

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

545RFE_Systems_DFMEA_JK

PUBLIC

A document titled
***545RFE_Systems_DFMEA_JK CBI.pdf* was SUBMITTED TO THE**
NHTSA OFFICE OF CHIEF COUNSEL WITH A REQUEST FOR
CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

C - 2128 - DS Auto Trans
Shifter DFMEA PUBLIC

A document titled
C - 2128 - DS Auto Trans Shifter DFMEA CONF BUS INFO.pdf
was SUBMITTED TO THE NHTSA OFFICE OF CHIEF COUNSEL
WITH A REQUEST FOR CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

DFMEA Column Shifter

2016.2.10 PUBLIC

A document titled
***DFMEA Column Shifter 2016.2.10 CBI.xlsx* was SUBMITTED TO**
THE NHTSA OFFICE OF CHIEF COUNSEL WITH A REQUEST FOR
CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

DS - 6 speed - Video

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

DS Column Shift System
Overview PUBLIC

A document titled
***DS Column Shift System Overview CONF BUS INFO.pdf* was**
SUBMITTED TO THE NHTSA OFFICE OF CHIEF COUNSEL WITH A
REQUEST FOR CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

DS DFMEA ATX shifter_8-1-
06 PUBLIC

A document titled
***DS DFMEA ATX shifter_8-1-06 CONF BUS INFO.pdf* was**
SUBMITTED TO THE NHTSA OFFICE OF CHIEF COUNSEL WITH A
REQUEST FOR CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

DS Floor Shift System
Overview PUBLIC

A document titled
***DS Floor Shift System Overview CONF BUS INFO.pdf* was**
SUBMITTED TO THE NHTSA OFFICE OF CHIEF COUNSEL WITH A
REQUEST FOR CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Peer1_nonESS_Block_Diagram

PUBLIC

A document titled
***Peer1_nonESS_Block_Diagram CONF BUS INFO.pdf* was**
SUBMITTED TO THE NHTSA OFFICE OF CHIEF COUNSEL WITH A
REQUEST FOR CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Peer2_nonESS_Block_Diagram

PUBLIC

A document titled
***Peer2_nonESS_Block_Diagram CONF BUS INFO.pdf* was**
SUBMITTED TO THE NHTSA OFFICE OF CHIEF COUNSEL WITH A
REQUEST FOR CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Peer3_ESS_Block_Diagram

PUBLIC

A document titled
Peer3_ESS_Block_Diagram CONF BUS INFO.pdf was
SUBMITTED TO THE NHTSA OFFICE OF CHIEF COUNSEL WITH A
REQUEST FOR CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8 - Video Guide - Peer



FIAT CHRYSLER AUTOMOBILES

Question 8, Subsection L - Video Reference Guide

4/19/2017

NAFTA
REGION



Jeep®



Question 8, Subsection L :

Describe and provide video and audio recordings of all warnings provided to the operator and all automatic control functions of the subject and electronic park brake systems (as may be equipped) for the following situations:

- i) The driver's door is opened when the engine is running and the gear selector is not in Park;*
- ii) The driver's door is opened when the engine is off and the gear selector is not in Park;*
- iii) The driver's door is opened when the engine is running and the gear selector is in Park;*
- iv) The operator attempts to operate the ignition control when the engine is running and the gear selector is not in Park;*
- v) The vehicle is moving and the operator attempts to shift to Park (include speed thresholds for the control logic related to this function);*
- vi) Any other state or circumstance FCA believes is pertinent;*

Videos were filmed with the seatbelt unbuckled to simulate the driver preparing to exit the vehicle.

Question 8, Subsection L - Video Reference

2013-2017 MY
Ram 1500 (DS)
with Column
Shifter (6-Speed)



