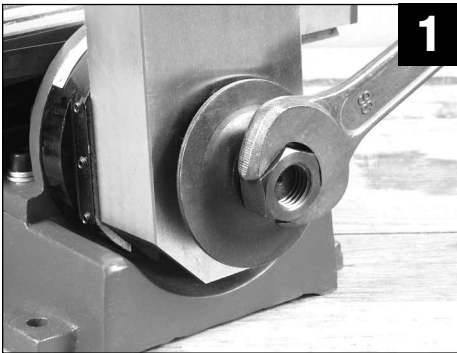


#84630 MICROLUX™ MILLING MACHINE ASSEMBLY INSTRUCTIONS

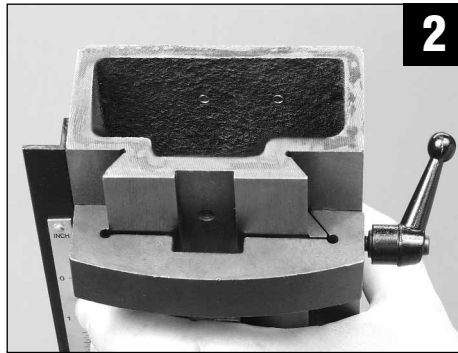
Your MicroLux milling machine was assembled and tested at the factory, but was disassembled for safe shipment. Assembly is not difficult, but care should be taken to follow these instructions in the proper sequence to assure safe and successful operation of the machine. We assume you already have the usual assortment of shop tools, such as wrenches, screw drivers, pliers and hex keys, needed to assemble small machinery.

Before starting the assembly sequence, carefully unpack and clean all machine elements. For proper part identification and location, it will be most helpful to study the Assembly and Parts diagram included in the Instruction Manual.

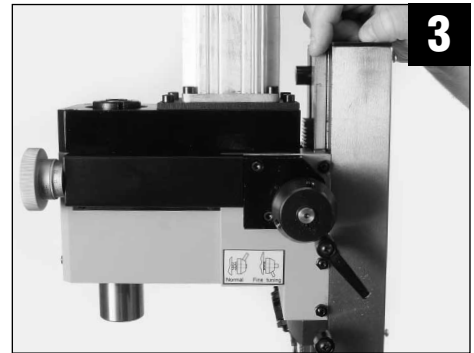
Assembly Procedure:



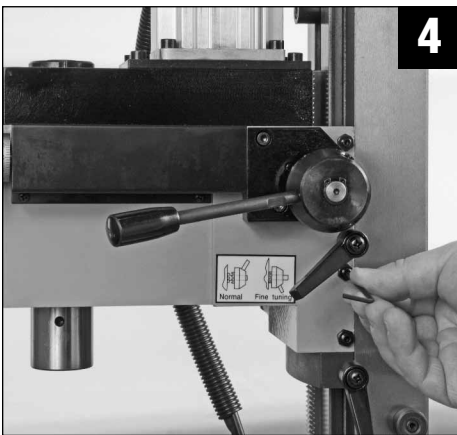
1 Attach the fuselage/column to the base with big washer and lock nut. Tighten the lock nut securely.



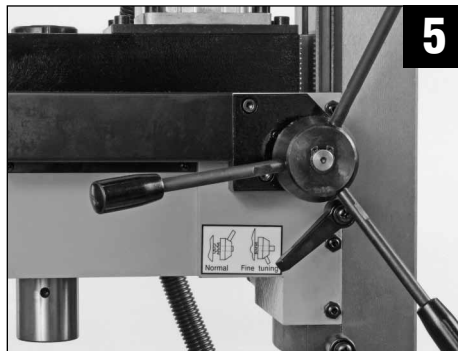
2 Install limit block and its wedge (gib) to the fuselage/column. Position it about half-way down the fuselage/column and snug the lock handle. There is no need to overtighten this handle as damage to the wedge could occur. Top cover (#75 on parts diagram) must be glued to top of column.



