

MODEL NO.: MI-16800



OPERATING MANUAL

Operating Instructions and Parts Manual 2 x 72-inch Square Wheel Belt Grinder



IMPORTANT SAFETY INSTRUCTIONS

- Misuse of this machine can cause serious injury. For safety, machine must be set up, used and serviced properly.
- Read, understand and follow instructions in the operator's manual and all labels affixed to the machine.

When setting up machine:

- Always avoid using machine in damp or poorly lighted work areas.
- Always be sure machine is securely anchored to the floor or bench.
- Always keep machine guards in place. Always put start switch in OFF position before plugging in machine.

When using machine:

- Never operate with machine guards missing.
- Always wear safety glasses with side shields (See

ANSI Z87.1)

- Never wear loose clothing or jewelry. Never overreach you may slip and fall into the machine.
- Never leave machine running while you are away from it.
- Always shut off the machine when not in use.

When servicing machine:

- Always unplug machine from electrical power while servicing.
- Always follow instructions in operators and parts manual when changing accessory tools or parts. Never modify the machine without consulting KMS

Machinery general safety warnings

- Always wear protective eye wear when operating machinery. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specifications. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from the breakage of the eye protection.
- 2. Wear proper apparel. No loose clothing or jewelry which can get caught in moving parts. Contain long hair. Rubber soled, nonslip footwear is recommended for best footing.
- 3. Do not overreach. Failure to maintain a proper working position can cause you to fall into the machine or cause your clothing to get caught pulling you into the machine.
- 4. Keep guards in place and in proper working order. Do not operate the machine with the guards removed.
- 5. Avoid dangerous working environments. Do not use stationary machine tools in wet or damp locations. Keep work areas clean and well lit.
- 6. Avoid accidental starts by being sure that the start switch is in the "OFF" position before plugging in the machine.
- 7. Never leave the machine running while unattended. The machine shall be shut off whenever it is not being used.
- 8. Disconnect the electrical power before servicing, whenever changing accessories or when general maintenance is done on the machine.

- 9. Maintain all machine tools with care. Follow all maintenance instructions for lubricating and the changing of accessories. No attempt shall be made to modify or have makeshift repairs done to the machine. This not only voids the warranty but also renders the machine unsafe.
- 10. If there is any risk of tipping or sliding, the machinery must be anchored to the floor.
- 11. Secure your work. Use clamps or a vise to hold your work, when practical. It is safer than using your hands and it frees both hands to operate the machine.
- 12. Never brush chips away while the machine is in operation.
- 13. Keep work area clean. Cluttered areas invite accidents.
- 14. Remove adjusting keys and wrenches before turning the machine on.
- 15. Use the right tool. Don't force a tool or attachment to do a job for which it was not designed.
- 16. Use only recommended accessories and follow manufacturer's instructions pertaining to them.
- 17. Keep hands in sight and clear of all moving parts and cutting surfaces.
- 18. All visitors should be kept at a safe distance from the work area. Make your workshop completely safe by using padlocks, master switches, or by removing starter keys.
- 19. Know the tool you are using; its application, limitations, and potential hazards.
- 20. This machine must be grounded in accordance with the National Electrical Code and local codes and ordinances. The work should be done by a qualified electrician. The machine should be grounded to protect the user from electrical shock.

Safety requirements for abrasive grinding machines

Abrasive grinding can be hazardous to operators and bystanders. Grinding sparks, chips and dust particles thrown off by the grinding disc or belt can cause serious injury by contact or inhalation. To avoid such injuries you must comply with the following safety requirements:

