ACOUSTIC GUITAR PRE-AMPLIFIER

AG-Stomp

SERVICE MANUAL

CONTENTS

GA 011589

YAMAHA
HAMAMATSU, JAPAN
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IMPOR TANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING : Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT : This presentation or sale of this manual to any individual or firm does not constitute authorization certification, recognition of any applicable technical capabilities, or establish a principal-agent relationship of any form.

The data provided is belived to be accurate and applicable to the unit(s) indicated on the cover. The research engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING : Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground bus in the unit (heavy gauge black wires connect to this bus.)

IMPORTANT : Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (Where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

SPECIFICATIONS

Digital Section

- Full Digital Signal Processing
- Mic Simulator: 8 Types
- Feedback Reduction: 5-band
- Digital Effects
  - Limiter
  - Digital Chorus, Digital Delay
  - Hall Reverb, Room Reverb, Plate Reverb
- External Controller Function (EXP Pedal/MIDI): 8 Controllers/Parameters
- Tuner Function (Chromatic, Auto)

MIDI Functions

Receive: Program Change (Program Change Table can be created), Control Change, Bulk In
Transmit: Program Change, Control Change, Bulk Out, Merge Out

Guitar Power Supply

9V power can be supplied via a TRS phone cable to a guitar's built-in pre-amplifier, etc. that consumes less than 10mA of power, and uses a monaural output.

Controller/Switch

Top Panel

Push Switch x17
UP, DOWN, MANUAL, UTILITY, STORE, LIMITER, FEEDBACK REDUCTION 1-5, CHORUS, DELAY, HALL, ROOM, PLATE, SHIFT

Knob x15
MIC TYPE, BLEND, VOLUME, BASS, MIDDLE, TREBLE, PRESENCE, LIMITER LEVEL, FEEDBACK REDUCTION FREQ, FEEDBACK REDUCTION DEPTH, CHORUS SPEED/DELAY TIME, CHORUS DEPTH/DELAY FEEDBACK, CHORUS LEVEL/DELAY LEVEL, REVERB LEVEL, OUTPUT

Footswitch x4
1, 2, 3 BANK

Rear Panel
STAND-BY ON/OFF, MUTE, +9V SUPPLY ON/OFF

Display

7 Segment LED (3 digit) x1
Push Switch LED x17
Footswitch LED x4

Connections

INPUT: Standard Stereo Phone Jack
OUTPUT L/MONO, R: Standard Stereo Phone Jack (TRS Balanced)
PHONES: Standard Stereo Phone Jack
EXP. PEDAL: Standard Stereo Phone Jack
DIGITAL OUT: COAXIAL
MIDI IN, MIDI OUT: 5-pin DIN

A/D Converter

20 bit

D/A Converter

20 bit

Sampling Frequency

44.1kHz

Memory Allocations

Preset: 30
User: 30

Input Level/Impedance (When using pre-amp bypass)

INPUT: -17dBm/1MΩ

Output Level/Impedance

OUTPUT L/MONO: Balance +4dBm/600Ω
OUTPUT R: Balance +4dBm/600Ω
PHONES: 0dBm/47Ω

Power

Exclusive Power Adaptor (AC-10)
AC Output: AC12V, 1A

Power Consumption

15W

Dimensions

280(W)x70(H)x184(D)mm (11.0"x2.8"x7.2")

Weight

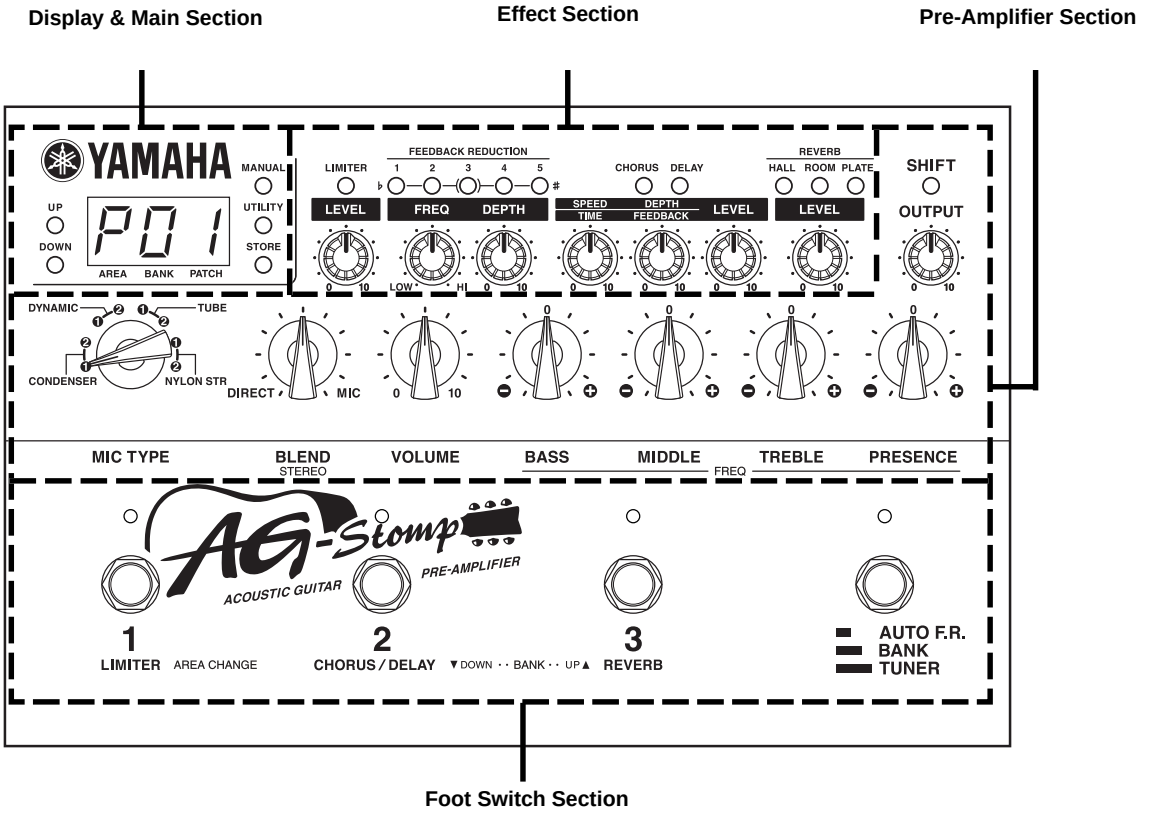
2.2 kg (4lbs. 4oz.)

Accessories

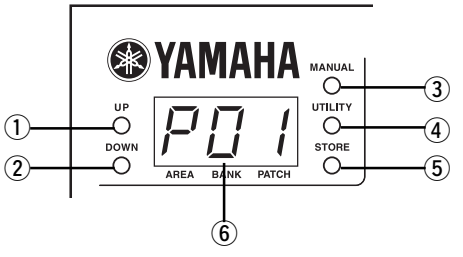
Power Adaptor (AC-10)
TRS Phone Cable for Guitar Power Supply (3m)
TRS-XLR Converter Cable (x2)
Dummy Battery
Owner's Manual

■ PANEL LAYOUT

• Top Panel

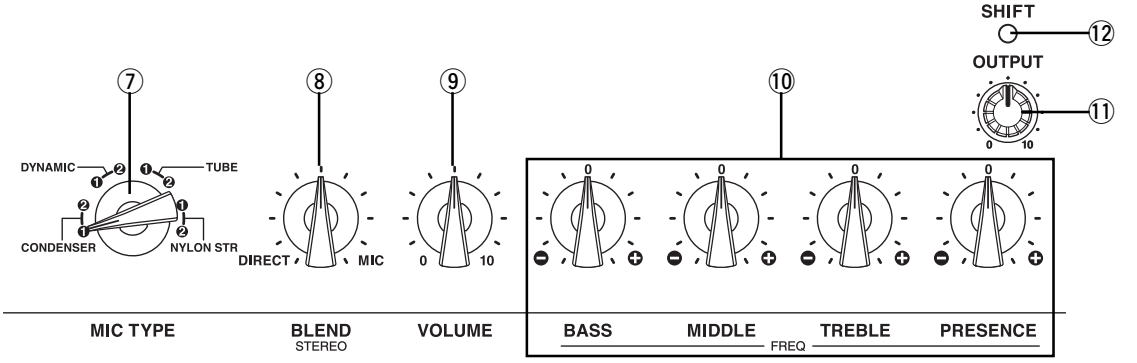


• Display & Main Section



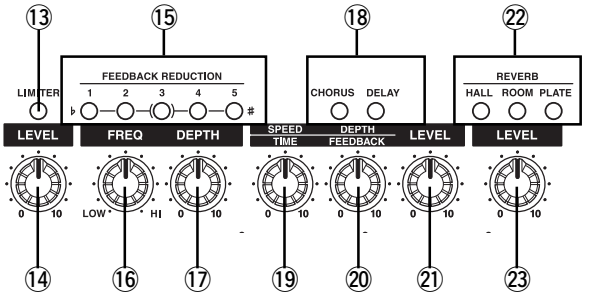
① UP Button
② DOWN Button
③ MANUAL Button
④ UTILITY Button
⑤ STORE Button
⑥ Display

• Pre-AmpSection



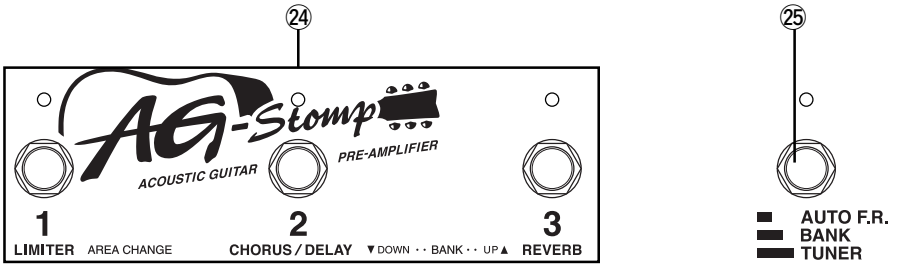
⑦ MIC TYPE Select Switch (MIC TYPE)
⑧ BLEND Control (BLEND/STEREO)
⑨ VOLUME
⑩ Tone Controls
⑪ OUTPUT Level Control
⑫ SHIFT Button

• Effect Section



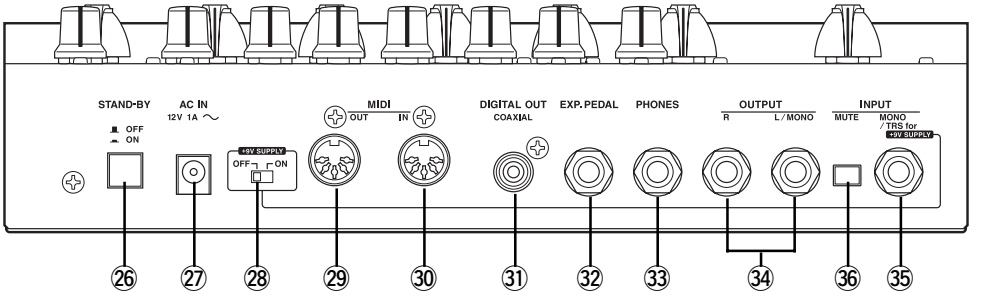
⑬ LIMITER Button
⑭ LEVEL
⑮ Feedback Reduction Buttons
⑯ Frequency Control (FREQ)
⑰ DEPTH Control
⑱ CHORUS/DELAY Effect Buttons
⑲ SPEED/TIME Control
⑳ DEPTH/FEEDBACK Control
㉑ LEVEL
㉒ Reverb Effect Buttons
㉓ REVERB Volume

• Footswitch Section



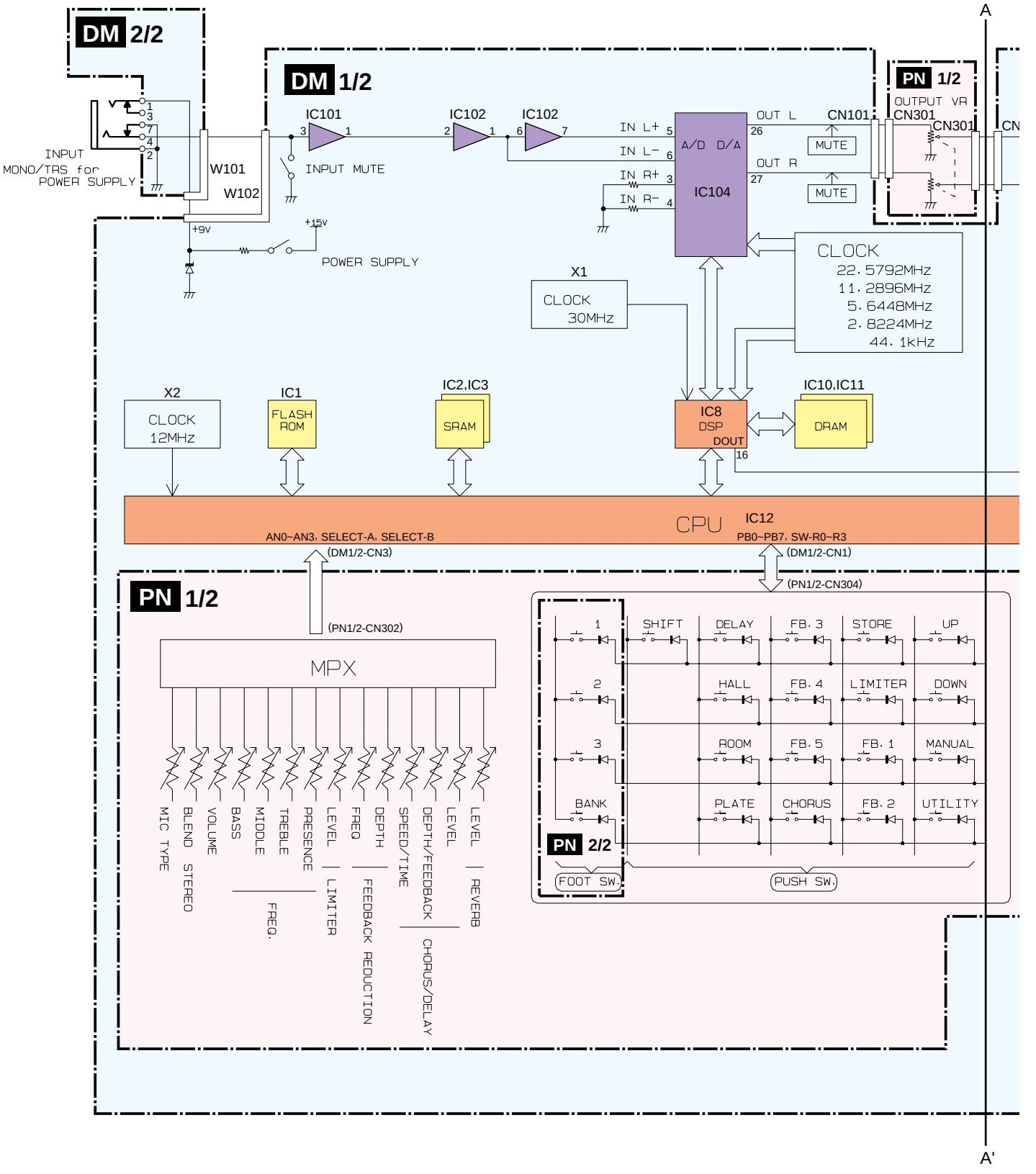
㉔ Footswitches 1, 2, 3
㉕ Bank Switch (AUTO F.R./BANK/TUNER)

