

# Plena Voice Alarm System Hotels



Security Systems

## Future expansion

More zones and extra power per zone can be added by incorporating additional routers (up to 60 zones) and Plena Booster Amplifiers (up to 480 W per 6 zones).

## Installation

The Plena Voice Alarm System is designed for plug-and-play installation, and is easily configured using DIP-switches or software for more advanced configuration. Once configured, the PC is disconnected. System interconnections are made using standard RJ45 connectors and CAT5 cable. Up to 255 spoken evacuation messages can be stored. Messages can be merged to allow more flexible use of pre-recorded messages.

## EVAC compliancy

For the installation to be fully EVAC-compliant, loudspeakers and cabling must also conform to the relevant standards. Bosch can provide training and certification for partner installers – details available on request.

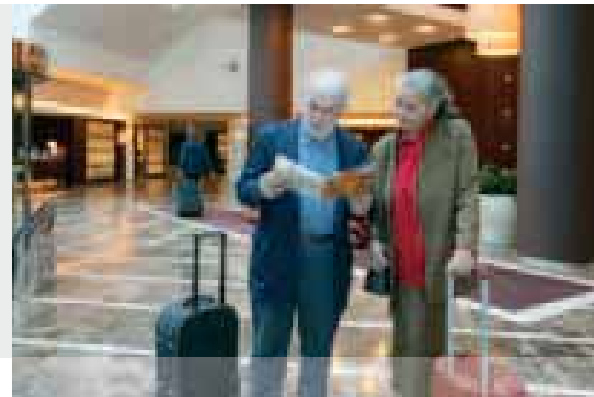
Configuration		
LBB 1990/00	Controller	1 x
LBB 1992/00	Router	1 x
LBB 1996/00	Remote control panel	1 x
LBB 1997/00	Remote control panel extension	1 x
LBB 1956/00	Call station	2 x
LBB 1957/00	Call station keypad	3 x
LBB 1938/00	480 W booster amplifier	2 x
LBB 1935/00	240 W booster amplifier	1 x
LBB 1961/00	BGM source	1 x



## EVAC-compliant voice alarm

The Plena Voice Alarm System is designed for emergency evacuation in applications where compliance to internationally recognized standards like IEC60849 is required. All the essential EVAC functionality – such as system supervision, loudspeaker line surveillance, spare amplifier switching, digital message management and a fireman's panel – is built in.

Based on the 6-zone LBB 1990/00 system controller with separate call- and background music (BGM) channels, a Plena Voice Alarm System can be easily expanded to up to 60 zones using additional 6-zone routers. It is completely compatible with Plena Public Address equipment, and Bosch EVAC-compliant loudspeakers and accessories.



**Hotels**

Smaller hotels are typical examples of applications with relatively few zones, each with a medium to high output power requirement. The priorities are speech intelligibility and compliance with IEC60849 standard.

**Introduction**

In addition to mandatory voice alarm functionality for evacuating guests and staff, an EVAC system for a hotel should also include BGM in the restaurant, bar and lobby, plus public address functionality for general paging. To ensure that all guests hear an emergency message, the power output per zone is relatively high. Outside areas such as car parking garages, require weatherproof horn loudspeakers.

**Summary of requirements**

- Typically 10 to 20 zones in small hotels
- Speech intelligibility is the main priority
- High power requirement (multiple loudspeakers) per floor
- Fireman's panel by fire exit
- Call stations in reception and office
- Additional public address functions for paging guests
- BGM in lobby and restaurant

**Solution for a 12-zone system**

A Plena Voice Alarm System Controller handles routing to up to 6 zones, the additional 6 zones require a router. Both the reception and office are equipped with call stations plus keypads for individually addressing zones, while a fireman's panel (with overall priority) is built in by the emergency exit. The Plena Voice Alarm System is a two-channel system, so BGM can still be provided in zones not receiving a call.

**Power requirements**

The system controller features a built-in 240 W booster amplifier, able to drive up to 40 loudspeakers (6 W). Additional Plena Booster Amplifiers are incorporated to provide additional power, two-channel operation and spare amplification. To facilitate phased evacuation from different floors of the hotel, guest areas are divided into separate zones, each fitted with 13 ceiling loudspeakers in the corridors. The bar uses cabinet loudspeakers, while the parking garage uses weatherproof horn loudspeakers. The zones are defined as shown in the table opposite.

**Zones**

Zone 1	Bar	3 x 6 W cabinet loudspeakers
Zone 2	Restaurant	6 x 6 W ceiling loudspeakers
Zone 3	Lobby	2 x 6 W ceiling loudspeakers
Zone 4	Office	1 x 6 W cabinet loudspeaker
Zone 5	Kitchens	2 x 6 W cabinet loudspeakers
Zone 6	Parking garage	3 x 10 W horn loudspeakers
Zones 7-12	Floors 1 to 6	78 x 6 W ceiling loudspeakers (13 per floor)
		Total 582 W

