

DCVb 5-17-94

N-277, 16 channel Amplifier & Discriminator

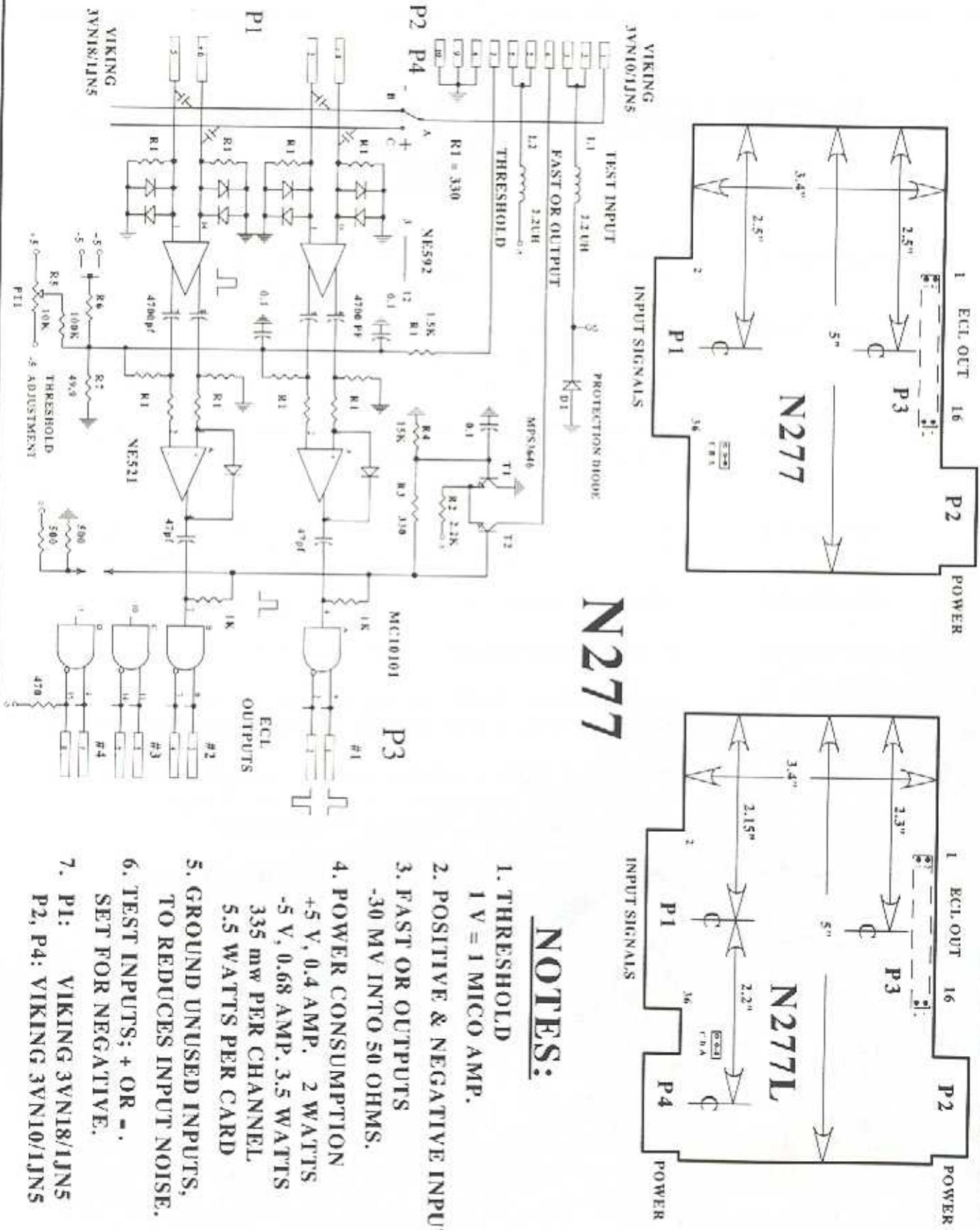
# N-277 INSTRUMENTATION AMPLIFIER FEATURES

