



USER MANUAL • V1.0 VERSION

BR-DCU-BLM

Flush mount Boundary Microphone

User Manual • V1.0 Version



Bronx Systems India Pvt. Ltd.

www.bronx.co.in

SAFETY

The meaning of symbols

■ Safety instructions

For your safe and correct use of equipments, we use a lot of symbols on the equipments and in the manuals, demonstrating the risk of body hurt or possible damage to property for the user or others. Indications and their meanings are as follow. Please make sure to correctly understand these instructions before reading the manual.



This is A level product, which may cause radio interference in the living environment. In this case, users may need to take the feasible measures to get around the interference.



Remind users that the dangerous voltage without insulation occurring within the equipment may cause people suffer from shock



CE certification means that the product has reached the directive safety requirements defined by the European Union. Users can be assured about the use of it



Warning: in order to avoid electrical shock, do not open the machine cover, nor is the useless part allowed to be placed in the box. Please contact the qualified service personnel.

■ General information instructions



It lists the factors leading to the unsuccessful operation or set and the relevant information to pay attention to

SAFETY

Important note



Warning

In order to ensure the reliable performance of the equipment and the safety of the user, please observe the following matters during the process of installation, use and maintenance:

The matters needing attention of installation

- Please do not use this product in the following places: the place of dust, soot and electric conductivity dust, corrosive gas, combustible gas; the place exposed to high temperature, condensation, wind and rain; the occasion of vibration and impact . Electric shock, fire, wrong operation can lead to damage and deterioration to the product, either;
- In processing the screw holes and wiring, make sure that metal scraps and wire head will not fall into the shaft of controller, as it could cause a fire, fault, or incorrect operation;
- When the installation work is over, it should be assured there is nothing on the ventilated face, including packaging items like dust paper. Otherwise this may cause a fire, fault, incorrect operation for the cooling is not free;
- Should avoid wiring and inserting cable plug in charged state, otherwise it is easy to cause the shock, or electrical damage;
- The installation and wiring should be strong and reliable, contact undesirable may lead to false action;
- For a serious interference in applications, should choose shield cable as the high frequency signal input or output cable, so as to improve the anti-jamming ability of the system.

Attention in the wiring

- Only after cutting down all external power source, can install, wiring operation begin, or it may cause electric shock or equipment damage;
- This product grounds by the grounding wires .To avoid electric shocks, grounding wires and the earth must be linked together. Before the connection of input or output terminal, please make sure this product is correctly grounded;
- Immediately remove all other things after the wiring installation. Please cover the terminals of the products cover before electrification so as to avoid cause electric shock.

Matters needing attention during operation and maintenance

- Please do not touch terminals in a current state, or it may cause a shock, incorrect operation;
- Please do cleaning and terminal tighten work after turning off the power supply. These operations can lead to electric shock in a current state;
- Please do the connection or dismantle work of the communication signal cable , the expansion module cable or control unit cable after turning off the power supply, or it may cause damage to the equipment, incorrect operation;
- Please do not dismantle the equipment, avoid damaging the internal electrical component;
- Should be sure to read the manual, fully confirm the safety, only after that can do program changes, commissioning, start and stop operation;

Matters needing attention in discarding product

- Electrolytic explosion: the burning of electrolytic capacitor on circuit boards may lead to explosion;
- Please collect and process according to the classification, do not put into life garbage;
- Please process it as industrial waste, or according to the local environmental protection regulations.

FOREWORD

Foreword

This manual mainly explains the usage, performance parameters and troubleshooting of BR-DCU-BLM embedded hidden interface microphone.

If the technical parameters and system usage in this manual are changed, the manufacturer will update the version number of the manual. Please use the latest product manual.

