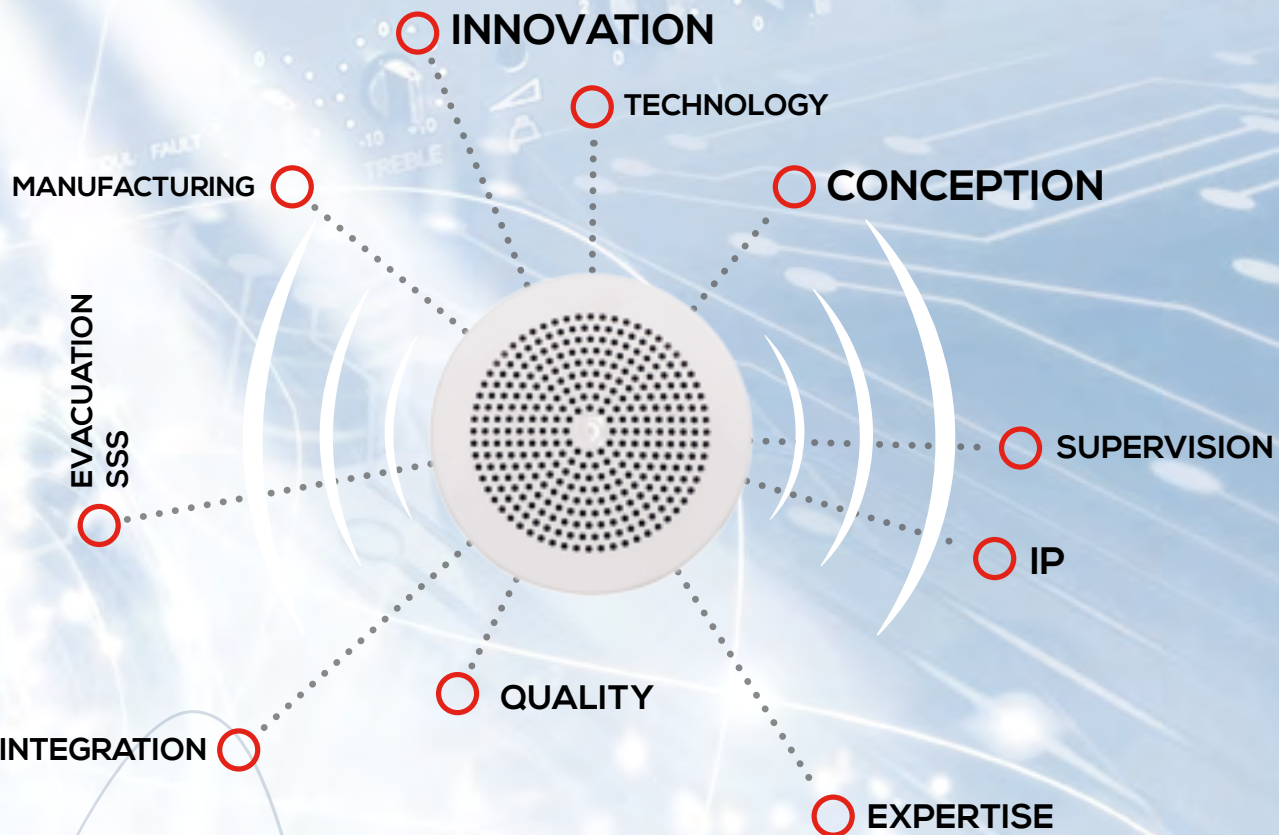


# BOUYER



**VOICE ALARM**  
**PUBLIC ADDRESS**



[www.bouyer.com](http://www.bouyer.com)



**BOUYER**

Sound with serenity

# INTRODUCTION



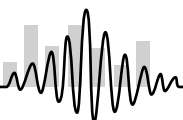
## INNOVATION



## QUALITY



## SERVICE



## Sound with serenity

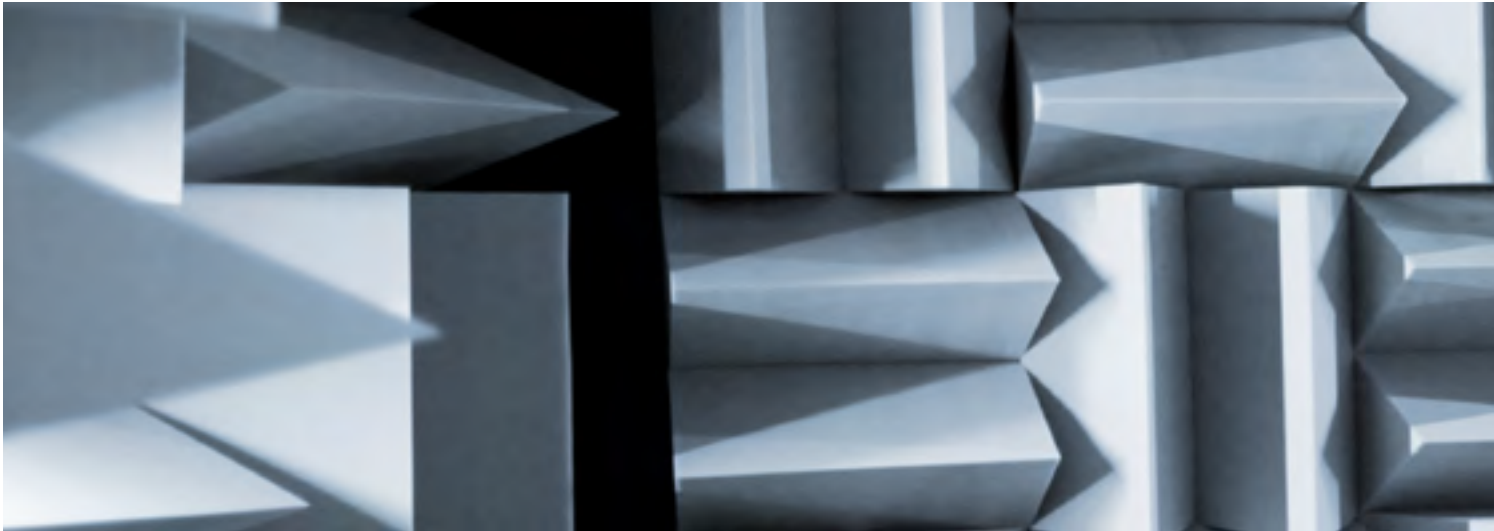
French designer and manufacturer of public address equipment since 1933, we propose to you products and sound systems ensuring the safety of people and the security of assets. Guided by an acute sense of innovation, we are pioneer in numerous fields, which is the foundation of our existence and our evolution in France as well as overseas (we are present in more than 65 countries).

In May 2010, we integrated a French industrial Group leader in fire safety systems. This new organization allowed us to accentuate our Research & Development policy and to be provided with latest production tool technologies (new line, paint cabin...). Having our own anechoic chamber, we ensure a product quality and reliability recognized throughout the world.

Parallel to development and production of a full range of public address equipment, we design specific items, provide system engineering, commissioning, maintenance (preventive and curative) as well as training on site.

EN 54 Certified





**SOUND ADVICE**

**Basis in acoustics**

- How do we define sound ? ..... p.8
- Acoustic rules ..... p.9
- What is masking effect ? ..... p.10
- Sound propagation..... p.10
- Sound level ..... p.11

**Design a PA sound system**

- Set up the loudspeakers ..... p.12
- How to select loudspeaker type ..... p.14
- How to determine an amplifier ..... p.15
- How to determine sound levels ..... p.16

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- Town ..... p.24
- Shopping mall ..... p.26
- Sports centre ..... p.28
- Education building ..... p.30
- Places of worship ..... p.32

**BOUYER PRODUCTS**

**Voice alarm**

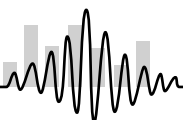
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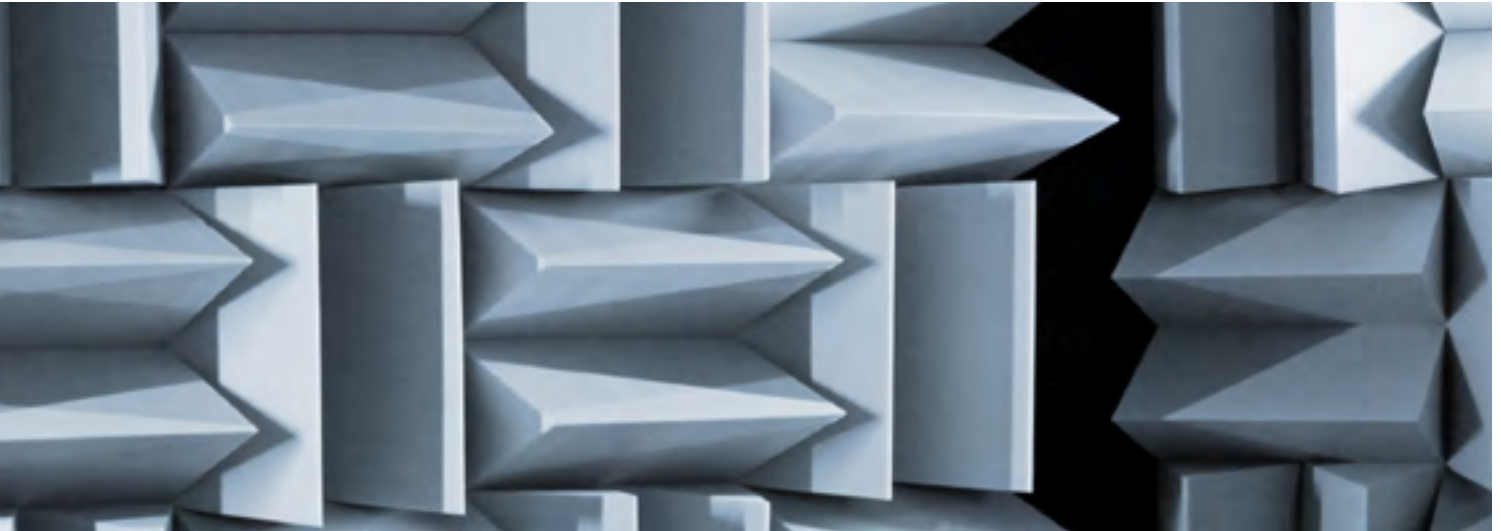
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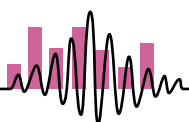
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## **Introduce yourself to our profession**

Through this guide, we present public address basic principles for you to understand better our profession.

We present hereby some rules and advice to follow in order to get a quality reliable installation.





### **Basis in acoustics**

- How do we define sound ? ..... p.8
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- What is masking effect ?..... p.10
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### **Design a PA sound system**

- Set up the loudspeakers ..... p.12
- How to select loudspeaker type ..... p.14
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- How to determine sound levels ..... p.16

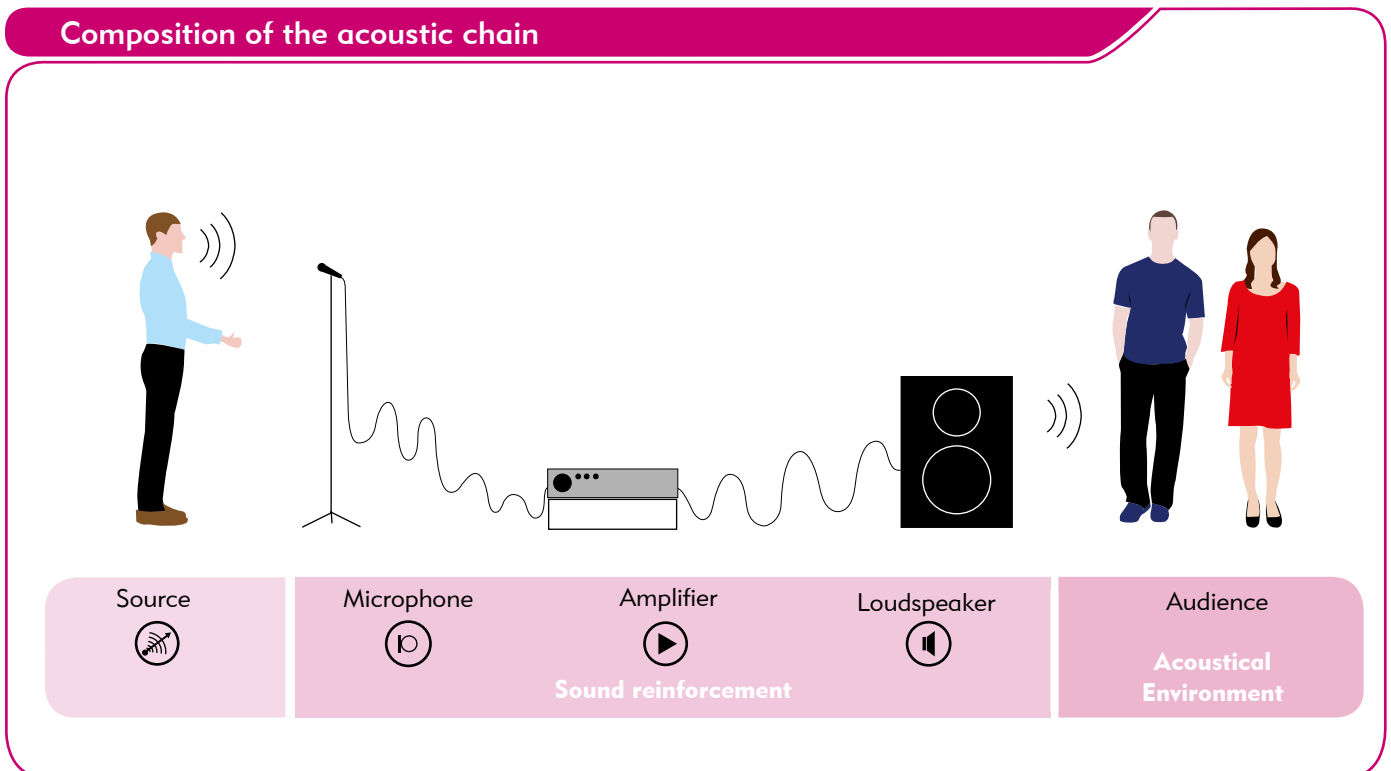


**Reminder : How do we define sound ?**

Sound is a wave produced by the mechanical vibration of a fluid or solid medium and transmitted thanks to elasticity of air molecules.

Regarded as a wave, its propagation depends on the environment. For instance, temperature difference between day and night affects the perception of vehicles driving on a motorway 2 km away. Indeed, in a case, it is possible to hear the noise generated and in the other case, it is not. Another important aspect is the distance between the source and the audience, the more the person to be called is far, the more you raise your voice.

The acoustic chain allows to turn the wave into an electrical signal, sound is then no longer subject to environmental effects and can easily be reinforced.



Microphones allow to pick up the wave to turn it into an electrical signal. Amplifiers, as their name suggests it, increase this signal and the loudspeakers transform the signal back in a wave.





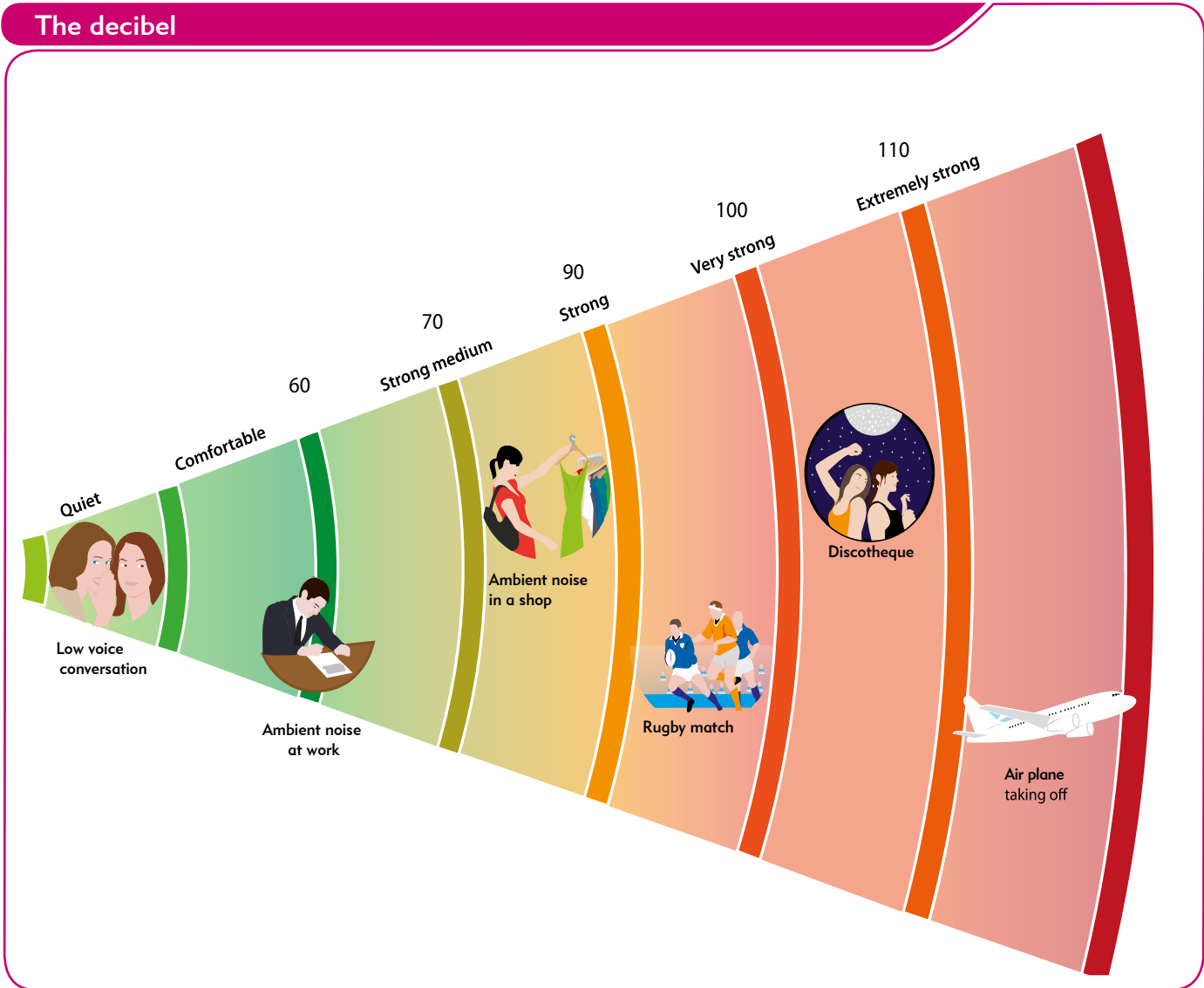
Acoustic rules

How do we measure sound ?

Like for any wave, several measurement types are available to characterize the sound. However, for convenience purposes, there is only one used: the sound pressure.

Level of this sound pressure is measured through a sound level meter and is expressed in decibels (dB).

You will find on the following Decibel Scale Chart representative sound levels :

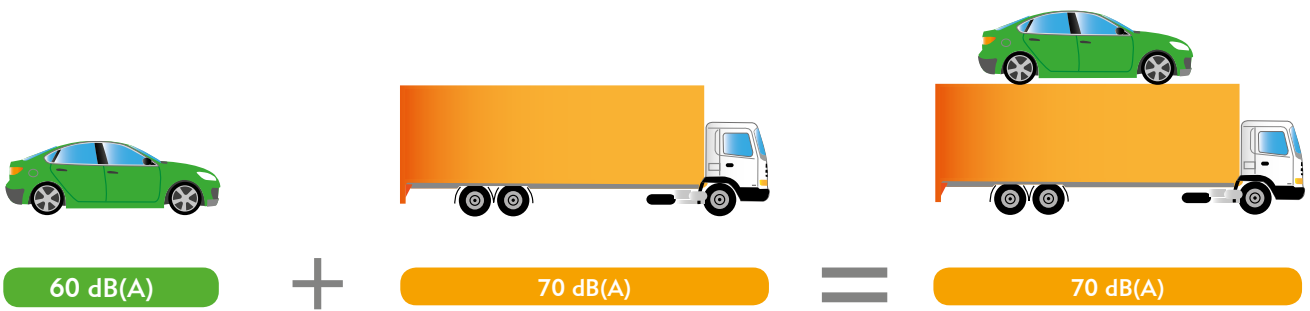




**What is masking effect ?**

It is established that, when there are two sound sources, one of which superior to 10 dB, you can only hear the source whose sound level is the highest.  
This is what is called masking effect.

**RULE N°1** Ambient noise level + 10dB = level to completely erase the noise

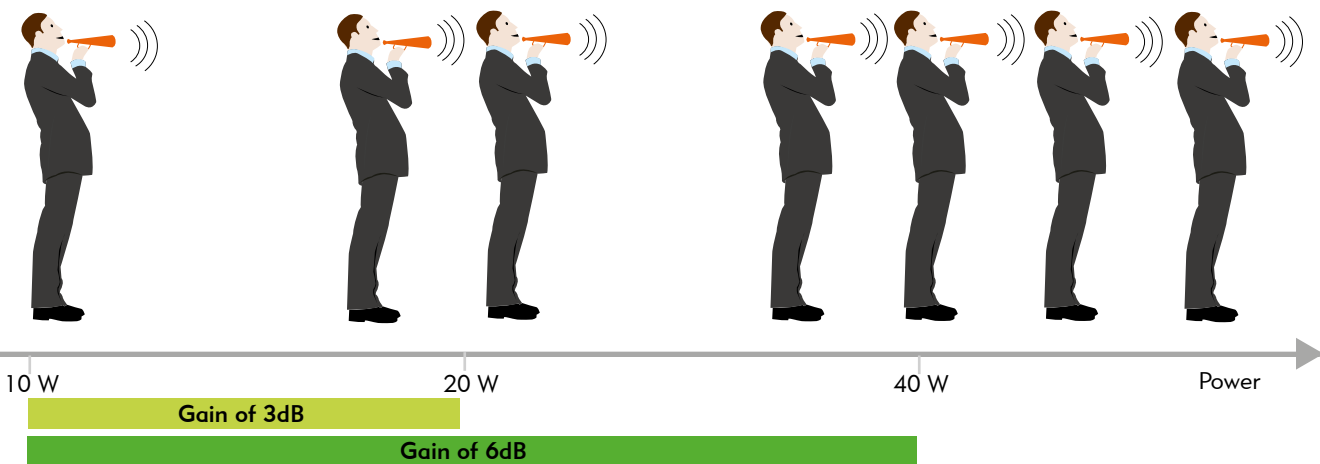


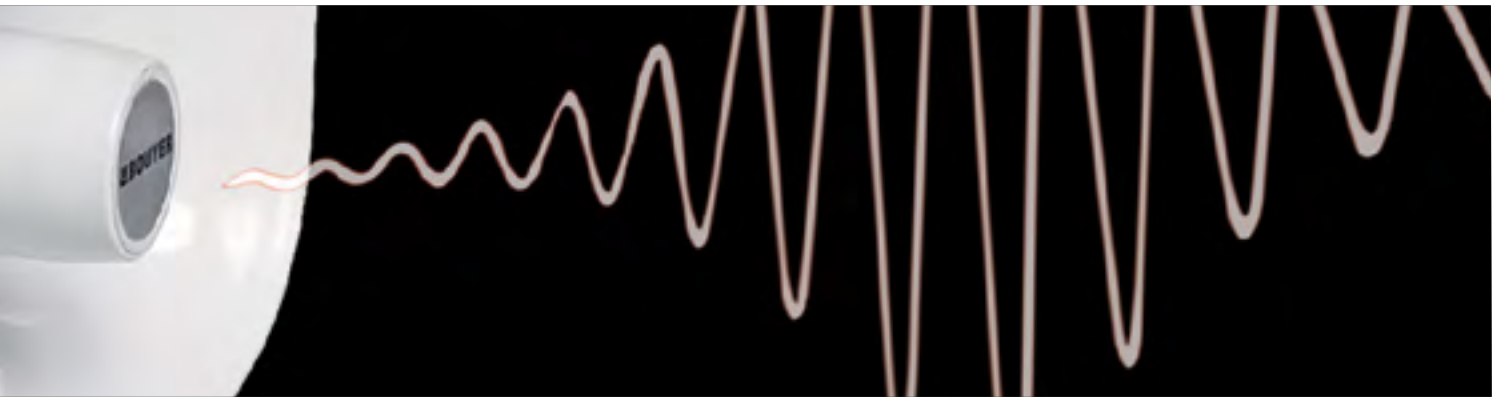
**Sound propagation...**

... depending on power

Each time that we want to raise the sound level emitted by a source, the initial acoustic Pressure level has to be increased by 3dB, which compels to multiply by two the existing source power.

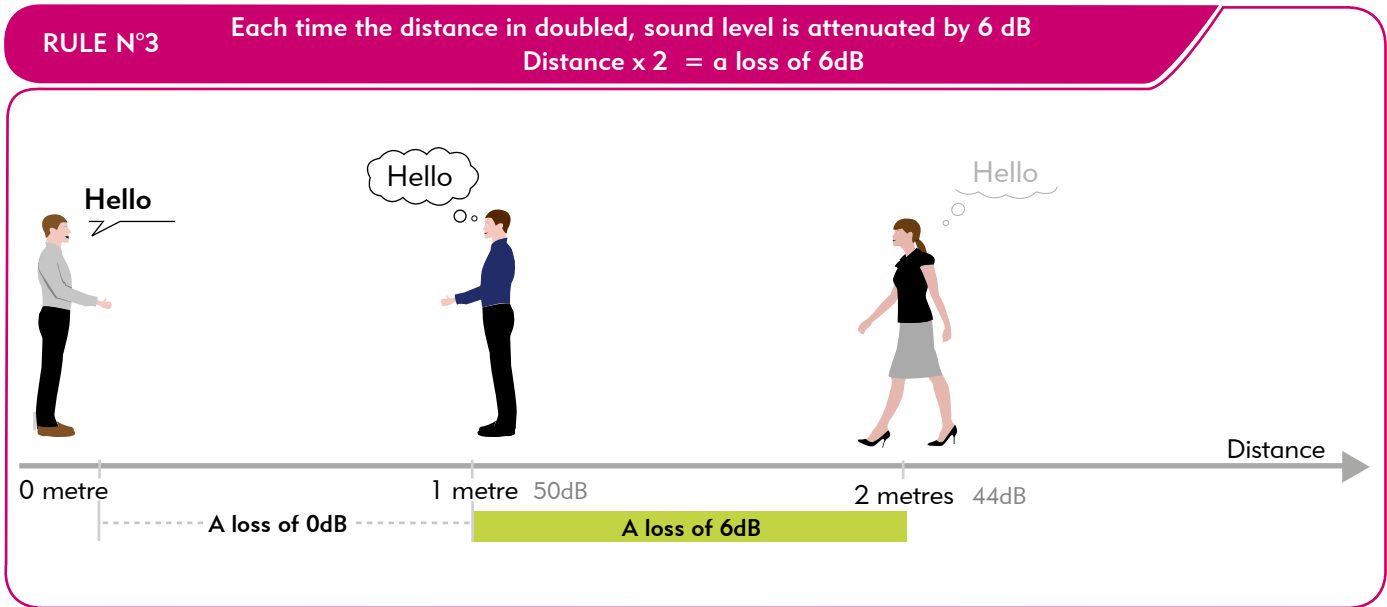
**RULE N°2** Power x 2 = a gain of 3dB





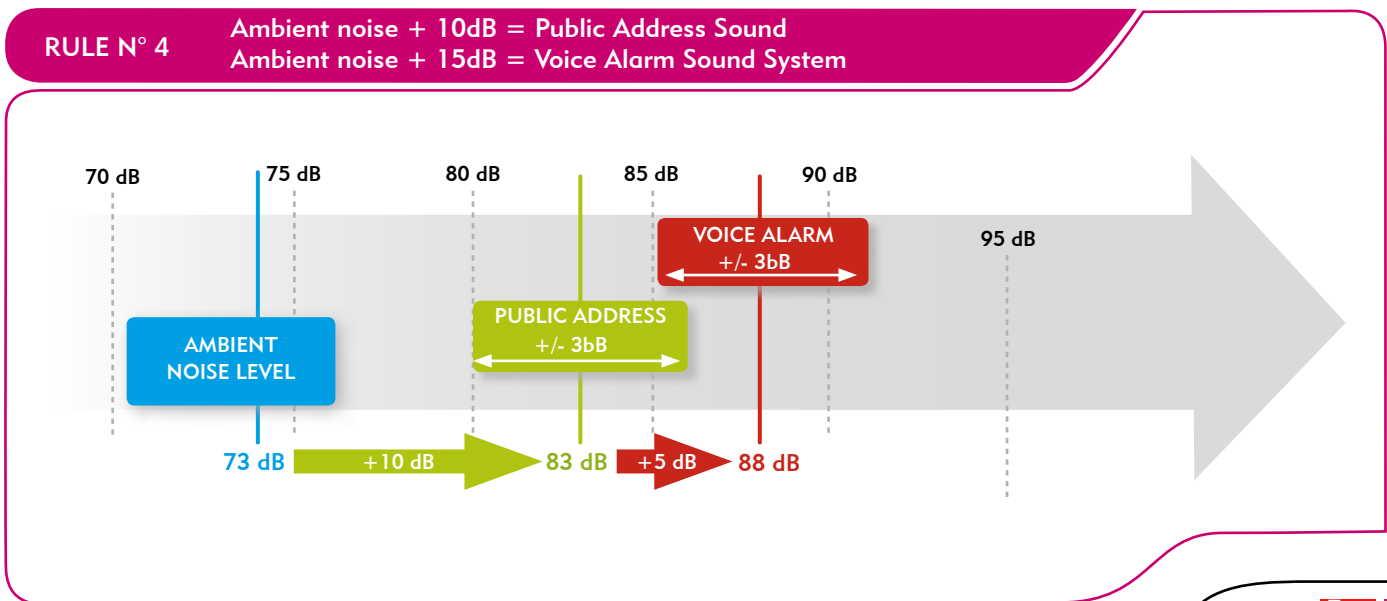
... depending on distance

In a free space, sound level gradually gets attenuated as the audience moves away from the source.



Sound level

The above rules allow to determine the sound levels to be reached depending on the use you may have. Thus, sound level to be reached for a Voice Alarm sound system, which has to cover crowd noise during evacuation, has to be 5 dB higher than level to be reached in a Public Address sound system.





## SOUND ADVICE

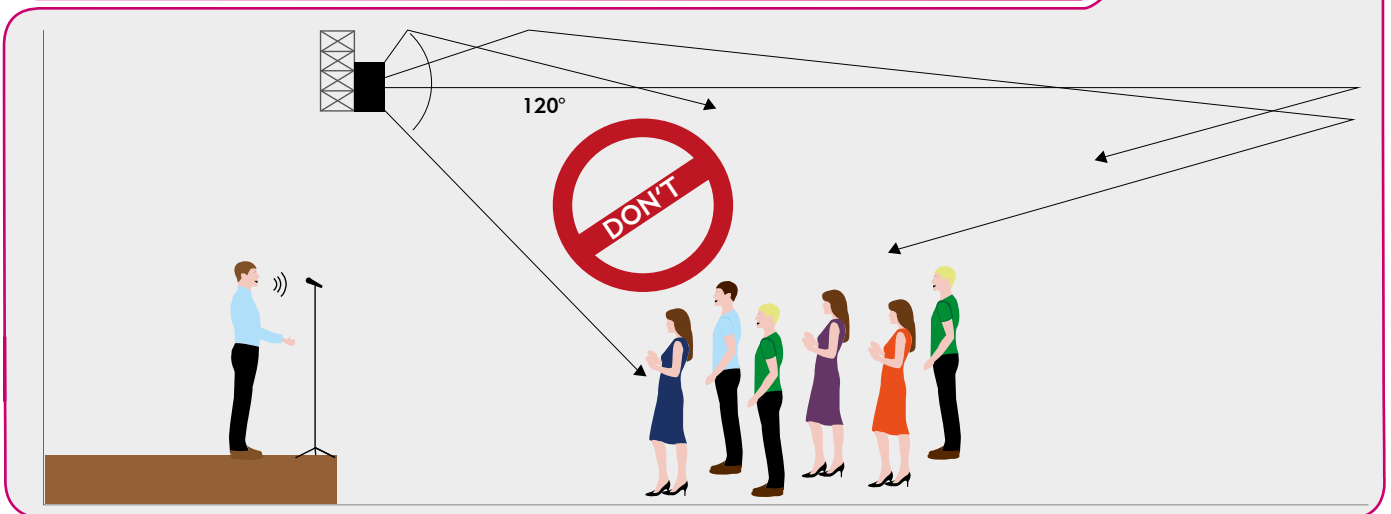
Design a PA sound system



### Set up the loudspeaker

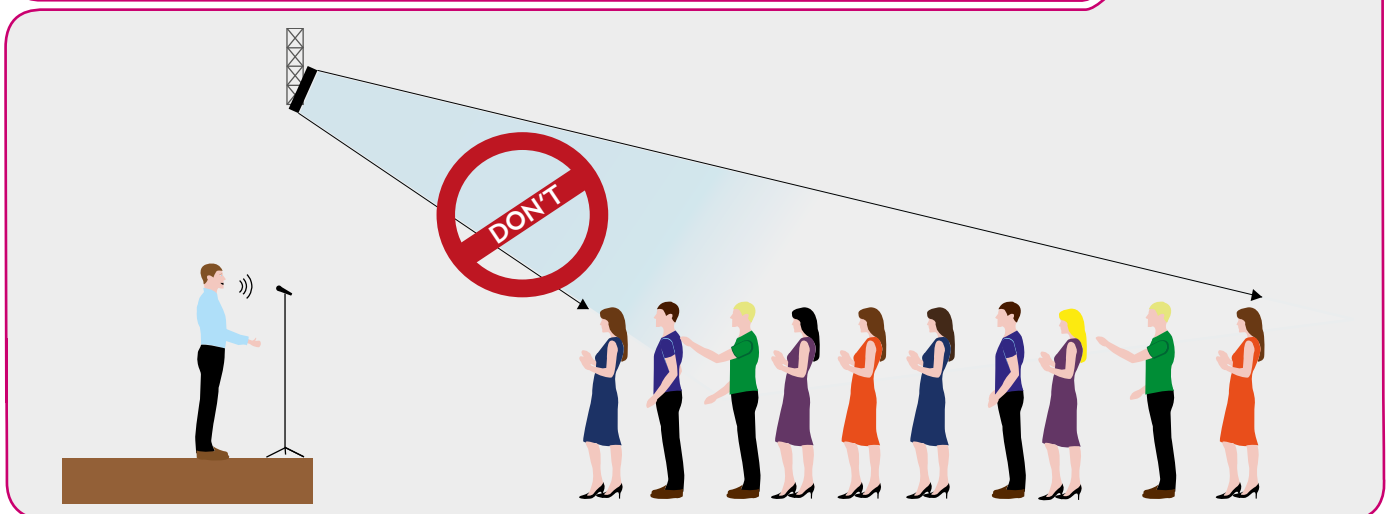
For a better loudspeaker distribution, the following principles should be followed :

#### Principle n°1 : Avoid that sound beams cover a vacant zone



This principle seems obvious but it is always important to remember not to waste sound : to save power but also to avoid creating reverberation effects which could only be at the expense of the result.

