General Service Bulletin (GSB):	Wiring Repair / Harness Replacement - Best Practices for Warranty Claiming
GSB Overview	This publication provides information and 'Best Practices' for developing and completing a warranty claim for a wiring repair and/or wiring harness replacement
NOTE: This information is not intended to replace or supersede any warranty, parts and service policy, Workshop Manual (WSM) procedures or technical training or wiring diagram information	

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Overview:

Wiring related issues can be difficult to diagnosis and repair and the warranty claim can be difficult to complete. This General Service Bulletin is meant to provide the Warranty Policies / Procedures and Best Practices for completing these types of claims.

Warranty claims are reviewed daily and the information provided on a warranty claim is very valuable to the Ford engineering teams. When the technician comments lack the details necessary to understand the concern, root cause and final repair it is essentially not 'actionable' and an opportunity is lost to have a true understanding of the cause. In addition, claims that list the incorrect causal part may affect how quickly issues are addressed. Therefore the proper completion of wiring and all warranty claims is critical to our collective efforts to improve vehicle quality and satisfy our customers.

Claim Completion:

Customer Comments:

This topic is well addressed in various other publications but essentially the customer comments should clearly state the customer's concern, be factual, should not pre-diagnose the cause nor have confusing and/or unusual phrases.

Technician Comments:

Technician's comments should cover the three 'C's shown below and should record all required diagnostic codes / measurements / information and approvals.

- **Concern** - Initial Technical Assessment
- **Cause** - Why the repair is necessary resulting in the defect / identification of the causal part
- **Correction** - Describe Repair Steps

In regards to electrical wiring claims specifically, the Technician Comments should also contain the following details;

- Full description of the type of concern, i.e. chafe, terminal push-out, cut wire, etc.
- Location of concern
- Connector number (if applicable)
- Circuit number (if applicable)
- Wire color (if applicable)
- Repair completed, i.e. wire repair, pigtail or terminal replacement, wiring harness replacement
- Wiring harness base part number as the causal part

Parts:

Enter the entire part number for parts replaced, i.e. wiring pigtail, terminal, connector, wiring harness or other parts needed to complete the repair, if any and assign the causal part. Refer to the ACESII Manual for additional information.

Assigning the Causal Part Number:

The causal part number of an electrical wiring claim, whether a repair is made or harness replacement is completed should be the wiring harness part number where the concern was found. For a wiring repair the assigned causal part needs only to be the base part number of the wiring harness, such as -12A581-. If an entire wiring harness was replaced it would be the entire service part number, such as F1BZ-12A581-A.

The causal part number of a wiring claim must NOT be assigned to a service wiring pigtail, connector, connector terminal/pin or fuse.

Wiring harness part numbers can be looked up on the Professional Technician Society (PTS) website per the procedure outlined on Pages 4 through 7.

Labor:

Within the SLTS manual there are specific labor operations for the completion of wire / connector repairs. These are supplemental labor operations that are listed under various part numbers and end with “WR”, for example 12650D45WR. These labor operations should be used when a wire / connector / terminal repair or pigtail / terminal replacement is made.

Actual Time (MT) may be claimed for wiring repairs / wiring harness replacements. However, appropriate commentary and time recording must be provided to support the time claimed. In addition, Actual Time submissions must meet all other requirements listed in the Warranty and Policy Manual and other publications.

Using components from a new wiring harness

Per the dealer communication, EFC03642 Wiring Harness Replacement or Repair Policy, published February 2, 2015, if a new wiring harness is ordered but only a wiring pigtail, connector or terminal is utilized to perform a Ford paid repair to the vehicle’s existing wiring harness, the new wiring harness should be claimed as a replaced part and also be coded as the causal part. Additionally, on the repair order the technician comments **MUST CLEARLY** indicate that this repair strategy was used to complete the needed repair and the labor time should equal the time it takes to complete the quicker repair.

Prior Approval:

Prior approval may be required for the replacement of certain wiring harnesses. Your dealership’s Prior Approval Requirements can be found on FMCDealer.com.

