

AQUA COMPACT PRO(+) MARINE PC

Installation and instruction Manual



1. Introduction

Congratulations on the purchase of your Aqua PC. This manual is applicable to both the Intel i3 based Aqua Compact Pro PC and the Intel i7 based Aqua Compact Pro+ PC. For the purposes of readability, we will refer to both models as Aqua Compact Pro in this manual.

It is recommended that your new computer is installed by a professional installer. The Aqua Compact Pro PC is supplied with a Victron DC-DC Converter that stabilises, isolates and protects the PC from the fluctuations, spikes and surges in the boat's DC supply.

The standard converter that we supply is 12v ONLY and must not be connected directly to a 24v DC supply. A 24v version of this DC-DC converter is available, so please contact your dealer or Digital Yacht for 24v boat installations.

 Due to different battery banks, AC supplies, inverters, grounding, etc. on boats, always connect and disconnect devices and cables to the Aqua Compact Pro PC with the PC and other devices turned off – particularly USB and Monitor cables.

2. Before you start

You will need the following items and tools to complete the installation:

- A USB Keyboard and Mouse
- A suitable Monitor with HDMI input (or DVI-D but you will need a suitable HDMI to DVI-D cable)
- Access to 12V DC power supply where the unit is to be installed
- Crimps, terminal block or other connectors suitable for connecting DC/Signal wiring
- An inline 10A fuse holder and fuse
- M3 or M4 screws or other fixings appropriate to the mounting location

If the Aqua Compact Pro PC has Windows pre-installed, then this will have been authorised with Microsoft during production. If you are installing Windows yourself, don't forget that you will need to authorise the copy of Windows by either connecting the computer to the internet or ringing the Microsoft automated telephone authorisation system.

Other optional items you may wish to have with you during installation include;

- Suitable USB Memory stick for transferring software and data
- A powered USB hub if you intend to connect more than 4 USBs devices to the Aqua Compact Pro PC
- An external CD/DVD drive that can connect to the Aqua Compact Pro via USB cable, if you have original CDs/DVDs of software that you wish to install on the Aqua Compact Pro PC

3. Installation

Before starting installation select a suitable location for the Aqua Compact Pro PC. The unit is not water resistant and must be mounted in a dry location to avoid contact with water or excessive moisture. When locating the unit you should consider:

- Routing of power, USB and NMEA cables to the unit
- Provision of sufficient space behind the unit for cable connections
- Getting access to the Aqua Compact Pro PC for plugging in USB devices and loading CDs/DVDs
- Maintaining the compass safe distance of 0.5m

Installation Step 1

- Run a suitable 12v DC supply to the location where the Aqua Compact Pro PC will be mounted.

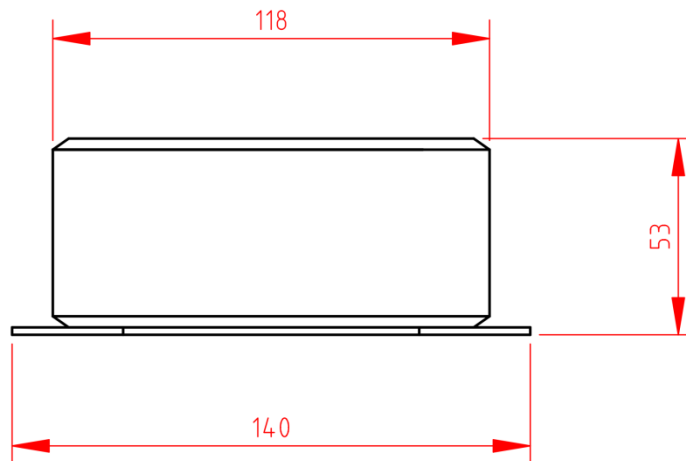


- Both the Aqua Compact Pro and Pro+ PCs typically consume 1A or less under normal conditions but will consume more power (i3 up to 6A and i7 up to 8A) if you are doing lots of graphic calculations or powering lots of USB devices.
 - Ensure a suitable in-line fuse or circuit breaker is fitted (recommend 10A).
 - Run any USB or NMEA interfacing cables to the location where the Aqua Compact Pro PC will be mounted, but do not make any connections yet.
- i** The USB Interface Standard specifies that USB cables should be no longer than 5m without using a special powered USB extender cable – ensure that the total USB cable length from the Aqua Compact Pro PC to any USB device is < 5m.

