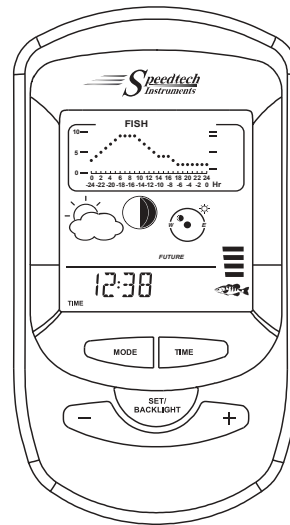


Speedtech Instruments

Model: AE-2

Speedtech Angler's EDGE PLUS

User's Manual



INTRODUCTION

Speedtech's Angler's EDGE PLUS is a handheld precision instrument which tracks sun and moon positions, barometric air pressure, and predicts fish feeding activity based on those measurements.

FEATURES

- Present fish feeding activity, 1-10
- 4-hr future fish feeding activity forecast
- 96-year fish feeding activity based on future sun and moon information
- Barometric air pressure with 24-hr history
- Sunrise, sunset times
- Moon phase and position
- Weather forecast based on pressure
- EL backlight

SCIENTIFIC BASIS

Anglers and scientists alike identify several key factors affecting fish behavior. For centuries, fishermen have been aware that moon phase and position relative to the earth's surface can greatly influence feeding activity. Details of record game fish catches clearly suggest that lunar phase has a bearing on fish feeding activity, with specific lunar events such as full or new moons being the most notable times of good catch rates. This activity occurs among both ocean-dwelling and freshwater fish. The time of day and sun position are important components as well.

Weather is another vital factor affecting fish activity. Evaluations of bass and walleye tournament summaries from across the United States demonstrate the importance of local weather patterns and events on fish behavior. A wide range of other fish species, occupying a

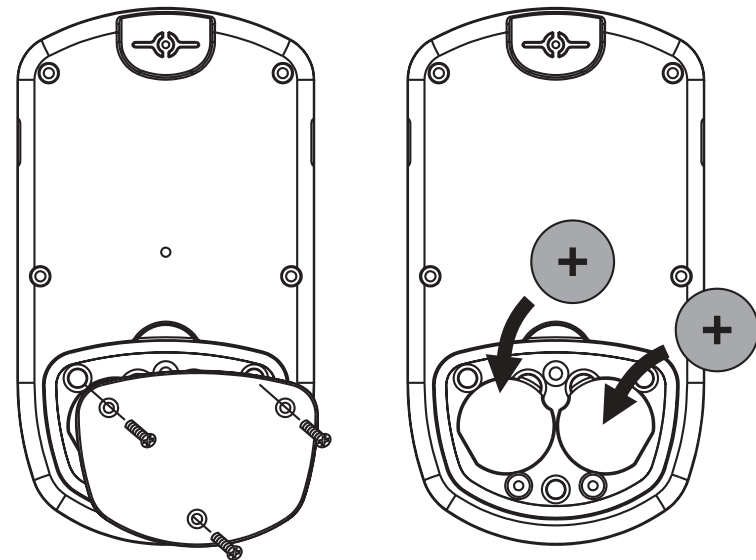
variety of habitats, detect and respond to barometric pressure changes associated with weather patterns.

The algorithm developed for the Angler's EDGE combines moon phase, and sun and moon position, with barometric pressure effects. All of these factors have been combined into one comprehensive relationship to predict fish feeding activity. The factors used in the instrument were derived from a variety of sources, including discussions with meteorologists, fish biologists, anglers, and extensive surveys of the scientific and popular literature.

A combined total of over 40 years of fishery research experience and personal observations contributed to the development of the software used in the instrument. All of this information has been consolidated into the Angler's EDGE to provide anglers with the ability to determine **the best times to fish.**

INITIAL SET UP

1. Two CR2032 Lithium button-cell batteries are included with your Angler's EDGE.
2. Using the provided small screwdriver, remove the battery cover and insert the batteries (positive side facing up), closing the cover. Be sure to seat the rubber gasket properly (this may take some patience).
3. Follow the SETUP guide to set the time, date, coordinates and other settings.



