2D KIT System
www.2d-kit-system.com

- ENGLISH -

2010

2D Kit Boat System reference manual

AC-DOC_SY-KITBOAT-Hardware_connection-000 modified 07.01.2010

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Preface

This documentation contains the necessary information to setup and to work with the 2D kit system.

In order to achieve the optimum result when working with the 2D-Kit System, we recommend reading the instructions carefully and following them step by step.

Symbols used in the text

In the paragraphs highlighted with this symbol, you will find tips and practical advice to work with the 2D-Kit System.

In the paragraphs highlighted with this symbol, you will find additional information and it is very important that you follow the instructions given.

Additional information about manuals, datasheets, software updates or new calculation files can be downloaded from our homepage. The specific download area for the Kit system can be found at: http://www.2d-kit-system.com (=>See Downloads)

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The use of this system is for racing purposes on closed tracks only. 2D Datarecording does not take any liability due to miss usage of any of its products.

1. General structure

The KIT BOAT system is build-up plug and play. Therefore it can be fitted to each boat with a Mercury engine and a free connector on the motor.
The following overview shows the general structure. The core of the 2D KIT BOAT system is the LG-KitLogger09-000. (Mentioned as Kitlogger). This module combines 3 devices in one housing (a signal converter, GPS receiver and a memory module). With connection of a GPS antenna the reception of GPS coordinates with 6.25Hz using EGNOS becomes possible. The recording time in the KIT version is limited to 55 minutes.

2. Connector layouts / Assembly

2.1 Connector layout

The KIT BOAT includes a complete plug and play cable set in motorsport quality.
All connectors are labelled so a misconnection is impossible.

1. RPM connector: connect the white cable of the 2D wiring with the grey cable of the engine loom, connect the black cables to establish ground connection
2. Trim connector: connect the white and black cables to the Mercury trim sensor, there is no specific pin assignment
3. Logger connector: connect to the front of the Kitlogger
4. Dash connector: connect Minidash to this connector

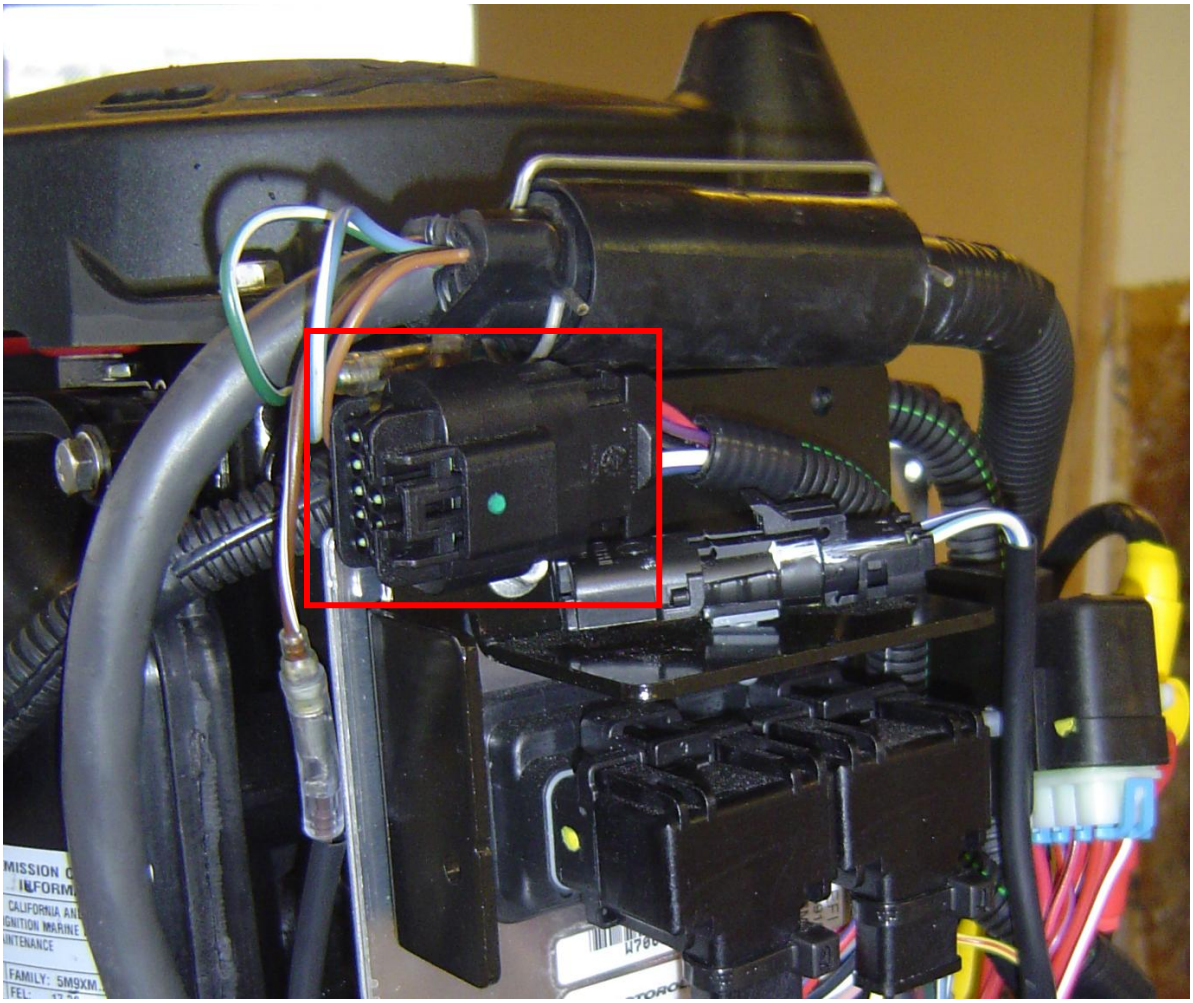
3. Mounting and connecting the modules

3.1 Mounting the 2D Kitlogger

2D Datarecording recommends putting the Kitlogger in a safe position where it will not pose any danger in case of an accident. Recommended places are for example behind the driver's seat on the wall towards the rear end. Ensure sufficient water protection.

