

***Nidec***

# SHIMPO VL-LITE

## Potter's Wheel Troubleshooting Manual

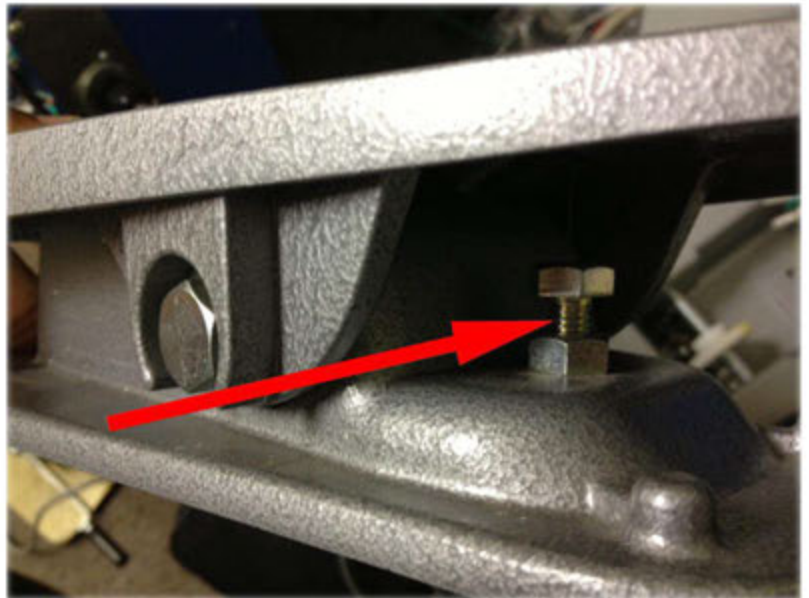


**NIDEC-SHIMPO CORPORATION**

# How To Adjust The Foot Pedal's Range of Motion

1. To increase the range of motion in the foot pedal, lower the set bolt. THEN reset your potentiometer to the new "stop" position.

2. To decrease the range of motion in the foot pedal, raise the set bolt. THEN reset your potentiometer to the new "stop" position.



# How to Adjust the Foot Pedal Tension



**Tool Required:**  
**M-13 Wrench**



**VL-Lite Foot Pedal Assembly**  
**Part# ARKA3830010**

## New Type Pedal



1. Use an M-13 wrench on the right side of the foot pedal.



2. Adjust the U-nut to change the tension of the foot pedal.



### **Caution**

**Do not try to unscrew the bolt on the left side (M17 bolt)**

# Resetting the Potentiometer



## REQUIRED TOOLS

1. Allen Wrench - 5/32"
2. Phillips screw driver

## Adjusting Potentiometer:



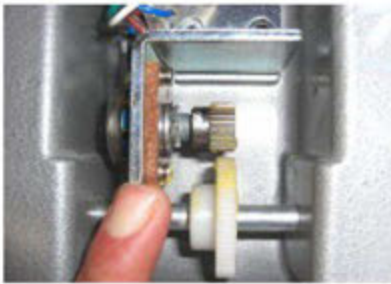
1. Unscrew the 4 feet using a Phillips screwdriver



2. Remove the plastic cover and make sure the foot pedal is in the STOP position. Turn the power on the wheel.



3. Loosen the two screws connecting the potentiometer bracket to the foot pedal housing.



4. Move the potentiometer (silver gear) away from the white plastic gear so they are not touching.



5. Turn the potentiometer until the wheel head starts to turn. Then turn it the opposite way until the wheel head stops.



6. When the wheel head stops, slide the potentiometer up against the white gear, then tighten the screws that mount the bracket to the foot pedal housing. Replace the plastic cover and the 4 screws. Your wheel should now run from 0/STOP to 250 rpm.

# How to Replace the Potentiometer



## REQUIRED TOOLS

1. Allen Wrench - 5/32"
2. Phillips screw driver



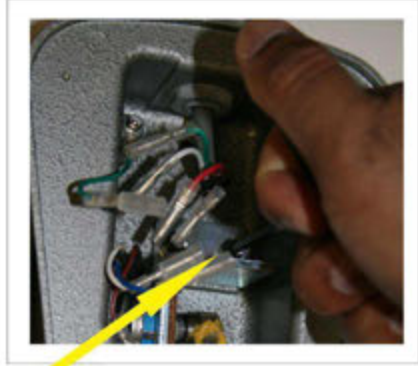
Part #: ARKA3880090  
Potentiometer - VL-Lite



1. Unscrew the 4 feet using the Phillips screwdriver



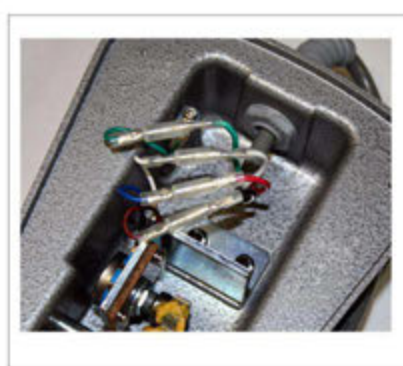
2. Remove the cover and unplug all 3 wires from the potentiometer.