- 1. Always wear protective eyewear when operating machinery. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1.
- 2. Wear leather safety gloves, arm guards, leather aprons and safety shoes.
- 3. A dust collection system is recommended, Operator shall also wear a dust mask at all times. See Figure B, below.
- 4. Additional precautions may be necessary for grinding materials which are flammable or have other hazardous properties. You should always consult the manufacturer of such materials for instructions on grinding and handling.
- 5. Do not force or jamb the workpiece into the grinding disc/belt.
- 6. Before grinding, always allow the motor to come up to operating speed, then check the grinding disc for wobble, runout, or any unbalanced condition. If the disc is not operating accurately and smoothly, immediately stop the motor and make repairs before attempting any grinding operations.
- 7. Abrasives must be stored in a controlled environment area. Relative humidity should be 35% to 50% and the temperature should be between 60 and 80 degrees Fahrenheit. Failure to do so could cause premature abrasive failure.
- 8. Examine the face of the grinding disc/belt carefully. Excessive grinding which wears down to the backing material can tear the abrasive.

- 9. Never use an abrasive which shows backing, nicks or cuts on the surface or edge or damage due to creasing or poor handling.
- 10. Always present the workpiece to the wheel while resting the workpiece firmly on the table. Failure to do so could result in damage to the workpiece or throwing of the workpiece off the wheel.
- 11. Safety shoes which comply with ANSI Z41.1 shall be worn. See Figure C.
- 12. Personal hearing protection such as ear plugs or ear muffs shall be used to protect against the effect of noise exposure. See Figure D.

WARNING: This product can expose you to chemicals including lead which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to http://www.p65warnings.ca. gov.

WARNING: Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

lead from lead based paint crystalline silica from bricks, cement and other masonry products arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a wellventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to http://www.p65warnings.ca.gov/ and http://www.p65warnings.ca.gov/wood.



Familiarize yourself with the following safety notices used in this manual:

This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage

This means that if precautions are not heeded, it may result in serious, or possibly even fatal, injury.

Specifications for Grinders

| Motor and Electricals | |
|---------------------------------------|--|
| Motor type | Totally enclosed industrial |
| Horsepower | 1 HP |
| Motor phase | 3 phase (converted to accept 1phase 115v or 230v) |
| Motor voltage | 230 V ,(control switch input 115V or 230V , see page 19 for control switch wire diagram.) |
| Cycle | 60 Hz |
| Motor FLA | 6.5 A |
| Motor speed | 1800 RPM |
| Power transfer | Direct drive |
| On/off switch | Push button w/ power indicator and safety key |
| Power cord | SJT 16AWGx3C, 6 ft. |
| Power plug | 5-15P, 125V/15A installed |
| Recommended circuit size ¹ | 15 A |
| Sound emission ² | 80 dB at 3ft. without load |
| Base | |
| Footprint, L x W | 35-7/16 x 16-15/16 in. (900 x 430 mm) |
| Mounting hole dimensions | Dia. 7/16 in. (11mm) |
| Belt Grinder | |
| Belt included, L x W | 50 grit; 72 x 2 in. (1829 x 50.8 mm) |
| Belt speed, SFPM | 1200-4700 |
| Contact wheels included, Dia. x W | 1-1/2 x 2 in. (38 x 50.8 mm) smooth 3 x 2 in. (76.2 x 50.8 mm) smooth 5 x 2 in. (127 x 50.8 mm) serrated |
| Dust port diameter | 3 in. (76.2 mm) |
| Main materials | |
| Frame | Steel |
| Contact wheel, 8-inch | Rubber, 90 Durometer |
| Contact wheel, 3 x 2-inch | Rubber, 70 Durometer |
| Contact wheel, 1.5 x 2-inch | Rubber, 70 Durometer |
| Idler wheel | Rubber |
| Drive wheel | Aluminum |
| Platen | Steel |
| Head casting | Cast iron |

| Dimensions | |
|-------------------------------|--|
| Overall dimensions L x W x H | 35-7/16 x 17 x 21-1/4 in. (900 x 433 x 540 mm) |
| Shipping dimensions L x W x H | 34-1/4 x 21-1/4 x 22-7/16 in. (870 x 540 x 570 mm) |
| Weights | |
| Net weight | 126 lb. (57.27 kg) |
| Shipping weight | 162 lb. (73.64 kg) |

¹ subject to local/national electrical codes.

