DENON

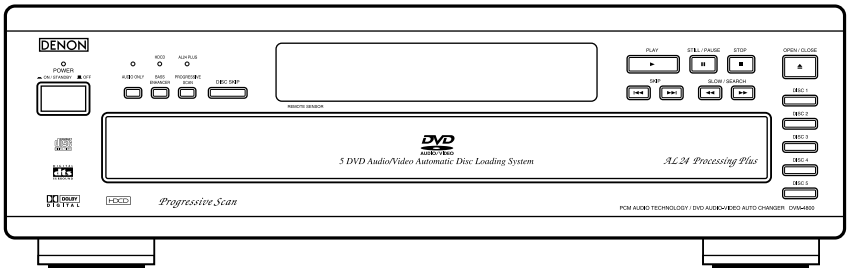
For U.S.A. & Canada model

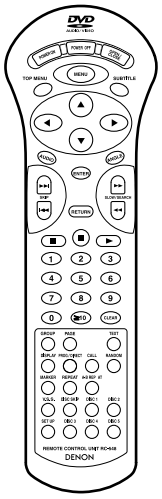
Digital Player

SERVICE MANUAL

MODEL DVM-4800

DVD VIDEO AUTO CHANGER





- **Some illustrations using in this service manual are slightly different from the actual set.**

NIPPON COLUMBIA CO., LTD.

14-14, AKASAKA 4-CHOME, MINATO-KU, TOKYO 107-8011 JAPAN
Telephone: 03 (3584) 8111

X0124 205 NC 0110

SPECIFICATIONS

Signal system: NTSC

Applicable discs:
(1) DVD-video/audio discs
1-layer 12 cm single-sided discs, 2-layer 12 cm single-sided discs,
2-layer 12 cm double-sided discs (1 layer per side)
1-layer 8 cm single-sided discs, 2-layer 8 cm single-sided discs,
2-layer 8 cm double-sided discs (1 layer per side)
(2) Compact discs (CD-DA, Video CD)
12 cm discs, 8 cm discs

S-Video output:
Y output level: 1 Vp-p (75 Ω/ohms) C output level: 0.286 Vp-p
Output connectors: S connectors, two sets

Video output:
Output level: 1 Vp-p (75 W/ohms) Output connector: Pin-plug jacks, two sets

Component output:
Y output level: 1 Vp-p (75 Ω/ohms)
CB/CR output level: 0.650 Vp-p (75 Ω/ohms) PB/PR output level: 0.700 Vp-p (75 Ω/ohms)
Output connector: Pin jack, 1 set

Audio output:
Fixed output level: 2 Vrms (1 kHz, 0 dB)

Number of connectors:
1 set (2 ch mixed output)
1 set (6 ch discrete output)

Audio output properties:
(1) Frequency response
• DVDs (linear PCM) : 2 Hz to 22 kHz (48 kHz sampling)
: 2 Hz to 44 kHz (96 kHz sampling)
: 2 Hz to 88 kHz (192 kHz sampling)
• CDs : 2 Hz to 20 kHz
(2) S/N ratio
• DVDs : 115 dB
• CDs : 115 dB
(3) Total harmonic distortion
• DVDs : 0.0025 %
• CDs : 0.0030 %
(4) Dynamic range
• DVDs : 108 dB
• CDs : 100 dB

Digital audio output:
Optical digital output: Optical connector, 1 set
Coaxial digital output: Pin jack, 1 set

Power supply: AC 120 V, 60 Hz

Power consumption: 22 W

Maximum external dimensions: 434 (width) x 131 (height) x 415 (depth) mm (not including protruding parts)

Mass: 7.2 kg

■ **Remote Control Unit:** RC-548

Type: Infrared pulse

Power Supply: DC 3 V, two batteries ("AAA" (R03))

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞.

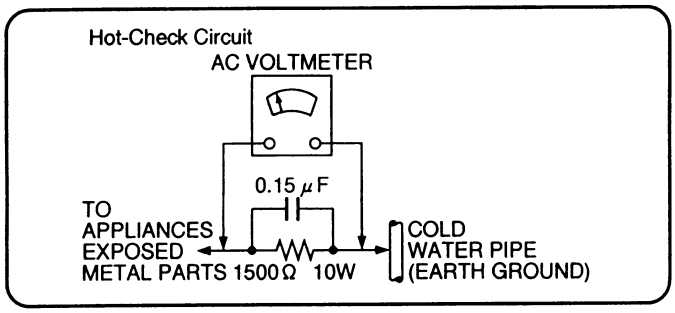


Figure 1

LEAKAGE CURRENT HOT CHECK (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.

These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

1. COUNTERMEASURES AGAINST ELECTROSTATIC DISCHARGE (ESD)

The laser diode in the traverse unit (laser pickup) may be damaged by static electricity charged in your cloth or body. Be careful not to damage it by ESD when handling for servicing.

1.1 Grounding for Electrostatic Breakdown Prevention

Components using an optical pickup (laser diode) such as DVD players etc. are liable to breakdown by static electricity under the working environment.
Perform repair work in the working condition having proper grounding for preventing static electricity.

1.1.1 Work table grounding

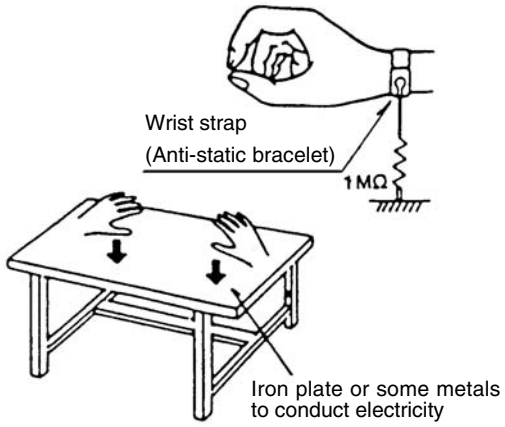
Put a conductive material (sheet) or steel sheet on the area where the optical pickup is placed and ground the sheet.

1.1.2 Human body grounding

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

1.1.3 Handling of optical pickup

1) The optical pickup for spare parts is supplied with its laser diode shorted to ensure quality during transportation. After the parts replacement, return to normal by proper procedures. (refer to the pages related)
2) Do not use a tester or etc. for checking the laser diode since the laser diode may be damaged easily by the voltage of the tester inside battery.



1.2 Handling of Traverse Unit (laser pickup)

1.2.1 Do not apply a strong shock to the traverse unit (laser pickup) since it is made of precise structure.

1.2.2 To prevent the breakdown of the laser diode, install the flexible cable after removing the short pin for preventing a electrical charge. When removing or connecting the short pin, finish the job in as short time as possible.
Also, cut out the short land of the flexible cable using nippers and etc. after replacing the optical pickup. Refer to TRAVERSE UNIT DISASSEMBLY" in this manual for the handling of the traverse unit.

1.2.3 Be careful not to apply excessive stress to the flexible board (FPC Board) since it may cause cutting.

1.2.4 Do not turn the variable resistor of the laser power since it is not adjustable.

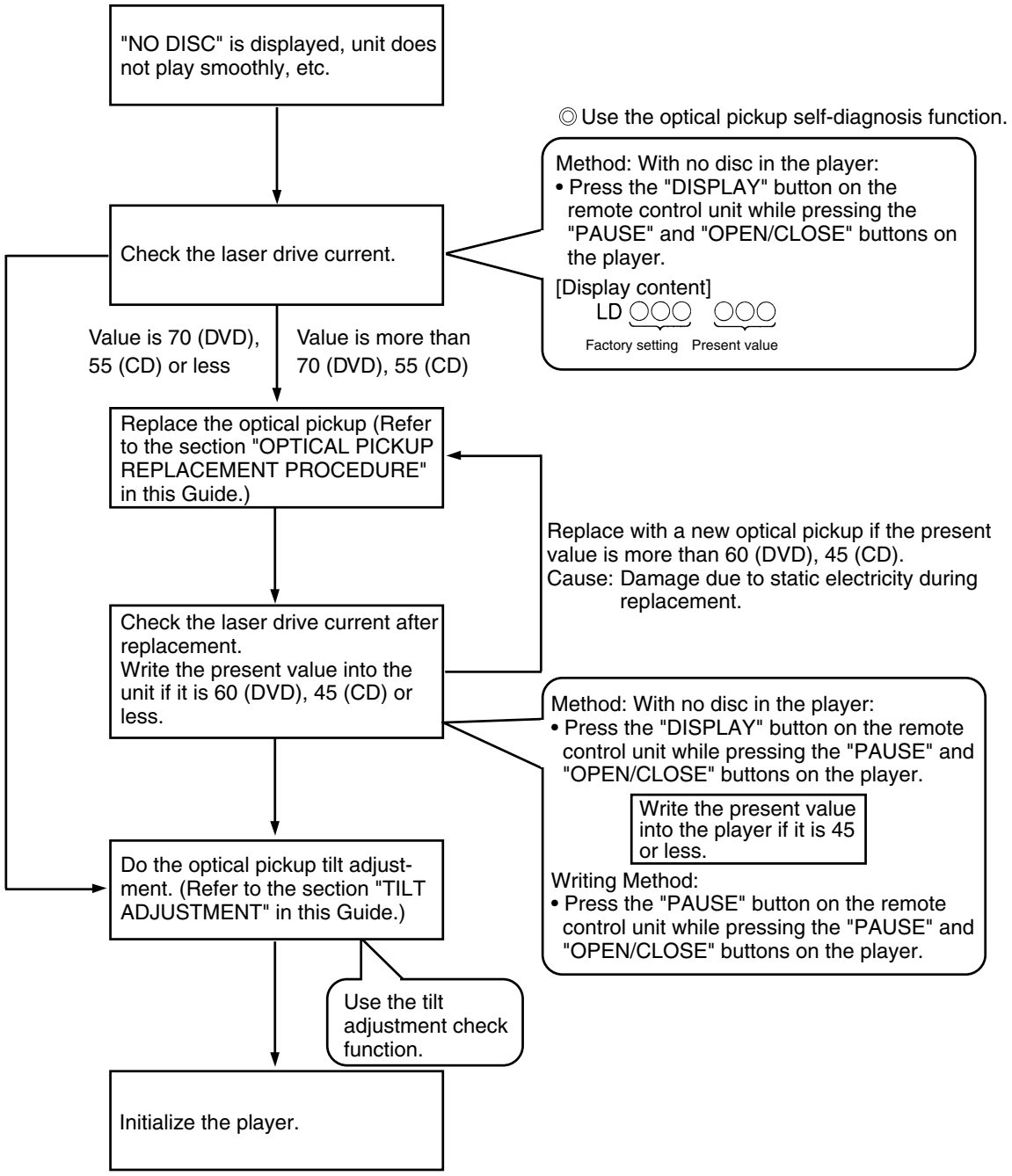
2. OPTICAL PICKUP SELF-DIAGNOSIS AND REPLACEMENT PROCEDURE

2.1 Self-diagnosis

The optical pickup self-diagnosis function and tilt adjustment check function have been included in this unit. 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 within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)



2.2 Cautions to Be Used Before Replacing the Optical Pickup Unit and Spindle Motor Assembly

Before replacing the optical pickup unit and spindle motor assembly, check the total using hours for each of them. The checking method is as follow:

	Operating state & Key operation	Display
Using hours of CD laser	Press "PAUSE, FWD-SKIP" and "5" on the remote control in this order while the unit is stopped	T1_xxxx_yyyy: total hours are displayed by 4-digit figures (unit: 10 hours). yyyy: CD laser Time
Using hours of DVD laser	Press "PAUSE, FWD-SKIP" and "5" on the remote control in this order while the unit is stopped	T1_xxxx_yyyy: total hours are displayed by 4-digit figures (unit: 10 hours). xxxx: DVD laser Time
Using hours of SP motor	Press "PAUSE, FWD-SKIP" and "6" on the remote control in this order while the unit is stopped	T2_xxxx: total hours are displayed by 4-digit figures (unit: 10 hours).
Resetting using hours of CD and DVD lasers (Simultaneous resetting)	While displaying Timer 1 data, press STOP and FWD-SKIP buttons on the player, and "5" button on the remote control unit	T1_0000_0000
Resetting using hours of the motor	While displaying Timer 2 data, press STOP and FWD-SKIP buttons on the player, and "6" button on the remote control unit	T2_0000

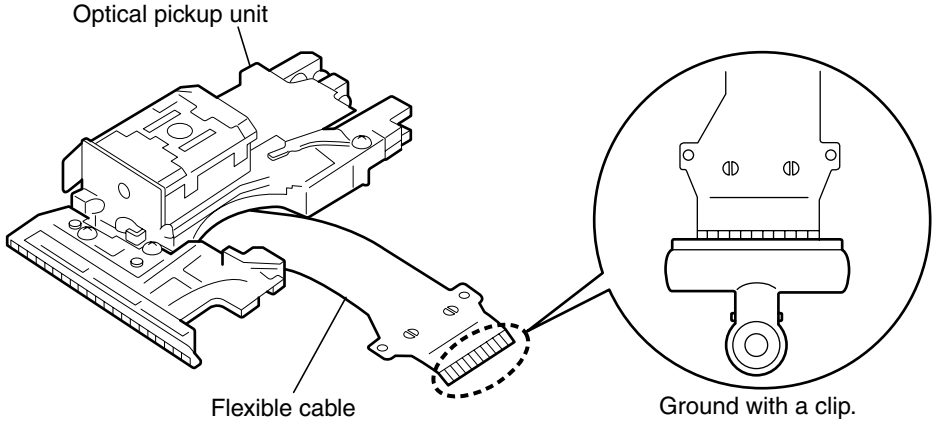
Cautions to be taken when replacing the optical pickup

The optical pickup may break down due to the static electricity of human body. Take proper protection measures against static electricity before repairing the parts around the optical pickup. (See the page describing the PREVENTION OF STATIC ELECTRICITY DISCHARGE.)

1. Do not touch the areas around the laser diode and actuator.
2. Do not judge the laser diode with a tester. (The tester will be damaged easily.)
3. It is recommended to use a destaticized soldering iron for short-circuiting or removing the laser diode. (Recommended soldering iron) HAKKO ESD Product.
4. Solder the land of the flexible cable in the optical pickup.

Note:

- When using a soldering iron which is not destaticized, short-circuit the terminal face of the flexible case with a clip. After that, short-circuit the land.
- After the repairing work is completed, remove the solder according to the correct procedure shown in this Technical Guide.



3. SELF-DIAGNOSIS FUNCTION AND SERVICE MODES

3.1 Self-diagnosis Function and Service Modes

Improving the self-diagnosis function

The self-diagnosis function in our DVD player currently in use is improved as follows:

Our DVD player currently in use	Our new DVD	
UHF error display The latest error storage function n=1	UHF error display The latest error storage n=20	The storage capacity is increased.
Jitter/read error display	Jitter/read error display Focus drive value display	The focus drive current value can be displayed.
Laser drive current display For DVD	laser drive current display For DVD/CD	
	ADSC internal RAM data display	The servo learning value stored in the RAM data inside the ADSC (servo controller) IC is displayed.
	Servo process display	Mainly in the initial starting operation period of the player, a number is allotted to the servo process of each step, and the process of the starting operation can be displayed.
	Total operation time display SP motor Laser (DVD/CD)	The operation times of SP motor and the laser (both for the DVD and CD) can be displayed.

3.2 Service mode table

Pressing various button combinations on the player and remote control unit can activate the service modes.

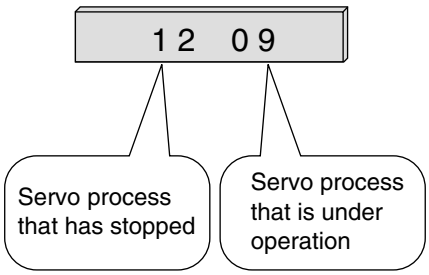
Item	Player mode and button combination	Function	Display	Cancellation method
Jitter check	In PLAY mode, press PAUSE and OPEN buttons on the player, and "5" button on the remote control unit.	Jitter check Jitter rate is measured and displayed. Measurement is repeatedly done in the cycle of one second. Read error counter starts from zero upon mode setting, When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retried to enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more.	J_xxx_yyy_zz └ Focus drive value └ Read error counter └ Jitter rate └ Jitter check mode Jitter rate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation.	Press STOP or OPEN button.
Error code check	In ** mode, press PAUSE and OPEN buttons on the player, and "0" button on the remote control unit. * With pointing of cursor up and down on diaplay, panel controller switches the serial number of history and sends out the command accordingly.	Error code check The latest error code stored in EEPROM is displayed.	Error code (play_err) is expressed in the following convention. Error code=0 x DAXX is expressed: → nn UXX Error code=0 x DBXX is expressed: → nn HXX Error code=0 x DXXX is expressed: → nn FXX Error code=0 x 0000 is expressed: → nn F-- * "nn" denotes the serial number of history.	Cancelled automatically 5 seconds later.
Initial setting of laser drive current	In STOP mode, press PAUSE and OPEN buttons on the player, and PAUSE button on the remote control unit.	Initial setting of laser drive current Initial current value for each of DVD laser and CD laser is separately saved in EEPROM.	LDO_034_028 └CD laser current measurement └DVD laser current measurement └Laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 34mA and 28mA for DVD laser and CD laser respectively when the laser is switched on.	Cancelled automatically 5 seconds later.
DVD laser drive current measurement	In STOP mode, press PAUSE and OPEN buttons on the player, and DISPLAY button on the remote control unit.	DVD laser drive current measurement DVD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, DVD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when the primary power is switched off.)	LDD_034_032 └Measured current └Initial current stored in EEPROM └DVD laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 34mA and the measured value is 32mA.	Cancelled automatically 5 seconds later.
ADSC internal RAM data check	In ** mode, press PAUSE and OPEN buttons on the player, and RETURN button on the remote control unit.	ADSC internal RAM data check ADSC internal RAM data is read out and displayed. Change the address with CLEAR key operation to show the data for 11 addresses.	A_DFA_6901 └RAM data for specified address └Address └ADSC internal RAM data check mode The value is shown in hexadecimal notation. The above example shows the data in ADSC address DFAh is 6901h.	Press STOP or OPEN button.
Servo process display	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and "7" button on the remote control unit.	Servo process display The servo process from STOP to ACCESS is displayed.	———	Turn off the primary power.

Item	Player mode and button combination	Function	Display	Cancellation method
CD laser drive current measurement	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and DISPLAY button on the remote control unit.	CD laser drive current measurement CD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, CD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when the primary power is switched off.)	LDC_028_026 Measured current Initial current stored in EEPROM CD laser current measurement mode The value denotes the current in decimal notation The above example shows the initial current is 28mA and the measured value is 26mA.	————
Version display	In STOP mode, press PAUSE and OPEN buttons on the player, and "7" button on the remote control unit.	Version display	srrr_xyzzz System controller release number System controller model number System controller generation Panel controller release number Panel controller model number	Cancelled automatically 5 seconds later.
Lighting of display tube	In ** mode, press PAUSE and OPEN buttons on the player, and "9" button on the remote control unit.	Lighting of display tube	————	Press STOP or OPEN button.
Dealer's lock	In STOP mode, press STOP button on the player, and POWER button on the remote control unit.	Dealer's lock The lock is switched ON or OFF. When dealer's lock is ON, it prohibits switching off of the secondary power and tray opening. When the lock is switched, its ON/OFF status is stored in EEPROM.	"LOCKED" sign appears when dealer's lock is switched on, or when secondary power key or tray opening key is pressed while the lock is on. "UNLOCKED" sign appears when dealer's lock is switched off.	Repeat the same operation.
Initializaition	In STOP mode, press PAUSE, BWD-SKIP and OPEN buttons on the player for 3 seconds or longer.	Initialization User settings are cancelled and player is initialized to factory setting.	"INITIALIZED"	
Region display	In STOP mode, press PAUSE and OPEN buttons on the player, and "6" button on the remote control unit.	Region display	x_yy_zzz N: NTSC/6: PAL60 N: noPAL/P: PAL Region No.	Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Timer 1 check	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and "5" button on the remote control unit.	Timer 1 check Laser operation timer Operation time is measured separately for DVD laser and CD laser.	T1_1234_5678 Shown to the left is DVD laser time, and to the right CD laser time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	Cancelled automatically 5 seconds later.
Timer 1 reset	While displaying Timer 1 data, press STOP and FWD-SKIP buttons on the player, and "5" button on the remote control unit.	Timer 1 reset Laser operation timer Operation time of both DVD laser and CD laser is reset all at once.	T1_0000_0000	Cancelled automatically 5 seconds later.
Timer 2 check	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and "6" button on the remote control unit.	Timer 2 check Spindle motor operation timer	T2_1234 Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	Cancelled automatically 5 seconds later.
Timer 2 reset	While displaying Timer 2 data, press STOP and FWD-SKIP buttons on the player, and "6" button on the remote control unit.	Timer 2 reset Spindle motor operation timer	T2_0000	Cancelled automatically 5 seconds later.

3.3 Servo Process Flow

Specification of the servo process display in the starting flow



(Restrictions)

All processes that are under operation cannot be displayed due to the limit of the processing time.

Starting flow	Range of the servo process numbers	Processing items	
		Number	Contents of each process
START			
Initial setting Tray control	00	00	Each initial setting
TRV initial movement	01	01	TRV initial movement
Disc detection	02~08	02	Initial setting in FE system
		05	Detecting LD ON HALF
		08	Detecting CD LD ON
Disc type distinction	02~08	02	Initial setting in FE system
Focus servo	10~13	12	Focus ON
		13	FBAL adjustment
Tracking servo	14~15	15	Tracking ON
Gain learning	17	17	Gain adjustment in ADSC focus system
ID read	18~1A	19	DBAL/equalizer adjustment
		1A	ID read

3.4 Servo Process Display Mode

In starting operation of the player, a number is allotted to each servo process so that the operation of each step can be seen. The relation between the process and the displayed number are as follows:

Number allotment to the servo process

Process classification	Each processing item	Description	Process number
Initial start process	Initial start	The process starts after the tray is loaded. (The state is changed to "READY" or "PREPARE".)	0~40
	Secondary learning	Servos for the DVD-DL 1st layer and the CD-DA double speed are learned in this step.	50~7F
Restart process	Restart	When a user operates in the "READY" state, each servo is turned on.	80~9F
Seek process	Seek	The optical pickup is moved to the disc destination in this process.	A0~BF
Repair process	Recover		
	(Error check)	An error is searched in the PLAY/SEEK state.	C1~C3
	(Attention)	An error is recovered following the attention error interrupt from the S-ODC.	C4~C6
	(Q code read)	If any Q code is improperly read, reset and retry.	C7~C9
Stop process	Stop	A servo is controlled in response to the user's operation to stop the disc completely.	F0~FF

3.5 ADSC Internal Ram Data Display

The servo learning value in the RAM data inside the servo processor ADSC is displayed.
The value is useful for the servo operation/disc quality judge including the OPU.
The concrete contents are shown below:

Address	Contents of display
4B4	Focus gain learning value for DVD-S, DVD-D(L0), CD, and VCD
4BC	Focus gain learning value for DVD-D(L1)
4B6	Focus balance learning value for DVD-S, DVD-D(L0), CD, and VCD
4BE	Focus balance learning value for DVD-D(L1)
4B5	Tracking gain value for DVD-S, DVD-D(L0), CD, and VCD
4BD	Tracking gain value for DVD-D(L1)
TB0	Tracking balance value for DVD-S, DVD-D(L0), CD, and VCD
TB1	Tracking balance value for DVD-D(L1)
DBD	DSL offset learning value for DVD-S and DVD-D
DBC	DSL offset learning value for CD and VCD
FC0	Equalizer FC value for DVD-S, DVD-D(L0), CD, and VCD
BT0	Equalizer BOOST value for DVD-S, DVD-D(L0), CD, and VCD
FC1	Equalizer FC value for DVD-D(L1)
BT1	Equalizer BOOST value for DVD-D(L1)

3.6 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.

Setting

The sales demonstration lock is set by simultaneously pressing STOP button on the player and POWER button on the remote control unit.

Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOCKED" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

3.7 Service Precautions

3.7.1 Recovery after the DVD player is repaired

When an FROM or an EEPROM in and on the module P.C.B. has replaced, carry out the recovery disc processing to optimize the drive.

Playback the disc above to process the recovery automatically.

Recovery disc (Product number: RFKZD5TR001)

Note:

This unit requires no initialization process carried out after the traditional DVD players were repaired.

When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item of "Initialization" in 2.2 is carried out. Write down the contents of the setting before recovery processing, and reset the player.

3.7.2 Firmware version-up of the DVD player

The firmware of the DVD player may be renewed to improve the quality including operationability and playerbility to the substandard discs processing to optimize the drive.

The version-up disc has also a recovery function so that you don't need use the recovery disc again.

Note:

If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out. In such a case, replace the FROM and carry out the version-up again.

The product number of the version-up disc will be noticed when it is supplied.

3.7.3 Initialization of DVD Player

Initialize the DVD player when replacing CPU and its peripheral parts, and Mother P.W.B., etc.

How to Initialize

Pressing the "STILL/PAUSE" + "SKIP REW" + "OPEN/CLOSE" buttons at once makes DVD player initialization (factory setting condition). "INITIALIZED" is indicated on the screen and "INITIALIZE" on the display of the main unit.

Note

When the initialization has been made, the contents of user setting is lost.

Therefore, memorize the contents of user setting prior to the initialization and re-set them again after the initialization.

3.7.4 Setting after Repair

After finishing the repair work, follow the steps below.

Setting Condition

At the power on state,

1) Press the "OPEN/CLOSE" button to close the tray.
2) Turn the power off.
3) Unplug the power cord from the wall outlet.

Note

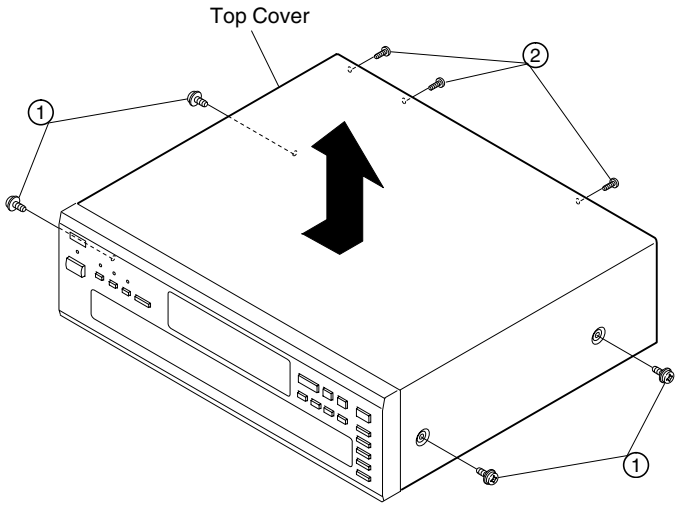
Do not close the tray manually after disconnecting the power cord from the wall outlet in tray open condition.

4. DISASSEMBLY

(Follow the procedure below in reverse order when reassembling)

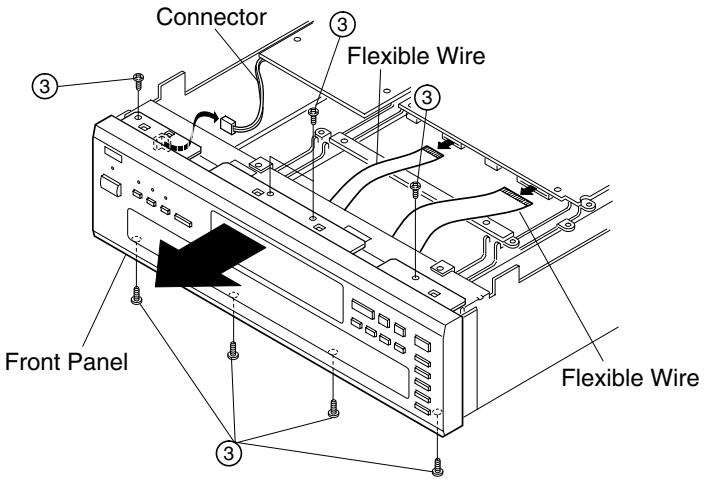
4.1 Top Cover

Remove 4 screws ① on both sides and 3 screws ② on the rear, then detach the Top Cover as shown to the arrow direction.



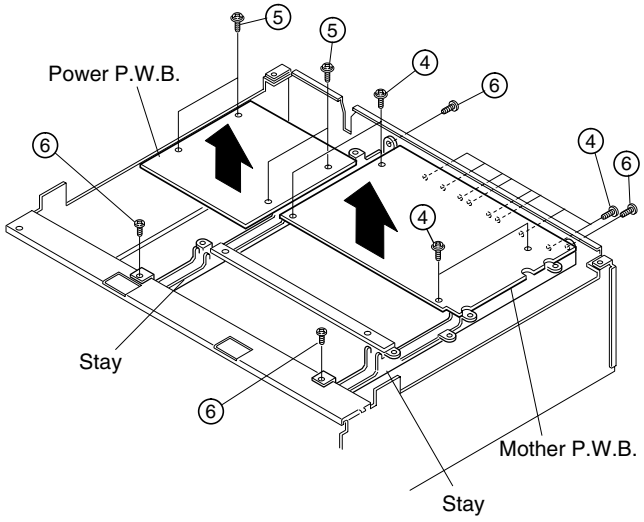
4.2 Front Panel

(1) Remove 8 screws ③ from the top and bottom edges of the Front Panel.
(2) Detach the Front Panel to the arrow direction, together with its Inner Panel.



4.3 Mother & Power P.W.B., Stay

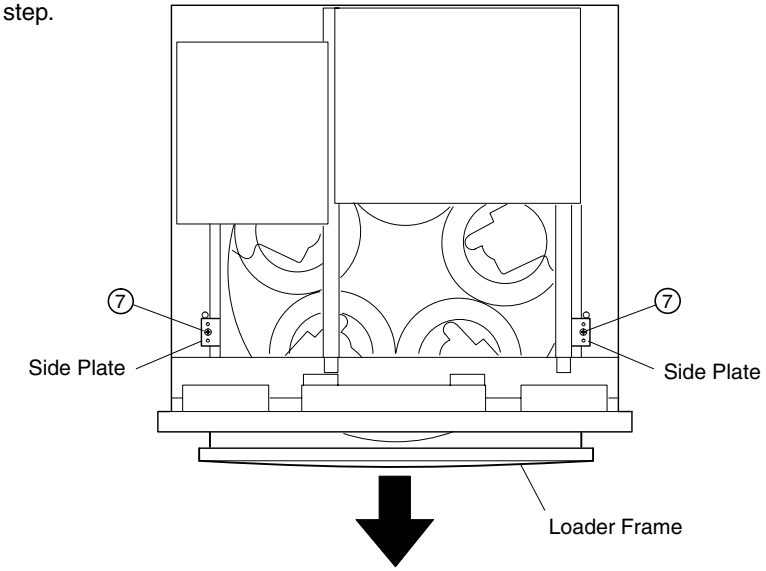
(1) Remove 12 screws ④ to detach the Mother P.W.B.
(2) Remove 4 screws ⑤, to detach the Power P.W.B.
(3) Remove 4 screws ⑥ to detach 2 Stays.



4.4 Loader Frame Ass'y

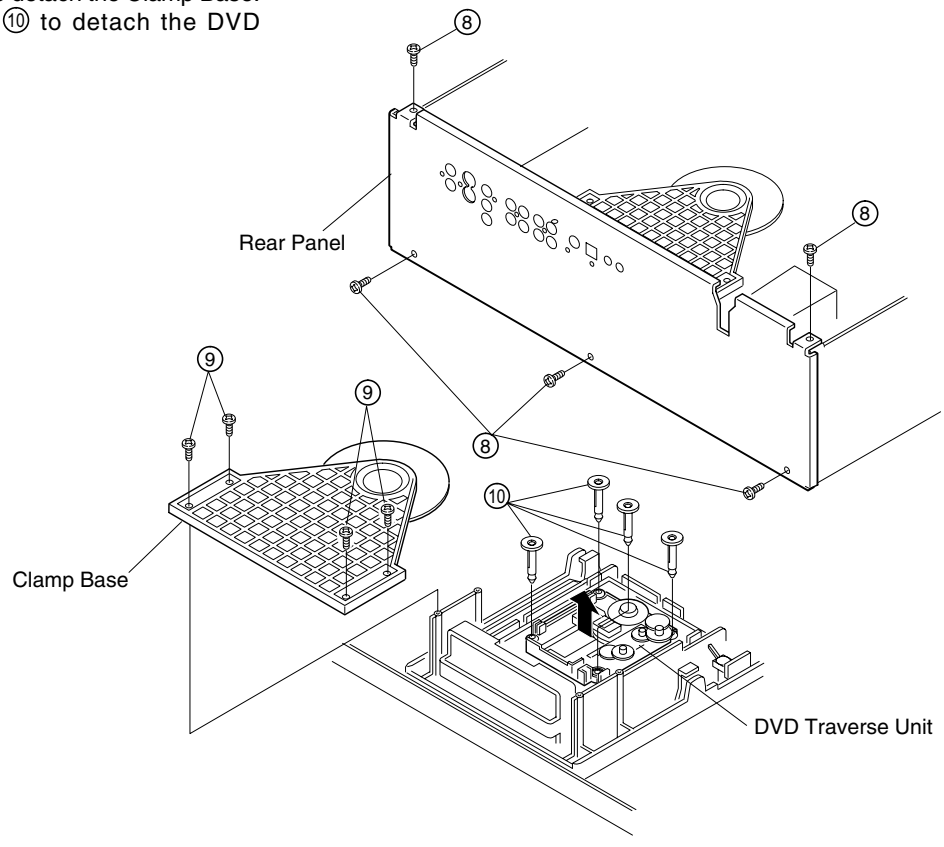
Remove 2 screws ⑦ to detach 2 Side Plates, then pull out the Loader Frame in the arrow direction.

Note: Draw out the Loader Frame 1 ~ 2 cm and turn the power off, before performing this step.



4.5 DVD Mecha.

(1) Remove 5 screws ⑧ to detach the Rear Panel.
(2) Remove 4 screws ⑨ to detach the Clamp Base.
(3) Remove 4 fixed pin ⑩ to detach the DVD Traverse Unit.



