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Public Address System

Commercial Installations



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PR7400 Remote Paging Overriding Module

PR7400 is a module for providing a relay contact whenever a paging is in progress, as well as converting the 100V line paging audio to line level, all in a box.

Relay : NO and NC relay of 1A contact allows local BGM source overriding which bypass local volume controller to allow central paging to pass through. This is useful during essential paging and whenever 24V DC overriding signal is not available in the cabling works.

100V - Line audio converter : When it is required that the central paging to be broadcasted to local speakers utilising the local amplifier / system, it provides an audio conversion with balanced line audio.



Features

- DPDT with NC and NO relay for different output configurations
- 100V to Line audio conversion
- Adjustable detection sensitivity, relay trigger duration
- Adjustable line output volume
- Suitable for remote overriding for installations without 24V DC VC overriding cable
- Modular for flexible placement of unit such as in cabinets, risers, etc

Technical Specifications

Power requirement:

| | |
|-------------|-------------------------|
| Voltage | 24 DC via local adapter |
| Consumption | 2.1W (standby) |
| | 2.5W (operating) |

| | |
|-----------------------|---------------------|
| Paging input | 50 / 70 / 100V line |
| Sensitivity threshold | 5 - 80V rms |
| Detection frequency | 80 - 5 KHz |
| Relay | NC and NO (DPDT) |
| Relay contact | 1A @ 24V DC |
| Paging load / rating | 100 W @ 100V |
| Trigger duration | 5 - 18 seconds |

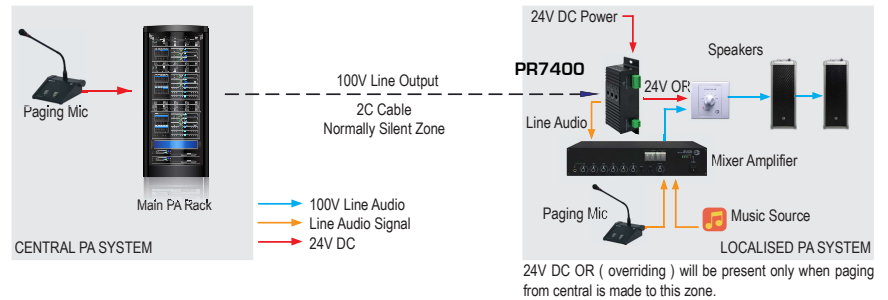
| | |
|-------------------|--------------------|
| Audio output | line balanced |
| Output level | Mute - 0dB |
| Freq response | 20 - 20 KHz +/-3dB |
| Isolation to 100V | 37.5dB |

| | |
|-------------|-----------------------------|
| Indicators | Power, Relay trigger, Audio |
| Connections | Detachable Phoenix |

| | |
|--------------------------|------------------|
| Dimensions (WxHxD) | 52 x 147 x 40 mm |
| Weight (excl. adaptor) | 200 g |

Application Schematics

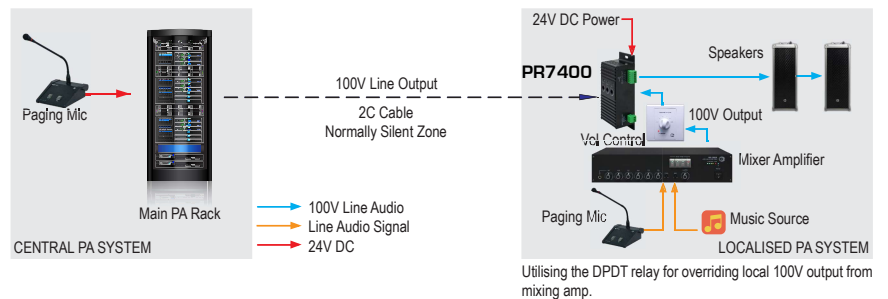
Application Example 1 : Overriding Local BGM Source



Certain zones, such as retail units, restaurants and theaters are normally free from normal paging of central system. They would have own localized BGM or simple PA.

Only essential paging would pass through the localized speakers. As such, PR7400 would be employed to provide overriding of local volume controller (if available) and inserting line audio to the mixer.

Application Example 2 : Overriding Local Speaker



In this example, audio to the speakers is powered from local amplifier.

In this setup, central paging shall power the local speakers, regardless whether the local amplifier is turned on or off. This shall be a preferred setup and useful for emergency paging.

It is important to consider the load of local speakers and provide adequate power rating of amplifiers at central rack.

Packing information

Carton size : 110 (L) x 85 (W) x 160 (H) mm
 Gross weight : 0.75 kg (including adaptor)
 1 unit per carton



**VC7000 Series
VC8000 Series**

From contemporary to classic design, Amperes offers options for different installation needs. The variants are in three different designs and available in various ratings, ranging from 5 watts to 150 watts 100V line. They are suitable for 4 wire system installation with built in emergency overriding relay and overriding LED indicator.



VC7000



VC7000 Black



VC8000



VC7000A

Features

- Suitable for 4 wire system : 2 : 100V line , 2 : 24V DC overriding
- Built in overriding relay to allow emergency signal to bypass volume attenuation
- Overriding LED indicator whenever EM paging is activated
- 5 preset attenuations with OFF
- Large cable terminal block for ease of termination

Technical Specifications

| | |
|-----------------------------|--|
| Power rating | Refer to variants |
| Overriding voltage | 24V DC |
| Overriding current | 15 mA |
| Overriding indicator | Red LED |
| Attenuation | 6 steps incl. OFF |
| Attenuation / step | 6 dB / step (VC7005 & VC7010 with 3dB / step) |
| Attenuation method | VC7005 / 7010 / 8010 - Resistive Others - Auto transformer |
| Colour | White RAL9016 / equivalent |
| Terminal cable | 22 - 14 AWG |
| Size (W x H x D) | VC7000 / 8000 - 86 x 86 x 40 mm VC7000A - 70 x 120 x 40 mm |
| Weight | VC7805 / 7005 / 7010 - 100 gms VC7030 / 7050 - 240 gms VC7100 / 7150 - 400 gms VC8010 - 140 gms VC8030 - 280 gms VC8050 - 280 gms VC8100 - 280 gms |
| Back Enclosure (Optional) : | |
| Conceal enclosure | 77 x 77 x 60 mm (Part nbr : EA9090) |
| Surface enclosure | 85 x 85 x 60 mm (Part nbr : ES9090) |

NOTE :

Wall concealed installation shall require back enclosure with depth of min 50 mm from finishing surface for models with auto transformer. Normal electrical back enclosure shall suffice for installation using resistive volume controllers. ie. VC7005 / 7010 / 8010

Variants

VC8000 SERIES (86 X 86 mm)

- VC8010 : 10W 100V Line Resistive
- VC8030 : 30W 100V Line Auto Trans
- VC8050 : 50W 100V Line Auto Trans
- VC8100 : 100W 100V Line Auto Trans

VC7000 SERIES (86 x 86 mm)

