

M1 (Mini-Master) Troubleshooting Masters Wheel

A Tradition of Excellence

SHIMPO

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Troubleshooting Masters Wheel

Chirping/High Squeak Noise

1. Double-check the tightness of all bolts and the non-vibration rubbers. If noise still exists check motor and bearing holder.
2. Remove V-belt and slowly depress foot pedal to the fastest speed. If there is no noise then the motor is good.
3. Spin the large pulley by hand. If you hear a squeaking noise then the bearings are bad. Remove and replace the bearing holder assembly by taking the four bolts on top of the bearing holder (just below the wheel head).

Wheel head spins fast regardless of foot pedal position

1. Wiring of potentiometer in foot pedal not crimped/soldered properly or pulled out by pedal cord. Repair soldering of potentiometer or replace entire pedal assembly with cord
2. If the wiring in the foot pedal is fine then replace the controller.
3. To find out whether it's the potentiometer or the controller check the voltage between S1 and S2. The voltage should run between 0 and 6 volts DC or higher while depressing the pedal. If the voltage change happens, but the wheel doesn't turn replace the controller. If the voltage change doesn't happen check the voltage between L and H. This should be a constant 6 volts DC or higher. If it is then the potentiometer or wiring to the potentiometer needs replacing.

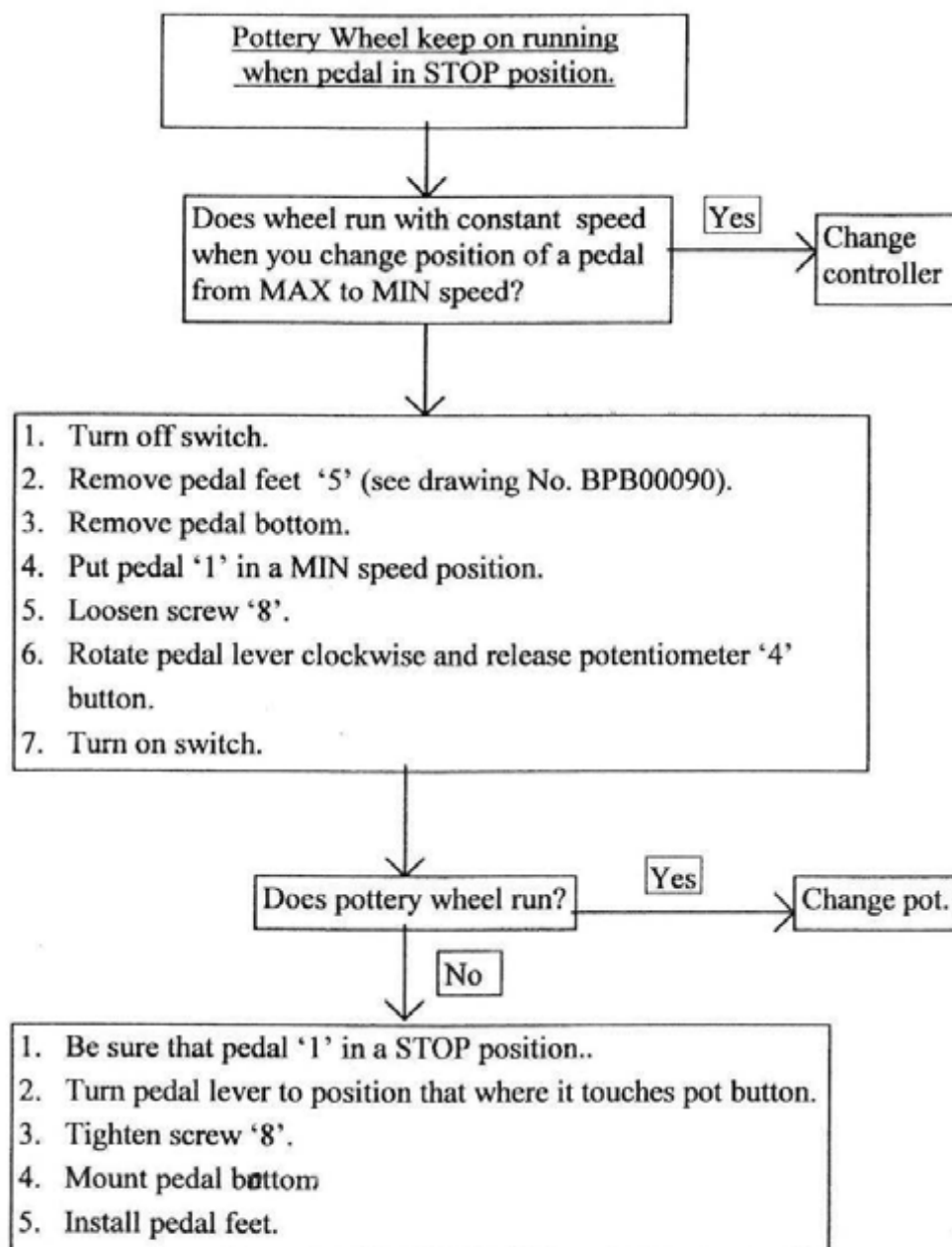
Wheel head not smooth at low speed or stops and starts