5. ADJUSTMENT PROCEDURES

5.1. Service Tools and Equipment

Application	Name	Number
Tilt adjustment	DVD test disc	DVDT-S15 or DVDT-S01
	Hex wrench	
Inspection	Extension cable (module P.W.B. to mother P.W.B.)	JGS0098
	Extension cable (module P.W.B. to mother P.W.B.)	VUC8026
	Extension cable (module P.W.B. to mother P.W.B.)	RFKZ0097
	Extension cable (module P.W.B. to mother P.W.B.)	VUC8026
Others	Screw lock	RZZ0L01
	Grease	RFKXGAK152
	Oil	RFKXGA1280, JZS0648
Confirmation	CD test disc	PVCD-K06 or any other commercially available disc
	VCD test disc	PVCD-K06 or any other commercially available disc
	Recovery disc	RFKZD5TR001

5.2. Important points in adjustment

5.2.1. Important points in optical adjustment

・Before starting optical adjustment, be sure to take anti-static measures.

・Optical pickup tilt adjustment is needed after replacement of the following components.

1. Optical pickup unit
2. Spindle motor unit
3. Optical pickup peripheral parts (such as rail)

Notes

Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, make adjustment 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.

5.2.2. Important points in electrical adjustment

・Follow the adjustment procedures described in this Manual.

5.3. Storing and Handling Test Discs

・Surface precision is vital for DVD test 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 when 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.

5.4. Optical adjustment

5.4.1. Optical pickup tilt adjustment

Measurement point	Adjustment point	Mode	Disc
	Tangential adjustment screw Tilt adjustment screw	T01 (inner periphery) play T43 (outer periphery) play	DVDR-S15 or DVDT-S01
Measuring equipment		Adjustment value	
None (Main unit display for servicing is used.)		Adjust to the minimum jitter value.	

5.4.1.1. Adjustment procedure

1. While pressing PAUSE and OPEN/CLOSE buttons on the main unit, press "5" on the remote control unit.
2. Confirm that "J_xxx_yyy_zz" is shown on the front display.

   For your information:

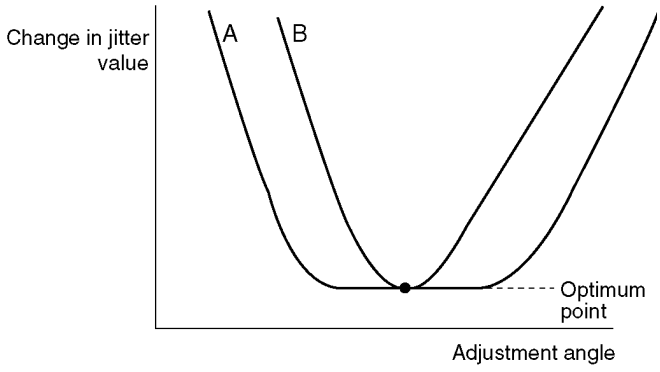
   "yyy" and "zz" shown to the right have nothing to do with the jitter value. "yyy" is the error counter, while "zz" is the focus drive value.

   Note:

   Jitter value appears on the front display.
3. Play test disc T01 (inner periphery).
4. Adjust tangential adjustment screw so that the jitter value is minimized.
5. Play test disc T43 (outer periphery).
6. Adjust tilt adjustment screw 1 so that the jitter value is minimized.
7. Play test disc T43 (outer periphery).
8. Adjust tilt adjustment screw 2 so that the jitter value is minimized.
9. Repeat adjusting tilt adjustment screws 1 and 2 alternately until the jitter value is minimized.

5.4.1.2. Important points

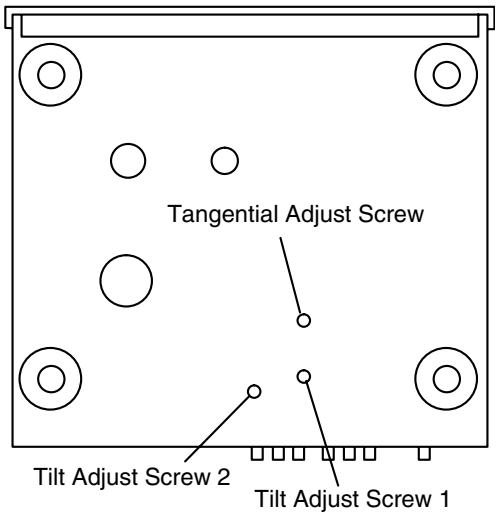
1. Make tangential adjustment first, and then make tilt adjustment.
2. Repeat adjusting two or three times to find the optimum point.
3. Finish the procedure with tilt adjustment.



Jitter value depends on the model:

1. If the jitter value changes like B, the optimum point is easy to find.
2. If the jitter value changes like A, set the optimum point near the middle.

Front Side

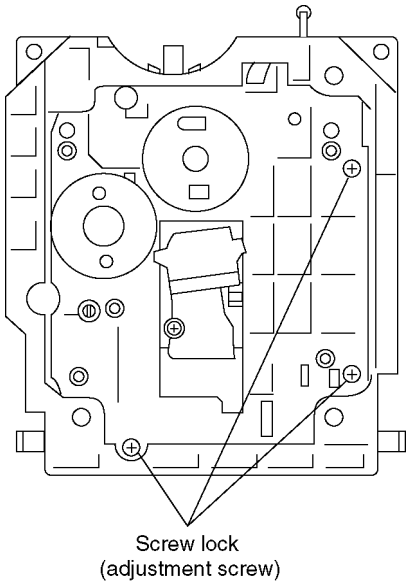


5.4.1.3. Check after adjustment

Play test disc or any other disc to make sure there is no picture degradation in the inner, middle and outer peripheries, and no audio skipping. After adjustment is finished, lock each adjustment screw in position using screw lock.

5.4.1.4. Procedure for screw lock

1. After adjustment, remove top cover, tray, clamper base and traverse unit in this sequence.
2. Lay the traverse unit upside down, and fix adjustment screw with screw lock.
3. After fixing, reassemble traverse unit, clamper base, tray and top cover.



5.5. Electrical Adjustment

Do this confirmation after replacing a P.W.B.

5.5.1. Video Output (Luminance Signal) Adjustment

Measurement Point	Adjustment Point	Mode	Disc
Video Output Pin Terminal GND: Chassis	VR3225	Playback (Color Bar)	DVDT-S20 (title 9)
Measuring Device		Adjustment Value	
Oscilloscope 500 mV/div, 10 μs/div		1000 ± 20mV p-p	

For compatibility of video signal output.

1. Connect the monitor TV to the video output terminal and terminate at 75 Ohms.
2. Play back the color bar part title 9 (DVDT-S20) of the DVD Test Disc title.
3. Adjust the VR3225 so that the luminance signal output is as shown below.

Adjustment Value = 1000 ± 20 mV p-p

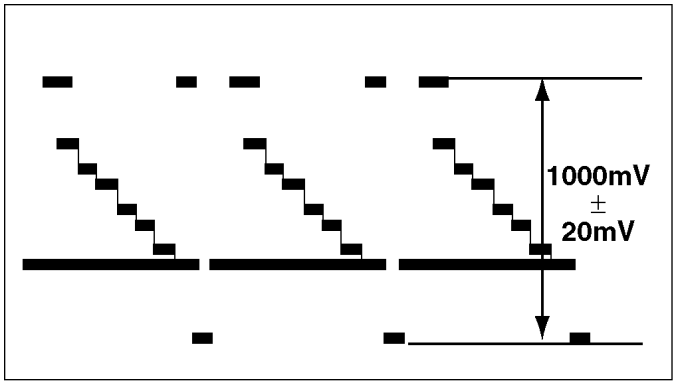


Fig. 5-5-1 Luminance Signal Output

5.5.2. Video Output (Chrominance Signal) Adjustment

Measurement Point	Adjustment Point	Mode	Disc
Video Output Pin Terminal GND: Chassis	VR3221	Playback (Color Bar)	DVDT-S20 (title 9)
Measuring Device		Adjustment Value	
Oscilloscope 500 mV/div, 10 μs/div		624 ± 12mV p-p	

For compatibility of video signal output.

1. Connect the monitor TV to the video output terminal and terminate at 75 Ohms.
2. Play back the color bar part title 9 (DVDT-S20) of the DVD Test Disc title.
3. Adjust the VR3221 so that the chrominance (CYAN) signal output is as shown below.

Adjustment Value = 624 ± 12 mV p-p

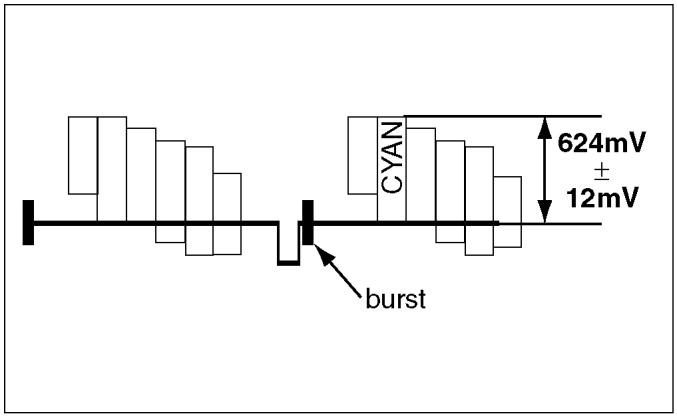


Fig. 5-5-2 Chrominance Signal Output

5.5.3. Video Output (CB Signal) Adjustment

Measurement Point	Adjustment Point	Mode	Disc
CB Output Pin Terminal	VR3201	Playback (Color Bar)	DVDT-S20 (title 9)
Measuring Device		Adjustment Value	
Oscilloscope 200 mV/div, 10 μs/div		486 ± 10mV p-p	

NOTE:

CB/CR Output should be 75Ω terminate.

For compatibility of video signal output.

1. Connect the monitor TV to the video output terminal and terminate at 75 Ohms.
2. Play back the color bar part title 9 (DVDT-S20) of the DVD Test Disc title.
3. Adjust the VR3201 so that the CB signal output is as shown below.

Adjustment Value = 486 ±10 mV p-p

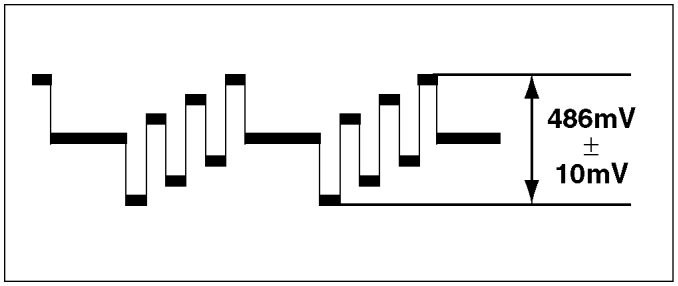


Fig. 5-5-3 CB Signal Output

5.5.4. Progressive Video Output (Y Signal) Adjustment

Measurement Point	Adjustment Point	Mode	Disc
Progressive Terminal GND: Chassis	VR3771	Playback (Color Bar)	DVDT-S20 (title 9)
Measuring Device		Adjustment Value	
Oscilloscope 200 mV/div, 5 μs/div		1000 ± 20mV p-p	

NOTE:

Progressive Output should be 75Ω terminate.

For compatibility of video signal output.

1. Connect the monitor TV to the Y (Progressive) output terminal and terminate at 75 Ohms.
2. Play back the color bar part title 9 (DVDT-S20) of the DVD Test Disc title.
3. Adjust the VR3771 so that the Y (Progressive) signal output is as shown below.

Adjustment Value = 1000 ± 20 mV p-p

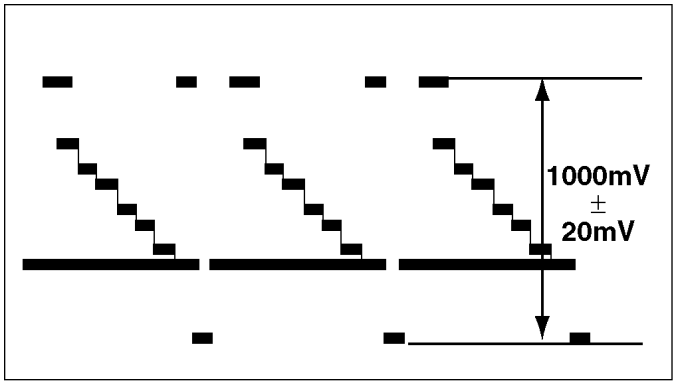


Fig. 5-5-4 Y Signal Output

5.5.5. Progressive Video Output (PB Signal) Adjustment

Measurement Point	Adjustment Point	Mode	Disc
Progressive Terminal	VR3751	Playback (Color Bar)	DVDT-S20 (title 9)
Measuring Device		Adjustment Value	
Oscilloscope 100 mV/div, 5 μs/div		525 ± 10mV p-p	

NOTE:

Progressive Output should be 75Ω terminate.

For compatibility of video signal output.

1. Connect the monitor TV to the video output terminal and terminate at 75 Ohms.
2. Play back the color bar part title 9 (DVDT-S20) of the DVD Test Disc title.
3. Adjust the VR3751 so that the PB signal output is as shown below.

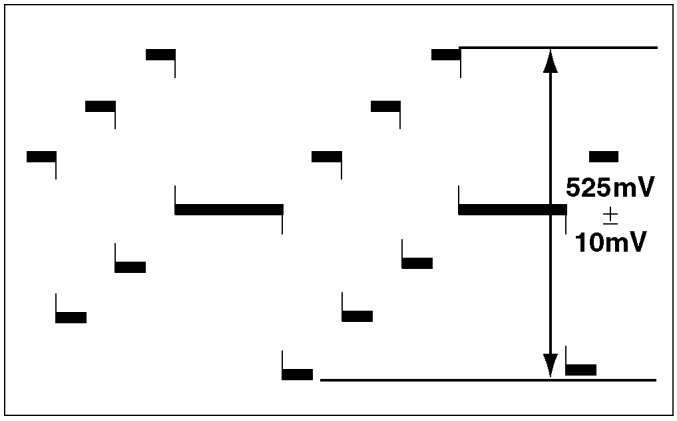
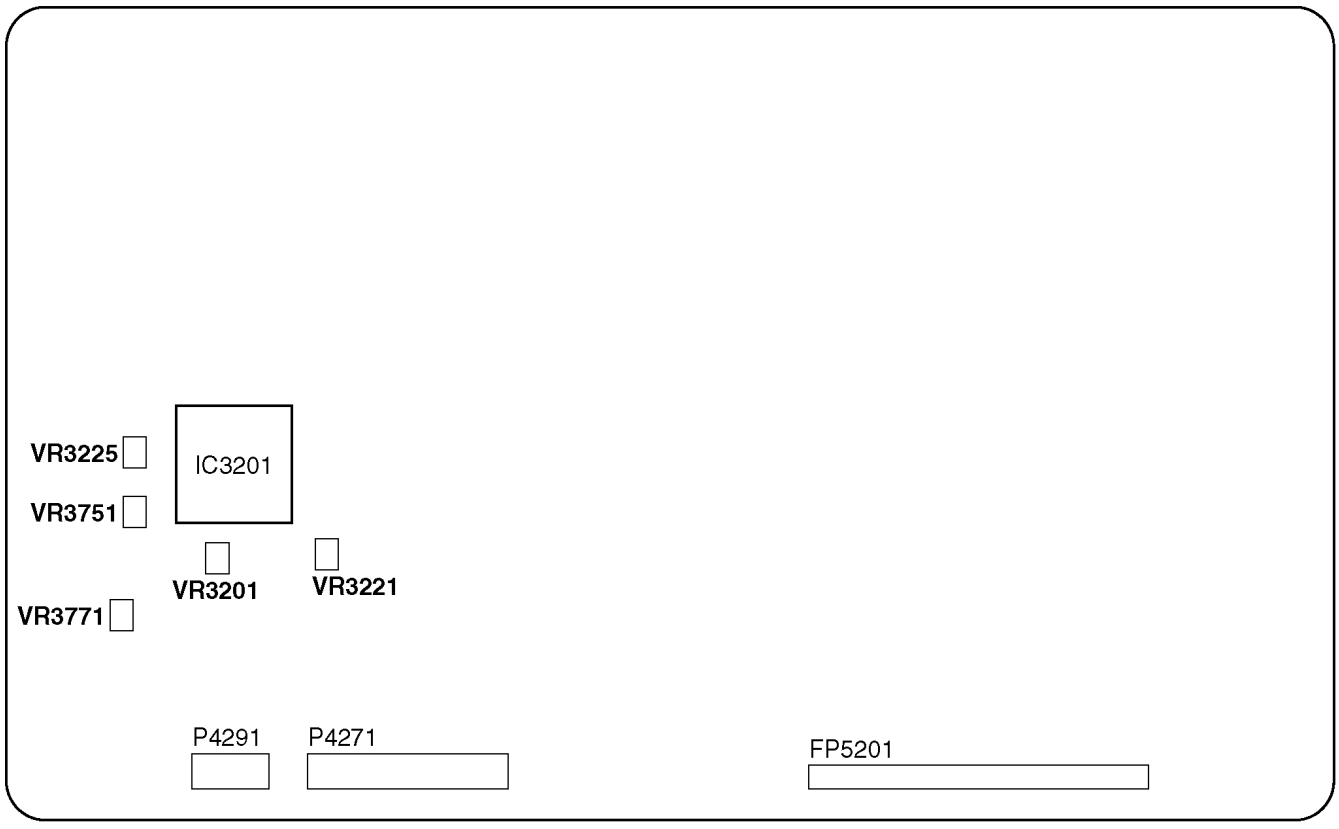


Fig. 5-5-5 PB Signal Output

5.5.6. Test Point & Controls Location

MODULE P.W.B. (COMPONENT SIDE)



6. ABBREVIATIONS

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTETED INPUT
	ASO	SERVO AMP OUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT AUGULAS VELOCITY
	CBDO	CAP. BLACK DROP OUT
	CD	COMPACT DISC
	CDSCK	CD SERIAL DATA CLOCK
	CDSRDATA	CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCK SELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIP SELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATA OUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	FOCUS ERROR AMP OUTPUT
	FG	FREQUENCY GENERATOR
	FSC	FREQUENCY SUB CARRIER
	FSCK	FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFLAG	INTERPORLATION FLAG
	IREF	I (CURRENT) REFERENCE
	ISEL	INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	MEMORY SERIAL COMMAND DATA
	MDQ0~UP	MEMORY DATA INPUT/OUTPUT
	MDQM	MEMORY DATA I/O MASK
	MLD	MEMORY SERIAL COMMAND LOAD
	MPEG	MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	PLL CLOCK

INITIAL/LOGO		ABBREVIATIONS
	PDVD	DVD TRACKING PHASE DIFFERENCE
	PEAK	CAP. FOR PEAK HOLD
	PLLCLK	CHANNEL PLL CLOCK
	PLLOK	PLL LOCK
	PWMCTL	PWM OUTPUT CONTROL
	PWMDA	PULSE WAVE MOTOR DRIVE A
	PWMOA, B	PULSE WAVE MOTOR OUT A, B
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE OUTPUT
	RS	(CD-ROM) REGISTER SELECT
	RSEL	RF POLARITY SELECT
	RST	RESET
	RSV	RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK RECEIVER
	SCL	SERIAL CLOCK
	SCLK	SERIAL CLOCK
	SDA	SERIAL DATA
	SEG0~UP	FL SEGMENT OUTPUT
	SELCLK	SELECT CLOCK
	SEN	SERIAL PORT ENABLE
	SIN1, 2	SERIAL DATA IN
	SOUT1, 2	SERIAL DATA OUT
	SPDI	SERIAL PORT DATA INPUT
	SPDO	SERIAL PORT DATA OUTPUT
	SPEN	SERIAL PORT R/W ENABLE
	SPRCLK	SERIAL PORT READ CLOCK
	SPWCLK	SERIAL PORT WRITE CLOCK
	SQCK	SUB CODE Q CLOCK
	SQCX	SUB CODE Q DATA READ CLOCK
	SRDATA	SERIAL DATA
	SRMADR	SRAM ADDRESS BUS
	SRMDT0~7	SRAM DATA BUS 0~7
	SS	START/STOP
	STAT	STATUS
	STCLK	STREAM DATA CLOCK
	STD0~UP	STREAM DATA
	STENABLE	STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY SELECT
	STVALID	STREAM DATA VALIDITY
	SUBC	SUB CODE SERIAL
	SBCK	SUB CODE CLOCK
	SUBQ	SUB CODE Q DATA
	SYSCLK	SYSTEM CLOCK
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSS SIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING BALANCE)
	VDD	DRAIN POWER SUPPLY VOLTAGE
	VFB	VIDEO FEED BACK
	VREF	VOLTAGE REFERENCE
	VSS	SOURCE POWER SUPPLY VOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER
X	X	X'TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPT REQUEST
	XI	X'TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X'TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIP SELECT
	XVDS	X V-DEC CONTROL BUS STROBE
	XVSYNCO	X VERTICAL SYNC OUTPUT

7. VOLTAGE CHART

Main P.W.B.

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	0	3.3	3.3	0	3.3	3.3	0	0	1.9	2.3	2.2	2.2	2.3	2.4	2.3	2.2	2.4	1.8	0	1.8
PLAY	0	3.3	3.3	0	3.3	3.3	0	0	1.9	2.1	0	0	0	0	3.3	1.8	2.2	1.8	0	1.8
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	0	2.3	2.2	3.0	2.5	3.0	2.6	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2
PLAY	0	1.9	2.0	2.7	2.2	2.6	2.6	1.7	2.5	1.4	3.3	0	3.3	3.3	3.3	3.3	2.8	2.8	2.7	2.7
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	3.2	3.2	3.2	2.0	1.5	0	3.2	0	3.3	3.3	3.3	0	0	0	3.3	3.3	3.3	1.8	0	0
PLAY	2.6	2.7	2.6	2.6	1.5	0	3.2	0	3.3	3.3	0	0	0	0	3.3	0	3.3	1.8	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	3.2	3.3	0	0	1.8	2.0	1.6	1.6	3.3	0	0	0	3.3	3.3	0	1.8	0	3.3	1.5	1.5
PLAY	3.2	3.3	3.3	0	2.1	1.0	1.6	2.2	1.3	3.3	3.3	0	3.3	3.3	0	1.8	0	3.3	1.5	1.5
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	1.6	0	1.7	1.7	3.3	0	1.6	1.6	0	0	0	1.7	1.6	1.4	1.6	3.3	1.4
PLAY	0	0	0	1.6	0	1.7	1.7	3.3	0	1.6	1.6	0	0	0	1.7	1.6	1.4	1.6	3.3	1.4
Ref No.	IC2001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	1.4	0	1.5	2.1	2.8	1.7	1.6	1.5	3.3	1.6	1.6	2.7	0	1.7	1.7	3.3	1.7	1.6	1.7	1.7
PLAY	1.4	0	1.5	2.1	2.8	1.7	1.6	1.5	3.3	1.6	1.6	2.2	0	1.7	1.7	3.3	1.7	1.6	2.1	2.5
Ref No.	IC2001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	2.3	1.7	1.7	0	3.3	0	1.2	1.3	1.3	1.3	3.3	3.3	0	3.3	3.3	1.7	3.3	0	3.3	0
PLAY	2.1	1.7	1.7	0	3.3	0	1.4	1.3	1.3	1.3	3.3	3.3	0	3.3	3.3	1.7	3.3	0	3.3	0
Ref No.	IC2001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
STOP	0	3.3	3.3	0	0	1.6	3.3	3.3	0	0	3.3	1.8	0	0	0	3.3	0	0	0	3.3
PLAY	0.4	3.3	3.3	0	0	1.6	3.3	3.3	0.9	0	0.6	1.8	0	0	0	3.3	0	1.0	0	0.9
Ref No.	IC2001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176				
STOP	0	3.3	0	0	0	3.3	0	3.3	3.3	0	0	0	0	3.3	3.3	3.3				
PLAY	0	3.3	0	0.8	0	0.7	0	1.0	3.3	0	0	0.8	0	3.3	3.3	3.3				
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	1.7	1.7	1.7	1.7	1.7	0.1	0	5.0	0	0	2.9	2.9	2.9	2.9	4.4	4.4	4.4	4.4	0	3.1
PLAY	1.7	1.7	1.7	1.7	1.7	0.1	0	5.0	3.3	0	2.9	2.9	2.9	2.9	3.6	4.4	5.9	2.5	0	3.1
Ref No.	IC2501																			
MODE	21	22	23	24	25	26	27	28												
STOP	9.2	9.2	1.7	1.6	1.6	1.7	0	3.1												
PLAY	9.2	9.2	1.9	1.6	1.6	1.7	3.3	3.1												
Ref No.	IC2502																			
MODE	1	2	3	4	5															
STOP	1.7	1.7	0	0	4.9															
PLAY	1.7	1.7	0	0	4.9															

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	0.1	1.8	1.2	0.1	1.0	0	1.2	3.3	3.4	3.3	0	1.7	1.8	3.3	3.4	2.3	0
PLAY	3.3	0	1.6	0.1	1.8	1.7	0.1	1.6	0	1.6	3.3	3.4	3.3	0	0	1.8	2.8	3.4	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	3.3	0	3.4	1.4	3.3	3.3	0	1.5	0	2.5	3.5	2.2	2.3	2.4	1.8	2.3	2.3	3.3
PLAY	3.3	3.3	3.1	3.3	3.4	1.4	0.2	2.6	1.7	3.3	0	2.1	2.7	2.2	1.9	2.2	1.8	1.9	1.8	2.1
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	3.3	3.3	0	2.2	2.3	2.1	2.9	3.3	3.1	3.1	3.1	3.1	0	3.1	3.1	3.1	1.8	3.1	3.2	3.1
PLAY	1.8	1.7	0	2.0	2.1	1.9	2.8	3.3	2.6	2.8	2.8	2.8	0	2.8	2.8	2.8	1.8	2.6	2.6	2.7
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	3.4	3.1	3.1	0	3.2	3.1	3.2	3.4	0	1.7	3.4	0	0	3.3	0	3.3	1.8	3.3	3.3	3.3
PLAY	3.4	2.8	2.8	0	2.9	2.9	2.9	3.3	0.5	1.7	3.4	0	0.8	0.8	0.8	1.6	1.8	1.1	1.0	1.0
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	1.7	0	3.4	1.6	1.7	1.7	0	0	0	0	3.4	0	1.6	1.7	1.8	0	1.8	1.5
PLAY	0.8	0	1.7	0.8	3.3	1.8	1.7	1.7	0	0.8	0	0	3.4	0	0	1.7	1.8	0	1.8	1.5
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	3.4	0	0	0	3.4	1.6	1.8	0	3.3	0	0	3.3	0	0	2.9	0	3.4	0	0.1	3.0
PLAY	3.4	0	0.2	0	3.4	1.6	1.8	0	3.3	0	0	3.3	0	0	2.9	0	3.3	0	0	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	3.4	0	0.1	3.4	0	0	0	0	3.3	0	0	0	0	0	1.6	0	0	0	0
PLAY	0	0	0	0.1	3.4	0	3.3	0	0	2.9	0	0	0	0	0	1.6	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	3.4	0	0	3.3	3.1	1.8	1.3	0.6	0.7	0.7	0	2.0	0.3	0.3	1.3	0	0	2.8	2.9	3.3
PLAY	3.4	0	0	3.3	3.1	1.8	1.3	1.2	1.3	1.3	0	1.6	1.1	1.5	1.2	3.3	0	2.2	2.9	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	2.7	3.3	3.0	2.8	0	2.8	3.1	3.3	2.7	1.8	2.9	0	2.8	2.7	3.3	2.9
PLAY	3.1	2.8	0	0	2.7	3.3	3.0	-	0	-	2.6	3.3	0	1.8	2.6	0	2.8	-	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	1.8	1.7	0	3.4	3.4	2.6	0.1	1.8	2.5	3.3	0	3.2	3.2	3.3	1.5	3.0	0
PLAY	2.8	0	1.7	1.8	1.7	0	3.4	3.4	2.2	0.2	1.8	1.9	3.3	0	3.2	3.2	3.3	1.3	3.0	0
Ref No.	IC3001																			
MODE	201	202	203	204	205	206	207	208												
STOP	0	1.8	1.2	0	0	1.1	0	0												
PLAY	0	1.8	1.4	0	3.3	0	1.5	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	0	2.7	2.8	0	2.7	3.0	3.3	2.7	2.8	0	2.8	3.3	2.5	0	3.2	3.3	3.1	1.0
PLAY	3.3	2.6	3.1	2.7	2.8	0	2.9	3.0	3.3	2.9	2.8	0	2.8	3.3	2.5	3.3	3.2	3.3	3.1	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	0	0	1.1	3.3	0	1.0	1.1	1.1	1.1	0	0	1.4	0	3.3	1.7	2.4	0
PLAY	0.3	0	0	0	0.3	1.6	3.3	0	1.4	1.6	1.6	1.4	0	0	1.4	0	3.3	1.7	1.9	0
Ref No.	IC3061																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
STOP	0	2.9	3.3	2.6	2.6	0	2.6	3.0	3.3	2.4	2.4	0	2.9	0						
PLAY	0	2.9	3.3	2.8	2.7	0	2.8	2.8	3.3	2.9	2.9	0	2.2	0						
Ref No.	IC3091																			
MODE	1	2	3	4	5	6	7	8												
STOP	1.6	1.9	1.9	0	1.5	1.5	2.1	4.8												
PLAY	1.6	1.9	1.9	0	1.5	1.5	2.1	4.8												
Ref No.	IC3201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.4	0.6	0.7	0.7	2.0	0.3	0.3	1.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3
PLAY	1.4	1.3	1.3	1.1	1.6	1.2	1.6	1.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3
Ref No.	IC3201																			
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	3.0	3.0	0	0	1.3	1.6	0.5	0.4	3.3	0	0	0.8	0.4	3.3	0	0
PLAY	3.3	0	0	0	3.3	0	1.6	0	3.3	3.0	3.0	0	0	1.3	0.5	0.5	0.6	3.3	0	0
Ref No.	IC3201																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0.8	0	3.3	0.8	0	1.6	1.3	1.3	3.2	3.1	3.3	0	0	3.3	0	0	0	0	0	0
PLAY	0.8	0	3.3	0.8	0	1.6	1.3	1.3	3.2	3.1	3.3	0	0	3.3	0	0	0	0	0	0
Ref No.	IC3201																			
MODE	61	62	63	64																
STOP	0	0	3.3	0																
PLAY	0	0	3.3	0																
Ref No.	IC3251																			
MODE	1	2	3	4	5	6														
STOP	4.8	0	4.8	1.3	0	3.3														
PLAY	4.8	0	4.8	1.3	0	3.3														
Ref No.	IC3261																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	1.3	1.5	1.3	1.5	1.5	0	0	0	0	0	0	1.0	1.2	1.0	1.5	4.8				
PLAY	1.3	1.5	1.3	1.5	1.5	0	0	0	0	0	0	1.2	1.4	1.2	1.5	4.8				

Ref No.	IC3701																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.4	0	3.4	0	0	0	3.4	3.4	3.1	3.4	0	2.8	3.3	3.1	0.8	0	0	0	0	0
PLAY	3.4	0	3.4	0	0	0	3.4	3.4	3.1	3.4	0	0.6	3.3	3.1	2.8	0	0	0	1.3	1.3
Ref No.	IC3701																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	3.3	0	0	0	3.3	2.3	0	0	3.4	0	1.9	0.6	0.9	0.9	0.9	0.6	0.6	3.4
PLAY	1.0	0.6	3.3	2.2	1.9	2.4	1.4	0	0	0	3.4	0	1.2	1.1	1.3	1.3	0.5	0.5	3.3	3.4
Ref No.	IC3701																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.7	0	0	0	0.9	0.5	0.5	0.5	3.4	1.6	0	0	3.3	0	0	0	0	0	3.4	0
PLAY	3.3	0	0	0	1.2	1.2	1.2	1.2	3.4	1.6	0	0	2.0	0.9	2.1	0.2	0	0	3.4	0
Ref No.	IC3701																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	1.6	3.4	0	0	3.4	0	3.3	3.3	0	1.6	3.4	3.3	0.7	0	1.5	1.7	0	1.7	1.7	1.7
PLAY	1.6	3.4	0	0	3.4	0	3.3	3.3	0	1.6	3.4	3.3	0.7	0	0.6	1.7	0	1.7	1.7	1.7
Ref No.	IC3701																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.4	1.7	1.6	1.7	1.8	2.2	0	0	3.3	1.1	0.9	2.1	2.1	2.1	0.9	3.4	0.9	1.4	0	0
PLAY	3.4	1.7	1.6	1.7	2.1	2.2	3.3	0	0	1.1	1.7	2.4	2.2	2.3	1.3	3.4	1.3	1.2	0	0
Ref No.	IC3701																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	3.4	1.0	0.9	0.9	0.9	1.6	1.9	1.9	1.8	2.7	0	1.8	2.1	2.0	3.4	2.0	1.8	1.6	3.0	2.2
PLAY	3.4	1.2	1.2	1.2	1.2	1.3	2.4	2.6	1.1	2.2	0	2.2	2.4	2.0	3.4	2.8	2.5	2.6	1.9	2.2
Ref No.	IC3701																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	1.8	0	1.8	1.8	1.7	1.6	1.6	1.5	2.0	3.4	0	0	0	0	0	0	0	0	0	0
PLAY	2.2	0	2.2	2.2	2.4	2.6	2.6	1.7	2.0	3.4	0	0	0	0	0	0	0	0	0	0
Ref No.	IC3701																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
STOP	0	0	0	0	0	0.6	0.7	0.6	-	0	3.4	0.3	0.3	-	0	3.4	1.6	2.9	2.9	2.9
PLAY	0	0	0	0	0	1.3	1.1	1.2	1.6	0	3.4	1.3	1.4	1.2	0	3.4	1.6	2.9	2.9	2.
Ref No.	IC3731																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.4	3.3	1.4	1.2	0	1.2	2.3	3.3	2.6	1.7	0	1.9	1.9	3.3	3.3	0	1.9	1.8	0	1.7
PLAY	1.2	3.3	1.6	1.6	0	1.6	1.9	3.3	2.2	2.2	0	2.0	2.0	3.3	3.3	0	2.2	1.8	0	2.1
Ref No.	IC3731																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.8	3.3	0.6	0.6	3.3	3.3	3.3	0	2.2	0	1.6	1.6	1.6	1.6	3.3	0	0	0	0	0
PLAY	2.5	3.3	0.6	0.6	3.3	3.3	3.3	0	2.2	0	1.6	1.6	1.6	1.6	3.3	0	0	0	0	0
Ref No.	IC3731																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0	0	0	0	0	0	1.6	1.7	1.7	1.7	2.1	0	0	3.3	0	0.6	0	1.7	3.3	1.0
PLAY	0	0	0	0	0	0	1.6	1.7	1.7	1.7	2.1	0	0	3.3	1.6	0.6	0	1.7	3.3	1.6
Ref No.	IC3731																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	0.9	0.9	3.3	0	3.3	0	0	0	0	0.9	3.3	0	1.7	0	0	0	3.3	3.1
PLAY	1.6	0	1.6	1.6	3.3	0	3.3	1.9	1.7	0	2.3	0.9	3.3	2.2	2.2	0	2.2	2.2	3.3	2.4
Ref No.	IC3731																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	1.5	0	1.5	1.4	0	0	0	0	0	0	0	0	0	0	0	3.3	1.4	0.9	0	2.2
PLAY	2.2	0	2.9	1.7	0	0	0	0	0	3.3	3.3	0	0	0	0	3.3	1.6	1.7	0	1.7
Ref No.	IC3751																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0.9	0.5	0.5	0.5	3.3	0.1	0.1	0	3.5	0	0	0	1.8	0.8	1.1	1.8	0
PLAY	3.3	0	0	1.2	1.2	1.2	1.3	2.2	1.3	2.1	0.2	3.5	0	0	0	1.3	1.3	1.3	1.2	0.5
Ref No.	IC3751																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	1.2	1.2	1.2	3.3	1.6	0	2.6	3.3	3.1	3.0	3.0	0.6	0	0.4	3.3	0.6	1.7	1.6	1.6	3.2
PLAY	0.5	0.5	3.2	3.3	1.6	0	2.6	3.3	3.1	3.0	3.0	0.5	0	0.7	3.3	0.6	1.7	1.6	1.6	3.2
Ref No.	IC3751																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52								
STOP	3.3	3.3	0	0.1	0.3	0.6	0.7	0.5	0	0	0	0.1								
PLAY	3.3	0	0	0.1	0	0	0.1	0	0	0	0	0.1								
Ref No.	IC3781							IC4201												
MODE	1	2	3	4	5	6		1	2	3										
STOP	4.8	0	4.8	1.3	0	3.3		0	3.3	4.7										
PLAY	4.8	0	4.8	1.3	0	3.3		0	3.3	4.7										
Ref No.	IC4211																			
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	0	1.5	0	3.3	0	0	4.7	0	2.3	2.4	0	4.7	2.4	2.3	0	4.7	0
PLAY	1.7	0.8	1.6	0	1.5	0	3.3	0	0	4.7	0	2.3	2.4	0	4.7	2.4	2.3	0	4.7	0
Ref No.	IC4211																			
MODE	21	22	23	24	25	26	27	28												
STOP	0	3.2	3.3	3.3	0	3.3	2.8	3.3												
PLAY	0	3.2	0	0	0	3.3	2.8	3.3												
Ref No.	IC4221																			
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	1.9	1.5	3.7	0	4.7	4.7	0	2.3	0	2.3	0	4.7	2.4	0	2.3	0	4.7
PLAY	1.7	0.8	1.6	1.9	1.5	3.7	0	4.7	4.7	0	2.3	0	2.3	0	4.7	2.4	0	2.3	0	4.7
Ref No.	IC4221																			
MODE	21	22	23	24	25	26	27	28												
STOP	0	3.2	0	4.7	4.8	3.3	2.8	3.3												
PLAY	4.9	3.2	0	4.7	4.6	3.3	2.8	3.3												

