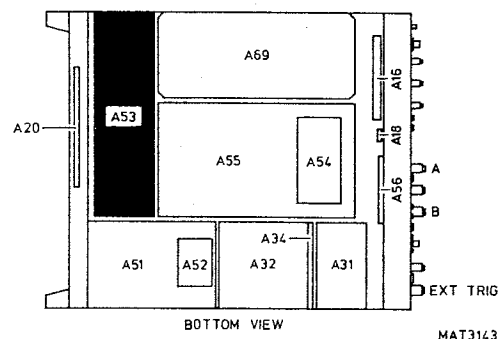


UNIT A53 - DISTRIBUTION UNITCONTENTS

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8.53.2	Circuit description.....	8.53-1
8.53.3	Signal name list.....	8.53-2

8.53.1 General information

This unit consists of three parts:

- a probe detection circuit
- a calibrator
- a power supply distribution circuit

8.53.2 Circuit description

The PROBE DETECTION circuit detects the attenuation factor of the probe(s) via the signal PRIFA-XA for channel A and PRIFB-XA for channel B.

This current is converted by the ADC D3702 to binary data according the following table:

Probe	Channel A		Channel B	
	PRIFA1	PRIFA2	FRIPB1	PRIFB2
No detection ring	1	1	1	1
1:10 (50 Ohm)	0	1	0	1
1:100 (50 Ohm)	1	0	1	0

The digital probe information signals are led to the INPUT PORT on the Management unit A25, where they can be read by the microprocessor.

The CALIBRATOR consists of a 4 MHz crystal controlled oscillator (G3701) with 2 internal dividers.

The 1 MHz output (pin 6) is led to a divide-by-10 stage (D3701). The output signal is led to a buffer consisting of transistors V3703 and V3704 and associated circuitry. The amplitude of the output signal CAL is controlled by adjusting the power supply voltage (+12Va) of the CALIBRATOR by means of potentiometer R3724.

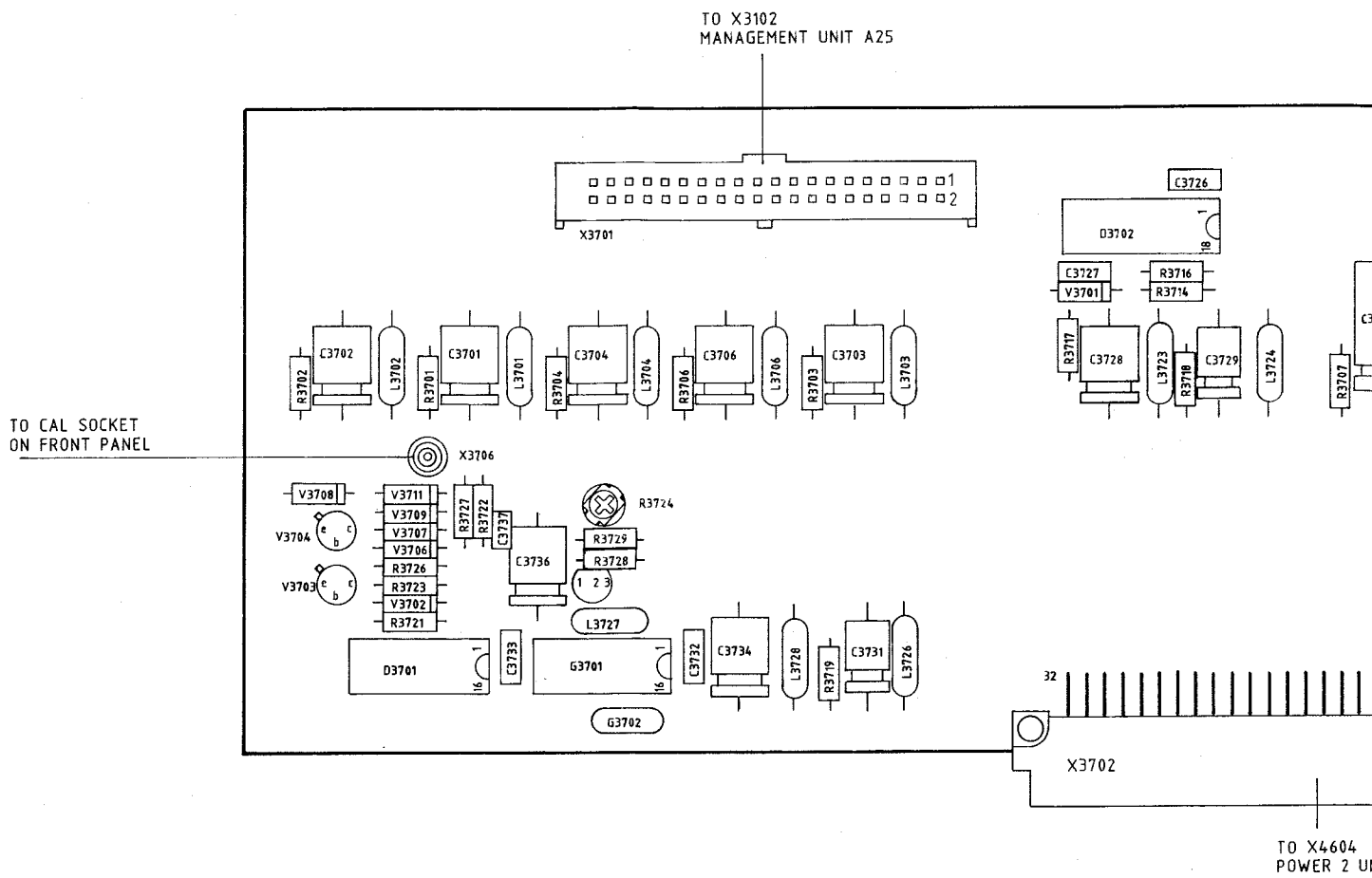
This signal (100 kHz, 1 Vpp into 50 ohm) is applied to the CAL output socket on the front panel.

