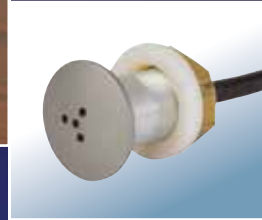


CLOCKAUDIO®
PROFESSIONAL MICROPHONE SYSTEMS



Introduction

Clockaudio was established in 1994 by a team of audio specialists with many years of experience in the design and manufacture of innovative Pro-Audio products.

The company's reputation has been established on sound principles, its dedication to quality, service and innovation.

Audio professionals actively seek out and recommend Clockaudio for its reputation as a trusted and dedicated manufacturer and its acknowledged customer drive approach to audio solutions.

Central to this is the In-House Research and Development facility which allows clients to explore customised prototypes and develop specific briefs in partnership.

This partnership approach has struck a chord with consultants and contractors alike, giving them the opportunity to be involved in the final solution.

The ability to customise is just one of the many factors which makes Clockaudio clearly different.



CLOCKAUDIO®

Clearly different.

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RF Series: GSM-friendly microphones and shock mounts

The **Clockaudio RF** product range has been developed in direct response to interference (noise) issues which have been introduced into microphones, IP phones, hearing aids, etc. by popular GSM devices such as PDAs and mobile phones with two-way walkie-talkie capability. The noise emitted from these devices can wreak havoc on everything from a simple phone call to a complex video conference, and everything in between.

These GSM devices emit a periodic hand shaking 'sync signal' to the nearest antenna tower even when these devices are at rest which creates noise, as well as data streaming noise when receiving or making calls, text messaging, sending or receiving e-mails or web surfing. Depending on the distance of the PDA or mobile device to the antenna tower, these devices will vary their strength in order to ensure proper hand shaking which can result in loud distracting noises which takes the focus away from the real business at hand; 'your business'.

Clockaudio's 'RF-Immunity' Series of microphones completely strips out this interference without any degradation of audio quality, frequency response or sensitivity, and allows the user to conduct business as usual without the need to have conference participants check their PDA or mobile phone at the door.

Availability options for RF-Immunity products in the Clockaudio microphone range continues to grow. RF-Immunity models are highlighted throughout the catalogue with the blue crossed-circle logo:



C 2 Series Goosenecks

Cardioid condenser gooseneck microphones designed for use in controlled acoustic environments such as schools, universities and public address paging systems.

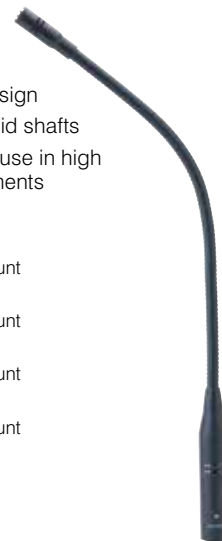
Hypercardioid versions also available for noisy environments such as finance, transport termini and factory communications.

Features:

- Optimised for speech clarity
- Unobtrusive slimline design
- Fully-flexible or semi-rigid shafts
- Hypercardioid ideal for use in high ambient noise environments

Models:

C 22	200mm	Base mount
C 22E	180mm	XLR
C 23	300mm	Base mount
C 23E	280mm	XLR
C 24	400mm	Base mount
C 24E	380mm	XLR
C 25	500mm	Base mount
C 25E	480mm	XLR



- Includes W 2 windshield

C 3 Slimline Goosenecks

Stylish, slimline, flexible goosnecks with cardioid condenser microphone for use in boardrooms, conferencing and a wide variety of applications requiring unobtrusive and easily-detachable gooseneck microphones with consistent sound quality.

Features:

- 6mm Ø slimline, flexible gooseneck
- Tini Q mini-XLR termination for easy interchange
- Engineered in high quality brass
- Finished in black or white

Models:

C 3100	100mm	
C 310-R	100mm	Rigid
C 312-SR	200mm	Semi-rigid
C 313-SR	300mm	Semi-rigid
C 314-SR	400mm	Semi-rigid



These products are compatible with SM 20-RF, SM 80-RF, PPA-RF, S 140-RF and CW 9004.



- Includes W 2 windshield

Model:	C 2 Series	
Type	Cardioid	Hypercardioid
Frequency Response	70Hz ~ 14KHz	60Hz ~ 12KHz
Sensitivity	-67dB ±3dB at 1KHz (0dB=1v/u.bar)	-71dB ±3dB at 1KHz (0dB=1v/u.bar)
Impedance	XLR: 200Ω Open-Ended Type: 1.6kΩ	
S/N Ratio	64dB (A)	
Termination	XLR: Male 3 pin XLR Open Ended: M10 x 1 Thread with shakeproof washer & nut	
Power Requirements	XLR: 9 ~ 48v Phantom Power Open Ended Type: 1.5v max through series resistor	

Model:	C 3100
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
S/N Ratio	69dB(A)
Maximum SPL	125dB 1% THD
Power Requirements	9 ~ 48v Phantom Power
Termination	3 pin female Tini Q connector
Dimensions	Head Ø 12mm Shaft Ø 6mm

◦ C 3 Series - Goosenecks

Cardioid condenser microphones designed for use in conference halls, places of worship, broadcasting and paging systems. Manufactured in high quality brass and finished in satin black.


Features:

- Response optimised for constant sound quality
- Superior grade components
- Finished in satin black
- Fully flexible or semi rigid gooseneck and knuckle joint options
- Finished in black or white

Base Models:

- C 31** 180mm
- C 32** 280mm
- C 33** 380mm
- C 34** 480mm
- C 35** 580mm
- C 36** 680mm
- C 301** Knuckle 180mm

Options:

Also available with  RF-immunity and switch versions. See 'Available Gooseneck Options' (right) for full details.



- Includes W 2 windshield



◦ C 3 Halo Series - Goosenecks

These Halo versions of the C 3 Series are designed specifically for use in conference systems or other applications where speaker identification is required.


Features:

- High bright LED
- 5 pin XLR or base mounting
- Response optimised for constant sound quality
- Superior grade components
- Finished in satin black
- Fully flexible or semi rigid gooseneck and knuckle joint options

Base Models:

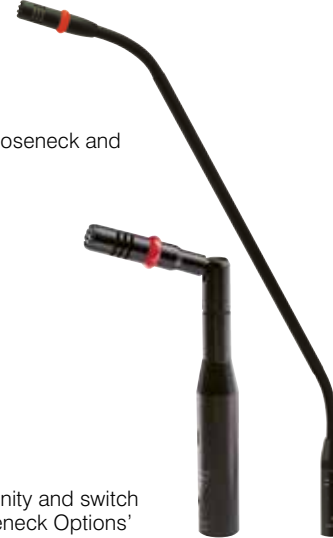
- C 31HALO** 180mm
- C 32HALO** 280mm
- C 33HALO** 380mm
- C 34HALO** 480mm
- C 35HALO** 580mm
- C 36HALO** 680mm
- C 301HALO** Knuckle 180mm

Options:

Also available with  RF-immunity and switch versions. See 'Available Gooseneck Options' (right) for full details.



- Includes W 2 windshield



◦ Available Gooseneck Options:

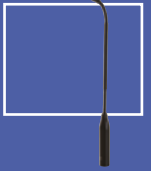
• XLR Connector Mount

3 or 5 pin male XLR, includes universal Phantom Power supply adaptor 9 ~ 48v with selectable bass cut filter* and -10dB pre attenuation pad (*Non RF models only)



• Shaft

Choice of fully flexible or semi rigid shafts



• Knuckle Joint

Unique design feature allowing horizontal rotation and verticle angle adjustment



• LED Halo

High bright Halo LED for speaker identification



• ON/OFF Switch

Silent, magnetic ON/OFF switch with LED indicator (RF models only)



• RF-immunity

Immune to RF artefacts - fully shielded against Radio Frequency Interference (RFI) from GSM devices operating in the 800MHz ~ 1.2GHz bandwidth



Model:	C 3 Series
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB at 1KHz (0dB=1v/Pa)
Impedance	XLR: 200Ω
S/N Ratio	69dB(A)
Power Requirements	XLR: 9 ~ 48v Phantom Power
Termination	XLR: Male 3 pin XLR

Model:	C 3 Halo Series
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB at 1KHz (0dB=1v/Pa)
Impedance	XLR: 200Ω
S/N Ratio	69dB(A)
Power Requirements	XLR: 9 ~ 48v Phantom Power
Termination	XLR: Male 5 pin XLR

◦ C 800 Goosenecks (Mini Shotgun)

Slim, mini shotgun, hypercardioid microphone developed for speech purposes in a wide range of pro and live sound applications including places of worship, conference and leisure centres, banks and financial trading centres.

Features:

- Optimised for speech clarity
- Slimline gooseneck
- Superior grade components
- Finished in satin black

Models:

- C 800**
- C 800E**
-  **C 800E-RF**
-  **C 800ES-RF** With ON/OFF switch & LED



- Includes W 8 windshield



◦ C 801 Knuckle Joint (Mini Shotgun)

Slim, mini shotgun, hypercardioid condenser microphone suitable for speech in a wide range of pro and live sound applications including places of worship, conference and leisure centres, banks and financial trading centres. Fitted with a knuckle joint giving both lateral and vertical adjustment.

Features:

- Optimised for speech clarity
- Superior grade components
- Finished in satin black

Models:

- C 801**
- C 801E**
-  **C 801E-RF**
-  **C 801ES-RF** With ON/OFF switch & LED



- Includes W 8 windshield



Options:

See 'Available Gooseneck Options' on Page 3.

◦ C 815E-RF & C 816E-RF Goosenecks (Mini Shotgun)



Slimline, hypercardioid shotgun microphones for high quality speech in professional recording and live broadcasting applications.

Engineered in high quality brass and finished in satin black.

Features:

- Hypercardioid polar pattern
- Slimline mini shotgun
- Superior grade components
- Unobtrusive design
- Finished in satin black

Models:

-  **C 815E-RF**
-  **C 816E-RF** Semi-rigid



- Includes W 85 windshield



Model:	C 800 Series
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB at 1KHz (0dB = 1v/Pa)
Impedance	XLR: 200Ω
Power Requirements	XLR: 9 ~ 48v Phantom Power
S/N Ratio	69dB(A)
Termination	XLR: Male 3 pin XLR

Model:	C 801 Series
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB at 1KHz (0dB = 1v/Pa)
Impedance	XLR: 200Ω
Power Requirements	XLR: 9 ~ 48v Phantom Power
S/N Ratio	69dB(A)
Termination	XLR: Male 3 pin XLR

Model:	C 815E-RF & C 816E-RF
Frequency Response	50Hz ~ 18KHz
Sensitivity	-45dB ±3dB at 1KHz (0dB = 1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
S/N Ratio	64dB(A)
Termination	XLR: Male 3 Pin XLR

◦ C 420E Twin Mount

Cardioid condenser microphones mounted on twin rigid shafts vertically adjustable, individually, through 180°. Individually powered, providing live redundant capability so often required in a live broadcast situation. Finished in satin black.

Features:

- Optimised for consistent sound quality
- Integrated Phantom Power Adaptor
- 5 pin XLR mounting
- Shaft angles independently adjustable



Models:

C 420E



- Includes W 2 windshield

Model:	C 420E
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
S/N Ratio	69dB(A)
Power Requirements	9 ~ 48v Phantom Power
Termination	Male 5 Pin XLR

◦ C 430E Twin Mount

Cardioid condenser microphones mounted on twin rigid shafts vertically adjustable, individually, through 180°. Individually powered, providing live redundant capability so often required in a live broadcast situation. Finished in satin black.