#### Principle n°2 : Avoid disparate distances between the loudspeakers and the audience

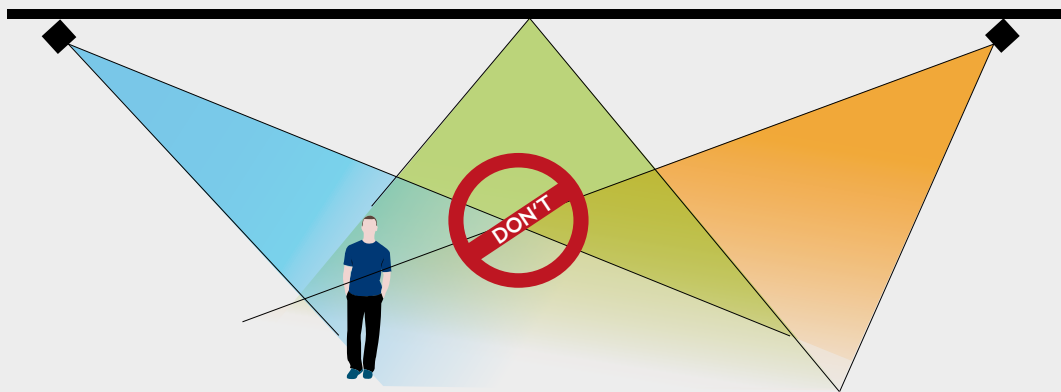


This principle ensures that each among the audience will perceive the sound in the same manner both in terms of performance that clear sound. By following this principle, sound uniformity is guaranteed.





### Principle n°3 : Avoid that loudspeaker sound beams cut across



This principle enhances the two above one in order to further increase audience listening comfort.

### Ideal installation

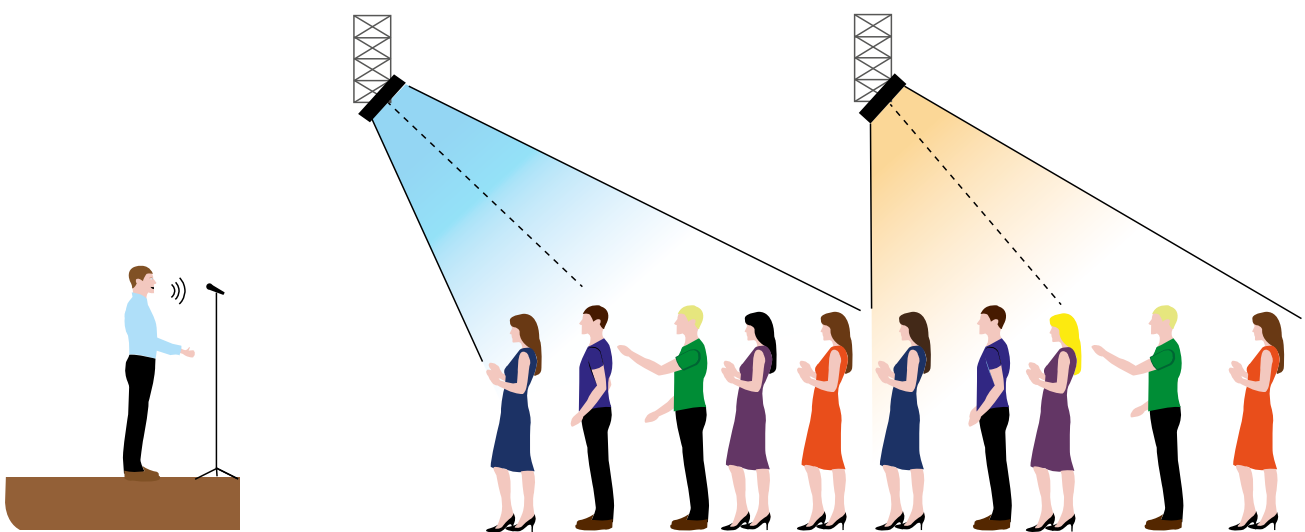


Illustration seems obvious but it is the result of previous principles. If you follow them, you will be assured of having a satisfied audience.



Selection of loudspeaker type is fundamental. It has to be adapted both to the type of message to be broadcasted and to the location to be addressed.

### How to select loudspeaker type ...

...depending on the location : physical restraints

In order to select a loudspeaker adapted to the place, the following has to be taken into account :

- Type of location (offices – circulation – warehouse...)
- Height under ceiling
- Type of hooks
- Surface
- Used materials

...depending on the message : hearing restraints

Know which type of message has to be broadcasted

- Ambient music
- Speech (spoken messages)
- Evacuation

### Example : Paging in offices

<b>Location</b>	Offices – Height under ceiling 2.5m – False-ceiling flab – 20 sq.m
<b>Type of message</b>	Speech
<b>Bouyer loudspeaker selected</b>	RB 301/ RB 501 / RB 701 / RB 6501

### How to select loudspeaker type ...

This step allows to select the loudspeaker power adjustment.  
To do it, starting point is the loudspeaker SPL feature, expressed in dBA/1W/1m.

Thanks to above rules, power of each loudspeaker is determined.

### Loudspeaker power adjustment = depending on (required sound level, SPL, audience distance)

Example

A sound projector  
RB 5019 :  
89dBA/1W/1m

**Rule n°3**  
(cf. p. 11)

Broadcasting distance : 4m / audience

1m - 2m	- 6 dB
2m - 4 m	- 6 dB

Resulting sound level is :  
**89-6-6=77dB**

**Rule n°4**  
(cf. p. 11)

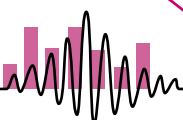
Required sound level is 80dB

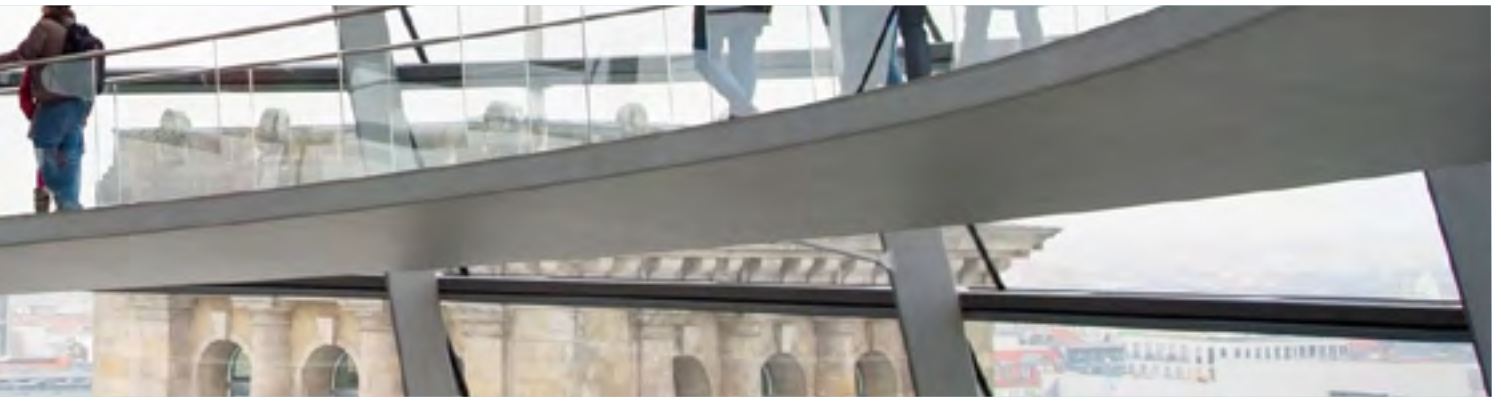
Loudspeaker is then adjusted on 2W

1W - 2W	+ 3 dB
---------	--------

Resulting sound level is :  
**77+3=80dB**

**Rule n°2**  
(cf. p. 10)





### How to determine an amplifier depending on zoning and cable length

In an installation, it is common to implement a zoning which enables to broadcast several different messages at the same time in different areas. Each determined area will have its own amplifier. On 100 V line (high impedance), amplifier power will then be the addition of the powers of the area loudspeakers.

**Amplifier power  $\geq$  addition of the powers of the area loudspeakers**

#### Note

Loudspeaker cabling on a 100 V line allows to drive, from a single line, a great quantity of loudspeakers of equal or different power, provided they are each equipped with a line transformer.

### Rules to be followed for loudspeaker connection cables

Connecting cable section depends on the power of loudspeakers distributed over the line, but also on this line length\* (refer to chart hereafter).

Power	1 sq.mm cable section	1,5 sq.mm cable section	2 sq.mm cable section	2,5 sq.mm cable section
30W	3	4.5	6	7.6
50W	1.8	2.7	3.6	4.5
100W	0.900	1.35	1.8	2.28
150W	0.600	0.900	1.2	1.5
300W	0.300	0.450	0.600	0.750
400W	0.220	0.340	0.450	0.570

\* Length in Km  
 Values given for information only.  
 For power load uniformly distributed on the line.

#### Note

A 30 % loss on loudspeaker line power corresponds to a 1.5dB decrease of sound pressure at level of loudspeakers. This level loss is hardly sensitive to the ear (rule 2 of Acoustics) ; this is why a 30 % power loss is easily acceptable, which corresponds to a 16 % voltage loss.



## SOUND ADVICE

Design a PA sound system



### How to determine sound levels

Once the loudspeaker type has been selected, the necessary power for a good audibility according to location and ambient noise has to be determined.

You can use the following chart which summarizes the main types of buildings.

#### Hospitals



	Ambient noise	Public Address	Voice Alarm
Meeting hall	60	67  70  73	72  75  78
Circulation	60	67  70  73	72  75  78
Room	50	57  60  63	62  65  68

#### Theaters



	Ambient noise	Public Address	Voice Alarm
Theater	50	57  60  63	62  65  68
Cinema	50	57  60  63	62  65  68

#### Hotels - Restaurants

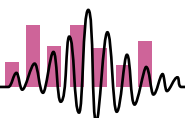


	Ambient noise	Public Address	Voice Alarm
Room	40	47  50  53	52  55  58
Conference room	60	67  70  73	72  75  78
Corridor	55	62  65  68	67  70  73
Restaurant	60	67  70  73	72  75  78

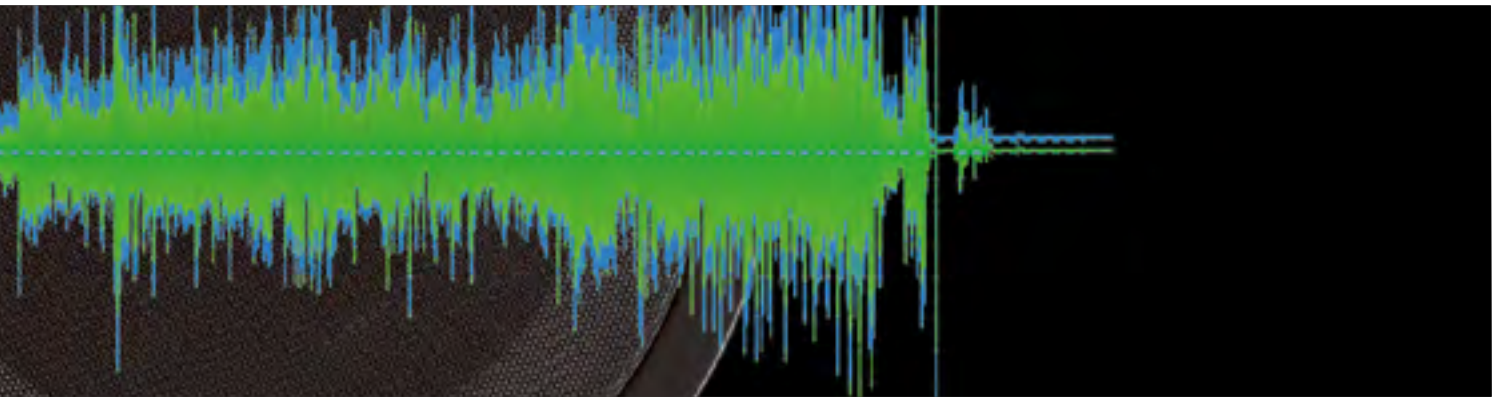
#### Shops



	Ambient noise	Public Address	Voice Alarm
Large surface	60	67  70  73	72  75  78
Hypermarket	70	77  80  83	82  85  88
Coffee shop	65	72  75  78	77  80  83
Shop	65	72  75  78	77  80  83







## Administrative Buildings



	Ambiant noise	Public Address	Voice Alarm
Amphitheater	65	72  88	77  83
Conference room	45	52  58	57  63
Office	60	67  73	72  78
Museum	55	62  68	67  73
Court	55	62  68	67  73

## Sports centers



	Ambiant noise	Public Address	Voice Alarm
Gym	65	72  78	77  83
Swimming pool - skating	70	77  83	82  88
Multipurpose room	80	87  93	92  98
Terrace	85	92  98	97  103

## Industrial premises



	Ambiant noise	Public Address	Voice Alarm
Garage	70	77  83	82  88
Warehouse	70	77  83	82  88
Small industry	80	87  93	92  98
Heavy industry	80	87  93	92  98

## Transports



	Ambiant noise	Public Address	Voice Alarm
Airports	70	77  83	82  88
Railways station	80	87  93	92  98
Underground station	80	87  93	92  98

## Place of worship

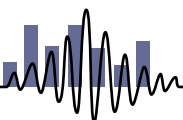


	Ambiant noise	Public Address	Voice Alarm
Church - Mosque	55	62  68	67  73



## Let us guide you through our know-how

Through examples, we offer you technical and economic solutions adapted to the needs of your customers. Simplified implementations, multiple functionalities, compact solutions, reliability and robustness are all assets that will satisfy them.





- Nuclear power plant ..... p.20
- Transport network ..... p.22
- Town ..... p.24
- Shopping mall ..... p.26
- Sports centre ..... p.28
- Education building ..... p.30
- Places of worship ..... p.32



# NUCLEAR POWER PLANT

4 zones



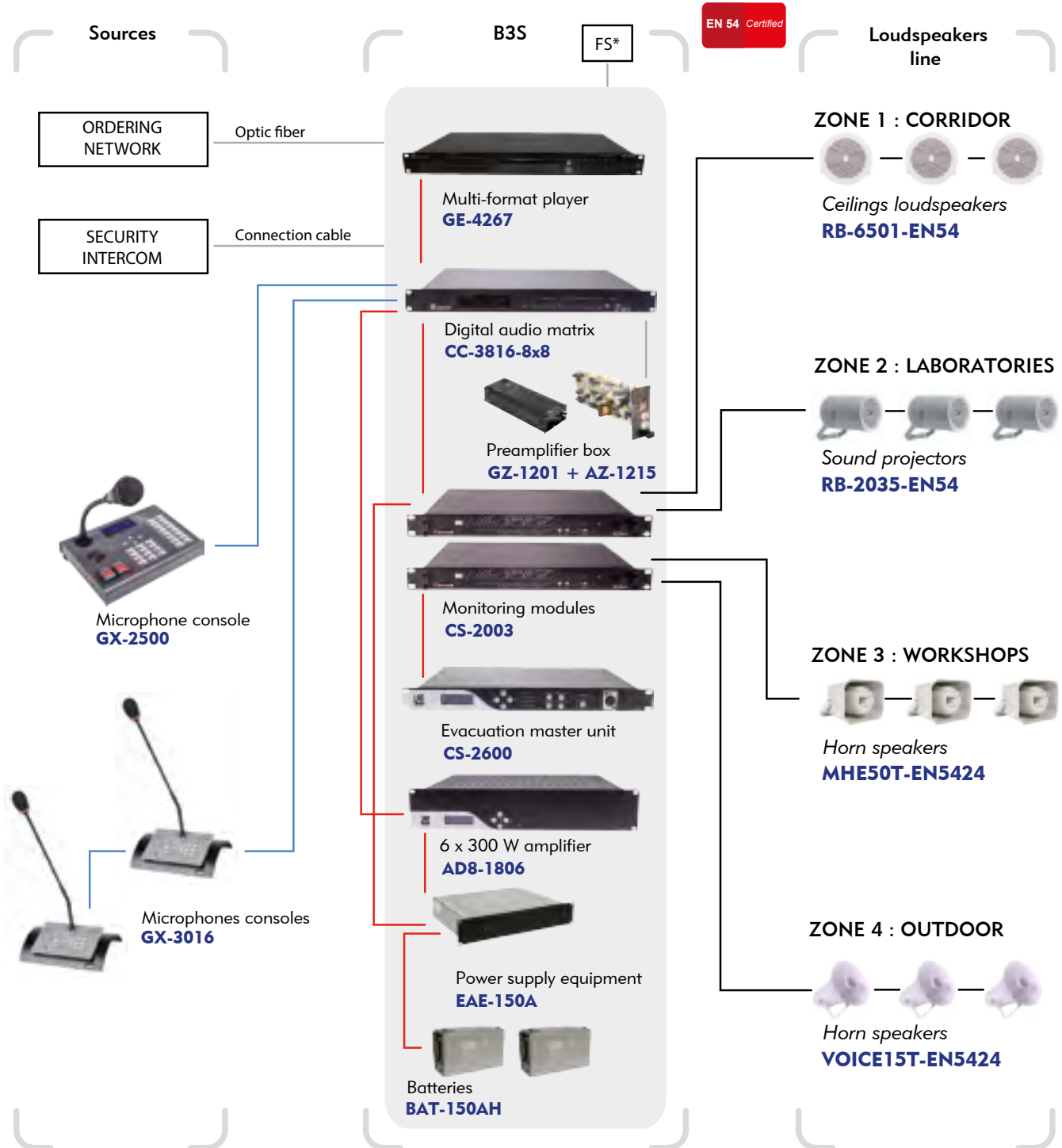
## YOUR NEEDS

- Provide Public address in large volumes
- People search
- Security message
- Availability / Perenniality of the system



## OURS SOLUTIONS

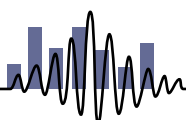
- Evolving and modular system
- Hanging loudspeakers
- Monitored & Rescued networks



— 2 x 1,5 mm<sup>2</sup> Cable  
 — 9/10° Shielded cable

— RJ45 / Cat 5 Straight cable

\* FS : Fire System





### Advices

- Avoid to put loudspeakers in the field of the microphones
- Use of crystal effect in car parks
- Check cable section according to requested length

### Options

#### A tool for steering your PA system



IP sound projectors  
**RB-2036-NW + RB-2036**

## ●))) Customer Case : Nuclear power plant / CAE – FRANCE

### Customer status and request :

- > High-risk industrial site : requirement of a warning, containment and evacuation system
- > Functional constraints : specific to nuclear safety
- > Operational constraints : imperative service continuity 7 days a week and 24 hours a day
- > Long life projects (several decades) : functional evolution for adaptability, maintainability, lasting quality of installations

### Objectives :

- > Voice alarm system
- > Continuous use and service requiring a monitored and secure system architecture
- > Site continued operation with heavy human and technical safety constraints
- > High-risk complex industrial environment : scalability, safety, reliability, lasting quality

### Bouyer solution : EN54 voice alarm system

- > Project management and support from stage of design studies up to the final inspection
- > Modular design system : adaptability and easy scalability at a lower cost

### Final review :

- > Global customer satisfaction : controlled cost and delivery time
- > Safe operation, lasting installation
- > System evolution through time according to the needs
- > Manufacturer support for all project conduct





# TRANSPORT NETWORK

3 to 120 zones



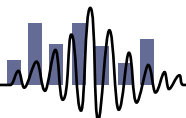
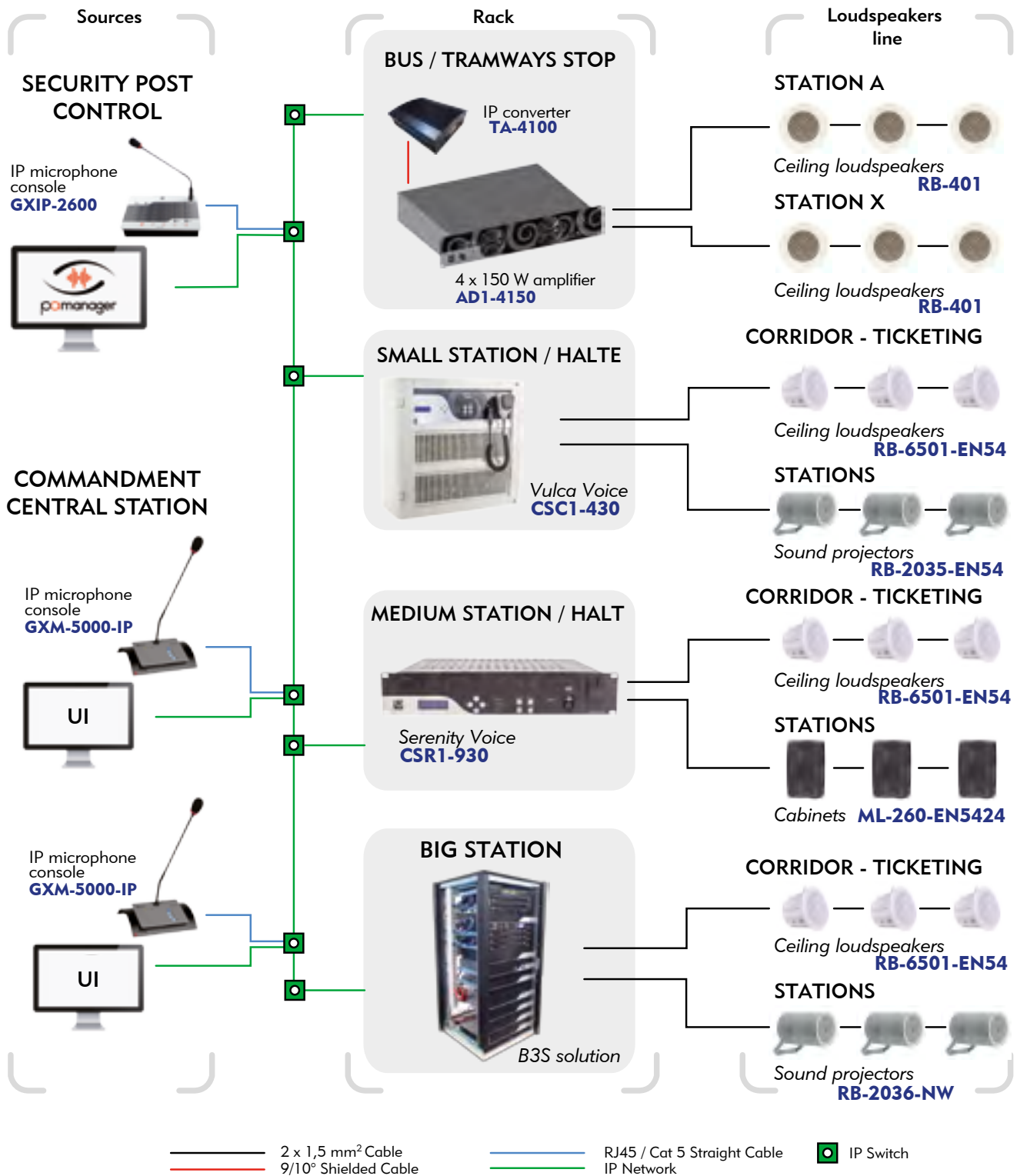
## YOUR NEEDS

- Provide Public address for station and passenger stop network
- Background music and animation
- Evacuation
- Resistance to moisture and corrosion



## OURS SOLUTIONS

- Wide range of loudspeakers
- All-in-one on IP network
- Evolving
- EN54 certified





#### Advices

- Make an acoustic and recommendation study before
- Install microphone consoles locally (remote from IP network)
- Make Factory Acceptance Test and installation on site with our technicians

#### Supervision - Operation - Maintenance

#### A tool for steering your PA system



### ))) Customer Case : Railways workshop Midi-Pyrénées Regiolis Toulouse – FRANCE

#### Customer status and request :

- > Increase in passenger traffic resulting in new trains, and therefore new maintenance issues of rolling railway fleet
- > Construction of an industrial building in 2 phases : several levels (pits under tracks, bridges), high reverberation and background noise
- > Extended site (32 000 sq.m), more than 2 500 sq.m of new workshops

#### Objectives :

- > Sound system for railway safety operation (train move)
- > Operation continuity with Voice Alarm type architecture (monitoring and support of various components)
- > Maintenance of operational first phase (2016), during works of second phase (2017)
- > Complex industrial environment : scalability, reliability, lasting quality

#### BOUYER solution : Voice Alarm system type B3S

- > Project management and support from stage of design studies up to the final inspection
- > Modular design system : adaptability and easy scalability at a lower cost
- > Digital technology : increased performance and flexibility
- > Specific loudspeakers : strong resistance with high IP and IK indexes
- > Factory Acceptance Test , commissioning on site, operator and maintener training, FCW

#### Final review :

- > Operator global satisfaction : easy daily use
- > Controlled cost and delivery time
- > Maintainability and lasting quality ensured





**TOWN**  
1 to 6 zones



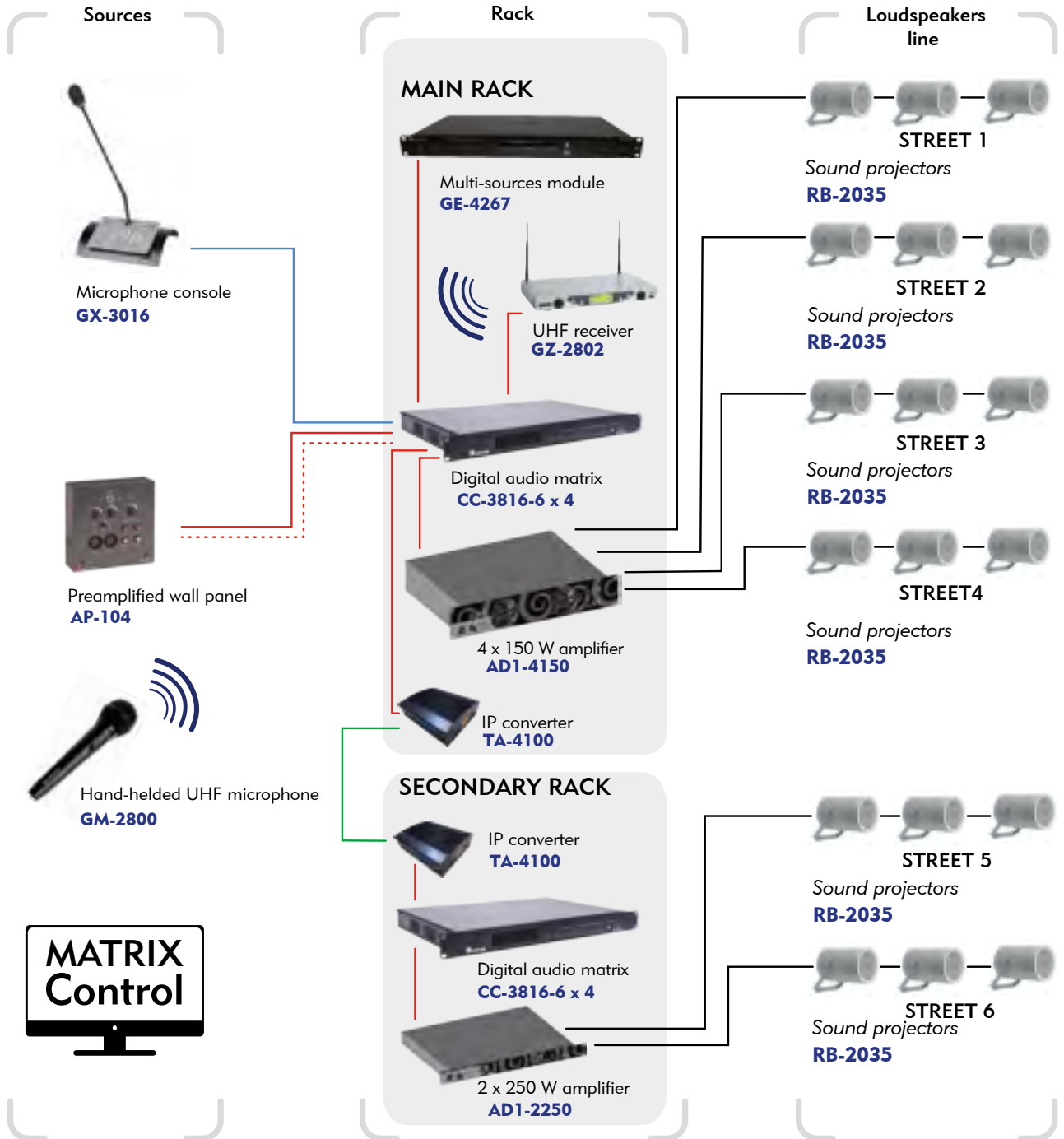
**YOUR NEEDS**

- Resistance to moisture and corrosion
- Background music
- Street animation
- Inform / Secure people

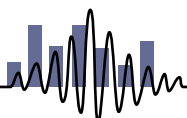


**OURS SOLUTIONS**

- Modular system
- ABS – fiberglass loudspeaker
- Multi-format digital reader



— 2 x 1,5 mm<sup>2</sup> Cable     
 — RJ45 / Cat 5 Straight Cable     
 — IP Network  
— 9/10° Shielded Cable  
- - - 2 x 0,4 mm<sup>2</sup> Shielded Cable







### Advices

- Point the sound projectors towards the same direction
- Respect distance between loudspeakers
- Adapt cable section according to installed length
- Loudspeaker distribution :  
1 RB-2035 at 10W every 15 m

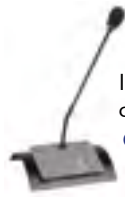
### Options : Solutions



IP sound projectors  
**RB-2036-NW + RB-2036**



IP sound projectors  
**RP-2020-NW + RP-2020**



IP microphone console  
**GXM-5000-IP**



IP microphone console  
**GXIP-2600**

## Customer Case : Urban security of a megalopolis

### Customer status and request :

- > Security of the city as part of the largest project in the world of urban safety
- > Urban interpellation (in connection with CCTV system), guiding the security forces during the procedure
- > Warn and secure the people of natural disaster risks (seismic or flood risk)

### Objectives :

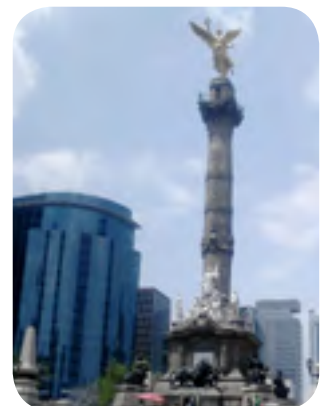
- > Reinforce security forces action – remote interpellation – guiding civil security forces
- > Distribution of loudspeakers and amplifiers throughout the city with centralization in a sole security PC
- > Amplifier integration in a casing on urban lighting masts – unstable electric network
- > Management of a very large system (5000 amplifiers, 10000 loudspeakers)
- > Equipment exposed to harsh climatic constraints (high temperature and humidity variations)

### BOUYER solution :

- > Design and development of a specific amplifier
- > Reinforced and protected electric power supply board
- > Specific connectivity on front panel to make integration in the casing easy
- > Self-monitoring of equipments with defect report through IP Fo network

### Final review :

- > Customer full satisfaction : commitments respected, controlled cost and delivery time
- > Response to requirements of reliability, time duration and hard use conditions
- > Immediately operational system : compact system, proved and tested equipments





# SHOPPING MALL

6 zones



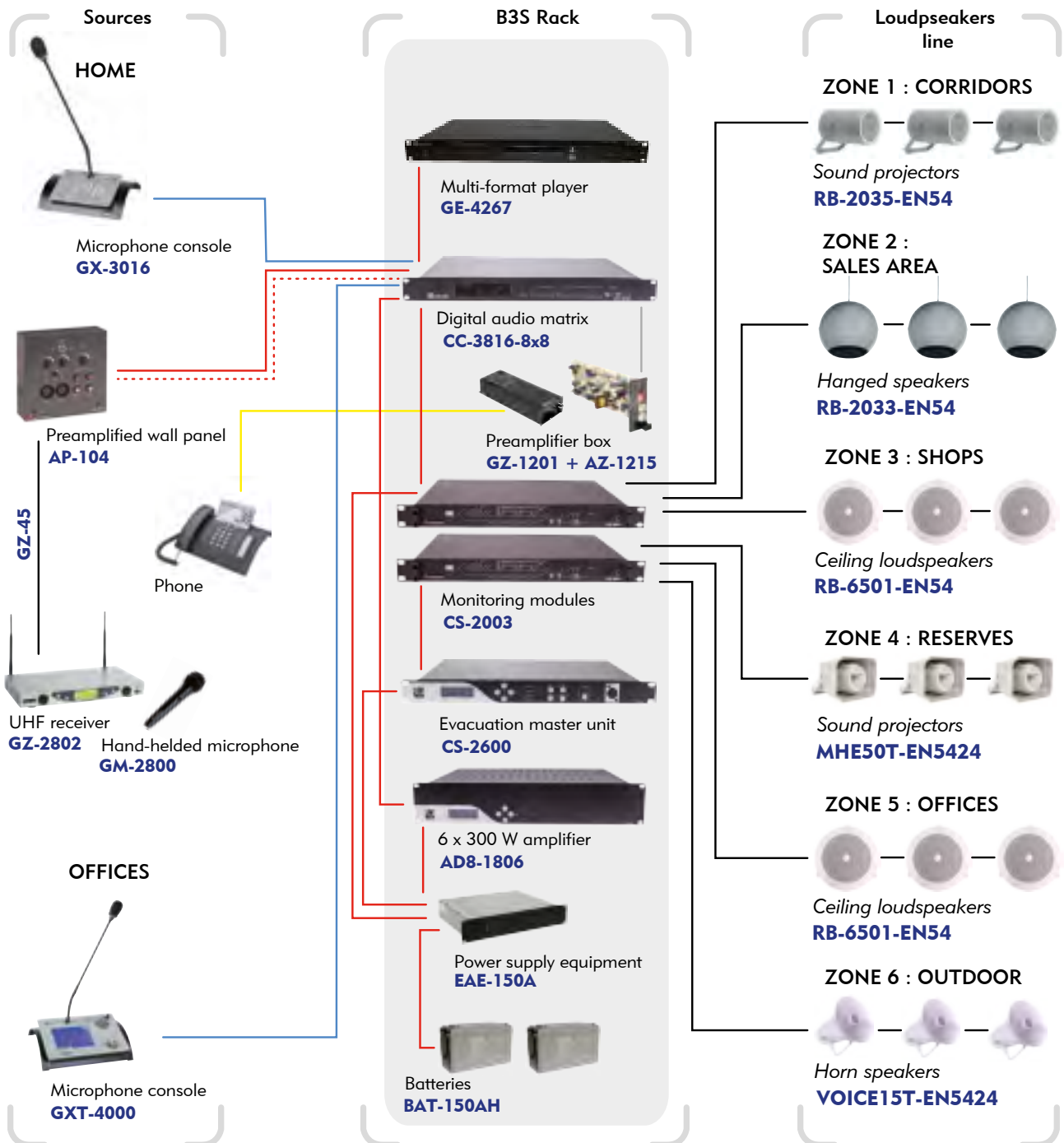
## YOUR NEEDS

- Sound in large volumes
- Background music
- Animation
- Make secure
- Evacuate



## OURS SOLUTIONS

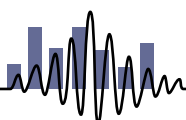
- Evolving and modular system
- Hanging loudspeakers
- Multi-format digital reader



