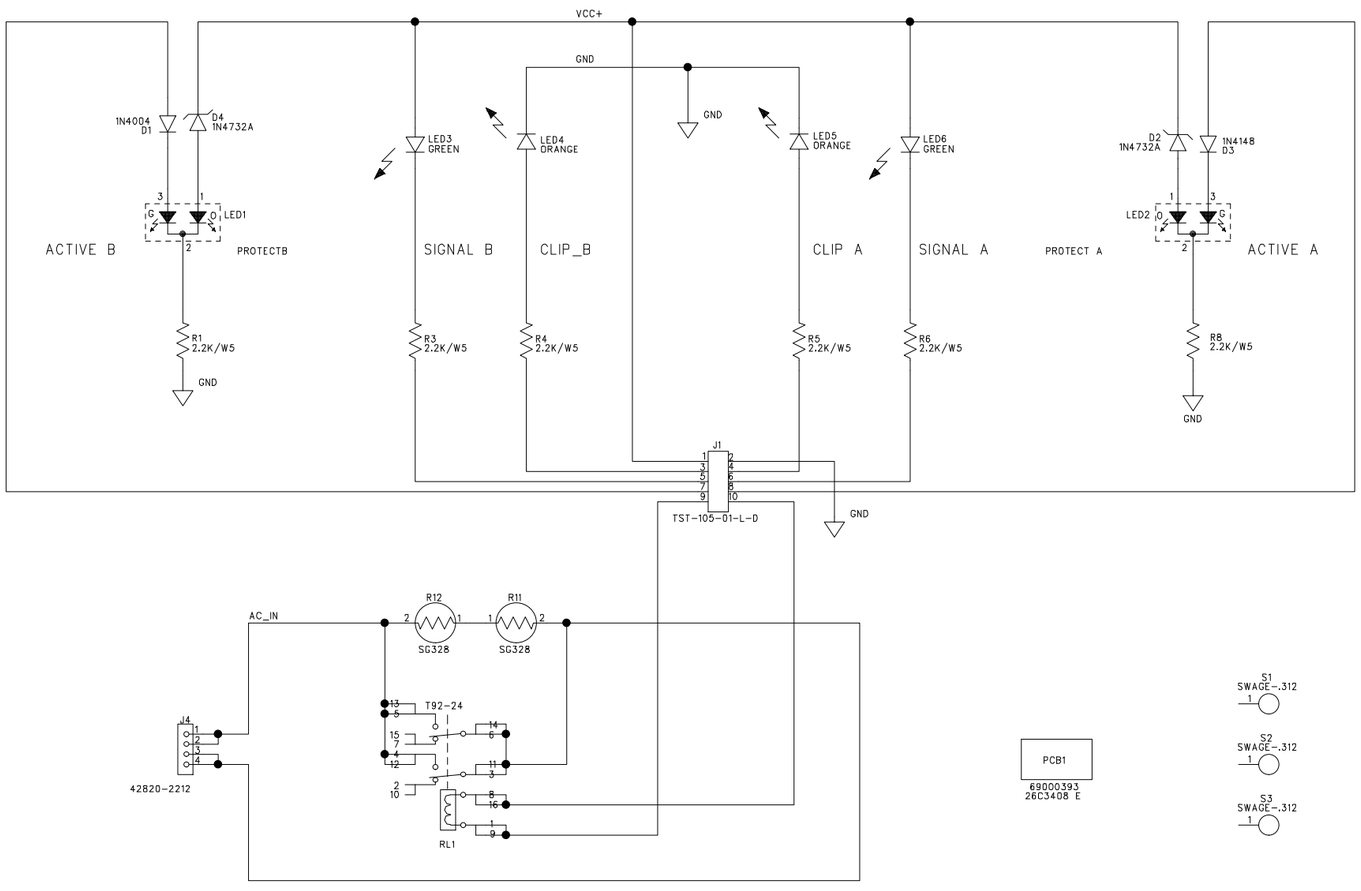
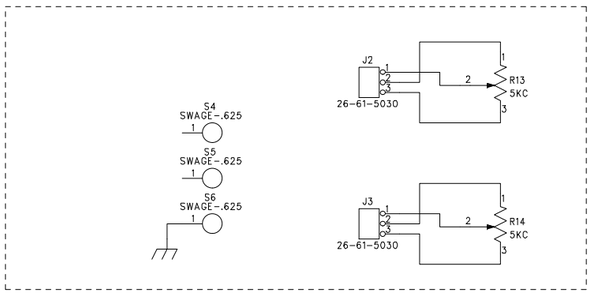
Schematic set

Pro Series 8002 power amplifiers

1. Display
2. Display interface with PFC storage
3. Input board
4. Preamp page 1
5. Preamp page 2
6. PFC power board
7. PFC control circuit
8. Resonant converter control circuit
9. Suppression filter
10. Output module

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:





