eLEARN

# PARKING SENSOR

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## PARKING SENSOR - Description

This device allows maximum ease of manoeuvring during parking; with reverse gear engaged, it indicates if the driver is approaching an obstacle that could be outside his field of vision, as illustrated in the diagram below.

The system operates in accordance with the ultrasound 'sonar' principle: four ultrasound transducers are located in the rear bumper. They send signals to a control unit, which processes this information and determines the distance of possible obstacles.

A loudspeaker controlled by the control unit emits an intermittent tone, proportional to the distance of the obstacle detected.

The control unit is activated when reverse gear is engaged: under these conditions it energizes the transducers and sends them a signal request, and receives response signals from them.

The control unit emits a signal with intermittent tone: the frequency of this sound increases as the bumper comes close to an obstacle: when the calculated distance falls below 25 cm, the sound becomes acute and constant.

If the distance measured from the obstacle increases, or if the driver disengages reverse gear, the sound stops. If the distance measured from the obstacle remains constant, the sound ceases after about 3 seconds.

For more details and information on the operation of the system, 5580H  parking obstacle detection device

The control unit is located inside the luggage compartment, on the left side; beside the control unit there is an acoustic device.

## PARKING SENSOR - Functional description

Parking sensor control unit M84 is supplied pin 1 of connector A by the ignition-operated line (INT/A) for relay T24 of B45 protected by fuyse F78; Pin 8 of connector A is earthed.

Pin 6 of connector A of M84 receives the reverse gear engaged signal

See

E2022 REVERSING LIGHTS .

Pin 1 of connector A of M84 receives the speedometer signal from the instrument E50 pin 5 of connector B.

The parking sensor P44 buzzer is connected to pins 2 and 10 of connector A of control unit M84.

Pin 5 receives an inhibition signal if a trailer is connected via coupling D73

See

E2050 TRAILER WIRING .

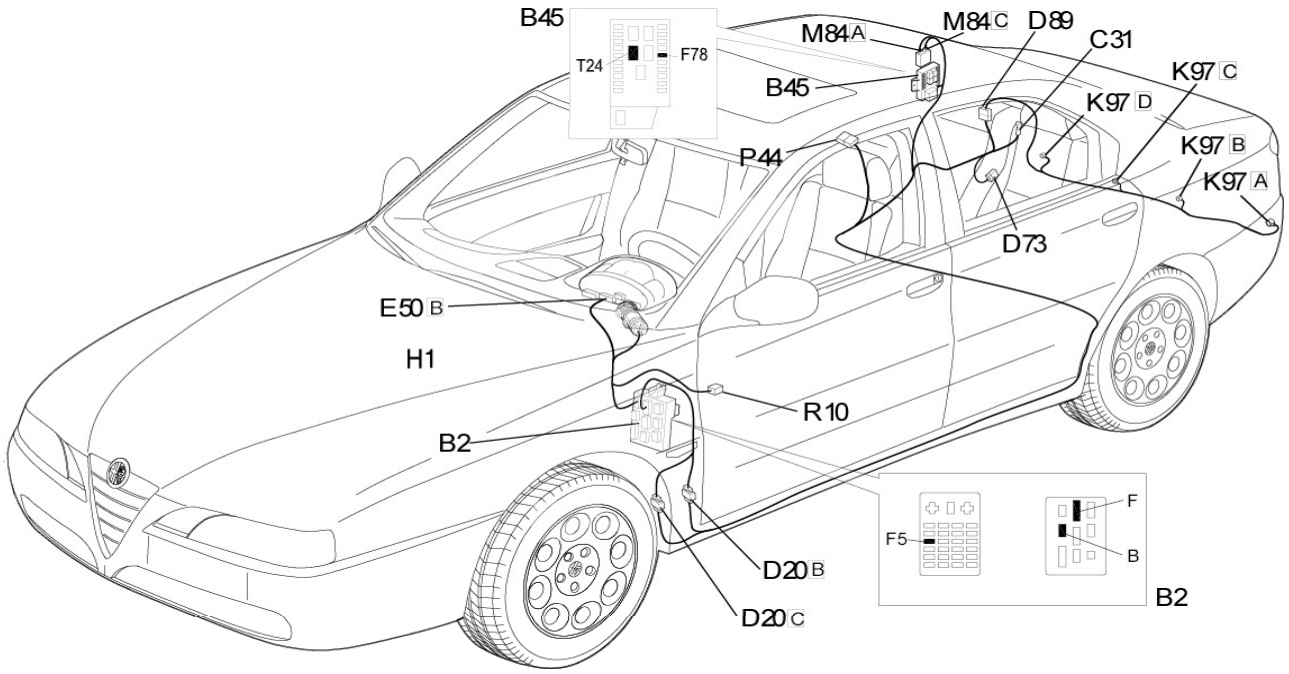
The four parking sensors K97 are connected to connector C of control unit M84 : pin 1 supplies a reference earth, pin 6 the power supply, pins 5, 3, 2 and 4 are connected to sensors K97A , K97B , K97C and K97D .

