



Ferrari North America

Technical Information

Date: December 2020
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Section: 10

Model: **SF90 STRADALE**
Subject: Pre-Delivery Inspection – PDI procedures

- IMPORTANT -

The pre-delivery inspection procedures (PDI) may only be performed by your F-HVT (Ferrari High Voltage Technician), who has taken the SF90 training class and passed the TUV certification for working with high voltage systems.

In case of any doubt, contact the Ferrari Help Desk before starting any work on the vehicle.

Please find enclosed the new procedures and relative list of inspections to be performed at all times before the vehicle is delivered to the customer.

The following procedures must be performed exactly as indicated and in the order given, providing the factory with the information requested.

- IMPORTANT -

This Pre-Delivery Inspection (PDI) procedure may only be performed with a PC-Tester DEIS updated to at least the following software version (or subsequent release):

- Module 0	Portal and Troubleshooting	54
- Module 1	DEIS Diagnostic software	89
- Module 2	Technical Documentation	12
- Module 3	Tools	8

Check the software number and, if necessary, update your DEIS Tester immediately.

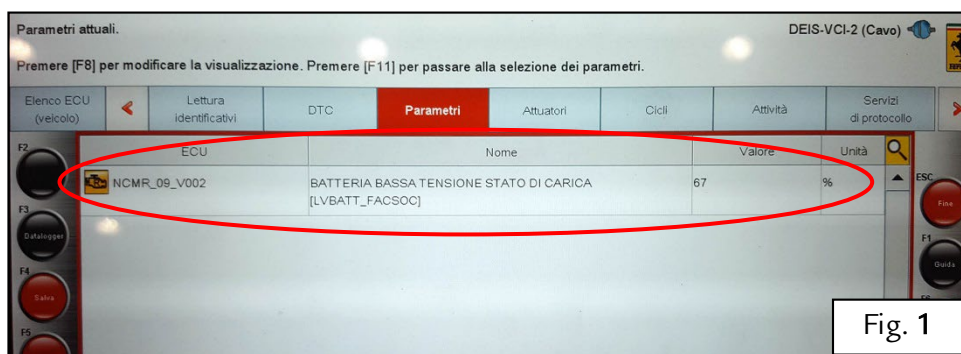
After updating the DEIS, the first vehicle diagnostic cycle must be performed using a cable connection.



Ferrari North America

Procedure.

1. Visually inspect **condition of vehicle paintwork**; repair if necessary (use the specific **“Bodywork Problems”** form annexed on page 11).
2. If disconnected, connect the negative pole of the battery and reset the vehicle auto-adaptive parameters (as described in paragraph **F3.01** of the Workshop Manual).
3. Activate Key-ON state and check the automatic gearbox mode indicated on the instrument panel:
 - if letter **“P”** (Park Lock) is displayed, go to point 5.
 - if letter **“N”** (Neutral) is displayed, go to point 4.
4. Re-enable the Park Lock – Gearbox lock device (as described in paragraph **C2.07** of the Workshop Manual).
5. Using the **DEIS** tester, print out the engine parameters and indicate the values **SOC** (State of Charge) and **SOH** (State of Health) of the high voltage battery (**HVB**), and the values and **SOC** of the low voltage battery (**LVB**). Charge the batteries with the specific battery charger/conditioner. Attach the print-out of the engine parameters, with the description **“PDI Form Info”**.



6. Using the **DEIS** tester, disable the **“Logistic Mode”** function with diagnostic cycle **“150 Complete Logistic Mode”** on the **NBC ECU** (Body Computer Node).
7. Test the keys and the anti-theft system.
8. Check that the daytime lights are working (depending on market).