For example, in 2016 the replacement of these wiring harnesses require prior approval

Base Part Number	Description
• 14401	Wiring Assembly Main
• 14405	Wiring Assembly Rear
• 14290	Wiring Assembly Engine and Transmission
• 14A005	Wiring Assembly Body and Roof
• 12A581	Wiring Assembly Engine and Transmission

Resources:

Resources on Professional Technician Society (PTS)

- Wiring Repair General Service Bulletin
- Wiring Manual
- Workshop Manual, Section 00 Service Information, 100-00 General Information, Diagnostic Methods

Resources on FMC Dealer

- Service Dept. Warranty Responsibilities Job Aid
- Technician Warranty Training Guide
- Warranty & Policy Manual (Section 3 – Warranty Coverages – Wiring Harness Replacement or Repair Policy)
- ACESII Manual

Motorcraft.com

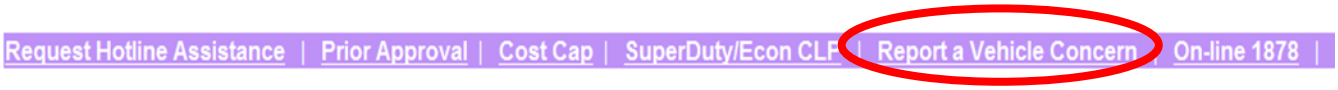
- Wiring Pigtail Kits Identification Guide

Global Concern Reporting (GCR) process

The information contained on a fully completed warranty claim is very valuable but we do encourage dealership personnel to submit GCRs on any vehicle quality concerns. GCRs allow greater details of the concern to be provided as well as allow pictures (and other attachments) to be included. For concerns with electrical wiring, such as harness routing, attachment, chafe, wear, damage, pin push out, connector not seated, corrosion, etc., having clear / mulitple pictures are especially helpful to the Ford engineering teams.

How to submit a report:

To submit a GCR, first log on to the Professional Technician Society (PTS) website. Then enter the vehicle VIN in OASIS. When the OASIS report is displayed, scroll to the bottom of the page and click on the 'Report a Vehicle Concern' link, as shown below.



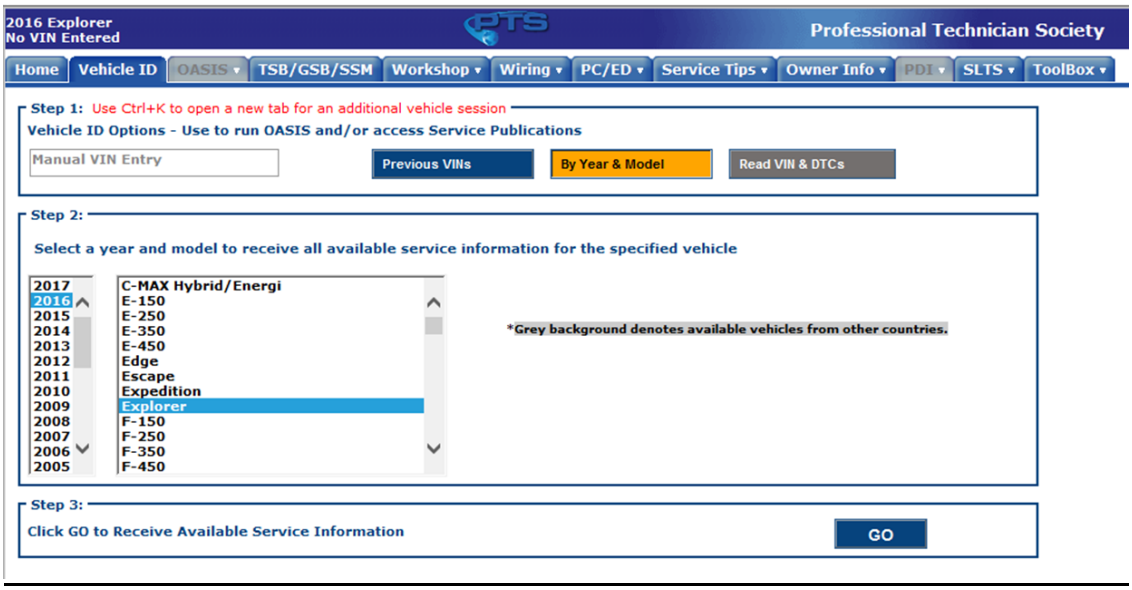
This link will take you to the GCR Homepage where you can then submit a report an including pictures, by clicking on the 'Submit' link. A Help function is also available to provide information on how to complete the form and attach pictures, etc...

