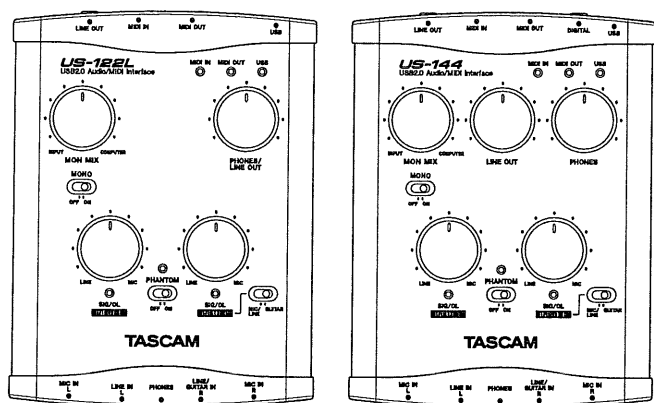


TASCAM

TEAC Professional Division



SERVICE MANUAL

US-122L/US144

USB Audio/MIDI Interface

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1. SPECIFICATIONS

仕様

US-122L/US-144

Audio specifications

Nominal input levels

MIC IN L and R (XLR balanced)	−58 dBu (TRIM=max) to −14 dBu (TRIM=min)
MIC/LINE-GUITAR L and R in MIC/LINE position (1/4" jack, unbalanced)	−40 dBu (TRIM=max) to +4 dBu (TRIM=min)
MIC/LINE-GUITAR R in GUITAR position (1/4" jack, unbalanced)	−51 dBv (TRIM=max) to −7 dBv (TRIM=min)

Maximum input levels

MIC L and R (XLR balanced)	+2 dBu (TRIM=min)
MIC/LINE-GUITAR L and R in MIC/LINE position (1/4" jack, unbalanced)	+20 dBu (TRIM=min)
MIC/LINE-GUITAR R in GUITAR position (1/4" jack, unbalanced)	+9 dBv (TRIM=min)

Input impedance

MIC IN L and R (XLR balanced)	2.4 kΩ
MIC/LINE-GUITAR L and R in MIC/LINE position (1/4" jack, unbalanced)	10 kΩ
MIC/LINE-GUITAR R in GUITAR position (1/4" jack, unbalanced)	1 MΩ

Nominal output level

LINE OUT (RCA unbalanced)	−10 dBV
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Maximum output level

LINE OUT (RCA unbalanced)	+6 dBV
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Output impedance

LINE OUT (RCA unbalanced)	100 Ω
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Maximum output power

PHONES (1/4" stereo jack)	14 mW +14 mW (32 Ω)
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Audio performance

Signal-to-noise ratio

LINE IN (through ADC and DAC) to LINE OUT	> 96 dB (A-weighted, TRIM=min., input
LINE IN (through direct monitor) to LINE OUT	> 100 dB (A-weighted, TRIM=min., input

Total harmonic distortion (THD+N, 22 Hz to 22 kHz)

LINE IN (through ADC and DAC) to LINE OUT	< 0.006% (1 kHz sine +20 dBu input, TRIM=min. impedance 40 Ω)
LINE IN (through direct monitor) to LINE OUT	< 0.004% (1 kHz sine +20 dBu input, TRIM=min. impedance 40 Ω)

US-122L/US-144

定格

MIC IN入力（アナログ）：

XLR (1: GND, 2: Hot, 3: Cold)、バランス 入力インピーダンス：	2.4 kΩ
入力レベル (INPUTつまみ最大時)：	−58 dBu
入力レベル (INPUTつまみ最小時)：	−14 dBu
最大入力レベル (INPUTつまみ最小時)：	+2 dBu

LINE IN入力（アナログ）：

標準ジャック (Tip: Hot, Ring: Cold, Sleeve: GND) Lチャンネル、およびMIC/LINE-GUITARスイッチをMIC/LINE設 定時のRチャンネル 入力インピーダンス：	10 kΩ
規定入力レベル (INPUTつまみ最大時)：	−40 dBu
規定入力レベル (INPUTつまみ最小時)：	+4 dBu
最大入力レベル (INPUTつまみ最小時)：	+20 dBu
MIC/LINE-GUITARスイッチをGUITARに設定時のRチャンネル 入力インピーダンス：	1 MΩ
規定入力レベル (INPUTつまみ最大時)：	−51 dBV
規定入力レベル (INPUTつまみ最小時)：	−7 dBV
最大入力レベル (INPUTつまみ最小時)：	+9 dBV

LINE OUT出力（アナログ）：

RCAピンジャック、アンバランス 出力インピーダンス：	100 Ω
規定出力レベル：	−10 dBV
最大出力レベル：	+6 dBV

PHONES出力（アナログ）：

ステレオ標準ジャック (Tip: Hot, Ring: Cold, Sleeve: GND) 最大出力：	14mW +14mW、 32 Ω負荷時
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性能

S/N比：

LINE IN → LINE OUT： (ADC、DAC経由)	96 dB以上 (A-weighted, INPUT TRIM min.)
LINE IN → LINE OUT： (Direct monitor経由)	100 dB以上 (A-weighted, INPUT TRIM min.)

歪み率(THD+N, 22Hz-22kHz)：

LINE IN → LINE OUT： (ADC、DAC経由)	0.006 %以下 1kHz Sine +20 dBu入力、(INPUT TRIM min.)
LINE IN → LINE OUT： (Direct monitor経由)	0.004 %以下 1kHz Sine +20 dBu入力 (INPUT TRIM min.)

Other characteristics

Digital audio

A/D Conversion (AK5381)	24-bit/96 kHz
D/A Conversion (AK4384)	24-bit/96 kHz

MIDI

MIDI IN and MIDI OUT ports (DIN 5-pin)	Conform to MIDI standards
--	---------------------------

USB

USB port (down stream connector)	USB 2.0 Format
----------------------------------	----------------

Host computer compatibility

Operating system:	Windows	Windows XP
	Macintosh	OS 10.3.9 or later

Communication

Audio/MIDI interface protocols	USB 2.0
Windows	ASIO, ASIO2, GSIF2, WDM
Macintosh	CoreMIDI (OS X)

Bundled software

Cubase LE (for Windows or Macintosh),
Gigastudio 3 LE (Windows only)

Physical characteristics

External dimensions (w x h x d)	147 x 192 x 48mm
--	------------------

Weight	1 Kg
---------------	------

Power

Supplied via USB	5V, maximum current 500 mA
------------------	----------------------------

その他の性能

AD/DA Converter :

24ビット/96kHz、
ディレイ : 27.6 サンプル(ADC)、
19.3 サンプル(DAC)

MIDI IN : Din 5 ピン [標準MIDIフォーマット]

MIDI OUT : Din 5 ピン [標準MIDIフォーマット]

USB : USB 2.0フォーマット
(USB Down stream connector)

ホストコンピュータ互換 :

オペレーティングシステム :

Windows:	Windows XP SP2
Macintosh:	Mac OS 10.3.9以上

コミュニケーション : USB 2.0

オーディオ/MIDIインタフェースプロトコル :

Windows:	ASIO, ASIO2, GSIF2, WDM
Macintosh:	CoreAudio, CoreMIDI (OS X)

バンドルソフトウェア :

Cubase LE (Windows, Macintosh用)
Gigastudio 3 LE (Windows専用)

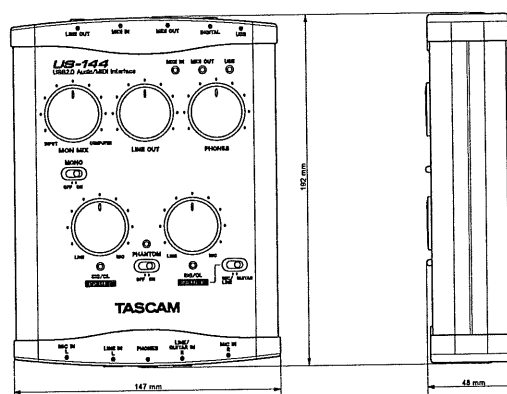
外觀性能

外形寸法 :

147(幅)×192(奥行き)×48(高さ)mm

質量 : 1 K g

電源 : USB経由で供給 5V, 最大電流500 mA)



- * Microsoft, Windows, Windows NT は米国Microsoft Corporation の米国およびその他の国における登録商標です。
- * Pentium は米国Intel Corporationの登録商標です。
- * MIDI は社団法人音楽電子事業教会 (AMEI) の登録商標です。
- * 文中記載の会社名および製品名は各社の商標または登録商標です。

2. Firmware Updating Method of US-122L/US-144

2.ファームウェアアップデート

The US-122L/US144 can be updated in firmware through USB connection to computer.

Preparation 1: Install the latest driver in PC or Mac computer.

Preparation 2: Connect the update target interface device to the computer through USB.

- * The firmware updater required depends on the version of the interface device.
- * The firmware updater is common to both the US-122L and US-144 and is automatically recognized.

US-122L/US144はPCとUSBで接続することにより、本体のファームウェアの書き換えが可能です。

準備1：最新driverをPCまたはMacにインストールします。

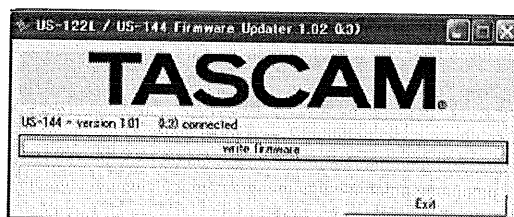
準備2：update対象機をUSB接続します。

- * Firmware Updaterは、Versionにて異なります。
- * Firmware UpdaterのFileはUS-122L/144共通で、自動的に認識します。

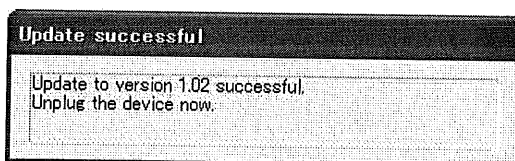
In the case of PC (Windows XP)

1. Make a USB connection between the interface device and the PC.
2. Run the firmware updater file (for PC) whose version is that which you want to update to.

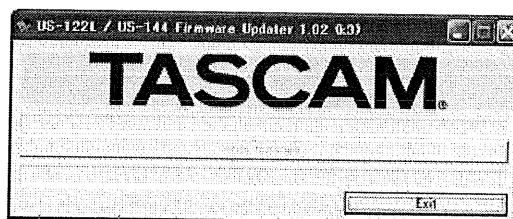
You will then see a screen that looks like this:



3. Click the "write firmware" button.
4. When the updating process is completed, you will see a screen that looks like this:



5. Disconnect the USB cable from the interface device.
- You will see a screen that looks like this:



6. Click the "Exit" button to end task.

In the case of Mac (OS X)

1. Make a USB connection between the interface device and the Mac.
2. Run the firmware updater file (for Mac) whose version is that which you want to update to.

Hereafter, follow the same steps as for in the case of PC described above. The screens you will see are slightly different from those shown above.

