

## MAN FFR Onboard Computer Fault codes list

Code (SPN)	Description	The reason, check and reaction of the system.
32	The state of the divider.	Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On Still Car Lights the alarm lamp STOP Yellow. The state of the divider could not be determined for the specified measurement time. Check the circuit, the pins in the connectors and the accuracy of the speed sensor readings at the input of the gearbox (in 368). Check the accuracy of the rotation signal using the PC. Check resistance: from side <b>FFR</b> Between Contacts X3/12 (+) and x1/3 (-) resistance should correspond to approximately 1.78 Kom, on the part of the sensor resistance should correspond to approximately 1.05 Kom. Check the voltage between the unit pins <b>FFR</b> X3/12 (+) and x1/3 (-), the voltage should equal approximately 1 v. At idle. When Tagging: see SPN 770 and 771.
161	Rotational speed at the input of the gearbox.	Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On a stationary car the warning lamp is illuminated STOP Yellow. Incorrect signal from the speed sensor at the input of the gearbox (in 368) the status "Signal unavailable" is set, it is impossible to determine the state of the divider, the function "Comfort-ShiftLocked. Check the circuit, the pins in the connectors and the accuracy of the speed sensor readings at the input of the gearbox (in 368). Check the accuracy of the rotation signal using the PC. Check resistance: from side <b>FFR</b> Between Contacts X3/12 (+) and x1/3 (-) resistance should correspond to approximately 1.78 Kom, on the part of the sensor resistance should correspond to approximately 1.05 Kom. Check the voltage between the unit pins <b>FFR</b> X3/12 (+) and x1/3 (-), the voltage should equal approximately 1 v. At idle.
168	Battery voltage	Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On a stationary car the warning lamp is illuminated STOP Yellow. The operating voltage is more than 32 v. Check the accuracy of the signal using a PC, check wiring, pins in connectors, generator and batteries. Check the voltage on the contact unit <b>FFR</b> X1/2, X1/1 (+), x1/3 (-), the voltage must be Between 20 and 28 v. If the voltage measured on the connectors is Block <b>FFR</b> Normal, replace the unit <b>FFR</b> .
168	battery power supply voltage.	Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On a stationary car the warning lamp is illuminated STOP Yellow. The operating voltage is less than 16 v. Check the accuracy of the signal using a PC, check wiring, pins in connectors, generator and batteries. Check the voltage on the contact unit <b>FFR</b> X1/2, X1/1 (+), x1/3 (-), the voltage should be within the limits between 20 and 28 v. If the voltage measured on the connectors of the Unit <b>FFR</b> Normal, replace the unit <b>FFR</b> .

572	Auxiliary device for the activation of the retarder brake.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. The wiring of the data line from the touch control switch to the retarder is faulty. The switch stops functioning. The included brake retarder deactivates by pressing the accelerator pedal. Check the accuracy of the signal using the PC, check the wiring, pins in the connectors, touch the brake-retarder. Check the resistance of the data transmission line from the touch switch, between the unit pins <b>FFR</b> X2/10 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approx. 1.5 PTO, on the car side approximately 1.6 pto. Check the wire resistance of the touch switch of the retarder, between the pins of the unit <b>FFR</b> X2/6 (+) and x 1/3 (-) on the side of the block <b>FFR</b> Approximately 1.7 IOM, on the side of the car approximately 1.2 IOM. Check the voltage of the data transmission line from the touch switch, between the unit pins <b>FFR</b> X2/10 (+) and x1/3 (-), jumper (test block) Closed: approx. 14.2 v., jumper (test block) Open: On the side of the unit <b>FFR</b> Approx. 23.5 in, on the side of the car approx. 14 v. Check the voltage of the timing wire of the retarder touch switch, between the unit pins <b>FFR</b> X2/6 (+) and x 1/3 (-) jumper (test block) Closed: approx. 12.3 v., jumper (test block) Open: On the side of the unit <b>FFR</b> Approximately 13.5 v., on the side of the car approximately 22.5 v.</p>