Ferrari North America

9. Check that the low beam lights work correctly: also check that the **AHS** - Adaptive Headlights System (if applicable) works correctly when the steering wheel is turned.
10. Check the vehicle front lift (if present) is working: also check that the **AHS** (low beam headlamp orientation) system is working correctly. With the car raised, the height of the headlight beam must be the same as with the car lowered.
11. Check that the high beams work correctly.
12. Check that the brake lights work correctly.
13. Check that the turn indicators and license plate lights work correctly.
14. Check that all the cabin light units in the vehicle work correctly.
15. Check that the backlighting of the buttons on the steering wheel, dashboard, doors, center console tunnel and the ceiling light unit, and of the USB port socket, works correctly.
16. Check the horn.
17. Check that the power windows work correctly.
18. Check that the windshield and headlight wipers work correctly.
19. Check that the mechanical/electrical steering adjustment mechanism works correctly.
20. Check the electric seat functions: check fore/aft, backrest rake, height and cushion tilt angle adjustment functions. If applicable, also check: the seat memory functions (driver side only) and the lumbar support, pneumatic side bolster, seat cushion length (upper leg support) adjustment functions and the heated seat function.
21. Check that the electric parking brake (**EPB**) works correctly; test manual and automatic modes.
22. Check that Infotainment / navigation system works correctly (if installed, see point **37**); **set the relative roadside assistance numbers for your market.**



Ferrari North America

23. Check engine coolant level and top up if necessary.
24. Check the fluid level of the cooling system of the high voltage electrical system battery (HVB) (as described in paragraph **G3.02** of the Workshop Manual).
25. Check the fluid level of the cooling system of the inverter and electric front axle (**P4**) (as described in paragraph **G6.02** of the Workshop Manual).
26. Check the brake fluid level and top up if necessary.
27. Check the headlight washer/windshield washer fluid level and top up if necessary.
28. Check tire pressure calibration with the **TPMS** system.
29. Check the tightness of the wheel studs with a torque wrench . The studs must be tightened to **120 Nm** on vehicles with **aluminium** wheels, or **150 Nm** on vehicles with **carbon** wheels.
30. Check that the tow hook can be fitted correctly.
31. Check that all High Voltage warning labels are applied correctly.

Start the engine (as described in paragraph F19.02 of the Workshop Manual), and perform the following:

32. Check that the air conditioning and heating system works correctly (static test).
33. Check that the electric rear view mirrors work correctly.
34. Check that the internal electrochromic mirror and the electrochromic RH and LH rear view mirrors (if installed) work correctly.
35. Check that the parking sensors, rear and front parking cameras (if applicable) and **Surround View** cameras (if applicable) work correctly.
36. Using the **DEIS** tester, perform the “Cancel all DTCs from all ECUs” procedure from the “**Vehicle functions**” menu.



Ferrari North America

Test drive.

37. Check function of navigation system (if applicable); set route before setting off.
38. Test drive the vehicle (approx. **20** minutes).
39. Check that Stop&Start system works correctly.
40. While driving, check that the “Manettino” dial on the steering wheel works correctly. Also check that the “Suspension damping decouple” function, selectable by pressing the Manettino control, works correctly.
41. While driving, check that the **ADAS** driver assistance systems (if applicable) work correctly:
 - Adaptive Cruise Control;
 - Blind Spot Detection;
 - Rear Cross Traffic Alert;
 - Traffic Sign Recognition;
 - Lane Departure Warning.
42. While driving, check that the air conditioning and heating system works correctly (dynamic test).
43. **For USA/CND Version only.** Take the vehicle into a location with a clear view of the sky and activate Sirius XM as per FNA 165

Return to workshop.

44. Check the engine oil level (engine warm and at idle speed) and top up if necessary (as described in paragraph **B8.02** in the Workshop Manual).
45. Using the **DEIS** tester, check that the **VIN** number read on the tester matches the number indicated on the VIN plate situated at the bottom left of the windshield and the number punched onto the chassis of the vehicle. The punched VIN number on the chassis is visible via an aperture in the floorpan carpet on the passenger side. For more information on the locations of vehicle identification numbers, see chapter **A1.02** of the Workshop Manual. if necessary, the VIN number may be modified using the “**100 Write VIN**”



Ferrari North America

diagnostic function (password-protected) on the **NCM** ECU (engine control node). Any faults must be reported in an **ROL**.