Features:

- Optimised for consistent sound quality
- Integrated Phantom Power Adaptor
- 5 pin XLR mounting
- Shaft angles independently adjustable
- Three microphone head variants - C 900, C 3H & C 800H
- Heads priced and supplied separately



Models:

C 430E



- Includes W 2 windshield

Model:	C 430E
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
S/N Ratio	69dB(A)
Power Requirements	9 ~ 48v Phantom Power
Termination	Male 5 Pin XLR

Capsule options available:



- **C 900**
Rugged Cardioid condenser microphone capsule



- **C 3H**
Slimline Cardioid condenser microphone capsule



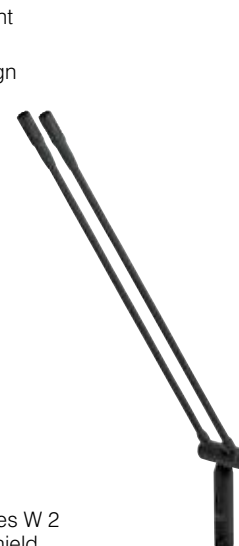
- **C 800H**
Hyper-cardioid Mini shotgun condenser microphone capsule

◦ C 440E Twin Mount

Cardioid condenser microphones mounted on twin rigid shafts vertically adjustable, individually, through 180°. For use in a wide variety of applications including presentations, conferences, broadcasting and places of worship. Finished in satin black.

Features:

- Optimised for consistent sound quality
- Attractive slimline design
- Integrated Phantom Power Adaptor
- 3 pin XLR mounting
- Shaft angles independently adjustable



Models:

C 440E



- Includes W 2 windshield

Model:	C 440E
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
Switchable Bass Filter & -10dB Switchable Pad	✓
S/N Ratio	69dB(A)
Termination	Male 3 Pin XLR



◦ C 900 Combination Series

A series of easily interchangeable microphones, stands and shafts giving flexibility in choice of microphone and accessories for a wide range of applications including broadcast, conference halls, places of worship, leisure centres, etc. Finished in satin black.

Microphones

- **C 900** Rugged wide band cardioid condenser microphone for multiple use
- **C 3H** Short slimline cardioid condenser microphone for use in controlled acoustic environments
- **C 800H** Hyper-cardioid condenser mini shotgun microphone useful in a wide range of pro and live sound speech applications



• C 900



• C 3H



• C 800H



• C 3H: Includes W 2 windshield



• C 800H: Includes W 8 windshield

Model:	C 900	C 3H	C 800H
Frequency Response	50Hz ~ 20KHz	50Hz ~ 18KHz	50Hz ~ 18KHz
Sensitivity	-48dB	-37dB	-37dB
		± 3dB at 1KHz (0dB = 1v/Pa)	
Power Requirements	1.8KΩ	1.8KΩ	1.8KΩ
	All models 9 ~ 48v via a Phantom Power Adaptor (PPA)		
S/N Ratio	70dB(A)	69dB(A)	69dB(A)
Termination	Male 3 pin Tini Q connector		

◦ CA 700/CA 900 Floor Standing Long Shafts

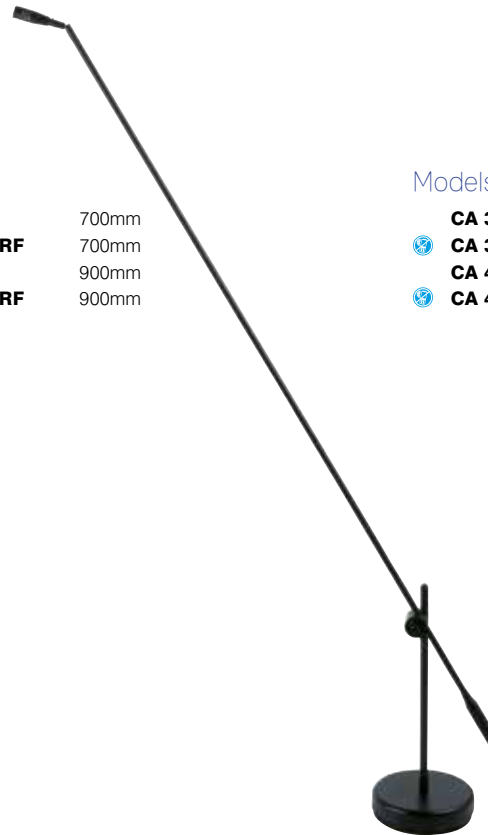
Long, rigid shafts of 700mm and 1200mm respectively. Each connects to a short (350mm) upright shaft by a separate, lockable swivel joint allowing adjustments to angle, height and reach.

Features:

- Long Shaft includes Phantom Power Adaptor at bottom end terminated in Male 3 pin XLR
- Knuckle joint at microphone end terminated with Tini Q 3 pin female connector
- Short shaft connects to SM 155 floor mounting, shock absorbing base (not included, order separately)

Models:

- **CA 700** 700mm
- **CA 700-RF** 700mm
- **CA 900** 900mm
- **CA 900-RF** 900mm



◦ CA 30/CA 40 Semi Rigid Shafts

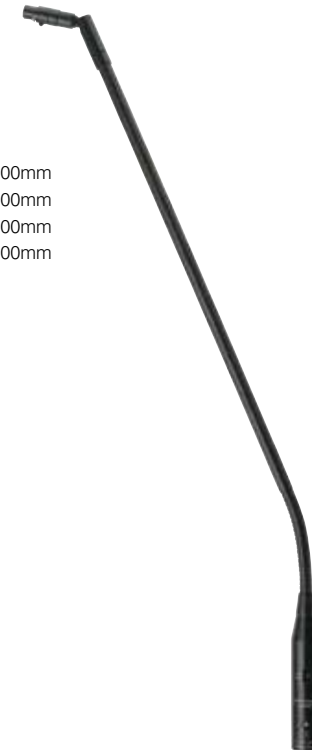
Semi-rigid 300mm and 400mm shafts fitted with Phantom Power Adaptor at the bottom end terminated in Male 3 pin XLR and knuckle joint at tip with Tini Q 3 pin Female connector.

Features:

- Integrated Phantom Power Adaptor
- Male 3 pin XLR termination
- Finished in satin black

Models:

- **CA 30** 300mm
- **CA 30-RF** 300mm
- **CA 40** 400mm
- **CA 40-RF** 400mm



◦ CAK 1

Phantom Power Adaptor with knuckle and Tini Q 3 pin Female connector.

Models:

- CAK 1**
-  **CAK 1-RF**



◦ S 750

Table microphone base fitted with knuckle and Tini Q 3 pin Female connector. Terminated with 3m of cable requiring a Phantom Power Adaptor. Diameter 75mm, height including connector 75mm.

Models:

- S 750**



◦ SM 155

Floor mounting, shock absorbing microphone base of diameter 155mm and height 42.5mm.

Models:

- SM 155**



◦ C 901E Series (featuring 900 Capsule)

These 900 Series Microphones feature the C 900 cardioid condenser capsule and CAK Phantom Power Adaptor with knuckle joint for horizontal rotation and vertical angle adjustment.

Features:

- Integrated Phantom Power Adaptor
- Male 3 pin XLR termination
- Finished in satin black

Models:

-  **C 901E-RF**
-  **C 901ES-RF** With ON/OFF switch & LED



• C 901E-RF

• C 901ES-RF

Model:	C 901E-RF	C 901ES-RF
Frequency Response	50Hz – 20KHz	
Sensitivity	-48dB ±3dB @ 1KHz (0dB=1v/Pa)	
Impedance	200Ω	
S/N Ratio	70dB(A)	
Power Requirements	9 – 48v Phantom Power	
Termination	Male 3 Pin XLR	

 = RF-Immunity Version

◦ CCRM 4000

The ceiling mounted retractable microphone has a wealth of benefits over traditional table mounted microphones. The table is left uncluttered, cables are now hidden in the ceiling and not under the conference room table, the audio from hanging microphones are superior to table mounted microphones as the height can be individually positioned according to the speaker thus allowing for greater signal with less ambient noise. The noise / vibration transmitted across the table from delegates naturally moving laptops or other objects around the table are eliminated by the use of hanging microphones. At the end of the conference the microphones retract back into the ceiling leaving the conference room unspoiled by table mounted microphones.

Features: Single element microphone

- Single element motorised ceiling microphone with cardioid polar pattern for boardrooms, conferencing, courtrooms and other venues)
- XLR Socket allow easy and fast connection of the audio to mixer or DSP. a 9-48 phantom power supply is required
- The Retracts can be mounted either horizontally or vertically depending on space and fixing requirement
- Microphone cable length 2.5 Metres
- Microphone is fitted with 350 degree rotation knuckle joint. High performance condenser microphone with Cardioid Polar Pattern is fitted as standard
- Control Ports allow DSP connection and daisy chain expansion to other units. A positive (2.5V to +12V) signal applied to the Master DSP control port will simultaneously activate all slave Retracts connected to the Master
- IR Remote control supplied with the Master Retracts to allow easy set-up and programming of the cable height
- The remote control can be used to activate the Retracts in the absence of a DSP
- Wall or ceiling mounted IR Sensor with integral LED (Master Retracts)
- A switch mode power supply (Master unit only)
- A ceiling mounting kit is available
- Logic Hi / Lo for DSP mute detection port
- The ceiling bezel is fitted with an internal Hall effect detection switch
- Two rotary 0-9 digital decimal switches accessed from the outside of the housing are used to set the Master (00) and 01-99 determines slave designation.
- Power Requirements 18VDC



IR Remote Control



IR Sensor

◦ CCRM 4000/C-303

Features: Tri element microphone

- Tri-element motorised ceiling microphone with three cardioid polar patterns covering 360° for boardrooms, conferencing, courtrooms and other venues
- Designed to capture 360 degree pickup
- RJ-45 Socket complete with RJ-45 to Phoenix connectors for fast connection to mixer or DSP. A 9-48 volt phantom power supply is required.
- Patent pending 1109720.1
- Control Ports allow DSP connection and link/daisy chain expansion to other CCRM 4000/C303 Retracta units.
- Up to 99 slave units can be daisy chained to the Master Retracta
- Logic Hi / Lo for DSP mute detection port
- Master and slave units are identical in construction. Two rotary 0-9 digital decimal encoders are used to set the Master (00) and 01-99 determines slave designation.
- IR remote control or DSP
- IR Remote control supplied with the Master Retracta to allow easy set-up and programming of the cable height
- The remote control can be used to activate the Retracta in the absence of a DSP
- Wall or ceiling mounted IR Sensor with integral LED supplied with Master Retracta



◦ C 3S Suspended Cardioid Microphones

Slim, wide band, cardioid condenser microphone designed to be suspended in places of worship, conference halls, theatres, etc.

Features:

- Response optimised for consistent sound quality
- Short, flexible shaft with knuckle joint for easy adjustment of vertical angle
- Made in high quality brass and finished in satin black or ivory
- 7.5m of cable attached
- Open-ended termination, phantom power adaptor required (see page 31)
- Mounting plate option CP 73/73W

Models:

- C 3S** Black
- C 3S-RF** Black supplied with CPPW01 - PPA
- C 3SW** Ivory
- C 3SW-RF** Ivory supplied with CPPW01 - PPA



- Includes W 2 windshield



◦ C 8S Suspended Hypercardioid Mini Shotgun Microphones

Slim, mini shotgun, hypercardioid condenser microphone designed to be suspended in places of worship, conference halls, theatres etc.

Features:

- Response optimised for consistent sound quality
- Short, flexible shaft with knuckle joint for easy adjustment of vertical angle
- Made in high quality brass and finished in satin black or ivory with 7.5m of cable attached
- Open-ended termination, phantom power adaptor required (see page 31)
- Mounting plate option CP 73/73W

Models:

- C 8S** Black
- C 8S-RF** Black supplied with CPPW01 - PPA
- C 8SW** Ivory
- C 8SW-RF** Ivory supplied with CPPW01 - PPA



- Includes W 8 windshield



◦ CP 73 Ceiling Mounting Plate

Available in black or ivory versions, this ceiling mounting plate is for use with our C 3S and C 8S Suspended Microphones.



