

# Operators Manual

# **DN422M**

Klark Teknik Group,  
Klark Teknik Building,  
Walter Nash Road,  
Kidderminster.  
Worcestershire.  
DY11 7HJ.  
England.

Tel:+44 (0) 1562 741515  
Fax:+44 (0) 1562 745371

Email: [pro\\_audio\\_group@compuserve.com](mailto:pro_audio_group@compuserve.com)  
Website: [klarktechnik.com](http://klarktechnik.com)

## Attention!

### **Cables:**

This product should only be used with high quality, screened twisted pair audio cables, terminated with metal bodied 3-pin XLR connectors. The cable shield should be connected to pin 1. Any other cable type or configuration for the audio signals may result on degraded performance due to electromagnetic interference.

### **Electric Fields:**

Should this product be used in an electromagnetic field that is amplitude modulated by an audio frequency signal (20Hz to 20kHz), the signal to noise ratio may be degraded. Degradation of up to 60dB at a frequency corresponding to the modulation signal may be experienced under extreme conditions (3 V/m, 90% modulation).

No permanent damage or degradation of performance will be caused by these conditions.



# DN422M

## Dual Channel EQ With Mic Pre-amp

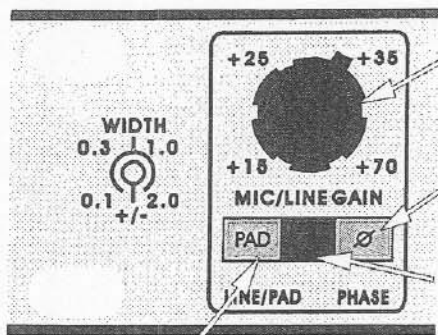
---

The DN422M has been designed for recording or live performance applications where a high quality equaliser combined with a mic pre amp is required. Whether for stereo recording direct to DAT or via an insert point or input of a console to enhance the quality of the programme material.

The unit also has balanced send and returns with a front panel switch allowing compression, limiting, expansion or even gating to be inserted post mic pre-amp but pre eq (as standard).

---

- ⊗ Dual Channel 4 band EQ
- ⊗ Variable High Pass Filters
- ⊗ Mic/Line Pre-amps
- ⊗ 48v Phantom power
- ⊗ Input and output level controls
- ⊗ Switchable balanced insert send & returns
- ⊗ 10 segment LED Metering
- ⊗ Both inputs & outputs electronically balanced
- ⊗ Transformer balancing options for inputs & outputs



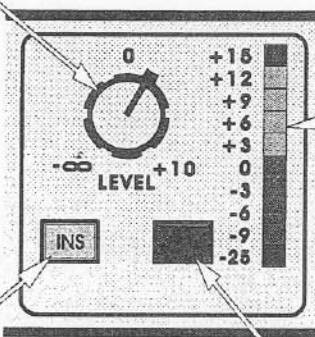
The MIC control gives continuous adjustment of the input gain from + 15dB to + 70dB.

The PHASE switch activates a 180 degrees phase change on the input signal.

The 48V switch connects 48 volt phantom power to the input suitable for a condenser microphone or DI box.

The LINE/PAD switch gives 25dB of attenuation to the input signal and will allow the connection of high output microphones or line level signals. If the mic amp is transformer coupled ( option ) the pad greatly reduces the risk of saturation at very low frequencies.

The LEVEL control controls the output level of the channel.



The METER monitors the peak signal level of the channel. By default this is post output level & pan control. It may be internally selected to be pre level and insert.

The INS switch connects the input insert return signal to the input channel pre or post equaliser, (internally selectable. The default is pre ).

The MUTE switch mutes the channel. When using the link input, this may be internally jumpered to be pre or post mute. The default is pre.

The ON switch enables mains power to the unit. With led indicator.

**KLARK** **TEKNIK**  
**DN422M**  
 Dual Channel EQ  
 With Mic Pre-amp



The BASS ( dual concentric top ) control gives continuous adjustment of boost and cut from + 15dB to - 15dB with a 0dB centre detent.

The bass WIDTH ( dual concentric bottom ) control gives continuous adjustment of bandwidth from 0.1 to 2 octaves with a 0.5 octave centre detent. This only operates when the BELL switch is activated.

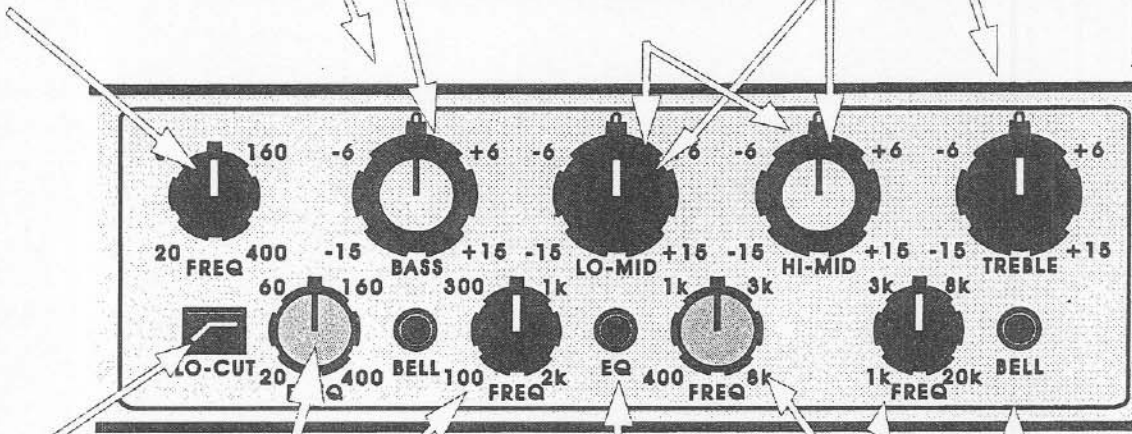
The LO-CUT filter control is continuously adjustable from 20Hz to 400Hz.

