

In compliance with Federal Regulations, following are reproduction of labels on, or inside the product relating to laser product safety.

KENWOOD-Crop. certifies this equipment conforms to DHHS Regulations No.21 CFR 1040. 10, Chapter 1, subchapter J.

DANGER : Laser radiation when open and interlock defeated.
AVOID DIRECT EXPOSURE TO BEAM.

Caution : No connection of ground line if disassemble the unit. Please connect the ground line on rear panel, PCBs, Chassis and some others.

NOTE : Please use the remote controller for self-diagnosis.



CONTENTS / ACCESSORIES

Contents

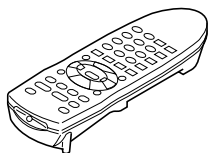
CONTENTS / ACCESSORIES	2	WIRING DIAGRAM	23
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Note: There is different part in this manual as compared with a usual one because we use OEM factory's data.

On "Circuit description", "Lubrication" and "Abbreviation of Logo", please refer to DV-303 service manual (B51-5561-00 or B51-5583-00)

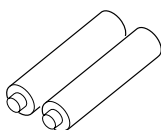
Accessories

Remote control unit 1
(A70-1444-08)

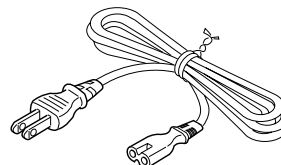


Battery cover (A09-1193-08)

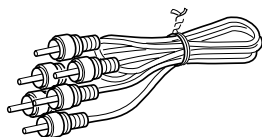
Batteries 2
for remote control unit [size "AA"]



AC cord 1
(E30-2937-08)



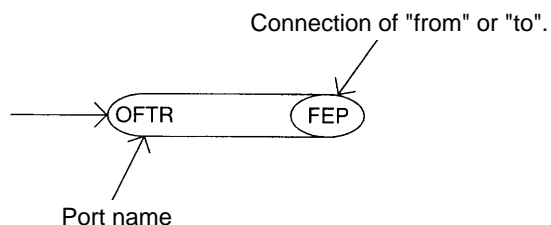
Video/audio cable 1
(E30-2938-08)



Digital cord 1
(B19-1615-08)



How to read the schematic diagram

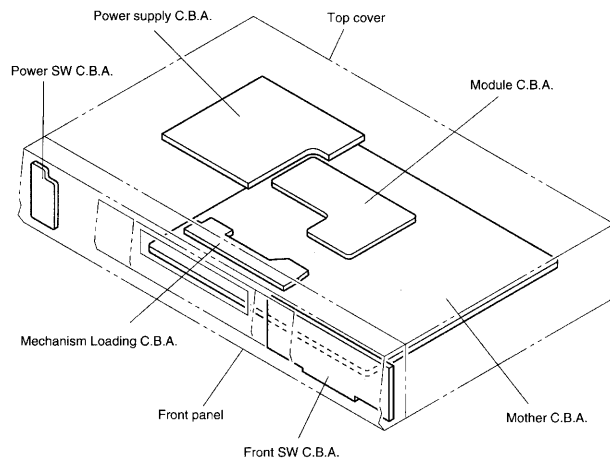


- There are some destinations in this schematic.

DISASSEMBLY FOR REPAIR

1. Assembling and Disassembling the Casing and Checking C.B.A.s

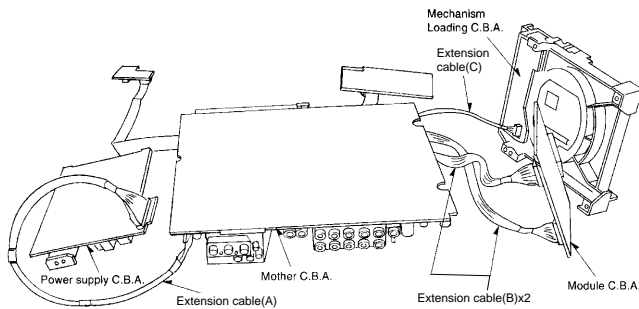
1-1 Casing Parts and C.B.A. Positions



1-2 Service Positions

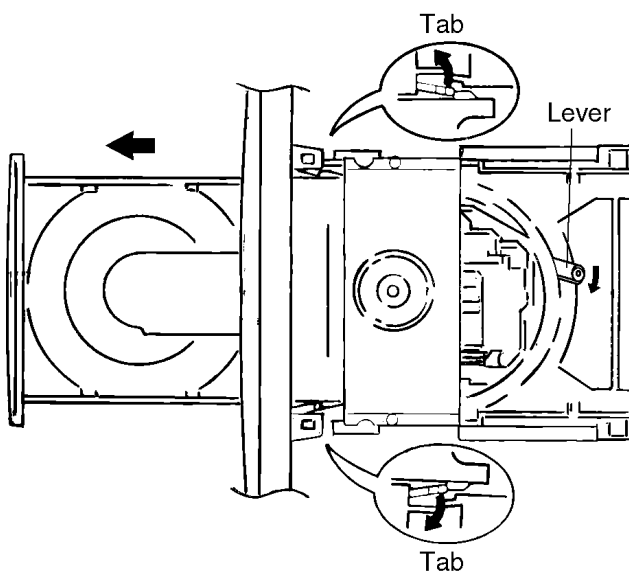
Note

To inspect the loading base unit, position the left side upward (as viewed from the front).



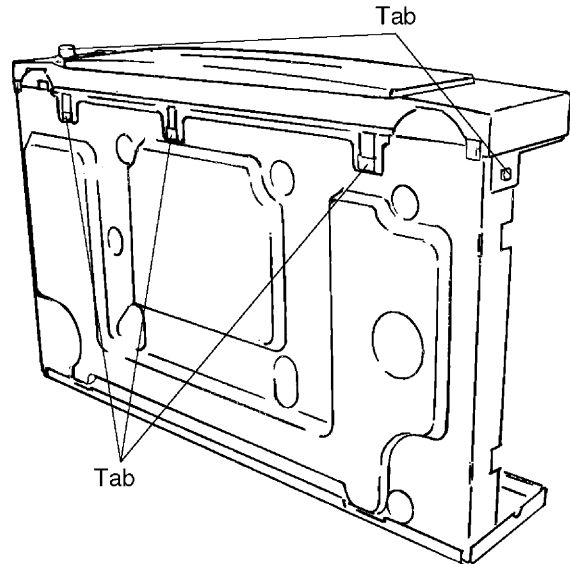
1-3 Disassembling the Tray

1. Turn the lever clockwise.
2. Move the tray in the direction of the arrow until it locks.
3. Release the tab locks on the left and right, then pull out the tray.

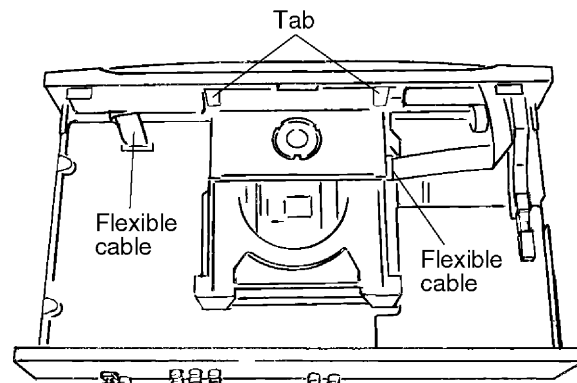


1-4 Disassembling the Front Panel

1. Release the 3 tabs on the bottom.
2. Release the 2 tabs on the left and right.



3. Release the 2 tabs.
4. Disconnect the 2 flexible cables.

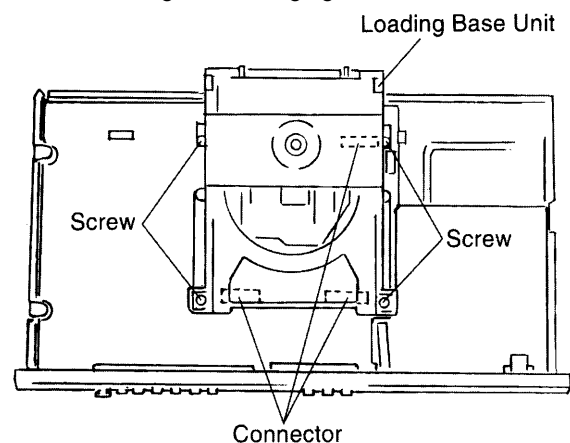


1-5 Disassembling the Loading Base Unit

1. Remove the 4 screws.
2. Pull out the loading base unit vertically.

Note

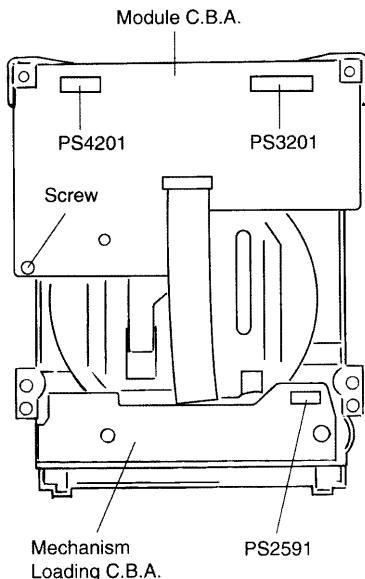
There is a danger of damaging the connectors.



DISASSEMBLY FOR REPAIR

1-6 Checking the Module C.B.A.

1. Remove the screws.

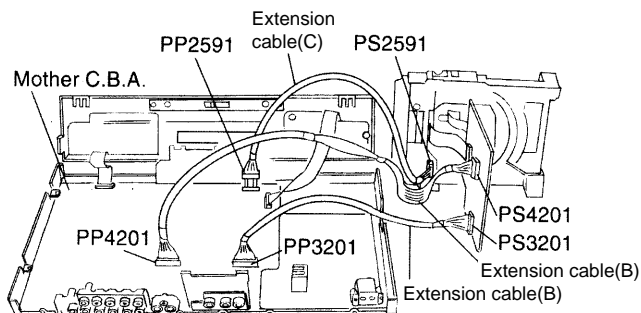


2. Connect the module C.B.A. to the mother C.B.A. with the extension cables for inspection.

- Extension cable (B)x2
Mother C.B.A. Module C.B.A.
PP4201-PS4201
PP3201-PS3201

3. Connect the mechanism loading C.B.A. to the mother C.B.A. with the extension cable: for inspection.

- Extension cable(C)
Mother C.B.A. Mechanism Loading C.B.A.
PP2591-PS2591

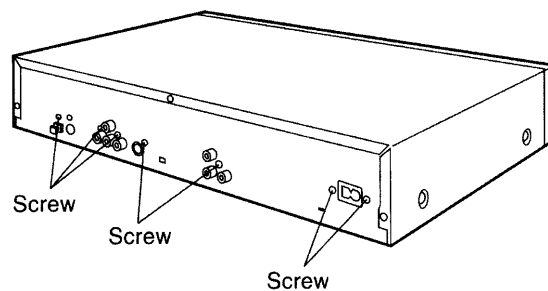


Note

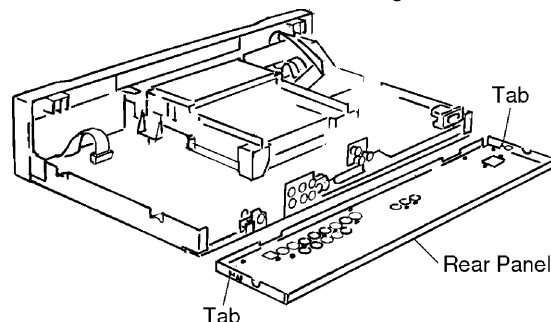
Be sure to initialize the player whenever you replace a C.B.A. (Refer to page17/4-1 Initializing the DVD Player.)

1-7 Disassembling the Rear Panel,

1. Remove all of the screws connected to the rear panel.
(The number of screws varies according to the model).

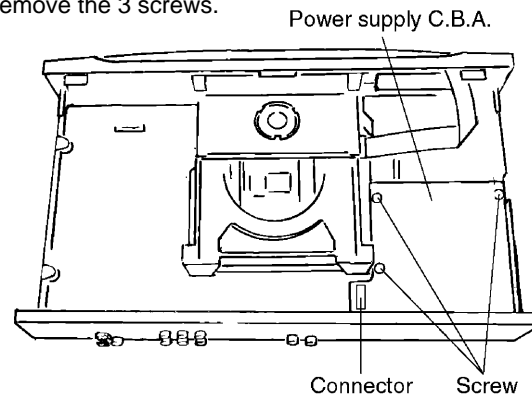


2. Release the two tabs on the left and right.



1-8 Checking the Power Supply C.B.A.

1. Remove the 3 screws.



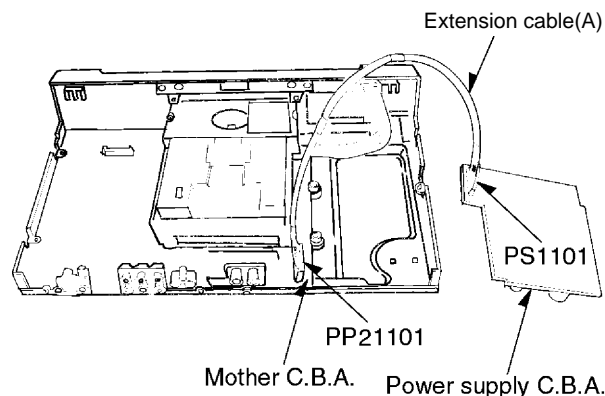
2. Carefully pull out the power supply C.B.A.

Note

There is a danger of damaging the connectors.

3. Connect the power supply C.B.A. and the mother C.B.A. with the extension cable for inspection.

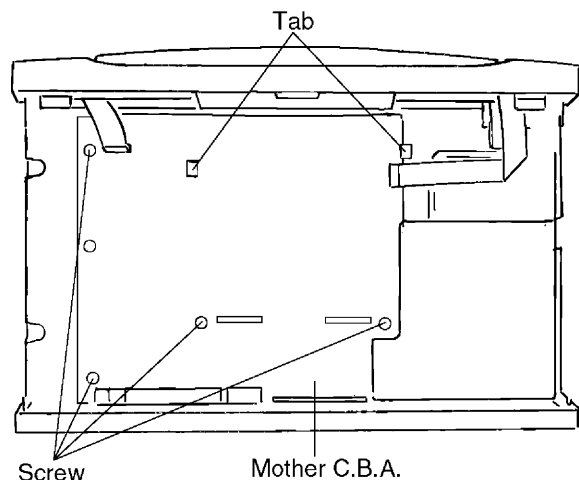
- Extension cable(A) (connects the power supply C.B.A. PS1101 and the mother C.B.A. PP1101)



DISASSEMBLY FOR REPAIR

1-9 Checking the Mother C.B.A.

1. Remove the 4 screws.
2. Release the 2 tabs.



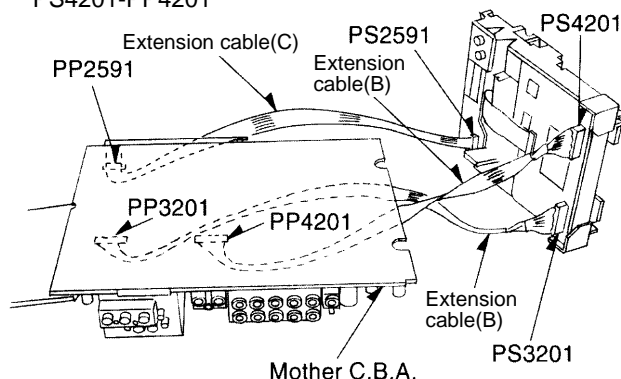
3. Checked by connecting the module C.B.A. and the mother C.B.A. with the extension cables.

Extension cable (B)x2

Module C.B.A. Mother C.B.A.

PS3201-PP3201

PS4201-PP4201



4. Checked by connecting the mechanism loading C.B.A. and the mother C.B.A. with the extension cables.

Extension cable(C)

Mechanism Loading C.B.A. Mother C.B.A.

PS2591-PP4201

Note

Be sure to initialize the player whenever you replace a C.B.A. (Refer to page17/4-1, Initializing the DVD player.)

2. Assembling and Disassembling the Optical Pickup (Mechanical Parts)

The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

2-1 Handling the Optical Pickup

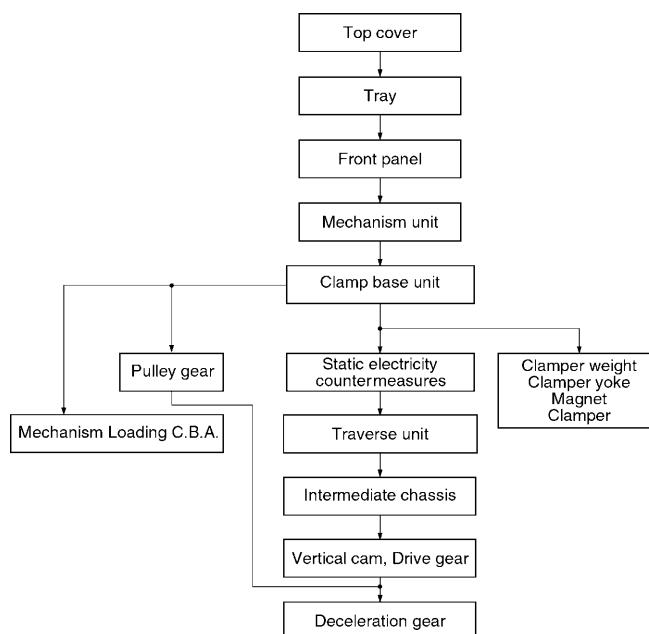
The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

1. The optical pickup is an extremely high-precision mechanism. Do not subject it to strong impact.
2. To preserve the quality of the optical pickup replacement parts during transport and installation, the terminals of the laser diode are short-circuited. After replacing the parts, use the proper procedure to return the laser diode to its original condition. (Refer to page8/2-11 Assembling the Optical Pickup.)
3. Testers cannot be used to check the laser diode of the optical pickup. The power supply inside the tester can easily damage the laser diode.
4. Take care when handling the flexible cable because excessive force can cause it to break.
5. You cannot adjust the semifixed resistor for laser power adjustment. Do not turn it.

2-2 Disassembly Procedure

Use the following procedure to replace major parts.

For the assembly procedure, follow the flow chart in reverse.



DISASSEMBLY FOR REPAIR

2-3 Static Electricity Countermeasures

The laser diode inside the traverse unit (optical pickup) can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

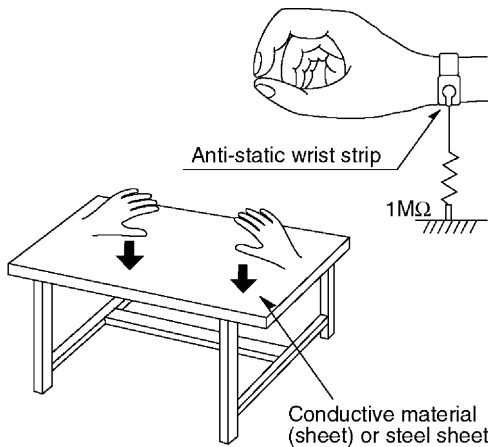
2-3-1 Static Electricity Countermeasure Methods

1. Ground yourself

Use an anti-static wrist strap to discharge static electricity from your body.

2. Ground the workbench

Lay a conductive material (sheet) or steel sheet on the surface where the traverse unit (optical pickup) is to be placed, then ground the sheet.

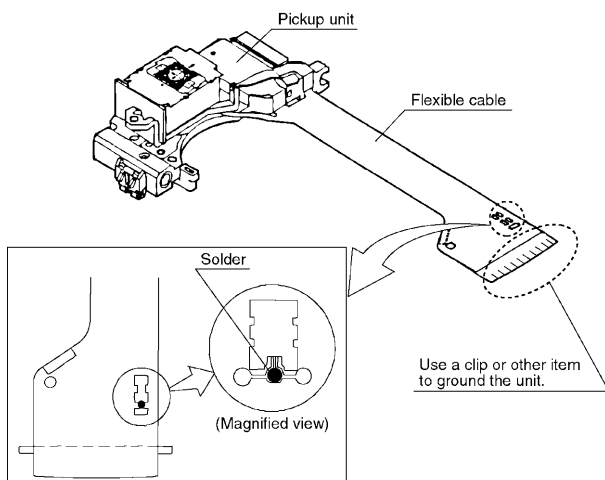


2-3-2 Short-circuit the laser diode

Solder the land in the flexible cable of the optical pickup.

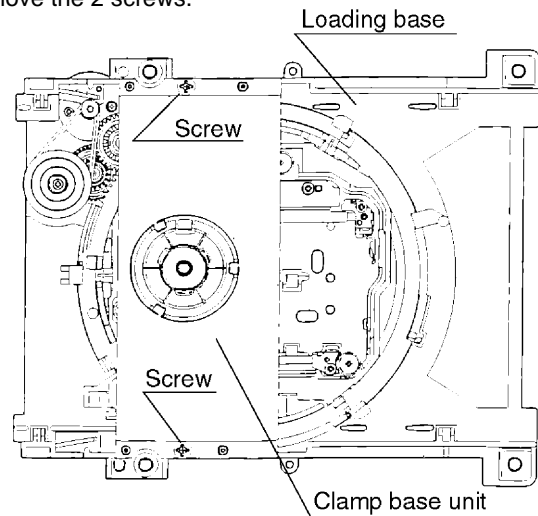
Notes

- Be sure to do this before disconnecting the flexible cable of the optical pickup from the module C.B.A.
- Use an anti-static soldering iron to short-circuit and unshort-circuit laser diode.
(Recommended soldering iron: Hakko with ESD countermeasure)
- After you have finished repairing the laser diode, follow the correct procedure to remove the solder from the short-circuit location. (Refer to page 5/2. Assembling and Disassembling the Optical Pickup (Mechanical Parts).)



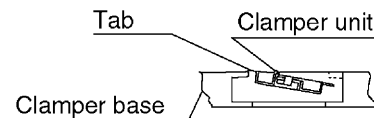
2-4 Disassembling the Clamp Base Unit

Remove the 2 screws.

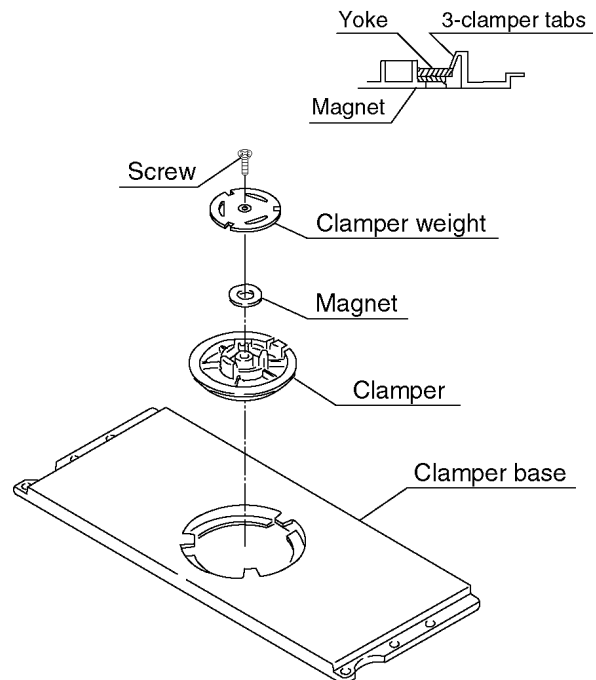


2-5 Disassembling the Clamper Weight, Clamper Yoke, Magnet and Clamper

1. Release the tab, and pull out the clamper.



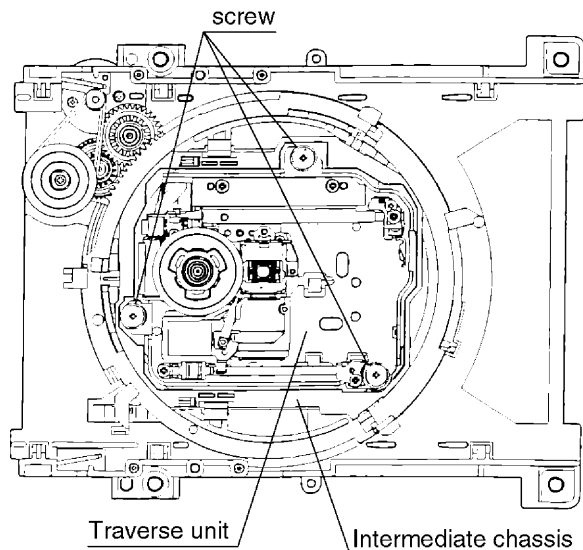
2. Release the 3 tabs on the clamper.



DISASSEMBLY FOR REPAIR

2-6 Disassembling the Traverse Unit

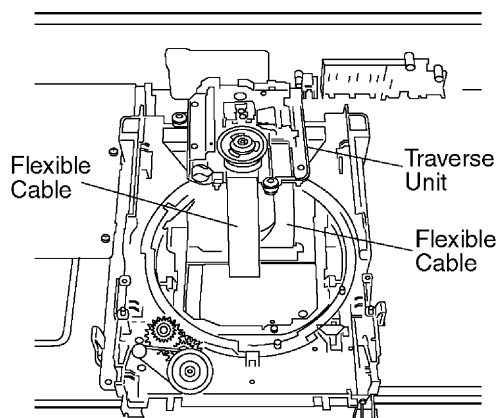
1. Remove the 3 screws.



