



**User manual**

# Thank you for choosing a CoastKey product

CoastKey gives you the freedom to move freely within your marine vessel without stopping the engine(s), while simultaneously having control over safety and the engine functions.

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## 1. Security

General training for users of the vessel is essential. Pilots and passengers must be informed where the lock unit is placed to be able to restart the engine(s) in an emergency situation.

It is mandatory to read the user manual before using the CoastKey system. Please take care of this user manual as a future reference.

The manufacturers and distributors are not responsible for injuries arising from irresponsible actions or negligence along with acts of failure or omission that are in conflict with the instructions stated herein and in this user manual.

## 2. Start And Stop Of Engine(s)

The ON button (1) the symbol legend at the next page) is pressed and released. The key unit confirms with a short vibration (takes about 1 second). The ignition is now activated.

The engine(s) can be started by pushing one of the START buttons (3 and 4). In a twin installation the left button (3) starts engine 1. The right button (4) starts engine 2. For safety reasons, the keylock is activated 30 seconds after the last command is carried out.

**Note: The keylock can be released by holding the two front buttons (5 & 6) down for 4 seconds.**

An off command is the only accepted input when the keylock is activated.

The engine stops and ignition switches off by holding down the OFF button (7) for about 1 second. Two short vibrations confirm the action.

### Warning:

- To avoid damage to the impeller, outboards must be tilted down before starting.
- If several key units are present, only one key unit should be used at any one time.

- The gear lever must be in the neutral position, and if installed, any manual kill switch must be engaged before the engine(s) can be started.
- Turn off the main switch when the vessel is not in use.

### 3. Symbol legend:

- 1 Press the ON button to activate the system and turn on the ignition
- 2 Hold OFF button for one second to stop the engine(s) and turn off the system
- 3 Press down one of the START buttons to start the engine (in a twin installation the right and left buttons starts the respective engine)
- 4 the engine (in a twin installation the right and left buttons starts the respective engine)
- 5 Press the TILT UP button to raise the engine(s)
- 6 Press the TILT DOWN button to lower the engine(s)
- 7 Signal beacon.



### 4. Tilting of engine(s)

If you have an outboard engine, you can use the CoastKey unit for tilting your engine up and down, or you can use this function for other purposes such as an anchor hoist, engine hood, bow thruster, etc.

The engine(s) can be tilted to the desired position before and after starting. Tilting of the engine(s) can only be activated when the ignition is switched on.

When cruising, the OEM tilt function is used for trimming the engine(s).

**Note:**  
*The keylock can be released by holding the two front buttons (5 & 6) down for 4 seconds.*



## 5. Engine kill switch function

In the event the pilot of the marine vessel falls overboard and has CoastKey secured to his body, the engine(s) stops automatically. The key unit will automatically emit a signal beacon.

12 seconds after an emergency stop is activated, remaining crew can start the engine(s) directly from the lock unit to rescue the pilot. The button on the lock unit is held down until the engine(s) starts. The engine(s) stops if the button on the lock unit is pressed again after 3 minutes have passed.

The engine(s) can be controlled from the key unit when it becomes available. For the engine kill switch function to reactivate, a restart of the engine(s) must be carried out from the key unit. This is done by switching the ignition off and on from the key unit.

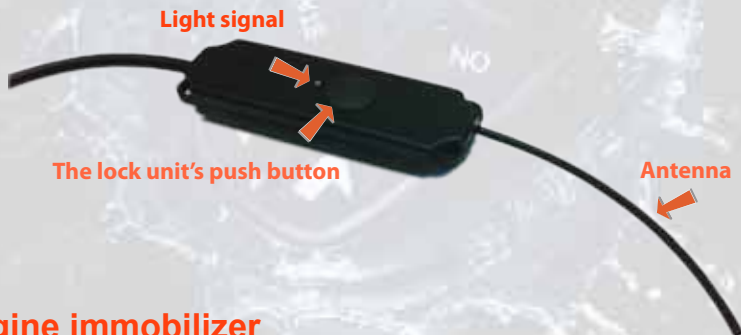
### Warning:

CoastKey will only function as intended if the engine(s) is started from the key unit. The CoastKey will only stop the engine(s) if the pilot has the key unit attached to him when falling overboard.

