
Service Manual Supplement

ADDA-2 PCB

for

Model D-25/D-30

Digital Master Recorder

FOSTEX[®]



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH
WIDE BLADE OF PLUG TO WIDE SLOT,
FULLY INSERT.

ATTENTION:

POUR ÉVITER LES CHOCS ÉLECTRIQUES,
INTRODUIRE LA LAME LA PLUS LARGE DE
LA FICHE DANS LA BORNE CORRE-
SPONDANTE DE LA PRISE ET POUSSER
JUSQU' AU FOND.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

“WARNING”

“TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOIS-
TURE.”

SAFETY INSTRUCTIONS

1. Read instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions - The safety and operating instructions should be retained for future reference.
3. Heed warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. Damage requiring Service - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.



An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

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NOTES

* Adjustment procedures, parts list, pattern drawing and circuit diagrams are given in this manual to assist the service technician in maintaining the D-25 / D-30 with ADDA-2 PCB assy.

* For your information, the followings are the serial number of D-25 / D-30 with ADDA-2 PCB assy.

D-25	USA/CND	: 0200407 and onwards
	EUR	: 0600407 and onwards
	UK	: 0700191 and onwards
D-30	USA/CND	: 0920866 and onwards
	EUR	: 0920881 and onwards
	UK	: 0920901 and onwards

1. ADJUSTING PROCEDURES

1-1. DA Level Adjustment

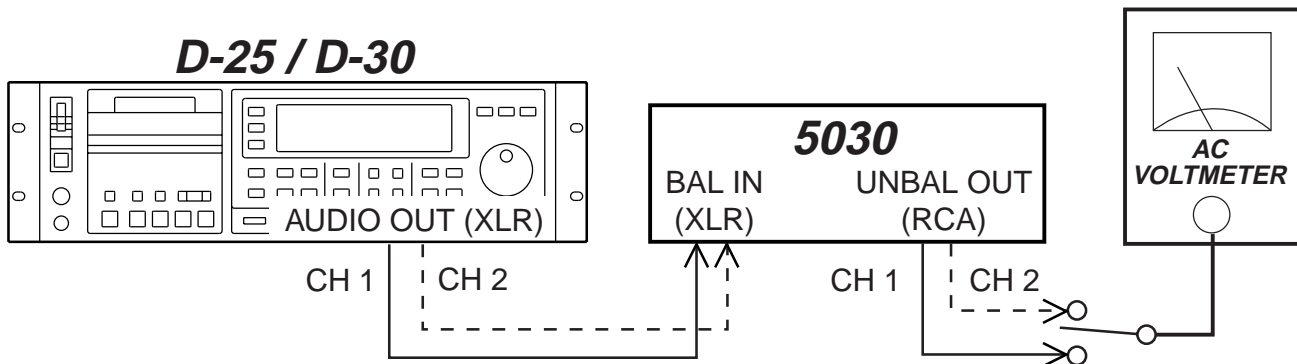


Fig. 1

Adjusting points : **R192** (for CH 1) on ADDA-2 PCB
 R292 (for CH 2) on ADDA-2 PCB

1. Set up the D-25/D-30 as follows.

Sampling Frequency	: 44.1kHz
REF Marker position	: -12dB

2. Connect the Model 5030 input (XLR) to the D-25/D-30 audio output CH 1 and CH 2 and an AC volt meter to the Model 5030 (RCA) as shown in Fig. 1.
3. Playback the 1kHz, 0dB section (PROG NO. 1) of SONY test tape TY-7551.
4. Adjust **R192** (CH 1) and **R292** (CH 2) on the ADDA-2 PCB so that the AC volt meter reading is +2dBV. By this adjustment, a 1kHz, +16dBm sine wave should appear at the D-25/D-30 audio output.

1-2. AD Level Adjustment

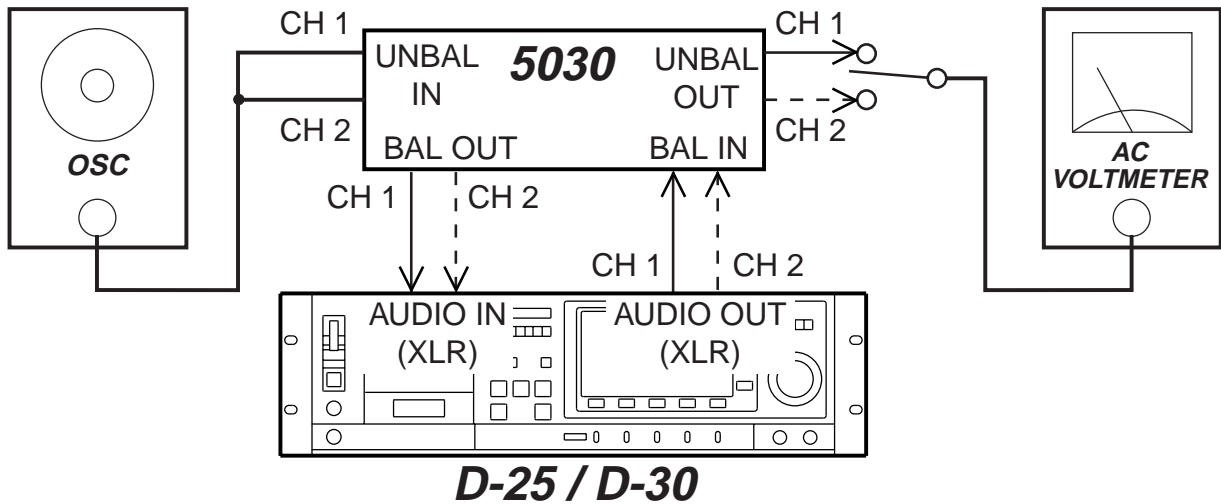


Fig. 2

Adjusting points : **R191** (for CH 1) on ADDA-2 PCB
R291 (for CH 2) on ADDA-2 PCB