Note: The PTS Mobile App can also be used to submit GCRs

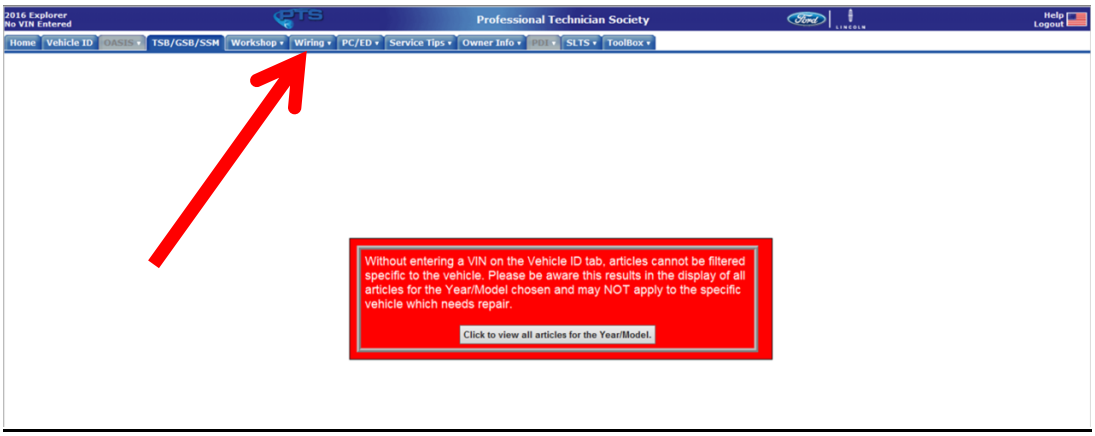
Finding the Right Wiring Harness Part Number:

The Wiring Diagrams on PTS can be used to understand the vehicle electrical system / operation and diagnosing electrical issues. It can also be used to find the wiring harness part numbers if the component, ground, splice or inline connector number is known by following the procedure below;

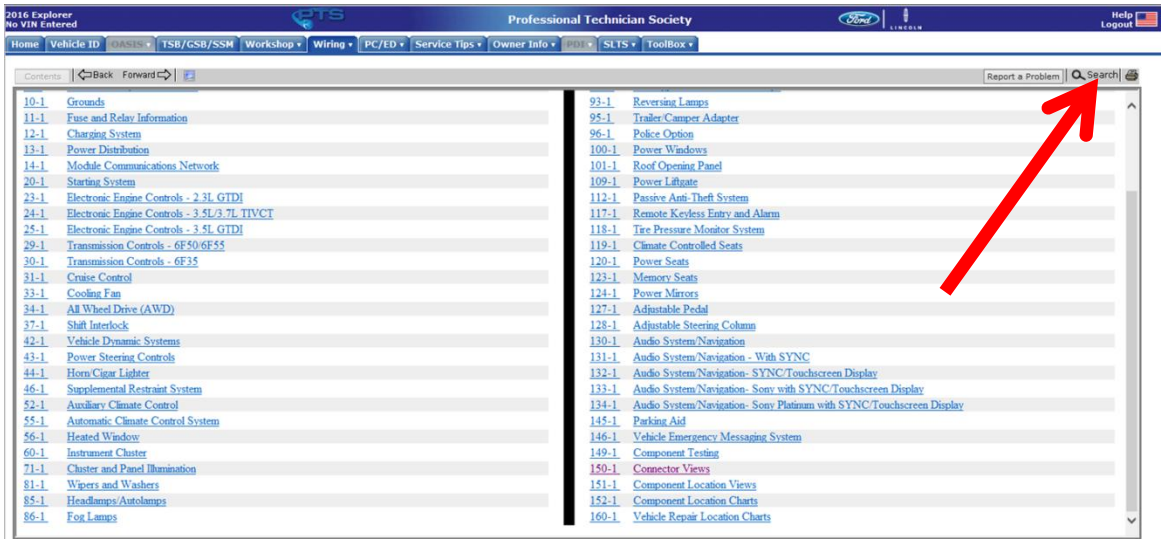
1 - Access PTS and enter a VIN or select the appropriate model year / model vehicle