Note

Be sure to take static electricity countermeasures before disconnecting the flexible cable. (Refer to page 6/2-3 Static Electricity Countermeasures.)

2. Disconnect the 2 flexible cables.

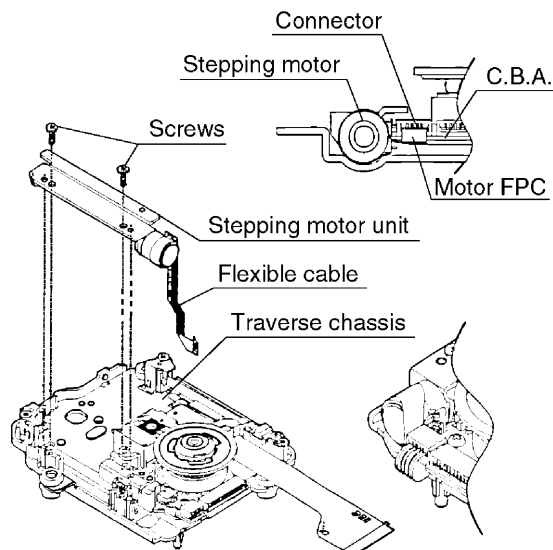


2-7 Disassembling the Stepping Motor Unit

1. Disconnect the flexible cable.
2. Remove the 2 screws.

Note

Take care when handling the flexible cable because it can be broken by excessive force.



2-8 Disassembling the Optical Pickup Unit

1. Remove the screw.
2. Release the tab, then remove spring holder 1.

Note

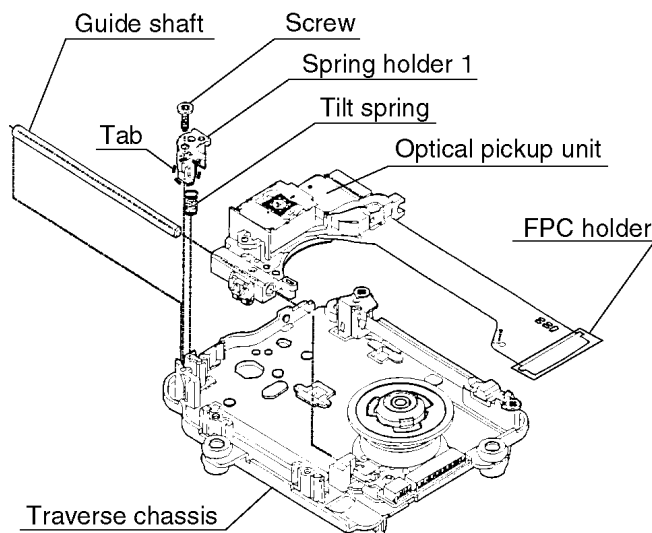
Be sure not to lose the spring.

3. Remove the guide shaft.

Note

Be sure to adjust the optical pickup tilt after replacing the optical pickup.

(Refer to page 9/2-13 Optical Pickup Tilt Adjustment.)



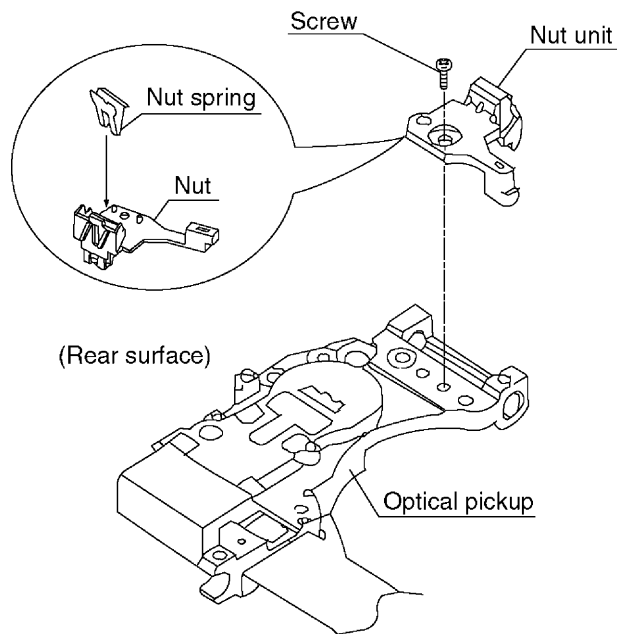
DISASSEMBLY FOR REPAIR

2-9 Disassembling the Nut Unit

1. Remove the screw.

Notes

- The nut unit is not part of the optical pickup.
- Before replacing the optical pickup, remove the nut unit for use with the new optical pickup.
- After installation, use screw lock to lock the screw in position.
- When reassembling, use screw lock to lock the screw in position after attaching it.

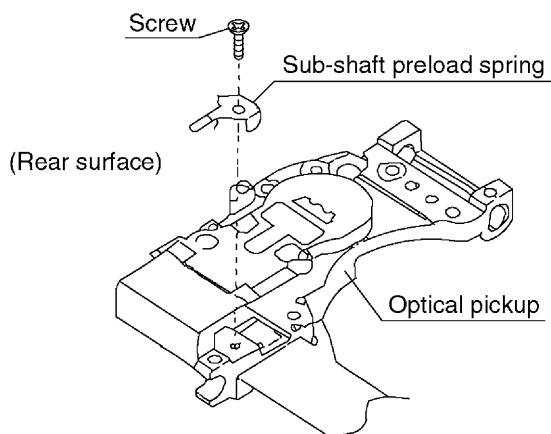


2-10 Disassembling the Sub-Shaft Preload Spring

1. Remove the screw.

Notes

- Handle the sub-shaft preload spring carefully because the shape of the tip is easily deformed.
- The sub-shaft preload spring is not part of the optical pickup. Before replacing the optical pickup, remove the sub-shaft preload spring for use with the new optical pickup.
- After installation, use screw lock to lock the screw in position.

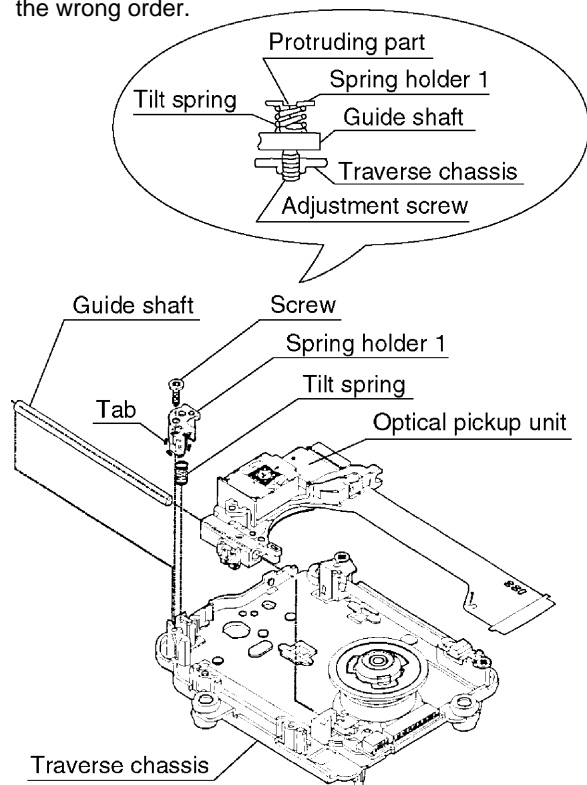


2-11 Assembling the Optical Pickup

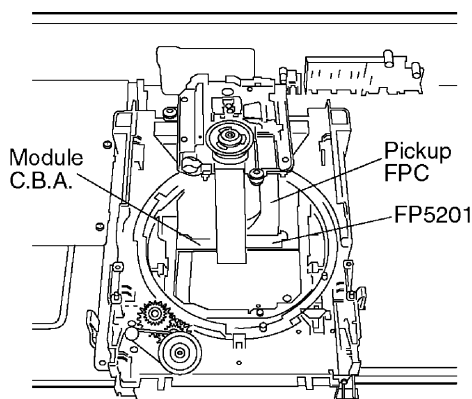
1. Install the optical pickup.

Note

Take care not to attach the tilt spring and guide shaft in the wrong order.

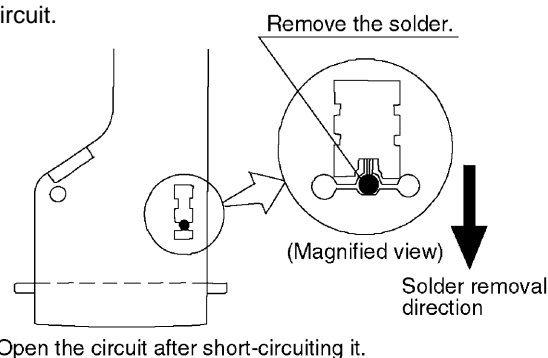


2. Insert the pickup FPC into connector FP5201 on the module C.B.A.



DISASSEMBLY FOR REPAIR

3. Remove the solder from the pickup FPC's soldered short-circuit.



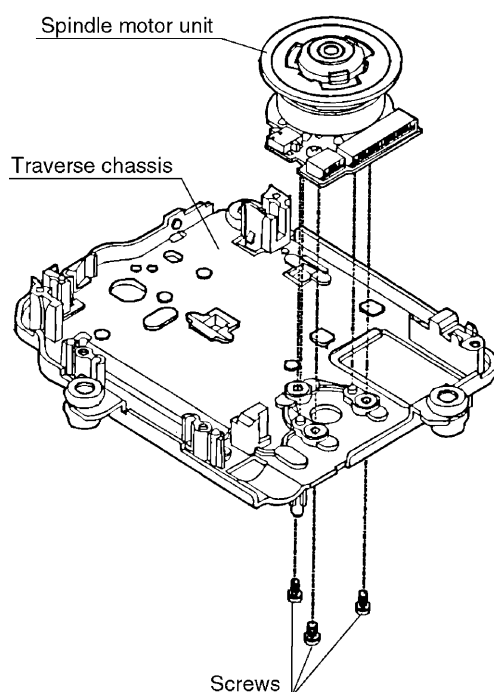
4. Adjust the optical pickup tilt after removing the solder.
(Refer to page 9/2-13 Optical Pickup Tilt Adjustment.)

2-12 Disassembling the Spindle Motor Unit

1. Remove the three screws.

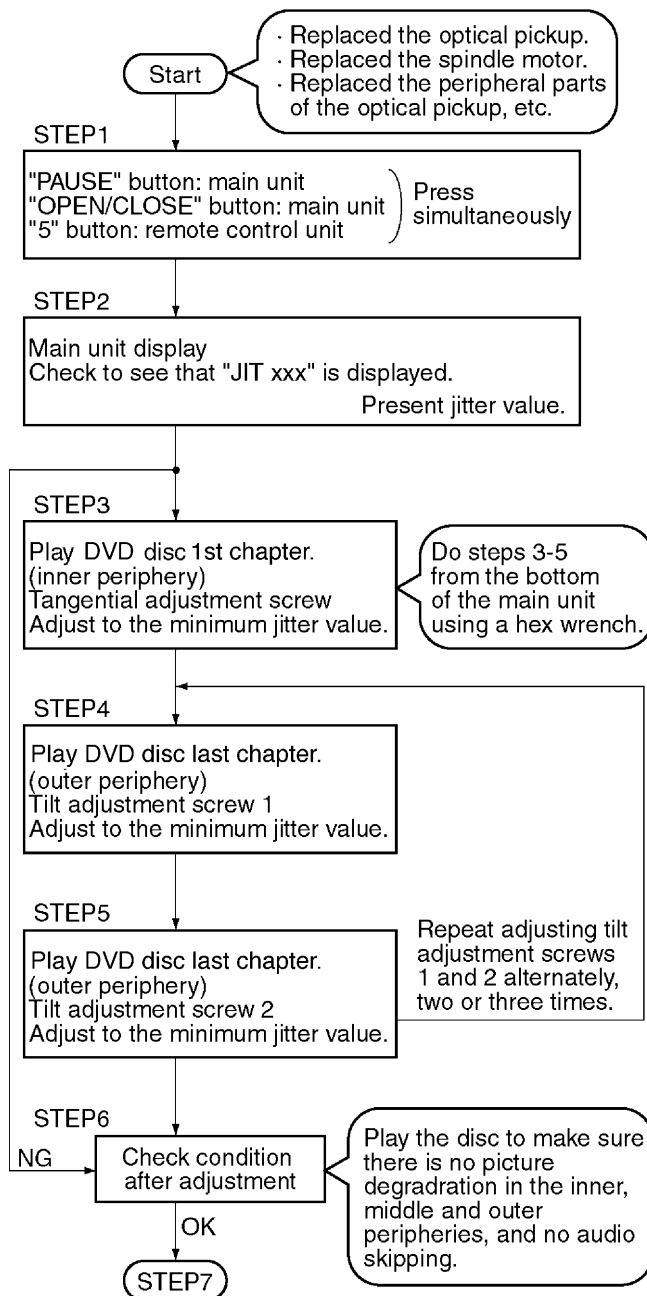
Note

Be sure to adjust the optical pickup tilt after replacing the spindle motor unit.

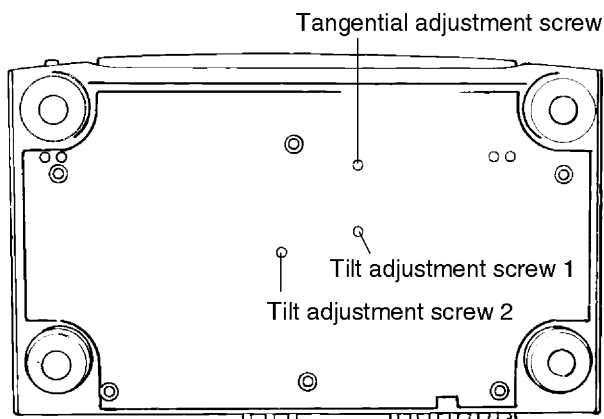
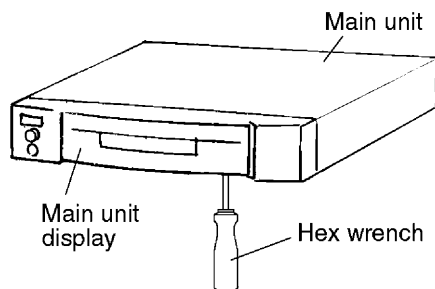


2-13 Optical Pickup Tilt Adjustment

Measurement point	Adjustment point	Mode	Disc
Main unit service display	Tangential adjustment screw Tilt adjustment screw	(inner periphery) play (outer periphery) play	DVD-disc
Measuring equipment, tools		Adjustment value	
Hex wrench Screw lock		Adjust to the minimum jitter value.	



DISASSEMBLY FOR REPAIR



STEP6

STEP7

Pull out the traverse unit.
(Refer to disassembly procedure
in this manual.)

Remove in the order
of top cover, tray
and clamber base.

STEP8

Lock the adjustment screw in
position using screw lock

STEP9

Assemble the main unit.

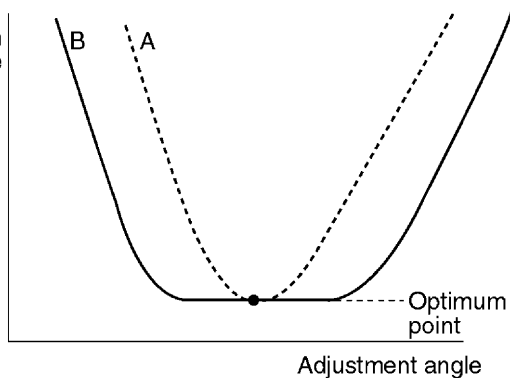
STEP10

Follow procedure
for handling
after repairs
are completed.

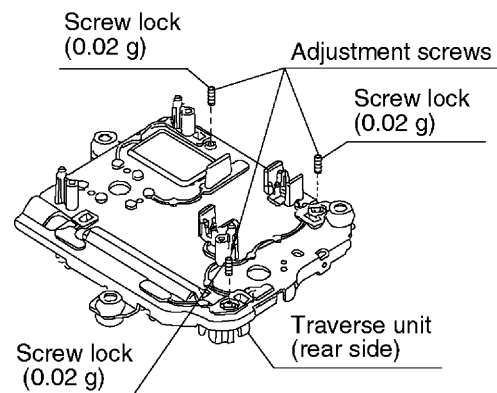
With the power supply turned on:
1. Use the OPEN/CLOSE
button to close the tray.
2. Use the POWER button
to turn off the power.
3. Disconnect the power plug
from the outlet.

End

Change in
jitter value



- Jitter value depends on the model:
- (1) If the jitter value changes like A, the optimum point is easy to find.
- (2) If the jitter value changes like B, set the optimum point near the middle.



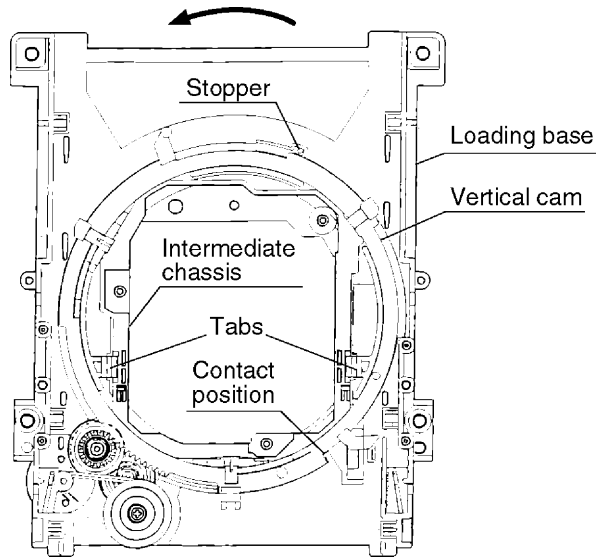
Notes

- Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, adjust if there is a noticeable degradation in picture quality.
- Optical adjustments cannot be made inside the optical pickup.
- Adjustment is generally unnecessary after replacing the traverse unit.

DISASSEMBLY FOR REPAIR

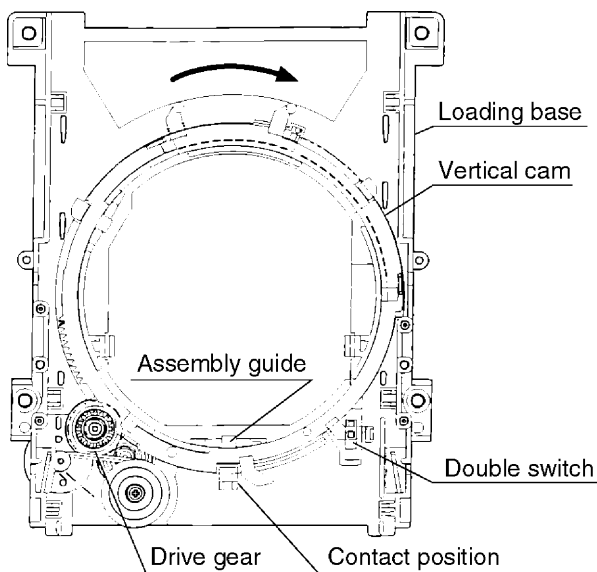
2-14 Disassembling the Intermediate Chassis

1. Push the stopper downward, then rotate it until it contacts the Vertical cam.
2. Release the 2 tabs.



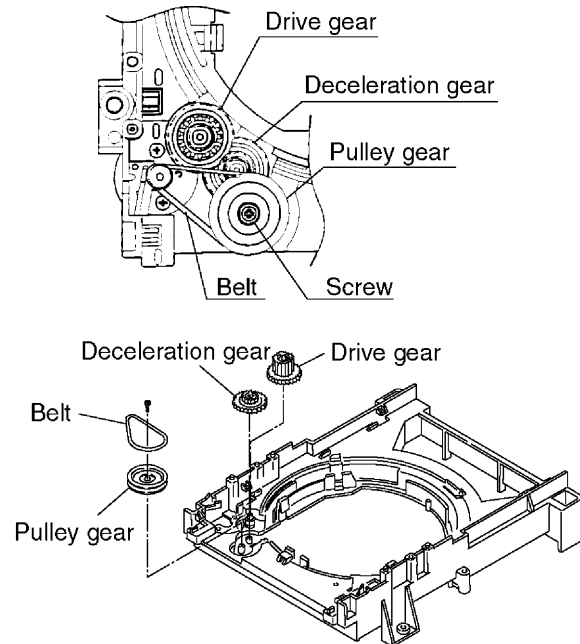
2-15 Disassembling the Vertical cam and Drive gear

1. Rotate the Vertical cam until it reaches the contact position.
2. Lift the Vertical cam straight upward to pull it out.
3. Remove the Drive gear.



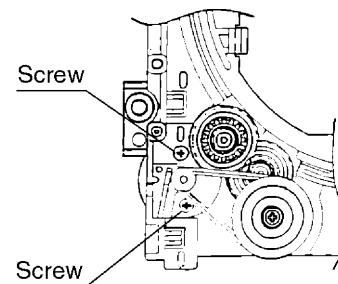
2-16 Disassembling the Pulley Gear and Deceleration Gear

1. Remove the screw.
2. Remove the pulley gear.
3. Remove the belt.
4. Remove the deceleration gear.

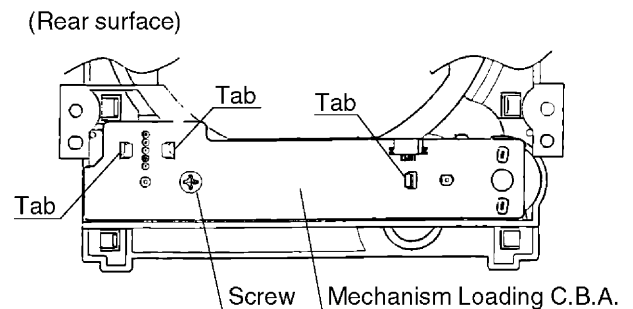


2-17 Disassembling the Mechanism Loading C.B.A.

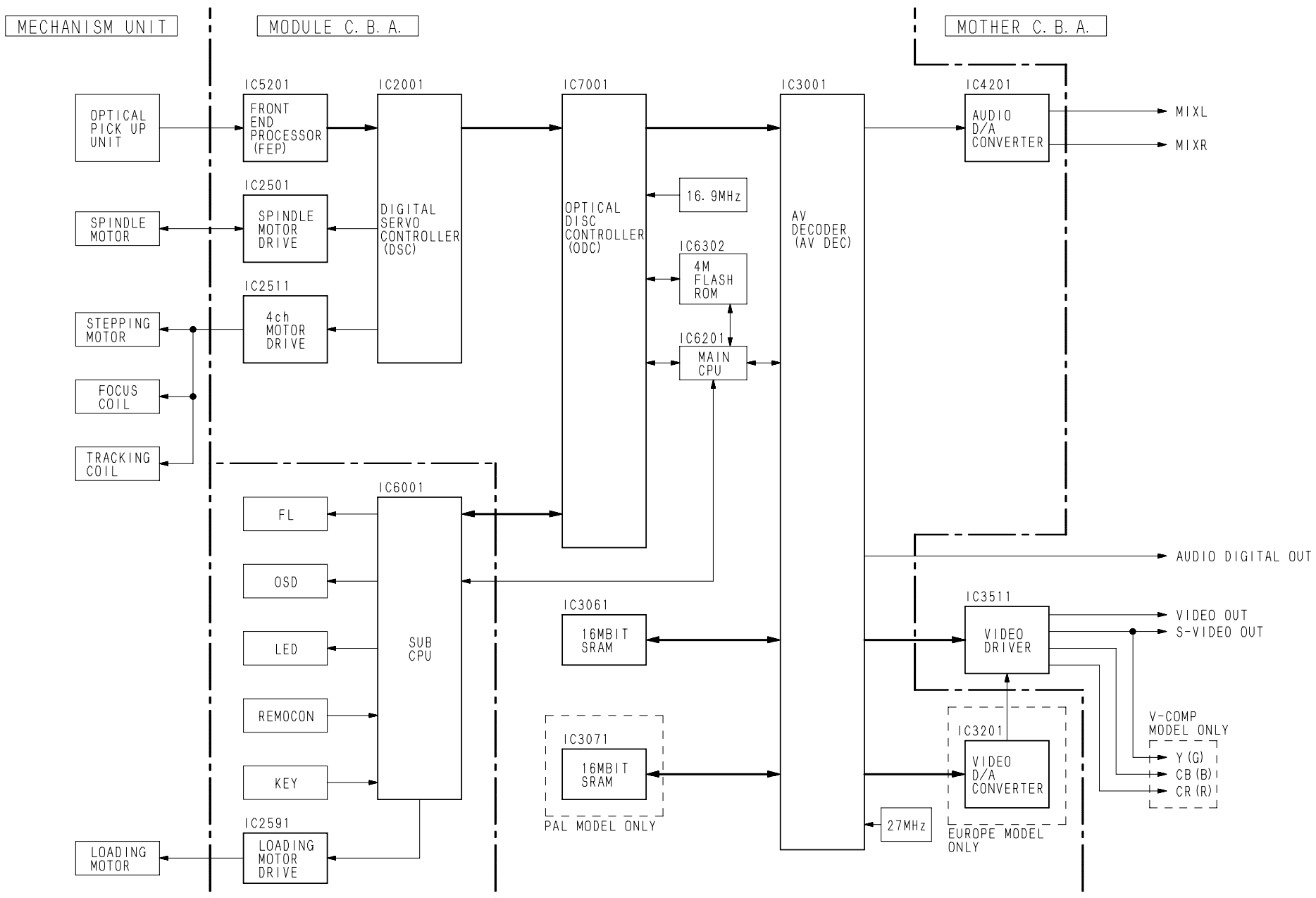
1. Remove the 2 screws.



