



SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – BODY BUILDERS ADVISORY SERVICE

E-Mail via website: www.fleet.ford.com/truckbbas (click "Contact Us")

Toll-free: (877) 840-4338

QVM Bulletin: Q-160R2

Date: 17 February 2017

Single/Dual to Dual/Single Alternator Conversion

Models Affected: 2011 - 2016 Model Year F250/350/450/550.

Description: To add or remove the secondary alternator or upgrade the primary/secondary alternator, the PCM must be configured properly at a Ford Dealer. It is important to configure the PCM with any alternator upgrades or downgrades for the smart charging strategy to select the correct torque loss table for the alternator being used to help maintain the accuracy of the torque management system.

Parts Required: The following parts may be required.

Single alternator to dual alternators:

Alternator Assembly: Primary: 200 amp BC3T-10300-BA
Secondary: 157 amp BC3T-10300-EC

Alternator Belt for dual alternators: BC3Q-8620-GA

Alternator Fasteners: W715092-S437: M10 x 92 mm (lower alt bolt) Qty 2
W715094-S437: M10 x 40 mm (upper alt bolt) Qty 2

Secondary Water Pump*: BC3Q-8501-BB

Wiring Harness: BC3Z-14305-F

***NOTE:** In order to properly mount dual alternators you will have to change the secondary water pump using the part number provided above.

Dual alternators to a single alternator:

Alternator Assembly: Primary: 200 amp BC3T-10300-BA
Secondary: 157 amp BC3T-10300-EC

Alternator Belt for single alternator: BC3Q-8620-FA

Alternator Fasteners: W715092-S437: M10 x 92 mm (lower alt bolt) Qty 1
W715094-S437: M10 x 40 mm (upper alt bolt) Qty 1

Harness inline connector cap: 4W7T-14A464-CB

NOTE: Changing the secondary water pump is NOT required when converting from dual alternators to a single alternator.

Reference the illustrations and tables below. Reference Attachment I for alternator removal and installation procedures.

PCM Configuration

Final Stage Manufacturers can configure the PCM to add/remove the secondary alternator or upgrade the primary/secondary alternator with a laptop computer by obtaining their own IDS Kit (Integrated Diagnostic Software) sold by Ford. Below are two areas of the Motorcraft® Technical Resource Access website for the description and ordering of tools and kits.

Diagnostic Tool Support (product detail in left hand navigation menu):

http://www.motorcraftservice.com/vdirs/retail/default.asp?pageid=wds_retail&gutsid=wds&menuIndex1=8

Tools & Equipment (how to order):

http://www.motorcraftservice.com/vdirs/retail/default.asp?pageid=pubs_rotunda&gutsid=pubs_rotunda

Up-fitters will be asked to call **1-800-ROTUNDA Option #1** to order the kits. Another option is through the Ford Fleet website, www.fleet.ford.com, if they have a FIN Code.

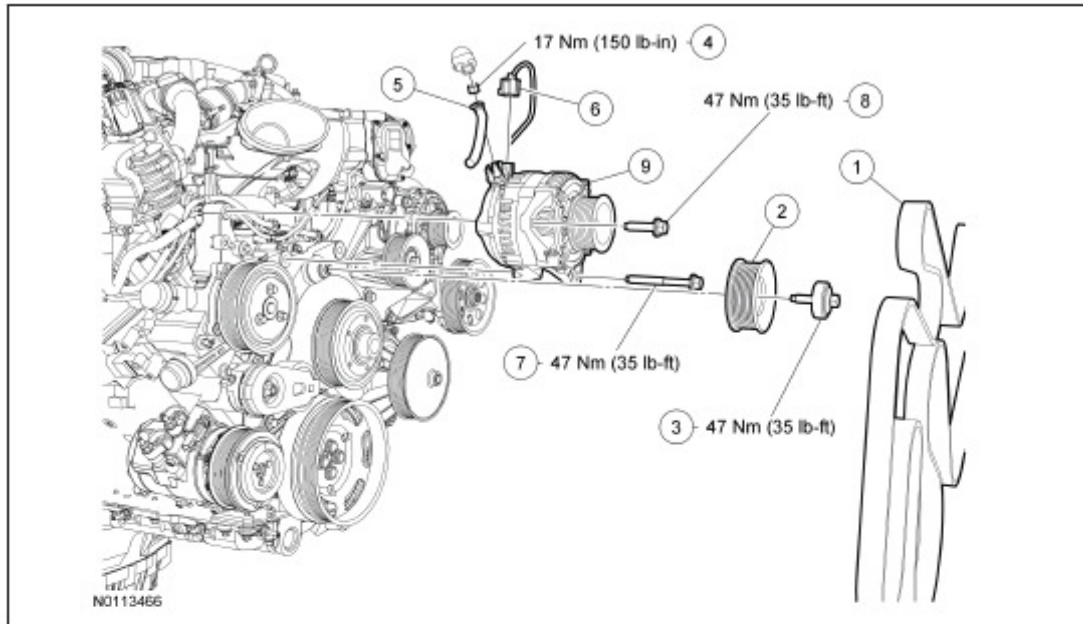
Once the service laptop has been obtained, and IDS installed, the following are the basic steps to configure the PCM.

