



TERGI/ LAVA CRISTALLO

272 - Scudo

## WINDSCREEN WASH/WIPE - DESCRIPTION

The windscreen wash/wipe system is activated by the lever located on the right of the steering wheel, with the following functions: There are five possible positions for the lever, turning it in a clockwise direction, corresponding to:

- windscreen wiper off (stationary);
- automatic operation;
- continuous slow operation;
- continuous fast operation;

In the automatic operation position, thanks to the rain sensor, the frequency of the windscreen wiper strokes can be adapted to suit the intensity of the rain. The frequency of the windscreen wiper strokes is automatically adjusted according to the amount of water on the windscreen detected by the sensor: the frequency varies continuously from nil (no stroke - windscreen dry) to wiping at the second continuous speed (heavy rain).

Activating the windscreen washers with the rain sensor activated produces the normal washing cycle at the end of which the rain sensor resumes its normal automatic operation.

The windscreen washer function can be activated by pulling the lever toward the steering wheel: the windscreen washer pump is activated in this way; keeping the lever pulled switches on the windscreen wiper for a three-stroke cycle.

A check on the functions described above is carried out by the body computer node which produces the intermittent function, controls the operation of the windscreen wiper motor and the windscreen washer pump and manages the rain sensor.

The windscreen wiper and the windscreen washer can be activated with the key in position M.

To facilitate maintenance, with the ignition key in position S or extracted, if the lever is turned downwards within 60 seconds, the windscreen wipers assume a vertical position and stop; they can be lifted for replacing the blades or for cleaning.

If the windscreen wiper is activated, the lights come on automatically if this device is switched on.

## WINDSCREEN WASH/WIPE - FUNCTIONAL DESCRIPTION

Steering wheel node control unit M093 receives a power supply (pin 5 connector A) from the body computer node M001 (pin 11 connector B). The line is protected by fuse F10.

The command to switch on the windscreen wiper and windscreen washer is supplied by the Steering wheel node control unit M093 (pins 1 and 3 of connector A) to the Body computer node M001 (pins 5 and 3 of connector G respectively). The signal travels via the CAN line.

The Body computer node M001, in turn, transmits the signal (pins 25 and 27 of connector E), via the CAN line, to the engine compartment junction unit B001 (pins 12 and 11 respectively of connector F).

The engine compartment junction unit B001 provides a power supply (pin 28 connector F) for the windscreen wiper motor N015 (pin 4) via a line protected by fuse F12.

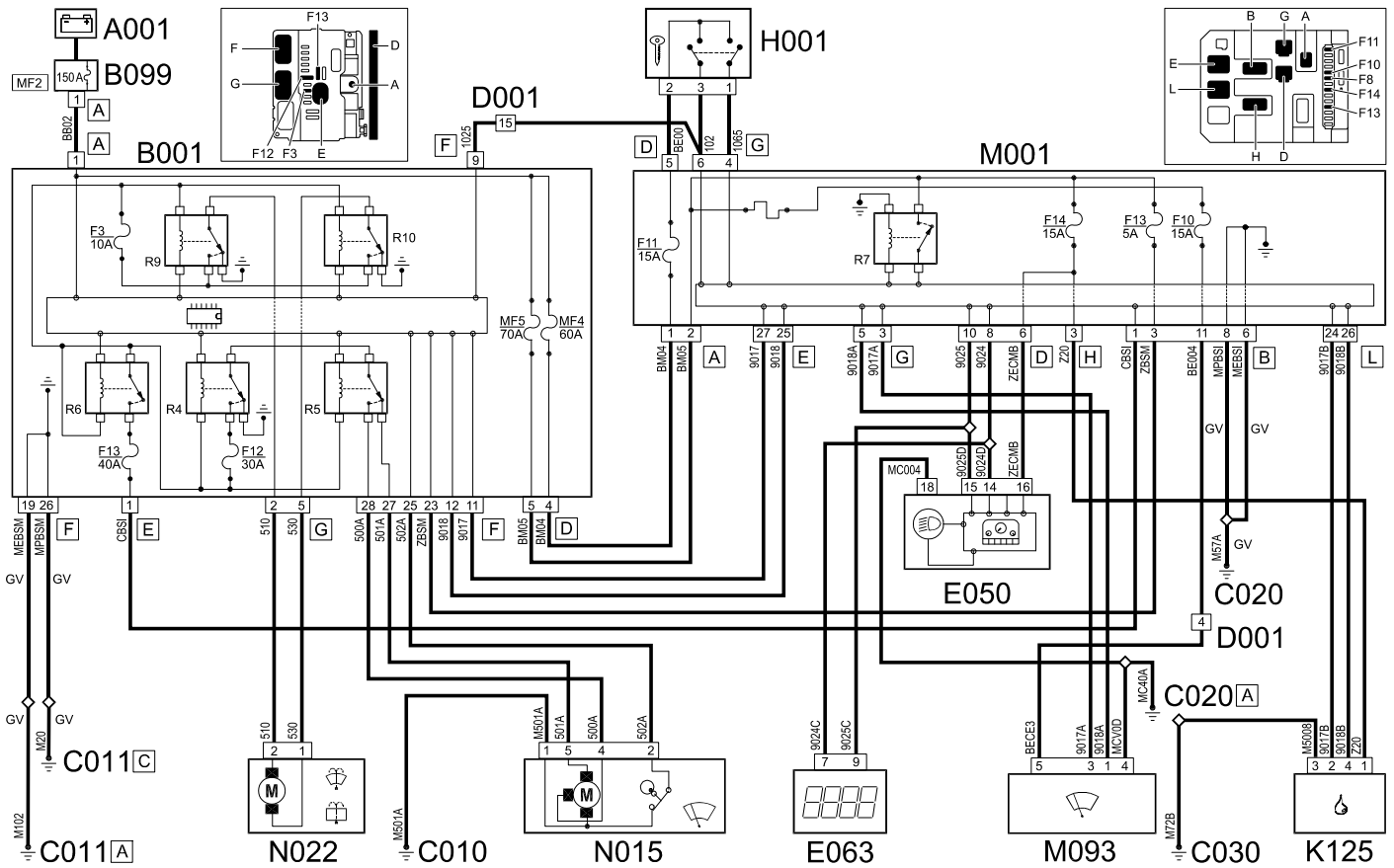
When the windscreen wiper motor N015 reaches the end of travel position, an earth signal is sent from pin 2 to pin 25 of connector F of the engine compartment junction unit B001.