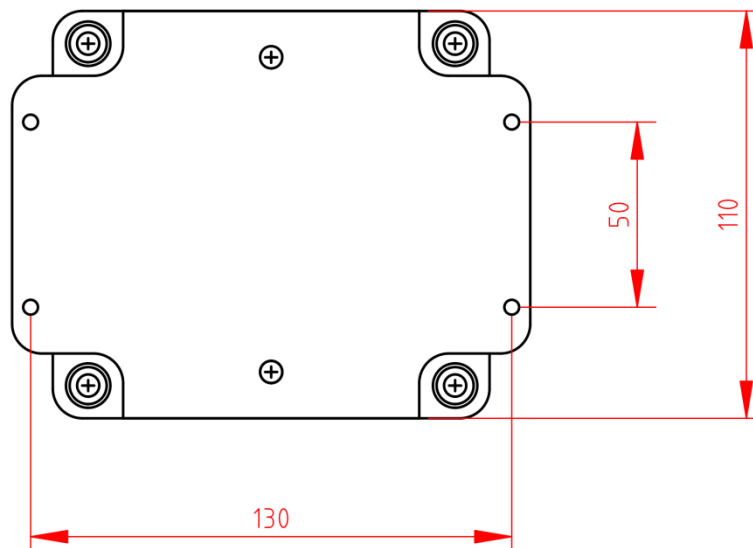
Installation Step 2

- The Aqua Compact Pro PC is supplied with a mounting bracket. Use suitable fixings (not supplied) to fix the Aqua Compact Pro PC to a flat surface – using the dimensions and details shown in the image below. Note that the unit may be installed in any orientation.