Attempts to stop the engine(s) from the lock unit within the first 3 minutes can lead to engine damage. (Starter motor is engaged while engine is running.)

The engine(s) can always be stopped by the manual lanyard switch!

The gear lever must be in the neutral position, and if installed, any manual kill switch must be engaged before the engine(s) can be started.



## 6. Engine immobilizer

The CoastKey system will act as an engine immobilizer on most engines. The engine immobilizer will be activated when the ignition is switched off with the key unit. The engine immobilizer deactivates when the ignition is switched on from the key unit.

### Note:

**The key unit will respond with short vibrations for a period of 2 minutes as an indication of a distance breach.**

**When a distance breach occurs, the Key unit should be switched off as soon as possible. This is done by holding down the OFF button (🔴) for about 1 second. Two short vibrations confirm the action.**

## 7. Manual start of the engine(s)

If the key unit is not accessible, the engine(s) can be manually started by keying in a 4-digit PIN code on the lock unit's push button. Every time the button is pressed, it is identified by a light and sound signal. A few seconds after a digit is keyed in a corresponding number of light and sound signals confirm the action. Wait for this confirmation before entering the next digit. (Press once = 1, press twice = 2 ... press 9 times = 9, **Press 10 times = 0**)

Shortly after the PIN code is correctly entered, the lock unit will give a confirmation signal. The ignition is now activated and the engine(s) can be started by pressing the button on the lock unit. If a mistake is made when entering the PIN code, simply start over. The lock unit recognizes its PIN code as soon as the four digits are entered correctly.

After the engine(s) is started, it can be stopped by pressing the button on the lock unit again. It is important to note that the engine(s) must be running for at least 3 minutes before it can be stopped.

***You will find the PIN code for your CoastKey on the test certificate provided with your unit.***

### Warning:

Attempts to stop the engine(s) from the lock unit within the first 3 minutes can lead to engine damage. (Starter motor is engaged while engine is running.)

## 8. Safety and warnings

1. The system should only be used on board a marine vessel and within a radius of up to 15 meters from the steering position.
2. During cruising the key unit should always be fastened to the pilot so that it hangs freely.
3. Only one key unit can be used at any one time during cruising, regardless of the fact that one may own several key units.
4. The operation stability can be affected by signals from other wireless systems present in the marine vessel.
5. The operation stability can also be influenced by signals from external electromagnetic sources.
6. Consult with authorised medical staff and the instructions of the medical device manufacturer before using the product near pacemakers or other medical devices or equipment.
7. The key unit must not be placed close to metal surfaces during use of the system.
8. The key unit should only be underwater in an actual man overboard situation.
9. In the event of any abnormal system behavior, the main power switch must be switched off instantly and the system disconnected.
10. The system must be disconnected in order to use the original ignition switch. When the system is disconnected, some types of engine(s) can only be stopped from the standard manual kill switch. Information on such function can be provided by your local dealer.
11. CoastKey will only stop the engine(s) if the pilot has the key unit attached to him when falling overboard.
12. The key unit attached to the neck-strap will keep afloat if dropped in the water. Extra weight attached to the key unit or neck-strap will sink the key unit.
13. **A battery change in the key unit should be performed after approximately 250-300 hours of engine operation or at least once every three years.**

**CoastKey AS is not responsible for damages or injuries resulting from non-compliance of the safety and warning instructions.**

**Note:**

**CoastKey AS is not responsible should any fault and/or injury arise from the installation or dismantling of the equipment by other methods than those stipulated by CoastKey AS.**

