EMPERTECH™

DIGITAL CONTROL PUBLIC ADDRESS SYSTEM

PRODUCT CATALOG

Assurance of Reliability
And
Easy-to-Use

Contents

EMPERTECH

Central Processor

KB-D100

The KB-D100 central processor provides a convenient solution to monitor and control settings and events in complex public address systems space. With a 12 inch touchable screen it is easy to operate and to control all other KB units.

Main features include:

- Weekly, daily, or monthly cycle options
- Digital zone selector for different zone speakers
- Digital audio matrix flexible to control up to 16 channels
- Power on / off programmable
- Fire alarm / zone paging
- Paging all function, 4 player sources provided
- Microphone in port for paging
- Easy to add / del / edit programs
- Electronic level indicator for every player
- Support all formats that can be played in Microsoft media player

KB-D100

16 AUDIO MATRIX	KB-D816S
PROGRAM TIMER	KB-16T
ALARM MATRIX	KB-D19A
PAGING SELECTOR	KB-D10P
SPEAKER SELECTOR	KB-D13A
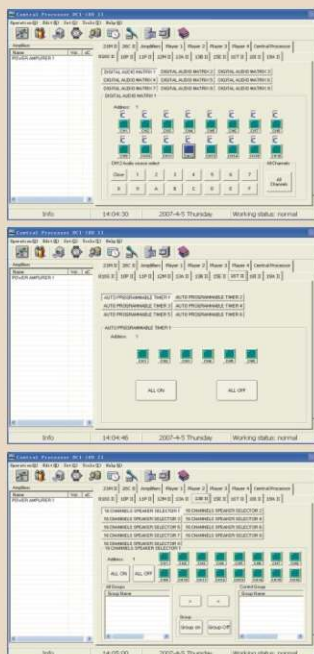
When it is used with the KB-D616S Audio Matrix, the KB-D100 reveals the source inputs for each of the amplifier output channels. Any of the source inputs can be selected and fed into any of the amplifier outputs, which greatly increase the convenience of operation.

The KB-D16T Program Timer works optimal with the KB-D100 to provide control over the PA systems timed events and programs. Channel settings and status can be reviewed with a quick glance.

For speaker zone selection, the KB-D13A 16-zone speaker selector partners with the KB-D100 to provide convenient labeling and selection of up to 16 speaker zones. All zones can be quickly selected on and off for greater convenience in operation.
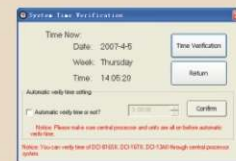
System Time Calibration

Paging Selector

EMPERTECH
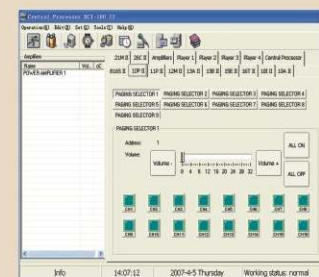
KB-D816S

16 X 16 AUDIO MATRIX

The KB-D816S Audio Matrix is the best choice for an advanced control unit which has the functions of setting weekly timed playback schedules and multi-source music distribution. This control unit integrates 16 source inputs, 16 amplifier outputs and a priority bus interface. This unit can play, stop and play again background music automatically according to the program settings. At the same time, it can mute background music whenever it has received priority input signals for zone paging and emergency alarms.

- 16 inputs, 16 outputs
- LCD display and for convenient operation program schedules
- Priority bus for zone paging and emergency alarms
- RS-485 interface provides communication with KB-D100 central processor

KB-D816R

REMOTE PAGING MICROPHONE

- Control up to 8 pcs of KB-D816S
- Page up to 128 zones
- 1000 meters distance
- Pleasant chime tone
- All ON / OFF button

KB-D816R

KB-D816S

1000 M

SPECIFICATIONS	KB-D816R	KB-D816S
Input	600 ohms, 5 mV un balanced(MIC)	16 channels: 1 to F inputs,EMC2 (for emergency paging)
Output	10 k ohms, 10 V balanced	16 channels: (1,2,3,4,5,6,7,8,9,10,11,12,13, 14,15,16 outputs)
Frequency Response	MIC,Line: 100 Hz - 10 kHz (+ / - 3 dB)	60 Hz - 16 kHz (+ / - 3 dB)
S/N	> 70 dB	NA
THD	< 0.5 % at 1 kHz	NA
Indicators	Indicators for 16 zones and 8 units	LCD display, power LED
Protection	AC Fuse: 0.5 A	AC Fuse: 0.5A
Power Consumption	5 - 10 watts	15 - 20 watts
Power Requirements	DC 24 V	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	70 (H) x 238 (W) x 170 (D) mm	133 (H) x 483 (W) x 390 (D) mm
Built-in Dimensions	NA	3 U rack 19 inch
Net Weight	5.4 kg	7.1 kg
Gross weight	6.6 kg	8.4 kg

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KB-D10P

16-ZONE PAGING SELECTOR

The KB-D10P is a versatile 16 zone paging selector that is capable to select up to 16 paging zones and has 4 priority levels. Up to 8 units can be cascaded to control 128 paging zones.

It has a direct microphone input, 4 remote microphone inputs, 2 line inputs, internal chime and a priority channel mute. The KB-D10P can be used with the KB-D13A speaker selector to select the paging zone.

The KB-D10P can be operated by selecting zones using the selector pushbuttons. It can also be operated remotely using the KB-D10R microphone console.

- 16-zone paging, expandable up to 160 zones with additional units
- Supports up to 4 remote paging mics

REAR PANEL

SPECIFICATIONS	KB-D10P
Input	MIC: 600 ohms 5 mV, unbalanced, phone jack RMIC 1, 2, 3, 4: 10 k ohms 10 V, balanced, LINE In,10 k ohms 330 mV , unbalanced PRIORITY IN: 16 channels, 0 V short circuit signal
Output	10 k ohms 0.775 V (0 dB) , unbalanced PRIORITY OUT: 16 channels, 0 V short circuit signal
Frequency Response	60 Hz - 16 kHz (+ / - 3 dB)
S/N Ratio	> 70 dB
THD	< 0.01 % at 1 kHz
Zone Controls	16 zones, Zone 1 to Zone 16, expandable to 160 zones
Muting Function	MIC 1 overrides other input signals except LINE 1
Controls	2 volume control button VOL +,VOL -,16 channel selectors, 1power control,all on,all off,address setting, tone switch, MIC volume control,CHIME volume control, main power switch
Indicators	16 Zone LEDs, Power LED
Protection	AC Fuse: 0.5 A
Power Consumption	10 - 15 watts
Power Requirements	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm
Built-in Dimensions	2 U rack 19 inch
Net Weight	5.42 kg
Gross Weight	6.6 kg

KB-D10R

16-Z ONE REMOTE PAGING STATION

The KB-D10R Remote Paging Microphone works together with the KB-D10P Paging Selector.

It is easily operated by pressing the zone selector buttons on the panel to access the corresponding zone of the KB-D10P to achieve remote paging to every zone. The KB-D10R can control up to 8 KB-D10P separately for a total of 128 zones.

- Links to additional paging mics
- Balanced signal input for quality and distant transmission up to 1000m
- Address selector provides for accessing additional paging selectors
- LINE IN for connection to audio source
- Control up to 8 pcs of DCI-10P

Zone Paging Microphone

REAR PANEL

SPECIFICATIONS	KB-D10R
Mic Input	600 ohms, 5 mV un balanced
Line input	10 k ohms, 10 V balanced
Frequency Response	MIC,Line: 60 Hz -16 kHz (+ / - 3 dB)
S/N Ratio	> 70 dB
THD	< 0.1 % at 1 kHz
Zone Controls	16 zones, Zone 1 to Zone 16, up to 128 zones w / address selector
Controls	Volume control, 8 zone paging selectors, 16 channel selectors,all on,all off, power switch, address setting,1 tone controller,1 MIC controller
Indicators	Indicators for 16 zones and 8 speaker selectors, MIC on / off
Protection	AC Fuse: 0.5 A
Power Consumption	5 - 10 watts
Power Requirements	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	70 (H) x 238 (W) x 170 (D) mm
Net Weight	2.3 kg
Gross Weight	3.2 kg

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KB-D11P

9-INPUT MIXER PRE-AMPLIFIER

The KB-D11P is a versatile mixer pre-amplifier with 5 microphone inputs, 3 auxiliary inputs, 1 balanced input and mute function.

MIC1, EMC1, EMC2 are priority inputs. When either one is activated, provision is made to mute all signal inputs automatically.

Output form the KB-D15E emergency panel to EMC1 provides alarm siren or emergency announcement to be broadcasted over the public address system.

