2.2 Mounting

The Senquip QUAD can be wall or bulkhead mounted, or can be attached to a DIN rail using the integrated mounting clips. When wall or bulkhead mounting, use M5 bolts.
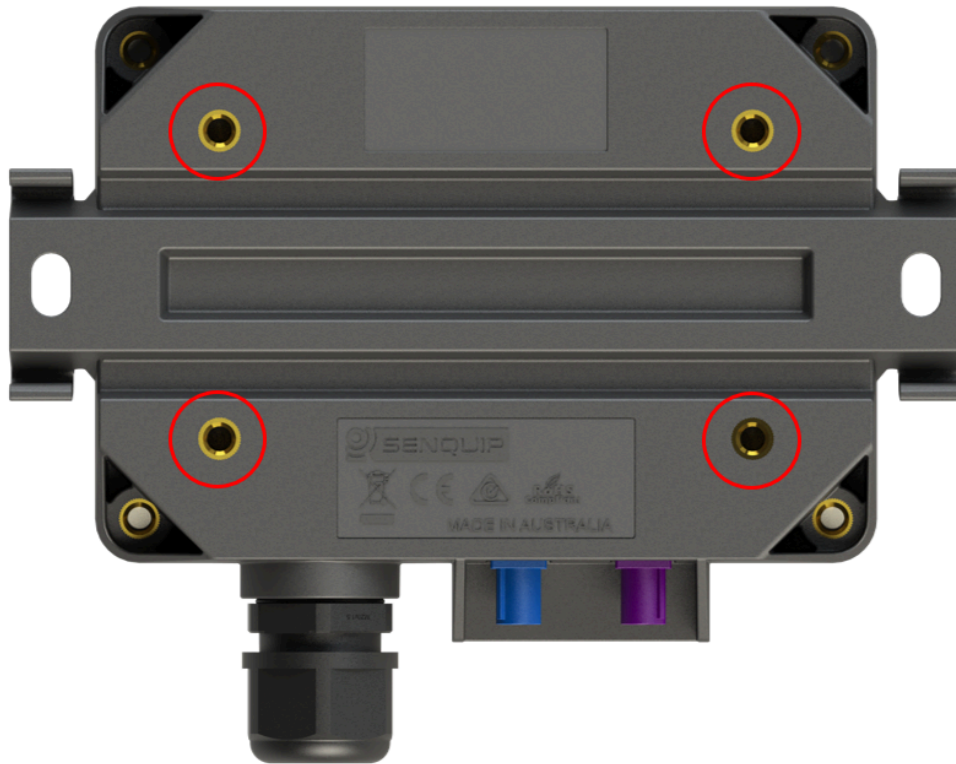

Figure 2.2. Senquip QUAD mounting points circled in red

If attaching to a DIN rail, push the enclosure onto the rail, ensuring that the clips have fully engaged around the rail.

Figure 2.3. Rail mounting the Senquip QUAD

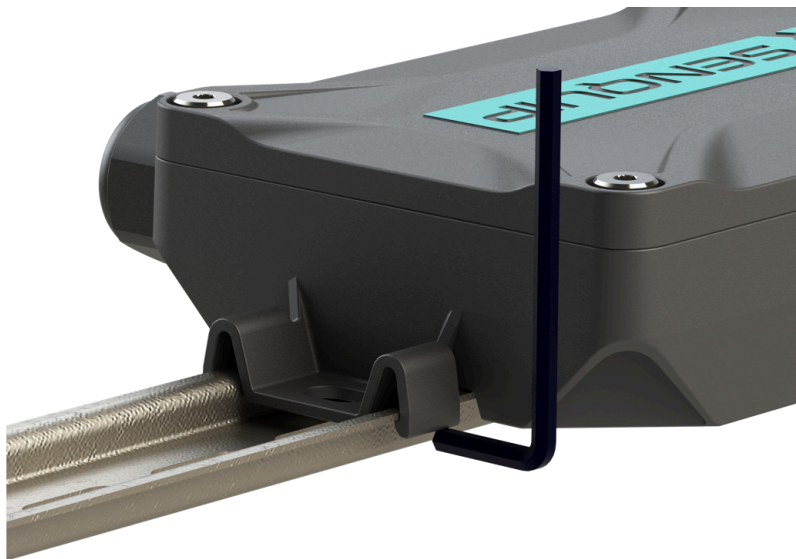Remove the Senquip QUAD from the DIN Rail using the Allen Key as shown in the image below.

Figure 2.4. Removing from a DIN Rail

The Senquip QUAD should be mounted with the cable gland and antenna entry facing down. Mounting the device with the gland in another orientation may result in water ingress via the cable entry gland. In-field orientation checks can be performed using the built-in accelerometer and associated tilt measurements.

