

4 BULOVA

Instruction Manual

Table of Contents

- 1 Introduction
- 2 Getting Started
- 5 Your Cable-Wound Clock
- 9 Your Chain-Driven Clock
- 13 Your Tubular Bell Movement Clock
- 17 Moon Dial & Chimes
- 18 Troubleshooting
- 21 Moving & General Care
- 22 Record of Service
- 23 Ownership Record
- 24 Guarantee

Over 125 Years of Quality and Craftsmanship

Since 1875, when Joseph Bulova set up shop in New York City, the Bulova name has been synonymous with quality and craftsmanship.

While many things have changed since then, Bulova's reputation for superb workmanship and superior timekeeping remains. Our unwavering demand for excellence is evident in every detail of your Bulova Grandfather Clock.

Custom-made to your specifications, each Bulova Grandfather Clock is handcrafted and polished to ensure the quality our customers deserve.

Designed as exquisite furnishings as well as high-quality precision timepieces, all Bulova Grandfather Clocks begin with the finest woods, carefully selected by our expert craftspeople. These prime woods are then meticulously cut, seasoned and finished, as the dedicated team assigned to each clock crafts a final product of heirloom-quality beauty.

Our cable-wound and chain-driven movements, all in solid brass, are made by the foremost manufacturers in Germany's Black Forest region, the world's leading source for precision mechanical clock movements. Every intricately crafted movement features a quarter-hour strike, with single-chime movements playing the well-loved Westminster melody and triple-chime movements offering a choice of Westminster, St. Michael or Whittington melodies.

Made to last for generations, Bulova Grandfather Clocks bring with them a special promise of elegance and grace, a warmth designed for years of memories and magic.

A Word About Grandfather Clocks

Exquisite as they may be, the distinctive weights and pendulum of a mechanical grandfather clock are far from merely decorative. The essence of classic clock design, these distinctive features control and regulate the workings of each expertly handcrafted Bulova Grandfather Clock.

The weights provide the power for all Bulova Grandfather Clocks, whether cable-wound or chain-driven. With each weight responsible for a specific function – in basic three-weight clocks, timekeeping, the hour strike and the quarter hour chime – the clock derives energy from the force of the weights as they drop lower during a seven- to eight-day cycle. Winding consists of raising the weights either via a winding crank (for cable-wound styles) or manually (for chain-driven models).

The pendulum, swinging in an even tick-tock motion, controls the actual running speed of the clock. Since a shorter pendulum moves more rapidly than a longer one, each pendulum includes a regulator nut, either above or below the pendulum bob, that can be turned to move the bob up or down, changing the center of gravity and thus effectively altering the length of the pendulum itself.

The hour strike and quarter hour chimes are produced by the series of hammers hitting gong rods, tubes or bells. Each of these is of a different size to produce a distinctive sound. Melodies are created through the specific sequence and rhythm with which each hammer hits its corresponding rod, tube or bell.

All Bulova Grandfather Clocks include a self-correcting feature to synchronize the chimes with the time.

Using This Manual

While the basics of choosing the proper site for your clock, unpacking the carton and gaining access to the movement are standard for every Bulova Grandfather Clock, the precise set-up procedures for cable- and chain-wound styles, as well as clocks equipped with tubular bell chimes, differ in certain respects. For maximum ease of use, this manual includes a separate section for each of these three variations. After the "Getting Started" section, please refer to the proper chapter for your particular clock.

INTRODUCTION

GETTING STARTED

CHOOSING A LOCATION FOR YOUR CLOCK

When choosing a location for your clock, there are several situations or conditions to consider:

- 1. For optimal operation, your clock should be positioned on a flat, level floor.
- 2. Avoid placing the cabinet in direct sunlight. The finish of the portion of the cabinet that receives the most sun exposure may lighten or sustain other damage.
- 3. Avoid placing the clock directly in front of or below a radiator, or a heating or air conditioning vent. Since there is a certain amount of dust as well as hot or cold air blown through the vents, clocks placed in close proximity to such units may need to be cleaned and lubricated more frequently in order to operate correctly.
- 4. Avoid placing the clock too close to a stove or fireplace. Since these units produce extremely hot, dry air, this could cause the wooden case to dry out and crack, and may evaporate the oil essential to smooth operation of the movement.
- 5. The volume of the chimes will be affected by the size of and furnishings in a room. A clock placed on a wood floor will be much louder than the same clock placed in a room with plush carpeting and heavy drapes.
- 6. Whenever possible, avoid heavily trafficked areas, especially if small children are present. Vibrations or jolts can affect the movement.

Special Note: Be sure to remove the key after locking the door. Store it in a safe place.

ITEMS YOU WILL NEED FOR SETTING UP YOUR CLOCK

- 1. Scissors
- 2. Cotton gloves (supplied) or a soft cloth to use when handling the brass parts of your clock
- 3. Pliers
- 4. A spirit or bubble level
- 5. A helper (for safety's sake yours and the clock's)
- 6. A Phillips head screwdriver (certain models)

UNPACKING THE CARTON

Check the packaging carefully to make sure none of the following are accidentally discarded:

- Weights and weight shells (these are packed in the base of the clock)
- 2. Pendulum (packed in a separate box, stapled to the inside of the carton or strapped to the clock)
- 3. Tubes (if you ordered the tubular chime movement, the tubes are packed in a separate carton)
- 4. Finial(s) (hood ornament(s)), if your clock has one, winding crank (on cable-driven clocks), door key, instructions, engraving plate and cotton gloves for handling brass components are all packaged together in a separate box usually found on the top of the clock. If your clock has glass shelves, they are also included in this package.

It is advisable to use cotton gloves (supplied) or a soft cloth when handling the brass parts of your clock. Due to normal perspiration, excessive handling with bare hands will eventually cause the brass to tarnish.



Use glide levelers on base to level clock.

UNPACKING YOUR CLOCK

- 1. After removing the clock from the packaging, set it near its permanent location.
- 2. Using extreme care (preferably with two people), tilt the clock to make sure the four glide levelers (located on each corner of the base) move freely up and down. You will adjust the glides when you move the clock to its permanent position.
- 3. Move the clock to its permanent location and level the clock using the glide levelers on the base. Take a spirit or bubble level and place it alongside the cabinet from front to back as well as side to side, adjusting the levelers until level. We use automatic leveling movements, so perfect leveling is not required. You should make sure the clock is resting firmly on all four levelers.

If your clock is placed on plush carpeting, you may need to re-level the clock after it "settles".



 Decorative finials fit securely into predrilled holes on the crown of your clock.

 A side grill with wooden slots lifts up easily. Tilt bottom in, lower top of panel and turn to remove.



ATTACH DECORATIVE FINIALS (if applicable)

There will be a predrilled hole on the crown of your clock which will match the size and depth of the dowel pin on the finial. Simply insert the dowel pin into the hole and press down. Twisting the finial from side to side as you press down will make it easier to install.

Note: Your clock may have several finials.

ACCESS TO THE MOVEMENT

There are four different ways to gain access to the clock's movement. Select the instruction below that matches the design of your clock.

Removable side grills or glass panel

- 1. Remove tape.
- 2. Grasp the wood slats of the grill or the knob on the glass panel with your fingertips.
- 3. Lift up. The insert rests in a recessed slot on the bottom edge.
- 4. Tilt the bottom of the insert in toward the inside of the clock.
- 5. Lower the insert out of the slot at the top of the opening.
- Turn the insert at an angle and remove from the clock through the side opening.
- After setting up your clock, replace by reversing the above procedure.



Grasp knob on glass side panel and simply lift up.

Hinged side doors

Each of the doors has stop hinges installed to prevent you from opening it too far and scarring the exterior of the cabinet. Be careful not to open the door past this point, since that may damage the hinges.