1. Ensure that the IDS is updated to 67.03 Database	4. Select " <i>Powertrain</i> "
2. Select " <i>Programmable Parameters</i> " in the IDS Toolbox	5. Select the correct Primary and Secondary Generator/Alternator Usage for vehicle
3. Select " <i>Module Programming</i> "	6. Verify and/or clear any DTC's

If you have any questions, please contact the Ford Truck Body Builders Advisory Service as shown in the header of this bulletin.

Single Alternator Installation/Removal Procedures

Generator — 6.7L Diesel, Dual Generator



Item	Part Number	Description
1	8620	Accessory drive belt
2	6C348	Accessory drive belt idler pulley
3	—	Accessory drive belt idler pulley bolt (part of 6C348)
4	W711953	Generator B+ terminal nut
5	—	Generator B+ terminal (part of 14305) — upper generator
6	—	Generator electrical connector (part of 14305)
7	W715092	Lower generator bolt
8	W715094	Upper generator bolt
9	10300	Generator (13305)

Removal and Installation

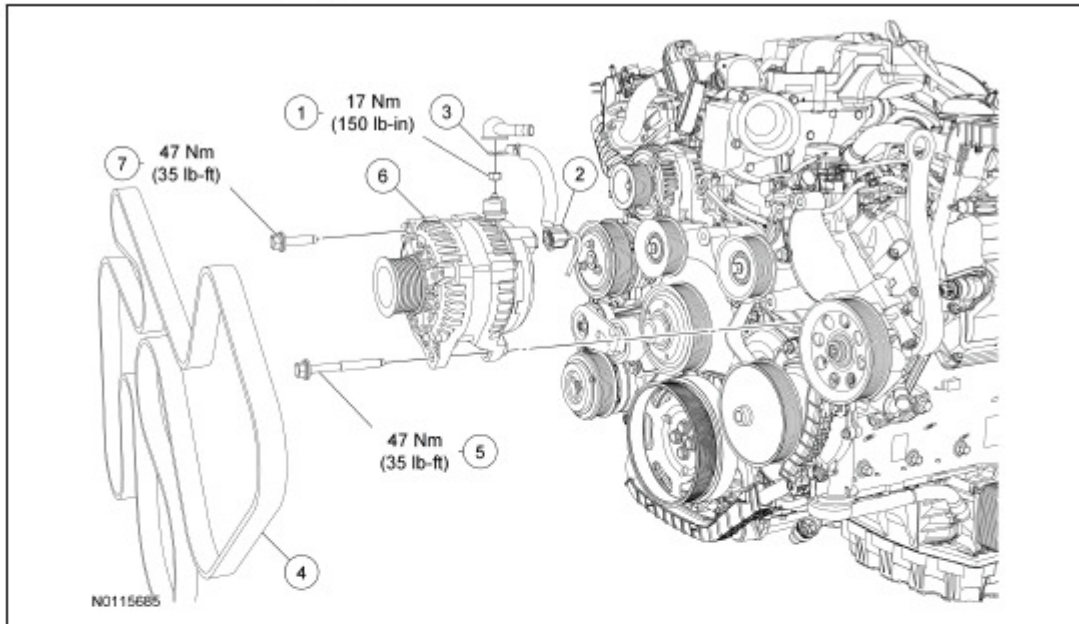
NOTE:

This procedure applies to the secondary (upper) generator of the dual generator system. Refer to the removal procedure for a single generator system to remove the primary (lower) generator.

1. Disconnect the batteries. For additional information, refer to Section 414-01.
2. Remove the Air Cleaner (ACL) outlet pipe. For additional information, refer to Section 303-12.
3. Rotate the accessory drive belt tensioner clockwise and remove the drive belt from the generator pulley.
4. Remove the bolt and the accessory drive belt idler pulley.
 - To install, tighten to 47 Nm (35 lb-ft).
5. Remove the nut and position the generator B+ terminal aside.
 - To install, tighten to 17 Nm (150 lb-in).
6. Disconnect the generator electrical connector.
7. Remove the 2 generator bolts and the generator.
 - To install, tighten to 47 Nm (35 lb-ft).