² The specified values are emission levels and are not necessarily to be seen as safe operating levels. As workplace conditions vary, this information is intended to allow the user to make a better estimation of the hazards and risks involved only.

L = length, W = width, H = height, Dia. = diameter

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, KMS reserves the right to change specificationsat any time and without prior notice, without incurring obligations.

Hole spacing,



Figure 4-1

AWARNING Read and understand all assembly instructions before attempting assembly. Failure to comply may cause serious injury.

Note: Some illustrations in this manual may be representative only, and not show your specific model.

Setup and assembly

Contents of carton

- 1 Grinder
- 1 Serrated contact wheel 8"x2" (installed)
- 1 Abrasive belt (installed)
- 1 Operating Instructions and Parts Manual
- 1 Product registration card

Uninstalled accessories (Figure 5-1): 1 Work rest

- 1 Adjustable handle 3/8x3/4"
- 1 Flat washer 3/8"
- 1 Platen assembly
- 1 Rail
- 1 Channel slide
- 2 Hand knobs 5/16x1
- 2 Socket hd cap screws 1/4x1/2
- 2 Lock washers 1/4

1 Dust hood



Figure 5-1: contents (not to scale)

Location

It is strongly recommended that the machine be secured to a bench or stand. The base has multiple holes (some are accessed behind the side panel) to accept fasteners for this purpose. *Sect. 4.1* shows the hole patterns.

Installing work rest

The work rest mounts to a channel on left side of head casting. See Figure 5-2. Attach work rest with adjustable handle. Slide work rest inward until it is about 1/16 inch from front of contact wheel. Tighten cap screw.

Installing dust hood

It is recommended that the dust hood be used, and connected to a metal dust collection system by a 3inch diameter hose secured with a hose clamp (not provided).

Assemble dust hood parts as shown in Figure 5-2. Also, secure the rail below the stand using the 2 socket head screws with lock washers (A, Figure 52). Slide the dust hood assembly onto the rail and tighten with the knobs. The dust hood can be positioned as needed below the contact wheel.



Figure 5-2: work rest and dust hood

Electrical connections

AWARNING Electrical connections must be made by a qualified electrician in compliance with all relevant codes. This machine must be properly grounded to help prevent electrical shock and possible fatal injury.

The MI-16800 is pre-wired for 115V power. It may be converted to 230V power; see *sect. 6.2.*

It is recommended that the grinder be connected to a dedicated minimum 15-amp circuit with circuit breaker or fuse. If connected to a circuit protected by fuses, use time-delay fuse marked "D". Local codes take precedence over recommendations.

GROUNDING INSTRUCTIONS

1. All Grounded, Cord-connected Tools:

This machine must be grounded. 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 codes 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 conductor 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. Before connecting to power source, be sure the switch is in *off* position.

AWARNING Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Failure to comply may cause serious or fatal injury.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating **less than 150** volts:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **A**, Figure 6-1. An adapter, shown in **B** and **C**, may be used to connect this plug to a 2-pole receptacle as shown in **B** if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code, C22.1.

3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between **150 - 250 volts**, inclusive:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **D**, Figure 6-1. The tool is intended to be used with a grounding plug that looks like the plug illustrated in **D**. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.



Figure 6-2

Voltage conversion

The grinder is prewired for 115 volt input power, but can be converted to 230 volt input, as follows.