PCB1
69000393
26C3408 E

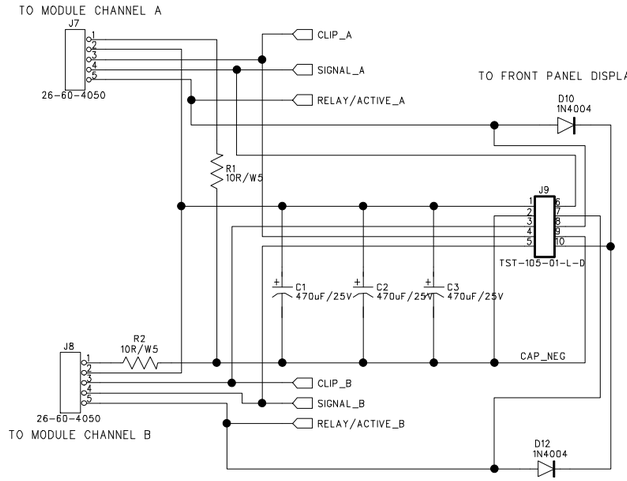
S1
SWAGE-.312
S2
SWAGE-.312
S3
SWAGE-.312

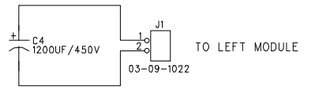
THIS SCHEMATIC AGREES WITH PC BOARD 26C 3408-00
DO NOT MAKE CHANGES WITHOUT A ECO.

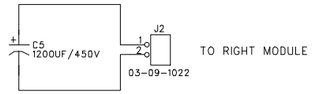
CRESTAUDIO

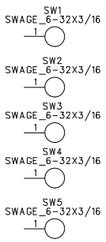
DRAWN: BE	DATED: 6/97	TITLE: DISPLAY BOARD 8002			
CHECKED:	DATED:	CODE:	SIZE: C	DRAWING NO: 21C 3408-00	REV: 00
QUALITY CONTROL:	DATED:				
RELEASED:	DATED:	SCALE:		SHEET: 1 OF 1	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



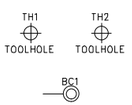








THIS SCHEMATIC AGREES WITH PC BOARD 26B 3420-00
DO NOT MAKE CHANGES WITHOUT A ECO.



DRAWN: I. FERSTENBERG	DATED: 4/30/98	COMPANY: **CREST AUDIO** 100 EISENHOWER DRIVE PARAMUS, N.J. 07652			
CHECKED:	DATED:	TITLE: 8002 DISPLAY INTERFACE BOARD WITH PFC STORAGE			
QUALITY CONTROL:	DATED:	CODE:	SIZE: B	DRAWING NO: 21B 3420-00	REV: 00
RELEASED:	DATED:	SCALE:		SHEET: 1 OF 1	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

GROUND LIFT SWITCH
SW1
1101-M2
C1
0.15uF
R1
10K/2
CHASSIS GND
BLACK
W9
AGND
CHGND

CHANNEL A
NC3FD
J3
J1
NC3-MD
SW3D
MSS4250
SW3C
MSS4250
XLR PIN2/PIN3 HOT SELECT

J16
CHA
pot send
pot return
module send
22-12-2094
J17
CHB
LIMIT_SYNCA
LIMIT_SYNCB
+20V_A
-20V_A
+20V_B
-20V_B
1N4148
D1
D2
D3
D4
+20V
-20V
B
A
D
F
E
C2
10uF
C3
10uF
C4
.1uF/50
C5
.1uF/50
C6
.1uF/50
C7
.1uF/50
IC1C
IC2C
IC3C
OP275

W10
W6
W1
W12
J5
SPEAKON4
CHANNEL A OUTPUT
USED ON EUROPEAN MODELS ONLY
DOMESTIC MODELS ONLY
W4
W7
J6
SPEAKON4
BRIDGE OUTPUT
BP1
BPOST60A+
BP3
BPOST60A-
Ground Link
W2
W3
BP2
BPOST60A+
BP4
BPOST60A-
W13
W5
W8
W11
J7
SPEAKON4
CHANNEL B OUTPUT

DIFFERENTIAL AMP
LIMIT_SYNCA
LIMIT_SYNCB
FB1
FBEAD
R4
C8
100pF
R22
20Kb
10Kb
FB2
FBEAD
R2
10Kb
R5
10Kb
C9
100pF
R23
20Kb
SW2C
MSSA4350
IC1B
OP275
R6
10Kb
IC1A
OP275
R7
10
A
B
R26
10K0
IC3A
OP275
R18
10Kb
R19
10Kb
IC3B
OP275
R20
10
R21
100K
F
D
SW2D
MSSA4350

GAIN SELECT
SW4A
MSSA2350
X20
X40
+4dBu
10Kb
R8
10Kb
R9
11.5K
R3
NOTE: R3 AND R11 ARE MODEL DEPENDENT

BC1
BC2
TH1
TOOLHOLE
TH2
TOOLHOLE

CHANNEL B
SW3A
MSS4250
SW3B
MSS4250
NC3FD
J4
J2
NC3-MD
FB3
FBEAD
R12
10Kb
C10
100pF
R24
20Kb
FB4
FBEAD
R10
10Kb
R13
10Kb
C11
100pF
R25
20Kb
A+
A+
IB+
SW2A
MSSA4350
A-
A-
SW2B
MSSA4350
IC2A
OP275
R14
10Kb
IC2B
OP275
R15
10
E