1. Set up the D-25/D-30 as follows.

REF Marker position	: -12dB
Sampling Frequency	: 44.1kHz
A1, A2 INPUT MONITOR Key	: ON position

2. Connect the sine wave oscillator, Model 5030, and AC volt meter with D-25/D-30 as shown in Fig. 2.
3. Output a 1kHz, +4dBm sine wave signal from the sine wave oscillator. Under this setting, a 1kHz, +4dBm sine wave signal will be applied to the D-25/D-30 audio input terminal.
4. Adjust **R191** (CH 1) and **R291** (CH 2) on the ADDA-2 PCB so that the AC volt meter reading is -10dBV.

3. PARTS LIST

8274121000 PCB Assy, ADDA-2, D-25/D-30

ICs			RESISTORS		
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
U001	8236540301	ST, AN, REGULATOR, NJM78M05D	R101, 201	8230500123	ST, CARBON, 1/10W, 12K, 5%
U002	8236561004	ST, DG, 74HC04	R102, 202	8230500473	ST, CARBON, 1/10W, 47K, 5%
U003-006	8236570101	ST, DG, DRIVER, DTC114EK	R103, 203	8230500103	ST, CARBON, 1/10W, 10K, 5%
U007-013	8236570401	ST, DG, DRIVER, DTA114EK	R104, 204	8230500103	ST, CARBON, 1/10W, 10K, 5%
U021	8236502700	ST, DA, ADC, AK5340	R105, 205	8230500183	ST, CARBON, 1/10W, 18K, 5%
U022	8236560074	ST, DG, 74HC74	R106, 206	8230500332	ST, CARBON, 1/10W, 3.3K, 5%
U023	8236560000	ST, DG, 74HC00	R107, 207	8230500392	ST, CARBON, 1/10W, 3.9K, 5%
U051	8236505300	ST, DA, DAC, AK4320	R108, 208	8230500562	ST, CARBON, 1/10W, 5.6K, 5%
U052	8236720700	ST, AN, NJM4560M	R109, 209	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
U081	8236720700	ST, AN, NJM4560M	R110, 210	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
U101, 201	8236720700	ST, AN, NJM4560M	R111, 211	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
U102, 202	8236505011	ST, AN, OP AMP, NJM2115M(TED)	R112, 212	8230500103	ST, CARBON, 1/10W, 10K, 5%
U141, 241	8236720700	ST, AN, NJM4560M	R113, 213	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R114, 214	8230500272	ST, CARBON, 1/10W, 2.7K, 5%
			R115, 215	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
			R116, 216	8230500122	ST, CARBON, 1/10W, 1.2K, 5%
			R117, 217	8230500473	ST, CARBON, 1/10W, 47K, 5%
			R118, 218	8230500105	ST, CARBON, 1/10W, 1M, 5%
			R119, 219	8230500562	ST, CARBON, 1/10W, 5.6K, 5%
			R120, 220	8230500562	ST, CARBON, 1/10W, 5.6K, 5%
			R121, 221	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R122, 222	8230500472	ST, CARBON, 1/10W, 4.7K, 5%
			R123, 223	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R124, 224	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R125, 225	8230500331	ST, CARBON, 1/10W, 330, 5%
			R126, 226	8230500331	ST, CARBON, 1/10W, 330, 5%
			R127, 227	8230500102	ST, CARBON, 1/10W, 1K, 5%
			R128, 228	8230500102	ST, CARBON, 1/10W, 1K, 5%
			R141, 241	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R142, 242	8230500272	ST, CARBON, 1/10W, 2.7K, 5%
			R143, 243	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R144, 244	8230500562	ST, CARBON, 1/10W, 5.6K, 5%
			R145, 245	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
			R146, 246	8230500122	ST, CARBON, 1/10W, 1.2K, 5%
			R147, 247	8230500473	ST, CARBON, 1/10W, 47K, 5%
			R148, 248	8230500105	ST, CARBON, 1/10W, 1M, 5%
			R149, 249	8230500562	ST, CARBON, 1/10W, 5.6K, 5%
			R150, 250	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R151, 251	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R152, 252	8230500472	ST, CARBON, 1/10W, 4.7K, 5%
			R153, 253	8230500182	ST, CARBON, 1/10W, 1.8K, 5%
			R154, 254	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R155, 255	8230500101	ST, CARBON, 1/10W, 100, 5%
			R156, 256	8230500103	ST, CARBON, 1/10W, 10K, 5%
			R157, 257	8230500183	ST, CARBON, 1/10W, 18K, 5%
			R158, 258	8230500332	ST, CARBON, 1/10W, 3.3K, 5%
			R159, 259	8230500392	ST, CARBON, 1/10W, 3.9K, 5%

