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ARCTIC
SNOWPLOWS ✦ CHASSE-NEIGE

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TECHNICAL BULLETIN

Friday, September 29, 2019

This bulletin refers to Ford Superduty trucks built 2017 and beyond (when a snowplow is operated a truck may experience following: radio shut down, instrument cluster backlighting inoperative, erratic climate control blower motor operation etc.)

Ford recommends following best practices for a battery health

- Keep all battery connections tight and clean. Loose or dirty connections require higher power consumption.

- Prior to the snow season, check to make sure your battery levels are at full state-of-charge. 12.7-12.8V with vehicle off is a healthy battery. Beginning the snowplow season with a depleted battery results in deep-cycle depletion of battery charge.

- Avoid parking (unused) your truck for long periods of time (3-4 weeks) after plow operations as the battery will develop lower states of charge due to normal parasitic electrical loads in the vehicle.

- Parking the truck after snowplow operations, with battery in discharged state of charge, can lead to sulfation and/or stratification of the acid resulting in irreparable internal damage to the battery.

- Avoid operating the plow with engine not running.

- If you suspect your battery is in a state of discharge, hook a battery charger up when the truck is not in use. If battery still cannot achieve or maintain adequate charge, the battery should be replaced.

- On a dual-battery truck, if one battery goes bad, always replace in pairs (same size, same capacity).

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Snowplow Recommended Equipment:

- 6.2L Gasoline: 240 amp and dual batteries (750 CCA 78 Amp hour battery)
- 7.3L Gasoline: 397 amp dual alternators and dual batteries (750 CCA 78 Amp hour battery)
- 6.7L Diesel Pickup : 397-amp dual alternators (750 CCA 78 Amp hour battery)

If you have any questions, please contact us at: (866) 757-1243
or web@arcticsnowplows.com

SNOWPLOW

SNOWPLOW BEST PRACTICES FOR BATTERY MAINTENANCE

Cold Weather Battery Performance

- Cold weather slows down battery charge rate acceptance. Batteries can accept only 2 to 5 amp-hours of charge during cold ambient temperatures (20F or less).

- Cold-weather snowplow operations can reduce battery charge level significantly (on the order 5 to 20 amp-hours) during a typical plowing session.

- Deep-cycling of the batteries is especially detrimental to battery longevity.

- Cold weather increases viscosity of the hydraulic fluid, causing even larger electrical draw on the truck.

- Snowplow kits (plow hydraulics, lighting, salt-spreaders, etc.) use more energy than alternators can keep up with (during low-speed operations), resulting in batteries having depleted charge levels.

- Batteries in trucks that sit (unused) for long periods of time (~3-4 weeks) will experience lower states of charge due to normal parasitic electrical loads in the vehicle.

- Short-duration and/or low-speed plowing operations do not allow for battery charge level to be adequately replenished.

- Drive your truck (at speed) will not fully be able to replenish battery state of charge in cold temps (<20F).

- Weak batteries will result in slower movement of the plow, dimming lights and possible radio drop-outs and other functional issues.

- Other vocations or installed equipment, such as Lift-gates, winches, etc. may result in similar low-battery issues.

Best-Practices for Battery Health

- Keep all battery connections tight and clean. Loose or dirty connections require higher power consumption.

- Prior to the snow season, check to make sure your battery levels are at full state-of-charge. 12.7-12.8V with vehicle off is a healthy battery. Beginning the snowplow season with a depleted battery results in deep-cycle depletion of battery charge.

- Avoid parking (unused) your truck for long periods of time (~3-4 weeks) after plow operations as the battery will develop lower states of charge due to normal parasitic electrical loads in the vehicle.

- Parking the truck after snowplow operations, with battery in discharged state of charge, can lead to sulfation and/or stratification of the acid resulting in irreparable internal damage to the battery.

- Avoid operating the plow with engine not running.

- If you suspect your battery is in a state of discharge, hook a battery charger up when the truck is not in use. If the battery still cannot achieve or maintain adequate charge, the battery should be replaced.

- On a dual-battery truck, if one battery goes bad, always replace in pairs (same size, same capacity).

Q-280

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-280 Date: 07, December 2017

2015 and Later Model Year F-150 Snow Plow Application

Models Affected: 2015 Model Year and later F-150 Pick-ups

Description: Ford Motor Company recommends snow plows be mounted on F-150s with the 5.0L engine, 4x4, with the snow plow prep package (option code 68P) only.

The F-150 with the 5.0L engine, 4x4 transmission, and equipped with the snow plow prep package has been thoroughly tested and meets Ford requirements for functional robustness, reliability and durability.

Snow plow applications outside of the snow plow prep package have not been proven to meet Ford requirements and are not recommended. Operating these vehicles with a snow plow installed may result in loss of function, premature wear and or damage to the vehicle. These potential issues could include, but are not limited to:

- Insufficient engine cooling
- Insufficient electrical charge margin to maintain Electronic Power Assisted Steering and other electrical systems
- Improper operation and increased wear of the transmission and transfer case
- Changes to expected normal driving dynamics because of improper vehicle loading

Damage caused to a vehicle produced without the snowplow prep package and found to be caused by the installation of a snowplow is not eligible to be covered under the Ford Factory warranty.

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

Q-277

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-277 Date: 29 August 2017

Under Hood Electrical Equipment Mounting

Models Affected: 2017 and later Model Year Super Duty Pickups and Chassis Cabs

Description:

Ford has received a number of reports of upfitted chassis cab trucks that have experienced electrical grounding concerns, resulting in interior smoke, odor, and in some cases, fire. Ford recently investigated this concern with several upfitters and concluded the cause was aftermarket electrical equipment involving B+ power contacting the underside of the hood.

The purpose of this bulletin is to bring this concern to your attention, inform you that the 2017 Super Duty under hood layout and primary battery location has changed from 2016 and prior models, and provide guidance is on:

- recommended placement of electrical equipment being installed in the engine compartment and
- minimum clearance to the hood (specifically for battery positive (B+) related components).

