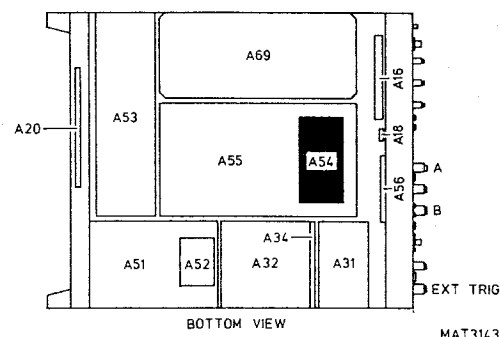


UNIT A54 - GATE UNITCONTENTS

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8.54.1 General information

In this section, the Trigger Pick Off unit A56 and the Delay Line unit A69 are also described.

The Gate unit, which is a part of the sampling system, takes samples of the input signals on both channels on receipt of a sampling pulses. The unit is fitted on the Vertical signal unit A55, on which further processing of the samples is done.

8.54.2 Circuit description

The input signals from channels A and B are applied to the TRIGGER PICK-OFFs. The picked off trigger signals have an amplitude of about one tenth of their corresponding input signals. They are applied to the Trigger Input unit A31.

Via 30 nsec DELAY LINES (unit A69) the input signals from the TRIGGER PICK OFFs are applied to the Gate unit.

This unit consists of a SAMPLING DRIVER, SAMPLING GATE A and SAMPLING GATE B.

The SAMPLING DRIVER receives sampling pulses (STSAGT) from the Fast Ramp unit A52 and splits them in equal, symmetrical sampling pulses for SAMPLING GATE A and SAMPLING GATE B.

These sampling pulses are applied to the sampling diodes (V907 for ch. A and V908 for ch. B) via the clipping lines.

For a further description of the sampling system see section 8.55.2.

The input signals are terminated with 50 ohm by means of R901, R902, R904, R906 for ch. A and R932, R933, R929 and R931 for ch. B.

A part of the input signal (LFCOA for ch. A, LFCOB for ch. B) is applied to the Vertical Signal unit A55 for LF-compensation.

IMPORTANT: The component layout of this unit is rather critical.

Therefore it is recommended to replace the complete p.c.b. in case of a failure.

The components which may burn out in case of a too high input voltage can be replaced anyway.