- 9 inputs, 2 outputs
- Automatic mute function for paging and announcements
- Individual input gain controls with master volume control
- Bass and treble tone controls
- 7-band Equalizer

REAR PANEL

SPECIFICATIONS	KB-D11P
Input	MIC 1, 2, 3, 4, 5:600 ohms, 5 mV, unbalanced, phone jack
	AUX 1, 2, 3, 10 k ohms, 330 mV, unbalanced, RCA jack
	AUX 3:10 k ohms,10 v balanced
	EMC 1, 2:10 k ohms, 330 mV, unbalanced, phone jack
Output	10 k ohms, 775 mV, 0 dB, unbalanced,RCA jack
	1 trigger out
Frequency Response	60 Hz - 16 kHz (+ / - 3 dB)
S/N Ratio	> 70 dB
THD	< 0.01 % at 1 kHz
Master Volume Control	32 steps, digital control
Muting Function	MIC1 has the highest priority overrides all other inputs,EMC1 and EMC2 have the second highest priority override other inputs.
Controls	8 input volume controls,2 output volume controllers (VOL + , VOL -) ,1 power switch, 7 band equalizer
Indicators	Power LED
Protection	AC Fuse: 0.5 A
Power Consumption	10 - 15 watts
Power Requirements	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm
Net Weight	5.1 kg
Gross Weight	6.3 kg

KB-D12M

16-CHANNEL MONITOR PANEL

Monitor up to 16 speaker channels audibly by using the built-in loudspeaker. Graphic LCD level meter visually indicates the channel's signal level.

- Built-in high fidelity loudspeaker
- Graphic LCD 16-channel level meter
- Monitor volume control
- Menu control over channel selection and volume level

REAR PANEL

SPECIFICATIONS	KB-D12M
Input	70 / 100 V audio signal
Output	1 Audio output
Trigger Out	0 V signal for Power activation
Monitor Speaker	Built-in stereo HiFi full range speaker, power > 500 mW
Controls	1 Power switch,2 volume controls
Protection	AC Fuse: 0.5 A
Volume Level	7 levels, controllable by DCI - 100 II computer
Power Requirements	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Power Consumption	10 - 15 watts
Net weight	5.1 kg
Dimensions	89 (H) x 483 (W) x 350 (D) mm

KB-D13A

Speaker Selectors

16-ZONE SPEAKER SELECTOR

The KB-D13A is a flexible multi-input speaker selector arranged in a 4*4 matrix with priority override. 16 speaker zones are divided into 4 groups, where each group can be fed with a separate audio source. A priority bus is provided to mute background music for zone paging and emergency alarms.

- RS-485 interface - connects to KB-D100
- LCD display for easy programming.
- Support up to 4 audio sources and 4 alarm inputs

REAR PANEL

SPECIFICATIONS	KB-D13A
Input	4 program and 4 priority channels, 70 / 100 V audio signal
Speaker Output	4 groups of 4 zones, 70 / 100 V audio signal
Power handling	3 KW total capacity, max 1.5 KW per channel
Alarm Output	0 V signal
Controls	power switch,16 pushbotton zone selectors,3 menu buttons (UP, DOWN, ENTER) , all on and all oft, address setting (1 digit)
Power Requirements	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	133 (H) x 483 (W) x 390 (D) mm

KB-D13B

16 ZONE SPEAKER SELECTOR

Easy operation with all on / all off buttons and Clear indication of zone state with different colour indication

- 16 zones selector on/off switch with 16 status indicators
- Provides an alarm audio signal input (70/100 V) and a BGM audio signal input (70/100V)
- Allows All On/All Off
- Easy remote control for device power on/off, zone control and status access
- Total power capacity reaches 1.2 KW and 150 W for each channel
- Deliver voice alarm triggered by 0 V short circuit signal
- Possess an alarm trigger output for system extension of voice alarm
- Proves an address dip on rear panel for system configuration

REAR PANEL

SPECIFICATIONS	KB-D13B
Input	70 / 100 V audio signal
Output	Output maximum for each zone:150 W
Priority Bus	16 channels activated by 0 V signal
Power Handling	1.5 KW total capacity
Alarm Output	0 V signal
Controls	16 pushbutton zone selectors, 1 power switch
Power Requirements	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm

WORKING MODES

Mode 1   Mode 2
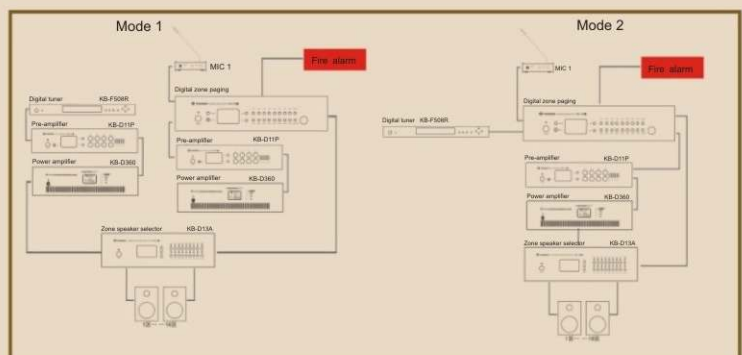
KB-D15E

Emergency Panel

The KB-D15E emergency panel produces an alarm sound automatically when activated by an external signal or manually by pressing the front panel pushbutton. The alarm can either be the built-in siren or a user pre-recorded voice message.

With the built-in 180-second digital IC, users may record their own voice message by using a microphone or other audio sources.

For use in a wide variety application of PA system, the DCI-15E is designed to work with the KB-D10P paging selector, the KB-D11P pre-amplifier, the KB-D19A alarm matrix and the KB-D13A speaker selector.

REAR PANEL

SPECIFICATIONS	KB-D15E
Input	MIC :5 mV , 600 ohms,unbalanced LINE:330 mV , 10 k ohms, unbalanced
Output	10 k ohms 330 mV (0 dB) , unbalanced
Frequency Response	Alarm siren or record:100 Hz ~ 3.4 kHz (+ / - 3 dB) MIC input or audio input:60 Hz ~ 16 kHz (+ / - 3 dB)
THD	< 0.01 % at 1 kHz
ADC/DAC	Sampling frequency: 8 kHz, 5 - bit;
Controls	Play / rec controls, volume, rec level and power
Alarm Activation	0 V Short Circuit Signal
Recording Time	MSG 1, MSG 2, False Alarm 60 up to 60 Seconds Each
Protection	AC Fuse: 0.5 A
Power Consumption	10 - 15 watts
Power Requirements	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm
Built-in Dimensions	2 U rack 19 inch
Net Weight	4.8 kg
Gross Weight	6.0 kg

KB-D16T

PROGRAMMABLE TIMER

KB-D16T is a power source programmable timer which provides a LCD display and 3 menu buttons to control up to 6 power source outputs. The system includes holiday and day off functions for automatic shutdown. User-friendly menu operation is offered to achieve various timed event. The KB-D16T can optionally work with the KB-D28S power sequencer to provide an ideal solution for control over the PA system's scheduled power on / off.

REAR PANEL

SPECIFICATIONS	KB-D16T
Power Output	Power of each channel 220 VAC / 1 A
Audio Output	Chime signal
Alarm In/Out	0 V, short circuit signal
Controls	3 menu operation buttons,1 power switch, 6 manual channel selectors (CH1 ~ CH5,TIMER) , 1 address setting (1digit),1 connection terminal
Indicators	POWER, CH1 ~ CH5, TIMER
Power Consumption	10 - 15 watts
Power supply	110 - 120 V or 220 - 240 VAC, 50 / 60 Hz; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm
Net Weight	5.2 kg

KB-D18I

TELEPHONE INTERFACE

The KB-D18I can automatically answer incoming phone call and broadcast the caller's voice over the public address system and to individual zones. A microphone input is provided for talking back to the caller. It can also be used to start up the PA system and activate other equipments remotely.

- Built-in monitor speaker and volume control
- Automatic or manual mode optional
- Activation output can be used to trigger other equipment remotely

REAR PANEL

SPECIFICATIONS	KB-D18I
Input	TEL: RJ - 11 connector; MIC: 400 - 775 mV (0 dB)
Output	Audio Output: 10 mV - 330 V; Active Out: 0 V short circuit singal
Phone Monitor	Built-in stereo HiFi full range speaker, power > 100 mW
Ring times	2 - 5 times
Protection	AC Fuse: 0.5 A
Power Consumption	10 ~ 15 watts
Power Requirements	220 VAC + / - 10 % 50 - 60 Hz; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm

KB-D19A

32-CHANNEL ALARM MATRIX

The KB-D19A connects between a facility's fire alarm system and public address system. With support for up to 32 zones, any zone that has a fire alarm will force adjacent zones into an emergency situation that warns personnel to evacuate.

Fire alarm signals are inputted the unit's rear panel connector. Alarm signal outputs are divided into two groups.

The rear panel ADDRESS code switch is used to set the adjacent zone number. For example, dialing code 2 denotes adjacent zone +1/-1. Up to 9 adjacent zones can be set.

An RS-485 interface is provided to connect to the KB-D100 central processor for convenient monitoring of zone status.

