

Signature 2.0
Processor/Tuner
Dolby Digital / DTS

Service - Technical Manual

Signature 2.0

Signature 2.0 Processor/Tuner Specifications

Inputs:

Analog Audio:	Six Stereo pairs via RCA jacks
Digital Audio:	Four Coaxial S/P-DIF, Two Optical TosLink
External Adapter:	Six Direct Analog channels via RCA jacks
Composite Video:	Six RCA jacks
S-Video:	Two 4-pin mini DIN
IR Sensor Input:	3.5mm mono mini-plug

Outputs:

Main Audio:	Six Analog Outputs via RCA jacks (left, center, right, right surround, left surround, subwoofer)
Main Video:	One Composite RCA jack output paralleled with one S-Video 4-pin mini DIN
Record Audio:	Two pair (paralleled) analog via RCA jacks
Record Video:	One Composite via RCA jack paired with one S-Video via 4-pin mini DIN
IR Sensor:	Loop-through output via 3.5mm mono mini plug
Accessory Trigger:	6 – 12 volt DC via 3.5mm mono mini plug, tip positive, 150mA maximum.

Surround Modes:

Analog:	Dolby Pro Logic, Four Movie Modes, Four Music Modes, Stereo, Mono, Mono +
Digital:	Dolby Digital, Dolby Digital Late Night, Dolby Digital Pro Logic, Dolby Digital Mono, DTS 5.1, DTS 4-Channel, DTS 2-Channel, Stereo, Mono +

Preamplifier:

Frequency Response:	Front Channels (Analog Stereo): 20Hz to 50kHz, ± 0.5 dB Center and Surround Channels: 20Hz to 30kHz, ± 1 dB Subwoofer Channel: 10Hz to 100Hz, ± 1 dB
THD + N:	0.03%, 20Hz to 20kHz
S/N Ratio:	> -87 dB, 20Hz to 20kHz
Crosstalk:	< 60 dB
Input Impedance:	Audio: > 10 K Ω Video: 75 Ω
Output Impedance:	Audio: 300 Ω Video: 75 Ω
Crossovers:	Low Pass: 3 Pole (18dB/Octave) @ 100Hz High Pass: 3 Pole (18dB/Octave) @ 100Hz
Tone Controls:	Treble Cut: -0 dB to -8 dB in 2dB steps @ 10kHz shelving Bass Boost: $+0$ dB to $+8$ dB in 2 steps @ 50Hz
Video Standards:	NTSC, PAL

Signature 2.0

Signature 2.0 Processor/Tuner Specifications (continued)

Tuner Section FM:

Frequency Range:	87.5 to 108.0MHz in 200kHz steps
Usable Sensitivity:	<1.0 μ V/11.2dBf
Signal-To-Noise:	70dB (Stereo, A-weighted)
S/N 50dB Sensitivity:	<45dBf
THD + N:	<0.5%
Capture Ratio:	<2.5dB
AM Suppression:	>50dB
Image Rejection:	>70dB (@ 106MHz)
IF Rejection:	>85dB
Effective Selectivity:	>50dB (\pm 400kHz)
Stereo Separation:	>40dB (1kHz)
RDS Modes:	Station ID, Program Type, Radio Text Data, Program Type Search

Tuner Section AM:

Frequency Range:	520 – 1710 kHz in 10kHz steps
Signal-To-Noise Ratio:	>40dB
Usable Sensitivity:	\leq 500 μ V/M
Selectivity:	\geq 30dB (\pm 10kHz)

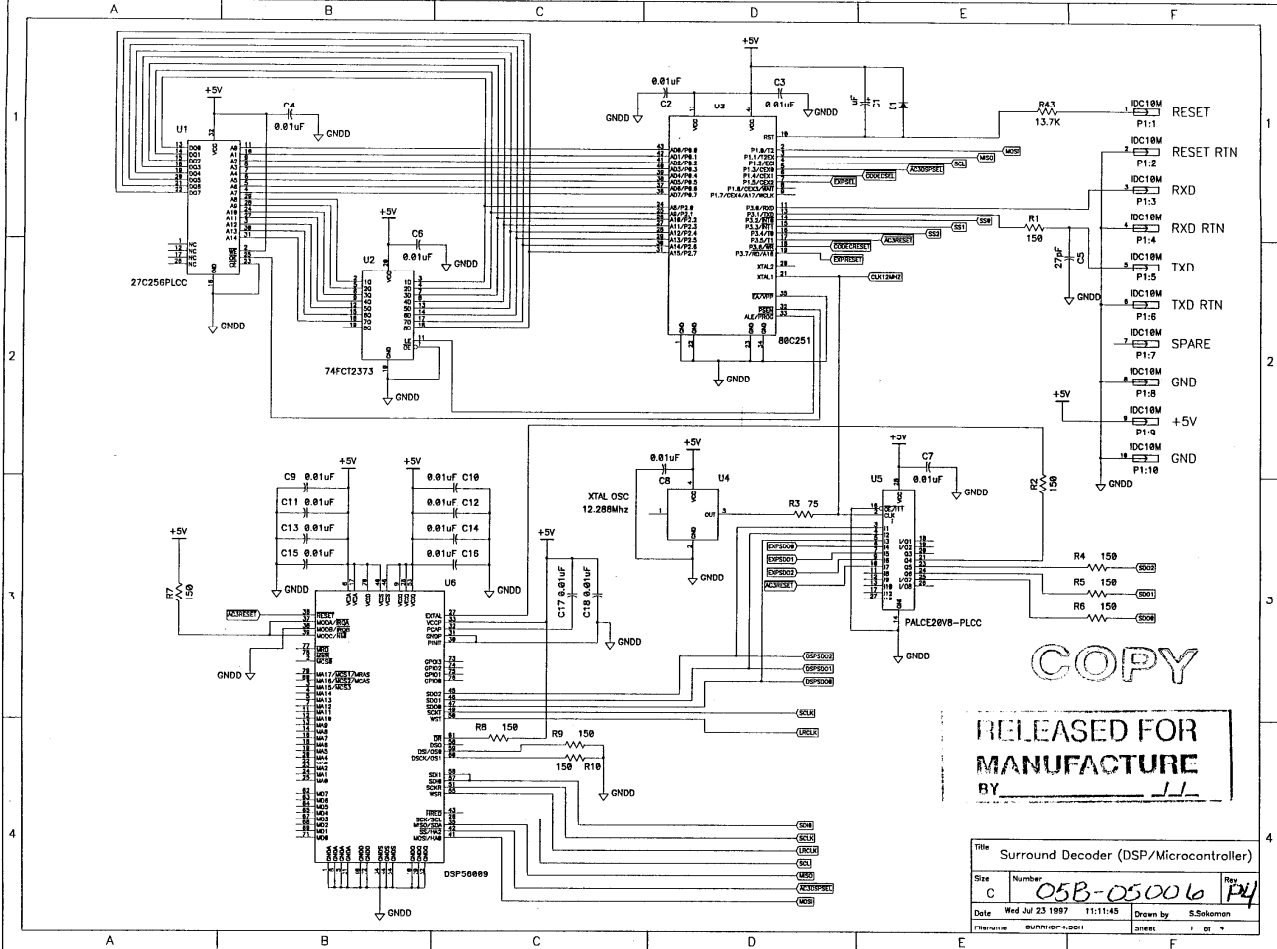
General:

Power Requirement:	AC 115V/60Hz
Power Consumption:	5.5W Idle, 75W Maximum
Dimensions: (Max, including knobs, jacks, buttons)	
	Width: 17 $\frac{3}{8}$ inches (441mm)
	Height: 4 $\frac{1}{8}$ inches (105mm)
	Depth: 15 $\frac{3}{8}$ inches (395mm)
Weight:	22 lbs. (10.5 kg)

All features and specifications are subject to change without notice.

*Trademarks of Dolby Laboratories.

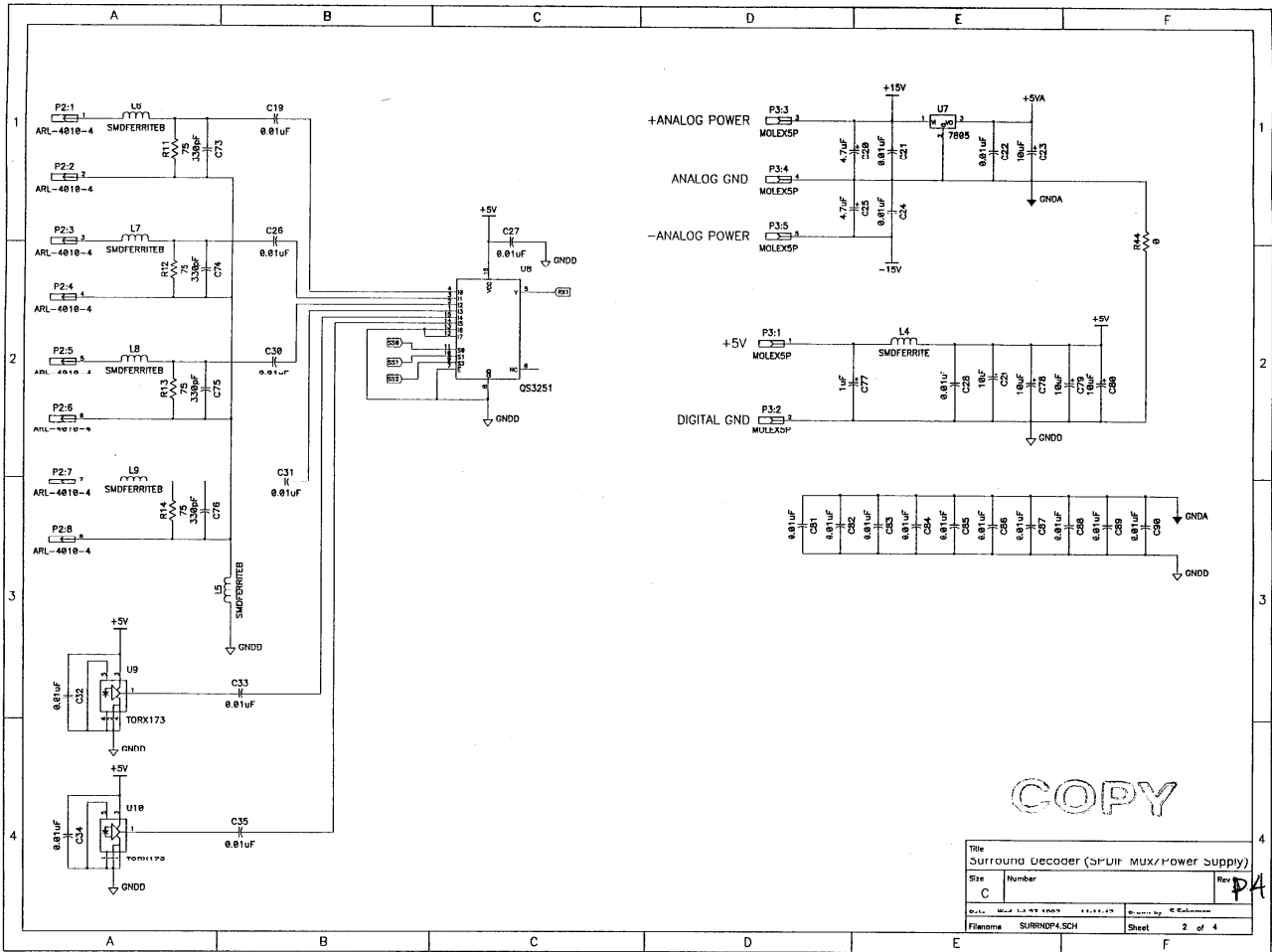
†DTS and DTS Surround are trademarks of Digital Theater Systems.



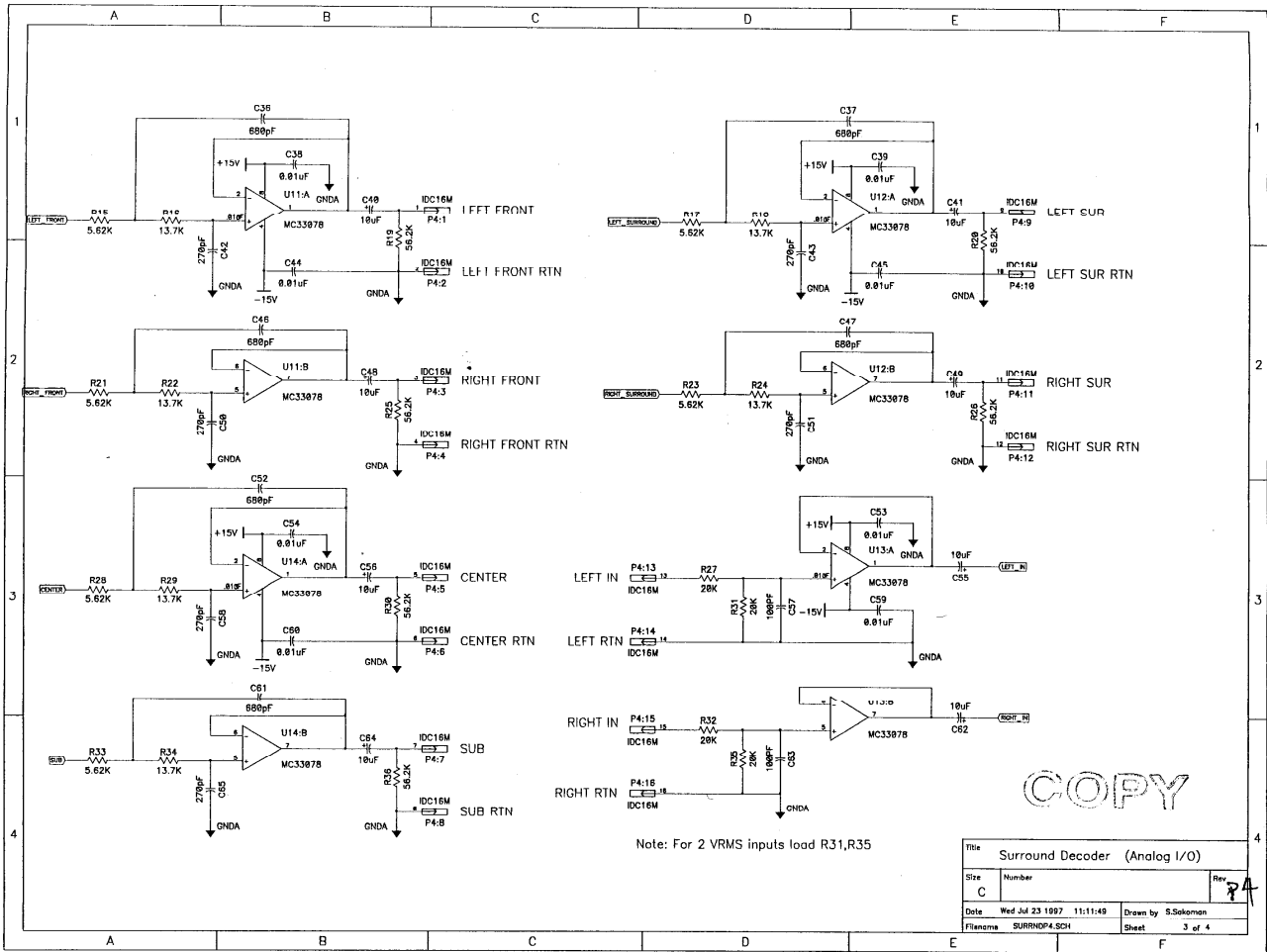
COPY

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 MANUFACTURE
 BY

Title		Surround Decoder (DSP/Microcontroller)	
Size	Number	Rev	
C	05B-05006	P4	
Date	Wed Jul 23 1997 11:11:45	Drawn by	S.Sokoman
Filename	surround.dsp	Sheet	1 of 1



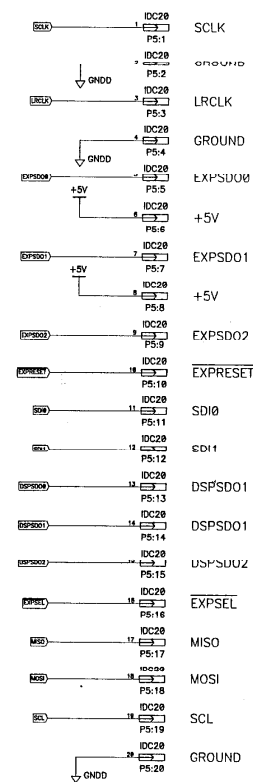
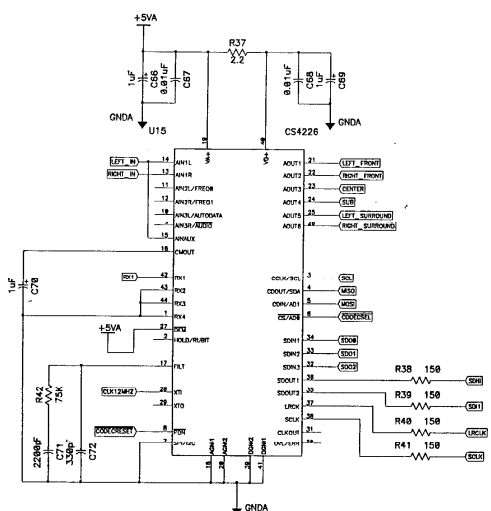
Title		Surround Decoder (5P-MUX/Power Supply)	
Size	Number	Rev	PA
C			
Filename	SURRNDP4.SCH	Sheet	2 of 4



Note: For 2 VRMS inputs load R31,R35

COPY

Title		Surround Decoder (Analog I/O)	
Size	Number	Rev	
C		8	
Date	Wed Jul 23 1997 11:11:49	Drawn by	S.Sokolman
Filename	SURRNDP4.SCH	Sheet	3 of 4



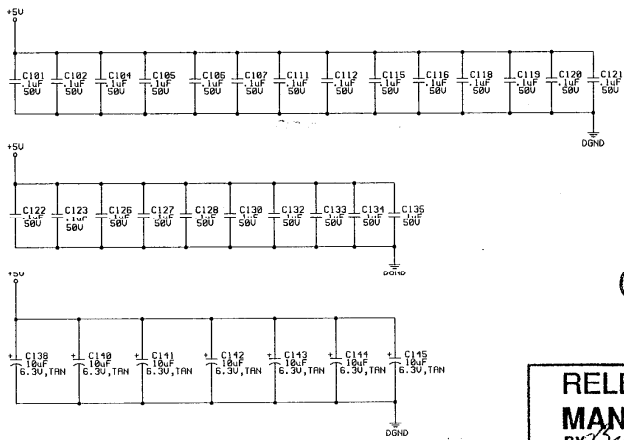
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- 1 FOOTCUL
- 2 FOOTCUL
- 3 FOOTCUL

Title		Surround Decoder		(Codec)
Size	C	Number		Rev
Date	Wed Jul 23 1997 11:11:50	Drawn by	S.Sakoman	
Filename	SURROUND4.RPM	Sheet	4 of 4	

NOTES:

1. FOR CAPACITOR TYPE SEE PARTS LIST.
2. ALL RESISTORS ARE 1/8W, 5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.



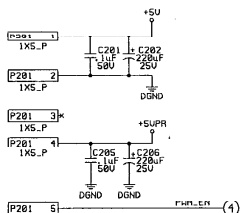
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 BY *Steve Nishida 6/17/77*

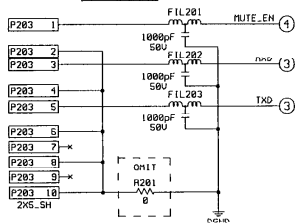
SIGNATURE		DATE		harman consumer group	
DJ CLARK		10 17 76		digital entertainment product center	
DRAFT				1388 Borregas Avenue	
CHK				Sunnyvale, CA 94089-1081	
PROJ				SIGNATURE 2.0	
RGR				CPU	
52CPU00.SCH				REV.	
				00	
				Dwg. No. 05A-05006	
				SHEET 1 OF 5	