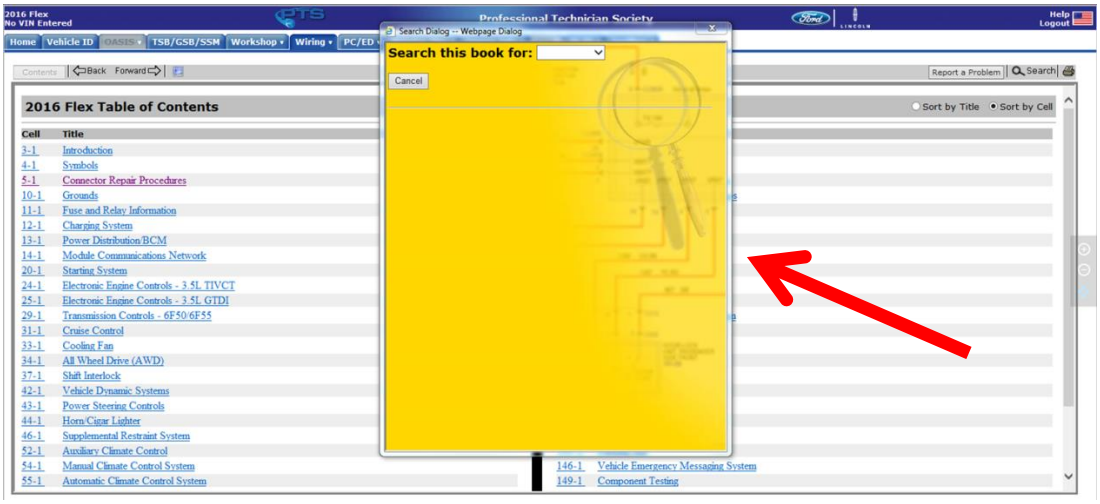
2 – Select the Wiring tab



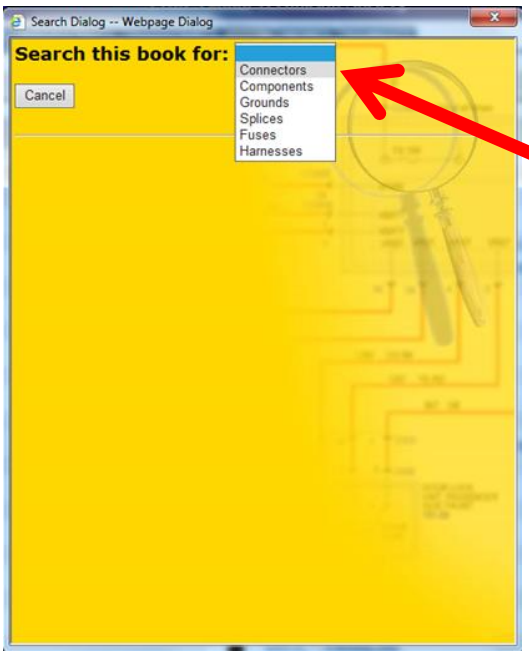
3 – From the wiring home page, select ‘Search’