 Remove existing plug from power cable and attach a UL/CSA listed plug designed for 230V power; or "hardwire" the machine directly to a panel. No internal wires need to be changed when connecting to 230 volt

The use of extension cords is discouraged; try to position your machine within reach of the power supply. If an extension cord becomes necessary, make sure the cord rating is suitable for the amperage listed on the machine's motor plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

Use the chart in Table 2 as a general guide in choosing the correct size cord. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Recommended Gauges (AWG) of Extension Cords

| Amp F | Rating | Volts | Tota | length | of cord i | n feet |
|-------|-------------|------------|----------|-----------|------------|--------------|
| More | Not More | 120 240 | 25 50 | 50 100 | 100 200 | 150 300 |
| Than | Than | | | | AWG | |
| 0 | 6 | | 18 | 16 | 16 | 14 |
| 6 | 10 | | 18 | 16 | 14 | 12 |
| 10 | 12 | | 16 | 16 | 14 | 12 |
| 12 | 16 | | 14 | 12 | N Recom | ot mended |

Table 2

Adjustments

Platen or Wheel installation

AWARNING Move switch to OFF to avoid personal injury.

To install either the platen or the 8-inch serrated wheel:

1. Pull out on tension lever (shown in Figure 7-3) and lower it, to release tension on the belt.

- 2. Loosen knob and raise upper guard (see Figure 7-2). Open side panel by turning its knob and lowering panel on its hinges.
- 3. Loosen clamp handle on head casting. See Figure 7-1.
- 4. Install pivot shaft of platen (or shaft of wheel) all the way into head casting, as shown in Figure 7-1.
- 5. Position platen as desired:
 - For grinding flat or angular workpieces. position platen with platen surface facing outward.
 - For grinding of cylindrical workpieces, position platen with "yoke" side facing outward.
- 6. Set platen at desired angle and tighten clamp handle.
- 7. Install and track the abrasive belt (see sect. 7.3 and 7.4).
- 8. Raise tension lever to set belt tension. Do not overtighten.
- 9. Bring upper guard down into position and adjust so that it will not contact abrasive belt. Tighten upper guard knob.
- 10. Adjust work rest to 1/16 inch from belt.

Platen wheel adjustment

The platen wheels have eccentric shafts, which allow adjustment of the wheels tangent to the surface of the platen.

later Clamp handle Pivot shaft

Turn one or both screws (A, Figure 7-1) to adjust.

Figure 7-1: installing platen assembly

Installing/replacing grinding belt AWARNING Do not operate machine with

side panel open.

1. Lower belt tension lever (see Figure ---) to release tension on belt.

- 2. Loosen knob and raise upper guard (see Figure 7-2). Open side panel by turning its knob and lowering panel on its hinges.
- 3. If required, loosen work rest to provide clearance for belt removal.
- Remove belt from drive wheel, idler wheel, and 4 contact wheel. Install replacement belt centered over drive wheel, idler wheel, and contact wheel. Make sure direction arrows on belt match machine operation.
- Raise belt tension lever to tighten belt against 5. the wheels. Tighten belt until it is just taut. Do not over-tension the abrasive belt. A moderate tension will provide faster cutting, longer belt life, and better tracking.

ACAUTION Excessive belt tension will reduce belt life and cause excessive wear of contact wheel bearings. Belt tension should only be sufficient to allow proper tracking.

6 Check belt tracking; see sect. 7.4.



Contact wheel Figure 7-2: belt replacement

Belt tracking

AWARNING Do not operate machine with side panel open.

- 1. Loosen knob and raise upper guard. Open side panel by turning its knob.
- Spin drive wheel by hand and check tracking of 2. belt. If belt tracks to right or left, adjustment is required.
- 3. Turn idler adjust screw (Figure 7-3) clockwise to cause belt to track right. Turn idler screw counterclockwise to cause belt to track left. Perform this in small increments and allow belt to respond to the changes.
- Close side panel and secure by turning knob on panel. Lower upper belt guard and secure with knob.

- Turn on grinder. Check belt tracking; belt should remain centered on contact wheel. Make further adjustments as needed according to step #3.
- 6. If belt still does not track properly, increase belt tension and repeat steps 1 through 5.



