B. (return freight paid by customer) Powermatic's factory, and on inspection by Powermatic. In no event shall Powermatic's liability under this warranty exceed the purchase price paid for the product.

THIS IS POWERMATIC'S SOLE WRITTEN WARRANTY. ANY AND ALL OTHER WARRANTIES WHICH MAY BE IMPLIED BY LAW, INCLUDING ANY WARRANTIES FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. POWERMATIC SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE, OR EXPENSE DIRECTLY OR INDIRECTLY RELATED TO THE USE OF ITS PRODUCTS OR FROM ANY OTHER CAUSE OR FOR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION, LOSS OF TIME, INCONVENIENCE, AND LOSS OF PRODUCTION). THE WARRANTY CONTAINED HEREIN MAY NOT BE MODIFIED AND NO OTHER WARRANTY, EXPRESSED OR IMPLIED, SHALL BE MADE BY OR ON BEHALF OF POWERMATIC.

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SAFETY: General Rules

READ THE MANUAL Read, Understand, and follow the safety and maintenance instructions found in this manual. Know the limitations and hazards associated with the 28 shaper.

WORK AREA Keep the floor around the machine clean and free of scrap material, saw dust, oil or grease to minimize the danger of tripping or slipping. POWERMATIC recommends the use of anti-skid strips for the operator. Provide ample unobstructed floor area around the machine for free flow of stock from the infeed to the outfeed side of the cutter. Mark off the machine area, and make sure it is well lighted with a proper exhaust system to minimize dust.

ELECTRICAL GROUNDING Your machine must be electrically grounded. If a cord and plug are used, make certain the grounding lug connects to a suitable ground. Follow the grounding procedure indicated by the National Electric Code. Keep power tools in dry areas free from moisture.

PROTECTION Take every precaution to protect yourself, others around you, and the machine itself from improper use.

CARELESS ACTS Give the work you are doing your undivided attention. Looking around, talking to someone, and horseplay are careless acts that can result in serious injury.

DO NOT OVERREACH Maintain a balanced stance and keep your body under control at all times. Do not overreach or use excessive force to perform any operation.

EYES Always wear approved safety goggles, glasses, or a face shield when operating the shaper. There are no exceptions to this rule.

DRESS CODE Do not wear loose clothing, neckties, jewelry, or gloves that can get caught in moving parts. Confine long hair. Keep sleeves above the elbow.

GUARDS Be sure shaper guard, feather-boards, hold-downs, and specially designed devices are used whenever possible. If the guard must be removed for any operation, make sure it is replaced immediately following completion of that operation.

HOUSEKEEPING Before turning on machine, remove all extra equipment such as keys, wrenches, scrap, and cleaning rags away from the shaper. Keep the area around machine clean and free of sawdust to minimize danger of slipping.

POWER OFF Make sure the shaper is unplugged or electrically disconnected and locked out before performing maintenance, changing cutters, or service work.

SAFETY: Specific Rules

READ THE MANUAL Know the limitations and hazards in using the 28 shaper. One SAFETY rule decal and one DANGER decal (Fig. 5 p. 6) are placed on each machine as reminders of good safety practice.

SHORT STOCK Never shape stock less than 12 inches in length without special fixtures. Where practical, shape longer stock and cut to size.

12 INCH RULE When shaping, never allow your hands to come closer than 12 inches to the cutters.

HAND SAFETY Never pass the hands directly over, or in front of, the cutters. As one hand approaches the 12 inch radius point, remove it (or the push stick) in an arc motion and reposition hands 12 inches beyond the cutters (Fig. 1).

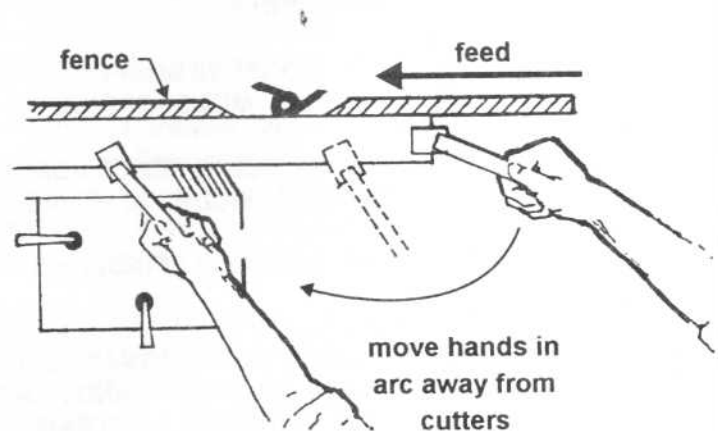


FIGURE 1

BLIND CUT When blind cutting, the workpiece is positioned on top of the template. This keeps the cutter(s) cutting only the underside of the workpiece and providing a "distance" guard for the operator.

STOCK FEED Feed stock opposite to the direction of the cutter rotation (p. 11). Never back stock out of the cutter once the cut has been started. Instead, pull the stock straight back away from cutter and begin the cut again (Fig. 2).

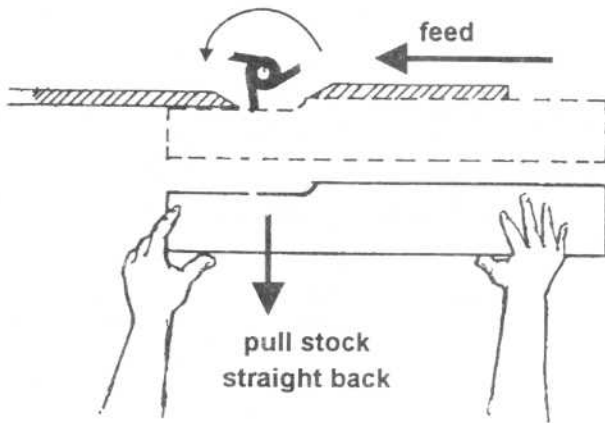


FIGURE 2

CUTTER CLEARANCE With the power disconnected, always revolve the spindle by hand with any new set-up to insure proper clearance with the cutters. At the same time, check to be sure the cutterhead is turning in the correct direction.

TOOL MAINTENANCE Clean and sharp tools give safer and better performance. Dull tools can cause kickbacks and excessive chatter. Before making a cut, always check the condition and adjustment of the tools. Never use a tool that is not balanced and rated for the selected RPM.

SAFETY LOCK WASHER Never operate the shaper without the safety locking keyed washer located immediately under the spindle nut (Fig. 3). This washer prevents the nut from coming loose when the spindle is run in a counterclockwise direction. Do not substitute any other type washer in place of the safety lock washer.

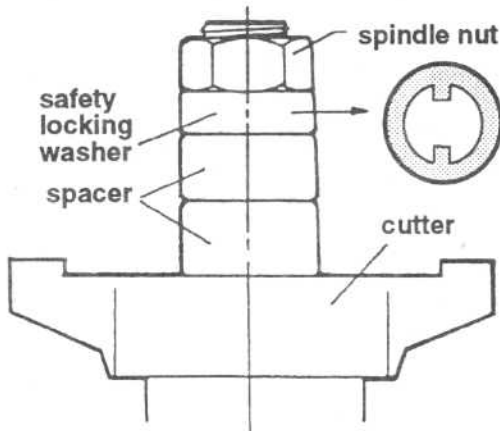


FIGURE 3

SPINDLE SPEED Do not operate tools at speeds higher than rated by the manufacturer.

CUTTER SELECTION Use only those cutters designed to be used on the machine, and mount only safety type cutters on the spindle.

STOCK CONDITION The danger of kicked back stock can occur when the stock has knots, holes, or foreign objects such as nails. Warped or in-wind stock should first be jointed on one surface before attempting to use it on the shaper.

JOB COMPLETION The operator should never leave the work station for any reason without turning off the shaper and waiting for the spindle to come to a complete stop. When the operation is complete he should clean up the shaper and work area. Never clean the shaper with the power "ON" and never use the hands to clear sawdust and debris- use a brush.

DO NOT REACH over shaper. There is danger of kickback which can pull the hand back into the cutter. Use push sticks to assist in pushing the work through. See Fig. 4.

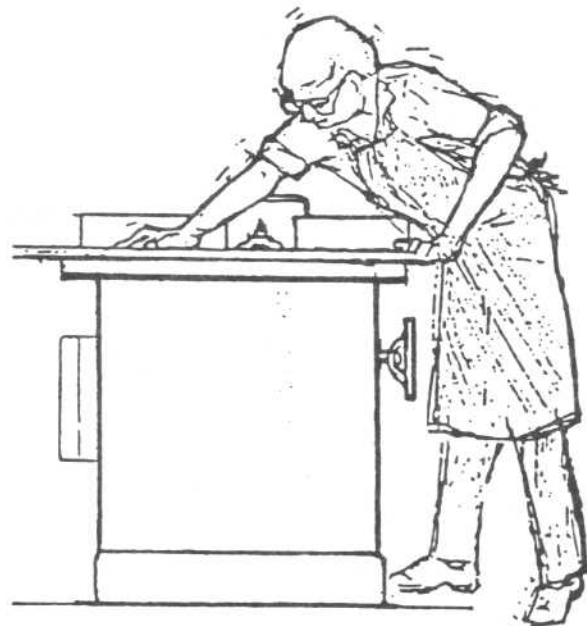


FIGURE 4

MISUSE Do not use this shaper for other than its intended use. If used for other purposes, POWERMATIC disclaims any real or implied warranty and holds itself harmless for any injury which may result from that use.

REPLACEMENT PARTS Use only POWERMATIC or factory authorized replacement parts and accessories; otherwise, the shaper warranty and guarantee will be null and void.

