SPECIFICATIONS

FREQUENCY RESPONSE (PER SECTION)	:	6mS delays - 30Hz-15KHz +1dB -1dB, reducing to +1dB -4dB at 26mS
T.H.D.	:	Typically 0.2% at 1KHz. Max. 0.5% at 1KHz, 2dB below max. level
DYNAMIC RANGE	:	90dB (95 typical)
MAXIMUM DELAY TIME	:	53mS (26.5 per channel)
DOPPLER (CONTINUOUS TIME SWEEP) RANGE	:	70:1 (over 6 octaves)
FLANGE NOTCH CANCEL	:	90dB
INPUT IMPEDENCE	:	Electronically balanced (or unbalanced) 20K ohms nominal
OUTPUT IMPEDENCE	:	Electronically balanced less than 30 ohms to drive 600 ohm load
NOMINAL INPUT LEVEL	:	+4dBm
OUTPUT LEVEL	:	+4dBm to +18dBm. Adjustable
EXTERNAL CONTROL VOLTAGE	:	$\pm$ 5v (bipolar)

CIRCUIT DIAGRAMS

The block diagram on Page 15 is printed in two colours, red and green. These refer to the two circuit boards in the unit.

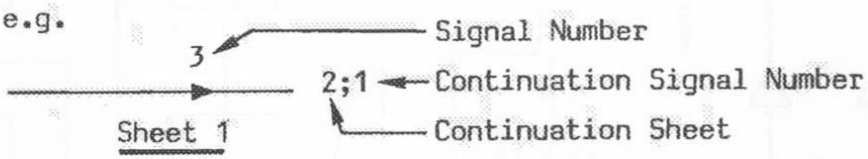
Due to the complexity of the circuit, it has been split up into nine diagrams. The encircled numbers near each block on the block diagram indicate the circuit diagram sheet number.

Supply voltages to the integrated circuits will be found listed at the end of the section.

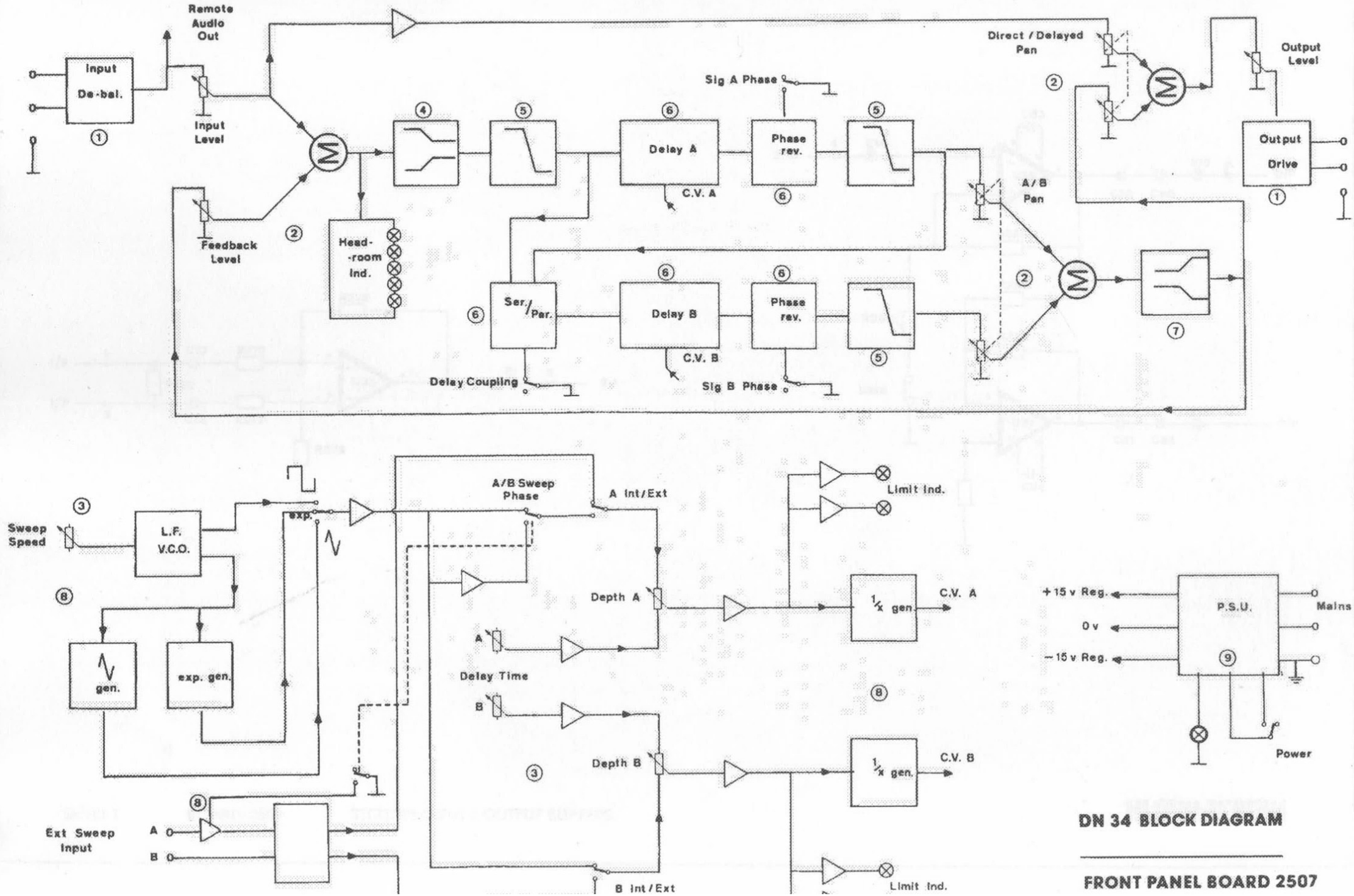
Each circuit diagram is headed with the sheet number, section title and relevant circuit board number.

