

E3510 - RADIO [FROM 09/2016][MEDIUM AUDIO AMPLIFIER HIFI2]

DESCRIPTION

The Radio Infotainment system fitted on the vehicle may have a 6.5" or a 8.8" colour display.

The system manages four main functions:

- RADIO
- MEDIA
- TELEPHONE
- NAVIGATOR

The first two functions are shown here.

For the others:

[See E3570 INTEGRATED RADIO PHONE](#)

[See E4090 NAVIGATOR](#)

On this version, a Hi-Fi system is available with specific high-fidelity speakers, plus a subwoofer box in the boot, a central midrange on the dashboard and a power amplifier.

The system has been developed ad hoc for the vehicle: the acoustic properties of the passenger compartment have been carefully studied so that the amplifier and the speakers are ideally suited to the vehicle: optimum listening is available in any part of the passenger compartment.

Unlike the system fitted as standard, this system offers:

- specific midwoofers and tweeters on front and rear;
- specific speaker in the centre of the dashboard;
- subwoofer box in the luggage compartment;
- power amplifier.

The other components (radio, aerial, etc.) are the same as for the standard system.

The radio is a CAN node through which information is exchanged with the Body Computer and with the other electronic units.


The radio is equipped with an anti-theft system through the connection of the radio on the CAN with the Body Computer; it also manages volume control linked to the vehicle speed: the volume increases and decreases in relation to the speed of the vehicle: this information reaches the radio node through the CAN.

The system can be managed via the Rotary control on the main console: turn it to navigate the menus, press it to activate/confirm the selections, push it leftwards to go back to the preceding screen.

A specific control module (I-DRIVE) manages the rotary control and transmits them to the radio.

Also this module is a CAN node through which information is exchanged with the Body Computer and with the other electronic units.

Some buttons on the steering wheel make it possible to replicate some of the commands which are acquired as analogue signals by the radio itself. An external source can be connected to the AUX socket, located at the bottom of the central console.

 The radio/navigator module is hidden on this model arranged under the dashboard while a specific wire connects it to the monitor that the user can see arranged in traditional position in the middle of the dashboard.

FUNCTIONAL DESCRIPTION

The radio/navigator P020 receives a direct battery power supply (pin 15 of connector A) through the line for fuse F36 of the Body Computer M001.

Pin 12 of P020A is earthed.

The CAN reaches pin 11 and 9 of connector A of P020 and connects it to the Body Computer M001 and the other system nodes, in particular to the instrument panel E050 for indicating faults to the sound system.

The Body Computer M001 - connector A - receives direct battery power via the line protected by maxi fuse F72 of the maxi fuse box on the battery B099.

The Body Computer M001 receives an ignition-operated power supply (INT) at pin 12 of connector H by the signal coming from the radiofrequency module M204. Pins 1 and 11 of connector G of M001 provide the Body Computer with a reference earth.

The radio controls on the steering wheel are connected to the Body Computer M001 via the clock spring D047: pin 44 of connector H receives the controls from the buttons - pin 2 of D047A - via the LIN serial line, reference earth reaches pin 10 of D047A; power is received from pin 8 of D047A via the line from fuse F53 of the Body Computer M001 and free-hanging fuse B119.

The clock spring D047A is then connected to the control module on the steering wheel H016.

The control knob on the unit H156 connects to a specific control module (I-DRIVE) M220 which in turn sends the control signals to the radio/navigator P020 - connector M.

Control unit M220 is powered directly from the battery from a line protected by fuse F21 of boot junction box B045.

The CAN reaches pin 5 and 4 of connector A of M220 and connects it to the Body Computer M001 and the other system nodes.

The stylus aerial P115 - AM/FM, FM2 and DAB - is connected to the radio through the specific coaxial cables.

The radio/navigator P020 is arranged under the dashboard, while a specific wire connects it - from connector P of P020 - to the monitor E065 arranged in the middle of the dashboard.

The amplifier P070 is supplied directly by the battery, at pin B12, by the line protected by fuse F08 of the boot junction box B045. Pins A1 and B1 of the amplifier P070 are earthed.

The CAN reaches pins A8 and A19 of the amplifier P070 and connects it to the Body Computer M001 and the other system nodes.

The following cables with signals for the amplifier P070 also leave connector A of P020:

- pins 7 and 3 to the front left speakers;
- pins 6 and 2 to the front right speakers;
- pins 8 and 4 to the rear left speakers;
- pins 5 and 1 to the rear right speaker.

