

# BOSE HIFI SYSTEM

A sophisticated "Bose" HI FI system with special speakers and an outside amplifier is available on request.

## Function

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 perfectly suited to the vehicle: the sound is excellent throughout the passenger compartment.

In addition, the system blends in perfectly with the aesthetics of the vehicle, without taking up extra space.

The system is installed in the vehicle directly in production, without any operations afterwards: the cables are incorporated in the vehicle wiring.

It is therefore advisable not to modify the original system in any way (e.g. graphic equalizers, additional sub-woofers, extra amplifiers).

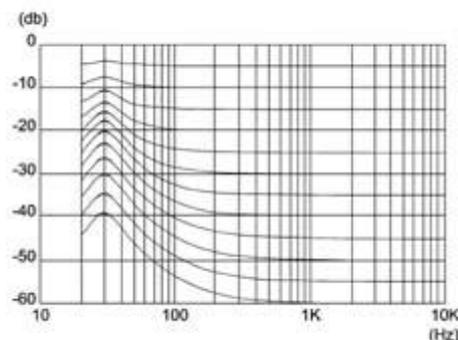
In addition, the system components (amplifier and speakers) should not be repaired individually, but can only be replaced with new components.

## Performance

The Bose system guarantees the highest quality sound, with crystal clear high notes and deep, rich low tones.

With the following specifications:

- Volume compensation, through the "active" Bose equalizing
- High/low tone control, from + 6dB to - 12 dB
- Fader control, through the Bose "spatial" fader



Optimum frequency response, according to graphics given below:

- Output distortion < 2%, with all controls at maximum
- Dynamic output range > 112 dB
- Cassette reproduction interference reduction, with Dolby type B NR

## COMPOSITION

Unlike the system fitted as standard, the Bose system includes:

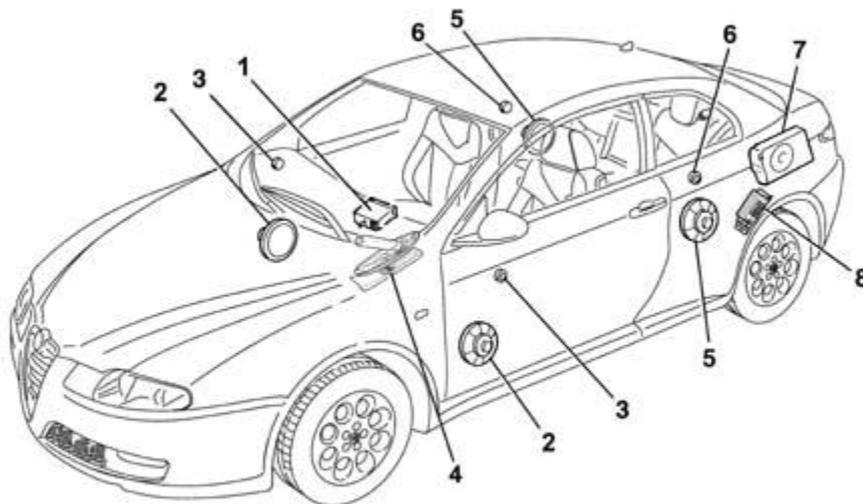
- front/rear speakers specific
- rear woofer speaker
- high power amplifier

The Bose system is completed by a microphone, located in the centre console, which detects background noise inside the passenger compartment: the signal sent for amplification allows the optimum regulation and equalization of output levels

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

## Location

The diagram below illustrates the location of the components.



- 1 - Radio
- 2 - Front door mid-range speakers
- 3 - Front door tweeter speakers
- 4 - Ambient microphone
- 5 - Rear mid-range speakers
- 6 - Rear tweeter speakers

7 - Rear sub-woofer speaker

8 - Amplifier

## COMPONENT DESCRIPTION

### Speakers

#### Specifications

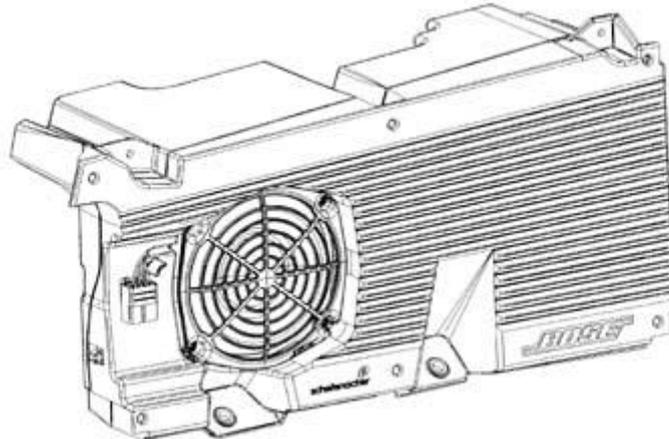
The high fidelity BOSE speakers are composed of a magnetic ferrite core for both the mid range speakers and the tweeter, in addition, the mid range speakers have a treated paper membrane and textile material. The moving coil support is made from aluminium.

### Rear woofer speaker

#### Specifications

This is a high fidelity woofer speaker with a special bass box incorporated which diffuses the sound in an optimum manner preventing vibrations and interference.

It is located together with the amplifier on the left hand side of the luggage compartment.



### Amplifier

#### Specifications

It is a 5 channel, hifi amplifier with 200W power, 4 analogue amplifiers and a 100W class D impulse amplifier.

The amplifier has 4 stereo channels for the speakers in the front and rear doors and a mono channel for the rear woofer.

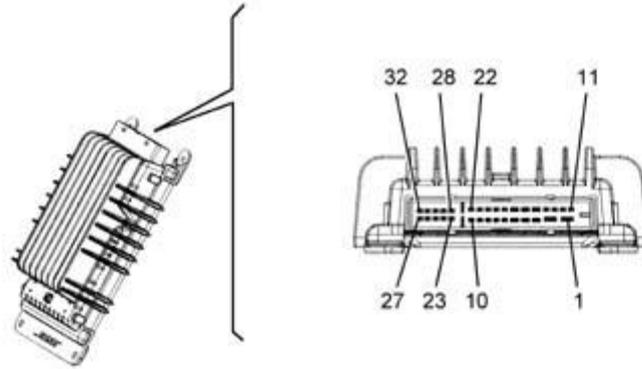
The amplifier is equipped with a built in equalizer and compressor.

The high resolution equalizer is specially calibrated in the vehicle passenger compartment because it takes into account the vehicle absorption and reflection surfaces (seats, windows, dashboard, door panels) and the position of the speakers and the passengers.

The "two stage" technology allows high power with compact dimensions and reduced heat emission compared with a traditional linear amplifier.

The amplifier is fitted with:

- an integrated signal processor, which actively adapts the bass;
- an active equalizer, with automatic electronic balancing of all outputs
- an integrated compressor which minimizes distortions



#### AMPLIFIER CONNECTION PIN OUT

PIN	SIGNAL
1	+30
2	earth
3	+ woofer 2
4	- rear speaker left
5	+ rear speaker right
6	enablement from radio
7	- front speaker left
8	- front speaker right
9	- rear speaker left

10	- rear speaker right
11	+ woofer 1
12	- woofer 1
13	n.c.
14	n.c.
15	- woofer 2
16	+ rear speaker left
17	- rear speaker right
18	n.c
19	+ front speaker left
20	+ front speaker right
21	+ rear speaker left
22	+ rear speaker right
23	n.c.
24	n.c.
25	n.c.
26	- front speaker right
27	+ front speaker right

28	n.c.
29	+ microphone
30	- microphone
31	+ front speaker left
32	- front speaker left