

**Weems & Plath®**

 **ENDURANCE**  
COLLECTION

## Instructions

*Congratulations! You have purchased a revolutionary new instrument that will provide many years of enjoyment. Please read these instructions carefully so that you will receive maximum performance from this fine marine instrument.*

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## ADDENDUM TO MOUNTING INSTRUCTIONS

1. Note the rear diameter of your instrument. If mounting 2 or more instruments side by side ensure the center points are;
  - A) apart by at least 1/2" more than the instrument rear diameter;
  - B) at least half the diameter (radius) plus 1" (25mm) below any ceiling, shelf or other overhead obstruction; and
  - C) half the diameter (radius) plus 1/4" (6mm) above any lower shelf, floor or table fixture.

Otherwise Slide 'n Lock dovetail engagement cannot be made. If mixing units of different sizes calculate horizontal center distance based on the largest unit you intend to use.

2. Also ensure the center points are at least half the diameter (radius) plus 1/4" (6mm) away from any side obstruction or corner.
3. If mounting 2 or more units vertically above one another, review items 1 & 2 (this section) regarding clearances to top, side and bottom. Multiple center points must be at least one diameter plus 1/4"(6mm) apart. If mixing units of different sizes calculate vertical center distance based on the largest unit you intend to use.

# Installation Instructions

1. With the instrument face downward on a clean soft surface or lap, and with the 12 o'clock position of the instrument towards you, push the rear molded black mounting plate of the Weems Slide 'n Lock mounting system in a sliding motion away from you. This may require some force to overcome the locking dimples.
2. Select the center point where you want to mount the instrument's mounting plate on the wall or bulkhead. It is important that the mounting surface be flat for at least a diameter of 8".
3. Lightly draw 2 lines, one horizontal and one vertical through the center point you have selected. Each line should be about 5" to 6" long, centered on the center point of the mounting plate.

**IMPORTANT:** Please read Additional tips section below before continuing.

4. Place the mounting plate firmly on the center point ensuring that the Weems & Plath logo and part number are upright. Align the 4 existing recessed lines on the front face of the mounting plate with the pencil lines previously marked on the wall or bulkhead.
5. Using a pointed tool or pencil, mark through 4 holes to position the mounting screws on the wall surface.

6. Remove the mounting plate and drill the wall marks with a 3/32" or 2.00mm drill bit.
7. The mounting plate is designed with stepped mounting holes. The smaller diameter facilitates accurate hole marking and avoids the errors inherent in measuring or the use of a separate printed template. The larger diameter is to receive the diameter of the screw thread.
8. As the screws are driven tight, the thin plastic forming the smaller diameter hole will give way around the screw thread and form a tight assembly.
9. Weems & Plath advises that on some wall materials such as fiberglass, it is possible that the material around the drilled hole can swell and displace forwards causing a volcano ridge around the screw. This ridge will prevent the mounting plate from being screwed tight to the wall. It is recommended after drilling the 4 holes that they be countersunk creating a space to absorb any material displacement.
10. Secure the mounting plate in place with four No.8 round head stainless steel Phillips screws supplied. These screws will displace the thin plastic in the holes as they are driven home. Ensure the screws are tight and the plate is firmly flat against the wall.
11. Place the instrument's back side above the mounting plate and position on the vertical center line about 3/4" (20.00mm) above the horizontal center line and slide downwards to engage the dovetails.

12. When resistance is felt press firmly downwards to cause the Slide 'n Lock dimples to clip into place. (This is the reverse of step 1 above.) This will hold the instrument firmly in place to prevent it from moving or dislodging.
13. To remove the instrument for safe storage, calibration, adjustment or battery change, reverse steps 8 & 9 of the installation procedure.

## Additional tips if mounting more than one instrument.

1. The rear diameter of each instrument is 6" (150mm). If mounting 2 or more instruments side by side ensure the center points are; A) at least 6-1/2" (165mm) apart; B) at least 4" (100mm) below any ceiling, shelf or other overhead obstructing coving; and C) 3-1/4" (82mm) above any lower shelf, floor or table fixture, otherwise Slide 'n Lock dovetail engagement cannot be made.
2. Also ensure center points are at least 3-1/4" (82mm) away from any side obstruction or corner.
3. If mounting 2 or more units vertically above one another review items 1 & 2 (this section) regarding clearances to top, side and bottom. Multiple center points must be at least 6-1/4" (170mm) apart vertically.
4. When mounting instruments to vertically oriented mounting plates, install lower ones first and progress vertically.

