

Source: Prestolite Electric Leece Neville Heavy Duty Systems
Bulletin No: TWB-0089 **Date:** January 05, 2023
Models: AVI147 & AVI150 Insulated return PWM controlled alternators
Subject: Wiring Diagram



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Wiring diagram for insulated return AVI147 & AVI150 with PWM regulator. (See listing below)

Regulator reference 1861920, 1861924.

The alternator is insulated return (grounded).

The alternator is an ignition excite machine, via Pin3. **This is a required connection.**

Pin1 = Phase (W), Tacho (Optional connection)

Pin2 = Warning lamp (Optional connection)

Pin3 = Ignition / PWM (Required connection)

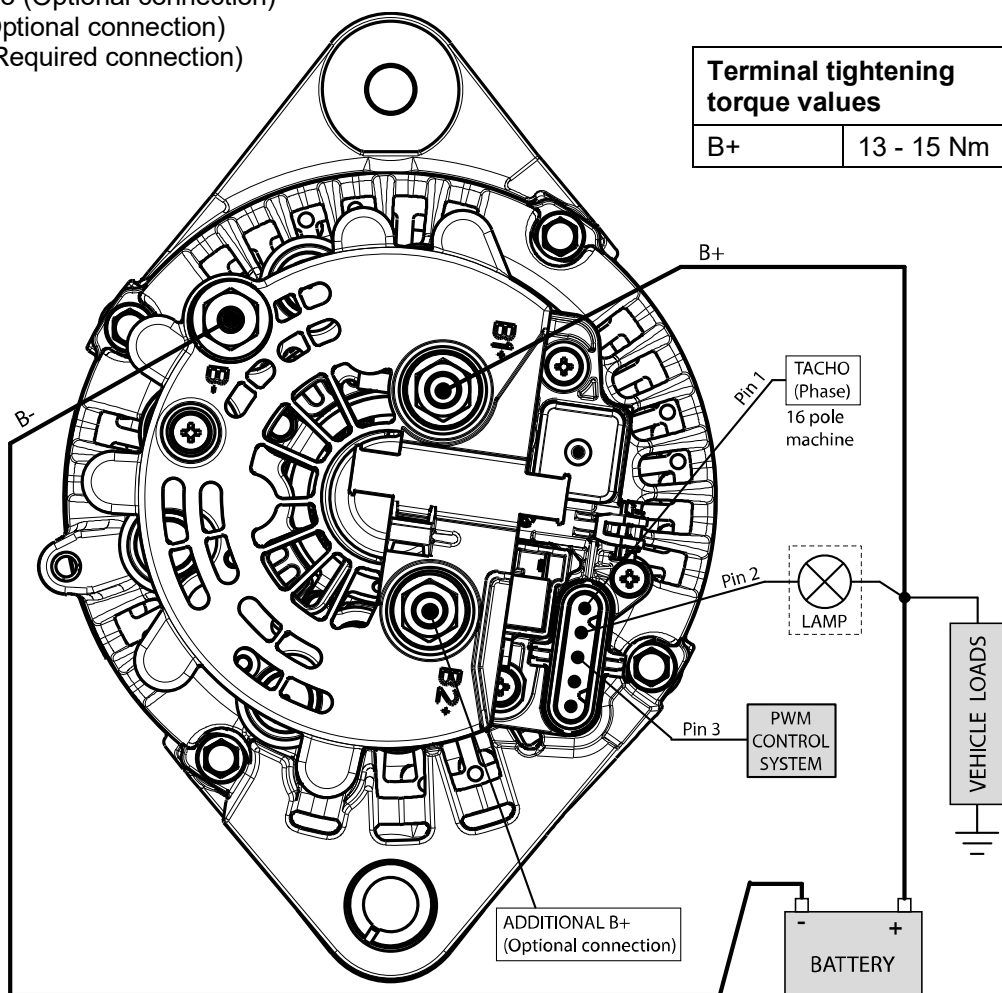
Pin4 = No connection

Pin5 = No connection

AVI147J3230HD
 AVI147J3231HD
 AVI147J3135HD

**Terminal tightening
torque values**

B+	13 - 15 Nm
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Important: The information contained in this bulletin is intended for use by trained, professional technicians who have the proper tools, equipment, and training to perform the required maintenance described above. This information is NOT intended for 'do-it-yourselfers', and you should not assume that this information applies to your equipment. If you have any questions regarding this information please visit our website at www.prestolite.com, or contact our technical service department at:



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Voltage set point control, via IGN/PWM (pin3)

This input is designed for a system voltage rail to rail square waveform with varying duty cycle input operation at a fixed 200Hz.

