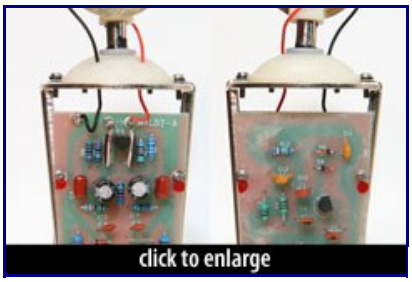
http://recordinghacks.com/microphones/MCA/SP1

Cardioid Condenser Microphone MCA SP1

Although billed on its package as a “large capsule” microphone, the SP1 is a small-diaphragm condenser. It uses the MXL 603 capsule within a brass baffle ring, and a transformerless output circuit based on the Schoeps design.

The circuit is nearly identical to that of the MXL 990 (manufactured exclusively for Guitar Center and affiliated chains), although in the SP1 the DC converter circuitry is housed on a second PCB.

The SP1, V57 (discontinued), and MXL V63M use the same pair of circuit boards; we have seen samples of each mic with the “V57” legend on the PCB.



The strength of this mic is twofold: one, the small-diameter capsule is considered to be excellent, with smooth midrange and an extended but not peaky high end. It was modeled after the Neumann KM-84 capsule. The same capsule turns up in the Nady SCM-800, the MXL 603S, and MXL 990. In both the SP1 and 990, the capsule is mounted within a brass baffle ring (which affects the cardioid pattern).

Second, the transformerless amplifier circuit is a good copy of an excellent Schoeps design, and is built with discrete components (see images).

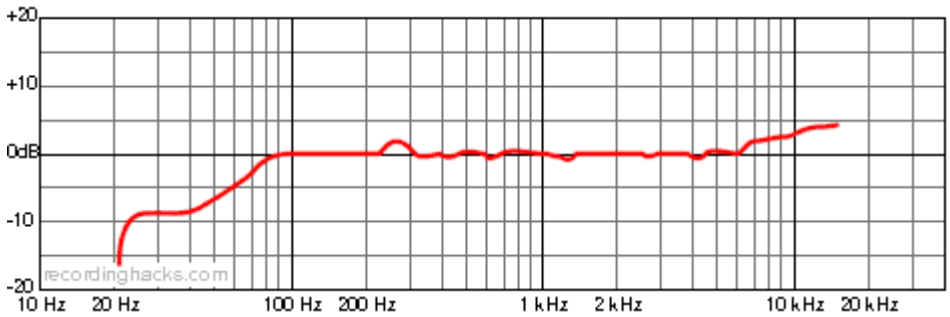
It is a favorite of mic designer Terry Setter; see his review from Tape Op in the sidebar. It is also a favorite modding platform for pro modders and hobbyists alike; see the list of mods in the sidebar.

Nonetheless, the mic is very inexpensively made, as one might assume given its ~$45 street price. The body sleeve is very thin metal. The ring mount is plastic. It is not as robust as most other MXL mics, including the 990.

The schematic for another mod can be found in the “micbuilders” group on Yahoo; see the “GenChinaMod.pdf” file in the Zapnspark folder. (You would need to join the group to access this file.)

The MCA SP1 is also known as: SP-1.

Frequency Response - Cardioid



Pickup Patterns **Pads & Filters**

Cardioid (n/a mV/Pa; 30 - 20,000 Hz)

Capsule Dimensions	Impedance	SPL/Noise
Diaphragm diameter: 16.75mm Capsule diameter: 20.5mm	200 Ohms *(Low)*	Max SPL: 135 dB

Weight	Length	Max Diameter	Interface(s)
n/a	n/a	n/a	• 3-pin XLR male

Read more: http://recordinghacks.com/microphones/MCA/SP1