



## ***MODEL K MICA-MILLER UNDERCUTTER INSTRUCTIONS***

### **GENERAL:**

Please do not compare the Model K Mica-Miller to an electric drill. A drill with a motor of this size generally has a maximum capacity of 1/4", whereas the smallest Mica-Miller head uses a 23/32" saw, and the load on the machine is proportionate to the diameter of the cutter. Avoid shock loading and stalling of the motor and the Martindale Mica-Miller will serve long and well. Undercutter should not be used to cut more than .002" of copper on each side of the mica slot. Cutting more copper than recommended will cause excessive loading on the unit and could cause premature failure.

### **MOTOR:**

The motor is a 1/5 h.p. Universal motor of the voltage specified on the nameplate. It runs in sealed ball bearings which are lubricated for life. The gear reduction in front of the motor is packed with grease, and under normal operation need be checked only once a year. An air duct, fitted over part of the ventilating slots, direct air, which has been used to cool the motor, toward the cutter to help blow away the mica dust.

### **HEADS:**

Three heads are easily and quickly interchangeable on the motor unit. Saw and V-cutter diameters used are: 23/32" or 3/4" for Small Head, 7/8" or 1" for Standard Head, and 1-1/8" or 1-1/4" for Heavy-Duty Head. Use the wrenches provided for changing saws.

Slot guides are furnished on the Small and Standard Heads, although as an operator becomes familiar with the operation of the machine the slot guide is usually removed. To adjust for height or width release the thumb screw, make adjustment, and re-tighten thumb screw. Depth of cut is determined by the setting of the depth gauge behind the saw. Be sure the thumb screw is tight.

The head may be removed by taking out the horizontal screw on top. A slight twist and the head will come off. After every 100 hours of operation wipe some good quality light grease on the gears.

### **OPERATION:**

Start the cut at the riser and pull the Mica-Miller toward you. A little care must be taken to start the saw in the slot, but once started it will tend to follow the slot. Sighting along the mica toward the saw will help keep the saw in the center of the slot. Experience will show the proper cutting rate. When the saw or V-cutter gets dull change it to keep a rapid cutting speed without overloading.

### **SAWS & V-CUTTERS:**

Saws cut a "U" shaped slot. V-cutters are beveled and cut a "V" shaped slot which stays clean longer under unfavorable conditions. Saws are stocked in 21 thicknesses from .015" to .065". V-cutters are .045" thick and are stocked with 40°, 50°, and 60°, between cutting edges.

This diagram illustrates the exploded view of a corded power tool, showing the main body, handle, motor, and various accessories. The components are labeled with part numbers:

- Handle and Trigger Switch:**
  - M-MUC751: Main handle body.
  - M-MUC753: Trigger switch housing.
  - M-MUD752: Trigger switch lever.
  - M-MUD799: Trigger switch button.
  - M-MU27: Trigger switch pin (shown in three positions).
- Motor and Gear Assembly:**
  - M-MU40: Motor housing.
  - M-MU41: Motor stator.
  - M-MU42: Motor rotor.
  - M-MU43: Motor pin.
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- Accessories:**
  - M-MU25: Accessory pin.
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  - M-MU100: Accessory pin.

## *Model K Mica-Miller Parts*

<b>Quantity</b>	<b>Description</b>	<b>Part No.</b>
2	5-40 x 3/16" Screw	M-MU25
4	10-24 x 3/4" Screw	M-MU27
2	3-7/8" Stud	M-MU28
1	10-32 x 3/8" Flat Hollow Head Screw	M-MU29
1	1/4-20 x 3/4" Cap Screw	M-MU30
2	#10 Lock Washer	M-MU31
1	1/4" Lock Washer	M-MU32
1	Washer	M-MU33
1	1/8 x 3/8" Straight Key	M-MU34
1	Grommet	M-MU35
1	Strain Ring	M-MU36
1	11 ft. Cord	M-MU37
1	Armature Assembly, 115V. (230V.)	M-MU40A(B)
1	Field, 115V. (230V.)	M-MU41A(B)
2	Brush Cap	M-MU42
2	Brush	M-MU43
2	Brush Holder	M-MU44
4	#10-24 Nut (for use on M-MU28)	M-MU46
1	Pin	M-MU47
1	Gear	M-MUD736
1	Air Duct	M-MUD799
1	Motor Housing	M-MUC751
1	Motor End Bell	M-MUD752
1	Shaft Housing	M-MUC753
1	Shaft	M-MUD754
1	Switch Cover	M-MUD755
1	Bearing	M-MU87038
1	Bearing	M-MU87008
1	Bearing	M-MU87013
1	Bearing	M-MU87500
1	Switch	M-MU92216X
1	Gear	M-MUH2010L