Self-diagnostic data can be read by connecting the unit to connector R10 pin 13: this receives signals from pin 12 of connector A of control unit M84 through the relevant tester line

See

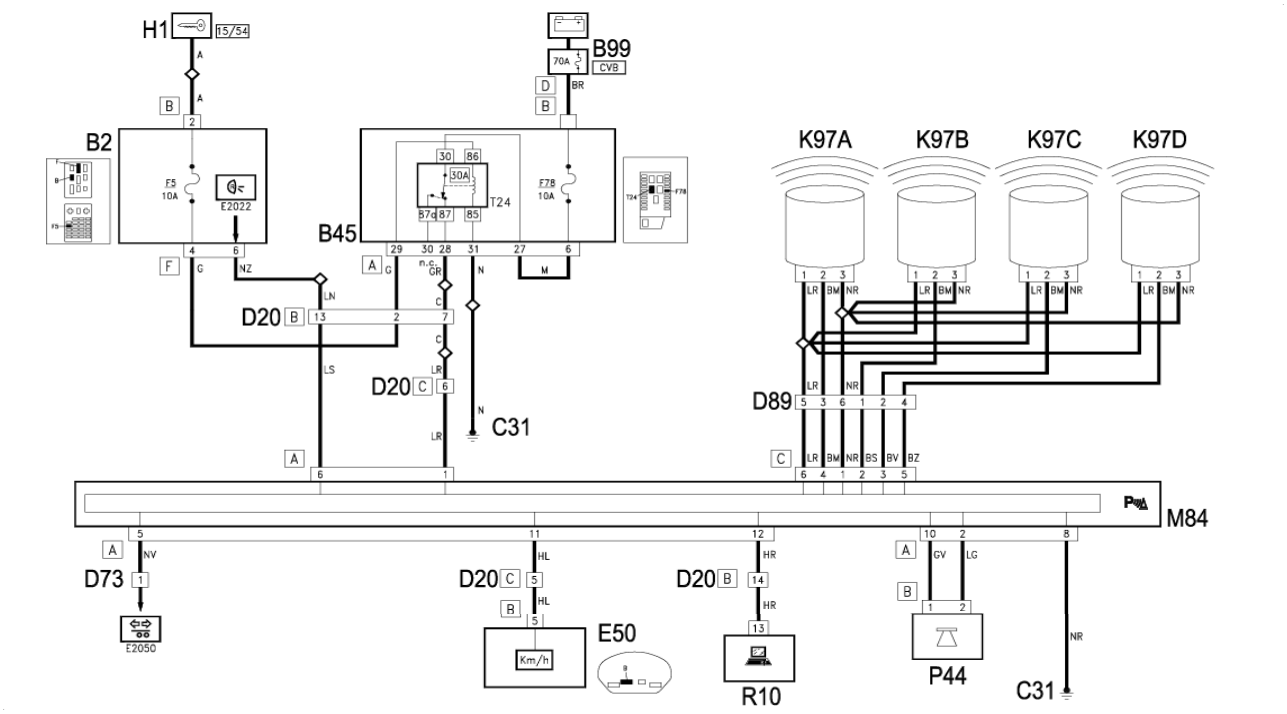
E8010 DIAGNOSTIC MULTIPLE CONNECTOR .

## PARKING SENSOR - Location of components




| Component code | Name | Assembly reference |
|---|---|---|
| B2 | Junction unit | 5505A |
| B45 | Luggage compartment junction unit (CVB) | - |
| B99 | Battery fuses junction unit (CBA) | 5530B |
| C31 | Rear right earth | - |
| C34 | ICS earth | - |
| D20 | Dashboard-rear coupling | - |
| D73 | Trailer wiring connection | - |
| D89 | Rear.-rear bumper coupling | - |
| E50 | Instrument panel | 5560B |
| H1 | Ignition switch | 5520A |
| K97 | Parking sensor | - |
| M84 | Parking control unit | - |
| P44 | Rear buzzer for parking sensors | - |
| R10 | Multiple tester connection | - |

## PARKING SENSOR - Wiring diagram

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