Dual and QUAD Delta 4-7 Mk.2
Professional Microphone,
Instrument and Line Amplifiers

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Mk.2 Delta 4-7

Welcome to the Delta 4-7 Microphone, Instrument and Line Amplifiers. This circuit is based on old designs from early 1960's in England, but with more controls and functions for today's recording environments, housed in a 2 space rack chassis. Care has been taken to keep component amount to a minume in pursuit of sound quality and preservation of what is amplified through it. Below, you will find an overview of the controls and what they do.

XLR Balanced Input Attenuator Pad.

This is a variable input attenuator from microphone level to line level; set this to avoid distortion or achieve the right amount of it.

High Pass Filters

On both inputs

1. 50 Hz -rumble
2. 90 Hz -noticeable
3. 150 Hz -obvious

Gain. This is a feedback gain; the more feedback, the lower gain and cleaner tone. As feedback is decreased, gain will increase, and more color and charactor will come through. OPEN is a no feedback setting for the most exciting tone.

Intrument D.i. Input and Attenuator Pad.

Variable from low-level instrument to full line level. This input is a high impedance of 1 mega ohm to preserve the tone of a passive guitar or bass.
Use the pad to set the level of hotter output keyboards or synths. There is also a THRU pass to go into an amplifier or effects pedal. You could plug the pedal output into the D.I. input on channel two, and record a clean and effected track, blend later. GND. LIFT will decouple the preamp chassis ground if it's causing a buzz or hum.

Output Pad is output attenuation.

INPUT: Sets the input of the preamp from balanced XLR or instrument D.I.

IMP.: XLR transformer impedance taps. Low will give more gain and more transformer color.

48V: Applies 48 volts to the XLR input for microphones that need it.

Ø Reverses the phase of the balanced output.

QUAD CHANNEL.

The QUAD Delta is 5 rack spaces and has the channels arranged vertically, but the internals are the same. There are some differences on the front panel layout. The QUAD has a separate high-pass filter control for both balanced and unbalanced inputs. For the dual, these share the same control on the front.

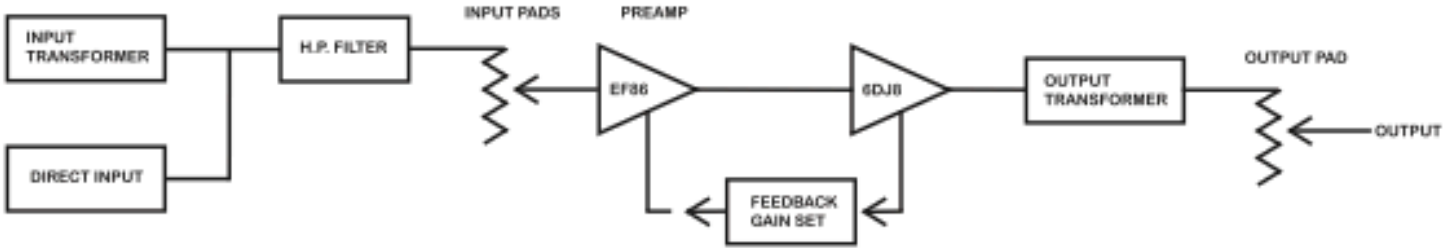
LINK:

This will link the output of channel one with the balanced input of channel two. Start with setting channel two microphone pad to LINE; this will be like a tube console, using the second preamp as a line amp for twice the tone. Start turning the PAD off (from LINE to 0) and you will get into overdrive from subtle to extreme. This can work well to get guitar or bass direct inputs to overdrive. Achieve all sorts of distortion flavors by driving different amplifiers and using the gain settings. When using the LINK, the output of channel one will still work, its just multing into channel two input. You could do something like record a clean vocal on channel one, and link into channel two, overdrive channel two with the input pad to get the right amount of drive or overdrive, and record both outputs to get a clean and driven track.

QUAD:

Channels 1 and 2 can be linked and cascaded into each other, as well as channels 3 and 4. The switches for this are located to the right near the power switch. Switch these to the right to LINK the channels.

Amplifier circuit:



Tubes: EF86 input gain stage and 6DJ8 output driver.

Balanced input impedance: 600 and 150 ohm.

D.I. unbalanced instrument input impedance: 1 mega ohm.

Balanced output impedance: 600 ohm

120 Volts AC, 0.5 Slow Blow Fuse

240 Volts AC, 0.25 Slow Blow Fuse

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