PC (Windows XP) の場合

1. 本体とPCをUSBで接続します。
 2. アップデートしたいバージョンのFirmware Updater (PC用)のファイルを実行します。
- すると下記画面が表示されます。

3. "write firmware"ボタンをクリックします。
4. アップデートが終了すると下記画面が表示されます。

5. 本体からUSBケーブルを外します。
- 次の画面が表示されます。

6. "Exit"ボタンをクリックして、アップデート作業は完了です。

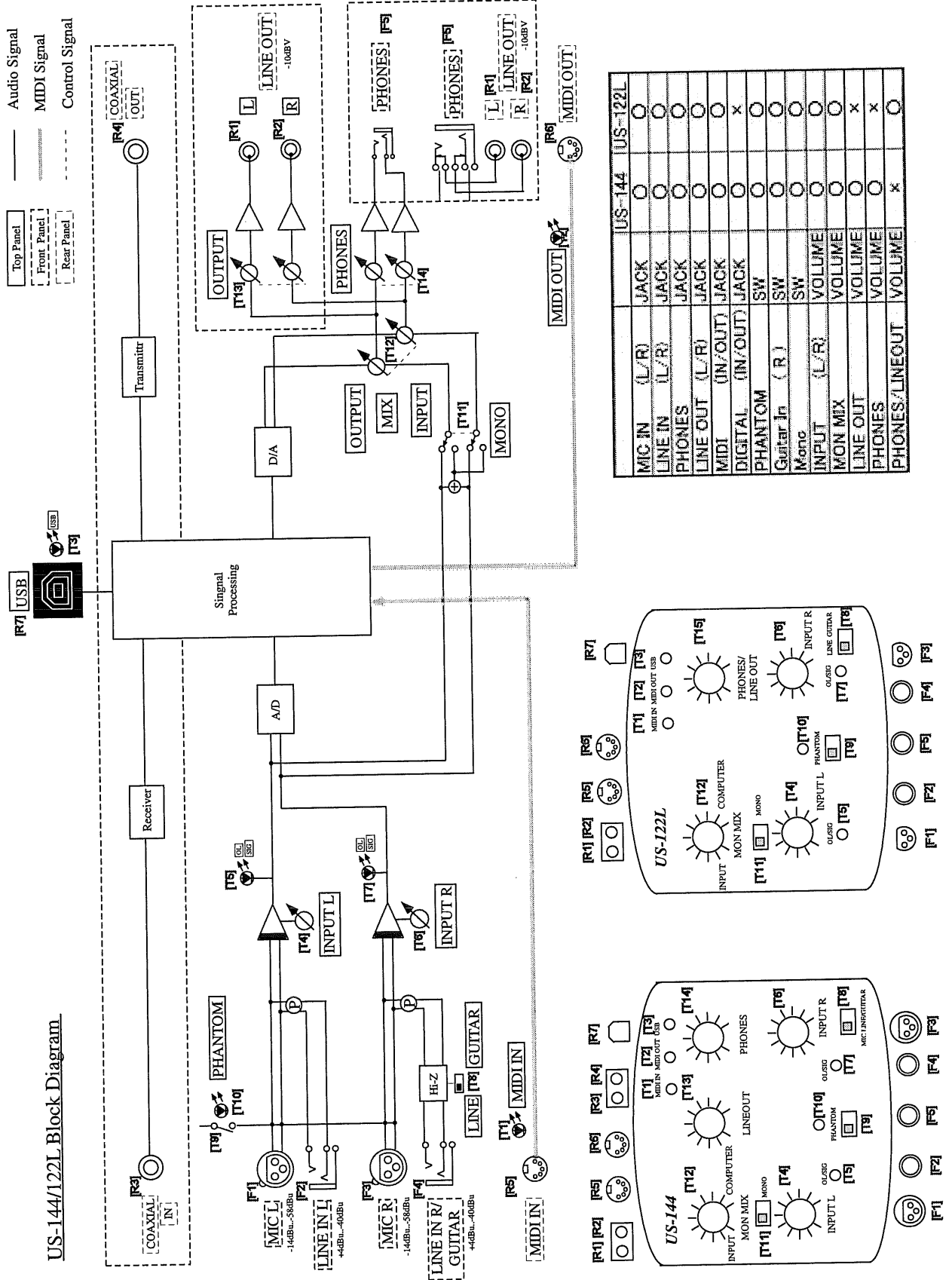
Mac (OS X) の場合

1. 本体とMacをUSBで接続します。
2. アップデートしたいバージョンのFirmware Updater (Mac用)のファイルを実行します。

以降は 画面は多少異なりますが、基本的にPCと同じ作業になります。

3. Block Diagram

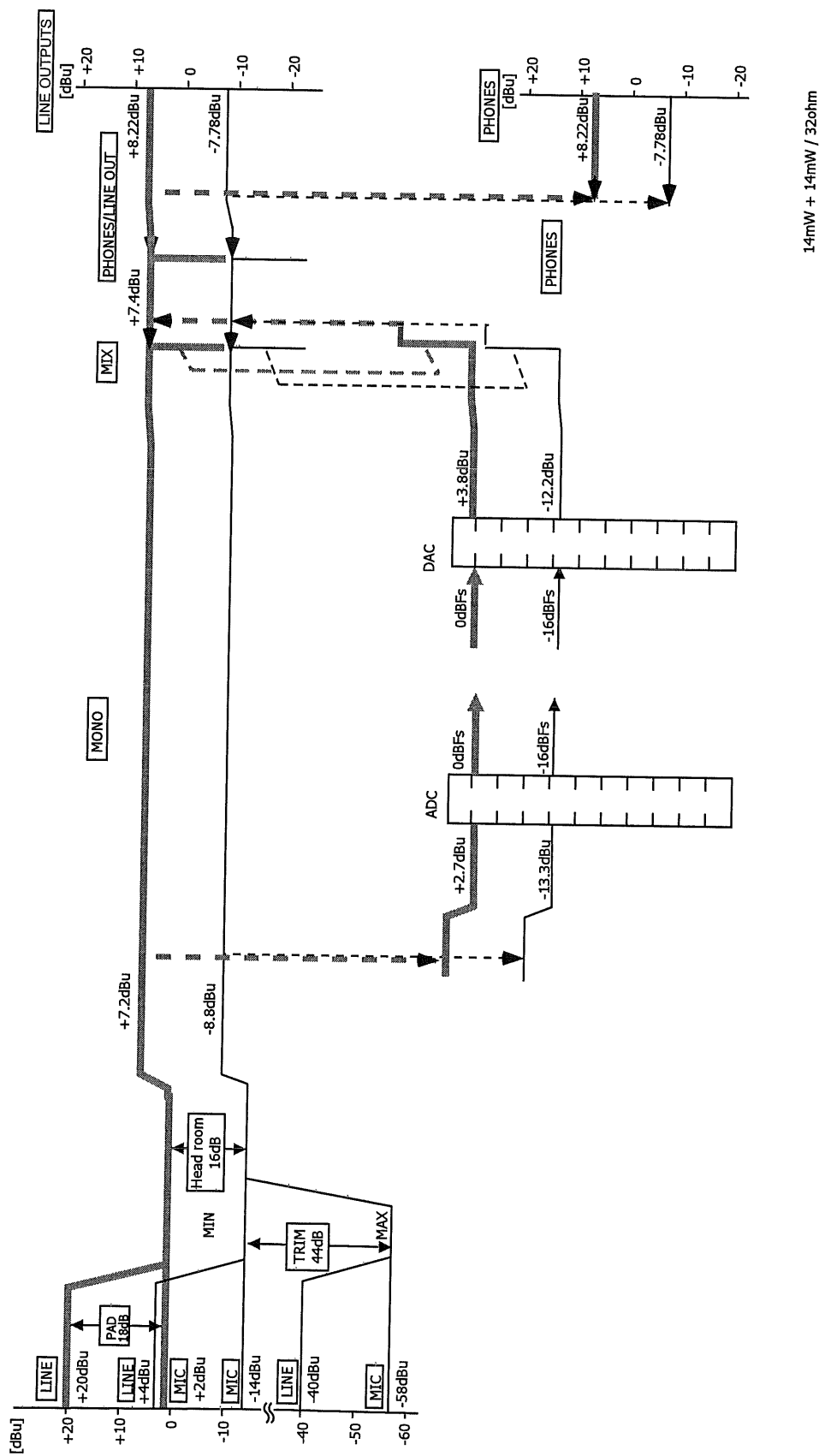
ブロック・ダイアグラム



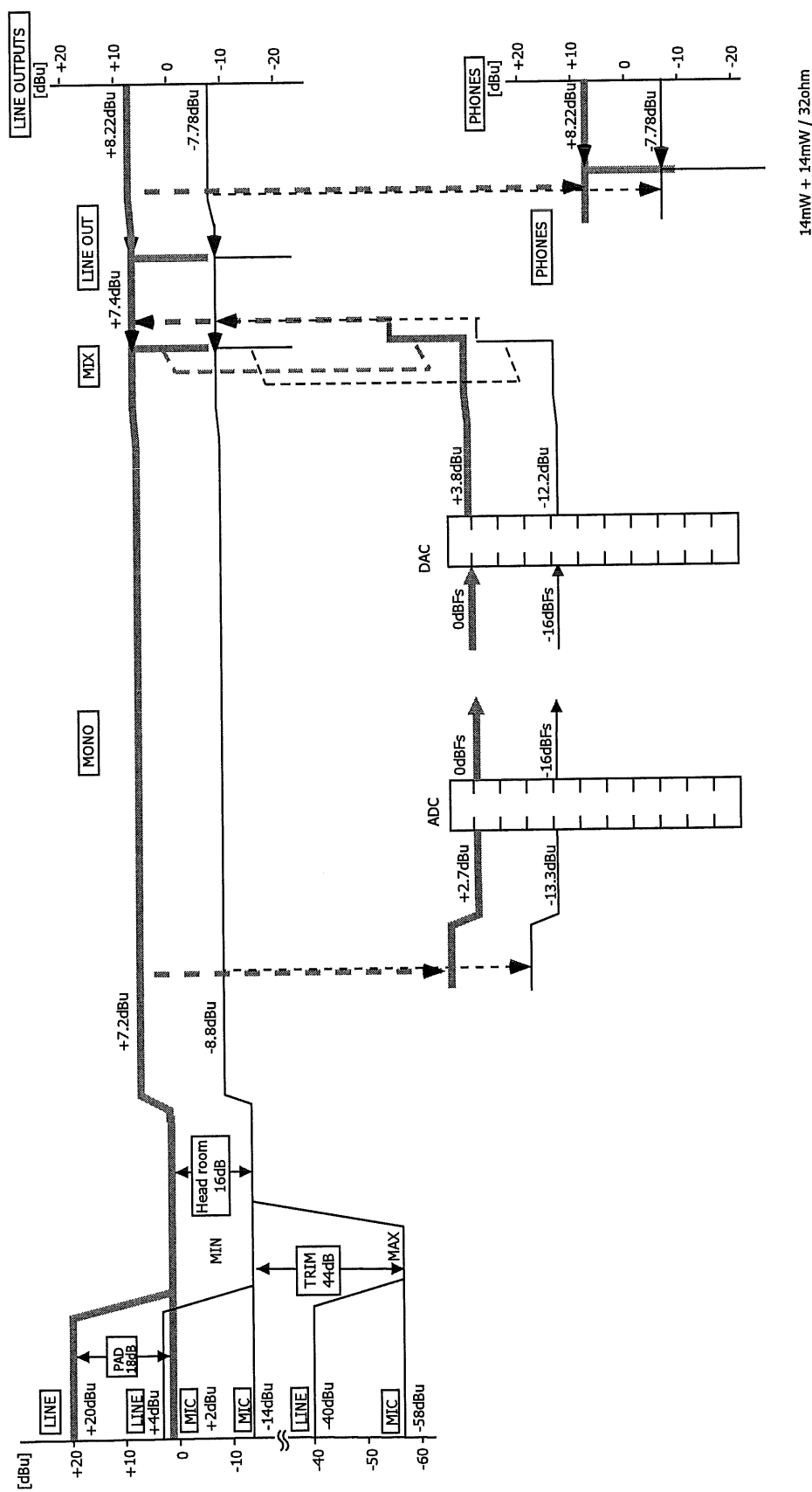
4. Level Diagram

レベルダイアグラム

US-122L Level Diagram



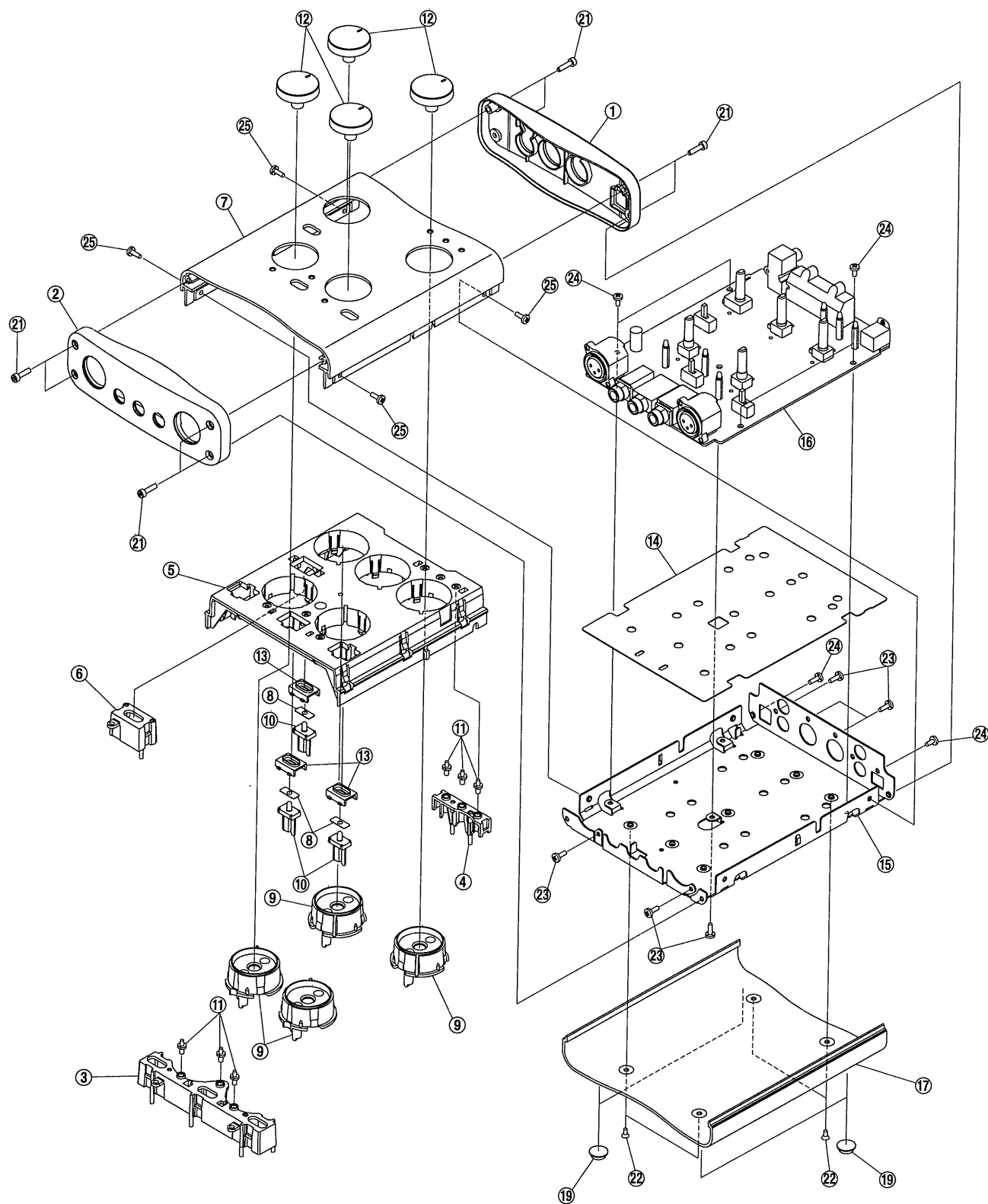
US-144 Level Diagram



5. EXPLODED VIEWS AND PARTS LIST

分解図とパーツリスト

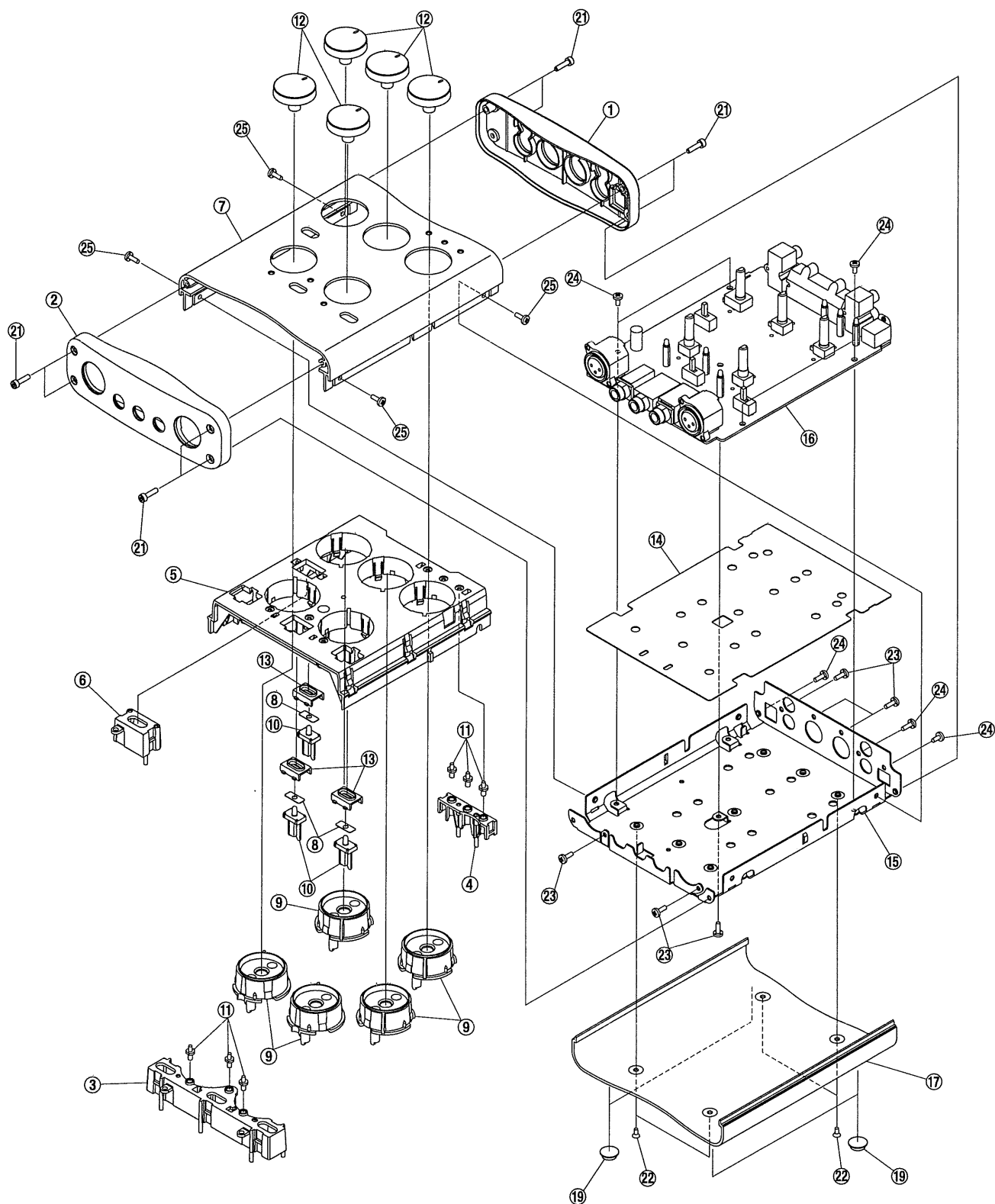
EXPLODED VIEW-1 (US-122L)



EXPLODED VIEW-1 (US-122L)

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	M02377110C	REAR PANEL,(B) US-122L G	