The HI-MID & LO-MID ( dual concentric top ) control gives continuous adjustment of boost and cut from + 15dB to - 15dB with a 0dB centre detent.

The hi- mid & lo-mid WIDTH ( dual concentric bottom ) control gives continuous adjustment of bandwidth from 0.1 to 2 octaves with a 0.5 octave centre detent.

The TREBLE ( dual concentric top ) control gives continuous adjustment of boost and cut from + 15dB to - 15dB with a 0dB centre detent.

The treble WIDTH ( dual concentric bottom ) control gives continuous adjustment of bandwidth from 0.1 to 2 octaves with a 0.5 octave centre detent. This only operates when the BELL switch is activated.



The LO-CUT switch enables the lo-cut filter.

The bass FREQ control gives continuous adjustment of the frequency range that the bass equaliser acts on from 20Hz to 400Hz.

The bass BELL switch converts the bass equaliser from a traditional shelving response to full parametric operation.

The EQ switch connects the equaliser in the input channel signal path.

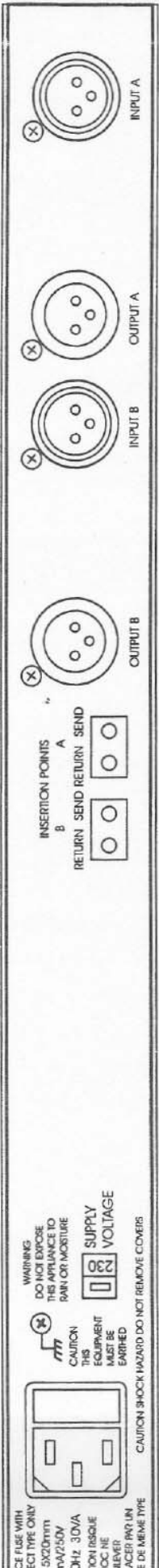
The lo mid FREQ control gives continuous adjustment of the frequency range that the lo mid equaliser acts on from 100Hz to 2K.

The hi mid FREQ control gives continuous adjustment of the frequency range that the hi mid equaliser acts on from 400Hz to 8K.

The treble BELL switch converts the treble equaliser from a traditional shelving response to full parametric operation.

The treble FREQ control gives continuous adjustment of the frequency range that the treble equaliser acts on from 1K to 20K.

# Back Panel



DANGER: DO NOT OPEN WHEN POWER IS APPLIED  
 CAUTION: THIS EQUIPMENT MUST BE EARTHED  
 WARNING: DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE  
 SUPPLY VOLTAGE  
 USE FUSE WITH RECT TYPE ONLY  
 5X20mm  
 TAA250V  
 10Hz 30VA  
 THERMISTOR  
 DO NOT REMOVE  
 NEVER  
 LAGER PWR UN  
 JE DE NEUVE TYPE

CAUTION: SHOCK HAZARD. DO NOT REMOVE COVERS

# Technical Specification

## *Inputs*

Type  
Impedance ( $\Omega$ )  
    Balanced  
    Insert (balanced)  
Max Level  
Gain  
Pad

## *Two*

Electronically balanced (pin2 hot)  
2k (3k with pad)  
20K  
+6dBu (+31dBu with pad)  
+15dB to +70dB  
-25dB

## *Outputs*

Type  
Min. Load impedance  
Source impedance  
Max Level

Electronically balanced(pin 2 hot)  
600 $\Omega$   
<50 $\Omega$   
+21dBu

## *Performance*

Frequency response(20Hz to 20kHz)  
Distortion @ 1KHz (mic+40dB gain,0dBu output)  
Input noise (Mic EIN ref. 150 $\Omega$ )  
    (Line EIN ref. 600 $\Omega$ )  
Metering

+0 to -1dB  
<0.03%  
-129dBu  
<-90dBu  
10 LED Peak reading

## *Filters*

Type  
Bandwidth  
Max. Boost/cut  
Frequency ranges

Hi pass, Treble, Hi Mid, Lo Mid, Bass. (X2)  
0.1 Octave to 2 Octaves  
+15dB to -15dB  
20Hz to 400Hz(Bass Bell/Shelving)  
100Hz to 2KHz(Lo Mid)  
400Hz to 8KHz(Hi Mid)  
1KHz to 20KHz(Treble Bell/Shelving)

High Pass filter

20Hz to 400Hz @ 12dB/Octave

## *Power*

Mic Phantom Voltage  
Max. Phantom Current

48V +/-5%  
<10mA

## *Power Requirements*

Voltage  
Consumption

110/120/220/240V 50/60Hz  
<15VA

***Weight***

Nett  
Shipping

3kg  
4kg

***Dimensions***

Width  
Depth  
Height

482mm (19 inch)  
250mm (10 inch)  
44mm (1.75 inch)

***Terminations***

Input/Outputs  
Inserts (Send/Return)  
Power

3 pin XLR  
Tt Bantam  
IEC

***Options***

Transformer mic input\*/output balancing