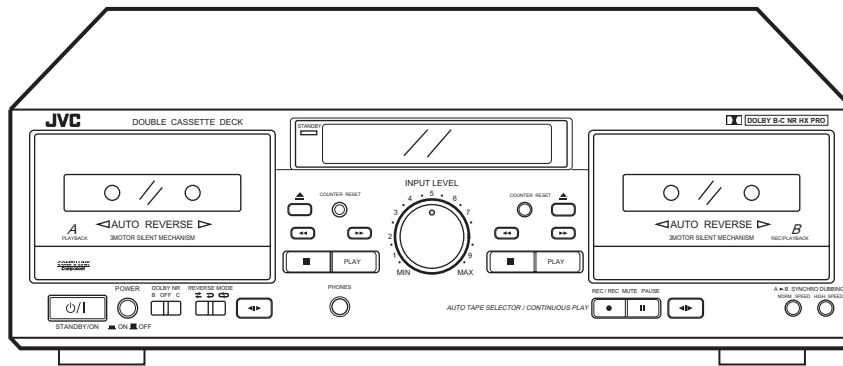


JVC

SERVICE MANUAL

DOUBLE CASSETTE DECK

TD-W271



COMPU LINK
Component

Area Suffix

UF ----- China
U ----- Other Areas

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SPECIFICATION

Type	Double cassette deck		
Track system	4-track, 2-channel		
Tape speed	4.8 cm/sec (1-7/8 inch/sec) (Normal)		
	9.5 cm/sec (3-3/4 inch/sec) (High)		
Frequency response (-20 dB recording)	Type IV tape	20-17000Hz	
		30-16000 Hz (±3dB)	
	Type II tape	20-16000 Hz	
		30-15000 Hz (±3dB)	
	Type I tape	20-16000 Hz	
		30-15000 Hz (±3dB)	
S/N ratio	58 dB (S = 315 Hz, k3 = 3%, N = A-weighted, Type IV tape)		
	The S/N is improved by about 15 dB at 500 Hz and by max.		
	20 dB at 1kHz ~ 10 kHz with Dolby C NR on and improved by 5 dB		
	at 1 kHz and by 10 dB at above 5 k Hz with DOLBY B BR on.		
Improvement of MOL	4 dB at 10 kHz with Dolby C NR on.		
Wow and flutter	0.08% (WRMS), ±0.2% (DIN/IEC)		
Channel separation	10 dB (1 kHz)		
Crosstalk	60 dB (1 kHz)		
Harmonic distortion	k3; 0.8% (Type IV tape, 315 Hz, 0 VU)		
Heads	Deck A	METAPARM head for playback × 1	
	Deck B	METAPARM head for recording/playback,	
		2-gap ferrite head for erasure; combination head × 1	
Motors	Electric govemed DC motor for capstan × 1		
	DC motor for reel × 1		
	DC motor for mechanism drive × 1 (For both decks A and B)		
Fast forward/rewind time	Approx. 110 sec. with C-60 cassette		
Input terminals	LINE IN (× 1 circuit)	Input sensitivity	80 mV (0 VU)
		Input impeadance	50 kΩ
Output terminals	LINE OUT (× 1 circuit)	Output level	300 mV (0 VU)
		Output impeadance	5 kΩ
	PHONES × 1	Output level	0.3 mW/8 Ω(0 VU)
		Matching impedance	8 Ω - 1 k Ω
Other terminals	COMPU LINK-3/SYNCRO × 2		
Power requirement	AC 220 V, 50 Hz		
Power consumption	With power on 17 W		
	With power standby 4.0 W		
Dimensions	435 × 139 331 mm		
Mass	5.0 kg		

Design and specifications are subject to change without notice.

SECTION 1 PRECAUTION

1.1 Safety Precautions

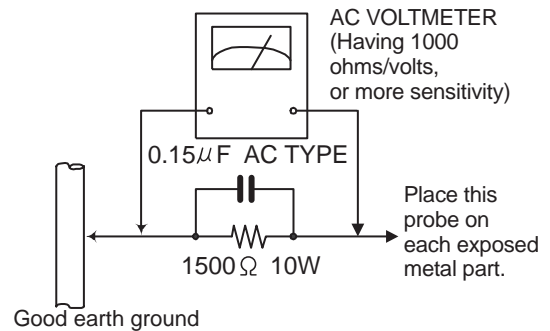
- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
- (4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
- (5) Leakage shock hazard testing

After reassembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
- Alternate check method
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 Ω per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC

voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



1.2 Warning

- (1) This equipment has been designed and manufactured to meet international safety standards.
- (2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- (3) Repairs must be made in accordance with the relevant safety standards.
- (4) It is essential that safety critical components are replaced by approved parts.
- (5) If mains voltage selector is provided, check setting for local voltage.

1.3 Caution

Burrs formed during molding may be left over on some parts of the chassis.

Therefore, pay attention to such burrs in the case of pre-forming repair of this system.

1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (\blacksquare), diode (\blacksquare) and ICP (\bullet) or identified by the " Δ " mark nearby are critical for safety. When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (This regulation does not Except the J and C version)

SECTION 2 SPECIFIC SERVICE INSTRUCTIONS

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

SECTION 3 DISASSEMBLY

3.1 Enclosure section

3.1.1 Removing the top cover (See Fig.1)

- (1) Remove four screws **A** retaining the top cover from both side.
- (2) Remove two screws **B** retaining the top cover from the back side.
- (3) To remove the top cover, slide in direction of arrow and lift away (refer to Fig.1).

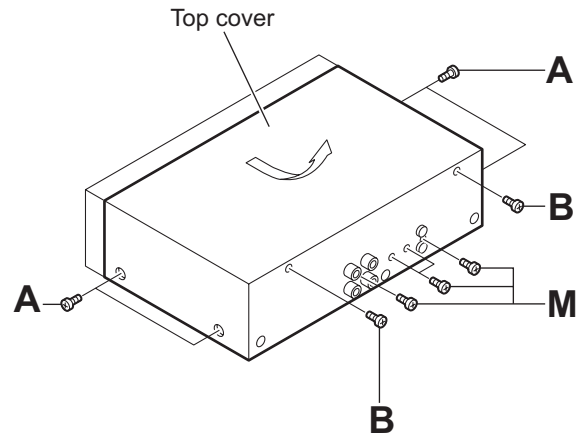


Fig.1

3.1.2 Removing the front panel assembly (See Fig.2, 3)

- (1) Remove the top cover as described in above.
- (2) Remove the three screws **C** retaining the front panel assembly from bottom side.
- (3) Release the front panel assembly from two pawls in the front and bottom sides and draw it to the front side.
- (4) Disconnect all connectors between the mechanism assembly, front panel assembly and main board.

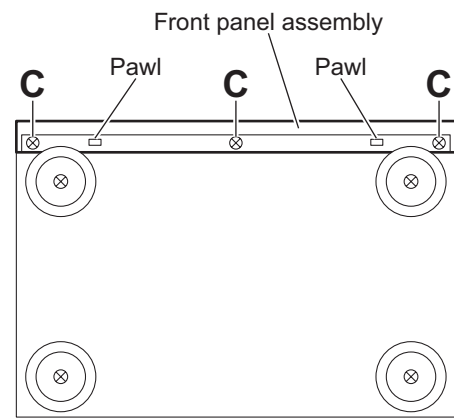


Fig.2

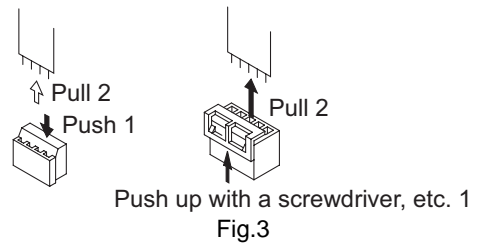


Fig.3

3.1.3 Removing the mechanism assembly

Although the mechanism assembly can be removed without detaching the front panel assembly, it is recommended to detach the front panel assembly to do the work with ease.

- (1) Remove the two screws **D** or two screws **E** from the corners of the mechanism. (Fig.6)
- (2) Open the door and remove the mechanism assembly.
(At this time, door lock arm spring and door lock arm are removed together with.)
- (3) For moving the mechanism assembly only, disconnect the following wirings.

a) Mechanism assembly side (Fig.5)

Top side connector of the cam switch board (**CN2**).
Connector of the motor board (**CN1**). (Board to board connector)

b) Main board side (Fig.4)

Disconnects **CN802** from mecha control board,
CN801 from switch/volume board and **CN861** from
headphone jack board.

Disconnect wire coming from the head mount assembly
CN811 at deck A and **CN815** at deck B.

Remove one screw **F** and remove one GND wire
from mechanism control board.

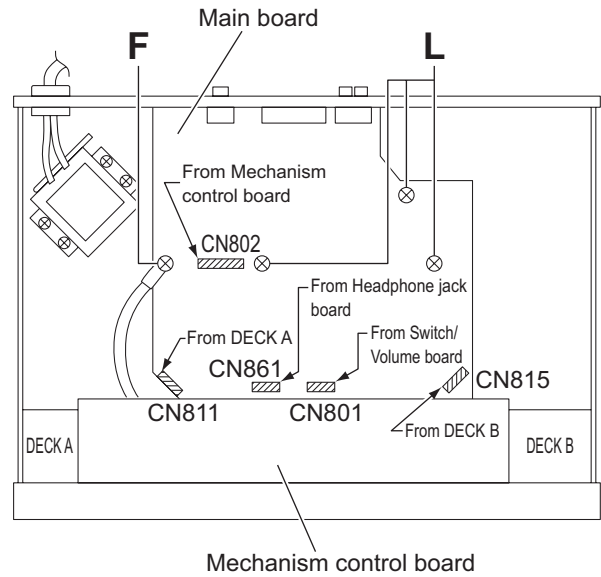


Fig.4

3.1.4 Removing the eject arm assembly (Fig.6)

- (1) Remove the screws **G** retaining the eject arm assembly and pull it out.

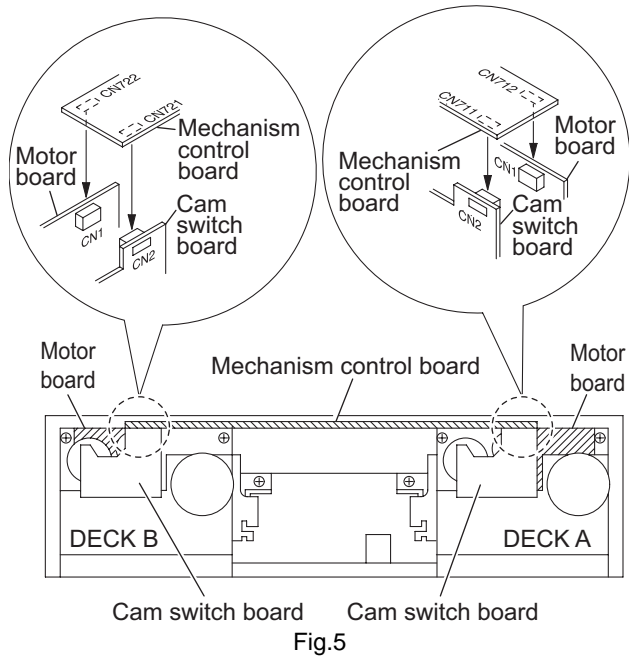


Fig.5

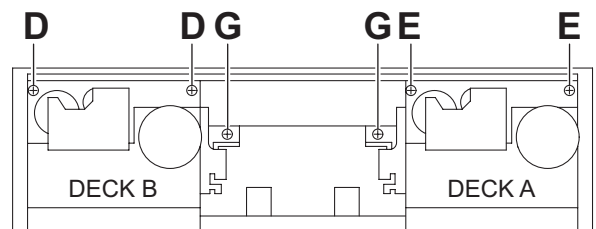


Fig.6

3.1.5 Removing the mechanism holder and door assembly (Fig.7, 8)

- (1) Remove four screws **H** retaining the mechanism holder.
- (2) Remove the damper assembly (for easy reassembling work).
Insert an ordinary (-) screwdriver or the like in to the gap between the damper and the front panel to disengage the pawl, and draw the damper assembly outwards. (See Fig.7)
- (3) Remove the arm shaft of the cassette holder (door assembly) from the mechanism holder. (The door spring is engaged with the door side by the longer side.) (See Fig.8)
- (4) Remove the eject spring from lock lever and mechanism assembly. (See Fig.8)

How to remove damper

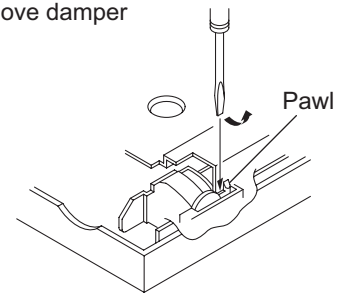


Fig.7

How to engage the door and eject spring

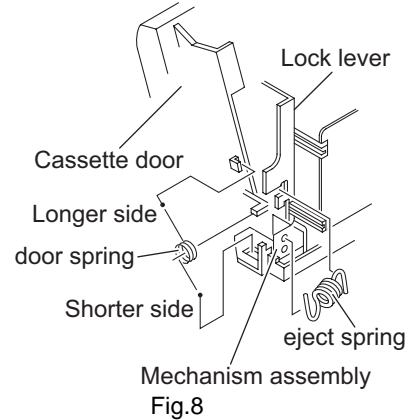


Fig.8

3.1.6 Removing the switch & volume board (Fig.9)

- (1) After removing the mechanism holder, proceed to the following steps.
- (2) Pull out the INPUT volume knob.
- (3) Remove four screws **J**, one screw **N** and cap retaining the switch/volume board.
- (4) Lift the board right upwards to remove it since it is connected to the key switch board with connector pins (CN603/CN604).
- (5) Disconnect CN602 coming from Mechanism control board (CN702).

3.1.7 Removing the headphone jack board (Fig.9)

- (1) After removing the switch/volume board, pull the headphone jack board outwards while pushing it down toward the bottom side to remove it.

3.1.8 Removing the key switch board (Fig.9)

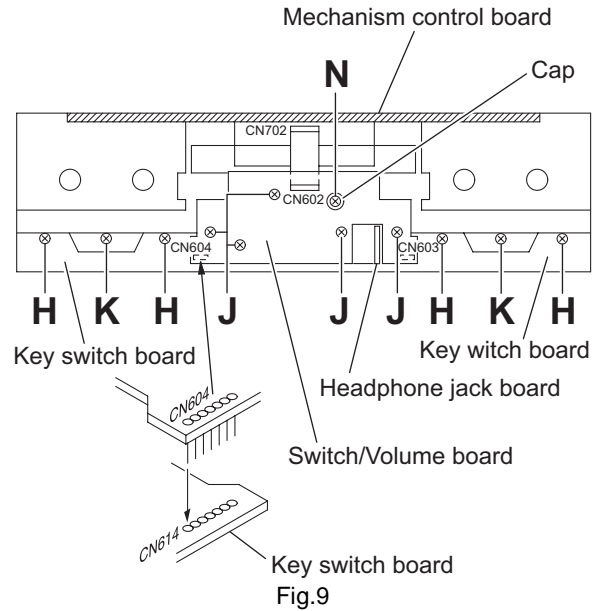
- (1) Remove one screw **K** (Deck A or B) retaining the board.
- (2) Do the same for the other side.

3.1.9 Removing the main board (see Fig.4 and 1)

- (1) Remove three screws **L** retaining the board.
- (2) Remove four screws **M** retaining the board to the rear panel.

3.1.10 Reassembling procedure of the front panel assembly

- (1) Attach the key switch board to the panel with two screws.
- (2) Attach the mechanism holder to the front panel assembly with four screws.
- (3) Put the door assembly on the front panel.
- (4) Engage the door spring properly.
- (5) Install the damper. (Push the pawl side last to engage it.)
- (6) Install the mechanism assembly.
- (7) Attach the mechanism control board to the panel with two screws.
- (8) Install the eject arm assembly.
- (9) Attach the switch/volume board to the panel with five screws.
- (10) Hook the eject spring between lock lever and mechanism assembly.



