

# (KSU) KIENINGER MOVEMENT

## INSTRUCTIONS FOR GRANDFATHER AND GRANDMOTHER CLOCKS

***WHEN HANDLING EXPOSED BRASS PARTS, USE SOFT COTTON GLOVES TO PREVENT TARNISHING.***

### 1. SETTING UP CLOCK

Set clock upright on solid surface. Remove all packing material from inside of clock. Set up clock where you want it and level on side and front of waist. (THERE ARE LEVELING FEET IN EACH CORNER ON BOTTOM OF CLOCK.) MAKE SURE CLOCK IS LEVEL. (SEE FIGURE 4)

### 2. ATTACHING PENDULUM

Attach the pendulum on the leader. (SEE FIGURE 2)

### 3. ATTACHING WEIGHTS

Attach the weights on the pulleys, making sure the cable is in the groove around the pulley. When facing the clock (*On Grandfather Clocks, the weight on the left weighs approximately 7 lb., the center and the one on the right approximately 9 lb., On Grandmother Clocks, the weight on the left and center weighs approximately 7 lb., the one on the right approximately 9 lb.*) The pulleys are packed separately. The end of the cable goes through the pulley and up to the bottom of the clock movement. (SEE FIGURE 3)

### 4. STARTING CLOCK

Hold pendulum on bottom and push all the way to the left or right, hold steady and release. (YOUR CLOCK IS EQUIPPED WITH AN AUTOMATIC BEAT ADJUSTMENT AND AS THE PENDULUM SWING SLOWS, THE VERGE WILL SET ITS OWN BEAT)

### 5. WINDING THE CLOCK

Insert the crank into each keyhole in the dial and turn the crank counter clockwise to the left. A clicking noise while winding is normal. Crank up the weights until against. The left weight is for the strike, the center weight for the time and the right weight is for the quarter hour chime. Letting the weights go all the way to the bottom will not damage the clock if you forget to pull up the weights.

### 6. SETTING THE TIME

To set the clock to the correct time, move the minute hand clockwise or counter clockwise. There is no need to stop every quarter hour to let it chime. If the chiming cycle does not correspond to the time shown by the hands, it will self-correct within two hours. When moving the minute hand past the 12:00 o'clock position, (stop at 12:00) wait until it is finished chiming and striking then advance to the correct time.

### 7. SELECTING THE CHIMES

To select either the Westminster, St. Michael or Whittington chimes, shift the chime selector lever on the right hand side of the dial, (beside the 3). The chimes can also be silenced. To silence the hour strike, shift the lever on the left hand side of the dial, (beside the 9). (IF YOUR CLOCK IS EQUIPPED WITH THE AUTOMATIC NIGHT SHUT-OFF FEATURE, MOVE THE LEVER ON THE LEFT TO THE CENTER POSITION AND THE CLOCK WILL NOT CHIME OR STRIKE FROM 10:15 PM TO 7:00 AM) **If clock strikes during 10:15 PM to 7:00 AM with auto shut-off engaged, advance hands 12 hours. (See No 6, setting the time)**

**DO NOT MOVE THE CHIME OR STRIKE SELECTING LEVERS WHILE THE CLOCK IS CHIMING OR STRIKING**

### 8. TIMING THE CLOCK

To regulate clock if it gains, turn the rating nut on the bottom of the pendulum bob to the left to lower the bob. If it loses, turn the rating nut to the right to raise the bob. (SEE FIGURE 1)

### 9. SETTING THE MOON

The arch of the moon dial is calibrated into 29-1/2 days, corresponding to the lunar month. There are 59 teeth cut around the edge of the moon disc... A small gear is mounted on the hand shaft to mesh with the larger wheel near the hand shaft. This train of wheels moves the disc forward at a speed of 1/2 a revolution in 29-1/2 days, completing the lunar month.

The moon dial is as accurate as it is practical to make it. Actually, it is a trifle off, and if you watch the moon phase, you

will have to adjust it every few months. The moon actually circles the earth in an average of 27 days, 7 hours, 43.2 minutes, and the period of time from new moon is 29 days, 12 hours, and 44.05 minutes, not the exact 29-1/2 days measured by your clock.

The moon disk can be moved by hand in the back of the dial. Place the moon exactly beneath No. 15 on the moon dial. Using a calendar, determine the number of days since the last full moon. Move the moon disk, one click in a clockwise direction for every day since full moon, .e.g., the moon is five days after full moon, move the moon disk five clicks. Should the moon gears be active, the disk cannot be turned. Move the minute hand clockwise (as many hours as needed) to take the gears out of action, then set the moon disk and readjust the time.