Dual Alternator Installation/Removal Procedures

Generator — 6.7L Diesel, Single Generator



Item	Part Number	Description
1	W711953	Generator B+ terminal nut
2	—	Generator connector (part of 14300)
3	—	Generator B+ connector (part of 14300)
4	8620	Accessory drive belt
5	W715092	Lower generator bolt
6	10300	Generator
7	W715094	Upper generator bolt

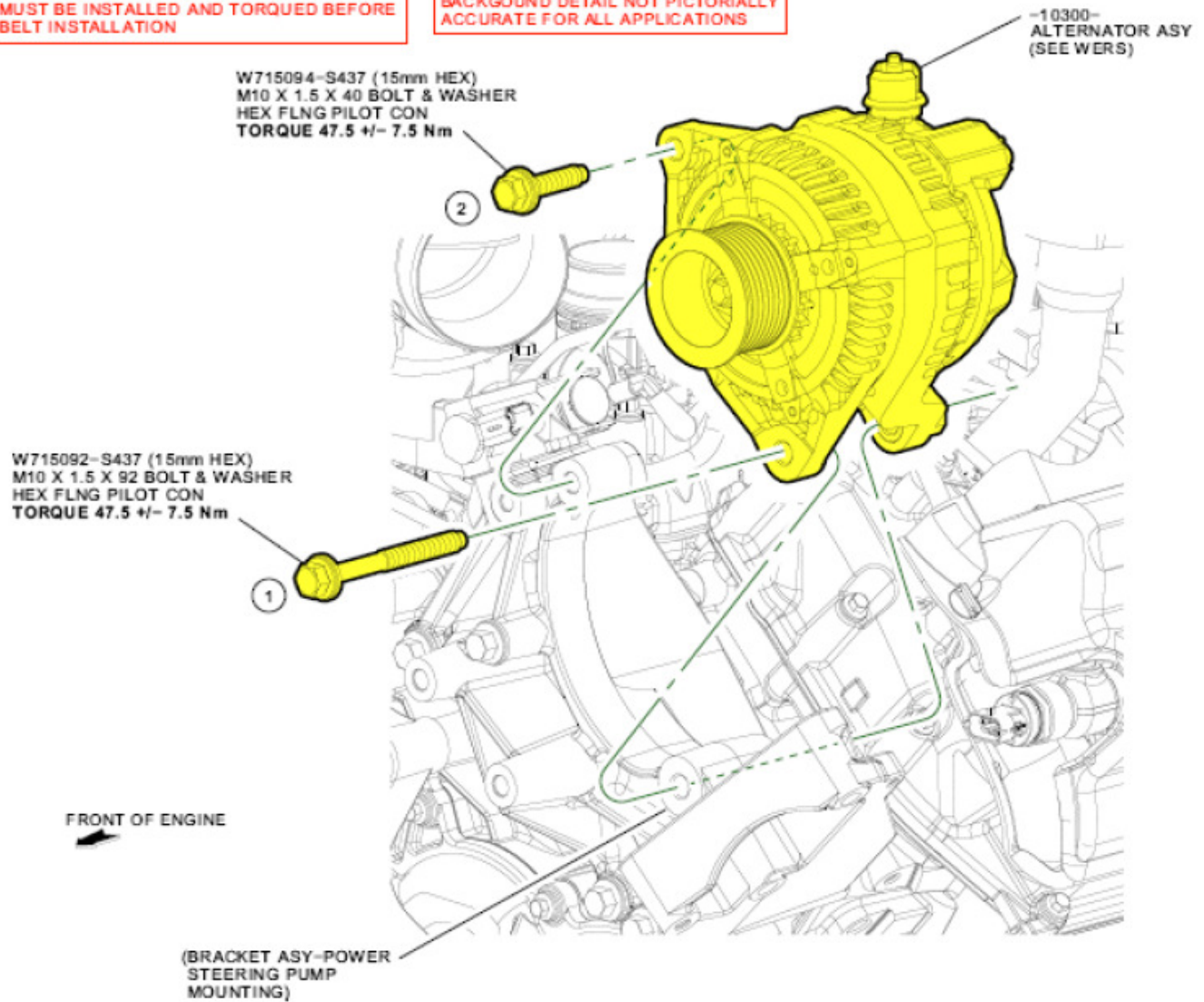
Removal and Installation

1. Disconnect the batteries. For additional information, refer to Section 414-01.
2. Remove the Charge Air Cooler (CAC) inlet tube. Section 303-12.
3. Remove the Charge Air Cooler (CAC) outlet tube. Section 303-12.
4. Rotate the accessory drive belt tensioner clockwise and remove the drive belt from the generator pulley.
5. Remove the nut and position the generator B+ terminal aside.
 - To install, tighten to 17 Nm (150 lb-in).
6. Disconnect the generator electrical connector.
7. Remove the 2 generator bolts and the generator.
 - To install, tighten to 47 Nm (35 lb-ft).
8. To install, reverse the removal procedure.

