

Message

Subject: RE: T1XX DAB Status and Next steps

Hey [REDACTED]

Should the parts that are replaced at the dealers go through the normal warranty parts management?

Let me know as soon as you can. I have a message from a dealer asking so

Thanks,

Danny Christensen

GPG TRACK Engineer: DRE Switches, General Motors
(920)-264-2751

Subject: FW: T1XX DAB Status and Next steps

Hello Everyone,

We are focused on identifying the feature(s) that are different on the airbag to connector interface for Stage 1 (WOW) and Stage 2(BOB) in order to find cause.

The team is meeting daily with APTIV as we work through the BOB and WOW parts from GM owned vehicles and the EI.

Analysis of BOB/WOW parts:

- Airbag pins: Rust particles have been observed on the airbag pins at the contact interface for Stage 1 (WOW) on both WOW Samples. The source would be the airbag surface around the connector. This does not explain the Stage 1 (WOW) to Stage 2 (BOB) contrast. Additional samples will be torn down when they arrive at Aptiv, 3 parts in route.
Full comparison of Stage 1 and Stage 2 airbag pins – **Aptiv 12/8**
- Build timeline from 5 WOW airbags (how long did parts sit?) – **Autoliv 12/8**

- Preliminary scans of plastic retainers do not show any differences in geometry, remaining retainers and connectors tomorrow – **Aptiv 12/8**
- Comparison of corrosion levels on airbags from EX VINs, WOWs, and current production – **Phonexay 12/8**

El Vehicles

- Phonexay and Khara are getting 1 to 2 calls per day from dealers.
- Techs are seeing the same condition that pushing on the horn or moving the horn pad U/D or C/C induces a resistance spike on Stage 1 and not Stage 2.
- 3 of the 20 field return sets of airbag/harness/steering wheel are in route. SPAC cases are set up for the remaining parts.
- ***No issues with SIR coils have been observed on the EI calls.***

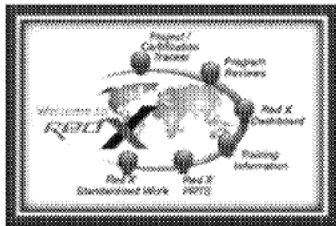
Please let me know if you have any questions,

Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X



Subject: T1XX DAB Status and Next steps

Hello Everyone,

We are focused on identifying the feature(s) that are different on the airbag to connector interface for Stage 1 (WOW) and Stage 2(BOB) in order to find cause.

The team is meeting daily with APTIV as we work through the BOB and WOW parts from GM owned vehicles and the EI.

Analysis of BOB/WOW parts:

Harness/Air bag Set (Priority Focus on [REDACTED])

- [REDACTED] Marketing vehicle [REDACTED] bucket of DAB on both Stage1 and Stage2; Close up Picture of PINs shows some debris (slide 16)
 - Initial SEM shows Fe particles on Stage1; PIN being removed from DAB to be scan under SEM (12/4)
 - Overlay of Stage1 to Stage2 "key code" on DAB to see if there is dimensional contrast (12/4)
- WOW [REDACTED] - EI vehicle - Was able to replicate resistance change on bench by moving wire at connector, actions on this part will be based on findings on [REDACTED]

Field Return Harness ONLY

- VIN [REDACTED] harness does not show to have any wire breaks
- SEM done on Stage1 show small level of debris; No contrast in terminal opening dimension
- SEM to be completed on Stage2 for comparison

EI Vehicles

- Phonexay and Khara are getting 1 to 2 calls per day from dealers.
- Techs are seeing the same condition that pushing on the horn or moving the horn pad U/D or C/C induces a resistance spike on Stage 1 and not Stage 2.
- 20 Airbags with connected harnesses (in the steering wheels) are coming back for analysis, a SPAC cases has been set up to expedite parts to the dealers.

The attached file contains the Red X project with the associated data and photos.

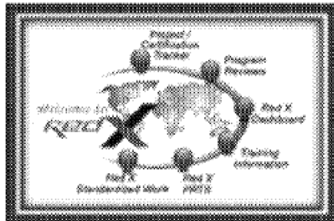
Please let me know if you have any questions.

Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X



Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,

The team has been meeting with Aptiv daily (Phonexay, Greg, Todd, Khara, Bob) on the analysis of the airbags and harnesses (still connected) from the live case in the Red X garage and EI.

Analysis of BOB/WOW parts:

- [REDACTED] Marketing vehicle) CT scan was performed, showed that pins were in contact but picture was noisy due to interference from surrounding metal.
- The part is going onto low frequency vibration testing in F/A and U/D directions while it is being monitored for resistance spikes in order to identify sensitivity to a particular direction ECD 11/27.
- [REDACTED] Bedford, Mi. EI) this is the worst case we have. Will apply learnings from [REDACTED]
- Full analysis (CT scan, inspection, dimensions) of two WOW harnesses will begin 11/30. (Stage 1 WOW will be compared to Stage 2 BOB)

EI Vehicles

- Phonexay has been walking dealer Techs. through each vehicle to determine what steering inputs induces a spike and to take photos of the wire routing.
- Techs are seeing the same condition that pushing on the horn induces a resistance spike on Stage 1 and not Stage 2.
- **Harness routing has been good on the vehicles.**
- 6 Airbag with connected harnesses are coming back for analysis, pending new part arrival at the dealers.