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Version	Update	Date
1.0	release	2020.6.29

CONTENT

Content

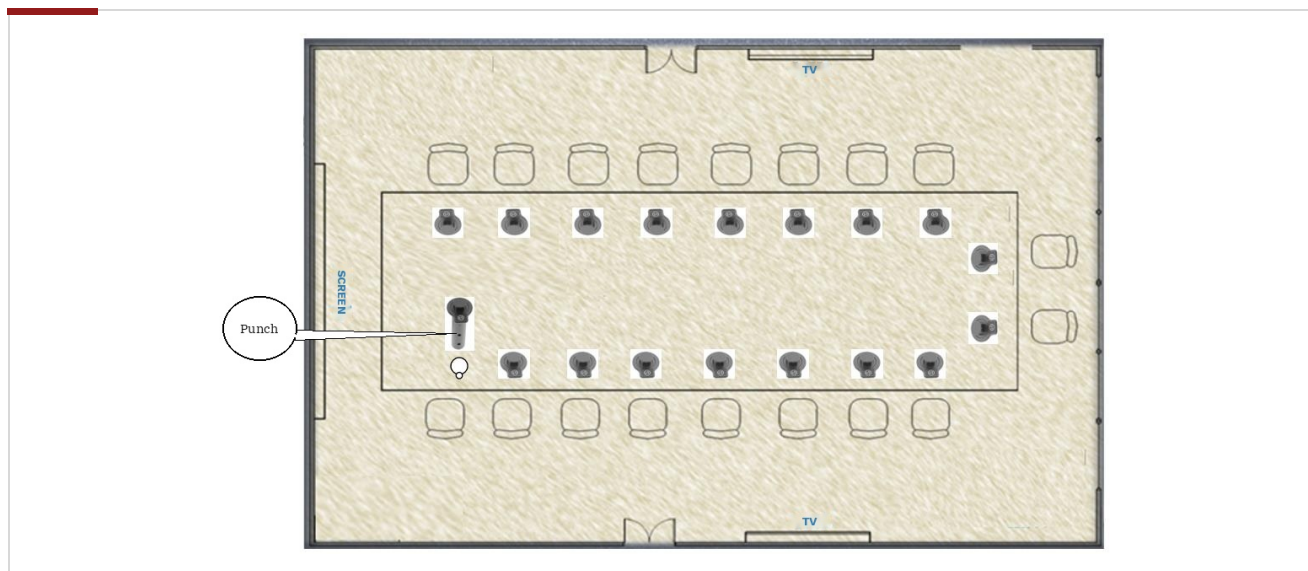
1.	Product overview	5
1.1	Product description and layout	5
1.2	Hole size	6
2.	Application Scheme	7
2.1	Scheme one, Dialogue all digital network conference system application	7
2.1.1	System composition:	7
2.1.2	Microphone connection:	8
2.1.3	Multifunctional connection box	9
3.	Technical parameters	10
3.1	Technical indicators	10
3.1.1	Embedded gooseneck microphone	10
3.1.2	Multifunctional connection box	10
3.2	Audio interface	11
4.	Ordering information	11

01 • PRODUCT OVERVIEW

1. Product overview

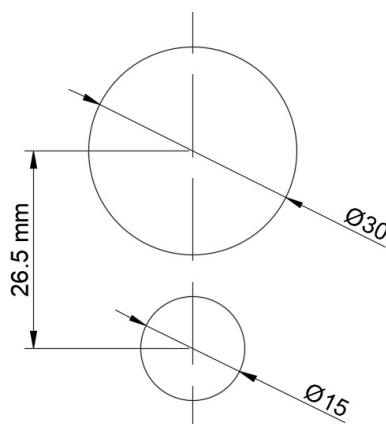
1.1 Product description and layout

BR-DCU-BLM is a built-in microphone, and it can disappear on the desktop when not in use. This is achieved by simply pressing the top of the microphone down until it locks. Then press the microphone again, and the microphone will rise back to its original position above the table surface. The microphone can be connected to the Dialogue full digital network conference system through the BR-DCU-CUIB analog microphone connection box, or can be connected to the analog system, such as mixer, audio matrix, etc.

**Features:**

- Can be installed on the desktop inconspicuously, the unique ability to hide the microphone from the line of sight when not in use;
- The microphone is equipped with a reed switch, which is designed for each conversation when the microphone is no longer used Remote switch at the beginning and end of. When the microphone is in the up position, the switch contact is closed (ON), and when retracted, the switch contact (OFF);
- The capacitive touch switch button can be optionally installed, and the microphone can be easily set to turn off or turn on the pickup;
- Cardioid directivity;
- Built-in microphone pre-amplifier power supply component, no need to use external power supply module;
- Sturdy all-metal structure design, provided with two layers of steel mesh cover protection;
- Low surface;
- The microphone uses DC 11V to 52V phantom power supply to work;
- Output with 3-pin Canon male head or 3.5 Phoenix head;
- Built-in ring-shaped LED status indicator light on the touch button-red shows normal radio reception, white is off;
- Built-in RF filter
- Equipped with anti-vibration insulating glue to reduce the vibration noise on the installation surface.