Ref No.	IC4231																			
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	1.9	1.5	3.6	0	4.7	4.7	0	2.3	0	2.4	0	4.7	2.4	0	2.3	0	4.7
PLAY	1.7	0	1.6	1.9	1.5	3.6	0	4.7	4.7	0	2.3	0	2.4	0	4.7	2.4	0	2.3	0	4.7

Ref No.	IC4231																			
MODE	21	22	23	24	25	26	27	28												
STOP	0	3.2	0	4.7	4.7	3.3	2.8	3.3												
PLAY	0	3.2	0	4.7	4.7	3.3	2.8	3.3												

Ref No.	IC4241																			
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	1.9	1.5	3.6	0	4.7	4.7	0	2.3	0	2.4	0	4.7	2.4	0	2.3	0	4.7
PLAY	1.7	0	1.6	1.9	1.5	3.6	0	4.7	4.7	0	2.3	0	2.4	0	4.7	2.4	0	2.3	0	4.7

Ref No.	IC4241																			
MODE	21	22	23	24	25	26	27	28												
STOP	0	3.2	0	4.7	4.7	3.3	2.8	3.3												
PLAY	0	3.2	0	4.7	4.7	3.3	2.8	3.3												

Ref No.	IC4261																			
MODE	1	2	3	4	5	6	7	8												
STOP	0	0	0	0	0	0	0	5.0												
PLAY	4.9	0	4.9	0	0	4.9	4.9	4.9												

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	4.4	0	1.7	1.7	1.7	3.3	0	3.2	3.3	0	0	1.2	1.7	1.7	1.7	1.7	1.7
PLAY	0.5	3.2	0	4.4	0	1.7	1.7	2.0	3.3	0	3.2	3.3	0	0	1.2	1.7	1.7	1.7	1.7	2.1

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	1.7	1.7	2.7	0	1.7	0	2.2	4.8	1.7	1.8	1.8	2.1	0	2.1	1.5	3.3	1.2	0	3.3	0
PLAY	1.7	1.7	2.7	0	1.7	0	2.2	4.8	1.7	1.8	1.8	2.1	0	2.1	1.5	3.3	1.2	0	0	0

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	1.7	1.6	1.6	1.1	1.7	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.2	2.3	4.8	2.2	2.2	2.2	2.2	2.2
PLAY	2.5	1.4	1.8	2.2	1.9	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.2	2.3	4.8	2.2	2.2	2.2	2.2	2.2

Ref No.	IC5201																			
MODE	61	62	63	64																
STOP	0	2.2	2.2	0																
PLAY	0	2.2	2.2	0																

Ref No.	IC5262																			
MODE	1	2	3	4	5	6	7	8												
STOP	2.2	2.2	2.2	0	2.2	2.2	2.2	4.9												
PLAY	2.2	2.2	2.2	0	2.2	2.2	2.2	4.9												

Ref No.	IC5263																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	1.7	2.2	2.2	2.2	0	0	0	3.3	0	0.2	1.1	1.1	1.7	4.9	4.9				
PLAY	0	0	0	0	0	0	0	0	3.3	0	0	2.2	0.1	2.2	2.0	4.9				

Ref No.	IC5266									IC5267										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
STOP	1.7	4.2	0	0	1.1	0	0	4.8		1.7	0	0	0	1.0	0	0	4.9			
PLAY	0	0	0	0	0	0	0	4.8		1.9	1.8	0	0	0	0	0	0			

Ref No.	IC6201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	3.1	3.3	3.3	3.3	3.3	3.3	3.0	3.3	0	0	3.3	2.1	3.0	3.0	2.8	3.3	3.3	0	0
PLAY	3.3	2.7	3.3	3.3	3.3	3.3	3.3	2.5	0	0	0	0.1	1.4	2.6	1.7	1.4	3.3	3.3	0	0

Ref No.	IC6201																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	3.3	3.3	1.5	1.8	3.3	3.0	2.5	3.0	2.2	2.3	2.4	2.2	2.2	3.3	2.4	2.2	1.7	0	0	0
PLAY	3.3	3.3	1.5	1.8	3.3	2.6	2.1	0	0	1.9	2.4	1.9	2.0	3.3	2.2	1.8	1.7	2.0	2.1	1.9

Ref No.	IC6201																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0	0	0.5	0	0	0	0	0	0	3.3	3.3	3.3	3.3	2.1	3.3	3.3	3.3	0	0	3.3
PLAY	1.8	1.4	0.5	0	1.4	0	0	0	0	3.0	1.1	2.8	3.0	1.9	3.3	3.0	3.3	0	0	3.3

Ref No.	IC6201																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	0	0	0	3.3	3.3	3.3	0	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0.1	0	0
PLAY	0	0	0	0	0	3.3	3.3	0	0	2.8	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.9	3.3	3.3

Ref No.	IC6201																				
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.3	3.3	3.3	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
PLAY	3.3	3.3	3.3	3.4	0.4	0.4	0	1.2	0.4	0.4	0.3	0	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3

Ref No.	IC6211						IC6221													
MODE	1	2	3	4	5		1	2	3	4	5	6	7	8						
STOP	0	0	0	3.3	3.3		0	0	0	0	3.0	3.0	0	3.3						
PLAY	0	0	0	3.3	3.3		0	0	0	0	3.0	3.0	0	3.3						

Ref No.	IC6301																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.2	2.2	2.1	2.2	2.4	2.2	2.2	2.5	2.0	2.0	3.3	3.3	0	3.3	2.0	2.0	2.3	2.3	2.2	3.0
PLAY	2.2	2.0	1.7	1.7	2.1	1.9	1.9	2.2	1.4	1.4	2.6	3.3	0	3.3	3.3	1.3	1.7	1.9	2.2	2.7

Ref No.	IC6301																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	3.0	2.8	3.0	3.0	3.0	0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.3	3.0	3.1	3.0
PLAY	2.1	2.6	2.6	2.5	2.5	2.8	0	2.7	2.7	2.6	2.6	2.6	2.7	2.7	2.7	2.7	3.3	2.7	2.8	2.6

Ref No.	IC6301																			
MODE	41	42	43	44	45	46	47	48												
STOP	3.0	3.0	3.1	3.1	3.1	0	3.3	2.0												
PLAY	2.6	2.7	2.8	2.8	2.8	0	3.3	1.9												

Ref No.	IC6501						IC6511						IC6521							
MODE	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5			
STOP	0	1.6	0	1.6	3.2		0	1.6	0	1.6	3.2		0	1.6	0	1.6	3.2			
PLAY	0	1.6	0	1.6	3.2		0	1.6	0	1.6	3.2		0	1.6	0	1.6	3.2			
Ref No.	IC6531						IC6541													
MODE	1	2	3	4	5		1	2	3	4	5	6	7	8						
STOP	0	1.6	0	1.6	3.2		1.5	1.5	1.5	0	1.5	3.2	3.2	3.2						
PLAY	0	1.6	0	1.6	3.2		1.5	1.5	1.5	0	1.5	3.2	3.2	3.2						
Ref No.	IC6551									IC6561										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5						
STOP	1.5	1.5	1.6	0	1.4	0	0	3.2		0	1.6	0	1.6	3.2						
PLAY	1.5	1.5	1.6	0	1.4	0	0	3.2		0	1.6	0	1.6	3.2						
Ref No.	IC6571						IC6581						IC6591							
MODE	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5			
STOP	0	1.6	0	1.6	3.2		0	1.6	0	1.6	3.2		0	1.6	0	1.5	3.2			
PLAY	0	1.6	0	1.6	3.2		0	1.6	0	1.6	3.2		0	1.6	0	1.5	3.2			
Ref No.	IC6801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.4	2.5	1.6	0	0	3.3	0	0	3.1	3.0	0	0	3.4	3.1	3.4	0	3.3	3.4	0	0
PLAY	3.4	2.5	1.5	0	0	3.3	0	0	2.7	2.7	0	0	0	2.7	3.4	0	3.3	3.4	0	0
Ref No.	IC6801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	3.1	0	3.1	3.4	3.4	3.1	3.2	2.1	3.3	2.5	3.2	1.7	1.6	0	3.3	3.4	3.3	0	3.3	3.4
PLAY	2.8	0	2.8	3.4	3.4	2.8	2.2	1.6	2.6	2.5	2.0	1.7	1.6	0	1.7	3.4	3.3	0	0.8	3.4
Ref No.	IC6801																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.1	3.3	3.3	0	0	3.4	3.3	0	0	0	1.6	0	1.7	1.7	0	2.5	0	0	3.4	1.6
PLAY	0.6	3.3	3.3	0	0	3.4	0.8	0	0	0	1.6	0	1.7	1.7	0	2.5	0	0	3.4	1.6
Ref No.	IC6801																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.4	0	0	0	3.4	0	0	0	0	0	3.4	3.4	0	0	0	0	0	3.4	0	0
PLAY	3.4	0	0	0	3.4	0	0	0	0	0	3.4	0	3.3	3.3	0	0	0	3.4	1.4	0

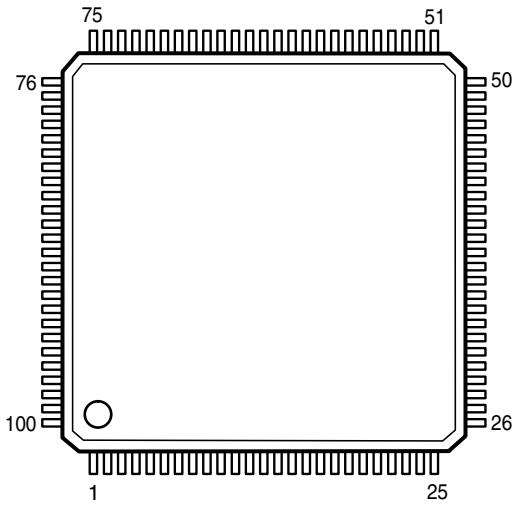
Ref No.	Q2001				Q3221				Q3226				Q3231				Q3236			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	1.5	2.1	4.8		1.1	0.5	0		1.0	0.4	0		1.5	0.8	0		1.5	0.8	0	
PLAY	1.5	2.1	4.8		1.1	0.5	0		1.2	0.6	0		1.5	0.8	0		1.5	0.8	0	
Ref No.	Q3761				Q3766				Q3771				Q5211				Q5215			
MODE	E	C	B		E	C	B		E	C	B		1	2	3		1	2	3	
STOP	1.3	0.6	0		1.3	0.6	0		1.2	0.4	0		4.3	4.8	1.7		4.4	4.8	1.1	
PLAY	1.3	0.6	0		1.3	0.6	0		1.4	0.6	0		3.2	3.8	2.2		4.4	4.8	1.1	
Ref No.	Q5261				Q5262				Q5263				Q5264				Q5271			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		1	2	3	
STOP	1.1	1.8	4.8		1.1	1.8	4.8		1.6	0.9	0		0.5	1.1	4.8		0	3.3	0	
PLAY	1.1	1.8	4.8		1.1	1.8	4.8		1.8	1.1	0		0.3	1.1	4.8		0	3.3	0	
Ref No.	Q6215																			
MODE	E	C	B																	
STOP	0	0	3.2																	
PLAY	0	0	3.2																	

Ref No.	QR5221				QR5241															
MODE	1	2	3		1	2	3													
STOP	3.3	3.3	0.4		3.3	3.3	0													
PLAY	3.3	0.1	3.3		3.3	0.1	3.3													

8. SEMICONDUCTORS

● IC's

MN101C35DCA (IC601)

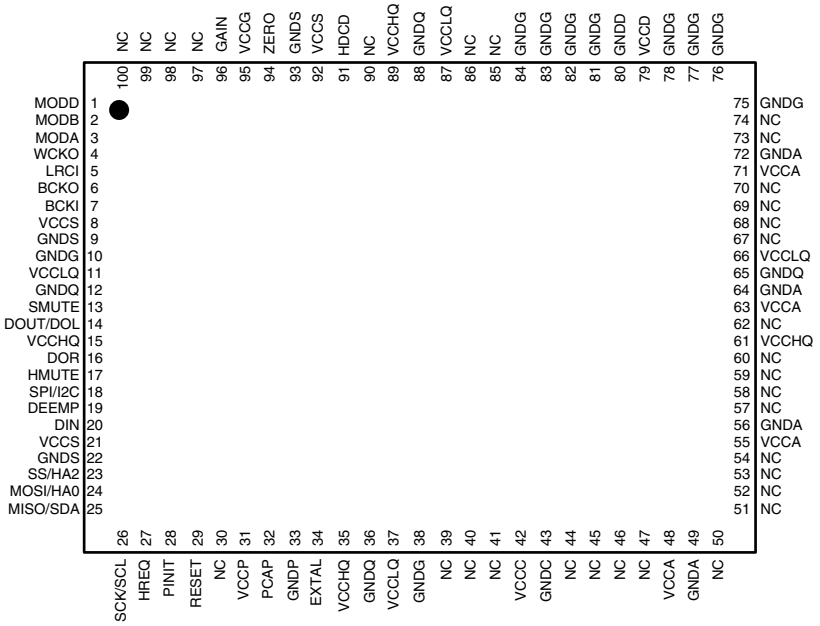


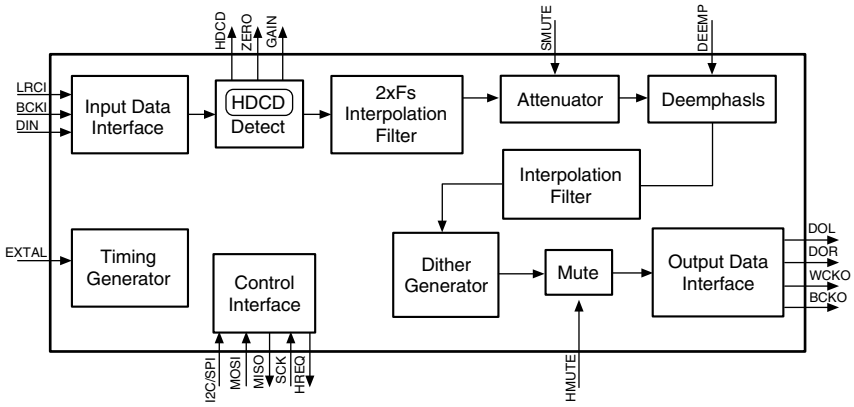
● MN101C35DCA Terminal Function

Pin No.	Pin Name	Symbol	I/O	Function
1	P00	ST-BY LED	O	ST-BY LED
2	P01	R-SPEED	O	Roulette rotation slow down, H: Down
3	P02	FL DRIVE	O	FL light off, L: Off
4	P03	CMD	O	Serial output
5	P04	STATUS	I	Serial input
6	P05	DSPCLK	I	Serial clock
7	P06	AUDIO ONLY LED	O	Audio Only LED
8	V_{DD}	5V	—	+5V
9	OSC2	XI	O	Clock
10	OSC1	XO	I	Clock
11	V_{SS}	GND	—	GND
12	XI	GND	I	Not used
13	XO	NC	O	Not used
14	MMOD	GND	I	Memory mode
15	V_{REF-}	GND	I	A/D reference L
16	PA0	KEYIN0	I	A/D key input
17	PA1	KEYIN1	I	A/D key input
18	PA2	KEYIN2	I	A/D key input
19	PA3	SWOP	I	Tray open detect, L: Open
20	PA4	SWCL	I	Tray close detect, L: Close
21	PA5	PA5	I	Model set jumper 1
22	PA6	PA6	I	Model set jumper 2
23	PA7	PA7	I	Model set jumper 3
24	V_{REF+}	5V	I	A/D reference H
25	P07	POWERMUT	O	Power mute, H: Mute
26	P27	/RST	I	Reset
27	P10	SWDN	I	Chucking down detect, L: Down
28	P11	SWUP	I	Chucking up detect, L: Up
29	P12	OPEN	O	Tray open, H: Open
30	P13	CLOSE	O	Tray close, H: Close
31	P14	ROULETTE-L	O	Roulette left-turn, H: Left-turn
32	P15	ROULETTE-R	O	Roulette right turn, H: Right turn
33	P20 (IRQ0)	REM	I	Remote-control input
34	P21	VSYNC	I	V-Sync (IRQ)
35	P22	W.REMIN	I	Wired remote-control input
36	P23	RFF	I	RFF
37	P24	R.SENS	I	Roulette sensor, H: detect slit
38	P25	D.SENS	I	Disc sensor, L: detect disc
39	P30	SDA	O	I^2C SDA
40	P31	POWER-OFF	O	Main power control, L: On

Pin No.	Pin Name	Symbol	I/O	Function
41	P32	SCV	O	I2C SCL
42	P50	D.F.2.I	I	D.F.2 detect
43	P51	DEEMPH	O	Emphasis control
44	P52	RSTN	O	Reset output for D.F.1, L: Reset
45	P53	CKDV1	O	Master clock switching sig.1
46	P54	CKDV2	O	Master clock switching sig.2
47	P67	G17	O	FL-DGT
48	P66	G16	O	FL-DGT
49	P65	G15	O	FL-DGT
50	P64	G14	O	FL-DGT
51	P63	G13	O	FL-DGT
52	P62	G12	O	FL-DGT
53	P61	G11	O	FL-DGT
54	P60	G10	O	FL-DGT
55	P41	G9	O	FL-DGT
56	P40	G8	O	FL-DGT
57	P77	G7	O	FL-DGT
58	P76	G6	O	FL-DGT
59	P75	G5	O	FL-DGT
60	P74	G4	O	FL-DGT
61	P73	G3	O	FL-DGT
62	P72	G2	O	FL-DGT
63	P71	G1	O	FL-DGT
64	P70	S1	O	FL-SEG
65	P87	S2	O	FL-SEG
66	P86	S3	O	FL-SEG
67	P85	S4	O	FL-SEG
68	P84	S5	O	FL-SEG
69	P83	S6	O	FL-SEG
70	P82	S7	O	FL-SEG
71	P81	S8	O	FL-SEG
72	P80	S8	O	FL-SEG
73	P97	S10	O	FL-SEG
74	P96	S11	O	FL-SEG
75	P95	S12	O	FL-SEG
76	P94	S13	O	FL-SEG
77	P93	S14	O	FL-SEG
78	P92	S15	O	FL-SEG
79	P91	S16	O	FL-SEG
80	P90	S17	O	FL-SEG
81	PC2	S18	O	FL-SEG
82	PC1	S19	O	FL-SEG
83	PC0	S20	O	FL-SEG
84	PB7	S21	O	FL-SEG
85	PB6	S22	O	FL-SEG
86	PB5	S23	O	FL-SEG
87	PB4	S24	O	FL-SEG
88	PB3	S25	O	FL-SEG
89	PB2	S26	O	FL-SEG
90	PB1	S27	O	FL-SEG
91	PB0	S28	O	FL-SEG
92	PD7	S29	O	FL-SEG
93	PD6	S30	O	FL-SEG
94	PD5	S31	O	FL-SEG
95	PD4	S32	O	FL-SEG
96	PD3	S33	O	FL-SEG
97	PD2	S34	O	FL-SEG
98	PD1	S35	O	FL-SEG
99	PD0	S36	O	FL-SEG
100	VPP	-29V	I	-29V

PMD200 (IC101)

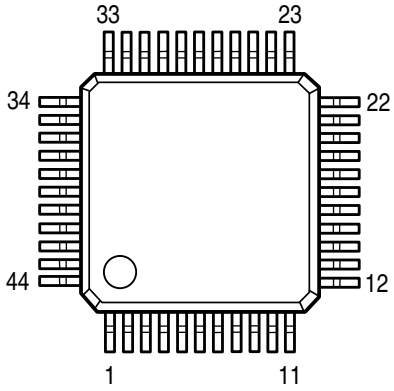




● PMD200 Terminal Function

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	MODD	26	SCK/SCL	51	NC	76	GNDG
2	MODB	27	HREQ	52	NC	77	GNDG
3	MODA	28	PINIT	53	NC	78	GNDG
4	WCKO	29	RESET	54	NC	79	VCCD
5	LRCI	30	NC	55	VCCA	80	GNDD
6	BCKO	31	VCCP	56	GNDA	81	GNDG
7	BCKI	32	PCAP	57	NC	82	GNDG
8	VCCS	33	GNDP	58	NC	83	GNDG
9	GNDS	34	EXTAL	59	NC	84	GNDG
10	GNDG	35	VCCHQ	60	NC	85	NC
11	VCCLQ	36	GNDQ	61	VCCHQ	86	NC
12	GNDQ	37	VCCLQ	62	NC	87	VCCLQ
13	SMUTE	38	GNDG	63	VCCA	88	GNDQ
14	DOUT/DOL	39	NC	64	GNDA	89	VCCHQ
15	VCCHQ	40	NC	65	GNDQ	90	NC
16	DOR	41	NC	66	VCCLQ	91	HDCD
17	HMUTE	42	VCCC	67	NC	92	VCCS
18	SPI/I2C	43	GNDC	68	NC	93	GNDS
19	DEEMP	44	NC	69	NC	94	ZERO
20	DIN	45	NC	70	NC	95	VCCG
21	VCCS	46	NC	71	VCCA	96	GAIN
22	GNDS	47	NC	72	GNDA	97	NC
23	SS/HA2	48	VCCA	73	NC	98	NC
24	MOSI/HA0	49	GNDA	74	NC	99	NC
25	MISO/SDA	50	NC	75	GNDG	100	NC

DXP7001AF (IC201)



● DXP7001AF Terminal Function

Pin No.	Pin Name	I/O	Description
1	MDT	Ip	Microcomputer Interface Data
2	MCK	Ip	Microcomputer Interface Clock
3	MLEN	Ip	Microcomputer Interface Latch Enable
4	RSTN	Ip	Reset Terminal
5	DLRCK	Ip	Audio Serial Input Data L/R Clock
6	VSS	–	Ground Terminal
7	DBCK	Ip	Audio Serial Input Bit Clock
8	DDT	Ip	Audio Serial Input Data
9	TEST2N	Ip	Test Setting Terminal 2 (Alpha-processor 1 Output shifts 12-bit.)
10	TEST3N	Ip	Test Setting Terminal 3 (Alpha-processor 2 Output stops.)
11	TEST4N	Ip	Test Setting Terminal 4 (Lambda-processor Output stops.)
12	DFBCK	Ip	Lambda-processor Input Bit Clock
13	DFWCK	Ip	Lambda-processor Input Word Clock
14	DOL	Ip	Lambda-processor Input Data L-channel
15	DOR	Ip	Lambda-processor Input Data R-channel
16	LMOD	Ip	Lambda-processor Operation Mode Set
17	OMOD1	Ip	Output Mode Setting Terminal 1
18	OMOD2	Ip	Output Mode Setting Terminal 2
19	INVIN	Ip	Lambda-processor Input Reversed Polarity Terminal
20	BCKO	O	Lambda-processor Output Bit Clock
21	WCKO	O	Lambda-processor Output Word Clock
22	WCKO2	O	Lambda-processor Output Word Clock 2 (for Canceling OFFSET on 1DAC

Pin 18 (OMOD2) — Output Mode Setting Terminal 2

		OMOD1 L	OMOD1 H
OMOD2	L	18bit Alternate	24bit Alternate
	H	20bit Parallel	24bit Parallel

Pin No.	Pin Name	I/O	Description
23	–P24L	O	–/Lambda-processor Lch 24th bit Output *1, *2
24	–P23L	O	–/Lambda-processor Lch 23rd bit Output *1, *2
25	–P22L	O	–/Lambda-processor Lch 22nd bit Output *1, *2
26	–P21L	O	–/Lambda-processor Lch 21st bit Output *1
27	–P20L	O	–/Lambda-processor Lch 20th bit Output *1
28	VDD	–	Power Supply Terminal
29	SO2L/P19L	O	Lambda-processor Lch(–) Output /19th bit Output *1
30	SO1L	O	Lambda-processor Lch(+) Output
31	SO1R	O	Lambda-processor Rch(+) Output
32	SO2R/P19R	O	Lambda-processor Rch(–) Output/19th bit Output *1
33	–P20R	O	–/Lambda-processor Rch 20th bit Output *1
34	–P21R	O	–/Lambda-processor Rch 21st bit Output *1, *2
35	–P22R	O	–/Lambda-processor Rch 22nd bit Output *1, *2
36	–P23R	O	–/Lambda-processor Rch 23rd bit Output *1, *2
37	–P24R	O	–/Lambda-processor Rch 24th bit Output *1, *2
38	TEST1N	Ip	Test Terminal 1 (Alpha-processor 1 stops)
39	CKSLN	Ip	System Clock Select (384fs system / 256fs system)
40	CKDV1	Ip	System Clock Divider Select Terminal 1
41	CKDV2	Ip	System Clock Divider Select Terminal 2
42	XTI	I	X-TAL Oscillator Input Terminal
43	XTO	O	X-TAL Oscillator Output Terminal
44	CKO	O	Clock Output Terminal

Pin 41 (CKDV2) — System Clock Divider Select Terminal 2

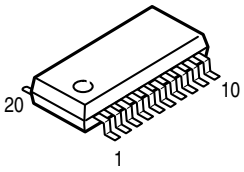
		CKDV1 L	CKDV1 H
CKDV2	L	192fs (CKSLN=H)	768fs
		256fs (CKSLN=H)	
	H	192fs (CKSLN=H)	384fs
		256fs (CKSLN=H)	

(Ip = Input Terminal with pull-up)

*1: Outputted on OMOD1=L (18-bit Alternate Output or 20-bit Parallel Output)

*2: Internal Signal is outputted on OMOD1=H (24-bit Alternate Output or 24-bit Parallel Output) and one of TEST1N, TEST2N, TEST3N or TEST4N is set to L.

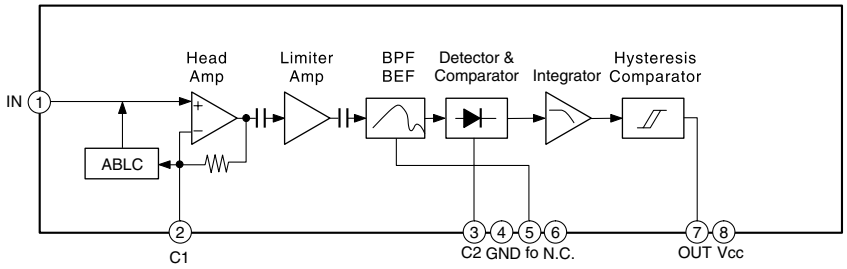
PCM1704U (IC301, 302)



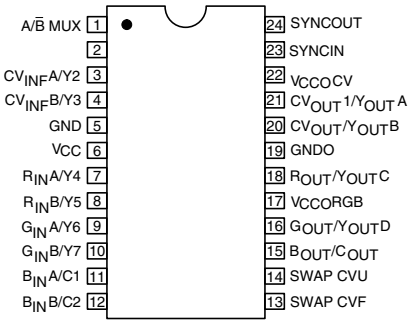
Pin No.	Pin Name	I/O	Description
1	DATA	IN	Serial Audio Input
2	BCLK	IN	Bit Clock Input for Serial Audio Data Input
3	NC	-	NC (1)
4	$-V_{DD}$	-	Digital Power Supply -5V
5	DGND	-	Digital GND
6	$+V_{DD}$	-	Digital Power Supply +5V
7	WCLK	IN	Data Latch Accept Input
8	NC	-	NC (1)
9	$\overline{20BIT}$	IN	INPUT Data Language Select (2)
10	$\overline{INVERT}$	IN	INPUT Data Polarity Select (2)
11	$+V_{CC}$	-	Analog Power Supply +5V
12	BPO DC	-	Bipotar Offset De-Coupling Capacitor
13	NC	-	NC (1)
14	I_{OUT}	OUT	Audio Signal Analog Current Output
15	AGND	-	Analog GND
16	AGND	-	Analog GND
17	SERVO DC	-	Servo Amp De-coupling Capacitor
18	NC	-	NC (1)
19	REF DC	-	Band Cap. Reference De-coupling Capacitor
20	$-V_{CC}$	-	Analog Power Supply -5V

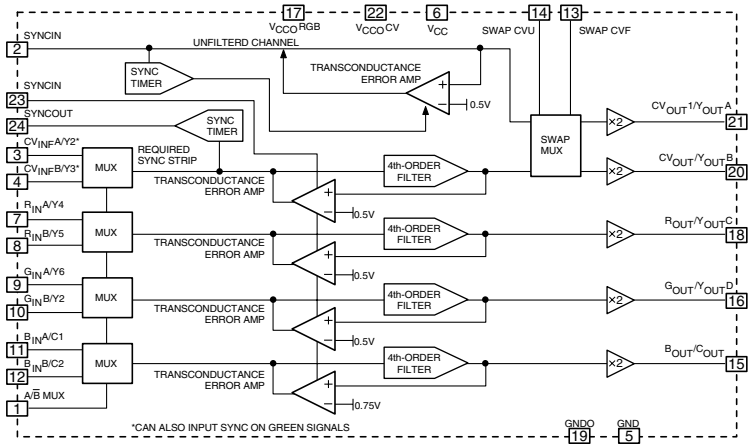
Remarks)
(1) Not connected (Not used)
(2) Internal Pull -up

CXA1511M (IC252)

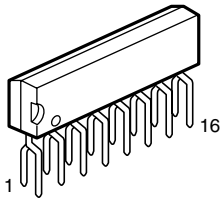


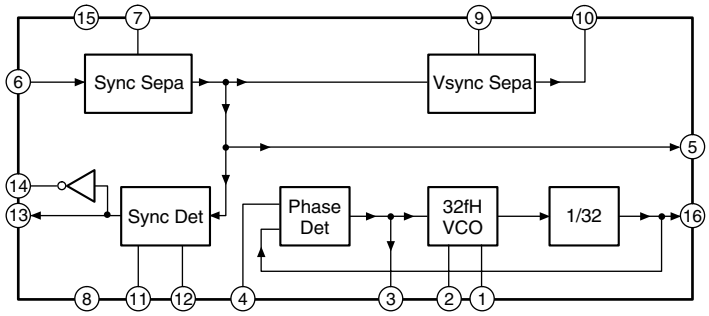
ML6247 (IC501)



