



## GROUP 40

## ELECTRIC SYSTEM

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For all the parts not mentioned herein, see the corresponding Group of the manual "155 - INSTRUCTIONS FOR REPAIR" - PA46550000000 - (pages with publication no. PA4655D1000000)



## ELECTRIC SYSTEM

## RULES AND PRECAUTIONS



## WARNING:

Before removing and refitting the components of the electric system, carefully read the RULES AND PRECAUTIONS.

Before starting any work, make sure that the ignition key is in the "parking" position and that the battery earth cable is disconnected and always:

- avoid connecting the output of control units directly to the load;
- never work directly on devices with cables connected to "positive" or to earth without before disconnecting the control units;
- avoid short circuiting the sensors of the system unless otherwise stated;
- before doing any electric welding, disconnect the control units to prevent possible damage to the electronic components caused by induced currents.



## CAUTIONS:

Work on the systems foreseeing the possible consequences and do not intervene if you are not perfectly aware of the characteristics of the components concerned.

When re-assembling and/or refitting, reverse the sequence described for disassembly and/or removal, unless otherwise specified and restore the battery connection.

After replacing a component of the electric system you are strongly advised to re-stock with Genuine Alfa Romeo Spares. The use of non original Alfa Romeo components, with even slightly different features, can adversely affect the functional reliability and operating safety of the vehicle.

Never touch the glass surfaces of halogen bulbs with the hands. When replacing halogen bulbs only touch the parts in metal.

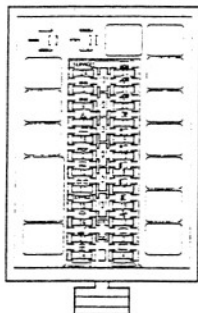


## FUSES

## LOCATION IN THE FUSEBOX

**NOTE:** in the centre, in the vertical position, there are some spare fuses.

The table below lists the fuses contained in the fusebox, with the corresponding symbol, amp rating and the services protected.



FUSE			SERVICES PROTECTED
SYMBOL	N°	AMP.	
	1	10A	Hazard warning lights
	2	25A	Horns, stop lights, radio, Boot opening control
	3	20A	Windscreen wiper
	4	25A	Cigar lighter, ceiling lamps
	5	10A	Controls lighting, LH rear sidelights, RH no. plate light., RH front sidelights, sidelights warning light.
	6	10A	Controls lighting, cluster lighting, RH rear sidelights, LH no. plate light, LH front sidelight, headlamp aiming device
	7	10A	Right low beam
	8	10A	Left low beam
	9	15A	Right high beam
	10	15A	Left high beam, high beam warning light
	11	7.5A	Rear fog guard, fog guard warning light
	12	30A	Heated rearscreen, heated rearscreen warning light, mirror defroster
	13	30A	Fan, rear power windows, adjustable and heated seats, radio
SERVICES	15	15A	Instr. cluster, windscreen-headlamp washer electric pump, reversing lights, glovebox light, check panel, engine fan, ALFA ROMEO CODE
	16	10A	Clock, ceiling lamps, conditioner control unit, alarm remote control
	17	7.5A	Direction indicators, mirror adjustment
	18	20A	Door locking device
	19	20A	Fog lamps, fog lamp warning light
	20	30A	Electric sunroof
	21	30A	Adjustable and heated seats
	22	25A	Left front power window (*)
	23	25A	Rear power window

(\*) Versions with automatic LH front power window control



## LOCATION ON AUXILIARY BRACKET

There is a set of fuses on an auxiliary bracket (not removable) at the left of the main fusebox.

The fuses are distinguished by the colour of the fuse-holder base that connects them to the wiring, according to the following table:

COMPONENT	AMP.	COLOUR OF BASE
Headlamp fuse	20 A	Yellow
ABS fuse - NOT CONNECTED -	10 A	Red
Front power window fuse	25 A	White
Front left power window fuse (*)	25 A	White
Climate control fan fuse	30 A	Green
Air conditioning system fuse	10 A	Red

(\*): Versions with manual LH front power window control

**N.B.** In addition to the colour of the base, it is also wise to check the exact location of a fuse by the colour of the wires that converge on it (for this see the corresponding wiring diagram in "ELECTRIC - ELECTRONIC DIAGNOSIS").

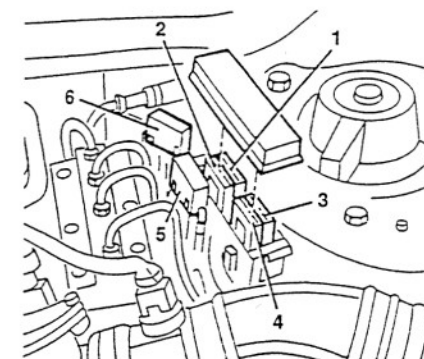
## LOCATION IN THE ENGINE COMPARTMENT

In the engine compartment there are the fuses for the following systems:

general and system supply;  
Injection and ignition system.