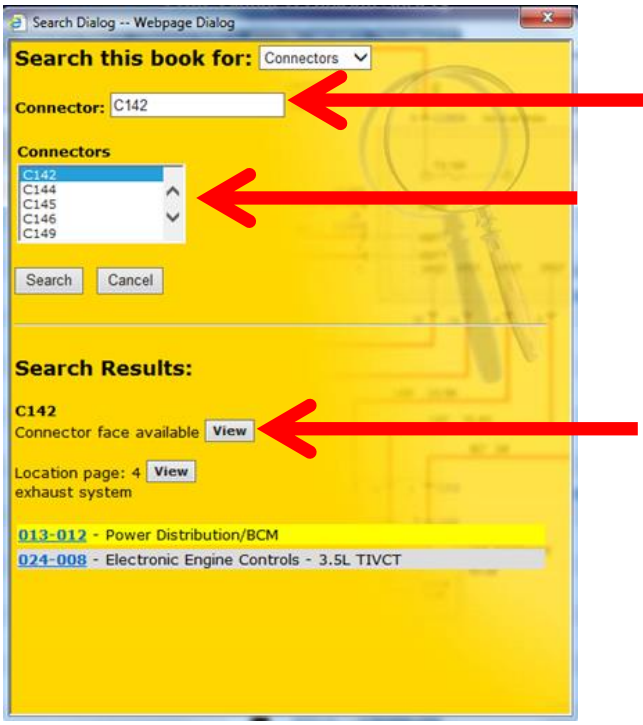
4 – The ‘Search’ function is then displayed



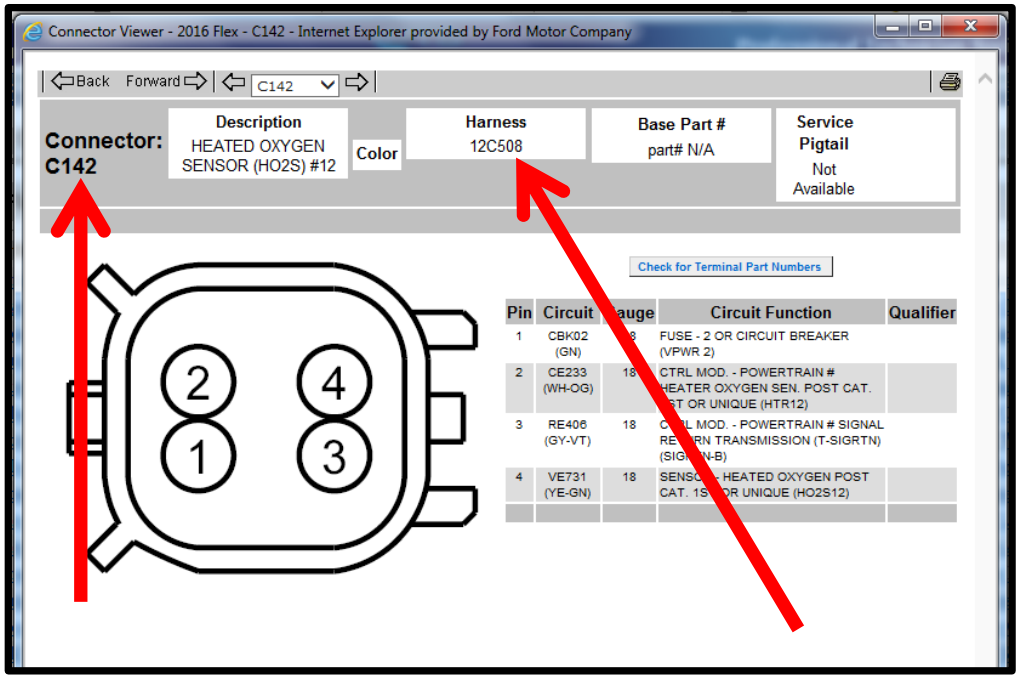
5 – On the ‘Search’ screen select ‘Connectors, Components, Grounds or Splices



5 – Type in the Connector number or use the scroll function to select the right connector and then select the ‘Connector face available view’



5 – On the Connector Face View the harness number is provided



Claim Examples

Example of Poor Technician Comments:

Customer Comment: *ABS system warning lamp stays on all the time*
Technician Comment: *Verify concern, check codes, ran PPT found open in circuit. Repair circuit and retested.*

Customer Comment: *Customer states triangle light on check and advise*
Technician Comment: *EEC Test, PPT, Repair wiring.*

In both these examples there is not enough information or detail to make these actionable.

