



Installation instructions

Fuel Level Emulator FLE-JC

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1. Technical data

Supply voltage:	12V ±25%
Working temperature:	-40°C ÷ +70°C
Ingress protection grade:	IP66

2. Intended use

The FLE-JC fuel level emulator is designed for use in vehicles (mainly Japanese brands) with float resistance range of 10Ω - 550Ω. The ECU calculates the amount of consumed fuel based on fuel injection times and distance travelled.

AC S.A. recommends using FLE-JC in vehicles listed below, however, it does not guarantee that the emulator will work properly due to the fact that various manufacturers use different sensors in the same car models.

Table 1. List of cars tested for emulator compatibility

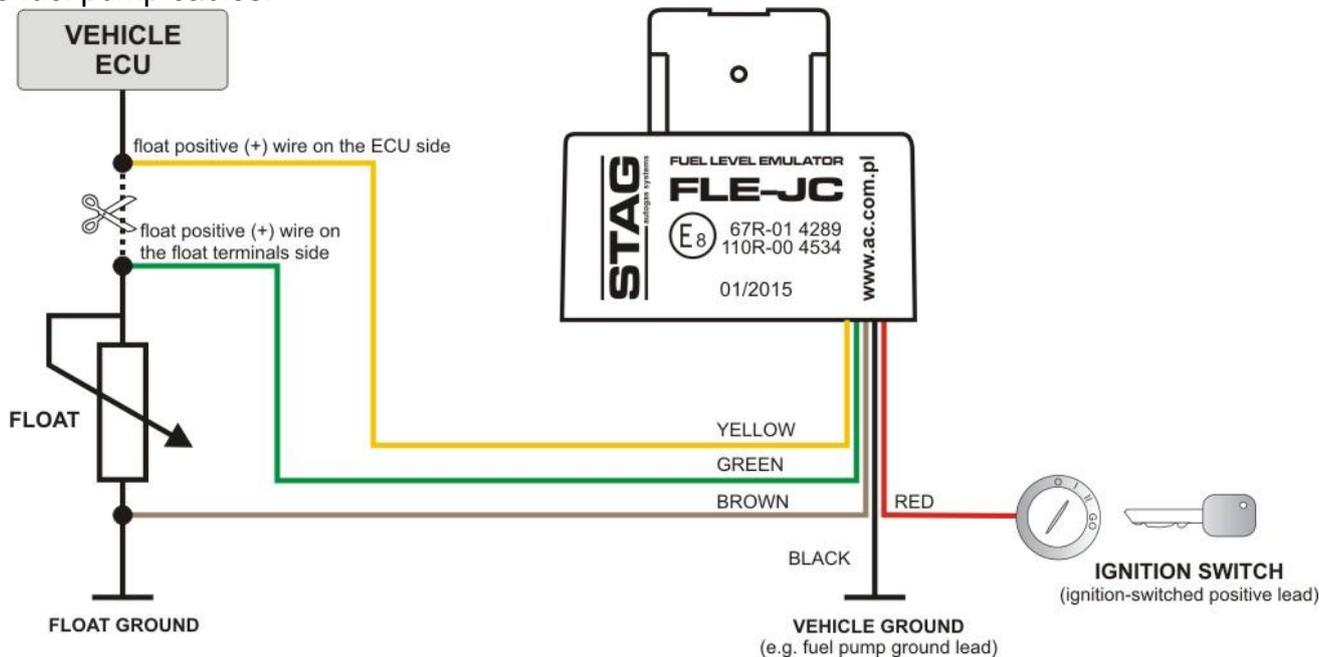
Manufacturer	Model	Year of manufacture	Engine capacity	Power
TOYOTA	AVENSIS II	2004	2.0L VVTI D4	147 KM
TOYOTA	AVENSIS II	2007	2.0L VVTI D4	147 KM
LEXUS	RX 350	2007	3.5L V6	276 KM
MAZDA	6 GH	2008	2,0L	147 KM
MAZDA	6 GH	2010	2,0L	147 KM

3. Principle of operation

Fuel level readings are updated on every engine start (the fuel level is determined based on the float position – if the car is parked on a slope, the reading will be incorrect). Emulation is performed within the first two minutes following the engine start, so restarting is not recommended when emulator data processing is in progress. If the engine is restarted before the emulator completes computing, there is a risk that the fuel level reading will be incorrect.

