

COXMATE

ADVANCED ELECTRONICS FOR ROWING

Coxmate GPS

MANUAL

1. Introduction

This manual provides an overview of the operation of the Coxmate GPS and the Coxmate App. This App is designed to provide performance monitoring for a variety of water sports. In addition to this App there are a number of others on device for cycling, hiking and other activities. These are not covered in this manual and are not supported by Coxmate. Details of these Apps and other support material can be found at

www.coxmate.com.au/technical-support

The PC Navigation, and, Coxmate Analysis Software are available at www.coxmate.com.au/GPS. To access this software you will need the serial number of the GPS – at rear of unit – see picture. The Coxmate GPS comes with a 12 month software licence. Thereafter a nominal annual fee will be charged.



The following items are included:

- USB lead
- Suction Mount with option of connecting to stretcher adjustment rail (rowing)
- Adaptor bracket
- Lanyard

When you first receive unit, connect it to a USB port on computer or a USB charger, to charge the unit. The connection point on GPS (see adjacent picture) is under cover at base of unit. Whenever you close this cover, make sure it is pressed firmly and clicks into place. **THIS COVER PROVIDES A WATERPROOF SEAL WHEN CLOSED. IT IS VERY IMPORTANT IT IS KEPT CLOSED WHENEVER GPS HAS POTENTIAL TO GET WET.**



2. Mounting in Boat

Fit the adaptor bracket to GPS.



There are three options for mounting the unit in the boat:

- The rear of the adaptor bracket slides onto the standard 'T' bracket used by Coxmate HC and NK Speedcoach.
- Attach the adaptor bracket to the suction mount via the screw fitting. Slide the GPS unit down onto the bracket. Fit suction bracket to boat. This will require a clean smooth surface. Wet the suction cap, make sure the vacuum lever is up, place suction cap in target position and press vacuum lever down. The position of the GPS can be adjusted by loosening the thumb screw on the bracket – tighten it up once in correct position. Check unit is firmly attached.



- Replace the suction pad part of mount with adaptor shown on previous page – undo thumb screw. This metal rectangle slides into the stretcher adjustment rail- fitted in rowing boats. Tighten the locking ring. Position/angle adjustment is achieved by loosening thumb screw.



It is recommended that the lanyard is used as a safety strap. **If the GPS falls into water it will sink.**

3. Getting Started

To operate unit:

- ON/OFF: The power ON/OFF button is on the side. This button requires firm pressure to operate – to prevent it accidentally operating when it is in your kit bag. It needs to be held down for approximately one second. It may take a couple of minutes to detect satellites, before it can give accurate readings. To turn unit OFF, hold finger on ON/OFF button for approximately 2 seconds'. To exit the Coxmate application, hold Menu/Return button down for ~2 seconds.
- Menu/Return button is below screen.
- Reset: Press ON/OFF and Menu/Return buttons simultaneously.
- Touchscreen: Used for operation and configuration.



When you first receive unit, there are a number of parameters which can be personalised eg Time zone and button sound. Press "setting  icon" on the main menu to enter the setting mode and use  button to select relevant function. There is also an app (HRM) for pairing the unit with an Ant+ heart rate chest strap.

4. On Water

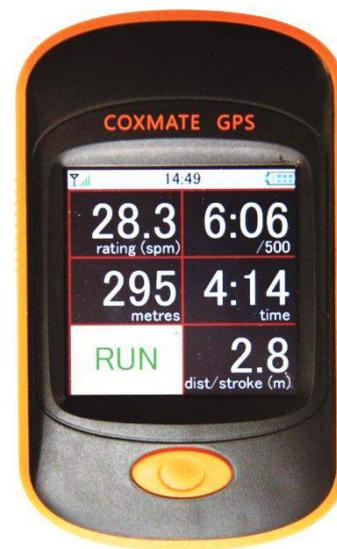
To start, touch  the tile. The unit will go straight to displaying rate and speed.

The top line provides status of satellites, battery and time.

Repeated presses of the Menu/Return button will go through following:

- 2 Variable Display
 - 2+2 Variable Display
 - 5 Variable Display
 - Recall
 - Mode
 - Set Up

This picture shows unit set up for 5 Variables



4.1 2 Variable Display:

Rate and Speed will be displayed. This display has 'COXMATE' at bottom of the screen.

4.2 2 +2 Variable Display:

Rate and Speed will also be displayed. However if you start the *timer*, time and distance will also be displayed – the display will alternate between rate/speed and time/distance each stroke.

The status of the *timer* is shown at bottom of screen. Each time screen is touched, it will step through the following:

- **READY**
- **SET**(flashing) The timer will start if screen is touched, or, if motion is detected.
- **RUN** – timer running. Will stop if screen touched. Can also be programmed to stop after a defined period if no stroke detected.
- **STOP** – timer stopped. Will reset time and distance to zero and go to READY if screen touched.

The READY/SET/RUN or STOP are displayed at bottom of screen.

