



# ULTIMATE Nobelium\* SERIES CAR AUDIO SPEAKERS

**Nobelium 5.2**  
**Nobelium 6.2**  
**Nobelium 8.2**

\*Nobelium is a radioactive metal with atomic number 102. It is named after the Swedish scientist Alfred Nobel

## WELCOME

Thank you for buying a DLS ULTIMATE Nobelium speaker. 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. They will fit in the factory pre-made mounting holes but we strongly recommend the use of a baffle made of MDF-board or similar to achieve the best performance. An installation high up on the door side is to be preferred. An alternative installation is in so called kick panels down on each side of the floor with the speakers facing up- and inwards towards the listener. You can also build a separate sealed box in the door side.

The tweeter can be installed recessed in the dash-board, or in the door.

It is important to fasten the speakers properly in order to avoid bad sound or rattling.

### 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 to install filter boxes in the door sides because they can easily be broken because of rattling or moisture.

### Wiring:

Use high quality speaker cables. Avoid using the factory pre-installed cabling, they will not give the sound reproduction that you should expect from the Nobelium speakers. The DLS SCP cable is a perfect allround cable for all kind of 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.

## TWO-WAY SYSTEMS Nobelium 5.2, 6.2 & 8.2

These 2-way systems have a separate 1" tweeter. The filters are combined low pass and high pass in a plastic box with selectable tweeter level inside.

On the back of this paper 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.**

## SPEAKER ENCLOSURES

If you want to install the speaker in an enclosure the recommended sizes are:

Nobelium 5,25" bass driver in a kick panel:  
min 3 liters (0,105 cuft) and max 5 liters (0,18 cuft).

Nobelium 5,25" bass driver in door side: 5 liters (0,18 cuft) sealed box.

Nobelium 6,5" bass driver in a kick panel:  
min 4 liters (0,14 cuft) and max 6 liters (0,21 cuft).

Nobelium 6,5" bass driver in door side: 6 liters (0,21 cuft) sealed box.

Nobelium 8": Use open air mounting in door side only. Boxes will be to big for door sides or kick panels.

## PARAMETERS FOR BOX CALCULATION:

Model	Fs(Hz)	Vas(L)	Re(Ω)	Qms	Qes	Qts	BI	SPL(dB)
<b>5.2</b>	70	3,73	3,3	1,85	1,34	0,31	8,2	87,8
<b>6.2</b>	64	7,43	3,3	1,9	0,37	0,32	8,19	89,2
<b>8.2</b>	55,8	19,93	3,3	2,19	0,49	0,4	8,06	90,5

## 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 with the product.



### Technical Assistance

For technical assistance ask the shop where the product was sold or the distributor in your very country. You can always phone the DLS Helpdesk in Sweden + 46 31 840060 or send an e-mail to [info@dls.se](mailto:info@dls.se)

Information can also be found on our WEB-site [www.dls.se](http://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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# SPEAKER FACTS FOR DLS ULTIMATE Nobelium SERIES

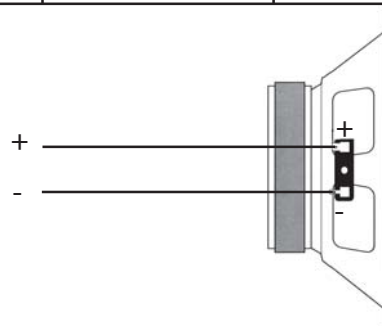
Model	Woofer	Mid	Tweeter	Nom. power	Max power	Sensivity	Magnet size	Inst. depth	Mounting hole bass	Crossover
5.2	13 cm / 5,25"	--	28 mm / 1,1"	100 W	160 W	91 dB	85 mm / 3,35"	62 mm / 2,44"	120 mm / 4,72"	Separate box Separate box Separate box
6.2	16,5 cm / 6,5"	--	28 mm / 1,1"	100 W	160 W	91 dB	85 mm / 3,35"	65 mm / 2,56"	140 mm / 5,51"	
8.2	20 cm / 8"	--	28 mm / 1,1"	100 W	160 W	91 dB	85 mm / 3,35"	70 mm / 2,76"	180 mm / 7,09"	

## RUNNING-IN PERIOD

Allow the speakers to play for at least 15-20 hours. After this time the performance is correct.

## CONNECTION OF SPEAKERS

Make sure you connect the cables with correct polarity to the speakers. Observe the markings on the terminal. The small terminal is minus. This is for Nobelium 5.2, Nobelium 6.2 and 8.2 has instead screw terminals with red (+) and black (-) marking.



## 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.

## TWEETER INSTALLATION Nobelium1

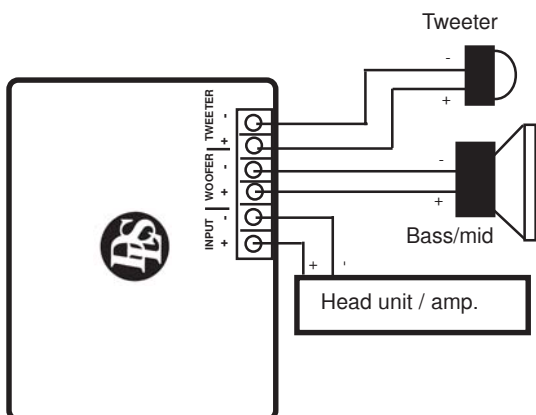
Nobelium1 can be installed recessed in a doorside.

### RECESSED MOUNTING 1:

You need a hole with a diameter of 46 mm / 1,77" in the door side. Attach the tweeter driver to the door side (or where you prefer to install it) and use the four long screws to attach it.

## FILTER/CROSSOVER INSTALLATION

### Filter installation and connection



### RECESSED MOUNTING 2:

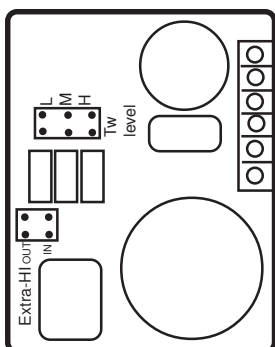
Sometimes it's necessary to install the tweeter at places where you cant use the round flange. The flange (A) is possible to remove from the tweeter element (B) by turning it CCW. If you prefer to install the tweeter with the flange attached to the tweeter element, we recommend you to add a string of strong glue on the bottom side, between flange and chamber, to secure it. This gives you the best sound reproduction in this installation.



## THE JUMPERS INSIDE THE FILTER BOX:

### TWEETER LEVEL JUMPERS

Select between three different tweeter levels (Low-Medium-High) by moving the 3-position jumper inside the filter box. If you need extra high tweeter level, move the jumper "EXTRA-HI" to position IN. Normal position for this jumper is OUT



## FACTS ABOUT DLS Nobelium1

Art.no	10-25601
Size	28 mm in die cast housing
Nom. power (RMS)	50 Watts (80 Watts max)
Freq. range	1 kHz-25 kHz
Sensitivity	93 dB
Fs	900 Hz
Overall dimensions	62 mm / 2,44"
Magnet	28 mm / 1,1" neodymium
Mounting depth	26 mm / 1"
Mounting hole	46 mm / 1,77"
Cone material	Hand treated fabric