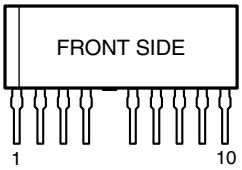


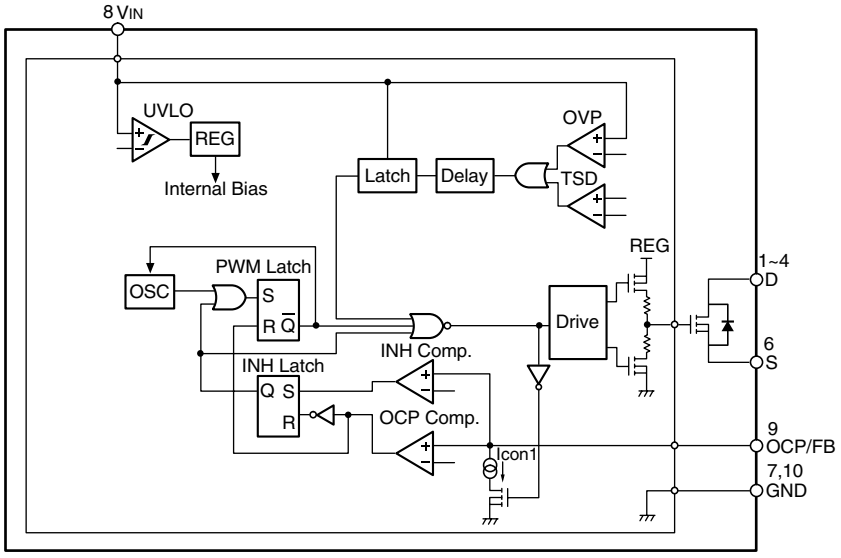
NJM2229S (IC504)



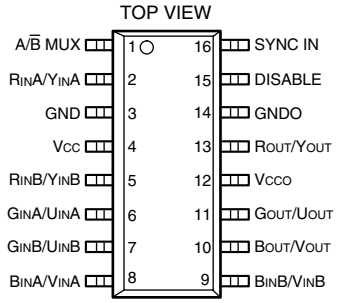


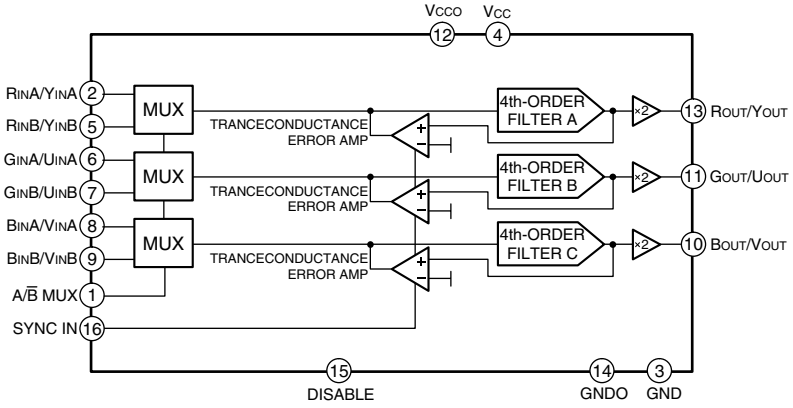
STR-L422 (IC901)



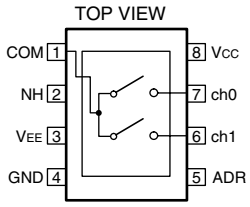


ML6426 (IC502)

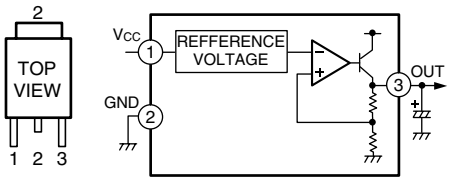




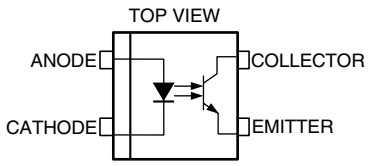
TC4W53F (IC406)



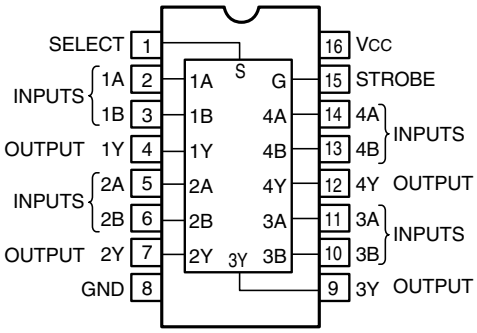
BA033FP (IC605)
BA18BC0FP (IC803)



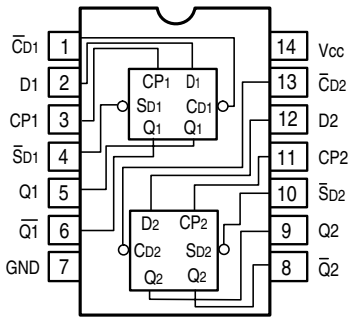
TLP521-1 (IC902)



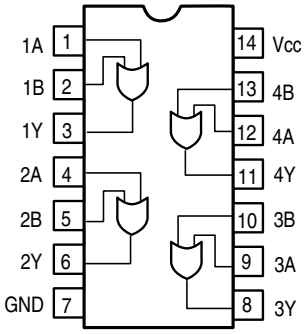
SN74LV157APW (IC219)



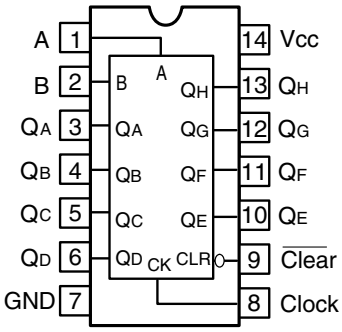
SN74LV74ANS (IC215, IC217)



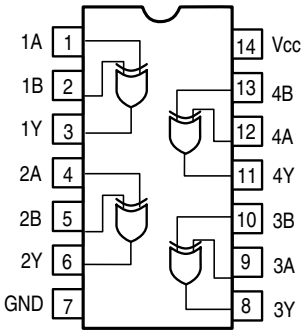
SN74LV32ANS (IC207)



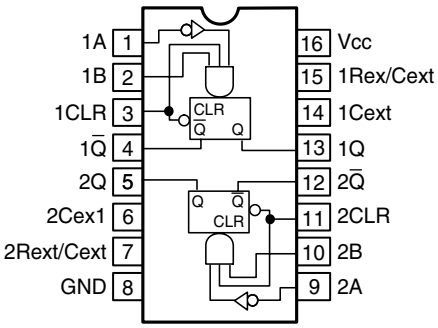
SN74LV164ANS (IC205, 214, 218)



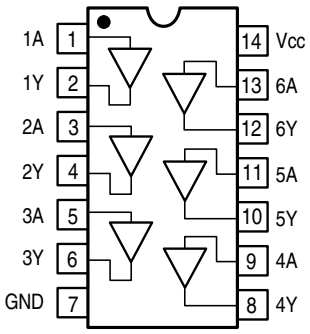
SN74LV86ANS (IC206)



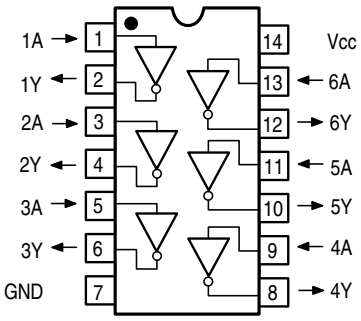
74VHC123AMTCX (IC503)



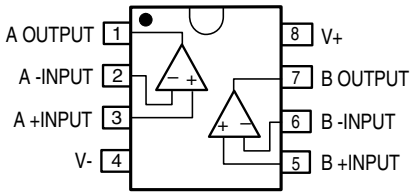
TC74HCT7007AF (IC103, 202, 203)



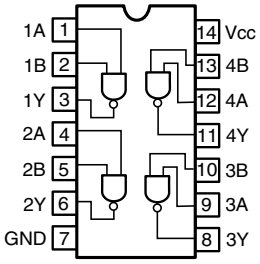
TC74HCU04AF (IC210, 251)
TC74HCT04AF (IC301)



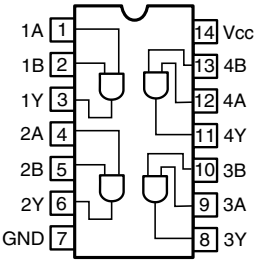
BA15218F (IC408, 409, 410)
NJM4558D (IC105)
NJM2068MD (IC303, 304, 321, 322, 401, 402, 403, 404, 405)



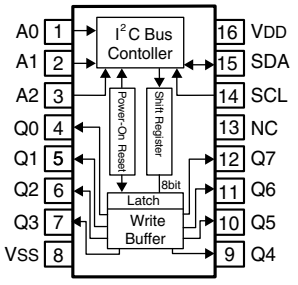
SN74LV00APW (IC505)



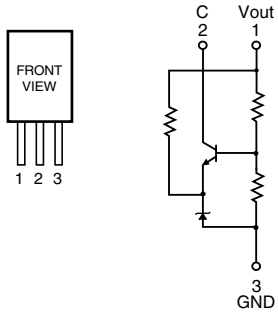
SN74LV08APW (IC216)



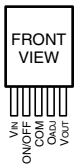
BU2098F (IC102)



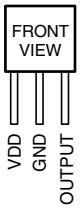
SE005N (IC903)



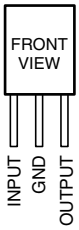
PQ070VK01FZ (IC906)



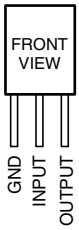
PST600C (IC603)



NJM7805FA (IC801)
NJM7809FA (IC904, 908)
BA033T (IC907)

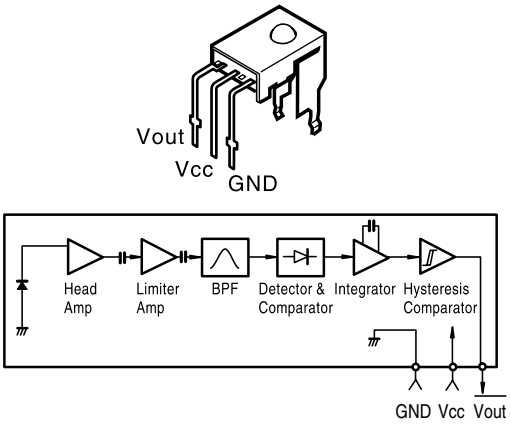


NJM7905FA (IC802)
NJM7909FA (IC905)



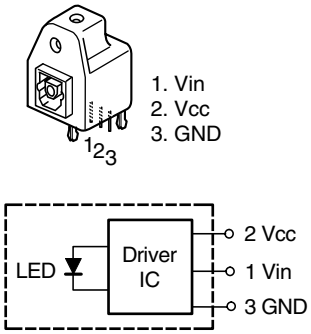
● REMOTE CONTROL SENSOR

GP1U271X (IC604)



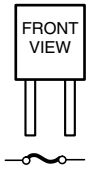
● OPTICAL

GP1F38T2 (JK201)

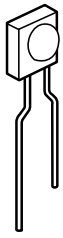


● IC PROTECTOR

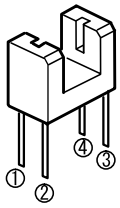
ICP-N25 (IC909, 910)

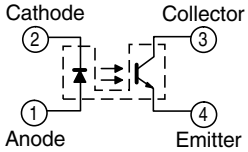


PT491F
(Photo Transistor)



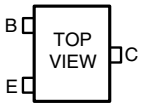
ON1021
(Photo Interrupter)



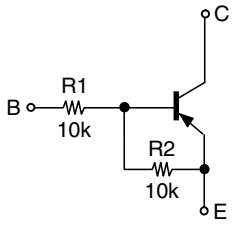


● TRANSISTORS

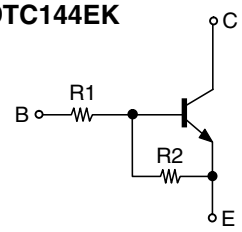
2SC2412K
2SC3326
2SD601A
KTC2875B
DTA114EK
DTC114EK
DTC124EK
DTC144EK



DTA114EK

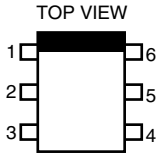


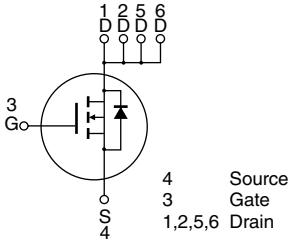
DTC114EK
DTC124EK
DTC144EK



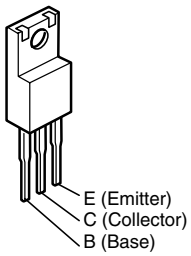
	R1	R2
DTC114EK	10 kohm/Ω	10 kohm/Ω
DTC124EK	22 kohm/Ω	22 kohm/Ω
DTC144EK	47 kohm/Ω	47 kohm/Ω

HAT2053M



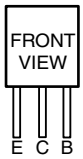


2SD1913



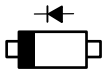
2SB1274

2SB562
2SC2878
2SD468

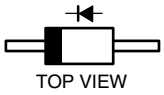


● DIODES (including LED)

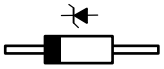
1SS355
RB161L-40



1SS270A
AG01ZT(V1)
AL01ZT(V1)
EM01AT(V1)
RJ43 LF015-305
RK39 LF-C4
SARS01T(V1)

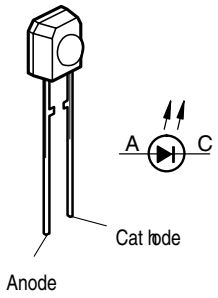


HZS4B-1

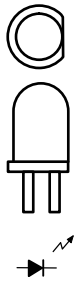


RB411DT

GL-450

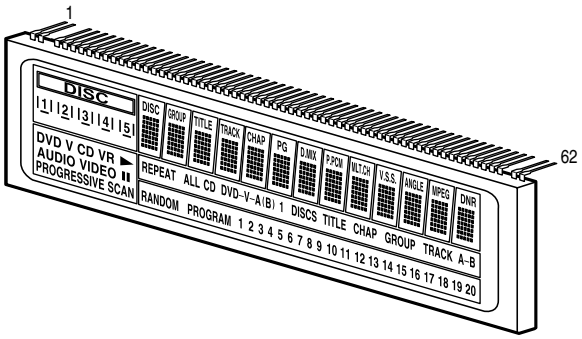


SEL1210S (Red)
SEL1810A (Amber)
SELU1E10CXM-002 (Blue)

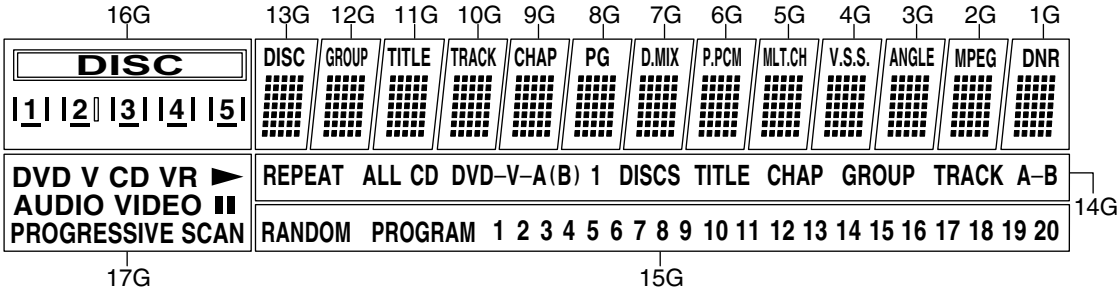


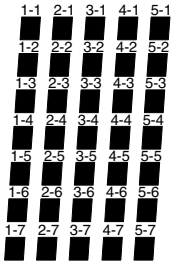
● FL DISPLAY 17-BT-14GNK (FL601)

(Part No.: 393 8053 003)



Grid Assigment





[13G~1G]

Pin Connection

PIN NO.	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F+	F+	NP	NP	P36	P35	P34	P33	P32	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NC	17G	16G	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F-	F-

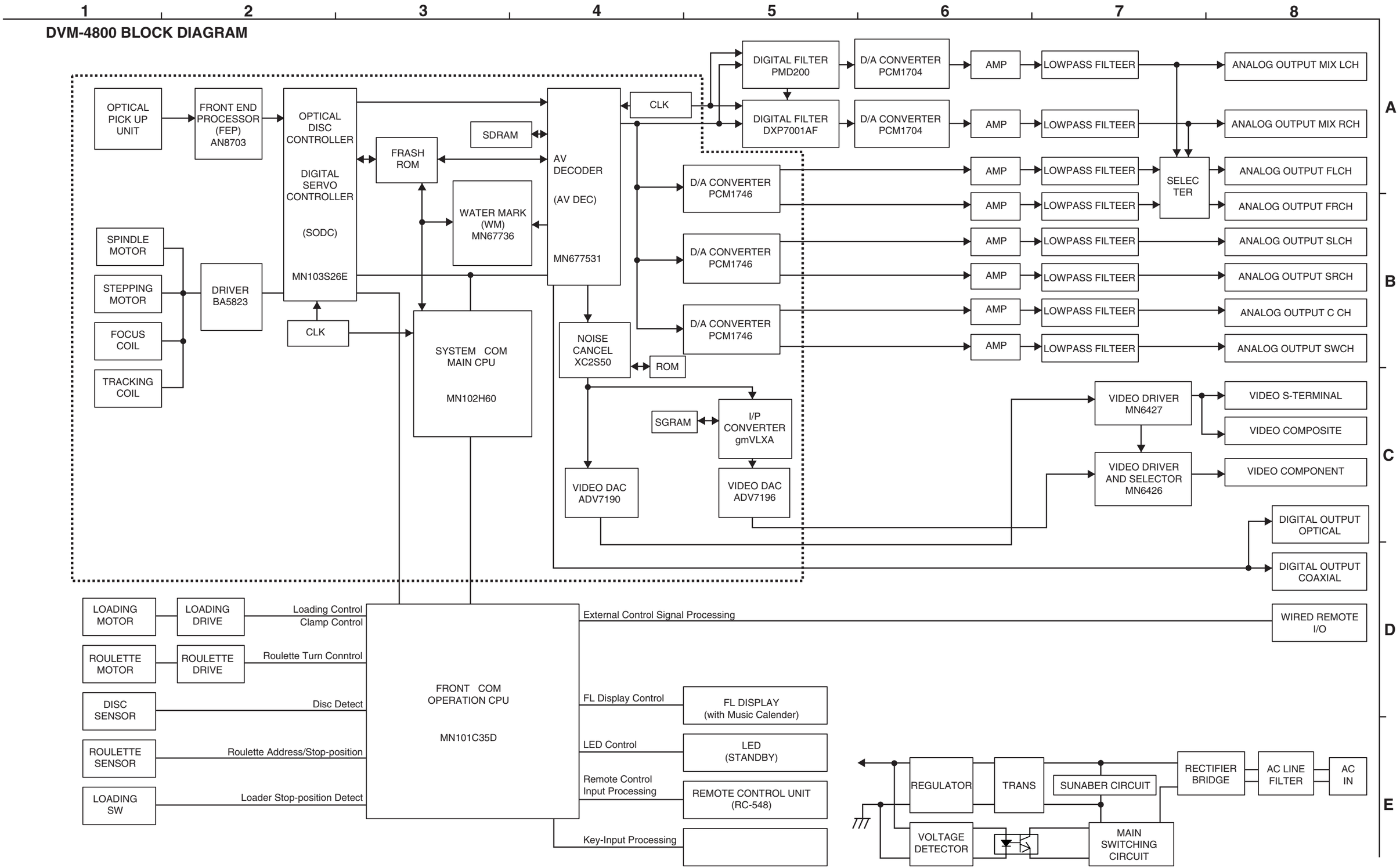
NOTE 1) F+, F- −·− Filament 2) NP −−−− No pin 3) DL −−−− Datum Line 4) 1G〜17G – Grid

Anode Connection

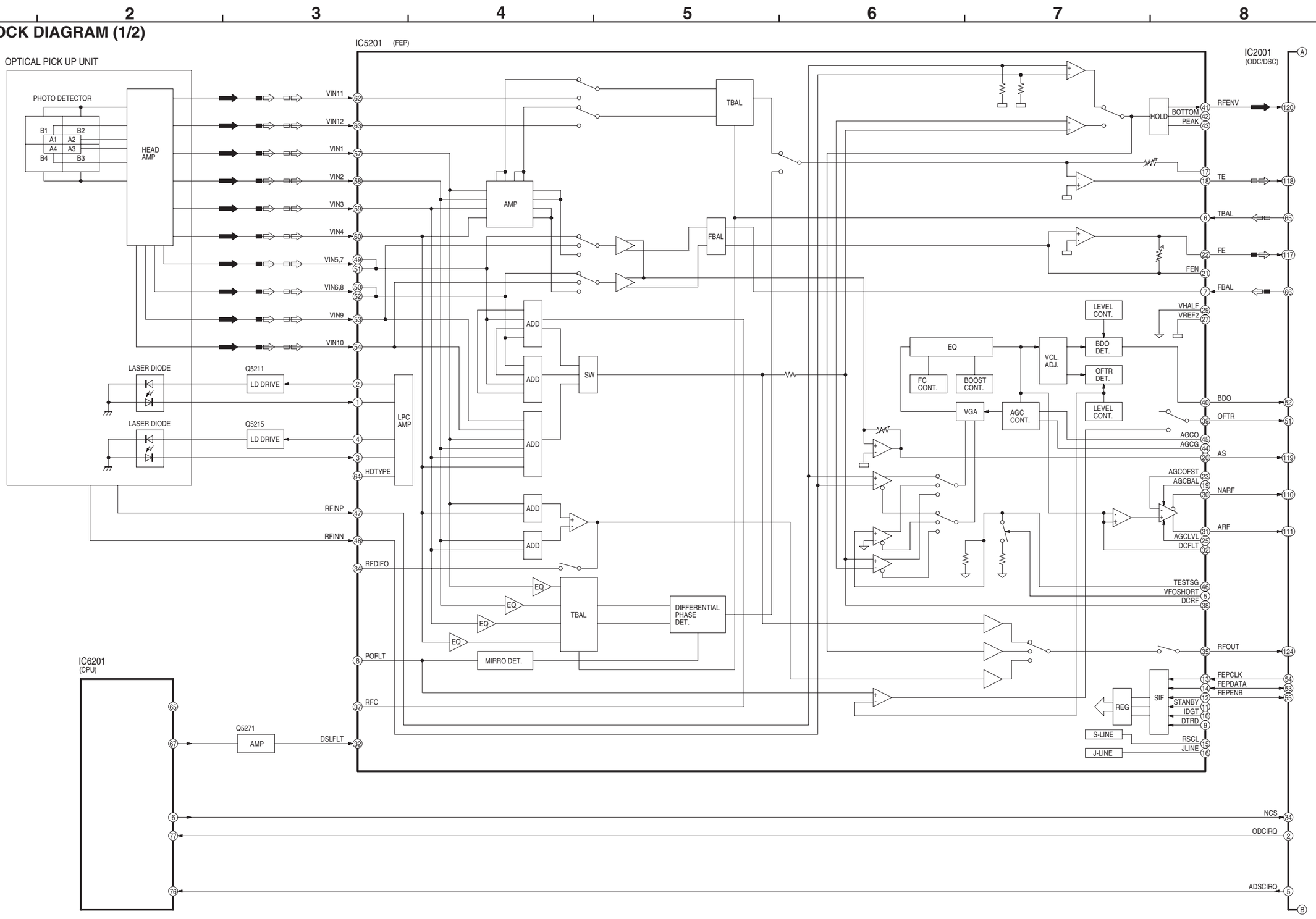
	17G	16G	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	—	—	—	—	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1
P2	—	—	—	—	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1
P3	—	—	—	—	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1
P4	—	—	—	—	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1
P5	—	—	—	—	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1
P6	—	—	—	—	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2
P7	—	—	—	—	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2
P8	—	—	—	—	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2
P9	—	—	—	—	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2
P10	—	—	—	—	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2
P11	—	1	—	—	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
P12	—	2	—	—	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3
P13	—	3	—	—	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3
P14	—	4	20	—	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3
P15	—	5	19	—	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3
P16	—	I[1]I	18	—	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4
P17	—	I[2]I	17	—	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4
P18	—	I[3]I	16	—	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4
P19	—	I[4]I	15	—	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4
P20	—	I[5]I	14	B	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4
P21	—	[1]	13	A–	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5
P22	—	[2]	12	TRACK	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5
P23	—	[3]	11	GROUP	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5
P24	—	[4]	10	CHAP	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5
P25	—	[5]	9	TITLE	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5
P26	PROGRESSIVE	DISC	8	[DISC]S	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6
P27	AUDIO	—	7	DISC	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6
P28	VIDEO	—	6	1	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6
P29	DVD	—	5	(B)	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6
P30	V	—	4	–A	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6
P31	CD	—	3	–V	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7
P32	VR	—	2	DVD	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7
P33	SCAN	—	1	CD	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7
P34	II	—	PROGRAM	ALL	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7
P35	►	—	RANDOM	REPEAT	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7
P36	—	—	—	—	DISC	GROUP	TITLE	TRACK	CHAP	PG	D.MIX	P.PCM	MLT.CH	V.S.S.	ANGLE	MPEG	DNR

9. BLOCK DIAGRAMS

DVM-4800 BLOCK DIAGRAM



SERVO BLOCK DIAGRAM (1/2)



SERVO BLOCK DIAGRAM

SERVO BLOCK DIAGRAM (2/2)

RF SIGNAL
MOTOR DRIVE SIGNAL
TRACKING ERROR SIGNAL
FOCUS ERROR SIGNAL

IC2001 (ODC/DSC)

IC2501
(MOTOR DRIVE)

67 TRSDRV → 26 TRIN
114 TRTRV → 2 VIN1
115 DAC1 → 3 VIN2
68 SPDRV → 23 VIN3
6 OPOUT
FROM IC6001-27,28PIN → 24 LDIN
BIAS1
BIAS2
70 TIL TP → 27 CH3 MUTE
71 TILT → 9 CH1,2 MUTE

LEVEL SHIFT
VO4+ 15
VO4- 16
OPIN+ 4
VO3+ 17
VO3- 18
OPIN- 5
VO1+ 14
VO1- 13
VO2+ 12
VO2- 11

M2502
TRAVERS MOTOR
M2501
SPINDLE MOTOR

IC2511-11,12,13,14
7.2Vp-p(20usec./div.)

OPTICAL PICK UP UNIT
ACTUATOR
FOCUS COIL
TRACKING COIL
ACT T+
ACT T-
ACT F+
ACT F-

FG 69
FG ENB 56
FG

IC6001
(SUB CPU)

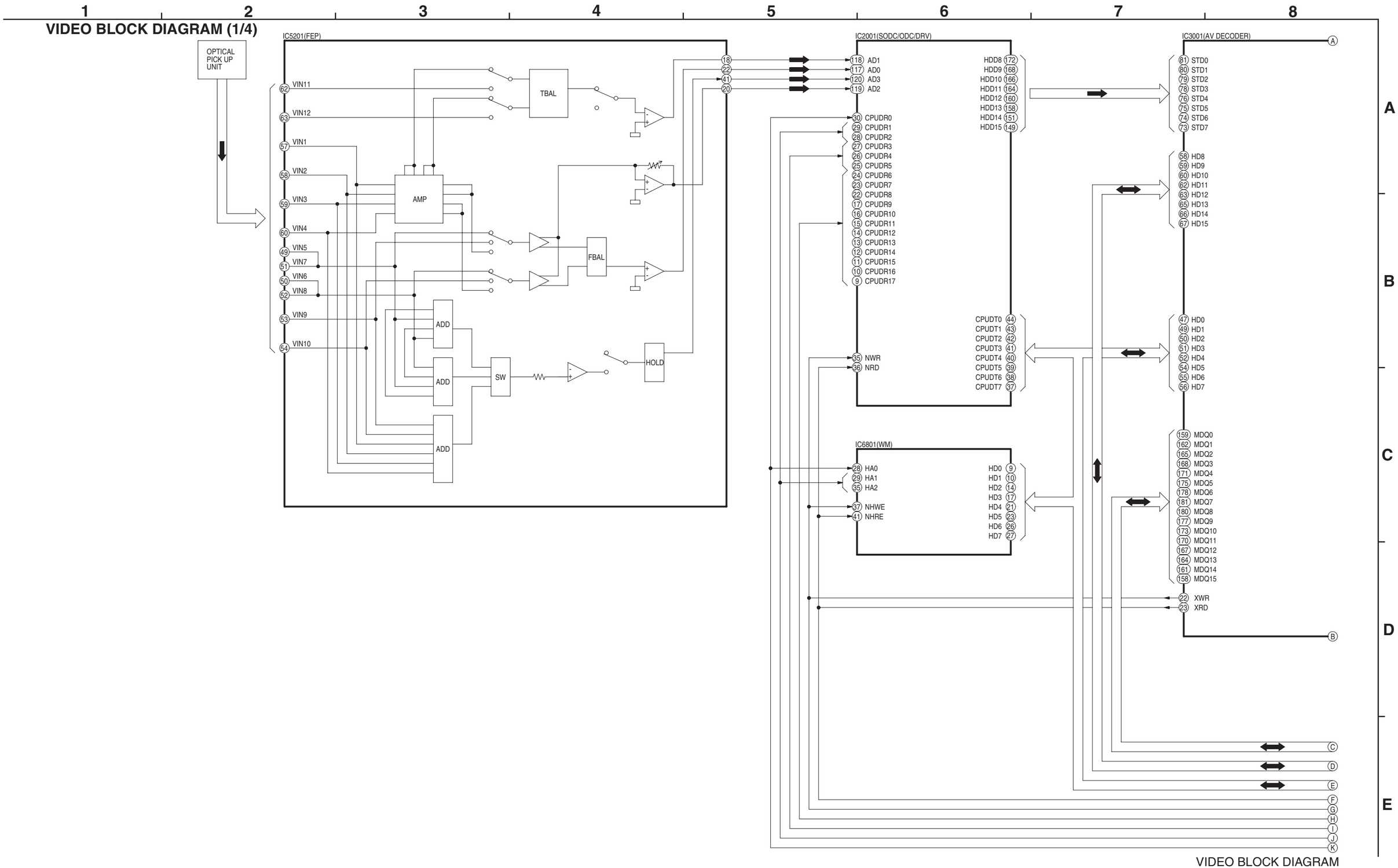
CNT → LD CNT 28 ← TRAY/TRV 47
CH4 MUTE → MUTE4 20 ← TRAY/MUT 31

61 IN SW ← SW2601
TRAY CLOSE 38
FROM P6002-1PIN → TRAY OPEN 37

A
B
C
D
E

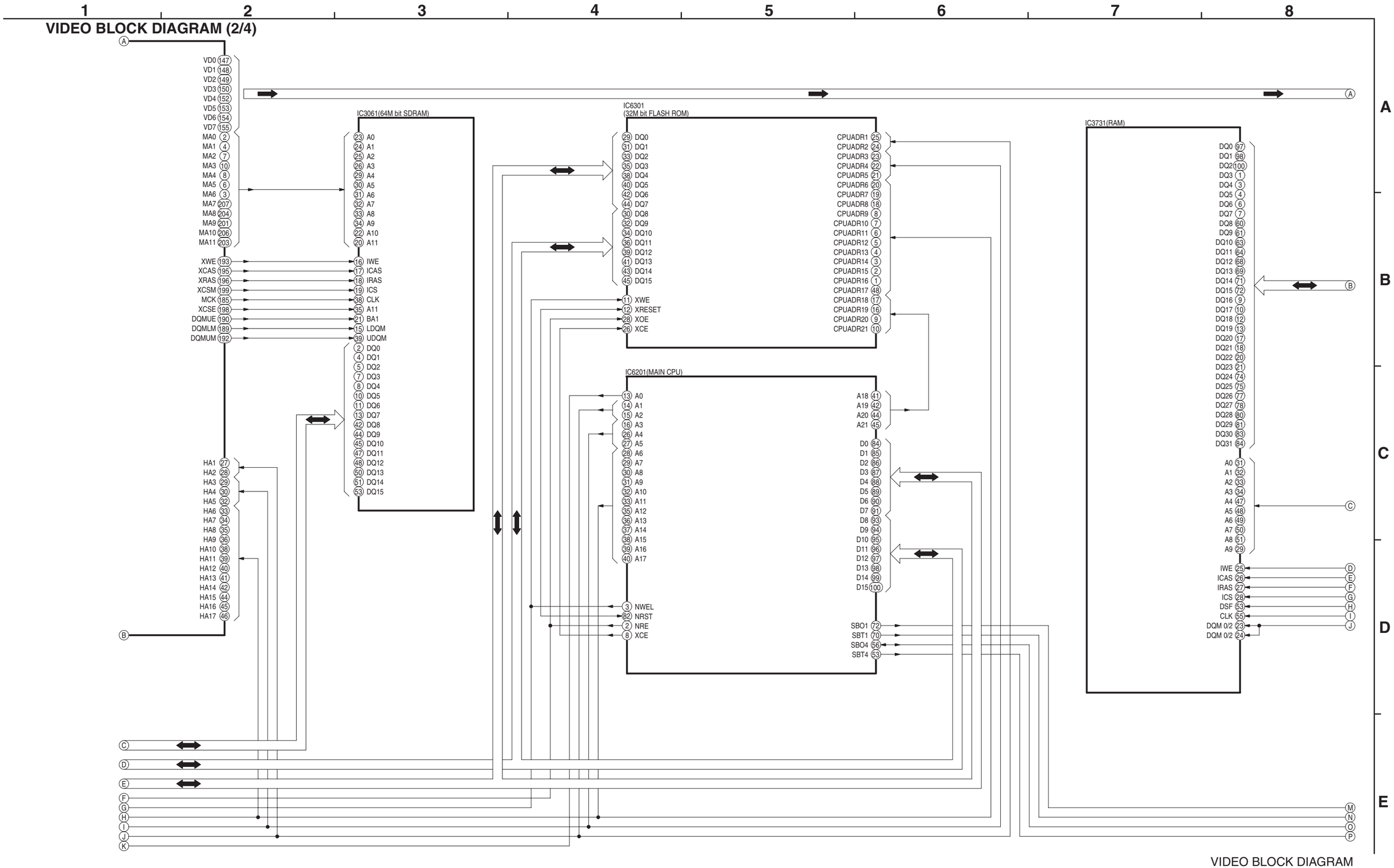
SERVO BLOCK DIAGRAM

VIDEO BLOCK DIAGRAM (1/4)



