



CM-87

ORDERCODE D1365



SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from DAP Audio.

The DAP Audio Microphone range brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated show, this product provides the effect you need.

You can rely on DAP Audio, for more excellent audio products.

We design and manufacture professional audio equipment for the entertainment industry.

New products are being launched regularly. We work hard to keep you, our customer, satisfied.

You can get some of the best quality, best priced products on the market from DAP Audio.

So next time, turn to DAP Audio for more great audio equipment.

Always get the best -- with DAP Audio !

Thank you!



DAP Audio

DAP Audio CM-87 Product Guide

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WARNING

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- DAP CM-87
- Protection bag
- Shockmount
- User Manual

 **CAUTION!** 
Keep this system away from rain and moisture!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this system has to:

- be qualified
- follow the instructions of this manual

 **CAUTION! Be careful with your operations.** 
**With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**

Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the system.

- Never remove warning or informative labels from the unit.
- Large diaphragm microphones are fragile don't drop them, don't tap them, don't blow into them.
- Do not open the device and do not modify the device.
- Only use system indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Make sure you don't use the wrong kind of cables or defective cables.

- Make sure that the signals to the mixer are balanced, otherwise hum could be created.
- Don't put your equipment next to TV, radio, etc., because of interference or distortion.
- Please read this manual carefully and keep it for future reference. Remember that the device has a better value on the market, if you save the carton and all packing materials.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for service.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- Repairs, servicing and electric connection must be carried out by a qualified technician.

OPERATING DETERMINATIONS

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.

You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail offersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The DAP CM-87 is a large diaphragm condenser-microphone for recording purposes. But it can always be used for live sound amplification in not so rough situation like acoustic ensembles or orchestras.

- Heavy duty aircraft grade machined brass body with a durable, scratch resistant anodized finish
- Built in (switchable) 100Hz Low Cut filter
- Shockmount included
- Protection bag included

Overview



Fig. 1

1. Head
2. Body
3. Bottom
4. XLR male output
5. Omni - Figure 8 - Cardioid switch
6. Low cut (100Hz) switch
7. -10dB pad switch

The microphone

The CM-87 multi pattern wide diaphragm condenser microphone is one of the most versatile microphones available for your studio toolkit. The selectable polar patterns, a low cut (100Hz) switch and a -10dB pad switch on the body of the microphone ensure that the CM-87 can easily be applied in virtually any live or recording situation.

The CM-87 can be used for vocals, drum kit overhead, guitar or bass cabinets, saxophones, flutes, brass or woodwinds, acoustic guitars or acoustic bass where you need subtlety and clarity.

Due to its rugged construction and ability to handle high SPL levels, the CM-87 is an outstanding choice for live sound reinforcement or live recording applications.

Controls on the mic itself include a -10dB pad, allowing distortion free reproduction of extremely loud signals. A low cut switch allows you to reduce unnecessary low end "boominess" and low frequency interference. The included external shockmount suspension eliminates vibration and handling noise while at the same time securing the microphone in any position needed during the recording process.

Using different polar patterns

A Cardioid pattern is the standard setting for the most applications and will deliver the best results for vocals and a wide range of instruments. It offers full frequency response at the front side of the microphone and excellent noise rejection from the sides and the back or 180 degrees position of the microphone. The cardioid pattern also gives the most pronounced proximity effect or increased low frequency response when the microphone is placed close to the sound source.

The cardioid pattern is ideal for single instrument or solo vocal use. This pattern picks up only sound directly in front of the microphone, sound from the back and sides of the microphone is rejected.

Note: The cardioid pattern on the microphone housing indicates the "live side" or the front side of the microphone which should always face the source.

Vocalists can use the proximity effect to their advantage, adding fullness and more "bottom end" to their voice. Experienced vocalists can easily incorporate it as part of their overall microphone technique. Again experimentation with mic placement during the recording process is the key for good results. The omnidirectional polar pattern does not give you this effect.

An omni-directional pattern picks up sound equally from all around the microphone. The omnidirectional pattern will give the best results for recording ambient sounds, or when recording in an exceptionally good sounding live room where the character, ambience and tone of the studio needs to be recorded, as well as the sound of the source voice or instrument. It would also be the ideal choice for picking up the interaction with the audience during a live performance.

The bidirectional or figure of 8 pattern will pick sound from both the front and the back. This is ideal for recording a solo vocal or an instrument with limited proximity effect, better off-axis rejection while still picking up room ambience or natural reverberation from behind the microphone. It can also be used for duet vocals or recording harmony vocals with two vocalists.

Low cut filter

In virtual all recording or live sound applications, the low cut filter should be activated to reduce handling noise and low frequency rumble. It is a generally accepted practice using the Low cut filter for vocal or solo instrument recording.

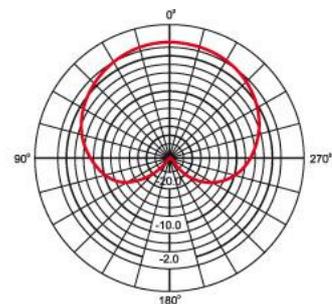
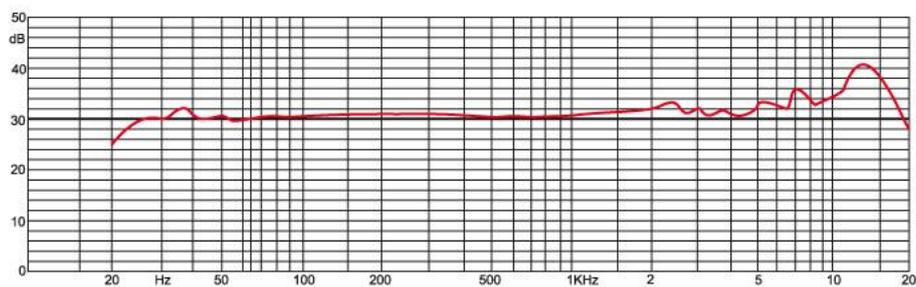
Set Up and Operation

It is always advisable to use a pop filter (not included) when recording vocals, not only to avoid overly accentuated 'S', 'P' and 'B' sounds, but also to protect the element from moisture (spit). It is always a good idea to store the microphone in its protection bag when not in use.

Connect the microphone to a mixer or recording device with a high quality XLR cable before turning on the phantom power. Make sure all volume and gain controls on your mixer, mic preamp or recording device are at their minimum settings when switching in the phantom power.

Once the CM-87 is plugged in and the phantom power is switched in, Move the channel fader gradually to the 0dB position adjust the input gain using your channel peak led or VU-meter.

Frequency and Polar Diagrams



Cardioid at 1kHz

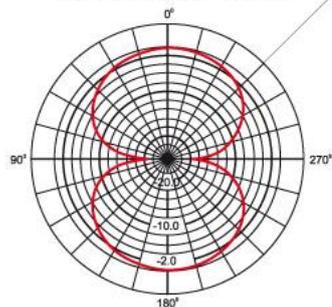
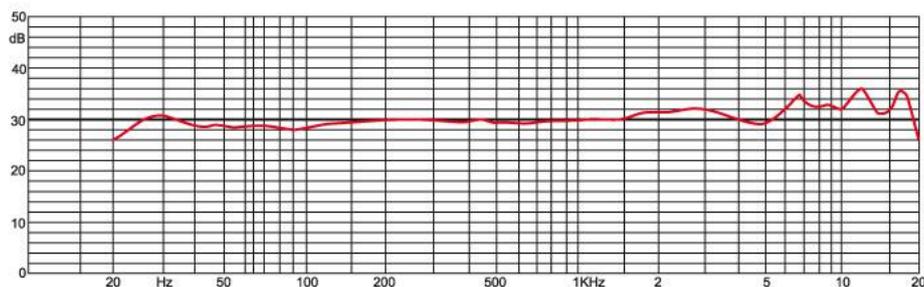
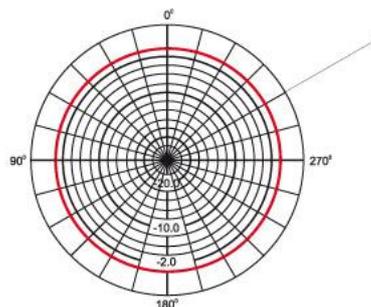
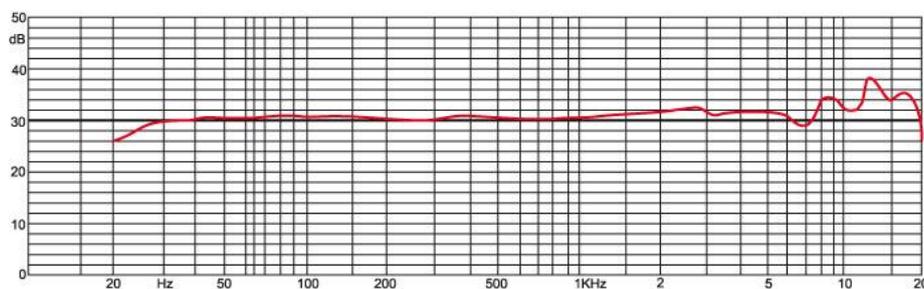


Figure-8 at 1kHz



Omni at 1kHz

Connection Cables

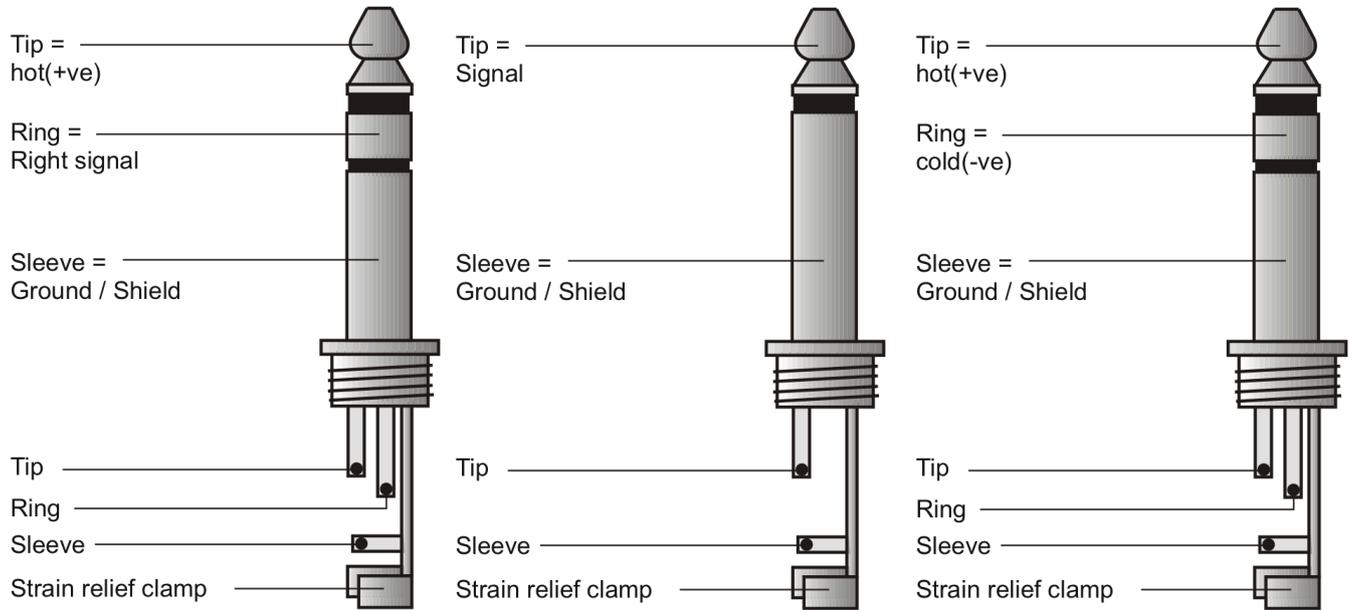
Take care of the connector cables, always holding them by the connectors and avoiding knots and twists when coiling them: This gives the advantage of increasing their life and reliability, which is always to your advantage.

Periodically check that your cables are in good condition, that they are correctly wired and that all their contacts are in good condition: a great number of problems (faulty contacts, ground hum, discharges, etc.) are caused entirely by using unsuitable or faulty cables.

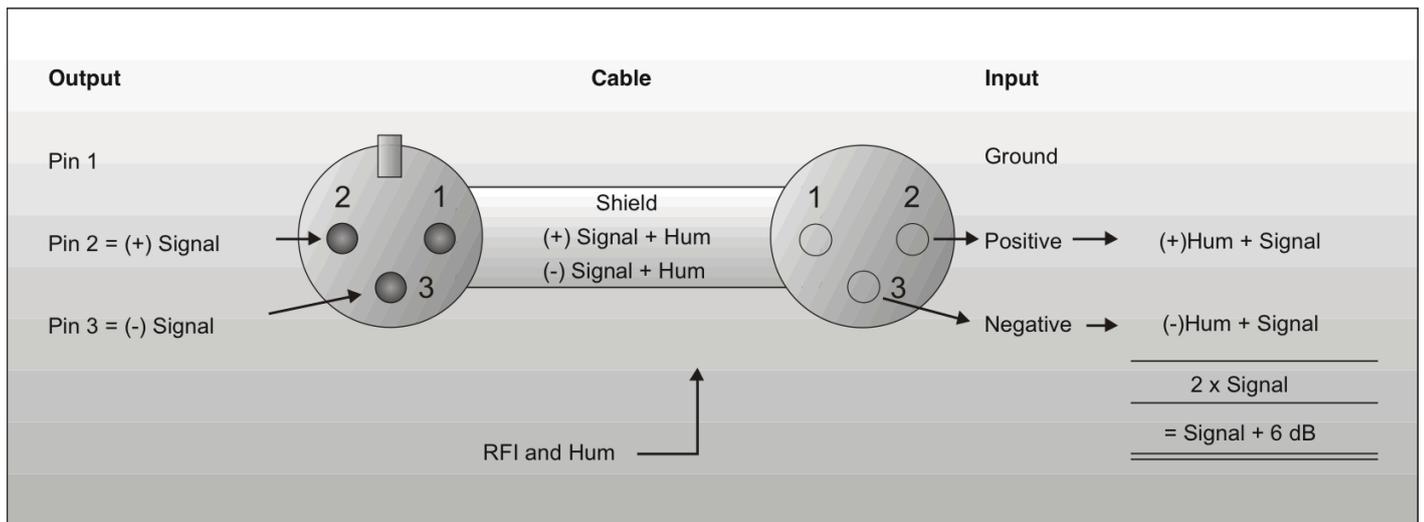
Headphones

Unbalanced mono 1/4" jack plug

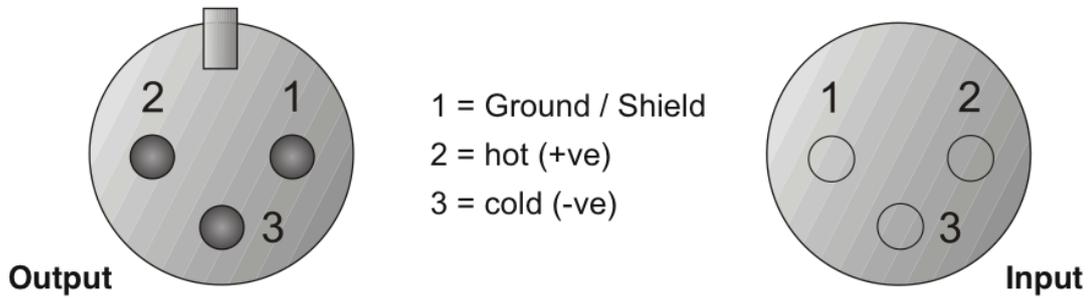
Balanced mono 1/4" jack plug



Compensation of interference with balanced connections



Balanced use with XLR connectors



For unbalanced use PIN 1 and PIN 3 have to be bridged

Maintenance

The DAP Audio CM-87 requires almost no maintenance. However, you should keep the unit clean. Disconnect the microphone and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents. Never immerse a microphone in water.

Product Specifications

Model:	DAP Audio CM-87
Type:	Wide Diaphragm Condenser Microphone
Frequency response:	20-20.000Hz (-3dB)
Polar pattern:	Cardioid/Omnidirectional/Figure of 8 (switchable)
Sensitivity:	8mV/Pa (-36dB)
Max. SPL:	130/140dB (switchable)
Impedance:	200Ω
Controls:	Low Cut, -10dB pad
Low Cut frequency:	100Hz
Power supply:	48V phantom power
Microphone connector:	3-pole XLR male
Dimensions microphone:	Ø51mm x 167mm
Weight :	0,480kg



Design and product specifications are subject to change without prior notice.



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