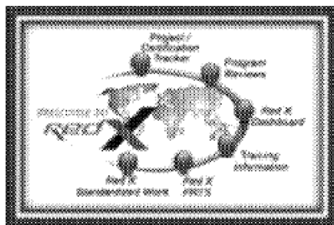
Please let me know if you have any questions,

Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X



[REDACTED]
Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,

Aptiv is expediting the CT scans of the WOW live cases and BOB parts that were hand delivered there yesterday. The technical team is engaged with them and reviewing the data as it becomes available.

Live Case Next Steps:

- Aptiv is conducting a CT scan of the harness / airbag (connectors not removed) in order to understand what is occurring at the airbag to connector interface. – ***The Red X lives in this interface***
- This will be a comparative analysis of Stage 1 (WOW) and Stage 2 (BOB) for:
 - T1 BOB Time Airbag / harness - for practice
 - WOW [REDACTED]
 - WOW [REDACTED] g vehicle
 - BOBs [REDACTED] SMC Terrains (harness and airbag)
- The JES for airbag install was reviewed for Flint, Arlington, and FTW along with videos of the operation. One note was that the FTW JES did not specify holding the bag upside down when making the stage 1 & 2 connections. (Although this is done in the video of the operation) Bob will work with FTW to correct the JES.
- The Red X trees have been updated and attached, this contains the latest data on the progress to root cause.

Please let me know if you have any questions,

Thanks,

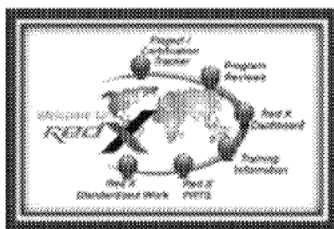
Frank

Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X



Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,

Please see the findings from the first EI vehicle that was worked on yesterday and the next steps for the live case parts (harness & airbag) to understand what is occurring at the airbag to stage 1 connector interface.

Vehicle – Redford MI.

- 11/18 Vehicle exhibited Stage 1 spikes on left / right turns and when pushing on the horn, the top left quadrant of the horn was the most sensitive. (Phonexay / Danny)
- Harness routing looked good.
- When the bag was pulled slightly out, the resistance spikes were reproduced by running a finger across the wires going into the stage 1 connector, this was not reproduced on the stage 2. **(Red X lives in stage 1 connection)**
- Airbag and harness was removed intact from the vehicle, resistance can be still be measured on these parts.

Next Steps:

- Technical team met this morning to determine the best way to understand the Stage 1 (WOW) to Stage 2 (BOB) contrast.
- Aptiv will conduct a CT scan of the harness / airbag (connectors not removed) in order to understand what is occurring at the airbag to connector interface.
- This will be a comparative analysis of Stage 1 (WOW) and Stage 2 (BOB) for:

Airbag / harness - for practice

WO [REDACTED]

WO [REDACTED] ng vehicle

BOB [REDACTED] GMC Terrains (harness and airbag) – *This platform is BOB and has not seen*

any issues

Parts are being driven to Aptiv in Warren, Ohio today and the analysis will be expedited.

Please let me know if you have any questions,

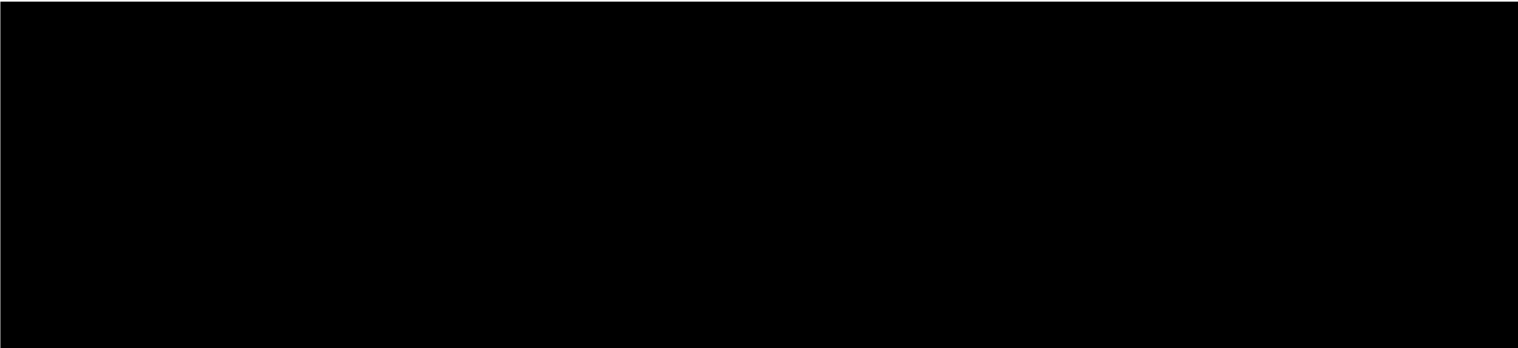
Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X





Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,

Here are the main items from the discussion today:

- We were notified of the first vehicle from EI – Tahoe with a history of setting stage 1 (Redford Michigan) - ***Phonexay and Danny are at the dealer now, we will follow up with what we learn.***
- Aptiv testing for end to end analysis of BOB and WOW harnesses – 11/24 ECD for CT Scans and non destructive tests, 12/3 for all results – ***the testing is being expedited.***

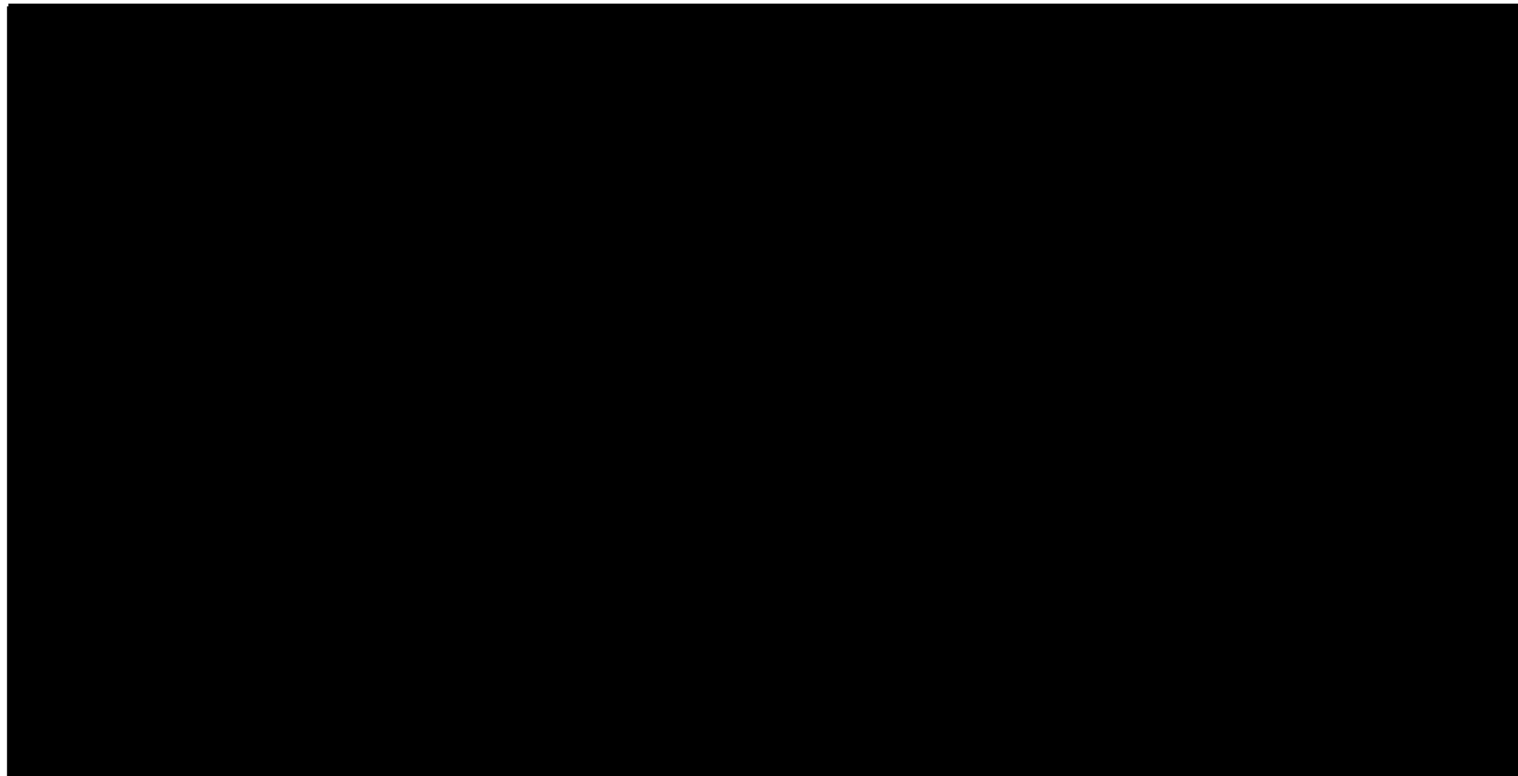
Please let me know if you have any questions,

Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X



Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,

Here are the main items from the discussion today:

- The EI is live today, Phonexay and Danny are set get the dealer calls.

- Team met with Aptiv this morning for the test plan on parts from the BOB and WOW timeframes. Aptiv will send finalized plan back to team today. Timing to follow.

