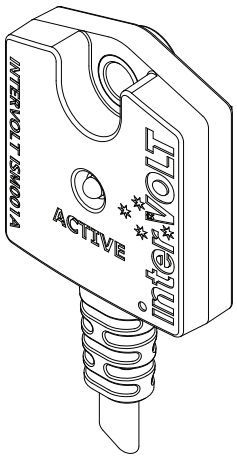
Thank you for choosing an interVOLT product and supporting Australian innovation, technology, intellectual property and jobs.

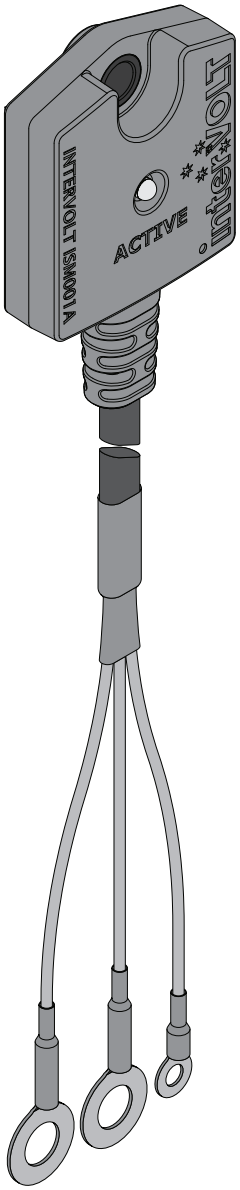


INSTALLATION AND OPERATION GUIDE

The Inertial Sense Module or ISM is a solid-state electronic device developed for use with the interVOLT DCC Pro.

In simple terms the ISM detects movement (from both engine vibration and acceleration) when attached to the vehicle chassis or body. Once the input voltage is within operating range this movement will provide a trigger signal to the DCC Pro and initiate the charging cycle.

This enables the DCC Pro to be operated in Ignition Mode without having to tap into the vehicle manufacturer's wiring system to obtain a signal. As a result, the whole DCC Pro install becomes totally independent of the vehicle's electrical system, aside from the common connection at the main battery terminals.



INSTALLATION

The body of the ISM contains the movement sensor. It needs to be fixed to a part of the vehicle which is subject to vibration emitted from the engine when running. It can also be triggered by acceleration however vibration detection provides better functionality as it commences once the engine is started as opposed to the vehicle moving.

The ISM can be attached using either the double-sided 3M tape provided or with a separate screw. In the instance where vibration is minimal the screw method is likely to provide a better result as the mechanical fastening will better transmit the vibration.

The ISM can be oriented in any position in any axis, horizontally or vertically. It is IP67 environmentally rated but care should be taken not to expose it to unnecessary temperatures i.e. near turbochargers or the exhaust system.

1. Select a location on a metal surface of the body or chassis within 500mm of the termination on the top of the DCC Pro. If vibration can be detected with your finger this will be more than enough for operating the ISM.

2. If using the double-sided tape provided, prepare the surface by first degreasing and then cleaning with isopropyl alcohol. **Do not allow the alcohol to contact the ISM housing.** Peel off the backing paper from any corner being careful not to touch or contaminate the adhesive surface. Affix in the desired location, pressing and holding for a minimum of 30 seconds (see fig i).

3. If using the mechanical fastening method, an M4 machine screw with nutsert/rivnut is recommended. Alternately, a 10 Gauge self-tapping screw will suffice (see fig ii).

Once fixed in position, the ISM wires can now be connected to the DCC Pro (see fig iii).

IMPORTANT: Before attempting any connections, the main and auxiliary battery supply feeds to the DCC Pro must be isolated to prevent accidental short circuits.

1. Remove the DCC Pro terminal cover.
2. Unscrew the MAIN, NEG and IGN terminal fasteners.
3. Locate the ISM wire termination according to the table below and re-install the fasteners.
4. If the DCC Pro has not yet been configured for Ignition Mode then this must be done before re-connecting the auxiliary battery supply feed. Please refer to the Connection and Configuration section of the DCC Pro installation and operation manual for details.
5. Re-fit the DCC Pro terminal cover.
6. Connect the main and auxiliary battery supply feeds.

Wire Colour	Red	Black	White
Connection	MAIN	NEG	IGN

Installation of the ISM is now complete. See over for operation.

OPERATION

Once connected the ISM 'ACTIVE' LED will blink every 8 seconds indicating the device is in stand-by mode. If the LED is not blinking it may be a connection fault. Check the polarity of wires are correct and ensure there is no short circuit or loose connections before contacting your place of purchase for support.

If the ACTIVE LED is blinking, start the vehicle. Once the MAIN Voltage rises above 13.2V and vibration is present the LED will become steady. This could take up to 10 seconds after **both** conditions are met. Any time the ACTIVE LED is steady the ISM is supplying a signal output via the white wire. Once the signal is detected by the DCC Pro, it will activate and start charging.

Once the engine is switched off and the ISM no longer detects movement, the output signal will cease **after** the main battery voltage drops below 12.8V. The DCC Pro will then stop charging and become isolated from the main battery until the engine is re-started.

