



DLS PERFORMANCE SUBWOOFERS OWNERS MANUAL

MCW10 MCW12

Welcome

Thank you for buying a DLS Performance 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 mm²).

Running-in time

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

Technical specifications:

	MCW10	MCW12
Size	25 cm (10")	30 cm (12")
Impedance	4 ohm	4 ohm
Nom. power (RMS)	200 W (max 400)	250 W (max 500)
Freq. range	25 Hz - 1 kHz	20 Hz - 1 kHz
Sensitivity	86,7 dB	87,75 dB
Voice coil diameter	50 mm (2")	50 mm (2")
Re	2,9 ohm	3,0 ohm
X-max	+9 mm (0,35")	+9 mm (0,35")
Resonant freq. (Fs)	40,4 Hz	33,5 Hz
Vas (liters)	21,4	57
Vas (ft ³)	0,76	2,00
Qts	0,44	0,52
Cone material	Paper	Paper
Magnet diameter	4,72" (120 mm)	4,72" (120 mm)
Installation depth	4,52" (115 mm)	5,11" (130 mm)
Mounting hole	9,05" (230 mm)	11" (280 mm)
Outer diameter	10,04" (255 mm)	12,2" (310 mm)
Weight	6,17 lb (2,8 kg)	6,83 lb (3,1 kg)

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

They are built in the same way but with a vent hole (port), normally on the front panel.

MCW10 and MCW12 are designed for use in both sealed and vented enclosures. See below for enclosure volumes.

Enclosure damping

Most enclosures should be damped inside with synthetic (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)
MCW10	18 - 20 litres / 0,64 - 0,70 cu ft
MCW12	32 - 37 litres / 0,92 - 1,06 cu ft
Small cars 32 - 34 litres, large cars 34 - 37 litres	

Recommended vented enclosures

Model	Volume (liters / ft3)	Vent
MCW10	23 litres / 0,81 cu ft	3" diam., length 25 cm
MCW12	40 litres / 1,41 cu ft	4" diam., length 36 cm

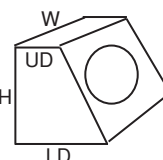
Calculate the enclosure volume

When calculating the volume of an enclosure you simply multiply the width (W) x height (H) x depth (D).

Use measures in dm and you will get the answer in liters.

A trapezoid box is calculated as below:

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



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.