Figure 7-3: Belt tracking

Typical uses for the Square Wheel Belt Grinder

Figure 8-3



Flat or angular stock – Platen setting is the perfect angle for high speed, flat and level grinding of tools, knives, plastics, and other materials. The platen allows working to very close tolerances.



Shaping – For grinding and finishing cylindrical shapes. The yoke surface conforms to the shape of the workpiece surface to produce an even, smooth finish without the danger of scarring. Excellent for tool post applications.



Roughing – Serrated contact wheel is used for removing heavy stock, cleaning up a weld or snagging a casting. This durable 8-inch diameter wheel is used extensively for hollow grinding and profiling knives and other culinary tools.



Contouring – Grind difficult, hard-to-reach areas with the 3-inch by 2-inch, or 1-1/2 inch by 2-inch diameter contact wheels. Contour and shape unique parts such as propellers and metal furniture.

User-maintenance

Always disconnect power to machine before performing maintenance. Failure to comply may result in serious personal injury.

Cleaning

Shut off machine and disconnect before cleaning. Keep machine exterior clean and free of chips. Use a brush or vacuum to remove grinding dust and particles - do not use bare hands. Do not use compressed, as this may force metal debris into critical areas of the machine.

Frequently empty grinding dust from any attached dust collection system.

Lubrication

Lubrication of the grinder is not required. The drive motor and contact wheel are fitted with prelubricated and sealed bearings.

Contact wheel replacement

AWARNING Move switch to OFF to avoid personal injury.

If the contact wheel becomes worn, a new contact wheel can be assembled to the existing wheel shaft and bearings (refer to Figure 9-1):

- 1. Lower tension lever to release belt tension.
- 2. Loosen upper guard knob and swing guard back for clearance.
- 3. Loosen handle on head casting.
- 4. Remove contact wheel assembly.
- 5. Remove the C-retaining ring (6-4) from wheel shaft.
- 6. Remove shaft (6-2) and bearings (6-3) from the old wheel.
- 7. Install bearings in new contact wheel.
- 8. Install shaft and secure with retaining ring.
- 9. Mount new contact wheel to machine. Refer to sect. 7-1 for instructions on completing the installation.



Figure 9-1: contact wheel replacement

Troubleshooting

Table 2

| Symptom | Possible Cause | Correction * |
|----------------------|--|--|
| Machine won't start. | No incoming power. | Verify machine connections. |
| | Cord damaged. | Replace cord. |
| | Building circuit breaker trips or fuse blows. | Check all wires for loose connection Check fuse located on control module See diagram PAGE 19 |
| | Motor overloaded. | Vacuum motor fan area to promote proper air circulation. (Do NOT use compressed air.) Allow machine to cool, then restart. |
| | Motor or switch failure. | Have tested by qualified electrician or motor repair shop, replace if needed. |
| Machine won't attain | Extension cord too light or too long. | Replace with adequate size extension cord. |
| full speed. | Low current. | Have voltage checked by qualified electrician. |
| Poor tracking. | Low voltage. | Check power line for proper voltage. |
| | Incorrect belt tension. | Set tension so belt is just taut. |
| | Worn contact surfaces. | Check contact wheels for wear. Replace worn or warped wheels. |
| | Misaligned contact surfaces. | Check alignment of drive wheel and contact wheel - they must be aligned. To adjust drive wheel, loosen set screws and move drive wheel in or out on motor shaft as required. To adjust contact wheel, loosen shaft clamping screw and move contact wheel in or out as required. |
| | Lack of crown on drive wheel. | Check for 1/16-inch crown. Replace drive wheel if crown is not present. |
| | Worn bearings. | Check all bearings for overheating or damage. Replace worn or damaged bearings. |
| Slack belt. | Insufficient belt tension. | Set tension so belt is just taut. |
| Contact wheel wear. | Excessive belt tension. | Set tension so belt is just taut. |
| | Grinding in one area on belt. | Use entire width of belt whenever possible. |
| | Excessive grinding deposits on belt and debris in machine. | Clean abrasive belt and grinder interior. |
| Short belt life. | Excessive grinding pressure. | Allow the belt to do the cutting. Excessive pressure dulls the belt and removes the grit. |
| Machine shuts off | OC1 error code too heavy a load | Shut off, unplug machine wait 15seconds to restart change belt grit |

* WARNING: Some corrections may require a qualified electrician.

