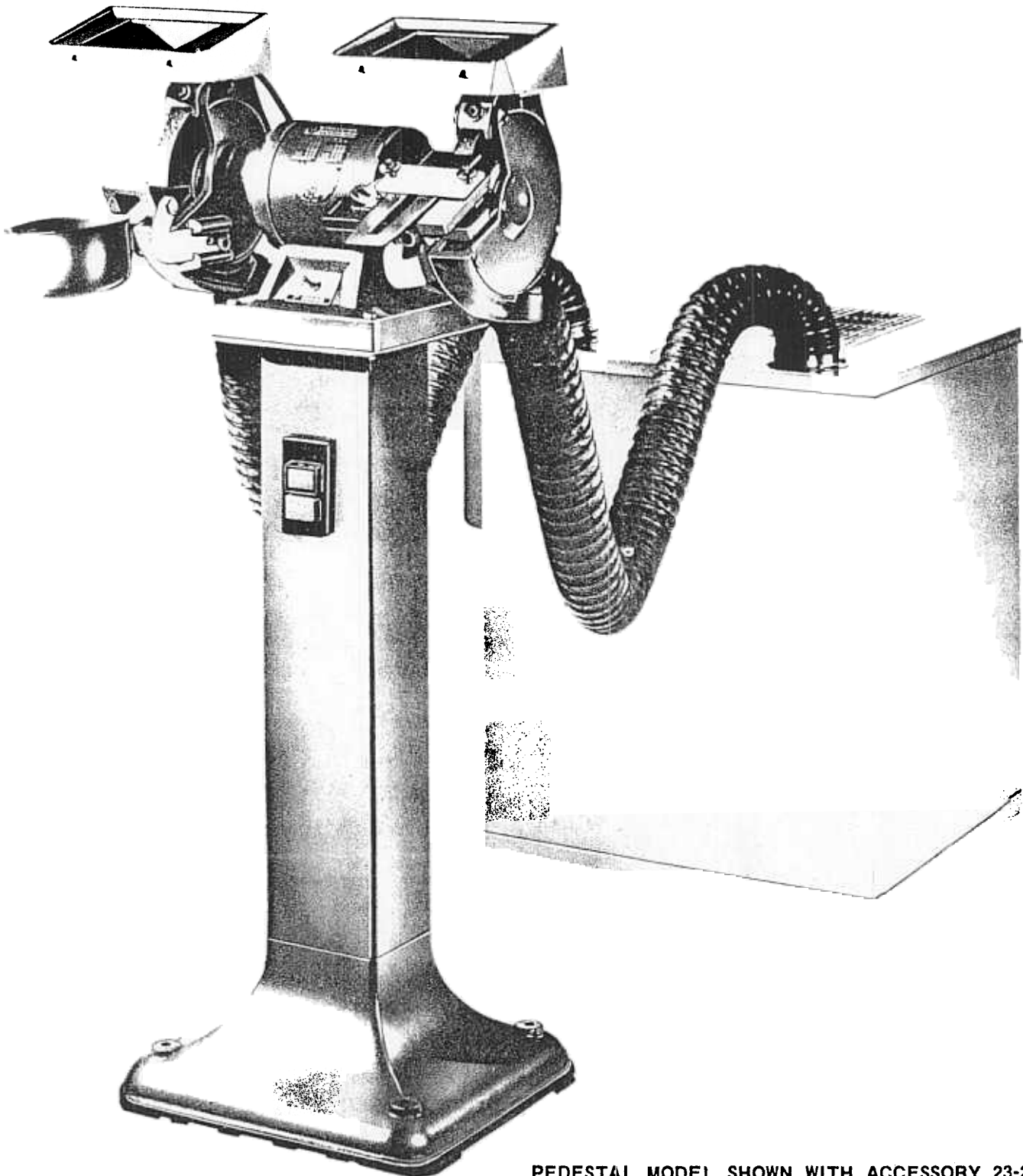


7" STANDARD GRINDER



PEDESTAL MODEL SHOWN WITH ACCESSORY 23-294
EDGE TOOL GRINDING ATTACHMENT AND "HIGH
EFFICIENCY" DUST COLLECTOR

**WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN
SERIOUS PERSONAL INJURY.**

IMPORTANT

As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the machine until you have written Delta Machinery and we have advised you.

DELTA INTERNATIONAL MACHINERY CORP.
MANAGER OF TECHNICAL SERVICES
246 ALPHA DRIVE
PITTSBURGH, PENNSYLVANIA 15238

SAFETY RULES FOR ALL TOOLS

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL.** Learn the tool's application and limitations as well as the specific hazards peculiar to it.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **GROUND ALL TOOLS.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.
4. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "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 lighted.
7. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
8. **MAKE WORKSHOP CHILDPROOF** - 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 other jewelry to get caught in moving parts. Nonslip foot wear is recommended. Wear protective hair covering to contain long hair.
12. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operations 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 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 and changing accessories.
16. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.
17. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause hazards.
18. **AVOID ACCIDENTAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.
19. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally 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 any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
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.
23. **DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drugs, alcohol or any medication.
24. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.

