

# Granite

sound

SOLID INTERCOMS



**Granite Sound exists to provide high quality intercommunication tools. At Granite Sound we seek to achieve satisfaction and long-term association with our customers through reliability, flexibility, professionalism and expertise.**

## SOLID INTERCOMS

### The Company

Granite Sound has established a reputation for reliable, high quality intercommunication tools.

We seek to achieve satisfaction and long-standing relationships with each of our customers through reliability, flexibility, professionalism, and expertise. Our expert team have been involved in the developing audio industry since the 1970s, their high level of experience enables them to provide in-depth advice and support on all aspects of audio systems.

Granite Sound intercom systems are compatible with industry standard three-wire communication systems and are available with a wide range of headsets and belt packs. We believe we hold the same values as our customers and understand their needs, always providing the required audio solution.

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# Wired Master Station

## GS-CMS2

The GS-CMS2 Master Station powers either single or dual channel intercom systems for communication with one or both channels, permitting the use of up to 16 outstations.

The GS-CMS2 gives the operator control over several functions which are common to the whole system. Both power and audio are supplied via six three pin male XLR connectors with three connectors per channel. The front panel of the GS-CMS2 features a power status LED indicator for each channel, plus: a four pin male XLR connector for headset connection, volume control, side tone adjustment and a Push To Talk (PTT) switch.

The operator can select channels via the switch (marked A, A+B, B). By pressing either call button a call signal is sent to the selected channel of communication. The call buttons also flash if an outstation is initiating a call. The microphone/line input is controlled via its separate volume control and channel selector switch (A, A+B, B).

There is additional line input via a three pin female XLR connector on the rear panel (with screwdriver level adjustment) and a switch to route the signal to either or both channels.

To feed other communication systems, show relay, recording or public address systems a three pin male XLR connector, which receives its source from either one or both channels, dependent on the adjacent switch setting, is located on the rear panel.

### Specification

<b>Supply Voltage</b>	120/240V AC 50/60Hz switchable
<b>Power Output</b>	0.64 amps for up to 8 outstations per channel 1.28 amps total
<b>Headset Output</b>	150-600 ohms
<b>Connectors Front</b>	Headset 4 pin male XLR Aux. mic/line in 3 pin female XLR
<b>Connectors Rear</b>	Line out, 6 x 3 pin male XLR Aux. out, 3 pin female XLR Line in, 3 pin female XLR
<b>Auxiliary Input</b>	Mixed onto both channels, mic to suit 200 ohms types 10k Ohm per leg balanced. 25mV sensitivity
<b>Dimensions (mm)</b>	1U 19" Rackmount 483 x 44 x 196
<b>Weight</b>	6.5kg





# Loudspeaker Master Station

GS-CMLS2

The GS-CMLS2 is the GS-CMS2 Master Station with the addition of a loudspeaker and microphone input, allowing the operator control without the use of a headset. A loudspeaker and XLR connection for a Gooseneck microphone is incorporated in the larger front panel, which is controlled via an adjacent switch to select either headset or loudspeaker/mic operation.

## Specification

<b>Supply Voltage</b>	120/240V AC 50/60Hz switchable
<b>Power Output</b>	0.64 amps for up to 8 outstations per channel, 1.28 amps total
<b>Headset Output</b>	150-600 ohms
<b>Connectors Front</b>	Headset 4 pin male XLR
	Aux. mic/line in 3 pin female XLR
<b>Connectors Rear</b>	Line out, 6 x 3 pin male XLR
	Aux. out, 3 pin female XLR
	Line in, 3 pin female XLR
<b>Auxiliary Input</b>	Mixed onto both channels, mic to suit 200 ohms types 10k Ohm per leg balanced. 25mV sensitivity
<b>Dimensions (mm)</b>	2U 19" Rackmount 483 x 132 x 196
<b>Weight</b>	7kg



# Power Supply Unit

GS-CPS2

The GS-CPS2 Power Supply Unit can power single or dual channel intercom systems and allow communication with either or both of the channels, permitting the use of up to 16 outstations.

The status of the power supply outputs can be monitored by the two LEDs adjacent to the front panel mains on/off switch. The GS-CPS2 can be used on its own as the power supply, termination network and line feed for small systems where a GS-CMS2 Master Station is not required, or can be added to the system in line to supply extra power, enabling the system to cope with a larger number of outstations. To connect the GS-CPS2 as a source of extra power there is no need to connect in the audio line. Just connect pins 2 (power) and 1 (ground) to the existing line, via a junction box.