Tracing signal paths between two different diagrams is simplified by the use of a 'signal number' and a 'destination sheet number'. The'signal number'will reappear next to the relevant signal path on the continuation sheet.

e.g.

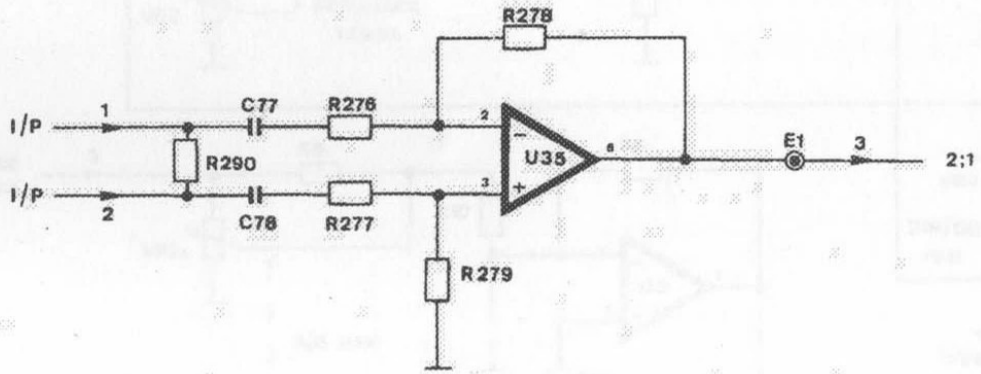


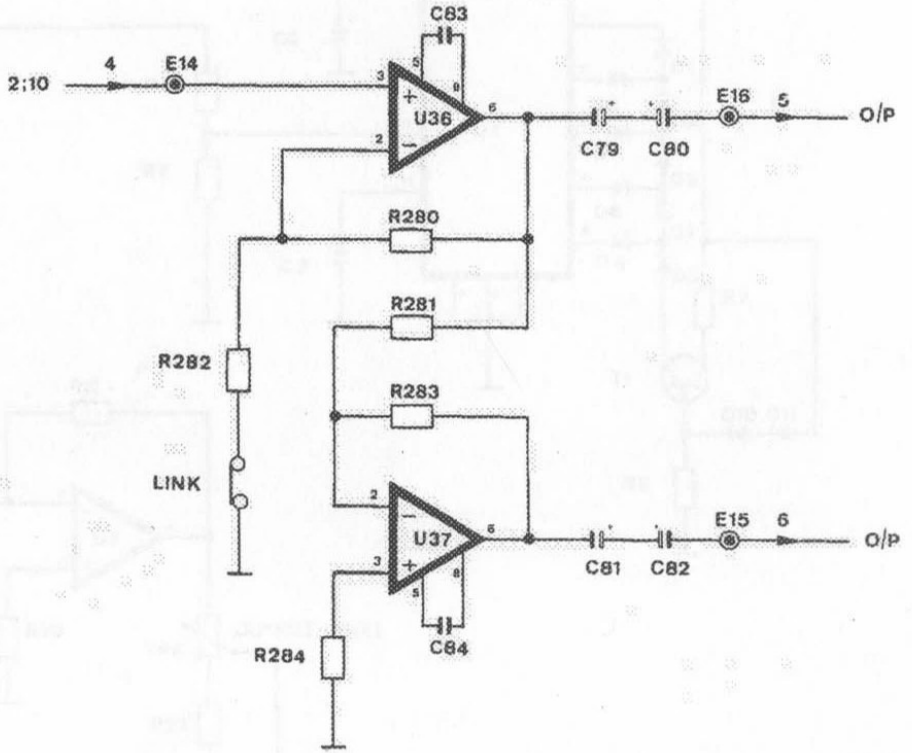
On sheet 1 signal number 3 is continued on sheet 2 signal number 1. This can be confirmed by looking at sheet 2, signal number 1 will be continued from sheet 1 signal number 3 (1;3). The direction of the arrow next to the signal number is the direction of the signal path.



