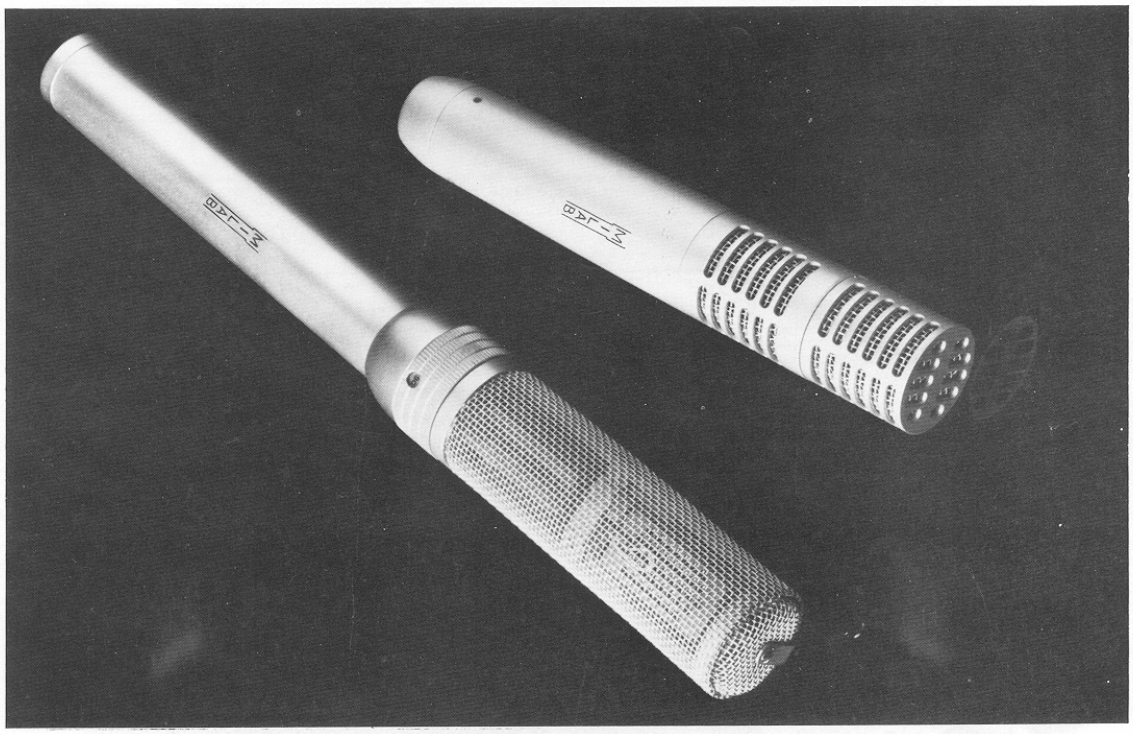
Milab

**OLD MICROPHONE,
NO LONGER IN PRODUCTION**

CONDENSER MICROPHONE MSXY-8 XY-8 XY-82

Stereo/mono condenser microphone



Description of the microphones

MSXY-8

- Two rectangular dual membrane variable remote controlled capsules of full condenser type.
- Extremely smooth on and off axis frequency response.
- Two separate FET pre-amplifiers.
- One capsule may rotate through 180 degrees.
- Two separate output signals from microphone and power/control unit.
- 200 ohms output impedance.
- Powering system: 120 VDC.
- Self noise: Less than 22 dBA.

XY-8

- Two rectangular dual membrane capsules of full condenser type in fixed cardioid pattern.
- Extremely smooth on and off axis frequency response.
- Two separate FET pre-amplifiers.
- One capsule may rotate through 180 degrees.
- Two separate output signals from the microphone.
- 200 ohms output impedance.
- Powering system: MIPOW
- Self noise: Less than 18 dBA.

XY-82

- Two single membrane capsules of condenser type in fixed cardioid pattern.
- Smooth on and off axis frequency response.
- Two separate FET pre-amplifiers.
- One capsule may rotate through 180 degrees.
- Two separate output signals from the microphone.
- 200 ohms output impedance.
- Powering system: MIPOW
- Self noise: Less than 16 dBA.