SW4B
MSSA2350
X20
X40
+4dBu
10Kb
R16
10Kb
R17
11.5K
R11

ADDED R26

THIS SCHEMATIC AGREES WITH PC BOARD 26D 3521-00

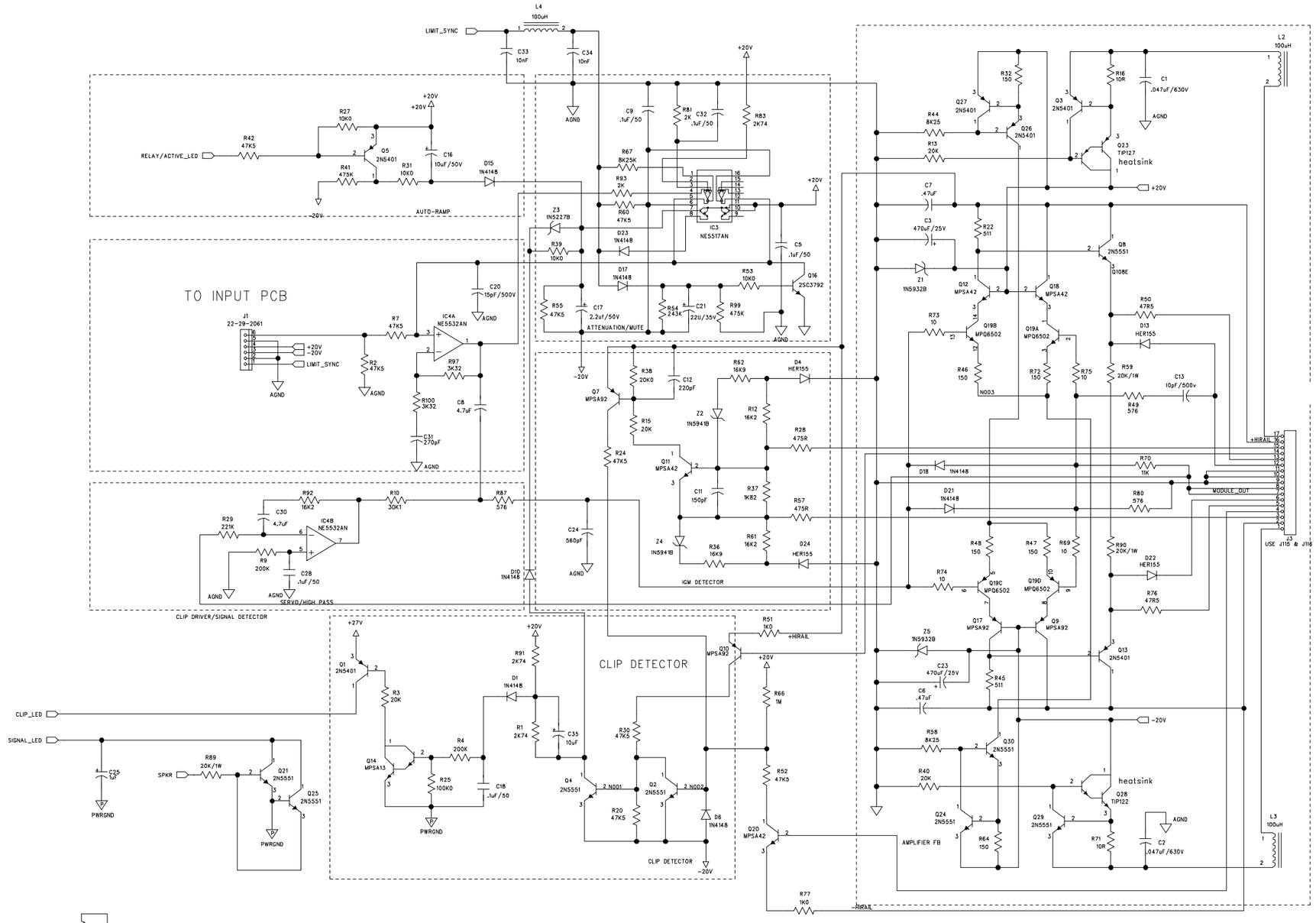
DO NOT MAKE CHANGES WITHOUT A ECO

MODE SWITCH
B= BRIDGE MODE
P= PARALLEL MODE
S= STEREO MODE

CREST AUDIO

DRAWN: Isaac F.	DATED: 7/10/97	TITLE: 8002 INPUT PC BOARD	
CHECKED:	DATED:	CODE:	SIZE: C / DRAWING NO: 21C 3521-00 / REV: 00
QUALITY CONTROL:	DATED:		
RELEASED:	DATED:	SCALE:	SHEET: 1 OF 2

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



CREST AUDIO			
TITLE: PRO2 PREAMP THIS SCH. REV 00 AGREES WITH PCB REV. C (00)			
		21D3712-00 SCH	D
Isaac Ferstenberg	4/15/98	SHEET 1 OF 2	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

