

FOSTEX

accessories

# MICROPHONES

## LABORATORY SERIES



Microphone technology moves one step ahead with the introduction of the RP Laboratory Series from Fostex, a series based on a flat-coil element design that has taken more than six years to develop and engineer.

### REGULAR PHASE

"Regular-Phase", or RP, is a surface driving system which actuates the whole surface of a diaphragm with the same phase, in true piston motion.

The Fostex RP system is so advanced that it is protected by fifteen patents pending. The system combines the merits of both electrostatic and dynamic type transducers to provide a family of microphones that exhibit extremely low distortion, excellent transient response and wide dynamic range while remaining durable and rugged.

### A CLOSER LOOK

Utilizing integrated circuit manufacturing techniques, a very fine aluminum ribbon-wire coil is etched directly onto the surface of an extremely thin polyester film diaphragm. This diaphragm is suspended in a very powerful magnetic field, formed of pairs of magnets with identical poles opposed. These methods result in dependability and stability never before found in microphones. Rare-earth, samarium-cobalt magnets are used to provide a magnetic strength ten times more powerful than that of Alnico. This, combined with the fact that the diaphragm/coil assembly is 80% lighter than a typical dynamic element, provides very high sensitivity, comparable to the best condenser microphones.

The unique suspension system and planar diaphragm exhibit an extremely low distortion, even at very high sound pressure levels. Simplicity of design and impeccable construction techniques produce a family of microphones that are practically indestructible, and require no maintenance or power supply.

### M88RP/M80RP

After several years of experimental field testing, the M88RP and M80RP have emerged as a new standard. Featuring a bi-directional pickup pattern, these microphones present the full advantage of the RP system.

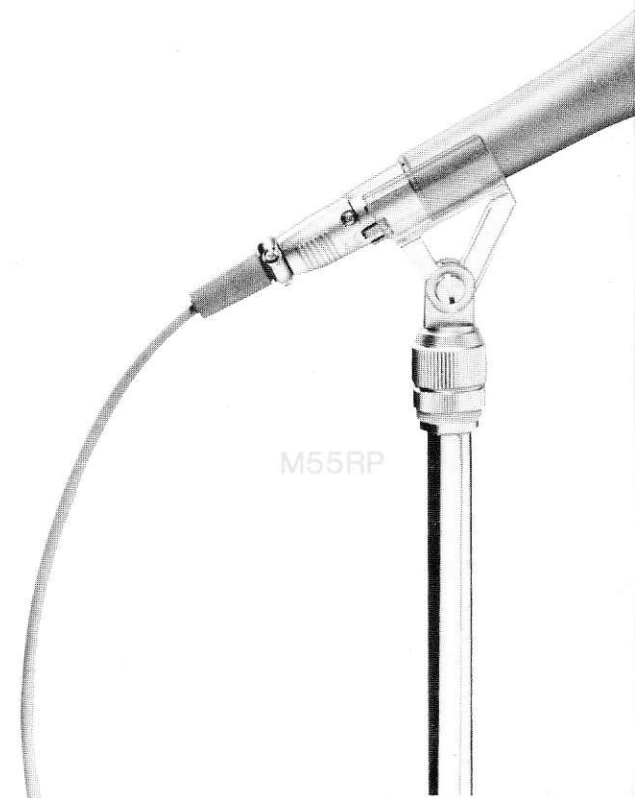
Basically identical otherwise, the M88RP differs from the M80RP by the inclusion of a switchable low-frequency rolloff filter.

Compared to microphones of comparable performance, these units are much smaller and lighter and may be used on small stands and booms with ease.

Both microphones are unsurpassed for critical applications in broadcasting and recording, with unrivalled sensitivity and transparency.

### M85RP

A special application of the RP system, and unique unto itself, the M85RP is designed as a noise-cancelling microphone. It is sensitive to sounds arriving on-axis, which strike only the front of the diaphragm, but rejects all others. The response, measured one inch in front of the microphone is very flat but exhibits severe attenuation and low-frequency rolloff which increases relative to the distance from the front of the microphone



M55RP

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These characteristics make the M85RP ideal for use in high ambient sound fields, such as live reinforcement vocal pickup, where there are very high monitor and background levels, or to obtain "iso-booth" quality on an instrument or vocal track in live recording.

#### M55RP/M77RP

Featuring a cardioid pickup pattern, both microphones utilize rugged, shock-mounted construction. The M55RP is specially engineered for handheld use and features extremely low handling noise. The M77RP exhibits exceptional wide-bandwidth performance. A multi-position switch provides fine adjustment over frequency response characteristics. These uni-directional microphones bring the cost/performance ratio benefits of the RP system to demanding applications, including sound reinforcement.

#### P303 ISOMOUNT

As a matching accessory for the RP Laboratory Series Microphones, the P303 Isomount features a quick-disconnect, single button lock. The integral XLR connector is prewired with high quality cable. Like all RP Series units, the isomount is finished in no-glare studio grey.

#### SPECIFICATIONS

As with most electro-acoustic devices, the performance parameters of the RP Laboratory Series have been measured under anechoic circumstances, but these measurements have been included for comparison purposes only. The final judge of the performance is the user. Judge them for yourself!



SPECIFICATION	M85RP	M88RP	M80RP	M77RP	M55RP
Impedance:	600Ω	600Ω	600Ω	250Ω	250Ω
Sensitivity					
JIS <sup>1</sup> :	-76dB	-72dB	-72dB	-76dB	-76dB
Power Rating <sup>2</sup> :	-60dB	-56dB	-56dB	-56dB	-56dB
EIA (Gm) <sup>3</sup> :	-154dB	-150dB	-150dB	-148dB	-148dB
Frequency Response:	50Hz-12kHz	40Hz-18kHz	50Hz-18kHz	40Hz-18kHz	70Hz-18kHz
Pattern:	Noise Canc	Figure 8	Figure 8	Cardioid	Cardioid
Wind Noise <sup>4</sup> :	44dB	44dB	44dB	44dB	44dB
Induction Noise <sup>5</sup> :	-2dB	-2dB	-2dB	-2dB	-2dB
Response Switch:		0 dB 100 Hz -3 dB 100 Hz -3 dB 200 Hz		0 dB 100 Hz -3 dB 100 Hz 0 dB 6 kHz + 4 dB 6 kHz	
Weight:	280g	330g	270g	360g	250g
Dimensions:	52x163	53x137	53x137	45x171	50x168

<sup>1</sup> 0dB=1V/μbar

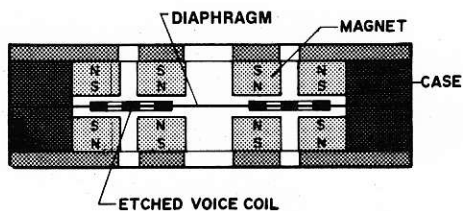
<sup>2</sup> 0dB=1mW/10μbar

<sup>3</sup> 0dB=1mW/.0002μbar

<sup>4</sup> Equivalent SPL with 2m/s wind speed

<sup>5</sup> Sensitivity loss in 50Hz 1MGauss field

RP ELEMENT CUT-AWAY



DISTORTION CHARACTERISTIC