## Specification

<b>Supply Voltage</b>	120/240V AC 50/60Hz switchable
<b>Power Output</b>	0.64 amps for up to 8 outstations per channel, 1.28 amps total
<b>Connectors Rear</b>	Line out, 4 x 3 pin male XLR
<b>Dimensions (mm)</b>	235 x 150 x 40
<b>Weight</b>	1.25kg







# Rackmount Power Supply

## GS-CRPS2

The GS-CRPS2 is a low cost solution to powering a full system. Holding the same properties as the GS-CPS2, the GS-CRPS2 benefits from a rackmountable enclosure for more permanent or secure installations.

The GS-CRPS2 Power Supply Unit can power single or dual channel intercom systems and allow communication with either or both of the channels, permitting the use of up to 16 outstations.

The status of the power supply outputs can be monitored by the two LEDs adjacent to the front panel mains on/off switch. The GS-CRPS2 can be used on its own as the power supply, termination network and line feed for small systems where a GS-CMS2 Master Station is not required, or can be added to the system in line to supply extra power, enabling the system to cope with a larger number of outstations. To connect the GS-CRPS2 as a source of extra power there is no need to connect in the audio line. Just connect pins 2 (power) and 1 (ground) to the existing line, via a junction box.

### Specification

**Supply Voltage**  
**Power Output**

120/240V AC 50/60Hz switchable  
0.64 amps for up to 8 outstations per channel, 1.28 amps total

**Connectors Rear**  
**Dimensions (mm)**  
**Weight**

Line out, 4 x 3 pin male XLR  
235 x 150 x 40  
1.25kg





# Single Channel Loudspeaker Outstation

GS-CLS1

The GS-CLS1 Loudspeaker Outstation is for free standing desk top use, or can be wall mounted via keyhole slots in the base. The GS-CLS1 contains a single channel belt-pack, which has the same specification as the GS-CBP1. A selector switch located on the front panel can be used by the operator to select the use of a headset or the loudspeaker and Gooseneck mic input. (Gooseneck mic not supplied)



## Specification

<b>Supply Voltage</b>	24V nominal
<b>Supply Current</b>	60mA quiescent (when calling) 80mA maximum
<b>Input Level</b>	2.5mV RMS for nominal 115mV RMS on comms line
<b>Loudspeaker</b>	12 watt, 8 ohm
<b>Microphone</b>	Dynamic type, Gooseneck (not supplied)
<b>Output Level</b>	250mW RMS max. into 200 ohms Suits 150-600 ohm headphones
<b>Dimensions (mm)</b>	226 x 128 x 60
<b>Weight</b>	1.25kg
<b>Connectors</b>	Line in: 3 pin female XLR Line out: 3 pin male XLR Headset: 4 pin male XLR Mic: 3 pin female XLR



# Dual Channel Loudspeaker Outstation

GS-CLS2

The GS-CLS2 is a dual channel loudspeaker outstation that can be wall mounted by keyhole slots in the base or free standing for desktop use. The GS-CLS2 contains a dual channel belt-pack, which has the same specifications as the GS-DC2. A selector switch located on the front panel can be used by the operator to select the use of the headset or the loudspeaker and gooseneck mic input. (Gooseneck mic not supplied)



## Specification

<b>Supply Voltage</b>	24V nominal
<b>Supply Current</b>	45mA quiescent (when calling) 95mA maximum
<b>Input Level</b>	2.5mV RMS for nominal 115mV RMS on comm.'s line limiter operates 10dB above this level to prevent overload
<b>Loudspeaker</b>	12 watt, 8 ohm
<b>Microphone</b>	Dynamic type, Gooseneck (not supplied)
<b>Output Level</b>	500mW RMS max. into 200 ohms Suits 150-600 ohm headphones
<b>Dimensions (mm)</b>	226 x 128 x 60
<b>Weight</b>	1.25kg
<b>Connectors</b>	Line in: 6 pin female XLR Line out: 6 pin male XLR Headset: 4 pin male XLR Mic: 3 pin female XLR





## Single Channel Beltpack

GS-CBP1

The GS-CBP1 is Granite Sound's most popular general purpose beltpack. This beltpack is a quality and cost effective unit, which is compatible with other communication systems available on the market. The unit incorporates a three position microphone switch, momentary action PTT (push to talk) function, a call button with a flashing indicator, headphone volume knob and variable side tone adjustment. Connection to the communication line is made by standard 3 pin XLR connectors. The durable metal enclosure has a non-metallic belt clip located on the rear for easy hook up to trouser belts etc.