Live Case vehicles:

Vehicle [REDACTED] Set Stage 1 on 11/3. Vehicle coming to Red X garage 11/9 will start with baselining

- 11/10 Vehicle was instrumented (MDI) and going through driving maneuvers to replicate issue.
- Vehicle would show high resistance (setting code) on stage 1 when steering wheel was between 90-180 degrees left or right.
- 11/12 The top of the steering wheel was cut away to allow access to the connectors and wires, contrast was lost when the stage 1 connector to the airbag was tapped. (not disconnected)
- 11/13 Since we could not get the contrast to return, microscopic analysis of electrical connections (coil side / Stage 1 / Stage 2) was conducted in the Red X lab

Next Steps:

- 11/16 Harness connections and SIR Coil – going to GM Materials lab (Greg) for inspection of non-conductive materials and electrical connections. **ECD11/20**

[REDACTED] 11/16 Airbag going to Autoliv for analysis. ECD

[REDACTED] Marketing Vehicle 2021 Suburban, Set Stage 1 3x on 11/6

Vehicle arrived 11/12 and was instrumented, it is currently showing high resistance (setting code) on stage 1 when the steering wheel is between 90-180 degrees left or right. (Same [REDACTED])

- 11/13 Technical team worked on vehicle today, contrast was lost but has come back a couple of times.
- 11/16 Source of resistance was isolated to after the 21 Way connector (wires / stage 1 connector / airbag)

Next Steps:

- ***Resistance spikes when horn is pressed, stage 1 wires are against the steering wheel bolt. (see video slide 5) Contrast was lost as airbag was being removed. Airbag was reinstalled and sat overnight. Small fluctuations when the wires near stage 1 squib are rubbed. System will stay intact pending results from parts sent to Aptiv and Autoliv.***

A 3rd live case is getting transferred to Red X:

[REDACTED] Kentzville CVO vehicle (7/24 build date) – being transferred to Red X, started process on 11/17. This vehicle has set the stage 1 DTC multiple times.

Please let me know if you have any questions,

Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X

Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,
Here are the main items from the discussion today:

We are working on two live case vehicles that have set the Stage 1 DTC:

- [REDACTED] Set Stage 1 on 11/3. Vehicle coming to Red X garage 11/9 will start with baselining vehicle.
- 11/10 Vehicle was instrumented (MDI) and going through driving maneuvers to replicate issue.
- Vehicle would show high resistance (setting code) on stage 1 when steering wheel was between 90-180 degrees left or right.
- 11/12 The top of the steering wheel was cut away to allow access to the connectors and wires, contrast was lost when the stage 1 connector to the airbag was tapped. (not disconnected)
- 11/13 Since we could not get the contrast to return, microscopic analysis of electrical connections (coil side / Stage 1 / Stage 2) was conducted in the Red X lab

Next Steps:

- 11/16 Harness connections and SIR Coil – going to GM Materials lab (Greg) for inspection of non-conductive materials and electrical connections.
- 11/16 Airbag going to Autoliv for analysis.

[REDACTED] Marketing Vehicle 2021 Suburban, Set Stage 1 3x on 11/6

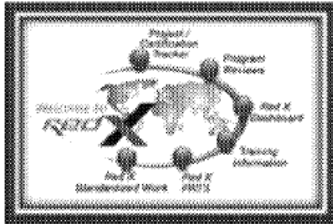
- Vehicle arrived 11/12 and was instrumented, it is currently showing high resistance (setting code) on stage 1 when the steering wheel is between 90-180 degrees left or right. (Sam [REDACTED])
- 11/13 Technical team worked on vehicle today, contrast was lost but has come back a couple of times.
- 11/16 Source of resistance was isolated to after the 21 Way connector (wires / stage 1 connector / airbag)

Next Steps:

- ***Resistance spikes when horn is pressed, stage 1 wires are against the steering wheel bolt. (see video slide 5) Contrast was lost as airbag was being removed. Airbag was reinstalled and will sit overnight. Then continue to pinpoint source of resistance.***

Please let me know if you have any questions,
Thanks,
Frank

Frank Falzetta
Senior Mgr. – Global Red X
[REDACTED]



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Hello Everyone,
Here are the main items from the discussion today:

We are working on two live case vehicles that have set the Stage 1 DTC:

- [REDACTED] Set Stage 1 on 11/3. Vehicle coming to Red X garage 11/9 will start with baselining vehicle.
- 11/10 Vehicle was instrumented (MDI) and going through driving maneuvers to replicate issue.
- Vehicle would show high resistance (setting code) on stage 1 when steering wheel was between 90-180 degrees left or right.
- The top of the steering wheel was cut away to allow access to the connectors and wires, contrast was lost when the stage 1 connector to the airbag was tapped. (not disconnected)

Next Steps:

- Since we could not get the contrast to return, microscopic analysis of electrical connections (coil side / Stage 1 / Stage 2) is being conducted at Red X lab then (11/13 and 11/16) will be followed by materials analysis at GM lab.

[REDACTED] Marketing Vehicle 2021 Suburban, Set Stage 1 3x on 11/6

- Vehicle arrived today and was instrumented, it is currently showing high resistance (setting code) on stage 1 when the steering wheel is between 90-180 degrees left or right. (Same [REDACTED])
- Technical team worked on vehicle today, contrast was lost but has come back a couple times.

Next Steps:

- Further work is pending tear down of the harness from [REDACTED] ant to see what we can learn first before disturbing the system further.

BOB time to WOW time

- Two Harnesses and Airbags from the BOB time frame and WOW harnesses will be shipped to Aptiv and Autoliv on Monday, the team has identified all of the characteristics to be measured.

All of the data will be added to the project report and sent out Monday.
Please let me know if you have any questions.

