C411^{III} (L, PP)

HIGH-PERFORMANCE MINIATURE CONDENSER VIBRATION PICKUP

USER INSTRUCTIONS

Read the manual before using the equipment!

AKG by HARMAN

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Updates

Dieses Manual kann ohne Vorankündigung geändert werden und stellt keine Verpflichtung seitens der Firma AKG Acoustics GmbH dar.

Version

1.0

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1 Safety and environment

Risk of damage

Please make sure that the piece of equipment your microphone will be connected to fulfills the safety regulations in force in your country and is fitted with a ground lead.

1.1 Environment

- In case of scrapping the equipment, separate the housing, electronics and cables and dispose all the components in accordance with the appropriate waste disposal regulations.

- The packaging is recyclable. Dispose of the packaging via an appropriate collection system provided for this purpose.

2 Description

2.1 Introduction

Introduction

Thank you for your decision to buy an AKG product. **Please read the user instructions carefully**, before using the unit and keep them in a safe place so that you can refer to them in the future at any time. We wish you a lot of fun!

2.2 Package content

Package content

- C411^{III} PP or C411^{III} L
- Adhesive compound
- Microphone bag

Check that the package contains all the parts given above. If anything is missing, please contact your AKG dealer.

2.3 Optional Accessories

Optional accessories

- MPA V L: phantom power adapter (for C411^{III} L)
- B23 L: battery power supply (for C411^{III} L)

Optional accessories can be found at www.akg.com. Your dealer will be happy to advise you.

Features

2.4 Features

- Rugged vibration pickup for instrument miking on stage.
- Frequency response tailored to acoustic guitar, banjo, zither, and bowed string instrument miking.
- Complete with adhesive compound for mounting the pickup directly on the instrument.

Brief Description

2.5 Brief Description

The C411^{III} is a vibration pickup that converts the vibrations of an instrument's soundboard into an electrical signal.

The C411^{III} has been specifically designed for direct attachment to an acoustic guitar, banjo, zither, or bowed string instrument and ensures absolutely accurate, coloration-free reproduction.

The supplied adhesive compound for attaching the pickup will leave wooden, plastic, and metal surfaces untainted.

2.6 Versions

The C 411^{III} is available in two versions:

C411^{III} P

- For 9 to 52 V universal phantom power.
  (3-m) permanently attached connecting cable with phantom power adapter with integrated 3-pin XLR connector.

C411^{III} L

- For use with the B23 L battery power supply, MPA V L phantom power adapter, or AKG Wireless bodypack transmitters.
  5-ft.
  (1.5-m) permanently attached connecting cable with 3-pin mini XLR connector

3 Interfacing

The C411^{III} pickup is a condenser transducer and therefore needs a power supply.

Using any power supply other than those recommended by AKG may damage your pickup and will void the warranty.

3.1 C411^{III} PP

3.1.1 Connecting to Balanced Inputs

C411^{III} PP

Connecting to balanced inputs

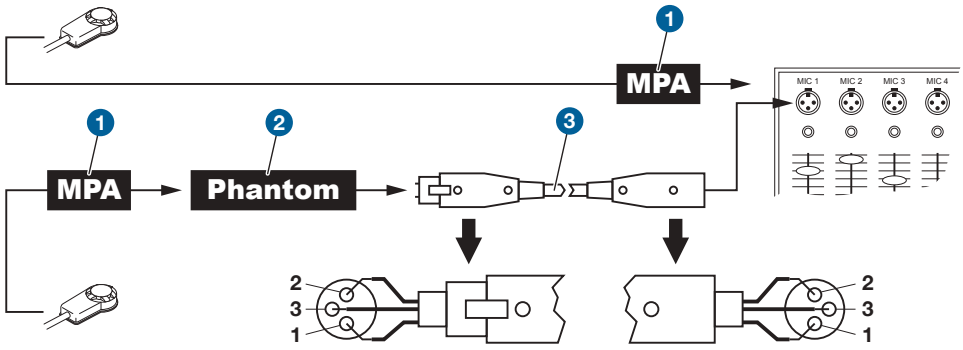


Figure 1: Connecting to balanced inputs

1) Connect the phantom power adapter (1) on the pickup cable to a balanced XLR microphone input with phantom power.

2) Switch the phantom power on. (Refer to the instruction manual of the unit to which you connected your pickup.)

3) If your mixer provides no phantom power: Connect the phantom power adapter (1) to an optional AKG phantom power supply (2) and use an XLR cable (3) to connect the phantom power supply to the desired balanced input.

C411III PP

Connecting to unbalanced inputs

3.1.2 Connecting to Unbalanced Inputs

You may connect any AKG phantom power supply (2) to an unbalanced input, too.

