

SPEEDTECH ANGLER'S EDGE

MODEL: AE-1

USER'S MANUAL

INTRODUCTION

Congratulations on purchasing the Speedtech Angler's EDGE. You now have a technologically advanced instrument, which will maximize your fishing productivity.

SCIENTIFIC BASIS

Scientific and biological research of aquatic life through the ages has conclusively demonstrated that there is a high level of dependence on the environment and a myriad of factors related to that environment. Observational studies, involving the activity and behavior of fresh and saltwater fish, show that the strong relationship between their habitat, and the factors influencing it, is unquestionable.

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 such things as fish movements and migrations, spawning activity, and perhaps most importantly, from an angling standpoint, 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. Moon position directly affects tides in large bodies of water, and scientific investigations of fish have also shown that there exists a strong synchronization of fish behavior with tides and moon position. This activity occurs among both ocean-dwelling and freshwater fish.

While lunar phenomena play a significant role in fish behavior, other factors are also important. Photoperiod and light intensity dictate fish activity, making time of day and sun position 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 cyclic 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 due to local weather events. All of these factors have been combined into one comprehensive and intuitive relationship to predict fish activity and feeding behavior due to the contributing factors. 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 number of pertinent scientific papers used in deriving the relationships were obtained from fish physiology and fish biology databases. 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.

FEATURES

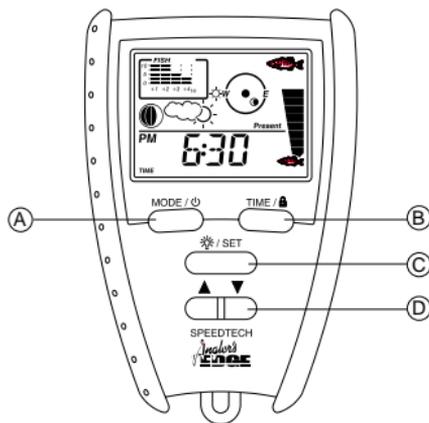
The Speedtech Angler's EDGE is equipped with scientific software which provides:

- Moon phase & moonrise / moonset position
- Sun position / sunrise & sunset times
- 12 – 24 hour weather forecast
- Present & 4-Hr future fish feeding activity prediction
- 45-year feeding forecast based on future sun/moon information
- Real-time calendar clock
- Barometer / 16 hour history
- Severe weather audio warning
- Key lock function
- EL back light

IMPORTANT NOTE:

The Speedtech Angler's EDGE includes two CR2032 batteries necessary for operation. To maintain their maximum life during storage and shipping, these batteries have not been fully installed. See the Battery Information section for instructions.

CONTROL BUTTONS



A. MODE/POWER BUTTON

Changes the display mode or turns the unit on and off.

B. TIME/LOCK BUTTON

Displays the current or future mode or locks and unlocks the control buttons.

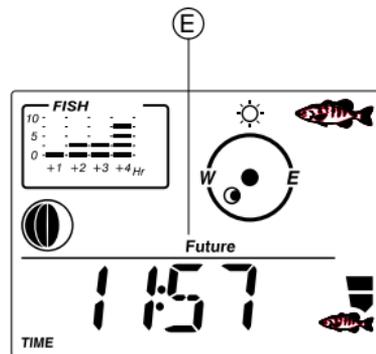
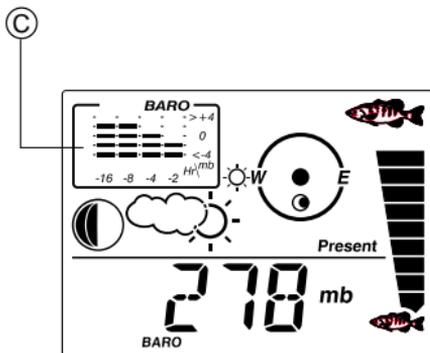
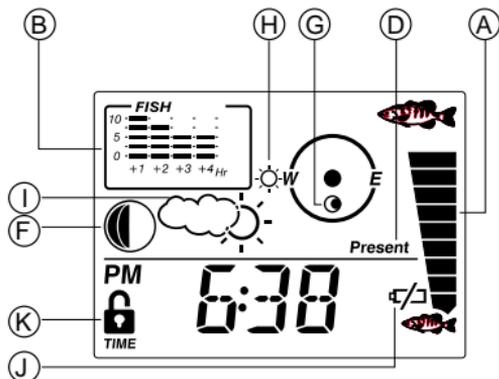
C. LIGHT/SET BUTTON

Activates back light or enters the setting procedure.

