



## ALIMENTAZIONE

334 - 500X

## POWER SUPPLY SYSTEM - DESCRIPTION

The electrical system is designed to increase the car's safety level and prevent the possibility of fires and other consequences of electrical malfunctions. State-of-the-art connectors have been introduced to rule out the possibility of many connection defects.

Power is distributed via the junction units and/or fuse boxes. These are connected to control elements (relays and static actuators) to ensure maximum electrical protection and minimum complexity.

The main safety solutions adopted are as follows:

- power supplies protected by maxi fuses to interrupt the electrical system in the event of a short circuit (see detail below);
- the layout of the whole system is optimised to reduce the risk of damage in the event of failures or accidents;
- wiring installation has been optimised to reduced incorrect positioning and noise due to vibrations;
- all wires offer high resistance to abrasion;
- the wires in the engine are specially designed to be resistant to high temperatures and are protected by sheaths or piping;
- the wires in the passenger compartment are protected by corrugated pipes and felt tape to reduce noise levels;
- the main connections come with secondary lock terminals and lever locks to prevent terminal deformation.

All systems and electrical equipment are supplied by the battery at a voltage of 12 V.

The battery is recharged by the alternator during engine operation

See E5010 STARTING AND RECHARGING

The main power lines are protected by maxifuses contained in the box on the positive battery terminal and in the junction box in the engine compartment.

J-Case fuses are used for some circuits. These are a cartridge type fuses and guarantee a lower drop in voltage to protect the circuits that absorb high current.

Some circuits are continuously supplied, even with the car at a standstill and the key out because they are connected directly to the battery.

Other circuits are supplied by turning the ignition key to various positions:

- insert the key and turn it through one click to ACC. This supplies several ignition-operated circuits defined as "under key" ("INT" line);
- the third click - START position - supplies the starter motor ("50" line). However, other circuits (those that draw most power) are now disconnected to ensure maximum current flow to the motor itself ("INT/A" line).



In versions with "PASSIVE ENTRY/KEYLESS GO", the traditional mechanical key is replaced with an ignition device (STOP/START button) that analogously manages the power allocation.

See E7018 PASSIVE ENTRY

The lines that distribute power to the various appliances are represented by wiring diagrams for the various functions and systems.



This general diagram shows all the lines as they leave the battery and maxi fuse boxes. Refer to specific diagrams for more details.

## POWER SUPPLY SYSTEM - FUNCTIONAL DESCRIPTION

All the electrical systems and circuits are supplied by the battery A001.

The main power supply lines are protected by maxifuses in engine compartment junction unit B001, in particular:

- F01: powers the M001 Body Computer;
- F02: powers the M001 Body Computer and the auxiliary fuse box in the luggage compartment B045;
- F03: powers the ignition commutator H001 (through the M001 Body Computer).

In addition, the B099 maxifuse box protects the power supply of a few optionals:

- the MAXIFUSE FB1 protects the PTC1 power supply
- the MAXIFUSE FB2 protects the PTC2 power supply