DN 34 BLOCK DIAGRAM

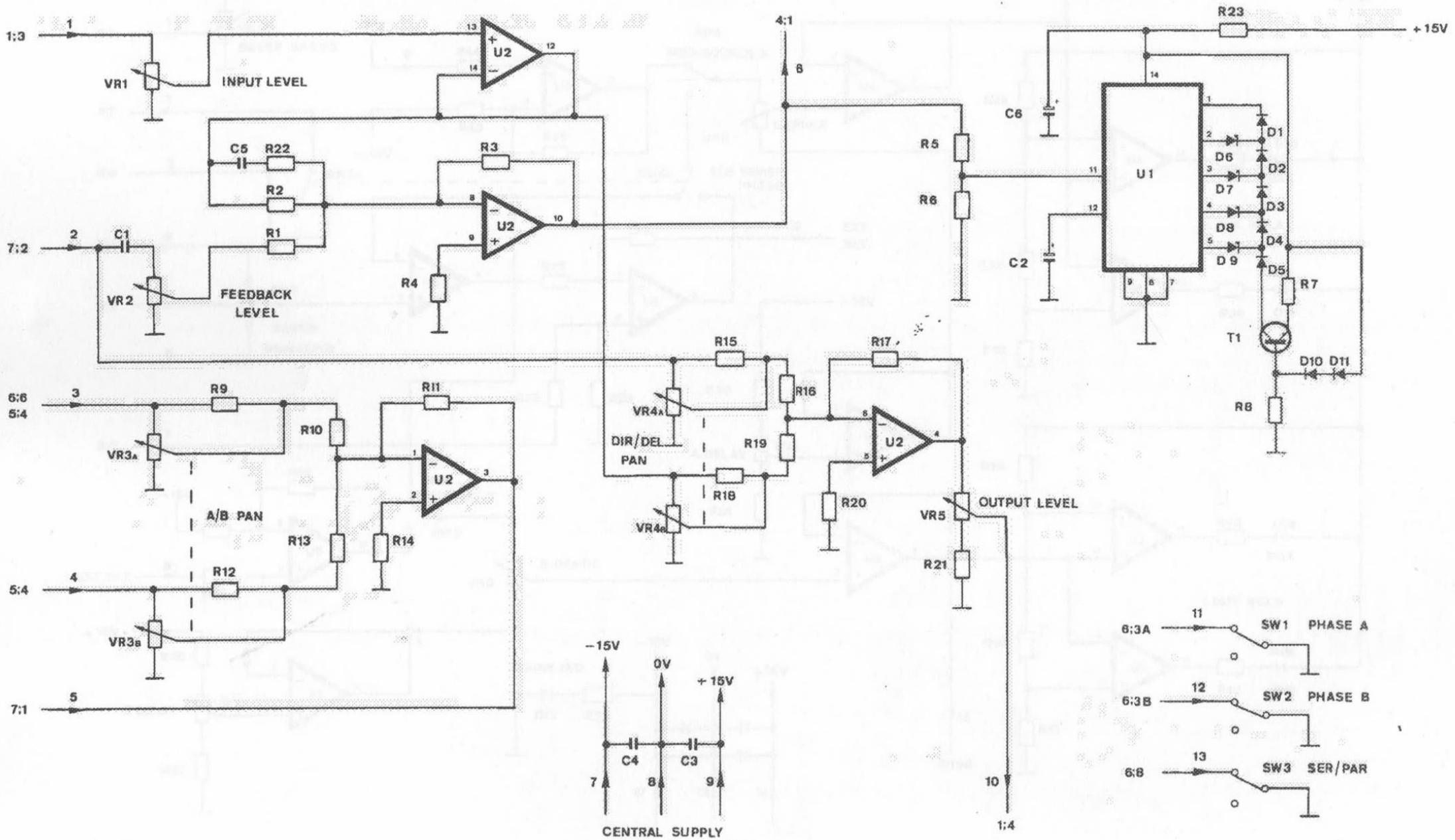
FRONT PANEL BOARD 2507





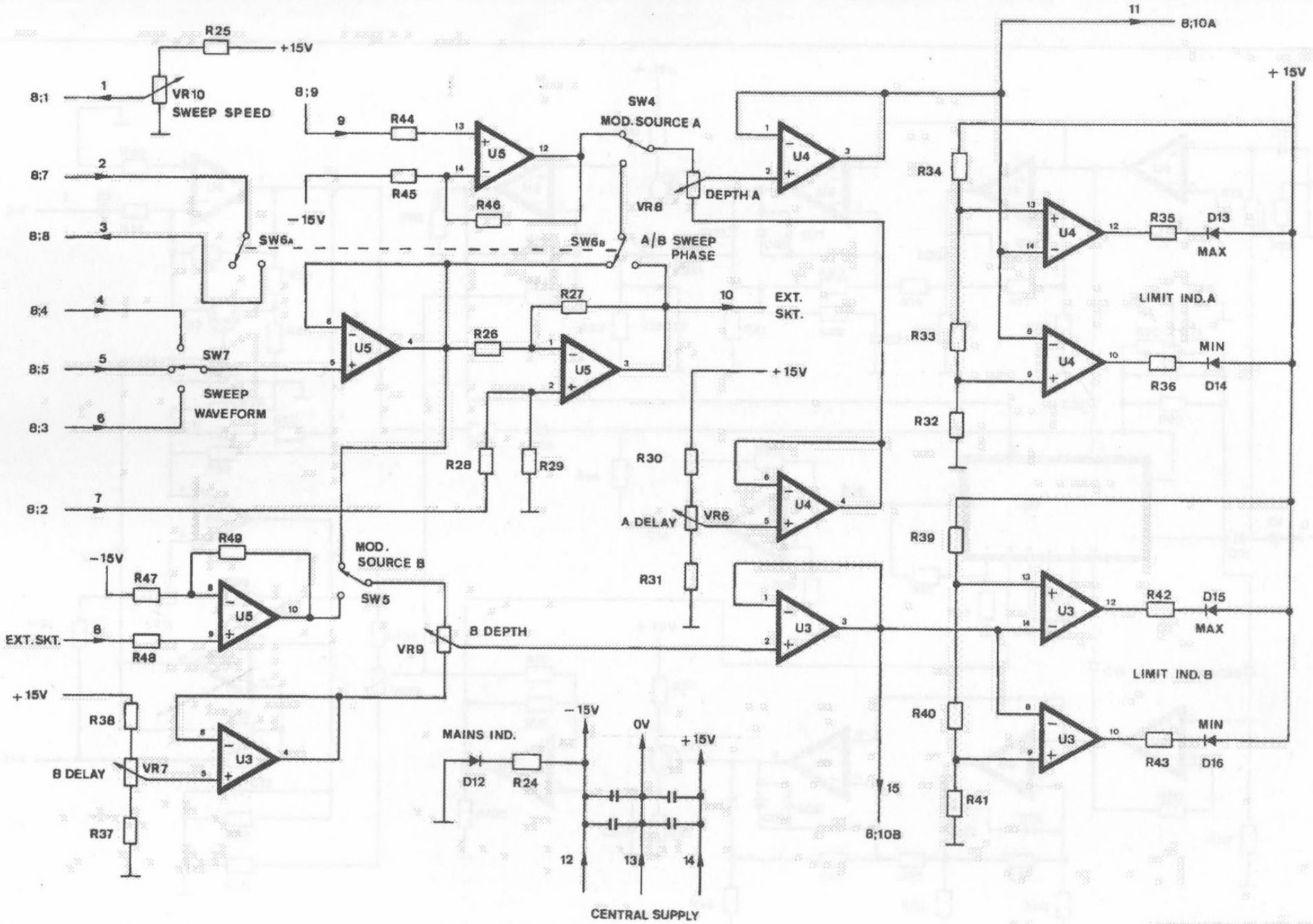
SHEET 1 BOARD: 2509 SECTION: INPUT & OUTPUT BUFFERS.

