

COXBOX[®]



USER GUIDE

FOR COXBOX GPS AND
COXBOX CORE

www.coxbox.com

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SERVICE

We provide full factory service on every product we manufacture for as long as we make the product (and as long after as component availability permits). If we can't repair a product, we will offer you a brand new replacement under our **Trade In Trade Up program - even for accidental damage and misuse. If you have a problem with an NK product, visit www.nksports.com or contact us by phone, e-mail or in person and we'll do our best to make it right.**

For fastest service, you can initiate a service request 24-7 at www.nksports.com/nk-sports-service-request

For FAQ's, chat and e-mail support, visit www.NKSports.com.

US Toll-Free 800-784-4221

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GENERAL INFO

info@nkhome.com

TECHNICAL SUPPORT

techsupport@nkhome.com


REPAIRS

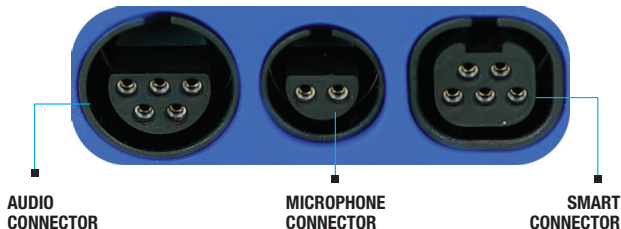
repairs@nkhome.com











CoxBox GPS™
+
Core Front View

INSTALLATION INSTRUCTIONS

- » **CoxBox Core and GPS** are both completely compatible with all current NK wiring, microphone, speaker, chargers and mounting cups.
- » Attach the 5-pin receptacle end of your NK audio harness to the Audio Connector Port. If present, be sure to align the rib on the receptable with the notch on the Connector Port.
- » Press the receptable straight in firmly to ensure a good connection.
 *Try not to twist the receptacle to avoid damaging the pins, sockets or plug.*
- » Since a rate sensor is no longer needed, you can remove the R harness and seat magnet from your boat when using the new model. However leaving the rate sensor attached will not cause any issues and you may want to keep it if you still use older CoxBox Amplifiers.
- » Attach a NK R2 Microphone to the Microphone Connector Port to complete installation.



QUICK START GUIDE

- » Press and hold the power button   to turn the unit on.
-  Use the arrow keys to adjust any flex fields on the display to change measurements for current row.
- » Press the  Start/Pause/Reset button to enter Ready mode (Ready will appear in middle of screen)
- » Timer and recording will start when the first stroke is detected.
- » Press the  Start/Pause/Reset button to Stop the timer and recording. Press again to resume rowing.
- » Hold the  Start/Pause/Reset button until Reset appears and release to reset row and save stats in memory.
- » Hold the   Power button until Turn Off appears and release to turn off the unit. Turning off will save the correct session as well.

GPS

Throughout this manual, features and functions specific to the GPS model are indicated by this icon.

BUTTON FUNCTIONALITY



When on the main rowing screen, use left and right arrows to enter flex fields. Use up and down arrows to toggle the flex field to different measurements. When in the menu screen, use up and down arrows to toggle between menu items. Use right arrow to enter menu item and use left arrow to exit menu item.



Use + to toggle volume higher and – to toggle volume lower. Press and hold – to lower volume quickly to zero. These buttons will change volume regardless of which screen is showing.



Press to enter Ready mode (for use right before starting rowing). Press again to Stop session. Hold and release when Reset is on the screen to reset values and save rowing session.

/500M



Press on any screen to immediately return to the main rowing screen.



Press to go into Seat Display Settings. (Supported on a future release)



Press to go into Seat Display Measurements. (Supported on a future release)



Press to enter Main Menu. Hold down to power on or power off (while on main rowing screen only). The unit will also power off automatically after - minutes of - .

ROWING SCREEN ICONS



GPS

GPS Mode / Satellite coverage: hollow icon means no satellite connection, filled-in means adequate satellite connection. It is recommend to wait until symbol is filled-in before starting your row.



GPS

Impeller Mode: Denotes connected to an impeller. Speed and distance will be reported from impeller instead of GPS.



Battery Life. Each bar represents about 20% of a full charge.



