



Ferrari North America

Technical Information

Date: February 2016
Bulletin #: 2326
Campaign #:
Supersedes:
Section: 3

Model Type: California T
Model Year: All
Subject: Repair procedures for DCT gearbox – Level 2

Please find attached the Level 2 repair procedures which may be performed on the DCT gearbox of Ferrari CaliforniaT vehicles in relation to a problem and/or oil leak found on a DCT gearbox.

Protocol for Managing DCT Gearbox Repairs

- Prior to any procedure, appropriate diagnosis must be sent to the FNA Help Desk to obtain authorization for the supply of the requested kit.
- The Dealer must complete the “DCT Gearbox Pre-Diagnosis Form” on pages 9 to 11 of this document.
- This module must be sent together with the order request by e-mail to our Spare Parts Department, at the address dealerservices@ferrariusa.com

- IMPORTANT -

Only service centers that have completed the course on Level 2 procedures for the DCT gearbox are authorized to perform Level 2 procedures.

- IMPORTANT -

After completing the repair procedures, you are required to complete the “DCT Gearbox Pre-Diagnosis Form” on page 9 to 11 of this document, and attach it to the ROL.



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- IMPORTANT -

The S.T. Schedule for the model in question includes a specific table, viewable from the 2nd update (2016) of the Technical Documentation, indicating the corresponding operation codes for the procedures performed, which are necessary to request reimbursement under warranty.

Replaced parts must be kept for at least 6 months, so that they may be returned if requested or authorized for scrapping by SAT.

Possible operations in relation to fault identified (“Level 2” procedures)

1. Replacing SAP;
2. Replacing CCP;
3. Replacing front connector casing;
4. Leakage.

The following tools and equipment are necessary to perform these procedures:

- Swivel-head base Part. No. 95972621 (AV 2621)
- Gearbox overhaul support Part. No. 95977314 (AM 107314)
- Rear cover extractor Part. No. 95978603 (AV 8603)
- Gearbox presser tool Part. No. 95978604 (AV 8604)
- Lift bracket for central section of gearbox Part. No. 95978605 (AV 8605)
- Lift bracket for rear section of gearbox Part No. 95978606 (AV 8606)
- Gearbox housing alignment pin Part. No. 95978607 (AV 8607)
- Axle shaft oil seal installation punch Part. No. 95978608 (AV 8608)
- Transmission shaft oil seal extractor Part. No. 95978609 (AV 8609)
- Internal gearbox plug Part. No. 95978611 (AV 8611)
- External gearbox pressurizing plugs Part. No. 95978612 (AV 8612)



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- Cap and punch for rear gearbox cover Part. No. 95978613 (AV 8613)
- Tool for tightening bevel gear set ring nut Part. No. 95978619 (AV 8619)
- Bevel gear set extractor Part. No. 95978620 (AV 8620)
- Adapter for rear gearbox cover extractor Part No. 95978626 (AV 8626)

- IMPORTANT -

If not already in your possession, these tools must be ordered by you directly from our Spare Parts Department in the quantities needed.

The parts to be installed, in relation to the type of operation necessary, are as follows:

- KIT SAP F149M Part No. 70003855 Q. ty 1
- KIT CCP F149M Part No. 70003854 Q. ty 1
- SL2 HOUSING, F152 Part. No. 70003013 Q.ty 1
- SERVICE LEVEL 2 SCREW Part. No. 70003093 Q. ty 1

The part numbers of the kits required for this procedure are indicated in the following table.

The following kits must be ordered by you directly from our Spare Parts Department in the quantities needed.



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	Ferrari CaliforniaT
1. SAP replacement	70003855
2. CCP replacement	70003854
3. Replacing front connector casing	70003013 70002747
4. Leakage*	70003093 70002747

* For leaks found between the differential housing and gearbox case, do not order the KIT Part. no. 70003093, as the housing and gearbox fastener screws may be used for three assemblies.



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Procedure

- IMPORTANT -

The utmost cleanliness must be maintained during all the following operations; always wear clean gloves, replacing frequently, and use absorbent lint-free cloth and heptane to clean and degrease components.