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Technical data:

Microphone	MSXY-8	XY-8	XY-82
Directional pattern	Variable	Fixed cardioid Variable	Fixed cardioid Variable
Operating principle	Two dual membrane of full condenser capsules	Two dual membrane of full condenser capsules	Two single membrane condenser capsules
Directivity index (alternative D)	18–20 dB 35–40 dB	18–20 dB 35–40 dB	15–18 dB 35–40 dB
Frequency response	20–20.000 Hz	20–20.000 Hz	20–20.000 Hz
Sensitivity at 1 KHz (over 200 ohms re. 1 V.)	–46 dB/Pa	–42 dB/Pa	–34 dB/Pa
Output at 1 KHz (over 200 ohms re. 1 V.)	5.0 mV/Pa	8.0 mV/Pa	20.0 mV/Pa
Output at 1 KHz at max SPL (over 200 ohms re. 1 V.)	300 mV	300 mV	300 mV
Maximum SPL less than 1 % dist.	150 dB	146 dB	138 dB
Self noise A-weighted (re. 2×10^{-5} Pa)	20 dB	18 dB	16 dB
Dynamic range	130 dB	128 dB	122 dB
S/N ratio at 1 KHz A-weighted	74 dB/Pa	76 dB/Pa	78 dB/Pa
Output impedance (balanced)	200 ohms	200 ohm	200 ohms
Supply voltage	120 volt via remote control unit 5815	MIPOW system (only one channel needs to be powered*)	MIPOW system (only one channel needs to be powered*)
Operating voltage	+120 volt	+48 +6 volt –8 volt	+24 to +54 volt (nominal +48 volt)
Current consumption	1.6 mA	1.6 mA	0.8 mA
Capsule suspension	Silicone rubber	Silicone rubber	Silicone rubber
Connection	Lemo 8 pin	XLR 5 pin male	XLR 5 pin male
Dimensions in millimeters	285 long 33/24 diam.	285 long 33/24 diam.	165 long 27 diam.
Weight in grams	485	485	270
Finish	Satin Chrome	Satin Chrome	Satin Chrome

* In this case the powered voltage will come out from the microphone on the other channel/signal.

Accessories:

Accessories and description	Type	Type	Type	Included	Included complete system	Optional
Microphone	MSXY-8	XY-8	XY-82			
Microphone cable (10 meters)	5808	3005	3005	●	●	
Signal cable (10 meters)	3005				●	
Stand adaptor (5/8"x27 TPI)	1930/24	1930/24	1930/27	●	●	
Shockmount (5/8"x27 TPI)	1910/24	1910/24	1910/27		●	●
Windscreen (grey)			V-82			●
Windscreen Colored (red, yellow, blue, green)			VC-82			●
Mains power supply (110/220 VAC)	5815	8320/S	8320/S		●	●
Battery power supply		7325/C	7325/C			●
Carrying case (mike only)	Case 8	Case 8	Case 63	●		
Carrying case (complete)	Comp 8	Comp 8	Comp 63		●	
Cardboard box						

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Powering and running accessories

MSXY-8 is powered separatly from the power/control unit 5815 which also incorporates the remote control system.

XY-8 and XY-82 is powered with the standard MIPOW system. The working voltage is from 24 volt up to 54 volt. The current consumption is limited for both systems to a maximum of 0.8 mA. Note that the working voltage is only needed to be connected to one of the systems for the complete microphone.

To work the XY-8 or the XY-82 to perfection the mixing console, amplifier, tape recorder or whatever should be equipped with the following three functions:

1) Phase reverse switch for one channel or external phase-invert connector.
2) Separate gain controls (faders) for both inputs.
3) Mixing possibilities of the two inputs after the gain controls.

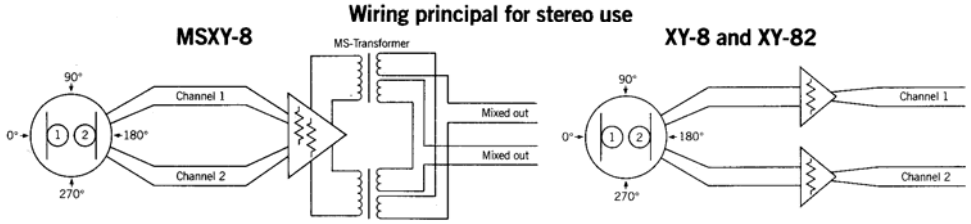
Use as MS-Stereo

MSXY-8 is specially made for use with MS recording techniques. But the microphone may also be used in XY recordings and their variations.

