



# INSTALLATION GUIDE



## Contents:

Master FOB – Remote control  
Start Panel  
CECU (CoastKey Engine Control Unit)  
CoastKey harness  
User manual  
Screws and cable ties



## Installation:

### Checklist before installation

- Check that the battery terminals, main power switch and common connection points are free from corrosion and that there are no loose connections. Check that the engine(s) tilt, and any other devices to which CoastKey is to be connected operates normally before installation. The main power switch must be turned off during the installation.
- Read the installation guide and user manual completely before installing the CoastKey system.
- The CoastKey system must not be installed in an explosive environment.
- The CoastKey system and design may not be changed or tampered with.
- The CoastKey should only be used for its original purpose and only installed as per the directions in this Installation Guide.
- Familiarize yourself with all safety rules and regulations in your region to avoid a breach of these rules and help prevent accidents.
- The installation of the CECU (CoastKey Engine Control Unit) is permitted only in areas that are protected against water intrusion. Ensure the CECU (CoastKey Engine Control Unit) unit is securely and firmly attached to the inside of the console with strips or screws.
- Strong electromagnetic fields may affect the system. The Start Panel should therefore not be placed in the immediate vicinity of other live cables or any radio devices such as VHF, radar or similar equipment.
- For security reasons, the power supply to the CECU is to be connected through a main power switch.
- Power supply 12-24V. Maximum system load per. output is 5A. (Check current draw when connecting to external systems like anchor winch etc.)
- Remember to complete the Test and Safety Form in this guide.



If your boat is equipped with multiple engines, repeat the installation procedure for each engine. If the tilt function is to be connected to multiple engines, the signal (Yellow and White wires) from the CoastKey harness on the first CECU (CoastKey Engine Control Unit) must be connected to the wires for common tilt of the engines.



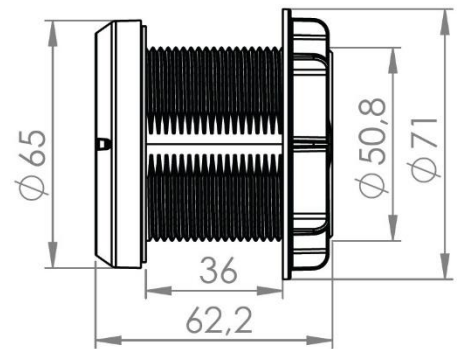
*Location of the Start Panel*

**Drilling of holes:**

The diameter of the Start Panel is 50.8 mm. Therefore, use a 52mm (2-1/16") hole saw of good quality designed for the material to be drilled.



Make sure not to damage existing cables or installations when drilling the hole!

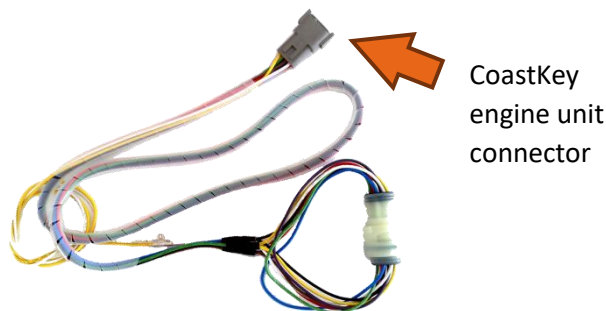


**Installation procedure**

**1. General**

All connections must be made in parallel.

Make sure the battery terminals, the main power switch and all common connection points are free of corrosion and that there are no loose connections. Check that the engine(s), tilt and any other devices that CoastKey will be connected to, are functioning normally before starting the installation. The main switch must be switched off during the installation.



## 2. Key switch and connections

Modify the key switch and the connections according to the description below:

Cut the white wire connecting the ignition key switch to the manual lanyard switch approx. 3 cm from the ignition key switch. This wire is located in between the key switch and the connection to the engine kill switch and the engine cable (Figure 1).

The white wire coming from the engine's main harness should still be connected to the manual lanyard switch after this procedure. It's only the connection between the ignition key switch and the lanyard switch that needs to be disconnected (cut) in order to start the engine(s) without using the ignition key. (Figure 2)

On a side-mounted control box, the control box must be opened to access the ignition switch and perform the procedure. Check that the manual lanyard switch works normally after the modification is performed.

Insulate the open wires with electrical tape so they cannot cause short circuits (Figure 2).

20-30 cm along the cable from the ignition key switch / control box there is a black circular connector that connects the ignition key switch to the engines main harness.