### Specification

<b>Supply Voltage:</b>	24V nominal
<b>Supply Current:</b>	40mA quiescent (when calling) 70mA maximum
<b>Input Level:</b>	2.5mV RMS for nominal 115mV RMS on comm.'s line
<b>Output Level:</b>	250mW RMS max into 200 ohms Suits 150-600 ohm headphones
<b>Dimensions (mm):</b>	83 x 40 x 135
<b>Weight:</b>	0.512kg
<b>Connectors:</b>	Line in: 3 pin female XLR Line out: 3 pin male XLR Headset: 4 pin male XLR





# High Power Single Channel Beltpack

GS-SC2

The GS-SC2 is a robust single channel high power beltpack for use in applications where there are high ambient noise levels such as live rock concerts. The GS-SC2 delivers up to four times the power to headphones than conventional beltpacks. The unit incorporates a combined mic on/call button which operates both the call signal and enables or disables the microphone. Other controls are headphone volume and side tone adjustment. Connection to the line is made by standard 3 pin XLR connectors.

## Specification

<b>Supply Voltage</b>	24V nominal
<b>Supply Current</b>	35mA quiescent (when calling) 80mA maximum
<b>Input Level</b>	2.5mV RMS for nominal 115mV RMS on comms line Limiter operates 10dB above this level to prevent overload
<b>Output Level</b>	500mW RMS max. into 200 ohms Suits 150-600 ohm headphones
<b>Dimensions (mm)</b>	83 x 40 x 135
<b>Weight</b>	0.450 kg
<b>Connectors</b>	Line in, 3 pin female XLR Line out, 3 pin male XLR Headset, 4 pin male XLR



# High Power Dual Channel Beltpack

GS-DC2

The GS-DC2 beltpack offers all the facilities of the GS-SC2. For dual channel operation the GS-DC2 has two circuits to enable simultaneous communication.

A separate volume control is provided for each channel to allow the signal from each channel to be mixed together as required by the user. The unit incorporates two combined microphone on/call buttons which operate both the call signal and microphone for each channel. Connection is made to the lines by 6 pin XLR connectors

## Specification

<b>Supply Voltage</b>	24V nominal
<b>Supply Current</b>	45mA quiescent (when calling) 95mA maximum
<b>Input Level</b>	2.5mV RMS for nominal 115mV RMS on comms line Limiter operates 10dB above this level to prevent overload
<b>Output Level</b>	500mW RMS max. into 200 ohms Suits 150-600 ohm headphones
<b>Dimensions (mm)</b>	83 x 40 x 135
<b>Weight</b>	0.475 kg
<b>Connectors</b>	Line in, 6 pin female XLR Line out, 6 pin male XLR Headset, 4 pin male XLR







## In-Line Strobe Light

GS-STB1

The GS-STB1 is an in-line strobe light compatible with any of the Granite Sound intercom systems. When a call signal is sensed, the unit will produce a high power light from the strobe mounted on the top and also a more direct, focus light from the bright LED on the front. An all steel enclosed, backpack style chassis boasts supreme protection to the LED on the front and will prevent any issues from accidental damage. Available in Amber, Green, Blue, White and Red.



### Specification

<b>Supply Voltage</b>	24V nominal
<b>Dimensions (mm)</b>	83 x 65 x 135
<b>Weight</b>	0.55 kg
<b>Connectors</b>	Line in, 3 pin female XLR Line out, 3 pin female XLR
<b>Options on Unit</b>	Strobe on LED on Both Strobe & LED on



## Monitor Unit

GS-CMU1

The GS-CMU1 can be connected at any point in the communications line. When a call signal is sensed it will produce a high power flash at approximately one flash per second from the Xenon beacon. The GS-CMU1 can also be switched to produce an audible tone to attract users that a call is being made. In addition, the GS-CMU1 can be used as a monitor loudspeaker to listen to other users on a selected intercom channel. The volume override control will set the monitor speaker volume at a higher level when a call is being made, overriding the normal monitor volume setting. The GS-CMU1 is usually used during pre-production set up or when the ambient noise is such that the beacon attracts users by a powerful visual presence.

