Quality Uncompromised

ROTEL®

Technical Manual

DVD PLAYER
RDV-985

Table of Contents

Specifications

General

Readable Discs:	DVD VIDEO, Audio CD, VIDE CD, SUPER VIDEO CD
Video Fomat:	PAL or NTSC selectable
Video Output	
VIDEO OUT (pin jack):	1.0 Vp-p (75 ohms)
S-VIDEO OUT (S jack):	
Y Output:	1.0 Vp-p (75 ohms)
C Output:	286 mVp-p (75 ohms)
Horizontal Resolution:	500 Lines
Signal to Noise Ratio:	65 dB
Audio Output	
ANALOG OUT (pin jack):	2.0 Vrms (10 kohms)
DIGITAL OUT (optical):	- 21 to -15 dBm (peak)
Audio Characteristics	
Frequency Response:	
CD: (sampling frequency 44.1 kHz):	2 Hz to 20 kHz
DVD (sampling frequency 48 kHz):	2 Hz to 22 kHz
DVD (sampling frequency 96 kHz):	2 Hz to 44 kHz
Dynamic Range:	
16 bit:	More than 100 dB
20 bit:	More than 108 dB
24 bit:	More than 108 dB
Wow and Flutter:	Unmeasurable (less than ± 0.002%)
Total Harmonics Distortion:	Less than 0.002%
Physical	
Power Requirements:	
USA Version:	AC 120V, 60 Hz
European Version:	AC 230V, 50 Hz
Power Consumption:	23 W (POWER ON), 2 W (STANBY mode)
Weight:	4.7 kg (10.4 lbs)
Dimensions (W x H x D):	445 x 112 x 338 mm $17_{1/2}$ x $4_{7/16}$ x $13_{5/16}$ inch

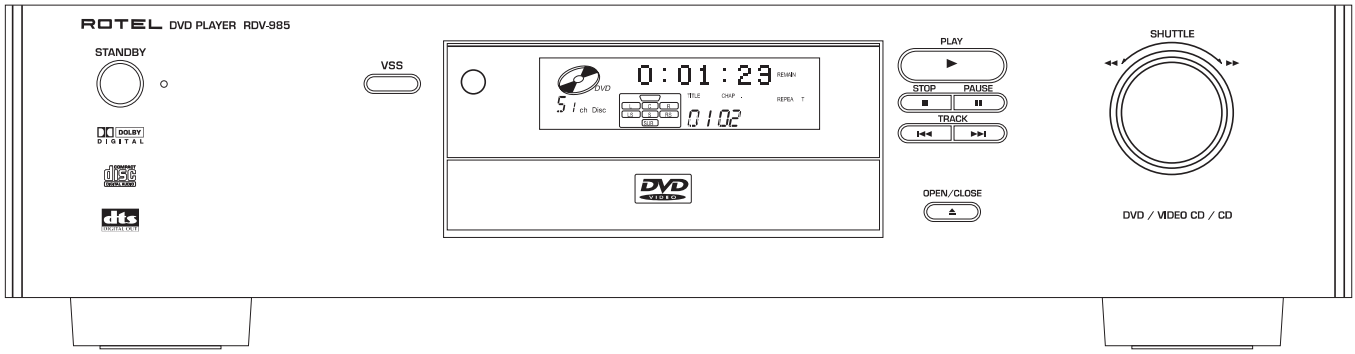
THE ROTEL CO., LTD.

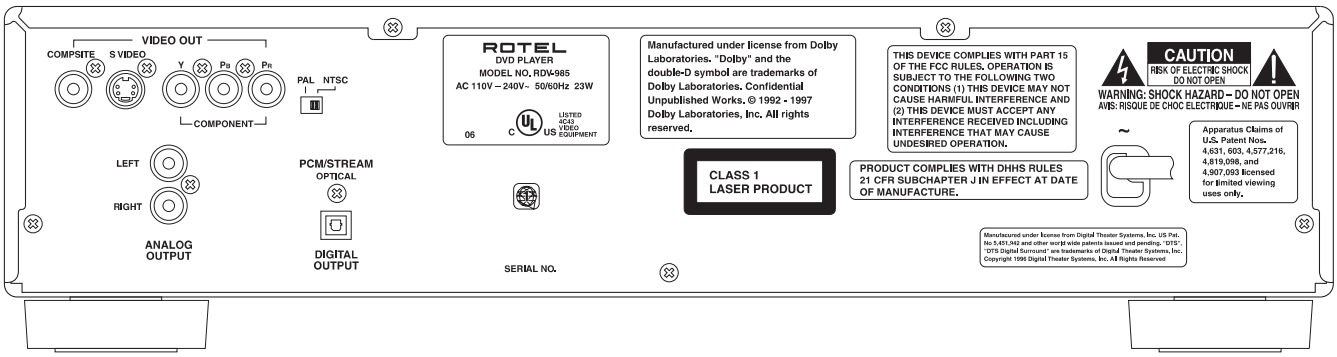
SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,
TOKYO 150-0045, JAPAN

Serial. NO.
Beginning

Y-356B-0109/W

Appearance


ROTEL DVD PLAYER RDV-985
STANDBY
VSS
0:01:23
0102
PLAY
STOP
PAUSE
TRACK
SHUTTLE
OPEN/CLOSE
DVD / VIDEO CD / CD


VIDEO OUT
COMPSITE
S VIDEO
Y
PB
PR
COMPONENT
PAL NTSC
LEFT
RIGHT
ANALOG OUTPUT
PCM/STREAM
OPTICAL
DIGITAL OUTPUT
SERIAL NO.
ROTEL
DVD PLAYER
MODEL NO. RDV-985
AC 110V – 240V~ 50/60Hz 23W
Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. © 1992 - 1997 Dolby Laboratories, Inc. All rights reserved.
CLASS 1
LASER PRODUCT
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J IN EFFECT AT DATE OF MANUFACTURE.
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
WARNING: SHOCK HAZARD – DO NOT OPEN
AVIS: RISQUE DE CHOC ELECTRIQUE – NE PAS OUVRIR
Apparatus Claims of U.S. Patent Nos. 4,631, 603, 4,577,216, 4,819,098, and 4,907,093 licensed for limited viewing uses only.

Main Adjustment

Adjustment and confirmation matter

(1) Auto adjustment method

If microprocessor (IC401, IC402, IC714, IC716) or servo board (LEA10047) is replaced, initialize the DVD player in the following matter:

ref. separate sheet.

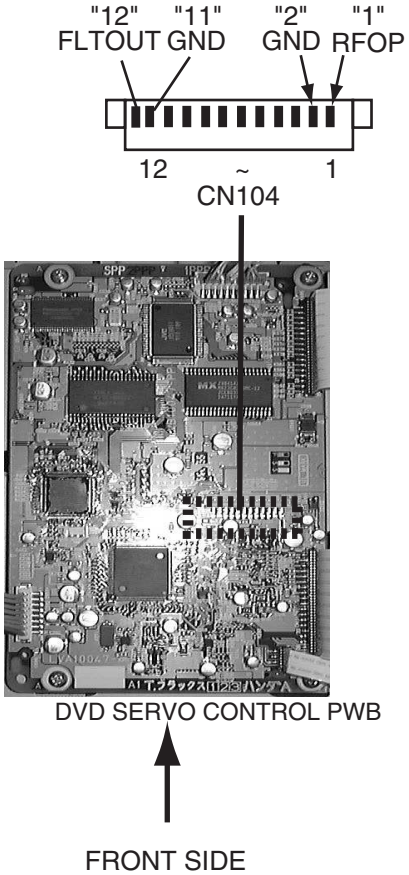
(2) Confirmation of DVD RF level

1.The oscilloscope is connected between "1"(RFOP) of CN104 and "2"(GND).

2.Reproduction of the test disc (VT-502) made by JVC.

3.It is confirmed that RF LEVEL is 350mVp-p±150mVp-p.

4.When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.



(3) Confirmation of CD jitter level and RF level

1. The CD jitter meter is connected between "11"(GND) of CN104 and "12"(FLTOUT).
The RF level is observed at the same time.

2.The first test disk(CTS-1000) made of JVC is reproduced.

3.It is confirmed that RF LEVEL is 360^{+}100mVp-p.

5. When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.

(4)Flap adjustment of the Pick-up guide shaft

Attention !!

RDV-985 is adjusted from issue machine because of the FL display on the way.

Please go in the adjustment method before changes according to the following procedures.

Measurement	Adjustment point	Mode	Disc
CN104 pin"1" GND:CN104 pin"2"	Refer to Fig.2	Reproduction part	VT-502
Measurement machine	connections	Extension cord No.	
Oscilloscope	Refer to Fig.1	QUQ110-3740AM	
General tool : Hex-head wrench(2mm)			

"Flap adjustment" of the Pick-up guide shaft adjusts
"Tangential adjustment machine screw" A and
"Tilt adjustment machine screw" B from the
DVD Mechanism A'ssy bottom.

1. The part at the center on the DVD test disc is reproduced.
2. The flap adjustment screws is turned alternately and adjusted like clearly seeing the waveform of CN104"1" to the way.

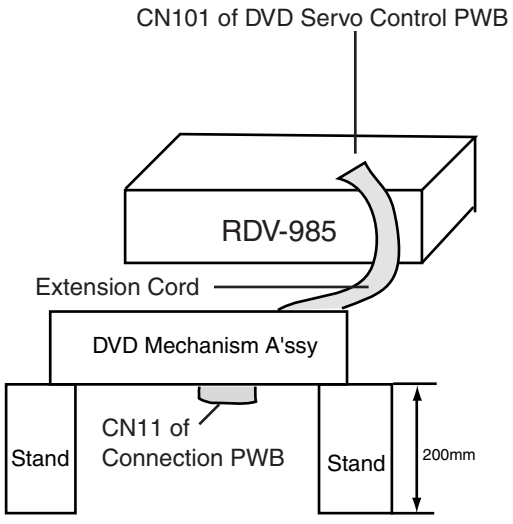


Fig.1

Note

1. The tangential adjustment is done finish and, then, tilt is adjusted.
2. The repeat the adjustment 2-3 times,for best result.
3. The final adjustment should be tilt adjustment.

Confirmation after adjustment.

Confirm to reproduce video CD and CD after
the DVD test disc is adjusted and to find abnormality.

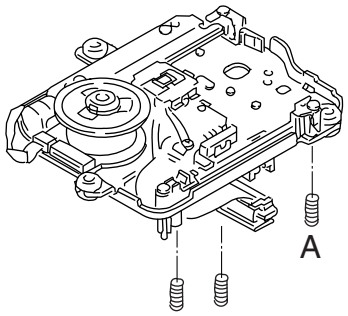


Fig.2

(5) About keeping the disc

As for the DVD test disc, plane accuracy is demanded.Please note the keeping place on the disc.

1. Please do not put the disc directly on the work desk etc. after uses .

2.T o keep the planarity of the disc, politely handle ,and please put in a special case and keep the disc v ertically after uses .
Please k eep keeping the disc in a cool place where direct sunshine and the air-conditioning wind do not dr ive.

3.When the disc cur ves,an accurate adjustment cannot be done.
Please e xchange for a new test disc and adjust optics.

4Other discs might not be ab le to be reproduced when adjusting on a curved disc.

Point of adjustment

* Please execute the static electricity protection measures before starting the adjustment.
* When the following parts are exchanged,optical adjustment "Adjust the flap of the disc motor" is necessary.

1.The disc motor w as exchanged.
2.The laser pic k up was exchanged.
3.The tr averse motor unit was exchanged.

Note

Additionally , please adjust the flap of the disc motor when the picture quality deterioration is seen .The basic adjustment though, is unnecessar y for part exchange in the traverse.
An optical adjustment in the laser pick up cannot be done.
Please adjust the flap of the disc motor after e xchanging the laser pick up.

* When the traverse unit is exchanged, the adjustment is basically unnecessary.

Check points for each error

(1) Spindle start error

*Defective spindle motor
Are there 10ohms resistance between each pin of CN101 "29~31"?
(The power supply is turned off and measured.)

*Hall element: Is sine wave output between CN101 "23" and "24", between "25" and "26", and between "27" and "28" during rotation?

In either case, replace the mechanical unit.

*Defective spindle driver (IC251)
Is a driving wave output from CN101 "29~31" ?

During rotation 

Is IC251 "9" at "H" level (START)?
Servo IC --- Is control signal sent to the motor driver ?

IC201 "95" : Duty is 50% during stop, but varies during rotation (greatly varies at start).
--- If not sent, pattern or servo IC (IC201) is defective.

R259 : approx 2.5V during stop, but varies during rotation (greatly varies at start).
--- of not sent, pattern or servo IC (IC201) is defective.

Is FG input to servo IC ?
Observe FG wave from IC201 "89". --- If not output, pattern, IC251 or IC201 is defective.

(2) Disc Detection, Distinction error (no disc, no REFNV)

* Laser is defective.
* Front End Processor is defective (IC101).
* APC circuit is defective. --- Q101.
* Pattern is defective. --- Lines for CN101 "15" and "17".
  Lines for between IC201 "2" and IC101 "2"(LDONA),
  between IC201 "3" and IC101 "1" (LDONB).
* Servo IC is defective (IC201).
* Is signal sent to IC201(servo)"71" AS2 ?
* IC101 --- For signal from IC101 to IC301, is signal output from IC101 "88" (RFAS1) and IC101 "69" REENV ?

(3) Traverse movement NG

* For automatic adjustment, traverse movement occurs only when the position is changed to retry judging the disc type after the 1st judgment resulted in an error. Therefore, traverse movement rarely occurs because, in most cases, disc judgment at the current position (1st time judgment) is executed successfully. (Of course, NG rarely occurs in this step.)

Note: 1st time judgment of disc type resulted in NG. --- The re-judgment of disc type may not be successful. Therefore, after removing the cause of traverse movement, re-execute automatic adjustment and confirm that no problem exists.

* Check point

a)During stop

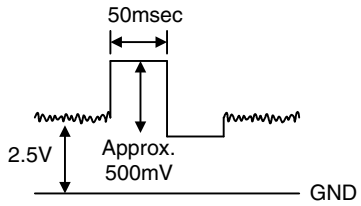
Whether 50% duty pulse is output to R273

Whether between R274 and C271 is at approx. 2.5VDC

Offset voltage between CN101 "34" and "35" (scores mV if exists)

b)When tray is opened or closed

Check by oscilloscope whether a rectangular wave signal is output from CN101 "34" or "35".



If checking a) or b) resulted in NG, IC201 maybe defective.

(4) Focus ON NG

* Is FE output ? --- Pattern, IC101
* Is FCDRV signal sent ? (R286) --- Pattern, IC301
* Is driving voltage sent ?

CN101 "20", "21" --- If NG, pattern, driver, mechanical unit (with the power turned off, measure the resistance between CN101 "20" and "21").

* Does CN101 "7"(SRF1) become "H" and is the focus drawing in done?

--- Mechanical unit (laser power too low), IC101(defective gain)

--- Moreover, It is thought that abnormality is found in the disk.

* Mechanical unit is defective.

(5) Tracking ON NG

* When the tracking loop cannot be drawn in, IC201 "39" (/TRON) does not become "L".
* Mechanical unit is defective.

Because the under mentioned adjustment value is abnormal, it is not possible to draw in normally.

* Periphery of driver (IC271)

Constant or IC it self is def ective.

(When passing without becoming abnor mal while adjusting the following.)

* Servo IC (IC201)

When improper ly adjusted due to defective IC.

[F ocus position rough adjustment]

[Phase diff erence cancellation rough adjustment]

[T racking balance adjustment]

(6) Spindle CLV NG

* When the spindle cannot be shifted to CLV Servo, does not become "H" between IC301 "69" and IC201"37".
* IC201 Is signal output from CN103 "1" (RFOP)?
* IC201 Is signal output from CN103 "11" (DSLIP)?
* IC201 Is signal output from CN103 "6" to "9" (binary-coded clock and data)?
* IC201 Is "39" (/TRON) at "L" level ?
* IC301 "74" to "76" --- Is signal output to IC201 "24", "25", "28" (In case of only CD). (Serial communication of rotation information)
* Spindle motor driver is defective.
  Even when one of the three phases is defective, item (1) may be passed.
  --- Check the second item in (1) above.
* C260 to C263 Defective soldering
  If noise eliminating capacitors are not properly soldered, noise may ride on the waveform.
* Besides, the undermentioned cause is thought though specific of the cause is difficult because various factors are thought.

Mechanism is defective.(jitter)
IC101, IC201.

(7) Address read NG

* Besides, the undermentioned cause is thought though specific of the cause is difficult because various factors are thought.

Mechanism is defective. (jitter)
IC201, IC301, IC401.
The disc is dirty or the wound has adhered.

(8) Between layers jump NG (double-layer disc only)

* When the focus flight is generated when jumps between layers.
  Because all adjustments for L1 layer must be successful, this error may rarely be due to a circuit defect.
* Crosstalk might occur from tracking to focus system. (See (11)) --- Replace the mechanical unit.
* Driver surroundings.
* Defect of constant and IC.
* For double-layer discs, after checking CLV on layer L1, jumps to layer L0 after mode changes to FG. Then tracking is turned off, and adjustments are executed from the focus position coarse adjustment in order.
* When the jump between layers is done on the single-layer disk, the disk distinction error is thought.

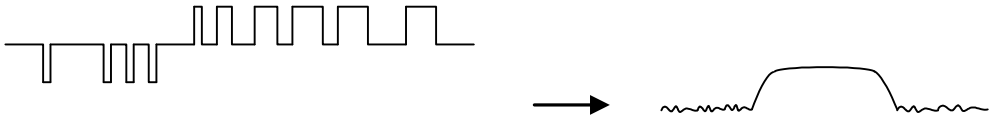
--- The laser power is low (RF level is confirmed by CN102 "1" (RFOP)).
--- AS1, AS2, REFNV Is the signal sent to between IC101 and IC201 ?

(9) Neither picture nor sound is output

* Cannot search

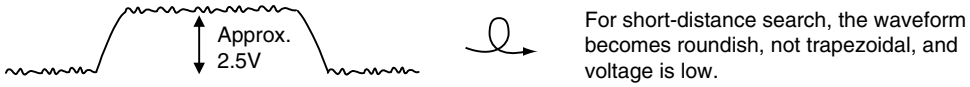
a) Can the feed system be driven?

Chec k the waveform of TRSDRV signal (R273). --- Waveform between R274 and C271.



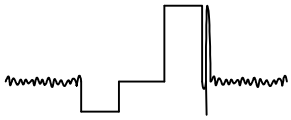
Search results in a change of duty
(three v alues with 2.5V at the center)
(The figure is e xaggerated.)

Chec k the waveform of CN101 "1" and "2". --- After the driver (IC271)

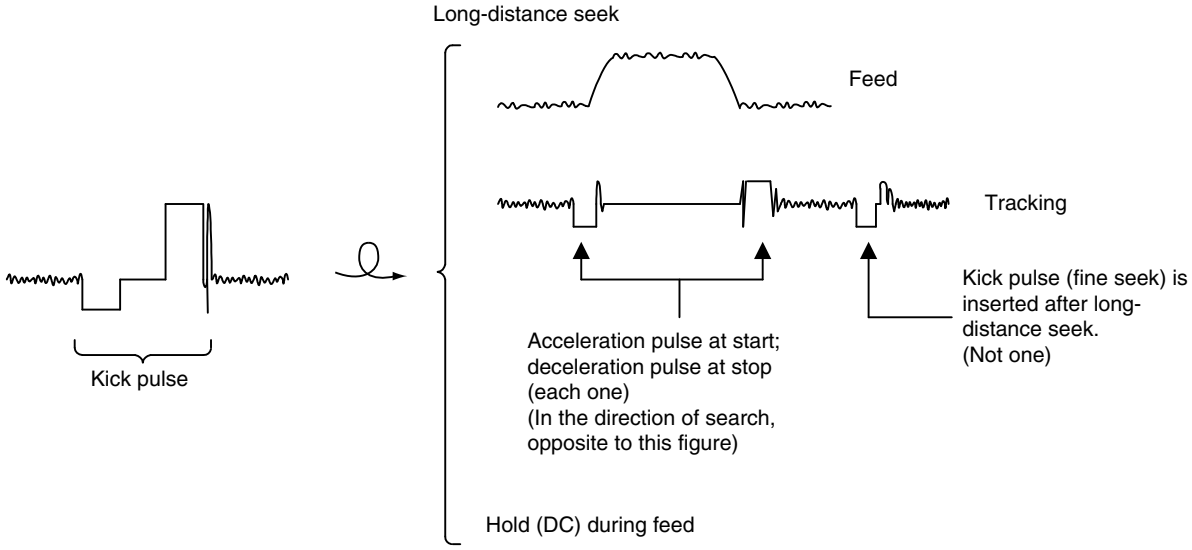


b) Is kick available?

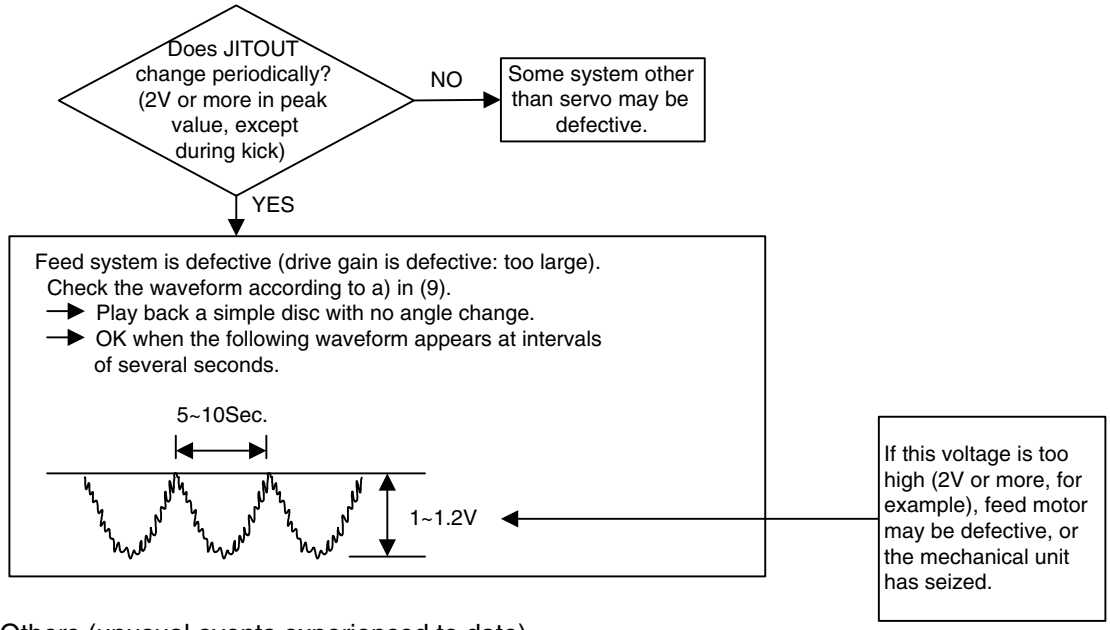
Chec k the TRDRV signal waveform from R289.



Chec k the waveform of CN101 "22" and "23" --- After the driver (IC271)
Although diff ers in amplitude and DC offset, the waveform is similar to that of R289



(10) Picture is distorted or abnormal sound occurs at intervals of several seconds.



(11) Others (unusual events experienced to date)

* Problem occurs with double-layer discs although no problem occurs with single-layer DVD.
(Error occurs, or search becomes unstable and takes longer.)
Crosstalk might occur from tracking to focus system.
--- When FE was observed during search (skip, etc.), it was found that a wave resembling TE with an amplitude of 200mVp-p was riding on FE.
--- Mechanical unit was replaced.

* Error frequently occurred in the outer part of discs although no error occurred in the inner part.
--- Mechanical unit was replaced because tilt seemed to be defective.

(12) CD During normal playback operation

a) Is TOC reading normal? Displays total time for CD-DA. Shifts to double-speed mode for V-CD. — NO → Please refer to "Servo Volume" flow.

↓ YES

b)Playback possible? — NO →
*--:-- is displayed during FL serch.
According to [*Cannot serch] for DVD(9), check the feed and tracking systems.
*No sound is output although the time is displayed.(CA-DA)
*DAC, etc, other than servo.
*The passage of time is not stable, or picture is abnormal.(V-CD)
*The wound of the disc and dirt are confirmed.

(13) Others

V-CD : Frequent occurrence of error in inside and outer.
(Even the disk without the wound : when generated.)

Waveform observation
--- Is the oscillation frequency of about 700~900Hz output?
(Borrow a pertinent disk for the complaint for the combination with the disk.)
--- Exchanges mechanism for the mechanism resonance.