	Scenario	Gear	Model Years	Ignition	ParkSense	Message
1	The driver's door is opened when the engine is running and the gear selector is not in Park	A. Reverse	All	Mechanical	-	"Vehicle not in Park"
		B. Drive	All	Mechanical	-	"Vehicle not in Park"
		C. Neutral	All	Mechanical	-	"Vehicle not in Park"
2	The driver's door is opened when the engine is off and the gear selector is not in Park	A. Reverse	All	Mechanical	-	"Key in Ignition"
		B. Drive	All	Mechanical	-	"Key in Ignition"
		C. Neutral	All	Mechanical	-	"Key in Ignition"
3	The driver's door is opened when the engine is running and the gear selector is in Park	Park	All	All	-	Door Open Symbol
4	The operator attempts to operate the ignition control when the engine is running and the gear selector is not in Park	A. Reverse	All	Mechanical	-	No Message Displayed
		B. Drive	All	Mechanical	-	No Message Displayed
		C. Neutral	All	Mechanical	-	No Message Displayed
5	The vehicle is moving and the operator attempts to shift to Park	A. Reverse	All	All	-	No Message Displayed
		B. Drive	All	All	-	No Message Displayed

The following vehicles were unable to be allocated for recording:

- 2013 MY with Keyless Go (only available in 2013 MY)
- Any model year with floor shifter (functions the same as the column shifter)
- Any model year with Stop/Start

"-" means the presence of the feature (ParkSense) does not change the function of the vehicle or the message displayed during the scenario.

Question 8, Subsection L - Video Reference

2015-2017 MY Chrysler 200 (UF)



“-” means the presence of the feature (ParkSense) does not change the function of the vehicle or the message displayed during the scenario.

Scenario	Gear	#	Models	ParkSense	Message
1 The driver's door is opened when the engine is running and the gear selector is not in Park	A. Reverse	1	All w/o ParkSense	-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
		2	All w/ParkSense	On	"Auto Brake Enabled" Park Brake Automatically Engages When Brake Pedal Released ParkSense Graphic with Proximity Arcs
		3	All w/ParkSense	Off	"ParkSense Off" Park Brake Automatically Engages When Brake Pedal Released "Vehicle not in Park"
	B. Drive	All		-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
	C. Neutral	All		-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
	D. Sport/Low	All		-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
2 The driver's door is opened when the engine is off and the gear selector is not in Park	A. Reverse	All		-	Scenario Not Viable (Cannot shut vehicle off)
	B. Drive	All		-	Scenario Not Viable (Cannot shut vehicle off)
	C. Neutral	1	2016 & 2017 MY	-	"Press Brake and Push Button to Start" AutoPark Engages "Ignition or Accessory On"
		2	2015 MY	-	Scenario Not Viable (Cannot shut vehicle off)
	D. Sport/Low	All		-	Scenario Not Viable (Cannot shut vehicle off)
3 The driver's door is opened when the engine is running and the gear selector is in Park	Park	All		-	"Door Open" & Door Open Symbol
4 The operator attempts to operate the ignition control when the engine is running and the gear selector is not in Park	A. Reverse	1	All w/o ParkSense	-	Cannot shut vehicle off. "Vehicle Not In Park"
		2	All w/ParkSense	On	Cannot shut vehicle off. "Auto Brake Enabled"
		3	All w/ParkSense	Off	Cannot shut vehicle off. "ParkSense Off"
	B. Drive	All		-	Cannot shut vehicle off. "Vehicle Not In Park"
	C. Neutral	1	2016 & 2017 MY	-	"Press Brake and Push Button to Start" AutoPark Engages "Ignition or Accessory On"
		2	2015 MY	On	Cannot shut vehicle off. "Vehicle Not In Park"
	D. Sport/Low	All		-	Cannot shut vehicle off. "Vehicle Not In Park"
5 The vehicle is moving and the operator attempts to shift to Park	A. Reverse	All		-	"Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)
	B. Drive	All		-	"Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)
	C. Sport/Low	All		-	"Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)

Question 8, Subsection L - Video Reference

2015-2017 MY Chrysler 300 (LX)



“-” means the presence of the feature (ParkSense) does not change the function of the vehicle or the message displayed during the scenario.