Use a cable (3) with a female XLR connector and TS jack plug:

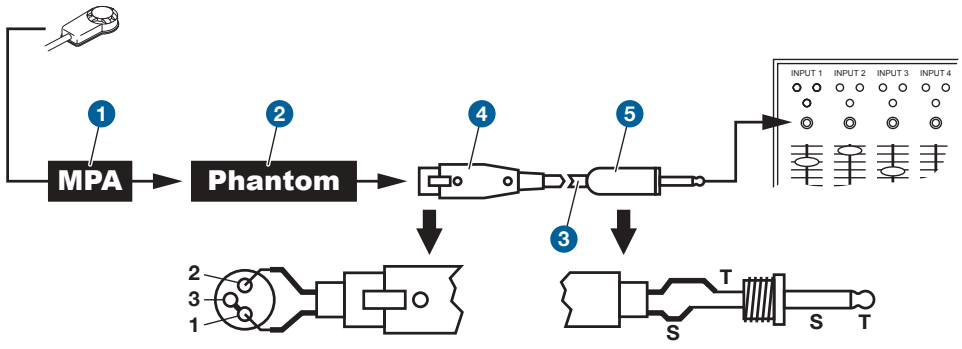


Figure 2: Connecting to unbalanced inputs

1) On the XLR connector (4), use a wire bridge to connect pin 1 to pin 3 and the cable shield.

2) Connect the inside wire of the cable to pin 2 on the XLR connector (4) and the tip contact of the jack plug (5).

Unbalanced cables may pick up interference from stray magnetic fields near power or lighting cables, electric motors, etc. like an antenna. This may introduce hum or similar noise if you use a cable that is longer than 16 feet (5 m).

3.2 C411III L

The optional B23 L battery supply allows you to connect the pickup to balanced or unbalanced inputs with no phantom power.

3.2.1 Connecting to Balanced Inputs

C411^{III} L

Connecting to balanced inputs

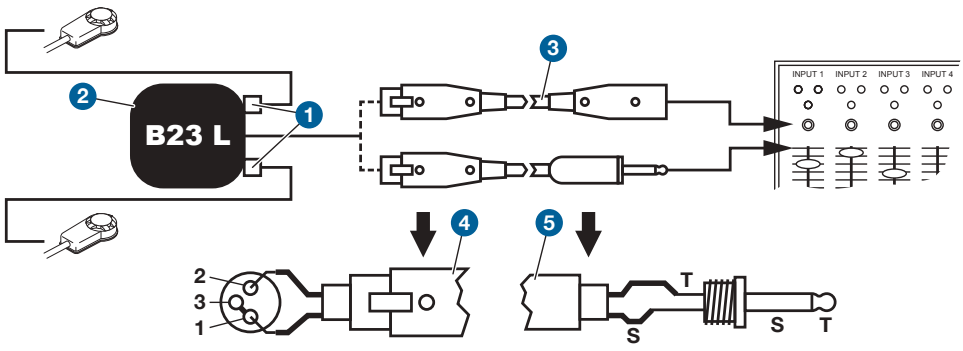


Figure 3: Using the B23 L to power the microphone

1) **Connecting the cable:** Push the mini XLR connector (1) on the pickup cable into one of the two mini XLR sockets on the B23 L (2) to the stop.
The connector will lock automatically.
Disconnecting the cable: To disconnect the cable, press the unlocking button on the mini XLR connector (1) and pull the connector (1) out of the socket.

To avoid damaging the cable, never try to pull out the cable itself!

2) Connect the B 23 L (2) to the desired input.

Use a commercial XLR cable (3) to connect the B23 L (2) to a balanced input.

3.2.2 Connecting to Unbalanced Inputs

C411^{III} L

Connecting to unbalanced inputs

Refer to section 3.1.2.

C411III L

3.2.3 Using the MPA V L

Using the MPA V L

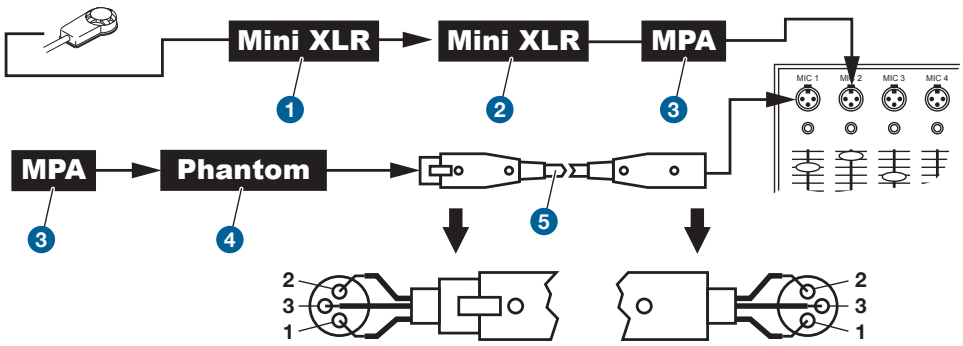


Figure 4: Connection diagram with MPA V L.