Precautions for Service

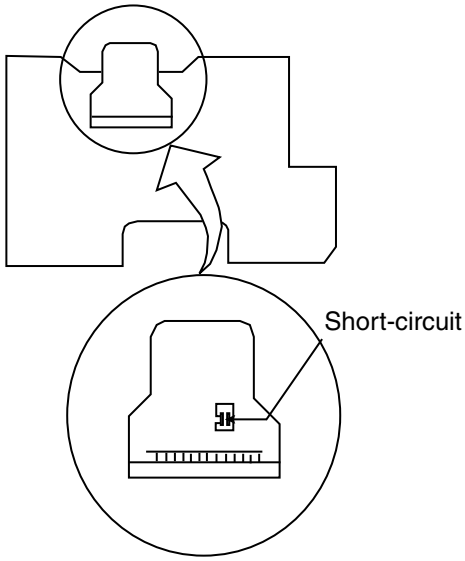
Handling of Traverse Unit and Laser Pickup

1. Do not touch any peripheral element of the pickup or the actuator.
2. The traverse unit and the pickup are precision devices and therefore must not be subjected to strong shoc k.
3. Do not use a tester to examine the laser diode. (The diode can easily be destroyed by the inter nal power supply of the tester.)
4. To replace the traverse unit, pull out the metal short pin for protection from charging.
5. When replacing the pickup, after mounting a new pickup, remove the solder on the short land which is pro vided at the center of the flexible wire to open the circuit.
6. Half-fixed resistors for laser power adjustment are adjusted in pairs at shipment to match the char acteristics of the optical block.
   Do not change the setting of these half-fix ed resistors for laser power adjustment.

Destruction of Traverse Unit and Laser Pickup by Static Electricity

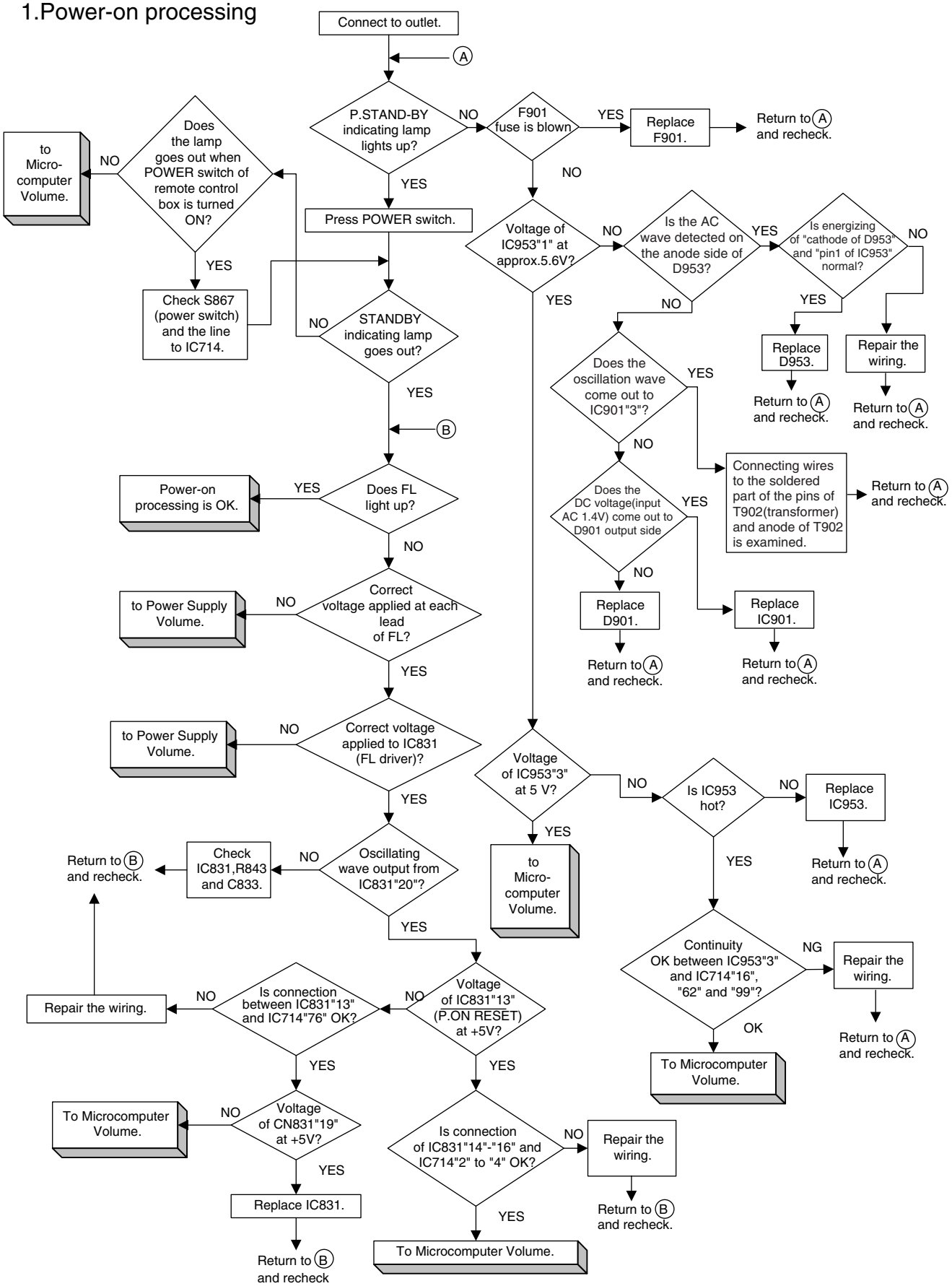
Laser diodes are easily destroyed by static electricity charged on clothing or the human body . Before repairing peripheral elements of the traverse unit or pic kup, be sure to take the following electrostatic protection:

1. Wear an antistatic wrist wrap.
2. With a conductive sheet or a steel plate on the workbench on which the traverse unit or the pick up is to be repaired, ground the sheet or the plate.
3. After removing the flexible wire from the connector (CN101), short-circuit the flexible wire by the metal clip.
4. Short-circuit the laser diode by soldering the land which is provided at the center of the flexible wire for the pickup.
   After completing the repair , remove the solder to open the circuit.



Troubleshooting

1.Power-on processing



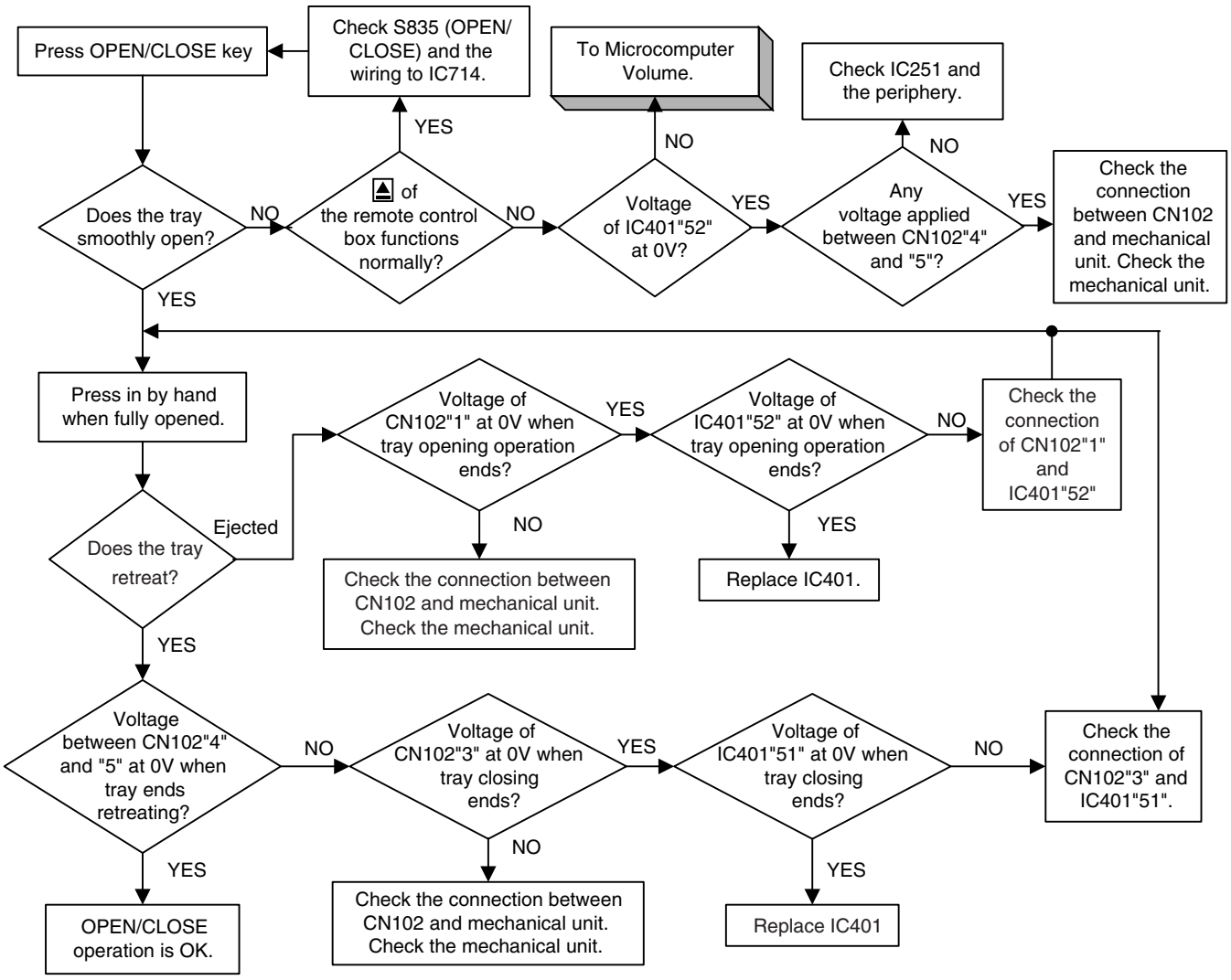
2. Power Supply Volume

With all the wiring removed, check unit power board.
(1) Remove all flat wires and wire assemblies which are connected to CN801, CN805, CN806.
(2) Short -circuit CN805"4" (POWER ON:B168) and "5" (B5V:B167). (Set each regulator to ON.)
(3) The load resistance is connected between CN805"5"(B5V:B167) and "8,9"(D.GND:B164).
(4) Connect to the outlet and check the voltage at each part.
(For the voltage specification, see the wiring diagram.)
* If the load resistance is not connected, the voltage is not output to "B167".

Then restore the connection of CN801, CN805, CN806 and check voltage.
(1) Remove the wire short -circuiting CN805"4" and "5".
(2) Remove the load resistance.
(3) Restore the connection of CN801, CN805, CN806.
(4) Connect to the outlet.
(5) Turn the POWER switch on and check the voltage at each part.

If voltage abnormally drops when CN801, CN805, CN806 are connected (load is connected) though the voltage was at the normal level when CN801, CN805, CN806 were disconnected(load is connected), or if the protective element (fuse, etc.) is opened, the load which is supplied power may be defective or the wiring may be short-circuited.

3. Open/Close Operation



4. Microcomputer Volume

Processing of Each Microcomputer

* IC714 System microcomputer (sub-microcomputer)
  After powering on, this microcomputer is continuously activated to control keys and remote control signals.
  According to key operations or remote control signals, it controls (turns on/off) the power for LSIs including IC401 (main microcomputer) and the audio/video output circuit.
  It also controls the resetting of the main microcomputer, FL driver IC (IC831) for FL display, and various LED displays.

* IC401 Main microcomputer
  This microcomputer controls a group of LSIs of servo and signal processing sections according to commands from the system microcomputer.
  After receiving time information from the signal processing section, it transmits the information together with the status to the system microcomputer.
  It controls the resetting of the LSIs of the servo and signal processing sections.
  It has IC402 (16Mbit ROM) as an external ROM.

Normal Starting Conditions

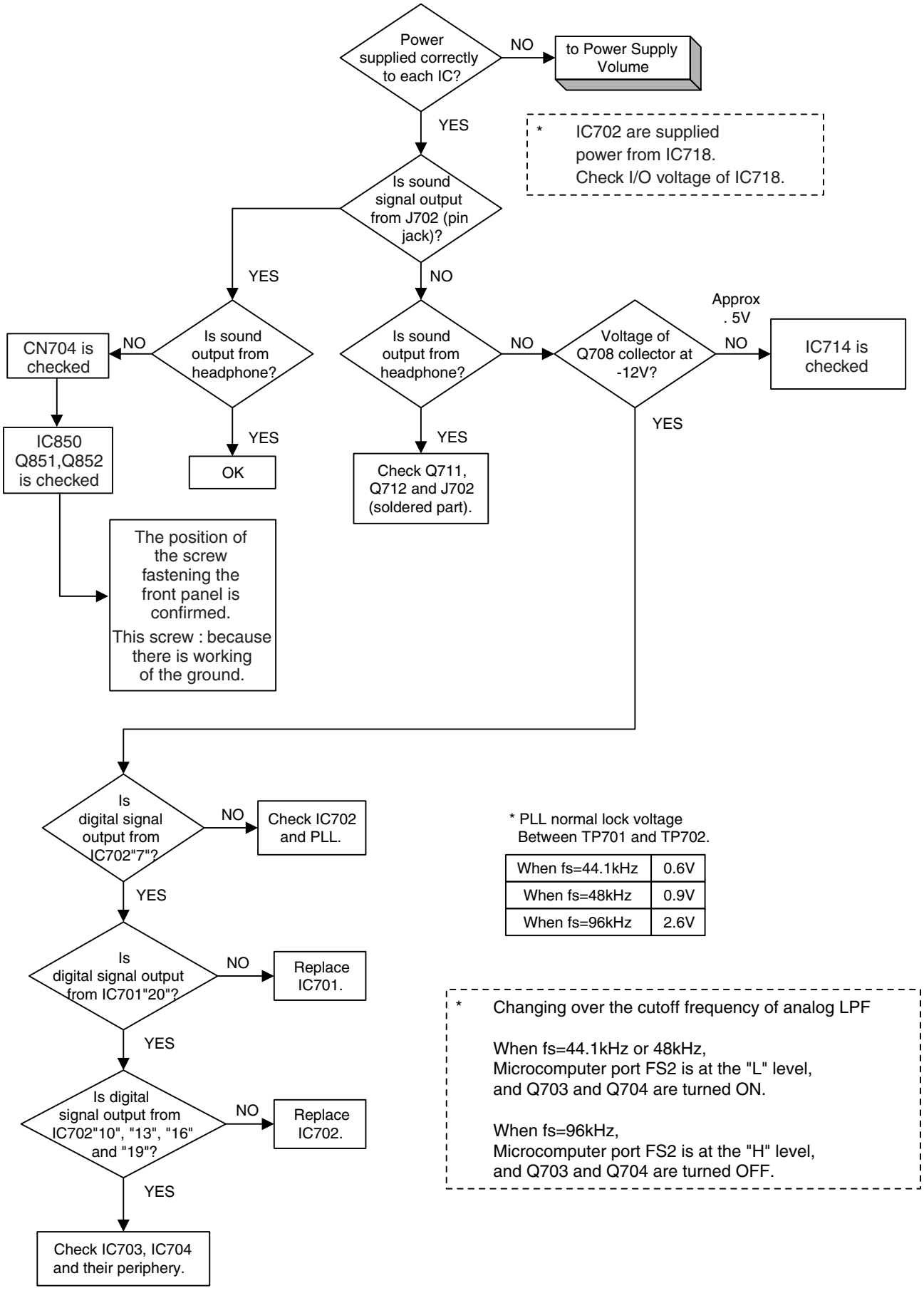
* IC714 System microcomputer
  (1) +5V must be applied to "16" and "62".
  (2) Oscillators of "13" and "15" must be oscillating correctly.
  (3) Input to "12" (RESET) must be at +5V (reset cancel).

  If above (1) to (3) are not satisfied when the P.STANDBY indicating lamp does not light at power-on, IC714 may be defective.

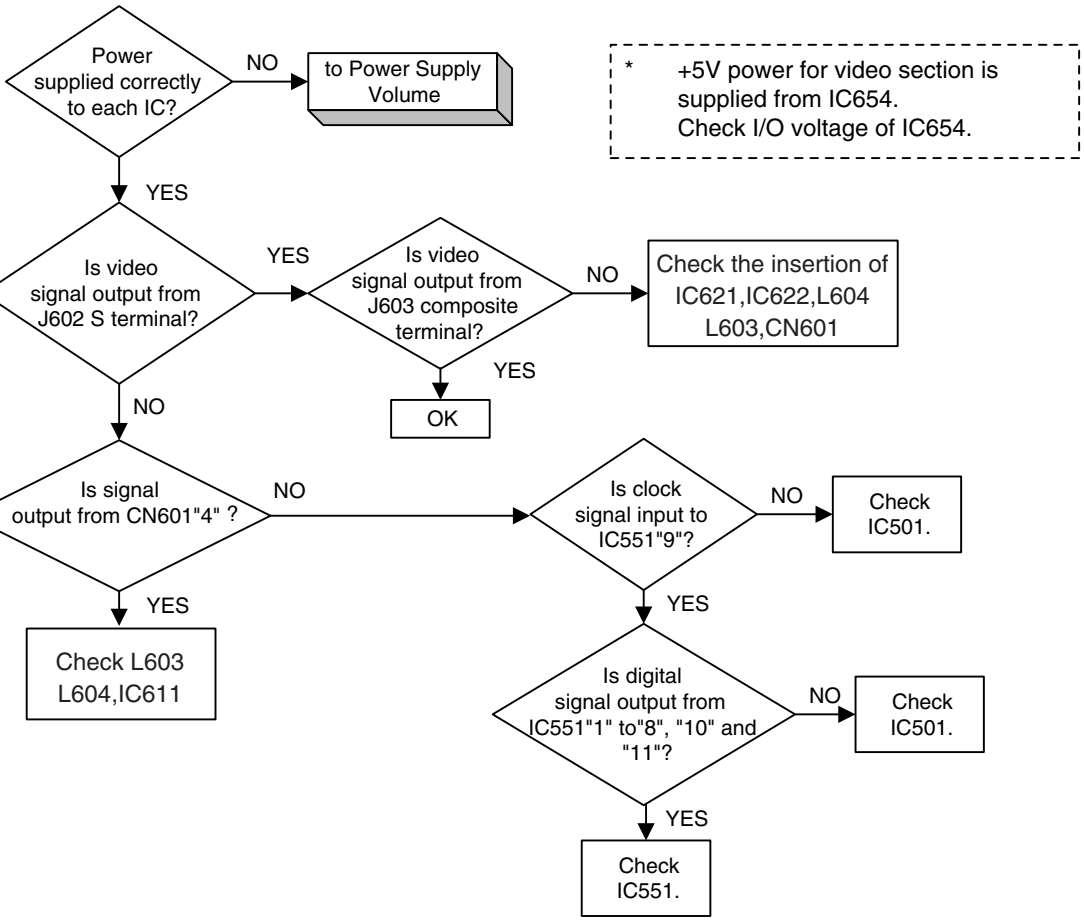
* IC401 Main microcomputer
  (1) +5V must be applied to "17","22","34","54","66"
  (2) Clock signal (13.5MHz) must be input to "23" from IC301 (ODC LSI).
  (3) Input to "82" (RST) must be at +5V (reset cancel).
  (4) Communication line with IC714 ("57","58,"67"~"69") and that with IC402 (external ROM) ("13"~"16","26"~"33","35"~"42","44","93"~"100") must work normally.

  If above (1) to (3) are not satisfied when the P.STANDBY indicating lamp goes out but FL does not light when the POWER switch is turned on, IC401, IC714 or IC402 may be defective.

5. Audio Volume



6. Video Volume



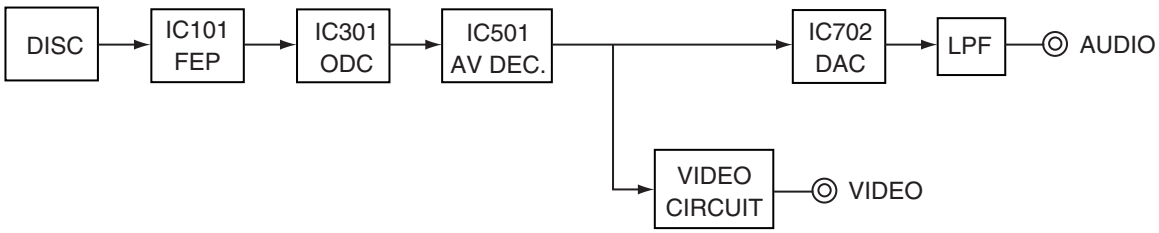
* +5V power for video section is supplied from IC654.
Check I/O voltage of IC654.

* Service tips

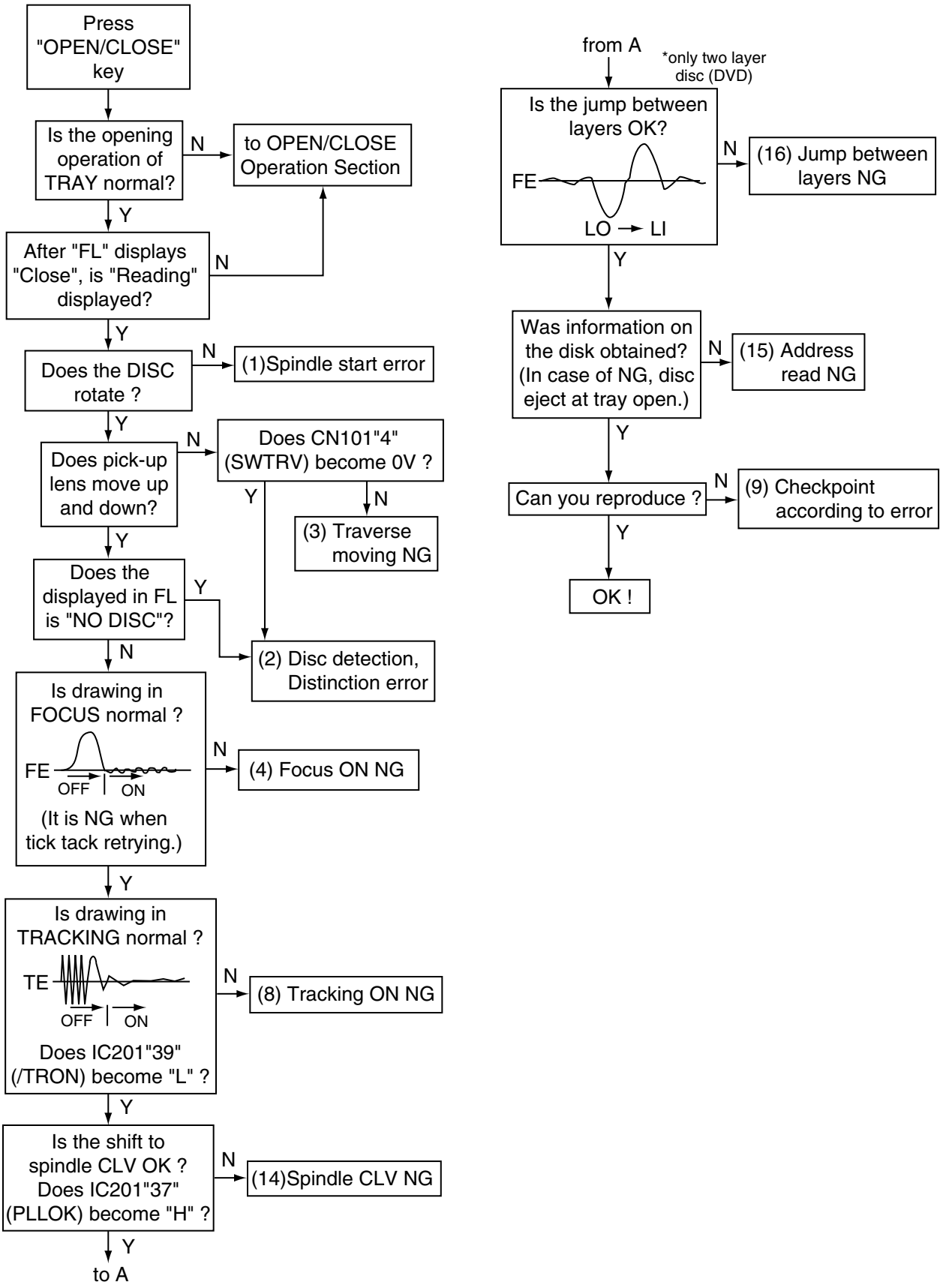
(1) The disc playback screen is in the normal condition but graphics in the "ON SCREEN" mode are abnormal => Replace IC553.

