Public Address Project
Combisound System
Index

Introduction: ................................................................................................................. 2
General description ........................................................................................................ 3
Technical descriptions: ................................................................................................. 4
Public Address Central Unit .......................................................................................... 4
Loudspeakers, sound projectors, horns ......................................................................... 6
Diagrams: ..................................................................................................................... 7
General diagram .......................................................................................................... 7
Certificates: .................................................................................................................. 8
Introduction:

This document presents the design and description of the PA system.

The main objective of an audio system is to provide an extremely important service within a building, which is the transmission of background music and, above all, general messages, and in particular evacuation messages in case of emergency. In this way the system is designed according to specific requirements within each building, its environment, electro acoustic characteristics and degree of particular ease of operation is required.

The system is designed for playback of up to 2 musical programs processed by a central sound. From each of the controls you can select 2 music programs and the volume of the chosen program.

You can manage each of the zones from the zone itself or controlled from a central location with the possibility to control all system functions from a specific software. The number of controls via SW is unlimited.

The system has been designed so that there is a possibility to route calls to up to 200 separate zones, 200 groups together general areas and general calls to all of them.

We also have the possibility of connecting the system with an external signal such as a fire panel to give an alarm message.

Through an interface, the system can be interfaced with an extension of a PBX to deliver calls using any landline or wireless, these calls can be individuals, groups or general.

You can customize each of the controls, and can assign a meaningful name, each of them can be turned off and on automatically at a specified time, it is possible to turn off all the controls from one of them or from the central unit.

The system is KNX compatible with an interface designed for this purpose. Similarly we have an automation command interface for allowing the communication with external systems.

All programming options can be locked so that the end user does not access them.
General description

1. Two audio channels to enjoy music everywhere in a building.
2. Possibility to connect audio external inputs in each zone.
3. Public Address system up to 200 call zones.
4. Zone groups Public Address System.
5. General Public Address System.
6. Play recorded messages automatically through the fire alarm system.
7. Recorded messages can be sent automatically from a Schedule.
8. PC Software to program and control all the parameters of the installation and also send messages from the PC.
9. Send public address messages to zones, groups or general calls through our Telephone Interface.
10. The Audio Control Units can be personalized.
11. General switch on and off of the entirely system through calendar
12. All the programming features can be blocked to avoid unnecessary access by the users.
13. KNX the worldwide STANDARD for home and building control

![KNX Member Logo]
Technical descriptions:

This document is related to the Public Address System.

The above mentioned system is composed of:

- A Public Address and Music central unit as much as the required amplifiers and equipment power enough to provide with a reliable service to the building. This central unit will be installed in a 19” rack and will be placed in a control room of the building.

- Loudspeakers that allow the perfect intelligibility of the music and every single call sent by the central unit or by the desktop base. These loudspeakers will be configured with a power enough to reach this intelligibility and will be managed as much from the central unit or as from the control units.

Public Address Central Unit

Combisound Central Unit

- 2 sound inputs with automatic gain control (55 mV at 3,8 V).
- 400 series protocol management.
- Alpha-numeric keypad with 15 keys for menu and setting functions according to users needs.
- RJ45 connector to allow the management from a PC.

Combisound Zones Unit

Module with up to 6 zones in which each one is managed from an independent control unit including:

- Remote scanning of the FM Tuner included in the Central Unit.
- LCD backlight display.
- Individual volume control.
- Intercom system with hands-free auto response.
- Individual, group and general calls.
- Alarm and sleep systems.
- Audio input (MP3, discman...)
### Technical descriptions

#### Combisound Public Address System

#### 400 Series Desktop base

- Calls to 200 zones.
- Unidirectional microphone.
- Ding-dong pre-call chime.
- Soft keyboard to select zones.
- LCD display.
- Emergency input contact.

#### PC Interface

- Interface module between the central unit and a PC.
- It allows the control of all the functionalities of the central unit and the remote modules ones from a PC, settings of the system...
- Sends and receives calls (if the PC has an audio card, microphone and loudspeakers).
- Able to send prerecorded messages from the PC.
- Windows 98, 2000, XP, Vista and 7 compatible SW included.
- Connection cable to the central unit included.