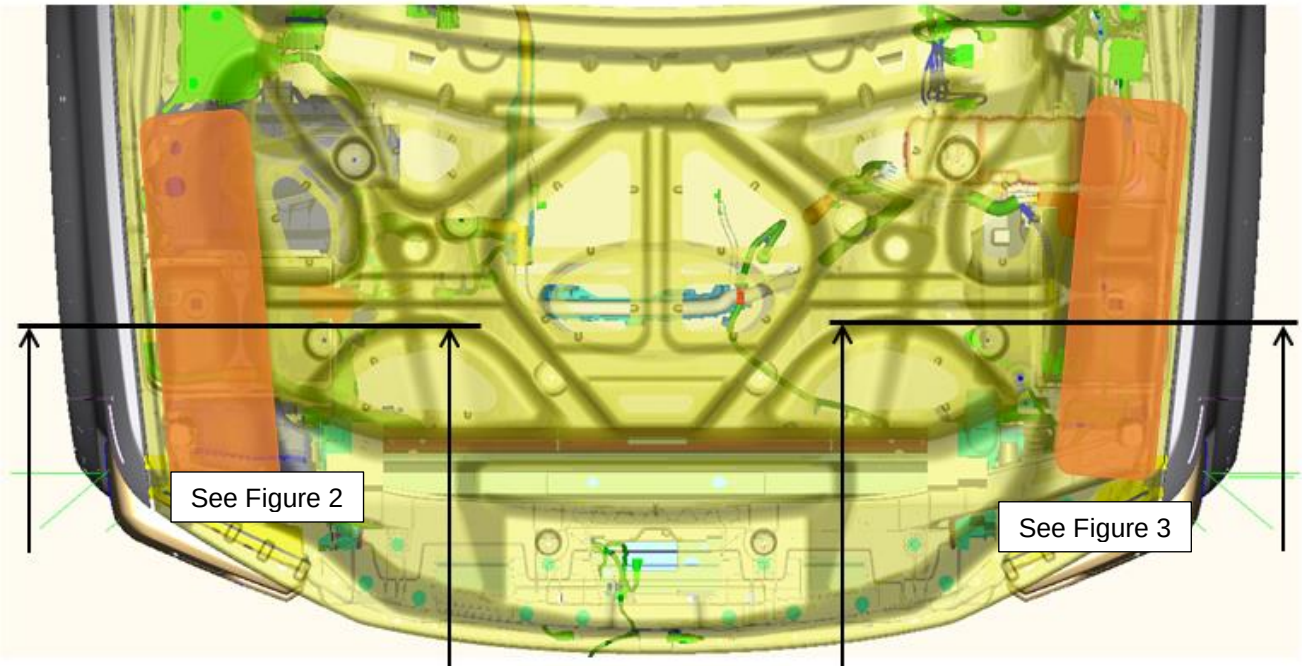
Electrical equipment added to the engine compartment during any aftermarket installations / modifications must be positioned to prevent any B+ power from coming into contact with the underside of the hood when closed. All B+ related equipment must be placed / routed per recommendations within this bulletin, adequately retained, shielded / covered, and confirmed to have clearance to the hood when closed to prevent unintended battery short to ground and damage to vehicle wiring (e.g. radio antenna and radio harness within the instrument panel).

Do not mount or place electrical equipment, including but not limited to connection terminals, cables, relays, fuses, and fusible links on top of or near the primary or secondary battery in a location that has low clearance to the underside of the hood as indicated by orange rectangles in the figures that follow.

The reduced clearance to the underside of the hood for added electrical equipment on top of or near the primary or secondary battery may not be apparent when the hood is open. **If any B+ equipment is mounted in the low clearance zone as indicated by the diagram, a minimum of 15mm must be confirmed between bottom of hood and any equipment (including any B+ shielding and under hood insulation) mounted in the engine compartment when hood is fully closed.** Several methods exist to confirm equipment and shielding meets minimum clearance to bottom of hood (e.g. clay test, bore-scope).

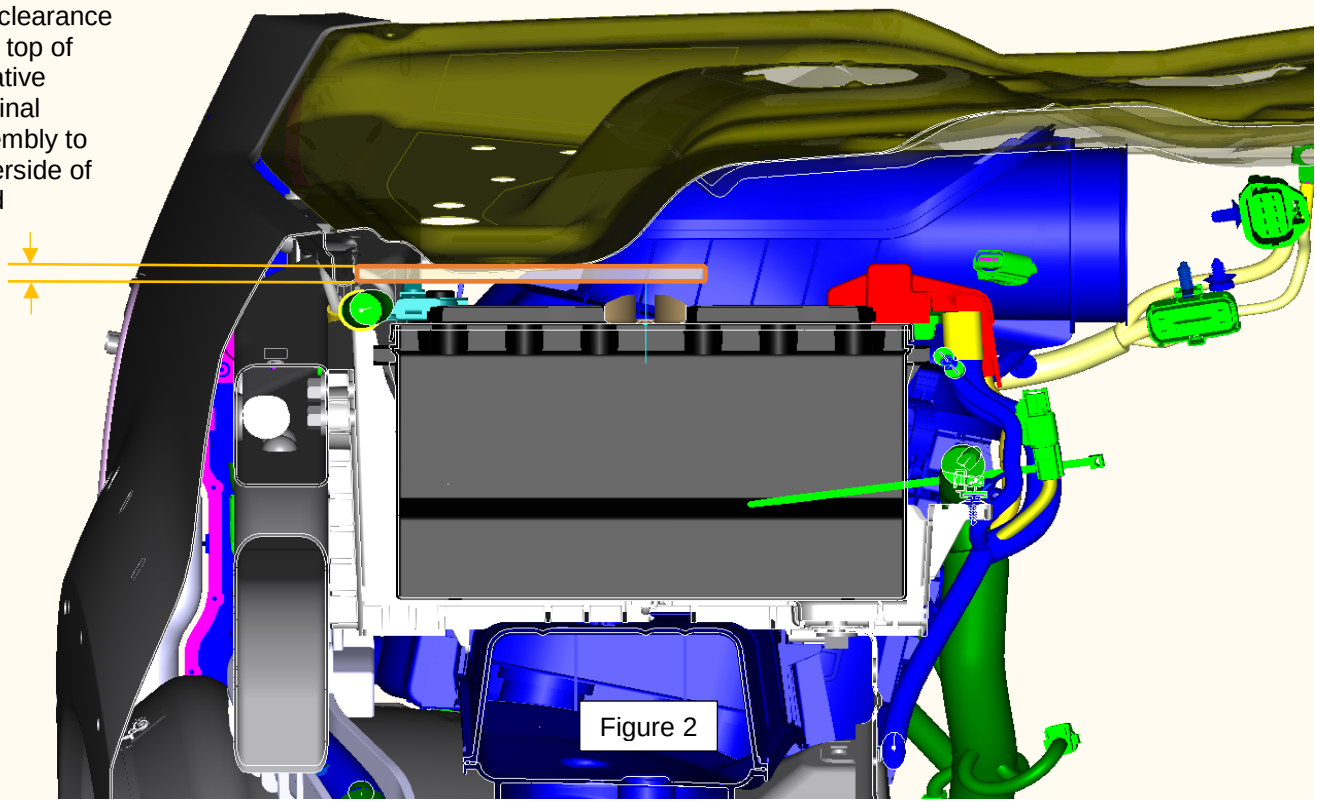
The upfitter must ensure that any electrical equipment or shielding mounted under hood does not come into contact with the hood or hood components.