In response to different duty cycles the regulating voltage is adjusted from 25.4V – 30.6V in 0.07V/% steps.

Regulation voltage (At 3000 RPM; 10A, with PWM control on pin 3)

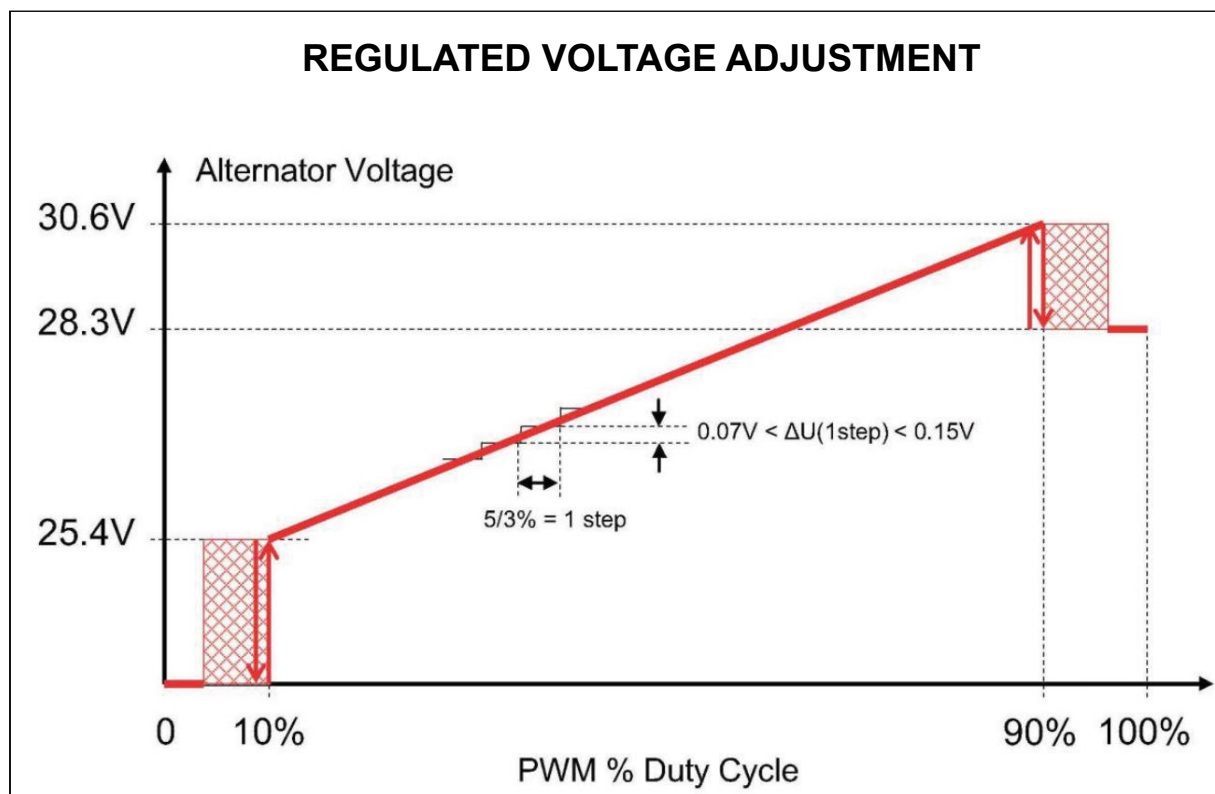
0% > Regulator shut down.

10% - 49% > Regulate at required voltage between 25.4V and 28.0V

50% > Regulate at 28.0V

51% - 90% > Regulate at required voltage between 28.0V and 30.6V

100% > Regulate at 28.3V



Temperature coefficient: 0mV/°C

Load droop: -400mV, 20% to 80% field duty cycle

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