1.2 Hole size



BLUEPRINT

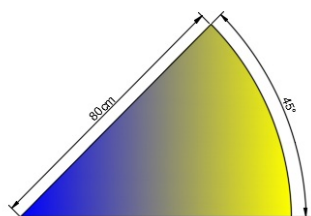
Size:

Microphone main body diameter: 30mm

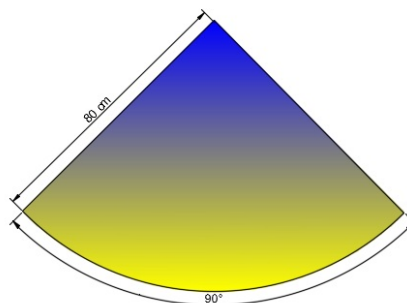
Touch button diameter: 15mm

Distance between main body and key center: 26.5mm

1.3 Best pickup range



Vertical range



Horizontal range

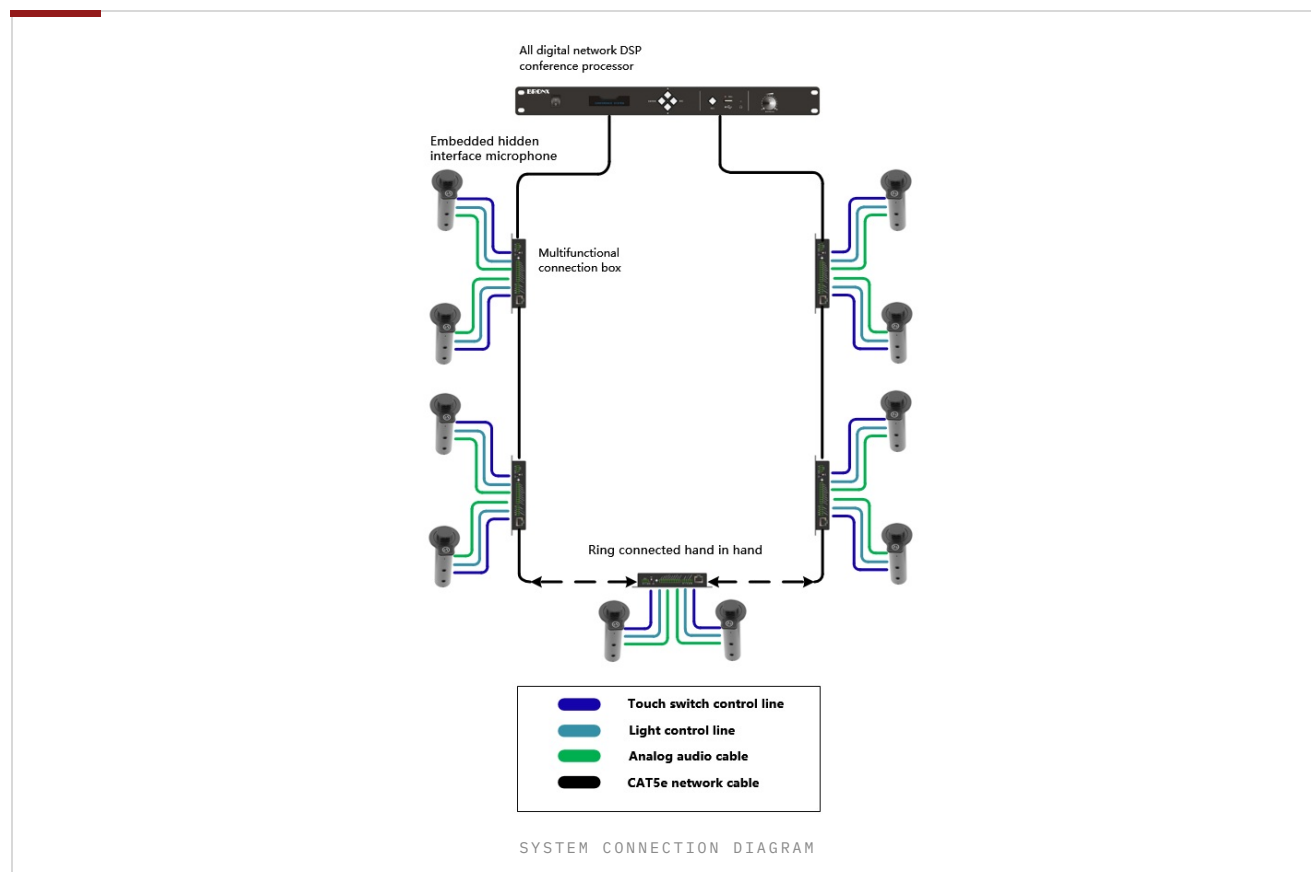
BR-DCU-BLM is a directional microphone, marked by the microphone dot as the forward direction, the vertical range is 45 degrees, the horizontal range is 90 degrees, and the pickup distance is 80cm. The pickup distance can be adjusted appropriately according to the actual situation. The sound wave energy will gradually attenuate as the distance of the sound source increases. The gain needs to be adjusted appropriately to achieve the best pickup distance and effect.