D. UP/DOWN BUTTONS

Changes parameter values.

INDICATORS

**A. FISH FEEDING METER**

Indicates the magnitude of fish feeding activity

B. FISH FEEDING BAR GRAPH

Indicates the magnitude of fish feeding activity for the next four hours

C. BAROMETRIC PRESSURE BAR GRAPH

Indicates the barometric pressure value for the past 16 hours

D. PRESENT MODE

Shows fish feeding activity for the current date and conditions

E. FUTURE MODE

Shows fish feeding activity for at the set date and time

F. MOON PHASE

Indicates the phase of the moon

G. MOON POSITION

Indicates the position of the moon

H. SUN POSITION

Indicates the position of the sun

I. WEATHER FORECAST

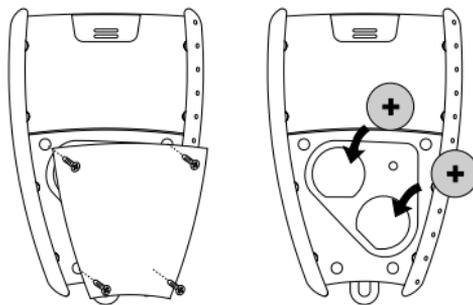
Indicates the weather conditions for the next 12 to 24 hours

J. LOW BATTERY

Indicates the batteries are running dry

K. KEY LOCK

Indicates the control buttons are locked



BATTERY INFORMATION

The unit uses two CR2032 lithium batteries, which are pre-installed. Before using the unit, gently remove the red battery insulation tab. The unit will not operate until the tab is removed.

Battery Installation:

- 1) Remove battery compartment cover on backside of instrument. This requires removal of the four (4) small screws with a No. 0 to No. 1 Phillips head screwdriver (included).
- 2) Be sure the + side of your fresh CR2032 battery is facing up.
- 3) Place the edge of the fresh battery under the flat lip protruding over the battery compartment.
- 4) Gently press battery until battery is seated flat in battery compartment.
- 5) Securely replace the battery compartment cover with the four (4) screws.

A low-battery indicator will light up on the display screen when the batteries are running low.

Battery Life:

After red battery insulation has been removed, batteries have a life expectancy of up to ten (10) months if the unit is never turned on. With moderate use, battery life is expected to be at least six to seven (6-7) months.

If user wants to COMPLETELY TURN OFF the unit and maintain battery life, remove the batteries from the unit. A piece of tape may be placed between the batteries and the battery contact to store the unit and maintain fresh battery life.

The unit will keep the memory for time zone, altitude, latitude and longitude even when the batteries are replaced. Press SET to bypass the setting procedure, should the above information still be applicable.

TURNING UNIT ON OR OFF

Press and hold MODE/POWER for two seconds to turn the unit on or off. Upon removal of the red plastic battery insulation strip, the unit will start to measure barometric pressure data every 15 minutes. Monitoring of the barometric pressure data will continue even while unit is turned off, and will store this information for future use.

Once the unit has been turned on, the weather forecast will appear as half-cloudy/half-sunny. The Speedtech Angler's EDGE will need approximately 2 to 3 hours of accumulated data to calculate the trend of the weather change and report an accurate weather forecast.

Angler's EDGE turns itself off automatically after 15 minutes. However, the barometric pressure sensor and the Severe Weather Alarm will continue to function unless the batteries are removed.

THE BACK LIGHT

The back light feature allows for display readability in low light situations. To activate back light feature, press LIGHT/SET button once. Back light will be deactivated automatically after six seconds.

THE KEY LOCK

The control buttons may be locked to avoid accidental changes. To activate lock, press and hold LOCK for two seconds. Repeat the procedure to unlock buttons. **NOTE:** this feature will be disabled when the unit turns itself off.

HOW TO SET THE PARAMETERS

Please refer to the TIME ZONE, ALTITUDE, LONGITUDE & LATITUDE SOURCES to gain specific geographic coordinates prior to beginning the parameter entry process as follows:

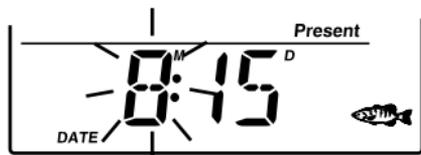
1. Press and hold SET. The hour digits will blink.
2. Use UP or DOWN to enter the hours. Pay attention to AM or PM (PM shows on the screen, AM does not. **For example:** this diagram is 8:28 AM)



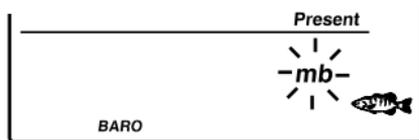
3. Press SET. The minute digits will blink.
4. Use UP or DOWN to enter the minutes.
5. Press SET. The year digits will blink.
6. Use UP or DOWN to enter the year.