Example of Good Technician Comments:

Customer Comment*: Customer states car stalls and has no throttle response*
Technician Comment: *Verified concern, ran self test, found P0106 for MAP sensor (9F479) checked OASIS no TSBs or SSMs. Went to PC/ED and performed PPT DM, DM1 Yes, DM2 – No, DM3- When measuring voltage at connector C1087 found loose pin fit #4 at C1087, adjusted pin fit, clear codes and retest, Okay*

Customer Comment: *Owner states airbag won't turn on right front seat when its occupied.*
Technician Comment: *Check for concern found passenger air bag indicator on, IDS test retrieved code B00A063. Perform passenger seat reset retrieve code B00C5-13 open seat track position. Monitor PIDs found sensor shows open, remove passenger seat inspect C3420 found circuit GD901 Blk Wire not seated in connector, Reset Pin reinstall connector, clear codes, perform reset, vehicle fixed.*

These are good examples where the technician provided detailed information on the issue, diagnostics performed and root cause, as well as the Connector and Pin Location or circuit number. This information makes these claims very 'actionable' by the Ford engineering teams.

Example – Labor & Parts Claiming for a wire repair (labor only)

Labor Op Code	Labor Op Description	Labor Op Hours
12651D	BCE Test	0.2
12651D45	BCE - Diagnostic Pin Point Test	0.3
12651D45WR	Wire Repair	0.3

Causal	Part Number			Part	Part
Flag	Prefix	Base	Suffix	Description	Quantity
Y	*	14A005	*	WIRE ASY MAIN LOOM	0

Example – Labor & Parts for a Wiring Pigtail Replacement

Labor Op Code	Labor Op Description	Labor Op Hours
12650D	EEC Test	0.2
12650DX1	Extra Time To Repeat Final Quick Test	0.1
12650D45	EEC - Diagnostic Pin Point Test	0.3
12650D45WR	Wire Repair	0.3

Causal	Part Number			Part	Part
Flag	Prefix	Base	Suffix	Description	Quantity
N	5U2Z	14S411	ZB	PIGTAIL	1
Y	*	12C508	*	WIRE ASY MAIN LOOM	0

Example – Labor & Parts for a Connector Terminal Replacement

Labor Op Code	Labor Op Description	Labor Op Hours
12650D	EEC Test	0.2
12650D45	EEC - Diagnostic Pin Point Test	0.3
12650D45WR	Wire Repair	0.3

Causal	Part Number			Part	Part
Flag	Prefix	Base	Suffix	Description	Quantity
N	EU2Z	14421	CA	TERMINAL	1
Y	*	12C508	*	WIRE ASY MAIN LOOM	0

Example – Labor and Parts for Parts when using components of a new wiring harness:

Labor Op Code	Labor Op Description	Labor Op Hours
12651D	BCE Test	0.2
12651DX1	Extra Time To Repeat Final Quick Test	0.1
12651D45	BCE - Diagnostic Pin Point Test	0.3
12651D45WR	Wire Repair	0.3
MT	Actual Time	1.7

Causal	Part Number			Part	Part
Flag	Prefix	Base	Suffix	Description	Quantity
Y	GR3Z	14A005	Q	WIRE ASY MAIN LOOM	1

Note:

For any claim with Actual Time (MT), it may be claimed for wiring repairs / wiring harness replacements. However, appropriate commentary and time recording must be provided to support the timed claimed. In addition, Actual Time submissions must meet all other requirements listed in the Warranty and Policy Manual and other publications.

If a new wiring harness is ordered but only a wiring pigtail, connector or terminal is utilized to perform a Ford paid repair, the new wiring harness should be claimed as a replaced part and also be coded as the causal part. Additionally, on the repair order the technician comments MUST CLEARLY indicate that this repair strategy was used to complete the needed repair and the labor time should equal the time it takes to complete the quicker repair.

Example – Parts and Labor for a wiring harness replacement

Labor Op Code	Labor Op Description	Labor Op Hours
12651D	BCE Test	0.2
12651D45	BCE - Diagnostic Pin Point Test	0.3
12651D45WR	Wire Repair	0.3
MT	Actual Time	3.1

Causal	Part Number			Part	Part
Flag	Prefix	Base	Suffix	Description	Quantity
N	FC3Z	15604	B	BODY MODULE KIT	1
Y	GC3Z	14401	M	WIRE ASY MAIN LOOM	1