The POWER SUPPLY DISTRIBUTION consists of a number of power decoupling networks and a stabilized power supply for the CALIBRATOR. Furtheron, it distributes the power supply lines coming from unit A19 via A20 to the various units in this instrument.

8.53.3 Signal name list

UNIT 53

Signal name	Description	Signal source	Signal destination(s)
CAL	Calibrator	A53	FRONT
CHSW-1	Channel switch 1	A25	-
CNDWMO	Count down mode	A34	-
CNSTCNLT	Count stair counter	A5	-
LEFSRM	Latch enable fast ramp	A25	-
LEHDOF	Latch enable hold off	A25	-
LETBST	Latch enable time-base status	A25	-
LETRDL	Latch enable trigger delay	A25	-
LETRST	Latch enable trigger status	A25	-
LEVEA	Latch enable vertical A	A25	-
LEVEB	Latch enable vertical B	A25	-
LEVGFA	Latch enable variable gain forward A	A25	-
LEVGFB	Latch enable variable gain forward B	A25	-
PRIFA-XA	Probe information A	A54	-
PRIFA1	Probe information A1	A53	A25
PRIFA2	Probe information A2	A53	A25
PRIFB-XA	Probe information B	A54	-
PRIFB1	Probe information B1	A53	A25
PRIFB2	Probe information B2	A53	A25
RSSTCNLT	Reset stair counter	A5	-
SECK1	Serial clock 1	A25	-
SECK2	Serial clock 2	A25	-
SEDA1	Serial data 1	A25	-
SEDA2	Serial data 2	A25	-
STSACTLT	Start sampling gate	A52	-
SYMO--LT	Synchronized mode	A34	-
TRSVHI	Trigger sensitivity high	A34	-