PCB1

P/N
6903P401
26D3712-C

BC2 AGND

BC1

SCR2
SCREW, 6-32 x 5/8, SEMS PHILIPS
PREAMP TO OUTPUT MODULE SCREW

SCR1
SCREW, 6-32 x 5/8, SEMS PHILIPS
PREAMP TO OUTPUT MODULE SCREW

TL1 TOOLHOLE

TL2 TOOLHOLE

J115
09-62-3082

J116
09-62-3092

HS1
HS27B3700-B

MICA220
MICA1

SHWR1
SHD-RSHR

SCR3
SCRS4-40X5/16

MICA220
MICA2

SHWR2
SHD-RSHR

SCR4
SCRS4-40X5/16

HEATSINKS AND HARDWARE MOUNT TO Q23, Q28

R78
221K

R95
221K

MODULE_OUT

C27
33uF/25V

R82
20K

Q31
2N5551

R96
1M

Q33
2N5401

Q32
2N5551

PWRGND

J5
TST-105-01-L-D
TO POWER SUPPLY

+27V

CLIP_LED
SIGNAL_LED
RELAY/ACTIVE_LED

FAN_DRIVER

TEMP

IC2A
LM358

C15
10uF

R19
1K0

R21
24.9K

C10
.1uF/50

PWRGND

R56
4K75

J4
09-62-3032
TEMP SENSOR

D19
1N4001

IC2B
LM358

R17
1K0

D2
1N4148

C29
.1uF/50

D7
1N5819

R43
20K

+6.2V

R63
4K75

C14
.1uF/50

D20
1N4001

R65
47K5

R79
100

R11
10K0

R88
3.01K

PWRGND

TO IN/OUT PCB

FROM OUTPUT PCB

TO IN/OUT PCB

FROM OUTPUT PCB

W2 TO_I/O

W7

W1

W5

SPKR

L1
3UH

R94
1

R86
10

C26
0.047uF

MAG1
MAGNET_0.25DIA

RL1
VF7-11H12

W3 PWRGND

W4

W6 PWRGND

W8

PWRGND

D3
1N4001

RELAY/ACTIVE_LED

RELAY/ACTIVE_LED

R34
1K

Q6
MPSA75

R33
10K0

Q15
2N5551

Z6
6.2V

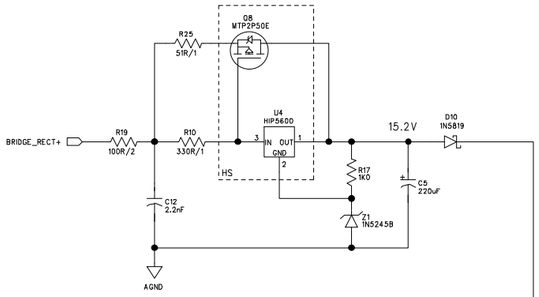
R84
47K5

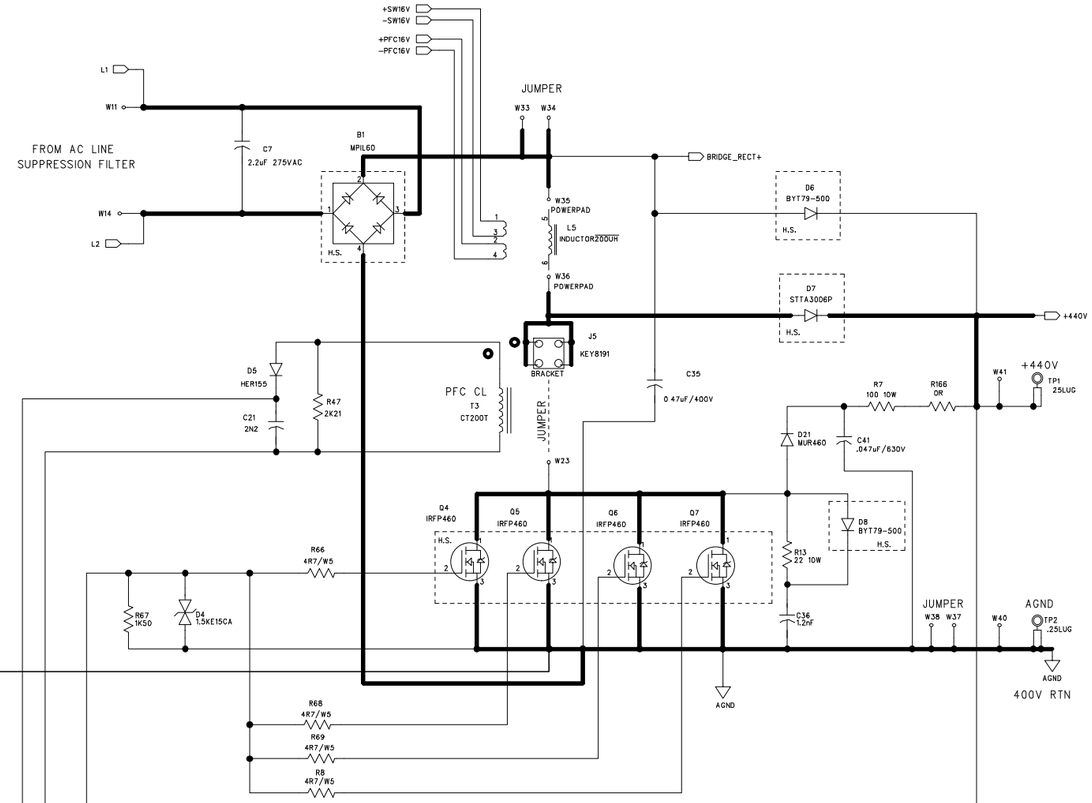
C19
220uF

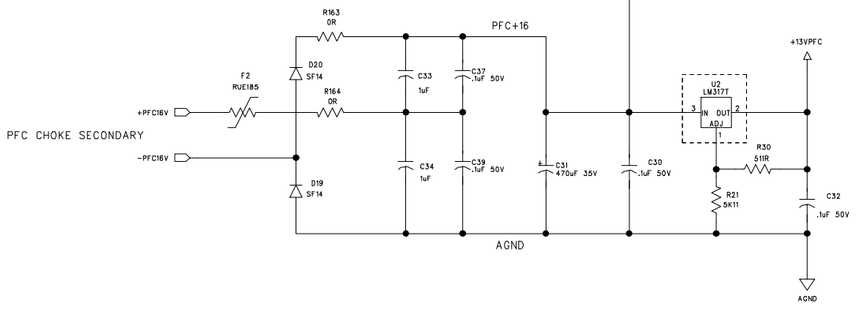
PWRGND

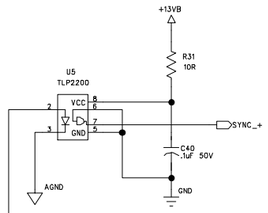
CREST AUDIO			
TITLE: PRO2 PREAMP			
		21D3712-00	D
SCALE:		SHEET 2 OF 2	

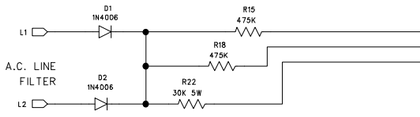
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

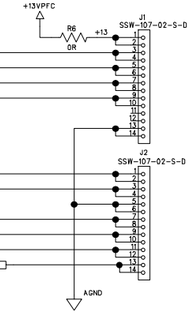


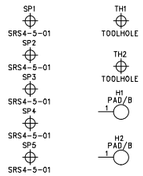


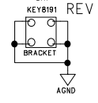












FORMALLY 26C3367-01

REV 01 ADDS R6, R33, C28, C29, C37 AND C39

THIS SCHEMATIC AGREES WITH PC BD 26C4720-00