ADDITIONAL SAFETY RULES FOR BENCH GRINDERS

- REPLACE cracked wheel immediately.
2. **ALWAYS** use guards and eyeshields.
3. **DO NOT** over-tighten wheel nut.
4. **USE** only flanges furnished with this grinder.
5. **ADJUST** the spark guards to be close to the wheel, and re-adjust these spark guards as the wheel wears down to a smaller diameter.
6. **TOOL RESTS** should be adjusted close to the wheels and thoroughly tightened in place so they cannot shift position while in use.

7. **STAND** to one side of the wheel when turning on the power.

8. **DRESS** the wheel on the face only. Dressing the side of the wheel would cause it to become too thin for safe use.

9. **WHEN GRINDING**, use the face of the wheel only.

10. **DO NOT** use a wheel that vibrates. Dress the wheel, replace the wheel, or replace the bearings of the shaft if these are worn.

ELECTRICAL CONNECTIONS

Before connecting your machine to an electrical power system, be sure that the motor rating agrees with the electrical system that it is to be connected to. We also recommend that #14 wire, fused with a 15 amp time lag fuse, be used to supply power to all machines immaterial of their electrical rating.

SINGLE PHASE

If you purchased the Catalog No. 23-200, 23-201 or 23-202, 115/230 Volt, Single Phase Machine with an ON-OFF Toggle Switch, your machine was shipped wired for 115 Volt, as shown in diagram #2 on page 5, unless 230 Volt was specified. If you wish to change voltage, refer to the wiring diagram #1 on page 5, for 230 Volt, Single Phase connections. The motor control switch also operates the Twin-Lite Safety Shields.

If you purchased the Catalog No. 23-212 or 23-213, 115/230 Volt, Single Phase Machine with 24 Volt Push Button Station, Magnetic Starter, Transformer and Overload Protection, your machine was shipped wired for 115 Volt unless 230 Volt was specified. If you wish to change voltage, refer to the wiring diagram on page 6, for 115 Volt or 230 Volt, Single Phase connections. The motor control switch does not operate the Twin-Lite Safety Shields. The toggle switch in the base is used to turn the Shield Lights on and off.

THREE PHASE

If you purchased the Catalog No. 23-206 or 23-207, 230/460 Volt or Catalog No. 23-208 or 23-209, 200 Volt Three Phase Machine, motor controls were not furnished with these machines. Refer to the motor nameplate for the correct wiring connections. These machines were also supplied with a separate toggle switch furnished for the Twin-Lite Safety Shields. Refer to wiring diagram #3 on page 5, for the correct wiring of the Twin-Lite Safety Shields to a 115 Volt, single phase power source.

If you purchased the Catalog No. 23-215, 230/460 Volt or Catalog No. 23-214, 200 Volt Three Phase Machine with a 24 Volt Push Button Station, Magnetic Starter, Transformer, and 3-Leg Overload Protection, refer to the wiring diagram on page 7, for the correct wiring connections. These machines were also supplied with a separate toggle switch furnished for the Twin-Lite Safety Shields. Refer to wiring diagram #3 on page 5, for the correct wiring to the Twin-Lite Safety Shields to a 115 Volt, single phase power source.

OPERATING CONTROLS AND ADJUSTMENTS

TOOL REST

The tool rest (A) Fig. 2 is fully adjustable for any angle from 90 degrees up to almost tangent with the wheel itself, so that any angle of grinding can be performed. To tilt the tool rest simply loosen screw (B) Fig. 2, tilt tool rest to desired angle and tighten screw (B). The tool rest also is adjustable so that it constantly hugs the wheel, giving maximum support to the piece that is being ground. Loosen screw (C) Fig. 2, move tool rest in until it hugs the wheel and tighten screw (C). A level tool rest, set a little below the center of the wheel, is the most practical and safest position for general grinding. The special ledges of the tool rest permit grinding on both sides as well as face of grinding wheel. Freehand grinding without the use of the tool rest should always be done on the lower quarter of the wheel.

SPARK GUARD

The spark guard (D) Fig. 2, is located at the top of the grinding wheel and should be adjusted as close as possible to the wheel so that sparks never strike the operators hand. As the wheel wears down the spark guard should be adjusted accordingly.