REAR PANEL

SPECIFICATIONS	KB-D19A
Input	32 channel alarm signals, ov
Output	32 channels divided into 2 groups of 16, 0 V Active out: 0 V short circuit signal
Adjacent Zones Range	0,+/- 1, +/- 2, +/- 3, +/- 4
Controls	Power switch, address setting dip, and adjacent zone selector
Indicators	POWER indicator, CH 1 ~ CH 32 alarm status indicators
Protection	AC Fuse: 0.5 A
Power Consumption	15 - 20 watts
Power Requirements	220 VAC + / - 10 % 50 - 60 Hz; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm
Built-in Dimensions	2 U rack 19 inch
Net Weight	5.2 kg
Gross Weight	6.4 kg

KB-D20S

16-CHANNEL 24 VDC SUPPLY

The KB-D20S is a 16-channel switching power supply for use in a public address system to provide 24 VDC auxiliary power for volume control override and other emergency equipment. The power supply outputs are activated by 16 individual channel inputs thereby permitting remote switching of the PA system.

REAR PANEL

SPECIFICATIONS	KB-D20S
Output	16 channels 24 VDC, 1 A
trigger out	Low level (0 V) or short circuit signal
Controls	Power switch and address dip setting
Indicators	POWER,CH 1 ~ Ch 16
Protection	AC fuse: 6 A
Power Requirements	220 VAC + / - 10 % 50 - 60 Hz
Dimensions	133 (H) x 483 (W) x 390 (D) mm
Net Weight	9.1 kg

KB-D21M

5-CHANNEL AMPLIFIER SWITCH

The KB-D21M monitors up to 5 main power amplifiers which will be switched automatically to the spare amplifier should any one fail. With 5 independent channels, it can also be operated manually for power amplifier upgrades and maintenance. Each channel has a volume control, manual switch, and status indicator.

REAR PANEL
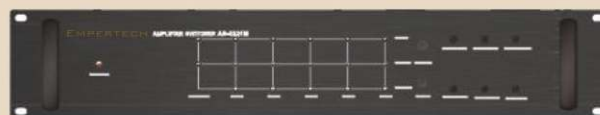
SPECIFICATIONS	KB-D21M
Input	6 audio source channels; 5 main amplifier channels
Output	5 speaker channels
Check Cycle	Input: 50 mV 20 mS; Output: 100 mV 20 mS
Channel Switching Cap	150 V / 20 A, audio signal
Controls	1 power switch,1 reset button,1 alarm tone control,5 volume controls,1 address setting dip
Indicators	POWER, CH 1 ~ CH 5 NORMAL indicators,CH 1 ~ CH 5 FAULT indicators,CH 1 ~ CH 5 SWITCH indicators
Protection	AC fuse: 0.5 A
Power Requirements	220 VAC + / - 10 % 50 - 60 Hz
Dimensions	89 (H) x 483 (W) x 350 (D) mm

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KB-D25L

LIGHTNING ARRESTOR

KB-D25L provides protection for PA system that uses outdoor speakers from potential damage caused by thunderstorm and lightning. 4 independent channels provide protection for up to 20A of audio power per channel. When a channel exceeds the threshold, the speakers are disconnected from the rest of the system to prevent damage to other equipment.

REAR PANEL

SPECIFICATIONS	KB-D25L
Input	4 CHANNELS (CH 1 ~ Ch 4) 70 V / 100 V audio signal
Output	4 channels,70 / 100 V,20 A,audio signal,Active out: 0 V signal
Lightning Protection	IEC 529 / EN 60 529 protection grade satisfied: IP 20
Overload Protection	165 - 300 V , peak
Rated Discharge Current	30 kA
Leak Protection Current	10 mA
Power Requirements	220 VAC + / - 10 % 50 - 60 Hz
Dimensions	89 (H) x 483 (W) x 350 (D) mm
Net weight	7.9 kg

KB-D26C

4-CHANNEL VOLUME CONTROL

The KB-D26C is a rack mounted 4-channel volume control in speaker zones.

Each channel supports up to 260 watts of speaker loads. An override feature is provided to disable the volume control settings in the event of an emergency.

REAR PANEL

SPECIFICATIONS	KB-D26C
Input	4 channels, 70 / 100 V audio signal
Output	4 channels, 70 / 100 V audio signal,1 trigger out
Priority Bus	4 channels activated by 0 V signal
Power Handling	260 W per channel
Alarm Input (override)	0 V signal
Controls	4 channel volume controls, power switch
Volume Control	6 steps, controllable by PC
Power Requirements	220 VAC ± 10 % 50 - 60 Hz ; 24 VDC
Dimensions	89 (H) x 483 (W) x 350 (D) mm

KB-D28S

POWER SEQUENCER

The KB-D28S power sequencer manages the PA system's power consumption by individually controlling activation of up to 16 system components in order to prevent overloading the AC mains. The power sequence can be started by the KB-D16T programmable timer, thus giving an even greater degree of control. The KB-D28S has a total capacity of 2KW.

REAR PANEL

SPECIFICATIONS	KB-D28S
Channels	16 CHANNELS (CH 1 ~ CH 16)
Input	220 VAC, 20 A
Output	280 W / Channel
Sequence Interval	0.4 S ~ 0.5 S
Power Handling	2 kW total capacity
Controls	Power ON / OFF switch
Power Consumption	25 - 30 W
Indicators	POWER,CH 1 ~ CH 16,TIMER
Power Requirements	220 VAC + / - 10 % 50 - 60 Hz
Dimensions	133 (H) x 483 (W) x 390 (D) mm

KB-D629C

10-ZONE LINE SUPERVISORY

The KB-D629C is a high quality, compact line supervisory. It has 10 independent circuits supervising up to 10 zones, and LED monitors the status of each zone. Red LED indicates the speaker line is short circuit, while yellow indicates open circuit and no LED stands for normal condition.

- 10 independent controlled zones
- Monitoring status of each zone
- Disconnect with the speaker line from amplifier until malfunction is fixed
- Sensitivity of the resistance of each zone adjusted independently
- 3 LED status (short circuit, open circuit, normal condition)
- 3 check time cycle (40m, 80m, 120m)

REAR PANEL
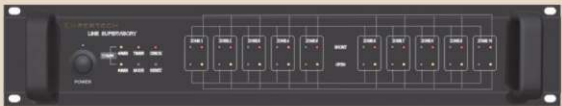
SPECIFICATIONS	KB-D629C
Power handling	360 W per channel (100 V audio signal)
Check time	About 5 seconds
Reset time	About 5 milliseconds
Checking sensitivity	2 Ω ± 1 Ω
Power requirements	AC 110-120 V or 220-240 V, 50/60 Hz
Protection	AC fuse: 0.5A
Power Consumption	30 W
Built-in dimensions	2U rack 19 inch
Net/Gross Weight	6.02/7.2 kg
Dimensions	89 (H) x 483 (W) x 382 (D) mm

Power Amplifier

KB-D3600A   KB-D4600A   KB-D6600A

Power Amplifiers

These commercial-grade power amplifiers efficiently deliver up to 660 watts of clean, reliable audio for public address applications.

They are ruggedly designed to give years of reliable service. They are equipped with toroidal power transformers, extensive heat-sinking, fan cooling and protective circuits.

- 100V, 70V and 4-16 Ohms transformerisolated speaker outputs
- Combination XLR / RCA Line In and Line Out connectors
- LED status indicators
- Speaker output short circuit protection

REAR PANEL

SPECIFICATIONS	KB-D3600	KB-D4600	KB-D6600
Rated Power Output	360 W	460 W	660 W
Output Regulation	< 3 dB (no load to full load)		
Speaker Output	13.6 ohms (70 V), balanced 27.8 ohms (100 V), balanced Low impedance: 4 - 16 ohms, balanced	10.7 ohms (70 V), balanced 21.7 ohms (100 V), balanced Low impedance: 4 - 16 ohms, balanced	7.4 ohms (70 V), balanced 15.1 ohms (100 V), balanced Low impedance: 4 - 16 ohms, balanced
Input	< 1 V, unbalanced, 10 k ohms, XLR and phone jack		
Output	10 k ohms,0.775 V, 0 dB, XLR and phone jack		
Frequency Response	60 - 15,000 Hz, (+ / - 3 dB)		
THD	< 0.5 % at 1 kHz (1 / 3 Rated Power)		
S/N Ratio	> 70 dB		
Slew Rate	15 V / uS		
Controls	Volume control and power switch		
Cooling	Internal 12 VDC fan, extensive heat sinking		
Indicators	Power, Clip, Signal, Protect, and Temp LEDs		
Protection	AC Fuse: 10 A Current limiter, short circuit and thermal protection circuits	AC Fuse: 12 A	AC Fuse: 15 A
Power Consumption	485 W	620 W	880 W
Power Requirements	220 VAG ± 10 % 50 - 60 Hz	220 VAG ± 10 % 50 - 60 Hz	220 VAG ± 10 % 50 - 60 Hz
Dimensions	133 (H) x 496 (W) x 483 (D) mm		
Net Weight	15.5 kg	18.1 kg	20.1 kg
Gross Weight	17.1 kg	19.7 kg	21.7 kg

High Power Amplifier

KB-A1000   KB-A1500

High Power Amplifiers
SINGLE CHANNEL POWER AMPLIFIERS

When more power is required, these high power amplifiers provide up to 1500 watts into low impedance and 70 / 100 V speaker loads.