697	Accelerator pedal, Signal PWM1 (signal pulse modulation).	<p>Priority 2: A malfunction that requires removal from the service center. Signal Lamp STOP Lights up permanently in red. Missing or incorrect signal PWM1 Accelerator pedal (a 410). To identify the position of the accelerator pedal, a signal is PWM2. Engine speed and torque are limited (1800 RPM and 80% limit). Check the accuracy of the signal PWM1 with PC, check wiring, pins in connectors. Perform measurement using a portable oscilloscope Fluke ScopeMeter 123 or similar device (frequency 200 Hz). Check the voltage on the unit <b>FFR</b> Between pins x2/11 (+) and x1/3 (-): The jumper (Test block) is closed, the signal Low: (The accelerator pedal is fully pressed) approx. 8 v., the Signal HIGH: approx. 20 v.; Jumper (test block) Open: On the side of the unit <b>FFR</b> Approx. 25.4 v., on the side of the car approx. 0.5 v. If the problem is not found, try recalibrating the accelerator pedal.</p> <p>If the voltage drop when the ignition is on, the PWM1 (a410/pin5) and power supply on PWM2 (a410/pin6) is more than 100 MS, the fault code is registered.</p>
698	Accelerator pedal, Signal PWM2 (signal pulse modulation).	<p>Priority 2: A malfunction that requires removal from the service center. Signal Lamp STOP Lights up permanently in red. Missing or incorrect signal PWM2 Accelerator pedals (a 410). To identify the position of the accelerator pedal, a signal is PWM1. Engine speed and torque are limited (1800 RPM and 80% limit). Check the accuracy of the signal PWM2 using PC, check wiring, pins in connectors. Perform measurement using a portable oscilloscope Fluke ScopeMeter 123 or similar device (frequency 200 Hz). Check the voltage on the unit <b>FFR</b> Between pins x2/18 (+) and x1/3 (-): The jumper (Test block) is closed, the signal Low: approx. 8 v., Signal HIGH (Accelerator pedal is fully pressed): approx. 20 v.; Jumper (test block) Open: On the side of the unit <b>FFR</b> Approx. 25.5 v., from the car side approx. 0 v. If the problem is not found, try recalibrating the accelerator pedal.</p> <p>If the voltage drop when the ignition is on, the PWM1 (a410/pin5) and power supply on PWM2 (a410/pin6) is more than 100 MS, the fault code is registered.</p>
770	Раздельный Н.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Malfunction in electromagnetic valve wiring detected SPLIT-HIGH (Y307). The malfunction is recorded in the fault recorder in case the malfunction is recorded during three cycles of measurement (500 ms). The divider valve stops being controlled.</p> <p>Using a PC, you can test the elements "SPLIT-HIGH and SPLIT- LOW". Check resistance between pins x3/13 (+) and x4/6 (-): On the side of the block <b>FFR</b> Approximately 6 Kom, on the car side approximately 83.3 ohm. Check resistance between pins x3/13 (+) and x1/3 (-): On the side of the block <b>FFR</b> approx. 4.3 com, on the side of the car ---. Check the voltage between the unit pins <b>FFR</b> {3/13 (+) and x4/6 (-): At an activated electromagnetic valve approximately 27.6 v. At the deactivated valve approximately 0 v.</p>

771	Раздельный.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Malfunction in electromagnetic valve wiring detected SPLIT-LOW (Y307). The malfunction is recorded in</p>
		<p>Fault recorder in case the fault is registered during three cycles of measurement (500 ms). The divider valve stops being controlled. Using a PC, you can test the elements "SPLIT-HIGH and SPLIT-LOW". Check resistance between pins x4/7 (+) and x4/6 (-): On the side of the block <b>FFR</b> Approximately 6 Kom, on the car side approximately 84.6 ohm. Check resistance between pins x4/7 (+) and x1/3 (-): On the side of the block <b>FFR</b> approx. 4.3 com, on the side of the car-- -. Check the voltage between the unit pins <b>FFR</b> {4/7 (+) and x4/6 (-): At an activated electromagnetic valve approximately 27.6 v. At the deactivated valve approximately 0 v.</p>
898	Group of resistors limit maximum speed.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Incorrect signal from the group of resistors (R134). Stage HGB (maximum speed limit) remains activated. After the next turn, select the RGB0 (Maximum speed limit 1 is activated). With the help of PC check signal accuracy, check wiring, pins in connectors, check the body interface x1996, check the group of resistors (R134). Check the resistance between pins x2/6 (+) and x1/3 (-) on the side of the unit <b>FFR</b> Approximately 6.5 Kom, on the side of the car approximately 0.511 Kom. Check resistance of the group of resistors (R134): Between contacts 5 and 7/6 approximately 3.09 Kom, between contacts 5 and 3/4 approximately 1.37 Kom, between contacts 5 and 2/8 approximately 0.51 Kom, between contacts 5 and 1/9 approximately 8.2 kom. Check the voltage between the unit pins <b>FFR</b>: x2/6 (+) and x1/3 (-) approximately 460 mv.</p>
