Rebis

RA220 Hi-Com Noise Reduction System

The Rebis Audio RA220 Hi-Com module is based on the Telefunken U401BR noise reduction IC and manufactured under license.

The Hi-Com system uses an audio compander with clever filtering to achieve almost 20dB of noise reduction.
This is similar to the Dolby B system in general terms but is acoustically superior and does not create the unwanted artefacts of the Dolby system.

The module has two sections and can either be used as a simultaneous encode/decode (record/play) system for a single channel or with control relays fitted acts as a two channel unit with each section being switched from encode to decode by a DC feed from a record switch, usually linked to the record switch for the tape machine track which it is processing.

Obviously in non-simultaneous two channel mode only half the number of Hi-Com modules are needed for a given number of tape machine tracks.

There are system level control switches on the board which can accommodate different operating levels at the tape machine and mixer when used in simultaneous mode.
These switches must be set to the same level when used in non-simultaneous mode.

The only front panel control is a Bypass push button switch with two LED indicators, green for in circuit and red for out of circuit.
This button switches both sections in and out at the same time.

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RA220 High Com Noise Reduction (Non-simultaneous)

Pin Connections

CONNECTION	PIN NO.
+40 volts	10
Main 0 volts	9
CHANNEL 1.	
DC Record/Play Control Input	3
Output to Mixer	4
Input From Mixer	5
0 volts (Screen point for input cables)	6
Input From Tape	7
Output to Tape	8
CHANNEL 2.	
DC Record/Play Control Input	11
Output to Mixer	12
Input From Mixer	13
0 volts (Screen point for input cables)	14
Input From Tape	15
Output to Tape	16

Screened cables should be used for all signal connections, the screens being connected to 0 volts at the edge connector only for inputs and at the equipment only for outputs.

A single cable should be used to connect the main 0 volts buss (Pin 9) to the studio's main signal 0 volts.

Earthing

When installing the module in a Rebis Rack Frame ensure that it is firmly screwed in and that the rack is earthed, as it is essential both for safety and screening that the front panel is ultimately connected to mains earth.

Level Matching

The on board level matching switches on the non-simultaneous RA220 must BOTH be set to suit the operating level of the tape machine.

Relay Power Supply

It is recommended that a seperate power supply unit is used for the DC Record/Play Control Inputs. 0 volts rail is common to both supplies.

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RA220 High Com Noise Reduction (Simultaneous)

Pin Connections

CONNECTION	PIN NO.
+40 volts	10
Main 0 volts	9
Output to Mixer	4
0 volts (Screen point for input cables)	6
Input from Tape	7
Input from Mixer	13
0 volts (Screen point for input cables)	14
Output to Tape	16

Screened cables should be used for all signal connections, the screens being connected to 0 volts at the edge connector only for inputs and at the equipment only for outputs.
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Earthing

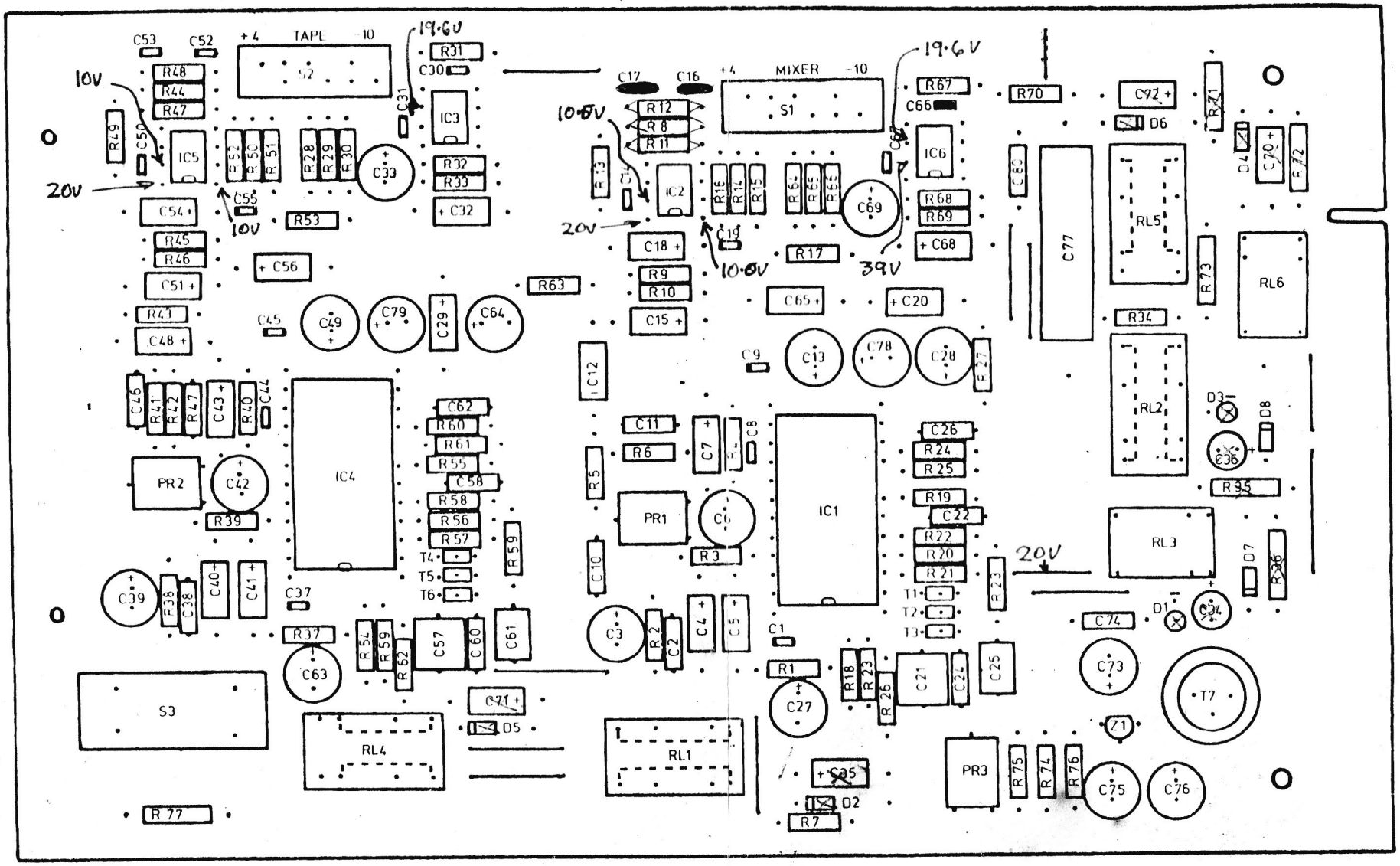
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Level Matching

The on board switches should be set to the recommended operating levels of the mixer and the tape machine. These are individually selectable so that the RA220 can act as a level correcting interface between equipment which would otherwise be incompatible.

Conversion from Simultaneous to Non-simultaneous

Before fitting relay conversion kit, wire links shown dotted on layout should be removed.



Dotted links replace relays for simultaneous operation

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