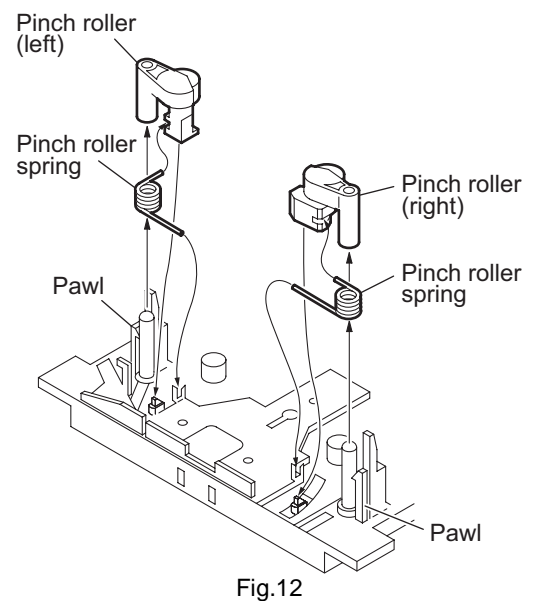
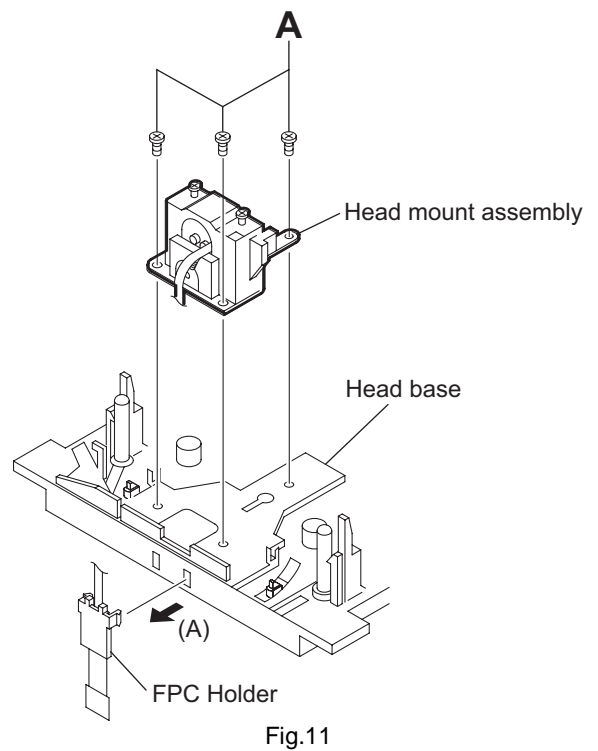
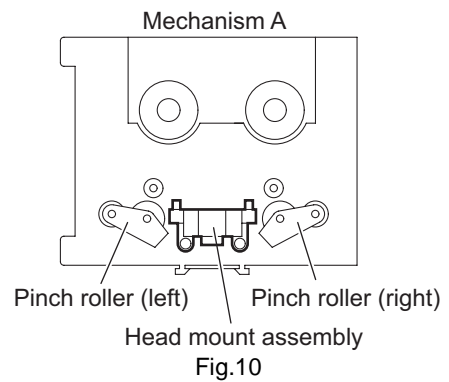
3.2 Cassette mechanism section

3.2.1 Removing the head mount assembly (Fig.10 and 11)

- (1) Remove the FPC holder from the mechanism frame in the direction indicated by the arrow (A).
- (2) Remove three screws **A** retaining the head mount assembly.

3.2.2 Removing the pinch roller assembly (Fig.10 and 12)

- (1) Remove the pinch roller and pinch roller spring, refer to Fig.12.



3.2.3 Removing the FM bracket/Capstan motor assembly (Mechanism A and B)

- (1) Remove soldering of connector FM on reel motor board. (Fig.13)
- (2) Remove three screws **B** and disengage two pawls, and then the FM bracket and the capstan belt can be removed. (Fig.13 and 14)
- (3) Remove two screws **C** retaining the capstan motor from the FM bracket. (Fig.13)
- (4) For reengaging the capstan belt, refer to Fig.14.

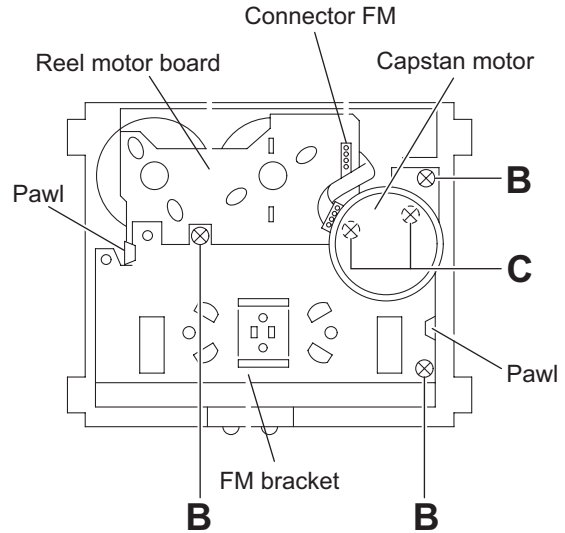


Fig.13

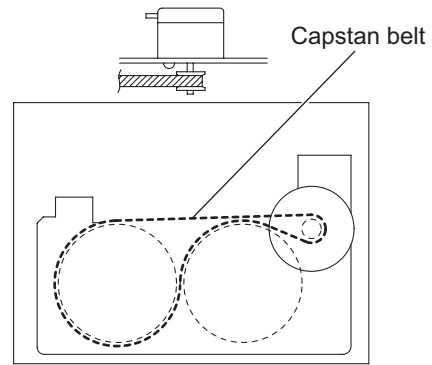


Fig.14

3.2.4 Removing the flywheel assembly (Fig.15)

- (1) Remove two screws **D** and remove the shield plate.
- (2) Pull up the flywheel (L) and (R), and remove them.

3.2.5 Removing the reel motor board (Fig.15)

- (1) Remove four soldering of the reel motor and actuator motor, and remove the reel motor board.

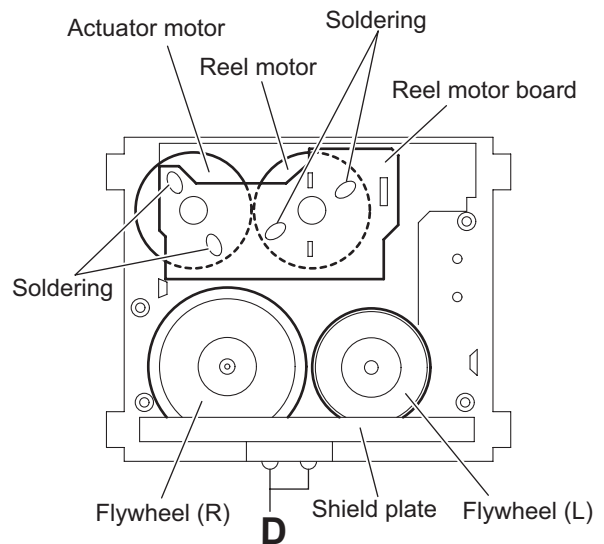


Fig.15

3.2.6 Removing the reel motor assembly (Fig.16)

- (1) Remove two screws **E** from rear of chassis and remove the reel motor assembly toward upward.

3.2.7 Removing the actuator motor assembly (Fig.16)

- (1) Remove two screws **F** from rear of chassis and remove the actuator motor assembly toward upward.

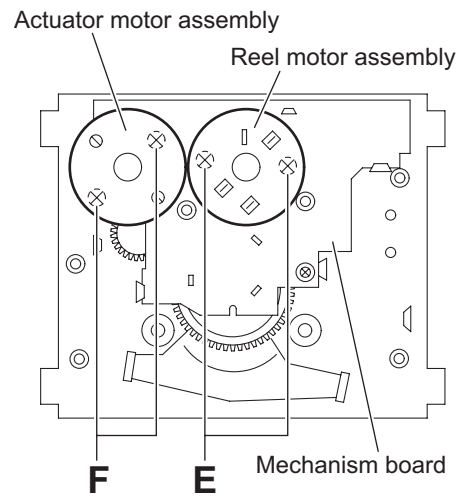


Fig.16

3.2.8 Removing the mechanism board (Fig.17)

- (1) Remove one screw **G** retaining the board.
- (2) Release the mechanism board from five pawls.
- (3) For gearing between the mechanism board and control cam, see the magnified illustration in a circle.

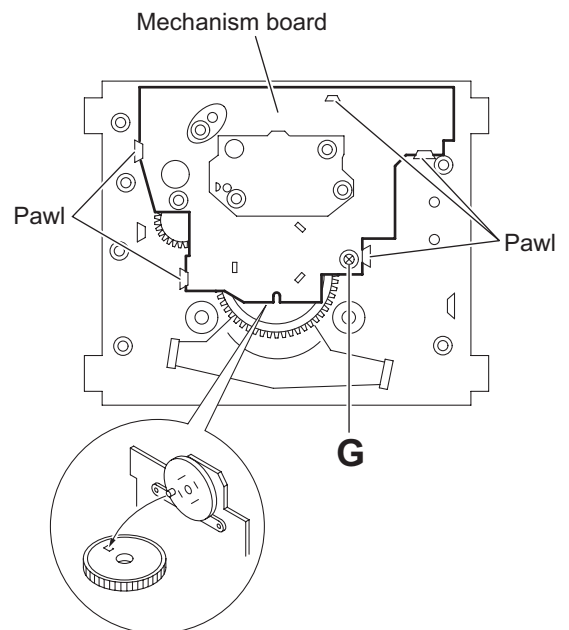


Fig.17

**3.2.9 Removing the control cam
(Fig.18 and 19)**

- (1) Release the control cam from two pawls. (Fig.18)
- (2) For assembling the control cam, fits **a** zone (groove) of control cam to a position of pinch lever and **b** zone (groove) to b position of head base shaft. (Fig.18 and 19)

**3.2.10 Removing the actuator gear A and B (small)
(Fig.18)**

- (1) Release the actuator gear A (small) from one pawl and remove it toward upward.
- (2) Release the actuator gear B (small) from one pawl and remove it toward upward.

**3.2.11 Removing the actuator gear (large)
(Fig.18)**

- (1) After removing the control cam, actuator gear A (small) and actuator gear B (small), remove the actuator gear (large).

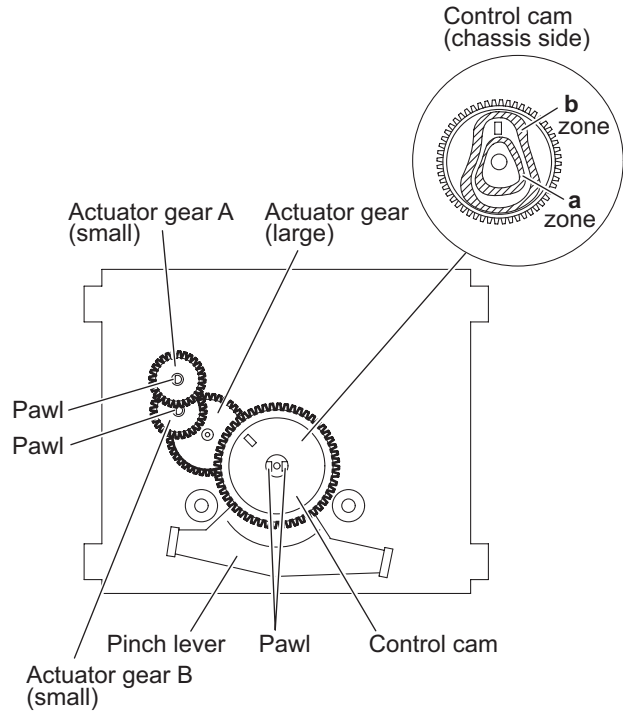


Fig.18

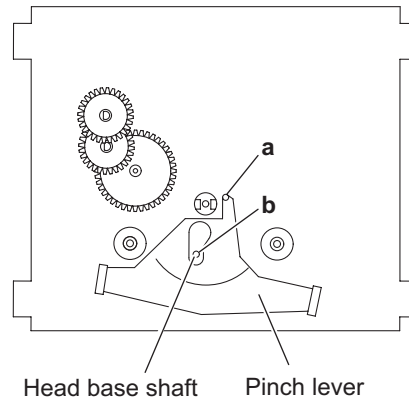


Fig.19

SECTION 4 ADJUSTMENT

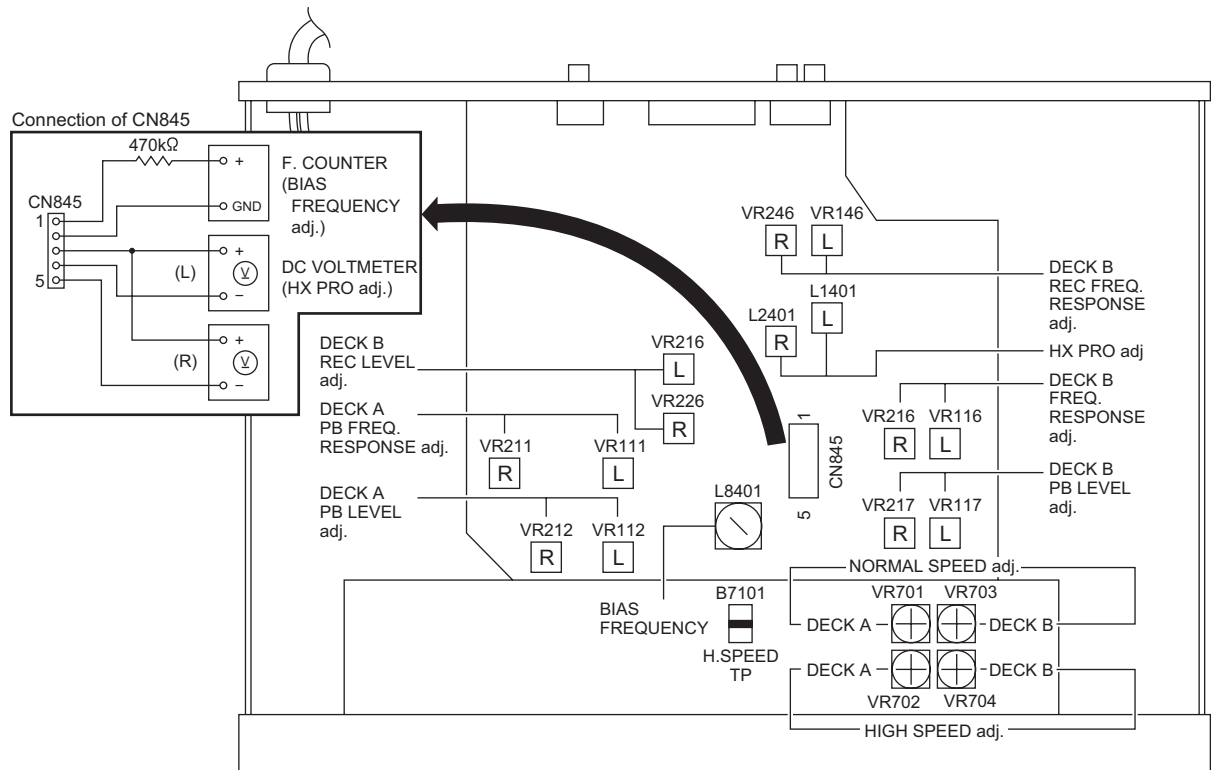
4.1 Measuring instruments required for adjustment

- (1) Low - frequency oscillator (oscillation frequency 50 Hz - 20 kHz, 0 dB output with 600 Ω impedance)
- (2) Attenuator (600 Ω impedance)
- (3) Electronic voltmeter and oscilloscope
- (4) Standard tapes
VT712 (tape speed, wow and flutter measurement)
VT727 (400 Hz reference level)
VT742 (63 Hz, 1 kHz, 12.5 kHz) (play back frequency)
VT705 (12.5 kHz) (azimuth)
- (5) Recording reference tapes
AC-225 (Normal), AC-514 (TDK SA) (CrO2)
AC-713 (TDK MA) (Metal)
- (6) 600 Ω resistors (for attenuator matching)
- (7) Distortion meter (band pass filter)
- (8) Torque gauge (cassette) for CTG-N, TW2111, TW2121, TW2231 and TW2241, mechanism adjustments
- (9) Wow & flutter meter
- (10) Frequency counter meter
- (11) M300 gauge
- (12) Band pass filter

4.2 Measurement conditions

- (1) Power supply voltage (your local voltage)
AC230 V 50 Hz : B/E/EN version
AC120 V 60 Hz : J/C version
AC230/127/110 V 50/60 Hz : UT/U version
- (2) Standard position of the switch and volume knob Switches and volume knobs setting position
INPUT LEVEL : MAXIMUM
DOLBY NR : OFF
REVERSE MODE : \rightleftarrows
- (3) Standard level (0 dBs) is 0.775 V unless otherwise specified.
- (4) The reference value of recording input level is LINE IN level of a signal whose LINE OUT level is -8 dBs and H.PHONE OUT level is -24 dBs.