The latter, once the signal has been received, switches the power supply from pin 28 of connector F to pin 27 of the same connector, providing a power supply at pin 5 for the windscreen wiper motor N015 and allowing it to return to the rest position.

The rain and dusk sensor K125 is connected to earth C020 at pin 3 and sends the information relating to the weather conditions (pins 2 and 4), via the CAN line, to the Body computer node M001 (pins 24 and 26 connector L). There is also a power supply at pin 1 from the body computer N001 via pin 3 of connector H.

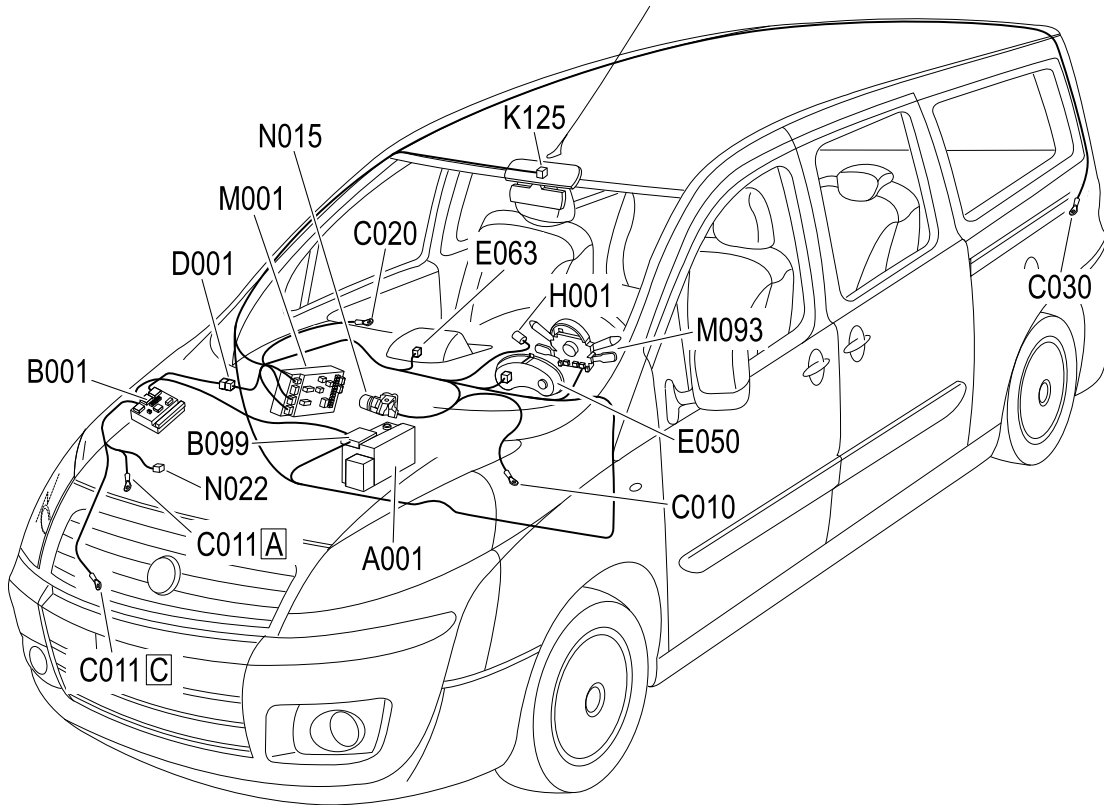
The electric motor N022 carries out the dual windscreen and rearscreen washing function. It is supplied at pin 2 of engine compartment junction unit B001 (pin 2 connector G) via a line protected by fuse F3, and the signal returns to pin 1 connected to the same control unit (pin 5 connector G).

