

## Compact Hypercardioid Moving Coil Microphone

### FEATURES

- Rear cancelling hypercardioid polar pattern
- Compact design
- Precisely tailored frequency response
- Extremely rugged construction

### DESCRIPTION

The M 420 is a dynamic moving coil microphone specially designed to reproduce the frequencies produced by rack toms and deep-shelled snare drums. Its small diaphragm exhibits extremely fast transient response, capturing the initial attack of the drum. Its compact size affords a wide range of posi-

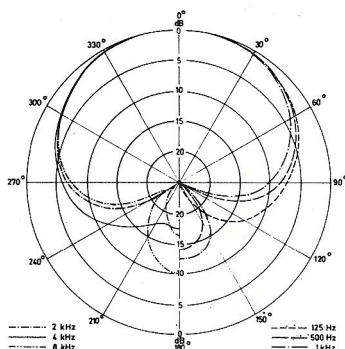
tioning options. The rear-cancelling hypercardioid polar pattern enhances isolation of individual drums, and the precisely tailored low frequency attenuation rejects interference from bass drums and floor toms. The solid brass casing is constructed to withstand the physical abuse a drum set endures.

### APPLICATIONS

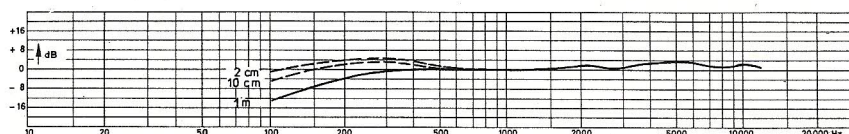
The frequency response, polar pattern and transient response of the M 420 enable it to reproduce rack mounted toms with unparalleled accuracy. It is also highly effective with deep-shelled snares, hi hats and cymbals. The sonic accuracy of the M 420 makes it an excellent choice for drum sampling.



### POLAR PATTERN



### Frequency response curve ( $\pm 3$ dB)



This polar pattern and frequency response correspond to typical machine run specifications from a standard M 420.

### SPECIFICATIONS

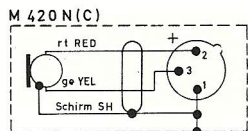
Transducer type:	Small diaphragm moving coil
Operating principle:	Pressure gradient
Frequency response:	100 – 12,000 Hz
Polar pattern:	Hypercardioid
Side attenuation at 135°:	> 20 dB
Open circuit voltage at 1 kHz:	1.2 mV/Pa
Output level:	-57 dBm (0 dBm $\triangleq$ 1 mW/Pa)

EIA sensitivity rating:	-150 dBm (0 dBm $\triangleq$ 1 mW/2·10 <sup>-5</sup> Pa)
Nominal output impedance:	200 ohms
Load impedance:	$\geq$ 500 ohms
Diaphragm:	Makrofol™
Case:	Brass
Case finish:	Matte black
Male connector:	Neutrik 3 pin
Net weight:	148 grams (5.2 oz.)

### FURNISHED ACCESSORIES

Mic clip, gig bag.

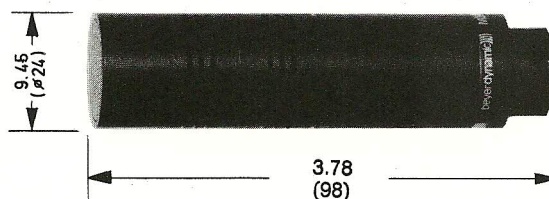
### WIRING DIAGRAM M 420



Positive pressure produces positive voltage on red cable lead (+)

### DIMENSIONS

In inches (millimeters in brackets)



Subject to change without notice



## Super Cardioid Moving Coil Microphone

### FEATURES

- Small diaphragm for accurate transient response
- Frequency response optimized for snares, hi hats and cymbals
- Durable solid aluminum construction
- Super cardioid polar pattern for enhanced isolation