1045	The final stage of the transmission lock.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Closure of the lock on the output of the transmission (end stage) of the electromagnetic valve block (Y307). The transmission lock is no longer controlled. Check with PC the actuators (lock on transmission), wiring, pins in connectors. On gearboxes type ZF16S151/ZF16S181 Check the block of electromagnetic valves (Y307). Check the resistance between the pins x 4/13 (+) and x3/5 (-): On the side of the unit <b>FFR</b> Approximately 8.9 ohm, on the side of the car approximately 135 ohms. Check resistance between pins x4/13 (+) and x 1/3 (-): On the side of the block <b>FFR</b> Approx. 8.3 Kom, on the side of the car---. Check the voltage between pins x4/13 (+) and x3/5 (-): When an electromagnetic valve is activated approximately 27.5 v., when The solenoid valve is deactivated by approx. 0 v.</p>
3010	Limit the speed and torque.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Incorrect signal from the group of resistors (R134). The limit level for the speed range remains activated. At the first turn, step 0 is activated for the engine speed range. With the help of PC check signal accuracy, check wiring, pins in connectors, check the body interface x1996, check the group of resistors (R134). Check the resistance between pins x2/1 (+) and x1/3 (-): On the side of the block <b>FFR</b> Approximately 6.5 ohm, on the side of the car approximately 0.511 ohms. Check resistance of the group of resistors (R134): Between contacts 5 and 7/6 approximately 3.09 Kom, between contacts 5 and 3/4 approximately 1.37 Kom, between contacts 5 and 2/8 approximately 0.51 Kom, between contacts 5 and 1/9 approximately 8.2 kom. Check the voltage between the unit pins <b>FFR</b>: x2/1 (+) and x1/3 (-) approximately 460 mv.</p>

3020	Calibration value, accelerator pedal, PWM1.	Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On a stationary car the warning lamp is illuminated STOP Yellow. Signal PWM1 Accelerator pedal (a 410) is not set or configured. A malfunction occurs when the idle value is greater than 10% or less than 30%, and the full load point value is greater than 90% or less than 40%. The engine speed limit and torque limit are activated. The accelerator pedal value is calculated by the signal PWM2. Check the accuracy of the signal (pedal module PWM1) using the PC, calibrate the accelerator pedal. The pedal is calibrated using a PC. To calibrate, press the accelerator pedal to the end (the "boil down" mode must be activated), hold the pedal in the pressed position for about 3 seconds, then the pedal should be released, repeat these steps 2-3 times. When installing a new accelerator pedal, calibration is always required.
3021	Calibration value, accelerator pedal, PWM2.	Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On a stationary car the warning lamp is illuminated STOP Yellow. Signal PWM2 Accelerator pedals (a 410) are not set or configured. A malfunction occurs when the idle value is less than 10% or greater than 30%, and the full load point value is greater than 90% or less than 40%. This activates the engine speed limit and torque limit. The accelerator pedal value is calculated by the signal PWM1. Check the accuracy of the signal (pedal module PWM2) using the PC, calibrate the accelerator pedal. The pedal is calibrated using a PC. To calibrate, press the accelerator pedal to the end (the "boil down" mode must be activated), hold the pedal in the pressed position for about 3 seconds, then the pedal should be released, repeat these steps 2-3 times. When installing a new accelerator pedal, calibration is always required.
3197	Data bus CAN: Message AS-Tronic ETC1, byte 1.	Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On a stationary car the warning lamp is illuminated STOP Yellow. Incorrect signal values "shift process" or signal "driveline engaged" Control unit AS-Tronic (and 330). The incoming signal is identified as invalid. Check the fault recorder of the gearbox control unit AS-Tronic (a 330) and eliminate the causes of malfunctions, check wiring, pins in connectors. Check Data channel resistance CAN TransmissionT-CAN): On the contacts of the control unit AS-Tronic A12 (-) and a8 (+) approx. 60 ohm. Check Data channel resistance CAN TransmissionT-CAN) on the contacts of the Unit <b>FFR</b> X1/15 (-) IH1/14 (+) approx. 120 ohm. At the resistance 0 Ohm can-High closure on Can-Low.