# WINDSCREEN WASH/WIPE - WIRING DIAGRAM



- |      |  |                                      |
|------|--|--------------------------------------|
| A001 | BATTERY  | Op. 5530B BATTERY AND LEADS          |
| B001 | JUNCTION UNIT                                    | Op. 5505A MULTI-FUNCTION COMPONENTS  |
| B099 | MAXI FUSE BOX ON BATTERY                         | -                                    |
| C010 | LEFT FRONT EARTH                                 | -                                    |
| C020 | PASSENGER SIDE DASHBOARD EARTH                   | -                                    |
| C030 | LEFT REAR EARTH                                  | -                                    |
| D001 | FRONT/DASHBOARD COUPLING                         | -                                    |
| D020 | DASHBOARD/REAR COUPLING                          | -                                    |
| E050 | INSTRUMENT PANEL                                 | Op. 5560C OTHER INSTRUMENTS          |
| E063 | INFOCENTER DISPLAY                               | Op. 5580M ON-BOARD NAVIGATOR         |
| H001 | IGNITION SWITCH                                  | Op. 5520A IGNITION SWITCH            |
| K125 | RAIN AND DUSK SENSOR                             | Op. 5050B FRONT WINDSCREEN WASH/WIPE |
| M001 | BODY COMPUTER                                    | Op. 5505A MULTI-FUNCTION COMPONENTS  |
| M093 | STEERING WHEEL NODE CONTROL UNIT (NVO)           | Op. 5550A STALK UNIT                 |
| N015 | WINDSCREEN WIPER MOTOR                           | Op. 5050B FRONT WINDSCREEN WASH/WIPE |
| N022 | WINDSCREEN/REARSCREEN WASHER ELECTRIC PUMP MOTOR | Op. 5050B FRONT WINDSCREEN WASH/WIPE |

# WINDSCREEN WASH/WIPE - COMPONENT LOCATION



A001	BATTERY	Op. 5530B BATTERY AND LEADS
B001	JUNCTION UNIT	Op. 5505A MULTI-FUNCTION COMPONENTS
B099	MAXI FUSE BOX ON BATTERY	-
C010	LEFT FRONT EARTH	-
C020	PASSENGER SIDE DASHBOARD EARTH	-
C030	LEFT REAR EARTH	-
D001	FRONT/DASHBOARD COUPLING	-
D020	DASHBOARD/REAR COUPLING	-
E050	INSTRUMENT PANEL	Op. 5560C OTHER INSTRUMENTS
E063	INFOCENTER DISPLAY	Op. 5580M ON-BOARD NAVIGATOR
H001	IGNITION SWITCH	Op. 5520A IGNITION SWITCH
K125	RAIN AND DUSK SENSOR	Op. 5050B FRONT WINDSCREEN WASH/WIPE
M001	BODY COMPUTER	Op. 5505A MULTI-FUNCTION COMPONENTS
M093	STEERING WHEEL NODE CONTROL UNIT (NVO)	Op. 5550A STALK UNIT
N015	WINDSCREEN WIPER MOTOR	Op. 5050B FRONT WINDSCREEN WASH/WIPE
N022	WINDSCREEN/REARSCREEN WASHER ELECTRIC PUMP MOTOR	Op. 5050B FRONT WINDSCREEN WASH/WIPE