Figure 1: 2017 Super Duty Under Hood Plan View. Low clearance to underside of hood in areas highlighted in orange



Figures 2 & 3: Vehicle X-Sections. low clearance areas (orange rectangles) for aftermarket equipment between battery & hood inner

Note: only 16 mm clearance from top of negative terminal assembly to underside of hood



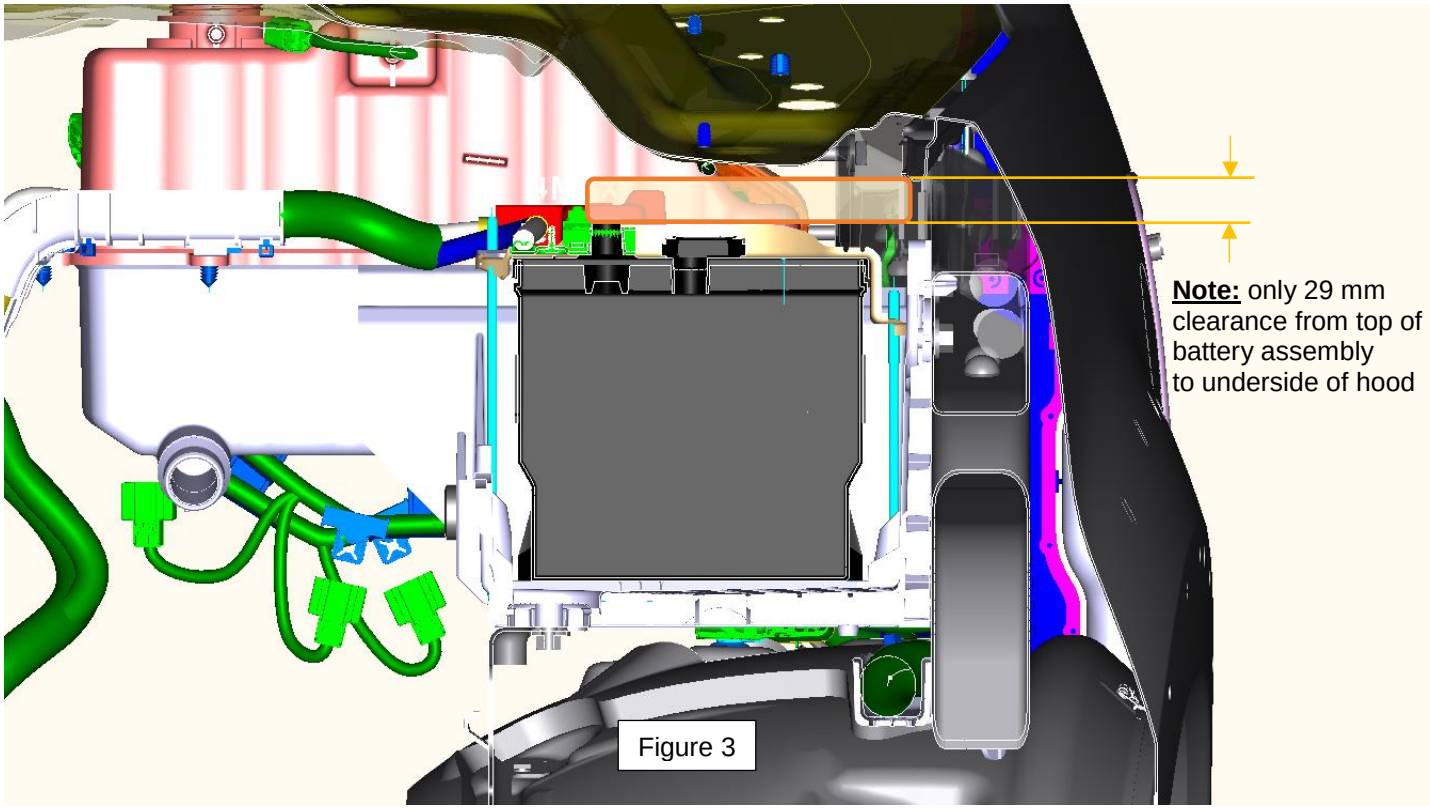

Note: only 29 mm clearance from top of battery assembly to underside of hood

Figure 3

Q-269R2

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-269R2

Date: 02 March, 2017
Revised: 21 July, 2017

Erratic Operation of Electrical Features with Snow Plow and Other High Electrical Load Devices

Revision	Update	Revision Date
Q-269R2	• Added 6.7L Diesel TSB information	21 July, 2017

Models Affected: 2017 F-Super Duty – All Models with:
6.2L & 6.8L Gasoline Engine built on or before 08 April, 2017
6.7L Diesel Engine built on or before 12 May, 2017

Issue: Some 2017 F-Super Duty vehicles equipped with a 6.2L or 6.8L gasoline engine built on or before 08-Apr-2017 or with a 6.7L diesel engine built on or before 12 May, 2017 may exhibit any or all of the following concerns at times of high electrical system draw such as snow plow operation: instrument cluster backlighting inoperative, erratic climate control blower motor operation, red brake warning indicator flickering, and/or low battery - features temp turned off message in the message center.

Solution: **6.2L / 6.8L Gas:** Technical Service Bulletin **#TSB 17-0043** has been issued to Ford Dealerships. The dealer should follow the Service Procedure steps contained in the TSB to correct the condition.