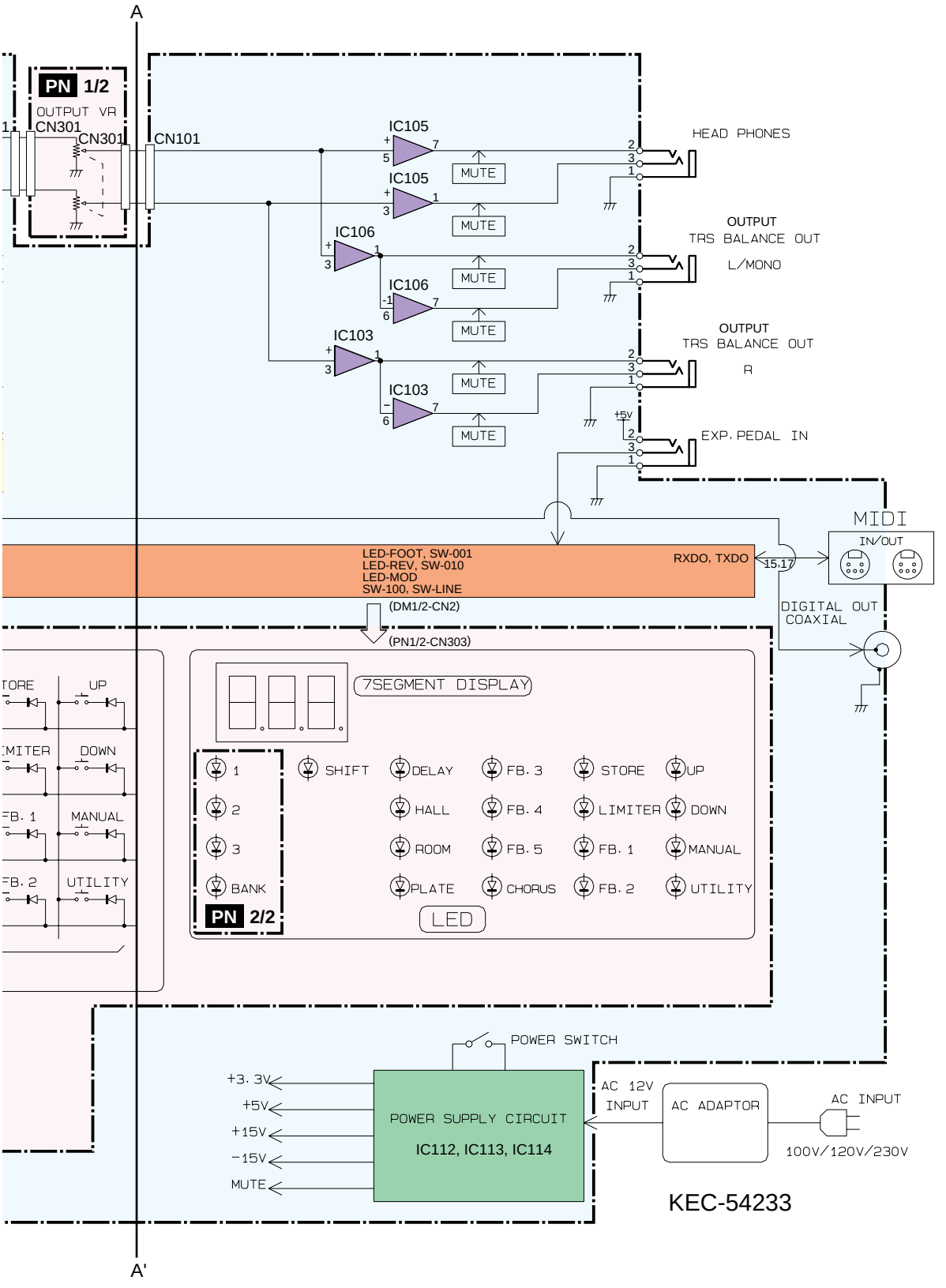
• Rear Panel



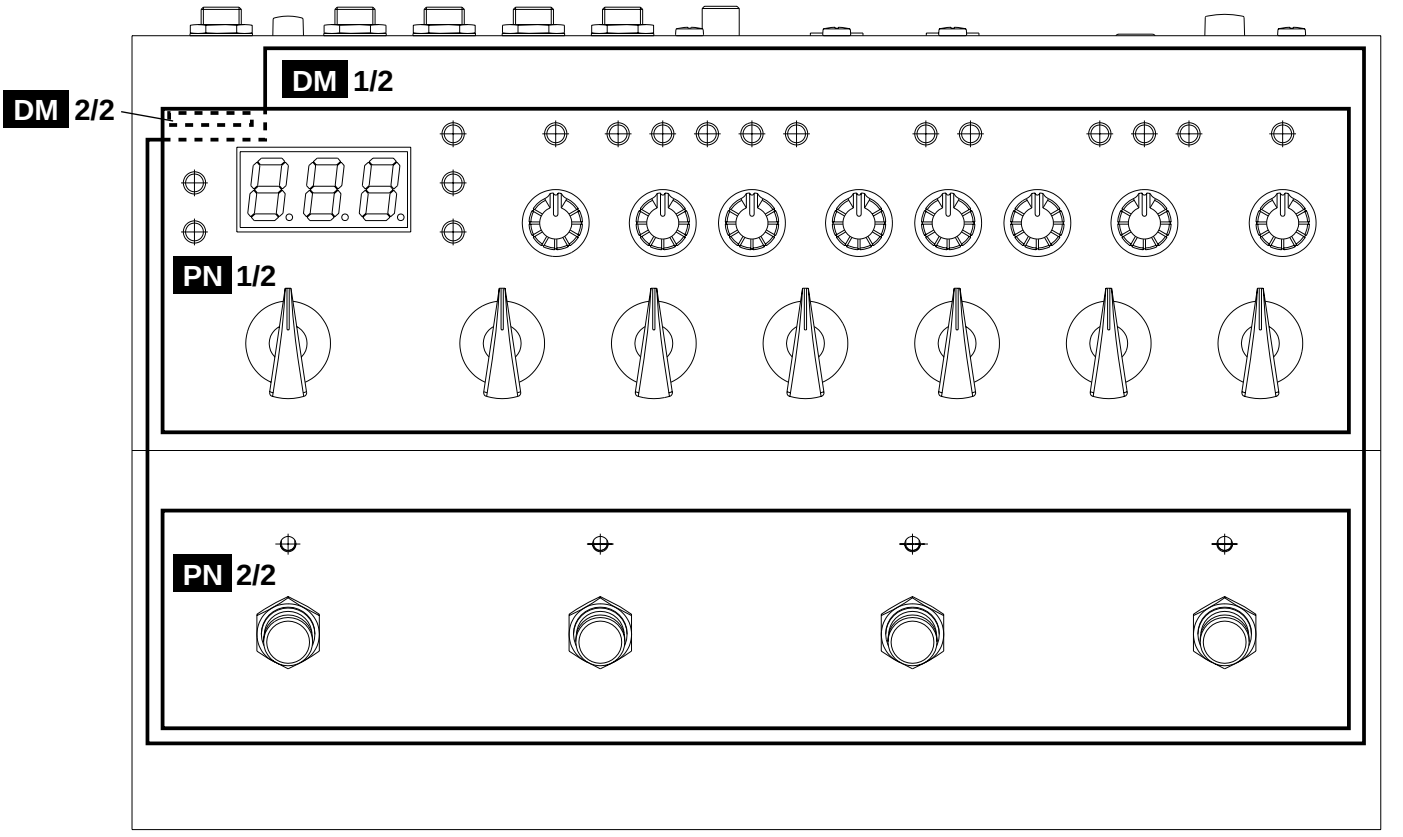
㉖ Power Switch (STAND-BY ON/OFF)
㉗ Power Adaptor Jack (AC IN 12V 1A)
㉘ Guitar Power Supply Switch
㉙ MIDI OUT Jack
㉚ MIDI IN Jack
㉛ Digital Output Jack (DIGITAL OUT)
㉜ EXP. PEDAL Jack
㉝ Headphone Jack (PHONES)
㉞ Output Jacks (OUTPUT R, L/MONO)
㉟ INPUT Jack
㊱ Input MUTE Switch

BLOCK DIAGRAM

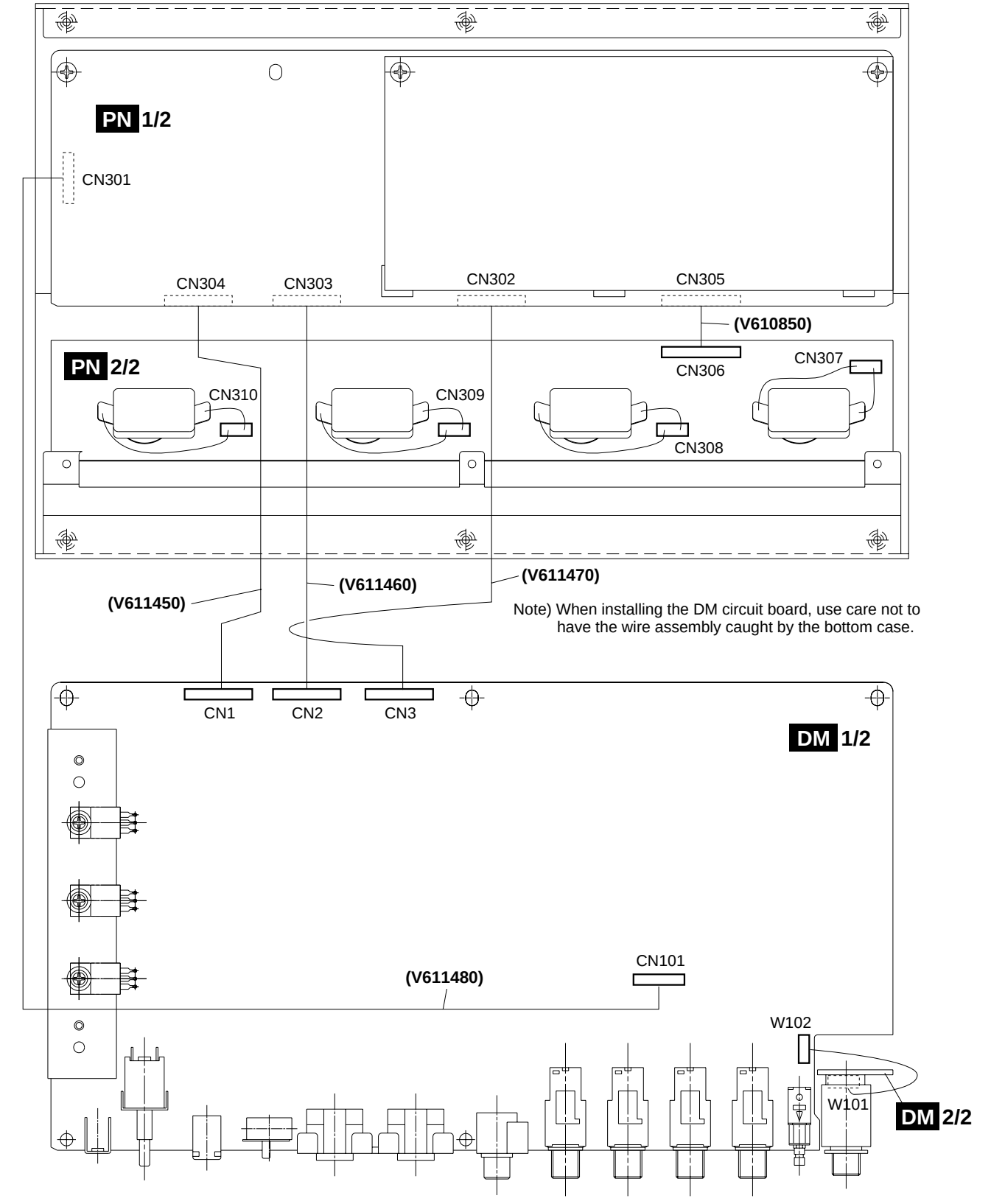



A
PN 1/2
OUTPUT VR
CN301
CN301
CN101
IC105
IC105
IC106
IC106
IC103
IC103
MUTE
HEAD PHONES
OUTPUT
TRS BALANCE OUT
L/MONO
OUTPUT
TRS BALANCE OUT
R
EXP. PEDAL IN
+5V
MIDI
IN/OUT
LED-FOOT, SW-001
LED-REV, SW-010
LED-MOD
SW-100, SW-LINE
RXDO, TXDO
15,17
DIGITAL OUT
COAXIAL
(DM1/2-CN2)
(PN1/2-CN303)
7SEGMENT DISPLAY
UP
DOWN
MANUAL
UTILITY
1
2
3
BANK
PN 2/2
SHIFT
DELAY
HALL
ROOM
PLATE
FB. 3
FB. 4
FB. 5
CHORUS
STORE
LIMITER
FB. 1
FB. 2
LED
POWER SWITCH
+3. 3V
+5V
+15V
−15V
MUTE
POWER SUPPLY CIRCUIT
IC112, IC113, IC114
AC 12V
INPUT
AC ADAPTOR
AC INPUT
100V/120V/230V
KEC-54233
A'

CIRCUIT BOARD LAYOUT



WIRING



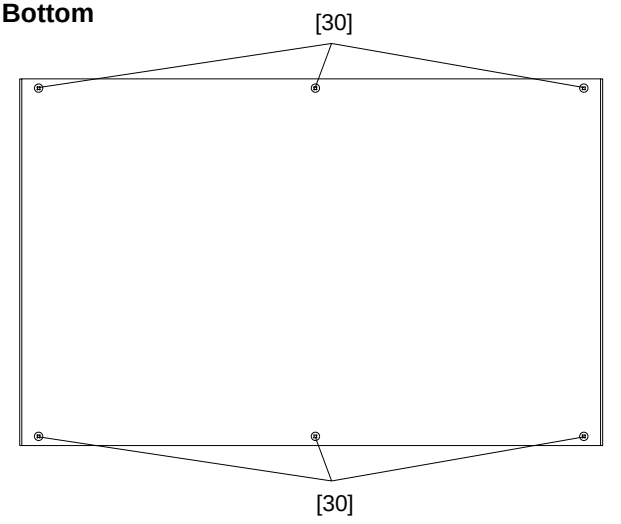
CNB-V698560 △1

DISASSEMBLY PROCEDURE

1. Bottom Case (Manhour requirement: 5 min.)

Remove the six (6) screws marked [30]. The bottom case can then be removed. (Fig. 1)

・Bottom



[30]:Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)

Fig.1

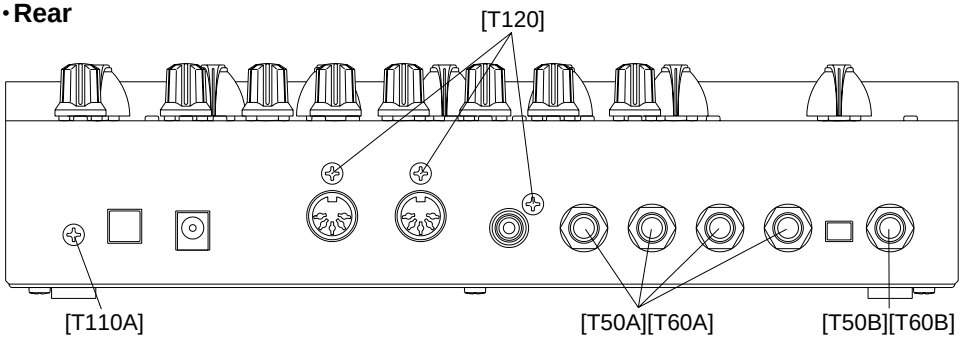
2. DM Circuit Board
(Manhour requirement: 15 min.)

2-1. Remove the bottom case. (See Procedure 1.)

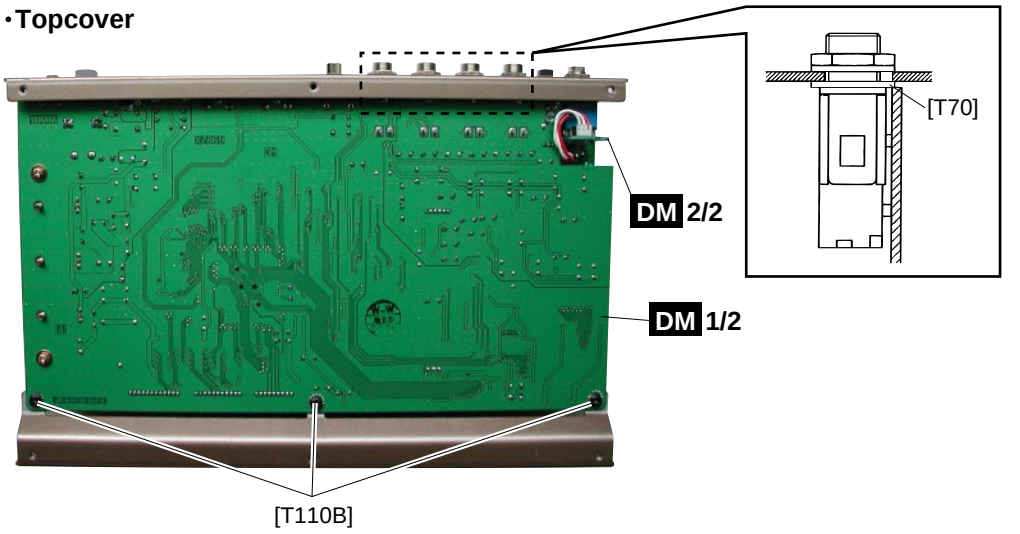
2-2. **DM1/2 Circuit Board (Manhour requirement: 10 min.)**
Remove the one (1) screw marked [T110A], three (3) screws marked [T120], four (4) hexagonal nuts marked [T50A] and four (4) flat washers marked [T60A] from the rear panel and the three (3) screws marked [T110B] from the DM1/2 circuit board. The DM1/2 circuit board can then be removed. Remove the four (4) toothed washer internal tooth forms marked [T70] as well when removing the DM1/2 circuit board from the main body. (Fig. 2)

2-3. **DM2/2 Circuit Board (Manhour requirement: 5 min.)**
Remove the one (1) hexagonal nut marked [T50B] and one (1) flat washer marked [T60B]. The DM2/2 circuit board can then be removed.