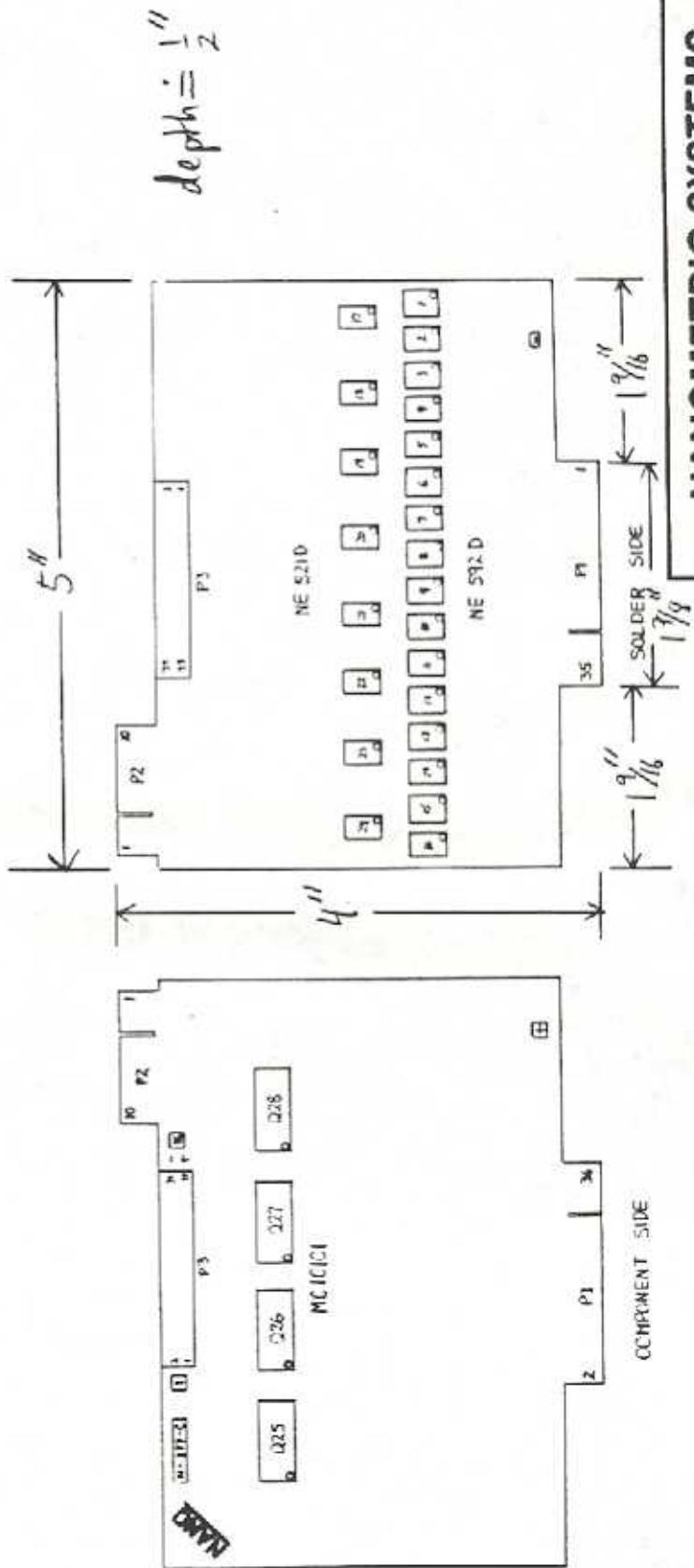
<b>THRESHOLD</b>	500 nano-amp. $\pm 75$ nano amps (Set by external voltage; 1 volt = 1 $\mu$ amp.). Input impedance $R_{in}$ is 330 ohms.
<b>POLARITY</b>	Both positive and negative inputs are provided. Each input is protected with two diodes connected to ground. Always ground all unused inputs in order to minimize the input noise.
<b>NOISE</b>	1000 hz for 16 channels; 400 hz maximum for an individual channel Test conditions: Threshold 0.5 volts; negative inputs shunted by 50 ohms; positive inputs grounded.
<b>TIME WALK</b>	8.5 nano-sec maximum, 6.5 nano-sec. typical average. Test conditions Threshold set at 0.5 volts. Test pulses 1.3 and 6.5 micro-amps.
<b>CROSSTALK</b>	Adjacent channels, greater than 30 db. Non adjacent channels over 40 db.
<b>FAST OR OUTPUTS</b>	Delivers -0.6 ma from a current source, i.e. -30 mv into 50 ohms.
<b>SIGNAL OUTPUTS</b>	Drives 16 differential ECL lines into a 34 conductor ribbon cable. 50 nano second pulse width; limits the cable length to less than 150 feet!
<b>TEST PULSE INPUT</b>	The test pulse applies a signal to the input of every channel. Boards are supplied with the negative test pulses enabled. A jumper wire selects either positive or negative test pulse inputs.
<b>POWER</b>	350 mw per channel. Protected against accidental power reversal! Total power for a 16 channel card; +5 volts 0.4 amp; -5 volts 0.68 amp.
N-277-C	Positive and Negative inputs; $R_{in}$ = 330 ohms.
N-277-C3	Negative inputs $R_{in}$ = 330 ohms. Positive inputs grounded. FERMILAB standard.
N-277-CD	Positive and Negative inputs; $R_{in}$ = 56 ohms. May be used as a silicon detector line amp/disc. with line input impedance of 112 ohms.
N-277L?	L indicates two power connectors, on the input and output side of the card. The input configuration of C, C3, and CD are as described above.

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## NANOMETRIC SYSTEMS

SCALE	FULL	APPENDIX B	REFR
DATE	6/28/1983	C	

16 CHANNEL CHAMBER AMPLIFIER CARD

CHIP LAYOUT	CHIPPING GUIDE N-277-C-02
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