

# JM-2000

By Jancy

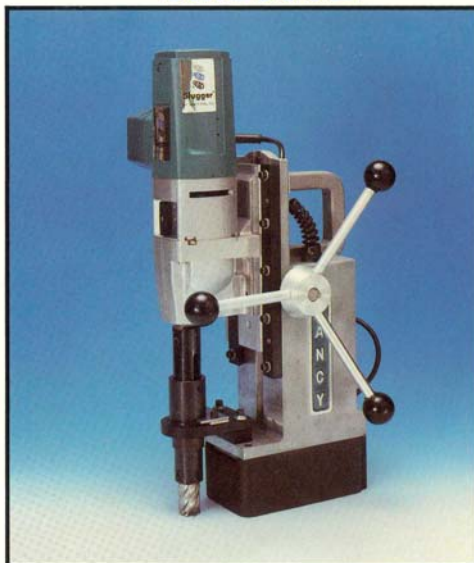


**PART # 18006**

## **DIMENSIONS AND SPECIFICATIONS:**

HEIGHT	18" (457.2 mm)
WIDTH	6 <sup>1</sup> / <sub>4</sub> " (158.7 mm)
LENGTH	10" (254 mm)
WEIGHT	42 lbs. (19 kilos)
DRILL MOTOR	120v Single Phase 60hz 1 <sup>1</sup> / <sub>2</sub> hp 10 Amp No Load Speed - 375 RPM
MAGNET	Drill Point Breakaway 900 lbs. (408.2 kilos) Min.
ON 1" PLATE (25 mm)	Dead Lift 2250 lbs. (1020.5 kilos) minimum
ARBOR BORE	3/4" (19.05 mm)
HOLE CAPACITY	2 <sup>1</sup> / <sub>6</sub> " Diameter (52 mm)
DEPTH OF CUT	2" Standard (51 mm) 3" Modified (76.2 mm)
TWIST DRILL CAPACITY WITH CHUCK & ADAPTER (Part No. 10215-3/4)	3/16" to 3/4" Diameter (5 mm to 19 mm) Note: When using chuck and adaptor machine stroke is 5" (127 mm).

# JM2000B



**PART # 18020**

## **DIMENSIONS AND SPECIFICATIONS:**

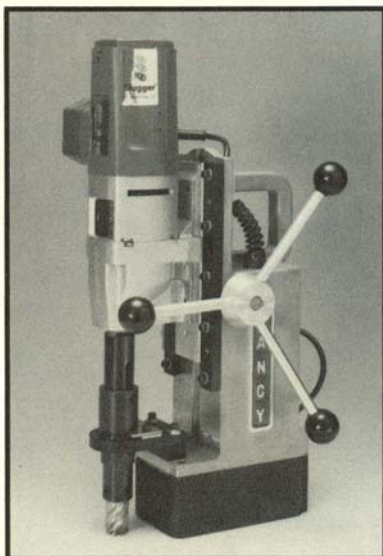
HEIGHT	20.5" (520.7 mm)
WIDTH	6 <sup>1</sup> / <sub>4</sub> " (158.7 mm)
LENGTH	10" (254 mm)
WEIGHT	45 lbs. (20.4 kilos)
DRILL MOTOR	240v Single Phase 50hz 1 <sup>1</sup> / <sub>2</sub> hp 1150 watts No Load Speed - 280/640 RPM
MAGNET	Drill Point Breakaway 900 lbs. (408.2 kilos) Min.
ON 1" PLATE (25 mm)	Dead Lift 2250 lbs. (1020.5 kilos) minimum
ARBOR BORE	3/4" (19.05 mm)
HOLE CAPACITY	2 <sup>1</sup> / <sub>6</sub> " Diameter (52 mm)
DEPTH OF CUT	2" Standard (51 mm) 3" Modified (76.2 mm)
TWIST DRILL CAPACITY WITH CHUCK & ADAPTER (Part No. 10215-3/4)	3/16" to 3/4" Diameter (5 mm to 19 mm) Note: When using chuck and adaptor machine stroke is 5" (127 mm).

## **FEATURES:**

- Aluminum cast frame with precision built, gage block design, interchangeable parts.
- Doweled-in permanent right hand gib provides a constant reference point for easy, precision alignment of gage block designed parts.
- Electric panel located at rear of the machine, away from flying chips and coolant.

