TELEFUNKEN
Elektroakustik

Dynamic Series

Microphone Product Manual

M80 • M81 • M82

Series Overview

Designed and assembled in TELEFUNKEN's American facility, the Dynamic Series microphone models are modern staples in live sound reinforcement and studio recording. Their unmatched sonic performance is mated with intelligent internal construction to provide low handling noise and trustworthy durability.

Each model has its own specific strengths to not only meet the various demands of live sound and studio recording, but also complement the other microphone models in the Series; whether it's the M80's condenser-like extended high end, the M81's flat frequency response and exceptional midrange, or the M82's superb low frequency capabilities. These tailored attributes allow for a cohesive sound in multi-microphone applications, such as drum sets, vocal groups, and horn sections.

The M80 and M81 are available in handheld, low-profile, and wireless configurations, as well as in a variety of color and finish combinations through our Custom Shop. The M82, a large diaphragm dynamic with on-board equalizer switches, excels in both music and broadcast voice applications. All three models are featured in the TELEFUNKEN Drum Packs.

Included Accessories

	M80 M81	M80-SH M81-SH	M80-WH M81-WH	M82	M82 Podcast
M 780 Microphone Clip	X				
M 782 Stand Mount				X	X
M 784 Metal Drum Mount		X			
M 785 Plastic Drum Mount		X			
M 788 Podcast Arm					X
SGMC-5R XLR Cable		X		X	X
ZB80 Zipper Bag	X				
ZB82 Zipper Bag		X		X	X

Additional accessories are available for purchase through the TELEFUNKEN Elektroakustik webstore:
www.t-funk.com/shop

M80

Over the last decade the M80 has become a staple in live sound reinforcement and studio recording. Its wide frequency response, condenser-like performance, and high SPL capabilities allow the M80 to capture the full range of any sound source, making it a reliable first choice for many sources including lead vocals and snare drum. Featuring a custom-wound impedance matching transformer, its unmatched performance is mated with intelligent internal construction to provide low handling noise. Hand-assembled in the USA, the M80's rugged build quality is designed to withstand the wear and tear of the road.

Technical Specifications

Polar Pattern	Supercardioid
Frequency Range	50 Hz – 18 kHz, ± 3dB
Capsule	25 mm, Dynamic Moving Coil
Transformer	T80
Sensitivity	1.54 mV/Pa
Output Impedance	325 Ω
Maximum SPL (for 1% THD)	135 dB
Dimensions	184 mm x 48 mm
Weight	430 g



M81

The M81 is a proven choice for countless sound sources both in the studio and on the stage. It possesses the same condenser-like response, minimal proximity effect, and superior feedback rejection one expects from a TELEFUNKEN Dynamic Series microphone. A smooth frequency response, clarity, and wealth of body make the M81 an ideal tool for taming brighter vocals, guitar tones, and fattening up toms, horns, or other thinner sounding sources. Built around a low-mass diaphragm designed to reduce proximity effect and a custom-wound impedance matching transformer, the M81 features intelligent design and American-assembled construction, making it is an excellent first choice dynamic for most situations.

Technical Specifications

Polar Pattern	Supercardioid
Frequency Range	50 Hz – 18 kHz, ± 3dB
Capsule	25 mm, Dynamic Moving Coil
Transformer	T80
Sensitivity	1.54 mV/Pa
Output Impedance	325 Ω
Maximum SPL (for 1% THD)	135 dB
Dimensions	184 mm x 48 mm
Weight	430 g

Low Profile (-SH)

The smaller footprint of the M80-SH & M81-SH make them ideal for tight fit applications including drums and guitar amps on stage, as well as vocal positions for drummers and keyboard players, where a full size microphone may be too obstructive. Both models are sonically identical to their handheld versions. Both the M80-SH & M81-SH come with drum mounts and a TELEFUNKEN right angle XLR cable.

Technical Specifications

Polar Pattern	Supercardioid
Frequency Range	50 Hz – 18 kHz, ± 3dB
Capsule	25 mm, Dynamic Moving Coil
Transformer	T80
Sensitivity	1.54 mV/Pa
Output Impedance	325 Ω
Maximum SPL (for 1% THD)	135 dB
Dimensions	125 mm x 48 mm
Weight	340 g



M80-SH M80-WH

Wireless (-WH)

M80-WH & M81-WH wireless capsule heads are designed to deliver the same character and high SPL handling as their handheld versions, whether it's the M80's natural, condenser-like response with a subtle high frequency rise, or the M81's smooth frequency response and exceptional midrange articulation. They are compatible with the following industry standard wireless transmitters: **Shure®** - Axient, UHF-R, QLXD, ULXD, ULX, PG, PGX, SLX, SLXD & UR2. **Lectrosonics®** - HH & HHa. **Sony®** - UTX-M03.