1) **Connecting the cable:**
Push the mini XLR connector (1) on the pickup cable into the mini XLR socket (2) on the cable of the MPA V L (3) to the stop.
The connector will lock automatically.
Disconnecting the cable: refer to section 3.2.1.

2) Connect the MPA V L (3) to a balanced XLR microphone input with phantom power.

3) Switch the phantom power on. (Refer to the instruction manual of the unit to which you connected your pickup.)

4) **If your mixer provides no phantom power:** Connect the MPA V L (3) to an optional AKG phantom power supply (4) and use an XLR cable (5) to connect the phantom power supply (4) to the desired balanced input.

Connecting to a Bodypack Transmitter

3.2.4 Connecting to a Bodypack Transmitter

Refer to the manual of your bodypack transmitter.

4 Use

4.1 Introduction

Introduction

Since a soundboard vibrates differently in different places, you can get different sounds by carefully selecting the spot where you mount the pickup.

Section 4.3 describes proven techniques that you may want to use as starting points for your own experiments.

4.2 Attaching the Pickup to the Instrument

If you are going to attach the pickup to a lacquered surface, check the condition of the lacquer coat first.

If the lacquer coat is porous or cracked, the adhesive compound will lose some of its tack and may damage the lacquer coat further when you remove the pickup.

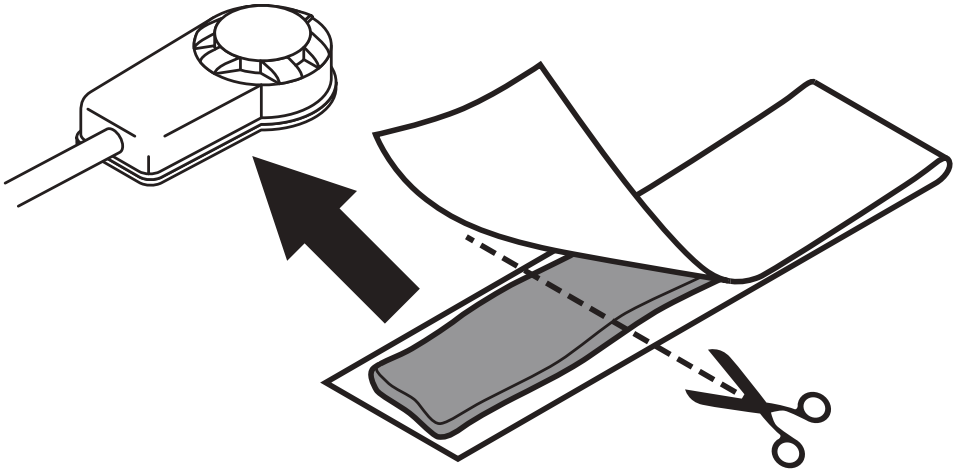


Figure 5: Pressing the adhesive compound on the underside of the pickup

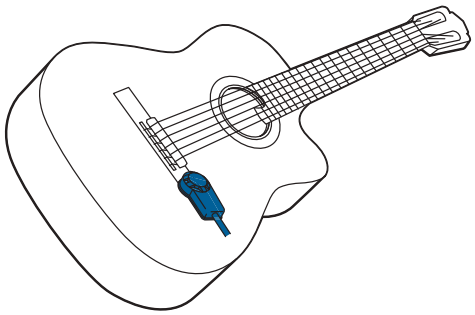
1) Remove the backing from the supplied adhesive compound.

2) Press some of the adhesive compound (just enough to cover the "footprint" of the pickup) on the underside of the pickup.

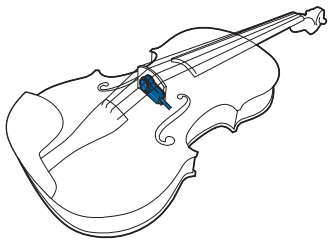
3) Press the pickup onto the bridge of your instrument or onto the soundboard, near the bridge.