3. Unscrew the 2 bolts mounting the potentiometer bracket to the foot pedal housing.



4. Install the new potentiometer  
NOTE: Do not tighten down the potentiometer bracket to the housing until the potentiometer has been reset.



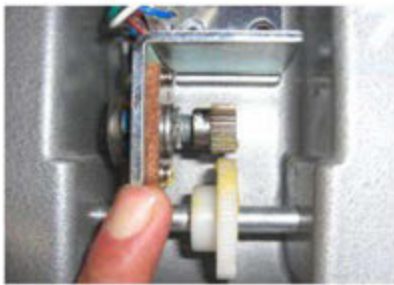
5. Connect the three wires back on to the foot pedal cord:  
**BROWN to BLACK**  
**BLUE to RED**  
**WHITE to WHITE**



6. Make sure the foot pedal is in the STOP position. Turn the power ON and follow the *Resetting the Potentiometer* guide.

\*\*\*Continued on next page\*\*\*

# Resetting the Potentiometer After Installing a New Potentiometer



**7. Move the potentiometer (silver gear) away from the white plastic gear so they are not touching.**



**8. Turn the potentiometer until the wheel head starts to turn. Then turn it the opposite way until the wheel head stops.**



**9. When the wheel head stops, slide the potentiometer up against the white gear, then tighten the screws that mount the bracket to the foot pedal housing. Replace the plastic cover and the 4 screws. Your wheel should now run from 0/STOP to 250 rpm.**

## How To Service Motor Brushes on a VL-Lite

### REQUIRED TOOLS

1. Philips screw driver
2. Straight slot screw driver
3. Fine grit sand paper or file
4. Isopropyl Alcohol



Motor Brush (2)

To prevent electrical shock, please remember to turn off and unplug the wheel before doing any kind of repairs.



1. Remove the under cover by unscrew all the under cover screws then sliding the cover off.



2. Locate the motor.



3. Locate the motor brush cover plate.



4. Unscrew the motor brush cover plate with a straight slot screw driver.



5. Remove the brush and examine it. If the brush surface appears smooth but dirty, wipe the brush clean with isopropyl alcohol. This alone may not be the motor. If the motor still continues to make a loud noise, continue on to the next step.  
\*Repeat these steps for the corresponding brush on the other side of the motor.



6. If the brush surface is grooved or uneven, use a fine grit sand paper or a file to lightly file the brush down to make its surface smooth again. Clean the brush with isopropyl alcohol. \*\*\*NOTE: the tip of the brush is meant to be curved, (concave). Maintain that curve when lightly filing or sanding the surface.  
\*Repeat these steps for the corresponding brush on the other side of the motor.



7. Insert the motor brush back into the motor. Do so by matching the curve of the brush to the curve of the motor. \*\*\*Failure to do so will result in undue wear on the brush and a continued loud noise from the motor. Return the brush cover plate back onto the motor. Plug in your wheel and test to see that it is running more quietly. Unplug your wheel and replace the blue motor cover.

# How to Replace the VL-Lite Pulley Drive Belt



## REQUIRED TOOLS

1. Phillips screw driver



Part # RCYJB005430  
Pulley Drive Belt

**Make Sure Your Wheel  
is Unplugged Before  
Starting any repairs!**



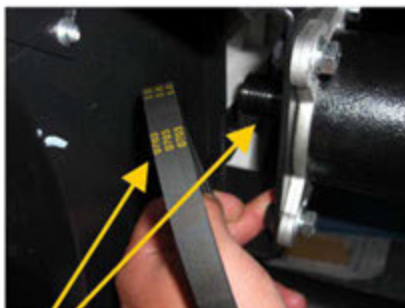
1. Remove the undercover by removing all undercover screws.



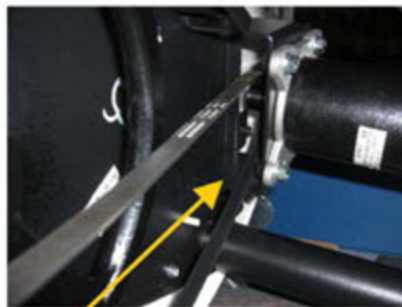
2. Slide the undercover off.



3. Remove the drive belt by pulling down on the belt while spinning the large pulley to un-wind the belt off.



4. When installing the new belt, the belt's threads must fit with the 4 threads on the motor.



5. When belt is attached to the motor, begin to attach the belt to the pulley side.



6. To put belt on the pulley, turn the pulley while pushing the belt on (clockwise).





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