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Before Operating Your Tools,
Please Read These Instructions Carefully

VARIABLE SPEED DRILL PRESS

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

Content

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 minimumand to prevent overheating 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.

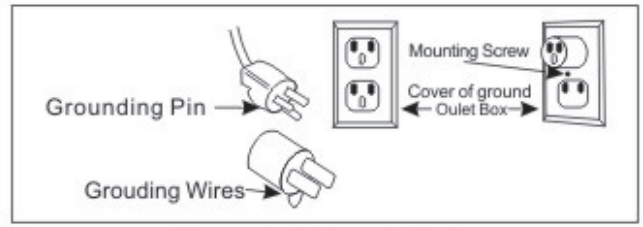

Figure 1 - Wiring Methods

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 safest 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.

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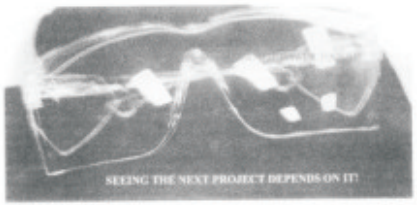


The operation of any power tool can result in foreign objects being thrown into the e yes, which can result in severe say damage. Always wear safety goggles complying with ANSI Z87.1 Kbefore commencing power tool operation. Safety goggles are available at all Menards Stores.

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)

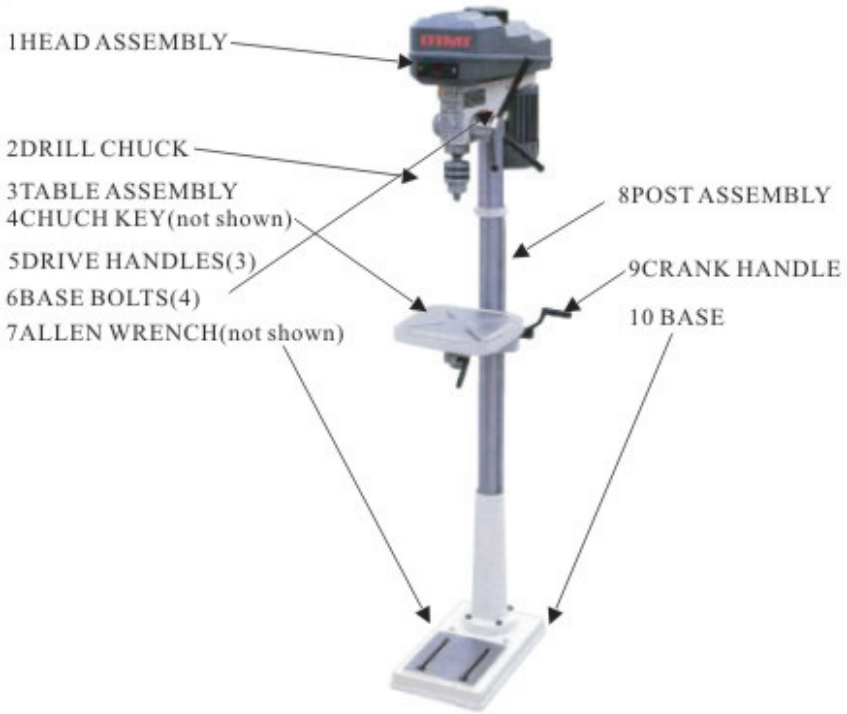
Motor Power: 550W (230V/50Hz 550W)

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.



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 truning 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.

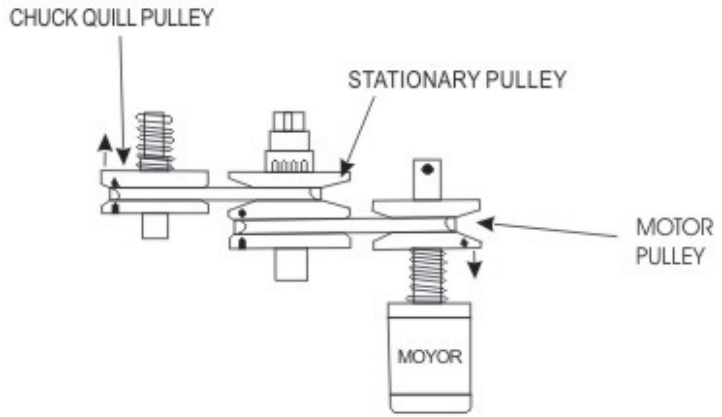
10.Screw three drive handles(5) into the head stock.
11.Use handle of lock screw at rear of table assembly (3) to anchor table while drilling. Screw must be loosened to raise or lower table.
12.The working surface of table and base are coated with anti-rust oil. It can be removed with detergent.

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 PROCEDURE

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 meetthe 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.