Scenario	Gear	#	Models	ParkSense	Message
1 The driver's door is opened when the engine is running and the gear selector is not in Park	A. Reverse	1	All w/ParkSense	On	ParkSense Graphic with Proximity Arcs
		2	All w/ParkSense	Off	"ParkSense Off" "Vehicle not in Park"
		3	All w/o ParkSense	-	"Vehicle not in Park"
	B. Drive	All		-	"Vehicle not in Park"
	C. Neutral	All		-	"Vehicle not in Park"
2 The driver's door is opened when the engine is off and the gear selector is not in Park	D. Sport	All		-	"Vehicle not in Park"
	A. Reverse	All		-	Scenario Not Viable (Cannot shut vehicle off)
	B. Drive	All		-	Scenario Not Viable (Cannot shut vehicle off)
	C. Neutral	1	2016 & 2017 MY	-	"Vehicle not in Park" AutoPark Engages "Press Brake and Push Button to Start" "Shifter AutoCorrect Active" "Ignition or Accessory On"
		2	2015 MY	-	Scenario Not Viable (Cannot shut vehicle off)
	D. Sport	All		-	Scenario Not Viable (Cannot shut vehicle off)
3 The driver's door is opened when the engine is running and the gear selector is in Park	Park	All		-	Door Open Symbol
4 The operator attempts to operate the ignition control when the engine is running and the gear selector is not in Park	A. Reverse	1	All w/ParkSense	On	Cannot shut vehicle off. ParkSense Graphic with Proximity Arcs
		2	All w/ParkSense	Off	Cannot shut vehicle off. "ParkSense Off" "Vehicle not in Park"
		3	All w/o ParkSense	-	Cannot shut vehicle off. "Vehicle not in Park"
	B. Drive	All		-	Cannot shut vehicle off. "Vehicle not in Park"
	C. Neutral	1	2016 & 2017 MY	-	"Vehicle not in Park" AutoPark Engages "Press Brake and Push Button to Start" "Shifter AutoCorrect Active"
		2	2015 MY	-	Cannot shut vehicle off. "Vehicle not in Park"
	D. Sport	All		-	Cannot shut vehicle off. "Vehicle not in Park"
5 The vehicle is moving and the operator attempts to shift to Park	A. Reverse	All		-	"Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)
	B. Drive	All		-	"Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)
	C. Sport	All		-	"Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)

Question 8, Subsection L - Video Reference

2017 MY Chrysler Pacifica (RU)



"-" means the presence of the feature (ParkSense, ESS) does not change the function of the vehicle or the message displayed during the scenario.

ESS (Start/Stop) is only active when "Drive" is selected.

Scenario	Gear	#	Model Years	ParkSense	ESS	Message
1 The driver's door is opened when the engine is running and the gear selector is not in Park	A. Reverse	1	All w/o ParkSense	-	-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
		2	All w/ParkSense	On	-	"ParkSense Rear Braking Assist On" ParkSense Graphic with Proximity Arcs Park Brake Automatically Engages When Brake Pedal Released
		3	All w/ParkSense	Off	-	"ParkSense Off" Park Brake Automatically Engages When Brake Pedal Released
	B. Drive	1	All w/o ESS	-	-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
		2	All w/ ESS	-	On	ESS Active "Ignition or Accessory On" "Shift to P When Exiting Shift to D to Restart"
	C. Neutral	All		-	-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
	D. Sport/Low	All		-	-	"Vehicle not in Park" Park Brake Automatically Engages When Brake Pedal Released "Park Brake Automatically Engaged"
2 The driver's door is opened when the engine is off and the gear selector is not in Park	A. Reverse	1	All w/o ParkSense	-	-	Scenario Not Viable (Cannot shut vehicle off)
		2	All w/ParkSense	On	-	Scenario Not Viable (Cannot shut vehicle off)
		3	All w/ParkSense	Off	-	Scenario Not Viable (Cannot shut vehicle off)
	B. Drive	All		-	-	Scenario Not Viable (Cannot shut vehicle off)
	C. Neutral	All		-	-	"Vehicle not in Park" "Shifter Autocorrect Active" AutoPark Engages "Ignition or Accessory On"
	D. Sport/Low	All		-	-	Scenario Not Viable (Cannot shut vehicle off)
3 The driver's door is opened when the engine is running and the gear selector is in Park	Park	All		-	-	Door Open Symbol
4 The operator attempts to operate the ignition control when the engine is running and the gear selector is not in Park	A. Reverse	1	All w/o ParkSense	-	-	Cannot shut vehicle off. "Vehicle Not In Park"
		2	All w/ParkSense	On	-	Cannot shut vehicle off. "ParkSense Rear Braking Assist On" ParkSense Graphic with Proximity Arcs
		3	All w/ParkSense	Off	-	Cannot shut vehicle off. "ParkSense Off" "Vehicle Not In Park"
	B. Drive	All		-	-	Cannot shut vehicle off. "Vehicle Not In Park"
	C. Neutral	All		-	-	"Vehicle not in Park" "Shifter Autocorrect Active" AutoPark Engages
	D. Sport/Low	All		-	-	Cannot shut vehicle off. "Vehicle Not In Park"
5 The vehicle is moving and the operator attempts to shift to Park	A. Reverse	All		-	-	"ParkSense Rear Braking Assist On" ParkSense Graphic with Proximity Arcs "Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)
	B. Drive	All		-	-	"Vehicle Speed is too High to Shift to P" Threshold is 2.0 km/h (1.2 MPH)