GPS


Connected to mobile device for **Live Streaming**.



GPS

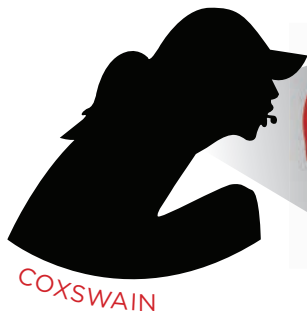
CoxBox is connected to mobile device, but mobile device has no cell service.

Select Live Stream to broadcast your CoxBox GPS measurements to the cloud for remote viewing. You will need to pair the CoxBox to a mobile phone and have the phone in range of CoxBox to broadcast your data live. We recommend keeping the phone in a waterproof bag.

 **NK is not responsible for damage to your phone. Be sure to use a waterproof bag or case designed for phones!**

- » Download **NK LiNK Logbook** application to your mobile device.
- » Make sure Bluetooth is enabled on mobile device and has cellular coverage.
- » Open the NK LiNK Logbook application. Go to the Stream page in the app.
- » Enter a Boat ID and make sure Streaming is toggled to ON.
- » Select Live Streaming option on the CoxBox. Then go to **Phone Pairing-> Find New.**
- » You should show as connected fairly quickly. Use CoxBox normally to broadcast live. Connected phone must stay near CoxBox in boat.
- » Go to the Logbook app or logbook.nksports.com to view live results.





- » Coxswain pairs CoxBox GPS to a mobile device using LiNK Logbook application on the Stream page.
- » Coxswain places mobile device in waterproof bag and brings into boat.
- » Live streaming results are broadcast to the cloud.





- » Coach or observer opens LiNK Logbook on their own mobile device and goes to Live page.
- » Navigate the map to your current location and click on the boat name that you wish to view.
- » There are no restrictions in the distance between these two mobile devices. As long as they each have Cellular or Wifi coverage you can monitor streaming athletes real time from anywhere in the world with Live LiNK.


Every stroke taken with the CoxBox running is stored in memory and the memory can be reviewed in 100 meter increments. The speed input (GPS or Impeller) and system of units used will be stored as they were rowed. Both impeller and GPS stats can be viewed upon export. The total memory that the unit can store is approximately 25 hours.

» MEMORY STORAGE

When the memory is full, the unit will stop recording data. When nearing or at full data, you must delete all session data to continue recording (see below). The amount of memory used can be found on the bottom of the Recall Menu. An alert message will appear when memory log is nearly full.

» DATA RECALL

Select Data Recall from the Main Menu to review stored data. Recall memory will be formatted in sessions according to date and time. Just Row sessions will have the JustGo prefix whereas a Workout session will just show the pieces run.

 Please note: a session is not complete until: a) In Just Row, you reset the counter b) In Workout, the workout is completed or cancelled.

RECALL MENU		↩ SELECT
Delete All Session Data?		
Mar 10 06:15a	JustGo-3050M	
Mar 10 06:00a	4x5:00/2:00	
Mar 09 06:27a	5x5:00/10:00	
Mar 06 03:24a	2(6:00,3:00,1000M	
Mar 01 06:17p	8x1000M/3:00	
		⏪ ←EXIT

JustGo-3050M				↩ SELECT
DIST	TIME	SPLIT	RATE	
3050M	15:36.0	01:57.0	28.7	
				⏪ ←EXIT

Fig1:Session Overview

JustGo-3050M				↩ MORE
DIST	TIME	RATE	HR	
100M	00:32	28.7	196	
200M	1:06	28.5	192	
300M	1:40	28.3	197	
400M	2:11	27.7	195	
500M	2:45	27.5	198	⏪
				⏪ ←EXIT

Fig2:Session Details

»

DELETE ALL SESSION DATA

This selection will delete ALL memory if chosen. Sessions cannot be deleted individually.

»

VIEWING SESSIONS

Selecting a session will bring up the Session Overview (*Figure 1*). The overview provides the overall distance, time, avg. split, and avg. stroke rate during that session. Selecting the Session Overview will bring up the Session Details (*Figure 2*). This page will show the session breakdown by specified period (time or distance). Select MORE to view additional measurement values not currently shown on the screen.

