

THE JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY
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AREA CODE 301

January 9, 1970

Dr. Thomas P. Armstrong
Physics Department
University of Kansas
Lawrence, Kansas

Dear Tom:

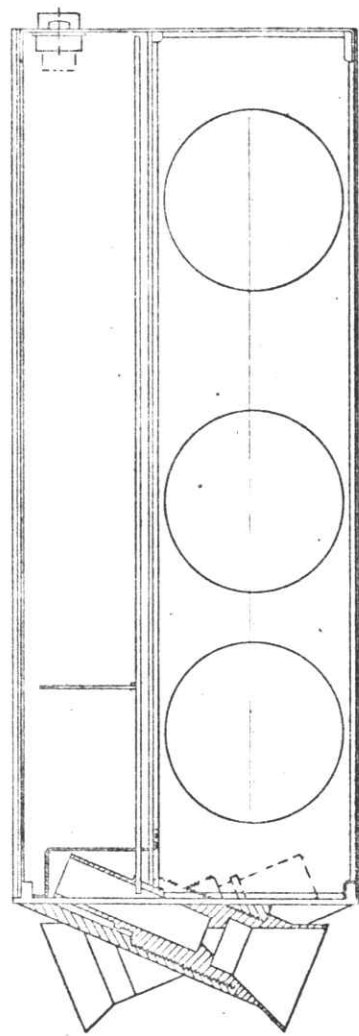
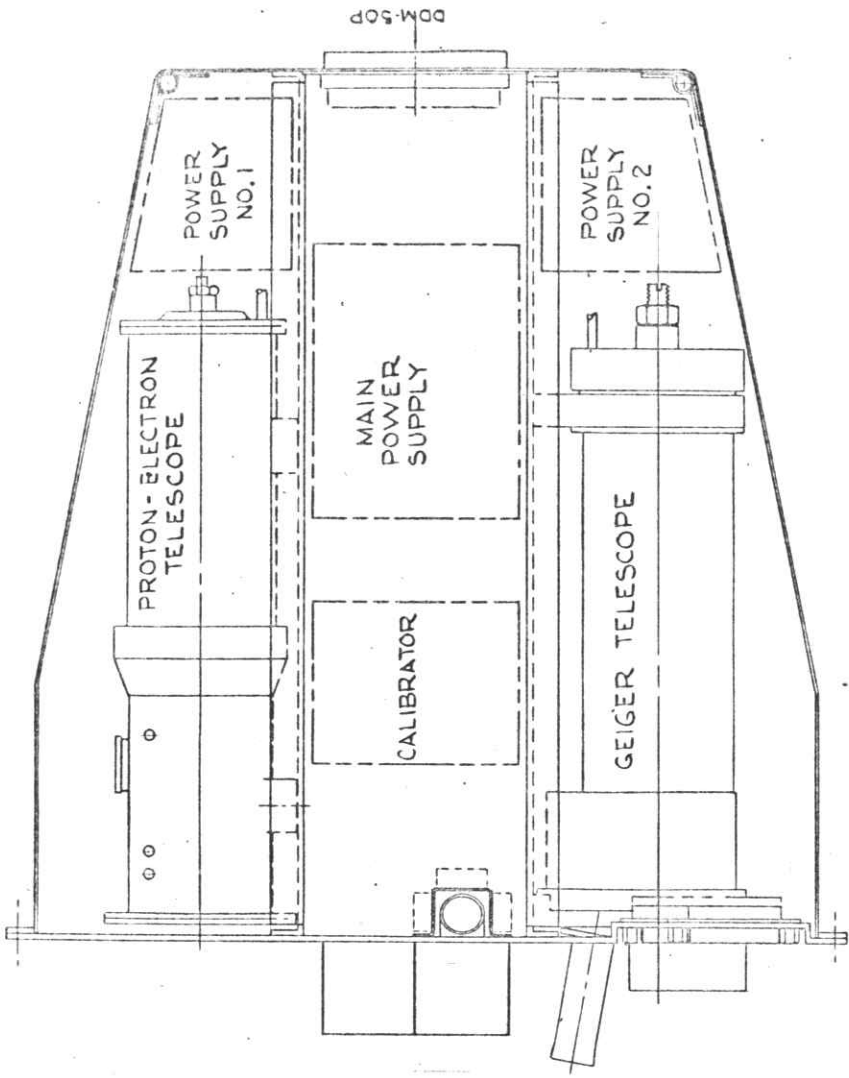
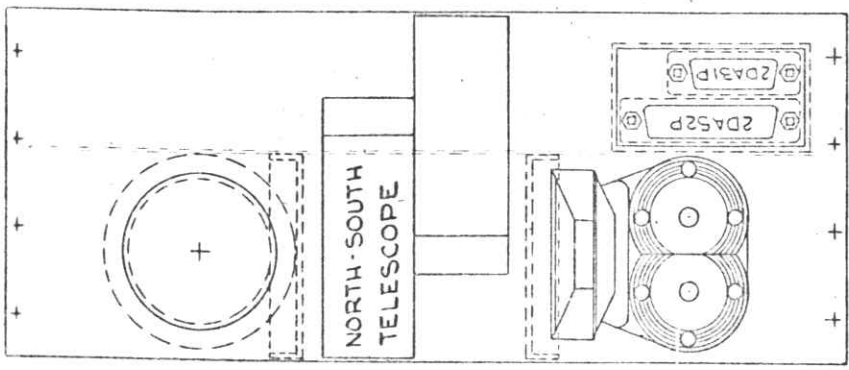
This is a copy of the set of view graphs used in the Experiment Design Review held at Goddard on January 7, 1970. Thought you might like to know what went on. Basically the Design Review was to find out our status of development and if anything was incompatible with the H and J spacecraft. No conflicts were uncovered, although many action items were assigned about clearing up details in design and documentation.