5. When removing instruments on vertically oriented mounting plates, demount top one first and progress downwards.

## **Quartz Clock Operating Instructions**

- 1) Lift clock to disengage Slide 'n Lock system from wall.
- 2) Insert an alkaline battery in back of clock. Follow diagram on battery housing to make certain battery is not put in backwards. Use only alkaline batteries as they have longer life and are less prone to leak.\*
- 3) To set the time, advance hour and minute hands by turning the knob on the back of the movement counter-clockwise. To reverse, turn clockwise.
- 4) If clock stops, it is most likely due to a dead battery. Remove the battery immediately as it might leak acid causing damage to the movement.\*
- 5) If clock is to be left unattended for long periods of time, the battery should be removed. Otherwise it could become dead and leak acid causing damage to the movement.\*

**\* Movement damage caused by battery leakage will void warranty.**

## Quartz Clock Trouble Shooting

Clock will not run properly

- A. Install fresh alkaline battery.
- B. Inspect battery contact points, remove corrosion if present.
- C. Call Customer Service at 1-800-638-0428.

## Quartz DayClock® Operating Instructions

- 1) Lift clock to disengage Slide 'n Lock system from wall.
- 2) Insert a "AA" alkaline battery in back of movement. Follow diagram on battery housing to make certain battery is not put in backwards. Use only alkaline batteries as they have longer life and are less prone to leak.\*
- 3) On movement at the back of the DayClock pull out small knob and rotate day hand to either line of desired day, for AM setting select line next to previous day, for PM setting select line next to following day. Do not push knob in.
- 4) On movement at the back of the DayClock rotate large wheel to get the hour and minute hand to 12. When both the hour and minute hands are at 12, push in small knob for day hand.
- 5) Rotate large wheel clockwise for AM setting, counter clock wise for PM settings.

- 6) If clock stops, it is most likely due to a dead battery. Remove the battery immediately as it might leak acid causing damage to the movement.\*
- 7) If clock is to be left unattended for long periods of time, the battery should be removed. Otherwise it could become dead and leak acid causing damage to the movement.\*

## **Quartz DayClock® Trouble Shooting**

Clock will not  
run properly

- A. Install fresh alkaline battery.
- B. Inspect battery contact points, remove corrosion if present.
- C. Call Customer Service at 1-800-638-0428.

## **Radio Controlled Quartz Clock Operating Instructions**

- 1) Lift clock to disengage Slide 'n Lock system from wall.
- 2) Using the gray set wheel on the back of the movement, set the hour and minute hands to approximately five minutes before the actual time of day.



- 3) Insert a “AA” alkaline battery in back of movement. Follow diagram on battery housing to make certain battery is not put in backwards. Use only alkaline batteries as they have longer life and are less prone to leak.\*
- 4) Watch closely as the second hand approaches the 12:00 position. Precisely as the second hand reaches 12:00, press and release the red button on the back of the movement. You should hear a “BEEP”.
- 5) When the second hand has stepped one second past the minute hand, press and release the red button again. You should hear another “BEEP”. You will also notice that the second hand starts to double step every other second.
- 6) While your second hand is double stepping, press and release the red button again. This will activate the signal strength system for 20-30 seconds, in order to help you find the best installation location, were the clock will receive the strongest signal.

When checking the signal reception, move very slowly, and follow the guidelines below:

- A). an on-off beep every second indicates good signal reception. This will be a good location for your clock, and the clock should set itself to the correct time within 24-48 hours in this location.
- B) A static, or continuous beep, indicates poor signal reception.
- C) No beeping indicates no signal reception at all.