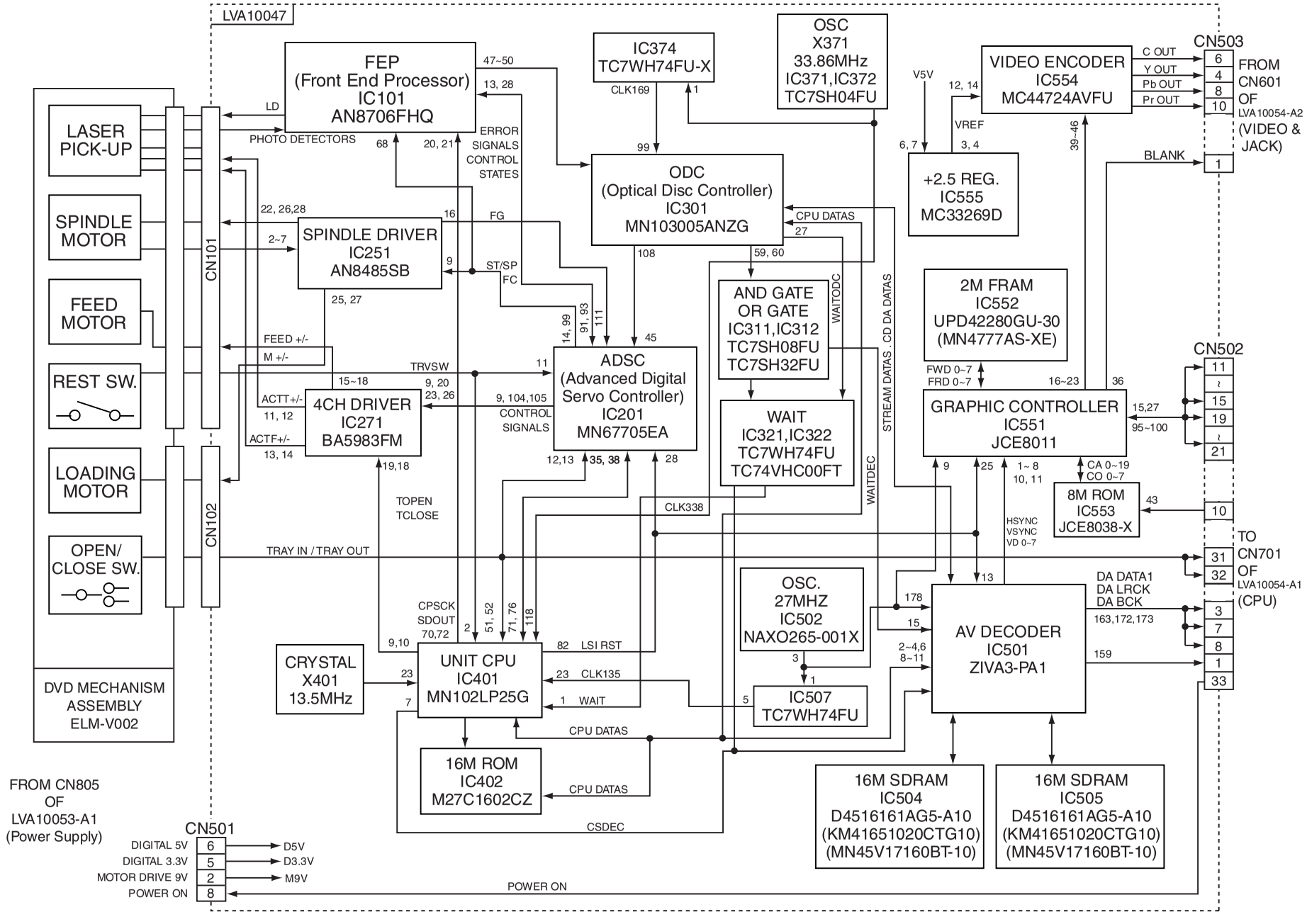
(2) Only 1/4 compressed playback screen of DVD or video-CD is abnormal => Replace IC552.

Signal flow of DISC media

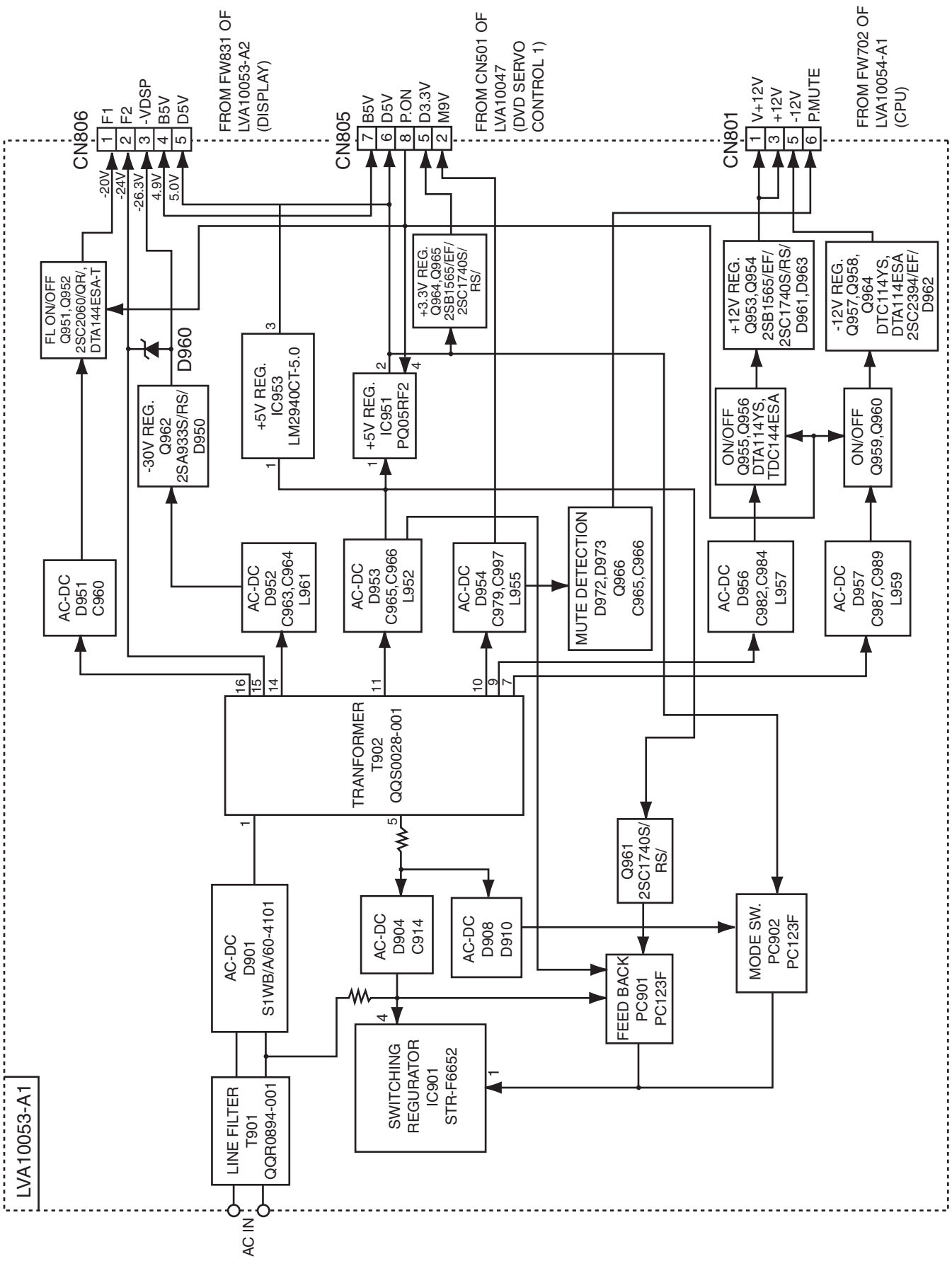


7.Servo volume

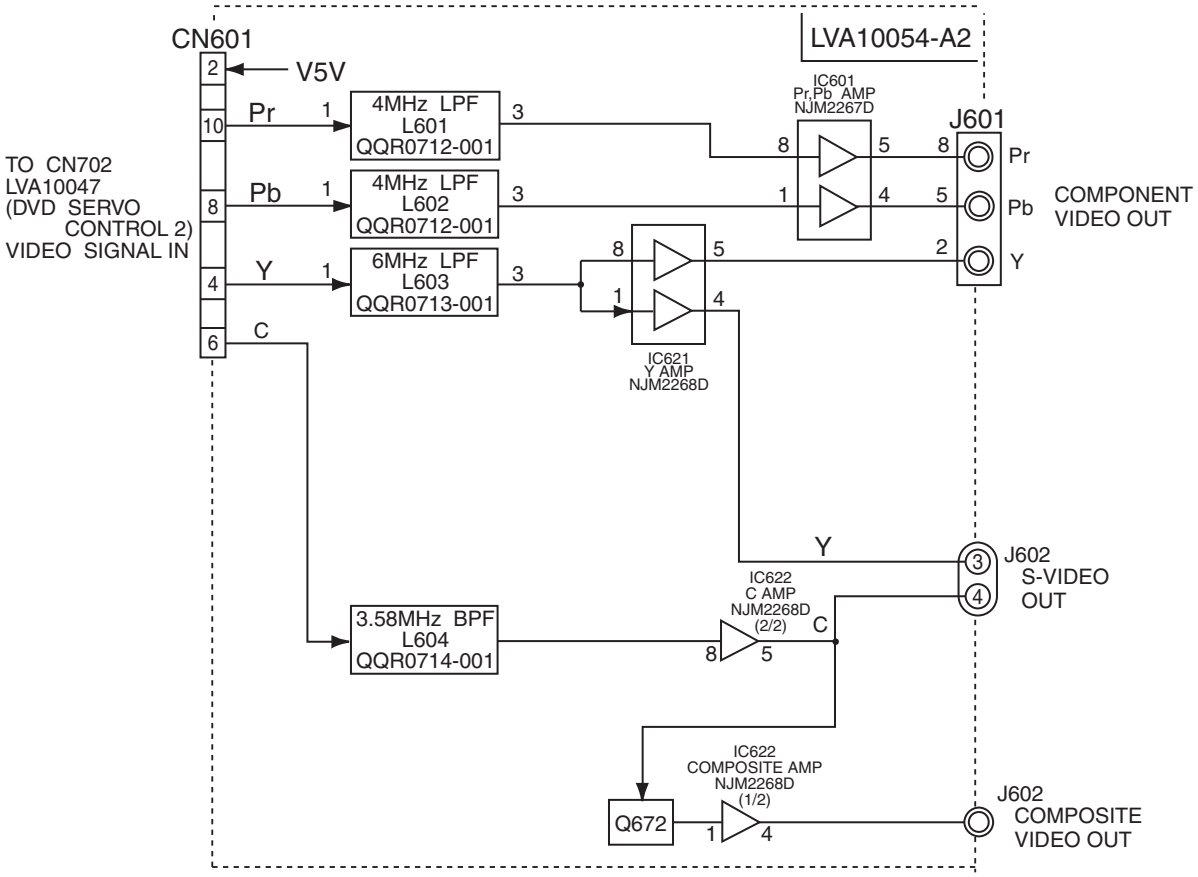


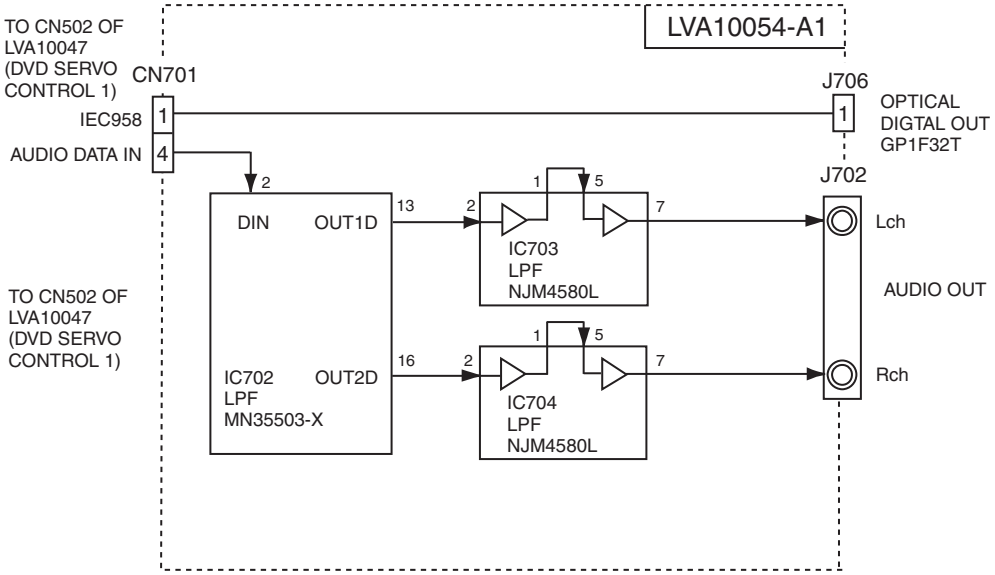

LVA10047
FEP
(Front End Processor)
IC101
AN8706FHQ
IC374
TC7WH74FU-X
CLK169
OSC
X371
33.86MHz
IC371,IC372
TC7SH04FU
VIDEO ENCODER
IC554
MC44724AVFU
C OUT
Y OUT
Pb OUT
Pr OUT
CN503
FROM CN601 OF LVA10054-A2 (VIDEO & JACK)
V5V
VREF
+2.5 REG.
IC555
MC33269D
BLANK
LASER PICK-UP
SPINDLE MOTOR
FEED MOTOR
REST SW.
LOADING MOTOR
OPEN/ CLOSE SW.
DVD MECHANISM ASSEMBLY ELM-V002
CN101
CN102
LD
PHOTO DETECTORS
ERROR SIGNALS
CONTROL STATES
SPINDLE DRIVER
IC251
AN8485SB
FG
ST/SP
FC
FEED +/-
M +/-
TRVSW
4CH DRIVER
IC271
BA5983FM
ACTT+/-
ACTF+/-
TOPEN
TCLOSE
ODC
(Optical Disc Controller)
IC301
MN103005ANZG
CPU DATAS
ADSC
(Advanced Digital Servo Controller)
IC201
MN67705EA
CONTROL SIGNALS
AND GATE
OR GATE
IC311,IC312
TC7SH08FU
TC7SH32FU
WAITODC
WAIT
IC321,IC322
TC7WH74FU
TC74VHC00FT
WAITDEC
CLK338
STREAM DATAS . CD DA DATAS
2M FRAM
IC552
UPD42280GU-30
(MN4777AS-XE)
FWD 0~7
FRD 0~7
GRAPHIC CONTROLLER
IC551
JCE8011
CN502
8M ROM
IC553
JCE8038-X
CA 0~19
CO 0~7
HSYNC
VSYNC
VD 0~7
TO CN701 OF LVA10054-A1 (CPU)
OSC.
27MHZ
IC502
NAXO265-001X
IC507
TC7WH74FU
AV DECODER
IC501
ZIVA3-PA1
DA DATA1
DA LRCK
DA BCK
CRYSTAL
X401
13.5MHz
UNIT CPU
IC401
MN102LP25G
LSI RST
CLK135
WAIT
CPSCK
SDOUT
16M ROM
IC402
M27C1602CZ
16M SDRAM
IC504
D4516161AG5-A10
(KM41651020CTG10)
(MN45V17160BT-10)
16M SDRAM
IC505
D4516161AG5-A10
(KM41651020CTG10)
(MN45V17160BT-10)
FROM CN805 OF LVA10053-A1 (Power Supply)
CN501
DIGITAL 5V
DIGITAL 3.3V
MOTOR DRIVE 9V
POWER ON
D5V
D3.3V
M9V
POWER ON
CSDEC

■ Block diagrams (DC REGURATOR Section)

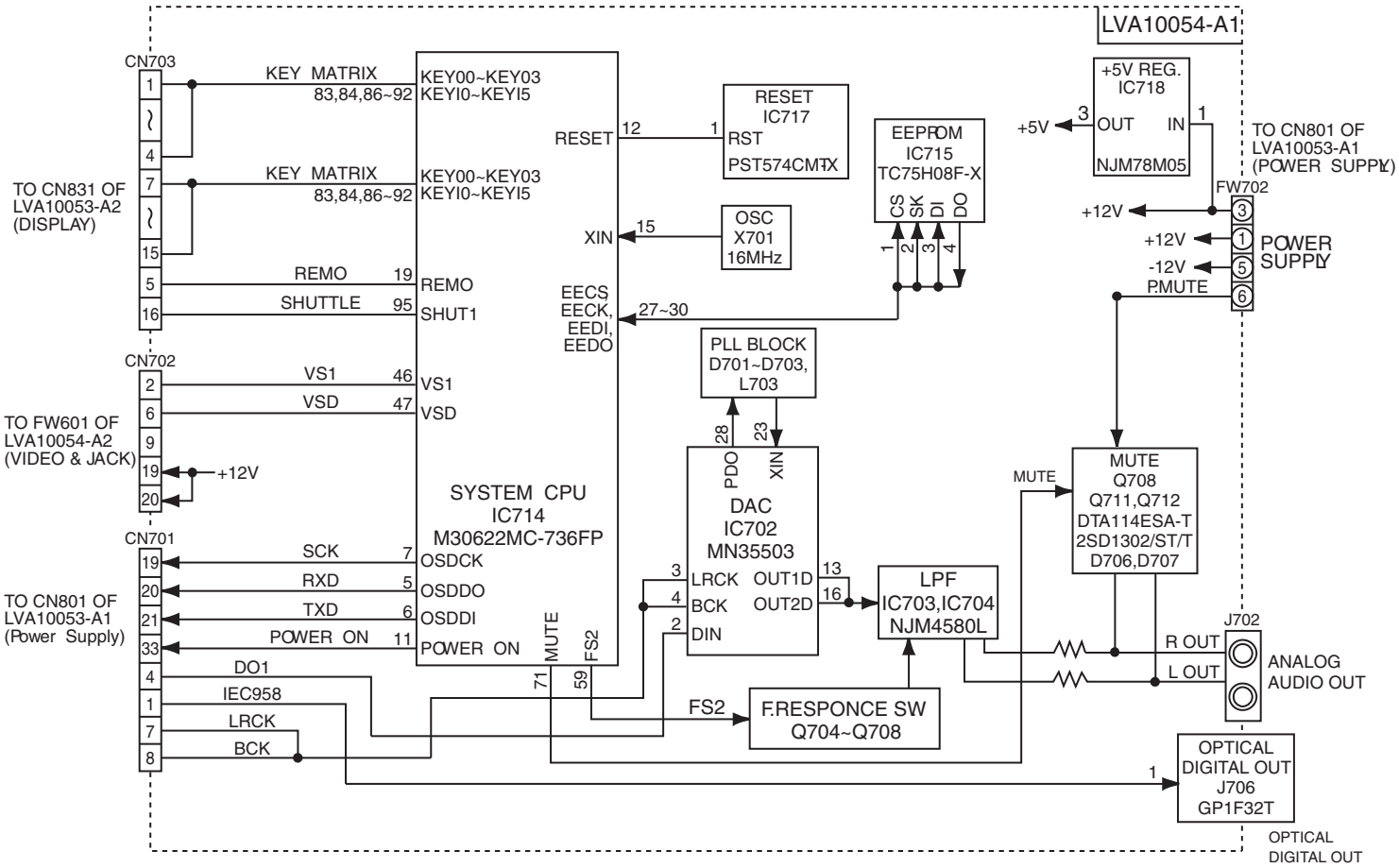


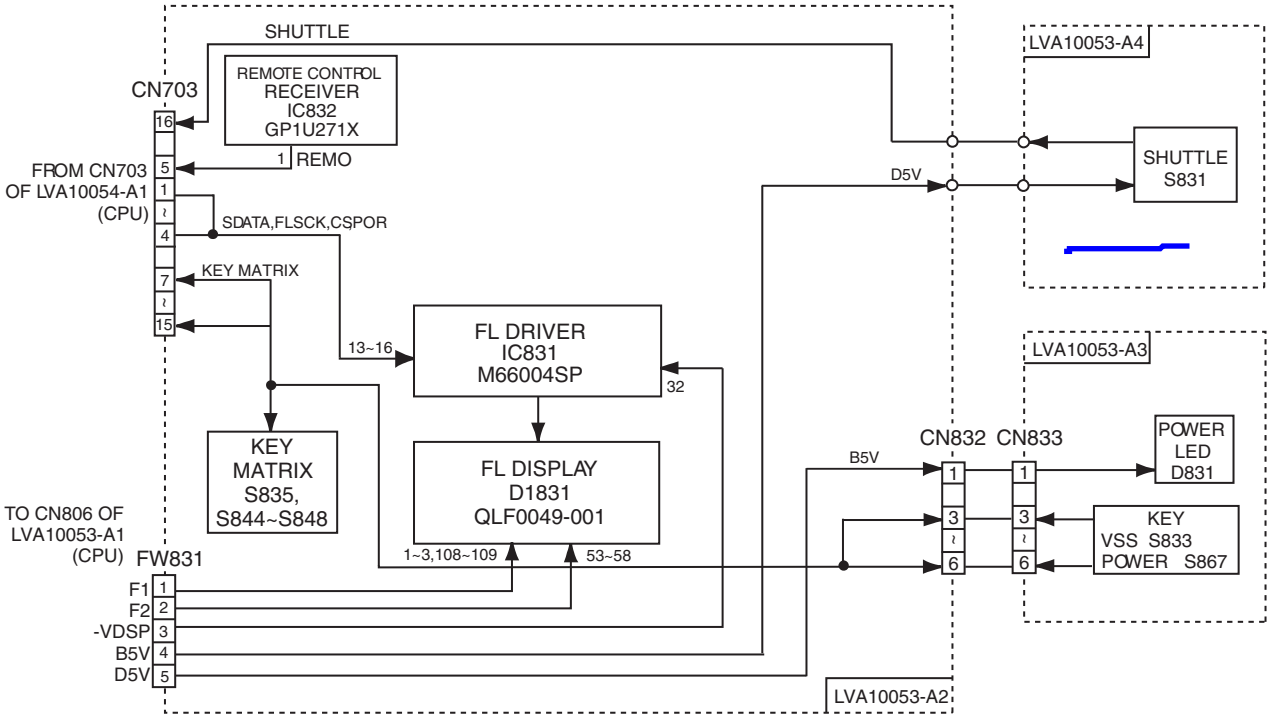
■ Bloc k dia grams (VIDEO OUT & A UDIO OUT)





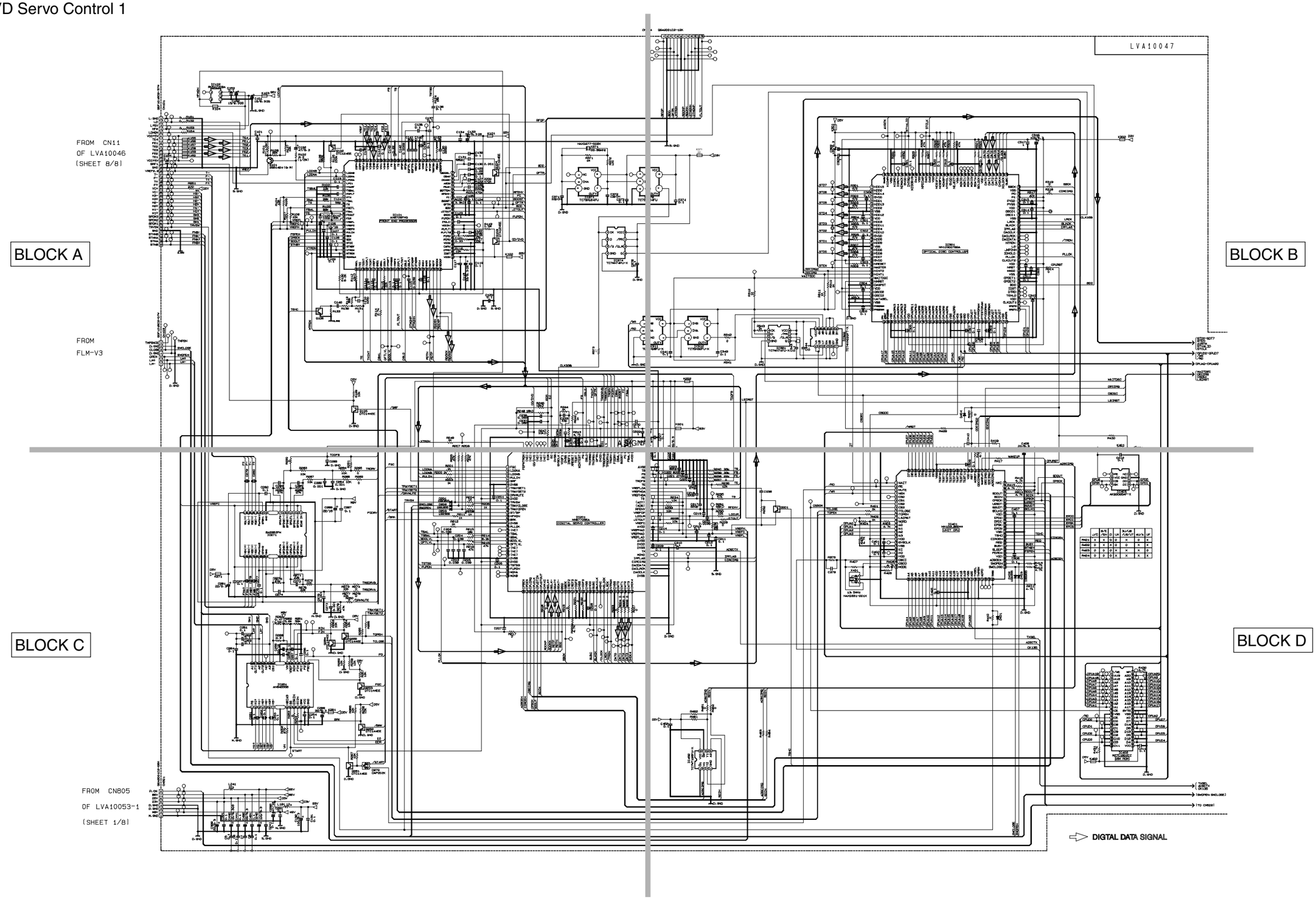
■ Block diagrams (SYSTEM CONTROL & FL DRIVER Section)