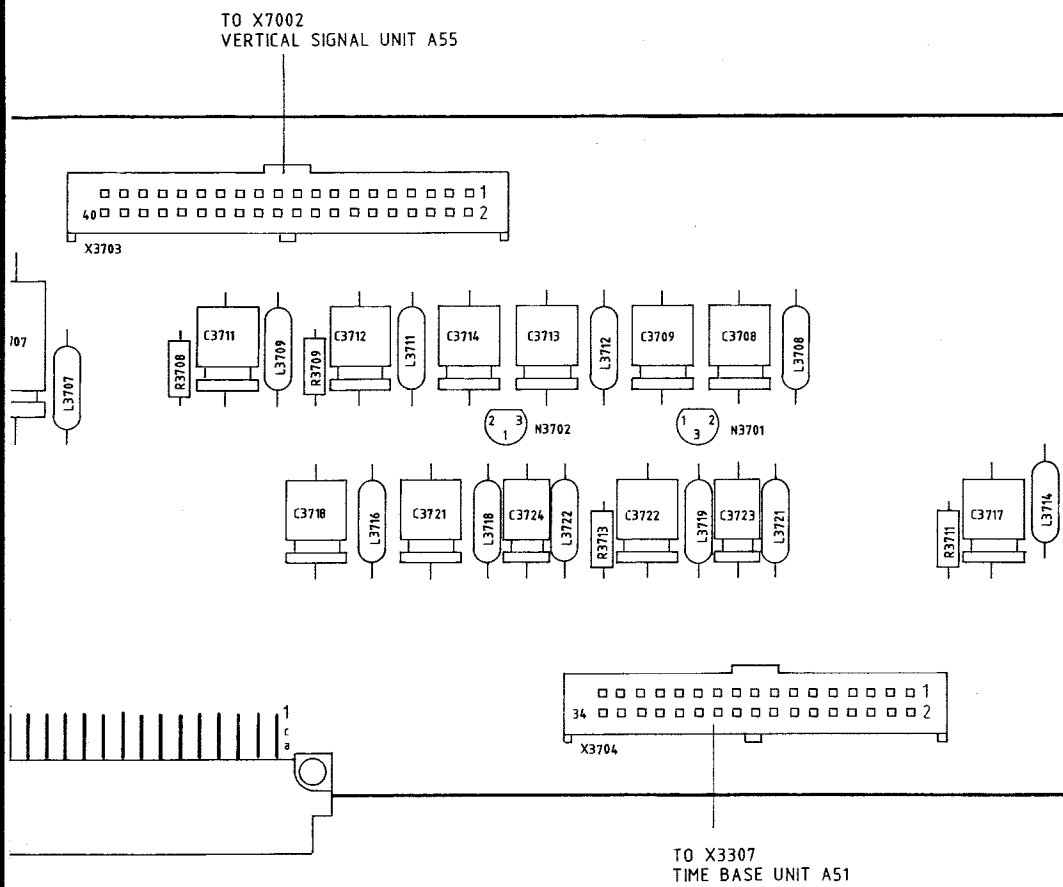


Figure 8.53.1 Unit A53 - DISTRIBUTION UNIT - p.c.b. lay-out.