— 2 x 1,5 mm<sup>2</sup> Cable  
— 9/10<sup>2</sup> Shielded Cable  
- - - 2 x 0,4 mm<sup>2</sup> Shielded Cable

— RJ45 / Cat 5 Straight Cable

— Analog Line





### Advices

- Avoid to put loudspeakers in the field of the microphones
- Use of crystal effect in car parks
- Check cable section according to requested length
- Key-lock animation unit
- 1 monitoring centre = 1 alarm zone

### Supervision - Operation - Maintenance

#### A tool for steering your PA system



## Customer Case : Galeries Lafayette – Paris - FRANCE

### Customer status and request :

- > Replacement of an existing solution
- > System compactness and reliability
- > Improvement of use environment

### Objectives :

- > Replacement of existing solution without closing premises (open 7 days a week)
- > EN54 Voice Alarm system
- > Several Public Address zones
- > Control of installation and maintenance costs
- > Multi-purpose and modular system

### BOUYER solution :

- > Supervision software : default centralization in one single place
- > Public address type B3S – management of a sensitive site
- > Modular system

### Final review :

- > Satisfaction for availability of implementation teams
- > Immediately operational system : clear switching
- > Compact system





# SPORTS CENTRE

3 to 6 zones



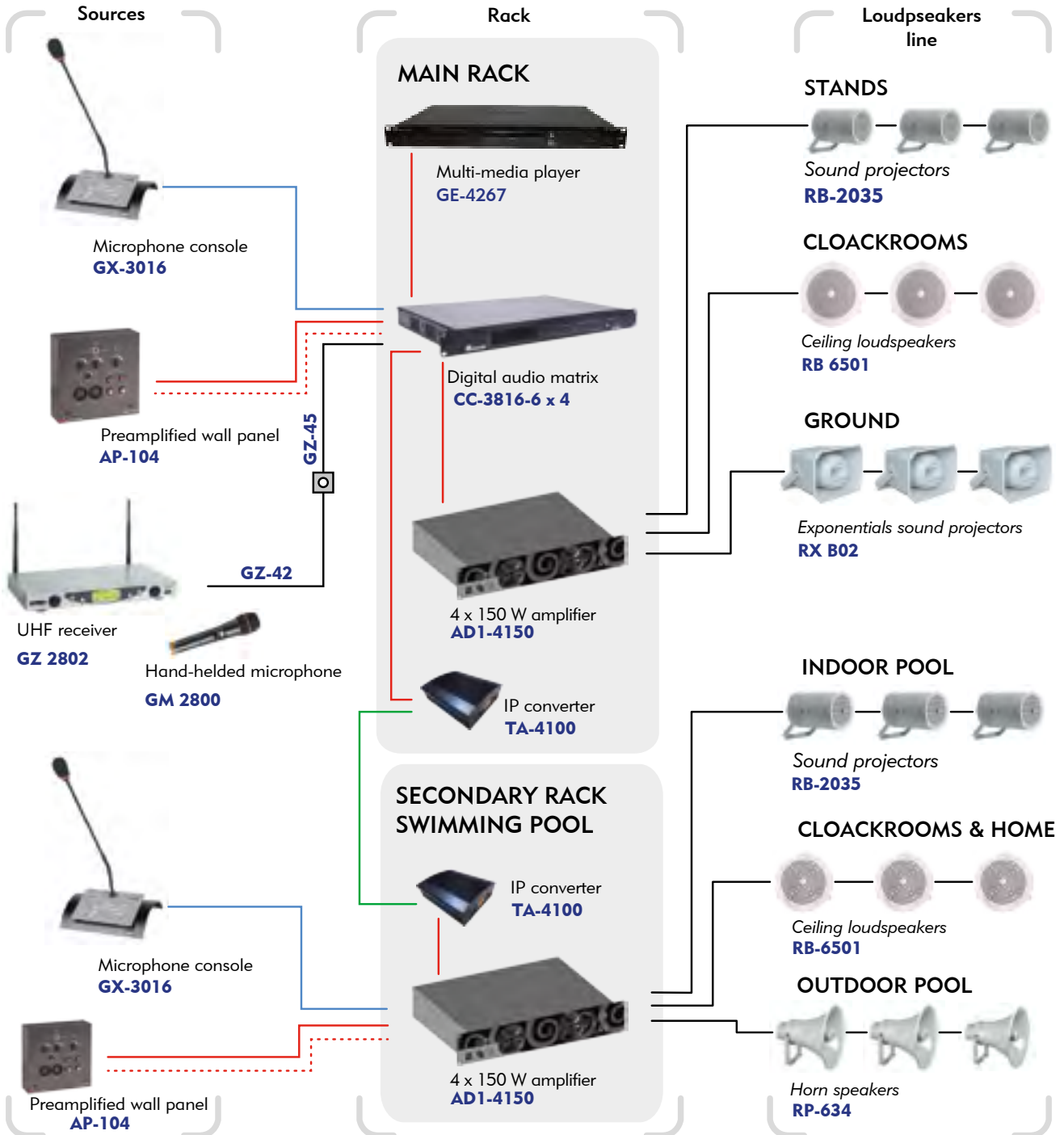
## YOUR NEEDS

- Great height
- Background music
- Animation
- Resistance to moisture and shock




## OUR SOLUTIONS

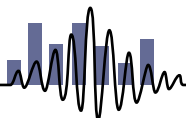
- Modular system
- ABS – Fiberglass loudspeaker
- Exponential sound projectors

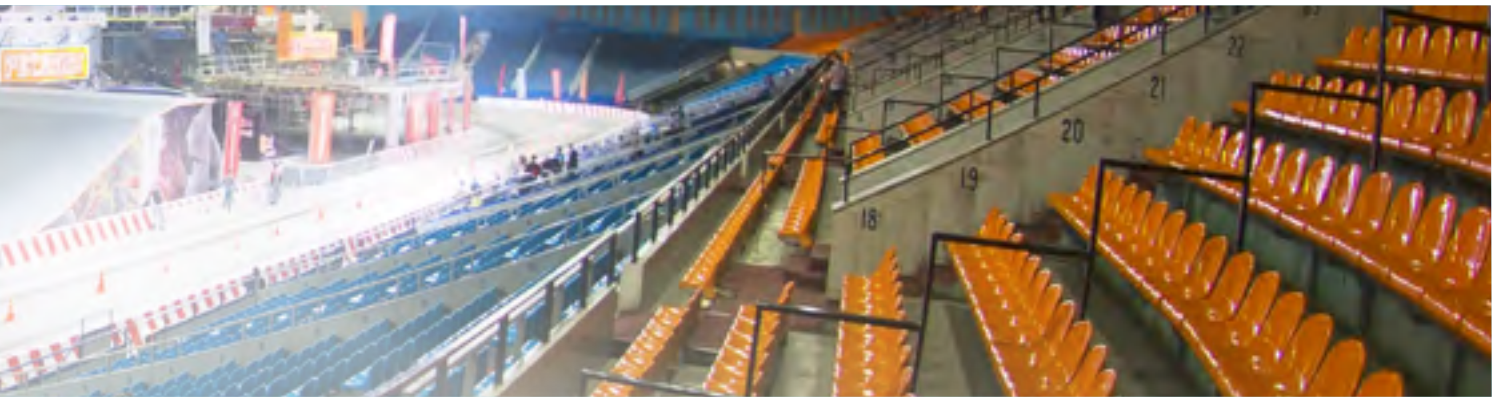


— 2 x 1,5 mm<sup>2</sup> Cable  
 — 9/10° Shielded Cable  
 - - - 2 x 0,4 mm<sup>2</sup> Shielded Cable

— RJ45 / Cat 5 Straight Cable  
 — IP Network

 XLR - GZ-776 Wall Socket





### Advices

- Choose arrival of LS cabling from the bottom to avoid infiltration issue
- Microphone cabling in low current
- Put the casing in an isolated place from chlorinated atmosphere and loudspeakers out of water splashing

### Options : Solutions

#### ANIMATION



#### UNDERWATER SOUND

Sub - aquatic speaker  
RY-RB-SUBAQUA



#### OUTDOORS SOUND

High power loudspeaker  
RX-SUPERSONIC-12



## ))) Customer Case : MOULAY EL HASSAN stadium in Rabat – MOROCCO

### Customer status and request :

- > Rehabilitation within the frame of « BOTOLA PRO » security upgrading of stadiums
- > Warn, animate and secure the whole stadium

### Objectives :

- > EN54 certified Voice Alarm system for evacuation of stadium under optimal conditions in case of fire or any other issue
- > Public address system for broadcasting of comments of the match as well as music sources
- > Interconnection with safety equipments (fire, CCTV...) to secure the whole stadium

### BOUYER solution : EN54 Voice Alarm system

- > Project management and support from stage of design studies up to the final inspection
- > Several Public Address zones : stands, field, locker rooms, common places, stadium entrance...
- > Modular design system : adaptability and easy scalability at a lower cost
- > Specific loudspeakers adapted to stadiums

### Final review :

- > Customer global satisfaction : controlled cost and delivery time
- > Plug & Play solution
- > Solution meeting the stadium requirements





# EDUCATION BUILDING

3 zones



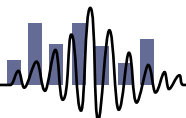
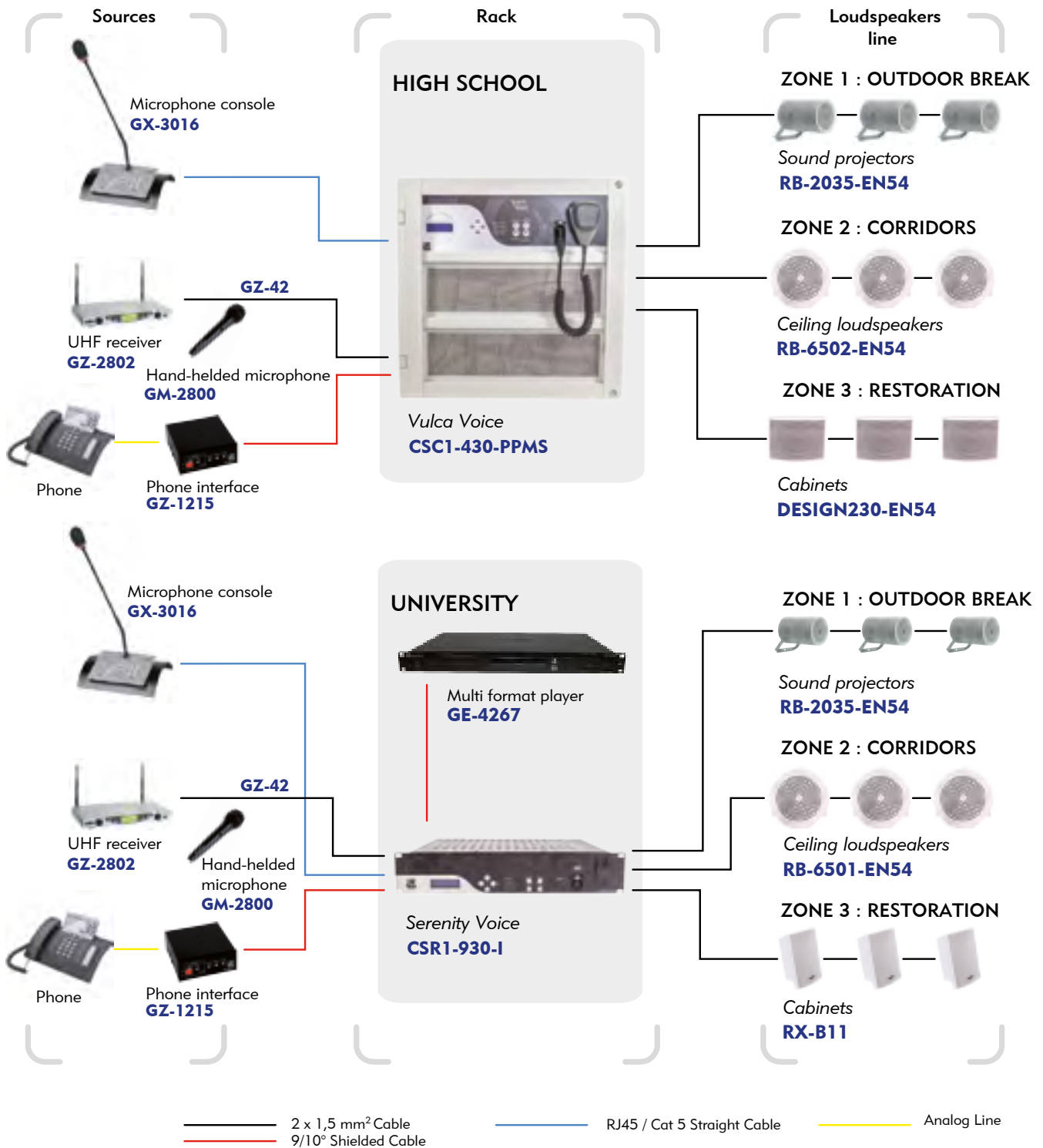
## YOUR NEEDS

- Customizable start/end of course ringtone
- People Search
- Animation
- Message broadcasting from telephones



## OUR SOLUTIONS

- Multi-media reader
- « Plug and Play » solution
- Built-in telephone interface
- PPMS (Particular Precautionary Plan) message triggering





**Advices**

- Put the loudspeakers out of reach
- Point the sound projectors towards the center of the courtyard not to disturb neighbors
- Microphone cabling in low current
- Add a master clock to control ringtones

**Options : Complementary Solutions**

**STATIC ANIMATION**

UHF receiver **GZ-2802**      Hand-held micro **GM-2800**      Amplifier **SA-3126-150**      Cabinets **RC-COMPACT-02**

**MOBILE ANIMATION**

Tripod **ZR 5012**      Portable unit **CP 5874**

## Customer Case : Philippines Campus in Doha – QATAR

### Customer status and request :

- > Increase of admissions to the institution, new scientific specialties
- > Construction of a building of more than 14375 sq.m divided into different clusters of activities
- > Warn, animate and secure the whole campus

### Objectives :

- > Sound in the whole site while adapting each cluster according to its issues :
  - noisy halls and circulations
  - reverberating sports fields
  - inner swimming pool with glass enclosure and very high
- > Control installation and maintenance costs while interconnecting all sub-systems through IP network
- > Multi-purpose system allowing to secure and operate the campus every day
- > System allowing animation of various events : sports encounters, meetings, festivities...

### BOUYER solution : Voice Alarm system type B3S

- > Project management and support : acoustical studies, design, installation and configuration of the various systems making up the campus
- > Communicating systems using local IP network and allowing flexibility, modularity, remote management and maintenance
- > Large range of loudspeakers adapted to each need : from 6 W to more than 200 W

### Final review :

- > Customer global satisfaction : controlled costs and delivery time
- > Plug & Play solution : remote configured
- > Solution meeting the campus requirements





# PLACE OF WORSHIP

3 to 4 zones



## YOUR NEEDS

- Architectural integration
- Echo decrease in reverberating acoustic environment
- Easy and quick installation



## OUR SOLUTIONS

- All-in-one system
- Discrete column speakers
- Column installation without angle calculation

### Sources



### Rack



UHF receiver  
**GZ-2802**



Mixer amplifier  
**SA-3126-150**

### Loudspeakers line

#### INDOOR : ROOM 1



Columns  
**RC-906**

#### INDOOR : ROOM 2



Columns  
**RC-908**

#### OUTDOOR

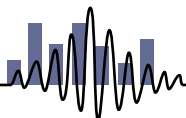


Horn speakers  
**RP-630**

— 2 x 1,5 mm<sup>2</sup> Cable  
 — 9/10° Shielded Cable

— RJ45 / Cat 5 Straight Cable

□ GZ-774 / GZ-776







**Advices**

- Install columns at 1.20 m from the ground
- Avoid to put microphones in the field of column speakers
- For installation of magnetic loop induction, do not forget to use a tester

**Options : Solutions**

**NOMAD KIT**



Pocket UHF transmitter  
**GM-2810**



hand microphone  
**GM-820**

**WIRE SOLUTION**



DIN wall socket  
**GZ-774**



Electret microphone  
**GM-921**  
& Table base  
**GZ-2150**

**MALENTENDANTS AREA**



Pocket receiver  
**IL-200**



Receiver headphone  
**IL-201**



Induction loop  
**IL-070**

## Mosque in Port Louis - MAURITIUS

**Customer status and request :**

- > Speech and music
- > Call to prayer outdoors

**Bouyer Solution :**

- > Comfort solution



## Church St Honoré d'Elyau in Paris – FRANCE

**Customer status and request :**

- > Speech and music
- > Reverberation reduction

**Bouyer Solution :**

- > Comfort solution

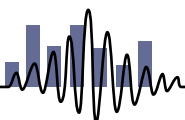


## Discover our rich range

Through our catalog, we allow you to easily design your solution by associating products and accessories.  
 French manufacturing, innovation, certification guarantee reliable and unparalleled quality solutions.

### Voice alarm

- What is sound ? .....	p.36
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- Serenity Voice .....	p.39
- B3S .....	p.40
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## VOICE ALARM

What is this ?



Sound systems are important for the functioning of many establishments. Their entertainment and information function take on a completely different dimension in case of danger or disaster occurrence. They contribute to the evacuation of buildings, a crucial aspect of reception and security of people.

Evacuation consists of safely and calmly leading everyone present out of the buildings, without issue or panic in order to better follow safety instructions and facilitate work of the competent staff.

To be understood, the evacuation orders must be heard by everyone.

**A Voice Alarm System is the guarantee for safety of people and the security of property.**

Public address is an important asset for operation and security of ERP\* and ERT\*.  
It covers technical, commercial and regulatory issues.

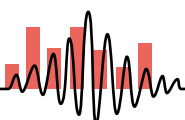
Voice Alarm system (SSS) comprises all the equipments ensuring the broadcasting of message and safety instructions which allow premises evacuation if needed.

### TO KNOW



In France, all buildings are listed according to the use made of them and the activity carried out in them. Their construction and operation are subject to strict rules set by the public authorities through regulations and standards.

\* ERP = Establishment open to the public  
ERT = Establishment open to workers





**FRANCE - Decree of 25 th June 1980 : determines classification of buildings open to the public according to its type**

**NATURE OF L'EXPLOITATION**

Buildings type

Nature	type	Nature	type
<b>L</b>	Conference room	<b>T</b>	Warehouse
<b>M</b>	Shop Center mall	<b>U</b>	Hospital
<b>O</b>	Hotel	<b>Y</b>	Museum
<b>R</b>	School	<b>PS</b>	Car park

**CATEGORY**

Accommodation capacity

Buildings category	Number of persons
<b>1</b>	> 1500
<b>2</b>	From 700 to 1500
<b>3</b>	From 300 to 700
<b>4 &amp; 5</b>	< 300

**TYPE OF FDS\* AND VOICE ALARM**

Buildings category	Category of FSS	Type of Voice Alarm
<b>1</b>	B	<b>2A</b>
<b>2</b>	C, D ou E	<b>2b</b>
<b>3</b>		<b>3</b>
<b>4 &amp; 5</b>		<b>4</b>

**Nature of equipments and their operation are governed by French and European Standards**

 **European :**

- EN54** : Components of FDS\*
- EN54-4** : UPS
- EN54-16** : Central equipment of Voice Alarm System
- EN54-24** : Loudspeakers



 **French :**

- NFS 61-936** : Alarm Equipment design rules
- NFS 61-932** : FDS installation rules
- NFS 61-933** : FDS maintenance rules



French and European standards are reinforced by **NF-FDS voluntary labeling provided by AFNOR**. NF-FDS mark is the proof by a third party that all components of a Voice Alarm system are **up to effective standards and mutually compatible according to «System requirements»**.

\* FDS = Fire Detection System

**Vulca Voice - Compact All-in-One Voice Alarm System**

**Compact box 1 alarm zone - up to 400 W**

- Amplifier and loudspeaker line monitoring
- Ready for installation
- Phone interface capable
- Up to 4 broadcasting zones
- Emergency microphone
- Integrated UPS (batteries not supplied)



EN 54 - 16 Certified

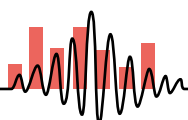
**ECSAV**



**VULCA VOICE**

REFERENCE	VULCA VOICE - COMPACT ALL-IN-ONE VOICE ALARM SYSTEM
<b>DESCRIPTION</b>	Digital player Messages scheduler Fireman Palm handheld microphone included Digital matrix with priority management Bells playlist included Customizable playlist 4 GPI - 4 GPO Integrated UPS (batteries not supplied)
<b>POWER</b>	300 W to 400 W
<b>BANDWIDTH</b>	50 - 20 000 Hz
<b>DISTORTION</b>	< 1%
<b>SIGNAL TO NOISE RATIO</b>	> 70 dB
<b>INPUTS</b>	4
<b>SENSITIVITY</b>	-30 dBm / 0 dBm
<b>CONNECTORS</b>	RCA x 2 / XLR - Jack combined connector / 2 pt terminal block / RJ 45 (Public Address Console Bus)
<b>POWER SUPPLY</b>	230 VAC
<b>MATERIAL</b>	Metal
<b>COLOR</b>	White
<b>DIMENSIONS (MM)</b>	520 x 530 x 240
<b>WEIGHT (KG)</b>	Without batteries : 20,5 With batteries : 38,5

	CSC1-310	CSC1-420	CSC1-430	CSC1-440
<b>TOTAL POWER</b>	300 W	400 W	400 W	400 W
<b>OUTPUTS</b>	1	2	3	4



## Serenity Voice - Rackable Voice Alarm System

### 2U rack - 1 alarm zone - up to 1800 W

Simultaneous broadcasting of different sources

Integrated monitoring

Up to 6 public address zones

Emergency microphone

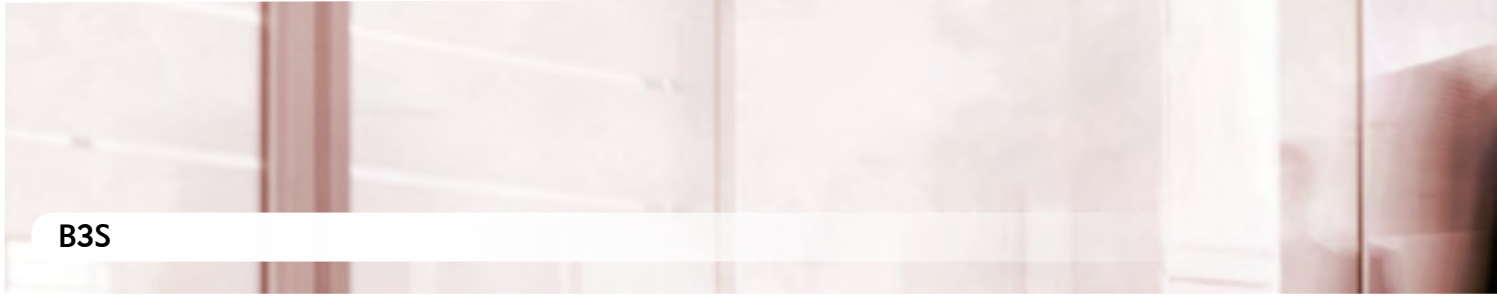
EN 54 - 16 Certified

**ECSAV**



SERENITY VOICE

REFERENCE	SERENITY VOICE - RACKABLE VOICE ALARM SYSTEM				
<b>DESCRIPTION</b>	Digital player Messages scheduler Fireman Palm handheld microphone included Digital matrix with priority management Bells playlist included Customizable playlist 4 GPI - 4 GPO				
<b>POWER</b>	600 W to 1800 W				
<b>BANDWIDTH</b>	50 - 20 000 Hz				
<b>DISTORTION</b>	< 1%				
<b>SIGNAL TO NOISE RATIO</b>	> 70 dB				
<b>INPUTS</b>	4				
<b>SENSITIVITY</b>	-30 dBm / 0 dBm				
<b>CONNECTORS</b>	RJ 45 / 2 pt terminal block/ RJ 45 (Public Address Console Bus)				
<b>POWER SUPPLY</b>	230 VAC				
<b>MATERIAL</b>	Metal				
<b>COLOR</b>	Black				
<b>DIMENSIONS (MM)</b>	482 x 345 x 88				
<b>WEIGHT (KG)</b>	5				
	CSR1-620	CSR1-930	CSR1-1240	CSR1-1550	CSR1-1860
<b>TOTAL POWER</b>	600 W	900 W	1200 W	1500 W	1800 W
<b>OUTPUTS</b>	2	3	4	5	6



B3S

**Modular and scalable solution**  
Up to 120 transmission lines  
12 U to 42 U

EN 54 - 16 Certified

**ECSAV**



B3S



CS-2600



CS-2003

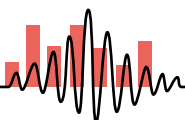


AD-8000



AD-3000

\* P.S.E & Batteries cf. [page 50](#)





## Monitoring Equipment

### Security monitoring system

Control of the loudspeaker lines

Centralizes and transmits the information from the system live

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**ECSAV**



CS-2600



CS-2003



REFERENCE	CS-2600	CS-2003
<b>DESCRIPTION</b>	Evacuation master unit	Monitoring module
<b>MAIN FUNCTIONS</b>	<ul style="list-style-type: none"> <li>- Monitoring unit</li> <li>- 1 alarm zone</li> <li>- 3 to 120 loudspeaker lines</li> <li>- Customizable messages</li> <li>- Management of 40 CS-2003</li> <li>- 2 GX-3016/GXT-4000 interfaces</li> <li>- 1 music input</li> </ul>	<ul style="list-style-type: none"> <li>- Monitors up to 3 loudspeaker lines, 3 amplifiers and 1 standby amplifier (automatic switch on it in case of failure of one of amplifiers)</li> <li>- Monitors loudspeaker by end-of-line or line impedance measurements</li> <li>- Indicates by red/green leds in the front panel, the status of the lines / amplifiers</li> </ul>
<b>POWER SUPPLY</b>	24 VDC	24 VDC - 0,3 A
<b>MONITORING SPEAKER</b>	No	Yes
<b>DIMENSIONS (MM)</b>	125 x 345 x 92	425 x 325 x 45
<b>RACK INSTALLATION</b>	1U	1U
<b>CONNECTORS</b>	2 point plug-in terminal blocks	XLR - RJ45 - Terminal blocks
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black	Black
<b>WEIGHT (KG)</b>	2,8	3,4
<b>FEATURES</b>	<ul style="list-style-type: none"> <li>- CS-2600-WAV: customizable evacuation message</li> <li>- CS-2600-AR: unit with messages in Arabic and English</li> </ul>	

## Amplifiers

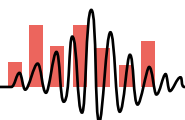
REFERENCE	AD-8000 Range	AD-3000 Range
DESCRIPTION	Class D Amplifiers	
FEATURES	16 versions	9 versions
POWER	60 W to 2400 W	
BANDWIDTH	30 - 28000 kHz	
DISTORTION	< 1%	
SIGNAL-TO-NOISE RATIO	> 90 dB	
INPUTS		
SENSITIVITY	0 dB balanced	
CONNECTORS	XLR or plug-in terminal block	
OUTPUTS		
OUTPUT LEVEL	100 V	
CONNECTORS	Plug-in terminable block	
POWER SUPPLY	230 VAC - 24 VDC	
MATERIAL	Metal	
COLOR	Black	

	AD8-0061	AD8-0301	AD8-0362	AD8-0602	AD8-0663	AD8-0903	AD8-0964	AD8-1204
POWER	1 x 60 W	1 x 300 W	1 x 60 W + 1 x 300 W	2 x 300 W	1 x 60 W + 2 x 300 W	3 x 300 W	1 x 60 W + 3 x 300 W	4 x 300 W
RACK INSTALLATION	2U	2U	2U	2U	2U	2U	2U	2U
DIMENSIONS (MM)	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
WEIGHT (KG)	5,05	5,04	5,62	5,61	6,19	6,18	6,76	6,75

	AD8-1265	AD8-1505	AD8-1566	AD8-1806	AD8-1867	AD8-2107	AD8-2168	AD8-2408
POWER	1 x 60 W + 4 x 300 W	5 x 300 W	1 x 60 W + 5 x 300 W	6 x 300 W	1 x 60 W + 6 x 300 W	7 x 300 W	1 x 60 W + 7 x 300 W	8 x 300 W
RACK INSTALLATION	2U	2U	2U	2U	2U	2U	2U	2U
DIMENSIONS (MM)	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
WEIGHT (KG)	7,34	7,33	7,91	7,9	8,48	8,47	9,05	9,04

	AD3-0061	AD3-0122	AD3-0183	AD3-0301	AD3-0362	AD3-0423	AD3-0602
POWER	1 x 60 W	2 x 60 W	3 x 60 W	1 x 300 W	1 x 60 W + 1 x 300 W	2 x 60 W + 1 x 300 W	2 x 300 W
RACK INSTALLATION	1U	1U	1U	1U	1U	1U	1U
DIMENSIONS (MM)	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44
WEIGHT (KG)	3,73	4,02	4,31	3,72	4,30 kg	4,59	4,29

	AD3-0663	AD3-0903
POWER	1 x 60 W + 2 x 300 W	3 x 300 W
RACK INSTALLATION	1U	1U
DIMENSIONS (MM)	420 x 340 x 44	420 x 340 x 44
WEIGHT (KG)	4,87	4,86



## Voice Alarm Console

### Monitored console

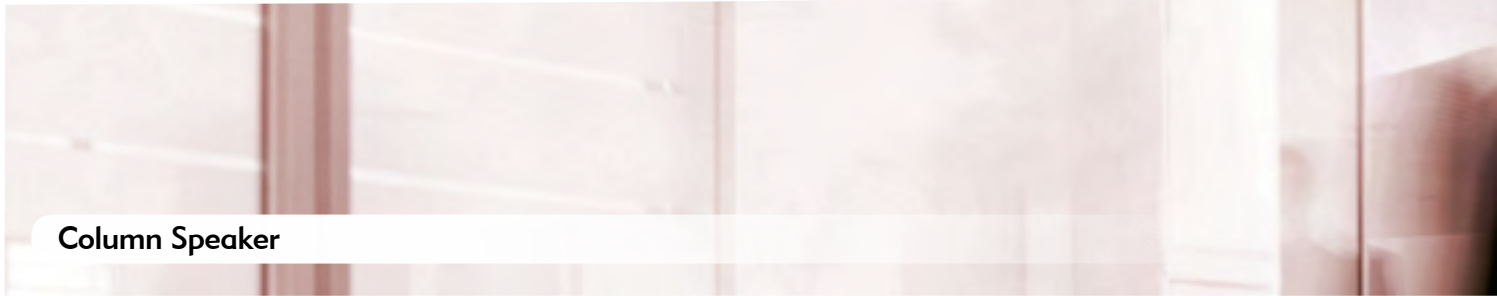
25 programmable keys  
 Bus installation (RJ45)  
 Covered pushbuttons  
 Alarm and evacuation



GX-2500



REFERENCE	GX-2500
DESCRIPTION	Monitored digital microphone console with fault indicator lights
SENSITIVITY	0 dBu compressed output
BANDWIDTH	50 - 20 000 Hz
POWER SUPPLY	24 VDC
CONNECTION	RJ 45 + Power jack
MATERIAL	Metal
COLOR	Black
DIMENSIONS (MM)	260 x 180 x 40
WEIGHT (KG)	1,3
FEATURES	LCD display Digital navigation buttons for configuration Supplied with connection box for multi-pair cable
OPTIONS	NS-110557 power supply



Column Speaker

**20 W to 50 W Column**

Good speech intelligibility and background music reproduction  
Swivel mounting bracket

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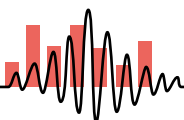


CS50WA-EN5424-N



CS50WA-EN5424-B

REFERENCE	CS50WA-EN5424
DESCRIPTION	Column
NOMINAL POWER	50 W
100 V LINE POWER	50 / 40 / 30 / 20 W
100 V LINE IMPEDANCE	50 W : 200 Ω 40 W : 250 Ω 30 W : 333 Ω 20 W : 500 Ω
BANDWIDTH	70 - 18 000 Hz
PRESSURE LEVEL	99 dB / 1 W / 1 m 114 dB / 50 W / 1m
PRESSURE LEVEL PINK NOISE EN54	80 dB / 1 W/ 4 m 96 dB / 50 W / 4 m
DIRECTIVITY (-6 DB)	500 Hz : 360 ° 4 kHz : 79°
LOUDSPEAKER DIMENSIONS	4 x 13 cm - 5''
LOUDSPEAKER FEATURES	Wideband
LOUDSPEAKER MATERIAL	Cellulose
CONNECTION	Push terminals
COLOR	CS50WA-EN5424-N : Black CS50WA-EN5424-B : White
MATERIAL	Aluminium & ABS
DIMENSIONS (MM)	615 x 150 x 100
WEIGHT (KG)	3,9



## Ceiling Loudspeakers

### Ceiling loudspeakers 1.5 W to 40 W

Installation friendly

Very wide opening angle

Suitable for speech and music reproduction

EN 54 - 24 Certified



EN180FT-EN5424



RB-6501-EN54  
RB-6502-EN54  
RB-6504-EN54

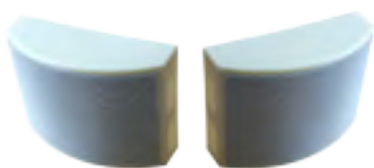
No tools  
TURN & PLAY  
30 sec'