1. If at the same pedal position (at low speed), but the wheel head changes speeds then it may be at the controller. Adjust IR COMP counterclockwise on the controller using a small eyeglass size screwdriver. Overcompensation causes the motor to oscillate or increase speed when fully loaded. If this occurs turn IR Comp clockwise until symptoms stop.
2. If the speed of the wheel head changes quickly while only depressing the foot pedal slightly then it may be the potentiometer in the foot pedal. Check the wiring/soldering of the potentiometer in the pedal. Replace potentiometer or return entire foot pedal with cord for replacement.
3. If the pedal is slightly depressed and the wheel head catches stops/starts then it may be the metal not contacting the potentiometer in the foot pedal in the off position. Loosen the bolt on the side of the pedal (the bolt that the pedal pivots on). While the pedal is in the off position, the metal tab should just touch the spring-loaded projection of the potentiometer. Tighten side bolt.

Wheel head will not stop while pedal is in the off position

1. Adjust the lever against the potentiometer. Loosen the bolt on side of pedal (the bolt that the pedal pivots on). While the pedal is in the off position the metal tab should just touch the spring-loaded projection of the potentiometer. Tighten side bolt.

INSTRUCTION MANUAL #15



MASTERS WHEELS - STATIC FROM AM RADIO

Static occurs using any DC Potter's Wheel (Brent, Creative Industries, etc).

Radio should be plugged in farther away from where wheel is plugged in.

An AC Line Noise Filter (resembles extension cord) may eliminate static. (Cost approx \$10.00).

Noise: Zaa Zaa Zaa noise: Reset Pot

Power: Surges on and off

If pilot lamp is on, switch is ok.
Problem may be in potentiometer

If pilot lamp (green light) is not on, check outlet and fuse.

Wheelhead, cannot remove

Hit center of wheelhead down with rubber mallet a few times. Wheelhead will hit B holder and bounce up.

Speed

Will only go slow speed or only go fast speed.

Check wiring between foot pedal and controller

- Adjust Controller (see attached).

Consider new pedal or new controller.

Operation

1. Plug electrical cord into 115 volt outlet (standard U.S. household outlet).
2. Place clay on wheel head.
CAUTION: Do not overload the wheel head with clay; (M400: 50 lb max., M750: 100 lb max.).
3. Turn ON/OFF switch to ON position (green indicator light should come on).
4. Depress foot pedal forward to desired speed.
NOTE: Wheel head rotates in counter-clockwise direction only.
5. Depress foot pedal backward to reduce speed.
6. To stop the wheel, fully depress the foot pedal backwards.
7. To turn off the wheel, move the ON/OFF switch to the OFF position (green indicator light will turn off).

Maintenance

With proper operation and care your Shimpo Master Series wheel will last for many years.

