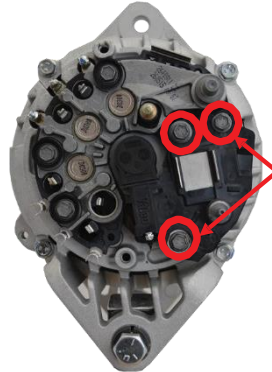


# Installation and Troubleshooting Guide

## Smart Ready® 12V Internal Regulator for Valeo



Standard Valeo  
128990-772250



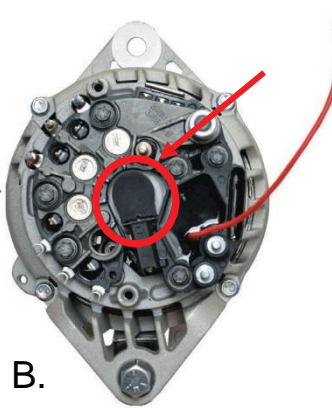
Remove the two screws and remove Back Cover.

If clearance is available, the Alternator can stay on the engine.

Remove Standard Internal Regulator (3 screws).



A.



B.

A. Install Balmar Smart Ready® Regulator with the same three screws. Remove Brush Retainer.

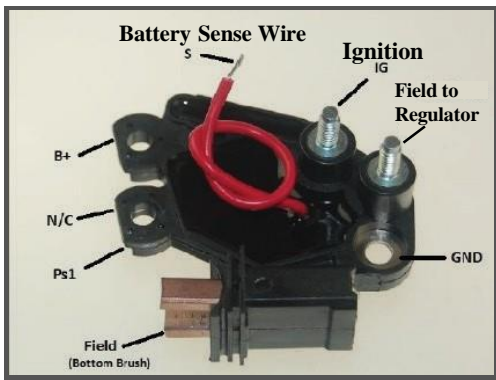
B. Replace the Brush Cover with a new one provided in the kit.



**Tools Needed:**

- 8mm nut driver for the “W” terminal nut.
- 13mm wrench for the B+ terminal.
- 7mm nut driver for the cover and regulator screws.

**Connections:**



Install the new Back Cover supplied with the kit using the original 2 screws.

Labels from original cover may be carefully removed with a heat gun or blow dryer and placed on the replacement Back Cover.

**Figure 1**

### Smart Ready<sup>®</sup> Regulator for Valeo Wiring Instructions:

#### Wiring when using the Internal Smart Ready<sup>®</sup> Regulator without External Regulation:

- 1) When using the Internal Smart Ready<sup>®</sup> regulator independently, the red “sense wire” MUST be connected to the B+ terminal of the alternator. In cases where a battery isolator has been employed, the red sense wire must be attached to the battery positive terminal to properly sense voltage. You may use the included 5/16” ring terminal (shown below) to connect to the alternator B+ or the battery. You may also use the provided butt connector to extend the red sense wire closer to the battery. Conversely, the red sense wire MUST be attached to the alternator side of any switch or fuse to avoid measuring on the wrong side of a voltage drop.
- 2) Connect the wire from your ignition switch to the ignition terminal on the Smart Ready<sup>®</sup> regulator (see Figure 1).



For the red sense wire connection to B+ or battery.

**5/16” Ring Terminal Connector**



This terminal is only required if you own an existing Balmar ARS-5 or MC-614 and need to convert the blue field wire to a ring connection.

**#10 Ring Terminal Connector**

#### Wiring the Valeo Smart Ready<sup>®</sup> Regulator when using a Balmar ARS-5 or MC-614 External Multi-Stage Regulator:

Follow the installation and programming instructions provided with your ARS-5 or MC-614 Regulator. The following modifications are required when connecting to the Valeo Smart Ready<sup>®</sup> Internal Regulator:

- 1) The red “sense wire” from the Internal Smart Ready<sup>®</sup> Regulator will not be used, but the connections described in Step 1 above can be maintained to create a “come home” feature.
- 2) Connect the ignition switch wire to the Balmar regulator harness brown “ignition wire”. This step replaces Step 2 above. The ignition terminal on the Smart Ready<sup>®</sup> internal regulator will be vacant.
- 3) Connect the blue “field wire” to the field terminal on the Smart Ready<sup>®</sup> internal regulator (see Figure 1).
- 4) The white “tach wire” on the Balmar wiring harness is normally used to connect the tachometer to a Balmar alternator. In this case the white tach wire is not used (as the Valeo alternator connects to the tach independently), so you may fold it back and tape it off.

*Note: You can only use either the Smart Ready<sup>®</sup> Internal Regulator or the Balmar External Regulator (ARS-5 or MC-614) at one time. If the Balmar External Regulator should fail, following the connection steps described above will allow the Smart Ready<sup>®</sup> Internal Regulator to be utilized as a backup or “come home” device.*

**Contact Technical Support at +1-954-522-2403 from 8:30 am – 7:30 pm EST with any questions.**