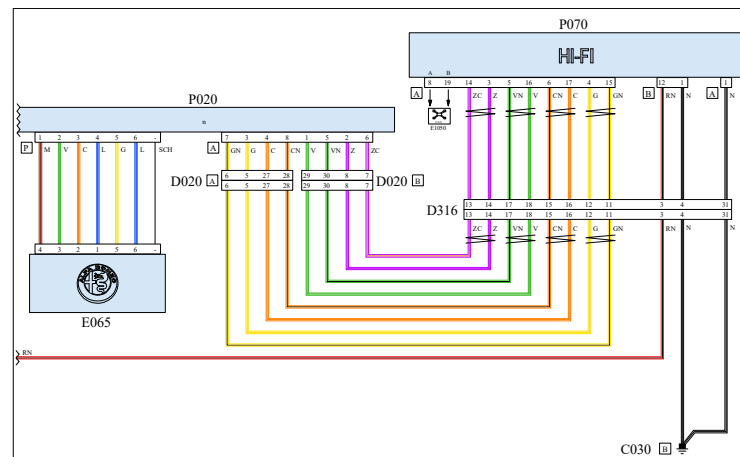
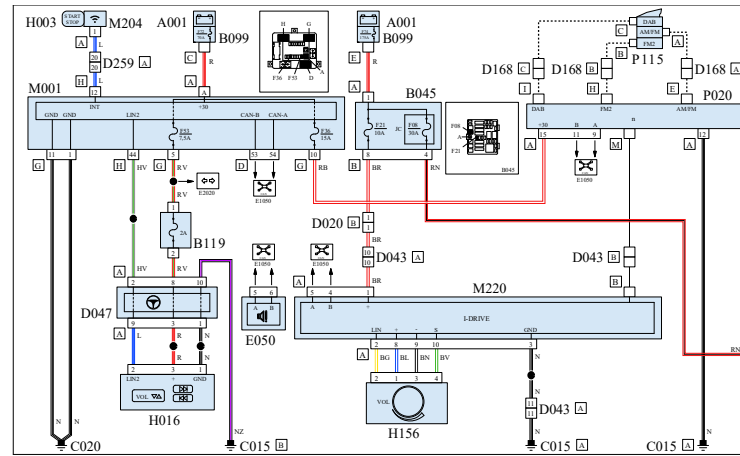
The following cables with signals for the speakers leave amplifier P070:

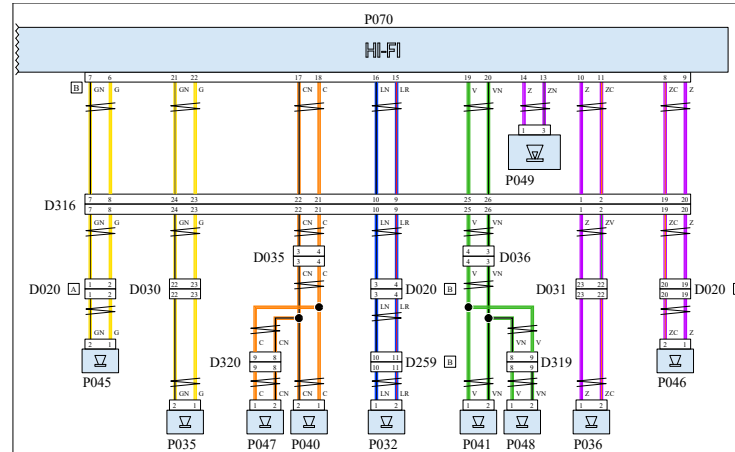
- pins B7 and B6 to the left tweeter P045;
- pins B21 and B22 to the front speakers on the left side door P035;
- pins B8 and B9 to the right tweeter P046;
- pins B10 and B11 to the front speaker on the right side door P036;
- pins B17 and B18 to the left rear speaker P040 and to the rear left tweeter P047;
- pins B19 and B20 to the rear right speakers P041 and to the rear right tweeter P048.

The subwoofer P049 is connected to amplifier P070 at pins B14 and B13.

The central speaker P032 is connected to amplifier P070 to pins B16 and B15.