SIGNATURE 2.0 6-9-76 10:18 AM

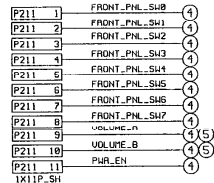
POWER CONNECTOR



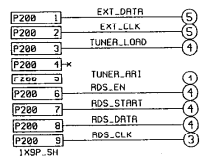
DSP BOARD



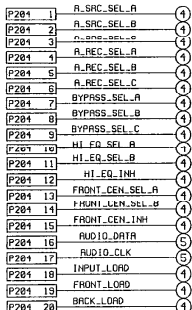
FRONT PANEL BOARD



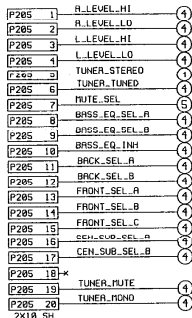
TUNER BOARD



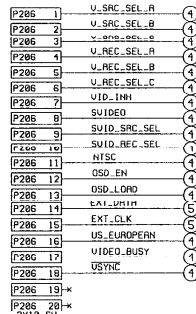
AUDIO I/O CONN 1



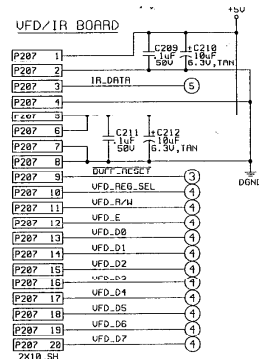
AUDIO I/O CONN 2



VIDEO BOARD



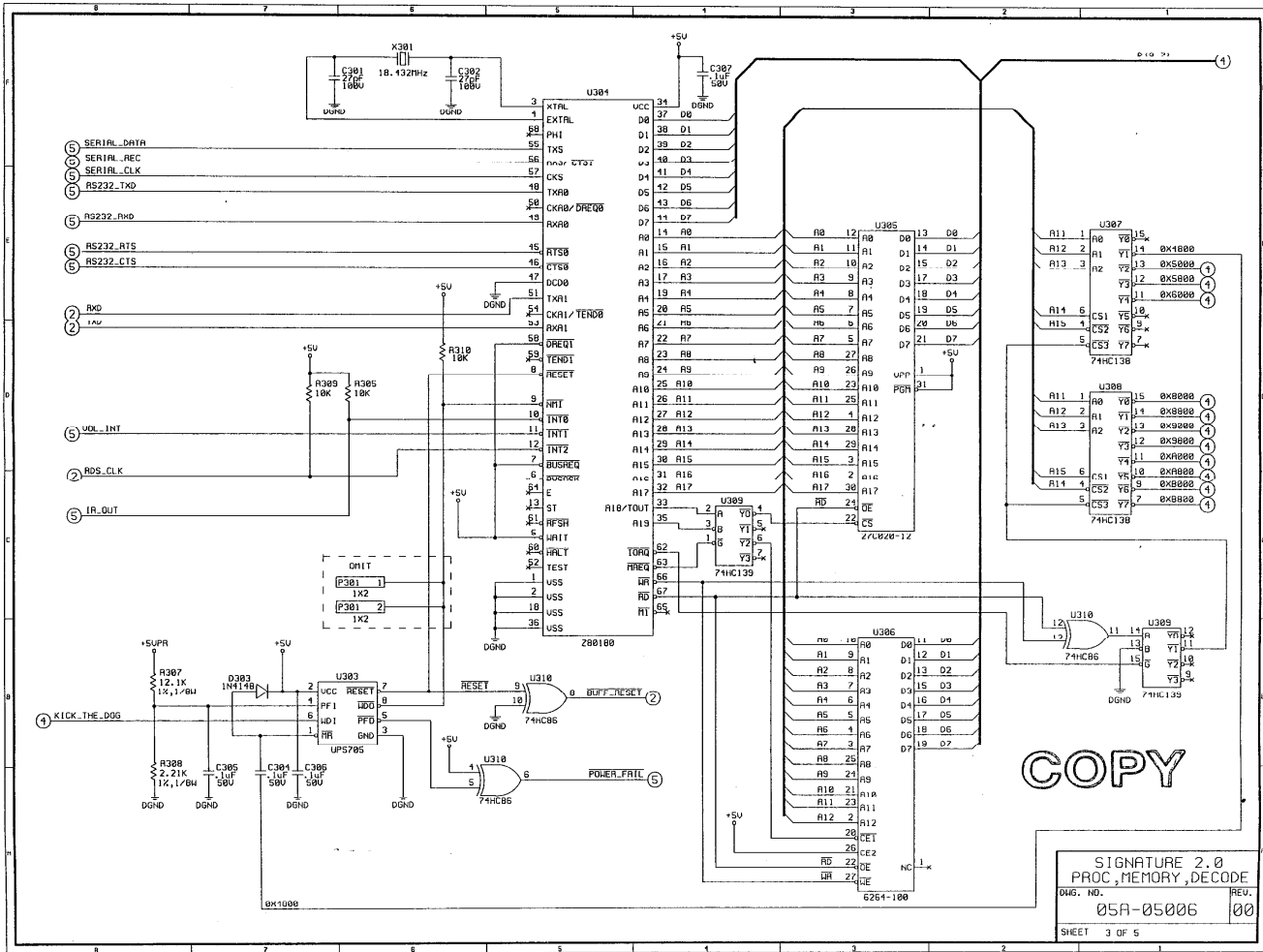
UFD/IR BOARD



COPY

SIGNATURE 2.0	
CONNECTORS	
DWG. NO.	REV.
05A-05006	00
SHEET 2 OF 5	

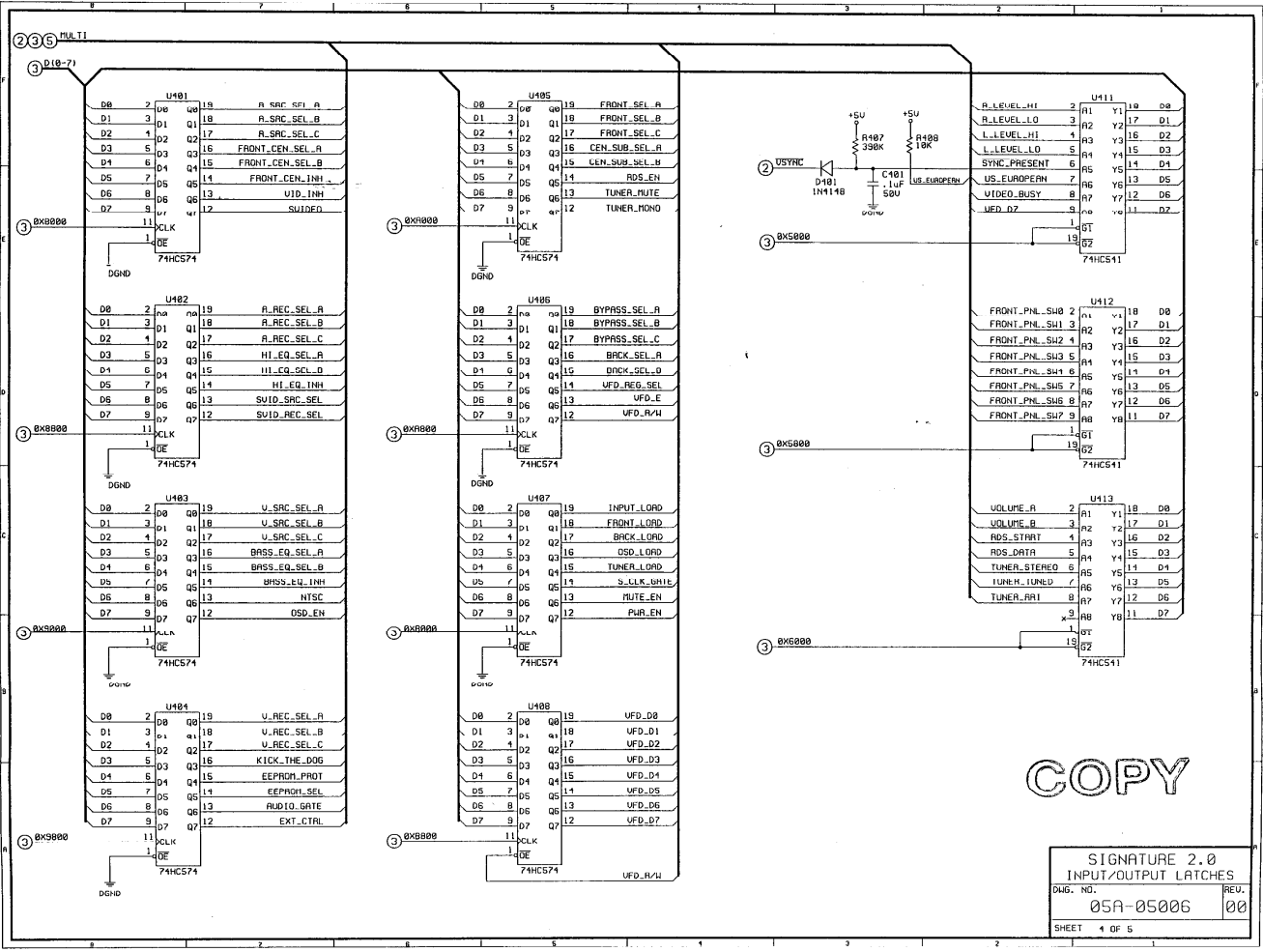
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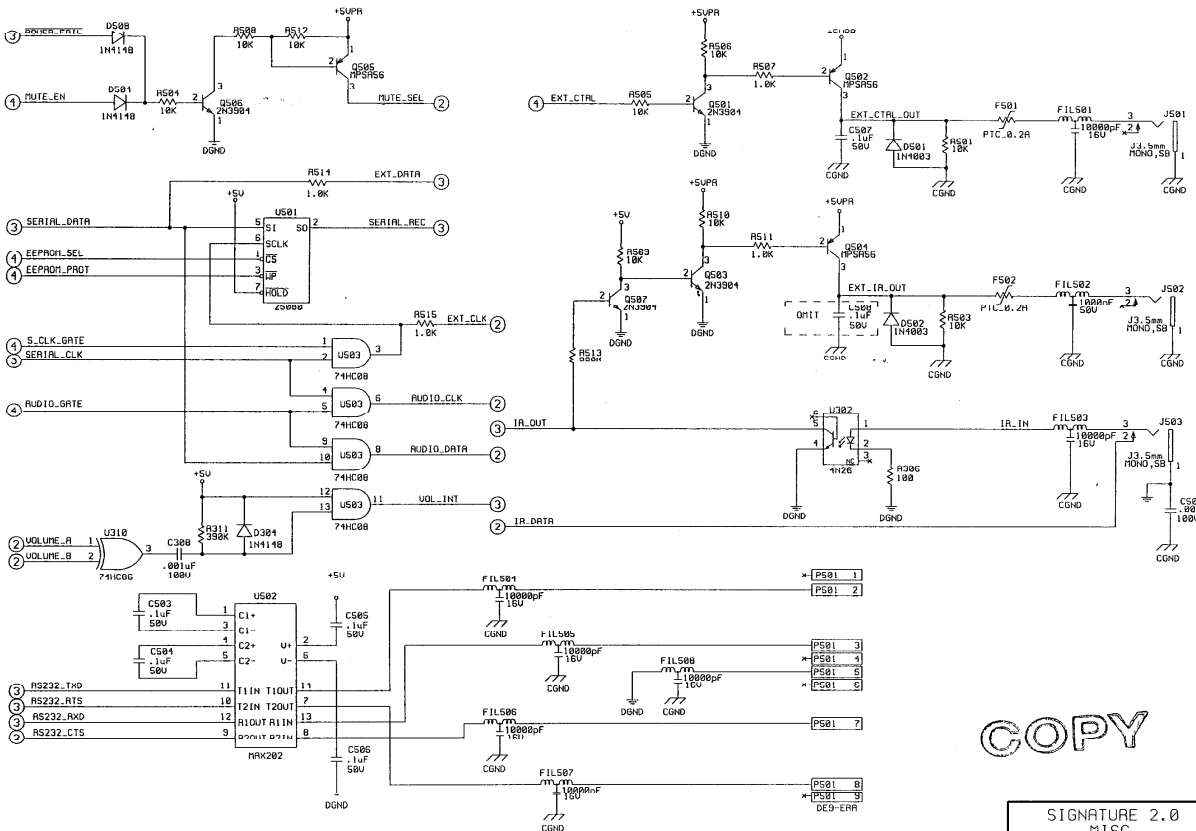
SIGNATURE 2.0
 PROC. MEMORY, DECODE
 Dwg. NO. 05A-05006 REV. 00
 SHEET 3 OF 5

SHEET NO. 2.0 5A-5P 18118.R1



COPY

SIGNATURE 2.0
 INPUT/OUTPUT LATCHES
 Dwg. NO. 05A-05006 REV. 00
 SHEET 4 OF 5



COPY

SIGNATURE 2.0	
MISC.	
REV. NO.	REC.
05A-05006	00
SHEET	5 OF 5

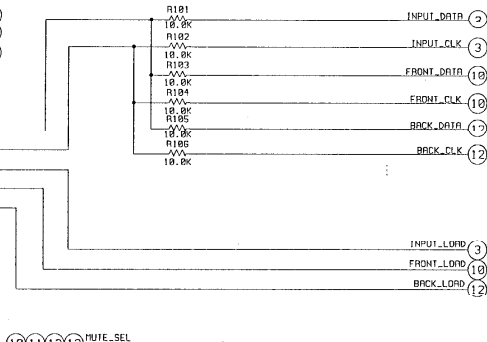
SIGNATURE 2.0 5P-5P 10T.10 RP

AUDIO I/O CONN 1

J101 1	R_SAC_SEL_A	2 3
J101 2	R_SAC_SEL_B	2 3
J101 3	R_SAC_SEL_C	2 3
J101 4	R_REC_SEL_A	13
J101 5	R_REC_SEL_D	13
J101 6	R_REC_SEL_C	13
J101 7	BYPASS_SEL_A	5 7
J101 8	BYPASS_SEL_B	5 6 7
J101 9	BYPASS_SEL_C	6
J101 10	HI_EQ_SEL_A	10 11 12
J101 11	HI_EQ_SEL_B	10 11 12
J101 12	HI_EQ_SEL_INH	10 11 12
J101 13	FRONT_CEN_SEL_A	8
J101 14	FRONT_CEN_SEL_B	8
J101 15	FRONT_CEN_SEL_INH	8
J101 16	SERIAL_DATA	
J101 17	SERIAL_CLK	
J101 18	INPUT_LOAD	
J101 19	FRONT_LOAD	
J101 20	BACK_LOAD	

NOTES:

- FOR CAPACITOR TYPE SEE PARTS LIST.
- ALL RESISTORS ARE 1/8W, 1% METAL FILM, UNLESS OTHERWISE SPECIFIED.



DSP

J102 1	LF_FFROM_DSP	5
J102 2	HF_FFROM_DSP	5
J102 3	C_FFROM_DSP	5
J102 4	L_FFROM_DSP	5
J102 5	LFE_FFROM_DSP	6
J102 6	LB_FFROM_DSP	7
J102 7	RB_FFROM_DSP	7
J102 8	L_TO_DSP	4
J102 9	R_TO_DSP	4

POWER SUPPLY

J104 1	+5V	1-13
J104 2	0V	
J104 3	+15V	
J104 4	REND	
J104 5	-15V	

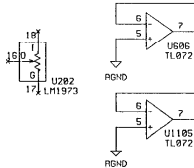
AUDIO I/O CONN 2

J103 1	R_LEVEL_HI	4
J103 2	R_LEVEL_LO	4
J103 3	L_LEVEL_HI	4
J103 4	L_LEVEL_LO	4
J103 5	TUNER_STEREO	
J103 6	TUNER_TUNED	
J103 7	BASS_EQ_SEL_A	10 11
J103 8	BASS_EQ_SEL_B	10 11
J103 9	BASS_EQ_SEL_INH	10 11
J103 10	BACK_SEL_A	9
J103 11	BACK_SEL_B	9
J103 12	FRONT_SEL_A	8
J103 13	FRONT_SEL_B	8
J103 14	FRONT_SEL_C	8
J103 15	CEN_SUB_SEL_A	9
J103 16	CEN_SUB_SEL_B	9
J103 17	TUNER_MUTE	
J103 18	TUNER_MUTE	
J103 19	TUNER_MONO	
J103 20	TUNER_MONO	

J102 1	TUNER_TUNED	
J102 2	TUNER_STEREO	
J102 3	TUNER_MUTE	
J102 4	TUNER_MONO	
J102 5	TUNER_L	2 13
J102 6	TUNER_L	2 13
J102 7	TUNER_R	3 13
J102 8	TUNER_R	3 13

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BY *[Signature]*

UNUSED GATES



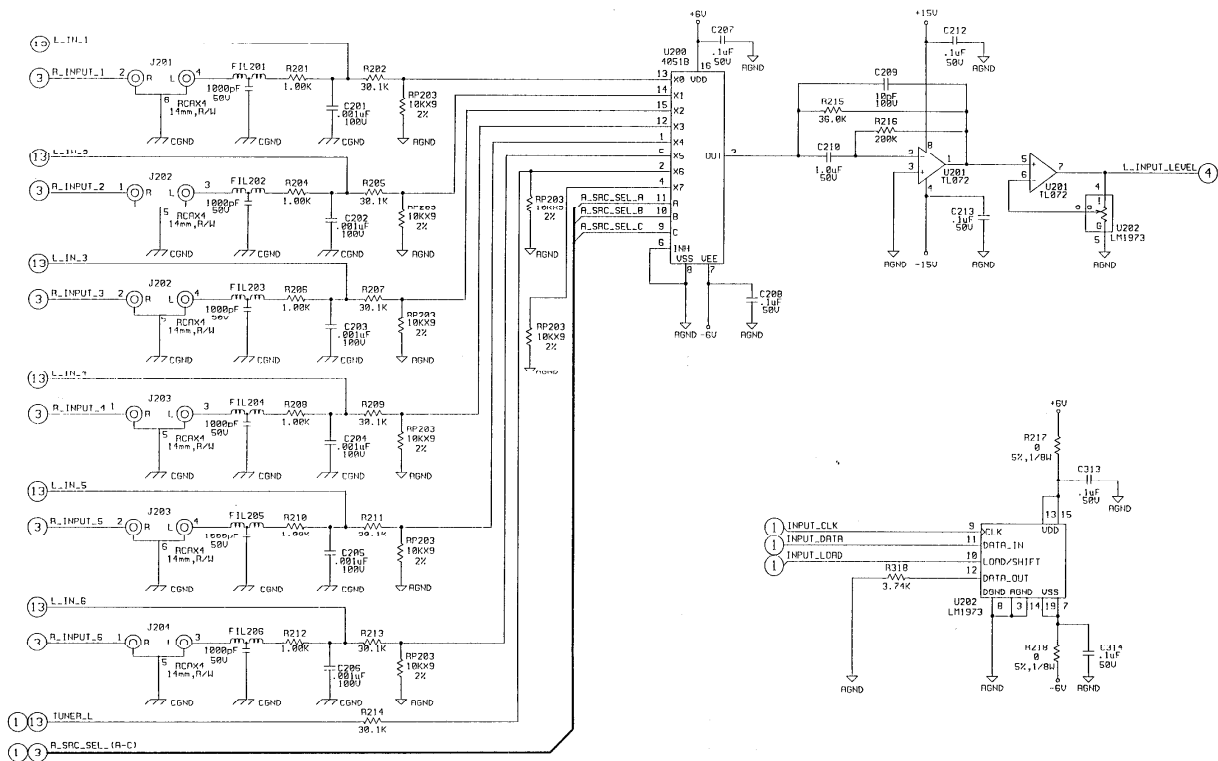
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SIGNATURE		DATE	Herman Consumer Group digital entertainment product center 1388 Barragans Avenue Sunnyvale, CA 94089-1001
DESIGN	LMILLE	9/6/95	
CHK			
PROJ	SAS	9/6/95	
S2P0003.SCH			SIGNATURE 2.0 AUDIO I/O
DWG. NO.			05C-05006
SHEET 1 OF 13			REV. 03