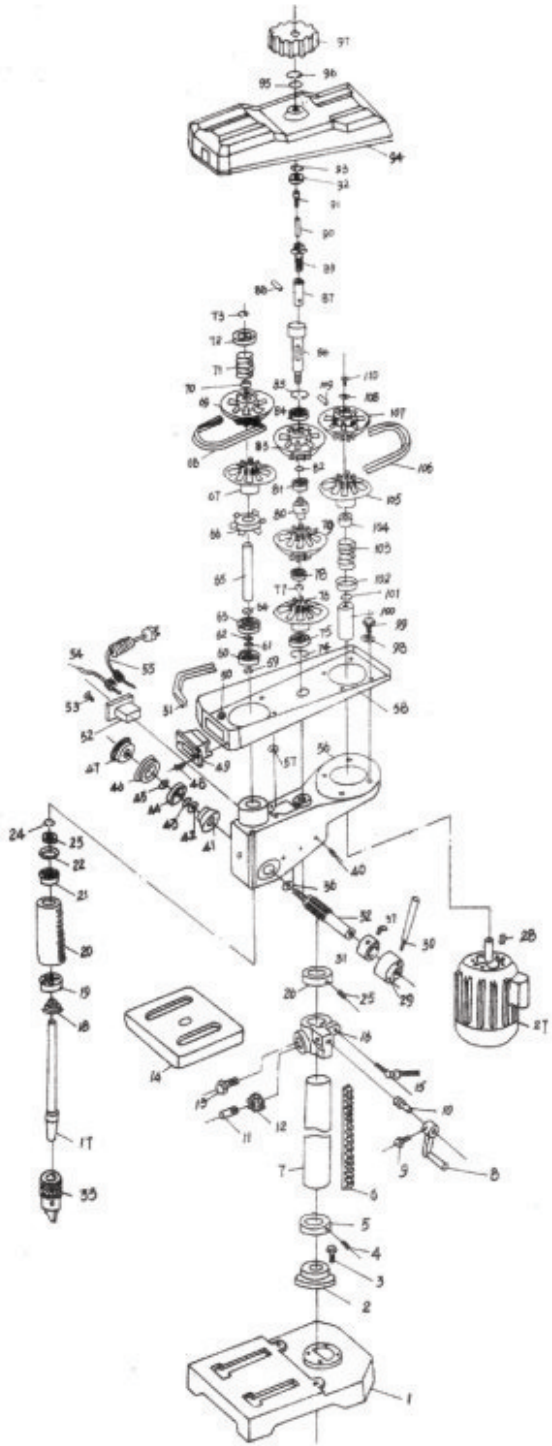
7.If it is necessary to stop the drill while drilling at high-speed, lower the speed to 1000 rpm or less, then turn off the power.

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.



Part No.	Description
1	Base
2	Flange
3	Bolt
4	Set screw
5	Retaining ring
6	Rack
7	Upright(post)
8	Crack handle
9	Hex bolt
10	Worm
11	Pin roll
12	Worm gear
13	Hex bolt
14	Bench
15	Locking assembly
16	Clamping bush
17	Spindle
18	Spindle retaining ring
19	Bearing
20	Rack sleeve
21	Bearing
22	Butterfly spring
23	Gasket
24	Spindle retaining ring
25	Socket-head set screw
26	Retaining ring
27	Motor
28	Key
29	Handle block
30	Handle bar
31	Dial
32	Gear shaft
33	Drill chuck
34	Goggles
35	Switch box
36	Gasket
37	Depth stop locking screw
40	Set screw
41	Spring seat

Part No.	Description
42	Steel washer
43	Spindle retaining ring
44	Disc spring
45	Paper washer
46	Dial
47	Locking disc
48	Screw
49	Speed display
50	Nut
51	Sealing strip
52	Switch assembly
53	Set screw
54	Power cable
55	Motor conneting line
56	Spindle box
57	Rubber gasket
58	Belt hood
59	Spindle retaining ring
60	Bearing
61	Spindle retaining ring
62	Spindle retaining ring
63	Bearing
64	Spingle retaining ring
65	Spindle sleeve
66	Speed detector
67	Lower pulley(spindle)
68	V-belt
69	Upper pulied spinle
70	Spindle copper sleeve
71	Spindle disc press spring
72	Spindle spring seat
73	Spindle reatining ring
74	Hole retaining ring
75	Bearing
76	Intermediate fixed wheel
77	Bearing
78	Spindle retaining ring
79	Floating wheel
80	Floating sleeve

Part No.	Description
81	Bearing
82	Spindle retaining ring
83	Intermediate fixed wheel
84	Bearing
85	Hole retaining ring
86	Intermadiate shaft
87	Adjusting nut
88	Cylindrical pin
89	Adjusting screw
90	Top rod
91	Screw
92	Gasket
93	Hole retaining ring
94	Upper cover
95	Rubber gasket
96	Spindle retaining ring
97	Speed-adjusting hand wheel
98	Gasket
99	Bolt
100	Motor shaft
101	Spindle retaining ring
102	Motor shaft spring seat
103	Motor shaft press spring
104	Copper sleeve
105	Lower pulley motor
106	V-belt
107	Upper pulley(motor)
108	Spring washer
109	Elastic pin
110	Left-hand thread screw