

PURPOSE OF GOODS

The MK 319 unidirectional condenser microphone is a fixed cardioid large capsule microphone intended for sound recording and broadcast, ideally suited to vocals.

TECHNICAL CHARACTERISTICS

Freq. Response, Hz	40-16000
Output sensitivity, mV/Pa	11
Deviation from accompanying graphs, dB	<2.5
Max SPL, dB for 0,5% THD	122
Self Noise (DIN), dBa	<14
Output impedance, Ω	200
Recommended load, k Ω	>1
Powering, V	48
Supply current, mA	8
Change in sensitivity at 50Hz with Bass roll off filter in should be, dB	10 (\pm 2)
Change in sensitivity at 1000 Hz with pad switched in should be, dB	10 (\pm 2)

Positive pressure on diaphragm produces voltage on pin2. (pin 1 shield, pin 2 + ,pin 3 -).

ASSEMBLY

The microphone comprises of a capsule and a preliminary amplifier.

The capsule is symmetrical in construction, comprising two fixed electrodes and two membranes, one of which carries a layer of gold. The gaps between the membranes and the fixed electrodes are formed using washers. The capacity of the capsule is equal to 65(\pm 5)pF.

The preliminary amplifier is by means of a single cascade circuit on a KPZ07B field transistor. The amplifier supply is by means of a phantom circuit, with the voltage 48 (\pm 4)V coming from an external phantom power supply.

Figure 1 in the accompanying Russian Manual shows the electrical connection circuit.

Figures 2, 3 and 4 show the electrical components on the printed card of the amplifier and the principal circuit inside the microphone.

Figure 5 shows the standard characteristics of the mics direction.

Figure 6 shows the average response over the frequency range 40- 16000 Hz of an MK319.

Figure 7 shows the actual response of the particular serial number it relates to (tested in an anechoic chamber with Bruel & Kjaer testing equipment). The graph accompanying this manual is again an average response graph for an MK319

PREPARING THE MIC FOR USE

1. Plug the male end of an XLR-XLR cable into the microphone, connect the female end to a balanced input with resistance of not less than 1 K, able to supply phantom powering. The microphone is compatible with most pro and semi- pro equipment.
2. Switch on phantom powering.
3. The microphone should not be exposed to sudden jerks or bangs.

DO NOT OPERATE YOUR MICROPHONE BEFORE HAVING READ THE FOLLOWING. IF YOU ARE IN DOUBT AFTER READING THE FOLLOWING, DO NOT HESITATE TO ASK A KNOWLEDGEABLE PERSON.

- ALWAYS use the best quality XLR to XLR cables you can buy.
- MAKE SURE that the cables you are using are wired to proper polarity at each end. We cannot accept responsibility for damage of any kind due to the neglect of this standard.
- MAKE SURE that the mixer you are using has real XLR microphone inputs which accept a 200 Ω load and which conform to the above standard, nearly all modern mixers have this provision.
- BE SURE that the phantom power is switched on and that it provides true 48V DC. Some semi-pro desks use 24V this product is designed and optimised for (and will under perform if not within 4 Volts of) the phantom power standard 48V. Be sure that the voltage specified is fixed and does not vary.
- MAKE SURE that the mic pre-amps on your mixing desk are of good quality. This is the stage at which noise can be introduced to the detriment of the whole system
- DO NOT use an XLR to 1/4" jack cable as this will prevent the microphone from working properly and does not conform to the standards described above.

- IT IS extremely important for optimum microphone performance that the microphone is properly earthed, therefore ALWAYS make sure the collar holding the clip in place is tightly done up.
- ALWAYS put the microphone back in its case after use, and store in a dry place. Be sure that the silicone sachet provided is always kept by the capsule whilst not in use. The sachet will occasionally need drying out, as it is a moisture absorber.

FOLLOWING THESE GUIDELINES WILL LENGTHEN THE LIFE OF YOUR MICROPHONE AND ALLOW FOR VERY PROFESSIONAL RESULTS ON THE SIMPLEST OF RECORDING MEDIUMS.

TROUBLESHOOTING

- **HUMMING OR BUZZING SOUND**
Collar at base of mic may be loose, or an earth connection may not have been properly established, check mains connections of all equipment connected in the same chain as mic and check XLR polarity
- **NO SOUND OR SIGNAL AT ALL**
Phantom powering may not be on or may be too low, (i.e. 12V power will often not achieve a signal) Phantom Power may not be sent to XLR pin 2, XLR may not be clicked fully into place.
- **INTERMITTANT SIGNAL / LOUD CRACKS:**
XLR connected to mic may be worn, or not of standard size, and therefore loose, causing intermittent power to reach the capsule. Solder joint inside XLR may be loose.
- **SPITTING OR RUMBLING / BUBBLING SOUND**
Capsule may have been subject to too much moisture, this happens to all large capsule condenser microphones, and can only be cured by letting the microphone dry out in a warm dry place. WARNING! Although a hair dryer will do the trick, it will prematurely age the mic, and increase the future susceptibility to moisture.
- **VARYING SIGNAL LEVEL**
This can be caused by using too low a voltage for Phantom Power. Some desks, although they say 48V phantom can supply up to 5 Volts less. This can be sorted out with auxiliary power supplies. This fault can be accompanied by a spitting and rumbling noise.

TRANSPORT AND STORAGE

The microphone should be stored in accommodation with air temperature of 5 to 40° C and relative humidity of

up to 80% at a temperature of 25° C with no acidic, alkaline or other aggressive mixtures in the air. To avoid problems caused by excess humidity, ensure that the microphone is always kept with the silicone sachet provided when not in use.

Transporting the microphone can be by any means of transport on the condition that the microphone is protected from the consequences of atmospheric dust and mechanical damage (the outer casing supplied with the microphone is sufficient in most circumstances).

CERTIFICATE OF ACCEPTANCE

The MK319 condenser microphone with the factory number _____ has been manufactured and accepted in accordance with the technical documentation in force and is recognised as being suitable for operation

1 YEAR GUARANTEE

Model _____

Serial no. _____

Date of purchase _____

The above item is guaranteed for a period of one year from the date of purchase. This guarantee covers the repair, free of charge, of equipment becoming faulty as a result of manufacturing faults only. No liability can be accepted for faults arising from accident or misuse. In the event of any fault occurring, this equipment should be returned (at your cost)* together with this guarantee and an indication of the problem direct to your retail seller or distributor.

WARNING!

TAMPERING WITH OR OPENING THIS DEVICE NEGATES THIS WARRANTY, WE CANNOT REPLACE OR REPAIR MICS THAT HAVE BEEN ALTERED IN ANY WAY

Октава



Oktava MK 319 Condenser Microphone

OPERATING INSTRUCTIONS AND PASSPORT