JustGo-3050M				MORE
DIST	TIME	/500M	SPM	
200M	1:06	01:57.0	28.5	↑
300M	1:40	01:59.0	28.3	
400M	2:11	02:03.0	27.7	↓
500M	2:45	02:00.0	27.5	
600M	3:14	02:03.0	27.0	
				← EXIT

^PREV		VNEXT		MORE
DIST	TIME	HR	D/ST	
200M	1:06	196	8.1M	↑
300M	1:40	192	7.9M	
400M	2:11	197	7.7M	↓
500M	2:45	195	8.2M	
600M	3:14	198	8.6M	
				← EXIT

Select this option to connect the CoxBox to a mobile device to upload session data.

- » On your mobile device, download LiNK Logbook from the App or Google Play store nksports.com/link-logbook
- » On your mobile device, turn Bluetooth on. Open LiNK Logbook and login to your account.
- » In the app go to the Workout Log Screen. Press the arrow/cloud icon in the top right of the screen.
- » On the CoxBox GPS, go to the Main Menu and select Data LiNK mode.
- » In the Logbook app, your CoxBox should appear, select it to begin uploading data.
- » After data has uploaded, select the calendar date and session you want to review.

GPS


SPEED/DISTANCE SETUP


Options are Speed mode or Split mode. Speed mode will display your speed in the top right window (which can be flexed). Split mode will display your pace expressed as a time to cover a 500 meter distance. Units allows you to change the units shown for speed and distance (options are: M,M/S, /500M; KM, KMH, /500M; or MI, MPH, /MI).


» INPUT

The speed (and distance) Input can be set to GPS or Impeller. Please note you would need the SMART Impeller wiring to use impeller mode (GPS only).

» AUTO PAUSE

If toggled ON, the unit will stop the timer if it does not detect a stroke within the last 6 seconds. If toggled OFF, the unit will not stop the timer even if no strokes are being detected. If you would like to stop the timer manually, select the  button to start and stop the timer manually.

 *Please note: the unit will not Auto Pause during the Rest sessions of a Workout.*

 *NOTE: Average Speed is always calculated as a function of the distance covered in the elapsed time shown. Because the timer will continue to run while you are not rowing, turning Auto Pause "OFF" will impact the calculation of your cumulative average speed.*

» AUTO SHUTDOWN

When Auto Shutdown is set to 10min, the unit will automatically shut off after 10 minutes of not detecting a stroke rate. If the Auto Shutdown is set to OFF, the unit will only turn off when the user manually shuts the unit down.

» **IMPELLER CALIBRATION**

When using an impeller, this setting allows you to run the calibration routine and enter a calibration value.

» **GPS SPD SMOOTHING, STROKES**

The Speed Smoothing feature will average the last number of strokes selected. If “2” is selected, for example, the Speed/Split displayed will be an average of the last two strokes, updated every stroke. If you decrease this number, the speed value displayed will respond more quickly to changes in boat speed. If you increase this number, the speed value will be more stable, but will take longer to show changes in boat speed.

» **STROKE RATE SETUP**


Options are Timer Start Acceleration, Noise Filtering and Axis.

» **TIMER START ACCELERATION**

Governs the degree of acceleration that must be detected to start the stroke meter. The default value is 4. If you increase this value, a more forceful stroke is needed to start the timer. If you decrease this value, a less forceful stroke is needed to start the timer.



» **NOISE FILTERING**





Governs the degree to which the accelerometer will register changes in acceleration as a stroke. The default value is 3. If you increase this value, more acceleration is needed to register a stroke. If you decrease this value, less acceleration is needed to register a stroke.





- » **AXIS**
Allows you to select Front-Back (2) or Any (3). Front-Back (2) is generally recommended for rowing assuming that the unit will be mounted perpendicular to the long axis of the boat. If mounting at a non-perpendicular axis, the recommendation is to toggle to Any (3).
- » **TIME AND DATE**
Used to change the format of the date and time displayed.
 *Please note: only time shows currently, date will be shown on recall screen.*
- » **DIAGNOSTICS**
The Diagnostics screen provides information about the performance of your unit's GPS receiver, accelerometer, HRM, clock, and charging system. This information assists NK tech support in troubleshooting your unit in case it is not functioning correctly.
- » **FACTORY RESTORE**
This will reset the firmware back to the default settings. This will also erase all data sessions but will not reset odometer values.