Primary (200amp) Alternator Mounting

NOTE:
ALL FEAD COMPONENTS AND FASTENERS
MUST BE INSTALLED AND TORQUED BEFORE
BELT INSTALLATION

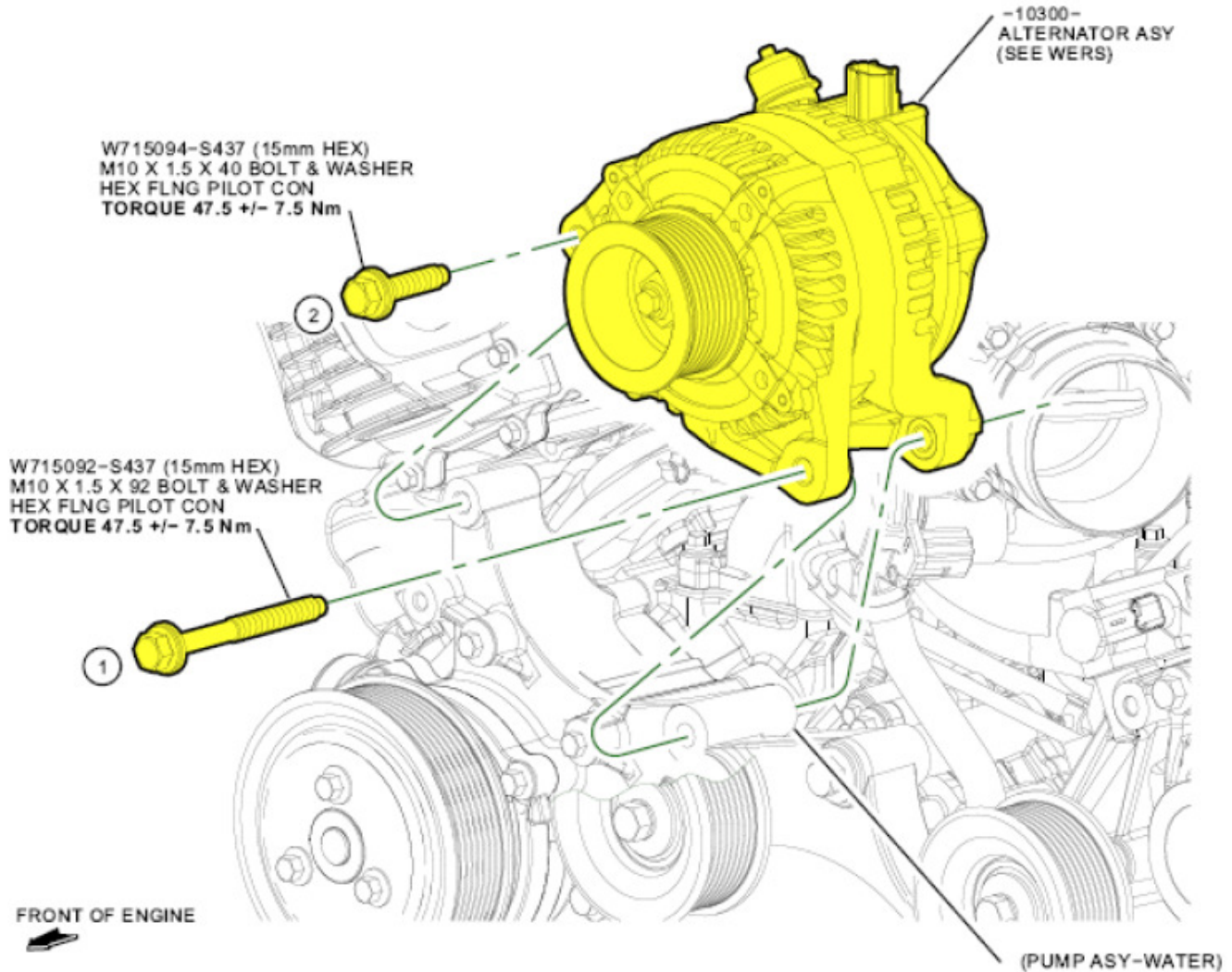
NOTE:
BACKGOUND DETAIL NOT PICTORIALLY
ACCURATE FOR ALL APPLICATIONS



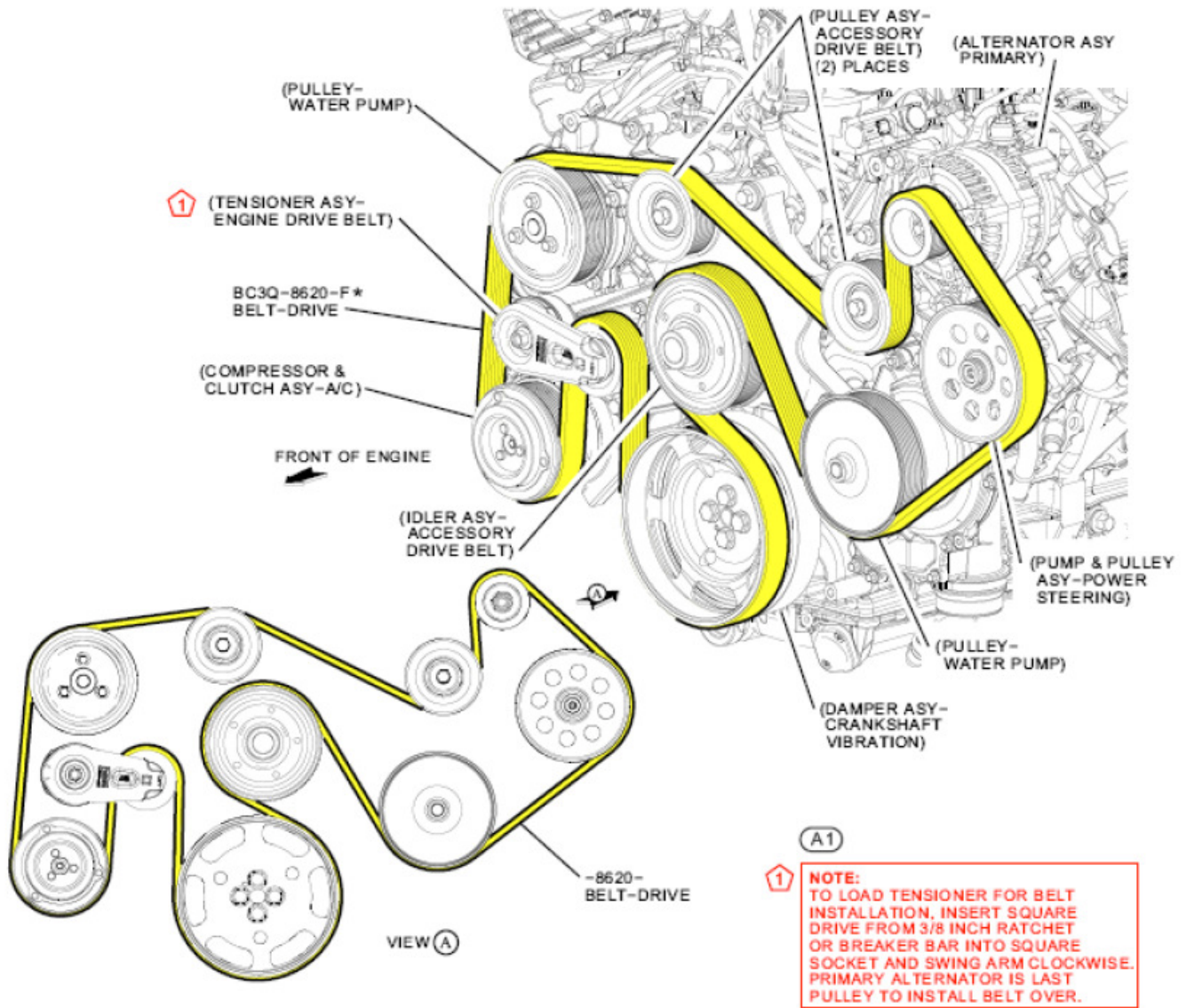
Secondary (157amp) Alternator Mounting

NOTE:
ALL FEAD COMPONENTS AND FASTENERS
MUST BE INSTALLED AND TORQUED BEFORE
BELT INSTALLATION

NOTE:
BACKGROUND DETAIL SIMPLIFIED
FOR INSTALLATION CLARITY



Single Alternator FEAD/Belt Routing



Dual Alternator FEAD/Belt Routing