Dr. Krimigis had talked to you before the meeting, and mentioned data requirements and format of presentation. Nothing was given for this and the project office indicated that it would not be required for at least another six months. I assume we can get together about this at some later date.

Think snow.


Roy Cashion

RC: js



APP Component Layout

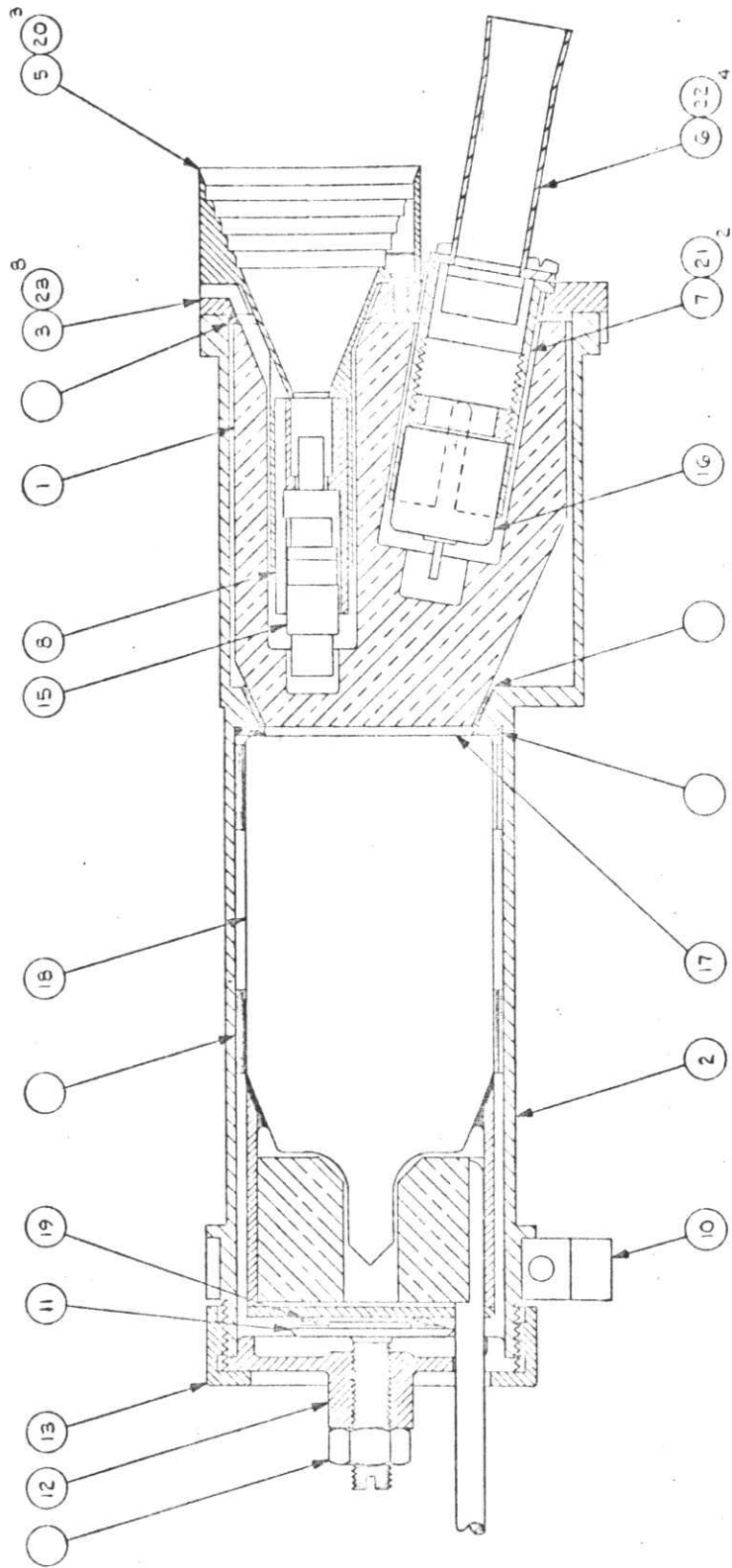


TABLE I

Detector Designation	Detector Type	Particle Type	Channel Designation	Energy Interval	Geometric Factor (cm ² sr)	Dynamic Range (cm ⁻² sec ⁻¹) ⁻¹	Signal Name
FET	Solid State	Electrons	E4	0.2 ≤ E _e ≤ 2.5 Mev	0.956	0 - 10 ⁶	R-14, APL-S3*
(Proton-Electron Telescope)	Detectors and anticoincidence plastic scintillators	Proton	E5	0.4 ≤ E _e ≤ 2.5	0.956		R-15
			E6	0.7 ≤ E _e ≤ 2.5	0.956		R-16
			P1	0.3 ≤ E _p ≤ 0.5 Mev	2.5		APL-S3*
			P2	0.5 ≤ E _p ≤ 0.9	2.5		R-19
			P3	0.9 ≤ E _p ≤ 1.9	2.5		R-20
			P4	1.9 ≤ E _p ≤ 3.9	0.956		R-21
			P5	3.9 ≤ E _p ≤ 8.0	0.956		R-22
			P6	8.0 ≤ E _p ≤ 14.0	0.956		R-23
			P7	14.0 ≤ E _p ≤ 30	0.956		R-4
			P8	30 ≤ E _p ≤ 50	0.956		R-24