3250	Comfort Shift Inputs (CS1 and CS2).	Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. The input value is not accurate when both input signals are Comfort Shift Gearbox Control switch (S477) have the same level longer than 100 Ms. or after enabling the request remains unfulfilled for longer than 2 S. function Comfort Shift Blocked. Using the PC, check the accuracy of the signal "switch Comfort Shift" and " switch Comfort Shift In the opposite position. " Check Resistance: request Comfort Shift 1, Block <b>FFR</b> Between pins x2/12 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 4.6 com. Check Resistance: request Comfort Shift 2, Block <b>FFR</b> Between pins x2/3 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 4.6 com. Check Voltage: Request Comfort Shift 1, Block <b>FFR</b> Between pins x2/12 (+) and x1/3 (-): The switch is open 0 V, the switch is closed UCL. 15 (equal to the voltage on the terminal 15 of the ignition lock when ignition is on). Check Voltage: Request Comfort Shift 2, Block <b>FFR</b> Between pins x2/3 (+) and x1/3 (-): The switch is open 0 V, the switch is closed UCL. 15 (equal to the voltage on the terminal 15 of the ignition lock when ignition is on).
3251	Switch FGR(Speed control System)/FGB(Speed limit).	Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Switch malfunction FGR/FGB. System FGR Deactivated. Check with the PC the accuracy of the signal "switch FGR PpcTempomat) ", check the wiring and pins in the connectors, check the switch FGR/FGB (S284). Check Resistance: The switch is open, between the unit pins <b>FFR</b> X2/16 (+) and x1/3 (-), block <b>FFR</b> Disconnected, approximately 4.6 com. Check voltage: The switch is open, between the unit pins <b>FFR</b> X2/16 (+) and x1/3 (-), block <b>FFR</b> Disconnected 0 v.

3269	Signal accuracy from the terminal 50 ignition lock (engine start).	<p>Priority 3. Indication only when the car is stationary, only indication of the fault, the indication of actions for the error is not required. On a stationary car the warning lamp is illuminated STOP Yellow. Signal about starting the engine from the ignition lock (Q101) is considered incorrect when the ignition is triggered, the engine start signal is fed. After the next procedure, the start is possible if a positive signal is detected during the engine start-up process. Using the PC, check the accuracy of the signal "terminal 50", "External engine stop Request", "External engine start request", check wiring, pins in connectors, ignition lock (Q101), an external device for starting and stopping the engine.</p> <p>Check the resistance between the pins of the Unit connector <b>FFR</b> X3/7 (+) and x1/3 (-) on the side <b>FFR</b> Approximately 4.6 com. Check the voltage between</p> <p>Contacts X3/7 (+) and x1/3 (-): The switch is open 0 v., the switch is closed from 16 to 32 V (UBattery voltage).</p>
3311	Control Unit (calibration amount EEPROM).	<p>Priority 1: Engine shutdown is required. Signal Lamp STOP Flashing red along with the symbol STOP. If the driver detects a malfunction, the unit <b>FFR</b> (a 403) must be replaced. If the malfunction appears after the programming process (e.g. key, clutch or accelerator pedal) or after replacing the unit <b>FFR</b>, you must change the settings again. If the unit <b>FFR</b> is replaced due to this malfunction, you need to do the following: Before connecting the PC, remove the faulty unit <b>FFR</b>, after connecting the PC using the menu item "from the service computer through the network connection in the enterprise" prepare the data required to replace the unit <b>FFR</b>, do not under any circumstances read data from a faulty unit <b>FFR</b>, it is possible to transfer the fault code 3311 to a new unit.</p>
3449	Back pressure exhaust gas.	<p>Priority 2: A malfunction that requires removal from the service center. Signal Lamp STOP Lights up permanently in red. The malfunction is recorded if the exhaust gas back pressure exceeds the threshold value during the specified time and the motor brake is not active. Module Evb (Engine brake Valve Y355) is deactivated. With the help of the PC check the accuracy of the signal "back pressure exhaust gas", check the wiring, pins in connectors, module Evb. Check Resistance: Power 5 v., block <b>FFR</b> Between pins x2/5 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 100 Kom, on the side of the car approximately 3.7 kom. Check resistance: signal back pressure exhaust gas, block <b>FFR</b> Between pins X3/4 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 100 Kom, on the side of the car approximately 12.2 kom. Check resistance: Mass, block <b>FFR</b> Between pins X3/5 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 1.9 kom, on the side of the car approximately 54 Kom.