1- 2	M02377010C	FRONT PANEL,(B) US-122L G	
1- 3	M02376400A	HOLDER,KNOB(A) US-144 G	
1- 4	M02376600A	HOLDER,LED US-144 G	
1- 5	M02375900B	ESCUTCHEON,MAIN US-144 G	
1- 6	M02376500A	HOLDER,KNOB(B) US-144 G	
1- 7	M02375710C	TOP PANEL,(B) US-122L G	
1- 8	M02393400B	SHEET,SLIDE US-144 G	
1- 9	M02376000B	ESCUTCHEON,VR US-144 G	
1-10	M02376200A	KNOB,SLIDE US-144 G	
1-11	M02376300A	LENS,LED US-144 G	
1-12	M02376900C	KNOB,VR D29 US-144 G	
1-13	M02376100C	ESCUTCHEON,SLIDE US-144 G	
1-14	M02376700A	SHEET,BOTTOM US-144 G	
1-15	M02376800B	CHASSIS,PCB US-144 G	
1-16	E95277099A	PCB ASSY,MAIN US-122L	Refer to page 12,13
1-17	M02375811A	BOT PANEL,(B)/G US-122L G	
1-18	M01267300A	FOOT,D12.7H3.6 3M3J5012 G	
1-21	B00286514A	SCREW,YHA 3*14FNI G	
1-22	B0025240	SCREW,FPA 3*6 FNI	
1-23	B00208010A	SCREW,BPBR 3*10FZB G	
1-24	B00171406A	SCREW,BPA 3*6 FZB G	
1-25	B00208008A	SCREW,BPBR3*8 FZB G	