KLARK-TEKNIK



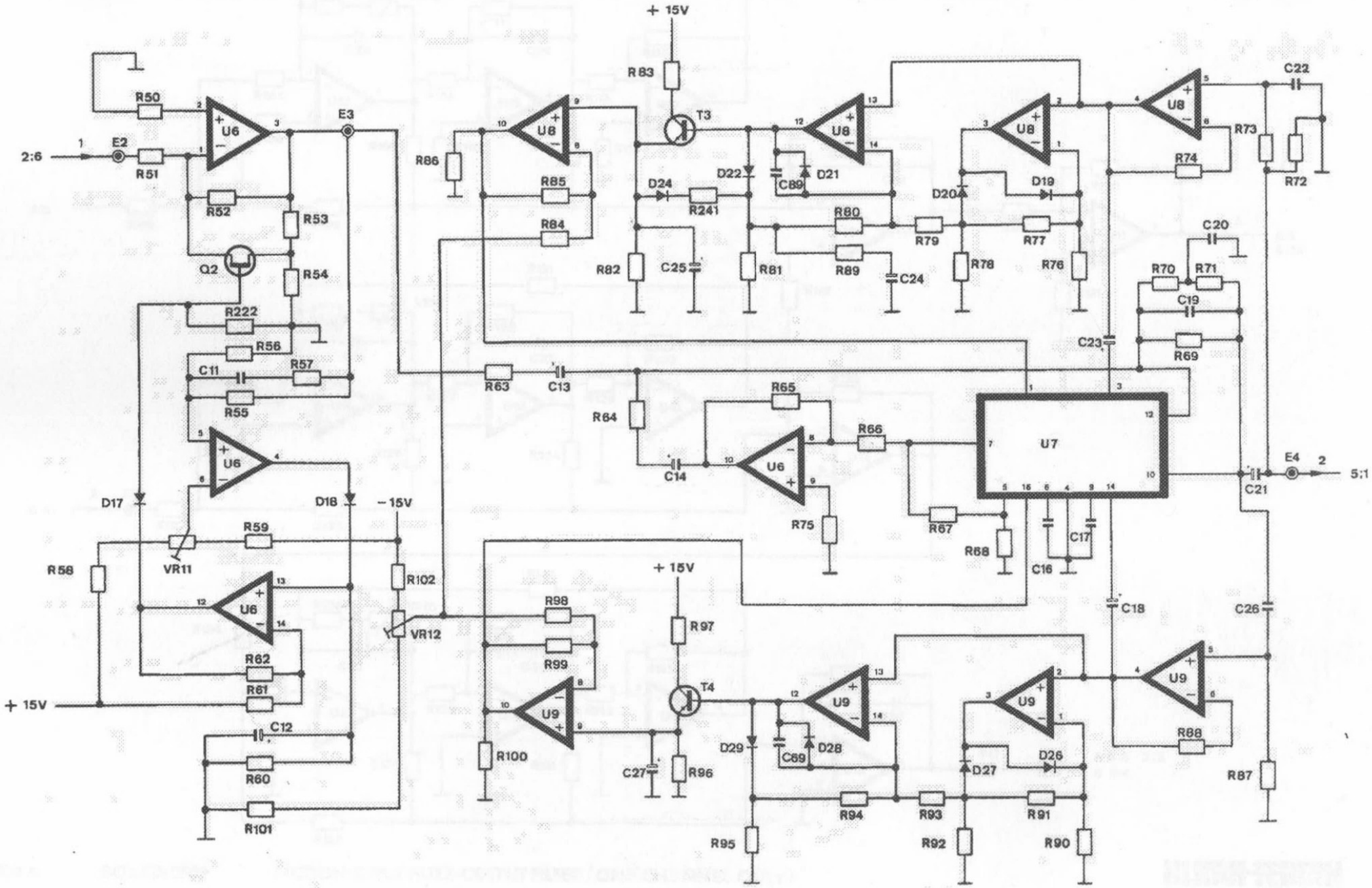
SHEET 2 BOARD: 2507 SECTION: AUDIO MIXING.