LEFT ANALOG INPUTS

LEFT ANALOG INPUT SELECTOR

LEFT INPUT LEVEL ADJUST



COPY

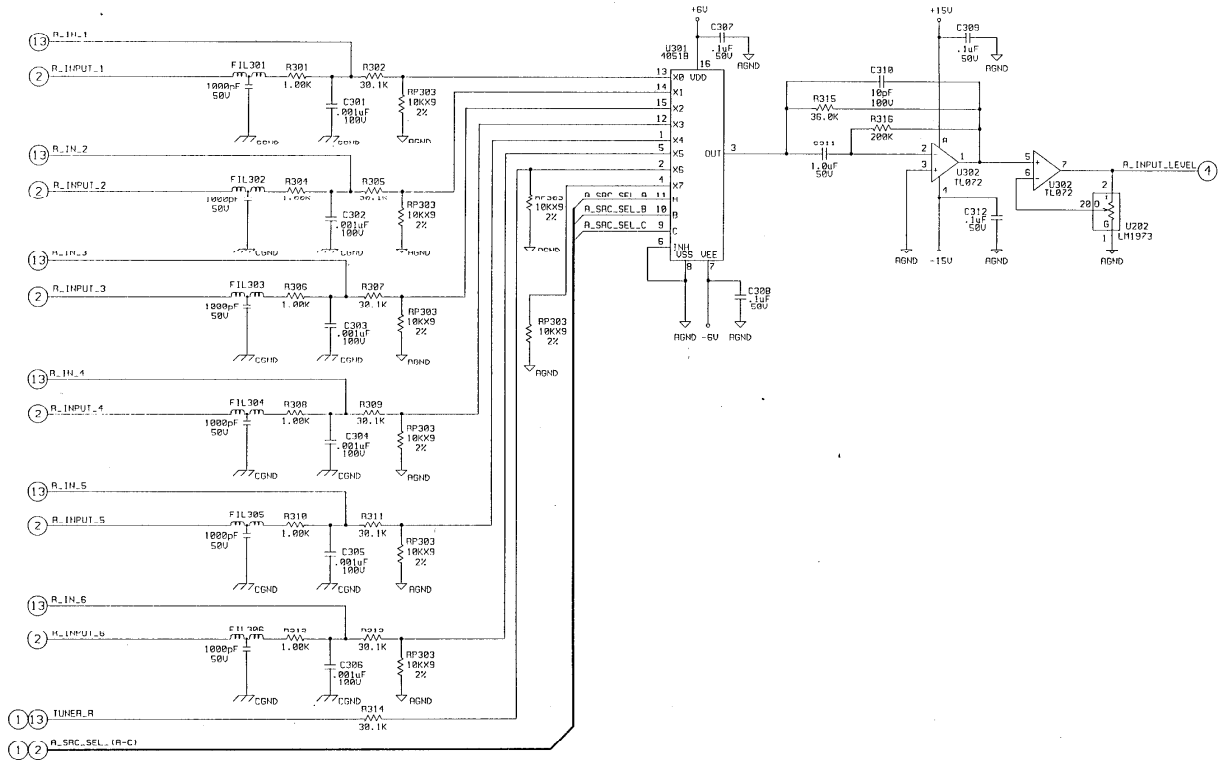
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DATE: NO.	REV.	05C-05006	03
SHEET 2 OF 13			

SIGNATURE 2.0 0413-97 11:26 AM

RIGHT ANALOG INPUTS

RIGHT ANALOG INPUT SELECTOR

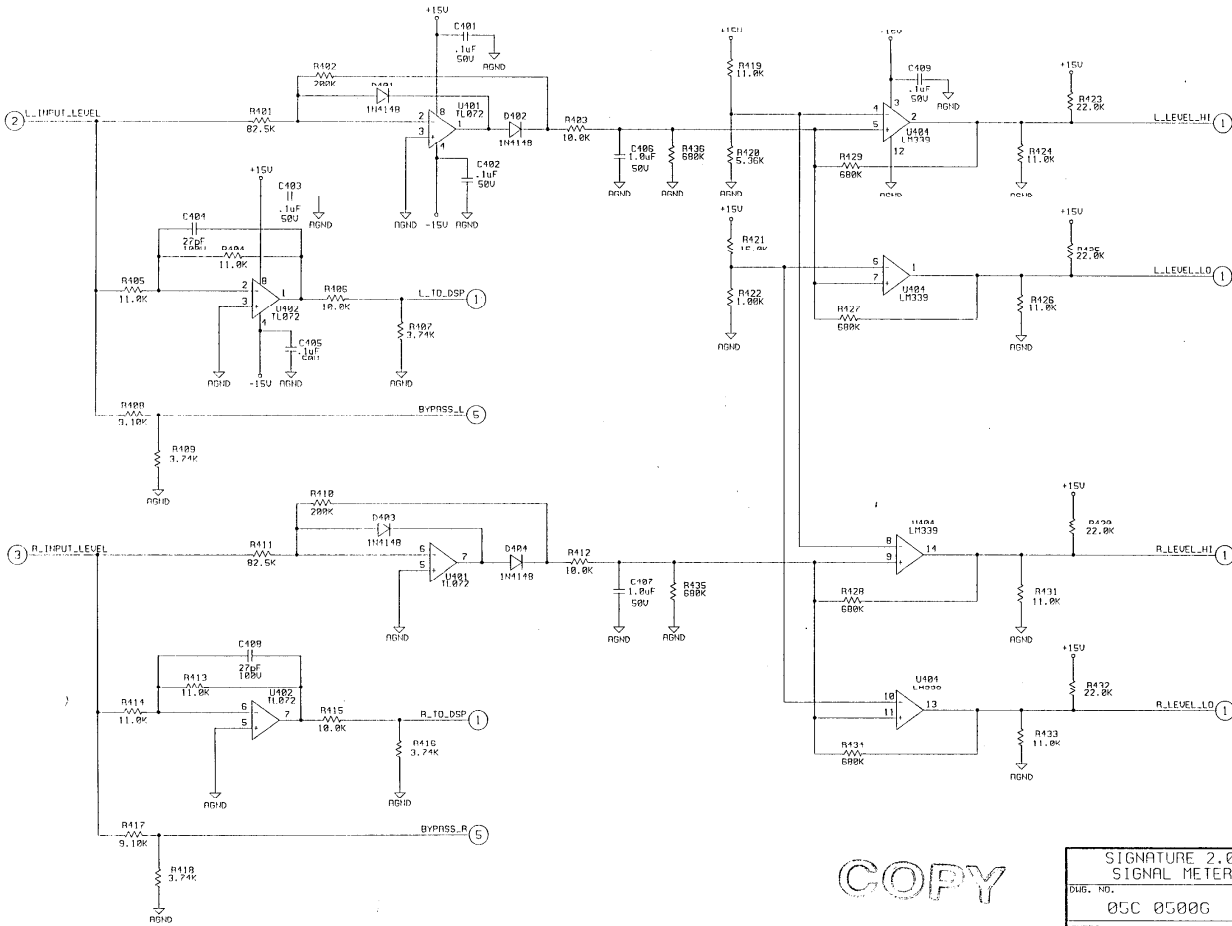
RIGHT INPUT LEVEL ADJUST



COPY

SIGNATURE 2.0	
INPUT & LEVEL CONTROL	
DWG. NO.	REV.
05C-05006	03
SHEET 3 OF 13	

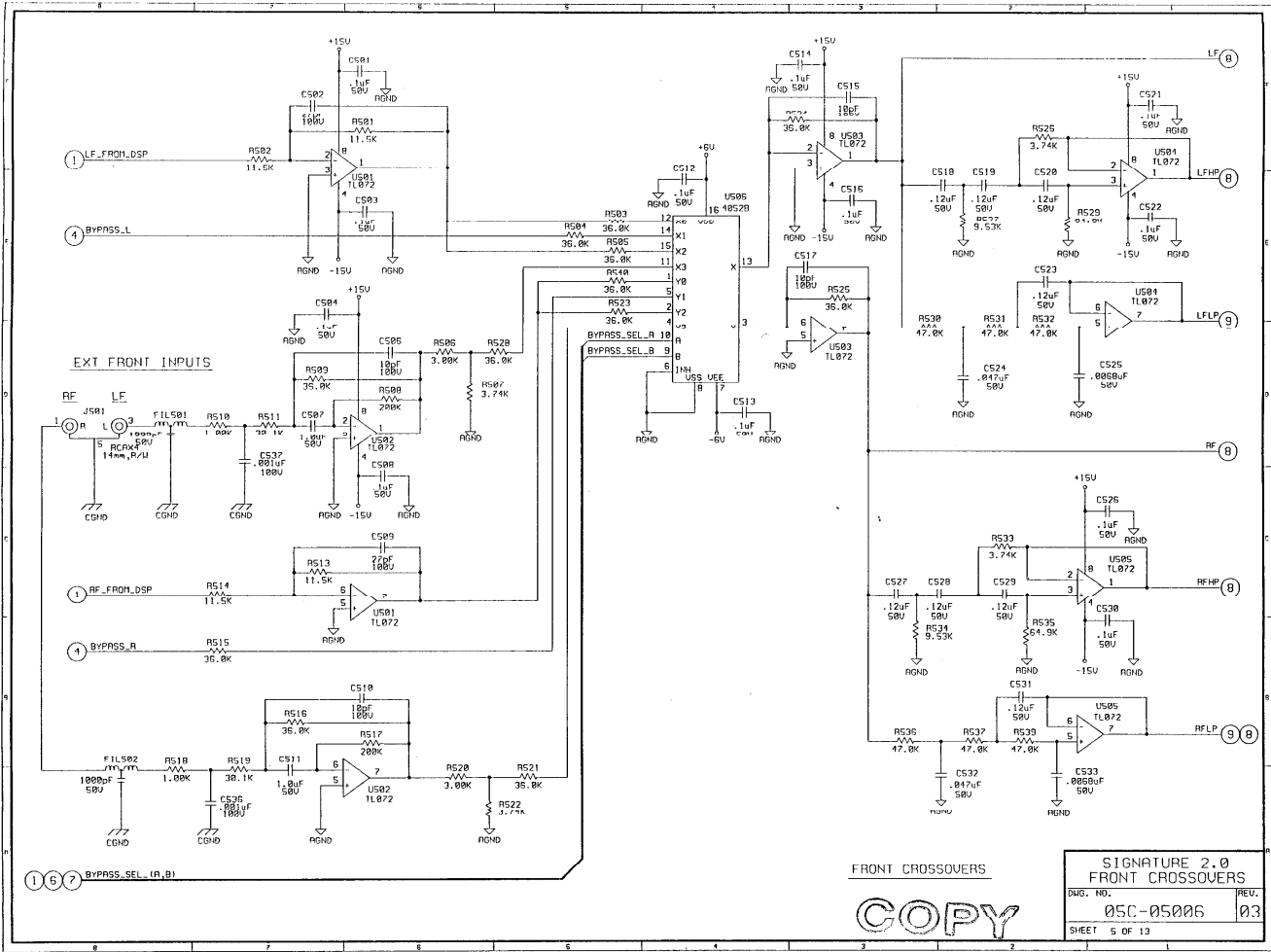
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COPY

SIGNATURE 2.0 SIGNAL METER		REV. 03
05C 0500C		
SHEET 4 OF 13		

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EXT FRONT INPUTS

FRONT CROSSOVERS

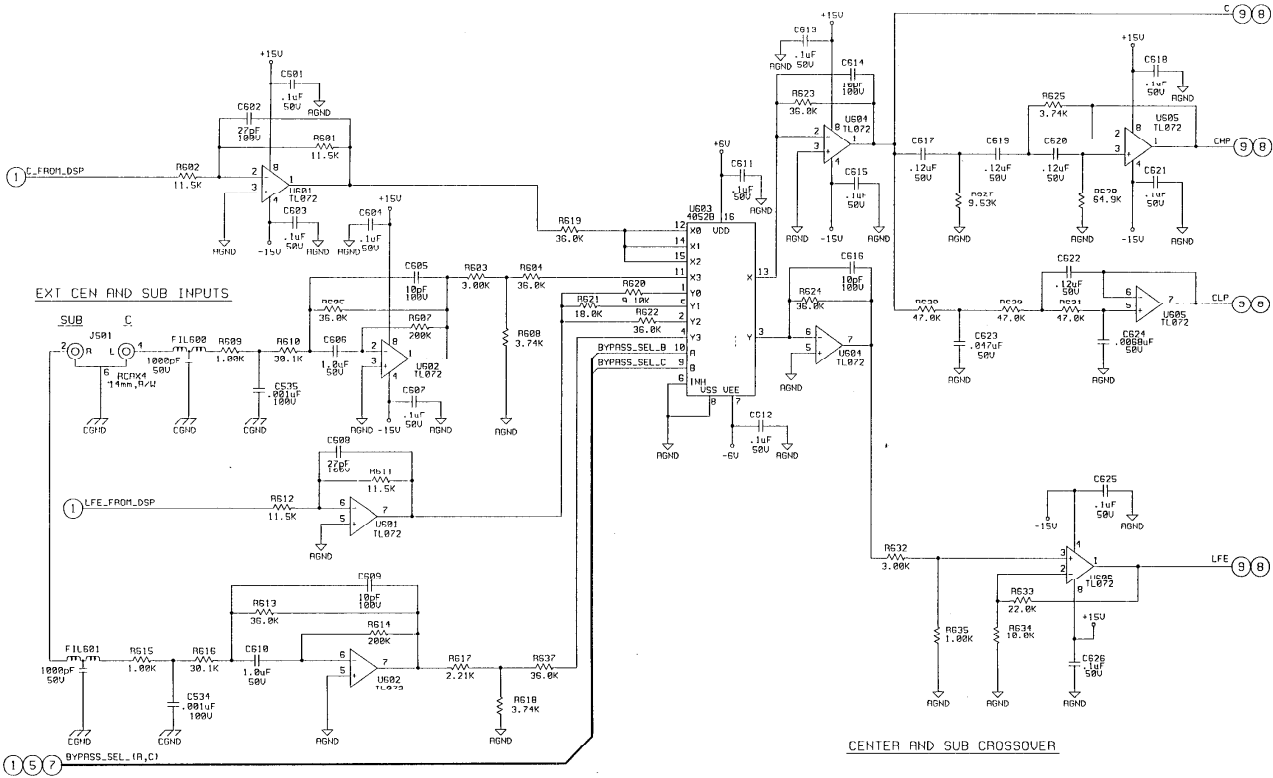
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FRONT CROSSOVERS

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048. NO. 05C-05006
REV. 03

SHEET 5 OF 13

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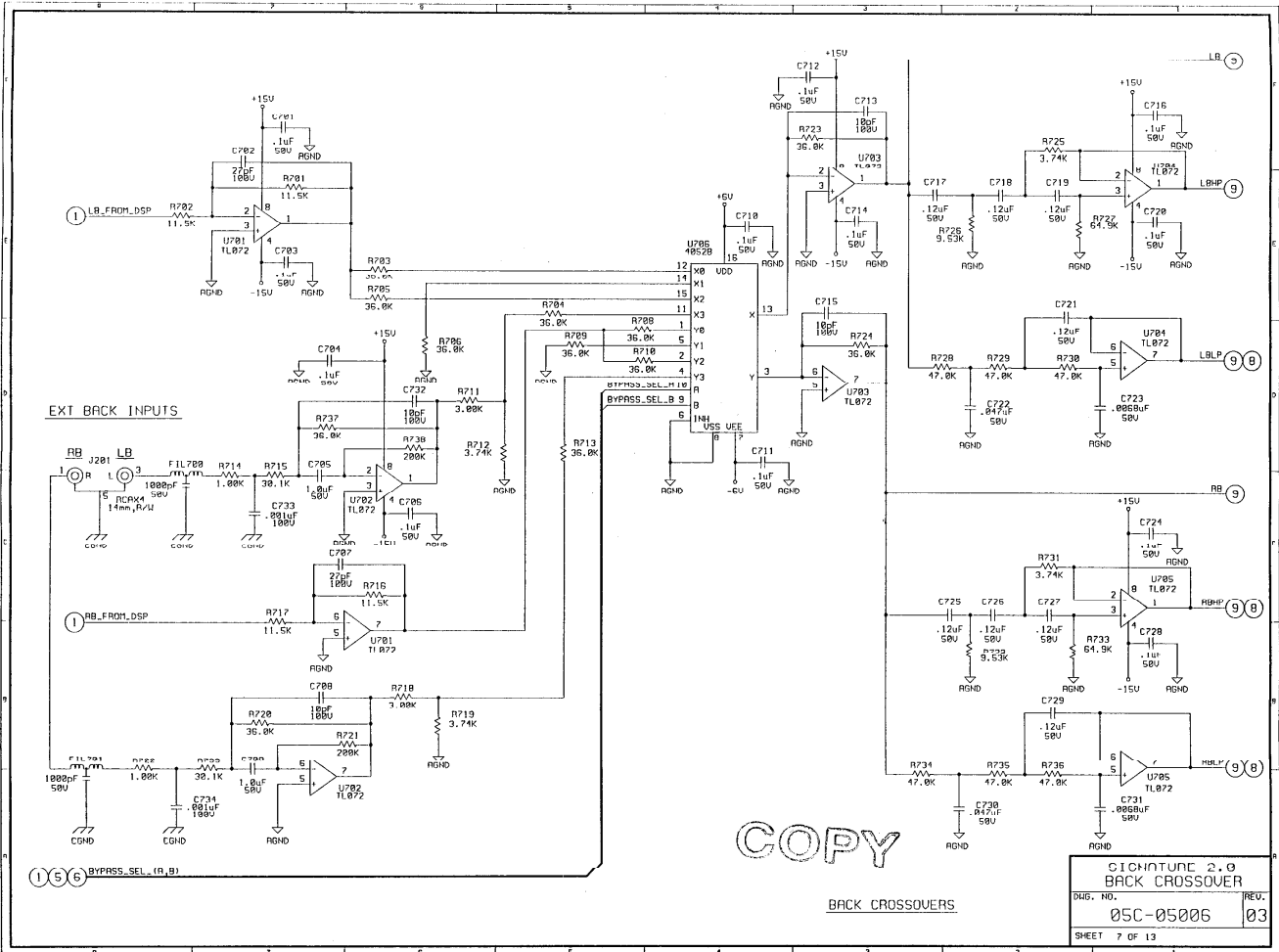