DO NOT MAKE CHANGES WITHOUT A ECO

PCB1
2604760-00
69000473

CRESTAUDIO

TITLE: SCHEMATIC FOR 8002 PFC POWER BOARD 260 VAC INPUT			
DRAWN: F.D.B	DATED: 16APR99		
CHECKED:	DATED:		
QUALITY CONTROL:	DATED:	CODE:	SIZE:
RELEASED:	DATED:	DRAWING NO: 26C4720	REV: 00
SCALE:		SHEET: 1 OF 2	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

+13VPFC
R12 10R0
R13 10R0
R14 10R0
U1C LM358
C2 100uF
C3 .1uF/50
U5B UC3855B
VCC
GND
C4 10uF/35V
C5 1uF/50
U6C LM393
C6 .1uF/50
AGND

R16 100R
C7 1nF
R17 12R1
R18 12R1
R19 12R1
P.F.C. CURRENT TRANSFORMER
AGND

VOLTAGE FEEDBACK
R1 10K0
R2 7K87
R3 4K75
R4 20K0
R5 10K0
C1 33uF
U1B LM358B
R6 475K
R8 3K92
R9 3K92
Q1 2N5551
AGND

+13VPFC
R10 825R
R69 4.3K2
R11 1K62
Q8 2N5551
PFC/OK
R68 2K87
AGND

TO RESONANT CONTROL

D7 1N4148
NOT USED 8002
R15 15K
C32 33uF
AGND

D2 1N4148
7.5VRef
Q2 2N5401
Q3 2N5551
R26 2K21
DUTY CYCLE LIMIT
VR3 10K
R27 20K0
R23 3K92
R24 10K0
AGND

R66 OR MD
AGND

TSS-107-04-L-D-RA
J2
PFC/DK
SYNC_+
N003
STEER GND TO U5

TSS-107-04-L-D-RA
J1
N002
N001
STEER GND TO U5
AGND

+13VPFC
R44 10K0
R7 2K74
R46 124K
R47 43K2
U6B LM393
D1 1N4004
R76 4K75
R72 1K0
R75 4K75
D5 1N4691
R45 10K0
R74 475K
C31 1uF
R48 1K0
Q6 2N5551
Q7 2N5551
R73 2K21
R77 2K21
AGND

R21 3K92
R20 3K92
C13 220pF
C14 1800pF
R22 16K2
U5A
UC3855B
CAO CA(-)
RVS IAC
CL IMO
ION SS
CSO VSEN
VRMS VAO
OVP CT
VREF ZVS
GTD ZVTO
C24 0.047uF
C25 0.047uF
R49 121K
AGND

NOT USED 8002
R67 2K49
R25 1.62M
R50 10K0
R53 1M0
R51 20K0
U6A LM393
D6 1N4148
R52 100R
C27 1nF
R54 4K75
DRIVE
AGND

TO_IAC
TO_VRMS
R55 475K
R57 90.9K
R58 4.32K
C28 470nF
R56 20K0
C29 .1uF
AGND

NOT USED
U4B CD4027B
SET
J
CLK
K
RST
Q
AGND

PFC_OVERVOLTAGE
PFC_FEEDBACK
R62 221K
R64 150K
R61 1K0
VOLTAGE FEEDBACK
U1A LM358
R60 3K0
C30 1nF
P.F.C. VOLTAGE SET
VR1 5K
R59 6K81
AGND

