

Locating and mounting the Altion voltage regulator

Ensuring the optimal longevity of your Altion voltage regulator starts with choosing the right mounting location. Here are some key factors to consider:

- **Dry and shaded location:** The Altion voltage regulator is not designed for direct exposure to moisture. Choose a dry, well-ventilated location protected from rain, other automotive fluids, water spray, and prolonged sun exposure.
- **Proximity to other electrical equipment:** The ideal location for the Altion voltage regulator is near other electrical equipment in your system, typically close to the battery bank and/or inverter/chargers. This provides easy access for wiring connections and future maintenance or adjustments. We recommend keeping it near, but not inside, the engine compartment if ambient temperatures frequently reach or exceed 50°C (122°F).
- **Wire management:** Consider the length and flexibility of your wiring harness when choosing a location. Allow enough slack for easy connection to the battery and other electrical components without excessive strain.

Important Safety and Compatibility Notes

- **Battery Disconnect with Aux/Field Disconnect:** If using a battery disconnect switch with an auxiliary/field disconnect, route the ignition or Alt + wire through it for safety purposes. Do not route the field wire through this switch.

Battery Switch: To avoid damage to the alternator and electrical system, always ensure the main battery switch is in the ON position before operating the motor and regulator.

Mounting recommendations

- **Vibration Dampening and Heat Dissipation:** For optimal performance and longevity, use the included rubber washers between the Altion and the mounting surface when mounting your regulator. These washers help dampen vibration and promote heat dissipation.
- **Mounting surface:** The Altion voltage regulator is designed for mounting on a flat, stable surface. Ensure the chosen location can support the weight of the regulator and provide a secure foundation.
- **Orientation:** Consider mounting the Altion voltage regulator in a way that optimizes airflow and heat dissipation. If you choose to mount the regulator vertically, we recommend orienting it so the wiring harness exits the left side of the device to minimize the chances of water ingress.
- **LED visibility:** All Altion voltage regulators feature LED lights to indicate operational status. The Altion Max additionally features an LED display for detailed information. Consider a location where these visual indicators can be easily viewed for monitoring purposes.

Before drilling any permanent mounting holes, use temporary fasteners or double-sided tape to hold the regulator in the desired location. This allows you to double-check accessibility, wiring reach, and overall functionality before final installation.

