

# Technical Manual



# JBL JRX118SP/230

## SPECIFICATIONS

### ACOUSTIC & ELECTRICAL SPECIFICATIONS:

- Nominal Impedance: 4 ohm
- Amplifier Power: 300 Watts
- Frequency Range: 38Hz – 300 Hz (-10dB)
- Sensitivity: 96dB SPL (1 W at 1 M)
- Crossover Frequency: 300Hz

### SYSTEM COMPONENTS:

- Cabinet: (Not For Sale)
- Grille: 352838-001
- Low Frequency Transducer: 460mm (18 in.) Cone Transducer (2043G)
- DC Resistance: 2.6 ohm

### AURAL SWEEP TEST SPECIFICATIONS:

- A. System Aural Sweep Test: 0.5 Vrms for 300 W Output (Sub Level Control Fully Clock-Wise) Sweep 20 Hz to 150 Hz
- B. L.F. Aural Sweep Test: 10.0V Input, 20 Hz to 1.2 kHz

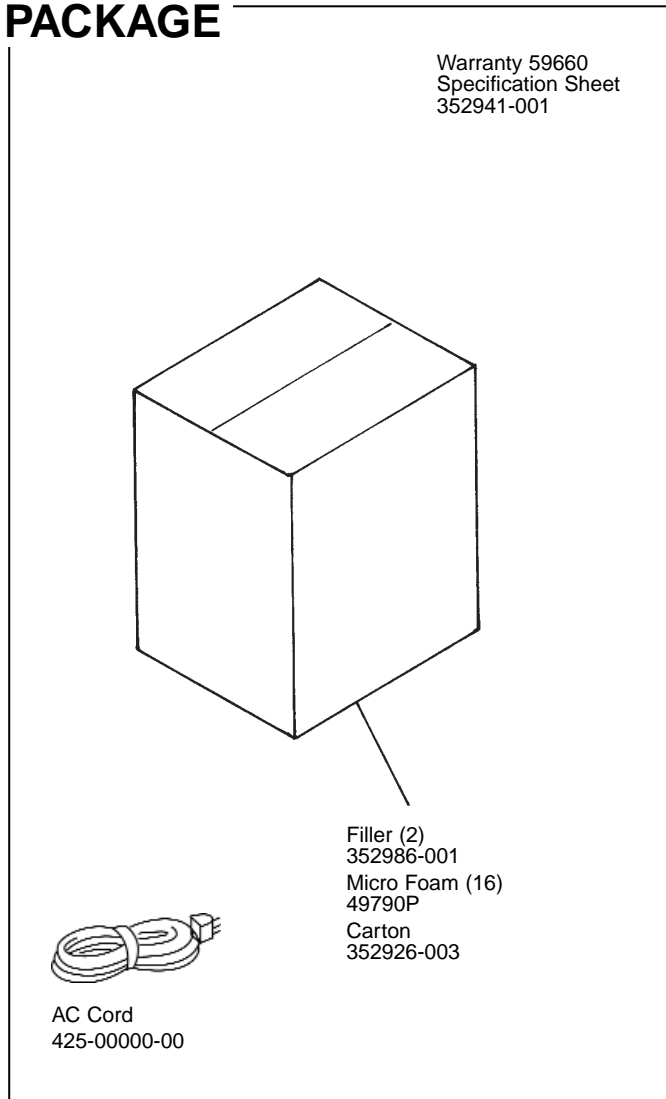
### PHYSICAL SPECIFICATIONS:

- Enclosure Dimensions: 597mm x 516mm x 597mm D (23.5 x 20.3 x 23.5 in. D)
- Net Weight: 89 lbs. (40.4 kg.)

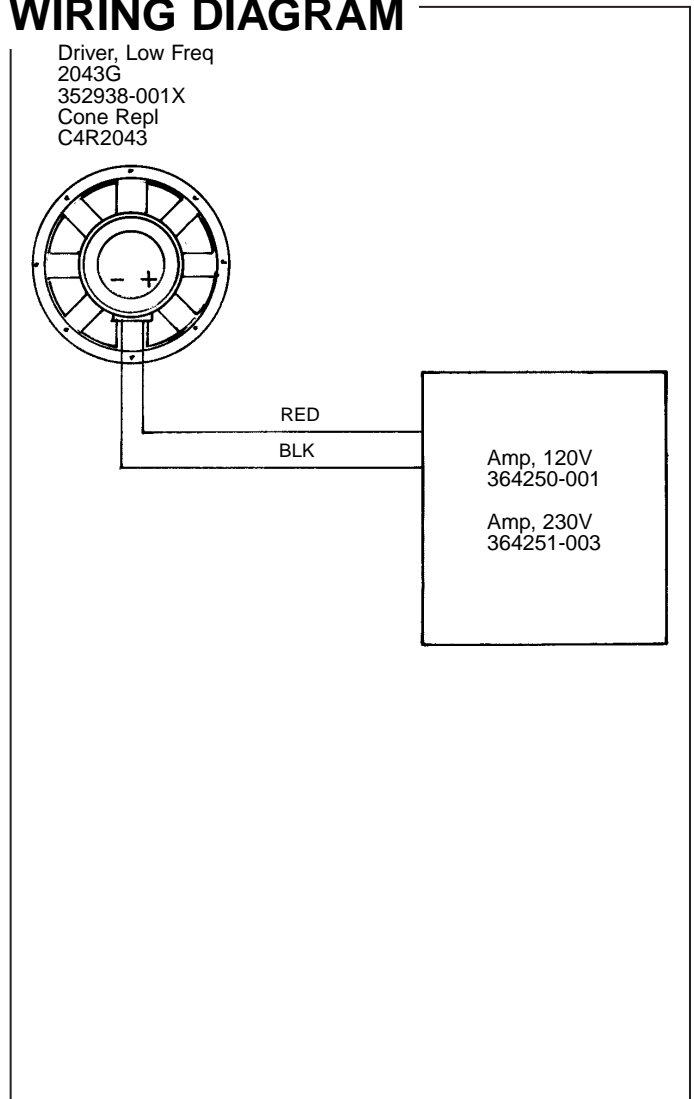
### WARRANTY INFORMATION:

- Refer to Warranty Statement packed with each product.