Technical Specifications

Polar Pattern	Supercardioid
Frequency Range	50 Hz – 18 kHz, ± 3dB
Capsule	25 mm, Dynamic Moving Coil
Transformer	T80
Sensitivity	1.54 mV/Pa
Output Impedance	325 Ω
Maximum SPL (for 1% THD)	135 dB
Dimensions	95 mm x 48 mm
Weight	162 g

M82

The M82 is a robust, end-address microphone that features a large dynamic diaphragm with superb low frequency capabilities. Though it was designed to capture fat and punchy kick drum tones, the two on-board EQ switches make the M82 equally suited for a multitude of sources including vocals, percussion, guitar and bass amplifiers, organ, and brass instruments. Both the KICK EQ and HIGH BOOST switches function independently and give the user the ability to tailor the microphone's response to the source with ease. The M82 is hand-assembled and tested in our American facility.

Technical Specifications

Polar Pattern	Cardioid
Frequency Range	25 Hz – 18 kHz, ± 3 dB
Kick EQ	-6 dB at 350 Hz
High Boost	+6 dB at 6 kHz to 10 kHz
Capsule	32 mm, Dynamic Moving Coil
Sensitivity	1.85 mV/Pa
Output Impedance	250 Ω
Maximum SPL (for 1% THD)	146 dB
Dimensions	155 mm L x 63 mm Dia
Weight	434 g

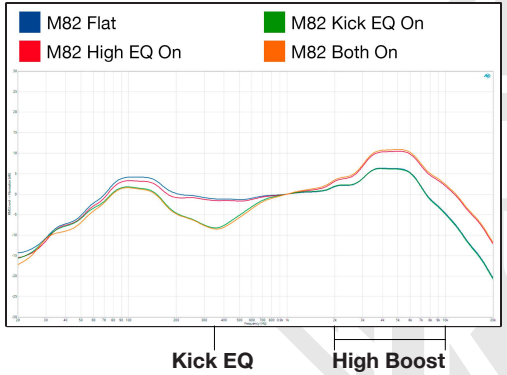


M82 EQ Switch Function

The M82 is designed with a built-in switchable two band equalizer. This gives the user four distinct EQ curves to select the ideal response for the sound source.

KICK EQ is a low midrange notch filter that provides a 6 dB bandcut at 350 Hz, which removes the boxy character of the kick drum and adds definition. Though this was designed for kick drum, this EQ also caters to bass amps or any source in need of clearing up the low midrange.

HIGH BOOST is a high frequency boost. This engages a slow rising shelf on the frequency response starting around 2 kHz and opens up the capsule's top end 6 dB at 10 kHz. This is great for added high-end presence on your source.



Recommended EQ Settings

Setting 1: KICK EQ – OFF, HIGH BOOST – OFF
Vocals
Clean electric guitar
Brass & woodwind

Setting 2: KICK EQ – OFF, HIGH BOOST – ON
Broadcast voice
Distorted guitar amps
Mallet-based percussion

Setting 3: KICK EQ – ON, HIGH BOOST – OFF
Vintage kick drum sound
Bass cab
Organ Leslie cabinet bottom

Setting 4: KICK EQ – ON, HIGH BOOST – ON
Modern kick drum sound
Floor and rack toms
Kick drum with resonant head

Custom Shop Configurator

By using the Custom Shop Configurator found on our webstore, you can choose from an assortment of solid color, wood, and metal finishes to find the perfect headgrille and body combination to fit your unique style. Only M80, M81, M80-WH, M81-WH are available for customization. Create your own custom dynamic microphone at **www.t-funk.com/our-shop/custom-shop-configurator**.



Drum Packs

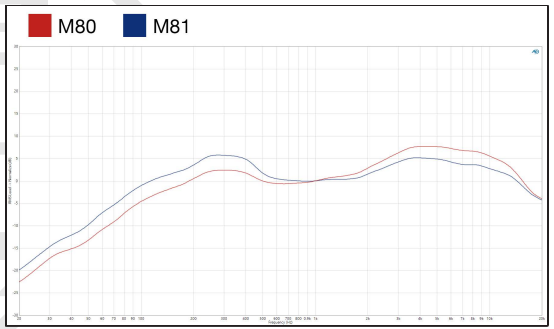
TELEFUNKEN Elektroakustik Drum Packs include everything you need to take your drum recording and live sound reinforcement to the next level. All four packs include drum mounts and a 5-meter XLR cable with a right-angle connector for each microphone, all loaded in a road-ready hardshell case. Every set includes an M82 for kick, M80-SH for snare, and M81-SH's for toms. The DC6 and DC7 also include a matched pair of M60 FET condenser microphones for overheads. For more information on the M60 FET, visit **www.t-funk.com**.


DC7

	DD4	DD5	DC6	DC7
M80-SH Microphone	X	X	X	X
M81-SH Microphone	2X	3X	2X	3X
M82 Microphone	X	X	X	X
M60 FET Cardioid Microphone			2X	2X
M 761 Elastic Mount			2X	2X
M 782 Stand Mount	X	X	X	X
M 784 Metal Drum Mount	3X	4X	3X	4X
M 785 Plastic Drum Mount	3X	4X	3X	4X
SGMC-5R XLR Cable	4X	5X	6X	7X
HC85 Hard Shell Case	X	X		
HC87 Hard Shell Case			X	X

Dynamic Frequency Comparison

The M80 and M81 are both designed around the same diaphragm and output transformer but each have been tailored to have specific sonic attributes. The M80 features a pronounced, extended high frequency response and the M81 features a much more neutral, flatter response with increased midrange clarity. There are plenty of applications where either model would be sufficient, but their individual strengths lend them to capturing certain specific sources. Some recommendations are listed below:



Recommended Applications

M80

- Vocals
- Snare
- Percussion
- Clean Guitar Amps

M81

- Toms
- Distorted Guitar Amps
- Female Vocals
- Brass

XLR Connector Set Screw Repair and Replacement

The M80, M81, and M82 current production units feature a recessed set screw in the XLR connector that holds the connector in place inside the mic body. If the XLR connector becomes loose or has fallen out of position, it can be reset easily.

(1.) If the connector has pulled out of the bottom of the microphone, confirm the wiring has not been damaged. There should be two wires from the microphone connected to the XLR connector. If either wire is disconnected or damaged, contact **repairs@t-funk.com**.
(2.) Slide the XLR connector into the bottom opening and position it so the set screw lines up with the thru hole on the mic body.
(3.) Using a small flathead screwdriver, turn the screw **counterclockwise** so the set screw head moves upward into the mic body thru hole.
(4.) Make sure to fully tighten. The XLR connector should now be secured in place.











For more information follow the **QR** code.

Warranty

TELEFUNKEN Elektroakustik warrants that any capsules used in their microphones are free from defects in material and workmanship for the period of ninety (90) days from the original date of purchase, and agree to replace any capsule which, under normal installation and use, disclose such defect. This is provided that the complete microphone is delivered to TELEFUNKEN Elektroakustik intact for examination and provided that such examination discloses, in the judgment of TELEFUNKEN Elektroakustik, that the capsule is indeed defective. Upon replacement, TELEFUNKEN Elektroakustik will provide an additional 90-day limited warranty on the new capsule.

This warranty does not extend to any capsule which appears to have been misused, altered, neglected, damaged, or stored in any manner that adversely affects it, or used in violation of instructions furnished by us. This limited warranty shall be void and of no further force or effect whatsoever if the microphone is repaired or modified by any person other than an authorized representative of TELEFUNKEN Elektroakustik. This warranty shall not apply to any defect, failure, or damage caused in whole or in part from attempts by personnel other than TELEFUNKEN Elektroakustik's to open, repair, or service the microphone; nor to damage to a unit which has been modified by persons other than TELEFUNKEN Elektroakustik personnel.

In compliance with the following requirements:
EMC Directive: 2014/30/EU (EN 55013 applied)
RoHS2 Directive: 2011/65/EU

CE RoHS

Product Registration

All TELEFUNKEN Elektroakustik customers are encouraged to register recently purchased NEW or USED products. All warranties on Dynamic Series products are fully transferable between owners for the length specified for each series starting from the date the microphone was purchased as new.

Microphones come with a 90-day warranty for capsule and tube. A one-year warranty covers parts and labor on the amplifier as well as the power supply. Upon registering your new products, the warranty will be increased to one year parts and labor for the capsule and tube, and four years for the amplifier and power supply.

To register your warranty, please head to **www.t-funk.com/warranty** to fill out the Product & Warranty Registration form.

Repairs & Service

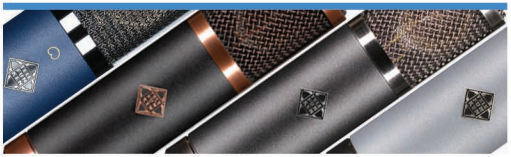
Repairs on new TELEFUNKEN Elektroakustik microphones are covered under a limited warranty plan and repair costs will be determined based upon the date of purchase and the date in which the warranty was registered. Repairs & Service covered under the warranty plan are done at no charge for labor, parts and service.

Please visit **www.t-funk.com/repairs** for more information on repairing your TELEFUNKEN microphone.

Diamond Series



Alchemy Series



Small Diaphragm Condensers



Direct Boxes



Tubes, Accessories, Merch & More!



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