OTMT

12" FLOOR DRILL PRESS

ITEM NO.87-115-924
MODEL NO.OT21516V

Version date: 02/15/2015

Please Read These Instructions Before Operating Your Machine
Contents Subject To Change Without Notice

CONTENTS

GENERAL SAFETY RULES FOR POWER TOOLS

For your own safety read the owner's manual carefully. Learn the application and limitations as well as the specific hazards peculiar to this tool.

1. **ALL GROUNDED, CORD–CONNECTED TOOLS:**
   In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment–grounding conductor and a grounding plug. the plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local code and ordinances.
   Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician. Improper connection of the equipment–grounding conductor can result in a risk of electric shock The wire with insulation having an outer surface that is green with or without yellow stripes is the equipment–grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment–grounding conductor to a live terminal. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood or if in doubt as to whether the tools is properly grounded.
2. **GROUNDED CORD–CONNECTED TOOLS INTENDED FOR USE ON A SUPPLY CIRCUIT HAVING A NOMINAL RATING LESS THAN 150 VOLTS:**
   The use of any extension cord will cause some loss of power. To keep this to a minimum and to preventoverheating and motor–burn out, use the table below to determine the MINIMUM wire size (A. W. G) Extension cord. Use only 3–wire extension cords that have 3–prong grounding plugs and 3–pole receptacles that accept the tool's plug.

Extension Cord Length	Wire Size A. W. G
25 Feet	16
50 Feet	16
100 Feet	14

Extension cords suitable for use with your drill press are available at your nearest Menards Store. Repair or replace damaged or worn cord immediately.

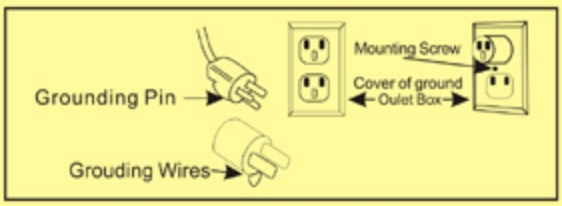


Figure 1 – Wiring Methods

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure 1. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure 1. A temporary adapter, which looks like the adapter illustrated in Sketches B and C may be used to connect this plug to a 2–pole receptacle as shown in Sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid tab extending from the adapter must be connected to a permanent ground such as properly grounded outlet box.

3. **KEEP GUARDS IN PLACE:**
   In proper working order and with correct adjustments and alignments.
4. **REMOVE ADJUSTING KEYS AND WRENCHES:**
   From habit of checking to see the keys and adjusting wrenches are removed from tool before turning on.
5. **KEEP WORK AREA CLEAN:**
   Cluttered areas and benches invite accidents.

6. **DON'T USE IN DANGEROUS ENVIRONMENT**
   Don't use power tools in damp or wet locations or expose them to rain. Keep work area well illuminated.
7. **KEEP CHILDREN AWAY**
   All visitors should be kept a safe distance from work area.
8. **MAKE WORKSHOP KID PROOF**
   With padlocks, master switches or by removing starter keys.
9. **DON'T FORCE TOOL**
   It will do the job better and be safer at the rate for which it was designed.
10. **USE RIGHT TOOL**
    Don't force tool or attachment to do a job for which it was not designed.
11. **WEAR PROPER APPAREL**
    No loose clothing, gloves, neckties, rings, bracelets or jewelry to get caught in moving pans. Non–slip footwear is recommended. Wear protective hair covering to contain long hair.
12. **ALWAYS WEAR SAFETY GLASSES**
    Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses. They are NOT safety glasses.
13. **SECURE WORK**
    Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
14. **DON'T OVERREACH**
    Keep your proper footing and balance at all times.
15. **MAINTAIN TOOLS IN TOP CONDITION**
    Keep tools sharp and clean for best and safety performance. Follow instructions for lubricating changing accessories.
16. **DISCONNECT TOOLS FROM POWER SOURCE**
    Before servicing and when changing accessories such as blades, bits, cutters or when mounting and remounting motor.
17. **REDUCE RISK OF ACCIDENTAL STARTING**
    Make sure switch is in"OFF"position before plugging in cord.
18. **USE RECOMMENDED ACCESSORIES**
    Consult the owner’ s manual for recommended accessories. Use of improper accessories may be hazardous.
19. **NEVER STAND ON TOOL**
    Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
20. **CHECK DAMAGED PARTS**
    Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and nay other conditions that may affect its operation. Any part that is damaged should be properly repaired or replaced prior to using the tool.
21. **DIRECTION OF FEED**
    Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
22. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.**
    Don't leave tool until it comes to a complete stop.