The wheel head and optional splashpan should be thoroughly cleaned after every use to prevent water, clay and slip from entering the unit's housing, possibly causing corrosion:

1. Turn ON/OFF switch to OFF.
2. Unplug wheel from power source.
3. With a sponge or towel, wipe down wheel head and cabinet, removing water and clay.
4. Remove the rubber plug from the splashpan.
5. Remove all clay slurry from pan and wipe dry.
6. Replace plug in splashpan.

CAUTION: Do not tilt wheel to drain splashpan.

Repair/Replacement

Drive Belt Tension Adjustment

Periodically the tension of the belt drive system will need adjustment; the length of time between adjustments depends on many factors including frequency and nature of wheel use, weight of centering loads, etc. To readjust the belt drive tension:

1. Turn ON/OFF switch to OFF.
2. Unplug wheel from power source.
3. Remove wheel head bolt and wheel head.
4. If installed, remove optional splashpan:
 - a. Remove 2 bolts holding pan in place.
 - b. Remove splashpan.
 - c. Screw bolts back in loosely.
5. Loosen all bolts in bearing holder (figure 2); belt tension will automatically adjust.
6. Reinstall splashpan:
 - a. Remove 2 bolts.
 - b. Replace splashpan.
 - c. Reinsert bolts.
7. Tighten all 4 bearing bolts.
8. Replace wheel head over shaft.
9. Confirm that wheel head bolt and the flat face of the shaft are aligned.
10. Tighten wheel head bolt (use T-wrench through access hole if splashpan is attached).

CAUTION: Do not tighten bolt on round surface of shaft.

Fuse Replacement

To replace the fuse:

1. Turn ON/OFF switch to OFF.
2. Unplug wheel from power source.
3. Unscrew fuse cap.
4. Withdraw fuse.
5. Replace fuse.
(For M400, order part number RPB00190)
(For M750, order part number RPB00200)
6. Replace fuse cap.

Troubleshooting

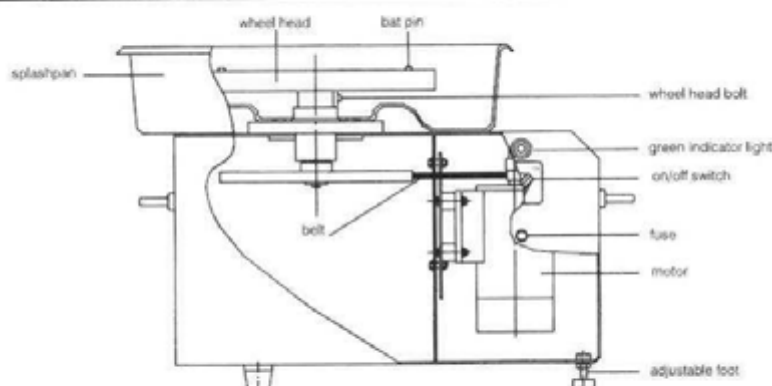
The wheel has either stopped or does not turn on:

- Confirm that all electrical components are functioning properly (power source, power cord and fuse)

The wheel experiences a drop in power:

- Confirm that all electrical components are functioning properly (power source, power cord and fuse)
- The drive belt tension may require adjustment (refer to drive belt tension adjustment section of manual)

Dimensions and Specifications



SPECIFICATIONS		
Model	M400	M750
Motor	1/2 HP (400 W), DC	1 HP (750 W), DC
Input Power	115 VAC, 60 Hz, 6.5 A	115 VAC, 60 Hz, 10 A
Maximum Centering Weight	50 lb (23 kg)	100 lb (45 kg)
Dimension	25"L x 17"W x 19"H (635 mm x 430 mm x 480 mm)	
Ship Weight	125 lb (57 kg)	130 lb (59 kg)
Wheel Head Diameter	14" (355 mm)	
Wheel Head Material	Cast aluminum alloy, concentric circles every inch, bat pins	
Wheel Head Speed & Direction	0-250 RPM counter-clockwise (clockwise wheel rotation is an available option on all Master models)	
Drive System	Ribbed belt drive	
Speed Control	Remote foot pedal with high grade potentiometer, industrial grade PWM controller	
Standard Accessories	T-wrench, spanner wrench, (1) adjustable foot, (3) non-adjustable feet	
OPTIONAL ACCESSORIES		
Splashpan	SW-RKP-027 (one-piece, small), SW-RKP-027L (one-piece, large), ARKC0205011 (two-piece)	
Table	BPP00160	