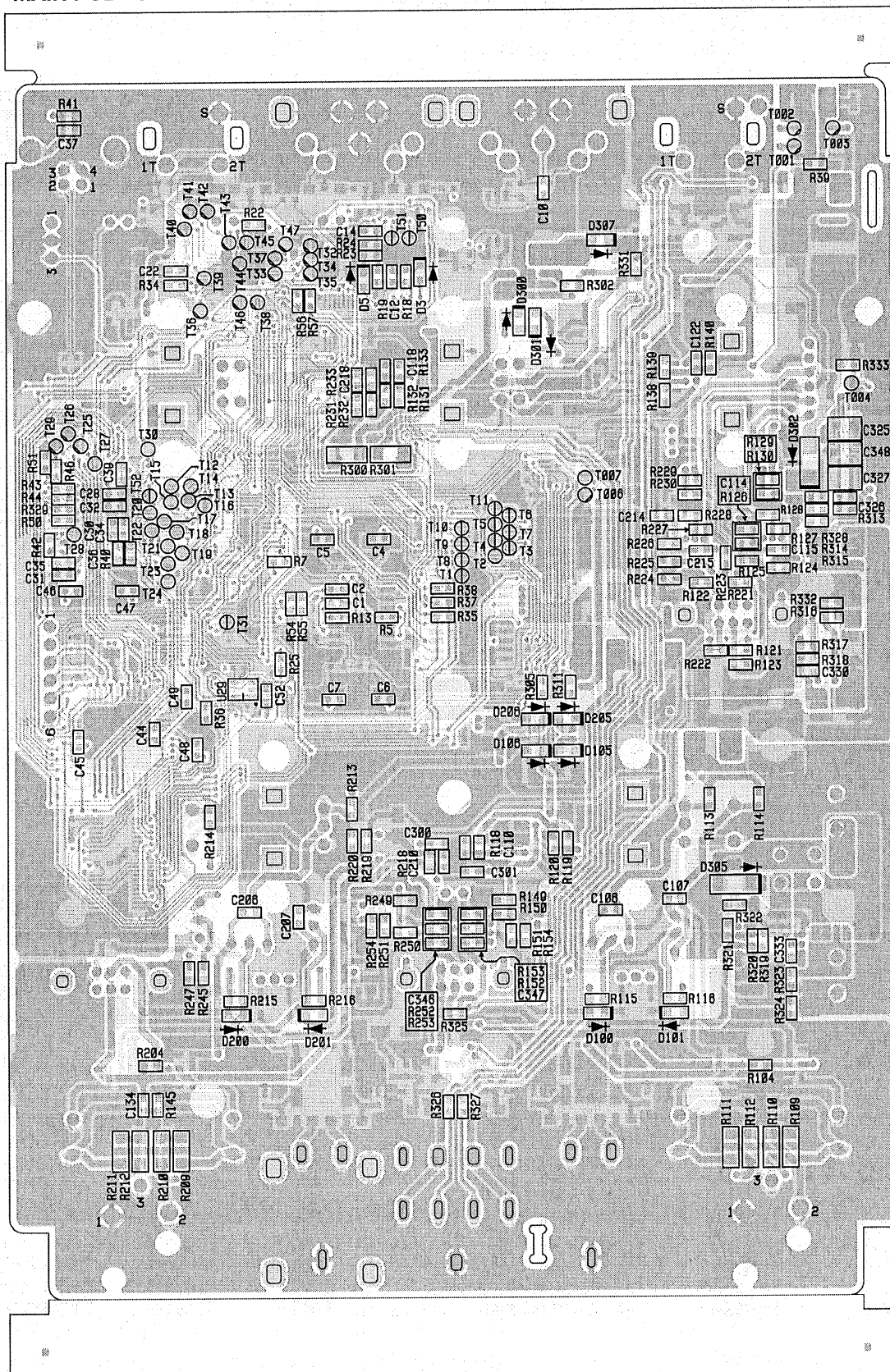
EXPLODED VIEW-2 (US-144)



EXPLODED VIEW-2 (US-144)

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 1	M02377100B	REAR PANEL,(A) US-144 G	
2- 2	M02377000B	FRONT PANEL,(A) US-144 G	
2- 3	M02376400A	HOLDER,KNOB(A) US-144 G	
2- 4	M02376600A	HOLDER,LED US-144 G	
2- 5	M02375900B	ESCUTCHEON,MAIN US-144 G	
2- 6	M02376500A	HOLDER,KNOB(B) US-144 G	
2- 7	M02375700C	TOP PANEL,(A) US-144 G	
2- 8	M02393400B	SHEET,SLIDE US-144 G	
2- 9	M02376000B	ESCUTCHEON,VR US-144 G	
2-10	M02376200A	KNOB,SLIDE US-144 G	
2-11	M02376300A	LENS,LED US-144 G	
2-12	M02376900C	KNOB,VR D29 US-144 G	
2-13	M02376100C	ESCUTCHEON,SLIDE US-144 G	
2-14	M02376700A	SHEET,BOTTOM US-144 G	
2-15	M02376800B	CHASSIS,PCB US-144 G	
2-16	E95275999A	PCB ASSY,MAIN US-144.....	Refer to page 12,13
2-17	M02375801A	BOT PANEL,(A)/G US-144 G	
2-18	M01267300A	FOOT,D12.7H3.6 3M3J5012 G	
2-21	B00286514A	SCREW,YHA 3*14FNI G	
2-22	B0025240	SCREW,FPA 3*6 FNI	
2-23	B00208010A	SCREW,BPBR 3*10FZB G	
2-24	B00171406A	SCREW,BPA 3*6 FZB G	
2-25	B00208008A	SCREW,BPBR3*8 FZB G	

MAIN PCB SIDE B



PCB ASSY MAIN (US-122L)

REF.NO.	PARTS NO.	DESCRIPTION
	E95277099A	PCB ASSY,MAIN US-122L
		PCB,MAIN US-144
D1	S0022094	DIODE,1SS355
D2	S0065830	LED,SLR-342VR G
D3	S0022094	DIODE,1SS355
D4	S0021800	LED,SLR-342MG
D5	S0022094	DIODE,1SS355
D8	S0021800	LED,SLR-342MG
D100	S0022094	DIODE,1SS355
D101	S0022094	DIODE,1SS355
D102	S0022094	DIODE,1SS355
D103	S0022094	DIODE,1SS355
D104	S0064192	LED,LT3ED87 G
D105	S0022094	DIODE,1SS355
D106	S0022094	DIODE,1SS355
D200	S0022094	DIODE,1SS355
D201	S0022094	DIODE,1SS355
D202	S0022094	DIODE,1SS355
D203	S0022094	DIODE,1SS355
D204	S0064192	LED,LT3ED87 G
	M01902700A	SPACER,LED KANG.LEDH14.5G
D205	S0022094	DIODE,1SS355
D206	S0022094	DIODE,1SS355
D300	S0022094	DIODE,1SS355
D301	S0022094	DIODE,1SS355
D302	S0047674	DIODE,RB160L-60 G
D303	S0042404	DIODE,RB161L-40 G
D304	S0065830	LED,SLR-342VR G
D305	S0047674	DIODE,RB160L-60 G
D306	S0022094	DIODE,1SS355
D307	S0022094	DIODE,1SS355
J1	E0127620	MINIDINJACK HDC-052AP-12 G
J3	E0115760	CONNECTOR,USB UBB4RD14C G
J4	E0123970	PIN,2211S-06G G
J5	E0124030	PIN,2211S-03G G
J001	E0123630	JACK,MIC JY-6316-01-090 G
J002	E0123960	JACK,YKC 21-3487N G
J100	E0123980	JACK,JY-6314-01-030 G
J101	E0123990	JACK,XLR JY-5033A G
J200	E0123980	JACK,JY-6314-01-030 G
J201	E0123990	JACK,XLR JY-5033A G
L300	E0101174	COIL,LQH43CN100K03L G
L302	E0124004	COIL,CDRH5D28-220 22UH G
L303	E0069824	COIL,CDRH5D28-100NC
L304	E0124154	COIL,CDR6D28-221M G
L305	E0069824	COIL,CDRH5D28-100NC
L306	E0124010	COIL,RCR110DNP-102L
L307	E0124024	COIL,ELJPA220KF G
Q100	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q101	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q102	S0018524	TRANSISTOR,2SC3661

PCB ASSY MAIN (US-122L)

REF.NO.	PARTS NO.	DESCRIPTION
Q105	S0041574	TRANSISTER,DTA124EUA G
Q106	S0065074	TRANSISTOR,DTC124EUA TP G
Q107	S0041574	TRANSISTER,DTA124EUA G
Q200	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q201	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q202	S0018524	TRANSISTOR,2SC3661
Q204	S0064312	FET,2SK117BL(TPE2.F) G
Q205	S0041574	TRANSISTER,DTA124EUA G
Q206	S0065074	TRANSISTOR,DTC124EUA TP G
Q207	S0041574	TRANSISTER,DTA124EUA G
Q300	S0065074	TRANSISTOR,DTC124EUA TP G
Q301	S0041574	TRANSISTER,DTA124EUA G
Q302	S0065774	TRANSISTOR,2SC3646 G
Q303	S0041574	TRANSISTER,DTA124EUA G
Q304	S0065074	TRANSISTOR,DTC124EUA TP G
SW300	E0124040	SW,SSSF021900 G
SW301	E0124040	SW,SSSF021900 G
SW302	E0124040	SW,SSSF021900 G
U1	S0018944	IC,TC74VHC04F(EL) G
U2	S0051954	IC,TC74VHC153FT G
U3	S0065784	IC,SN74LV74APWR G
U4	S0065794	IC,SN74LV4040APWR G
U5	S0065754	PHOTO COUPLER,PC410LONIPG
U6	S0065804	IC,TC74HC04AF(EL.F)G
U7	E0124064	FILTER,EXCCET471U G
U8	E0124064	FILTER,EXCCET471U G
U20	S00659800B	IC,ROM ASSY US122L V0102 G
U20	S0064754	IC,ATMEGA162-16AU G
U20	D00917800B	SOFTWARE SPEC,US-122L
U20	M02492210A	LABEL,ROM US-122L
U21	S0064744	IC,ISP1583BS G
U23	S0051224	IC,SN74LVC04APWR TSSOP G
U27	S0064724	IC,AK5381ET G
U28	S0065814	IC,AK4384ET G
U29	S0067114	IC,SN74LVC1G08DBVR G
U30	S0067114	IC,SN74LVC1G08DBVR G
U100	S0064544	IC,NJM4580M G
U101	S0064544	IC,NJM4580M G
U102	E0124074	FILTER,EXCCET101U G
U104	E0124074	FILTER,EXCCET101U G
U105	E0124074	FILTER,EXCCET101U G
U106	E0124074	FILTER,EXCCET101U G
U107	E0124074	FILTER,EXCCET101U G
U200	S0064544	IC,NJM4580M G
U202	E0124074	FILTER,EXCCET101U G
U204	E0124074	FILTER,EXCCET101U G
U205	E0124074	FILTER,EXCCET101U G
U206	E0124074	FILTER,EXCCET101U G
U207	E0124074	FILTER,EXCCET101U G
U300	S0064544	IC,NJM4580M G