#### 10. SERVICING YOUR CLOCK

**We recommend having your clock oiled every three years by a professional clockmaker.**

Your clock is a precision instrument, but it will remain so only with regular upkeep.

**Never use sewing machine oil or spray lubricants.**

### TO ADJUST CHIME HAMMERS

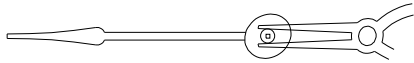
During handling, the chime hammers may become bent out of adjustment causing improper tone in chiming. The chime hammers are attached to thin brass wires, which may be bent to bring the hammers into proper alignment. From the sides of the clock, check the position of the hammers. The hammers should rest about 1/8 inch away from the chime rods. They should be aligned to strike the center of the rods. The hammers should not touch or rub against each other.

- 1 Chimes will sound dull or muted if hammers rest on the rod. To correct, bend the hammer away from the rod.
- 2 Chimes are not clear. One or more notes may not be heard. Hammers are too far from the rod. To correct, bend the hammer toward the rod.
- 3 The Westminster chimes will operate in the following sequence:
  - Quarter hour --- 4 notes
  - Half hour--- 8 notes
  - Three quarter hour--- 12 notes
  - Hour chime--- 16 notes
- 4 The Whittington and the ST. Michael chimes will operate in the following sequence:
  - Quarter hour --- 8 notes
  - Half hour--- 16 notes
  - Three quarter hour--- 24 notes
  - Hour chime--- 32 notes
- 5 Immediately following the hour chime the correct hour will be struck.

### TROUBLE - SHOOTING CHECKLIST

If your clock is not operating properly, the following adjustments can be made quite easily:

1. **CLOCK DOES NOT RUN**
  - a. Check that all three weights are fully wound.
  - b. Check to see that all packing material is out of clock.
  - c. Check the clock hands. If the hands are catching on each other, bend the minute hand away from the hour hand.
2. **CLOCK IS NOT CHIMING PROPERLY**
  - a. It is normal if the chime sequence is disturbed after setting the clock to the correct time. Within two hours, the chime sequence will correct itself.
  - b. If the clock continues to chime out of sequence, perform the following adjustment:
    - i. Manually turn the clock through two hours, stopping at each quarter hour to allow it to chime. If, when the full hour chime sequence (16 notes) is sounded, the minute hand is not at the 12:00 position, remove the hand nut, pull off the minute hand and position it to point at 12:00. Replace the hand nut.
  - c. If the chiming cycle starts a few minutes before or after the quarter hour position, perform the following adjustment:
    - i. Move the minute hand to the next quarter hour SLOWLY and note the position of the hand when chiming started. Remove the hand nut and the minute hand. Grasp the small bushing under the minute hand securely with pliers and move the hand in the direction to make it coincide with the correct quarter hour mark. Refer to drawing below. Replace the minute hand and the hand nut.



3. CLOCK IS NOT COUNTING THE CORRECT HOUR

- a. If the hour hand and the hour struck do not match, perform the following adjustment:
  - i. Manually chime the clock until the full hour is sounded and the hour is struck. Push the hour hand firmly until it is pointing at the hour just struck. The hour hand is on the shaft friction tight. If it is too loose, remove the hour and slightly squeeze together the projecting part on the back of the hand. Replace the hour hand by pointing it to the correct hour.

## WARRANTY

### KAUFFMAN'S HANDCRAFTED CLOCKS

3019 WEST NEWPORT ROAD, RONKS, PA 17572

717-656-6857

[www.KHClock.com](http://www.KHClock.com)

(TWO YEAR LIMITED WARRANTY ON MECHANICAL CLOCKS)

This clock has been thoroughly tested, and is guaranteed for a period of 2 years against defects in materials and workmanship. Any necessary repairs during that period will be made without charge. (THIS GUARANTEED IS VOID ON CLOCKS THAT HAVE BEEN WET, TAMPERED WITH, IMPROPERLY OILED, TAKEN APART, OR OTHERWISE MISHANDLED)

If your clock has to be returned for repairs, it must be properly packaged and protected to insure safe delivery to our store.

**You must include a copy of the original receipt.**

IT IS THE RESPONSIBLY OF THE CUSTOMER TO EITHER, SHIP OR RETURN THE CLOCK TO BE REPAIRED UNDER WARRANTY. THE CUSTOMER IS RESPONSIBLE FOR ALL SHIPPING COSTS, TO AND FROM OUR PLACE OF BUSINESS.

**PLEASE KEEP FOR YOUR RECORDS**

DATE OF PURCHASE \_\_\_\_\_

MODEL NO. \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