TRANSISTORS		
Ref.No.	PartNo.	Description
Q101, 201	8234143403	TR, VT, NPN, 2SC2878-A/B
Q102, 202	8234143403	TR, VT, NPN, 2SC2878-A/B
Q103, 203	8234143403	TR, VT, NPN, 2SC2878-A/B
Q104, 204	8234143403	TR, VT, NPN, 2SC2878-A/B
Q141, 241	8234143403	TR, VT, NPN, 2SC2878-A/B
Q142, 242	8234143403	TR, VT, NPN, 2SC2878-A/B
Q143, 243	8234143403	TR, VT, NPN, 2SC2878-A/B
Q144, 244	8234143403	TR, VT, NPN, 2SC2878-A/B
Q181, 281	8234143403	TR, VT, NPN, 2SC2878-A/B

DIODES		
Ref.No.	PartNo.	Description
D001, 002	8234502800	D, ST, DAN202K
D101, 201	8234502800	D, ST, DAN202K
D102, 202	8234502800	D, ST, DAN202K
D103, 203	8234502800	D, ST, DAN202K
D104, 204	8234502800	D, ST, DAN202K
D141, 241	8234502800	D, ST, DAN202K
D142, 242	8234502800	D, ST, DAN202K
D143, 243	8234502800	D, ST, DAN202K
D144, 244	8234502800	D, ST, DAN202K
D181, 281	8234502800	D, ST, DAN202K

RESISTORS		
Ref. No.	Part No.	Description
R001	8230112101	H, METAL, 1W, 100, 5%, F1
R002-005	8230500103	ST, CARBON, 1/10W, 10K, 5%
R006-013	8230500104	ST, CARBON, 1/10W, 100K, 5%
R021	8230500562	ST, CARBON, 1/10W, 5.6K, 5%
R022	8230500112	ST, CARBON, 1/10W, 1.1K, 5%
R023	8230500100	ST, CARBON, 1/10W, 10, 5%

RESISTORS

Ref. No.	Part No.	Description
R160, 260	8230500562	ST, CARBON, 1/10W, 5.6K, 5%
R161, 261	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
R162, 262	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
R163, 263	8230500222	ST, CARBON, 1/10W, 2.2K, 5%
R181, 281	8230500331	ST, CARBON, 1/10W, 330, 5%
R182, 282	8230500103	ST, CARBON, 1/10W, 10K, 5%
R183, 283	8230500103	ST, CARBON, 1/10W, 10K, 5%
R184, 284	8230503471	ST, CARBON, 1/2W, 470, 5%
R185, 285	8230500101	ST, CARBON, 1/10W, 100, 5%
R186, 286	8230500104	ST, CARBON, 1/10W, 100K, 5%
R191, 291	8231014472	R-TRIM, H, CARBON, 4.7K, 637A
R192, 292	8231014472	R-TRIM, H, CARBON, 4.7K, 637A

CAPACITORS

ALU = Electrolytic

CER = Ceramic type

Ref. No.	Part No.	Description
C001, 002	8232145106	VT, ALU, 35V, 10μF, 20%
C003, 004	8232145106	VT, ALU, 35V, 10μF, 20%
C005	8232144476	VT, ALU, 25V, 47μF, 20%
C006	8233504103	ST, CER, 25V, 0.01μF, 10%
C007	8232142107	VT, ALU, 10V, 100μF, 20%
C008	8232144476	VT, ALU, 25V, 47μF, 20%
C009	8233502104	ST, CER, 50V, 0.1μF, +80
C010	8233502104	ST, CER, 50V, 0.1μF, +80
C011	8232144476	VT, ALU, 25V, 47μF, 20%
C012	8233504103	ST, CER, 25V, 0.01μF, 10%
C021	8232143106	VT, ALU, 16V, 10μF, 20%
C022, 023	8233504103	ST, CER, 25V, 0.01μF, 10%
C024~027	8233504103	ST, CER, 25V, 0.01μF, 10%
C028	8232143106	VT, ALU, 16V, 10μF, 20%
C029	8232146475	VT, ALU, 50V, 4.7μF, 20%
C030, 031	8233504103	ST, CER, 25V, 0.01μF, 10%
C032	8232143106	VT, ALU, 16V, 10μF, 20%
C033	8233504103	ST, CER, 25V, 0.01μF, 10%
C034	8233504103	ST, CER, 25V, 0.01μF, 10%
C035	8233504103	ST, CER, 25V, 0.01μF, 10%
C036	8233502104	ST, CER, 50V, 0.1μF, +80
C037	8232143106	VT, ALU, 16V, 10μF, 20%
C038	8233504103	ST, CER, 25V, 0.01μF, 10%
C051	8233504103	ST, CER, 25V, 0.01μF, 10%
C052	8233504103	ST, CER, 25V, 0.01μF, 10%
C053	8232143106	VT, ALU, 16V, 10μF, 20%
C054	8233502104	ST, CER, 50V, 0.1μF, +80
C055	8232143106	VT, ALU, 16V, 10μF, 20%
C056	8233502104	ST, CER, 50V, 0.1μF, +80
C057	8232143476	VT, ALU, 16V, 47μF, 20%
C058	8233502104	ST, CER, 50V, 0.1μF, +80
C060~063	8233504103	ST, CER, 25V, 0.01μF, 10%
C064, 065	8233504103	ST, CER, 25V, 0.01μF, 10%
C081, 082	8233504103	ST, CER, 25V, 0.01μF, 10%

