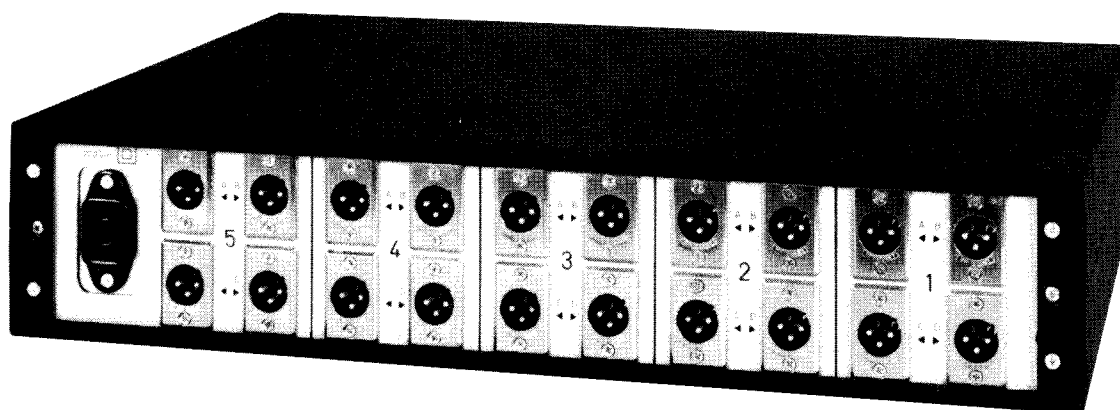
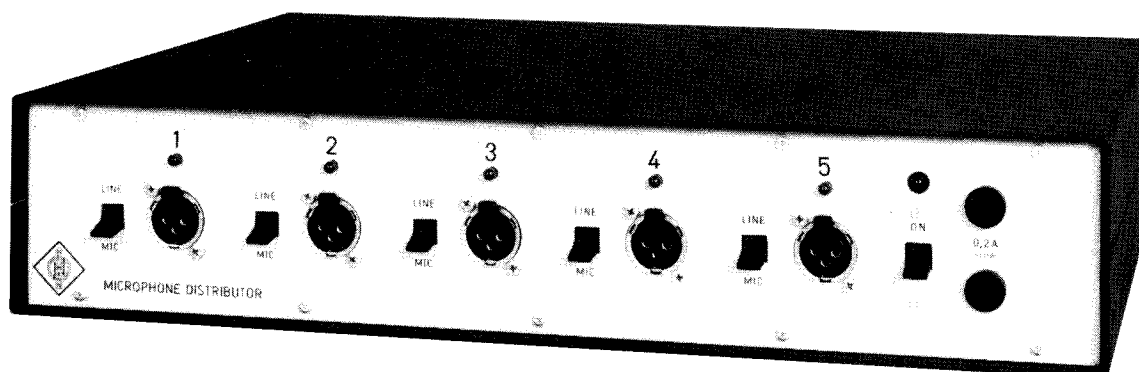




33711 80202

V 442 MICROPHONE ISOLATION AMPLIFIER (portable)
V 442 A MICROPHONE ISOLATION AMPLIFIER (for rack mounting)



Isolation amplifier for the distribution of a microphone or line level signal to several outputs, none of whom can interfere with the distributed program.

This units has the following properties:

Hi-pot isolation of the inputs among themselves as well as vis the outputs, chassis/0-Volt, and power line input: 2.5 kV at 50 Hz.

Inputs selectable for microphone and line level.

Built-in 48 V Phantom Powering.

Separate input and output amplifiers.

Max. output level: + 22 dB.

Outputs is short circuit proof.

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The V 442 Microphone Isolation Amplifier has five inputs. Each of these may be switched to mike or line level.

The 48 V Phantom Powering required by condenser microphones is generated separately for each input V 442, and is fed to each microphone automatically in the MIKE position.

There are four identical outputs associated with each input. The signal to be distributed is fed through an input amplifier to the parallel connected inputs of the four output amplifiers, and from there to the outputs. This arrangement guarantees the highest isolation attenuation.

It is an important feature of the Microphone Isolation Amplifier that it offers dc separation of the inputs against one another as well as against the outputs, to which the operating ground of a mixing console may be connected. This measure is necessary to prevent possible voltage differences between the microphones and the electronic musical instruments used by musicians.

In normal studio operation, microphone housings are connected to the grounded console via the cable shield. In practice, however, it oftentimes happens that due to a defect of some kind, one side of the ac power line may be inadvertently connected to the chassis of an electronic musical instrument. Simultaneous touching of a microphone and the instrument by the musician may lead to a fatal accident. In order to prevent this, the input transformers were constructed to tolerate 2.5 kV ac.

