



RaceSafe H2O[®] Fitting Kit

Instruction Manual – Vers: 1.3

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RaceSafe H2O[®] Fitting Kit Components

The RaceSafe H20 Fitting Kit includes:

- RaceSafe H20 Installation and Fitting Kit Instruction Sheet;
- 3 in 1 Marine Antenna with Leads (options for stick on or bolt through, selected when ordering), with bolt on being the preferred method.
- 6 – 24v hard wiring loom with plug (length selected when ordering to include 300mm spare cable at mounting point.)
- 1 flat mount with 25mm ball joint (to be bolted through dash)
- 1 adjustable clamp/knuckle (short or long to be selected when ordering).

(The RaceSafe H20 Display Unit is not a part of the fitting kit and will be available at each race to collect)

12 Volt Power Supply (Please read and understand this section carefully)

RaceSafe H20 requires a continual reliable power supply from 9 to 28 volts DC.

For your safety and continuity of service, it is imperative that the unit is connected to an **un-switched** supply on the battery positive terminal or the battery positive side of the isolation switch, **insure that power is supplied to the unit at all times. Do not use an ignition switched power supply.**

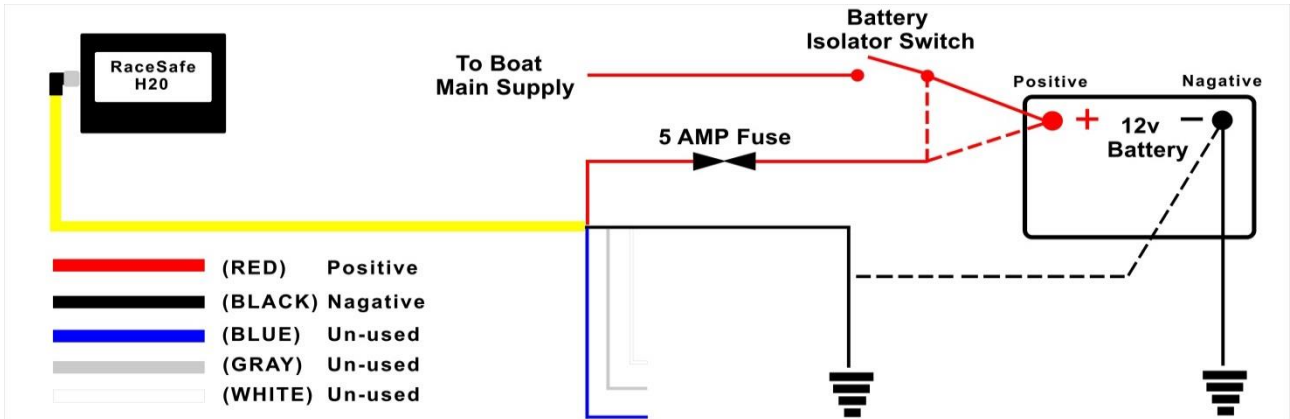
We recommend that a 5 amp blade type or similar quality fuse is used at the battery supply end of the RaceSafeH20 power lead.

0 volts or Battery negative can be picked up at any suitable earthing point providing the isolation switch does not switch the negative side of the battery.

The RaceSafeH20 unit has an internal battery that is kept charged via the boats power supply, it is only there as a reserve supply to power the unit in an accident situation where the boats power supply is interrupted. ie: boat battery is smashed or dislodged.

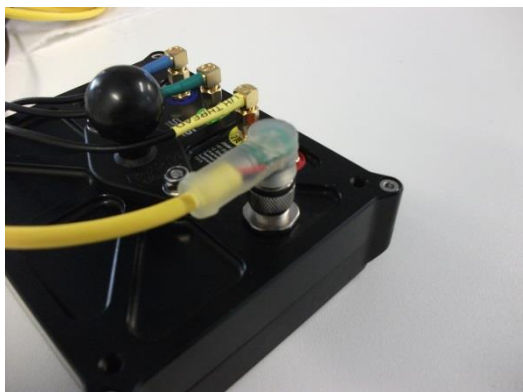
As the RaceSafe H20 unit is aware of movement and its location; it will automatically go into power save/sleep mode 5 minutes after loss of movement is detected, however, the unit will continue to function is when it is sending Hazard type signals while on course. The unit will be "woken" up by pressing any button or by movement of the boat.

Connection Diagram.



Note: Any Un-used Wires (White, Gray & Blue) Must be insulated to prevent any wires connecting with ground.

