



DLS GOTHIA

CAR AUDIO SPEAKERS

Gothia 6.2
Gothia 6.3
Gothia 1
Gothia 3

Welcome

Thank you for buying a DLS GOTHIA speaker system. This model is a part of DLS ULTIMATE line. This manual will show you how to do a correct installation. Please read the entire manual before beginning the installation. Install the speakers yourself if you feel confident with our instructions and if you have the proper tools. The ULTIMATE speakers are our best speaker line but a poor installation job can destroy the final result even from these speakers. So if you feel unsure, turn over the installation job to someone better suited to it.

Installation

Speaker drivers:

Mount the bass speakers in the door sides of your car. We strongly recommend you to install the drivers in a strong baffle of MDF-board or similar. For baffle installation see our advice on next page. An installation high up on the door side is to be preferred. This goes also for the 3" midrange driver.

The tweeter can be installed recessed in the door or A-pillar. It is important to fasten the speakers properly in order to avoid bad sound or rattling, a separate baffle will improve the sound also for the tweeter.

Filter boxes:

It's vital that the filter boxes are attached properly to the interior of the vehicle to avoid rattling. Don't place them close to the internal wiring of the car, this can cause interference.

Avoid installing the filter boxes in the door sides because they can easily be broken because of rattling or moisture.

Wiring:

Use high quality speaker cables like DLS HQS or similar. Avoid using the factory pre-installed cabling, they will not give the sound reproduction that you should expect from these high class speakers.

Make sure the cables don't get jammed causing a short circuit to ground. This can damage the output circuits of your head unit or amplifier.

The sealing strip coming with the bass drivers should be used for improved sealing between the bass driver and the mounting surface.

Two-way system Gothia 6.2

The 2-way system have a separate 28 mm tweeter. The filters are combined low pass and high pass in a plastic box with selectable tweeter level in four steps inside. On next pages you can see how to connect the filters.

The filters must be used, if you connect without them the sound becomes bad and you will destroy the tweeter. You don't have to use the passive crossover if the system is connected to separate amplifiers in an active system.

Three-way system Gothia 6.3

The 3-way system have a separate 28 mm tweeter and Gothia 3, 3" midrange. The filter components are mounted in three plastic boxes. There are two boxes for the tweeter and midrange drivers (one for each channel), and another box for the bass drivers (for both channels). The tweeter mid. boxes have selectable tweeter level in three steps. On the following pages you can see how to connect the filters.

The filters must be used, if you connect without them the sound becomes bad and you will destroy the tweeter. You don't have to use the passive crossover if the system is connected to separate amplifiers and an active crossover.

Break-in period

Allow the speakers to play at normal volume for at least 15-20 hours. After this time the performance will be correct.

Connection of speakers

Make sure you connect the cables with correct polarity to the speakers. Observe the markings on the terminals. The red marked terminal is plus and the black is minus.

Warranty service

This speaker is covered by warranty, depending on the conditions in the country where it is sold. If the speaker is returned for service, please include the original dated receipt (or a copy) with the product.

Technical Assistance

For technical assistance ask the shop where the product was sold or the distributor in your country. You can also send an e-mail to info@dls.se

Information can also be found on our web-site www.dls.se We follow a policy of continuous advancement in development. For this reason all or part of specifications & designs may be changed without prior notice.



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Facts DLS Gothia6 bass

Art.no, driver	8-25206
Size	165 mm / 6,5"
Impedance	4 ohm
Nom. power	100 Watts RMS
Max. power	180 Watts max
Freq. range	30Hz-5 kHz
Sensitivity	86 dB
Fs	48,6 Hz
Qts	0,58
Vas	15 litres
Cone material	Carbon fibre
Magnet size	100 mm / 4"
Installation hole	142 mm / 5,6"
Inst. depth	72 mm / 2,83"

