



**Bosch Communications Systems**  
Get your message across, effectively.



**BOSCH**  
Invented for life

Bosch Security Systems is an innovative, one-stop global shop for high-quality, safety, security and communication products. With an unrivalled choice and an integrated approach, Bosch offers a complete range of specialised state-of-the-art products and systems for standard or customised applications and projects.

Our comprehensive portfolio includes:

- CCTV Surveillance
- Access Control and Building Integration
- Intrusion Detection
- Fire Detection
- Public Address and Conference Systems
- Professional Sound

## Communications Systems – Getting the message across

Our communications systems help you to get any message across via state-of-the-art technology. We have done years of thorough research and have over 50 years of experience in Public address and Conference systems.

### Amplifiers

#### Plena Amplifiers – All-round audio technology

Plena is a range of Public Address mixing and booster amplifiers which offers a truly ‘all-round’ approach. It is a family of system elements that enables you to specify and install Public Address systems tailored to almost all application needs.

#### Mixing Amplifiers

##### Unique Features

- 4 mic. level balanced inputs
- Built-in speech filter for increased intelligibility
- Priority and VOX operation
- Telephone and emergency input with priority
- Balanced phone jack / DIN input connections
- Three stereo line input selection
- Selectable 2-tone chime
- Separate bass & treble control
- Multiple outputs (4Ω, 8Ω, 70V, 100V)



#### Booster Amplifiers



##### Unique Features

- XLR inputs / output
- Direct 100V input for power expansion
- Excellent S/N >80dB
- Input level control
- Low profile 2U housing (except LBD 1938)
- LBD 1938 (3U housing)
- Multiple outputs (4Ω, 8Ω, 70V, 100V)

### Technical Specifications

	Mixing Amplifiers			Booster Amplifiers		
Model	LBD 1906	LBD 1912	LBD 1916	LBD 1930	LBD 1935	LBD 1938
Rated output wattage (RMS)	60W	120W	240W	120W	240W	480W
Battery voltage	24Vdc (max. 10% deviation)			24Vdc (max. 10% deviation)		
Frequency response	50Hz to 18kHz (+1/-3dB)			60Hz to 15kHz (+1/-3dB)		
Distortion (at rated output power at 1kHz)	<1%	<1%	<3%	<1%	<1%	<3%
Inputs	4 balanced inputs / 3 stereo line inputs			XLR & Phone Jack		XLR
Input 1	(5 pole DIN / 6.3mm phone jack)					
Input 2 - 4	(6.3mm phone jack)					
Impedance	1kΩ balanced			20kΩ		
Sensitivity	1.0mV (mic. inputs)			1.0 V balanced		
SIN	>75dB			>80dB	>85dB	>80dB
Chime	0/2 (OFF/ON) selectable - on DIN inputs					
Speech filter response	-3dB at 315Hz					
Phantom power	Yes (on mic. input 1) (Through 5 pole DIN connection only)					
Dimensions (H x W x D)	(88 x 432 x 250) mm			(88 x 432 x 250) mm		(145 x 430 x 370) mm
Weight	7kg	10.5kg	13.5kg	10.5kg	12.5kg	25kg

## Dual Channel Amplifier – Customisable sound amplifying systems

LBD 8148 Dual Channel Amplifier is designed by Bosch for professional sound contractors for all kinds of applications, from shopping malls and educational institutions to convention centres.

### Unique Features

- Mode switch
- Inter-modulation distortion
- High slew rate
- High dynamic headroom
- Balanced inputs
- Visual monitoring