## GENERAL AND SYSTEM SUPPLY

In the branch box, next to the A.B.S. control unit, there are the main supply fuses for all the systems of the vehicle:



1. Fan fuse (50A)
2. Services supply fuse (50A)
3. General supply fuse (70A)
4. General supply fuse (70A)

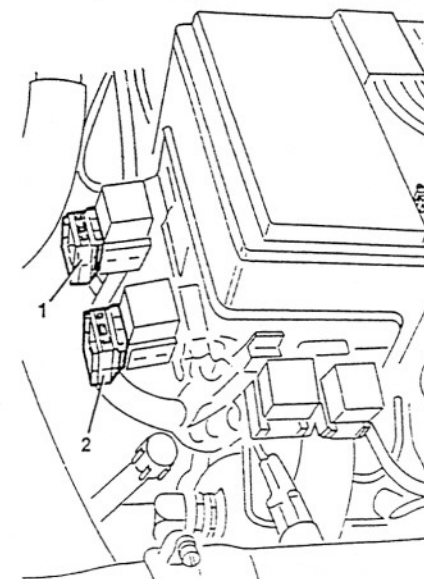
Outside there are two other fuses:

5. Motronic system supply fuse (40A);
6. ABS system supply fuse (60A).

## INJECTION AND IGNITION SYSTEM

The fuses, together with the relays of the same system are to be found on two brackets next to the battery.

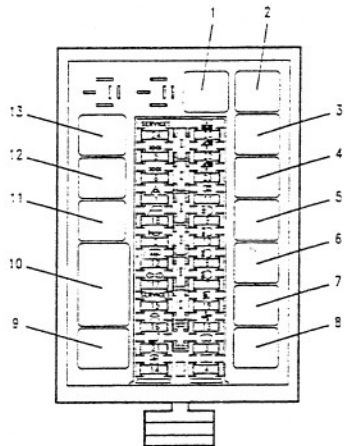
1. Fuel pump fuse (10A)
2. Lambda probe fuse (7.5) (Models 2.0 m.y. '95)
- Lambda probe fuse (8) (Models 1.6 - 1.8 - 2.0 m.y. '96)





## ELECTROMECHANICAL DEVICES, TIMERS AND INTERMITTENCES

## LOCATION IN THE FUSEBOX



- 1- Engine water cooling fan 1st speed relay (only air conditioned versions)
- 2- Sunroof relay
- 3- Hazard warning lights and direction indicator relay
- 4- Rear fog guard relay
- 5- High beam relay
- 6- Key-operated supply relay
- 7- Fog lamp relay
- 8- Low beam relay
- 9- Heated rearscreen relay
- 10- Door locking control unit
- 11- Horns relay
- 12- Sidelights relay
- 13- Windscreen wiper electronic intermittence

## LOCATION ON AUXILIARY BRACKET

A set of relays is located on an auxiliary bracket (not removable) at the left of the main fusebox; next to this there are the power window control unit and the ALFA ROMEO CODE control unit (see Group 43).

The relays are distinguished by the colour of the relay holder base which connects them to the wiring, according to the following table:

COMPONENT	COLOUR OF BASE
Boot opening relay (with 30 A fuse)	Red
Timer for headlamp washer	Black
Climate control auxiliary relay	Grey - Purple (*)
Compressor joint control relay	Grey
Engine cooling fan relay	Black

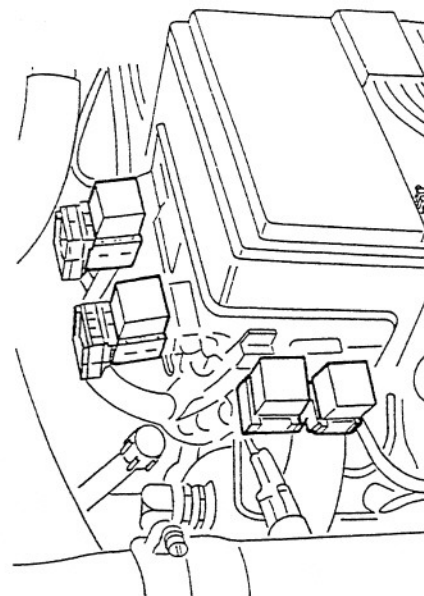
(\*): Models 1.6 - 1.8 - 2.0 m.y. '96

N.B. In addition to the colour of the base, it is also wise to check the exact location of a relay by the colour of the wires that converge on it (for this see the corresponding wiring diagram in "ELECTRIC - ELECTRONIC DIAGNOSIS").



## LOCATION IN THE ENGINE COMPARTMENT

A set of relays - for the injection/ignition system - is located on two auxiliary brackets next to the battery.



The relays are distinguished by the colour of the relay holder base that connects them to the wiring, according to the following table:

COMPONENT	COLOUR OF BASE
Main relay	Black
Secondary timer	Black
Fuel pump relay	Black
Timing variator relay	Black

N.B. In addition to the colour of the base, it is also wise to check the exact location of a relay by the colour of the wires that converge on it (for this see the corresponding wiring diagram in "ELECTRIC - ELECTRONIC DIAGNOSIS").