6.7L Diesel: Technical Service Bulletin **#TSB 17-0052** has been issued to Ford Dealerships. The dealer should follow the Service Procedure steps contained in the TSB to correct the condition.

Please contact your servicing Ford Dealer for more information on this TSB and service procedure.

Revision History		
Revision	**Update**	**Revision Date**
Q-269R1	• Updated to reflect current TSB information	19 May, 2017

SUPER DUTY SNOW PLOW – Electrical Fixes

Snow Plow Fixes	TSB/IDS Tool Dates			Production Dates			Comments
	6.2L	6.8L	6.7L	6.2L	6.8L	6.7L	
High Voltage fix (PCM)	March, 2017	March, 2017	TBD	Sept., 2016	Feb., 2017	TBD	HVAC turndown, Radio Cutout, IP Backlight Dimming
Low Voltage Transients (BCM)	March, 2017	March, 2017	March, 2017	March, 2017	March, 2017	March, 2017	Low voltage "shedding" incl. HVAC turndown, Radio Cutout, Battery Telltale, etc.
Brake Telltale Flicker (BCM)	March, 2017	March, 2017	March, 2017	March, 2017	March, 2017	March, 2017	Brake Light Telltale Flicker on plow operation

Q-231

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

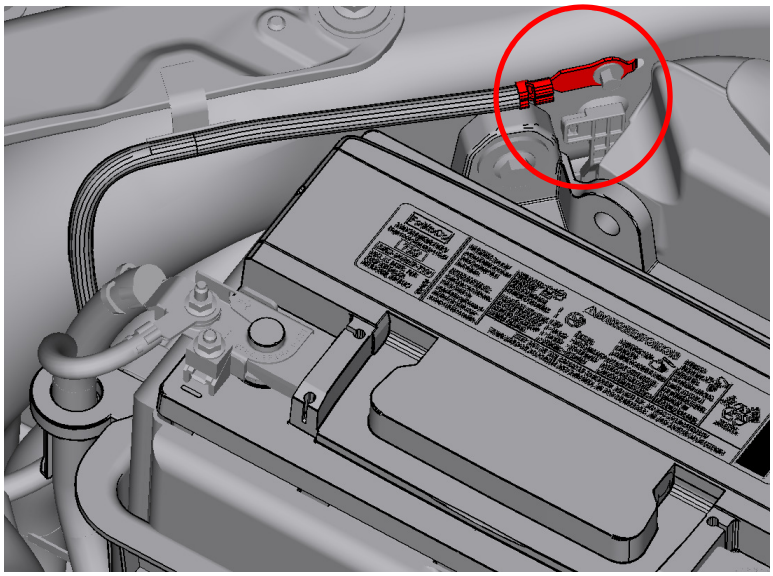
QVM Bulletin: Q-231 Date: 16 April, 2015

F-150 Aftermarket Direct to Battery Connections

Models Affected: All 2015MY and later F-150 vehicles

Description: The 2015MY F-150 battery charge state is determined with a Hall Effect sensor on the negative battery lead. All negative current must pass through this sensor. Failure to do so will result in malfunction of the vehicle charging system and shortened battery life. **Do not make direct to battery connections at the negative battery post.**

Procedure: To ensure proper charging system function, the battery return should be made at the grounding point shown and circled in red in the picture below:



Addition grounding point specifications:

Eyelet ID: 7mm
Bolt: M6
Torque: 9 +/- 1.4 Nm

For further electrical guidelines refer to the Body Builder Layout Book, and SVE Bulletin Q-130.

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

Q-214

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-214 Date: 25 October, 2012

F-150 6.2L Snow Plow Application

Model Affected: 2013 MY and later F-150 Super Cab and Super Crew pick up, with 6.2L engine and XLT, FX, Lariat and Platinum trim levels only.

Description: The 2013 MY and later F-150 Super Cab and Super Crew pick up, with 6.2L engine and XLT, FX, Lariat and Platinum trim levels are snow plow capable when the Outside Air Temperature (OAT) kit is installed. F-150 snow plow installation is intended for personal use only.

Details: A Snowplow OAT kit (DL3Z-14K073-A) is available through Ford Parts and Service. Outside air temperature information from the OAT sensor is required to maintain automatic interior climate control settings. Failure to relocate the OAT sensor with the installation of a snow plow will significantly degrade the vehicles ability to maintain automatic interior climate control settings, as well as display an incorrect outside air temperature reading.

Installation of this Kit is required if a snow plow is to be installed. See the additional attached pages for installation information.

Please note that **only 2013 MY and later F-150 Super Cab and Super Crew pick-up, with 6.2L engine and XLT, FX, Lariat and Platinum trim levels are capable of snow plow installation**. This bulletin does not apply to other 2013 MY F-150 pick-ups or previous model years.

Vehicle content will affect vehicle plow capacity. Upper and lower plow weight recommendations and rear ballast load requirements are listed in the 2013 MY 6.2L F-150 Snowplow Weight Chart. The 2013 F-150 Option weight chart lists the additional weight each option adds to both the front and total base curb weight.

Required Part Number:

Part	Part Number
OAT Sensor Kit	DL3Z-14K073-A

2013 MY 6.2L F-150 Snowplow Weight Chart

Vehicle	Trim Level	Option Content	Base Curb Weight (lbs.)		Mounting Hardware Weight (lbs.)	Snowplow Blade Maximum Weight @ F/GAWR (lbs.) *	Ballast (lbs.) **
			Front	Total			
SuperCab 6.2L, 4x4, 145" F/GAWR - 4050 lbs. R/GAWR- 4050 lbs. GVWR - 7700 lbs.	XLT Chrome	None	3356	5689	50	**500**	1160
		Maximum	*3474*	*6149*	*50*	***366***	*830*
	FX4	None	3373	5771	50	**478**	1100
		Maximum	*3496*	*6196*	*50*	***346***	*800*
	Lariat	None	3370	5763	50	**481**	1100
		Maximum	*3516*	*6219*	*50*	***331***	*790*
SuperCrew 6.2L, 4x4, 145" F/GAWR - 4050 lbs. R/GAWR- 4050 lbs. GVWR - 7700 lbs.	XLT Chrome	None	3324	5774	50	**508**	1060
		Maximum	*3426*	*6162*	*50*	***395***	*790*
	FX4	None	3341	5856	50	**487**	1000
		Maximum	*3450*	*6214*	*50*	***374***	*760*
	Lariat	None	3345	5861	50	**484**	1000
		Maximum	*3450*	*6214*	*50*	***374***	*760*
	Platinum	None	3408	6004	50	**426**	910
		Maximum	*3474*	*6253*	*50*	***354***	*740*
SuperCrew 6.2L, 4x4, 157" F/GAWR - 4050 lbs. R/GAWR- 4050 lbs. GVWR - 7700 lbs.	XLT Chrome	None	3420	5904	50	**424**	1020
		Maximum	*3538*	*6364*	*50*	***292***	*690*
	FX4	None	3437	5986	50	**404**	960
		Maximum	*3562*	*6416*	*50*	***270***	*660*
	Lariat	None	3441	5991	50	**399**	950
		Maximum	*3581*	*6437*	*50*	***255***	*650*
	Platinum	None	3504	6134	50	**342**	870
		Maximum	*3586*	*6455*	*50*	***250***	*640*