・Rear



[T50]:Hexagonal Nut 9.0 12x2 MFNI33 (LX200060)
[T60]:Flat Washer 9x14 0.5 FNM3 (VL802300)
[T120]:Bind Head Tapping Screw-P 3.0x12 MFZN2BL (VC161100)



[T70]:Washer 9.0 MFZN2Y (ET800150)
[T110]:Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)

Fig.2

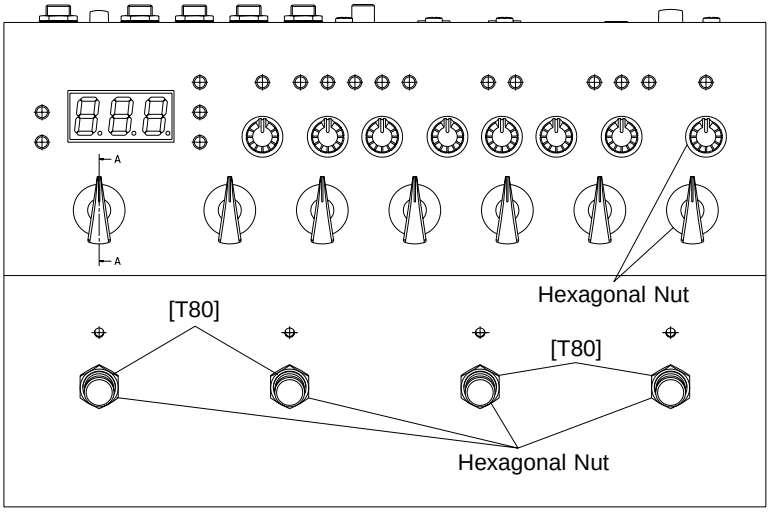
3. PN Circuit Boards (1/2, 2/2)
(Manhour requirement: 20 min.)

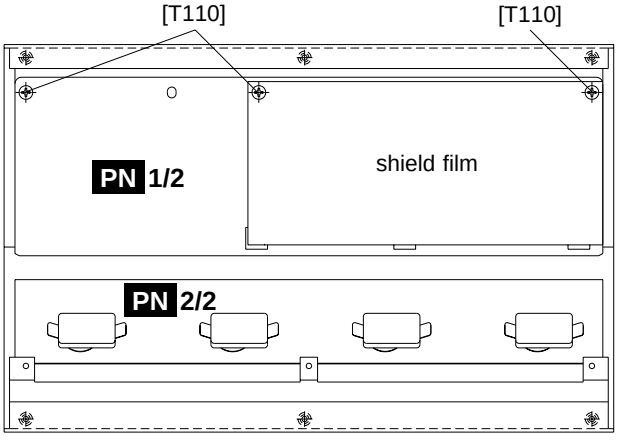
3-1. Remove the bottom case. (See Procedure 1.)

3-2. Remove the DM1/2 and DM2/2 circuit boards. (See Procedure 2.)

3-3-1. **PN 1/2 Circuit Board (Manhour requirement: 10 min.)** Remove the controls, knobs and hexagonal nuts from the front panel, the three (3) screws marked [T110] and the shield film from the PN1/2 circuit board. The PN1/2 circuit board can then be removed. (Fig. 3)

3-3-2. **PN 2/2 Circuit Board (Manhour requirement: 5 min.)** Remove the four (4) hexagonal nuts and the four (4) flat washers marked [T80] from foot switches. The PN 2/2 circuit board can then be removed. (Fig. 3)





[T80]:Flat Washer 12x17 0.5 MFNI33 (V7407400)
[T110]:Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)

Fig.3

4. Heat Sink (Manhour requirement: 25 min.)

4-1. Remove the bottom case. (See Procedure 1.)

4-2. Remove the DM circuit board. (See Procedure 2.)

4-3. Remove the two (2) screws marked [A-a] from the soldered face of the DM circuit board and the three (3) screws marked [A-b] from IC112, IC113 and IC114. The heat sink can then be removed from the DM circuit board. (Fig. 4)

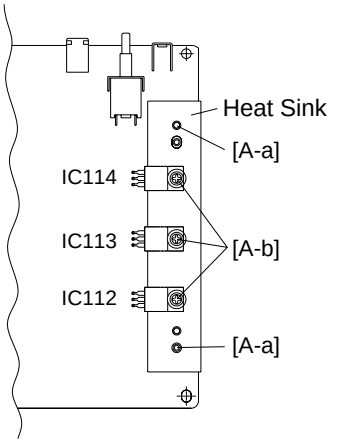


Fig.4

LSI PIN DESCRIPTION

● HD6413002FP16 (XQ375A00) CPU

DM: IC12

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	PA6	O	Port A	51	A12	O	Address bus
2	PA7	O	Address bus	52	A13	O	
3	VCC		Power supply	53	A14	O	
4	PB0	I	Port B	54	A15	O	
5	PB1	I		55	A16	O	
6	PB2	I		56	A17	O	
7	PB3	I		57	A18	O	
8	PB4	I		58	A19	O	
9	PB5	I		59	VSS		Ground
10	PB6//DREQ0	I		60	P60//WAIT	I	Port 6
11	PB7//DREQ1	I		61	P61//BREQ	I	
12	/RESO	O	Reset	62	P62//BACK	I	
13	VSS		Ground	63	Ø	O	Øout
14	P90/TXD0	O	Transmit data (MIDI OUT)	64	/STBY	I	Stand-by mode signal
15	P91/TXD1	O	KSN-ACK	65	/RES	I	Reset
16	P92/RXD0	I	Receive data (MIDI IN)	66	NMI	I	Non-maskable interrupt
17	P93/RXD1	I	KSN-RX	67	VSS		Ground
18	P94/SCK0	O	Port 9	68	EXTAL	I	Clock
19	P95/SCK1	I	Port 9	69	XTAL	O	Clock
20	P40/D0	I/O	Data bus	70	VCC		Power supply
21	P41/D1	I/O		71	/AS	O	Address strobe
22	P42/D2	I/O		72	/RD	O	Read strobe
23	P43/D3	I/O		73	/HWR	O	Write strobe (High)
24	VSS		(Ground)	74	/LWR	O	Write strobe (Low)
25	P44/D4	I/O		75	MD0	I	Mode select
26	P45/D5	I/O		76	MD1	I	
27	P46/D6	I/O		77	MD2	I	
28	P47/D7	I/O		78	AVCC		Analog power supply
29	D8	I/O		79	VREF	I	Reference voltage
30	D9	I/O		80	P70/AN0	I	Analog data input (EQ)
31	D10	I/O		81	P71/AN1	I	Analog input (EQ)
32	D11	I/O		82	P72/AN2	I	Analog data input
33	D12	I/O		83	P73/AN3	I	Analog input (CS)
34	D13	I/O		84	P74/AN4	I	Analog data input (BEND)
35	D14	I/O		85	P75/AN5	I	Analog input (MOD)
36	D15	I/O		86	P76/AN6	I	Analog input (FC)
37	VCC		Power supply	87	P77/AN7	I	Analog input (BAT)
38	A0	O	Address bus	88	AVSS		Analog ground
39	A1	O		89	P80	O	Port 8
40	A2	O		90	P81//CS3	O	Chip select
41	A3	O		91	P82//CS2	O	
42	A4	O		92	P83//CS1	O	
43	A5	O		93	P84//CS0	O	
44	A6	O		94	VSS		Ground
45	A7	O		95	PA0	I	Port A
46	VSS		(Ground)	96	PA1	I	
47	A8	O		97	PA2	I	
48	A9	O		98	PA3	O	
49	A10	O		99	PA4	O	
50	A11	O		100	PA5	O	

● **YSS910-S** (XV988A00) **DSP6** (Digital Signal Processor)

DM: IC8

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Vdd		Power supply (3.3 V)	89	Vss		Ground
2	Vss		Ground	90	DB13	I/O	Parallel data bus
3	XI	I	System master clock input (60 MHz or 30 MHz)	91	DB14	I/O	
4	XO	O	System master clock output (High or 30 MHz)	92	DB15	I/O	
5	Vdd		Power supply (5 V)	93	DB16	I/O	
6	/SYNCI	I	Sync. signal input	94	DB17	I/O	
7	/SYNCO	O	Sync. signal output	95	DB18	I/O	
8	Vdd		Power supply (5 V)	96	DB19	I/O	
9	CKI	I	System clock input (30 MHz)	97	DB20	I/O	
10	CKO	O	System clock output (30 MHz)	98	DB21	I/O	
11	CKSEL	I	System master clock select (0: 60 MHz, 1: 30 MHz)	99	DB22	I/O	
12	Vss		Ground	100	Vss		Ground
13	MCKS	I	Serial I/O master clock input (128 x Fs)	101	Vdd		Power supply (3.3 V)
14	/SSYNC	I	Serial I/O Sync. signal output	102	DB23	I/O	Parallel data bus
15	/IC	I	Initial clear	103	DB24	I/O	
16	/TEST	I	Test mode setting (0: Test, 1: Normal)	104	DB25	I/O	
17	BTYP	I	Data bus type select (0: 8 bit, 1: 16 bit)	105	DB26	I/O	
18	/IRQ	O	IRQ output	106	DB27	I/O	
19	TRIG	I/O	Trigger signal input/output	107	DB28	I/O	
20	Vdd		Power supply (5 V)	108	DB29	I/O	
21	Vss		Ground	109	DB30	I/O	
22	/CS	I	chip select signal input	110	DB31	I/O	
23	/WR	I	Write signal input	111	TIMO/DBOB	I/O	Timing signal output/ Parallel data bus output/ input
24	/RD	I	Read signal input	112	Vss		Ground
25	CA7	I/O	Address bus of internal register	113	Vdd		Power supply (5 V)
26	CA6	I/O		114	DA00	I/O	Memory data bus
27	CA5	I/O		115	DA01	I/O	
28	CA4	I/O		116	DA02	I/O	
29	CA3	I/O		117	DA03	I/O	
30	CA2	I/O		118	DA04	I/O	
31	CA1	I/O		119	DA05	I/O	
32	Vss		Ground	120	DA06	I/O	
33	Vdd		Power supply (3.3 V)	121	DA07	I/O	
34	CD15	I/O	Data bus of internal register	122	Vss		Ground
35	CD14	I/O		123	DA08	I/O	Memory data bus
36	CD13	I/O		124	DA09	I/O	
37	CD12	I/O		125	DA10	I/O	
38	CD11	I/O		126	DA11	I/O	
39	CD10	I/O		127	DA12	I/O	
40	CD09	I/O		128	DA13	I/O	
41	CD08	I/O		129	DA14	I/O	
42	CD07	I/O		130	DA15	I/O	
43	CD06	I/O		131	Vss		Ground
44	Vss		Ground	132	Vdd		Power supply (3.3 V)
45	Vdd		Power supply (3.3 V)	133	(n.c)		Not used
46	Vdd		Power supply (5 V)	134	Vdd		Power supply (5 V)
47	CD05	I/O	Data bus of internal register	135	DA16	I/O	Memory data bus
48	CD04	I/O		136	DA17	I/O	
49	CD03	I/O		137	DA18	I/O	
50	CD02	I/O		138	DA19	I/O	
51	CD01	I/O		139	DA20	I/O	
52	CD00	I/O		140	DA21	I/O	
53	/WAIT	O	WAIT output	141	DA22	I/O	
54	Vss		Ground	142	DA23	I/O	
55	SI0	I	Serial data input	143	Vss		Ground
56	SI1	I		144	DA24	I/O	Memory data bus
57	SI2	I		145	DA25	I/O	
58	SI3	I		146	DA26	I/O	
59	SI4	I		147	DA27	I/O	
60	SI5	I		148	DA28	I/O	
61	SI6	I		149	DA29	I/O	
62	SI7	I		150	DA30	I/O	
63	Vss		Ground	151	DA31	I/O	
64	Vdd		Power supply (5 V)	152	Vdd		Power supply (5 V)
65	SO0	O	Serial data output	153	Vss		Ground
66	SO1	O		154	A00	O	Memory address (SRAM, PSRAM, DRAM)
67	SO2	O		155	A01	O	
68	SO3	O		156	A02	O	
69	SO4	O		157	A03	O	
70	SO5	O		158	A04	O	
71	SO6	O		159	A05	O	
72	SO7	O		160	A06	O	
73	Vss		Ground	161	A07	O	
74	DB00	I/O	Parallel data bus	162	A08	O	
75	DB01	I/O		163	A09	O	
76	DB02	I/O		164	Vss		Ground
77	DB03	I/O		165	Vdd		Power supply (3.3 V)
78	DB04	I/O		166	A10	O	Memory address (SRAM, PSRAM, DRAM)
79	DB05	I/O		167	A11	O	
80	DB06	I/O		168	A12	O	Memory address (SRAM, PSRAM)
81	DB07	I/O		169	A13	O	
82	DB08	I/O		170	A14	O	
83	DB09	I/O		171	A15/RAS	O	Memory address (SRAM, PSRAM), /RAS (DRAM)
84	DB10	I/O		172	A16/CAS	O	Memory address (SRAM, PSRAM), /CAS (DRAM)
85	DB11	I/O		173	A17/CE	O	Memory address (SRAM), /CE (PSRAM)
86	DB12	I/O		174	/WE	O	Memory write enable signal
87	Vdd		Power supply (5 V)	175	/OE	O	Memory output enable signal
88	Vdd		Power supply (3.3 V)	176	Vdd		Power supply (5 V)

● **YM3437C-F** (XM530A00) **DIT2** (Digital Format Interface Transmitter)

DM: IC17

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Vss		Ground	9	MUTE	I	Mute
2	MCLK	I	Master clock input	10	VFL	I	Validity flag
3	DM0	I	DIN/BCLK/WCLK format select	11	CCK	I	C,U bit clock input/C bit data input
4	DM1	I	DM1,DM0=0,0 DSP,LDSP (64 bit,LSB first) DM1,DM0=0,1stereo,DSP (64 bit,MSB first) DM1,DM0=1,0 DSP2 (128 bit,MSB first) DM1,DM0=1,1 BB (64 bit,MSB first)	12	CIN	I	C,U bit data input/U bit data input
5	RES	I	System reset	13	CLD	I	End of C,U bit input/16,20 bit/24 bit select
6	WCIN	I	Word clock input	14	CNTR	I	32 bit counter reset/Top of block
7	DIN	I	Digital audio serial data input	15	CSM	I	Channel status input mode select CSM=0 Asynchronous mode CSM=1 Synchronous mode
8	V_{DD}		Power supply (+5 V)	16	DOUT	O	Digital interface formatted data output

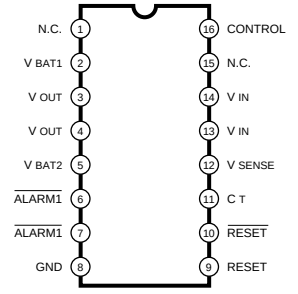
● **AK4520A-VF-E2** (XT802A00) **DAC & ADC**

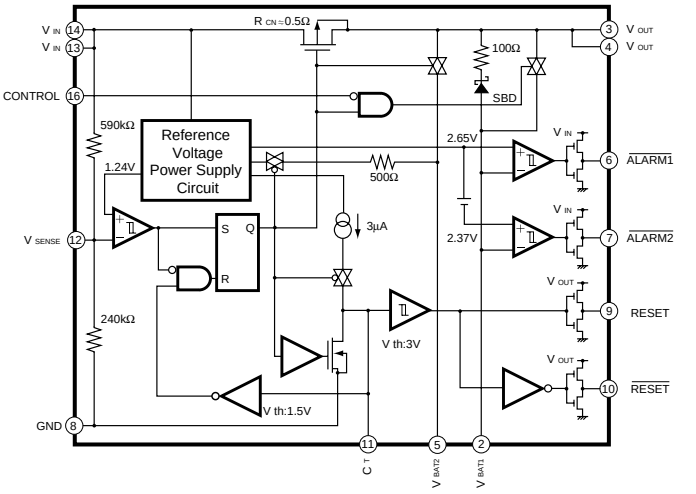
DM: IC104

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VREFH	I	Positive Voltage Reference Input, VA	15	MCLK	I	Master Clock Input
2	VREFL	I	Negative Voltage Reference Input, AGND	16	DEM0	I	De-emphasis Frequency Select
3	AINR+	I	Rch Analog Positive Input	17	DEM1	I	De-emphasis Frequency Select
4	AINR-	I	Rch analog Negative Input	18	TST3	I/O	
5	AINL+	I	Lch Analog Positive Input	19	TST2	I/O	Test Pins (Pull Down Pins)
6	AINL-	I	Lch analog Negative Input	20	TST1	I	
7	VA	-	Analog Power Supply	21	VD	-	Digital Power Supply
8	AGND	-	Analog Ground	22	DGND	-	Digital Ground
9	DIF0	I	Audio Data Interface Format	23	/PWDA	I	DAC power-Down Mode
10	DIF1	I	Audio Data Interface Format	24	/PWAD	I	ADC power-Down Mode
11	LRCK	I	Input/Output Channel Clock	25	CMODE	I	Master Clock Select (“H”:384 fs,“L”:256 fs)
12	SCLK	I	Audio Serial Data Clock	26	AOUTL	O	Lch Analog Output
13	SDTI	I	Audio Serial Data Input	27	AOUTR	O	Rch Analog Output
14	SDTO	O	Audio Serial Data Output	28	VCOM	O	Common Voltage Output, VA/2

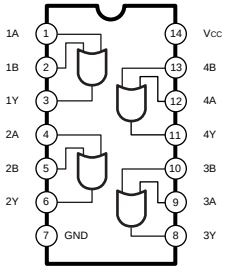
IC BLOCK DIAGRAM

● **MB3790PF**(XR967A00)
DM: IC4
ASSP

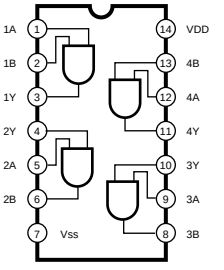




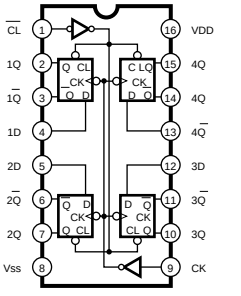
● **74AHC32DT**(XZ103A00)
DM: IC5, IC6
OR