Grounding of the microphone cable shield is done capacitatively through a 2.5 kV tested capacitor whose capacitance is so dimensioned as to prevent any leakage current which would result from the above mentioned operation, from exceeding the value permitted by VDE.

The 48 V Phantom Powering is generated for each microphone input separately. As a result every input is hi-pot proof to 2.5 kV 50 Hz, both against chassis/0 Volt, operating ground and power input, as well as against one another.

The 0-volt connections associated with each output may be disconnected from the common equipment 0-volt by opening a link. The 0-volt connection to the connected output then leads only through a 0.022 mF capacitor. This permits the reduction of the effects of ground loops which might be formed by connecting several outputs, each with different ground potential.

The V 442 is delivered with these links in their closed position. All service tests are to be made on this unit with these links closed.

The supply voltages of the individual distribution channels are individually fused for greater operating safety. Operational condition is indicated by an LED.

The V 442 is made according to "Safety Class II", and is tested to conform to VDE 0804/0806.

The unit is available for outside use as a portable, rugged instrument case (V 442). A 19" version (V 442 A) is available for rack mounting.

TECHNICAL DATA:

Ref. level:	0.775 V= 0 dB
Test frequency:	1 kHz sine wave

Frequency range:

40 Hz to 15 kHz ± 0.5 dB

Switchable gain

R_{Gen} in position MIKE= 200 ohm
 LINE= 50 ohm

Pos. MIKE = 18 dB $\pm 0,5$ dB
Pos. LINE = 0 dB

R_{load} = 1 kohm per output

Input Data:

Inputs

5; balanced and floating with separate static shield winding

True input impedance (40 Hz to 15 kHz): ≥ 1000 ohm

Input common mode rejection at 15 kHz per IRT specifications 3/5: ≥ 60 dB

Hi-pot test of the inputs against one another, against the outputs, chassis/0 volt, power line input: 2.5 kV 50 Hz for 1 min.

Output Data:

Outputs: 20; balanced and floating with static shield winding

Output source impedance (40 Hz to 15 kHz): ≤ 200 ohm

Output common mode rejection at 15 kHz per IRT specifications 3/5: ≥ 60 dB

Hi-pot of the outputs against chassis/0 volt: 500 volt 50 Hz for 10 sec.

Max. output level into 1000 ohm for THD = 0.5%, 1kHz, 220 Vac power line: $\geq +23$ dB

Permissible output loading: ≥ 1000 ohm each output

T.H. Distortion at + 22 dB output level:

$f = 40$ Hz	$f = 6.3$ Hz
$\leq 0.3\%$	$\leq 0.1\%$

Weighted and Unweighted Noise Levels:

Input termination = 200 ohm	$P_{\text{wtd}} \leq -98 \text{ dB (DIN 45 405)}$
Output termination = 1000 ohm	$P_{\text{wtd}} \leq -94 \text{ dB (CCIR 468/2)}$
Measured in MIKE position	$P_{\text{unwtd rms}} \leq -102 \text{ dB (DIN 45 405)}$

Channel separation at 15 kHz $\geq 90 \text{ dB}$
RGen = 200 ohm; termination = 1000 ohm

Isolation attenuation:

Output 1 to n against output n-1
RGen = 200 ohm; $P_{\text{unwtd}} = +20 \text{ dB}$
output termination 1000 ohm

f =	40 Hz	1 kHz	15 kHz
	$\geq 70 \text{ dB}$	$\geq 90 \text{ dB}$	$\geq 90 \text{ dB}$

ac mains nominal voltage:	220 V 50/60 Hz
Allowable power line error:	198 to 231 V
Power consumption at 220 V :	max. 20 VA
Phantom powering for each input:	48 V per DIN 45 596
Environmental temperature range:	- 20° to + 50° C

Dimensions and Weight:

	V 442 Portable	V 442 A 19" Rack
w x h x l	510 x 130 x 300 mm (20"x5.1"x11.8")	435 mm + mounting angle x 90 x 265 mm
Weight:	approx. 13.5 kg (29.7 lbs)	approx. 9.3 kg (20.5 lbs)

Required Mating Connectors:

	V 442 Portable	V 442 A 19" Rack
Inputs:	Switchcraft A3M or equiv.	Switchcraft A3M or 30-pole male T 2070
Outputs:	Switchcraft A3F or equiv.	30-pole female T 2071

Accessories supplied with the units:

- Power cable per protective class II
- (2) replacement fuses 0.2 A slo-blo
- (2) replacement fuses 0.125 A slo-blo

Errors excepted. Specifications subject to change without notice.