R63 10K5
R65 4.12K
AGND

R63 TO BE 12K1 FOR 150 Vac

THIS SCHEMATIC AGREES WITH PC BOARD 26D 3696-00
DO NOT MAKE CHANGES WITHOUT A ECO

+13VPFC
R30 10R0
C10 .1uF/50
C11 1uF
R28 3K74
U3 LM555C
GND V+
TRIG DIS
OUT THR
RS CV
R29 5K62
VR6 5K
C9 .1uF/50
C8 470PF
AGND

+13VPFC
R31 10R0
U4C CD4027B
C12 .1uF/50
AGND

U4A CD4027B
SET
J
CLK
K
RST
Q
R33 1K0
70kHz
Q4 2N2222
C15 .1uF/50
R34 4R70
C16 10nF
R36 47R5
Q5 2N5401
R35 10K0
R37 560R
D3 1N5819
C17 1nF
AGND

140kHz
R32 3K32
SYNC_+
TO RESONANT CONTROL

C18 1800pF
R39 23K7
C20 10uF/35V
C19 .1uF/50
C21 1N5/100V
C22 TRIM
7.5VRef
R42 750K
R41 3K92
C26 1nF
R43 10K0
AGND

D4 1N5819
R40 10R0
C23 4.7uF/35V
AGND

R38 1K0

4-40/4LY TH1
TH2 TOOLHOLE
TH3 TOOLHOLE
PCB1
26D3696-00

CREST AUDIO

TITLE:	PFC CONTROL CIRCUIT 8002 260 VAC INPUT		
DRAWN: F.D.B	DATED: 1/26/98		
CHECKED:	DATED:		
QUALITY CONTROL:	DATED:		
RELEASED:	DATED:		
CODE:	SIZE: D	DRAWING NO: 21D 3696-00	REV: 00
SCALE:	SHEET: 1 OF 1		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

PCB1

26D3695-00

69000397

TL1 TOOLHOLE

TL2 TOOLHOLE

BC1

+13VB

R1 10R0

R2 10R0

U1C LM393

U2C LM358

C1 100uF

C2 .1uF/50

C3 .1uF/50

GND

J1 TSS-110-04-L-D-RA

CURRENT_LIMIT
PFC_OK+
DRIVE_A
DRIVE_B
OTEMP
FEEDBACK
GND
SYNC/+
+13VB

R14 4K99

R15 4K99

C9 .1uF/50

C10 .1uF/50

C11 10uF

GND TO U10 PIN 16

+13VB

R16 10R0

C13 .1uF/50

GND TO U10 PIN 16

+13VB

R17 10R0

C14 .1uF/50

C15 1uF

C16 4.7U/16/ELRM

GND TO U10 PIN 16

C12 2N2

R18 681K

D2 1N5819

R8 12K1

GND

U5 SG3525AN

1	INV	Vref	16
2	NI	Vcc	15
3	SYNC	OUT B	14
4	OSC.OUT	Vc	13
5	Ct	GND	12
6	Rt	OUT A	11
7	DISCH	SHTDWN	10
8	SS	COMP	9

R19 100R0 DRIVE_B

R20 100R0 DRIVE_A

R12 274R

C6 470P

SYNC/+

R10 475R

D1 1N5819

R11 1K0

GND

C7 1nF

R13 7K50

PTC10LV5K VR3

C8 22U/25V

GND

OTEMP

RES.CON. FREQ. ADJ.

+13VB

R27 23K7

R29 23K7

U2A LM358

D3 1N5819

PFC_OK+

R28 100K0

GND

D7 1N4148

CURRENT LIMIT ADJ.