**Optional item NOT included in the quotation**

#### MPU-6412 Power Unit

- Multichannel power unit 4x120W.
- 4 x output 100V/70V/8 ohm.
- 4 balanced inputs XLR/Jack.
- S/N 86 dB.
- Dimensions: 132x425x420mm.
- 3 U rack 19”.
Technical descriptions

Combisound Public Address System

MPU-6224 Power Unit

- Multichannel power unit 2x240W.
- 2 x output 100V/70V/8 ohm.
- 2 balanced inputs XLR/Jack.
- S/N 86 dB.
- Dimensions: 88x425x420mm.
- 2 U rack 19”.

Loudspeakers, sound projectors, horns...

Ceiling 4” speaker (also available 5” and 6” models)

- Ceiling flush mount speakers, 2 ways and 4”.
- Power 20 W at 8 ohm.
- 1,5/3/6 W with 100 V transformer.
- Frequency range: 50Hz-20KHz.
- Sensibility 1W/1m: 89 dB.
- Max SPL at 1m: 97 dB.
- Dimensions: Ø 176 mm x 66 mm depth.
- Minimum hole: Ø 146 mm.

Circular ABS horn EHS-30T

- Circular horn in ABS, grey colour.
- Weather proof IP66.
- Power : 3,75/7,5/15/30 W 100V.
- Frequency response: 350Hz-8KHz.
- Sensitivity 1W/1m: 108 dB.
- Dimensions: Ø 246x292 mm depth.

Note: We have as well a wide variety of speakers, horns, sound projectors, Wall-mount speakers and many other 100 volts devices so as to fulfill the precise requirements of the customers.
Technical descriptions
Combisound Public Address System

Diagrams:

General diagram
Technical descriptions

Combisound Public Address System

Certificates:
THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and
AENOR
hereby certify that the organization

ELECTRÓNICA INTEGRAL DE SONIDO, S.A.

A) PI MALPICA, CL F OESTE - GRUPO QUEJIDO, NAVES 87-88
   50016 - ZARAGOZA

B) PO EUROPA, 13 2º B
   28700 - SAN SEBASTIÁN DE LOS REYES
   (MADRID)

for the following field of activities

A) THE DESIGN, PRODUCTION AND SERVICING OF ELECTRONIC PRODUCTS FOR SOUND INSTALLATIONS OF HOUSING AND COMMERCIAL BUILDINGS.
B) THE COMMERCIALIZATION OF SOUND RELATED PRODUCTS, PUBLIC ADDRESS SYSTEMS, PROFESSIONAL AUDIO, VIDEO PROJECTION, CONFERENCE SYSTEMS AND PROFESSIONAL LIGHTING.

has implemented and maintains a

Quality Management System
which fulfills the requirements of the following standard

ISO 9001:2000

Issued on: 1999-08-01
Renewed on: 2006-12-15
Validity date: 2009-12-15

Registration Number: ES-0634/1998

Dr. Fabio Roversi
President of IQNet

Ramón Náez
General Manager of AENOR

IQNet Partners:

AENOR
AFPAF
APNOR France
Alb-Vinquette International Belgium
ANCE Mexico
ACCI Portugal
CISO Italy
CQC China
CQM China
CQS Czech Republic
Certo Cert Croatia
DQS Germany
DS Japan
DQS UK
Fandoroma
HFAQA China
ISO TEC Colombia
IMEC Mexico
IRAM Argentina
JQA Japan
KPF Korea
MSZT Hungary
Nemko AS Norway
NSAI Ireland
PCBC Poland
PSB Certification Singapore
QMS Canada
Quality Austria Austria
RR Russia
SAI Global Australia
Inspecplan Certification Pakistan
SIR Israel
SQR Norway
SQS Switzerland
SNAC Romania
TEST St Petersburg Russia
YUGS Serbia and Montenegro

IQNet is represented in the USA by: AFAQ APNOR, Alb-Vinquette International, CISO, DQS, NSAI, QMS and SAI Global

* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com