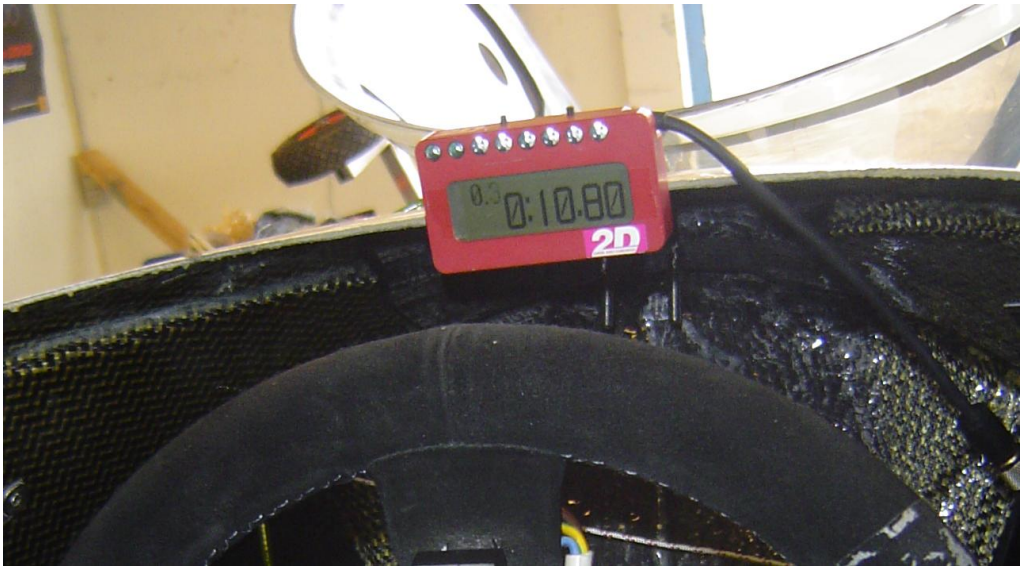
3.2 Connecting the wiring with the engine connector

To power the 2D KIT BOAT it is necessary to connect the wiring loom to the Smartcraft connector on the engine. Make sure that the wiring is not mounted in hot places and allows free movement of the engine.



3.3 Mounting the 2D MiniDash Display

2D Datarecording recommends putting the Minidash in a safe position where it will not pose any danger in case of an accident. Furthermore it should be avoided to obstruct the view to warning messages from the standard dashboard. Recommended places are above the dashboard where it is as water protected as possible.



3.4 MiniDash Display (operating + setting)

In this section you'll find information on the functions available through the 3 pages of the display device.

When "off" is displayed, it means that this channel is turned off. When a question mark ("?") is displayed, it means no value can be shown by that channel, as this information is not received by the OBD connection.

3.4.1 How to operate the MiniDash display

General operating

Keeping a button pressed for less than 3s will be referred to “short activation” of the button, keeping it pressed for more than 3s will be referred to “long activation”. Keeping both buttons pressed at system start (before supply with external power) will be referred to “simultaneous activation of both buttons at power up”.

Button 1

Short activation*	Switches pages
Long activation*	Displays additional information about the measuring values

Button 2

Short activation*	Shows firmware version of the display
Long activation*	Display the menu “Settings”
	following settings can be made in the menu “Settings”

- Turn on/off the background lighting
- Turn on/off the global alarm function
- set the LED brightness

*** Short activation < 3 seconds | *Long activation > 3 seconds**

Reset of the display (set to factory default)

Press Button 1 + Button 2 simultaneously on power up. Keep both buttons pressed until the displays shows "SET DEFAULT SETTING…"
After DEFAULT SETTING the display will be reinitialized and started in standard display

mode page1 automatically.

3.5 Display page overview

Display page 1

Display page 2

Display page 3

3.6 Mounting the GPS antenna

For optimal signal quality the GPS antenna must have a free visibility towards the GPS satellites. Therefore it should not be covered by any shielding parts. Mounting the antenna top of the boat would be the best solution.

Double-sided "scratch tape" or velcro works very well to fix the GPS module. It keeps the GPS receiver reliable on its place but can be removed easily as well.

3.7 Connecting the GPS antenna

Connect the silver male connector of the antenna to the silver 4 pin connector on the Kitlogger housing. The start up requires no further action by the user. After connection it is ready for use and will be powered by the Kitlogger.

To check signal reception incoming GPS-Data can be displayed online in the 2D software WinIt.

3.8 Connecting the wiring to the RPM pickup

RPM connector: connect the white cable of the 2D wiring with the grey cable of the engine loom, connect the black cables to establish ground connection

Open the engine wiring loom as shown in the picture and connect the cables with the heat shrink tube delivered with the KIT.

3.9 Connecting the wiring to the trim sensor

Trim connector: connect the white and black cables to the Mercury trim sensor, there is no specific pin assignment