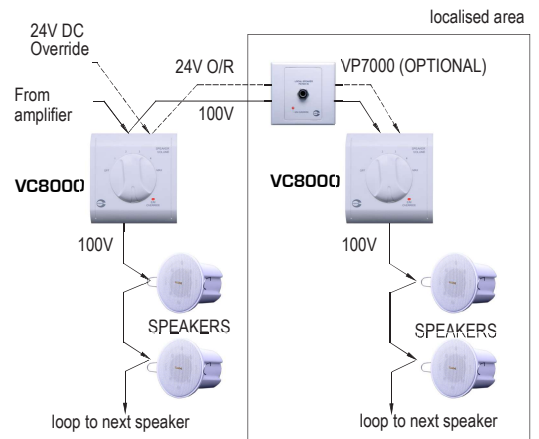
- VC7810 : 10W 8 OHM Resistive
- VC7005 : 5W 100V Line Resistive
- VC7010 : 10W 100V Line Resistive
- VC7030 : 30W 100V Line Auto Trans
- VC7050 : 50W 100V Line Auto Trans
- VC7100 : 100W 100V Line Auto Trans
- VC7150 : 150W 100V Line Auto Trans

VC7000A SERIES (70 X 120 mm)

- VC7010A : 10W 100V Line Resistive
- VC7030A : 30W 100V Line Auto Trans
- VC7050A : 50W 100V Line Auto Trans
- VC7100A : 100W 100V Line Auto Trans

Application Schematics

4 wire system installation



VP7501 Local Speaker Patch Panel

VP7501 is used to isolate a group or a zone of speakers such as in meeting room, restaurant, outlets in shopping mall, etc, from central PA system to allow a separate localised PA amplifier to utilise those local speakers. However during essential paging from central PA, VP7501 shall allow the broadcast to bypass the local audio by triggering an overriding relay at the panel through 24V DC sent by central system.



VP7501

VP7810 100V - 8 Ohm Speaker Patch Unit

VP7810 works similarly as VP7501 but the local speaker shall be 8 Ohm. With essential broadcast from central PA together with 24V DC VC overriding signal, it shall trigger the overriding relay and step down the 100V audio to suit the 8 Ohm speaker to avoid damaging it.

VP7810 would normally be used in rated hotel rooms, which would have additional entertainment speakers for local music from TV or iPod. The speakers used are normally 4 or 8 Ohm type and thus it is required to step down 100V PA audio through VP7810.



VP7810

Features

- Suitable for 4 wire system : 2 x 100V audio, 2 x 24V DC overriding
- Built in overriding relay for emergency bypass with LED indicator
- Also available with 70 x 120 mm faceplate

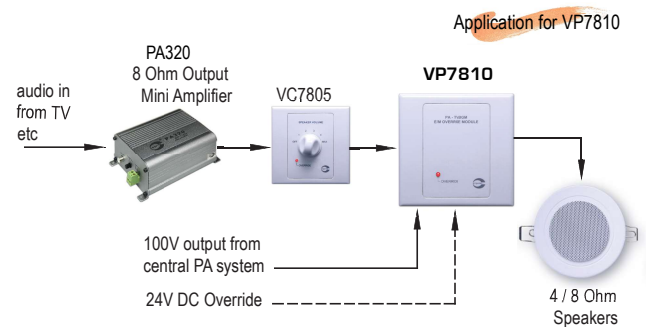
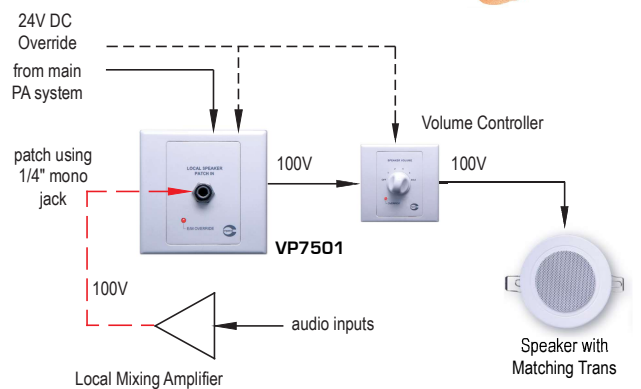
Technical Specifications

| | VP7501 | VP7810 |
|--------------------|---|-----------|
| Power rating | 50W 100V | 10W 8 Ohm |
| Overriding voltage | 24V DC : 15 mA | |
| Patch connection | 1/4" phone jack-front patch | Hardwired |
| Cablings | 4 wire system (2 audio ; 2 overriding) | |
| Dimensions | 86 x 86 x 40mm | |
| | 70 x 120 mm face plate available upon request | |
| Weight | 80 g | 200 g |

Optional back enclosure:

| | |
|-----------------------|-----------------|
| Concealed (W x H x D) | 77 x 77 x 60 mm |
| Surface (W x H x D) | 85 x 85 x 60 mm |

Application Schematics



Cross reference for above application : PA322

Packing information

Carton size : 550 (L) x 425 (W) x 220 (H) mm
 Gross weight : VP7501 : 10.5 kg
 VP7810 : 23.1 kg
 90 units per carton



VR7600 Rack Mounted Zone Volume Controller

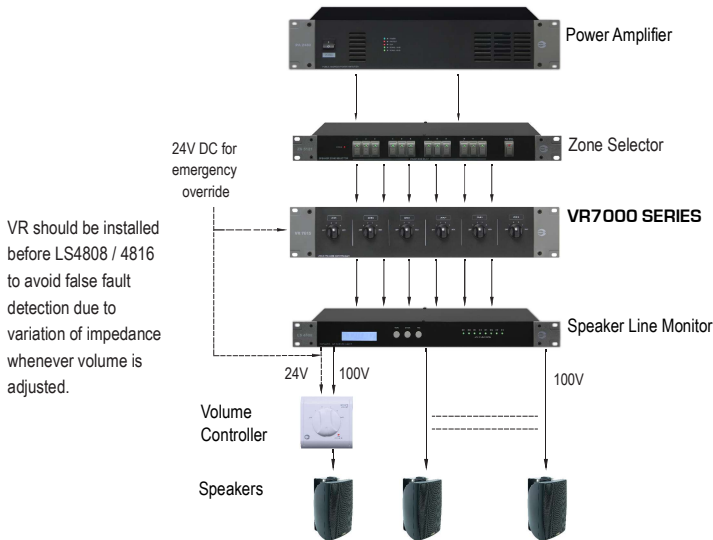
VR7600 is a rack mounted, 6 zone volume controller which is normally installed at main rack to enable centralised zone volume settings. They are available in variants of 50W, 100W or 150W 100V as standard ratings. Customised zone rating is also available upon request.

Features

- 6 zones with 50 / 100 / 150W 100V line rating for each zone
- Suitable for 4 wire system : 2 for 100V audio & 2 for 24V DC overriding
- Built in overriding relay for emergency volume bypass
- Customised zone rating option available



Application Schematics



Technical Specifications

| | |
|--------------------------|----------------------------------|
| VR7605 / VR7610 / VR7615 | |
| Power rating | 50 / 100 / 150W 100V line / zone |
| Overriding voltage | 24V DC |
| Overriding current | 15 mA per channel |
| Attenuation | 6 steps incl. OFF |
| Attenuation / step | 6 dB / step |
| Attenuation method | Auto transformer |
| Size (W x H x D) | 482 x 88 x 60 mm |
| Weight | 2.10 / 3.10 / 3.20 kg |

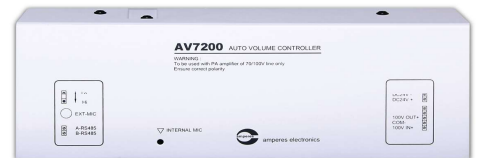
Packing information

Carton size : 560 (L) x 300 (W) x 170 (H) mm
 Gross weight : 5.50 / 7.10 / 7.60 kg
 2 units per carton



AV7200 100W 100V Auto Volume Controller

AV7200 is used for controlling speaker volume automatically in a localised area by adjusting the 100V line audio according to the ambient noise. As it varies the volume at 100V instead of sending control signal to the system, it can be easily applied to the existing systems without having to lay new cabling or installing new equipment. Among the suitable areas are shopping malls, stations, building lobbies, etc.



