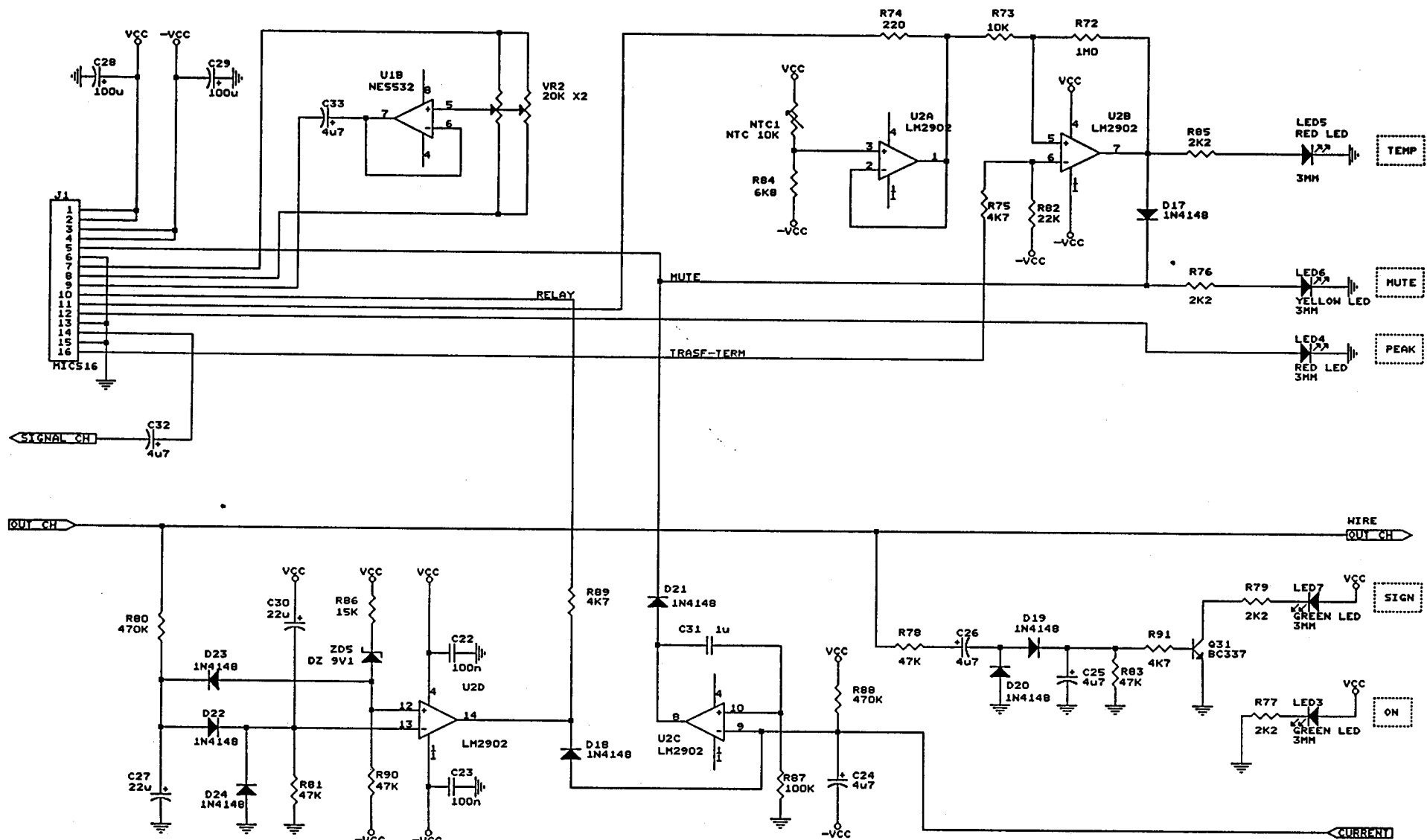


CONN1
STRIP STL 24
12345678901123456789012345

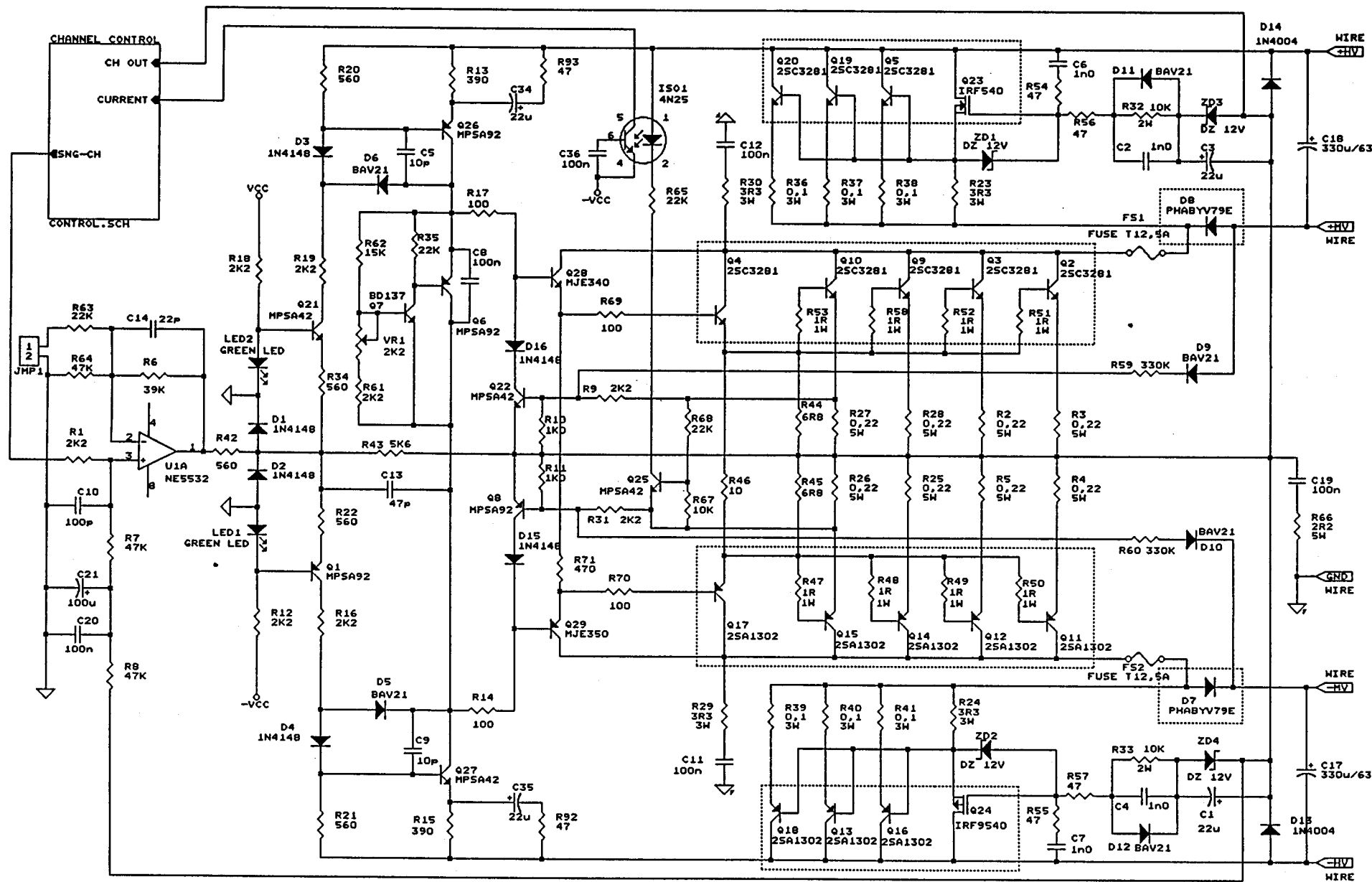
CS1
PST301B

| | |
|-------|----------------------|
| Title | INPUT/LIMITER MODULE |
| Size | Document Number |
| A | LIM-MOD.SCH |
| REV | |