SAFETY: Decal Instruction

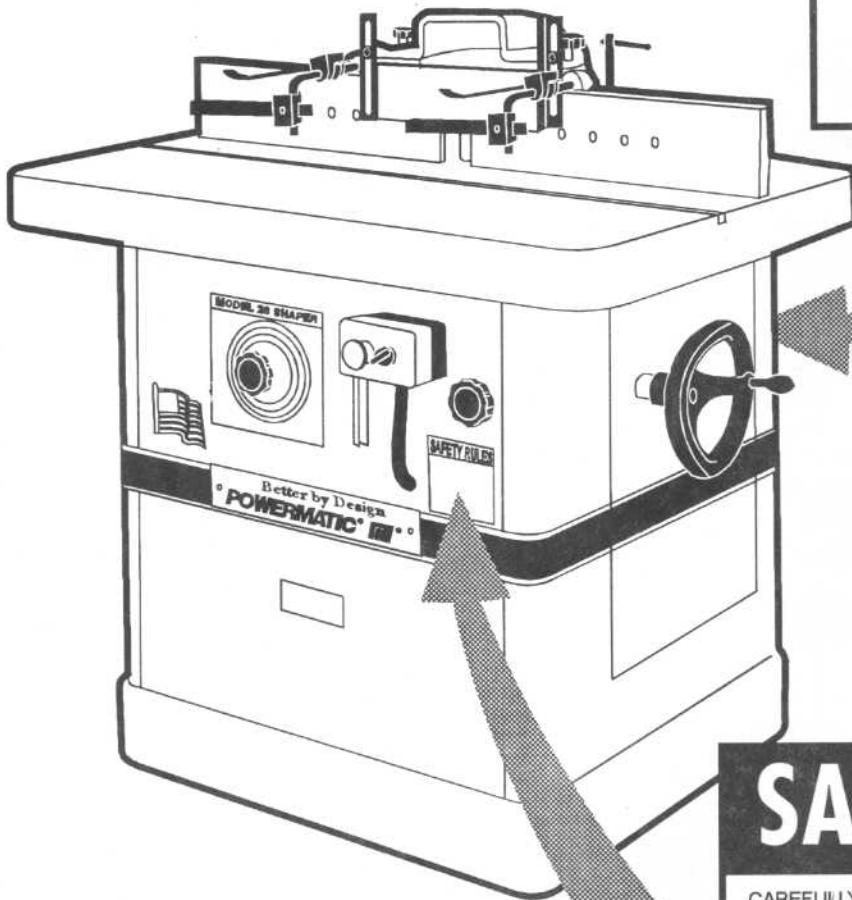
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DANGER

DO NOT EXCEED RECOMMENDED SPEEDS, SERIOUS INJURY CAN RESULT IF CUTTERS ARE THROWN FROM SPINDLE. CUTTERS MUST BE BALANCED AND CONCENTRIC. CUTTER SHOULD BE LOCATED AS CLOSE TO THE BASE OF THE SPINDLE AS POSSIBLE.

MODEL 28

RPM SETTING	MAX. CUTTER DIAMETER
3000	8"
4500	5-1/2"
6000	4"
8000	3"



3330283

SAFETY RULES

CAREFULLY READ INSTRUCTION MANUAL BEFORE OPERATING MACHINE.

DO NOT OPERATE WITHOUT ALL GUARDS AND COVERS IN POSITION.

BE SURE MACHINE IS ELECTRICALLY GROUNDED.

REMOVE OR FASTEN LOOSE ARTICLES OF CLOTHING SUCH AS NECKTIES, ETC. CONFINE HAIR.

USE SAFETY FACE SHIELD, GOGGLES, OR GLASSES TO PROTECT EYES AND OTHER PERSONAL SAFETY EQUIPMENT AS REQUIRED.

STOP MACHINE BEFORE MAKING ADJUSTMENTS OR CLEANING CHIPS FROM WORK AREA.

KEEP THE FLOOR AROUND THE MACHINE CLEAN AND FREE FROM SCRAPS, SAWDUST, OIL OR GREASE TO MINIMIZE THE DANGER OF SLIPPING.

FIGURE 5

SPECIFICATIONS

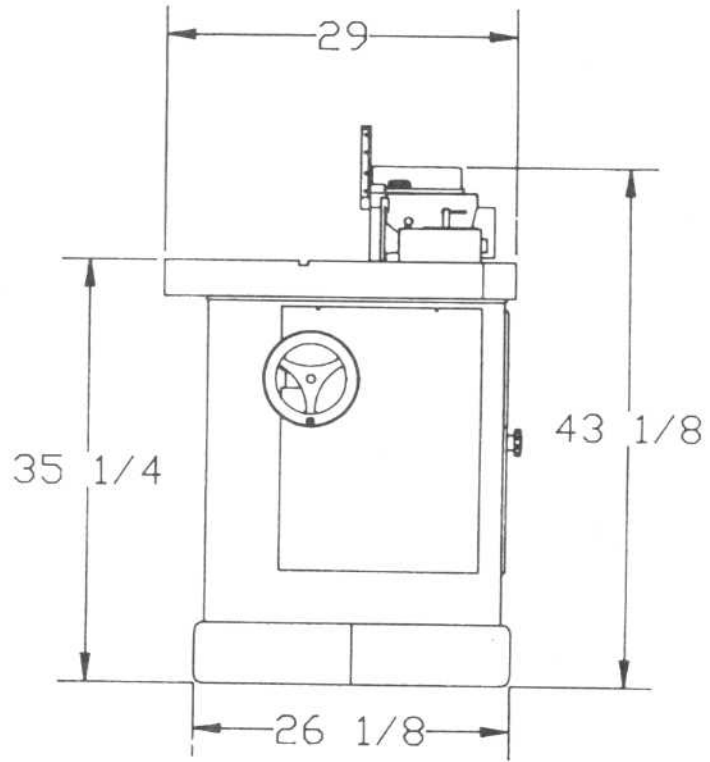
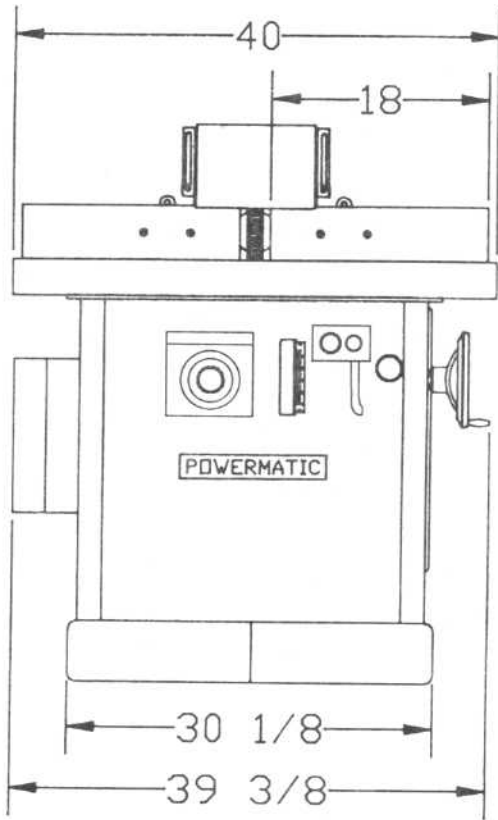


TABLE SIZE	29-1/4" x 40
SPINDLE SIZE	1-1/4"
SPINDLE CAPACITY UNDER NUT	6"
SPINDLE TRAVEL	4-1/2"
SPINDLE SPEEDS:	
LOW RANGE	3300-4700 RPM
MEDIUM RANGE	4800-6800 RPM
HIGH RANGE	6800-9500 RPM
MOTOR	7-1/2HP, 3 PH; 5HP, 1PH
SPINDLE TABLE OPENING	2-1/2, 4, 6, & 8"
DRIVE	AC INVERTER with AUTO BRAKING

RECEIVING THE SHAPER

Remove the shaper assembly from its respective shipping cartons and inspect for damage. Any damage should be reported to your distributor and shipping agent immediately.

Before proceeding further, read your manuals thoroughly to familiarize yourself with proper assembly, operation, set-up, maintenance and safety procedures.

INSTALLATION

Mount base to the floor with high quality anchor bolts. Bolts are attached through the mounting holes on the inside corners of the base.

BELT TENSION

Attach the drive belt as follows:

Loosen the two hex head cap screws -A that hold the motor base to the head slide, and slide the motor base towards the quill -B (Fig. 6). Attach the belt and tighten by sliding the motor base away from the quill. Proper belt tension is reached when the belt can be depressed about 1/8 inch to 1/4 inch between the pulleys (Fig. 7). Tighten the two hex head cap screws.

NOTE: Check to see that the sheaves of the motor and the spindle line up absolutely level with each other.

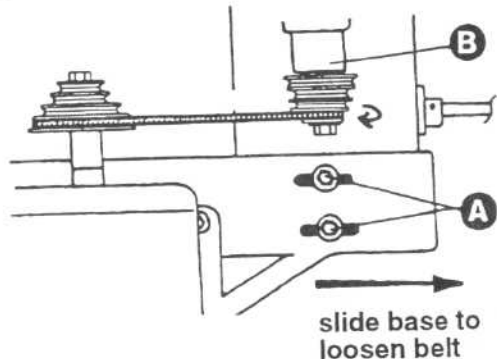


FIGURE 6

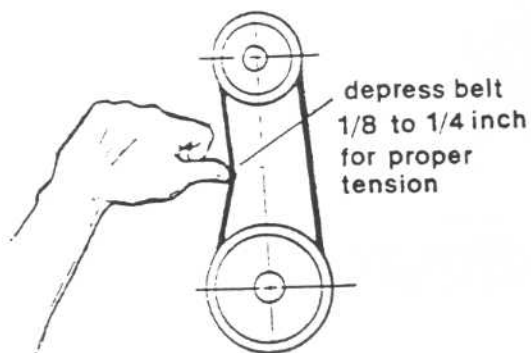


FIGURE 7

ELECTRICAL

Check the voltage and phase of the shaper. Be absolutely sure they correspond with the power supply.

DANGER: If the machine does not come wired to run, the electricals and motor wiring must be done by a qualified electrician. The machine must be properly grounded to help avoid electrical shock and possible death. Follow the recommendations of the National Electrical code for grounding.

INSPECTION

Before connecting power to the shaper check all mounting screws and bolts to see that they are tight. Since the spindle and quill assembly have permanently sealed bearings, lubrication is not necessary. Turn the spindle by hand to see that it turns freely. Regularly inspect the shaper to insure that the machine is in proper adjustment and free of dust in the electrical enclosure. Make sure all mechanical functions work freely, and there are no loose or worn electrical connections. Inspect the cutters, collars, and spacers for rust, nicks, and flaws. Be sure to read, understand, and follow the recommendations in the OPERATING INSTRUCTIONS MANUAL before operating the shaper.

EXHAUST SYSTEM

Powermatic recommends the use of an exhaust system with a wood shaper. The system should be large enough to remove from 400 to 1400 cubic feet of air per minute. The operator is cautioned against the health hazard and limitations in OSHA regulations for exposure to dust particles.

SHAPER ADJUSTMENTS

Check all mounting screws and bolts to see that they are tight. When changing tools, adjusting the drive belt, or doing clean-up and maintenance, always turn the machine off and unplug the machine from its power source.