- 7) The initial synchronization of your radio controlled clock movement is complete. The second hand will continue to double step until the movement receives a signal from the Atomic Clock in Colorado and adjusts the clock to the precise correct time of day. We recommend that you allow 24-48 hours for your clock to receive the signal.
- 8) When changing batteries, repeat steps 1-7. If at any time, you make a mistake setting the clock, remove the battery and briefly insert it backwards for one second. Then remove the battery, insert it correctly and repeat the setting steps again.
- 9) Daylight Savings Time Bypass: If you live in an area that does not observe Daylight Savings Time, you can prevent automatic DST adjustment of the movement by pressing and holding the red button while inserting the battery. After the battery is fully inserted, release the red button and following steps 1-7.
- 10) If clock stops, it is most likely due to a dead battery. Remove the battery immediately as it might leak acid causing damage to the movement.\*
- 11) If clock is to be left unattended for long periods of time, the battery should be removed. Otherwise it could become dead and leak acid causing damage to the movement.\*

## **Location Tips & Time Signal Information:**

The movement is equipped with a specialized AM radio receiver that is tuned to receive the coordinated universal time signal broadcast by WWVB (60KHz) in Fort Collins, Colorado. The WWVB signal is an AM

signal. Weather conditions, electrical interference, solar conditions and the position of the movement's internal antenna can influence reception. Although the clock can work in most locations, the number of times that it may need to correct itself to the coordinated universal time signal may depend on the clock's location.

Since the time signal is transmitted from Colorado, to improve signal reception, try to place the clock on a wall facing the general direction of Colorado, or in a room with windows facing Colorado.

In addition, electronic appliances such as computers, televisions, fluorescent lights, microwave ovens, power lines and metal siding can interfere with signal reception; it is best to avoid locating the clock within 3 feet of any of these items, if possible.

## **Radio Controlled Quartz Clock Trouble Shooting**

Clock will not  
run properly

- A. Install fresh alkaline battery.
- B. Inspect battery contact points, remove corrosion if present.
- C. Call Customer Service at 1-800-638-0428.

Why does the second hand keep double stepping?

A. Under certain weather conditions or in locations/areas with poor signal reception, it may take several days to receive a signal. You may try leaving your clock where it is for a while longer, or find a better location.

Will the clock adjust for daylight savings time?

A. Yes, the clock will automatically adjust in the spring and fall, after it receives the time change signal. **DO NOT MANUALLY ADJUST THE TIME WITH THE SET KNOB.**

## Clinometer Operating Instructions

This clinometer is used to measure the heel of a vessel at sea. Knowing the heel, or angle of tilt of a vessel, is vital for optimum trim, as well as safety.

The Endurance clinometer features a low friction weighted movement that indicates the angle of heel to 1 degree accuracy over a +/- 70 degree range. The clinometer provides superior performance in full sun and wide temperature extremes as there is no fluid or bubble.

Exposure to temperatures below freezing for long periods will not damage the unit. However, the indicator's movement will slow until temperatures increase.

# **Barometer/Thermometer/Hygrometer Operating Instructions**

Refer to the following sections titled Barometer and Comfortmeter.

# Barometer Operating Instructions

A barometer is an instrument used to predict a change in weather by measuring variations in atmospheric pressure, or the weight of the air around us. The barometer will normally indicate changes in weather 12 to 24 hours in advance. It is not an indicator of present weather conditions. Your barometer is an aneroid type which measures atmospheric pressures mechanically without use of liquids.

Your barometer can be mounted indoors as the pressure will be the same as outdoors. Don't take any notice of the words Rain, Change, Fair. They are there only as a traditional graphic decoration. At sea level the normal atmospheric pressure is about 30 inches, very rarely will the needle ever exceed 30.5 or drop below 29.5. Sometimes it is possible for the pressure to only change one or two tenths of one inch over a week or so. Even a storm may only make a half inch change.

When your barometer left the factory, it was set at standard sea level. It is necessary for you to calibrate it to the atmospheric pressure in your area by turning the small screw found on the back of the movement. Never turn this screw in either direction more than one full rotation.

Contact your local weather bureau for current atmospheric pressure and adjust your barometer accordingly. For every 100 feet in altitude an adjustment of 0.11 inch is required (1000 ft. = 1.1 inch). The movement used in this barometer is adjustable up to an altitude of 3500 feet.

The moveable pointer at the center of the glass crystal should be set to the present atmospheric pressure. This will allow you to return to the barometer after some time has passed, and determine if the atmospheric pressure is on the “Rise” or “Fall”.