Facts DLS Gothia3 mid

Art.no	10-25203
Size	3" / 75 mm
Impedance	4 ohm
Nom. power	100 Watts RMS
Max power	160 Watts max
Freq. range	315 Hz-6 kHz
Sensitivity	91 dB
Fs	280 Hz
Overall dimensions	120 mm / 4,72"
Magnet size	80 mm / 3,15"
Mounting depth	35 mm / 1,38"
Mounting hole	95 mm / 3,74"
Cone material	Coated fabric

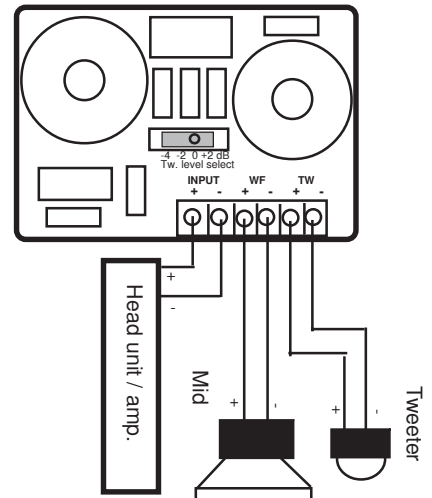
Facts DLS Gothia1 tweeter

Art.no	10-25201
Size	28 mm
Impedance	4 ohm
Nom. power	50 Watts RMS
Max power	80 Watts max
Freq. range	3 kHz-25 kHz
Sensitivity	93 dB
Fs	900 Hz
Overall dimensions	62 mm / 2,44"
Magnet size	28 mm / 1,1"
Mounting depth	25 mm / 1"
Mounting hole	46 mm / 1,81"
Cone material	Hand treated fabric

Connection to crossover on Gothia 6.2

TWEETER LEVEL SELECTOR

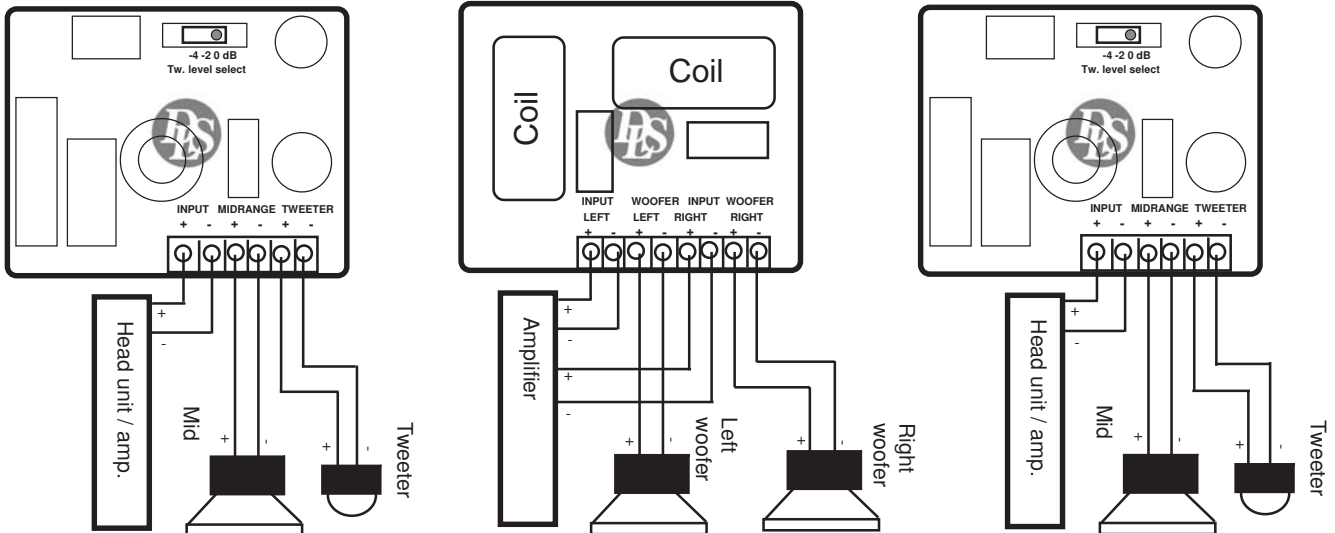
Select between four different tweeter levels by moving the slide switch SW1 inside the filter box.
The four positions are: -4 dB, -2 dB, 0, +2 dB



SPEAKER PHASING

To be sure to have the correct speaker polarity (phase) you can check this by using a 1,5 Volt battery. Connect a cable from the battery plus-pole to the speaker plus, and a cable from the battery minus to the speaker minus. If the speakers are correctly connected the speaker cone should move outwards on both right and left channel. This check must be made on the cables going from the speakers, to the output terminals of your car stereo or amplifier.