- Electric panel is recessed to protect switches from damage and accidental shut off.
- Patented arbor holds **SLUGGER**® cutters firmly in place with two set screws at 90° angles. Piston-plunger assembly in arbor provides for positive slug ejection, slug will not hang up in cutters.
- Internal lubrication, gravity fed coolant reservoir in arbor supplies coolant to cutting surface through the cutter.
- Teflon ways, self-lubricating.
- Operates in any position.
- Rugged double insulated motor housing.

# JM-2000B SLUGGER® PORTABLE DRILLING MACHINE



**PART # 18020**

## **DIMENSIONS AND SPECIFICATIONS:**

HEIGHT	20.5" (520.7 mm)
WIDTH	6¼" (158.75 mm)
LENGTH	10" (254 mm)
WEIGHT	45 lbs. (20.4 kilos)
DRILL MOTOR	240v Single Phase 50hz 1½hp 1150 watts No Load Speed - 280/640 RPM
MAGNET DEAD LIFT	2250 lbs. (1020.5 kilos) on 1" Plate
ARBOR BORE	¾" (19.05 mm)
HOLE CAPACITY (MAX)	2½" Diameter (52 mm)
DEPTH OF CUT	2" Depth (Standard) (51 mm) 3" Depth (Modified) (76 mm)

## **FEATURES:**

- Aluminum cast frame with precision built, gage block design, interchangeable parts.
- Doweled-in permanent right hand gib provides a constant reference point for easy, precision alignment of gage block designed parts.
- Electric panel located at rear of the machine, away from flying chips and oil.
- Electric panel is recessed to protect switches from damage and accidental shut off.
- Patented arbor holds **SLUGGER®** cutters firmly in place with two set screws at 90° angles. Piston-plunger assembly in arbor provides for positive slug ejection, slug will not hang up in cutters.
- Internal lubrication, gravity fed oil reservoir in arbor supplies oil to cutting surface through the cutter.
- Teflon ways, self lubricating.
- Operates in any position.
- Two RPM settings on motor.

Manufactured by:

## **JANCY ENGINEERING CO.**

4616 Kimmel Drive, P.O. Box 3098, Davenport, Iowa 52808  
Phone 319/326-6251 Fax 319/326-0949 Telex 439002

## OPERATING INSTRUCTIONS FOR PART #18020

1. Place the pilot pin into cutter from the shank side.
2. Insert the cutter into the arbor lining up the flats on the cutter with the set screws on the arbor.
3. Secure the set screws, making sure screws are recessed when tight.
4. The surface you are working on should be clean and level. Remove any loose dirt or chips.
5. Place the **SLUGGER**® on the workpiece, the pilot pin over the center of the hole to be cut. Turn on the magnet. The red light will indicate that DC power is going to the magnet and you should have more than adequate holding power. (Note: To ensure adequate holding force on thin material, we recommend placing a steel plate under the workpiece.)
6. Oil (light viscosity) should be placed in the oil reservoir, (slot located on the arbor) lower cutter to surface of material to be cut, giving maximum area for oil storage. Fill reservoir until it reaches the slot opening. Oil will be released down the pilot shaft during the operation as flat on pilot allows oil to pass by gravity feed.
7. The arbor support should be placed as close as possible to the workpiece.
8. Cutter can be started when magnetic holding force is on. To start a cut, apply light pressure until cutter has established an external groove. This will position you properly. Apply steady pressure through the remainder of the cut.

Slug should be expelled on the down stroke. If not, it will be expelled automatically when arbor is in the extreme up position.

**NOTE:** To change from 1" depth to 2" depth cutters: To use 2" long cutters, remove the two socket head cap screws that hold the support bracket to the frame. Take the riser block off the top of the support bracket and place it underneath the support bracket. Replace and tighten the two support bracket screws. Reverse the procedure when changing back to the 1" long cutter.

**"CAUTION—Always use the safety chain to secure the machine to the workpiece."**

## ADJUSTING THE TENSION ON THE MOTOR SLIDE

Gibs may require adjustment after machine has been in use for the first few weeks. This is done by the following:

Wrenches were provided.

Loosen the (5) gib holding bolts (on the left side of machine) and bring them back to fingertip tension so that there will be equal pressure on all (5). Loosen the (3) jam nuts. Bring the slide into the up position. Take your smaller allen wrench and tighten allen screw inside of jam nut so that you have moved the gib adjustment to the right. Proper adjustment would mean the handle controlling the slide should stay in whatever position you bring it to (no drifting down of slide). When the (3) allen screws are adjusted and you have equal tension on the slide, both top, middle and bottom, tighten up the (3) jam nuts, then tighten up the (5) gib bolts.