## **Barometer Troubleshooting**

Black needle will not move

- A . Wait for a few days, in case the pressure is steady.
- B. Place barometer in a clear, plastic bag trapping air inside with the barometer. Hold opening of bag closed and push on bag which should create air pressure causing the needle to move. If the needle does not move, call Customer Service 1-800-638-0428.

Needle showing incorrect reading

- A. Adjust the slot head screw in the back of the movement, turning either left or right to bring the needle to the correct reading. Never turn this screw more than one rotation.
- B. Call Customer Service at 1-800-638-0428.

# **Comfortmeter Operating Instructions**

This Comfortmeter is a combination of both temperature and humidity indicators. Calibration and positioning of hands are designed to indicate perfect comfort conditions when both hands cross in a limited area of the dial, the C O M F O R T Zone.

Both temperature and humidity indicators are accurately calibrated at the factory and normally require no adjustment.

## **Hygrometer**

The Hygrometer will indicate the relative humidity of the atmosphere. While indoor and outdoor barometric pressure are identical, this is not true of the relative humidity. Therefore, remember that this instrument when used in the home indicates the humidity of room atmosphere which has no relation to the outdoor humidity readings announced on weather reports.

## **Adjustment of the Hygrometer**

Adjustment of the hygrometer is not necessary. However, it is recommended that hygrometers kept in permanently low humidity areas (i.e. Central heating/air conditioning, etc.) should be wrapped in a damp cloth for 24 hours to reactivate "lazy" dried out coils. To maintain accuracy of the instrument, it is advisable to perform this procedure every six months.



# Time & Tide Operating Instructions

## Time

- 1) Insert AA alkaline battery. Follow diagram on battery housing to make certain battery is not put in backwards. Use only alkaline batteries as they have longer shelf life and are less prone to leakage.
- 2) To advance hour and minute hands, turn knob counter-clockwise. To reverse, turn clockwise.

## Tide

- 3) At the appropriate time, set the tide hand to high or low tide using the gear wheel located below the battery compartment. To adjust the gear wheel, use the tip of a ball point pen, or similar blunt instrument to apply sideways pressure to one of the gear spokes. NOTE: It is normal for the tide hand to have some “play” to it. This allows for proper rotation of the hand. PLEASE NOTE: Tide fluctuations (high and low tide) vary from one given place to another. The tide hand therefore will indicate high and low tide at a particular place or area only. Official Tide Tables - available at Harbour authorities, etc. - will supply the exact time of full or high tide. High and low tides have a fluctuation rhythm between 12 and 13 hours. Therefore, the tide indicator will show average values only, which for general requirements will be fully satisfactory. This tide schedule is geared to tides for the east coast of North America. They will not accurately depict tides for the west coast.

- 4) It should be noted that other variables such as wind, atmospheric pressure, the relative position of the moon, and the elliptical pattern of the sun will affect the tide slightly. These phenomenon least affect the tide at the time of the full moon. For this reason, the time of the full moon and to a lesser extent, the new moon are generally the best times to set your tide clock. Even though you may experience some slight variations during the days to come, you will find that they will “average out” and by the time of the next full moon, your tide clock will accurately depict the correct time of flood and ebb stages. CAUTION: FOR THE ABOVE REASONS, IF THE EXACT TIME OF TIDE STAGES IS ESSENTIAL FOR NAVIGATION, ETC., WE SUGGEST YOU CONSULT A TIDE TABLE.
  
- 5) If clock stops, it is most likely due to a dead battery. Remove dead batteries immediately as they will leak acid causing damage to the movement and void warranty.\*
  
- 6) If clock is left unattended for long periods, the battery should be removed, otherwise, it could become dead and leak acid causing movement damage and void warranty.\*

## Time & Tide Trouble Shooting

Clock will not  
run

- A. Install fresh alkaline battery.
- B. Inspect battery contact points, remove corrosion if present.
- C. Call Customer Service at 1-800-638-0428.

Clock not  
keeping proper  
time

- A. Install fresh alkaline battery.
- B. Call Customer Service at 1-800-638-0428.

**\* Movement damage caused by battery leakage will void warranty.**

## **Returning your instrument for repair**

When returning for service, be sure to package very carefully as Weems & Plath® can not be responsible for damage in transit. Be sure to include a note describing the problem, your phone number, mailing address and proof of purchase if claiming warranty.

# **Weems & Plath®**

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