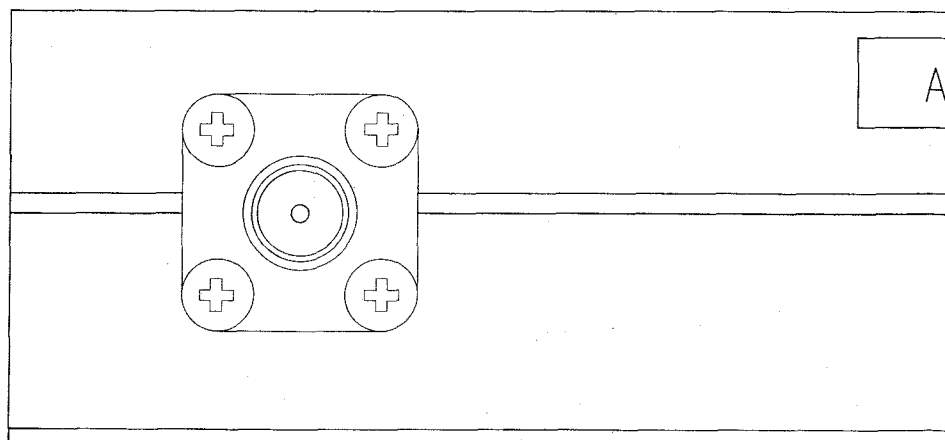
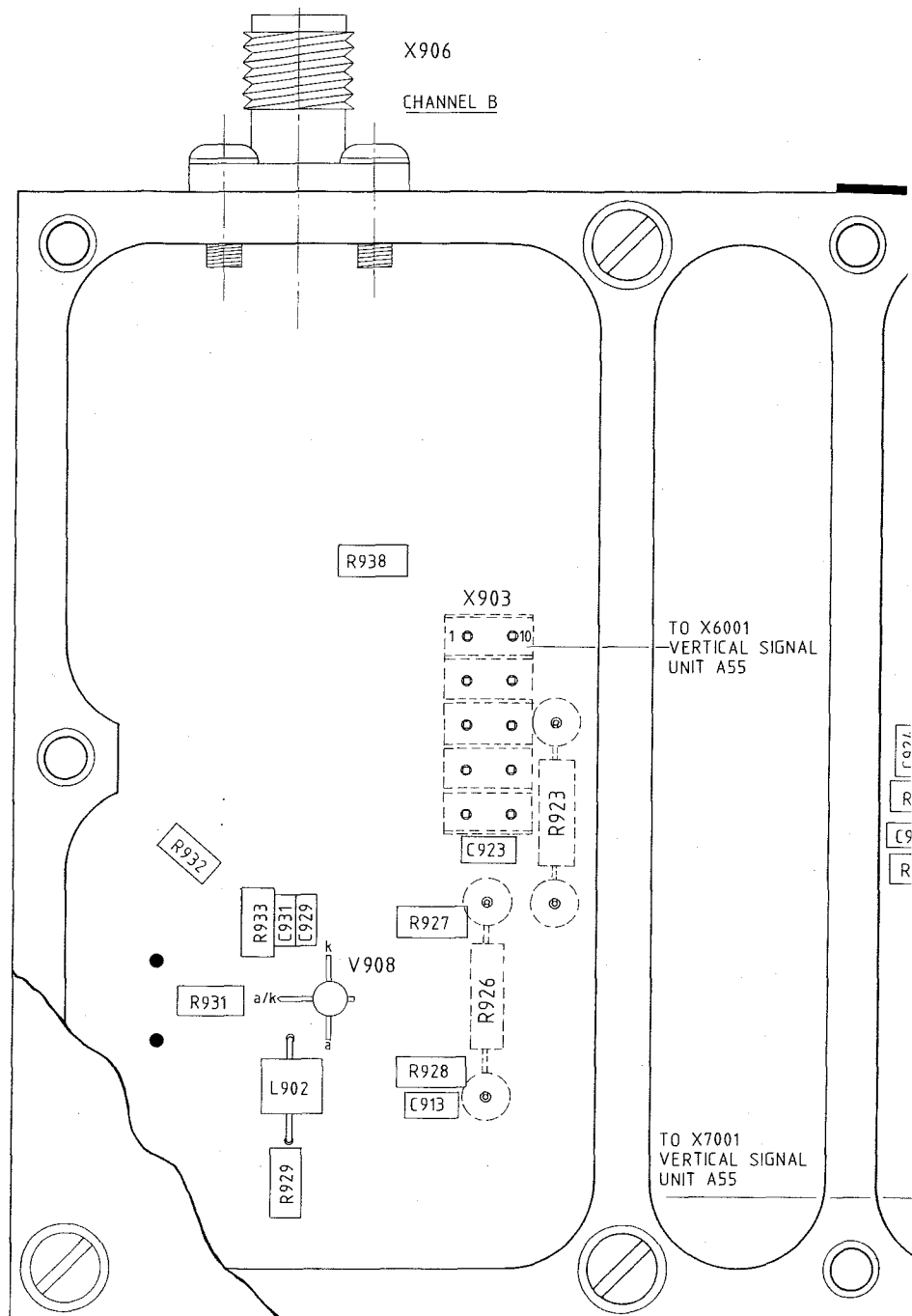
These components are V907, R901, R902, R904, R906 for ch. A and V908, R929, R931, R932, R933 for ch. B.