This adjustment should be required very infrequently because of the precision of your machine. With reasonable care your **SLUGGER**® will give you service for a long time.

## TROUBLE SHOOTING

- 1) Magnet will not hold properly
  - If material is too thin for adequate holding power, clamp additional material to workpiece beneath work surface and magnet, or mechanically clamp drill unit to workpiece.
  - Clear workpiece of chips and dirt beneath magnet.
  - Check power source to ensure adequate current to magnet. Be sure extension cords are adequate wire size to ensure proper voltage.
- 2) Motor doesn't run when switch is turned on
  - Make sure RPM setting is engaged.
  - Check motor brushes for wear.
  - Check motor switch.
  - Check power source.
- 3) Out of Round Holes
  - Check arbor bushing for wear.
  - Check alignment of arbor support bracket.
  - Check alignment of motor on the motor slide.
  - Check to make sure gibs are tight.
  - Maximum T.I.R. .003" at machine spindle.

## SAFETY PRECAUTIONS

- 1) Always wear proper eye protection.
- 2) Keep hands and clothing away from all moving parts.
- 3) Always provide a method of catching slug where the ejected slug might cause injury. (**NOTE:** Slug ejects at end of cut.)
- 4) Wear leather work gloves when removing chips wrapped around cutter and arbor.
- 5) Stop the drill immediately should the cutter jam in the workpiece. Unplug drill and loosen cutter by turning the arbor. Do not attempt to free cutter by starting and stopping motor.
- 6) Do not change from forward to reverse with drill running.
- 7) Unplug drill when changing cutters.
- 8) Always use the safety chain.
- 9) The JM-2000B comes with AC panel as standard equipment. (Variable-speed panel is available as an option.)