PCB ASSY MAIN (US-122L)

REF.NO.	PARTS NO.	DESCRIPTION
U301	S0065824	IC,LM3525M-L G
U302	S0064714	IC,LM3224MM-ADJ G
U303	S0058774	IC,NJM2374AE G
U304	S0058774	IC,NJM2374AE G
U305	S0060084	IC,NJM78L05UA(TE1) GA0
U306	S0064654	IC,NJM7805DL1A-TE1 G
U307	S0064984	IC,BA033FP-E2SMT TAPING G
U308	S0064544	IC,NJM4580M G
VR100	R0164460	VAR RES,RK09D1130C4M G
VR200	R0164460	VAR RES,RK09D1130C4M G
VR300	R0164450	VAR RES,RK12L1230C0T G
VR301	R0164470	VAR RES,RK09K12C0A4D G
X1	E0087884	RESONATOR,SSM2257920E20 G
X2	E0124084	RESONATOR,DSD 24.576MHZ G
X3	E0124094	RESONATOR,LAP 12.000MHZ G
	E0122094	RESONATOR,SD3 16MHZ G
	M02422700A	SHIELD,COVER HP US-144 G

REF.NO.	PARTS NO.	DESCRIPTION
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PCB ASSY MAIN (US-144)

REF.NO.	PARTS NO.	DESCRIPTION
	E95275999A	PCB ASSY,MAIN US-144
		PCB,MAIN US-144
D1	S0022094	DIODE,1SS355
D2	S0065830	LED,SLR-342VR G
D3	S0022094	DIODE,1SS355
D4	S0021800	LED,SLR-342MG
D5	S0022094	DIODE,1SS355
D6	S0022094	DIODE,1SS355
D7	S0022094	DIODE,1SS355
D8	S0021800	LED,SLR-342MG
D100	S0022094	DIODE,1SS355
D101	S0022094	DIODE,1SS355
D102	S0022094	DIODE,1SS355
D103	S0022094	DIODE,1SS355
D104	S0064192	LED,LT3ED87 G
D105	S0022094	DIODE,1SS355
D106	S0022094	DIODE,1SS355
D200	S0022094	DIODE,1SS355
D201	S0022094	DIODE,1SS355
D202	S0022094	DIODE,1SS355
D203	S0022094	DIODE,1SS355
D204	S0064192	LED,LT3ED87 G
	M01902700A	SPACER,LED KANG.LEDH14.5G
D205	S0022094	DIODE,1SS355
D206	S0022094	DIODE,1SS355
D300	S0022094	DIODE,1SS355
D301	S0022094	DIODE,1SS355
D302	S0047674	DIODE,RB160L-60 G
D303	S0042404	DIODE,RB161L-40 G
D304	S0065830	LED,SLR-342VR G
D305	S0047674	DIODE,RB160L-60 G
D306	S0022094	DIODE,1SS355
D307	S0022094	DIODE,1SS355
J001	E0123630	JACK,MIC JY-6316-01-090 G
J002	E0123960	JACK,YKC 21-3487N G
J1	E0127620	MINIDINJACK HDC-052AP-12 G
J2	E0124171	JACK,HSP-242V2-23-G G
J3	E0115760	CONNECTOR,USB UBB4RD14C G
J4	E0123970	PIN,2211S-06G G
J5	E0124030	PIN,2211S-03G G
J100	E0123980	JACK,JY-6314-01-030 G
J101	E0123990	JACK,XLR JY-5033A G
J200	E0123980	JACK,JY-6314-01-030 G
J201	E0123990	JACK,XLR JY-5033A G
L300	E0101174	COIL,LQH43CN100K03L G
L302	E0124004	COIL,CDRH5D28-220 22UH G
L303	E0069824	COIL,CDRH5D28-100NC
L304	E0124154	COIL,CDR6D28-221M G
L305	E0069824	COIL,CDRH5D28-100NC
L306	E0124010	COIL,RCR110DNP-102L
L307	E0124024	COIL,ELJPA220KF G

PCB ASSY MAIN (US-144)

REF.NO.	PARTS NO.	DESCRIPTION
Q100	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q101	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q102	S0018524	TRANSISTOR,2SC3661
Q103	S0018524	TRANSISTOR,2SC3661
Q105	S0041574	TRANSISTER,DTA124EUA G
Q106	S0065074	TRANSISTOR,DTC124EUA TP G
Q107	S0041574	TRANSISTER,DTA124EUA G
Q200	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q201	S0068922	TRANSISTOR,2SA1084ETZ-E G
Q202	S0018524	TRANSISTOR,2SC3661
Q203	S0018524	TRANSISTOR,2SC3661
Q204	S0064312	FET,2SK117BL(TPE2.F) G
Q205	S0041574	TRANSISTER,DTA124EUA G
Q206	S0065074	TRANSISTOR,DTC124EUA TP G
Q207	S0041574	TRANSISTER,DTA124EUA G
Q300	S0065074	TRANSISTOR,DTC124EUA TP G
Q301	S0041574	TRANSISTER,DTA124EUA G
Q302	S0065774	TRANSISTOR,2SC3646 G
Q303	S0041574	TRANSISTER,DTA124EUA G
Q304	S0065074	TRANSISTOR,DTC124EUA TP G
SW300	E0124040	SW,SSSF021900 G
SW301	E0124040	SW,SSSF021900 G
SW302	E0124040	SW,SSSF021900 G
U1	S0018944	IC,TC74VHC04F(EL) G
U2	S0051954	IC,TC74VHC153FT G
U3	S0065784	IC,SN74LV74APWR G
U4	S0065794	IC,SN74LV4040APWR G
U5	S0065754	PHOTO COUPLER,PC410LONIPG
U6	S0065804	IC,TC74HC04AF(EL.F)G
U7	E0124064	FILTER,EXCCET471U G
U8	E0124064	FILTER,EXCCET471U G
U9	S0064734	IC,AKM4114VQ G
U12	E0124074	FILTER,EXCCET101U G
U13	S0035004	IC,SN74LV02APWR G
U14	S0064764	IC,SN74LV166APW G
U15	S0064764	IC,SN74LV166APW G
U16	S0064774	IC,74HCT4353D G
U20	S00659700B	IC,ROM ASSY US144 V0102 G
U20	S0064754	IC,ATMEGA162-16AU G
U20	D00917700B	SOFTWARE SPEC,US-144
	M02492200A	LABEL,ROM US-144
U21	S0064744	IC,ISP1583BS G
U22	S0064184	IC,PQ1X331M2ZPH G
U23	S0051224	IC,SN74LVC04APWR TSSOP G
U27	S0064724	IC,AK5381ET G
U28	S0065814	IC,AK4384ET G
U29	S0067114	IC,SN74LVC1G08DBVR G
U30	S0067114	IC,SN74LVC1G08DBVR G
U100	S0064544	IC,NJM4580M G
U101	S0064544	IC,NJM4580M G

PCB ASSY MAIN (US-144)

REF.NO.	PARTS NO.	DESCRIPTION
U102	E0124074	FILTER,EXCCET101U G
U103	E0124074	FILTER,EXCCET101U G
U104	E0124074	FILTER,EXCCET101U G
U105	E0124074	FILTER,EXCCET101U G
U106	E0124074	FILTER,EXCCET101U G
U107	E0124074	FILTER,EXCCET101U G
U200	S0064544	IC,NJM4580M G
U201	S0064544	IC,NJM4580M G
U202	E0124074	FILTER,EXCCET101U G
U203	E0124074	FILTER,EXCCET101U G
U204	E0124074	FILTER,EXCCET101U G
U205	E0124074	FILTER,EXCCET101U G
U206	E0124074	FILTER,EXCCET101U G
U207	E0124074	FILTER,EXCCET101U G
U300	S0064544	IC,NJM4580M G
U301	S0065824	IC,LM3525M-L G
U302	S0064714	IC,LM3224MM-ADJ G
U303	S0058774	IC,NJM2374AE G
U304	S0058774	IC,NJM2374AE G
U305	S0060084	IC,NJM78L05UA(Te1) GAO
U306	S0064654	IC,NJM7805DL1A-TE1 G
U307	S0064984	IC,BA033FP-E2SMT TAPING G
U308	S0064544	IC,NJM4580M G
VR100	R0164460	VAR RES,RK09D1130C4M G
VR200	R0164460	VAR RES,RK09D1130C4M G
VR300	R0164450	VAR RES,RK12L1230C0T G
VR301	R0164470	VAR RES,RK09K12C0A4D G
VR302	R0164470	VAR RES,RK09K12C0A4D G
X1	E0087884	RESONATOR,SSM2257920E20 G
X2	E0124084	RESONATOR,DSD 24.576MHZ G
X3	E0124094	RESONATOR,LAP 12.000MHZ G
X4	E0122094	RESONATOR,SD3 16MHZ G
	M02422700A	SHIELD,COVER HP US-144 G

REF.NO.	PARTS NO.	DESCRIPTION
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7. INCLUDED ACCESSORIES

付属品

INCLUDED ACCESSORIES (US-122L)

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
	3E015120	CABLE,USB CABLE 1.5M G	
	T00124200B	DISC,CD-ROM US-SERIES	
	T00112000A	CD ROM ASSY,GIGA3LE G	
	T00110800C	CD ROM ASSY,CUBASE LE	
	D00927601A	OWNERS MNL,(J) US-122L G [JEX]	
	D00927620B	OWNERS MNL,(E)US-122L G	
	D00927680B	OWNERS MNL,(G)US-122L G [E]	
	D00927681B	OWNERS MNL,(F)US-122L G [E]	
	D00927683B	OWNERS MNL,(S)US-122L G [E]	

INCLUDED ACCESSORIES (US-144)

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
	3E015120	CABLE,USB CABLE 1.5M G	
	T00124200B	DISC,CD-ROM US-SERIES	
	T00112000A	CD ROM ASSY,GIGA3LE G	
	T00110800C	CD ROM ASSY,CUBASE LE	
	D00927501A	OWNERS MNL,(J) US-144 G [JEX]	
	D00927520B	OWNERS MNL,(E)US-144 G	
	D00927580B	OWNERS MNL,(G)US-144 G [E]	
	D00927581B	OWNERS MNL,(F)US-144 G [E]	
	D00927583B	OWNERS MNL,(S)US-144 G [E]	