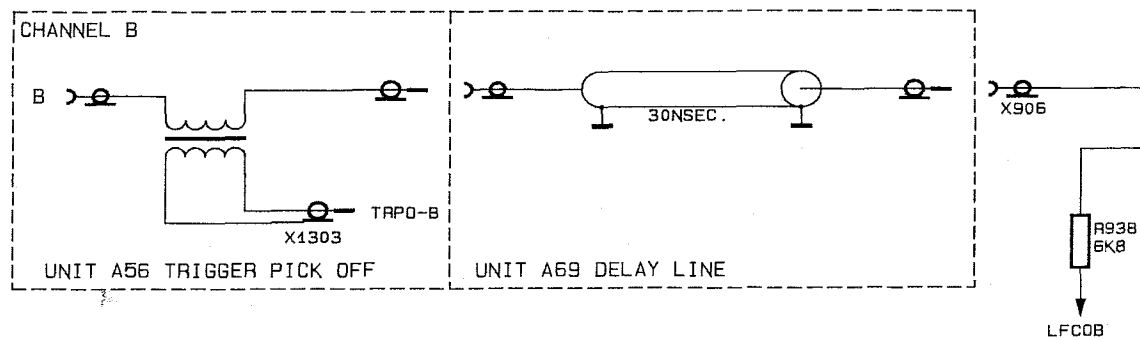
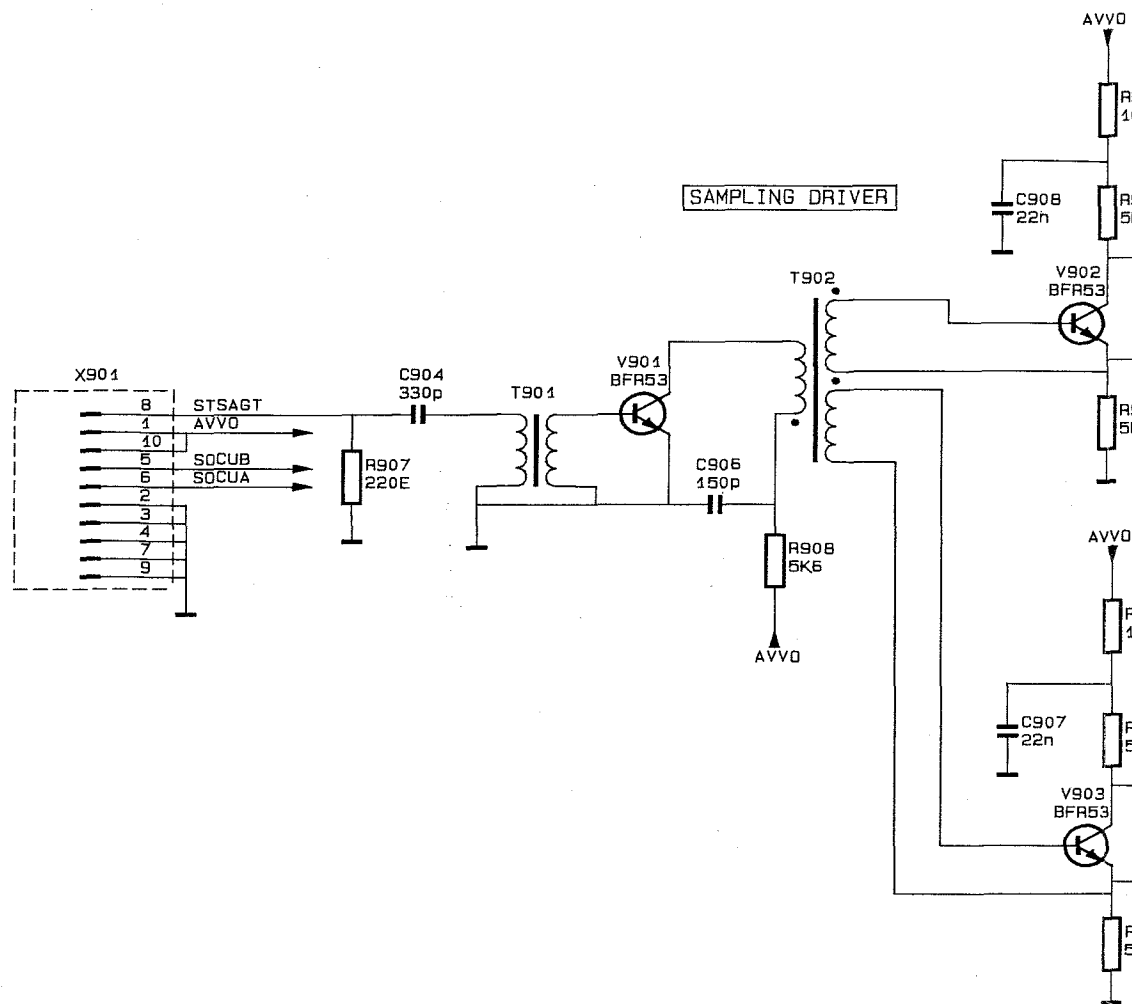
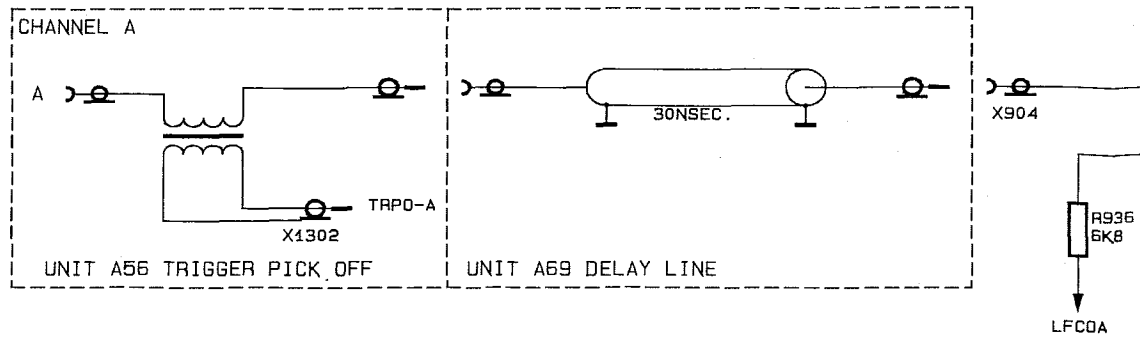
- Notes: - This board is made of a special material, which is suitable for very high frequencies. This material can be bended easily; so please handle carefully.
- When a board is replaced, please take care that the resistors R913 and R923 are not clamped between the board and the connectors on the Vertical Signal unit.