CAPACITORS

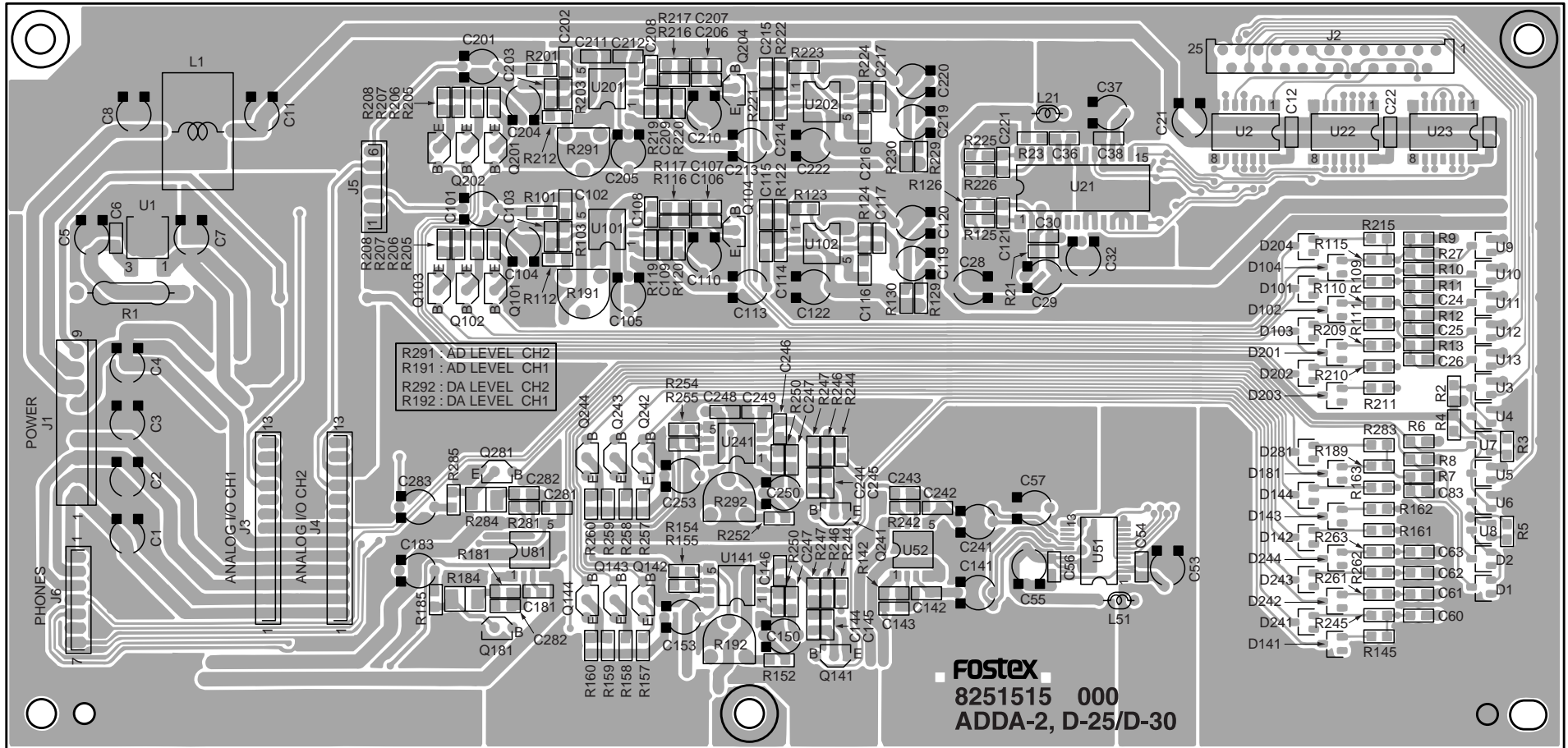
Ref. No.	Part No.	Description
C101, 201	8232145106	VT, ALU, 35V, 10μF, 20%
C103, 203	8233500100	ST, CER, 50V, 10PF, 5%
C104, 204	8232144476	VT, ALU, 25V, 47μF, 20%
C105, 205	8232145106	VT, ALU, 35V, 10μF, 20%
C106, 206	8233504472	ST, CER, 25V, .0047μF, 10%
C107, 207	8233504822	ST, CER, 25V, .0082μF, 10%
C109, 209	8233500100	ST, CER, 50V, 10PF, 5%
C110, 210	8232144476	VT, ALU, 25V, 47μF, 20%
C111, 211	8233504103	ST, CER, 25V, 0.01μF, 10%
C112, 212	8233504103	ST, CER, 25V, 0.01μF, 10%
C113, 213	8232143476	VT, ALU, 16V, 47μF, 20%
C114, 215	8233500101	ST, CER, 50V, 100PF, 5%
C117, 217	8233500220	ST, CER, 50V, 22PF, 5%
C118, 218	8233504103	ST, CER, 25V, 0.01μF, 10%
C119, 219	8232143106	VT, ALU, 16V, 10μF, 20%
C120, 220	8232143106	VT, ALU, 16V, 10μF, 20%
C121, 221	8233500152	ST, CER, 50V, .0015μF, 5%
C122, 222	8232143106	VT, ALU, 16V, 10μF, 20%
C123, 223	8233504103	ST, CER, 25V, 0.01μF, 10%
C141, 241	8232143476	VT, ALU, 16V, 47μF, 20%
C143, 243	8233500681	ST, CER, 50V, 680PF, 5%
C144, 244	8233504472	ST, CER, 25V, .0047μF, 10%
C145, 245	8233504822	ST, CER, 25V, .0082μF, 10%
C147, 247	8233500100	ST, CER, 50V, 10PF, 5%
C148, 248	8233504103	ST, CER, 25V, 0.01μF, 10%
C149, 249	8233504103	ST, CER, 25V, 0.01μF, 10%
C150, 250	8232143476	VT, ALU, 16V, 47μF, 20%
C152, 252	8233500100	ST, CER, 50V, 10PF, 5%
C153, 253	8232144476	VT, ALU, 25V, 47μF, 20%
C182, 282	8233500100	ST, CER, 50V, 10PF, 5%
C183, 283	8232145106	VT, ALU, 35V, 10μF, 20%