REFERENCE	EN180FT-EN5424	RB-6501-EN54	RB-6502-EN54	RB-6504-EN54
DESCRIPTION	Ceiling loudspeakers	Ceiling loudspeakers	Ceiling loudspeakers	Ceiling loudspeakers
NOMINAL POWER	6 W	10 W	20 W	40 W
100 V LINE POWER	6 / 3 W	10 / 6 / 3 / 1,5 W	20 / 15 / 7,5 W	40 / 30 / 20 / 10 W
100 V LINE IMPEDANCE	6 W : 1 666 Ω 3 W : 3 333 Ω	10W : 1 000 Ω 6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 670 Ω	20 W : 500 Ω 15 W : 666 Ω 7 W : 1 429 Ω 5 W : 2 000 Ω	40W : 250 Ω 30 W : 333 Ω 20 W : 500 Ω 10 W : 1 000 Ω
BANDWIDTH	100 - 15 000 Hz	80 - 18 000 Hz	80 - 18 000 Hz	80 - 18 000 Hz
PRESSURE LEVEL	96 dBA / 1 W / 1 m 103,5 dBA / 6 W / 1 m	92,7 dBA / 1 W / 1 m 101,6 dBA / 10 W / 1 m	91,8 dBA / 1 W / 1 m 103,4 dBA / 20 W / 1 m	90,1 dBA / 1 W / 1 m 105,4 dBA / 40 W / 1 m
PRESSURE LEVEL PINK NOISE EN54	77 dB / 1 W / 4 m 84 dB / 6 W / 4 m	77 dB / 1 W / 4 m 88 dB / 10 W / 4 m	77 dB / 1 W / 4 m 92 dB / 20 W / 4 m	77 dB / 1 W / 4 m 93 dB / 40 W / 4 m
DIRECTIVITY (-6 DB)	500 Hz : 180 ° 4 kHz : 154°	500 Hz : 180 ° 4 kHz : 160°	500 Hz : 180 ° 4 kHz : 160°	500 Hz : 180 ° 4 kHz : 160°
LOUDSPEAKER DIMENSIONS	13 cm - 5''	14 cm - 5,5''	14 cm - 5,5''	14 cm - 5,5''
LOUDSPEAKER FEATURES	Wideband dual-cone	Wideband dual-cone	Wideband dual-cone	Wideband dual-cone
LOUDSPEAKER MATERIAL	Tropicalized Cellulose	Tropicalized Cellulose	Tropicalized Cellulose	Tropicalized Cellulose
CONNECTION	Screw terminals	Terminal block	Terminal block	Terminal block
COLOR	White	White RAL 9003	White RAL 9003	White RAL 9003
MATERIAL	Metal	ABS	ABS	ABS
DIMENSIONS (MM)	Ø 180 x 110	Ø 200 x 145	Ø 200 x 145	Ø 200 x 145
WEIGHT (KG)	1	1,96	1,96	1,96
FEATURES		Installation in 30 sec without tools	Installation in 30 sec without tools	Installation in 30 sec without tools

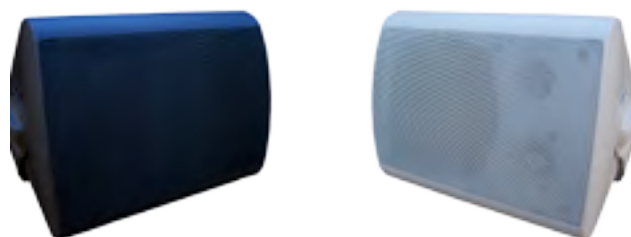
**Cabinets**

**Speaker cabinets - 1.5 W to 30 W**  
 High-quality speech and music reproduction  
 Neat design

EN 54 - 24 Certified

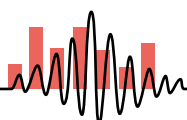


DESIGN230-EN5424



ML-260-EN5424

REFERENCE	DESIGN230-EN5424	ML-260-EN5424
DESCRIPTION	Surface mounting speaker cabinet	Speaker cabinet
NOMINAL POWER	6 W	30 W
100 V LINE POWER	6 / 3 / 1,5 W	30 / 15 / 7,5 / 3, 75 W
100 V LINE IMPEDANCE	6 W : 1 666 Ω 3 W : 3 333 Ω 1,5 W : 6 666 Ω	30 W : 333 Ω 15 W : 666 Ω 7,5 W : 1 333 Ω 3,75 W : 2 666 Ω
BANDWIDTH	80 - 15 000 Hz	60 - 20 000 Hz
PRESSURE LEVEL	98,5 dBA / 1 W / 1 m 104,5 dBA / 6 W / 1 m	92 dBA / 1 W / 1 m 107 dBA / 30 W / 1 m
PRESSURE LEVEL PINK NOISE EN54	77,1 dB / 1 W / 4 m 87 dB / 6 W / 4 m	73 dB / 1 W / 4 m 87,9 dB / 30 W / 4 m
DIRECTIVITY (-6 DB)	500 Hz : 130 ° 4 kHz : 70°	500 Hz : 360 ° 4 kHz : 84°
LOUDSPEAKER DIMENSIONS	13 cm - 5''	13,5 cm - 5,5''
LOUDSPEAKER FEATURES	Wideband Dual-cone	2 coaxial channels
LOUDSPEAKER MATERIAL	Cellulose	Cellulose
CONNECTION	Screw terminal	Push terminals
COLOR	White	ML-260-EN5424-N : Black ML-260-EN5424-B : White
MATERIAL	ABS Metal grid	ABS Metal grid
DIMENSIONS (MM)	230 x 170 x 80	245 x 180 x 165
WEIGHT (KG)	1,2	2,6
FEATURES		2 bass reflex channels



## Spherical Speakers

### Spherical speaker for high installation - 2.5W to 20W

Widecoverage

High-quality speech and music reproduction

Efficiency in complete discretion

EN 54 - 24 Certified



KM180T-EN5424



RB-2033-EN54

REFERENCE	KM180T-EN5424	RB-2033-EN54
DESCRIPTION	Spherical speaker	Spherical speaker
NOMINAL POWER	10 W	20 W
100 V LINE POWER	10 / 6 / 3 W	20 / 10 / 5 / 2,5 W
100 V LINE IMPEDANCE	10 W : 1 000 Ω 6 W : 1 666 Ω 3 W : 3 333 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω
BANDWIDTH	120 - 16 000 Hz	80 - 20 000 Hz
PRESSURE LEVEL	92 dBA / 1 W / 1 m 102 dBA / 10 W / 1 m	90 dBA / 1 W / 1 m 103 dBA / 20 W / 1 m
PRESSURE LEVEL PINK NOISE EN54	78 dB / 1 W / 4 m 89,3 dB / 10 W / 4 m	100 dB / 1 W / 4 m 88 dB / 20 W / 4 m
DIRECTIVITY (-6 DB)	500 Hz : 360 ° 4 kHz : 52°	500 Hz : 210 ° 4 kHz : 60°
LOUDSPEAKER DIMENSIONS	13 cm - 5''	17 cm - 6,5''
LOUDSPEAKER FEATURES	Wideband	2 coaxial channels
LOUDSPEAKER MATERIAL	Cellulose	Fiberglass
CONNECTION	Screw terminal	Cable 1,5m
COLOR	White	Grey RAL 7035
MATERIAL	Metal	ABS
DIMENSIONS (MM)	180	270
WEIGHT (KG)	1,7	2,27
FEATURES		Fiberglass

**Sound Projectors**

**Sound projectors - 2.5 W to 50 W**

A solution for each need (indoors or outdoors)  
Swivel mounting bracket

EN 54 - 24 Certified



MHE50T-EN5424



MSP-5200VA

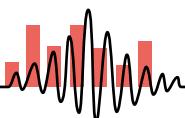


RB-2035-EN54



SPOT2010-EN5424

REFERENCE	MHE50T-EN5424	MSP-5200VA	RB-2035-EN54	SPOT2010-EN5424
DESCRIPTION	Exponential sound projector	Sound projector	Sound projector	Sound projector
NOMINAL POWER	50 W	20 W	10 W	20 W
100 V LINE POWER	50 / 30 / 15 W	20 / 10 / 5 / 2,5 W	10 / 5 / 2,5 W	20 / 10 / 5 W
100 V LINE IMPEDANCE	50 W : 200 Ω 30 W : 333 Ω 15 W : 666 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω	10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω
BANDWIDTH	90 - 16 000 Hz	160 - 20 000 Hz	100 - 17 000 Hz	110 - 17 000 Hz
PRESSURE LEVEL	105 dBA / 1 W / 1 m 121 dBA / 50 W / 1 m	92 dBA / 1 W / 1 m 105 dBA / 20 W / 1 m	91 dBA / 1 W / 1 m 104 dBA / 20 W / 1 m	100 dBA / 1 W / 1 m 112 dBA / 20 W / 1 m
PRESSURE LEVEL PINK NOISE EN54	85 dB / 1 W / 4 m 103 dB / 50 W / 4 m		73 dB / 1 W / 4 m 83dB / 10 W / 4 m	78 dB / 1 W / 4 m 91,8 dB / 20 W / 4 m
DIRECTIVITY (-6 DB)	500 Hz : 110 ° 4 kHz : 70°	1 000 Hz : 155 ° 4 kHz : 62°	500 Hz : 360 ° 4 kHz : 44°	500 Hz : 180 ° 4 kHz : 75°
LOUDSPEAKER DIMENSIONS	16,5 cm - 6,5''		17 cm - 6,5''	13 cm - 5 ''
LOUDSPEAKER FEATURES	2 ways		2-ways coaxial	Wideband
LOUDSPEAKER MATERIAL	Cellulose		Fiberglass	Cellulose
CONNECTION	Block terminals		Câble 0,80m	Block terminals
COLOR	Grey	Grey	Grey RAL 7035	White
MATERIAL	ABS	Aluminium	ABS - Bracket : Alu	ABS - Grid : Alu
DIMENSIONS W x W x H (MM)	360 x 250 x 320	Ø 146 x 200	Ø 175 x 265	Ø 138 x 205
WEIGHT (KG)	4,4	2,5	1,9	1,6
FEATURES		IP 66	IP 55	





## Loudspeakers

### Horn speaker for noisy surroundings

Water- and dust protected  
Swivel mounting bracket



VOICE 15T-EN5424

### High-power loudspeaker

High-quality speech and  
music reproduction  
Speakon connectors  
Dual-points attachment for  
wall mount

EN 54 - 24 Certified



SUPERSONIC12-EN5424

REFERENCE	VOICE 15T-EN5424	SUPERSONIC12-EN5424
DESCRIPTION	Horn speaker for noisy surroundings	High-power loudspeaker
NOMINAL POWER	15 W	300 W
100 V LINE POWER	15 / 7,5 / 3,75 W	200 / 150 / 100 W
100 V LINE IMPEDANCE	15 W : 666 Ω 7,5 W : 1 333 Ω 3,75 W : 2 666 Ω	200 W : 50 Ω 150 W : 66,6 Ω 100 W : 100 Ω
BANDWIDTH	320 - 8000 Hz	45 - 20 000 Hz
PRESSURE LEVEL	110 dB / 1 W / 1 m 121,8 dB / 15 W / 1m	102 dBA / 1 W / 1 m 124 dBA / 300 W / 1 m
PRESSURE LEVEL PINK NOISE EN54	85,7 dB / 1 W / 4 m 103,8 dB / 15 W / 4 m	83 dB / 1 W / 4 m 102 dB / 300 W / 4 m
DIRECTIVITY (-6 DB)	500 Hz : 180 ° 4 kHz : 20°	500 Hz : 90 ° 4 kHz : 35°
LOUDSPEAKER DIMENSIONS		30,5 cm - 12''
LOUDSPEAKER FEATURES	Driver	2 ways
LOUDSPEAKER MATERIAL		Cellulose
CONNECTION	Wire	Speakon
COLOR	White	Black
MATERIAL	ABS	Plastic
DIMENSIONS W x W x H (MM)	200 x 235	585 x 420 x 305
WEIGHT (KG)	2	22
FEATURES	IP 66	Dual-point attachment system included



**Batteries & Power Supply Equipment**

**Batteries 27 AH to 150 AH**

Sealed  
Gel lead



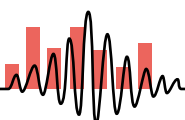
REFERENCE	BAT-27AH	BAT-42AH	BAT-70AH	BAT-100AH	BAT-120AH	BAT-150AH
DESCRIPTION	Batterie					
FEATURES	Gel lead					
MATERIAL	ABS					
DIMENSIONS (MM)	166 x 175 x 117	197 x 165 x 170	272 x 166 x 191	329 x 172 x 214	407 x 173 x 220	483 x 170 x 220
WEIGHT (KG)	9	13,8	23,2	32,5	38	46,2

**Power Supply Equipment**



EAE-150A  
EAE-40A

REFERENCE	EAE-150A	EAE-40A
DESCRIPTION	EAE 150A	EAE 40A
FEATURES	Output voltage: 3600 W Amplifier outputs: 6	Output voltage: 960 W Amplifier outputs: 2
MATERIAL	Metal	Metal
DIMENSIONS (MM)	2U - 19"	88 x 430 x 260
WEIGHT (KG)	6	





## III. PLAN PARTICULIER DE MISE EN SÛRETÉ (SPECIAL SAFETY MEASURES PLAN)

### What is this ?

The “Plan Particulier de Mise en Sûreté” (PPMS - Special Safety Measures Plan) is a French scheme allowing to alert the occupants of a site in case of imminent danger (natural disasters, chemical hazards, intrusion, etc.).

Further to the terrorist attacks on 13th November 2015, circular No. 2015-206 dated 25th November 2015 was published in the Bulletin Officiel de L'Éducation Nationale. It stipulated the security measures that had to be put in place in schools. These measures included instructions relative to the PPMS.

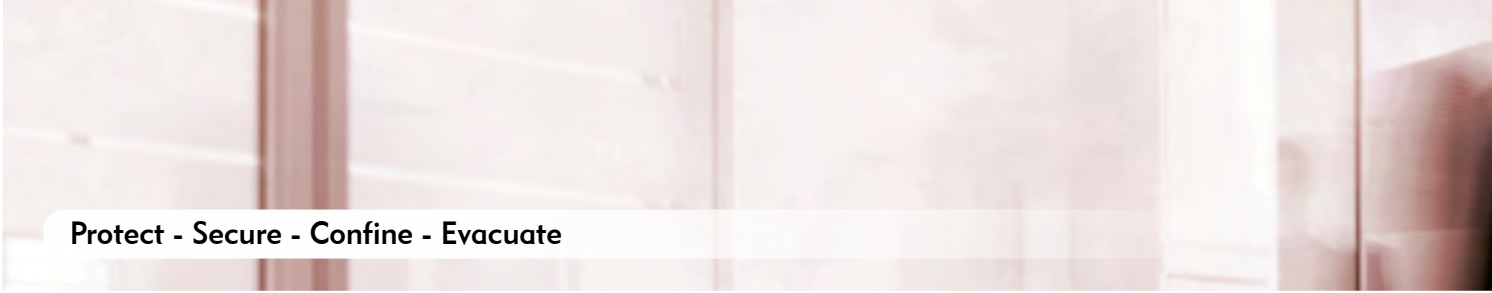
Presented in the form of a paper document, the PPMS explains the various measures that must be taken. It is the responsibility of each school to draw up a security diagnosis.

According to applicable regulations, PPMS-type exercises must be organised every academic year. One of these exercises concerns a terrorist intrusion. The alarm must be different from the fire alarm and must be audible.

### WHAT DOES THE LAW SAY ?

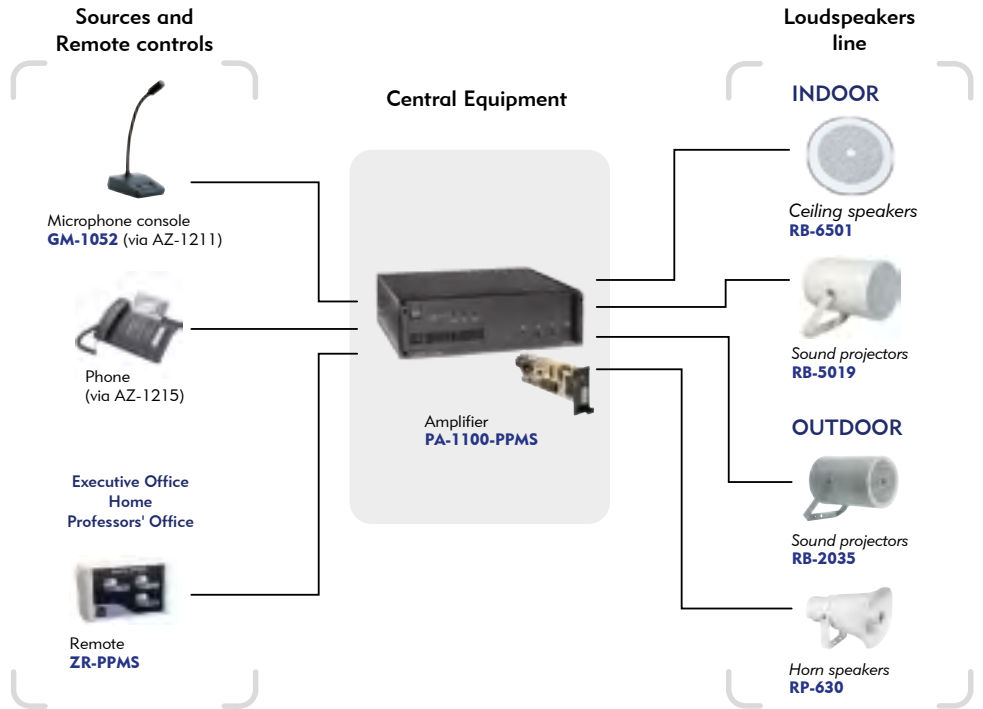
« **The school head must trigger the alarm and activate the PPMS.**

To do this he has to install an internal major accident alarm (voice, bells, siren, loudspeaker, etc.) that is different from the fire alarm and complementary to the National Alert Signal. »

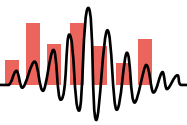
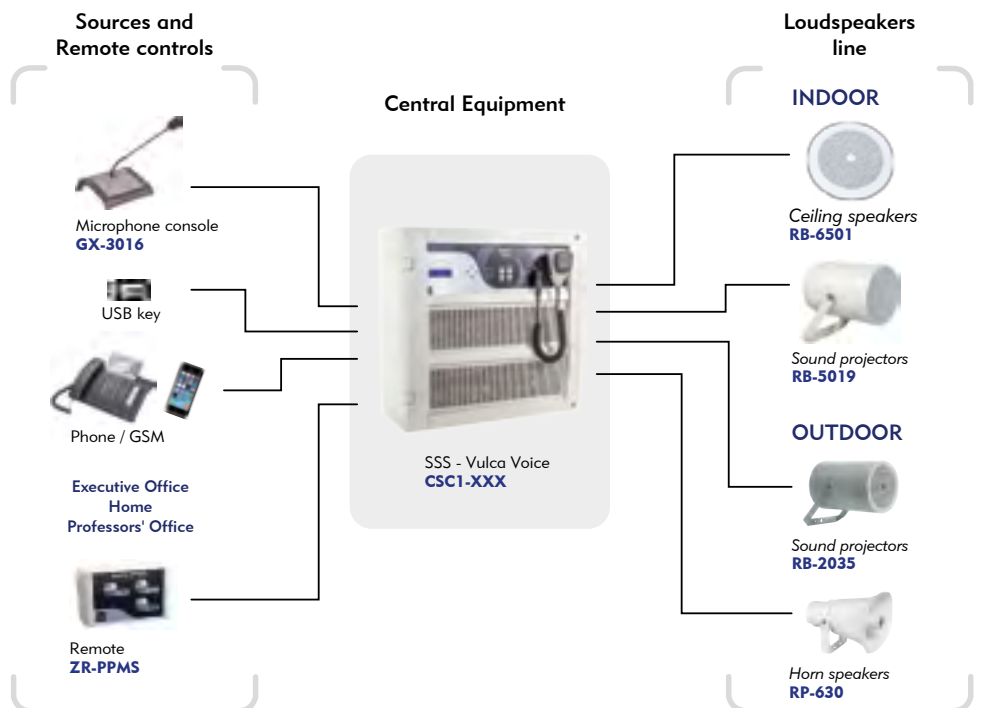


**Protect - Secure - Confine - Evacuate**

**Solution for primary schools : PA-1100-PPMS**



**Solution for secondary schools : VULCA VOICE**





## Protect- Secure - Confine - Evacuate

Remote triggering (box or phone)

Solutions conform to Circular No.2015-205 dated 25/11/2015



PA-1100-PPMS



AZ-1253-PPMS



GZ-1201-PPMS



ZR-PPMS

REFERENCE	AZ-1253-PPMS	GZ-1201-PPMS	PA-1100-PPMS
DESCRIPTION	Special Security Plan emergency evacuation message card	Preamplifier box with integrated Special Security Plan message card	Amplifier with Special Security Plan message card
FEATURES	Supplied with 2 messages (Make secure and End of Security measures)	Message triggered by dry contact	
MATERIAL		Metal	Metal
COLOR		Black	Black
DIMENSIONS (MM)	35 x 305 x 74	216 X 77 X 45	425 x 345 x 135
WEIGHT (KG)	0,14	0,94	10

REFERENCE	ZR-PPMS	Vulca Voice Range
DESCRIPTION	Remote control box	Compact Security Voice Alarm System box with integrated PPMS
FEATURES	Message triggered by dry contact	Possibility of triggering the message via phone interface
MATERIAL	Shock-resistant ABS	Metal
COLOR	Box: white	White
DIMENSIONS (MM)	167 x 88 x 50	520 x 530 x 240
WEIGHT (KG)	0,5	Without batteries : 20,5 With batteries : 38,5
VERSIONS		4 versions CSC1-310-PPMS CSC1-420-PPMS CSC1-430-PPMS CSC1-440-PPMS



VULCA VOICE



PA Manager

Software suite for controlling a sound system  
Supervise - Operate - Maintain

 **Real-time management**

 **ID-secured access**

 **HMI customization**

 **Shared or dedicated network**

**SUPERVISION**



**Centralizes supervision of a voice alarm system**

- > Configurable and customizable
- > Overall and detailed display
- > Logging of alarm and event history

**OPERATION**



**Centralizes operation of a public address system**

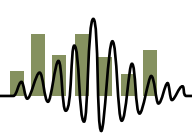
- > Source and zone management
- > Messaging and playlist management
- > Broadcasting and action programming

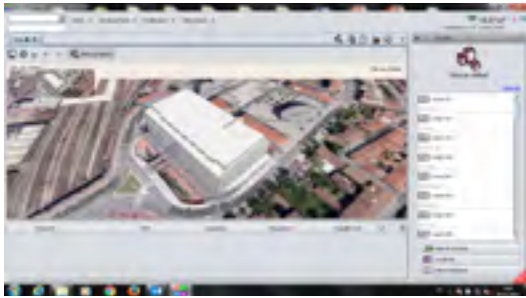
**MAINTENANCE**



**Remote analysis and actions**

- > VPN connection management
- > Reporting media (SCADA, GTC,...)
- > Remote operation interface





REFERENCE	PA-MANAGER-S	PA-MANAGER-E	PA-MANAGER-M	CPA-MANAGER
DESCRIPTION	Supervision license for 2 central units and 1 operator station Server not included	Operating license Server not included	Maintenance license Server not included	PA-MANAGER server (HMI peripheral not included)

REFERENCE	PA-MANAGER-MULTI	PA-MANAGER-CSUP	PA-MANAGER-OPE
DESCRIPTION	License for migrating from 1 licence to a multi-licence	License for 2 additional central units	License for 1 additional operator station, Server not included

### Screen - Keyboard - Mouse

REFERENCE	ZY-BM-KVM-EN
DESCRIPTION	Peripheral for CPA-MANAGER Screen - Keyboard - Mouse - 19"-1U 17" retractable LCD screen VGA/PS2 interface





**Vulca Voice - Compact All-in-One Voice Alarm System**

**Compact box - 1 alarm zone - up to 400 W**

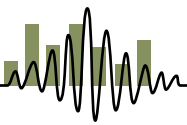
- Amplifier and loudspeaker line monitoring
- Ready for installation
- Phone interface capable
- Up to 4 broadcasting zones
- Emergency microphone
- Integrated UPS (batteries not supplied)



**VULCA VOICE**

REFERENCE	VULCA VOICE - COMPACT ALL-IN-ONE VOICE ALARM SYSTEM
<b>DESCRIPTION</b>	Digital player Messages scheduler Fireman Palm handheld microphone included Digital matrix with priority management Bells playlist included Customizable playlist 4 GPI - 4 GPO Integrated UPS (batteries not supplied)
<b>POWER</b>	300 W to 400 W
<b>BANDWIDTH</b>	50 - 20 000 Hz
<b>DISTORTION</b>	< 1%
<b>SIGNAL TO NOISE RATIO</b>	> 70 dB
<b>INPUTS</b>	4
<b>SENSITIVITY</b>	-30 dBm / 0 dBm
<b>CONNECTORS</b>	RCA x 2 / XLR - Jack combined connector / 2 pt terminal block / RJ 45 (Public Address Console Bus)
<b>POWER SUPPLY</b>	230 VAC
<b>MATERIAL</b>	Metal
<b>COLOR</b>	White
<b>DIMENSIONS (MM)</b>	520 x 530 x 240
<b>WEIGHT (KG)</b>	Without batteries : 20,5 With batteries : 38,5

	CSC1-310-I	CSC1-420-I	CSC1-430-I	CSC1-440-I
<b>TOTAL POWER</b>	300 W	400 W	400 W	400 W
<b>OUTPUTS</b>	1	2	3	4







**Serenity Voice - Rackable Voice Alarm System**

**2U rack - 1 alarm zone - up to 1800 W**

- Simultaneous broadcasting of different sources
- Integrated monitoring
- Up to 6 public address zones
- Emergency microphone



**SERENITY VOICE**

REFERENCE	SERENITY VOICE - RACKABLE VOICE ALARM SYSTEM				
DESCRIPTION	Digital player Messages scheduler Fireman Palm handheld microphone included Digital matrix with priority management Bells playlist included Customizable playlist 4 GPI - 4 GPO				
POWER	600 W to 1800 W				
BANDWIDTH	50 - 20 000 Hz				
DISTORTION	< 1%				
SIGNAL TO NOISE RATIO	> 70 dB				
INPUTS	4				
SENSITIVITY	-30 dBm / 0 dBm				
CONNECTORS	RJ 45 / 2 pt terminal block/ RJ 45 (Public Address Console Bus)				
POWER SUPPLY	230 VAC				
MATERIAL	Metal				
COLOR	Black				
DIMENSIONS (MM)	482 x 345 x 88				
WEIGHT (KG)	5				
	CSR1-620-I	CSR1-930-I	CSR1-1240-I	CSR1-1550-I	CSR1-1860-I
TOTAL POWER	600 W	900 W	1200 W	1500 W	1800 W
OUTPUTS	2	3	4	5	6



**IP Microphone Console**

**Full IP console**  
 18 programmable keys  
 Soft touch selection buttons  
 Security functionalities (EN54)

**Full IP console**  
 Customizable up to 42 programmable keys  
 Soft touch selection buttons  
 Security functionalities (EN54)

**Full IP console**  
 4 programmable keys



**GXIP-2600**



**GXIP-2642**



**GXM-5000-IP**

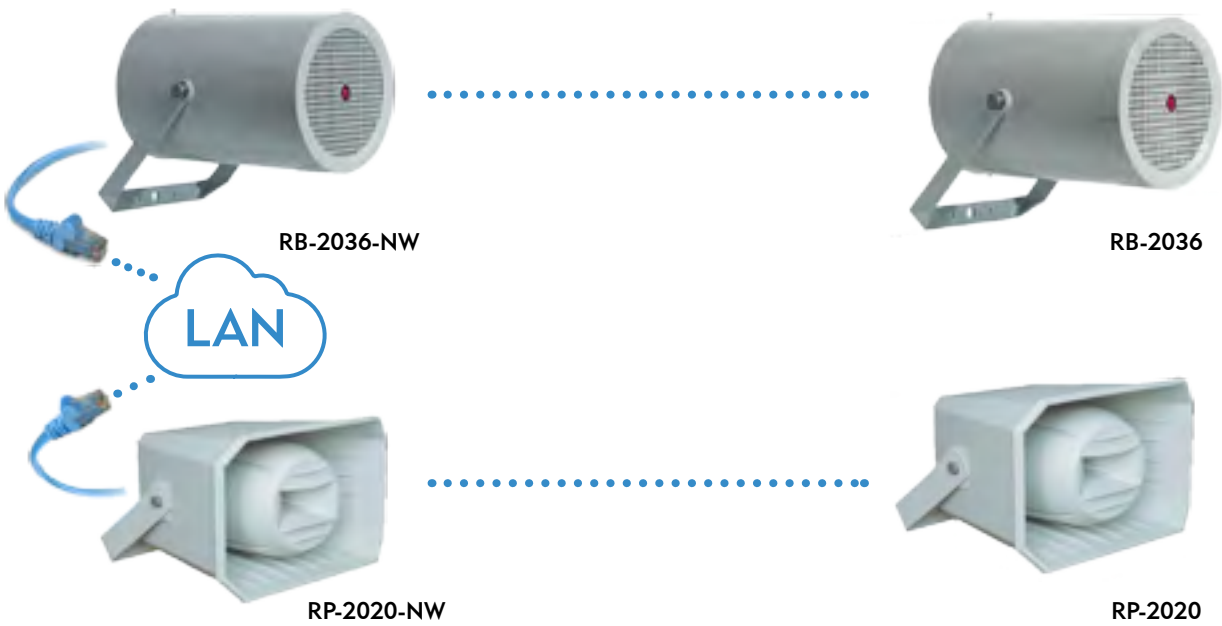
REFERENCE	GXIP-2600	GXIP-2642	GXM-5000-IP
<b>DESCRIPTION</b>	IP microphone console 18 selection keys 5 function keys	IP microphone console 42 selection keys 5 function keys	IP microphone console 4 function keys
<b>MICROPHONE CELL</b>	Electret - Gooseneck	Electret - Gooseneck	Electret - Gooseneck
<b>DIRECTIVITY</b>	Unidirectional	Unidirectional	Unidirectional
<b>SENSIBILITY</b>	0 dBu compressed output	0 dBu compressed output	0 dBu compressed output
<b>POWER SUPPLY</b>	24 VDC	24 VDC	24 VDC
<b>CONNECTION</b>	RJ 45	RJ 45	RJ 45
<b>MATERIAL</b>	Metal	Metal	Metal
<b>COLOR</b>	Console: grey Base: black	Console: grey Base: black	Console: grey Base: black
<b>DIMENSIONS (MM)</b>	Built-in : 230 x 230 x 70 Free-standing : 350 x 280 x 150	Built-in : 330 x 230 x 70	Built-in : 215 x 175 x 50
<b>WEIGHT (KG)</b>	Built-in : 2,5 Free-standing : 3,9	Built-in : 3	Built-in : 1
<b>FEATURES</b>	Power supply provided	Power supply provided	



**IP Sound Projector**

**IP sound projectors - 20W**  
 Embedded dual-channel amplifier  
 Network interface

**«Slave» IP sound projectors - 20W**



REFERENCE	RB-2036-NW	RP-2020-NW	RB-2036	RP-2020
DESCRIPTION	IP sound projector	IP sound projector	IP sound projector slaved to RB-2036-NW	IP sound projector slaved to RP-2020-NW
NOMINAL POWER	20 W	RP-2020-NW alone : 20 W RP-2020-NW + RP-2020 : 12,5 W	20 W	RP-2020-NW + RP-2020 : 12,5 W
BANDWIDTH	100 - 17 000 Hz	90 - 16 000 Hz	100 - 17 000 Hz	90 - 16 000 Hz
PRESSURE LEVEL	91 dBA / 1W / 1 m 104 dBA / 20 W / 1 m	103 dBA / 1W / 1m 123 dBA / 20W /1m	91 dBA / 1W / 1 m 104 dBA / 20 W / 1 m	104 dBA / 1W / 1m 123 dBA / 12,5W /1m
DIRECTIVITY (-6 DB) AT 1 KHZ	80°	100° x 70 °	80°	100° x 70 °
LOUDSPEAKER DIMENSIONS	17 cm - 6,5''	16,5 cm - 6,5''	17 cm - 6,5''	16,5 cm - 6,5''
LOUDSPEAKER FEATURES	Wideband	2 ways	Wideband	2 ways
LOUDSPEAKER MATERIAL	Fiberglass	Cellulose	Fiberglass	Cellulose
CONNECTION	Cable	Push terminals	Cable	Push terminals
COLOR	Grey RAL 7035	Grey RAL 7035	Grey RAL 7035	Grey RAL 7035
MATERIAL	ABS - Aluminium	ABS	ABS - Aluminium	ABS
DIMENSIONS (MM)	Ø 175 x 267	360 x 250 x 320	Ø 175 x 267	360 x 250 x 320
WEIGHT (KG)	2,28	5	2,28	5
FEATURES	Fiberglass loudspeaker IP 55	IP 66 POE+	Fiberglass loudspeaker IP 55	IP 66

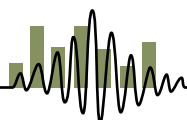
**Switches and Converters**
**Ethernet Switch**

REFERENCE	ZY-IP-SWFOMO3RJ	ZY-IP-ZWFOMU3RJ	ZY-IP-SWFOMU6RJ
<b>DESCRIPTION</b>	OF - MONOMODE Ethernet switch Manageable 3 copper ports (10/100BaseT (X)) 2 monomode optic fibre ports (100 BaseFX (SC)) Turbo ring Configurable fault relay	OF - MULTIMODE Ethernet switch Manageable 3 copper ports (10/100BaseT (X)) 2 monomode optic fibre ports (100 BaseFX (SC)) Turbo ring Configurable fault relay	OF - MULTIMODE Ethernet switch Manageable 3 copper ports (10/100BaseT (X)) 2 monomode optic fibre ports (100 BaseFX (SC)) Turbo ring Configurable fault relay
<b>INTERFACES</b>	3 RJ45	3 RJ45	6 RJ45
<b>FIBRE TRANSMISSION</b>	- 5 dBm / 0 dBm	-10 dBm / -20 dBm	-10 dBm / -20 dBm
<b>FIBRE RECEPTION</b>	- 34 dBm	- 32 dBm	- 32 dBm
<b>FIBRE LENGTH</b>	40 km	4 à 5 km	4 à 5 km
<b>FIBRE SATURATION</b>	-3 dBm		
<b>POWER</b>	24 V (2 redundant inputs)	24 V (2 redundant inputs)	24 V (2 redundant inputs)
<b>MATERIAL</b>	Metal	Metal	Metal
<b>DIMENSIONS (MM)</b>	135 x 105 x 53,6	135 x 105 x 53,6	135 x 105 x 53,6
<b>WEIGHT (KG)</b>	0,65	0,65	0,65
<b>INSTALLATION</b>	DIN Rail	DIN Rail	DIN Rail

REFERENCE	ZY-IP-SW16	ZY-IP-SW5	ZY-IP-SWF08
<b>DESCRIPTION</b>	Ethernet switch - 16 copper ports (10/100 BaseT (x)) switch	Ethernet switch - 5 copper ports (10/100 BaseT (x)) switch RJ45 with automatic MDI/MDIX detection Integral / semi-integral duplex ports	Ethernet switch - 8 copper ports (10/100 BaseT (x)) switch RJ45 with automatic MDI/MDIX detection Integral / semi-integral duplex ports
<b>INTERFACES</b>	16 RJ45	5 RJ45	8 RJ45
<b>POWER</b>	100 - 240 VAC	12 - 48 VDC	
<b>MATERIAL</b>	Metal	Plastic IP30	
<b>DIMENSIONS (MM)</b>	279,4 x 44,5 x 170	25 x 100 x 74	
<b>WEIGHT (KG)</b>	1,25	0,135	
<b>INSTALLATION</b>	1U 19" rack	DIN Rail	DIN Rail