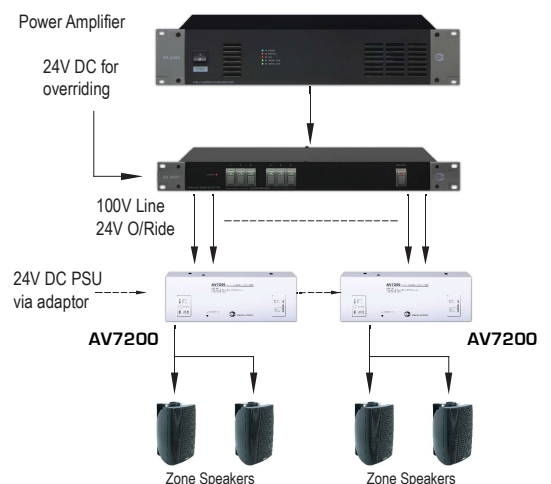
Features

- Installation at localised area (at existing volume controller) without additional cable re-run (easily retrofit to existing system)
- Adjustable noise sensing sensitivity
- Built in overriding relay for emergency volume bypass
- 100V speaker line control with 6 step attenuation

Technical Specifications

Application Schematics

| | |
|--------------------------|--------------------------|
| Power rating | 100W 100V line |
| Operating voltage | 24V DC : 40 mA |
| Attenuation | 6 steps ; -6 dB per step |
| Emergency overriding | 24V DC ; 0.15A |
| Sensitivity adjustment | 2 level |
| Dimension (W x H x D) | 247 x 87 x 50 mm |
| Weight (excl. enclosure) | 1.10 kg |



Dual Cone Ceiling Speakers

CS210 / 510 / 610 are general purpose speakers suitable for paging and BGM applications which not only deliver the required audio quality but also fits into every installation with its contemporary outlooks. It is designed with slim edges for cozy appearance and the clamping mechanism that provides ease of installation works.

Three variants are available with re-engineered sound output to serve the needs for both BGM and EVAC. CS210 is a miniature version most suitable for small enclosed area such as hotel room foyer and narrow corridors, while CS510 and 610 fits most other installations according to the needs of different coverage areas.

Fire rated (FR) version of enclosures are available upon request.

SPEAKERS

2" 6W 100V CS210
 5" 6W 100V CS510
 6" 6W 100V CS610
 6" 10W 100V CS610B



Features

- Slim edge design with low side profile
- High quality ABS enclosure
- Spring clip for ease of installations
- Option for installation without enclosure
- Fire retardant (FR) grade materials available as an option *

Packing information

CS210 : 570(L) x 230(W) x 290(H) mm
 : 11.30 kg
 : 20 uts per carton

CS510 : 690(L) x 350(W) x 400(H) mm
 : 19.60 kg
 : 24 uts per carton

CS610 : 660(L) x 440(W) x 430(H) mm
 : 19.50 kg
 : 18 uts per carton

Technical Specifications

| | CS210 | CS510 | CS610 | CS610B |
|-------------------------------------|---------------------|---|--------------|-------------------------|
| SPEAKER | | | | |
| Power rating | 6W 100V line | | | 10W 100V line |
| Diameter | 2" (51 mm) | 5" (125 mm) | 6" (150 mm) | |
| Cone type | Single cone | Dual cone | | |
| Impedance (Ohm) | 8 | | | |
| Freq response @ 1kHz +/-3 dB | 160 - 15 kHz | 150 - 19 kHz | 120 - 19 kHz | |
| SPL @ 1W / m (+/- 3dB) 1 kHz) | 90 dB | 92 dB | | |
| Dispersion angle (1 kHz +/- 3 dB) | 120 | 160 | 165 | 165 |
| TRANSFORMER | | | | |
| Tapping (100V line) | 1.5 / 3 / 6W | | | 1 / 3 / 6 / 10W |
| Primary impedance (Ohm) | 6.7k / 3.3k / 1.67k | | | 10K / 3.3k / 1.67k / 1k |
| Secondary impedance (Ohm) | 8 | | | |
| PHYSICAL | | | | |
| Grille / enclosure | Alum epoxy coated | Metal powder epoxy coated / ABS enclosure | | |
| Cutting hole dim | 85 mm | 145 mm | 185 mm | |
| Overall size (dia x height) | 110 x 110 mm | 165 x 110 mm | 205 x 110 mm | |
| Weight | 500 g | 780 g | 840 g | 850 g |
| Colour | White | | | |

* Note :
 Fire rated ABS compound : Toyolac™ 884 X01



- CS343** 4" 6W 100V Weatherproof
- CS515** 5" 6W 100V ABS Grille
- CS606** 6" 6W 100V Metal Enclosure
- CS516** 6" 10W 100V ABS Surface Mount



CS343 4" 6W 100V Line

IP65

CS343 is driven by a 4" dual cone speaker with built in matching transformer of dual taps for 3 and 6W 100V line. It is made of quality ABS enclosure and aluminum grille and is suitable for high humidity areas, such as bathrooms and salty environment. With its IP65 rating, it is also suitable for clean area installations. Though compact in size, it delivers satisfactory sound reproduction with high SPL level, good for listening pleasure as well as paging clarity.

Packing information

Carton : 370 (L) x 370 (W) x 600 (H) mm
 Gross weight 16.30 kg
 16 uts per carton



CS515 5" 6W 100V Line
CS515 FR With fire retardant back enclosure

CS515 is a general purpose ceiling speaker with ABS honeycomb grille and back enclosure. It is suitable for BGM and Paging applications. With ABS enclosure and baffle, issues on rust / chemical erosions is avoided. Fire retardant enclosures are available as an option (CS515FR)

Packing information

Carton : 705 (L) x 400 (W) x 190 (H) mm
 Gross weight : 11.30 kg
 16 unit per carton



CS606 6" 6W 100V Line

Available in 6" dual cone speaker with back metal enclosure, grille and baffle and multi tap matching transformer of 1.5, 3 and 6W 100V line. This model shall be suitable for installations that demand fire resistant version of dome.

Packing information

Carton : 590 (L) x 400 (W) x 310 (H) mm
 Gross weight : 16.80 kg
 20 units per carton



CS516 - 5" 6W 100V

CS516 is a general purpose surface mount speaker suitable for direct installations at ceiling slabs in which recessed type of speakers are not suitable.