Thanks,
Frank

Frank Falzetta
Senior Mgr - Global Red X

Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,
Here are the main items from the discussion today:

We are working on two live case vehicles that have set the Stage 1 DTC:

- [REDACTED] Set Stage 1 on 11/3. Vehicle coming to Red X garage 11/9 will start with baselining vehicle.
11/10 Vehicle was instrumented (MDI) and going through driving maneuvers to replicate issue.
- Vehicle would show high resistance (setting code) on stage 1 when steering wheel was between 90-180 degrees left or right.
- The top of the steering wheel was cut away to allow access to the connectors and wires, ***contrast was lost when the stage 1 connector to the airbag was tapped.*** (not disconnected)
Next Steps:
- Vehicle is being worked on to get the condition back, then to understand the effect of the wire routing into the connector.
- [REDACTED] Marketing Vehicle 2021 Suburban, Set Stage 1 3x on 11/6
- Vehicle arrived today and was instrumented, it is currently showing high resistance (setting code) on stage 1 when the steering wheel is between 90-180 degrees left or right. (Same as [REDACTED])
Next Steps:
- Technical team meeting at Red X garage to diagnose vehicle 8am tomorrow.

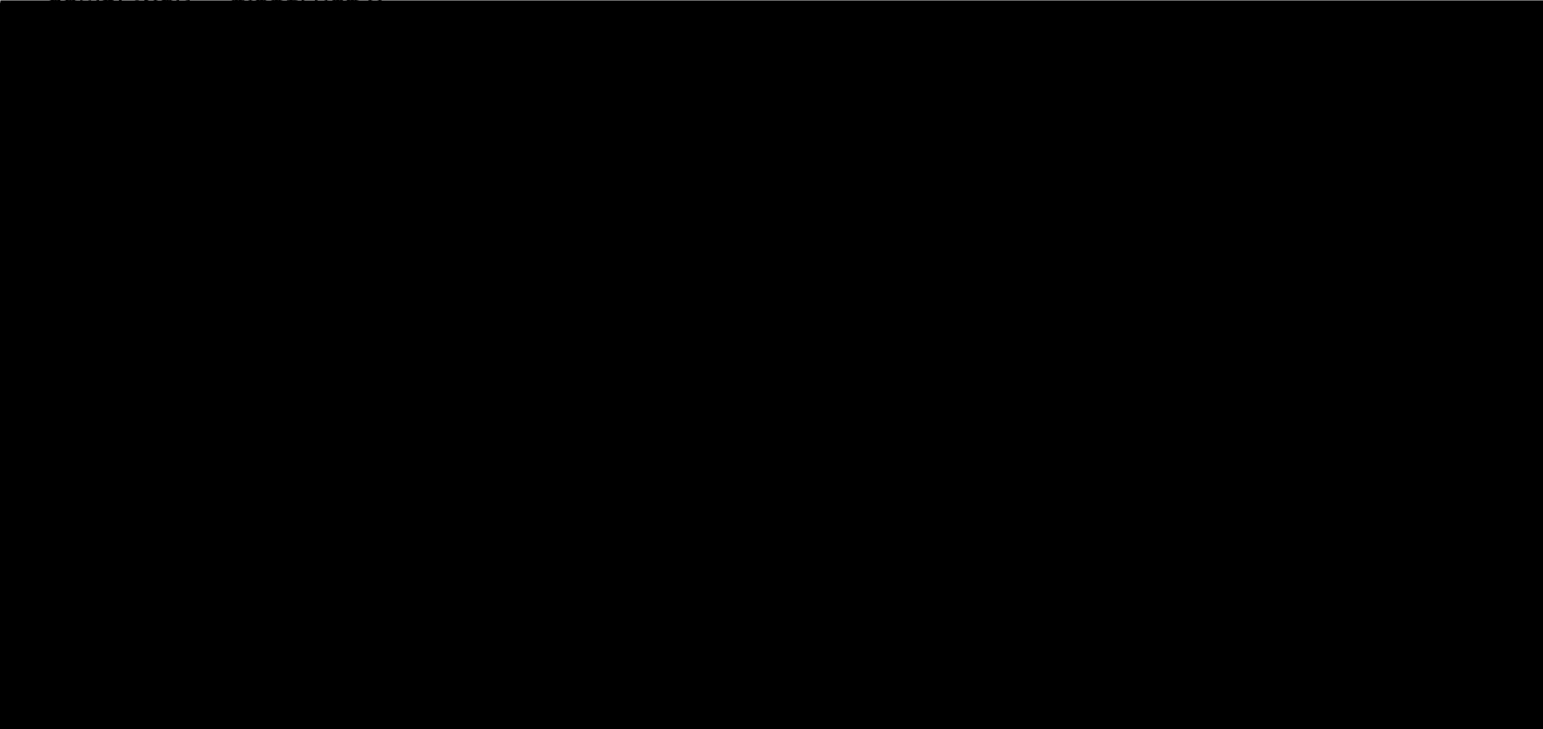
Please let me know if you have any questions.