REFERENCE	ZY-IP-485CONV	ZY-IP-RS232
<b>DESCRIPTION</b>	Ethernet 485 converter	Ethernet RS232 converter
<b>INTERFACES</b>	RS485/422 Ethernet 10/100Mbps	RS2322 Ethernet 10/100Mbps
<b>CONNECTORS</b>	SubD-9 / RJ45	SubD-9 / RJ45
<b>PROTOCOLE</b>	ICMP, IP, TCP, UDP, DHCP, SNMP V1/V2c, HTTP, SMTP	ICMP, IP, TCP, UDP, DHCP, SNMP V1/V2c, HTTP, SMTP
<b>RAPIDITÉ ETHERNET</b>	10 / 100 Mbps	10 / 100 Mbps
<b>POWER</b>	12 - 48 VDC	12 - 48 VDC
<b>MATERIAL</b>	Metal	Metal
<b>DIMENSIONS (MM)</b>	52 x 80 x 22	52 x 80 x 22
<b>WEIGHT (KG)</b>	0,34	0,34

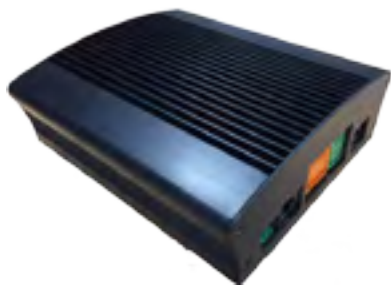
REFERENCE	ZY-IP-CONVFOMO1RJ
<b>DESCRIPTION</b>	OF - MONOMODE Ethernet switch
<b>INTERFACES</b>	RJ45 (10/100 BaseT) / Fibre 100 BaseFX SC monomode
<b>FIBRE TRANSMISSION</b>	- 5 dBm / 0 dBm
<b>FIBRE RECEPTION</b>	- 34 dBm
<b>FIBRE LENGTH</b>	40 km
<b>SATURATION FIBRE</b>	-3 dBm
<b>POWER</b>	24 V (2 redundant inputs)
<b>MATERIAL</b>	Metal
<b>DIMENSIONS (MM)</b>	135 x 105 x 53,6
<b>WEIGHT (KG)</b>	0,63
<b>INSTALLATION</b>	DIN Rail





**IP Accessories**

**Dynamic audio 4-flow converter**  
 4 audio flows configurable as inputs or outputs  
 Low latency  
 Multicast management



TA-4100

<b>REFERENCE</b>	<b>TA-4100</b>
<b>DESCRIPTION</b>	4 - Audio flow IP converter
<b>MATERIAL</b>	Aluminium
<b>DIMENSIONS (MM)</b>	155 x 135 x 50
<b>WEIGHT (KG)</b>	0,75

**Desktop PC**



ZY-PC-DESK-EN

**Rack PC**



ZY-PC-RACK-EN

<b>REFERENCE</b>	<b>ZY-PC-DESK-EN</b>	<b>ZY-PC-RACK-EN</b>
<b>DESCRIPTION</b>	CPU CPU+ KVM (17" screen - keyboard - mouse)	Rackable industrial PC



**Preamplified Consoles**

**Console with 1 to 24 zones**  
Integrated 3-tone chime  
Management by contacts



PGM-5000



PGM-5008



PGM-5024



PGM-5004



PGM-5016



REFERENCE	PGM-5000	PGM-5004	PGM-5008
<b>DESCRIPTION</b>	Microphone console	Microphone console with 4-zone selection	Microphone console with 8-zone selection
<b>MICROPHONE CELL</b>	Electret	Electret	Electret
<b>CHIME</b>	3 tones + preamplifier	3 tones + preamplifier	3 tones + preamplifier
<b>DIRECTIVITY</b>	Unidirectional	Unidirectional	Unidirectional
<b>SENSIBILITY</b>	Compressed 0 dBu output	Compressed 0 dBu output	Compressed 0 dBu output
<b>BANDWIDTH</b>	100 - 15 000 Hz	100 - 15 000 Hz	100 - 15 000 Hz
<b>IMPEDANCE</b>	600 Ω	600 Ω	600 Ω
<b>POWER SUPPLY</b>	24 VDC external 200 mA	24 VDC external 200 mA	24 VDC external 260 mA
<b>CONNECTION</b>	Cable + connection box	Cable + connection box	Cable + connection box
<b>MATERIAL</b>	Metal	Metal	Metal
<b>COLOR</b>	Anthracite grey	Anthracite grey	Anthracite grey
<b>DIMENSIONS (MM)</b>	180 x 160 x 40	180 x 160 x 40	270 x 160 x 40
<b>WEIGHT (KG)</b>	2,2	2,2	2,2
<b>FEATURES</b>	Gooseneck : 310 mm Cable lenght : 3 m Sound system central connection: multipair cable, 0.9 mm	3-zone remote control + general call or 4-zone Gooseneck : 310 mm Cable lenght : 3 m Sound system central connection: multipair cable, 0.9 mm	7-zone remote control + general call or 8-zone Gooseneck : 310 mm Cable lenght : 3 m Sound system central connection: multipair cable, 0.9 mm
<b>ACCESSORIES</b>	NS-110557 power supply	NS-110557 power supply	NS-110557 power supply

REFERENCE	PGM-5016	PGM-5024
<b>DESCRIPTION</b>	Microphone console with 16-zone selection	Microphone console with 24-zone selection
<b>MICROPHONE CELL</b>	Electret	Electret
<b>CHIME</b>	3 tones + preamplifier	3 tones + preamplifier
<b>DIRECTIVITY</b>	Unidirectional	Unidirectional
<b>SENSIBILITY</b>	Compressed 0 dBu output	Compressed 0 dBu output
<b>BANDWIDTH</b>	100 - 15 000 Hz	100 - 15 000 Hz
<b>IMPEDANCE</b>	600 Ω	600 Ω
<b>POWER SUPPLY</b>	24 VDC external 200 mA	24 VDC external 260 mA
<b>CONNECTION</b>	Cable + connection box	Cable + connection box
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Anthracite grey	Anthracite grey
<b>DIMENSIONS (MM)</b>	270 x 160 x 40	392 x 163 x 40
<b>WEIGHT (KG)</b>	2,7	3,5
<b>FEATURES</b>	15-zone remote control + general call or 16-zone Gooseneck : 310 mm Cable lenght : 3 m Sound system central connection: multipair cable, 0.9 mm	23-zone remote control + general call or 24-zone Gooseneck : 310 mm Cable lenght : 3 m Sound system central connection: multipair cable, 0.9 mm
<b>ACCESSORIES</b>	NS-110557 power supply	NS-110557 power supply



**Bus Microphone Console**

**Bus console**

16 or 32 programmable keys + 4 function keys  
Integrated chime

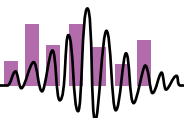


**GX-3016**



**GX-3016-TWIN**

REFERENCE	GX-3016	GX-3016-TWIN
DESCRIPTION	16-zone microphone console + general call	Microphone console 2 x 16 keys + general call
MICROPHONE CELL	Electret	Electret
CHIME	3 tone	3 tone
DIRECTIVITY	Unidirectional	Unidirectional
SENSIBILITY	Compressed 0 dBu output	Compressed 0 dBu output
IMPEDANCE	600 Ω	600 Ω
POWER SUPPLY	24 VDC - 70 mA	24 VDC - 140 mA
CONNECTION	RJ 45	RJ 45
MATERIAL	Metal	Metal
COLOR	Console: grey Base: black	Console: grey Base: black
DIMENSIONS (MM)	215 x 175 x 50	385 x 175 x 50
WEIGHT (KG)	1	1,3
FEATURES	Console bus connection Supplied with 2-m RJ 45 cable	Console bus connection Supplied with 2-m RJ 45 cable





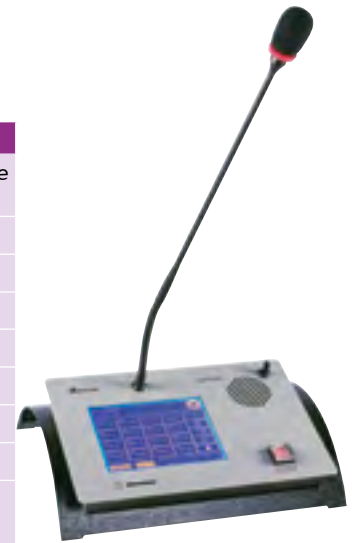


## Touchscreen bus console

16 / 32 / 48 / 64 programmable keys

Bus installation (RJ45)

REFERENCE	GXT-4000-16	GXT-4000-32
<b>DESCRIPTION</b>	16 keys digital microphone console + all call	32 keys digital microphone console + all call
<b>MICROPHONE CELL</b>	Electret	Electret
<b>CHIME</b>	Choice of 4 chimes	Choice of 4 chimes
<b>DIRECTIVITY</b>	Unidirectional	Unidirectional
<b>SENSIBILITY</b>	Compressed 0 dBu output	Compressed 0 dBu output
<b>POWER SUPPLY</b>	24 VDC - 110 mA	24 VDC - 110 mA
<b>CONNECTION</b>	RJ 45	RJ 45
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Console: grey Base: black	Console: grey Base: black
<b>DIMENSIONS (MM)</b>	285 x 235 x 70	285 x 235 x 70
<b>WEIGHT (KG)</b>	2	2
<b>FEATURES</b>	Touchscreen Console bus connection Supplied with SD memory and 2-m RJ 45 cable	Touchscreen Console bus connection Supplied with SD memory and 2-m RJ 45 cable



GXT-4000

REFERENCE	GXT-4000-48	GXT-4000-64
<b>DESCRIPTION</b>	48 keys digital microphone console + all call	64 keys digital microphone console + all call
<b>MICROPHONE CELL</b>	Electret	Electret
<b>CHIME</b>	Choice of 4 chimes	Choice of 4 chimes
<b>DIRECTIVITY</b>	Unidirectional	Unidirectional
<b>SENSIBILITY</b>	Compressed 0 dBu output	Compressed 0 dBu output
<b>POWER SUPPLY</b>	24 VDC - 110 mA	24 VDC - 110 mA
<b>CONNECTION</b>	RJ 45	RJ 45
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Console: grey Base: black	Console: grey Base: black
<b>DIMENSIONS (MM)</b>	285 x 235 x 70	285 x 235 x 70
<b>WEIGHT (KG)</b>	2	2
<b>FEATURES</b>	Touchscreen Console bus connection Supplied with SD memory and 2-m RJ 45 cable	Touchscreen Console bus connection Supplied with SD memory and 2-m RJ 45 cable



**Consoles**
**Microphone consoles**

1 to 6 zones

Ergonomic interface

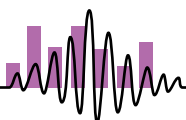

**GC-1021**

**GM-1051**

**GM-1052**

**GM-1066**

REFERENCE	GC-1021	GM-1051	GM-1052	GM-1066
<b>DESCRIPTION</b>	Chime microphone console	Microphone console	Microphone console	6-zone selection microphone console + general call
<b>MICROPHONE CELL</b>	Electret	Electret	Electret	Electret
<b>CHIME</b>	Digital 3-tone			
<b>DIRECTIVITY</b>	Unidirectional	Unidirectional	Unidirectional	Unidirectional
<b>SENSIBILITY</b>	0 dBm	0,7 mV/Pa	0,7 mV/Pa	0,7 mV/Pa
<b>BANDWIDTH</b>	100 - 15 000 Hz	50 - 15 000 Hz	50 - 15 000 Hz	50 - 15 000 Hz
<b>IMPEDANCE</b>		600 Ω	600 Ω	600 Ω
<b>POWER SUPPLY</b>	By AZ-1213 module	1 R6 battery	Phantom power	Phantom power
<b>CONNECTION</b>	Cable + DIN connector	Cable + DIN connector	Cable + DIN connector	Cable + DIN connector+ RJ 45
<b>MATERIAL</b>	ABS	ABS	ABS	ABS
<b>COLOR</b>	Black	Grey	Grey	Grey
<b>DIMENSIONS (MM)</b>	110 x 150 x 45	110 x 150 x 45	110 x 150 x 45	110 x 150 x 45
<b>WEIGHT (KG)</b>	0,72	0,6	0,6	0,6
<b>FEATURES</b>	1 microphone button 1 chime button 1 broadcast zone Flexible stalk: 310 mm Cable : 1.20m	Press-to-talk remote control button Battery-powered (R6) Gooseneck : 310 mm Cable length : 1.20 m	Press-to-talk button Gooseneck : 310 mm Cable length : 1.20 m	6 zone selection buttons 1 all call button Gooseneck : 310 mm Cable length : 1.20 m



## Hand Microphones

### Dynamic microphone

«press to talk» button



GM-24

### Surface microphone

Refined design

Powered by LR6 battery



RX-GM10

### Dynamic microphone

Noise cancelling : improved rendering by cancelling the ambient noise

«press to talk» button



GM-742

REFERENCE	GM-24	GM-742	RX-GM10
DESCRIPTION	Wired microphone	Wired microphone	Surface microphone
MICROPHONE CELL	Dynamic	Dynamic	Electret
DIRECTIVITY			Cardioid
SENSIBILITY	1,3 mV/Pa	4 mV/Pa	- 68 dB
BANDWIDTH	500 - 9 000 Hz	200 - 6 000 Hz	30 - 20 000 Hz
IMPEDANCE	250 Ω	600 Ω	250 Ω
POWER SUPPLY			9 - 48 VDC
CONNECTION	4-m cable + DIN	Spiral cable + DIN	XLR - XLR
MATERIAL	ABS	ABS	Metal
COLOR	Anthracite grey	Grey	Black
DIMENSIONS (MM)	Ø 55 x 145	100 x 72 x 56	90 x 16 x 90
WEIGHT (KG)	0,3	0,2	0,2
FEATURES	Volume control		Supplied with 6-m cable

**Hand Microphones**

**Dynamic microphone**  
High acoustic quality



GM-5820

**Dynamic microphone on flexible stalk**



GM-821

**Dynamic microphone**  
Remote Talk control



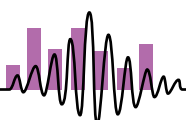
GM-820

**Electret microphone**  
Semi-rigid gooseneck  
Finesse and elegance



GM-921

REFERENCE	GM-5820	GM-820	GM-821	GM-921
DESCRIPTION	Dynamic wired microphone	Dynamic wired microphone	Wired microphone	Microphone on gooseneck
MICROPHONE CELL	Electrodynamic	Dynamic	Dynamic	Electret
DIRECTIVITY	Unidirectional	Cardioid	Cardioid	Cardioid
SENSIBILITY	2,5 mV/Pa	1,5 mV/Pa	1,5 mV/Pa	2,5 mV/Pa
BANDWIDTH	80 - 15 000 Hz	100 - 18 000 Hz	100 - 18 000 Hz	50 - 16 000 Hz
IMPEDANCE	500 Ω	250 Ω	250 Ω	250 Ω
POWER SUPPLY				Phantom
CONNECTION	XLR	DIN	2-m cable	Male XLR
MATERIAL	Metal	Metal	Metal	Metal
COLOR	Black	Black	Black	Black
DIMENSIONS (MM)	Ø 33,7 x 171	Ø 53 x 190	580 x 53	Ø 15 x 510
WEIGHT (KG)	0,234	0,26	0,5	0,18
FEATURES	Supplied with XLR cable / 6.35 Jack: 4.5 m Accessory for the CP-5874	Supplied with transport cover, 1 attachment clamp, 1 DIN connector and 4 colored identification collars 10-m cord Modulation and remote control switch	Supplied with 2-m cable and kit for table mounting Drilling : Ø 10.5 mm	Supplied with windshield To be fixed to a flat surface or suitable table base (GZ-2150)



## UHF Microphones & Receivers

### UHF range - 16 frequencies 744-764 Mhz

LCD display

Quartz pilot signal



GM-2800



GZ-2802



GM-2810



REFERENCE	GM-2800	GM-2810	GZ-2802
DESCRIPTION	Hand-held UHF microphone	Pocket UHF transmitter	UHF receiver
MICROPHONE CELL	Electret	Electret	
DIRECTIVITY	Hypercardioid	Cardioid	
SENSIBILITY			- 107 dBm
BANDWIDTH	50 - 16 000 Hz	50 - 18 000 Hz	50 - 15 000 Hz
POWER SUPPLY	2 x 1.5 V LR6 batteries	2 x 1.5 V LR6 batteries	12 V adapter
MATERIAL	Moulded Plastic	Moulded Plastic	Metal
COLOR	Anthracite grey	Anthracite grey	Grey
DIMENSIONS (MM)	Ø 57 x 245	105 x 68 x 20	420 x 220 x 44
WEIGHT (KG)	0,28	0,14	1,2
FEATURES	LCD screen Frequency : 744 MHz / 764 MHz Transport case Identification collar	Transport case	LCD screen - 16 channels Frequency : 744 MHz / 764 MHz 12 V adapter supplied Noise reducer

## Microphone Accessories



**GZ-26**



**GZ-2150**



**GZ-5758**



**GZ-769**



**GZ-774**

REFERENCE	GZ-26	GZ-2150	GZ-5758	GZ-769	GZ-774
<b>DESCRIPTION</b>	Spring-clip microphone universal support	Table base for GM-921	Table base on gooseneck	Folding stand with boom	Female DIN wall socket 5-pin
<b>MATERIAL</b>	Metal	Metal	Metal and Aluminium	Metal	Metal
<b>COLOR</b>	Black	Black	Black and grey	Black and chrome	White
<b>DIMENSIONS (MM)</b>		Ø 110 x 50	130 x 200 x 30	H : 1 à 1,6 m	80 x 48 x 84
<b>WEIGHT (KG)</b>		0,8	2	2,5	0,2
<b>FEATURES</b>	For all microphones 3/8" thread Ø max 37 mm	Female XLR and male XLR Microphone push-to-talk button On / Off indicator light with two R6 batteries	Supplied with microphone clip	Integrated adjustable mini-boom 3/8" thread	Wall-mounted or build-in box Lockable connector



**GZ-776**



**GZ-822**

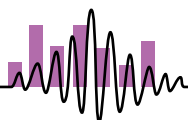


**GZ-844**



**NS-110557**

REFERENCE	GZ-776	GZ-822	GZ-844	NS-110557
<b>DESCRIPTION</b>	Female XLR wall socket 3-pin	Remote UHF antenna kit	Unbalanced/balanced 0dB module	Power supply for microphone
<b>MATERIAL</b>	Metal		Metal	
<b>COLOR</b>	White	Black	Black	Black
<b>DIMENSIONS (MM)</b>	80 x 52 x 84		87 x 55 x 28	
<b>WEIGHT (KG)</b>	0,2		0,14	
<b>FEATURES</b>	Wall-mounted or build-in box Lockable connector	For installation in GZ-2802 rack	Makes it possible to locate the sources far from a rack	For GX-3016 or AP-104, PGM range Consumption : 500 mA



## Microphones Concordance table

	GM-24	GM-742	GM-820	GM-821	GM-921 + GZ-2150	GM-1051	GM-1052	GX-3016	GAMME GXT-4000	GAMME PGM-5000	RX-GM10
AM-1032	O	O	O	I	GZ-44	-	O	-	-	I	GZ-44
AP-104	GZ-140	I	GZ-140	I	GZ-42 / GZ-45	-	GZ-140	-	-	I	O
AP-3804	O	O	O	I	GZ-42 / GZ-45	-	O	-	-	I	O
AS-4156	GZ-140	I	GZ-140	I	GZ-42 / GZ-45	GZ-153	GZ-140 / GZ-153	-	-	I	O
AS-4256	GZ-140	I	GZ-140	I	GZ-42 / GZ-45	GZ-153	GZ-140 / GZ-153	-	-	I	O
CC-3816	I	I	I	I	-	I	I	O	O	I	I
CS-2003	-	-	-	-	-	-	-	-	-	-	N
CS-2500	-	-	-	-	-	-	-	O	O	-	N
CS-2600	-	-	-	-	-	-	-	O	O	-	N
DN-3816	I	I	I	I	-	I	I	O	O	I	I
GD-3302	O	O	O	I	GZ-42 / GZ-45	-	O	-	-	I	GZ-44
PR-1106	O	O	O	I	GZ-42 / GZ-45	-	O	-	-	I	O
PR-1406	O	O	O	I	GZ-42 / GZ-45	-	O	-	-	I	O
RY-IL-170M2	-	I	I	I	-	-	I	-	-	-	-
RY-IL-800M2	-	I	I	I	-	-	I	-	-	-	-
SA-3126-150	GZ-140	I	GZ-140	I	GZ-42 / GZ-45	GZ-153	GZ-140 / GZ-153	-	-	I	O
SA-3126-250	GZ-140	I	GZ-140	I	GZ-42 / GZ-45	GZ-153	GZ-140 / GZ-153	-	-	I	O
SERENITY VOICE	-	-	-	-	-	-	-	O	O	-	-
VULCA VOICE	-	-	-	-	-	-	-	O	O	-	-

O = YES = direct connection through provided cable

I = INDIRECT = no available connector for connection through cord, screw terminal block or bare wires

- = no connection is possible



## Modulation Sources

### Automatic gain control

Bypass  
Gain 12 dB



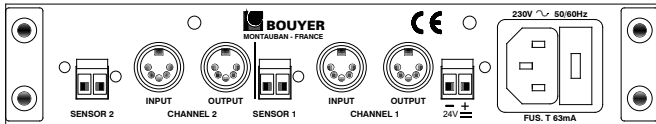
**CG-1000**

### Single-set phone interface

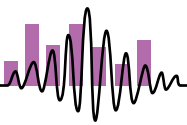
Intercom connection  
Line-busy management



**GZ-1215**



REFERENCE	CG-1000	GZ-1215
<b>DESCRIPTION</b>	Automatic level adjustment	Phone interface
<b>FEATURES</b>	Ambient noise analyser 2 independent channels 2 microphones sensors supplied	Analogue line Adjustable automatic hang-up 3-tone chime - Remote-control contact Chime and output volume control
<b>BANDWIDTH</b>	50 - 18 000 Hz	300 - 10 000 Hz
<b>INPUTS</b>	2	Telephone line
MIC / AUX	0 dBm balanced	
<b>OTHERS</b>		Mute - 6 to 28 VDC
<b>CONNECTORS</b>	DIN	RJ 45
<b>PRIORITIES</b>		
<b>OUTPUTS</b>	2	
LEVEL	0 dBm balanced	0 to + 10 dBu
<b>CONNECTORS</b>	DIN	Terminal blocks
<b>POWER SUPPLY</b>	230 VAC - 3,5 VA 24 VDC - 0,5 VA	14 - 28 VDC Jack connector
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black	Black
<b>RACK INSTALLATION</b>	1U	No
<b>DIMENSIONS (MM)</b>	212 x 345 x 45	102 x 105 x 42
<b>WEIGHT (KG)</b>	2,4	0,330





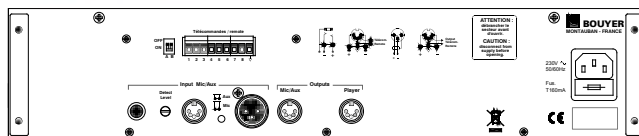


**MP3 recorder-player**  
 Stand-alone messaging  
 Triggered by remote control

**Double cassette recorder**  
 Noise reduction  
 Level control



**GD-3302**



**GE-500SL**



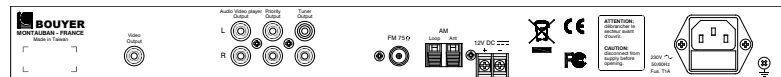
REFERENCE	GD-3302	GE-500SL
<b>DESCRIPTION</b>	MP3 digital recorder-player with 8 remote controls	Double cassette deck recorder 1 auto-reverse player 1 single recorder-player
<b>FEATURES</b>	128 Mb internal flash memory (about 2hrs' recording) SD card interface for memory extension (12hrs' recording)	Reverse direction. Rapid advance / rewind «Hi-speed dub" function Noise reduction system Record level control Supplied with kit for installation in 19" rack
<b>BANDWIDTH</b>	20 - 20 000 Hz	60 - 10 000 Hz
<b>INPUTS</b>		
MIC / AUX	1 MIC / Aux	
OTHERS	USB port for PC (cable supplied) SD card port	
CONNECTORS	DIN SYM / XLR SYM / JACK SYM	
PRIORITIES	MIC / Aux on player	
<b>OUTPUTS</b>		2
LEVEL	0 dBu	Unbalanced
CONNECTORS	DIN	RCA stereo
<b>POWER SUPPLY</b>	230 VAC - 15 VA	230 VAC - 500 mA
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black	Black
<b>RACK INSTALLATION</b>	2U - 19"	3U
<b>DIMENSIONS (MM)</b>	425 x 345 x 92	435 x 220 x 130
<b>WEIGHT (KG)</b>	5,3	3,8

**Modulation Sources**
**Rackable 5-CD player**

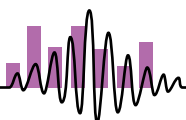
Ipod Port  
 USB port for peripherals  
 MP3 & WMA compatible


**GD-5605**
**Compact multi-format player**

2 independent outputs + 1 MIX output  
 Independent volume control


**GE-4267**


REFERENCE	GD-5605	GE-4267
DESCRIPTION	5-CD player	Multi-source module Tuner + CD / MP3 / USB / SD player
FEATURES	USB Compatible with iPod connection CD R/RW compatible	Independent volume controls Audio and video outputs on RCA connectors Supplied with infra-red remote control
BANDWIDTH	20 - 20 000 Hz	
INPUTS		
OTHERS	USB port iPod port	
LEVEL		- 10 dBu
CONNECTORS	RCA - Optical	RCA
POWER SUPPLY	230 VAC	230 VAC
MATERIAL	Metal	Metal
COLOR	Black	Black
RACK INSTALLATION	2U - 19"	1U - 19"
DIMENSIONS (MM)	480 x 260 x 86,5	427 x 254 x 45
WEIGHT (KG)	6,9	3,85





## Mixing desk

12 track



RY-MIX81

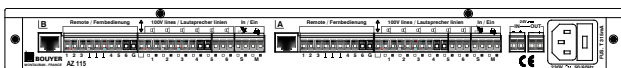
REFERENCE	RY-MX81
<b>DESCRIPTION</b>	Hi-Fi sound mixing desk
<b>INPUTS</b>	Mono : 4 MIC / Line Mono/ stereo : 2 MIC / Line Stereo : 2 Lines
<b>OUTPUTS</b>	2 stereo 2 monitors 1 phone 2 AUX
<b>BANDWIDTH (+ / - 1 DB)</b>	20 - 48 000 Hz
<b>DISTORTION</b>	< 0,03 %
<b>CONSUMPTION</b>	22 W
<b>POWER SUPPLY</b>	110 VAC - 240 VAC
<b>DIMENSIONS (MM)</b>	308 x 118 x 422
<b>MATERIAL</b>	Metal
<b>COLOR</b>	Black
<b>WEIGHT (KG)</b>	11

## Zone selector

1 to 24 zones



AZ-115



REFERENCE	AZ-115
<b>DESCRIPTION</b>	12-Zone selector + all call Voice / Music bus
<b>POWER SUPPLY</b>	230 VAC / 24 VDC
<b>CONNECTION</b>	Terminal block + RJ 45
<b>DIMENSIONS (MM)</b>	425 x 345 x 45
<b>RACK INSTALLATION</b>	1U
<b>MATERIAL</b>	Metal
<b>COLOR</b>	Black
<b>DIMENSIONS (MM)</b>	413 x 256 x 222
<b>WEIGHT (KG)</b>	3,8
<b>OPTIONS</b>	AZ 6 : handles Functions with GM-1066 or the PGM-5xxx range
<b>FEATURES</b>	Two AZ-115 selectors can be linkeq to get 24-zones selector 12 zone switching speech / music



## Digital Audio Matrixes

**4- to 16-zone digital-audio matrixes**  
 2 call bus consoles (up to 2 x 16 consoles )  
 Priority management - Signal processing by DSP



**DN-3816**



**CC-3816 RANGE**



REFERENCE	DN-3816
<b>INPUTS</b>	Digital audio matrix DSP 8 x 16 Ethersound connection
<b>BANDWIDTH</b>	30 - 20 000 Hz
<b>DISTORSION</b>	< 0,1 %
<b>FUNCTIONS</b>	8-inputs - 16-outputs matrix Ethersound connection administrable by multi DN app
<b>POWER SUPPLY</b>	230 VAC - 0,6 A / 24 VDC - 2,5 A
<b>INPUTS</b>	8 audio + 8 GPI
MIC / AUX / 0 DBU	Mic / 0 dBu : 4 0 dBu : 4
CONNECTORS	Terminal block
PRIORITIES	Totally configurable
CORRECTIONS	Bass / Treble level Noise gate Mute
<b>OUTPUTS</b>	16 audio + 16 GPO
0 dBu	16 balanced outputs
CONNECTORS	Terminal blocks
CORRECTIONS	Level, Mute, 5-band parametric equalization, Delay
<b>MATERIAL</b>	Metal
<b>COLOR</b>	Noir
<b>RACK INSTALLATION</b>	1U - 19"
<b>DIMENSIONS (MM)</b>	482 x 345 x 45
<b>WEIGHT (KG)</b>	3,35
<b>FEATURES</b>	Makes it possible to connect two GX-3016 console buses Internal processing and signal processing : DSP technology Matrix control software included



REFERENCE	CC-3816 Range
<b>INPUTS</b>	
CONNECTORS	Terminal block
PRIORITIES	Totally configurable
CORRECTIONS	Bass / Treble level Noise gate Mute
<b>OUTPUTS</b>	
CONNECTORS	Terminal block
CORRECTIONS	Level Mute 5-band parametric equalisation Delay
BANDWIDTH	30 - 20 000 Hz
DISTORTION	< 0,1 %
POWER SUPPLY	230 VAC - 0,6 A / 24 VDC - 2,5 A
MATERIAL	Metal
COLOR	Black
RACK INSTALLATION	1U - 19"
DIMENSIONS (MM)	482 x 345 x 45
WEIGHT (KG)	3,35
FEATURES	Connection of 2 bus microphone consoles Digital signal processing Matrix control software include Digital Signal Processing (DSP) technology

	CC-3816-4X4	CC-3816-6X4	CC-3816-8X8	CC-3816
<b>DESCRIPTION</b>	4 x 4 programmable audio-digital matrix	6 x 4 programmable audio-digital matrix	8 x 8 programmable audio-digital matrix	8 x 16 programmable audio-digital matrix
<b>FUNCTIONS</b>	4 inputs 4 outputs matrix	6 inputs 4 outputs matrix	8 inputs 8 outputs matrix	8 inputs 16 outputs matrix
<b>INPUTS</b>	4 audio + 4 GPI	6 audio + 6 GPI	8 audio + 8 GPI	8 audio + 8 GPI
MIC / 0 DBU	Mic / 0 dBu : 2 0 dBu : 2	Mic / 0 dBu : 4 0 dBu : 2	Mic / 0 dBu : 4 0 dBu : 4	Mic / 0 dBu : 4 0 dBu : 4
<b>OUTPUTS</b>	4 audio + 4 GPO	6 audio + 6 GPO	8 audio + 8 GPO	16 audio + 16 GPO
0 dBu	4 balanced outputs	4 balanced outputs	8 balanced outputs	16 balanced outputs
<b>FEATURES</b>	CZ-44816 code: resizing code for CC-3816 4x4 matrix allowing the upgrade 8 inputs x 16 outputs CZ-4488 code: resizing code for CC-3816 4x4 matrix allowing the upgrade 8 inputs x 8 outputs		CZ-88816 code: resizing code for CC-3816 8x8 matrix allowing the upgrade 8 inputs x 16 outputs	



**Preamplifier Panels**

**Preamplified wall panel**

4 inputs  
Priority management



AP-104

**Digital preamplified wall panel**

2 inputs  
Cascadable bus (RJ45)



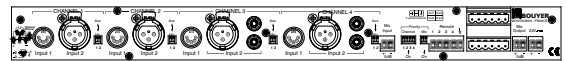
AP-AV1

**Mixer preamplifier**

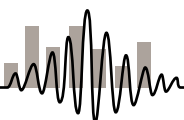
4 channels: 2 inputs x 1 output  
One 8-to-1 mixer output with super priority



AP-3804



REFERENCE	AP-104	AP-AV1	AP-3804	
DESCRIPTION	Wall-mounted preamplifier	Wall-mounted preamplifier	Multichannel preamplifier   Mixer	
FEATURES	Built-in or surface mounted ON/OFF switching with key-switch	Built-in installation with standard LEGRAND box Ø85	Remote control Modulation detection Mains adapter supplied	
BANDWIDTH	20 - 22 000 Hz	25 - 20 000 Hz	20 - 20 000 Hz	
DISTORSION	< 0,5 %	< 1 %	< 0,5 %	
INPUTS	4	2	4 channels - 2 inputs	8 inputs + 1 mix input
MIC / AUX	2 Aux + 2 MIC SYM	1 MIC + 1 Aux	2 MIC / Aux	8 x MIC / Aux + 1 x 0 dBu
CONNECTORS	XLR + RCA	XLR + RCA	4 x DIN / 4 x XLR / 2 x RCA	4 x DIN / 4 x XLR / 2 x RCA + 1 terminal block
PRIORITIES	Switchable	Microphone priority	Mix or switchable	Mix or switchable on 1 input
PHANTOM POWER SUPPLY ON MICROPHONE INPUT		Yes	Yes	
OUTPUTS	1	1	4 outputs + 1 mix	1 mix
0 dBu	Balanced	Balanced on transformer	Electronic balanced	
CONNECTORS	Terminal block	Terminal block	Terminal block	
POWER SUPPLY	24 VDC mains adapter not supplied	24 VDC mains adapter not supplied	24 VDC - 0,5 A / 230 VDC	
MATERIAL	Metal		Metal	
COLOR	Grey anthracite		Black	
RACK INSTALLATION	No	No	1U - 19"	
DIMENSIONS (MM)	145 x 145 x 45	90 x 90 x 40	425 x 345 x 45	
WEIGHT (KG)	1		3,4	



## Panels

### Remote controle wall panel

Zone management  
Cascadable bus (RJ45)

### Power supply panel

24VDC distribution on bus (RJ45)



AP-ZC1



AP-AL

REFERENCE	AP-ZC1
DESCRIPTION	Volume & sources controller panel
FEATURES	Built-in installation with standard LEGRAND box Ø85
POWER SUPPLY	15-27 VDC
CONSUMPTION	150 mA
CONNECTORS	Terminal blocks or RJ45
BUS	RS-485
FUNCTIONS	Source selection Zone volume control
INDICATOR LIGHT	Power on green
RACK INSTALLATION	No
DIMENSIONS (MM)	90 x 90 x 40

REFERENCE	AP-AL
DESCRIPTION	Power supply panel
FEATURES	Built-in installation with standard LEGRAND box Ø85
AC INPUT VOLTAGE	85-264 VAC
EFFICIENCY	82 %
OUTPUT VOLTAGE	24 VDC
NOMINAL OUTLET	420 mA
POWER	10 W
INDICATOR LIGHT	Power on green
RACK INSTALLATION	No
DIMENSIONS (MM)	90 x 90 x 40