02 • APPLICATION SCHEME

2. Application Scheme

2.1 Dialogue all digital network conference system application

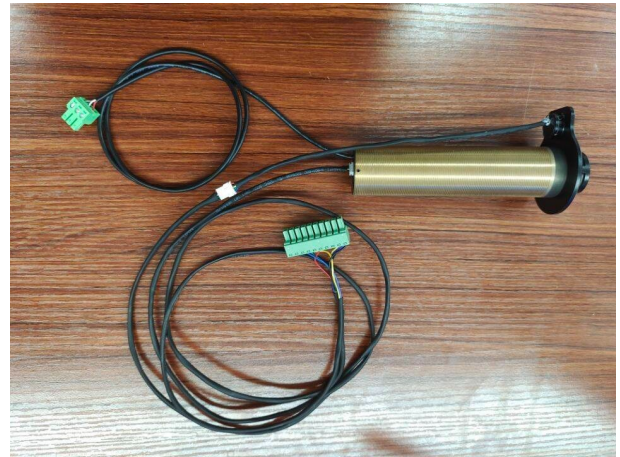
Through the multi-functional connection box independently developed by Bronx, the analog audio signal can be converted into a digital audio signal and connected to the Dialogue all-digital network conference system. It can have the same functions as the Dialogue series digital unit, and can Mixed use with Dialogue series digital unit digital unit, can be freely matched, good compatibility, high flexibility, can be applied to large, medium and small meeting rooms, can be used in various scenarios such as lecture halls, schools, governments, corporate training rooms, etc. .



2.1.1 System composition:

All-digital network DSP conference processor BR-DCU-CU2000-D

- ✓ Multi-function connection box BR-DCU-CUIB①
- ✓ Hidden interface microphone BR-DCU-BLM②
- ✓ Analog audio cable (card faucet or Phoenix head optional)③
- ✓ Touch switch control interface ④