KLARK-TEKNIK



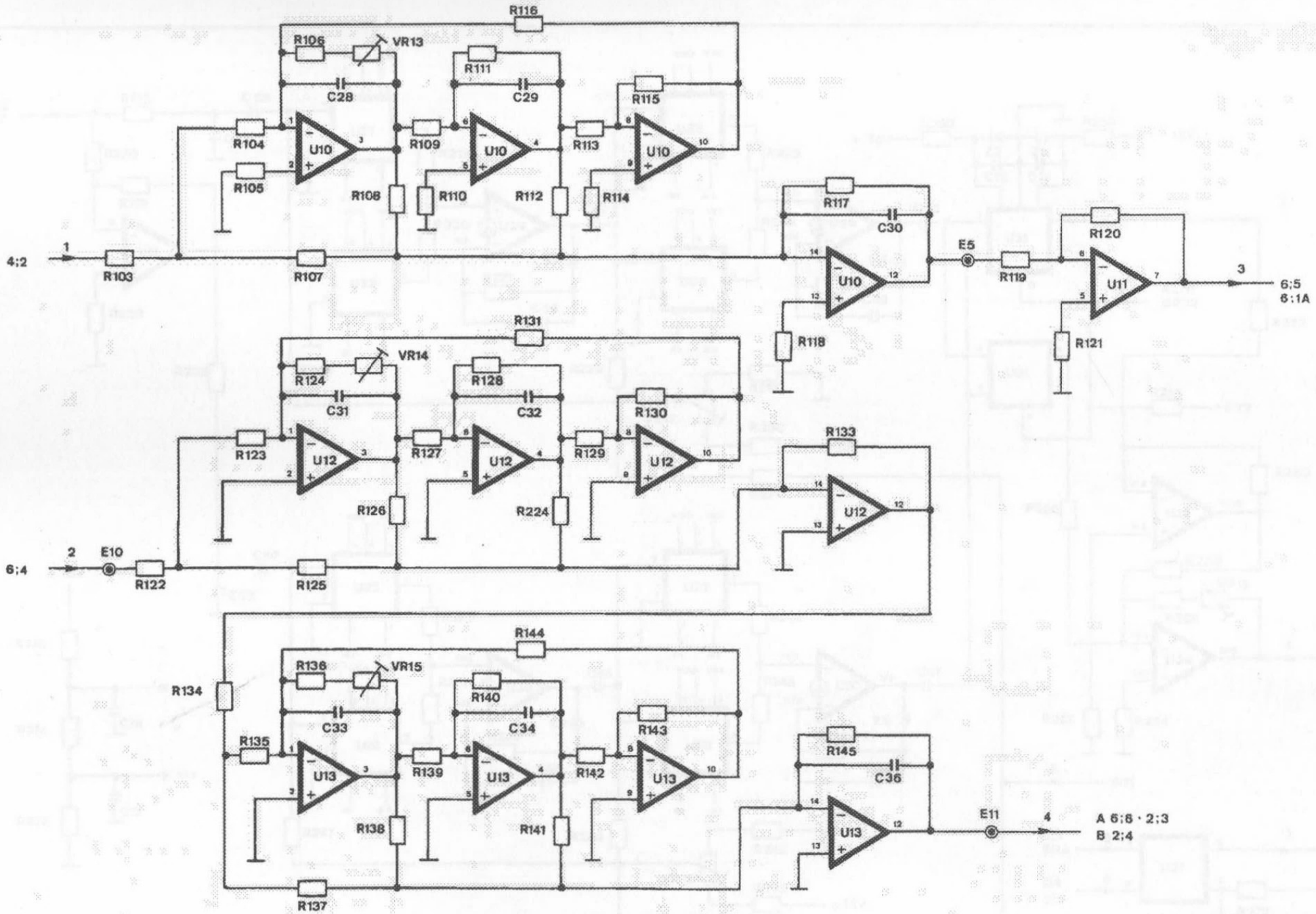
SHEET 3 BOARD: 2507 SECTION: CONTROL VOLTAGE

KLARK-TEKNIK



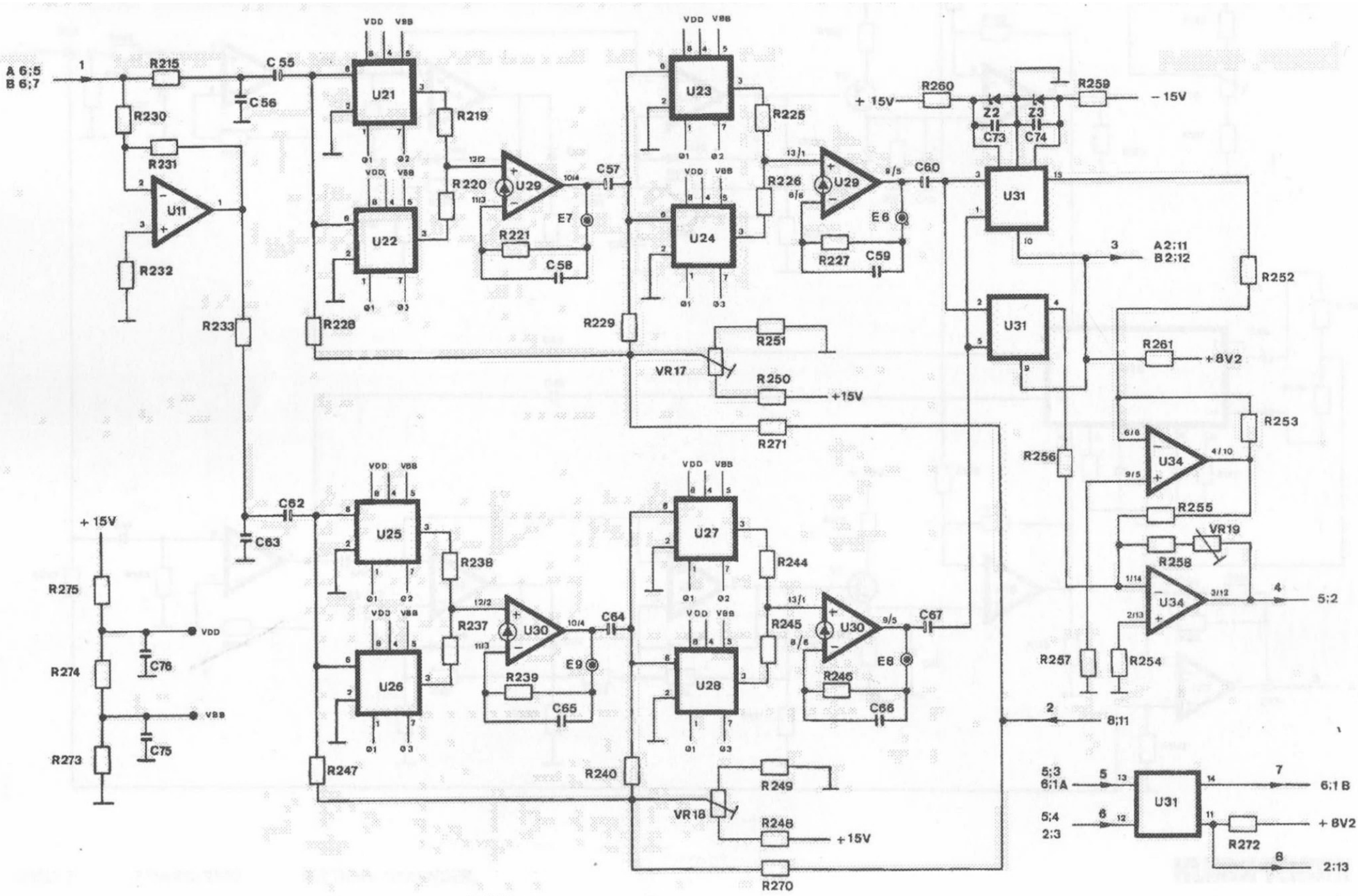
SHEET 4 BOARD: 2509 SECTION: COMPRESSOR-LIMITER.