Alphas			P9	50 ≤ E _p ≤ 100	0.956		R-3
			P10	100 ≤ E _p ≤ 170	0.956		R-13, APL-S4*
			P11	170 ≤ E _p ≤ 500	0.956		R-12, APL-S4*
			A1	2.0 ≤ E _α ≤ 3.6 Mev	0.956		APL-S4*
			A2	3.6 ≤ E _α ≤ 7	0.956		R-11
			A3	7 ≤ E _α ≤ 17	0.956		R-10
			A4	17 ≤ E _α ≤ 32	0.956		R-9
			A5	32 ≤ E _α ≤ 60	0.956		R-8
			A6	60 ≤ E _α ≤ 120	0.956		R-7, APL-S4*
			A7	120 ≤ E _α ≤ 200	0.956		R-6
GM-1	705 GM Tube	Integral Protons and Alphas	M	E > 50 Mev/Nucleon (9 cm ²)			R-1
			Z1	E > 8 Mev	2.5		R-5
			Z2	E > 32 Mev	2.5		R-25
			E1	E _e > 15 keV	0.02	10 - 10 ⁸	APL-S1
				E _p > 250 keV	0.02	10 - 10 ⁸	
				2 < λ < 10Å			
				E _e > 45 keV	0.03	10 - 10 ⁸	APL-S2*
				E _p > 500 keV	0.03	10 - 10 ⁸	R-17
				2 < λ < 10Å			R-18
				E _e > 120 keV	0.03	10 - 10 ⁸	APL-S2*
GM-2A GM-2B GM-2C	6213 GM Tube (3)	Electrons	E2A	E _e > 2800 keV	0.03	10 - 10 ⁸	
			E2B	2 < λ < 10Å			
			E2C	E _e > 120 keV	0.03	10 - 10 ⁸	
GM-3	LND-D1897A GM Tube (#011)	Electrons	E3	E _e > 2800 keV	0.03	10 - 10 ⁸	
				2 < λ < 10Å			
				E _p > 120 keV	0.03	10 - 10 ⁸	
Scintillator		Integral Protons and Alphas	S	E > 50 Mev/Nucleon (6 cm ²)			R-2