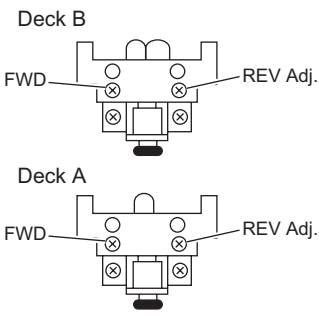
4.3 Location of adjustment



4.4 Mechanism adjustment

Before using test tapes, tape transporting past should be demagnetized.

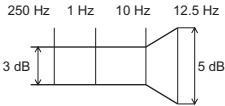
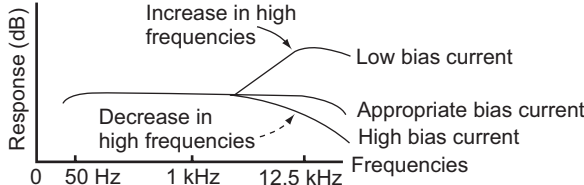
* Adjustments required after head replacement are marked with an asterisk(*).

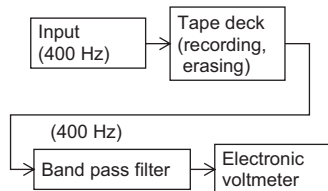
Item	Conditions	Adjustment and Confirmation	Standard value	Adjust point
* Adjusting Head azimuth	Test tape : VT704 or VT705 (12.5 kHz)	<ol style="list-style-type: none"> 1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Play back the VT704 (12.5 kHz) test tape. 3. Adjust the head angle with the screw (FWD and REV) until the reading of the electronic voltmeter becomes maximum for both channels (phase difference must be "0".) Repeat the adjustment in FWD and REV modes as well as for the decks A and B. 4. modes as well as for the decks A and B. 	Maximum 	Screws (FWD, REV)
Adjusting tape speed (motor speed)	<ol style="list-style-type: none"> 1. Test tape : VT712 (3 kHz) After adjustment of normal speed, then adjust high speed. 2. For high speed adjustment, set the deck for play mode and short circuit between B7101 and GND. 	<ol style="list-style-type: none"> 1. Connect a frequency counter to the LINE OUT terminals. 2. Perform normal speed adjustment first, and 3. then do high speed adjustment. Play back the VT712 test tape. Adjust for decks A. : Adjust VR701 for normal speed at 3000 Hz, and VR702 for high speed at 6000 Hz. 4. Adjust for decks B. : Adjust VR703 for normal speed at 3000 Hz, and VR704 for high speed at 6000 Hz. Difference in FWD and REV frequencies must be less than 48 Hz. 	Normal speed: Deck A,B ; 3000 ± 15 Hz High speed: Deck A,B ; 6000 ± 30 Hz	Deck A : Normal ; VR701 High ; VR702 Deck B : Normal ; VR703 High ; VR704
Checking wow and flutter	Test tape : VT712 (3 kHz)	<ol style="list-style-type: none"> 1. Connect a wow and flutter meter to the LINE OUT terminals. 2. Play back the VT712 test tape. 3. Check to see if the reading of the meter is within 0.17 % (WRMS). 	Less than 0.17 % (WRMS)	
Checking play back torque	Torque gauge : TW2111 (FWD) TW2121 (REV)	Employ a torque testing cassette tape (TW2111[FWD] / TW2121[REV]) for the checking, or remove the cassette cover and use a torque gauge.	27 - 70 g·cm	
Checking back tension	Torque gauge : TW2111 (FWD) TW2121 (REV)	Employ a torque testing cassette tape (TW2111[FWD] / TW2121[REV]) for the checking, play the torque gauge and read the back tension value to confirm that the back tension is 1 - 5 g·cm.	1 - 5 g·cm	
Checking FF/REW time	Tape : AC-225	Play back AC-225 tape in FF/REW mode, check that the FF/REW time during tape running from begin to end.	Less than 120 sec	

4.5 Electrical adjustment procedure

Item	Check and Adjustment			
1 Checking DOLBY circuit (Rec. mode) (BIAS-CUT)	Signal input: LINE IN Cal. level : 400 Hz, -8 dBs Output terminal TP : NR IC831 53 and 8 pin.	DOLBY B (Rec)	Input signal (Frequency, level)	Output raise value, deviation value
			1 kHz, Cal. - 40 dB	+5.7 dB ± 2 dB
			5 kHz, Cal. - 20 dB	+3.5 dB ± 1.5 dB
		DOLBY C (Rec)	1 kHz, Cal.	0 dB +0.5 dB -1.0 dB
			1 kHz, Cal. - 40 dB	+16.2 dB +3 dB -2 dB
			5 kHz, Cal. - 20 dB	+2.9 dB ± 2.5 dB
1 kHz, Cal.	0 dB ± 1 dB			

Item	Conditions	Adjustment and Confirmation	Standard value	Adjust point
*2 Play back level adjustment	Test tape : VT727 (400 Hz)	Play back VT727 in FWD mode, then confirm that the level at LINE OUT is -4.5 dBs ± 0.5 dB. Adjust VR112/VR212 and VR117/VR217 so that LINE OUT level becomes -4.5 dBs. Difference level between Lch and Rch must less than 0.5 dB at LINE OUT. Confirm that difference playback level between FWD and REV modes within 1.5 dB.	LINE OUT -4.5 dBs ± 0.5 dB Phone Out -21 dB +2.5 dB -1.5 dB	Deck B L : VR117 R : VR217 Deck A L : VR112 R : VR212
*3 Play back frequency response adjustment	Test tape : VT742 (63 Hz, 1 kHz, 12.5 kHz)	Play back VT742 test tape, and adjust VR116, VR216 (deck B) and VR111, VR211 (deck A) so that deviation of 12.5 kHz to that of 1kHz is 0.5 ± 0.5 dB (deck A) and 0 ± 0.5 dB (deck B). Then play back VT742 test tape to confirm that deviation of 63 Hz to 1 kHz is +2 ± 3 dB.	Difference level of 12.5 kHz from 1kHz within 0.5 ± 0.5 dB (both decks A and B) Difference level of 63 Hz from 1 kHz within +2 ± 3 dB.	Deck B L : VR116 R : VR216 Deck A L : VR111 R : VR211
*4 Bias frequency adjustment	Frequency counter TP: CN845 pin 1 Tape: Metal Mode: REC Frequency counter input impedance: more than 470kohm (see 3.3 Location of adjustment.)	Connect frequency counter to the pin 1 of CN845 and adjust L8401 so that the counter reads 95 kHz.	95 kHz ± 1 kHz	Deck B L8401
*5 Slave oscillation (HX PRO) adjustment	DC. Voltmeter TP: CN845 Lch (pin 3 - 4) Rch (pin 3 - 5)	This step must be performed after the bias frequency adjustment. Load a metal tape and set the deck to the recording mode. Adjust L1401 and L2401 to minimize respective DC voltage of CN845 (pin 3 - 4) at Lch and (pin 3 - 5) at Rch.	Minimum	Deck B L : L1401 R : L2401

Item	Conditions	Adjustment and Confirmation	Standard value	Adjust point
6 Checking recording bias current (Value appearing here are just for reference)	Measuring point: Both ends of 100 ohm resistor connected to the R/P head terminal	Connect 100 ohm resistor to the R/P head in series, and measure voltage at both ends of the resistor to check to see if measured voltage meets the following requirements on both channels. <ul style="list-style-type: none"> In recording with metal tape, the bias current is 1150 μA (1.15 mA). In recording with CrO₂ tape, the bias current is 700 μA (0.7 mA). In recording with normal tape, the bias current is 590 μA (0.59 mA). 	Reference values Metal tape:1150 μ A CrO ₂ tape: 700 μ A Normal tape:590 μ A	
7 Input sensitivity level check		1. Supply at 1kHz signal to the LINE IN terminals at -19 dBs, confirm that LINE OUT level is -8dBs. 2. Confirm that difference level between left and right within 2 dB.	LINE IN: -19 dBs \pm 2 dB	
*8 REC/PB frequency response adjustment	LINE INPUT level: Ref. -20 dB (-40 dBs \pm 2 dB) NR switch : OFF	This step must be performed after the slave oscillation adjustment. Record the 1.25 kHz and 12.5 kHz signals at the level of -20 dB (20 dB lower than the reference level). Playing back the recorded signals, adjust VR146 and VR246 so that the level of the 12.5 kHz signal is 0 \pm 0.5 dB to the level of the 1.25 kHz.	12.5 kHz level: 0 \pm 0.5 dB higher than the 1 kHz level.	Deck B L : VR146 R : VR246
	Spec. of freq. area 			
*9 REC/PB sensitivity adjustment	NR switch : Off TAPE switch : Normal LINE INPUT level: Ref. -20 dB	1. Apply 400 Hz signal to the LINE IN terminals, record 400 Hz signal at -20 dB input for both (L and R) channels on a normal tape. 2. While recording the recorded signal and play it back, adjust VR126(L) and VR226(R) so that difference between the recording/playback level and the reference level is -28 dBs \pm 0.5 dB on both channels.	Normal: -28 dBs \pm 0.5 dB CrO ₂ /Metal: -28 dBs \pm 1 dB (Difference between L and R within 0.5 dB)	Deck B L : VR126 R : VR226

Item	Conditions	Adjustment and Confirmation	Standard value	Adjust point
10 Checking dubbing calibration	Test tape : VT742 Normal tape : AC-225	1. Insert test tape VT742 into deck A and AC-225 into deck B. 2. Dubbing the 1kHz signal of VT742 to AC-225 during high speed mode. Playback the dubbing part of AC-225 (deck B) and confirm that output level of 1kHz is -28 dBs +1.5/-2 dB on both channels through the band pass filter.	-28 dBs +1.5/-2 dB	
11 Maximum output check		Supply 1 kHz signal to the LINE IN terminal in the Rec. monitoring mode, and read non-clipped signal level at the LINE IN terminal.	LINE OUT: more than 8 dBs PHONES OUT: more than -16 dBs	
12 Checking record/ playback distortion		1. Record a 1 kHz, -20 dB signal to LINE IN terminals. 2. Play back the recorded part. Check the output with a distortion meter to see if the value conforms to the standard value.	Normal: Less than 2 % CrO ₂ /Metal: Less than 3 %	
13 Checking signal to noise ratio recording play back		1. Record a 1 kHz, -20 dB signal. Stop the input by disconnecting from the terminal to perform non-signal recording. 2. Play back the recorded part. Measure the -8dBs recording output and the non-signal recording output for comparison using an electronic voltmeter. Check to see if the value conforms to the standard value.	Normal: More than 40 dB CrO ₂ /Metal: More than 41 dB	
14 Checking erasing coefficient		1. Apply a 400 Hz, +20 dB signal to the LINE terminals. 2. Perform recording with the signal enhanced by 20 dB. 3. Erase a part of the recording. 4. Measure the output difference between the erased part and non-erased part to compare with an electronic voltmeter. For the measurement using a metal tape, connect a band pass filter between the deck and the electronic voltmeter.	LINE OUT: More than 55 dB 	

Item	Conditions	Adjustment and Confirmation	Standard value	Adjust point																														
15 Checking MPX filter effect	Signal input: LINE IN Input level: Maximum	<ol style="list-style-type: none"> 1. Connect an electronic voltmeter and oscilloscope to the LINE OUT terminals. 2. Set the INPUT volume to the maximum position. Supply 1 kHz and 19 kHz signals reference level to the LINE IN terminals respectively in record/pause mode. While recording monitor the 1 kHz and 19 kHz signals respectively, confirm that level difference between 19 kHz signal to 1 kHz signal is more than 30 dB. 	19 kHz level: -30 dB (including 18.99 to 19.01 kHz) lower than 1 kHz signal																															
16 Checking peak indicator calibration	Operation mode: REC/PAUSE Input frequency: 1 kHz Signal input: LINE IN LINE OUT: -4 dBs (Indicator reads at 0 position)	<ol style="list-style-type: none"> 1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Supply the 1 kHz reference signal (-4 dBs) to the LINE IN terminals. 3. While rising the input signal level at the LINE 4. OUT so that each peak indicator is turned on with the output level specified on the light. 	<table border="1" data-bbox="1065 632 1406 1104"> <thead> <tr> <th data-bbox="1065 632 1179 695">Indicator</th> <th data-bbox="1179 632 1406 695">Signal level (LINE OUT)</th> </tr> </thead> <tbody> <tr><td data-bbox="1065 695 1179 726">- 30</td><td data-bbox="1179 695 1406 726">- 34 dBs ± 5 dB</td></tr> <tr><td data-bbox="1065 726 1179 758">- 20</td><td data-bbox="1179 726 1406 758">- 24 dBs ± 4 dB</td></tr> <tr><td data-bbox="1065 758 1179 789">- 15</td><td data-bbox="1179 758 1406 789">- 19 dBs ± 3 dB</td></tr> <tr><td data-bbox="1065 789 1179 821">- 12</td><td data-bbox="1179 789 1406 821">- 16 dBs ± 3 dB</td></tr> <tr><td data-bbox="1065 821 1179 852">- 10</td><td data-bbox="1179 821 1406 852">- 14 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 852 1179 884">- 8</td><td data-bbox="1179 852 1406 884">- 12 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 884 1179 915">- 6</td><td data-bbox="1179 884 1406 915">- 10 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 915 1179 947">- 4</td><td data-bbox="1179 915 1406 947">- 8 dBs ± 1 dB</td></tr> <tr><td data-bbox="1065 947 1179 978">- 2</td><td data-bbox="1179 947 1406 978">- 6 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 978 1179 1010">0</td><td data-bbox="1179 978 1406 1010">- 4 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 1010 1179 1041">+ 2</td><td data-bbox="1179 1010 1406 1041">- 2 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 1041 1179 1073">+ 4</td><td data-bbox="1179 1041 1406 1073">0 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 1073 1179 1104">+ 6</td><td data-bbox="1179 1073 1406 1104">+ 2 dBs ± 2 dB</td></tr> <tr><td data-bbox="1065 1104 1179 1136">+ 8</td><td data-bbox="1179 1104 1406 1136">+ 4 dBs ± 2 dB</td></tr> </tbody> </table>	Indicator	Signal level (LINE OUT)	- 30	- 34 dBs ± 5 dB	- 20	- 24 dBs ± 4 dB	- 15	- 19 dBs ± 3 dB	- 12	- 16 dBs ± 3 dB	- 10	- 14 dBs ± 2 dB	- 8	- 12 dBs ± 2 dB	- 6	- 10 dBs ± 2 dB	- 4	- 8 dBs ± 1 dB	- 2	- 6 dBs ± 2 dB	0	- 4 dBs ± 2 dB	+ 2	- 2 dBs ± 2 dB	+ 4	0 dBs ± 2 dB	+ 6	+ 2 dBs ± 2 dB	+ 8	+ 4 dBs ± 2 dB	
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+ 8	+ 4 dBs ± 2 dB																																	

SECTION 5 TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.