7. Press SET. The month digits will blink.
8. Use UP or DOWN to enter the month.



9. Press SET. The day digits will blink.
10. Use UP or DOWN to enter the day.
11. Press SET. The barometric unit will blink.
12. Use UP or DOWN to enter barometric unit. You may select mb (millibars/hPa) or inHg (inches of Mercury).



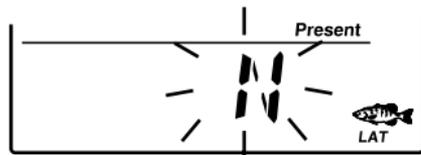
13. Press SET. Display will blink.
14. Use UP or DOWN to enter time zone. *see time zone source following.



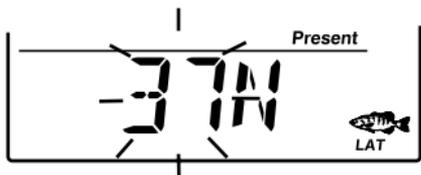
15. Press SET. Display will blink.
16. Use UP or DOWN to enter altitude in meters. (1 meter = 3.2808 feet).



17. Press SET. Display will blink.
18. Use UP or DOWN to enter Latitude direction. You may select N for north or S for South.



19. Press SET. Display will blink.
20. Use UP or DOWN to enter Latitude degrees.



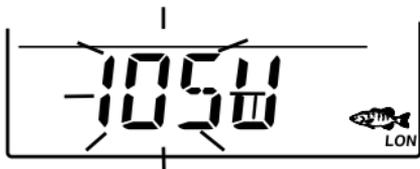
21. Press SET. Display will blink.
22. Use UP or DOWN to enter Latitude minutes.



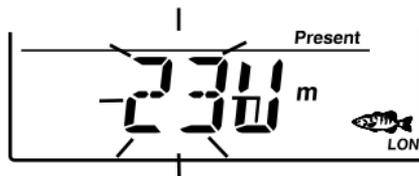
23. Press SET. Display will blink.
24. Use UP or DOWN to enter Longitude direction. You may select E for east or W for west.



25. Press SET. Display will blink.
26. Use UP or DOWN to enter Longitude degrees.



27. Press SET. Display will blink.
28. Use UP or DOWN to enter Longitude minutes.



29. Press SET to finish.

You have successfully completed the parameter entry of your Speedtech Angler's EDGE and are now ready to maximize your fishing productivity at this geographic location.

TIME ZONE, ALTITUDE, LATITUDE AND LONGITUDE SOURCES

The Speedtech Angler's EDGE calculates sunrise and sunset, according to the data entered for the time, date, time zone, altitude, latitude and longitude. The following information is supplied to assist you with accurate data during your parameter entry.

The time zone value is derived by subtracting GMT (Greenwich Mean Time) from the local time. You may select from -12 to +14 hours. Be sure you make adjustment for daylight saving (DST) when applicable. Find your location on the chart shown and use the accompanying number during parameter entry. **EXAMPLE:** On the chart, Eastern Standard Time is -5. For Daylight Savings Time, the Eastern time becomes -4.

Location:	Time Zone Value	Location:	Time Zone Value
Greenwich, England	0	Mid Europe/Africa	1
Ireland, Scotland, Portugal, Iceland, Morocco		France, Germany, The Netherlands, Belgium, Austria, Spain, Italy, Swizerland, Sweden, Norway	
SE Greenland	-1	E Europe, E Central Africa	2
		Greece, Finland, Turkey, Israel, Zimbabwe	
Atlantic Ocean	-2	Moscow, Mid-East, E Africa	3
Greenland Time	-3	NW Caspian Sea	4
Atlantic Time	-4	Ural Mountains, Russia	5
Eastern Standard Time	-5	Almaty (Alma ATA), Russia	6
Central Standard Time	-6	W Mongolia	7
Mountain Standard Time	-7	China, Western Australia	8
Pacific Standard Time	-8	Japan	9
Alaska Time	-9	Eastern Russia; Eastern Australia	10
Hawaii	-10	Kamchatskiy, E Russia	11
Pacific Ocean	-11	Internal Date Line East	12
International Date Line West		New Zealand, Fiji	
		Rawaki Islands: Enderbury Kiribati	13
		Line Islands: Kiritibati	14

Note: Add one hour to the time zone value for Daylight Saving Time (DST)

For use of the Speedtech Angler's EDGE in higher altitude settings, it is important to enter the altitude compensation in the setting procedure. The compensation values are available from -90 to +2450 meters, (see the note under Elevation).