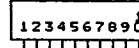
PA2.0 CHANNEL CONTROL

| | | |
|-----------------|--|-------------------|
| Title | | PA2.0 |
| Size | | CHANNEL CONTROL |
| Document Number | | CONTROL.SCH |
| Date: | | November 25, 1998 |
| Sheet | | 2 of 2 |



PA2.0 CHANNEL

CONN1
10 WAY SINGLE STRIP

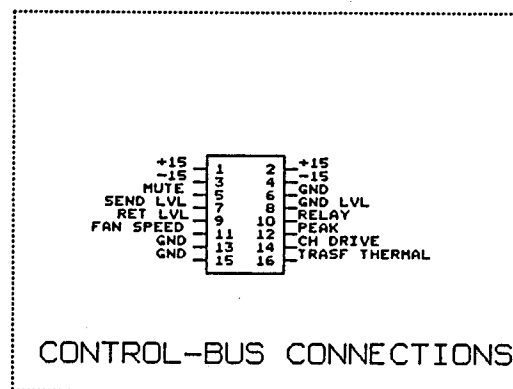
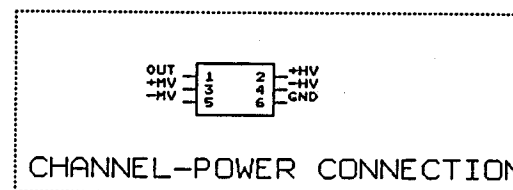
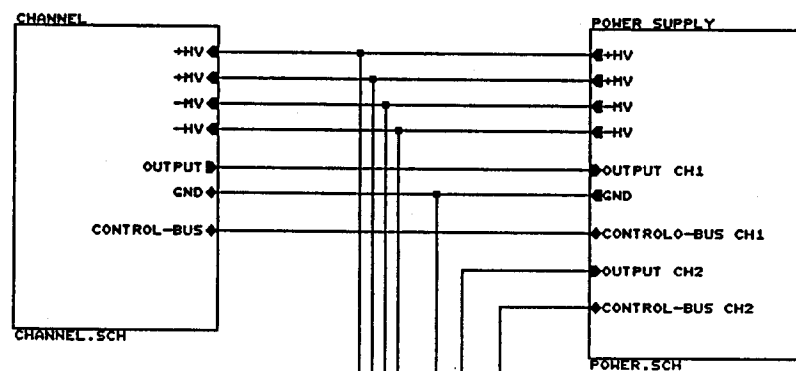


CS1
PSY2855

FH1
1 2

FH2
1 2

| CHANNEL | | | |
|---------|-------------------|--|--|
| Title | PA2.0 | | |
| Size | Document Number | | |
| A | CHANNEL.SCH | | |
| Date: | November 26, 1998 | | |
| Sheet | 1 of 2 | | |