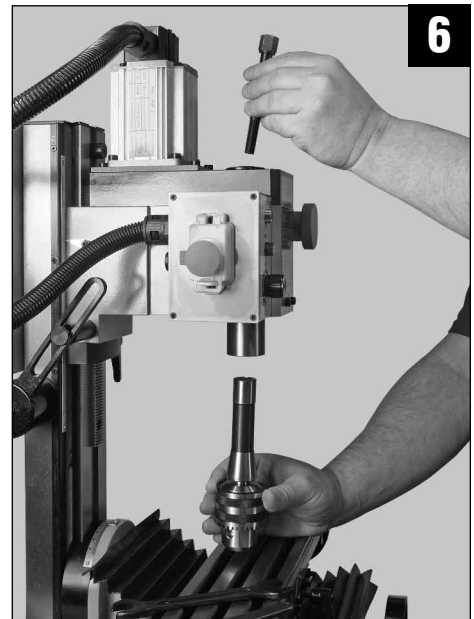
3 Install head stock and its wedge (gib) to the fuselage/column. Parts #46 and #51 are mounted at this time. (See Vertical Z Axis parts diagram in the manual.) Head is heavy and two people might be required for alignment and installation. It is also best to fit the gib in contact with the screws slightly, as well as, unlocking the feed hub into its 'normal feed' position (see label on side of head). Also, the head lock handle should be loosened. Now install and engage rack with head gear.



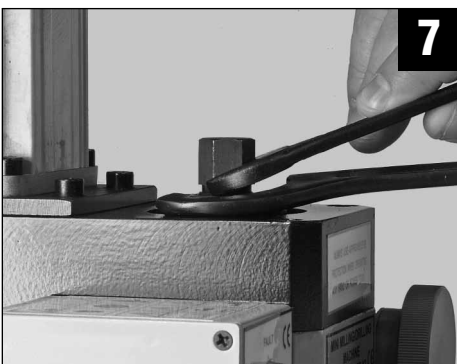
4 See the instruction manual for wedge (gib) adjustment procedure and attach one handle as shown to move head up and down to check adjustment.



5 Install remaining operating levers to handle stock of spindle shaft (pinion).



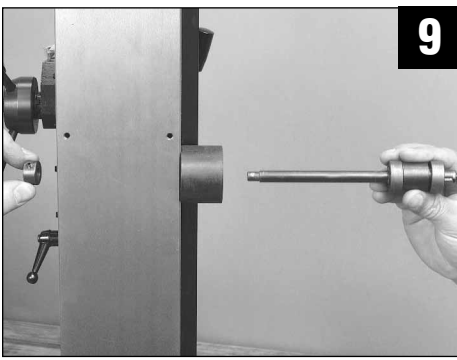
6 From the top, insert drawbar through spindle while inserting chuck mandrel assembly from below. **IMPORTANT:** The notch in the R8 mandrel you are inserting must be mated with the pin up inside the spindle!



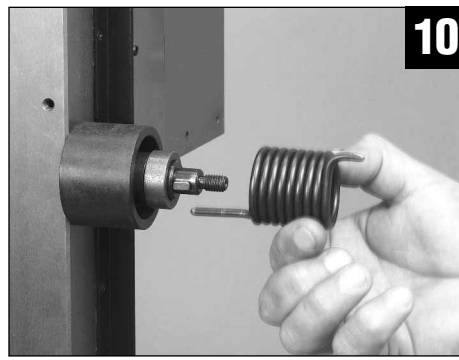
7 Thread drawbar until seated and tighten with spanner and open-end wrench.



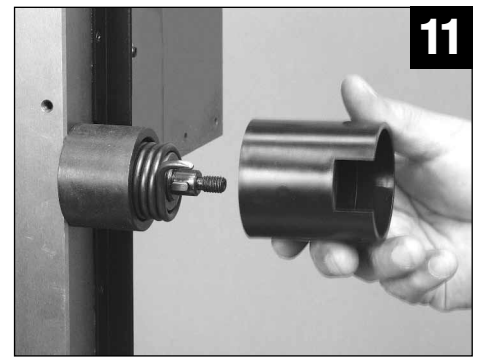
8 Install spring support to left side of column with 3 screws.