SQUARING THE FENCE

Periodically the wood fence will have to be squared with the mounting surface and adjusted parallel to each other. To correct, do the following:

1. Check the two mounting screws A, Figure 8 holding the fence assembly to the table and make sure they are tight.

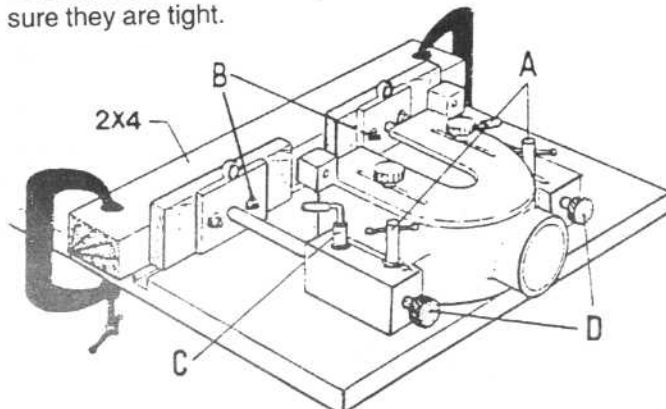


FIGURE 8

2. Check the four countersink flat head bolts B that secure the wooden fences and make sure they are tight.
3. Take a 2 x 4 with a jointed edge and clamp it to the shaper table making sure the jointed edge is absolutely on line with the miter groove and close to the fence as shown in Figure 8.
4. Loosen the two lock handles C and turn the fence adjustment knobs D to move both fences against the jointed edge of the 2 x 4. After this adjustment the fences should make flush contact with the jointed edge and square with the table.

NOTE: Periodically the wooden fences may require resurfacing in order to remain parallel and square with the table. This can be accomplished by removing the entire fence assembly and resurfacing the fences on a jointer as shown in Figure 9. Make sure the fence is held square with the jointer table with the bottom of the shaper fence held firmly against the jointer fence in order for the cut to be square with the shaper table.

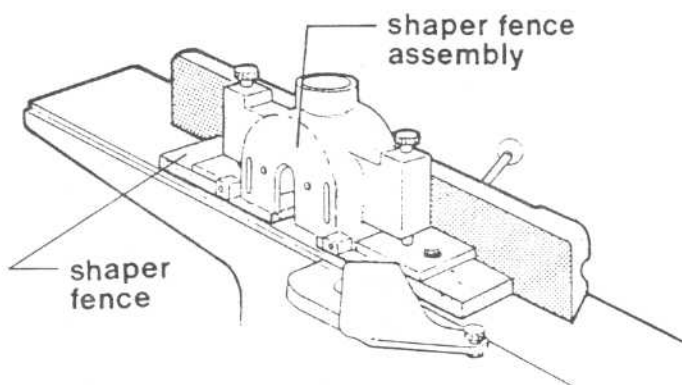


FIGURE 9

This procedure can be used several times to renew the fences before they require replacement.

SPINDLE ASSEMBLY REMOVAL

To remove spindle assembly, first remove the belt from spindle sheave (p. 8). Loosen the split casting locking screw and remove the spindle assembly out the bottom (Fig. 10). To reinstall, reverse the above procedure.

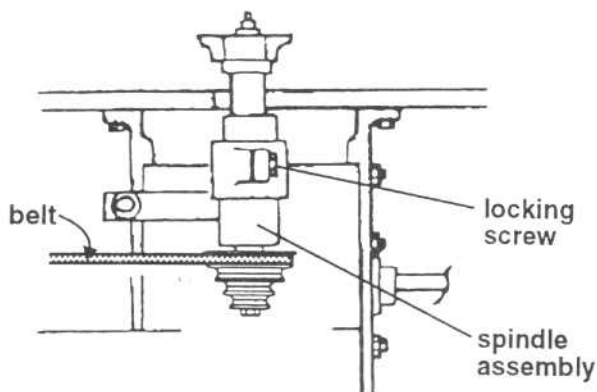


FIGURE 10

REPLACING THE CUTTERS

To replace the cutter(s), select the proper rectangular hole in the standard shaper wrench and place it over the flats on the top of the spindle (Fig. 11). Place a hexagonal wrench on the spindle nut, hold the top of the spindle stationary and turn the spindle nut counterclockwise. Remove the spindle nut and the slotted washer. Remove the cutter(s) vertically and replace with the size of your choice.

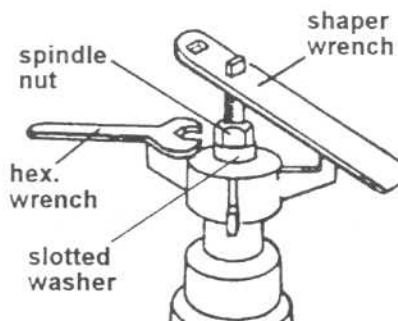


FIGURE 11

QUILL SLIDE ADJUSTMENT

Periodically, due to wear, the quill slide will develop side play. To adjust the slide, loosen the three gib screw hex nuts (Fig. 12), and lightly tighten the gib screws with an Allen wrench. Lock the gib nuts down to provide the slight play required to allow the slide free movement. Readjust gib screws if the slide is difficult to move.

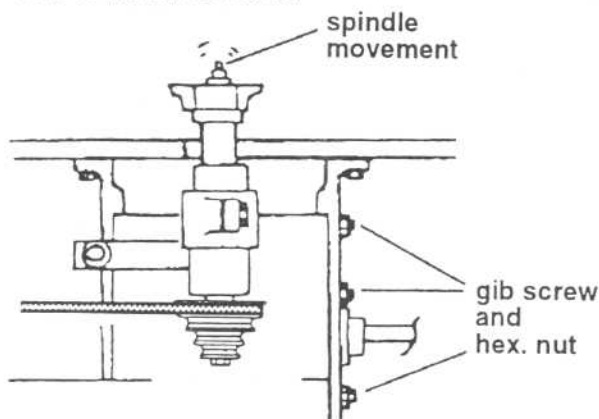


FIGURE 12

CHANGING SPEEDS

With the belt properly tensioned, changing speeds is an easy operation (Fig. 13A, B, C).

- A. Disconnect power from the machine.

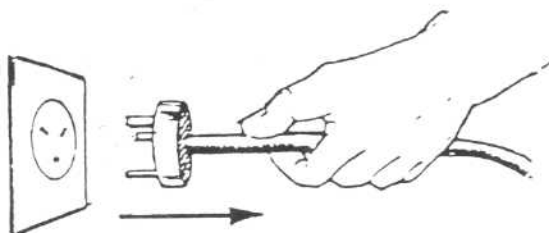
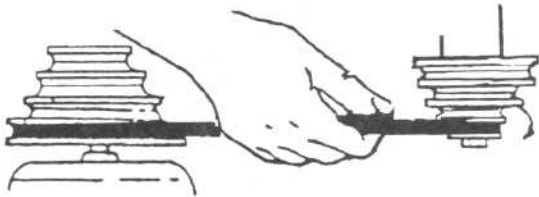


FIGURE 13

B. Roll the belt off one pulley to the other on the motor side.



C. Rotate that pulley and roll pulley until the belt snaps into the groove of the other spindle pulley.



MITER GAUGE ADJUSTMENT

The miter gauge is used when doing accurate end grain cutting and to assist in handling certain types of parts. To adjust the stops to exact 90 degree and 45 degree angles, use a combination square as a gauge along with a screwdriver and 5/16 inch open end wrench (Fig. 14A, B).

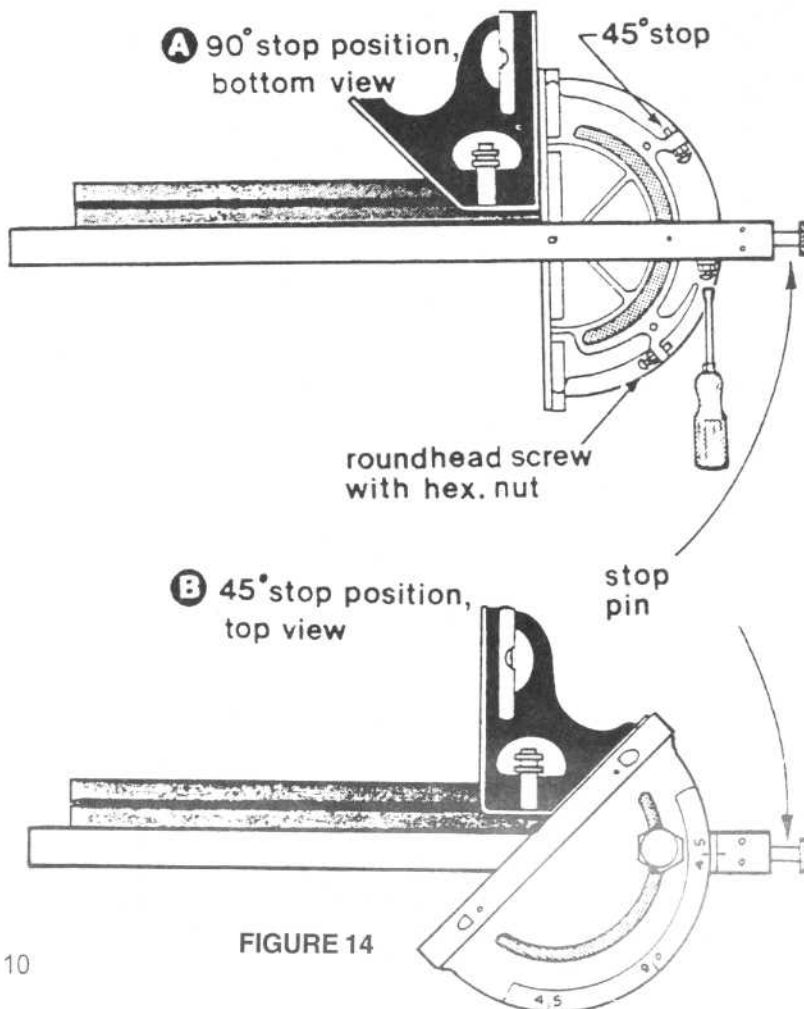


FIGURE 14

FENCE ASSEMBLY REMOVAL

Completely loosen the two mounting screws shown in Figure 15 and remove the fence assembly from the table. Store the fence in a safe place and clean before remounting.