Removable hood

- 1. Turn the clock so the back is facing you.
- Rotate the four panel retainer buttons located on each corner of the back panel away from the panel. Do not remove any screws.
- 3. The hood is now free.
- 4. Standing in front of the clock, pull the hood slowly towards you.
- As you pull the hood forward, you may have to tilt the hood up to clear the dial.

Caution: Some of the hoods are extremely heavy. Be sure you have a firm hold on the hood when you lift it.



 Pull removable hood slowly toward the front. Make sure you have a firm hold on the hood before lifting it.



- 1. Turn the clock so the back is facing you.
- 2. Remove the four screws holding the upper back panel in place.
- 3. Carefully remove the back, allowing access to the movement.



- · Open hinged doors carefully.
- 6. After you have put your clock into operation, setting the time and moon dial (if applicable), very carefully reinstall the hood and turn the panel retainer buttons to secure the back. This will hold the hood securely in place and prevent vibrations.

Note: Be very careful not to hit the top of the dial with the hood as you put it on the clock case; this could damage the dial or cause it to function incorrectly.

 Remove screws to gain access to the movement of a closed sided clock.



YOUR CABLE-WOUND CLOCK

PUTTING CABLE-WOUND CLOCKS INTO OPERATION

UNPACKING CABLE-WOUND MOVEMENTS

Once you have gained access to the movement, you will see the chime hammers in their protective foam packing.

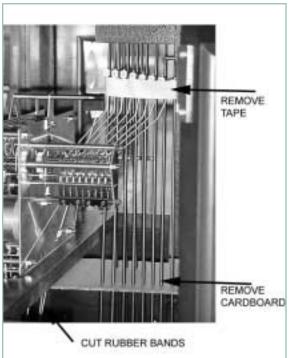
- Remove the masking tape from the chime hammers.
- Remove styrofoam or cardboard from chime (gong) rods by loosening any staples holding it closed and then sliding it down.
- Cut and remove the rubber band holding the pendulum leader.
 Caution: Hold onto the rubber band to prevent it from jerking the clock parts out of adjustment or possibly breaking the suspension spring which is attached right above the pendulum leader.
- Carefully remove the rubber bands securing the pulleys.
- Cable pulleys are usually prepared for set-up at the factory.
 Please check that the cable(s) are attached correctly and run within the guides of the cable pulley(s).





The pendulum is packed in a separate box, which is either stapled to the inside of the carton or wrapped around the case. Be careful when opening the carton to avoid damaging the pendulum.

Make sure you are wearing your cotton gloves or have a soft cloth handy. This is essential when handling brass components.



Remove the protective film from the pendulum before hanging it on the pendulum guide.

Check the back of the pendulum. Each of the rods that make up the shaft of the pendulum should fit into the bracket on the back of the harp. If the rods are out of the bracket, or jammed inside, you will need to reinsert them properly.

Be careful when hanging the pendulum on the pendulum guide. There is a small suspension spring located above the pendulum leader that could break if the guide is twisted or handled roughly. When hanging the pendulum, hold the pendulum guide with your left hand to maintain a vertical position. Hook the pendulum onto the guide.

The pendulum should hang straight and on center when not in motion. If it does not, check again to see if the cabinet is level. Also, make sure the pendulum shaft is not twisted. If it is twisted, place one hand on the neck of the pendulum and the other on the pendulum bob and gently twist until the pendulum hangs straight.

Note: Bulova Grandfather Clocks feature either classic lyre pendulums or elegant stick pendulums. The set-up procedure is identical for each style.

 When hanging the pendulum, hold the pendulum guide with your left hand to maintain a vertical position.

WEIGHTS

Most clocks use three weights. Each weight must be installed in its correct location for the clock to operate properly. A sticker can be found on each weight indicating its proper position.

The weights provide power to the hour strike (left weight), time (center weight) and chime melody (right weight). The clock will not operate without these weights.

Before handling the weights, make sure you are wearing your cotton gloves or have a soft cloth handy.

Be sure that the cable is fully engaged around the pulley. The pulley sling should now be swinging freely from the bottom of the pulley. Before hanging the weights, be sure to re-tighten both the hook on the top and the nut on the bottom. Attach each weight to the pulley sling in the proper order.



Attach each weight to the pulley sling in the proper order.

START THE PENDULUM SWING

- After hanging the pendulum, reach in through the front door of the clock and grasp the pendulum bob.
- Move the pendulum to the right or left until it almost touches the side and release. Let the clock run a few minutes until the pendulum settles into an even swinging motion and you hear a steady "tick-tock" sound.
- If the sound is uneven, the beat is out of adjustment. You will need to stop the pendulum, and then re-start the swing. If the beat is improved, but not quite even, you should repeat the process, this time pulling the pendulum to the other side of the case (i.e., if you originally moved the pendulum to the right, you will now move it to the left).



 Move the pendulum right or left until it almost touches the side and release.

WINDING YOUR CABLE-WOUND CLOCK

The weights are the driving power that makes your clock operate. In order for your clock to run continuously, you will need to wind the clock by raising the weights every seven to eight days.

The winding crank is packed separately. Be sure not to discard it!

 Insert the winding crank, in turn, into each of the three arbors located on the dial of your clock. Wind clockwise with a slow even motion until the top of each weight is even with the top of the door opening.



 Insert the winding crank into each of the three arbors on the dial. Wind clockwise with a slow, even motion.

- 2. As you are winding the clock, do not touch or lift the weight. This will cause improper tension on the cable and could result in the cable overlapping on the cable drum, stopping the clock.
- 3. If you plan to be away from home for more than a few days, stop the pendulum from swinging until you return.

Note: Periodically (once a year is often enough), you should check the weights on your clock to make sure the hook on the top and the nut on the bottom are tight and secure. After the clock has been in operation for awhile, the screws holding the weights together may loosen. These can be tightened without removing the weight from the clock. Simply hold the hook on the top of the weight steady with one hand (being careful not to raise the weight when doing this) and, with the other, grasp the weight and turn the nut clockwise (to the right).

To check tightness on cable movements: You should not remove the weight from the clock to check the tightness of the movement. This will release the tension on the cable and will cause the cable to overlap on the cable drum.



 Gently rotate the moon disk clockwise until the center of the moon face is below the 15 on the dial. Simply hold the hook on the top of the weight steady with one hand (being careful not to raise the weight when doing this) and, with the other, grasp the weight and turn clockwise (to the right).

Note: On some movements, the two outside weights, which control the strike and the chime, do not fall when the clock is on the silent position or in the automatic night shut-off ("ANSO") position. (See "Chime Selection" for explanation of "ANSO".) Even with the clock set on the chime position, the weights may not fall evenly. It is perfectly normal for one or more weights to be slightly higher or lower. The clock will still operate correctly.

SETTING THE MOVING MOON DISK

The moon dial corresponds with the lunar month, not the calendar month. The lunar month is 29-1/2 days long. As long as the clock operates continuously, the moon dial will follow the moon through its phases automatically. If the clock stops, you will need to reset the moon dial.

- Using a soft cloth or gloves, touch the recessed portion of the moon dial and, with gentle pressure, rotate the moon disk to the right (clockwise) until the center of the moon face is below the 15 on the dial.
- Consult an almanac or calendar for the date of the last full moon. Count the number of days, including the present one, since the last full moon.
- 3. Using a soft cloth or gloves, rotate the moon disk to the right (clockwise) one click for each day since the last full moon. One click represents a twenty-four hour day of the lunar month. For example, if the moon were six days past the full moon, you would move the disk six clicks.
- 4. If you move the disk too far, or the clock stops for any reason, simply start over with instruction "1".
- 5. If you have difficulty turning the moon disk or it does not move easily: Open door or remove the insert from the cabinet on the left side as you stand facing your clock. As you look at the back of the dial, you will be able to identify the click spring on the back of the dial. Make sure the click spring is positioned correctly on the moon dial teeth. If out of position, simply lift the click spring away from the dial teeth and release.