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8 - Q8b Peer PUBLIC

A document titled
***Q8b Peer CONF BUS INFO.pdf* was SUBMITTED TO THE NHTSA**
OFFICE OF CHIEF COUNSEL WITH A REQUEST FOR
CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8c Peer PUBLIC

A document titled
***Q8c Peer CONF BUS INFO.pdf* was SUBMITTED TO THE NHTSA**
OFFICE OF CHIEF COUNSEL WITH A REQUEST FOR
CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8d Peer

Q8d. Describe, and provide copies of all documents related to, all design failure mode and effects analyses (DFMEA) and fault tree analyses (FTA) of the subject system that relate in any way to unintended vehicle movement as the driver is exiting or after the driver has exited the vehicle;

A8d. The subject systems are designed and developed by FCA US' external suppliers. While FCA US reviews DFMEAs with its suppliers, the suppliers are responsible for maintaining the DFMEAs. These DFMEAs are not supplied to FCA US in the normal course of business. Table 1 indicates the subject systems which are supplier produced.

Component	Vehicle	Purchased/Licensed
8-Speed Transmission	Chrysler 300	Purchased and Licensed
9 Speed Transmission	Chrysler 200 and Chrysler Pacifica	Purchased and Licensed
Rotary Shifter	Chrysler 200, Chrysler 300 and Chrysler Pacifica	Purchased
Steering Column Shifter and Bracket	Ram 1500 Peer	Purchased
Floor Shifter	Ram 1500 Peer	Purchased
Keyless-go Ignition (Push Button Start)	Ram 1500 Peer, Chrysler 200, Chrysler 300 and Chrysler Pacifica	Purchased
FOBIK and Hard-key Ignition (Fob Insert and Mechanical Ignition Key)	Ram 1500 Peer	Purchased
RF Hub	All	Purchased
Instrument Panel Cluster	All	Purchased

Table 1: Supplier Produced or Licensed Subject System Components

Though FCA US does not create vehicle-level DFMEAs for purchased or licensed components, the FMEA process is followed through the design and development of the subject and peer vehicles' transmission shift strategy. Extensive testing is completed for each vehicle designed by FCA US. For example, proving ground durability testing relating to the subject vehicles evaluates system shift performance. These materials are included in ENCLOSURE 06.

The FCA US developed and produced 6-speed transmission is a derivative of prior FCA US designed transmissions. The document titled "545RFE_Systems_DFMEA_JK CBI.pdf" provided in ENCLOSURE 08 was created in the 2004 CY for a sister 5-speed transmission used on the 2007 MY Jeep Wrangler, among other FCA US products. It is provided here as an example of what was used for more recent MY programs.

The Floor Mounted Shifter DFMEAs titled "C - 2128 - DS Auto Trans Shifter DFMEA CONF BUS INFO.pdf" and "DS DFMEA ATX shifter_8-1-06 CONF BUS INFO.pdf" were both created in 2006 CY during the development of the 2009 MY DS Floor Shifter. The steering column mounted DFMEA titled "DFMEA Column Shifter 2016.2.10 CBI.xlsx" was used in the development of the DS family Steering Column Shifters, and is also provided in ENCLOSURE 08.