JVC

VICTOR COMPANY OF JAPAN, LIMITED

AV & MULTIMEDIA COMPANY AUDIO/VIDEO SYSTEMS CATEGORY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.MB061)



Printed in Japan
WPC

JVC

SCHEMATIC DIAGRAMS

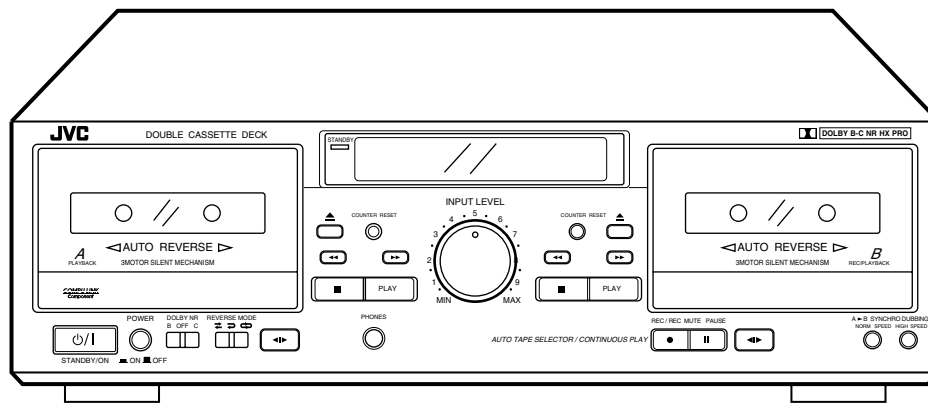
DOUBLE CASSETTE DECK

TD-W271

CD-ROM No.SML200401

Area suffix

UF ----- China
U ----- Other Areas



COMPU LINK
Component

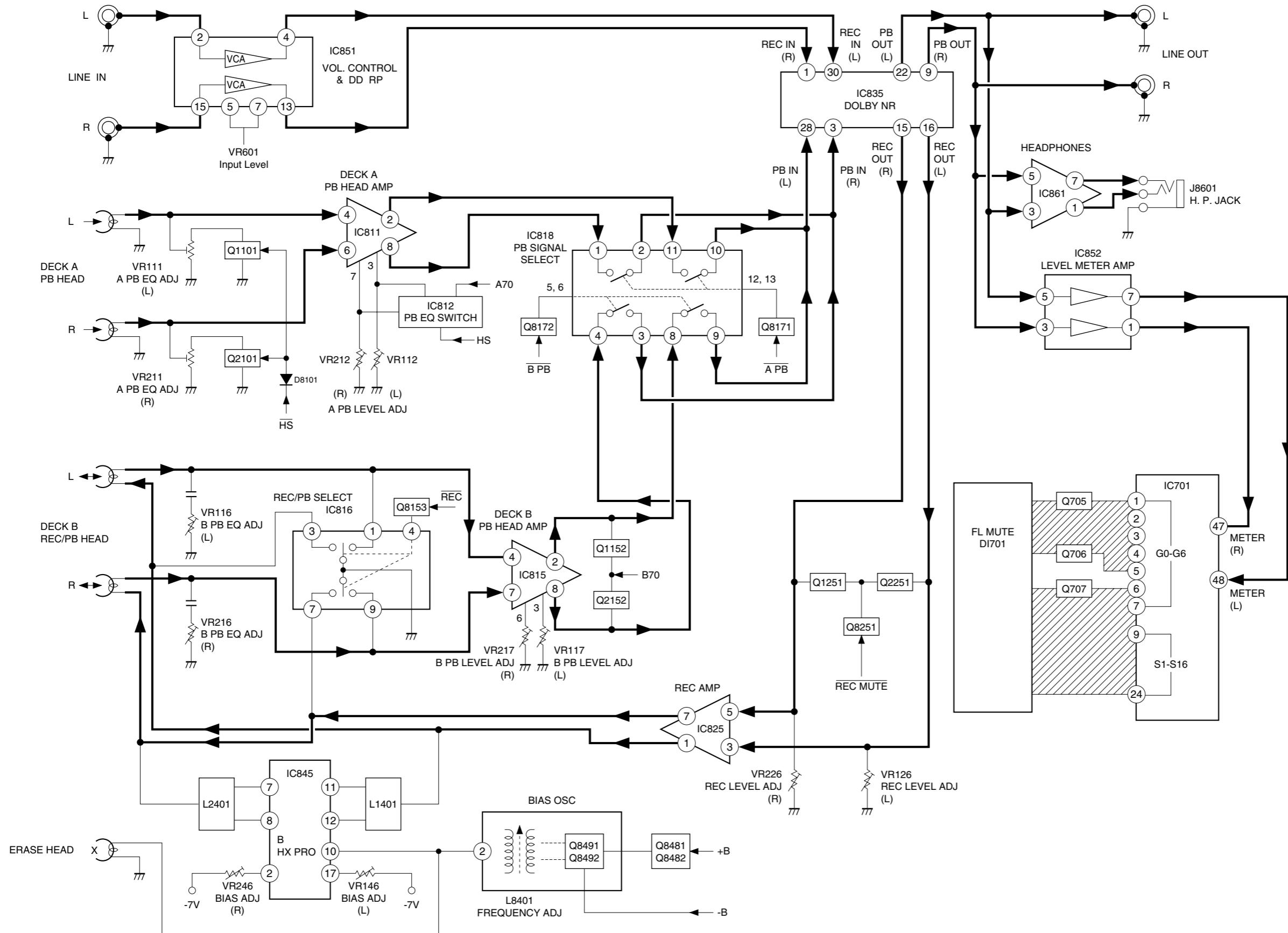
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Standard schematic diagrams	2-2
Printed circuit boards	2-5 to 7

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (⬤) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

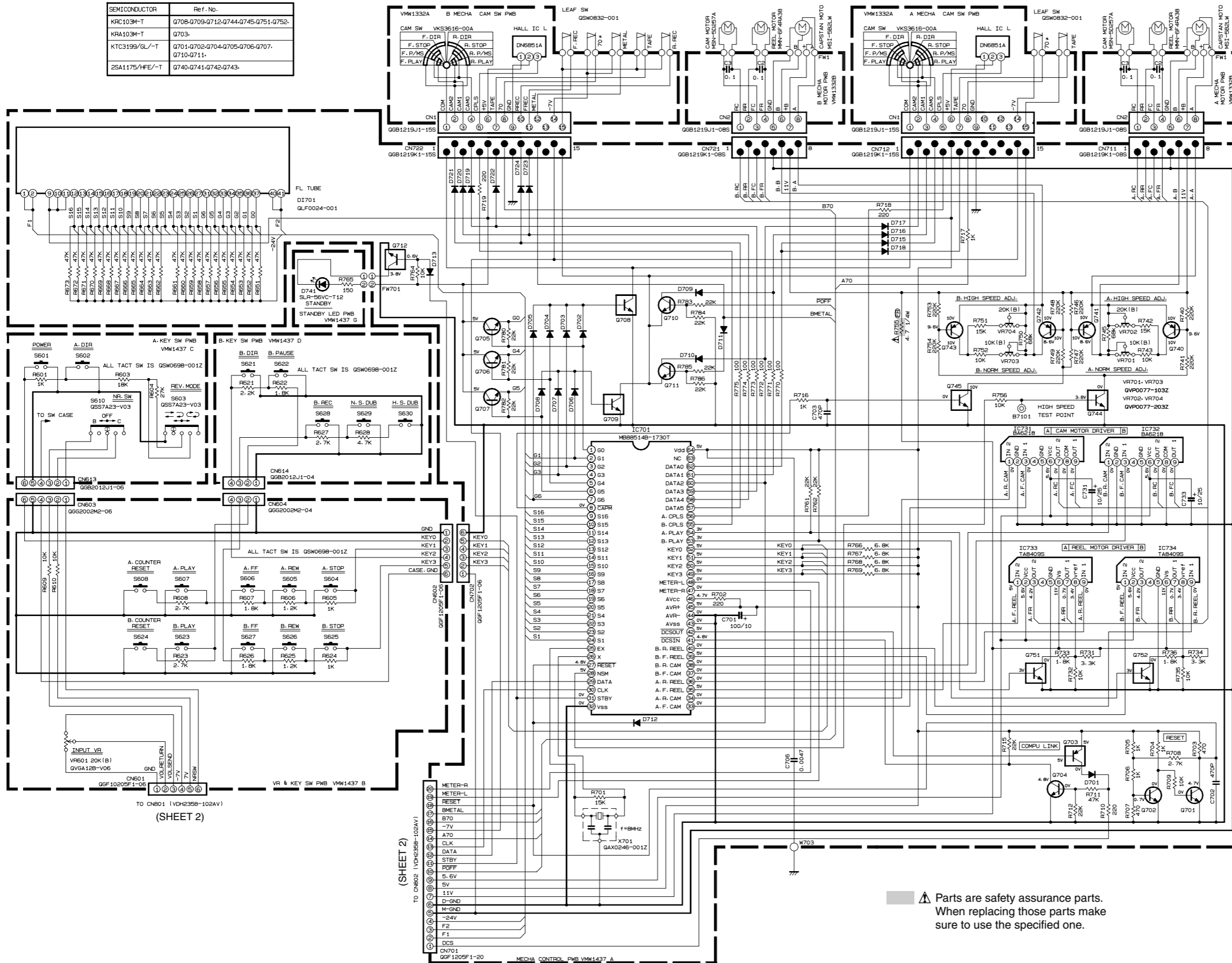
Block diagram



Standard schematic diagrams

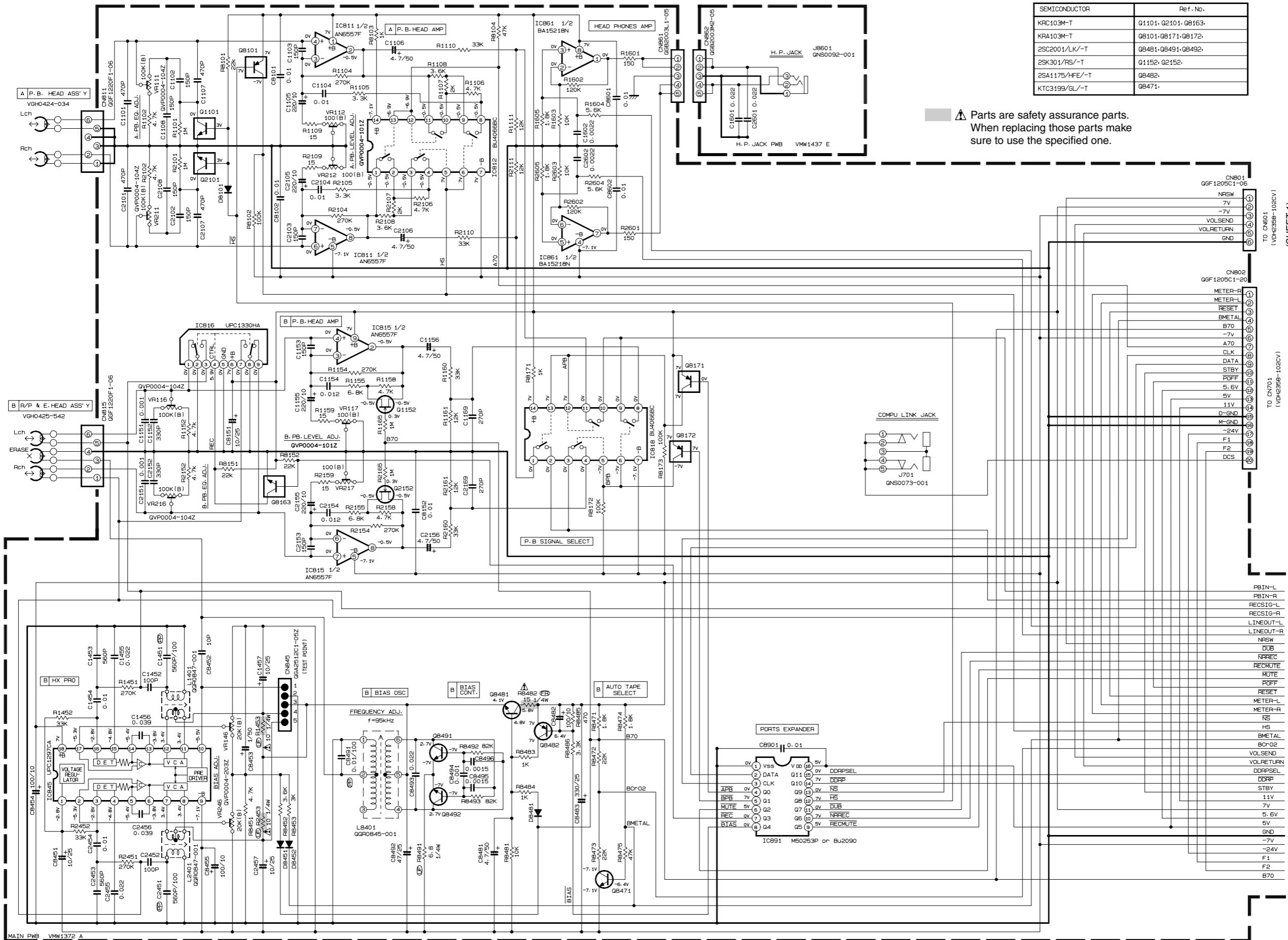
System control / FL display / Key section

SEMICONDUCTOR	Ref. No.
KRC103M-T	Q708-Q709-Q712-Q744-Q745-Q751-Q752
KRA103M-T	Q703
KTC3199/GL-T	Q701-Q702-Q704-Q705-Q706-Q707-Q710-Q711
2SA1175/AFE-T	Q740-Q741-Q742-Q743



▲ Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

Head amplifier section



SEMICONDUCTOR	Ref. No.
KRC103M-T	Q1101, Q2101, Q8163.
KRA103M-T	Q8101, Q8171, Q8172.
2SC2001/LK/-T	Q8481, Q8491, Q8492.
2SK301/RS/-T	Q1152, Q2152.
2SA1175/HFE/-T	Q8482.
KTC3199/GL/-T	Q8471.

Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

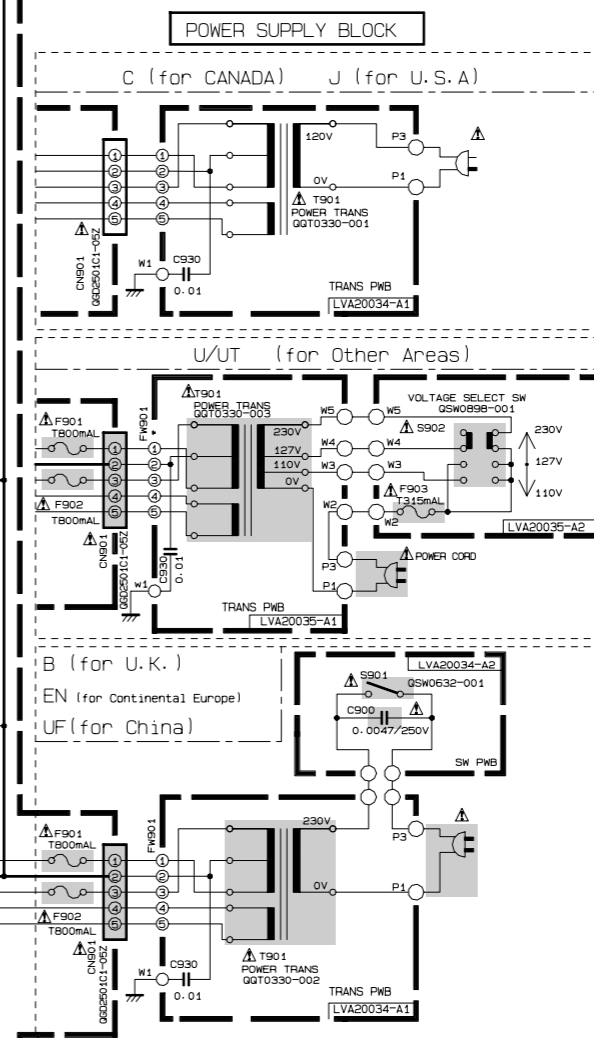
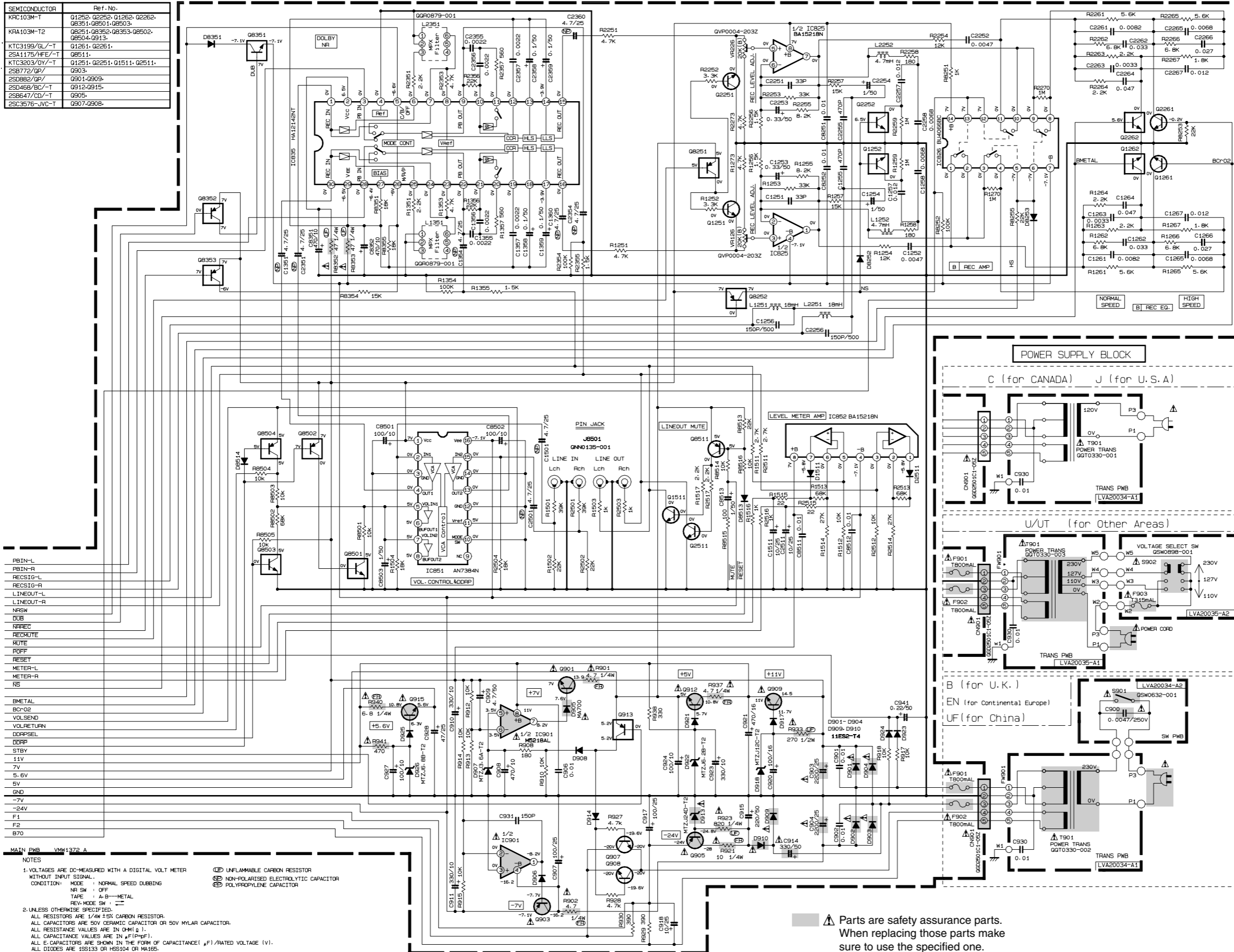
TO CN801 (VPH2358-102CV) (SHEET 1)