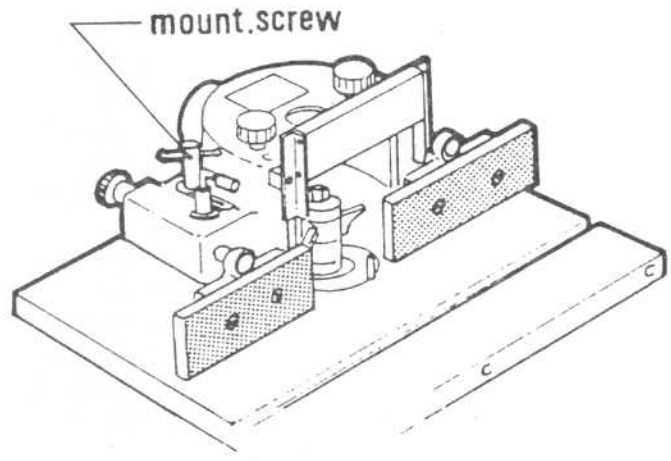


FIGURE 15

BEFORE OPERATING

Check the motor and switch wiring diagrams for proper voltage connections before applying power to the machine.

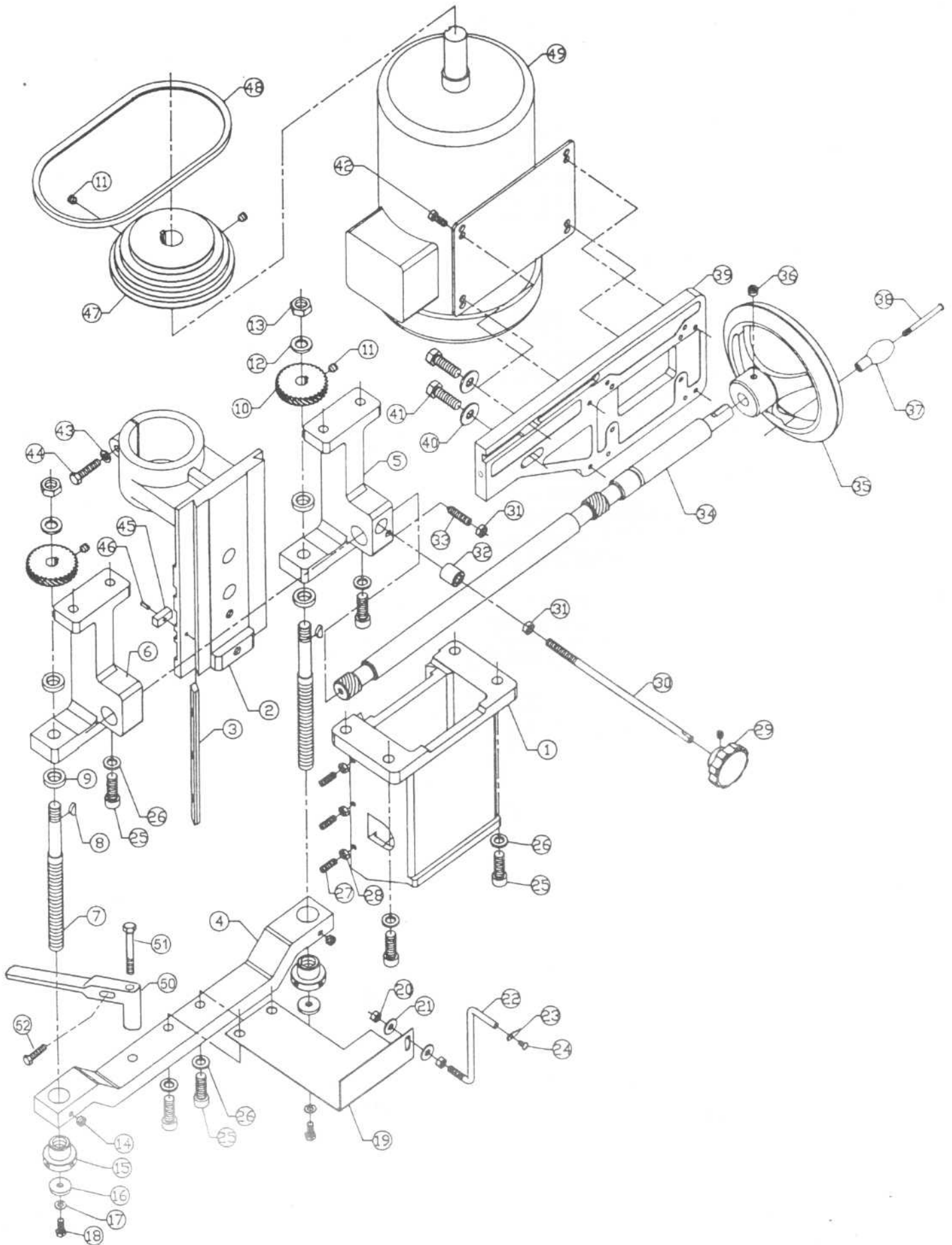
Turn the main drive motor on momentarily to check for proper rotation. The spindle should rotate counter-clockwise when looking down on the spindle. Correct as required. Run the machine for a short period of time to insure that the moving parts are working properly with no excessive vibration. If a problem develops, correct before turning the shaper over for general use.

Be sure to read, understand, and follow the recommendations in the OPERATING INSTRUCTIONS manual when operating the shaper.

TROUBLE SHOOTING

TROUBLE	POSSIBLE CAUSE	SOLUTION
SHAPER WILL NOT START	<ol style="list-style-type: none"> 1. Shaper not plugged in 2. Fuse blown or circuit breaker tripped 3. Cord damaged 	<ol style="list-style-type: none"> 1. Plug in shaper 2. Replace fuse or reset circuit breaker 3. Have cord replaced
OVERLOAD KICKS OUT FREQUENTLY	<ol style="list-style-type: none"> 1. Extension cord too tight or too long 2. Feeding stock too fast 3. Clean or replace cutter, see also "unsatisfactory cuts" below 	<ol style="list-style-type: none"> 1. Replace with adequate size cord 2. Feed stock more slowly
SHAPER MAKES UNSATISFACTORY CUTS	<ol style="list-style-type: none"> 1. Dull cutter 2. Feeding work in wrong direction 3. Gum or pitch on cutter 4. Gum or pitch on table causing erratic feed 	<ol style="list-style-type: none"> 1. Replace cutter 2. Feed work against the cutter rotation 3. Remove cutter and clean with turpentine and steel wool 4. Clean table with turpentine and steel wool
SPINDLE DOES NOT COME UP TO SPEED	<ol style="list-style-type: none"> 1. Extension cord too light or too long 2. Low supply voltage 3. Motor not wired for correct voltage 	<ol style="list-style-type: none"> 1. Replace with adequate size cord 2. Contact your electric company 3. Refer to motor name plate for correct wiring
MACHINE VIBRATES	<ol style="list-style-type: none"> 1. Stand on uneven floor 2. Damaged spindle 3. Bad V-belt 4. V-belt not tensioned correctly 5. Unbalanced cutter 6. Improper motor mounting 	<ol style="list-style-type: none"> 1. Reposition on flat level surface. Fasten to floor if necessary 2. Replace spindle 3. Replace belt 4. Adjust belt tension by moving motor and motor bracket 5. Balance cutter 6. Check and adjust motor mounting
SPINDLE DOES NOT RAISE FREELY	<ol style="list-style-type: none"> 1. Saw dust and dirt in raising mechanisms 	<ol style="list-style-type: none"> 1. Brush or blow out loose dust and dirt