Note: If you attempt to set the moon and is does not move easily, the dial is probably in the process of changing moon phases. It usually takes about six to eight hours for the change to be completed. You will need to wait a few hours before you attempt to set the moon phase again.

SETTING THE TIME

- 1. Put the clock in the silent (no strike or chime) position.
- 2. Set the clock to the correct time by moving the minute (longest) hand clockwise or counterclockwise, whichever is more convenient. Move the hand slowly and evenly. Avoid touching the hour (shortest) hand and accidentally moving it as you set the time.
- 3. The movement has a self-correcting feature which synchronizes the chimes with the time. This may take two to three hours.
- 4. Reset chimes to desired selection.

Note: Allow the clock to operate for at least two to three hours before making any additional adjustments to the time. If, at the end of three hours, the clock strikes the incorrect number of times on the hour, see the "Troubleshooting – Clock does not strike the correct hour – synchronization" section.

YOUR CABLE-WOUND CLOCK

CHIME SELECTION

If your clock is a single-chime model, it will play only the Westminster chime. If it is a triple-chime style, you will be able to choose among three different melodies. A glance at the dial of your clock will tell you which chimes can be heard on your clock. If the dial simply states "Chime-Silent", your clock has only the Westminster Chime. If your clock has a triple-chime movement, you will see on the dial where the lever should be positioned to hear each one. All clocks feature the Big Ben gong to toll the hour.

As you move the selector lever from one chime to another, or from chime to silent, you will be able to feel the lever fall into the next position. Make sure the lever is resting in position and not between two.

The chime selector lever should not be moved while the clock is chiming or striking. When you want to change melodies, move the lever to the selected chime after the chime has completed chiming on the quarter-hour, half-hour, three-quarter hour or hour.

Five minutes before each quarter, the movement adjusts itself to chime on the quarter. In clock terminology, you would say the clock "warns" five minutes before the chime. If you listen closely, you will be able to hear the sound your clock makes at that time. If you change the melody after the movement makes this adjustment (or "warns"), you may damage the movement or cause it to not chime at all.

Your clock's beautiful chimes can be turned off at night. The movement may be equipped with an automatic night shut-off ("ANSO"), preventing it from chiming from 10:00 PM until early in the morning (approximately 6:00 AM - 7:00 AM). If the clock stops chiming at 10:00 AM, it is likely to be in PM (night) mode, and the time will need to be reset by 12 hours by rotating the minute hand to the correct time. The lever for the ANSO function is located underneath the dial on the right side. Not all grandfather clocks come equipped with automatic night shut-off.

- Lever in "up" position = night shut-off is engaged and the clock will NOT chime
- Lever in "down" position = night shut-off is NOT engaged and the clock WILL chime

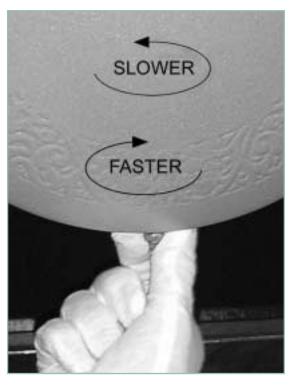
Note: The silent lever will turn off the chimes for twenty-four hours, while the ANSO feature will turn off the chimes during the night.

The chimes may be turned on at any time.

REGULATION FOR MAKING YOUR CLOCK RUN FASTER OR SLOWER

Timekeeping is regulated by the location of the bob on the pendulum shaft. Changing the speed is accomplished by moving the pendulum bob up or down.

To speed up timekeeping, turn the regulation nut to the right (clockwise) to raise the pendulum bob.



To slow down timekeeping, turn the regulation nut to the left (counterclockwise) to lower the bob. We recommend that you make several counterclockwise revolutions so that the pendulum drops noticeably. This will help you regulate the time with greater accuracy.

When making time adjustments to your clock, hold the pendulum steady with one hand while turning the regulating nut with the other hand. If the pendulum disk does not move freely, remove the pendulum from the clock and check the back of the pendulum. Each of the rods that make up the shaft of the pendulum should fit into a guide on the back of the harp. If one or more are out of the guide, you will need to reposition the rod in the guide before the disk can be lowered or raised. Then, hang the pendulum on the clock, and re-start the pendulum swing.

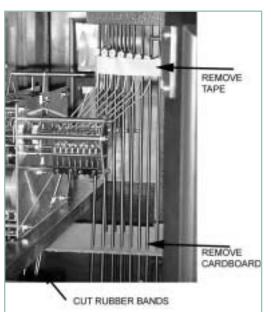
Note: One complete revolution of the adjustment nut equals approximately one-half minute per twenty-four hours.

Remember: Regulation of the time is your responsibility and not the responsibility of your serviceman or your dealer.

YOUR CHAIN-DRIVEN CLOCK

PUTTING CHAIN-DRIVEN CLOCKS INTO OPERATION

UNPACKING CHAIN-DRIVEN MOVEMENTS



On models with chain-driven movements, carefully remove the rubber bands used to secure the chains for shipping, and allow each of the chains to hang free.

You will then have to remove the protective packing from the chime hammers:

- Remove the masking tape from the chime hammers.
- Remove styrofoam or cardboard from chime (gong) rods by loosening any staples holding it closed and then sliding it down.
- Cut and remove the rubber band holding the pendulum leader.

Caution: Hold onto the rubber band to prevent it from jerking the clock parts out of adjustment or possibly breaking the suspension spring which is attached right above the pendulum leader.

YOUR CHAIN-DRIVEN

 When hanging the pendulum, hold the pendulum guide with your left hand to maintain a vertical position.

UNPACKING AND HANGING THE PENDULUM

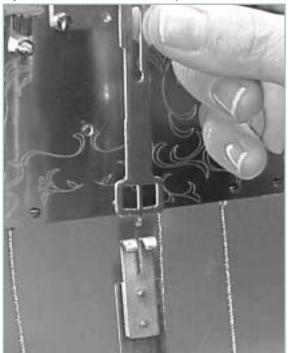
The pendulum is packed in a separate box, which is either stapled to the inside of the carton or wrapped around the case. Be careful when opening the carton to avoid damaging the pendulum.

Make sure you are wearing your cotton gloves or have a soft cloth handy. This is essential when handling brass components.

Remove the protective film from the pendulum before hanging it on the pendulum guide.

Check the back of the pendulum. Each of the rods that make up the shaft of the pendulum should fit into the bracket on the back of the harp. If the rods are out of the bracket or jammed inside, you will need to reinsert them properly.

Be careful when hanging the pendulum on the pendulum guide. There is a small suspension spring located above the pendulum leader that could break if the guide is twisted or handled roughly. When hanging the pendulum, hold the pendulum guide with your left hand to maintain a vertical position. Hook the pendulum onto the guide.



The pendulum should hang straight and on center when not in motion. If it does not, check again to see if the cabinet is level. Also, make sure the pendulum shaft is not twisted. If it is twisted, place one hand on the neck of the pendulum and the other on the pendulum bob and gently twist until the pendulum hangs straight.

Note: Bulova Grandfather Clocks feature either classic lyre pendulums or elegant stick pendulums. The set-up procedure is identical for each style.



 Starting with the heaviest weight on the right as you face the clock, attach each weight to the chains.

WEIGHTS

Most clocks use three weights. Each weight must be installed in its correct location for the clock to operate properly. A sticker can be found on each weight indicating its proper position.

The weights provide power to the hour strike (left weight), time (center weight) and chime melody (right weight). The clock will not operate without these weights.

Before handling the weights, make sure you are wearing your cotton gloves or have a soft cloth handy.

Hang the heaviest weight on the right, as you face the clock.

