Technical Bulletin

The Power of WAI

Ford 6G Regulators

We receive many calls per week asking questions about the Ford 6G series of regulators.

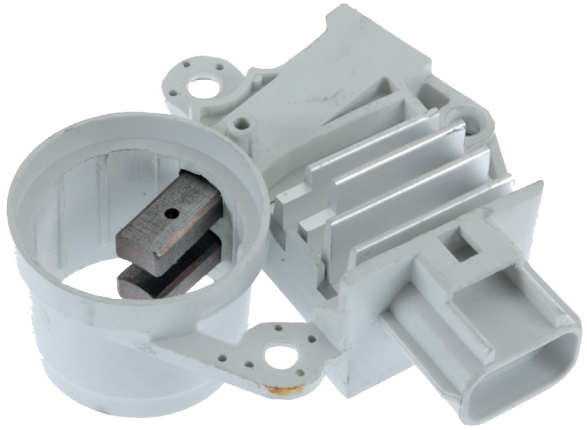
Most commonly asked is how to connect them and can one be interchanged with another.

The F600, and F605, although having 3 pins present in the plug, only have two connections. Indicator lamp is commonly located on the instrument panel and battery sense is used for sensing voltage only. The primary difference between these two are that the F600 does not have a soft start feature, and the F605 does incorporate this feature.

Soft start is achieved by using frequency detection and can provide a pre-excitation duty ratio to allow the regulator to turn on at a lower rpm. This basically means that regulator is awake (turned-on) even though the alternator may have very little rpm function. This is not to be confused with LRC. LRC is the function of a regulator that slowly allows the current to ramp to full output over a set period of time, usually between 2 and 12 seconds. This eliminates the engine speed fluctuation and vibration caused by a sudden electrical load at low speed.

The F602, F603, and F606 all have the same indicator lamp and battery sense features, but they also incorporate a field report on the center pin which communicates back to the vehicle PCM what the load condition is that the alternator is placing on the engine. These regulators are not PCM controlled, but do communicate with the PCM through this middle pin.

The F601 should not be replaced with any other 6G regulator of a different number because it is fully PCM controlled. PCM controlled regulators have their set point determined by the vehicle's electrical control unit (ECU). The ECU monitors the required current demand by sensors within the vehicle, and then sends a particular duty cycle to the regulator based upon the load demand and tells the alternator how much output to produce.



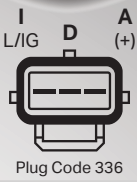
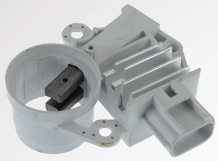
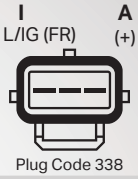
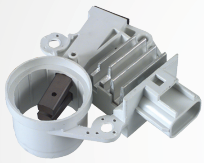
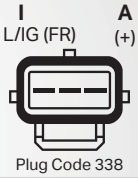
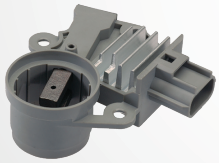
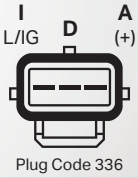
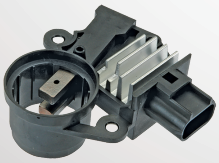
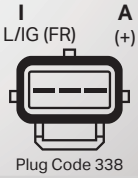
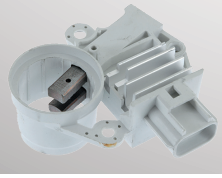
F601

To address the connection of these parts please use the chart on the following page, these are the most common regulators used.

Tech Line (1-800-327-6903) has been setup to answer customer technical question or concerns which is managed by a certified Automotive Technician.

Ford 6G Regulators ...

The Power of WAI

Transpo Pt No.	Image	OEM Number	Term. Desg.	Terminal Description	Term. Desg.	May be Replaced by
F600 Grey w/grey cover 14.4V Setpoint		F8WU-10C359-AB	I-D-A	Indicator Lamp No Connection (Dummy) Battery Sense	 Plug Code 336	F605 or F606
F602 Grey w/white cover 14.4V Setpoint		XS7U-10C359-AC	I-FR-A	Indicator Lamp Field Response (Frequency) Battery Sense	 Plug Code 338	F603 or F606
F603 White w/orange cover 14.4V Setpoint		XS7U-10C359-BA	I-FR-A	Indicator Lamp Field Response (Frequency) Battery Sense	 Plug Code 338	F606
F605 Grey w/green cover & soft start 14.4V Setpoint		3C3U-10C359-AA VP3C3U-10C359-AA	I-D-A	Indicator Lamp No Connection (Dummy) Battery Sense	 Plug Code 336	F606*
F606 Black w/black cover 14.4V Setpoint		VP4L1U-10C359-AA	I-FR-A	Indicator Lamp Field Response (Frequency) Battery Sense	 Plug Code 338	No Replacement
F601 White b/blue cover 14.0V Setpoint		XW4U-10C359-AB	AS-RC-LI	Battery Sense Com from PCM Com to PCM	 Plug Code 337	No Replacement

Terminal Description

I or L = Indicator Lamp
D = Dummy or No Connection (N/C)
A or AS = Battery Sense
FR = Field Report
AS = Battery Sense
RC = Signal from PCM
LI = Load Input to PCM

*It should be noted that although the substitutions listed may work as described, it is recommended that you replace the regulator needed with the original specific number, and features, that is called out for, for your application.

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