| Item | Quantity | Reference | Part |
|------|----------|---|----------------------------------|
| 1 | 1 | CONN1 | 10 WAY SINGLE STRIP P2,54 X12mm |
| 2 | 1 | CS1 | PST286B |
| 3 | 6 | C1,C3,C27,C30,C34,C35 | 22u VERT. ELECT. CAP. 25 VDC |
| 4 | 4 | C2,C4,C6,C7 | 1n0 POL. CAP. P5 |
| 5 | 2 | C5,C9 | 10p CER. CAP. NP0 P2,5 |
| 6 | 5 | C8,C20,C22,C23,C36 | 100n CER. CAP. P5 |
| 7 | 1 | C10 | 100p CER. CAP. P5 |
| 8 | 2 | C11,C12 | 100n 100V P10 |
| 9 | 1 | C13 | 47p CER. CAP. NP0 P2,5 |
| 10 | 1 | C14 | 22p CER. CAP. NP0 P2,5 |
| 11 | 2 | C18,C17 | 330u/63 HORIZ. ELECT. CAP. 13x26 |
| 12 | 1 | C19 | 100n 250V P10 |
| 13 | 3 | C21,C28,C29 | 100u VERT. ELECT. CAP. 25 VDC |
| 14 | 5 | C24,C25,C26,C32,C33 | 4u7 VERT. ELECT. CAP. 25 VDC |
| 15 | 1 | C31 | 1u X7R CAP. P5 |
| 16 | 14 | D1,D2,D3,D4,D15,D16,D17, D18,D19,D20,D21,D22,D23, D24 | 1N4148 SIGNAL DIODE |
| 17 | 6 | D5,D6,D9,D10,D11,D12 | BAV21 SIGNAL DIODE |
| 18 | 2 | D7,D8 | PHABYV79E TO220 DIODE |
| 19 | 2 | D13,D14 | 1N4004 1A DIODE |
| 20 | 2 | FH2,FH1 | FUSEHOLDER 6X30 |
| 21 | 2 | FS2,FS1 | FUSE T12,5A |
| 22 | 1 | ISO1 | 4N25 |
| 23 | 1 | JMP1 | STRIP 2POS |
| 24 | 1 | J1 | MICS16 LUMBERG |
| 25 | 4 | LED1,LED2,LED3,LED7 | GREEN LED 3MM |
| 26 | 2 | LED5,LED4 | RED LED 3MM |
| 27 | 1 | LED6 | YELLOW LED 3MM |
| 28 | 1 | NTC1 | NTC 10K |
| 29 | 4 | Q1,Q6,Q8,Q26 | MPSA92 PNP LF TRANS. TO92 |
| 30 | 8 | Q2,Q3,Q4,Q5,Q9,Q10,Q19, Q20 | 2SC3281 NPN POWER TRANSISTOR |
| 31 | 1 | Q7 | BD137 NPN LF TRANS. TO92 |
| 32 | 8 | Q11,Q12,Q13,Q14,Q15,Q16, Q17,Q18 | 2SA1302 PNP POWER TRANSISTOR |
| 33 | 4 | Q21,Q22,Q25,Q27 | MPSA42 NPN LF TRANS. TO92 |
| 34 | 1 | Q23 | IRF540 N MOSFET TO220 |
| 35 | 1 | Q24 | IRF9540 P MOSFET TO220 |
| 36 | 1 | Q28 | MJE340 NPN TO126 |
| 37 | 1 | Q29 | MJE350 PNP TO126 |
| 38 | 1 | Q31 | BC337 NPN LF TRANS. TO92 |
| 39 | 12 | R1,R9,R12,R16,R18,R19, R31,R61,R76,R77,R79,R85 | 2K2 RESIST 1/4W 5% |
| 40 | 8 | R2,R3,R4,R5,R25,R26,R27, R28 | 0,22 5W |
| 41 | 1 | R6 | 39K RESIST 1/4W 5% |
| 42 | 7 | R7,R8,R64,R78,R81,R83, R90 | 47K RESIST 1/4W 5% |
| 43 | 2 | R10,R11 | 1K0 RESIST 1/4W 5% |
| 44 | 2 | R13,R15 | 390 RESIST 1/4W 5% |
| 45 | 4 | R14,R17,R69,R70 | 100 RESIST 1/4W 5% |
| 46 | 5 | R20,R21,R22,R34,R42 | 560 RESIST 1/4W 5% |