### Specification

<b>Supply Voltage</b>	24V nominal
<b>Supply Current</b>	80mA maximum
<b>Dimensions (mm)</b>	100 x 100 x 92.5
<b>Weight</b>	0.75 kg
<b>Options on Unit</b>	Selector switch for beacon, bleeper & monitor speaker. Volume for monitor speaker. Volume override for monitor speaker
<b>Connectors</b>	Line in, 3 pin female XLR Line out, 3 pin female XLR





## Splitter Box

GS-SB3 & GS-SB4

The GS-SB3 is a one in: three out splitter box designed for use with the installation of intercom, but can be used in any situation where a signal line needs to be split three ways.

A four pin XLR version can be supplied, to use with the GS-CCU4 Portable Intercom: type GS-SB4.

### Specification

<b>Dimensions (mm)</b>	114 x 65 x 55
<b>Weight</b>	0.5kg
<b>Connectors</b>	Line in, 3/4 pin female XLR Lines out 3 x 3/4 pin male XLR 114 x 65 x 55



## Protective Silicone Sleeve

GS-SLVB & GS-SLVC

The GS-SLV is a rugged, hard-wearing silicone sleeve designed to fit over the entire Granite Sound beltpack style range. The rubber corner points mean that products enclosed in the sleeve are protected from every angle. Available in Black (GS-SLVB) or Clear (GS-SLVC)







## Portable Intercom Unit

### GS-CCU4

The GS-CCU4 is an easy to set up and low cost intercom system at entry level. The unit has been designed to offer many features found in Granite Sound's professional intercom system range, at the lowest price possible without unacceptable concessions. This entry level product is aimed at the first time user or those working within a tight budget where a simple, efficient and expandable portable intercom system is required. The GS-CCU4 can operate from the mains via an AC mains adaptor or can function for days using AA batteries.

This 6-way intercom system is a simple-to-set-up solution - perfect for novice users or smaller systems. Headsets are plugged directly into the unit, removing the need for complicated or confusing cabling. With the addition of a splitter box for the headsets, this unit will comfortably support 6 users.

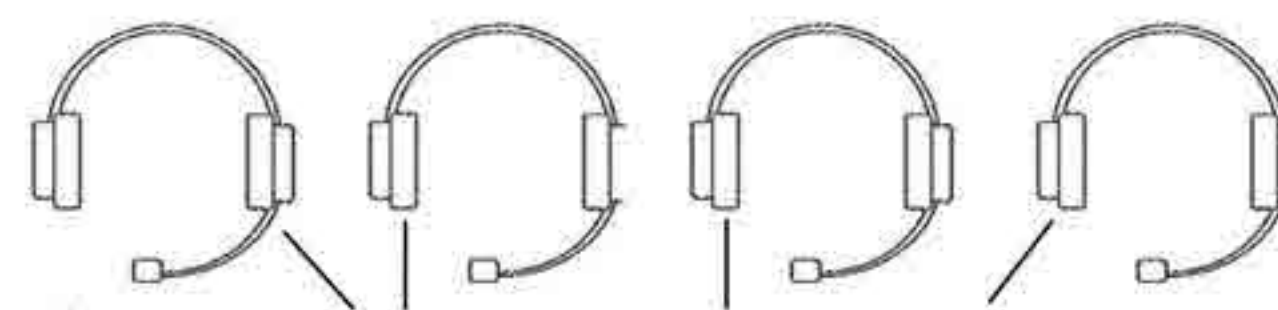
Granite Sound have designed single muff GS-CHS1MS and dual muff GS-CHS2MS headsets for use with the GS-CCU4. With small mic on/off switches located beside the headphone, these headsets mean users can essentially add a PTT function to this unit. See page 13

### Specification

<b>Operational distance</b>	>300m
<b>Power requirements</b>	6 volts DC (4 x AA batteries)
<b>Battery life</b>	approx. 50 hours with 2 headsets
<b>Connectors</b>	4 x 4 pin XLR, 2.1mm mains adaptor socket (+volts on centre pin)
<b>Dimensions (mm)</b>	235 x 150 x 40
<b>Weight with batteries</b>	1.16kg

