
BM6620 -- Boundary Microphones

BM 6620 Boundary Microphone



Important Safeguards

1. **Read these instructions** - All the safety and operating instructions should be read before the apparatus or system is operated.
2. **Keep these instructions** - The important safety instructions and operating instructions should be retained for future reference.
3. **Follow all warnings** - All warnings on the apparatus and in the operating instructions should be adhered to.
4. **Follow all instructions** - All instructions for installation or use/operating should be followed.
5. **Do not use this apparatus near water** - Do not use this apparatus in a water or moistures environment - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.
6. **Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and no objects filled with liquids, such as vases, should be placed on this apparatus.**
7. **Clean only with dry cloth** - Unplug the apparatus from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
8. **Do not block any ventilation openings. Install in accordance with the manufacturer's instructions** - Openings in the enclosure, if any, are provided for ventilation and to ensure reliable operation of the apparatus and to protect it from overheating. These openings must not be blocked or covered. This apparatus should not be placed in a built-in installation unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
9. **Do not install near any heat sources such as radiators, heat registers, stoves, air ducts, or other apparatus (including amplifiers) that produce heat.**



10. **Do not install the unit in a place exposed to direct sunlight, excessive dust or humidity, mechanical vibration or shock .**
11. **To avoid moisture condensations do not install the unit where the temperature may rise rapidly.**
12. **Do not defeat the safety purpose of the polarized or ground-type plug.** A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
13. **Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.**
14. **Only use attachments/accessories specified by the manufacturer .** Any mounting of the apparatus should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
15. **Use only with the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus.**



When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over - Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

16. **Unplug this apparatus during lighting storms or when unused for long periods of time .** – Not applicable when special functions are to be maintained, such as evacuation systems.
17. **Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.**
18. **Replacement Parts** - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
19. **Safety Check** - Upon completion of any service or repairs to this apparatus, ask the service technician to perform safety checks to determine that the apparatus is in proper operating condition.
20. **Overloading** - Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.
21. **Power Sources** - This apparatus should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer or local power company. For apparatuses intended to operate from battery power, or other sources, refer to the operating instructions.
22. **Power Lines** - An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.
23. **Object and Liquid Entry** - Never push objects of any kind into this apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the apparatus. Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.

Labels

	<p>“Lightning Flash Symbol” with the lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product enclosure that may be of sufficient magnitude to constitute a risk of shock to persons.</p>
	<p>“Exclamation Point Symbol” with the exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.</p>

Note for Power Connections

Check that the voltage of your local power supply is within the operating voltage of the unit. If a voltage conversion is required, consult your DIS dealer or qualified personnel.

Set the Power switch to 'Off' if it is not used for several days.

Important: The equipment must be connected to earth (ground)

The wires in the main lead supplied with the equipment are colored in accordance with the following codes:

- Green-and-yellow Earth (Ground)
- Blue Neutral
- Brown Live
- The green-and-yellow wire must be connected to the terminal in the plug marked with the letter E or with the safety earth symbol or marked with green-and-yellow color.
- The blue wire must be connected to the terminal marked with the letter N or marked with black color.
- The brown wire must be connected to the terminal marked with the letter L or marked with red color.
- For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.

Power Disconnect

Apparatuses with or without On/Off switches have power supplied to the apparatus whenever the power cord is inserted into the power source; however, the apparatus is operational only when the On/Off switch is in the On position. The power cord is the main power disconnect for all apparatuses.

Compliance

The equipment is intended to be used in professional audio applications.

Note: This device is not intended to be connected directly to a public internet network.

EMC conformance to Environment E2: Commercial and Light Industrial. Testing is based on the use of supplied and recommended cable types. The use of other than shielded (screened) cable types may degrade EMC performance.

Changes or modifications not expressly approved by Shure Incorporated could void your authority to operate this equipment.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Authorized under the verification provision of FCC Part 15B.

Please follow your regional recycling scheme for batteries, packaging, and electronic waste.

Information to the user

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Cleaning

To keep the cabinet in original condition, periodically wipe it down with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use organic solvents such as thinners or abrasive cleaners since these will damage the cabinet.

Repacking

Save the original shipping box and packing material; they may be used to ship the unit. For maximum protection, re-pack the unit as originally packed from the factory.