## PACKAGE



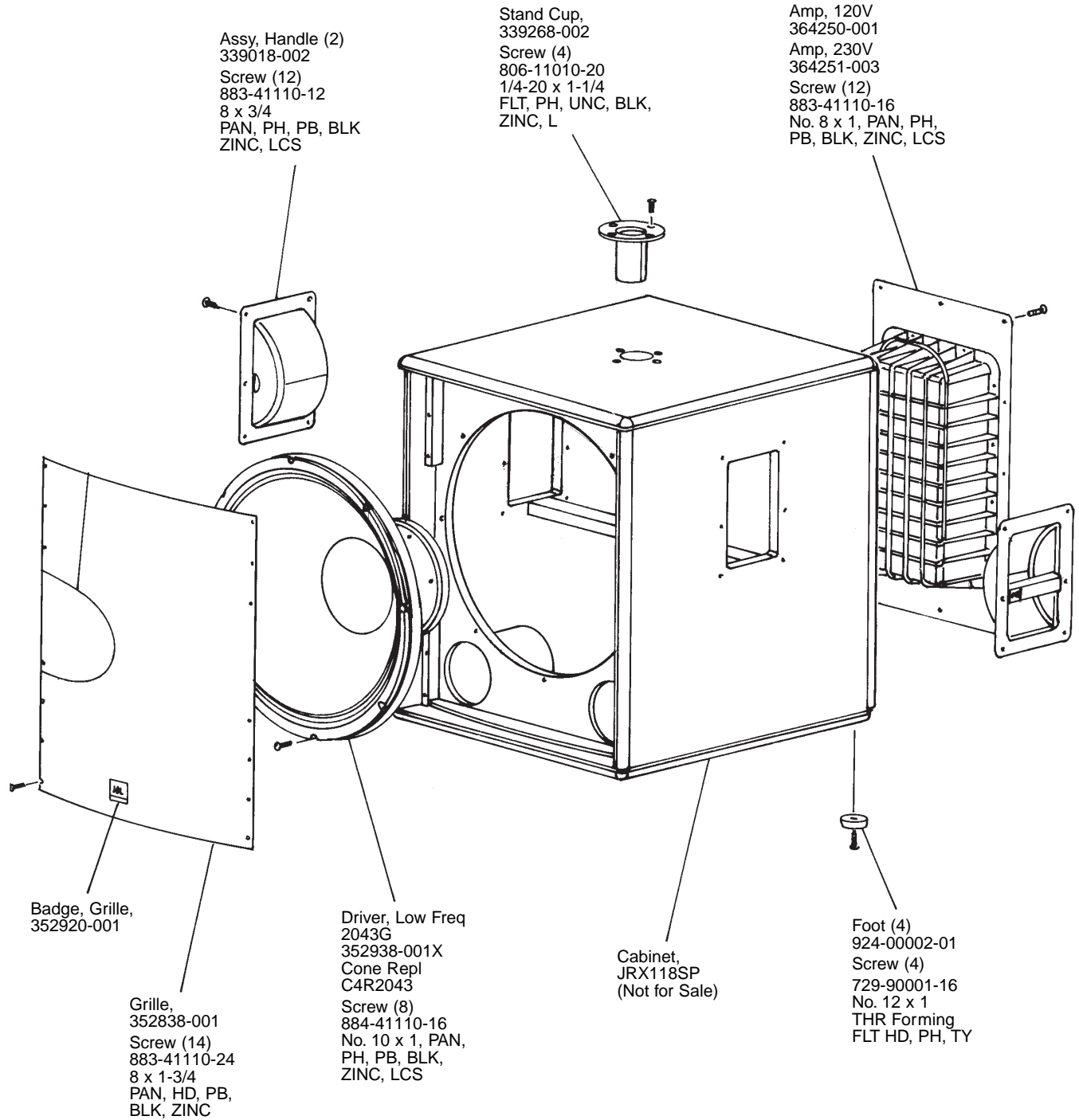
## WIRING DIAGRAM



JBL JRX118SP/230 REV M

# JBL JRX118SP/230

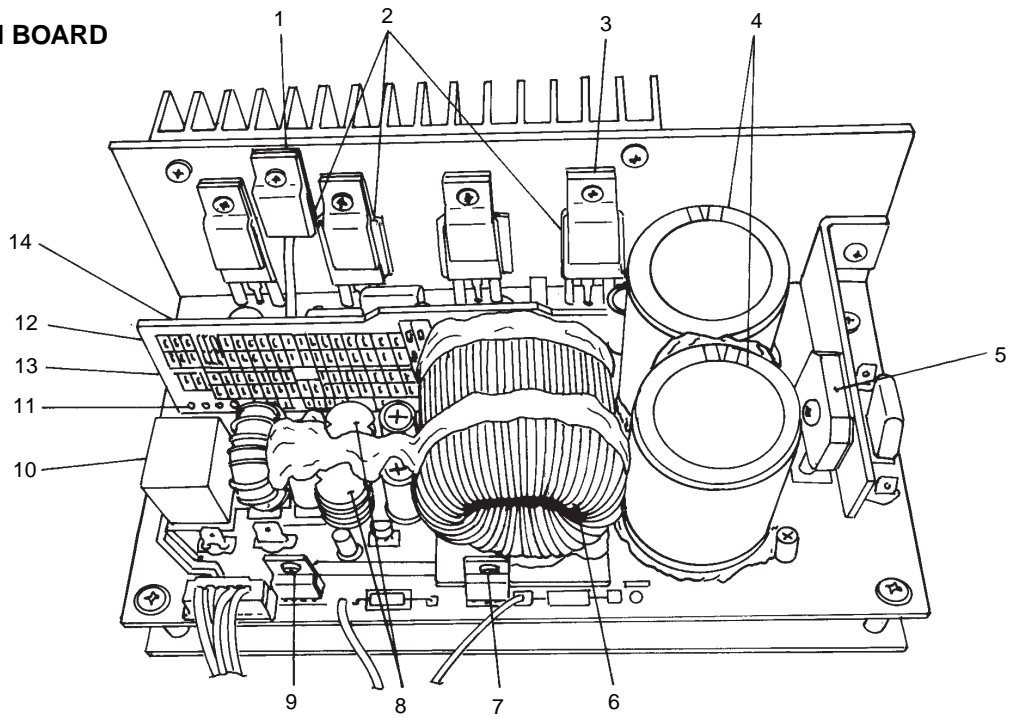
## COMPONENT EXPLODED VIEW



# JBL JRX118SP/230

## COMPONENTS

### MAIN BOARD

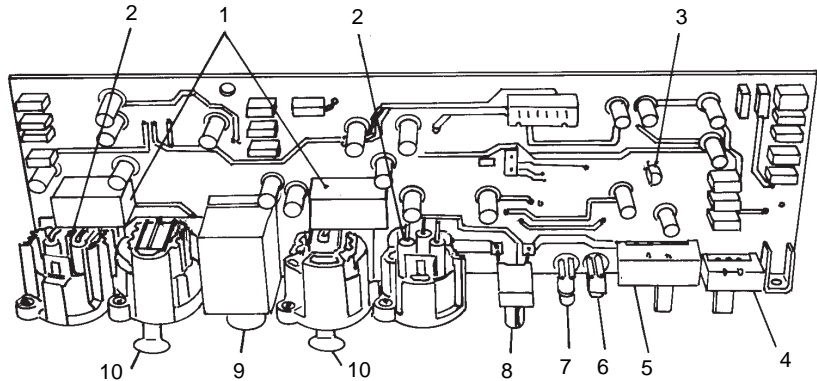


#### COMPONENT PARTS LIST: Main PCB 351044-001

Item	Part No.	Qty	Description	Ref. Des.
1	351047-001	1	TSE-103 K L:50MM	TH1
2	351056-001	4	IRFP250N	Q11,13,15,17
3	351036-001	5	Brkt Pwr Transistor	P. Transistors
4	351049-001	2	10000 UF63V	C1, C4
5	351059-001	1	400V, 8A	BR1
6	351053-001	1	70UH	L8
7	351060-001	1	LM317T	Q6