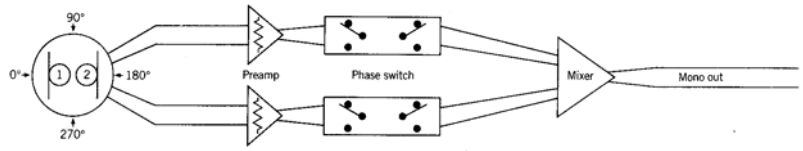
Use as XY-Stereo

XY-8 and XY-82 is made for professional recordings in XY-stereo. The purpose is to achieve the best stereo effects using only two cardioid capsules. Those are mounted as close as possible and with the advantage of having one capsule rotatable through 180 degrees the effect of wideness in stereo can be adjusted as required.

Wiring principal for stereo use



Wiring principal for mono use



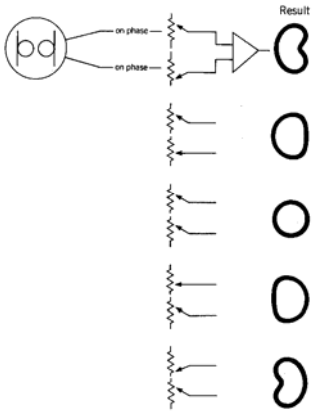
Omni – Cardioiod – Figure-eight

With use of the gain control (faders) in the mixing console, amplifier, tape recorder etc., the microphone is connected to, the engineer may obtain patterns of omni, cardioid, figure-eight as well as in-between settings. This methode allows absolutely noise free variable pattern control right at the console without use of external "black boxes".

Alternative A

Cardioid – Omni directional – Cardioid

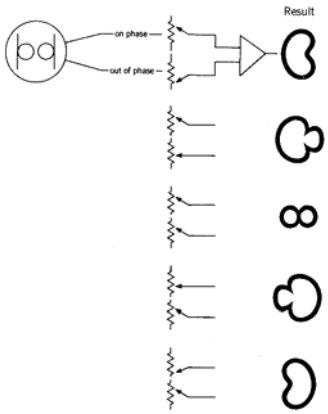
Connect the XY-8 or XY-82 to two separate mixer inputs. Rotate one capsule 180 degrees. Mix both signals after gain control. The figures show how the pickup patterns can be remote controlled by the faders at the mixing console.



Alternative B

Cardioid – Figure-eight – Cardioid

Connect the XY-8 or XY-82 to two separate mixer inputs. Rotate one capsule 180 degrees. Reverse phase on one input. Mix both signals after gain control. The figures show how the pickup patterns can be remote controlled by the faders at the mixing console.



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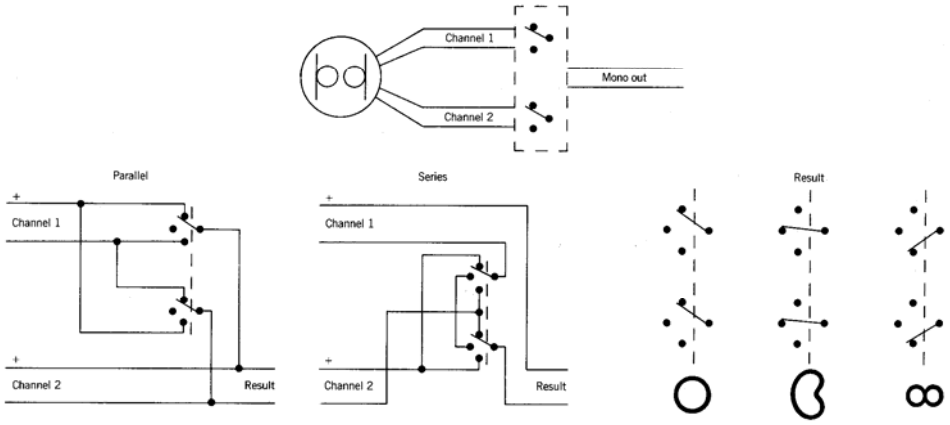
Alternative C

Omni – Cardioid – Figure-eight

The two separate signals from the XY-8 or XY-82 may also be connected in series or parallel ahead of or with the help of the mixer. And if one of the capsules has been rotated 180 degrees from the other the three fixed pickup characteristics may be achieved as the figures show.