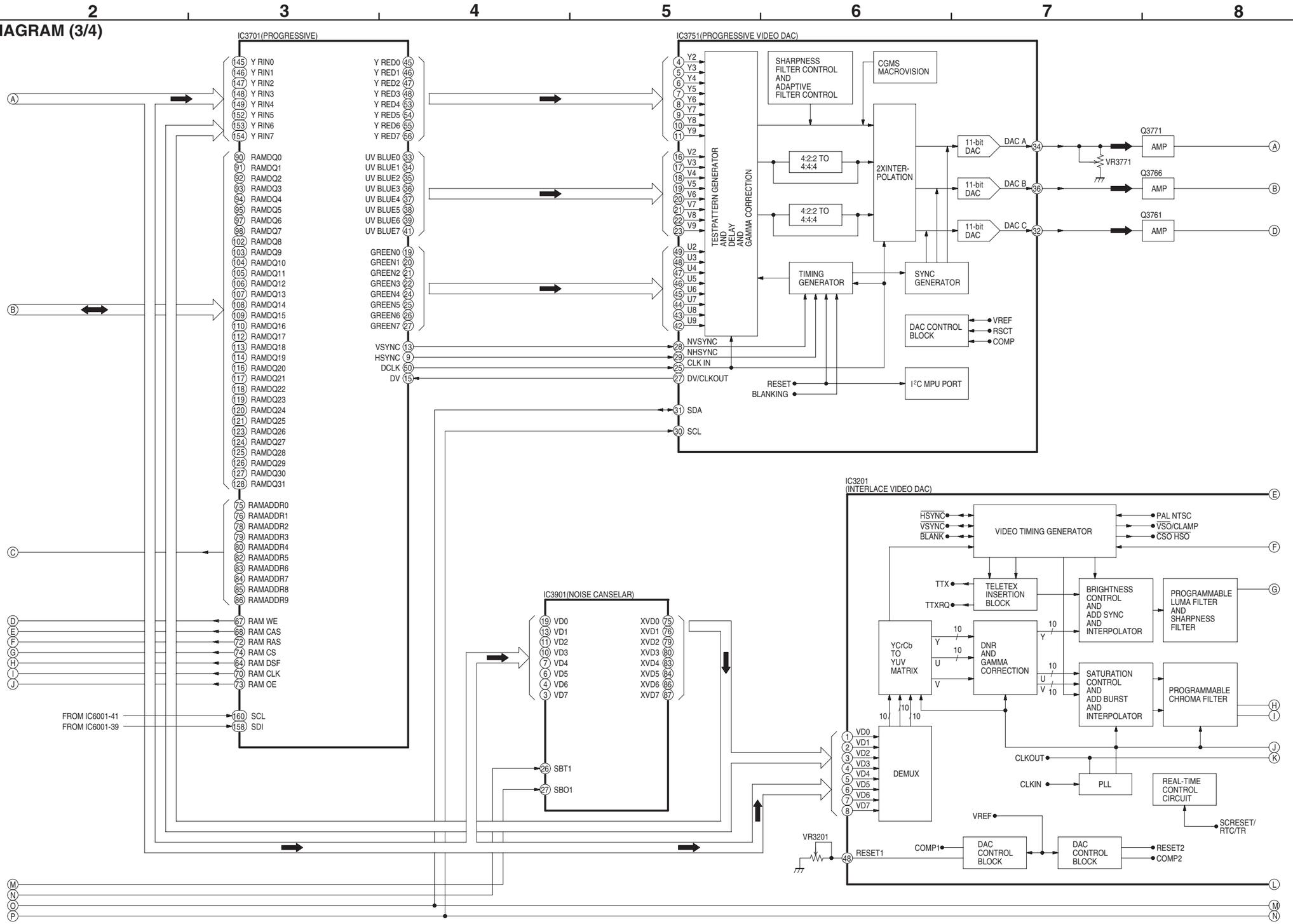
VIDEO BLOCK DIAGRAM

VIDEO BLOCK DIAGRAM (2/4)



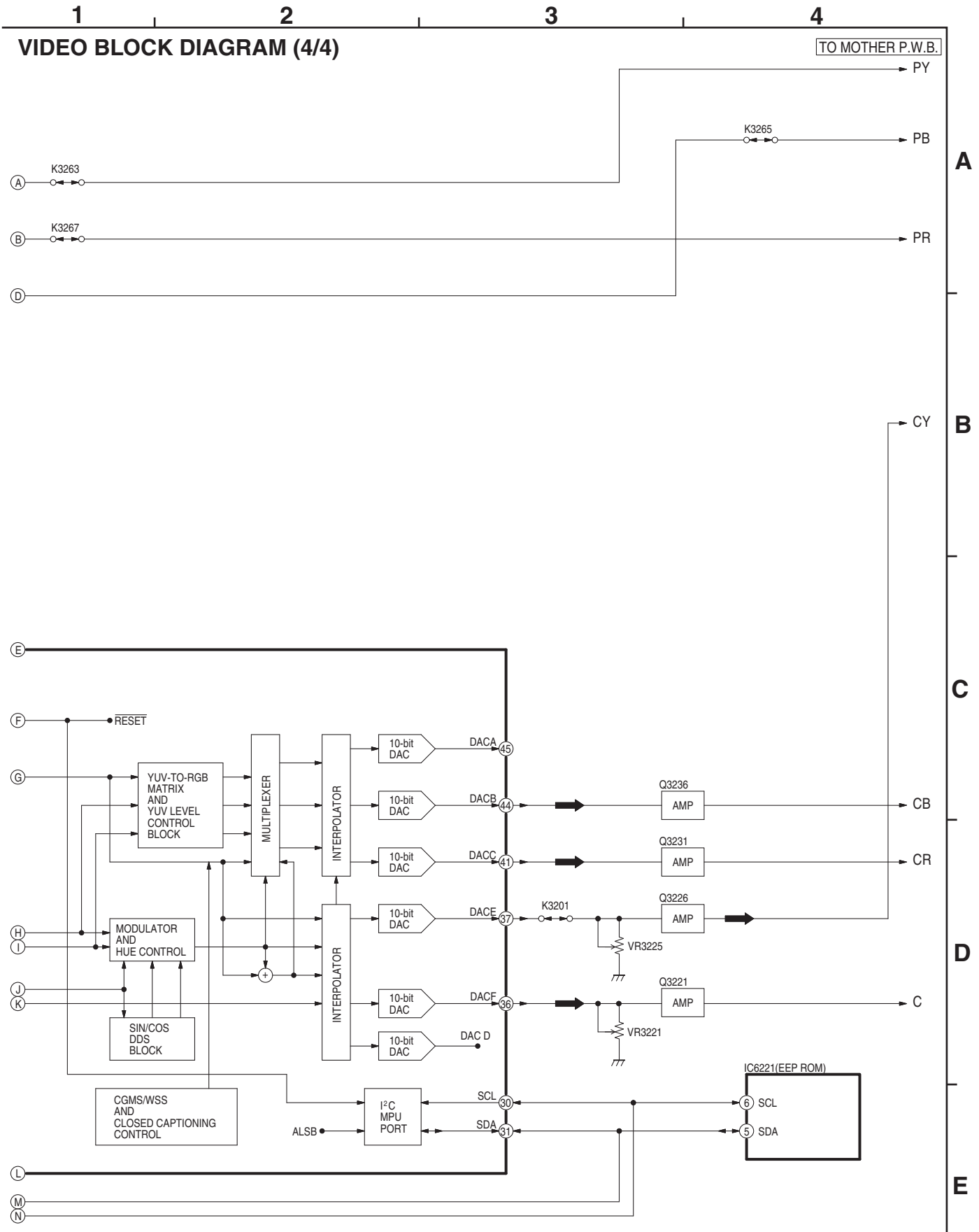
VIDEO BLOCK DIAGRAM

VIDEO BLOCK DIAGRAM (3/4)



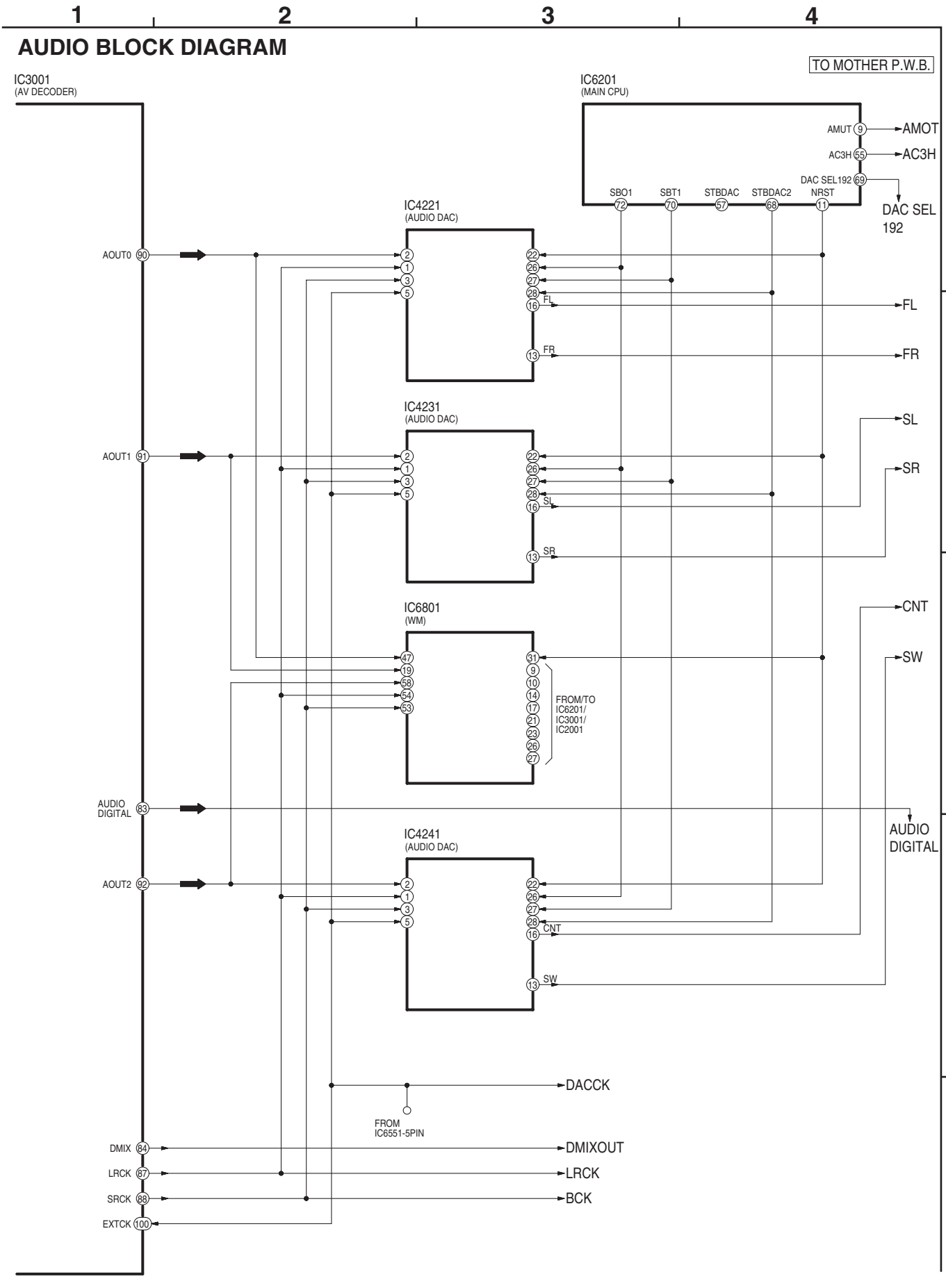
VIDEO BLOCK DIAGRAM

VIDEO BLOCK DIAGRAM (4/4)

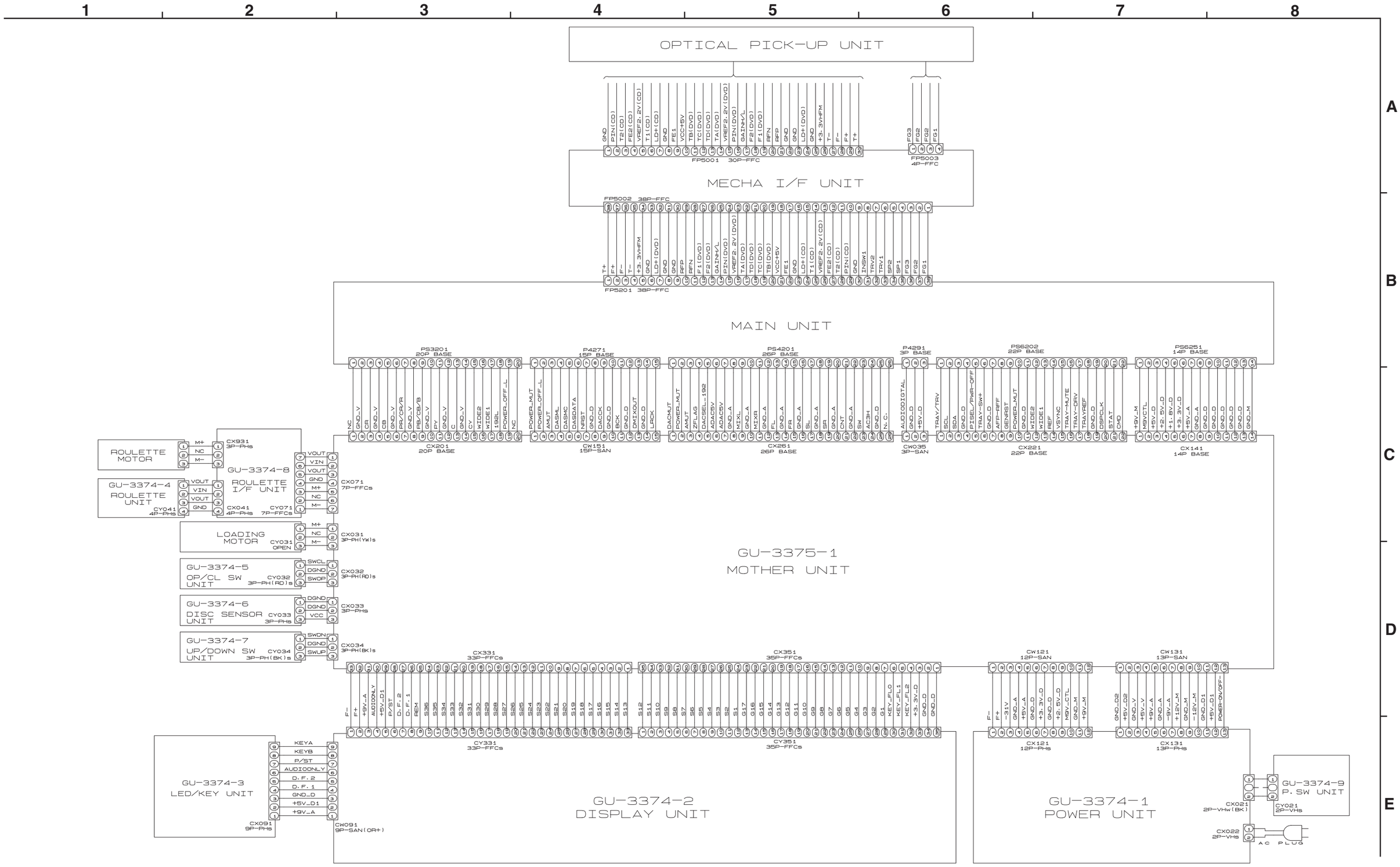


VIDEO BLOCK DIAGRAM

AUDIO BLOCK DIAGRAM



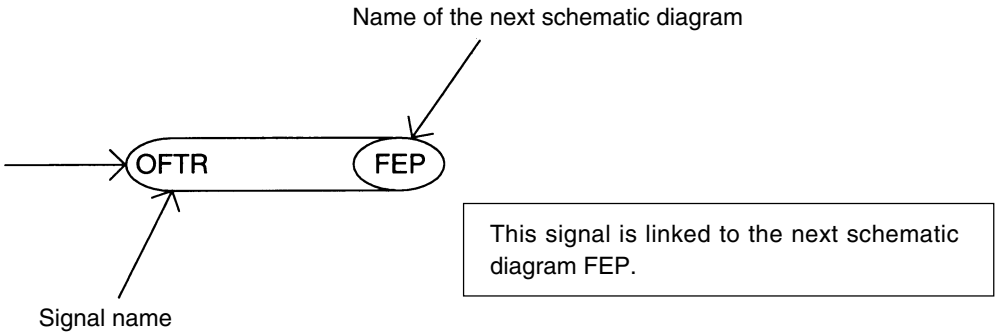
10. WIRING DIAGRAM



11. NOTES ON SCHEMATIC DIAGRAM

⚠WARNING Parts marked with this symbol ⚠ have critical characteristics.
Use only replacement parts specified to ensure safety and performance.

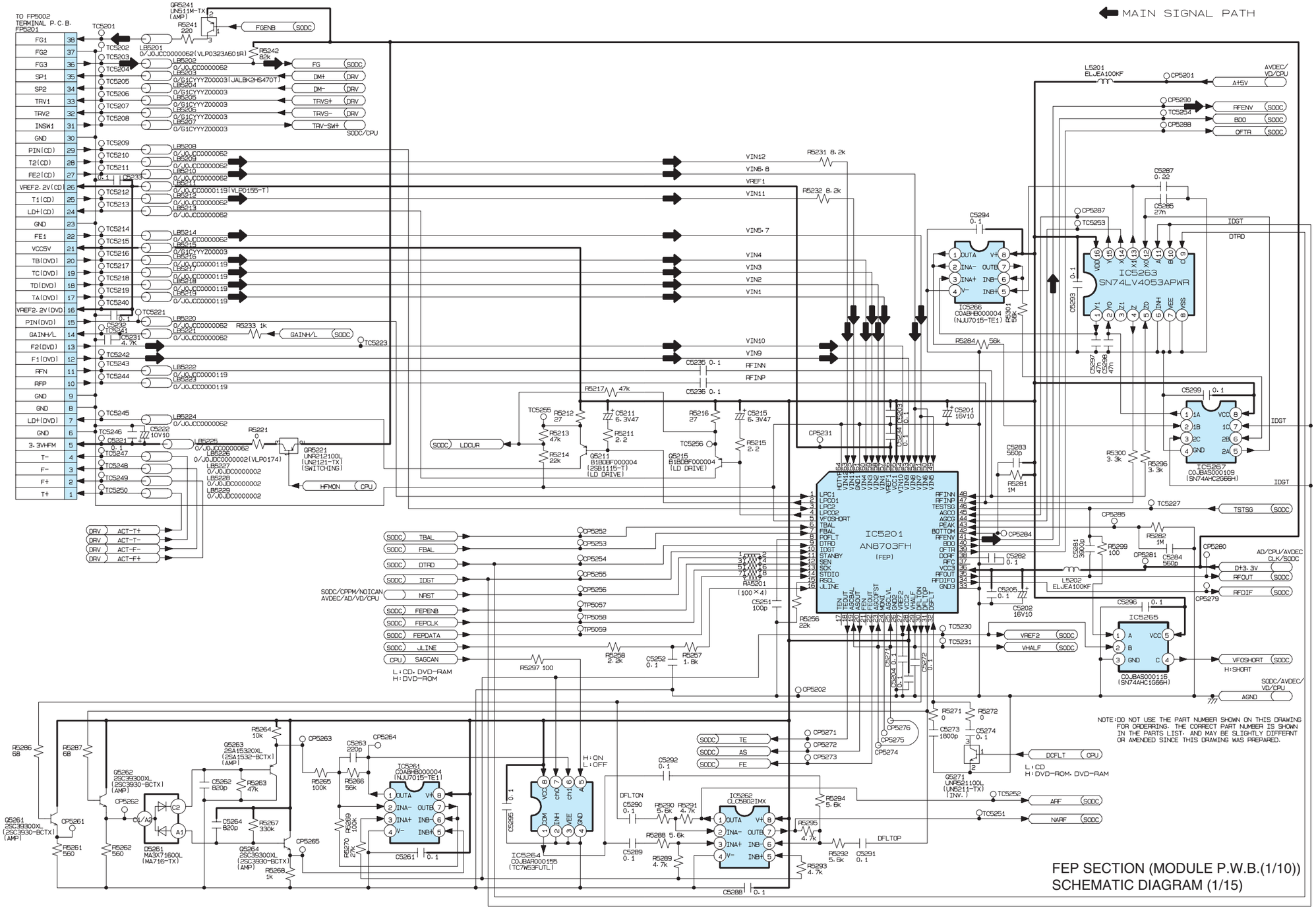
- Refer to Parts Price List for the parts number of resisters, capacitors, and other electrical components.
- How to trace the schematic diagram:



- Be noted that information for various versions is included in this schematic diagram.
- The figure 20000 in the parts number is omitted, so add 20000 in actual as follows.
  (Example: R1001 → R21001)

12. SCHEMATIC DIAGRAMS (1/15)

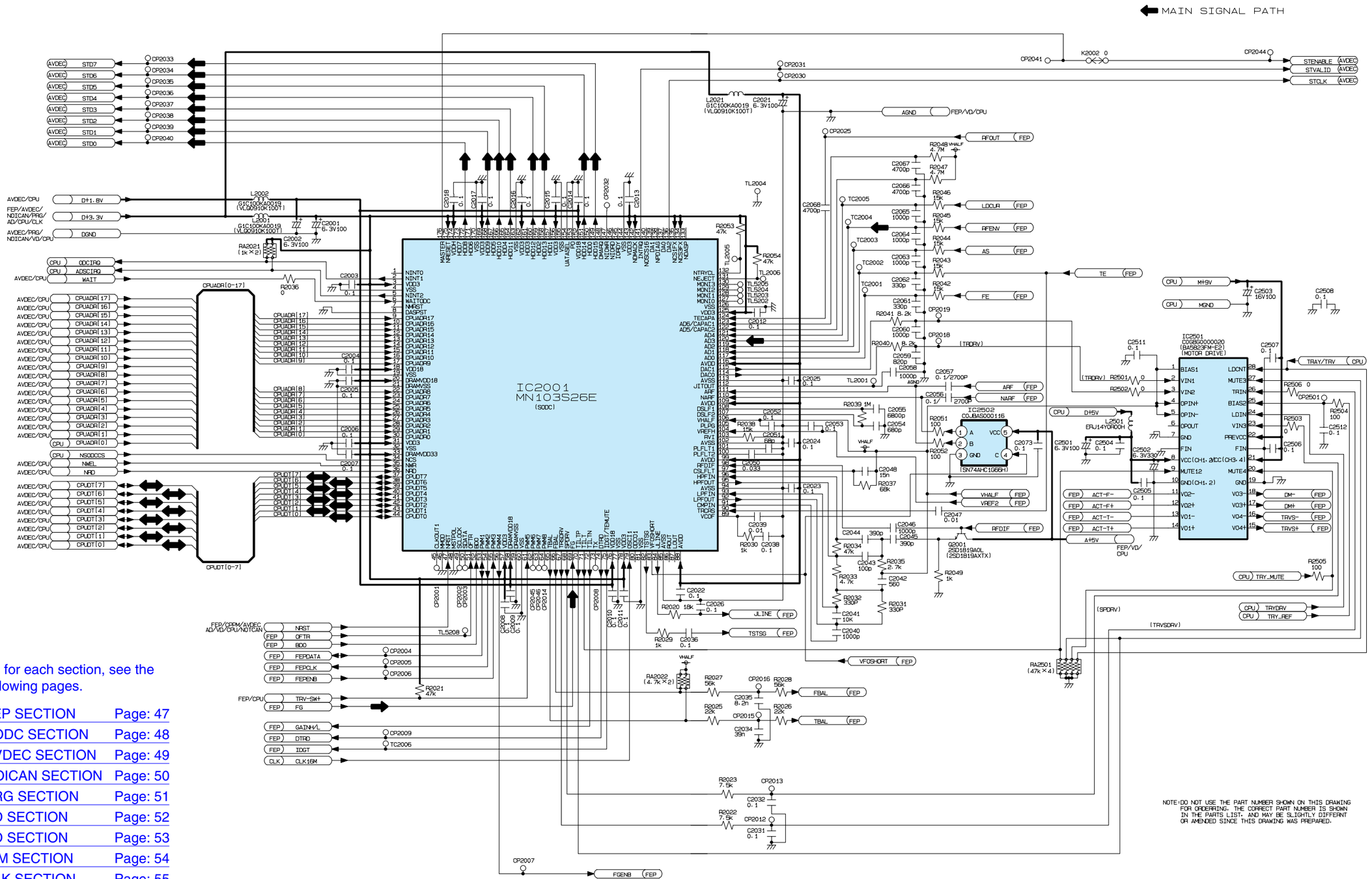
FEP SECTION (MODULE P.W.B. (1/10))



■ As for each section, see the following pages.

SCHEMATIC DIAGRAMS (2/15)

SODC SECTION (MODULE P.W.B. (2/10))

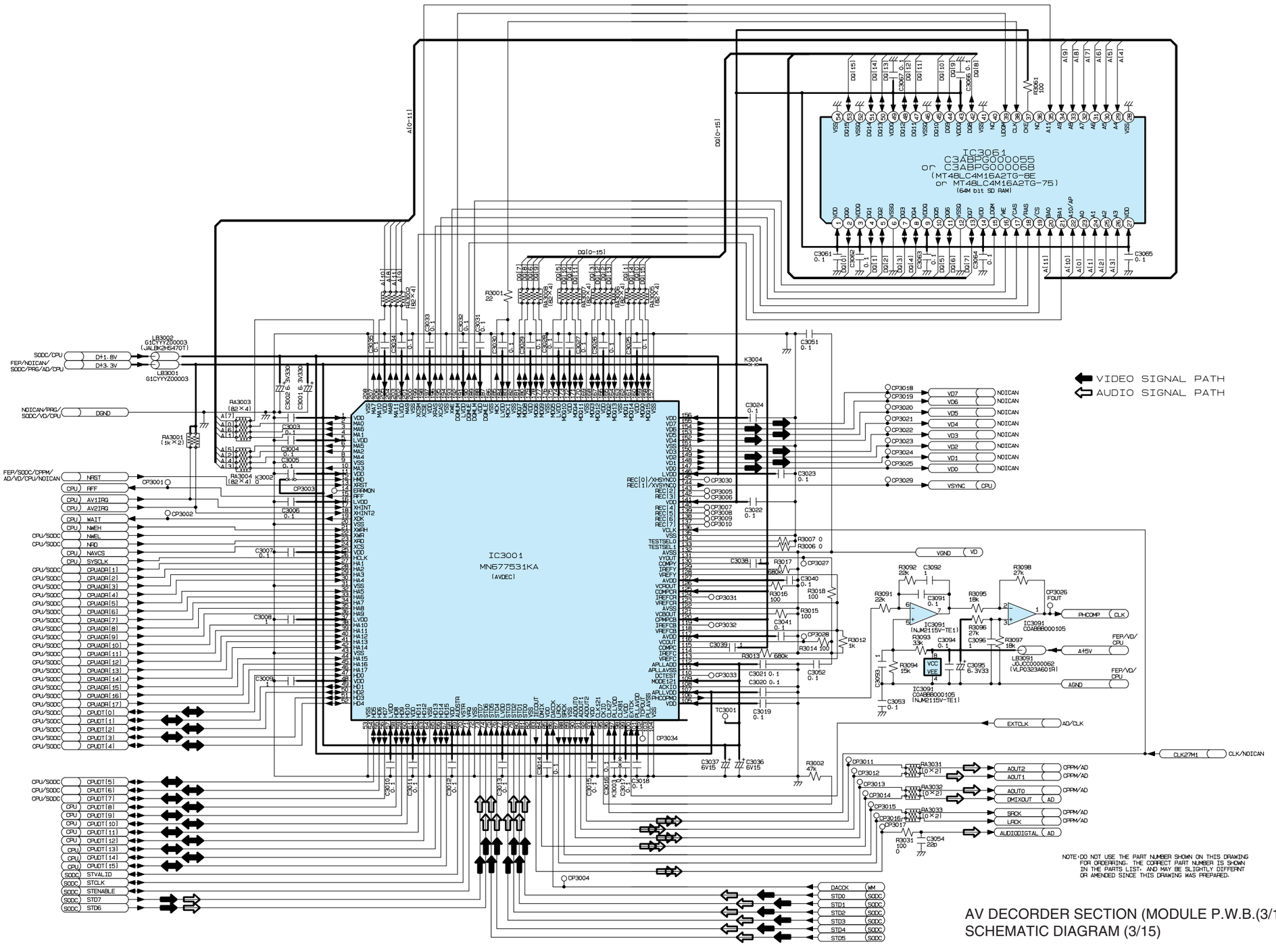


■ As for each section, see the following pages.

SODC SECTION (MODULE P.W.B.(2/10))
SCHEMATIC DIAGRAM (2/15)

SCHEMATIC DIAGRAMS (3/15)

AV DECORDER SECTION (MODULE P.W.B. (3/10))

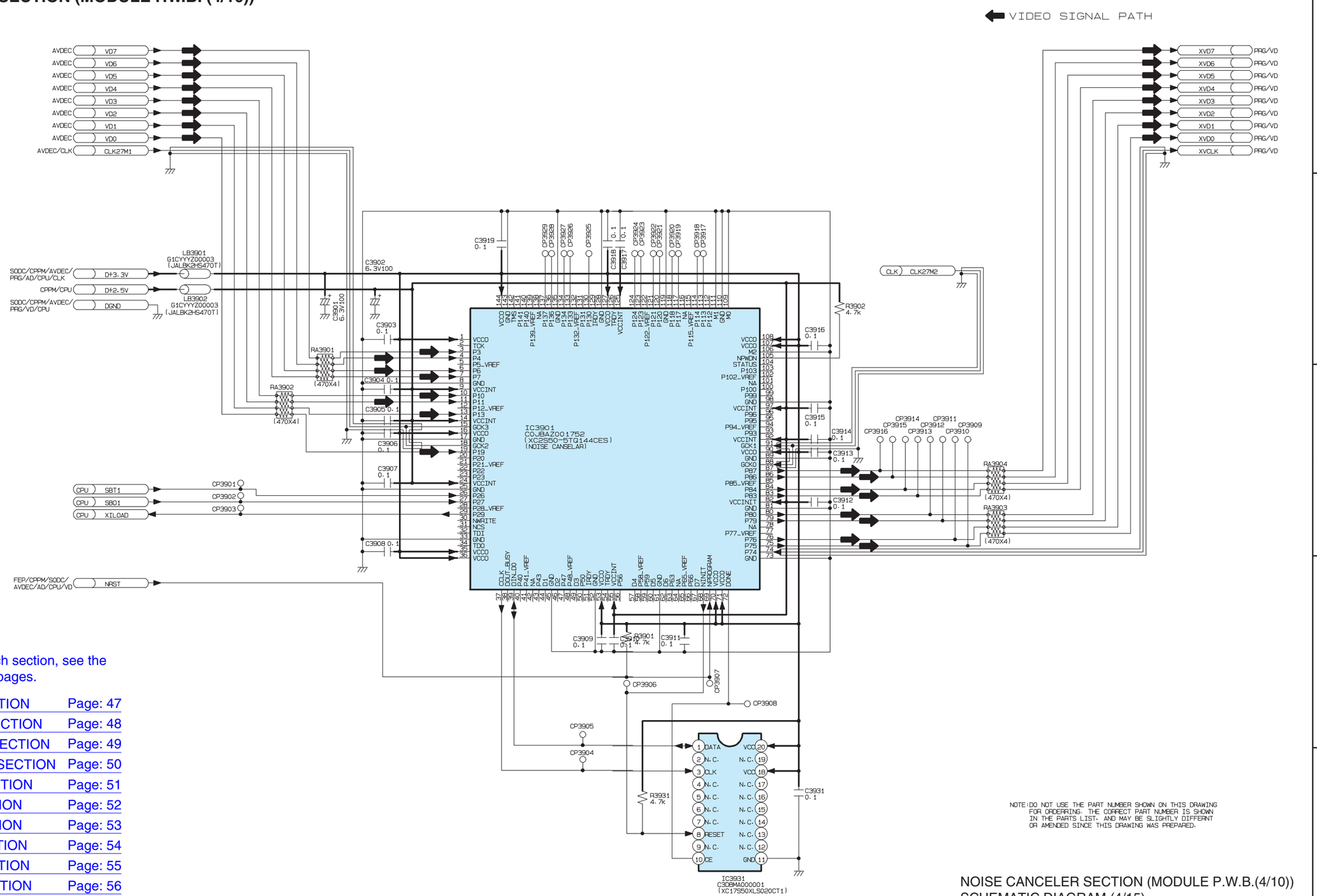


■ As for each section, see the following pages.

AV DECORDER SECTION (MODULE P.W.B.(3/10))
SCHEMATIC DIAGRAM (3/15)

SCHEMATIC DIAGRAMS (4/15)

NOISE CANCELER SECTION (MODULE P.W.B. (4/10))



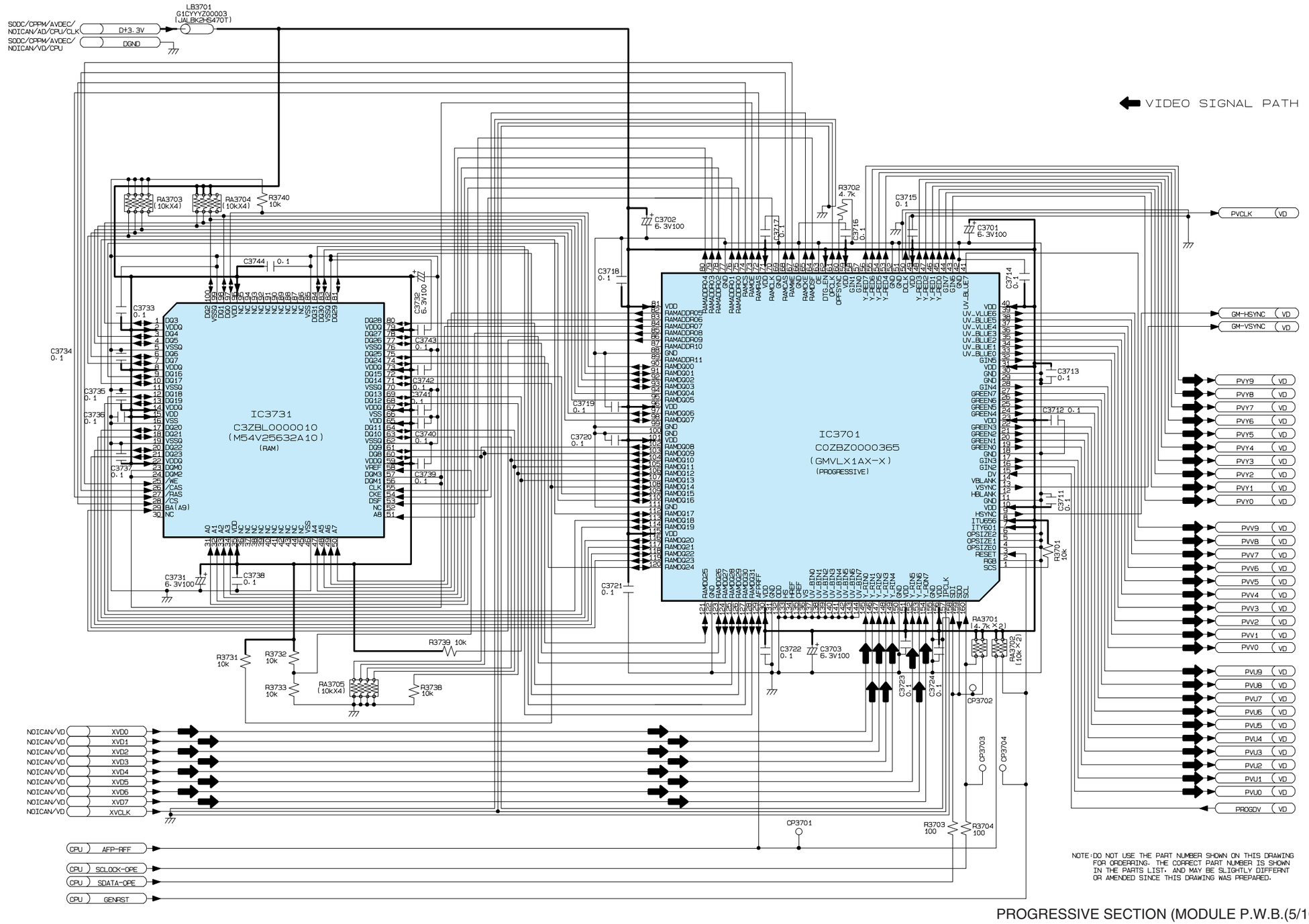
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

■ As for each section, see the following pages.