Replacement Parts



PARTS LIST FOR MI-16800

| Index No | Part No | Description | Size | Qty |
|--------------|------------|------------------------------------|-----------------------|-----|
| MI-16800-01 | 272-01 | Main Frame | | 1 |
| MI-16800-02 | 272-02 | Guard Flap | | 1 |
| MI-16800-03 | 272-03 | Door | | 1 |
| MI-16800-04 | 272-04 | Idler Housing Casting Assembly | | 1 |
| MI-16800-05 | 272-05 | Platen Assembly | | 1 |
| MI-16800-06 | 272-06 | Contact Wheel Assembly | 8"x2" Serrated,90Duro | 1 |
| MI-16800-07 | 272-07 | Head Casting | | 1 |
| MI-16800-08 | 272-08 | Work Rest | | 1 |
| MI-16800-09 | 272-09 | Socket Cap Scr | 3/8 x 3/4 | 3 |
| MI-16800-10 | TS-0680041 | Flat Washer | 3/8 | 3 |
| MI-16800-12 | 272-12 | Socket Cap Scr | 3/8 x 1 | 1 |
| MI-16800-13 | 272-13 | Idler Housing Pin Cap | | 1 |
| MI-16800-14 | TS-0267021 | Set Screw | 1/4 x 1/4 | 1 |
| MI-16800-15 | 272-15 | O-Ring | 1/2 | 1 |
| MI-16800-16 | 272-16 | Oilite Bushing | | 1 |
| MI-16800-17 | 272-17 | Nylon Flat Washer | 1/2 | 1 |
| MI-16800-18 | 272-18 | Hand Knob | 5/16 x 1 | 1 |
| MI-16800-19 | 272-19 | Nylon Flat Washer | 5/16 | 3 |
| MI-16800-20 | BB-6200ZZ | Ball Bearing | 6200ZZ | 2 |
| MI-16800-21 | 272-21 | Idler Wheel | OD3" x W2" | 1 |
| MI-16800-21A | 272-21E | Idler Wheel Assembly (include #20) | | 1 |
| MI-16800-22 | TS-0680021 | Flat Washer | 1/4 | 1 |
| MI-16800-23 | TS-0561021 | Hex Nut | 5/16 | 3 |
| MI-16800-24 | 272-24 | Drive Wheel | OD 5" x W 2" | 1 |
| MI-16800-25 | TS-0267041 | Set Screw | 1/4 x 3/8 | 1 |
| MI-16800-26 | 272-26 | Кеу | 5 x 5 x 40 mm | 1 |
| MI-16800-27 | TS-0051091 | Hex Cap Screw | 5/16 x 2 | 1 |
| MI-16800-28 | TS-0720081 | Lock Washer | 5/16 | 2 |
| MI-16800-29 | 272-29 | Cam Latch | | 1 |
| MI-16800-30 | 272-30 | Hand Knob | 5/16 | 1 |
| MI-16800-31 | TS-1541011 | Nylon Lock Hex Nut | M5 | 6 |
| MI-16800-32 | TS-1513021 | Socket HD Flat Screw | M5 x 12 | 6 |
| MI-16800-33 | 272VS-33 | Motor Assembly | 1HP, 115/230V | 1 |
| MI-16800-34 | TS-0720091 | Lock Washer | 3/8 | 4 |
| MI-16800-35 | TS-0060031 | Hex Cap Screw | 3/8 x 3/4 | 4 |
| MI-16800-36 | TS-0720111 | Lock Washer | 1/2 | 1 |
| MI-16800-37 | 272VS-37 | Hex Cap Screw | 1/2-12 x 3/4 | 1 |
| MI-16800-38 | 272VS-38 | Control Switch Assembly | | 1 |
| MI-16800-39 | 272-39 | Abrasive Belt | 2 x 72, 50 Grit | 1 |
| MI-16800-40 | 272-40 | Dust Hood Assembly | | 1 |

