DLS REFERENCE SUBWOOFERS
OWNERS MANUAL

RCW10
RCW12

Welcome

Thank you for buying a DLS Reference series subwoofer. The subwoofer must be installed correctly in order to work well, this manual will show you how.
Please read the entire manual before beginning the installation.
Install the subwoofer yourself if you feel confident with our instructions and if you have the proper tools. However if you feel unsure, turn over the installation job to someone better suited to it.
The speakers are designed for enclosure mounting. When installed "open air" the power handling capacity is reduced with 30% from the nominal value. **We don't recommend "open air" installations.**

Connection

How to connect depends on what type of amplifier you use. The best is to follow the instructions given in the manual for the amplifier. Most amplifiers today have built-in lowpass crossover and possibilities to connect your subwoofer in bridge mode.
For wiring use high class speaker wires, min AWG13 (2.5 mm^2).

Running-in time

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

Technical specifications*:

	RCW10	RCW12
Size	25 cm (10")	30 cm (12")
Impedance	2 x 4 ohm	2 x 4 ohm
Nom. power (RMS)	300 W	400 W
Max power	600 W	800 W
Peak power	800 W	1000 W
Freq. range	25 Hz - 1 kHz	20 Hz - 1 kHz
Sensitivity	84,4 dB	86,5 dB
Voice coil diameter	75 mm (3")	75 mm (3")
Re	2 x 3,2 ohm	2 x 3,2 ohm
X-max	+-9 mm (0,35")	+-9 mm (0,35")
Resonant freq. (Fs)	28,2 Hz	29,7 Hz
Vas (liters)	37,6	48,6
Vas (ft^3)	1,32	1,71
Qts	0,37	0,38
Cone material	Aluminum	Aluminum
Magnet diameter	6,3" (160 mm)	7,4" (188 mm)
Installation depth	5,23" (133 mm)	6,06" (154 mm)
Mounting hole	9,25" (235 mm)	11,18" (284 mm)
Outer diameter	10,5" (266 mm)	12,4" (315 mm)
Weigth	11,7 lbs (5,3 kg)	20,9 lb (9,5 kg)

*All parameters measured with voice coils connected in parallel

Warranty

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.

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Subwoofer enclosures

Build your enclosure in a stable and airtight material. The best is MDF-board, 19 mm, or particle board, 22 mm. Larger enclosures must have bracing inside to avoid vibrations. The enclosure must be completely airtight. Use sealing compound in all joints, also around the cable terminals. The size of the enclosure is decided by the speaker data.

Sealed enclosures

Sealed enclosures are easy to build. The size is not critical, but it can't be too small. The speaker data such as Fs, Qts, Vas decides the size of the enclosure.
Large speakers need larger boxes. Two speakers need a box of the double size etc. The enclosure must be completely airtight.

Vented enclosures

The are built in the same way but with a vent hole (port), normally on the front panel.
RCW10 is designed for use in both sealed and vented enclosures.
RCW12 is mainly designed for use in sealed enclusure but can also be used in vented enclosures, but the port will be quite long.

Enclosure damping

Most enclosures should be dampened inside with syntetic (acoustic) wool or damping mat (line). Attach the damping material on the wall opposite from the speaker and port. A sealed enclosure should be filled up to 70-100% with acoustic wool.

Recommended sealed enclosures

Model	Volume (liters / ft3)
RCW10	18 litres / 0,64 cu ft
RCW12	28 litres / 1 cu ft

Recommended vented enclosures

Model	Volume (liters / ft3)	Vent dia.	Length
RCW10	20 liters / 0,7 cu ft	3" diam.	34 cm/13,4"
RCW12	33 litres / 1,16 cu ft	4" diam.	52 cm/20,4"

We recommend the sealed box for RCW12, but if you have space for the long vent, the vented box will play very well!

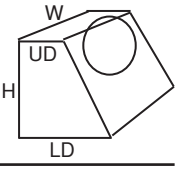
All box recommendations are with voice coils connected in parallel, but can also be used with single voice coil connection.

Calculate the enclosure volume

When caculating the volume of an enclosure you simply multiply the width (W) x heigth (H) x depth (D).
Use measures in dm and you will get the answer in liters.
A trapezoid box is calulated as below:

$$\text{Vol} = \text{width} \times \text{heigth} \times \frac{\text{upper depth} + \text{lower depth}}{2}$$

Be sure to use the inside dimensions when you measure.



☎ Technical Assistance

For technical assistance ask the shop where the product was sold or the distributor in your very country.You can always an e-mail to info@dls.se and ask for help
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.