NOISE CANCELER SECTION (MODULE P.W.B.(4/10))
SCHEMATIC DIAGRAM (4/15)

SCHEMATIC DIAGRAMS (5/15)

PROGRESSIVE SECTION (MODULE P.W.B. (5/10))

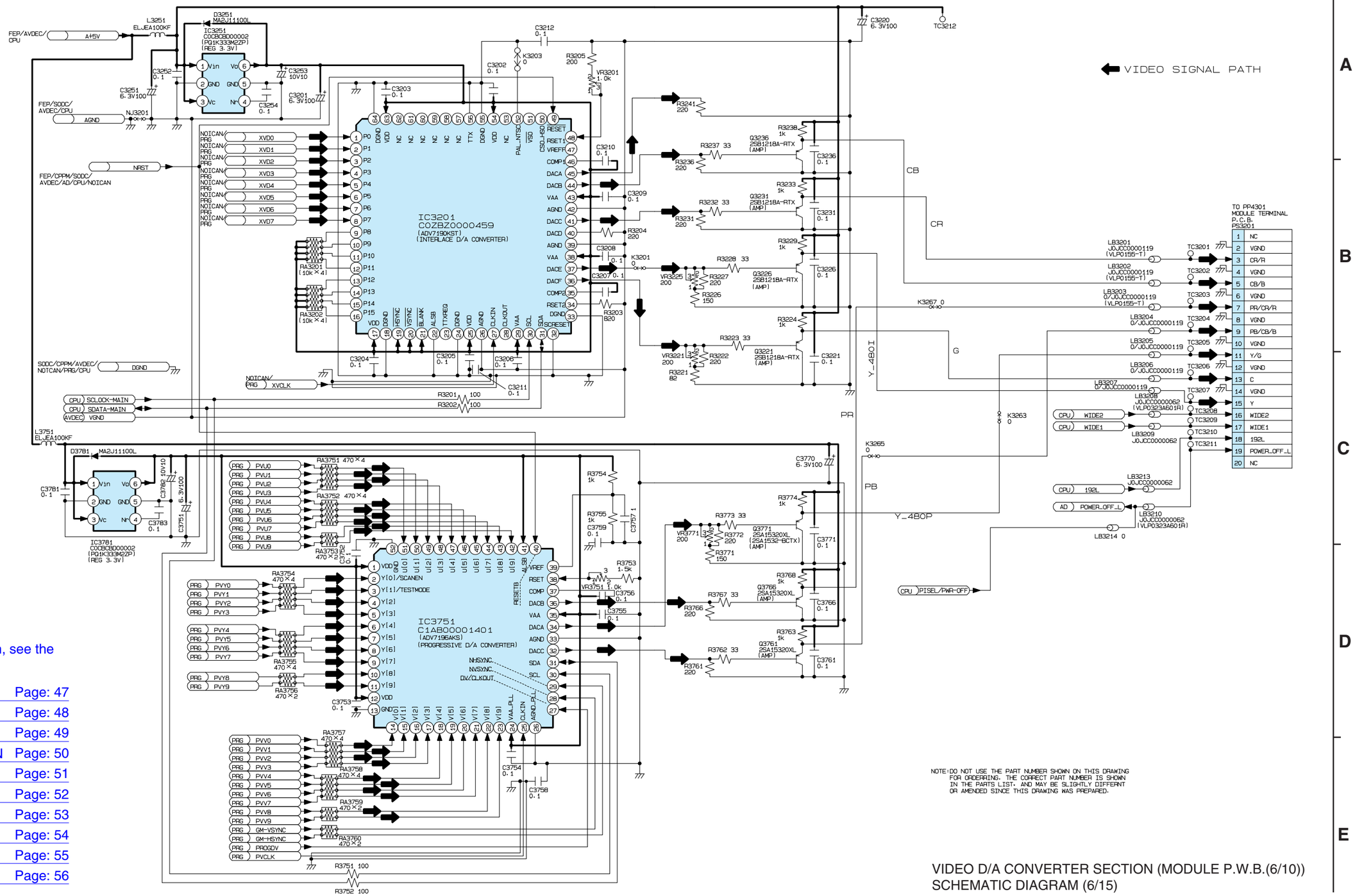


PROGRESSIVE SECTION (MODULE P.W.B.(5/10))
SCHEMATIC DIAGRAM (5/15)

■ As for each section, see the following pages.

SCHEMATIC DIAGRAMS (6/15)

VIDEO D/A CONVERTER SECTION (MODULE P.W.B. (6/10))

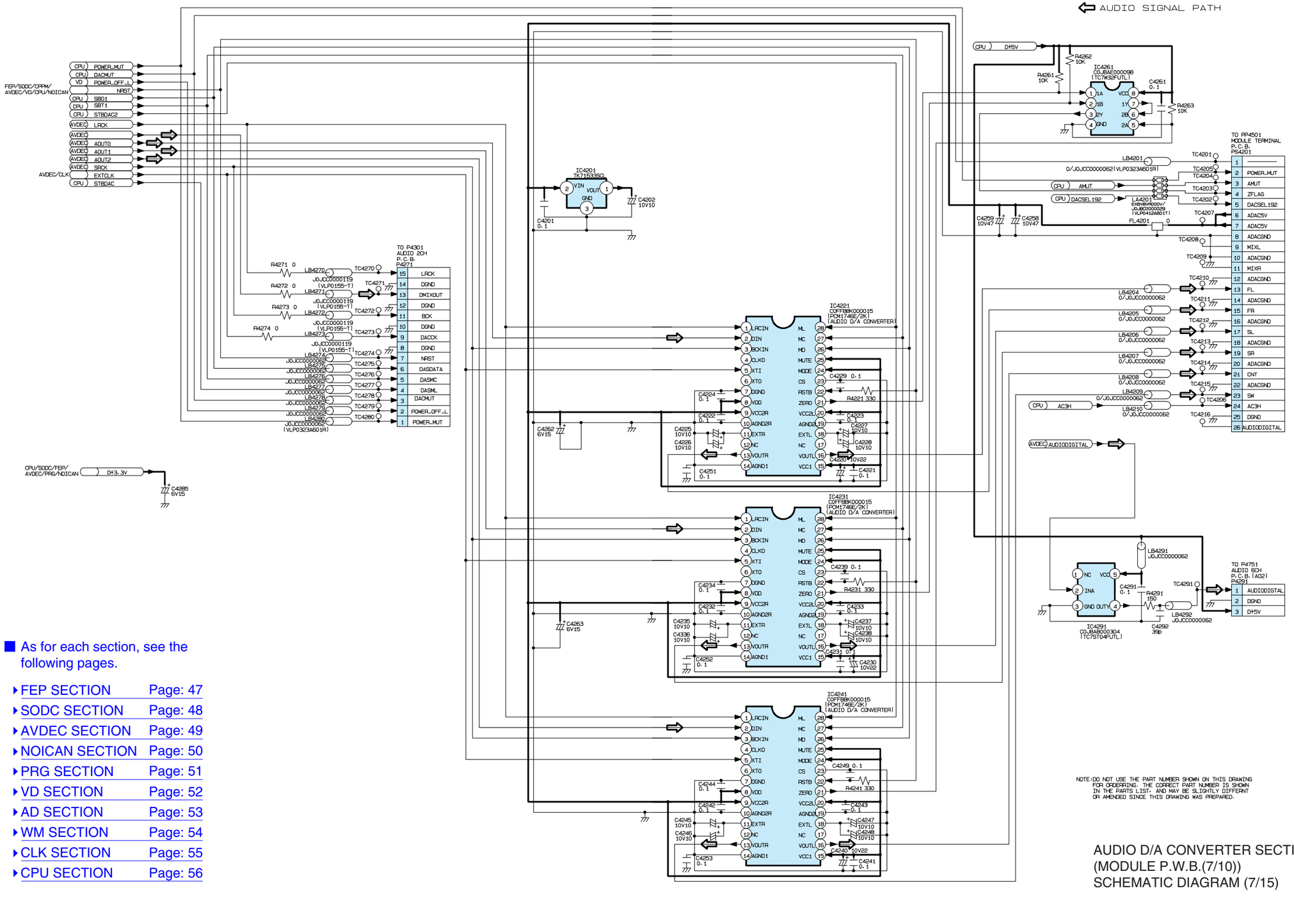


- As for each section, see the following pages.

VIDEO D/A CONVERTER SECTION (MODULE P.W.B.(6/10))
SCHEMATIC DIAGRAM (6/15)

SCHEMATIC DIAGRAMS (7/15)

AUDIO D/A CONVERTER SECTION (MODULE P.W.B. (7/10))

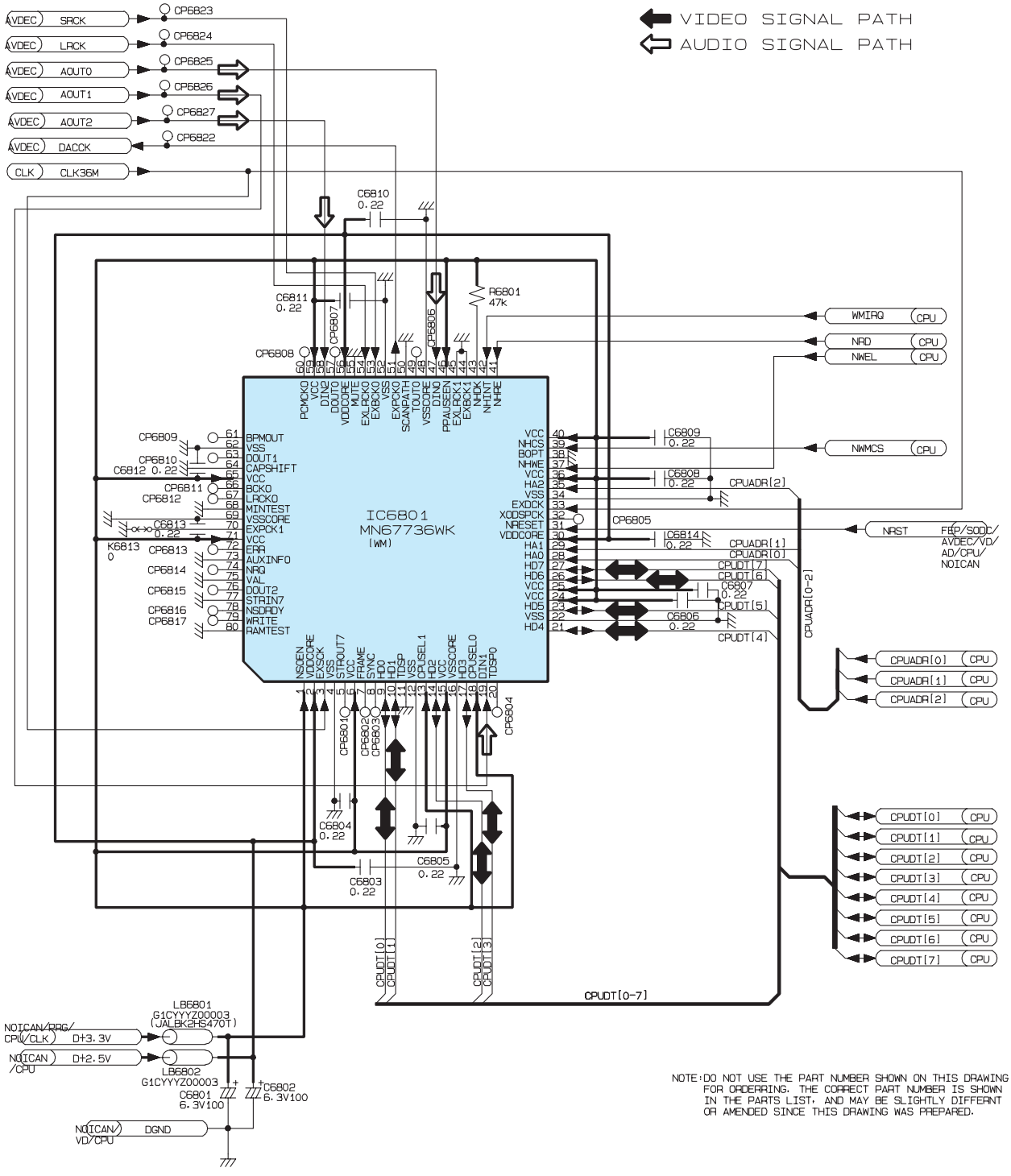


AUDIO D/A CONVERTER SECTION
(MODULE P.W.B.(7/10))
SCHEMATIC DIAGRAM (7/15)

■ As for each section, see the following pages.

SCHEMATIC DIAGRAMS (8/15)

WM SECTION (MODULE P.W.B. (8/10))

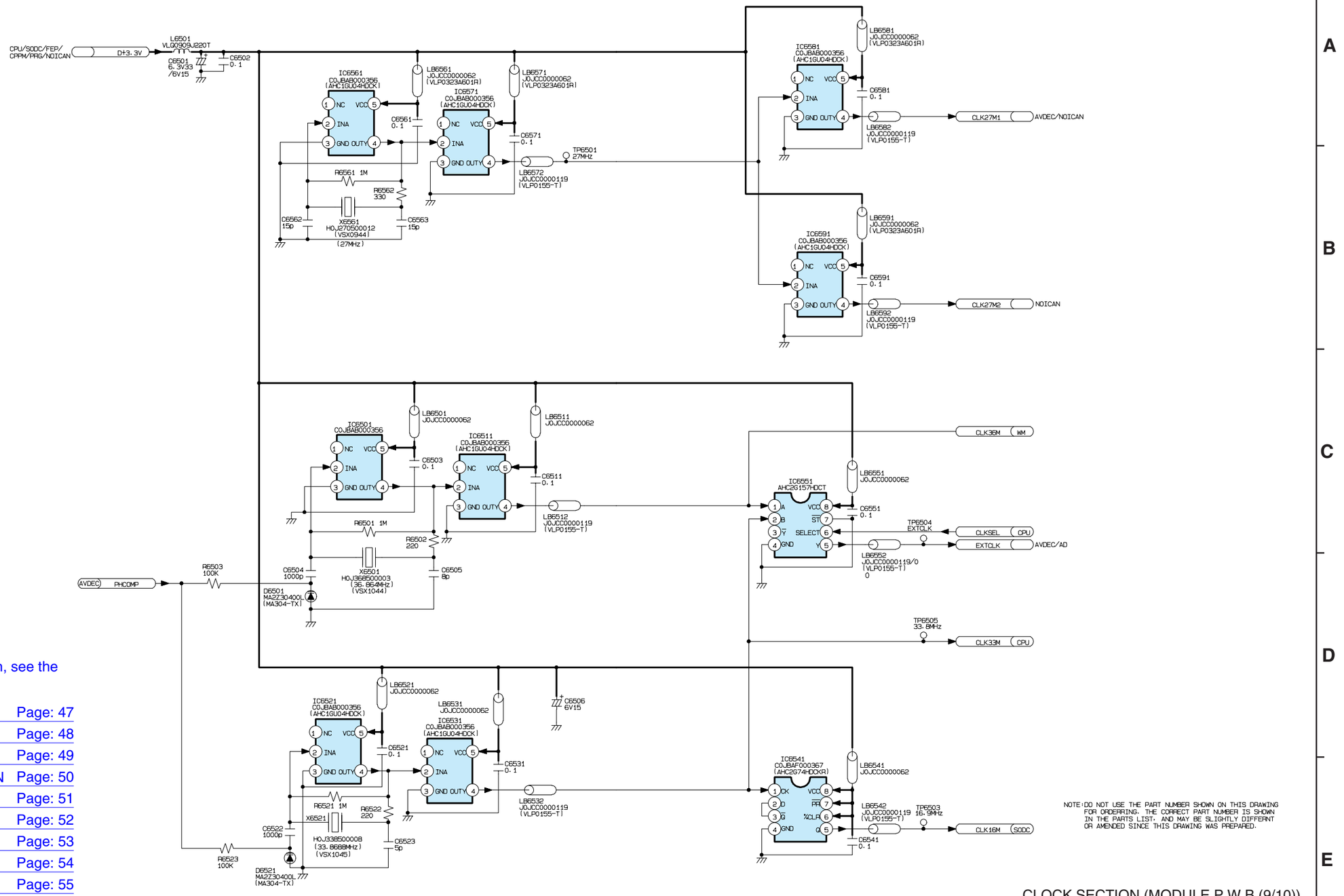


■ As for each section, see the following pages.

WM SECTION (MODULE P.W.B.(8/10))
SCHEMATIC DIAGRAM (8/15)

SCHEMATIC DIAGRAMS (9/15)

CLOCK SECTION (MODULE P.W.B. (9/10))

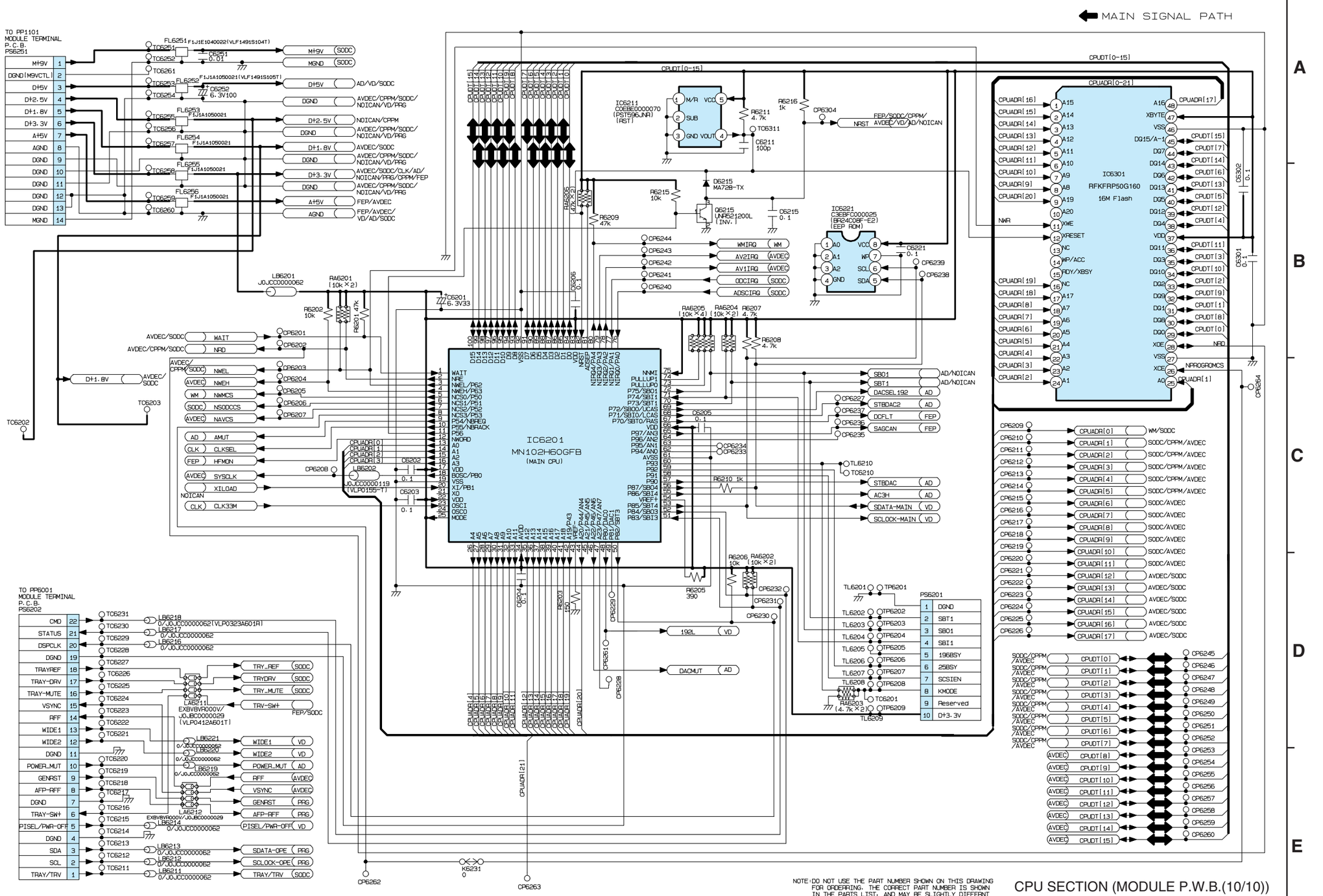


■ As for each section, see the following pages.

CLOCK SECTION (MODULE P.W.B.(9/10))
SCHEMATIC DIAGRAM (9/15)

SCHEMATIC DIAGRAMS (10/15)

CPU SECTION (MODULE P.W.B. (10/10))



■ As for each section, see the following pages.

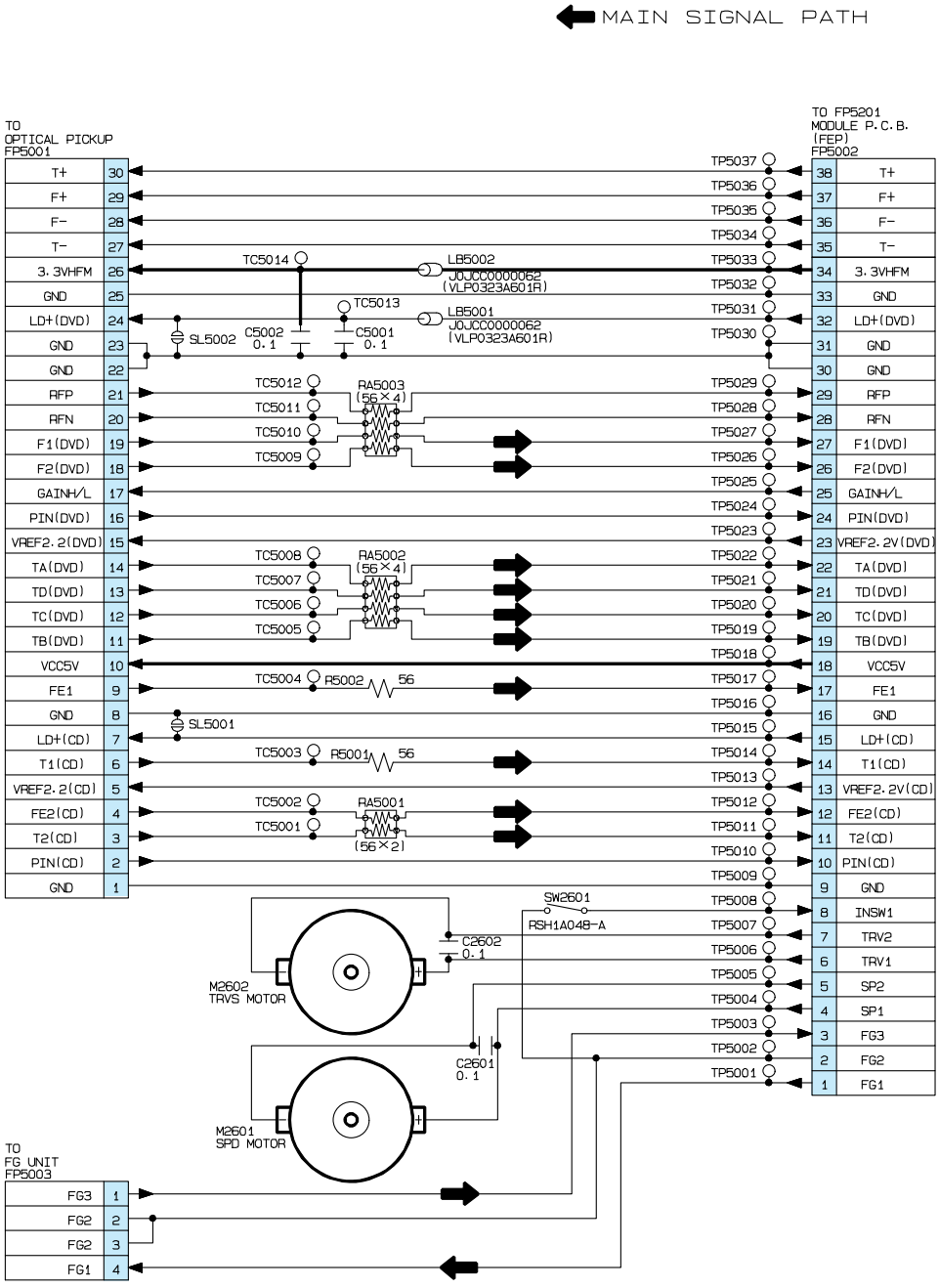
CPU SECTION (MODULE P.W.B.(10/10))
SCHEMATIC DIAGRAM (10/15)

SCHEMATIC DIAGRAMS (11/15)

1 2 3 4

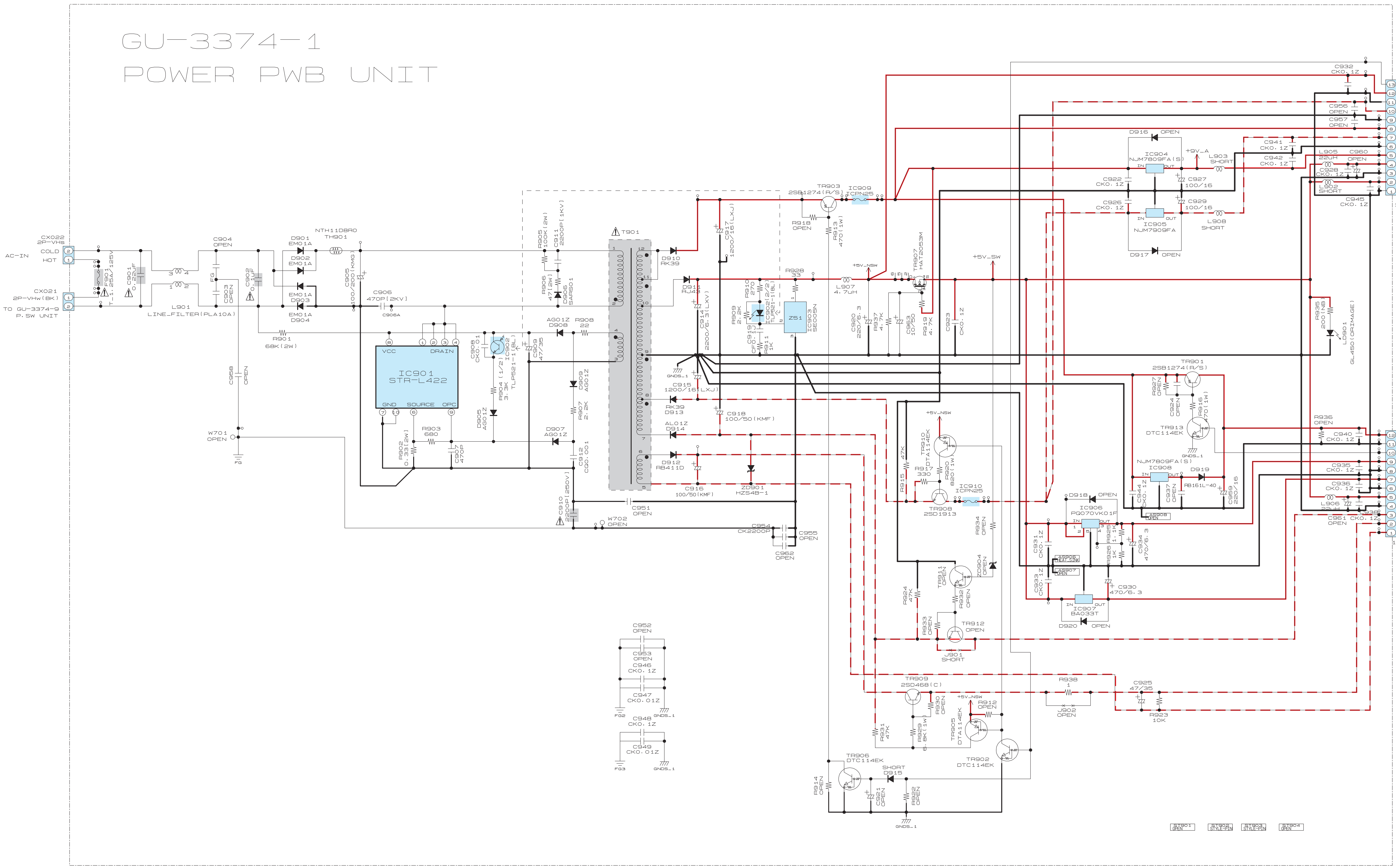
TERMINAL

A B C D E



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

SCHEMATIC DIAGRAMS (12/15)



NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING
Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

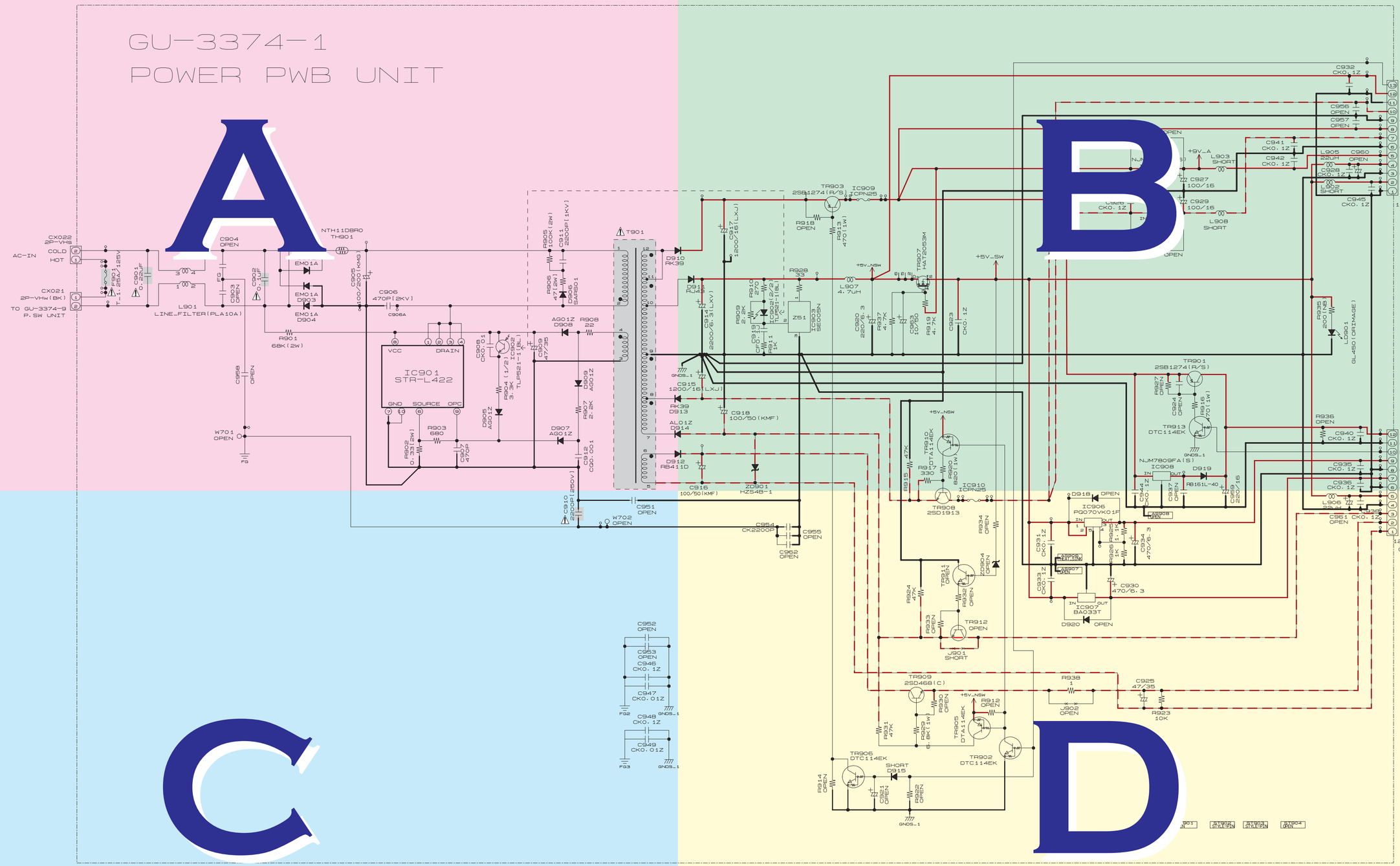
WARNING
DO NOT return the unit to the customer until the problem is located and corrected.

——— + B LINE
– – – – B LINE

SCHEMATIC DIAGRAMS (12/15)
GU-3374-1 POWER UNIT

SCHEMATIC DIAGRAMS (12/15)

GU-3374-1
POWER PWB UNIT



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING

DO NOT return the unit to the customer until the problem is located and corrected.

