

WIPERS AND WASHERS

Intermittent

When the rear window wiper switch is selected on, the CCU initially operates the wiper continuously for approximately 6 seconds (3 or 4 wipes) and then changes to intermittent operation with a fixed delay of five seconds between wipes.

Continuous

When reverse gear is engaged while the rear screen wiper is on, the CCU changes the wiper to continuous operation until reverse gear is disengaged, then reverts to intermittent operation again. If reverse gear is engaged while the rear screen wiper is off, but the windscreen wipers are on, the CCU also operates the rear screen wiper continuously, until reverse gear is disengaged or the windscreen wipers are selected off.

Off-screen Park

When the rear screen wiper is selected off, the CCU waits for the next signal from the wiper vertical microswitch in the wiper motor, then de-energises the forward relay and energises the reverse relay. The reverse relay operates the motor in the opposite direction, which lengthens the stroke of the wiper arm. When the wiper arm reaches the off-screen position, the CCU receives a signal from the off-screen park microswitch in the wiper motor and de-energises the reverse relay to stop the wiper.

Off-screen Park Monitoring

In order to monitor the off-screen park function, the CCU invokes a 10 second timer each time intermittent or continuous operation of the rear screen wiper is deselected (by either the control switch on the instrument pack cowl or the CCU). If, within the 10 seconds, a signal is received from both the vertical and the off-screen park microswitches in the wiper motor, the CCU determines that the system is serviceable and continues operation as normal. If, within the 10 seconds, a signal is not received from both microswitches, the CCU determines there is a fault with one of the microswitches or the motor circuit and de-energises the forward and reverse wiper relays to prevent further operation. Since a faulty wiper could stop at any position on the tail door window, to prevent damage to the wiper or window after a fault is detected, the CCU also inhibits operation of the tail door window, with the following exceptions:

- Clear of seal/seal engagement window movement when the tail door is opened/closed.
- Automatic window retraction when the roof is removed/opened.
- Window calibration using the vehicle key in the tail door lock.

When the fault has been corrected, tail door window operation returns to normal after the CCU has detected the two microswitch inputs from the rear screen wiper motor again.

Windscreen Washers

The windscreen washers are operated by pulling on the wash/wipe stalk located on the RH side of the steering column. Operation of the windscreen washers can also operate the windscreen wipers in a programmed wash/wipe mode.

When the wash/wipe stalk is pulled, the washers operate immediately and stop immediately the stalk is released. When the stalk is held on for more than 0.6 second, the CCU enters the programmed wash/wipe mode and, if the windscreen wipers are selected to intermittent operation or off, operates them at slow speed. If the windscreen wipers are already selected to slow or fast speed, they remain at the selected speed. When the stalk is released with the CCU in the wash/wipe mode, if the windscreen wipers are selected to intermittent operation or off, the wipers operate at slow speed for a further 2 seconds (3 or 4 wipes) and then revert to intermittent operation or park, as applicable.

Rear Screen Washer

The rear washer is controlled by a non-latching push switch, located on the RH side of the instrument pack cowl, and the CCU. Pressing the rear washer switch operates the washer until the switch is released. When the washer switch is pressed, the CCU also operates the rear screen wiper in a programmed wash/wipe mode. While the switch is pressed, the CCU operates the wiper continuously. When the switch is released the CCU operates the wiper continuously for a further six seconds (3 or 4 wipes) and then parks the wiper or reverts to the previous operating mode.