- » **RUN LAST WORKOUT:** Runs the last workout. This is a quick way to repeat single distance or single time workouts without setting up intervals.

NOTE : Press  to ready the workout. Workout will start when first stroke is detected.

Press  to pause a workout. Hold  to cancel a workout.

- » **SINGLE DISTANCE:** Select this option to run a single distance-based workout at the distance shown. Press , followed by  and  to adjust the distance. Then press  2x to run the workout.

- » **SINGLE TIME:** Select this option to run a single time-based workout for the time shown. Press , followed by  and  to adjust the time. Then press  2x to run the workout.

- » **INTERVALS...**










Select this option to create a multi-interval based workout (e.g. time, distance, and/or rest periods). You can select from the pre-loaded workouts or customize to create your own. Up to 6 custom workouts can be programmed. The CoxBoss is loaded with 6 default workouts, which are editable.



Please note: Interval workout names are automatically generated based on the type of intervals programmed.

WORKOUTS		← SELECT
Run Last Workout		
Single Distance	2000M	
Single Time	00:30:00	
Intervals...		
		⏻ ← EXIT

CREATING AN INTERVAL WORKOUT

First select a pre-existing workout to edit. Use  and  to select a field. Press the , followed by the  and  to modify the middle column. Press  again, followed by  and  to adjust the right column value. Press  return to field selection.

 *Please note: pressing the  will automatically SAVE and exit the workout when finished.*

» **COUNTDOWN:** When toggled ON, a countdown timer will start when the first stroke is detected. When the countdown reaches zero, the workout will begin.
Tip: The countdown allows the user to build to “race pace” before starting their workout. If countdown is toggled OFF, the workout will start immediately when the first stroke is detected.

» **INTERVALS:** Determines the type and number of intervals in the workout.
If you select Equal, all work intervals will be equal in type and value and all rest intervals will be equal in type and value.
If you select Variable, you can create a multi-faceted workout of work and rest intervals that can each vary by type and duration.


WORKOUTS		← SELECT
Run Last Workout		
Single Distance	2000M	
Single Time	00:30:00	
Intervals...		
		⏏ ← EXIT

- » **WORK:** Defines the first work interval of the workout. Work can be time based or distance based. If more than one interval is being performed, a number will be added to this entry (i.e., Work1, Work2, Work3, etc).
- » **REST:** Defines the amount of rest in between work intervals. Rest can be time based or distance based. The number shown to the right is the rest value per the unit shown. Similarly if more than one rest period is entered in a variable workout, it will be followed by a number.
- » **NUMBER OF SETS:** Select the number of sets of the proceeding interval workout to run. For example if you have a workout with a work and rest interval, setting this to 2 will run this work and rest interval workout twice.
- » **REST BETWEEN SETS:** Only appears if Number of Sets is greater than 1. Defines the rest period between a repeated group of intervals.


INTERVAL WORKOUT	←SELECT
1x2000M	
2(8x1:00/1:00)	
5x1000M/4:00	
8x500M/2:30	
4:00,3:00,2:00,1:00,2:00,3:00,4:00	
1000M/1:30,750M/1:00,250M	
⏏←EXIT	

NEW INTERVAL WORKOUT		←SELECT
Run Workout?		
Countdown	OFF	105
Intervals	Equal	1
Work	Dist	100M
Rest	Time	00:02:00
Number of Sets?		1 ↓
		⏏←EXIT

BATTERY USE AND CHARGING

- » A fully charged battery will provide approximately 10+ hours of operation, depending on speech, volume, duration, backlight, Bluetooth and accessory usage. Each bar on the battery indicator represents 20% of battery life, or approximately 2 to 2.25 hours. 
- » CoxBox Core and GPS can be charged with any existing NK CoxBox charger. Standard NK chargers must be plugged into the audio port (the semi-circular connector).
- » You may also speed up charging considerably with the new NK Espresso™ charger. This charger will charge the CoxBox in 1/3 of the time of the standard charger. The Espresso charger must be plugged in to the smart port (the rectangular connector).
- » The CoxBox will always charge in the ON state, meaning you cannot turn it off while it is charging. The battery indicator will flash to show that it is charging. When the battery indicator stops flashing, the unit is fully charged.
- » To fully charge the battery when dead with a standard NK charger will take roughly 12 hours. To fully charge the battery when dead with the Espresso charger will take roughly 4 hours. If you need an hour of usage with a dead battery, charge for 15 minutes with the Espresso charger.