Thanks,

Frank

Frank Falzetta

Senior Mgr. – Global Red X



Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,

Here are the main items from the discussion today:

- Timing is being addressed to reduce the time for the EI to become live.
 - We will be able to look for live cases throughout all GM owned vehicles on a daily basis (Thanks Marjorie)
-  as been instrumented and driven most of the day, no high resistance has been observed. Testing will continue.
-  Charlottesville NC) Hassan (BQM) contacted dealer – entire column will be sent back. Will pull data trace with MDI before removing column.
- SQ is engaged to investigate any part changes (to the tiered level) and process changes that have occurred in the last year on the Airbag, Strg. wheel, Harness, SIR coil.



Focus on Stage 1 (WOW) to Stage 2 Contrast (BOB) and Pre to Post COVID time frame (BOB to WOW)
Stage 1 is 10X Stage 2

Next Steps: Live Cases

Live Cases: GM fleet search expanded to include A2. EI is in process, reviewed 11/9
SLC, Flint, FTW, and LGR will notify of any live cases

- **CTF MR164005** Set Stage 1 on 11/3. Vehicle coming to Red X garage 11/9 will start with baselining vehicle. 11/10 Vehicle is instrumented (MDI) and going through driving maneuvers to replicate issue.
- Customer Vehicle 2021 Escalade **MR167118** (Charlottesville NC) Hassan (BQM) contacted dealer – entire column will be sent back. Will pull data trace with MDI before removing column. 11/10

GM Confidential

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Frank Falzetta
Senior Mgr. – Global Red X

Subject: FW: T1XX / A2 DAB Status and Next steps

Hello Everyone,
Here are the main items from the discussion today:

- EI was approved, two weeks until it goes live – ***the timing is being addressed***
The plan is for the team to travel to dealers a days drive / overnight away and for dealers further out to ship the entire column.

We are set to be notified of any live case through the SLC, Flint, or FTW. – **throwing out a large net to catch them.**

Arrived in the Red X garage, this vehicle set the Stage 1 code on 11/3. Vehicle will be baselined to understand Stage 1&2 resistance.

Once we are able to see a difference, we will engage the technical team to help isolate the source.

- SQ is engaged to investigate any part changes (to the tiered level) and process changes that have occurred in the last year on the Airbag, Strg. wheel, Harness, SIR coil.

In order to understand cause, we will work on the vehicle level (live cases) and component level:

**Focus on Stage 1 (WOW) to Stage 2 Contrast (BOB) and Pre to Post COVID time frame (BOB to WOW)
Stage 1 is 10X Stage 2**

Next Steps: Live Cases

Live Cases: GM fleet search expanded to include A2. EI is in process, reviewed 11/9
SLC and Flint will notify of any live cases

- MR164005 Set Stage 1 on 11/3. Vehicle coming to Red X garage 11/9 will start with baselining vehicle.

Next Steps: Component testing

Harness /
Connections

- Analyze Coil side of harness along with airbag connectors for BOB time frame and existing WOW samples.
- Compare BOB time to WOW harnesses – connector geometry, wiring, contamination (replacement parts ordered)
Phonexay / APTIV ECD 11.16.20

SIR Coil

- Understand what is unique to stage 1 / stage 2 circuits, build dates of coils for 9BYUB & Y2XX Dan Christensen ECD 11.09.20
- Project open for returned parts.

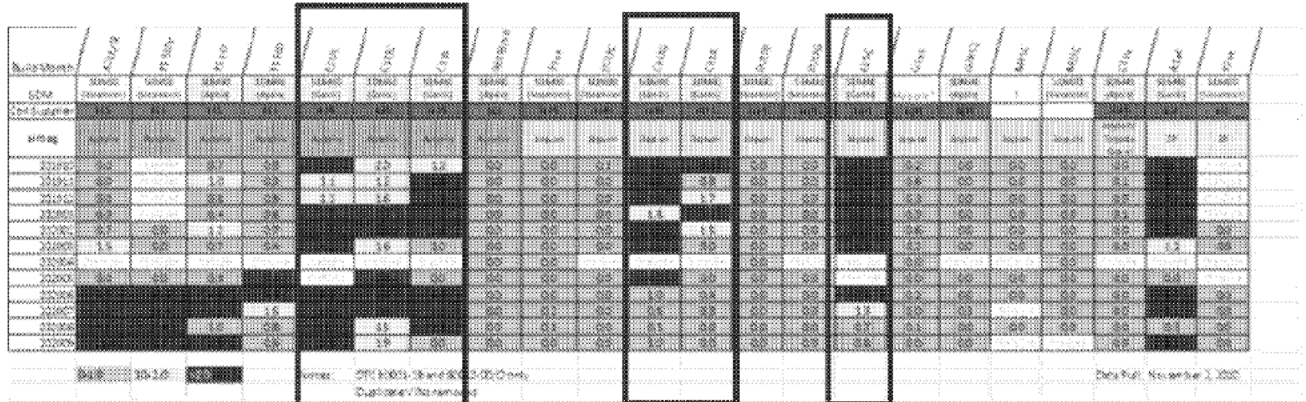
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Please let me know if you have any questions,
Thanks,
Frank

Frank Falzetta
Senior Mgr. – Global Red X

1. *Journal of the American Medical Association*, 1997; 277: 1039-1043.