EXPLODED VIEW: MODEL 28 SHAPER



PARTS LIST: MODEL 28 SHAPER

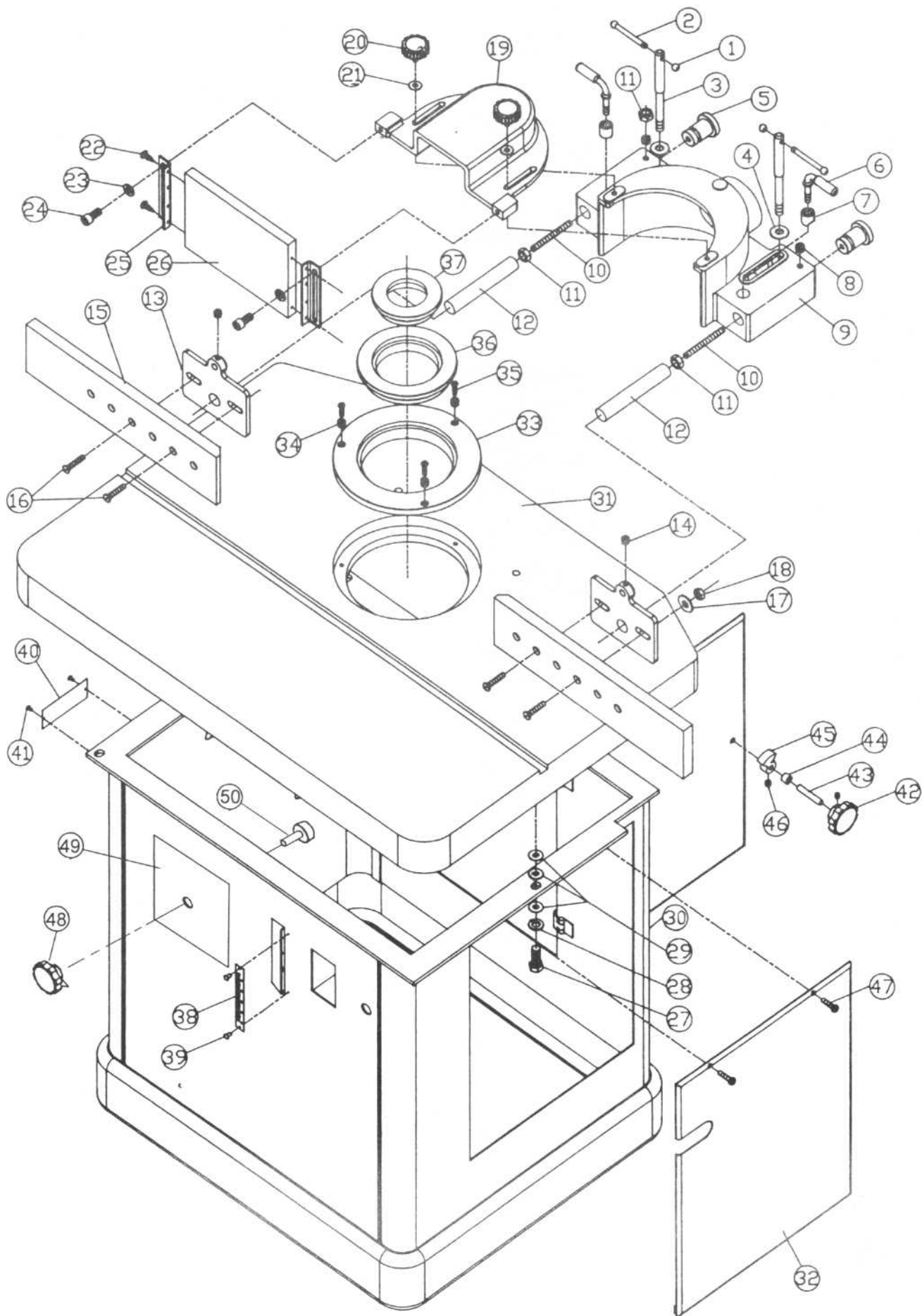
NO. PART NO. DESCRIPTION

1	3057014	BODY, SHAPER
2	3730235	SLIDE, HEAD
3	3244039	GIB, HEAD SLIDE
4	3044462	BAR, TIE
5	3063647	BRACKET, HANGING R.H.
6	3063648	BRACKET, HANGING L.H.
7	3691044	SCREW, ELEVATING
8	6420001	KEY, WOODRUFF
9	6064001	BEARING, THRUST
10	3237003	GEAR, HEAD RAISING SPIRAL
11	6714004	SCREW, SOC. SET
12	6861700	WASHER, LOCK
13	6520009	NUT, HEX - THIN HEIGHT
14	6715015	SCREW, SOC. SET
15	3529007	NUT, RAISING
16	3837002	WSR., ELEVATING SCR. STOP
17	6861200	WASHER, LOCK
18	6715042	SCREW, HEX. HD.
	2670025	ROD ASSY., POINTER (# 19-24)
19	3063649	BRACKET, MT. POINTER
20	6515001	NUT, HEX
21	6861205	WASHER, FLAT
22	3670347	ROD, POINTER
23	3604001	POINTER
24	6706035	SCREW, RD. HD. MACH.
25	6718003	SCREW, SOC. HD. CAP
26	6861500	WASHER, LOCK
27	6715008	SCREW, SOC. HD. SET
28	6515007	NUT, HEX. JAM

NO. PART NO. DESCRIPTION

	2440019	LOCK, ASSY. (# 29-31)
29	3406018	KNOB
30	3670133	ROD, LOCK
31	6516001	NUT, HEX. JAM
32	3728005	SLEEVE, QUILL LOCK
33	6716117	SCREW, SOC. SET, CONE PT.
34	3710010	SHAFT, PINION
	2271008	HANDWHEEL ASSY. (# 35-38)
35	3271039	HANDWHEEL, 8" DIA.
36	6715013	SCREW, SOC. HD. SET
37	3268201	HANDLE
38	6624006	PIN, GROOVE
39	3042047	BASE, MOTOR
40	3838008	WASHER, BEVEL
41	6718010	SCREW, HEX. HD. CAP
42	6715007	SCREW, HEX. WASHER HD.
43	6861300	WASHER, LOCK
44	6716032	SCREW, HEX. HD.
45	3387002	KEY, MOTOR BASE
46	6626028	PIN, SPRING
47	3718053	SHEAVE, MOTOR
48	6077223	BELT, 3VX300
49	6472519	MOTOR, ELEC., 7-1/2 HP, 3 PH, 3600 RPM, 230/46V, 184T FR
	6472328	MOTOR, ELEC., 5 HP, 1PH, 3600 RPM, 230V, 182T FR
50	3268222	HANDLE, TENSION RELEASE
51	6716220	SCREW, 3/8 SHOULDER BOLT
52	6715290	SCREW, ALL THREAD 5/16-18

EXPLODED VIEW: MODEL 28 FENCE ASSEMBLY



PARTS LIST: MODEL 28 FENCE ASSEMBLY

NO. PART NO. DESCRIPTION

	2195041	FENCE, ASSY. (# 1-26)
	2695040	SCREW, LOCK ASSY. (# 1-3)
1	3406016	KNOB, HANDLE
2	3268002	HANDLE
3	3695207	SCREW, LOCK
4	3838008	WASHER
5	3406235	KNOB, ADJ.
6	3268001	HANDLE
7	3728005	SLEEVE, QUILL LOCK
8	6716100	SCREW, SET
9	3056028	BODY, FENCE
10	3773326	STUD
11	6516009	NUT, HEX. HD. JAM
	2063178	BRKT., FENCE ASSY. (# 12&13)
12	3670346	ROD
13	3063645	BRACKET, FENCE
14	6715013	SCREW, SET
15	3195030	BOARD, FENCE, GUIDE
16	6715051	SCREW, FLAT HD.
17	6861205	WASHER
18	6515007	NUT
19	3104665	COVER, TOP
20	6430041	KNOB
21	6861205	WASHER
22	6749008	SCREW, WOOD
23	6861200	WASHER, LOCK
24	6715024	SCR., SOC. HD. CAP

NO. PART NO. DESCRIPTION

25	3019071	ANGLE, FENCE
26	3195031	BOARD, FENCE, GUARD
27	6716031	SCR., HEX HD.
28	6861300	WASHER, LOCK
29	6861301	WASHER, FLAT
30	2759086	STAND ASSY. (WELDMENT)
31	3797429	TABLE, SHAPER
32	2106032	COVER, MOTOR, WELDMENT
33	3328082	INSERT TABLE 10"
34	3696201	SCREW, SET
35	6714037	SCR. FILLISTER HD.
36	3328078	INSERT TABLE 6-3/4"
37	3328080	INSERT TABLE 4-3/4"
	2388093	KIT PLATE, 28 SHAPER (# 38-41)
38	3684298	SCALE
39	6680020	RIVET
40	3312228	I.D. PLATE SERIAL & MODEL #
41	6747000	SCREW, DRIVE
42	3406018	KNOB
43	3708002	SHAFT-LOCK
44	3738201	SPACER, DOOR SHAFT
45	3448002	LOCK, DOOR
46	6714004	SCREW, SOC. SET, CUP PT.
47	6746031	SCR., HEX SLOT SELF-TAPPING
48	6430047	KNOB, CONTROL PANEL
49	3330362	PLATE, INSTRUCTION
50	6643000	POT, CONTROL 5K

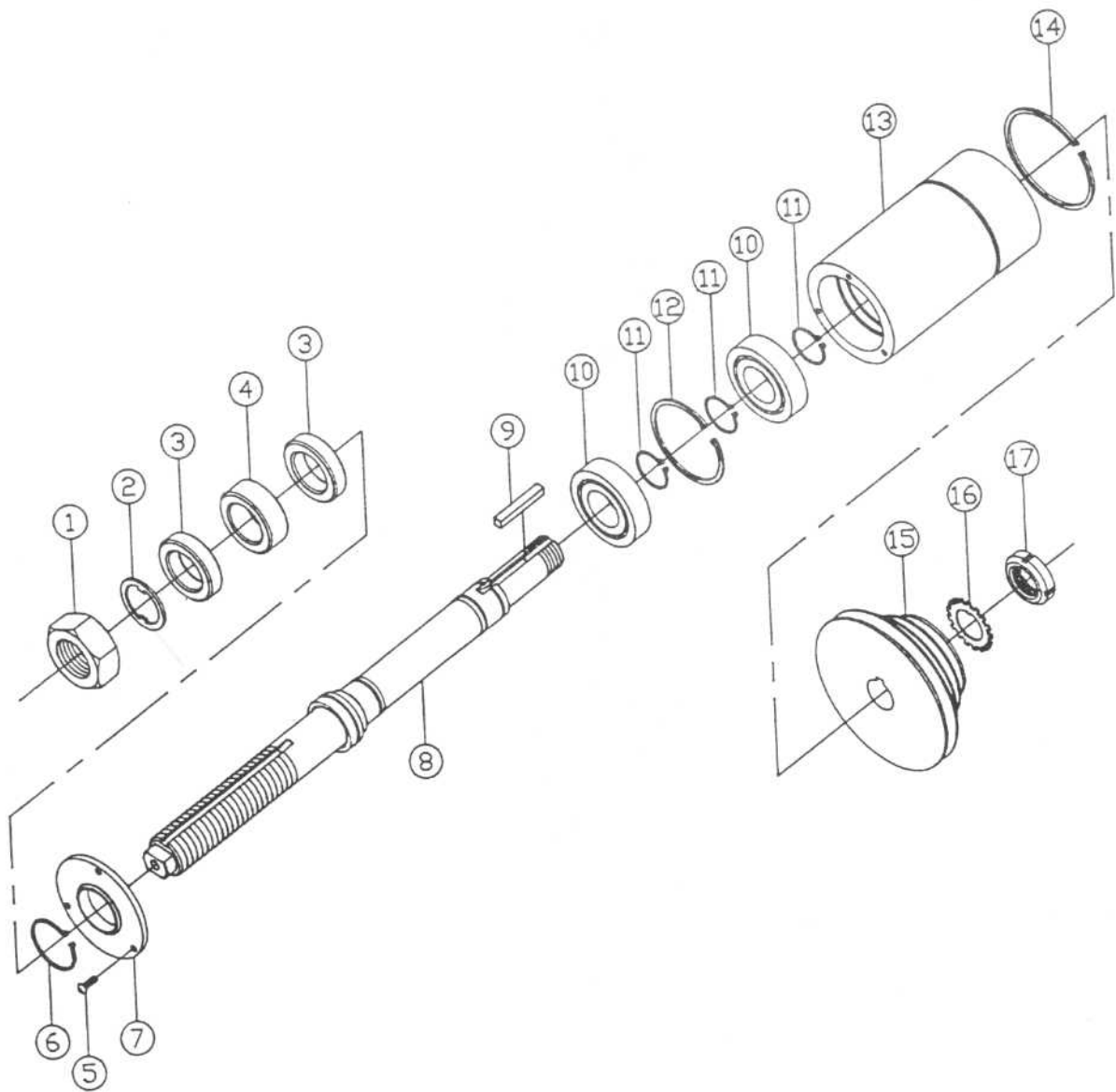
PARTS LIST: 1-1/4" SPINDLE ASSEMBLY 2749054

NO. PART NO. DESCRIPTION

- 1 3526235 NUT, 1-1/4" SPINDLE
- 2 3840005 LOCKWASHER, 1-1/4" SPINDLE
- 3 3745030 SPACER, SPINDLE 1-1/4 x 1/2
- 4 3745031 SPACER, SPINDLE 1-1/4 x 3/4
- 5 6708067 SCR, BUTT. HD SOC.
- 6 6670168 RING, RETAINER
- 7 3659036 RETAINER, BEARING
- 8 3749129 SPINDLE, 1-1/4" SOLID
- 9 3388024 KEY, SQUARE