 The CoxBox must only be charged with NK supplied chargers. Please do not attempt to charge CoxBox with any unapproved or 3rd party charging devices as permanent damage not covered under warranty may occur.



WARNING! LITHIUM-ION POLY BATTERY HAZARDS

Your CoxBox contains a lithium-ion poly battery pack. Lithium-ion batteries contain flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures or when damaged or overcharged. If ignited, batteries may burn rapidly with a flare effect and may produce irritating, corrosive and/or toxic gases, including toxic hydrogen fluoride gas, which may cause dizziness or suffocation. Contact with battery electrolyte may be irritating to skin, eyes and mucous membranes.

Do not ever subject to fire or temperatures above 140°F | 60°C.



WARNING! A car in hot sunlight may exceed these temperatures!

- » Do not charge, use, transport or store above 115°F | 45°C.
- » Do not charge below 32°F | 0°C.



NOTE: Your CoxBox is quipped with a safety feature that will shut down charging if the battery is too hot or too cold.

- » Do not puncture or open the unit.
- » Do not continue to use a CoxBox that has been damaged, shows signs of water ingress, or has displayed repeated charging errors.
- » If you see smoke or smell fumes, STOP charging or use immediately and remove the CoxBox from charge.
- » If the unit's internal battery pack is damaged, avoid contact with battery electrolyte, which may be irritating to skin, eyes and mucous membranes.
- » In case of battery fire, evacuate the area to avoid inhalation of fumes. If possible, cover the battery with sand to extinguish the fire or use a dry ABC-type extinguisher.

PROPOSITION 65 WARNING



WARNING: This product and/or its included or branded accessories can expose you to chemicals, including lead, lead compounds and phthalate DEHP, which are known to the State of California to cause cancer and lead and lead compounds, bisphenol A (BPA), and phthalate DnHP, which are known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warning.ca.gov and www.NKSports.com/prop65.

Many of the elements listed under Proposition 65 are commonly found in products in the electronics industry. Although NK Sports' manufacturing process is "lead-free," it remains possible that small amounts of lead could be found in components or subassemblies. Bisphenol A (BPSA) could be found in plastic housings, lenses, labels or adhesives, and DEHP & DINP (phthalates) could be found in PVC wire coatings of cables, housings, carrying cases, an/or power cords. Because we cannot guarantee that these chemicals are never present, we have elected to place the warning on our products to ensure compliance with California law and our customers' right to know. While we have not attempted to evaluate exposure, we believe that normal consumer use of this product is unlikely to result in exposure that creates a significant risk of harm. For more information visit www.NKSports.com/compliance or contact us directly at techsupport@nksports.com.

MAINTENANCE

Follow these steps to keep your CoxBox static-free and reliable for years.

*Supplies: Isopropyl (rubbing) Alcohol, Pipe Cleaners, *Metal Cleaning Brush, *Nyogel Grease, Foam Swabs. (*Available from NK)*



1. Use Isopropyl alcohol to clean the inside of all the connector sockets.



2. Insert metal brush (supplied with Audio Maintenance kit) into each socket several times to loosen and clean debris. If you do not have the Audio Maintenance Kit metal brush, you can substitute a pipe cleaner for this step.



3. Next use a pipe cleaner to remove any excess alcohol and debris.




4. Apply Nyogel grease to each of the sockets. Be careful not to overfill, only a small amount is needed.



5. Using a foam swab, apply Nyogel to inside and outside of all three rubber connectors, not the plastic.



6. If not using Smart connector, cover with Smart Connector Cap.

 *Keep Smart Connector Cap in place any time you do not have something plugged in to connector. This is particularly important on the water as it prevents corrosion of the sockets.*

LIMITED WARRANTY



Nielsen-Kellerman Co. (“NK”) guarantees your CoxBox to be free of defects in materials and workmanship for a period of TWO YEARS from your date of purchase. NK will repair or replace with the same or equivalent product, at NK’s option, any defective product or part when notified within the warranty period. NK may use new or reconditioned parts in performing limited warranty repairs and building replacement products. NK will return the product via domestic ground shipping or NK’s choice of method of international shipping at no charge.