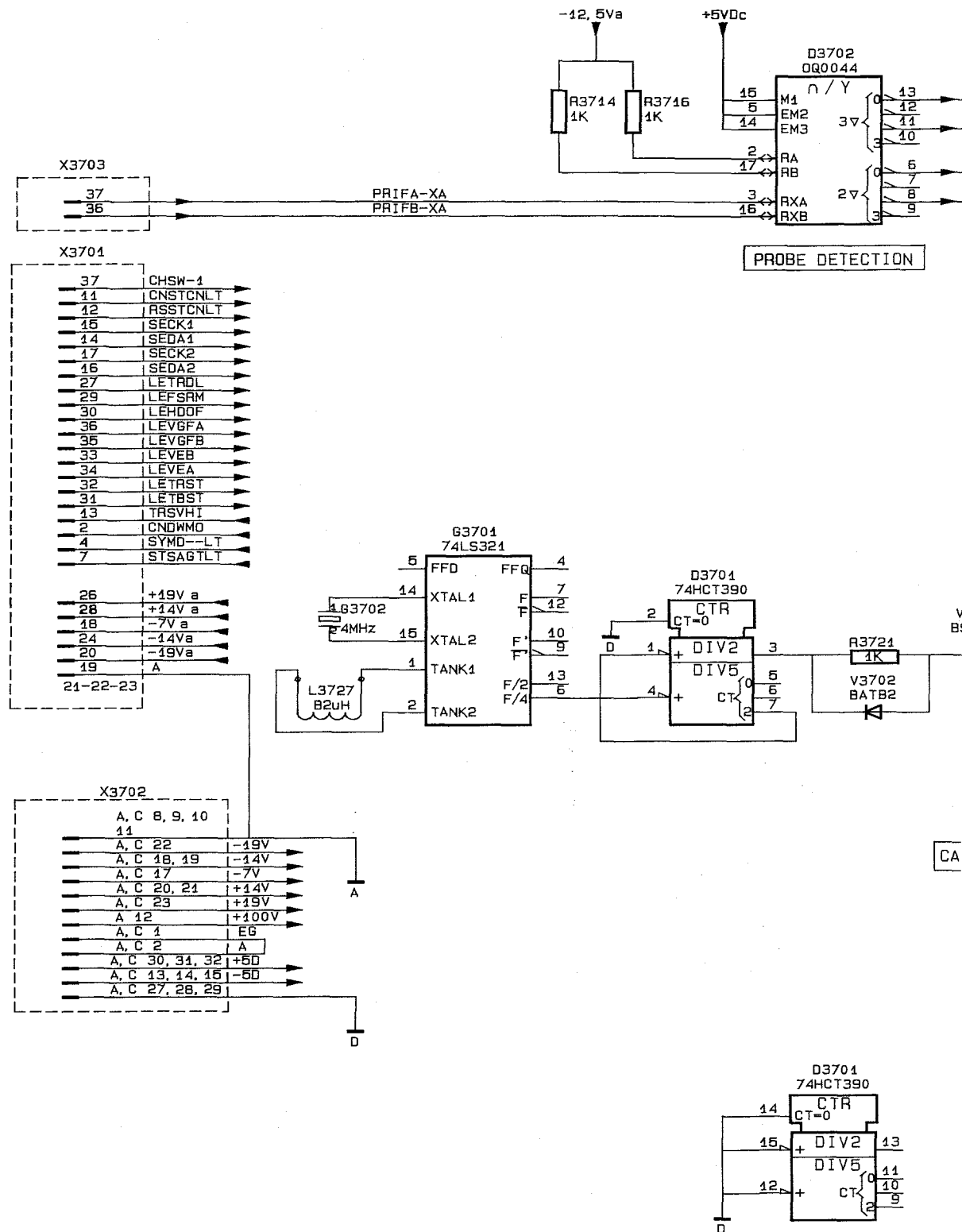
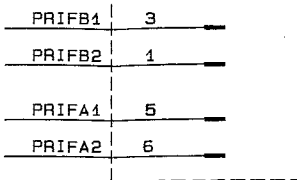
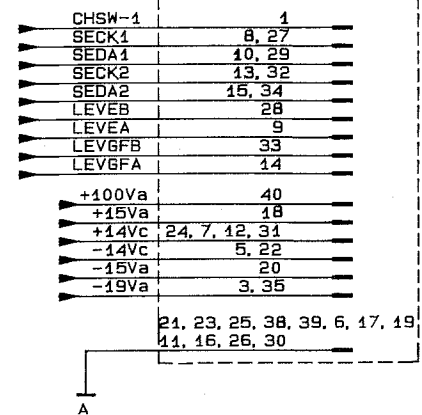


Figure 8.53.2 Unit A53 - DISTRIBUTION UNIT - Circuit diagram.

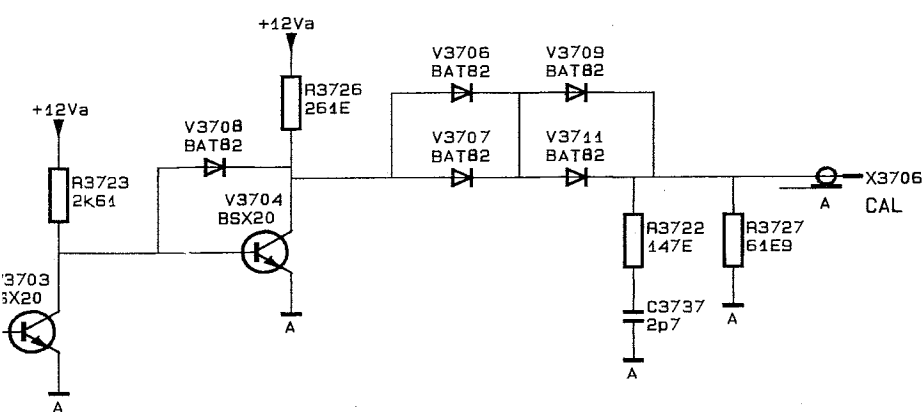
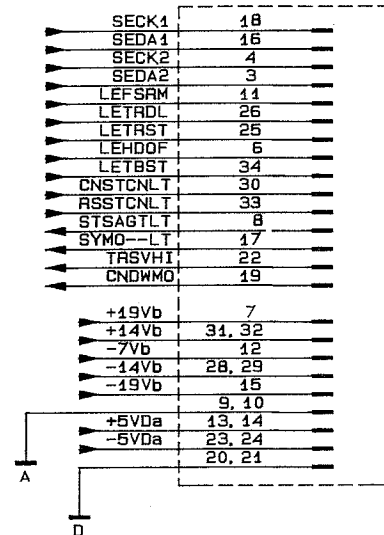
X3701