*Notes signals that are subcommutated into these words

APP Output CHANNELS

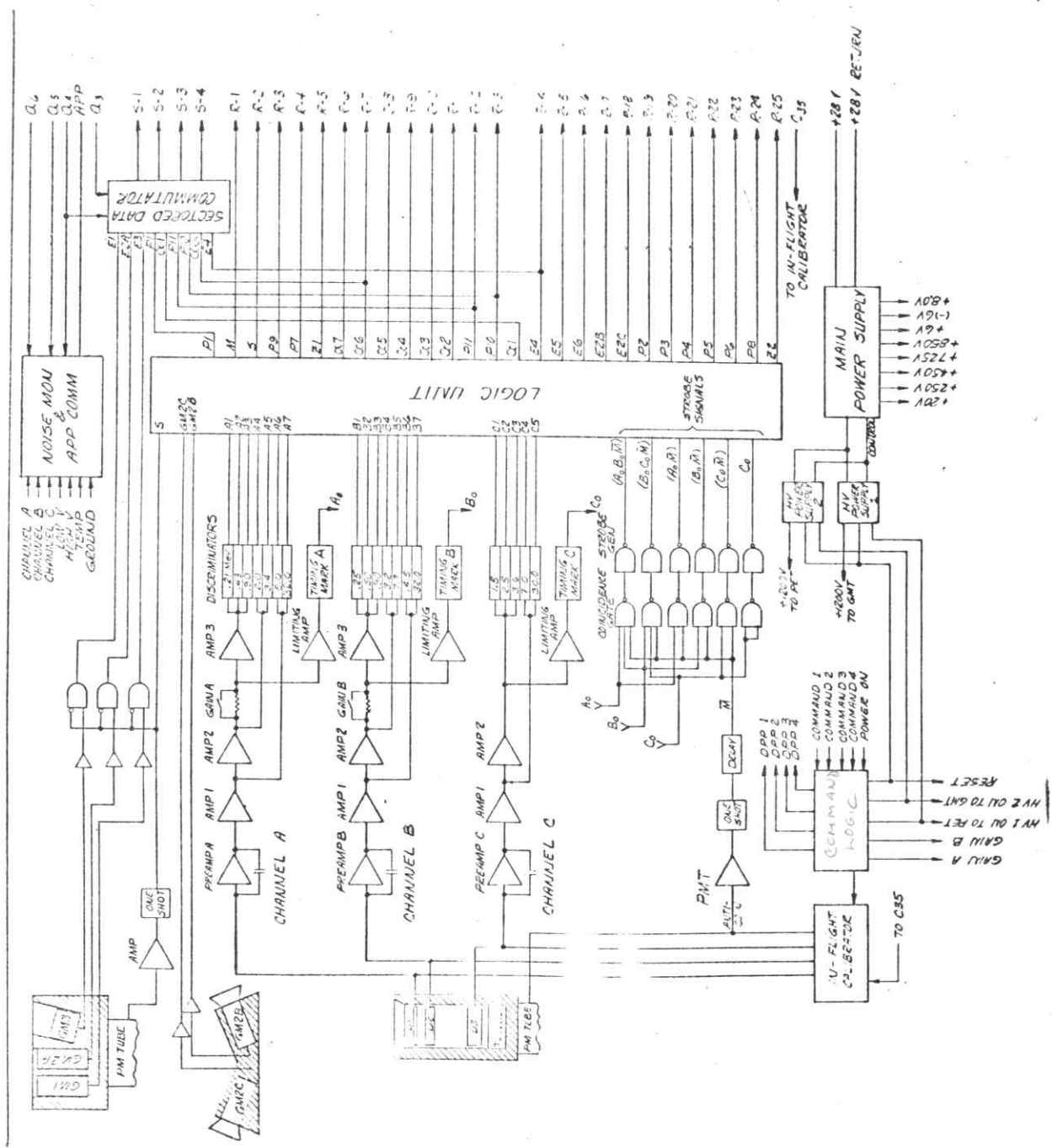