CENTER AND SUB CROSSOVER

COPY

SIGNATURE 2.0	
CENTER&SUB CROSSOVER	
DWG. NO.	REV.
05C-05006	03
SHEET 6 OF 13	

SIGNATURE 2.0 3-13-97 1:05 AM



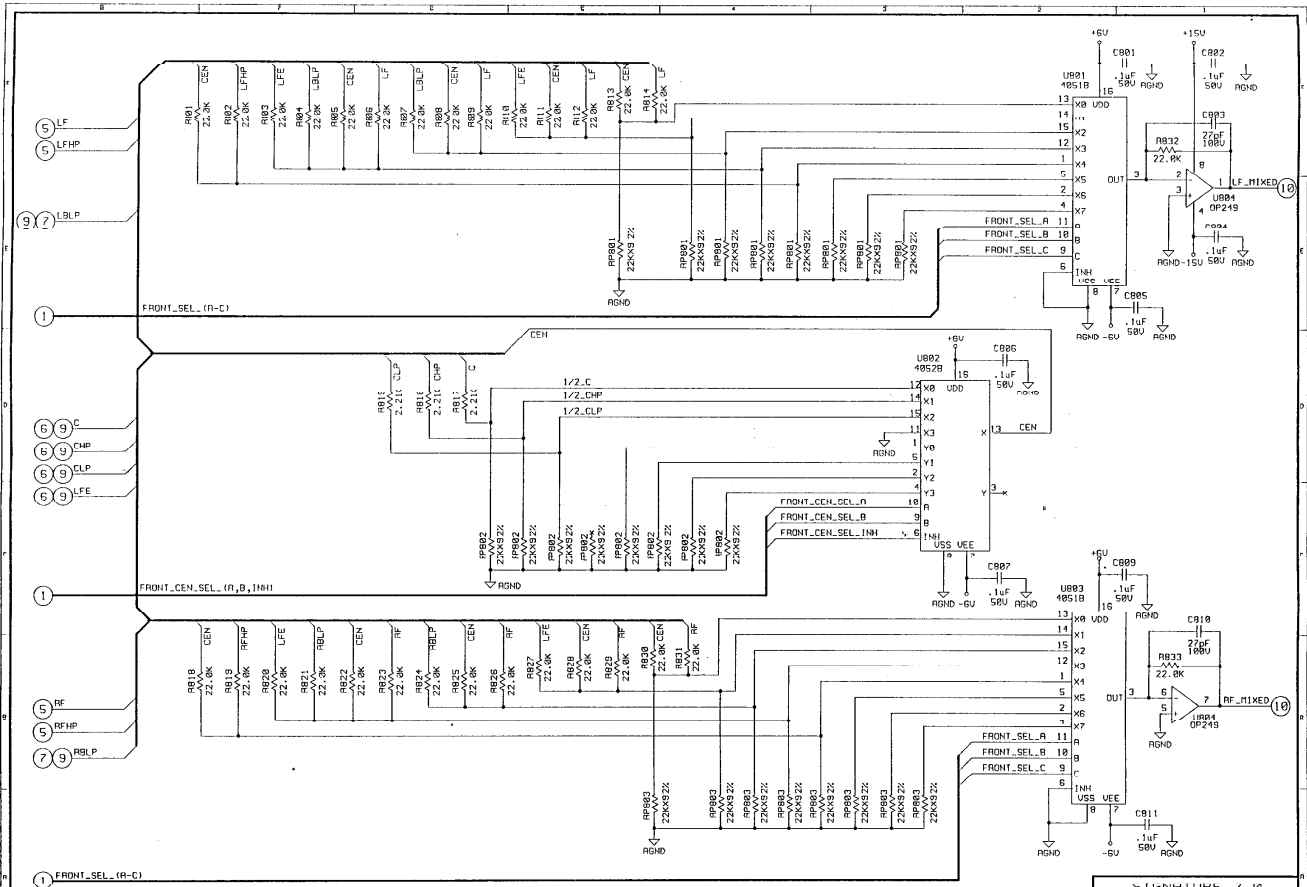
EXT BACK INPUTS

COPY

BACK CROSSOVERS

SIGNATURE 2.0		
BACK CROSSOVER		
DWG. NO.	REV.	
05C-05006	03	
SHEET 7 OF 13		

SIGNATURE 2.0 11-19-87 11:05 AM

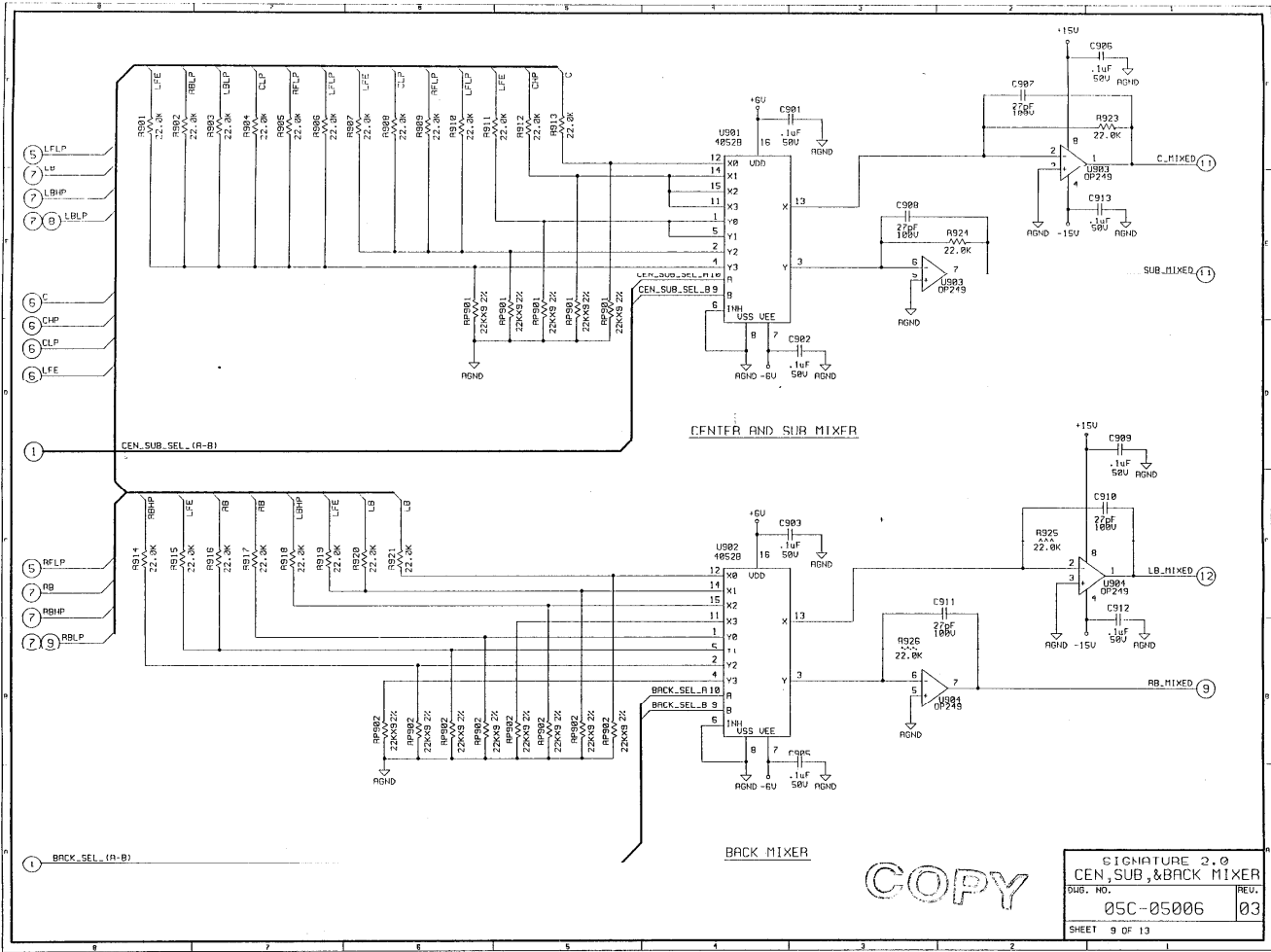


FRONT MIXER

COPY

SIGNATURE 2.0		
FRONT MIXER		
DWG. NO.	REV.	
05C-05006	03	
SHEET 8 OF 13		

SIGNATURE 2.0 5:19-97 11:05 AM



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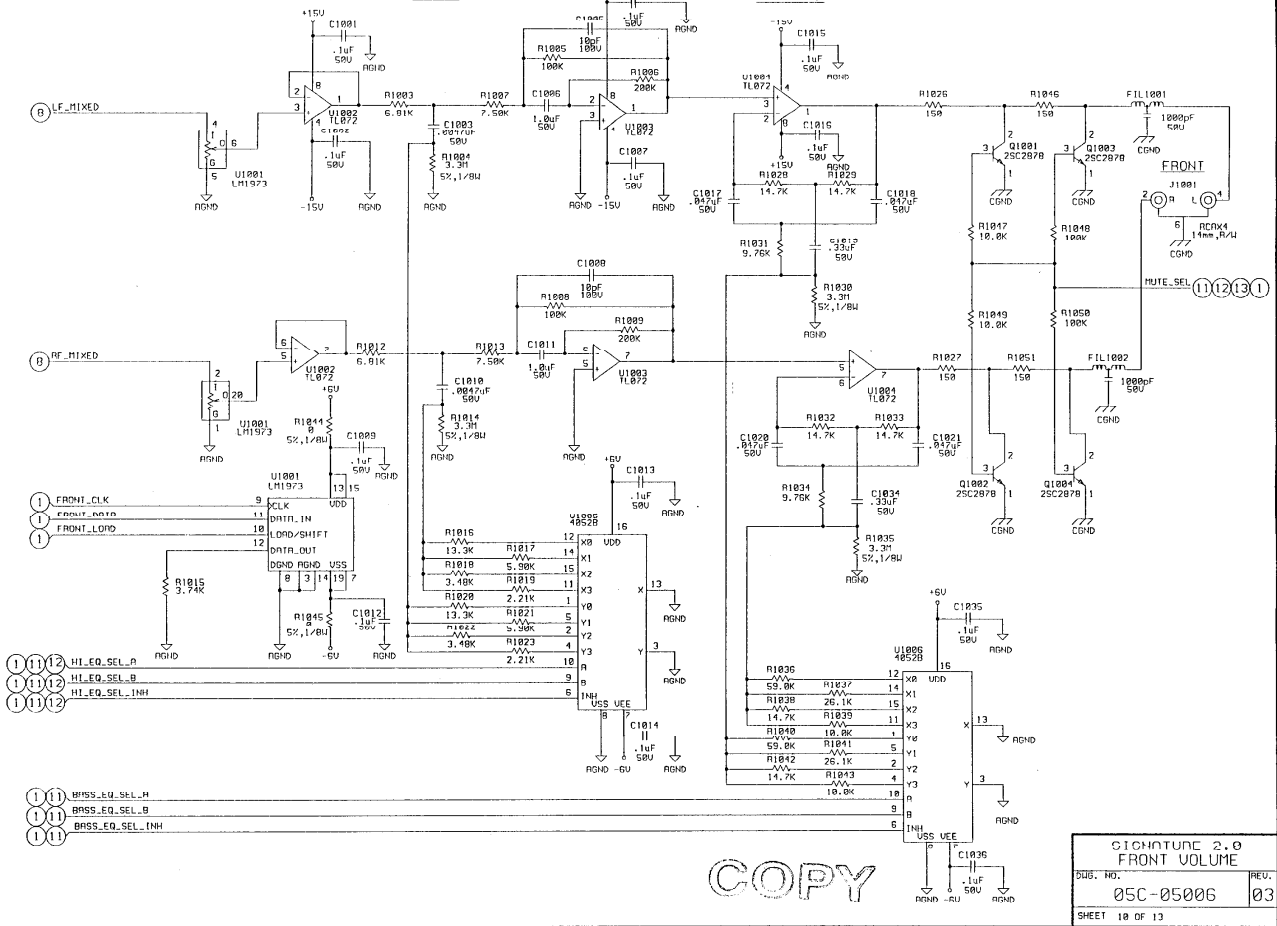
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CEN_SEL, & BACK MIXER	
DWG. NO.	REV.
05C-05006	03
SHEET 9 OF 13	

SIGNATURE 2.0 9-13-97 11:08 AM

VOLUME

HI EQ

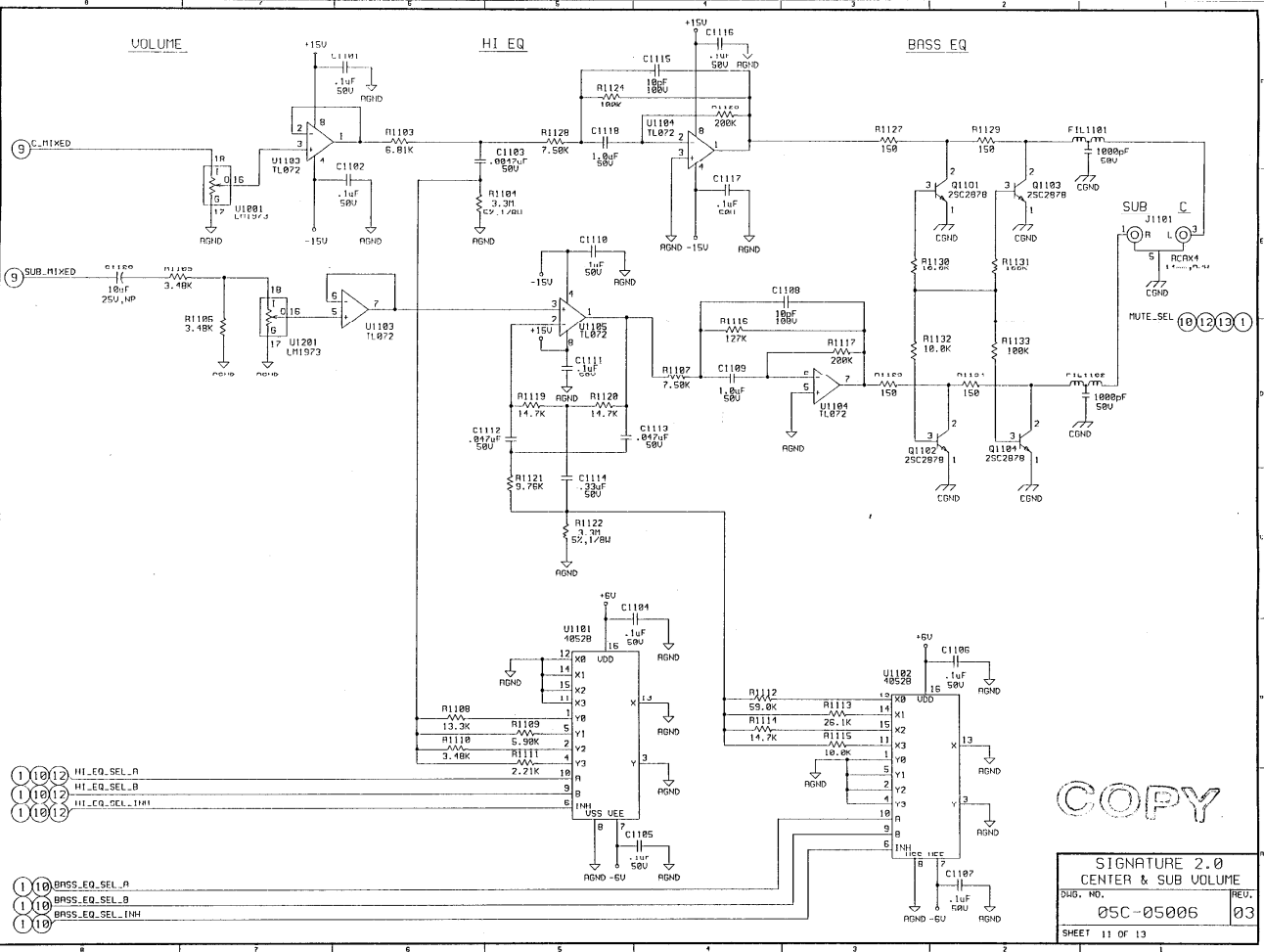
BASS EQ



SIGNATURE 2.0
 FRONT VOLUME
 DES. NO. 05C-05006 REV. 03
 SHEET 10 OF 13

COPY

SIGNATURE 2.0 1-19-97 11:05 AM



- (1)(10)(12) HI_EQ_SEL_N
- (1)(10)(12) HI_EQ_SEL_B
- (1)(10)(12) HI_EQ_SEL_INH

- (1)(10) BASS_EQ_SEL_A
- (1)(10) BASS_EQ_SEL_B
- (1)(10) BASS_EQ_SEL_INH

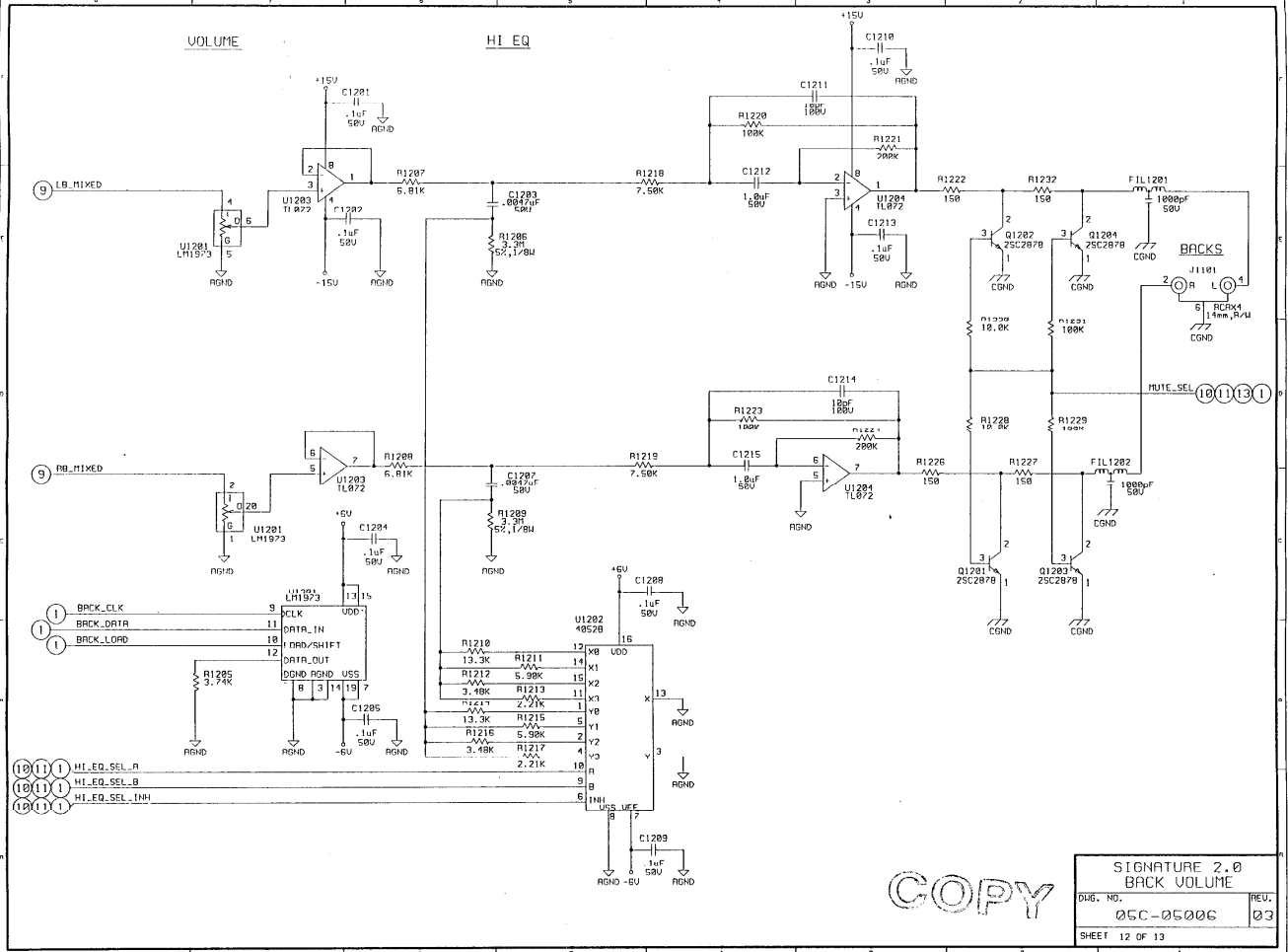
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CENTER & SUB VOLUME	
DWG. NO.	REV.
05C-05006	03
SHEET 11 OF 13	

SIGNATURE 2.0 913-97-11:38 PM

VOLUME

HI EQ

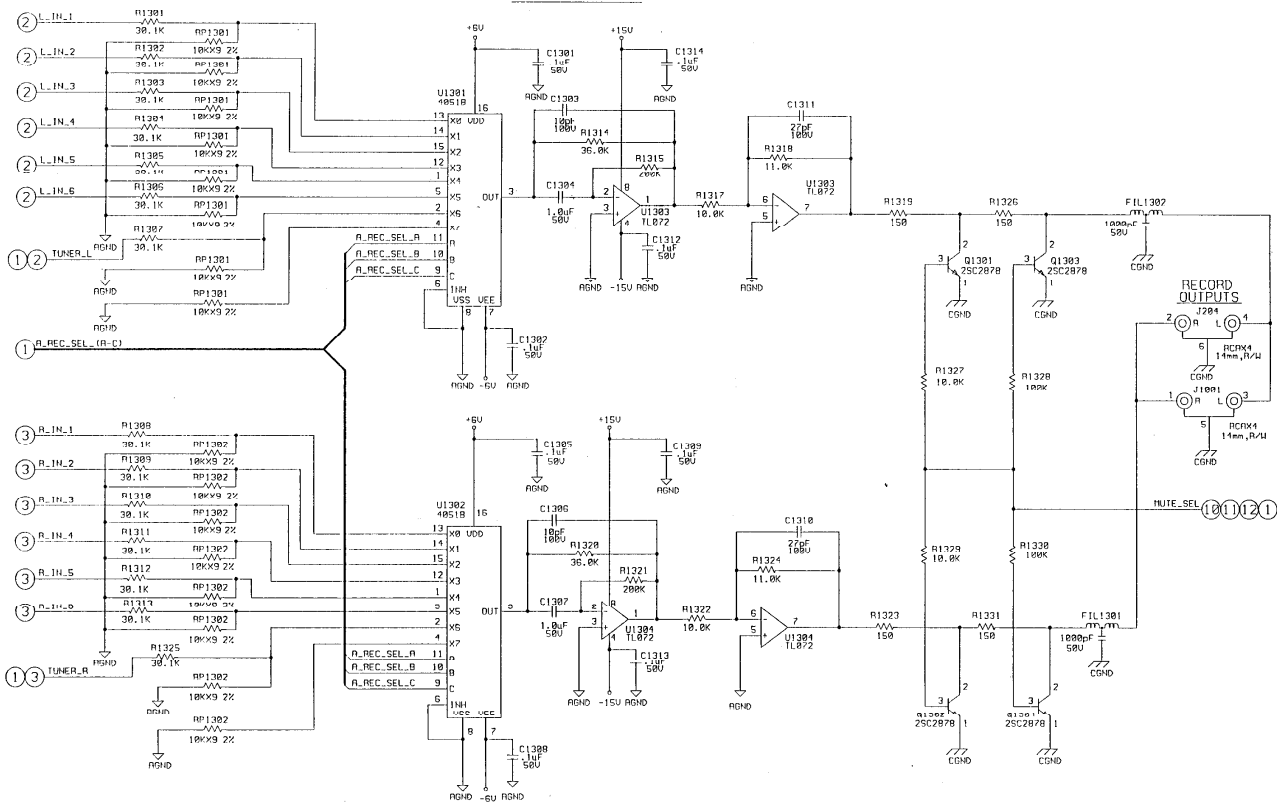


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BACK VOLUME		
DWG. NO.	05C-05006	03
SHEET 12 OF 13		