Meno

■ DVD Servo Control 1



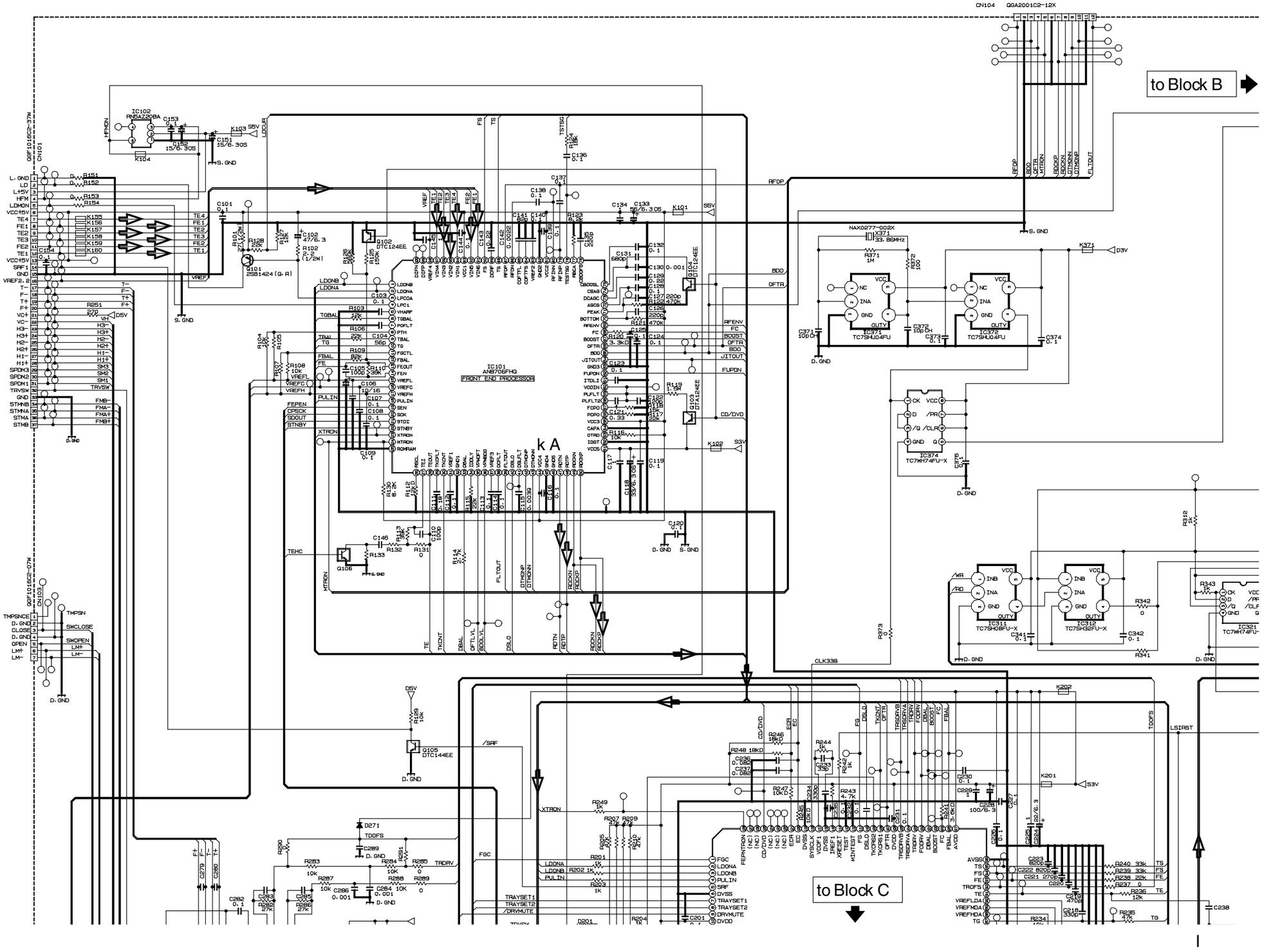
Block A

FROM CN11
OF LVA10046
(SHEET 8/8)

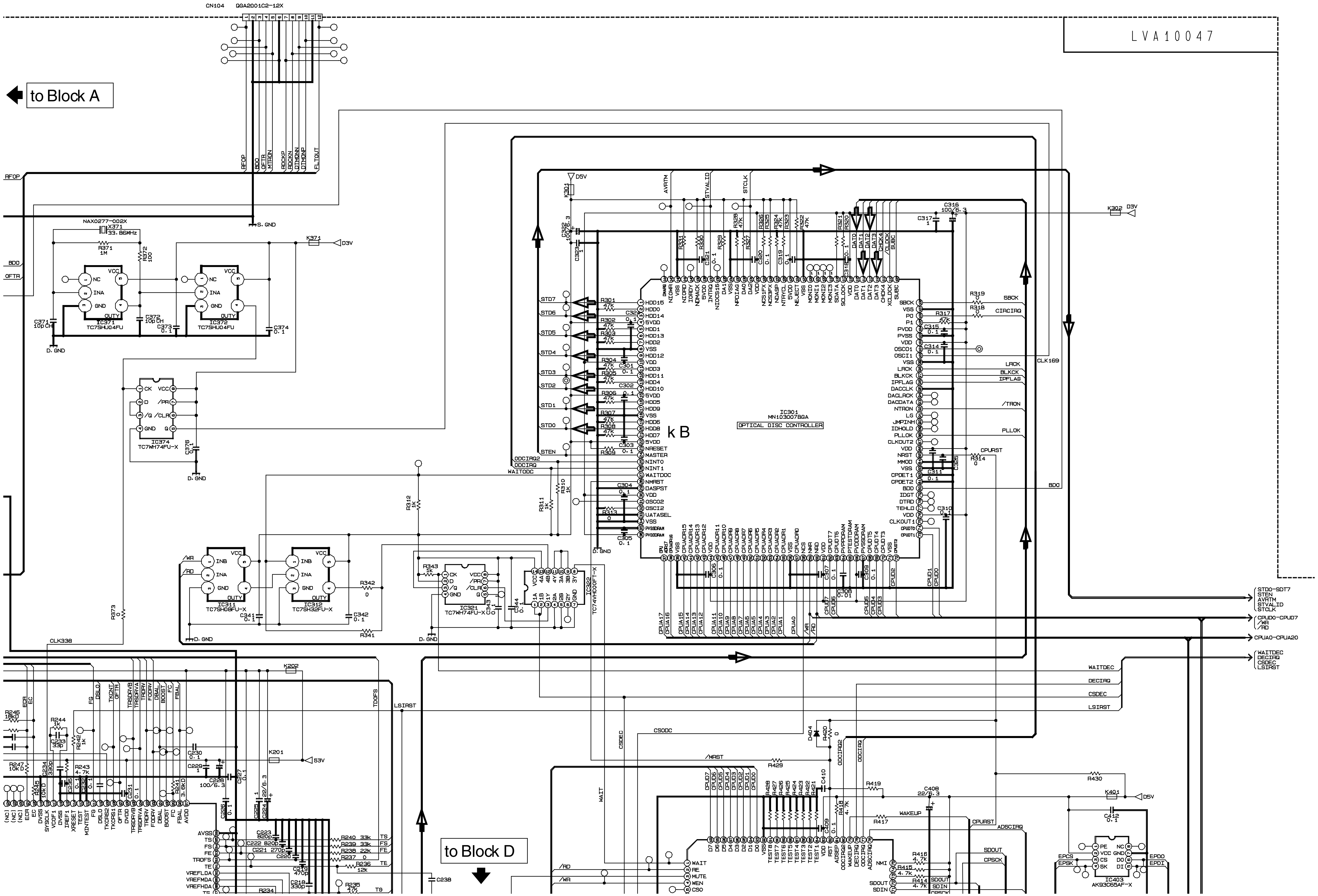
FROM
FLM-V3

to Block B

to Block C



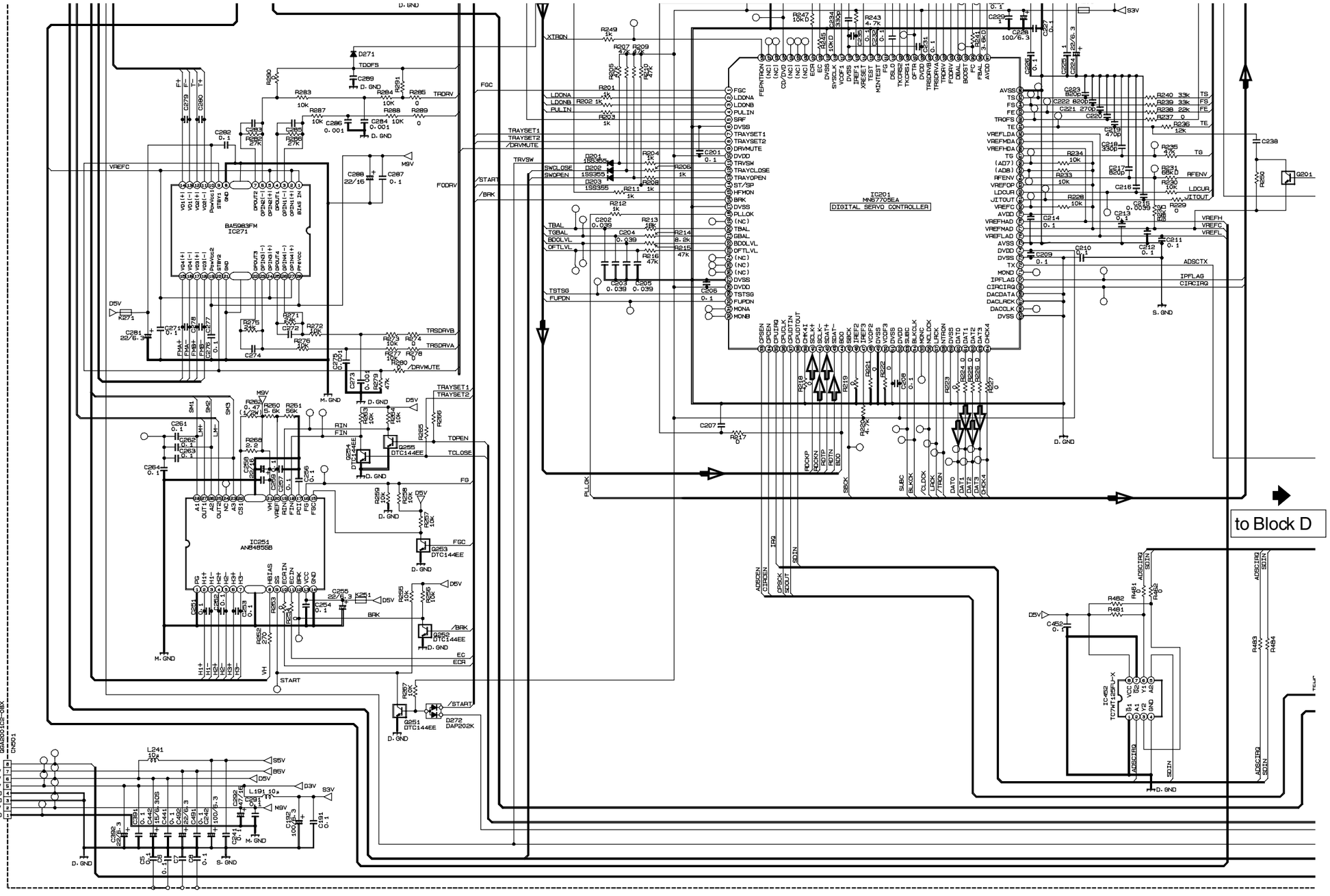
Block B



LVA10047
to Block A
to Block D
CN104 QGA2001C2-12X
IC301 MN103007BGA
OPTICAL DISC CONTROLLER
IC371 TC7SHU04FU
IC372 TC7SHU04FU
IC374 TC7WH74FU-X
IC311 TC7SH08FU-X
IC312 TC7SH32FU-X
IC321 TC7WH74FU-X
IC322 TC74VHC00FT-X
IC403 AK93C65AF-X

Block C

to Block A



Block D

to Block B

to Block C

IC201
MN67703EA
DIGITAL SERVO CONTROLLER

* IC401
MN102L25GXX
UNIT CPU

IC403
AK93C65AF-X

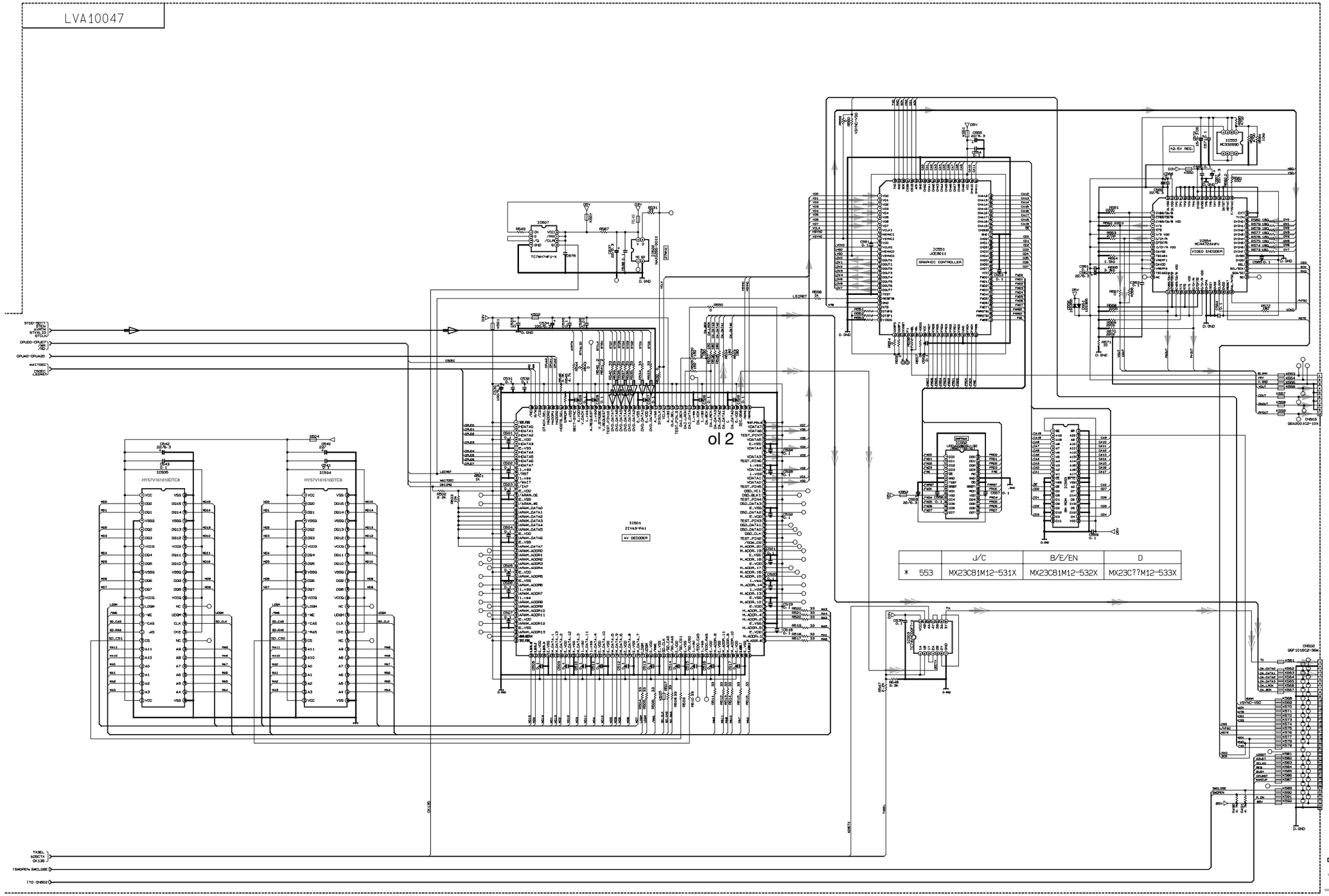
IC402
M27C1602CZ
16M ROM

IC452
TC7W125FK-X

	J/C	B/E /EN	D	UX	3U/UB /VS/UT	4U/A	UF
R421	X	X	0	0	X	0	X
R422	0	X	X	0	0	X	X
R423	0	0	0	X	X	X	0
R424	0	0	0	X	X	X	X

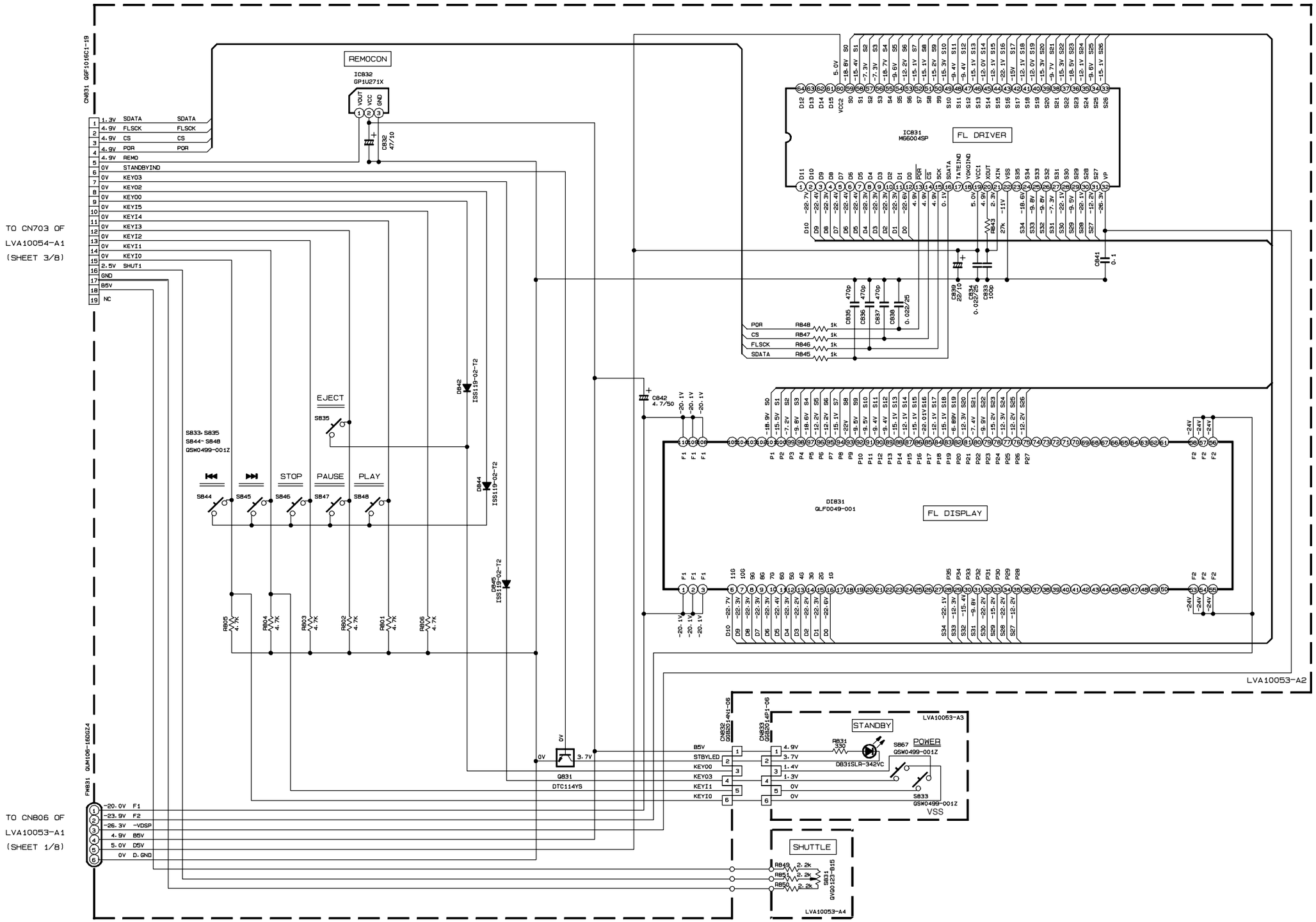
DIGTAL DATA SIGNAL

■ DVD Servo Control 2

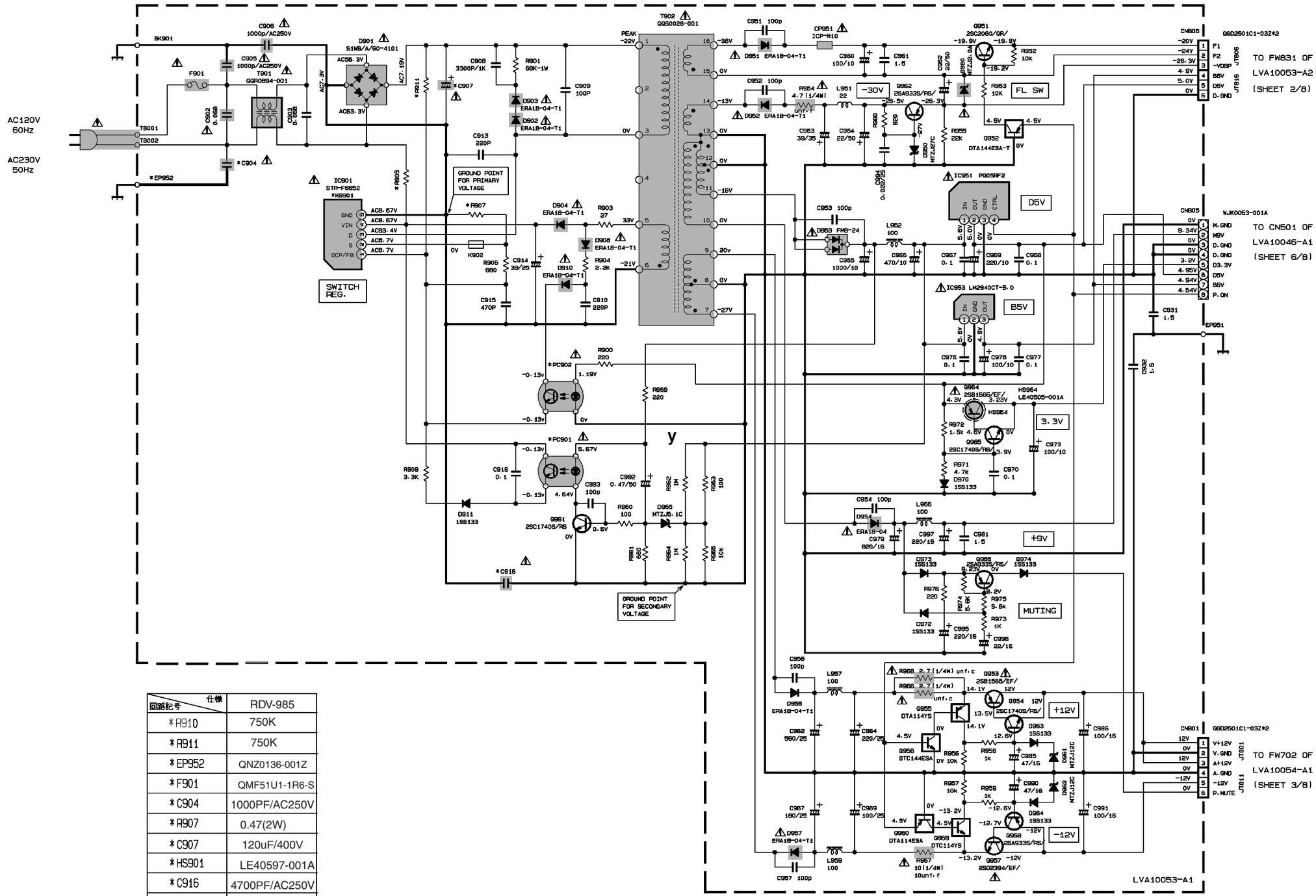


	J/C	B/E/EN	D
* 553	MX23C81M12-531X	MX23C81M12-532X	MX23C??M12-533X

■ Display

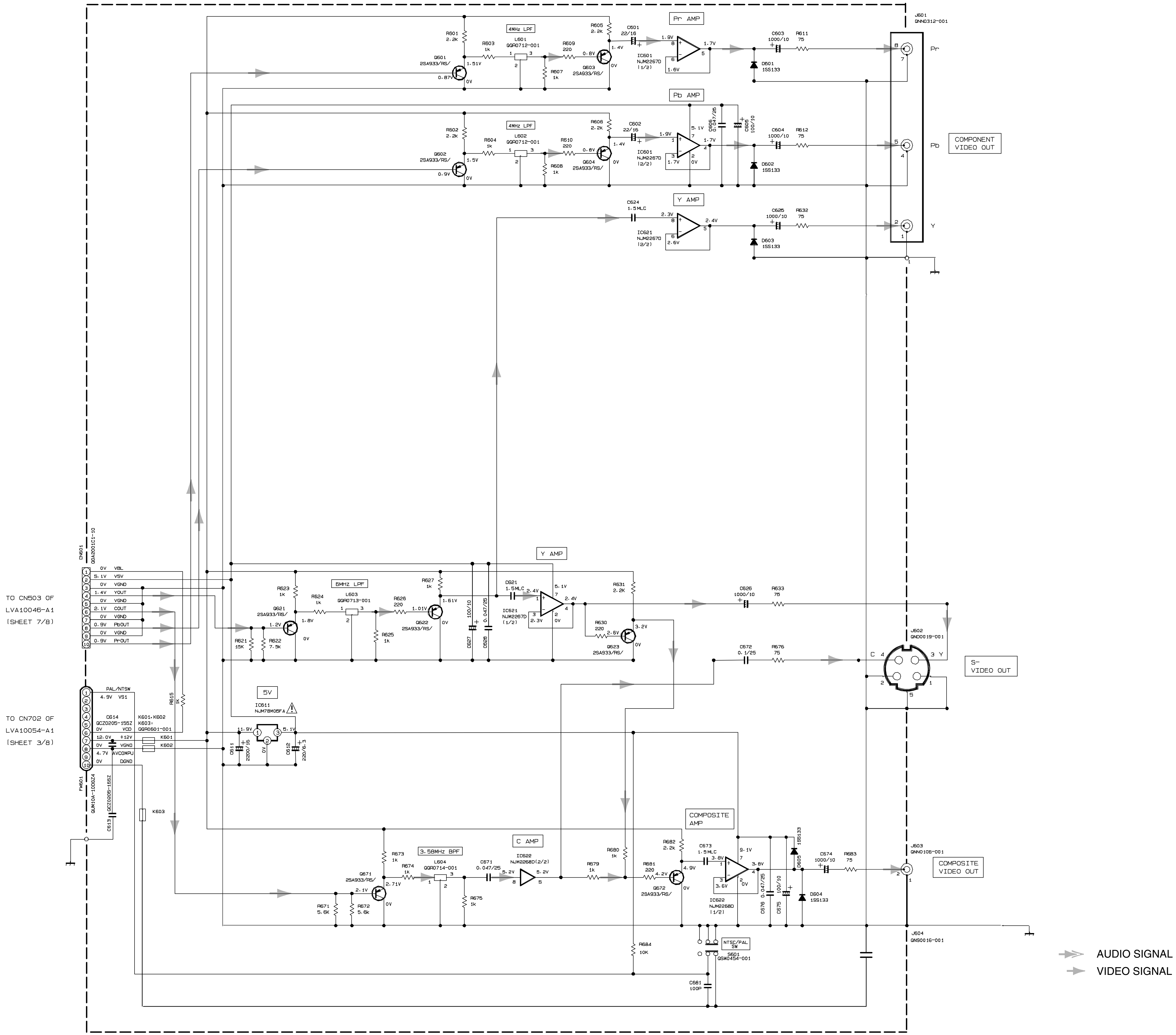

REMOCON
IC832
GP1U271X
FL DRIVER
IC831
M66004SP
FL DISPLAY
DI831
QLF0049-001
STANDBY
POWER
SHUTTLE
VSS
EJECT
STOP
PAUSE
PLAY
TO CN703 OF
LVA10054-A1
(SHEET 3/8)
TO CN806 OF
LVA10053-A1
(SHEET 1/8)
LVA10053-A2
LVA10053-A3
LVA10053-A4