Notes:
The snowplow and mounting hardware weight limits shown are based upon a total of 300 lb. for the driver and one front seat passenger (150 lb. each).
* Excludes mounting hardware weight
** Ballast is to be placed 30 inches aft of rear axle

2013 F-150 Option Weight Chart

Option Weight	(Front/Total) (lbs.)
TIRES:	
P235/75R17 (All-terrain BSW) (4x2/4x4)	(0/0)
(SuperCab)	
P275/55R20 (All-terrain OWL) (4x4)	(30/86)
(SuperCab)	
P275/55R20 (All-terrain OWL) (4x4)	(6/25)
(SuperCrew)	
LT245/75R17E (All-terrain BSW)	
(Regular Cab/SuperCab)	(29/80)
(SuperCrew 4x4)	(5/19)
LT275/65R18C (All-terrain OWL) (4x4)	
(SuperCab)	(19/58)
(SuperCrew)	(-2/-3)
TRIM:	
XLT 4x4 (SuperCab)	(2/4)
XLT 4x4 (SuperCrew)	(0/0)
FX4 (SuperCab; includes FX4 Luxury)	(2/4)
FX4 (SuperCrew; includes FX4 Luxury)	(0/0)
Lariat 4x4 (SuperCab)	(2/4)
Lariat 4x4 (SuperCrew)	(2/4)
Platinum 4x4 (SuperCrew)	(8/16)
XLT Convenience Package	(0/0)
XLT Chrome Package	(3/5)
Lariat Chrome Package	(3/5)
Heavy-Duty Payload Package	(0/0)
MidBox Prep Package	
(SuperCab)	(67/266)
Power Equipment Group (Fleet)	(0/0)
Trailer Tow Package	(-7/44)
Max. Trailer Tow Package	(-10/40)
6-disc, In-dash AM/FM/CD Changer	(1/1)
Axle Ratio	(0/1)
Axle Ratio, Limited-slip	(0/2)

Option Weight	(Front/Total) (lbs.)
OPTIONS:	
Carpet	(3/4)
Cruise Control	(1/1)
Flooring, Vinyl	(0/0)
Floor Mats, Carpet	(4/6)
Floor Mats, Rubber	(3/4)
Fog Lamps	(2/2)
Fuel Tank, 36-gallon	(0/0)
Fuel Tank, 36-gallon (Optional)	(22/60)
Hard Bedliner	(0/55)
Moonroof, Power	(23/44)
Navigation System	(6/8)
Paint, Two-tone	(1/2)
Pedals, Power-adjustable	(1/2)
Pickup Box Access Steps	(16/65)
Rear View Camera	(0/0)
Remote Keyless Entry System	(2/4)
Reverse Sensing System	(0/0)
Running Boards, Black Platform	
SuperCab	(15/32)
SuperCrew	(19/38)
Running Boards, Polished Stainless Steel, Tubular	
SuperCab	(20/43)
SuperCrew	(20/47)
Running Boards, 5" Chrome Tubular	
SuperCab	(11/24)
SuperCrew	(13/25)
Seat, Vinyl 40/20/40	(0/0)
Seat, Cloth 40/20/40	(0/0)
Seat, Cloth Captain's Chairs	(0/0)
Seat, Leather Captain's Chairs	(0/0)
Seat, Power 6-way	(8/13)
Seat, Power 10-way	(8/14)
Seats (Heated/Cooled)	(4/4)
Seats (Heated Rear)	(2/4)

Option Weight	(Front/Total) (lbs.)
OPTIONS (continued):	
Side Mirrors, Power Heated	(4/4)
Side Mirrors, Power Heated, PowerFold	(5/7)
Side Mirrors, Manually Telescoping Trailer Tow, Manual Glass	(8/13)
Side Mirrors, Manually Telescoping Trailer Tow, Power Heated Glass	(11/18)
Side Mirrors, Power Heated, Signal	(4/5)
Side Mirrors, Power Telescoping Trailer Tow, Heated Glass	(13/21)
SiriusXM Satellite Radio	(0/0)
Skid Plates	(21/34)
Soft Tonneau Cover	(0/25)
Spray-in Bedliner	(0/44)
Stowable Bed Extender	(-2/20)
SYNC	(0/0)
Step Gate	(-5/40)
Trailer Brake Controller	(0/0)
Transfer Case, Electronic Shift-on-the-Fly	(0/0)
Universal Garage Door Opener	(0/0)
Wheels, 17" Machined Aluminum	(-12/-24)
Wheels, 17" Machined Aluminum with Painted Accents	(-15/-30)
Wheels, 18" Chrome-clad Aluminum	(-5/-6)
Wheels, 18" Machined Cast Aluminum	(-3/-3)
Wheels, 20" Chrome-clad Aluminum	(27/60)
Wheels, 20" 6-spoke, Machined Aluminum	(31/68)
Wheels, 20" Machined Aluminum with Painted Accents	(35/75)
Wheel Well Liner	(4/8)
Window, Rear, Fixed Privacy Glass with Defrost	(0/0)
Window, Rear, Manual-sliding with Privacy Tint	(2/4)
Window, Rear, Power-sliding with Privacy Tint and Defrost	(4/7)

