



DEVINE

DM 20 Dynamic microphone kit



User manual

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User manual version: 1.0 Creation date + author initials: 10-12-2015 RV Revision date + author initials: -

Introduction

Thank you for purchasing the Devine DM 20 dynamic microphone kit. This kit consists of a microphone, mounting clip and cable, and is designed for live vocal applications. The DM 20 kit can be connected directly to a mixing board, audio interface, powered speaker or similar device.

The DM 20 microphone is a dynamic microphone which does not require phantom power. Thanks to its super-cardioid, uni-directional polar pattern, it is suitable for live applications where feedback loops can often occur. The specific polar pattern of the DM 20 means that nearly all sound is captured from the front of the microphone. The sides and rear of this microphone are less sensitive (as shown in the polar pattern graph in the **Technical specifications** section of this user manual.)





This DM 20 microphone is an ideal vocal partner on stage, especially when using wedge floor monitors. To prevent feedback loops, floor monitors are best placed to the left and/or right of the vocalist due to this microphone's sensitivity and polar pattern. This is explained in more detail in the **Positioning the microphone** section in this user manual.

The sensitivity of this type of microphone is much lower than a condenser microphone, which is beneficial for preventing feedback loops. It is essential, however, that the vocalist (presenter, singer, etc.) uses proper microphone techniques. This user manual provides you with tips on how to make the most of this Devine microphone.

The DM 20 is equipped with an ON/OFF switch so the user can manually turn the microphone off when it is not in use. This is practical for MC's and hosts who keep the microphone with them at all times. By being able to mute the microphone directly, the settings on the mixer or speaker do not need to be continually adjusted.

The DM 20 is designed for use on the road thanks to its robust housing and sturdy grill, which protects its components from potential damage by impact or falls. The DM 20 is equipped with an integrated foam windshield behind the grill, which not only eliminates a lot of external noise, it also prevents moisture from getting into the internal electronics.

Before unpacking all the received items, carefully read this manual to familiarise yourself with the functions of this microphone. Also, check the contents of the box to make sure all the necessary parts are included (See the **Box contents** section of this user manual). If the microphone fails to operate properly, or if you encounter any problems while using it, disconnect it immediately and contact your local dealer for more information and help.

 	<p>WEEE: Dispose of this product properly. This product is part of the WEEE directive – the Waste Electrical and Electronic Equipment directive. The requirements stated in this directive apply to all manufacturers and producers of electronic equipment in the EU.</p> <p>Do not dispose of this product together with regular household rubbish. Contact your local government representative for more information about proper disposal and recycling of electronic products in your region. By recycling this product properly after use, we can work together to enjoy these products and protect our environment from pollution.</p>
	<p>CE: The CE mark indicates that the product complies with applicable European directives and regulations.</p>
	<p>Indoor use only: This device is designed to be used indoors only. The maximum ambient temperature should not exceed 40 degrees Celsius (104 degrees Fahrenheit)</p>

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Box contents

Box contents:

- 1x Devine DM 20 dynamic microphone
- 1x microphone clip with 5/8" thread
- 1x 3p XLR male – XLR female cable, +/- 5 metres long

Unit and accessory inspection

- If you do not plan to use the unit for an extended period of time, disconnect it and store it in a dust-free environment.
- Always check the unit for possible damage before use. If you suspect that something is wrong with the unit, do not connect it! If you suspect that this unit is broken or damaged, contact your local dealer or a certified technician to inspect the unit.



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Contact:

Devine pro audio and studio products
Verrijn Stuartweg 18
4462 GE Goes
The Netherlands

Please do not send any products directly to this address. If you wish to return a product for a refund or repair, please contact your local dealer for an RMA (Return Material Authorisation)

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Using the microphone

The Devine DM 20 dynamic microphone is suitable for live vocal applications. Thanks to the uni-directional polar pattern, most of the sound is captured from directly in front of the microphone and not from the rear or sides, which keeps feedback loops to a minimum.

IMPORTANT: Phantom power

This dynamic microphone can be connected to a mixing console or similar device which is capable of delivering +48V phantom power. Even though the DM 20 is a dynamic microphone, it does not require +48V phantom power to operate, but exposure to phantom power will not harm it in any way.

Connecting the cable

The Devine DM 20 comes with a microphone cable of approximately 3 metres long. It features a male and a female 3-pin XLR connection. One end of the cable fits into the DM 20 microphone connector and the other can be connected to a mixing console, for example.



The DM 20 microphone and included cable are equipped with a locking mechanism. When the cable is connected to the microphone, an audible 'click' can be heard. That means the cable has locked to the microphone connector and can not fall off. When you want to remove the cable from the microphone, press the locking tab on the connector and gently pull it loose.

The other end of the cable is compatible with most mixing boards that have 3-pin XLR connectors for microphone inputs. If this is not the case with your mixer, and your microphone input is a jack connector, for instance, you can use an XLR-to-jack adapter. You can also extend the cable with a separately available XLR male – XLR female cable.

Positioning the microphone

Please note that the Devine DM 20 is a dynamic microphone with a uni-directional polar pattern (super-cardioid) and is less sensitive than a condenser studio microphone. This can be beneficial during live performances when there is a variety of different sounds and volumes on stage. The lower sensitivity and the specific polar pattern of this microphone keep feedback loops to a minimum. Feedback loops are usually the result of microphones being placed too close to speakers. The sound the microphone picks up from the speakers is amplified and played back through these speakers, which is then captured by the microphone, and so forth. This infinite loop can only be eliminated by feedback destroyers or by simply positioning the microphone further away from the speakers.

During live applications, feedback loops often occur when wedge floor monitors are positioned without paying attention to the characteristics of the microphone being used. When using a cardioid microphone, for example, most of the sound is captured from directly in front of the microphone and some from the sides. It is therefore ideal to place a wedge monitor in front of the vocalist (on the floor), in a direct line from the microphone.

Because the DM 20 is a dynamic super-cardioid microphone, some sound is also captured from the rear of the microphone. Therefore, placing a wedge monitor directly in front of the microphone, facing the vocalist, is not recommended. Because the DM 20 doesn't pick up much audio from the sides, it would be better to place one or two wedge monitors slightly to the left and/or right, facing the vocalist.

Using the microphone clip

The DM 20 also comes with a practical microphone stand clip for placing the microphone on a stand. This clip is flexible and will hold the microphone firmly in place. Gently slide the microphone into the clip until the ON/OFF switch is level with the opening on the clip. Do not attempt to force the microphone any further into the clip, as this will not improve functionality and could cause the clip to break.

The microphone clip is equipped with 5/8" thread, which is compatible with most microphone stands. If your

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stand differs, you may need a 3/8" (inner thread) to 5/8" (outer thread) adapter. These are available at your local dealer.

Using the switch

The DM 20 is equipped with a practical ON/OFF switch and features a screw to adjust the switch tension. Usually, the switch tension setting is high, so it can not accidentally be turned off or on.

Protecting the microphone:

This Devine microphone is equipped with sensitive electronics which provide optimal audio performance. Make sure the microphone is not exposed to situations that may cause permanent damage as a result of severe impacts, collision, or falls from high altitudes. Improper use of the microphone is not covered by warranty. Always transport the microphone in the original packaging, or in a flight case with a fitted foam inlay.

Connecting the microphone to a mixer or audio interface:

This microphone uses a 3-pin XLR to connect to a mixer or audio-interface (cable included). It is recommended to check the following settings on your audio equipment before connecting the microphone:

Mixer/Audio interface:

- Gain is set to 0
- Compression/lo-cut set to 'Off' or neutral
- EQ set to neutral
- Pan/Balance set to neutral
- Volume fader or potentiometer set to the lowest possible position

Microphone:

- Make sure the microphone is stable and securely inserted into the included clip, or hand-held.
- Position the vocalist directly in front of the microphone as close as possible, and ensure proper microphone technique is used.

Set the volume parameter (potentiometer or fader) to '0 dB' for the best possible audio performance. Gradually increase the gain until slight clipping or distortion is audible (usually indicated with a (LED) VU meter or LED). Use your mixing console to apply EQing or other effects as desired.



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Troubleshooting

Problem	Possible Cause	Solution
No sound, or very low sound level	Volume set too low	Increase input volume and gain on your mixer, interface or other sound-processing device
	Microphone positioned too far away	Place the microphone closer to the sound source
	Switch is in OFF position	Switch back to ON position
Rattling and cracking sounds	Moisture inside the microphone	Allow the microphone dry in room temperature. Avoid use of the microphone in humid or moist environments. Do not let the microphone come in contact with water or liquids.
Loud high frequencies coming from the speakers	Microphone positioned too close to the speakers and is causing feedback	Move the microphone further away from the speakers, or change the position to prevent the microphone to be aimed directly at the speakers.
Microphone signal is interrupted or cut off	Loose or broken cable	Check if the cable is plugged into the microphone correctly. If that does not solve the problem, try replacing the cable.
Distortion and/or noise in the captured sound	Too much airflow caused by vocals	Use a pop filter or windshield (sold separately)



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Technical specifications

- dynamic vocal microphone
- polar pattern: uni-directional (super-cardioid)
- sturdy design
- ON/OFF switch
- 3-pin XLR connection
- robust protective grill with integrated foam windshield
- frequency response: 40 Hz – 16 kHz
- sensitivity: -52 dB +/- 3 dB (0 dB = 1 V/PA @ 1 kHz)
- output impedance: 600 ohms +/- 30% (@ 1 kHz)

Included accessories:

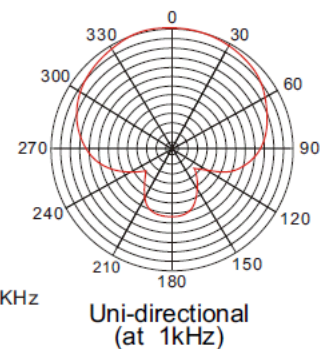
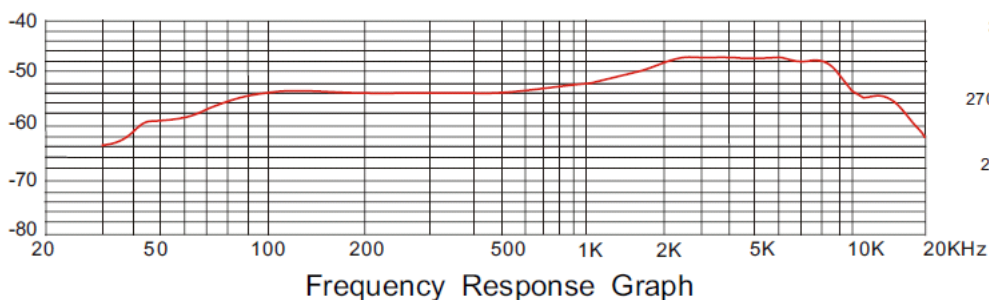
1x microphone clip with 5/8" thread

1x 3p XLR male – XLR female cable, +/- 5 metres long



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Frequency response and polar pattern graph:



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