# JM-2000B (PART NO. 18020) PARTS LIST



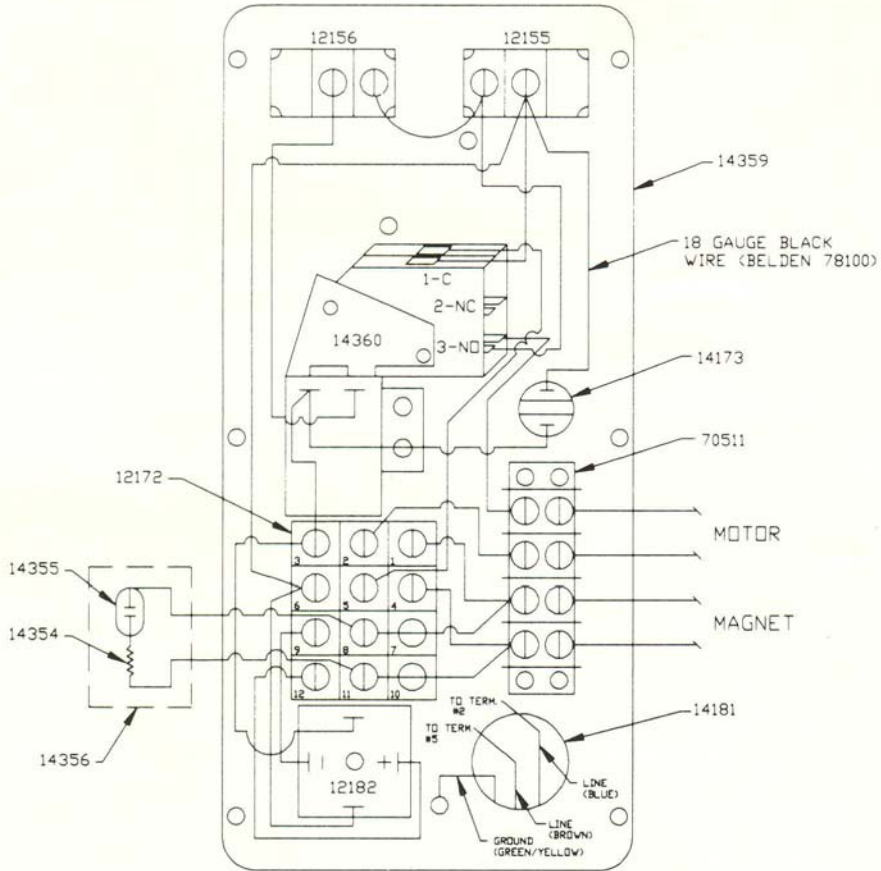
PART #	DESCRIPTION	QTY.	PART #	DESCRIPTION	QTY.
2000C	JM-2000 Main Frame	1	18122	BHCS 1/4-20 x 1	9
10100A	Subassembly A	1	18123	Dowel Pin 1/4"	2
10100B	Subassembly B	1	18124	Adjust. Gib Plate	1
10103	Arbor Body	1	18126	SSS 1/4-28 x 1/2	3
10105	Piston	1	18127	Jam Nut 1/4-28	3
10106	Spring	1	18197	Riser Block	1
10107	Plunger	1	18207	SHCS 1/4-20 x 5/8	5
10109	SHCS 1/4-20 x 1/2	4	20108	Sleeve-Roller	1
10110	Spacer	1	20114	Roller Bearing	1
10112	Retainer Plate	1	20115	Support Bracket-Roller	1
10113	Spacer Plate	1	70004	Roll Pin 1/8 x 1/2	1
10132	Cord Clamp	1	70038	Strain Relief	1
10133	BHCS 1/4-20 x 3/8	1	70044	Nut Bar	1
10136	Pinion Gear	1	70066	SHCS 1/4-20 x 2	2
10137	Straight Bushing	2	70069	SLHCS 1/4-20 x 5/8	1
10140	Shoulder Bushing	1	70070	Jam Nut 1/4-20	1
10141	Gear Shaft	1	70073	RHMS 6-32 x 3/8	6
10142	Woodruff Key	1	70078	Lock Washer 1/4"	12
10143	Hub Key	1	70146	SHCS 1/4-20 x 3/4	1
10146	Spoke Handle	3	70170	Teflon Slide Boots	2
10161	Ball Knob	3	14085	Tool Kit Complete	
10185	SSS 3/8-24 x 5/16	2		Breakdown for Tool Kit	
10210	Safety Chain	1	16001	1" Small Pilot	1
14039	Bosch Power Cord	1	16002	2" Small Pilot	1
14101	Bosch Motor Spacer	1	16003	1" Pilot	1
14102	SHCS 6MM-1 x 20MM	3	16004	2" Pilot	1
14103	Bosch Slide	1	70086	Hex Key 1/8"	1
14110	Bosch Motor Spindle	1	70087	Hex Key 5/32"	1
14151	220V 2-Wire Magnet	1	70089	Hex Key 3/16"	1
14225	SSS 5/16-24 x 3/8	2	70090	T-Handle 3/16"	1
18118	FHMS 10-32 x 3/8	2	70091	Wrench 7/16"-3/8"	1
18119	SHCS 1/4-28 x 5/8	4	70097	Safety Hooks	2
18120	Doweled Gib	1		Kit Owner's Manual	
18121	Adjustable Gib	1	80032	Plastic Bag	





# ELECTRICAL PANEL FOR JM-200B

## 240 Volt



## ELECTRICAL PARTS FOR JM-200B

PART #	DESCRIPTION	QTY.	PART #	DESCRIPTION	QTY.
12155	Motor On Switch	1	14355	Capacitor	1
12156	Motor Off Switch	1	14356	Snubber Network	1
12172	Magnet Switch	1	14359	Panel Plate	1
12182	Bridge Rectifier	1	14360	Mechanical Relay	1
14173	250V Lamp	1	14400	240V Panel Complete	1
14181	Strain Relief	1	70071	Flat Washer 1/4"	2
14354	100 Ohm 1 Watt Resistor	1	70511	Terminal Block	1

# TROUBLESHOOTING FOR ALL AC PANELS



## PROBLEM

Blows circuit breaker at box when plugging in

When plugging in sparks at plug and leaves end burnt

Magnet will not hold

## WHERE TO CHECK

- A. Check motor cord (12180) with ohms meter for short to casting.
  - B. Check magnet (14151) with ohms meter for 350-450 ohms between leads.
  - C. Check for shorts in magnet (one lead at a time) to magnet housing using ohms meter.
  - D. Check function of magnet switch (12172) with ohms meter for proper operating function.
- A. Replace rectifier (12175).
- A. Check magnet (14151) with ohms meter for 350-450 ohms between leads.
  - B. Check to see if magnet surface needs to be resurfaced.
  - C. Check for shorts in magnet (one lead at a time) to magnet housing using ohms meter.

