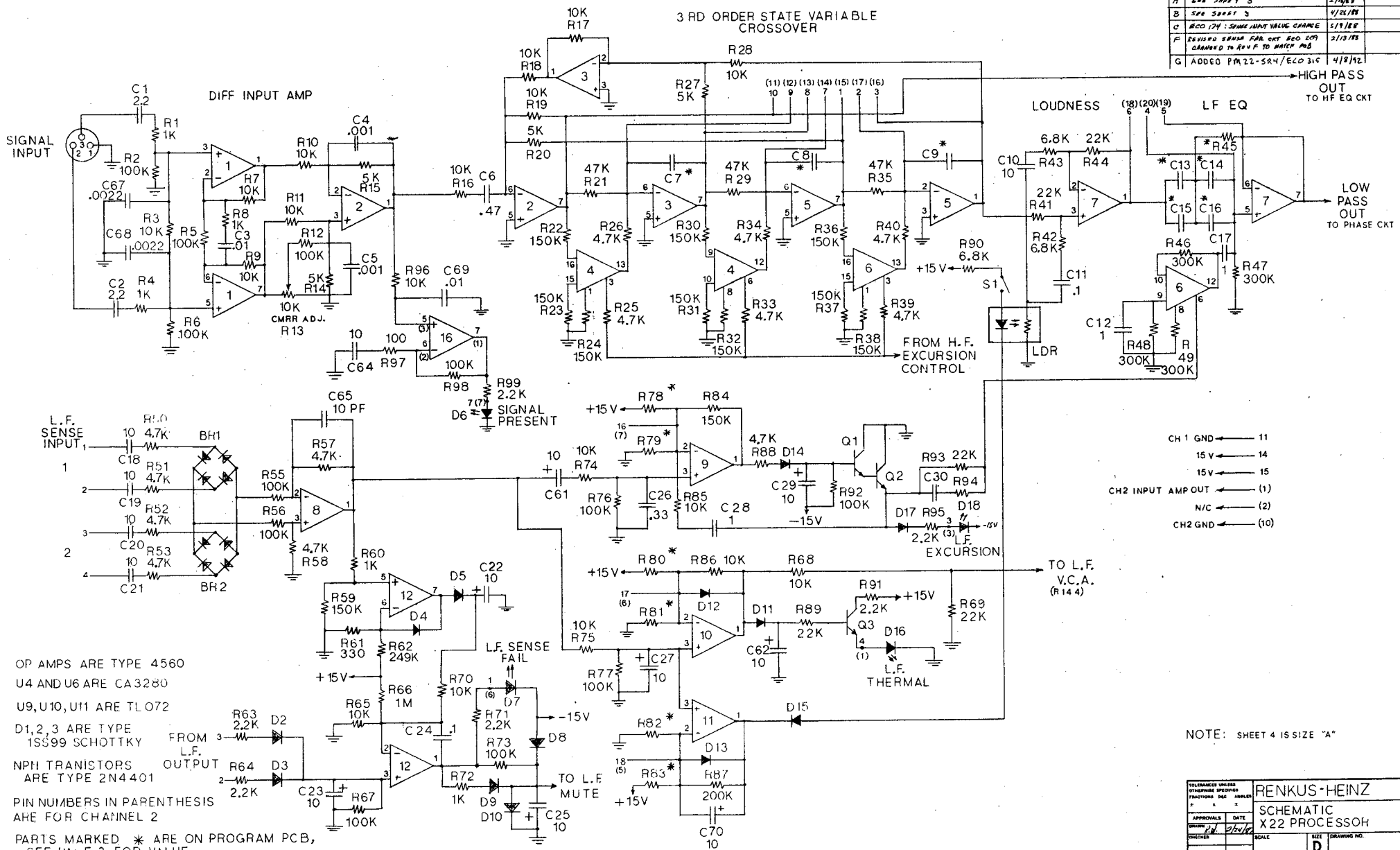


REVISIONS			
LTR	DESCRIPTION	DATE	APPROV
A	PRODUCTION RELEASE ERR SHEET 3	2/11/82	
B	524 SHEET 3	4/21/82	
C	REC 124: SIGNAL INPUT VALUE CHANGE	5/11/82	
F	REVISED 524M FAB. CMT. REC. 209 CHANGED TO REV. F TO MATCH P/B	2/13/82	
G	ADDED P/B 22-SR4/ECO 314	4/19/82	



OP AMPS ARE TYPE 4560
 U4 AND U6 ARE CA3280
 U9, U10, U11 ARE TLO72
 D1, 2, 3 ARE TYPE 1S599 SCHOTTKY
 NPN TRANSISTORS ARE TYPE 2N4401
 PIN NUMBERS IN PARENTHESIS ARE FOR CHANNEL 2

