Checking switches in the B-post actuator.

Information courtesy of Marinus van der Leest

Units are built by Kiekert AG, a German company specialising in automated door locks systems.

In order to test the unit, it is best to remove it from the car.

With 4 wires, preferably of different colours,

In addition, you need a 12 volt power supply (battery or charger) and an ohmmeter.

On my test set-up, connections are

terminal 2 = green: 12 volt -ve
terminal 4 = yellow: 12 volt +ve
terminal 3 = red: +12 volt dab to operate
terminal 1 = white: measure ohm's to green



Sealed in the unit, there are the following components: S1 = contact indicating that the door is fully closed

- S2 = contact that ensures that, if the control pulse is disconnected the motor runs until the next stop position.
- R1 = motor relay

D1 = diode D1 is one way pulse signal

D2 = surge suppression diode for protection S2

M1 = the motor that moves the latch hook.

There are two fixed positions, IN = door is completely pulled in, OUT = door is pushed out.

If a pulse is applied to terminal 3, the relay R1 is powered and the motor starts running. Switch S2 is closed and takes over the 12 volt supply from the pulse wire to the relay. When the opposite position is reached switch S2 opens and the motor stops.

Due to the rotation of the motor the hook moves from one position to the other and stops automatically. As soon as a new pulse is applied the hook moves to the opposite position.

The correct operation of the unit can be determined on working of contact S1. If the hook is in the "IN" position contact S1 is broken. Once the motor starts running, this contact S1 is closed immediately and stays closed until the hook is back in the IN position. This can be checked using an ohmmeter.

The operation of almost all components can be tested individually, but requires the unit to be removed from the car.

By pushing a flat screwdriver between the black and white cover the tabs can be pressed in a little bit. Doing so on every tab the white body can be taken off. *Caution, the drive motor with worm shaft stays in the white cover.*

(If closing the white cover again move this cover a little bit to push the gear and worm drive in a good position).









The motor can be tested by applying 12 volt directly to the terminals of the motor. For testing the plus and minus can be interchanged. The electric components are underneath the gearbox. You can't see them because they are completely sealed.

Test the components in the unit by turning the gear "A".

For testing contact S1, connect a universal ohmmeter to terminals 1 and 2. Only in the position shown, as the cam roller is in the 0 position, contact S1 is open. As soon as the gear moves a little bit contact S1 is closed and stays closed until the cam roller is back in the 0 position again.

Contact S2: Connect the ohmmeter to terminals 3 and 4. Pay attention that the -ve terminal of the meter is connected to terminal 4 and the +ve is connected to terminal 3. In the 0 and the 180 position of the cam roller, contact S2 is open.

Once gear A is moved clockwise with the cam roller somewhere between 0° and 90° and between 180° and 270° contact S2 is closed and the meter displays resistance of the diode D1.

Diode D1 If you hold the cam roller is this position and swap the test leads, the ohmmeter must display a high resistance because the diode in reverse direction.

Diode D2 can't be checked with a meter because diode D2 and the relay

coil are connected in parallel. The resistance of the coil is much lower than the resistance of the diode so you only measure the resistance of the coil.