2. Remove the 2 screws.
3. Release the three tabs.

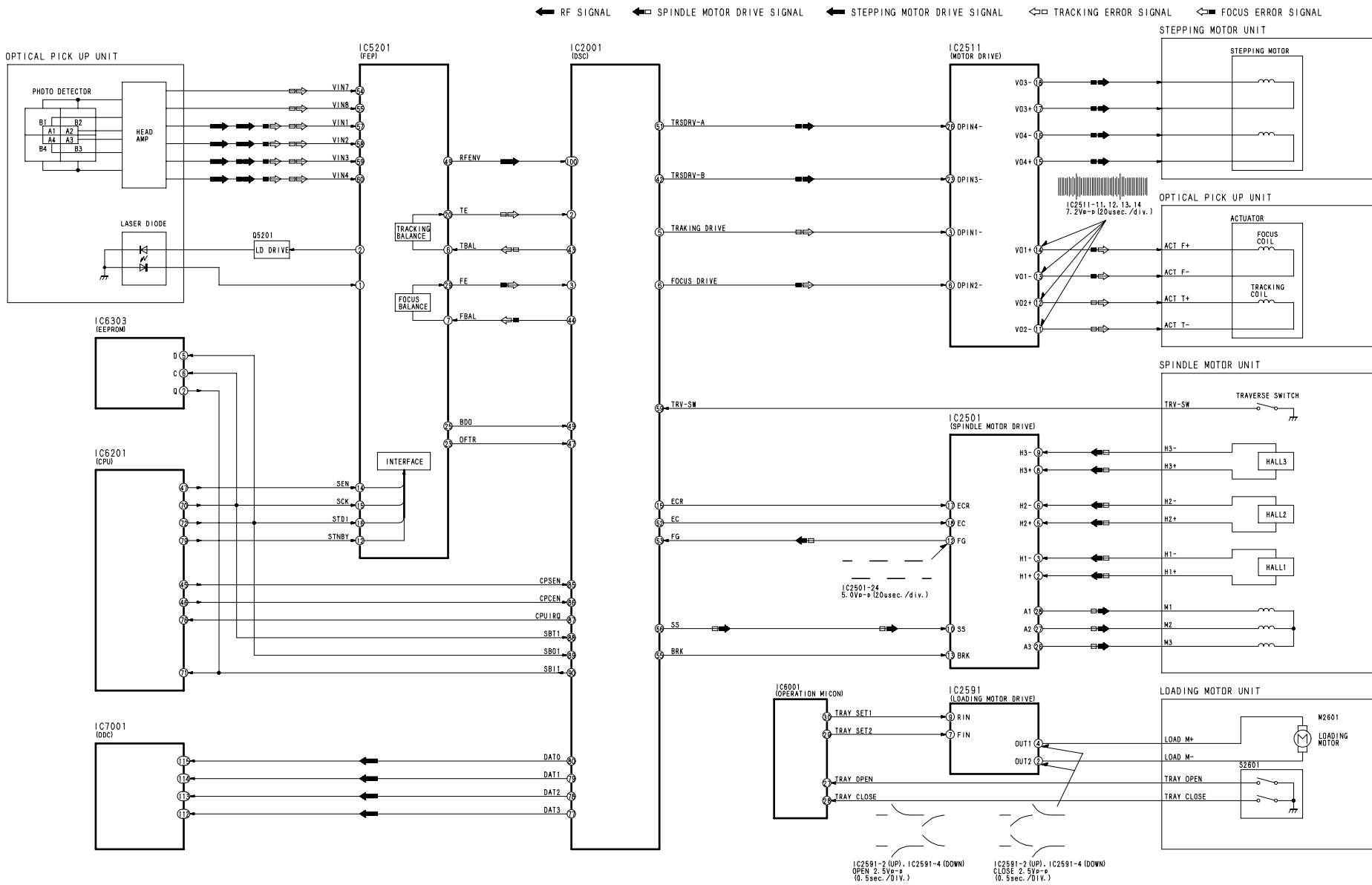


OVERAL BLOCK DIAGRAM

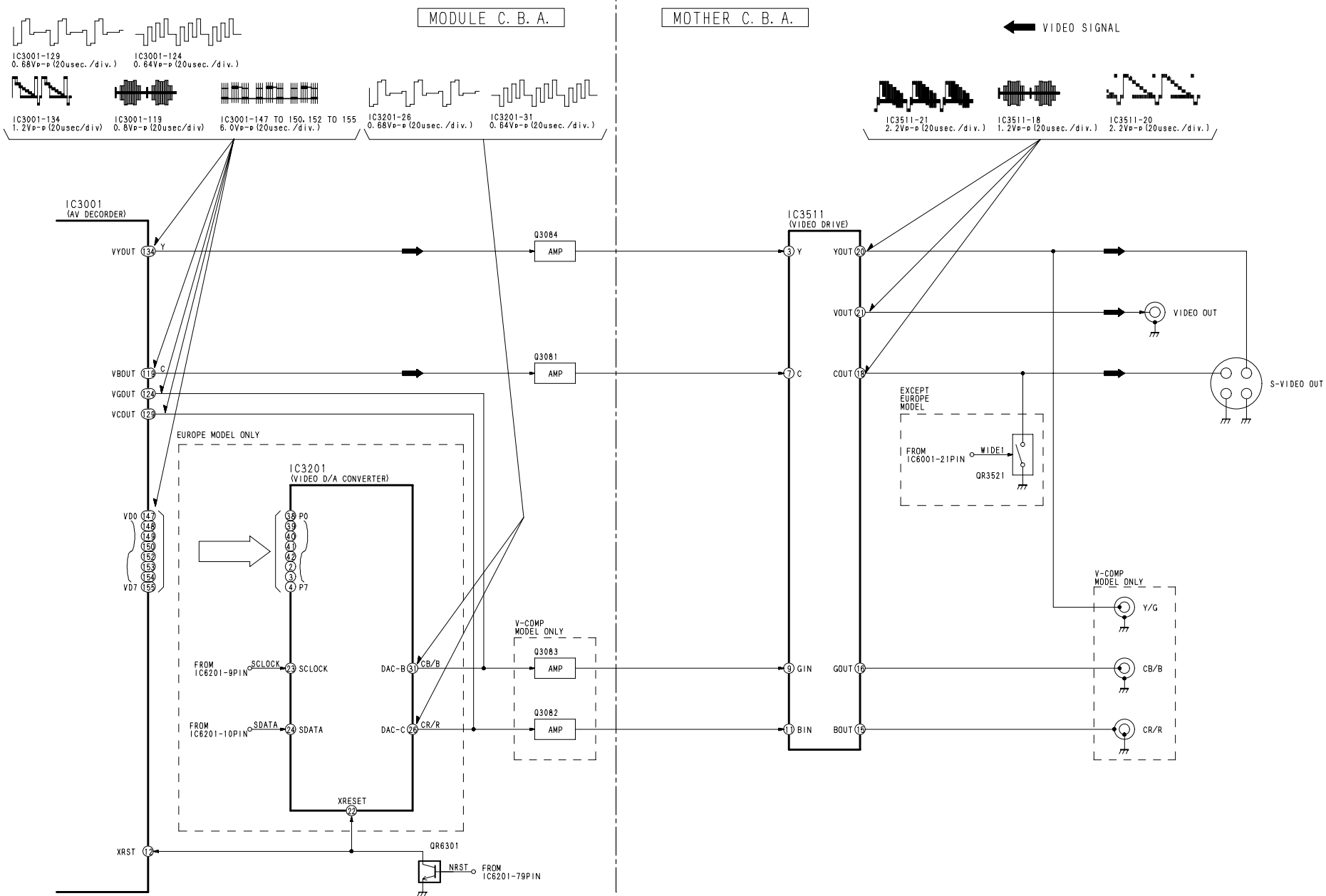


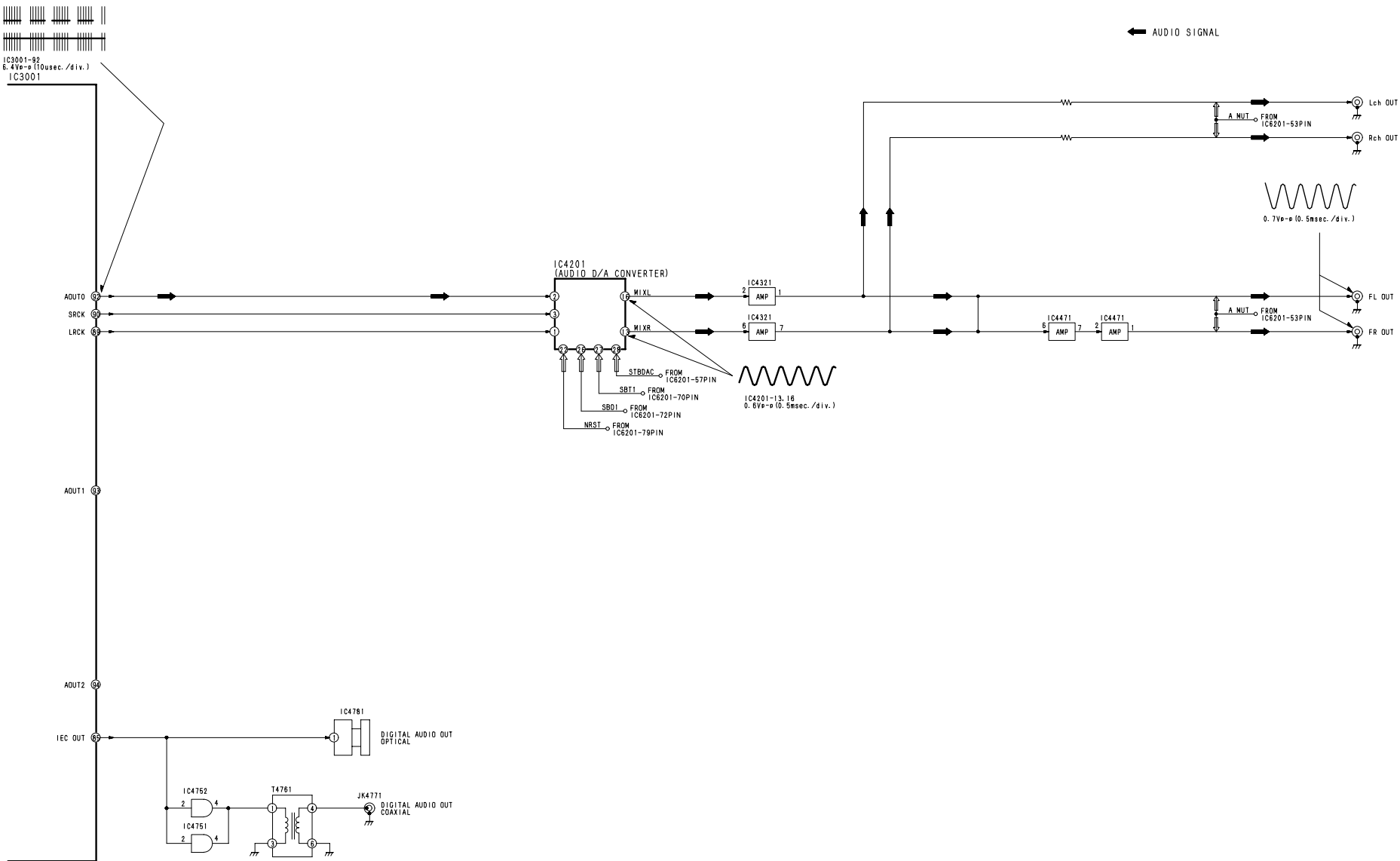
SERVO BLOCK DIAGRAM

DV-403



VIDEO BLOCK DIAGRAM





AUDIO BLOCK DIAGRAM

DV-403

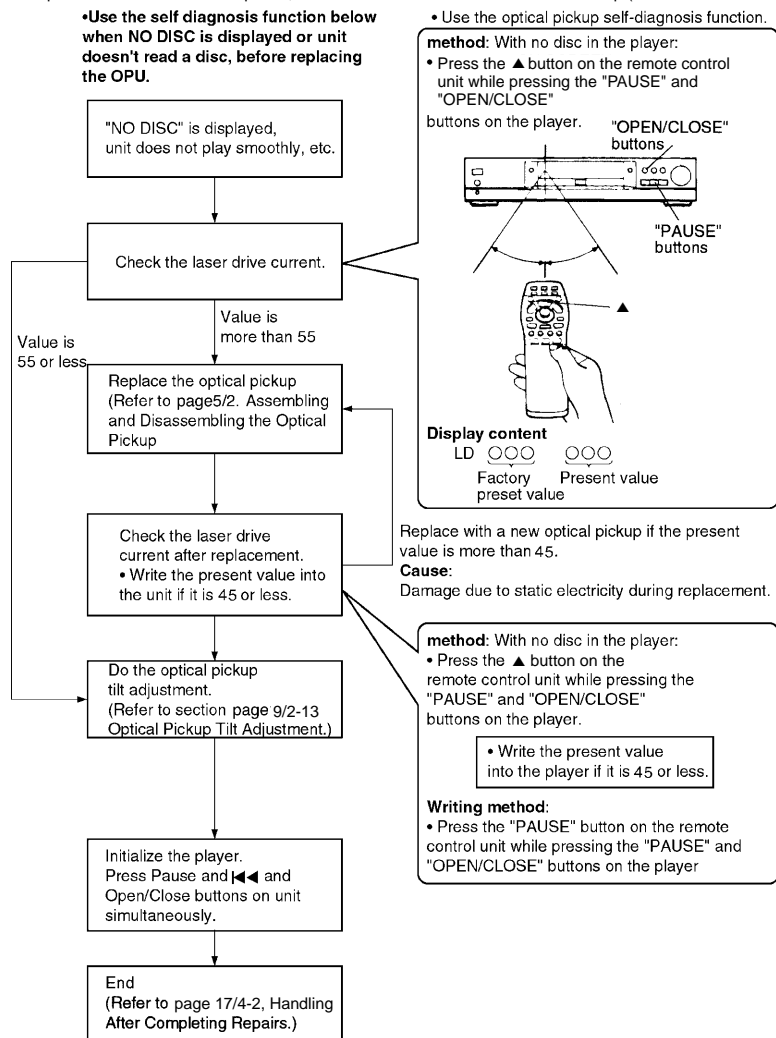
1. Optical Pickup Self-Diagnosis and Replacement Procedure

The optical pickup self-diagnosis function and tilt adjustment check function have been newly added to this player. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment.

Be sure to use the self-diagnosis function before replacing the optical pickup when "NO DISC" is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than 55.

Note

Press the power button to turn on the power, and check the value before the unit warms up (within three minutes).



2. Self-Diagnosis Function and Service Modes

2-1 Service Mode Table

The service modes can be activated by pressing various button combinations on the player and remote control unit.

Player buttons	Remote control unit buttons	Application	Note
	0	Displaying the UHF display F _ _ _	Refer to page16/2-2 Self-Diagnosis Function (UHF Display).
PAUSE + OPEN/CLOSE	5	Jitter check,Tilt adjustment *Jitter value is three digit. Three digit of right number XXX is not related to jitter value. JIT * * * XXX ↓ JITTER VALUE XXX.....Occurence number of internal read error which is inclement every time error happens. But this is not always reflected to picture/sound noise.	Refer to page 9/2-13 Optical Pickup Tilt Adjustment.
	6	Checking the region numbers and broadcast system	
	7	Checking the program version	Check the IC6302 FLASH ROM program.
	9	Lighting Confirmation Function of Display Tube	
	▲	Checking the laser drive current	Refer to page16/1 Optical Pickup Self-Diagnosis and Replacement Procedure.
	PAUSE	Writing the laser drive current value after replacing the optical pickup (do not use for anything other than optical pickup replacement)	Procedure
PAUSE ◀▶ OPEN/CLOSE		Initializing the DVD player (restoring factory preset settings) *Use when replacing a microprocessor, microprocessor peripheral parts, or C.B.A.	Refer to page17/4-1 Initializing the DVD Player

2-2 Self-Diagnosis Function (UHF Display)

This unit incorporates a convenient self-diagnosis function for use in troubleshooting.

Display method	Display	Diagnosis	Checkpoints
Service numbers displayed during use	Check the disc	Focus error	IC2001,IC2511,IC5201,pickup
	H01	Tray loading error	IC2001, IC2511, loading motor
	H02	Spindle servo error	Spindle motor, IC2501, IC2001
	H03	Traverse error	Stepping motor, IC2511, IC2001
	H04	Tracking servo error	IC2001, IC2501, IC5201, pickup, disc
	H05	Seek error	Stepping motor, IC2511, IC2001
	H06	Power supply error	IC1021, IC1121, IC1151, IC6001
Press the "0" button on the remote control unit while pressing the "PAUSE" and "OPEN/CLOSE" button on the player.	F0**	Disc format error	If this type of error occurs, refer to page17/2-4 Examples of Repairs Using Error Codes.
	F1**	Disc code error	
	F2**	Decoder LSI error	
	F3**	SDRAM error	
	F4**	IIC BUS error	
	F5**	DSC	
	F6**	ECC error	
	F7**	Microprocessor error	
	F8**	Microprocessor error	

2-3 Self-Diagnosis Display Function

When an error or trouble is detected during operation, a service number appears in the FL display.

When a service number appears, check out the details given below.

Service number	Player status	Remedy
Check the disc	Disc is dirty.	Wipe the disc clean.
H	Trouble is likely to have occurred. The number following "H" differs depending on the status of the player.	Press POWER to set the player to the standby mode and then back to ON. Alternatively, press POWER to set the player to the standby mode, disconnect the AC plug, and then re-connect it.
stands for a number.		

2-4 Examples of Repairs Using Error Codes

Refer to this section when carrying out repairs.

Error display	Malfunction example
F0**	Disc, IC7001
F103	Disc, IC7001
F4FF	IC6001
F500	Optical pickup, IC2001, IC5201, IC2511, IC2501
F501	IC2001, IC6201
F502	IC2501, IC2511, IC2001, IC5202
F504	IC5201, IC2001
F505	Disc, IC2501, IC2511, IC5201, IC2001
F506	Disc, Optical pickup, IC2001
F600	Disc, IC7001, IC5201, IC2001
F601	Disc, IC7001
F602	Disc, IC5201, IC2001
F603	Disc, IC5201, IC2001
F610	IC7001
F611	IC7001, IC5201, IC2001
F612	IC7001, IC15201, IC2001
F620	Laser drive circuit
F621	Laser drive circuit
F700	IC6201
F701	IC6201
F702	IC6201
F880	IC6201
F890	IC6201
F891	IC6201
F8A0	IC6201
F893	IC6302
F894	IC6303

2-5 Sales Demonstration Lock Function

This function prevents discs from being lost when the unit is used for sales demonstrations, by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

2-5-1 Setting Method

The sales demonstration lock function is set by simultaneously pressing the "POWER" button of DVD Player on the remote control unit and the "STOP" button on the main unit. ("LOCKED" is displayed when the lock function is engaged.)

2-5-2 Release Method

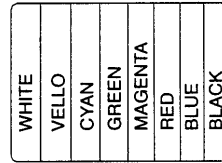
The function can be released using the same procedure as for setting. If the remote control unit is not at hand, the function can be released by using the same method as for player initialization (pressing the "PAUSE," "◀◀" and "OPEN/CLOSE" buttons simultaneously).

3. Service Tools and Equipment

3-1 Service Tools and Equipment Table

Application	Name	Number
General	DVD disc (Include the color bar 75%)	
Tilt adjustment	Hex wrench (ø1.27mm)	
Inspection	Extension cables (power supply C.B.A. to mother C.B.A.)	Extension cable(A)
	Extension cable (module C.B.A. to mother C.B.A.)	Extension cable(B)
	Extension cable (Mechanism loading C.B.A. to mother C.B.A.)	Extension cable(C)
Others	Screw lock	
	Grease	410-0013-05
Confirmation	CD disc	
	VCD disc	
Electrical adjustment	Oscilloscope	
	Probe	
	AV cable	
	TV monitor	
General	General tools (Screw driver. etc)	
Static electricity countermeasures	Soldering iron (with ESD countermeasure)	
	Anti-static wrist strap	
	Conductive material (conductive sheet)	

DVD disc (Include 75% color bar)



COLOR BAR (TV)

3-2 Storing and Handling DVD Discs

Surface precision is vital for DVD discs. Be sure to store and handle them carefully.

1. Do not place discs directly onto the workbench, etc., after use.
2. Handle discs carefully in order to maintain their flatness.
Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.
3. Accurate adjustment will not be possible if the disc is warped from being placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
4. If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.

4. Service Precautions

4-1 Initializing the DVD Player

Initialize the DVD player whenever you replace a microprocessor, microprocessor peripheral parts, module C.B.A or mother C.B.A.

4-1-1Precautions

The customer settings will return to factory preset settings when the player is initialized. Make a note of the settings and reset them after initializing.

When resetting, see the Initial Settings in the Operating Instructions.

4-1-2 Initialization Method

The player will be initialized (return to the factory preset condition) when you press the "PAUSE", "◀◀" and "OPEN/CLOSE" buttons simultaneously. When the DVD player is initialized, "All Clear" appears on screen, it also displays "INITIALIZE".

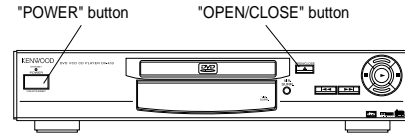
4-2 Handling After Completing Repairs

Use the following procedure to secure the traverse unit in the standby position.

4-2-1 Method

With the power turned on:

1. Press the "OPEN/CLOSE" button to close the tray.
2. Press the "POWER" button to the off the power.
3. Disconnect the power plug from the outlet.



4-2-2 Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually. If you were to do so, the traverse unit would not go to the upper (standby) position, and the player could not be transported.

ADJUSTMENT

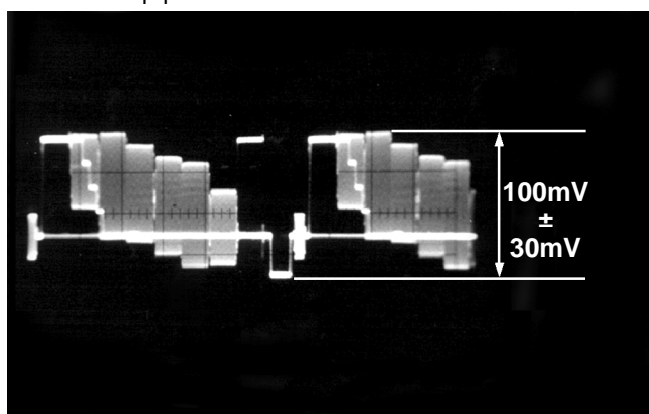
1. Video Output (Luminance Signal) Confirmation

Do this adjustment after replacng a C.B.A.

Measurement point	Mode	Disc
Video output terminal	Color bar 75%	DVD disc (Color bar 75%)
Measuring equipment, tools	Adjustment value	
Screwdriver, Oscilloscope 200mV/div, 10μsec/div	1000mVp-p±30mV	

Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the video output terminal and terminate at 75 ohms.
2. Comfirm that the luminance signal (Y+S) level becomes 1000 mVp-p±30 mV.



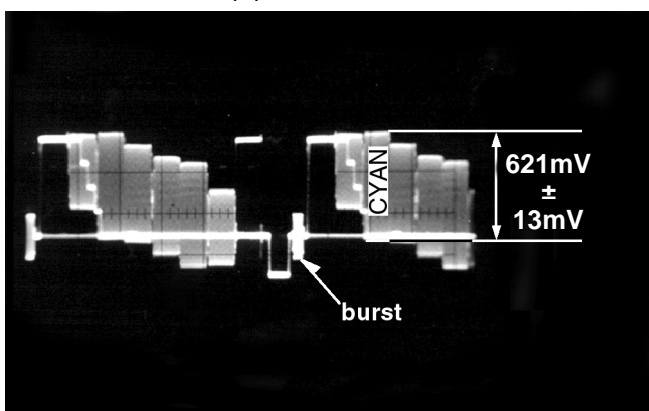
2. Video Output (Chrominance Signal) Confirmation

Do this adjustment after replacing a C.B.A.

Measurement point	Mode	Disc
Video output terminal	Color bar 75%	DVD disc (Color bar 75%)
Measuring equipment, tools	Adjustment value	
Screwdriver, Oscilloscope 200mV/div, 10μsec/div	621mVp-p±13mV	

Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the video output terminal and terminate at 75 ohms.
2. Adjust VR3511 so that the chrominance signal (C) level becomes 621 mVp-p±13 mV.



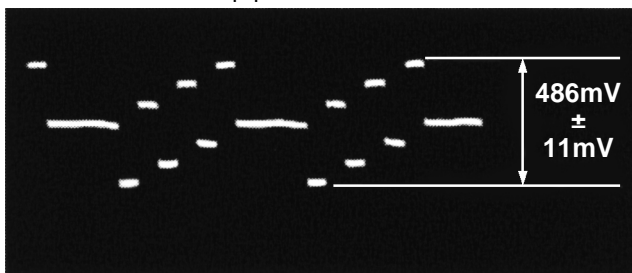
3. Video Component Signal (CB) Output Confirmation

Do this adjustment after replacing a C.B.A.