The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe say damage. Always wear safety goggles complying with ANSI Z87.1K before commencing power tool operation. Safety goggles are available at all Menards Stores.

VARIABLE SPEED DRILL PRESS SPECIFICATIONS

Thanks for you purchasing this drill press. Your variable speed drill press with digital speed indicator is engineered for years of quality service. For your safety and best performance of this product. Please read carefully hall assembly and operation instructions for this tool.

1.PRODUCT SPECIFICS

Name: Digital Variable Speed Drill Press
Model: variable speed
Chuck Size: 5/8 inch

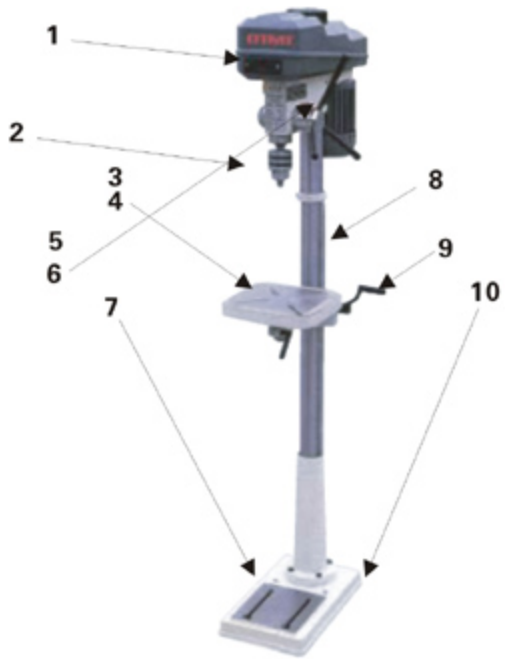
Work clearance: 6 inches to 17–3/4 inches
Table Rotation: 360 degrees
Over–all height: 35 inches

Spindle Travel: 3–1/8 inches
Spindle Taper: B18
Spindle Speed: 350~3000rpm (50Hz)
Motor Power: 550W (230V/50Hz 550W)

2. PERFORMANCE CHARACTERISTICS

Speeds from 350 to 30000 fpm can be obtained by rotating the round hand wheel on top of the belt hood. The spindle speed is displayed accurately in digital images on the electronic screen at the front end of the pulley hood.

VARIABLE SPEED DRILL PRESS PACK LIST



For convenience and space efficiencies, your drill press has been packed in assembled parts. The parts must be assembled prior to operating this drill press.

1	HEAD ASSEMBLY
2	DRILL CHUCK
3	TABLE ASSEMBLY
4	CHUCH KEY(not shown)
5	DRIVE HANDLES(3)
6	BASE BOLTS(4)
7	ALLEN WRENCH(not shown)
8	POST ASSEMBLY
9	CRANK HANDLE
10	BASE