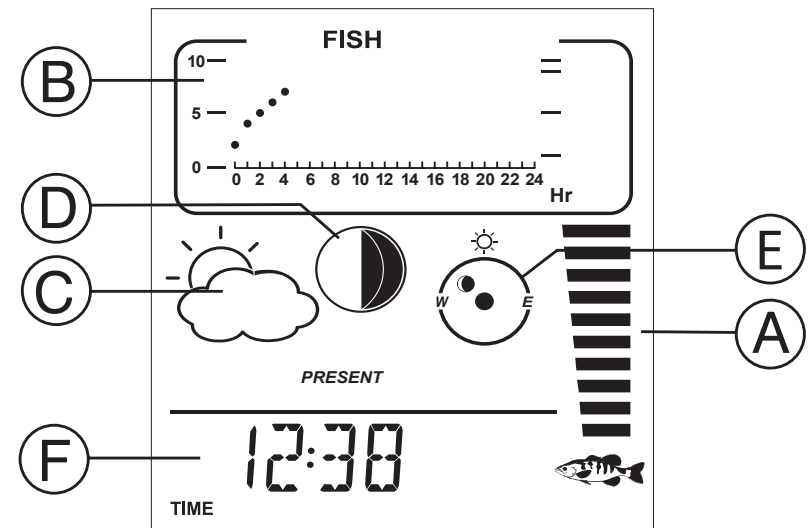
BASIC OPERATION

Refer to FULL OPERATION for detailed instructions.

1. Press and hold the MODE button for 2 seconds to turn on (and off).
2. Press the TIME button to switch between present and future modes.
3. Press the MODE button to cycle through each screen of information
4. Press and hold the SET button for 2-seconds to enter programming mode.
5. Press and hold the TIME button for 2-seconds to activate/deactivate the button lock.
6. Press the SET button briefly to turn on backlight for four seconds.

DISPLAY

- A. Present fish feeding activity, 1-10 bars
- B. 4-hour future activity (24-hour forecast in the future time mode)
- C. Weather forecast (on present mode only)
- D. Moon phase
- E. Sun and moon position
- F. Time (this will change when the MODE button is pressed)



-- SETUP PROCEDURES --

INFO NECESSARY FOR SETUP

Proper set-up requires the local time and date, time zone (hours from GMT), latitude and longitude (in degrees and minutes), and altitude. The fish feeding algorithm is directly related to sun and moon positions, which are set from latitude, longitude and time zone. Barometric air pressure also affects fish behavior, and the correct altitude must be entered to establish the correct relative air pressure.

TIME ZONE

The time zone setting is based on the deviation from GMT (Greenwich Mean Time). If your location follows Daylight Saving Time (DST), the resulting time zone must be increased by one during this time (summer time).

North American Time Zones:

Atlantic Time	-4 (-3 during DST)
Eastern Time	-5 (-4 during DST)
Central Time	-6 (-5 during DST)
Mountain Time	-7 (-6 during DST)
Pacific Time	-8 (-7 during DST)
Alaska Time	-9 (-8 during DST)
Hawaii Time	-10 (-9 during DST)

LATITUDE, LONGITUDE, ALTITUDE

The correct latitude and longitude is necessary for proper sun and moon information. The correct altitude is required for proper adjustment of air pressure. To locate your latitude, longitude and altitude, refer to a GPS unit, local airport, or the internet. The easiest online source is www.topozone.com. Choose "Get a Map" and enter in your town and state. In the "Place Name Search", it will show elevation in feet and latitude/longitude as a decimal. Double click on the town name and a map will appear. At the bottom of the map,

select D/M/S. Then look above the map for latitude/longitude in degrees/minutes (pay attention to the direction as well; North/South and West/East).

If you know the latitude/longitude in decimal degrees only, use the whole number for the degrees entry, and multiply the decimal by 60 to calculate the minutes. For example, 35.407° is 35 degrees, and 24 minutes (.407 x 60).

Note: the continental US lies within Latitudes N25° - N49° and longitudes W67° - W123°.