Measurement point	Mode	Disc
Video output terminal	Color bar 75%	DVD disc (Color bar 75%)
Measuring equipment, tools	Adjustment value	
Screwdriver, Oscilloscope 100mV/div, 10μsec/div	486mVp-p±11mV	

Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the video component output terminal and terminate at 75 ohms.
2. Apply the trigger at the Y output terminal signal.
3. Comfirm so that the video component signal (CB) level becomes 486 mVp-p ±11 mV.



VOLTAGE CHART

1. Voltage chart

1-1 Power supply C.B.A.

Ref No.	IC1101			IC1125					IC1151									
MODE	K	R	A	1	2	3	4	5	1	2	3	4	5					
STOP	2.9	2.5	0	3.8	4.9	2.6	1.2	0	0	4.9	9.0	9.0	10.2					
PLAY	2.9	2.5	0	3.8	4.9	2.6	1.2	0	0	4.9	9.0	9.0	9.7					

Ref No.	Q1021			Q1051				Q1052			Q1061			Q1062		
MODE	E	C	B	1	2	3	4	E	C	B	E	C	B	E	C	B
STOP	0	-8.6	0	5.2	4.0	1.1	10.2	0	-0.2	0.2	0	0	0.6	0.1	10.1	0
PLAY	0	-8.6	0	5.2	4.0	1.0	10.1	0	-0.1	0.2	0	0	0.6	0.1	10.1	0

Ref No.	Q1063			Q1115												
MODE	E	C	B	S	D	G										
STOP	0	-0.1	-0.5	5.1	5.1	0										
PLAY	0	-0.1	-0.5	5.1	5.1	0										

Ref No.	QR1115															
MODE	E	C	B													
STOP	0	0	4.9													
PLAY	0	0	4.9													

1-2 Module C.B.A.

Ref No.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	1.6	1.6	3.3	1.7	0	0	1.6	1.6	1.5	0	0	0	3.3	1.6	2.8	0.2	2.2	1.5	0
PLAY	1.5	0	1.7	3.3	1.5	1.7	0	1.6	1.6	1.5	1.5	1.6	3.3	1.7	2.8	0.2	2.2	1.5	0	0

Ref No.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.2	2.2	0	0	1.5	2.2	3.3	1.7	0	0	1.7	0.4	1.7	1.6	0	1.6	1.7	3.3	0	1.7
PLAY	1.8	1.7	1.5	1.7	1.5	2.2	3.3	1.7	1.2	0	1.7	1.2	1.7	1.6	0	1.6	1.7	3.3	1.7	1.7

Ref No.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0	2.1	1.4	1.6	0	3.3	3.0	1.5	0	0	0	0	0	0	0	0	0	2.5	0	0
PLAY	0	2.0	1.6	1.7	0	3.3	0	0	0	0.4	1.5	1.6	1.4	3.3	3.3	0	0	3.0	3.0	0

Ref No.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.3	0	0	0	0	0	3.3	0	0	1.4	0	0	0	0	3.3	1.6	1.6	1.6	1.6	0
PLAY	3.3	0	3.3	0	0	0	0	1.7	0	1.4	0	0	0	0	0	1.6	1.6	1.6	1.6	1.6

Ref No.	IC2001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	3.2	3.3	3.3	3.3	3.1	3.3	3.1	0	0	0	0.1	0	2.5	1.7	1.6	1.6	1.7
PLAY	0	3.3	3.3	3.3	0	0	3.3	3.2	3.3	3.1	0	0	0	0	0	2.5	1.4	1.8	1.4	2.2

Ref No.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	5.0	5.0	0	5.1	5.1	5.1	5.1	5.1	0	5.0	2.7	3.3	0	0	5.0	1.7	1.7	0	0
PLAY	0	0	0	0	2.9	2.9	0.8	0	0	3.3	5.0	1.4	3.3	0	0	5.0	0	1.6	0	0.6

Ref No.	IC2501																			
MODE	21	22	23	24	25	26	27	28												
STOP	9.0	9.0	0	0	0	1.5	1.6	1.7												
PLAY	9.0	9.0	0	0	0	7.4	7.4	7.4												

Ref No.	IC2511																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	1.7	1.7	1.6	1.7	1.6	1.6	0	0	5.1	2.4	0.5	0.5	0.5	6.7	7.0	7.1	7.4	9.0	0
PLAY	1.7	1.7	1.7	1.7	1.7	0	1.7	0	0	3.3	5.0	2.6	2.4	2.4	2.7	4.8	3.7	3.4	5.0	9.0

Ref No.	IC2511																			
MODE	21	22	23	24	25	26	27	28												
STOP	0	1.9	1.9	1.7	2.0	2.0	1.7	9.0												
PLAY	0	1.5	1.7	1.7	1.8	1.7	1.7	9.0												

VOLTAGE CHART

Ref No.	IC3001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	0	1.2	0	0	1.2	0	1.0	3.3	1.2	3.3	3.2	3.3	1.8	0	0	0	0	0	0
PLAY	3.3	0	1.1	0	0	1.1	0	1.0	3.3	2.0	3.3	3.2	3.3	1.8	0	0	0	0	0	0
Ref No.	IC3001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	0	0	0	3.3	3.3	0	3.3	3.1	3.3	1.5	3.3	3.0	3.0	2.9	3.0	1.8	2.8
PLAY	0	0	0	0	0	0	0	3.3	0	3.3	3.3	3.3	1.5	3.3	3.3	3.3	3.3	0	1.8	3.3
Ref No.	IC3001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.1	2.8	2.7	0	2.9	2.9	2.9	3.3	3.1	3.1	3.1	0	3.3	3.1	3.1	3.1	3.2	0	3.2	3.1
PLAY	0	3.3	3.3	0	3.3	0	0	3.3	3.3	3.3	0	0	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3
Ref No.	IC3001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.1	3.1	1.8	3.1	3.2	3.1	3.2	0	3.2	0	1.6	3.3	3.3	3.3	3.3	0	3.3	0	1.8	0
PLAY	3.3	3.3	1.8	3.3	3.3	3.3	3.3	0	3.3	0	1.6	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	1.8
Ref No.	IC3001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.3	0	3.3	0	1.6	0	1.8	1.4	1.6	1.6	3.3	0	0	0	0	0	0	3.3	1.6	3.3
PLAY	3.3	3.3	3.3	1.7	0	1.8	1.4	1.7	1.6	0	0	0	0	0	0	3.3	1.5	3.3	3.3	3.3
Ref No.	IC3001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	1.1	0	0	1.8	1.8	0	0	1.8	3.3	1.6	3.3	3.3	0.6	0	0	1.0	1.0	2.3	0.6	3.3
PLAY	1.3	0	0.2	1.8	0	0	0	0	3.3	1.6	3.3	3.3	0	0	0	1.0	0	0	0.6	3.3
Ref No.	IC3001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	0.6	0.6	2.4	0.4	0	0.6	0.6	2.3	0.4	3.3	1.3	1.3	2.2	0.4	0	0	0	0	0	0
PLAY	0.6	0.6	0	0.4	0	0.6	0.6	2.3	0.4	3.3	1.3	2.2	0.5	0	0	0	0	0	0	0
Ref No.	IC3001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
STOP	0	0	3.3	3.1	0	1.8	0	0	0	0	0	0	0	0	0	3.3	0	2.8	2.9	3.3
PLAY	0	0	3.3	3.1	0	1.8	0	0	0	0	0	0	0	0	0	3.3	0	2.7	0	3.3
Ref No.	IC3001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
STOP	2.6	2.8	0	2.7	2.8	3.3	3.0	2.8	0	2.8	3.1	3.3	0	1.8	2.9	0	2.8	2.7	3.3	2.9
PLAY	2.6	2.7	0	2.6	2.5	3.3	2.5	2.5	0	2.5	2.6	3.3	2.5	1.8	2.6	0	3.3	3.3	3.3	2.6
Ref No.	IC3001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
STOP	2.8	0	1.7	3.3	0	0	0	1.8	2.6	3.3	3.3	0	3.2	0	0	3.1	3.3	3.3	3.0	0
PLAY	2.6	0	1.6	3.3	1.6	0	3.3	1.8	2.2	3.3	3.3	1.9	3.3	3.3	3.2	3.3	3.3	3.0	0	0
Ref No.	IC3001																			
MODE	201	202	203	204	205	206	207	208												
STOP	0	1.8	1.2	0	3.3	0	0.9	0												
PLAY	0	0	1.4	0	0	0	1.2	0												
Ref No.	IC3002																			
MODE	1	2	3	4	5															
STOP	2.6	2.6	1.8	0	0															
PLAY	2.6	2.6	1.8	0	0															
Ref No.	IC3061																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	2.8	2.8	0	2.8	3.3	3.3	3.1	2.9	0	2.7	2.8	3.3	2.6	3.2	3.2	3.1	3.0	1.2	0
PLAY	3.3	3.1	3.1	0	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	0
Ref No.	IC3061																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	1.2	3.3	0	1.0	0	0	0	0	0	0	3.3	1.7	2.6	0	3.3	2.9	2.8
PLAY	0	0	0	0	3.3	0	0	0	1.4	0	0	0	0	0	0	0	0	3.3	0	2.5
Ref No.	IC3061										IC3091									
MODE	41	42	43	44	45	46	47	48	49	50		1	2	3	4	5	6			
STOP	0	2.6	0	3.3	2.9	2.8	0	2.6	2.8	0		5.0	0	1.3	3.3	0	5.0			
PLAY	0	2.5	2.5	3.3	2.7	2.6	0	0	0.2	0		5.0	0	1.3	3.3	0	5.0			
Ref No.	IC4201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	0	1.6	1.7	1.6	2.6	0	4.9	4.9	0	2.4	0	0	0	4.9	2.5	0	2.4	0	4.9
PLAY	1.7	1.2	1.6	1.7	1.6	2.6	0	4.9	4.9	0	2.4	0	2.4	0	4.9	0	0	0	0	0
Ref No.	IC4201																			
MODE	21	22	23	24	25	26	27	28												
STOP	0.2	3.2	0	0	4.9	3.3	3.2	3.3												
PLAY	4.2	3.2	0	4.9	4.9	0	3.2	3.3												
Ref No.	IC5201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	4.4	0.9	0.9	0	1.7	1.7	1.9	0.6	1.6	1.6	3.2	1.7	3.3	3.3	3.3	0	0	1.7	1.7
PLAY	0.6	3.3	1.3	1.3	0	1.7	1.7	1.9	1.1	1.6	1.6	3.2	1.7	3.3	3.2	3.3	1.2	0	1.7	1.7
Ref No.	IC5201																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	3.3	0	0	0	0	0	1.7	1.7	0	0	0	2.2	2.1	5.0	5.0	2.8	2.1	0	1.6	3.4
PLAY	3.3	3.3	3.2	1.2	0	0	1.7	1.7	1.7	1.7	1.7	1.9	2.1	0	4.9	2.8	2.1	0.1	1.6	3.4
Ref No.	IC5201																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.6	2.1	1.1	2.2	2.2	0	1.7	1.5	1.7	2.2	0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0	0
PLAY	3.7	2.2	1.2	2.2	2.2	0	0	1.5	1.7	2.2	0	0	2.2	0	0	1.9	0	0	0	0
Ref No.	IC5201																			
MODE	61	62	63	64																
STOP	5.0	0	0	0																
PLAY	0	2.2	0	0																

VOLTAGE CHART

Ref No. MODE STOP PLAY	IC6201																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	3.3	3.1	3.3	2.1	0	3.3	3.3	3.0	3.3	0	3.3	3.3	2.5	3.0	0	0	3.3	0	0	0
	3.3	0	3.3	2.3	0	0	3.3	2.7	0	0	0	0	0	2.7	0	0	0	0	0	0
Ref No. MODE STOP PLAY	IC6201																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	3.3	3.3	1.6	1.6	3.3	3.0	2.8	3.0	3.3	0.3	0	0.1	0.3	3.3	0	3.3	3.3	3.3	3.3	0.1
	3.3	3.3	1.6	1.6	3.3	2.7	2.6	2.7	2.7	2.6	2.6	2.7	3.3	2.4	2.3	2.5	2.7	2.5	2.8	
Ref No. MODE STOP PLAY	IC6201																			
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
	0.1	0.3	0	0.5	0.4	0.5	2.7	1.0	1.3	3.3	3.3	3.3	3.2	1.3	3.3	3.3	0.4	0.4	0.4	0
	1.9	2.0	0.8	3.3	3.3	3.3	3.3	1.0	1.2	2.8	1.5	2.5	0	1.3	3.3	3.3	3.3	0	0	0.1
Ref No. MODE STOP PLAY	IC6201																			
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
	0	1.3	1.0	0.5	0.5	3.3	0	0	0	3.3	0	3.3	3.3	3.3	3.3	3.3	3.3	0	0	0
	0	1.3	1.2	3.3	0	3.3	3.3	3.3	0	3.3	2.8	3.3	3.2	0	3.2	3.3	3.3	0.1	0	0.1
Ref No. MODE STOP PLAY	IC6201																			
	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	0	0	3.3	3.3
	3.2	3.3	3.3	0	2.6	0	0	0	3.3	3.3	2.4	0	0	0	2.5	0	0	3.3	3.3	3.3
Ref No. MODE STOP PLAY	IC6251										IC6301									
	1	2	3	4	5	6		1	2	3	4	5								
	5.1	0	1.3	3.3	0	5.1		0	0	0	3.3	3.3								
	5.0	0	1.3	3.3	0	5.0		0	0	0	3.3	3.3								
Ref No. MODE STOP PLAY	IC6302																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	2.9	2.8	2.9	2.6	2.7	2.9	0	0	0	3.3	3.3	0	0	0	2.5	2.5	2.7	2.6	2.8	3.1
	2.6	2.7	2.5	2.3	2.4	2.8	2.6	2.6	0	0	3.3	3.3	0	0	0	2.0	1.9	2.6	2.7	2.8
Ref No. MODE STOP PLAY	IC6302																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	2.8	3.0	0	0	3.0	3.1	0	3.1	1.1	1.2	1.1	1.3	1.6	2.1	0.9	0	0	0.9	2.1	0.4
	2.6	2.7	2.6	2.8	0	2.7	0	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	3.3	2.9	2.9	2.9
Ref No. MODE STOP PLAY	IC6302										IC6303									
	41	42	43	44	45	46	47	48		1	2	3	4	5	6	7	8			
	1.3	0.4	1.3	0.4	1.2	0	3.3	0		3.3	3.1	3.3	0	3.3	0	3.3	3.3			
	2.9	2.9	3.0	3.0	3.0	0	3.3	2.8		3.3	3.1	0	0	3.3	3.1	3.3	3.3			
Ref No. MODE STOP PLAY	IC6501																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	3.3	0	1.3	0	3.3	3.3	0	1.5	1.6	0	3.3	0	1.3	0	3.3	1.5	0	0	3.2	0
	3.3	0	1.4	0	3.3	3.3	0	1.5	1.6	0	3.3	1.6	1.3	0	3.3	1.5	0	0	3.2	0
Ref No. MODE STOP PLAY	IC6501																			
	21	22	23	24																
	3.3	1.6	3.3	1.6																
	0	1.6	0	1.6																
Ref No. MODE STOP PLAY	IC6551																			
	1	2	3																	
	3.3	5.0	0																	
	3.3	5.0	0																	
Ref No. MODE STOP PLAY	IC7001																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	3.3	0.6	0	0	3.3	3.3	0	0	0	0	0	0	0	3.3	3.3	0	0	0	3.3	3.3
	3.3	3.3	3.3	3.3	3.3	3.3	0	0	3.3	2.5	3.3	3.3	3.3	3.3	3.3	0	0	0	3.3	3.3
Ref No. MODE STOP PLAY	IC7001																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	3.3	3.3	3.3	3.3	0.4	3.3	0.4	0.4	0	3.3	0	0	0	0	0	2.5	3.3	3.3	0	3.3
	3.3	3.3	3.3	3.3	0.5	0	0.5	0.5	0	3.3	0	3.3	0	0	0	2.5	0	0	0	0
Ref No. MODE STOP PLAY	IC7001																			
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
	3.3	3.3	3.3	2.5	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3
	0	0	0	0	3.3	0	0	3.3	0	0	3.3	3.3	0	3.3	0.1	0	0	3.3	3.3	3.2
Ref No. MODE STOP PLAY	IC7001																			
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
	3.3	3.3	3.3	0	0	2.5	0	3.3	3.3	3.3	0	3.3	3.3	3.3	1.6	3.3	0	2.0	0	0
	3.3	0	3.3	0	0	2.5	0	3.3	2.4	3.3	0	2.5	2.5	0	0	0	0	0	0	0
Ref No. MODE STOP PLAY	IC7001																			
	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
	3.3	0	0	0	3.2	2.5	0	0	0	0	0	3.3	0	3.3	1.7	0	3.3	0	0	0
	3.3	0	0	0	3.2	2.5	0	0	0	0	0	3.3	0	3.3	1.7	0	3.3	0	0	1.4
Ref No. MODE STOP PLAY	IC7001																			
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
	0	1.6	3.3	3.1	3.3	0	0	0	0	0	0	0	0	0	0	3.3	3.3	3.3	0	0
	1.3	0	0	0	3.3	0	0	0	1.7	0	1.6	1.6	1.6	1.7	1.7	0	3.3	3.3	0	0
Ref No. MODE STOP PLAY	IC7001																			
	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
	0	0	0	3.3	2.5	3.3	0	3.3	3.3	3.3	1.6	3.3	3.3	0	3.3	0.5	0	3.3	3.3	0.5
	0	0	0	3.3	2.5	3.3	0	3.3	3.3	3.3	1.6	3.3	3.3	0	3.3	0.5	0	3.3	2.9	0
Ref No. MODE STOP PLAY	IC7001																			
	141	142	143	144																
	0	0	3.3	3.3																
	0	0	0	3.3																

Ref No. MODE STOP PLAY	Q3081			Q3082			Q3083			Q3084			Q5201						
	E	C	B		E	C	B		E	C	B		E	C	B				
	1.3	0	0.6		1.1	0	0.4		0	0	0.4		1.0	0	0.3		4.9	1.4	4.6
	1.3	0	0.6		1.1	0	0.4		0	0	0.4		1.2	0	0.5		3.9	2.2	0

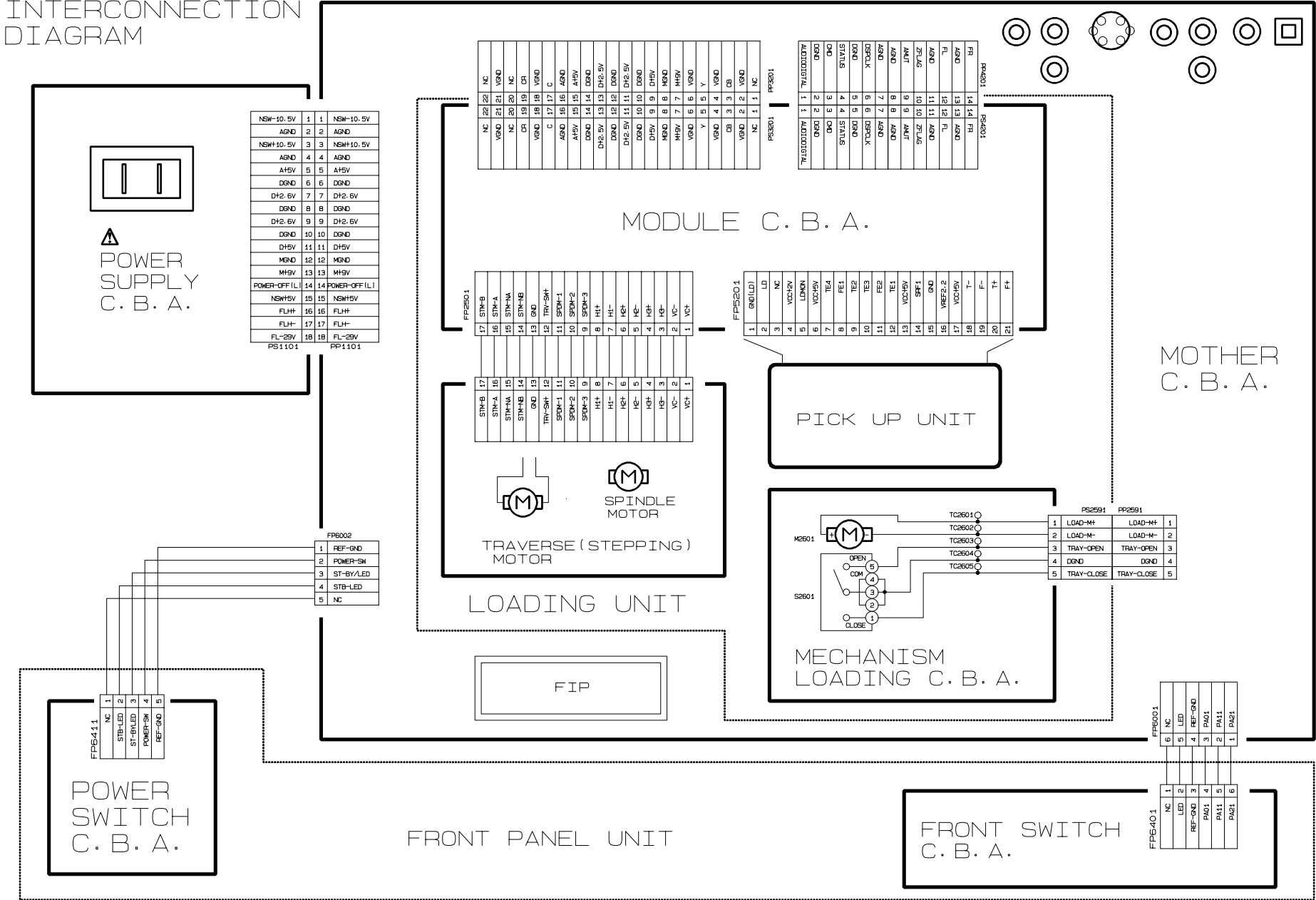
Ref No. MODE STOP PLAY	QR2001			QR5201			QR5231			QR6301						
	E	C	B		E	C	B		E	C	B		E	C	B	
	0	0	0		0	1.6	0		2.6	0	3.3		0	3.2	0	
	0	0	3.3		0	1.6	0		2.6	2.5	0		0	3.2	0	

VOLTAGE CHART

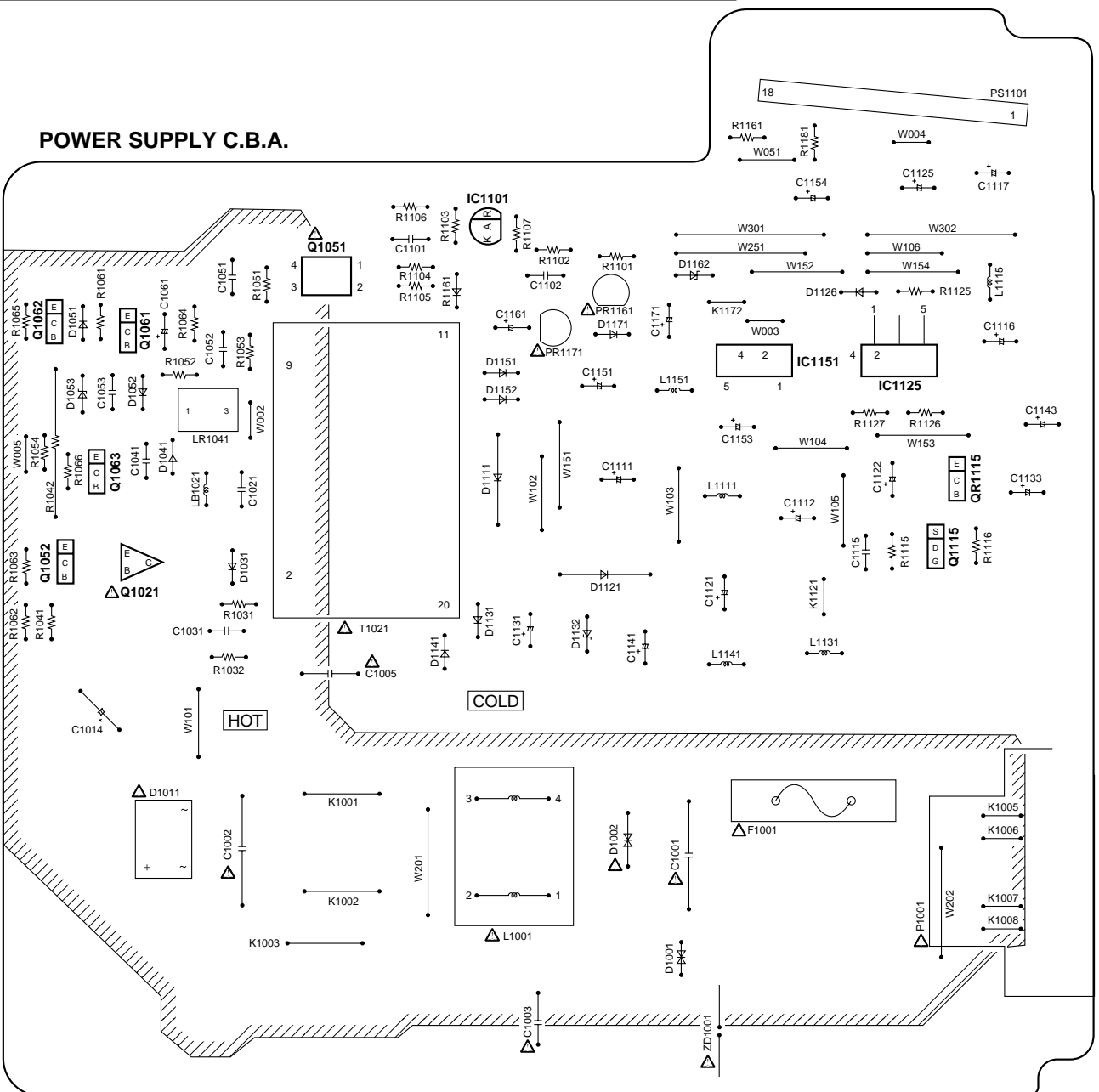
1-3 Mother C.B.A.