Item	Part No.	Qty	Description	Ref. Des.
8	351051-001	2	30MH	L9, L10
9	351061-001	2	LM337T	Q8
10	351070-001	1	48VDC RELAY	RLY1
11	351052-001	1	56 UH	L12
12	351072-001	1	JRX118SP DRIVE	PIN 1 A
13	351398-001	1	7 PIN CONN	
14	331399-001	1	11 PIN CONN	

### INPUT BOARD



#### COMPONENT PARTS LIST: Input PCB 351086-001

Item	Part No.	Qty	Description	Ref. Des.
1	351104-001	2	TRS-5VDC	K1, K2
2	351098-001	2	PN: NC3MAH	JK201,JK204
3	351090-001	1	J113	Q206
4	351103-001	1	PO12BA-PA8 SW	S202
5	351102-001	1	P242BLB-PC10 SW	S201/SW201

Item	Part No.	Qty	Description	Ref. Des.
6	351089-001		PN: LT6431-81	D213
7	351088-001	1	PN: LT6421-81	D210
8	351087-001	1	PN: RD09L1120032-EJ	VR201
9	351100-001	1	PN: SCJ628R3 NAS1B00	JK1
10	351099-001	2	XLR (NEUTRIK)	JK202,JK204

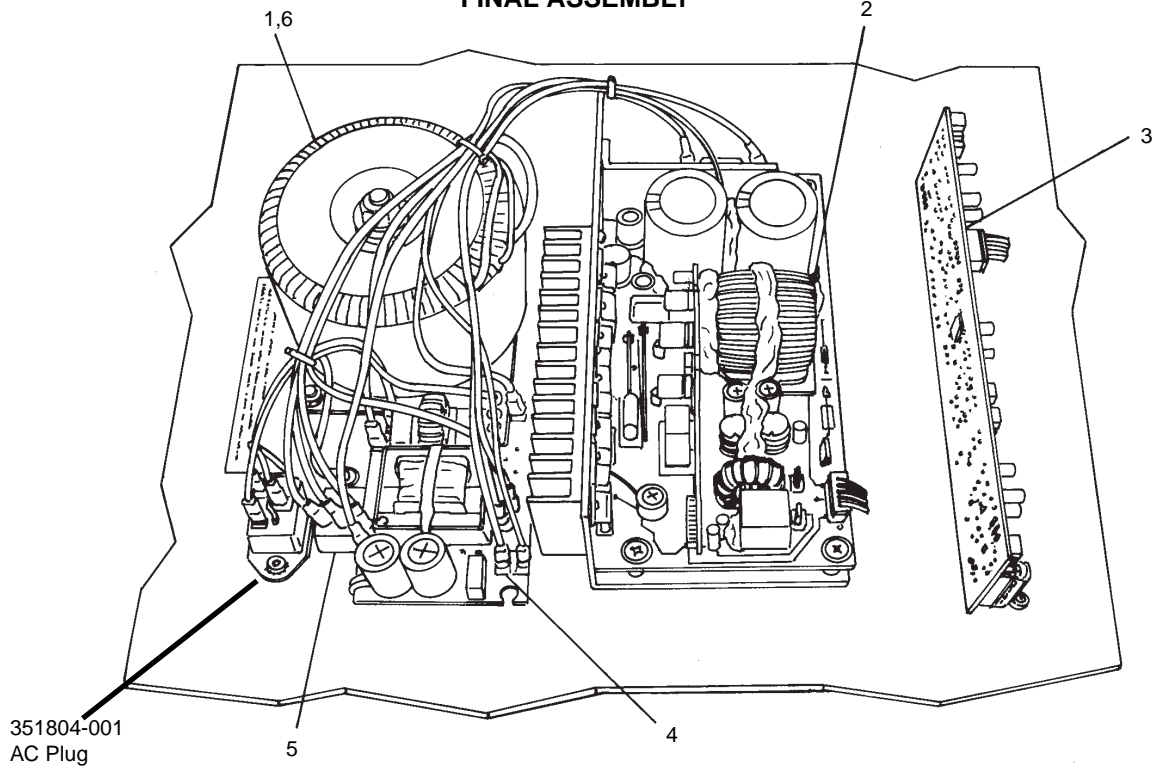
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## COMPONENTS

### FINAL ASSEMBLY



#### COMPONENT PARTS LIST: Final Assembly

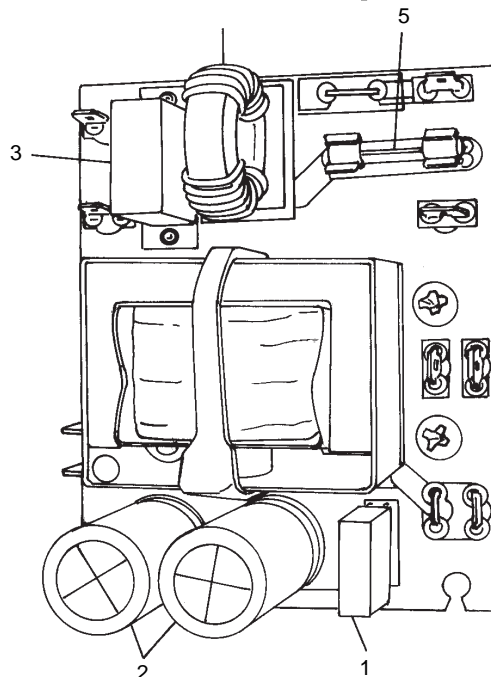
Item	Part No.	Qty	Description
1	351032-001	1	PN:TTO-10654-01 Toroid Transformer 120V
2	351044-001	1	Main
3	351086-001	1	JRX118SP Pre PCB
4	351105-001	1	Fuse/PT2 BD
5	351255-001	1	Power Switch
6	352329-001	1	PN;TTO-10655-02 Toroid Transformer 220V