</p> <p>Check Resistance: Motor Brake, block <b>FFR</b> Between pins X4/14 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approx. 8.82 ohm, on the car side approximately 22 ohms. Check Voltage: Power supply 5 v., Unit <b>FFR</b> Between pins x2/5 (+) and x 1/3 (-) approx. 5 v. Check the voltage: signal back pressure exhaust gas, block <b>FFR</b> Between pins X3/4 (+) and x1/3 (-) approximately 560 mv. Check voltage: Mass, block <b>FFR</b> Between pins X3/5 (+) and x1/3 (-) 0v. Check voltage: Motor Brake, block <b>FFR</b> Between pins X4/14 (+) and x1/3 (-) module Evb Activated---, module Evb Not activated 0 v. Check Voltage: Unit <b>FFR</b> Between pins x4/1 (+) and x3/5 (-) The electromagnetic valve is activated approximately 27.6 in, at simple signal HIGH Every 6 seconds, the solenoid valve is deactivated by 0 v.</p>

3450	Back pressure exhaust gas.	<p>Priority 2: A malfunction that requires removal from the service center. Signal Lamp STOP Lights up permanently in red. The malfunction is recorded if the exhaust gas back pressure exceeds the threshold value during the specified time and the motor brake is not active. Module Evb (Engine brake Valve Y355) is deactivated. With the help of the PC check the accuracy of the signal "back pressure exhaust gas", check the wiring, pins in connectors, module Evb. Check Resistance: Power 5 v., block <b>FFR</b> Between pins x2/5 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 100 Kom, on the side of the car approximately 3.7 kom. Check resistance: signal back pressure exhaust gas, block <b>FFR</b> Between pins X3/4 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 100 Kom, on the side of the car approximately 12.2 kom. Check resistance: Mass, block <b>FFR</b> Between pins X3/5 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 1.9 kom, on the side of the car approximately 54 Kom. Check Resistance: Motor Brake, block <b>FFR</b> Between pins X4/14 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approx. 8.82 ohm, on the car side approximately 22 ohms. Check Voltage: Power supply 5 v., Unit <b>FFR</b> Between pins x2/5 (+) and x 1/3 (-) approx. 5 v. Check the voltage: signal back pressure exhaust gas, block <b>FFR</b> Between pins X3/4 (+) and x1/3 (-) approximately 560 mv. Check voltage: Mass, block <b>FFR</b> Between pins X3/5 (+) and x1/3 (-) 0v. Check voltage: Motor Brake, block <b>FFR</b> Between pins X4/14 (+) and x1/3 (-) module Evb Activated---, module Evb Not activated 0 v. Check Voltage: Unit <b>FFR</b> Between pins x4/1 (+) and x3/5 (-) The electromagnetic valve is activated approximately 27.6 in, at simple signal HIGH Every 6 seconds, the solenoid valve is deactivated 0 v.</p>
3451	"Comfort-Shift" is not functioning.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. functionComfort-ShiftLocked. Using the PC, check the accuracy of the signal "switch Comfort-Shift"and" switch Comfort-Shift In reverse position ", check wiring, pins in connectors, check switch control lever gearbox (S477). Check Resistance: request Comfort-Shift 1, Block <b>FFR</b>-Between pins x2/12 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 4.6 com. Check Resistance: request Comfort-Shift 2, Block <b>FFR</b>-Between Pins x2/3 (+) and x1/3 (-) on the side of the block <b>FFR</b> Approximately 4.6 com. Check Voltage: Request Comfort-Shift 1, Block <b>FFR</b>-Between pins x2/12 (+) and x1/3 (-) The switch is opened 0v., the switch is closed UCl15 (voltage from the ignition lock). Check Voltage: Request Comfort-Shift 2, Block <b>FFR</b>-Between Pins x2/3 (+) and x1/3 (-) The switch is opened 0v., the switch is closed UCl15 (voltage from the ignition lock).</p>
3452	Squeeze the clutch.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. The clutch is not pressed properly or the switch "Comfort-Shift". It is necessary to keep the clutch pressed until the switching procedure is over.</p>
3510	Clutch overload.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Block <b>FFR</b> Registered the clutch slip. The torque decreases by 80%. After the specified time required to cool the clutch, the maximum torque is deblocked.</p>
