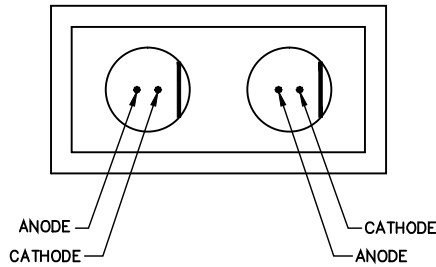


"DETAIL A"
REAR VIEW OF OPTIC CONNECTOR.
FLAT OF INFRA-RED LED GOES TO THE RIGHT.



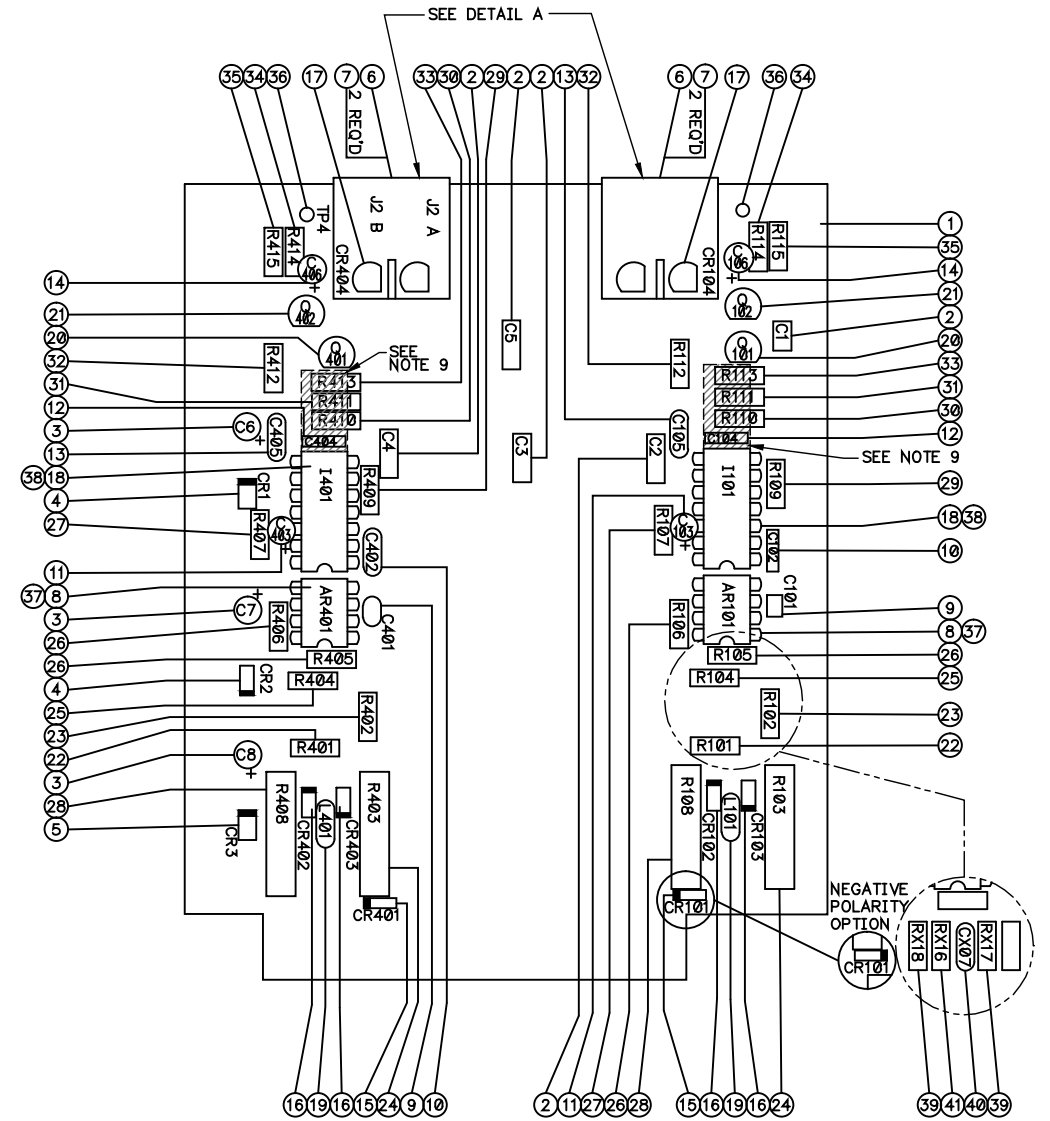
PART NUMBER					FUNCTION		
CHOOSE 1 OPTION FOR EACH CHANNEL					INPUT VOLTAGE	OUTPUT FREQUENCY	NORMAL BANDWIDTH
ORA	CH4	CH3	CH2	CH1			
2HC	2	0	0	0	9	EMPTY	
		1	1	1		0 to +10 VDC	1 to 10 kHz
		2	2	2		0 to -10 VDC	1 to 10 kHz
		3	3	3		0 to +5 VDC	1 to 10 kHz
		4	4	4		0 to +1 VDC	1 to 10 kHz
		5	5	5		0 to -5 VDC	1 to 10 kHz
		6	6	6		0 to +10 VDC	5 to 10 kHz
		7	7	7		-2 TO +10 VDC	5 TO 10 KHZ
		8	8	8		-5 TO +5 VDC	5 TO 10 KHZ
		9	9	9			

NOTES:

- CHANNEL 3 IS STUFFED THE SAME AS CHANNEL 1 AND CHANNEL 2 IS STUFFED THE SAME AS CHANNEL 4.
- THE FIRST DIGIT IN CHANNEL 2 COMPONENT NUMBER IS 2 AND THE FIRST DIGIT IN CHANNEL 3 COMPONENT NUMBER IS 3. FOR EXAMPLE RX01 IS R201 FOR CHANNEL 2 AND R301 FOR CHANNEL 3.
- POSITIVE POLARITY STUFFING IS SHOWN FOR CHANNELS 1 AND 4. WHEN STUFFING A NEGATIVE POLARITY OPTION, DELETE RX01 AND RX04, INSTALL CX07, RX16, RX17, AND RX18, INSTALL CRX01 FOR NEGATIVE POLARITY AS SHOWN IN DETAIL.
- PRETEST ALL INFRA-RED LED'S BEFORE STUFFING THE BOARDS.
- MAKE SURE INFRA-RED LED'S ARE INSERTED INTO CONNECTORS COMPLETELY AND CORRECTLY (SEE DETAIL A)
- COMPONENT HEIGHT MUST NOT EXCEED 0.400" ABOVE COMPONENT FACE OF BOARDS.
- LED ANODE GOES TO DOT ON PC BOARD.
- BOARDS MADE PREVIOUS TO 6/13 USED 81C000453 FOR IX01 (ITEM 18).
- KEEP COMPONENT HEIGHT IN THESE AREAS LOW ENOUGH TO AVOID INTERFERENCE WITH PCB'S WHICH EXTEND OUT OVER THEM.

CHANNEL OPTIONS

OPTION	9 CX01	12 CX04	40 CX07	15 CRX01	22 RX01	23 RX02	24 RX03	25 RX04	26 RX05	27 RX07	41 RX16	39 RX17	39 RX18
1	0.01 100V	0.1 100V	DELETE	IN4744, INSTALL FOR + POLARITY	1 MΩ 1/4W, 1%	499 kΩ 1/4W, 1%	1 MΩ POT	470 kΩ 1/4W, 10%	100 kΩ 1/4W, 1%	249 kΩ 1/4W, 1%	DELETE	DELETE	DELETE
2	0.01 100V	0.1 100V	0.01 100V	IN4744, INSTALL FOR - POLARITY	DELETE	499 kΩ 1/4W, 1%	1 MΩ POT	DELETE	100 kΩ 1/4W, 1%	249 kΩ 1/4W, 1%	1 MΩ 1/4W, 1%	1 MΩ 1/4W, 1%	1 MΩ 1/4W, 1%
3	0.01 100V	0.1 100V	DELETE	IN4744, INSTALL FOR + POLARITY	499 kΩ 1/4W, 1%	499 kΩ 1/4W, 1%	1 MΩ POT	270 kΩ 1/4W, 10%	100 kΩ 1/4W, 1%	249 kΩ 1/4W, 1%	DELETE	DELETE	DELETE
4	0.01 100V	0.1 100V	DELETE	IN4744, INSTALL FOR + POLARITY	100 kΩ 1/4W, 1%	499 kΩ 1/4W, 1%	1 MΩ POT	100 kΩ 1/4W, 10%	100 kΩ 1/4W, 1%	249 kΩ 1/4W, 1%	DELETE	DELETE	DELETE
5	0.01 100V	0.1 100V	0.01 100V	IN4744, INSTALL FOR - POLARITY	DELETE	499 kΩ 1/4W, 1%	1 MΩ POT	DELETE	100 kΩ 1/4W, 1%	249 kΩ 1/4W, 1%	1 MΩ 1/4W, 1%	499 kΩ 1/4W, 1%	499 kΩ 1/4W, 1%
6	0.0022 100V	0.1 100V	DELETE	IN4744, INSTALL FOR + POLARITY	1 MΩ 1/4W, 1%	150 kΩ 1/4W, 1%	200 MΩ POT	220 kΩ 1/4W, 10%	49.9kΩ 1/4W, 1%	49.9kΩ 1/4W, 1%	DELETE	DELETE	DELETE
7	680 PF 1000V	0.047 100V	DELETE	SA15CA, NOT POLARIZED	1 MΩ 1/4W, 1%	200 kΩ 1/4W, 1%	50 kΩ POT	180 kΩ 1/4W, 10%	51kΩ 1/4W, 1%	24.9kΩ 1/4W, 1%	DELETE	DELETE	DELETE
8	680 PF 1000V	0.047 100V	DELETE	SA10CA, NOT POLARIZED	100kΩ 1/4W, 1%	150 kΩ 1/4W, 1%	50 kΩ POT	68kΩ 1/4W, 10%	35.7kΩ 1/4W, 1%	24.9kΩ 1/4W, 1%	DELETE	DELETE	DELETE
9													



D	ADDED NOTE 9	NLP/3/28/79	PJO/3/28/79
C	REV'D OPT. 7 & 8, ADDED NOTE 8	BMB/6/14	GMD/6/14
B	ADDED OPTIONS 7 & 8	NLP/6/20/79	JAH/6/30/79
A	ADDED DETAIL A	NLP/9/23/79	PJO/9/23/79
NO.	REVISION	BY	DATE
		CRD	DATE
		CHECKED	SCALE
		SLL	2=1
TOLERANCES AND FINISH UNLESS OTHERWISE SPECIFIED			
FRACTIONAL	XXX	ANGLE	THIRD ANGLE
±1/64"	±.005	3.0°	PROJECTION
MATERIAL		MACH	SCALE
		125 V ₁	2=1
SEE TABLE			D
PART NO.			8-3-29
LOG			CV

NATIONAL ELECTROSTATICS CORPORATION
MIDDLETON, WISCONSIN

ANALOG TRANSMITTER
P.C. BOARD