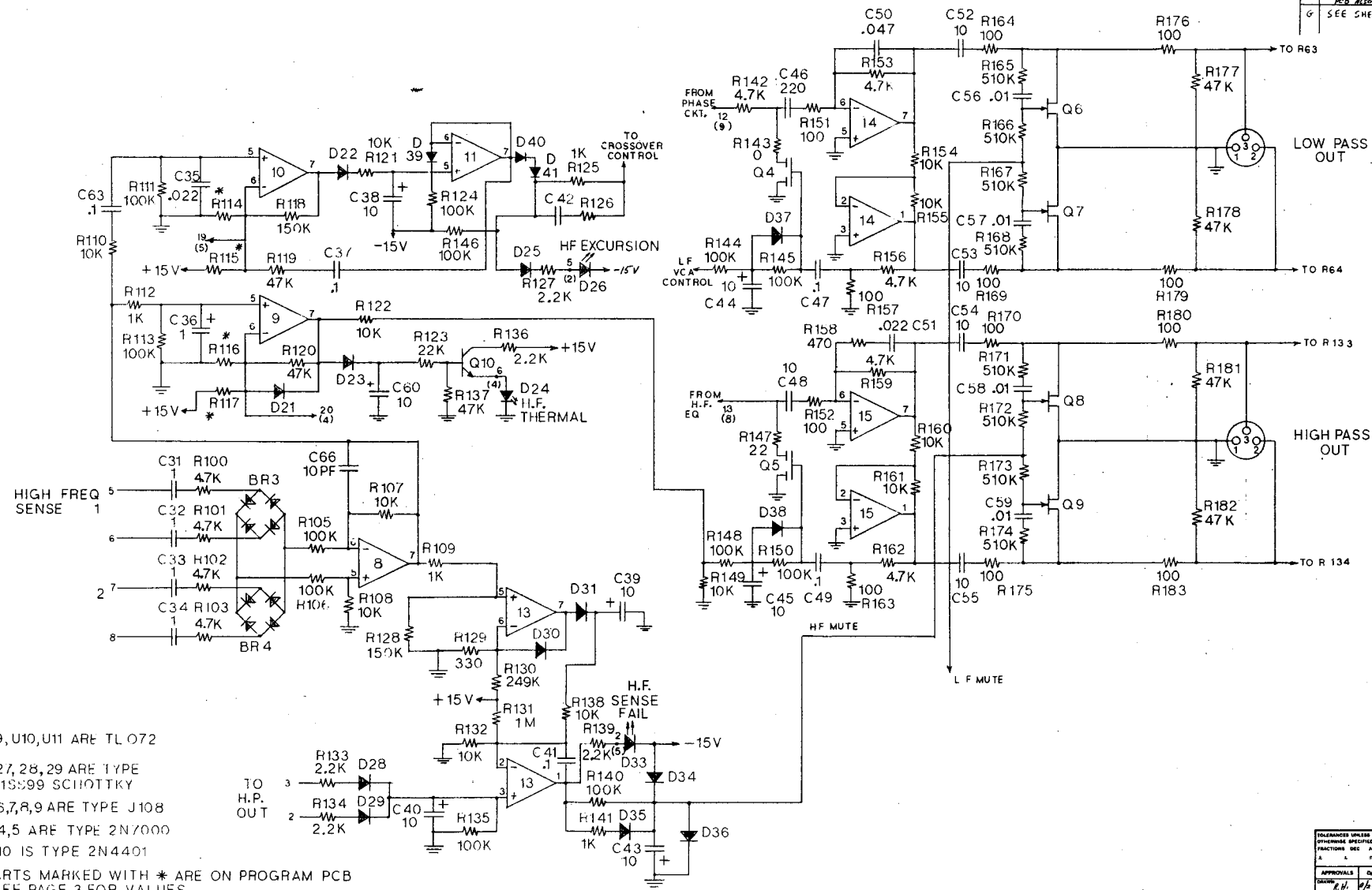
PARTS MARKED * ARE ON PROGRAM PCB, SEE PAGE 3, FOR VALUE.
 OR 4

- CH 1 GND ← 11
- 15 V ← 14
- 15 V ← 15
- CH2 INPUT AMP OUT ← (1)
- N/C ← (2)
- CH2 GND ← (10)

NOTE: SHEET 4 IS SIZE "A"

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DECIMALS		RENKUS-HEINZ	
APPROVALS DATE		SCHEMATIC X22 PROCESSOR	
DESIGNED BY	DATE	SCALE	SHEET NO.
DRIVEN	2/24/82		D
DO NOT SCALE DRAWING		SHEET 1 OF 4	