Packing information

Carton : 550 (L) x 420 (W) x 220 (H) mm
 Gross weight : 11.40 kg
 16 units per carton

Technical Specifications

| | CS606 | CS515 | CS516 | CS343 |
|------------------------------|--------------------------------|---------------------|---------------|----------------|
| SPEAKER | | | | |
| Power rating | 6W 100V line nominal (max 10W) | | | |
| Diameter | 6" (150 mm) | 5" (125 mm) | | 4" (100 mm) |
| Cone type | Dual cone | | | |
| Impedance (Ohm) | 8 | | | |
| Freq response @ 1kHz +/-3dB | 150 ~ 16 kHz | 150 ~ 17 kHz | | 150 - 18 kHz |
| SPL @ 1W / m (+/- 3dB) 1 kHz | 91 dB | 92 dB | | 90 dB |
| TRANSFORMER | | | | |
| Tapping (100V line) | | 1.5 / 3 / 6W | | 3 / 6W |
| Primary impedance (Ohm) | | 6.7k / 3.3k / 1.67k | | 3.3k / 1.67 k |
| Secondary impedance (Ohm) | 8 | | | |
| PHYSICAL | | | | |
| Grille / enclosure | Aluminum / mild steel | ABS Plastic | | Aluminum / ABS |
| Cutting hole dim | 165 mm | 145 mm | - | 120 mm |
| Overall size (dia x height) | 200 x 70 mm | 175 x 95 mm | 222 x 65 mm | 140 x 130 mm |
| Weight | 780 g | 620 g | 660 g | 850 g |
| Colour | White | | White / Black | White |



Choice of premium sound for PA Installations

5" / 6" Co-axial Ceiling with Metal Back Enclosure **CS520 / 630**
 6" / 8" Co-axial Ceiling with ABS Back Enclosure **CS620 / 840**
 5" Square Co-axial Ceiling with Metal Back Enclosure **CS518**



CS520
5" 20W 100V Co-axial with Power Taps



CS620
6" 20W 100V Co-axial
CS840
8" 40W 100V Co-axial



CS518
5" 20W 100V Co-axial with Power Taps

CS520 and CS630 are both premium co-axial ceiling speakers, both available with metal back enclosure and with adjustable power taps. Suitable for the need of quality sound production, both in BGM and Paging.

Packing Information :
 CS520 : 510 (L) x 500 (W) x 420 (H) mm : 15 kg : 8 uts per carton
 CS630 : 570 (L) x 560 (W) x 430 (H) mm : 23.3 kg : 8 uts per carton

Available in 6" and 8" fixed power ratings, offering more economical coaxial ceiling types while able to deliver satisfactory sound productions, both in Paging and BGM. Back enclosure is made of ABS

Packing Information :
 CS620 : 540 (L) x 540 (W) x 375 (H) mm : 23 kg : 8 uts per carton
 CS840 : 630 (L) x 630 (W) x 390 (H) mm : 21.4 kg : 8 uts per carton

CS518 matches other fittings at ceiling when all others are in square or rectangular shapes and thus blends nicely with exceptional sound production. Suitable for boutiques, residences, offices etc.

Packing Information :
 CS518 : 580 (L) x 310 (W) x 510 (H) mm : 17 kg : 8 uts per carton

Technical Specifications

| | CS520 | CS630 | CS620 | CS840 | CS518 |
|---------------------------|-------------------------|------------------------|-----------------|---------------|--------------------|
| SPEAKER | | | | | |
| Power rating | 20W 100V | 30W 100V | 20W 100V | 40W 100V | 20W 100V |
| Diameter | 5" (125 mm) | 6.5" (165 mm) | 6.5" (165 mm) | 8" (200 mm) | 5" (125 mm) |
| Cone type | Co-axial (2" tweeter) | | | | |
| Driver impedance | 8 Ohm | | | | |
| Frequency response | 100 - 18 kHz | 75 - 18 kHz | 80 - 18 kHz | 90 - 19 kHz | 100 - 18 kHz |
| Sensitivity @ 1 kHz /W/m | 86 dB | 88 dB | 88 dB | 90 dB | 85 dB |
| Max SPL at rated output | 99 dB | 102 dB | 101 dB | 106 dB | 98 dB |
| TRANSFORMER | | | | | |
| Tapping (100V line) | 2.5 / 5 / 10 / 20W | 3.8 / 7.5 / 15 / 30W | 20W 100V | 40W 100V | 2.5 / 5 / 10 / 20W |
| Primary impedance | 4k / 2k / 1k / 500 | 2.6K / 960 / 353 / 215 | 500 | 250 | 4k / 2k / 1k / 500 |
| Secondary impedance | 8 Ohm | | | | |
| PHYSICAL | | | | | |
| Grille / enclosure | Metal / metal | Alum / metal | Alum / ABS | Metal / ABS | Metal / metal |
| Cutting hole dim (mm) | 170 | 185 | 205 | 240 | 150 x 150 |
| Dimensions (Dia x H) mm | 205 x 145 | 230 x 150 | 240 x 142 | 280 x 142 | 180 x 180 x 135 |
| Nett weight (kg) | 1.70 | 2.15 | 2.40 | 2.10 | 1.80 |
| Colour | White | | | | |



BS508 5" 10W 100V Vandal Proof

BS506 5" 6W 100V

BS410 4" 10W 100V

DV410 4" 6W 100V

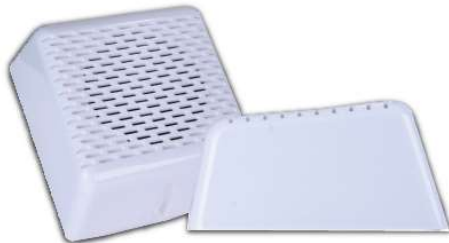


DV410 4" 6W 100V

DV410 is a favorite for its classic outlooks, suitable for small area installations such as staircases, offices and can be mounted vertical or horizontally. It is driven by 4" driver of 6W 100V with power taps of 1,3 and 6W.

Packing information

Carton : 460 (L) x 420 (W) x 410 (H) mm
Gross weight : 16.70 kg
20 units per carton



BS506 5" 6W 100V

BS506 FR

BS506 is driven by 5" dual cone driver with power taps of 1,3,6W 100V. The enclosure is fully ABS thus eliminating the risk of rust for high humidity environment. Suitable for installations at walkways, staircases etc.

Packing information

Carton : 550 (L) x 400 (W) x 180 (H) mm
Gross weight : 10 kg
12 units per carton



BS508 5" 10W 100V

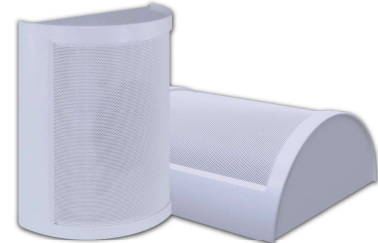
BS508 FR

It is powered by 5" dual cone driver with nominal power of 10W 100V line, available power taps are 1,3,6 and 10W. It is slimmer for better looks and has installation method which prevents vandalism.

Suitable for various wall installations with optimum delivery for both BGM and EVAC systems

Packing information

Carton : 460 (L) x 460 (W) x 320 (H) mm
Gross weight : 22.25 kg
24 units per carton



BS410 - 4" 10W 100V

Available in white and is suitable for installations in small areas, staircases, etc. It is driven by 4" dual cone driver with power taps of 1,3,6 and 10W 100V, providing clarity of voice announcements as required in EVAC systems.

