SPEAKER SYSTEM

NX-A01

SERVICE MANUAL

IMPORTANT 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 any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

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

The data provided is believed 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 specifications 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 buss in the unit (heavy gauge black wires connect to this buss).

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

■ CONTENTS

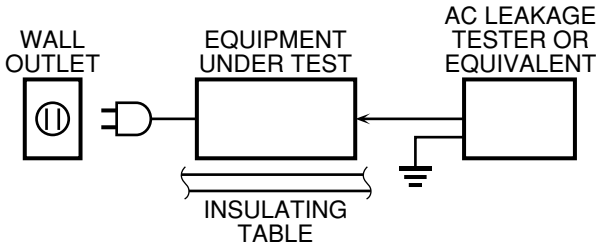
101029

YAMAHA CORPORATION
P.O.Box 1, Hamamatsu, Japan
'06.08

■ TO SERVICE PERSONNEL

1. Critical Components Information
   Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Models Only)
   When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.

- Meter impedance should be equivalent to 1500 ohms shunted by 0.15μF.



- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the manufacturing process except soldering of the P.C.B. ass'y 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 WHATSOEVER!

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.

About Lead Free Solder

All of the P.C.B.s installed in this unit are soldered using the lead free solder.

Among some types of lead free solder currently available, it is recommended to use one of the following types for the repair work.

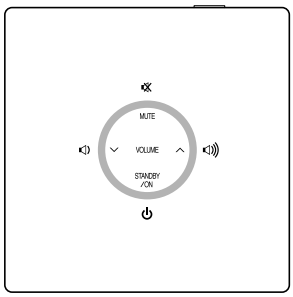
- Sn + Ag + Cu (tin + silver + copper)
- Sn + Cu (tin + copper)
- Sn + Zn + Bi (tin + zinc + bismuth)

Caution:

As the melting point temperature of the lead free solder is about 30°C to 40°C (50°F to 70°F) higher than that of the lead solder, be sure to use a soldering iron suitable to each solder.

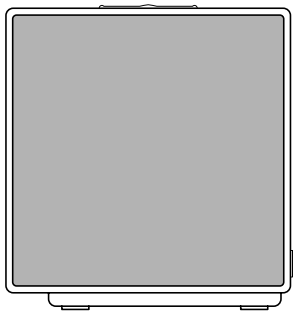
■ FRONT PANELS

Top view



Front view

Side view



■ SPECIFICATIONS

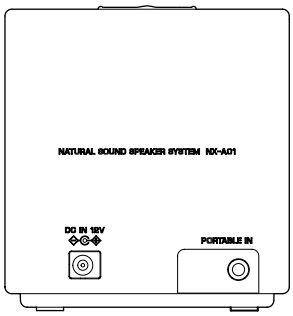
Type ..... 1 box opposed stereo type
Dynamic Power (1 kHz, 8 ohms, 10% T.H.D.) ..... 4 W x 2
Input Sensitivity
..... 200 mV/33 k-ohms [PORTABLE IN]
Frequency Response ..... 90 Hz to 20 kHz
Drivers ..... 3 cm (1-3/16") titanium diaphragm full range x 2
Input Jack ..... 3.5 mm mini jack (PORTABLE IN)
Maximum Permissible Input ..... 2.0 V
Power Supply ..... 100-240 V AC, 50/60 Hz
Power Consumption ..... 8 W
Standby Power Consumption
C model ..... 0.6 W
T, G, L models ..... 0.7 W
Dimensions (W x H x D) ..... 84 x 89 x 84 mm
(3-5/16" x 3-1/2" x 3-5/16")
Weight ..... 310 g (11 oz.)
Finish ..... White color
Accessories ..... AC adaptor x 1
3.5 mm mini jack cable x 1

* Specifications are subject to change without notice due to product improvements.

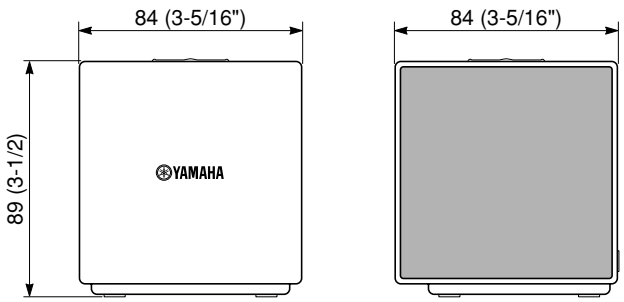
C ..... Canadian model
G ..... European model
T ..... Chinese model
L ..... Singapore model

■ REAR PANELS

Rear view



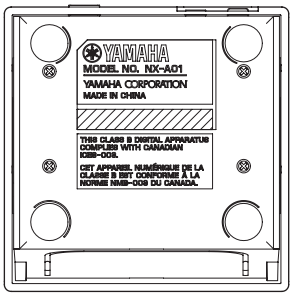
- **DIMENSIONS**



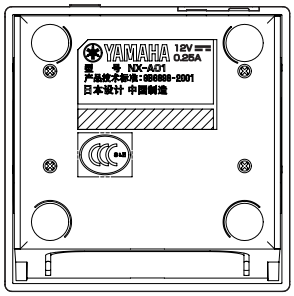
Unit: mm (inch)

Bottom view

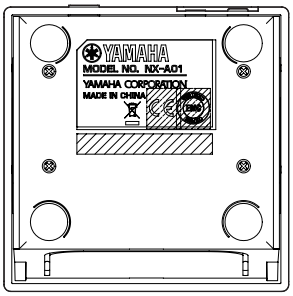
(C model)



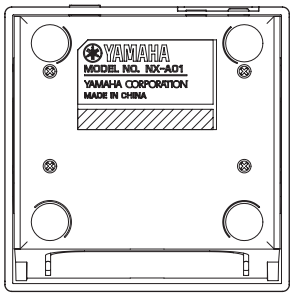
(T model)



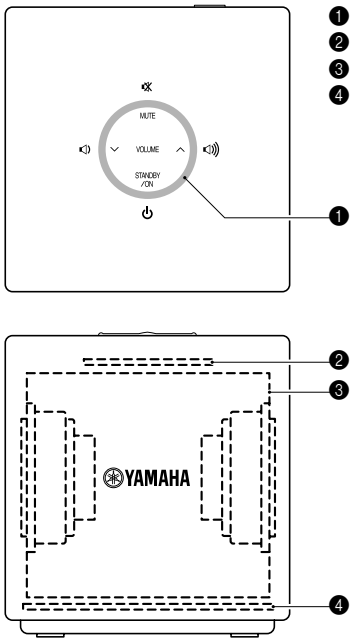
(G model)



(L model)



■ INTERNAL VIEW



❶ Status indicator (LED)
❷ MAIN (2) P.C.B.
❸ SPBOX ass'y
❹ MAIN (1) P.C.B.

■ About the Status Indicator (LED)

The status indicator turns on or flashes to indicate the status of this unit.

LED status	The current status of this unit
On	This unit is on.
Off	This unit is in the standby mode, or disconnected from the AC adaptor.
Flashing (every second)	This unit is muted.
Flashing (rapidly)	The protection circuitry has been activated. (Disconnect the AC adaptor and wait for a while.)

■ DISASSEMBLY PROCEDURES

- After disassembling the unit or replacing any part, be sure to input a signal (20 Hz to 20 kHz) from the PORTABLE IN terminal to make sure that the unit is free from chattering or abnormal sound.
- When replacing the MAIN (2) P.C.B. and button assembly, be sure to use the button support jig for installation of the button assembly.
- The sheet window once removed cannot be reused. Be sure to use a new sheet window for replacement.

1. Removal of MAIN(1) P.C.B..

a. Remove 2 sheet window. (Fig. 1)
b. Remove 4 screws (①), and then remove MAIN (2) P.C.B. together with bottom case. (Fig. 1)
c. Remove CB302 and CB303. (Fig. 1)

2. Removal of MAIN (2) P.C.B..

a. Remove SPBOX ASS'Y. (Fig. 1)
b. Remone 4 screws (②), and then remove MAIN (2) P.C.B.. (Fig. 2)

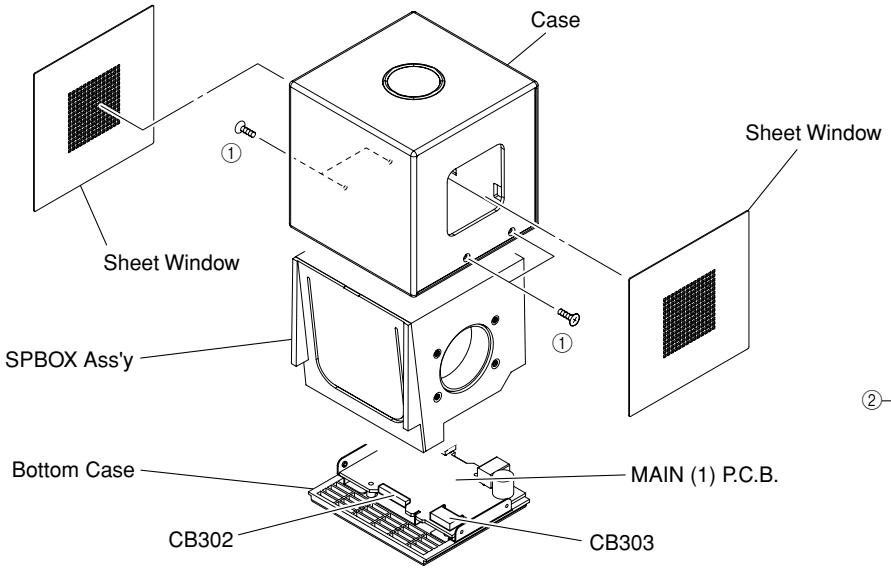


Fig. 1

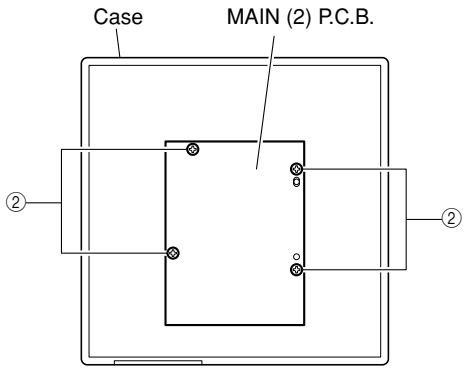


Fig. 2

- **Making Button Support Jig**
  * Prepare a support P.C.B. (Ref No. 16: Part No. WG593900).
  a. Using dowels together, install the support P.C.B. into its 4 installation holes. (Fig. 3)
  b. Wind the tape around 3 times at 4 places of the support P.C.B.. (Fig. 4)