They are ruggedly designed to give years of reliable service, they are equipped with toroidal power transformers, extensive heat-sinking, fan cooling and protective circuits.

- 100V, 70V and 4-16 Ohms transformerisolated speaker outputs
- Combination XLR / RCA Line In and Line Out connectors
- LED status indicators
- Speaker output short circuit protection

REAR PANEL

SPECIFICATIONS	KB-A1000	KB-A1500
Rated Power Output	1000 W	1500 W
Output Regulation	< 3 dB (no load to full load)	
Speaker Output	4.9 ohms (70 V), balanced 10.0 ohms (100 V), balanced Low impedance: 4 - 16 ohms, balanced	3.3 ohms (70 V), balanced 6.7 ohms (100 V), balanced Low impedance: 4 - 16 ohms, balanced
Input	< 1 V , unbalanced, XLR and phone jack	
Output	775 V , 0 dB, XLR and phone jack	
Frequency Response	50 - 18,000 Hz, + / - 1.5 dB	
THD	< 0.5 % at 1 kHz (1 / 3 Rated Power)	
S/N Ratio	Better than 105 dB	
Slew Rate	40 V / uS	
Controls	Volume control and power switch	
Cooling	Internal 12 VDC fan, extensive heat sinking	
Indicators	Power, Clip, Signal, Protect, and Temp LEDs	
Protection	AC Fuse: 20 A Current limiter, short circuit and thermal protection circuits	AC Fuse: 25 A Current limiter, short circuit and thermal protection circuits
Power Consumption	1350 W	2000 W
Power Requirments	220 VAC ± 10 % 50 - 60 Hz	
Dimensions	133 (H) x 486 (W) x 483 (D) mm	
Net Weight	25.8 kg	25.8 kg
Gross Weight	28.1 kg	38.1 kg

EMPERTECH

Class -D Amplifier

KB–DA1500

For mid-to-large Public Address users who need highly energy efficient amplifier with outstanding sound reproduction capability, KB-DA1500 Class-D amplifier is able to deliver pro-audio level performance, globally complaint quality and less freight that well distinguish itself from traditional monolog amplifier

FEATURES

- High efficiency Class-D amplifier
- 500 W total rated power
- 100 V/70 V output
- Balanced/Unbalanced input available
- With intelligent cooling technology
- Auto constraint of output voltage, better electromagnetism compatibility
- Full range protection

TECHNICAL SPECIFICATIONS

Model	KB-DA1500
Output Rated Power	500 W
Voltage	AC 220V -15%~+10% 50~60Hz
Backup Power Supply Voltage	AC 220V -15%~+10% 50~60Hz
Output Voltage	100V / 70V
Frequency Response	70~18KHz (+1dB ~ -3dB)
Input Sensitivity and Impedance	1.414VRMS & 20K ohm
S/N	>90 dB
THD	<0.1% (1 kHz, 1/3 Output Rated Power)
Channels	1
Operation Environment	95% humidity, 0~104F
Temperature Environment	14F~131F
Net Weight	11.1 KG
Gross Weight	13.6 KG

Class -D Amplifier

KB–DA2250

For mid-to-large Public Address users who need highly energy efficient and cost-effective amplifier solution with outstanding sound reproduction capability, KB-DA2250 Class-D amplifier is able to deliver pro-audio level performance, globally complaint quality and less freight that well distinguish itself from traditional monolog amplifier and common Class-D amplifier.

FEATURES

■ High efficient Class-D amplifier with dual channel solution
■ 250 W rated power for each channel
■ 100 V/70 V output
■ Balanced/Unbalanced input available
■ With intelligent cooling technology
■ Auto constraint of output voltage, better electromagnetism compatibility
■ Full range protection

TECHNICAL SPECIFICATIONS

Model	KB-DA2250
Output Rated Power	2×250W
Voltage	AC 220V -15%~+10% 50~60Hz
Backup Power Supply Voltage	AC 220V -15%~+10% 50~60Hz
Output Voltage	100V / 70V
Frequency Response	70~18KHz (+1dB ~ -3dB)
Input Sensitivity and Impedance	1.414VRMS & 20K ohm
Output Voltage and Impedance	100 V/40 ohm, 70 V/19.6 ohm
S/N	>90 dB
THD	<0.1% (1 kHz, 1/3 Output Rated Power)
Channels	2
Operation Environment	95% humidity, 0~104F
Temperature Environment	14F~131F
Net Weight	10 KG
Gross Weight	11.5 KG

Class -D Amplifier

KB–DA4125

For mid-to-large Public Address users who need highly energy efficient and cost-effective amplifier solution with outstanding sound reproduction capability, KB-DA4125 Class-D amplifier is able to deliver pro-audio level performance, globally complaint quality and less freight that well distinguish itself from traditional monolog amplifier and common Class-D amplifier.

FEATURES

- High efficiency Class-D amplifier with four channel solution
- 125 W rated power for each channel
- 100 V/70 V output
- Balanced/Unbalanced input available
- With intelligent cooling technology
- Auto constraint of output voltage, better electromagnetism compatibility
- Full range protection

TECHNICAL SPECIFICATIONS

Model	KB–DA4125
Output Rated Power	4125 W
Voltage	AC 220V -15%~+10% 50~60Hz
Backup Power Supply Voltage	AC 220V -15%~+10% 50~60Hz
Output Voltage	100V / 70V
Frequency Response	70~18KHz (+1dB ~ -3dB)
Input Sensitivity and Impedance	1.414VRMS & 20K ohm
S/N	>90 dB
THD	<0.1% (1 kHz, 1/3 Output Rated Power)
Channels	4
Operation Environment	95% humidity, 0~104F
Temperature Environment	14F~131F
Net Weight	11.1 KG
Gross Weight	13.6 KG

KB–E100 / KB–EC100

The KB-D Network Audio System is built upon an Ethernet network to transmit the audio data, allowing for a more advanced and flexible system.

The KB-D Network Audio System not only implements all the functions of the traditional address system, such as timed rings, broadcasting in zones and bidirectional intercom communication, but also audio broadcasting on-demand, remote program broadcasting, and so forth.

The KB-D Network Audio System can transmit the audio data over a longer distance than the Analog Public Address System. Moreover, the KB-D Network Audio System is better at processing the audio signals, with much better tone quality, clearer sound, and minor degree of decay.

FEATURES

- The Central Control Host Computer allows users to manage each sub-control room and terminal of the broadcast point to perform comprehensive public address operations

- Comes with all the functions of a traditional Public Address System

- Ethernet-Based

- Broadcast on-demand

- Records and Broadcasts Audio in Real Time

  The system can connect to an external audio source (like a laptop, audio tape, hard drive, or DVD player), and uses the client software to record the audio at 128Kbps to create MP3 files in real time

- Timed Broadcasting

  Network Terminals can play customized and timed broadcasts that are configured through the client software

- Multi-Zone Broadcasting

  The system can specify several multi casting tasks, as well as specify specific zones to broadcast in. The network server software can remotely control broadcasted content and volume for each network terminal, and specify the zones in which broadcasting is to occur

- Speech Broadcasting

  A speaker can broadcast their speech in real time using any PC connected to the network with a network microphone, and specify in exactly which zones the audio should be broadcasted

- Local Audio Amplification

  The network terminals can provide audio input function

- Supports MP3 audio file conversion and 128Kbps MP3 audio file recording

KB-EC100
SYSTEM SERVER
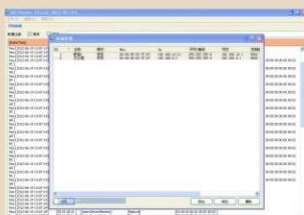
- System Parameter Settings
- Priority Management
- Client-side Management
- Terminal Management
- Microphone Management
- Zone Management
- Alarm Management
- System Maintenance

KB-EC100
CLIENT SOFTWARE

- User Management
- Audio Source Management
- Device Management
- Zone Management
- Timer Task Management
- Option Settings
- Audio Property Management
- System Maintenance
- Data Synchronization with the Server

EMPERTECH

KB–MIC103P

The KB-MIC103P network paging microphone with digital audio network technology includes line-in ports and one stereo output port. The microphone can be used for paging and bidirectional intercom communication with other terminals.

FEATURES

- TFT LCD screen and control buttons
- Uses an industrial-grade high-speed dual-core ARM+DSP chip that boots in less than 1 second
- Audio-out ports for connecting to the external amplifier to play audio
- Supports working anywhere as long as an Ethernet network connection is available
- Obtains an IP address automatically

TECHNICAL SPECIFICATIONS

Model	KB-MIC103P
Supply Voltage	DC 12 V
Power Consumption	≤ 5 W
Functional Component Port	Power Input Port
	Microphone Input Port
	1 line in
	1 line out
	1 Ethernet port
Network Communication Protocol	TCP / IP, UDP, ARP, ICMP, IGMP
Network Data Transfer Speed	10 / 100 Mbps
Audio Codec	Mp3 / PCM / ADPCM
Audio Sampling	22.050 kHz ~ 44.1KHz,16 bit
Transmission Rate	128 kbps
SNR (Signal to Noise Ratio)	> 75 dB
Frequency Response	20 Hz −16 KHz
Display Screen	TFT 3.5' LCD 320 × 240
Product dimensions (L × W × H)	260 × 120 × 50 mm
Packing dimensions (L × W × H)	456 × 276 × 130 mm
Net Weight	1 Kg
Gross Weight	2 Kg

IP NETWORK AMPLIFIER

KB–WT15

The KB-WT15 network terminal uses audio signal to transmit in the form of data package in LAN and WAN, which is a set of two-way audio PA system with pure digital audio processing and routing. It is used to achieve the function of multi-network integration of computer network, digital video surveillance and public broadcasting.