MISCELLANEOUS

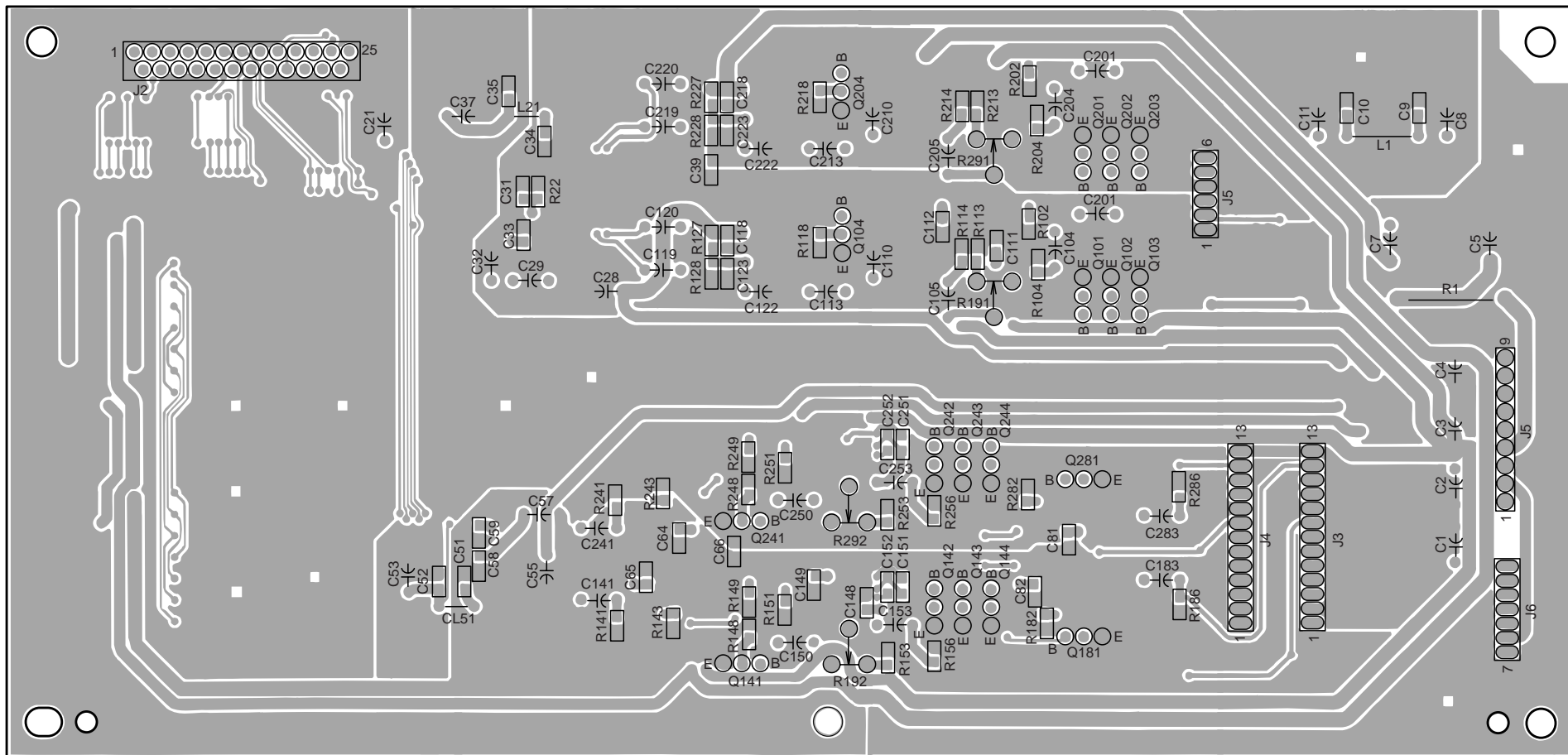
Ref. No.	Part No.	Description
B101	8251515000	Plain PCB, ADDA-2, D-25/D-30
J001	8245053029	CONN, PI, JACK, 8263, 9P, RED
J002	8245272025	CONN, PI, JACK, FPC, 25P
J003	8245171113	CONN, PI, JACK, 8283, 13P, WHT
J004	8245171113	CONN, PI, JACK, 8283, 13P, WHT
J005	8245171106	CONN, PI, JACK, 8283, 6P, WHT
J006	8245171107	CONN, PI, JACK, 8283, 7P, WHT
L001	8242135001	COIL, 50μH, SKP-2-30
L021	8242196223	COIL, PVT, 22μH, 5%, LF5.0S
L051	8242196223	COIL, PVT, 22μH, 5%, LF5.0S
Y1601	8207006102	Spacer, MPS-04