Warranty

The units are covered by a 24 month warranty against defects in materials or workmanship.

BM 6620 General Description

The BM 6620 is a low-profile omnidirectional, condenser boundary microphone designed to fit into the flush mounted conference units in the DIS DCS 6000 Digital Conference System.

The BM 6620 is available for retrofit in the standard flush-mounted units FC 602xF and FD 612xF by replacing the XLR socket with the boundary microphone in the plastic adaptor. The molex mini connector fits with the microphone connector on the PCB.

It can also be custom ordered for use with other FC/FD and FC/FD 6xxxF units and delivered already mounted in the units.

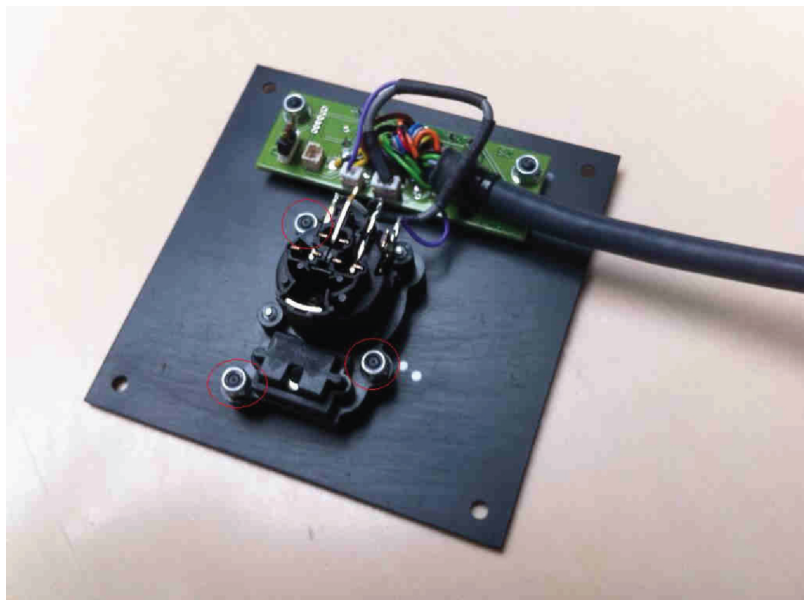
The BM 6620 is designed for sound reinforcement, professional recording and teleconferencing. It features a RF shield that protects the microphone from RF interference.

Features

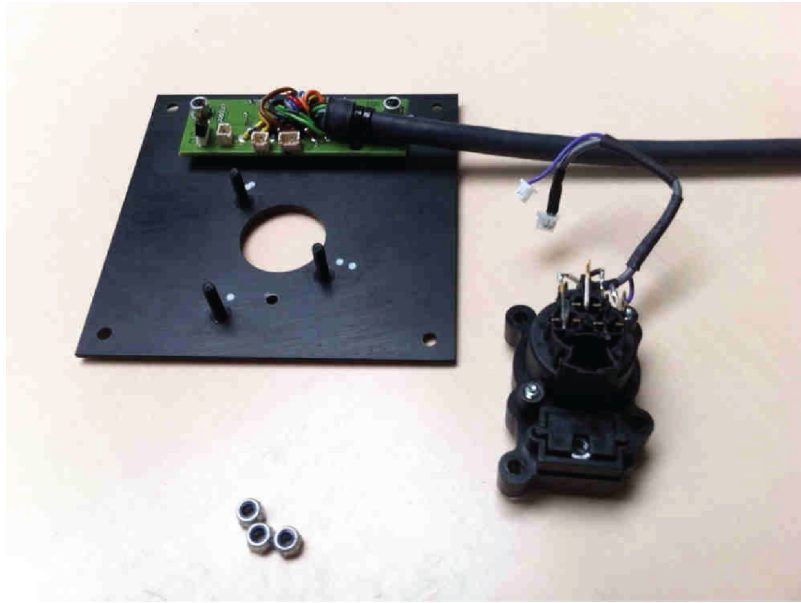
- Boundary microphone for custom fit flush-mounted conference units
- Low-profile omnidirectional condenser boundary microphone with 360° pickup angle
- High-quality sound reinforcement
- RF resistant
- Isolators for providing mechanical dampening of mounting-surface vibration
- RoHS compliant
- Standard fitting for FC 602xF and FD 612xF units

BM 6620 Installation

Step 1: Undo the three M3 nuts holding the XLR to the plate.