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

F-150 (P415) OAT RELOCATION PROCEDURE

KIT – DL3T-14K073-AA (Service Part #: DL3Z-14K073-A)		
Part Number	**Description**	**Quantity**
DL3T-F220090-AA	Pigtail	1
DL3T-F221050-AA	Short Jumper	1
DL3T-F221095-AA	Long Jumper	1
AU5T-12A647-AC	Outside Ambient Temp. (OAT) Sensor	1
8V5T-14A169-SA	Tie Strap	2
BU5T-14A464-PAA (001)	Connector Cap	1
ESB-M99D56-A2	Heat Shrink Tube	3
SK-DL3T-14K073-AA	Kit Installation Instructions	1

SERVICE PROCEDURE:

1. Remove 12A581 wire harness OAT Connector from OAT sensor. **See Figure 1**.

2. Pull back convolute from 12A581 and cut off OAT Connector approximately 1 inch behind connector shell. **See Figure 2**

3. Splice on pigtail (DL3T-F220090-AA) provided in kit using provided heat shrink tube (ESB-M99D56-A2) and splicing method procedure. **See Figure 3**. *NOTE: Wire colors must match together. Re-install the convolute.*

4. Plug new short jumper (DL3T-F221050-AA) into the OAT Sensor secured to the radiator support. **See Figure 4**

5. Plug connector cap (BU5T-14A464-PAA) onto the short jumper (DL3T-F221050-AA) to seal short jumper inline connection. **See Figure 5**. *NOTE: This connection will hang loose in front of the radiator. IMPORTANT: Only use this way when plow is connected. When plow is removed, the short jumper will need to plug into the new spliced pigtail on the 12A581 wire harness and the cap will install on the long jumper (DL3T-F221095-AA).*

6. Plug long jumper (DL3T-F221095-AA) into 12A581 wire harness pigtail (DL3T-F220090-AA) and route jumper along hood release cable (securing with 3 small PIA C-CLIPS). **See Figure 6**.

7. Route long jumper (DL3T-F221095-AA) through the bumper opening and along the plow wiring (Securing with 2 large PIA C-Clips) up over the plow light bar and into final position under light. Extra length has been provided for use with different plow manufacturer/styles. This extra length can be secured using tie straps or tape. **See Figure 7**.

8. Tie strap the new OAT Sensor (AU5T-12A647-AC) to the plow left headlamp wire harness using tie straps (8V5T-14A169-SA). Make sure sensor is secured to harness just below and rearward of the LH headlamp to avoid sun load and snow/ice/debris damage. **See Figure 8**.

   Plug long jumper (DL3T-F221095-AA) plow side into the OAT Sensor (AU5T-12A647-AC) tie strapped to the plow. **See Figure 8**.

9. When plow is removed, make sure to unplug the long jumper (DL3T-F221095-AA) at the radiator and reconnect the short jumper (DL3T-F221050-AA) to the Pigtail (DL3T-F220090-AA). **See Figure 9**.

FIGURE 1

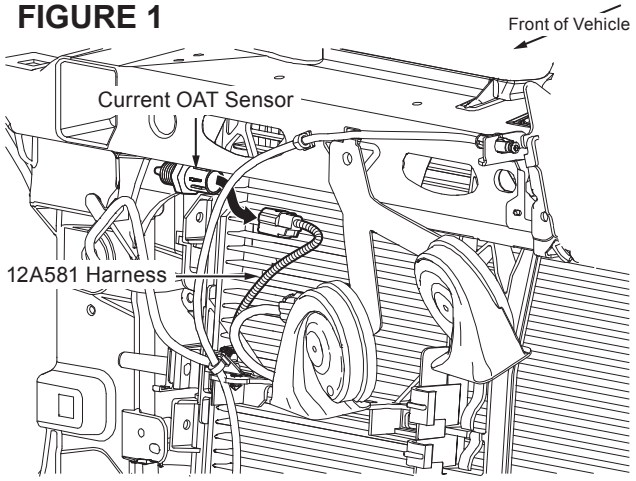


FIGURE 2

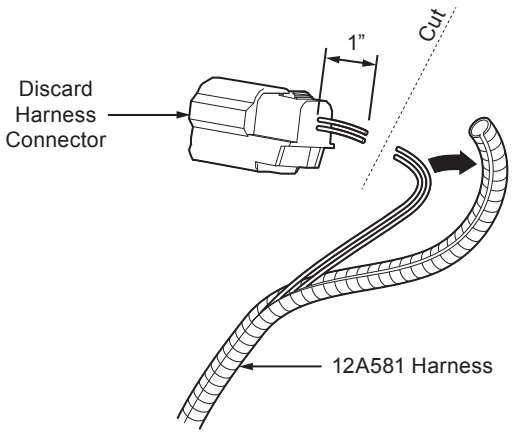
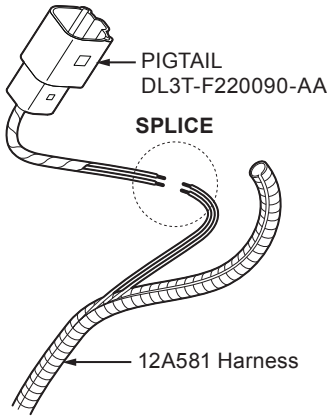
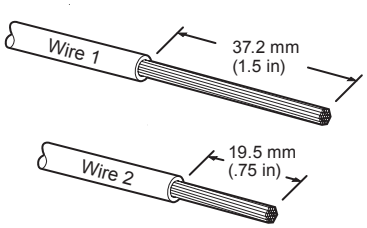


FIGURE 3

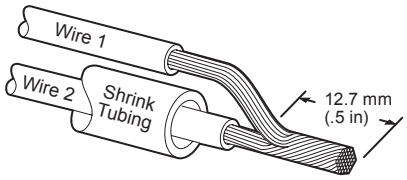


Recommended splicing method:

1. Disconnect battery ground cable.
2. Strip wires to appropriate length.

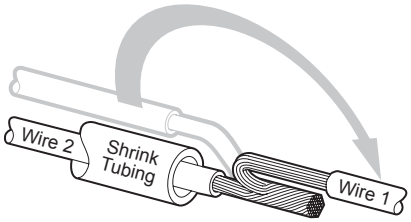


3. Install heat shrink tubing.
4. Twist wires together.
5. Solder wires together.



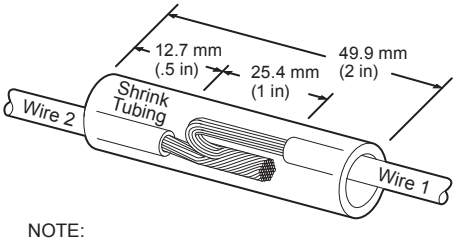
NOTE:
Use resin core mildly-activated (RMA) solder.
Do not use acid core solder.