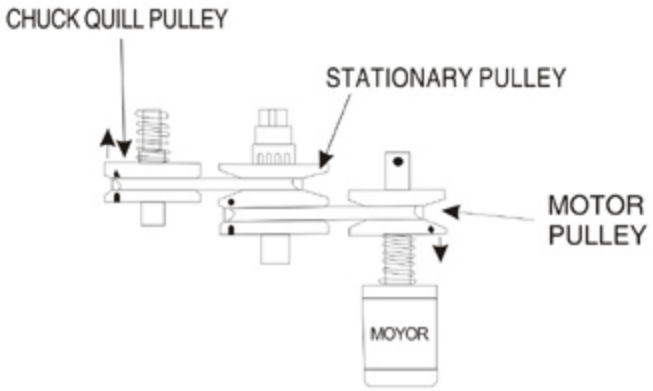
ASSEMBLY INSTRUCTION

1. Open carton and identify parts I through 10.
2. Attach post assembly (8) fixed flange to base(10) using 3 bolts provided.
3. Attach crank handle (9) to table assembly(3).
4. Loosen the set–screw in retainer ring (top of 8) and remove retainer ring form post assembly while holding tooth rack tightly against post surface. **Note: The tooth rack has an arrow that points to the base when it is installed correctly.**
5. Next, put the table assembly clamping ring(3) on the post. Lower the table assembly on the post/rack by turning the crank handle(9).
6. Replace the retaining ring on the post and tighten the set–screw.
   Caution: Do not over tighten the set–screw.
7. Mount the head–stock assemble(1) on the post the tighten the set–screw.
8. Using a clean towel or cloth, Wipe oil from spindle shaft and inside of tapered hole of chuck.
9. Place chuck on spindle and press upward. A hammer and a block of wood may be needed to drive the chuck onto the spindle.
10. Screw three drive handles(5) into the head stock.
11. Use handle of lock screw at rear of table assembly (3) to anchor table while drilling. Screw must be loosened to raise or lower table.
12. The working surface of table and base are coated with anti–rust oil. It can be removed with detergent.

TROUBLE SHOOTING

PROBLEM	CORRECTION
SPINDLE DOES NOT TURN WHEN MOTOR IS TURNED ON	**SHUT OFF POWER .** Hold the chuck or clamp the flat part of the spindle with pliers. While rotating the chuck in a clockwise direction, turn the speed adjusting knob in the direction to reduce speed. After several revolutions, the drill will restart normally
BELT JAMMING	**LOOSEN BELT TENSIONING KNOB**
MOTOR DIFFICULT TO TURN BELT	**REDUCE TENSION ON BELT BY TURNING TENSION KNOB**

VARIABLE SPEED DRILL PRESS BELT CHANGING PROCEDRE



Your variable speed drill press has two belts attached to three pulleys: Chuck Quill Pulley, Stationary Pulley and Motor Pulley. The halves of the Chuck Quill Pulley and Motor Pulley can be separated. Pull up on the top half of the Chuck Quill Pulley to release tension on the forward belt.

Press down on the bottom half of the Motor Pulley to release tension on the rear belt. Belts can now be removed from pulley and replaced. After belt is replaced, close the top cover and turn on drill. The pulley halves will now reseat automatically.