TO CN701 (VPH2358-102CV) (SHEET 1)

(SHEET 3)

■ Amplifier / Power supply section

SEMICONDUCTOR	Ref. No.
KRC103M-T	Q1252, Q2252, Q1262, Q2262, Q8351, Q8501, Q8503.
KRA103M-T2	Q8251, Q8352, Q8353, Q8502, Q8504, Q8513.
KTC3199/GL/-T	Q1261, Q2261.
2SA1175/HFE/-T	Q8511.
KTC3203/OY/-T	Q1251, Q2251, Q1511, Q2511.
2SB772/GP/-T	Q903.
2SD882/GP/-T	Q901, Q909.
2SD468/BC/-T	Q912, Q915.
2SB647/CD/-T	Q905.
2SC3576-JVC-T	Q907, Q908.



(SHEET 2)

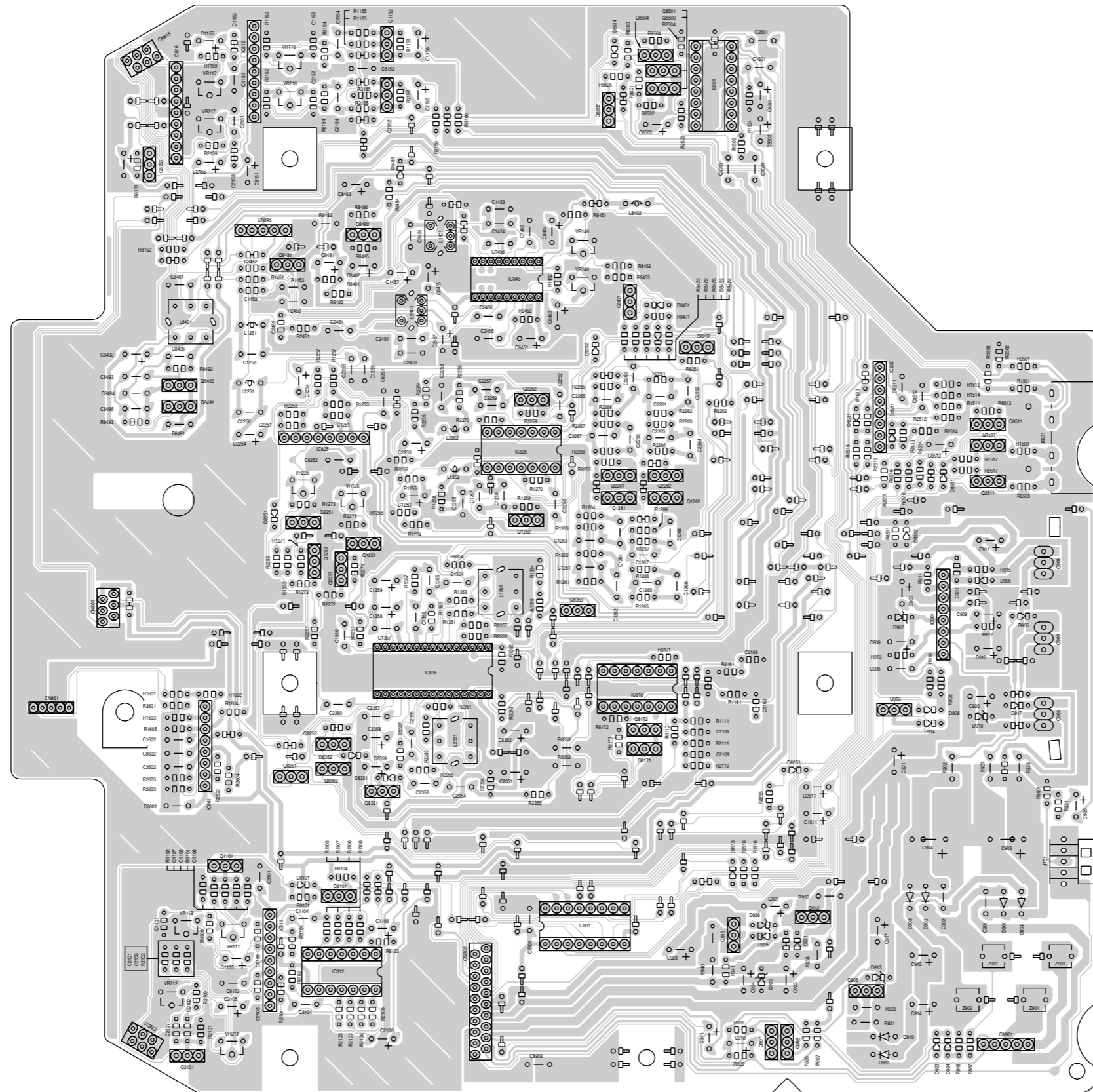
- PBIN-L
- PBIN-R
- RECSIG-L
- RECSIG-R
- LINEOUT-L
- LINEOUT-R
- NRSW
- DUB
- NFREC
- REC MUTE
- MUTE
- POFF
- RESET
- METER-L
- METER-R
- RS
- BMETAL
- BC02
- VOLSEND
- VOLRETURN
- DORPSEL
- DORP
- STBY
- 11V
- 7V
- 5.6V
- 5V
- GND
- 7V
- 24V
- F1
- F2
- B70

NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
 CONDITION: MODE : NORMAL SPEED DUBBING
 NR SW : OFF
 TAPE : A-B—METAL
 REV. MODE SW : —
 2. UNLESS OTHERWISE SPECIFIED,
 ALL RESISTORS ARE 1/4W ±5% CARBON RESISTOR.
 ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
 ALL RESISTANCE VALUES ARE IN OHM (Ω).
 ALL CAPACITANCE VALUES ARE IN μF (μF).
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
 ALL DIODES ARE 1SS133 OR HSS104 OR MA165.

▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

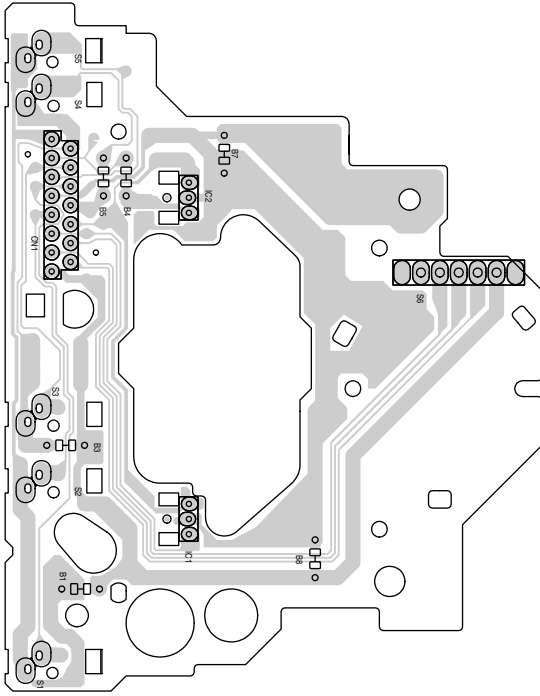
Printed circuit boards

■ Main board

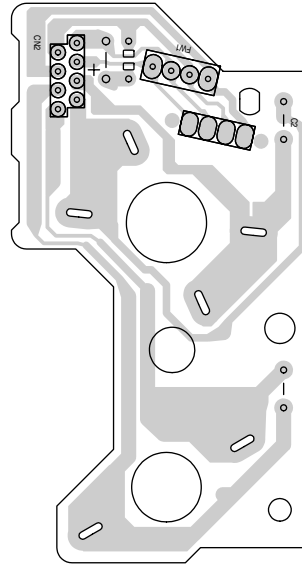


■ Mechanism board

(Cam switch board)



(Motor board)



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(No.MB061SCH)



Printed in Japan
WPC

PARTS LIST

[TD-W271]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

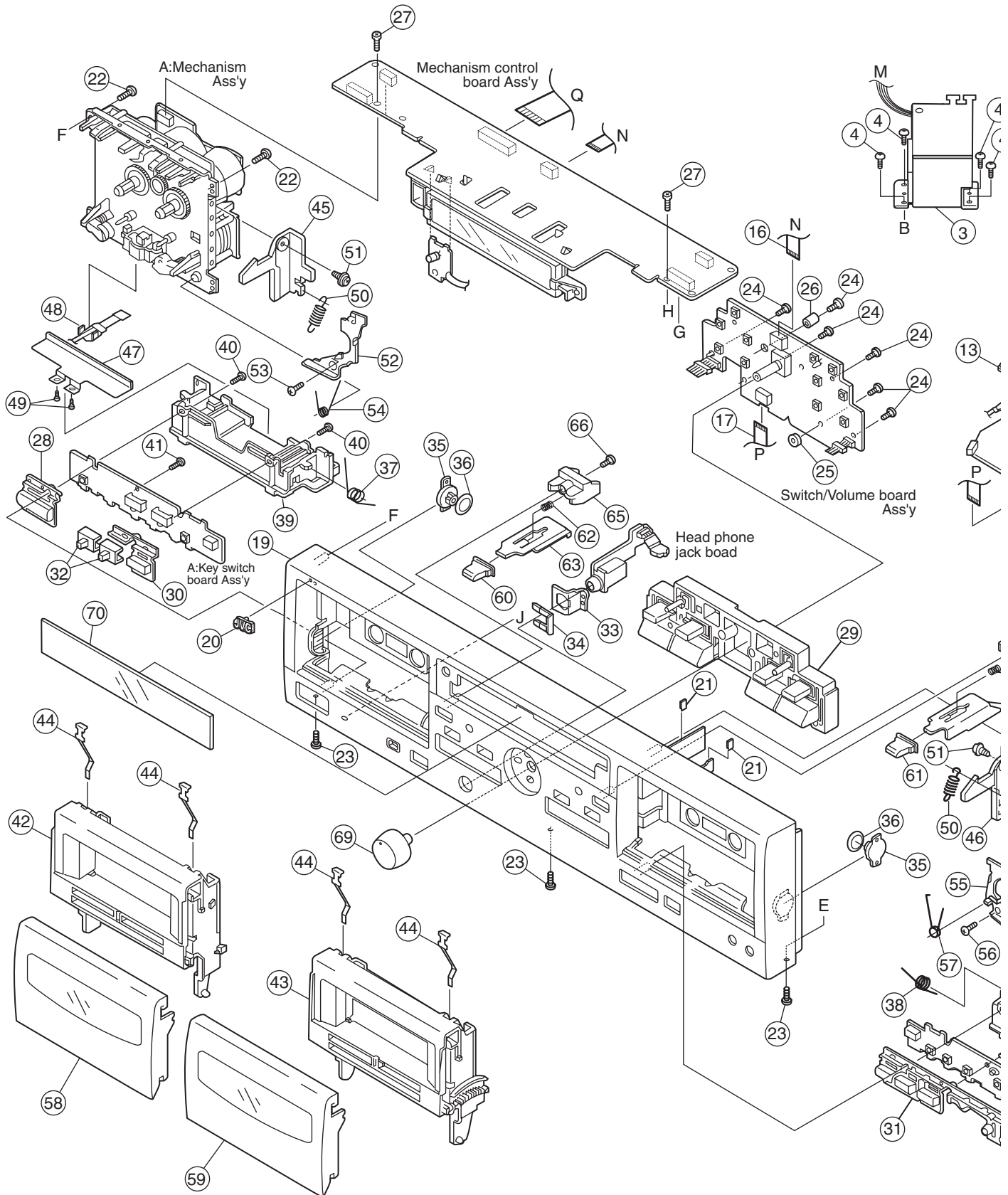
UF ----- China
U ----- Other Areas

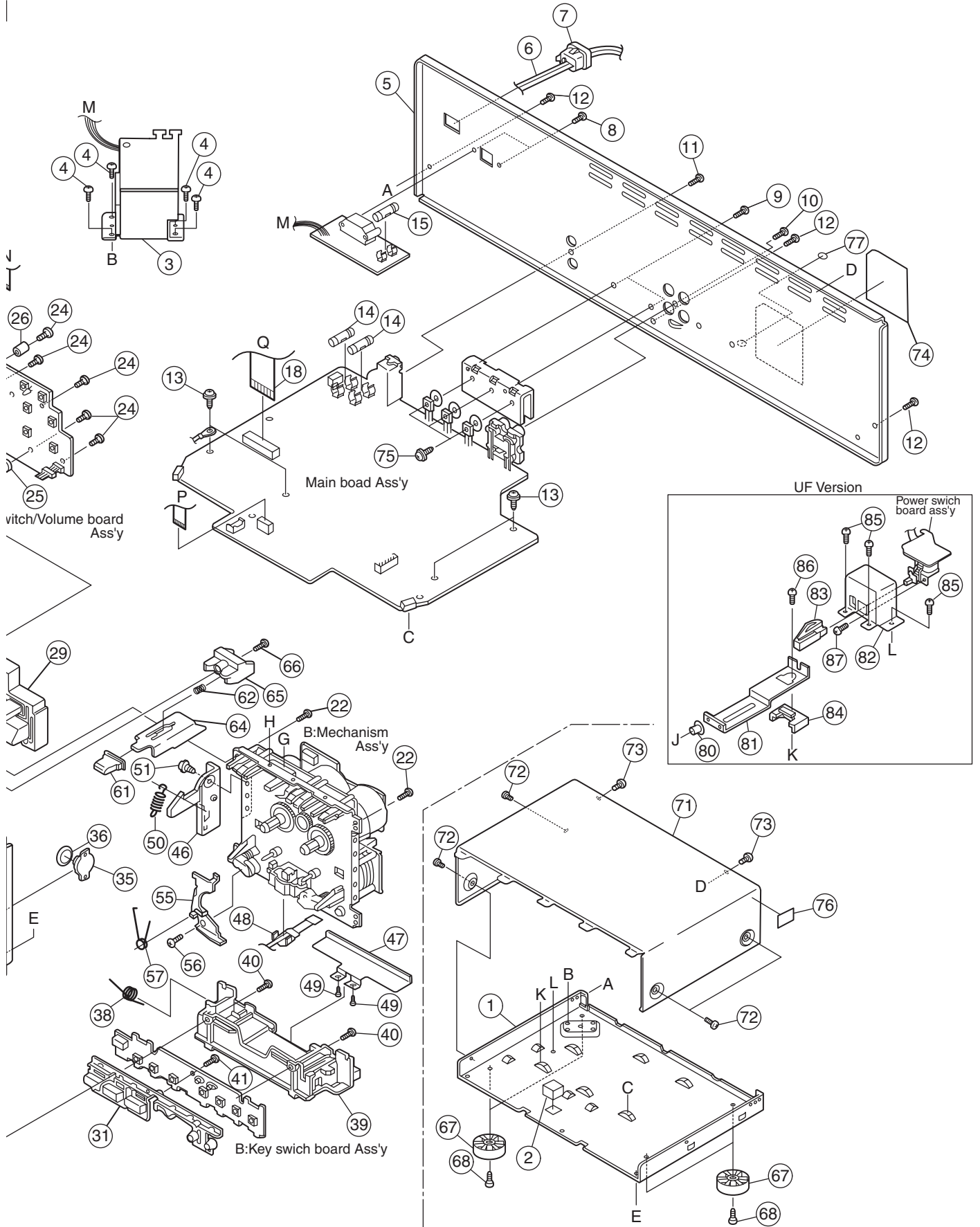
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Cassette mechanism assembly and parts list (Block No.MP)	3- 5
Electrical parts list (Block No.01~03)	3- 7
Packing materials and accessories parts list (Block No.M3).....	3-12