| Item | Quantity | Reference | Part |
|------|----------|-------------------------------------|-------------------------|
| 47 | 4 | R23,R24,R29,R30 | 3R3 3W |
| 48 | 2 | R32,R33 | 10K 2W |
| 49 | 4 | R35,R63,R65,R68 | 22K RESIST 1/4W 5% |
| 50 | 6 | R36,R37,R38,R39,R40,R41 | 0,1 3W |
| 51 | 1 | R43 | 5K6 RESIST 1/4W 5% |
| 52 | 2 | R44,R45 | 6R8 RESIST 1/4W 5% |
| 53 | 1 | R46 | 10 RESIST 1/4W 5% |
| 54 | 8 | R47,R48,R49,R50,R51,R52, R53,R58 | 1R 1W |
| 55 | 6 | R54,R55,R56,R57,R92,R93 | 47 RESIST 1/4W 5% |
| 56 | 2 | R59,R60 | 330K RESIST 1/4W 5% |
| 57 | 2 | R62,R86 | 15K RESIST 1/4W 5% |
| 58 | 1 | R66 | 2R2 5W |
| 59 | 2 | R67,R73 | 10K RESIST 1/4W 5% |
| 60 | 1 | R71 | 470 RESIST 1/4W 5% |
| 61 | 1 | R72 | 1M0 RESIST 1/4W 5% |
| 62 | 1 | R74 | 220 RESIST 1/4W 5% |
| 63 | 1 | R75 | 4K7 RESIST 1/4W 1% |
| 64 | 2 | R88,R80 | 470K RESIST 1/4W 5% |
| 65 | 1 | R82 | 22K RESIST 1/4W 1% |
| 66 | 1 | R84 | 6K8 RESIST 1/4W 5% |
| 67 | 1 | R87 | 100K RESIST 1/4W 5% |
| 68 | 2 | R91,R89 | 4K7 RESIST 1/4W 5% |
| 69 | 1 | U1 | NE5532 DUAL LF OP.AMP. |
| 70 | 1 | U2 | LM2902 QUAD LF OP.AMP. |
| 71 | 1 | VR1 | 2K2 PT5V |
| 72 | 1 | VR2 | 20K X2 31 STEP POT LOG |
| 73 | 4 | ZD1,ZD2,ZD3,ZD4 | DZ 12V ZENER DIODE 1/2W |
| 74 | 1 | ZD5 | DZ 9V1 ZENER DIODE 1/2W |

PA2.0
POWER SUPPLY
POWER.SCH
Bill Of Materials

Revised: November 25, 1998
Revision:
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| Item | Quantity | Reference | Part |
|------|----------|--|------------------------------------|
| 1 | 1 | BR1 | WL02 1A BRIDGE |
| 2 | 2 | BR2,BR3 | BRIDGE 25A |
| 3 | 2 | CONN1,CONN2 | MATE-LOOK 6 CS CONNECTOR |
| 4 | 2 | CONN3,CONN4 | CON3 |
| 5 | 2 | CONN5,CONN7 | XLR F VERT |
| 6 | 2 | CONN6,CONN8 | JACK STEREO 6,3 VERT |
| 7 | 2 | CONN11,CONN12 | SPEAKON-90 |
| 8 | 2 | CONN14,CONN13 | MICS16 |
| 9 | 1 | CS1 | PST287A |
| 10 | 2 | C1,C4 | 100n CER. CAP. P5 |
| 11 | 2 | C2,C3 | 22u VERT. ELECT. CAP. 25 VDC |
| 12 | 1 | C5 | 10n 100V P10 |
| 13 | 2 | C6,C7 | 2200u VERT. ELECT. CAP. 35 VDC D15 |
| 14 | 2 | C9,C8 | 470n MKT 400V |
| 15 | 1 | C10 | 100n 250V P15 |
| 16 | 1 | C11 | 220u VERT. ELECT. CAP. 25 VDC |
| 17 | 8 | C12,C13,C14,C15,C16,C17, C18,C19 | 10000u 63V D30 |
| 18 | 2 | C20,C21 | 1000u VERT. ELECT. CAP. 25 VDC |
| 19 | 4 | C22,C23,C24,C25 | 4u7 VERT. ELECT. CAP. 25 VDC |
| 20 | 2 | DISS1,DISS2 | TO220 DISSIPATOR |
| 21 | 2 | D1,D2 | 1N5402 1A DIODE |
| 22 | 3 | D3,D4,D5 | 1N4007 1A DIODE |
| 23 | 2 | FH1,FH2 | FUSEHOLDER 5X20 |
| 24 | 2 | FS1,FS2 | FUSE T1A |
| 25 | 18 | J1,J2,J3,J4,J5,J6,J7,J8, J9,J10,J11,J12,J13,J14, J15,J16,J17,J18 | 6,3 FASTON |
| 26 | 2 | L1,L2 | 1,2uH |
| 27 | 1 | MODULE1 | LIM-MOD |
| 28 | 1 | PTC1 | PTC 11R 265V |
| 29 | 2 | Q1,Q2 | TIP29C NPN TRANS. TO220 |
| 30 | 2 | Q4,Q3 | BC337 NPN LF TRANS. TO92 |
| 31 | 2 | RL1,RL2 | RELAY 24V 30A |
| 32 | 1 | RL3 | RELAY 24V 30A |
| 33 | 1 | R1 | 1K0 RESIST 1/4W 5% |
| 34 | 1 | R2 | 220 RESIST 1/4W 5% |
| 35 | 2 | R3,R4 | 2R2 5W |
| 36 | 2 | R6,R5 | 10 1W |
| 37 | 2 | R10,R9 | 4K7 5W |
| 38 | 4 | R11,R12,R13,R14 | 100K RESIST 1/4W 5% |
| 39 | 1 | SW1 | 1RSW3 |
| 40 | 1 | T1 | HC2000 TRANSFORMER |
| 41 | 1 | U1 | LM7915 NEG VOLTAGE REGULATOR TO220 |
| 42 | 1 | U2 | LM7815 POS VOLTAGE REGULATOR TO220 |
| 43 | 2 | ZD2,ZD1 | 5V1 ZENER DIODE 1/2W |