■ Power Supply



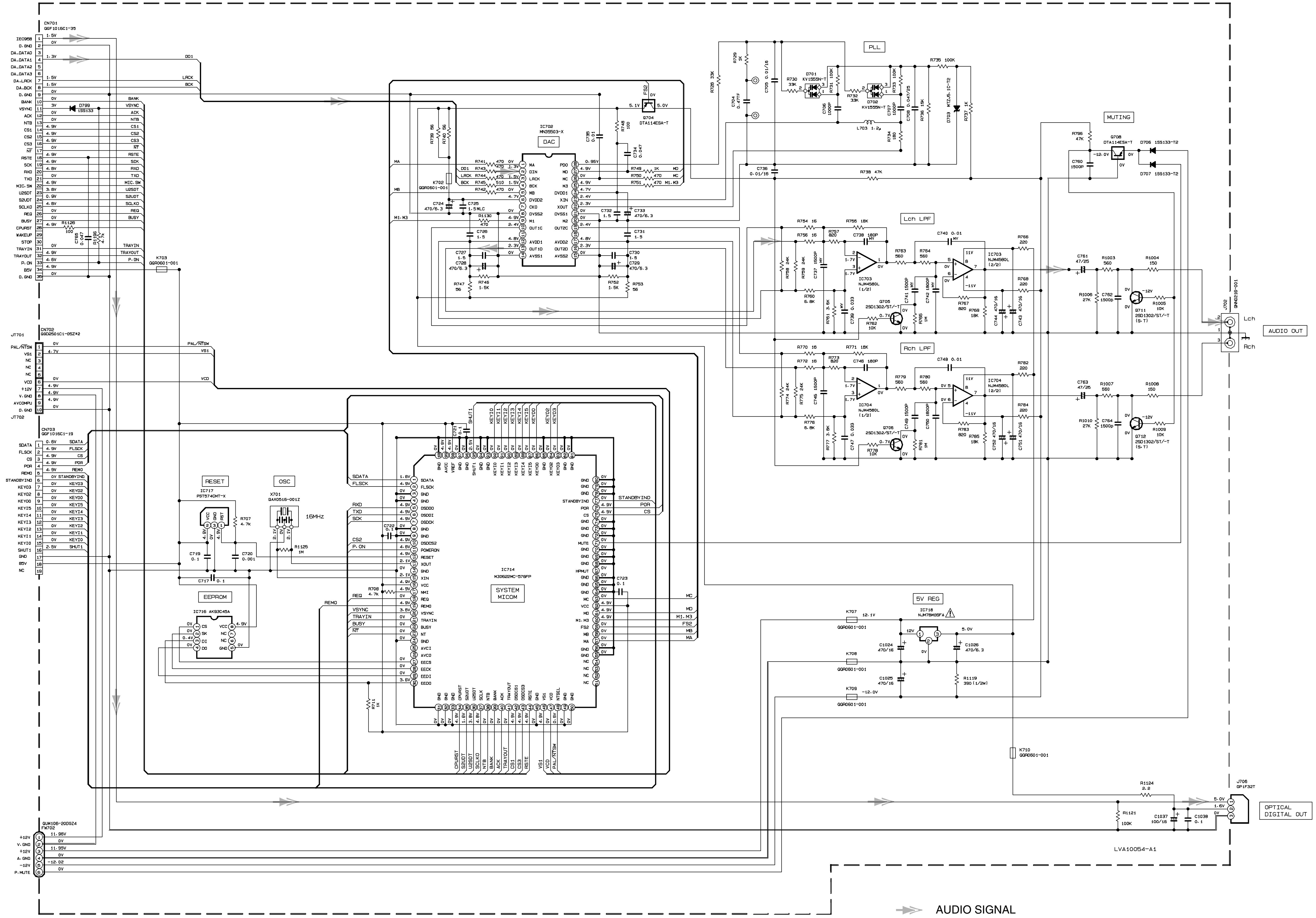
回路記号 \ 仕様	RDV-985
*R910	750K
*R911	750K
*EP952	QNZ0136-001Z
*F901	QMF51U1-1R6-S
*C904	1000PF/AC250V
*R907	0.47(2W)
*C907	120uF/400V
*HS901	LE40597-001A
*C916	4700PF/AC250V
*R905	68K(2W)
*PC901,PC902	PC123F

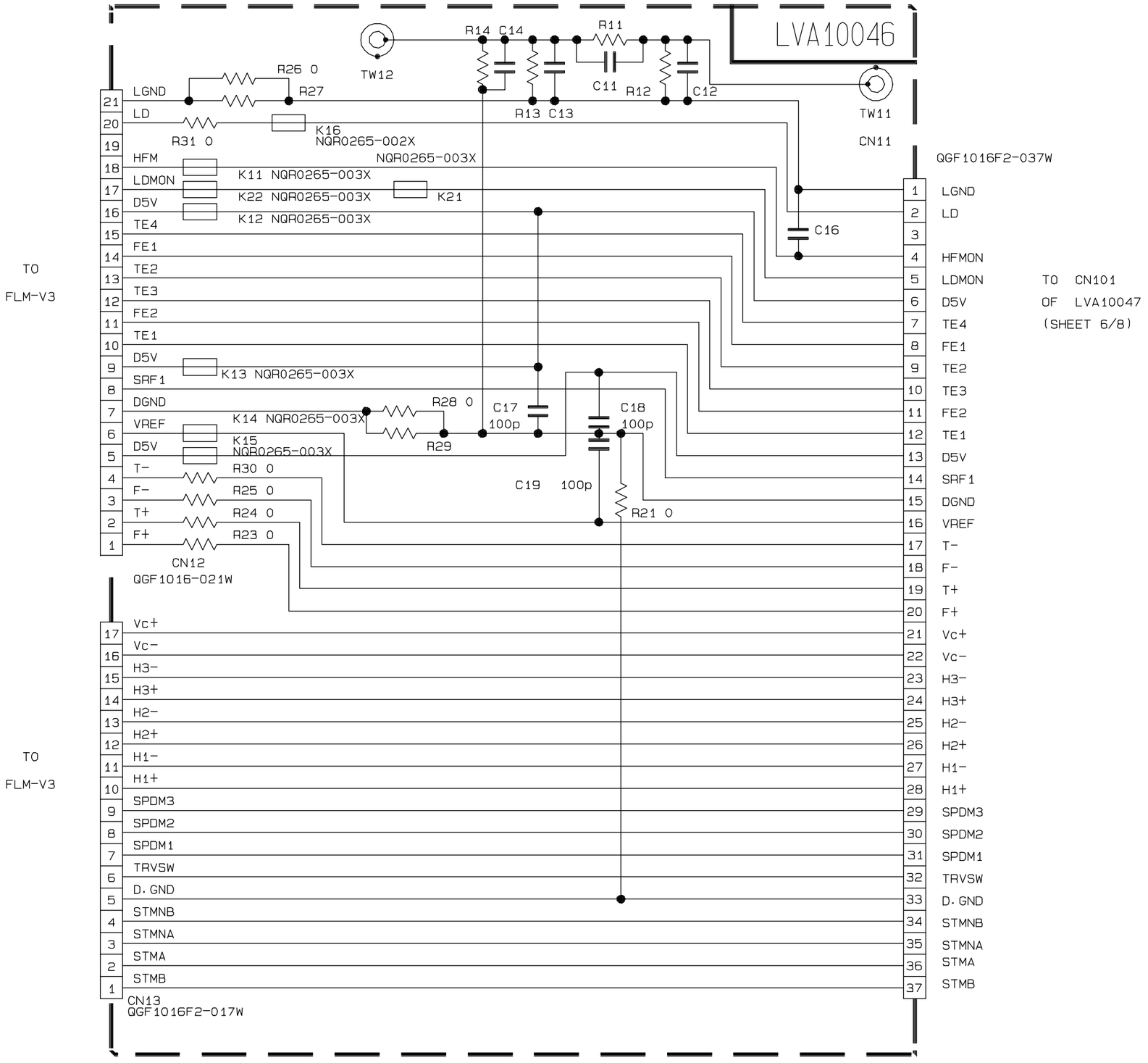
■Video＆ Jac



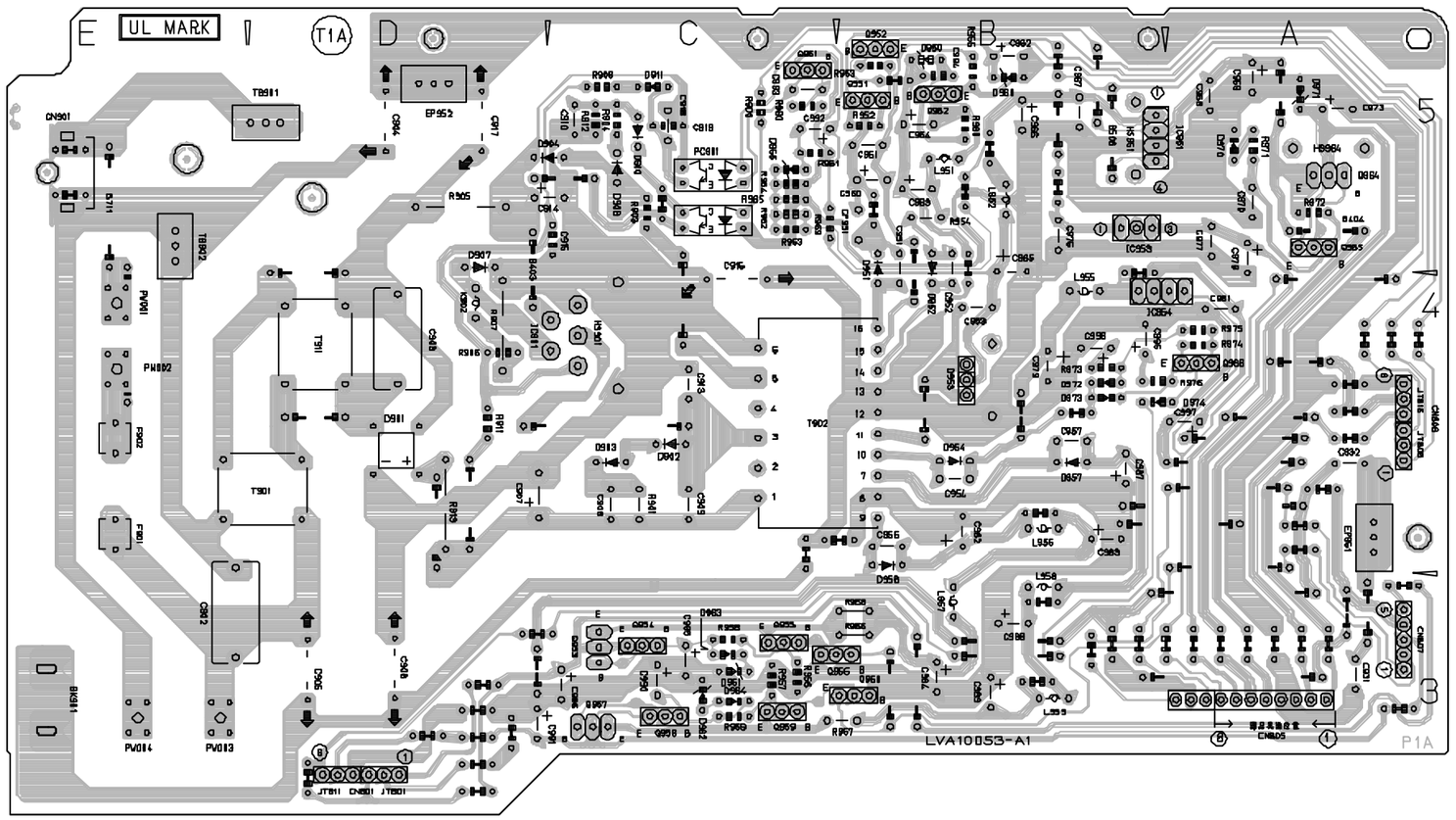
Pr AMP
Pb AMP
Y AMP
4MHz LPF
6MHz LPF
3.58MHz BPF
C AMP
COMPOSITE AMP
5V
COMPONENT VIDEO OUT
S-VIDEO OUT
COMPOSITE VIDEO OUT
TO CN503 OF LVA10046-A1 (SHEET 7/8)
TO CN702 OF LVA10054-A1 (SHEET 3/8)
NTSC/PAL SW
AUDIO SIGNAL
VIDEO SIGNAL

■CPU

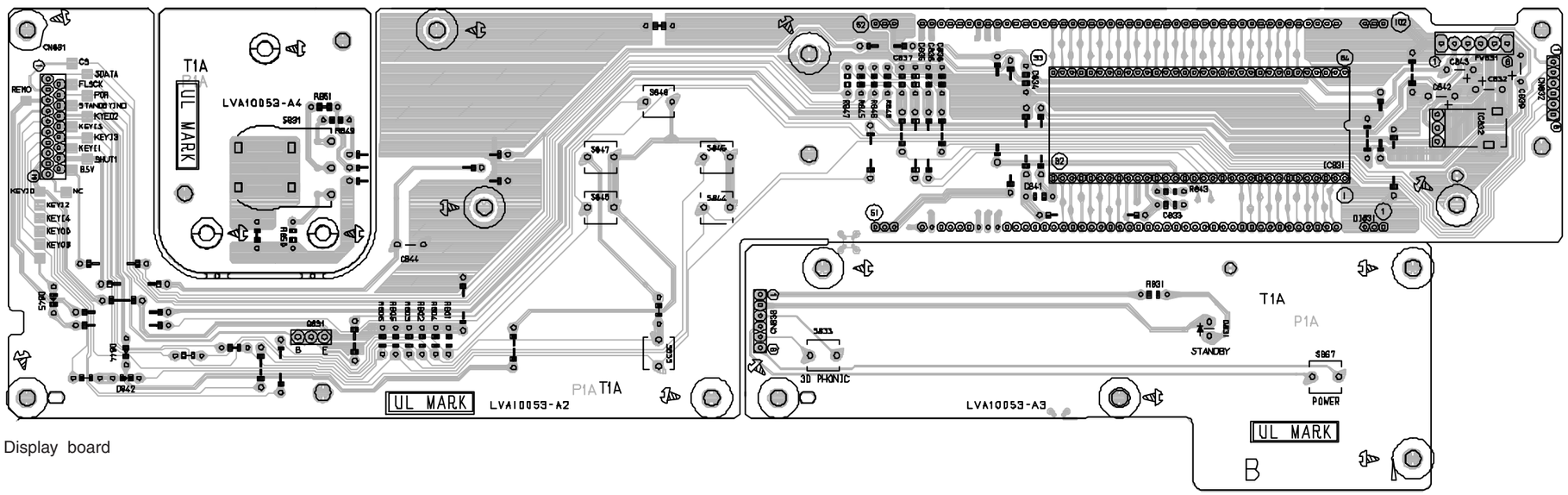

PLL
MUTING
DAC
Lch LPF
Rch LPF
RESET
OSC
EEPROM
SYSTEM MICOM
5V REG
AUDIO OUT
OPTICAL DIGITAL OUT
TO CN502 OF LVA10046-A1 (SHEET 7/8)
TO FW601 OF LVA10054-A2 (SHEET 4/8)
TO CN831 OF LVA10053-A2 (SHEET 2/8)
TO CN801 OF LVA10053-A1 (SHEET 1/8)
LVA10054-A1
AUDIO SIGNAL


LVA10046
TW12
TW11
R14 C14
R11
C11
R12
C12
R13 C13
R26 0
R27
LGND
LD
R31 0
K16
NQR0265-002X
HFM
NQR0265-003X
LDMON
K11 NQR0265-003X
D5V
K22 NQR0265-003X
K21
TE4
K12 NQR0265-003X
FE1
TE2
TE3
FE2
TE1
D5V
SRF1
K13 NQR0265-003X
DGND
R28 0
VREF
K14 NQR0265-003X
K15
D5V
NQR0265-003X
R29
C17
100p
C18
100p
C19 100p
R21 0
T-
R30 0
F-
R25 0
T+
R24 0
F+
R23 0
CN12
QGF1016-021W
Vc+
Vc-
H3-
H3+
H2-
H2+
H1-
H1+
SPDM3
SPDM2
SPDM1
TRVSW
D.GND
STMNB
STMNA
STMA
STMB
CN13
QGF1016F2-017W
C16
CN11
QGF1016F2-037W
1 LGND
2 LD
3
4 HFMON
5 LDMON
6 D5V
7 TE4
8 FE1
9 TE2
10 TE3
11 FE2
12 TE1
13 D5V
14 SRF1
15 DGND
16 VREF
17 T-
18 F-
19 T+
20 F+
21 Vc+
22 Vc-
23 H3-
24 H3+
25 H2-
26 H2+
27 H1-
28 H1+
29 SPDM3
30 SPDM2
31 SPDM1
32 TRVSW
33 D.GND
34 STMNB
35 STMNA
36 STMA
37 STMB
TO FLM-V3
TO CN101 OF LVA10047 (SHEET 6/8)
TO FLM-V3

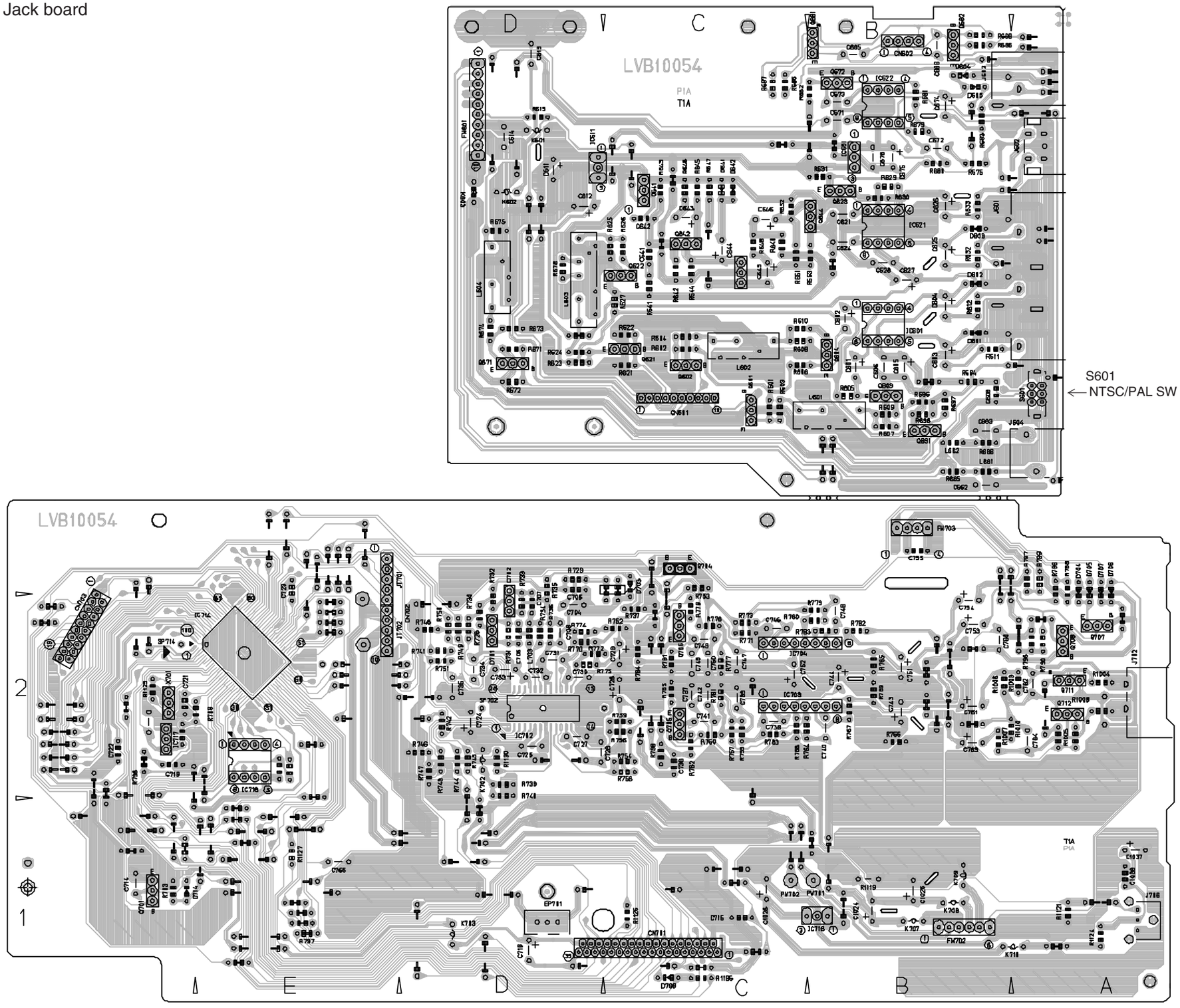
Printed circuit board



Power supply board



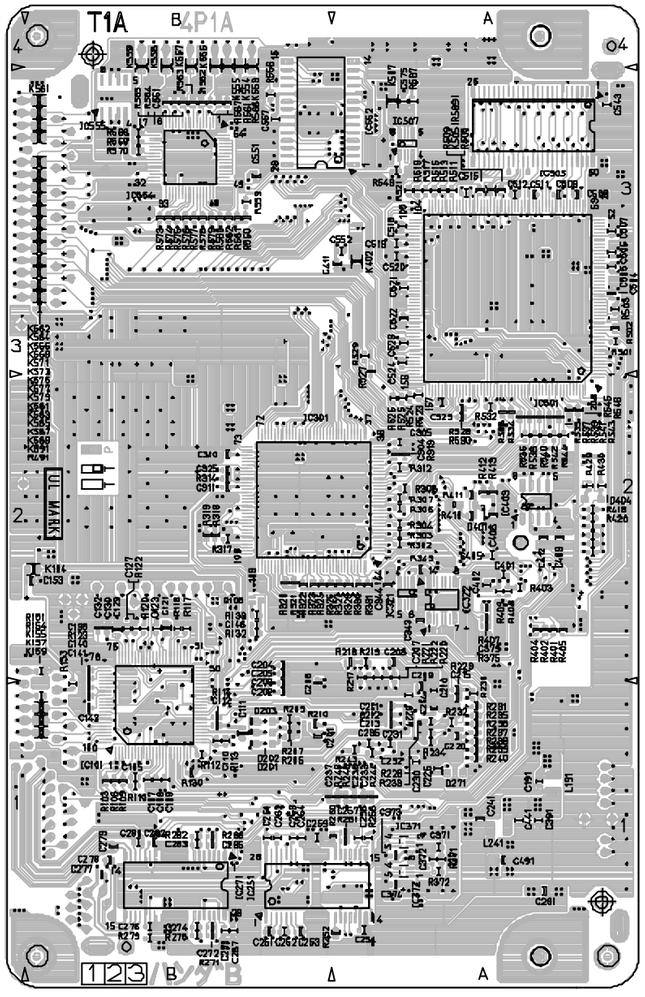
Display board



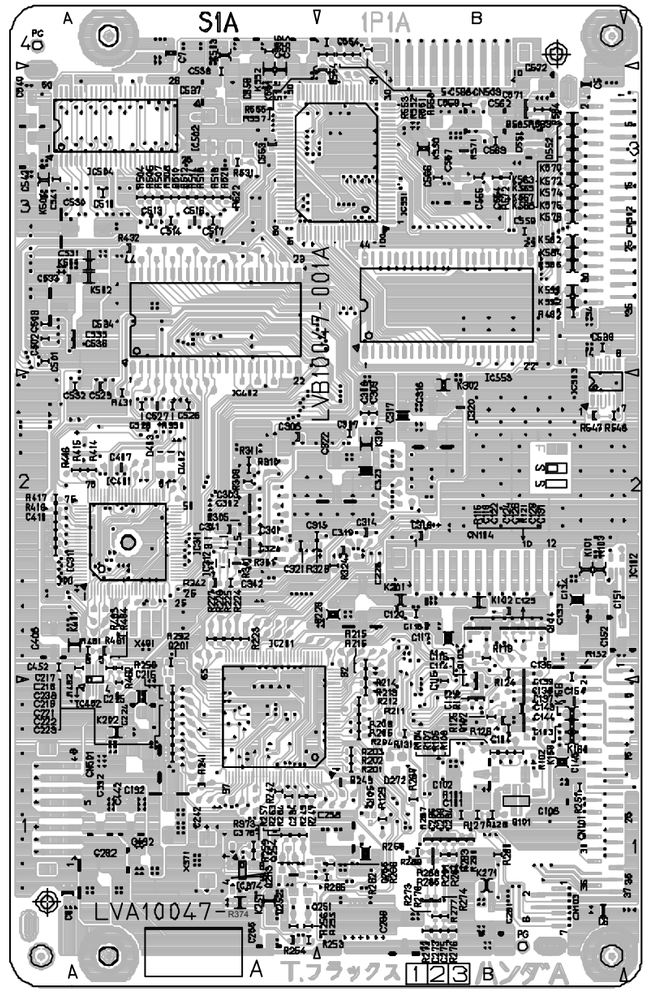
T P 裏パターン

Servo control board

(BOTOM SIDE)