The KB-WT15 network terminal can be used in schools, hospitals, shopping malls, and factories.

FEATURES

- Two way communication via pure digital transmissions
- Built-in double network interface switch
- Apply DSP stereo sound disposal technology enabling better sound reproduction capability
- With intelligent cooling technology
- Auto constraint of output voltage, better electromagnetism compatibility
- Full range protection

TECHNICAL SPECIFICATIONS

Model	KB–WT15
Impedance matching of power amplifiers	4 Ω
Frequency Response	20 ~16 KHz
SNR	>70 dB
The maximum power consumption	≤ 45 W
Type and quantity of ports	Rj45 network ports: 2 Power outlets (DC 12V): 1 Power amplifier interfaces: 1 Dry contact output ports: 1 Dry contact input ports: 1 Line input ports: 1 Speaker line output ports: 2 MIC input ports: 1 USB interfaces: 1
Dimension (L × W × H)	224 × 154 × 49 mm
Weight	≤ 1.8 Kg

Rack Mount IP NETWORK TERMINAL

KB–RT15 / KB–RT30

The KB-RT15/KB-RT30 network terminal applies robust 2U industrial panel suitable to cabinet rack mount. On top of flexible two way audio signal routing for both on-demand broadcast and multicast, the Innovate two channel concept increases the efficiency of operation and fundamentally cost down

The KB-RT15/KB-RT30 network terminal can be used in schools, hospitals, shopping malls, and factories.

FEATURES

- Rack mount design, suitable for cabinet installation
- High efficient two Channel network audio transmission design, 50% cost down
- Apply DSP stereo sound disposal technology enabling better sound reproduction capability
- With intelligent cooling technology
- Auto constraint of output voltage, better electromagnetism compatibility
- Full range protection

TECHNICAL SPECIFICATIONS

Model	KB-WT15	KB-RT30
Impedance matching of power amplifiers	4 Ω	
Frequency Response	20 ~16 KHz	
SNR	>70 dB	
The maximum power consumption	≤ 50 W	
Type and quantity of ports	Rj45 network ports: 2 Amplifier Output: 1 Power amplifier interfaces: 1 Dry contact output ports: 1 Dry contact input ports: 1 Line input ports: 1 Speaker line output ports: 2 MIC input ports: 1 USB interfaces: 1 Volume Control Output (Override): 1 (500 W) RS-485 interface: 1	Rj45 network ports: 2 Amplifier Output: 1 Power amplifier interfaces: 1 Dry contact output ports: 1 Dry contact input ports: 1 Line input ports: 1 Line output ports: 2 Speaker line output ports: 2 MIC input ports: 1 USB interfaces: 1 Volume Control Output (Override): 1 (500 W) RS-485 interface: 1
Dimension (L × W × H)	350 × 483 × 89 mm	
Weight	≤ 5 Kg	

EMPERTECH

KB–SAP04

For mid-to-large Public Address users who need highly energy efficient and cost-effective solution, KB-SAP04 All-in-One Audio processor is able to deliver pro-audio level performance, globally complaint quality and more cost effective solution.

FEATURES

- Integrated with CD player, USB port, SD slot and support MP3 music playing and FM tuner
- Three play modes: SINGLE/ALL/ REPEAT
- Internally preset 10 programs in FM

TECHNICAL SPECIFICATIONS

Model	KB–SAP04	
Power Supply	220V AC	
Power Consumption	13VA	
Input	50 ohm antenna	
Output 1	CD / USB / SD RCA interface	
Output 2	DAB / FM RCA interface	
Dimension	482 × 44 × 252 mm	
CD		
Analog Output (V) (Validity)	0.8 ± 0.13 vrms	
Audio Frequency Response	20Hz	0 ± 1dB
	100Hz	0 ± 1dB
	1 KHz	0 ± 1dB
	10 KHz	0 ± 1dB
	18 KHz	0 ± 1dB
	20 KHz	0 ± 1dB
S/N	≥ 80dB	
THD	≤ 0.05%	
Range of Dynamic Change	≥ 70dB	
Fundamental Wave of Overhearing	≥ 70dB	
1 kHz Channel Unbalance Level	≤ 1.5dB	
Deemphasis Error	5 KHz	-4.53 dB ± 2dB
	16 KHz	-9.04 dB ± 2dB
FM		
RF Frequency Response	87.5~108MHz	
RF Sensitivity	(S+N)/N=30dB	20dB~12dB
S/N	40dB~48dB	
THD	3%~1%	
L/R Channel Separating Size	22dB~25dB	
Frequency Response −6dB	Low	40Hz~100Hz
Program Lock Sensitivity	Hign	4KHz~5KHz
	35dB~31dB	

KB-MP3

DIGITAL AUDIO PLAYER

KB-MP3 with programmed playing is a digital audio player as a part of PA system, ideal for use in schools, hotels, shopping malls, office buildings, parks, etc. The player has a built-in chip with high accuracy and a temperature compensating circuit that has been added to avoid time error caused by climate. With 1 timing output (short circuit signal), it can be self controlled automatically. Multiple functions of playing (single play, single circle, sequenced play, circle all, group play, random play) and 99 more steps of timing programs support multiple brands of U disk within 1GB.

- A 128*64 LCD,multi-functional menu, clear working status, diagram interface and convenient operation
- Built-in monitor speaker with volume control knob
- U disk storage with a flexible capacity and could enable 1G U disk
- A short circuit output for automatic control
- 1 alarm activation signal input (input signal is short circuit signal, valid at low PWL) to control the alarm output
- 1 timed activated signal input (input signal is short circuit signal, valid at low PWL) to enable timing control of the exterior timer
- 2 external control of power output enabling manual control and timed control, 1000W output for each

SPECIFICATIONS	KB-MP3
Line in (REC)	LINE:10 k Ω 330 mV, unbalanced
Mic in (REC)	MIC: 10 k Ω ≤100 mV, unbalanced
Line out	10 k Ω ≥330 mV, ± 20 mV, unbalanced
Output	Single channel
Power out	AC Out1: 240 V / 5A, AC Out2: 240 V / 5A
Time in	Time in active
Alarm in	Alarm in active
Active out	Active out signal
Monitor speaker	Hi-fi, power: 5 W / 8 Ω
Frequency Response	20 Hz - 20 kHz (± 3 dB)
S/N Ratio	> 75 dB
Harmonic distortion	< 0.5%, 330 mV output, < 0.05%, 20 dB output
File format	Support MP3, WMA, WAV, Voice files
Record features	Bit rate: 8 k Bps-320 k Bps, sample rate: 11.025 kHz-44.1 kHz
Playing features	MP3: 32 Bps-320 k Bps, WMA: 64 Bps- 192 k Bps
Volume adjust range	32 level volume control (0-32)
Port	USB1.1
Display	LCD display of menu
Functions	Power, Play, Del, Menu, Rec, 2 select buttons, Volume'+''-', Monitor regulation resistance, timed output (short circuit signal)
Indicator	'Power'
Protection	AC Fuse: 0.5 A 1
Power cable	(3 × 1.5 mm2) × 1.5 m
Indicators	Indicators for 16 zones and 8 speaker selectors, MIC on / off
Power Requirements	AC 220 V ± 10 % 50 - 60 Hz
Power Consumption	10 - 15 W
Dimensions	89(H) × 483(W) × 382(D) mm
Packing Dimensions	145(H) × 520(W) × 435(D) mm
Net Weight	5.46 kg
Gross Weight	6.88 kg

EMPERTECH

TG-1000A / TG-1000B

AUDIO CONVERTER AND BOOSTER

Balanced transmission can be achieved by using TG-1000A together with TG-1000B, which is
a common way of long distant audio signal transmission. The advantage of a balanced transmission is noise immunity, whose principle is to use the offset of the phase to minimize noise interference, thus facilitate distant transmissions of analog audio signal over 1 km or more featuring low distortion and low power consumption.

