

# Authorized Field Change



AFC 12942

**Date:** December 2012

**Subject File:** ENGINE

**Subject:** Fan Clutch Harness Routing Repair

Model: ProStar® and TranStar®

Start Date: 19 January 2010 End Date: 4 April 2012

Engine Family: MaxxForce® 11 and 13

## DESCRIPTION

The fan clutch harness can rub on the fan wiring harness bracket and cause intermittent fault codes. Some of the symptoms can include: Low Power, Erratic Fan Engagement, No Fan Engagement, or a VREF 4 DTC code. This repair will require rerouting the harness, inspecting the harness for abrasion, and repairing the harness, if required.


## PARTS INFORMATION


Table 1. [Parts Information](#)


Part Number	Description	Quantity
Obtain Locally	Heat Shrink	As Required
Obtain Locally	Wire and Solder Connectors	As Required
Obtain Locally	Tie Strap	As Required


**NOTE:** Replacement of the fan clutch is NOT covered under this campaign. Warranty claims submitted under AFC 12942 that charge out a fan clutch will be denied as an over-repair.


## SERVICE PROCEDURE

 **WARNING:** Park vehicle on hard flat surface, turn the engine off, set the parking brake, and block the wheels to prevent the vehicle from moving in both directions. Failure to do so may result in property damage, personal injury, and / or death.

 **WARNING:** If the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over, potentially resulting in property damage, personal injury, and / or death.

 **WARNING:** Always wear safe eye protection when performing vehicle maintenance. Failure to do so may result in serious eye injury.

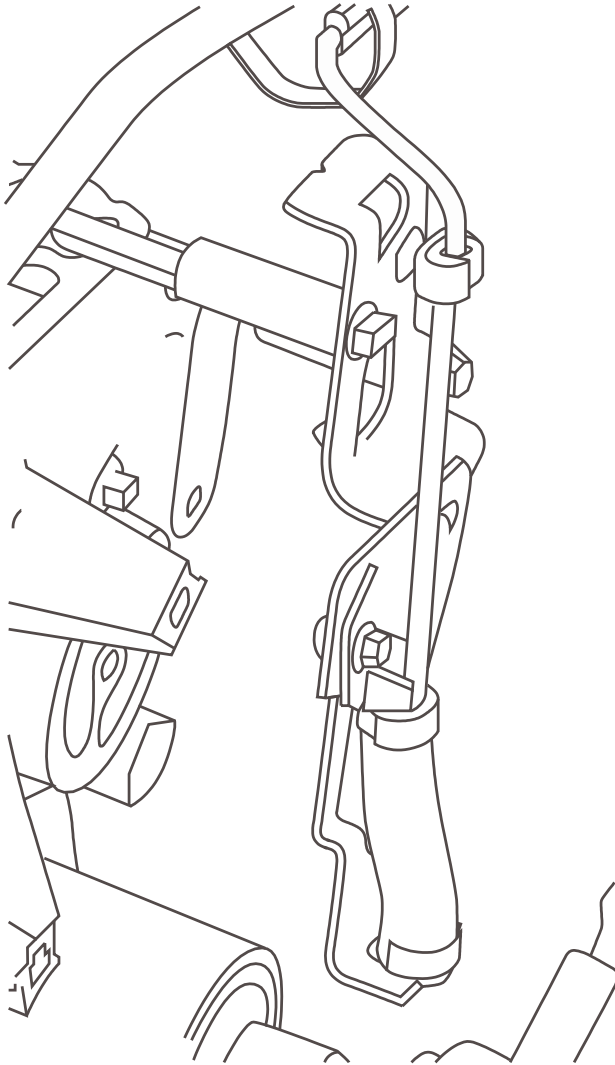
 **WARNING:** Keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases. Failure to do so may result in property damage, personal injury, and / or death.

 **WARNING:** Remove the ground cable from the negative terminal of the battery box before disconnecting any electrical components. Always connect the ground cable last. Failure to do so may result in property damage, personal injury, and / or death.

1. Park vehicle on flat surface, shift transmission to park or neutral, and set parking brake.
2. Install wheel chocks.
3. Unlatch and open hood.

## SERVICE PROCEDURE (CONT.)

4. Inspect fan clutch harness leading from fan clutch to engine harness.



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**Figure 1. Fan Clutch Harness Correctly Installed.**

5. If harness is routed correctly (refer to Figure 1) and harness is not rubbing against edge of fan clutch harness bracket, no rework is required.

## SERVICE PROCEDURE (CONT.)



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**Figure 2. Fan Clutch Harness Incorrectly Installed.**

1. Tie strap
2. Lower fan shroud push mount cable tie
3. Abrasion point

6. If harness is routed incorrectly (refer to Figure 2), follow remaining steps of this procedure.

## SERVICE PROCEDURE (CONT.)

7. Remove tie strap (Figure 2, Item 1) securing fan clutch harness connector to engine harness. Discard tie strap.
8. Gently pull fan clutch harness toward fan clutch.
9. Remove lower fir tree push mount cable tie (Figure 2, Item 2) from fan clutch harness. Discard fir tree push mount cable tie.
10. Inspect fan clutch harness for damage:
  - a. If no damage is observed, make sure there is clearance between fan clutch harness and bracket.
    1. Gently pull fan clutch harness upward to gain clearance from bracket. Install new tie strap (Figure 2, Item 1) securing fan clutch harness to engine harness where previously removed.
  - b. If damage is observed, repair harness as follows:
    1. If only outer protective sheath or outer sheath and part of insulation on wire harness is damaged, install heat shrink over damaged area.
    2. If copper is showing on any wires, fan clutch harness must be repaired following IK0800269.
      - A. When fan clutch harness repair is complete, heat shrink must be installed over harness where sheathing was located.
    3. Insert fan clutch harness into top fir tree push mount cable tie.
    4. Gently pull fan clutch harness upward to eliminate slack in harness.
    5. Verify that there is clearance between fan clutch harness and fan clutch harness bracket (Figure 2, Item 3).
    6. Install new tie strap (Figure 2, Item 1) securing fan clutch harness to engine harness where previously removed.
11. Close hood.
12. Remove wheel chocks.

**LABOR INFORMATION**

Operation number must appear on all claims.

**Table 2. Labor Information**

Operation No.	Description	Time
A40-12942-1	Inspect harness and remove lower fir tree push mount cable tie	0.3 hr
A40-12942-2	Repair fan clutch harness	0.2 hr

**ADMINISTRATIVE PROCEDURE**

Expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Authorized Field Change Number G-12942.

It is important that the coding be completed properly to assist in processing the warranty claim. Complete instructions will be found in the Warranty Policy Manual, Section 7.1.8.

As with all claim submissions, items acquired locally must be submitted in the “Other Charges” tab. The cost of any bulk items (such as a bag of cable tie straps, roll of wire, barrel of oil, or tube of silicone) should be prorated for the cost of the individual pieces / amount used during each repair.

To ensure this important improvement is made in a timely manner, all claims for G-12942 activity must be submitted by 30 December 2013 or within the normal warranty period for the vehicle, if after 30 December 2013.