Models:

- CP 73** Black
- CP 73W** Ivory

Model:	C 3S Series
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
S/N ratio	69dB(A)
Power Requirements	9 ~ 48v Phantom Power
Termination	Open-ended

Model:	C 8S Series
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
S/N ratio	69dB(A)
Power Requirements	9 ~ 48v Phantom Power
Termination	Open-ended



◦ C 303-RF Tri-element Suspended Microphone Array

Tri-element array hanging microphone designed for unobtrusive all round high quality pickup necessary in places such as boardrooms, conferencing, court rooms and other venues.

Features:

- Response optimised for consistent sound quality
- Made in high quality brass and finished in satin black or ivory with 7.5m of cable attached
- RJ-45 to Phoenix termination, phantom power adaptor required (see page 31)
- Mounting plate option CP 73/73W

Models:

- **C 303-RF** Black
- **C 303W-RF** White



Model:	C 303-RF
Type	Condenser
Polar Pattern	Cardioid
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ± 3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
S/N ratio	69dB(A)
Power Requirements	9 ~ 48v Phantom Power
Termination	RJ-45 to Phoenix



CS-RF Series Boundary Layer Professional Microphones

The CS Series (Consultant Series) was developed as a result of input and recommendations from key consultants in boardroom AV integration. The goal was to minimise the number of microphones on the conference table, but also keeping in mind performance, ease of installation and aesthetics, essential considerations in such projects.

The results of these discussions are the **CS 1-RF**, **CS 2-RF** and **CS 3-RF** microphones. The CS 2-RF is a dual element boundary layer condenser microphone, with a half-cardioid polar pattern. It is designed to be placed in the middle of the conference table, with each element facing the participants. This microphone accommodates bottom cable exit, for permanent mounting in boardroom situations. These microphones are made of solid brass and include a 2m cable with open-ended termination. The Phantom Power Adaptor (PPA) is incorporated in the brass housing and will accept 9 ~ 48v DC (Phantom Power).

Features:

- Half cardioid polar pattern
- Fully balanced
- High quality engineering in solid brass
- Non-reflective black Nextel or satin nickel

The CS 3-RF microphone has the same characteristics as the CS 2-RF with the addition of a third element. This microphone is to be positioned closer to the end of the conference table in order to capture the participants facing each other and also the participant sitting at the extremity of the table. If the participant at the end of the table is further away, it is then possible to use a combination of a CS 2-RF and CS 1-RF (single element version) to accommodate this situation.

The **CS 4-RF** completes the CS-RF Series microphone family, offering a 4-element microphone in a single housing. Like the CS 1, 2 and 3, the CS 4-RF offers half cardioid polar patterns and a bottom cable exit. The CS 4-RF can be positioned in the centre of a round conference table, giving maximum coverage from a small footprint. Engineered from high quality solid brass and finished in a durable non-reflective black Nextel or satin nickel.

Features:


- The CS series available in other customised colours and special finishes upon request

Model:	CS-RF
Microphone	Condenser (back electret)
Polar Pattern	Half cardioid
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
S/N Ratio	69dB(A)
Termination	Open ended multi-core cable



 **CS 1-RF** - single element boundary microphone



 **CS 2-RF** - dual element boundary microphone



 **CS 3-RF** - triple element boundary microphone



 **CS 4-RF** - quadruple element boundary microphone



◦ CS-RF Series Boundary Layer Professional Switched Microphones

The Consultant Boundary Series with inbuilt electronic touch sensitive switch. Developed to minimise the number of Microphones on the conference table whilst maintaining high performance and ease of installation.

Features:

- Immune to RF artefacts
- Boundary Layer dual element Condenser Microphone
- Half Cardioid Polar Pattern
- In built electronic touch switch with Red / Green LED Halo ring
- Fully balanced
- Engineered in high quality brass
- Finished in Non-reflective Black Nextel* and Satin Nickel
- Inbuilt Phantom Power Module
- Touch switch requires connection to a DSP or LB001 mute control box.
- Terminated with RJ 45 for switching



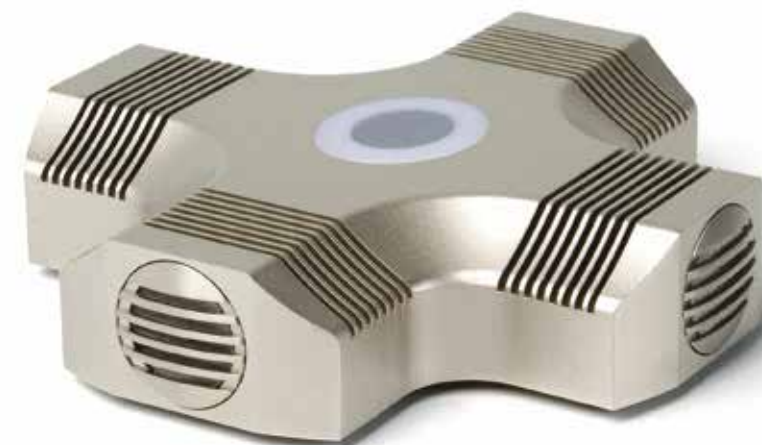
 CS 1S-RF



 CS 3S-RF



 CS 2S-RF



 CS 4S-RF

Model:	CS-RF
Microphone	Condenser (back electret)
Polar Pattern	Half cardioid
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB +/- 3dB at 1 KHz (0dB = 1 V/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
S/N Ratio	69dB(A)
Termination	Open ended for audio RJ 45 for switching

◦ Retractable Motorised ARM 100-RF Through-table Boundary Omni-directional Microphone

The ARM 100-RF is a boundary layer through table omni-directional microphone, with a built-in motorised mechanism that will allow the user to make the microphone disappear without having to physically touch it or remove it from the table. A positive (+2.5V to +12V) signal applied to the DSP control port will simultaneously activate all ARM motorised microphones connected to the ARM-C (control box M1 – M4 RJ45 motor outlet ports).

Features:

- Easy to install
- Low profile at surface level
- Robust brass construction
- Omni-directional polar pattern
- Built-in RF filter
- Balanced output
- Supplied with 2m (6.6ft) 2 core + screen cable
- Satin Nickel or Black Nextel finish



Model: ARM 100-RF	
Type	Condenser (Back Electret)
Polar Pattern	Omni-directional
Frequency Response	30Hz ~ 20KHz
Sensitivity	-42.5dB +/- 3dB @ 1KHz (0dB = 1v/Pa)
Impedance	200Ω
S/N Ratio	68dB(A)
Maximum SPL	120dB at 1KHz 1% T.H.D.
Power Requirements	9 ~ 48v Phantom Power
Termination	Open ended
Dimensions	Above Table: 18mm (0.70") Diameter: 36mm (1.42") Below Table: 149mm (5.86") Diameter: 30mm (1.18")

◦ Retractable Motorised ARM 102-RF Through-table Boundary Cardioid Condenser Microphone

The ARM 102-RF is a boundary layer through table cardioid condenser microphone, with a built-in motorised mechanism that will allow the user to make the microphone disappear without having to physically touch it or remove it from the table. A positive (+2.5V to +12V) signal applied to the DSP control port will simultaneously activate all ARM motorised microphones connected to the ARM-C (control box M1 – M4 RJ45 motor outlet ports).

Features:

- Easy to install
- Low profile at surface level
- Robust brass construction
- Cardioid polar pattern
- Built-in RF filter
- Balanced output
- Supplied with 2m (6.6ft) 2 core + screen cable
- Satin Nickel or Black Nextel finish



Model: ARM 102-RF	
Type	Condenser (Back Electret)
Polar Pattern	Half Cardioid
Frequency Response	50Hz - 18KHz
Sensitivity	-37dB +/- 3dB @ 1KHz (0dB = 1v/Pa)
Impedance	200Ω
S/N Ratio	69dB(A)
Maximum SPL	125db at 1KHz 1% T.H.D.
Power Requirements	9 ~ 48v Phantom Power
Termination	Open ended
Dimensions	Above Table: 18mm (0.70") Diameter: 36mm (1.42") Below Table: 149mm (5.86") Diameter: 30mm (1.18")



◦ ARMF/CRMF Straight Cut

Illustrating straight cut edge for counter sinking into table top to give a perfectly flat surface.



◦ CRM 100-RF Retractable through-table omni-directional condenser microphone

The CRM100-RF is a boundary layer, through-table, omni-directional condenser microphone, with a built-in mechanism that will allow the user to make the microphone 'disappear' without having to physically remove it from the table. This is achieved by simply pressing the top of the microphone downwards until it locks; then by pressing the microphone again it will raise itself back to its original position above the surface of the table. Engineered in high quality brass with built-in shock mount and RF filter.

Features:

- Easy to install
- Low profile at surface level
- Unique ability to lock capsule away from sight when not in use
- Robust brass construction
- Omni-directional polar pattern
- Built-in RF filter
- Balanced output
- Supplied with 2m (6.6 ft) 2 core + screen cable
- Satin Nickel or Black Nextel finish

Models:

CRM 100-RF

Model:	CRM 100-RF
Type	Condenser (Back Electret)
Polar Pattern	Omn-directional
Frequency Response	30Hz ~ 20KHz
Sensitivity	-42.5dB +/- 3dB @ 1KHz (0dB = 1v/Pa)
Impedance	200Ω
S/N Ratio	68dB(A)
Maximum SPL	120dB at 1KHz 1% T.H.D.
Power Requirements	9 ~ 48v Phantom Power
Termination	Open ended
Dimensions	Above Table: 15mm (0.59") Diameter: 36mm (1.42") Below Table: 111mm (4.37") Diameter: 30mm (1.18")

◦ CRM 102-RF Retractable through-table half-cardioid condenser microphone

The CRM102-RF is a boundary layer, through-table, cardioid condenser microphone, with a built-in mechanism that will allow the user to make the microphone 'disappear' without having to physically remove it from the table. This is achieved by simply pressing the top of the microphone downwards until it locks; then by pressing the microphone again it will raise itself back to its original position above the surface of the table. Engineered in high quality brass with built-in shock mount and RF filter.

Features:

- Easy to install
- Low profile at surface level
- Unique ability to lock capsule away from sight when not in use
- Robust brass construction
- Cardioid polar pattern
- Built-in RF filter
- Balanced output
- Supplied with 2m (6.6 ft) 2 core + screen cable
- Satin Nickel or Black Nextel finish



CRMF Straight Cut - see page 14

Models:

CRM 102-RF

Model:	CRM 102-RF
Type	Condenser (Back Electret)
Polar Pattern	Half Cardioid
Frequency Response	50Hz - 18KHz
Sensitivity	-37dB +/- 3dB @ 1KHz (0dB = 1v/Pa)
Impedance	200Ω
S/N Ratio	69dB(A)
Maximum SPL	125db at 1KHz 1% T.H.D.
Power Requirements	9 ~ 48v Phantom Power
Termination	Open ended
Dimensions	Above Table: 15mm (0.58") Diameter: 36mm (1.42") Below Table: 111mm (4.37") Diameter: 30mm (1.18")

= RF-Immunity Version

◦ CRM 202-RF

The CRM 202-RF is a dual element boundary layer through table cardioid condenser microphone with a built-in mechanism that will allow the user to make the microphone disappear without having to physically remove it from the table. This is achieved by simply pressing the top of the microphone downwards until it locks; then by pressing the microphone again it will raise itself back to its original position above the surface of the table. It is designed to be placed in the middle of the conference table, with each element facing the participants. Engineered in high quality brass with built in shock mount and RF filter. Standard finish: Black Nextel or Satin Nickel.