Step 2: Remove the XLR.



Step 3: Turn over the XLR. Undo and remove the two T8 torx screws and the 3mm Allen bolt.



Step 4: Separate the connector section from the XLR chassis.



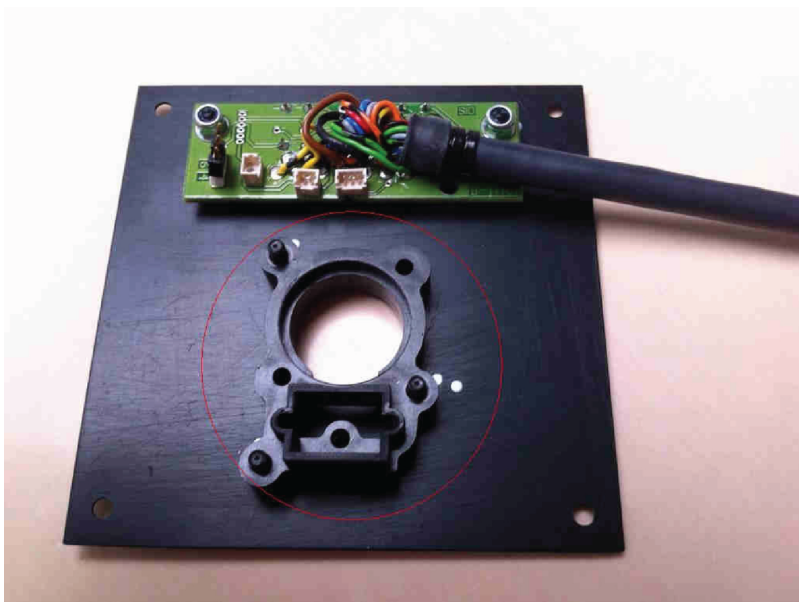
Step 5: Remove the plastic "lock" insert.



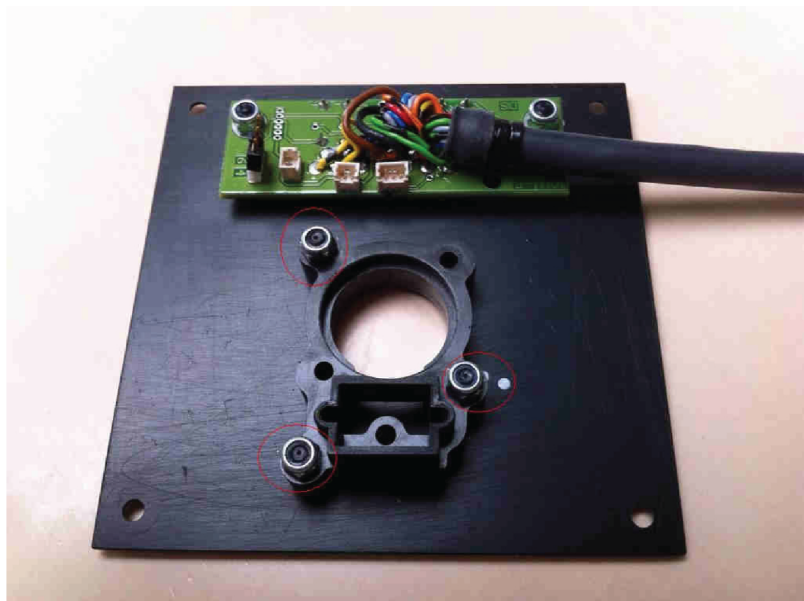
Step 6: Put the XLR chassis back onto the front plate.



Step 7: Fasten the XLR chassis to the front plate with the 3 M3 nuts.



Step 8: Now insert the boundary mic into the sleeve of the XLR chassis and then tighten the 3 Allen screws on the bottom of the mic; this will cause the mic's rubber sleeve to expand into the XLR chassis and hold it in place. Connect the boundary mic to the PCB.