**CoastKey AS responsibility is restricted to the product itself. Repairs of CoastKey product should only be carried out by CoastKey AS or by CoastKey authorised persons.**

**Only original CoastKey spare parts are to be used in the event of repairs.**

**CoastKey AS and distributors are not responsible for injuries arising from irresponsible actions or negligence along with acts of failure or omission that are in conflict with the instructions stated herewith.**

## 9. Troubleshooting

<p>Ignition does not come on when pressing the "On" button on the key unit.</p>	<p>Check that the main power switch is on and that the battery is fully charged.          Check that the key unit vibrates shortly when activated. If not, replace the battery in the key unit (Batt. type: CR123)          Check that you are within radio range. Is the distance from the steering position more than 15 meters?</p>
<p>The engine(s) does not start from the key unit.</p>	<p>Check that the main power switch is on and that the battery is fully charged.          Check that the the gear shift lever is in neutral position          Check any manual kill switch.          Check that the key unit responds when activated          Check that you are within radio range (15 meters)</p>
<p>Engines will not start from the lock unit. (emergency)</p>	<p>Check that the the gear shift lever is in neutral position          Check any manual kill switch.</p>
<p>Engines will not start from the lock unit. (via PIN code)</p>	<p>Check that the main power switch is on and that the battery is fully charged.          Check that you have entered in the correct PIN code. (Did you receive a confirmation tone?)          Check that the the gear shift lever is in neutral position          Check any manual kill switch.</p>

**For support, please call your local dealer.**

## 10. Environment



Please observe the national laws and regulations for waste recycling of electrical products.

## 11. Technical data

<b>Key unit</b>	
Size (LxWxH)	77x55x23 mm
Weight	66 grams
Battery type	CR123 (3V)
Energy usage	TX=14mA RX=12mA Standby=2.5μA
Battery life	Normal usage: 250-300 hours (estimated) Signal beacon: 50 hours (estimated)
IP grade	IP-X7 (1.45 psi) ( to 1 meter)

<b>Lock unit</b>	
Size (LxWxH)	140x40x16 mm
Weight	100 grams
Energy supply	9 to 30 Vdc
Energy usage	TX=20mA RX=12mA Standby=1 mA (average)
Max load	10 Amps

<b>Common data</b>	
Test standards	EC 99/5 R&TTE (CE)
Frequency band	433.05 – 434.79MHz
Radio wave-length	100 kb/s (max)
Modulation	GFSK
Range	Up to 15 meters (radius from lock unit's installed position)
Sensitivity	-100dbm@ 0.1% BER
Frequency jumping	Yes
Temperature area	-20° to +60°C
Work cycles	0.22%

## Changing the battery on the key unit

**Important! A battery change should be performed after approximately 250-300 hours of engine operation or at least once every three years.**

1 Remove the three Torx screws (size T6) located on the back of the key unit. Be careful not to lose any of the screws. See Figure 1.

2 Hold the bottom cover of the key unit and carefully lift the top cover. Figure 2 shows the key unit separated.

**Important! Be careful when touching the circuit board as static discharge can damage the electronics.**

3 Observe how the battery is installed with respect to the polarity. Remove the old battery. Insert the new battery (CR123 3V lithium battery). Make sure the battery is installed properly and with respect to the polarity as shown in Figure 3.

**Important! Incorrect polarity can damage the electronics.**

4 Remove the old key pad from the top cover and replace it with the new one. Check carefully that the key pad is correctly installed. (The key pad acts as a gasket and must be replaced each time the key unit is opened.) The key pad is shown in Figure 4.

5 Refitting is a reversal of removal. Start by carefully starting all the screws. Next, tighten the screws so that the top and bottom cover are fitted together and the gasket is compressed properly. Figure 5 shows the finished result.

**Important! If the covers are damaged or deformed, new covers should be ordered from CoastKey AS or your local dealer and be replaced before use.**

Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



### Manufacturer:

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