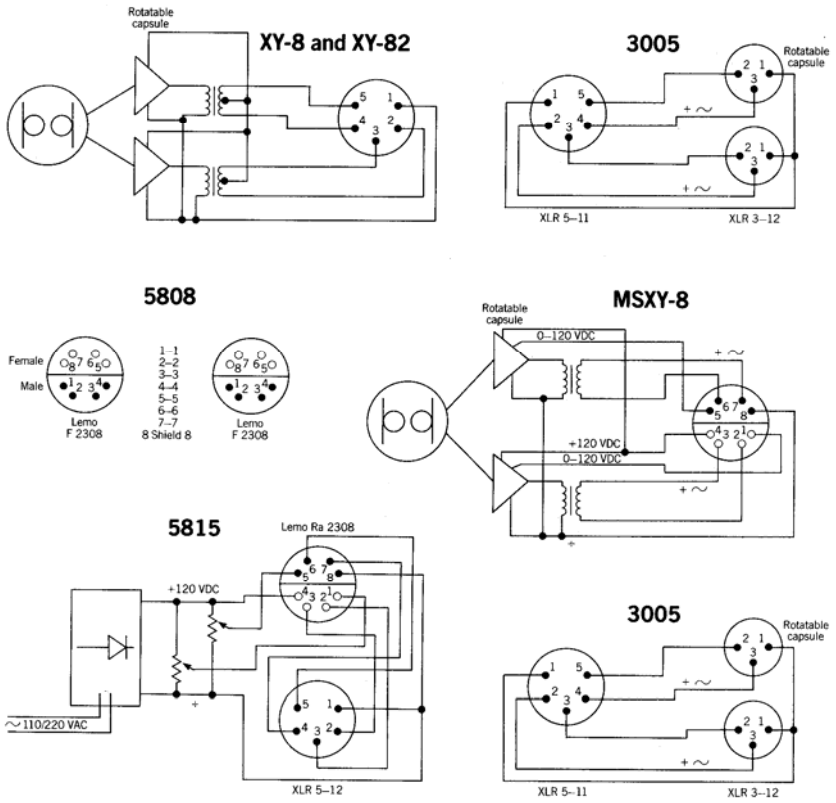


Alternative D

PA-applications

The XY-8 and XY-82 is the ideal solution where a PA-system gives problems with feedback. This technique has great advantage in concert hall sound enhancement and in outdoor performance where maximum gain before feedback is esential.

Rotate one capsule, adjust the angle and choose the best pickup pattern for cancelling the feedback. Increase the signal on one input and the directivity at the other to a maximum of 35–40 dB. By this method the maximum gain before feedback of nearly 40 dB may be achieved.