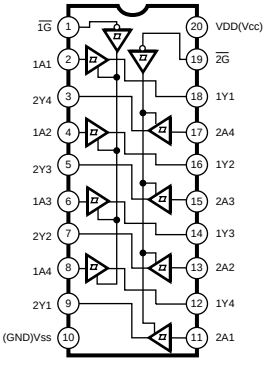
● **74HC08DT**(XZ108A00)
DM: IC7
AND



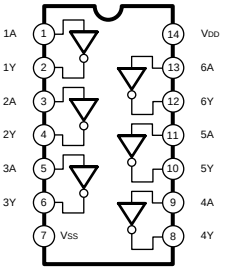
● **74HC175DT**(XZ113A00)
DM: IC110
Quad D-Type Flip-Flop



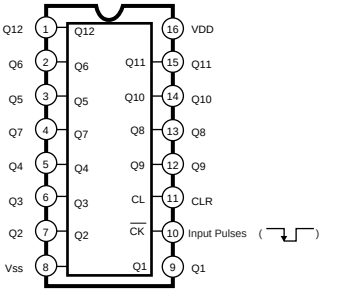
● **74HC244DT**(XZ109A00)
DM: IC14, IC15, IC16
Bus Buffer



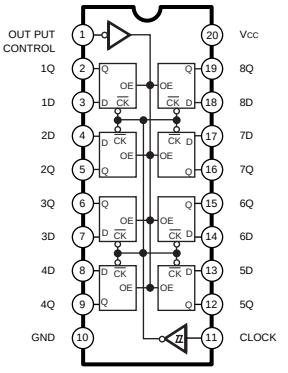
● **74HCU04DT** (XZ110A00)
DM: IC107
INVERTER



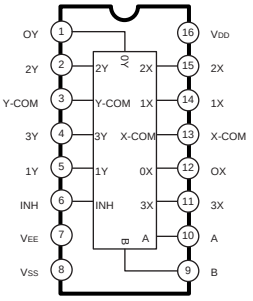
● **TC74HC4040F**(XR684A00)
DM: IC108
12-Stage Binary Ripple Counter



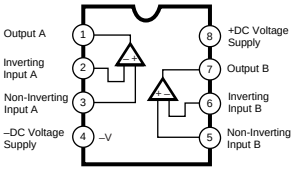
● **74HC374DT**(XZ102A00)
PN: IC301~IC307
D-FF



● **74HC4052DT**(XZ101A00)
PN: IC308, IC309
Multiplexer

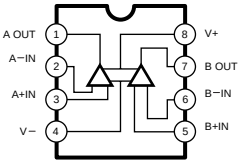


● **NJM072M**(XC458A00)
DM: IC101
OP AMP



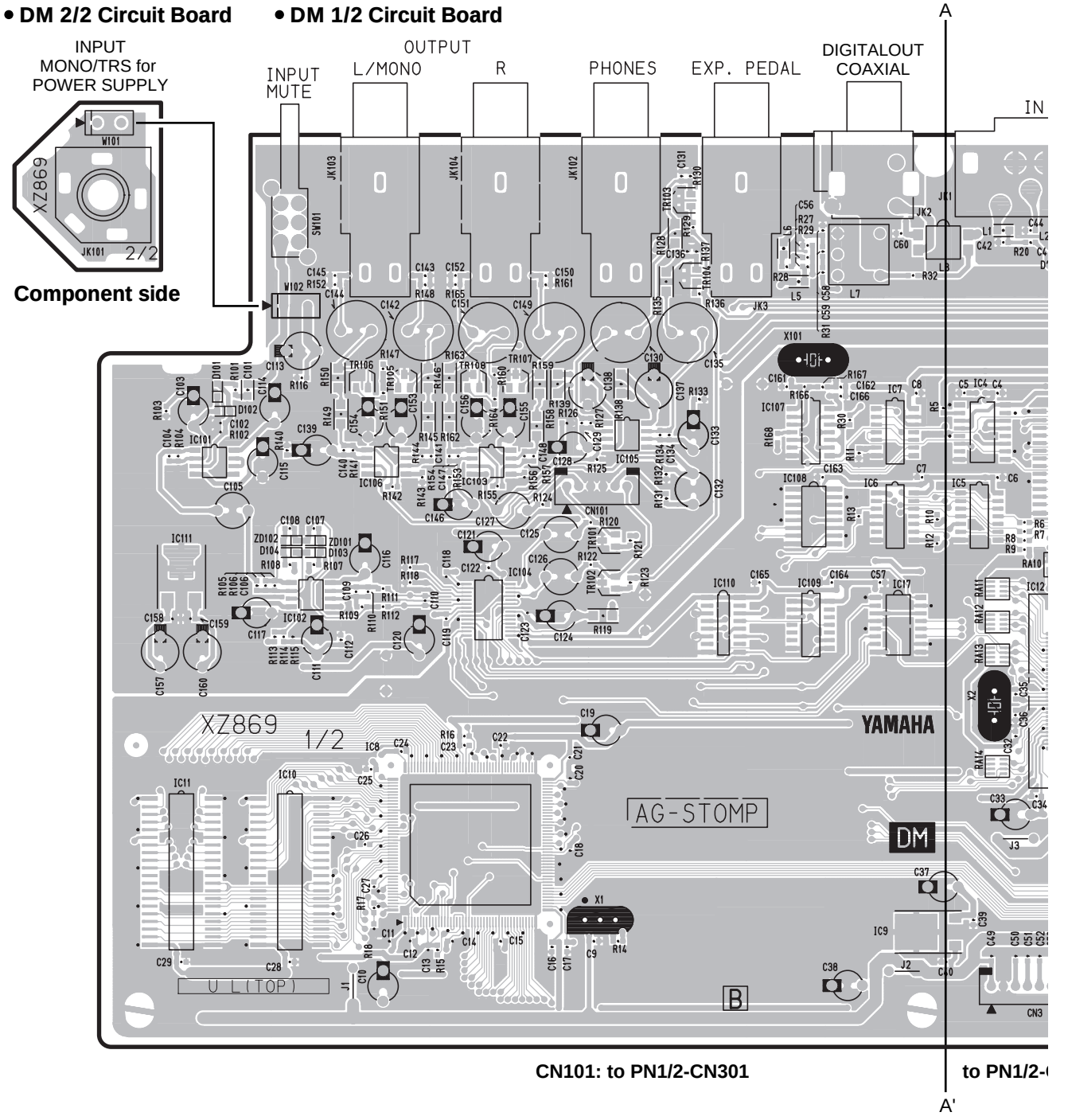
● **NJM5532M** (XC011A00)
DM: IC102, IC103

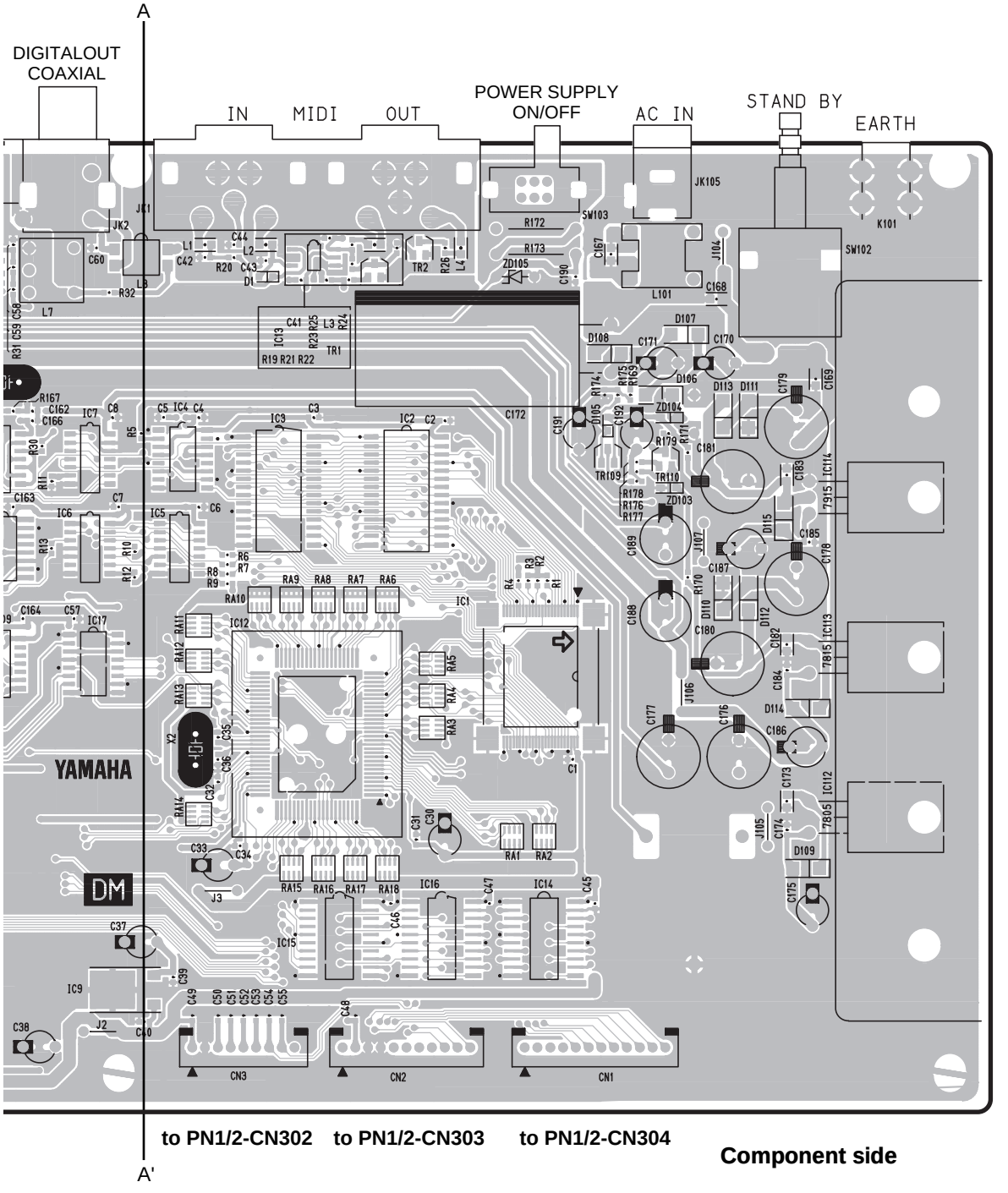
● **NJM4556AMT1** (XQ138A00)
DM: IC105, IC106
OP AMP



■ CIRCUIT BOARDS

• **DM 2/2 Circuit Board** • **DM 1/2 Circuit Board**



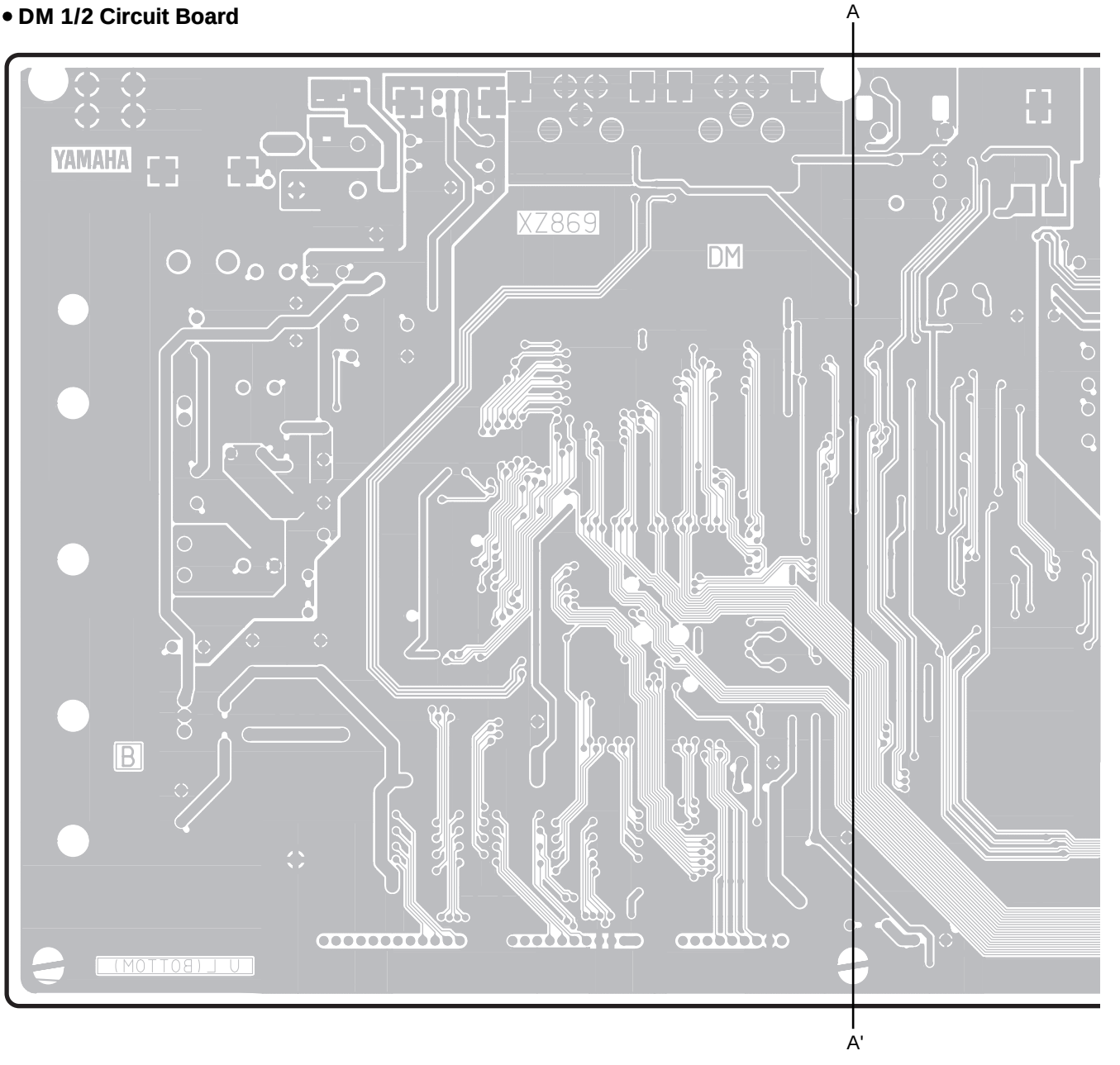


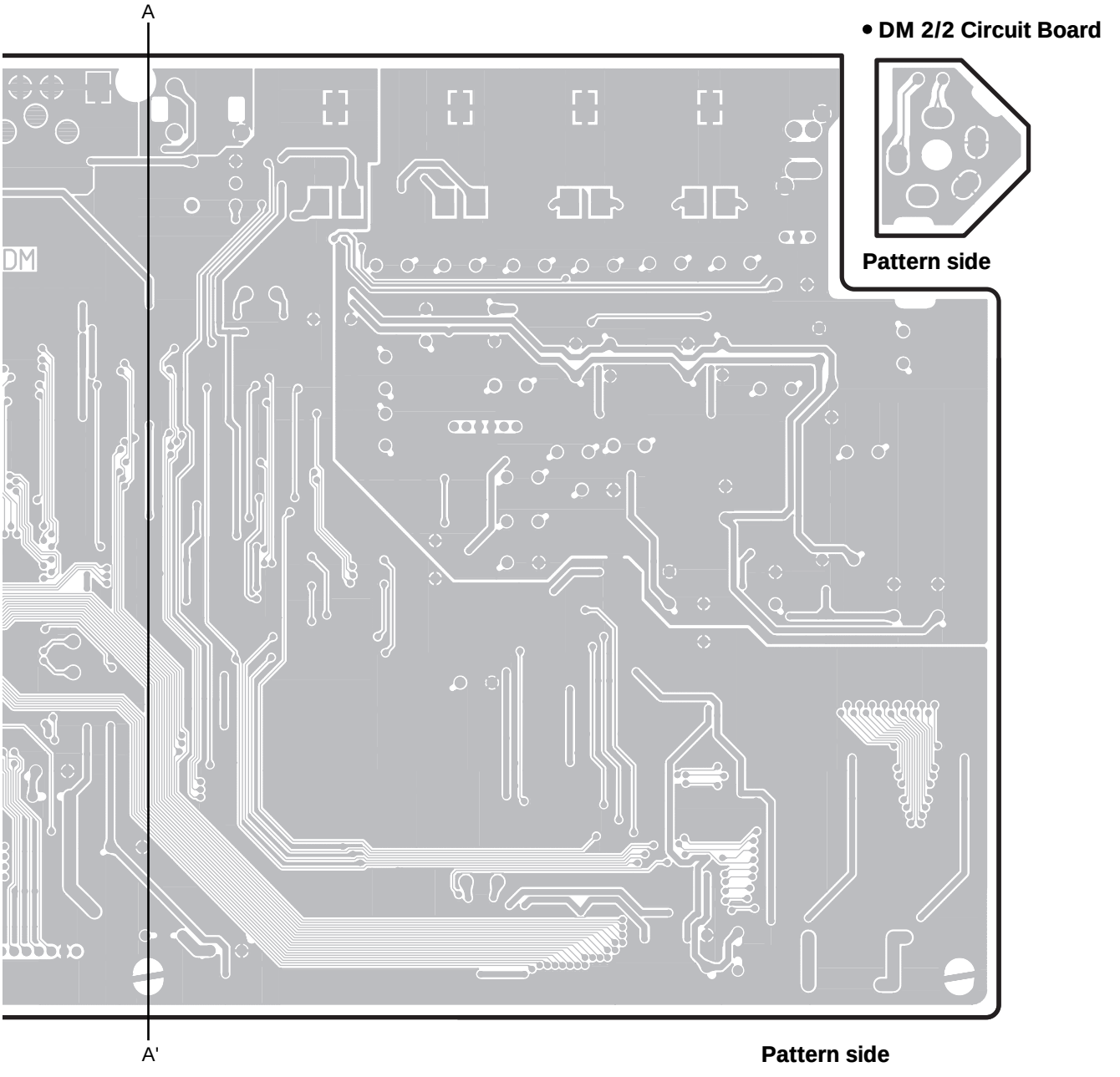
to PN1/2-CN302 **to PN1/2-CN303** **to PN1/2-CN304**