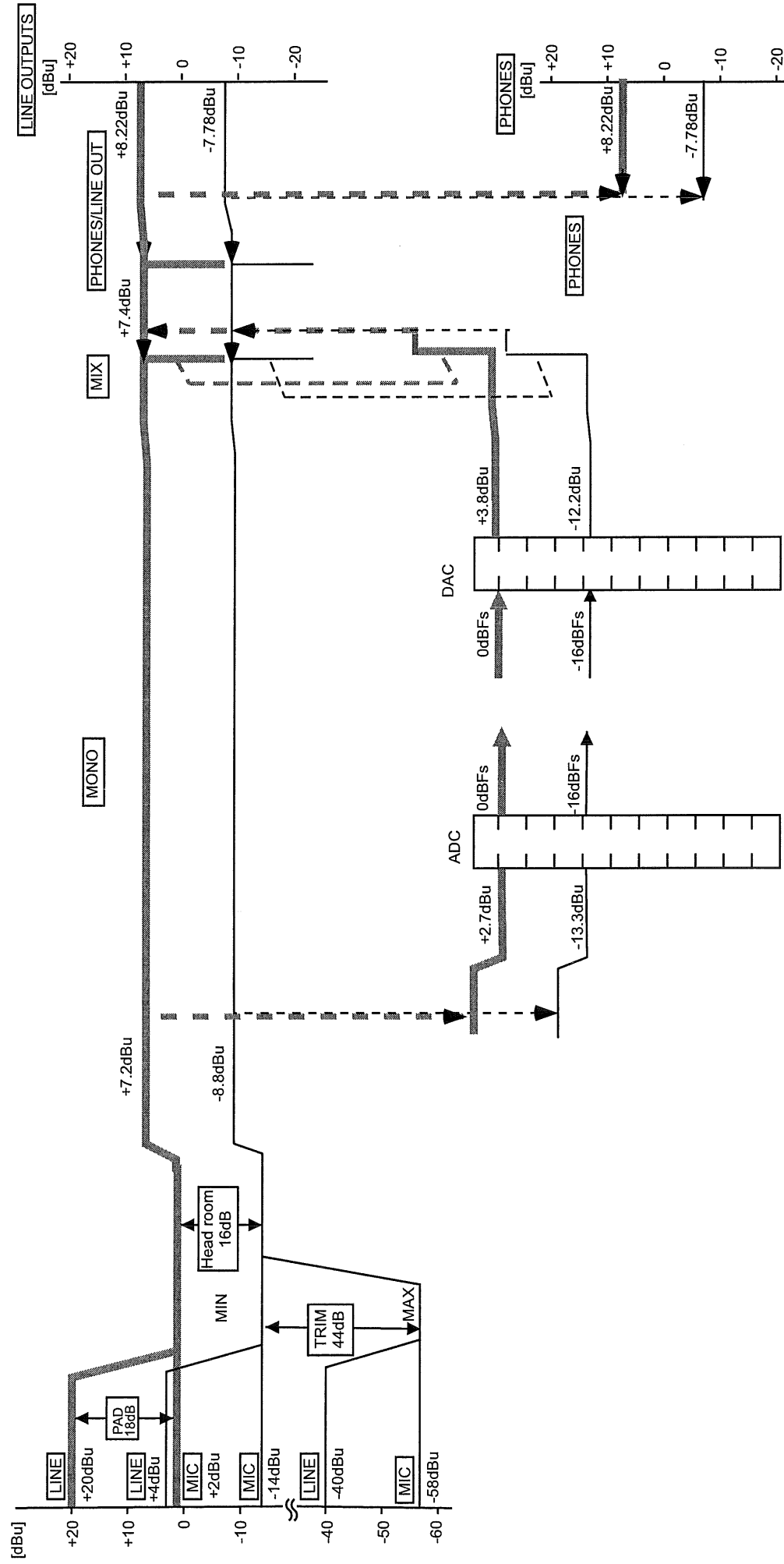
NOTES

- PC boards shown are viewed from parts side.
- Parts marked with * require longer delivery time.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- △ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [] mark can be used only with the version designated.
[J]: JAPAN [US/C]: U.S.A./CANADA [K]: KOREA [E]: EUROPE
[UK]: U.K. [A]: AUSTRALIA [JEX]: JAPAN & ASIA [T]: TAIWAN

注 意

- プリント基板図は部品面を示しています。
- * 印の部品は納期が若干かかります。
あらかじめご了承ください。
- 分解図に部番のない部品および品番のない部品は供給できません。
- 標準の抵抗、コンデンサーは省略してあります。
回路図を参照してください。
- △印は安全重要部品です。
交換する時は必ず指定の部品を使用してください。
- 仕向先
[J]: JAPAN [US/C]: U.S.A./CANADA [K]: KOREA [E]: EUROPE
[UK]: U.K. [A]: AUSTRALIA [JEX]: JAPAN & ASIA
[T]: TAIWAN