START THE PENDULUM SWING

- 1. After hanging the pendulum, reach in through the front door of the clock and grasp the pendulum bob.
- Move the pendulum to the right or left until it almost touches the side and release. Let the clock run a few minutes until the pendulum settles into an even swinging motion and you hear a steady "tick-tock" sound.
- 3. If the sound is uneven, the beat is out of adjustment. You will need to stop the pendulum, and then re-start the swing. If the beat is improved, but not quite even, you should repeat the process, this time pulling the pendulum to the other side of the case (i.e., if you originally moved the pendulum to the right, you will now move it to the left).

WINDING YOUR CHAIN-DRIVEN CLOCK

The weights are the driving power that makes your clock operate. In order for your clock to run continuously, you will need to wind the clock by raising the weights regularly. Although there is usually enough chain on the clock movement to allow the weights to fall for eight days (this is where the term "eight-day clock" originated), the length of time can be altered by the design of the cabinet or the type of movement installed in the cabinet.

 Grasp the free end of the chain with one hand while holding the chain above the weight with the other hand. As you pull down, at the same time, lift slightly on the other chain. Do not allow the chain to go slack.



- Move the pendulum right or left until it almost touches the side and release.
- Pull straight down on the free end of the chain. You will be tempted to pull the chain towards you rather than straight down. Avoid doing this, because it may cause the links of the chain to open and eventually break.
- 3. Use a slow even motion when raising the weight. Jerking the chain or releasing the weight suddenly could break the chain.
- 4. If you plan to be away from home for more than a few days, stop the pendulum from swinging until you return.
- Grasp the free end of the chain with one hand while holding the chain above the weight with the other.

Note: Periodically (once a year is often enough), you should check the weights on your clock to make sure the hook on the top and the nut on the bottom are tight and secure. After the clock has been in operation for awhile, the screws holding the weights together may loosen.

To check tightness of weight hooks on chain movements: Remove one weight at a time and lay it on a flat surface. Hold the nut on the bottom of the weight steady with one hand and tighten by turning the hook on the top clockwise. Be careful when handling the weights since they are extremely heavy.



 Gently rotate the moon disk clockwise until the center of the moon face is below the 15 on the dial. Note: On some movements, the two outside weights, which control the strike and the chime, do not fall when the clock is on the silent position or in the automatic night shut-off ("ANSO") position. (See "Chime Selection" for explanation of "ANSO"). Even with the clock set on the chime position, the weights may not fall evenly. It is perfectly normal for one or more weights to be slightly higher or lower. The clock will still operate correctly.

Remember!! Wear your gloves or use a cloth since the weight casings are brass.

SETTING THE MOVING MOON DISK

The moon dial corresponds with the lunar month, not the calendar month. The lunar month is 29-1/2 days long. As long as the clock operates continuously, the moon dial will follow the moon through its phases automatically. If the clock stops, you will need to reset the moon dial.

- Using a soft cloth or gloves, touch the recessed portion of the moon dial and, with gentle pressure, rotate the moon disk to the right (clockwise) until the center of the moon face is below the 15 on the dial.
- Consult an almanac or calendar for the date of the last full moon. Count the number of days, including the present one, since the last full moon.
- 3. Using a soft cloth or gloves, rotate the moon disk to the right (clockwise) one click for each day since the last full moon. One click represents a twenty-four hour day of the lunar month. For example, if the moon were six days past the full moon, you would move the disk six clicks.
- 4. If you move the disk too far, or the clock stops for any reason, simply start over with instruction "1".
- 5. If you have difficulty turning the moon disk or it does not move easily: Open door or remove the insert from the cabinet on the left side as you stand facing your clock. As you look at the back of the dial, you will be able to identify the click spring on the back of the dial. Make sure the click spring is positioned correctly on the moon dial teeth. If out of position, simply lift the click spring away from the dial teeth and release.

Note: If you attempt to set the moon and it does not move easily, the dial is probably in the process of changing moon phases. It usually takes about six to eight hours for the change to be completed. You will need to wait a few hours before you attempt to set the moon phase again.

SETTING THE TIME

- 1. Put the clock in the silent (no strike or chime) position.
- Set the clock to the correct time by moving the minute (longest) hand clockwise or counterclockwise, whichever is more convenient. Move the hand slowly and evenly. Avoid touching the hour (shortest) hand and accidentally moving it as you set the time.
- 3. The movement has a self-correcting feature which synchronizes the chimes with the time. This may take two to three hours.
- 4. Reset chimes to desired selection.

Note: Allow the clock to operate for at least two to three hours before making any additional adjustments to the time. If, at the end of three hours, the clock strikes the incorrect number of times on the hour, see the "Troubleshooting – Clock does not strike the correct hour – synchronization" section.

YOUR CHAIN-DRIVEN CLOCK

CHIME SELECTION

If your clock is a single-chime model, it will play only the Westminster chime. If it is a triple-chime style, you will be able to choose among three different melodies. A glance at the dial of your clock will tell you which chimes can be heard on your clock. If the dial simply states "Chime-Silent", your clock has only the Westminster Chime. If your clock has a triple-chime movement, you will see on the dial where the lever should be positioned to hear each one. All clocks feature the Big Ben gong to toll the hour.

As you move the selector lever from one chime to another, or from chime to silent, you will be able to feel the lever fall into the next position. Make sure the lever is resting in position and not between two.

The chime selector lever should not be moved while the clock is chiming or striking. When you want to change melodies, move the lever to the selected chime after the chime has completed chiming on the quarter-hour, half-hour, three-quarter hour or hour.

Five minutes before each quarter, the movement adjusts itself to chime on the quarter. In clock terminology, you would say the clock "warns" five minutes before the chime. If you listen closely, you will be able to hear the sound your clock makes at that time. If you change the melody after the movement makes this adjustment (or "warns"), you may damage the movement or cause it to not chime at all.

Your clock's beautiful chimes can be turned off at night. The movement may be equipped with an automatic night shut-off ("ANSO"), preventing it from chiming from 10:00 PM until early in the morning (approximately 6:00 AM – 7:00 AM). If the clock stops chiming at 10:00 AM, it is likely to be in the PM (night) mode, and the time will need to be reset by 12 hours by rotating the minute hand to the correct time. The lever for the ANSO function is located underneath the dial on the right side. Not all grandfather clocks are equipped with automatic night shut-off.

- Lever in "up" position = night shut-off is engaged and the clock will NOT chime
- 2. Lever in "down" position = night shut-off is NOT engaged and the clock WILL chime

Note: The silent lever will turn off the chimes for twenty-four hours, while the ANSO feature will turn off the chimes during the night.

The chimes may be turned on at any time.

REGULATION FOR MAKING YOUR CLOCK RUN FASTER OR SLOWER

Timekeeping is regulated by the location of the bob on the pendulum shaft. Changing the speed is accomplished by moving the pendulum bob up or down.

To speed up timekeeping, turn the regulation nut to the right (clockwise) to raise the pendulum bob.

To slow down timekeeping, turn the regulation nut to the left (counterclockwise) to lower the bob. We recommend that you make several counterclockwise revolutions so that the pendulum drops noticeably. This will help you regulate the time with greater accuracy.

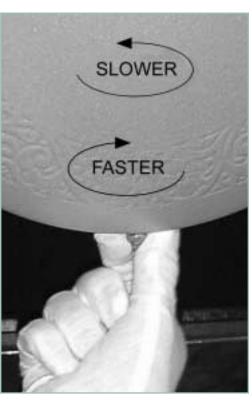
When making time adjustments to your clock, hold the pendulum steady with one hand while turning the regulating nut with the other hand. If the pendulum disk does not move freely, remove the pendulum from the clock and check the back of the pendulum. Each of the rods that make up the

shaft of the pendulum should fit into a guide on the back of the harp. If one or more are out of the guide, you will need to reposition the rod in the guide before the disk can be lowered or raised. Then, hang the pendulum on the clock, and re-start the pendulum swing.

Note: One complete revolution of the adjustment nut equals approximately one-half minute per twenty-four hours.

Remember: Regulation of the time is your responsibility and not the responsibility of your serviceman or your dealer.

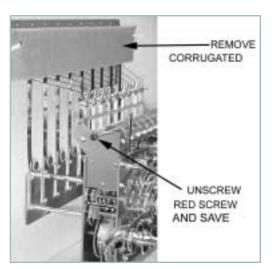




YOUR TUBULAR BELL MOVEMENT CLOCK

PUTTING TUBULAR BELL MOVEMENT CLOCKS INTO OPERATION

UNPACKING TUBULAR BELL MOVEMENTS

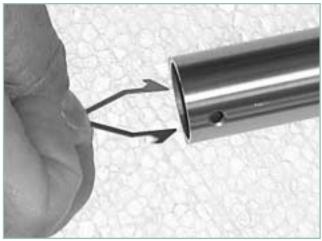


Once you have gained access to the movement, you will see the chime hammers in their protective foam packing.

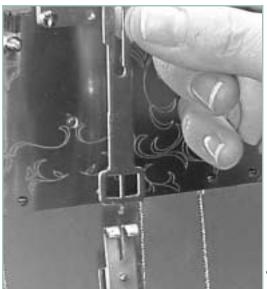
- Remove the corrugated packing from the chime hammers. Be careful when doing this to avoid cutting the cords attached to the chime hammers.
- Cut and remove the rubber band holding the pendulum leader. Caution: Hold onto the rubber band to prevent it from jerking the clock parts out of adjustment or possibly breaking the suspension spring which is attached right above the pendulum leader.
- Open access/door panel on left side. You will see a red screw on the top left part of the movement. This is for shipping purposes only, and secures the chime barrel. Unscrew and retain for securing chime barrel if you move.

HANGING THE CHIME TUBES

- 1. Make sure you are wearing your cotton gloves or have a soft cloth handy. This is essential when handling brass components.
- 2. Unwrap the chime tubes as you hang them onto the chime rack.
- 3. Beginning with the longest tube, hang each tube onto the chime rack starting from the extreme left as you stand facing the clock. Working with one tube at a time, put the tube into the clock cabinet through the front door, then reach through the door located on the side of the clock to lift and hang the tube on the rack. Make sure that the tubes are not touching each other and that they hang parallel to each other.
- Cut the packing cord on each tube, and replace with the metal "U" shaped hanger, which will snap into the two positioning holes.



 The metal hangers snap into the two positioning holes on each chime tube.



UNPACKING AND HANGING THE PENDULUM

The pendulum is packed in a separate box, which is either stapled to the inside of the carton or wrapped around the case. Be careful when opening the carton to avoid damaging the pendulum.

Make sure you are wearing your cotton gloves or have a soft cloth handy. This is essential when handling brass components.

Remove the protective film from the pendulum before hanging it on the pendulum guide.

 When hanging the pendulum, hold the pendulum guide with your left hand to maintain a vertical position. YOUR TUBULAR BELL MOVEMENT CLOCK Check the back of the pendulum. Each of the rods that make up the shaft of the pendulum should fit into the bracket on the back of the harp. If the rods are out of the bracket, or jammed inside, you will need to reinsert them properly.

Be careful when hanging the pendulum on the pendulum guide. There is a small suspension spring located above the pendulum leader that could break if the guide is twisted or handled roughly. When hanging the pendulum, hold the pendulum guide with your left hand to maintain a vertical position. Hook the pendulum onto the guide.

The pendulum should hang straight and on center when not in motion. If it does not, check again to see if the cabinet is level. Also, make sure the pendulum shaft is not twisted. If it is twisted, place one hand on the neck of the pendulum and the other on the pendulum bob and gently twist until the pendulum hangs straight.

Note: Bulova Grandfather Clocks feature either classic lyre pendulums or elegant stick pendulums. The set-up procedure is identical for each style.

WEIGHTS

Most clocks use three weights. Each weight must be installed in its correct location for the clock to operate properly. A sticker can be found on each weight indicating its proper position.

The weights provide power to the hour strike (left weight), time (center weight) and chime melody (right weight). The clock will not operate without these weights.

Before handling the weights, make sure you are wearing your cotton gloves or have a soft cloth handy.

Hang the heaviest weight on the right, as you face the clock. Be sure that the cable is fully engaged around the pulley. The pulley sling should now be swinging freely from the bottom of the pulley. Before hanging the weights, be sure to re-tighten both the hook on the top and the nut on the bottom. Attach each weight to the pulley sling in the proper order.



 Move the pendulum right or left until it almost touches the side and release.



• Attach each weight to the pulley sling in proper order.

START THE PENDULUM SWING

- 1. After hanging the pendulum, reach in through the front door of the clock and grasp the pendulum bob.
- Move the pendulum to the right or left until it almost touches the side and release. Let the clock run a few minutes until the pendulum settles into an even swinging motion, and you hear a steady "tick-tock" sound.
- 3. If the sound is uneven, the beat is out of adjustment. You will need to stop the pendulum, and then re-start the swing. If the beat is improved, but not quite even, you should repeat the process, this time pulling the pendulum to the other side of the case (i.e., if you originally moved the pendulum to the right, you will now move it to the left).

WINDING THE CLOCK

The weights are the driving power that makes your clock operate. In order for your clock to run continuously, you will need to wind the clock by raising the weights every five to six days.

The winding crank is packed separately. Be sure not to discard it!

 Insert the winding crank, in turn, into each of the three arbors located on the dial of your clock. Wind clockwise with a slow even motion until the top of each weight is even with the top of the door opening.

YOUR TUBULAR BELI MOVEMENT CLOCK

- As you are winding the clock, do not touch or lift the weight. This will cause improper tension on the cable and could result in the cable overlapping on the cable drum, stopping the clock.
- 3. If you plan to be away from home for more than a few days, stop the pendulum from swinging until you return.

Note: Periodically (once a year is often enough), you should check the weights on your clock to make sure the hook on the top and the nut on the bottom are tight and secure. After the clock has been in operation for awhile, the screws holding the weights together may loosen. These can be tightened without removing the weight from the clock. Simply hold the hook on the top of the weight steady with one hand (being careful not to raise the weight when doing this) and, with the other, grasp the weight and turn the nut clockwise (to the right).

To check the tightness on cable movements: You should not remove the weight from the clock to check the tightness of the movement. This will release the tension on the cable and will cause the cable to overlap on the cable drum. Simply hold the hook on the top of the weight steady with one hand (being careful not to raise the weight



 Gently rotate the moon disk clockwise until the center of the moon face is below the 15 on the dial.



 Insert the winding crank into each of the three arbors on the dial. Wind clockwise with a slow, even motion.

when doing this) and, with the other, grasp the weight and turn clockwise (to the right).

Note: On some movements, the two outside weights, which control the strike and the chime, do not fall when the clock is on the silent position or in the automatic night shut-off ("ANSO") position. (See "Chime Selection" for explanation of "ANSO"). Even with the clock set on the chime position, the weights may not fall evenly. It is perfectly normal for one or more weights to be slightly higher or lower. The clock will still operate correctly.

SETTING THE MOVING MOON DISK

The moon dial corresponds with the lunar month, not the calendar month. The lunar month is 29-1/2 days long. As long as the clock operates continuously, the moon dial will follow the moon through its phases automatically. If the clock stops, you will need to reset the moon dial.

- Using a soft cloth or gloves, touch the recessed portion of the moon dial and, with gentle pressure, rotate the moon disk to the right (clockwise) until the center of the moon face is below the 15 on the dial.
- Consult an almanac or calendar for the date of the last full moon. Count the number of days, including the present one, since the last full moon.
- 3. Using a soft cloth or gloves, rotate the moon disk to the right (clockwise) one click for each day since the last full moon. One click represents a twenty-four hour day of the lunar month. For example, if the moon were six days past the full moon, you would move the disk six clicks.
- 4. If you move the disk too far, or the clock stops for any reason, simply start over with instruction "1".
- 5. If you have difficulty turning the moon disk or it does not move easily: Open door or remove the insert from the cabinet on the left side as you stand facing your clock. As you look at the back of the dial, you will be able to identify the click spring on the back of the dial. Make sure the click spring is positioned correctly on the moon dial teeth. If out of position, simply lift the click spring away from the dial teeth and release.

Note: If you attempt to set the moon and it does not move easily, the dial is probably in the process of changing moon phases. It usually takes about six to eight hours for the change to be completed. You will need to wait a few hours before you attempt to set the moon phase again.

YOUR TUBULAR BELL MOVEMENT CLOCK

SETTING THE TIME

- 1. Put the clock in the silent (no strike or chime) position.
- Set the clock to the correct time by moving the minute (longest) hand clockwise or counterclockwise, whichever is more convenient. Move the hand slowly and evenly. Avoid touching the hour (shortest) hand and accidentally moving it as you set the time
- 3. The movement has a self-correcting feature which synchronizes the chimes with the time. This may take two to three hours.
- 4. Reset chimes to desired selection.

Note: Allow the clock to operate for at least two to three hours before making any additional adjustments to the time. If, at the end of three hours, the clock strikes the incorrect number of times on the hour, see the "Trouble Shooting – Clock does not strike the correct hour – synchronization" section.

CHIME SELECTION

If your clock is a single-chime model, it will play only the Westminster chime. If it is a triple-chime style, you will be able to choose among three different melodies. A glance at the dial of your clock will tell you which chimes can be heard on your clock. If the dial simply states "Chime-Silent", your clock has only the Westminster Chime. If your clock has a triple-chime movement, you will see on the dial where the lever should be positioned to hear each one. All clocks feature the Big Ben gong to toll the hour.

As you move the selector lever from one chime to another, or from chime to silent, you will be able to feel the lever fall into the next position. Make sure the lever is resting in position and not between two.

The chime selector lever should not be moved while the clock is chiming or striking. When you want to change melodies, move the lever to the selected chime after the chime has completed chiming on the quarter-hour, half-hour, three-quarter hour or hour.

Five minutes before each quarter, the movement adjusts itself to chime on the quarter. In clock terminology, you would say the clock "warns" five minutes before the chime. If you listen closely, you will be able to hear the sound your clock makes at that time. If you change the melody after the movement makes this adjustment (or "warns"), you may damage the movement or cause it to not chime at all.

Your clock's beautiful chimes can be turned off at night. The movement may be equipped with an automatic night shut-off ("ANSO"), preventing it from chiming from 10:00 PM until early in the morning (approximately 6:00 AM – 7:00 AM). If the clock stops chiming at 10:00 AM, it is likely to be in the PM (night) mode, and the time will need to be reset by 12 hours by rotating the minute hand to the correct time. The lever for the ANSO function is located underneath the dial on the right side. Not all grandfather clocks come equipped with automatic night shut-off.

- 1. Lever in "up" position = night shut-off is engaged and the clock will NOT chime
- 2. Lever in "down" position = night shut-off is NOT engaged and the clock WILL chime

Note: The silent lever will turn off the chimes for twenty-four hours, while the ANSO feature will turn off the chimes during the night.

The chimes may be turned on at any time.

REGULATION FOR MAKING YOUR CLOCK RUN FASTER OR SLOWER

Timekeeping is regulated by the location of the bob on the pendulum shaft. Changing the speed is accomplished by moving the pendulum bob up or down.

To speed up timekeeping, turn the regulation nut to the right (clockwise) to raise the pendulum bob.

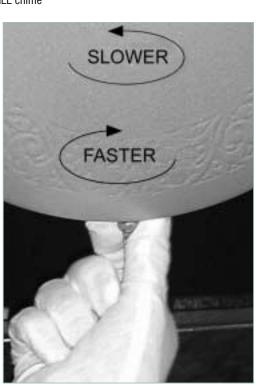
To slow down timekeeping, turn the regulation nut to the left (counterclockwise) to lower the bob. We recommend that you make several counterclockwise revolutions so that the pendulum drops noticeably. This will help you regulate the time with greater accuracy.

When making time adjustments to your clock, hold the pendulum steady with one hand while turning the regulating nut with the other hand. If the pendulum disk does not move freely, remove the pendulum from the clock and check the back of the pendulum. Each of the rods that make up the shaft of the pendulum should fit into a guide on the back of the harp. If one or more are out of the guide, you will need to reposition the rod in the guide before the disk can be lowered or raised. Then, hang the pendulum on the clock, and re-start the pendulum swing.

Note: One complete revolution of the adjustment nut equals approximately one-half minute per twenty-four hours.

Remember: Regulation of the time is your responsibility and not the responsibility of your serviceman or your dealer.





THE STORY OF THE MOVING MOON DIAL

One of the most frequently asked questions by new clock owners is, "What is the purpose of the moon dial and what do the pictures or symbols stand for"? The question itself tells us just how much the world has changed.

Today it is difficult for us to realize just how important the ever-changing phases of the moon were in times gone by. In the late 17th century, the moon dial was added to most long case clocks so that people could plan ahead for when the moon was full and travel at night was not so hazardous. Clockmasters endeavored to simulate and approximate the appearance of the moon, in each of its phases, on the face of clocks.

The arched dial was first used in clocks at the beginning of the 18th century, and presented a real challenge to the makers of fine clocks. By approximately 1720, moving figures began to appear in this space, figures which moved back and forth with the swing of the pendulum. Among them were prancing deer, rocking ships, and Father Time with his scythe. At the time, there was no practical value to this feature on the clock, it was done simply for the delight of those viewing the clock.

After motion had been added in the arch above the dial, the next step was to reproduce the progress of the moon from phase to phase. The proverbial "Man in the Moon" was used on most dials with a landscape and/or seascape on the other half of the circle. A rocking ship was a frequent symbol of the sea, with a deer often representing the land.

In our very modern world today, the moving moon section of the dial is more decorative than useful, but it is still a very sought after feature. Many beliefs concerning the moon and its effects have been recorded. Among them:

- Sweep the house in the dark of the moon and you will have neither moths nor spiders.
- Trees planted at full moon will bear fruit.
- Plant peas and potatoes in the increase of the moon.
- The meat of animals slaughtered in the increase of the moon will not shrink in the cooking process or during curing.
- The number of snows during winter is indicated by the number of days from the first snow in fall to the following full moon.
- Shingle the roof in the decrease of the moon (between full moon and the next new moon) so the shingles are put on when the
 horns of the moon are turned down and will not warp and rise up. The same holds true for boardwalks.

HISTORY OF THE CHIMES

Westminster Chimes

The world's most famous chimes are the Westminster. Nearly everyone associates the Westminster chimes with the Victoria Clock Tower of the House of Parliament in London.

Originally, however, they were fitted to the clock of the University Church, St. Mary's the Great, in Cambridge, England. The words to this beautiful chime come from Handel's symphony, "I Know That My Redeemer Liveth":

"Lord through this hour,

Be Thou our guide

So, by Thy power

No foot shall slide".

Whittington Chimes

The famous Whittington chime is derived from the Church of St. Mary's le Bow, in Cheapside, London. The legend is that Dick Whittington, running away from ill treatment as a house waif, seemed to hear the chimes say, "Turn again – Whittington, Lord Mayor of London Town". Dick turned back to eventually serve three terms as London's Lord Mayor.

St. Michael Chimes

Of all the most popular chime melodies, the St. Michael chimes have the closest relationship with America. The original bells for this melody were cast in London and installed in St. Michael's Church in Charleston, South Carolina in 1764. When the British occupied the city during the Revolutionary War, they took the bells back to England. A Charleston merchant found them in England, purchased them and shipped them home to America. In 1823, cracks were found in some of the bells, and they were returned to London to be recast. In 1862, during the siege of Charleston, the bells were moved to Columbia for safekeeping, but were damaged when Sherman's army set fire to that area. Only fragments of the bells were found, to be returned to London once more, where the original molds still stood. In February, 1867, the bells were again installed in St. Michael's steeple, and on March 21st joyously rang out, "Home again, Home again from a foreign Land".

A WORD ABOUT THE CHIMES

Your clock was primarily made to tell time. It was not intended or constructed to be a musical instrument with perfect and consistent sound. Chime tone will vary from clock to clock according to the wood of the sounding board, and how much moisture that wood absorbs or loses from changes in the weather. Chime rods are mass produced and do not "go out of tune". Chimes are tuned in sets and have no definite pitch or key. The hour chord is required only to be sufficiently different from the other chords to make it obvious that the hour is being struck. Chime speed is set and cannot be changed. The speed will, however, slow down as the movement becomes dirty. Cleaning will restore the chime speed.

MOON DIAL AND CHIMES

TROUBLESHOOTING

Although we do not recommend that you attempt to repair your own clock, here are a few things to check before you call your dealer or repairperson. Do not attempt any adjustment you do not feel confident in making.

IF YOUR CLOCK WILL NOT RUN OR STOPS ...

- 1. Check to see if all of the packing material has been removed, including the elastic band that is used to secure the pendulum leader prior to shipping. (The pendulum leader is located behind the movement.)
- 2. Check to see that the clock is positioned level and securely.
- 3. Clearance of all the clock hands is essential for the proper operation of the clock. If your clock has a second hand, visually check to ensure that it is not rubbing or binding on the seconds hand time ring. If the hand is rubbing, you will need to carefully pull it toward you far enough to give the hand ample clearance.
- 4. Restart the clock! Sometimes the pendulum is not given enough of a swing to activate the self-leveling (adjusting) beat.
- 5. Check to see that the weights are hanging in the correct location. Check each weight bottom for proper location.
- 6. Check that the weights are attached correctly to the chains or pulleys.
- 7. Check that all the weights are wound sufficiently.
- 8. Check the moon dial to make sure the click spring is not causing any restrictions. The click spring is a long strip, usually bronze in color, and should engage the teeth of the moon dial. If it is in front or behind, simply pull back the click spring and put it into place. The click spring is located on the back of the dial, inside the clock.
- 9. Check to see if a pulley accidentally came off the cable, or a chain off the sprocket.

IF YOUR CLOCK WILL NOT CHIME OR STRIKE ...

- 1. For transportation purposes, tape is used for securing the hammers. Check to make sure this has been removed.
- 2. Confirm that the chime selector lever is fully engaged in one of the chime positions, and not in silent position or halfway between positions.
- 3. If the automatic night shut-off feature ("ANSO") is engaged (in the "up" position) and the clock chimes during the night and is silent during the day, this indicates that the ANSO feature is advanced by twelve hours. To correct this, advance the time by moving the minute hand only in a clockwise direction by twelve hours. (The chime selector lever must be positioned on silent during this adjustment.)
- 4. If the hour hand does not correspond with the striking count of the hour, simply grasp the hour hand and gently force it either back or forth to the correct hour. This will in no way damage the clock.
- 5. Ensure that the weights have been attached in the proper sequence: left, center and right.
- 6. If you have just changed the setting of your clock, wait one to two hours. The movement will synchronize automatically.
- 7. Check that all the packing material has been removed from the area of the movement.

IF THE PENDULUM DOES NOT SWING STRAIGHT ...

- The pendulum should be parallel with the front of the clock.
- If this is not the case, grasp the harp portion of the lyre just above the bob with one hand and the neck of the pendulum with the other hand and twist the pendulum in the opposite direction so it is straight.

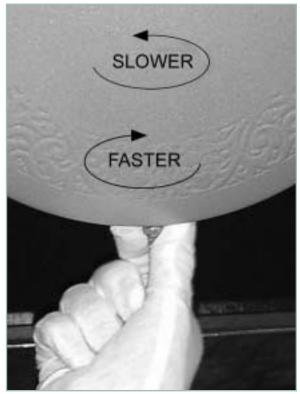
IF YOUR CLOCK RUNS TOO FAST OR TOO SLOW ...

Timekeeping is regulated by the location of the bob on the pendulum shaft. Changing the speed is accomplished by moving the pendulum bob up or down.

To speed up timekeeping, turn the regulation nut to the right (clockwise) to raise the pendulum bob.

To slow down timekeeping, turn the regulation nut to the left (counterclockwise) to lower the bob. We recommend that you make several counterclockwise revolutions so that the pendulum drops noticeably. This will help you regulate the time with greater accuracy.

When making time adjustments to your clock, hold the pendulum steady with one hand while turning the regulating nut with the other hand. If the pendulum disk does not move freely, remove the pendulum from the clock and check the back of the pendulum. Each of the rods that make up the shaft of the pendulum should fit into a guide on the back of the harp. If one or more are out of the guide, you will need to reposition the rod in the guide before the disk can be lowered or raised. Then, hang the pendulum on the clock, and re-start the pendulum swing.



Use the regulation nut to change pendulum speed.

TROUBLE-SHOOTING

Note: One complete revolution of the adjustment nut equals approximately one-half minute per twenty-four hours.

Remember: Regulation of the time is your responsibility and not the responsibility of your serviceman or your dealer.

IF YOUR CLOCK DOES NOT STRIKE THE CORRECT HOUR (SYNCHRONIZATION) ...

Your clock was synchronized for the correct strike prior to being packed for shipment. You will not need to make this adjustment unless the hour hand is accidentally moved when the time is being set.

If the hour strike and the time do not correspond, you will need to make an adjustment. If, for example, the clock shows 4:00, but strikes a different number of times:

- 1. Do not silence the chimes.
- 2. Move the hour (shortest) hand clockwise or counterclockwise, whichever is more convenient, slowly to the hour that the chimes actually struck. For example, if the clock struck only three times, move the hour hand slowly until it points directly to the 3. You will notice that the hour hand turns independently of the minute hand.
- 3. Then turn the minute (longest) hand slowly clockwise or counter clockwise, whichever is more convenient, until the proper time setting is reached. Be careful not to catch the hour hand as you move the minute hand around.
- 4. The chime and strike will now adjust themselves to the proper sequence. It takes approximately one to two hours for the movement to re-adjust itself.

Remember: This is not the adjustment for time (fast or slow) regulation. This adjustment is needed only if your clock strikes the incorrect number of times on the hour.

IF YOUR CLOCK DOES NOT CHIME AT THE PROPER TIME (MINUTE HAND ADJUSTMENT)

This adjustment is used if your clock does not begin the chime exactly on the hour, but starts one to two minutes before or after.

Caution: When performing this operation, be careful not to scratch the dial, hand or hand nut.

- 1. When the clock starts to chime, stop the pendulum and make sure to record the time.
- 2. Using pliers, carefully remove the small nut that holds the minute hand in place by turning the nut counterclockwise, while, at the same time, holding the minute hand with your fingers near the small nut.
- 3. Remove the hand from the hand shaft by grasping it with your fingers where the hand meets the hand shaft. Pull the hand straight off. This hand should come off easily, since it is not screwed on. The minute hand has a small, raised area at the back, directly around the shaft hole; this is the hand bushing. Using pliers, firmly grip the bushing by its sides so it cannot slip in the pliers. Using your other hand, turn the clock hand forward or backward the necessary distance to chime at the correct time.
- 4. Re-attach the hand to the shaft and turn the hand nut tight with your fingers. Make sure that the hand points to the correct location that you recorded in step 1, taking into account any corrections you made in step 3.
- 5. If the hand does not point to the correct mark, repeat steps 2 and 3.
- 6. Tighten the hand nut with the pliers, being sure not to over-tighten.
- 7. Start the pendulum.
- 8. Re-set the time by moving only the minute hand counterclockwise (backwards) until the hour and minute hands are at the correct time.
- 9. If the clock still does not begin to chime exactly on the hour, repeat the procedure.

IF THE CHIME TONE IS INCORRECT ...

- The tone of the chimes is directly affected by the placement of the hammers. The hammer is an arm connected to the movement, and operated by the movement. These hammers fall and strike the appropriate rod as dictated by the movement.
 The hammers are adjusted and tuned prior to leaving the factory, but shipping and handling can result in a hammer going out of adjustment.
- Chime Rod hammers are most commonly used in Grandfather Clocks. These are flexible and made of brass. Hammers in the resting position should be no more than 1/16" 1/8" away from the rod. Resting hammers can cause a dull tone, simply because the hammers are resting on the rod and not allowing it to vibrate. To adjust, simply pull back the hammer by grasping the base of the hammer and bending the top section slightly so that a distance of 1/16" 1/8" is achieved. Avoid bending the chime rod.
- Chime Tubes are made of brass and cannot be adjusted. The hammers are factory set and should not be bent in any way. They
 can, however, be adjusted in the resting position by turning the "rope" tension screw to achieve the resting position of
 1/16" 1/8" between the hammer and the tube.
- Ensure that all tubes are mounted on the tube rack correctly. As you face the clock, the longest tube should be on the left and the shortest on the right.

TROUBLE-SHOOTING

IF THE MOON DIAL/DISK WILL NOT TURN ...

- The clock mechanism has a gear that engages a wheel for the rotation of the moon disk. Every 23-1/2 hour period, the wheel completes a full revolution, at which time the pin in this wheel advances the moon disk by one lunar cycle day. When the moon disk is within the 6 hour period leading up to advancement, the pin is engaged and it is not possible to manually change the disk positions. To free up the moon disk, advance the time until the disk is free, approximately 6 hours. This is not a malfunction, but rather a timing issue.
- If the moon disk is not advancing for several days and appears to be stationary, the most common cause is that the click spring is unable to advance from one tooth to the next one. If this is the case, an adjustment to the click spring is necessary. To gain access to the click spring, open door or remove insert to view the back of the dial. You will be able to identify the click spring on the back of the moon dial. Make sure the click spring is positioned correctly on the moon dial teeth. If out of position, simply lift the click spring away from the dial teeth and release. Generally, the less pressure the click spring has on the moon disk, the quicker the click spring can move over the point of the tooth. If the pressure is too great, the click spring will not be able to move over the point of the tooth on the disk even though the pin advances the disk properly.



IF THE WEIGHTS DO NOT TRAVEL EVENLY ...

When the automatic night shut-off feature ("ANSO") is activated (in the "up" position), and/or on some models "Silent" is selected, the time weight will drop at a faster rate than the other weight(s).

This is normal and not a defect of your clock.

DOS AND DON'TS ...

- Do NOT move the clock hands while the chimes are playing.
- Do NOT move the hour hand; this will automatically move the minute hand.
 Note: If your hour hand does not correspond with the strike refer to "If your clock does not strike the correct hour (synchronization)".
- Do NOT change the chime selector while chimes are striking.
- Do NOT hold the weights as you wind cable models, use only the crank.
- Do NOT wind your clock without the weights being attached.
- Do NOT move your clock with pendulum and weights attached.

TROUBLE-SHOOTING

MOVING YOUR CLOCK TO A NEW LOCATION WITHIN YOUR HOME

Moving your clock is not recommended and should only be done when absolutely necessary. If you decide to move your clock, following these instructions will prevent problems from occurring. Remember to use a soft cloth or gloves when handling the weights, pendulum and tubes of your clock.

- 1. Wait until your clock is in a run down position weights will be at their lowest point.
- 2. Stop the pendulum from swinging.
- 3. Remove the weights and put them in a safe place.
- 4. Remove the tubes (on tubular bell movements) and put them in a safe place.
- 5. Keeping the clock in an upright position at all times, move it to the new location. Re-adjust leveling feet if needed.
- Rehang the tubes, pendulum and weights while the clock is still in the run down position. After weights are hung in position, wind your clock and set the time.

Do not wind without weights being hung. This may cause the chains to come off the sprockets (on chain-driven movements), and the cables to overlap (on cable-wound movements).

MOVING YOUR CLOCK TO A NEW LOCATION

In preparing your clock for a major move, it would be advisable to ask one of our local authorized clockmasters to help you pack the clock. If this is not possible, we suggest that you refer to the procedure for setting up your clock and simply reverse the procedure.

HOW TO CARE FOR THE CABINET

Your clock will require very little attention. There are a few things you should do, however, to keep the cabinet beautiful.

- Check periodically to see if your clock rests firmly on all four levelers. This is especially important if the clock is on carpeting.
 As the clock feet settle into the carpet, it could be thrown out of balance.
- Bulova Grandfather Clocks come with catalyzed lacquer that protects the wood, so wiping with a simple damp cloth will be sufficient.
- 3. When cleaning the glass, avoid getting any cleaning product on the brass surfaces. Spray the glass cleaner onto a soft cloth, and then wipe the glass surfaces. Never spray directly onto the cabinet or brass.

HOW TO CARE FOR THE MOVEMENT

- 1. Do NOT put any type of cleaner, polish, water, etc. on the brass parts of your clock. If you feel that cleaning is essential, use a lint-free cloth.
- 2. Ask your local clockmaster about future service on the movement. Since the mechanical parts of your clock can be affected by humidity, heat and cold, the time to lubricate or clean will vary from one location to another.
- 3. You should have your clock oiled professionally every 3 to 4 years.

Do not attempt to clean or lubricate the movement unless you are a qualified clockmaster. Do not use a spray lubricant on the movement or any other oil!

4. Check the weights occasionally to see if they are still tightly put together.

Keep this manual near your clock for future reference. Minor adjustments and precautions will keep your clock in working order for many years. If things not covered in this manual happen to your clock, do NOT attempt to dismantle the clock or make repairs your-self - unless you happen to be a qualified clockmaster. The movement and dial are the finest made in the world today, but this is a mechanical clock and will periodically need cleaning and lubrication. When your clock needs service, you should call the clockmaster who installed the clock in your home.

THE ADJUSTMENTS COVERED IN THIS MANUAL ARE NOT COVERED BY THE WARRANTY.

CLEANING AND LUBRICATION ARE NOT COVERED BY THE WARRANTY.

Please read the warranty coverage on your clock carefully. Your dealer will be able to answer any of your questions concerning coverage.

MOVING AND GENERAL CARE

RECORD OF SERVICE

DATE:	-
SERVICING AGENT:	_
DESCRIPTION OF SERVICE:	
DATE:	
SERVICING AGENT:	-
DESCRIPTION OF SERVICE:	
DATE:	-
SERVICING AGENT:	_
DESCRIPTION OF SERVICE:	

RECORD OF SERVICES

OWNERSHIP RECORD

As your clock is passed from one generation to another, its value will be enhanced by its history. Record this history below and keep it with your clock.

Original Owner	Date
Serial Number	Model Number
TO	FROM

OWNERSHIP RECORD

GUARANTEE

This clock has been carefully manufactured by experienced craftspeople using only the finest materials. The movement has been subjected to rigorous testing and is guaranteed against defective workmanship and materials for a period of two years from date of delivery.

This guarantee applies under conditions of normal use only. It does not apply to defects that result from negligence, misuse or accidents.

Report any defects to the dealer from whom the clock was purchased. If a repair or adjustment is called for, your dealer is authorized to make all necessary arrangements with the manufacturer. In accordance with our guarantee, all consumer complaints submitted by our dealers will be handled promptly and fairly by our factory.

Bulova has symbolized a uniquely
American blend of old-world
craftsmanship and new-world innovation. Today,
Bulova, still U.S. owned and operated, remains
one of the world is most recognized brands. We
enter our third century dedicated to keeping
America is time for generations to come.



Ц, Bulova® are registered trademarks. ©2004 Bulova Corporation. Inv. #5P166