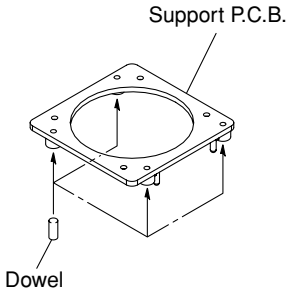


Fig. 3

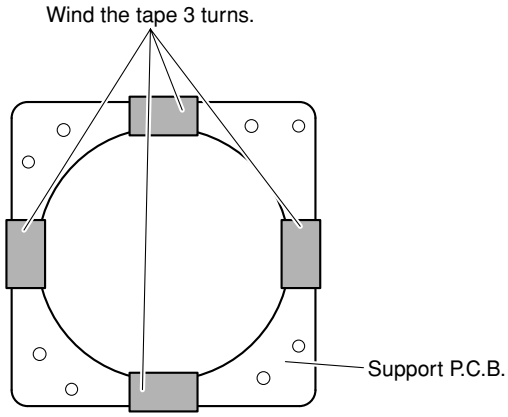


Fig. 4

Precautions when replacing the MAIN (2) P.C.B. and button assembly

a. Install the cushion to the button assembly. (Fig. 5)
b. Place the button support jig on the MAIN (2) P.C.B. by aligning positions of its 4 dowels. (Fig. 5)
c. Install the button assembly by setting it to the center of the button support jig. (Fig. 6)

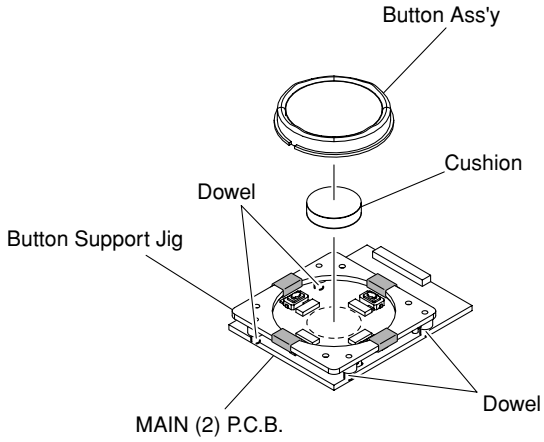


Fig. 5

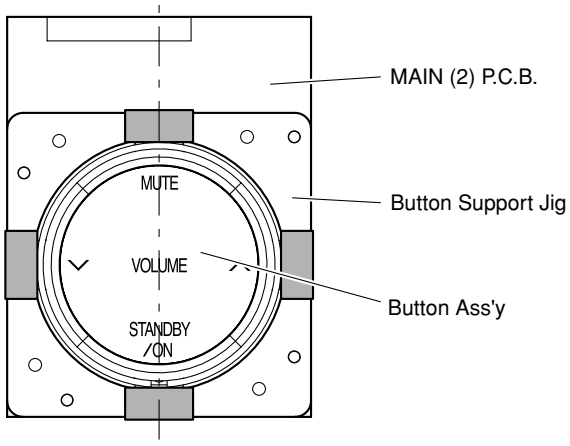
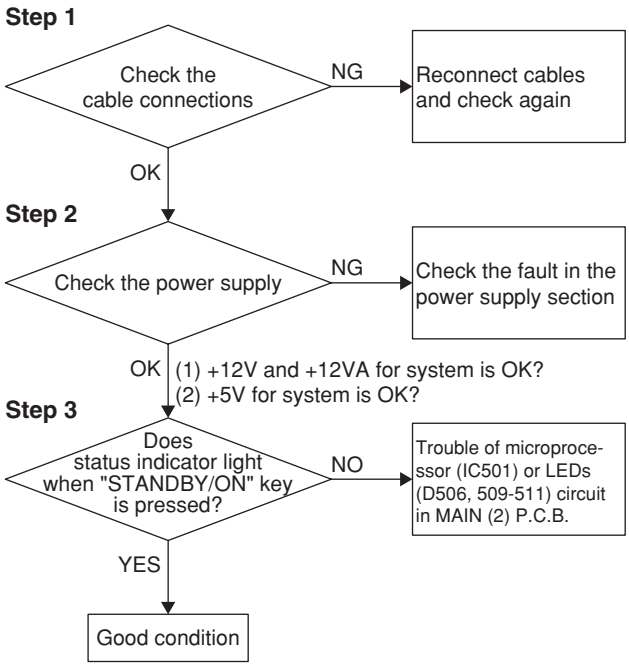


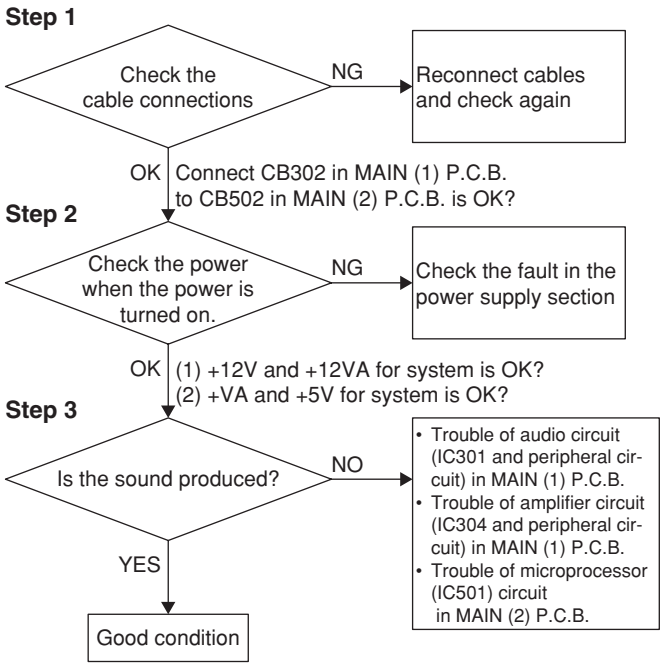
Fig. 6

■ TROUBLESHOOTING

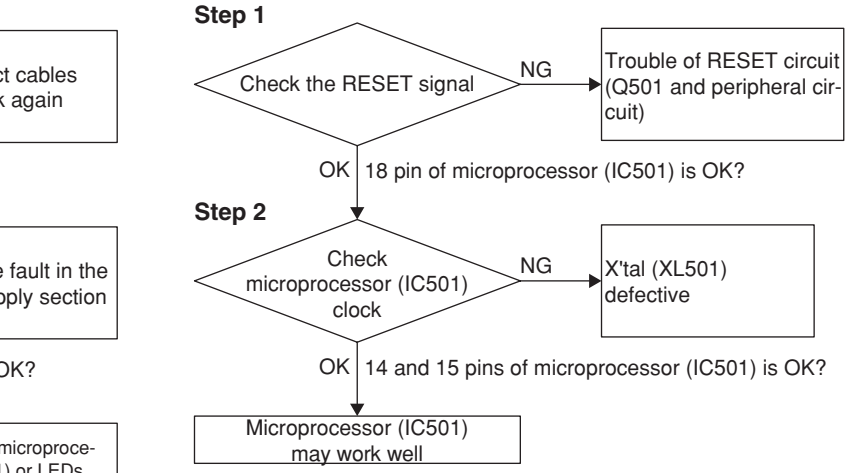
- **When the status indicator does not light even when "STANDBY/ON" key is pressed**



