



# DLS COMPETITION GRADE SPEAKERS

## SCANDINAVIA 30, 75, 165, 165Wi

### INSTALLATION TIPS

#### DLS SCANDINAVIA 30 COMPETITION GRADE TWEETER

- Please install very firmly on-axis or semi on-axis.
- Use HP crossover point above 3000 Hz.
- Optimum HP crossover points are above 4000 Hz
- Use a high grade Head Unit and amplifier like DLS CCI or better.
- For optimum performance do not install the Scandinavia 30 behind cars original speaker grills.

#### DLS SCANDINAVIA 75 COMPETITION GRADE MIDRANGE

- Please install very firmly in a sealed box of minimum 1 litre (0,0035 cuft) and maximum 4 litres (0,141 cuft).
- Use a HP crossover point above 180 Hz, and a LP crossover point below 6000 Hz.
- Use a high grade Head Unit and amplifier like DLS CCI or better.

#### DLS SCANDINAVIA 165 COMPETITION GRADE BASS MID-RANGE WOOFER

- Please install very firmly in a well dampened door / door panel.
- Optimum crossover points are  
LP: 50 - 60 Hz, HP: 3000 - 4000 Hz
- It is optimized for door panel installs but can be installed in sealed boxes of 9 litres (0,31 cuft) as well.
- Use a high grade Head Unit and amplifier like DLS CCI or better.

#### DLS SCANDINAVIA 165Wi COMPETITION GRADE BASS MID-BASS WOOFER

- Can only be used in sealed boxes of 7-9 litres (0,25-0,32 cuft)
- Can NOT be used in door panel installs (it will brake and sound bad).
- Use HP crossover point between 50 - 60 Hz and LP crossover point between 180 - 300 Hz
- Use a high grade Head Unit and amplifier like DLS CCI or better.

#### DLS SCANDINAVIA 2-WAY CROSSOVER

- For passive use with Scandinavia 30 and Scandinavia 165

#### BREAK-IN PERIOD

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

#### 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](mailto:info@dls.se)  
Information can also be found on our web-site [www.dls.se](http://www.dls.se)

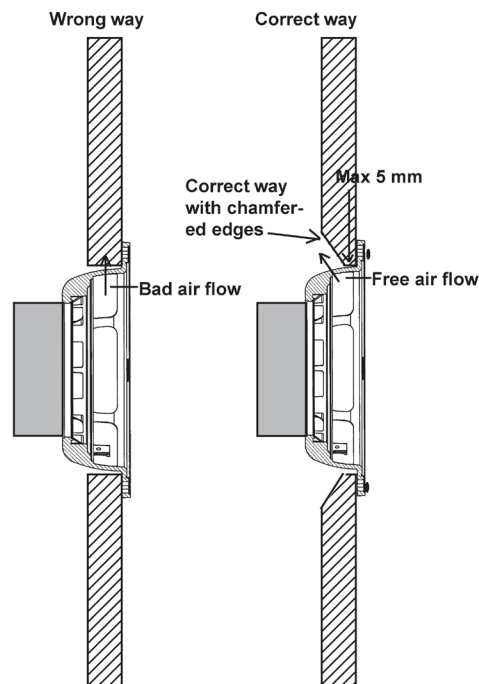
We follow a policy of continuous advancement in development. For this reason all or part of specifications & designs may be changed without prior notice.

#### 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.

#### BAFFLE INSTALLATIONS

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.



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# SPECIFICATIONS

## Specifications Scandinavia 30

Art.no.	CD-SCAND-30
EAN Bar code	7331644824107
Size	30 mm
Impedance	4 ohm
Rec. amp. power (RMS)	50 - 200 W
Freq. range	1 KHz - 30 kHz
Cone material	Textile
Outer diameter	68 mm / 2,67"
Mounting depth	18 mm / 0,75"
Sensitivity	92,2 dB
Fs	750 Hz



## Specifications Scandinavia 75

Art.no.	CD-SCAND-75
EAN Bar code	7331644824602
Size	75 mm
Impedance	4 ohm
Rec. amp. power (RMS)	50 - 200 W
Freq. range	100 Hz - 10 kHz (in axis) +- 3 dB
Cone material	Polypropylene
Outer diameter	84 x 84 mm / 3,31 x 3,31"
Mounting depth	38 mm / 1,5"
Sensitivity	86 dB
Fs	98 Hz
Rec. HP x-over	above 180 Hz
Rec. LP X-over	below 6 kHz



## Specifications Scandinavia 165

Art.no.	CD-SCAND-165
EAN Bar code	7331644824701
Size	165 mm
Impedance	4 ohm
Rec. amp. power (RMS)	50 - 200 W
Freq. range	50 Hz - 4,5 kHz
Cone material	Fibre glass
Outer diameter	165 mm / 6.5"
Mounting depth	65 mm / 2,56"
Sensitivity	91,9 dB / 2,83V
Fs / Qts / Vas	61 Hz / 0,54 / 10,2
Rec. HP x-over	50 - 60 Hz
Rec. LP X-over	3 - 4 kHz



Optimized for door panel mount but can also be used in sealed boxes 9 litre (0,31 cu ft)

## Specifications Scandinavia 165Wi

Art.no.	CD-SCAND-165Wi
EAN Bar code	7331644824817
Size	165 mm
Impedance	4 ohm
Rec. amp. power (RMS)	50 - 200 W
Freq. range	30 Hz - 500 Hz
Cone material	Aluminium
Outer diameter	165 mm / 6.5"
Mounting depth	65 mm / 2,56"
Sensitivity	84,3 dB
Fs / Qts / Vas	52,4 Hz / 0,64 / 9,5
Rec. HP x-over	50 - 60 Hz
Rec. LP X-over	180 - 300 Hz



Recommended sealed box 7 - 9 litres