4. PATTERN DRAWING

PARTS SIDE VIEW

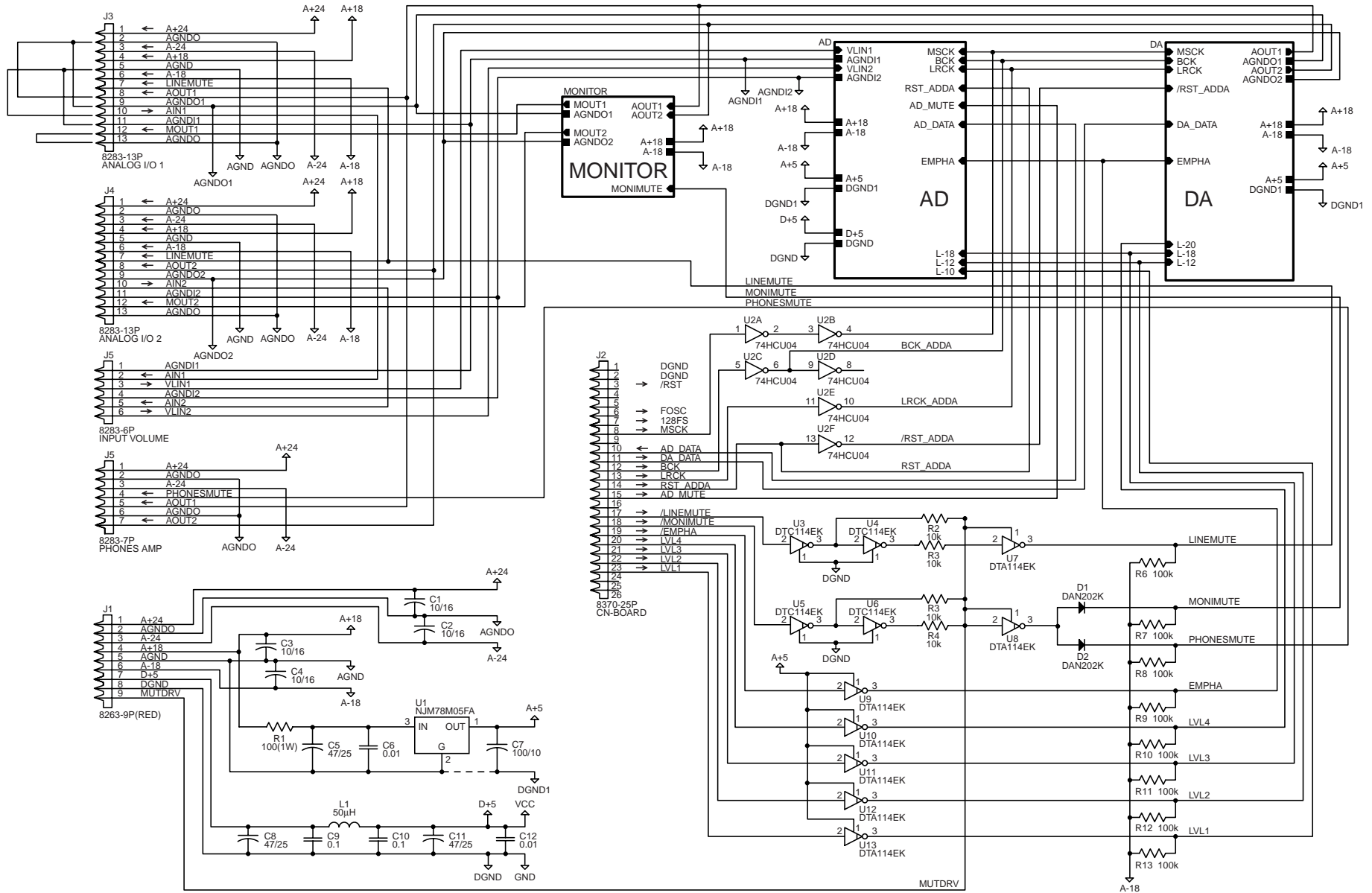


FOIL SIDE VIEW

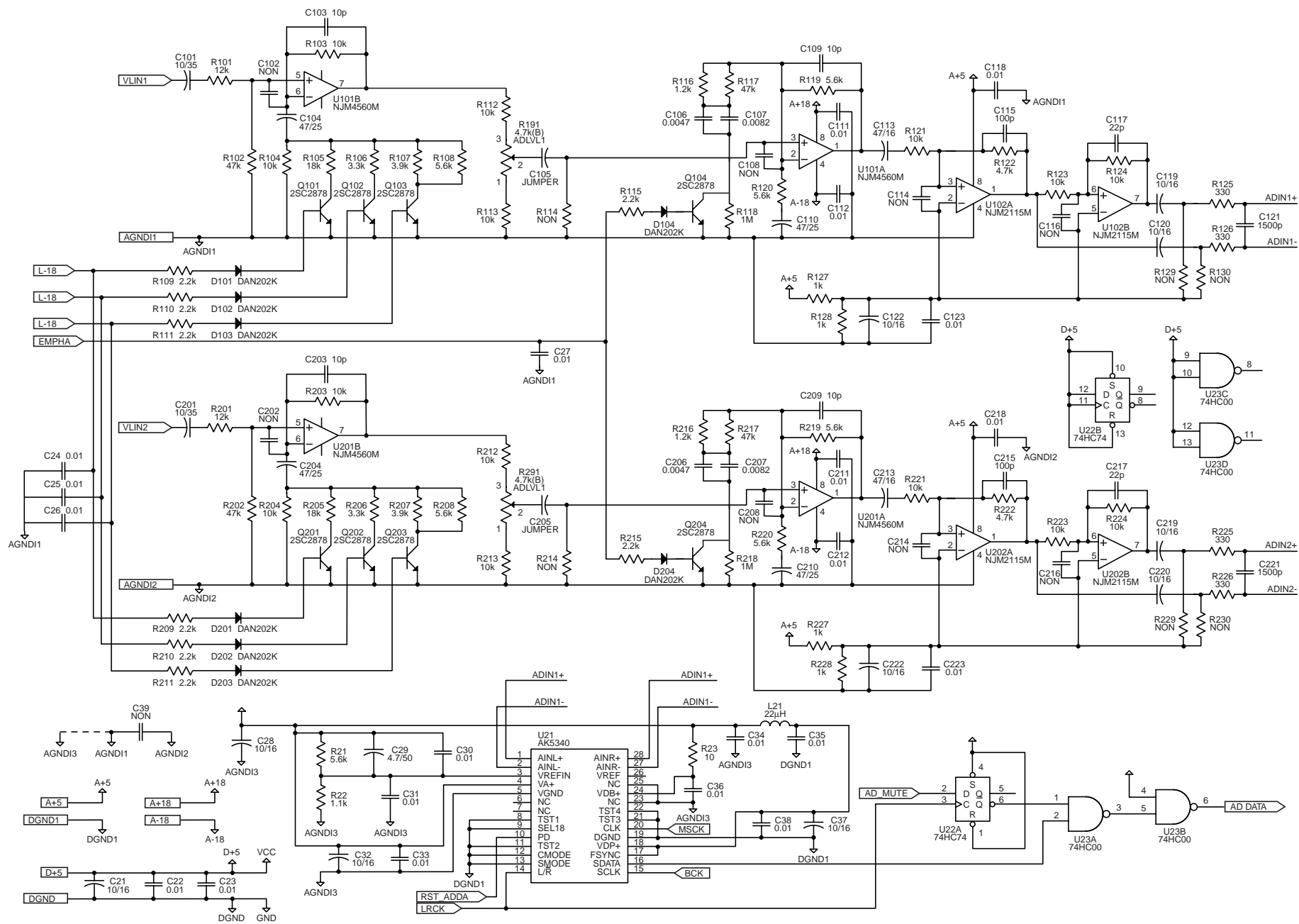