- **When no sound is produced**

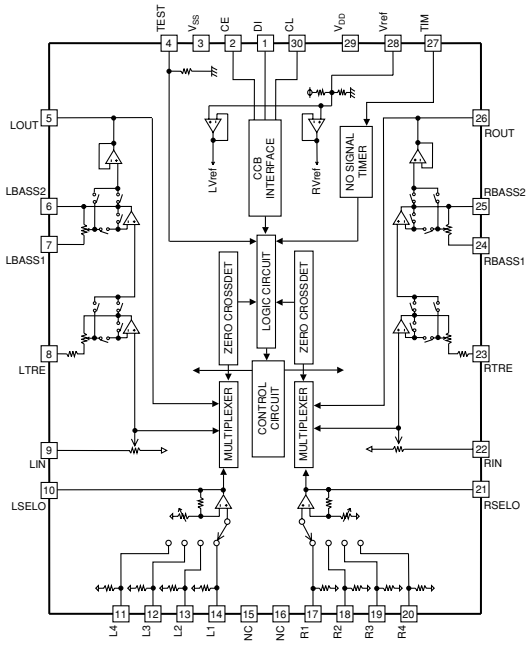


- **Trouble of microprocessor (IC501) circuit in MAIN (2) P.C.B.**



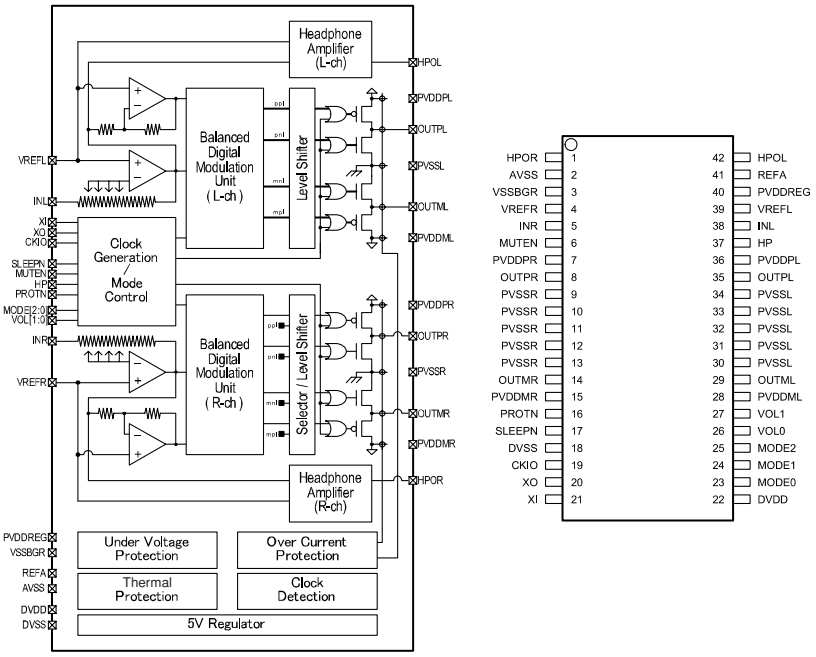
■ IC DATA

IC301: LC75348M (MAIN (1) P.C.B.)
Analog IC



No.	Pin name	Description
1	DI	Serial data and clock input terminal for control.
2	CE	Chip enable terminal. / Data is written in the inside latch when [H] changes to [L] and each analog switch operates. / Data transfer is enabled at [H] level.
3	VSS	Ground terminal.
4	TEST	Test terminal of electronic volume. / Set to VSS potential.
5	LOUT	Volume + equalizer output terminal.
6	LBASS2	Connection terminal for capacitor and resistor constructing bus band filter.
7	LBASS1	Connection terminal for capacitor and resistor constructing bus band filter.
8	LTRE	Connection terminal for capacitor constructing treble band filter.
9	LIN	Volume + equalizer input terminal.
10	LSEL0	Input selector output terminal.
11	L4	Input signal terminal.
12	L3	Input signal terminal.
13	L2	Input signal terminal.
14	L1	Input signal terminal.
15	NC	Set no connect terminal/open or connect to VSS.
16	NC	Set no connect terminal/open or connect to VSS.
17	R1	Input signal terminal.
18	R2	Input signal terminal.
19	R3	Input signal terminal.
20	R4	Input signal terminal.
21	RSEL0	Input selector output terminal.
22	RIN	Volume + equalizer input terminal.
23	RTRE	Connection terminal for capacitor constructing treble band filter.
24	RBASS1	Connection terminal for capacitor and resistor constructing bus band filter.
25	RBASS2	Connection terminal for capacitor and resistor constructing bus band filter.
26	ROUT	Volume + equalizer output terminal.
27	TIM	When there is no zero cross signal until the timer is completed even after setting the timer terminal/data when there is no signal of the zero cross circuit, the data is forced to be set.
28	Vref	Connect a capacitor of about some 10uF between Vref to VSS (VSS) as a measure against power ripple where 1/2 VDD voltage for analog ground occurs.
29	VDD	Power voltage terminal.
30	CL	Serial data and clock input terminal for control.

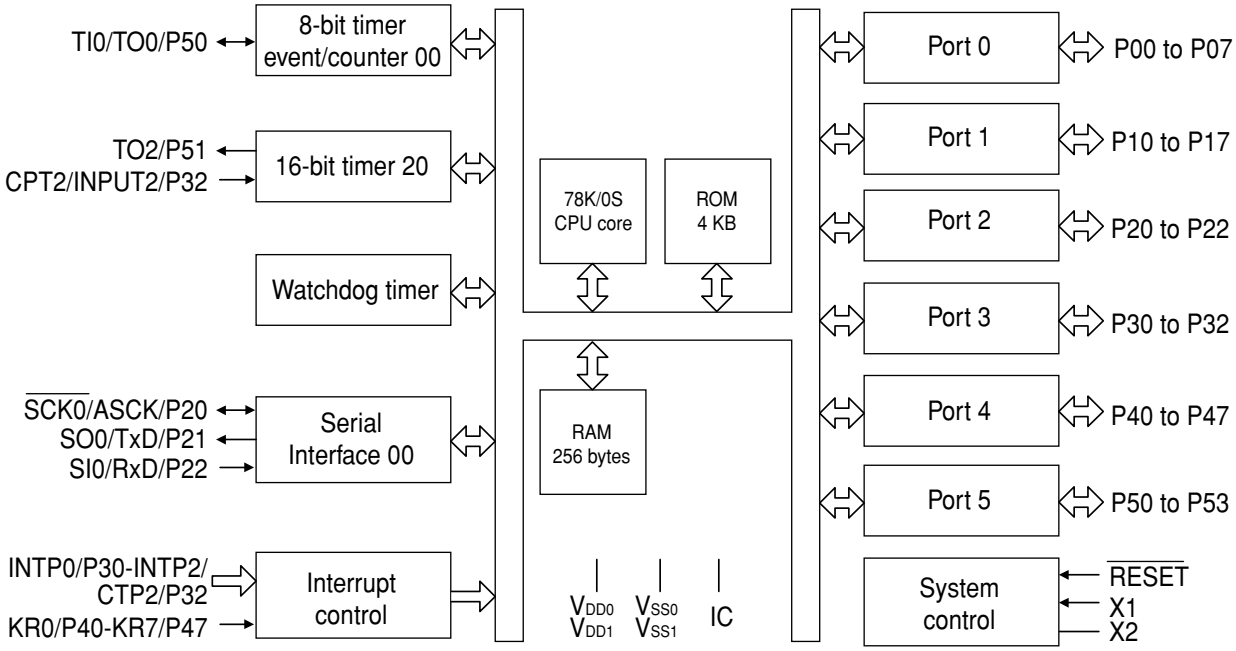
IC304: YDA138-EZE2 (MAIN (1) P.C.B.)
Digital amplifier IC

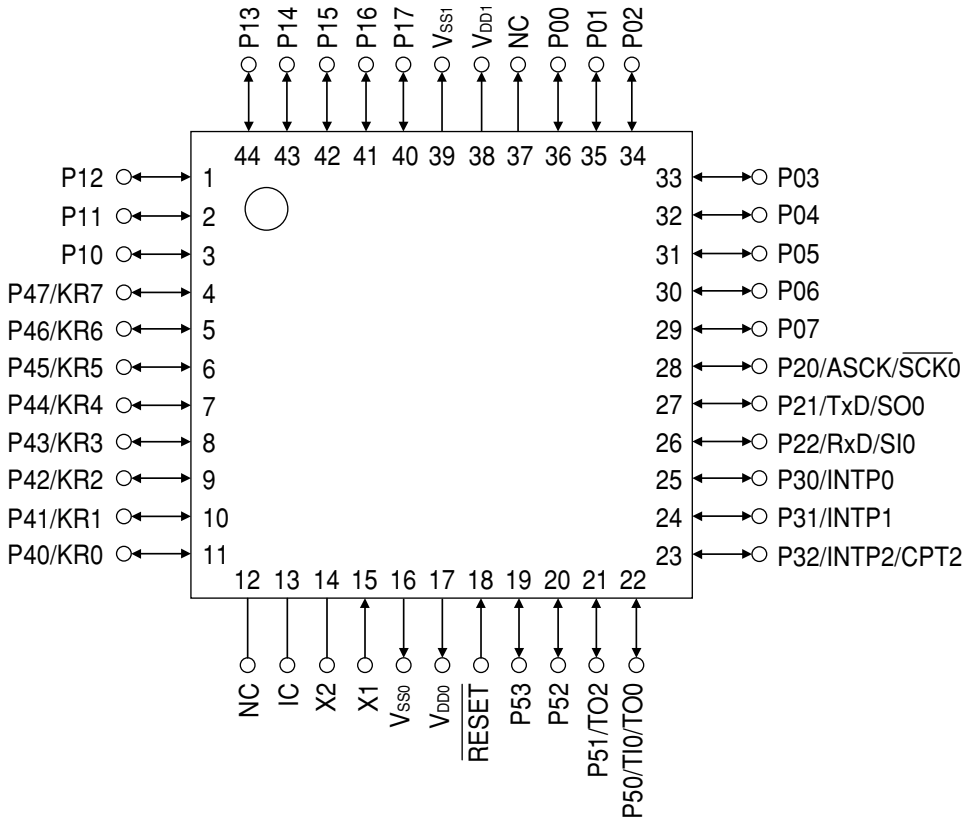


No.	Terminal Name	I/O	Function
1	HPOR	O	R-ch headphone output terminal.
2	AVSS	Pow	5V analog ground terminal.
3	VSSBGR	Pow	Ground terminal for reference voltage source.
4	VREFR	O	R-ch reference voltage terminal. (capacitor connected externally)
5	INR	I	R-ch analog signal input terminal.
6	MUTEN	I	Mute control terminal.
7	PVDDPR	Pow	R-ch 12V type VDD terminal.
8	OUTPR	O	R-ch positive side output terminal.
9	PVSSR	Pow	R-ch 12V type VSS terminal.
10	PVSSR	Pow	R-ch 12V type VSS terminal.
11	PVSSR	Pow	R-ch 12V type VSS terminal.
12	PVSSR	Pow	R-ch 12V type VSS terminal.
13	PVSSR	Pow	R-ch 12V type VSS terminal.
14	OUTMR	O	R-ch negative side output terminal.
15	PVDDMR	Pow	R-ch 12V type VDD terminal.
16	PROTN	O	Warning signal output terminal. (O/D)
17	SLEEPN	I	Sleep control terminal.
18	DVSS	Pow	Digital ground terminal.
19	CKIO	I/O	Clock input/output terminal.
20	XO	O	CERALOCK connection terminal. *1
21	XI	I	CERALOCK connection terminal. *1
22	DVDD	I	Digital ground termibnal. (connected to REFA terminal externally)
23	MODE0	I	Operation mode select terminal.
24	MODE1	I	Operation mode select terminal.
25	MODE2	I	Operation mode select terminal.
26	VOL0	I	Input sensitivity setting terminal.
27	VOL1	I	Input sensitivity setting terminal.
28	PVDDML	Pow	L-ch 12V type VDD terminal.
29	OUTML	O	L-ch negative side output terminal.
30	PVSSL	Pow	L-ch 12V type VSS terminal.
31	PVSSL	Pow	L-ch 12V type VSS terminal.
32	PVSSL	Pow	L-ch 12V type VSS terminal.
33	PVSSL	Pow	L-ch 12V type VSS terminal.
34	PVSSL	Pow	L-ch 12V type VSS terminal.
35	OUTPL	O	L-ch positive side output terminal.
36	PVDDPL	Pow	L-ch 12V type VDD terminal.
37	HP	I	Headphone control terminal.
38	INL	I	L-ch analog signal input terminal.
39	VREFL	O	L-ch reference voltage terminal. (capacitor connected externally)
40	PVDDREG	Pow	12V type PVDD terminal for regulator circuit.
41	REFA	O	5V regulator output terminal. (capacitor connected externally)
42	HPOL	O	L-ch headphone output terminal.

[I/O] I: Input terminal, O: Output terminal, I/O: Input/output terminal, Pow: Power terminal
[* 1] CERALOCK is a registered trade mark of Murata Mfg. Co., Ltd.

