JBL SYNTHESIS®
Phone 888-691-4171
Email CSupport@harman.com
Web www.jblsynthesis.com

TECHNICAL BULLETIN

8500 Balboa Boulevard, Northridge, CA 91325

RECOMMENDED BACK BOX VOLUMES

MARCH 24, 2026

Overview

JBL Synthesis SCL-5, SCL-6, SCL-6XL, SCL-7, SCL-7XL and SCL-8 loudspeakers have been designed as traditional open-back in-wall and in-ceiling products that can be simply installed into a conventional wall or ceiling cavity without the need for a dedicated rear enclosure. In this infinite-baffle type of installation, they will provide optimum acoustic performance.

There may however be some instances of installations that require some type of enclosure to be provided beyond the cavity wall itself. One such example might be a situation where there is a requirement for noise abatement into an adjacent space. In this case, the installing technician or system designer may decide to custom fabricate a smaller enclosure space within the ceiling or wall stud bay that can be lined with sound dampening material. Another case may be installations that require a dedicated back box enclosure to meet local code requirements. JBL Synthesis does not provide such enclosures so a third-party solution should be used.

In cases such as these, JBL Synthesis recommends that a minimum enclosure volume be maintained so as not to degrade the performance of the loudspeaker, specifically in relation to low-frequency extension. This technical bulletin provides the Minimum Enclosure Volume for each of the loudspeaker models to help guide the system designer and/or installing technician in the decision for the best solution.

Minimum Enclosure Volumes

The following enclosure volumes are the recommended minimums for the applicable JBL Synthesis in-wall and in-ceiling loudspeakers:

Minimum Recommended Enclosure Volumes	
Model	**Volume**
SCL-5	9 liters (0.32 ft3)
SCL-6	32 liters (1.13 ft3)
SCL-6XL	32 liters (1.13 ft3)
SCL-7	16 liters (0.57 ft3)
SCL-7XL	16 liters (0.57 ft3)
SCL-8	8 liters (0.28 ft3)