CURRENT_LIMIT

VR2 PTC10LV5K

C17 470P

R21 4K99

GND

R22 4K99

R23 4K99

C18 100pF/25V

C19 100pF/25V

U1A LM393

+13VB

R24 10K0

U4 LMC555

1	GND	V+	8
2	TRIG	DIS	7
3	OUT	THR	6
4	RS	CV	5

R25 499K

R26 10R0

C20 .1uF/50

C21 2.2uf/25V

C22 .1uF/50

C23 1uF

GND

R31 4K99

R30 2K21

GND

NOT USED

U1B LM393

GND

FEEDBACK

R3 23K7

R4 8K25

GND

U2B LM358

R9 4K99

R7 4K99

R6 1M0

R32 4K99

D4 1N4148

Vref

D5 1N5819

R35 10K0

R34 2K21

D6 1N4148

Q1 2N5551

R33 2K21

GND

REMOVED ECO3269

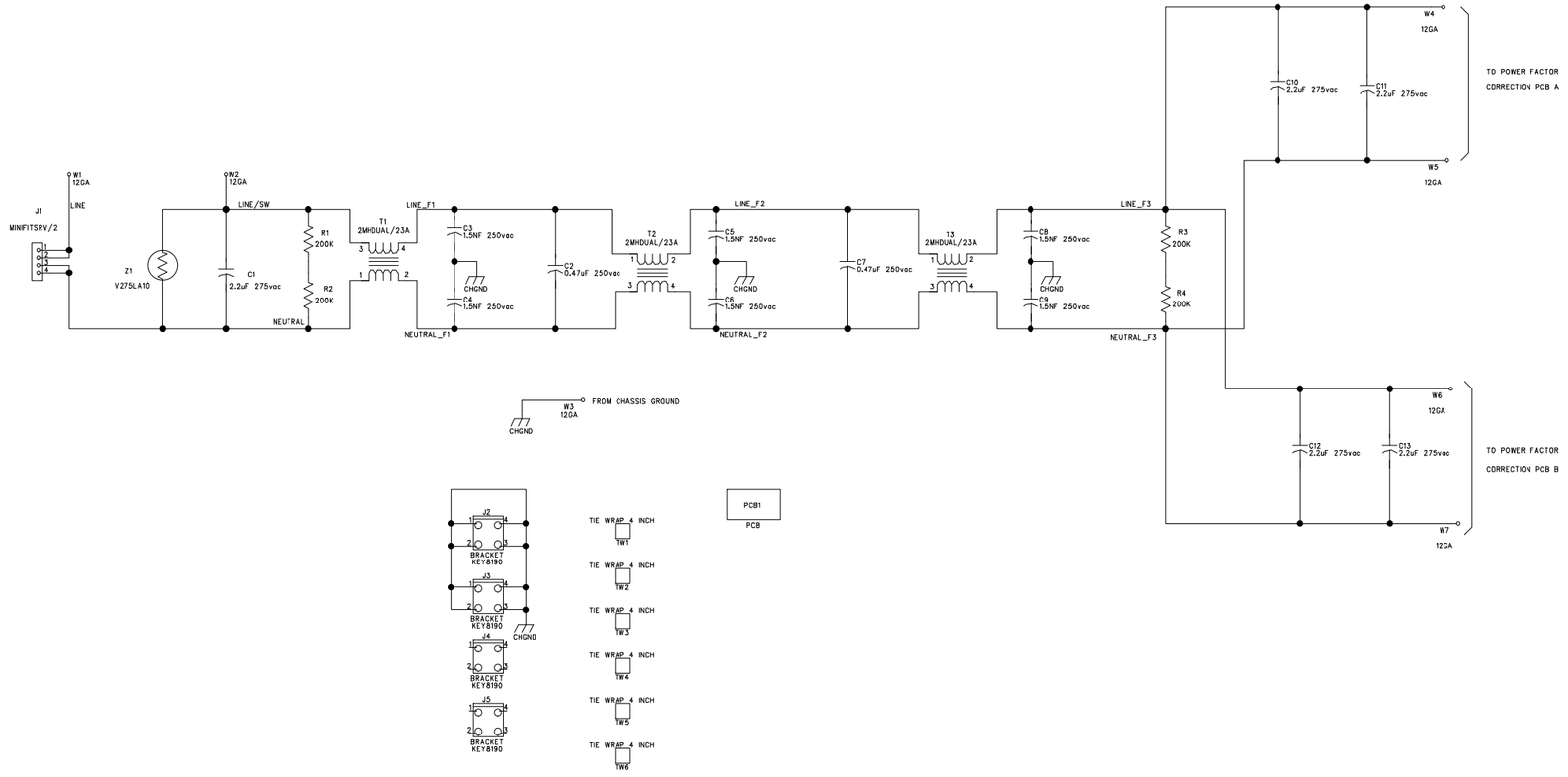
3695-D BECAME 3695-00
THIS SCHEMATIC AGREES WITH
PC BOARD 26D 3695-00. DO NOT MAKE
ANY CHANGES WITHOUT A ECO

CREST AUDIO

TITLE: RESONANT CONVERTER CONTROL CIRCUIT
8002

DRAWN: F.D.B.	DATED: 29 OCT 97	CODE:	SIZE:
CHECKED:	DATED:	DRAWING NO: 3695	REV: 00
QUALITY CONTROL:	DATED:		
RELEASED:	DATED:	SCALE:	SHEET: 1 OF 1