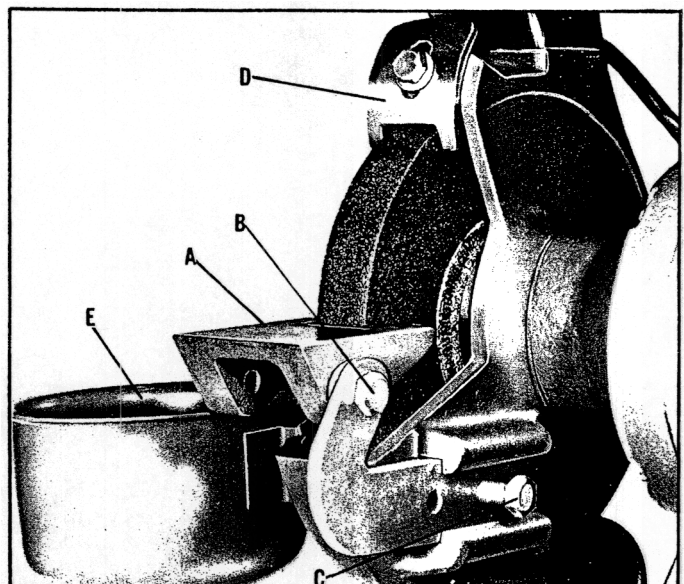


Fig. 2

WATER POT

The water pot (E) is conveniently located on the side of the grinding wheel guard, as shown in Fig. 2.

SAFETY SHIELDS

Twin-Lite standard on all models. Double thickness shatter-proof glass. Included with each shield are two lamps which flood both sides and face of wheels, independent of shop lighting system. No glare in operator's eyes. Safety shields are wired to motor switch so as to go on and off with motor operation on single phase and D C grinders only. Separate toggle switch is furnished for lights on 2 and 3 phase grinders.

BEARINGS

Precision double-sealed ball bearings. No oiling required for entire life of bearing. No trouble due to entrance of abrasive dust.

WHEELS

For best grinding results, and to maintain good balance, always keep the wheels properly dressed. Do not force work against a cold wheel, but use light pressure until the wheel becomes warm. It is earnestly recommended that only our balanced wheels be used on this grinder.

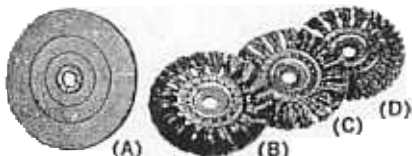
The use of balanced wheels adds years to the life of the bearings in any grinder, and, by eliminating the commonest source of vibration, permits far more accurate work. Your dealer can order special wheels from any reliable grinding wheel company, but be sure that they are balanced for perfect results.

QUALITY ACCESSORIES

No. 23-267 (old 1267) Vitreous Aluminum Oxide Wheel, $\frac{3}{8}$ x 7", 46 G, Grade N, $\frac{5}{8}$ " hole. Special friable wheel for cool grinding of drills, plane blades, chisels, etc. 2 lbs. *96.04*

No. 23-815 Aluminum Oxide Wheel, 1 x 7", 60 G, Grade N, $\frac{5}{8}$ " hole. 4 lbs.

No. 23-816 Aluminum Oxide Wheel, 1 x 7", 46 G, Grade M, $\frac{5}{8}$ " hole. 4 lbs.



(A) No. 23-825 8" Buffing Wheel for $\frac{5}{8}$ " arbor, $\frac{3}{4}$ " face, 48 ply, fine muslin, cushion type with three circles of lock-stitched sewing. Includes one pair of toothed flanges for $\frac{5}{8}$ " arbor and instructions for use. A professional quality, general purpose buff recommended for light cutting down and for finish coloring. 1 lb.

(B) No. 23-632 (old 1236) Wire Brush, 6" diameter, fine, $\frac{5}{8}$ " hole. 1 lb.

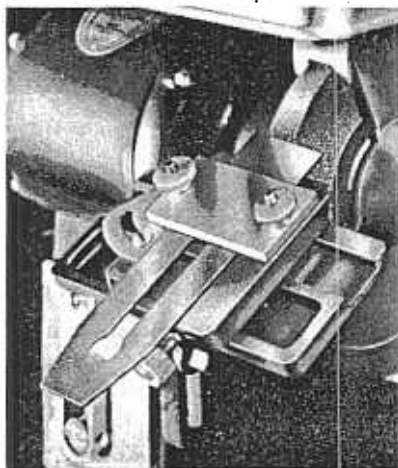
(C) No. 23-637 (old 1237) Wire Brush, 6" diameter, medium, $\frac{5}{8}$ " hole. 1 lb.

(D) No. 23-638 (old 1238) Wire Brush, 6" diameter, coarse, $\frac{5}{8}$ " hole. 1 lb.

No. 23-025 (old 1250) Twin-Lite® Safety Shield (two required). Without bulbs. 5 lbs.

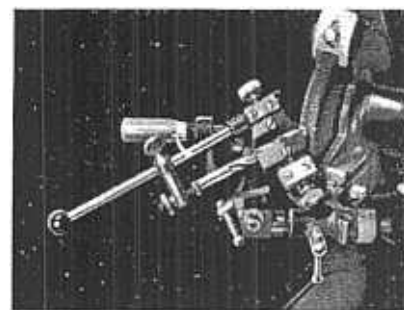
No. 23-280 (old 1280) Appliance Type Bulb, clear glass, 25 watt, 115-125V, with double contact bayonet ("plug-in") base. $\frac{1}{2}$ lb.