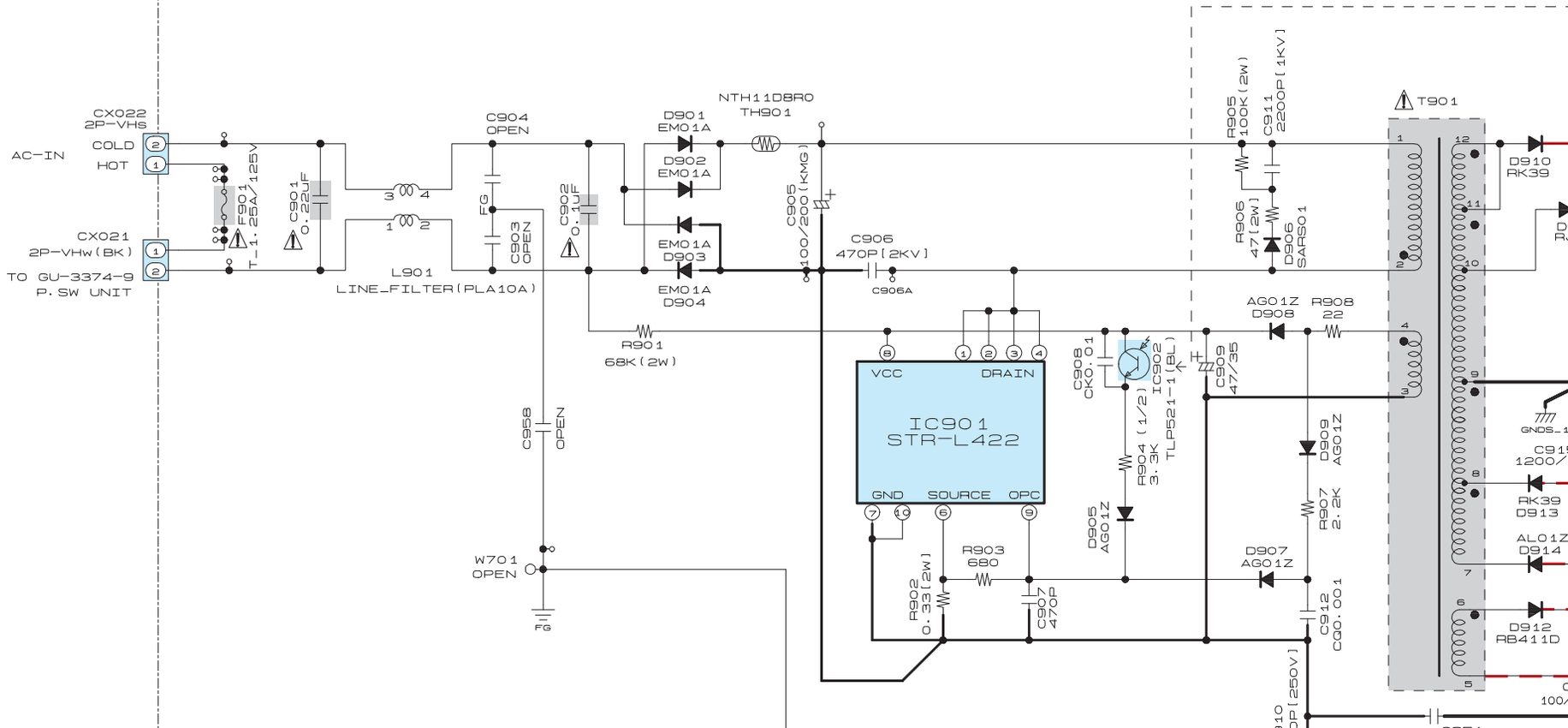
+ B LINE
– B LINE

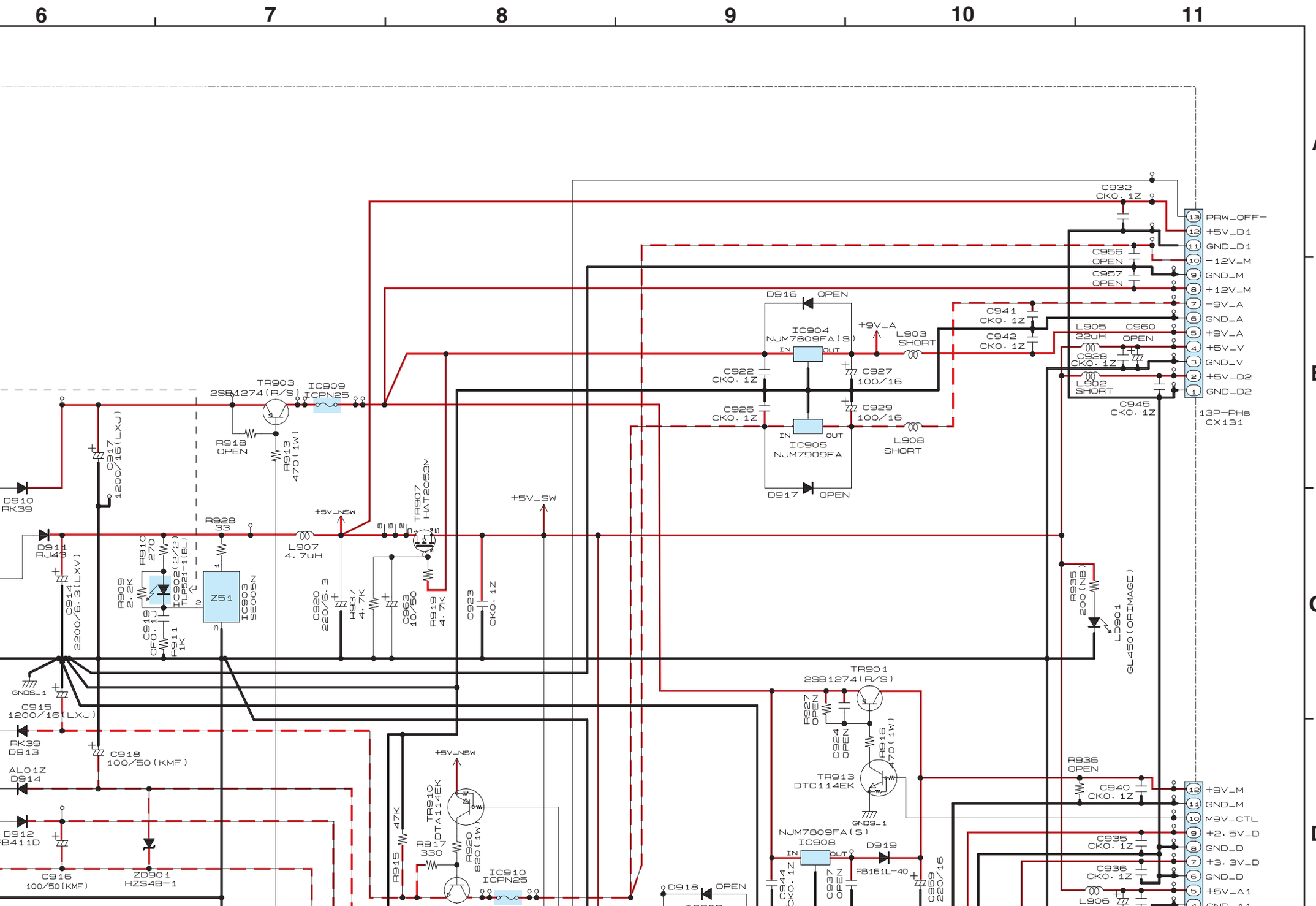
SCHEMATIC DIAGRAMS (12/15)

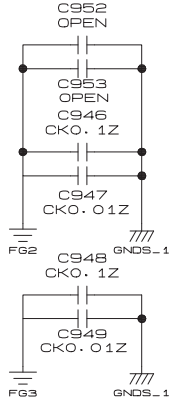
GU-3374-1 POWER UNIT

1 2 3 4 5 6

GU-3374-1
POWER PWB UNIT




6
7
8
9
10
11
A
B
C
D
TR903
2SB1274(R/S)
IC909
ICPN25
R918
OPEN
R913
470(1W)
C917
1200/16(LXJ)
D910
RK39
D911
RJ43
C914
2200/6.3(LXV)
R928
33
+5V_NSW
L907
4.7uH
R910
270
R909
2.2K
IC902(2/2)
TLP521-1(BL)
C919
CFO.1U
R911
1K
Z51
IC903
SE005N
C920
220/6.3
R937
4.7K
C963
10/50
R919
4.7K
TR907
HAT2053M
C923
CKO.1Z
+5V_SW
GND_1
C915
1200/16(LXJ)
D913
RK39
C918
100/50(KMF)
D914
ALO1Z
D912
RB411D
C916
100/50(KMF)
ZD901
HZS4B-1
+5V_NSW
TR910
DTA114EK
R915
47K
R917
330
R920
820(1W)
IC910
ICPN25
D916
OPEN
IC904
NJM7809FA(S)
IN
OUT
+9V_A
L903
SHORT
C922
CKO.1Z
C927
100/16
C926
CKO.1Z
C929
100/16
IC905
NJM7909FA
L908
SHORT
D917
OPEN
C932
CKO.1Z
C956
OPEN
C957
OPEN
C941
CKO.1Z
C942
CKO.1Z
L905
22uH
C960
OPEN
C928
CKO.1Z
L902
SHORT
C945
CKO.1Z
13P-PHs
CX131
PRW_OFF-
+5V_D1
GND_D1
-12V_M
GND_M
+12V_M
-9V_A
GND_A
+9V_A
+5V_V
GND_V
+5V_D2
GND_D2
R935
200(NB)
LD901
GL450(ORIMAGE)
TR901
2SB1274(R/S)
R927
OPEN
C924
OPEN
R916
470(1W)
TR913
DTC114EK
GND_1
R936
OPEN
C940
CKO.1Z
+9V_M
GND_M
M9V_CTL
+2.5V_D
GND_D
+3.3V_D
GND_D
+5V_A1
NJM7809FA(S)
IC908
D919
RB161L-40
C944
CKO.1Z
C937
OPEN
C959
220/16
C935
CKO.1Z
C936
CKO.1Z
L906
D918
OPEN



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

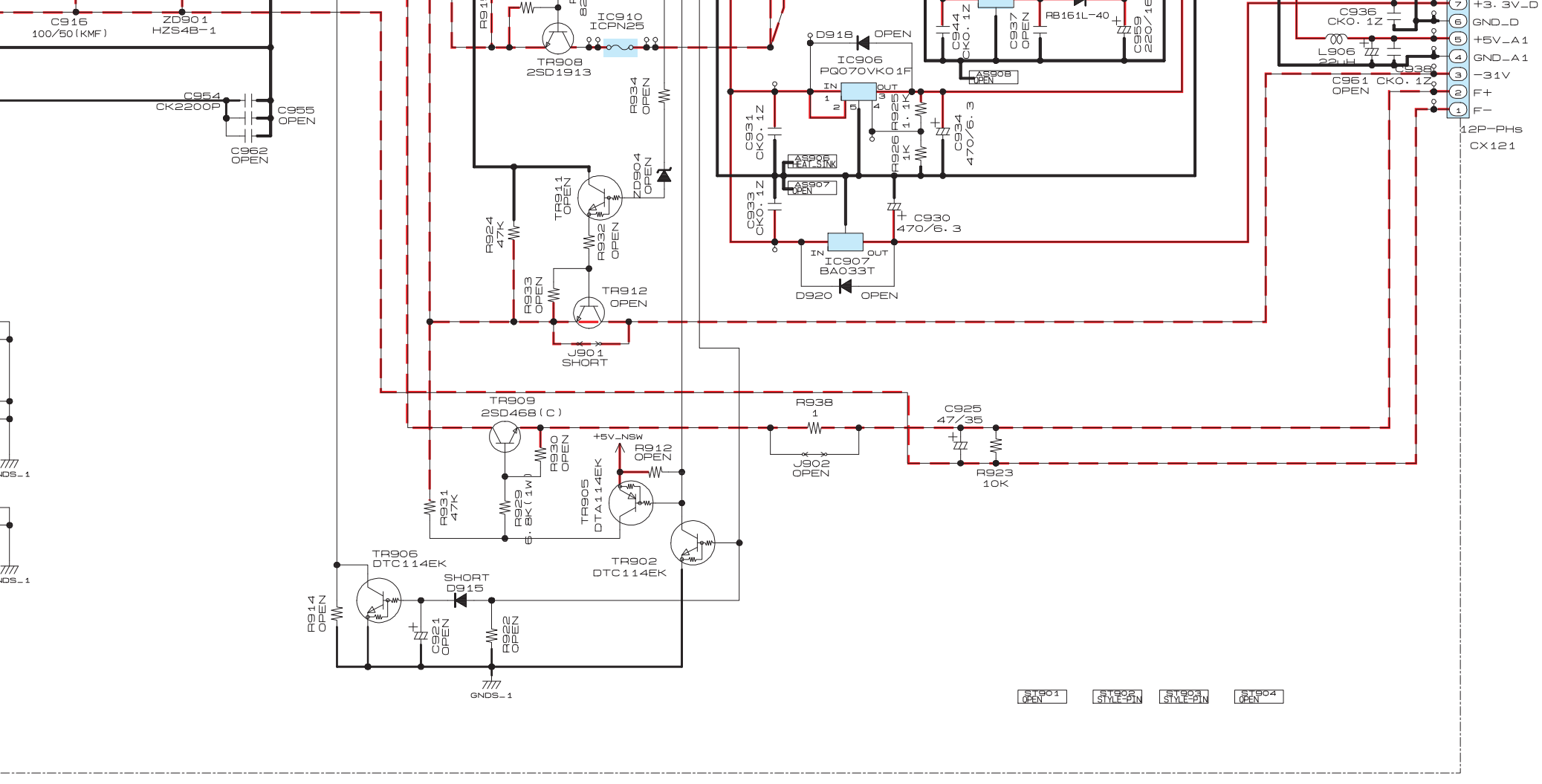
Parts marked with this symbol ⚠ ▭ have c
Use ONLY replacement parts recommended

CAUTION:

Before returning the unit to the customer, ma
leakage current check or (2) a line to chassis
current exceeds 0.5 milliamps, or if the resist
of the power card is less than 460kohms, the

WARNING

DO NOT return the unit to the customer until
corrected.



have critical characteristics.
mended by the manufacture.

mer, make sure you make either (1) a
chassis resistance check. If the leakage
he resistance from chassis to either side
hms, the unit is defective.

mer until the problem is located and

+ B LINE

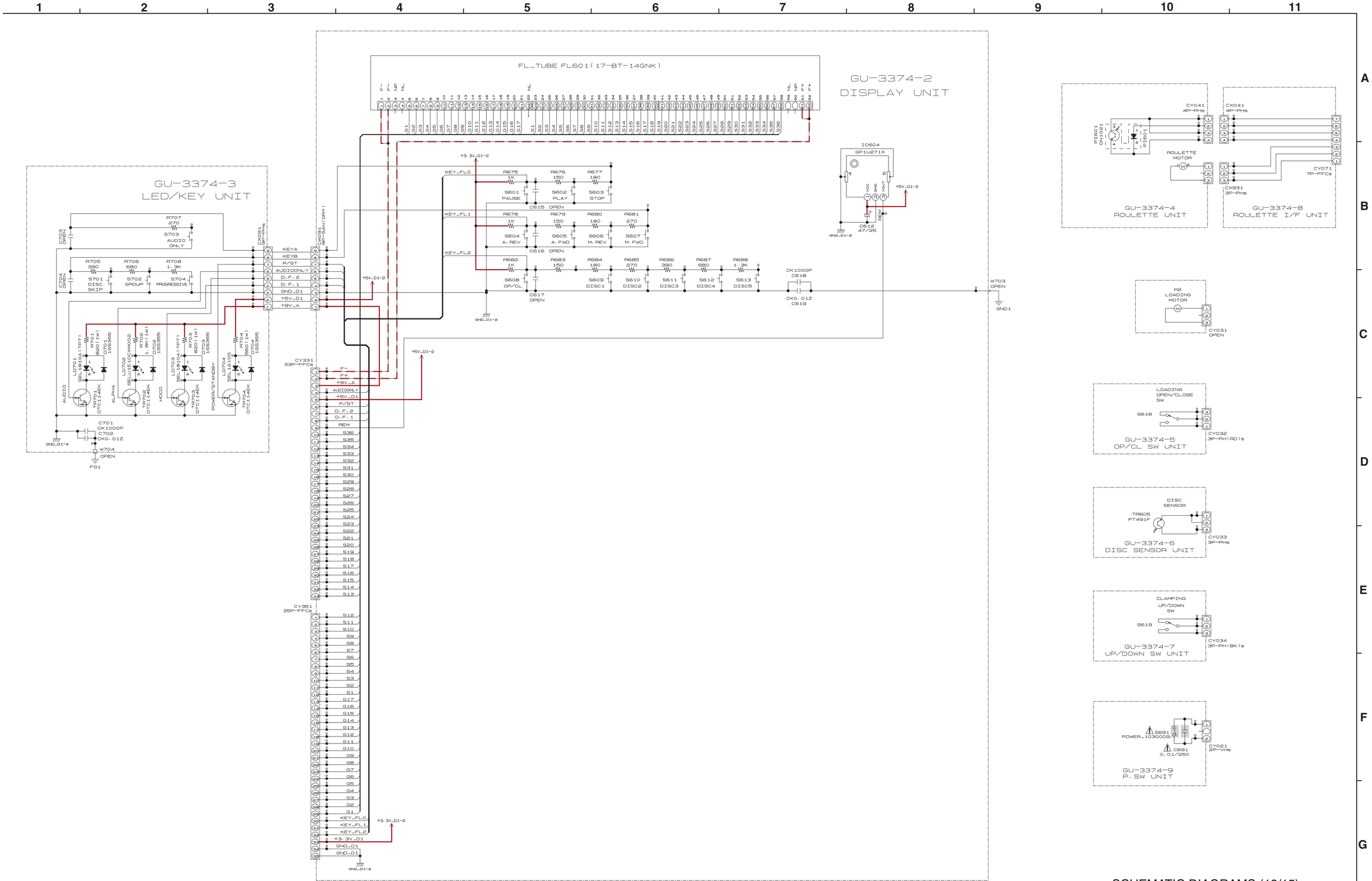
– B LINE

SCHEMATIC DIAGRAMS (12/15)

GU-3374-1 POWER UNIT

E F G H

SCHEMATIC DIAGRAMS (13/15)



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

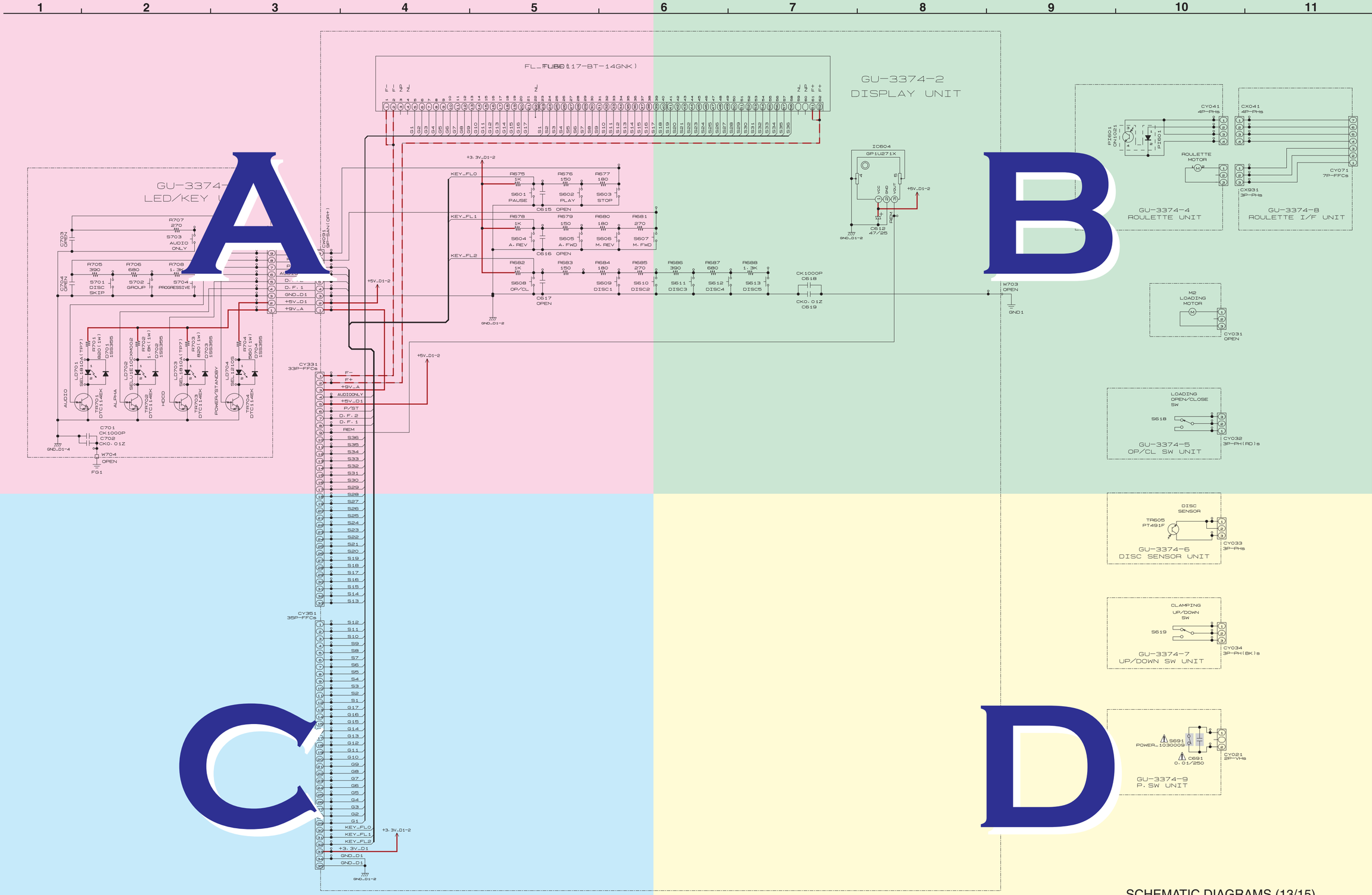
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING

DO NOT return the unit to the customer until the problem is located and corrected.

＋B LINE
－B LINE

SCHEMATIC DIAGRAMS (13/15)



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING

DO NOT return the unit to the customer until the problem is located and corrected.

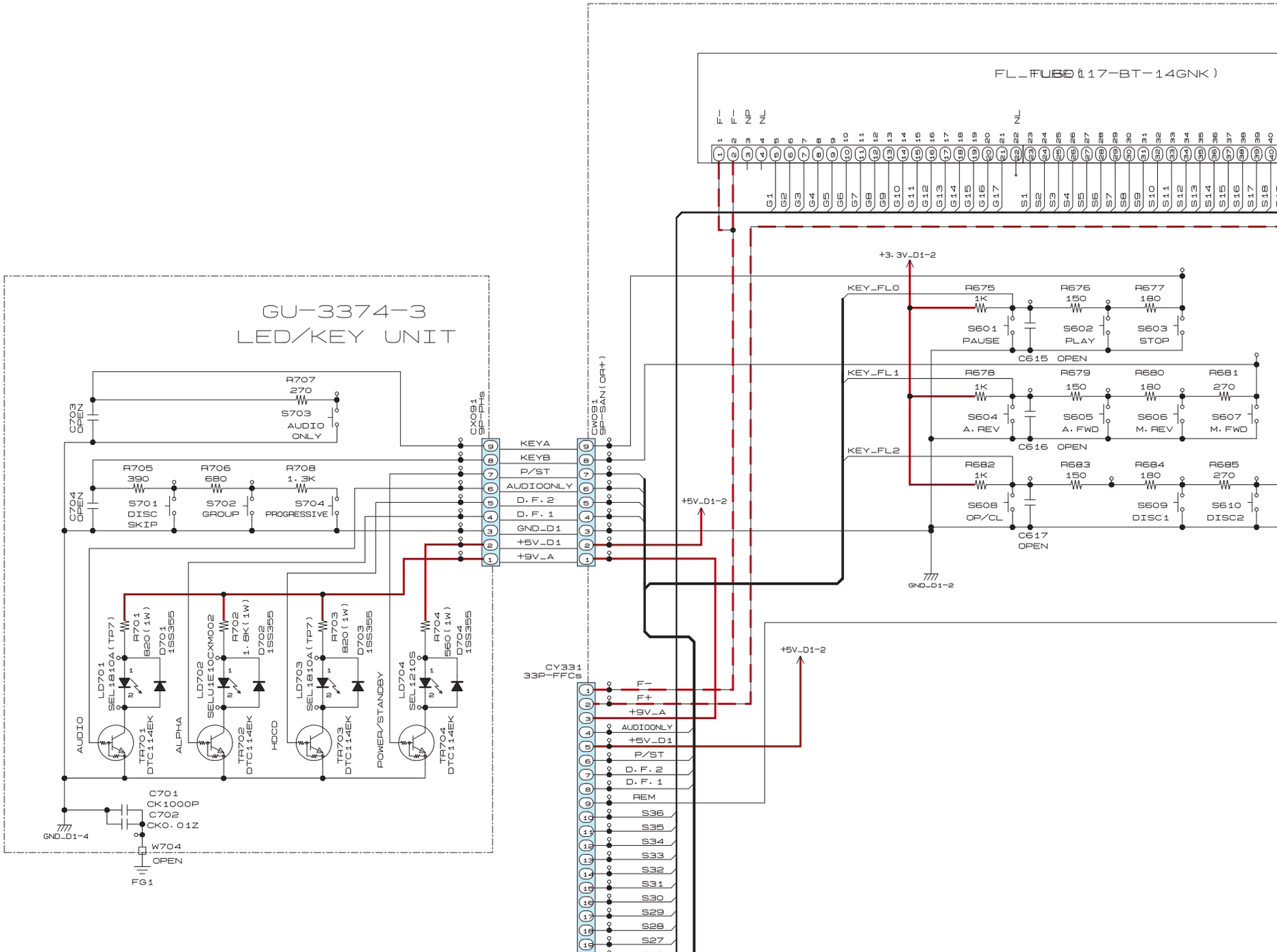
+ B LINE
– B LINE

SCHEMATIC DIAGRAMS (13/15)

GU-3374-2 DISPLAY UNIT
GU-3374-3 LED/KEY UNIT
GU-3374-4 ROULETTE UNIT
GU-3374-5 OP/CL SW UNIT
GU-3374-6 DISC SENSOR UNIT
GU-3374-7 UP/DOWN SW UNIT
GU-3374-8 ROULETTE I/F UNIT
GU-3374-9 P.SW UNIT

SCHEMATIC DIAGRAMS (13/15)

1 2 3 4 5 6



6 7 8 9 10 11

A B C D

GU-3374-2
DISPLAY UNIT

S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31 S32 S33 S34 S35 S36

IC604
GP1U271X
VCC GND VOUT
+5V_D1-2
C612
47/25
GND_D1-2
REM

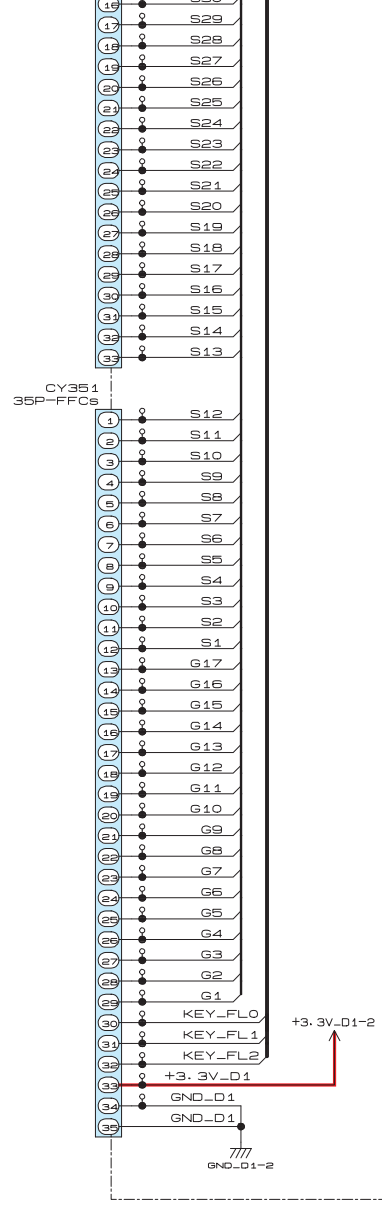
R686 390
R687 680
R688 1.3K
S611 DISC3
S612 DISC4
S613 DISC5
CK1000P C618
CKO.01Z C619
W703 OPEN
GND1

CY041 4P-PHs
CX041 4P-PHs
PI601 ON1021
PI601
ROULETTE MOTOR
CY071 7P-FFCs
CX931 3P-PHs
GU-3374-4 ROULETTE UNIT
GU-3374-8 ROULETTE I/F UNIT

M2 LOADING MOTOR
CY031 OPEN

LOADING OPEN/CLOSE SW
S618
CY032 3P-PH(RD)s
GU-3374-5 OP/CL SW UNIT

DISC



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

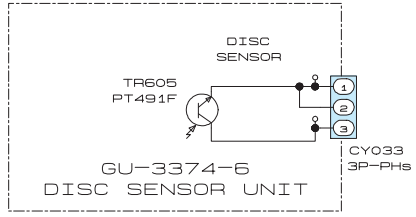
Parts marked with this symbol ⚠ have c
Use ONLY replacement parts recommended

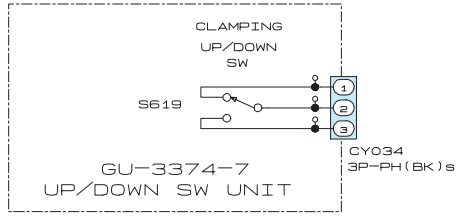
CAUTION:

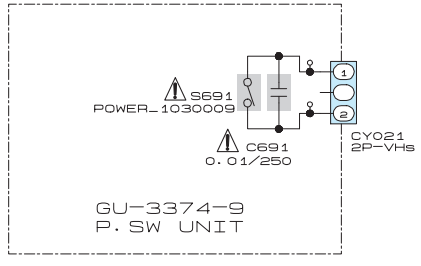
Before returning the unit to the customer, ma
leakage current check or (2) a line to chassis
current exceeds 0.5 milliamps, or if the resist
of the power card is less than 460kohms, the

WARNING

DO NOT return the unit to the customer until
corrected.







have critical characteristics.
mended by the manufacture.

mer, make sure you make either (1) a
chassis resistance check. If the leakage
ne resistance from chassis to either side
hms, the unit is defective.

mer until the problem is located and

+ B LINE

– B LINE

SCHEMATIC DIAGRAMS (13/15)

GU-3374-2 DISPLAY UNIT
GU-3374-3 LED/KEY UNIT
GU-3374-4 ROULETTE UNIT
GU-3374-5 OP/CL SW UNIT
GU-3374-6 DISC SENSOR UNIT
GU-3374-7 UP/DOWN SW UNIT
GU-3374-8 ROULETTE I/F UNIT
GU-3374-9 P.SW UNIT

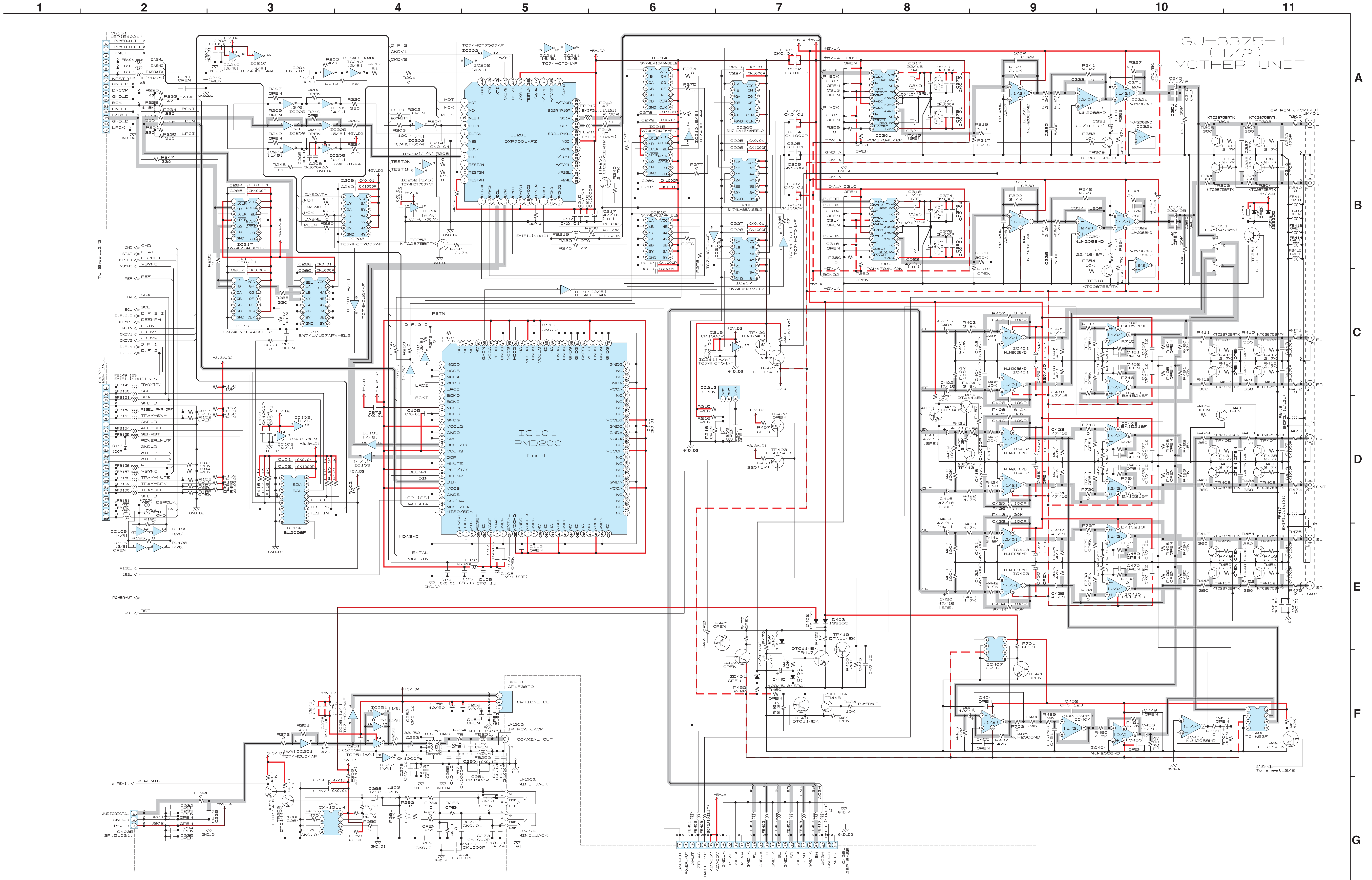
E

F

G

H

SCHEMATIC DIAGRAMS (14/15)



NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

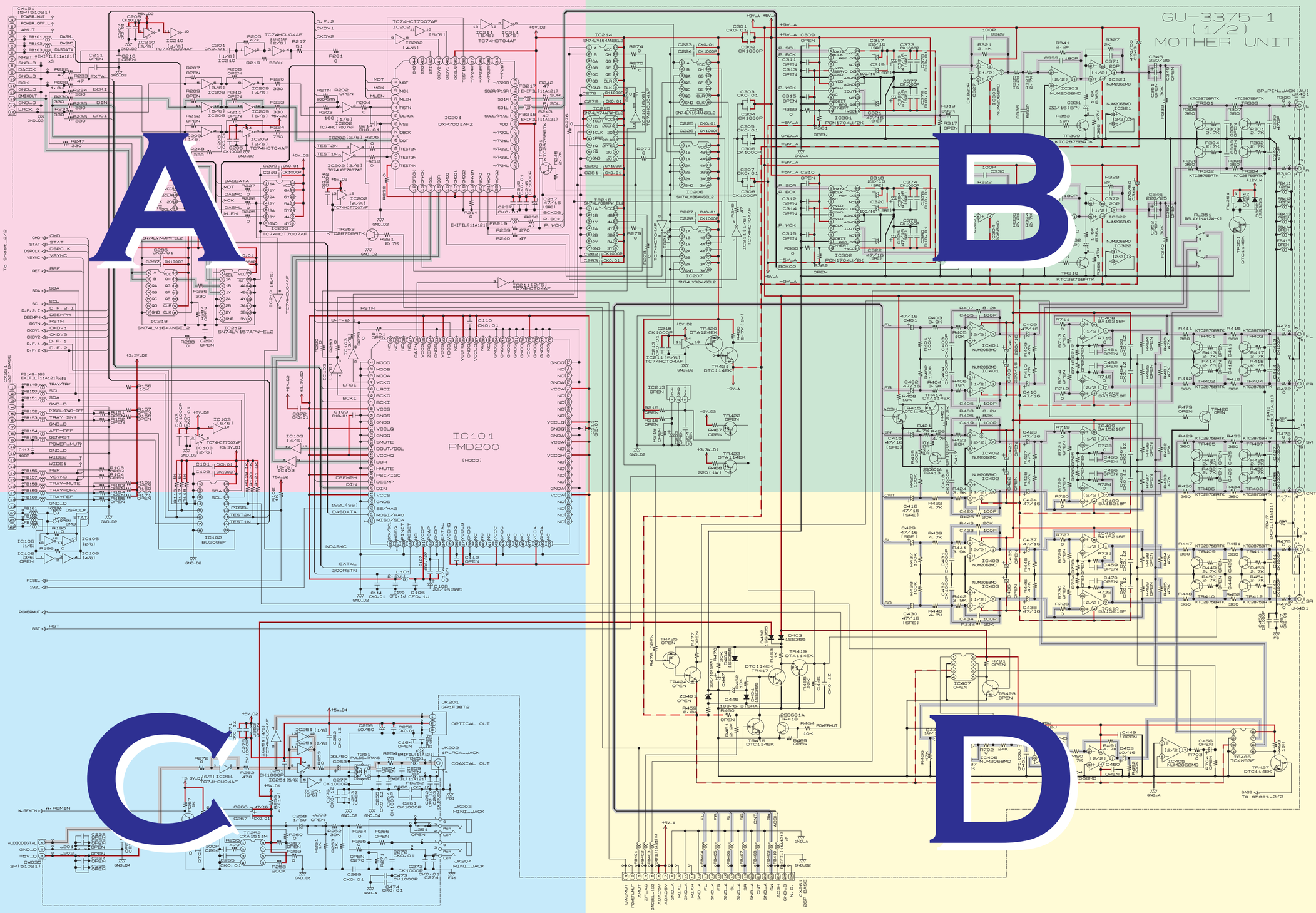
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING
DO NOT return the unit to the customer until the problem is located and corrected.