Ref No.	IC2591																			
MODE	1	2	3	4	5	6	7	8	9											
STOP	7.4	0.2	0	0.2	9.0	9.0	0	0	0											
PLAY	7.4	2.8	0	2.8	9.0	9.0	0	0	0											
Ref No.	IC3511																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.2	0.7	1.0	0	0	4.9	0.7	0	0.7	0	0.9	0	0.1	0.1	1.3	0.9	4.9	0.9	0	1.5
PLAY	3.2	0.9	1.2	0	0	4.9	0.7	0	0.7	0	0	0	0.1	0.1	1.3	0.9	4.9	0.9	0	1.8
Ref No.	IC3511																			
MODE	21	22	23	24																
STOP	1.5	4.9	0	0.4																
PLAY	1.9	0	0.4	0.4																
Ref No.	IC4321								IC4471											
MODE	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8				
STOP	0	0	0	-8.1	0	0	0	8.1	0	0	0	-8.1	0	0	0	8.1				
PLAY	0	0	0	-8.1	0	0	0	8.1	0	0	0	-8.1	0	0	0	8.1				
Ref No.	IC4781				IC4902				IC4911											
MODE	1	2	3		1	2	3		1	2	3									
STOP	1.7	5.1	0		8.1	0	10.1		0	-10.2	-8.1									
PLAY	1.7	5.1	0		8.1	0	10.1		0	-10.2	-8.1									
Ref No.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.5	3.8	4.3	5.1	5.1	5.1	0	5.1	2.4	2.5	0	0	5.1	0	0	5.1	5.1	5.1	1.9	1.9
PLAY	1.5	3.8	4.3	5.1	0	5.1	0	5.1	2.4	2.5	0	0	5.1	0	0	5.1	5.1	5.1	1.2	1.2
Ref No.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	1.8	1.9	1.8	5.1	0	5.1	5.1	0	0	0	0	0	5.1	2.0	1.9	1.3	1.4	1.0	5.1	0
PLAY	1.2	1.3	1.3	5.1	0	5.1	5.1	0	0	0	0	0	5.1	0.7	0.7	0.7	0.7	0.7	5.1	0
Ref No.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.8	4.9	-25.0	-25.0	-25.0	-24.9	-24.9	-24.9	-24.9	-24.9	-24.9
PLAY	0.8	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-4.8	4.9	-25.1	-25.1	-25.1	-24.9	-24.9	-24.9	-24.9	-24.9	-24.9
Ref No.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	-24.9	-24.9	-24.9	-24.9	-15.5	-24.6	-24.6	-24.6	-20.0	-20.0	-20.0	-20.1	-22.5	-20.3	-24.9	-24.9	-24.9	-22.5	-15.5	3.8
PLAY	-24.9	-24.9	-24.9	-24.9	-8.6	-22.4	-20.0	-24.7	-8.7	-8.6	-20.2	-20.2	-9.0	-13.6	-24.9	-24.9	-24.9	-18.1	-11.2	3.7
Ref No.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.7	3.8	3.8	4.1	3.8	4.4	4.4	4.4	4.5	4.1	4.6	4.6	4.2	4.4	4.5	4.5	4.5	4.4	4.4	-27.1
PLAY	0	0	3.6	3.9	0	0	0	4.2	4.2	0	4.4	4.5	0	4.3	0	4.3	4.3	4.3	4.3	-27.3
Ref No.	IC6002				IC6003				IC6004				IC6005							
MODE	1	2	3	4		1	2	3		1	2	3	4	5		1	2	3	4	5
STOP	0	0	5.1	5.1		5.1	0	5.1		2.8	2.8	0	4.3	5.1		2.5	2.5	0	3.9	5.1
PLAY	0	0	5.1	5.1		5.1	0	5.1		2.8	2.8	0	4.3	5.1		2.5	2.5	0	3.8	5.1
Ref No.	Q3501				Q4501				Q4511				Q4521				Q4531			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	0.6	4.9	1.2		0	0	0.7		0	0	0.7		0	0	-4.8		0	0	0.7	
PLAY	0.7	4.9	1.4		0	0	-4.8		0	0	-4.8		0	0	-4.8		0	0	-4.8	
Ref No.	Q6009																			
MODE	E	C	B																	
STOP	-20.2	-20.1	-19.4																	
PLAY	-20.1	-20.1	-19.4																	
Ref No.	QR3521				QR4521				QR4593				QR4594				QR4596			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	0	5.0	0		0	-4.8	0		0	2.9	0.2		2.9	2.8	0		2.9	2.8	0	
PLAY	0	5.0	0		0	-4.8	0		0	0.1	3.8		0.1	-4.8	0		0	-4.8	0	
Ref No.	QR6009																			
MODE	E	C	B																	
STOP	5.1	-2.1	5.1																	
PLAY	5.1	-2.0	5.1																	

INTERCONNECTION DIAGRAM



三



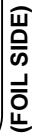
THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

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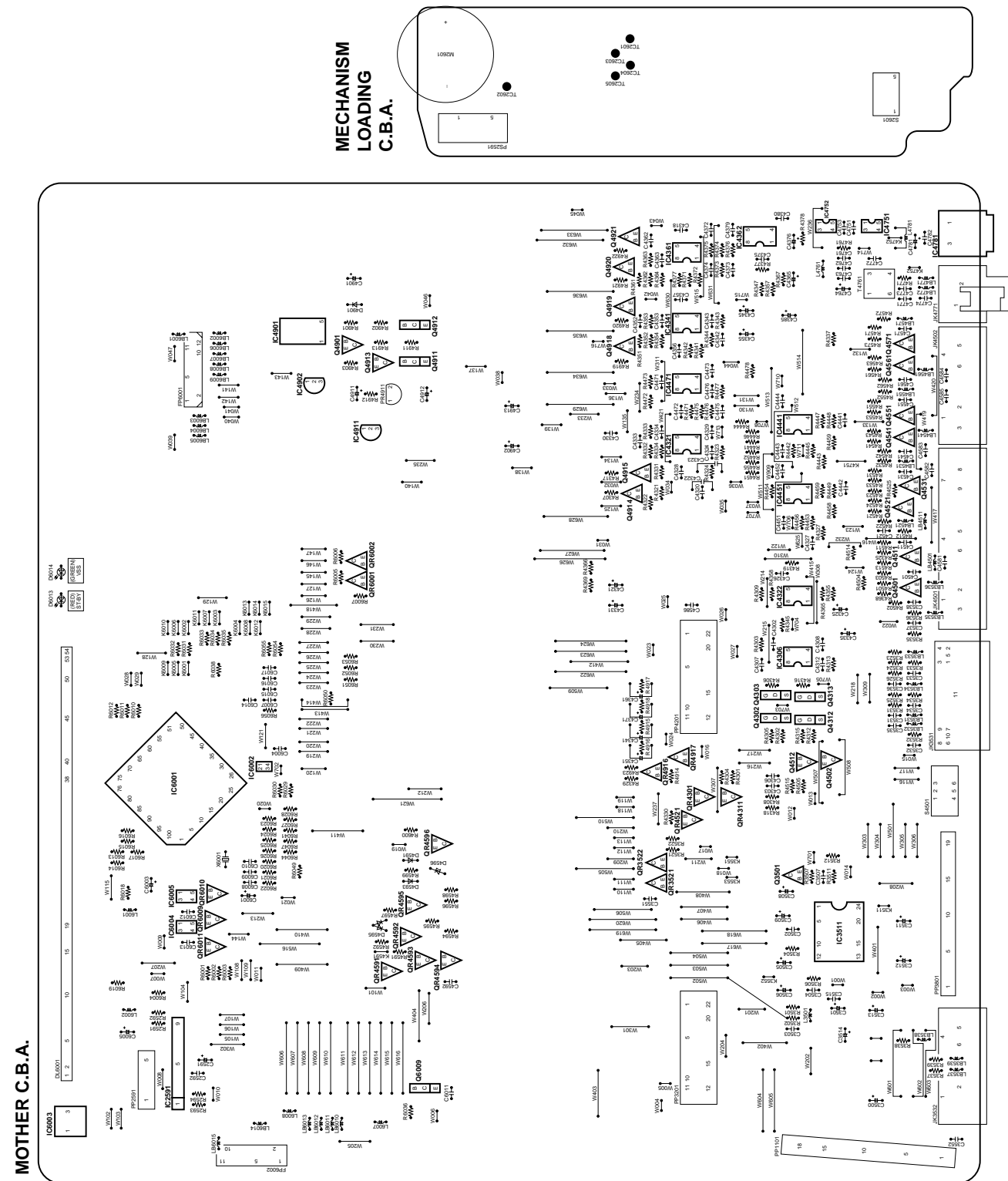
25

MODULE C.B.A. (2/2)

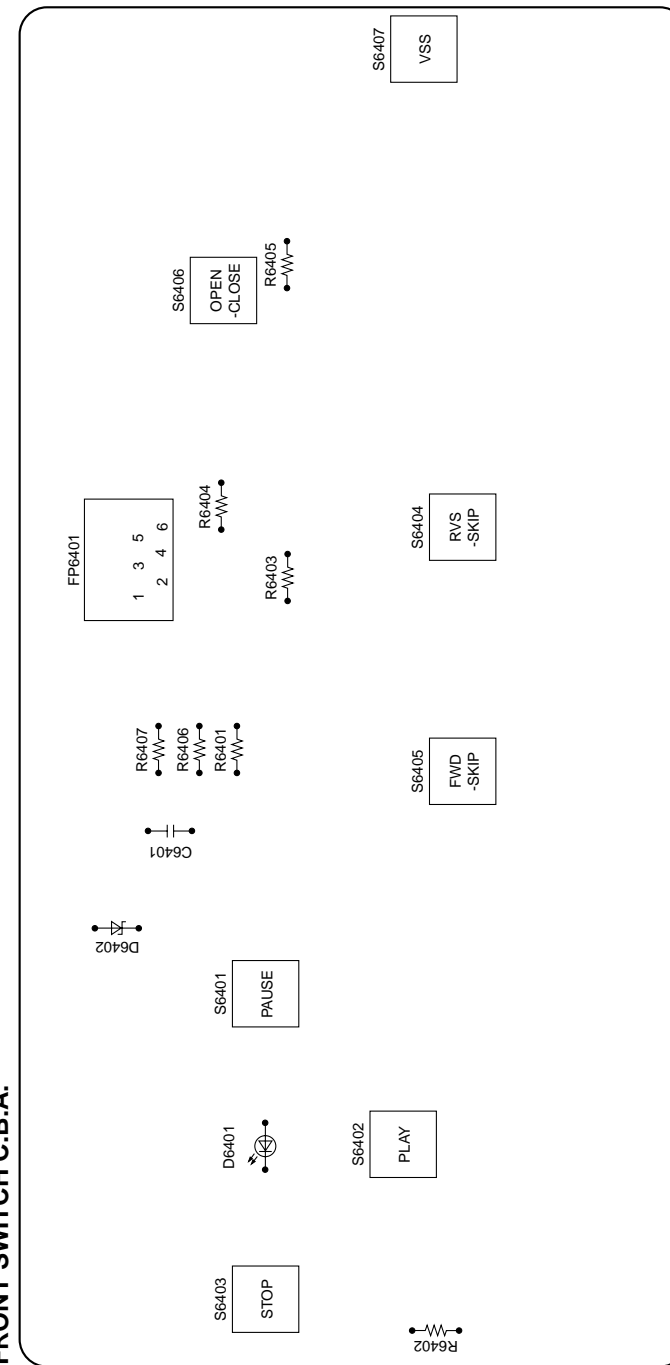


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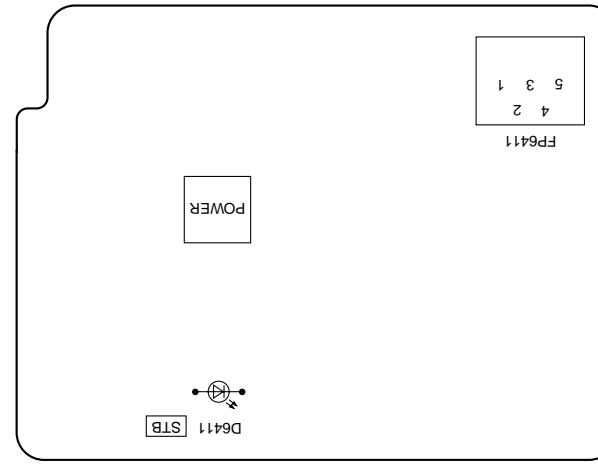
27



FRONT SWITCH C.B.A.




POWER SWITCH C.B.A.



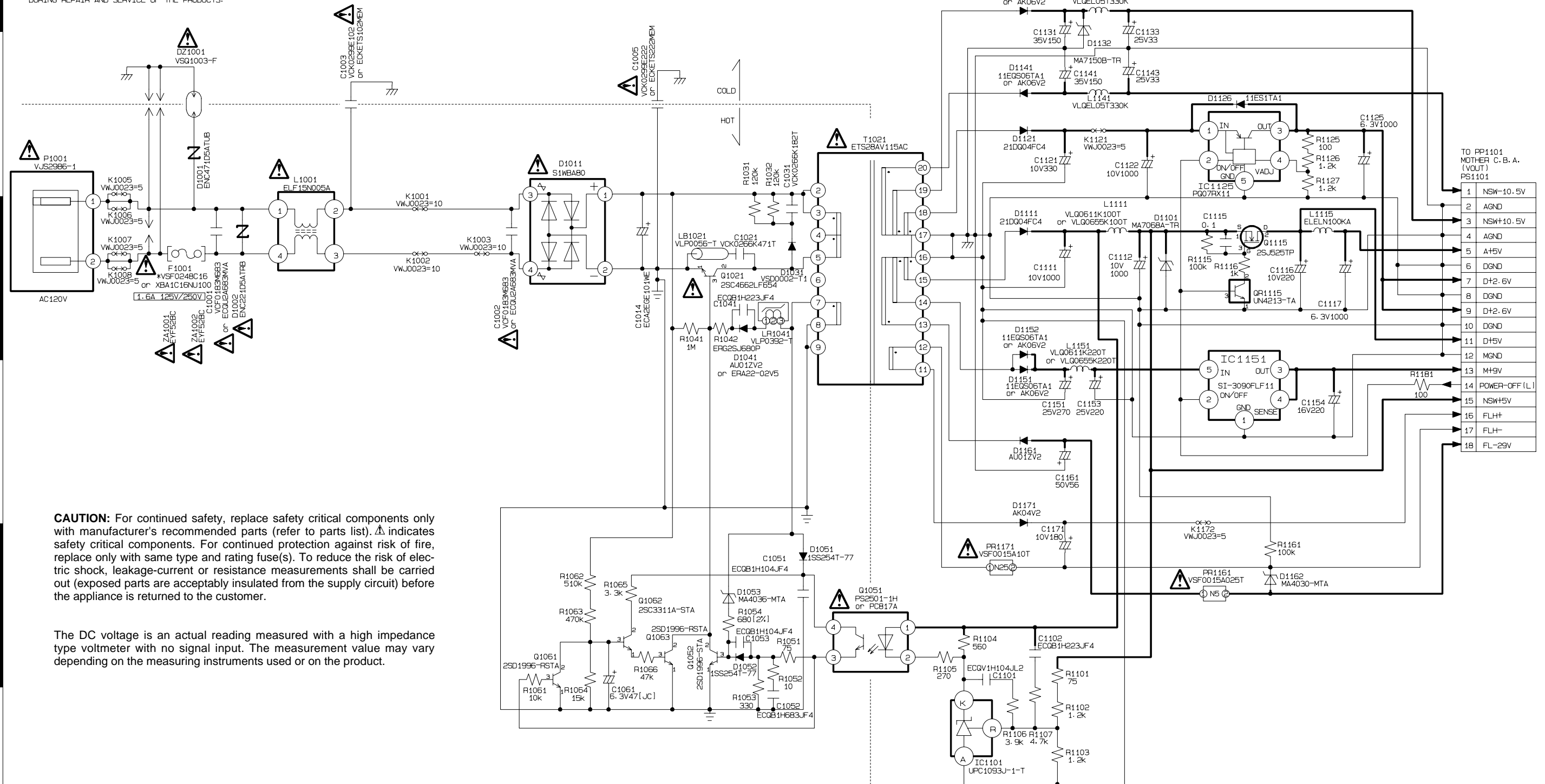
Refer to the schematic diagram for the value of resistors and capacitors.

Power supply

CAUTION

THE  MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT. PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD.
REPLACE ONLY WITH THE SAME TYPE 1.6A-125V/250V FUSE FOR F1001.

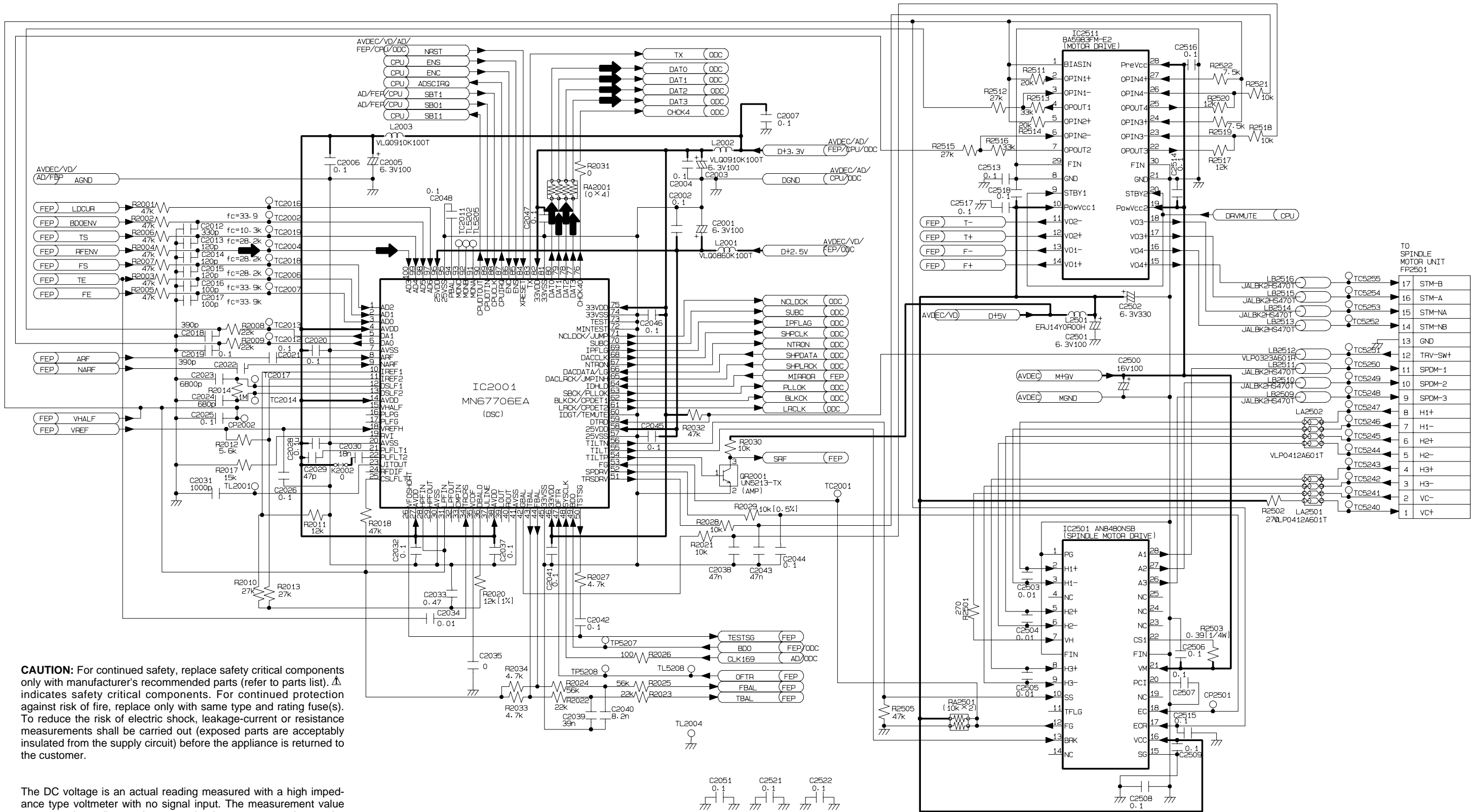
ATTENTION: POUR UNE PROTECTION CONTINUE CONTRE LES RISQUES D'INCENDIE.
N'UTILISER QUE DES FUSIBLES DE MEME TYPE: 1.6A-125V/250V POUR F1001.

☐ HOT
 ☐ COLD

DV-403

KENWOOD

Y22-8330-10



NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

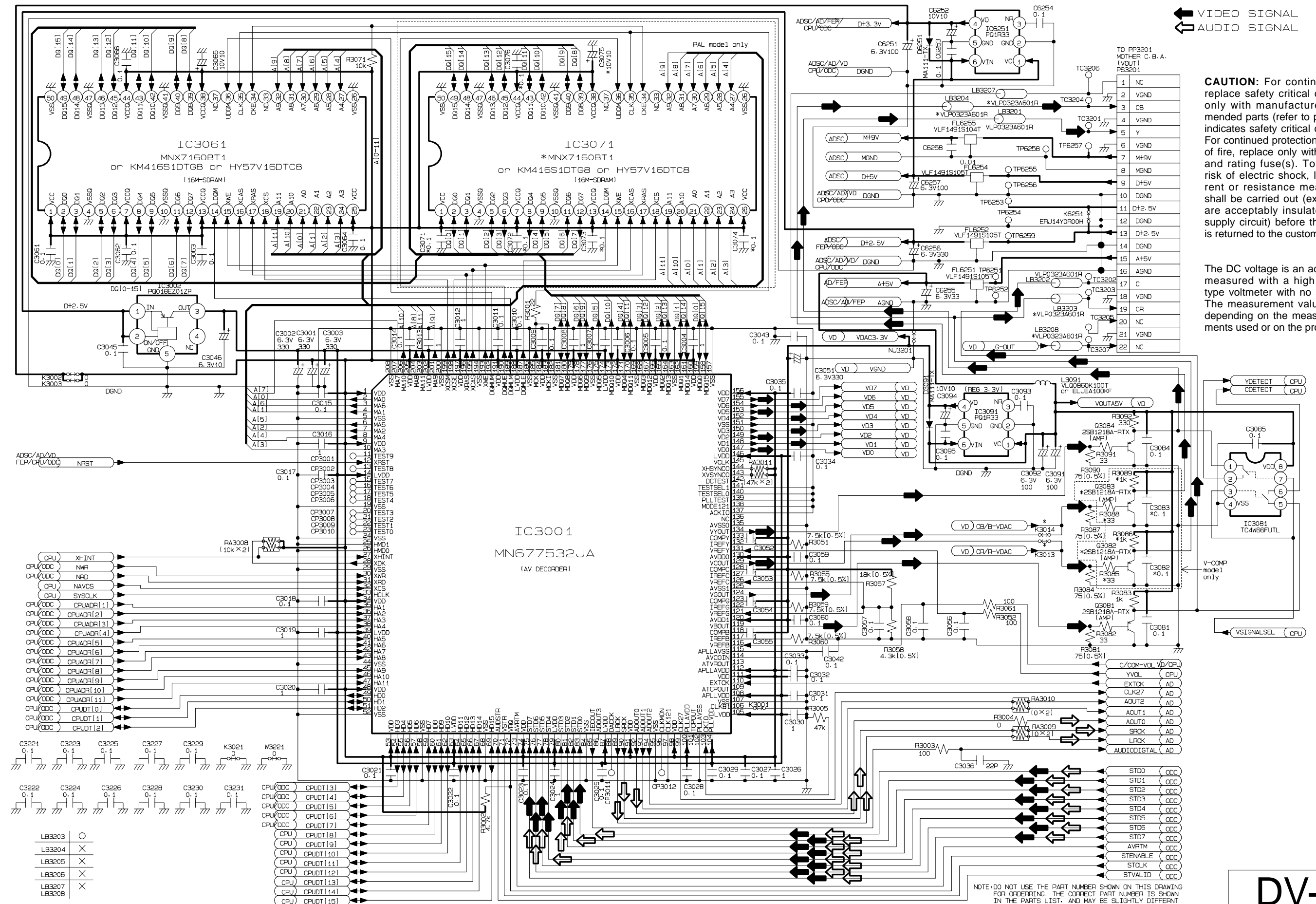
DV-403

KENWOOD

Y22-8330-10

AV Decoder section(Module C.B.A. 2/7)

ADSC SECTION: (1/7), AVDEC SECTION: (2/7), VD SECTION: (3/7),
AD SECTION: (4/7), FEP SECTION: (5/7), CPU SECTION: (6/7), ODC SECTION: (7/7)