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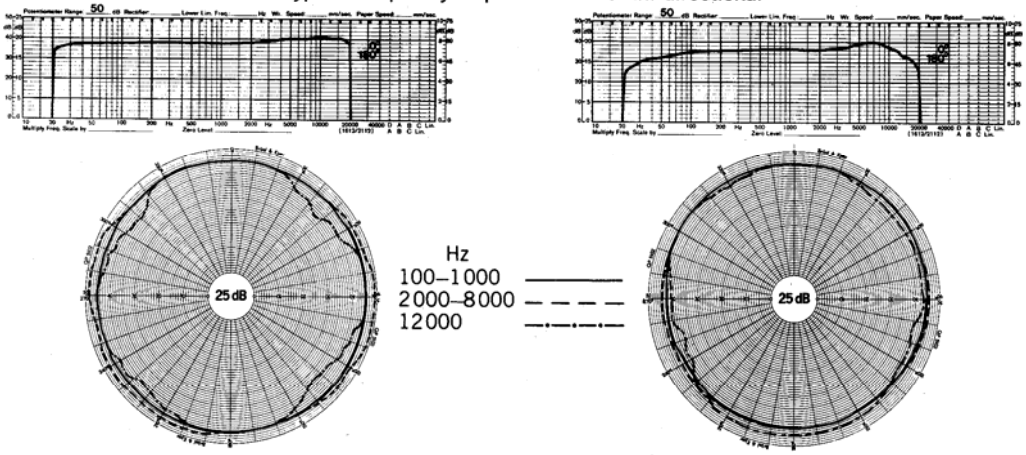
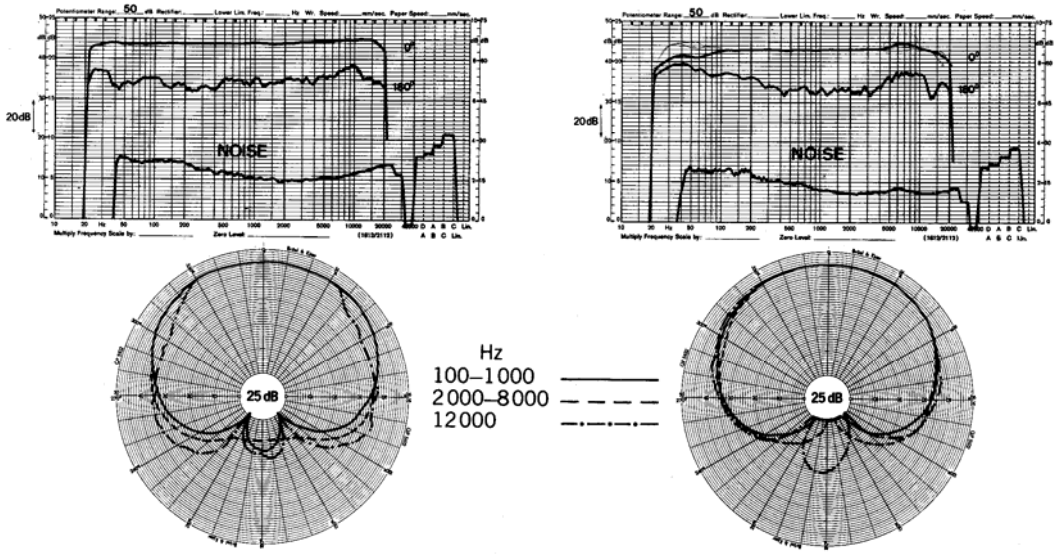
MSXY-8 and XY-8 **XY-82**

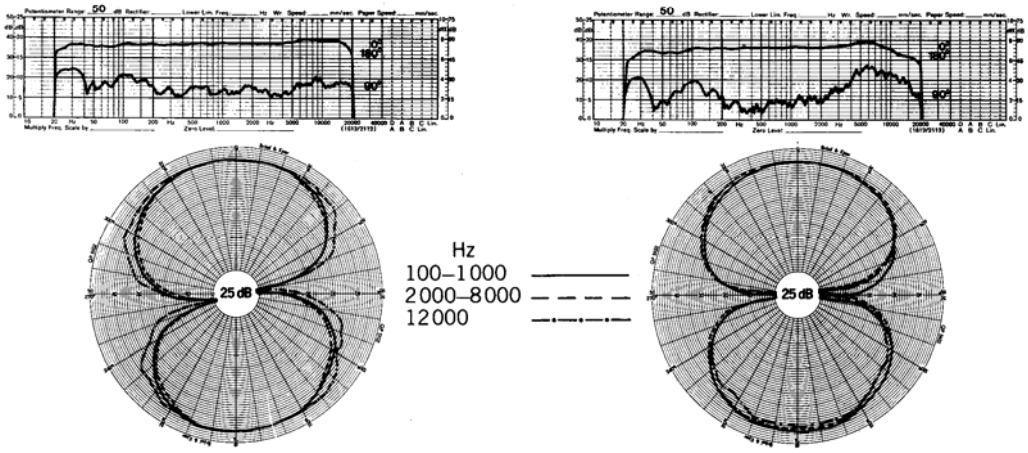
Typical frequency response curve Omni-directional