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8e Peer PUBLIC

A document titled
***Q8e Peer CONF BUS INFO.pdf* was SUBMITTED TO THE NHTSA**
OFFICE OF CHIEF COUNSEL WITH A REQUEST FOR
CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8g Peer

Q8g. Describe any or all conditions under which the subject system will automatically shift the transmission to Park;

A8g. Unless indicated otherwise, the below design attributes apply to all model years of the 8- and 9-speed transmission in the peer vehicles. Some examples of when the subject system(s) automatically shift the transmission to Park include:

- If the operator moves the ignition position from RUN to ACC, the transmission will automatically go to Park at speeds below 1.2 mph (2 km/h).
- In the event of a hardware failure in the transmission controller while in steady-state Reverse or Neutral, the transmission will default to Park at speeds below 1.2 mph (2 km/h).
- In 2016 MY LX vehicles, if the operator's request to shift to Park is not honored, a message "Service Trans Press Brake When Stopped Key Off Engine to Engage Park" is displayed along with an audible chime to inform the operator that the engine shut OFF will lead to AutoPark. If, at this time, the operator removes their foot from the brake, the engine will automatically shut off to achieve AutoPark.
- In certain situations, the vehicle will shift into Neutral and then Park. Details on situations where the vehicle will automatically shift the transmission to Neutral are contained in response to Q8h.

The 6-speed transmission in Ram 1500 ("DS") peer vehicles is mechanically shifted. Thus, there are no cases in which it will "automatically" shift into Park or any gear other than the selected gear.

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8h Peer PUBLIC

A document titled
***Q8h Peer CONF BUS INFO.pdf* was SUBMITTED TO THE NHTSA**
OFFICE OF CHIEF COUNSEL WITH A REQUEST FOR
CONFIDENTIAL TREATMENT

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8i Peer

Mr. Scott Yon
Reference: NEF-102jao; PE16-014
April 19, 2017

ENCLOSURE

Page 1 of 3

Q8i. Describe any "start-stop" technology for the engine, which may be actuated for fuel efficiency and/or safety reasons and how it interacts with the transmission control system;

A8i. A description of the Engine Start-Stop ("ESS") systems' operation in situations where a driver attempts to turn the engine off or exit the vehicle while in an ESS situation is provided below in Table 1 in relation to the peer vehicles.

Note: All Ram 1500 ("DS") vehicles offered with the ESS option are equipped with a Hard-key Ignition (Mechanical Ignition Key).

Model	Model Year(s)	Ignition Type	Situation	Outcome
Ram 1500 Peer Vehicles	2013-2016	Hard-key Ignition	While in an ESS situation, the driver attempts to turn the vehicle off	The vehicle is secured from motion by the transmission shifting to park ("AutoPark").
Ram 1500 Peer Vehicles	2013-2016	Hard-key Ignition	While in an ESS situation, the Driver attempts to exit the vehicle	The vehicles will AutoPark. Triggers for AutoPark are the door opening with either the brake released or the seatbelt is unbuckled in any order. 1. Auto start capability of ESS is inhibited; and 2. The shifter does not autocorrect resulting in a mismatch between the rotary shifter state & the transmission gear state. The mismatch requires correction by the driver. An instructional message is displayed in the instrument cluster. The ignition is still in the RUN position.
Chrysler Pacifica	2017-current	Keyless-go	While in an ESS situation, the driver pushes the STOP/START button	Causes the engine to start automatically while in Autostop mode, a temporary off state, the ignition is still in the RUN position.
Chrysler Pacifica	2017-current	Keyless-go	While in an ESS situation, the Driver attempts to exit the vehicle	If the automatic transmission is not in PARK, the SafeHold will be activated. Triggers for SafeHold are seat belt is unbuckled, the driver door is open, the vehicle is at a standstill, and there is no attempt to depress the brake pedal or accelerator pedal, the park brake will automatically engage to prevent the vehicle from rolling. 1. Auto start capability of ESS is inhibited; and 2. The shifter does not autocorrect resulting in a mismatch between the rotary shifter state & the transmission gear state. The mismatch requires correction by the driver. An instructional message is displayed in the instrument cluster.

Table 1: ESS Operation when Occupant Attempts to Turn off the Vehicle when in an ESS Situation

Messages specific to vehicles equipped with ESS are included below:

- If equipped with Engine Stop/Start: display “Stop/Start Autostop Active” on the Stop/Start menu page and a telltale in the cluster when the engine is in a temporary off state and the ignition is still in the RUN state.
 - There is also an Icon in the Cluster display when in an ESS Autostop, as shown below.