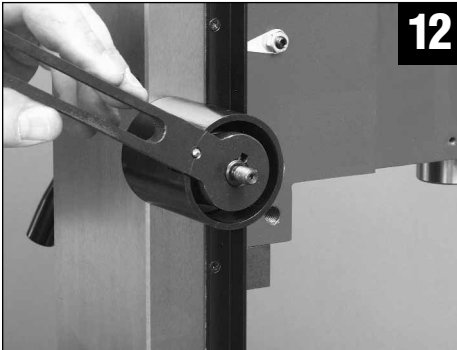
9
Install rotor shaft, washers (collars), key and lock sleeve through the spring support and column. Secure lock sleeve in place with ring collar and set screw.



10
Install torsion spring with long end passing through hole in column.



11
Install spring cover over torsion spring with notch adjacent to short spring end.



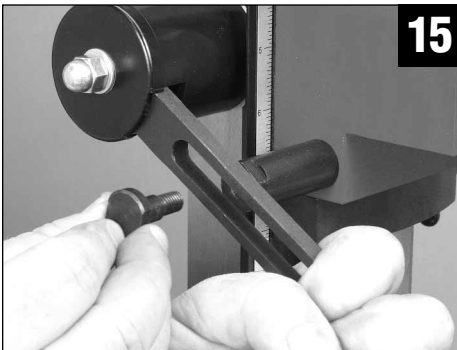
12
Install supporting shank (slotted crank arm) over key and short end of torsion spring.



13
Install internal ring, cover, washer, and cap nut to end of rotor shaft. Refer to diagram in manual for further clarification.



14
Install prop to left side of head stock.



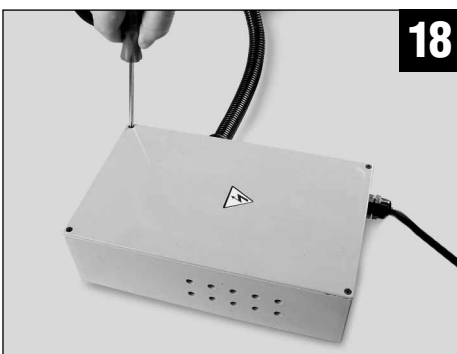
15
Rotate supporting shank clockwise to a position in line with prop, and install screw to hold supporting shank to prop.



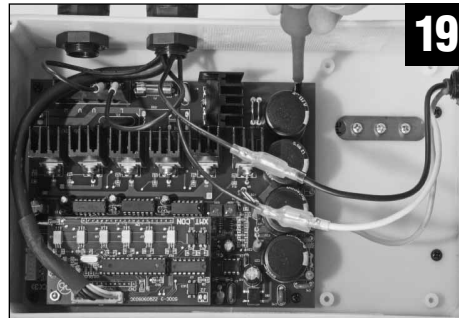
16
Your large circuitry box and smaller control box are supplied cabled together.



17
You will now be mounting the circuitry box to the rear of the column. Remove the two screws at the top and two at the bottom. The two or three screws that align vertically are for electrical ground and will be aligned in the opening on the back side of the box once mounted.



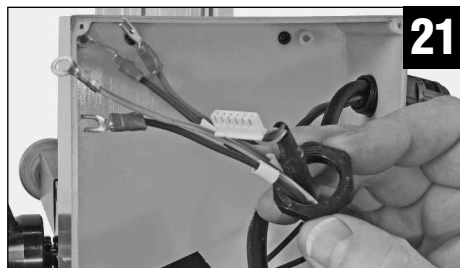
18
Remove the four (4) screws from the circuitry box lid and set them aside.



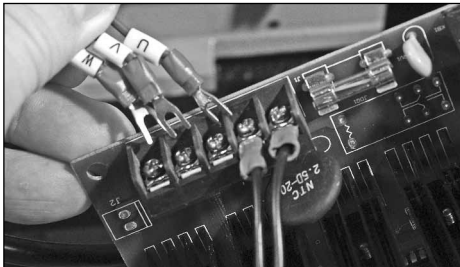
19
Carefully remove the four (4) screws that hold the circuit board inside the box, one from each corner, and set them aside. Gently pull out the board around the cables installed from the control box. It might help to loosen the nut which retains the cables from the control box.



20
Install this box to the rear of the column with the four (4) screws removed in step 17. The small cut-out in the box should leave access to attach the two (2) ground leads required later in step 25.