PICTURE OF MICROPHONE ASSEMBLY

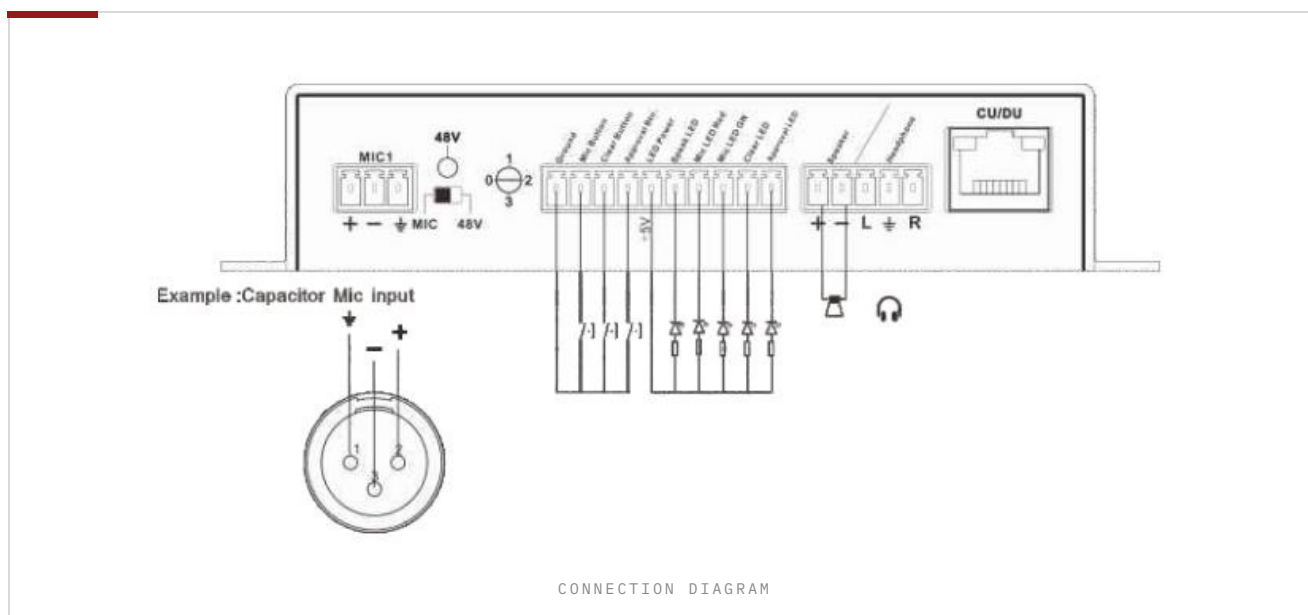
2.1.2 Microphone connection:

- ① Put the control interface with touch button into the embedded hidden interface microphone;
- ② Connect the microphone light control line to the bottom socket of the microphone, and the switch control line of the touch button is connected with the touch button interface line;
- ③ Plug the Phoenix head of the control line Control interface of the functional connection box;
- ④ Insert the Phoenix head audio cable to the MIC interface of the multi-function connection box;
- ⑤ Insert the wheat straw into the top of the embedded microphone base with hidden interface (as shown below).



PICTURE OF MICROPHONE CONNECTION

2.1.3 Multifunctional connection box



Features:

- The multi-function connection box is suitable for customized installation solutions. It allows multiple functions to be added to meet meeting needs. In addition, two separate audio inputs are provided, each of which can be used with or without phantoms for phone calls, such as capacitor type or dynamic type.
- Two inputs can also be used as line inputs. Each input is assigned its own seat number so that the BR-DCU-CUIB can be used by two delegates or chairman units. By setting, the dual delegate interface can be used as single delegate device, dual delegate device, single chairman device, dual chairman unit, chairman + delegate device or conference microphone. The microphone of the conference site is placed in the conference site. When the microphone of the delegate device or the chairman device is not active, it will automatically turn on. In this way, the translator can always keep in touch with the venue.
- Even the machine also provides the microphone switch button, priority button, approval button and the corresponding Phoenix LED lamp interface, used to customize the embedded button panel for the gooseneck microphone.
- It provides two Phoenix head stereo jacks for connecting to headphones, two speaker outputs for connecting speaker panels (BR-DCU-SAFM-SPK) or custom speakers. When the corresponding input is turned on, the speaker output will be turned off. The device can be independently placed on a desk, mounted on a wall, or beautifully embedded in the armrest of a desk or seat.
- Sensitivity adjustable, compatible with different inputs.

Interface characteristics:

Interface	Connection
2*RJ45 sockets	Connect to CU/DU unit, host or next BR-DCU-CUIB.
2*3 pin phoenix head	Connect to line input, condenser type or dynamic type microphone.
2*10 pin phoenix head	Connect the microphone button, the clear button, the approval button and the external LED of the 10-pin Phoenix connector.
2*5 pin phoenix head	Connect headphones or speakers.
2* DIP switch	Select to set to MIC/line or 48VDC power supply, during the setting of microphone type mode, to select the selector as chairman/delegate unit.
2*4 level selection	Set input sensitivity.
2* indicator	48VDC power indicator and audio signal indicator.