Component side

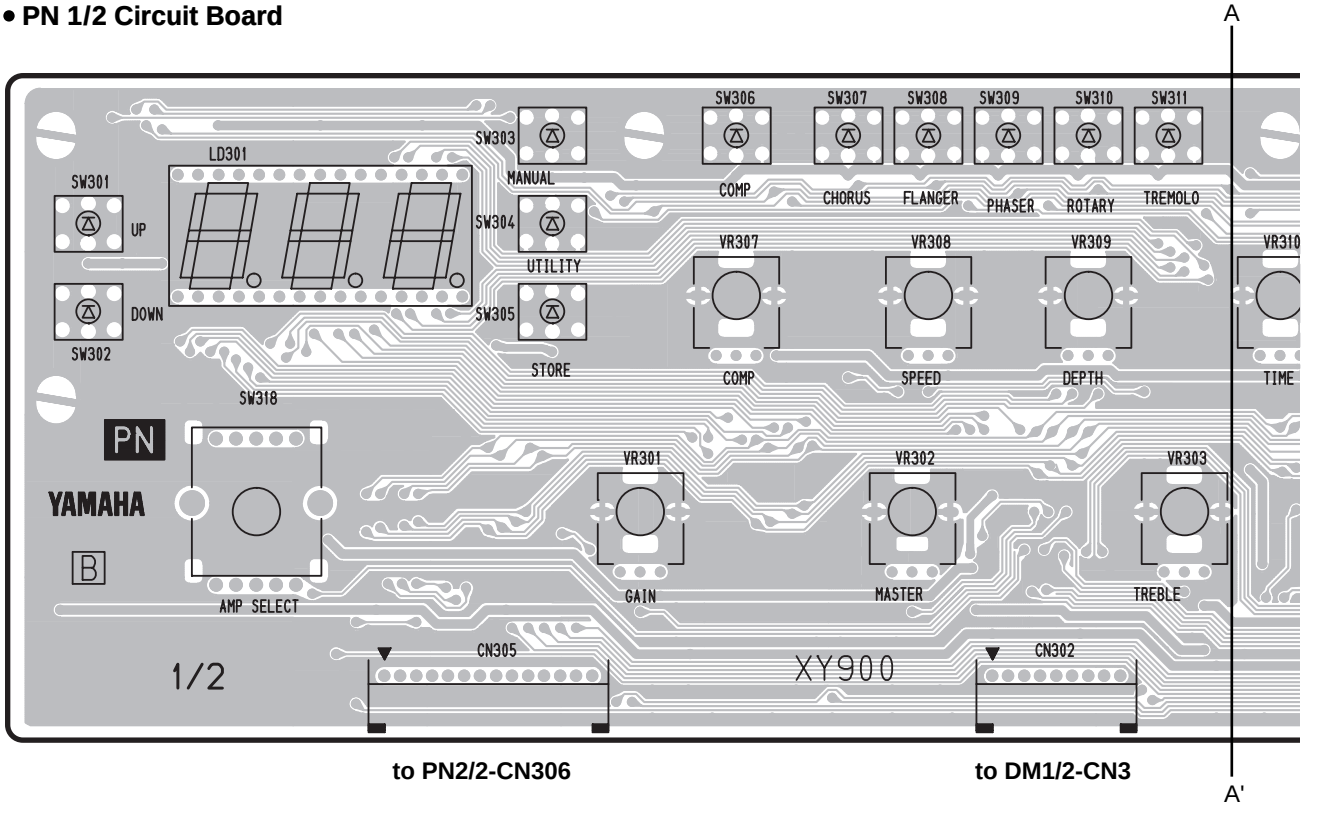
CNA-V717790 ⚠2

- **DM 1/2 Circuit Board**

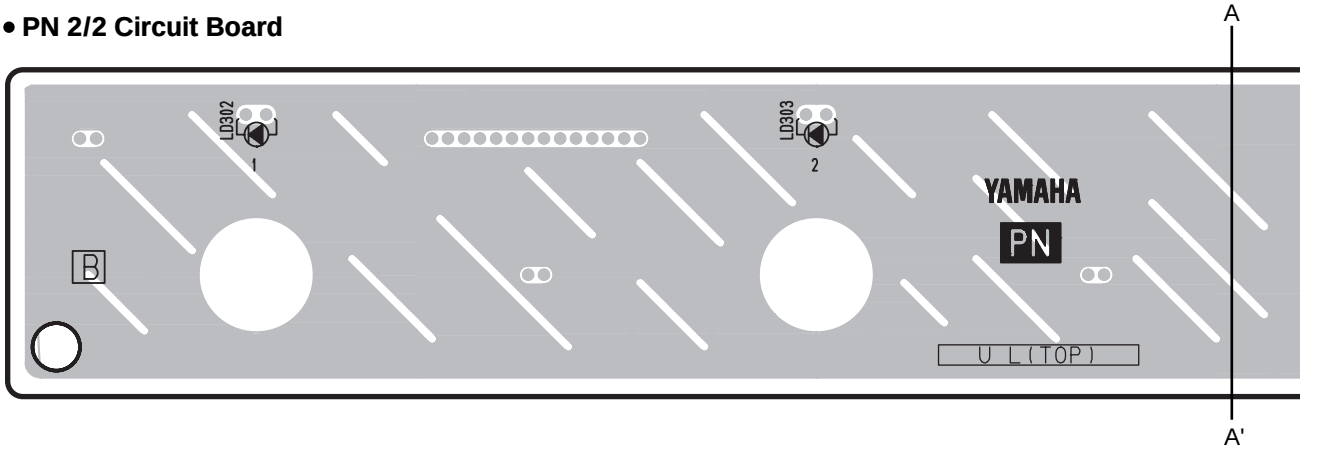



A
• DM 2/2 Circuit Board
Pattern side
DM
A'
Pattern side

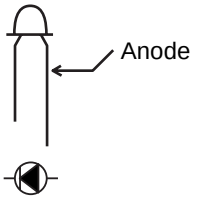
• **PN 1/2 Circuit Board**



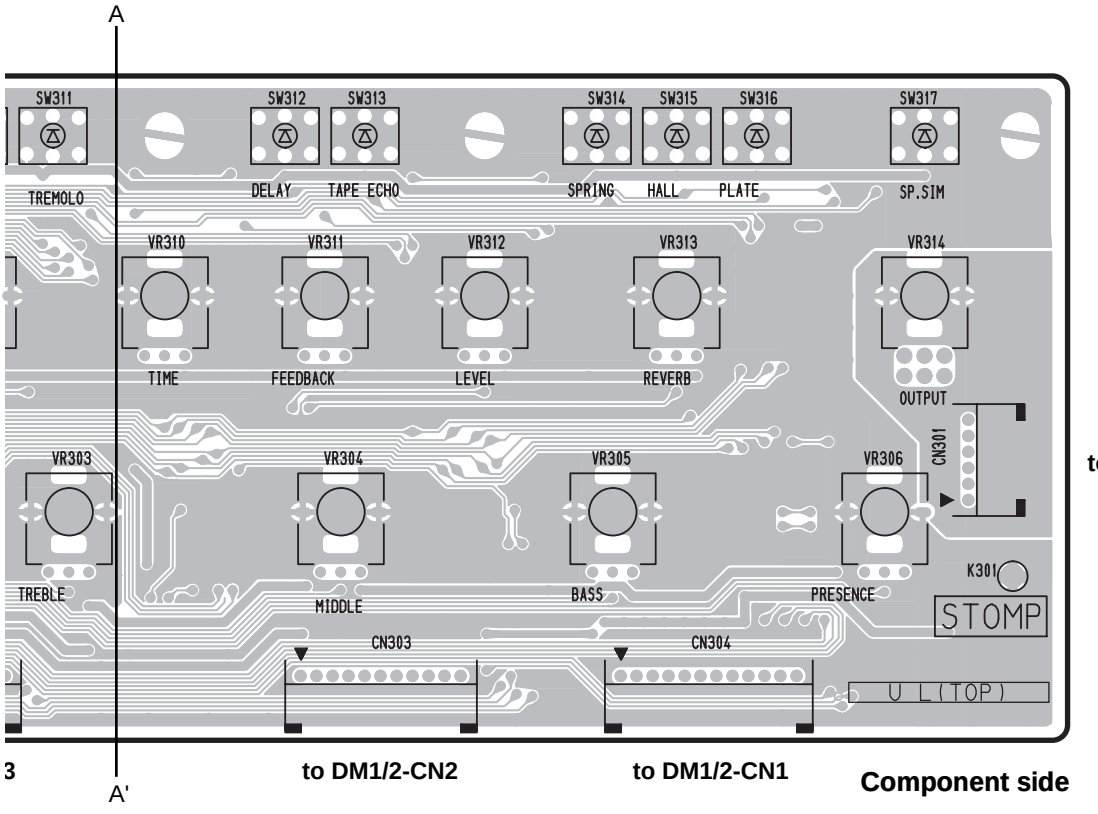
• **PN 2/2 Circuit Board**



• **LD302, LD303, LD304 and LD306 installation**



PN: CNA-V776560



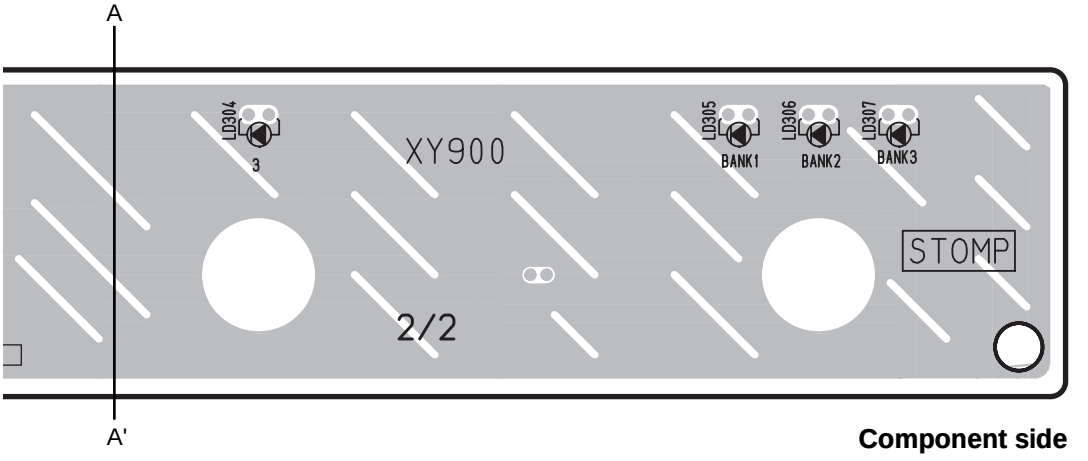
to DM1/2-CN103

3

to DM1/2-CN2

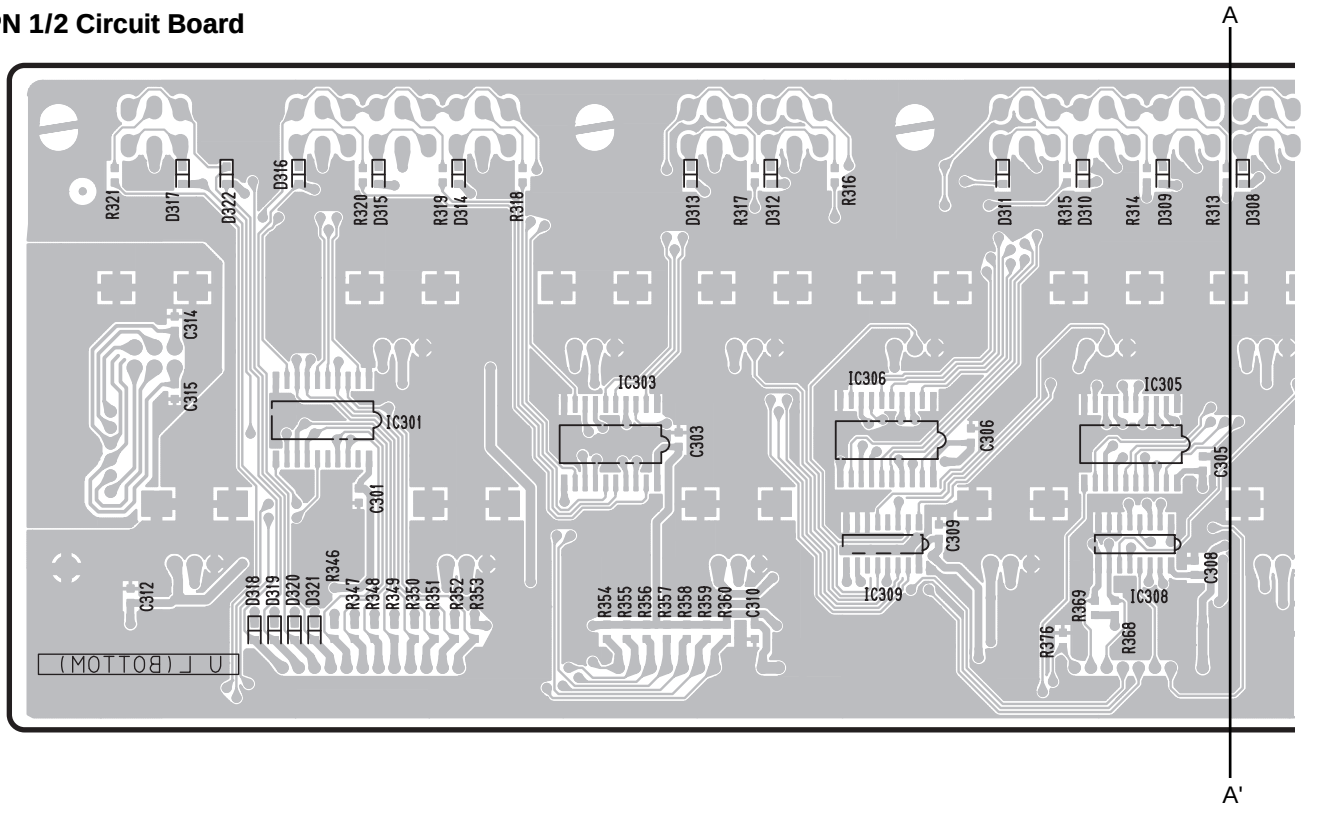
to DM1/2-CN1

Component side

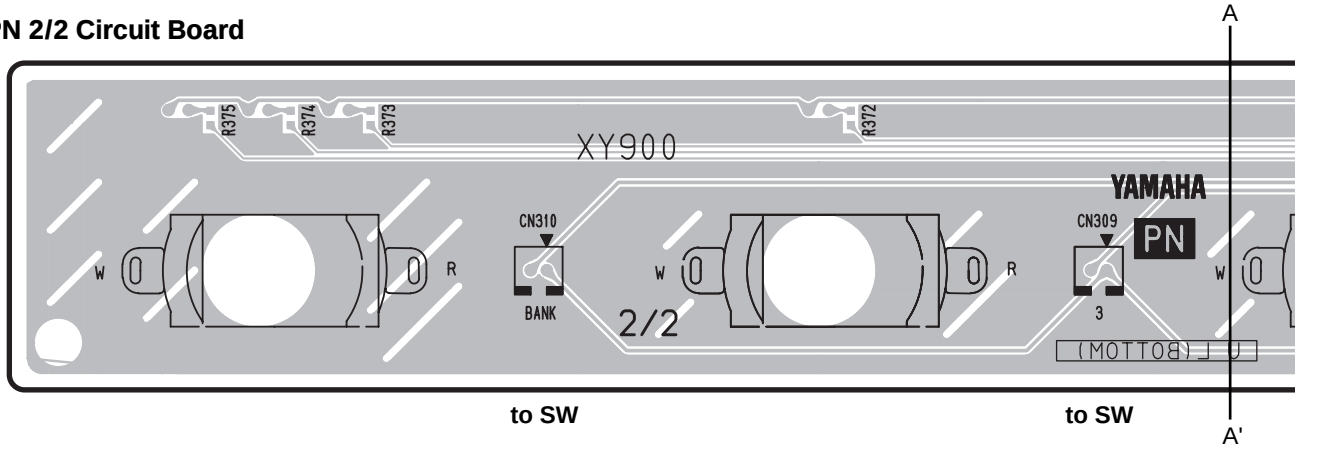


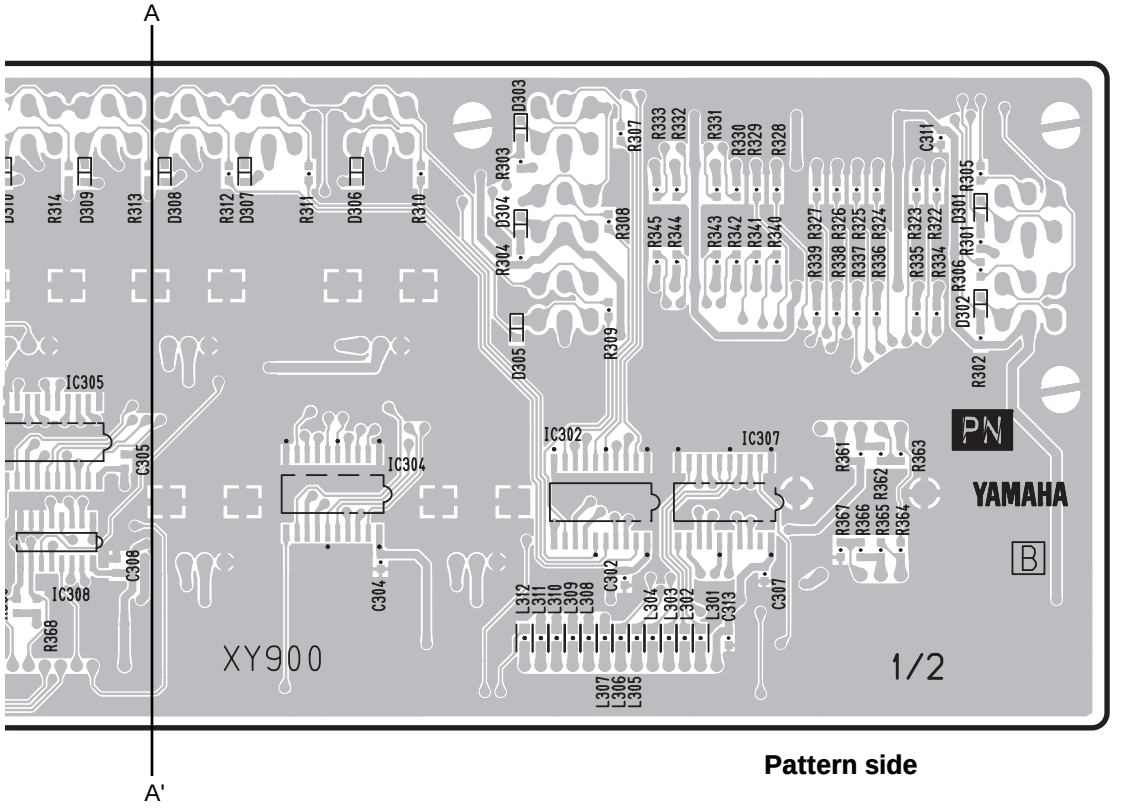
Component side

• **PN 1/2 Circuit Board**

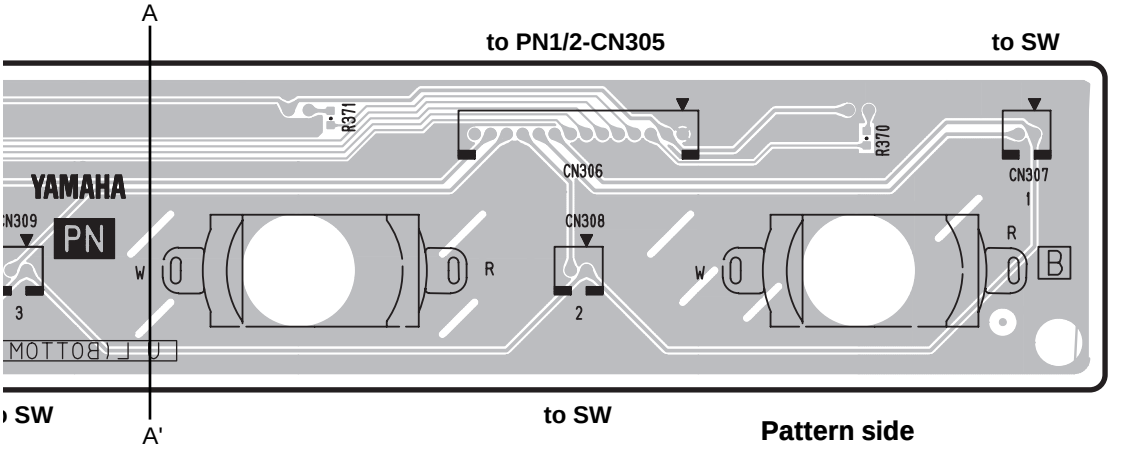


• **PN 2/2 Circuit Board**





Pattern side



Pattern side

TEST PROGRAM

A. CONNECTION OF TERMINALS

- INPUT — Monaural input
- OUT L/MONO — Balance output (RL 47KΩ)
- OUT R — Balance output (RL 47KΩ)
- HEAD PHONES — Stereo output (RL 33Ω)
- EXP. PEDAL — FC7 or Connect VR of B50K.
  JK pin 1: MIN of VR JK pin 2: MAX of VR
  JK pin 3: CENTER of VR
- DIGITAL OUT — Connect the DA converter.
- MIDI IN, MIDI OUT — Connect IN and OUT with the DIN 5P cable.
- POWER SUPPLY — OFF
- AC IN — Connect the AC adaptor

B. CONTENTS OF THE TEST PROGRAM

0: LED Check
1: SW Check
2: VR Check
3: MIDI Check
4: SRAM Check
5: FLASH ROM Check
6: DSP Check

C. STARTING THE TEST PROGRAM AND CHECKING

While pressing the MANUAL, STORE and ROOM switches, turn on the POWER switch. The TEST program will then be started. At this time, check to make sure that the model name “AG.S” is displayed for about 2 seconds. The digit at the left end of the 7-segment LED indicates the test No.

D. SELECTING THE TEST NUMBER

- Using the UP and DOWN switches, select the test number and press the STORE switch to start testing.

E. OPERATION OF THE TEST PROGRAM AND CHECKING

0: LED check

(1) Using the UP and DOWN switches, select “0”.
(This step can be skipped if “0” is already selected.)
(2) Press the STORE switch.

- LED segments light up one after another starting with “UP”. When “MIC” is reached, “BANK”, “1”, “2” and “3” light up followed by 7 segments in the following order from the left end. After that, all LED segments light up and go out.(Fig.1)

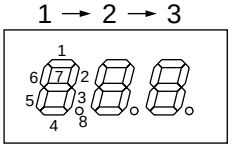


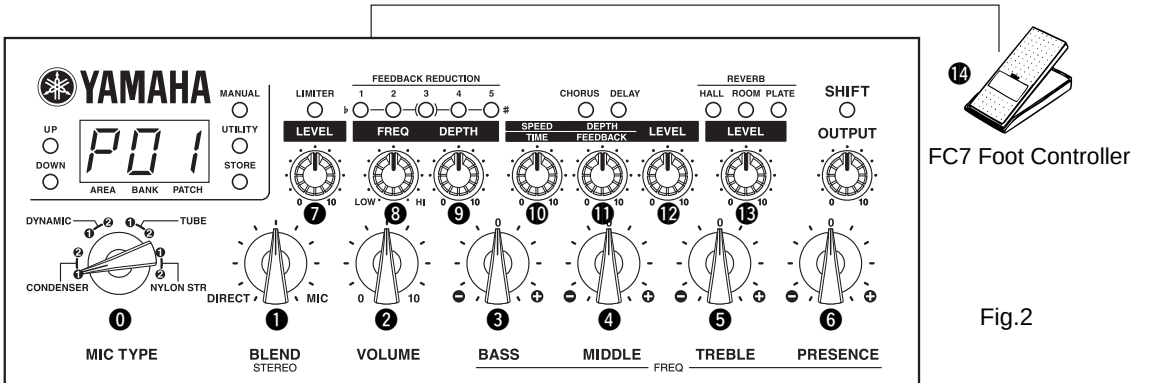
Fig.1

1: SW Check

(1) Using the UP and DOWN switches, select “1”.
(This step can be skipped if “1” is already selected.)
(2) Press the STORE switch.
(3) Starting with the UP switch, press each switch whose LED lights up one after another. After “MIC”, “BANK”, “3”, “2” and “1”, all LED segments should light up and then go out.
- A number (0 to 20) is indicated at the right end of the 7 segment LED.
- If “E” representing an error appears at the left end of the LED, press the UTILITY switch for resetting.

2: VR Check (Be sure to set each of VR, SW and EXP PEDAL to be checked at its center position.)

(1) Using the UP and DOWN switches, select “2”.
(This step can be skipped if “2” is already selected.)



FC7 Foot Controller

Fig.2

(2) Press the STORE switch to start checking.
LED display 2. 0

(3) Turn MIC SW ⓿ counterclockwise.
LED display 2 0.

(4) Turn MIC SW ⓿ clockwise.
LED display 2. 1

(5) Set MIC SW ⓿ at the center position.
(6) Turn BLEND STEREO ❶ counterclockwise.
LED display 2 1.

(7) Turn BLEND STEREO ❶ clockwise.
LED display 2. 2

(8) Set BLEND STEREO ❶ at the center position.
(9) Check other VRs ❷ to ⓬ (Fig. 2) one after another until LEVEL ⓭ finally.
LED display 2.14

(10) Return EXP. PEDAL.⓮
LED display 2 14.

(11) Push in the EXP. PEDAL. ⓮

- All LED segments light up and go out, and then the checking proceeds to MIDI check.
- If VR, SW or EXP PEDAL is not set at its center position, checking will result in an error and E. 0 will appear at the left end of LED.
  In such case, set it to the center position and press UTILITY SW for resetting.
- To advance the VR No. to be checked, press MANUAL SW.

3: MIDI Check

(1) Using the UP and DOWN switches, select "3".
(This step can be skipped if "3" is already selected.)
(2) Press the STORE switch.
- If the check result is OK, all LED segments light up and go out. The checking function will proceed to the next step.
- In case of an error, "E" appears at the left end of the LED. "0" at the right end indicates transmission and "1" indicates reception.

4: SRAM Check

(1) Using the UP and DOWN switches, select "4".
(This step can be skipped if "4" is already selected.)
(2) Press the STORE switch.
- If the check result is OK, all LED segments light up and go out. The checking function will proceed to the next step.