Typical frequency response curve Cardioid



Typical frequency response curve Bi-directional



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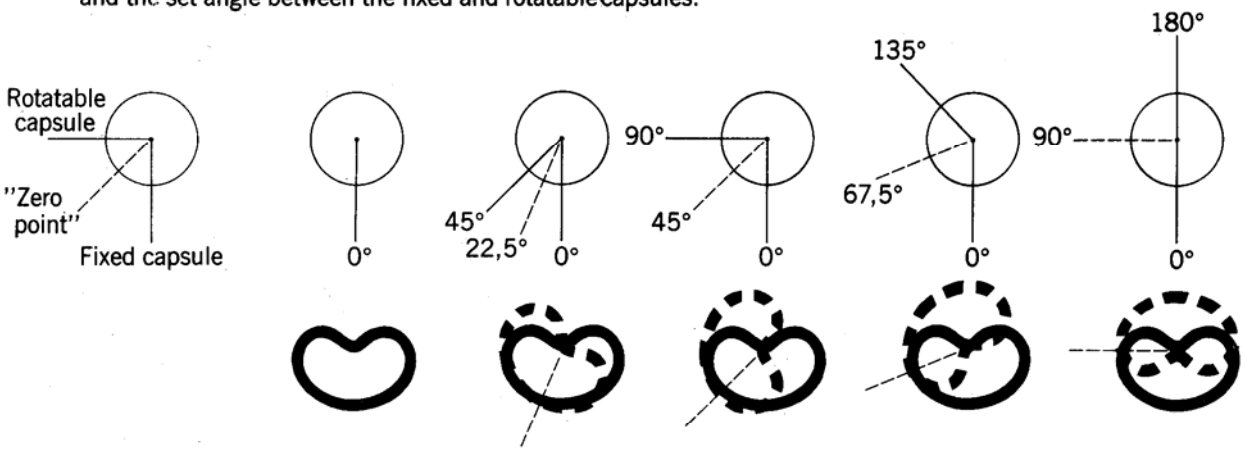
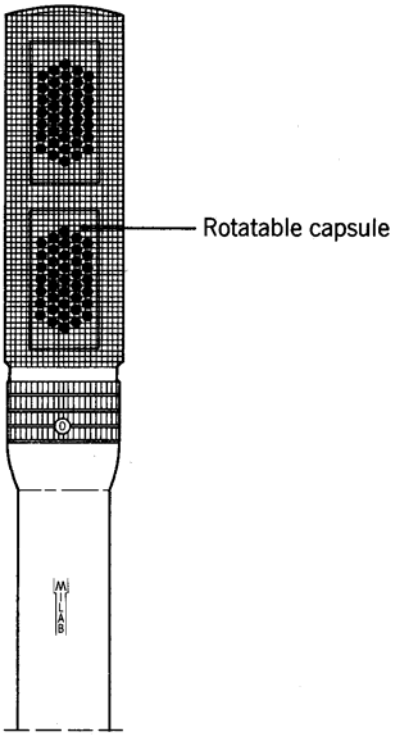
"Zero point" of the microphone

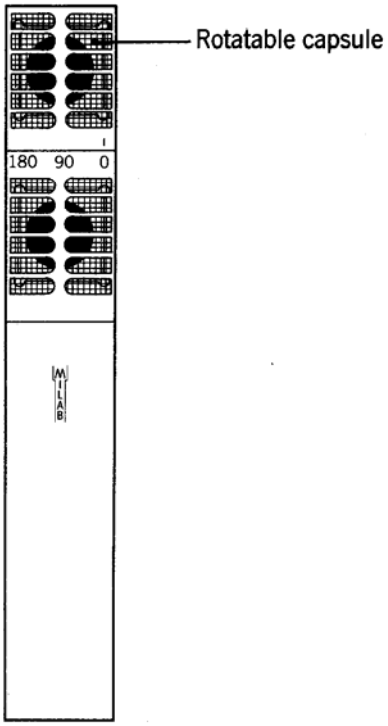
When the microphone is used for stereo recordings with one signal out of phase (alternative B) is a silent angle accouring, the "zero point" of the microphone. This "zero point" turns in respect to the on ax of the microphone and the set angle between the fixed and rotatable capsules.



MSXY-8 and XY-8



XY-82



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