Packing information

Carton : 460 (L) x 420 (W) x 410 (H) mm
Gross weight : 16.70 kg
20 units per carton

Technical Specifications

| | BS508 | BS506 | BS410 | DV410 |
|------------------------------|------------------------|--------------------|------------------------|--------------------|
| SPEAKER | | | | |
| Power rating | 10W 100V | 6W 100V | 10W 100V | 6W 100V |
| Diameter | 5" | | 4" | |
| Cone type | Dual cone | | | |
| Impedance (Ohm) | 8 | | | |
| Freq response @1kHz +/- 3dB | 120 ~ 18 kHz | 100 ~ 15 kHz | 100 ~ 16 kHz | 100 ~ 18 kHz |
| SPL @ 1W / m (+/- 3dB) 1 kHz | 94 dB | 93 dB | 92 dB | 90 dB |
| TRANSFORMER | | | | |
| Tapping (100V line) | 1 / 3 / 6 / 10W | 1 / 3 / 6W | 1 / 3 / 6 / 10W | 1 / 3 / 6W |
| Primary impedance (Ohm) | 10k / 3.3k / 1.6k / 1k | 10k / 3.3k / 1.6k | 10k / 3.3k / 1.6k / 1k | 10k / 3.3k / 1.6k |
| Secondary impedance (Ohm) | 8 | | | |
| PHYSICAL | | | | |
| Grille / enclosure | Metal / ABS | ABS Plastic | Metal / ABS | |
| Overall size (W x H x D) | 220 x 130 x 70 mm | 172 x 195 x 105 mm | 185 x 215 x 90 mm | 195 x 215 x 105 mm |
| Weight | 720 g | 780 g | 760 g | 740 g |
| Colour | White | | | |

4" 20W 100V / 6" 40W 100V **FS420 / 640**
 4" 20W 100V **FS425**
 2x 4" 40W 100V **FS338**



FS425 4" 20W 100V
IP65

FS425 is a compact full range speaker with IP65 rating suitable for indoor and outdoor installations. It is recommended for restaurants, pub or cafe, pool sides etc. It is available in black colour

Packing information

Carton : 370 (L) x 370 (W) x 600 (H) mm
 Gross Weight : 20.30 kg
 8 uts per carton

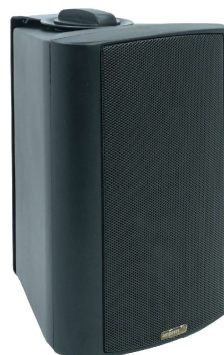


FS338 2 x 4" 40W 100V

FS338 is a multi purpose speaker, suitable for background music as well as speech. It is driven by dual 4" speakers arranged in curved enclosure, providing better vertical coverage, for both near and far. It is rated 40W 100V line with rotary power selector ranging from 5 to 40W and also 4 Ohm connection for other sound reinforcement power amplifiers.

Packing information

Carton : 555 (L) x 295 (W) x 165 (H) mm
 Gross Weight : 7.65 kg
 2 uts per carton



FS420 (B/W) 4" 20W 100V (Black / White)
FS640 (B/W) 6" 40W 100V (Black / White)

Classic full range speakers available in two variants as well in black or white colours to suit installation area.

Both versions have power tap rotary switch to provide suitable loudness to the coverage areas.

Packing information

FS420
 Carton : 355 (L) x 340 (W) x 260 (H) mm
 Gross Weight : 8.70 kg
 4 units per carton

FS640
 Carton : 470 (L) x 420 (W) x 330 (H) mm
 Gross Weight : 16.40 kg
 4 units per carton

Technical Specifications

| | FS425 | FS420 | FS640 | FS338 |
|------------------------------------|---------------------------------|----------------------------|---------------------------------|---------------------------|
| SPEAKER | | | | |
| Power rating | 20W 100V | | 40W 100V | |
| Diameter | 4" (100 mm) | | 6" (150 mm) | 2 x 4" (100 mm) |
| Speaker type | 2 way speaker with tweeter | | | |
| Impedance (Ohm) | 8 | | | |
| Freq response @ 1kHz +/- 3dB | 105 ~ 18 kHz | 100 - 18kHz | 70 ~ 18 kHz | 70 ~ 16 kHz |
| SPL @ 1W / m (+/- 3dB) 1 kHz | 87 dB | 89 dB | 88 dB | 87 dB |
| TRANSFORMER | | | | |
| Tapping (100V line) | 10 / 20 W | 1.25 / 2.5 / 5 / 10 / 20 W | 2.5 / 5 / 10 / 20 / 40W | 5 / 10 / 20 / 40W |
| Primary impedance (Ohm) | 1 k / 500 | 8 k / 4 k / 2 k / 500 / 8 | 4 k / 2 k / 1 k / 500 / 250 / 8 | 2 k / 1 k / 500 / 250 / 4 |
| Secondary impedance (Ohm) | | 8 | | 4 |
| PHYSICAL | | | | |
| Grille / enclosure | ABS enclosure with metal grille | | | |
| Overall size w bracket (W x H x D) | 165 x 270 x 170 mm | 160 x 225 x 165 mm | 215 x 284 x 190 mm | 137 x 385 x 262 mm |
| Weight | 2.30 kg | 1.95 kg | 3.70 kg | 3.50 kg |
| Colour | Black | White and Black | | Black |



CL900 Series Slim Column Speakers

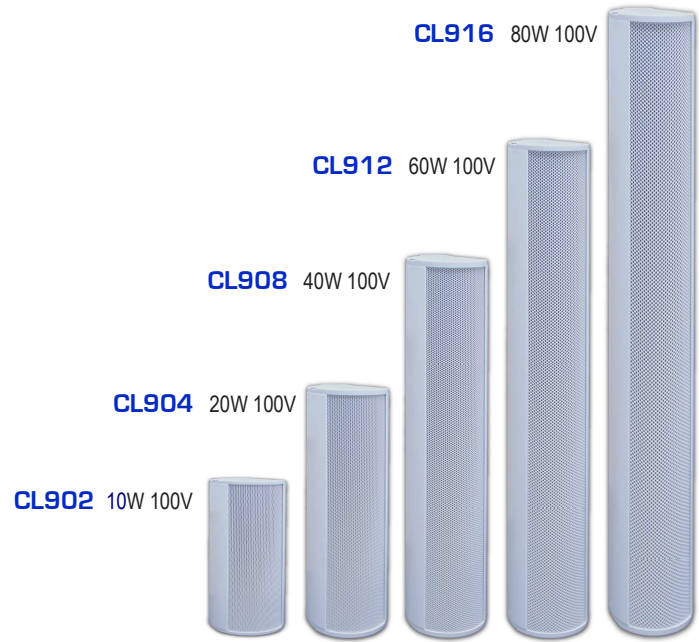
Built ruggedly with aluminum die extrusion housing and is available in 5 power rating of 10 / 20 / 40 / 60 and 80W 100V line with dual power tapping. Suitable for classrooms, hyper markets, mosques, ballroom, factories, passenger terminals, exhibition areas etc.