4.3 Hints on Microphone Placement

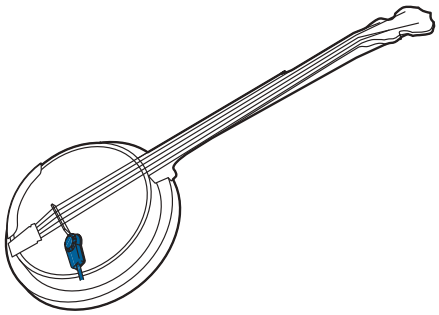
Guitar



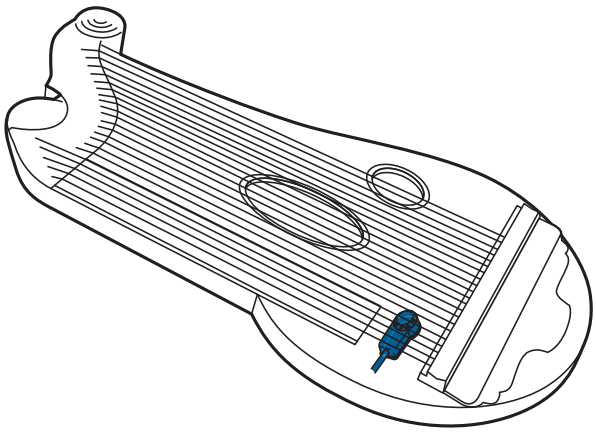
Violin



Banjo



Zither



5 Troubleshooting

Problem	Possible cause	Remedy
No sound	Power to mixer and/or amplifier is off.	Switch power to mixer or amplifier on.
	Channel or master fader on mixer or volume control on amplifier is at zero.	Set channel or master fader on mixer or volume control on amplifier to desired level.
	Pickup is not connected to mixer or amplifier.	Connect pickup to mixer or amplifier.
	Cable connectors are seated loosely.	Check cable connectors for secure seat.
	Cable is defective.	Check cable and replace if damaged.
	No supply voltage.	Switch phantom power on. Phantom power supply: connect to power outlet or insert battery (batteries). Check cable and replace if damaged.
Distortions	Gain control on the mixer set too high.	Turn gain control down CCW.
	Mixer input sensitivity too high.	Connect a 10 dB preattenuation pad between pickup cable and input.

6 Cleaning

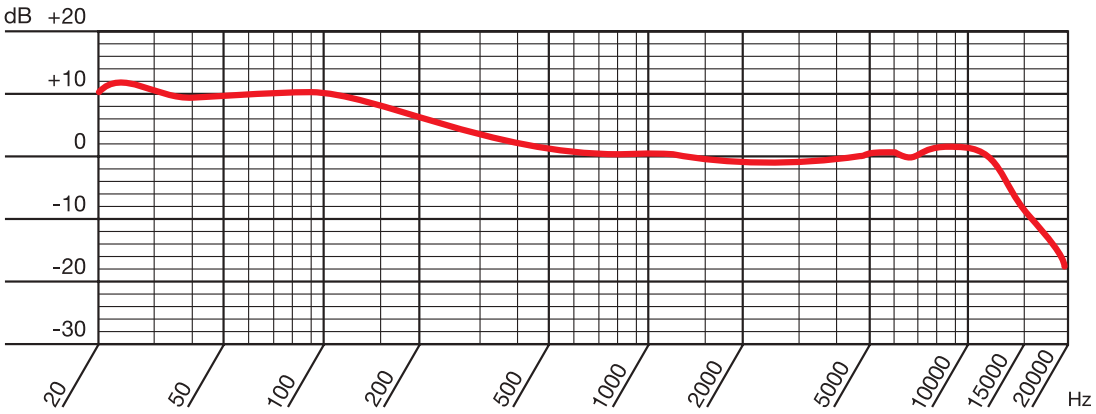
Use a soft cloth moistened with water to clean the surface of the microphone body.

7 Technical data

Type:	pre-polarized condenser transducer
Polar pattern:	Figure 8
Frequency range:	10 – 18,000 Hz
Sensitivity:	1 mV/ms-2 (vibration pickup)
Impedance at 1,000 Hz:	200 Ω, unbalanced
Recommended load impedance:	≥1,000 ohms
Max. SPL for 1%/3% THD:	96 dB / 103 dB
Powering:	C411^{III} PP: 9 to 52 V universal phantom power C411^{III} L: B 29 L battery power supply, MPA V L phantom adapter, AKG WMS bodypack transmitters
Current consumption:	approx. 2.2 mA
Cable length/Connector:	C411^{III} PP: 3 m (10 ft.) / 3-pin male XLR C411^{III} L: 1.5 m (5 ft.) / 3-pin mini XLR
Finish:	matte black
Dimensions:	27 x 14 x 9.5 mm (1 x 0.6 x 0.4 in.).
Net/shipping weight:	C411^{III} PP: 98 g (3.5 oz.) / 225 g (8 oz.) C411^{III} L: 18 g (0.6 oz.) / 150 g (5.3 oz.)

This product conforms to the standards listed in the Declaration of Conformity. You can request the Declaration of Conformity by e-mail from sales@akg.com.

Frequency responce C411^{III}



Polar Diagram C411^{III}