- In case of an error, "E" appears at the left end of the LED. "0" at the right end indicates IC2 and "1" indicates IC3.

5. FLASH ROM Check

(1) Using the UP and DOWN switches, select "5".
(This step can be skipped if "5" is already selected.)
(2) Press the STORE switch.
- If the check result is OK, all LED segments light up and go out. The checking function will proceed to the next step.
- In case of an error, "E" appears at the left end of the LED. "0" at the right end indicates "1 sector erase", "1" indicates "Erase check" and "2" indicates "Write check".

6: DSP Electric Characteristic

(1) Using the UP and DOWN switches, select "6".
(This step can be skipped if "6" is already selected.)
(2) Press the STORE switch.
- An input signal will be output when the STORE switch is pressed. "0" appears at the right end of the LED. (Table.1)
- The sine waveform can be checked in all of the analog circuit, AD, DSP-6 and D/A where the signal has passed.
- Initial setting: OUTPUT VR ••• MAX

Table1

ITEM	INPUT	OUTPUT	
1. INPUT sensitivity	JK101(INPUT)-10dBm(1kHz)	JK103(OUT L/MONO) +5dBm+/-3dB	+HOT
2. INPUT sensitivity	JK101(INPUT)-10dBm(10kHz)	JK103(OUT L/MONO) +5dBm+/-3dB	+HOT
3. INPUT sensitivity	JK101(INPUT)-10dBm(100Hz)	JK103(OUT L/MONO) +5dBm+/-3dB	+HOT
4. INPUT sensitivity	JK101(INPUT)-10dBm(100Hz)	JK103(OUT L/MONO) +5dBm+/-3dB	-COLD
5. INPUT sensitivity	JK101(INPUT)-10dBm(10kHz)	JK103(OUT L/MONO) +5dBm+/-3dB	-COLD
6. INPUT sensitivity	JK101(INPUT)-10dBm(1kHz)	JK103(OUT L/MONO) +5dBm+/-3dB	-COLD
7. INPUT sensitivity	JK101(INPUT)-10dBm(1kHz)	JK104(OUT R) +5dBm+/-3dB	+HOT
8. INPUT sensitivity	JK101(INPUT)-10dBm(10kHz)	JK104(OUT R) +5dBm+/-3dB	+HOT
9. INPUT sensitivity	JK101(INPUT)-10dBm(100Hz)	JK104(OUT R) +5dBm+/-3dB	+HOT
10. INPUT sensitivity	JK101(INPUT)-10dBm(100Hz)	JK104(OUT R) +5dBm+/-3dB	-COLD
11. INPUT sensitivity	JK101(INPUT)-10dBm(10kHz)	JK104(OUT R) +5dBm+/-3dB	-COLD
12. INPUT sensitivity	JK101(INPUT)-10dBm(1kHz)	JK104(OUT R) +5dBm+/-3dB	-COLD
13. INPUT sensitivity	JK101(INPUT)-10dBm(1kHz)	JK102(HP L) -1.0dBm+/-3dB	
14. INPUT sensitivity	JK101(INPUT)-10dBm(10kHz)	JK102(HP L) -1.0dBm+/-3dB	
15. INPUT sensitivity	JK101(INPUT)-10dBm(100Hz)	JK102(HP L) -2.0dBm+/-3dB	
16. INPUT sensitivity	JK101(INPUT)-10dBm(100Hz)	JK102(HP R) -2.0dBm+/-3dB	
17. INPUT sensitivity	JK101(INPUT)-10dBm(10kHz)	JK102(HP R) -1.0dBm+/-3dB	
18. INPUT sensitivity	JK101(INPUT)-10dBm(1kHz)	JK102(HP R) -1.0dBm+/-3dB	
19. MUTE NOISE LEVEL	SW101(INPUT MUTE) -10dBm(1kHz) MUTE SW ON	JK103(OUT L/MONO) -40dB or less	+HOT
20. MUTE NOISE LEVEL	SW101(INPUT MUTE) -10dBm(1kHz) MUTE SW ON	JK103(OUT L/MONO) -40dB or less	-COLD
21. MUTE NOISE LEVEL	SW101(INPUT MUTE) -10dBm(1kHz) MUTE SW ON	JK104(OUT R) -40dB or less	+HOT
22. MUTE NOISE LEVEL	SW101(INPUT MUTE) -10dBm(1kHz) MUTE SW ON	JK104(OUT R) -40dB or less	-COLD
23. MUTE NOISE LEVEL	SW101(INPUT MUTE) -10dBm(1kHz) MUTE SW ON	JK102(HP L) -45dB or less	
24. MUTE NOISE LEVEL	SW101(INPUT MUTE) -10dBm(1kHz) MUTE SW ON	JK102(HP R) -45dB or less	
25. DISTORTION FACTOR	JK101(INPUT) -10dBm(1kHz)	JK103(OUT L/MONO) 0.5% or less	+HOT
26. DISTORTION FACTOR	JK101(INPUT) -10dBm(1kHz)	JK103(OUT L/MONO) 0.5% or less	-COLD
27. DISTORTION FACTOR	JK101(INPUT) -10dBm(1kHz)	JK104(OUT R) 0.5% or less	+HOT
28. DISTORTION FACTOR	JK101(INPUT) -10dBm(1kHz)	JK104(OUT R) 0.5% or less	-COLD
29. DISTORTION FACTOR	JK101(INPUT) -10dBm(1kHz)	JK104(OUT L) 0.5% or less	
30. DISTORTION FACTOR	JK101(INPUT) -10dBm(1kHz)	JK104(OUT R) 0.5% or less	
31. Digital Out	JK101(INPUT) -10dBm(1kHz)	JK2(Digital Out) Lch:-8.5dBm+/-3dB, Rch:-8.5dBm+/-3dB	

F. CHEKING OF THE ROM VERSION

While pressing the DOWN and MANUAL switches, turn on the POWER switch. The model name “AG.S” is displayed for about 2 seconds. As the version number “*.**” (each * representing a number) appears after that, check it. Then the mode will return to the normal mode.

ERROR MESSAGES

If an error occurs during operation, one of the following error message numbers will appear in the display. Stop operation of the AG-Stomp and follow one of the solutions described below.

E1: MIDI Receive Buffer Full

CAUSE: Too much MIDI data is being received and the buffer is full
SOLUTION: Try reducing the amount of data being sent, or break the data into smaller blocks.

E2: Communication Error.

CAUSE: An abnormality is detected during MIDI communications.
SOLUTION: Check all connections, etc. and try again.

E3: Bulk Receive Check Sum Error.

CAUSE: The check sum does not match the received MIDI bulk dump data.
SOLUTION: Check all connections and transmitted data, and try again.

E4: Bulk Receive Data Abnormality.

CAUSE: An abnormality is detected while receiving the bulk dump.
SOLUTION: Check all connections and transmitted data, and try again.