WIRING DIAGRAM

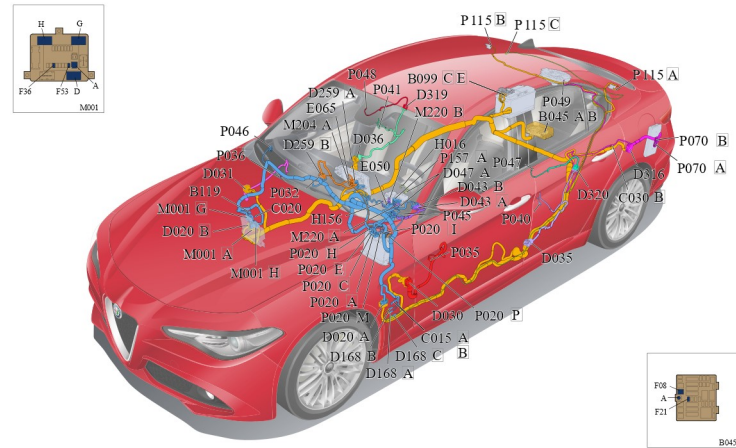




COMPONENTS

COMPONENT CODE	NAME	REFERENCE TO THE OPERATION
A001	BATTERY	Op. 5530B10 BATTERY - R+R
B045	LUGGAGE COMPARTMENT JUNCTION UNIT	
B099	MAXI FUSE BOX ON BATTERY	Op. 5530B40 SUPPLY BOX ON BATTERY (LINK BATTERY AND FUSE BOX) - R R
B119	STEERING WHEEL CONTROLS FUSE	
C015	DASHBOARD EARTH, DRIVER'S SIDE	
C020	PASSENGER SIDE DASHBOARD EARTH	
C030	LEFT REAR EARTH	
D020	DASHBOARD/REAR COUPLING	
D030	LEFT FRONT DOOR COUPLING	
D031	RIGHT FRONT DOOR COUPLING	
D035	LEFT REAR DOOR COUPLING	
D036	RIGHT REAR DOOR COUPLING	
D043	DASHBOARD/CENTRE CONSOLE COUPLING	
D047	CLOCK SPRING COUPLING	Op. 5550A10 STALK UNIT ASSEMBLY - R+R
D168	COAXIAL CABLE FOR RADIO AERIAL COUPLING	Op. 7040A97 INSTRUMENT PANEL TRIM SUPPORTING CROSSMEMBER - R.R.
D259	INSTRUMENT PANEL BRIDGE COUPLING	
D316	AUDIO SYSTEM AMPLIFIER COUPLING	
D319	REAR RIGHT DOOR PANEL COUPLING	
D320	REAR LEFT DOOR PANEL COUPLING	
E050	INSTRUMENT PANEL	Op. 5560B10 CONTROL PANEL - R+R
E065	NAVIGATION SYSTEM DISPLAY	Op. 5580U14 INFOTAINMENT SYSTEM DISPLAY - R.R.
H003	IGNITION DEVICE	Op. 5520G30 START/STOP SWITCH FOR EASY-GO SYSTEM STARTER MOTOR - R.R.
H016	RADIO CONTROLS ON STEERING WHEEL	Op. 4110A13 CONTROLS ON STEERING WHEEL - R.R.
H156	ON/OFF AND VOLUME CONTROL	Op. 7040L37 GEAR LEVER TRIM - R.R.
M001	BODY COMPUTER	Op. 5505A32 BODY COMPUTER - R.R.
M204	Radiofrequency module	Op. 5580E70 PASSIVE ENTRY CONTROLUNIT - R.R.
M220	RADIO CONTROL NODE	Op. 7040L37 GEAR LEVER TRIM - R.R.
P020	CAR RADIO	Op. 5580M24 RADIO NAVIGATOR - R.R.
P032	CENTRE FRONT SPEAKER	Op. 5570T52 CENTRE SPEAKER IN DASHBOARD - R.R.
P035	SPEAKER IN FRONT DOOR LEFT	Op. 5570T43 FRONT SIDE SPEAKER (ONE), LH OR RH - R.R.
P036	SPEAKER IN PASSENGER SIDE FRONT DOOR	Op. 5570T43 FRONT SIDE SPEAKER (ONE), LH OR RH - R.R.
P040	SPEAKER IN REAR LEFT DOOR	Op. 5570T96 REAR SIDE SPEAKER (ONE), LEFT OR RIGHT- R.R.
P041	SPEAKER ON RIGHT REAR DOOR	Op. 5570T96 REAR SIDE SPEAKER (ONE), LEFT OR RIGHT- R.R.
P045	DRIVER'S FRONT TWEETER SPEAKER	Op. 5570T92 FRONT TWEETER (ONE), LEFT OR RIGHT - R.R.
P046	PASSENGER SIDE FRONT TWEETER SPEAKER	Op. 5570T92 FRONT TWEETER (ONE), LEFT OR RIGHT - R.R.
P047	LEFT REAR TWEETER SPEAKER	Op. 5570T94 REAR TWEETER (ONE), LEFT OR RIGHT - R.R.
P048	RIGHT REAR TWEETER SPEAKER	Op. 5570T94 REAR TWEETER (ONE), LEFT OR RIGHT - R.R.
P049	REAR CENTRE WOOFER SPEAKER	Op. 5570T11 SUBWOOFER - R.R.
P070	RADIO HI-FI AMPLIFIER	Op. 5570T36 AMPLIFIER FOR SPEAKER SYSTEM - R+R
P115	CAR RADIO AERIAL	Op. 5570T20 RADIO AERIAL AMPLIFIER - R R

COMPONENT LOCATION



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