

TASCAM TM-180 Studio Condenser Microphone/20Hz - 20000Hz

In recording, microphone plays an important role, that is, converting the pneumatic vibration that turns the sound into electric signals. Of course, a preamplifier that amplifies the microphone signals, an AD converter that converts the sound into digital signals, and the DAW software that shapes the sound. All these gears are important after the recording stage. However, these gears work with the sound which has already been converted by the microphone. This means, the quality of a microphone determine the sound quality of the entire song.

To easily acquire high-precision sound in a home recording environment, why not starting from adding a condenser microphone in your recording gears? The condenser microphone has a different structure from the dynamic microphone which can be easily seen everywhere. In general, the condenser mic has high-precision, subtle sound quality. Types of "large diaphragm" microphones, which have a large diaphragm that converts the sound to an electric signal, especially it has a unique tone that is suitable for lead vocal recordings.

TM-180 is the standard model in the TASCAM microphone series that have been tested with the TASCAM products, specialized in the bright sound quality. In addition to this, the product includes a professional-use suspension to avoid noise mixing due to the microphone vibration during recording.

Vocal Recording

The vocal recording can be a typical application for a large-diaphragm condenser microphone. The US-2x2 incorporates Ultra-HDDA microphone preamplifier which boasts a great EIN performance of -125dBu. This means you can record a vocal track by US-2x2 with an extremely low noise level even when you are not singing while solo part is playing. Please use TM-AG1 (optional) as a dedicated pop filter. When the room resonance does not work at home, use TM-AR1, the acoustic control filter that gives you a dry, processable sound quality.

Acoustic Guitar Recording

A large diaphragm condenser microphone is also suitable for an acoustic guitar. When recording an acoustic guitar, the multi-mic recording can be worked out very well. We recommend the setup with a TM-180 as the main mic, and TM-80s as backup mics for adding ambient sound. For the multi-mic recording, US-4x4 is recommended. It could connect with four condenser microphones simultaneously. Other than the acoustic guitar recording, when you want to add acoustic guitar to other recordings, the TM-AR1, TASCAM acoustic control filter is definitely essential when recording with the TM-180. It adds the classic dry sound to your recording.

Wind Instrument Recording

A large diaphragm condenser microphone works great with saxophone or trumpet solo recordings. The recommended setup is no different than the vocal recordings. If you wish to record with easy settings, we recommend the iXR, TASCAM portable audio interface and your iPad to start your recordings with the TM-180. In addition, iXR has the Ultra-HDDA microphone preamplifier with extreme low noise level which is equivalent to the US-2x2.

Easily gets a precise, high-definition sound quality from a condenser microphone

TM-180 is a condenser-type microphone, which is quite different from the dynamic microphone which usually being used in live performances. The diaphragm operates due to the pneumatic vibration. Inside of a dynamic microphone, the voice coil operates with the diaphragm, which increases the weight of the entire part. On the other hand, the condenser microphone incorporates a diaphragm in the either side of the electrode in an electrical part referred to as condenser, realizing a lightweight structure. This allows excellent follow-up performance, greatly contributing to high-precision sound. Thus the mechanism to convert into electrical signals is completely different between the two: the dynamic microphones are powered by electromagnetic induction to obtain electrical signals, whereas the condenser microphones take out the potential difference between the condenser electrodes as a signal. To give the condenser the electric potential difference, power supply is required.

A large-sized 34mm diaphragm contains suitable frequency response that highlights the lead part

Condenser microphones are largely divided into two categories according to the size of diaphragm: large diaphragm types, and small diaphragm types. While the small diaphragm types have flat frequency response and tolerance to high sound pressure, the large diaphragm types allows high sensitivity, low noise, and distinctive sounds. This is why the large diaphragm types are relatively popular for vocal recordings. TM-180 applies a large size, 34mm pure gold-coated diaphragm, and it is often characterized by its bright sounds. The frequency response of TM-180 shows a distinct curve at 1kHz or higher, and have a loose peak especially around 9kHz. By these characteristics, TM-180 acquires a clear outline in the recording of lead instruments as vocal or sax, for a strong, standout sound.

Ideal for a recording of single sound source, with unidirectional characteristics to catch the target sound

The polar pattern shows the characteristics in which the microphone can pick up the sound in a specific direction (directivity). TM-180 has a unidirectional pattern (cardioid). The unidirectional condenser microphone is ideal for recording vocal and any single sound source because it mainly picks up the sound from the specified direction.

-10dB switch and a low cut filter switch, that smooths out the harshness from instruments

Low cut filter switch that enables to eliminate the background noise or any low frequencies on some particular instruments that you want to get rid of. For recordings like percussions or other instruments with high sound pressure, by turning the equipped-10dB switch on, it prevents sound distortion from an instrument that has high sound pressure during the recording.

Comes with a suspension shockmount, a soft mic case, and a hard case

A suspension shockmount is included. A noise due to vibration during recording can be avoided as well. In addition, a soft mic case and a hard case is included that prevents damage while carrying.

Operation and sound quality verified with TASCAM products

The microphone has been tested with the TASCAM audio interfaces as well as PORTASTUDIO for their functionality and sound quality. The audio samples of TM-180 with a few TASCAM products are available on our web page. Of course, the microphones can be used with any acoustic equipment that complies with a condenser microphone.

Features

- Condenser-type microphone
- Cardioid (Unidirectional)
- 34-mm aluminum diaphragm
- Operating with the phantom power of 48V
- Includes a suspension shockmount