6. Bend Wire 1 back in a straight line.



NOTE:
Wait for solder to cool before moving wires.

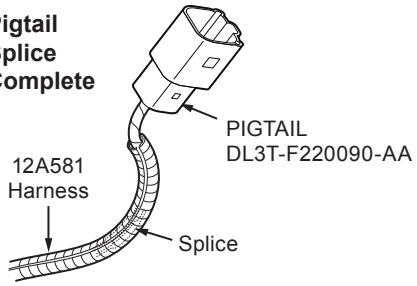
7. Evenly position heat shrink tubing over wire repair.



NOTE:
Overlap tubing on both wires.

8. Use heat gun to heat the repaired area until adhesive flows out of both ends of heat shrink tubing.
9. Reconnect battery ground cable.

Pigtail Splice Complete



F-150 (P415)
OAT RELOCATION PROCEDURE

FIGURE 4

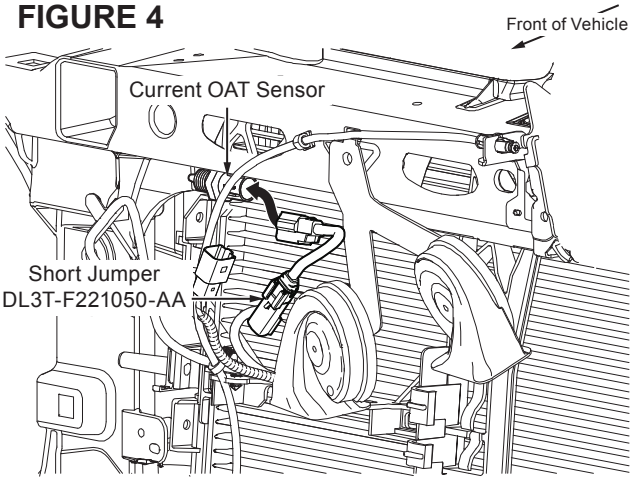


FIGURE 5

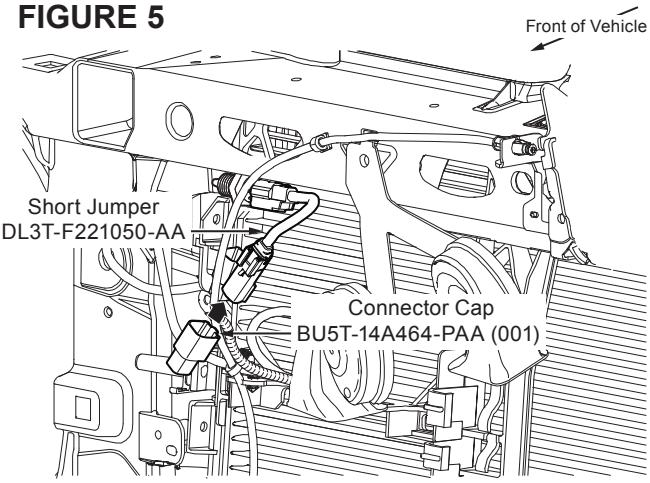


FIGURE 6

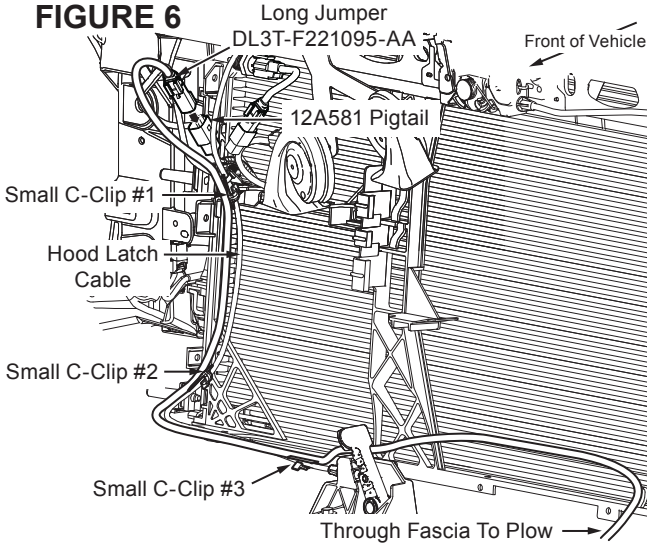


FIGURE 7

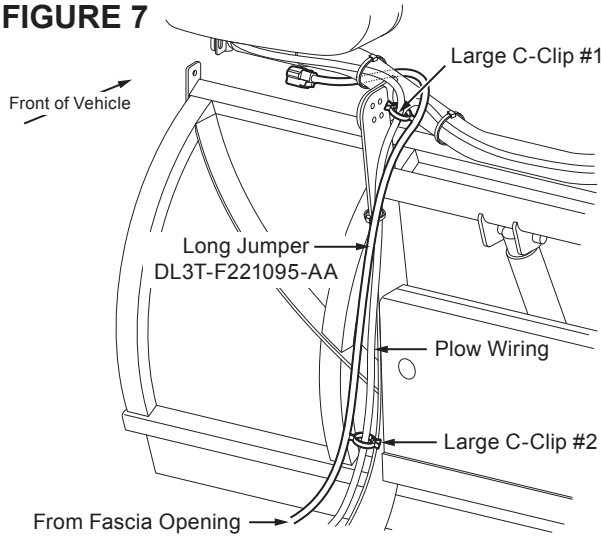


FIGURE 8

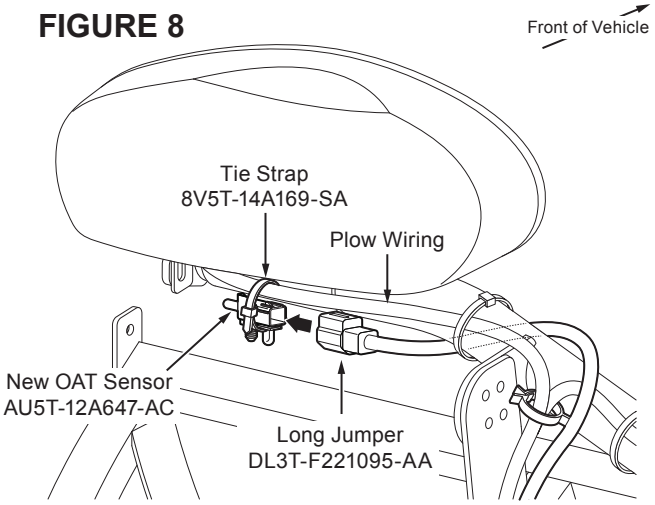
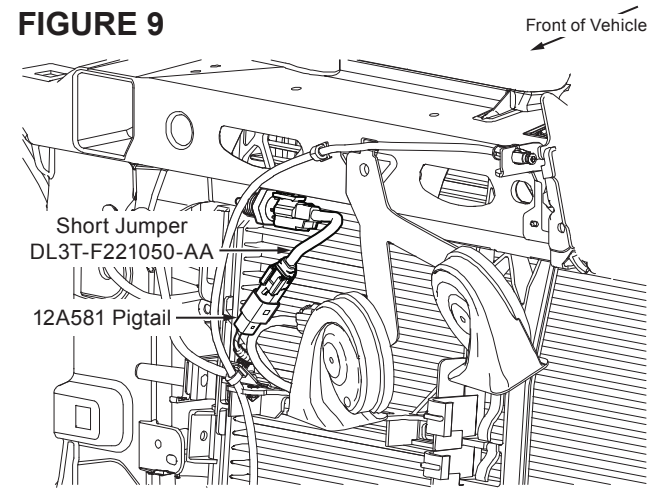


FIGURE 9



F-150 (P415)
OAT RELOCATION PROCEDURE

Q-200R3

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-200R3 Date: 10 December 2010

Revised: 17 May, 2017

2011- 2012 Model Year F-150 Snow Plow Upfit Restriction

Revision	Update	Revision Date
Q-200R3	• Updated model year effectivity	17 May, 2017

Models Affected: All 2011 – 2012 model year F-150 vehicles (reference SSM 21627).

Issue:

Snow Plow Prep Package is no longer an available option on ANY 2011-2012 Model Year F-150.

Details:

F-150 vehicles with 5.0L and 3.7L engines have Electric Power Assisted Steering (EPAS). EPAS places high transient load on the electric power system which was designed and sized to handle this requirement. Charging system performance may be affected if snow plow equipment is installed on a vehicle with EPAS, resulting in temporary function loss of some electrical features.

F-150 vehicles with 6.2L engine are only available in Crew Cab body configuration and not available with the required Heavy Duty Payload package to support Snow Plow Prep Package.

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

Revision History		
Revision	**Update**	**Revision Date**
Q-200R1	• Updated model year info to include current model year • Updated reference to SSM. • Clarified text to remove any confusion.	31 October, 2011
Q-200R2	• Updated model year effectivity	17 February, 2017

TECHNICAL REPORT

NATIONAL TRUCK EQUIPMENT ASSOCIATION

T07-11 **May 2007 © NTEA**

SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – BODY BUILDERS ADVISORY SERVICE

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Bulletin: Q-155-R1

Date: February 28, 2007
Revised: April 20, 2007

Snowplow Headlamp Control with Smart Junction Box

Addressed To: Snowplow manufacturers and their suppliers of headlamp control systems.

Models Affected: 2008 Model Year F250/350/450/550

SPDJB: System Description