**Preamplifiers**

**6-Input modular preamplifier**

1 to 4 outputs

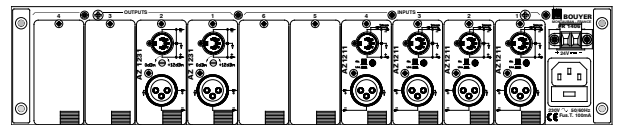
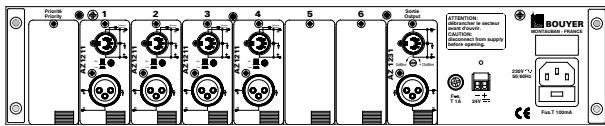
Priority management



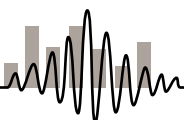
**PR-1106**



**PR-1406**



REFERENCE	PR-1106	PR-1406
<b>DESCRIPTION</b>	Modular preamplifier 6 inputs	Modular preamplifier 6 inputs - 4 outputs
<b>FEATURES</b>	Supplied with 4 AZ-1211 and 1 AZ-1231 Indicator vu-meter	Supplied with 4 AZ-1211 and 1 AZ-1231 Indicator vu-meter
<b>BANDWIDTH</b>	65 - 20 000 Hz	60 - 20 000 Hz
<b>DISTORSION</b>	As per module	As per module
<b>INPUTS</b>	6	6
MIC / AUX	As per module	As per module
CONNECTORS	As per module	As per module
PRIORITIES	AZ-1239 (option)	Switchable
PHANTOM POWER SUPPLY ON MICROPHONE INPUT	Yes	Yes
<b>OUTPUTS</b>	Modular	4 - Modular
CONNECTORS	As per module	As per module
<b>POWER SUPPLY</b>	230 VAC - 20 VA / 24VDC	230 VAC - 18 VA / 24VDC
<b>TONE CORRECTION</b>	Bass / Treble	Bass / Treble
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black	Black
<b>RACK INSTALLATION</b>	2U - 19"	2U - 19"
<b>DIMENSIONS (MM)</b>	425 x 325 x 92	425 x 345 x 92
<b>WEIGHT (KG)</b>	5,9	6,5





## Function Modules



REFERENCE	AZ-1211	AZ-1213	AZ-1215	AZ-1219	AZ-1222
<b>DESCRIPTION</b>	Universal input	Line input	Telephone interface input	Sound detection card for long distance listening	Programmable sirens
<b>FEATURES</b>	Phantom power supply With remote control by modulation detection	Phantom power supply With remote control by modulation detection	Analogic line 3-tones chime Remote control output contact	Noise detection generating a ring or a light on in intercom system	Choice of 7 sirens Open contact or closed contact remot control
<b>INPUT LEVEL</b>	-63 / -10 / 0 dBu SYM	0 / + 12 dBu SYM	-50 dBu		
<b>IMPEDANCE</b>	1.2 k $\Omega$ MIC 44 k $\Omega$ line	15 K $\Omega$ 600 $\Omega$	600 $\Omega$		
<b>S/N RATIO</b>	> 60 dB	> 90 dB	> 70 dB		
<b>CONNECTORS</b>	Female XLR + DIN	Female XLR + DIN	Terminal block	Terminal block	DIN + terminal block



REFERENCE	AZ-1226	AZ-1231	AZ-1239	AZ-1253	AZ-331
<b>DESCRIPTION</b>	Bell / chime input	Transformer input	Priority control 6 inputs	Emergency evacuation message	Multifunction card with modulation detection
<b>FEATURES</b>	Single or repeat broadcasting mode 1 bell and 1 chime Ring-tone adjustment	Allow to connect several input amplifier with an adjustment of the level output by means of the potentionmeter	On / off contact Access to program by switches Remote control via input cards with level restoration	Siren with 2 alternating tones Repeat playing of siren and message Supplied with pre-programmed FR / ENG message AZ-1253-WAV : custom messages AZ-1253-EN-AR : pre-recorded messages in Arabic and English	Detection modulation 2W amplifier 100V-0dB reduction Relay outputs 24 VDC
<b>OUTPUT LEVEL</b>	Depending on configuration	0 to + 12 dB		Depending on configuration	0 dBu
<b>CONNECTORS</b>	Terminal block	Male XLR + DIN	Terminal block	Terminal block	DIN

## Autonomous multi-function box

Gain control  
Signal indicator

REFERENCE	GZ-1201		
<b>DESCRIPTION</b>	Power supply and preamplifier unit	<b>POWER SUPPLY</b>	230 VAC
<b>FEATURES</b>	Preamplifier unit for AZ-12xx modules Supplied with mains adapter	<b>MATERIAL</b>	Metal
<b>BANDWIDTH</b>	As per AZ module	<b>COLOR</b>	Black
<b>DISTORSION</b>	As per AZ module	<b>DIMENSIONS (MM)</b>	216 x 77 x 45 mm
<b>0 DBU</b>	Unbalanced	<b>WEIGHT (KG)</b>	0,8





**Amplifiers**

**Multi-channel amplifiers 75 W to 2 000 W**

Class D : High yield > 91%  
 Small size 1 or 2U  
 1 to 4 channels



**AD-1000 RANGE  
1U Version**



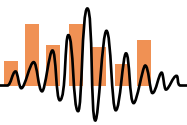
**AD-1000 RANGE  
2U Version**



REFERENCE	AD-1000 RANGE			
DESCRIPTION	Class D Amplifier		CONNECTORS	Combined: XLR + 6.35 mm jack
FEATURES	15 versions Mute input		OUTPUTS	
POWER	75 W to 2000 W		OUTPUT LEVEL	100 V - 70 V
BANDWIDTH	20 - 20 000 Hz		CONNECTORS	2-point plug-in
DISTORSION	< 0,5 %		POWER SUPPLY	110 - 265 VAC
SIGNAL-TO-NOISE RATIO	> 80 dB		MATERIAL	Metal
SENSIBILITY	0 dBm balanced		COLOR	Black

	AD1-1075	AD1-1150	AD1-1250	AD1-1400	AD1-1500	AD1-2075	AD1-2150	AD1-2250
POWER	1 x 75 W	1 x 150 W	1 x 250 W	1 x 400 W	1 x 500 W	2 x 75 W	2 x 150 W	2 x 250 W
RACK INSTALLATION - 19"	1U	1U	1U	2U	2U'	1U	1U	1U
DIMENSIONS (MM)	483 x 328 x 44	483 x 328 x 44	483 x 328 x 44	483 x 328 x 88	483 x 328 x 88	483 x 328 x 44	483 x 328 x 44	483 x 328 x 44
WEIGHT (KG)	3,6	3,6	3,65	4,6	4	4	4	4

	AD1-2400	AD1-2500	AD1-4075	AD1-4150	AD1-4250	AD1-4400	AD1-4500
POWER	2 x 400 W	2 x 500 W	4 x 75 W	4 x 150 W	4 x 250 W	4 x 400 W	4 x 500 W
RACK INSTALLATION - 19"	2U	2U	2U	2U	2U	2U	2U
DIMENSIONS (MM)	483 x 328 x 88	483 x 328 x 88	483 x 328 x 88	483 x 328 x 88	483 x 328 x 88	483 x 328 x 88	483 x 328 x 88
WEIGHT (KG)	5,3	5	6,3	6,5	6,5	6,5	6,5





## Amplifiers 60 W to 900 W

Class D : High yield > 91%

Small size 1 U

Modular

Backed-up 230 V or 24 V power supply (Electricity Supply Equipment not integrated)



AD-3000 RANGE



REFERENCE	AD-3000 RANGE		
DESCRIPTION	Class D Amplifier	CONNECTORS	XLR or plug-in terminal block
FEATURES	9 versions	OUTPUTS	
POWER	60 W to 900 W	OUTPUT LEVEL	100 V
BANDWIDTH	30 - 28 000 Hz	CONNECTORS	Plug-in terminable block
DISTORSION	< 1 %	POWER SUPPLY	230 VAC - 24 VDC
SIGNAL-TO-NOISE RATIO	> 90 dB	MATERIAL	Metal
SENSIBILITY	0 dB balanced	COLOR	Black

	AD3-0061	AD3-0122	AD3-0183	AD3-0301	AD3-0362
POWER	1 x 60 W	2 x 60 W	3 x 60 W	1 x 300 W	1 x 60 W + 1 x 300 W
RACK INSTALLATION - 19"	1U	1U	1U	1U	1U
DIMENSIONS (MM)	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44
WEIGHT (KG)	3,73	4,02	4,31	3,72	4,30 kg

	AD3-0423	AD3-0602	AD3-0663	AD3-0903
POWER	2 x 60 W + 1 x 300 W	2 x 300 W	1 x 60 W + 2 x 300 W	3 x 300 W
RACK INSTALLATION - 19"	1U	1U	1U	1U
DIMENSIONS (MM)	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44	420 x 340 x 44
WEIGHT (KG)	4,59	4,29	4,87	4,86



**Amplifiers**

**Amplifiers 60 W to 2 400 W**

Class D : High yield > 91%

Small size 2 U

Modular

Backed-up 230 V or 24 V power supply (Electricity Supply Equipment not integrated)



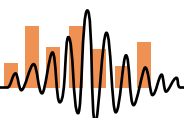
**AD-8000 RANGE**



REFERENCE	AD-8000 RANGE		
DESCRIPTION	Class D Amplifier	CONNECTORS	XLR or plug-in terminal block
FEATURES	44 versions	OUTPUTS	
POWER	60 W to 2400 W	OUTPUT LEVEL	100 V
BANDWIDTH	30 - 28 000 Hz	CONNECTORS	Plug-in terminable block
DISTORSION	< 1 %	POWER SUPPLY	230 VAC - 24 VDC
SIGNAL-TO-NOISE RATIO	> 90 dB	MATERIAL	Metal
SENSIBILITY	0 dB balanced	COLOR	Black

	AD8-0061	AD8-0122	AD8-0183	AD8-0244	AD8-0301	AD8-0305	AD8-0362	AD8-0366
POWER	1 x 60 W	2 x 60 W	3 x 60 W	4 x 60 W	1 x 300 W	5 x 60 W	1 x 60 W + 1 x 300 W	6 x 60 W
RACK INSTALLATION - 19"	2U	2U	2U	2U	2U	2U	2U	2U
DIMENSIONS (MM)	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
WEIGHT (KG)	5,05	5,34	5,63	5,92	5,04	6,51	5,62	6,8

	AD8-0423	AD8-0427	AD8-0484	AD8-0488	AD8-0545	AD8-0602	AD8-0606	AD8-0663
POWER	2 x 60 W + 1 x 300 W	7 x 60 W	3 x 60 W + 1 x 300 W	8 x 60 W	4 x 60 W + 1 x 300 W	2 x 300 W	5 x 60 W + 1 x 300 W	1 x 60 W + 2 x 300 W
RACK INSTALLATION - 19"	2U	2U	2U	2U	2U	2U	2U	2U
DIMENSIONS (MM)	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
WEIGHT (KG)	5,91	7,09	6,2	7,38	6,5	5,61	7,08	6,19





	AD8-0667	AD8-0724	AD8-0728	AD8-0785	AD8-0846	AD8-0903	AD8-0907	AD8-0964
<b>POWER</b>	6 x 60 W + 1 x 300 W	2 x 60 W + 2 x 300 W	7 x 60 W + 1 x 300 W	3 x 60 W + 2 x 300 W	4 x 60 W + 2 x 300 W	3 x 300 W	5 x 60 W + 2 x 300 W	1 x 60 W + 3 x 300 W
<b>RACK INSTALLATION - 19"</b>	2U	2U	2U	2U	2U	2U	2U	2U
<b>DIMENSIONS (MM)</b>	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
<b>WEIGHT (KG)</b>	7,37	6,48	7,66	6,78	7,07	6,18	7,65	6,76

	AD8-0968	AD8-1025	AD8-1086	AD8-1147	AD8-1204	AD8-1208	AD8-1265	AD8-1326
<b>POWER</b>	6 x 60 W + 2 x 300 W	2 x 60 W + 3 x 300 W	3 x 60 W + 3 x 300 W	4 x 60 W + 3 x 300 W	4 x 300 W	5 x 60 W + 3 x 300 W	1 x 60 W + 4 x 300 W	2 x 60 W + 4 x 300 W
<b>RACK INSTALLATION - 19"</b>	2U	2U	2U	2U	2U	2U	2U	2U
<b>DIMENSIONS (MM)</b>	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
<b>WEIGHT (KG)</b>	7,94	7,06	7,35	7,64	6,75	8,22	7,34	7,63

	AD8-1387	AD8-1448	AD8-1505	AD8-1566	AD8-1627	AD8-1688	AD8-1806	AD8-1867
<b>POWER</b>	3 x 60 W + 4 x 300 W	4 x 60 W + 4 x 300 W	5 x 300 W	1 x 60 W + 5 x 300 W	2 x 60 W + 5 x 300 W	3 x 60 W + 5 x 300 W	6 x 300 W	1 x 60 W + 6 x 300 W
<b>RACK INSTALLATION - 19"</b>	2U	2U	2U	2U	2U	2U	2U	2U
<b>DIMENSIONS (MM)</b>	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
<b>WEIGHT (KG)</b>	7,92	8,21	7,33	7,91	8,2	8,49	7,9	8,48

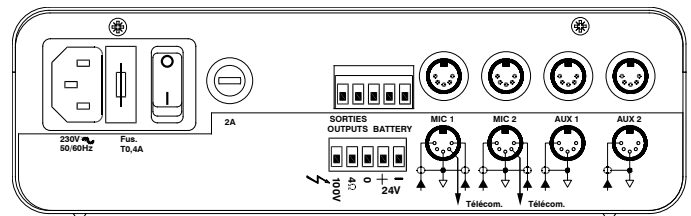
	AD8-1928	AD8-2107	AD8-2168	AD8-2408
<b>POWER</b>	2 x 60 W + 6 x 300 W	7 x 300 W	1 x 60 W + 7 x 300 W	8 x 300 W
<b>RACK INSTALLATION - 19"</b>	2U	2U	2U	2U
<b>DIMENSIONS (MM)</b>	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88	420 x 340 x 88
<b>WEIGHT (KG)</b>	8,77	8,47	9,05	9,04



**Mixer Amplifiers**

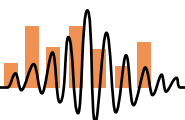
**Amplifier 30 W**

- Compact wall-mounted box
- Up to 4 sources with priority management
- Easy and quick wall mounting



**AM-1032**

REFERENCE	AM-1032
DESCRIPTION	Mixer amplifier Wall box
FEATURES	Wall-mounting with screws Cooling by thermostatically controlled ventilation
POWER	30 W
BANDWIDTH	60 - 20 000 Hz
DISTORSION	< 1 %
SIGNAL-TO-NOISE RATIO	> 75 dB
INPUTS	4
MIC / AUX	2 SYM MIC + 2 ASYM Aux
CONNECTORS	DIN
PRIORITIES	3 switchable levels
CONNECTORS	Screw terminals
100 V	4 Ω - 100 V / transformer
POWER SUPPLY	230 VAC / 24 VDC
TONE CORRECTION	Bass / Treble
MATERIAL	Metal
COLOR	Black
DIMENSIONS (MM)	250 x 220 x 70
WEIGHT (KG)	3,280





## Mixer amplifiers 150 W or 250 W

Small size

Cascadable

Power extension: 1 output for amplifier (0 dBu)

6 switchable inputs

2-tone chime



AS-4156  
AS-4256



REFERENCE	AS-4156	AS-4256
<b>DESCRIPTION</b>	Mixer amplifier	Mixer amplifier
<b>FEATURES</b>	Input-by-input volume control Output with volume control and VU-meter Mute command 100 V / 70 V selection	Input-by-input volume control Output with volume control and VU-meter Mute command 100 V / 70 V selection
<b>POWER</b>	150 W	250 W
<b>BANDWIDTH</b>	100 - 19 000 Hz	100 - 19 000 Hz
<b>DISTORSION</b>	< 0,5 %	< 0,5 %
<b>SIGNAL-TO-NOISE RATIO</b>	> 80 dB	> 80 dB
<b>INPUTS</b>	6	6
MIC / AUX	4 MIC / Line 1 digital console 1 music line	4 MIC / Line 1 digital console 1 music line
<b>CONNECTORS</b>	RCA / XLR / Jack / RJ45	RCA / XLR / Jack / RJ45
<b>PRIORITIES</b>	Depending on configuration	Depending on configuration
<b>PHANTOM POWER SUPPLY ON MICROPHONE INPUT</b>	Yes	Yes
<b>OUTPUTS</b>	1 + 1	1 + 1
0 DBU	SYMMETRICAL on XLR / RJ45	SYMMETRICAL on XLR / RJ45
100 V	100 V direct on terminal block	100 V direct on terminal block
<b>POWER SUPPLY</b>	110 - 265 VAC	110 - 265 VAC
<b>tone CORRECTION</b>	Bass / Treble input-by-input	Bass / Treble input-by-input
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black	Black
<b>RACK INSTALLATION - 19"</b>	1U	1U
<b>DIMENSIONS (MM)</b>	483 x 328 x 44	483 x 328 x 44
<b>WEIGHT (KG)</b>	3,9	3,9



## Mixer Amplifiers

### Mixer amplifiers with integrated 150 W or 250 W sources

Smartphone-compatible (Android - iOS)

All-in-one solution for connecting external sources - 6 switchable inputs

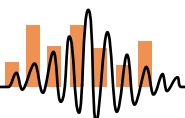
Up to 4 zones with volume control



SA-3126-150  
SA-3126-250



REFERENCE	SA-3126-150	SA-3126-250
<b>DESCRIPTION</b>	Mixer amplifier with integrated FM tuner, Bluetooth, USB	Mixer amplifier with integrated FM tuner, Bluetooth, USB
<b>FEATURES</b>	Input-by-input volume control Master volume control and VU-meter Zone-by-zone attenuation control Mute command 100 V / 70 V selection	Input-by-input volume control Master volume control and VU-meter Zone-by-zone attenuation control Mute command 100 V / 70 V selection
<b>POWER</b>	150 W	250W
<b>BANDWIDTH</b>	100 - 19 000 Hz	100 - 19 000 Hz
<b>DISTORSION</b>	< 0,5 %	< 0,5 %
<b>SIGNAL-TO-NOISE RATIO</b>	> 80 dB	> 80 dB
<b>INPUTS</b>	6	6
MIC / AUX	4 MIC / Line 1 digital console 1 music line	4 MIC / Line 1 digital console 1 music line
<b>CONNECTORS</b>	RCA / XLR / Jack / RJ45	RCA / XLR / Jack / RJ45
<b>PRIORITIES</b>	Depending on configuration	Depending on configuration
<b>PHANTOM POWER SUPPLY ON MICROPHONE INPUT</b>	Yes	Yes
<b>OUTPUTS</b>	4 + 1	4 + 1
0 DBU	SYMMETRICAL on XLR / RJ45	SYMMETRICAL on XLR / RJ45
100 V	4 x 100 V / transformer on terminal block	4 x 100 V / transformer on terminal block
<b>POWER SUPPLY</b>	110 - 265 VAC	110 - 265 VAC
<b>tone CORRECTION</b>	Bass / Treble input-by-input	Bass / Treble input-by-input
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black	Black
<b>RACK INSTALLATION</b>	3U - 19"	3U - 19"
<b>DIMENSIONS (MM)</b>	483 x 328 x 132	483 x 328 x 132
<b>WEIGHT (KG)</b>	8,4	8,4





## Products Concordance table

TO FROM	AD-1000 RANGE	AD-3000 RANGE	AD-8000 RANGE	AM-1032	AP-104	AP-3804	AP-AV1	AS-4156	AS-4256	CS-2003	PA-1100- PPMS	PR-1106	PR-1406	SA-3126- 150	SA-3126- 250
AP-3804	GZ-45 To be stripped	GZ-45 To be stripped	GZ-45 To be stripped					GZ-45 To be stripped	GZ-45 To be stripped						
AZ-115	GZ-45 To be stripped	GZ-45 To be stripped	GZ-45 To be stripped	GZ-33 To be stripped											
CC-3816	GZ-45 To be stripped	GZ-45 To be stripped	GZ-45 To be stripped	GZ-33 To be stripped											
CG-1000	GZ-47	GZ-47	GZ-47	GZ-33				GZ-47	GZ-47	GZ-47	GZ-47	GZ-33	GZ-33	GZ-47	GZ-47
CS-2003	GZ-45	GZ-45	GZ-45							GZ-45		GZ-45	GZ-45		
EC-401	GZ-45	GZ-45	GZ-45	GZ-44				GZ-45	GZ-45	GZ-45	GZ-47	GZ-45	GZ-45	GZ-45	GZ-45
GD-3302	GZ-47	GZ-47	GZ-47	GZ-33				GZ-47	GZ-47	GZ-47	GZ-47	GZ-33	GZ-33	GZ-47	GZ-47
GD-5605	GZ-151	GZ-151	GZ-151	GZ-141						GZ-151	GZ-151	GZ-141	GZ-141		
GE-4267	GZ-151	GZ-151	GZ-151	GZ-141						GZ-151	GZ-151	GZ-141	GZ-141		
GE-500SL	GZ-151	GZ-151	GZ-151	GZ-141						GZ-151	GZ-151	GZ-141	GZ-141		
GZ-1201	GZ-44	GZ-44	GZ-44	GZ-33	GZ-141	GZ-33	GZ-141	GZ-47	GZ-47	GZ-47	GZ-47	GZ-33	GZ-33	GZ-47	GZ-47
GZ-1201-PPMS	GZ-44	GZ-44	GZ-44	GZ-33	GZ-141	GZ-33	GZ-141	GZ-47	GZ-47	GZ-47		GZ-33	GZ-33	GZ-47	GZ-47
GZ-1215	GZ-44	GZ-44	GZ-44												
GZ-2802				GZ-44 / GZ-143	GZ-45	GZ-44 / GZ-45 / GZ-143	GZ-45	GZ-45	GZ-45			GZ-44 / GZ-45 / GZ-143	GZ-44 / GZ-45 / GZ-143	GZ-45	GZ-45
PA-1100-PPMS	GZ-47	GZ-47	GZ-47	GZ-44				GZ-45	GZ-45			GZ-45	GZ-45	GZ-45	GZ-45
PR-1106	GZ-45 / GZ-47	GZ-45 / GZ-47	GZ-45 / GZ-47	GZ-33	GZ-45		GZ-45	GZ-45	GZ-45	GZ-45	GZ-45 / GZ-47	GZ-33 / GZ-45	GZ-33 / GZ-45	GZ-45 / GZ-47	GZ-45 / GZ-47
PR-1406	GZ-45 / GZ-47	GZ-45 / GZ-47	GZ-45 / GZ-47	GZ-33	GZ-45		GZ-45	GZ-45	GZ-45	GZ-45	GZ-45 / GZ-47	GZ-33 / GZ-45	GZ-33 / GZ-45	GZ-45 / GZ-47	GZ-45 / GZ-47
RX-GM10				GZ-44											
SA-3126-150	GZ-45	GZ-45	GZ-45	GZ-44				GZ-45	GZ-45		GZ-45 / GZ-47	GZ-45 / GZ-47	GZ-45 / GZ-47	GZ-45	GZ-45
SA-3126-250	GZ-45	GZ-45	GZ-45	GZ-44				GZ-45	GZ-45		GZ-45	GZ-45 / GZ-47	GZ-45 / GZ-47	GZ-45	GZ-45

**Customization**

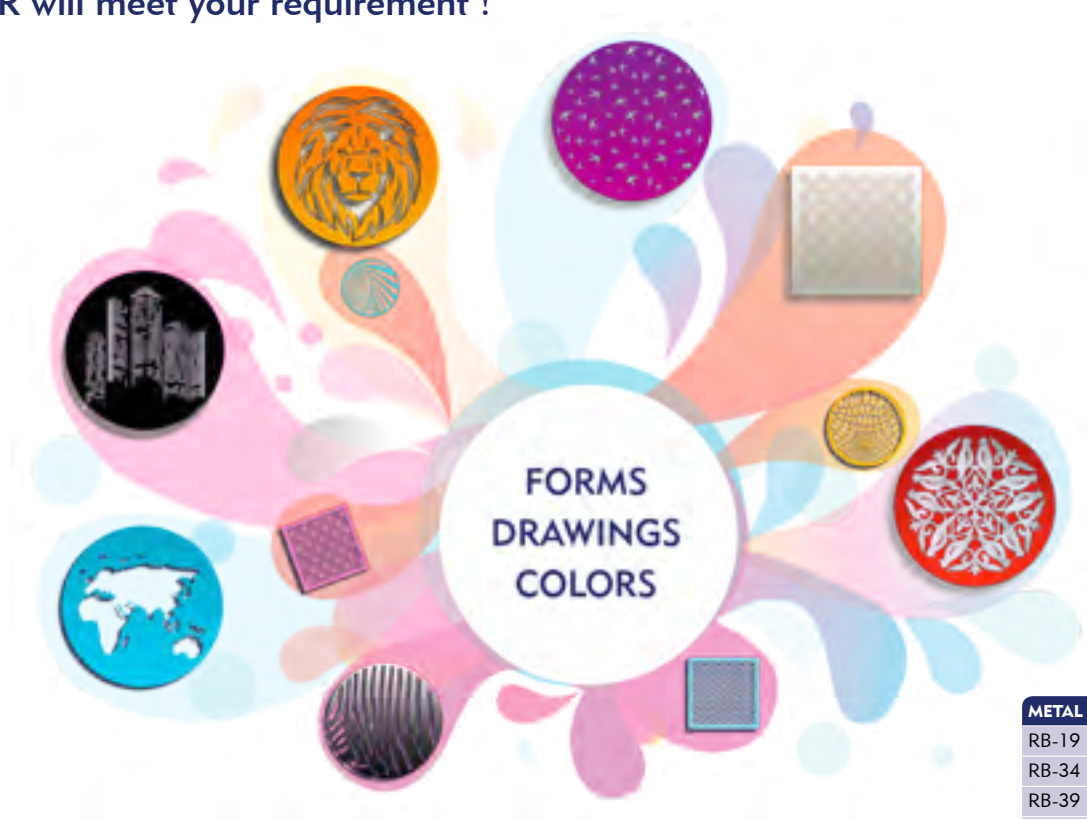
**GRID :**

Our know-how also allows us to **customize** loudspeakers. We offer you the opportunity to differentiate yourself and have a **unique product** which will blend in the place to be addressed.

Our **Research & Development department** proposes to fashion grills of your loudspeakers, associating a unique design with high intelligibility.

**Whether you wish a round or a square loudspeaker grille ? a simple pattern, an original one ?**

**BOUYER will meet your requirement !**



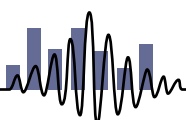
**COLORS :**

Customization also means having coloured loudspeakers : blue, green, orange, yellow...

Everything is possible based on a RAL Classic colour chart.

ABS COLOR
RB-2035
RB-2036
RB-2036-NW
RB-6501
RB-6502
RB-6504

METAL COLOR
RB-19
RB-34
RB-39
RB-401
RB-501
RB-701
RB-2010
RB-2701
RC-904
RC-906
RC-908
RC-Class-04
RC-Class-08
RC-Class-16
RC-Compact-02



### Loudspeaker line tester

Impedance-insulation-VA  
Portable stand-alone

**During installation, check the correct connection of your lines and loudspeakers.**



REFERENCE	MZ-4000
DESCRIPTION	PA tester
IMPEDANCE AT 1KHZ	4 $\Omega$ - 20 k $\Omega$ (+/- 2 %)
EARTH INSULATION	Correct > 500 k $\Omega$
VOICE ALARM	EFL detection / CC and CO
INTEGRATED AUDIO PLAYER	-30dB / +10dB / 8 $\Omega$ min - WAV format
BATTERY LIFE	70 hours
BATTERY VOLTAGE	6 V -2.6AH (four LR6 batteries)
COLOR	Black
MATERIAL	ABS
DIMENSIONS (MM)	210 x 100 x 25
WEIGHT (KG)	0,40
FEATURES	Supplied with 3 cords + Crocodile clips

## Flush mounting

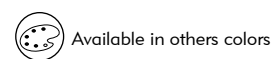
Loudspeakers	Height	Covered area (m <sup>2</sup> )	Direct final range (m)	Choice of colors : Contact us	Selected power (W)	Use	Use for ambient noise (dB)	Sample applications
RB-301	2,60 to 3,50	25	-		3		60	Office Shop Hotel Restaurant Hamam School
RB-401	2,60 to 3,50	25	-		3		60	
RB-701	2,60 to 4,50	40-70	-		6		70	
RB-2701	2,60 to 5	40-80	-		10		70	
RB-5501	2,60 to 3,50	30-60	-	-	3		65	
RB-5701	2,60 to 5	40-80	-	-	6		70	
RB-6501	2,60 to 3,50	30-60	-		3		65	
RB-6502	2,60 to 3,50	30-60	-		7,5		65	
RB-6504	2,60 to 6	30-60	-		20		70	

## Enclosures

Loudspeakers	Height	Covered area (m <sup>2</sup> )	Direct final range (m)	Choice of colors : Contact us	Selected power (W)	Use	Use for ambient noise (dB)	Sample applications
RB-120	au sol ou semi enterré	100	-	-	20		70	Camping
CP-5030	2,60 to 4	30-50	-	-	30		60	Shop Multisports room Public areas
RB-2010	2,60 to 4	50-70	-	-	8		60	
RB-2051	2,60 to 4	30-50	-	-	4		60	
RB-3021	2,60 to 4	20-40	-	-	10		50	
RB-4061	2,60 to 5	50-100	-	-	40		65	
RX-B11	2,6 to 4	50-100	-	-	20		65	
RX-B12	2,6 to 4	50-100	-	-	30		65	
RX-Supersonic-12	3 to 6	50-100	-	-	100		80	

## Spherical speakers

Loudspeakers	Height	Covered area (m <sup>2</sup> )	Direct final range (m)	Choice of colors : Contact us	Selected power (W)	Use	Use for ambient noise (dB)	Sample applications
RB-34	3 to 4,5	50-80	-		6		65	Medium / Large Shopping Centers
RB-2033	3 to 6	140-200	-	-	10		75	
RX-B21	3 to 3,5	40-60	-	-	5		65	



## Sound projectors



Loudspeakers	Height	Covered area (m <sup>2</sup> )	Direct final range (m)	Choice of colors : Contact us	Selected power (W)	Use	Use for ambient noise (dB)	Sample applications
RB-19	2,6 to 5	30-50	10		4		60	Docks Swimming pools Factories Warehouses Municipalities
RB-39	2,6 to 5	50-80	25		10		80	
RB-2035	2,60 to 6	40-90	20		10		75	
RB-2036-NW	2,60 to 6	40-90	20		NA		80	
RB-5019	2,60 to 5	30-50	10	-	6		60	
RB-5035	2,60 to 5	50-80	25	-	10		80	

## Column speakers

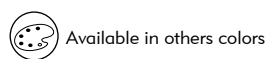
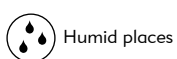


Loudspeakers	Height	Covered area (m <sup>2</sup> )	Direct final range (m)	Choice of colors : Contact us	Selected power (W)	Use	Use for ambient noise (dB)	Sample applications
RC-CLASS-04	1,5	-	10		8		50	Places of worship Conference rooms Places dedicated to speech
RC-CLASS-08	1	-	15		15		55	
RC-CLASS-16	0,8	-	20		30		60	
RC-Compact-02	2	-	15		15		65	
RC-904	1,5	-	10		7		50	
RC-906	1,4	-	12		10		50	
RC-908	1,3	-	15		15		60	

## Horn speakers



Loudspeakers	Height	Covered area (m <sup>2</sup> )	Direct final range (m)	Choice of colors : Contact us	Selected power (W)	Use	Use for ambient noise (dB)	Sample applications
RP-630	4 to 10	-	50	-	30		80	Outdoors Noisy areas
RP-634	4 to 10	-	50	-	30		80	
RP-640	4 to 10	-	150	-	50		80	
RP-642	4 to 10	-	100	-	40		80	





## Column Speakers

### Column 10 W

Exceptional listening pleasure  
Consistent sound field  
Extra-thin column



RC-3020

### Columns 2.5 W to 30 W

For the most demanding projects  
Music and message broadcasting  
High quality sound











RC-904

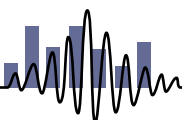


RC-906



RC-908

REFERENCE	RC-3020	RC-904	RC-906	RC-908
DESCRIPTION	Column speaker	Column speaker	Column speaker	Column speaker
APPLICATIONS	 	 	 	 
NOMINAL POWER	10 W	15 W	20 W	30 W
100 V LINE POWER	10 W	15 / 7 / 3 W	20 / 10 / 5 / 2,5 W	30 / 15 / 8 / 4 W
LOW-IMPEDANCE POWER		15 W / 8 Ω	20 W / 5,3 Ω	30 W / 8 Ω
100 V LINE IMPEDANCE	10 W : 1 000 Ω	15 W : 660 Ω 7 W : 1 430 Ω 3 W : 3 333 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω	30 W : 330 Ω 15 W : 660 Ω 8 W : 1 250 Ω 4 W : 2 500 Ω
BANDWIDTH	300 - 11 000 Hz	200 - 15 000 Hz	200 - 15 000 Hz	200 - 15 000 Hz
PRESSURE LEVEL	88 dBA / 1 W / 1 m 99 dBA / 1 W / 1 m	86 dBA / 1 W / 1 m 98 dBA / 15 W / 1 m	87 dBA / 1W / 1 m 100 dBA / 20 W / 1 m	88 dBA / 1W / 1 m 103 dBA / 30 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	195 ° x 50 °	140 ° x 40 °	140 ° x 30 °	160° x 30 °
LOUDSPEAKER DIMENSIONS	20 x 5 cm - 2"	4 x 8 cm - 3,5"	6 x 8 cm - 3,5"	8 x 8 cm - 3,5"
LOUDSPEAKER FEATURES	1 way simple cone	1 way simple cone	1 way simple cone	1 way simple cone
LOUDSPEAKER MATERIAL	Polycarbonate	Cellulose	Cellulose	Cellulose
CONNECTION	Screw terminals	Screw terminal inside	Screw terminal inside	Screw terminal inside
COLOR	White RAL 1013	White RAL 1013	White RAL 1013	White RAL 1013
MATERIAL	Metal	Metal	Metal	Metal
DIMENSIONS (MM)	72 x 30 x 1405	90 x 85 x 500	90 x 85 x 675	90 x 85 x 850
WEIGHT (KG)	3	2,8	4	5
FEATURES	Supplied with 2 fixing brackets	Supplied with 2 fixing brackets	Supplied with 2 fixing brackets	Supplied with 2 fixing brackets