Exploded view of general assembly and parts list

Block No. **M** **1** **M** **M**





General assembly

Block No. [M][1][M][M]

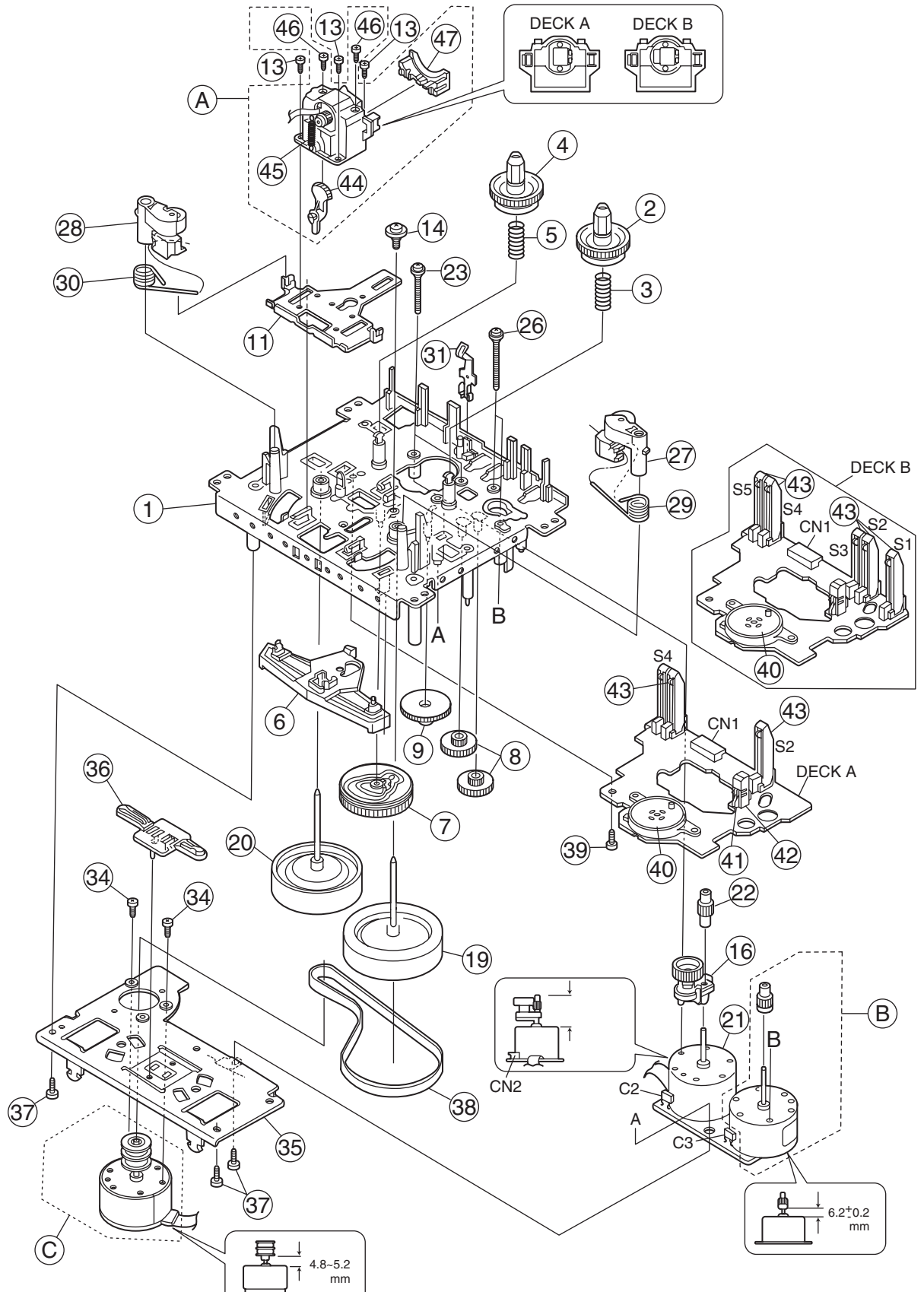
△ Symbol No.	Part No.	Part Name	Description	Local
1	VKL1333-013	CHASSIS BASE		
2	VYSR110-016	SPACER		
△ 3	QQT0330-003	POWER TRANSF	T 901	W271U
△ 3	QQT0330-002	POWER TRANSF	T 901	W271UF
4	QYSBST3006Z	TAPPING SCREW	3mm x 6mm(x4)	
5	VJC2579-005	REAR PANEL		W271U
5	VJC2579-004	REAR PANEL		W271UF
△ 6	QMPR110-200-JN	POWER CORD	2m BLACK	W271U
△ 6	QMPR490-200-JC	POWER CORD	2m BLACK	W271UF
7	QHS3771-108	CORD STOPPER		
8	QYSBSF2608M	TAP SCREW	M2.6 x 8mm(x2)	
9	QYSBSF3008M	TAP SCREW	3mm x 8mm(x2)	
10	QYSBSF3008M	TAP SCREW	3mm x 8mm	
11	QYSBSF3008M	TAP SCREW	3mm x 8mm	
12	QYSBST3006M	TAPPING SCREW	3mm x 6mm(x3)	
13	QYSBSTG3006Z	TAP SCREW	M3 x 6mm(x4)	
△ 14	QMF51E2-R80-J1	FUSE	F901 F902 0.8A AC250V(x2)	
△ 15	QMF51E2-R315-J1	FUSE	F 903 0.315A AC250V	W271U
16	QUQ412-0612CJ	FFC WIRE		
17	QUQ412-0612CJ	FFC WIRE		
18	QUQ412-2021CJ	FCC WIRE		
19	VJG1458-013	FRONT PANEL		W271U
19	VJG1458-014	FRONT PANEL		W271UF
20	VJD5429-002SS	JVC MARK		
21	VYSA1R4-110	SPACER	(x2)	
22	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x4)	
23	QYSBST3006N	TAP SCREW	M3 x 6mm(x3)	
24	QYSBSF2610Z	SCREW	2.6mm x 10mm(x6)	
25	VYSS201-014	SPACER		
26	VYH7979-001MM	CAP		
27	QYSDST2604Z	SCREW	2.6mm x 4mm(x2)	
28	VXP5345-003	PUSH BUTTON		
29	VXP2131-003	MECHA BUTTON		
30	VXP5350-002	MECHA BUTTON		
31	VXP3835-003	MECHA BUTTON		
32	VXS4398-003	SLIDE KNOB	(x2)	
33	VKL7856-001	HEAD PHONE BKT		
34	VKL6752-001	SNAP PLATE		
35	VYH7779-00B	DUMPER ASSY	(x2)	
36	VYSS2R3-024	SPACER	(x2)	
37	VKW3006-236	TORSION SPRING		
38	VKW3006-237	TORSION SPRING		
39	VYH2323-001	MECHA HOLDER	(x2)	
40	QYSBSF2610Z	SCREW	2.6mm x 10mm(x4)	
41	QYSBSF2610Z	SCREW	2.6mm x 10mm(x2)	
42	VJT2317-007	CASSETTE HOLDER		
43	VJT2317-008	CASSETTE HOLDER		
44	VKY4180-401	CASSETTE SPRING	(x4)	
45	VYH7941-005	LOCK LEVER(L)		
46	VYH7941-006	LOCK LEVER(R)		
47	VMA4718-001	SHIELD	(x2)	
48	VKS3655-002	F.P.C. HOLDER	(x2)	
49	QYSDST2603Z	TAP SCREW	M2.6 x 3mm(x4)	
50	VKW5199-001	TENSION SPRING	(x2)	
51	VKZ4749-001	SPECIAL SCREW	(x2)	
52	VKL7293-001SS	EJECT SAFTY(R)		
53	QYSBSF3010Z	TAP SCREW	3mm x 10mm	
54	VKW5069-002	TORSION SPRING		
55	VKL7663-001	EJECT SAFTY(L)		
56	QYSBSF3010Z	TAP SCREW	3mm x 10mm	
57	VKW5104-003	TORSION SPRING		
58	VJT2380-011	CASSETTE LID		
59	VJT2380-012	CASSETTE LID		
60	VXP5289-007	PUSH BUTTON		
61	VXP5289-008	PUSH BUTTON		
62	VKW3001-077	SPRING	(x2)	
63	VKL7857-002	REMOTE ARM		
64	VKL7858-002	REMOTE ARM		
65	VYH7773-001	BUTTON HOLDER	(x2)	
66	QYSBSF2610Z	SCREW	2.6mm x 10mm(x2)	
67	QZF6018-003	FOOT	60mm x 18mm(x4)	
68	QYSBST3008Z	TH TAP SCREW	3mm x 8mm(x4)	

△ Symbol No.	Part No.	Part Name	Description	Local
69	VXL3025-005	KNOB		
70	VJK3652-012	FINDER		
71	VJG1459-003S	TOP COVER		
72	E406308-004	SPECIAL SCREW	(x4)	
73	QYSBST3006M	TAPPING SCREW	3mm x 6mm(x2)	
74	LV34380-001A	NAME PLATE		W271U
74	LV34380-002A	NAME PLATE		W271UF
75	QYSPSPD3008Z	SCREW	3mm x 8mm(x3)	
76	LV30092-0E5A	UF LABEL		W271UF
77	LV43268-001A	CCC LABEL		W271UF
80	VXP5346-002	PUSH BUTTON		W271UF
81	VKL7859-002	REMOTE BRACKET		W271UF
82	VYH8119-002	SW BRACKET		W271UF
83	VKS5569-001	REMOTE BAR		W271UF
84	VKS5570-001	SLIDER		W271UF
85	QYSBST3006Z	TAPPING SCREW	3mm x 6mm(x3)	W271UF
86	QYSSST3008Z	SCREW	3mm x 8mm	W271UF
87	QYSDST3006Z	TAP SCREW	3mm x 6mm	W271UF

Cassette mechanism assembly and parts list

Block No. M P M M

NY1000-T1A
NY1000-T1B



Cassette mechanism

Block No. [M][P][M][M]

Symbol No.	Part No.	Part Name	Description	Local
A	VKS3626-00E	H.MOUNT ASSY	A MECHA	
A	VKS3629-00E	H.MOUNT ASSY	B MECHA	
B	MSN5D257A-SA1	D.C MOTOR ASSY		
C	MSI5B2LW-SA2	CAPSTAN MOTOR		
1	VKS1126-00B	CHASSIS BASE		
2	VKS5428-00B	T-UP REEL ASSY		
3	VKW5043-001	B.T. SPRING		
4	VKS3617-002	REEL		
5	VKW5043-001	B.T. SPRING		
6	VKS3627-002	PINCH LEVER		
7	VKS2224-002	CONTROL CAM		
8	VKS5454-001	ACT GEAR(2)	(x2)	
9	VKS5455-001	ACT GEAR(3)		
11	VKM3632-001	HEAD BASE		
13	SDSR2004Z	SCREW	(x3)	
14	VKZ4708-001	SPECIAL SCREW		
16	VKS5430-00CMM	FR ARM ASSY		
19	VKF3195-00A	FLY WHEEL(R) ASSY		
20	VKF3197-00A	FLY WHEEL(L) ASSY		
21	MMN-6F4RA38	D.C. MOTOR	FOR REEL MOTOR	
22	VKS5432-001	REEL MOT. GEAR	GEAR KIT S	
23	VKZ4705-001	SCREW	(x2)	
26	VKZ4705-002	SCREW	(x2)	
27	VKP4227-00B	PINCH R.(R)ASSY		
28	VKP4229-00B	PINCH R.(L)ASSY		
29	VKW5045-003	P.R. SP(R)	FOR PINCH (R)	
30	VKW5046-003	P.R. SP(L)	FOR PINCH (L)	
31	VKY4670-001	CASSETTE SPRING	PRESS KIT S	
34	SPSP2603Z	SCREW	M2.6 x 3mm(x2)	
35	VKM3636-002	FM BRACKET		
36	VKS5327-005MM	THRUST PLATE		
37	SBSF2608Z	TAPPING SCREW	2.6mm x 8mm(x3)	
38	VKB3001-068	BELT		
39	SDST2612Z	SCREW	2.6mm x 12mm	
40	VKS3616-00A	CAM SW UNIT	S6	
41	DN6851-HI	HALL IC		
42	VKS3630-001MM	IC HOLDER	IC1	
43	MXS00220MVL0	CASSETTE SWITCH	A MECHA(x2)	
43	MXS00220MVL0	CASSETTE SWITCH	S1 S2 S3 S4 S5(x5)	
44	VKS3614-001	TURN OVER GEAR		
45	VKW5126-001	HEAD SPRING		
46	VKZ4730-001	SPECIAL SCREW	(x2)	
47	VKS3654-001	HEAD MT. COVER		
C 2	QFV41HJ-104ZM	TF CAPACITOR	C2	
C 3	QFV41HJ-104ZM	TF CAPACITOR	C3	
CN 1	VMC0234-R15	CONNECTOR	CN1	
CN 2	VMC0234-R08	CONNECTOR	CN2	