2017 RU Owner’s Manual Telltale for ESS

GETTING TO KNOW YOUR INSTRUMENT PANEL 217
Park/Headlight ON Indicator Light

Green Telltale Light	What It Means
	Park/Headlight ON Indicator Light This indicator will illuminate when the park lights or headlights are turned on.

4

Front Fog Indicator Light — If Equipped

Green Telltale Light	What It Means
	Front Fog Indicator Light This indicator will illuminate when the front fog lights are on.

Stop/Start Active Indicator Light — If Equipped

Green Telltale Light	What It Means
	Stop/Start Active Indicator Light This telltale will illuminate when the Stop/Start function is in “Autostop” mode.

- If equipped with Engine Stop/Start: display “Shift to P When Exiting Shift to D to Restart” in the cluster with a chime when in an Autostop and the driver door is opened and driver seatbelt is unbuckled or driver door is opened and brake pedal is released.

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8j Peer

Q8j. Describe any override control logic and timing relative to transmission gear position, engine status, vehicle speed, service brake switch status, and driver's door switch status which may be entered into via a sequence of driver operations (e.g. "car wash mode");

A8j. FCA US does not currently employ a driver-operated override features on subject vehicles, relative to transmission gear position, engine status, vehicle speed, service brake switch status or driver's door switch status which may be entered into via a sequence of driver operations.

Peer vehicles equipped with an Electric Park Brake ("EPB"), which includes Chrysler Pacifica ("RU") and Chrysler 200 ("UF"), are equipped with the SafeHold™ feature.

SafeHold is a feature of the EPB System that will engage the EPB automatically if the vehicle is left unsecured. If the automatic transmission is not in Park, the seat belt is unbuckled, the driver door is open, the vehicle is at a standstill, and there is no attempt to depress the brake pedal or accelerator pedal, the park brake will automatically engage to prevent the vehicle from rolling.

As detailed in FCA US' response to Q8 subpart (c), SafeHold can be temporarily bypassed in UF vehicles by pressing the EPB Switch to the release position while the driver door is open. For RU vehicles, the brake pedal must also be depressed to temporarily bypass SafeHold. Once manually bypassed, SafeHold is re-activated by the first to occur of two events: the vehicle reaches 12 MPH (20 km/h) or the ignition is cycled to the OFF position and back to ON again

If the operator temporarily bypasses SafeHold:

- Display "Safe-Hold Temporarily Disabled" in the cluster with a chime when the EPB Switch is in the release position and brake is applied.

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8k Peer

Mr. Scott Yon

Reference: NEF-102jao; PE16-014

April 19, 2017

ENCLOSURE

Page 1 of 1

Q8k. Describe any fault remediation strategies for instances where a disagreement exists between the position of the shifter and the actual gear status of the transmission;

A8k. FCA US has provided details related to mismatches between the shifter and the transmission in peer vehicles in its response to Q8 subpart (b).

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8l Peer

Q8I. Describe and provide video and audio recordings of all warnings provided to the operator and all automatic control functions of the subject and electronic park brake systems (as may be equipped) for the following situations:

- i) The driver's door is opened when the engine is running and the gear selector is not in Park;**
- ii) The driver's door is opened when the engine is off and the gear selector is not in Park;**
- iii) The driver's door is opened when the engine is running and the gear selector is in Park;**
- iv) The operator attempts to operate the ignition control when the engine is running and the gear selector is not in Park;**
- v) The vehicle is moving and the operator attempts to shift to Park (include speed thresholds for the control logic related to this function);**
- vi) Any other state or circumstance FCA believes is pertinent;**

A8I. Documents responsive to subpart (I), relative to the subject and peer vehicles, are located in ENCLOSURE 08 and titled "DS Video.mpg", "WD Video.mpg", "LX Video.mpg", "UF Video.mpg", "RU Video.mpg" and "DS - 6 speed - Video.mpg". A viewing guide for the videos is also located in ENCLOSURE 08 and titled "Q8 - Video Guide.pdf".

Note: Due to the effects of filming, the shift position indicator LED may appear to flicker while actually in a steady-state.