## Columns 8 W to 60 W

Exceptional coverage

Directional wall surface mounting

Vertical column effect and horizontal optimized coverage









RC-Class-04



RC-Class-08



RC-Class-16

REFERENCE	RC-Class-04	RC-Class-08	RC-Class-16
DESCRIPTION	Column speaker	Column speaker	Column speaker
APPLICATIONS	 	 	 
NOMINAL POWER	15 W	30 W	60 W
100 V LINE POWER	15 / 8 / 4 W	30 / 15 / 8 / 4 W	60 / 30 / 15 / 8 W
LOW-IMPEDANCE POWER	15 W / 8 Ω	30 W / 8 Ω	60 W / 8 Ω
100 V LINE IMPEDANCE	15 W : 666 Ω 8 W : 1 250 Ω 4 W : 2 500 Ω	30 W : 333 Ω 15 W : 666 Ω 8 W : 1 250 Ω 4 W : 2 500 Ω	60 W : 166 Ω 30 W : 333 Ω 15 W : 625 Ω 8 W : 1 250 Ω
BANDWIDTH	150 - 15 000 Hz	150 - 15 000 Hz	150 - 15 000 Hz
PRESSURE LEVEL	88 dBA / 1 W / 1 m 100 dBA / 15 W / 1 m	90 dBA / 1 W / 1 m 104 dBA / 30 W / 1 m	92 dBA / 1 W / 1 m 110 dBA / 60 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	200° x 60°	200° x 30°	200° x 20°
LOUDSPEAKER DIMENSIONS	4 x 7,5 cm - 3"	8 x 7,5 cm - 3"	16 x 7,5 cm - 3"
LOUDSPEAKER FEATURES	Tropicalized	Tropicalized	Tropicalized
LOUDSPEAKER MATERIAL	Cellulose	Cellulose	Cellulose
CONNECTION	Cable length 2.5m	Cable length 2.5m	Cable length 4.3m
COLOR	White RAL 1013	White RAL 1013	White RAL 1013
MATERIAL	Metal	Metal	Metal
DIMENSIONS (MM)	139 x 160 x 513	139 x 160 x 1118	139 x 160 x 1820
WEIGHT (KG)	4,5	9	14
FEATURES	Supplied with 2 fixing brackets	Supplied with 2 fixing brackets	Supplied with 2 fixing brackets



## Horn Speakers

### Horn speaker for noisy environments

Can be used outdoors, dust and water protection (see IP index)

Weatherproof - Harsh conditions - Open spaces

Swivel mounting



RP-630



RP-634

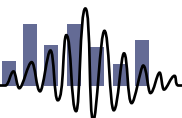


RP-640



RP-642

REFERENCE	RP-630	RP-634	RP-640	RP-642
DESCRIPTION	Horn speaker - IP 54	Horn speaker- IP 66	Horn speaker - IP 66	Horn speaker - IP 66
APPLICATIONS				
NOMINAL POWER	30 W	30 W	50 W	40 W
100 V LINE POWER	30 / 15 W	30 / 20 / 15 / 10 W	50 / 30 / 25 / 15 W	40 / 30 / 20 / 10 / 5 W
LOW-IMPEDANCE POWER	30 W / 8 Ω	30 W / 8 Ω	50 W / 8 Ω	
100 V LINE IMPEDANCE	30 W : 340 Ω 15 W : 670 Ω	30 W : 340 Ω 20 W : 500 Ω 15 W : 670 Ω 10 W : 1 000 Ω	50 W : 200 Ω 30 W : 333 Ω 25 W : 400 Ω 15 W : 666 Ω	40 W : 250 Ω 30 W : 333 Ω 20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω
BANDWIDTH	400 - 5 000 Hz	400 - 5 100 Hz	300 - 5 000 Hz	300 - 7 000 Hz
PRESSURE LEVEL	104 dBA / 1 W / 1 m 119 d BA / 30 W / 1 m	109 dBA / 1 W / 1 m 124 dBA / 30 W / 1 m	111,5 dBA / 1 W / 1 m 125 dBA / 50 W / 1 m	111 dBA / 1 W / 1 m 123 dBA / 40 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	60°	70°	60°	50° x 110°
FIELD RANGE	50 m	50 m	150 m	130 m
LOUDSPEAKER FEATURES	Motor	Motor	Motor	Motor
CONNECTION	Cable 0.4m	Cable 1m	Cable 0,8m	Cable 0,8m
COLOR	White	Grey	Grey RAL 7035	Grey RAL 7035
MATERIAL	ABS	ABS	Aluminium - ABS	ABS
DIMENSIONS (MM)	285 x 285 x 205	313 x 315	Ø 410 x 385	400 x 200 x 420
WEIGHT (KG)	1,8	2	4,1	3,9
FEATURES	IP 54 Sealed cable ouput Swivel bracket	IP 66 Sealed cable ouput Swivel bracket	IP 66 Sealed cable ouput Swivel bracket -25° C to + 55° C Stainless steel screws	IP 66 Sealed cable ouput Swivel bracket -25° C to + 55° C Stainless steel screws









## Cabinet Loudspeaker

### High-power loudspeaker

Acoustic quality  
Speakon connections



RX-SUPERSONIC-12

REFERENCE	RX-SUPERSONIC-12
DESCRIPTION	High-power loudspeaker
APPLICATIONS	 
NOMINAL POWER	300 W
100 V LINE POWER	200 / 150 / 100 W
LOW-IMPEDANCE POWER	300 W / 8 Ω
100 V LINE IMPEDANCE	200 W : 50 Ω 150 W : 66,6 Ω 100 W : 100 Ω
BANDWIDTH	45 - 20 000 Hz
PRESSURE LEVEL	98 dBA / 1 W / 1 m 123 dBA / 300 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	90° x 35 °
LOUDSPEAKER DIMENSIONS	30,5 cm - 12''
LOUDSPEAKER FEATURES	Simple cone
LOUDSPEAKER MATERIAL	Cellulose
CONNECTION	Speakon
COLOR	Black
MATERIAL	Plastic
DIMENSIONS (MM)	585 x 420 x 305
WEIGHT (KG)	19
FEATURES	Fixture system included



**Amplified Cabinet Speaker**

**Amplified cabinet speaker 30 W**

Superior acoustic quality  
Integrated amplifier





**CP-5030**



**Compact speaker 50 W**

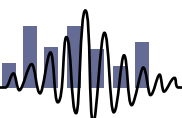
High intelligibility  
Superior acoustic quality



**RB-4061**

REFERENCE	CP-5030
DESCRIPTION	2-Channel speaker
APPLICATIONS	 
NOMINAL POWER	30 W
100 V LINE POWER	30 W
LOW-IMPEDANCE POWER	30 W / 8 Ω
100 V LINE IMPEDANCE	8 Ω
BANDWIDTH	60 - 18 000 Hz
PRESSURE LEVEL	100 dBA / 30 W / 1 m
DIRECTIVITY (-6 dBA) à 1 KHZ	170° x 170°
LOUDSPEAKER DIMENSIONS	12,5 cm + tweeter (2 cm) - 5''
LOUDSPEAKER MATERIAL	Polypropylene
CONNECTION	XLR
COLOR	White RAL 9010
MATERIAL	Synthetic
DIMENSIONS (MM)	247 x 158 x 152
WEIGHT (KG)	3
FEATURES	Integrated amplifier Power supply: 230V with 50/60Hz Swivel bracket CP-5030-110V : 100 VAC

REFERENCE	RB-4061
DESCRIPTION	Compact speaker 2 ways
APPLICATIONS	 
NOMINAL POWER	50 W
100 V LINE POWER	40 / 20 / 10 / 5 W
LOW-IMPEDANCE POWER	50 W / 8 Ω
100 V LINE IMPEDANCE	40 W : 250 Ω 20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω
BANDWIDTH	80 - 20 000 Hz
PRESSURE LEVEL	88 dBA / 1 W / 1 m 104 dBA / 40 W / 1 m
DIRECTIVITY (-6 dBA) à 1 KHZ	100° x 90°
LOUDSPEAKER DIMENSIONS	13 cm - 5'' + tweeter
LOUDSPEAKER FEATURES	Tropicalized single cone
LOUDSPEAKER MATERIAL	Cellulose
CONNECTION	Terminal block
COLOR	White
MATERIAL	Polypropylene - Metal grid
DIMENSIONS (MM)	180 x 185 x 280
WEIGHT (KG)	3,2
FEATURES	Swivel fixture Power switch





## Compact speakers

### Compact speaker 0,6 W to 40 W

High intelligibility  
Superior acoustic quality









RB-2051



RB-3021



RC-COMPACT-02

REFERENCE	RB-2051	RB-3021	RC-COMPACT-02
DESCRIPTION	1-Channel compact speaker	Compact speaker 2 ways	Compact speaker - IP32
APPLICATIONS	 	 	 
NOMINAL POWER	10 W	15 W	40 W
100 V LINE POWER	10 / 4 / 1,6 / 0,6 W	15 / 10 / 5 / 2,5 W	40 W
LOW-IMPEDANCE POWER		15 W / 8 Ω	
100 V LINE IMPEDANCE	10 W : 1 000 Ω 4 W : 2 500 Ω 1,6 W : 6 250 Ω 0,6 W : 16 660 Ω	15 W : 666 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω	40 W : 250 Ω
BANDWIDTH	100 - 17 000 Hz	150 - 22 000 Hz	100 - 20 000 Hz
PRESSURE LEVEL	92 dBA / 1 W / 1 m 102 dBA / 10 W / 1 m	83 dBA / 1 W / 1 m 95 dBA / 1 W / 1 m	89 dBA / 1W / 1 m 107 dBA / 40 W / 1m
DIRECTIVITY (-6 dBA) À 1 KHZ	120° x 100°	160° x 160°	160° x 160°
LOUDSPEAKER DIMENSIONS	10 cm - 4''	10 cm - 4'' + tweeter	2 x 8 cm - 3,3''
LOUDSPEAKER FEATURES	Dual cone	Simple cone	Tropicalized
LOUDSPEAKER MATERIAL	Latex	Cellulose	Cellulose
CONNECTION	Push-button terminals	Screw terminals	3 m cord
COLOR	White	RB-3021-BLANC : White RB-3021-NOIR : Black	Aluminium grey - RAL 9006
MATERIAL	Polypropylene - Metal grid	HIPS (High Impact Polystyrene)	Aluminium - Metal grid
DIMENSIONS (MM)	175 x 142 x 247	130 x 115 x 197	139 x 160 x 280
WEIGHT (KG)	2,2	1,9	3,4
FEATURES	Anti-theft swivel fixture Power switch Optiself on front panle	Swivel fixture Power switch	Kneecap fixture



**Wall-Mounting Cabinet**

**Wall-mounting cabinet 1,5 W to 60 W**

Superior acoustic quality  
Wall mount









**RB-2010**



**RX-B11**



**RX-B12**

REFERENCE	RB-2010	RX-B11	RX-B12
DESCRIPTION	Wall speaker	Wall-mounting cabinet	Wall-mounting cabinet
APPLICATIONS	 	 	 
NOMINAL POWER	8 W	40 W	60 W
100 V LINE POWER	8 / 6 / 3 / 1,5 W	40 / 20 / 10 / 5 W	60 / 30 / 15 / 7,5 W
LOW-IMPEDANCE POWER	8 W / 8 Ω		
100 V LINE IMPEDANCE	8 W : 1 250 Ω 6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 670 Ω	40 W : 250 Ω 20 W : 515 Ω 10 W : 1000 Ω 5 W : 2000 Ω	60 W : 166 Ω 30 W : 333 Ω 15 W : 666 Ω 7,5 W : 1333 Ω
BANDWIDTH	150 - 13 000 Hz	70 - 20 000 Hz	30 - 20 000 Hz
PRESSURE LEVEL	92 dBA / 1 W / 1 m 101 dBA / 8 W / 1 m	90 dBA / 1 W / 1 m 107 dBA / 40 W / 1 m	89 dBA / 1 W / 1 m 106 dBA / 60 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	160°	120° x 100°	100° x 80°
LOUDSPEAKER DIMENSIONS	17 cm - 6,5"	13 cm + tweeter - 5"	Boomer 20 cm + Tweeter 3 cm - 8"
LOUDSPEAKER FEATURES	Tropicalized dual cone	Simple cone	Simple cone
LOUDSPEAKER MATERIAL	Cellulose	Polypropylene	Polypropylene
CONNECTION	Wire	Wire	Terminal block
COLOR	White RAL 9010	RX-B11B : White RX-B11N : Black	RX-B12B : White RX-B12N : Black
MATERIAL	Metal - ABS grid	HIPS (High Impact Polystirene)	HIPS (High Impact Polystirene)
DIMENSIONS (MM)	245 x 90 x 245	295 x 196 x 175	418 x 289 x 255
WEIGHT (KG)	2,2	3,1	6,1
FEATURES	Wall or ceiling mounting Small size Angled anti-theft base	Fork mounting	Fork mounting power adjustment on rear panel



## Hanged Speakers

### Suspended speakers for high ceilings

Extended coverage  
Superior acoustic quality  
Efficiency in total discretion










RB-34



RB-2033



RX-B21

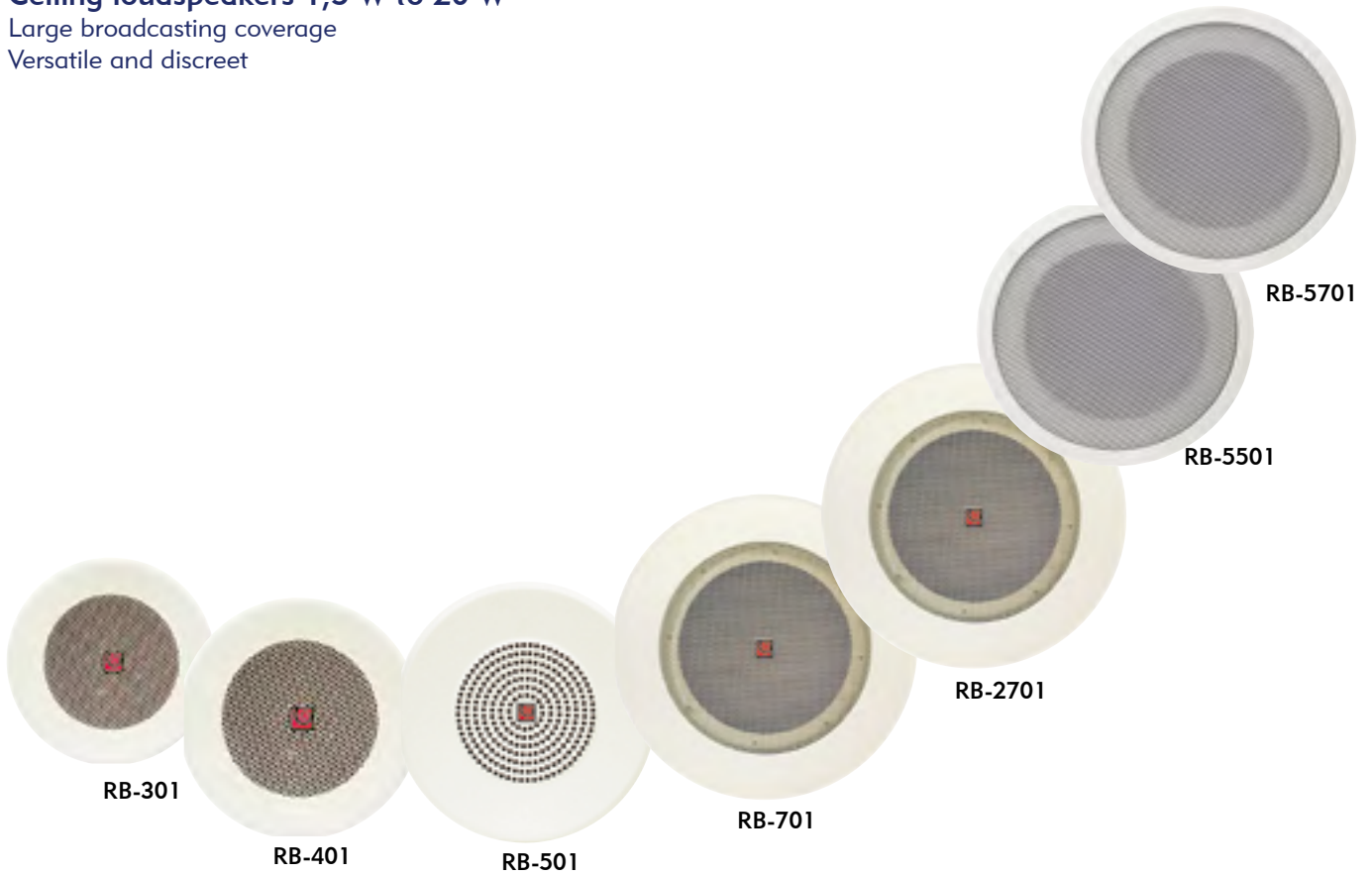
REFERENCE	RB-34	RB-2033	RX-B21
DESCRIPTION	Spherical speaker	Spherical speaker	Spherical speaker
APPLICATIONS	 	  	 
NOMINAL POWER	6 W	20 W	10 W
100 V LINE POWER	6 / 3 / 1,5 W	20 / 10 / 5 / 2,5 W	10 / 5 / 2,5 W
LOW-IMPEDANCE POWER	6 W / 8 Ω		
100 V LINE IMPEDANCE	6 W : 1 700 Ω 3 W : 3 400 Ω 1,5 W : 6 700 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω	10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω
BANDWIDTH	200 - 20 000 Hz	80 - 20 000 Hz	150 - 15 000 Hz
PRESSURE LEVEL	90 dBA / 1 W / 1 m 99 dBA / 6 W / 1 m	90,5 dBA / 1 W / 1 m 104 dBA / 20 W / 1 m	92 dBA / 1 W / 1 m 102 dBA / 10 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	80°	140°	140°
LOUDSPEAKER DIMENSIONS	12 cm - 4,5"	17 cm - 6,5"	18 cm - 7"
LOUDSPEAKER FEATURES	Tropicalized dual cone	2 coaxial channels	
LOUDSPEAKER MATERIAL	Cellulose	Fiberglass	
CONNECTION	Cable 1,1m	Cable 1,5m	Cable 2,2m
COLOR	White RAL 9010	Grey RAL 7035	White RAL 9016
MATERIAL	Metal	ABS	HIPS (High Impact Polystyrene)
DIMENSIONS (MM)	Ø 160	Ø 270	Ø 180
WEIGHT (KG)	1,1	1,8	1,35
FEATURES	Swivel base : hung from the ceiling or stand alone or wall mounting Customizable color	Safety mounting	Supplied with 2.20 m multi-conductor cable



**Ceiling Loudspeakers**

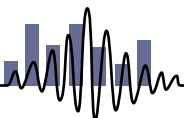
**Ceiling loudspeakers 1,5 W to 20 W**

Large broadcasting coverage  
Versatile and discreet



























**Ceiling loudspeakers 1,5 W to 40 W**

Installation in 30 sec and connection without tools  
Grid customization possible





REFERENCE	RB-301	RB-401	RB-501	RB-701	RB-2701
DESCRIPTION	Ceiling loudspeaker	Ceiling loudspeaker	Ceiling loudspeaker	Ceiling loudspeaker	Ceiling loudspeaker
APPLICATIONS	  	  	 	  	  
NOMINAL POWER	6 W	6 W	8 W	8 W	20 W
100 V LINE POWER	6 / 3 / 1,5 W	6 / 3 / 1,5 W	8 / 6 / 3 / 1,5 W	8 / 6 / 3 / 1,5 W	20 / 10 / 5 / 2,5 W
100 V LINE IMPEDANCE	6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 660 Ω	6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 660 Ω	8 W : 1 250 Ω 6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 700 Ω	8 W : 1 250 Ω 6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 670 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω
BANDWIDTH	90 - 20 000 Hz	100 - 12 000 Hz	100 - 20 000 Hz	80 - 17 000 Hz	70 - 20 000 Hz
PRESSURE LEVEL	83 dBA / 1 W / 1 m 92 dBA / 6 W / 1 m	87 dBA / 1 W / 1 m 95 dBA / 6 W / 1 m	91 dBA / 1 W / 1 m 100 dBA / 8 W / 1 m	91 dBA / 1 W / 1 m 102 dBA / 8 W / 1 m	90 dBA / 1 W / 1 m 103 dBA / 20 W / 1 m
DIRECTIVITY (-6 dBA) À 1 KHZ	160°	170°	180°	170°	160°
LOUDSPEAKER DIMENSIONS	6,6 cm - 3''	8,7 cm - 3,5''	12 cm - 4,5''	17 cm - 6,5''	17 cm - 6,5''
LOUDSPEAKER FEATURES	Tropicalized	Simple cone	Tropicalized dual cone	Tropicalized dual cone	2 way coaxial
LOUDSPEAKER MATERIAL	Cellulose	Latex	Cellulose	Cellulose	Fiberglass
CONNECTION	Wired	Wired	Wired	Wired	Terminal block
COLOR	White RAL 9010	White RAL 9010	White RAL 9010	White RAL 9010	White RAL 9010
MATERIAL	ABS Metal grid	Metal grid	Metal grid	Metal grid	Metal grid
DIMENSIONS (MM)	Ø 103 x 77	Ø 125 x 95	Ø 200 x 100	Ø 250 x 120	Ø 250 x 120
WEIGHT (KG)	0,4	0,5	1,1	1,2	1,7
FEATURES	Halogen type Flush fitting Ø: 95 mm	Flush fitting Ø: 112 mm Utilization temperature: -20° C to + 55° C Customizable color	Tropicalized loudspeaker Flush fitting Ø: 173 mm Customizable color	Tropicalized loudspeaker Flush fitting Ø: 211 mm Customizable color	Flush fitting Ø: 211 mm Customizable color

REFERENCE	RB-5501	RB-5701	RB-6501	RB-6502	RB-6504
DESCRIPTION	Ceiling loudspeaker	Ceiling loudspeaker	Ceiling loudspeaker	Ceiling loudspeaker	Ceiling loudspeaker
APPLICATIONS	 	 	 	 	 
NOMINAL POWER	6 W	6 W	10 W	20 W	40 W
100 V LINE POWER	6 / 3 / 1,5 W	6 / 3 / 1,5 W	10 / 6 / 3 / 1,5 W	20 / 15 / 7 / 5 W	40 / 30 / 20 / 10 W
100 V LINE IMPEDANCE	6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 670 Ω	6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 670 Ω	10W : 1 000 Ω 6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 670 Ω	20 W : 500 Ω 15 W : 666 Ω 7 W : 1 429 Ω 5 W : 2 000 Ω	40W : 250 Ω 30 W : 333 Ω 20 W : 500 Ω 10 W : 1 000 Ω
BANDWIDTH	80 - 18 000 Hz	60 - 18 000 Hz	80 - 18 000 Hz	80 - 18 000 Hz	80 - 18 000 Hz
PRESSURE LEVEL	91 dBA / 1 W / 1 m 98 dBA / 6 W / 1 m	92 dBA / 1 W / 1 m 99 dBA / 6 W / 1 m	92,7 dBA / 1 W / 1 m 101,6 dBA / 10 W / 1 m	91,8 dBA / 1 W / 1 m 103,4 dBA / 20 W / 1 m	90,1 dBA / 1 W / 1 m 105,4 dBA / 40 W / 1 m
DIRECTIVITY (-6 dBA) À 1 KHZ	110°	145°	180°	180°	180°
LOUDSPEAKER DIMENSIONS	12 cm - 4,5''	17 cm - 6,5''	14 cm - 5,5''	14 cm - 5,5''	14 cm - 5,5''
LOUDSPEAKER FEATURES	Dual cone	Dual cone	Tropicalized dual cone	Tropicalized dual cone	Tropicalized dual cone
LOUDSPEAKER MATERIAL	Cellulose	Cellulose	Cellulose	Cellulose	Cellulose
CONNECTION	Terminal block	Terminal block	Terminal block	Terminal block	Terminal block
COLOR	White RAL 9016	White RAL 9016	White RAL 9003	White RAL 9003	White RAL 9003
MATERIAL	Metal	Metal	ABS	ABS	ABS
DIMENSIONS (MM)	Ø 200 x 67	Ø 245 x 75	Ø 200 x 145	Ø 200 x 145	Ø 200 x 145
WEIGHT (KG)	0,7	1	1,96	1,96	1,96
FEATURES	Flush fitting Ø: 170 mm	Flush fitting Ø: 225 mm	Installation in 30 seconds Flush fitting Ø: 175mm Customizable color	Installation in 30 seconds Flush fitting Ø: 175mm Customizable color	Installation in 30 seconds Flush fitting Ø: 175mm Customizable color



## Sound Projectors

### Sound projectors 0,6 W to 20 W

Outdoor applications, dust and water protection (see IP index)  
Easy installation with swivel bracket



RB-19















RB-5019

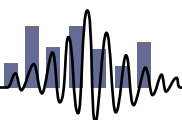


RB-39



RB-5035

REFERENCE	RB-19	RB-39	RB-5019	RB-5035
DESCRIPTION	Sound projector	Sound projector	Sound projector	Coaxial sound projector
APPLICATIONS	  	  	  	  
NOMINAL POWER	10 W	20 W	6 W	20 W
100 V LINE POWER	10 / 4 / 1,6 / 0,6 W	20 / 10 / 5 / 2,5 W	6 / 3 / 1,5 W	20 / 10 / 5 W
100 V LINE IMPEDANCE	10 W : 1 000 Ω 4 W : 2 500 Ω 1,6 W : 6 250 Ω 0,6 W : 16 666 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω	6 W : 1 670 Ω 3 W : 3 300 Ω 1,5 W : 6 670 Ω	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω
BANDWIDTH	170 - 20 000 Hz	140 - 15 000 Hz	180 - 19 000 Hz	130 - 19 000 Hz
PRESSURE LEVEL	89 dBA / 1 W / 1 m 100 dBA / 10 W / 1 m	91 dBA / 1 W / 1 m 104 dBA / 20 W / 1 m	92,5 dBA / 1 W / 1 m 100 dBA / 6 W / 1 m	94 dBA / 1 W / 1 m 107 dBA / 20 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	100°	100°	110°	120°
LOUDSPEAKER DIMENSIONS	10 cm - 4"	17 cm - 6,5"	13 cm - 5"	17 cm - 6,5"
LOUDSPEAKER FEATURES	Tropicalized dual cone	Simple cone	Double cone	Double cone
LOUDSPEAKER MATERIAL	Cellulose	Latex		
CONNECTION	Screw terminals + cable seal	Screw terminals + cable seal	Cable 1,5m	Cable 1,5m
COLOR	Black RAL 9005	Black RAL 9005	White RAL 9016	White RAL 9016
MATERIAL	Metal	Metal	ABS	ABS
DIMENSIONS (MM)	130 x 180 x 130	177 x 235 x 177	Ø 138 x 205	Ø 170 x 245
WEIGHT (KG)	2	3,2	1,5	1,8
FEATURES	Swivel bracket Anti-corrosion treatment Stainless steel screws Customizable color	Swivel bracket Stainless steel screws Customizable color		







## Sound projectors 2,5 W à 40 W







Outdoor applications, dust and water protection (see IP index)  
Easy installation with swivel bracket



RB-2035



RB-3041

REFERENCE	RB-2035	RB-3041
DESCRIPTION	Coaxial sound projector	Coaxial sound projector
APPLICATIONS	  	  
NOMINAL POWER	20 W	40 W
100 V LINE POWER	20 / 10 / 5 / 2,5 W	40 / 25 / 14 W
LOW-IMPEDANCE POWER	20 W / 8 Ω	40 W / 16 Ω
100 V LINE IMPEDANCE	20 W : 500 Ω 10 W : 1 000 Ω 5 W : 2 000 Ω 2,5 W : 4 000 Ω	40 W : 250 Ω 25 W : 400 Ω 14 W : 700 Ω
BANDWIDTH	100 - 17 000 Hz	100 - 20 000 Hz
PRESSURE LEVEL	91 dBA / 1 W / 1 m 104 dBA / 20 W / 1 m	94 dBA / 1 W / 1 m 118 dBA / 40 W / 1 m
DIRECTIVITY (-6 dBA) AT 1 KHZ	80°	90°
LOUDSPEAKER DIMENSIONS	17 cm - 6,5"	21 cm - 8"
LOUDSPEAKER FEATURES	Wideband	3 coaxial channels
LOUDSPEAKER MATERIAL	Fiberglass	Cellulose
CONNECTION	Cable 0,80m	Screw terminals + packing gland
COLOR	Grey RAL 7035	White
MATERIAL	ABS - Aluminium	ABS - Aluminium
DIMENSIONS (MM)	Ø 175 x 265	Ø 255 x 350
WEIGHT (KG)	1,9	10
FEATURES	Swivel bracket IP 55	IP 54 Very high quality









**Exponential Sound Projectors**

**Exponential projectors 12,5 W to 100 W**

- High output / wide band
- Harsh environments
- Quality sound over large open spaces



**RX- B01  
RX-B02**

REFERENCE	RX-B01	RX-B02
DESCRIPTION	Exponential sound projector	Exponential sound projector
APPLICATIONS	  	  
NOMINAL POWER	100 W	50 W
100 V LINE POWER	100 / 50 / 25 / 12,5 W	50 / 30 / 15 W
100 V LINE IMPEDANCE	100 W : 100 Ω 50 W : 200 Ω 25 W : 400 Ω 12,5 W : 800 Ω	50 W : 200 Ω 30 W : 333 Ω 15 W : 666 Ω
BANDWIDTH	90 - 16 000 Hz	90 - 16 000 Hz
PRESSURE LEVEL	103 dBA / 1 W / 1 m 123 dBA / 100 W / 1 m	103 dBA / 1 W / 1 m 120 dBA / 50 W / 1 m
DIRECTIVITY (-6 dBA) À 1 KHZ	100° x 70 °	110° x 60 °
LOUDSPEAKER DIMENSIONS	16,5 cm - 6,3"	16,5 cm - 6,3"
LOUDSPEAKER FEATURES	Simple cone	Simple cone
LOUDSPEAKER MATERIAL	Cellulose	Cellulose
CONNECTION	Wire	Wire
COLOR	Grey RAL 7035	Grey RAL 7035
MATERIAL	ABS	ABS
DIMENSIONS (MM)	360 x 250 x 320	360 x 250 x 320
WEIGHT (KG)	4,7	4,4
FEATURES	IP 66	IP 66



**Specials**

**Portable unit 50 W**

Compact - Practical – Lightweight  
6 hours battery life



**CP-5874**

REFERENCE	CP-5874
DESCRIPTION	Portable unit
APPLICATIONS	 
NOMINAL POWER	50 W
100 V LINE POWER	50 / 30 W
LOW-IMPEDANCE POWER	30 W / 4 Ω
INPUTS	1 Aux 1 Jack 6,35 mm
OUTPUTS	1 additional loudspeaker 1 Jack 6.35 mm
LOUDSPEAKER	15 cm - 6,5"
DIMENSIONS	
LOUDSPEAKER	Single cone
FEATURES	
CONNECTION	Jack 6,35
COLOR	Black
MATERIAL	ABS - Metal grid
DIMENSIONS (MM)	313 x 220 x 215
WEIGHT (KG)	5,4
POWER SUPPLY	12 v battery / mains charger
FEATURES	Delivered with protection cover UHF wireless microphone Remote control

**Loudhailer 15 W**

Handle with pushbutton  
Volume control



**CP-115**

REFERENCE	CP-115
DESCRIPTION	Loudhailer
NOMINAL POWER	15 W
BANDWIDTH	700 - 5 000 Hz
RANGE	300 - 500 metres
BATTERY LIFE	Voice : 12 hours Siren : 20 min
BATTERY VOLTAGE	9 V
COLOR	Red
MATERIAL	Plastic
DIMENSIONS (MM)	Ø 208 x 320
WEIGHT (KG)	1,1
FEATURES	IP 54



**Specials**

**Garden loudspeaker 20 W**  
Ambient music broadcasting  
Watertight







**Sub-aquatic loudspeaker 60 W**  
IP X8 – Permanent immersion  
High Intelligibility



**RB-120**



**RY-RB-SUBAQUA**

REFERENCE	RB-120	RY-RB-SUBAQUA
DESCRIPTION	Garden loudspeaker	Sub-aquatic loudspeaker
APPLICATIONS	  	  
NOMINAL POWER	20 W	60 W
100 V LINE POWER	20 / 10 W	60 W
100 V LINE IMPEDANCE	20 W : 500 Ω 10 W : 1 000 Ω	
BANDWIDTH	85 - 16 000 Hz	100 - 16 000 Hz
PRESSURE LEVEL	85 dBA / 1 W / 1 m 98 dBA / 20 W / 1 m	
DIRECTIVITY (-6 dBA) À 1 KHZ	360°	Omnidirectional
LOUDSPEAKER DIMENSIONS	13 cm - 5''	
LOUDSPEAKER FEATURES	2 tropicalized coaxial channels	
LOUDSPEAKER MATERIAL	Cellulose	
CONNECTION	Wired	
COLOR	Green	White
MATERIAL	ABS	ABS
DIMENSIONS (MM)	213 x 213 x 234	Ø 300 x 170
WEIGHT (KG)	2,3	5
FEATURES		Supplied with 3-m cable



## Horn speaker 20W dedicated for marine applications

Light alloy moulded body












Protection Index IP 66



HP-49-D



RP-34-F  
RP-39  
TAH-001

REFERENCE	HP-49-D	RP-34-F	RP-39	TAH-001
DESCRIPTION	Horn speaker	Horn speaker	Horn speaker	Horn speaker
APPLICATIONS	 	  	  	  
NOMINAL POWER	2W	20 W	20 W	10 W
100 V LINE POWER	2 / 1 W	20 / 10 / 3 W	20 / 7,5 / 2,5 W	10 W
LOW-IMPEDANCE POWER	16 Ω	16 Ω	16 Ω	
100 V LINE IMPEDANCE	2 W : 500 Ω 1 W : 1 000 Ω	20 W : 500 Ω 10 W : 1 000 Ω 3 W : 3 300 Ω	20 W : 500 Ω 7,5 W : 1 400 Ω 2,5 W : 4 000 Ω	10 W : 600 Ω
BANDWIDTH	300 - 10 000 Hz	450 - 3 500 Hz	450 - 4 500 Hz	300 - 6000 Hz
PRESSURE LEVEL	88 dBA / 1 W / 1 m	101 dBA / 1W / 1 m	101 dBA / 1W / 1 m	100 dBA / 1 W / 1 m 110 dBA / 10 W / 1 m
DIRECTIVITY (-6 dBA) Å 1 KHZ	120 °	90° (à -8dB)	150°	90° (à -8dB)
LOUDSPEAKER DIMENSIONS	12,5 cm	Motor	Motor	Motor
LOUDSPEAKER FEATURES	Dual cone	Motor	Motor	Motor
LOUDSPEAKER MATERIAL	Fiberglass			
CONNECTION	Internal screw terminal	Internal screw terminal	Internal screw terminal	Internal screw terminal
COLOR	Grey	Grey	Grey	Grey
MATERIAL	Metal	Cast iron	Cast iron	Metal
DIMENSIONS (MM)	185 x 96 x 250	Ø 250 x 215	Ø 250 x 215	Ø 250 x 215
WEIGHT (KG)	2,5	7,5	7,5	8
FEATURES	Loudspeaker dedicated to marine applications 100 V or 6 V	Loudspeaker dedicated to marine applications	Loudspeaker dedicated to marine applications IP 66	Loudspeaker dedicated to marine applications 24 VDC power