Features:

- Offering two independently wired microphones
- Integral reed contact switch designed to be used for remote switching by DSP
- Easy to install
- Low profile at surface level
- Unique ability to lock capsules away from sight when not in use
- Robust brass construction
- Cardioid polar pattern
- Built in RF filter
- Balanced output
- Supplied with 2 x 2m (6.6ft) 2 core + screen audio cable
- Satin Nickel or Black Nextel finish

Models:

CRM 202-RF

CRM 202S-RF

Model:	CRM 202-RF
Type	Condenser (Back Electret)
Polar Pattern	Half Cardioid
Frequency Response	50Hz - 18 KHz
Sensitivity	-37dB +/- 3dB @ 1 KHz (0dB = 1v/Pa)
Impedance	200Ω
S/N Ratio	69dB (A)
Maximum SPL	125db at 1 KHz 1% T.H.D.
Power Requirements	9 ~ 48v Phantom Power
Termination	Open ended
Dimensions	Above Table: 15mm (0.58") Diameter: 63mm (2.48") Below Table: 112mm (4.41") Diameter: 56.5mm (2.22")



CRM 202S-RF

The CRM 202S-RF includes a Touch Sensitive Switch with red/green LED Halo mounted into the top of the microphone housing (See TS 001 page 23 for details)

◦ CRM 203-RF

The CRM 203-RF is a low profile triple element boundary layer through table design with a three cardioid polar pattern. This is achieved by simply pressing the top of the microphone downwards until it locks; then by pressing the microphone again it will raise itself back to its original position above the surface of the table. It is designed to be placed in the middle of the conference table, with each element facing the participants. Engineered in high quality brass with built in shock mount and RF filter. Standard finish: Black Nextel or Satin Nickel.

Features:

- Cardioid polar pattern
- Easy to install
- Low profile at surface level
- Unique ability to lock capsules away from sight when not in use
- Each capsule has a half cardioid pattern 90° from each other, and can capture two participants on each side and at end of table
- Built in RF filter
- Balanced output
- Inbuilt phantom power module
- Supplied with 2m (6.6ft) 2 core + screen audio cable
- Satin Nickel or Black Nextel finish
- Nextel suede finish available as custom order



CRM 203S-RF

The CRM 203S-RF includes a Touch Sensitive Switch with Bi-Colour LED Halo mounted into the top of the microphone housing (See TS 001 page 23 for details)



Retracta Motorised ARM 202-RF Through-table Boundary Cardioid Condenser Microphone

The ARM 202-RF is a boundary layer through table cardioid condenser microphone, with a built-in motorised mechanism that will allow the user to make the microphone disappear without having to physically touch it or remove it from the table. A positive (+2.5V to +12V) signal applied to the DSP control port will simultaneously activate all ARM motorised microphones connected to the ARM-C (control box M1 – M4 RJ45 motor outlet ports).

Features:

- Easy to install
- Low profile at surface level
- Robust brass construction
- Cardioid polar pattern
- Built-in RF filter
- Balanced output
- Supplied with 2m (6.6ft) 2 core + screen cable
- Satin Nickel or Black Nextel finish

Model:	ARM 202-RF
Type	Condenser (Back Electret)
Polar Pattern	Cardioid
Frequency Response	50Hz - 18KHz
Sensitivity	-37dB +/- 3dB @ 1KHz (0dB = 1v/Pa)
Impedance	200Ω
S/N Ratio	69dB(A)
Maximum SPL	125db at 1KHz 1% T.H.D.
Power Requirements	9 ~ 48v Phantom Power
Termination	Open ended
Dimensions	Above Table: 18mm (0.70") Diameter: 63mm (2.48") Below Table: 199mm (7.83") Diameter: 58mm (2.25")



Models:

- CRM 203-RF
- CRM 203S-RF

Model:	CRM 203-RF
Type	Condenser (Back Electret)
Polar Pattern	Half Cardioid
Frequency Response	50Hz - 18 KHz
Sensitivity	-37dB +/- 3dB @ 1 KHz (0dB = 1v/Pa)
Impedance	200Ω
S/N Ratio	69dB (A)
Maximum SPL	125db at 1 KHz 1% T.H.D.
Power Requirements	9 ~ 48v Phantom Power
Termination	Open ended
Dimensions	Above Table: 15mm (0.58") Diameter: 63mm (2.48") Below Table: 112mm (4.41") Diameter: 56.5mm (2.22")

◦ C 002E-RF Low Profile Boundary Microphone

Omni-directional, low profile, boundary layer condenser professional microphone. Ideal for applications such as conference tables, floors, pianos, etc.

Features:

- Omni-directional polar pattern
- Wide range, smooth response
- Very low profile
- Available in Black and Stone Grey Nextel finish



Models:

- 🌐 C 002E-RF
- 🌐 C 002EG-RF

Model:	C 002E-RF
Frequency Response	50Hz ~ 18KHz
Sensitivity	-47dB ±3dB at 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
S/N Ratio	64dB(A)
Termination	Male 3 pin XLR

◦ C 006E Low Profile Boundary Microphone

Half cardioid, small sensitive professional boundary layer condenser microphone for a variety of A.V. and induction loop applications.

Features:

- Half-cardioid polar pattern
- Fully balanced
- Low profile
- Available in Black and Stone Grey Nextel finish



Models:

- C 006E
- C 006EG

Model:	C 006E
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB at 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power requirements	9 ~ 48v Phantom Power
Switchable Bass Filter & -10dB Switchable Pad	✓
S/N Ratio	69dB(A)
Termination	Male 3 pin XLR

◦ C 008E Tabletop Boundary Microphones

Cardioid boundary layer condenser microphone, particularly suitable for speech purposes in a wide range of pro and live sound applications including conference, lectern and theatre.

Features:

- Cardioid polar pattern
- Fully balanced
- High quality engineering in solid brass
- Concealed cable and fixing screw mounting
- Available in Black and Stone Grey Nextel finish



Models:

- C 008E
- 🌐 C 008E-RF
- C 008EG
- 🌐 C 008EG-RF

Model:	C 008E
Frequency Response	50Hz ~ 18KHz
Sensitivity	-37dB ±3dB at 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
S/N Ratio	69dB(A)
Termination	Male XLR

◦ C 009E-RF Large Surface Boundary Microphone

Omni-directional boundary layer condenser microphone for easy use on large surfaces in a wide range of professional sound applications. Ideal for mounting on walls, floors, pianos, etc.

Features:

- Omni-directional polar pattern
- Wide range, smooth response
- Very low profile
- Available in Black and Stone Grey Nextel finish



Models:

- 🌐 C 009E-RF
- 🌐 C 009EG-RF

Model:	C 009E-RF
Frequency Response	30Hz ~ 20KHz
Sensitivity	-42dB ±2dB at 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
S/N Ratio	68dB(A)
Termination	Male 3 pin XLR





◦ C 003E / C 004E Through-table Boundary Microphones

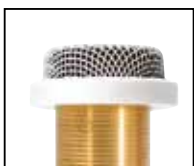
Omni-directional (C 003E) or Cardioid (C 004E) boundary layer condenser microphones designed for a wide range of installed audio, conferencing or security applications.

Features:

- Engineered in high quality brass
- Balanced output
- Simple through-table shock mounting
- Finished in satin black or matt white

Models:

- C 003E** Black
- C 003EW** White
-  **C 003E-RF** Black
-  **C 003EW-RF** White
- C 004E** Black
- C 004EW** White
-  **C 004E-RF** Black
-  **C 004EW-RF** White



- Available in white



Model:	C 003E-RF	C 004E-RF
Polar Pattern	Omni-directional	Cardioid
Frequency Response	20Hz ~ 20KHz	100Hz ~ 16KHz
Sensitivity	-42dB ±3dB at 1KHz (0dB=1v/Pa)	-37dB
Impedance	200Ω	200Ω
Power Requirements	9 ~ 48v Phantom Power	
S/N Ratio	58dB(A)	69dB(A)
Termination	Male 3 pin XLR	Male 3 pin XLR





◦ C 011E-RF / C 012E-RF Through-table Boundary Microphones

These through-table omni (C 011E-RF) and cardioid (C 012E-RF) microphones were created for applications demanding sonic quality, but also requiring an extremely robust housing within an extreme environment.

Features:

- RF-immune
- Balanced output
- Simple through-table shock mounting
- Finished in satin black or nickel

Models:

-  **C 011E-RF** Black
-  **C 011EN-RF** Nickel
-  **C 012E-RF** Black
-  **C 012EN-RF** Nickel




Model:	C 011E-RF	C 012E-RF
Polar Pattern	Omni-directional	Cardioid
Frequency Response	50Hz ~ 20KHz	50Hz ~ 18KHz
Sensitivity	-42dB ±3dB at 1KHz (0dB=1v/Pa)	-37dB
Impedance	200Ω	200Ω
S/N Ratio	58dB(A)	69dB(A)
Termination	Male 3 pin XLR	Male 3 pin XLR

◦ C 015E-RF / C 016E-RF Tabletop Boundary Microphones

New style omni-directional (C 015E-RF) and cardioid (C 016E-RF) boundary layer condenser microphones featuring programmable touch pad switching for professional AV applications such as meetings, conference and lectern installations.

Optimised for speech clarity, these RF-immune boundary microphones feature built-in Phantom Power module and are finished in satin black.

Models:

-  **C 015E-RF** Omni-directional
-  **C 016E-RF** Cardioid



Model:	C 015E-RF	C 016E-RF
Polar Pattern	Omn-directional	Cardioid
Frequency Response	50Hz ~ 20KHz	50Hz ~ 18KHz
Sensitivity	-42dB ± 3dB @ 1KHz (0dB = 1vPa)	-37dB ± 3dB @ 1KHz (0dB = 1vPa)
Impedance	200Ω	200Ω
Switching	Programmable for PTT PTM & Latching	
Power Requirements	48v Phantom Power	
S/N Ratio	58dB(A)	69dB(A)
Termination	Male 5 pin XLR with remote switch ability Optional Male 3 pin XLR variant	



◦ C 007E Series 'Button' Boundary Microphones

Omni-directional, boundary layer condenser microphones suitable for surveillance and recording in sensitive areas such as banks, airports, railway stations, law courts, conference and convention centres. Very low profile and easily mounted with M12 x 1 nut and washer supplied.

Features:

- Non-reflective Delrin with non-conductive body (Non-RF only)
- 3 colour options (Black, White & Nickel)
- RF & Non-RF versions available
- Water resistant option (Non-RF only)
- Bi-colour LED Red or Green (RF Version only)

Models:

- C 007**
- C 007E**
-  **C 007E-RF**
-  **C 007E-LED-RF**



- RF versions available with bi-colour LED

Model:	C 007	C 007E	C 007E-RF
Frequency Response	50Hz ~ 20KHz	50Hz ~ 20KHz	50Hz ~ 20KHz
Sensitivity	-42.5dB ± 2dB at 1KHz (0dB=1vPa)		
Impedance	1KΩ	200Ω	200Ω
Power Requirements	2 ~ 10v max through series resistor	9 ~ 48v Phantom Power	9 ~ 48v Phantom Power (12v DC for LED version)
Switchable Bass Filter & -10dB Switchable Pad	-	✓	-
S/N Ratio	40dB(A)	40dB(A)	40dB(A)
Termination	Open-ended	Male 3 pin XLR	Male 3 pin XLR with PPA-RF

◦ C 005

Boundary Layer Condenser Microphone designed for surveillance and recording sensitive areas such as banks, conferences and convention centres, law courts, airports and railways.