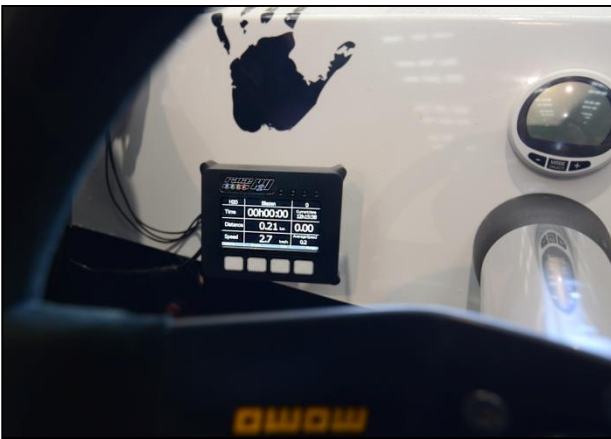
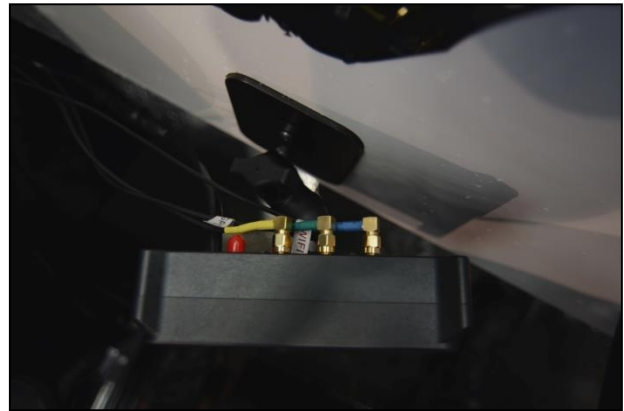
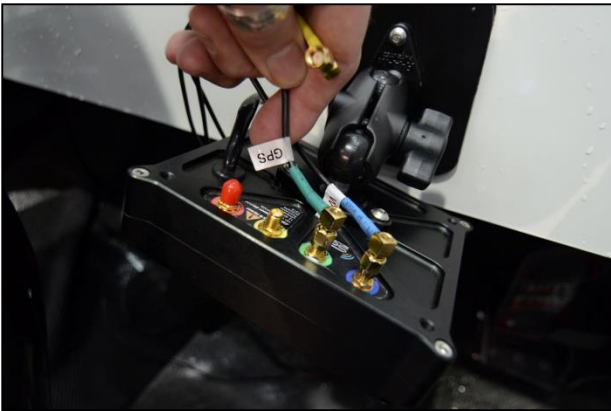
Photos of Connections and Terminals



A minimum of **300**mm of RaceSafe Power Supply Cable and Antenna Leads should be left at the unit mounting bracket location behind the unit.

Unit Mounting

The Standard mounting method for the RaceSafe H20 unit is on a Ram type Ball with a 50mm x 75mm flat base, bolted through the dash with a 3mm aluminium backing plate, in a location easily seen and accessible by the driver. Photographs of the best mounting options and positioning are below.



The RaceSafe H20 Marine Antenna leads are connected as follows

- 1: On the 3 or 4 in 1 Marine Antenna, the **lead labelled "WiFi"** is connected to the corresponding terminal labelled **"WiFi"** on the RaceSafe H20 unit, (it is Right Hand Thread), the terminal may be on the side or rear of the unit and or colour coded **Blue**.
- 2: **The Satellite Antenna lead** is connected to the corresponding terminal labelled **"IRI"**. It may also be colour coded **Yellow**; this is not marked on the 3 in 1 antenna and is **Left Hand Thread**.
- 3: **The Antenna lead labelled "GPS"**, is connected to the corresponding terminal labelled **"GPS"** on the RaceSafe H20 unit, (it is Right Hand Thread), the terminal may be on the side or rear of the unit and or colour coded **Green**.
- 4: **GSM**, if optional with 4 in 1 Antenna, is connected to corresponding terminal labelled **"GSM"** on the RaceSafe H20 unit, (it is Left Hand Thread), the terminal may be on the side or rear of the unit and or colour coded **Red**.

(Note: Internal WiFi is not marked, but if utilised, it is to be connected to the uppermost or rear terminal labelled "WiFi" on the RaceSafe H20 Unit).

Antenna installation

3 in 1 Marine Bolt-On: Preferred Type: *Best practice for the permanent installation of the RaceSafe H2O*

Marine Antenna is the Bolt-On type; this antenna is specifically designed for marine use and is vented to the atmosphere to prevent any build up of humidity & moisture, the unit seals to the deck with the stick-on backing pad and the cabling passes down through the threaded fitting, where it is positively located in position with the locking nut. (Understandably, drilling a hole through the deck may not be personally preferred), however this is a safety device and relies on best practice procedures and installation.