FINDING YOUR LATITUDE/LONGITUDE/ ELEVATION

U.S. Locations: The easiest source is the Internet site: www.topozone.com. Choose "Get a Map" and enter your town or county in the Place Name Search. It will show elevation and Lat/Long 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 Lat/Long in degrees/minutes.

If you know your Lat/Long as a decimal, you can convert to minutes by multiplying the decimal numbers by 60. EXAMPLE: For Lat 35.407°, multiply .407 x 60 = 24.42. Lat = 35° 24' (Round to nearest whole number.)

If you have a GPS, the Lat/Long should come up when you first turn on the unit. Many GPS units also provide elevation.

If you do not use the Internet and do not own a GPS, call your local airport, which can provide the Lat/Long/Elevation of the airport. Some airports can give you information on surrounding areas.

If there is no convenient airport, call the U.S. Geological Survey at 888 275 8747 to order the USGS Index to Topo-Maps for any state. These are free and are shipped to you free by US mail. You may also call the same 888 number, press 6 for the USGS Library. The librarian can look up your location.

Remember that most local libraries have Internet access, or you may ask the Reference Librarian to check www.topozone.com, or other sources, for the Lat/Long/Elevation information you need.

Canada: Use www.NRCAN-RNCAN.gc.ca. Click on "Centre for Topographic Information," then select MAPS 101. Go to the bottom and select Search on Index; select NTS Index Maps, then click on

Geographical Name Query. Type in your location.

International Locations: You may use www.mapquest.com and select "World Atlas" or locate information for your individual country.

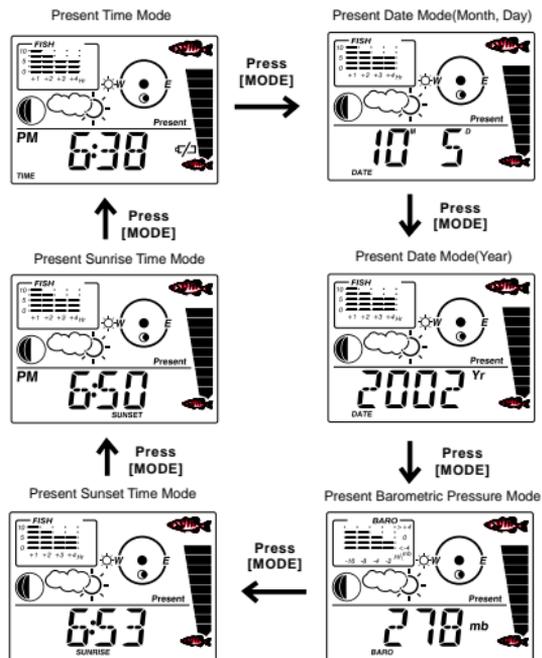
NOTE: Altitude settings for the Angler's EDGE are in METERS only. You will need to convert feet to meters by dividing by 3.28. EXAMPLE: Elev = 500 Ft. $500 \div 3.28 = 152$ meters (The AE altitude is in increments of 10 meters, so you would use 150 meters to set the unit.)