NO. PART NO. DESCRIPTION

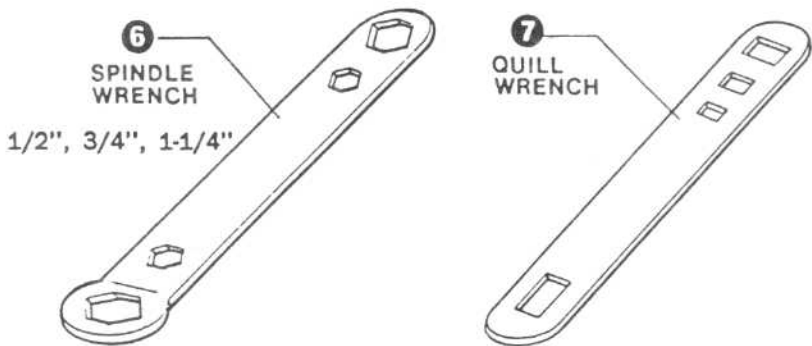
- 10 6060014 BEARING, MACHI 6206 2NK
- 11 6670006 TRUARC EXTERNAL
- 12 6670042 RING, RETAINER
- 13 3298290 QUILL
- 14 6670170 RING, RETAINER
- 15 3718052 SHEAVE, SPINDLE
- 16 6864041 WASHER, LOCK BEARING
- 17 6549068 NUT, BEARING LOCK



WRENCHES

NO. PART NO. DESCRIPTION

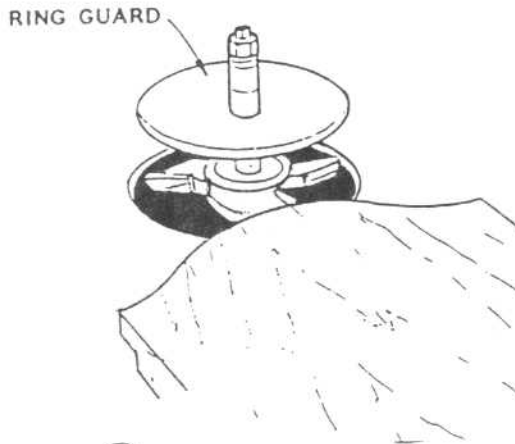
6	3868004	WRENCH, SPINDLE
7	3868005	WRENCH, QUILL



PARTS LIST: GUARD, SAFETY RING

GUARD FOR 1-1/4" SPINDLE NO. PART NO. DESCRIPTION

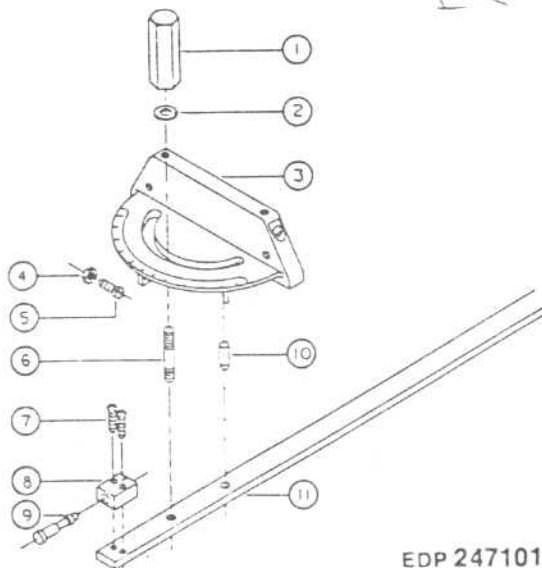
1	3096327	4-1/2" DIA.
2	3096329	6" DIA.



MITER GAUGE (OPTIONAL)

NO. PART NO. DESCRIPTION

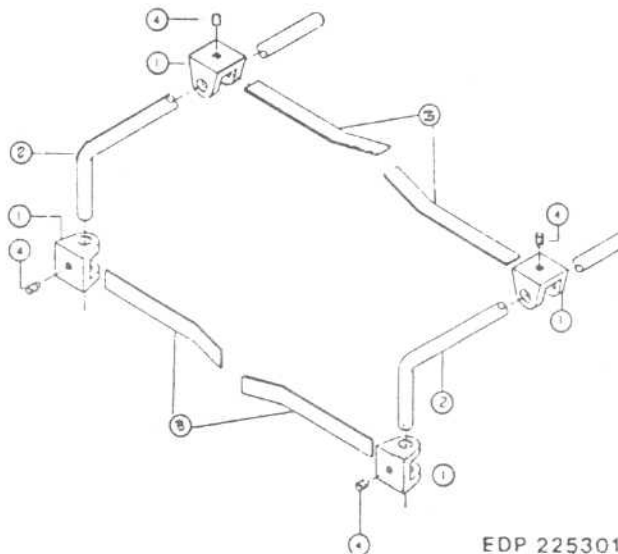
1	3268050	KNOB, MITER
2	6861101	WASHER, FLAT
3	3230007	GAUGE, MITER
4	6506003	NUT, HEX, 6-32 (PLATED)
5	6706094	SCR., RD HD MACH.
6	3695220	SCREW, LOCK
7	6706041	SCR., RD HD MACH.
8	3055101	BLOCK, POINTER
9	3582097	PIN, STOP
10	6623012	PIN, DOWEL, 1/4 x 1"
11	3044312	BAR, MITER, GAUGE



PARTS LIST: HOLD DOWN (OPTIONAL)