46. Resolve and cancel any errors on all ECUs.
47. Enter the warranty start date (Check that the language setting on the TFT display is correct).
48. Perform the “**SCAN OUT**” procedure from the “**Vehicle functions**” menu with the **DEIS** tester **before carrying out any further diagnostic operations**.
49. Remove the complete aerodynamic undertray and the cosmetic engine compartment shields from the vehicle (as described in paragraphs **E3.01** and **E3.03** of the Workshop Manual).
50. Visually check for coolant and/or oil leaks in the underbody area and engine compartment.
51. Visually inspect engine compartment lines.
52. Visually inspect the engine compartment wiring harnesses.
53. Visually inspect the High Voltage wiring harnesses in the engine compartment.
54. Visually inspect underbody lines.
55. Visually inspect exhaust pipes.
56. Visual inspection of fuel tanks.
57. Check visually that the following are fitted correctly: Suspension assembly components, steering box and axle shaft flanges.
58. Check visually that the following are fitted correctly: vehicle ground point and engine ground point.
59. Visually inspect condition of brake pads and discs (**DO NOT** remove wheels).
60. Check condition of tires and wheels.
61. Refit the complete aerodynamic undertray and cosmetic engine compartment shields (as described in paragraphs **E3.01** and **E3.03** of the Workshop Manual).



Ferrari North America

62. Check that the door and lid locks work correctly; adjust if necessary.
63. Check that the fuel filler flap and battery charger socket flap emergency release mechanisms work correctly; adjust if necessary.
64. Visually inspect condition of vehicle interior; repair if necessary.
65. Clean the interior thoroughly and wash the exterior. Do not use an automatic car wash with rotary brushes. Do not use steam or pressure cleaners to clean the engine compartment, areas in the vicinity of high voltage cables and components, areas in the vicinity of the battery conditioner socket and high voltage battery, or the vehicle bodywork in general, as they may cause damage to the high voltage system.
66. Ensure that the vehicle is delivered complete with the following:
 - identification and type approval plates
 - license plate holder
 - tool kit
 - On Board Documentation (Owner's Manual, Quick Reference Guide, Warranty Booklet, Emergency Response Guide, First Aid Guide, Battery conditioner guide), second vehicle key, Code Card and any other material related to optional accessories.
67. Check that the battery conditioner provided with the vehicle works correctly, referring to the relative manual.



Ferrari North America

- IMPORTANT -

Confirm that the operations listed above have been carried out correctly with the “Pre-Delivery Inspection - PDI” form (enclosed on pages 9 and 10), compiled in full and signed by the Aftersales Manager of your Authorized Ferrari Dealer.

After the inspection procedures, ALWAYS open an ROL (Red On Line) if the vehicle is in “New Model/Special Series” status (ref. TI 2667) specifying “PDI Form Info” as the description. **Attach the completed “PDI Pre-Delivery Inspection” form attach the duly compiled “PDI Pre-Delivery Inspection” form** together with the printout files of the parameters and errors requested in points 5, 36 and 48.

You will also be required to open a separate individual ROL with the description "**PDI Fault Info**" for each fault encountered during the inspection procedure, indicating the respective operation number as cited in the “PDI Pre-Delivery Inspection” form; Attach all necessary documentation, including photographs if needed.

Thank you for your co-operation.



Model	Updated on
SF90 STRADALE	June 2020

Chassis number:

Dossier creation date:

Job order no.:

Notes:

Description of inspection / operation:	Performed OK	Performed NOTOK	R.O.L. N° (if NOT OK)
1. - Condition of vehicle paintwork.	☐	☐	
2. - Connect battery and reset vehicle parameters.	☐	☐	
3. - Check Park Lock device.	☐	☐	
4. - Reset Park Lock device.	☐	☐	
5. - Check SOC (State of Charge) of LVB and HVB batteries	☐	☐	
6. - Disable "Logistic Mode".	☐	☐	
7. - Test keys, etc.	☐	☐	
8. - Daytime running lights.	☐	☐	
9. - Low beam lights and AHS (if applicable).	☐	☐	
10. - Check the front vehicle lift (if installed).	☐	☐	
11. - High beams.	☐	☐	
12. - Stop lights.	☐	☐	
13. - Turn indicators and license plate lights.	☐	☐	
14. - Check that the interior light units work correctly.	☐	☐	
15. - Button backlighting.	☐	☐	
16. - Horn.	☐	☐	
17. - Power windows.	☐	☐	
18. - Windshield and headlight wipers.	☐	☐	
19. - Steering wheel adjustment.	☐	☐	
20. - Check seat functions.	☐	☐	
21. - Electric parking brake (EPB); manual/auto.	☐	☐	
22. - Infotainment / Navigation system (see point 37).	☐	☐	
23. - Engine coolant level.	☐	☐	
24. - HVB battery coolant level.	☐	☐	
25. - Inverter and electric front axle coolant level.	☐	☐	
26. - Braking system fluid level.	☐	☐	
27. - Windshield washer/headlight washer fluid level.	☐	☐	
28. - Tire pressure calibrated with TPMS.	☐	☐	
29. - Tightness of wheel stud bolts.	☐	☐	
30. - Towhook.	☐	☐	
31. - Check High Voltage warning labels.	☐	☐	
32. - * Air conditioning and heating system (static test).	☐	☐	
33. - * Electric rear-view mirrors.	☐	☐	
34. - * Electrochromic rear view mirrors (if applicable).	☐	☐	
35. - * Parking sensors, front/rear cameras and Surround View.	☐	☐	
36. - Cancel all DTCs from all ECUs.	☐	☐	
37. - Navigation (if applicable): Set route.	☐	☐	
38. - Test drive (20 min.).	☐	☐	
39. - Test Stop&Start function.	☐	☐	

(*) With engine running



Pre-Delivery Inspection - PDI form

Page 02 of 02

Model	Updated on
SF90 <i>STRADALE</i>	June 2020

40. - "Manettino" and suspension damping decouple function.	☐	☐
41. - Check ADAS systems (if applicable).	☐	☐
42. - Air conditioning and heating system (dynamic test).	☐	☐
43. - For USA/ CND ONLY_ SiriusXM Activation.	☐	☐
44. - Engine oil level (warm engine – at idle speed).	☐	☐
45. - Check VIN on NCM, on windshield VIN plate and on chassis.	☐	☐
46. - Check and cancel ECU errors.	☐	☐
47. - Enter warranty start date.	☐	☐
48. - Perform "SCAN OUT" procedure.	☐	☐
49. - Remove complete aerodynamic undertray and shields.	☐	☐
50. - Water and/or oil leaks in vehicle underbody.	☐	☐
51. - Engine compartment lines.	☐	☐
52. - Engine compartment wiring.	☐	☐
53. - High voltage wiring harnesses in engine compartment.	☐	☐
54. - Underbody lines.	☐	☐
55. - Exhaust pipe.	☐	☐
56. - Visual inspection of fuel tanks.	☐	☐
57. - Visual inspection: Suspension components, etc.	☐	☐
58. - Visual inspection of ground connections: vehicle and engine-chassis ground.	☐	☐
59. - Condition of brake pads and discs (DO NOT remove wheels).	☐	☐
60. - Condition of tires and wheel rims.	☐	☐
61. - Refit flat undertray and engine compartment shields.	☐	☐
62. - Door and lid locks.	☐	☐
63. - Fuel filler flap emergency opening.	☐	☐
64. - Condition of vehicle interior.	☐	☐
65. - Clean interior and wash car (DO NOT use pressure cleaner).	☐	☐
66. - Material provided with vehicle: Identification plates, toolkit, etc.	☐	☐
67. - Functional test of battery conditioner	☐	☐

Job performed by (Dealer):

Technical Manager:

First name _____
(Print)

Last Name _____
(Print)

Company stamp

Full signature

Vehicle delivery date: _____