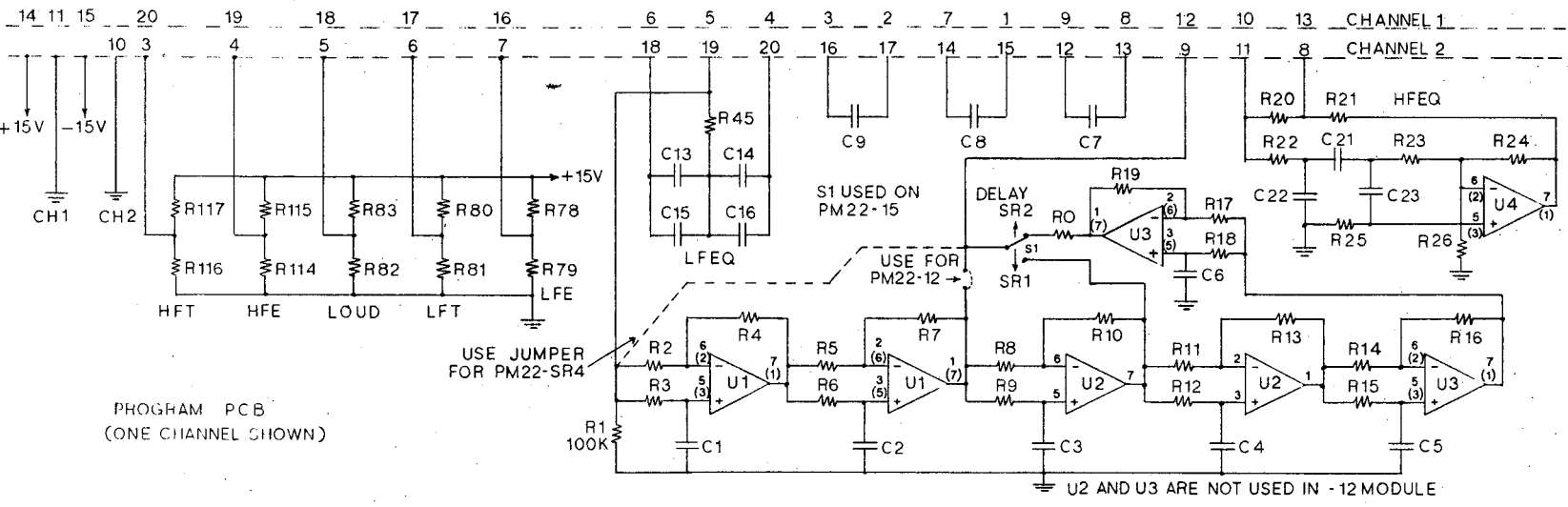
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
	PRODUCTION RELEASE	2/11/88	
A	SEE SHEET 3	2/13/88	
B	SEE SHEET 3	4/16/87	
C	ECO 174: SAME INPUT VALUE CHANGE	6/1/87	
F	REWORK THERM FAIL OUT. ECO 209 PCB ALSO IMPROVED TO REV. F	2/13/87	
G	SEE SHEET 2	4/10/87	



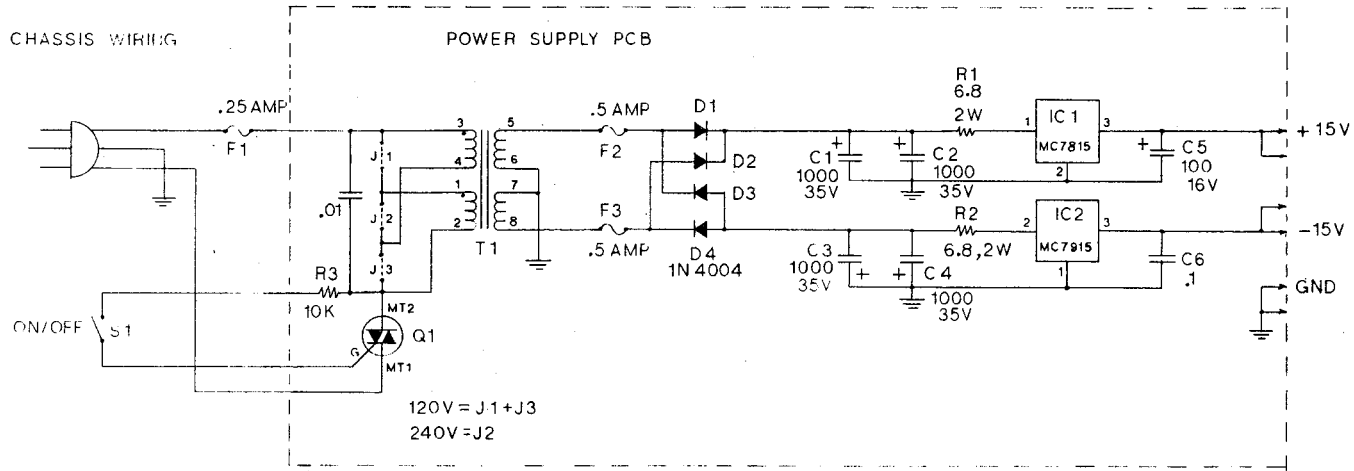
U9,U10,U11 ARE TL 072
 D27,28,29 ARE 1TYPE
 1S:99 SCHOTTKY
 Q6,7,8,9 ARE TYPE J108
 Q4,5 ARE TYPE 2N7000
 Q10 IS TYPE 2N4401
 PARTS MARKED WITH * ARE ON PROGRAM PCB
 SEE PAGE 3 FOR VALUES