4.3 5 Variable Display:

If this is selected, then 5 variables can be displayed. These can be selected in **Set Up**. An example configuration is shown. The READY/SET/RUN/STOP operate the same as with the **2+2 variable** display.

Any 5 of the following variables can be selected:

Rate; Speed (Split); Time; Distance; Distance/stroke; Average Speed; Stroke Count; Heart Rate (Requires chest strap); Pace Speed – you can race against a virtual boat; Pace Distance – tells you how far ahead or behind virtual boat you are. Navigation - if this selected unit will display how many metres you are from, and what direction you need to travel to get to, a preprogrammed route. Workout -if unit is in Workout mode, the bottom right and middle right segment will be taken over – see Workout section for details.

Time, Distance, Average Speed, Stroke Count, Pace Distance and Workout are all reset when timer is reset and only update when timer is running. READY,SET,RUN etc – as per **2+2** display.

4.4 RECALL

Recall shows records which are stored in unit – Each time the *timer* is started and stopped, a record is created- provided RECORD is ON. (Got to Set UP/RECORD to turn RECORD ON/OFF). Each record is indexed with the time and date of the start. Selecting and viewing record will show the how long record is (End Time) and average rating and speed for this period. Pressing NEXT and PREV will show the detail of the record in 15 second increments. Records can be deleted.

4.5 SET UP

SET UP enables:

- UNITS to be selected for DISTANCE and SPEED:
 - Distance: metres, kilometres or miles
 - Speed: m/s, time/500m (Split), kph or mph
- DISPLAY: Each sector of the 5 Variable display can be selected from the options listed in **4.3**.
- AUTO STOP: This enables the *timer* to stop after a period of time without a stroke. It can be set to 5,10,15,20,25 seconds or disabled. If set to disabled, the *timer* is stopped manually by touching screen.
- SENSITIVITY: The stroke detection to Start *timer* (Start Stroke) and detect stroke (Normal Stroke) for determining rating can be adjusted. The higher the setting, the less acceleration is required to trigger signal. If you are seeing a rating which is too high - often double, then decrease sensitivity eg average to low, similarly if unit is not reading rating or it is too low, then try increasing sensitivity eg average to high.
- AVERAGING: You can smooth rate, speed and ratio readings by averaging the reading over a number of strokes – between 1 and 5.

- DISPLAY COLOUR: Black on White or White on Black.
- Record: On or Off

Notes on PACE function: This can be selected in display configuration. It enables you to race against a 'virtual' boat. To use it, you must have both Pace speed and Pace distance selected for display. You can then set a 'target' speed by touching the pace speed section of display. A drop down adjustment icon will appear. Select the speed you want. Once this is set, and the *timer* is started, the pace distance will show how far ahead or behind the pace boat you are.

4.6 MODE

There are 3 modes:

- **RUN** (Normal mode)
- **WORKOUT**
- **NAVIGATION**

If **WORKOUT** is selected it will enable you to choose and/or edit workout. 24 workout programmes are available (A-Z excluding 'I' and 'O'). The workouts can be programmed in Time, Distance or Strokes. Each increment in workout has a **Work** and a **Rest** phase. If you are training to a Workout programme then the bottom right display segment will show eg **B:7:W**, signifying programme **B**, interval **7** and in **Work** phase. The middle right display will show the remaining time/distance/strokes. Workout is started by starting *timer*.

Selecting **NAVIGATION** will allow you to choose a pre-programmed route which has been downloaded from PC to GPS, or, NONE (no route).

NOTE: The NAVIGATION function should only be used to assist in navigation and must never be relied on for safety or collision avoidance.

5.0 Maintenance

If unit is used in salt water, rinse unit, including mount, in fresh water to remove any salt. There are some metallic components on mount which may corrode if salt not removed. Occasional light greasing of the metallic parts on mount will minimise any corrosion. To clean case and display use a mild detergent and rinse with clean water – make sure access door is properly closed.

Store unit in clean dry environment. Do not subject it to excessive temperatures.

The unit uses a Lithium polymer battery. DO NOT REMOVE OR TRY AND REPLACE BATTERY. IF UNIT IS TO BE DISPOSED OF, MAKE SURE IT IS DISPOSED OF ACCORDING TO LOCAL REGULATIONS.

The battery should be charged at least once every 4 months.

6.0 Files

If the unit is connected (via USB lead) to a PC, it will show up as a normal 'memory stick' – in fact it can be used as same. All the files relevant to the Coxmate App are stored in the 'Coxmate' folder. There are 3 file types which are stored: '.CMT' are the stored data files, '.CMC' are the programmed routes, and, 'Workout.DAT' contains all programmed workouts. If the PC Analysis software is used, all the '.CMT' files will appear when the PC application is running, and the 'Connect' tab is selected.

The only time the GPS requires files to be placed in this folder is for programmed routes ('.CMC'). Once a route has been programmed using Google© Maps, it can be saved to this folder. Some browsers will allow the file to be placed directly into this folder. Others will require route to be downloaded to PC and then transferred to this folder.

These files can be deleted if required from this folder.