Features

- Slim design to match environment or to be hidden from view
- Multi-way mounting bracket for CL 902, 904, 908
- Epoxy coated grille
- Engineered for speech and BGM clarity

Packing information

| | |
|--|--|
| CL902 : 255(L) x 235(W) x 170(H) mm : 2.70 kg : 2 uts per carton | CL912 : 830(L) x 245(W) x 170(H) mm : 7.80 kg : 2 uts per carton |
| CL904 : 400(L) x 235(W) x 155(H) mm : 3.90 kg : 2 uts per carton | CL916 : 1160(L) x 240(W) x 195(H) mm : 13.00 kg : 2 uts per carton |
| CL908 : 605(L) x 245(W) x 175(H) mm : 6.20 kg : 2 uts per carton | |



Technical Specifications

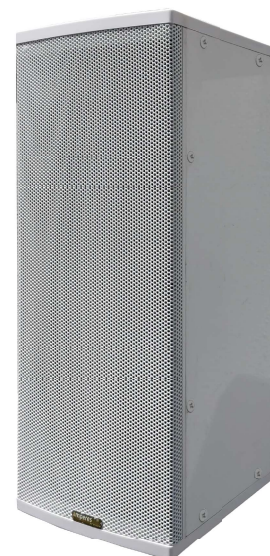
| | CL902 | CL904 | CL908 | CL912 | CL916 |
|----------------------------------|---|------------------|------------------|------------------|-------------------|
| Power rating | 10W 100V | 20W 100V | 40W 100V | 60W 100V | 80W 100V |
| Speaker components | 2 x 2" | 4 x 2" | 8 x 2" | 12 x 2" | 16 x 2" |
| Transformer tapping(100V) | 6 / 10W | 10 / 20W | 30 / 40W | 50 / 60W | 70 / 80W |
| Primary impedance (Ohm) | 1.6K / 1K | 1K / 500 | 330 / 250 | 200 / 166 | 143 / 125 |
| SPL descriptions | 87 ± 3dB | | | | |
| Frequency response @ 1KHz +/-3dB | 200 - 16 KHz | 200 - 17 KHz | 240 - 16 KHz | 220 - 17 KHz | 220 - 18KHz |
| Dimension (WxHxD) | 79 x 190 x 89 mm | 79 x 350 x 89 mm | 79 x 567 x 89 mm | 79 x 782 x 89 mm | 79 x 1128 x 89 mm |
| Material | Aluminum body ; powder epoxy metal grille | | | | |
| Weight with bracket (kg) | 1.10 | 1.50 | 2.50 | 3.20 | 5.80 |

CL700 Series Full Range Column Speakers

New
Pre-liminary Info

CL700 Series shall be available in variants of 40 and 80W 100V line with variable power taps. It is built ruggedly with aluminum housing and rust free front grille, suitable for both indoor and outdoor installations.

They are driven by powerful 4" drivers and have been carefully designed and tuned to deliver low frequency and extra emphasis on the mid range, which is important to deliver human voice.



CL740

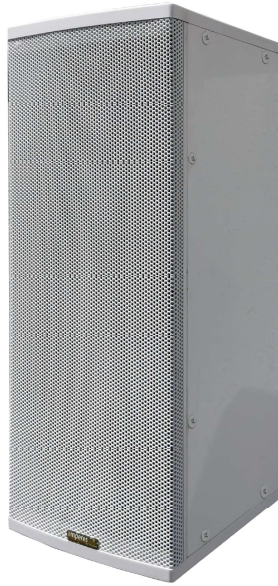
Technical Specifications

| | CL740 | CL780 |
|----------------------------------|---|---------------------|
| Power rating | 40W 100V | 80W 100V |
| Speaker components | 2 x 4" + 1" tweeter | 4 x 4" + 1" tweeter |
| Transformer tapping(100V) | 25 / 40 W | 50 / 80 W |
| Primary impedance (Ohm) | 400 / 250 | 200 / 125 |
| SPL descriptions | 88 ± 3dB | |
| Frequency response @ 1KHz +/-3dB | 150 - 18 KHz | 160 - 17 KHz |
| Dimension (WxHxD) | 130 x 320 x 137 mm | 130 x 620 x 137 mm |
| Material | Aluminum body, powder epoxy coated grille | |
| Weight with bracket (kg) | 3.5 | 6.8 |



CL740 / 780 Full Range Column Speaker

New
Pre-liminary Info



CL740 / 780 are newly design full range column speakers which is built ruggedly with aluminum housing and grilles to withstand rust. They are suitable for indoor and outdoor installations.

With IP65 rating, it is suitable for installations at open areas where rain and shine are challenges for many speakers.

They are able to deliver clear speech, making it suitable for applications in hall of prayers, lecture halls, community centers, etc. The reasonably well response to mid low frequencies made them ideal solutions for BGM in theme parks, gardens and other tourist spots.

Features

- Contemporary design to match environment.
- Heavy duty mounting bracket with pan and tilt.
- Epoxy coated grille to prevent rust.
- Engineered for speech and BGM clarity
- Weatherproof enclosure



CL740

Technical Specifications

| | CL740 | CL780 |
|----------------------------------|---|---------------------|
| Power rating | 40W 100V | 80W 100V |
| Speaker components | 2 x 4" + 1" tweeter | 4 x 4" + 1" tweeter |
| Transformer tapping(100V) | 25 / 40 W | 50 / 80 W |
| Primary impedance (Ohm) | 400 / 250 | 200 / 125 |
| SPL descriptions | 88 ± 3dB | |
| Frequency response @ 1KHz +/-3dB | 150 - 18 KHz | |
| Dimension (WxHxD) | 130 x 320 x 137 mm | 130 x 620 x 137 mm |
| Material | Aluminum body, powder epoxy coated grille | |
| Weight with bracket (kg) | 3.5 | 6.8 |
| Weight without bracket (kg) | 2.9 | 6.2 |

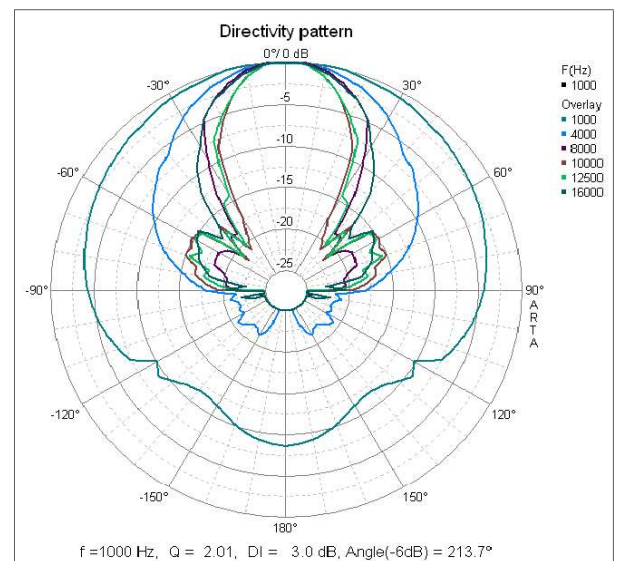
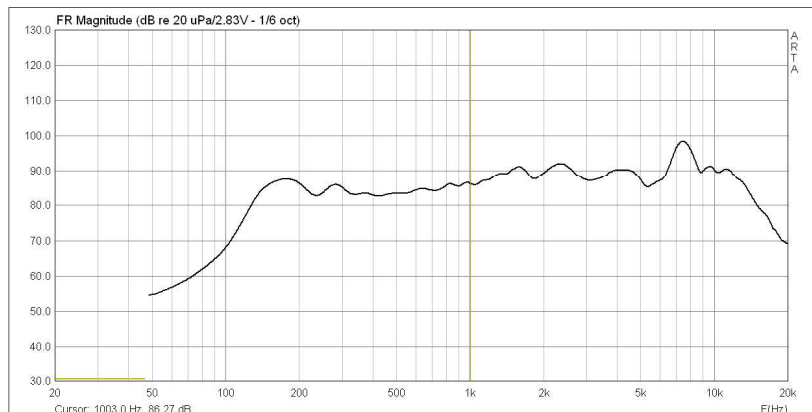
Universal heavy duty speaker bracket

