# 12th Knot rooftop bar transforms sound with 1 SOUND and Powersoft system



The 12th Knot rooftop bar at London’s Sea Containers hotel recently underwent a significant audio upgrade, implementing a full 1 SOUND system designed to meet the venue's evolving needs. London-based integrator Tateside, collaborating with 1 SOUND’s UK distributor CUK Group, led the installation to replace an outdated system that suffered from inconsistent audio coverage and suboptimal speaker placement. The ambition was to deliver an evenly distributed, high-fidelity sound experience that complemented the interior’s sleek aesthetic while catering to diverse usage scenarios—from relaxed afternoon lounging to lively weekend DJ events.

At the heart of this upgrade are 1 SOUND’s Cannon C8 and Cannon C4 coaxial speakers. These compact yet powerful loudspeakers are engineered to provide even sound distribution and a warm, full audio profile. The Cannon C8, in particular, features an 8-inch driver paired with a high-frequency element and a 7-inch rear passive radiator, enabling a wide bandwidth ranging from 55 Hz to 18 kHz and a high maximum sound pressure level of 120 dB. Their resilience is augmented by an IP55 rating, suitable for both indoor and outdoor environments, and they are available in customised colours and finishes to blend seamlessly with the bar’s décor. Supporting these units, SUB310 subwoofers have been installed to deliver clean, deep bass that reinforces the lower frequency range essential for music impact during DJ sets.

To power the system, Tateside employed Powersoft Unica amplifiers known for their scalable amplification and robust performance. Powersoft’s reputation for reliability and high-quality sound has been proven even in demanding contexts such as large-scale events, underscoring their capability to handle the variable acoustic demands of a dynamic venue like 12th Knot. For signal processing and effective audio networking, the setup incorporates a Q-SYS Core processor paired with Dante audio networking technology, ensuring flexibility and precision in audio management.

Jack Cornish, technical director at Tateside, emphasised the careful planning behind the project, highlighting the need for a system that was not only sonically advanced but also operationally intuitive for the client’s team. “It was important for us to commission something that just works, something high-fidelity with great coverage and a system that is intuitive for the team to use day in, day out,” he said. Cornish noted the investment made by the client and the meticulous attention to detail required to meet aesthetic, operational, and acoustic standards.

The upgrade illustrates how sophisticated, compact loudspeaker design, combined with powerful amplification and intelligent processing, can revitalise a complex hospitality space. The Cannon series is part of 1 SOUND’s broader product range that integrates advanced amplifier DSP technology to produce consistent sound performance, delivered with the support of training and application design assistance. The collaboration between 1 SOUND and Powersoft amplifiers ensures tight integration and optimised sound quality, making the system not only an upgrade in equipment but a comprehensive solution tailored for modern, high-profile venues.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.installation-international.com/case-studies/1-sound-system-upgrades-audio-at-londons-rooftop-12th-knot-bar)
* Paragraph 2 – [[1]](https://www.installation-international.com/case-studies/1-sound-system-upgrades-audio-at-londons-rooftop-12th-knot-bar), [[2]](https://www.1-sound.com/cannon-coaxials#c8), [[4]](https://www.svconline.com/the-wire/1-sound-is-premiering-the-cannon-c8-to-complete-the-cannon-series-at-ise-barcelona)
* Paragraph 3 – [[1]](https://www.installation-international.com/case-studies/1-sound-system-upgrades-audio-at-londons-rooftop-12th-knot-bar), [[5]](https://www.prosoundweb.com/powersoft-drives-audio-for-super-bowl-50-entertainment/), [[6]](https://www.1-sound.com/amplifiers)
* Paragraph 4 – [[1]](https://www.installation-international.com/case-studies/1-sound-system-upgrades-audio-at-londons-rooftop-12th-knot-bar)
* Paragraph 5 – [[1]](https://www.installation-international.com/case-studies/1-sound-system-upgrades-audio-at-londons-rooftop-12th-knot-bar), [[6]](https://www.1-sound.com/amplifiers)

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## Bibliography

1. <https://www.installation-international.com/case-studies/1-sound-system-upgrades-audio-at-londons-rooftop-12th-knot-bar> - Please view link - unable to able to access data
2. <https://www.1-sound.com/cannon-coaxials#c8> - The Cannon C8 is a full-range, high-fidelity coaxial loudspeaker from 1 SOUND. It features an 8-inch driver with a proprietary high-frequency element and a 7-inch rear-facing passive radiator for extended low frequencies. The C8 offers a bandwidth of 55 Hz to 18 kHz and a maximum SPL of 120 dB. It includes two Speakon connectors and a two-circuit switch for selecting between two mixes with a four-wire cable. The speaker is IP55 rated, making it suitable for both indoor and outdoor use, and is available in custom colours and wood finishes.
3. <https://www.1-sound.com/systems#cannon-c8-sub12-system> - The Cannon C8 & SUB12 system from 1 SOUND is designed for smaller live performances or as a PA system for corporate meetings. It includes two Cannon C8 loudspeakers, each with a tube mount and C-Clamp or mounting plate, and two SUB12 subwoofers with sub pole cups. The system is powered by a Powersoft T604 amplifier with DSP and offers Dante compatibility. Accessories such as 50-foot and 1-foot Speakon NL4 speaker cables are also included. Custom road cases and covers are available for enhanced protection and mobility.
4. <https://www.svconline.com/the-wire/1-sound-is-premiering-the-cannon-c8-to-complete-the-cannon-series-at-ise-barcelona> - 1 SOUND is set to premiere the Cannon C8 at ISE Barcelona, completing their Cannon Series of loudspeakers. The C8 is a full-range, high-fidelity coaxial loudspeaker featuring an 8-inch driver with a proprietary high-frequency element and a 7-inch rear-facing passive radiator for extended low frequencies. It offers a bandwidth of 55 Hz to 18 kHz and a maximum SPL of 120 dB. The speaker includes two Speakon connectors and a two-circuit switch for selecting between two mixes with a four-wire cable. It is IP55 rated, suitable for both indoor and outdoor use, and is available in custom colours and wood finishes.
5. <https://www.prosoundweb.com/powersoft-drives-audio-for-super-bowl-50-entertainment/> - Powersoft amplifiers have been used to drive audio systems for major events, including Super Bowl 50. Their amplifiers are known for delivering high-quality audio performance in large-scale venues, providing scalable amplification solutions that meet the demands of high-profile events. The integration of Powersoft amplifiers ensures consistent and reliable audio delivery, contributing to the overall success of large-scale entertainment productions.
6. <https://www.1-sound.com/amplifiers> - 1 SOUND partners with amplifier manufacturers, including Powersoft, to provide seamless integration with their loudspeakers. They stock and sell specific models from these manufacturers, which include speaker DSPs. Each loudspeaker in their line requires an amplifier DSP to create perfectly consistent sound for projects. Amplifier stock is constantly changing, and 1 SOUND offers support with amplifier software training, application design, and integration. Amplifiers are available only in combination with a 1 SOUND loudspeaker purchase.
7. <https://www.1-sound.com/subwoofers> - 1 SOUND offers a range of subwoofers, including the CSUB610 steerable model. The CSUB610 is a multidirectional line source subwoofer featuring six 10-inch tetracoil technology drivers. It offers fully cardioid, sub cardioid (end fire), and omnidirectional modes. The subwoofer can be placed parallel or perpendicular to a wall and is only 11.8 inches wide or tall. When vertical, it has rigging points to stack multiple Tower columns on top and has a pole cup accessory to place satellite speakers. The CSUB610 is IP55 rated, suitable for both indoor and outdoor use, and is available in custom colours and fabrics.