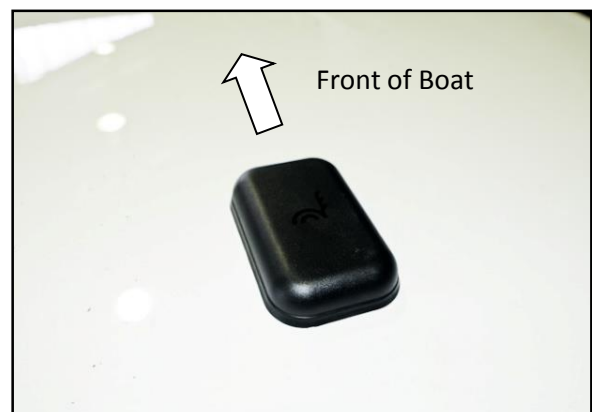
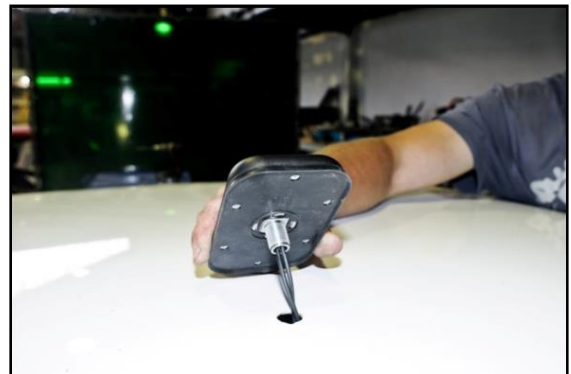
The antenna is mounted through a 12mm hole; 100mm to 300mm forward of the cowl or windscreen and centre of deck of the boat. Top of antenna must face the sky with no more than a 15 degree incline from horizontal.

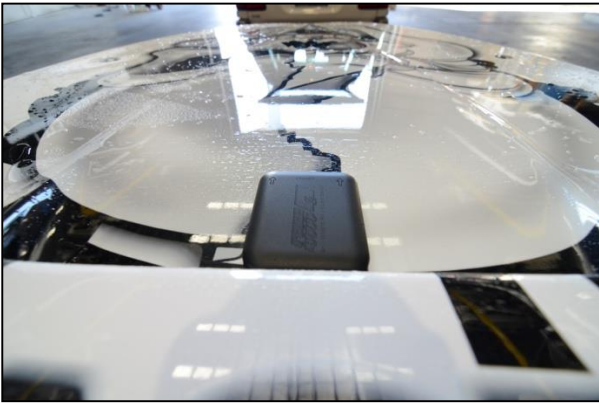
3 in 1 Marine Stick-on: Alternative Type: *As noted above, best practice for the permanent installation of the*

RaceSafe H2O Marine Antenna is the Bolt-On type; this antenna is specifically designed for marine use and is vented to the atmosphere (under the deck) to prevent any build up of humidity & moisture. The Stick-On type Marine Antenna is a sealed unit designed as a non permanent solution for installations where drilling is impossible. Being a fully sealed non vented unit, in extreme cases it can be susceptible to high humidity and moisture. This is a safety device and relies on best practice procedures and installation. If utilised as a permanent installation in a marine environment, RaceSafe H2O cannot guarantee the life of the antenna and will not warranty the device if moisture is found to have caused premature failure of any components.

The antenna is mounted 100mm to 300mm forward of the cowl or windscreen and centre of deck of the boat, stuck to the deck with the stick on backing provided. Top of antenna must face the sky with no more than a 15 degree incline from horizontal. (Deck must be cleaned of all silicones and polishes before adhering antenna)

Alternative Mounting Options: It is possible, if you have a flat top open style dash, to mount the (Bolt-on or Stick-on) Antenna flat to the top of the dash, open to the sky and with directional arrows facing to the front of the boat.





Unit Power Consumption at 12 volts	
Power On – Transit Mode	0.200A
Power On – Transit Mode - Charging	0.300A
Power Down – Sleep Mode	0.002A
Transmitting Incident on Course	0.250A

Power Cable Conductor Specifications	
Number of Conductors	2
External Diameter	2.5mm
Material	Copper
Current Rating	5.75A

Please don't hesitate to [contact](#) us if you have any questions regarding the installation and fitment of any components of the RaceSafe H2O system.

Good luck and safe racing from the team at RaceSafe H2O.