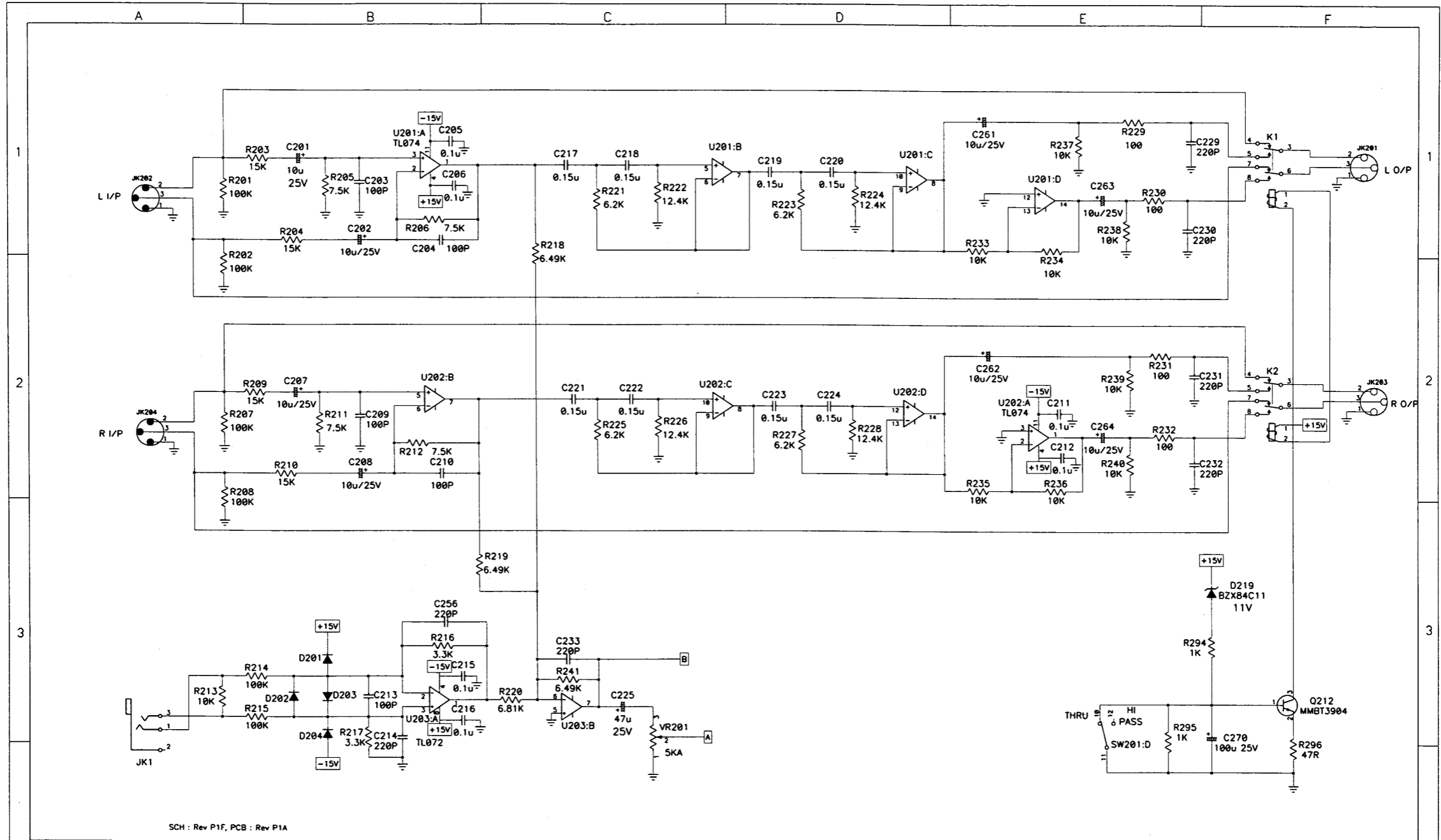
### FUSE – PT2 BD

#### COMPONENT PARTS LIST: Fuse PT2 BD 351105-001

Item	Part No.	Qty	Description	Ref. Des.
1	351109-001	1	200V, 2A	BR2
2	351106-001	2	4700UF/25V 85C	C15, C16
3	351107-001	1	PN:XG275M224VHS2	CXAC18
4	351108-001	1	324UH	L13
5	351111-001	1	7A/250V 5X20MM	F1