Filter installation and connection of Gothia 6.3, 3-way speaker system



TWEETER LEVEL SELECTOR

Select between three different tweeter levels by moving the slide switch inside the filter box.
The three positions are: -4 dB, -2 dB, 0.

Three filter boxes

Gothia 6.3 has a unique design using only three filter boxes. In two of the boxes there are the filters for midrange & tweeter, one box for each channel. The third box contains the low pass filter for both left & right channels. If you prefer to run the midbas drivers active, just exclude this filter box.

Installation of Gothia1 tweeter:

Recessed mounting 1:

You need a hole with a diameter of 46 mm / 1,88" in the door side, fasten with four screws. A strong baffle will improve the sound.



Recessed mounting 2:

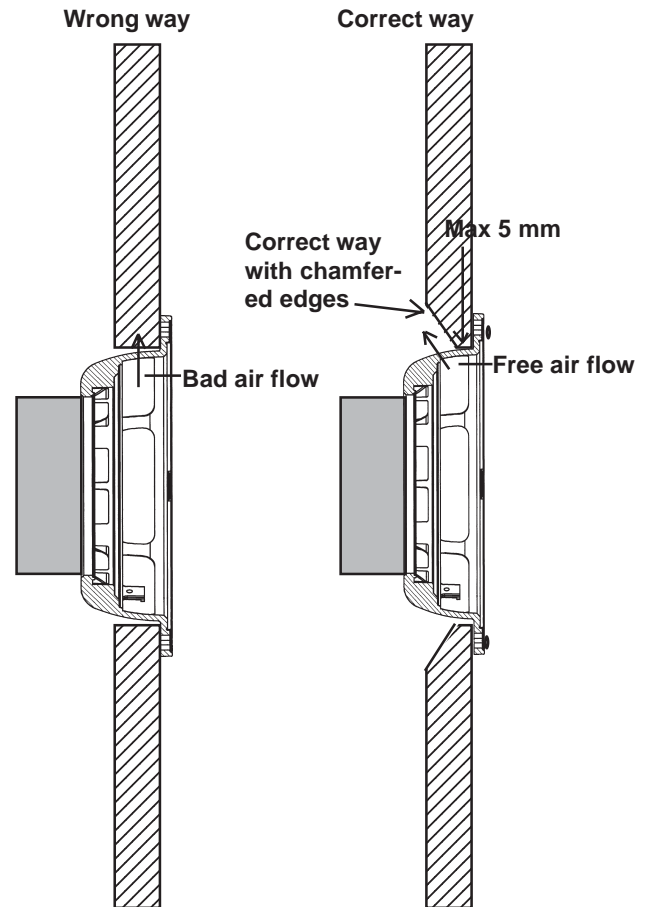
Sometimes it's necessary to install the tweeter at places where you can't use the round flange. The flange (A) is possible to remove from the tweeter driver (B) by turning it CCW.

If you prefer to install the tweeter with the flange attached to the tweeter driver, we recommend you to add a string of strong glue on the bottom side, between flange and chamber, to secure it. This gives you the best sound reproduction in this installation.



Installation of 6,5" driver in baffles:

It is very important that the baffle is stable, but it is just as important that it is shaped in a way that allows the driver to "breathe" backwards, otherwise there will be a lack in the driver's bass reproduction.



Installation of Gothia3 midrange:

Recessed mounting:

You need a hole with a diameter of 95 mm / 3,74" in the door side or dash board, fasten with the four screws. A strong baffle will improve the sound. You should use the steel mounting rings coming with the speakers to improve the installation.