2.3 User access

The user access panel is accessed by removing the front cover. From the user access panel, a SIM card can be inserted, external devices can be wired, diagnostics can be performed, and the device can be reset or placed in *setup* mode.
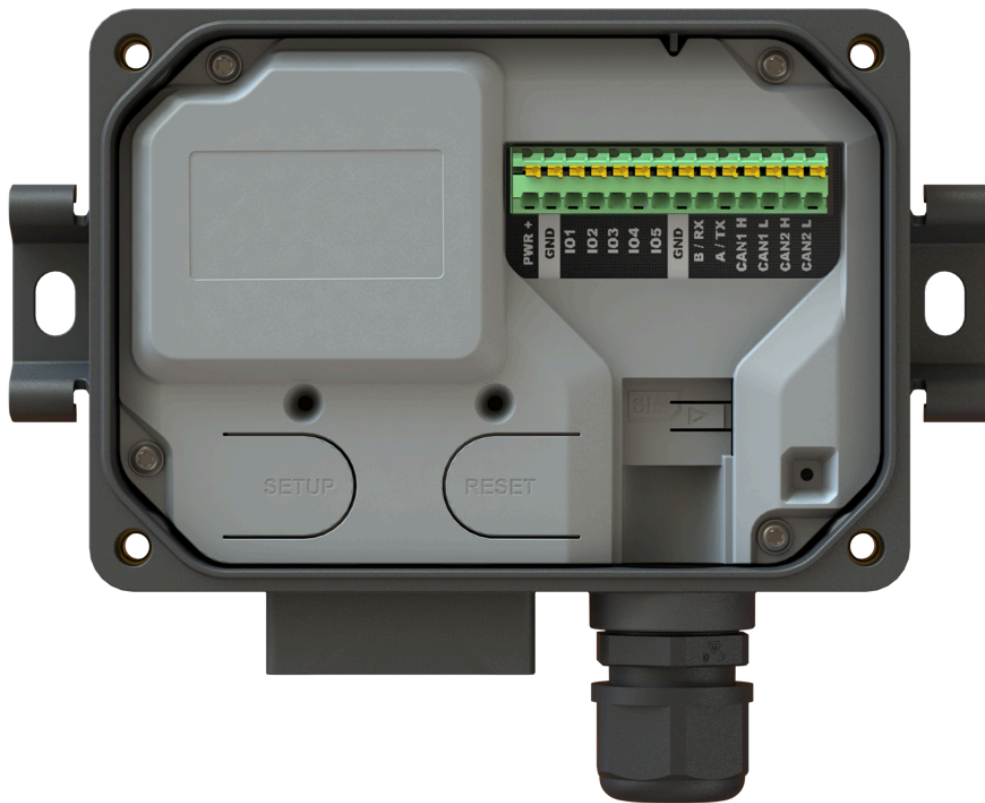
Figure 2.5. User access for the Senquip QUAD

To open the cover:

1. Un-fasten the 4 hex-head screws that secure the cover using the 3mm Allen key provided. The screws are captive and will not fall out when loose. Do not attempt to remove the screws from the lid.

Figure 2.6. Four cover screws

2. When the lid is opened, an internal light detector will recognise the increase in brightness and will enable the LEDs and configuration switches.

Note When closing the device, please ensure that the seal is correctly seated and is clean. A poorly seated or dirty seal may result in water ingress.

2.4 Anti tamper screw

In some installations, evidence needs to be provided where unauthorised access to the Senquip QUAD has occurred. All devices include a tamper feature that can be configured to raise an alert when the lid is opened. In some instances however, a physical tamper indication is required. Senquip can provide tamper evident screws for the lid of the Senquip QUAD. Once a tamper evident screw is in place, opening the device will require breaking the seal on the tamper evident screw.
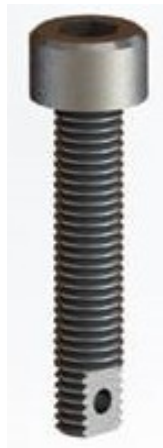
Figure 2.7. Tamper evident screw

To fit a tamper evident screw, remove one of the lid screws closest to the cable gland using the 3mm Allen key provided. Replace the lid screw with the tamper evident version. The tamper screw is compatible with most available seals.

Note The tamper evident screw should be inserted last and removed first. The tamper evident screw should be inserted and removed with a 4mm Allen key.

Figure 2.8. Tamper evident screw in place on a Senquip QUAD

2.5 SIM card install

The Senquip QUAD uses a micro-SIM card with dimensions as shown in the figure below. Both 1.8V and 3.3V SIM Cards are supported.

If 4G LTE is the chosen communications method, then a SIM card should be installed now. The Senquip QUAD is available with an internal SIM card included. An internal SIM card provides for the most reliable communications in high-vibration environments.

Note If your Senquip QUAD has an internal SIM card, you do not need to install an additional card.
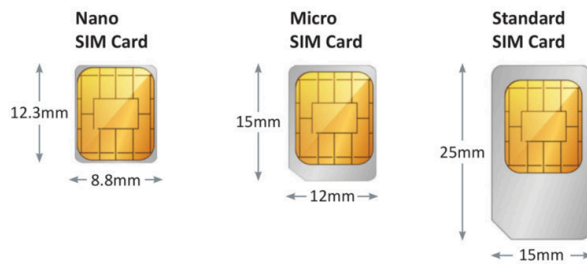

Figure 2.9. SIM Card sizes

To access the SIM card holder, the lid must be opened. The SIM card holder is located at position 1 in the diagram below. The holder is a "push-push" type, meaning that the SIM card is pushed in to install and is then pushed and released to eject.

Figure 2.10. Identifying the SIM card slot

To insert a micro-SIM card into the holder, place it in the recess to the left of the SIM card slot and apply a gentle pressure to the right. The SIM card should be orientated with contacts facing up and the removed corner on the bottom right as in the diagram below.

Figure 2.11. Correct insertion of a SIM card

Because the Senquip QUAD is expected to be used in harsh environments, there is a plastic locking mechanism moulded into the plastics. Once the SIM card is inserted, the plastic lock will lift, securing the SIM card in the holder.

Figure 2.12. Insert SIM to the right

It is recommended that the device be reset, by pressing the reset button, after inserting a SIM card.

To remove the SIM card, hold the locking mechanism down; press the edge of the SIM card gently and let go. The SIM card will be ejected.

2.6 Wiring guide

The Senquip QUAD is fitted with a 14 way 3.5mm pitch terminal block that can be used to provide power and for connection to external sensors and systems. With the cable gland facing down, pin 1 is on the left hand side of the header and pin 14 on the right. All references to pin numbers in this document will assume this definition.