■ Dual inputs and adjustable output level for TG-1000

■ 3 High-quality outputs for close connection to peripheral devices or amplifiers for TG-1000B

■ Hi-fi audio quality with wide frequency response

■ Optional, flexible way to feed power and versatile connectors

■ High compact, stylish and suitable for any indoor installation application

■ Low distortion, low power consumption far transmission capability can reach effective distance over 1 km

SPECIFICATIONS	TG-1000A	TG-1000B
Input (MIC)	MIC: 600 Ω, 5m V, unbalanced	BALANCE: 10k Ω 10 mV, balanced
Input (LINE)	LINE: 10k Ω, 330 mV, unbalanced	/
Output	10k Ω, 10 mV, balanced	Output 1,2,3 : 10k Ω 1.5 V, unbalanced
Frequency response	20 Hz-20 kHz (±1 dB)	45 Hz-20 kHz (±1 dB)
THD	< 0.01% at 1kHz	
S/N	> 80dB	
Indicator	"POWER"	
Power	DC24V or AC22-24V	
Power consumption	0.5A	
Unit dimension	42 (H)　x 147 (W) x 118 (D) mm	
Packing dimension	65 (H)　x 147 (W) x 215 (D) mm	
Net weight	0.8 kg	
Gross weight	1.3 kg	

Desktop Microphones

MC-Z10

REAR

4-TONE CHIME MICROPHONE

- Pleasant 4-tone chime
- Push to talk switch
- Flexible goose-neck stem
- XLR connector

SPECIFICATIONS	MC-Z10
Frequency Response	60 Hz - 18 kHz
Sensitivity	- 42 dB + / - 2 dB
Impedance	200 ohms
Controls	ON / OFF switch, power switch
Cable	10 meters
Power Requirements	12 VDC
Dimensions	21.8 x 11.6 x 27.8 cm
Net Weight	1.05 kg

MC-Z20

REAR

2-TONE CHIME MICROPHONE

- Built-in 2-tone chime
- Red LED indicator
- Push to talk switch
- XLR connector

SPECIFICATIONS	MC-Z20
Frequency Response	40 Hz - 16 kHz
Sensitivity	- 43 dB + / - 2 dB
Impedance	200 ohms
Controls	ON / OFF switch
Cable	10 meters
Power Requirements	12 VDC
Dimensions	43 x 20 x 7.5 cm
Net Weight	1.05 kg

MC-Z30

DESKTOP MICROPHONE

- Excellent value, professional microphone
- Solid metal base
- Flexible goose-neck stem
- ON / OFF switch

SPECIFICATIONS	MC-Z30
Frequency Response	50 Hz - 15 kHz
Sensitivity	- 63 dB + / -2 dB
Impedance	600 ohms
Controls	ON / OFF switch
Cable	7 meters
Power Requirements	1.5 VDC
Dimensions	43 x 20 x 7.5 cm
Net Weight	1.4 kg

EMPERTECH

Desktop Microphones

MC-Z50

REAR

DESKTOP MICROPHONE

- High sensitivity, excellent frequency response
- Attractive black rugged thermoplastic base
- ON / OFF switch
- XLR connector

SPECIFICATIONS	MC-Z50
Frequency Response	50 Hz -15 kHz
Sensitivity	- 45 dB + / - 2 dB
Impedance	600 ohms
Controls	ON / OFF switch
Cable	10 meters
Power Requirements	1.5 VDC
Dimensions	44.5 x 25 x 6.5 cm
Net Weight	1.11 kg

ED-A92

DESKTOP MICROPHONE

- Three buttons, CHIME, Push-To-Talk and ON/OFF
- Push-To-Talk for short statement
- ON / OFF for long speech
- XLR connector

SPECIFICATIONS	ED-A92
Capsule Type	Condenser
Polar Pattern	Ultra - cardioid
Frequency Response	100 - 12000 Hz
Sensitivity	- 36 dB + / - 3 dB
Impedance	200 ohm (unbalance)
Cable	5 m
Power Requirements	3 VDC
Product Size	17.5 x 14 x 45cm
Net Weight	0.70 kg

EMPERTECH

TF-218

MODEL	TF-218
Max power	9 W
Rated power	6W
Power taps @ 100V	6W / 3W
Power taps @ 70V	3W / 1.5W
Sensitivity	87 dB
Frequency range (-10dB)	130 Hz - 20kHz
Rated input voltage	100 V/70 V
Rated impedance	1.7 KΩ/3.3K Ω
Dimensions(Ø x H)	Ø103 mm x 80 mm
Hole cut-out size	Ø95 mm
Diameter of speaker	2.5"
Weight	420 g
Material	ABS
Color	White

TF-205/5
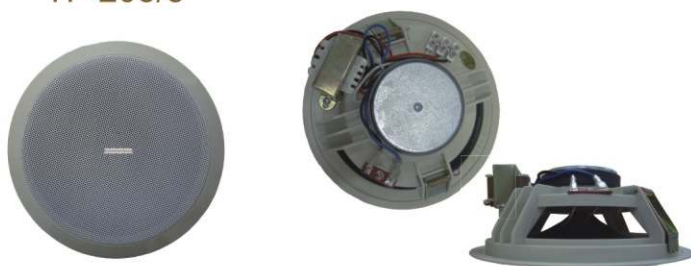
MODEL	TF-205/5
Max power	9 W
Rated power	6 W
Power taps @ 100V	6 W / 3 W
Power taps @ 70V	3 W / 1.5 W
Sensitivity	90 dB
Frequency range (-10dB)	85 Hz - 20kHz
Rated input voltage	100 V/70 V
Rated impedance	1.7 KΩ/3.3 KΩ
Dimensions(Ø x H)	Φ188 mm x 75 mm
Hole cut-out size	Φ170 mm
Diameter of speaker	5.5"
Weight	0.76 kg
Material	ABS
Color	White

ETF-221

MODEL	ETF-221
Max power	15 W
Rated power	10 W
Power taps @ 100V	10 W / 5 W / 2.5 W
Power taps @ 70V	5 W / 2.5 W / 1.25 W
Sensitivity	89dB
Frequency range (-10dB)	55 Hz -20 kHz
Rated input voltage	100 V/70 V
Rated impedance	1 k Ω / 2 k Ω / 4 k Ω
Dimensions(Ø x H)	Φ230 mm x 90 mm
Hole cut-out size	Φ200 mm
Diameter of speaker	6.5"
Weight	1.3 kg
Material	ABS
Color	White

EMPERTECH

Ceiling Speakers

ETF-223

MODEL	ETF-223
Max power	30 W
Rated power	20 W
Power taps @ 100V	20W
Power taps @ 70V	10W
Sensitivity	90 dB
Frequency range (-10dB)	100 Hz - 20kHz
Rated input voltage	100 V/70 V
Rated impedance	500 Ω
Dimensions(Ø x H)	Φ240 mm x 151 mm
Hole cut-out size	Φ210mm
Diameter of speaker	5.25"
Weight	2 kg
Material	ABS
Color	White

TF-20C
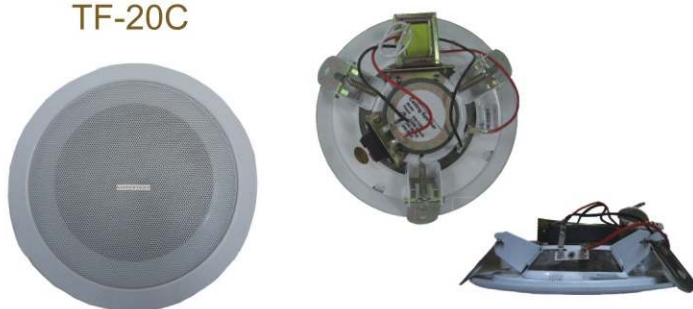
MODEL	TF-20C
Max power	9 W
Rated power	6 W
Power taps @ 100V	6W / 3W /1.5W
Power taps @ 70V	3W / 1.5W /0.75W
Sensitivity	88dB
Frequency range (-10dB)	80 Hz - 20kHz
Rated input voltage	100 V/70 V
Rated impedance	1.7 KΩ/3.3 KΩ/6.7 KΩ
Dimensions(Ø x H)	Ø180 mm x 55 mm
Hole cut-out size	Ø150 mm
Diameter of speaker	5"
Weight	0.68 kg
Material	Metal
Color	White

EVA-18

MODEL	EVA-18
Max power	9 W
Rated power	6 W
Power taps @ 100V	6 W / 3 W / 1.5W / 0.75W / 0.25W
Power taps @ 70V	3 W / 1.5 W / 0.175W / 0.375W / 0.125W
Sensitivity	88 dB
Frequency range (-10dB)	160 Hz -20 kHz
Rated input voltage	100 V/70V
Rated impedance	1.7kΩ / 3.3kΩ / 6.7kΩ / 13kΩ / 40kΩ
Dimensions	Φ222 mm x 129 mm
Hole cut-out size	Φ195 mm
Diameter of speaker	6.5"
Weight	1.57 kg
Material	Metal
Front grill color	White
Dome color	Champagne

EMPERTECH

Wall Mount Speakers

EWS-105W
(White)

EWS-105B
(Black)

MODEL	EWS-105W / EWS-105B
Max power	35 W
Rated power	25 W
Power taps @ 100V	25 W
Power taps @ 70V	12.5 W
Sensitivity	87 dB
Frequency range (-10dB)	80 Hz -15 kHz
Rated input voltage	100 V/70 V
Rated impedance	400 Ω
Dimensions (W x H x D)	230 x320 x 155 mm
Diameter of speaker	5" x 1 (Bass)+1" x 1 (Treble)
Weight	3.2 kg
Material	ABS
Color	EWS-105W White
	EWS-105B Black