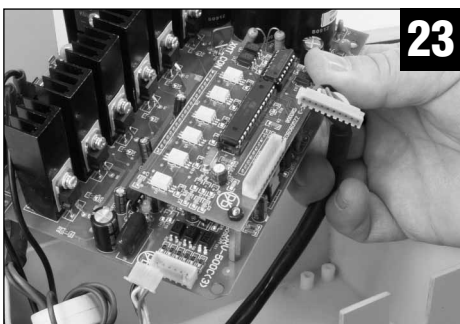


Remove the nut and cable harness from the circuitry box where the motor wires will need to be passed through. Note that the colored wires are wrapped around a white ring. Remove the white ring and set it aside. Pass all wiring one at a time through the cable harness and then into cable circuitry box. Then, pass all through the cable harness nut. Insert the coiled wire covering into the cable harness, latching it into place. Now wrap the colored wires around and through the white ring as before.

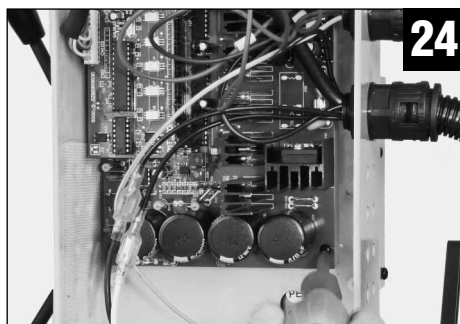


Please refer to the wiring diagram found in the instruction manual for assistance in this section.

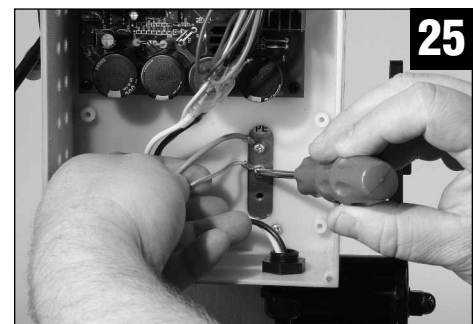
Remove the 4 screws that hold the main circuit board inside the electrical control box and gently pull out the circuit board to gain access to wire terminals. Locate the 5-slot (screw type) terminal post. **N** and **L** are already installed. Install **W**, **V** and **U** cables to their terminals. Note: the cables are marked accordingly.



Now, mate the white connectors to their appropriate slots on the boards.



Review all connections on the board to insure good contact and remount the board gently inside the box, manipulating the wiring as required. Do not overtighten.



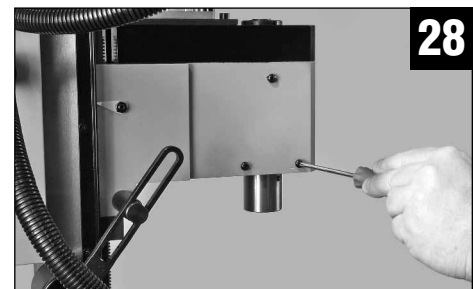
Although there could be three holes in the column for grounding wires, you will use only two of them in this step. Attach the solid green and (split) green/yellow wires at this time.



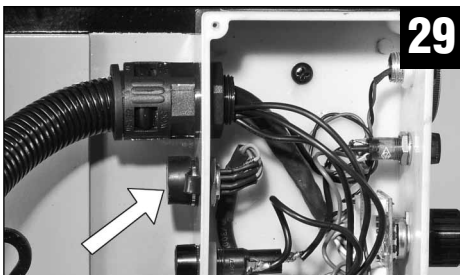
With cables and wires tucked inside, re-attach cover with the four (4) screws previously removed.



Remove the four (4) screws from the circuitry box lid and set them aside.



Remove the three mounting screws from the head and use them to mount the control box.



Do not overtighten the screws. Now, re-attach the cover. *Notice the arrow in this picture. This rubber cap covers the outlet for the optional digital readout. If you purchased this item, you can align the plug and prongs accordingly to enable the device.

Install all remaining handles, cranks, caps, covers and shields in the locations shown in the assembly diagrams.

Micro-Mark[®]

340 Snyder Avenue, Berkeley Heights, NJ 07922
www.micromark.com • Tech Support: 908-464-1094, weekdays, 1pm to 5pm ET