(TOP SIDE)



T T P 裏パターン

PARTS LIST

[RDV-985]

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

Parts List 1/8

POWER SUPPLY, FL DISPLAY BOARD LVA10053

SYMBOL	PARTS NO.	DESCRIPTION
BK901	E409182-001SM	GRAND TERMINAL
C832	QER61AM-476Z	ELECTROLYTIC CAPACITOR 10V47uF
C833	QCBB1HK-101Y	CERAMIC CAPACITOR 50V100PF
C834	QDVB1EZ-223Y	CERAMIC CAPACITOR 0.022uF
C835	QCBB1HK-471Y	CERAMIC CAPACITOR 50V470PF
C836	QCBB1HK-471Y	CERAMIC CAPACITOR 50V470PF
C837	QCBB1HK-471Y	CERAMIC CAPACITOR 50V470PF
C838	QDVB1EZ-223Y	CERAMIC CAPACITOR 0.022uF
C839	QER61AM-226Z	ELECTROLYTIC CAPACITOR 10V22uF
C841	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C842	QER41HM-475	ELECTROLYTIC CAPACITOR 50V4.7uF
C902	QFZ9067-683	M CAPACITOR 0.068uF
C905	QCZ9079-102	CERAMIC CAPACITOR 1000PF
C906	QCZ9079-102	CERAMIC CAPACITOR 1000PF
C907	QEZ0374-826	ELECTROLYTIC CAPACITOR 400V120uF
C908	QCZ0136-332Z	CERAMIC CAPACITOR 3300PF
C909	QCZ0136-101Z	CERAMIC CAPACITOR 100PF
C910	QCS11HJ-221	CERAMIC CAPACITOR 50V220PF
C913	QCZ0136-221Z	CERAMIC CAPACITOR 220PF
C914	QEMU1EM-396Z	ELECTROLYTIC CAPACITOR 25V39uF
C915	QCBB1HK-471Y	CERAMIC CAPACITOR 50V470PF
C916	QCZ9079-332	CERAMIC CAPACITOR 3300PF
C919	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C931	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C932	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C933	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C951	QCS11HJ-101	CERAMIC CAPACITOR 50V100PF
C952	QCS11HJ-101	CERAMIC CAPACITOR 50V100PF
C953	QCS11HJ-101	CERAMIC CAPACITOR 50V100PF
C954	QCS11HJ-101	CERAMIC CAPACITOR 50V100PF
C956	QCS11HJ-101	CERAMIC CAPACITOR 50V100PF
C957	QCS11HJ-101	CERAMIC CAPACITOR 50V100PF
C960	QEMU1AM-107Z	ELECTROLYTIC CAPACITOR 10V100uF
C961	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C962	QET41HM-226	ELECTROLYTIC CAPACITOR 50V22uF
C963	QEMU1VM-396Z	ELECTROLYTIC CAPACITOR 35V39uF
C964	QET41HM-226	ELECTROLYTIC CAPACITOR 50V22uF
C965	QEMS1AM-108	ELECTROLYTIC CAPACITOR 10V1000uF
C966	QET41AM-477	ELECTROLYTIC CAPACITOR 10V470uF
C967	QFV41HJ-104	TF CAPACITOR 50V0.1uF
C968	QFV41HJ-104	TF CAPACITOR 50V0.1uF
C969	QET41AM-277	ELECTROLYTIC CAPACITOR 10V220uF
C970	QFV41HJ-104	TF CAPACITOR 50V0.1uF
C973	QET41AM-107	ELECTROLYTIC CAPACITOR 10V100uF
C976	QFV41HJ-104	TF CAPACITOR 50V0.1uF
C977	QFV41HJ-104	TF CAPACITOR 50V0.1uF
C978	QET41AM-107	ELECTROLYTIC CAPACITOR 10V100uF
C979	QEMS1CM-827	ELECTROLYTIC CAPACITOR 16V820uF
C981	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C982	QEMS1EM-567	ELECTROLYTIC CAPACITOR 25V560uF
C984	QET41EM-227	ELECTROLYTIC CAPACITOR 25V220uF
C985	QET41CM-476	ELECTROLYTIC CAPACITOR 16V47uF
C986	QET41CM-107	ELECTROLYTIC CAPACITOR 16V100uF
C987	QEMU1EM-187Z	ELECTROLYTIC CAPACITOR 25V180uF
C989	QET41EM-107	ELECTROLYTIC CAPACITOR 25V100uF
C990	QET41CM-476	ELECTROLYTIC CAPACITOR 16V47uF
C991	QET41CM-107	ELECTROLYTIC CAPACITOR 16V100uF
C992	QET41HM-474	ELECTROLYTIC CAPACITOR 50V0.47uF
C993	QCS11HJ-101	CERAMIC CAPACITOR 50V100PF
C994	QDVB1EZ-223Y	CERAMIC CAPACITOR 0.022uF
C995	QET41CM-227	ELECTROLYTIC CAPACITOR 16V220uF
C996	QET41CM-226	ELECTROLYTIC CAPACITOR 16V22uF
C997	QET41CM-227	ELECTROLYTIC CAPACITOR 16V220uF
CN805	WJK0053-002A	8PIN WIRE TO MAIN
CN831	QGF1016C1-19	CONNECTOR TO AUDIO
CN832	QGB2014N1-06	CONNECTOR TO POWER KEY
CN833	QGB2014P1-06	CONNECTOR
CP951	ICP-N10-T	ICP
D831	SLR-342VC-T	LED STANDBY
D842	1SS199-02-T2	SI DIODE
D844	1SS199-02-T2	SI DIODE
D845	1SS199-02-T2	SI DIODE
D901	S1WB/A/60-4101	BRIDGE DIODE
D902	ERA18-04-T1	FR DIODE
D903	ERA18-04-T1	FR DIODE
D904	ERA18-04-T1	FR DIODE
D908	ERA18-04-T1	FR DIODE
D910	ERA18-04-T1	FR DIODE
D911	1SS133-T2	DIODE
D950	MTZJ27C-T2	ZENER DIODE
D951	ERA18-04-T1	FR DIODE
D952	ERA18-04-T1	FR DIODE
D953	FMB-24	SB DIODE
D954	ERA18-04-T1	FR DIODE
D956	ERA18-04-T1	FR DIODE
D957	ERA18-04-T1	FR DIODE
D960	MTZJ2.0A-T2	ZENER DIODE
D961	MTZJ12C-T2	ZENER DIODE
D962	MTZJ12C-T2	ZENER DIODE
D963	1SS133-T2	DIODE
D964	1SS133-T2	DIODE
D965	MTZJ5.1C-T2	ZENER DIODE
D970	1SS133-T2	DIODE
D972	1SS133-T2	DIODE
D973	1SS133-T2	DIODE
D974	1SS133-T2	DIODE
DI831	QLF0049-001	FL TUBE
EP951	QNZ0136-001Z	EARTH PLATE
EP952	QNZ0136-001Z	EARTH PLATE
FC901	QNZ0136-001Z	FUSE CLIP
FC902	QNZ0136-001Z	FUSE CLIP
HS901	LE40597-001A	HEAT SINK
HS964	LE40595-001A	HEAT SINK
IC831	M66004SP	FL DRIVER IC
IC832	GP1U271X	OPTICAL RECIVER
IC901	STR-F6652	IC
IC951	PQO5RF2	IC
IC953	LM2940CT-5.0	IC
JT801	QGD2501C1-03Z	SOCKET I.M OF CN801 TO AUDIO
JT806	QGD2501C1-03Z	SOCKET I.M OF CN806 TO FRONT
JT811	QGD2501C1-03Z	SOCKET I.M OF CN801 TO AUDIO
JT816	QGD2501C1-03Z	SOCKET I.M OF CN806 TO FRONT
K902	QQR0601-001Z	FERRITE BEADS
L951	QQL01BK-R22Z	P COIL
L952	QQL31AK-101Z	INDUCTOR
L955	QQL31AK-101Z	INDUCTOR
L957	QQL31AK-101Z	INDUCTOR
L959	QQL31AK-101Z	INDUCTOR
PC901	PC123FY	IC (PHOTO COUPLE)
PC902	PC123FY	IC (PHOTO COUPLE)
Q831	DTC114YSA-T	DIGITAL TRANSISTOR
Q951	2SC2060/QR/-T	TRANSISTOR
Q952	DTA144ESA-T	DIGITAL TRANSISTOR
Q953	2SB1565/EF/	TRANSISTOR
Q954	2SC1740S/RS/-T	TRANSISTOR
Q955	DTA144YSA-T	DIGITAL TRANSISTOR
Q956	DTC114ESA-T	DIGITAL TRANSISTOR
Q957	2SD2394/EF/	TRANSISTOR
Q958	2SA933S/RS/-T	TRANSISTOR
Q959	DTC114YSA-T	DIGITAL TRANSISTOR
Q960	DTA114ESA-T	DIGITAL TRANSISTOR
Q961	2SC1740S/RS/-T	TRANSISTOR
Q962	2SA933S/RS/-T	TRANSISTOR
Q964	2SB1565/EF/	TRANSISTOR
Q965	2SC1740S/RS/-T	TRANSISTOR
Q966	2SA933S/RS/-T	TRANSISTOR
R1126	QRE141J-101Y	CARBON RESISTOR 100 1/4W
R801	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4W
R802	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4W

Parts List 2/8

SYMBOL	PARTS NO.	DESCRIPTION
R803	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4W
R804	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4W
R805	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4W
R806	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4W
R831	QRE141J-331Y	CARBON RESISTOR 330 1/4W
R843	QRE141J-273Y	CARBON RESISTOR 27K 1/4W
R845	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R846	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R847	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R848	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R849	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R850	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R851	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R900	QRE141J-221Y	CARBON RESISTOR 220 1/4W
R901	QRL01DJ-683X	OMF RESISTOR 68K 1W
R903	QRE141J-270Y	CARBON RESISTOR 27 1/4W
R904	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R905	QRL027J-683	METAL OXIDE FILM RESISTOR 68K 2W
R906	QRE141J-681Y	CARBON RESISTOR 680 1/4W
R907	QRT022J-R47	UNF. MF. RESISTOR 0.47 2W
R908	QRE141J-332Y	CARBON RESISTOR 3.3K 1/4W
R911	QRE141J-155Y	CARBON RESISTOR 1.5M 1/4W
R952	QRE141J-103Y	CARBON RESISTOR 10K 1/4W
R953	QRE141J-103Y	CARBON RESISTOR 10K 1/4W
R954	QRZ9006-4R7X	F CAPACITOR 4.7 1/0W
R955	QRE141J-223Y	CARBON RESISTOR 22K 1/4W
R956	QRE141J-103Y	CARBON RESISTOR 10K 1/4W
R957	QRE141J-103Y	CARBON RESISTOR 10K 1/4W
R958	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R959	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R960	QRE141J-101Y	CARBON RESISTOR 100 1/4W
R961	QRE141J-681Y	CARBON RESISTOR 680 1/4W
R962	QRE141J-105Y	CARBON RESISTOR 1M1/4W
R963	QRE141J-101Y	CARBON RESISTOR 100 1/4W
R964	QRE141J-105Y	CARBON RESISTOR 1M 1/4W
R965	QRE141J-103Y	CARBON RESISTOR 10K 1/4W
R966	QRK126J-2R7X	CARBON RESISTOR 2.7 1/4W
R967	QRZ9005-100X	FUSIBLE RESISTOR I/M 10 1W
R968	QRK126J-2R7X	CARBON RESISTOR 2.7 1/4W
R969	QRE141J-221Y	CARBON RESISTOR 220 1/4W
R971	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4W
R972	QRE141J-152Y	CARBON RESISTOR 1.5K 1/4W
R973	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R974	QRE141J-562Y	CARBON RESISTOR 5.6K 1/4W
R975	QRE141J-562Y	CARBON RESISTOR 5.6K 1/4W
R976	QRE141J-221Y	CARBON RESISTOR 220 1/4W
R980	QRE141J-821Y	CARBON RESISTOR 820 1/4W
S831	QVQ0123-B15	SHUTTLE VARIABLE RESISTOR
S833	QSW0499-001Z	PUSH SWITCH VSS
S835	QSW0499-001Z	PUSH SWITCH OPEN/CLOSE
S844	QSW0499-001Z	PUSH SWITCH BWD SKIP
S845	QSW0499-001Z	PUSH SWITCH FWD SKIP
S846	QSW0499-001Z	PUSH SWITCH STOP
S847	QSW0499-001Z	PUSH SWITCH PAUSE
S848	QSW0499-001Z	PUSH SWITCH PLAY
S867	QSW0499-001Z	PUSH SWITCH POWER
T901	QQR0894-001	LINE FILTER
T902	QQS0028-001	SWITCH TRANSFORMER
TB901	QNZ0079-001Z	TAB
TB902	QNZ0079-001Z	TAB
	AUDIO, VIDEO, CPU BOARD LVB10054	
BK693	LE30696-001A	EARTH PLATE
C1024	QET41CM-477	ELECTROLYTIC CAPACITOR 16V470uF
C1025	QET41CM-477	ELECTROLYTIC CAPACITOR 16V470uF
C1026	QETN0JM-477Z	ELECTROLYTIC CAPACITOR 6.3V470uF
C1037	QET41CM-107	ELECTROLYTIC CAPACITOR 16V100uF
C1038	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C601	QETN1CM-226Z	ELECTROLYTIC CAPACITOR 16V22uF
C602	QETN1CM-226Z	ELECTROLYTIC CAPACITOR 16V22uF
C603	QETN1AM-108Z	ELECTROLYTIC CAPACITOR 10V1000uF
C604	QETN1AM-108Z	ELECTROLYTIC CAPACITOR 10V1000uF
C605	QETN1AM-107Z	ELECTROLYTIC CAPACITOR 10V100uF
C606	QDX31EM-473Z	CERAMIC CAPACITOR 0.047uF
C611	QETM1CM-228	ELECTROLYTIC CAPACITOR 16V2200uF
C612	QETN0JM-227Z	ELECTROLYTIC CAPACITOR 6.3V220uF
C613	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C614	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C621	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C624	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C625	QETN1AM-108Z	ELECTROLYTIC CAPACITOR 10V1000uF
C626	QET41AM-108	ELECTROLYTIC CAPACITOR 10V1000uF
C627	QET41AM-107	ELECTROLYTIC CAPACITOR 10V100uF
C628	QDX31EM-473Z	CERAMIC CAPACITOR 0.047uF
C662	QDGB1HK-102Y	CERAMIC CAPACITOR 1000PF
C671	QDX31EM-473Z	CERAMIC CAPACITOR 0.047uF
C672	QDX31EM-104Z	CERAMIC CAPACITOR 0.1uF
C673	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C674	QET41AM-108	ELECTROLYTIC CAPACITOR 10V1000uF
C675	QET41AM-107	ELECTROLYTIC CAPACITOR 10V100uF
C676	QDX31EM-473Z	CERAMIC CAPACITOR 0.047uF
C694	QET41AM-108	ELECTROLYTIC CAPACITOR 10V1000uF
C695	QDX31EM-104Z	CERAMIC CAPACITOR 0.1uF
C704	QFV41HJ-474	CAPACITOR 50V0.47uF
C705	QDYB1CM-103Y	AB CAPACITOR 0.01uF
C706	QDGB1HK-102Y	CERAMIC CAPACITOR 1000PF
C707	QDGB1HK-102Y	CERAMIC CAPACITOR 1000PF
C708	QDX31EM-473Z	CERAMIC CAPACITOR 0.047uF
C714	QCS31HJ-331Z	CERAMIC CAPACITOR 330PF
C717	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C719	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C720	QCS11HJ-102	CERAMIC CAPACITOR 50V1000PF
C721	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C722	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C723	QCFB1HZ-104Y	CERAMIC CAPACITOR 0.1uF
C724	QETN0JM-477Z	ELECTROLYTIC CAPACITOR 6.3V470uF
C725	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C726	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C727	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C728	QETN0JM-477Z	ELECTROLYTIC CAPACITOR 6.3V470uF
C729	QETN0JM-477Z	ELECTROLYTIC CAPACITOR 6.3V470uF
C730	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C731	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C732	QCZ0205-155Z	MULTI-LAYER CERAMIC CAP 1.5uF
C733	QETN0JM-477Z	ELECTROLYTIC CAPACITOR 6.3V470uF
C734	QCF11HZ-473	CERAMIC CAPACITOR 0.047uF
C735	QCF11HZ-103	CERAMIC CAPACITOR 0.01uF
C736	QDYB1CM-103Y	AB CAPACITOR 0.01uF
C737	QFLC1HJ-152Z	M CAPACITOR 50V1500PF
C738	QFLC1HJ-181Z	M CAPACITOR 50V180PF
C739	QFN41HJ-333	M CAPACITOR 50V0.033uF
C740	QFN41HJ-103	M CAPACITOR 50V0.01uF
C741	QFLC1HJ-152Z	M CAPACITOR 50V1500PF
C742	QFLC1HJ-182Z	M CAPACITOR 50V1800PF
C743	QET41CM-477	ELECTROLYTIC CAPACITOR 16V470uF
C744	QET41CM-477	ELECTROLYTIC CAPACITOR 16V470uF
C745	QFLC1HJ-152Z	M CAPACITOR 50V1500PF
C746	QFLC1HJ-181Z	M CAPACITOR 50V180PF
C747	QFN41HJ-333	M CAPACITOR 50V0.033uF
C748	QFN41HJ-103	M CAPACITOR 50V0.01uF
C749	QFLC1HJ-152Z	M CAPACITOR 50V1500PF
C750	QFLC1HJ-182Z	M CAPACITOR 50V1800PF
C751	QET41CM-477	ELECTROLYTIC CAPACITOR 16V470uF
C752	QET41CM-477	ELECTROLYTIC CAPACITOR 16V470uF
C755	QDXB1CM-152Y	CERAMIC CAPACITOR 1500PF
C760	QFLC1HJ-152Z	M CAPACITOR 50V1500PF
C761	QET41EM-476	ELECTROLYTIC CAPACITOR 25V47uF
C762	QFLC1HJ-152Z	M CAPACITOR 50V1500PF
C763	QET41EM-476	ELECTROLYTIC CAPACITOR 25V47uF
C764	QFLC1HJ-152Z	M CAPACITOR 50V1500PF

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SYMBOL	PARTS NO.	DESCRIPTION
C765	QCF11HZ-473	CERAMIC CAPACITOR 0.047uF
CN601	VMC0075-010N	10P PLUG ASSY TO MAIN
CN603	QGA2001C1-03	3P PLUG ASSY
CN701	QGF1016C1-35	FFC/FPC CONNECTOR TO MAIN
CN703	QGF1016C1-19	CONNECTOR TO FRONT
D601	1SS133-T2	DIODE
D602	1SS133-T2	DIODE
D603	1SS133-T2	DIODE
D604	1SS133-T2	DIODE
D605	1SS133-T2	DIODE
D701	KV15555N-T	VARI CAP
D702	KV15555N-T	VARI CAP
D703	MTZJ5.1C-T2	ZENER DIODE
D706	1SS133-T2	DIODE
D707	1SS133-T2	DIODE
D714	1SS133-T2	DIODE
D799	1SS133-T2	DIODE
FW702	QUM106-24DGZ4	PARA RIBON WIRE TO POWER
IC601	NJM2267D	IC
IC611	NJM78M05FA	IC
IC621	NJM2267D	IC
IC622	NJM2268D	IC
IC702	MN35503-X	IC
IC703	NJM4580L	IC
IC704	NJM4580L	IC
IC714+	M30622MC-736FP	IC
IC714*	M30622MC-795FP	IC (after S/N 0061001)
IC716	AK93C45A	IC
IC717	IC-PST9140-T	IC
IC718	NJM78M05FA	IC
J601	QNN0312-001	PIN JACK (COMPONENT)
J602	QND0019-001	S-CONNECTOR
J603	QNN0106-001	PIN JACK (COMPOSITE)
J702	QNN0216-001	PIN JACK (AUDIO)
J706	GP1F32T	OPTICAL JACK
JT701	QGD2501C1-05Z	SOCKET
JT702	QGD2501C1-05Z	SOCKET
K601	QQR0601-001Z	FERRITE BEADS
K602	QQR0601-001Z	FERRITE BEADS
K603	QQR0601-001Z	FERRITE BEADS
K702	QQR0601-001Z	FERRITE BEADS
K703	QQR0601-001Z	FERRITE BEADS
K704	QQR0601-001	FERRITE BEADS
K707	QQR0601-001Z	FERRITE BEADS
K708	QQR0601-001Z	FERRITE BEADS
K709	QQR0601-001Z	FERRITE BEADS
K710	QQR0601-001Z	FERRITE BEADS
L601	QQR0712-001	LPF
L602	QQR0712-001	LPF
L603	QQR0713-001	LPF
L604	QQR0714-001	BPF
L661	QQL121K-3R3Y	INDUCTOR
L662	QQL121K-221Y	INDUCTOR
L703	QQL121M-1R2Y	INDUCTOR
Q601	2SA933/RS/-T	TRANSISTOR
Q602	2SA933/RS/-T	TRANSISTOR
Q603	2SA933/RS/-T	TRANSISTOR
Q604	2SA933/RS/-T	TRANSISTOR
Q621	2SA933/RS/-T	TRANSISTOR
Q622	2SA933/RS/-T	TRANSISTOR
Q623	2SA933/RS/-T	TRANSISTOR
Q671	2SA933/RS/-T	TRANSISTOR
Q672	2SA933/RS/-T	TRANSISTOR
Q701	DTC114ESA-T	DIGITAL TRANSISTOR
Q704	DTA114ESA-T	DIGITAL TRANSISTOR
Q705	2SD1302/ST/-T	TRANSISTOR
Q706	2SD1302/ST/-T	TRANSISTOR
Q708	DTA114ESA-T	DIGITAL TRANSISTOR
Q711	2SD1302/ST/-T	TRANSISTOR
Q712	2SD1302/ST/-T	TRANSISTOR
R1003	QRE141J-561Y	CARBON RESISTOR 560 1/4
R1004	QRE141J-151Y	CARBON RESISTOR 150 1/4
R1005	QRE141J-103Y	CARBON RESISTOR 10K 1/4
R1006	QRE141J-273Y	CARBON RESISTOR 27K 1/4
R1007	QRE141J-561Y	CARBON RESISTOR 560 1/4
R1008	QRE141J-151Y	CARBON RESISTOR 150 1/4
R1009	QRE141J-103Y	CARBON RESISTOR 10K 1/4
R1010	QRE141J-273Y	CARBON RESISTOR 27K 1/4
R1119	QRE141J-391Y	CARBON RESISTOR 390 1/4
R1121	QRE141J-104Y	CARBON RESISTOR 100K 1/4
R1124	QRE141J-2R2Y	CARBON RESISTOR 2.2 1/4
R1125	QRE141J-105Y	CARBON RESISTOR 1M 1/4
R1130	QRE141J-471Y	CARBON RESISTOR 470 1/4
R1196	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4
R601	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R602	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R603	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R604	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R605	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R606	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4W
R607	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R608	QRE141J-102Y	CARBON RESISTOR 1K 1/4W
R609	QRE141J-221Y	CARBON RESISTOR 220R 1/4W
R610	QRE141J-221Y	CARBON RESISTOR 220R 1/4W
R611	QRE141J-750Y	CARBON RESISTOR 75R 1/4W
R612	QRE141J-750Y	CARBON RESISTOR 75R 1/4W
R615	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R621	QRE141J-153Y	CARBON RESISTOR 15K 1/4
R622	QRE141J-752Y	CARBON RESISTOR 7.5K 1/4
R623	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R624	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R625	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R626	QRE141J-221Y	CARBON RESISTOR 220K 1/4
R627	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R630	QRE141J-221Y	CARBON RESISTOR 220K 1/4
R631	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4
R632	QRE141J-750Y	CARBON RESISTOR 75R 1/4W
R633	QRE141J-750Y	CARBON RESISTOR 75 1/4
R665	QRE141J-101Y	CARBON RESISTOR 100 1/4
R666	QRE141J-101Y	CARBON RESISTOR 100 1/4
R671	QRE141J-562Y	CARBON RESISTOR 5.6K 1/4W
R672	QRE141J-562Y	CARBON RESISTOR 5.6K 1/4
R673	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R674	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R675	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R676	QRE141J-750Y	CARBON RESISTOR 75 1/4
R679	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R680	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R681	QRE141J-221Y	CARBON RESISTOR 220 1/4
R682	QRE141J-222Y	CARBON RESISTOR 2.2K 1/4
R683	QRE141J-750Y	CARBON RESISTOR 75 1/4
R684	QRE141J-103Y	CARBON RESISTOR 10K 1/4W
R694	QRE141J-750Y	CARBON RESISTOR 75R 1/4W
R695	QRE141J-750Y	CARBON RESISTOR 75R 1/4W
R703	QRE141J-103Y	CARBON RESISTOR 10K 1/4W
R707	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4
R708	QRE141J-472Y	CARBON RESISTOR 4.7K 1/4
R711	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R728	QRE141J-333Y	CARBON RESISTOR 33K 1/4
R729	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R730	QRE141J-333Y	CARBON RESISTOR 33K 1/4
R731	QRE141J-104Y	CARBON RESISTOR 100K 1/4
R732	QRE141J-333Y	CARBON RESISTOR 33K 1/4
R733	QRE141J-104Y	CARBON RESISTOR 100K 1/4
R734	QRE141J-181Y	CARBON RESISTOR 180 1/4
R735	QRE141J-104Y	CARBON RESISTOR 100K 1/4
R736	QRE141J-153Y	CARBON RESISTOR 15K 1/4
R737	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R738	QRE141J-473Y	CARBON RESISTOR 47K 1/4
R739	QRE141J-560Y	CARBON RESISTOR 56 1/4
R740	QRE141J-560Y	CARBON RESISTOR 56 1/4
R741	QRE141J-471Y	CARBON RESISTOR 470 1/4