Features:

- Omni-Directional Polar Pattern
- Wide smooth response
- Simple fixing with 4 screws provided
- Strong ABS flanged housing
- Finish: Black
- Inbuilt Phantom Power Module
- Internal screw fixing terminals for wiring



Model:	C 005
Frequency response	50Hz ~ 18KHz
Impedance	200Ω
Sensitivity	-42.5dB +/- 3dB @ 1 KHz (0dB = 1 V/Pa)
S/N Ratio	68dB(A)
Power Requirements	9 - 48 volts Phantom Power
Finish	Black



◦ SEC 07

Designed for security and surveillance applications. Offering easy mounting to walls or ceilings the SEC 07 has the appearance of an ordinary fire detector. Electronics housed within the SEC 07 offer screw terminals, eliminating the need for connectors.

Features:

- Omni-directional
- Built-in line level pre-amp
- Selectable sensitivity switching
- 9-48V Phantom power switchable for 12-24V dc operation
- Pick up range of 15m (50ft)
- Red LED status indicators
- Sturdy ABS housing
- Easy to install
- Universal mounting to electrical conduit boxes



Model:	SEC 07
Frequency response	50Hz ~ 12KHz
Impedance	75Ω
Sensitivity	-42.5dB +/- 3dB @ 1 KHz (0dB = 1 V/Pa)
Current Consumption	40mA
Dimensions	Height: 45 mm Diameter: 100 mm Weight: 126g

CH 32 (Litetouch) Dual Colour Halo Ring & Touch Pad Switch

Comprising a dual-colour Halo ring and switch combination that can be used with all Clockaudio through-table products (excluding Retracta products), the Litetouch allows users to easily identify the status of microphones, as well as mute the units for privacy.

With no moving parts, the switch is touch-sensitive, so there are no clicking noises when switching from one status to another. Both the switch and the Halo have been designed to operate remotely with all popular brands of electronic system control, so an integrator has complete freedom to assign function and LED colour.

Importantly, the Litetouch can be easily retrofitted to any Clockaudio through-table microphone product (excluding Retracta products).



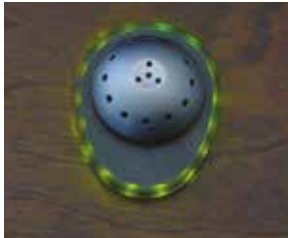
Features:

- Designed for remote switching
- Housing 32 LEDs to give all round illumination
- 12v DC operation
- Current consumption 40mA
- Retrofittable to Clockaudio through-table microphones 003, 004, 011, 012
- Fitted with RJ 45 connector

Models:

- **CH 32 (Smoked Finish)**
- **CH 32W (White)**

Model:	CH 32
Type	Dual Colour Halo Ring & Touch Sensitive Switch
LED Colour	Red and Green
Operating Voltage	12v DC (Regulated)
Current Consumption	40mA
Termination	RJ 45



◦ TS 001

The TS 001 is a flush mount Bi-Colour Halo ring and switch combination which has been designed for use with all Clockaudio microphones requiring a remote switch facility.

The TS 001 allows users to easily identify the status of Microphones, as well as mute the units for privacy. With no moving parts, the switch is touch-sensitive, so there are no clicking noises when switching from one status to another. Both the switch and the Halo have been designed to operate remotely with all popular brands of electronic system control, so an integrator has complete freedom to assign function and LED colour.

Features:

- Designed for remote switching
- Housing 10 LEDs to give all round illumination
- 12v DC operation
- Current consumption 40mA
- Supplied with 5 core ribbon cable + RJ 45 connector

Model:	TS 001
Type	Dual Colour Halo Ring & Touch Sensitive Switch
LED Colour	Red and Green
Operating Voltage	12v DC (Regulated)
Current Consumption	40mA
Termination	5 core ribbon cable + connector
Dimensions	Above Table: 1.34mm (0.05") Diameter: 20mm (0.79") Below Table: 40mm (1.75") Diameter: 15mm (0.59")



◦ LB 001 / LB 001-PS

Digital mute switching box allowing pop/ noise free muting of a microphone when used with an electronic touch sensor switch

Features:

- Suitable for use with Clockaudio electronic capacitor touch switch models: CH32, TS001, TS002
- Dip switch is provided on the unit to allow standard default of press to mute to be changed to two other formats of latching modes muted or unmuted, and two momentary modes with 80 second time
- Standard Tini Q microphone Input / Output connectors (Tini Q connectors supplied with 0.5 Metre cable to Phoenix)
- Touch switch module connection via RJ 45
- Red microphone status led
- Dimensions W138mm H32mm D74mm
- Requires 12v DC Regulated power adaptor (PS012)
- Weight 0.2Kgs
- Satin Black finish



CTH 100 Throat Microphone

This throat microphone has been engineered to provide superb speech intelligibility even in high background noise environments.

Special attention has been given to ensure a comfortable wear over long durations with ergonomic strap and transducer housing design.

Features:

- Available with a variety of IP67 terminations and PTT switches
- Water immersion resistant
- Rugged and durable



Models:

CTH 100

Model:	CTH 100
Generating Element	Electret Condenser
Frequency Response	350Hz ~ 8KHz
Sensitivity	Equivalent output to standard microphones
Current Drain	0.54mA at 2.5v through 2.2kΩ
Bias Voltage	2.5 ~ 6v DC
Output Impedance	900Ω
Operating Temperature	-20°C ~ +70°C
Storage Temperature	-40°C ~ +70°C
Weight	0.05kg

CL 4 Lavalier Omni-directional Microphone

Ultra miniature, omni-directional lavalier condenser microphone suitable for hands-free applications in pro-audio. Available in black or beige, complete with windshield and tie clip.



Models:

- CL 4** Black
- CL 4B** Beige

Model:	CL 4
Frequency Response	50Hz ~ 18KHz
Sensitivity	-44dB @ 1KHz (0dB=1v/Pa)
Impedance	1KΩ
Power Requirements	1.5 ~ 9v (standard operating voltage 1.5v)
Termination	Tini Q Female 4 pin connector



◦ CMH 2000 Micro Lightweight Headworn Boom Microphones

Extremely lightweight and low profile professional microphone for use in theatres, presentations, broadcast studios and places of worship. Shaped and lightly sprung to fit any head contour and remain in place even during high activity. Flexible boom arm for optimum positioning of microphone.

Features:

- Omni-directional back electret condenser microphone
- Perspiration drip barrier to protect microphone
- Wide band, smooth response
- Black or beige, easy-clean finish

Models:

- CMH 2000** Black
- CMH 2000B** Beige



◦ HW 1500 Rugged Lightweight Headworn Boom Microphone

Rugged and lightweight for use in presentations, commentaries, broadcast reporting and by instructors - waterproof microphone makes it particularly suitable for aerobic and fitness instructors. Shaped, lightly sprung and with headband to fit all head contours comfortably and remain in place even with vigorous activity.

Features:

- Plastic injected headband, gooseneck and capsule head for protection against corrosion
- Flexible boom arm for optimum positioning of microphone
- Waterproof bi-directional close talking back electret condenser microphone with smooth low feedback response

Models:

- HW 1500**



- Includes W 15 windshield



◦ HW 1200 Lightweight Headworn Boom Microphone

A lightweight cardioid microphone for use in presentations, guided tour systems and telesales applications.

Models:

- HW 1200**



- Includes W 12 windshield



Model:	CMH 2000
Microphone	Condenser (back electret)
Polar Pattern	Omni-directional
Frequency Response	30Hz ~ 18KHz
Sensitivity	-33dB ± 3dB @ 1KHz (0dB=1v/Pa)
Impedance	4.4KΩ
Power Requirements	1.5 ~ 9v (Standard operating voltage 1.5v)
Termination	Tini Q Female 4 pin connector

Model:	HW 1500
Microphone	Condenser (back electret)
Polar Pattern	Bi-directional close talking with W15 Windshield
Frequency Response	300Hz ~ 5KHz
Sensitivity	-44db ± 3dB @ 1KHz (0dB=1v/Pa)
Impedance	1KΩ
Power Requirements	1.3 ~ 12v (Standard operating voltage 1.5v)
Termination	Tini Q Female 4 pin connector

Model:	HW 1200
Microphone	Condenser (back electret)
Polar Pattern	Cardioid
Frequency Response	50Hz ~ 18KHz
Sensitivity	-50db @ 1KHz (0dB=1v/Pa)
Impedance	680Ω
Power Requirements	1.5 ~ 9v DC (standard operating voltage 1.5v)
Termination	Tini Q Female 4 pin connector

◦ D 33/D 34 Dynamic Goosenecks

Dynamic cardioid gooseneck microphones designed for speech purposes in a variety of commercial audio applications.

- Features:
- Rugged all-metal construction
 - Response optimised for speech
 - Fully flexible or semi-rigid shaft
 - Finished in satin black



- Models:
- D 33** 300mm Base mount
 - D 33E** 350mm 3 pin XLR
 - D 34** 425mm Base mount
 - D 34E** 475mm 3 pin XLR

For semi-rigid variant add SR to product code.

Model:	D 33/D 34
Frequency Response	150Hz ~ 12KHz
Sensitivity	-63.5dB ± 3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
Termination	M10 x 1 thread with shakeproof washer and nut or Male 3 pin XLR

◦ D43/D44 Dynamic Goosenecks

Dynamic cardioid gooseneck microphone suitable for speech purposes in a variety of commercial audio applications.

- Features:
- Rugged all-metal construction
 - Response optimised for speech
 - Finished in satin black



- Models:
- D 43** 300mm Base mount
 - D 43E** 350mm 3 pin XLR
 - D 44** 400mm Base mount
 - D 44E** 450mm 3 pin XLR

Model:	D 43/D 44
Frequency Response	150Hz ~ 12KHz
Sensitivity	-60dB ± 3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
Termination	M10 x 1 thread with shakeproof washer and nut or Male 3 pin XLR

◦ DMB 1/DMB 2 Desk Paging Microphones

Simple but effective, easy to use Desk Paging cardioid microphones for use in all types of industrial, commercial, entertainment and retail paging applications.

- Features:
- Single and two zone options
 - Choice of dynamic cardioid microphones (D 33, D 34, D 43 or D 44)
 - Latched or momentary switching
 - Rugged, all-metal construction



- Models:
- DMB 1** Single Zone
 - DMB 2** Two Zone

◦ D 5

General purpose Dynamic Microphone module with Cardioid Polar Pattern.

- Features:
- Dynamic Microphone has a Cardioid Polar Pattern
 - Optimised for speech purposes
 - Made of robust high quality brass construction and terminated with 3 pin XLR
 - Application include: Paging, Intercom, Ticket counter, Bus, Train, Restaurant, Dispatch desk
 - Finish: low reflective Satin Black finish



Model:	D 5
Polar Pattern	Cardioid
Frequency Response	150Hz ~ 12KHz
Sensitivity	-63dB ± 3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
Termination	3 pin XLR
Finish	Satin Black

◦ C 600 Slimline Condenser Microphone

Professional slimline hand held cardioid condenser microphone designed for a wide range of vocal and speech applications. Also suitable for many musical instrument applications.

Features:

- Cardioid polar pattern
- Balanced output
- Engineered in high quality brass
- Finished in satin black



Models:

C 600



- Includes SA 3 clip

Model:	C 600
Frequency Response	50Hz ~ 20KHz
Sensitivity	-37dB ±3dB at 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
Switchable Bass Filter & -10dB Switchable Pad	✓
S/N Ratio	69dB(A)
Termination	Male 3 pin XLR

◦ C 650E Cardioid Condenser Handheld Microphone

Professional condenser handheld microphone designed for vocal and speech applications.