Fuse Holder, 351110-001

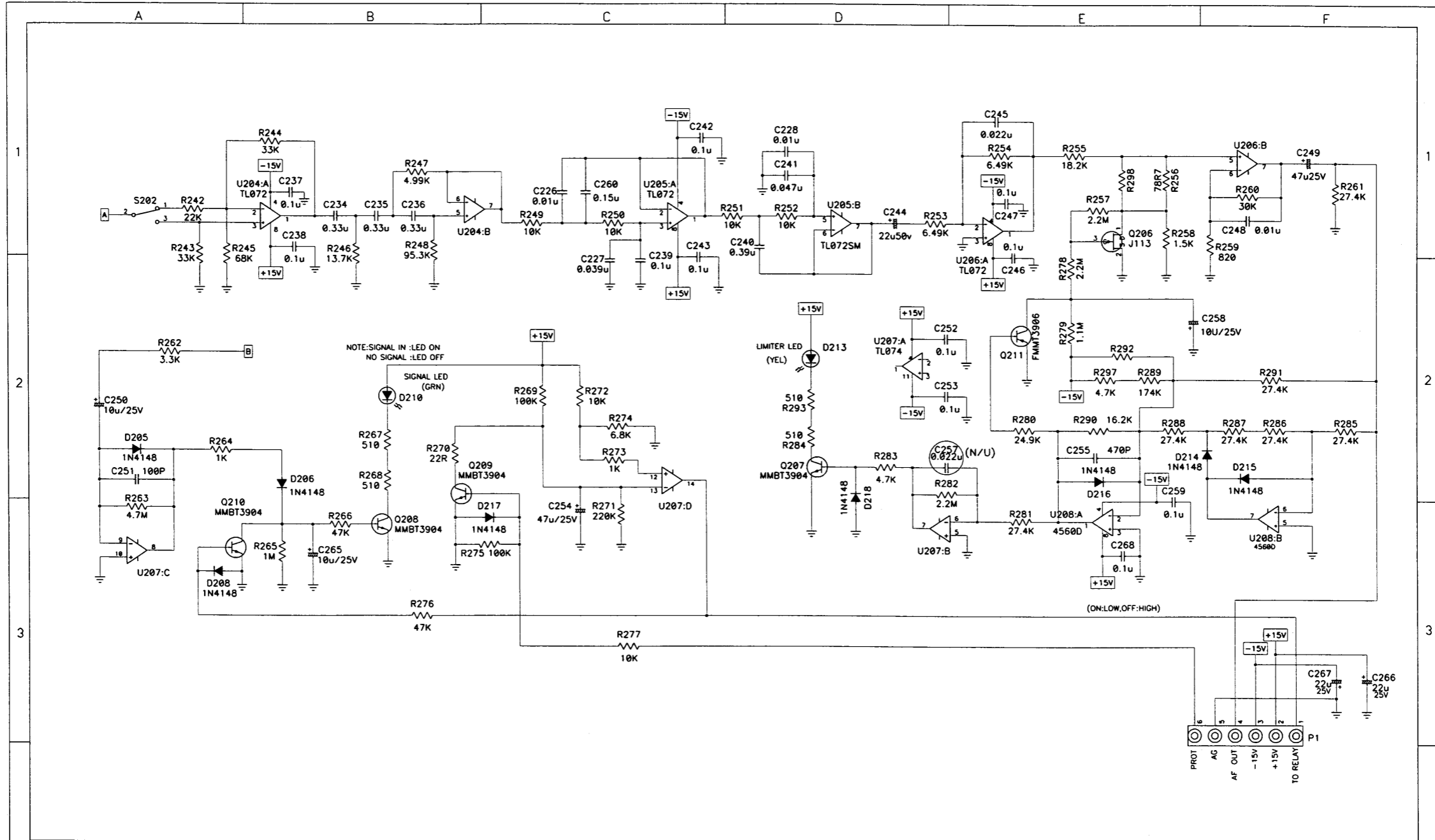




SCH : Rev P1F, PCB : Rev P1A

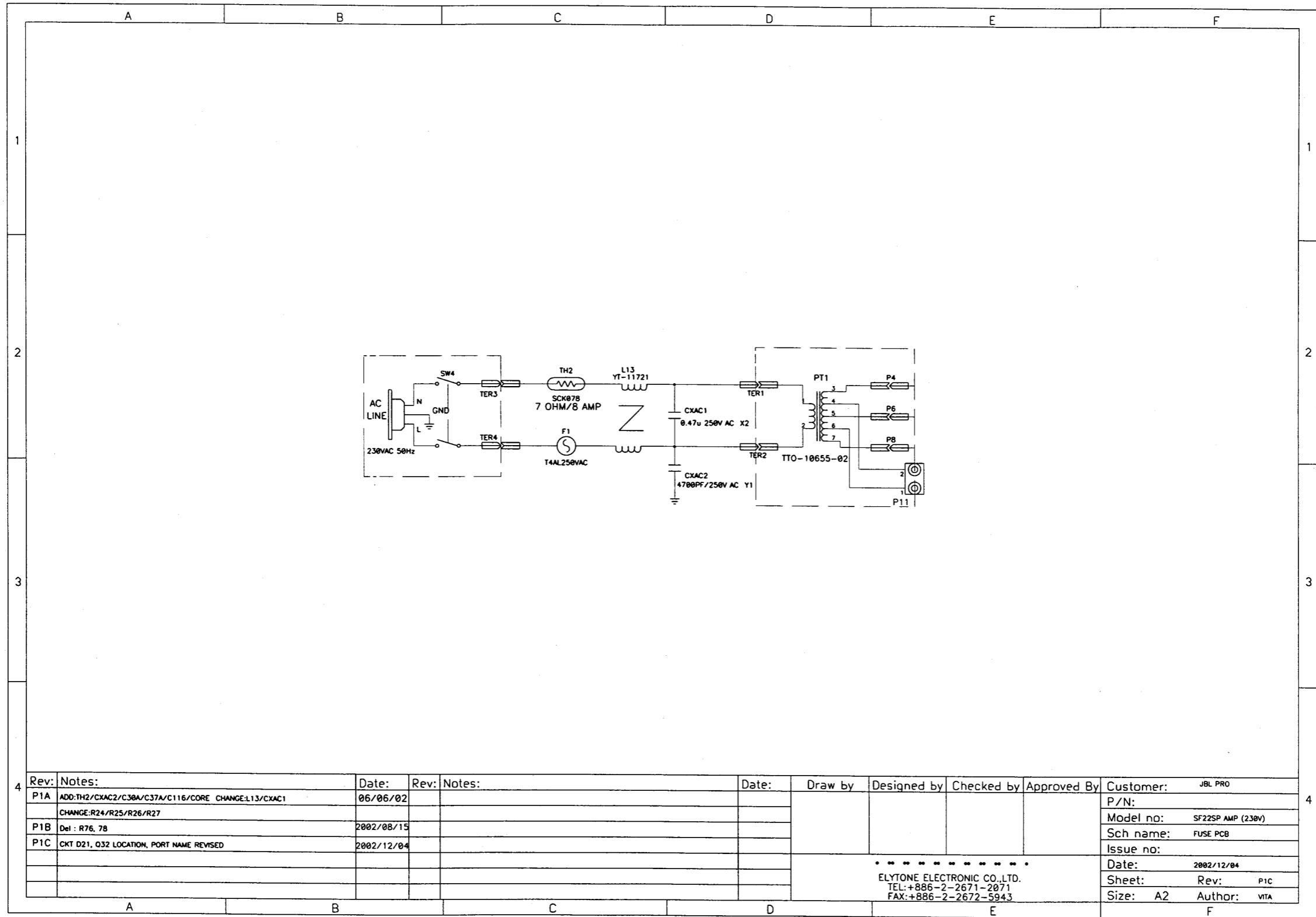
Rev:	Notes:	Date:	Rev:	Notes:	Date:	Draw by	Designed by	Checked by	Approved By	Customer:	JBL PRO
01	Mass Production P1K = REV01	2002/04/12								P/N:	1J03-1511-36
02										Model no:	SF22SP AMP
03										Sch name:	PRE AMP BOARD
04	ADD D207&R299	2002/05/13								Issue no:	1J03-1511-31
										Date:	2002-04-19
										Sheet:	Rev: 04
										Size:	A2 Author: Vito