No. 23-805 Pedestal. Used to convert 7" Standard Bench Grinder to a pedestal type. 67 lbs.



No. 23-294 (old 1294) Edge Tool Grinding Attachment. Ideal for school shops, cabinet shops, and all types of wood-working shops. Although especially recommended for sharpening plane irons, this attachment also does an excellent job of grinding wood chisels, putty knives, scrapers and similar items up to $3\frac{1}{4}$ " wide.

Slide is notched for wooden handles of wood chisels, including "butts" which have a very short chisel blade. Adjustable quadrant permits accurate grinding of angle knives, assures absolute right angle position for straight knives. Knurled nut gives hairline adjustment for amount of "cut." Blade or chisel being ground can be lifted off and inspected at any time without disturbing the micrometer adjustment of clamp and carriage. No. 23-267 Vitreous Aluminum Oxide Wheel is recommended for 7" Standard Grinder. Can be used with No. 23-312 Diamond Wheel Dresser instead of No. 23-664 Wheel Dressing Tool Holder. 6 lbs. *307.45*



No. 23-296 (old 1296) Drill Grinding Attachment. So accurately made and easy to operate that anyone can do a perfect drill sharpening job. Grinds with the face of the wheel. Micrometer settings insure evenly ground lips. Amount of lip clearance on drill is just right, with enough of the heel cut away to provide clearance without weakening the cutting edge. With it you can grind straight shank twist drills to fit your job—with clearance and point angles at any degree you need. Capacity— $\frac{1}{8}$ " to $\frac{5}{8}$ " drills. Furnished with No. 23-664 Holder for Wheel Dresser. Order No. 23-312 (old 3121) Diamond Wheel Dresser separately. 12 lbs.

NEW "HIGH EFFICIENCY" DUST COLLECTORS

Provide Filtering Efficiencies to Help You Comply With O.S.H.A. Standards

No. 49-826 Dust Collector. Includes $\frac{3}{4}$ HP, single phase, 115/230 V, 60 hertz, 3450 RPM motor; two 6' lengths of 3" diameter wire hose and four hose clamps, two 3" inlets with adapters, foot-operated shaker and 30 square feet of fabric filter (24 filters). Less electrical controls. 140 lbs.

No. 49-831 Dust Collector. Same as No. 49-826, except 230/460 V, three phase. Less electrical controls. 140 lbs.

No. 49-909 Dust Collector. Same as No. 49-826, except 200 V, three phase. Less electrical controls. 140 lbs.

CONTROLS FOR "HIGH EFFICIENCY" DUST COLLECTORS

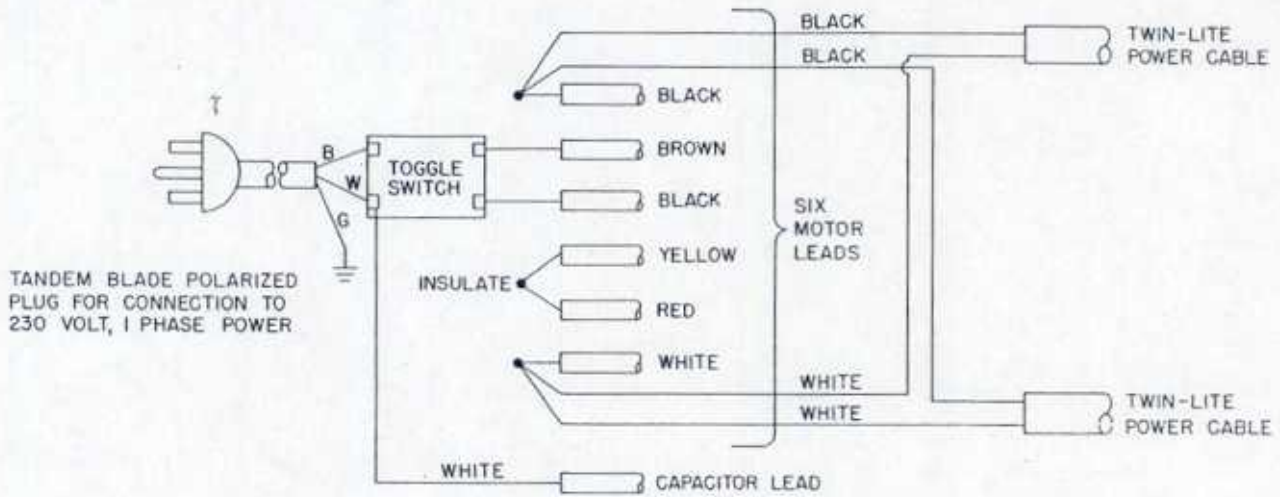
No. 52-377 Start-Stop Push Button Switch, 2-pole. Includes connecting wire assemblies, 8' cord with 3-prong 115 V grounding type plug and mounting hardware. For use with No. 49-826 Single Phase Dust Collector only. 5 lbs.