X3703



X3704



LIBRATOR

REFNR	TYPE	+5VDb	-12, 5Va	$\frac{1}{D}$
D3701	74HCT390	16		8
D3702	0Q0044	4	18	1
G3701	74LS321	11-16		3-8

MAT 3275

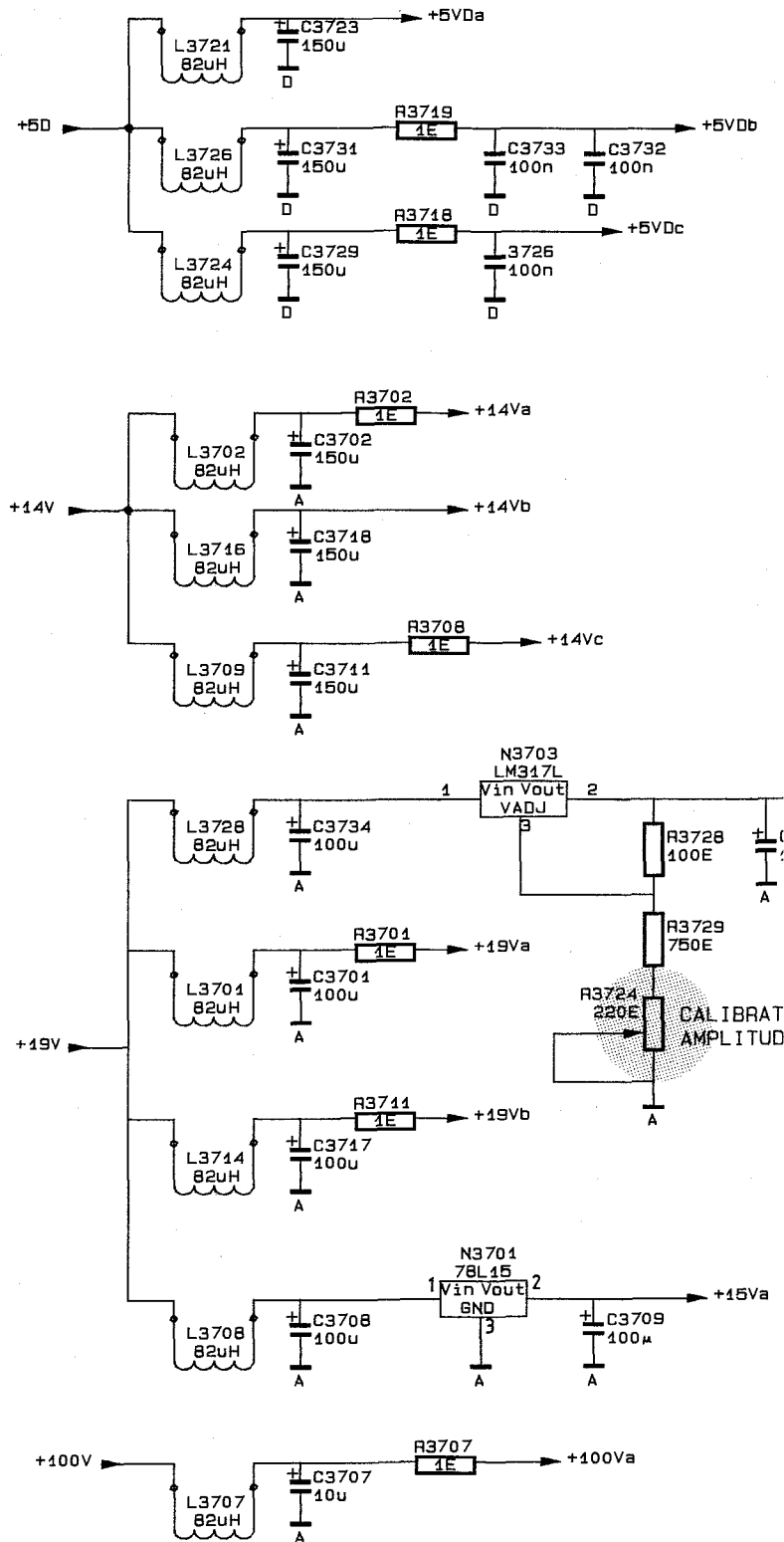
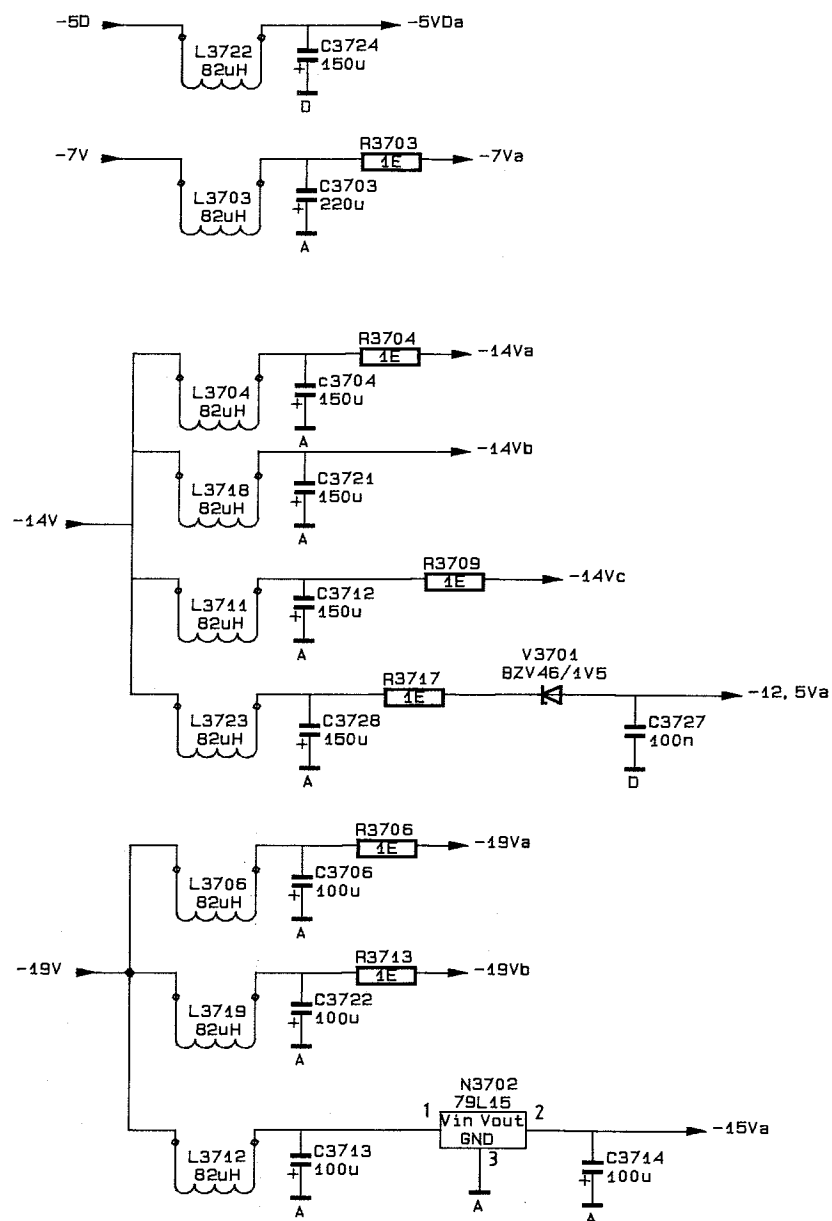


Figure 8.53.3 Unit A53 - DISTRIBUTION UNIT - Circ



POWER SUPPLY
DISTRIBUTION

MAT 3276

uit diagram