EWS-102
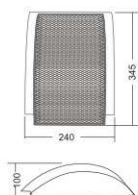
MODEL	EWS-102
Max power	15 W
Rated power	10 W
Power taps @ 100V	10 W/5W
Power taps @ 70V	5 W/2.5W
Sensitivity	91 dB
Frequency range (-10dB)	150 Hz - 20 kHz
Rated input voltage	100 V/70 V
Rated impedance	1k Ω / KΩ
Dimensions (W x H x D)	240 x 345 x 100 mm
Diameter of speaker	6.5"
Weight	1.68 kg
Material	ABS
Color	White

WS-03

Waterproof
IP44
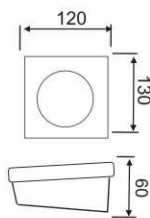
MODEL	WS-03
Max power	3 W
Rated power	1.5 W
Power taps @ 100V	1.5 W/ 0.75 W
Power taps @ 70V	0.75 W / 0.375 W
Sensitivity	89dB
Frequency range (-10dB)	150 Hz -15 kHz
Rated input voltage	100 V/70 V
Rated impedance	3.3k Ω/6.7k Ω
Dimensions(W x H x D)	120 x 120 x 60 mm
Diameter of speaker	3"
Weight	0.4 kg
Material	ABS
Color	White

EMPERTECH

Wall Mount Speakers

EVA-19

MODEL	EVA-19
Max power	6 W
Rated power	4 W
Power taps @ 100V	4 W / 2 W / 1 W / 0.5 W/0.25W
Power taps @ 70V	2 W / 1 W / 0.5 W / 0.25 W/0.125W
Sensitivity	93 dB
Frequency range (-10dB)	150 Hz -20 kHz
Rated input voltage	100 V/70 V
Rated impedance	2.5 k Ω / 5 k Ω / 10 k Ω / 20 k Ω/40 k Ω
Dimensions (W x H x D)	170 x 170 x 63 mm
Diameter of speaker	5"
Weight	1.63 kg
Material	Metal
Color	White

EWS-104

MODEL	EWS-104
Max power	9 W
Rated power	6 W
Power taps @ 100V	6W / 3W
Power taps @ 70V	3W /1.5W
Sensitivity	92 dB
Frequency range (-10dB)	130 Hz-17 kHz
Rated input voltage	100 V/70 V
Rated impedance	1.7 KΩ/3.3K Ω
Dimensions (W x H x D)	260 x162 x 77 mm
Diameter of speaker	5.25"
Weight	1 kg
Material	ABS
Color	White

ET-WM06

| MODEL	ET-WM06
Max Power	9W
Rated Power	6W
Power taps @100V	6/3W
Sensitivity	88dB
Freq. Response(-10dB)	200Hz-8KHz
Rated Input Voltage	100V
Dispersion Angle(-6dB)	120 degree
Dimension	260×180×120mm
Weight	1.08kg
Enclosure Material	ABS
Color	White

EWS-206W EWS-206B

Power selector

- High sound quality with natural fidelity
- Elegant design with rugged thermoplastic plastic
- Switch for output power selection
- Easy mounting with flexible bracket
- Available in black or white
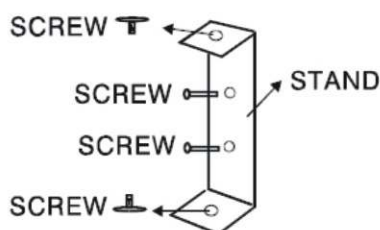
MODEL	EWS-206W/4 EWS-206B/4	EWS-206W/5 EWS-206B/5	EWS-206W/6 EWS-206B/6	EWS-206W/8 EWS-206B/8
Max power	30 W	60 W	80 W	100 W
Rated power	20 W	40 W	60 W	80 W
Power taps @ 100V	20 W / 10 W / 5 W	40 W / 20 W / 10 W	60 W / 30 W / 15 W	80 W / 40 W / 20 W
Power taps @ 70V	10 W / 5 W / 2.5 W	20 W / 10 W / 5 W	30 W / 15 W / 7.5 W	40 W / 20 W / 10 W
Sensitivity	84 dB	84 dB	88 dB	88 dB
Frequency range (-10dB)	80 Hz - 20kHz	75 Hz - 20kHz	75 Hz - 20kHz	60 Hz - 20 kHz
Dispersion angle	160°	175°	135°	115°
Rated input voltage	100 V/70 V/8ohm	100 V/70 V/8ohm	100 V/70 V/8ohm	100 V/70 V/8ohm
Rated impedance	500 Ω / 1 k Ω / 2 k Ω	250 Ω / 500 Ω / 1 k Ω	167 Ω / 333 Ω / 667 Ω	125 Ω / 250 Ω / 500 Ω
Dimensions(W x H x D)	160 x 250 x 145 mm	172 x 302 x 165 mm	193 x 344 x 202 mm	275 x 455 x 261 mm
Diameter of speaker	20 mm x 1 (Treble) + 4" x 1 (Bass)	25 mm x 1 (Treble) + 5" x 1 (Bass)	25 mm x 1 (Treble) + 6" x 1 (Bass)	25 mm x 1 (Treble) + 8" x 1 (Bass)
Weight	1.5 kg	3.4 kg	3.8 kg	7.5 kg
Material	ABS	ABS	ABS	ABS
Color	EWS-206W/4: White	EWS-206W/5: White	EWS-206W/6: White	EWS-206W/8: White
	EWS-206B/4: Black	EWS-206B/5: Black	EWS-206B/6: Black	EWS-206B/8: Black

EMPERTECH

Projection Speakers

EHB-907 (IP55)

MODEL	EHB-907
Max power	30 W
Rated power	20 W
Power taps @ 100V	20 W / 10 W / 5 W
Power taps @ 70V	10 W / 5 W / 2.5 W
Sensitivity	94 dB
Frequency range (-10dB)	150 Hz -15 kHz
Rated input voltage	100 V/70 V
Rated impedance	500 Ω / 1 k Ω / 2 k Ω
Dimensions	Φ170 mm x 252 mm
Diameter of speaker	6.5"
Weight	3.4 kg
Material	Aluminum
Color	White

HB-D907 (IP55)

MODEL	HB-D907
Max power	30 W
Rated power	20 W
Power taps @ 100V	20 W / 10 W / 5 W
Power taps @ 70V	10 W / 5 W / 2.5 W
Sensitivity	93 dB
Frequency range (-10dB)	150 Hz -16 kHz
Rated input voltage	100 V/70 V
Rated impedance	500 Ω / 1 k Ω / 2 k Ω
Dimensions	Φ170 mm x 252 mm
Diameter of speaker	6.5"
Weight	3.4 kg
Material	Aluminum
Color	White

Pendant Speakers

EHB-910W

- IP55
- Ideal for station,hotel, and market
- Paper cone coated with damp to produce clear sound
- Easy installation
- ABS enclosure
- With 4full range speaker

MODEL	EHB-910W
Max power	20 W
Rated power	10 W
Power taps @ 100V	10 W / 5 W
Power taps @ 70V	5 W / 2.5 W
Sensitivity	93 dB
Frequency range (-10dB)	200 Hz - 20 kHz
Rated input voltage	100 V/70 V
Rated impedance	1k Ω / 2k Ω
Dimensions	Φ180 mm x 700 mm
Diameter of speaker	4.5"
Weight	1.28 kg
Material	ABS
Color	White

Horn Speakers

EHS-250 (IP66)

MODEL	EHS-250
Max power	75 W
Rated power	50 W
Power taps @ 100V	50 W /25W/12.5W/9W/4.5W/3.5W
Power taps @ 70V	25 W /12.5W/6.25W/4.5W/2.25W/1.75W
Sensitivity	99 dB
Frequency range (-10dB)	200 Hz -20 kHz
Rated input voltage	100 V/70 V
Rated impedance	200 Ω
Dimensions(W x H x D)	252 x 362 x 310 mm
Weight	4 kg
Material	ABS
Color	Light grey

HS-267 (IP66)

MODEL	HS-267
Max power	25 W
Rated power	15 W
Power taps @ 100V	15 W / 7.5 W
Power taps @ 70V	7.5 W /3.75W
Sensitivity	99 dB
Frequency range (-10dB)	500 Hz - 5 kHz
Rated input voltage	100 V/70 V
Rated impedance	667 Ω / 1.3 k Ω
Dimensions	225 x 165 x 240 mm
Weight	1.38 kg
Material	ABS
Color	White

HS-268 (IP66)

| MODEL	HS-268
Max power	45 W
Rated power	30 W
Power taps @ 100V	30 W / 15 W
Power taps @ 70V	15 W / 7.5 W
Sensitivity	101 dB
Frequency range (-10dB)	500 Hz - 5 kHz
Rated input voltage	100 V/70 V
Rated impedance	333 Ω / 667 Ω
Dimensions(W x H x D)	285 x 210 x 290 mm
Weight	1.78 kg
Material	ABS
Color	White

Column Speakers

CS-51H CS-512H CS-513H CS-514H

Features:

The standard indoor / outdoor weatherproof speakers provide hi-fi sound quality. They are suitable for use at garden, swimming pool, stadium and tennis court.