Dimensions



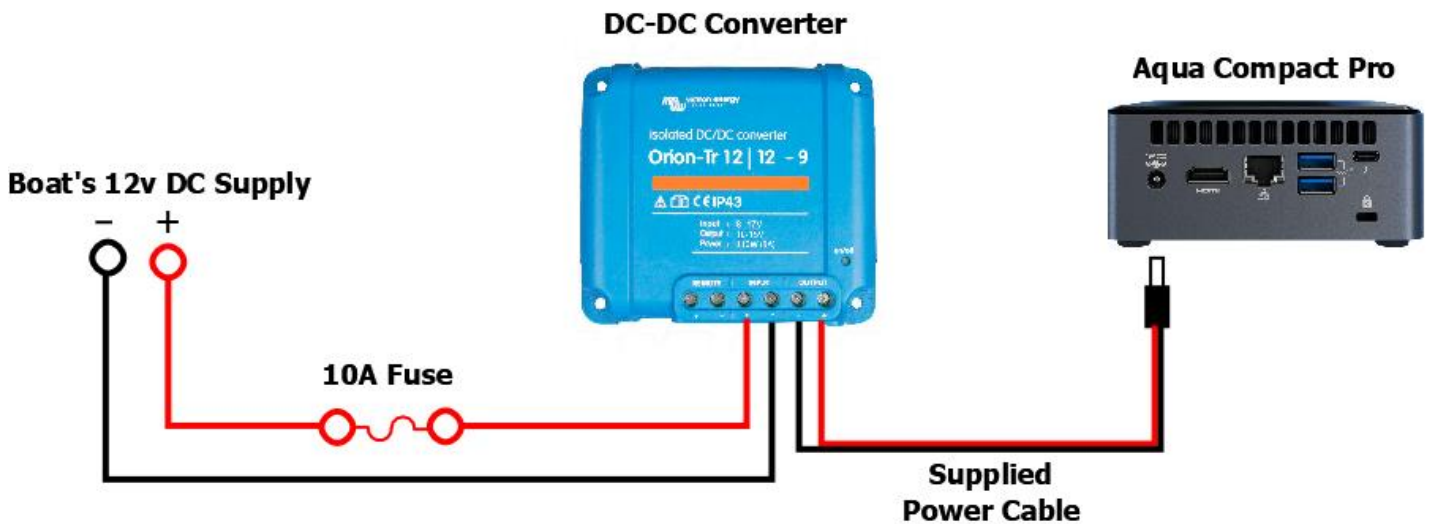
Mounting Plate





Installation Step 3

- The latest Intel 10th Gen processors require a more stable DC power supply than previous generations and that is why we now include a Victron DC-DC isolated power converter, that will sit between the boat's 12v DC system and the Aqua Compact Pro PC. The converter stabilises and isolates the PC from the fluctuations and spikes that occur in a typical DC supply on boats. **The Aqua Compact Pro should not be installed without the Victron converter.**
- On the rear of the Aqua Compact Pro PC is a 2.5mm DC jack socket which the supplied power cable should plug in to. Connect the Red (+) and Black (-) wires in the Power cable to the Victron converter's Output terminals.
- Connect the Victron converter's Input terminals to the boat's 12v DC supply. **Ensure the supply is connected via a suitable fuse or suitable circuit breaker** (in the positive power connection). A 10A fuse/circuit breaker is recommended for most installations and 10A is the maximum value that should be used.



- Please note that the Aqua Compact Pro enclosure is internally connected to the negative supply. **Extreme care should be taken when routing positive supply cables close to the Aqua Compact Pro** and you should not secure the Aqua Compact Pro on to a metallic or conductive surface as this may affect the boat's grounding. Always ensure that the Aqua Compact Pro enclosure and any USB and HDMI cables are not connected to the boat's ground.
- Always power down the Aqua Compact Pro PC before connecting USB, Network or HDMI cables from other devices.
- Try to ensure that all devices connected to the Aqua Compact Pro PC are powered from the same boat's DC supply that is powering the Aqua Compact Pro. This will avoid potentially damaging, differences in ground voltages.
- Do not try to turn on the Aqua Compact Pro PC yet.

Installation Step 5

- The Motherboard connections and features of the two Aqua Compact Pro models are shown on the next page.
- All four USB ports are USB 3.1 (Type-A) with a single Type-C (high current) charging port on the front face, for tablets and phones.



Highlighted Interfaces (see images)

- 1) SDXC Card Slot
- 2) 19v DC Input Voltage 2.5mm Jack Plug
- 3) HDMI 2.0a
- 4) Intel Gigabit LAN
- 5) 2x USB 3.1 Gen2 Ports
- 6) Thunderbolt 3
- 7) Kingston Lock
- 8) USB-C (Fast Charge) Port
- 9) USB 3.1 Gen2 Port
- 10) Headphone/Microphone jack
- 11) Power Button



- Connect a USB mouse and keyboard to any of the USB ports on the Aqua Compact Pro PC
- Connect a suitable monitor or monitors to the HDMI and/or Thunderbolt 3 Port connectors on the Aqua Compact Pro PC.
- 3rd party adaptors to convert HDMI to older analogue VGA type monitors or to convert the very latest Thunderbolt 3 to HDMI are available online.
- To connect NMEA devices to the Aqua Compact Pro PC you will need either;
 - A Digital Yacht USB to NMEA0183 adaptor (P/No.ZDIGUSBNMEA)
 - A Digital Yacht USB to NMEA2000 gateway such as our iKonvert (P/No ZDIGIKVTUSB)
 - A Digital Yacht Wireless NMEA products; WLN10SM, NavLink2, WLN30, iAIS, AIT3000/5000
- Once all devices are correctly connected to the Aqua Compact Pro PC ensure the 12v DC power is connected i.e. the circuit breaker is ON (if fitted). Press the Power switch on the front of the Aqua Compact Pro PC and the Power and Hard Disk LEDs should come on as the PC starts its power up sequence.

Installation is now complete.