IC501: μPD789022GB-A70-8ES-A (MAIN (2) P.C.B.)
Microprocessor

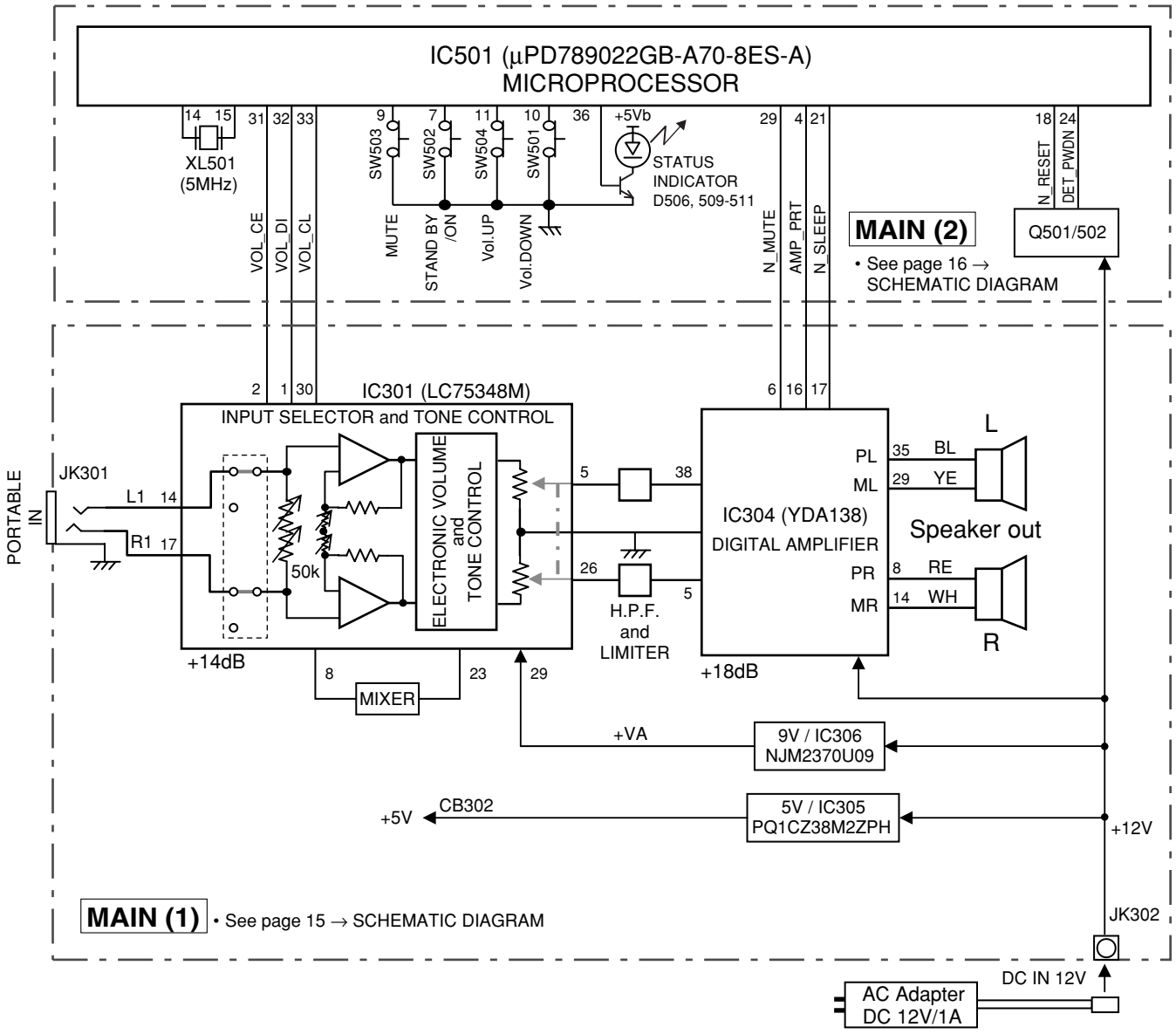




IC501: µPD789022GB-A70-8ES-A (MAIN (2) P.C.B.)
Microprocessor

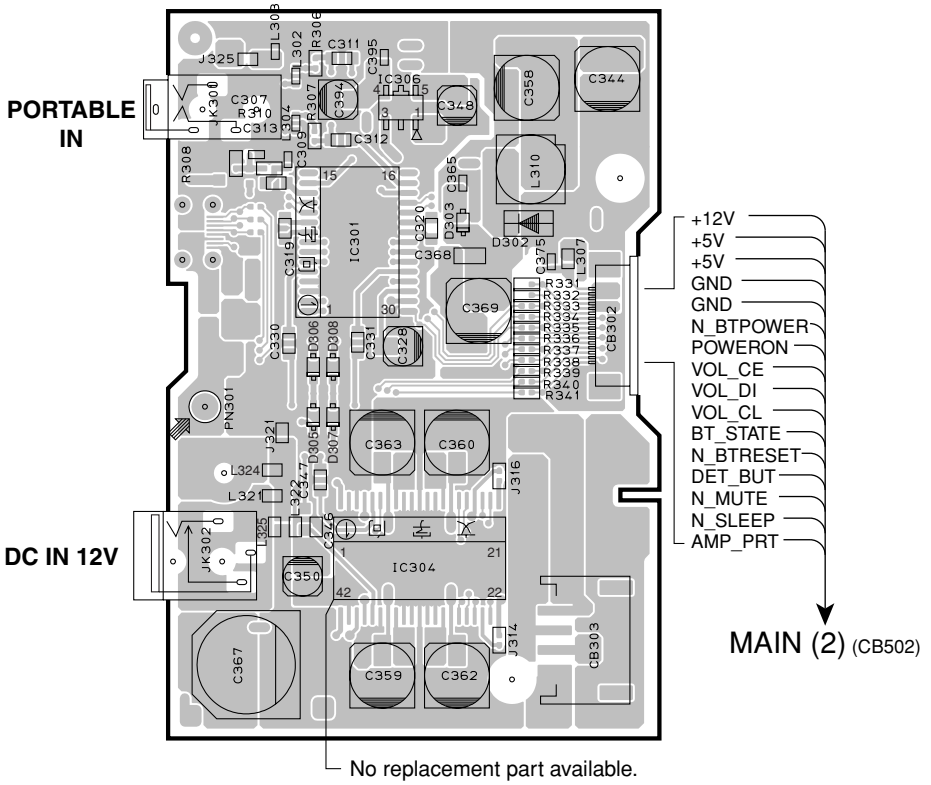
No.	Pin name	Function	Signal name	I/O	Logic	Pull-Up/Down	Comment
1	P12	I/O	(P12)	O	–	–	for firmware version check (P12)
2	P11	I/O	(P11)	O	–	–	for firmware version check (P11)
3	P10	I/O	(P10)	O	–	–	for firmware version check (P10)
4	P47/KR7	I/O	AMP_PRT	I	neg.	PU (100K)	detection of YDA138 amplifier-protection
5	P46/KR6	I/O	(P46)	I	–	PU (100K)	(reserved. must be pulled-up to VDD0.)
6	P45/KR5	I/O	BT_STATE	I	neg.	PU (100K)	
7	P44/KR4	I/O	KEY_POWER	I	neg.	PU (100K)	POWER key input
8	P43/KR3	I/O	(GNDb)	–	–	–	
9	P42/KR2	I/O	KEY_MUTE	I	neg.	PU (100K)	MUTE key input
10	P41/KR1	I/O	KEY_VOLDW	I	neg.	PU (100K)	VOLUME DOWN key input
11	P40/KR0	I/O	KEY_VOLUP	I	neg.	PU (100K)	VOLUME UP key input
12	NC	NC	(GNDb)	–	–	–	
13	IC (VPP)	–	FLASH_VPP	–	–	–	
14	X2	Clock	–	–	–	–	
15	X1	Clock	–	I	–	–	clock input
16	VSS0	GND	GNDb	–	–	–	
17	VDD0	VDD	+5Vb	–	–	–	power supply
18	/RESET	Reset	N_RESET	I	neg.	PU (100K)	reset input
19	P53	I/O	(GNDb)	O	–	–	(reserved. test signal output.)
20	P52	I/O	N_BTPOWER	O	neg.	PU (100K)	
21	P51/TO2	I/O	N_SLEEP	O	neg.	PD (100K)	YDA138 sleep control
22	P50/TI0/TO0	I/O	POWERON	O	neg.	–	PowerOn/standby control
23	P32/INTP2/ CPT2	I/O (interrupt)	DET_BTU	I	neg.	PU (100K)	
24	P31/INTP1	I/O (interrupt)	DET_PWDN	I	neg.	PU (100K)	detection of AC power-off
25	P30/INTP0	I/O (interrupt)	(INTP0)	I	neg.	PU (100K)	OR input of KEY_POWER and BT_STATE
26	P22/RXD/ SI0	I/O (serial)	FLASH_SDI	I	–	PU (100K)	serial data from PCB inspection machine
27	P21/TXD/ SO0	I/O (serial)	FLASH_SDO	O	–	–	serial output
28	P20/ASCK/ /SCK0	I/O (serial)	FLASH_SCK	I	–	PU (100K)	serial clock from PCB inspection machine
29	P07	I/O	N_MUTE	O	neg.	PD (100K)	MUTE control
30	P06	I/O	(GNDb)	–	–	–	
31	P05	I/O	VOL_CE	O	–	–	electrical volume chip enable
32	P04	I/O	VOL_DI	O	–	–	electrical volume data input
33	P03	I/O	VOL_CL	O	–	–	electrical volume serial clock
34	P02	I/O	N_BTRESET	O	neg.	–	
35	P01	I/O	(GNDb)	–	–	–	
36	P00	I/O	N_LED_POWER	O	pos.	–	control output of POWER LED
37	NC	NC	(GNDb)	–	–	–	
38	VDD1	VDD	+5Vb	–	–	–	power supply
39	VSS1	GND	GNDb	–	–	–	
40	P17	I/O	(GNDb)	–	–	–	
41	P16	I/O	(GNDb)	–	–	–	
42	P15	I/O	(GNDb)	–	–	–	
43	P14	I/O	(GNDb)	–	–	–	
44	P13	I/O	(P13)	O	–	–	for firmware version check (P13)