Smart Power Distribution Junction Box (SPDJB or SJB) was incorporated in the 2008 model year F250/350/450/550. Its job is to provide protection against excessive current loads, typical of a short circuit, by shutting down circuit function. The "low-beam" circuit (or "auto-lamps" if so equipped) is protected by SPDJB integrated circuit strategy that shuts down headlamp function when it detects excessive, predetermined, current levels (i.e. larger than a 55-watt bulb load) or short-to-ground.

The Affect on Aftermarket Snowplow Headlight Systems

The SJB strategy may interpret the switching between Ford headlamps and aftermarket snowplow headlamps, and vice-versa, as a short-to-ground, causing the power feeding a headlamp circuit through the SJB to be turned off. The following are examples of normal snowplow headlamp activity where this may occur.

- Disconnecting the snowplow headlamp connector for a functional-test during installation. If wired for "automatic" operation then the snowplow headlamp current is immediately diverted to the Ford headlamps. SPDJB interprets the immediate in-rush current to a cold Ford lamp as a short-to-ground.
- If wired for "manual" operation, identified by a separate aftermarket headlamp switch, then any switching between the Ford and snowplow headlamps after one headlamp system has already been illuminated through the SJB will trigger a shut-down.
- Normal daily snowplow hook-up if Ford headlamp is ON in "low-beam" (or "auto-lamps" active if so equipped).

The Effect of an SPDJB Shut-down Event

- Full Ford headlamp function can be restored by turning the Ford headlamp switch off and back on again. However, a short-to-ground DTC code is flagged and will not clear until approximately 80 key-on ignition starts. The codes are B2A2F (right-front low-beam) and B2A31 (left-front low-beam). Also, the event is stored and after 200 events a Ford dealer will be required to clear codes and return normal headlamp switch function. This repeats at 400 events, and at 600 events the SJB will require replacement.
- Open circuits will not have an affect on SJB diagnostics during normal operation.

Solution

On 04/23/07, customers may have their Ford dealer reprogram the Smart Junction Box (SJB) with a new calibration using Technical Service Bulletin TSB 07-09-01. After reprogramming no other operator intervention is required. New vehicles from KTP with "*Snowplow Prep Package Option*" (Order Code 473), or *"Snowplow/Camper Prep Option"*, and with a build date of 4/18/07 or later, already have this new calibration included.

NOTE: Relay-driven functions such as the Ford high-beams or park-lamps are not monitored by SJB control strategy. Therefore, if required prior to applying the TSB, the snowplow can still be used because the SJB will not affect snowplow headlamp operations with the Ford headlamp switch in either the "OFF" position, or "ON" in park-lamp position, or "ON" with high-beams activated.

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