With the findings yesterday that the Conti SDM40 is combining open circuit and high resistance symptom bytes which would increase the DTCs and include any vehicles that deployed the bag (as an open), the only reds on the bingo chart are T1XX and A2. (see bingo chart below)



Focus on Stage 1 (WOW) to Stage 2 Contrast (BOB) and Pre to Post COVID time frame (BOB to WOW)

Stage 1 is 10X Stage 2

Based on the data, we can eliminate the SDM and Airbag Inflators:

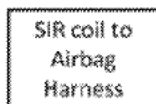


- A2 & T1 SUV are Vecneer SDM50 and LD/HD are APTIV SDM40 – both would have to change at the same time.
- No hardware / Software changes on each during this time.
- Diagnostic is same for all loops.



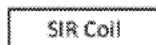
- Initiators are common Stage 1 & Stage 2 along with other locations on vehicle -- All "WOW"s would have to be on stage 1 DAB only. Example: Issue would be in multiple locations on T1s.
- No differences between Stage 1 & 2 in analysis of WOW parts.
- Will continue with BOB / WOW part comparisons.

Live Cases: GM fleet search expanded to include A2. EI is in process. *Live cases are critical to identifying cause.*



Next Steps: In parallel with any live cases through fleet or EI.

- Analyze Coil side of harness along with airbag connectors for BOB time frame and existing WOW samples.
 - Compare BOB time to WOW harnesses – connector geometry, wiring, contamination (replacement parts ordered)
- Phonexay / APTIV ECD 11.16.20**
- Run tests to understand effect of routing / movement on resistance – harness / coil **Phonexay ECD 11.12.20**



- Understand what is unique to stage 1 / stage 2 circuits, build dates of coils for 9BYUB & Y2XX Dan Christensen ECD 11.09.20
- Project open for returned parts.

Please let me know if you have any questions.

Thanks,

Frank

Frank Falzetta
Senior Mgr. – Global Red X

Subject: FW: T1XX DAB Status and Next steps

Hello everyone,
Here are the main items from the discussion today:

SDM Review

- SDM team reviewed history for SDM50 (Veoneer) – T1SUV and A2
- T1 SUV is initial software release from Jan 2020, A2 has same software from MY20.
- No Hardware changes to Tier 2 level.
- Software is unique to the supplier, diagnostic is the same for all diagnostic loops.
- SDM40 (Aptiv) – T1 LD / HD will be reviewed tomorrow.

BOB Model (D2UC/ G) to WOW Model (T1SUV) comparison

- “Flicker Test” was run on an Equinox and Terrain for both stages 1&2. No real differences from T1 when considering the variation in the test.
- Airbags were also swapped between Terrain and T1SUV and “flicker tested” with no differences.
- Stage 1 and 2 wiring is different between D2 and T1 with the connectors tape wrapped together close to the airbag on T1 and separate on D2 (see below)
Although this is a difference, I cannot determine if it matters yet. We will be looking at the wire routing in BOB time T1XXs.

Please see table below for next steps.
Thanks,

Frank

Action	RCD	ECD
Confirmation test of APTIV Plus design using the flicker test – 5 Samples	11/2/2020	10/30/2020
SIR Coil understand Impact of SIR coil for DTCs (Stage 1 / Stage 2) though On Star analysis of returned parts	10/30/2020	10/30/2020
SIR Coil – known issues from post COVID timeframe – 18/19 parts NTF, 1 part torn ribbon	11/2/2020	11/2/2020
Air Bag Wiggle pin and monitor resistance on stage 1 and 2 connections - resulted in 0.009 Ohms on WOW parts.	10/31/2020	10/31/2020
Connection review current dimensional comparisons	10/31/2020	10/31/2020
Impact of SIR coil on warranty (WOW time) :SUV Coil is 31% with 80% Fixed rate. PU 66% with 72% fixed rate.	11/5/2020	11/4/2020
BOB Models: Compare stage 1&2 wire routing and run flicker test on D2UC / G to determine if there is less sensitivity to the flicker test.	11/5/2020	
Air Bag Remaining Analysis from Autoliv (plating & Initiator)	11/6/2020	
Connection: Gather connectors / Airbags from 4 (3 PU / 1 SUV) vehicles for BOB time to WOW time for dimensional analysis and compare Stage 1&2 wire routing.– need replacement parts first.	BD based on parts	
SDM - No Hardware or Software changes for Veoneer SDM50 (T1SUV, A2). Review for APTIV SDM40 (T1PU)	11/6/2020	
Live Cases – Identify vehicles within GM fleet – <i>No active SUV currently</i>	On going	
Live Cases –EI (T1 LD / HD / SUV) docs ready 11/5, board review 11/9	11/9/2020	
SIR Coil – Break down warranty by P/N for all T1 / Open project for part returns	11/4/2020	
Review Bingo chart	On going	

Frank Falzetta

Senior Mgr – Global Red YSr

Subject: T1XX DAB Status and Next steps

Hello everyone,

Here are the main items from the discussion today:

Live Cases

- EI for all T1XX is planned to be reviewed for approval on 11/9. – plan is to have team go to dealers (day drive or overnight) – *will be escalated if not on track for Monday*

Impact of SIR coil warranty – Post COVID

- SUV – Coil is associated with 31% of warranty with an 80% fixed rate
- PU – Coil is associated with 66% of warranty and 72% fixed rate
- *EI and Project for coils will allow us to understand this further.*

Bingo chart showed very good performance for D2UC / D2UG

- Compare wire routing for Stage 1 and 2 with T1XX.
- Run “flicker test” to determine if these programs respond the same as T1XX. – *Connector is common, airbag is Joyson (D2) vs. Autoliv (T1XX)*

Please see table below for next steps.