■ BLOCK DIAGRAM

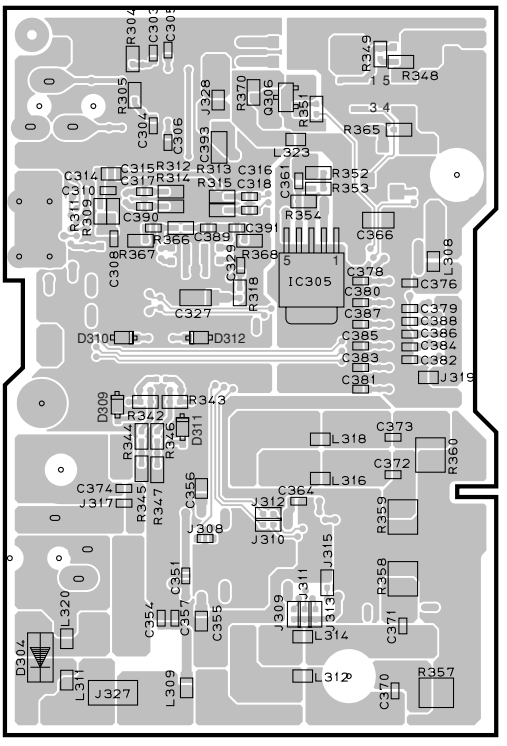


■ PRINTED CIRCUIT BOARDS

MAIN (1) P.C.B. (Side A)



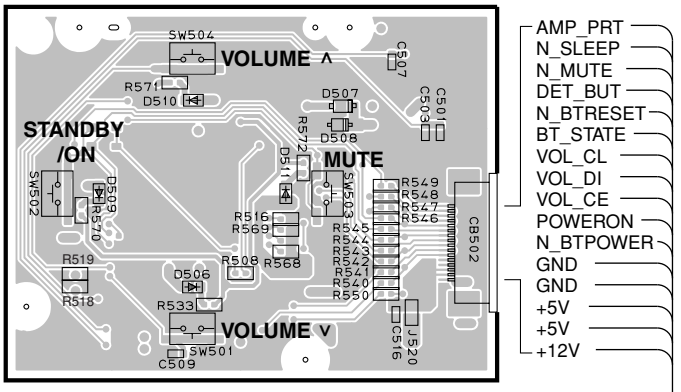
MAIN (1) P.C.B. (Side B)



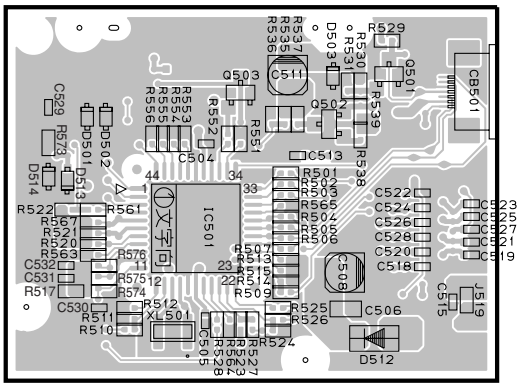
- **Semiconductor Location**

Ref. no.	Location
D302	C2
D303	C2
D304	B7
D305	C3
D306	C3
D307	C3
D308	C3
D309	B6
D310	B6
D311	C6
D312	C6
D313	–
D314	–
D315	–
D316	–
D317	–
IC301	C2
IC304	C4
IC305	C5
IC306	C2
Q306	C5

MAIN (2) P.C.B. (Side A)



MAIN (2) P.C.B. (Side B)



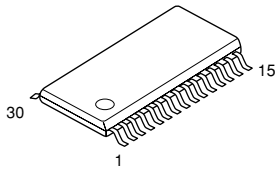
- **Semiconductor Location**

Ref. no.	Location
D501	B5
D502	B5
D503	C5
D506	B3
D507	C2
D508	C2
D509	B2
D510	B2
D511	C2
D512	C6
D513	B5
D514	B5
IC501	B5
Q501	C5
Q502	C5
Q503	B5

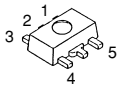
■ PIN CONNECTION DIAGRAM

• ICs

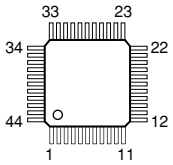
LC75348M



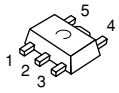
NJM2370U



μPD789022GB-A70-8ES-A

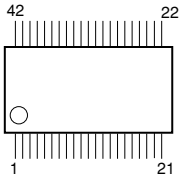


PQ1LAX95MSPQ



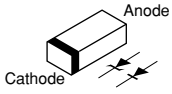
1: Vadj
2: GND
3: Vc
4: Vin
5: Vo

YDA138



• Diodes

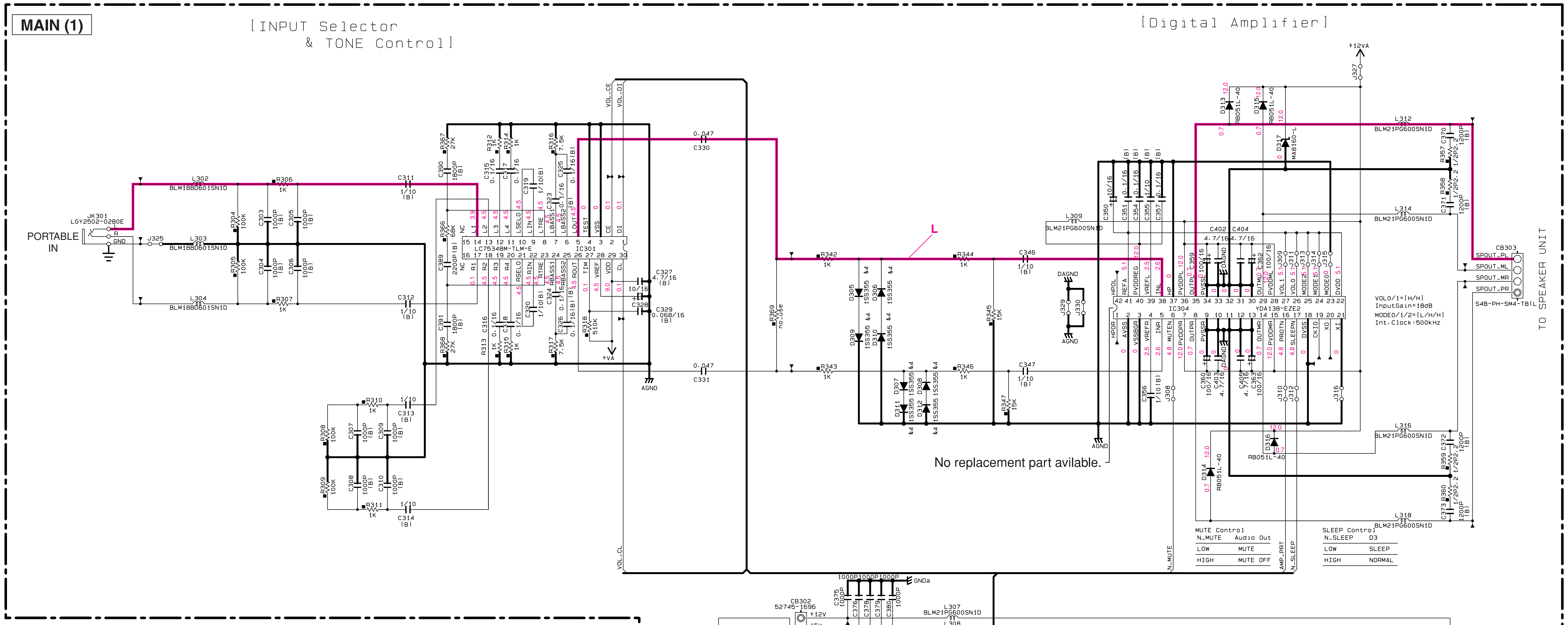
1SS355
MA8160-L 15.7V
RB051L-40
RB160L-40 TE25
RB500V-40
UDZ6.8B 6.8V

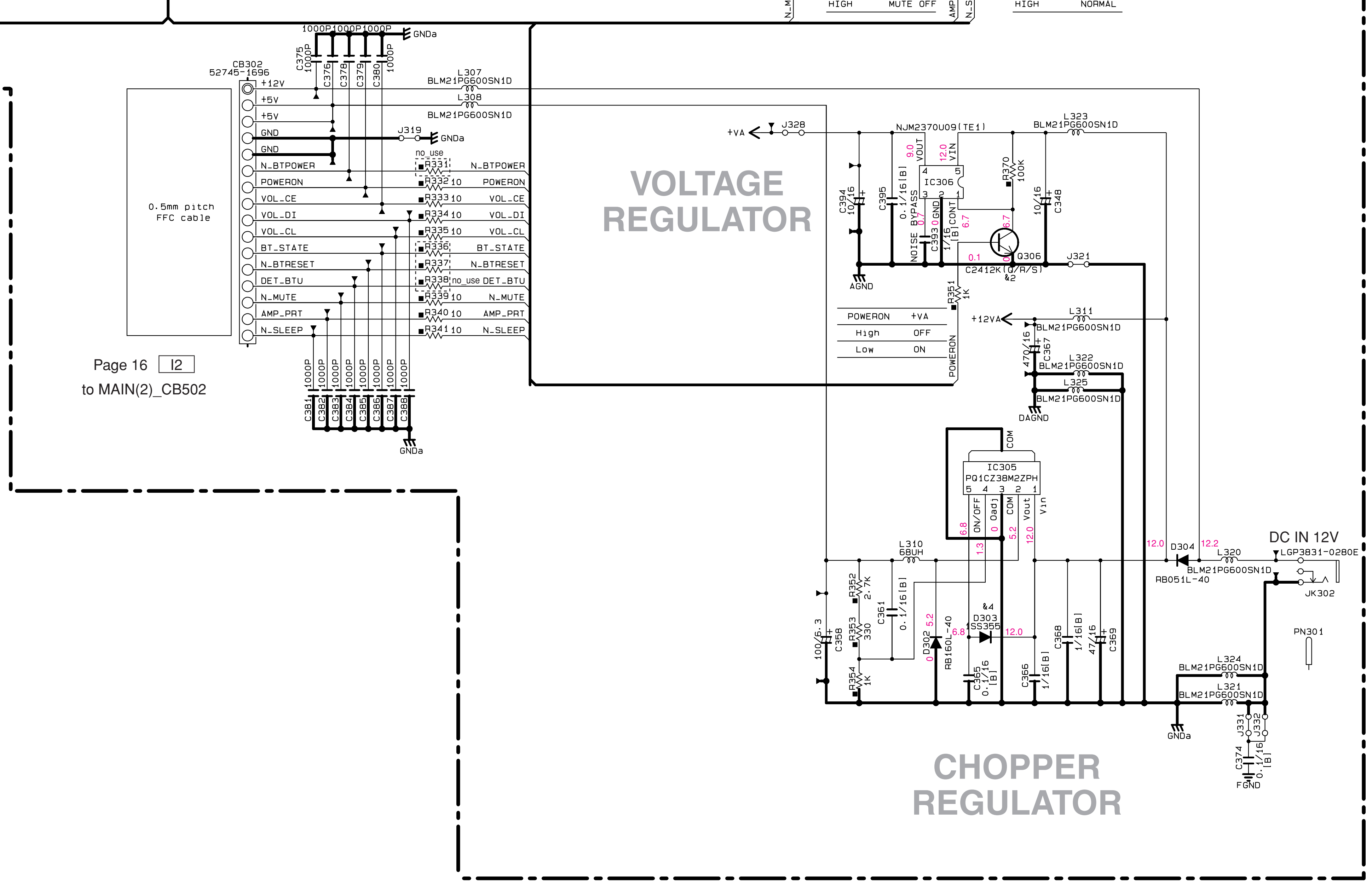


• Transistors

2SA1037K
2SC2412K
DTC114EKA

■ SCHEMATIC DIAGRAMS
MAIN 1/2





NOTICE (model)
(J)····· JAPAN
(U)····· U.S.A
(C)····· CANADA
(R)····· GENERAL
(T)····· CHINA
(K)····· KOREA
(A)····· AUSTRALIA
(B)····· BRITISH
(G)····· EUROPE
(L)····· SINGAPORE
(E)····· SOUTH EUROPE
(V)····· TAIWAN

CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
◉	CERAMIC TUBULAR CAPACITOR
◎	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
⦶	MICA CAPACITOR
Ⓟ	POLYPROPYLENE FILM CAPACITOR
⊜	SEMICONDUCTIVE CERAMIC CAPACITOR

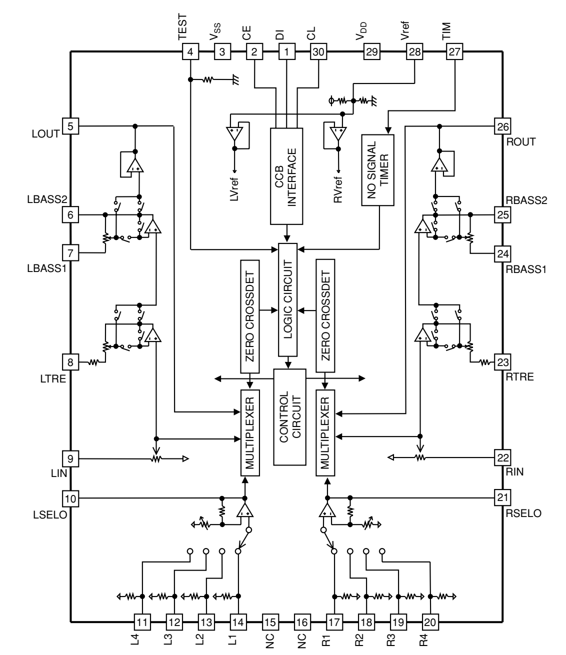
Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
&1	Q502	2SA1037AK[Q/R/S] 2SA1235A[E/F]
&2	Q304・306・501	2SC2412K[Q/R/S] 2SD0601ARL/AQL[Q/R/S]
&3		
&4	D303・305-312・503・507・513・514	1SS355 MA111
&5	Q503	DTC114EKA KRC102S-RTK/P

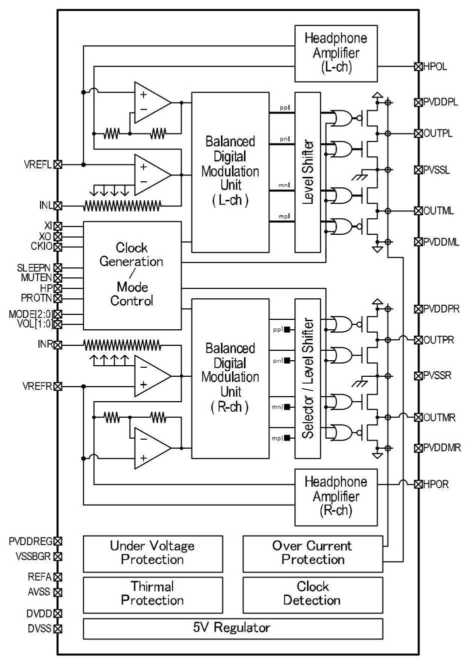
RESISTOR

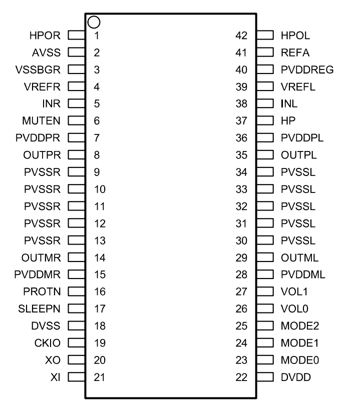
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
⧄	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
⚠	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
◪	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊘	SEMI VARIABLE RESISTOR
▤	CHIP RESISTOR

IC301 : LC75348M
Single-chip electronic volume and tone control system

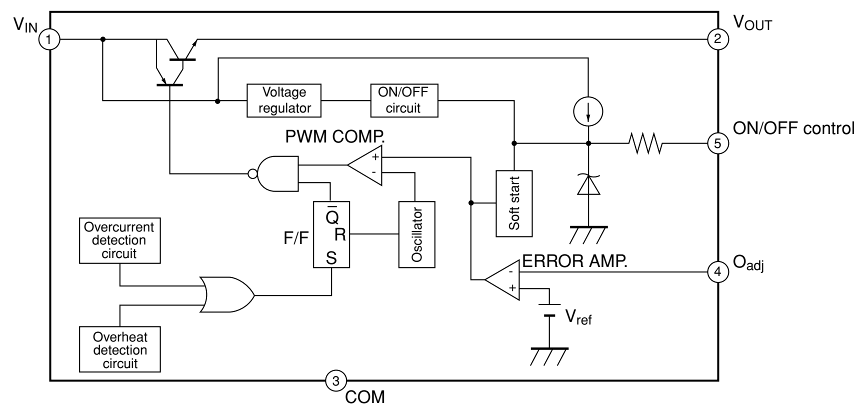


IC304 : YDA138
Digital audio power amplifier

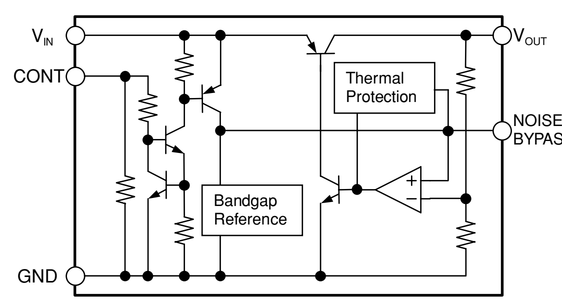


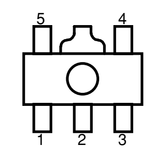


IC305 : PQ1CZ38M2ZPH
Chopper regulators



IC306 : NJM2370U
Voltage regulator

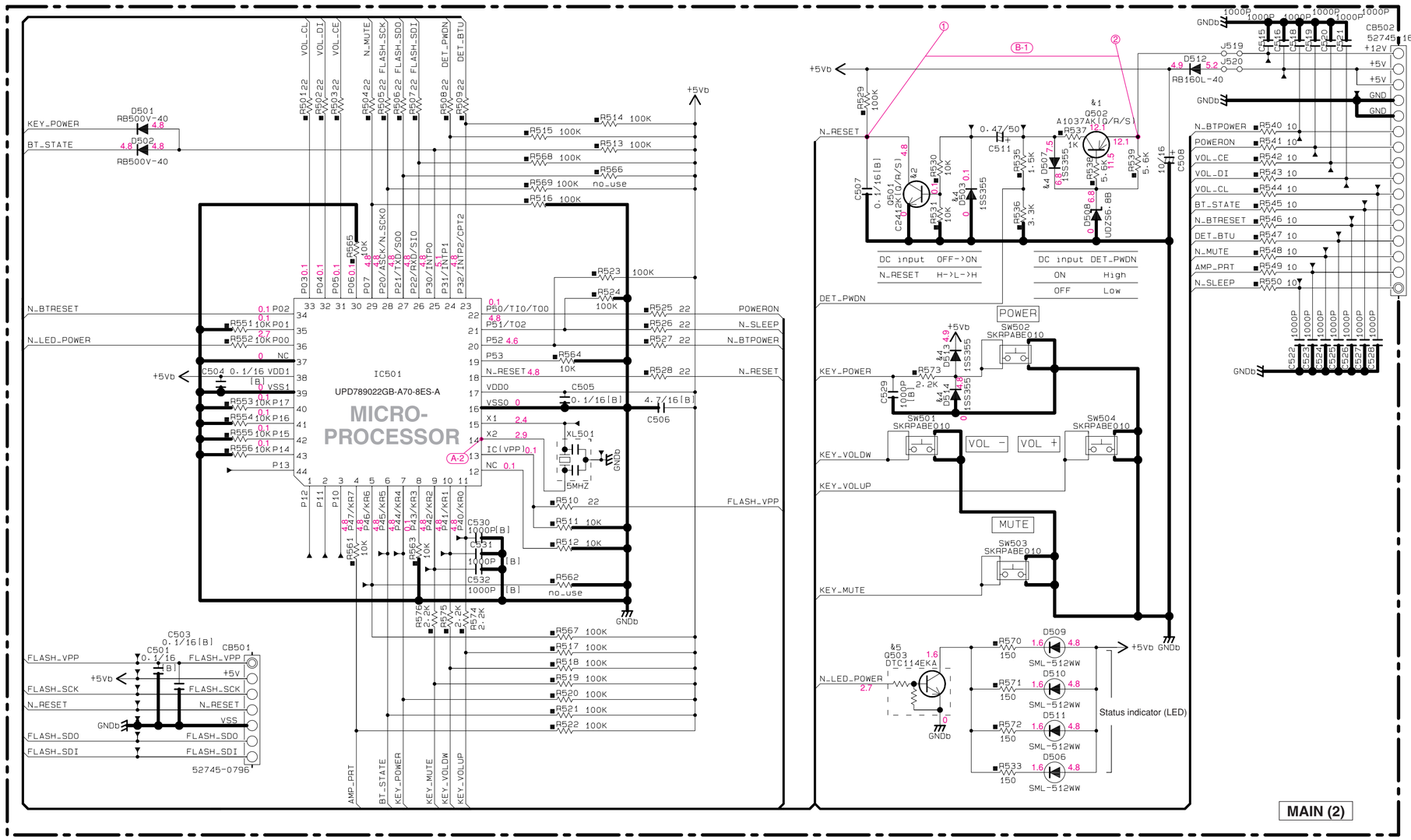




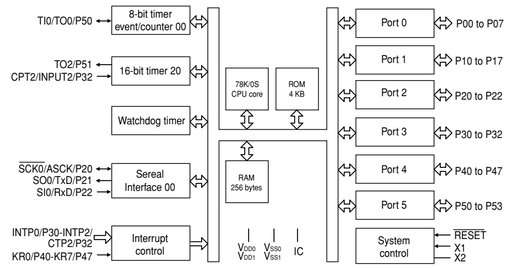
1. CONTROL
2. GND
3. NOISE BYPASS
4. V_{OUT}
5. V_{IN}