DISPLAY MODES

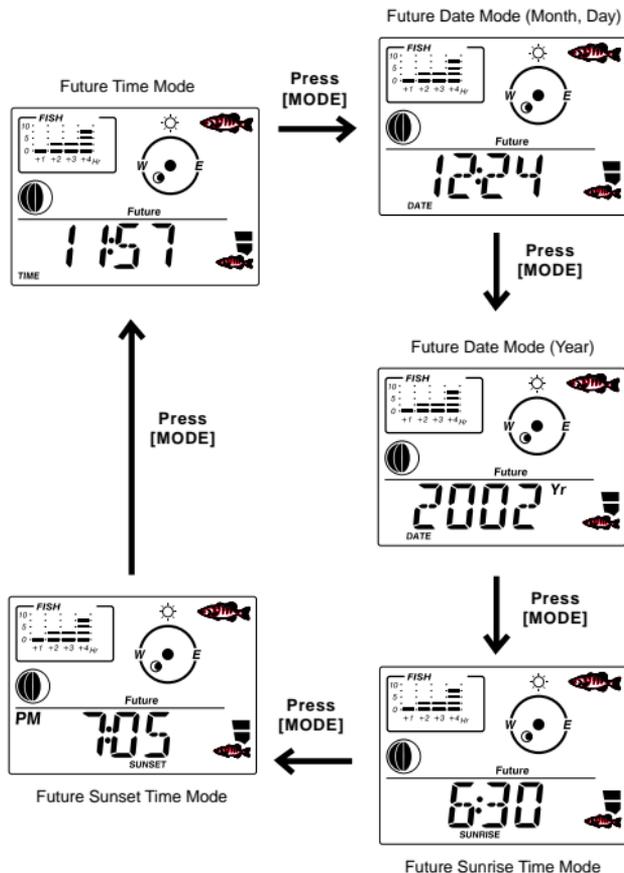
To scroll through the current time, date, year, barometric pressure, sunrise time and sunset time, press **MODE**.

To change between the present and future mode, press **TIME**.

PRESENT DISPLAY MODE

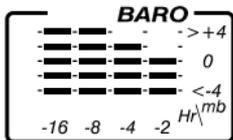


FUTURE DISPLAY MODE



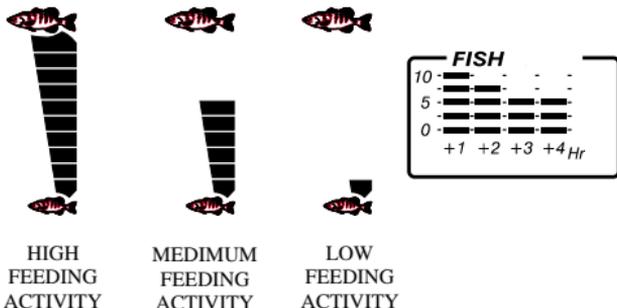
BAROMETRIC HISTORY

The built-in barometer senses the changes in barometric pressure every 15 minutes. To check the barometric pressure, press **MODE** to display **BARO**. The pressure history for the past 16 hours will be displayed in the pressure chart in four columns, reading left to right.



FISH FEEDING METER AND BAR GRAPH

In Present Mode, the fish feeding meter and bar graph show the intensity of fish feeding at present and up to 4 hours in the future.



In Future Mode, activity for a certain date and time is shown, based only on future sun/moon information.

If you travel over a large distance and/or significantly change altitude, you must re-set the pertinent parameters after reaching your destination. Wait at least one hour for an accurate fish feeding prediction.

HOW TO SET THE FUTURE MODE

The future mode allows you to preview the fishing conditions on a certain date and time. You must pay attention to the Time Zone in the initial setup. If your unit is set for DST and your future date is in winter, you must change the Time Zone accordingly, otherwise the Sunrise/Sunset times will be off by 1 hour. If you seek information for a different location, again the Time Zone must be adjusted. To enter the parameters for the forecast:

1. Press **TIME** to display the future mode.
2. Press and hold **SET**. The hour digits will blink.
3. Use **UP** or **DOWN** to enter the hours.
4. Press **SET**. The minute digits will blink.
5. Use **UP** or **DOWN** to enter the minutes.
6. Press **SET**. The year digits will blink.
7. Follow the same pattern to enter the month and day.
8. Press **SET** to finish.
9. Press **TIME** to exit **FUTURE** mode.

You can bypass the setting procedure for an immediate forecast for a certain hour in the same day. To do so,

1. Press TIME to display the future mode.
2. Use UP or DOWN to change the hour.

WEATHER FORECAST

The Angler's EDGE continuously monitors barometric pressure changes and maintains memory of barometric pressure history. The 12 to 24 hour weather forecast is based on the trends of the barometric pressure history. The effective range is 19 to 31 miles (30 to 50 km).

			
SUNNY	PARTLY CLOUDY	CLOUDY	RAINY

Note:

1. The accuracy of barometric pressure-based weather forecast is generally 75%. Thus, this instrument cannot be held responsible for inconveniences caused by an inaccurate forecast.
2. The weather forecast is meant for the next 12 to 24 hours and does not reflect the current condition.

