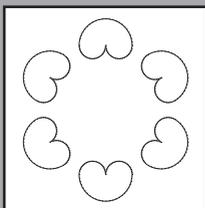


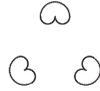
**A Coincident Surround Microphone!**  
**For recording directly to 5.0/5.1 and**  
**6.0/6.1 surround systems.**



# Milab SRND 360 Coincident Surround Microphone

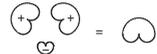
## Microphone Principle

The Milab SRND 360 is built around three matched DC196 rectangular capsules. These capsules are used as cardioids and placed at 120° to each other.



In a mono microphone, a double-membrane capsule can be used to create an omni or a super-cardioid (as in figure). The list could go with for example a figure-of-eight.

By combining the signal from two adjacent cardioid capsules, a "virtual" output is created in-between them. Subtracting proper amount of the signal from the opposing real capsule would give this virtual output a cardioid pattern, which is identical to the "real" outputs.



The SRND 360 combines its three real capsules in different configurations to produce 6 individual cardioid outputs at 60° to each other. These outputs can be used in a wide variety of stereo, multichannel and surround formats.

## System parts

The SRND-360 is supplied with the following system components: Microphone, Power Unit, 24V AC power adapter, 5-pin XLR Cable, Elastic suspension with stand adapter



## Microphone connection

Start by mounting the microphone elastic suspension on a microphone stand. Insert the microphone into the shock mount. Connect the 5-pin XLR cable to the microphone.

Connect the other end of the 5-pin XLR cable to the Power Unit mic input. (Never connect the microphone to any other equipment than the SRND 360 Power Unit).

Connect the AC adaptor to the '24 VAC' input on the Power Unit. (Never connect any other power adapter to the SRND 360 Power Unit)

Connect as many outputs to your mixer/recorder as your setup requires. See below for suggested configurations.

NB: The system does not use 48V phantom power. All internal power comes from the supplied AC adapter. However, the system is protected against accidental powering from an external 48V supply.



Output Connections:

LF = Left Front (virtual capsule)

CF = Centre Front

RF = Right Front (virtual capsule)

LR = Left Rear

CR = Centre Rear (virtual capsule)

RR = Right Rear

## Recording Setup

To identify left and right signals, mount the microphone with the capsules directed upwards, cable down and point the Milab logo towards the centre of the stage or sound source. Looking from behind the microphone towards the stage, the LF output represents Left, and RF is right. Of course, if the microphone is positioned upside-down, left and right will be reversed.



## Surround recording

For recording in 5.0/5.1 systems, just connect the centre front capsule output (CF) to the centre channel, the left front capsule (LF) to left front channel and so on with all five channels (the centre rear output (CR) is not required for 5.0 or 5.1). To generate a LFE (sub-bass) channel, the recording system needs to be set up to mix the outputs of one or more capsules and provide a low-pass output.

Configuration is the same for 6.0/6.1 systems with the centre back added.

## Stereo recording

Just use two of the direct capsule outputs and connect to Left and Right channel input. The direct capsules are CF, LR and RR. This setup is the equivalent of a coincident X/Y stereo microphone with 120° capsule angle.

An alternative configuration would be to use two virtual capsules for Left and Right and to add some of the centre capsule to both sides. Or for a wider image use the rear capsules for Left and Right, combined with the centre microphone for middle information. The possibilities are almost unlimited!

### **SRND 360 Specifications:**

Frequency response ( see graph )

Polar pattern

Max. SPL ( 1 % THD at 1 kHz)

Sensitivity at 1kHz

A-weighted noise level ( IEC 179-A)

Output impedance

Minimum load impedance

System outputs

20 - 20 000 Hz

6x coincident cardioid at 60° spacing

130 dB

17,5 mV / Pa ± 1 dB

12 dB

< 200Ω

1 kΩ

6x 3-pin XLR, pin 1: earth (Shield), pin 2: plus (Hot), pin 3: minus (Cold)

### **Microphone:**

Net weight 685g,

Length 120mm,

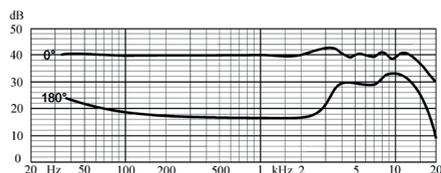
Diameter 60mm

### **Control unit:**

Net weight 845g,

Size 165mm x 55mm x 165mm

### **Frequency response (at 1m distance)**



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