5. CIRCUIT DIAGRAMS

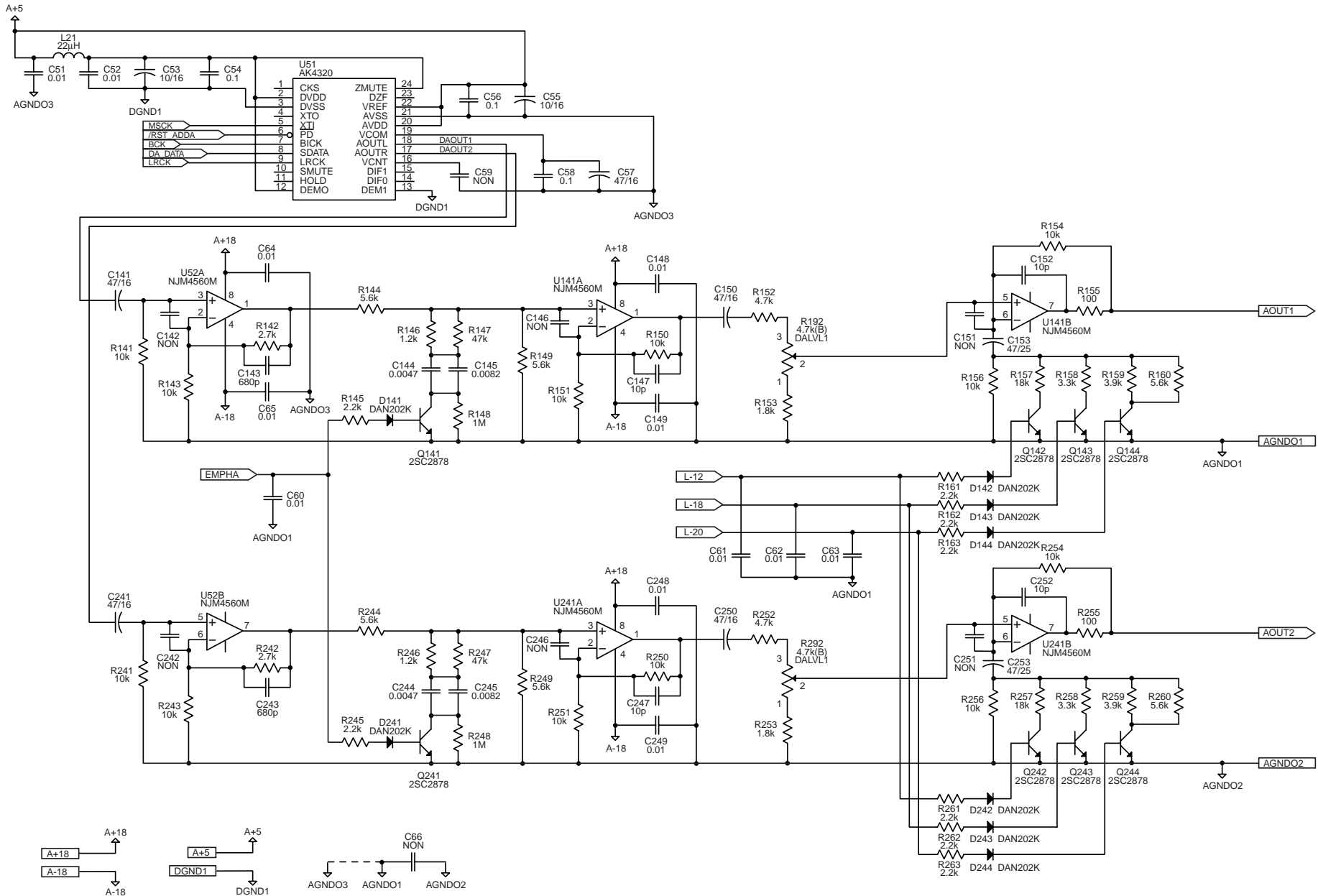
ADDA2, ROOT



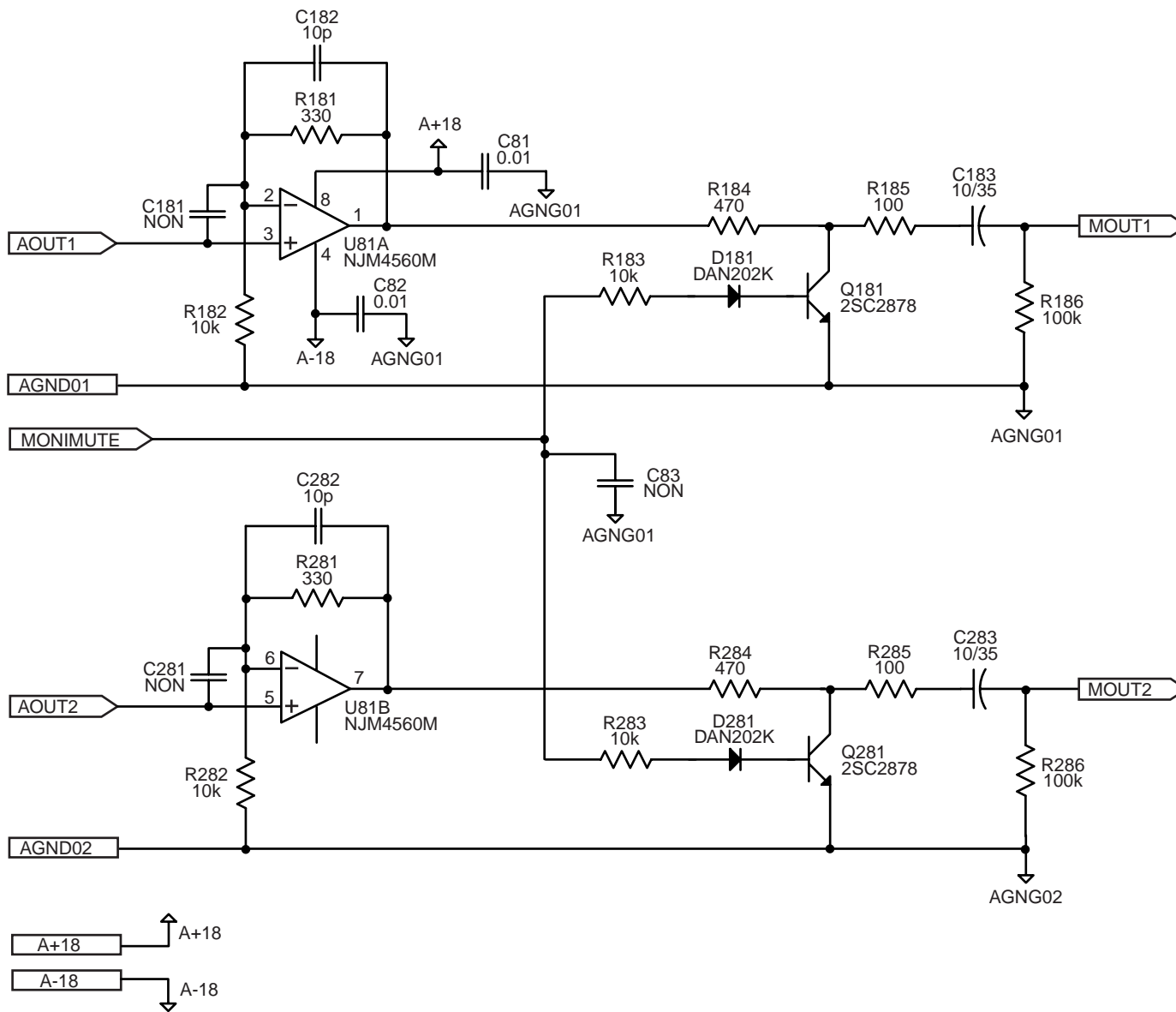
ADDA2, AD



ADDA2, DA



ADDA2, MONITOR



Fostex[®]

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