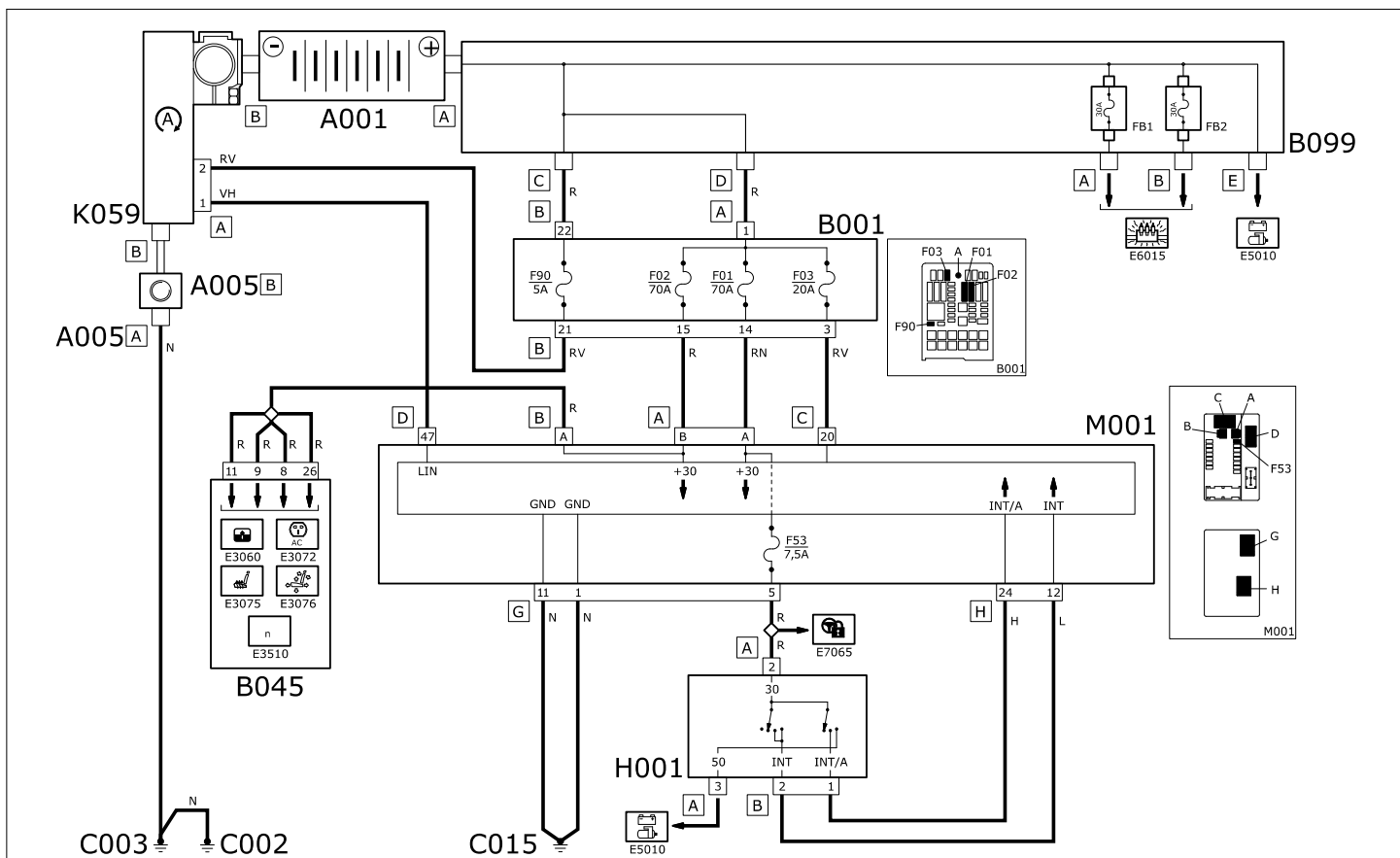
The ignition switch H001 is supplied by the Body Computer M001 via the line protected by fuse F53;

- in the key-on position numerous ignition-operated protected circuits and services are supplied (INT lines): the INT signal is sent to the Body Computer M001 to pin 12 of connector H;
- the starter is supplied in the AVV position (line 50);

See E5010 STARTING AND RECHARGING

- in this position some circuits are disconnected, with the signal INT/A sent to Body Computer M001 to pin 24 of connector H.