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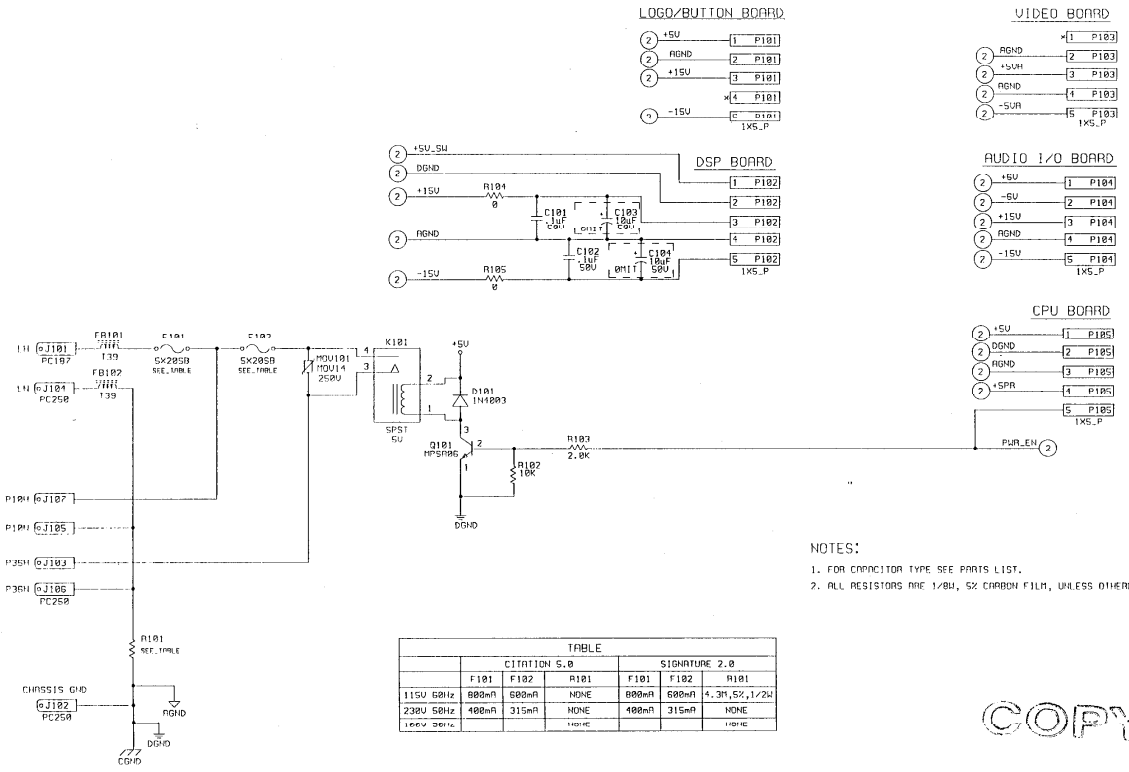
RECORD_SELECTOR



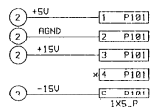
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RECORD OUTPUTS
Dwg. NO. 05C-05006
REV. 03
SHEET 13 OF 13

COPY

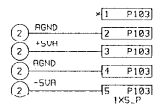
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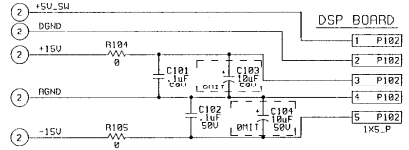
LOGO/BUTTON BOARD



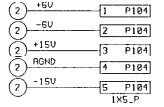
VIDEO BOARD



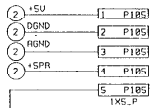
DSP BOARD



AUDIO I/O BOARD



CPU BOARD



- NOTES:
1. FOR CAPACITOR TYPE SEE PARTS LIST.
 2. ALL RESISTORS ARE 1/8W, 5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.

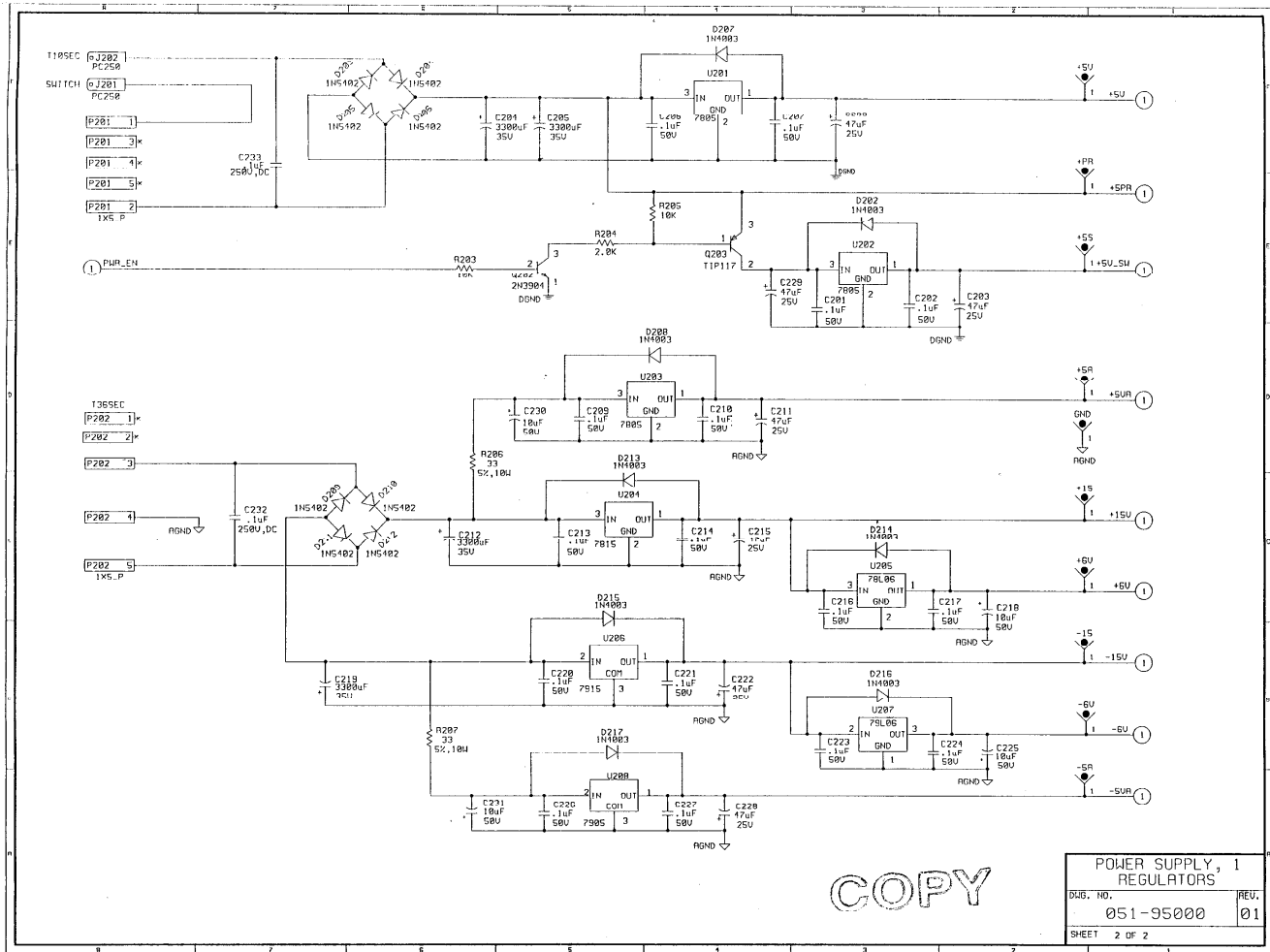
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	F101	F102	A101	F101	F102	A101
115V 60Hz	800mA	800mA	NONE	800mA	800mA	4.3A, 5Z, 1/2A
230V 50Hz	400mA	315mA	NONE	400mA	315mA	NONE
1.65V 50Hz						

COPY

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MANUFACTURE
BY *[Signature]* 11/78

SIGNATURE		DATE	harman consumer group digital entertainment product center 1388 Borregas Avenue Sunnyvale, CA 91089-1001
DRAWIN S. McARE		11-28-86	
DRAFT CRK		1-7-87	POWER SUPPLY, 1 CONNECTORS
PROJ MSR			
CPU0001.SCH			DWG. NO. 051-95000
			REV. 01
			SHEET 1 OF 2

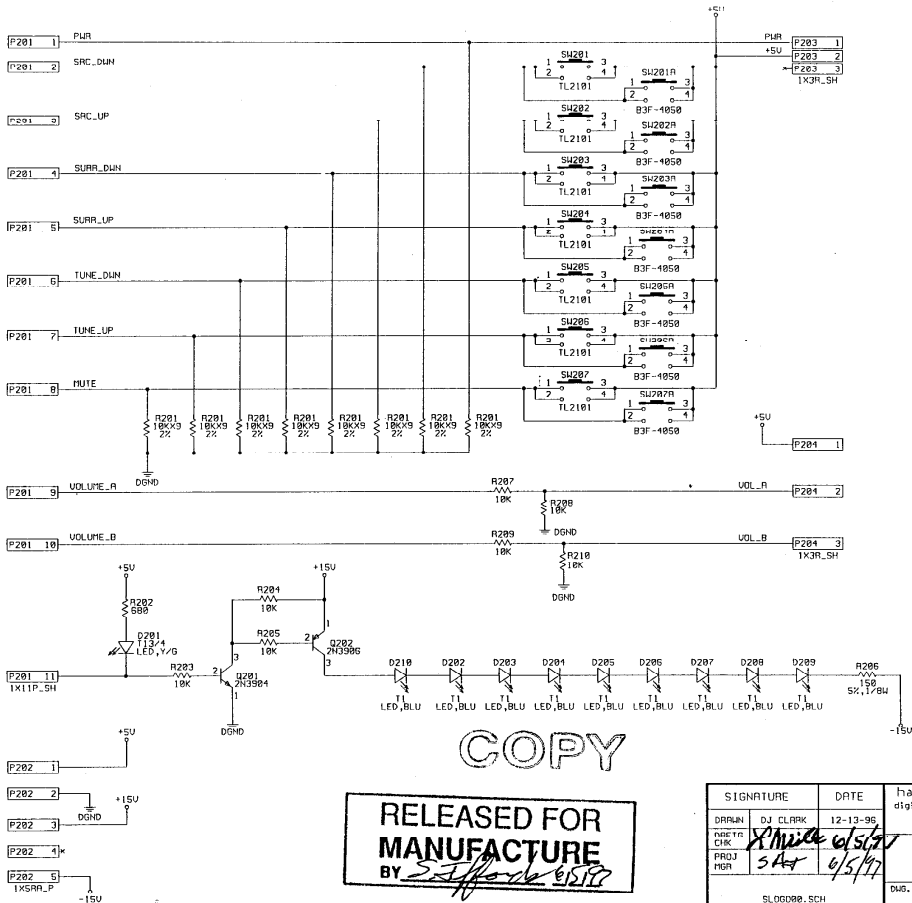
CITATION 5.0 SIGNATURE 2.0 1-8-86 11-78



COPY

POWER SUPPLY, 1		REV.
REGULATORS		01
SUB. NO.	051-95000	
SHEET	2 OF 2	

CITATION & SIGNATURE 2.3 1-8-58 2-18 PR



COPY

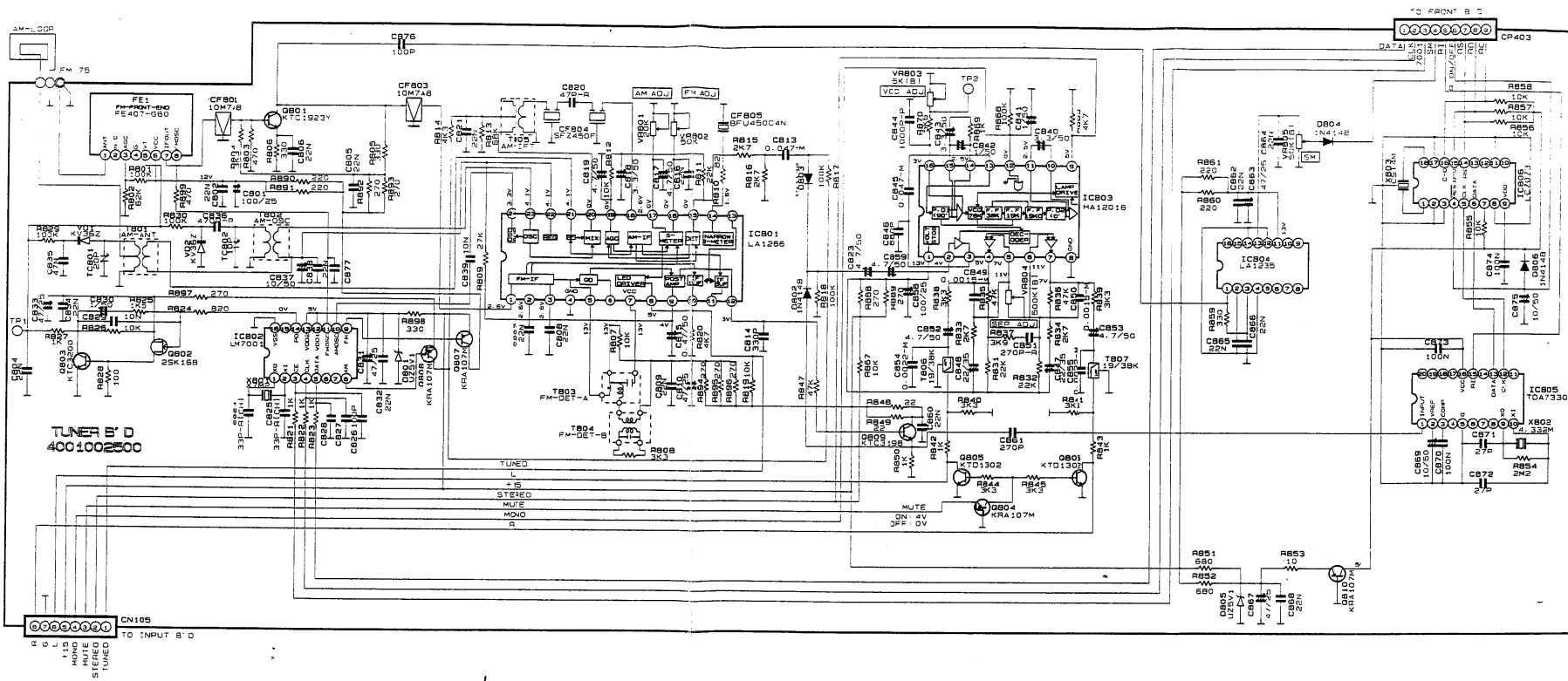
RELEASED FOR
MANUFACTURE
 BY *S. J. Ford 6/5/97*

SIGNATURE		DATE	harman consumer group digital entertainment product center 1308 Borregas Avenue Sunnyvale, CA 94089-1001
DRWEN	DJ CLARK	12-13-95	
DATE TO CHK	<i>R. Miller</i>	<i>6/5/97</i>	
PROJ MGR	<i>S. A. A.</i>		SIGNATURE 2.0 BUTTON/LOGO
SLOG000.SCH		DWG. NO.	055-05005
		SHEET	1 OF 1

SIGNATURE 2.0 5-13-95 31:55

HAITAI		HAITAI CAD TEAM	
MODEL NAME	AVR-31	DESIGN	
BOARD NAME	TUNER1	INSPECTION	
STEP	N/C	APPROVAL	
SHEET NO.	1	DATE	97.3.13

SCHEMATIC DIAGRAM



: "A" Version change

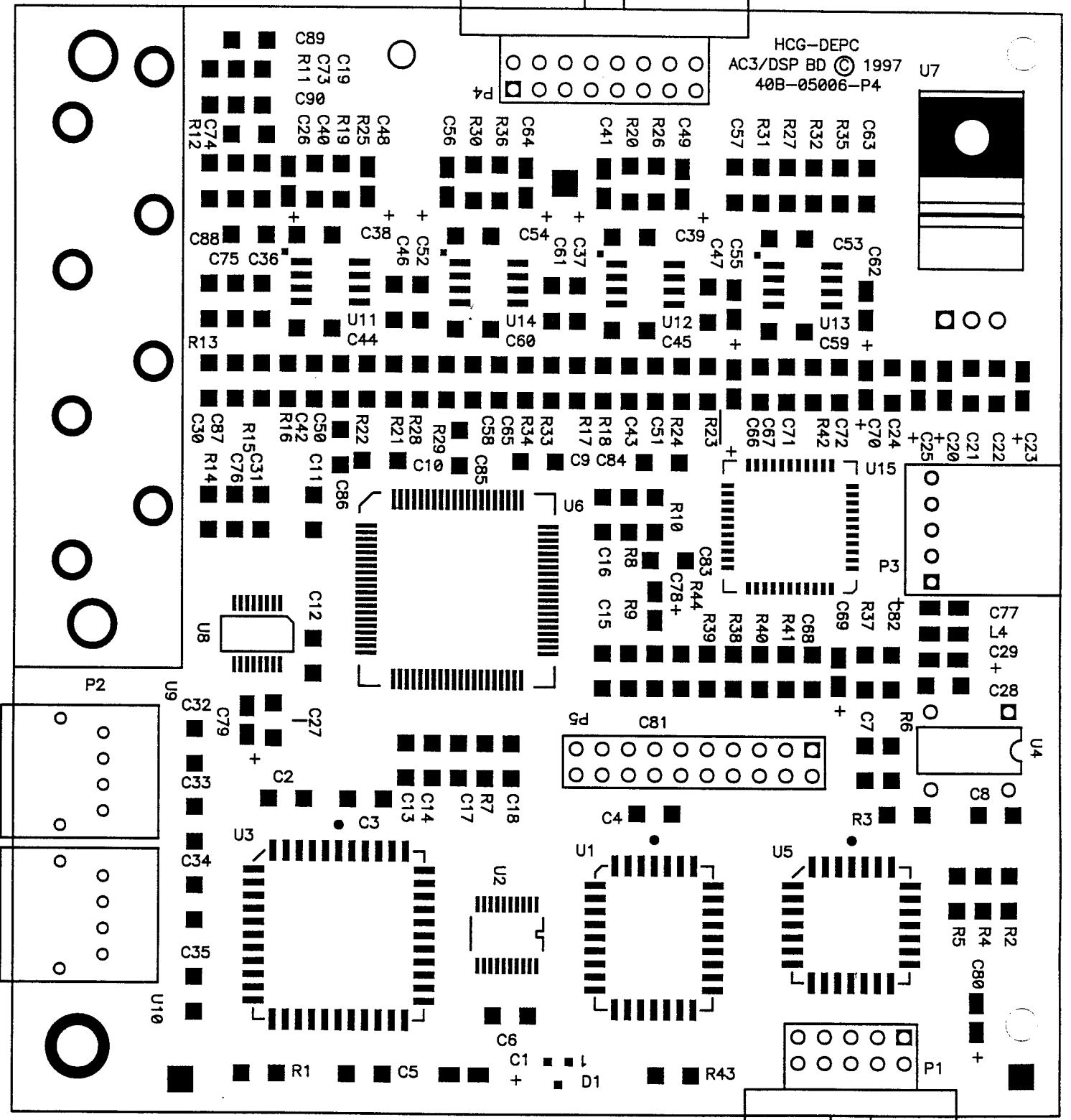
COPY

NOTES
 1. Resistor values are indicated in ohms unless otherwise specified (K=1,000; M=1,000,000; 1=1).
 2. Capacitor values are indicated in microfarads unless otherwise specified (p=picofarad; micro=micromicrofarad).
CAUTION
 Safety precautions to be followed during servicing:
 1. Assume these parts marked with are critical parts for safety. Use only the one described in the parts list.
 2. Before returning the set to the customer, make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