4. Connection diagram and installation remarks

The emulator should be installed in accordance with the presented diagram, with connection to the fuel pump cables.



Installation instructions:

1. Identify the wire with the “fuel level signal”.

The harness connecting the tank with the ECU usually includes 4 wires:

- 2 thick wires – for fuel pump supply,
- 2 thin wires – for grounding and the signal of petrol level measuring circuit.

Use a circuit analyzer to measure voltage on each of the 2 thin wires (against vehicle ground). The signal you’re looking for is a wire with voltage changing depending on the fuel level.

2. The fuel level signal wire should be cut and connected with the yellow and green wires of the FLE-JC emulator, as shown on the diagram.
3. The float ground should be connected to the brown wire of the FLE-JC emulator.
4. The supply voltage (red wire) should be connected to the circuit supplied upon switched ignition.
5. The black wire of the FLE-JC emulator should be connected to the vehicle ground, e.g. fuel pump grounding.

5. Emulator start

The emulator will start working right after it is correctly connected to the vehicle electrical installation (only in vehicles included in table 1, item 2). After installation of the emulator, start the engine and keep it on idle for 2 up to 3 minutes. Next, stop the engine for another 2 up to 3 minutes. When the engine is restarted, the fuel level reading should be refreshed.

6. Notes

The emulator works correctly, if the following conditions are met:

- The emulator has been installed in a vehicle model listed in Table 1 (see subsection 2).
- Engine operation was longer than 2 minutes.
- The engine was stopped for more than 2 minutes.

7. Warranty Document

Quality warranty terms and conditions:

AC S.A. with its registered seat in Białystok ensures good quality, correct operation and efficient functioning of the purchased equipment for which this Warranty Document was issued on the territory of the country the purchase was made in. The warranty is given on the following terms and conditions:

1. WARRANTY COVERAGE

- 1) this warranty concerns proper functioning of the equipment and is valid on the territory of the country the purchase was made in,
- 2) the warrantor is only responsible for defects due to reasons within the sold equipment and for consequential damages to this equipment,
- 3) the warranty does not cover
 - a) normal operating wear of the equipment,
 - b) equipment which has been modified, repaired or infringed in any way by the Customer or any third persons.

2. WARRANTY TERMS AND CONDITIONS AND PROCEDURE

- 1) the basis for exercising the warranty rights is to submit the properly filled up original Warranty Document;
- 2) to exercise the warranty rights, you should immediately report any noticed defect to the local Distributor of AC S.A. (for the valid list of Distributors, visit the website at www.ac.com.pl), delivering the defective equipment with the Warranty Document and a copy of the purchase receipt. The Distributor is responsible for delivery of defective goods to the Quality Control Department of AC S.A.

3. WARRANTY PERFORMANCE TIME

- 1) the manufacturing defects of the equipment should be removed and inoperative components should be removed repaired or replaced within 14 days of equipment delivery to AC S.A.;
- 2) in non-standard cases, the repair time may be extended.

4. WARRANTY PERIOD

- 1) the warranty period is 24 months from the date of sale;
- 2) the warranty expires in the event when the Customer fails to observe provisions of the Warranty Document, in particular in case of:
 - a) misuse of the equipment,
 - b) mechanical damages,
 - c) any unauthorised alterations to the equipment,
 - d) failure to observe the instructions of correct operation, in particular those in the Operating Manual,
 - e) other damages through the fault of the user.

5. FINAL PROVISIONS

This warranty for sold goods does not exclude, restrict or suspend the Purchaser's rights arising from product's inconsistency with the agreement.

Any disputes under this warranty shall be settled by the court having jurisdiction over the seat of AC S.A.

.....
date of sale

.....
stamp and signature
of the Seller