SECTION A-A

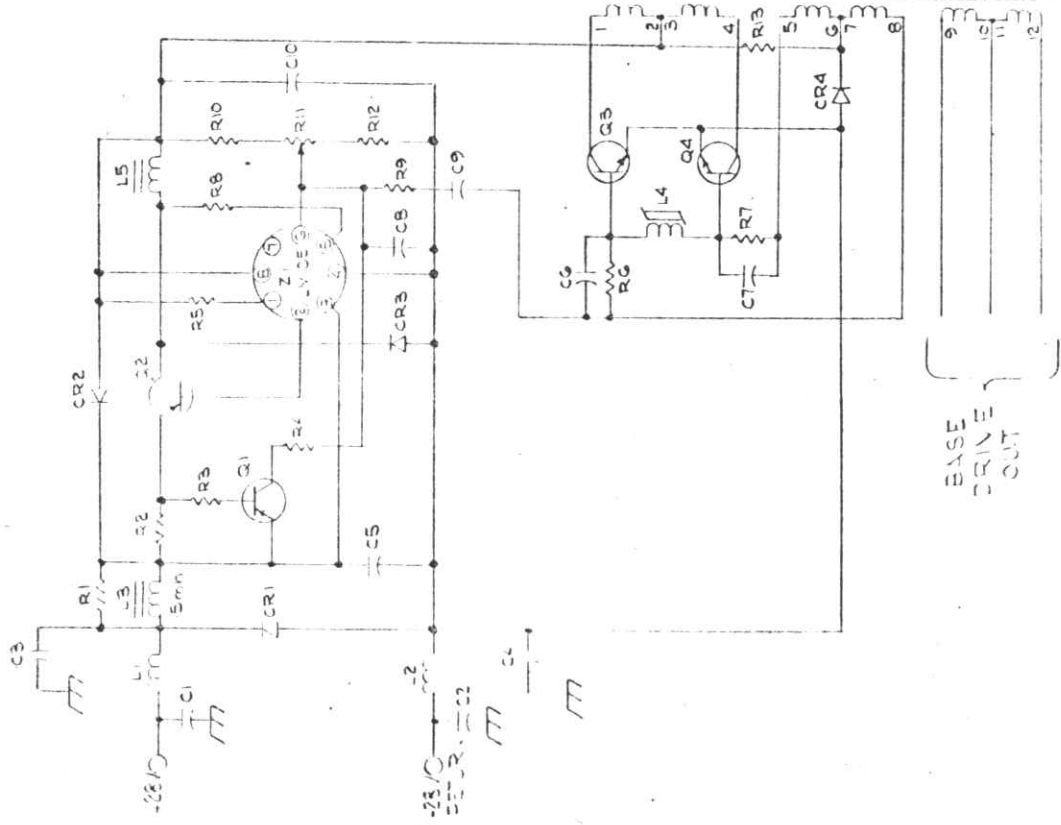
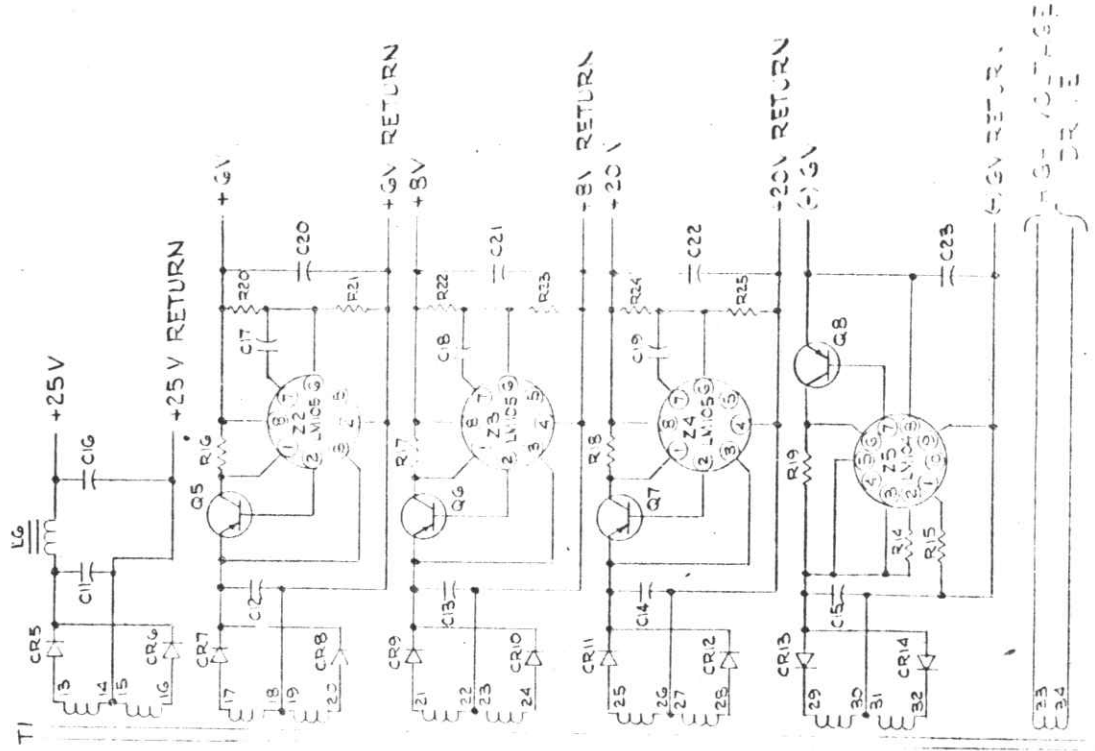
SCALE 2/1
SEE SHEET 1