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SYMBOL	PARTS NO.	DESCRIPTION
R742	QRE141J-471Y	CARBON RESISTOR 470 1/4
R743	QRE141J-471Y	CARBON RESISTOR 470 1/4
R744	QRE141J-471Y	CARBON RESISTOR 470 1/4
R745	QRE141J-511Y	CARBON RESISTOR 510 1/4
R746	QRE141J-152Y	CARBON RESISTOR 1.5K 1/4
R747	QRE141J-560Y	CARBON RESISTOR 56 1/4
R748	QRE141J-101Y	CARBON RESISTOR 100 1/4
R749	QRE141J-471Y	CARBON RESISTOR 470 1/4
R750	QRE141J-102Y	CARBON RESISTOR 1K 1/4
R751	QRE141J-471Y	CARBON RESISTOR 470 1/4
R752	QRE141J-152Y	CARBON RESISTOR 1.5K 1/4
R753	QRE141J-560Y	CARBON RESISTOR 56 1/4
R754	QRE141J-1602Y	METAL FILM RESISTOR 16 1/4W
R755	QRE141J-183Y	CARBON RESISTOR 18K 1/4
R756	QRE141J-1602Y	METAL FILM RESISTOR 16 1/4W
R757	QRE141J-821Y	CARBON RESISTOR 820 1/4
R758	QRE141J-243Y	CARBON RESISTOR 24K 1/4
R759	QRE141J-243Y	CARBON RESISTOR 24K 1/4
R760	QRE141J-682Y	CARBON RESISTOR 6.8K 1/4
R761	QRE141J-362Y	CARBON RESISTOR 3.6K 1/4
R762	QRE141J-103Y	CARBON RESISTOR 10K 1/4
R763	QRE141J-561Y	CARBON RESISTOR 560 1/4
R764	QRE141J-561Y	CARBON RESISTOR 560 1/4
R765	QRE141J-105Y	CARBON RESISTOR 1M 1/4
R766	QRE141J-221Y	CARBON RESISTOR 220 1/4
R767	QRE141J-821Y	CARBON RESISTOR 820 1/4
R768	QRE141J-221Y	CARBON RESISTOR 220 1/4
R769	QRE141J-183Y	CARBON RESISTOR 18K 1/4
R770	QRE141J-1602Y	METAL FILM RESISTOR 16 1/4W
R771	QRE141J-183Y	CARBON RESISTOR 18K 1/4
R772	QRE141J-1602Y	METAL FILM RESISTOR 16 1/4W
R773	QRE141J-821Y	CARBON RESISTOR 820 1/4
R774	QRE141J-243Y	CARBON RESISTOR 24K 1/4
R775	QRE141J-243Y	CARBON RESISTOR 24K 1/4
R776	QRE141J-682Y	CARBON RESISTOR 6.8K 1/4
R777	QRE141J-362Y	CARBON RESISTOR 3.6K 1/4
R778	QRE141J-103Y	CARBON RESISTOR 10K 1/4
R779	QRE141J-561Y	CARBON RESISTOR 560 1/4
R780	QRE141J-561Y	CARBON RESISTOR 560 1/4
R781	QRE141J-105Y	CARBON RESISTOR 1M 1/4
R782	QRE141J-221Y	CARBON RESISTOR 220 1/4
R783	QRE141J-821Y	CARBON RESISTOR 820 1/4
R784	QRE141J-221Y	CARBON RESISTOR 220 1/4
R785	QRE141J-183Y	CARBON RESISTOR 18K 1/4
R796	QRE141J-473Y	CARBON RESISTOR 47K 1/4
S601	QSW0454-001	SWITCH
SP702	VYH7653-003	IC HOLDER
SP714	VYH7653-011	IC HOLDER
X701	QAX0516-0012	CERAMIC RESONATOR 16MHz
	SERVO CONTROL-1, 2 BOARD LVA10047	
C101	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C102	NEA70JM-476X	ELECTROLYTIC CAPACITOR 6.3V47uF
C103	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C104	NCS31HJ-560X	CERAMIC CAPACITOR 56PF
C105	NCS31HJ-101X	CERAMIC CAPACITOR 100PF
C106	NEA71CM-106X	ELECTROLYTIC CAPACITOR 16V10uF
C107	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C108	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C109	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C110	NCS31HJ-101X	CERAMIC CAPACITOR 100PF
C111	NCB21CK-184X	CERAMIC CAPACITOR 0.18PF
C112	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C113	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C114	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C115	NCB31HK-392X	CERAMIC CAPACITOR 3900PF
C116	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C117	NCB11CK-105X	CERAMIC CAPACITOR 1uF
C118	NEX40JM-336X	ELECTROLYTIC CAPACITOR 6.3V33uF
C119	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C120	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C121	NCB21CK-334X	CERAMIC CAPACITOR 0.33uF
C122	NCS31HJ-121X	CERAMIC CAPACITOR 1200PF
C123	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C124	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C125	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C126	NCB31HJ-221X	CERAMIC CAPACITOR 220PF
C127	NCB31HJ-221X	CERAMIC CAPACITOR 220PF
C128	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C129	NCB21CK-224X	CERAMIC CAPACITOR 0.22uF
C130	NCB31HK-102X	CERAMIC CAPACITOR 1000PF
C131	NCB31HK-681X	CERAMIC CAPACITOR 680PF
C132	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C133	NEX40JM-566X	ELECTROLYTIC CAPACITOR 6.3V56uF
C134	NCB11CK-105X	CERAMIC CAPACITOR 1uF
C135	NCB31HJ-221X	CERAMIC CAPACITOR 220PF
C136	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C137	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C138	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C139	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C140	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C141	NCB31HJ-820X	CERAMIC CAPACITOR 82PF
C142	NCB31HK-222X	CERAMIC CAPACITOR 2200PF
C143	NCB21CK-224X	CERAMIC CAPACITOR 0.22uF
C144	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C145	NCB11CK-105X	CERAMIC CAPACITOR 1uF
C151	NEX40JM-156X	ELECTROLYTIC CAPACITOR 6.3V15uF
C152	NEX40JM-156X	ELECTROLYTIC CAPACITOR 6.3V15uF
C153	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C154	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C191	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C192	NEA70JM-107X	ELECTROLYTIC CAPACITOR 6.3V100uF
C201	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C202	NCB31CK-393X	CERAMIC CAPACITOR 0.039uF
C203	NCB31CK-393X	CERAMIC CAPACITOR 0.039uF
C204	NCB31CK-393X	CERAMIC CAPACITOR 0.039uF
C205	NCB31CK-393X	CERAMIC CAPACITOR 0.039uF
C206	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C208	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C209	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C210	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C211	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C212	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C213	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C214	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C215	NCB31HK-392X	CERAMIC CAPACITOR 3900PF
C217	NCB31HK-821X	CERAMIC CAPACITOR 820PF
C218	NCB31HK-331X	CERAMIC CAPACITOR 330PF
C219	NCB31HK-471X	CERAMIC CAPACITOR 470PF
C221	NCB31HK-271X	CERAMIC CAPACITOR 270PF
C222	NCB31HK-821X	CERAMIC CAPACITOR 820PF
C223	NCB31HK-821X	CERAMIC CAPACITOR 820PF
C224	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C225	NCB11CK-105X	CERAMIC CAPACITOR 1uF
C226	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C227	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C228	NEA70JM-107X	ELECTROLYTIC CAPACITOR 6.3V100uF
C229	NCB11CK-105X	CERAMIC CAPACITOR 1uF
C230	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C231	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C232	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C233	NCB31HJ-330X	CERAMIC CAPACITOR 33PF
C234	NCB31HK-331X	CERAMIC CAPACITOR 330PF
C235	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C236	NCB31CK-823X	CERAMIC CAPACITOR 0.082uF
C237	NCB31CK-823X	CERAMIC CAPACITOR 0.082uF
C241	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C242	NEA70JM-107X	ELECTROLYTIC CAPACITOR 6.3V100uF
C251	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C252	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF

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SYMBOL	PARTS NO.	DESCRIPTION
C253	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C254	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C255	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C256	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C257	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C258	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C259	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C261	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C262	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C263	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C264	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C271	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C273	NCB31HK-102X	CERAMIC CAPACITOR 1000PF
C275	NCB31HK-102X	CERAMIC CAPACITOR 1000PF
C276	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C281	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C282	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C284	NCB31CK-102X	CERAMIC CAPACITOR 1000PF
C286	NCB31CK-102X	CERAMIC CAPACITOR 1000PF
C287	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C288	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C291	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C292	NEA71CM-476X	ELECTROLYTIC CAPACITOR 16V47uF
C301	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C302	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C303	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C304	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C305	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C306	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C307	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C308	NCB31CK-103X	CERAMIC CAPACITOR 0.01uF
C309	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C310	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C311	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C314	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C315	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C316	NEA70JM-107X	ELECTROLYTIC CAPACITOR 6.3V100uF
C317	NCB11CK-105X	CERAMIC CAPACITOR 1uF
C318	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C319	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C320	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C321	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C322	NEA70JM-107X	ELECTROLYTIC CAPACITOR 6.3V100uF
C323	NCB11CK-105X	CERAMIC CAPACITOR 1uF
C324	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C341	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C342	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C343	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C344	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C371	NCS31HJ-100X	CERAMIC CAPACITOR 10PF
C372	NCS31HJ-100X	CERAMIC CAPACITOR 10PF
C373	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C374	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C376	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C391	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C392	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C401	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C402	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C405	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C406	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C407	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C408	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C409	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C411	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C412	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C441	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C442	NEX40JM-156X	ELECTROLYTIC CAPACITOR 6.3V15uF
C452	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C491	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C492	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF

SYMBOL	PARTS NO.	DESCRIPTION
C501	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C502	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C503	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C504	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C505	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C506	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C507	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C508	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C509	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C510	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C511	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C512	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C513	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C514	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C515	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C516	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C517	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C518	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C519	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C520	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C521	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C522	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C523	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C524	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C525	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C526	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C527	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C528	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C529	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C530	NEA70JM-107X	ELECTROLYTIC CAPACITOR 6.3V100uF
C531	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C532	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C533	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C534	NEA70JM-107X	ELECTROLYTIC CAPACITOR 6.3V100uF
C535	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C536	NCB31CK-103X	CERAMIC CAPACITOR 0.01uF
C537	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C538	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C539	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C540	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C541	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C542	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C543	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C551	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C552	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C553	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C554	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C555	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C556	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C557	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C558	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C559	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C561	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C562	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C563	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C564	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C565	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C566	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C567	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C568	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C569	NEA70JM-226X	ELECTROLYTIC CAPACITOR 6.3V22uF
C571	NCB31CK-104X	CERAMIC CAPACITOR 0.1uF
C572	NEX40JM-156X	ELECTROLYTIC CAPACITOR 6.3V15uF
C6	NCB21CK-104X	CERAMIC CAPACITOR 0.1uF
C8	NCB21CK-104X	CERAMIC CAPACITOR 0.1uF
CN101	QGF1016C2-37W	CONNECTOR MECHA
CN103	QGF1016C2-07W	CONNECTOR LOADING
CN104	QGA2001C2-12X	W TO B CONNECTOR
CN501	QGA2001C2-08X	W TO B CONNECTOR POWER
CN502	QGF1016C2-35W	CONNECTOR SYSTEM

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SYMBOL	PARTS NO.	DESCRIPTION
CN503	QGA2001C2-10X	W TO B CONNECTOR VIDEO
D201	1SS355-X	DIODE C.M.
D202	1SS355-X	DIODE C.M.
D203	1SS355-X	DIODE C.M.
D272	DAP202K-X	DIGITAL TRANSISTOR
D402	1SS355-X	DIODE C.M.
D403	1SS355-X	DIODE C.M.
D551	1SS355-X	DIODE C.M.
D552	1SS355-X	DIODE C.M.
IC101	AN8706FHQ	IC
IC102	RN5RZ20BA-X	IC
IC201	MN67705EA	IC
IC251	AN8485SB-W	IC
IC271	BA5983FM-X	IC
IC301	MN103007BGA	IC
IC311	TC7SH08FU-X	IC
IC312	TC7SH32FU-X	IC
IC321	TC7WH74FU-X	IC
IC322	TC74VHCOOFT-X	IC
IC371	TC7SHU04FU-X	IC (DIGITAL)
IC372	TC7SHU04FU-X	IC (DIGITAL)
IC374	TC7WH74FU-X	IC
IC401*	MN102L25GCP	IC (IC402 PAIR)
IC401*	MN102L25GCZ	IC (after S/N 0061001)
IC402*	MSM27C1602CZ61X	IC (IC401 PAIR)
IC402*	MSM531622F61G-X	IC (after S/N 0061001)
IC403	AK93C65AF-X	IC
IC452	TC7WT125FU-X	IC (DIGITAL)
IC501	ZIVA3-PA1	IC
IC502	NAX0265-001X	CRYSTAL 27MHZ
IC503	TC74VHCOOFT-X	IC
IC504	HY57V161610DTC8	IC
IC505	HY57V161610DTC8	IC
IC551	JCE8011	IC (DIGITAL)
IC552	UPD42280GU-30-X	IC
IC553	MSM531622F56G-X	IC
IC554	MC44724AVFU	IC
IC555	MC33269D-X	IC
K101	NQR0007-002X	FERRITE BEADS C.M.
K102	NQR0007-002X	FERRITE BEADS C.M.
K103	NQR0007-002X	FERRITE BEADS C.M.
K155	NQR0007-002X	FERRITE BEADS C.M.
K156	NQR0007-002X	FERRITE BEADS C.M.
K157	NQR0007-002X	FERRITE BEADS C.M.
K158	NQR0007-002X	FERRITE BEADS C.M.
K159	NQR0007-002X	FERRITE BEADS C.M.
K160	NQR0007-002X	FERRITE BEADS C.M.
K201	NQR0007-002X	FERRITE BEADS C.M.
K202	NQR0007-002X	FERRITE BEADS C.M.
K251	NQR0007-002X	FERRITE BEADS C.M.
K271	NQR0007-002X	FERRITE BEADS C.M.
K301	NQR0007-002X	FERRITE BEADS C.M.
K302	NQR0007-002X	FERRITE BEADS C.M.
K371	NQR0007-002X	FERRITE BEADS C.M.
K401	NQR0007-002X	FERRITE BEADS C.M.
K402	NQR0007-002X	FERRITE BEADS C.M.
K501	NQR0007-002X	FERRITE BEADS C.M.
K502	NQR0007-002X	FERRITE BEADS C.M.
K503	NQR0007-002X	FERRITE BEADS C.M.
K504	NQR0201-001X	FERRITE BEADS C.M.
K505	NQR0269-001X	FERRITE BEADS C.M.
K550	NQR0007-002X	FERRITE BEADS C.M.
K551	NQR0007-002X	FERRITE BEADS C.M.
K552	NQR0007-002X	FERRITE BEADS C.M.
K553	NQR0007-002X	FERRITE BEADS C.M.
K554	NQR0007-002X	FERRITE BEADS C.M.
K555	NQR0007-002X	FERRITE BEADS C.M.
K556	NQR0007-002X	FERRITE BEADS C.M.
K557	NQR0007-002X	FERRITE BEADS C.M.
K558	NQR0007-002X	FERRITE BEADS C.M.
K559	NQR0007-002X	FERRITE BEADS C.M.
K561	NQR0007-002X	FERRITE BEADS C.M.
K562	NQR0007-002X	FERRITE BEADS C.M.
K563	NQR0007-002X	FERRITE BEADS C.M.
K564	NQR0007-002X	FERRITE BEADS C.M.
K565	NQR0007-002X	FERRITE BEADS C.M.
K566	NQR0007-002X	FERRITE BEADS C.M.
K567	NQR0007-002X	FERRITE BEADS C.M.
K568	NQR0007-002X	FERRITE BEADS C.M.
K569	NQR0007-002X	FERRITE BEADS C.M.
K570	NQR0007-002X	FERRITE BEADS C.M.
K571	NQR0007-002X	FERRITE BEADS C.M.
K572	NQR0007-002X	FERRITE BEADS C.M.
K573	NQR0007-002X	FERRITE BEADS C.M.
K574	NQR0007-002X	FERRITE BEADS C.M.
K575	NQR0007-002X	FERRITE BEADS C.M.
K576	NQR0007-002X	FERRITE BEADS C.M.
K577	NQR0007-002X	FERRITE BEADS C.M.
K578	NQR0007-002X	FERRITE BEADS C.M.
K579	NQR0007-002X	FERRITE BEADS C.M.
K581	NQR0007-002X	FERRITE BEADS C.M.
K582	NQR0007-002X	FERRITE BEADS C.M.
K583	NQR0007-002X	FERRITE BEADS C.M.
K584	NQR0007-002X	FERRITE BEADS C.M.
K585	NQR0007-002X	FERRITE BEADS C.M.
K586	NQR0007-002X	FERRITE BEADS C.M.
K587	NQR0007-002X	FERRITE BEADS C.M.
K589	NQR0007-002X	FERRITE BEADS C.M.
K590	NQR0007-002X	FERRITE BEADS C.M.
K591	NQR0007-002X	FERRITE BEADS C.M.
K592	NQR0007-002X	FERRITE BEADS C.M.
L191	NQL044K-100X	INDUCTOR C.M
L241	NQL044K-100X	INDUCTOR C.M
Q101	2SB1424/QR/-X	TRANSISTOR
Q102	DTC124EE-X	DIGI TRANSISTOR
Q103	DTC124EE-X	DIGI TRANSISTOR
Q104	DTC124EE-X	DIGI TRANSISTOR
Q105	DTC144EE-X	TRANSISTOR
Q251	DTC144EE-X	TRANSISTOR
Q252	DTC144EE-X	TRANSISTOR
Q253	DTC144EE-X	TRANSISTOR
Q254	DTC144EE-X	TRANSISTOR
Q255	DTC144EE-X	TRANSISTOR
R101	NRS125J-270X	MG RESISTOR 27
R102	NRS125J-2R2X	MG RESISTOR 2.2
R103	NRSA63J-123X	MG RESISTOR 12K
R104	NRSA63J-103X	MG RESISTOR 10K
R106	NRSA63J-223X	MG RESISTOR 22K
R108	NRSA63J-103X	MG RESISTOR 10K
R109	NRSA63J-823X	MG RESISTOR 82K
R110	NRSA63J-393X	MG RESISTOR 39K
R112	NRVA63D-123X	MG RESISTOR 12K
R113	NRSA63J-393X	MG RESISTOR 39K
R114	NRSA63J-272X	MG RESISTOR 27K
R115	NRSA63J-223X	MG RESISTOR 22K
R116	NRSA63J-103X	MG RESISTOR 10K
R117	NRSA63J-223X	MG RESISTOR 22K
R118	NRSA63J-153X	MG RESISTOR 15K
R119	NRSA63J-155X	MG RESISTOR 1.5M
R120	NRVA63D-332X	METAL FILM RESISTOR 3.3K
R121	NRSA63J-474X	MG RESISTOR 470K
R122	NRSA63J-474X	MG RESISTOR 470K
R123	NRSA63J-822X	MG RESISTOR 8.2K
R124	NRSA63J-183X	MG RESISTOR 18K
R125	NRSA63J-154X	MG RESISTOR 150K
R126	NRSA63J-564X	MG RESISTOR 560K
R127	NRSA63J-123X	MG RESISTOR 12K
R128	NRSA63J-223X	MG RESISTOR 22K
R129	NRSA63J-103X	MG RESISTOR 10K
R130	NRSA63J-822X	MG RESISTOR 8.2K

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SYMBOL	PARTS NO.	DESCRIPTION
R131	NRSA63J-0R0X	MG RESISTOR 0
R151	NRSA63J-0R0X	MG RESISTOR 0
R152	NRSA63J-0R0X	MG RESISTOR 0
R153	NRSA63J-0R0X	MG RESISTOR 0
R154	NRSA63J-0R0X	MG RESISTOR 0
R201	NRSA63J-102X	MG RESISTOR 1K
R202	NRSA63J-102X	MG RESISTOR 1K
R203	NRSA63J-102X	MG RESISTOR 1K
R204	NRSA63J-102X	MG RESISTOR 1K
R205	NRSA63J-473X	MG RESISTOR 47K
R206	NRSA63J-102X	MG RESISTOR 1K
R207	NRSA63J-473X	MG RESISTOR 47K
R208	NRSA63J-102X	MG RESISTOR 1K
R209	NRSA63J-473X	MG RESISTOR 47K
R210	NRSA63J-473X	MG RESISTOR 47K
R211	NRSA63J-102X	MG RESISTOR 1K
R212	NRSA63J-102X	MG RESISTOR 1K
R213	NRSA63J-183X	MG RESISTOR 18K
R214	NRSA63J-822X	MG RESISTOR 8.2K
R215	NRSA63J-473X	MG RESISTOR 47K
R216	NRSA63J-473X	MG RESISTOR 47K
R217	NRSA63J-0R0X	MG RESISTOR 0
R218	NRSA63J-0R0X	MG RESISTOR 0
R219	NRSA63J-0R0X	MG RESISTOR 0
R220	NRSA63J-472X	MG RESISTOR 4.7K
R221	NRSA63J-0R0X	MG RESISTOR 0
R222	NRSA63J-0R0X	MG RESISTOR 0
R223	NRSA63J-0R0X	MG RESISTOR 0
R224	NRSA63J-0R0X	MG RESISTOR 0
R225	NRSA63J-0R0X	MG RESISTOR 0
R226	NRSA63J-0R0X	MG RESISTOR 0
R227	NRSA63J-0R0X	MG RESISTOR 0
R228	NRSA63J-103X	MG RESISTOR 10K
R229	NRSA63J-0R0X	MG RESISTOR 0
R230	NRSA63J-103X	MG RESISTOR 10K
R231	NRVA63D-683X	METAL FILM RESISTOR 68K
R232	NRVA63D-683X	METAL FILM RESISTOR 68K
R233	NRSA63J-103X	MG RESISTOR 10K
R234	NRSA63J-103X	MG RESISTOR 10K
R235	NRSA63J-473X	MG RESISTOR 47K
R236	NRSA63J-123X	MG RESISTOR 12K
R237	NRSA63J-0R0X	MG RESISTOR 0
R238	NRSA63J-223X	MG RESISTOR 22K
R239	NRSA63J-333X	MG RESISTOR 33K
R240	NRSA63J-333X	MG RESISTOR 33K
R241	NRVA63D-362X	MG RESISTOR 3.6K
R242	NRSA63J-102X	MG RESISTOR 1K
R243	NRSA63J-472X	MG RESISTOR 4.7K
R244	NRSA63J-102X	MG RESISTOR 1K
R245	NRVA63D-103X	METAL FILM RESISTOR 10K
R246	NRVA63D-183X	MG RESISTOR 18K
R247	NRVA63D-103X	METAL FILM RESISTOR 10K
R248	NRVA63D-183X	MG RESISTOR 18K
R249	NRSA63J-102X	MG RESISTOR 1K
R251	NRSA63J-271X	MG RESISTOR 2.7K
R252	NRSA63J-271X	MG RESISTOR 2.7K
R253	NRSA63J-0R0X	MG RESISTOR 0
R254	NRSA63J-0R0X	MG RESISTOR 0
R255	NRSA63J-103X	MG RESISTOR 10K
R256	NRSA63J-103X	MG RESISTOR 10K
R257	NRSA63J-103X	MG RESISTOR 10K
R258	NRSA63J-103X	MG RESISTOR 10K
R259	NRSA63J-103X	MG RESISTOR 10K
R260	NRSA63J-562X	MG RESISTOR 5.6K
R261	NRSA63J-563X	MG RESISTOR 56K
R262	NRS125J-R47X	MG RESISTOR 0.47
R263	NRSA63J-103X	MG RESISTOR 10K
R264	NRSA63J-103X	MG RESISTOR 10K
R267	NRSA63J-103X	MG RESISTOR 10K
R268	NRS181J-2R2X	MG RESISTOR 2.2