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8m Peer

Q8m. State whether any of the subject or peer vehicles have a hill-assist function or other system which may act to hold the vehicle at a standstill, even if the brake pedal is released, and if so identify the make, model and model year for each; and

A8m. The Hill Start Assist function is standard equipment on all peer vehicles and can be disabled by the operator. The information provided in the Owner's Manual pertaining to HSA is below.

2017 MY Chrysler 300 ("LX") Owner's Manual

STARTING AND OPERATING 323

Hill Start Assist (HSA)

The HSA system is designed to mitigate roll back from a complete stop while on an incline. If the driver releases the brake while stopped on an incline, HSA will continue to hold the brake pressure for a short period. If the driver does not apply the throttle before this time expires, the system will release brake pressure and the vehicle will roll down the hill as normal.

The following conditions must be met in order for HSA to activate:

- The feature must be enabled.
- The vehicle must be stopped.
- Park brake must be off.
- Driver door must be closed.
- The vehicle must be on a sufficient grade.
- The gear selection must match vehicle uphill direction (i.e., vehicle facing uphill is in forward gear; vehicle backing uphill is in REVERSE gear).

- HSA will work in REVERSE gear and all forward gears. The system will not activate if the transmission is in PARK or NEUTRAL. For vehicles equipped with a manual transmission, if the clutch is pressed, HSA will remain active.

WARNING!

There may be situations where the Hill Start Assist (HSA) will not activate and slight rolling may occur, such as on minor hills or with a loaded vehicle, or while pulling a trailer. HSA is not a substitute for active driving involvement. It is always the driver's responsibility to be attentive to distance to other vehicles, people, and objects, and most importantly brake operation to ensure safe operation of the vehicle under all road conditions. Your complete attention is always required while driving to maintain safe control of your vehicle. Failure to follow these warnings can result in a collision or serious personal injury.

5

620 STARTING AND OPERATING

- HSA will work in REVERSE gear and all forward gears. The system will not activate if the transmission is in PARK or NEUTRAL. For vehicles equipped with a manual transmission if the clutch is pressed HSA will remain active.

WARNING! (Continued)

safe control of your vehicle. Failure to follow these warnings can result in a collision or serious personal injury.

WARNING!

There may be situations where the Hill Start Assist (HSA) will not activate and slight rolling may occur, such as on minor hills or with a loaded vehicle, or while pulling a trailer. HSA is not a substitute for active driving involvement. It is always the driver's responsibility to be attentive to distance to other vehicles, people, and objects, and most importantly brake operation to ensure safe operation of the vehicle under all road conditions. Your complete attention is always required while driving to maintain

Towing With HSA

HSA will also provide assistance to mitigate roll back while towing a trailer.

WARNING!

- If you use a trailer brake controller with your trailer, the trailer brakes may be activated and deactivated with the brake switch. If so, there may not be enough brake pressure to hold both the vehicle and the trailer on a hill when the brake pedal is released. In order to avoid rolling down an

(Continued)

(Continued)

Mr. Scott Yon

Reference: NEF-102jao; PE16-014

April 19, 2017

ENCLOSURE

Page 2 of 2

The 2015 - 2017 Chrysler 200 ("UF") peer vehicles are also equipped with an Electronic Park Brake ("EPB"). The EPB will activate and hold the vehicle at a standstill under certain conditions. See FCA US' response to Q8 subpart (c).

The 2017 Chrysler Pacifica ("RU") peer vehicles are also equipped with an EPB. The EPB will activate and hold the vehicle at a standstill under certain conditions. See FCA US' response to Q8 subpart (c).

PE16-014

FCA

4/19/2017

ENCLOSURE 8

PEER

Q8n Peer

Mr. Scott Yon
Reference: NEF-102jao; PE16-014
April 19, 2017

ENCLOSURE

Page 1 of 1

Q8n. State whether FCA has ever considered adopting control logic for the subject systems that automatically shift to Park if the system detects signals (e.g., driver's door opens) indicating that the driver may be exiting the vehicle when the gear selector is not in Park and, if so, the reasons why such control logic either was or was not adopted.

A8n. FCA US refers the Agency to the securement strategy presented to NHTSA on February 9, 2017. A representative copy of the document, as submitted in relation to the February 9, 2017, meeting, can be found in ENCLOSURE 08 and titled FCA Auto Park 2_9_2017 Final CONF BUS INFO.pdf.