The heavy duty bracket allows the speaker to be mounted vertically or horizontally with Pan and Tilt adjustment



Polar chart (horizontal dispersion)

Frequency response chart



Projection / Clear Horn Speakers

SPEAKERS

Sound projectors shall deliver more directional sound and wider frequency range as compared to horn speakers. They are suitable for installations at corridors, tunnels, walkways and car parks.

15W 100V Projection Speaker **SP219**
 20/40W 100V Bidirectional Projection **SP319**
 20W 100V ABS Projection **SP220**



IP54
SP219 15W 100V Unidirectional Projection
 (Aluminum enclosure)

Packing information
 Carton : 370 (L) x 370 (W) x 600 (H) mm
 Gross Weight : 18.00 kg
 8 uts per carton



IP54
SP319 20/40W 100V Bidirectional Projection
 (Aluminum enclosure)

Packing information
 Carton : 370 (L) x 370 (W) x 600 (H) mm
 Gross Weight : 25.00 kg
 8 units per carton



IP65
SP220 20W 100V ABS Projection
 (ABS Enclosure)

Packing information
 Carton : 550 (L) x 425 (W) x 180 (H) mm
 Gross Weight : 11.30 kg
 6 uts per carton

HS725 and HS750 are both clear horns, delivering characteristics of horn speaker but with music clarity. They are suitable for both indoor and outdoor installations.

Among the places suitable to employ them are stadiums, theme parks, beaches and also car parks.

30W 100V Clear Horn **HS725**
 50W 100V Clear Horn **HS750**



HS725 IP54
 30W 100V Weatherproof Clear
 Horn Speaker

Packing information
 Carton : 440 (L) x 250 (W) x 370 (H) mm
 Gross Weight : 4.90 kg
 1 uts per carton



HS750 IP65
 50W 100V Weatherproof Clear
 Horn Speaker

Packing information
 Carton : 565 (L) x 405 (W) x 420 (H) mm
 Gross Weight : 9.95 kg
 2 uts per carton

Technical Specifications

| | SP219 | SP319 | SP220 | HS725 | HS750 |
|---------------------------------------|-------------------------|-------------------------|-------------------------|---------------------------|-----------------|
| Power rating | 15W 100V | 20W 100V | | 30W 100V | 50W 100V |
| Power Tapping (100V line) | 7.5 / 15W | 20 / 40W 100V | 7.5 / 15 / 20 W | 3.8 / 7.5 / 15 / 30 W | 15 / 30 / 50 W |
| Speaker | 5" | 2 x 5" | | 5" | |
| Primary impedance (Ohm) | 1.3 k / 667 | 500 / 250 | 1.3 k / 667 / 500 | 2.6 k / 1.3 k / 667 / 333 | 667 / 333 / 200 |
| Secondary impedance | 8 | 4 | | 8 | |
| Freq response @ 1kHz +/- 3dB | 130 ~ 15 kHz | 150 ~ 18 kHz | 90 ~ 15 kHz | 100 - 10 kHz | 90 - 17 kHz |
| SPL @ 1W / m (+/- 3dB) 1 kHz | 91 dB | | 90 dB | | 98 dB |
| PHYSICAL | | | | | |
| Grille / enclosure | Mild steel / Aluminum | | Mild steel / ABS | Aluminum / ABS | ABS |
| Overall size w bracket (W x H x D) mm | 138 (Dia) x 192 (D) | 138 (Dia) x 195 (D) | 140 (Dia) x 195 (D) | 366 x 172 x 272 | 363 x 253 x 310 |
| Weight (kg) | 2.0 | 3.0 | 1.6 | 3.25 | 3.6 |
| Colour | White | | | Light grey | Beige |



HS815 / 830 15 / 30W 100V Aluminum Round Horn Speakers

HS820 / 822 15 / 30W 100V ABS Horn Speakers



HS830 12" 30W 100V LINE
IP65



HS815 8" 15W 100V LINE
IP65

HS815 & HS830 - Constructed using rounded aluminum flare of 8" (HS815) and 12" (HS830) with multiple power selection via rotary switch. Suitable for schools, mosques, car parks, factories at indoor or under shade installations that requires omni direction sound broadcast.

HS820 & HS822 - Constructed with high impact ABS flares rectangular shape to suit installation sites where pattern of broadcast shall be controlled, such as low level car parks, corridors, etc. It is suitable for indoor or outdoor sites with IP65 rating.



HS822 11" x 8" 30W 100V LINE
IP65



HS820 6" X 8" 15W 100V LINE
IP65

Packing information

| | |
|-------|---|
| HS815 | : 680 (L) x 475 (W) x 520 (H) mm : 20.50 kg : 12 uts per carton |
| HS830 | : 655 (L) x 655 (W) x 380 (H) mm : 13.30 kg : 4 uts per carton |
| HS820 | : 550 (L) x 480 (W) x 520 (H) mm : 21.30 kg : 12 uts per carton |
| HS822 | : 535 (L) x 320 (W) x 650 (H) mm : 20.20 kg : 8 uts per carton |

Technical Specifications

| | HS815 | HS830 | HS820 | HS822 |
|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| Power rating | 15W 100V | 30W 100V | 15W 100V | 30W 100V |
| Power tapping (W / 100V) | 1 / 3 / 5 / 10 / 15 | 3 / 5 / 10 / 15 / 30 | 1 / 3 / 5 / 10 / 15 | 3 / 5 / 10 / 15 / 30 |
| Primary Impedance (Ohm) | 10 k 3.3 k 2 k 1 k 670 | 3.3 k 2 k 1 k 670 330 | 10 k 3.3 k 2 k 1 k 670 | 3.3 k 2 k 1 K 670 330 |
| Secondary impedance (Ohm) | 8 | | | - |
| Frequency response @ 1kHz +/- 3dB | 350 ~ 7 kHz | 300 ~ 10 kHz | 250 ~ 8 kHz | 400 ~ 8 kHz |
| SPL (1W / m @ 1 kHz) | 103 dB | 105 dB | 105 dB | |
| Coverage angle, horizontal (1kHz, +/- 6dB) | 130° | 60° | 90° | 55° |
| Flare material | Aluminum | | ABS | |
| Flare dimension | 8" round | 12" round | 220 x 160 mm | 285 x 205 mm |
| Driver enclosure | ABS | | | |
| Overall size (dia x height) mm | 210 x 240 | 310 x 345 | 222 (W) x 162 (H) x 232 (D) | 293 (W) x 212 (H) x 290 (D) |
| Weight | 1.40 kg | 2.40 kg | 1.50 kg | 2.15 kg |
| Colour | Beige | | White cream | |





HS880 - Constructed using rounded aluminum flare of 20" with multiple power selection. It is suitable for schools, factories, mosques, fencing perimeters etc, which requires loud and clear broadcast.

