

PARAMETRIC EQUALIZER

USER MANUAL

DNR

D&R

manufacturer of: recording - broadcast - p.a. - mixing desks - signal processors

PARAMETRIC EQUALIZER manual

The D&R parametric equalizer provides in maximum equalisation capability in the range of 60 Hz to 10 kHz.

Each of the two bands has a frequency range control, a variable cut/boost control of 18 dB and a bandwidth control together with a bypass switch.

In departure from most parametric equalizers, the D&R parametric uses a more elaborate series filter configuration, which means that it is possible to extend the range of a given frequency up to 36 dB.

Interfacing

The parametric is designed to interface into essentially line level circuits, having a nominal signal level in the range of 0 dBu.

The unit has an input impedance of 20kOhm and an output impedance of 100 Ohm and can therefore be connected to virtually every commercially available equipment. The unit is of the unbalanced type; connection is made between tip and earth of the jack plugs.

Using the Parametric Equalizer

First put both the amplitude controls in the twelve o'clock position, then decide which range you are going to use and activate the on pushbutton from that particular section.

Turn the amplitude control fully clock wise and the Q control in the twelve o'clock position.

Now turn the frequency control to a position where a strong resonance is heard. By now adjusting the Q control to the left and fine rearranging of the frequency control, the precise resonance can be found. What you can do with this resonance is up to you. You can boost or cut this frequency by more than 18 dB and find the right bandwidth. This is all done by carefully listening to the music and it is very personal.

Notice

When the parametric is turned to the AC power line frequency or to 2nd or 3rd harmonics of the same, the equalizer may boost induced hum. This should not normally present a problem when the unit is giving a reasonable physical distance from large hum field sources such as power amps and other power transformers.

Powering

The unit can be powered from 110 as well as 220 volts by switching the switch on the back to the unit. (only on 9½" units)

NOTE

READ SAFETY INSTRUCTIONS VERY CAREFULLY ON THE BACK PAGE!



PRODUCT SAFETY

This product is manufactured with the highest standards and is double checked in our quality control department for reliability in the "HIGH VOLTAGE" section.

CAUTION

Never remove any panels, or open this equipment. No user servicable parts inside.

Equipment power supply must be grounded at all times.

Only use this product as described, in user manual or brochure. Do not operate this equipment in high humidity or expose it to water or other liquids.

Check the AC power supply cable to assure secure contact. Have your equipment checked yearly by a qualified dealer service center.

Hazardous electrical shock can be avoided by carefully following the above rules.

EXTRA CAUTION FOR LIVE SOUND

Ground all equipment using the ground pin in the AC power supply cable. Never remove this pin.

Ground loops should be eliminated only by use of isolation transformers for all inputs and outputs.

Replace any blown fuse with the same type and rating only after equipment has been disconnected from AC power. If problem persists, return equipment to qualified service technician

PLEASE READ THE FOLLOWING INFORMATION VERY CAREFULLY.

Especially in sound equipment on stage the following information is essential to know.

An electrical shock is caused by voltage and current, actually it is the current that causes the shock.

In practise the higher the voltage the higher the current will be and the higher the shock.

But there is another thing to consider and it is resistance. When the resistance in Ohms is high between two poles, the current will be low and vice versa.

All three of these; voltage, current, and resistance are important in determining the effect of an electrical shock.

However, the severity of a shock primarily determined by the amount of current flowing through a person.

A person can feel a shock because the muscles in a body respond to electrical current and because the heart is a muscle it can affect, when the current is high enough. Current can also be fatal when it

causes the chest muscles to contract and stop breathing. At what potential is current dangerous.

Well the first feeling of current is a tingle at 0.001 Amp of current. The current between 0.1 Amp and 0.2 Amp is fatal.

Imagine that your home fuses of 20 Amp can handle 200 times more current than is necessary to kill. How does resistance affect the shock a person feels. A typical resistance between one hand to the other in "dry" condition could well over 100,000 Ohm.

If you are playing on stage your body is perspiring extensively and your body resistance is lowered by more than 50%. This is a situation in which current can easily flow.