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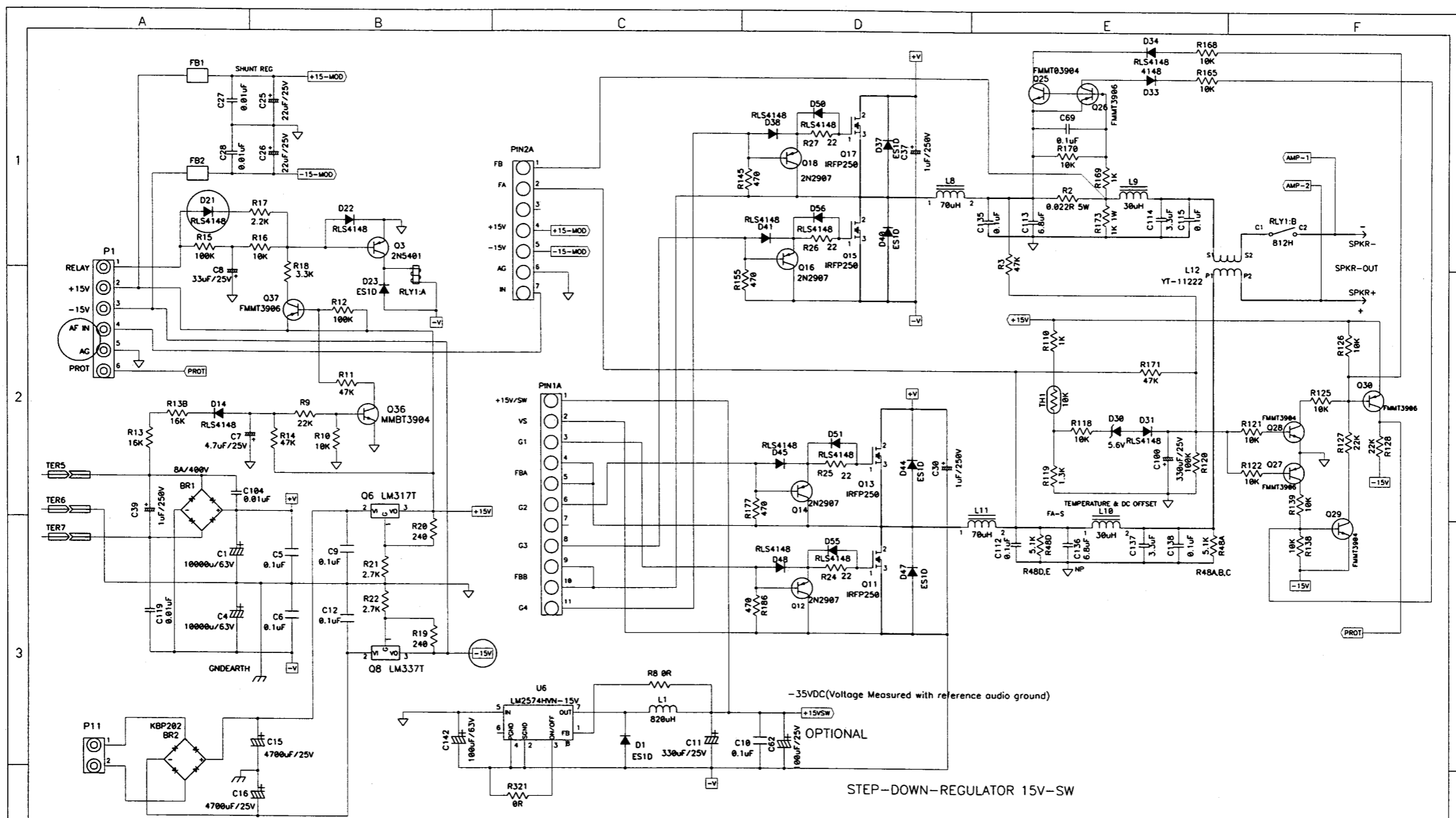
Rev:	Notes:	Date:	Rev:	Notes:	Date:	Draw by	Designed by	Checked by	Approved By	Customer:	JBL PRO
01	Mass Production P1K = REV01	2002/04/12								P/N:	1J03-1511-36
02	Modify C257 Was .022u Is .022u (N/U)	2002/04/19								Model no:	SF22SP AMP
										Sch name:	PRE AMP BOARD
										Issue no:	1J03-1511-31
										Date:	2002-04-19
										Sheet:	Rev: 04
										Size:	A2 Author: Vito

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Rev:	Notes:	Date:	Rev:	Notes:	Date:	Draw by	Designed by	Checked by	Approved By	Customer:
P1A	ADD:TH2/CXAC2/C30A/C37A/C116/CORE CHANGE:L13/CXAC1	06/06/02								JBL PRO
	CHANGE:R24/R25/R26/R27									P/N:
P1B	Del : R76, 78	2002/08/15								Model no: SF22SP AMP (230V)
P1C	CKT D21, Q32 LOCATION, PORT NAME REVISED	2002/12/04								Sch name: FUSE PCB
										Issue no:
										Date: 2002/12/04
										Sheet: Rev: P1C
										Size: A2 Author: VTA

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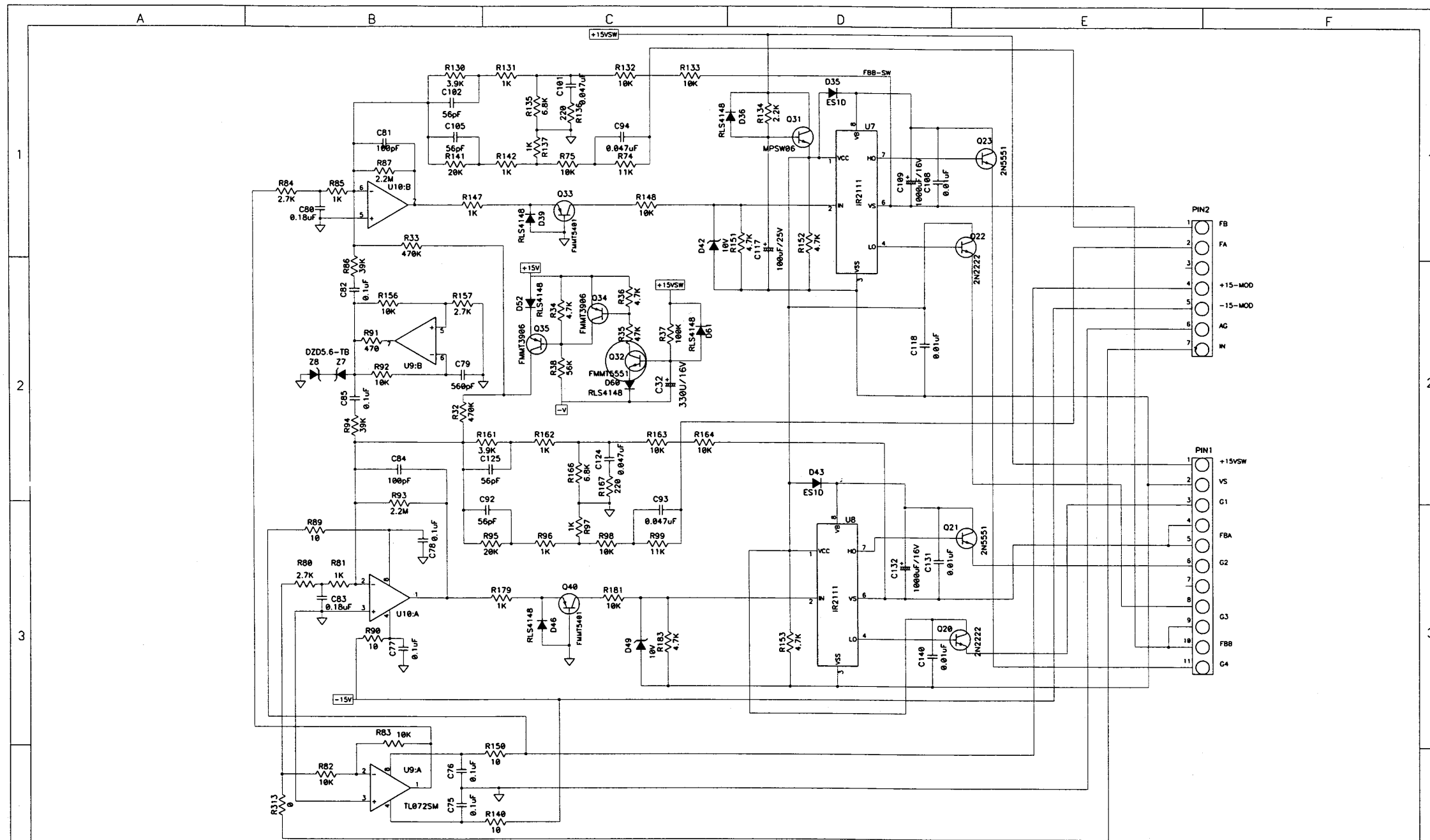
\* ALL TEST POINTS(+15VSW)=-35Vdc