### Technical Specifications

Electrical	
<b>Power Output</b>	
Music power	250W + 250W RMS measured with tone burst
DIN power	150W + 150W RMS (per channel 35V across 8Ω in 'Two-Channel' mode) 300W in 'Bridge' mode (70V across 16Ω)
<b>Distortion</b>	
Harmonic distortion	<0.05% (Typical distortion 0.03% at rated power at 1kHz)
Inter-modulation distortion	<0.05% for frequency 500 & 8000Hz according to IEC 268
Slew rate	70V/μ sec
Power bandwidth	20Hz to 20kHz at 0.1% distortion
Frequency response	10Hz to 50kHz
Hum and noise	90dB below rated output 100dB 'A' weighted
<b>Inputs</b>	
Input sensitivity	775mV (± 0.5dB)
Input impedance	>100k balanced
Input attenuation	Adjustable between 0 & >60dB
<b>Power Supply</b>	
Mains	220/240V ± 10% 50Hz to 60Hz
<b>Mains Current</b>	
Consumption	Less than 650mA on no load Less than 3.2A on rated load
Fuses	Two 5 x 20mm fuses are provided on the rear panel; 6.3AT for mains circuit of amplifier and 315 MAT for fan mains circuit. 5 x 20mm DC fuses are provided in the DC circuits inside the amplifier
Output DC offset voltage	Maintained within 20mV by tracking circuit

### Mechanical

19-inch rack mountable or free-standing or anti-skid feet; rounded, with easy-to-use handles provided for transport. Four rubber bumpers protect the rear plate.

Weight	21kg (net)
Temperature Range	Operating -10°C to +45°C Storage -20°C to +75°C
Humidity	Up to 98% RH (tested according to IEC 68)
Connectors	1 No. 6.35mm socket per channel and 1 No. 6.35mm interconnect socket per channel for looping of input to second amplifier
6-way Terminal Block	Wired parallel to input connector above
Per-channel red and black banana-type terminals for output	

## Speakers

### Ceiling Speakers – Exceptional sound clarity

A complete range of loudspeakers suitable for both speech and music reproduction in shops, departmental stores, schools, sports halls, hotels, restaurants and all other public address applications.



#### Unique Features

- Easy to install with spring-loaded mounting clamps
- Power handling capacity - 6 Watts / 4 Watts
- Excellent frequency response
- High sound pressure level
- Wide opening angle
- In-built 100V line matching transformer
- Contemporary aesthetic grill design
- Compact size
- Optimised for music & speech applications
- Ideal for mounting on false ceilings

### Technical Specifications

	LBD 8353/10	LBD 8352/10	LBD 8351/10	LBD 0606/10
Power handling capacity	6 Watts (6-3-1.5)	6 Watts (6-3-1.5)	4 Watts (4-2-1)	6 Watts (6-3-1.5)
Sound pressure level (max.)	96dB	96dB	93dB	98dB
Effective frequency range	70-15000Hz	70-10000Hz	300-15000Hz	80-16000Hz
Rated input voltage	100 Volts	100 Volts	100 Volts	100 Volts
Rated impedance	1667	1667	1667	1667
Colour	IFB white	IFB white	IFB white	IFB white
Weight (approx.)	750 Grams	600 Grams	500 Grams	800 Grams
Mounting	Clamp type	Clamp type	Clamp type	Clamp type
Overall dimensions	210mm Dia. 90mm Height	180mm Dia. 70mm Height	165mm Dia. 65mm Height	200mm Dia. 70mm Height

### Wooden Box Cabinet Speakers – Truly world-class performance and quality

#### Unique Features

- Push terminals to allow selection of power
- Quick and simple Installation with mounting brackets
- Excellent frequency response
- High sound pressure level
- Wide opening angle
- In-built 100V line matching transformer
- Ergonomic & stylish design
- Shape & size to fit-in all applications & structures/interiors
- Optimised for music & speech applications



### Technical Specifications

	LBD 3902/00	LBD 3903/00	LBD 3904/00	LBD 3905/00	LBD 3921/00
Max. power	9W	18W	9W	18W	36W
Rated power (PHC)	6W (6-3-1.5)	12W (12-6-3)	6W (6-3-1.5)	12W (12-6-3)	24W (24-12-6)
Sound pressure level at rated power/1W (at 1kHz, 1m)	96dB/90dB	98dB/92dB	96dB/90dB	96dB/90dB	98dB/92dB
Effective frequency range (-10dB)	200-15000Hz	200-15000Hz	200-18000Hz	200-15000Hz	200-15000Hz
Opening angle at (1kHz, 4kHz, -6dB) in degrees	150/70	150/70	150/70	210/60	210/60
Rated voltage	100V	100V	100V	100V	100V
Rated impedance in ohms	1667	833	1667	833	500
Dimensions (H x W x D) mm	243 x 152 x 140	447 x 60 x 53	242 x 54 x 14	243 x 236 x 132	850 x 153 x 40
Weight in kg	1.8	3	1.25	3	4

## LBD 879X Series Conference System – Portable state-of-the-art technology

The Bosch Conference System LBD 879X Series is an easy-to-use, plug-and-play conference system that can be used for conference and meeting applications.