YAMAHA [Acoustic Guitar Pre Amplifier] Date:1-May-2001
Model AG stomp MIDI Implementation Chart Version : 1.0

Function ...		Transmitted	Recognized	Remarks
Basic	Default	1 - 16	1 - 16, off	memorized
Channel	Changed	1 - 16	1 - 16, off	
Mode	Default	1,3	1,3	memorized
	Messages	x	x	
	Altered	**********	x	
Note Number :		x	x	
	True voice	**********	x	
Velocity	Note ON	x	x	
	Note OFF	x	x	
After Touch	Key's	x	x	
	Ch's	x	x	
Pitch Bender		x	x	
Control Change	0	x	x	
	1 - 31	o	o	
	32 - 63	x	x	
	64 - 95	o	o	
	95 -127	x	x	
Prog Change :	True #	o 0 - 127 **********	o 0 - 127	
System Exclusive		o	o	Bulk Dump
System common :	Song Pos.	x	x	
	Song Sel.	x	x	
	Tune	x	x	
System Real Time	Clock	x	x	
	Commands	x	x	
Aux	All Sound OFF	x	x	
	Reset All Cntrls	x	x	
	Local ON/OFF	x	x	
	All Notes OFF	x	x	
Mes- sages:	Active Sense	o	x	
	Reset	x	x	

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No

ACOUSTIC GUITAR PRE-AMPLIFIER

AG-Stomp

PARTS LIST

CONTENTS

Notes : DESTINATION ABBREVIATIONS

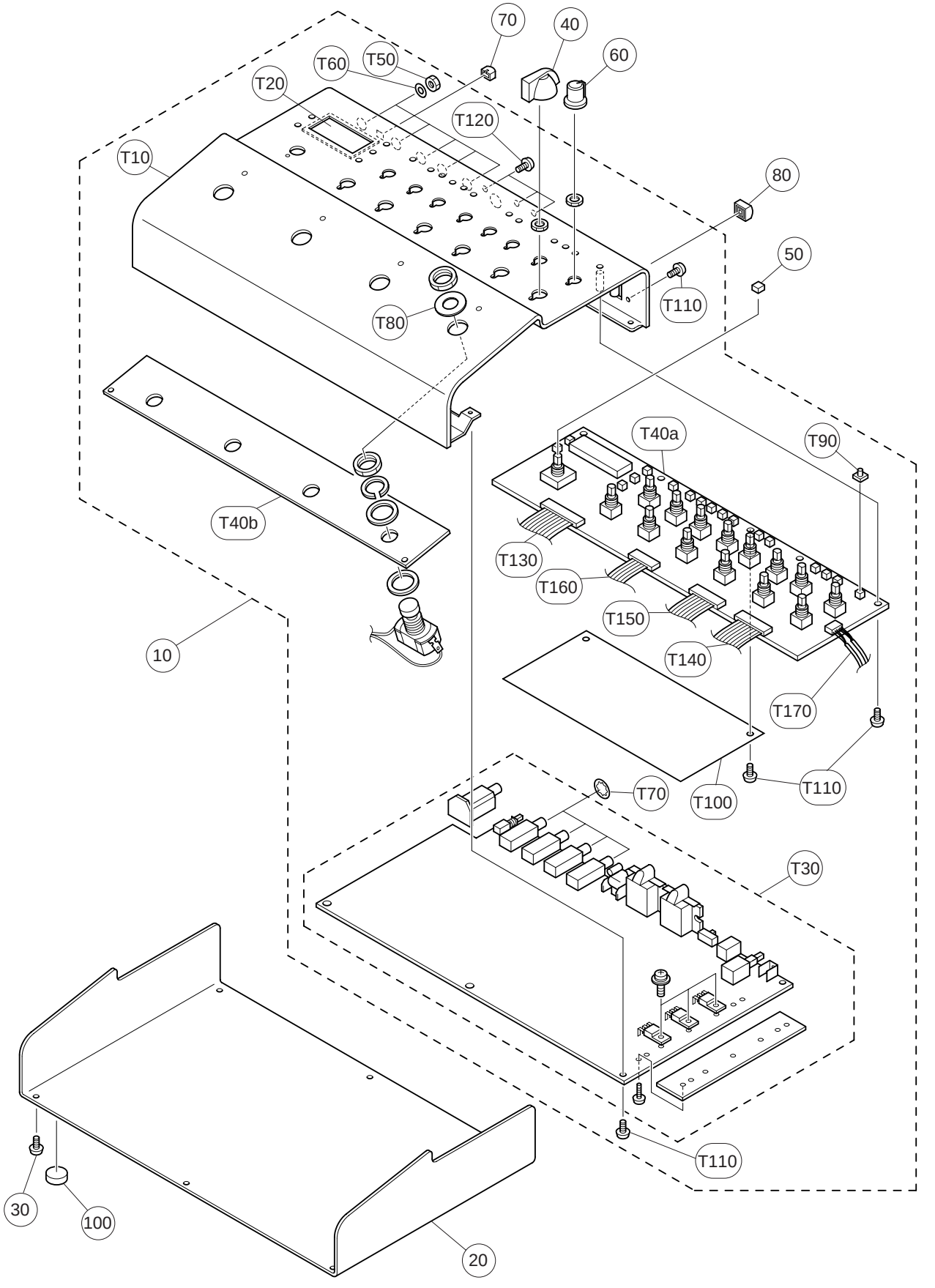
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220)
I : Indonesian model	N,X : General export model
J : Japanese model	Y : Export model

WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

OVERALL ASSEMBLY



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			OVERALL ASSEMBLY			AG-STOMP		
		--	Overall Assembly			(V698510)		
	10	--	Top Cover Assembly			(V698560)		
*	20	**V6985700**	Bottom Case					
	30	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			6	01
	40	**V3694100**	Knob			MIC,BALANCE,VOLUME,BASS, MIDDLE,TREBLE,PRESENCE	7	02
	50	**V5851800**	Spacer					
	60	**V5852300**	Knob			LIMITER LEVEL, FB REDU.(FREQ.,DEPTH), CHORUS/DELAY(SPEED TIME, DEPTH FB,LEVEL), RV. LEVEL,OUTPUT	8	02
	70	**VZ429100**	Button (S)	GRAY		INPUT MUTE		01
	80	**VZ968600**	Button (L)	NO.947 CD-GRAY		STAND-BY		01
	100	**VU859300**	Leg	SR200			4	01
		--	Top Cover Assembly			(V698560)		
*	T10	**V6986100**	Top Cover					
	T20	**V5734500**	Meter Cover					
*	T30	**V7177900**	Circuit Board	DM		DM1/2,DM2/2 (XZ869B0)		
*	T40a	**AAX25790**	Circuit Board	PN1/2		(V776560)(XY900B0)		
*	T40b	**AAX25800**	Circuit Board	PN2/2		(V776560)(XY900B0)		
	T50	**LX200060**	Hexagonal Nut	9.0 12X2 MFNI33			5	01
	T60	**VL802300**	Flat Washer	9X14 0.5 FNM3			5	01
	T70	**ET800150**	Toothed Lock Washer	9.0 MFZN2Y			4	01
*	T80	**V7407400**	Flat Washer	12X17 0.5 MFNI33			4	
	T90	**V5852100**	Select Button			UP,DOWN,MANUAL,UTILITY, STORE,LIMITER, FB REDU.(1,2,3,4,5), CHORUS,DELAY,REV.(HALL, ROOM,PLATE),SHIFT	17	01
	T100	--	Shield Film			(V585150)		
	T110	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			7	01
	T120	**VC161100**	Bind Head Tapping Screw-P	3.0X12 MFZN2BL			3	01
	T130	--	Wire Assembly	C&C #28 14P L 50		(V610850)		
	T140	--	Wire Assembly	C&C #28 12P L100		(V611450)		
	T150	--	Wire Assembly	C&C #28 11P L100		(V611460)		
	T160	--	Wire Assembly	C&C #28 9P L100		(V611470)		
	T170	--	Wire	C&C #28 6P L250		(V611480)		
			ACCESSORIES					
⚠		**V5882800**	AC Adapter	AC-10		J		08
⚠		**V5883000**	AC Adapter	AC-10		U		08
⚠		**V5883100**	AC Adapter	AC-10		H		08
⚠	*	**V7930000**	Dummy Cell					
	*	**V7929900**	TRS XLR Conversion Cable				2	
	*	**V6986000**	TRS Phone Cable	3m				

*: New Parts

RANK: Japan only

■ ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS					
*		**V7177900**	Circuit Board	DM		DM1/2,DM2/2 (XZ869B0)		
*		**AAX25790**	Circuit Board	PN1/2		(V776560)(XY900B0)		
*		**AAX25800**	Circuit Board	PN2/2		(V776560)(XY900B0)		
*		**V7177900**	Circuit Board	DM		DM1/2,DM2/2 (XZ869B0)		
		--	Heat Sink			(V573470)		
		VB763800	Bind Head Screw	SP 3.0X12 MFZN2Y			5	01
	CN1	**VV067200**	Base Post	M2426XX 12P TE				01
	CN2	**VV067100**	Base Post	M2426XX 11P TE				01
	CN3	**VV066900**	Base Post	M2426XX 9P TE				01
	CN101	**VV066600**	Base Post	M2426XX 6P TE				01
	C1	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	-9	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C10	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C11	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	-18	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C19	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C20	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	-29	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C30	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C31	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C32	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C33	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C34	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C35	**UX061120**	Ceramic Capacitor(chip)	12P 50V J				
	C36	**UX061120**	Ceramic Capacitor(chip)	12P 50V J				
	C37	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C38	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C39	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	-41	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C42	**UX064100**	Ceramic Capacitor(chip)	0.0100 50V K				
	C43	**UX064100**	Ceramic Capacitor(chip)	0.0100 50V K				
	C44	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C45	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	-55	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C56	**UX064100**	Ceramic Capacitor(chip)	0.0100 50V K				
	C57	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C58	**UX062220**	Ceramic Capacitor(chip)	220P 50V J				
	C59	**UX064100**	Ceramic Capacitor(chip)	0.0100 50V K				
	C60	**UX064100**	Ceramic Capacitor(chip)	0.0100 50V K				
	C101	**UY065220**	Ceramic Capacitor(chip)	0.2200 50V Z				
	C102	**UX062100**	Ceramic Capacitor(chip)	100P 50V J				
	C103	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C104	**UX061100**	Ceramic Capacitor(chip)	10P 50V D				
	C105	**V6197100**	Electrolytic Cap.-BP	10.00 35.0V				
	C106	**UX061100**	Ceramic Capacitor(chip)	10P 50V D				
	C107	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C108	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C109	**UX061220**	Ceramic Capacitor(chip)	22P 50V J				
	C110	**UX063100**	Ceramic Capacitor(chip)	1000P 50V K				
	C111	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C112	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C113	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C114	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	-117	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C118	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C119	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C120	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C121	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C122	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C123	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C124	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C125	**V6197100**	Electrolytic Cap.-BP	10.00 35.0V				
	-127	**V6197100**	Electrolytic Cap.-BP	10.00 35.0V				
	C128	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C129	**UX061220**	Ceramic Capacitor(chip)	22P 50V J				
	C130	**V6197000**	Electrolytic Cap.-BP	47.00 25.0V				
	C131	**UX063100**	Ceramic Capacitor(chip)	1000P 50V K				
	C132	**V6197100**	Electrolytic Cap.-BP	10.00 35.0V				

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C133	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C134	**UX061220**	Ceramic Capacitor(chip)	22P 50V J				
	C135	**V6197000**	Electrolytic Cap.-BP	47.00 25.0V				
	C136	**UX063100**	Ceramic Capacitor(chip)	1000P 50V K				
	C137	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C138	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C139	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C140	**UX061220**	Ceramic Capacitor(chip)	22P 50V J				
	C141	**UX061100**	Ceramic Capacitor(chip)	10P 50V D				
*	C142	**V7494000**	Electrolytic Cap.-BP	33.00 50.0V				
	C143	**UX062100**	Ceramic Capacitor(chip)	100P 50V J				
*	C144	**V7494000**	Electrolytic Cap.-BP	33.00 50.0V				
	C145	**UX062100**	Ceramic Capacitor(chip)	100P 50V J				
	C146	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C147	**UX061220**	Ceramic Capacitor(chip)	22P 50V J				
	C148	**UX061100**	Ceramic Capacitor(chip)	10P 50V D				
*	C149	**V7494000**	Electrolytic Cap.-BP	33.00 50.0V				
	C150	**UX062100**	Ceramic Capacitor(chip)	100P 50V J				
*	C151	**V7494000**	Electrolytic Cap.-BP	33.00 50.0V				
	C152	**UX062100**	Ceramic Capacitor(chip)	100P 50V J				
	C153	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	-156	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
	C157	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C158	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C159	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C160	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C161	**UX060500**	Ceramic Capacitor(chip)	5P 50V C				
	C162	**UX060500**	Ceramic Capacitor(chip)	5P 50V C				
	C163	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	-166	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C167	**UY065100**	Ceramic Capacitor(chip)	0.1000 50V Z				
	-169	**UY065100**	Ceramic Capacitor(chip)	0.1000 50V Z				
	C170	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
	C171	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
	C172	**V6196900**	Electrolytic Cap.	3300 35.0V				
	C173	**UY065100**	Ceramic Capacitor(chip)	0.1000 50V Z				
	C174	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C175	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C176	**UR839100**	Electrolytic Cap.	1000 16.0V				01
	C177	**UR839100**	Electrolytic Cap.	1000 16.0V				01
	C178	**UR858470**	Electrolytic Cap.	470.00 35.0V				01
	-181	**UR868470**	Electrolytic Cap.	470.00 50.0V				01
	C182	**UY065100**	Ceramic Capacitor(chip)	0.1000 50V Z				
	C183	**UY065100**	Ceramic Capacitor(chip)	0.1000 50V Z				
	C184	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C185	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C186	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C187	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C188	**UR848220**	Electrolytic Cap.	220.00 25.0V				01
	C189	**UR848220**	Electrolytic Cap.	220.00 25.0V				01
	C190	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	C191	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
	C192	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	D001	**VT332900**	Diode	1SS355 TE-17				01
	D101	**VT332900**	Diode	1SS355 TE-17				01
	-105	**VT332900**	Diode	1SS355 TE-17				01
	D106	**VT532500**	Diode	1SR154-400				01
	-115	**VT532500**	Diode	1SR154-400				01
*	IC1	**XZ912C00**	IC	MBM29F400BC-70P		4M FLASH ROM		
	IC2	**XR115A00**	IC	UPD43256BGU-70L SR		256K		08
	IC2	**XV411A00**	IC	W24258S-70LE-EL10		256K		07
	IC2	**XW433A00**	IC	CY62256LL-70SNCT		256K		05
	IC2	**XZ388A00**	IC	W24257S-70LL-EL10		256K		05
	IC3	**XR115A00**	IC	UPD43256BGU-70L SR		256K		08
	IC3	**XV411A00**	IC	W24258S-70LE-EL10		256K		07
	IC3	**XW433A00**	IC	CY62256LL-70SNCT		256K		05
	IC3	**XZ388A00**	IC	W24257S-70LL-EL10		256K		05
	IC4	**XR967A00**	IC	MB3790PF		ASSP		05
	IC5	**XZ103A00**	IC	74AHC32DT		OR		01
	IC6	**XZ103A00**	IC	74AHC32DT		OR		01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
IC7	**XZ108A00**	IC	74HC08DT		AND		01
IC8	**XV988A00**	IC	YSS910-S		DSP6		10
IC9	**XU965A00**	IC	UPC29M33T-E1 3.3V		REGULATOR 3.3V		03
IC10	**XV077A00**	IC	MSM514260C-60JS		4M		07
IC10	**XV077B00**	IC	MSM514260E-60JS		4M		
IC10	**XV839A00**	IC	S1N42T60U6S000B		4M		08
IC11	**XV077A00**	IC	MSM514260C-60JS		4M		07
IC11	**XV077B00**	IC	MSM514260E-60JS		4M		
IC11	**XV839A00**	IC	S1N42T60U6S000B		4M		08
IC12	**XQ375A00**	IC	HD6413002FP16		CPU		09
IC13	**VN686000**	Photo Coupler	PC410T				04
IC13	**VR903700**	Photo Coupler	HCPL-M600				04
IC14	**XZ109A00**	IC	74HC244DT		BUS BUFFER		02
-16	**XZ109A00**	IC	74HC244DT		BUS BUFFER		02
IC17	**XM530A00**	IC	YM3437C-F		DIT2		07
IC101	**XC458A00**	IC	NJM072M		OP AMP		03
IC102	**XC011A00**	IC	NJM5532M		OP AMP		03
IC103	**XQ138A00**	IC	NJM4556AMT1		OP AMP		03
IC104	**XT802A00**	IC	AK4520A-VF-E2		ADC&DAC		07
IC105	**XQ138A00**	IC	NJM4556AMT1		OP AMP		03
IC106	**XQ138A00**	IC	NJM4556AMT1		OP AMP		03
IC107	**XZ110A00**	IC	74HCU04DT		INVERTER		01
IC108	**XR684A00**	IC	TC74HC4040F		B. COUNTER		03
IC109	**XZ112A00**	IC	74HC164DT		SHIFT RESISTOR		02
IC110	**XZ113A00**	IC	74HC175DT		D-FF		02
IC111	**XZ162A00**	IC	NJM78M05DLA 5.0V		REGULATOR 5V		03
IC112	**XJ607A00**	IC	NJM7805FA		REGULATOR 5V		02
IC113	**XD853A00**	IC	NJM7815FA		REGULATOR		03
IC114	**XD854A00**	IC	NJM7915FA		REGULATOR		03
JK1	**V6177500**	DIN Connector	JACK 5P3 HDC-052A		MIDI(IN,OUT)		03
JK2	**V6178000**	PIN Connector	JACK HSP-241V1B		DIGITAL OUT		01
JK3	**V6177700**	Phone Jack	STEREO HTJ-064-12D		EXP. PEDAL		03
JK101	**V3939200**	Phone Connector	JY6351J-46-250 2SW		INPUT		02
JK102	**V6177700**	Phone Jack	STEREO HTJ-064-12D		PHONES,OUTPUT(R,L/MONO)		03
-104	**V6177700**	Phone Jack	STEREO HTJ-064-12D				03
JK105	**V6177200**	Power Supply Connector	SOCKET HTJ-020-05A		AC IN		03
J1	**--**	Jumper Wire	0.55		(VA07890)		
-3	**--**	Jumper Wire	0.55		(VA07890)		
J104	**--**	Jumper Wire	0.55		(VA07890)		
-107	**--**	Jumper Wire	0.55		(VA07890)		
K101	**VV075700**	Terminal Plate					01
L1	**VS740100**	Chip Inductor	BLM21B751S				03
-6	**VS740100**	Chip Inductor	BLM21B751S				03
L7	**VC548200**	Pulse Transformer	TC-1019-06 7mm				04
L8	**V6178900**	Noise Filter	ZJYS51R5-2PT				
L101	**VG238200**	Filter	PLT2003C				04
RA1	**RH047100**	Resistor Array	10KX4				
-18	**RH047100**	Resistor Array	10KX4				
R3	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R5	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R6	**RG005100**	Carbon Resistor(chip)	100 0.1 J				
-10	**RG005100**	Carbon Resistor(chip)	100 0.1 J				
R11	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R12	**RG005100**	Carbon Resistor(chip)	100 0.1 J				
R13	**RG005100**	Carbon Resistor(chip)	100 0.1 J				
R14	**RG005270**	Carbon Resistor(chip)	270 0.1 J				
R15	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R16	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R17	**RG000000**	Carbon Resistor(chip)	0 0.1 J				
R19	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
R20	**RG005220**	Carbon Resistor(chip)	220 0.1 J				
R21	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
-23	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R24	**RG006220**	Carbon Resistor(chip)	2.2K 0.1 J				
R25	**RG005220**	Carbon Resistor(chip)	220 0.1 J				
R26	**RG005220**	Carbon Resistor(chip)	220 0.1 J				
R27	**RG009100**	Carbon Resistor(chip)	1.0M 0.1 J				
R28	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
R29	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
R30	**RG000000**	Carbon Resistor(chip)	0 0.1 J				