DV-403

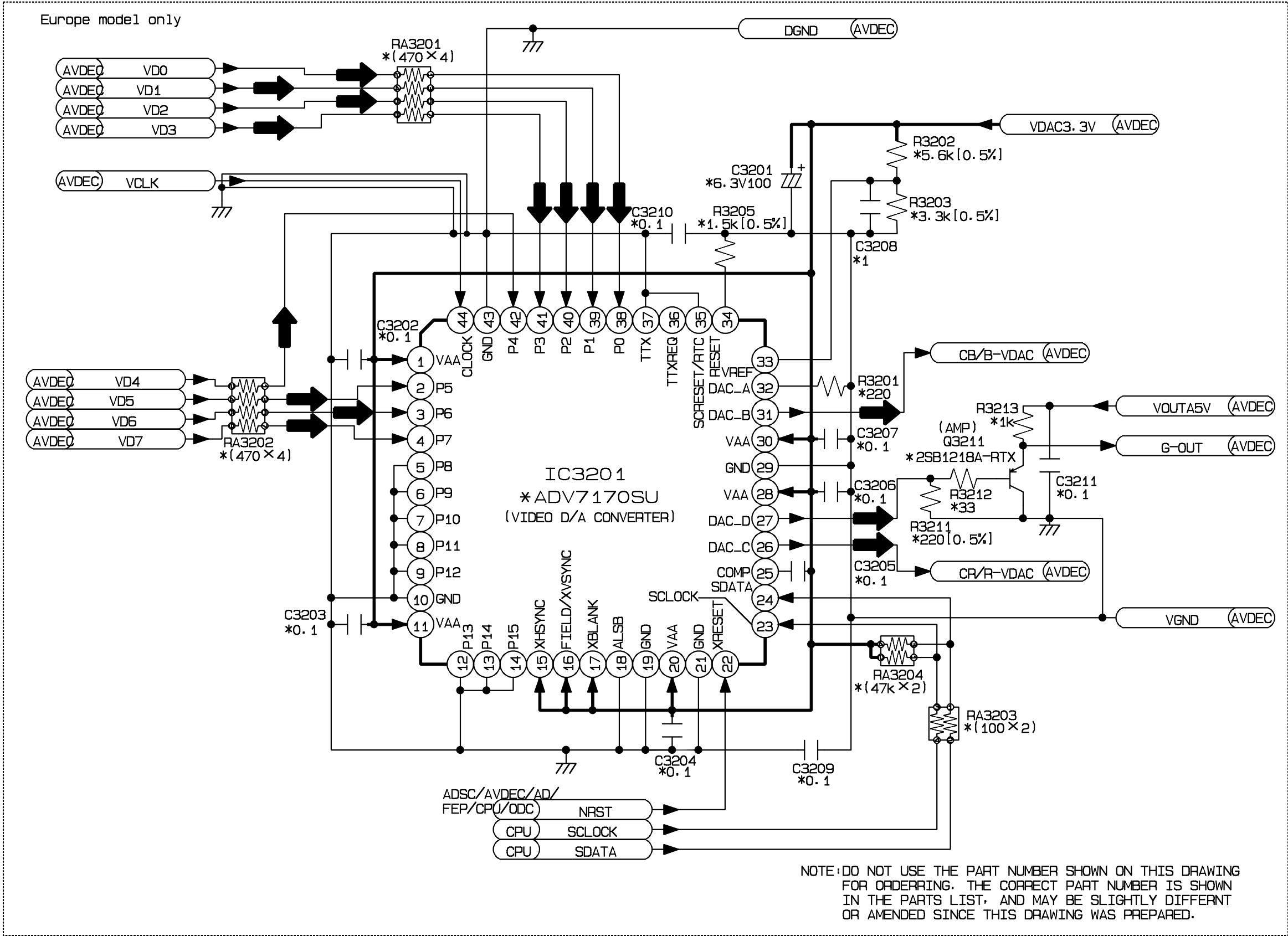
KENWOOD

Y22-8330-10

VIDEO D/A converter section(Module C.B.A. 3/7)

ADSC SECTION: (1/7), AVDEC SECTION: (2/7), VD SECTION: (3/7),
AD SECTION: (4/7), FEP SECTION: (5/7), CPU SECTION: (6/7), ODC SECTION: (7/7)

← VIDEO SIGNAL



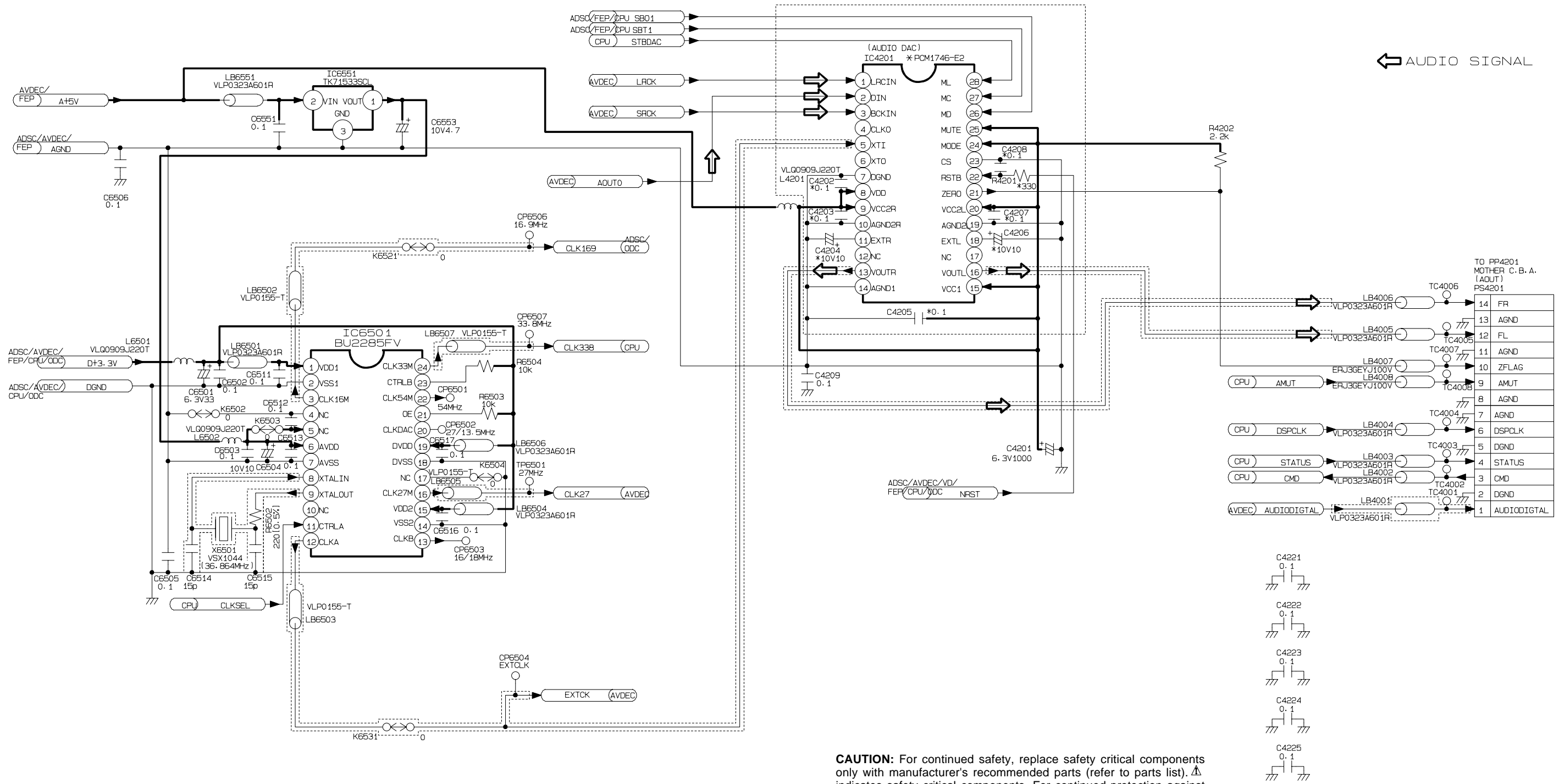
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

Y22-8330-10

AUDIO section(Module C.B.A. 4/7)

ADSC SECTION: (1/7), AVDEC SECTION: (2/7), VD SECTION: (3/7),
AD SECTION: (4/7), FEP SECTION: (5/7), CPU SECTION: (6/7), ODC SECTION: (7/7)



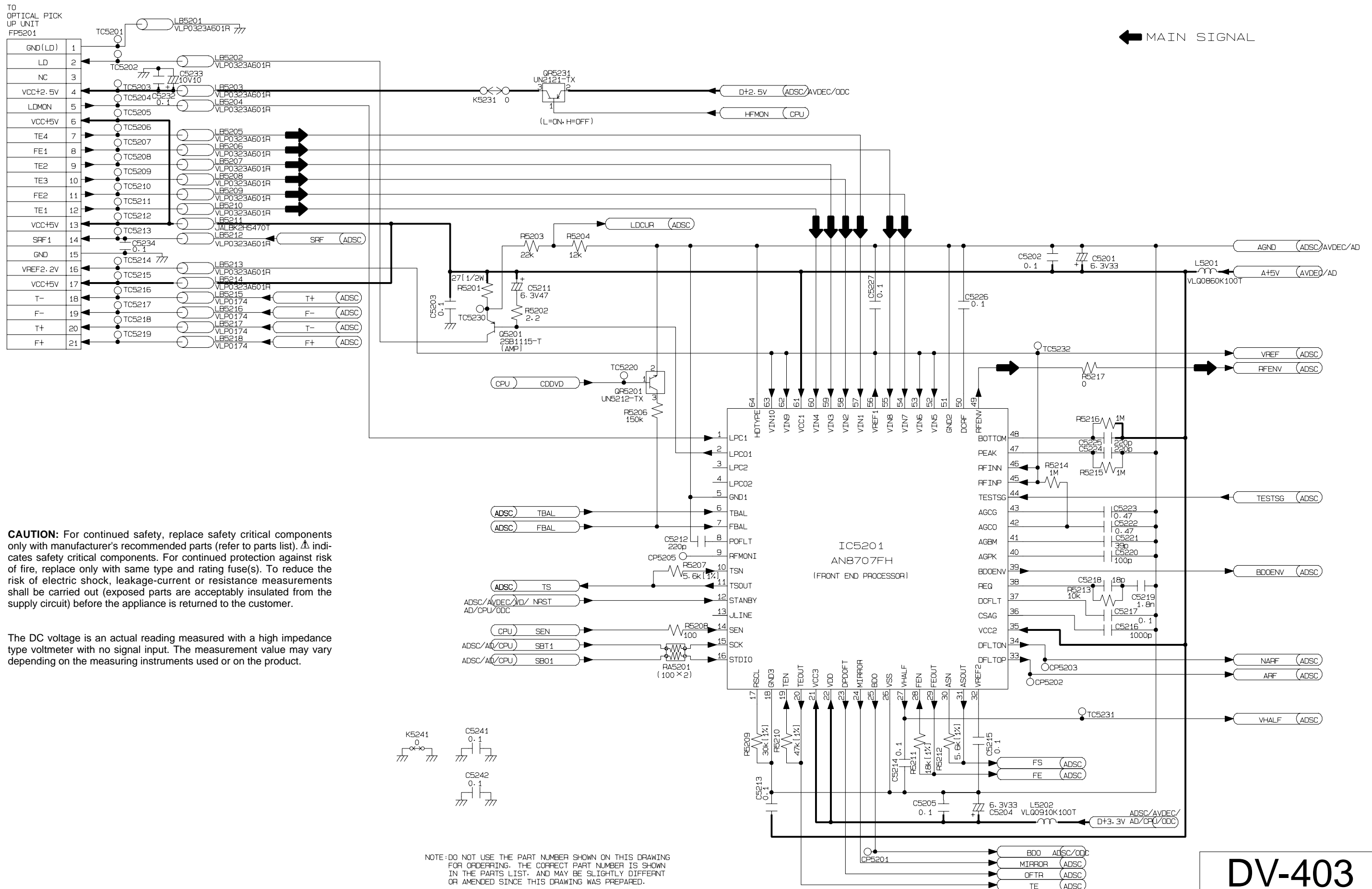
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

FET section(Module C.B.A. 5/7)

ADSC SECTION: (1/7), AVDEC SECTION: (2/7), VD SECTION: (3/7),
AD SECTION: (4/7), FEP SECTION: (5/7), CPU SECTION: (6/7), ODC SECTION: (7/7)



DV-403
KENWOOD

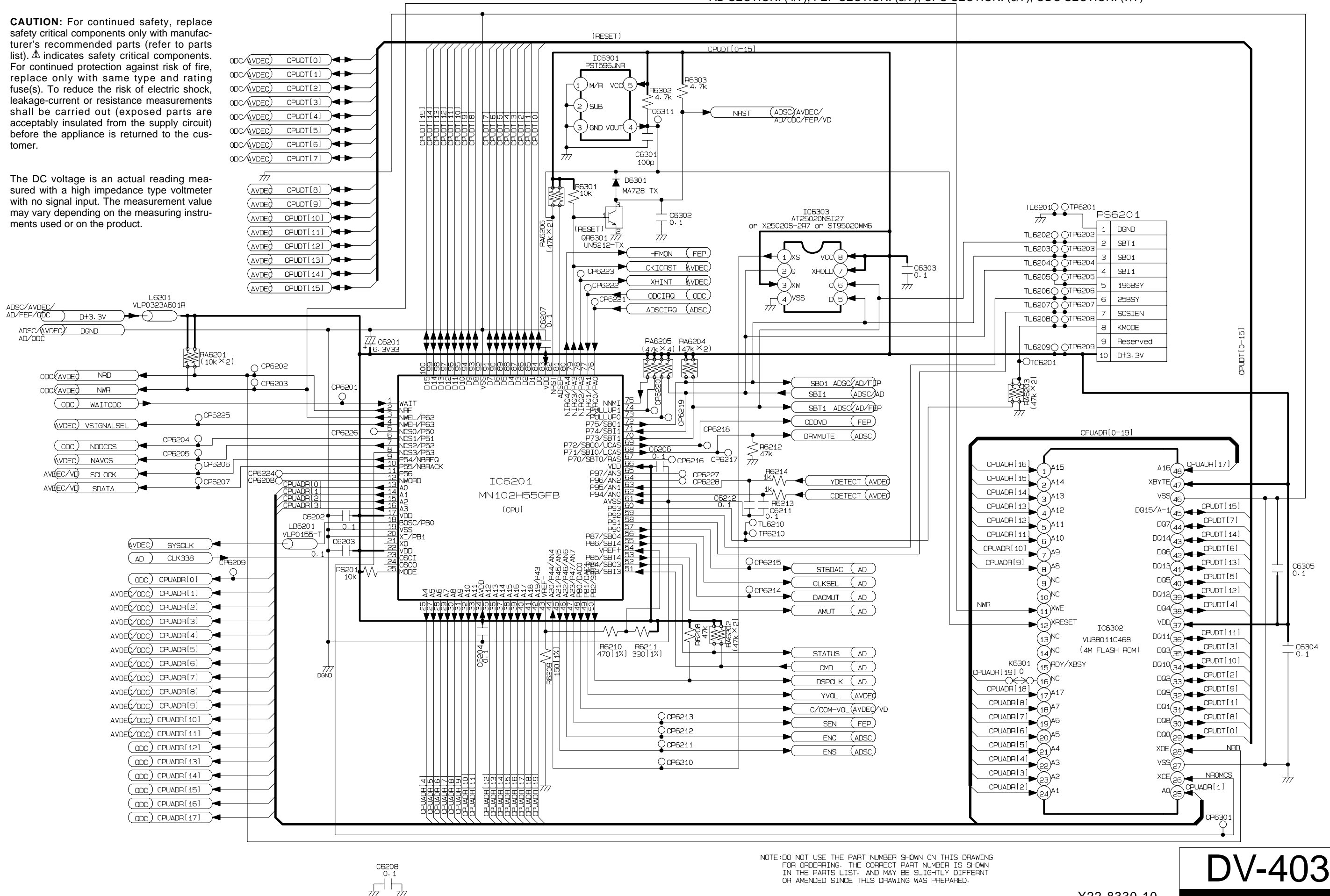
Y22-8330-10

CPU section(Module C.B.A. 6/7)

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

ADSC SECTION: (1/7), AVDEC SECTION: (2/7), VD SECTION: (3/7),
AD SECTION: (4/7), FEP SECTION: (5/7), CPU SECTION: (6/7), ODC SECTION: (7/7)



VIDEO out section(Mother C.B.A. 1/4)

VO SECTION: (1/4), AOUT1 SECTION: (2/4), AOUT2 SECTION: (3/4), OP SECTION: (4/4)

VIDEO SIGNAL

TO PS1101
POWER C.B.A.
PP1101

NSW+11V	1
AGND	2
NSW+12V	3
AGND	4
A+5V	5
DGND	6
D+2.5V	7
DGND	8
D+2.5V	9
DGND	10
D+5V	11
DGND	12
M+9V	13
POWER-OFF(L)	14
NSW+5V	15
FLH+	16
FLH-	17
FL-29V	18

OP	MGND
OP	M+9V

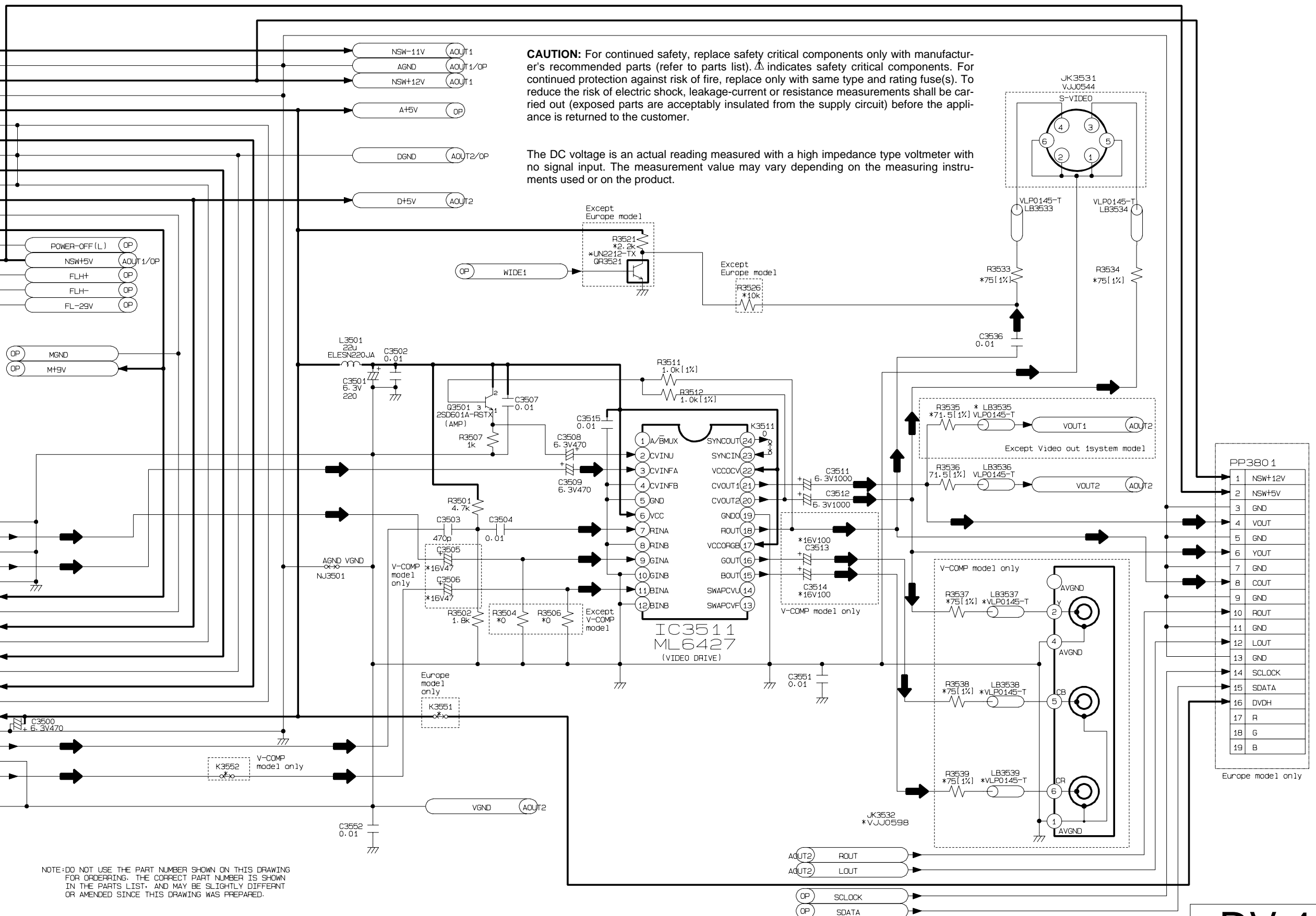
TO PS3201
MODULE C.B.A.
(AV DEC)
PP3201

NC	1
VGND	2
CB	3
VGND	4
Y	5
VGND	6
M+9V	7
DGND	8
D+5V	9
DGND	10
D+2.5V	11
DGND	12
D+2.5V	13
DGND	14
A+5V	15
AGND	16
C	17
VGND	18
CR	19
NC	20
VGND	21
NC	22

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING
FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN
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OR AMENDED SINCE THIS DRAWING WAS PREPARED.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.



DV-403

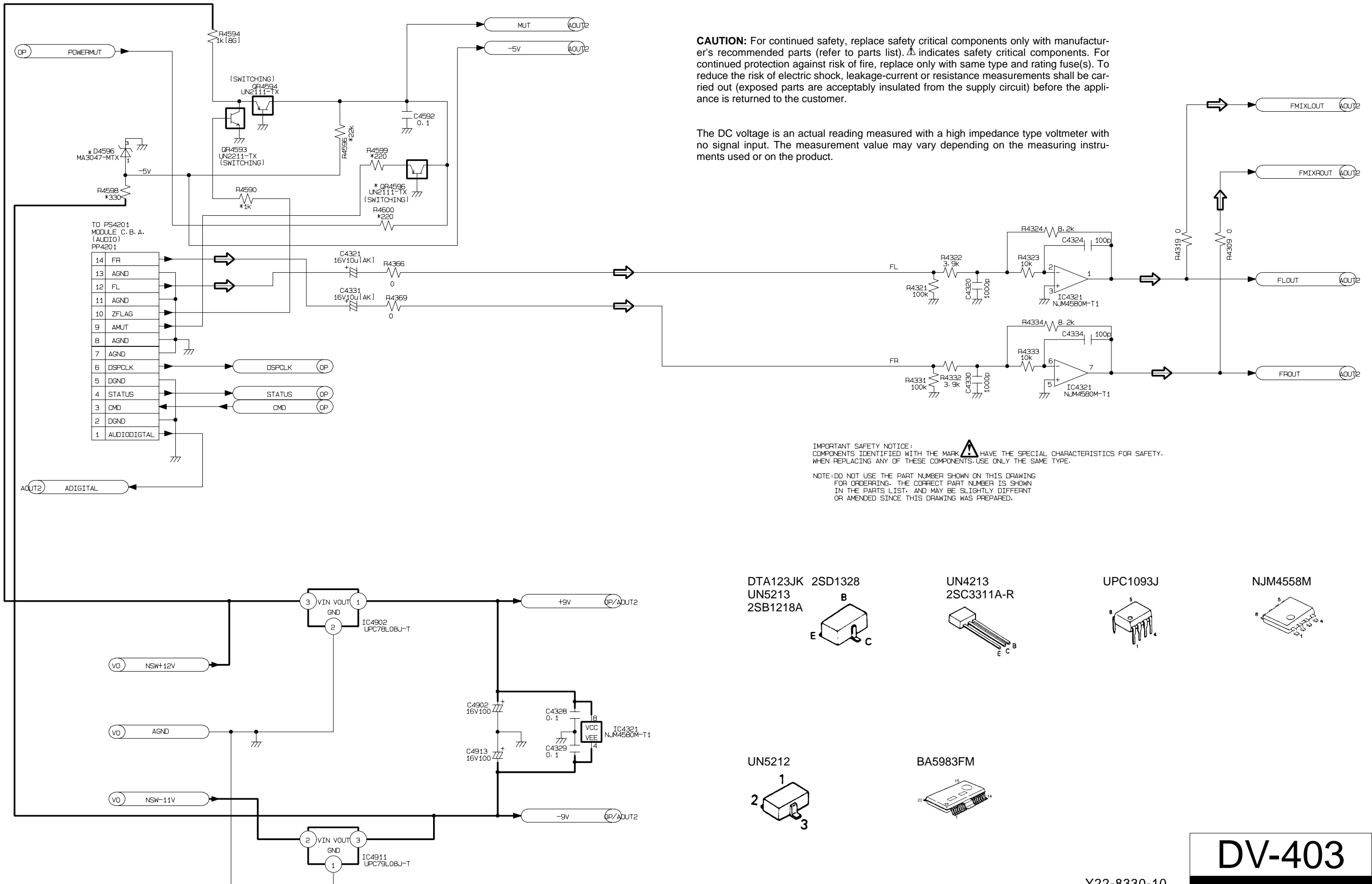
KENWOOD

Y22-8330-10

AUDIO out1 section(Mother C.B.A. 2/4)