REVISED	
NO.	DATE
1	6
2	7
3	8
4	9
5	10

EQUIPMENT	TUNER	MODEL	AVR-
DRAW	CHECKED	APPROVED	DATE
			97.3.19

HCG-DEPC
AC3/DSP BD © 1997
40B-05006-P4



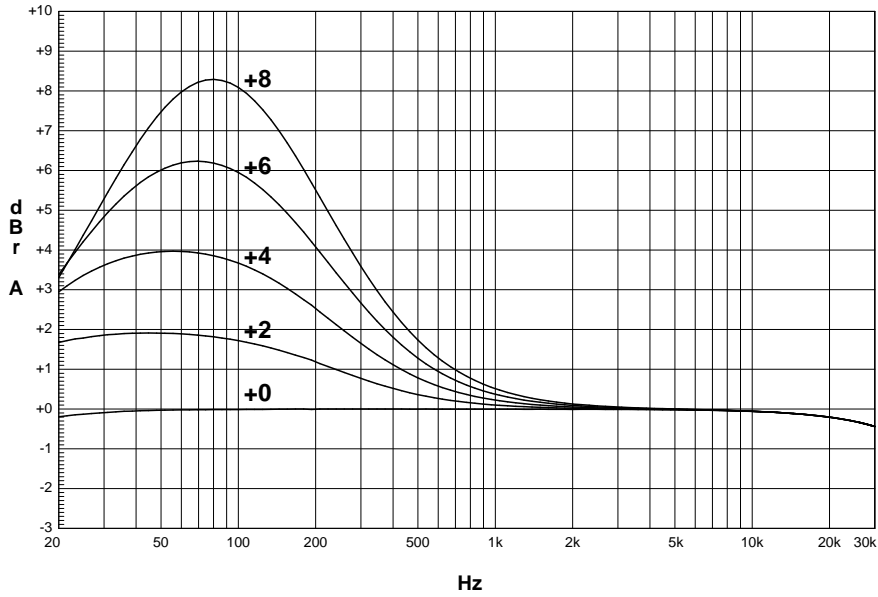
RELEASED FOR
MANUFACTURE
BY _____

AC3/DSP SILKSCREEN - REV PH

Signature 2.0

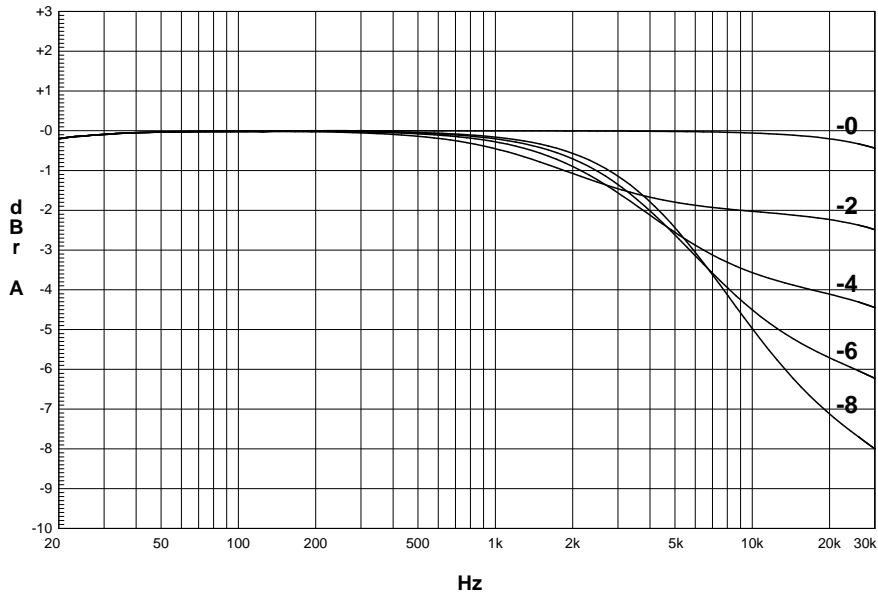
Bass Boost

This chart, using data from a sample Signature 2.0 unit and automated test equipment, shows the frequencies at which low-frequency information is boosted when settings are changed with the **Bass Boost** control **(B)**, or through the use of the **Effects Menu** (Figure OSD-8).



Treble Cut

This chart, using data from a sample Signature 2.0 unit and automated test equipment, shows the frequencies at which high-frequency information is rolled off when settings are changed with the **Treble Cut** control **(T)**, or through the use of the **Effects Menu** (Figure OSD-8).



ASM: HA206-0015-3 SIG 2.0 AUDIO BOARD ASY,REV03 EA M

Gallien Part Number	Description	
001-1030-1	TL072CP, LOW NOISE JFET OPAMP 29.000000 EP 0 0 0.0 A REF: U 201,302,401,402,501,502,503, REF: 504,505,601,602,604,605,606,701 REF: 702,703,704,705,1002,1003,1004, REF: 1103,1104,105,1203,1204,1303, REF: 1304	EA B
001-1031-0	OP249,OPAMP DUAL PREC HS JFET 3.000000 EP 0 0 0.0 A REF: U 804,903,904	EA B
001-1195-0	LM339A,QUAD COMPARATOR 1.000000 EP 0 0 0.0 A REF: U 404	EA B
001-1973-0	LM1973N DIGITAL ATTENUATOR 3.000000 EP 0 0 0.0 A REF: U 202,1001,1201	EA B
002-0035-0	CD4052 EA B 11.000000 EP 0 0 0.0 A REF: U 506,603,706,802,901,902,1005, REF: 1006,1005,1101,1102,1202	
002-0051-0	CD4051 EA B 6.000000 EP 0 0 0.0 A REF: U 200,301,801,803,1301,1302	
010-0004-0	2SC2878B,TRANS,NPN,MUTING EA B 16.000000 EP 0 0 0.0 A REF: Q 1001,1002,1003,1004,1101,1102, REF: 1103,1104,1201,1202,1203,1204, REF: 1301,1302,1303,1304	
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 EA B 4.000000 EP 0 0 0.0 AI A REF: D 401,402,403,404	
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 105.000000 EP 0 0 0.0 AI A REF: C 207,208,212,213,307,308,309, REF: 312,313,314,401,402,403,405,409, REF: 501,503,504,508,512,513,514,516, REF: 521,526,530,601,603,604,607,611 REF: 612,613,615,618,621,625,626,701 REF: 703,704,706,710,711,712,714,716 REF: 720,724,728,801,802,804,805,806 REF: 807,809,811,901,902,903,905,906 REF: 909,912,913,1001,1002,1004,1007 REF: 1009,1012,1013,1014,1015,1016, REF: 1035,1036,1101,1102,1104,1105, REF: 1106,1107,1110,1111,1116,1117, REF: 1201,1202,1204,1205,1208,1209, REF: 1210,1213,1301,1302,1305,1308,	
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 105.000000 EP 0 0 0.0 AI A REF: 1309,1312,1313,1314,522	

20AUDIO

030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO	EA B
	16.000000 EP 0 0 0.0 AI A	
	REF: C 404,408,502,509,602,608,702,	
	REF: 707,803,810,907,908,910,911,1311	
	REF: 1310	
030-4100-0	CAP,CER AXIAL,10 PF,10%,100V	EA B
	22.000000 EP 0 0 0.0 A	
	REF: C 209,310,506,510,515,517,605,	
	REF: 609,614,616,708,713,715,732,1005	
	REF: 1008,1108,1115,1211,1214,1303,	
	REF: 1306	
030-4102-0	CAP,CER AXIAL,102,10%,100V,X7R	EA B
	18.000000 EP 0 0 0.0 A	
	REF: C 201,202,203,204,205,206,301,	
	REF: 302,303,304,305,306,534,535,536	
	REF: 537,733,734	
031-0106-1	CAP,ELEC,RAD,106,20%,25V,NP	EA B
	1.000000 EP 0 0 0.0 A	
	REF: C 1102	
036-2105-0	CAP,PE,RAD,105,5%,50V	EA B
	18.000000 EP 0 0 0.0 A	
	REF: C 210,311,406,407,507,511,606,	
	REF: 610,705,709,1006,1011,1109,1118	
	REF: 1212,1215,1304,1307	
036-2124-0	CAP,PE,RAD,124,5%,50V	EA B
	20.000000 EP 0 0 0.0 A	
	REF: C 518,519,520,523,527,528,529,	
	REF: 531,617,619,620,622,717,718,719	
	REF: 721,726,727,729	
036-2334-0	CAP,PE,RAD,334,5%,50V	EA B
	3.000000 EP 0 0 0.0 A	
	REF: C 1019,1034,1114	
036-2472-0	CAP,PE,RAD,472,5%,50V	EA B
	5.000000 EP 0 0 0.0 A	
	REF: C 1003,1010,1103,1203,1207	
036-2473-0	CAP,PE,RAD,473,5%,50V	EA B
	11.000000 EP 0 0 0.0 A	
	REF: C 524,532,623,722,730,1017,1020	
	REF: 1021,1112,1113,1118	
036-2682-0	CAP,PE,RAD,682,5%,50V	EA B
	5.000000 EP 0 0 0.0 A	
	REF: C 525,533,624,723,731	
050-0000-0	RES,METAL WIRE,0 OHM,1/8W	EA B
	4.000000 EP 0 0 0.0 AI A	
	REF: R 217,218,1044,1045	
050-3305-0	RES,CARBON FILM,3.3M OHM,1/8W,5%	EA B
	8.000000 EP 0 0 0.0 A	
	REF: R 1004,1014,1030,1035,1104,1122	
	REF: 1206,1209	
058-1003-0	RES,SIP 10K OHMS X 9	EA B
	4.000000 EP 0 0 0.0 0 A	
	REF: RP 203,303,1301,1302	
058-2203-0	RES,SIP,22K OHMS X9,2%	EA B

20AUDIO

5.000000 EP 0 0 0.0 A
 REF: RP 801,802,803,901,902
 060-1002-0 RES,METAL FILM,1.00K,1/8W,1% EA B
 20.000000 EP 0 0 0.0 AI A
 REF: R 201,204,206,208,210,212,301
 REF: 304,306,308,310,312,422,510,518
 REF: 609,615,635,714,722
 060-1003-0 RES,METAL FILM,10.0K OHM,1/8W,1% EA B
 25.000000 EP 0 0 0.0 AI A
 REF: R 101,102,103,104,105,106,107,
 REF: 403,406,412,415,634,1039,1043,
 REF: 1047,1049,1115,1130,1132,1228,
 REF: 1230,1317,1322,1327,1329
 060-1004-0 RES,METAL FILM,100K,1/8W,1% EA B
 13.000000 EP 0 0 0.0 AI A
 REF: R 1005,1008,1048,1050,1124,1131,
 REF: 1133,1220,1223,1229,1231,1328,
 REF: 1330
 060-1103-0 RES,METAL FILM,11.0K,1/8W,1% EA B
 11.000000 EP 0 0 0.0 AI A
 REF: R 404,405,413,414,419,424,426,
 REF: 431,433,1318,1324
 060-1153-0 RES,METAL FIM,11.5 K OHM,1%,1/8W EA B
 12.000000 EP 0 0 0.0 A
 REF: R 501,502,513,514,601,602,611,
 REF: 612,701,702,716,717
 060-1274-0 RES,METAL FILM,127K,1/8W,1% EA B
 1.000000 EP 0 0 0.0 A
 REF: R 1116
 060-1333-0 RES,METAL FILM,13.3 K OHM,1%,1/8W EA B
 5.000000 EP 0 0 0.0 A
 REF: R 1016,1020,1108,1210,1214
 060-1473-0 RES,METAL FILM,14.7 K OHM,1%,1/8W EA B
 9.000000 EP 0 0 0.0 A
 REF: R 1028,1029,1032,1033,1038,1042
 REF: 1114,1119,1120
 060-1501-0 RES,METAL FILM,150 OHMS,1/8W,1% EA B
 16.000000 EP 0 0 0.0 A
 REF: R 1026,1027,1046,1051,1123,1127
 REF: 1129,1134,1222,1226,1227,1232,
 REF: 1319,1323,1326,1331
 060-1503-0 RES,METAL FILM,15.0 K OHM,1/8W,1% EA B
 1.000000 EP 0 0 0.0 A
 REF: R 421
 060-1803-0 RES,METAL FILM,18K OHM,1/8W,1% EA B
 1.000000 EP 0 0 0.0 A
 REF: R 621
 060-2004-0 RES,METAL FILM,200K OHM,1/8W,1% EA B
 18.000000 EP 0 0 0.0 A
 REF: R 216,316,402,410,508,517,607,
 REF: 614,721,738,1006,1009,1117,1126
 REF: 1221,1224,1315,1321
 060-2203-0 RES,METAL FILM,22K OHM,1/8W,1% EA B

	60.000000 EP 0 0 0.0 A	
	REF: R 423,425,430,432,633,801,802,	
	REF: 803,804,805,806,807,808,809,810,	
	REF: 811,812,813,814,818,819,820,821	
	REF: 822,823,824,825,826,827,828,829	
	REF: 830,831,832,833,901,902,903,904	
	REF: 905,906,907,908,909,910,911,912	
	REF: 913,914,915,916,917,918,919,920	
	REF: 921,923,924,925,926	
060-2212-0	RES,METAL FILM,2.21K OHM,1/8W,1%	EA B
	9.000000 EP 0 0 0.0 A	
	REF: R 617,815,816,817,1019,1023,1111	
	REF: 1213,1217	
060-2613-0	RES,METAL FILM,26.1 KOHM,1%,1/8W	EA B
	3.000000 EP 0 0 0.0 A	
	REF: R 1037,1041,1113	
060-3002-0	RES,METAL FILM,3 K OHM,1%,1/8 W	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 506,520,603,632,711,718	
060-3103-0	RES,METAL FILM,30.1K OHM,1/8W,1%	EA B
	34.000000 EP 0 0 0.0 A	
	REF: R 202,205,207,209,211,213,214,	
	REF: 302,305,307,309,311,313,314,511	
	REF: 519,610,616,715,739,1301,1302,	
	REF: 1303,1304,1305,1306,1307,1308	
	REF: 1309,1310,1311,1312,1313,1325	
060-3482-0	RES,METAL FILM,3.48K OHM,1/8W,1%	EA B
	7.000000 EP 0 0 0.0 A	
	REF: R 1018,1022,1105,1106,1110,1212,	
	REF: 1216	
060-3603-0	RES,METAL FILM,36K OHM,1/8W,1%	EA B
	36.000000 EP 0 0 0.0 A	
	REF: R 215,315,503,504,505,509,515,	
	REF: 516,521,523,524,525,528,540,604,	
	REF: 605,613,619,622,623,624,637,703,	
	REF: 704,705,706,708,709,710,713,720,	
	REF: 723,724,737,1314,1320	
060-3742-0	RES,METAL FILM,3.74K OHM,1/8W,1%	EA B
	18.000000 EP 0 0 0.0 A	
	REF: R 318,407,409,416,418,507,522,	
	REF: 526,533,608,618,625,712,719,725	
	REF: 731,1015,1205	
060-4703-0	RES,METAL FILM,47.0K OHM,1/8W,1%	EA B
	15.000000 EP 0 0 0.0 AI A	
	REF: R 530,531,532,536,537,539,629,	
	REF: 630,631,728,729,730,734,735,736	
060-5362-0	RES,METAL FILM,5.36K OHM,1%,1/8W	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 420	
060-5902-0	RES,METAL FILM,5.9K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 1017,1021,1109,1211,1215	
060-5903-0	RES,METAL FILM,59.0K OHM,1/8W,1%	EA B

	3.000000 EP 0 0 0.0	A
	REF: R 1036,1040,1112	
060-6493-0	RES,METAL FILM,64.9K,1/8W,1%	EA B
	5.000000 EP 0 0 0.0	A
	REF: R 529,535,628,727,733	
060-6804-0	RES,METAL FILM,680K OHM,1/8W,1%	EA B
	6.000000 EP 0 0 0.0	A
	REF: R 427,428,429,434,435,436	
060-6812-0	RES,METAL FILM,6.81K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 AI	A
	REF: R 1003,1012,1103,1207,1208	
060-7502-0	RES,METAL FILM,7.5K OHM,1/8W,1%	EA B
	6.000000 EP 0 0 0.0	A
	REF: R 1007,1013,1107,1128,1218,1219	
060-8253-0	RES,METAL FILM,82.5 K OHM,1/8W,1%	EA B
	2.000000 EP 0 0 0.0	A
	REF: R 401,411	
060-9102-0	RES,METAL FILM,9.10K OHM,1/8W,1%	EA B
	3.000000 EP 0 0 0.0 AI	A
	REF: R 408,417,620	
060-9532-0	RES,METAL FILM,9.53K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0	A
	REF: R 527,534,627,726,732	
060-9762-0	RES,METAL FILM,9.76K OHM,1/8W,1%	EA B
	3.000000 EP 0 0 0.0	A
	REF: R 1031,1034,1121	
081-0102-0	EMI FILTER, RAD,1000PF	EA B
	26.000000 EP 0 0 0.0	A
	REF: FIL 201,202,203,204,205,206,301	
	REF: 302,303,304,305,306,501,502,600	
	REF: 601,700,701,1001,1002,1101,1102,	
	REF: 1201,1202,1301,1302	
092-0007-0	JACK,RCAX4,HORIZ,GOLD,RD/WT	EA B
	7.000000 EP 0 0 0.0	A
	REF: J 201,204,202,203,501,1001,1101	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	1.000000 EP 0 0 0.0	A
	REF: J 104	
093-0019-0	HDR,.1X2X8,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: J 100	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	2.000000 EP 0 0 0.0	A
	REF: J 101,103	
093-2003-0	HDR,2MMX8,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: J 102	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0	A
HA145-0015-3	SIG 2.0 AUDIO I/O RAW PCB	EA B
	1.000000 EP 0 0 0.0 03	A

63 COMPONENTS PRINTED

ASM: HA206-0012-0 SIG 2.0 CPU BOARD ASSY EA M

Gallien Part Number	Description	
001-0004-0	4N26 OPTO-COUPLER SIX PIN 1.5KV	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 302	
002-0086-0	74HC86, EXCLUSIVE OR GATE, QUAD, 2 IN	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 310	
002-0202-0	MAX202, INTRFC XCVR RS232	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 502	
002-1008-0	74HC08	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 503	
002-1138-0	74HC138	EA B
	2.000000 EP 0 0 0.0	A
	REF: U 307,308	
002-1139-0	74HC139N, DECODER, DUAL 2 TO 4	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 309	
002-1541-1	74HC541, BUFFER, OCTAL TRISTATE	EA B
	3.000000 EP 0 0 0.0	A
	REF: U 411,412,413	
002-1574-0	74HC574N TRI-STATE OCTAL D FLIP FLOP	EA B
	8.000000 EP 0 0 0.0	A
	REF: U 401,402,403,404,405,406,407,	
	REF: 408	
003-0020-4	EPROM, 128KX8, 120NS, 27C010-12	EA B
	1.000000 EP 0 0 0.0 2.4	A
	REF: U 305	
003-0080-0	EPROM, SERIAL, 8K, 25080	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 501	
003-0264-0	SRAM, 8KX8, 28PIN, 600MIL, PLAST DIP	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 306	
003-1705-0	UP SUPERVISOR, 4.65V, UPS705	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 303	
003-2180-0	MICROPROCESSOR, Z80180, 10MHZ	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 304	
010-0002-0	2N3904 TRANS, NPN	EA B
	4.000000 EP 0 0 0.0	A
	REF: Q 501,503,506,507	
010-1013-0	MPSA56 PNP 80V 500MA TO-92	EA B
	3.000000 EP 0 0 0.0	A
	REF: Q 502,504,505	
020-1000-0	1N4148, RECT-FAST, 200MA, 100V, 4NS, DO-35	EA B
	6.000000 EP 0 0 0.0 AI	A
	REF: D 303,304,401,504,508 +	
	REF: ECO#972601	

