

Empire's Blueprint for Better Listening...

No matter what system you own, a new Empire phono cartridge is certain to improve its performance. The advantages of Empire are threefold. One, your records will last longer. Unlike other magnetic cartridges, Empire's moving iron design allows our diamond stylus to float free of its magnets and insures longer record life. Two, you get better separation. This imposes much less weight on the record surface and insures longer record life. So, even the most minute movement is accurately reproduced to give you the space and depth of the original recording.

Three, Empire uses 4 poles, 4 coils, and 3 magnets (more than any other cartridge) for better balance and hum rejection. The end result is great listening. Audition one for yourself or write for our free brochure, "How To Get The Most Out Of Your Records." After you compare our performance specifications we think you'll agree that, for the money, you can't do better than Empire. Empire Scientific Corp., Garden City, New York 11530



EMPIRE
Already your system sounds better.

MODEL	4000 D/III	4000 D/I	2000 E/III	2000 E/II	2000 E/I	2000 E	2000 E	2000 E	2000 E
FREQUENCY RESPONSE	10Hz-50kHz ± 3 dB	15Hz-45kHz ± 3 dB	20Hz-20kHz ± 2 dB	20Hz-20kHz ± 1% dB	20Hz-20kHz ± 2 dB	20Hz-20kHz ± 2 dB	20Hz-20kHz ± 3 dB	20Hz-20kHz ± 3 dB	20Hz-20kHz ± 3 dB
TRACKING FORCE RANGE	1/2-1 1/2 gm	1-1 1/2 gm	1/2-1 gm	1/2-1 gm	1/2-1 gm	1/2-1 gm	1-2 gm	1 1/2-2 1/2 gm	1 1/2-3 gm
SEPARATION	15Hz to 1kHz 28 dB 1kHz to 20kHz 23 dB 20kHz to 50kHz 15 dB	15Hz to 1kHz 24 dB 1kHz to 20kHz 20 dB 20kHz to 50kHz 15 dB	20 dB 30 dB 25 dB	18 dB 27 dB 22 dB	20 dB 28 dB 20 dB	20 dB 25 dB 18 dB	18 dB 23 dB 15 dB	18 dB 23 dB 15 dB	18 dB 21 dB 13 dB
I.M. DISTORTION @ 3.54 cm/sec	2% 2kHz-20kHz	2% 2kHz-20kHz	0.8% 2kHz-20kHz	0.8% 2kHz-20kHz	1% 2kHz-20kHz	1.5% 2kHz-20kHz	2% 2kHz-20kHz	2% 2kHz-20kHz	2% 2kHz-20kHz
STYLUS	2 mil bi-radial	2 mil bi-radial	2 x 7 mil elliptical	2 x 7 mil elliptical	2 x 7 mil elliptical	2 x 7 mil elliptical	2 x 7 mil elliptical	3 x 7 mil elliptical	7 mil spherical
EFFECTIVE TIP MASS	4 milligram	4 milligram	2 milligram	2 milligram	6 milligram	6 milligram	6 milligram	9 milligram	1 milligram
COMPLIANCE	30x10 ⁻⁸ cm/dyne	30x10 ⁻⁸ cm/dyne	30x10 ⁻⁸ cm/dyne	30x10 ⁻⁸ cm/dyne	20x10 ⁻⁸ cm/dyne	18x10 ⁻⁸ cm/dyne	17x10 ⁻⁸ cm/dyne	16x10 ⁻⁸ cm/dyne	14x10 ⁻⁸ cm/dyne
TRACKING ABILITY	32 cm/sec @ 1kHz @ 1 gm	30 cm/sec @ 1kHz @ 1 1/2 gm	38 cm/sec @ 1kHz @ 9 gm	38 cm/sec @ 1kHz @ 1 gm	32 cm/sec @ 1kHz @ 1 gm	28 cm/sec @ 1kHz @ 1 1/2 gm	28 cm/sec @ 1kHz @ 1 1/2 gm	28 cm/sec @ 1kHz @ 1 1/2 gm	32 cm/sec @ 1kHz @ 2 gm
CHANNEL BALANCE	within 1 dB @ 1kHz	within 1 1/2 dB @ 1kHz	within 1/2 dB @ 1kHz	within 1 dB @ 1kHz	within 1 dB @ 1kHz	within 1 1/2 dB @ 1kHz	within 1 1/2 dB @ 1kHz	within 1 1/2 dB @ 1kHz	within 1 1/2 dB @ 1kHz
INPUT LOAD	100k Ohms/ channel	100k Ohms/ channel	47k Ohms/ channel	47k Ohms/ channel	47k Ohms/ channel	47k Ohms/ channel	47k Ohms/ channel	47k Ohms/ channel	47k Ohms/ channel
TOTAL CAPACITANCE	under 100 pF/channel	under 100 pF/channel	300 pF/channel	300 pF/channel	400-500 pF/channel	400-500 pF/channel	400-500 pF/channel	400-500 pF/channel	400-500 pF/channel
OUTPUT @ 3.54 cm/sec	3 mV/channel	3 mV/channel	3 mV/channel	3 mV/channel	4.5 mV/channel	4.5 mV/channel	7 mV/channel	7 mV/channel	7 mV/channel