Rev:	Notes:	Date:	Rev:	Notes:	Date:	Draw by	Designed by	Checked by	Approved By	Customer:
P1A	SF22SP New Design	2002/01/02	P1H	Delete R322 (270R 3W)	2002/04/09					JBL PRO
P1B	CKT UPDATE	2002/01/09	P1I	Mass Production P1H = REV01	2002/04/17					P/N:
P1C	ADD : C8, R15, 16, 17, D21	2002/02/08	P1J	ADD : D50, 51, 55, 56	2002/06/13					Model no: SF22SP AMP
P1D	ADD : C7, 29, D8, 14, R18	2002/02/25	P1K	Del : R76, 78 Add : P11, BR2, C15, 16	2002/08/15					Sch name: CLASS D AMP PCB
P1E	ADD : D7, R9-11, 14, Q36 Change : P1, Del : C29, R18	2002/03/11	P1L	CKT D21, Q32 LOCATION, PORT NAME REVISED	2002/12/04					Issue no:
P1F	ADD : R19-22, Change : Q6, 8, Del : R77, 79, D2, 3.	2002/03/27								Date: 2002/12/04
P1G	ADD : R232 (For LM2574N Option ; May be 270R --- 360R 3W) C104, C119, R18, R21	2002/04/02								Sheet: Rev: P1L

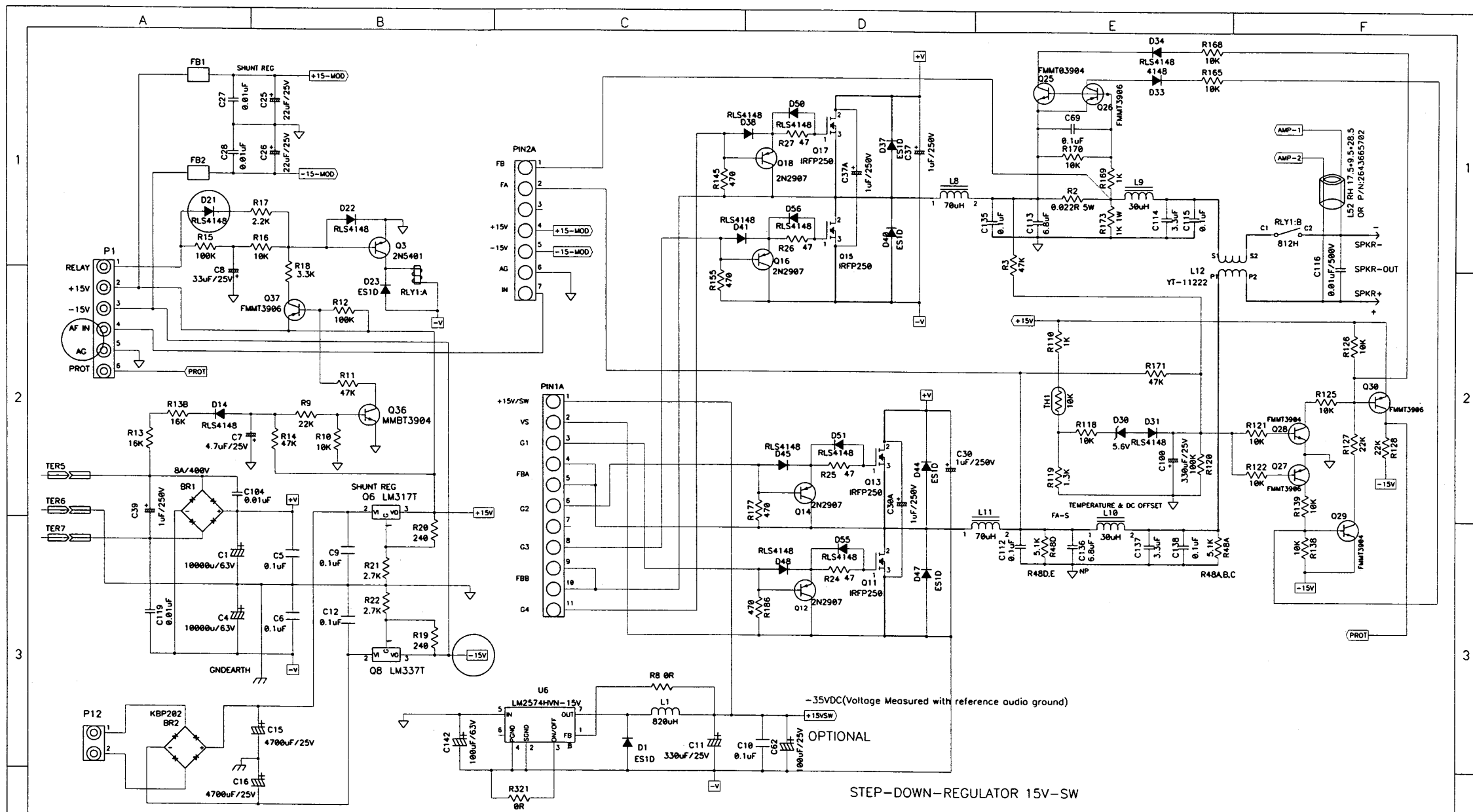
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Size: A2 Author: WTA