SECTIONED GMT TELESCOPE

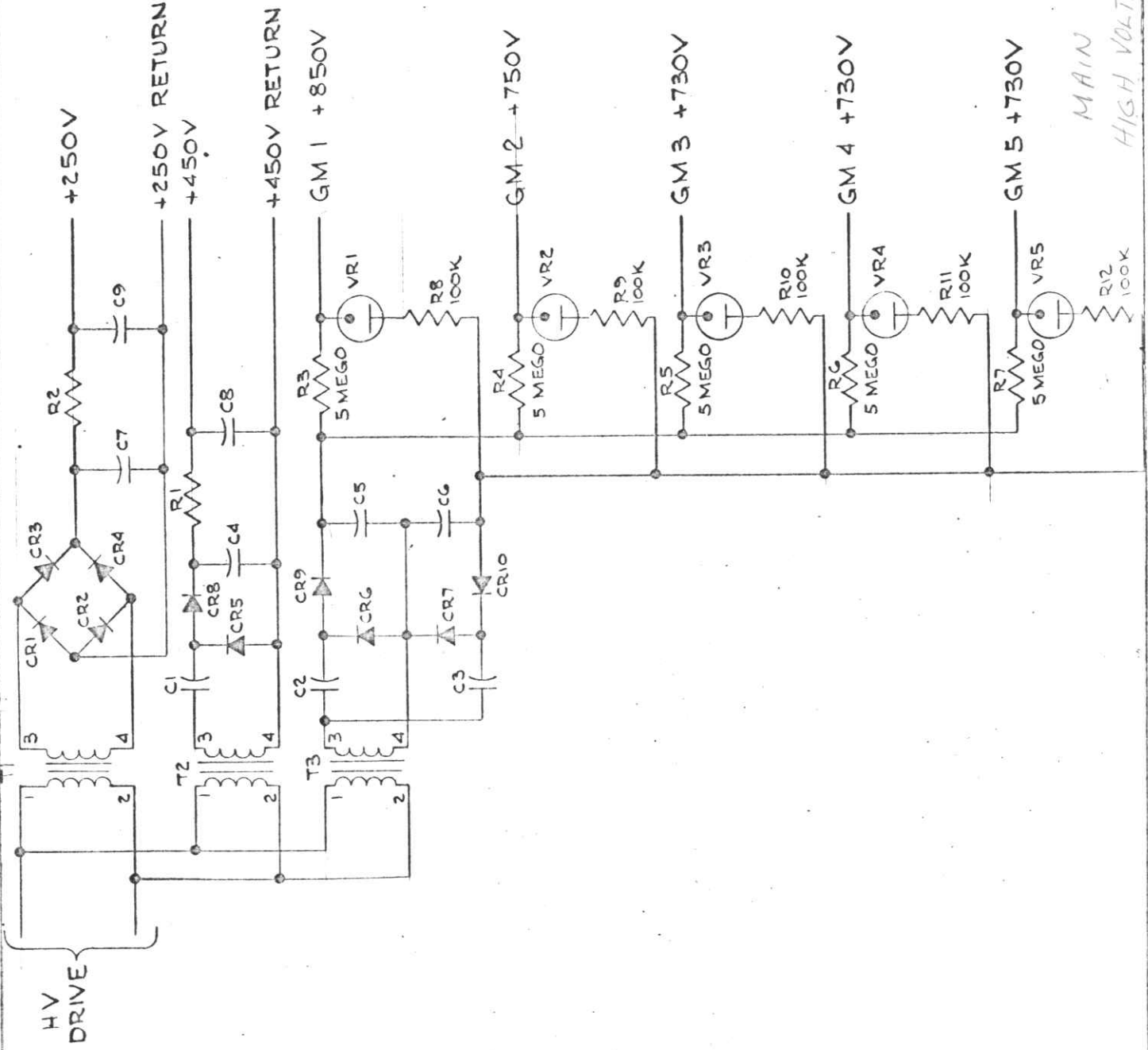




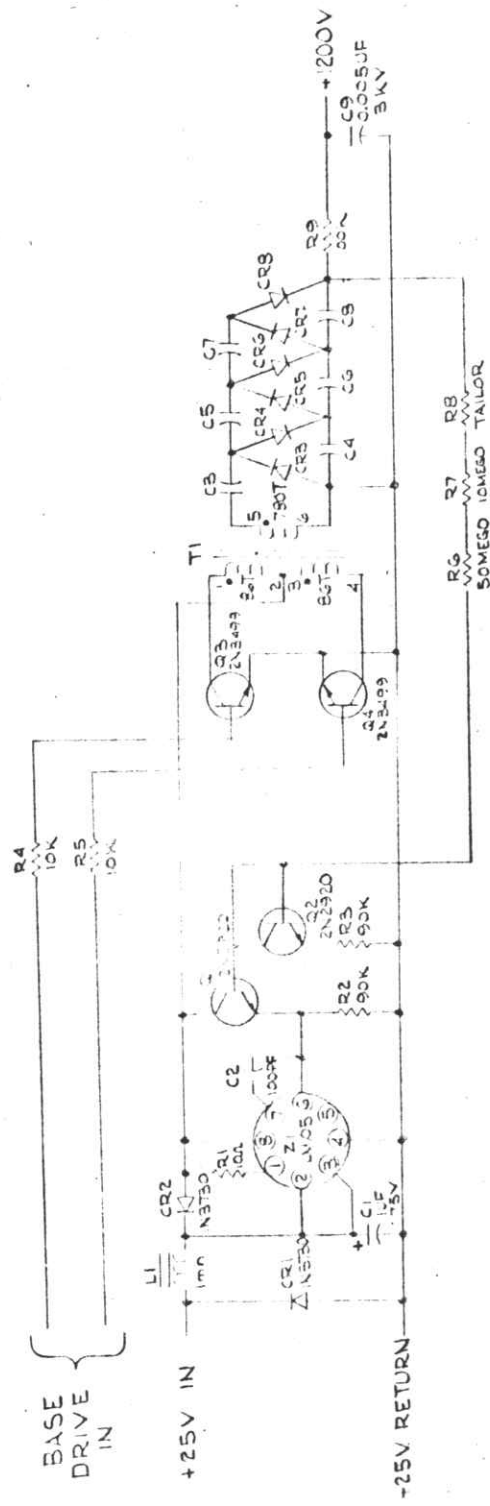
APP BLOCK DIAGRAM