Warranty

LIMITED EXPRESS WARRANTY: Shimpo warrants, to the original purchaser of new products only, that this product shall be free from defects in workmanship and materials under normal use and proper maintenance for two years from the date of original purchase. This warranty shall not be effective if the product has been subject to overload, misuse, negligence, or accident, or if the product has been repaired or altered outside of Shimpo's authorized control in any respect which in Shimpo's judgment, adversely affects its condition or operation.

DISCLAIMER OF ALL OTHER WARRANTIES: The foregoing warranty constitutes the SOLE AND EXCLUSIVE WARRANTY and Shimpo hereby disclaims all other warranties, expressed, statutory or implied, applicable to the product, including, but not limited to all implied warranties of merchantability and fitness.

LIMITATION OF REMEDY: Buyer must have Shimpo's authorization before returning the product, properly repackaged, freight prepaid to Shimpo to obtain warranty service.

Under this warranty Shimpo's SOLE OBLIGATION SHALL BE TO REPAIR OR REPLACE the defective product or part, at Shimpo's option. Shimpo reserves the right to satisfy warranty obligation in full by reimbursing Buyer for all payments made to Shimpo, whereupon, title shall pass to Shimpo upon acceptance of return goods.

INDEMNIFICATION & LIMITATION OF DAMAGES: Buyer agrees to indemnify and hold Shimpo harmless from and against all claims and damages imposed upon or incurred arising, directly or indirectly, from Buyer's failure to perform or satisfy any of the terms described herein. In no event shall Shimpo be liable for injuries of any nature involving the product, including incidental or consequential damages to person or property, any economic loss or loss of use.

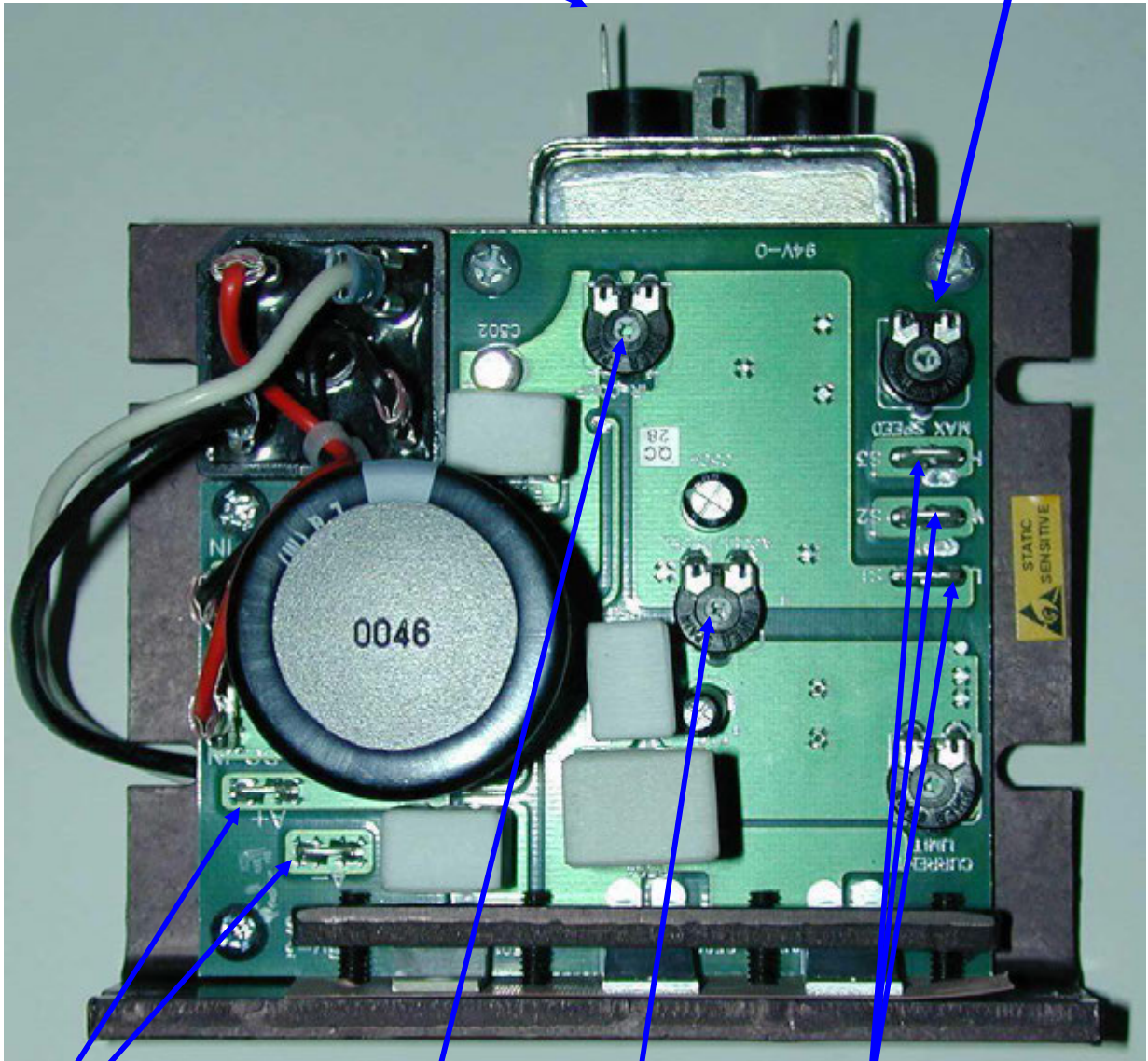
MERGER CLAUSE: Any statements made by the Seller's representative do not constitute warranties except to the extent that they also appear in writing in this contract.