Electrical parts list

Main board

Block No. [0][1][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
					D921	1SS133-T2	DIODE		
					D922	MTZJ6.2B-T2	Z DIODE		
					D923	1SS133-T2	DIODE		
					D924	1SS133-T2	DIODE		
					D925	1SS133-T2	DIODE		
			Head switch		D926	MTZJ6.8B-T2	Z DIODE		
					D1511	1SS133-T2	DIODE		
			Dual ope amp		D2511	1SS133-T2	DIODE		
					D8101	1SS133-T2	DIODE		
					D8252	1SS133-T2	DIODE		
					D8253	1SS133-T2	DIODE		
					D8351	1SS133-T2	DIODE		
			Dual ope amp		D8451	1SS133-T2	DIODE		
			Dual ope amp		D8452	1SS133-T2	DIODE		
					D8481	1SS133-T2	DIODE		
					D8513	1SS133-T2	DIODE		
△ IC901	M5218AL	IC			D8514	1SS133-T2	DIODE		
△ Q901	2SD882/QP/	TRANSISTOR			C901	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
△ Q903	2SB772/QP/	TRANSISTOR(ACC)			C902	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
△ Q905	2SB647/CD/-T	TRANSISTOR			△ C903	QETM1EM-228	E CAPACITOR	2200uF 25V M	
	Q907	2SC3576-JVC-T	TRANSISTOR		△ C904	QETM1EM-228	E CAPACITOR	2200uF 25V M	
	Q908	2SC3576-JVC-T	TRANSISTOR		C906	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
△ Q909	2SD882/QP/	TRANSISTOR			C907	QETN1EM-107Z	E CAPACITOR	100uF 25V M	
△ Q912	2SD468/BC/-T	TRANSISTOR			C908	QETN1AM-477Z	E CAPACITOR	470uF 10V M	
	Q913	KRA103M-T	TRANSISTOR		C909	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
△ Q915	2SD468/BC/-T	TRANSISTOR			C910	QETN1AM-337Z	E CAPACITOR	330uF 10V M	
	Q1101	KRC103M-T	TRANSISTOR		C911	QETN1AM-337Z	E CAPACITOR	330uF 10V M	
	Q1152	2SK301/RS/-T	TRANSISTOR		△ C914	QETN1HM-337Z	E CAPACITOR	330uF 50V M	
	Q1251	KTC3203/OY/-T	TRANSISTOR		C915	QETN1HM-227Z	E CAPACITOR	220uF 50V M	
	Q1252	KRC103M-T	TRANSISTOR		C917	QETN1EM-107Z	E CAPACITOR	100uF 25V M	
	Q1261	KTC3199/GL/-T	TRANSISTOR		C918	QETN1EM-106Z	E CAPACITOR	10uF 25V M	
	Q1262	KRC103M-T	TRANSISTOR		C920	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
	Q1511	KTC3203/OY/-T	TRANSISTOR		C921	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
	Q2101	KRC103M-T	TRANSISTOR		C923	QETN1AM-337Z	E CAPACITOR	330uF 10V M	
	Q2152	2SK301/RS/-T	TRANSISTOR		C924	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
	Q2251	KTC3203/OY/-T	TRANSISTOR		C927	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
	Q2252	KRC103M-T	TRANSISTOR		C928	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
	Q2261	KTC3199/GL/-T	TRANSISTOR		C931	QCBB1HK-151Y	C CAPACITOR	150pF 50V K	
	Q2262	KRC103M-T	TRANSISTOR		C941	QETN1HM-224Z	E CAPACITOR	0.22uF 50V M	
	Q2511	KTC3203/OY/-T	TRANSISTOR		C1101	QCBB1HK-471Y	C CAPACITOR	470pF 50V K	
	Q8101	KRA103M-T	TRANSISTOR		C1102	QCBB1HK-151Y	C CAPACITOR	150pF 50V K	
	Q8163	KRC103M-T	TRANSISTOR		C1103	QCBB1HK-151Y	C CAPACITOR	150pF 50V K	
	Q8171	KRA103M-T	TRANSISTOR		C1104	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J	
	Q8172	KRA103M-T	TRANSISTOR		C1105	QETN1AM-227Z	E CAPACITOR	220uF 10V M	
	Q8251	KRA103M-T	TRANSISTOR		C1106	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
	Q8252	KRA103M-T	TRANSISTOR		C1107	QCBB1HK-471Y	C CAPACITOR	470pF 50V K	
	Q8351	KRC103M-T	TRANSISTOR		C1108	QCBB1HK-151Y	C CAPACITOR	150pF 50V K	
	Q8352	KRA103M-T	TRANSISTOR		C1151	QFLC1HJ-102Z	M CAPACITOR	1000pF 50V J	
	Q8353	KRA103M-T	TRANSISTOR		C1152	QCBB1HK-331Y	C CAPACITOR	330pF 50V K	
	Q8471	KTC3199/GL/-T	TRANSISTOR		C1153	QCBB1HK-151Y	C CAPACITOR	150pF 50V K	
	Q8481	2SC2001/LK/-T	TRANSISTOR		C1154	QFLC1HJ-123Z	M CAPACITOR	0.012uF 50V J	
	Q8482	2SA1175/HFE/-T	TRANSISTOR		C1155	QETN1AM-227Z	E CAPACITOR	220uF 10V M	
	Q8491	2SC2001/LK/-T	TRANSISTOR		C1156	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
	Q8492	2SC2001/LK/-T	TRANSISTOR		C1169	QCBB1HK-271Y	C CAPACITOR	270pF 50V K	
	Q8501	KRC103M-T	TRANSISTOR		C1251	QCSB1HJ-330Y	C CAPACITOR	33pF 50V J	
	Q8502	KRA103M-T	TRANSISTOR		C1252	QFLC1HJ-472Z	M CAPACITOR	4700pF 50V J	
	Q8503	KRC103M-T	TRANSISTOR		C1253	QETN1HM-334Z	E CAPACITOR	0.33uF 50V M	
	Q8504	KRA103M-T	TRANSISTOR		C1254	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
	Q8511	2SA1175/HFE/-T	TRANSISTOR		C1255	QCS31HJ-471Z	C CAPACITOR	470pF 50V J	
△ D901	11ES2-T4	DIODE			C1256	QCS32HJ-151Z	C CAPACITOR	150pF 500V J	
△ D902	11ES2-T4	DIODE			C1257	QFLC1HJ-123Z	M CAPACITOR	0.012uF 50V J	
△ D903	11ES2-T4	DIODE			C1258	QFLC1HJ-682Z	M CAPACITOR	6800pF 50V J	
△ D904	11ES2-T4	DIODE			C1261	QFLC1HJ-822Z	M CAPACITOR	8200pF 50V J	
△ D905	MA700A-T2	SB DIODE			C1262	QDX31EM-333Z	C CAPACITOR	0.033uF 25V M	
	D906	1SS133-T2	DIODE		C1263	QCB31HK-332Z	C CAPACITOR	3300pF 50V K	
	D907	MTZJ3.6A-T2	ZENER DIODE		C1264	QDX31EM-473Z	C CAPACITOR	0.047uF 25V M	
	D908	1SS133-T2	DIODE		C1265	QFLC1HJ-682Z	M CAPACITOR	6800pF 50V J	
△ D909	11ES2-T4	DIODE			C1266	QDX31EM-273Z	C CAPACITOR	0.027uF 25V M	
△ D910	11ES2-T4	DIODE			C1267	QDX31EM-123Z	C CAPACITOR	0.012uF 25V M	
△ D913	MTZJ24D-T2	Z DIODE I/M			C1351	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	
	D914	1SS133-T2	DIODE		C1354	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	
	D917	1SS133-T2	DIODE		C1355	QFN31HJ-222Z	M CAPACITOR	2200pF 50V J	
	D918	MTZJ12C-T2	Z DIODE		C1356	QFN31HJ-222Z	M CAPACITOR	2200pF 50V J	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C1357	QFN31HJ-222Z	M CAPACITOR	2200pF 50V J		C8491	QFP32AJ-103Z	PP CAPACITOR	0.01uF 100V J	
C1358	QETN1HM-104Z	E CAPACITOR	0.1uF 50V M		C8492	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1359	QETN1HM-104Z	E CAPACITOR	0.1uF 50V M		C8493	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J	
C1360	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M		C8494	QFN31HJ-102Z	M CAPACITOR	1000pF 50V J	
C1451	QFP32AJ-561Z	PP CAPACITOR	560pF 100V J		C8495	QFLC1HJ-152Z	M CAPACITOR	1500pF 50V J	
C1452	QCB1HK-101Y	C CAPACITOR	100pF 50V K		C8496	QFLC1HJ-152Z	M CAPACITOR	1500pF 50V J	
C1453	QCS31HJ-561Z	C CAPACITOR	560pF 50V J		C8501	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C1454	QFN31HJ-103Z	M CAPACITOR	0.01uF 50V J		C8502	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C1455	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J		C8503	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1456	QFLC1HJ-393Z	M CAPACITOR	0.039uF 50V J		C8511	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
C1457	QETN1EM-106Z	E CAPACITOR	10uF 25V M		C8512	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
C1501	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M		C8513	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1511	QETN1EM-106Z	E CAPACITOR	10uF 25V M		C8601	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
C1602	QCB31HK-222Z	C CAPACITOR	2200pF 50V K		C8602	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
C2101	QCB1HK-471Y	C CAPACITOR	470pF 50V K		C8901	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z	
C2102	QCB1HK-151Y	C CAPACITOR	150pF 50V K						
C2103	QCB1HK-151Y	C CAPACITOR	150pF 50V K		△ R901	QRZ9006-4R7X	F.RESISTOR	4.7Ω 1/4W J	
C2104	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J		△ R902	QRZ9006-4R7X	F.RESISTOR	4.7Ω 1/4W J	
C2105	QETN1AM-227Z	E CAPACITOR	220uF 10V M		R908	QRE141J-181Y	C RESISTOR	180Ω 1/4W J	
C2106	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M		R910	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C2107	QCB1HK-471Y	C CAPACITOR	470pF 50V K		R912	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C2108	QCB1HK-151Y	C CAPACITOR	150pF 50V K		R913	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C2151	QFLC1HJ-102Z	M CAPACITOR	1000pF 50V J		R914	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C2152	QCB1HK-331Y	C CAPACITOR	330pF 50V K		R915	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C2153	QCB1HK-151Y	C CAPACITOR	150pF 50V K		R917	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C2154	QFLC1HJ-123Z	M CAPACITOR	0.012uF 50V J		R918	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C2155	QETN1AM-227Z	E CAPACITOR	220uF 10V M		△ R921	QRZ9005-100X	FUSI RESISTOR	10Ω	
C2156	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M		△ R923	QRJ146J-821X	UNF C RESISTOR	820Ω 1/4W J	
C2169	QCB1HK-271Y	C CAPACITOR	270pF 50V K		R927	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C2251	QCSB1HJ-330Y	C CAPACITOR	33pF 50V J		R928	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C2252	QFLC1HJ-472Z	M CAPACITOR	4700pF 50V J		R929	QRE141J-391Y	C RESISTOR	390Ω 1/4W J	
C2253	QETN1HM-334Z	E CAPACITOR	0.33uF 50V M		R930	QRE141J-391Y	C RESISTOR	390Ω 1/4W J	
C2254	QETN1HM-105Z	E CAPACITOR	1uF 50V M		△ R933	QRK126J-271X	UNF C RESISTOR	270Ω 1/2W J	
C2255	QCS31HJ-471Z	C CAPACITOR	470pF 50V J		△ R937	QRZ9006-4R7X	F.RESISTOR	4.7Ω 1/4W J	
C2256	QCS32HJ-151Z	C CAPACITOR	150pF 500V J		R938	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	
C2257	QFLC1HJ-123Z	M CAPACITOR	0.012uF 50V J		△ R940	QRZ9031-6R8	FUSI RESISTOR	6.8Ω	
C2258	QFLC1HJ-682Z	M CAPACITOR	6800pF 50V J		△ R941	QRE141J-471Y	C RESISTOR	470Ω 1/4W J	
C2261	QFLC1HJ-822Z	M CAPACITOR	8200pF 50V J		R1101	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J	
C2262	QDX31EM-333Z	C CAPACITOR	0.033uF 25V M		R1102	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C2263	QCB31HK-332Z	C CAPACITOR	3300pF 50V K		R1104	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J	
C2264	QDX31EM-473Z	C CAPACITOR	0.047uF 25V M		R1105	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
C2265	QFLC1HJ-682Z	M CAPACITOR	6800pF 50V J		R1106	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C2266	QDX31EM-273Z	C CAPACITOR	0.027uF 25V M		R1107	QRE141J-202Y	C RESISTOR	2kΩ 1/4W J	
C2267	QDX31EM-123Z	C CAPACITOR	0.012uF 25V M		R1108	QRE141J-362Y	C RESISTOR	3.6kΩ 1/4W J	
C2351	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M		R1109	QRE141J-150Y	C RESISTOR	15Ω 1/4W J	
C2354	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M		R1110	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J	
C2355	QFN31HJ-222Z	M CAPACITOR	2200pF 50V J		R1111	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
C2356	QFN31HJ-222Z	M CAPACITOR	2200pF 50V J		R1152	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C2357	QFN31HJ-222Z	M CAPACITOR	2200pF 50V J		R1154	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J	
C2358	QETN1HM-104Z	E CAPACITOR	0.1uF 50V M		R1155	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
C2359	QETN1HM-104Z	E CAPACITOR	0.1uF 50V M		R1158	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C2360	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M		R1159	QRE141J-150Y	C RESISTOR	15Ω 1/4W J	
C2451	QFP32AJ-561Z	PP CAPACITOR	560pF 100V J		R1160	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J	
C2452	QCB1HK-101Y	C CAPACITOR	100pF 50V K		R1161	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
C2453	QCS31HJ-561Z	C CAPACITOR	560pF 50V J		R1165	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J	
C2454	QFN31HJ-103Z	M CAPACITOR	0.01uF 50V J		R1251	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C2455	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J		R1252	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
C2456	QFLC1HJ-393Z	M CAPACITOR	0.039uF 50V J		R1253	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J	
C2457	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R1254	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
C2501	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M		R1255	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
C2511	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R1256	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J	
C2602	QCB31HK-222Z	C CAPACITOR	2200pF 50V K		R1257	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
C8101	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z		R1258	QRE141J-181Y	C RESISTOR	180Ω 1/4W J	
C8102	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z		R1259	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J	
C8151	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R1261	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
C8152	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z		R1262	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
C8251	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z		R1263	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C8252	QCF31HZ-103Z	C CAPACITOR	0.01uF 50V Z		R1264	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C8351	QETN1AM-477Z	E CAPACITOR	470uF 10V M		R1265	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
C8352	QETN1AM-477Z	E CAPACITOR	470uF 10V M		R1266	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
C8451	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R1267	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
C8452	QCSB1HJ-100Y	C CAPACITOR	10pF 50V J		R1270	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J	
C8453	QETN1HM-105Z	E CAPACITOR	1uF 50V M		R1273	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C8454	QETN1AM-107Z	E CAPACITOR	100uF 10V M		R1351	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C8455	QETN1AM-107Z	E CAPACITOR	100uF 10V M		R1352	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C8481	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M		R1353	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C8482	QETN1AM-107Z	E CAPACITOR	100uF 10V M		R1354	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C8483	QETN1EM-337Z	E CAPACITOR	330uF 25V M		R1355	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R1356	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J		R2516	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R1357	QRE141J-561Y	C RESISTOR	560Ω 1/4W J		R2517	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R1451	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J		R2601	QRE141J-151Y	C RESISTOR	150Ω 1/4W J	
R1452	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J		R2602	QRE141J-124Y	C RESISTOR	120kΩ 1/4W J	
△ R1453	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J		R2603	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R1501	QRE141J-393Y	C RESISTOR	39kΩ 1/4W J		R2604	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
R1502	QRE141J-124Y	C RESISTOR	120kΩ 1/4W J		R2605	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R1503	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R8101	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R1504	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J		R8102	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R1505	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J		R8103	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R1511	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J		R8104	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R1512	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R8151	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R1513	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J		R8152	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R1514	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J		R8171	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R1515	QRE141J-220Y	C RESISTOR	22Ω 1/4W J		R8172	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R1516	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R8173	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R1517	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J		R8251	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R1601	QRE141J-151Y	C RESISTOR	150Ω 1/4W J		R8252	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R1602	QRE141J-124Y	C RESISTOR	120kΩ 1/4W J		R8253	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R1603	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R8255	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R1604	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J		R8351	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J	
R1605	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J		△ R8352	QRJ146J-470X	UNF C RESISTOR	47Ω 1/4W J	
R2101	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J		△ R8353	QRJ146J-470X	UNF C RESISTOR	47Ω 1/4W J	
R2102	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		R8354	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R2104	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J		R8355	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J	
R2105	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J		R8451	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R2106	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		R8452	QRE141J-362Y	C RESISTOR	3.6kΩ 1/4W J	
R2107	QRE141J-202Y	C RESISTOR	2kΩ 1/4W J		R8453	QRE141J-302Y	C RESISTOR	3kΩ 1/4W J	
R2108	QRE141J-362Y	C RESISTOR	3.6kΩ 1/4W J		R8471	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R2109	QRE141J-150Y	C RESISTOR	15Ω 1/4W J		R8472	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R2110	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J		R8473	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R2111	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J		R8474	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R2152	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		R8475	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R2154	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J		R8481	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2155	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J		△ R8482	QRZ9005-150X	FUSI RESISTOR	15Ω	
R2158	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		R8483	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R2159	QRE141J-150Y	C RESISTOR	15Ω 1/4W J		R8484	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R2160	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J		R8485	QRE141J-471Y	C RESISTOR	47kΩ 1/4W J	
R2161	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J		R8486	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
R2165	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J		R8491	QRJ146J-6R8X	UNF C RESISTOR	6.8Ω 1/4W J	
R2251	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		R8492	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J	
R2252	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J		R8493	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J	
R2253	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J		R8501	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2254	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J		R8502	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J	
R2255	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J		R8503	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2256	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J		R8504	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2257	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J		R8505	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2258	QRE141J-181Y	C RESISTOR	180Ω 1/4W J		R8513	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R2259	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J		R8514	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2261	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J		R8515	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R2262	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J		R8516	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R2263	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J		VR111	QVP0004-104Z	TRIM RESISTOR	100kΩ	
R2264	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J		VR112	QVP0004-101Z	TRIM RESISTOR	100Ω	
R2265	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J		VR116	QVP0004-104Z	TRIM RESISTOR	100kΩ	
R2266	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J		VR117	QVP0004-101Z	TRIM RESISTOR	100Ω	
R2267	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J		VR126	QVP0004-203Z	TRIM RESISTOR	20kΩ	
R2270	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J		VR146	QVP0004-203Z	TRIM RESISTOR	20kΩ	
R2273	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		VR211	QVP0004-104Z	TRIM RESISTOR	100kΩ	
R2351	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J		VR212	QVP0004-101Z	TRIM RESISTOR	100Ω	
R2352	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		VR216	QVP0004-104Z	TRIM RESISTOR	100kΩ	
R2353	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		VR217	QVP0004-101Z	TRIM RESISTOR	100Ω	
R2354	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		VR226	QVP0004-203Z	TRIM RESISTOR	20kΩ	
R2355	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J		VR246	QVP0004-203Z	TRIM RESISTOR	20kΩ	
R2356	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J		L1251	QQL30BJ-183Z	COIL	18mH J	
R2357	QRE141J-561Y	C RESISTOR	560Ω 1/4W J		L1252	QQL30BJ-472Z	COIL	4.7mH J	
R2451	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J		L1351	QQR0879-001	FILTER		
R2452	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J		L1401	QQR0847-001	OSC COIL(BIAS)		
△ R2453	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J		L2251	QQL30BJ-183Z	COIL	18mH J	
R2501	QRE141J-393Y	C RESISTOR	39kΩ 1/4W J		L2252	QQL30BJ-472Z	COIL	4.7mH J	
R2502	QRE141J-124Y	C RESISTOR	120kΩ 1/4W J		L2351	QQR0879-001	FILTER		
R2503	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		L2401	QQR0847-001	OSC COIL(BIAS)		
R2504	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J		L8401	QQR0845-001	OSC COIL(BIAS)		
R2505	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J		CN801	QGF1205C1-06	CONNECTOR	FFC/FPC (1-6)	
R2511	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J		CN802	QGF1205C1-20	CONNECTOR	FFC/FPC (1-20)	
R2512	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		CN811	QGF1220F1-06	CONNECTOR	FFC/FPC (1-6)	
R2513	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J		CN815	QGF1220F1-06	CONNECTOR	FFC/FPC (1-6)	
R2514	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J						
R2515	QRE141J-220Y	C RESISTOR	22Ω 1/4W J						

