

Coxmate AA+ User Manual



1. Introduction

The **Coxmate AA+** provides audio, stroke rate display and stop watch for cox's. It is a compact, low cost unit. It has a digital amplifier which maximizes battery life. The **AA+** can be connected to an existing Coxmate or Nielsen Kellerman cable harness and speakers.


2. Getting Started

Charging Unit: Plug the charger unit in. Charging will take up to approx 12 hours if batteries are completely flat. The display will flash indicating charge status e.g. 'C56', indicates the charge level is 56%. When fully charged the 'Full' will be displayed. It is good for batteries, if they can be fully charged and discharged for first two cycles. The batteries may not have been used for some time and this exercising helps restore their capacity. Note: Unit will not operate while it is being charged.

C56

Fitting into boat:(Note: the unit is provided with either a 'donut' adaptor for rowing or a belt/mounting plate for dragon boats)

- Rowing: The **AA+** is fitted into the boat using the adaptor 'donut' – this attaches to rear of unit via magnets and fits into the mounting 'cup' fitted to many boats.
- Dragon Boats: The **AA+** for Dragon Boats is supplied with a waist belt and mounting plate. The mounting plate is attached to base of unit and the belt fitted around waist.

Plug the microphone into 'Mic' socket and connect speakers.. Press  button to turn unit On. It will briefly display 'ON' and then charge level eg 'C56'. It will give a short beep through speakers – this lets you know the speakers are connected. If you are in a rowing boat with a seat sensor it will display stroke rating, eg '25.8' means 25.8 strokes per minute. If there is no signal from seat sensor for 12 seconds ' - - - ' will be displayed.

To adjust volume, use '+' and '-' buttons. When these are pressed the volume will be displayed temporarily eg 'u67' (volume is 67%). Once set, this volume will be remembered, even if unit is turned Off/On. If you wish the coach to talk to crew through speaker system, then connect output from radio into 'Radio' input. This connection uses a standard 3.5mm jack plug.


The Stopwatch: The stop watch button starts, stops and resets timer. To reset timer, the button must be held down for one second. If the stop watch button is pressed the display will show time for two seconds and then revert back to rate. If you want to display time continuously, press the [Display] button – this toggles display between rate and time. The example display represents 3 minutes and 59 seconds. If the timer is running whilst the rate is displayed, the timer status will be shown by the ':' symbol. This symbol flashes when timer is running, is steady when timer has been stopped and is not present if timer has been reset.

3:59

Timer Status

25.8

To turn unit off: If the speaker harness is disconnected, the AA+ will automatically turned off. The display will flash 'SP' for 3 seconds – indicating

no speaker harness is connected. Alternatively hold the  button down for 1 second. The unit will display 'OFF' when it is off.

3. Battery Management

The unit is fitted with 10 x 800mAh NiMH batteries. The charging circuit automatically switches off when they are fully charged. This means units can be left permanently on charge without causing battery deterioration. Charge time is approx 12 hours and the operating time is up to 10 hours. This time will vary depending on how vocal the cox is. The low battery indication is designed to come on with about 10% of battery capacity remaining. If you want to check battery status of unit, turn unit on, and charge level, eg 'C70' indicating 70% will be briefly displayed. When battery is very low and voltage drops, the amplifier will become distorted and 'screech'.

To maximize battery life it is good for the batteries to be fully discharged and charged periodically – every 3-6 months. This can be achieved by leaving unit 'on' and connected to cable harness. When the unit is not being used the batteries will gradually lose their charge – it takes approximately three months to fully discharge.

When charger is connected to unit, it will be turned off. Unit will not operate whilst it is being charged.

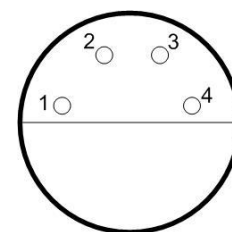


4.0 Maintenance and Fault Finding

The only routine maintenance required is **the cleaning of the electrical connections,** and the **washing off of any salt/impure water with clean fresh water.** Smearing a thin coating of silicone grease on the speaker harness connector – both the rubber and the metal contacts will help prevent corrosion and minimize the force required to plug in/out the connector.

The following is a list of potential problems with suggested actions:

PROBLEM	ACTION
No power up	Check unit is charged. If not, charge. If no charge indication, check charger either by trying a different charger or measuring the voltage on charger jack plug – should be 14-22VDC in centre referenced to the outside metal surface of the jack plug.
No audio output	Check volume setting is not 0%. Check speakers are connected. Disconnect unit from harness. The resistance between the pins 2 and 3 of the harness connector should be between 2 and 4 ohms. Turn unit on with speakers connected. If there is a beep, then problem is likely to be microphone. If microphone is not working it can be replaced.
No Stroke Rate	To check if fault is in AA+ or harness, use a paper clip or similar to short pins 1 and 4 on rubber connector on AA+ . Shorting pins simulates the seat sensor.
Screeching Sound	Batteries need charging.
Battery will not hold charge	Check battery charger – 19.5VDC in centre referenced to the outside metal surface of the jack plug. If charger OK and batteries are more than two years old, replace batteries. These should be same type as original ones, available from www.coxmate.com.au



If the above does not fix problem then contact local agent or email; service@coxmate.com.au with details. A response, in normal circumstances, will be made within 24hrs.