KLARK-TEKNIK



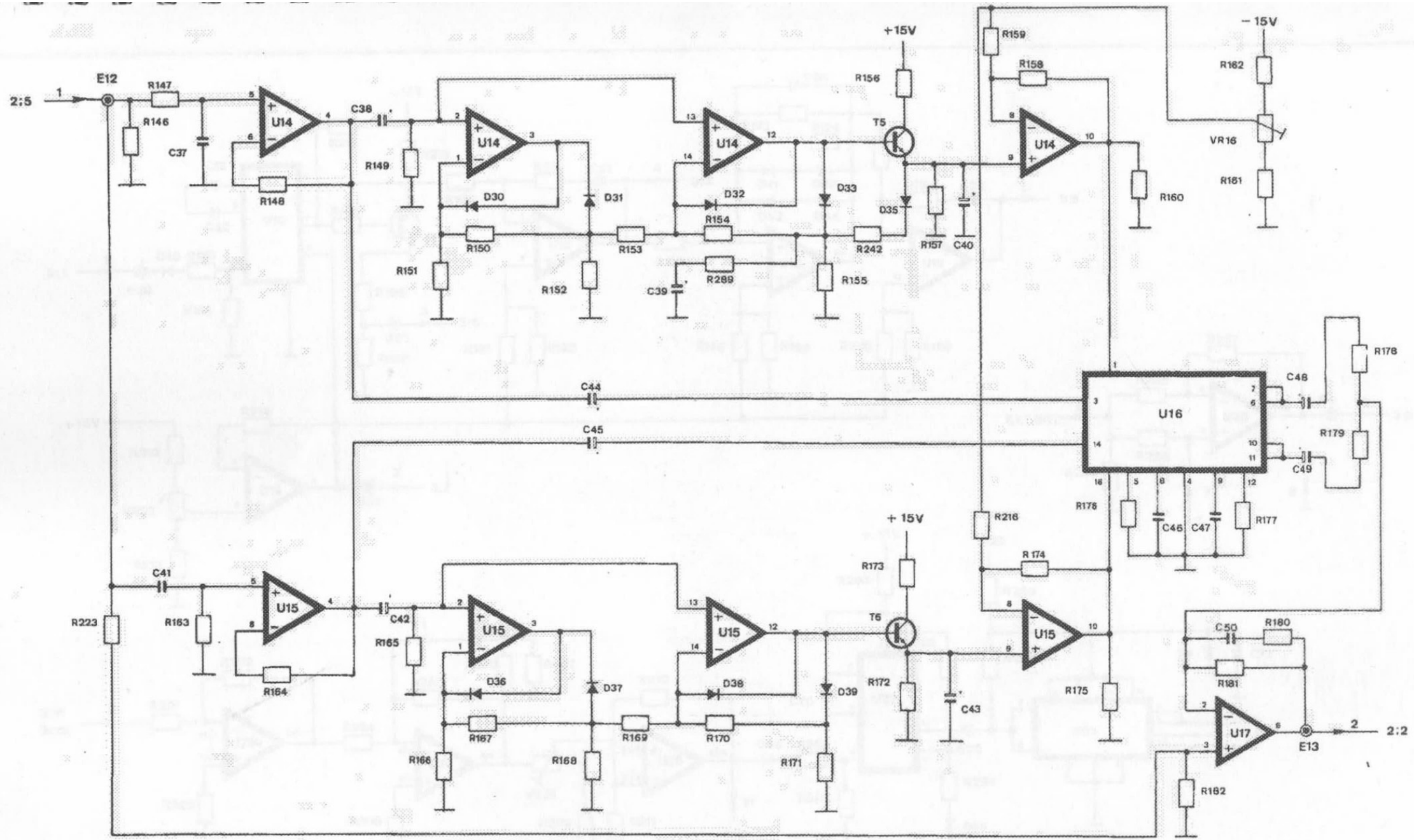
SHEET 5 BOARD: 2509 SECTION: INPUT FILTER-OUTPUT FILTER (ONE CHANNEL ONLY)