### Unique Features

- Supports a 60-delegate conference
- Expandable up to 80 units
- Sensitive microphone, with illuminated LED ring
- Built-in automatic volume compressor for balanced and natural sound
- Graphic equaliser for optimum audio performance
- Ability to play background music simultaneously and / or presentation through microphone
- Outputs for connecting to a public address system and recording system



### Technical Specifications

Chairman Unit/Delegate Unit	LBD 8791 / LBD 8792
Rated power supply voltage (Derived from LBD 8794)	+24V DC
Current consumption with rated power	<65mA
Quiescent	<25mA
Sensitivity of microphone at 1kHz	-65dB (± 4dB) (0dB = 1V/bar)
Hum and noise (with mic. input terminated)	<-50dB
Frequency response	200Hz to 12.5kHz
Priority muting at 1kHz	>50dB
Rated power output at 1kHz	300mW
THD for rated output at 1kHz	<1%
Secretary Unit	LBD 8793
Rated power supply voltage (derived from LBD 8794)	+24V DC
Current consumption with related power	<60mA
Quiescent	<20mA
Related output e.m.f. for headphones	2.75V (rms)
Rated source impedance	47Ω
Rated load impedance	8Ω to 600Ω
Conference Controller	LBD 8794
Main input voltage (rated)	240V DC (50-60Hz)
(selectable by typing)	220V
DC output voltage	24V DC (± 0.5V)
Continuous current rating at 40°C	2.0Amps
Fuses AC	1AT
DC	3.15AT
MC1/MC2 sensitivity	1mV (+ 1/3-dB)
AUX. input sensitivity	100mV (+ 1/3-dB)
Frequency response	200Hz to 12.5kHz (± 3dB)
Hum and noise	< -50dB
MIC channel i/p impedance	4.7kΩ (typical)
AUX channel i/p impedance	4.7kΩ (typical)
Compressor	3:1 compression
6-band equaliser centre frequencies	250Hz, 500Hz, 1kHz, 2kHz, 4kHz, 8kHz
Boost / Cut at centre frequencies	+6dB to 0dB (typical)
P.A. Output	
Output e.m.f.	1V rms (± 3dB)
Rated load impedance	>10kΩ
Rated output impedance	100Ω
Record Output	
Output e.m.f.	0.5V ms (± 3dB)
Rated load impedance	>47kΩ
Rated output impedance	1kΩ
In conference controller LBD 8794, an alert tone is generated on switching priority	
Tone frequency (± 20%)	500Hz (typical)
Tone duration (± 20%)	500mS (typical)

## Industrial Public Address Systems

Wall Mounting Stations – Audio you can rely on



### Unique Features

- Two independent channels
- Simplicity of operation
- Modular construction for easiness of service
- Withstands industrial environment
- AC/DC operation
- Available in three versions