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



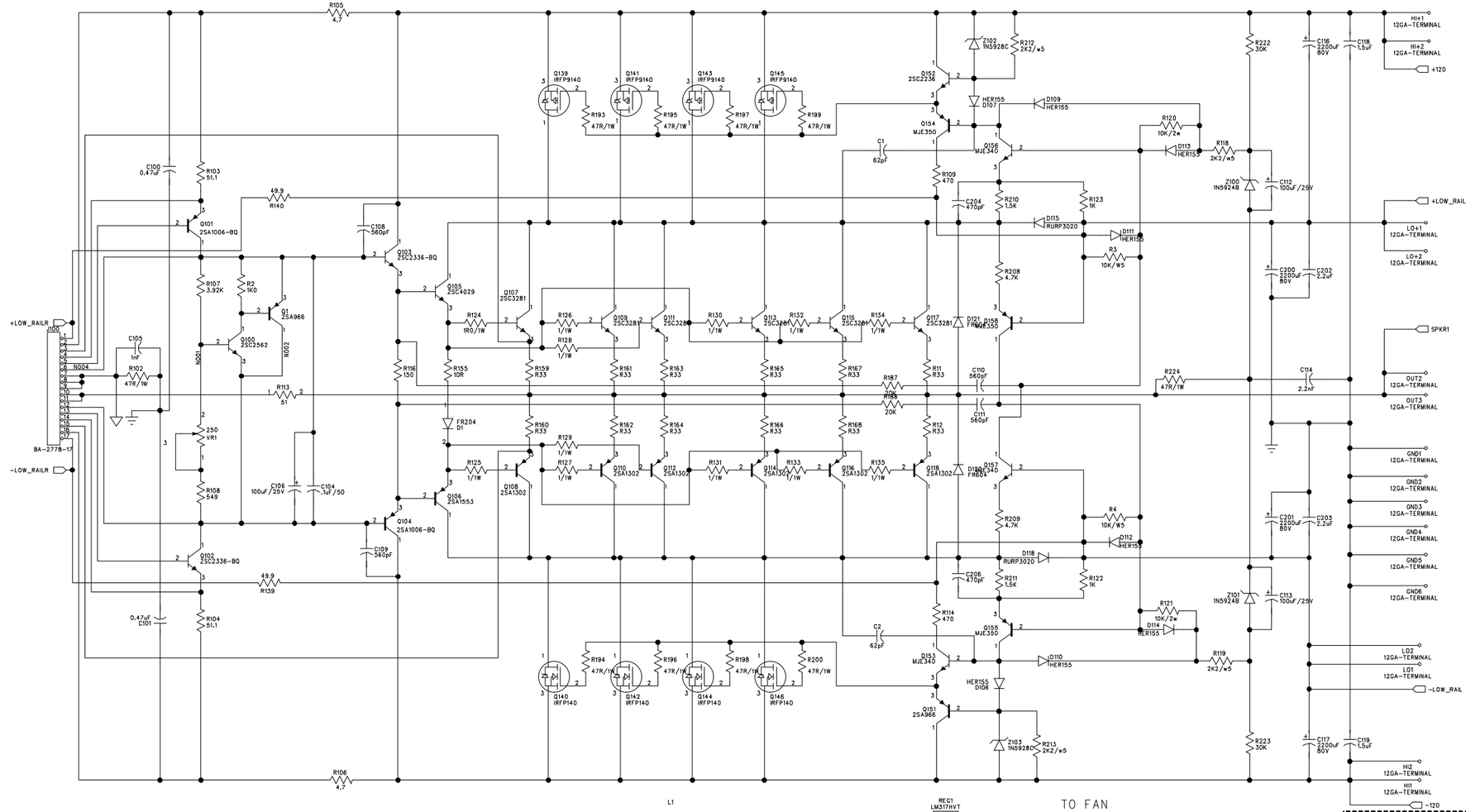
THIS SCHEMATIC AGREES WITH PC BOARD 26D 3409-00

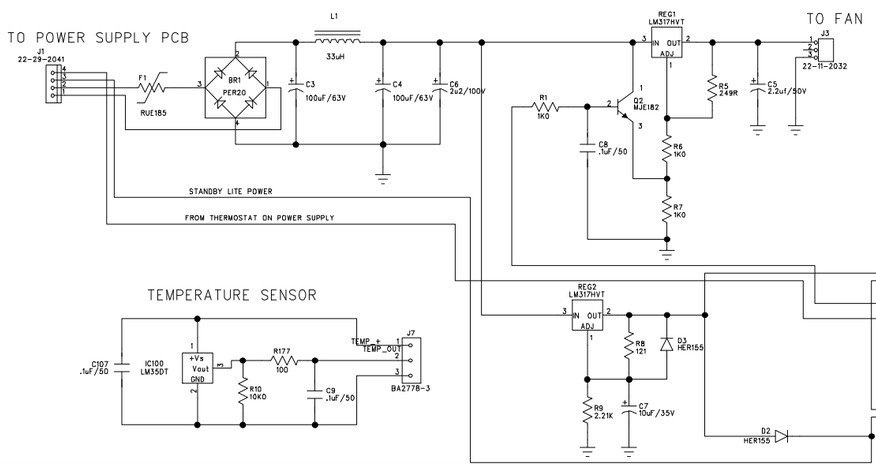
DO NOT MAKE CHANGES WITHOUT A ECO

CRESTAUDIO

TITLE: SUPPRESSION FILTER BOARD 8002			
DRAWN: BE	DATED: 6/97		
CHECKED:	DATED:		
QUALITY CONTROL:	DATED:		
RELEASED:	DATED:		
CODE:	SIZE: D	DRAWING NO: 21D 3409-00	REV: 00
SCALE:		SHEET: 10F 1	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:





REV. NOTES

COPIED AND RENAMED 3529-E TO 3529-00

CRESTAUDIO

TITLE: 8002 OUTPUT MODULE PC BOARD

DRAWN: I.FERSTENBERG	DATED: 5/6/98	CODE:	SIZE: D	DRAWING NO: 21D3529-00 REV: 0
CHECKED:	DATED:			
QUALITY CONTROL:	DATED:			
RELEASED:	DATED:			

SCALE: SHEET: 1 OF 2