Current will flow when there is a difference in ground potential between equipment on stage and in the P.A. system. Please do check if there is any potential between the housing of the mikes and the guitarsynth amps, which will be linked by your body on stage. Imagine, a guitar in your hand and your lips close to the mike! A ground potential difference of above 10 volts is not unusual, in improperly wired buildings it can possibly be as high as 240 volts.

Although removing the ground wire sometimes cures a system hum, it will create a very hazardous situation for the performing musician.

Always earth all your equipment by the grounding pin in your mains plug.

Hum loops should be only cured by propr wiring and isolation input/output transformers.

Replace fuses always with the same type and rating after the equipment has been turned off and unplugged.

If the fuse blows again you have an equipment failure, do not use it again and return it to your dealer for repair.

And last but not least be carefull not to touch a person being shocked as you, yourself could also be shocked.

Once removed from the shock, have someone send for medical help immediately

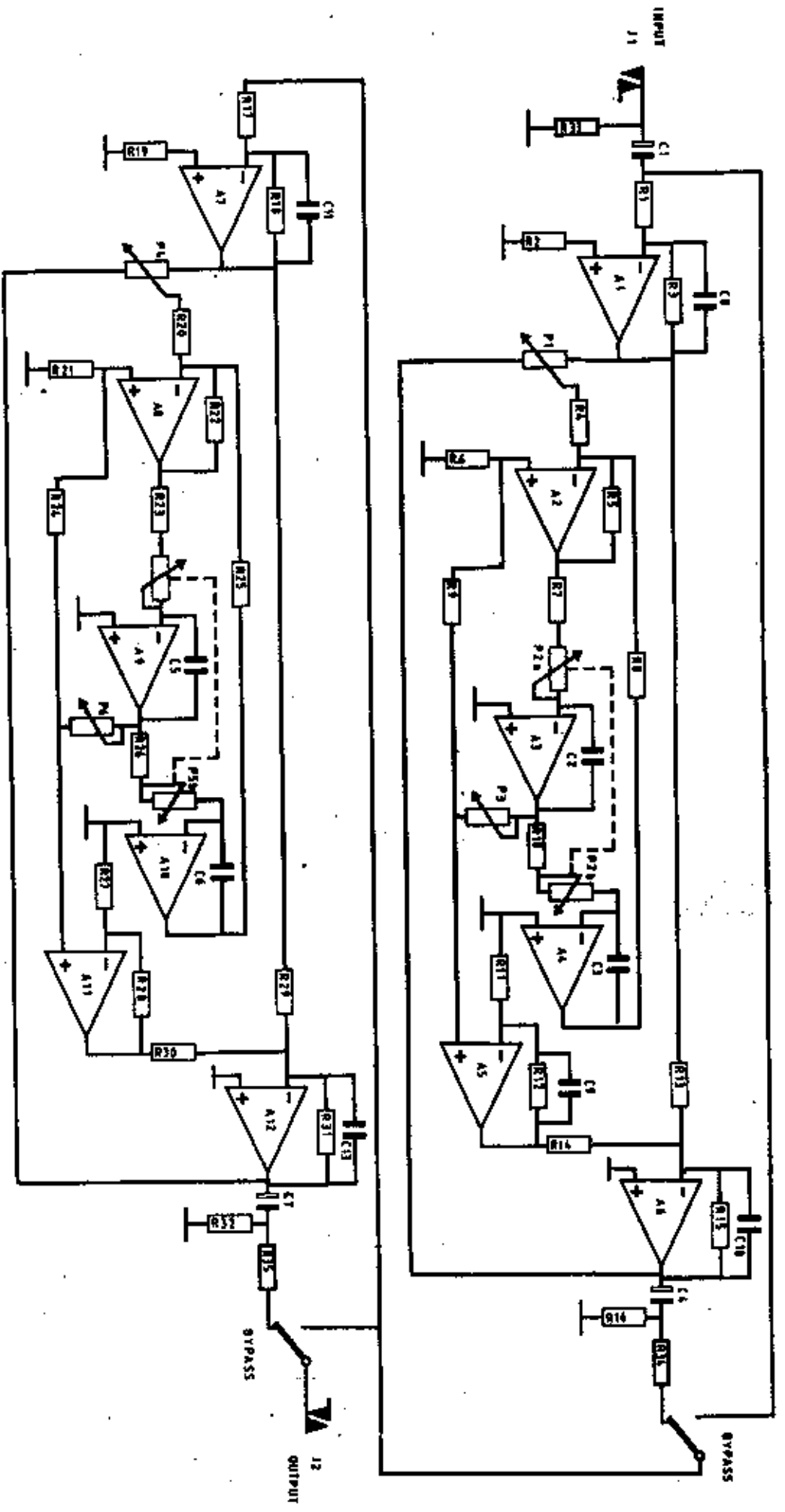
Always keep the above mentioned information in mind when using electrically powered equipment.