No. 52-378 24 Volt Push Button Station, Magnetic Starter, Transformer and Overload Protection (LVC). Includes connecting wire assemblies, 8' cord with 3-prong 115 V grounding type plug, and mounting hardware. For use with No. 49-826 Single Phase Dust Collector only. 15 lb

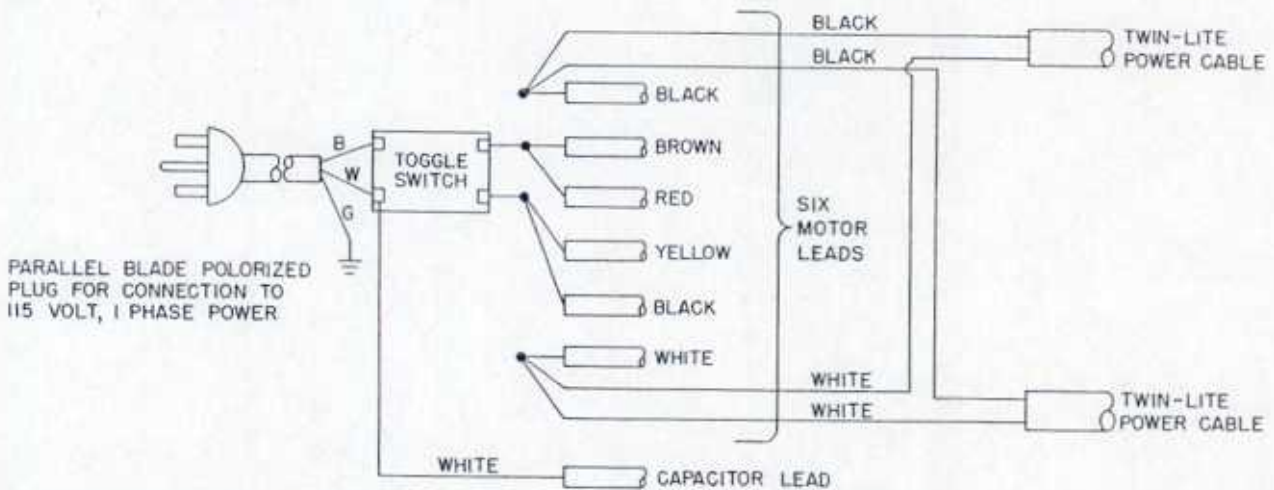
No. 52-379 24 Volt Push Button Station, Magnetic Starter, Transformer and 3-Leg Overload Protection (LVC). Includes connecting wire assemblies and mounting hardware. For use with No. 49-831 and 49-909 Three Phase Dust Collectors. When ordering, specify 200, 230 or 460 volts. 17 lbs.

NOTE: Above electrical controls are shipped separately, must be mounted and wired to dust collectors.

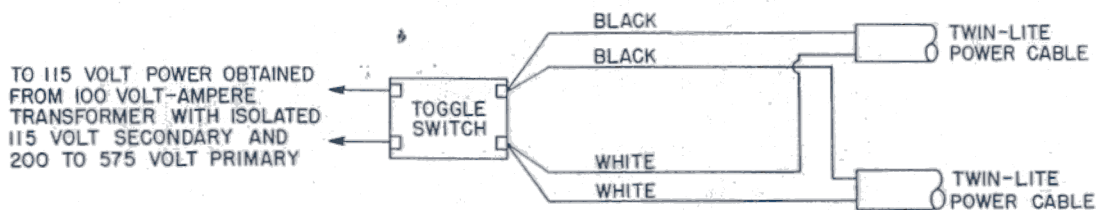
NO.1 WIRING DIAGRAM FOR CONNECTION OF TWIN-LITE SAFETY SHIELDS & 7" GRINDER MOTOR TO A 230 VOLT, 1 PHASE, 60 CYCLE POWER SOURCE



NO. 2 WIRING DIAGRAM FOR CONNECTION OF TWIN-LITE SAFETY SHIELDS & 7" GRINDER MOTOR TO A 115 VOLT, 1 PHASE, 60 CYCLE POWER SOURCE