US-122L Level Diagram

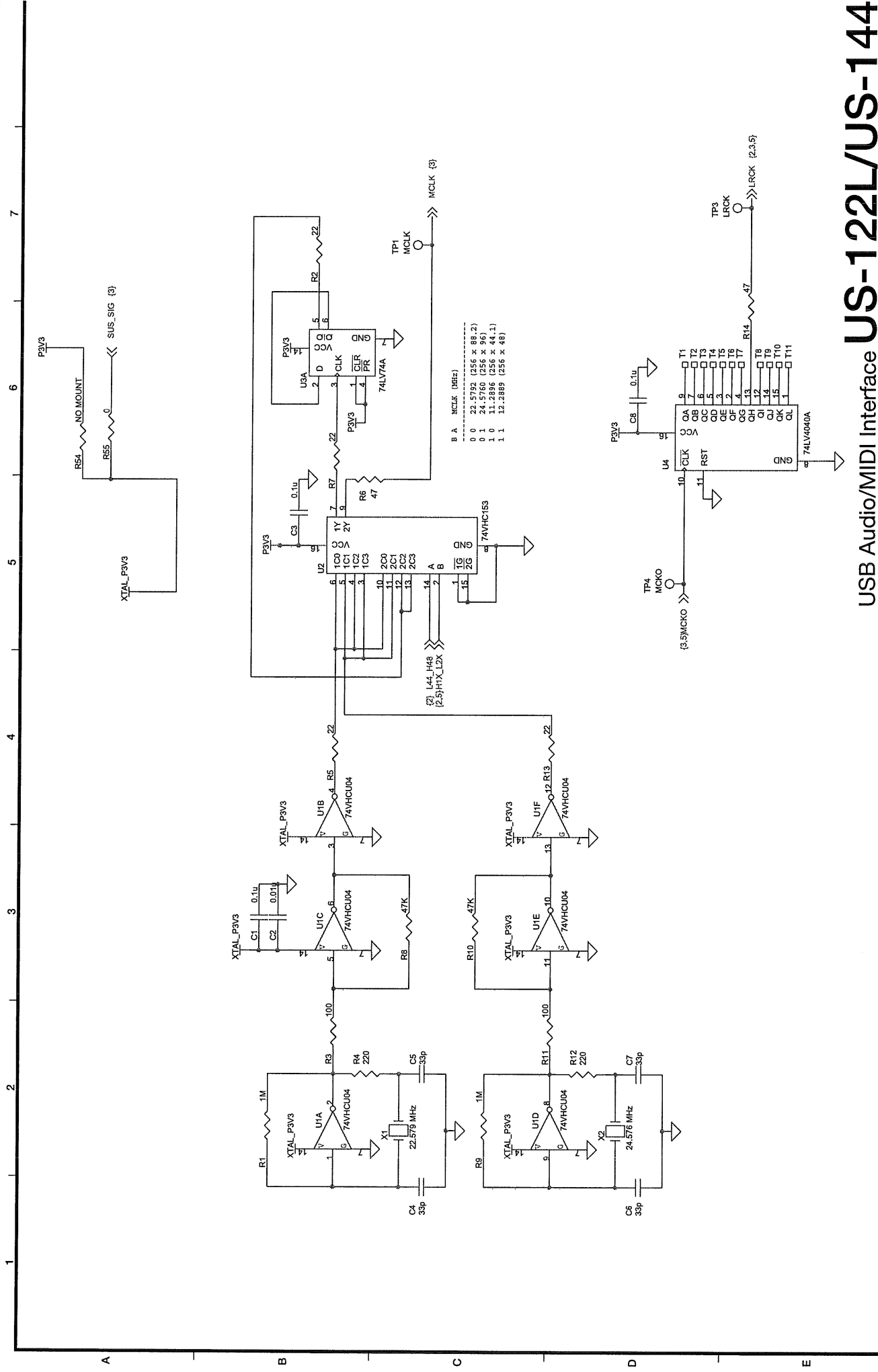


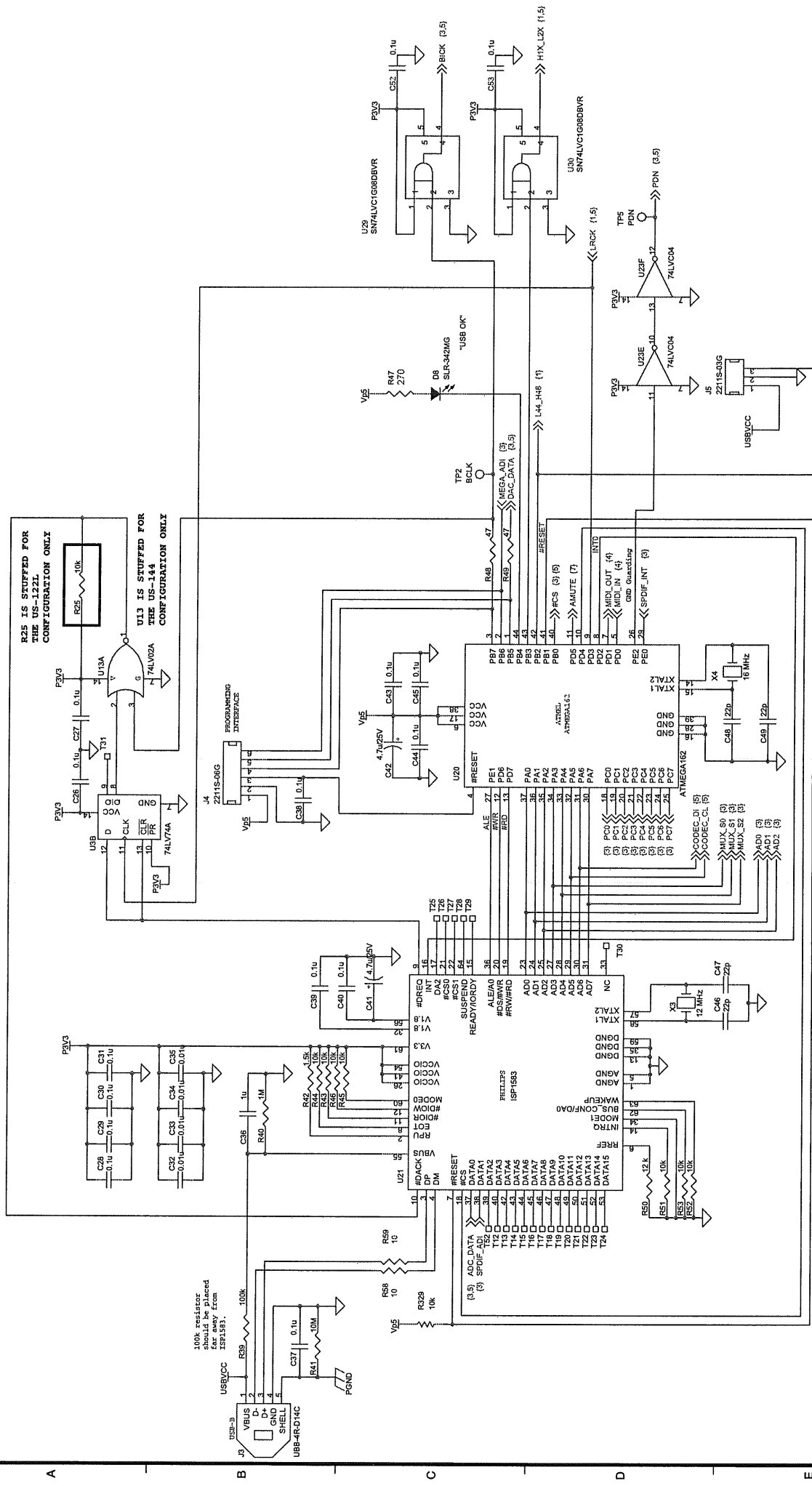
14mW + 14mW / 32ohm

SCHEMATIC DIAGRAM
回路図
US-122L/US-144

CONTENTS 目次

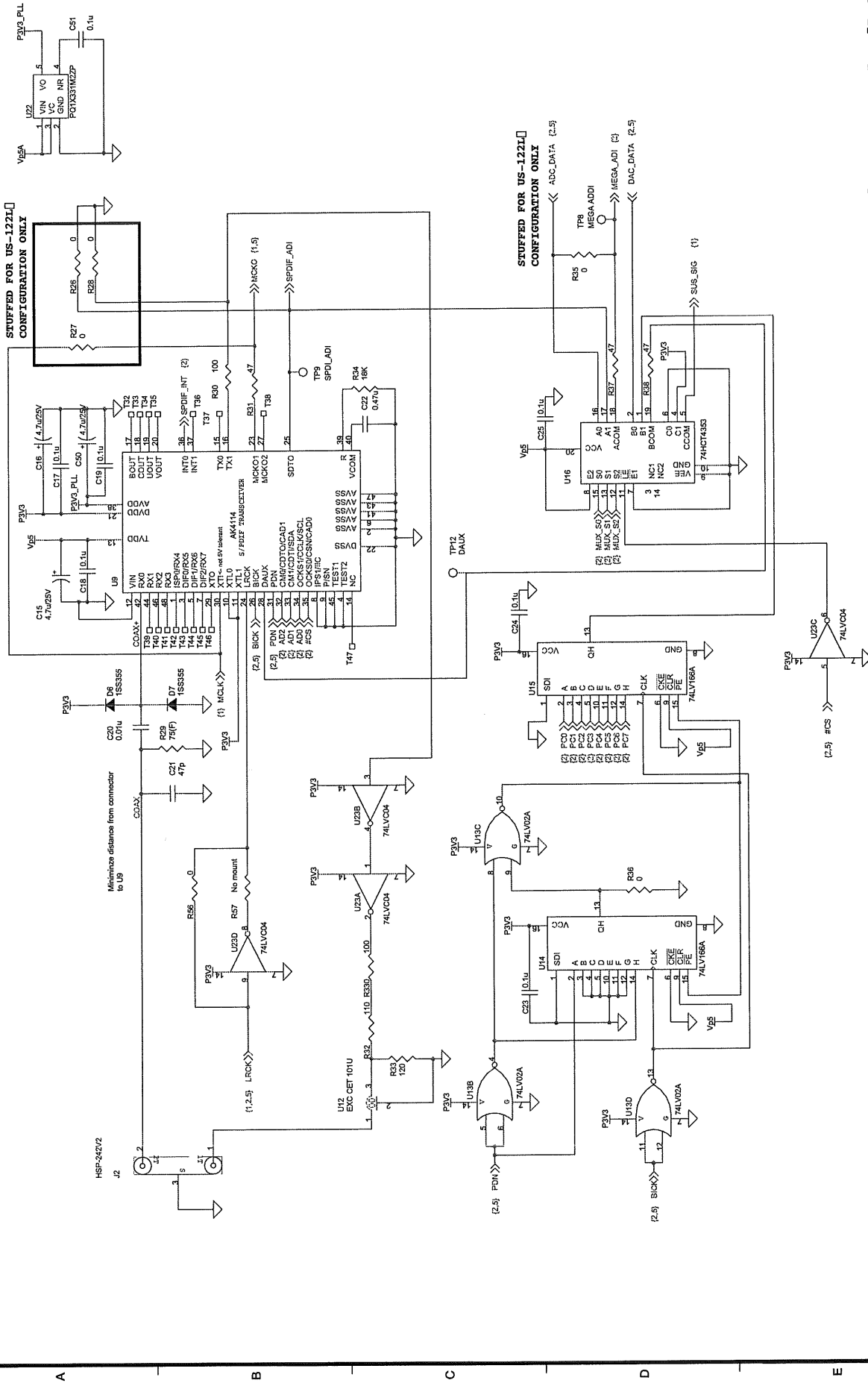
MAIN (1/8)	2
MAIN (2/8)	3
MAIN (3/8)	4
MAIN (4/8)	5
MAIN (5/8)	6
MAIN (6/8)	7
MAIN (7/8)	8
MAIN (8/8)	9