3. The "Sunny" icon, when appearing at night, implies clear weather. Rain forecast can also imply snow.

SEVERE WEATHER WARNING

By definition, severe weather occurs when barometric pressure has changed 6 millibars, (up or down) during a 3 hour period. Severe weather, including wind and rain, generally accompanies falling barometric pressure. Rising pressure will only result in high winds.

When the severe weather-warning feature is activated, the unit will give out an audio warning and flash the weather icon. The alarm is muted by pressing any button.

The barometer and severe weather alarm continue to function when the unit is off. The alarm will sound even if the unit is off, unless you disable the audio function.

To disable the severe weather warning, press and hold the DOWN button for 3 seconds in present mode display. A beep will be sound. To enable the warning, press and hold the UP button for 3 seconds in present mode display. Four beeps will sound to indicate successful entry.

MOON PHASE, SUN AND MOON POSITIONS

The Speedtech Angler's EDGE is equipped with a moon phase scanner for years 2000 to 2047. The moon phase is indicated in eight symbols, including full, waning, quarter, waxing and new.



New moon



Waxing crescent



First quarter



Waxing gibbous



Full moon



Waning gibbous



Last quarter

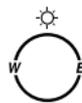


Waning crescent

The moon and sun relative positions are also represented in eight positions, including rising, setting, overhead and underfoot.

MOON
RISEMOON
OVERHEADMOON
SETMOON
UNDERFOOT

SUNRISE

SUN
OVERHEAD

SUNSET

SUN
UNDERFOOT

RESET BUTTON

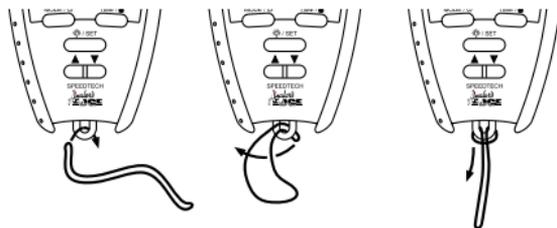
The reset button is found inside the battery compartment.

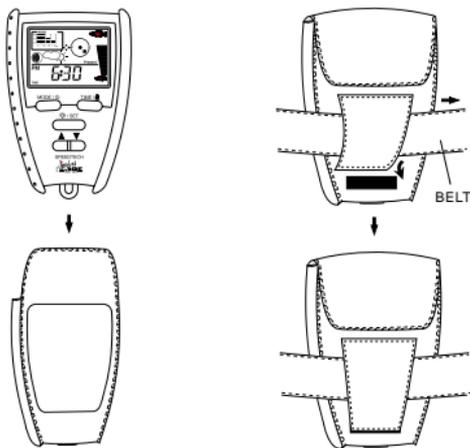
Depressing the reset button will reset the calendar clock and barometric pressure histories and should only be used in the event of a malfunction of the Angler's EDGE. Other parameters such as time zone, altitude, latitude and longitude will remain in the memory.

To reset the unit, press the reset button with an opened paperclip.

CARRY POUCH AND LANYARD

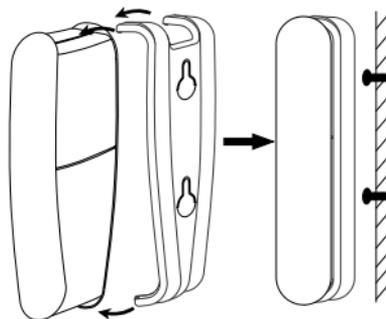
A carry pouch and detachable lanyard are included with the unit. Remove the mounting bracket, then insert the unit into the pouch and secure the strap. Insert the unit into the pouch and secure the strap. You can also attach the pouch to a belt using its Velcro® belt loop.





HOW TO MOUNT THE UNIT

A mounting bracket is included for securing the Angler's EDGE on a wall or vertical surface. We suggest using Dual Lock, a self-adhesive, plastic hook-on-hook, 3-M product carried by hardware stores and Radio Shack. Dual Lock works well in a marine environment.



MAINTENANCE

The Speedtech Angler's EDGE is engineered to operate with precision for years, if handled properly. Do not subject the Angler's EDGE to extreme shock, electromagnetic influences or immerse it in water. Do not tamper with internal parts, as none are user-serviceable.

WARRANTY

Speedtech Angler's EDGE and all other Speedtech Instruments have a one-year warranty, as well as a 30-day "as new" return policy. Our commitment is to provide you with expert technical assistance and the best possible personal service. We encourage you to call with any questions about our products or their application to your individual needs. Our website at www.speedtech.com has product specifications, answers to frequently asked questions, and user manuals can be downloaded.