Thanks,

Frank

A+R[9]C[6]+RC RC R[14]C[3]	RCD	ECD
Confirmation test of APTIV Plus design using the flicker test. – 5 Samples	11/2/2020	10/30/2020
SIR Coil understand impact of SIR coil for DTCs (Stage 1 / Stage 2) though On Star analysis of returned parts.	10/30/2020	10/30/2020
SIR Coil – known issues from post COVID timeframe – 18/19 parts NTF, 1 part torn ribbon	11/2/2020	11/2/2020
Air Bag Wiggle pin and monitor resistance on stage 1 and 2 connections - resulted in 0.009 Ohms on WOW parts.	10/31/2020	10/31/2020
Connection review current dimensional comparisons	10/31/2020	10/31/2020
Impact of SIR coil on warranty (WOW time) :SUV Coil is 31% with 80% Fixed rate, PU 66% with 72% fixed rate.	11/5/2020	11/4/2020
BOB Models: Compare stage 1&2 wire routing and run flicker test on D2 family of vehicles.	11/5/2020	
Air Bag Remaining Analysis from Autoliv (plating & Initiator)	11/6/2020	
Connection: Gather connectors / Airbags from 4 (3 PU / 1 SUV) vehicles for BOB time to WOW time for dimensional analysis and compare Stage 1&2 wire routing – need replacement parts first.	BD based on parts	
SDM - Review any changes pre to post COVID	11/5/2020	
Live Cases – Identify vehicles within GM fleet – <i>No active SUV currently</i>	On going	
Live Cases –EI (T1 LD / HD / SUV) docs ready 11/5. board review 11/9	11/9/2020	
SIR Coil – Break down warranty by P/N for all T1 / Open project for part returns	11/4/2020	
Review Bingo chart	On going	

Please see table below.

Thanks,
Frank

Frank Falzetta
Senior Mgr. – Global Red X

Subject: T1XX DAB Status and Next steps

Hello everyone,
Here are the main items from the discussion today:

Live Cases

- No SUVs in fleet are currently exhibiting the issue, will continue to monitor.
- EI for all T1XX is planned to be reviewed for approval on 11/9. – plan is to have team go to dealers (day drive or overnight)

Air Bags and Connectors

- Stage 1 DTC is 10X Stage 2 for both PU and SUV – ***SDM logic is the same Stage 1 and Stage 2***
- Stage 1 to Stage 2 does not show any strong pattern in dimensionals for connectors and airbags. (BOB side to WOW side)
- Pull connectors and airbags from BOB time frame (Trucks and SUV) to determine if there is a pre / post COVID difference. (Time to Time) – ***Should have replacement bags at end of week (Expedited)***
- Will also compare stage 1 and stage 2 on these parts.

- **SIR Coil**

- Warranty analysis shows 25% of SUV is associated with SIR Coil, and is 95% Stage 1 DTC
- PU Analysis will be completed 11/4.
- Project opening for SIR Coil field returns.

Please see table below.

Thanks,
Frank

Action Plan:	RCD	ECD
Confirmation: test of APTIV Plus design using the flicker test – 5 Samples	11/2/20	10/30/20
SIR Coil understand impact of SIR coil for DTCs (Stage 1 / Stage 2) though On Star analysis of returned parts.	10/30/20	10/30/20
SIR Coil – known issues from post COVID timeframe – 16/19 parts NTF, 1 part torn ribbon	11/2/20	11/2/20
Air Bag Wiggle pin and monitor resistance on stage 1 and 2 connections - Resulted in 0.009 Ohms on WOW parts	10/31/20	10/31/20
Connection: review current dimensional comparisons	10/31/20	10/31/20
Harness Routing Compare T1PU/SUV BOB time to WOWtime and BOB models (31xx, D2UC) for stage 1 and stage 2 harness routing.	11/5/20	
Air Bag Remaining Analysis from Autoliv (plating & Initiator)	11/6/20	
Connection: Gather connectors / Airbags from 4 (3 PU / 1 SUV) vehicles for BOB time to WOWtime for dimensional analysis – need replacement parts first.	ED based on parts	
Contribution of SIR coil on T1 LD/ HD warranty – <i>Coil is 25% on SUV and 95% Stage 1</i>	11/5/20	
Live Cases – Identify vehicles within GM fleet – <i>No active SUV currently</i>	On going	
Live Cases –EI (T1 LD / HD / SUV) docs ready 11/5, board review 11/9	11/9/20	
SIR Coil – Break down warranty by P/N for all T1 / Open project for part returns	11/4/20	

Frank Falzetta
Senior Mgr. – Global Red X