## AVAILABLE OPTIONS

10202E	Pipe Cradle	10215-3/4	3/4" Chuck & Adaptor
40003	Chain Base	70002	Rear Base Extension
70102	Chip Shield	70100	Oiler Kit
72148	Variable Speed Panel	70101	3" Stroke & Oiler Kit
Special	Thickness Sensing Panel	10203	3/4" to 1/2" Cutter Drive Adaptor
10215-1/2	1/2" Chuck & Adaptor	70093	Chip Breaker

## MOUNTING CHUCK AND ADAPTOR (OPTIONAL)

1. Loosen the set screw at the top of the arbor.
2. Bring motor to the extreme up position so that it separates from the arbor.
3. Remove the two socket cap screws that hold the arbor support bracket to the base of the machine.
4. Take the arbor and support bracket away and mount the Chuck and Adaptor to motor spindle by tightening set screw in the adaptor.

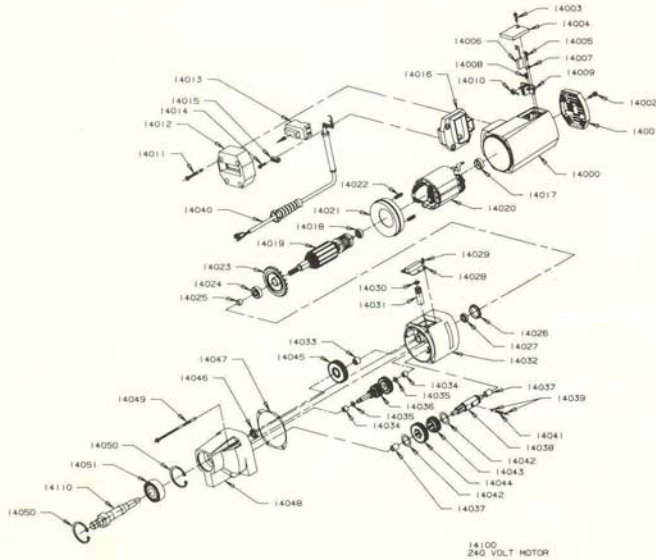
For further information on parts available, contact your local distributor.

## USING THE PIPE CRADLE

1. Slide the **SLUGGER®** base into the cradle box.
2. Tighten the box screws, making sure that the bottom of the magnet is flush with the bottom of the cradle box.
3. For pipes under 8" diameter, radius side plates mount on the bottom angled surface of cradle box. For pipes over 8" diameter, radius side plates mount on the side of the cradle box.
4. Place the **SLUGGER®** with the pipe cradle on pipe to be drilled.
5. Line up center pin of cutter with mark to be cut and switch on magnet switch.
6. Adjust radius side plates and front and back V-plates so they make contact with the pipe. Then tighten the screws on these plates.
7. Follow same cutting procedure used on the flat plates.