△ Symbol No.	Part No.	Part Name	Description	Local
CN845	QGA2512C1-05Z	CONNECTOR	W-B (1-5)	
CN861	QGB2003L1-05	CONNECTOR	B-B (1-5)	
△ CN901	QGD2501C1-05Z	CONNECTOR	(1-5)	
△ HS901	VMH4011-201	HEAT SINK		
J701	QNS0073-001	JACK		
J8501	QNN0135-001	PIN JACK		
△ Z901	QNG0019-001Z	FUSE CLIP		
△ Z902	QNG0019-001Z	FUSE CLIP		
△ Z903	QNG0019-001Z	FUSE CLIP		
△ Z904	QNG0019-001Z	FUSE CLIP		

Sub board

Block No. [0][2][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local
IC701	MB88514B-1730T	IC		
IC731	BA6218	IC	Motor driver	
IC732	BA6218	IC	Motor driver	
IC733	TA8409S	IC	Motor driver	
IC734	TA8409S	IC	Motor driver	
Q701	KTC3199/GLJ-T	TRANSISTOR		
Q702	KTC3199/GLJ-T	TRANSISTOR		
Q703	KRA103M-T	TRANSISTOR		
Q704	KTC3199/GLJ-T	TRANSISTOR		
Q705	KTC3199/GLJ-T	TRANSISTOR		
Q706	KTC3199/GLJ-T	TRANSISTOR		
Q707	KTC3199/GLJ-T	TRANSISTOR		
Q708	KRC103M-T	TRANSISTOR		
Q709	KRC103M-T	TRANSISTOR		
Q710	KTC3199/GLJ-T	TRANSISTOR		
Q711	KTC3199/GLJ-T	TRANSISTOR		
Q712	KRC103M-T	TRANSISTOR		
Q740	2SA1175/HFE/-T	TRANSISTOR		
Q741	2SA1175/HFE/-T	TRANSISTOR		
Q742	2SA1175/HFE/-T	TRANSISTOR		
Q743	2SA1175/HFE/-T	TRANSISTOR		
Q744	KRC103M-T	TRANSISTOR		
Q745	KRC103M-T	TRANSISTOR		
Q751	KRC103M-T	TRANSISTOR		
Q752	KRC103M-T	TRANSISTOR		
D701	1SS133-T2	DIODE		
D702	1SS133-T2	DIODE		
D703	1SS133-T2	DIODE		
D704	1SS133-T2	DIODE		
D705	1SS133-T2	DIODE		
D706	1SS133-T2	DIODE		
D707	1SS133-T2	DIODE		
D708	1SS133-T2	DIODE		
D709	1SS133-T2	DIODE		
D710	1SS133-T2	DIODE		
D711	1SS133-T2	DIODE		
D712	1SS133-T2	DIODE		
D713	1SS133-T2	DIODE		
D715	1SS133-T2	DIODE		
D716	1SS133-T2	DIODE		
D717	1SS133-T2	DIODE		
D718	1SS133-T2	DIODE		
D719	1SS133-T2	DIODE		
D720	1SS133-T2	DIODE		
D721	1SS133-T2	DIODE		
D722	1SS133-T2	DIODE		
D723	1SS133-T2	DIODE		
D724	1SS133-T2	DIODE		
D741	SLR-56VC-T12	LED		
C701	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C702	QCBB1HK-471Y	C CAPACITOR	470pF 50V K	
C703	QCBB1HK-471Y	C CAPACITOR	470pF 50V K	
C706	QDXB1CM-472Y	C CAPACITOR	4700pF 16V M	
C731	QETN1EM-106Z	E CAPACITOR	10uF 25V M	
C733	QETN1EM-106Z	E CAPACITOR	10uF 25V M	

△ Symbol No.	Part No.	Part Name	Description	Local
C1601	QCF31HZ-223Z	C CAPACITOR	0.022uF 50V Z	
C2601	QCF31HZ-223Z	C CAPACITOR	0.022uF 50V Z	
R601	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R603	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J	
R604	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J	
R605	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R606	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J	
R607	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R608	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J	
R609	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R610	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R621	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R622	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R623	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J	
R624	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R625	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J	
R626	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R627	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J	
R628	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R651	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R652	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R653	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R654	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R655	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R656	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R657	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R658	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R659	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R660	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R661	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R662	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R663	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R664	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R665	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R666	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R667	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R668	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R669	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R670	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R671	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R672	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R673	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R701	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R702	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
R703	QRE141J-471Y	C RESISTOR	470Ω 1/4W J	
R704	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R705	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R706	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R707	QRE141J-471Y	C RESISTOR	470Ω 1/4W J	
R708	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J	
R709	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R710	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
R711	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R712	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R715	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R716	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R717	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R718	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
R719	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
R731	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
R732	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R733	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R734	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
R735	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R736	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J	
R740	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R741	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R742	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R743	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R745	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J	
R746	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R747	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R748	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R749	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R750	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J	
R751	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R752	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	

Symbol No.	Part No.	Part Name	Description	Local
R753	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
R754	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
△ R755	QRZ9031-4R7	FUSI RESISTOR	4.7Ω	
R756	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R761	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R762	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R764	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R765	QRE141J-151Y	C RESISTOR	150Ω 1/4W J	
R766	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
R767	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
R768	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
R769	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
R770	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R771	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R772	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R773	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R774	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R775	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R780	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R781	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R782	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R783	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R784	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R785	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R786	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
VR601	QVGA12B-V06	V RESISTOR		
VR701	QVP0077-103Z	TRIM RESISTOR	10kΩ	
VR702	QVP0077-203Z	TRIM RESISTOR	20kΩ	
VR703	QVP0077-103Z	TRIM RESISTOR	10kΩ	
VR704	QVP0077-203Z	TRIM RESISTOR	20kΩ	
CN601	QGF1205F1-06	CONNECTOR	FFC/FPC (1-6)	
CN602	QGF1205F1-06	CONNECTOR	FFC/FPC (1-6)	
CN603	QGG2002M2-06	CONNECTOR	(1-6)	
CN604	QGG2002M2-04	CONNECTOR	(1-4)	
CN613	QGB2012J1-06	CONNECTOR	B-B (1-6)	
CN614	QGB2012J1-04	CONNECTOR	B-B (1-4)	
CN701	QGF1205F1-20	CONNECTOR	FFC/FPC (1-20)	
CN702	QGF1205F1-06	CONNECTOR	FFC/FPC (1-6)	
CN711	QGB1219K1-08S	CONNECTOR	B-B (1-8)	
CN712	QGB1219K1-15S	CONNECTOR	B-B (1-15)	
CN721	QGB1219K1-08S	CONNECTOR	B-B (1-8)	
CN722	QGB1219K1-15S	CONNECTOR	B-B (1-15)	
CN862	QGB2003M2-05	CONNECTOR	B-B (1-5)	
DI701	QLF0024-001	FL TUBE		
J8601	QNS0092-001	JACK		
S601	QSW0698-001Z	TACT SW		
S602	QSW0698-001Z	TACT SW		
S603	QSS7A23-V03	SLIDE SW		
S604	QSW0698-001Z	TACT SW		
S605	QSW0698-001Z	TACT SW		
S606	QSW0698-001Z	TACT SW		
S607	QSW0698-001Z	TACT SW		
S608	QSW0698-001Z	TACT SW		
S610	QSS7A23-V03	SLIDE SW		
S621	QSW0698-001Z	TACT SW		
S622	QSW0698-001Z	TACT SW		
S623	QSW0698-001Z	TACT SW		
S624	QSW0698-001Z	TACT SW		
S625	QSW0698-001Z	TACT SW		
S626	QSW0698-001Z	TACT SW		
S627	QSW0698-001Z	TACT SW		
S628	QSW0698-001Z	TACT SW		
S629	QSW0698-001Z	TACT SW		
S630	QSW0698-001Z	TACT SW		
X701	QAX0246-001Z	C RESONATOR	8.00MHz	
Z701	VYH3844-003	FL HOLDER		

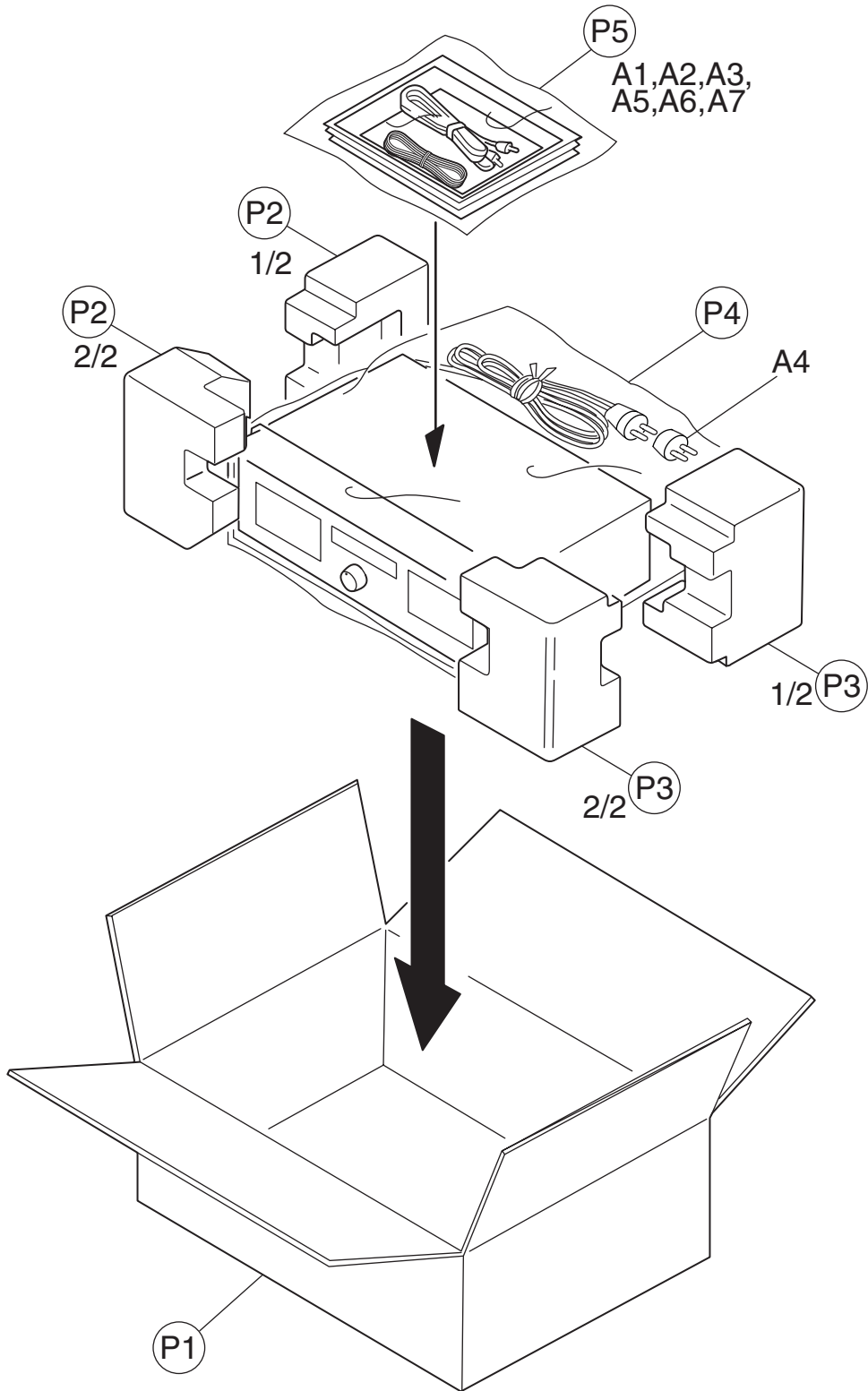
Trans board

Block No. [0][3][0][0]

Symbol No.	Part No.	Part Name	Description	Local
△ C900	QCZ9105-472	C CAPACITOR	4700pF 250V M	W271UF
C930	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
P1	QNZ0079-001Z	TAB		W271U
P1	QNZ0107-001	TAB		W271UF
P3	QNZ0079-001Z	TAB		W271U
P3	QNZ0107-001	TAB		W271UF
△ S901	QSW0632-001	PUSH SW.		W271UF
△ S902	QSW0838-001	VOLTAGE SWITCH		W271U
W3	QUB111-14PPPP	SIN TWIST WIRE		W271U
W3-3	QUB116-10PPPP	SIN TWIST WIRE		W271UF
△ Z905	QNG0003-001Z	FUSE CLIP		W271U
△ Z906	QNG0003-001Z	FUSE CLIP		W271U

Packing materials and accessories parts list

Block No. M 3 M M



Packing and accessories

Block No. [M][3][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
A 1	LVT1089-001B	INST BOOK	ENG	W271U
A 2	LVT1089-002A	INST BOOK	CHI	W271U
A 2	LVT1089-003A	INST BOOK	CHI(PEKIN)	W271UF
A 3	QAM0223-001	PLUG CORD		
△ A 4	QAM0027-002	CONVERSION PLUG		W271U
A 5	VMP0088-001JW	PIN CORD		
A 6	BT-59019-1	WARRANTY CARD		W271UF
A 7	BT-59021-1	SVC CENTER LIST		W271UF
P 1	LV34381-001A	CARTON BOX		
P 2	VPH2480-201	CUSHION (L)		
P 3	VPH2480-202	CUSHION (R)		
P 4	QPC06006015P	ENVELOPE	60cm x 60cm	
P 5	VPE3005-007	POLY BAG		