# POWER SUPPLY SYSTEM - WIRING DIAGRAM



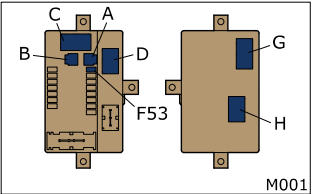
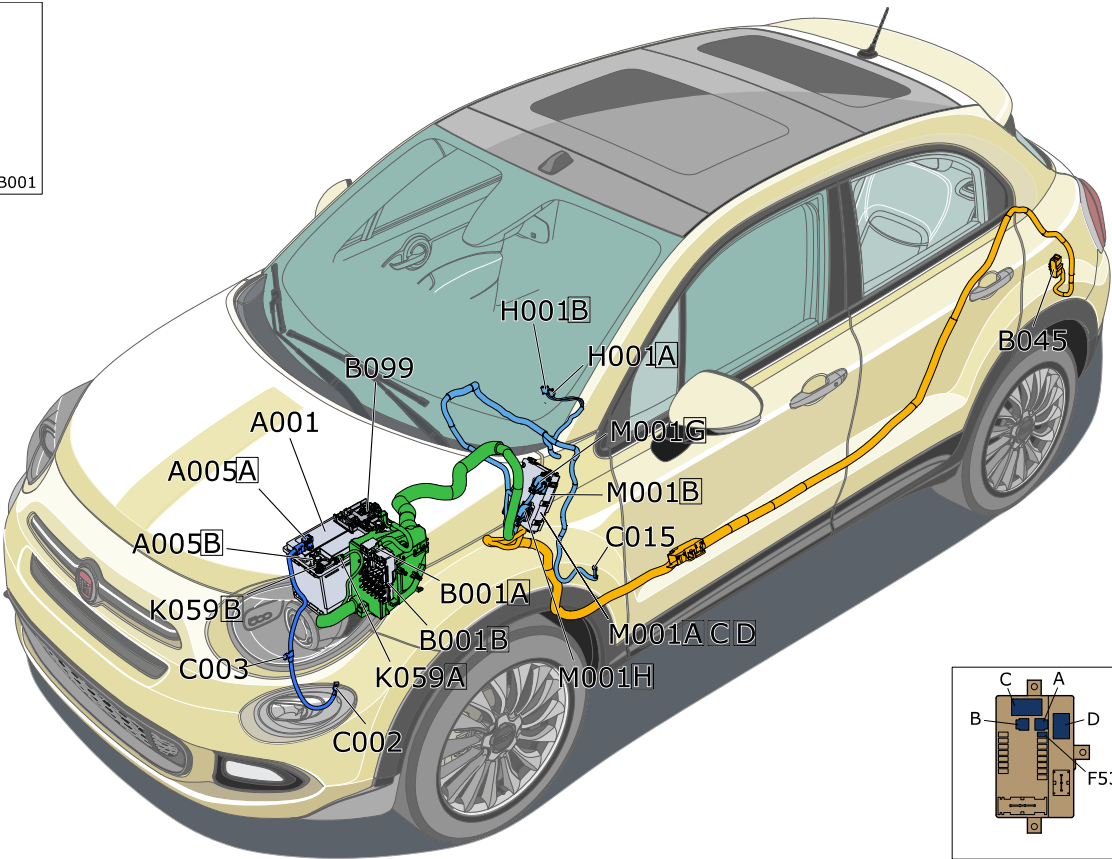
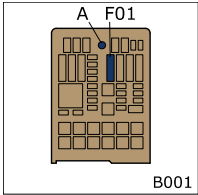
## Component code Name

A001	BATTERY
A005	Contact board
B001	JUNCTION UNIT
B045	LUGGAGE COMPARTMENT JUNCTION UNIT
B099	MAXI FUSE BOX ON BATTERY
C002	BATTERY EARTH ON ENGINE
C003	BATTERY EARTH ON BODY SHELL
C015	DASHBOARD EARTH, DRIVER'S SIDE
H001	IGNITION SWITCH
K059	battery charge status sensor
M001	BODY COMPUTER

## Reference to the operation

Op. 5530B10 BATTERY - R+R
Op. 5530B22 BATTERY EARTH LEAD - R+R
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Op. 5530B10 BATTERY - R+R
Op. 5530B22 BATTERY EARTH LEAD - R+R
Op. 5530B22 BATTERY EARTH LEAD - R+R
-
Op. 5520A10 IGNITION SWITCH ASSEMBLY - R+R
Op. 5520D01 BATTERY STATUS MONITORING SENSOR - R.R.
Op. 5505A32 BODY COMPUTER - R.R

POWER SUPPLY SYSTEM - COMPONENT LOCATION



Component code	Name	Reference to the operation
A001	BATTERY	Op. 5530B10 BATTERY - R+R
A005	Contact board	Op. 5530B22 BATTERY EARTH LEAD - R+R
B001	JUNCTION UNIT	-
B045	LUGGAGE COMPARTMENT JUNCTION UNIT	-
B099	MAXI FUSE BOX ON BATTERY	Op. 5530B10 BATTERY - R+R
C002	BATTERY EARTH ON ENGINE	Op. 5530B22 BATTERY EARTH LEAD - R+R
C003	BATTERY EARTH ON BODYSHELL	Op. 5530B22 BATTERY EARTH LEAD - R+R
C015	DASHBOARD EARTH, DRIVER'S SIDE	-
H001	IGNITION SWITCH	Op. 5520A10 IGNITION SWITCH ASSEMBLY - R+R
K059	battery charge status sensor	Op. 5520D01 BATTERY STATUS MONITORING SENSOR - R.R.
M001	BODY COMPUTER	Op. 5505A32 BODY COMPUTER - R.R