- IMPORTANT -

When carrying out the following replacement procedures, the screws fastening the components (gearbox case, SAP and CCP) and the gaskets removed during the procedure must **ALWAYS BE REPLACED** upon reassembly.

- IMPORTANT -

Check the expiration date of all products used in the following procedures before use.
NEVER use EXPIRED products.

Preparations for procedures

For the detailed operating procedure, see the most recent Technical Information on this topic (Level 2 repairs), in the section relative to the [F12berlinetta](#).
Note: Note that the rigid E-DIFF pipe used on the F12berlinetta is absent on the California T.

1. SAP replacement

For the detailed operating procedure, see the most recent Technical Information on this topic (Level 2 repairs), in the section relative to the [F12berlinetta](#).
Note: Note that the rigid E-DIFF pipe used on the F12berlinetta is absent on the California T.

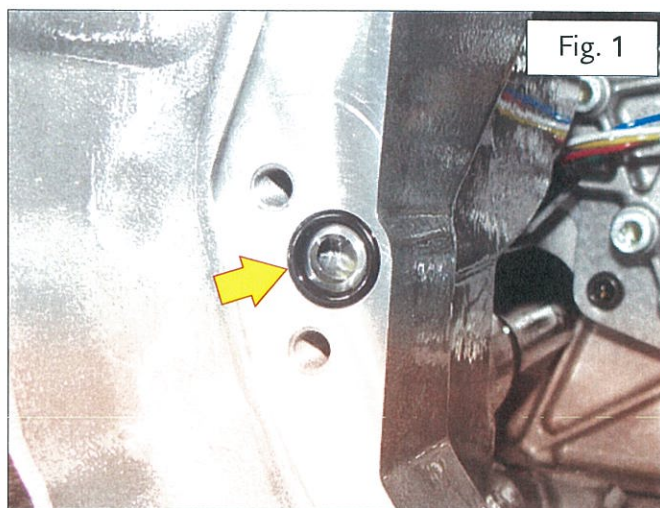


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2. CCP replacement

For the detailed operating procedure, see the most recent Technical Information on this topic (Level 2 repairs), in the section relative to the F12berlinetta.

- Note that the O-ring indicated on the differential housing of the F12berlinetta is absent on the California T - Fig. 1.



3. Front connector casing

For the detailed operating procedure, see the last Technical Information on this topic (Level 2 repairs), in the section relative to the F12berlinetta.

4. Leakage

The following cases are classified as level 2 leaks:

- Leakage between rear cover and gearbox case;
- Leakage between gearbox case and differential housing;
- Leakage between differential housing and front connector casing;



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Leakage between rear cover and gearbox case

For the detailed operating procedure, see the most recent Technical Information on this topic (Level 2 repairs), in the section relative to the Ferrari California with rear cover equipped with bushes for fastening the single oil heat exchanger.

Leakage between gearbox case and differential housing

For the detailed operating procedure, see the most recent Technical Information on this topic (Level 2 repairs), in the section relative to the F12berlinetta.

Note: Note that the rigid E-DIFF pipe used on the F12berlinetta is absent on the California T.

Leakage between differential housing and front connector casing

For the detailed operating procedure, see the most recent Technical Information on this topic (Level 2 repairs), in the section relative to the F12berlinetta.

System pressurization procedure

For the detailed operating procedure, see the most recent Technical Information on this topic, referring to models prior to the California T.

Procedure for marking repaired gearbox

For the detailed operating procedure, see the most recent Technical Information on this topic, referring to models prior to the California T.



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Self-acquisition procedure

For the detailed operating procedure, see the most recent Technical Information on this topic, referring to models prior to the California T.

SAP - CCP identification codes

For the detailed operating procedure, see the most recent Technical Information on this topic, referring to models prior to the California T.

Thank you for your co-operation.