VO SECTION: (1/4), AOUT1 SECTION: (2/4), AOUT2 SECTION: (3/4), OP SECTION: (4/4)

← AUDIO SIGNAL



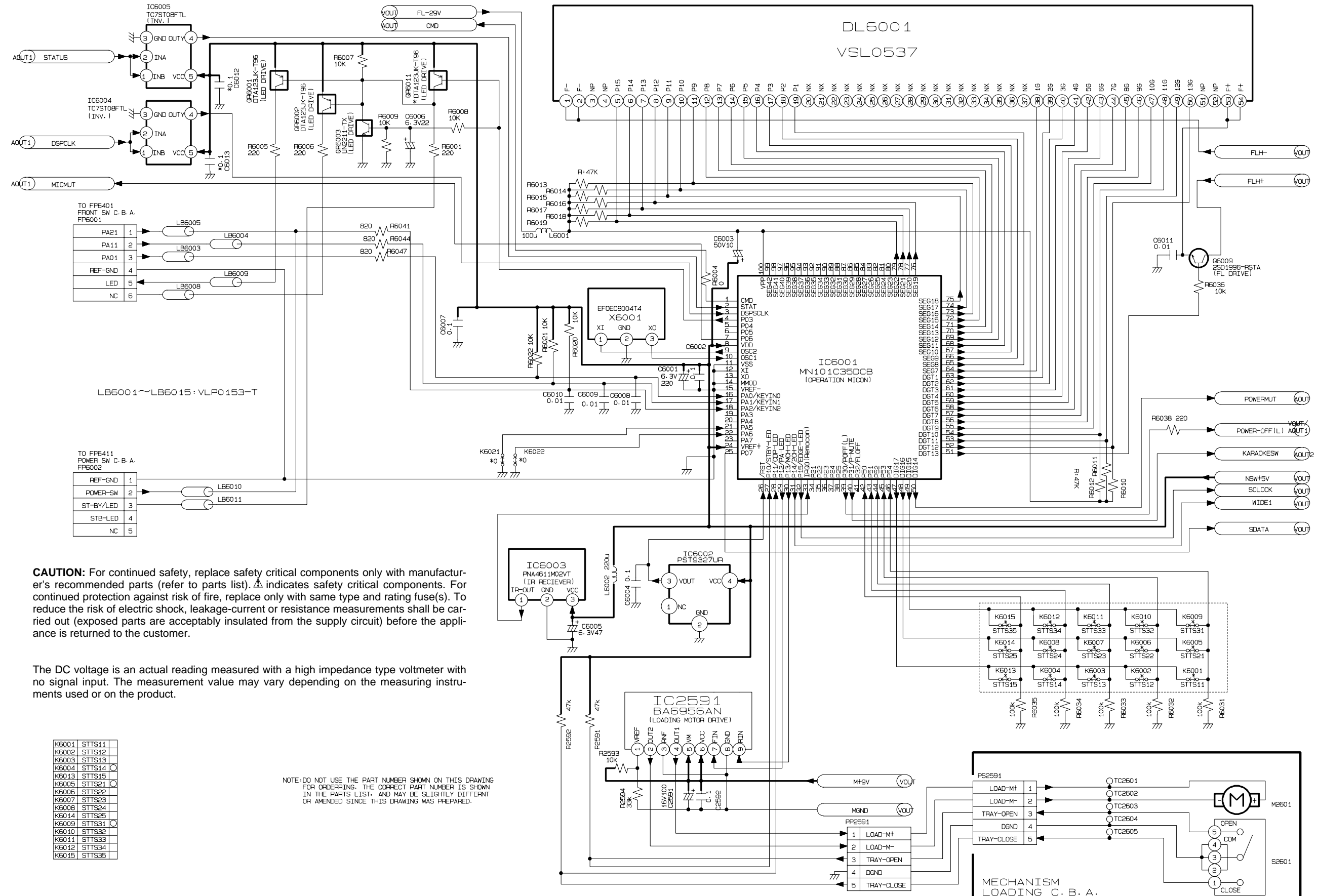
DV-403

KENWOOD

Y22-8330-10

Operation section(Mother C.B.A. 4/4)

VO SECTION: (1/4), AOUT1 SECTION: (2/4), AOUT2 SECTION: (3/4), OP SECTION: (4/4)



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

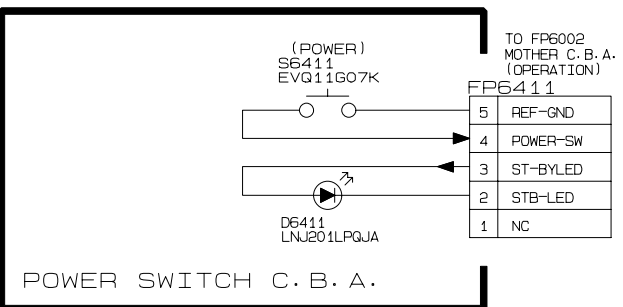
K6001	STTS11
K6002	STTS12
K6003	STTS13
K6004	STTS14
K6013	STTS15
K6005	STTS21
K6006	STTS22
K6007	STTS23
K6008	STTS24
K6014	STTS25
K6009	STTS31
K6010	STTS32
K6011	STTS33
K6012	STTS34
K6015	STTS35

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

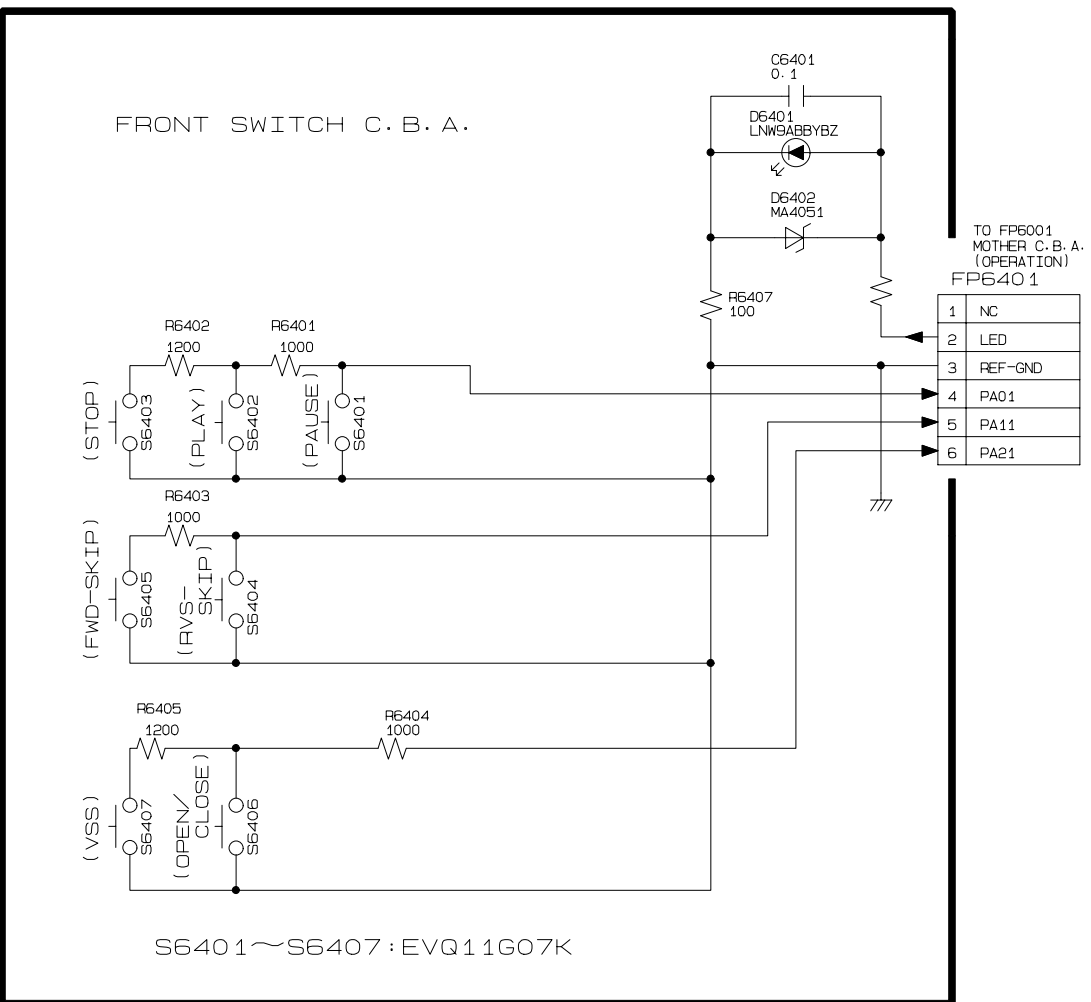
Front switch and power switch

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

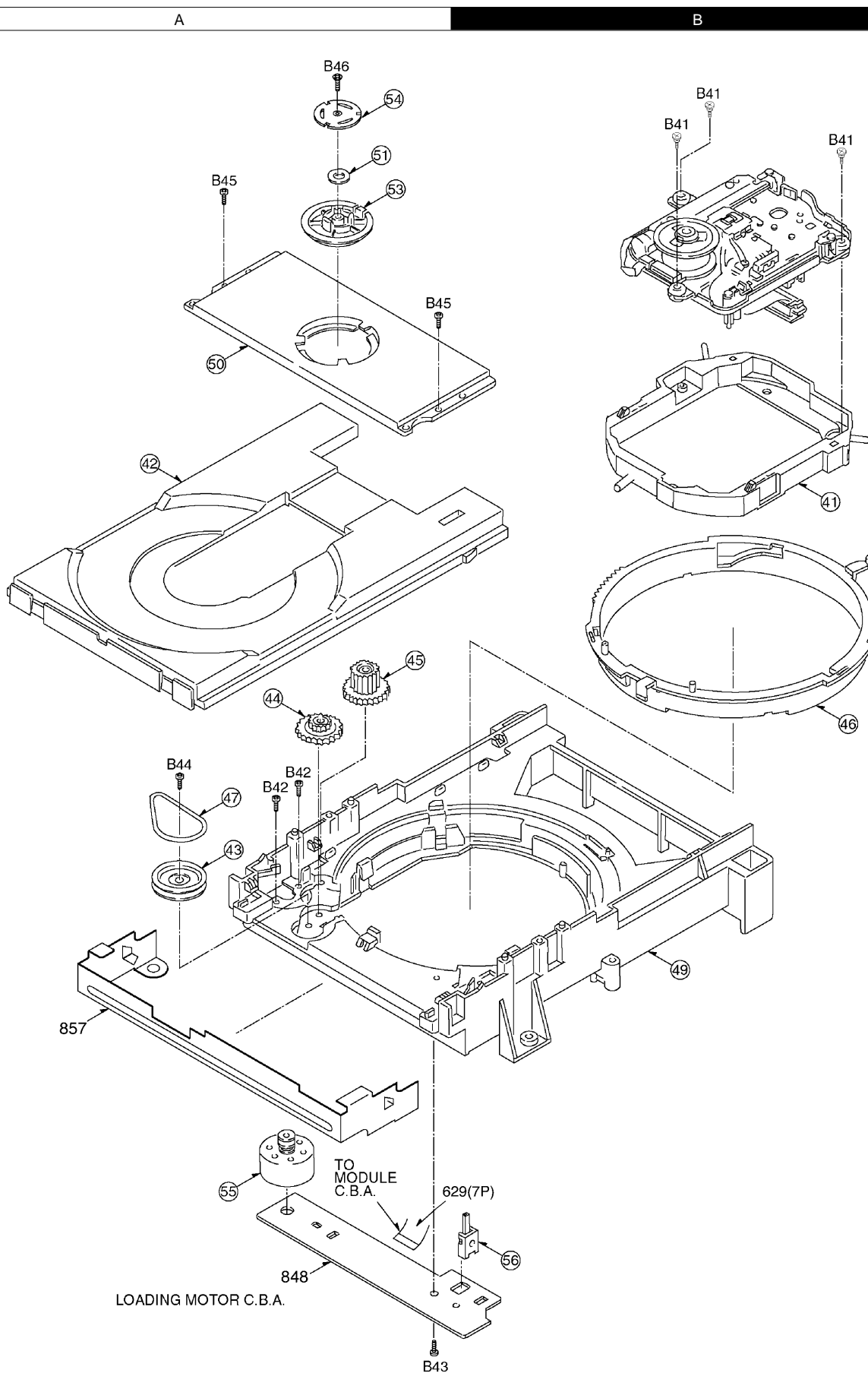
The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.



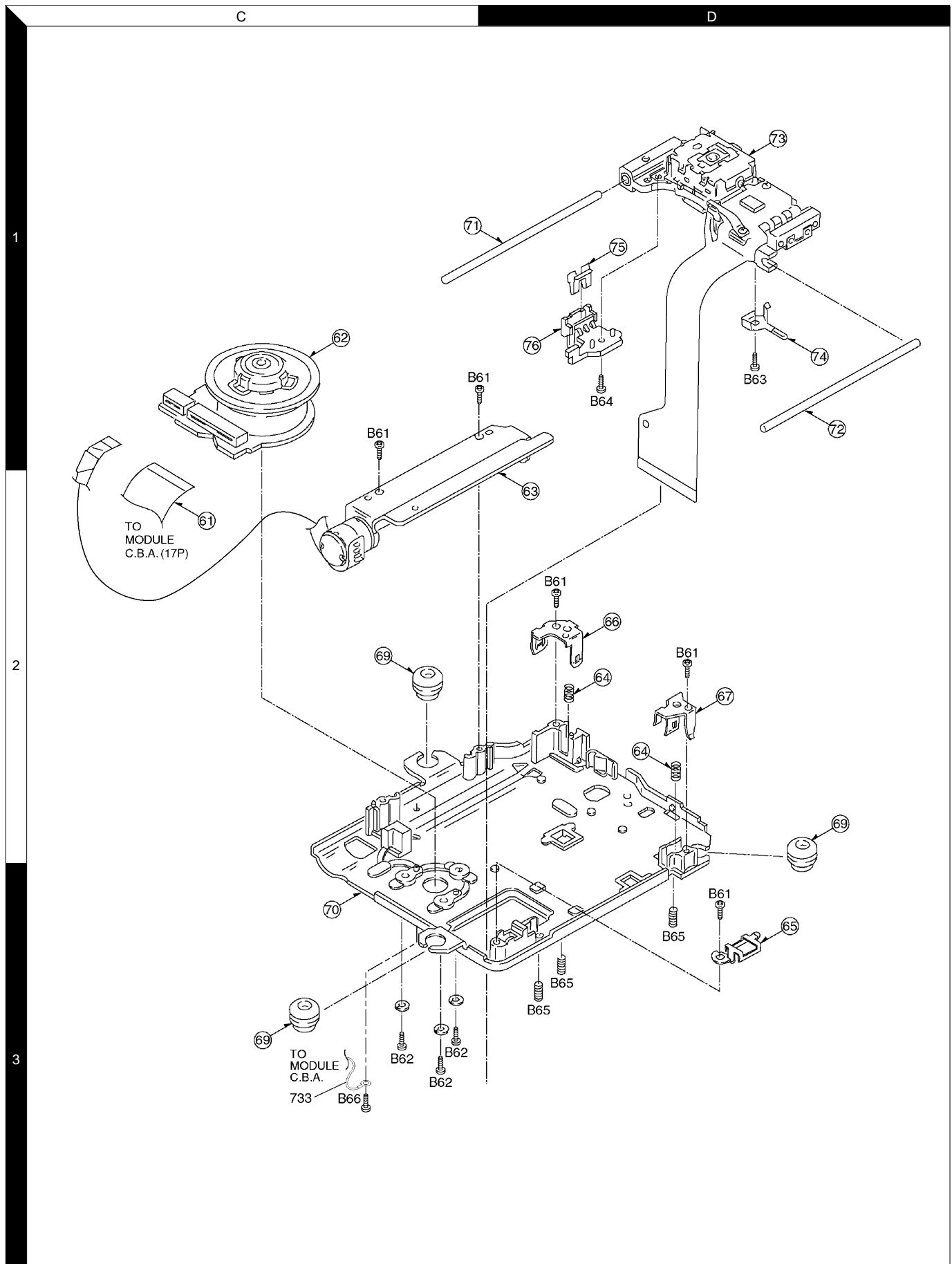
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.



EXPLODED VIEW (MECHANISM)

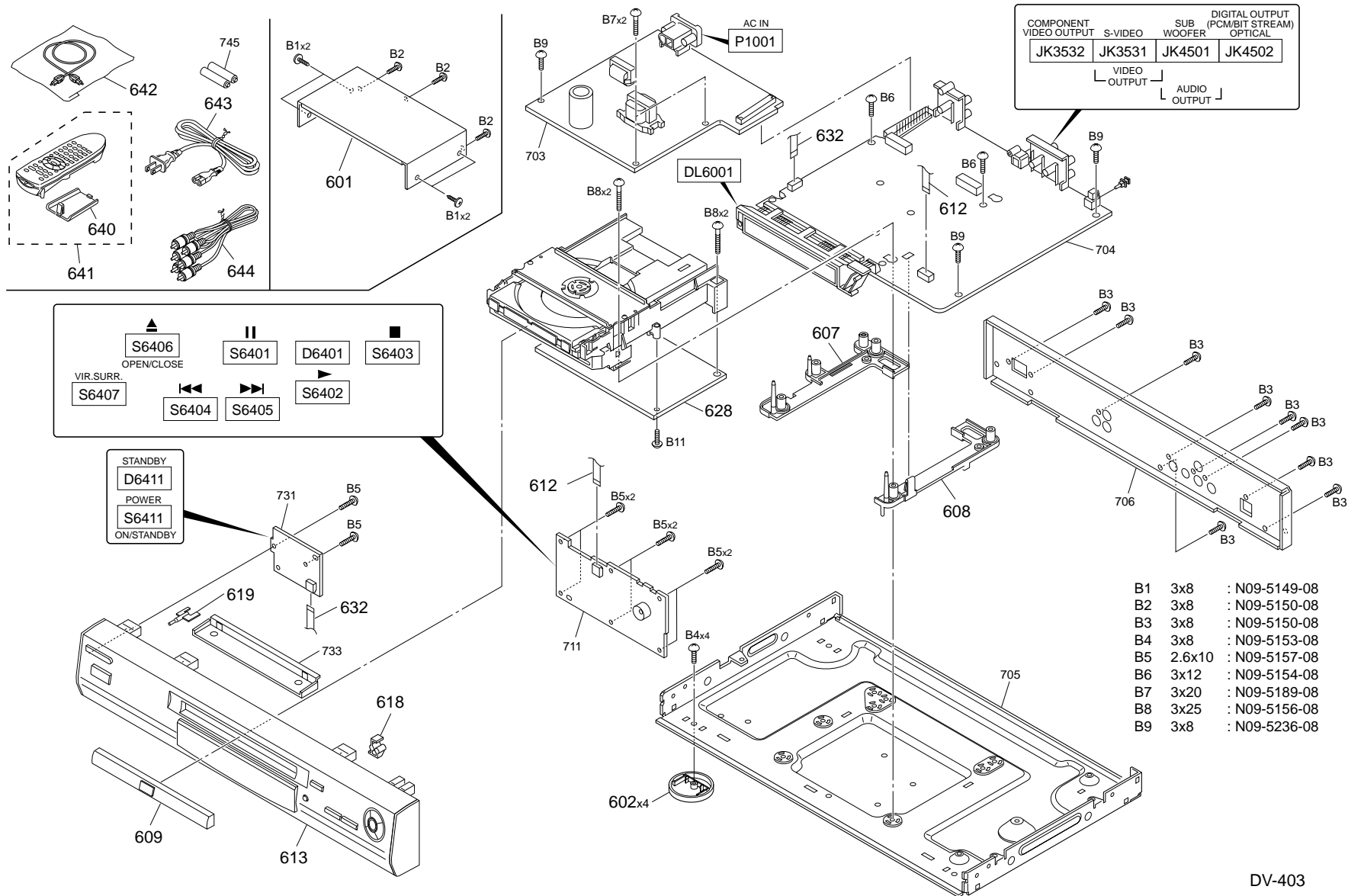


EXPLODED VIEW (MECHANISM)



EXPLODED VIEW(UNIT)

DV-403



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2

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
MECHANISM PARTS						
41	2B		A11-1171-08	INTERMEDIATE CHASSIS,VMD3270		
42	1A		J99-0819-08	TRAY VMD3265		
43	2A		D13-1978-08	PULLEY GEAR VDG1308		
44	2A		D13-1979-08	DECLARATION GEAR,VDG1309		
45	2A		D13-1980-08	DRIVER GEAR VDG1310		
46	2B		A11-1172-08	VERTICAL CAM VDK0156		
47	2A		D16-0722-08	BELT VDV0373		
49	3B		A10-3504-08	LOADING BASE VMD3266		
50	1A	*	A11-1192-08	CLAMPER BASE VMA0E55-2		
51	1A	*	T99-0644-08	MAGENT RHM245ZA		
53	1A	*	J11-0863-08	CLAMPER VMD3884		
54	1A	*	N19-1512-08	CLAMPER WEIGHT VMA0E54		
55	3A		T42-0964-08	LOADING MOTOR UNIT,VEM0664		
56	3B		S64-0047-08	DOUBLE SWITCH VSH0170		
61	2C	*	E35-2708-08	SPINDLE FFC VWJ1388		
62	1C	*	T42-0989-08	SPINDLE MOTOR BML3E4CRU		
63	2D	*	T42-0990-08	STEPPING MOTOR VEM0720		
64	2D		G01-4184-08	TILT SPRING VMB3278		
65	3D		G02-1696-08	SUB-SHAFT TILT SP, VMC1487		
66	2D	*	G02-1718-08	SPRING HOLDER1 VMC1606		
67	2D	*	G02-1719-08	SPRING HOLDER2 VMC1607		
69	2C,2D		J02-1469-08	FLOATING RUBBER,VMG1166		
70	3C	*	A11-1193-08	TRVERSE CHASSIS,VMK0502		
71	1D		J90-0872-08	GUIDE SHAFT1 VMS6471		
72	1D		J90-0873-08	GUIDE SHAFT2 VMS6472		
73	1D		J91-0504-08	OPTICAL PICKUP VED0402-1		
74	1D		G02-1699-08	SUB-SHAFT PRELOAD SP,VMC1491		
75	1D		G02-1700-08	SCREW NUT VMC1490		
76	1D		J21-6791-08	NUT VMD3260		
B11			N09-5158-08	SCREW XTV3+10G		
B41			N09-5159-08	SCREW VHD1223		
B42			N09-3456-08	SCREW XQNQC17+3		
B43			N09-5158-08	SCREW XTV3+10G		
B44		*	N09-5237-08	SCREW VHD1330		
B45			N09-5158-08	SCREW XTV3+10G		
B61			N09-5162-08	SCREW VHD1224		
B62		*	N09-5238-08	SCREW VHD1358		
B63			N09-3462-08	SCREW VHD1057		
B64			N09-3456-08	SCREW XQNQC17+3		
B65			N09-5164-08	SCREW XXE26C6FN		

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
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1

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
DV-403						
601	1E	*	A01-3785-08	TOP COVER VGM1725		
602	2F		J02-1468-08	LEG VYK5504		
607	1F	*	J30-1420-08	SPACER L VMD3854		
608	2G	*	J30-1421-08	SPACER R VMD3855		
609	2E	*	A29-1120-08	TRAY TOP VFY2693		
612	2F,1G		E35-2563-08	FLAT CABLE VWJ06A0130BB		
613	2E	*	A60-1908-08	FRONT PANEL VYP7757		
618	2E		J19-6058-08	HOLDER P VGL0812		
619	2E	*	J19-6133-08	HOLDER S VGL0861		
628	1F	*	J26-0122-08	MODULE CBA		
632	2E,1F	*	E35-2707-08	FLAT CABLE VWJ05AW170BB		
640	1E	*	A09-1193-08	BATTERY COVER TR1122722030		
641	1E	*	A70-1444-08	REMOTE CONTROLVEQ2395		
642	1E		B19-1615-08	DIGITAL CORD VJA1031		
643	1E	*	E30-2973-08	AC CORD RJA0065-A		
644	1E		E30-2938-08	A/V CORD VJA1062		
B1			N09-5149-08	SCREW VHD1041		
B2			N09-5150-08	SCREW VHD0690		
B3			N09-5150-08	SCREW VHD0690		
B4			N09-5153-08	SCREW XTV3+8G		
B5			N09-5157-08	SCREW XTBS26+10J		
B6			N09-5154-08	SCREW XYE3+EF12		
B7			N09-5189-08	SCREW XYE3+EF20		
B8			N09-5156-08	SCREW XYE3+EF25		
B9		*	N09-5236-08	SCREW XYE3+EF8		
-		*	B60-4734-08	OPERATING INST VQT8703		
-			H09-0133-08	ACCESSORY CASE VPK1891Z		
-		*	H10-7720-08	CUSHION L VPN5389		
-		*	H10-7721-08	CUSHION R VPN5390		
-			H25-1664-08	POLYETHYLENE BAG,VPF0731		
-		*	H50-3774-08	PACKING CASE VPG0E11		