### Options

<b>Single Muff Headsets</b>	GS-CHS1MS
<b>Dual Muff Headsets</b>	GS-CHS2MS
<b>1/3 Splitter Box</b>	GS-SB4



CCU4 Portable Intercom Unit



## Single & Dual Muff Professional Headsets

GS-CHS1 & GS-CHS2

Granite Sound's professional muff headsets have been specially designed to combine the maximum in comfort, safety, durability and reliability. Care has been taken in the acoustic and electrical isolation between microphone and headset to reduce crosstalk to a minimum. All headsets are fully adjustable to afford a comfortable fit for the user. The practically indestructible microphone is mounted on a movable arm to the left of the headset and has been designed for optimum rejection of unwanted sound. The flexible 1.5 metres of cable is virtually unbreakable due to the steel reinforcement braiding underneath the PVC coat.

### Specification

**Headset:**  
**Frequency Response** 40Hz - 14.4kHz  
**Nominal Impedance** 400 ohm/system  
**Maximum SPL** >94dB  
**Power Handling** 100mW  
**Noise Level** ~16dBA  
**Ear Muff Pressure** ~6N  
**Weight** 200/270kg  
**Cable Length** 1.5M

**Microphone:**  
**Frequency Response** 40Hz - 15kHz  
**Directional Characteristics** Cardioid  
**Nominal Impedance** 200 ohm  
**Gain (at 5cm)** -3mV



## Single & Dual Muff High Performance Headsets

GS-CHSE1 & GS-CHSE2

In addition to the GS-CHS1 and GS-CHS2 specification, the GS-CHSE1 and GS-CHSE2 high performance headsets have the added functionality of being fitted with a rotatable microphone boom. The microphone can be rotated into any desired position – left or right. In addition to this, an integrated high-quality mic switch with gold plated contacts switches the microphone noiselessly off when the boom is moved into the upper position. The heavy duty closed cup muff(s) have been re-engineered for maximum comfort and noise cancellation, which optimises usage when working in areas with a higher background noise level.

### Specification

**Headset:**  
**Frequency Response** 40Hz - 14.4kHz  
**Nominal Impedance** 400 ohm/system  
**Maximum SPL** >94dB  
**Power Handling** 100mW  
**Noise Level** ~16dBA  
**Ear Muff Pressure** ~6N  
**Weight** 200/270kg  
**Cable Length** 1.8M

**Microphone:**  
**Frequency Response** 40Hz - 15kHz  
**Directional Characteristics** Cardioid  
**Nominal Impedance** 200 ohm  
**Gain (at 5cm)** -3mV







## Armoured Headset

GS-ACDS2

The ideal solution for retail or heavy-duty applications. With its armoured cable, this dual-muff headphone is robust and hardwearing – indeed, it is virtually indestructible.

The unit and cables have been adapted for continuous use, and the superior sound quality remains unsurpassed even after extended use. User comfort is assured with individual fit design, concealed wiring and one-sided cable entry.

The toughened steel headband features generous padding and an ergonomic design. While the durable earpads are constructed from SoftTouch foam and can be easily cleaned with normal household detergents.

This model is currently in use by key high-street music stores in CD listening booths.

### Specification

<b>Frequency Response</b>	20Hz - 20kHz
<b>Acoustic Principle</b>	Closed
<b>Maximum SPL</b>	94 dB
<b>External Noise Isolation</b>	100mW
<b>Length of Cable</b>	1.2 m
<b>Driver Principle</b>	Dynamic
<b>Nominal Impedance</b>	2 x 40 ohm
<b>Continuous Power Rating</b>	100mW
<b>Weight</b>	0.36kg
<b>Connector</b>	Stereo Jack 3.5mm





# Single & Dual Muff Headsets with Switchable Mic

GS-CHS1MS & GS-CHS2MS

Designed upon the success of the GS-CHS1 & GS-CHS2 Professional Single and Dual Muff Headsets, the GS-CHSMS range offers comfort and reliability with the addition of a robust microphone switch located on the headphone assembly. These headsets are perfect for use with the GS-CCU4 Portable Intercom Unit or any other systems where a PTT function is not available.