KLARK-TEKNIK



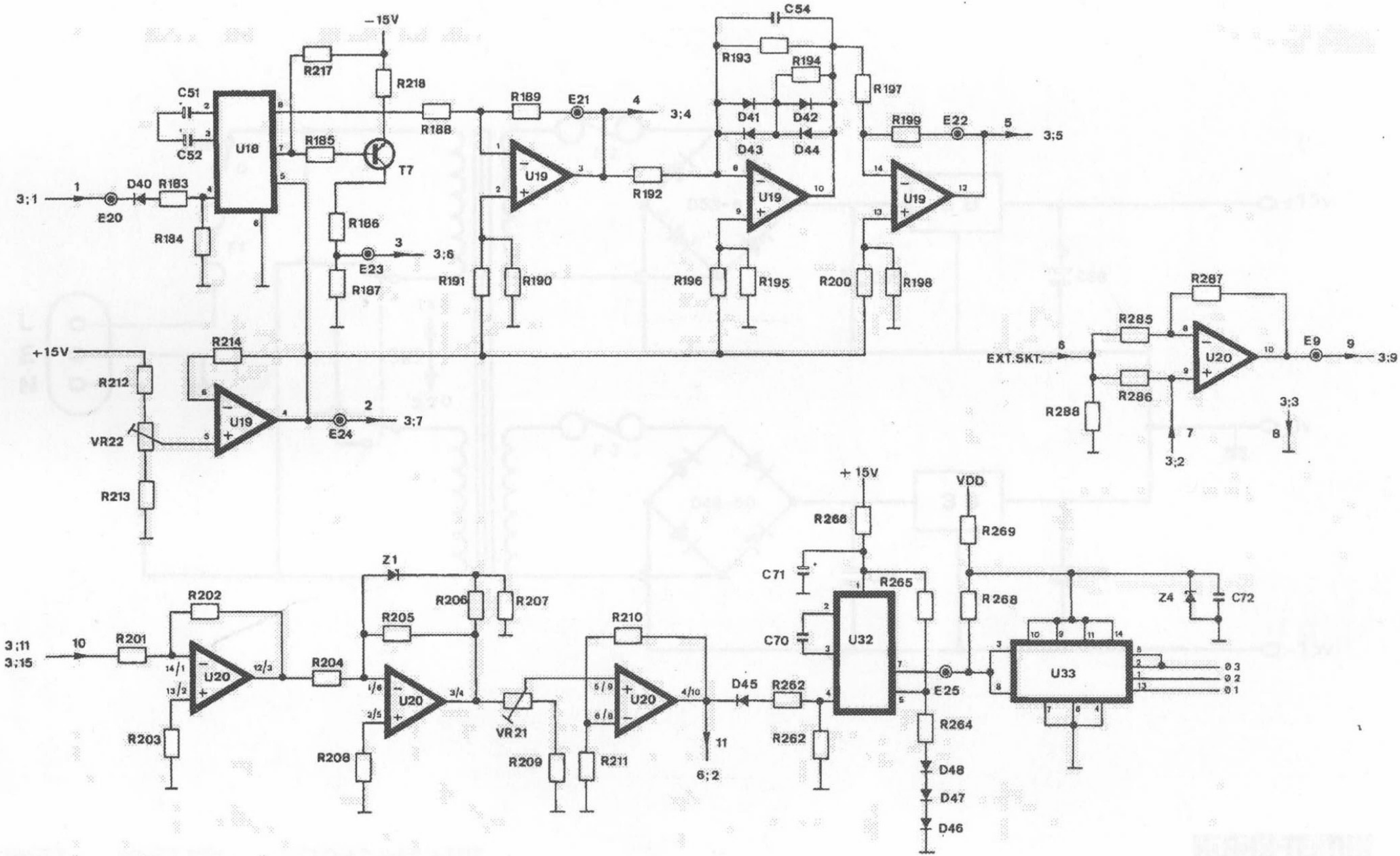
SHEET 6 BOARD: 2509 SECTION: DELAY (ONE CHANNEL ONLY)

KLARK-TEKNIK



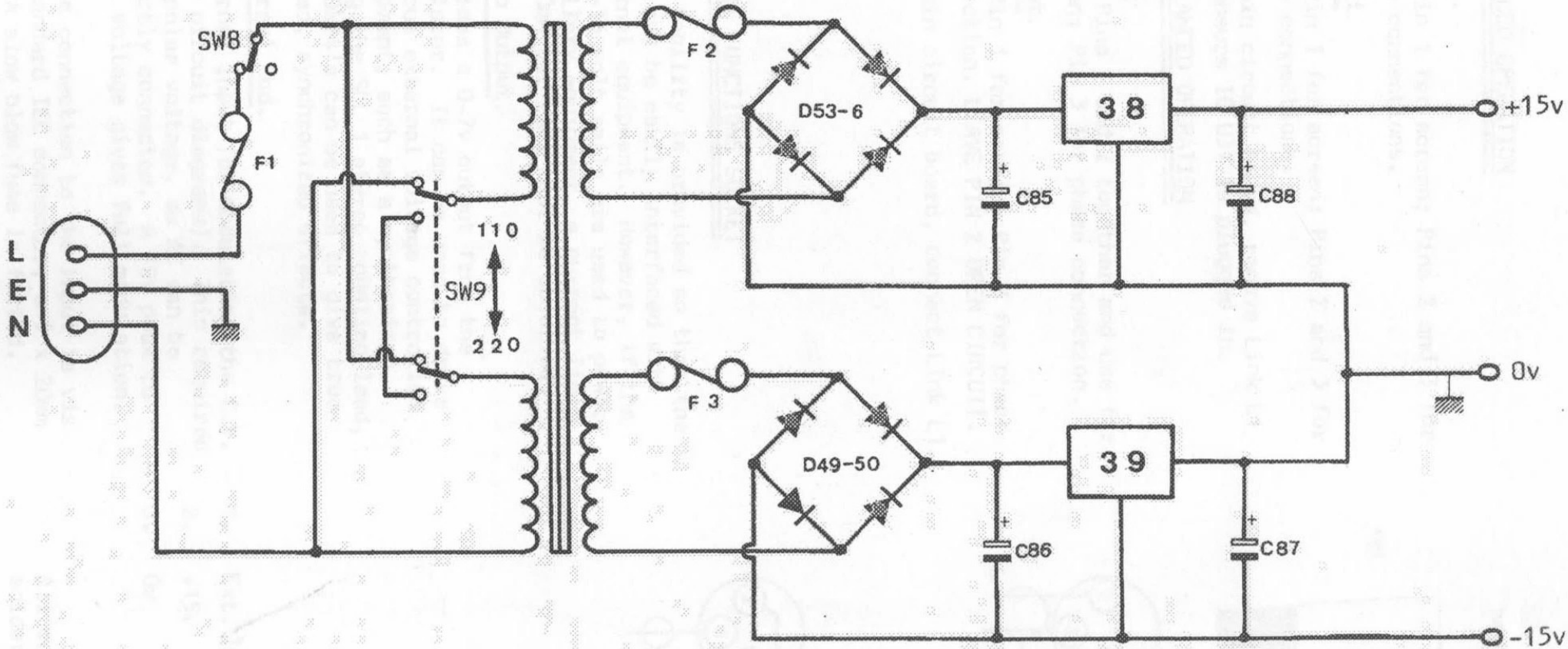
SHEET 7 BOARD: 2509 SECTION: EXPANDER.

