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Title:

Technical Manual for POW733 \pm 12Volt Power Module

Keywords:

POW738, POW733, Powersupply.

Abstract:

This manual contains applicable information about the POW733 ± 12 Volt Power Module.

(10 printed pages)

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1 GENERAL INFORMATION.

1.

1.1 Description.

1.1

The POW733 \pm 12 Volt powersupply module is a member of the POW728-POW732 powersupply family.

The electronic design of the module is almost identical to that of the POW731 and POW732. Detailed information on these modules is found in the Technical Manual for POW728, -729, -730, -731, -732 44-RT1912.

The changes that has been made on the POW733 compared to the POW731 or POW732 are summarized in the following.

- a) The secondary winding on the power transformator is divided into two bifilar windings, one for the +12Volt and one for the -12Volt output voltages.

The rectifier diode, the output capacitors and the filter choke are doubled as well.

- b) Both the negative and the positive output voltage is sensed and the regulation of the output power tends to keep the numerically sum of these voltages to 24 Volt.
- c) The voltage checkout circuit is enlarged, monitoring both voltages.
- d) As a necessary consequence of the regulation method, overvoltage protection has been incorporated. Otherwise one output voltage would double if the other failed (e.g. due to a defect diode).

1.2 Applicable Documents.

1.2

1. Technical Manual for POW728, -729, -730, -731, -732.
44-RT1912.
2. Technical Manual for POW738, 44-RT1949.
3. Technical Manual for Chassis CHS706-710, 44-RT1913.

2. SPECIFICATIONS.

2

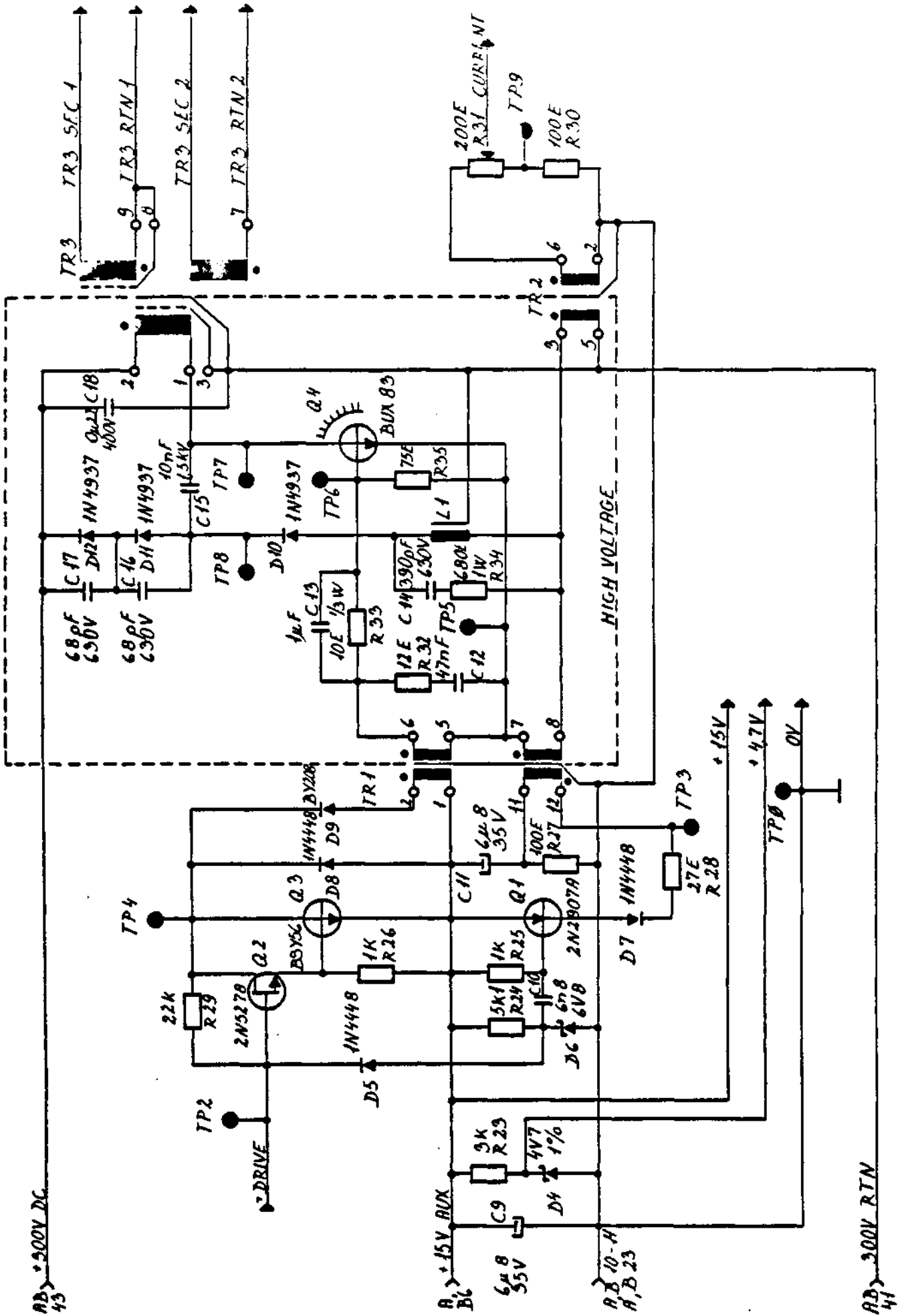
The following specifications are valid for the POW733 in connection with the POW738 (or POW728) control module.