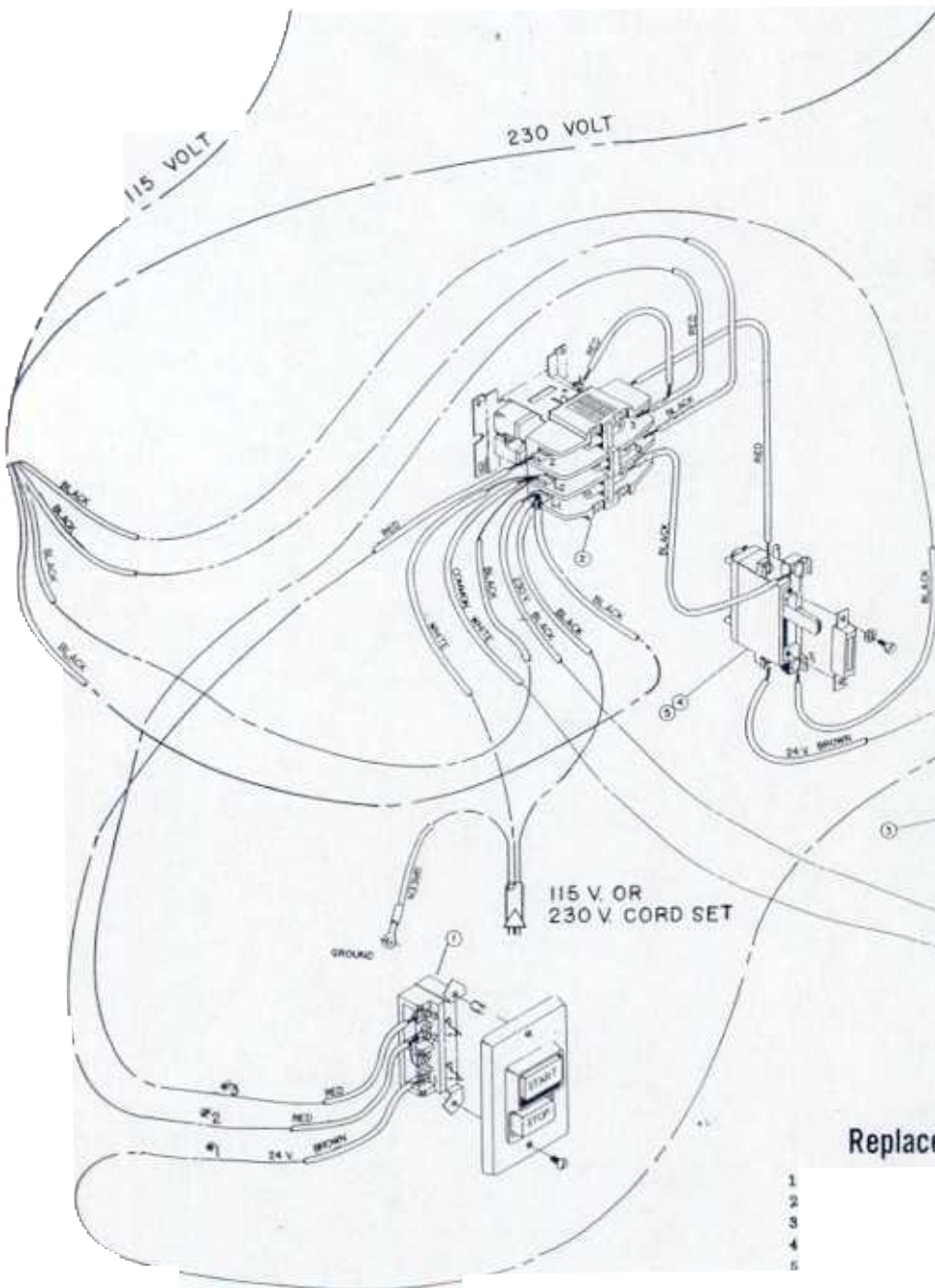
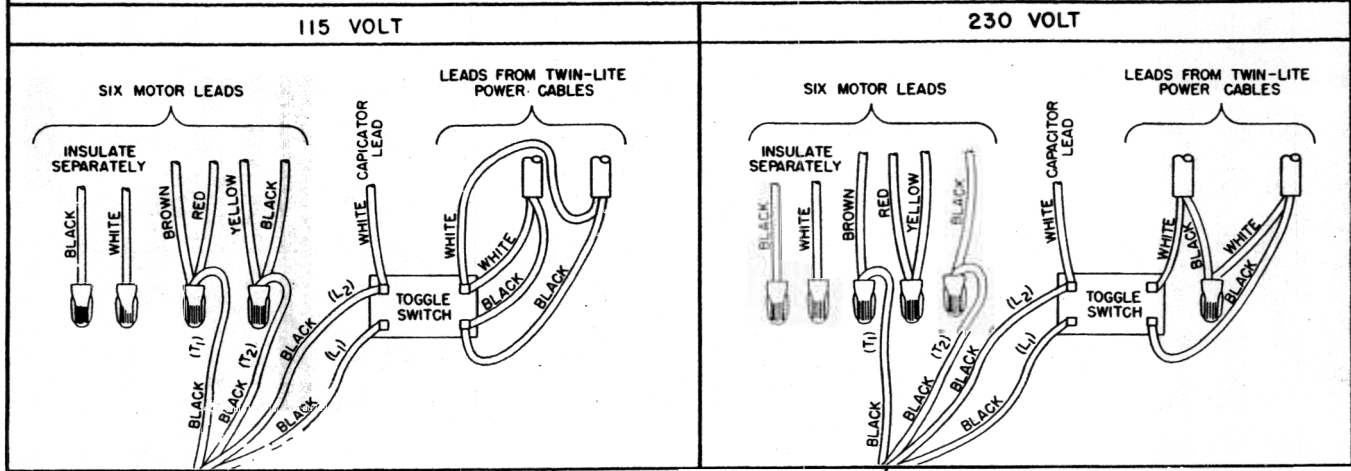