020-2107-0	DIODE RECT 1A 1N4003	EA B
	2.000000 EP 0 0 0.0	A
	REF: D 501,502	
024-0005-0	CRYSTALL, 18.432 MHZ,HC49	EA B
	1.000000 EP 0 0 0.0	A
	REF: X 301	
030-2104-0	CAP,CER,AX,104,10%,50V,X7R	EA B
	38.000000 EP 0 0 0.0 AI	A
	REF: C 101,102,104,105,106,107,111,	
	REF: 112,115,116,119,120,121,122,123	
	REF: 126,127,128,130,132,133,134,135,	
	REF: 201,205,209,211,304,305,306,307,	
	REF: 401,503,504,505,506,507,118	
030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO	EA B
	2.000000 EP 0 0 0.0 AI	A
	REF: C 301,302	
030-4102-0	CAP,CER AXIAL,102,10%,100V,X7R	EA B
	2.000000 EP 0 0 0.0	A
	REF: C 308,509	
031-1227-0	CAP,ELEC,RAD,227,-10%+50%,25V	EA B
	2.000000 EP 0 0 0.0 0	A
	REF: C 202,206	
037-0106-0	CAP,TAN,RAD,106,10%,6.3V	EA B
	10.000000 EP 0 0 0.0	A
	REF: C 138,140,141,142,143,144,145,	
	REF: 210,212 + ECO# 972601	
050-1001-0	RES,CARBON FILM,100 OHM,1/8W,5%	EA B
	1.000000 EP 0 0 0.0 AI	A
	REF: R 306	
050-1002-0	RES,CARBON FILM,1K OHM,1/8W,5%	EA B
	4.000000 EP 0 0 0.0 AI	A
	REF: R 507,511,514,515	
050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5%	EA B
	13.000000 EP 0 0 0.0 AI	A
	REF: R 305,309,310,408,501,503,504,	
	REF: 505,506,508,509,510,512	
050-3904-0	RES,CARBON FILM,390K OHM,1/8W,5%	EA B
	3.000000 EP 0 0 0.0 AI	A
	REF: R 311,407,513	
060-1213-0	RES,METAL FILM,12.1 K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0	A
	REF: R 307	
060-2212-0	RES,METAL FILM,2.21K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0	A
	REF: R 308	
081-0102-0	EMI FILTER, RAD,1000PF	EA B
	4.000000 EP 0 0 0.0	A
	REF: FIL 201,202,203,502	
081-0103-0	EMI FILTER, RAD, 103	EA B
	7.000000 EP 0 0 0.0	A
	REF: FIL 501,503,504,505,506,507,508	
091-1004-0	POLY SWITCH,,2A	EA B
	2.000000 EP 0 0 0.0	A

	REF: F 501,502				
092-0013-0	CON,DSUB,9P,F,PC,HOR			EA B	
	1.000000 EP 0 0 0.0			A	
	REF: P 501				
092-0021-0	JACK,PHONE,3.5MM,MONO SB			EA B	
	3.000000 EP 0 0 0.0			A	
	REF: J 501,502,503				
093-0009-0	HDR,.1X5,VERT,MALE,LOCK			EA B	
	1.000000 EP 0 0 0.0			A	
	REF: P 201				
093-0039-0	HDR,.1X2X5,VERT,MALE,SHROUDED			EA B	
	1.000000 EP 0 0 0.0			A	
	REF: P 203				
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED			EA B	
	4.000000 EP 0 0 0.0			A	
	REF: P 204,205,206,207				
093-2001-0	HDR,2MMX11,POL,SHROUDED,			EA B	
	1.000000 EP 0 0 0.0			A	
	REF: P 211				
093-2004-0	HDR,2MMX9,VERT,SHROUDED			EA B	
	1.000000 EP 0 0 0.0			A	
	REF: P 200				
094-0003-0	SKT,DIP,.6X32,MPTST			EA B	
	1.000000 EP 0 0 0.0			A	
	REF: U 305				
094-0005-0	SKT,PLCC,TST,68PIN			EA B	
	1.000000 EP 0 0 0.0			A	
	REF: U 304				
100-0104-0	BRACKET,.25X.25,KEYSTONE,#621			EA B	
	1.000000 EP 0 0 0.0			A	
111-0041-0	BOLT,4-40,1/4,PHP,CAD			EA B	
	1.000000 EP 0 0 0.0			A	
153-0105-0	LABEL,BLANK,.9"X.25"			EA B	
	1.000000 EP 0 0 0.0			A	
HA145-0012-0	SIG 2.0 CPU RAW PCB			EA B	
	1.000000 EP 0 0 0.0 00			A	

45 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0013-1 SIG 2.0 DSP BOARD ASSY REV 01 EA M

Gallien Part Number	Description	
001-1078-0	MC33078D DUAL LOW NOISE OP AMP	EA B
	4.000000 EP 0 0 0.0 A	
	REF: U 11,12,13,14	
001-3173-0	TORX173,FIBER OPTICS RECEIVING MODULE	EA B
	2.000000 EP 0 0 0.0 A	
	REF: U 9,10	
001-3251-0	QS3251Q,MUX/DEMUX QUICK SWITCH 8	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 8	
002-0237-0	QS74FCT2373TQ,LATCH 8BIT WITH OUTPUT RES	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 2	
003-2226-0	SURROUND SOUND 20 BIT CODEC	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 15	
003-2560-0	DSPF56009FJ81 DSP PROCESSOR	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 6	
003-2B16-0	MICROCONTROLLER,N80C251SB16	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 3	
003-3003-A	PAL	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 5	
003-4004-A	EPROM,256 KILOBIT CMOS OTP	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 1	
014-0071-0	LM7805CT 5V REG 1A TO-220	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 7	
024-0001-0	CLOCK OSCILLATOR (HALF SIZE) 12.288 MHZ	EA B
	1.000000 EP 0 0 0.0 A	
	REF: U 4	
031-0106-1	CAP,ELEC,RAD,106,20%,25V,NP	EA B
	1.000000 EP 0 0 0.0 A	
	REF: ECO # 972062	
031-0108-0	CAP,ELEC,RAD,108,-10%+50%,16V	EA B
	1.000000 EP 0 0 0.0 A	
	REF: ECO # 972062	
040-2101-0	CAP,CER,101,5%,50V,NPO,1206,SMT	EA B
	2.000000 EP 0 0 0.0 A	
	REF: C 57,63	
040-2103-0	CAP,CER,103,X7R,50V,1206	EA B
	49.000000 EP 0 0 0.0 A	
	REF: C 2,3,4,6,7,8,9,10,11,12,13,14	
	REF: 15,16,17,18,19,21,22,24,26,27,28	
	REF: 30,31,32,33,34,35,38,39,44,45,53	
040-2103-0	CAP,CER,103,X7R,50V,1206	EA B
	49.000000 EP 0 0 0.0 A	
	REF: 54,59,60,67,68,81,82,83,84,85,86	

REF: 87,88,89,90
040-2222-0 CAP,CER,222,10%,50V,X7R,1206,SMT EA B
1.000000 EP 0 0 0.0 A
REF: C 71

040-2270-1 CAP,CER,27,20%,50V,X7R,1026,SMT EA B
1.000000 EP 0 0 0.0 A
REF: C 5

040-2271-0 CAP,CER,271,X7R,50V,1206 EA B
6.000000 EP 0 0 0.0 A
REF: C 42,43,50,51,58,65

040-2331-0 CAP,CER,331,X7R,50V,1206 EA B
5.000000 EP 0 0 0.0 A
REF: C 72,73,74,75,76

040-2681-0 CAP,CERAMIC,681,5%,50V,Z5U,1206,SMT EA B
6.000000 EP 0 0 0.0 A
REF: C 36,37,46,47,52,61

047-0105-0 CAP,TANT,105,20%,16V,A CASE,SMT EA B
4.000000 EP 0 0 0.0 A
REF: C 1,66,70,77

047-0106-1 CAP,TANT,106,20%,6.3V,C CASE,SMT EA B
14.000000 EP 0 0 0.0 A
REF: C 23,29,40,41,48,49,55,56,62,64,
REF: 69,78,79,80

047-1105-0 CAP,TANT,105,20%,25V,A CASE,3216 EA B
2.000000 EP 0 0 0.0 A
REF: C 20,25

051-0200-0 RES,CARBON FILM,2 OHM,1/4W,5% EA B
1.000000 EP 0 0 0.0 A
REF: ECO # 972062

062-0000-0 RES,CF,0 OHM,1/8W,5%,1206,SMT EA B
1.000000 EP 0 0 0.0 A
REF: R 44

063-1372-0 RES,METAL FILM,13.7K OHM,1/8W,1%,1206 EA B
7.000000 EP 0 0 0.0 A
REF: R 16,18,22,24,29,34,43

063-1501-0 RES,METAL FILM,150 OHM,1/8W,1%,1206 EA B
13.000000 EP 0 0 0.0 A
REF: R 1,2,4,5,6,7,8,9,10,38,39,40,41

063-2003-0 RES,METAL FILM,20K OHM,1/8W,1%,1206 EA B
2.000000 EP 0 0 0.0 A
REF: R 27,32

063-5622-0 RES,METAL FILM,5.62K OHM,1/8W,1%,1206 EA B
6.000000 EP 0 0 0.0 A
REF: R 15,17,21,23,28,33

063-5623-0 RES,METAL FILM,56.2K OHM,1/8W,1%,1206 EA B
6.000000 EP 0 0 0.0 A
REF: R 19,20,25,26,30,36

063-7500-0 RES,METAL FILM,75 OHM,1/8W,1%,1206 EA B
5.000000 EP 0 0 0.0 A
REF: R 3,11,12,13,14

063-7503-0 RES,METAL FILM,75K OHM,1/8W,1%,1206 EA B
1.000000 EP 0 0 0.0 A
REF: R 42

081-0011-0	INDUCTOR,AX,HIQ,820UH	EA B
	1.000000 EP 0 0 0.0	A
	REF: ECO # 970262	
085-0106-0	FERRITE,SMT,3216	EA B
	1.000000 EP 0 0 0.0	A
	REF: L 4	
085-0106-1	FERRITE,SMT,4532	EA B
	5.000000 EP 0 0 0.0	A
	REF: L 5,6,7,8,9	
085-0336-0	INDUCTOR,SMT,33 UH,1206	EA B
	1.000000 EP 0 0 0.0	A
092-0020-0	JACK,RCA X4,H,PC,GOLD	EA B
	1.000000 EP 0 0 0.0	A
093-0010-0	HDR,.1X5,HORIZ,POL,LOCK RAMP	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 3	
093-0019-0	HDR,.1X2X8,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 4	
093-0039-0	HDR,.1X2X5,VERT,MALE,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 1	
093-0041-0	HDR,.1X2X10,VERT,MALE	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 5	
094-0073-0	SKT,PLCC,SMTX32,RECT	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 1	
095-0500-0	WIRE,14GA,BLACK,600V	FT B
	0.167000 EP 0 0 0.0 0	A
100-0104-0	BRACKET,.25X.25,KEYSTONE,#621	EA B
	1.000000 EP 0 0 0.0	A
111-0041-0	BOLT,4-40,1/4,PHP,CAD	EA B
	1.000000 EP 0 0 0.0 0	A
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0	A
HA145-0013-0	SIG 2.0 DSP RAW PCB,REV 01	EA B
	1.000000 EP 0 0 0.0 01	A

47 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0016-0 SIG 2.0 BUTTON LOGO PANEL BOARD ASSY EA M

Gallien Part Number	Description
010-0002-0	2N3904 TRANS,NPN EA B 1.000000 EP 0 0 0.0 A REF: Q 201
010-1000-0	2N3906 PNP 40V 100MA TO-92 EA B 2.000000 EP 0 0 0.0 0 A REF: Q 202,501
025-0003-0	IR RECEIVER,38KHZ,W/CLIP,TFMT 5380 EA B 1.000000 EP 0 0 0.0 A REF: U 501
025-0024-0	LED,AMBER,T1,580NM EA B 1.000000 EP 0 0 0.0 A REF: D 201
025-0030-0	LED,BLUE,T1,.190,470NM,SMALL EA B 9.000000 EP 0 0 0.0 A REF: D 202,203,204,205,206,207,208, REF: 209,210
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 3.000000 EP 0 0 0.0 AI A REF: C 502,504,506
031-1476-0	CAP,ELEC,RAD,476,20%,25V EA B 2.000000 EP 0 0 0.0 A REF: C 501,503
038-0336-0	CAP,ELEC,AXIAL TR,336,20%,25V EA B 1.000000 EP 0 0 0.0 AI A REF: C 505
050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5% EA B 8.000000 EP 0 0 0.0 AI A REF: R 501,203,204,205,207,208,209, REF: 210
050-1501-0	RES,CARBON FILM,150 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 AI A REF: R 206
050-3001-0	RES,CARBON FILM,300 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 A REF: R 502
050-6801-0	RES,CARBON FILM,680 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 AI A REF: R 202
058-1003-0	RES,SIP 10K OHMS X 9 EA B 1.000000 EP 0 0 0.0 0 A REF: R 201
081-0004-0	INDUCTOR,100UH EA B 2.000000 EP 0 0 0.0 A REF: L 501,502
090-0007-0	SWITCH,8A/128A,250V,PP,PCB EA B 1.000000 EP 0 0 0.0 A REF: SW 101
090-0040-0	SWITCH PC SPST MOM TL2101 EA B 8.000000 EP 0 0 0.0 A REF: SW 201,202,203,204,205,206,207

090-1001-0	REF: SW 201 (STANDBY BOARD) ENCODER,ROTARY,VPCMNT, 24 POS	EA B
	1.000000 EP 0 0 0.0 A	
092-0066-0	REF: SW 301 FASTON,M,PC,.250"	EA B
	2.000000 EP 0 0 0.0 A	
093-0010-0	REF: P 101,102 HDR,.1X5,HORIZ,POL,LOCK RAMP	EA B
	1.000000 EP 0 0 0.0 A	
093-0044-0	REF: P 202 HDR,2MMX3,HORIZ,MALE,LOCK	EA B
	4.000000 EP 0 0 0.0 A	
093-2000-0	REF: P 201,203,204,301 HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
093-2001-0	REF: P 501 HDR,2MMX11,POL,SHROUDED,	EA B
	1.000000 EP 0 0 0.0 A	
094-0002-0	REF: P 201 (BUTTON LOGO BOARD) SKT,STRIP,TST,2X7,HORIZ	EA B
	1.000000 EP 0 0 0.0 A	
100-0121-0	REF: P 502 SPACER,LED,NYLON,0.250"X0.187"	EA B
	10.000000 EP 0 0 0.0 A	
	REF: D 201,202,203,204,205,206,207, REF: 208,209,210	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0 A	
HA145-0016-A	SIG 2.0 BUTTON LOGO PANEL RAW PCB	EA B
	1.000000 EP 0 0 0.0 00 A	
	REF: the panel consists of 5 boards: REF: HA145-0005-0 Pwr switch board REF: HA145-0007-0 VFD/IR board REF: HA145-0008-0 Standby board REF: HA145-0009-0 Button logo board REF: HA145-0010-0 Rotary ecoder board	

26 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA302-1020-A

SIG 2.0 230V

Gallien Part Number	Description
014-0031-0	LM7815 +15V REG 1A TO-220 1.000000 EP 0 0 0.0 0 REF: U 204
014-0071-0	LM7805CT 5V REG 1A TO-220 3.000000 EP 0 0 0.0 0 REF: U 201,202,203
014-1001-0	VOLTAGE REGULATOR,TO-220 IN,-5V,7905 1.000000 EP 0 0 0.0 0 REF: U 208
014-1032-0	LM7915 -15V REG 1A TO-220 1.000000 EP 0 0 0.0 0 REF: U 206
025-1000-0	DISPLAY,VF 1.000000 EP 0 0 0.0 0
080-0032-2	TRANSFORMER SIG 2.0,10V@2.2A,230V 1.000000 EP 0 0 0.0 02
080-0033-2	TRANSFORMER SIG 2.0,36V@1.1A,230V 1.000000 EP 0 0 0.0 02
091-0032-0	FUSE,5MM,400MA,250V,SLB,SEMKO/VDE 1.000000 EP 0 0 0.0 0
091-0039-0	FUSE,5MM,315MA,250V,SLB,UL/CSA/SEMKO 1.000000 EP 0 0 0.0 0 REF: F 102
093-0003-1	HDR,.1X2X7,HORIZ,MALE 1.000000 EP 0 0 0.0 0 REF: VFD HEADER
093-0066-0	SHUNT .1",TIN,2 POS, 1.000000 EP 0 0 0.0 0
094-0019-0	LUG,#6,SOLDER 1.000000 EP 0 0 0.0 0
095-0007-0	CORD,2X.75MM,2.5A/250V,FLAT,8FT,EXP 1.000000 EP 0 0 0.0 0
095-0500-0	WIRE,14GA,BLACK,600V 0.700000 EP 0 0 0.0 0
096-0000-0	AAA ALKALINE BATTERY 2.000000 EP 0 0 0.0 0
100-0007-0	SIG 2.0, WINDOW 1.000000 EP 0 0 0.0 0
100-0011-0	STRAIN RELIEF,SPT-2,UL,CSA 1.000000 EP 0 0 0.0 0
100-0033-0	CABLE TIE - PLT 1M-M,SMALL 12.000000 EP 0 0 0.0 0
100-0121-0	SPACER,LED,NYLON,0.250"X0.187" 6.000000 EP 0 0 0.0 0
100-0126-0	HOLDER,CABLE TIE .75" SQUARE,ADHESIVE BK 2.000000 EP 0 0 0.0 0
101-0002-0	FOOT BLACK ANODIZED/RUBBER GASKET 4.000000 EP 0 0 0.0 0
102-0000-0	BUTTON, LARGE,CIT 7.0 1.000000 EP 0 0 0.0 0