- Installation: wall mount.
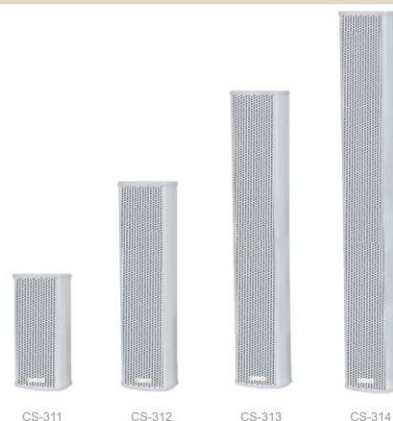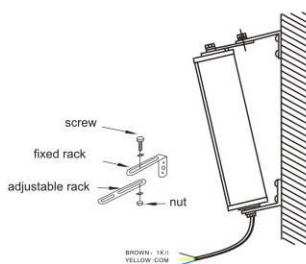- Enclosure:Aluminum, metal grille,
- 4" full range speakers.

screw
fixed rack
adjustable rack
nut
BROWN : 1KΩ
YELLOW :COM
BLUE :2KΩ

CS-511H   CS-512H   CS-513H   CS-514H
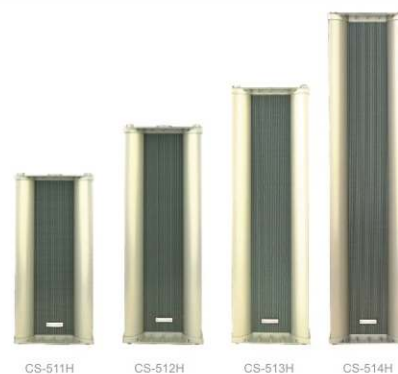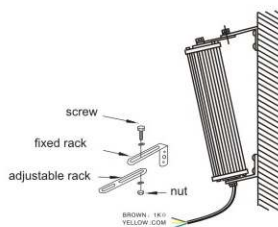
SPECIFICATIONS	CS-511H	CS-512H	CS-513H	CS-514H
Max power	15 W	30 W	45 W	60 W
Rated power	10 W	20 W	30 W	40 W
Power taps @ 100V	10W / 5 W	20W / 10 W	30W / 15 W	40W / 20 W
Power taps @ 70V	5 W / 2.5 W	10 W / 5 W	15 W / 7.5 W	20 W / 10 W
Sensitivity	90 dB	95 dB	94 dB	94 dB
Frequency range (-10dB)	120 Hz - 20 kHz	140 Hz - 20 kHz	120 Hz - 20 kHz	120 Hz - 20 kHz
Vertical Dispersion	90°	80°	80°	80°
Horizontal Dispersion	90°	90°	90°	90°
Rated input voltage	100 V/70 V	100 V/70 V	100 V/70 V	100 V/70 V
Rated impedance	1K Ω/2K Ω	500 Ω/1K Ω	333 Ω / 667 Ω	250 Ω / 500 Ω
Dimensions(W x Hx D)	145 x 270 x 123 mm	145 x 390 x 123 mm	145 x 505 x 123 mm	145 x 620 x 123 mm
Weight	2.55 kg	4.1 kg	4.35 kg	5.65 kg
Color	Champagne	Champagne	Champagne	Champagne
Materials(enclosure and grille)	Aluminum and iron	Aluminum and iron	Aluminum and iron	Aluminum and iron
Protection level	IP44	IP44	IP44	IP44

CK-31   CK-312   CK-313   CK-314

Features:

The metal case makes it more durable Beautiful shape and easy to install Suitable for indoor/outdoor application, such as gym and conference room.

- Enclosure:Aluminum, metal grille.
  2.5 "full range speakers with clear sound

screw
fixed rack
adjustable rack
nut
BROWN : 1KΩ
YELLOW :COM
BLUE :2KΩ

CS-311   CS-312   CS-313   CS-314

SPECIFICATIONS	CK-311	CK-312	CK-313	CK-314
Max power	15 W	30 W	45 W	60 W
Rated power	10 W	20 W	30 W	40 W
Power taps @ 100V	10W / 5 W	20W / 10 W	30W / 15 W	40W / 20 W
Power taps @ 70V	5 W / 2.5 W	10 W / 5 W	15 W / 7.5 W	20 W / 10 W
Sensitivity	87 dB	89 dB	93 dB	97 dB
Frequency range (-10dB)	140 Hz -15 kHz	180 Hz - 20 kHz	180 Hz - 20 kHz	180 Hz - 20 kHz
Vertical Dispersion	90°	90°	90°	80°
Horizontal Dispersion	100°	110°	110°	110°
Rated input voltage	100 V/70 V	100 V/70 V	100 V/70 V	100 V/70 V
Rated impedance	1 kΩ / 2 kΩ	500 Ω / 1 kΩ	333 Ω / 667 Ω	250 Ω / 500 Ω
Dimensions(W x Hx D)	105 x 260 x 75 mm	105 x 402 x 75 mm	105 x 546 x 75 mm	105 x 690 x 75 mm
Weight	1.22 kg	1.98 kg	2.74 kg	3.52 kg
Color	White	White	White	White
Materials(enclosure and grille)	Aluminum and iron	Aluminum and iron	Aluminum and iron	Aluminum and iron
Protection level	IP44	IP44	IP44	IP44

VC-05R / VC-05RF

MODEL	VC-05R	VC-05RF
Type	5 - step resistive, mono	
Power Rating	6 watts	
24 VDC Override	No	Yes
Attenuation	Step 1: OFF	
	Step 2: - 4 dB	
	Step 3: - 1 dB	
	Step 4: - 0.5 dB	
	Step 5: 0 dB	
Frequency Response	20 Hz - 20 kHz	
Dimensions	86 (W) x 86 (H) x 50 (D) mm	
(V C -305 R) 115 (W) x 70 (H) x 48 (D) mm		

VC-30W / VC-30WF

MODEL	VC-30W	VC-30WF
Type	5 - step auto transformer, mono	
Power Rating	30 watts	
24VDC Override	No	Yes
Attenuation	Step 1: OFF	
	Step 2: - 17 dB	
	Step 3: - 11 dB	
	Step 4: - 4.5 dB	
	Step 5: 0 dB	
Frequency Response	20 Hz - 20 kHz	
Dimensions	86 (W) x 86 (H) x 62 (D) mm	
(VC-3030W) 115 (W) x 70 (H) x 64 (D) mm		

VC-60W / VC-60WF

MODEL	VC-60W	VC-60WF
Type	5 -step auto transformer, mono	
Power Rating	60 watts	
24VDC Override	No	Yes
Attenuation	Step 1: OFF	
	Step 2: - 18 dB	
	Step 3: - 11 dB	
	Step 4: - 5 dB	
	Step 5: 0 dB	
Frequency Response	20 Hz - 20 kHz	
Dimensions	86 (W) x 86 (H) x 70 (D) mm	
(VC - 3060 W) 115 (W) x 70 (H) x 74 (D) mm		

VC-120W / VC-120WF

MODEL	VC-120W	VC-120WF
Type	5 - step auto transformer, mono	
Power Rating	120 watts	
24VDC Override	No	Yes
Attenuation	Step 1: OFF	
	Step 2: - 17 dB	
	Step 3: - 11 dB	
	Step 4: - 5.5 dB	
	Step 5: 0 dB	
Frequency Response	20 Hz - 20 kHz	
Dimensions	86 (W) x 86 (H) x 50 (D) mm	
Transformer Dimensions	70 (W) x 70 (H) x 28 (D) mm	
(VC - 3120 W) 115 (W) x 70 (H) x 74 (D) mm		

EMPERTECH

KBR-27 / KBR-42

- 19-inch standard cabinet suitable for PA equipments
- With AC fans for cooling
- Disassembled for easy shipping
- Front glass door with lock
- Rotatable wheels and fixed stands

MODE	KBR-27	KBR-42
Inner Size	24 U	38 U
Structure	Steel	Steel
Rack Size	610 X 610 X 1200 mm	610 X 610 X 1800 mm
Fixed Foot	4	4
Rotate Wheel	4	4
Fan	4	4

Job references

Golden Tulip Dar Al Khalil

Shangrao City, Hong Kong Fengyue Shopping Center

Chengdu Renhe Spring Shopping Mall

Shesha Hotel

■ Singapore Flier

■ Singapore Republic Polytechnic

■ Portugal Lisbon Colombo Shopping Mall

■ Yichun City, Yiyang Mansion

■ Sri Lanka Green Hotel
■ Pullman Guangzhou Baiyun Airport Hotel
■ Shanghai Jiaotong University
■ Ningbo Hefeng Creative Square
■ Midea Electronics Plant

E Installation
A Info Reading
S Access & Control
Y Maintenance

EMPERTECH