The following issues do not result from a manufacturing defect and are not covered under this warranty:

- » Damage due to improper use or neglect (including corrosion)
- » Damage resulting from severe impact, crushing or mechanical harm
- » Modifications or attempted repairs by someone other than an authorized NK repair agent
- » Normal wear and tear
- » Diminished battery capacity within normal range for the number of charge/discharge cycles
- » Damage due to charging with a non-NK charger or charging system

Your warranty period will be measured from your date of purchase. Ensure full warranty coverage by **REGISTERING** your NK product promptly at **www.nksports.com**. We keep your registration information in strict confidence and do not sell it, share it, or use it for anything but product-related information bulletins (which you may decline receiving). If you do not register and cannot provide proof of purchase, your warranty period will be measured from our date of manufacture by serial number. Removing or defacing the serial number voids this warranty. Repair or replacement under the terms of this limited warranty does not extend or renew the warranty period.

Except for the warranties set forth herein, **NK disclaims all other warranties, expressed, implied or statutory, including, but not limited to, the implied warranties of merchantability or fitness for a particular purpose.** Any implied warranties that may be imposed by applicable law are limited to the term of this warranty. In no event shall NK be liable for any incidental, special or consequential damages, including, but not limited to, loss of business, loss of profits, loss of data or use, whether in an action in contract or tort or based on a warranty, arising out of or in connection with the use or performance of an NK product, even if NK has been advised of the possibility of such damages. You agree that repair, and (upon availability) replacement, as applicable, is your sole and exclusive remedy with respect to any breach of the NK Limited Warranty set forth herein. All product liability and warranty options are governed exclusively by the laws of the Commonwealth of Pennsylvania.



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference,
2. This device must accept any interference received, including interference that may cause undesired operation.



This Class B digital device complies with Canadian ICES-003.



Conforms with Council Directive 2004/108/EC (12/15/2004) on Electromagnetic Compatibility.



RoHS(Reduction of Hazardous Substances) compliant.





Marked in accordance with the WEEE (Waste Electrical and Electronic Equipment) Directive. **Please do not dispose of the CoxBox, Charger or Battery Pack in your household trash.** Return to NK, an NK dealer, or a designated recycling center for proper recycling and disposal.



Does not contain greater than >0.1% of the substances of Very High Concern (SVHC) on the REACH European Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals Candidate List.

SPECIFICATIONS

DISPLAY TYPE	High contrast, sunlight readable monochrome LCD with 400x240 resolution
DISPLAY SIZE	3.6"x2.6"x1.2"
BATTERY TYPE	2600 mAh rechargeable LiPoly multi-cell internal pack
BATTERY LIFE	10+ hours, fully charged
BATTERY LIFE EXPECTANCY	2 - 5 years, factory replaceable
CHARGING TIME	Standard Charging – 8.5 hours. Espresso™ Charging – 3.5 hours
DIMENSIONS	3.20" tall x 4.4" diameter. Retrofits in current mounting cup
WEIGHT	1lb 6.1 oz
WATERPROOF	Waterproof to IP67, NEMA-6
BUOYANCY	Floats
MEASUREMENTS	Audio, Wireless Stroke Rate, Elapsed Time,  Speed, Memory, Splits, Date, Distance per Stroke, Instantaneous Split/Speed
WARRANTY	2 years
ENVIRONMENTAL	RoHS and REACH compliant and marked in accordance with the WEEE directive. Please do not dispose of CoxBox in your household trash Return to NK, an NK dealer, or a designated recycling center for proper disposal
ACCURACY	 Speed +/- 0.1 m/s; Distance +/- 2.5m over any distance



**PROUDLY DESIGNED
AND BUILT IN THE USA
BY NIELSEN-KELLERMAN**

Nielsen-Kellerman
www.NKSports.com

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