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PARTS LIST

DV-403

PARTS LIST

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3

Ref. No	New Parts	Parts No.	Desti-nation
ELECTRICAL PARTS			
Δ Δ Δ D6401 D6411 C1001,02 C1003 C1005	* * * * *	B30-2588-08 B30-2589-08 C90-3891-08 C90-3915-08 C90-3892-08	
C1014 C1021 C1031 C1041 C1051	* * * * *	C90-3870-08 C90-3914-08 C91-1603-08 CQ93FM1H223J CQ93FM1H104J	
C1052 C1053 C1061 C1101 C1102	* * * * *	C90-3891-08 CQ93FM1H223J CE04EW0J470M C90-3891-08 CQ93FM1H223J	
C1111,12 C1115 C1116 C1117 C1121	* * * * *	CE04EW1A102M CK45FB1E104Z CE04EW1A221M CE04EW0J102M CE04EW1A331M	
C1122 C1125 C1131 C1133 C1141	* * * * *	CE04EW1A102M CE04EW0J102M C90-3874-08 CE04EW1E330M C90-3874-08	
C1143 C1151 C1153 C1154 C1161	* * * * *	CE04EW1E330M C90-3875-08 CE04EW1E221M CE04EW1C221M C90-3943-08	
C1171 C2001 C2002 C2003 C2004	* * * * *	C90-3944-08 C90-3923-08 CK73GB1C104Z C90-3923-08 CK73GB1C104Z	
C2005 C2006 C2007 C2012 C2013-15	* * * * *	C90-3923-08 CK73GB1C104K CK73GB1C104Z CC73GCH1H331J CC73GCH1H121J	
C2016,17 C2018,19 C2020 C2021,22 C2023	* * * * *	CC73GCH1H101J CC73GCH1H391J CK73GB1C104Z CK73GB1C104K CK73GB1H682K	
C2024 C2025,26 C2028 C2029 C2030	* * * * *	CC73GCH1H681J CK73GB1C104Z CK73GB1C104Z CC73GCH1H470J CK73GB1C183K	
C2031 C2032 C2033 C2034 C2035	* * * * *	CK73GB1H102K CK73GB1C104Z CK73FB1C474K CK73GB1C103K RK73GB1J000J	
C2037 C2038 C2039 C2040 C2041	* * * * *	CK73GB1C104Z CK73GB1C473K CK73GB1C393K CK73GB1H822K CK73GB1C104Z	
C2042 C2043 C2044 C2045-48 C2051	* * * * *	CK73GB1C104K CK73GB1C473K CK73GB1C104K CK73GB1C104Z CK73GB1C104Z	
C2500 C2501 C2502 C2503-05 C2506	* * * * *	C90-3911-08 C90-3923-08 C90-3885-08 CK73GB1H103K CK73GB1C104Z	
C2507,08 C2509 C2513-18 C2521-25 C2591	* * * * *	CK73GB1C104K CK73GB1C104Z CK73GB1C104Z CK73GB1C104Z CE04KW1C101M	

Ref. No	New Parts	Parts No.	Desti-nation
C2592 C3001-03 C3004 C3005,06 C3007,08	* * * * *	CK73FB1H104Z C90-3885-08 C90-3886-08 CK73GB1C104Z C90-3886-08	
C3009-11 C3012,13 C3014,15 C3016 C3017,18	* * * * *	CK73GB1C104Z C90-3886-08 CK73GB1C104Z C90-3886-08 CK73GB1C104Z	
C3019,20 C3021-23 C3024 C3025 C3026	* * * * *	C90-3886-08 CK73GB1C104Z C90-3886-08 CK73GB1C104Z C90-3886-08	
C3027-29 C3030 C3031-35 C3036 C3042,43	* * * * *	CK73GB1C104Z C90-3886-08 CK73GB1C104Z CC73GCH1H220J CK73GB1C104Z	
C3045 C3046 C3051 C3052-55 C3056-64	* * * * *	CK73GB1C104Z C90-3879-08 C90-3885-08 CK73FB1A105K CK73GB1C104Z	
C3065 C3066 C3081-85 C3091,92 C3093	* * * * *	CS15E1A100K CK73GB1C104Z CK73GB1C104Z C90-3923-08 CK73GB1C104Z	
C3094 C3095 C3221-31 C3500 C3501	* * * * *	CS15E1A100K CK73GB1C104Z CK73GB1C104Z CE04EW0J471M C90-3215-05	
C3502 C3503 C3504 C3505,06 C3507	* * * * *	CK73FB1H103Z CK73FB1H471K CK73FB1H103K CE04KW1C470M CK73FB1H103Z	
C3508,09 C3511,12 C3513,14 C3515 C3536	* * * * *	CE04EW0J471M CE04EW0J102M CE04KW1C101M CK73FB1H103Z CK73FB1H103K	
C3551,52 C4201 C4202,03 C4204 C4205	* * * * *	CK73FB1H103Z CE04KW0J102M CK73GB1C104Z CS15E1A100K CK73GB1C104Z	
C4206 C4207-09 C4221-25 C4320 C4321	* * * * *	CS15E1A100K CK73GB1C104Z CK73GB1C104Z CK73FB1H102J CE04KW1C220M	
C4324 C4325 C4328,29 C4330 C4331	* * * * *	CC73FCH1H101J CE04KW1C470M CK73FB1H104Z CK73FB1H102J CE04KW1C220M	
C4334 C4335 C4385 C4471 C4472,73	* * * * *	CK73FB1H102J CE04KW1C470M CE04KW1C470M CK73FB1H333K CK73FB1H104Z	
C4475 C4476 C4501 C4511 C4531	* * * * *	CK73FB1H104K CK73FB1H103K CK73FB1H102J CK73FB1H102J CK73FB1H102J	
C4581,82 C4586 C4592 C4781 C4782	* * * * *	CK73FB1H104Z CK73FB1H104Z CK73FB1H104Z CE04KW1H477M CK73FB1H104Z	
C4902	* *	CE04EW1C101M	

Ref. No	New Parts	Parts No.	Desti-nation
C4913 C5201 C5202,03 C5204	* * * *	CE04EW1C101M C90-3882-08 CK73GB1C104Z C90-3882-08	
C5205 C5211 C5212 C5213 C5214,15	* * * * *	CK73GB1C104Z C90-3924-08 CC73GCH1H221J CK73GB1C104K CK73GB1C104Z	
C5216 C5217 C5218 C5219 C5220	* * * * *	CK73GB1H102K CK73GB1C104K CC73GCH1H180J CK73GB1H182K CC73GCH1H101J	
C5221 C5222,23 C5224,25 C5226 C5227	* * * * *	CC73GCH1H390J CK73GB1A474K CC73GCH1H221J CK73GB1C104K CK73GB1C104Z	
C5232 C5233 C5234 C5241,42 C6001	* * * * *	CK73GB1C104Z CS15E1A100K CK73GB1C104Z CK73GB1C104Z CE04KW0J221M	
C6002 C6003 C6004 C6005 C6006	* * * * *	CK73FB1H104Z CE04KW1H100M CK73FB1H104Z CE04KW0J470M CE04KW0J220M	
C6007 C6008-11 C6012,13 C6201 C6202-04	* * * * *	CK73FB1H104Z CK73FB1H103Z CK73FB1H104Z C90-3882-08 CK73GB1C104Z	
C6206-08 C6211,12 C6251 C6252 C6253,54	* * * * *	CK73GB1C104Z CK73GB1C104Z C90-3923-08 CS15E1A100K CK73GB1C104Z	
C6255 C6256 C6257 C6258 C6301	* * * * *	C90-3882-08 C90-3885-08 C90-3923-08 CK73GB1H103K CC73GCH1H101J	
C6302 C6303-05 C6401 C6501 C6502,03	* * * * *	CK73GB1C104K CK73GB1C104Z CK45FB1E104Z C90-3882-08 CK73GB1C104Z	
C6504 C6505,06 C6511-13 C6514,15 C6516,17	* * * * *	CS15E1A100K CK73GB1C104Z CK73GB1C104Z CC73GCH1H150J CK73GB1C104Z	
C6551 C6553 C7001,02 C7006 C7011-26	* * * * *	CK73GB1C104Z CS15E1A477K C90-3923-08 CK73GB1C104Z CK73GB1C104Z	
FP2501 FP5201 FP6001 FP6002 FP6401	* * * * *	E40-8710-08 E40-8592-08 E40-8547-08 E40-8535-08 E40-8546-08	
FP6411 JK3531 JK3532 JK4501 JK4502	* * * * *	E40-8547-08 E40-8534-08 E63-1133-08 E63-1170-08 W02-2736-08	
Δ P1001 PP1101 PP2591 PP3201 PP4201	* * * * *	E40-8535-08 E40-8711-08 E40-8712-08 E40-8713-08 E40-8714-08	
PS1101 PS2591 PS3201	* * *	E40-8596-08 E40-8596-08 E40-8539-08	

L : Scandinavia

Y : PX(Far East,Hawaii)

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Δ indicates safety critical components .

PARTS LIST

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4

Ref. No	New Parts	Parts No.	Destination	Ref. No	New Parts	Parts No.	Destination	Ref. No	New Parts	Parts No.	Destination
PS4201	*	E40-8715-08		K6531		RK73GB1J000J		R3537-39		RK73FB2A750J	
PS6201		E40-8540-08		R1042		RS14GB3D680J		R4201		RK73GB1J331J	
ZA4752		E29-1648-08		R1054		RN14BK2E681J		R4202		RK73GB1J222J	
F1001		F50-0165-08		R1102,03		RN14BK2E122J		R4309		RK73FB2A000J	
PR1171		F50-0163-08		R1126,27		RN14BK2E122J		R4319		RK73FB2A000J	
FL6251,52	*	L79-1266-08		R2001-07		RK73GB1J473J		R4321		RK73FB2A104J	
FL6254	*	L79-1266-08		R2008,09		RK73GB1J223J		R4322		RK73FB2A392J	
FL6255	*	L79-1267-08		R2010		RK73GB1J273J		R4323		RK73FB2A103J	
L1001		L79-1257-08		R2011		RK73GB1J123J		R4324		RK73FB2A822J	
L1111		L90-0332-08		R2012		RK73GB1J562J		R4327		RK73FB2A473J	
L1115		L33-0595-08		R2013		RK73GB1J273J		R4329		RK73FB2A223J	
L1131		L90-0333-08		R2014		RK73GB1J105J		R4331		RK73FB2A104J	
L1141		L90-0333-08		R2017		RK73GB1J153J		R4332		RK73FB2A392J	
L1151		L90-0334-08		R2018		RK73GB1J473J		R4333		RK73FB2A103J	
L2001	*	L90-0355-08		R2020		RK73GB1J123J		R4334		RK73FB2A822J	
L2002,03	*	L90-0356-08		R2021		RK73GB1J103J		R4337,38		RK73FB2A473J	
L2501		RK73FB2A000J		R2022,23		RK73GB1J223J		R4366		RK73FB2A000J	
L3091	*	L90-0355-08		R2024,25		RK73GB1J563J		R4369		RK73FB2A000J	
L3501	*	L33-0596-08		R2026		RK73GB1J101J		R4458,59		RK73FB2A000J	
L4201	*	L90-0357-08		R2027		RK73GB1J472J		R4471,72		RK73FB2A683J	
L4781		L33-0596-08		R2028,29		RK73GB1J103J		R4473		RK73FB2A473J	
L5201	*	L90-0355-08		R2030		RK73GB1J103J		R4475,76		RK73FB2A473J	
L5202	*	L90-0356-08		R2031		RK73GB1J000J		R4477		RK73FB2A563J	
L6001		L90-0351-08		R2032		RK73GB1J473J		R4478		RK73FB2A000J	
L6002		L90-0352-08		R2033,34		RK73GB1J472J		R4501		RK73FB2A821J	
L6201		L90-0341-08		R2501,02		RK73GB1J271J		R4502		RK73FB2A221J	
L6501,02	*	L90-0357-08		R2503		R92-1933-08		R4503		RK73FB2A821J	
L7001,02	*	L90-0356-08		R2505		RK73GB1J473J		R4511		RK73FB2A821J	
LA2501,02	*	L33-1606-08		R2511		RK73GB1J203J		R4512		RK73FB2A221J	
LB1021	*	L90-0340-08		R2512		RK73GB1J273J		R4513		RK73FB2A821J	
LB2509-11		L90-0342-08		R2513		RK73GB1J333J		R4524		RK73FB2A332J	
LB2512		L90-0341-08		R2514		RK73GB1J203J		R4525		RK73FB2A000J	
LB2513-16		L90-0342-08		R2515		RK73GB1J273J		R4531		RK73FB2A821J	
LB3201-04		L90-0341-08		R2516		RK73GB1J333J		R4532		RK73FB2A221J	
LB3533,34		L90-0343-08		R2517		RK73GB1J123J		R4533		RK73FB2A821J	
LB3536-39		L90-0343-08		R2518		RK73GB1J103J		R4590		RK73FB2A102J	
LB4001-06		L90-0341-08		R2519		RK73GB1J752J		R4594		RK73EB2B102J	
LB4007,08		RK73GB1J100J		R2520		RK73GB1J123J		R4596		RK73FB2A223J	
LB4501		L90-0343-08		R2521		RK73GB1J103J		R4598		RK73FB2A331J	
LB4511		L90-0343-08		R2522		RK73GB1J752J		R4599		RK73FB2A681J	
LB4531		L90-0343-08		R2591,92		RK73FB2A473J		R4600		RK73FB2A221J	
LB5201-10		L90-0341-08		R2593		RK73FB2A103J		R5201		R92-1935-08	
LB5211		L90-0342-08		R2594		RK73FB2A333J		R5202		RK73GB1J2R2J	
LB5212-14		L90-0341-08		R3001		RK73GB1J220J		R5203		RK73GB1J223J	
LB5215-18	*	L90-0358-08		R3002		RK73GB1J472J		R5204		RK73GB1J123J	
LB6003-05		L90-0354-08		R3003		RK73GB1J101J		R5206		RK73GB1J154J	
LB6009-11		L90-0354-08		R3004		RK73GB1J000J		R5207		RK73GB1J562J	
LB6201		L92-0084-08		R3005		RK73GB1J473J		R5208		RK73GB1J101J	
LB6501		L90-0341-08		R3051		RK73GB1J752J		R5209		RK73GB1J303J	
LB6502,03		L92-0084-08		R3052		RK73GB1J101J		R5210		RK73GB1J473J	
LB6504		L90-0341-08		R3055		RK73GB1J752J		R5211		RK73GB1J183J	
LB6505		L92-0084-08		R3057		RK73GB1J183J		R5212		RK73GB1J562J	
LB6506		L90-0341-08		R3058		RK73GB1J432J		R5213		RK73GB1J103J	
LB6507		L92-0084-08		R3059,60		RK73GB1J752J		R5214-16		RK73GB1J105J	
LB6551		L90-0341-08		R3061		RK73GB1J101J		R5217		RK73GB1J000J	
LR1041	*	L90-0359-08		R3071		RK73GB1J103J		R6001,02		RK73FB2A221J	
T1021	*	L07-2912-08		R3081		RK73GB1J750J		R6004		RK73FB2A000J	
X6001		L78-0710-08		R3082		RK73GB1J330J		R6005		RK73FB2A221J	
X6501		L77-2280-08		R3083		RK73GB1J102J		R6007		RK73FB2A103J	
				R3084		RK73GB1J750J		R6008		RK73FB2A473J	
K2002		RK73GB1J000J		R3085		RK73GB1J330J		R6009		RK73FB2A103J	
K3001		RK73GB1J000J		R3086		RK73GB1J102J		R6010-19		RK73FB2A473J	
K3002,03		RK73FB2A000J		R3087		RK73GB1J750J		R6020-22		RK73FB2A103J	
K3013,14		RK73GB1J000J		R3088		RK73GB1J330J		R6031-35		RK73FB2A104J	
K3021		RK73GB1J000J		R3089		RK73GB1J102J		R6036		RK73FB2A103J	
K3511		RK73FB2A000J		R3090		RK73GB1J750J		R6038		RK73FB2A221J	
K3552		RK73FB2A000J		R3091		RK73GB1J330J		R6041		RK73FB2A821J	
K4752		RK73FB2A000J		R3092		RK73GB1J331J		R6044		RK73FB2A821J	
K5231		RK73GB1J000J		R3501		RK73FB2A472J		R6047		RK73FB2A821J	
K5241		RK73GB1J000J		R3502		RK73FB2A182J		R6201		RK73GB1J103J	
K6004,05		RK73FB2A000J		R3507		RK73FB2A102J		R6208		RK73GB1J473J	
K6009		RK73FB2A000J		R3511,12		RK73FB2A102J		R6209		RK73GB1J151J	
K6251		RK73FB2A000J		R3521		RK73FB2A222J		R6210		RK73GB1J471J	
K6301		RK73GB1J000J		R3526		RK73FB2A103J		R6211		RK73GB1J391J	
K6502-04		RK73GB1J000J		R3533,34		RK73FB2A750J		R6212		RK73GB1J473J	
K6521		RK73GB1J000J		R3536		R92-1934-08		R6213,14		RK73GB1J102J	

L : Scandinavia
Y : PX(Far East,Hawaii)
Y : AAFES(Europe)

K : USA
T : England
X : Australia

P : Canada
E : Europe
Q : Russia

R : Mexico
G : Germany
H : Korea

C : China
V : China(Shanghai)
M : Other Areas

I : Malaysia

△ indicates safety critical components.

PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

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Ref. No	New Parts	Parts No.	Destination	Ref. No	New Parts	Parts No.	Destination	Ref. No	New Parts	Parts No.	Destination
R6301		RK73GB1J103J		IC6551		TK71533SCL					
R6302,03		RK73GB1J472J		IC7001		MN103S13BGA					
R6502		RK73GB1J221J		△ PR1161		F09-0147-08					
R6503,04		RK73GB1J103J		△ Q1021		2SC4662LF654					
				△ Q1051		T95-0170-08					
R7001		RK73GB1J102J		Q1052		2SD1996-S					
R7002		RK73GB1J473J		Q1061		2SD1996-S					
RA2001		R90-1307-08									
RA2501		R90-0997-08		Q1062		2SC3311A-R					
RA3008		R90-0997-08		Q1063		2SD1996-S					
				Q1115		2SJ525					
RA3009,10	*	R90-1310-08		Q3081-84		2SB1218A					
RA3011		R90-0996-08		Q3501		2SD601A					
RA5201	*	R90-1311-08									
RA6201		R90-0997-08		Q4501		2SD1328					
RA6202-04		R90-0996-08		Q4511		2SD1328					
				Q4521		2SD1328					
RA6205		R90-0995-08		Q4531		2SD1328					
RA6206		R90-0996-08		Q5201		2SB1115-T					
RA7001-03		R90-0995-08									
W701-11		RK73FB2A000J		Q6009		2SD1996-S					
W713-16		RK73FB2A000J		QR1115		UN4213					
				QR2001		UN5213					
W3221		RK73GB1J000J		QR3521		UN2212					
				QR4521		UN2111					
S6401-07		S70-0084-08									
S6411		S70-0084-08		QR4593		UN2211					
△ D1011		S1WBA80		QR4594		UN2111					
D1031		VSD0002		QR4596		UN2111					
D1041		AU01Z		QR5201		UN5212					
D1051,52		1SS254		QR5231		UN2121					
D1053		MA4036M									
				QR6001		DTA123JK					
D1111		21DQ04		QR6003		2SD601A					
D1121		21DQ04		QR6009		DTA123JK					
D1126		11ES1		QR6011		DTA123JK					
D1131		11EQS06		QR6301		UN5212					
D1132		MA7150B									
				△ D1001		ENC471D5ATUB					
D1141		11EQS06		D1002		ENC221D5ATR					
D1151,52		11EQS06									
D1161		AU01Z									
D1162		MA4030									
D1171		AK04									
D3091		MA111									
D4596		MA3047M									
D6014		LN28RCPL									
D6251		MA111									
D6301		MA728									
D6402		MA4051-M									
△ DL6001		VSL0537									
DZ1001		VSQ1003									
IC1101		UPC1093J									
IC1125		PQ07RX11									
IC1151		SI-3090FLF11									
IC2001		MN67706EA									
IC2501		AN8480NSB									
IC2511		BA5983FM									
IC2591		BA6956AN									
IC3001		MN677532JA									
IC3002		PQ018EZ01ZP									
IC3061		MNX7160BT1									
IC3081		TC4W66FU									
IC3091		PQ1R33									
IC3511		ML6427									
IC4201		PCM1746E									
IC4321		NJM4580M									
IC4471		NJM4558M									
IC4781		GP1FA550TZ									
IC4902		UPC78L08J									
IC4911		UPC79L08J									
IC5201		AN8707FH									
IC6001		MN101C35DCC									
IC6002		PST9327UR									
IC6003		PNA4611M02VT									
IC6004,05		TC7ST08F									
IC6201		MN102H55GFB									
IC6251		PQ1R33									
IC6301		PST596JNR									
IC6302		VUB8011C468									
IC6303		AT25020NS127									
IC6501		BU2285FV									

L : Scandinavia

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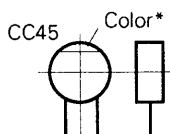
△ indicates safety critical components.

PARTS DESCRIPTIONS

CAPACITORS

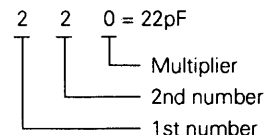
CC	45	TH	1H	220	J
1	2	3	4	5	6

- 1 = Type ... ceramic, electrolytic, etc.
 2 = Shape ... round, square, ect.
 3 = Temp. coefficient
 4 = Voltage rating
 5 = Value
 6 = Tolerance



• Capacitor value

- 010 = 1pF
 100 = 10pF
 101 = 100pF
 102 = 1000pF = 0.001μF
 103 = 0.01μF



• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470 ± 60ppm/°C

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 -20	+80 -20	+100 -0	More than 10μF - 10 ~ +50 Less than 4.7μF -10 ~ +75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

• Voltage rating

2nd word \ 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	-

• Chip capacitors

- (EX) C C 7 3 F S L 1 H 0 0 0 J
 1 2 3 4 5 6 7
 (Chip) (CH, RH, UJ, SL)
- (EX) C K 7 3 F F 1 H 0 0 0 Z
 1 2 3 4 5 6 7
 (Chip) (B, F)
- Refer to the table above.
 1 = Type
 2 = Shape
 3 = Dimension
 4 = Temp. coefficient
 5 = Voltage rating
 6 = Value
 7 = Tolerance

Dimension (Chip capacitors)

Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

RESISTORS

• Chip resistor (Carbon)

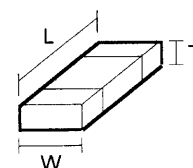
- (EX) R K 7 3 E B 2 B 0 0 0 J
 1 2 3 4 5 6 7
 (Chip) (B, F)

• Carbon resistor (Normal type)

- (EX) R D 1 4 B B 2 C 0 0 0 J
 1 2 3 4 5 6 7

- 1 = Type
 2 = Shape
 3 = Dimension
 4 = Temp. coefficient
 5 = Rating wattage
 6 = Value
 7 = Tolerance

Dimension



Dimension (Chip resistor)

Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6 ± 0.2	0.8 ± 0.2	0.5 ± 0.1

Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

SPECIFICATIONS

Power requirements: AC 120V, 60 Hz
Power consumption: 14W
Dimensions: 17⁵/₁₆"(W)x12³/₈"(D)x3³/₈"(H)
 [440 (W)x315 (D)x86 (H) mm]
 (excluding protrusions)
Mass: 6.6 lb. (3.0 kg)
Signal system: NTSC
Operating temperature range:
 +41 to +95°F(+5 to +35°C)
Operating humidity range:
 5 to 90% RH(no condensation)

Discs played:**(1) DVD-Video disc**

5" (12 cm) single-sided, single-layer
 5" (12 cm) single-sided, dual-layer
 5" (12 cm) double-sided, single-layer
 3" (8 cm) single-sided, single-layer
 3" (8 cm) single-sided, dual-layer
 3" (8 cm) double-sided, single-layer

(2) Compact disc (CD-DA, Video CD)

5" (12 cm) disc
 3" (8 cm) disc

Video output:

Output level: 1Vp-p (75Ω)
 Output terminal: Pin hack
 Number of terminals: 1 system

S video output:

Y output level: 1 Vp-p (75 Ω)
 C output level: 0.286 Vp-p (75 Ω)
 Output terminal: S terminal
 Number of terminals: 1 terminal

Component video output:

Y output level: 1 Vp-p (75 Ω)
 C_b output level: 0.7 Vp-p (75 Ω)
 C_r output level: 0.7 Vp-p (75 Ω)
 Output terminal: Pin jack
 (Y: green, C_b: blue, C_r: red)

Audio output:

Output level: 2 Vrms (1 kHz, 0 dB)
 Output terminal: Pin hack
 Mixed output (L/R): 1 system
 Subwoofer output: 1 system

Audio signal output characteristics:

- (1) Frequency response:
 • DVD (linear audio): 4 Hz~22 kHz (48 kHz sampling)
 4 Hz~44 kHz (96 kHz sampling)
 • CD audio: 4 Hz~20 kHz (EIAJ)
 (2) S/N ratio:
 • CD audio: 115 dB (EIAJ)
 (3) Dynamic range:
 • DVD (linear audio): 102 dB
 • CD audio: 98dB (EIAJ)
 (4) Total harmonic distortion:
 • CD audio: 0.0025% (EIAJ)

Digital audio output:

Optical digital output: Optical terminal

Pickup: Wave length: 665 nm
 Laser power: CLASS II

Note: Specifications are subject to change without notice.
 Mass and dimensions are approximate.

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