8.54.3 Signal name list

UNIT 54 (including UNITS A56 and A69)

Signal name	Description	Signal source	Signal destination(s)
A	Channel A	A57	-
AVVO	Avalanche voltage	A55	-
B	Channel B	A57	-
BIDHA	Bias diode high A	A55	-
BIDHB	Bias diode high B	A55	-
BIDLA	Bias diode low A	A55	-
BIDLB	Bias diode low B	A55	-
LFCOA	LF compensation A	A54	A55
LFCOB	LF compensation B	A54	A55
SOCUA	Snap-off current A	A55	-
SOCUB	Snap-off current B	A55	-
STSAGT	Start sampling gate	A52	-
TRPO-A	Trigger pick off A	A56	A31
TRPO-B	Trigger pick off B	A56	A31





ALL GROUNDS ARE ANALOG

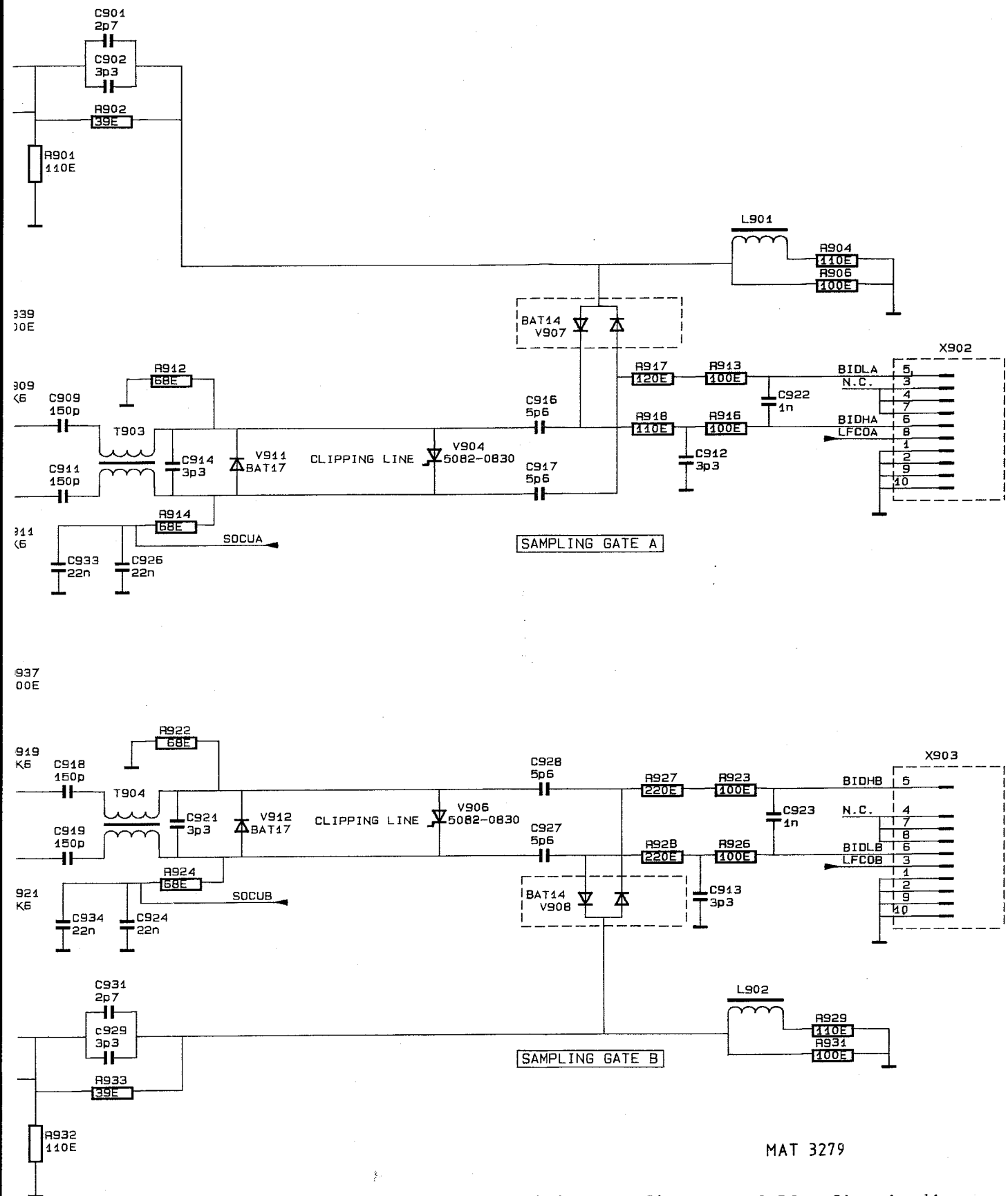


Figure 8.54.2 Unit A54 - GATE UNIT - Circuit diagram.