102-0001-0	BUTTON, SMALL, CIT 7.0 7.000000 EP 0 0 0.0
102-0002-0	KNOB,2',ALUM CAP,BLACK,UNMARKED 1.000000 EP 0 0 0.0
102-0003-0	BUTTON CAP, LOUDNESS, H/K 1.000000 EP 0 0 0.0
105-0001-0	INSULATOR TAPE,1"X7MIL ADHESIVE BACK 0.500000 EP 0 0 0.0 0
111-0051-0	BOLT,4-40,5/16,PHP,CAD 2.000000 EP 0 0 0.0 0
111-0061-0	BOLT,4-40,3/8,PHP,CAD 1.000000 EP 0 0 0.0 0
111-1040-1	BOLT,4-40,1/4UFHP,BZ,UNDERCUT FLAT 3.000000 EP 0 0 0.0
111-2041-0	BOLT,4-40,1/4,PHP,INT STAR WSHR,ZINC 4.000000 EP 0 0 0.0 0
111-2080-0	BOLT,4-40,1/4,ZINC 2.000000 EP 0 0 0.0 0
111-3080-0	SCREW,4AB,1/2,PHP,B.Z. 13.000000 EP 0 0 0.0 0
111-6001-0	NUT,4-40,KEP SMALL 1.000000 EP 0 0 0.0 0
111-7011-0	WASHER,#4,SPLIT 2.000000 EP 0 0 0.0 0
111-8061-0	TR-BOLT,4-40,3/8,PHP,CAD 6.000000 EP 0 0 0.0 0
111-8101-0	TR-BOLT,4-40,5/8,PHP,CAD 6.000000 EP 0 0 0.0 0
112-0040-0	BOLT,6-32,1/4,PHP,ZINC 32.000000 EP 0 0 0.0
112-0081-0	BOLT,6-32,1/2,PHP,CAD 4.000000 EP 0 0 0.0 0
112-6001-0	NUT,6-32,KEP LARGE,CAD 6.000000 EP 0 0 0.0 0
112-6015-0	STANDOFF,6-32X22/16,NYLON 3.000000 EP 0 0 0.0
112-8040-0	TR-BOLT,6-32,1/4,PHP,B.Z. 24.000000 EP 0 0 0.0 PP
112-8041-0	TR-BOLT,6-32,1/4",PHP,ZINC 1.000000 EP 0 0 0.0
119-6000-0	NUT,M9X.75MM,PANEL ZNC 1.000000 EP 0 0 0.0
119-7000-0	WASHER,M9,ZNC,FLAT 1.000000 EP 0 0 0.0
150-0023-0	BAG,POLY 10 X 16 1 1/2 MILL 2.000000 EP 0 0 0.0 0
150-0099-0	BAG,POLY 24"X24"X2MIL ANTISTATIC 1.000000 EP 0 0 0.0 0
153-0000-0	TIE WRAP,BLACK 1.000000 EP 0 0 0.0
153-0100-2	SAFTEY LABEL(RISK OF FIRE),ENGL/FREN 1.000000 EP 0 0 0.0
153-0101-0	LABEL,SERIAL #,SIGNATURE 2.0

153-0103-0	1.000000 EP 0 0 0.0 LABEL,CE,PRODUCT
153-0104-0	1.000000 EP 0 0 0.0 LABEL,CE,OUTER PACKING
160-0005-0	1.000000 EP 0 0 0.0 GROUNDING SAFETY SHEET
HA080-0001-0	1.000000 EP 0 0 0.0 0 XFORMER,FM MATCHING,230V SIG 2.0
HA130-0000-0	1.000000 EP 0 0 0.0 OVERLAY,SIG 2.0 REMOTE CONTROL OVERLAY
HA132-0017-0	1.000000 EP 0 0 0.0 SIG 2.0,HEAT SINK
HA132-0018-3	1.000000 EP 0 0 0.0 00 SIG 2.0 CHASSIS
HA132-0019-0	1.000000 EP 0 0 0.0 03 SIG 2.0,TOP COVER
HA132-0020-A	1.000000 EP 0 0 0.0 00 SIG 2.0 FRONT PANEL
HA132-0021-A	1.000000 EP 0 0 0.0 04 LOGO,SIGNATURE SERIES,ACRYLIC
HA132-0022-6	1.000000 EP 0 0 0.0 SIG 2.0,SUBCHASSIS
HA132-0023-0	1.000000 EP 0 0 0.0 06 SIG 2.0,VOLUME MOUNTING BRACKET
HA132-0024-1	1.000000 EP 0 0 0.0 00 SIG 2.0 SHIELD TRANSFORMER
HA132-0025-0	1.000000 EP 0 0 0.0 01 SIG 2.0,HOUSING TRANSFORMER
HA150-0002-A	1.000000 EP 0 0 0.0 00 SIG 2.0 CARTON
HA151-0003-A	1.000000 EP 0 0 0.0 SIG 2.0 FOAM PACK
HA151-0005-0	1.000000 EP 0 0 0.0 SIG 2.0,PAD,LARGE
HA151-0006-0	2.000000 EP 0 0 0.0 SIG 2.0,PAD,SMALL
HA153-0100-0	2.000000 EP 0 0 0.0 LABEL,TRANSFORMER,SIG 2.0
HA153-0101-0	2.000000 EP 0 0 0.0 LABEL,REAR CHASSIS 230V,SIG 2.0
HA153-0103-0	1.000000 EP 0 0 0.0 LABEL,UPC,230V,SIG 2.0
HA153-0105-0	2.000000 EP 0 0 0.0 LABEL,FUSE RATING,SIG 2.0,230V
HA160-0007-A	1.000000 EP 0 0 0.0 A SIG 2.0/230V OWNER'S MANUAL
HA202-0000-0	1.000000 EP 0 0 0.0 A WIRE ASSY,26GA,YEL,17",11PIN
HA202-0001-0	1.000000 EP 0 0 0.0 00 WIRE ASSY,26GA,BLU,3",3PIN
HA202-0002-0	2.000000 EP 0 0 0.0 00 WIRE ASSY,26GA,ORG,17",9PIN
	1.000000 EP 0 0 0.0 00

HA202-0100-0	WIRE ASSY,22GA,GRN,5",5PIN 1.000000 EP 0 0 0.0 00
HA202-0101-0	WIRE ASSY,22GA,BLK,12",5PIN 1.000000 EP 0 0 0.0 00
HA202-0102-0	WIRE ASSY,22GA,BRN,12",5PIN 1.000000 EP 0 0 0.0 00
HA202-0103-0	WIRE ASSY,22GA,RED,15",5PIN 1.000000 EP 0 0 0.0 00
HA202-0104-0	WIRE ASSY,22GA,PUR,18",5PIN 1.000000 EP 0 0 0.0 00
HA202-0105-0	WIRE ASSY,22GA,GRY,7",8PIN 1.000000 EP 0 0 0.0 00
HA202-0106-0	WIRE ASSY,18GA,BLK,6" 1.000000 EP 0 0 0.0 01
HA202-0107-0	WIRE ASSY,22GA,BLK,10,SPEAKER 1.000000 EP 0 0 0.0
HA202-0300-0	WIRE ASSY,14GA,GRN,6" 1.000000 EP 0 0 0.0 01
HA202-0301-0	WIRE ASSY,16GA,RED,8" 2.000000 EP 0 0 0.0 00
HA202-0500-0	RIBBON ASSY,28GA,F-F,8",10PIN 1.000000 EP 0 0 0.0 00
HA202-0501-0	RIBBON ASSY,28GA,F-F,9",16PIN 1.000000 EP 0 0 0.0 00
HA202-0502-0	RIBBON ASSY,28GA,F-F,11",20PIN 2.000000 EP 0 0 0.0 00
HA202-0503-0	RIBBON ASSY,28GA,F-F,5",20PIN 1.000000 EP 0 0 0.0 00
HA202-0504-0	RIBBON ASSY,28GA,F-F,15",20PIN 1.000000 EP 0 0 0.0 00
HA205-2000-0	SIG 2.0 AM ANTENNA LOOP 1.000000 EP 0 0 0.0
HA205-2001-0	SIG 2.0 FM DIPOLE ANTENNA 1.000000 EP 0 0 0.0
HA206-0006-1	SIG 2.0 POWER SUPPLY BOARD ASSY REV 01 1.000000 EP 0 0 0.0 01
HA206-0011-2	SIG 2.0 VIDEO BOARD ASSY REV02 1.000000 EP 0 0 0.0 02
HA206-0012-0	SIG 2.0 CPU BOARD ASSY 1.000000 EP 0 0 0.0 00
HA206-0013-1	SIG 2.0 DSP BOARD ASSY REV 01 1.000000 EP 0 0 0.0 01
HA206-0014-A	SIG 2.0 TUNER BOARD ASY EUR 1.000000 EP 0 0 0.0 A
HA206-0015-3	SIG 2.0 AUDIO BOARD ASY,REV03 1.000000 EP 0 0 0.0 03
HA206-0016-0	SIG 2.0 BUTTON LOGO PANEL BOARD ASSY 1.000000 EP 0 0 0.0 00 REF: the board consists of 5 parts REF: HA206-0005-0 Pwr Switch Assy REF: HA206-0007-0 VFD/IR Assy REF: HA206-0008-0 Standby Assy REF: HA206-0009-0 Button logo Assy

HA304-0000-0

REF: HA206-0010-0 Rotary Encoder
SIG 2.0 REMOTE CONTROL IR
1.000000 EP 0 0 0.0

100 COMPONENTS PRINTED

ASM: HA206-0006-1

SIG 2.0 POWER SUPPLY BOARD ASSY REV 01 EA M

Gallien Part Number	Description	
010-0002-0	2N3904 TRANS,NPN	EA B
	1.000000 EP 0 0 0.0	A
	REF: Q 202	
010-0012-0	MPSA06 NPN 80V 500MA TO-92	EA B
	1.000000 EP 0 0 0.0	A
	REF: Q 101	
011-1117-0	TIP117 PNP 100V 2A TO-220	EA B
	1.000000 EP 0 0 0.0	A
	REF: Q 203	
014-0003-0	78L06,VOLTAGE REGULATOR,+6V,TO-92	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 205	
014-1002-0	79L06,VOLTAGE REGULATOR,TO-92,-6V	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 207	
020-1121-0	DIODE RECT 3A 1N5402	EA B
	8.000000 EP 0 0 0.0	A
	REF: D 203,204,205,206,209,210,211,	
	REF: 212	
020-2107-0	DIODE RECT 1A 1N4003	EA B
	9.000000 EP 0 0 0.0	A
	REF: D 101,202,207,208,213,214,215,	
	REF: 216,217	
022-0070-0	MOV,RAD DISC,14MM,250V	EA B
	1.000000 EP 0 0 0.0	A
	REF: MOV 101	
030-2104-0	CAP,CER,AX,104,10%,50V,X7R	EA B
	18.000000 EP 0 0 0.0 AI	A
	REF: C 101,102,201,202,206,207,209	
	REF: 210,213,214,216,217,220,221,223	
	REF: 224,226,227	
031-1476-0	CAP,ELEC,RAD,476,20%,25V	EA B
	7.000000 EP 0 0 0.0	A
	REF: C 203,208,211,215,222,228,229	
031-2106-0	CAP,ELEC,RAD,106,-10%+50%,50V	EA B
	4.000000 EP 0 0 0.0	A
	REF: C 218,225,230,231	
031-2338-0	CAP,ELEC,RAD,338,20%,35V	EA B
	4.000000 EP 0 0 0.0	A
	REF: C 204,205,212,219	
032-7104-0	CAP,PE,104,20%,250V	EA B
	2.000000 EP 0 0 0.0	A
	REF: C 232,233	
050-0000-0	RES,METAL WIRE,0 OHM,1/8W	EA B
	2.000000 EP 0 0 0.0 AI	A
	REF: R 104,105	
050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5%	EA B
	3.000000 EP 0 0 0.0 AI	A
	REF: R 102,203,205	
050-2002-0	RES,CARBON FILM,2K OHM,1/8W,5%	EA B

	2.000000 EP	0	0	0.0	A	
	REF: R 103,204					
053-8205-0	RES,CARBON FILM,8.2 M OHM,1/2W,5%					EA B
	1.000000 EP	0	0	0.0	A	
	REF: R 101					
057-3300-0	RES,WIRE WOUND,33 OHM,10W,5%					EA B
	2.000000 EP	0	0	0.0	A	
	REF: R 206,207					
081-0005-0	FERRITE BEAD,AX, TYPE39					EA B
	2.000000 EP	0	0	0.0	A	
	REF: FB 101,102					
084-0003-0	RELAY, PC NPSS TYPE 1,5V					EA B
	1.000000 EP	0	0	0.0	A	
	REF: K 101					
092-0024-0	FASTON,M,PC,.187"					EA B
	1.000000 EP	0	0	0.0	A	
	REF: J 101					
092-0066-0	FASTON,M,PC,.250"					EA B
	8.000000 EP	0	0	0.0	A	
	REF: J 102,103,104,105,106,107,201,					
	REF: 202					
093-0009-0	HDR,.1X5,VERT,MALE,LOCK					EA B
	7.000000 EP	0	0	0.0	A	
	REF: P 101,102,103,104,105,201,202					
094-0004-1	FUZE CLIP, 5MM PC MNT,111-501					EA B
	4.000000 EP	0	0	0.0	A	
153-0105-0	LABEL,BLANK,.9"X.25"					EA B
	1.000000 EP	0	0	0.0	A	
HA145-0006-0	SIG 2.0 POWER SUPPLY BOARD,REV 01					EA B
	1.000000 EP	0	0	0.0 01	A	

26 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0011-2 SIG 2.0 VIDEO BOARD ASSY REV02 EA M

Gallien Part Number	Description	EA	M
001-1030-1	TL072CP, LOW NOISE JFET OPAMP 2.000000 EP 0 0 0.0 A REF: U 502,602	EA	B
002-0053-0	HC4053, ANALOG SWITCH TRPL, 2 TO 1 4.000000 EP 0 0 0.0 A REF: U 401,402,503,701	EA	B
002-0054-0	HC4052, ANALOG SWITCH DUAL 4 TO 1 2.000000 EP 0 0 0.0 A REF: U 802,901	EA	B
002-0055-0	HC4051, ANALOG SWITCH SNGL 8 TO 1 2.000000 EP 0 0 0.0 A REF: U 301,302	EA	B
003-0581-0	EL4581CS,VIDEO SYNC SEPARATOR 1.000000 EP 0 0 0.0 A REF: U 601	EA	B
003-1075-0	MB90075,OSD,S-VIDEO 1.000000 EP 0 0 0.0 A REF: U 702	EA	B
010-0002-0	2N3904 TRANS,NPN 5.000000 EP 0 0 0.0 A REF: Q 601,603,701,702,703	EA	B
010-1000-0	2N3906 PNP 40V 100MA TO-92 1.000000 EP 0 0 0.0 A REF: Q 602	EA	B
010-1004-0	OPAMP,DUAL VIDEO,MC14576 5.000000 EP 0 0 0.0 A REF: U 303,403,501,805,903	EA	B
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 1.000000 EP 0 0 0.0 AI A REF: D 701	EA	B
024-0002-0	CRYSTAL, 14.31818 MHZ, HC49S 1.000000 EP 0 0 0.0 A REF: X 702	EA	B
024-0003-0	CRYSTAL, 17.734475 MHZ, HC49S 1.000000 EP 0 0 0.0 A REF: X 701	EA	B
030-2103-0	CAP,CER,AX,103,10%,50V,X7R 2.000000 EP 0 0 0.0 AI A REF: C 502,503	EA	B
030-2104-1	CAP,CER AX,104,50V,20%,Z5U 3 7.000000 EP 0 0 0.0 A REF: C 150,151,153,154,304,306,313, REF: 315,401,402,405,506,508,511,512 REF: 602,603,604,605,606,701,702,704 REF: 705,706,713,811,813,815,816,818 REF: 901,906,908,910,501,509	EA	B
030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO 3.000000 EP 0 0 0.0 AI A REF: C 708,709,710	EA	B
030-4101-0	CAP,CER AXIAL,101,5%,100 V,COG	EA	B

20VIDEO

	1.000000 EP	0	0	0.0	A	
	REF: C 712					
030-4471-0	CAP,CER AXIAL,471,5%,100V,X7R					EA B
	1.000000 EP	0	0	0.0	A	
	REF: C 601					
031-0106-1	CAP,ELEC,RAD,106,20%,25V,NP					EA B
	4.000000 EP	0	0	0.0	A	
	REF: C 302,407,812,902					
031-1227-0	CAP,ELEC,RAD,227,-10%+50%,25V					EA B
	2.000000 EP	0	0	0.0 0	A	
	REF: C 314,316					
031-2106-0	CAP,ELEC,RAD,106,-10%+50%,50V					EA B
	1 5.000000 EP	0	0	0.0 0	A	
	REF: C 301,303,307,308,309,312,403					
	REF: 404,505,507,703,814,817,907,909					
036-2105-0	CAP,PE,RAD,105,5%,50V					EA B
	3.000000 EP	0	0	0.0	A	
	REF: C 504,510,610					
050-0000-0	RES,METAL WIRE,0 OHM,1/8W					EA B
	4.000000 EP	0	0	0.0 AI	A	
	REF: R 312,319,320,902					
050-0101-0	RES,CARBON FILM,10 OHM,1/8W,5%					EA B
	1 2.000000 EP	0	0	0.0 AI	A	
	REF: R 308,311,404,406,502,504,506,					
	REF: 507,819,822,916,917					
050-1001-0	RES,CARBON FILM,100 OHM,1/8W,5%					EA B
	1 5.000000 EP	0	0	0.0 AI	A	
	REF: R 101,102,103,104,307,313,314,					
	REF: 318,510,511,704,817,820,907,910					
050-2002-0	RES,CARBON FILM,2K OHM,1/8W,5%					EA B
	1.000000 EP	0	0	0.0	A	
	REF: R 608					
050-2702-0	RES,CARBON FILM,2.7K OHM,1/8W,5%					EA B
	1.000000 EP	0	0	0.0 AI	A	
	REF: R 612					
050-3305-0	RES,CARBON FILM,3.3M OHM,1/8W,5%					EA B
	5.000000 EP	0	0	0.0	A	
	REF: R 512,513,836,837,918					
050-4701-0	RES,CARBON FILM,470 OHM,1/8W,5%					EA B
	4.000000 EP	0	0	0.0 AI	A	
	REF: R 606,705,706,707					
050-6801-0	RES,CARBON FILM,680 OHM,1/8W,5%					EA B
	1.000000 EP	0	0	0.0 AI	A	
	REF: R 601					
050-7500-0	RES,CARBON FILM,75 OHM,1/8W,5%					EA B
	1 6.000000 EP	0	0	0.0	A	
	REF: R 301,302,303,304,305,306,309,					
	REF: 401,402,407,409,412,413,823,825					
	REF: 913					
060-1002-0	RES,METAL FILM,1.00K,1/8W,1%					EA B
	6.000000 EP	0	0	0.0 AI	A	
	REF: R 610,903,904,905,906					
	REF: + Harman ECO # 973232					

060-1003-0	RES,METAL FILM,10.0K OHM,1/8W,1%	EA B
	1 2.000000 EP 0 0 0.0 AI A	
	REF: R 310,403,405,501,503,508,609,	
	REF: 613,702,821,818,908	
060-1004-0	RES,METAL FILM,100K,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 AI A	
	REF: R 605	
060-1302-0	RES,METAL FILM,1.3 KOHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 604	
060-3322-0	RES,METAL FILM, 3.32 K OHM,1/8W,1%	EA B
	2.000000 EP 0 0 0.0 A	
	REF: R 603,607	
060-4992-0	RES,METAL FILM,4.99K OHM,1/8W,1%	EA B
	2.000000 EP 0 0 0.0 AI A	
	REF: R 505,509	
060-6804-0	RES,METAL FILM,680K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 602	
060-6812-0	RES,METAL FILM,6.81K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 AI A	
	REF: R 611	
071-0010-0	CAP,VAR,10PF	EA B
	1.000000 EP 0 0 0.0 A	
	REF: C 711	
071-0030-0	CAP,VAR,30PF	EA B
	1.000000 EP 0 0 0.0 A	
	REF: C 715	
081-0005-0	FERRITE BEAD,AX, TYPE39	EA B
	6.000000 EP 0 0 0.0 A	
	REF: FB 301,401,402,803,804,901	
081-0010-0	INDUCTOR,AX,HIQ,33UH	EA B
	1.000000 EP 0 0 0.0 A	
	REF: L 701	
081-0103-0	EMI FILTER, RAD, 103	EA B
	3.000000 EP 0 0 0.0 A	
	REF: FIL 701,702,703	
092-0006-0	CON,2XDINX5PIN,F,PC,H,SHIELD	EA B
	2.000000 EP 0 0 0.0 A	
	REF: P 401,402	
092-0007-2	JACK RCAX4 HORIZ GOLD YELLOW	EA B
	2.000000 EP 0 0 0.0 A	
	REF: J 301,302	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 202	
093-0022-0	HDR,.1X2,VERT,GOLD,N-LOCK	EA B
	2.000000 EP 0 0 0.0 A	
	REF: P 203,701	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 201	
100-0104-0	BRACKET,.25X.25,KEYSTONE,#621	EA B

	2.000000	EP	0	0	0.0	A
111-0041-0		BOLT,4-40,1/4,PHP,CAD				EA B
	2.000000	EP	0	0	-0.0 0	A
HA145-0011-2		SIG 2.0 VIDEO BOARD				EA B
	1.000000	EP	0	0	0.0 02	A

51 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED