

CHELSEA CLOCK

Since 1897

Mechanical Clocks
Barometers

Owner's Manual



Congratulations

You are the proud owner of an exquisite work of art, crafted by the elite master clockmakers of Chelsea Clock. For over a century, our craftspeople have been creating instruments whose beauty and workmanship enhance their extraordinary functionality and durability.

FIG. 4

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Walter
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Setting the Time



To set the time:

- Open the clock bezel. For hinged bezels, press the button on the side of the case and swing it open. For screw bezels, unscrew the bezel by turning it counter-clockwise.
- Remove the black plastic tube from winding arbor (save tube and replace it when away for extended periods of time or when shipping the clock).
- Slowly turn minute hand (long hand) clockwise to correct time, stopping at each hour and half-hour point to allow bells to strike fully (NOTE: The correct strike count may not sound at the first strike point. This will self-correct at the next full-hour point).
- Close or replace the bezel.

Warning: The hour hand should never be moved manually; only the minute hand. Never force hands. If they lock at any point, turn the minute hand backwards through one full striking, then continue as above.

Warn Periods

Mechanical clocks have a “warn” period at 20 minutes past and 10 minutes before each hour. This means that, for the 10 minutes prior to each striking point, the gears and levers of the mechanism are preparing to fall into position. Therefore, when resetting the clock, only move the minute hand *clockwise* to the next striking point and allow it to strike to its full count before moving it again.

Warning: Never make adjustments during a strike zone; only from 5 to 15 minutes past or 25 to 15 minutes before the hour.

Winding the Clock



Please note that your new Chelsea Clock time-piece leaves our factory fully wound.

The left keyhole on the dial is for winding the strike mechanism; the right is for the clock's mainspring. Fully wind both weekly at approximately the same time, starting with the left keyhole. Wind both in a clockwise direction.

Warning: If the clock has run down completely, wind it first before moving the hands. If the minute hand is locked, the mechanism has jammed. To release: wind both sides, then move the minute hand backwards one hour or more. Reset the time, allowing full strikes at the hour and half-hour.

Regulating the Clock



Your clock is finely regulated before it leaves our factory. However, environmental conditions and other factors can affect its rate over time. Adjusting the clock's micrometer can help compensate for minor time gains or losses

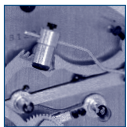
(wheel located on the left-hand side of the Ship's Bell dial; lever next to the "1" on the Shipstrike dial):

- Losing time? – Turn wheel/lever toward "F" (faster)
- Gaining time? – Turn wheel/lever toward "S" (slower)

Turning the wheel one notch in either direction changes the rate approximately four seconds.

Tip: Let the clock run for a full week, then adjust the regulator as needed.

Adjusting the Tone



The clear, resonant sound of a Chelsea Clock chime occurs every time the strike hammer drops onto its coiled steel gong. To strike properly, the clock must be in an upright position.

If, at any point, the strike sounds “flat” or fails to sound, the hammer’s head may have become misaligned. You may adjust it as follows, but first wait until it strikes the next full hour:

- Access the strike mechanism by removing the back cover (unscrew the three screws)

If the hammer is resting on, or is too close to, the gong, it needs to be gently bent upwards – just enough so it’s not touching the coil while at rest:

- Hold the wire between two fingers while in the rest position (do not press down on it)
- Carefully bend the hammer slightly up and away from the gong using needle-nose pliers or rigid object
- Using your finger, gently lift and drop the hammer wire to hear its sound
- Repeat if necessary until the sound is clear and mellow

Note: This operation should only be performed on the hour position, never on the half-hour.

Warning: If striking does not occur at the hour and half-hour dial markings, the clock must be retuned to Chelsea Clock for service.

Silencing the Chime



To silence the strike, simply slide the small pin (located near the “8” on the Ship’s Bell dial, and near the “11” on the Shipstrike dial) away from the bell symbol. To resume striking, slide the pin toward the bell.

Warning: Do not turn off the strike while the clock is striking. Be sure to move the pin completely in one direction or the other to prevent jamming.

The Ship’s Bell Code

Mariners have used a unique bell code to tell time at sea for hundreds of years. The code is based upon the crew’s typical, 24-hour workday routine. The day is divided into six four-hour periods, each called a “watch.” Similarly, the crew is segmented into three divisions. Division members perform their duties on two watches per day, with eight hours off between watches. To rotate each division’s watch times, the evening watch is typically divided into two watches (called dogwatches). The first dogwatch is the period between 4 and 6 p.m.; the second is the period between 6 and 8 p.m.

First Watch	8:00 p.m. to 12:00 a.m.
Mid-Watch (also Black Watch)	12:00 a.m. to 4:00 a.m.
Morning Watch	4:00 a.m. to 8:00 a.m.
Forenoon Watch	8:00 a.m. to 12:00 p.m.
Afternoon Watch	12:00 p.m. to 4:00 p.m.
Evening Watch	4:00 p.m. to 8:00 p.m.

The Ship's Bell Code, Cont.

The watch officer struck the ship's bell every half hour to apprise the crew of the time. A single bell sounded the end of the first half hour, and one bell was added each half-hour thereafter. Eight bells, therefore, signaled the end of each four-hour watch.

The chimes of your Chelsea Clock timepiece reflect this same traditional ship's bell code:

8 bells	12:00	4:00	8:00
1 bell	12:30	4:30	8:30
2 bells	1:00	5:00	9:00
3 bells	1:30	5:30	9:30
4 bells	2:00	6:00	10:00
5 bells	2:30	6:30	10:30
6 bells	3:00	7:00	11:00
7 bells	3:30	7:30	11:30

The Barometer

How it Works



A barometer measures changes in atmospheric pressure, or the “weight” of the air. Changes in pressure typically foretell changes in the weather. Weather watchers will note a barometer's reading and how much and how fast it rises or falls. Rising pressure signals improving weather; falling pressure indicates deteriorating conditions. Generally, a barometer works best when mounted indoors (away from the elements) where air pressure is the same as that outside.

Your Chelsea Clock barometer is an aneroid barometer, meaning it measures atmospheric pressure without mercury or other fluids. Instead it uses a vacuum and a hollow metallic diaphragm. Pressure changes on the diaphragm cause the dial's black indicator hand to move. You can manually position the gold hand over the black hand, and return later to see whether pressure is rising or falling.

Barometers can measure pressure in inches, millibars or centimeters. At sea level, normal atmospheric pressure is approximately 29.92 inches, 1014 millibars or 76 centimeters. At higher elevations the average pressure will be less as there is less air pressure overhead. Normal weather variations cause pressure to rise or fall an inch or less, so you may see little movement of the black hand for several days at a time. A passing storm often brings rapidly falling pressure.

Setting for Local Altitude

When your Chelsea Clock barometer leaves our factory it is adjusted to register pressure at sea level (the standard for measuring barometric pressure regardless of location or altitude). However, because atmospheric pressure decreases as altitude increases, if you live in a higher-altitude location you'll need to adjust your barometer (corrected to sea level) to receive an accurate reading. To do this, call your local weather bureau and ask for the present barometer reading. Adjust your barometer's black indicator hand to the reading given by turning the screw on the back of the case. If you live at an altitude of 5,000 feet or greater, your barometer should be adjusted professionally.

Tip: Before taking a reading, lightly tap on the barometer glass to release any built-up frictional resistance on the indicator dial.

Care & Service

Caring for Your Clock and Barometer Case

Chelsea Clock cases are made of high quality brass, superbly polished and lacquered for long-lasting beauty and protection. However, dust, fingerprints and environmental pollutants may, over time, mar the finish. To help maintain its bright finish, we suggest cleaning the case weekly with a clean, soft cloth. Never use polishes, cleaners or other liquids, as these can tarnish and pit the finish.

Servicing Your Clock or Barometer

Based on normal operating conditions, our technicians recommend that your Chelsea clock be cleaned, oiled and adjusted about every seven years. Conditions such as extreme heat, cold, dust and prolonged idleness can necessitate more frequent servicing.

Your Chelsea Clock timepiece or barometer is a precision instrument and should only be serviced by a certified repair technician. We suggest returning your item to our factory repair center for guaranteed service by an experienced, Chelsea technician. Find repair details online at www.ChelseaClock.com.



Limited Warranty

A new Chelsea Clock Ship's Bell Clock or barometer is warranted against defects in material and workmanship for five (5) years from the date of original purchase; a Shipstrike is warranted for two (2) years. In the event of any such defect, please return the instrument postage prepaid, along with an explanation of the defect to the address below and it will be repaired or replaced, at our option and our expense. Any defect or damage caused by misuse, accident, tampering or negligence of the user is not covered by this warranty. Be certain to carefully and securely pack the instrument for return. We will not be responsible for damage in shipment. The repaired or replacement instrument will be returned to you postage prepaid. All implied warranties covering merchantability, fitness for particular purpose, or otherwise are limited in duration to five (5) years from the date of original purchase for a Ship's Bell; two (2) years for a Shipstrike. The repair or replacement of any defect is the exclusive remedy under this warranty. In addition, the warrantor shall not, under any circumstances, be liable or responsible hereunder for consequential, incidental, indirect or special damages. Please note that some states do not allow limitations on how long an implied warranty lasts, or the exclusion may not apply to you. This warranty gives you specific legal rights; you may have other rights that vary from state to state.

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