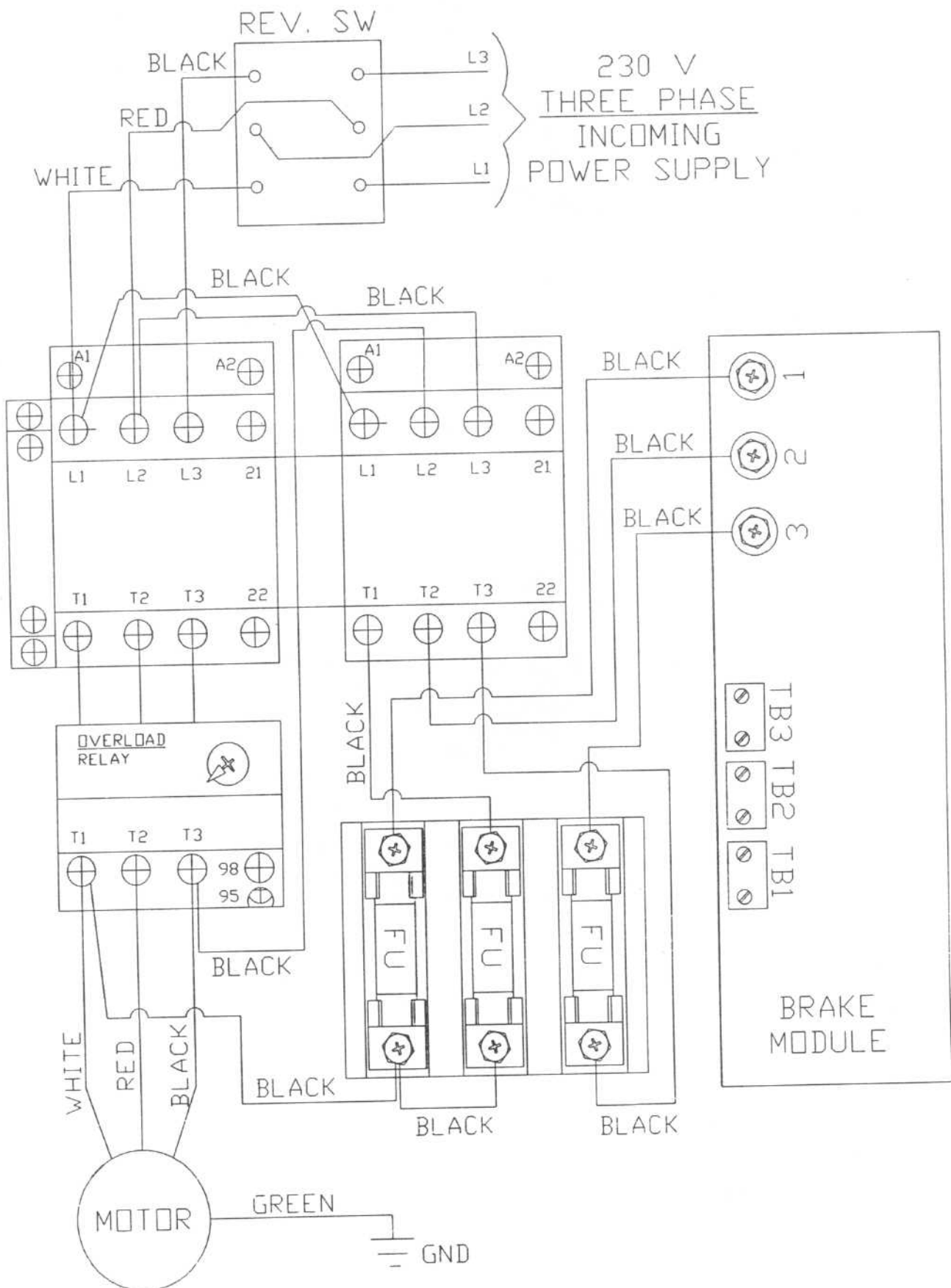
NO. PART NO. DESCRIPTION

1	3289008	HOLDER, SPRING
2	3670057	ROD, MATERIAL HOLD DOWN
3	3767008	STRAP, FENCE
4	6715014	SCR., SOC. SET, CUP PT.,



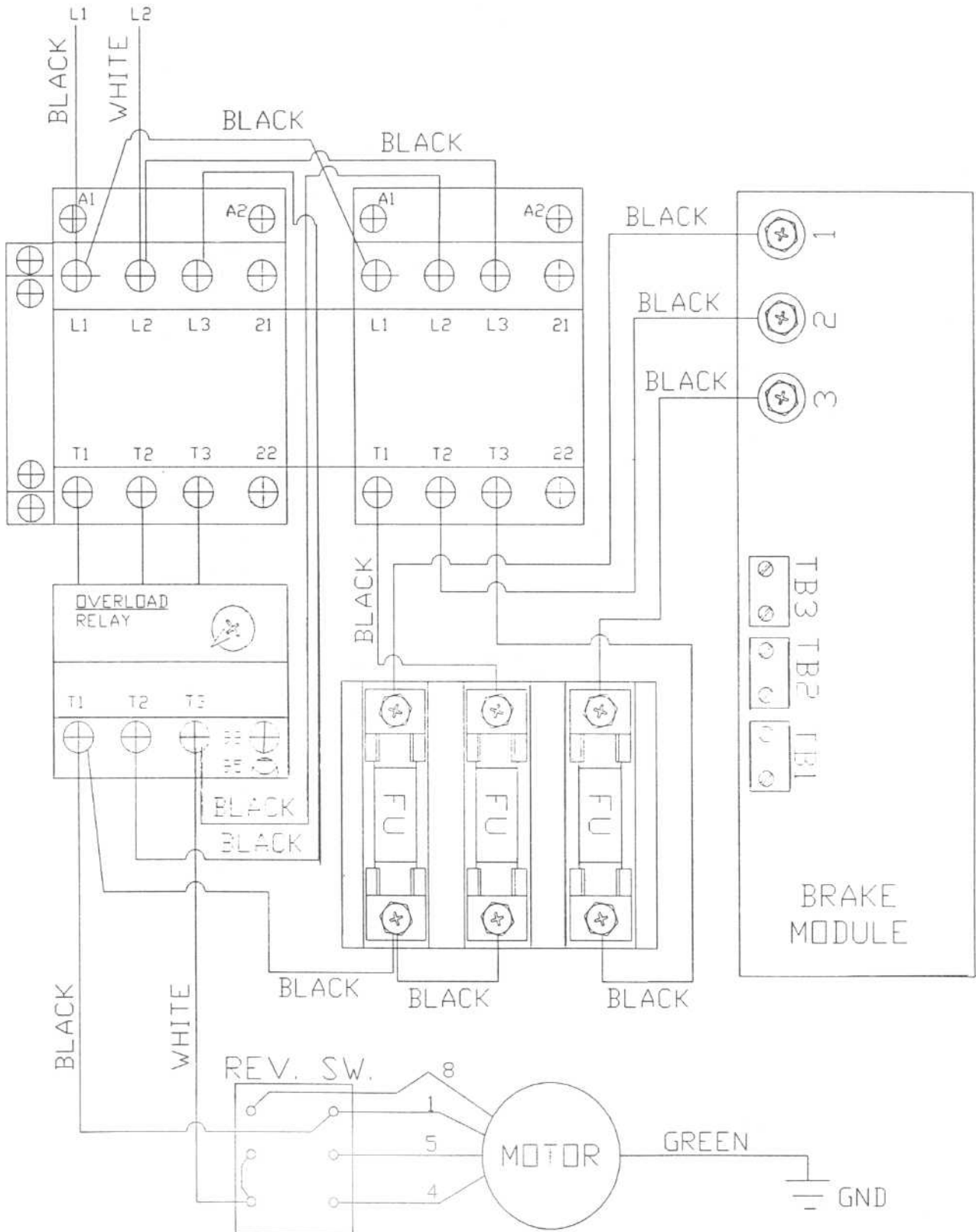
EDP 2253016

THREE PHASE POWER CIRCUIT WIRING DIAGRAM

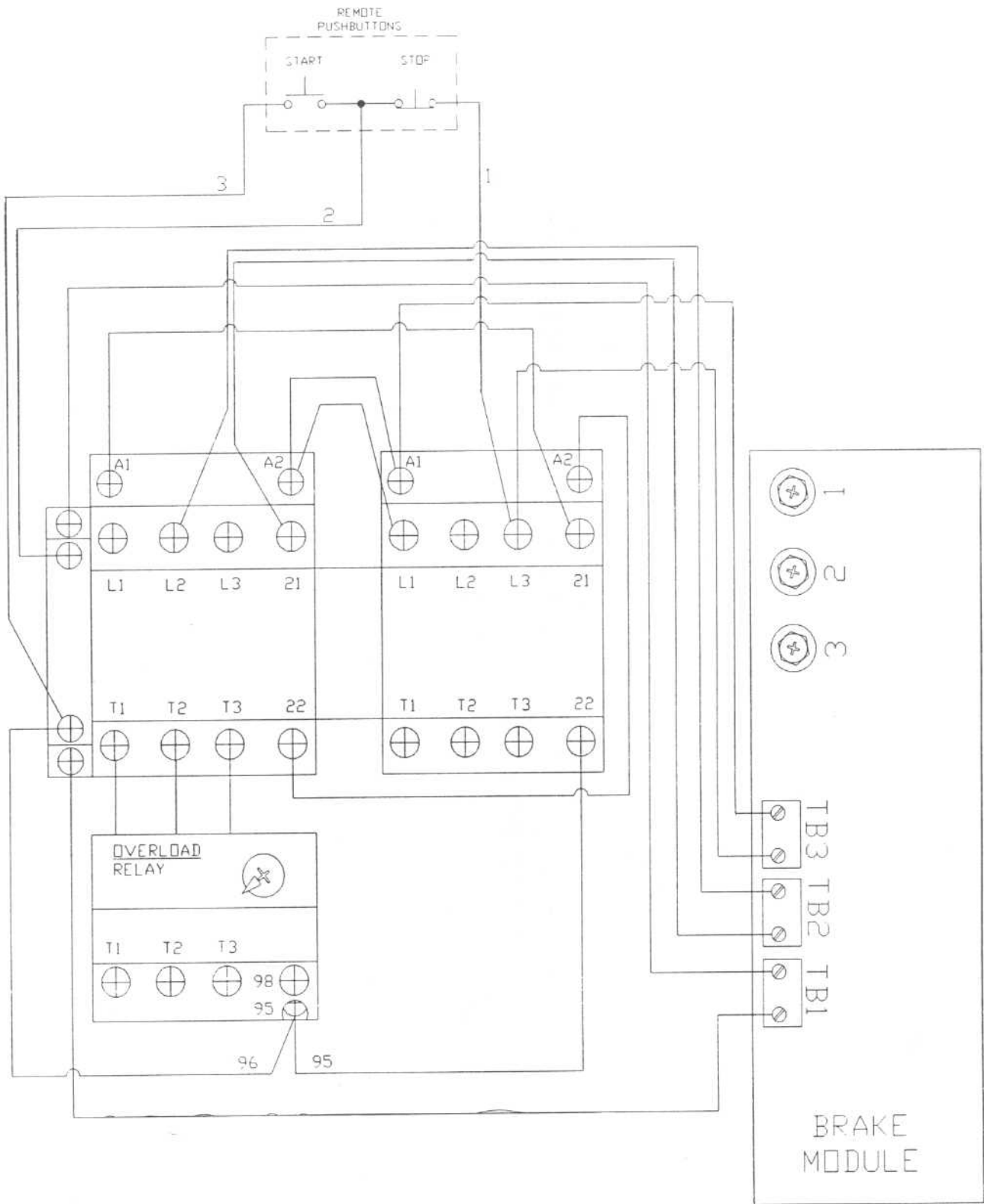


SINGLE PHASE POWER CIRCUIT WIRING DIAGRAM

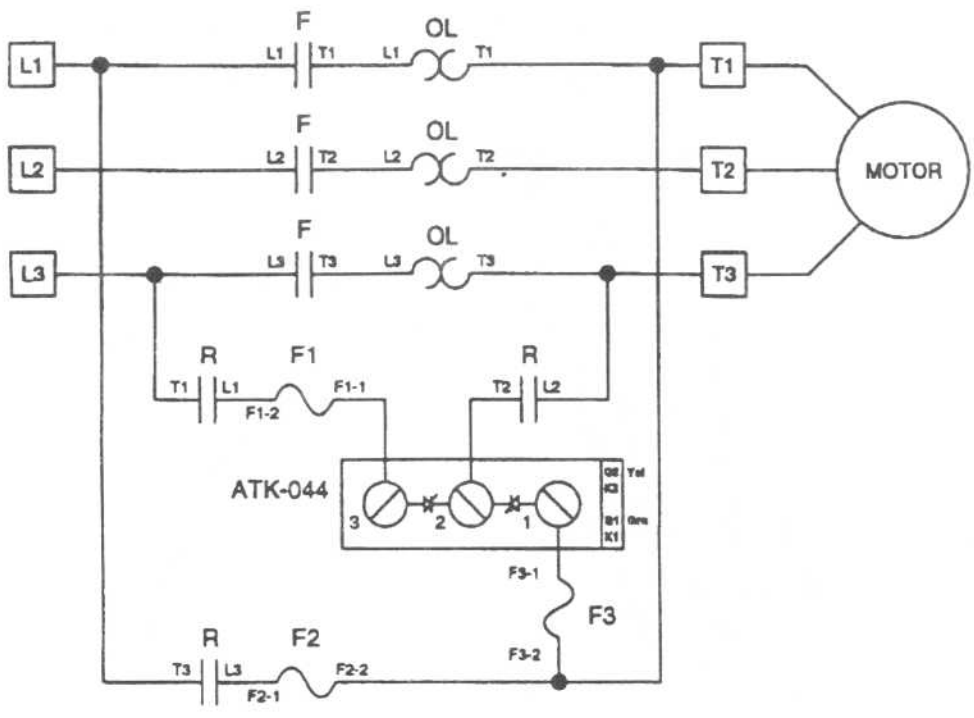
230 V
SINGLE PHASE
INCOMING
POWER SUPPLY