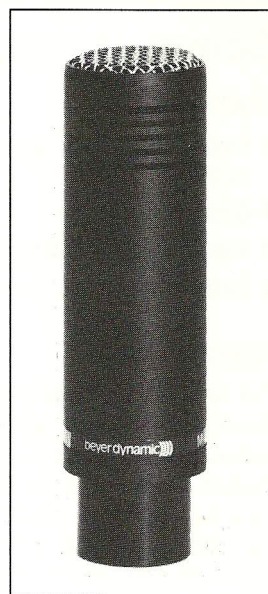
### DESCRIPTION

The M 422 is optimized for use with snare drums, hi hats and cymbals. The small diaphragm responds instantaneously to transients, accurately capturing percussive attacks. Its super cardioid polar pattern and precisely tailored low frequency roll off enhance

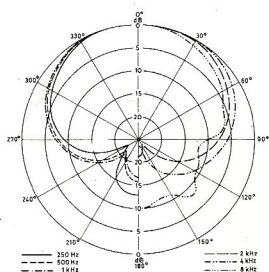
the isolation of individual drums while reducing interference from the bass drum and floor toms. The small size of the M 422 allows it to be placed anywhere around the drum without hampering the drummer's freedom of movement. Its solid aluminum case handles the physical abuse a drum set must endure.

### APPLICATIONS

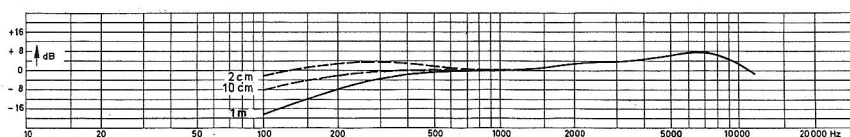
The frequency response, polar pattern and transient response of the M 422 are ideal for reproduction of snare drums and hi hats. It is also effective when used as an overhead mic on cymbals. The M 422's accurate reproduction gives excellent results in drum sampling situations.



### POLAR PATTERN



Frequency response curve ( $\pm 3$  dB)



This polar pattern and frequency response correspond to typical machine run specifications from a standard M 422.

### SPECIFICATIONS

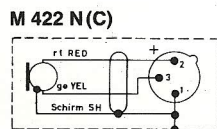
Transducer type:	Small diaphragm moving coil
Operating principle:	Pressure gradient
Frequency response:	100 – 12,000 Hz
Polar pattern:	Supercardioid
Side attenuation at 135°:	> 20 dB
Open circuit voltage at 1 kHz:	1.0 mV/Pa
Output level:	-59 dBm (0 dBm $\triangleq$ 1 mW/Pa)

EIA sensitivity rating:	-152 dBm (0 dBm $\triangleq$ 1 mW/2·10 <sup>-5</sup> Pa)
Nominal output impedance:	200 ohms
Load impedance:	$\geq$ 500 ohms
Diaphragm:	Makrofol™
Case:	Aluminium
Case finish:	Matte black anodized
Male connector:	Neutrik 3 pin
Net weight:	approx. 70 grams (2.5 oz.)

### FURNISHED ACCESSORIES

Mic clip, gig bag.

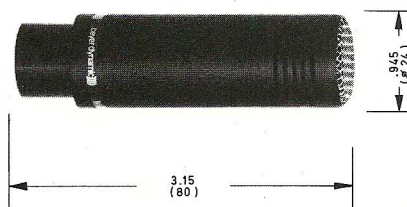
### WIRING DIAGRAM M 422



Positive pressure produces positive voltage on red cable lead (+)

### DIMENSIONS

In inches (millimeters in brackets)



Subject to change without notice

beyerdynamic, Inc.  
5-05 Burns Avenue, Hicksville, NY 11801, USA  
Tel.: (516) 935-8000, Fax (516) 935-8018

beyerdynamic (GB) Ltd.  
Cliffe Industrial Estate, Lewes, Sussex BN8 6JL, England  
Tel.: (273) 47 94 11, Fax (273) 47 18 25