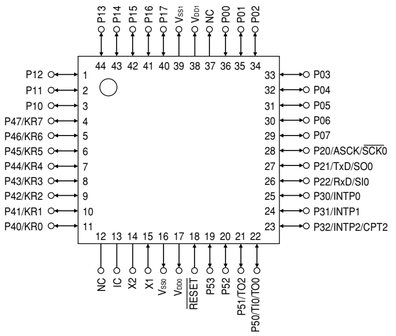
★ All voltages are measured with a 10MΩ/V DC electronic volt meter.
★ Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

MAIN 2/2



IC501 : μPD789022GB-A70-8ES-A
8bit single-chip controller





RESISTOR

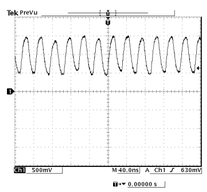
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
▨	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
▨	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊘	SEMI VARIABLE RESISTOR
▤	CHIP RESISTOR

CAPACITOR

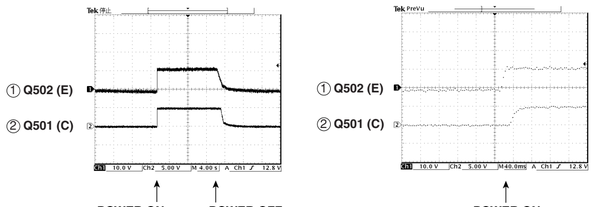
REMARKS	PARTS NAME	
NO MARK	ELECTROLYTIC CAPACITOR	⫣⊢
⊗	TANTALUM CAPACITOR	
NO MARK	CERAMIC CAPACITOR	⫠
◉	CERAMIC TUBULAR CAPACITOR	
⊙	POLYESTER FILM CAPACITOR	
○	POLYSTYRENE FILM CAPACITOR	
ⓘ	MICA CAPACITOR	
Ⓟ	POLYPROPYLENE FILM CAPACITOR	
◍	SEMICONDUCTIVE CERAMIC CAPACITOR	

NOTICE (model)
(J)····· JAPAN
(U)····· U.S.A
(C)····· CANADA
(R)····· GENERAL
(T)····· CHINA
(K)····· KOREA
(A)····· AUSTRALIA
(B)····· BRITISH
(G)····· EUROPE
(L)····· SINGAPORE
(E)····· SOUTH EUROPE
(V)····· TAIWAN

POINT (A-2) Pin 14 of IC501



POINT (B-1) ①/EMITTER of Q502, ②/COLLECTOR of Q501



★ All voltages are measured with a 10MΩ/V DC electronic volt meter.
★ Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

■ REPLACEMENT PARTS LIST

• ELECTRICAL COMPONENT PARTS

WARNING

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

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

C.A.EL.CHP	: CHIP ALUMI.ELECTROLYTIC CAP
C.CE	: CERAMIC CAP
C.CE.ARRAY	: CERAMIC CAP ARRAY
C.CE.CHP	: CHIP CERAMIC CAP
C.CE.ML	: MULTILAYER CERAMIC CAP
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP
C.CE.TUBLR	: CERAMIC TUBULAR CAP
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP
C.EL	: ELECTROLYTIC CAP
C.MICA	: MICA CAP
C.ML.FLM	: MULTILAYER FILM CAP
C.MP	: METALLIZED PAPER CAP
C.MYLAR	: MYLAR FILM CAP
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP
C.PAPER	: PAPER CAPACITOR
C.PLS	: POLYSTYRENE FILM CAP
C.POL	: POLYESTER FILM CAP
C.POLY	: POLYETHYLENE FILM CAP
C.PP	: POLYPROPYLENE FILM CAP
C.TNTL	: TANTALUM CAP
C.TNTL.CHP	: CHIP TANTALUM CAP
C.TRIM	: TRIMMER CAP
CN	: CONNECTOR
CN.BS.PIN	: CONNECTOR,BASE PIN
CN.CANNON	: CONNECTOR,CANNON
CN.DIN	: CONNECTOR,DIN
CN.FLAT	: CONNECTOR,FLAT CABLE
CN.POST	: CONNECTOR,BASE POST
COIL.MX.AM	: COIL,AM MIX
COIL.AT.FM	: COIL,FM ANTENNA
COIL.DT.FM	: COIL,FM DETECT
COIL.MX.FM	: COIL,FM MIX
COIL,OUTPT	: OUTPUT COIL
DIOD.ARRAY	: DIODE ARRAY
DIODE.BRG	: DIODE BRIDGE
DIODE.CHP	: CHIP DIODE
DIODE.VAR	: VARACTOR DIODE
DIOD.Z.CHP	: CHIP ZENER DIODE
DIODE.ZENR	: ZENER DIODE
DSCR.CE	: CERAMIC DISCRIMINATOR
FER.BEAD	: FERRITE BEADS
FER.CORE	: FERRITE CORE
FET.CHP	: CHIP FET
FL.DSPLY	: FLUORESCENT DISPLAY
FLTR.CE	: CERAMIC FILTER
FLTR.COMB	: COMB FILTER MODULE
FLTR.LC.RF	: LC FILTER,EMI
GND.MTL	: GROUND PLATE
GND.TERM	: GROUND TERMINAL
HOLDER.FUS	: FUSE HOLDER
IC.PRTCT	: IC PROTECTOR
JUMPER.CN	: JUMPER CONNECTOR
JUMPER.TST	: JUMPER,TEST POINT
L.DTCT	: LIGHT DETECTING MODULE
L.EMIT	: LIGHT EMITTING MODULE
LED.DSPLY	: LED DISPLAY
LED.INFRD	: LED,INFRARED
MODUL.RF	: MODULATOR,RF
PHOT.CPL	: PHOTO COUPLER
PHOT.INTR	: PHOTO INTERRUPTER
PHOT.RFLCT	: PHOTO REFLECTOR
PIN.TEST	: PIN,TEST POINT
PLST.RIVET	: PLASTIC RIVET
R.ARRAY	: RESISTOR ARRAY
R.CAR.	: CARBON RESISTOR
R.CAR.CHP	: CHIP RESISTOR
R.CAR.FP	: FLAME PROOF CARBON RESISTOR
R.FUS	: FUSABLE RESISTOR
R.MTL.CHP	: CHIP METAL FILM RESISTOR
R.MTL.FLM	: METAL FILM RESISTOR
R.MTL.OXD	: METAL OXIDE FILM RESISTOR
R.MTL.PLAT	: METAL PLATE RESISTOR
RSNR.CE	: CERAMIC RESONATOR
RSNR.CRYS	: CRYSTAL RESONATOR
R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
R.CEMENT	: CEMENT RESISTOR
SCR.BND.HD	: BIND HEAD B-TIGHT SCREW
SCR.BW.HD	: BW HEAD TAPPING SCREW
SCR.CUP	: CUP TIGHT SCREW
SCR.TERM	: SCREW TERMINAL
SCR.TR	: SCREW,TRANSISTOR
SUPRT.PCB	: SUPPORT,P.C.B.
SURG.PRTCT	: SURGE PROTECTOR
SW.TACT	: TACT SWITCH
SW.LEAF	: LEAF SWITCH
SW.LEVER	: LEVER SWITCH
SW.MICRO	: MICRO SWITCH
SW.PUSH	: PUSH SWITCH
SW.RT.ENC	: ROTARY ENCODER
SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
SW.RT	: ROTARY SWITCH
SW.SLIDE	: SLIDE SWITCH
TERM.SP	: SPEAKER TERMINAL
TERM.WRAP	: WRAPPING TERMINAL
THRMST.CHP	: CHIP THERMISTOR
TR.CHP	: CHIP TRANSISTOR
TR.DGT	: DIGITAL TRANSISTOR
TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
TRANS	: TRANSFORMER
TRANS.PULS	: PULSE TRANSFORMER
TRANS.PWR	: POWER TRANSFORMER ASS'Y
TUNER.AM	: TUNER PACK,AM
TUNER.FM	: TUNER PACK,FM
TUNER.PK	: FRONT-ENDTUNER PACK
VR	: ROTARY POTENTIOMETER
VR.MTR	: POTENTIOMETER WITH MOTOR
VR.SW	: POTENTIOMETER WITH ROTARY SW
VR.SLIDE	: SLIDE POTENTIOMETER
VR.TRIM	: TRIMMER POTENTIOMETER