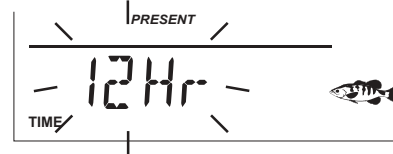
For locations in Canada, use the website www.nrcan-rncan.gc.ca. For locations outside of North America, use www.mapquest.com or www.world-gazetteer.com.

If there is trouble accessing your local coordinates, please e-mail Speedtech at info@speedtech.com for assistance.

DETAILED SETUP

If unit is off, press and hold MODE button for two seconds to turn ON. There is a set-up for the present mode and for the future mode, depending on which mode the unit is in when the programming mode is entered (press the TIME button to switch modes). It is best to *set the present mode settings first.*

1. Press and hold the SET button for two seconds to enter the set-up mode (*skip to #2 if setting future mode*); “12Hr” will flash. Press the – or + button to select 12Hr (AM/PM) or 24Hr (“military” time). Press SET button to confirm.



2. The hour will flash. Press the – or + button to set the current hour (note AM or PM if in 12Hr mode). Press the SET button to confirm.

3. The minutes will flash. Press the – or + button to set the current minute. Press the SET button to confirm.

4. The month will flash. Press the – or + button to set the current month. Press the SET button to confirm.

5. The day will flash. Press the – or + button to set the current day. Press the SET button to confirm.

6. The year will flash. Press the – or + button to set the current year. Press the SET button to confirm. *Skip to 9 for future mode.*

7. (*present mode only*) The pressure unit (inHg or mb) will flash. Press the – or + button to select inHg or mb. Press the SET button to confirm.

8. (*present mode only*) The altitude unit will flash. Press the – or + button to select ft or m (meters). This is for the altitude input for pressure adjustment. Press the SET button to confirm.

9. The time zone will flash. Press the – or + button to set the local time zone. Press the SET button to confirm.

10. The latitude direction will flash. Press the – or + button to set N (North) or S (South). Press the SET button to confirm.

11. The latitude degrees will flash. Press the – or + button to set the latitude degrees. Press the SET button to confirm.

12. The latitude minutes will flash. Press the – or + button to set the latitude minutes. Press the SET button to confirm.

13. The minutes will flash. Press the – or + button to set the current minute. Press the SET button to confirm.

14. The longitude direction will flash. Press the – or + button to set W (West) or E (East). Press the SET button to confirm.

15. The longitude degrees will flash. Press the – or + button to set the longitude degrees. Press the SET button to confirm.

16. The longitude minutes will flash. Press the – or + button to set the longitude minutes. Press the SET button to confirm.

17. *(present mode only)* The altitude compensation will flash. Press the – or + button to set the local altitude (in feet or meters, as selected in step 8). Press the SET button to confirm.

The set up is now complete.

Note: the future time and date can only be set for a time and date in the future or current time and date. If a past time and/or date is set, the time and date will default to the current set time and date.

-- OPERATION AND FEATURES --

DISPLAY MODES

Press the MODE button to scroll through information, in either present or future modes; no pressure will display in future mode.

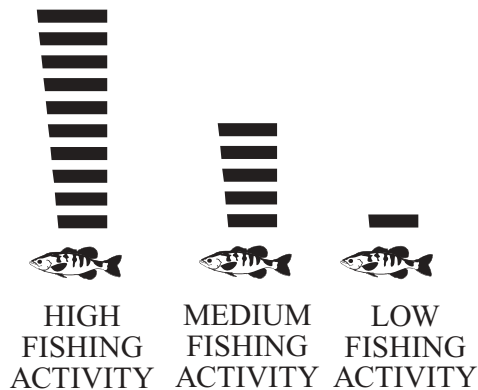
**TIME → DATE → YEAR → PRESSURE
→ SUNRISE → SUNSET → TIME**

When in pressure mode, the graph at the top will display 24-hour history.

The display will revert to the time display if no buttons are pressed for one minute and will turn off when no button is pressed for five minutes (all settings remain, and air pressure is still tracked).

