



In places of worship, an Intellivox loudspeaker can be mounted on each side of the altar. Because the directivity of these loudspeakers is adjusted by software, they can be mounted flat against the wall or in recesses (flush-mounted). A PC running the WinControl software is connected directly to the line array to 'shape' the loudspeaker's sound; setting elevation angle, vertical opening angle and focus distance to match the requirements of the room and listening area. If required, the sound color can be adjusted with the built-in parametric equalizer.

Once the adjustment is completed, the PC is disconnected and the loudspeakers are ready to operate. The settings are stored in the loudspeaker, and are retained even if the power supply to the loudspeakers is disrupted.

Configuration		
LBC 3253/xx, Intellivox-2c	: 2x	(1)
LBB 1920/00, Plena universal pre-amplifier	: 1x	(2)
LBC 2900/xx, Dynamic hand-held microphone	: 2x	(3)

Solution

One or two Intellivox loudspeakers (1) are connected to a Plena universal pre-amplifier (2). The line output of the Plena is connected directly to the line input on the DDC Intellivox line array loudspeakers. This connection is made with a standard shielded cable; the length of this cable is not critical. The microphone (3) is connected to the Plena pre-amplifier by means of a balanced line. If a condenser microphone is used, once again the length of this line is not critical.

This configuration is extremely simple and straightforward. No external power amplifiers are required, because the Intellivox line array loudspeakers incorporate their own amplifiers. Each loudspeaker simply has to be connected to a single-phase 120/230 V (450 VA) power outlet. If background music is also required, a music source can simply be connected to the Plena pre-amplifier, since Intellivox loudspeakers are also suitable for music reproduction. And because of the ease of set-up and the limited number of components, this configuration is very suitable as a temporary installation.

INTELLIVOX DDC for live speech amplification



Security Systems



Intellivox DDC (Digital Directivity Control) is a range of five active line array loudspeakers with integrated class-D amplifiers and a digital signal processor (DSP). The characteristics of Intellivox loudspeakers can be adjusted by software to match any environment, literally providing 'tailor-made' audio. This unique capability leads to exceptional speech intelligibility - the best there is. Loudspeakers up to 5 m in length are available offering an extreme long throw, so just a few are needed for a cost-effective solution in even the largest of buildings. The integrated remote monitoring capability gives the advantage of continuously knowing system status, and makes these active loudspeakers a key part in a compliant Voice Evacuation System.

Live Speech Amplification

This application note describes how Intellivox active line array loudspeakers can be used as part of a system which provides high-quality reproduction of live speech, for instance in places of worship, auditoriums, congress centres and in temporary installations.

Introduction

High-quality reproduction of speech is the main requirement of a sound reinforcement system in churches, mosques and auditoriums. All listeners should be able to hear clearly what is being said. Places of worship are generally very reverberant, and sound reflected from hard walls and ceilings can seriously compromise the quality of broadcast sound. Positioning of the loudspeakers is also an important issue. When listening to amplified live speech, it is more comfortable and natural for listeners if the sound originates from beside the person who is speaking. But the loudspeakers should be as unobtrusive as possible, so as not to disturb the aesthetic balance of the room. In auditoriums, live speech is often relayed to neighboring areas such as press rooms.

Summary of requirements

- Superb speech intelligibility
- Minimized sound reflections
- Amplified sound should originate close to the person speaking
- Loudspeakers should not be too prominent
- Excellent listening comfort
- Maximum gain before feedback