TOLERANCES UNLESS OTHERWISE SPECIFIED		RENKUS-HEINZ	
FUNCTIONS ARE PANELS		SCHEMATIC	
APPROVALS		X22 PROCESSOR	
DESIGNED	DATE	SCALE	SIZE
CHKD	06/19/87		D
CHECKED			DRAWING NO.
DO NOT SCALE DRAWING		SHEET 2	

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
PRODUCTION RELEASE			
A	ECC 158 + 159 NUMEROUS VALUE CHANGES	2/1/78	R.D.
B	DEFINITION CHANGE - 470P WAS 407P, R29 WAS 470K	2/1/78	R.D.
C	R79 WAS 2K OHM -15	4/16/78	R.D.
D	R79 WAS 15K OHM -15 ECC 171	4/16/78	R.D.
E	ECC 171 SEE PM22-12	6/7/78	R.D.
F	ADDED -120 + -156 MODULES SEE ECC 219 + 220	2/5/79	R.D.
G	ECC 209 (K-1-2) SEE PM 22-156	2/19/83	
H	SEE SHEET 1	4/20/72	F.D.



COMPONENT	PM22			
	-12	-15	-12D	-156
R78	47K	47K	47K	47K
R79	2.32K	2.74K	2.32K	2.74K
R80	150K	150K	150K	150K
R81	1.47K	2.21K	1.47K	2.21K
R82	1K	1K	1K	1K
R83	150K	150K	150K	150K
R114	1.5K	1.5K	1.5K	1.5K
R115	100K	100K	100K	100K
R116	4.75K	4.75K	4.75K	4.75K
R117	68K	56K	56K	56K
C13, C14	.1	.1	.1	.1
C15, C16	—	.022	—	.022
C7, C8, C9	.0022	.0033	.0033	.0033
R22	6.8K	4.75K	4.75K	4.75K
R23	6.8K	10K	10K	10K
R24	6.8K	6.8K	6.81K	12.1K
R25	15K	47.5K	10K	18.2K
R26	2.21K	22.1K	22.1K	22.1K
C21	.0022	.0033	.0022	.0022
C22	.0033	—	.001	.001
C23	.001	470P	.001	.001
R2 THRU R7	12K	18K	12.1K	15K
C1, C2	.0022	.0033	.001	.0022
C3 THRU C6	—	.0033	.0022	.0022
R8 THRU R19	—	18K	10K	18.1K
R0	—	2.3K	0	0
R20, R21	10K	10K	10K	10K
R45	6.8K	6.8K	6.81K	6.81K
S1	NOT USED	USED	NOT USED	*



* FOR PM22-156 S1 IS REPLACED BY A JUMPER CONNECTING R0 TO THE OUTPUT.

TOLERANCES UNLESS OTHERWISE SPECIFIED		RENKUS-HEINZ	
FRACTIONS DECIMALS		SCHEMATIC	
APPROVALS		X 22 PROCESSOR	
DATE	DATE	SCALE	DRAWING NO.
2/1/78	2/1/78	D	
CHECKED	SIZE	DO NOT SCALE DRAWING SHEET 3	

PM-22 COMPONENT VALUES FOR SR-4

Part	Value
R78	47.5K
R79	2.32K
R80	150K
R81	2.74K
R82	15.0K
R83	150K
R114	4.02K
R115	100K
R116	4.75K
R117	56.1K
C13, C14	0.1uF
C15, C16	not used
C7...C9	.0022uF
R22	4.75K
R23	10.0K
R24	6.81K
R25	47.5K
R26	22.1K
C21	.0033uF
C22	not used
C23	470pF
R2...R7	not used
C1, C2	not used
C3...C6	not used
R8...R19	not used
R0	not used
R20	5.11K
R21	3.92K
R45	6.81K
S1	not used

NOTE: SHEETS 1 THRU 3 ARE SIZE D.

Special Instructions:

Add a wire from the [intersection of R1 (100K), R2 (unused) and R3 (unused)] to the wiper of switch S1 (unused). See schematic page 3.

.Title				RENKUS-HEINZ	
Size	Number	SCHEMATIC		Rev	
A	X22	PROCESSOR		G	
Date	4/8/92		Drawn by		
Filename	X22PMSR4.S01		Sheet 4 of 4		