



CASE STUDY – GOVERNMENT
FORMER CHAMBER OF DEPUTIES, PALACE OF
THE NATIONAL CONGRESS OF CHILE





SYMBOL OF DEMOCRATIC LIFE IN CHILE

The Palace of the Former National Congress, located in the heart of Santiago, Chile, is one of the most representative symbols of democratic life in the country. The French neoclassical building was inaugurated in 1976 and was the home of the Chamber of Deputies and the Chamber of Senators of the South American country.

In 1990, when the National Congress moved to its new location in the neighboring city of Valparaíso, the building became an alternate venue for official events and institutional appointments, in addition to providing a library for senators and deputies.

Various remodeling projects began on the historic building in 2021 to provide adequate voting systems, new tiered seating, as well modern audiovisual technology.

SOUND RENOVATION

Chile's National Monuments Council, the Chilean government agency dedicated to the preservation and upkeep of special natural, historical and cultural sites in the country, meticulously supervised the renovation of the building, including installation of the technological systems.

The council worked with David Abarca, head of the Chamber of Deputies' IT department and manager

of the technological renovation of the former Chamber of Deputies.

"The sound renovation part of the project required meticulous planning to preserve the integrity of this historic building, provide the best possible intelligibility, and reduce the room's reverberation effect," said Abarca.

"We had the support of MMT Chile, who assured us the product's availability, and Bose Professional engineers were our reliable guides."

— Claudio Ibarra
General Manager,
Pro AV Tecnología

Installation of the speakers and wiring systems fell under the parameters and supervision of the National Monuments Council. The semicircular hall presented a notorious reverberation challenge, produced by the wide walls, balconies, and dome shaped ceilings. Clear acoustics and voice intelligibility were key goals with the installation, as the beloved space is now primarily used for speeches and presentations.



THE 160 DEGREE SOLUTION

Pro AV Tecnología, specialists in audiovisual solutions, were the integrator chosen to lead the historic project. Pro AV Tecnología partnered with MMT Chile, the Chilean distributor of Bose Professional, and Bose Professional's engineers, to conduct a system simulation of the hall's acoustics, based on the chamber's architectural blueprints and building materials.

Based on the outcomes from the detailed acoustic study, the audio team designed the space with four MSA12X loudspeakers in a line array configuration, two on each side of the presidium and at a height of three meters to cover the seating area. This system provided a wide vertical coverage of 160° so that sound reached each seat clearly and intelligibly. And to cover the presidium area, which can seat up to six people, Pro AV Tecnología installed a pair of FreeSpace DS 40SE loudspeakers on each side. These loudspeakers were also mounted at a height of three meters and were directed toward the presidium seating.

In addition, to facilitate volume control, two ControlCenter CC-2 zone controls were installed inside the session room.

The discreet design, slim shape, placement and matte white color of the loudspeakers allow them to blend seamlessly into the assembly hall.

REIMAGINED SOUND IN EMBLEMATIC SPACE

Pleased with the solution and service quality, Abarca praised the results, "The audio system installed in the former Chamber of Deputies satisfactorily meets all the coverage, sound pressure, and intelligibility requirements. The installation was accomplished cleanly and carefully, respecting the rules for preserving the chamber of sessions. The loudspeakers do not distract attention, and due to their design and color, they practically blend

in with the shape of the walls and columns on which they were mounted."

Claudio Ibarra, general manager of Pro AV Tecnología, elaborated on the partnerships, "We had the support of MMT Chile, who assured us the product's availability, Bose Professional engineers used ControlSpace Designer software to conduct a system simulation and determine optimum speaker placement to optimize clarity in the reverberant space. The project of the precinct of the former Chamber of Deputies is very relevant, both for the historical importance of the building and for the visibility of our company. It may seem like a small project, but it certainly requires a lot of precision so that everything will run smoothly, from the deadlines and the progress of the project to the final delivery." ■

SYSTEM COMPONENTS

ControlSpace ESP-1240AD

ControlCenter CC-2 zone controller

FreeSpaceDS 40SE

FreeSpace IZA 2120-HZ

MSA12X powered beam-steering array loudspeaker

Modeler



PARTNER: **PRO AV TECNOLOGÍA**



Pro AV Tecnología is a Chilean audiovisual integration company that offers solutions for educational and government institutions, media, corporate, and AV equipment rental companies.

Pro AV Tecnología uses Bose Professional products in many of its projects and works closely with MMT Chile, the authorized wholesale distributor of Bose Professional in Chile.

PARTNER: **MMT**



MMT is a Chilean company specializing in distributing audiovisual products for professional applications. It has offices, a showroom in the city of Santiago de Chile, and a group of specialists responsible for providing advice to AV integrators. Since 2019, MMT has been Chile's wholesale distributor of Bose Professional products.



MSA12X

The MSA12X goes beyond conventional loudspeakers with its dual-beam functionality, enabling the vertical sound beam to be split into two, providing simultaneous coverage for separate areas such as the main floor and a balcony. The articulated transducer configuration provides 160° horizontal coverage, delivering consistent tonality across the entire audience space, ensuring each listener enjoys the same sound experience.

MODELER

A 3D modeling program for acoustic design and analysis, Bose Modeler software helps system designers and acoustic consultants predict sound system performance in both indoor and outdoor environments. From places of worship and multi-purpose spaces to hospitality venues, stadiums, auditoriums, and more.



CONTROLCENTER CC-2

Bose ControlCenter CC-2 zone controllers provide volume and A/B source selection for FreeSpace® and ControlSpace® products.



Bose Professional serves many different markets, delivering great sound in venues all around the world — performing arts centers, theaters, places of worship, stadiums, restaurants, schools, retail stores, hotels, and corporate buildings.

We know that our pro audio customers depend on us in a unique way. This is your business, your reputation, your livelihood — not just an amp, not just a loudspeaker. So, when you buy a Bose Professional product, you get the full weight of the global Bose Professional team behind you — our time, support, and attention. We see every purchase as the beginning of a partnership.



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