DO NOT USE POWER TOOLS TO FASTEN TERMINAL SCREWS

All terminals must be fastened with hand tools and care must be taken not to over-torque the screws.
The torque settings are as follows:

- Main/Negative terminals 5.0 Nm max.

- Ignition terminal 1.5 Nm max.

Fig.i

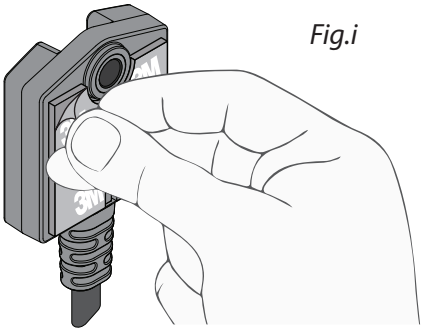


Fig.ii

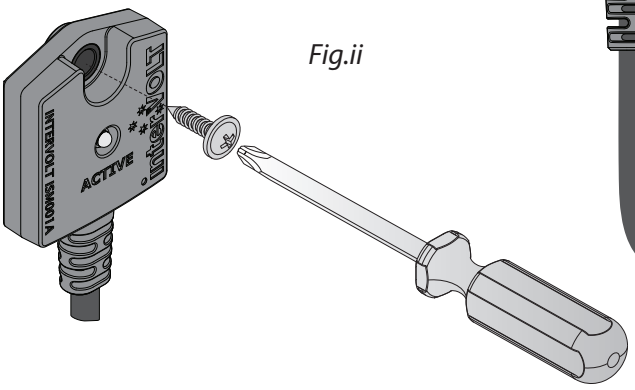
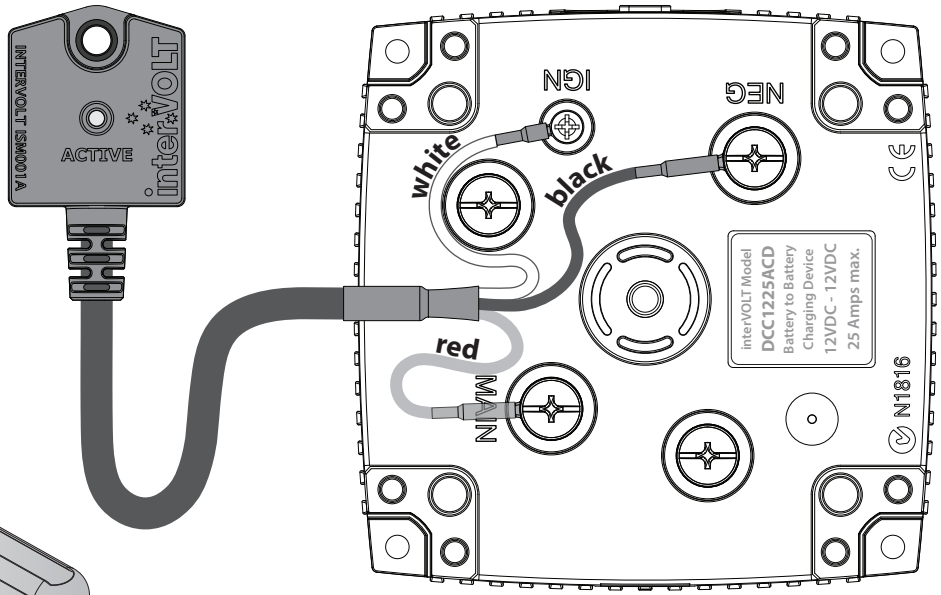


Fig.iii



NOTE: *The ISM is designed for use specifically for the DCC Pro and not designed for use with any other product or in any other application. Whilst every care has been taken in the preparation of this guide, Intervolt Pty Ltd offers no guarantee, express or implied, and accepts no liability for any inaccuracies, errors or omissions in its content. Specifications are subject to change without notice.*

WARRANTY POLICY

interVOLT products are warranted for a period of 24 months against faulty materials and/or workmanship from date of purchase by the end user subject to proof of purchase. In the event proof of purchase is not provided, and at the discretion of the manufacturer, the warranty shall be 24 months from manufacturer's date of sale to the merchant from whom the product was purchased. Intervolt's 24 month warranty is subject to the following terms and conditions:

The goods must be installed and operated in accordance with the manufacturer's recommendations and instructions set out within this booklet.

In the event of a claim the goods are to be returned to the original point of purchase with a copy of the merchant invoice or the relevant merchant invoice number.

In the event of a claim any associated expenses including diagnosis, removal, and/or installation of the goods is the responsibility of the client including any freight costs.

The warranty shall be void where the goods have been used for a purpose for which they are not intended, or altered in any way that is detrimental, or opened or tampered with by an unauthorised party, or damaged by mechanical abuse, or contaminated by water or other substances (other than IP rated products), or damaged by incorrect application.

Save and except for the express warranty set out above and to the maximum extent permitted by law, all conditions and warranties which may at any time be implied by the common law, Trade Practices Act, Fair Trading Act or any other State or Federal Act are excluded. To the extent that these cannot be excluded and where the law permits, the manufacturer in respect of any such condition or warranty shall be limited at their option to the repair or the replacement of the goods or the supply of equivalent goods or refunding the cost of the goods.