✻: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R31	**RG004470**	Carbon Resistor(chip)	47 0.1 J				
	R32	**RG004750**	Carbon Resistor(chip)	75 0.1 J				
	R101	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R102	**RG009100**	Carbon Resistor(chip)	1.0M 0.1 J				
	R103	**RG006470**	Carbon Resistor(chip)	4.7K 0.1 J				
	R104	**RG004330**	Carbon Resistor(chip)	33 0.1 J				
	R105	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R106	**RG006330**	Carbon Resistor(chip)	3.3K 0.1 J				
	R107	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R108	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R109	**RG006560**	Carbon Resistor(chip)	5.6K 0.1 J				
	R110	**RG006560**	Carbon Resistor(chip)	5.6K 0.1 J				
	R111	**RG005470**	Carbon Resistor(chip)	470 0.1 J				
	R112	**RG005470**	Carbon Resistor(chip)	470 0.1 J				
	R113	**RG006470**	Carbon Resistor(chip)	4.7K 0.1 J				
	R114	**RG004330**	Carbon Resistor(chip)	33 0.1 J				
	R115	**RG006470**	Carbon Resistor(chip)	4.7K 0.1 J				
	R116	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R117	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R118	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R119	**RG203470**	Carbon Resistor(chip)	4.7 1/4 J				
	R120	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
	R121	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R122	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
	R123	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R124	**RG006220**	Carbon Resistor(chip)	2.2K 0.1 J				
	R125	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R126	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
	R127	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R128	**RG204470**	Carbon Resistor(chip)	47 1/4 J				
	R129	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R130	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R131	**RG006220**	Carbon Resistor(chip)	2.2K 0.1 J				
	R132	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R133	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
	R134	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R135	**RG204470**	Carbon Resistor(chip)	47 1/4 J				
	R136	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R137	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R138	**RG205100**	Carbon Resistor(chip)	100 1/4 J				
	R139	**RG205100**	Carbon Resistor(chip)	100 1/4 J				
	R140	**RG006220**	Carbon Resistor(chip)	2.2K 0.1 J				
	R141	**RG007180**	Carbon Resistor(chip)	18K 0.1 J				
	R142	**RG007470**	Carbon Resistor(chip)	47K 0.1 J				
	R143	**RG007470**	Carbon Resistor(chip)	47K 0.1 J				
	R144	**RG007470**	Carbon Resistor(chip)	47K 0.1 J				
*	R145	**RG205330**	Carbon Resistor(chip)	330 1/4 J				
*	R146	**RG205270**	Carbon Resistor(chip)	270 1/4 J				
	R147	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R148	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
*	R149	**RG205330**	Carbon Resistor(chip)	330 1/4 J				
*	R150	**RG205270**	Carbon Resistor(chip)	270 1/4 J				
	R151	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R152	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R153	**RG006220**	Carbon Resistor(chip)	2.2K 0.1 J				
	R154	**RG007180**	Carbon Resistor(chip)	18K 0.1 J				
	R155	**RG007470**	Carbon Resistor(chip)	47K 0.1 J				
	-157	**RG007470**	Carbon Resistor(chip)	47K 0.1 J				
*	R158	**RG205330**	Carbon Resistor(chip)	330 1/4 J				
*	R159	**RG205270**	Carbon Resistor(chip)	270 1/4 J				
	R160	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R161	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
*	R162	**RG205330**	Carbon Resistor(chip)	330 1/4 J				
*	R163	**RG205270**	Carbon Resistor(chip)	270 1/4 J				
	R164	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R165	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R166	**RG009100**	Carbon Resistor(chip)	1.0M 0.1 J				
	R167	**RG005680**	Carbon Resistor(chip)	680 0.1 J				
	R168	**RG005220**	Carbon Resistor(chip)	220 0.1 J				
	R169	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				

❇: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R170	**RG006470**	Carbon Resistor(chip)	4.7K 0.1 J				
	R171	**RG006470**	Carbon Resistor(chip)	4.7K 0.1 J				
*	R172	**V7491800**	Metal Oxide Film Resistor	220 1W J				
*	R173	**V7491800**	Metal Oxide Film Resistor	220 1W J				
	R174	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R175	**RG007220**	Carbon Resistor(chip)	22K 0.1 J				
	R176	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R177	**RG006220**	Carbon Resistor(chip)	2.2K 0.1 J				
	R178	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
	R179	**RG008100**	Carbon Resistor(chip)	100K 0.1 J				
*	SW101	**V7181600**	Push Switch	SPPJ22NE06 NONLOCK		INPUT MUTE		
	SW102	**V4577800**	Push Switch	SDKLA10200		STAND-BY		03
	SW103	**VV104500**	Slide Switch	SSSF122-S06N0		POWER SUPPLY(ON/OFF)		01
	TR1	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR2	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR101	**VD303700**	Transistor	2SC3326 A,B TE85R				01
	-108	**VD303700**	Transistor	2SC3326 A,B TE85R				01
	TR109	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR110	**VJ927200**	Transistor	2SA1162 O,Y				01
	W0101	**--**	Wire Assembly	B&B #28 3P L60		(V718170)		
	X1	**VU682100**	Quartz Crystal Unit	30.00M HZ DOC-49S2				06
	X2	**VE463500**	Quartz Crystal Unit	AT-49/12.0000MHZ				03
	X101	**VR013200**	Quartz Crystal Unit	22.5792M AT-49				03
	ZD101	**VU170900**	Zener Diode	UDZ 2.0BTE-17 2.0V				
	ZD102	**VU170900**	Zener Diode	UDZ 2.0BTE-17 2.0V				
	ZD103	**VU173000**	Zener Diode	UDZ 15B TE-17 15V				01
	ZD104	**VU173000**	Zener Diode	UDZ 15B TE-17 15V				01
	ZD105	**VG439200**	Zener Diode	MTZ J 9.1B 9.1V				01
*		**AAX25790**	Circuit Board	PN1/2		(V776560)(XY900B0)		
*		**AAX25800**	Circuit Board	PN2/2		(V776560)(XY900B0)		
		V6220800	Spacer				8	
		V6624600	LED Holder	LED3-1A			4	
		--	Wire Assembly	C& #24 2P L60		(V654510)	4	
*		**V7756000**	Push Switch	ADS-133-A11		1 LIMITER,2 CHORUS/DELAY, 3 REVERB,AUTO FBR/BANK/ TUNER	4	
	CN301	**VV068000**	Base Post	6P SE				01
	CN302	**VV068300**	Base Post	9P SE				01
	CN303	**VV068500**	Base Post	11P SE				
	CN304	**VV068600**	Base Post	12P SE				01
	CN305	**VV068800**	Base Post	14P SE				01
	CN306	**VV067400**	Base Post	14P TE				
	CN307	**VV066200**	Base Post	2P TE				01
	-310	**VV066200**	Base Post	2P TE				01
	C301	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	-315	**UX145100**	Ceramic Capacitor(chip)	0.1000 25V Z				
	D301	**VT332900**	Diode	1SS355 TE-17				01
	-321	**VT332900**	Diode	1SS355 TE-17				01
	IC301	**XZ102A00**	IC	74HC374DT		D-FF		02
	-307	**XZ102A00**	IC	74HC374DT		D-FF		02
	IC308	**XZ101A00**	IC	74HC4052DT		Multiplexer		02
	IC309	**XZ101A00**	IC	74HC4052DT		Multiplexer		02
	K301	**VB966900**	Style Pin	IMSA-6024				01
	LD301	**V5801000**	LED Display	LTC-5836E				05
	LD302	**VV620800**	LED Red	LT311G-41-C13				01
	LD303	**VV620800**	LED Red	LT311G-41-C13				01
	LD304	**VV620800**	LED Red	LT311G-41-C13				01
	LD306	**VV620800**	LED Red	LT311G-41-C13				01
	L301	**VS740100**	Inductor(chip)	BLM21B751S				03
	-312	**VS740100**	Inductor(chip)	BLM21B751S				03
	R301	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	-304	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R305	**RG005560**	Carbon Resistor(chip)	560 0.1 J				
	-321	**RG005560**	Carbon Resistor(chip)	560 0.1 J				
	R322	**RG005820**	Carbon Resistor(chip)	820 0.1 J				
	-345	**RG005820**	Carbon Resistor(chip)	820 0.1 J				
	R346	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	-360	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
	R361	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
-367	**RG006100**	Carbon Resistor(chip)	1.0K 0.1 J				
R368	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R369	**RG007100**	Carbon Resistor(chip)	10K 0.1 J				
R370	**RG005560**	Carbon Resistor(chip)	560 0.1 J				
-374	**RG005560**	Carbon Resistor(chip)	560 0.1 J				
R376	**RG000000**	Carbon Resistor(chip)	0 0.1 J				
SW301	**VK701100**	Push Switch	SKHQFN GREEN		UP,DOWN,MANUAL,UTILITY,		02
-317	**VK701100**	Push Switch	SKHQFN GREEN		STORE,LIMITER,		02
					FB REDU.(1,2,3,4,5),		
					CHORUS,DELAY,REV.(HALL,		
					ROOM,PLATE),SHIFT		
SW318	**V3633800**	Rotary Switch	SRBV18 1C8S		MIC TYPE		07
VR301	**V5264800**	Rotary Variable Resistor	RK09L1140 10KB		BLEND STEREO,VOLUME,BASS,		03
-313	**V5264800**	Rotary Variable Resistor	RK09L1140 10KB		MIDDLE,TREBLE,PRESENCE,		03
					LIMITER LEVEL,		
					FB REDU.(FREQ,DEPTH),		
					CHORUS/DELAY(SPEED TIME,		
					DEPTH FB,LEVEL),		
					REV. LEVEL		
VR314	**V5265100**	Rotary Variable Resistor	RK09L12D0 20KA X2		OUTPUT		03

✻: New Parts

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■AG-Stomp OVERALL CIRCUIT DIAGRAM 1/3 (PN 1/2, PN 2/2)

PN 1/2

7 Segment LED

to DM-CN101 (P2.H2)

to DM1/2-CN1 (P3.K3)

to DM1/2-CN2 (P3.K4)

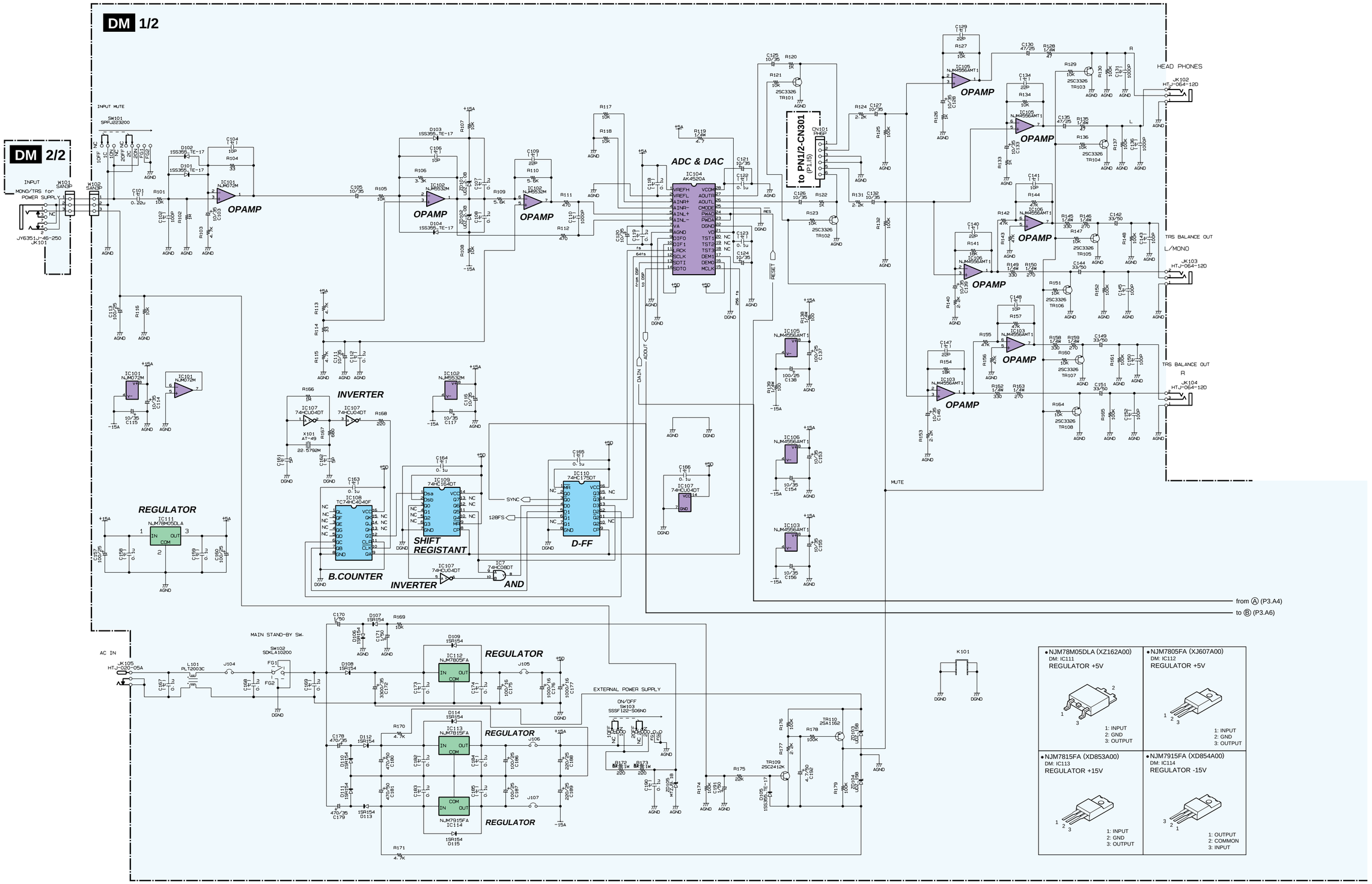
to DM1/2-CN3 (P3.K5)

KEC-54234

PN 2/2

KEC-54234

■AG-Stomp OVERALL CIRCUIT DIAGRAM 2/3 (DM)



(七) : **Ceramic Capacitor**

Note : See parts list for details of circuit board component parts.

■AG-Stomp OVERALL CIRCUIT DIAGRAM 3/3 (DM)

DM 1/2