Drivers are detachable from the flare mounting, connected with 1 3/8" throat. The high power driver is enclosed in die cast housing, enabling it to withstand rough environment such as the outdoor environment.

Packing information

Individual component packing, subjected to quantity

"a sound solution for tunnel voice announcement"



LH100 is a specially built long throw directional horn speaker suitable for niche installations such as in tunnels where sound direction is important to minimize reflections and echoes. It is driven by high power driver to overcome high ambient noises such as ventilation fans and moving vehicles, thus enabling important messages to be delivered to the listeners.

Other installations may include beach early warning system, military alarm and even mosques. LH100 is constructed with FR rated fiberglass flare and all mountings are stainless steel to ensure long lasting installation against moisture and chemical effects.

Features

- Specially designed for tunnels and other similar applications
- High directional horn of asymmetric output with high SPL and speech intelligibility
- 100W 100V line voice driver with max SPL at 135 dB @ 1m, 1 kHz
- Fire retardant fiber glass construction with rust free mounting accessories (SS)
- Covered flare opening, a prevention of habitation by animals.

Packing information

Individual component packing, subjected to quantity

Technical Specifications

| | HS880 | LH100 |
|--|---|------------------------|
| Power rating | 80W 100V | 100W 100V |
| Power Tapping (100V line) W | 20 / 40 / 60 / 80 | 50 / 75 / 100 |
| Driver | Detachable driver with 1 3/8" thread mounting | |
| Primary impedance (Ohm) | 500 / 250 / 160 / 125 | 200 / 133 / 100 |
| Secondary impedance (Ohm) | 16 | |
| Freq response @ 1kHz +/- 3 dB | 160 ~ 6 kHz | 350 ~ 7 kHz |
| SPL @ 1W / m (+/- 3 dB) 1 kHz (dB) | 110 | 115 |
| Max SPL (dB) +/- 3 dB | 129 | 135 |
| Horizontal dispersion (1 kHz) degree | 70 | 56 |
| Vertical dispersion (1 kHz) degree | 70 | 25 (top) ; 60 (bottom) |
| Body material | Aluminum | FR Rated fiberglass |
| Mounting | Wall / Ceiling | Ceiling |
| IP Ratings | IP65 | IP 54 |
| Min / Max ambient temperature | - 10 ~ 60 deg C | |
| Overall size w bracket (W x H x D) mm | 504 dia x 335 | 730 x 585 x 1565 |
| Weight (kg) including driver | 4.0 | 13.6 |
| Colour | Beige | White / Black |



PS820 20W 100V Pendant Ball Speaker



PS820 is the right choice for installations at high ceiling areas without columns, such as warehouses, hypermarkets and large showrooms that require even sound distributions. It is built with 8" speaker of 20W 100V rating, delivering powerful and evenly projected sound with 360° dispersion.

Features

- 8" driver with 20W 100V ratings
- 5 / 10 / 20W 100V power taps
- Omni coverage
- Safety cable included

Packing information

Carton : 320(L) x 320(W) x 300(H) mm
 Weight : 3.10 kg
 1 unit per carton

SG320 20W 100V Outdoor Garden Speaker
IP65

SG320 is the preferred choice for outdoor ground speaker installations such as parks, pool sides, etc, providing excellent music for listening pleasure. With its green outlooks, it blends perfectly to the shrubs, or hidden by leaves or grass. Thereby, its the right candidate to hide the sound source unlike the bulky speakers suspended at poles which may affect the aesthetic value of the environment.

Features

- Dual purpose speaker for outdoor music and paging
- 20W 100V powerful speaker
- 360 sound dispersion for evenly distributed
- Built for all environment with robust enclosure

Packing information

Carton : 350(L) x 410(W) x 355(H) mm
 Weight : 4.70 kg
 1 unit per carton

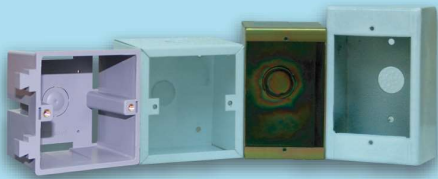


Technical Specifications

| | PS820 | SG320 |
|------------------------------------|---------------|----------------------|
| Power rating | 20W 100V | |
| Power tapping (100V line) | 5 / 10 / 20W | 10 / 20W |
| Speaker diameter | 8" (200 mm) | 5" (125 mm) |
| Speaker type | Co-axial | |
| Primary impedance (Ohm) | 2K / 1K / 500 | 1K / 500 |
| Frequency response @ 1 kHz +/- 3dB | 80 - 18 kHz | 70Hz - 16 kHz |
| SPL (1w/m @ 1 kHz) | 91 dB | 84 dB |
| Construction material | ABS | |
| Colour | White | Green |
| Dimensions (mm) | 254 diameter | 320 dia x 360 height |
| Weight | 2.20 kg | 3.60kg |



Back Enclosures



Back enclosures with 50 mm depth for volume controllers and patch panels. Available in ABS and metal for concealed or surface mounting

EC7012 : 70 X 120 mm conceal (steel)

ES7012 : 70 x 120 mm surface mounting (steel)

EA9090 : 86 x 86 mm conceal mounting (ABS)

ES9090 : 86 x 86 mm surface (steel)

Rack Panels



Amperes harmonious mounting ears blank and vent panels with black powder epoxy coating.

BP1000 : 1 hu blank panel

BP2000 : 2 hu blank panel

VP1000 : 1 hu ventilation panel

VP2000 : 2 hu ventilation panel

Patch Panels



XLR patch panel for rack and wall mount.

MR5000 : 5 Way rack mount female XLR

MR1000 : 10 Way rack mount female XLR

MP1000 : Single inlet female XLR panel

MP2000 : Double inlet female XLR panel

SLA Batteries



SLA battery bank for back up supply. Recommended battery charger is Amperes BC9740.

VT 1226 26 Ah

VT 1240 40 Ah

VT 1265 65 Ah

VT 12100 100 Ah

Fiber Optic Converter



Single mode / multimode Ethernet - Fiber converter of IP paging applications. Available in 2 core and single core transceiver

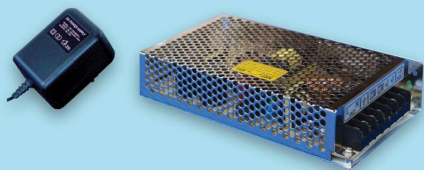
HTB110 : Multimode with SC/ST connectors

HTB110S : Single mode with SC connectors

HTB114S : Single mode with 4 way switch

HTBGS-03 : Single mode 10 / 100 / 1000 Base T

Power Supply



Regulated power adaptor and switching PSU for powering loose equipments

PS1205 : 12V 0.5A AC / DC adaptor

PS2405 : 24V 0.5A AC / DC adaptor

PS9000 : 24V 4.5A DC switching power module

Surge Arrestor



Suitable for surge protection of external speaker installations. Protects horn speakers against harmful surge.

HP 175VL : 175V peak surge arrester