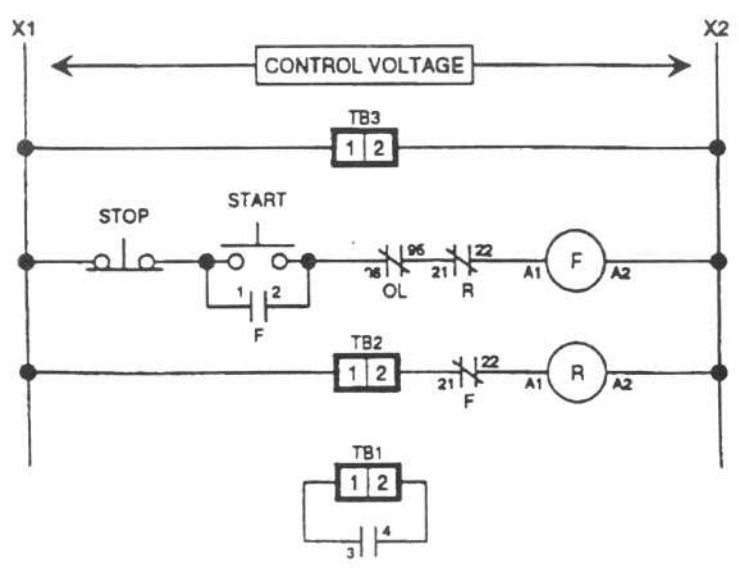
CONTROL CIRCUIT WIRING DIAGRAM



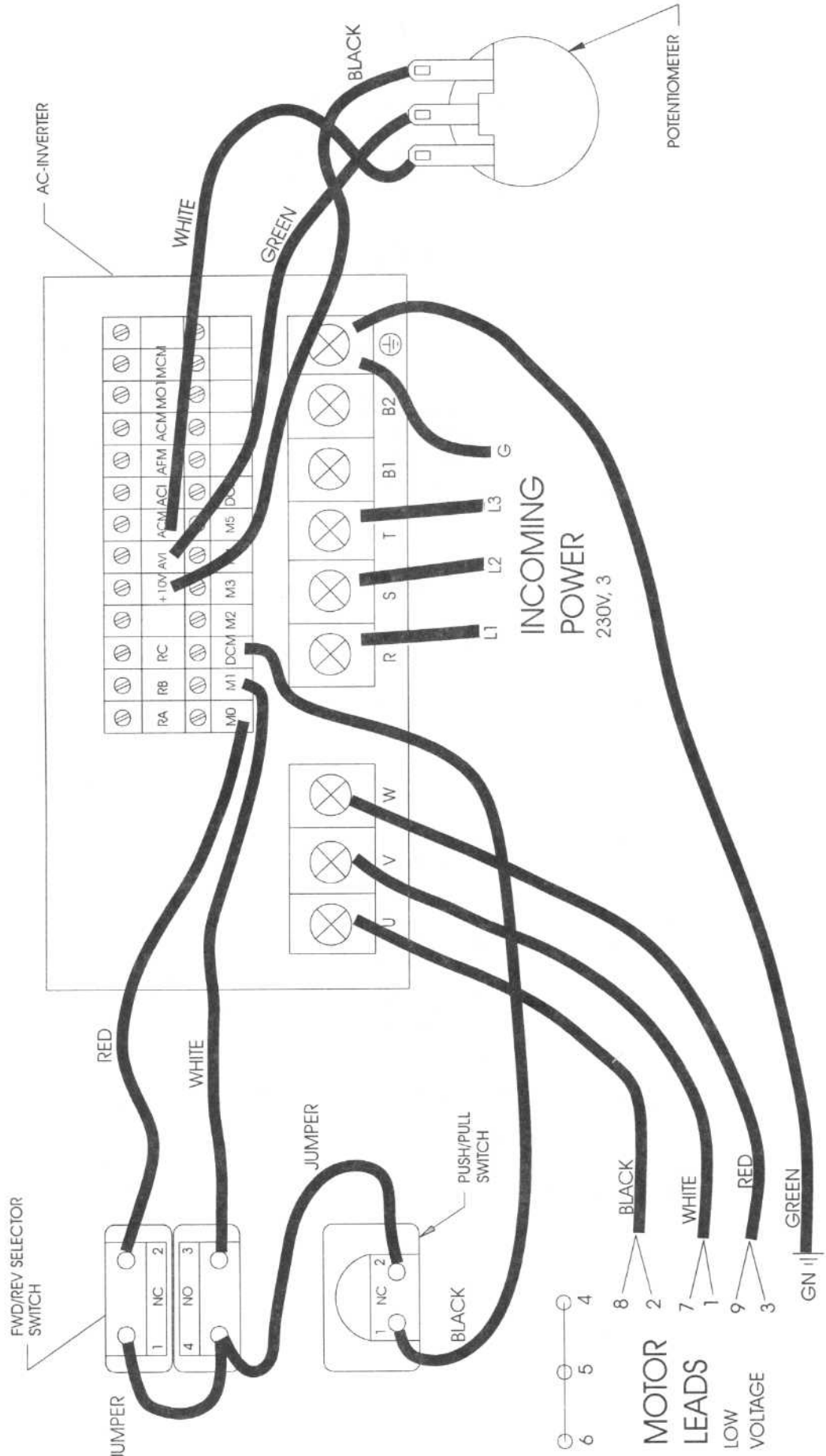
POWER SCHEMATIC



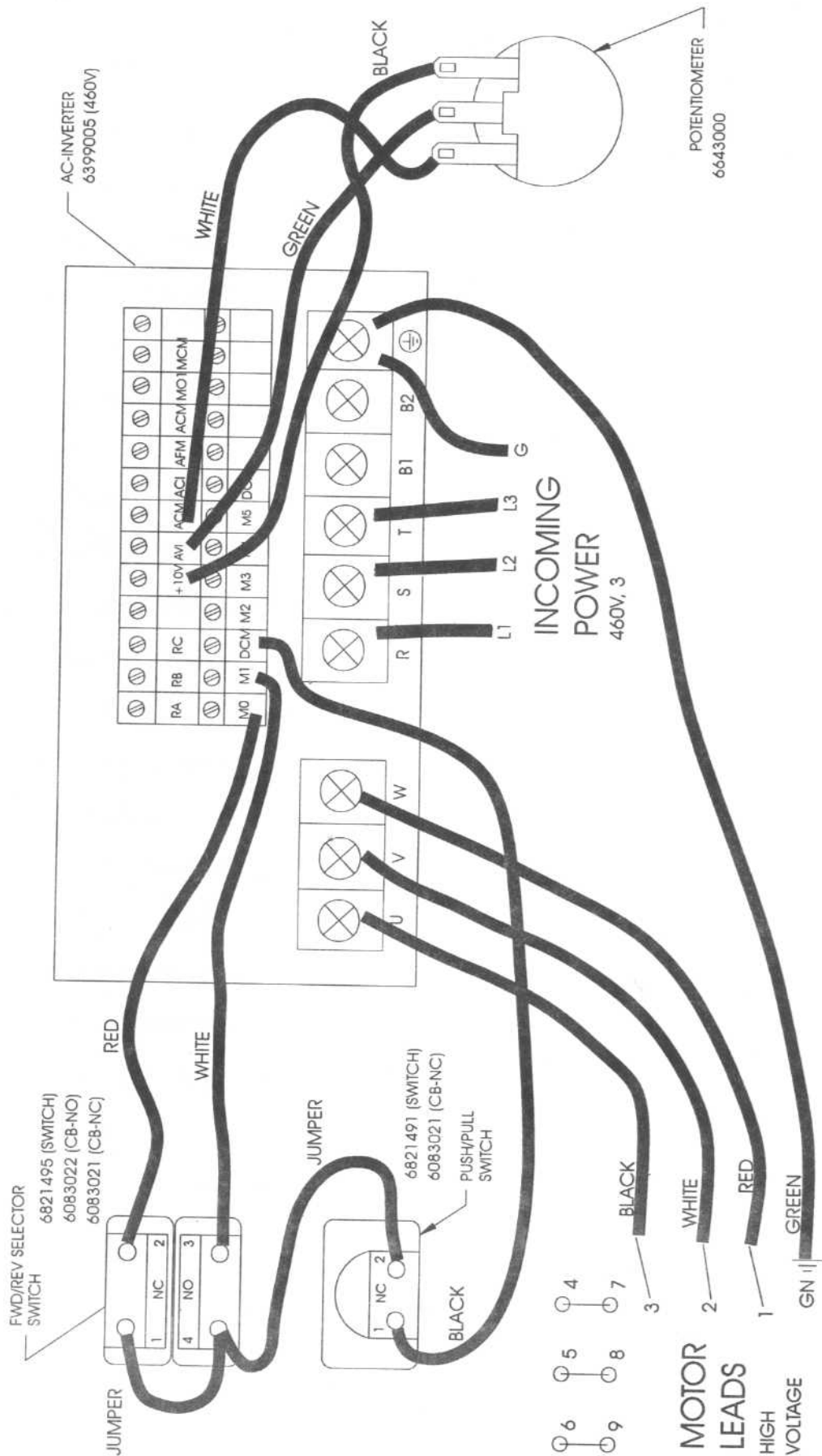
CONTROL SCHEMATIC



VARIABLE SPEED - 230V WIRING 0940276



VARIABLE SPEED - 460V WIRING 0940277



PARTS LIST: ELECTRICAL

PART NO. DESCRIPTION

6821069	SWITCH, REV. DRUM
6816288	STARTER MAG., (230V)
6659058	OVERLOAD RELAY, (230V)
6821487	SWITCH AUX. CONTACT
6821014	SWITCH PUSH BUTTON
6091011	BRAKE, AMBI-TECH, (230V)

ACCESSORIES

2195041	Accu-Fence
2253016	Work Hold-down guide
2388093	Kit, plate
2471010	Miter gauge
2749054	1-1/4" Solid spindle
2749055	1" Solid spindle

PERIODIC MAINTENANCE CHECK LIST

OPERATOR _____ DATE: _____
 MODEL NO. _____ S/N _____ ASSET NO. _____

S - SATISFACTORY; A - ACCEPTABLE, BUT NEEDS ATTENTION; U - UNSATISFACTORY--RED TAG

The lock ring, cutter(s), and arbor locked securely on.	S A U
Cutters sharp and free of nicks and flaws.	S U
Guard in place and working properly.	S U
Fences properly aligned and square with table.	S U
All safety decals in place.	S U
Working area around machine mated off.	S A U
Anti-skid strips on floor area where operator normally stands.	S U
Various types of push blocks and sticks readily available to operator.	S U
Kickback path not aimed at other work areas, aisles, or doorways.	S A U
Wood fence attached tightly to fence shoulders.	S U
No missing parts or loose screws.	S A U
Machine stable in operation.	S A U
Foot pedals have proper adjustment.	S U
Belt adjusted to proper tension.	S U
Table free of pitch, resin, or any foreign material.	S A U
Shaper lubricated where necessary.	S A U
Collars and spacers free of nicks, rust, and flaws.	S A U
Keyed collar in use directly under locking nut on arbor.	S A U
Spindle taper socket free of nicks, rust, and flaws.	S A U
Shaper properly grounded.	S A U
Arbor and locking nut thread free or nicks, rust, dings, and flaws.	S A U
Fixtures, templates, and clamps in good working order.	S A U

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 YOUR SUPERVISOR FOR IMMEDIATE ACTION**

To order parts or reach our service department, please call our toll free number between 8:00 A.M. and 4:30 P.M. (CST), Monday through Friday. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately. Locating the EDP number of the part(s) required from your parts manual will also expedite your order.

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Fax No. : 931-473-7819

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E-mail: powermatic@worldnet.att.net

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