	min.	nom.	max.	Unit
Vout pos. ($I_+ < 4A, I_+ - I_- < 3A$)	-5%	-2.4xVref	+5%	Volt
Vout neg. ($I_- < 4A, I_+ - I_- < 3A$)	-5%	-2.4xVref	+5%	Volt
Output power			96	Watt
Ripple ($f < 1MHz$)			200	mV
Ripple +HF-noise			500	mV
Voltage OK: Vout pos. >	11.0	11.3	11.6	Volt (hi-going)
	10.5	11.0	11.4	Volt (lo-going)
vout neg. <	-11.7	-11.3	-10.9	Volt (lo-going)
	-11.4	-10.9	-10.4	Volt (hi-going)
Ambient temperature	15		50	°C
300V DC operating	200	310	350	Volt
Input power			125	Watt

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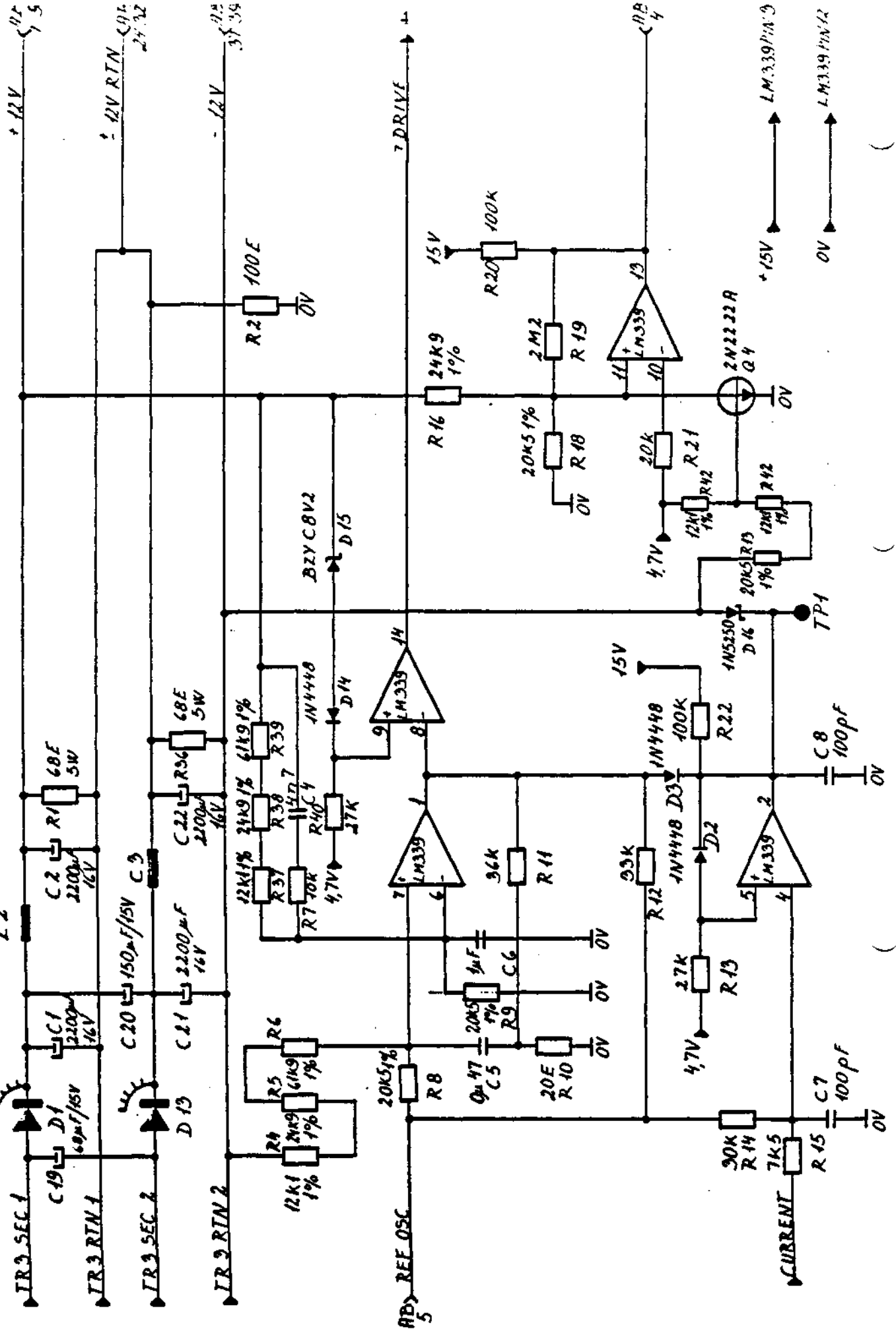
POW 733
R12 741

POW 733 POWER MODULE
POWER SWITCH SECTION
CIRCUIT DIAGRAM



79.07.33 / 1079.07.33 RGA

1N3890



POW 733
R12740

POW 733 ± 12V POWER MODULE
CONTROL SECTION
CIRCUIT DIAGRAM

RETURN LETTER

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