P.C.B. MAIN

Ref. No.	Part No.	Description		Markets
*	WH869600	P.C.B.	MAIN	
CB302	V9890500	CN	16P SE	
CB303	V2915800	CN	4P SE	
CB501	V9890000	CN	7P	
CB502	V9890500	CN	16P SE	
C303-310	US063100	C.CE.CHP	1000pF 50V B	
C311-314	V4771700	C.CE.M.CHP	1uF 10V	
C315-318	US135100	C.CE.CHP	0.1uF 16V	
C319-320	V4771700	C.CE.M.CHP	1uF 10V	
C323-326	US035100	C.CE.CHP	0.1uF 16V B	
C327	WF456400	C.CE.M.CHP	4.7uF 16V	
C328	UF037100	C.EL.CHP	10uF 16V	
C329	US034680	C.CE.CHP	0.068uF 16V K	
C330-331	UB044470	C.CE.CHP	0.047uF 50V	
C346-347	V4771700	C.CE.M.CHP	1uF 10V	
C348	UF037100	C.EL.CHP	10uF 16V	
C350	UF037100	C.EL.CHP	10uF 16V	
C351	US035100	C.CE.CHP	0.1uF 16V B	
C354	US035100	C.CE.CHP	0.1uF 16V B	
C355-356	V4771700	C.CE.M.CHP	1uF 10V	
C357	US035100	C.CE.CHP	0.1uF 16V B	
C358	UF018100	C.EL.CHP	100uF 6.3V	
C359-360	UF038100	C.EL.CHP	100uF 16V	
C361	US035100	C.CE.CHP	0.1uF 16V B	
C362-363	UF038100	C.EL.CHP	100uF 16V	
C365	US035100	C.CE.CHP	0.1uF 16V B	
C366	VR813200	C.CE.CHP	1uF 16V	
C367	UF138470	C.EL.CHP	470uF 16V	
C368	VR813200	C.CE.CHP	1uF 16V	
C369	UF037470	C.EL.CHP	47uF 16V	
C370-373	US063120	C.CE.CHP	1200pF 50V B	
C374	US035100	C.CE.CHP	0.1uF 16V B	
C375-376	US063100	C.CE.CHP	1000pF 50V B	
C379-383	US063100	C.CE.CHP	1000pF 50V B	
C387-388	US063100	C.CE.CHP	1000pF 50V B	
C389	US063220	C.CE.CHP	2200pF 50V B	
C390-391	US063180	C.CE.CHP	1800pF 50V B	
C393	VR813200	C.CE.CHP	1uF 16V	
C394	UF037100	C.EL.CHP	10uF 16V	
C395	US035100	C.CE.CHP	0.1uF 16V B	
C402-405	WF456400	C.CE.M.CHP	4.7uF 16V	
C501	US035100	C.CE.CHP	0.1uF 16V B	
C503-505	US035100	C.CE.CHP	0.1uF 16V B	
C506	WF456400	C.CE.M.CHP	4.7uF 16V	
C507	US035100	C.CE.CHP	0.1uF 16V B	
C508	UF037100	C.EL.CHP	10uF 16V	
C511	UF065470	C.EL.CHP	0.47uF 50V	
C515-516	US063100	C.CE.CHP	1000pF 50V B	
C519-524	US063100	C.CE.CHP	1000pF 50V B	
C528-532	US063100	C.CE.CHP	1000pF 50V B	
D302	VS597600	DIODE.CHP	RB160L-40 TE25	
D303	VT332900	DIODE	1SS355	
D304	V6267600	DIODE	RB051L-40	
D305-312	VT332900	DIODE	1SS355	
D313-316	V6267600	DIODE	RB051L-40	
D317	VU997400	DIODE.ZENR	MA8160-L 15.7V	
D501	V2376600	DIODE.SHOT	RB500V-40	
D503	VT332900	DIODE	1SS355	
D506	WG962100	LED.CHP	YELLOW SML-512WW	
D507	VT332900	DIODE	1SS355	

Ref. No.	Part No.	Description		Markets
D508	VU172200	DIODE.ZENR	UDZ6.8B 6.8V	
D509-511	WG962100	LED.CHP	YELLOW SML-512WW	
D512	VS597600	DIODE.CHP	RB160L-40 TE25	
D513-514	VT332900	DIODE	1SS355	
IC301	X6878A00	IC	LC75348M	
IC305	X7257A00	IC	PQ1CZ38M2ZPH	
IC306	X7637A00	IC	NJM2370U09(TE1)	
IC501	X7589A00	IC.CPU	UPD789022GB-A70-8E	(MASK ROM)
JK301	WG814200	JACK.PHONE	LGY2502-0280E	
JK302	WG814000	JACK	LGP3831-0280E	
PN301	V9637500	PIN	L=70 #18	
Q306	VV556400	TR	2SC2412K Q,R,S	
Q501	VV556400	TR	2SC2412K Q,R,S	
Q502	VV556500	TR	2SA1037K Q,R,S	
Q503	VV655400	TR.DGT	DTC114EKA	
SW501-504	WC631100	SW.TACT	SKRPABE010	
XL501	WA782100	RSNR.CE	5.000MHz	

* New Parts

* New Parts

Chip Resistors

- The chip resistor is not supplied as a replacement part.
  * When a chip resistor is necessary, use the following part.
    AAX60720: CHIP RESISTOR SAMPLE BOOK

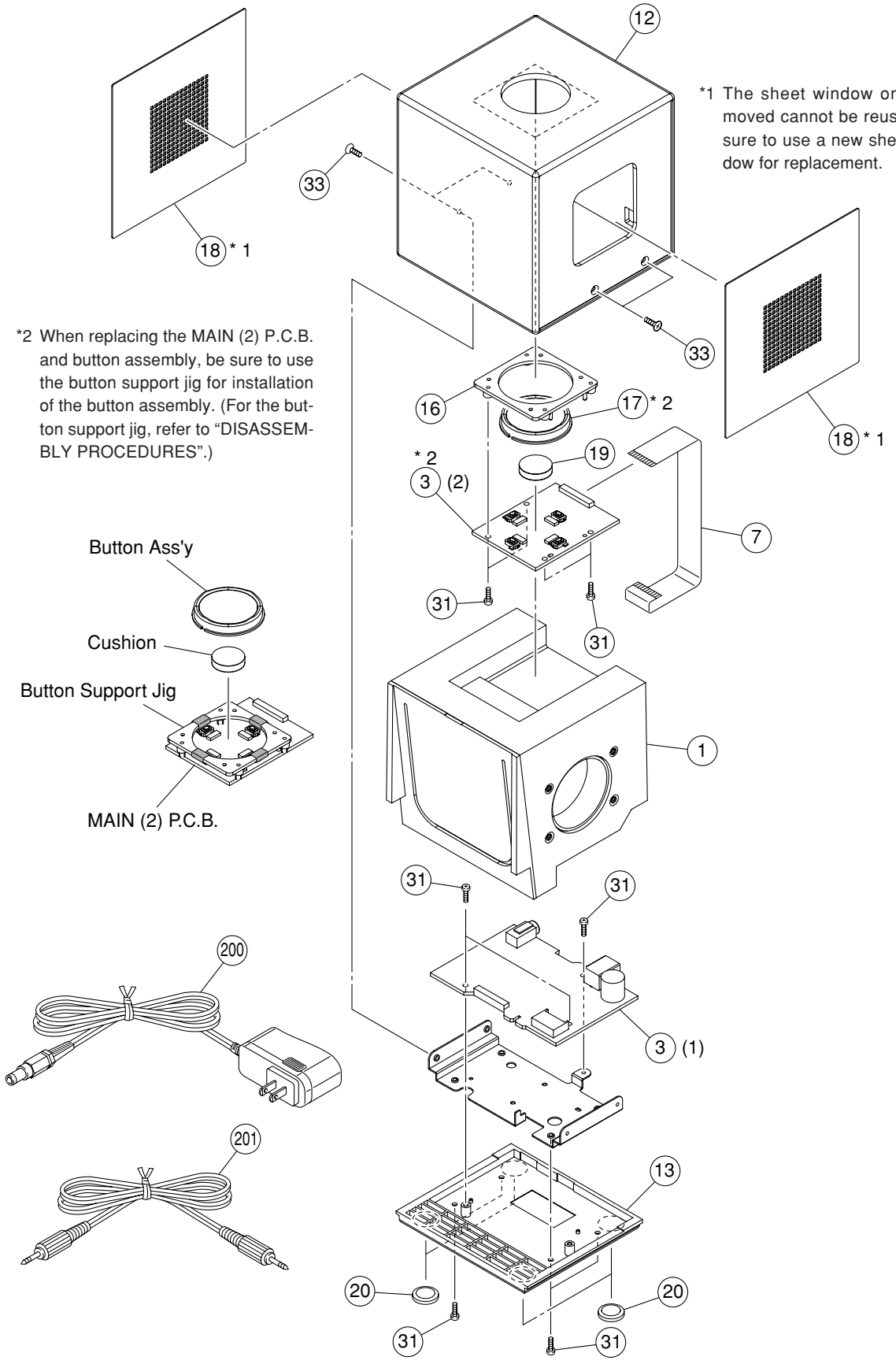
Ref. No.	Part No.	Description			Markets
		R. CHP	0Ω	1/16W J	
		R. CHP	10Ω	1/16W J	
		R. CHP	22Ω	1/16W J	
		R. CHP	100Ω	1/16W J	
		R. CHP	150Ω	1/16W J	
		R. CHP	330Ω	1/16W J	
		R. CHP	1KΩ	1/16W J	
		R. CHP	1.5KΩ	1/16W J	
		R. CHP	2.2KΩ	1/16W J	
		R. CHP	2.7KΩ	1/16W J	
		R. CHP	3.3KΩ	1/16W J	
		R. CHP	5.6KΩ	1/16W J	
		R. CHP	7.5KΩ	1/16W J	
		R. CHP	10KΩ	1/16W J	
		R. CHP	15KΩ	1/16W J	
		R. CHP	22KΩ	1/16W J	
		R. CHP	27KΩ	1/16W J	
		R. CHP	68KΩ	1/16W J	
		R. CHP	100KΩ	1/16W J	
		R. CHP	510KΩ	1/16W J	
		R. CHP	0Ω	1/2W	
		R. CHP	2.2Ω	1/2W	

✻ New Parts

Ref. No.	Part No.	Description			Markets

✻ New Parts

• OVERALL ASS'Y



	Ref. No.	Part No.	Description		Remarks	Markets
	1	WG858300	SPEAKER BOX ASS'Y			
*	3	WH869600	P.C.B. ASS'Y	MAIN		
	7	WG872000	FLEXIBLE FLAT CABLE	16P 200mm P=0.5mm		
*	12	WH698000	CASE			
	13	WG593800	BOTTOM CASE			
	16	WG593900	SUPPORT P.C.B.			
	17	WG594100	BUTTON ASS'Y			
	18	WG594600	SHEET WINDOW			
	19	WG595100	CUSHION	M14 t=3		
	20	WH197800	NONSKID PAD	M8 t=1.5		
	31	WG828600	DISH HEAD B-TIGHT SCREW	2x5 MFZN2W3		
	33	WG828800	FLAT HEAD B-TIGHT SCREW	2x5 MFZN2W3		
			ACCESSORIES			
*	200	WH739100	AC ADAPTOR	DC12V 2m 1pc		C
*	200	WH739200	AC ADAPTOR	DC12V 2m 1pc		T
*	200	WH739300	AC ADAPTOR	DC12V 2m 1pc		G
*	200	WJ343600	AC ADAPTOR	DC12V 2m 1pc		L
	201	WG871900	3.5mm MINI JACK CABLE	2P 500mm 1pc		

* New Parts

NX-A01

YAMAHA