### Technical Specifications

	LBD 8921/02	LBD 8922/01	LBD 8924/ 01	LBD 8904
<b>Microphone</b>				
Type	Dynamic noise canceling	Dynamic noise canceling		
Internal impedance	230Ω ± 15%	310Ω ± 15%		
Sensitivity	0.7mV/Pa	0.7mV/Pa		
<b>Receiver</b>				
Type	Dynamic			
Internal impedance	230Ω ± 15%			
SPL	110dB/V (Typ. at 1kHz)			
<b>Line Receive Amplifier</b>				
Input sensitivity		2V		
Output		1 Watt across 25Ω		
Distortion		1% at 1kHz		
Residual noise level		-50dB (w.r.t. rated output)		
Frequency response		200Hz to 10kHz (+1/-3dB)		
Power bandwidth		200Hz to 10kHz (1%)		
<b>Line Amplifier Section</b>				
Input sensitivity	5mV (adjustable by preset internally) microphone input	0.7mV (adjustable by preset internally) microphone input		
Input impedance	4kΩ Resistive	4kΩ Resistive		
Load impedance	240Ω Resistive	240Ω Resistive		
Output	2V	2V		
Distortion	1% at 1 kHz	1% at 1 kHz		
Residual noise level	-50dB (w.r.t. rated output)	-50dB (w.r.t. rated output)		
Frequency response	200Hz to 12kHz within +1 & -3dB	200Hz to 12kHz within +1 & -3dB		
Gong tone frequency	600kHz ± 100kHz	600kHz ± 100kHz		
Gong tone duration	800mS ± 100 mS	800mS ± 100 mS		
<b>Power Amplifier Section</b>				
Input sensitivity	2V	2V	2V	
Input impedance	25kΩ	20kΩ	25kΩ	
Distortion	1% at 1kHz	1% at 1kHz	1% at 1kHz	
Frequency response	200Hz to 10kHz (± 3dB)	200Hz to 10kHz (± 3dB)	200Hz to 10kHz (± 3dB)	
Residual noise level	-50dB (w.r.t. rated output)	-50dB (w.r.t. rated output)	50dB (w.r.t. rated output)	
Tone control	Bass cut filter (minimum cut 10dB at 200Hz)	Bass cut filter (minimum cut 10dB at 200Hz)	Bass cut filter (minimum cut 10dB at 200Hz)	
Output power	15W r.m.s. across 8Ω or 16Ω load on relevant tap	15W r.m.s. across 8Ω or 16Ω load on relevant tap	15W r.m.s. across 8Ω or 16Ω load on relevant tap	
Protection	Short circuit protection on output	Short circuit protection on output	Short circuit protection on output	

	LBD 8921/02	LBD 8922/01	LBD 8924/01	LBD 8904
<b>Power Supply</b>				
Power supply	110V/220V/240V AC ± 10% 50/60Hz (240V tapping set on delivery) or 24V DC	110V/220V/240V AC ± 10% 50/60Hz (240V tapping set on delivery) or 24V DC	110V/220V/240V AC ± 10% 50/60Hz (240V tapping set on delivery) or 24V DC	
Current consumption	240V AC → 180mA 24V DC → 850mA	240V AC → 180mA 24V DC → 820mA	240V AC → 180mA 24V DC → 850mA	
<b>Climatic</b>				
Permissible temperature	Operation: -20°C to + 55°C Storage : -40°C to + 70°C	Operation: -20°C to + 55°C Storage : -40°C to + 70°C	Operation: -20°C to + 55°C Storage : -40°C to + 70°C	
Permissible humidity	95%	95%	95%	
Dimension (H x W x D) mm	365 x 150 x 225	355 x 150 x 175	355 x 150 x 175	
Environmental protection	IP 52 without weatherproof cover IP 55 with weatherproof cover	IP 52 without weatherproof cover IP 55 with weatherproof cover	IP 52 without weatherproof cover IP 55 with weatherproof cover	
Weight	7kg without packing	7kg without packing	7kg without packing	
Colour	Front panel - Dark Brown Rear housing - Beige	Front panel - Dark Brown Rear housing - Beige	Front panel - Dark Brown Rear housing - Beige	
Indications	Green LED for Power ON	Green LED for Power ON	Green LED for Power ON	
	Red LED for Private Channel Busy	Red LED for Private Channel Busy		
<b>Controls on Front Panel</b>				
Page switch	Yes	Yes		
Private switch	No	Yes		
FS (Function Switch)	Yes	Yes		
Screwdriver adjustable volume control for loudspeaker	Yes	Yes	Yes	
<b>Control Inside</b>				
Input sensitivity control	Yes	Yes		
Receive level control	Yes	Yes		
Speech filter jumper	Yes	Yes	Yes	
Cable termination	On multi-way shrouded terminals	On multi-way shrouded terminals	On multi-way shrouded terminals	
Cable entry	Via 4 nos. glands at bottom	Via 4 nos. glands at bottom	Via 4 nos. glands at bottom	
<b>Standards:</b>				
	IEC 65 : Safety Standard IEC 68: Climatic and Environment Conditions IEC 144: Degree of Mechanical Protection IEC 268: Sound System Equipment			
<b>Optional Accessories:</b>				
	LBD 8901: Weatherproof Cover			
	LBD 8930: Station Junction Box			