Features:

- Rugged metal construction
- Wide response
- Shock mount suspension
- Balanced output
- Black Nextel finish



Models:

C 650E



- Includes SA 5 clip

Model:	C 650E
Frequency Response	50Hz ~ 20KHz
Sensitivity	-48dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
Switchable Bass Filter & -10dB switchable Pad	✓
S/N Ratio	70dB(A)
Termination	Male 3 pin XLR

◦ C 850E Shotgun Supercardioid Microphone

Supercardioid shotgun microphone for use in broadcast, film/video recording and theatre sound reinforcement. Wide, smooth response and fully balanced output.

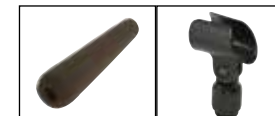
Features:

- Superior grade components
- Selectable bass roll-off and 10dB pad
- XLR termination
- Finished in satin black



Models:

C 850E



- Includes W 85 windshield and SA 8 clip

Model:	C 850E
Frequency Response	50Hz ~ 20KHz
Sensitivity	-48dB ±3dB @ 1KHz (0dB=1v/Pa)
Impedance	200Ω
Power Requirements	9 ~ 48v Phantom Power
Switchable Bass Filter & -10dB switchable Pad	✓
S/N Ratio	70dB(A)
Termination	Male 3 pin XLR

◦ D 500 Cardioid Dynamic Handheld Microphone

Versatile, professional, dynamic cardioid handheld microphone designed for a wide variety of vocal, speech and instrument applications. It has a wide smooth response, with neodymium magnet for high sensitivity and balanced output.

Features:

- Rugged die-cast metal construction
- Cardioid polar pattern
- Wide, smooth response
- Balanced output
- Black, soft-touch finish for reduced handling noise
- Supplied in a presentation case

Models:

D 500



- Includes SA 5 clip

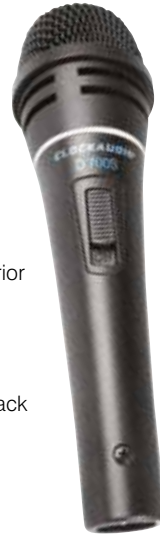
Model:	D 500
Frequency Response	50Hz ~ 16KHz
Sensitivity	-55dB ±3dB @ 1KHz (0dB=1V/Pa)
Impedance	500Ω balanced
Termination	Male 3 pin XLR

◦ D 700S Dynamic Supercardioid Microphone

Optimised for speech and musical instruments.

Features:

- Rugged die cast metal construction
- Super Cardioid Polar Pattern
- Wide smooth frequency response
- Neodymium magnet
- Balanced output
- Silent magnetic on-off reed switch
- Inbuilt shock mount for superior low handling noise
- Termination 3 pin male XLR
- Supplied with swivel stand adaptor
- Finish Low reflective Satin Black



- Includes SA 8 clip

Model:	D 700S
Frequency Response	50Hz ~ 16KHz
Sensitivity	-73dB +/- 3dB @ 1KHz (0dB = 1V/Pa)
Impedance	300Ω
Termination	Male 3 pin XLR

◦ D 525E Dynamic Supercardioid ENG Microphone

Designed for electronic news gathering and video production.

Features:

- Die-cast housing and steel grille screen
- Long shaft for easy handling
- Neodymium alloy magnet
- Optional soft protective case
- Finished in soft-touch satin black

Models:

D 525E



- Includes W 5 windshield and SA 8 clip

Model:	D 525E
Frequency Response	50Hz ~ 18KHz
Sensitivity	-54dBV/(1.6mV/Pa)
Impedance	300Ω
Termination	Male 3 pin XLR

◦ D 550E Dynamic Omni-directional ENG Microphone

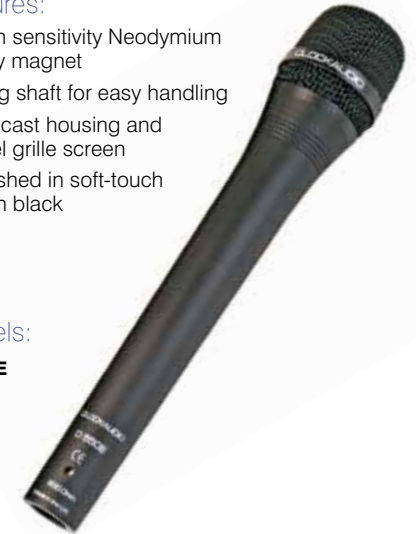
Designed for reporting, interviewing and news gathering.

Features:

- High sensitivity Neodymium alloy magnet
- Long shaft for easy handling
- Die-cast housing and steel grille screen
- Finished in soft-touch satin black

Models:

D 550E



- Includes W 5 windshield and SA 8 clip

Model:	D 550E
Frequency Response	50Hz ~ 18KHz
Sensitivity	-54dBV/(1.6mV/Pa)
Impedance	300Ω
Termination	Male 3 pin XLR



◦ H 500 Monitor Headphones

Studio quality, cost-effective monitor headphones, featuring removable jack-to-mini jack cable and soft case cover.

Features:

- Wide frequency response
- Closed diffused studio headphones
- Enhanced bass response
- High SPL capacity
- Excellent isolation from ambient noise

Models:

H 500



Model:	H 500
Type	Dynamic closed-back circumaural
Sensitivity	96dB SPL \pm 3dB @1mw
Frequency	15Hz ~ 22KHz
Max Input Power	500mw
Impedance	24 Ω
TDH	<0.3%
Cable	Plug-in single cable approx 3m
Connector	Gold-plated mini stereo jack
Stereo Adaptor	Gold-plated mini stereo jack to 1/4" screw-on-adaptor
Weight	0.37kg

◦ AH 3000 Active Protection Stereo Headphones

Designed as ear defenders for protection against hazardous noises with the ability to set essential listening levels to each ear to hear normally. Suitable for use in a wide range of noisy environments including industrial and building locations, transport termini and sports and leisure locations.

Features:

- Defender system maintains preset listening level
- Wide bandwidth for natural sound to the ear
- Individual listening level adjustment for each ear
- Batteries operate for up to 50 hours from full charge
- Finished in cobalt blue Nextel with black trim

Models:

AH 3000



Model:	AH 3000
Headphones	Micro dynamic
Design	Circumaural
Frequency Response	20Hz ~ 18KHz
Sensitivity	104dB ±3dB @1KHz
Ear Cup Attenuation	29dB
Microphone	Condenser (back electret)
Powering	3.6v 70mAH Ni-MH rechargeable batteries
Weight	0.42kg

◦ HS 1000 Series Communications Headset with Dynamic or Condenser Microphone

The HS1000 is a ruggedly built headset with a choice of dynamic or condenser microphone, designed for a wide range of applications such as theatres, concert halls and studios. The earpieces effectively reduce high surrounding noise and equally contain the received sounds when working in quiet environments.

Features:

- Wide band headphones
- Robust boom assembly
- Comfortable padded ear cups giving high ambient noise attenuation
- Finished in cobalt blue Nextel with black trim

Models:

- H 1000** Ear Defender Headphones
- HS 1000D** Ear Defender talk-back with Dynamic Microphone
- HS 1000E** Ear Defender talk-back with Condenser Microphone



- Includes W 2 windshield



Model:	HS 1000D	HS 1000E
Microphone	Dynamic	Condenser (back electret)
Polar Pattern	Noise cancelling	Noise cancelling
Frequency Range	150Hz ~ 10KHz	100Hz ~ 10KHz
Impedance	300Ω	1.6KΩ
Powering	1.5 ~ 9v DC through series resistor	
Cable Length	2m	2m
Weight	0.5kg	0.5kg

◦ CAP 002 Line Level Pre-Amplifier

The CAP 002 is a line level pre-amplifier fitted in a robust plastic case.

Features:

- Can be powered with a simple 12 ~ 24v DC adaptor or 24v AC from a camera
- Ideal for situations where the microphone needs to be sent directly to a camera or DVR
- Also very useful when microphone level input is not available
- Uses barrier strips for quick termination



Models:

CAP 002

◦ PPA

9 ~ 48v Phantom Power Adaptor for electret condenser microphones.

Features:

- Switchable bass cut filter and switchable -10dB pad (Non-RF version only)
- Robust all-metal construction finished in satin black
- Terminated in 3 pin male XLR and fitted with 3 pin Male Tini Q XLR connector
- Female Tini Q miniature cord plug also supplied



Models:

PPA
 **PPA-RF**

◦ PPM

Beltpack 1.5v battery supply/9 ~ 48v Phantom Power Adaptor for electret condenser microphones with switched flat response or low roll-off.

Features:

- Input termination Tini Q Male 3 pin socket
- Output termination XLR Male 3 pin socket
- Finished in satin black



Models:

PPM

◦ PP 2

2 Channel 48v DC Phantom Power Supply with XLR microphone inputs/outputs.

Features:

- 20Hz ~ 20KHz bandwidth and fully balanced
- 100/115/220/240v adjustable AC voltage selector
- LED power ON/OFF indicator



Models:

PP2


◦ CPPW 01

Phantom Power Adaptor for permanent installation.

Features:

- Fitted in a robust case, the CPPW 01 is practical for quick termination and will accept 9 ~ 48v DC Phantom Power



-  • CPPW 01-RF Phantom Power Adaptor

Models:

CPPW 01 Plastic case
 **CPPW 01-RF** Aluminium case

SM 10

Low profile through table shock mount fitted with 3 pin female XLR input and 3 pin male XLR output. Compatible with all Clockaudio gooseneck microphones.

Models:

SM 10 3 pin XLR

SM 10x5 5 pin XLR



Model:	SM 10
Height Above Surface	36mm
Diameter	31mm
Body Diameter	20mm
Depth Below Surface	64mm
Mounting hole	23.5mm

SM 20-RF

A low profile, through-table shock mount fitted with RF-immunity PPA with 3 pin Male Tini Q input connector.

Features:

- M20 threaded nut supplied
- Made in high quality brass
- Finished in satin black

Models:

 **SM 20-RF**



Model:	SM 20-RF
Height Above Surface	3mm
Diameter	31mm
Body Diameter	20mm
Depth Below Surface	75mm
Mounting hole	23.5mm

SM 70

Smooth low profile 74 mm diameter through table shock mount microphone holder and base, finished in matt black.

Models:

SM 70



Model:	SM 70
Overall Diameter	74mm
Height Above Surface	10mm
Body Diameter	51mm
Depth Below Surface	50mm

SM 75

75mm diameter shock absorbing microphone base for permanent fitting above or below the surface.

Features:

- Supplied with female XLR and conversion adaptor for 3/8" BSW or 10mm screw fittings
- Finished in matt black



Models:

SM 75 3 pin XLR

SM 75x5 5 pin XLR

SM 75 -10 10mm screw fitting

Model:	SM 75
Height	32mm 64mm including XLR
Base Diameter	75mm

SM 80

A low profile, table-mounted shock mount fitted with flip cover to conceal connector when closed.

Features:

- 3 pin & 5 pin XLR connector versions available
- Finished in satin nickel or matt black
- RF option also available (3 pin Male Tini Q)



Base Models:

SM 80

SM 80S

 **SM 80-RF**

 **SM 80S-RF**



- SM 80S model with remote momentary or latching switch facility and bi-colour LED.

Model:	SM 80 Series
Height Above Surface	2mm
Diameter	58mm
Body Diameter	50mm
Body Below Surface	XLR version 61mm RF version 166mm

S 80S

Low profile through table shock mount suitable for use with C 003/C 004/C 011 and C 012.

Features:

- Low profile
- Bi-Colour LED to confirm status
- Latching or Push to Talk Switch



Model:	S 80S
Height Above Surface	2mm
Diameter	58mm
Body Diameter	50mm
Body Below Surface	XLR version 61mm

◦ SM 93 & SM 95

Low profile, recessed, shock absorbing microphone base.