| PARIS LIST FOR MI-16800-33 MOT |
|--------------------------------|
|--------------------------------|

| Index No | Part No | Description | Size | Qty |
|----------------|--------------|---------------------------------|--------------|-----|
| MI-16800-33-01 | SWG272-331 | End Cover | | 1 |
| MI-16800-33-02 | BB-6205ZZ | Ball Bearing | 6205ZZ | 1 |
| MI-16800-33-03 | SWG272VS-333 | Shaft w/ Rotor | | 1 |
| MI-16800-33-04 | SWG272VS-334 | Motor Housing w/ Stator | | 1 |
| MI-16800-33-05 | BB-6203ZZ | Ball Bearing | 6203ZZ | 1 |
| MI-16800-33-06 | SWG272-336 | End Cover | | 1 |
| MI-16800-33-07 | IBG8-42 | Screw | M5 x 205 | 4 |
| MI-16800-33-09 | SWG272-339 | Dust Cover | | 1 |
| MI-16800-33-10 | F001235 | Phillips Pan Head Machine Screw | #10-24 x 1/4 | 6 |
| MI-16800-33-11 | SWG272-3311 | Cooling Fan | | 1 |
| MI-16800-33-12 | SWG272-3312 | Fan Cover | | 1 |
| MI-16800-33-13 | SWG272-3313 | Junction Box Seat | | 1 |
| MI-16800-33-14 | SWG272-3314 | Terminal Block | | 1 |
| MI-16800-33-15 | F000233 | Phillips Pan Head Machine Screw | #10-24 x 1/2 | 2 |
| MI-16800-33-16 | F000231 | Phillips Pan Head Machine Screw | #10-24 x 3/8 | 1 |
| MI-16800-33-17 | SWG272-3317 | Junction Box Cover | | 1 |



PARTS LIST FOR MI-16800-38 Control Switch Assembly

| Index No | Part No | Description | Size | Qty |
|----------------|---------------|---|--------------|-----|
| MI-16800-38-01 | VS-381 | Switch Bracket | | 1 |
| MI-16800-38-02 | VS-382 | Control Box | | 1 |
| MI-16800-38-03 | VS-383 | Nylon Nut | | 2 |
| MI-16800-38-04 | VS-384 | Nylon Cable Gland | | 2 |
| MI-16800-38-05 | VS-385 | Power Cord | 16AWG x 3C | 1 |
| MI-16800-38-06 | VS-386 | Motor Cord | 16AWG x 4C | 1 |
| MI-16800-38-07 | VS-387 | Inverter PCB | | 1 |
| MI-16800-38-08 | VS-388 | Toggle Switch | 4P | 1 |
| MI-16800-38-09 | VS-389 | Cover Plate | | 1 |
| MI-16800-38-10 | VS-3810 | Nut | | 1 |
| MI-16800-38-11 | VS-3811 | Dustproof Rubber Sleeve | | 1 |
| MI-16800-38-12 | VS-3812 | Safety Cover for Toggle Switch | | 1 |
| MI-16800-38-13 | VS-3813 | Control Panel w/ Digital Readout (includes #15) | | 1 |
| MI-16800-38-14 | F001472 | Flat Head Screw | M4-0.7 x 6 | 4 |
| MI-16800-38-15 | VS-3815 | Panel Decal | | 1 |
| MI-16800-38-16 | F000231 | Phillips Pan Head Machine Screw | #10-24 x 3/8 | 4 |
| MI-16800-38-17 | F001235 | Phillips Pan Head Machine Screw | #10-24 x 1/4 | 10 |
| MI-16800-38-18 | IBGB248VS-68 | Cooling Fan | | 1 |
| MI-16800-38-19 | TS-2171012 | Phillips Pan Head Machine Screw | M4-0.7 x 6 | 2 |
| MI-16800-38-20 | IBGB248VS-95. | Signal Line | | 1 |



