



ULTIMATE UP-SERIES CAR AUDIO SPEAKERS

UP36i

WELCOME

Thank you for buying a DLS ULTIMATE UP-series 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. Normally they will fit in the factory pre-made mounting holes. If you want an improved sound reinforce with a 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. An alternative installation is in kick panels down on each side of the floor with the speakers facing up- and inwards towards the listener.

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.

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 these high class speakers. The DLS SC or SCP cable is a perfect allround cables 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.

The tweeter installation is described on next page.

THREE-WAY SYSTEM

This 3-way systems have separate UP1i tweeter and UP2,5i midrange. The filter components are mounted in a plastic box with selectable tweeter and midrange level inside.

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.

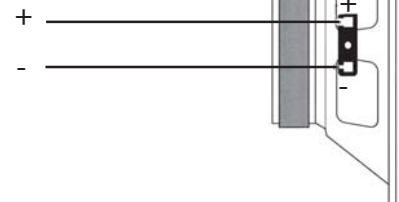
RUNNING-IN PERIOD

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.



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.

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

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.

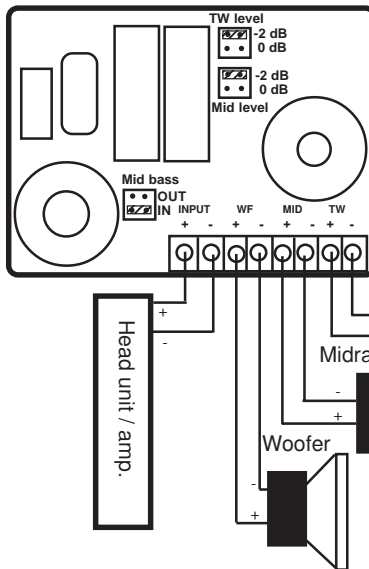


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SPEAKER FACTS FOR DLS ULTIMATE UP 3-WAY SPEAKER SYSTEMS:

Model	Woofers	Mid	Tweeter	Nom. power	Max power	Sensitivity	Magnet size	Inst. depth	Mounting hole bass driver	Crossover
UP36i	16,5 cm / 6,5"	UP2.5i	28 mm / 1,1"	150 W	180 W	88 dB	62 mm / 2,44"	63 mm / 2,6"	140 mm / 5,51"	Separate box

CROSSOVER CONNECTION:



TWEETER & MID LEVEL JUMPERS

Select between two different tweeter and mid levels by moving the small jumpers inside the filter box.

The **MIDBASS** jumper is used when you want to run the midbass driver active on a separate amp. Then some components inside the filter must be disconnected and this is done with the MID BASS jumper

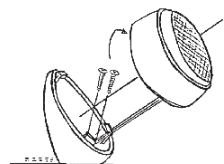
Midbass connected: jumper in **IN**-position.

Midbass disconnected: jumper in **OUT**-position.

UP1i TWEETER INSTALLATION: SURFACE MOUNTING:

For angled surface mount together with the angled cup:

The tweeter element is attached to the cup by fitting the three wings on the angled cup into the tracks of the element and then turn it clockwise. When removing the element from the cup, turn it ccw and lift it up.



RECESSED MOUNTING:

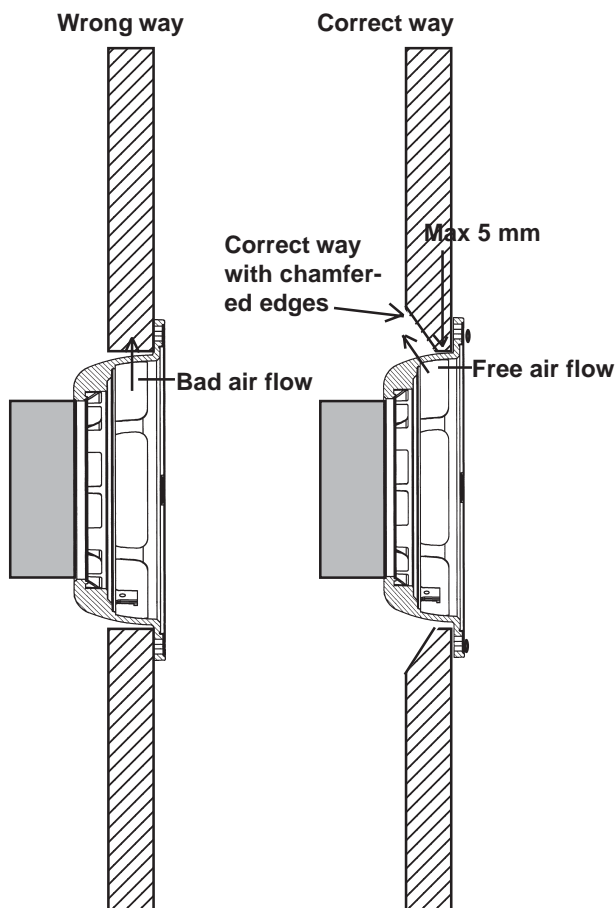
You need a hole with a diameter of 48 mm / 1,89" in the door side. Put the two metal wings through the two tracks in the center of the cup, just as the picture shows, and attach them with the M4 screw and nut through the center hole. The cup is attached to the door side when the metal wings is pressed to the back side of the door.

Put the tweeter element into the cup with the cable going out through the bottom hole. Then attach the element into the cup and turn it clockwise to attach to the cup. When removing the element from the cup, turn it ccw and lift it out



BAFFLE INSTALLATION:

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 drivers bass reproduction.



FACTS UP1i TWEETER:

Size	28 mm / 1,1"
Nom. power (RMS)	50 Watts (80 Watts max)
Freq. range	1,5 kHz-20 kHz
Sensitivity	93 dB
Magnet diameter	28 mm / 1,1"
Mounting depth	18 mm / 0,71"
Mounting hole	48 mm / 1,89"
Cone material	Hand treated fabric

UP2,5i - MID-DOME INSTALLATION:

Should be installed high up in the door side or in the dashboard. This speaker don't require any box. When the midrange is mounted high up in the dashboard the mid level creates a frequency peak in some vehicles. If so use the low mid level in the filter box. If the level is still too high, connect a 3-5 ohm resistor in series with the + feed.

FACTS DLS UP2.5i MID-DOME:

Size	2,5" (6,3 cm)
Nom. power (RMS)	90 Watts RMS
Maximum power	160 Watts
Frequency range	400 Hz-8 kHz
Sensitivity	91 dB / W / m
Resonant freq. / Fs	350 Hz
Magnet diameter	65 mm / 2,56"
Outer diameter	100 mm / 3,94"
Mount. depth	25 mm / 1"
Mount. hole	82 mm / 3,23"
Cone	Doped fabric
Voice coil	52 mm / 2" al flat wire