3520	Timeout Lss1.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. The switch of the retarder/gearbox (a 942) does not answer the steering column. Using the PC, check the signal accuracy from the switch (A942), check wiring, pins in connectors, check the switch (a 942), check the fuse F583. Check the resistance of the signal wire between the unit contact <b>FFR</b> X2/8 and Contact 2 of the switch on the steering column: approx. 0.2 ohm. Check the voltage on the switch, the power supply of the tyre LIN Between pins 3 (+) and 1 (-) UBaht. (Battery voltage).</p>



3521	Timeout mfl1.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. No response from multifunction steering wheel MFL (a943). Using the PC to check the accuracy of signals from the multifunctional steering wheel MFL (a 943) (Set-, Set+, Off, Memo, FGR/FGB), check wiring, pins in connectors, check the steering wheel, check the fuse F583. Check the resistance of the bus signal wire LIN Between contact X2/8 of the Unit <b>FFR</b> and 3 Steering wheel contact: approx. 0.2 ohm. Check bus power supply voltage LIN On Contacts 1 (+) and 2 (-): UBaht. (Battery voltage). Only the right side of the steering wheel can be checked using the PC.</p>
3522	Timeout inst1.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. No response from the dashboard (a 407). Check wiring, pins in connectors, check the dashboard (a 407). Check the resistance of the bus signal wire LIN Between contact X2/8 of the Unit <b>FFR</b> and contact X1/15 of the instrument panel: approx. 0.2 ohm.</p>
3524	The right side of the MFL is faulty.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Right side of steering wheel MFL Defective. This problem is detected MFL And on THE Block <b>FFR</b> Message is transmitted MFL1.</p> <p>With PC check the accuracy of signals from the multifunctional steering wheel MFL (a 943) (Set-, Set+, Off, Memo, FGR/FGB), check wiring, pins in connectors, check the steering wheel, check the fuse F583. Check the resistance of the bus signal wire LIN Between contact X2/8 of the Unit <b>FFR</b> and 3 Steering wheel contact: approx. 0.2 ohm. Check bus power supply voltage LIN On Contacts 1 (+) and 2 (-): UBaht. (Battery voltage). Only the right side of the steering wheel can be checked using the PC.</p>
3525	Left/Right side MFL Not correct.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. Left/right side of steering wheel MFL Defective. This problem is detected MFL And on THE Block <b>FFR</b> Message is transmitted MFL1. With the help of PC check the accuracy of signals from the multifunctional steering wheel MFL (a 943) (Set-, Set+, Off, Memo, FGR/FGB), check wiring, pins in connectors, check the steering wheel, check the fuse F583. Check the resistance of the bus signal wire LIN Between contact X2/8 of the Unit <b>FFR</b> and 3 Steering wheel contact: approx. 0.2 ohm. Check bus power supply voltage LIN On Contacts 1 (+) and 2 (-): UBaht. (Battery voltage). Only the right side of the steering wheel can be checked using the PC.</p>
3526	LSS malfunction.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. The switch of the retarder/gearbox (a 942) is not faulty steering column. Using the PC, check the signal accuracy from the switch (A942), check wiring, pins in connectors, check the switch (a 942), check the fuse F583. Check the resistance of the signal wire between the unit contact <b>FFR</b> X2/8 and Contact 2 of the switch on the steering column: approx. 0.2 ohm. Check the voltage on the switch, the power supply of the tyre LIN Between pins 3 (+) and 1 (-) UBaht. (Battery voltage).</p>
3527	LIN bus closure.	<p>Priority 5: Indication during stop and during vehicle movement. Signal Lamp STOP is lit in yellow and during movement and during stop or parking. The fault is recorded when the bus wire is closing LIN On the mass or on the voltage of the batteries.</p> <p>The fault is recorded if the closure is logged for more than 10 seconds. Check bus signal Wire LIN On the subject of closures, check the pins in the connectors. Check the resistance of the bus signal wire LIN Between contact X2/8 of the Unit <b>FFR</b> and contact 2 switches on the steering column of the retarder/gearbox: approx. 0.2 ohm. Check the resistance of the bus signal wire LIN Between contact X2/8 of the Unit <b>FFR</b> and contact 3 Multifunction steering wheel MFL: approx. 0.2 ohm. Check the resistance of the bus signal wire LIN Between contact X2/8 of the Unit <b>FFR</b> and contact X1/15 of the dashboard: approx. 0.2 v.</p>