NO. 3 WIRING DIAGRAM FOR CONNECTION OF TWIN-LITE SAFETY SHIELDS TO A 115 VOLT, 1 PHASE, 60 CYCLE POWER SOURCE WHEN USED WITH A 3 PHASE GRINDER, WHETHER 200, 230, 460 OR 575 VOLT



24 VOLT SINGLE PHASE MAGNETIC STARTER MOTOR

MOTOR AND TWIN-LITE SHIELD CONNECTIONS IN GRINDER BASE



TRANSFORMER CONNECTIONS		
CONTACTOR TERMINAL	115 VOLT	230 VOLT
L ₁	BLUE-115 VOLTS	BLACK-230 VOLTS
L ₂	COMMON WHITE	COMMON WHITE

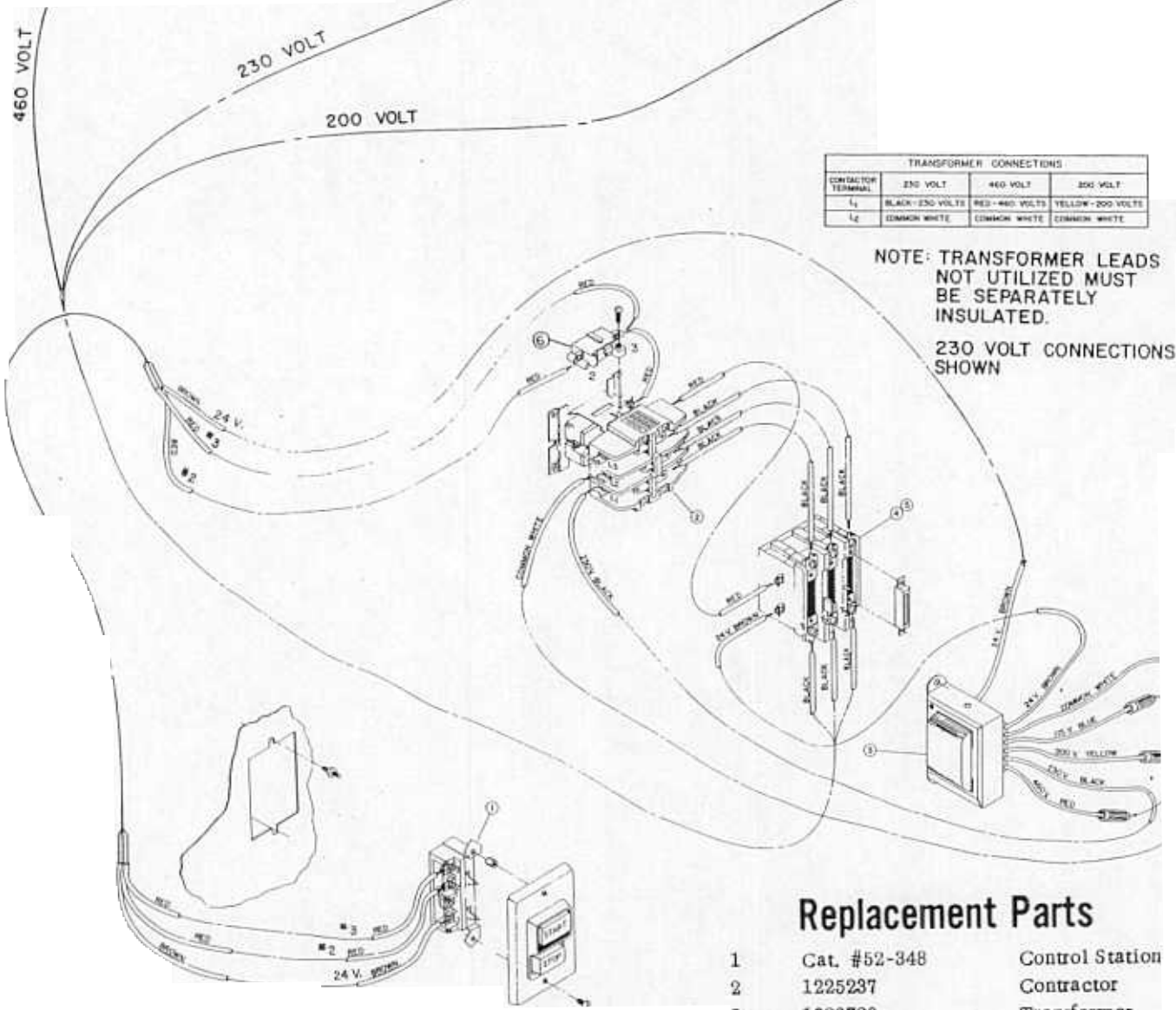
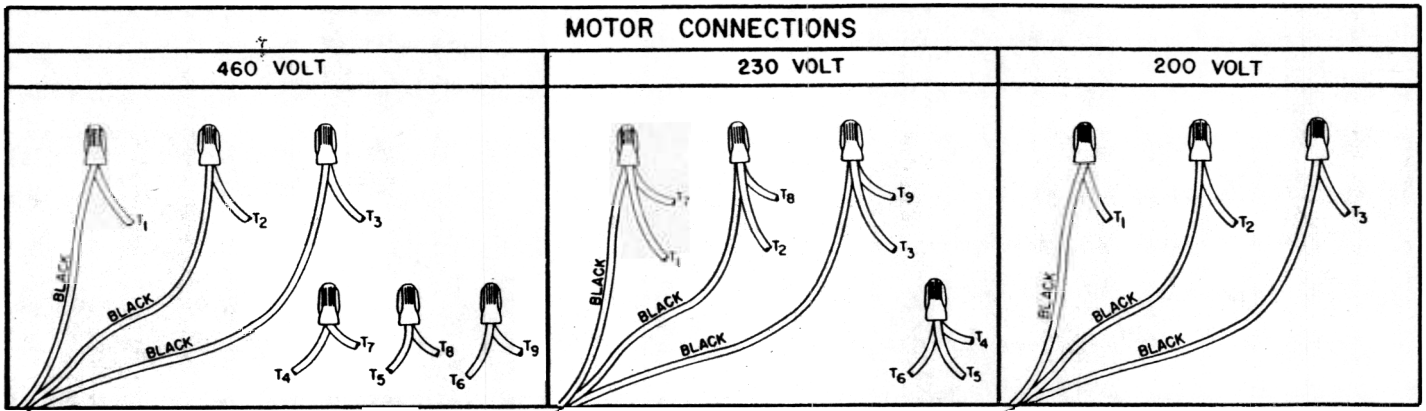
NOTE: TRANSFORMER LEADS NOT UTILIZED MUST BE SEPARATELY INSULATED.