Disconnect the connector and insert the corresponding connectors of the CoastKey harness between the original connectors to form a T-connection (Figure 3).

## 3. Tilt circuit

If you want the tilt function connected, the following procedure must be performed:

- Locate the LIGHT-BLUE TILT-UP signal cable from the tilt switch. Strip and join together with the YELLOW cable from the CoastKey supplied harness.
- Locate the LIGHT GREEN TILT-DOWN signal cable from the tilt switch. Strip and join together with the WHITE cable from the CoastKey supplied harness.

The CECU is always connected in parallel with the manual switch. (Figure 4)



Exercise care when opening a side-mounted control box. The throttle and gear cables can have tension on them!

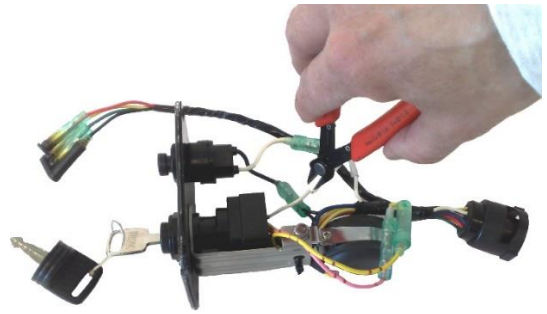


Figure 1

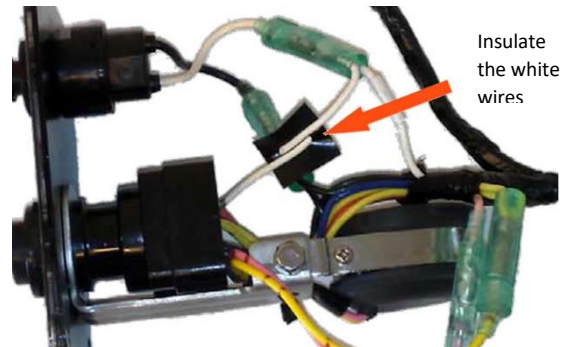


Figure 2

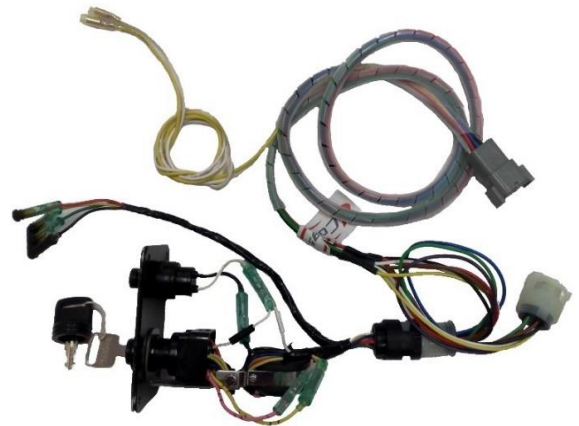


Figure 3

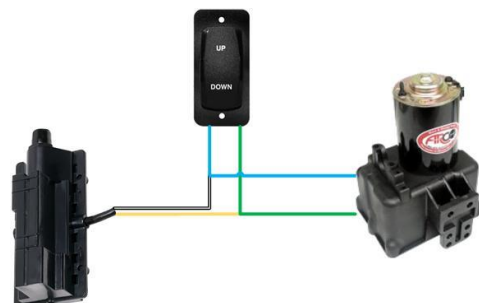


Figure 4 – Tilt circuit

#### 4. CECU (CoastKey Engine Control Unit) and Start Panel

Install the CECU according to the "Checklist before installation". Next plug the CECU into the CoastKey harness. Then connect to the Start Panel using the cord from the CECU and make sure that the connection is tightened.

#### Circuit for additional functions (Optional)

The drawing shows an example of connection to an anchor winch. (Figure 5)

Locate the color code on the UP-signal cord from the switch. Strip and join together with the YELLOW cable from the CoastKey supplied harness.

Locate the color code on the DOWN-signal cord from the switch. Strip and join together with the WHITE cord from the CoastKey supplied harness.



Figure 5 - Circuit for additional functions (Optional)

The CECU is always connected in parallel with the manual switch.