## Specification

<b>Headset:</b>	
<b>Frequency Response</b>	40Hz - 14.4kHz
<b>Nominal Impedance</b>	400 ohm/system
<b>Maximum SPL</b>	>94dB
<b>Power Handling</b>	100mW
<b>Noise Level</b>	~16dBA
<b>Ear Muff Pressure</b>	~8N
<b>Weight</b>	200/270kg
<b>Cable Length</b>	1.5M

<b>Microphone:</b>	
<b>Frequency Response</b>	40Hz - 15kHz
<b>Directional Characteristics</b>	Cardioid
<b>Nominal Impedance</b>	200 ohm
<b>Gain (at 5cm)</b>	-3mV



## Gooseneck Microphone

GS-LSM1

The GS-LSM1 is a hard wearing solid microphone that can be used in a number of our products. The solid construction includes a 3 pin male XLR connector which allow connection to our range of loudspeaker stations.

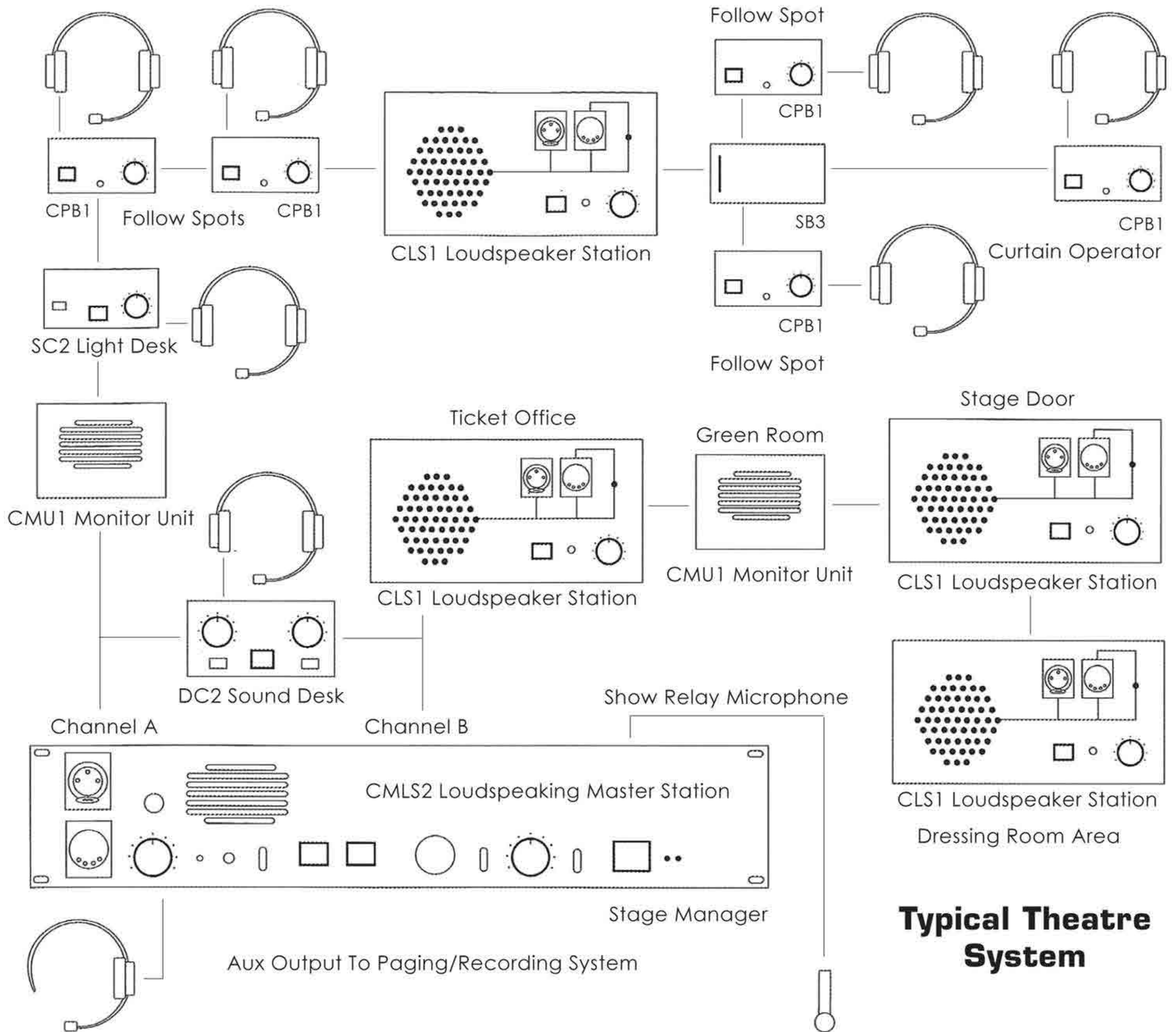


## Specification

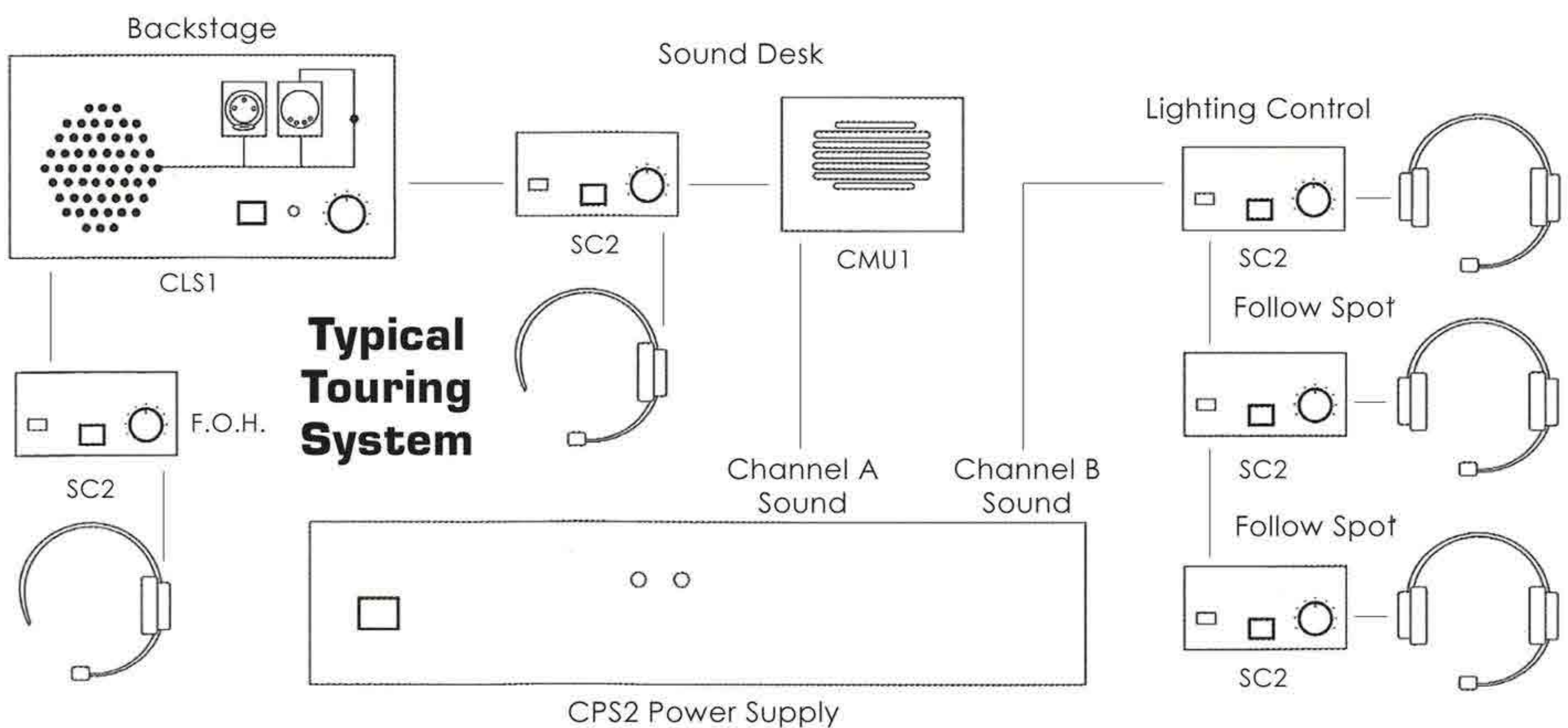
<b>Element</b>	Dynamic
<b>Polar Pattern</b>	Cardioid
<b>Frequency Response</b>	150Hz - 10kHz
<b>Sensitivity</b>	83.5db $\pm$ 3db@1kHz
<b>Impedance</b>	200 ohms
<b>Weight</b>	240 grams
<b>Length (mm)</b>	300



# Applications



## Typical Theatre System



## Typical Touring System



**Granite** sound

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*The manufacturers reserve the right to alter specifications without notice*