230 VOLT CONNECTION SHOWN

Replacement Parts

- 1
- 2
- 3
- 4
- 5

24 VOLT THREE PHASE MAGNETIC STARTER MOTOR CONTROL SYSTEM



TRANSFORMER CONNECTIONS			
CONTACTOR TERMINAL	230 VOLT	460 VOLT	200 VOLT
L ₁	BLACK-230 VOLTS	RED-460 VOLTS	YELLOW-200 VOLTS
L ₂	COMMON WHITE	COMMON WHITE	COMMON WHITE

NOTE: TRANSFORMER LEADS NOT UTILIZED MUST BE SEPARATELY INSULATED.

230 VOLT CONNECTIONS SHOWN

Replacement Parts

- | | | |
|---|--------------|-----------------|
| 1 | Cat. #52-348 | Control Station |
| 2 | 1225237 | Contractor |
| 3 | 1086720 | Transformer |
| 4 | 1225235 | Overload |
| 5 | Specify No. | Heater |
| 6 | 1225236 | Interlock |



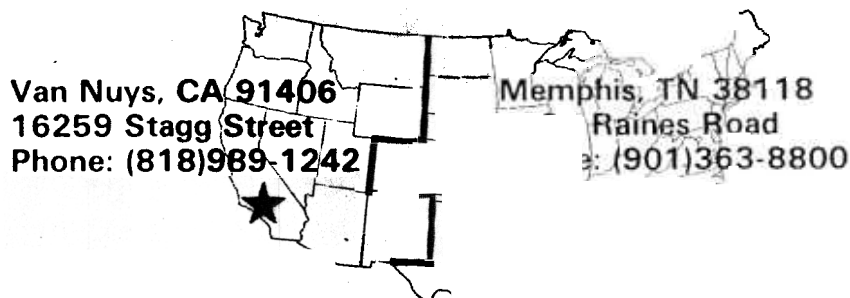
**Delta Machinery
One Year Limited Warranty**

Delta Machinery will repair or replace, at its expense and at its option, any Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer notifies his supplying distributor of the alleged defect within one year from the date of delivery to him, of the product and provides Delta Machinery with reasonable opportunity to verify the defect by inspection. Delta Machinery may require that electric motors be returned prepaid to the supplying distributor or authorized service center for inspection and repair or replacement. Delta Machinery will not be responsible for any asserted defect which has resulted from misuse, abuse or repair or alternation made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta Machinery be liable for incidental or consequential damages resulting from defective products. This warranty is Delta Machinery's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.

Part No. 400-96-652-6002

PARTS DISTRIBUTION CENTERS FOR DELTA INTERNATIONAL MACHINERY

Even quality built equipment such as the Delta machine you have purchased, may require occasional replacement parts to maintain it in good working condition over the years. To order replacement parts, write or call one of the following Delta Parts Distribution Centers:



Always include the following information:

1. Model No. and Serial No. and all specifications shown on the Model No./Serial No. plate
2. Part number or numbers as shown in the Replacement Parts list supplied with your Delta machine.