SYMBOL	PARTS NO.	DESCRIPTION
R271	NRSA63J-243X	MG RESISTOR 24K
R272	NRSA63J-103X	MG RESISTOR 10K
R273	NRSA63J-103X	MG RESISTOR 10K
R274	NRSA63J-0R0X	MG RESISTOR 0
R275	NRSA63J-243X	MG RESISTOR 24K
R276	NRSA63J-103X	MG RESISTOR 10K
R277	NRSA63J-103X	MG RESISTOR 10K
R278	NRSA63J-0R0X	MG RESISTOR 0
R279	NRSA63J-473X	MG RESISTOR 47K
R280	NRSA63J-0R0X	MG RESISTOR 0
R282	NRSA63J-273X	MG RESISTOR 27K
R283	NRSA63J-103X	MG RESISTOR 10K
R284	NRSA63J-103X	MG RESISTOR 10K
R285	NRSA63J-0R0X	MG RESISTOR 0
R286	NRSA63J-273X	MG RESISTOR 27K
R287	NRSA63J-103X	MG RESISTOR 10K
R288	NRSA63J-103X	MG RESISTOR 10K
R289	NRSA63J-0R0X	MG RESISTOR 0
R290	NRSA63J-0R0X	MG RESISTOR 0
R301	NRSA63J-473X	MG RESISTOR 47K
R302	NRSA63J-473X	MG RESISTOR 47K
R303	NRSA63J-473X	MG RESISTOR 47K
R304	NRSA63J-473X	MG RESISTOR 47K
R305	NRSA63J-473X	MG RESISTOR 47K
R306	NRSA63J-473X	MG RESISTOR 47K
R307	NRSA63J-473X	MG RESISTOR 47K
R308	NRSA63J-473X	MG RESISTOR 47K
R310	NRSA63J-102X	MG RESISTOR 1K
R311	NRSA63J-102X	MG RESISTOR 1K
R312	NRSA63J-102X	MG RESISTOR 1K
R313	NRSA63J-0R0X	MG RESISTOR 0
R314	NRSA63J-0R0X	MG RESISTOR 0
R317	NRSA63J-473X	MG RESISTOR 47K
R318	NRSA63J-0R0X	MG RESISTOR 0
R319	NRSA63J-0R0X	MG RESISTOR 0
R322	NRSA63J-473X	MG RESISTOR 47K
R324	NRSA63J-473X	MG RESISTOR 47K
R328	NRSA63J-473X	MG RESISTOR 47K
R342	NRSA63J-0R0X	MG RESISTOR 0
R343	NRSA63J-102X	MG RESISTOR 1K
R371	NRSA63J-105X	MG RESISTOR 1M
R372	NRSA63J-101X	MG RESISTOR 100
R373	NRSA63J-0R0X	MG RESISTOR 0
R401	NRSA63J-102X	MG RESISTOR 1K
R402	NRSA63J-102X	MG RESISTOR 1K
R403	NRSA63J-472X	MG RESISTOR 4.7K
R405	NRSA63J-472X	MG RESISTOR 4.7K
R408	NRSA63J-472X	MG RESISTOR 4.7K
R410	NRSA63J-0R0X	MG RESISTOR 0
R411	NRSA63J-472X	MG RESISTOR 4.7K
R412	NRSA63J-472X	MG RESISTOR 4.7K
R413	NRSA63J-472X	MG RESISTOR 4.7K
R414	NRSA63J-472X	MG RESISTOR 4.7K
R415	NRSA63J-472X	MG RESISTOR 4.7K
R416	NRSA63J-472X	MG RESISTOR 4.7K
R418	NRSA63J-472X	MG RESISTOR 4.7K
R420	NRSA63J-0R0X	MG RESISTOR 0
R422	NRSA63J-0R0X	MG RESISTOR 0
R423	NRSA63J-0R0X	MG RESISTOR 0
R424	NRSA63J-0R0X	MG RESISTOR 0
R431	NRSA63J-472X	MG RESISTOR 4.7K
R432	NRSA63J-472X	MG RESISTOR 4.7K
R461	NRSA63J-0R0X	MG RESISTOR 0
R462	NRSA63J-0R0X	MG RESISTOR 0
R491	NRSA63J-472X	MG RESISTOR 4.7K
R492	NRSA63J-472X	MG RESISTOR 4.7K
R501	NRSA63J-102X	MG RESISTOR 1K
R502	NRSA63J-222X	MG RESISTOR 2.2K
R503	NRSA63J-103X	MG RESISTOR 10K
R504	NRSA63J-330X	MG RESISTOR 33

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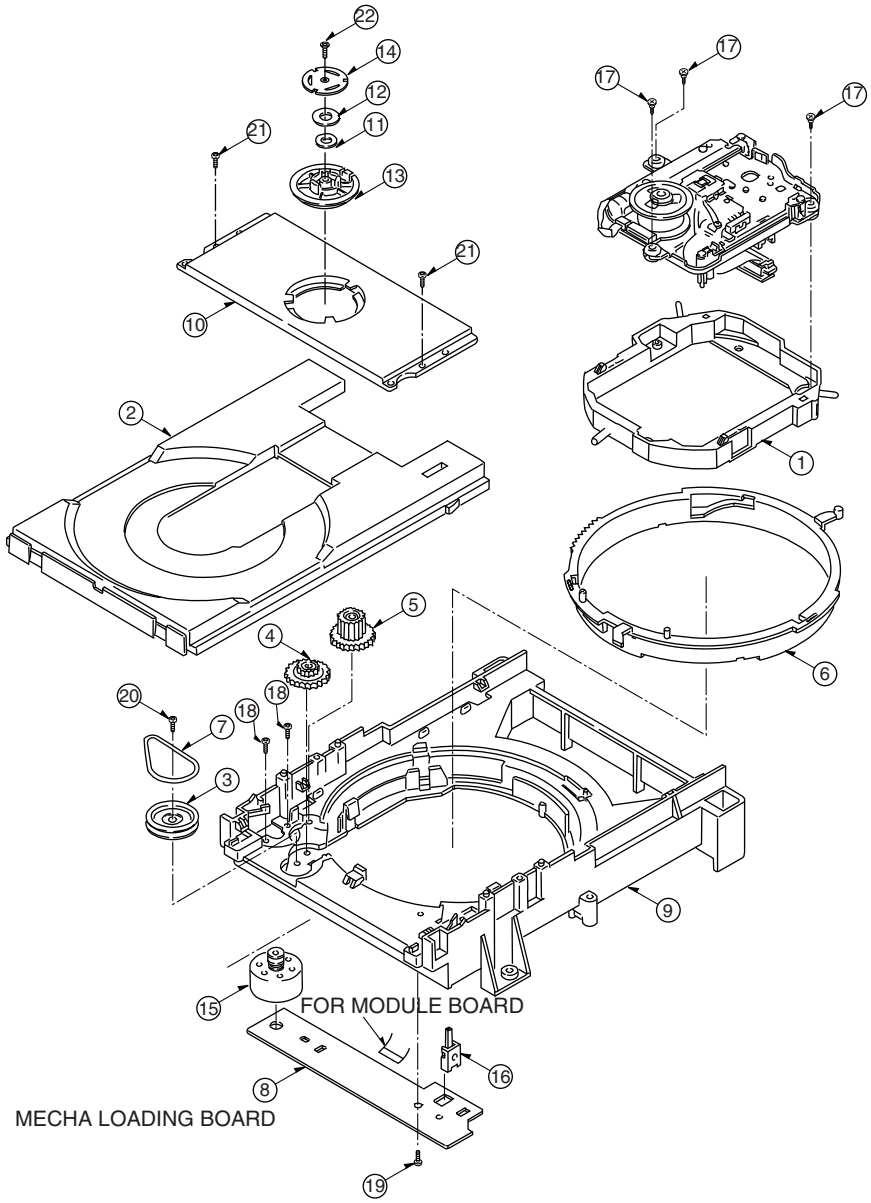
SYMBOL	PARTS NO.	DESCRIPTION
R505	NRSA63J-330X	MG RESISTOR 33
R506	NRSA63J-330X	MG RESISTOR 33
R507	NRSA63J-330X	MG RESISTOR 33
R508	NRSA63J-330X	MG RESISTOR 33
R509	NRSA63J-330X	MG RESISTOR 33
R510	NRSA63J-330X	MG RESISTOR 33
R511	NRSA63J-330X	MG RESISTOR 33
R512	NRSA63J-330X	MG RESISTOR 33
R513	NRSA63J-330X	MG RESISTOR 33
R514	NRSA63J-330X	MG RESISTOR 33
R515	NRSA63J-330X	MG RESISTOR 33
R516	NRSA63J-330X	MG RESISTOR 33
R517	NRSA63J-330X	MG RESISTOR 33
R518	NRSA63J-330X	MG RESISTOR 33
R519	NRSA63J-330X	MG RESISTOR 33
R520	NRSA63J-330X	MG RESISTOR 33
R521	NRSA63J-330X	MG RESISTOR 33
R522	NRSA63J-330X	MG RESISTOR 33
R523	NRSA63J-181X	MG RESISTOR 180
R524	NRSA63J-181X	MG RESISTOR 180
R525	NRSA63J-181X	MG RESISTOR 180
R526	NRSA63J-181X	MG RESISTOR 180
R527	NRSA63J-181X	MG RESISTOR 180
R528	NRSA63J-181X	MG RESISTOR 180
R529	NRSA63J-181X	MG RESISTOR 180
R530	NRSA63J-181X	MG RESISTOR 180
R531	NRSA63J-330X	MG RESISTOR 33
R532	NRSA3J-0R0X	MG RESISTOR 0
R533	NRSA63J-330X	MG RESISTOR 33
R534	NRSA63J-330X	MG RESISTOR 33
R535	NRSA63J-330X	MG RESISTOR 33
R536	NRSA63J-330X	MG RESISTOR 33
R537	NRSA63J-330X	MG RESISTOR 33
R538	NRSA63J-330X	MG RESISTOR 33
R539	NRSA63J-330X	MG RESISTOR 33
R540	NRSA63J-330X	MG RESISTOR 33
R541	NRSA3J-0R0X	MG RESISTOR 0
R542	NRSA3J-0R0X	MG RESISTOR 0
R543	NRSA3J-0R0X	MG RESISTOR 0
R544	NRSA3J-0R0X	MG RESISTOR 0
R545	NRSA63J-472X	MG RESISTOR 4.7
R546	NRSA63J-332X	MG RESISTOR 3.3K
R547	NRSA63J-222X	MG RESISTOR 2.2K
R548	NRSA63J-332X	MG RESISTOR 3.3K
R550	NRSA3J-0R0X	MG RESISTOR 0
R554	NRSA3J-0R0X	MG RESISTOR 0
R555	NRSA3J-0R0X	MG RESISTOR 0
R557	NRSA3J-0R0X	MG RESISTOR 0
R558	NRSA63J-102X	MG RESISTOR 1K
R559	NRSA3J-0R0X	MG RESISTOR 0
R561	NRVA63D-221X	MMF RESISTOR 220
R562	NRVA63D-221X	MMF RESISTOR 220
R563	NRVA63D-271X	CMF RESISTOR 270
R564	NRVA63D-152X	METAL FILM RESISTOR 1.5K
R565	NRVA63D-332X	METAL FILM RESISTOR 3.3K
R567	NRSA3J-0R0X	MG RESISTOR 0
R568	NRVA63D-221X	MMF RESISTOR 220
R569	NRVA63D-221X	MMF RESISTOR 220
R570	NRVA63D-221X	MMF RESISTOR 220
R571	NRSA63J-100X	MG RESISTOR 10
R572	NRSA63J-181X	MG RESISTOR 180
R573	NRSA63J-181X	MG RESISTOR 180
R574	NRSA63J-181X	MG RESISTOR 180
R575	NRSA63J-181X	MG RESISTOR 180
R576	NRSA63J-181X	MG RESISTOR 180
R577	NRSA63J-181X	MG RESISTOR 180
R578	NRSA63J-181X	MG RESISTOR 180
R579	NRSA63J-181X	MG RESISTOR 180
R580	NRSA63J-181X	MG RESISTOR 180
R581	NRSA63J-101X	MG RESISTOR 100
R582	NRSA3J-0R0X	MG RESISTOR 0
R583	NRVA63D-471X	CMF RESISTOR 470
R584	NRVA63D-103X	METAL FILM RESISTOR 10K
R585	NRVA63D-471X	CMF RESISTOR 470
X371	NAX0277-002X	CRYSTAL 33.85MHz
X401	NAX0331-001X	CERAMIC RESONATOR 13.5MHz
	CONNECTION BOARD LVA10046	
C17	NCS31HJ-101X	CERAMIC CAPACITOR 100PF
C18	NCS31HJ-101X	CERAMIC CAPACITOR 100PF
C19	NCS31HJ-101X	CERAMIC CAPACITOR 100PF
CN11	QGF1016F2-37W	CONNECTOR TO MAIN
CN12	QGF1016C2-21W	CONNECTOR TO MECHA
CN13	QGF1016F2-17W	CONNECTOR TO MECHA
K11	NQR0265-003X	FERRITE BEADS
K12	NQR0265-003X	FERRITE BEADS
K13	NQR0265-003X	FERRITE BEADS
K14	NQR0265-003X	FERRITE BEADS
K15	NQR0265-003X	FERRITE BEADS
K16	NQR0265-002X	FERRITE BEADS
K21	NQR0265-003X	FERRITE BEADS
K22	NQR0265-003X	FERRITE BEADS
R21	NRSA3J-0R0X	MG RESISTOR 0
R23	NRSA3J-0R0X	MG RESISTOR 0
R24	NRSA3J-0R0X	MG RESISTOR 0
R25	NRSA3J-0R0X	MG RESISTOR 0
R26	NRSA3J-0R0X	MG RESISTOR 0
R28	NRSA3J-0R0X	MG RESISTOR 0
R30	NRSA3J-0R0X	MG RESISTOR 0
R31	NRSA3J-0R0X	MG RESISTOR 0
	O T H E R S	
	505 FRDV-985	FRONT PANEL ASSY
	LV31781-002A	PUSH BUTTON (A) (Play, Open / Close)
	LV31782-002A	PUSH BUTTON (B) (Stop / Pause)
	LV31783-002A	PUSH BUTTON (C) (Track)
	E307427-004	FOOT ASSY
	072 4TR-670#4	POWER CORD (U.S.A)
	072 4TR-1037	POWER CORD (Europe)
	072 C-4572A02	POWER CORD (U.K)
	072 C-3763	POWER CORD (Australia)
	012 SK4-06A00	33F SHUTTLE KNOB
	E209102-001	TOP COVER
	LV20559-001A	CARTON BOX
	LV20658-001A	CUSHION (F)
	LV20659-001A	CUSHION (R)
	PEAC0359-120	AV CORD 3P
	QAM0004-002	S-VIDEO CORD
	QAM0006-002	OPTICAL CORD
	RR-DV91	REMOCON UNIT

DVD Mechanism Unit and Parts List

Block No. M2MM

1/2
FLM-V3



REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX
1	Chassis	GMVMD3270		1	
2	Tray	GMVMD3265		1	
3	Pulley gear	GMVDG1308		1	
4	Drive gear 1	GMVDG1309		1	
5	Drive gear 2	GMVDG1310		1	
6	UP DOWN cam	GMVDK0156		1	
7	Belt	GMVDV0373		1	
8	Mecha roading p.c.Board	----------		1	
9	Roading Base	GMVMD3266		1	
10	Clampe base	GMVMD3263		1	
11	Magnet	GMJSM0048		1	
12	Clamp back yoke	GMVMA9535		1	
13	Clamper	GMVMD3264		1	
14	Clamper weight	GMVMA0B93		1	
15	Roading motor unit	GMVEM0664		1	
16	Twin switch	GMVSH0170		1	
17	Screw 1	GMVHD1223		3	
18	Screw 2	GMXQNQC17+3		2	
19	Screw 3	GMXTV3+10G		1	
20	Screw 4	GMXTW2+12T		1	
21	Screw 5	GMXTV3+10G		2	
22	Screw 6	GMXTS3+6J		1	

DVD Mechanism Unit and Parts List

Block No. M2MM

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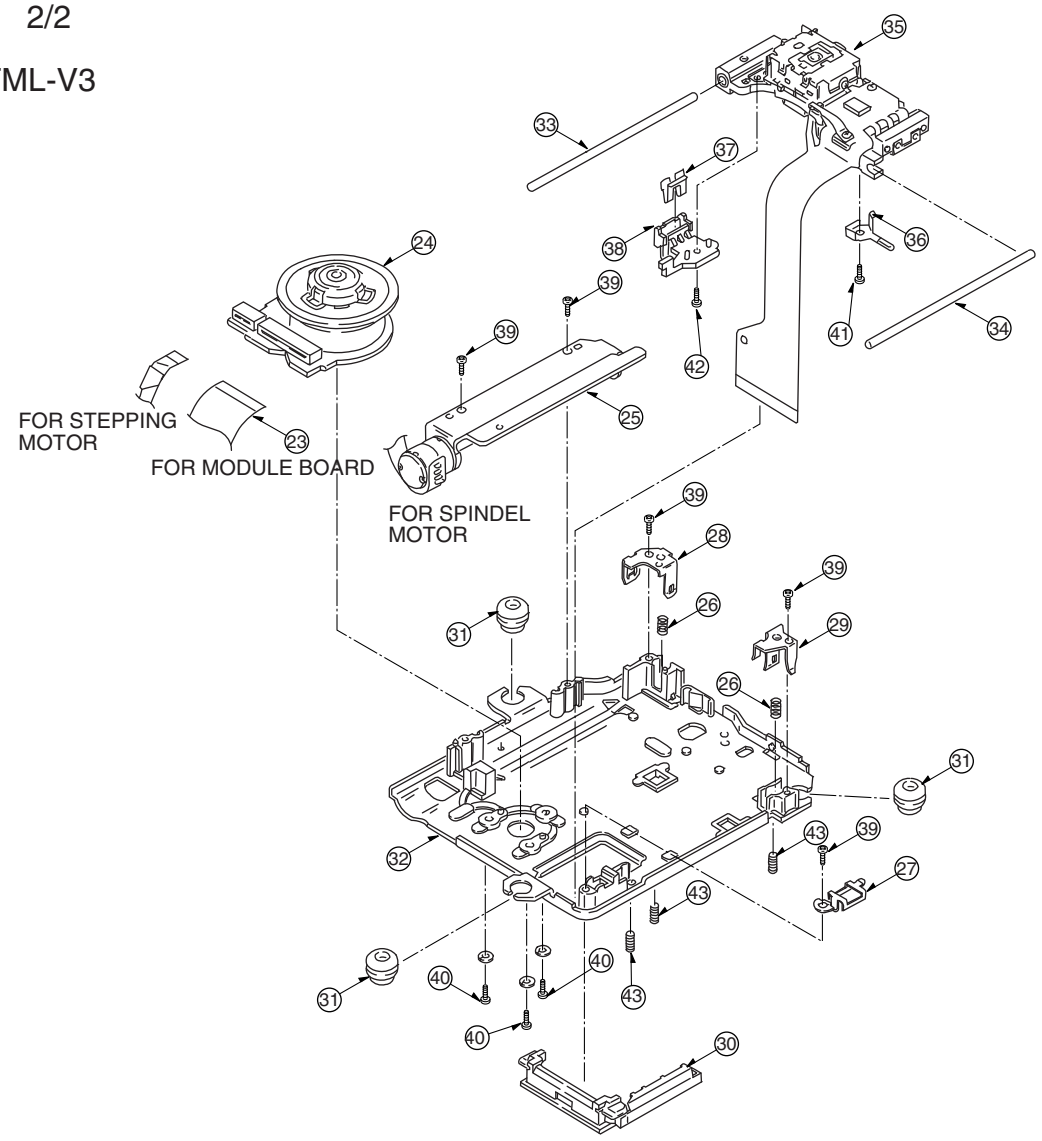
FML-V3



REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX
23	Spindle FFC	GMVWJ1277		1	
24	Spindle motor unit	GMVEM0665		1	
25	Stepping motor unit	GMVEM0666		1	
26	Tilt spring 1	GMVMB3278		2	
27	Tilt spring 2	GMVMC1487		1	
28	Spring suppresses 1	GMVMC1488		1	
29	Spring suppresses 2	GMVMC1489		1	
30	FPC holder	GMVMD3261		1	
31	Floating rubber	GMVMG1166		3	
32	Travarse shasshis	GMVMK0474		1	
33	Guide shaft 1	GMVMS6471		1	
34	Guide shaft 2	GMVMS6472		1	
35	Optical pick up	GMVED0402		1	
36	Spring	GMVMC1491		1	
37	Nut spring	GMVMC1490		1	
38	Nut	GMVMD3260		1	
39	Screw 1	GMVHD1224		5	
40	Screw 2	GMVHD1225		3	
41	Screw 3	GMVHD1057		1	
42	Screw 4	GMXQNQC17+3		1	
43	Screw 5	GMXXE26C6FN		3	

Main Adjustment

Adjustment and confirmation matter

(1) Auto adjustment method

If microprocessor (IC401, IC402, IC714, IC716) or servo board (LEA10047) is replaced, initialize the DVD player in the following matter:

1. Initialize the DVD player in the following matter:

1) Make sure that no disc is on the tray.
2)Insert the power pulag to the outret while pressing "PLAY" and "OPEN/CLOSE" button at the same time.
FL Display indicate "TEST ＊＊¥". ＊＊;Version.
3)Press 3D-PHONIC button. And EEPROM initialize start.
4)When indicate "96kHzSAMPLING" on the display , initialize finished.
5)Press the "OPEN/CLOSE" button to move the tray outward.
6)Put the Test Disc (VT-502)on the tray and press "OPEN/CLOSE" button.
The tray should move inward (Note:Don't push to close the tray directly by hand etc.
7)Press the "ON SCREEN" button. Disc rolling and then stop soon.
8)Press the "PLAY" button.
9)Check Jitter level should be less then 11% of TIA(Time Interval Analyzer).

Note:Confirm abnormality is not found in the image and the voice output if there is no TIA.
If Jitter level is NG. Stop the playback and check jitter level again to do 8),9).

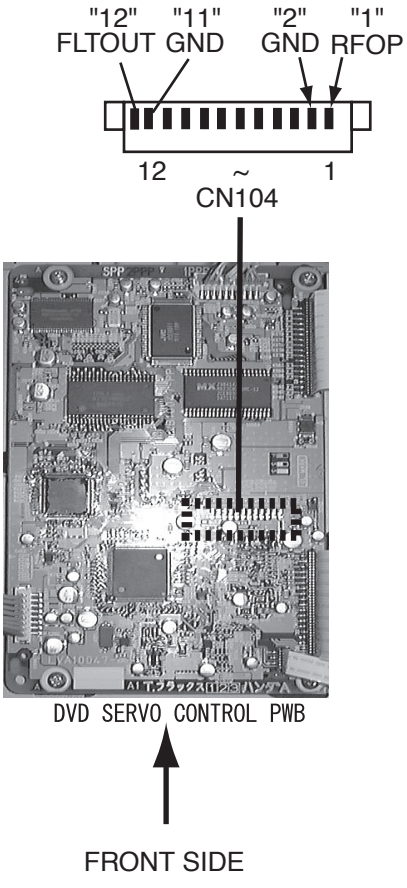
(2) Confirmation of DVD RF level

1.The oscilloscope is connected between "1"(RFOP) of CN104 and "2"(GND).

2.Reproduction of the test disc (VT-502) made by JVC.

3.It is confirmed that RF LEVEL is 350mVp-p±150mVp-p.

4.When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.



(3) Confirmation of CD jitter level and RF level

1. The CD jitter meter is connected between "11"(GND) of CN104 and "12"(FLTOUT).
The RF level is observed at the same time.
2.The first test disk(CTS-1000) made of JVC is reproduced.

3.It is confirmed that RF LEVEL is 360±100mVp-p.

5. When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.