



elektronika systemów autogaz
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INSTALLATION MANUAL

Fuel Level Emulator FLE-FC

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Manufacturer:

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1. Technical parameters:

Supply voltage:	12V ±25%
Operating temperature:	-40°C ÷ +70°C
Protection rating:	IP66

2. Purpose:

The emulator of fuel level type FLE-FC is designed for vehicles (mainly by French manufacturers) equipped with float switch resistance rated 100 - 500Ω; the measurement is based on the current and the ECU calculates the amount of used petrol based on fuel injection pulses and distance.

AC S.A. suggests to use FLE-FC emulator for the car from the list below, however, it does not guarantee the correctness of the work of emulator due to the use of car manufactures different sensors in the same car models.

Table 1. List of tested vehicles.

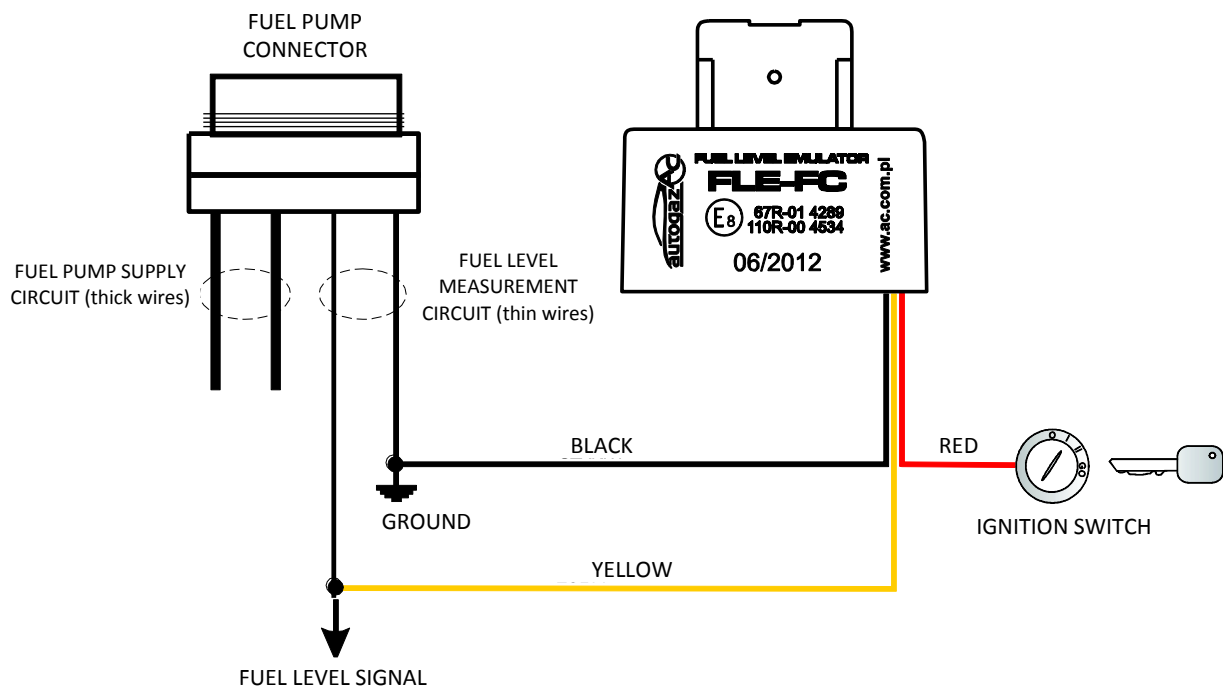
Make	Model	Prod. year	Displacement	Horse power
Citroen	Berlingo	2005	1,6L	80kW
Citroen	C2	2007	1,6L	90kW
Citroen	C4 Picasso	2010	1,6L	88kW
Citroen	C5	2007	1,8L	92kW
Citroen	C5	2007	2,0L	105kW
Peugeot	206	2007	1,4L	55kW
Peugeot	407	2006	2,0L	103kW
Renault	Clio	2005	1,4L 16V	72kW
Renault	Megane	2004	1,6L	82kW
Renault	Megane II	2007	1.6L, 16V	82kW

3. Operating principle:

The fuel indication is refreshed each time the engine is started (the fuel level is determined by the position of the float switch – the result will be inconsistent if the vehicle is inclined). Emulation is performed within the first two minutes after engine start, therefore, restarting is not recommended when the process is in progress. In case of starting the vehicle before the end of the work of EMULATOR, it is possible that the fuel would be displayed incorrectly.

4. Wiring and installation notes:

The unit should be installed in accordance with the below diagram, using a connection to the fuel pump wires.



Installation procedure:

1. Identify the wire with the “fuel level signal”.
The wire harness between the fuel tank and ECU usually includes 4 wires:
 - 2 thick wires – for fuel pump supply
 - 2 thin wires – for grounding and fuel level measurement circuit.
 Use multimeter to measure the voltage at each of the 2 thin lines (against chassis ground). The one with voltage changes upon fuel level drop is the signal for the emulator.
2. Connect the yellow wire of FLE-FC emulator to the fuel level line according to the diagram.
3. The supply (red wire) should be connected to the ignition/switched positive circuit.

5. Emulator first start:

The emulator is operable directly after correct connection to the vehicle wiring (only in models listed in Table 1, item 2). After installation of the emulator, start the engine and let it run idle for 2 up to 3 minutes. Then, switch off the engine for further 2-3 minutes. After a restart, correct fuel level indication should be restored.

6. Notes:

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

- The unit is installed in a vehicle listed in Table 1, item 2.
- The engine was started for more than 2 minutes.
- The engine was shut down for more than 2 minutes.

7. Warranty Card:

Terms of quality warranty:

AC S.A. Białystok guarantees good quality, proper operation and performance of the product in the country of purchase that is covered by the Warranty Card. The warranty is provided on the following conditions:

1. WARRANTY SCOPE

- 1) The warranty covers proper operation of the unit and is valid within the country of purchase.
- 2) The warranty provider is responsible only for defects resulting from reasons related to the sold equipment and failures of such equipment occurring as a consequence of such defects.
- 3) The warranty does not cover:
 - a) Normal wear of the operated equipment.
 - b) Units that have been modified, incorrectly repaired or tampered with in any other way by the Customer or third parties.

2. WARRANTY TERMS AND PROCEDURE OF ACTING BY THE WARRANTY HOLDER

- 1) Warranty rights are provided only to holders of the original and properly filled Warranty Card.
- 2) For warranty rights to be granted, the identified defects should be reported without delay to the local distributor of AC S.A. (current list of Distributors available at www.ac.com.pl) and the defective product should be delivered together with the Warranty Card and a copy of the receipt. The distributor is responsible for delivering the defective goods to the Quality Control Department at AC S.A.

3. WARRANTY CLAIM PROCESSING TIME

- 1) All manufacturing defects should be eliminated and all inoperable components should be repaired or replaced within 14 days from the date of product collection at AC S.A. central office.
- 2) Non-standard repairs may require longer processing.

4. WARRANTY PERIOD

- 1) The warranty period covers 24 months from the date of purchase.
- 2) The warranty shall expire if the Customer fails to fulfill the provisions of the Warranty Card, particularly in case of:
 - a) using the unit for purposes other than intended,
 - b) mechanical damage,
 - c) performing any unauthorized repairs,
 - d) failure to follow the recommendations for use, especially those specified in the User Manual,
 - e) other damage caused by the user.

5. FINAL PROVISIONS

This warranty for the sold goods does not exclude, restrict or withhold any rights of the Customer related to product nonconformance.

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

.....
date of sales

.....
stamp and signature
by seller