MAIN POWER SUPPLY - LOW VOLTAGE

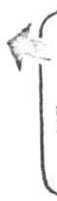


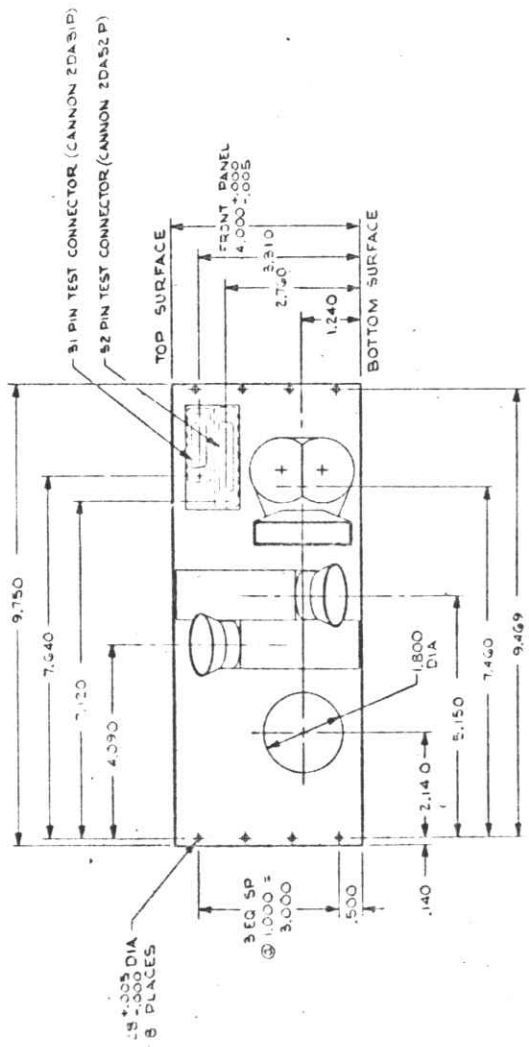
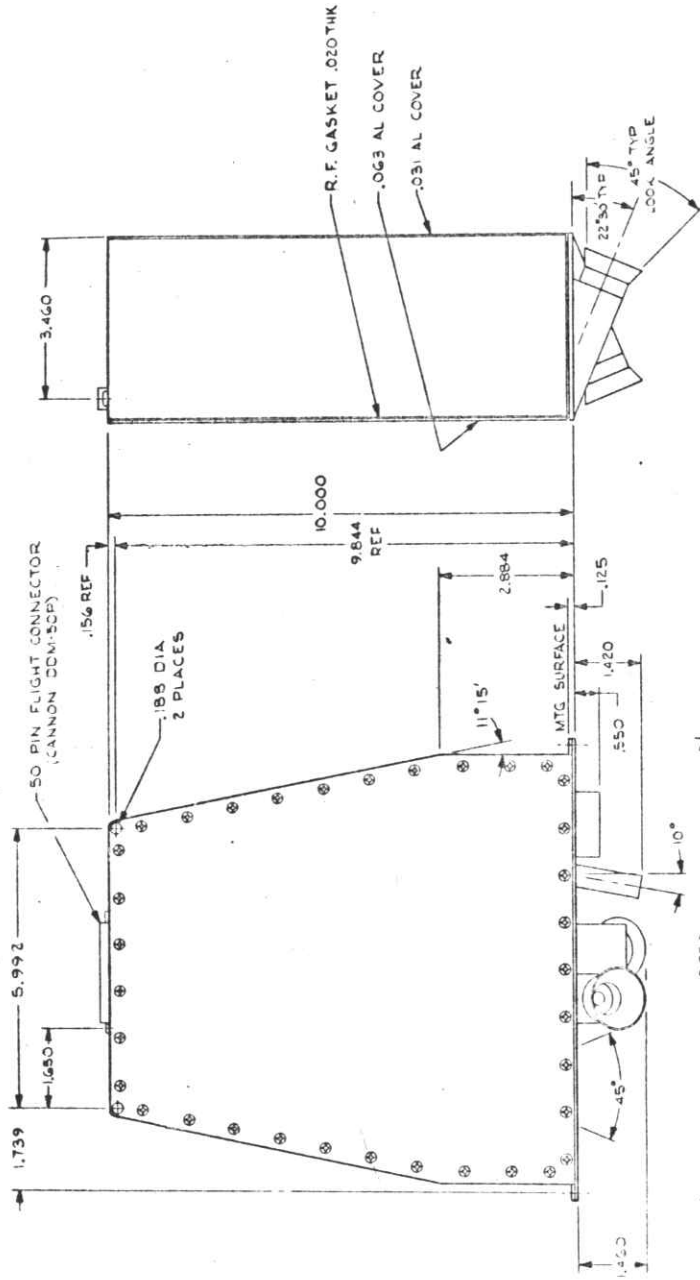
MAIN POWER SUPPLY
HIGH VOLTAGE SECTION



NOTE:
 C3 THRU C6 ARE 0.0005UF, 1KV
 C7 THRU C8 ARE MB22G

PMT POWER SUPPLY





APP OUTLINE DRAWING