# JM-2000B MOTOR PARTS



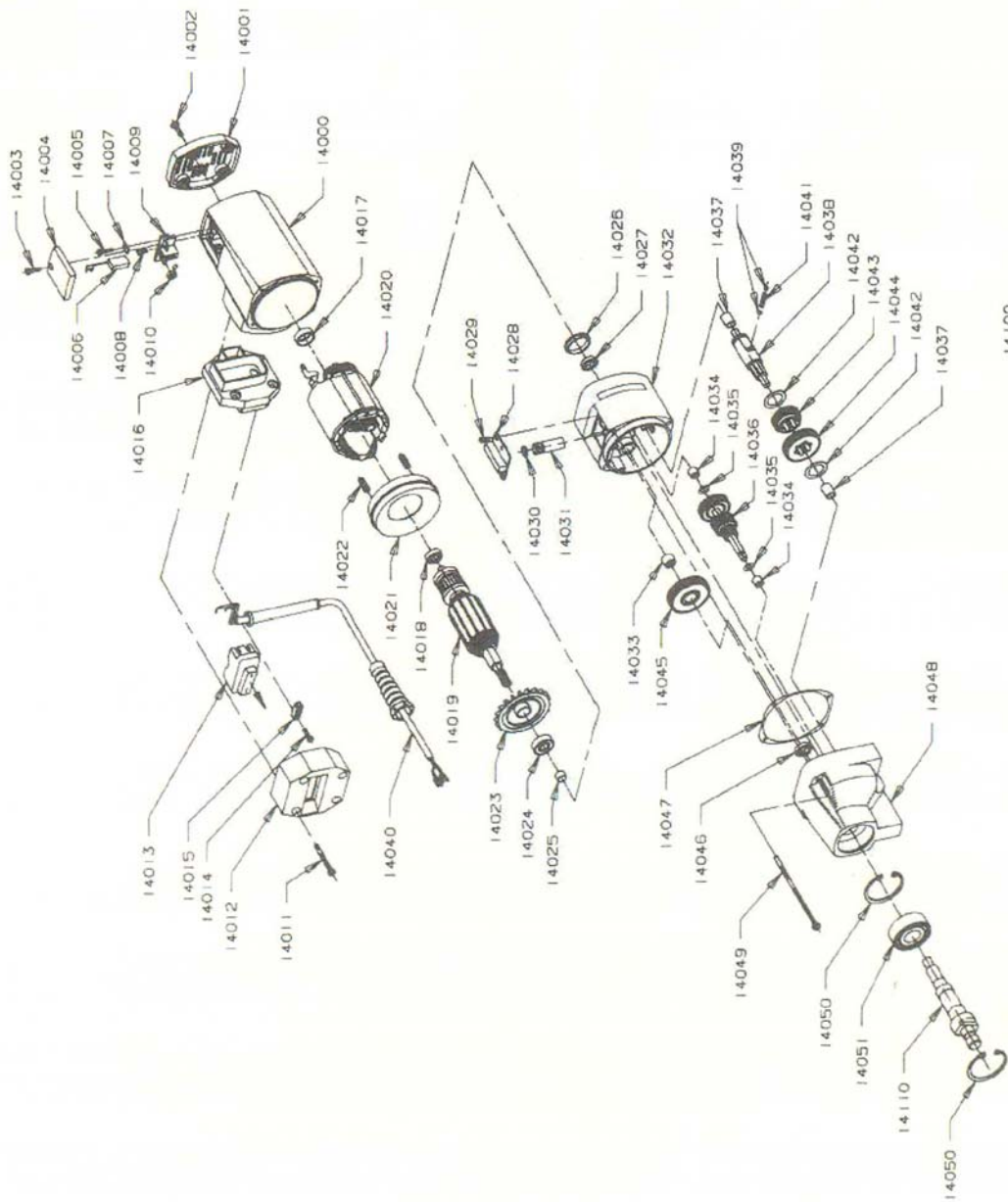
PART #	DESCRIPTION	QTY.	PART #	DESCRIPTION	QTY.
10424	Lower Armature Bearing #1	1	14027	R.P.M. Reduction Switch	1
14000	Motor Housing	1	14028	Reduction Switch Screw	2
14001	Vent Plate	1	14029	Actuator O-Ring	1
14002	Vent Plate Screws	2	14030	Actuator Pinion	1
14003	Brush Cover Screw	2	14031	Gear Housing	1
14004	Brush Cover Plate	2	14032	Spindle Gear Minor	1
14005	Brush Cartridge Screw #1	2	14033	Pinion Shaft Bearing	2
14006	Motor Brushes—Bosch	2	14034	Pinion Shaft Washer	2
14007	Brush Cartridge Washer	2	14035	Pinion Shaft Assembly	1
14008	Brush Cartridge	2	14036	Intermediate Shaft Bearing	2
14009	Brush Retainer	2	14037	Intermediate Gear Shaft	1
14010	Switch Cover Screws	4	14038	Actuator Ball Bearing	2
14011	Switch Cover	1	14039	Power Cord	1
14012	Motor On/Off Switch	1	14040	Actuator Spring	1
14013	Cord Clamp Screw	2	14041	Intermediate Shaft Washer	2
14014	Cord Clamp	1	14042	Intermediate Gear #1	1
14015	Motor Switch Sub Plate	1	14043	Intermediate Gear #2	1
14016	Armature Boot	1	14044	Spindle Gear	1
14017	Upper Armature Bearing	1	14045	Felt Wiper	1
14018	Armature	1	14046	Gear Housing Gasket	1
14019	Field Assembly	1	14047	Spindle Housing	1
14020	Fan Baffle	1	14048	Spindle Housing Screw	4
14021	Baffle Springs	2	14049	Spindle Snap Ring	2
14022	Armature Fan	1	14050	Spindle Bearing Major	1
14023	Lower Armature Bearing #2	1	14051	Brush Cartridge Screws #2	2
14025	Rubber Guide Ring	1	14100	Bosch Motor Complete	1
14026	Felt Wiper	1	14110	Motor Spindle	1

## JANCY ENGINEERING CO.

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Catalog Number 2000B

12-1-90



14100  
240 VOLT MOTOR