USING THIS BENCH DRILL PRESS

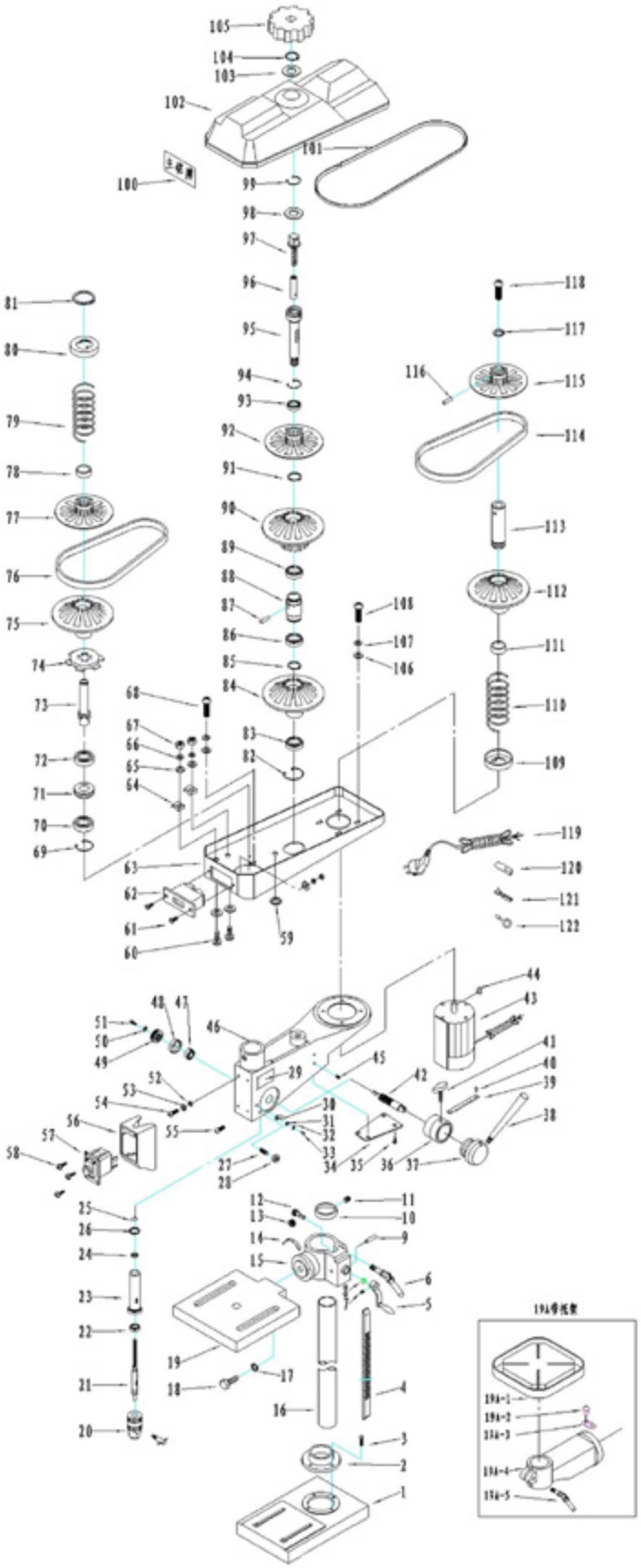
1. Before operating: make sure your power supply meet the requirements of this drill. The power cord on the drill has a grounded plug and should be connected to properly grounded socket.
2. During the setup, the base of this drill should be fastened to work bench or table with anchor bolts to prevent falling over during usage.
3. Do not were gloves while operation this tool.
4. Safety glasses should be worn while operating the drill.
5. Be sure power is off before changing bits.
6. Do Not adjust drill speed until motor has been turned on and chuck is at constant speed. The round speed control knob on the top of the drill housing should not be adjusted unless the drill is running. If the knob is tightened when the motor is not running, the belt will jam when the unit is activated.
7. If it is necessary to stop the drill while drilling at high–speed, lower the speed to 1000 rpm or less, then turn off the power.
8. All work pieces should be clamped to table prior to drilling. This procedure increases accuracy of drilling and prevents accidents.

   For repetitive and precision drilling, your drill has a depth stop that allows your to limit the quill travel. This feature is particularly beneficial when drilling many holes to a given depth. The depth stop control is located on the gear shaft between the headstock and drive handles.

   To limit the quill travel to a specific depth, turn the dept stop locking screw 45 degrees counter clockwise. Then rotate dial collar until the desired dept is aligned with the indicator arrow on the headstock. Tighten the dept stop locking screw by turning the screw clockwise 45 degrees. The dept of drilling can be set in 1/16–inch increments up to 3/1/8 inch.

   NOTE:
   When the drill is first setup to drill a specific depth, it is recommended that several test holes be drilled in scrap material. Checked the test holes for depth accuracy and make adjustments if needed prior to drilling working material.

PARTS DIAGRAM



△1, △2 Alternative assembly parts. Your machine has been equipped by △1 or △2 assembly part.
◇ Alternative assembly parts . Your machine may not have this assembly part.

