

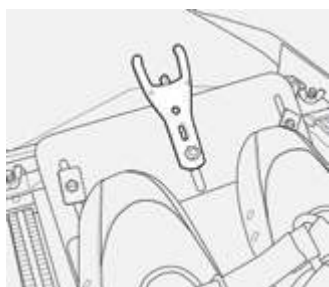
ActiveRate Installation and Operating Instructions

Congratulations on purchasing one of the new generation of wire free Rate Meters from Active Tools. Your ActiveRate has been designed to be as easy as possible to use but the following information should help you get the best out of it. If you have any queries please email us at queries@active-tools.com or contact your local distributor.

Mounting Your ActiveRate

Your ActiveRate comes with two mounting brackets and whichever bracket you fit we strongly recommend that you use the lanyard to attach it to your boat so that it cannot be lost. The unit does not float when it has a silicone bumper fitted.

The flat bracket is intended to be fixed permanently, or semi permanently, to the boat you most often use. It is usually best to mount it under a footplate nut.



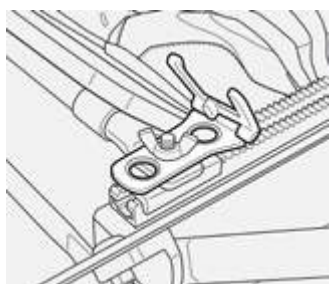
The removable bracket, with suction cups on it, is for use in boats that you row only occasionally and it is attached by wetting the cups and pressing them down onto a flat surface (normally on the stern of the boat). The bracket is hinged so that you can adjust it to the optimum viewing angle. On some boats the suction cups will hold on less well than on others so be aware of this and make sure you attach the lanyard to the boat.



The removable bracket can also be used on most wing riggers by replacing the suction cups with the Velcro strips provided. We recommend that the more flexible Velcro strip is fixed to the bracket and the other one is attached to your rigger.



The suction cup bracket can also be used to mount the unit to a foot stretcher screw by removing the suckers.



Operating Your ActiveRate Unit

General points are:

Your ActiveRate will turn on with a 3 second button press and off either after 20 minutes of inactivity or when the button is held down for 3 seconds when in Clock mode. When you first turn the unit on the two horizontal bars in the rate display area will flash when the battery level starts to get low. Initially they will flash only once but they will flash an increasing number of times as the battery level drops further.

To cycle through the operating modes, click the top button. The highlighted function will then flash and if you leave it highlighted for more than 3 seconds it will be selected.

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ActiveRate INSTRUCTION MANUAL



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CLOCK (Clock Symbol)

This displays either the time of day, in 12 or 24-hour format, or it can be set to display nothing.

To set the time, start with the unit turned on and hold the button down for 8 seconds (the display will go blank after 3 seconds) and '12' will flash. Pressing the button will change this to a flashing '24' and then to '-:-', which means that no clock time will be displayed. After 4 seconds of inactivity the hour digits will flash and they can be set by pressing, or holding, the button. Minutes can then be set in the same way.

RATE WATCH MODE (Stopwatch Symbol)

When this icon is selected a spectator can take the rates of crews by pressing the button in time with their catches.

The unit will reset to 'clock' mode when the button is held for 3 seconds.

STANDING START (Flag Symbol)

When this icon is selected work pieces will be timed from the first stroke taken or from a press of the button. Timing will stop when you press the button again or you can let the timing end automatically. If you stop rowing, or paddle very lightly, for more than 5 seconds the display will flash. If you then push the button the time that you stopped rowing hard will be used as the end of the timed piece. This means that you can time races without having to have the presence of mind to push the button as you cross the finish line.

Pressing the button again briefly will reset the unit so that it is ready to time another piece.

The unit will reset to Clock mode when the button is held for 3 seconds.

Battery Changing Instructions

You will need a new type CR2032 battery, which are widely available. You will also need a replacement rubber O-Ring seal as otherwise the water tightness of the battery compartment cannot be guaranteed. While the electronics in the unit are in a separate sealed area any water leaks into the battery compartment may cause corrosion problems. Replacement O-Rings are available free of charge from the Active-Tools website.

To change the battery unscrew the 4 screws on the rear of the case. Replace the O-Ring and fit the new battery the same way round as the old one (negative contact inserted first) and refit the cover. Take care to only touch the positive contact (the battery case) as touching both contacts can leave deposits that cause the battery to discharge prematurely.

Frequently Asked Questions

Does adjusting the mounting angle of my ActiveRate unit affect its operation?

The unit is designed to work at any mounting angle between horizontal and vertical. However if you do change the mounting angle during an outing it can take up to one minute for the unit to give accurate rate and Check readings.

Is it important that I mount my ActiveRate square to the centreline of the boat and not leaning to one side?

Slight misalignments will not cause problems although Check readings may not be completely accurate. In particular, using the Suction Cup Bracket on the angled rear decks of boats will not cause any significant problems.

The button on my unit occasionally sticks.

Remove the battery compartment cover, lift out the button and clean both the button moulding and the recesses it slides in on both the main moulding and the battery cover. Use a soft cloth wetted with a dilute solution of dishwashing liquid and remember to fit a new O-Ring seal when re-assembling the unit.

Do I need to take special care of my ActiveRate unit?

To maximise battery life it is a good idea to avoid excessively high temperatures, such as those encountered in closed vehicles on hot sunny days. These can reach 150 degrees Fahrenheit / 65 degrees Centigrade.

Why does my ActiveRate not always show rates when I move it backwards and forwards in my hand?

If you turn your ActiveRate on and then rotate it to a different angle it can take up to 60 seconds for it to calculate the angle it has been changed to and establish an accurate rate.

Why does my unit occasionally not display rates?

This is because your ActiveRate uses the variation in boat speed during the stroke to calculate rates and in some situations these are too small to be used reliably. This can happen when only some of your crew is rowing or when your full crew is rowing at an artificially light pressure.

Sharp downward changes of pressure, eg from firm to light, can also cause the display to go blank for a few strokes. This is because your ActiveRate marks these types of changes so that it can automatically capture the finish times of recorded work pieces.

Is my ActiveRate suitable for all boat types and any water conditions?

Your ActiveRate is designed for use in 'racing' sliding seat rowing boats used in normal water conditions. It may work in other situations but is likely to give less stable readings.

Can I use my ActiveRate when Coxing?

Your ActiveRate will be mounted at 180 degrees to its normal orientation so it will generally not work correctly.

When I set off, why do I have to take two strokes before rates are displayed?

Your ActiveRate calculates rates by timing between the maximum decelerations of consecutive strokes so rates can't be calculated until two full strokes have been taken.

When more than one person in our crew use an ActiveRate to record races we find the average checks vary slightly.

This is usually because the units have not both been mounted absolutely square to the boat.

I occasionally see inconsistent rate readings.

Your ActiveRate calculates rates by timing between the maximum boat decelerations of consecutive strokes. Certain conditions, such as gusting winds and very rough water, can affect the spacing of these peaks and minor variations in rate can therefore be seen. In extreme conditions the unit may even struggle to establish rates for a number of strokes.

In practice these problems only happen very occasionally and then in conditions where exact rates are somewhat irrelevant.

How long will my battery last?

The battery life you will normally achieve is around 130 hours of rowing. This will give most users many months of use.

My ActiveRate does not turn on or turns on and shows unusual readings.

The battery on the unit probably needs to be replaced.