USB Audio/MIDI Interface **US-122L/US-144**

COMPONENTS ON THIS PAGE ARE STUFFED ONLY FOR THE US-144 CONFIGURATION UNLESS NOTED OTHERWISE

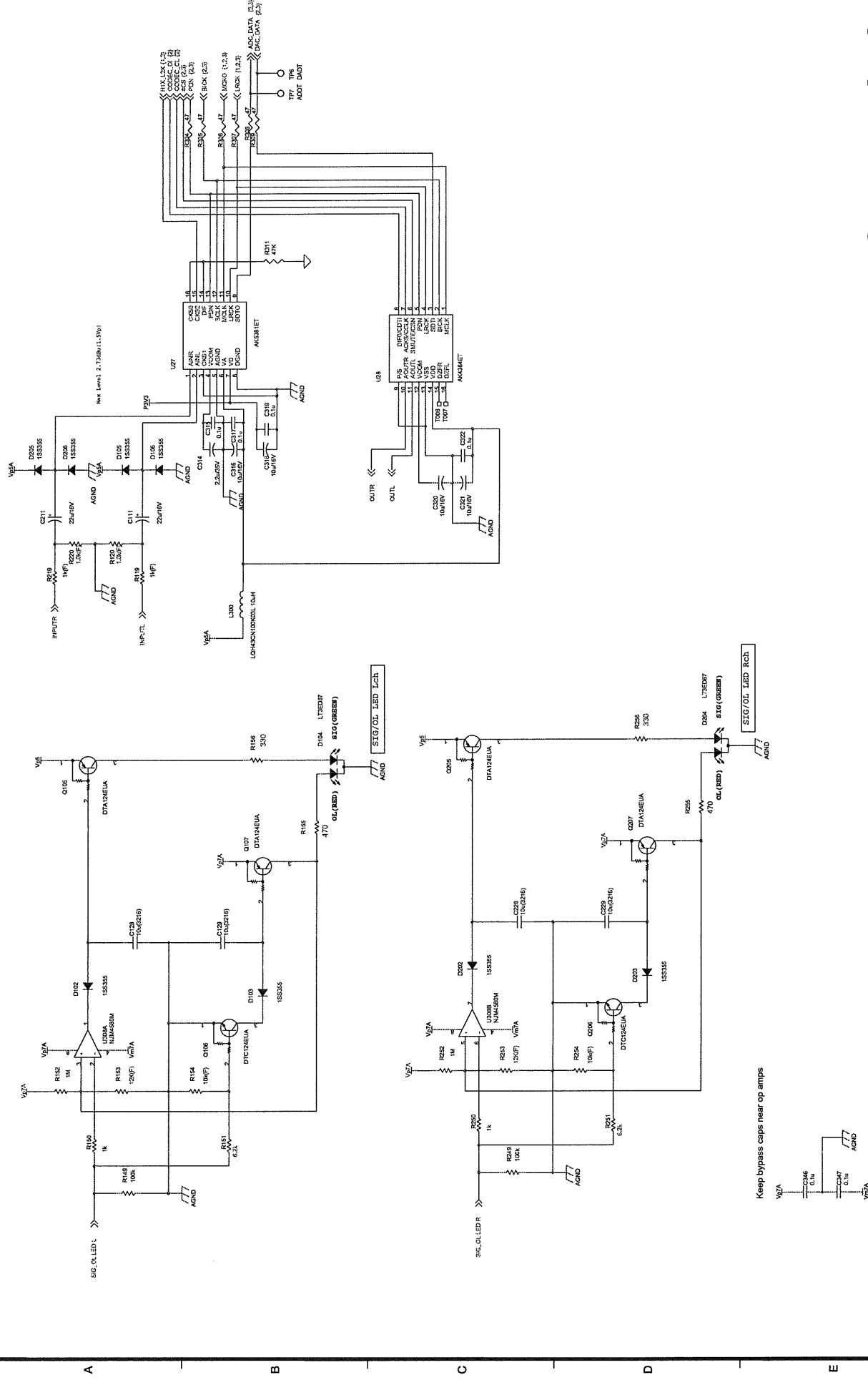


USB Audio/MIDI Interface

88

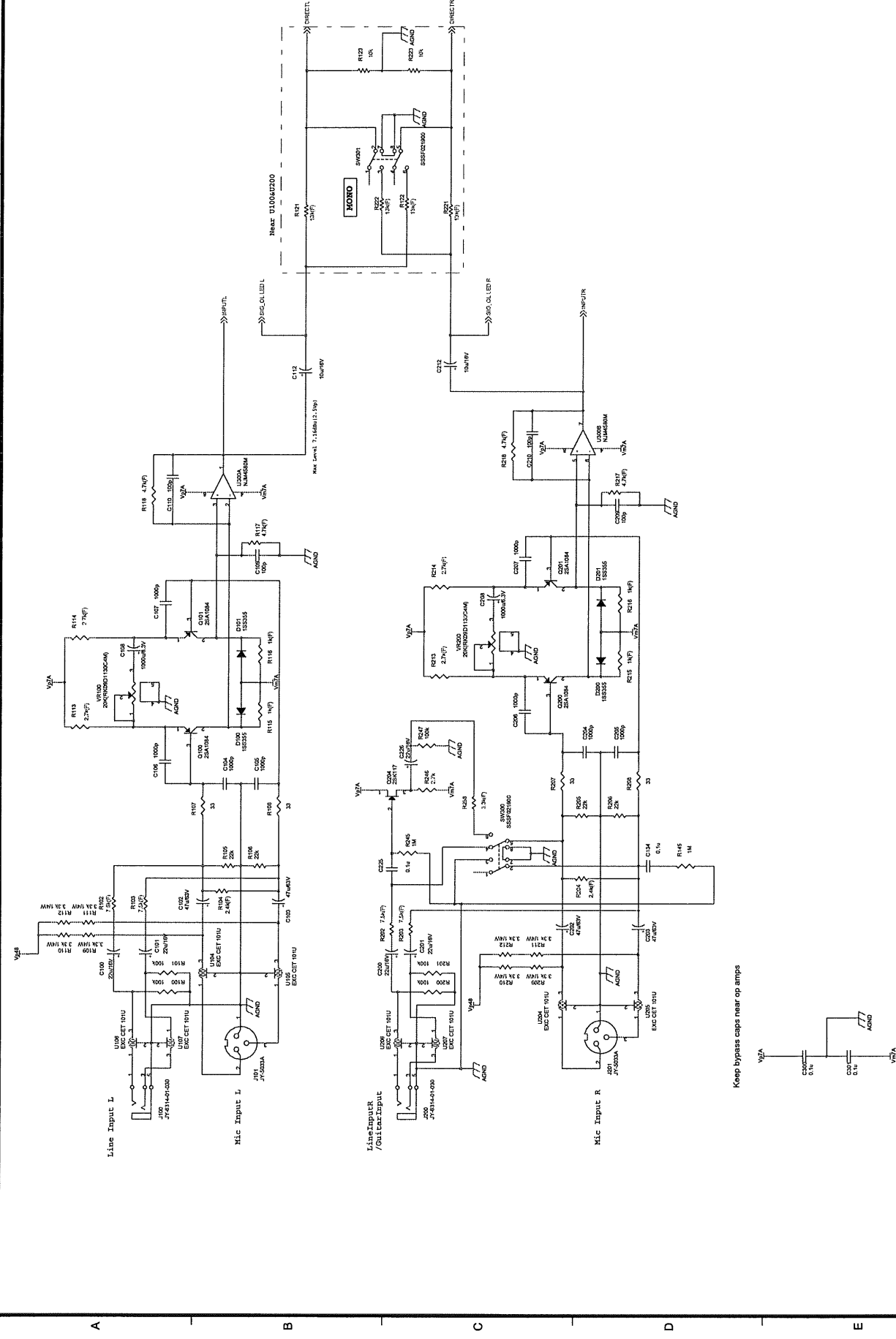
MIDI Output

2

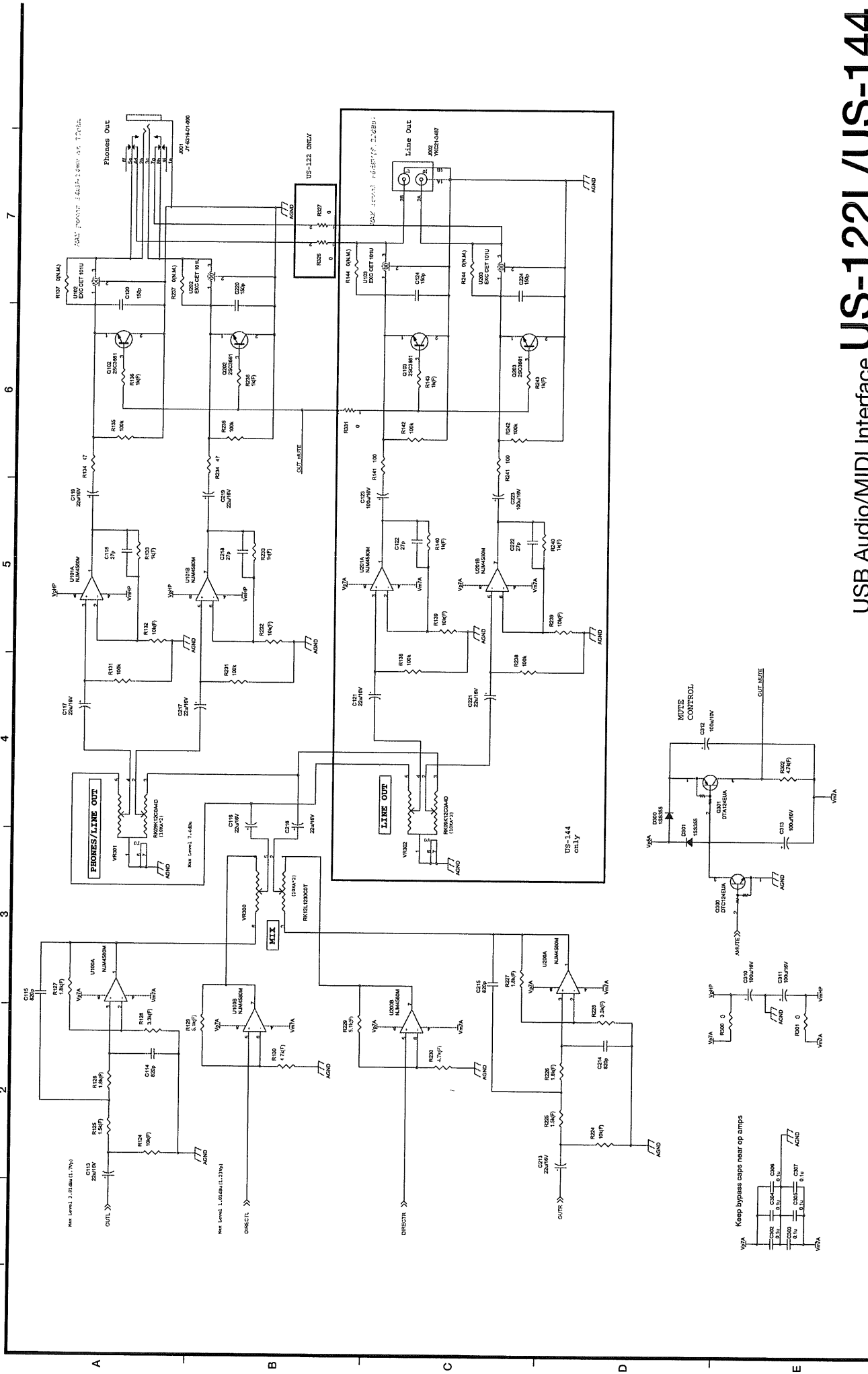


USB Audio/MIDI Interface

USB Audio/MIDI Interface **US-122L/US-144**



Keep bypass caps near op amps



USB Audio/MIDI Interface US-122L/US-144



TEAC**TECHNICAL INFORMATION****TASCAM US-122L/144 Modification for Mic Amp Noise problem**

No. 0815

DATE 31st July 2008

Mic Amp Noise problem on US-122L/144 has been fixed with the following modification.
The new circuit on the products with S/N 0250001 and higher:

Symptom:

US-122L/144 have a noise on Mic Input.

Cause:

Resistors in Mic Preamp are broken because the Microphone is plugged in or out during the Phantom power On.

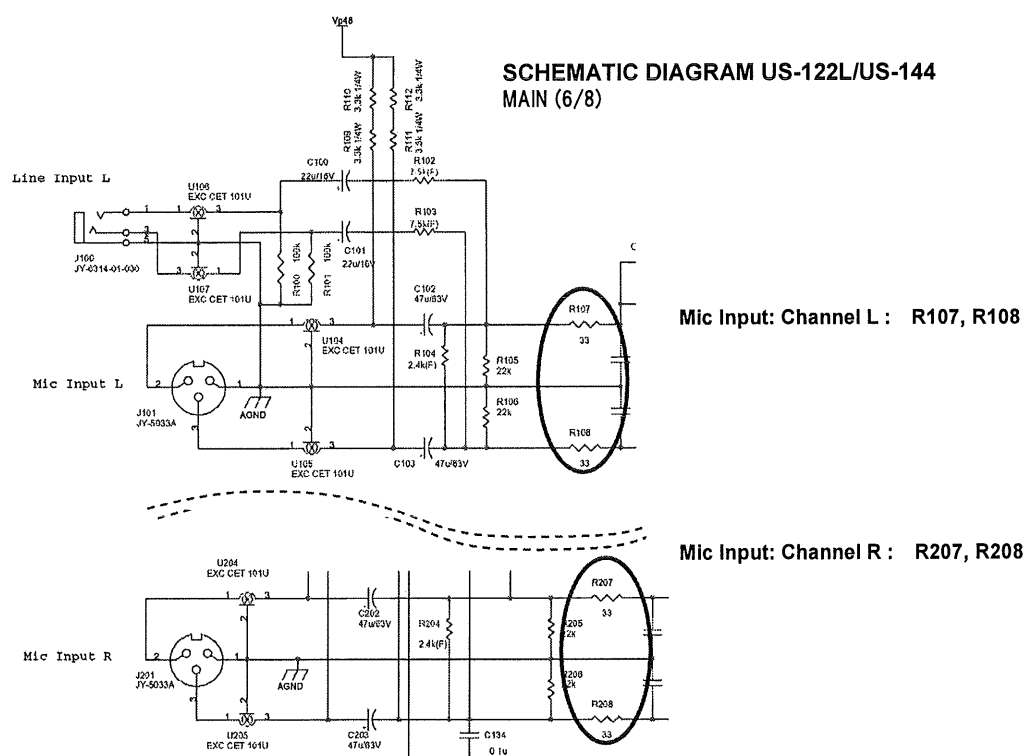
Remedy:

Change the following resistor value in MAIN PCB Ass'y,
R107, R108, R207, R208: 33ohm 1/10W to 33ohm 1/8W (lead type resistor)
Parts Number & description: R0154691 RD, 1/8W 33 ohm J26W

Note:

The production from Lot 21 (SN 021xxxx) to Lot 24 (SN 024xxxx) has been done the above modification in the factory. Procedure of this modification is shown in the next page.
The production from Lot 25 (SN 025xxxx) has been changed the new MAIN PCB with 33ohm 1/4W (Chip type) R0157864 RD, 1/4W 33 OHMJ1206G.

<u>Old MAIN PCB Ass'y</u>	P/No. E95277099A	PCB ASSY,MAIN US-122L
	P/No. E95275999A	PCB ASSY,MAIN US-144
<u>New MAIN PCB Ass'y</u>	P/No. E95277000A	PCB ASSY,MAIN US-122L
	P/No. E95275900A	PCB ASSY,MAIN US-144



* 33ohm 1/4W (Chip type), R0157864 RD, 1/4W 33 OHMJ1206G does not fit the pattern on the old PCB Ass'y,

If unsettled
E95277099A PCB ASSY, MAIN US-122L and E95275999A PCB ASSY, MAIN US-144, is met, The following modification is required.

Replaced R107, R108 and R207, R208 with
33ohm 1/8W (lead type resistor) P/No. R0154691 RD,