KLARK-TEKNIK



SHEET 8 BOARD: 2509 SECTION: L.F. OSCILATOR EXT. INTERFACE 1/X GENERATOR.

KLARK-TEKNIK

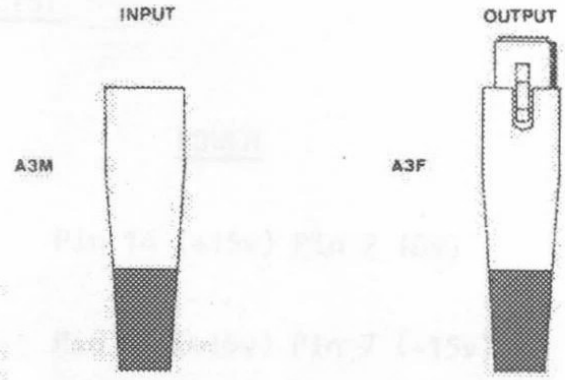


SHEET 9 BOARD: 2509 SECTION: POWER SUPPLY.

KLARK-TEKNIK

REAR PANEL CONNECTIONS

BALANCED OPERATION



Input.

Use Pin 1 for screen; Pins 2 and 3 for phase connections.

Output.

Use Pin 1 for screen; Pins 2 and 3 for phase connections.

On main circuit board, remove Link L1 and ensure IC U37 is plugged in.

UNBALANCED OPERATION

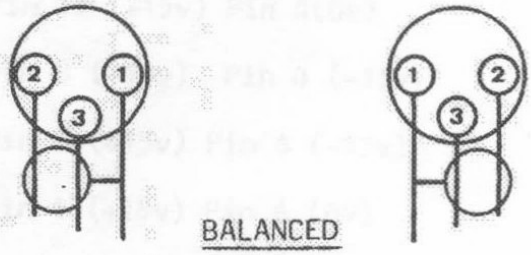
Input.

Join Pins 1 and 2 together and use for screen; Pin 3 for phase connection.

Output.

Use Pin 1 for screen; Pin 3 for phase connection. LEAVE PIN 2 OPEN CIRCUIT.

On main circuit board, connect Link L1.



BALANCED

UNBALANCED

REMOTE FUNCTIONS SOCKET

This facility is provided so that the DN34 may be easily interfaced with external equipment. However, if the 15-0-15 volt rails are used to power ancillary equipment, a current limit of 20mA per rail must be observed.

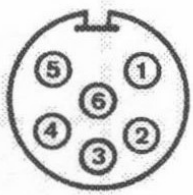
Sweep Output.

Provides a 0-7v output from the modulator. It can be used to drive various external voltage controlled equipment, such as a synthesizer. Using the SCL 1 stereo coupling lead, two DN34's can be used to give true stereo, synchronized effects.

External Mod.

External input for modulating the C.V. (see circuit diagrams). This requires a bipolar voltage, so AC can be directly connected. A 10v peak to peak voltage gives full modulation.

Mains connection to the input is via a standard IEC connector, a 5 x 20mm 250mA slow blow fuse is fitted.



1. Ext. Mod. A.
2. +15v
3. 0v
4. -15v
5. Ext. Mod. B.
6. Sweep Output

All connections viewed from solder side.

INTEGRATED CIRCUIT SUPPLY VOLTAGE PIN LIST

I.C. NO.	TYPE	POWER
1	SN1688ON	Pin 14 (+15v) Pin 7 (0v)
2-6, 8-10, 12-15, 19,20, 34	RC 4136	Pin 11 (+15v) Pin 7 (-15v)
7, 16	NE570B	Pin 13 (+15v) Pin 4(0v)
11	MC1458	Pin 8 (+15v) Pin 4 (-15v)
17,35	TL071	Pin 7 (+15v) Pin 4 (-15v)
18,32	XR 2209	Pin 1 (+15v) Pin 6 (0v)
21-28	KTR007 (selected 512D)	See Circuit Diagram.
29,30	LM 3900N	Pin 14 (+15v) Pin 7 (0v)
31	CD 4053	See Circuit Diagram.
33	CD 4013	See Circuit Diagram.
36,37	TDA1034B	Pin 7 (+15v) Pin 4 (-15v)

EQUIVALENT DEVICES MAY BE USED, ACCORDING TO AVAILABILITY AT TIME OF MANUFACTURE.