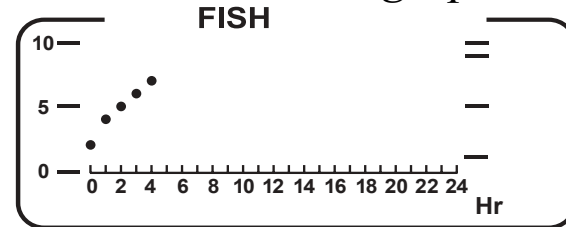
FISH FEEDING FORECAST

The unique feature of Speedtech's Angler's EDGE is the fish feeding prediction. The graph on the right side of the LCD displays the present fish feeding activity level, on a scale from 1 (low) to 10 (high). In present mode, this is for the current time; in future mode, this is for the set time and date.

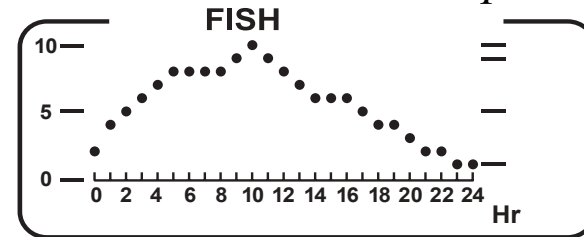


The graph at the top of the LCD (except when viewing air pressure) shows the future fish feeding activity. The current level is displayed as "0 Hr" on the left. In present mode, the activity is for the next four hours; for future mode this is for the next 24 hours.

Present 4-hour *graph:*



Future 24-hour Graph



Note that the "future" mode may be set for any time and date through 2099, including the current time. The fish feeding activity based on sun/moon position only.

FUTURE MODE FEATURES

When viewing the time in future mode, the – and + buttons can be pressed to scroll ahead or backward hour-by-hour. The time scrolled to will remain set. This is useful for preparing for a future fishing trip and planning the best times to fish.

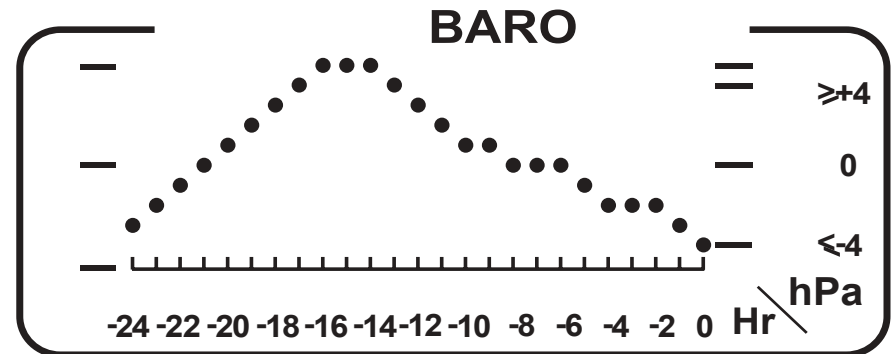
If the future time and date is equal to the current time and date, it will track along. This feature is good for planning shorter-term fishing plans, over the next 24 hours.

No weather prediction or barometric air pressure can be viewed when in future time mode.

BAROMETRIC AIR PRESSURE





The built-in barometer senses the changes in barometric air pressure every 15 minutes, even when the unit is “off”. When viewing the

current air pressure, the chart on the top of the LCD will display the air pressure history for the past 24 hours. Each column, right to left, represents one hour in the past. Each dot represents a change in air pressure, up or down, relative to the current air pressure, or “0 Hr”. To read the graph, follow the chart from left to right. The graph will increase when the air pressure rose, and decrease when the pressure fell. The pressure trend for the past 6 hours is the most useful for short-term weather forecasting.



WEATHER FORECAST

The Angler's EDGE measures changing air pressure and predicts short-term changes in weather over a small area. In general, falling air pressure results in worsening weather, and rising air pressure results in fairer weather. Rapidly falling pressure signals an approaching storm, while rapidly rising pressure will result in strong winds. The weather forecast is for the next 6 to 12 hour period, over an area of 20 to 30 miles. The accuracy of any pressure-based forecast is about 75%, although less in areas where pressure does not affect weather as much.