Specifications

Electrical

Transducer Type

Permanently polarized Electret Condenser

Polar Pattern

Omnidirectional

Frequency Response

40 to 18,000 Hz

Sensitivity

-42 dBV/Pa ^[1] (7.9 mV)

Maximum SPL

1 kHz at 1% THD

142 dB SPL

Impedance

200 Ω

Signal-To-Noise Ratio

64 dBV/Pa ^[1]

Dynamic Range

112 dB, 1 kHz at maximum SPL

Connectors

Connectors

Molex mini connector

Mechanical

Mounting Type

Fixed in DIS DCS 6000 flush mounted units

Dimensions

(L x Dia.)

181.5 x 19 mm

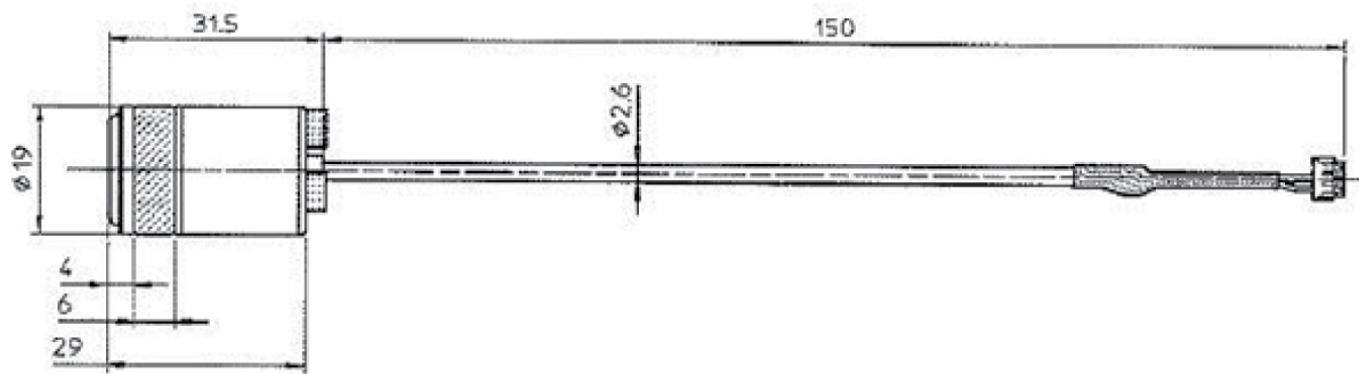
Net Weight

63 g (2.22 oz.)

Housing

Black

Dimensions



Cabling

Cat5e

The DCS 6000 system uses Cat5e or higher FTP or STP cables with shielded RJ45 connectors and EIA 568-B wiring.

Important: The names of Cat5e/6/7 cable type have changed.

Old name	New name
FTP	F/UTP
STP	U/FTP
UTP	U/UTP

Important: Use only F/UTP or U/FTP (shielded) cables and shielded RJ45 connectors and not U/UTP cable, which are unshielded.

How to wire a Cat5e (EIA 568-B) Cable:

Pin	Function	Connector #1	Connector #2
1	In-going +	ORG/WHT	ORG/WHT
2	In-going -	ORG	ORG
3	+48V	GRN/WHT	GRN/WHT
4	0V	BLU	BLU
5	0V	BLU/WHT	BLU/WHT
6	+48V	GRN	GRN
7	Outgoing -	BRN/WHT	BRN/WHT
8	Outgoing +	BRN	BRN

Note: If other colour codes are used then the four pairs are connected as follows:

Pair 2: Pin 1 & 2

Pair 3: Pin 3 & 6

Pair 1: Pin 4 & 5

Pair 4: Pin 7 & 8

The phase of the pairs must be correct and the wiring spec. as stated in Cat5e (EIA 568-B) have to be followed.

Note: Cat6 and Cat7 cables can normally only be terminated in sockets (female) and not in cable plugs. Cat6 and Cat7 can only be used for longer cable draws terminating in wall outlets or patch panels.

Analog out (XLR3 male)

Pin	Signal	Cable type
1	Ground	2 x 0.25 mm ² shielded.
2	In phase signal	
3	Out phase signal	

Certifications

The DCS 6000 system conforms to standard IEC 60914.