03 • TECHNICAL PARAMETERS

3. Technical parameters

3.1 Technical indicators

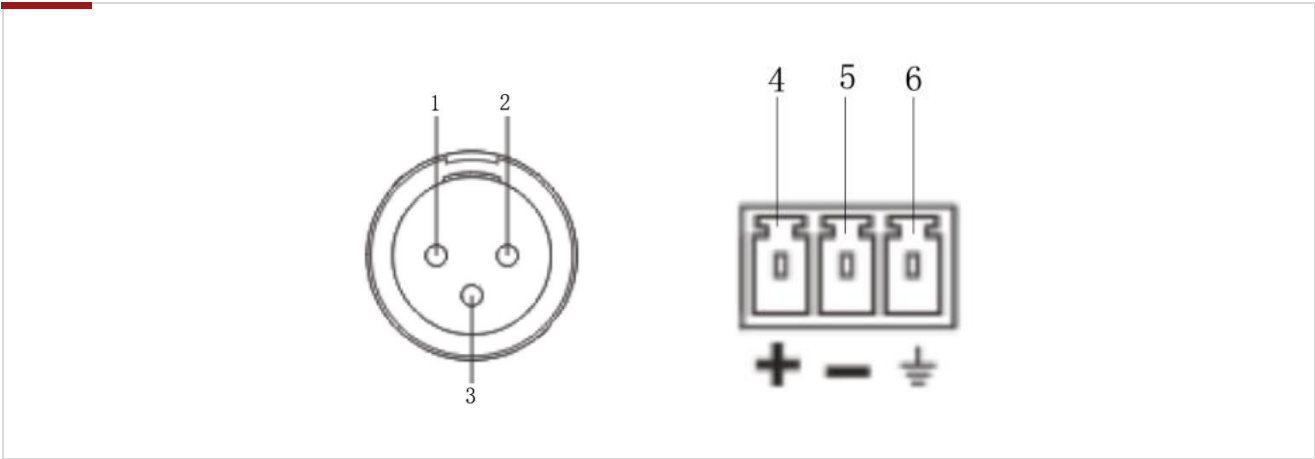
3.1.1 Embedded gooseneck microphone

- The charging head is fixed on the charging backplane, electrostatic type capacitive type;
- Direction characteristics: The vertical range is 45°, the horizontal range is 90°, and the pickup distance is 80cm;
- Frequency response 40-19,000 Hz;
- Turn on sensitivity -40 dB (10 mV) to 1V at 1 Pa;
- Impedance 200 ohm;
- High maximum withstand sound pressure 142 dB sound pressure level, 1 kHz at 3% THD;
- Dynamic range (typical) 113 dB, 1 kHz at the highest sound pressure level;
- Signal to noise ratio 65 dB, 1 kHz at 1 Pa;
- Phantom power supply DC 11-52V, power consumption 5.7 mA typical;
- Switch touch control: on/mute;
- Weight 65 g;
- Overall length 84.8 mm, diameter 38.0 mm, maximum width 48.0 mm;
- Built-in output terminal Type 3 pin Canon male head;
- Standard configuration: 1 pair of shockproof insulating glue;

3.1.2 Multifunctional connection box

Maximum power consumption	2.0W
Frequency response	20~20kHz
Total harmonic distortion (THD)	<0.1%
Dynamic range	94dB
Signal to noise ratio (S/N)	96dB
High speed microphone input	70dB SPL
Maximum microphone input	100dB SPL
Speaker rated output	70dB SPL at 0.5m
Sensitive	-46 dBV/Pa
Color	Black
Weight	500g
Dimension (mm)	120Lx100Wx28H

3.2 Audio interface



Pin	Type	Signal	Description
1	XLR	return	-
2		External	+
3		Live	Shield/Ground
4	Phoenix	+	+
5		-	-
6		G	Shield/Ground

04 • ORDERING INFORMATION

4. Ordering information

Hardware

BR-DCU-BLM	Embedded microphone with hidden interface
BR-DCU-CUIB	Analog microphone connection box
BR-DCU-CU2000-D	All digital network DSP conference system host



COMPANY

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DOCUMENT

BR-DCU-BLM
User Manual · V1.0

FACTORY

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