**Accessories**



**ZR-04**



**ZR-86**



**ZR-5012**



**ZR-85**

REFERENCE	ZR-04	ZR-5012	ZR-85	ZR-86
DESCRIPTION	Visor for RB-2035	Tripod for CP-5874	Protection cover for RB-501	Protection cover for RB-701
MATERIAL	Plastic	Metal	Metal	Metal
COLOR	Transparent	Black	White RAL 9010	White RAL 9010
DIMENSIONS (MM)	Ø 185 x 220		Ø 181 x 110	Ø 219 x 110
WEIGHT (KG)	0,32		0,37	0,52
FEATURES		Adjustable height: 1.5 m max	Supplied without Sealed cable output	Supplied without Sealed cable output



## Attenuators

### Loudspeaker line attenuators

10 W to 60 W

Signal level restoration



REFERENCE	RX-ZR01	RX-ZR02	RX-ZR03
DESCRIPTION	12 W attenuator	24 W attenuator	50 W attenuator
MATERIAL	Metal	Metal	Metal
COLOR	White	White	White
DIMENSIONS (MM)	80 x 60 x 80	80 x 60 x 80	80 x 60 x 80
FEATURES	Signal level restoration	Signal level restoration	Signal level restoration

REFERENCE	ZR-1210	ZR-1220	ZR-1260
DESCRIPTION	10 W attenuator	20 W attenuator	60 W attenuator
FEATURES	6-position 100V Signal level restoration	6-position 100V Signal level restoration	6-position 100V Signal level restoration



**Magnetic loop amplifiers**

**Induction loop for the hard-of-hearing conform to NF EN 60118-4**

Range of 3 m<sup>2</sup> to 1000 m<sup>2</sup>

Usable per disabled people's directive



**RY-IL-170M<sup>2</sup>**



**IL-070**



**RY-IL-800M<sup>2</sup>**

REFERENCE	LA-90	IL-070	RY-IL-170M <sup>2</sup>	RY-IL-800M <sup>2</sup>
DESCRIPTION	Magnetic loop amplifier for counters	Magnetic loop amplifier	Magnetic loop amplifier	Magnetic loop amplifier
FEATURES	Area covered: 3 m <sup>2</sup> Integrated microphone	Area covered: 70 m <sup>2</sup>	Area covered: 170 m <sup>2</sup>	Area covered: 1000 m <sup>2</sup>
INPUTS	3.5 mm jack	2 LINE RCA 2 MIC RCA	2 MIC/LINE XLR	1 microphone input 2 switchable microphone or line inputs 1 input 100V
LEVEL SETTING	Yes	Yes	Yes	Yes
POWER SUPPLY	100 - 240 VAC 12 - 24 VDC	100 - 240 VAC 12 - 24 VDC	230 - 240 VAC	115 - 230 VAC
MATERIAL	Box: metal Front: ABS	Box: metal Front: ABS	Metal	Metal
COLOR	Aluminium grey	Aluminium grey	Black	Black
DIMENSIONS (MM)	185 x 200 x 70	182 x 140 x 42	295 x 205 x 65	430 x 270 x 90
WEIGHT (KG)	0,635	0,905	9,3	7,8



## Magnetic Loop Accessories



IL-200



RY-IL-CASQUE



IL-201



RY-IL-CHARGEUR

REFERENCE	IL-200	IL-201	RY-IL-CASQUE	RY-IL-CHARGEUR
DESCRIPTION	Pocket receiver for magnetic loop	Receiver headphones for magnetic loop	Receiver headphones for magnetic loop	Headphone charger
FEATURES	Belt attachment clip	Comfort pads	8-hr battery life Stethoscope headphones	Charging station : 5 RY-IL-CASQUE
CONNECTORS	6.35 jack socket for headphones	Jack 6,35		
POWER SUPPLY	9 V battery			
MATERIAL	Plastic	Plastic	Plastic	Plastic
COLOR	Black	Black	Black	Black
DIMENSIONS (MM)	63 x 100 x 29			
WEIGHT (KG)	0,1	0,135	0,55	



**Conference Systems**

**Conference system**

Bus connection

Stand-alone system: console with a loudspeaker and microphone ON indicator



EC-401



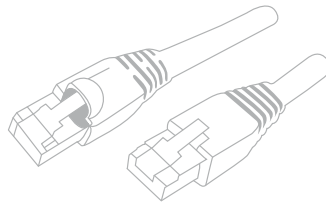
EC-460  
EC-461



EC-465  
EC-466



EC-420



EC-421  
EC-422



EL-720



REFERENCE	EC-401
DESCRIPTION	Control unit
FEATURES	For 50 consoles max Record / play connector
BANDWIDTH	500 - 9 000 Hz
POWER SUPPLY	230 VAC
AMPLIFIER / PREAMPLIFIER	7 W
CABLE SUPPLIED	5 m
MATERIAL	Metal
COLOR	Anthracite grey
DIMENSIONS (MM)	422 x 230 x 45
WEIGHT (KG)	3,2

REFERENCE	EC-460	EC-461	EC-465	EC-466
DESCRIPTION	Chairman's console	Delegate's console	Flush-mounted chairman's console	Flush-mounted delegate's console
FEATURES	«Talk» indicator light Priority over all consoles	«Talk» indicator light	«Talk» indicator light Priority over all consoles	«Talk» indicator light
BANDWIDTH	350 - 14 000 Hz	350 - 14 000 Hz	350 - 14 000 Hz	350 - 14 000 Hz
POWER SUPPLY	24 VDC	24 VDC	24 VDC	24 VDC
LOUDSPEAKER	1	1	1	1
ELECTRET MICROPHONE	Unidirectional	Unidirectional	Unidirectional	Unidirectional
CABLE SUPPLIED	2 m	2 m	2 m	2 m
MATERIAL	ABS	ABS	Metal	Metal
COLOR	Anthracite grey	Anthracite grey	Anthracite grey	Anthracite grey
DIMENSIONS (MM)	110 x 150 x 45	110 x 150 x 45	175 x 126 x 54	175 x 126 x 54
WEIGHT (KG)	1,1	1,1	1,1	1,1

REFERENCE	EC-420	EC-421	EC-422	EL-720
DESCRIPTION	Connection unit to connect the control unit to consoles	Extension cable	Extension cable	Connection box
FEATURES	For long-distance connection	2 RJ 45 connectors	2 RJ 45 connectors	Connects the control desk to the consoles via RJ 45
BANDWIDTH				
POWER SUPPLY	24 VDC			
CABLE SUPPLIED				2 m
MATERIAL	Metal			Metal
COLOR	Anthracite grey			Anthracite grey
DIMENSIONS (MM)	108 x 43 x 33	Length 2 m	Length 5 m	81 x 48 x 26
WEIGHT (KG)	0,16			0,2



Master Stations Intercom

**Stand-alone master stations**

Integrated microphone  
Adjustable volumes



PC-2104



PC-2112



PC-2108

**Stand-alone power master station**

Flush mounted  
Integrated microphone and palm  
microphone



PC-3112

## Master Stations

REFERENCE	PC-2104	PC-2108
<b>DESCRIPTION</b>	Master station	Master station
<b>FEATURES</b>	4 directions	8 directions
AT MASTER STATION	1,2 W	1,2 W
ON SECONDARY STATION	1,2 W	1,2 W
<b>POWER SUPPLY</b>	24 VDC Power supply unit - 2500 mA max	24 VDC Power supply unit - 2500 mA max
<b>NUMBER OF SECONDARY STATIONS</b>	4	8
IMPEDANCE ON SECONDARY STATIONS	16 to 50 $\Omega$	16 to 50 $\Omega$
<b>CONNECTION CABLE</b>	Shielded pair	Shielded pair
<b>FUNCTIONS</b>		
CALL TO 1 SECONDARY STATION	Voice or sound	Voice or sound
CALL FROM 1 SECONDARY STATION	Sound and light	Sound and light
CALL NUMBER STORED	Yes	Yes
TALK / LISTEN FUNCTION	Manual	Manual
GENERAL CALL	Yes	Yes
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black and grey	Black and grey
<b>DIMENSIONS (MM)</b>	282 x 144 x 55	282 x 144 x 55
<b>WEIGHT (KG)</b>	1,8	1,8

REFERENCE	PC-2112	PC-3112
<b>DESCRIPTION</b>	Master station	Power master station
<b>FEATURES</b>	12 directions	12 directions
AT MASTER STATION	1,2 W	15 W / 16 $\Omega$
ON SECONDARY STATION	1,2 W	5 W / 50 $\Omega$
<b>POWER SUPPLY</b>	24 VDC Power supply unit - 2500 mA max	24 VDC Power supply unit - 3500 mA max
<b>NUMBER OF SECONDARY STATIONS</b>	12	12
IMPEDANCE ON SECONDARY STATIONS	16 $\Omega$ to 50 $\Omega$	16 $\Omega$ to 50 $\Omega$
<b>CONNECTION CABLE</b>	Shielded pair	Shielded pair
<b>FUNCTIONS</b>		
CALL TO 1 SECONDARY STATION	Voice or sound	Voice or sound
CALL FROM 1 SECONDARY STATION	Sound and light	Sound and light
CALL NUMBER STORED	Yes	Yes
TALK / LISTEN FUNCTION	Manual	Manual
GENERAL CALL	Yes	Yes
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Black and grey	Black and grey
<b>DIMENSIONS (MM)</b>	282 x 144 x 55	332 x 172 x 43
<b>WEIGHT (KG)</b>	1,8	2,9



## Secondary Stations Intercom

Secondary stations suited to all environmental constraints



PS-630



PS-901



PS-1510



PS-2101



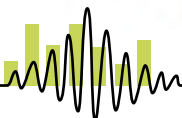
PS-2601

REFERENCE	PS-630	PS-901	PS-1510	PS-2101	PS-2601
<b>DESCRIPTION</b>	Power secondary station	1-Direction secondary station	Alarm secondary station	1-Direction secondary station	1-Direction secondary station
<b>FEATURES</b>	Horn speaker Swivel bracket	For harsh environment Usable as response box Jack plug for PZ-10 microphone headset IP-51	Alarm with flexible plate IP-50	Wall mounting or free standing	Flush mounting or surface-mounted wall attachment Flush fitting Ø: 100 mm Fixing distance : 100 x 100 mm
<b>PERMISSIBLE POWER</b>	15 W	0,5 W	0,3 W	2 W	1 W
<b>IMPEDANCE</b>	50 Ω	50 Ω	50 Ω	16 Ω	50 Ω
<b>CONNECTION CABLE</b>	1 shielded pair	1 shielded pair	1 shielded pair	1 shielded pair	1 shielded pair
<b>CALL TO MASTER STATION</b>		Manual	Manual	Manual	Manual
<b>MATERIAL</b>	Body: ABS	Metal	Metal	Metal	Metal
<b>COLOR</b>	White RAL 9010	Grey and black	Red RAL 3020	Black and grey	Ivory RAL 1013
<b>DIMENSIONS (MM)</b>	285 x 285 x 205	187 x 67 x 92	93 x 38 x 143	144 x 155 x 42	118 x 40 x 118
<b>WEIGHT (KG)</b>	1,8	0,7	0,5	1	0,35

## Intercom accessories



REFERENCE	PZ-10	PZ-24
<b>DESCRIPTION</b>	Microphone headset for noisy surroundings	Mains power supply for PC-3112
<b>FEATURES</b>	Dynamic microphone Sound-insulated closed headphones	
<b>PERMISSIBLE POWER</b>	200 mW	
<b>CONNECTION CABLE</b>	Coiled cable + jack 6.35	
<b>CALL TO MASTER STATION</b>	Manual on PS-901	
<b>COLOR</b>	Grey and black	Black
<b>WEIGHT (KG)</b>	0,275	



## Intercom

### Intercom system - 20 to 80 directions

1 to 4 modules, 20 cascable directions - Musical broadcast management  
LCD display console and digital keyboard



IZ-2020



GX-2020



IG-1800

**Counter intercom** Microphone et haut-  
Integrated microphone and loudspeakers  
Anti-feedback filters

REFERENCE	IZ-2020	GX-2020
<b>DESCRIPTION</b>	Central intercom station	Command microphone console for IZ-2020 unit
<b>FEATURES</b>	20 directions Music broadcasting via AUX input	20 to 80 directions 16-key keyboard Volume control LCD display
<b>POWER SUPPLY</b>		By IZ-2020
<b>NUMBER OF SECONDARY STATIONS</b>	20	20 to 80
<b>IMPEDANCE ON SECONDARY STATIONS</b>	16 to 50 Ω	
<b>OUTPUTS</b>	20	
<b>CONNECTION CABLE</b>	RS 485 bus	RS 485 bus
<b>FUNCTIONS</b>		
CALL TO 1 SECONDARY STATION	By GX-2020	Sound
CALL FROM 1 SECONDARY STATION	By GX-2020	Sound + display of caller's number
CALL NUMBER STORED	On GX-2020	On LCD display
TALK / LISTEN FUNCTION		Manual
GENERAL CALL	By GX-2020	Yes
<b>MATERIAL</b>	Metal	Metal
<b>COLOR</b>	Anthracite grey	Anthracite grey
<b>DIMENSIONS (MM)</b>	378 x 206 x 75	206 x 135 x 51
<b>WEIGHT (KG)</b>	3,4	1

REFERENCE	IG-1800
<b>DESCRIPTION</b>	Counter intercom kit consisting of: 1 microphone console 1 power supply 230 V 1 microphone module 2 loudspeakers
<b>FEATURES</b>	Microphone remote control on connector Ready to install - Full duplex
<b>POWER SUPPLY</b>	230 VAC - 12 VDC Power supply unit
<b>BANDWIDTH</b>	200 - 10 000 Hz
<b>DISTORTION LEVEL</b>	< 1 %
<b>MATERIAL</b>	Metal
<b>COLOR</b>	Anthracite grey
<b>DIMENSIONS (MM)</b>	Console: 195 x 158 x 42 Loudspeaker: 100 x 100 x 62 Microphone: 60.5 x 28 x 32.5
<b>WEIGHT (KG)</b>	Console: 2.8 Loudspeaker: 0.65 Microphone: 0.06



**Sound Level Limiter**

**Limiter conform to NFS-31-122**

Dual-mode : cutoff or attenuation

Remote LCD display with integrated sensor



**LP-3105**

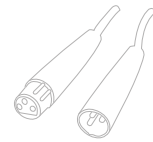
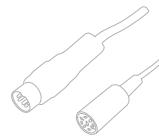
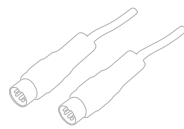


REFERENCE	LP-3105
<b>DESCRIPTION</b>	Sound level limiter with LCD display
<b>POWER SUPPLY</b>	230 VAC
<b>INPUTS</b>	
MIC / AUX / 0 DBU	0 dBu SYM
<b>CONNECTORS</b>	3-point terminal blocks x 2
<b>OUTPUTS</b>	
0 DBU	0 dBu SYM
<b>CONNECTORS</b>	3-point terminal blocks x 2
<b>BANDWIDTH</b>	30 - 20 000 Hz
<b>MATERIAL</b>	Limiter: Metal Display: ABS
<b>COLOR</b>	Limiter: Black Display: Grey
<b>DIMENSIONS (MM)</b>	Limiter: 488 x 90 x 75 Display: 333 x 170 x 46
<b>WEIGHT (KG)</b>	Limiter: 2.3 Display: 0.750
<b>FEATURES</b>	Supplied with 30 m CAT 5 cable

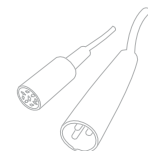
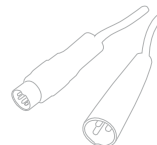
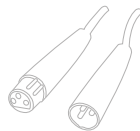
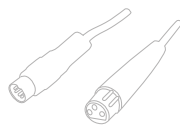




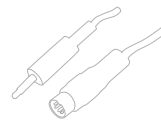
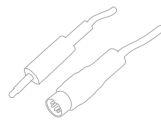
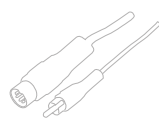
## Cords



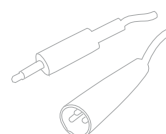
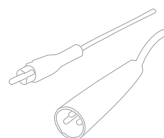
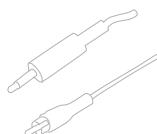
REFERENCE	GZ-31	GZ-33	GZ-40	GZ-42
DESCRIPTION	Extension cable	Connection cable	Microphone cable	Microphone cable
TYPE	2 shielded pairs	2 shielded pairs	2 shielded pairs	1 shielded pair
CONNECTORS	DIN 5-pin female DIN 5-pin male	DIN 5-pin male DIN 5-pin male	DIN 5-pin female DIN 5-pin male	XLR female XLR male
LENGTH (M)	10	1,5	10	10
PIN ARRANGEMENT	B	B	B	B



REFERENCE	GZ-44	GZ-45	GZ-47	GZ-140
DESCRIPTION	Connection cable	Connection cable	Connection cable	Extension cable
TYPE	2 shielded pairs	2 shielded pairs	2 shielded pairs	2 shielded pairs
CONNECTORS	XLR female DIN 5 male pins	XLR female XLR male	DIN 5-pin male XLR male	DIN 5-pin female lock. XLR male
LENGTH (M)	1,2	1,2	1,2	10
PIN ARRANGEMENT	B	A	E	E



REFERENCE	GZ-141	GZ-142	GZ-143	GZ-148
DESCRIPTION	Connection cable	Connection cable	Connection cable	Connector XLR
TYPE	2 shielded pairs	2 shielded pairs	2 shielded pairs	Tension 50 V
CONNECTORS	DIN 5-pin male RCA stereo - Cinch	DIN 5-pin male Jack 3.5 stereo	DIN 5-pin male Jack 6.35 stereo	XLR male
LENGTH (M)	1,5	1,2	1,2	

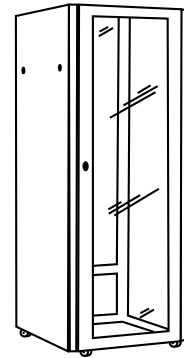
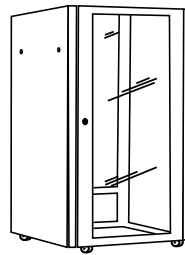
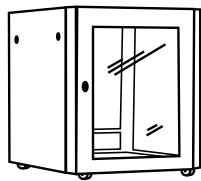


REFERENCE	GZ-150	GZ-151	GZ-152
DESCRIPTION	Cable for smartphone	Connection cable	Connection cable
TYPE			
CONNECTORS	Jack 3,5 male RCA male	2 RCA Male XLR male	Jack 6,35 XLR 1,2 male
LENGTH (M)		1,2	1,2

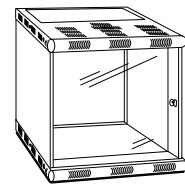
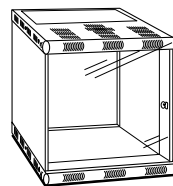


**Racks**

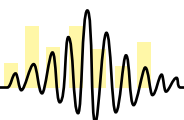
**6 U to 42 U Racks**  
 Max load on stand: 300 kg  
 Max wall load: 60 kg



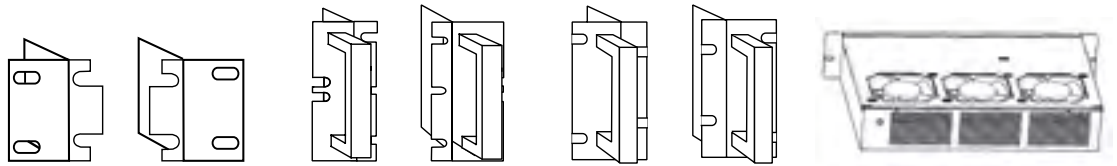
REFERENCE	BM-312	BM-321	BM-327
DESCRIPTION	12 U rack	21 U rack	27 U rack
PRESENTATION	19" rack with glass door	19" rack with glass door	19" rack with glass door
COLOR	Satin black	Satin black	Satin black
MATERIAL	Steel	Steel	Steel
DIMENSIONS (MM)	600 x 600 x 740	600 x 600 x 1140	600 x 600 x 1405
FEATURES	Safety glass door castors + stabilization legs	Safety glass door castors + stabilization legs	Safety glass door castors + stabilization legs
WIRED MOUNTED RACKS	MC-BM312 : 12U 19" lump sum integration MC-BM312-B3S : lump sum integration in 12U 19" rack - B3S EN54-16 MC-BM312-SER : lump sum integration in 12U 19" rack - Serenity Voice EN54-16	MC-BM312 : 21U 19" lump sum integration MC-BM312-B3S : lump sum integration in 21U 19" rack - B3S EN54-16 MC-BM312-SER : lump sum integration in 21U 19" rack - Serenity Voice EN54-16	MC-BM312 : 27U 19" lump sum integration MC-BM312-B3S : lump sum integration in 27U 19" rack - B3S EN54-16 MC-BM312-SER : lump sum integration in 27U 19" rack - Serenity Voice EN54-16



REFERENCE	BM-342	BM-406	BM-409
DESCRIPTION	42 U rack	6 U box	9 U box
PRESENTATION	19" rack with glass door	19" box with glass door	19" box with glass door
COLOR	Satin black	Satin black	Satin black
MATERIAL	Steel	Steel	Steel
DIMENSIONS (MM)	600 x 600 x 2077	600 x 600 x 368	600 x 600 x 501
FEATURES	Safety glass door castors + stabilization legs	Safety glass door	Safety glass door
WIRED MOUNTED RACKS	MC-BM312 : 42U 19" lump sum integration MC-BM312-B3S : lump sum integration in 42U 19" rack - B3S EN54-16 MC-BM312-SER : lump sum integration in 42U 19" rack - Serenity Voice EN54-16	MC-BM406 : 6U 19" lump sum integration	MC-BM409 : 9U 19" lump sum integration



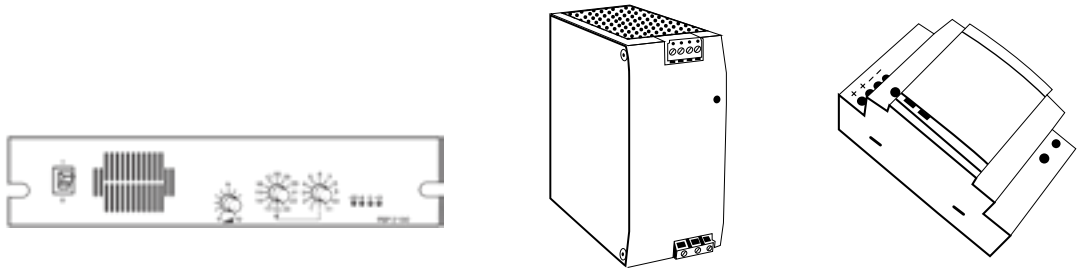
## Accessories



REFERENCE	AZ-6	AZ-7	AZ-8	AZ-10
DESCRIPTION	Fixation kit	Fixation kit	Fixation kit	Fan unit
DIMENSIONS	1 U	2 U	3 U	2 U
WEIGHT (KG)	0,06	0,35	0,5	4,2
FEATURES	For installation of 1U amplifiers and boxes in 19" rack Supplied with screws	For installation of 2U amplifiers and boxes in 19" rack Supplied with screws	For installation of 3U amplifiers and boxes in 19" rack Supplied with screws	Equipped with 3 fans Ø 12 cm Sound level < 60 dB



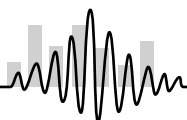
REFERENCE	AZ-2051	AZ-2052	AZ-2053	AZ-3016
DESCRIPTION	Blank front panel	Blank front panel	Blank front panel	5 level assembly kit installation in BM-342 rack
DIMENSIONS	1 U	2 U	3 U	
WEIGHT (KG)	0,35	0,65	1	
FEATURES	Supplied with screws	Supplied with screws	Supplied with screws	Supplied with screws



REFERENCE	PBP-2190	NS-221504	NS-221505
DESCRIPTION	Control panel 23 outputs - 100 V line	230VAC/24VDC power supply	230VAC/24VDC power supply
DIMENSIONS (MM)	2 U		
WEIGHT (KG)			
CONSUMPTION		5A	1A
FEATURES	Controls the audio sources and lines. 230V or 24V power supply (not supplied). VU-meters, monitor loudspeaker, level adjustment, outputs selector	Power supply for PGM microphone range	Power supply for PGM microphone range



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## AUDIT

Carrying out an upstream audit is the guarantee for an adapted integration.

Our teams are available to carry out an audit of your site prior to project achievement. This will optimize the architecture and installation of your sound system.



## INTEGRATION

Careful integration guarantees a simple, custom-made installation.

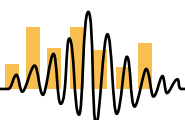
Our integration department proposes to house your sound system solution in a technical cabinet. Further to our commercial audit, a project leader will be appointed to coordinate the complete development of your system as per your needs. Once assembled, your system will be tested by qualified engineers and technicians and delivered ready-to-run, along with a complete technical file.



## COMMISSIONING

Commissioning of your installations by experts is guarantee of performance and reliability for you.

Our teams that help you commissioning are also the teams that design the solution, make the system, perform the functional tests and write the technical documentation. By having your system put into service by BOUYER, you are opting for a fast and reliable installation process.





## MAINTENANCE

Ensuring long-term sustainability of your installations is the guarantee of optimum security.

Regular maintenance of your installations is the guarantee of perfect service continuity and optimized lifetime. Periodic inspections will make it possible to check the condition of your installations, identify any repair that may be required and propose improvements. With a BOUYER maintenance contract you are opting for peace of mind. Our technical department is attentive to your needs and places all its know-how at your disposal.



## TRAINING

Ensuring the training of your teams means securing your installations in the long term.

Whether for the purpose of a general understanding of how our Public Address solutions function or your will to master technically our systems, we can propose various training courses adapted to your needs.



## AFTER-SALES SERVICE

Our After Sales department is at your disposal for repairs and supply of spare parts.

### *You need help for installation and commissioning ?*

Do not hesitate and ask for Telephone assistance (ATMES – upon previous quotation).

After having studied your needs and agreed upon a date for telephone exchange, our technicians will call you to help you commission your public address system (except for integrated rack cabinets for which commissioning is not made by telephone).



@ [savbouyer@bouyer.com](mailto:savbouyer@bouyer.com)

+33.(0)563 213 081

+33.(0)563 213 059



TECHNICAL ASSISTANCE

**You need some advice ?**

Our technicians are there to answer your questions on the choice of products, modifications of your installation, their equivalences as well as any technical issue regarding BOUYER products.



**+33 (0)563 213 050**

*Monday to Friday  
9.00 to 12.00 am and  
2.00 to 5.00 pm*

SALES DEPARTMENT



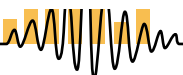
**+33.(0)563 213 050**



**+33 (0)563 213 158**



**bouyexport@bouyer.com**







**BOUYER SAV**

Preliminary Agreement (Delivered by the After Sales Dpt) **N° BS .....**

(The number hereabove mentioned must be readable on your parcel)

Date of Agreement : -----(this agreement is valid 30 days after this date)

Customer : -----

Country : -----

-----

Fax Nbr : -----

Phone Nbr : -----

Contact Name : -----

Email : -----

**BOUYER SAV**

Address : **1270 Route de Toulouse**

**82000 MONTAUBAN**

**FRANCE**

Email [savbouyer@bouyer.com](mailto:savbouyer@bouyer.com)

Return for repairing

Warranty is requested  
(Please provide a proof of your purchase)

*Equipment to be returned at customer's cost, as per BOUYER international sales terms. Should any cost be requested to BOUYER upon delivery, parcel will be refused.*

**LIST OF EQUIPMENT**

Reference & Index	Quantity	Serial Number	Reason for Return

Non accepted quotations requiring the unit to be returned will be invoiced on the basis of one hour labour time + return shipment cost.

BOUYER After Sales Dpt Signature	
Date & CUSTOMER's Signature	

### General

These general terms of sale are entered into and apply unrestrictedly and unreservedly between, firstly SAS BOUYER SYSTEME, registered in the Business Register of Montauban under n° 523 071 819 and located at : 1270 Avenue de Toulouse 82000 Montauban (hereinafter referred to as « Our Company ») and secondly, the business companies wishing to buy the products offered for sale by BOUYER INDUSTRIE (hereinafter « the client »).

The general terms of sale shall apply exclusively to all our sales. All other terms are binding on us only if they have been formally agreed to and confirmed in writing by us. Any clause contrary to the said terms, whether printed or handwritten, appearing on the order or on any other document issued by the client shall be deemed non written, by right. The mere act of placing an order with us implies unreserved acceptance of these terms.

### Features of the products

We reserve the right to make, without notice, any change or useful improvement to our equipment without having to change the equipment that has already been ordered or delivered.

### Order

Any order or change in order should be written on letterhead paper or bear the seal of the client and be confirmed by its signature. No sale is complete without our acceptance. After a period of 24 hours after receipt of our order, no claim, cancellation or change may be accepted by us regarding items, amounts, prices and technical terms. The client cannot cancel orders confirmed by us unless we give our consent thereto in writing. In that event we can demand compensation whose amount, except for exceptions, should not exceed the sale price of the ordered product.

### Force majeure

Our Company may cancel or suspend at any time, all or part of the said order due to fortuitous cases or force majeure events preventing the performance of the contractual relationship. Shall be considered, inter alia, as such : labour conflicts, bad weather, lack of transportation means, energy and supply shortages. We agree to inform the client promptly after the occurrence of the event, of the suspension or cancellation of the order, which shall in no case result in damages for any reason.

### Billing and price

Our prices are given before taxes ex works and without discount. They shall apply based on applicable prices, subject to different terms specified in the estimate. They may be revised without notice by us. In the event of any dispute, the price showed in our order receipt confirmation shall be applicable. All orders inferior to 1000,00 € ex-works will be subject to processing administrative charges of 50,00 €. Visa fees for documents (invoice, certificate of origin) : 85,00 € before taxes for international invoices.

### Shipping, delivery

Our sales are entered into in Montauban, whatever the shipping and payment methods. Even when our prices are established « Free of charge », the goods travel at the risk of the client. In the event of any damage, the client is responsible for having the carrier acknowledge the damage within the allotted time and initiate its claim against it. Our goods are shipped normally by the road carrier and usual routes. Any other shipping method (including the EXPRESS mode) shall be use only on our clients' formal request confirmed by mail or by fax. The difference in price between the normal shipping method and the requested method shall be charged with a 10 % increase for care and work. It is formally agreed that the delivery times are not absolute deadlines and that no failure to meet them may result in order cancellation or in the application of penalties.

### Payment terms

Deliveries are made after payment in advance or cash on delivery. If the client offers sufficient guarantees and / or if the deliveries are covered by our credit insurance, the invoices, including for partial deliveries, should be settled by cheque or transfer cash. Only the payment terms appearing in our order forms are valid, excluding any other payment method, including those appearing in the client's order form. In the event of payment by bill of exchange, any failure of acceptance and return thereof within 8 days, all invoices shall become payable immediately. In the event of any deterioration in the financial situation of the client and / or termination of the credit insurance and / or any other event indicative that payment for the deliveries is no longer guaranteed, we are entitled to the right to demand immediate payment in advance for any delivery that was the subject of an order confirmation or not. Costs related to the payment including bank costs are payable by the client.

### Payment failure

By formal agreement and unless in case of a postponement requested on time and granted by our company, failure to pay our supplies on the set term, failure to return a draft and promissory note or failure to pass on an mandate within the legal or regulatory terms shall result, with no prior injunction :

- the settlement of an interest equal to 3 times the applicable legal interest rate set by the ECB plus 10 points, payable on request by our company,
- the payment of a fixed compensation amount for collection costs in an amount of 40 € before taxes, immediate payability of all outstanding amounts, whatever the settlement method agreed upon,
- the payment as damages of a compensation amount equal to 15% of the claimed amount, in addition to legal interests and possible legal costs.

As a result, we reserve the right to suspend or cancel current orders, to take back delivered goods, with costs borne by the client, without prejudice to all other claims, and with payments made until then by the client retained by us as damages.

### Reservation of title

The products delivered by our company will become the property of the client upon its full settlement of the price in pursuance of applicable laws. Our company, in the event of a failure to pay, may take back the delivered products. Therefore the client may not alienate the same in any way without our prior consent. The client shall nonetheless bear, as from delivery, the risks of loss or of deterioration of such products as well as responsibility for any damages they may cause. In the event of bankruptcy, stoppage of payment, court reorganisation or liquidation, the client shall immediately advise our company for an inventory to be made and for the title reservation clause to be applied. The client in that case shall refrain from seeking the sale of the products without our company's written agreement, and we may claim from the sub-buyers the price of any equipment sold that has not been paid by the client on term. As a rule, we are surrogated in all the rights of the client against sub-buyers and third parties and the client agrees to provide our company with its full assistance to exercise such rights. Our guarantee, even if it accrues, shall not apply before the full payment of the equipment or of the work.

### Guarantee - Liability

The warranty is 2 years parts and labour on all of our equipment, excluding CD and cassette mechanism and hard drive disc, which we guarantee 1 year. Batteries and other biodegradable materials are never guaranteed. For the repair or replacement of parts that we find to be defective, a further six months guarantee shall apply as from the date of trade in or repair, and only on such parts. The guarantee formally excludes any damage resulting from work by a third party or a connection error when starting up the products. Any abnormal use or use against the recommendations provided by our company, any transformation or change in any way of the equipment or sold system, any repair or possible work by a person outside the after sales department of our company shall result in the stoppage of the guarantee. In the same way the guarantee is excluded when the failure results from force majeure, from a cause external to the equipment more specifically related to the electromagnetic or electric environment or from normal wear. Should that responsibility be truly demonstrated and whatever the nature and cause of the damage that is claimed, the responsibility of our company shall not be incurred further than the amounts collected by it under the contract. The guarantee is deemed to be exercised exclusively in Montauban, and therefore the products shall be returned at the client's costs, together with their guarantee certificate when they exist, and the information allowing to link each product to the case with which it was delivered (copy of the invoice or completion number).

### Return of the goods

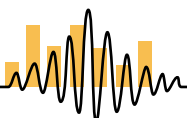
Even in the event of a complaint on the ground of a justified defect, the goods shall not be taken back, without our prior consent. In all cases, whether there is a defect or not, returned goods shall not be accepted other than in its original packaging.

### Termination clause

In the event of a failure to pay, of force majeure, extended work interruption, impossibility to complete the sale or the work, change in the situation of the client, the contract or the order form may be terminated or cancelled by our company after an injunction unsuccessful for eight days, without prejudices to Damages that may be claimed.

### Jurisdictional clause and applicable law

In the event of any dispute, the Business Court of Paris shall have sole jurisdiction and the applicable law shall be the laws of France, notwithstanding any clause to the contrary and even in the event of several defendants and of an impleader.







**BOUYER**

1270 Avenue de Toulouse • 82 000 Montauban • France  
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Email : [bouyexport@bouyer.com](mailto:bouyexport@bouyer.com) • RCS : 523 071 819



**BOUYER**  
Sound with serenity