- i** | Secure the CoastKey harness and other loose wires using cable ties to ensure that no cables remain loose. Turn on the main power switch and complete the "Test and Safety Form" before using the system.
- i** | If your boat is equipped with multiple engines, repeat the installation procedure for each of the engines. If the tilt function is to be connected to multiple engines, the signal (Yellow and White wires) from the engine cable on the first CECU (CoastKey Engine Control Unit) must be connected to the wires for common tilt of the engines.
- i** | If the additional function(s) are used to operate third party equipment, the installer must ensure that the total power consumption is within the specifications. If you exceed the load of 5A the output must be connected via a separate relay. (Power supply 12-24V)

## Checklist after Installation

Please refer to user manual for proper procedure for carrying out the steps below.	OK	Fail
Turn on the ignition and start the engine(s) with the Master FOB unit. Check that the start sequence works correctly and as specified.		
Check the radio range by moving the Master FOB unit more than 20 meters away from the boat to make sure that the wireless lanyard cord is functioning properly and stops the engine(s). (The distance needed to stop the engine(s) on land can vary based on the radio reflection where the boat is located.)		
The ignition is activated automatically 12 seconds after a man overboard situation has occurred. Check that the engine(s) can be started directly from the Start Panel after a simulated man overboard situation.		
Enter your PIN code by pressing the buttons on the Start Panel and check that the engine(s) start.		
Check that the AUX functions work from the Start Panel. (Only single engine installation)		
(Optional) If AUX function(s) are connected please check that they are working from the Master FOB unit.		

## Electrical circuit color codes

Yamaha			
Signal function of the CECU	Color on the CoastKey harness	Color on the ignition / control lever	Signal function engine
12VDC	Red	Red	12VDC
Ground	Blue	Black	Ground
Start	Brown	Brown	Start signal
Ignition	Green	Yellow	Ignition signal
Engine Cut-off signal	Black	White	Engine Cut-off signal
Tilt up signal	Yellow	Light blue	Tilt up signal
Tilt down signal	White	Light green	Tilt down signal
Digital input	Gray	<i>Not in use</i>	<i>Not in use</i>



## Technical data

### Master FOB

Dimensions (D x H): 50x12mm  
Weight: 42g  
Battery: CR2032  
Battery life: Up to 2 years  
(700-800 hours of engine operating time)  
IP class: 67

### Start Panel

Dimensions (D x H): 65x63mm  
Weight: 75g  
Power supply: 12/24V  
IP class: 66  
Power consumption:

- 1.7 mA at main power on and ignition off.
- 0 mA at main power is off.

### General data

Radio Frequency: 2.4 GHz  
Range: 6-10 meters  
Temperature range: -25C to + 60C

### This product is certified according to the following standards:

- C€ Safety: EN 60950-1
- EMC: EN 301 489-17 V3.1.1
- Radio: EN 300 328 V2.1.1
- FCC Part 15.249
- ISED RSS-210

### CECU (CoastKey Engine Control Unit) (single)

Dimensions (L x W x H): 130x65x50mm  
Weight: 180g  
Power supply: 12/24V  
IP class: 44  
Power consumption:

- 0.3 mA with main power on and ignition off.
- 0 mA with main power is off.

Max load per output: 5A

### CECU (CoastKey Engine Control Unit) (twin)

Dimensions (L x W x H): 130x65x50mm  
Weight: 250g  
Power supply: 12/24V  
IP class: 44  
Power consumption:

- 0.6 mA with main power on and ignition off.
- 0 mA with main power is off.

Max load per output: 5A

### CECU (CoastKey Engine Control Unit) (triple)

Dimensions (L x W x H): 130x65x50mm  
Weight: 430g  
Power supply: 12/24V  
IP class: 44  
Power consumption:

- 0.6 mA with main power on and ignition off.
- 0 mA with main power is off.

Max load per output: 5A

### CECU (CoastKey Engine Control Unit) (quad)

Dimensions (L x W x H): 130x65x50mm  
Weight: 500g  
Power supply: 12/24V  
IP class: 44  
Power consumption:

- 0.6 mA with main power on and ignition off.
- 0 mA with main power is off.

Max load per output: 5A



### Disclaimer

See the user manual for further information.

The user manual must be read completely before using the CoastKey system.

Repairs that include the CoastKey product shall only be carried out by CoastKey AS, or by certified personnel, in accordance with applicable instructions.



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All rights reserved. Product features, appearances and specifications may be subject to change without notice. Read all instructions carefully before use.

Please retain this information for future reference.

Designs, manuals and features are subject to change.

For more information, visit our website:

[www.CoastKey.com](http://www.CoastKey.com)