DCT Gearbox Pre-Diagnosis Form

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Model	Updated on
<small>Ferrari</small> <i>California</i> T	February 2016

VEHICLE FILE																			
Date:	Chassis number:																		
Model:	Dealer:																		
Market:	Vehicle Km/mi:																		
Gearbox No.:	ROL No. (if available):																		
Warranty start date:	Warranty end date:																		
Prior procedures on DCT gearbox (date and type of procedure):																			
DIAGNOSTIC FILE																			
Provide description of oil leakage found (attach photos), specifying number of leaks, in reference to the drawings from page 2 to 4 of Technical Information 2149:																			
List any DTC errors in NCR (in reference to the list from page 7 to 15 of Technical Information 2149):																			
<u>In the event of NOISE from gearbox/differential, specify:</u>																			
Conditions in which noise occurs:																			
Vehicle speed:																			
Gear selected:	<table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 0 10px;">N</td> <td style="padding: 0 10px;">1st</td> <td style="padding: 0 10px;">2nd</td> <td style="padding: 0 10px;">3rd</td> <td style="padding: 0 10px;">4th</td> <td style="padding: 0 10px;">5th</td> <td style="padding: 0 10px;">6th</td> <td style="padding: 0 10px;">7th</td> <td style="padding: 0 10px;">R</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	N	1st	2nd	3rd	4th	5th	6th	7th	R	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N	1st	2nd	3rd	4th	5th	6th	7th	R											
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During gear shift?	<table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 0 20px;">YES</td> <td style="padding: 0 20px;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>														
YES	NO																		
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If noise occurs during gear shifting, specify:	<table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 0 20px;">Upshifts <input type="checkbox"/></td> <td style="padding: 0 20px;">Downshifts <input type="checkbox"/></td> </tr> <tr> <td style="padding: 0 20px;">Automatic mode <input type="checkbox"/></td> <td style="padding: 0 20px;">Manual mode <input type="checkbox"/></td> <td style="padding: 0 20px;">Performance mode <input type="checkbox"/></td> </tr> </table>	Upshifts <input type="checkbox"/>	Downshifts <input type="checkbox"/>	Automatic mode <input type="checkbox"/>	Manual mode <input type="checkbox"/>	Performance mode <input type="checkbox"/>													
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Automatic mode <input type="checkbox"/>	Manual mode <input type="checkbox"/>	Performance mode <input type="checkbox"/>																	



DCT Gearbox Pre-Diagnosis Form

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Model	Updated on
<small>ferrari</small> <i>California</i> T	February 2016

If noise occurs with gear engaged, specify when:	Under acceleration <input type="checkbox"/>	When lifting off throttle <input type="checkbox"/>	Constant throttle (cruise) <input type="checkbox"/>
	Driving straight <input type="checkbox"/>	Turning right <input type="checkbox"/>	Turning left <input type="checkbox"/>
Noise is heard when:	Negotiating traffic circle <input type="checkbox"/>	Negotiating tight bend <input type="checkbox"/>	Negotiating wide bend <input type="checkbox"/>
	Whistle <input type="checkbox"/>	Rumble <input type="checkbox"/>	Gear noise <input type="checkbox"/>
Describe the type of noise heard:	Differential bevel gear <input type="checkbox"/>	Vibration <input type="checkbox"/>	Clunking <input type="checkbox"/>
	Check the levels of the clutch hydraulic oil system (ATF) and the gearbox gear oil system (GL)		
Oil level (ATF)	Too high <input type="checkbox"/>	Too low <input type="checkbox"/>	OK <input type="checkbox"/>
Oil level (GL)	Too high <input type="checkbox"/>	Too low <input type="checkbox"/>	OK <input type="checkbox"/>
Is metal debris found on plug?			
JOB FILE			
Job performed (from operations list):			
Kit Part Nos. ordered:			



DCT Gearbox Pre-Diagnosis Form

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Model	Updated on
<small>FERRARI</small> <i>California</i> T	February 2016

Job performed on:	
<u>CCP</u>	<u>SAP</u>
Identification No. of old CCP:	Identification No. of old SAP:
Identification No. of new CCP:	Identification No. of new SAP:
Any faults noted during repair procedure:	

Task performed by (Dealer):

Technical Manager:

First name _____
(Print)

Surname _____
(Print)

Company stamp

Full signature