D&R ELECTRONICA B.V. WEESP

PARAMETRIC EQUALIZER

SERVICE MANUAL

DNR



Part. Eq.

ELECTRONICA B.V.

produktie en ontwikkeling van
geluidsmengpanelen en accessoires

Date: 12-03-1986

R & D department

Title : PARAMETRISCHE EQUALIZER 9.5''

PartNr	Value	Notes	ArtNr
R1	47 k	5%	0749
R2	47 k	5%	0749
R3	47 k	5%	0749
R4	100 k	5%	0753
R5	100 k	5%	0753
R6	2 k 7	5%	0743
R7	2 k 2	5%	0733
R8	100 k	5%	0753
R9	4 k 7	5%	0737
R10	2 k 2	5%	0733
R11	1 k	5%	0729
R12	1 k	5%	0729
R13	10 k	5%	0741
R14	2 k 7	5%	0734
R15	10 k	5%	0741
R16	47 k	5%	0749
R17	47 k	5%	0749
R18	47 k	5%	0749
R19	47 k	5%	0749
R20	100 k	5%	0753
R21	2 k 7	5%	0734
R22	100 k	5%	0753
R23	3 k 3	5%	0735
R24	4 k 7	5%	0737
R25	100 k	5%	0753
R26	3 k 3	5%	0735
R27	1 k	5%	0729
R28	1 k	5%	0729
R29	10 k	5%	0741
R30	2 k 7	5%	0741
R31	10 k	5%	0741
R32	47 k	5%	0749
R33	47 k	5%	0749
R34	100 E	5%	0717
R35	100 E	5%	0717
C1	47/25	rad	0287
C2	4 n 7	poly	0250
C3	4 n 7	poly	0250
C4	47/25	rad	0287
C5	22 n	poly	0256
C6	22 n	poly	0256
C7	47/25	rad	0287
C8	10 p	ker	0213
C9	10 p	ker	0213
C10	10 p	ker	0213
C11	10 p	ker	0213
C12	10 p	ker	0213
C300	470/40	ax	0295
C301	470/40	ax	0295

0002	47/25	rad	0207
0000	47/25	rad	0207
R1+R6+R7+R12	TL 074	bifET opamp	0305
R2-R5	TL 074	bifET opamp	0305
R8-R11	TL 074	bifET opamp	0305
IC000	7910	pos.reg.	0322
IC001	7910	pos.reg.	0323
P1	100 k A	pot12.5	0800
P2	100 k C	pot12.5 stereo	0891
P3	100 k C	pot12.5 4mm	0892
P4	100 k A	pot12.5	0800
P5	100 k C	pot12.5 stereo	0891
P6	100 k C	pot12.5 4mm	0892
S1	FOX 2xom		0400
S2	FOX 2xom		0400
S300	115/230	print switch	0000
J1	Cliff br.pl.	jack	0432
J2	Cliff br.pl.	jack	0432
J300	MOLEX 220 V	2 pins header	0448
B300	B80C1000	brugcel	0345
TR300	trafo 2x10V	3VA print	0502
FS300	63 mA/ 160 mA slow	fuseholder 0693+0695	