Features:

- 3 pin & 5 pin XLR connector versions available
- Wiring connections are made via 3-way/5-way screw terminal block
- Finished in matt black



Models:

- SM 93** 3 pin XLR
- SM 95** 5 pin XLR

◦ S 133, S 135, S 140 & S 155






These stylish, RF-Immune microphone bases feature fully-programmable touch pad switch & LED for PTT, PTM and latching.

Features:

- RF-immune
- Heavy die-cast construction
- Touch pad switch
- Fully programmable
- LED indicator



Models:

-  **S 133** 3 pin XLR in, 3 pin XLR out
-  **S 135** 3 pin XLR in, 5 pin XLR out
-  **S 140** 3 pin Tini Q in, 5 pin XLR out with integrated PPA
-  **S 155** 5 pin XLR in, 5 pin XLR out (for use with Halo microphones)
-  **S 157** 5 pin XLR in, 5 pin XLR out (for remote switching)



Model:	SM 93 / SM 95
Length	87mm
Width	82mm
Height Above Surface	9mm
Depth Below Surface	SM 93 32mm SM 95 22mm

Model:	S 133 / S 135 / S140 / S155/ S157
Switching	Touch pad fully programmable for PTT, PTM & Latching
Indication	Red LED
Power Requirements	48v Phantom Power
Dimensions	Length 120mm Width 100mm Height 32mm (60mm with XLR)
Weight	0.64kg

◦ S 120

Table microphone base fitted with M10x screw thread mounting hole.

Features:

- 'Press-to-Talk' or latching switch option



Models:

- S 120**
- S 120S** PTT or latching switch

Model:	S 120
Height	32mm
Diameter	120mm
Weight	1.86kg

◦ S 120X Series

Table microphone base fitted with XLR connector.

Features:

- 'Press-to-Talk' or latching switch option
- 3 or 5 pin options



Models:

- S 120X** 3 pin XLR
- S 120XS** 3 pin XLR & switch
- S 120X-2** 3 pin XLR & 2m cable
- S 120XS-2** 3 pin XLR, switch & 2m cable
- S 120X5** 5 pin XLR
- S 120X5S** 5 pin XLR & switch
- S 120X5-2** 5 pin XLR & 2m cable
- S 120X5S-2** 5 pin XLR, switch & 2m cable

Model:	S 120X Series
Height	57mm (with XLR)
Diameter	120mm
Weight	1.86kg

◦ SM 110

Heavy, stable, shock-absorbing table microphone stand with SA3 microphone holder.

Features:

- Steel construction finished in satin black with neoprene shock mount for the microphone holder
- Overall height incl. microphone holder: 85mm
- Base diameter: 110mm
- Weight: 0.77kg



◦ SA 3

Small swivel microphone holder and stand adaptor with 5/8" ~ 3/8" female thread.

Features:

- Finished in black plastic to avoid damage and microphone scratching
- Suitable for C 600 handheld microphone and all gooseneck microphones mounted on standard PPA (Phantom Power Adaptor)



◦ SA 5

Swivel microphone holder and stand adaptor suitable for D 500 series handheld microphones.

Features:

- With 5/8" ~ 3/8" female thread and black rubber finish resistant to damage and microphone scratching



◦ S 210 Boom Stand

Microphone floor stand and boom arm combination. Folding base for ease of transport. Long legs for added stability.

Models:

S 210

Model:	S 210
Boom Arm Length	840mm
Finished	Black
Height	900 ~ 1605mm
Weight	3.2kg



◦ S 210X Floor Stand

Microphone floor stand. Fitted with a 3 pin XLR to the bottom and top of the centre tube. Folding base for ease of transport. Long legs for added stability.

Models:

S 210X

Model:	S 210X
Finished	Black
Height	1023mm



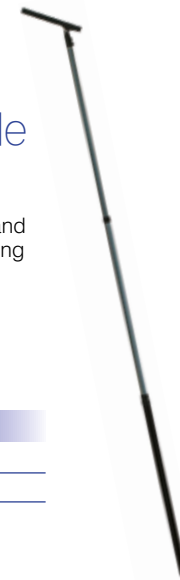
◦ F 237 Aluminium Fishpole

Lightweight, adjustable 3-piece aluminium tube used for remote positioning of microphones for recording and broadcasting. Rough textured hand grips and secure locking rings. Protective carrying case included.

Models:

F 237

Model:	F 237
Finished	Black
Height	950 ~ 3220mm
Weight	800g



o CDT 100 Dante Transporter

The Clockaudio Dante Transporter is an advanced professional Dante communication product which combines audio and control transport using network based Dante protocol. By taking advantage of the Dante technology and based on the high performance and pre-configurable hardware platform, this product transfers audio and control signals via widely used Ethernet and is able to guarantee perfect sound quality.

This product has a variety of uses including but not limited to boardrooms, conference rooms, video conference rooms and any place where multiple table microphones and control devices are connected back to the AV equipment cabinet.

Features:

- Easy to install with under table mounting
- Audio and control signals transported over Dante
- 4 audio inputs, multiple inputs may be daisy chained (maximum of 6 units on a single CAT-5)
- Provides Phantom Power for each mic input
- 4 control inputs compatible with all Clockaudio devices including:
 - direct connection to CH32 Litetouch switch and LED, TS001, Retracta CRM202S-RF, CS-S Series, SM80S, S80S
 - direct connection to ARM-C controller
- Open API for interfacing with Control Systems
- Compatible with any Dante capable audio DSP used in combination with a Crestron or AMX Controller*
- Easy use with mono or stereo inputs
- Dual mono or stereo outputs
- Power supply for the CDT-100 is sold separately

*The CDT100-UDP requires a Crestron or AMX control system for logic and Phantom Power activation.

Dante compatible Symetrix DSP requires CDT100-ConMon for logic control and Phantom Power activation unless used in combination with a Crestron or AMX control system

More third party compatibility to follow

Models:

CDT 100-UDP

For Crestron/AMX logic control users only

CDT 100-ConMon

For Symetrix Logic control users only



Model:	CDT 100
Input type	Balanced and RF filtered
Gain	0dB
Input impedance	> 1.8K ohms
Phantom Power	+48V, software selectable
EIN	-115dBu
System THD+N	<0.01% at any gain, input signal 3dB below maximum
Physical level	Standard Ethernet
Connector	Single RJ-45
Cable Quality	CAT5
Transmission speed	100 Mbps



MR 88 Digital Automatic Microphone Mixer

The MR 88 Digital Automatic Microphone Mixer incorporates advanced DSP technology. It has been carefully designed to give outstanding performance and flexibility whilst maintaining simplicity of set-up and use.

Eight input channels, fully adjustable for microphone and line level, can be output from either or both of the two channels. The MR88 incorporates advanced DSP technology and has been carefully designed to give outstanding performance and flexibility whilst maintaining simplicity of set up and use. It provides eight input channels, fully adjustable for microphone or line levels, and two output channels. Flexible routing gives easy use of mono or stereo sources. Each input channel can be assigned to a four-level priority system.

The MR-88 provides full set-up and control of the mixer via a user-friendly LCD interface on the front panel, allowing the mixer settings to be selected and adjusted without the need to remove the case covers. Mixers may be linked together to make a large multi-source system with priority and NOMA information extending throughout. All settings are retained, even when the mixer is disconnected from the power supply.

Features:

- Easy set up with LCD display of all functions and settings from front panel and by PC through RS232 socket
- Fast, silent automatic microphone selection
- 8 Channel mic/line inputs on XLR connectors
- Record outputs for each input channel
- 2 Channel mic/line outputs on XLR connectors
- Output level LED meter
- 2 Band equalisation on each input channel compression
- Multi-level channel priority system
- Easy use with mono or stereo inputs
- Dual mono or stereo outputs
- Security mode
- Adjustable limiters on each input prevent channel overloads
- Adjustable 'off' attenuation of each input channel
- Channel LEDs indicate active or locked out channels
- Select NOMA operation on/off
- Simple daisy-chain set up for multiple microphone operations
- 48v Phantom Power individually selectable for each channel
- Remote VCA control and RS232
- External TTL control and monitoring of channel selection
- 1U rack-mounting



Model:		MR 88
Input Impedance		2.4K Ω differential
Output Impedance	Balanced:	50 Ω
	Pre-Amp Out:	560 Ω
Max Input Level	Mic Level:	-23dBv
	Line Level:	+16dBv
Max Output Level		+19dBv
Nominal Output Level at 0dBv on Meter	Pre-Amp Out:	-10dBv
	Balanced:	-60dBv ~ +4dBv
Frequency Response		20Hz ~ 20KHz
THD+N		-70dB
Max Noma Attenuation		20dB
Phantom Power		+48v
Power Supply		15v DC
Operating Temperature		0° ~ 40°C

◦ CW-8000 Wireless Microphone

- UHF PLL True Diversity System with an operating range from 200 to 480 meters subject to local regulations
- Frequency range 502 - 960MHz
- 3000 Selectable channels across 75MHz
- 6 Pre-set groups each of up to 40 compatible channels
- Automatic space scanning function
- Squelch mute and tone key
- Antenna boost power provided for various external antennas
- Adjustable transmission power between 10mW and 50mW



Model:	CW 8000R
FM Carrier	UHF PPL
Frequency Range	502-960MHz according to local regulations
S/N Ratio	> 105dB
T.H.D	<0.6%@1KHz
Display	LCD
Display Contents	Frequency, Antenna A/B, Mute Display RF/AF Level Meter, Battery fuel gauge ID Number
Controls	Power On/Off, Frequency Up/Down, Frequency Scan, Audio Level Lock-on, ID Pairing
Audio Output	- 12dB
AF Output Impedance	600 Ω
Squelch	Pilot tone and Noise mute
Output Connector	XLR Balanced Socket/6.3mm Unbalanced phone jack
Operating Voltage	100-240 VAC
Dimensions	W 212mm (8.3") H 44mm (1.7") D 213.9mm (8.42")

Model:	CW 8000
FM Carrier	UHF PPL
Frequency Range	502-960MHz according to local regulations
RF Output	10mW/50mW Switchable
Stability	±10KHz
Frequency Deviation	±48KHz
Display	LCD
Controls	Frequency, Battery fuel gauge, ID Number
Spurious Emissions	< -50 dBC
Audio Frequency	50Hz - 16.5KHz
Battery	2 x AA 1.5V

Model:	CW 8001
FM Carrier	UHF PPL
Frequency Range	502-960MHz according to local regulations
RF Output	10mW/50mW Switchable
Stability	±10KHz
Frequency Deviation	±48KHz
Display	LCD
Display Contents	Frequency, Battery Fuel Gauge, ID Number
Controls	Power On/Off, AF Level Frequency Up/Down, Lock-on Mode, ID Pairing
Spurious Emissions	< -50 dBC
Audio Frequency	50Hz - 16.5KHz
Battery	2 x AA 1.5V

o CW-7000 Wireless Microphone

- UHF PLL True Diversity System with an operating range from 200 to 480 meters subject to local regulations
- Frequency range 502 - 960MHz
- 1441 Selectable channels across 36MHz
- 6 Pre-set groups each of up to 23 channels
- Automatic space scanning function
- Squelch mute and tone key
- Antenna boost power provided for various external antennas
- Adjustable transmission power between 10mW and 50mW