PARTS LIST FOR MI-16800-04 Idler Housing Casting Assembly

| Index No | Part No | Description | Size | Qty |
|----------------|------------|--------------------------|-----------|-----|
| MI-16800-04-01 | 401 | Idler Housing Casting | | 1 |
| MI-16800-04-02 | 402 | Tension Lever | | 1 |
| MI-16800-04-03 | 403 | Nylon Tipped Set Screw | M8 x 20 | 1 |
| MI-16800-04-04 | 404 | Idler Pulley Shaft | | 1 |
| MI-16800-04-05 | 405 | Tracking Leader Assembly | | 1 |
| MI-16800-04-06 | 406 | Nylon Flat Washer | 3/8 | 2 |
| MI-16800-04-07 | 407 | Hand Knob | 3/8 x 3 | 1 |
| MI-16800-04-08 | TS-0640091 | Nylon Lock Hex Nut | 3/8-16 | 1 |
| MI-16800-04-09 | 409 | Roll Pin | 5 x 38 mm | 1 |
| MI-16800-04-10 | 410 | Knob | 35-3/8 | 1 |



PARTS LIST FOR MI-16800-05 Platen Assembly

| Index No | Part No | Description | Size | Qty |
|----------------|------------|----------------------|---------------------|-----|
| MI-16800-05-01 | 501 | Platen | | 1 |
| MI-16800-05-02 | F010725 | Socket HD Flat Screw | 5/16-18 x 5/8 | 2 |
| MI-16800-05-03 | 503 | Contact Wheel Shaft | | 2 |
| MI-16800-05-04 | BB-6200ZZ | Ball Bearing | 6200ZZ | 5 |
| MI-16800-05-05 | 505 | Contact Wheel | 3" x 2" 70 Duro | 1 |
| MI-16800-05-06 | TS-0680061 | Flat Washer | 1/2 | 2 |
| MI-16800-05-07 | TS-0561051 | Hex Nut | 1/2-20 | 2 |
| MI-16800-05-08 | 508 | Contact Wheel | 1-1/2" x 2" 70 Duro | 1 |



| PARTS LIST FOR MI-16800-06 C | Contact Wheel Assembly |
|------------------------------|------------------------|
|------------------------------|------------------------|

| Index No | Part No | Description | Size | Qty |
|----------------|-----------|----------------------|-----------------------|-----|
| MI-16800-06-01 | 601 | Contact Wheel | 5"x2" Serrated,90Duro | 1 |
| MI-16800-06-02 | 602 | Shaft | | 1 |
| MI-16800-06-03 | BB-6203VV | Ball Bearing | 6203VV | 2 |
| MI-16800-06-04 | F006045 | C-Retaining Ring Ext | S17 | 1 |



PARTS LIST FOR MI-16800-40 Dust Hood Assembly

| Index No | Part No | Description | Size | Qty |
|----------------|------------|----------------|------------|-----|
| MI-16800-40-01 | 4001 | Rail | | 1 |
| MI-16800-40-02 | 4002 | Channel | | 1 |
| MI-16800-40-03 | 4003 | Scoop | | 1 |
| MI-16800-40-04 | 4004 | Hand Knob | 5/16X1 | 2 |
| MI-16800-40-05 | TS-0207021 | Socket Cap Scr | 1/4-20X1/2 | 2 |
| MI-16800-40-06 | TS-0720071 | Lock Washer | 1/4 | 2 |





Wiring diagram for controller switch assembly



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