INPUT/LIMITER MODULE
 LIM-MOD.SCH
 Bill Of Materials

Revised: August 6, 1998
 Revision: B
 August 6, 1998 14:52:31 Page 1

| Item | Quantity | Reference | Part |
|------|----------|---|---------------------------|
| 1 | 1 | CONN1 | STRIP SIL 24 |
| 2 | 1 | CS1 | PST301B PCB 66X32mm |
| 3 | 4 | C1,C2,C6,C7 | 470p CC0805 X7R CAP. 10% |
| 4 | 4 | C3,C4,C5,C8 | 47p CC0805 CER. CAP. NP0 |
| 5 | 2 | C9,C10 | 100p CC0805 CER. CAP. NP0 |
| 6 | 2 | C11,C14 | 100n CC0805 CAP. Y5V |
| 7 | 4 | C12,C13,C15,C16 | 100n CC0805 CER. CAP. |
| 8 | 2 | C17,C18 | 1u CC0805 CER.CAP. |
| 9 | 3 | D1,D2,D7 | BAV70 DIODE SOT23 |
| 10 | 4 | D3,D4,D5,D6 | BAV99 SOT23 |
| 11 | 2 | Q1,Q2 | BF545B SOT23 |
| 12 | 13 | R1,R2,R3,R4,R6,R7,R14, R17,R20,R35,R45,R46,R47 | 1K0 RC0805 |
| 13 | 10 | R5,R10,R11,R19,R23,R24, R28,R29,R34,R43 | 22K RC0805 |
| 14 | 11 | R8,R9,R13,R30,R31,R32, R33,R39,R40,R41,R42 | 10K RC0805 |
| 15 | 4 | R12,R22,R25,R44 | 1M0 RC0805 |
| 16 | 2 | R15,R16 | 470 RC0805 |
| 17 | 4 | R18,R21,R26,R27 | 470K RC0805 |
| 18 | 1 | R36 | 220K RC0805 |
| 19 | 2 | R37,R38 | 2K2 RC0805 |
| 20 | 3 | U1,U2,U6 | BA4560 SOP8 |
| 21 | 1 | U3 | LM358 SOP8 |
| 22 | 1 | U4 | NE5517N SOP16 |
| 23 | 1 | U5 | TL074 SOP14 |
| 24 | 1 | VR1 | 100K POZ3AN |