			
SUNNY	PARTLY CLOUDY	CLOUDY	RAINY

SEVERE WEATHER WARNING

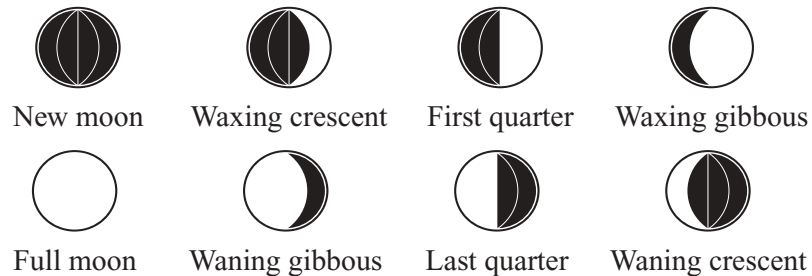
By definition, severe weather occurs when barometric air pressure has changed by 6 milibars (up or down) during a three hour period. Severe weather, including wind and rain, generally accompanies falling barometric air pressure. Rising pressure will result only in high winds.

When severe weather is detected, the unit will give out an audio warning and flash the weather icon. The alarm is muted by pressing any button. The alarm will sound even if the display is off, unless this feature is disabled.

To disable the severe weather warning, press and hold the – button for three seconds while in present mode. A beep will sound once. To activate the alarm, press and hold the + button for three seconds while in present mode. A series of three beeps will sound.

MOON PHASE

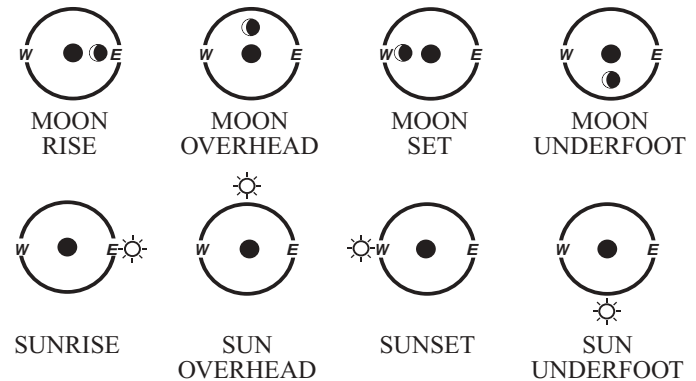
The moon phase is indicated in eight symbols, as shown below. The moon phase is for either the present date, or for the set future date, depending on which mode is viewed.



SUN AND MOON POSITIONS

A useful feature of the Angler's EDGE is the chart displaying sun and moon positions. Once understood, the current positions of the sun and moon can be determined at a glance. The center circle represents the earth, with the sun and moon revolving from East (rising) to West (setting).

The exact sunrise and sunset times can be located by pressing the MODE button and cycling through the modes, in either present or future mode.



**If the sunrise and sunset times appear to be off by an hour, check to be sure the correct time zone is set, taking into account daylight saving time. If it appears to be off by more than an hour, check the latitude and longitude, including the direction.

KEY LOCK

The buttons may be locked to prevent accidental changes. Press and hold the TIME

button for two seconds to activate/deactivate the key lock.

CONDITIONS AFFECTING ACCURACY

When the unit is subjected to a change in altitude, which can occur when ascending or descending a building or when traveling across uneven terrain, the pressure readings are affected. Since the present fish feeding prediction, weather forecast, and severe weather alarms rely on changing air pressures, those readings should be ignored until the altitude has been steady for two to three hours. Also be sure to set the altitude adjustment to the current altitude (if known).

BELT CLIP, CARRY POUCH

A belt clip (which can also be used as a mounting bracket) is attached and can be removed if desired. A carry pouch is also included to protect the unit from the elements.

MAINTAINENCE

The Angler's EDGE is designed to withstand moderate elements, but like most electronic devices should be handled carefully to avoid damage. Do not submerge in water.

WARRANTY

Speedtech's Angler's EDGE is warranted against manufacturing defects for one-year. This does not cover physical damage as a result of misuse. Please refer to the instructions or contact us for answers and assistance.

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