This writing constitutes the entire and final expression of the parties' agreement.

Controller for the Master

To the Power Switch

Adjust speed here.



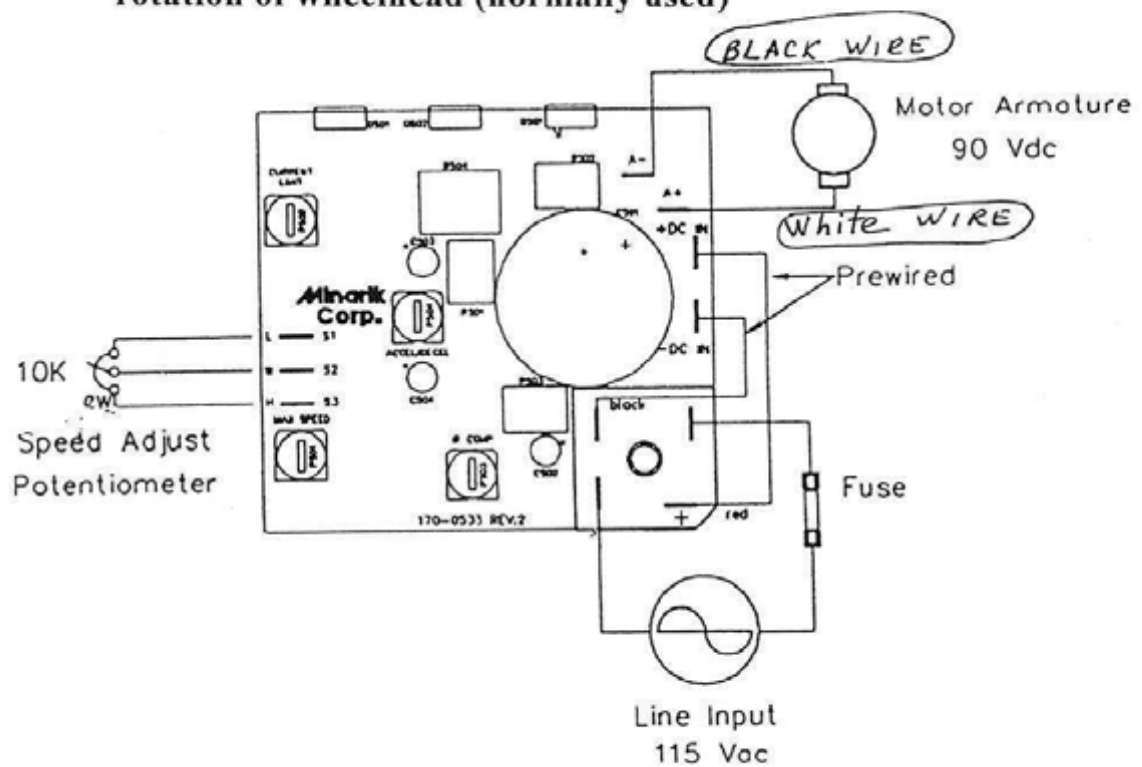
To Motor
A+ White (+)
A- Black (-)
Voltage varies from 0 to
90 V depending on the
potentiometer position.