Model:	CW 7000R
FM Carrier	UHF PPL
Frequency Range	502-960MHz according to local regulations
S/N Ratio	> 105dB
T.H.D	<0.6%@1KHz
Display	LCD/LED
Display Contents	Frequency, Antenna A/B, Mute Display LED Meter, Battery fuel gauge
Controls	Power On/Off, Frequency Up/Down, Frequency Scan, Audio Level, Lock-on
Audio Output	- 12dB
AF Output Impedance	600 Ω Noise Mute
Squelch	Pilot tone and Noise mute
Output Connector	XLR Balanced Socket/6.3mm Unbalanced phone jack
Operating Voltage	100-240 VAC
Dimensions	W 212.3mm (8.36") H 38.3mm (1.51") D 144mm (5.7")

Model:	CW 7000
FM Carrier	UHF PPL
Frequency Range	502-960MHz according to local regulations
RF Output	10mW/50mW Switchable
Stability	± 10KHz
Frequency Deviation	± 48KHz
LCD Display	Frequency
Controls	Power On/Off, Mode Setting, AF Level Frequency Up/Down, Lock-on Mode
Spurious Emissions	<-50 dBC
Audio Frequency	50Hz - 16KHz
Battery	2 x AA 1.5V

Model:	CW 7001
FM Carrier	UHF PPL
Frequency Range	502-960MHz according to local regulations
RF Output	10mW/50mW Switchable
Stability	± 10KHz
Frequency Deviation	± 48KHz
Display	LCD
Display Contents	Frequency, Battery Fuel Gauge
Controls	Power On/Off, AF Level Frequency Up/Down, Lock-on Mode
Spurious Emissions	<-50 dBC
Audio Frequency	40Hz - 18KHz
Output Connector	4 Pin Mini XLR
Battery	2 x AA 1.5V

Wireless Accessories



• AA 8000 Antenna Distribution Amplifier

• AB 9000 Antenna Booster



Model:	AA 8000
Carrier Frequency	470 ~ 870MHz
Antenna Inputs	2 (BNC)
Antenna Outputs	4 x pairs (BNC)
Output Connector Isolation	24dB
Nominal Cascade Gain	3dB
Inline Antenna Power	12v DC 120mA
Power Supply	4 x 12v DC
Mains Input Voltage	90 ~ 264 AC 50/60 Hz

Model:	CW 7000C
Type	Condenser (Back Electret)
Polar Diagram	Cardioid
Frequency Response	60Hz ~ 18KHz
Impedance	400Ω
Sensitivity	-50dB (0dB=1v/Pa)

Model:	AB 9000
Carrier Frequency	470 ~ 870MHz
Antenna Gain	1.8dBi
Booster Gain	0dB +2/-1
Antenna Coverage	360°
Operating Voltage	12 ~ 18v DC
Inline Antenna Power	12v DC 120mA

Model:	UDA 8000
Frequency Band	470 ~ 960MHz
Effective working angle	100°
Antenna Gain	10dBi
Booster Gain	3dB /10dB selectable
Power Supply	12v DC 50mA

Model:	UOA 8000
Frequency Band	470 ~ 960MHz
Polar Pattern	Omni-directional

Model:	USP 8000
Frequency Band	470 ~ 960MHz
RF Carrier Frequency range	10-1000 MHz
VSWR	1.2 (Voltage Wave Standing Ratio)
Impedance	50 Ω
Isolation	20dB
Insertion Loss	2dB

One BNC In and two BNC out connectors



• UDA 8000 Directional Antenna

• UOA 8000 Omni Directional Antenna provides consistent reception across 470-960 MHz



• CW 7000C Interchangeable Condenser Microphone Head



• AEP 9000 Antenna Extension Panel



• RRM9000/RCP9000 Rack mount for CW7000 with half rack blanking plate

• RM10 Rack mount for CW8000



• USP 8000 Antenna Splitter

◦ CW-200 Wireless System

System comprises two transmitters and dual receiver

- UHF PLL 602 - 634 MHz, 638 - 670 MHz, 690-722 MHz, 744 - 776 MHz
- Versatile Dual Channel Boundary wireless microphone systems
- The Dual Channel Receiver 64 selectable channels
- Multi Function LCD display
- Auto Scan and lock on interference free frequency
- Infrared Upload from transmitter to receiver
- 'Noise Lock' Squelch effectively blocks stray RF noise
- RFI Shielding technology rejects radio frequency interference
- Battery life approximately 10 hours
- Heavy die-cast and non-slip silicon pads minimises surface vibration
- Rack mounting kit



Model:	CW 200R
System FM Carrier	UHF PLL
Frequency Range	602-634MHz 638-670MHz 690-722MHz 744-776MHz
Channel Frequencies	32 selectable
Frequency Stability	± 0.005%
S/N Ratio	>60dB @ 25kHz deviation
Audio Output Level	-12dB @ 1KHz
AF Output Impedance	600 Ω
Squelch	'Noise Mute' 0-50 dB in 5 dB Steps
Connections	Audio Balanced Out XLR Un-balanced Jack plug
Power	100 - 240 V 50/60 Hz 10 Watts
Dimensions	1 U 410mm W (16.15") x 265mm D (10.5")

Model:	CW 200T
Microphone	Condenser (black electret)
Polar Pattern	Half-Cardioid
Frequency Range	50Hz - 17KHz
System FM Carrier	UHF PLL
Frequency Range	602MHz - 634MHz
Channel Frequencies	32 selectable
RF Output	30mW
Frequency Stability	± 0.005%
Frequency Deviation	± 45KHz
Dynamic Range	>90dB, 1KHz @ Max SPL
Powering Supply	2 x AA Alkaline giving approximately 10 hours
Control	Power ON/OFF - Frequency
Finish	Black
Dimensions	110mm (4.3") x 110mm ((4.3") x 40mm (1.5")

◦ Guided Tour System

A licence-free (UK only) system of lightweight, 32 channel personal portable units developed for commentary or narration on guided tours, for individuals or for groups in situations such as museums, zoos, factories, garden tours or outside events. Also suitable for language tuition, talk-back and multi-language translation. UHF for reduced interference. 32 PLL selectable channels for easy and reliable operation. Built-in microphone or loudspeaker for hand held use and external microphone or earpiece for use when clipped to a belt or pocket. Open space range >100m.

Features:

- UHF PLL Licence-free
- 32 Selectable Channels
- Single or multi receiver capability
- Lightweight portable units with audio level adjustment
- Receiver with built-in loudspeaker for handheld use, and external ear piece for use when clipped to a belt or pocket
- Transmitter with built-in condenser microphone for hand held use, and external microphone for use when clipped to a belt or pocket
- Powered by lithium rechargeable batteries giving up to 20 hours use on full charge
- Intelligent chargers for 2, 10, 20 and 30 units
- Accessories available - lanyard and disposable ear pads



Model:	GT 400R	GT 400T
Includes	Ear piece	Omni-directional Condenser Microphone
System FM Carrier	UHF PLL Synthesized	UHF PLL Synthesized
Frequency Range	UHF 863 ~ 870MHz	UHF 863 ~ 870MHz
Channel Frequencies	32 Pre-programmed switchable	32 Pre-programmed switchable
Switchable Bandwidth	12MHz	12MHz
Frequency Stability	±0.005%	±0.005%
Maximum Deviation	±50KHz with level limiter	±50KHz with level limiter
Dynamic Range	<80dB	<80dB
Frequency Response	150Hz ~ 10KHz	-
RF Output	-	10mW
Powering	Lithium batteries averaging 20 hours use on full charge	Lithium batteries averaging 20 hours use on full charge

• GT 400R - Receiver

• GT 400T - Belt Pack Transmitter



• DC 430 - Charging Flight Case
(Transmitters sold separately)

Model:	DC 430 Charging Flight Case
Capacity	30 (receiver or transmitter belt style only)
Indicator LED	Red charging, green fully charged
Charging Current	120mA
Charging Time	Lithium 4 hours
Charging Control	PWM (timer power OFF detector)

DC 402 2 Unit Desktop Charger (for hand held or belt style transmitter / receiver)
 DC 430 20 Unit 19" Rack Mounted Charger in fitted flight case



• DC 402 - 2 unit desktop charger



Model:	GT 402T	GT 520T
System FM Carrier	UHF PLL Synthesized	UHF PLL synthesized
Frequency Range	UHF 863 ~ 870MHz	UHF 863 ~ 870MHz
Channel Frequencies	32 Pre-programmed switchable	32 Pre-programmed switchable
Frequency Stability	±0.005%	±0.005%
Maximum Deviation	±50KHz with level limiting	±50KHz with level limiting
Dynamic Range	<80dB	<80dB
Powering	2 x AA Ni-MH batteries averaging 10 hours use on full charge	External 12v DC 500MA, AC Adaptor 115v ~ 230v AC



• GT 402T - Hand Held Transmitter



• GT 520T - Transmitter



◦ Communicator Two-way Intercom

The Clockaudio Communicator Full Duplex Two-way Communicator System is designed for use in situations where company staff need to be able to deal efficiently with visitors, whilst at the same time remaining totally secure.

Communicator has a wide range of applications and is especially ideal for use in areas where money transactions take place, where cash or other valuables are on view or where staff require a higher level than usual of personal safety.

Communicator also allows staff to deal in an efficient and friendly way with visitors, without giving them actual access to inner parts of the building where such access may be inappropriate. Communicator comprises of a range of professionally designed loudspeaker and microphone units, superbly styled to enhance any location. It is powered by a simple to operate, ruggedly-built amplifier providing excellent speech clarity.



◦ CSU 100 Staff Speech Unit

The Staff Speech Unit provides two way communication with visitors via a high quality gooseneck microphone and loudspeaker, all housed within a single unit. A staff mute switch also ensures that visitors are unable to hear the operator in confidential conversations.



◦ CA 100 Audio & Induction Amplifier

The CA 100 Audio and Induction Loop Amplifier is the control centre of the Communicator and provides full open duplex communication.



◦ CLS 100/CML 100 Surface Mount Loudspeaker & Mic

The visitor enclosure can be used to house either a microphone or loudspeaker for visitors' use. It can be wall or counter top mounted and is well styled although its rugged construction ensures that it is long wearing and vandal resistant.



◦ CLF 100/CMF 100 Flush Mount Loudspeaker & Mic

Visitor microphones and loudspeakers can alternatively be positioned in a housing which can be recessed into a wall or counter top, ideal for smoother styling and less intrusive positioning on busy counter tops and for providing additional protection from abuse.



◦ CILP-10 Portable Induction Loop & PLS-10 Shelf

Designed as a highly portable, free-standing system to provide communication for people wearing a hearing aid featuring the 'T' facility. Suitable for use in a wide range of applications in meetings rooms, customer service counters, receptions and interview areas.

Features:

- Portable and easy to carry
- Very quick and simple to set up
- Integral microphone
- External microphone socket
- Microprocessor-controlled latest technology for optimum reception of speech and to conserve battery life
- Powered by rechargeable batteries with more than 24 hours use from full charge
- LED indications of speech and battery status
- Plug-in Power Adaptor for recharging and continuous use
- Elegant and robust ABS plastic construction



- CILP-10 Portable Induction Loop & PLS-10 Shelf

Model:	CILP-10
Power	Rechargeable 12v internal battery
Battery Life	24 Hours
Microphone	Condenser (back electret)
Polar Pattern	Omni-directional
External Mic. Connector	2.5mm jack plug socket (C 006 Boundary Layer recommended)
Power Adaptor Connection (12v)	2.1mm jack plug socket
Dimensions	250(H) x 275(W) x 110(D) mm
Weight	0.5kg

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Custom Solutions

In addition to the standard products featured in this catalogue, Clockaudio offer a comprehensive OEM service and will also, in many cases, customise existing products to individual requirements.

To find out more about the Clockaudio OEM service plus the range of custom colours, finishes and configurations available, please contact our corporate office on **Tel:** +44 (0)23 9225 1193 or **Email:** info@clockaudio.co.uk

CLOCKAUDIO®
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