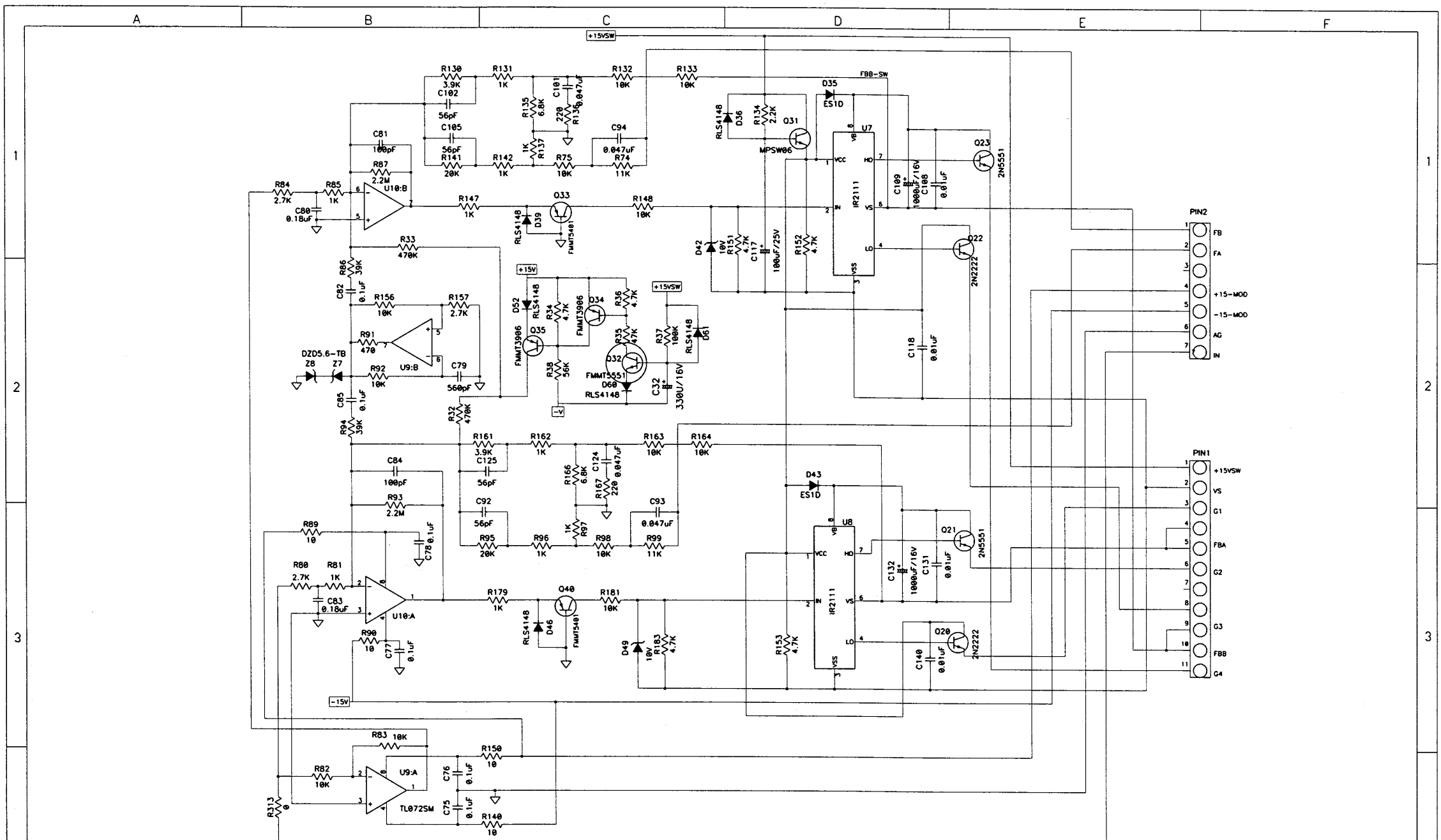
Rev:	Notes:	Date:	Rev:	Notes:	Date:	Draw by	Designed by	Checked by	Approved By	Customer:
P1A	SF22SP New Design	2002/01/02	P1H	Delete R322 (270R 3W)	2002/04/09					JBL PRO
P1B	CKT UPDATE	2002/01/09	P1I	Mass Production P1H = REV01	2002/04/17					P/N:
P1C	ADD : C8, R15, 16, 17, D21	2002/02/08	P1J	ADD : D50, 51, 55, 56	2002/06/13					Model no: SF22SP AMP
P1D	ADD : C7, 29, D8, 14, R18	2002/02/25	P1K	Del : R76, 78 Add : P11, BR2, C15, 16	2002/08/15					Sch name: CLASS D DRIVER PCB
P1E	ADD : D7, R9-11, 14, Q36 Change : P1, Del : C29, R18	2002/03/11	P1L	CKT D21, Q32 LOCATION, PORT NAME REVISED	2002/12/04					Issue no:
P1F	ADD : R19-22, Change : Q6, 8, Del : R77, 79, D2, 3,	2002/03/27								Date: 2002/12/04
P1G	D35 Connected to Vcc Pin1	2002/04/02								Sheet: Rev: P1L
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\* ALL TEST POINTS(+15VSW)=-35Vdc

Rev:	Notes:	Date:	Rev:	Notes:	Date:	Draw by	Designed by	Checked by	Approved By	Customer:
P1A	ADD:TH2/CXAC2/C30A/C37A/C116/CORE CHANGE:L13/CXAC1 CHANGE:R24/R25/R26/R27	06/06/02								JBL PRO
P1B	Del : R76, 78	2002/08/15								P/N: Model no: SF22SP AMP (230V)
P1C	CKT D21, Q32 LOCATION, PORT NAME REVISED	2002/12/04								Sch name: CLASS D AMP PCB
										Issue no:
										Date: 2002/12/04
										Sheet: Rev: P1C
										Size: A2 Author: v1A

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4	Rev: Notes:	Date:	Rev: Notes:	Date:	Draw by	Designed by	Checked by	Approved By	Customer: JBL PRO
	P1A ADD:TH2/CXAC2/C30A/C37A/C116/CORE CHANGE:L13/CXAC1	06/06/02							P/N:
	CHANGE:R24/R25/R26/R27								Model no: SF22SP AMP (230V)
	P1B Del: R76, 78	2002/08/15							Sch name: CLASS D DRIVER PCB
	P1C CKT D21, Q32 LOCATION, PORT NAME REVISED	2002/12/04							Issue no:
									Date: 2002/12/04
									Sheet: Rev: PIC
									Size: A2 Author: VTA

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