IR
See Diagram for
settings

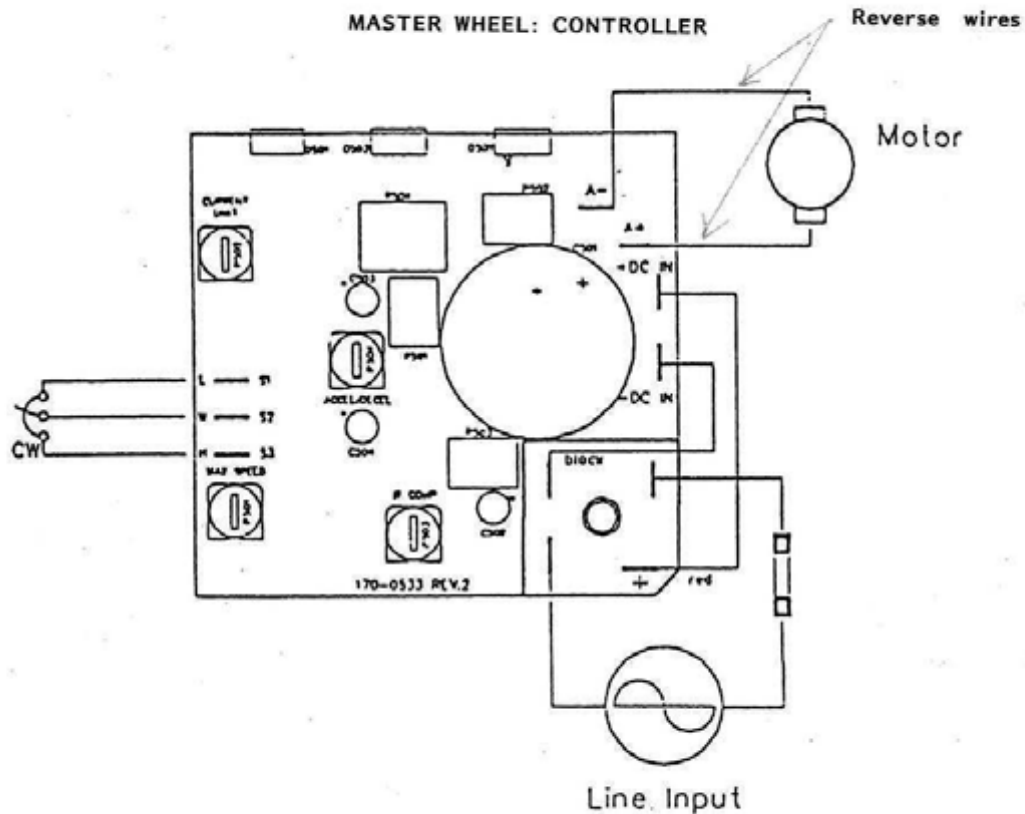
Accelerate and
Decelerate
See Diagram for
settings