PARTS LIST

NO.	DESCRIPTION	SPEC.	QTY.	NO.	DESCRIPTION	SPEC.	QTY.
1	Base		1	39	Indicator		1
1A	Base		1	40	Rivet	Φ2.5x6	1
2	Flange		1	41	Butterfly Bolt	M8x16	1
2A	Flange		1	42	Gear Shaft		1
3	Bolt	M8x16	4	43	Motor		1
4	Rack		1	44	Key		1
4A	Rack		1	45	Bolt	M8x10	2
5	Crank		1	46	Head		1
6	Lock Handle	M10x35	1	47	Coil Spring		1
7	Bolt	M6x12	1	48	Spring Holder		1
8	Retaining Ring	Φ14	1	49	Nut		1
9	Pin Roll		1	50	Spring Washer		1
10	Fixing Ring		1	51	Bolt	M6x20	1
11	Bolt	M6x12	1	52	Teeth Washer		1
12	Worm		1	53	Spring Washer		1
13	Pinion		1	54	Bolt	M5x8	1
14	Angle Scale		1	55	Bolt	M6x12	2
15	Tbale Holder		1	56	Switch Box		1
16	Column	Φ58x720	1	57	Switch		1
16A	Column	Φ58x1050	2	58	Bolt	ST4x12	3
17	Flat Washer	Φ12	4	59	Rubber Ring	Φ22	2
18	Bolt	M12x40	1	60	Bolt	M5x18	2
19	Table		1	61	Bolt	M5x12	2
19A-1	Table	250x250	1				1
19A-2	Rivet	Φ2.5x6	2				1
19A-3	Indicator		1				1
19A-4	Bracket		1	62	Display Assembly		1
19A-5	Lock Handle	M10x35	1			M5x12	2
20	Chuck		1				2
21	Spindle		1				4
22	Bearing		1	63	Pulley Cover Base		1
23	Quill		1	64	Clamp		2
24	Bearing		1	65	Flat Washer		6
25	Retaining Ring	Φ12	1	66	Spring Washer		4
26	Rubber Washer		1	67	Nut	M5	4
27	Bolt	M8x16	1	68	Bolt	M6x10	2
28	Nut	M8	1	69	Retaining Ring	Φ20	1
29	Warning Label		1	70	Bearing		1
30	Pointer		1	71	Spacer		1
31	Flat Washer		1	72	Bearing		1
32	Spring Washer		1	73	Spline Housing		1
33	Bolt	M4x8	1	74	Velometer		1
34	Cover		1	75	Spindle Nether Pulley		1
35	Bolt	M4x8	4	76	Belt		1
36	Dial		1	77	Spindle Upper Pulley		1
37	Handle Holder		1	78	Bearing		1
38	Handle		3	79	Spindle Spring		1

PARTS LIST

NO.	DESCRIPTION	SPEC.	QTY.	NO.	DESCRIPTION	SPEC.	QTY.
80	Spring Holder		1	102	Pulley Cover		1
81	Retaining Ring	Φ20	1	103	Steel Washer		
82	Retaining Ring	Φ42	1	104	Retaining Ring	Φ35	1
83	Bearing		1	105	Speed Adjusting Handle		1
84	Fixing Pulley		1	106	Flat Washer		6
85	Retaining Ring	Φ25	1	107	Spring Washer		6
86	Bearing		1	108	Bolt	M6x35	4
87	Pin	Φ6x28	1	109	Motor Spring Holder		1
88	Sheath		1	110	Motor Spring		1
89	Bearing		1	111	Bearing		1
90	Middle Driving Pulley		1	112	Motor Nether Pulley		1
91	Retaining Ring	Φ25	1	113	Motor Pulley Shaft		1
92	Midle Pullely		1	114	Belt		1
93	Bearing		1	115	Motor Upper Pulley		1
94	Retaining Ring	Φ42	1	116	Pin	Φ6x10	1
95	Middle Spindle		1	117	Spring Washer		1
96	Adjusting Nut		1	118	Bolt	M6x25	1
97	Adjusting Bolt		1	119	Cord		1
98	Washer	Φ30xΦ22x2	1	120	Insulation Sleeve		4
99	Retaining Ring	Φ30	1	121	Ground Terminal		4
100	Main Label		1	122	Ground Terminal		2
101	Sealing Strip						

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