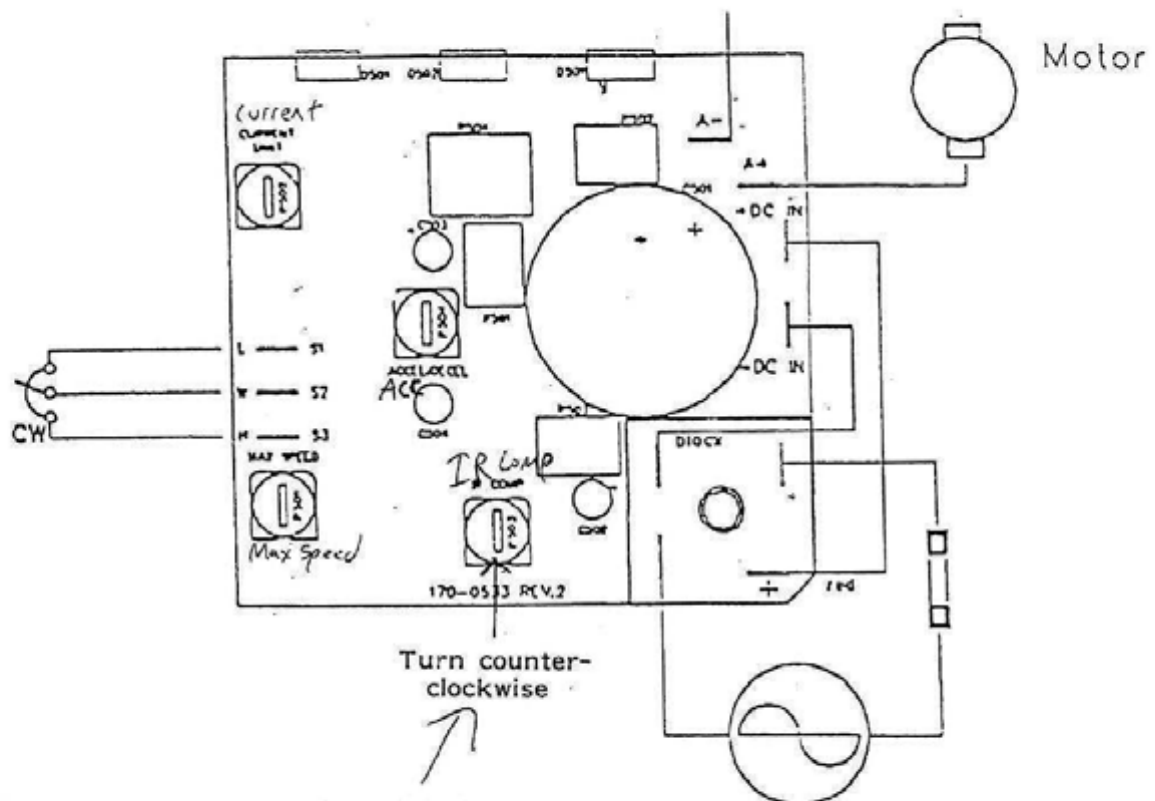
To the foot Pedal
(L) Black
(W) White
(H) Red

Connection Diagram for counter clockwise rotation of wheelhead (normally used)



To Reverse Direction of Wheelhead: Reverse the 2 wires from motor to controller.

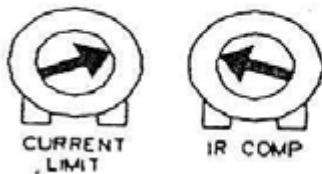




Wheel head not smooth at low speed or stops and starts

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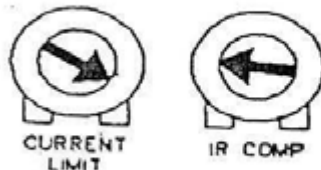
To: ADJUST CONTROLLER



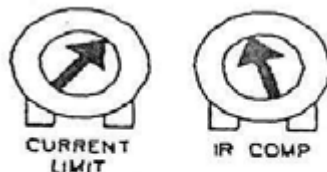
1. Lay potter's wheel on its side. Remove bottom plate and look for pot marked IR COMP.
2. Adjust IR COMP according to this sheet

M400

M-1 MINI MASTER & M-250



M750



WIRING DIAGRAM FOR MASTER SERIES POTTERY WHEELS (M1,M250,M400,M750)