+ B LINE
– B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (14/15)
GU-3375-1 MOTHER UNIT(1/2)

SCHEMATIC DIAGRAMS (14/15)



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING

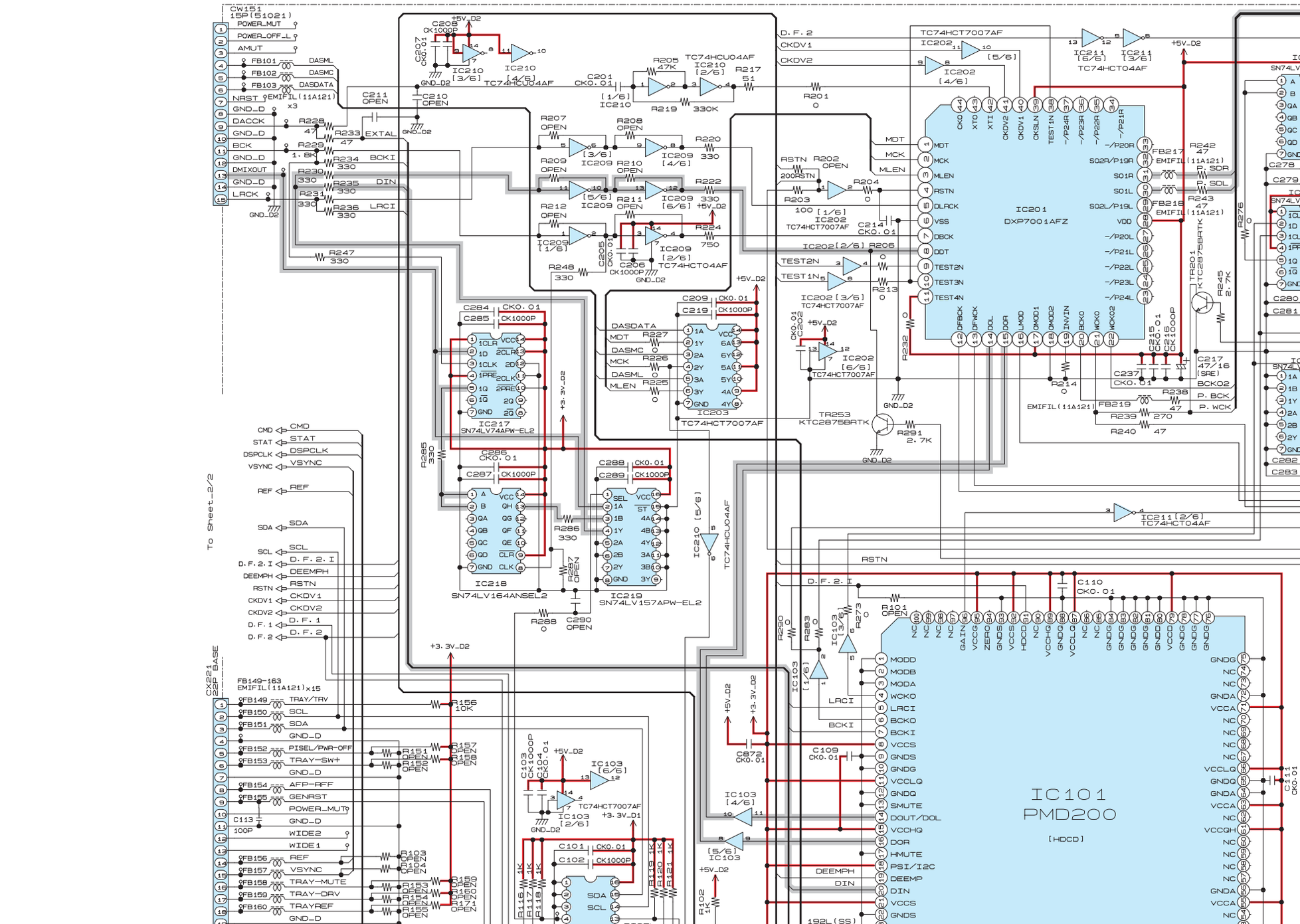
DO NOT return the unit to the customer until the problem is located and corrected.

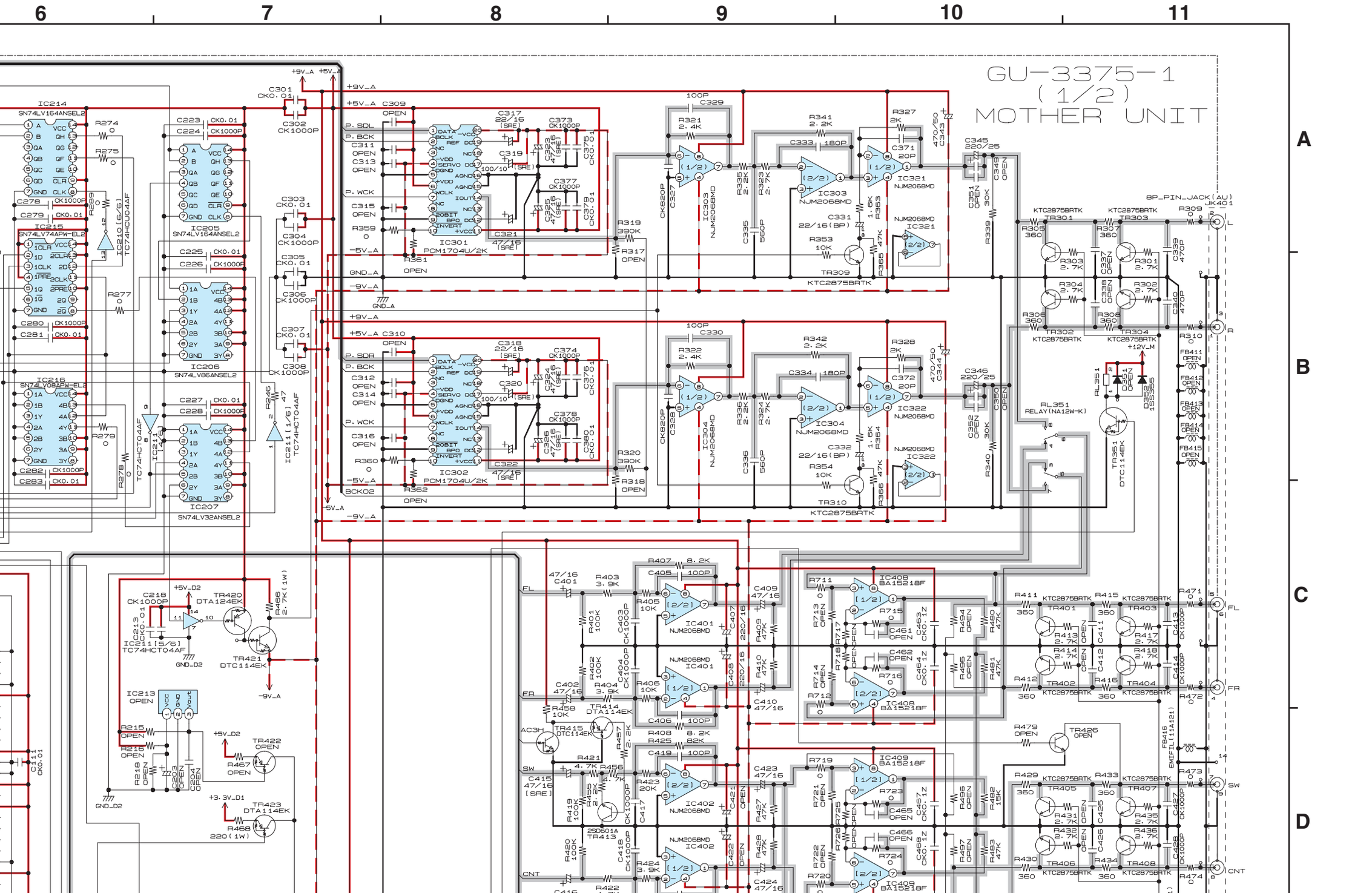
+ B LINE
− B LINE
SIGNAL LINE

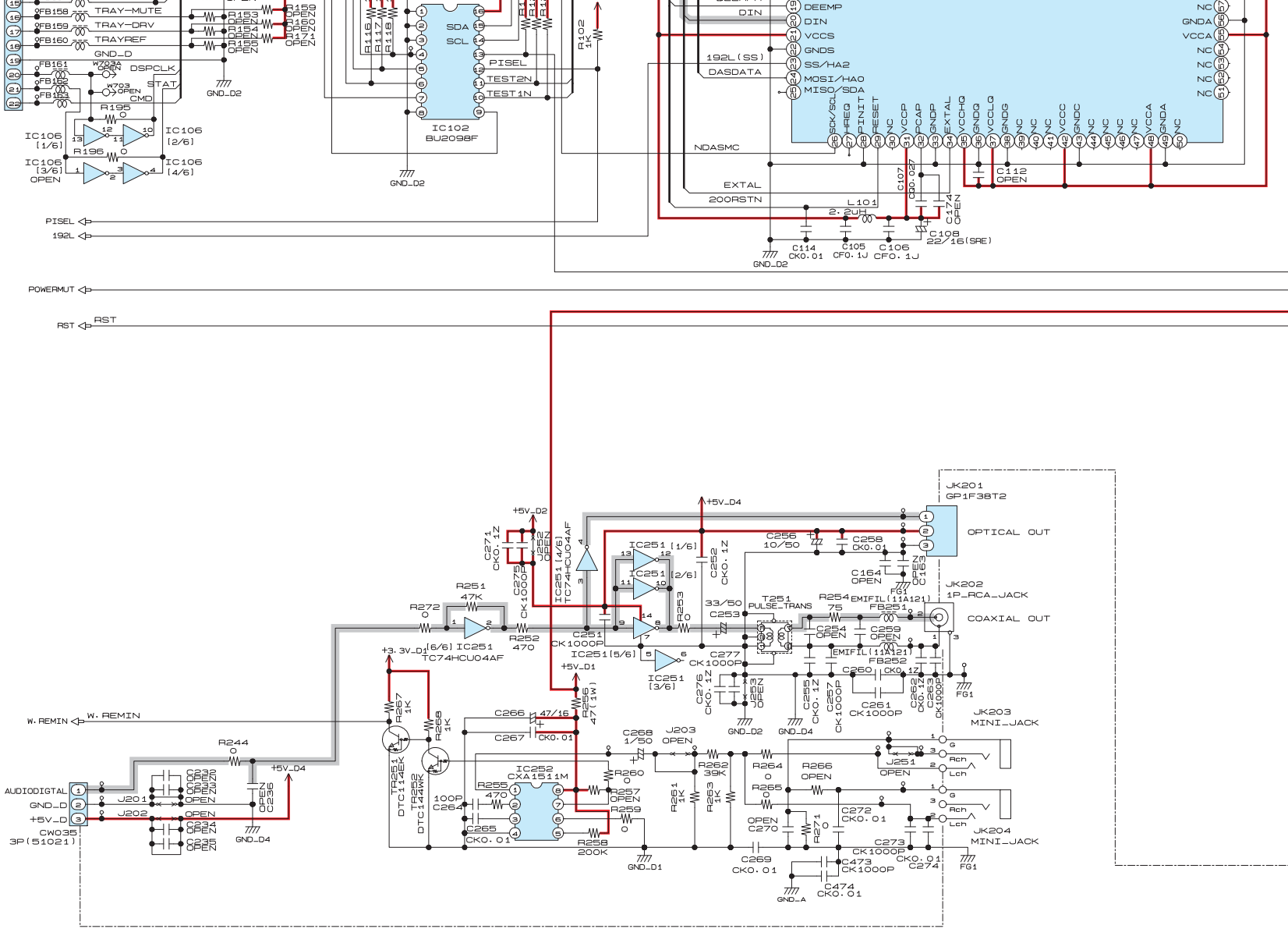
SCHEMATIC DIAGRAMS (14/15)

GU-3375-1 MOTHER UNIT(1/2)

SCHEMATIC DIAGRAMS (14/15)




GU-3375-1
(1/2)
MOTHER UNIT
6
7
8
9
10
11
A
B
C
D
IC214
SN74LV164ANSEL2
IC215
SN74LV74APW-EL2
IC216
SN74LV08APW-EL2
IC205
SN74LV164ANSEL2
IC206
SN74LV86ANSEL2
IC207
SN74LV32ANSEL2
IC210 [6/6] TC74HC04AF
IC211 [1/6] TC74HCT04AF
IC211 [5/6] TC74HCT04AF
IC213
IC301 PCM1704U/2K
IC302 PCM1704U/2K
IC303 NJM2068MD
IC304 NJM2068MD
IC321 NJM2068MD
IC322 NJM2068MD
IC401 NJM2068MD
IC402 NJM2068MD
IC408 BA15218F
IC409 BA15218F
TR301 KTC2875BRTK
TR302 KTC2875BRTK
TR303 KTC2875BRTK
TR304 KTC2875BRTK
TR309 KTC2875BRTK
TR310 KTC2875BRTK
TR351 DTC114EK
TR401 KTC2875BRTK
TR402 KTC2875BRTK
TR403 KTC2875BRTK
TR404 KTC2875BRTK
TR405 KTC2875BRTK
TR406 KTC2875BRTK
TR407 KTC2875BRTK
TR408 KTC2875BRTK
TR414 DTA114EK
TR415 DTC114EK
TR420 DTA124EK
TR421 DTC114EK
TR422 OPEN
TR423 DTA114EK
TR426 OPEN
RL351 RELAY(NA12W-K)
8P_PIN_JACK(AU)
JK401
+9V_A
+5V_A
-5V_A
-9V_A
GND_A
+5V_D2
-9V_D2
GND_D2
+3.3V_D1
P.SDL
P.BCK
P.WCK
P.SDR
BCK02
FL
FR
SW
CNT
AC3H



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

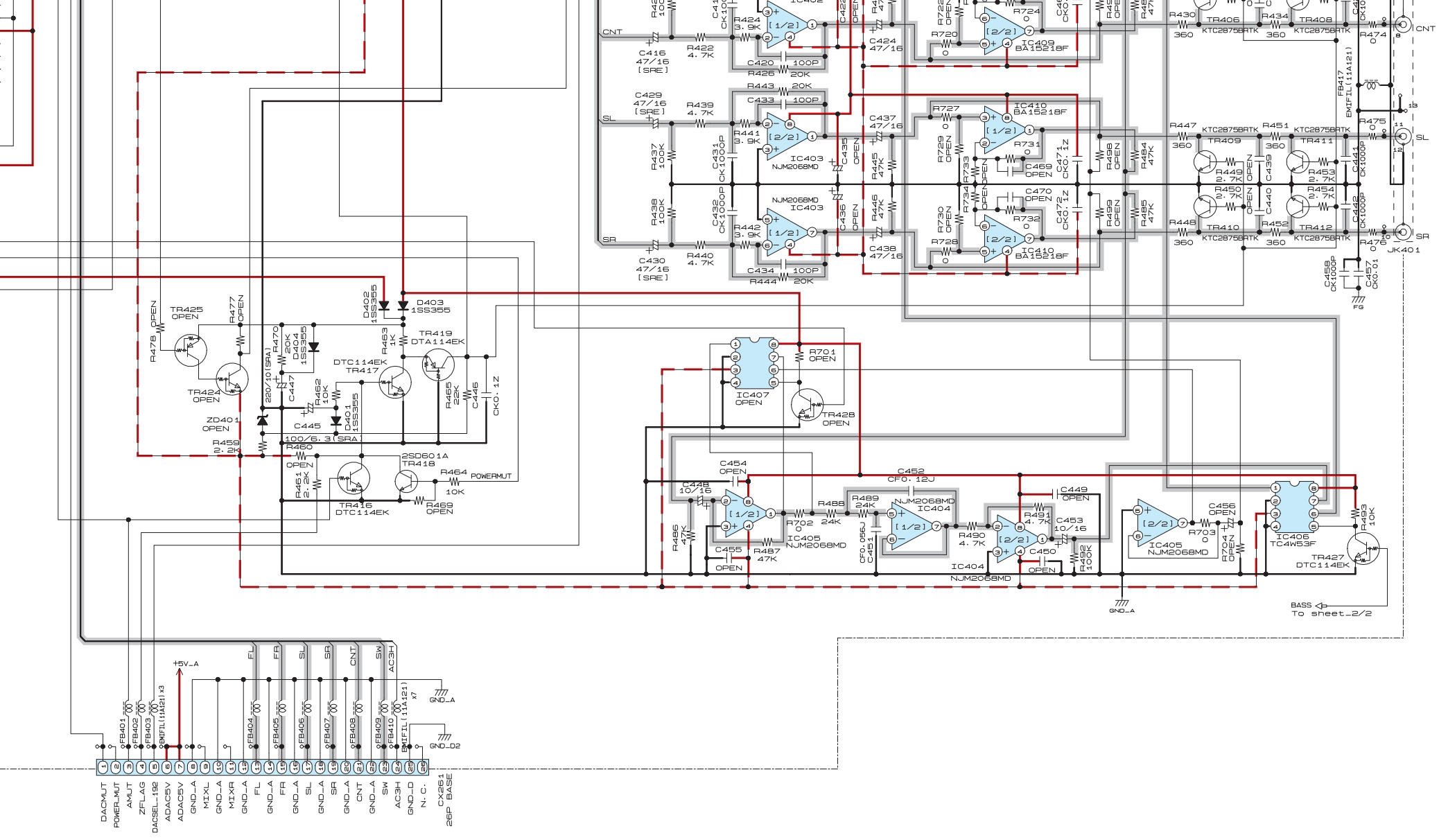
Parts marked with this symbol ⚠ have c
Use ONLY replacement parts recommended

CAUTION:

Before returning the unit to the customer, ma
leakage current check or (2) a line to chassis
current exceeds 0.5 milliamps, or if the resist
of the power card is less than 460kohms, the

WARNING

DO NOT return the unit to the customer until
corrected.



have critical characteristics.
mended by the manufacture.

mer, make sure you make either (1) a
chassis resistance check. If the leakage
he resistance from chassis to either side
hms, the unit is defective.

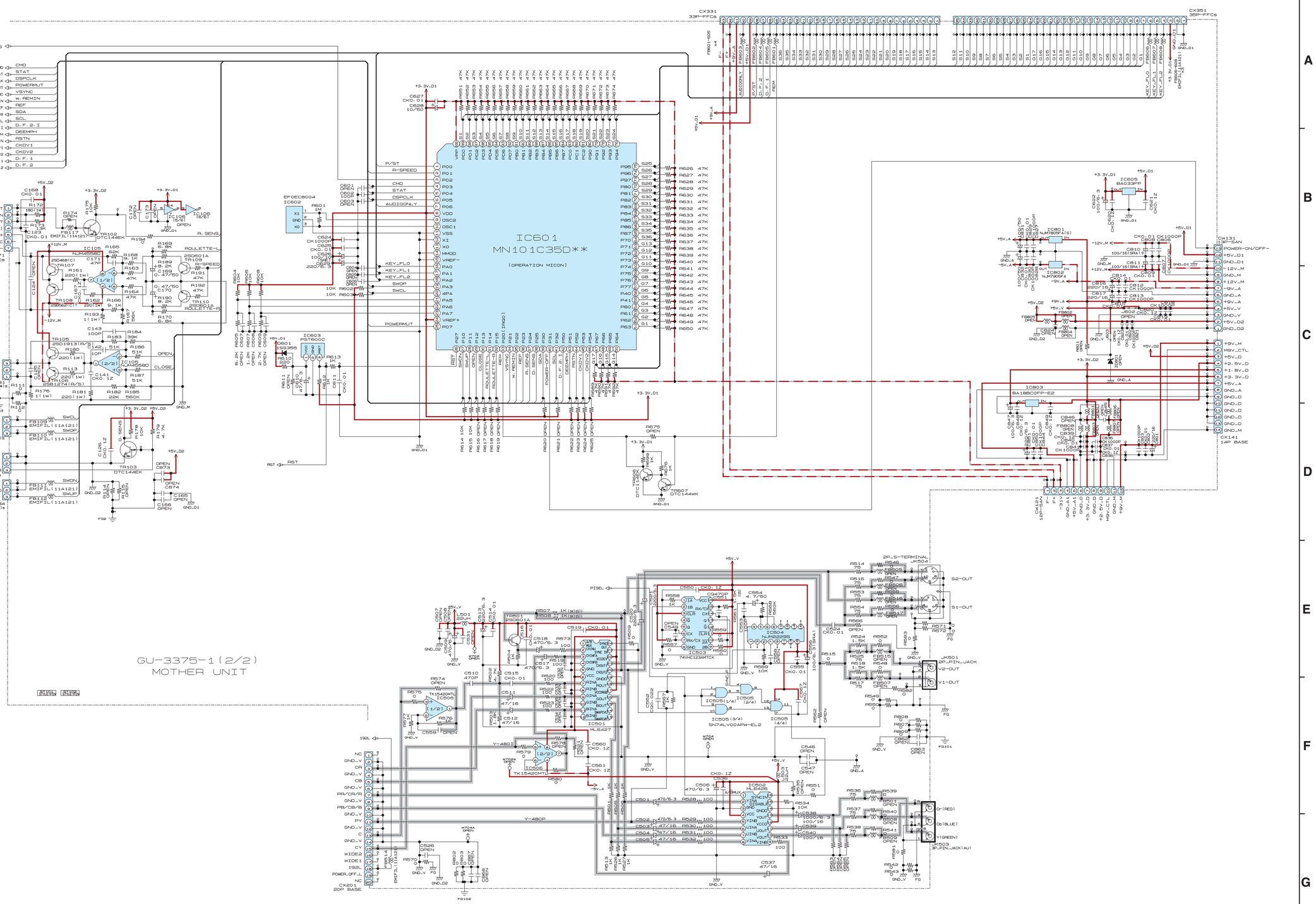
mer until the problem is located and

+ B LINE
– B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (14/15)

GU-3375-1 MOTHER UNIT(1/2)

SCHEMATIC DIAGRAMS (15/15)



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING

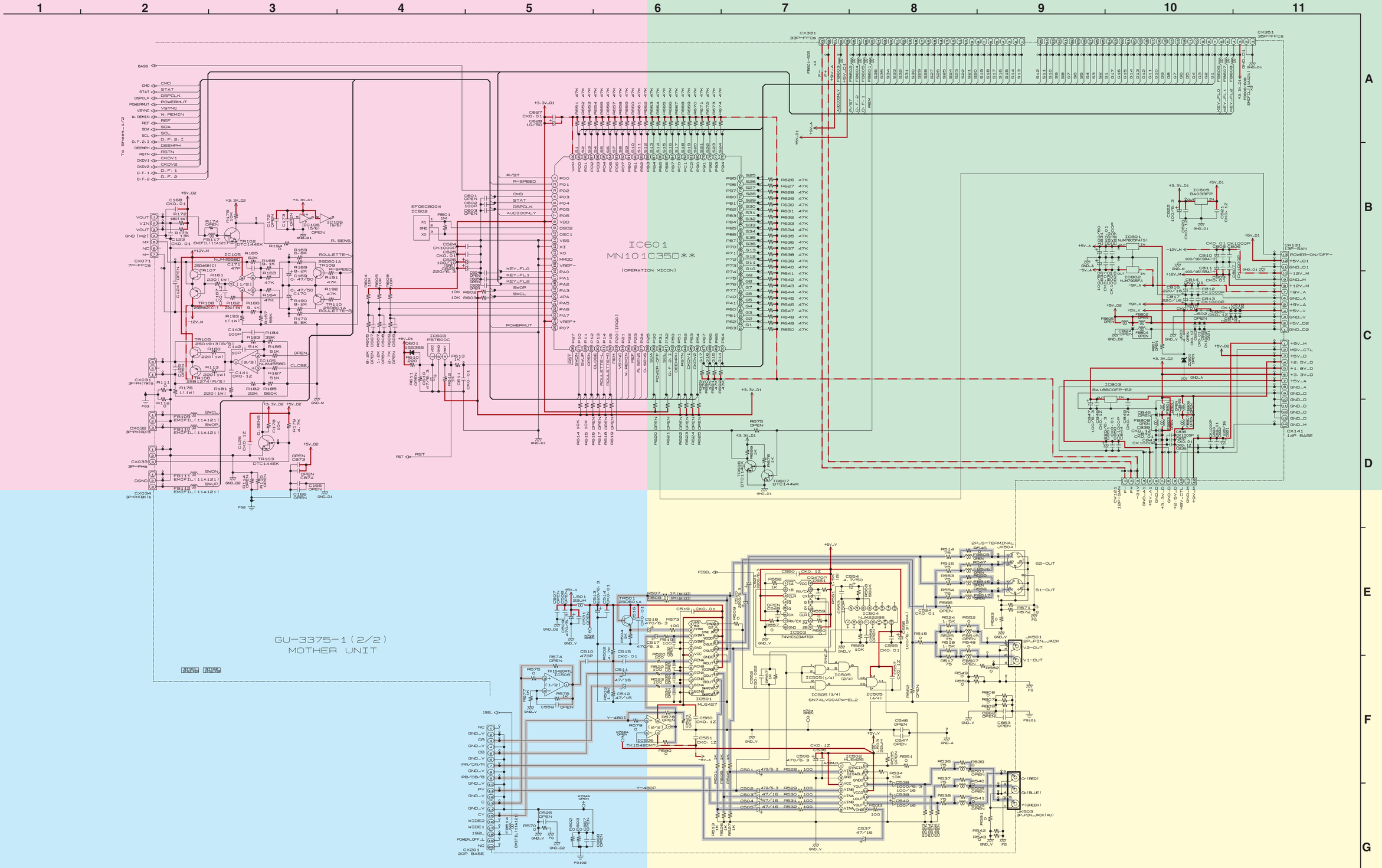
DO NOT return the unit to the customer until the problem is located and corrected.

+ B LINE
– B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (15/15)

GU-3375-1 MOTHER UNIT(2/2)

SCHEMATIC DIAGRAMS (15/15)



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING

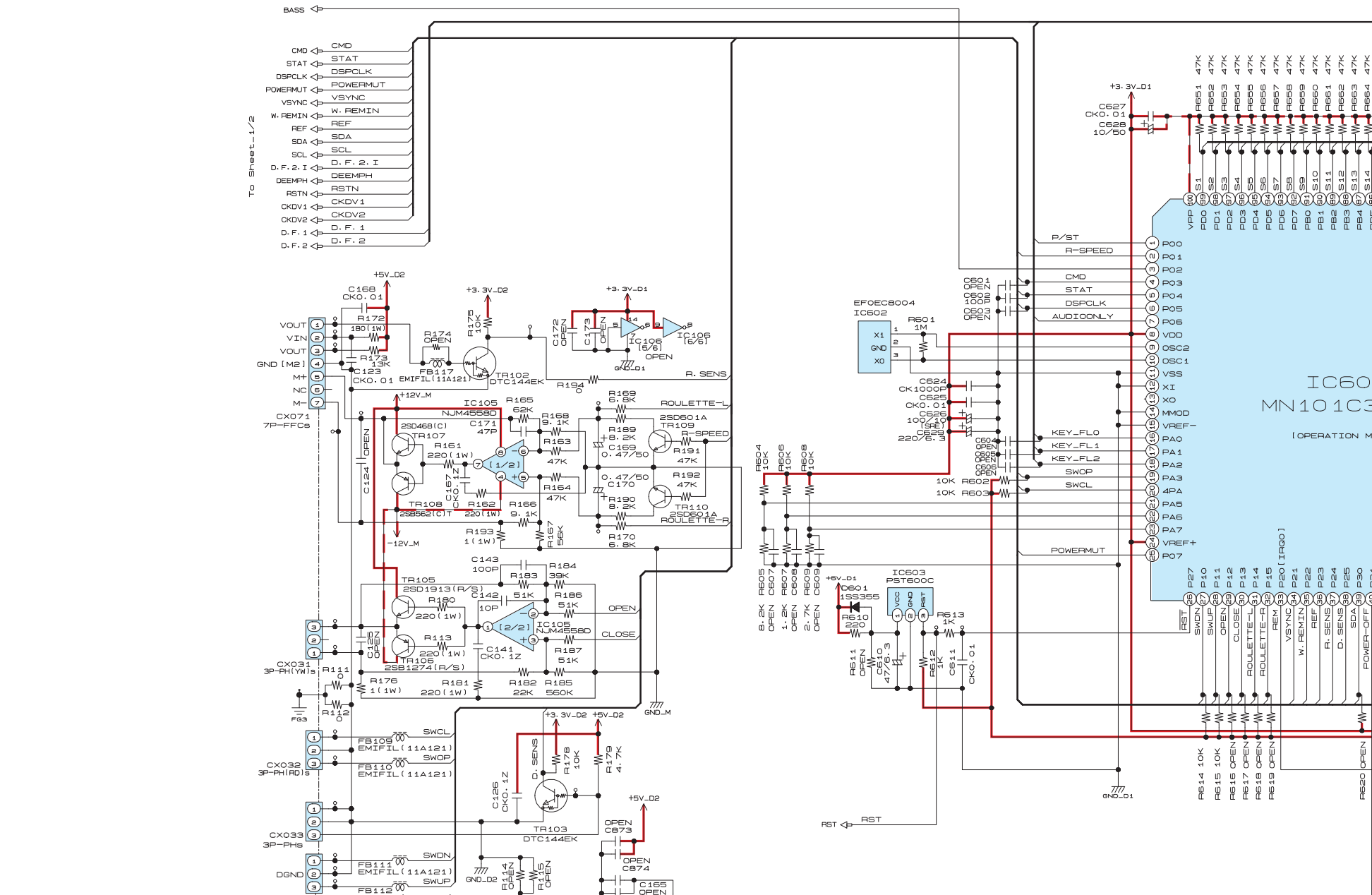
DO NOT return the unit to the customer until the problem is located and corrected.

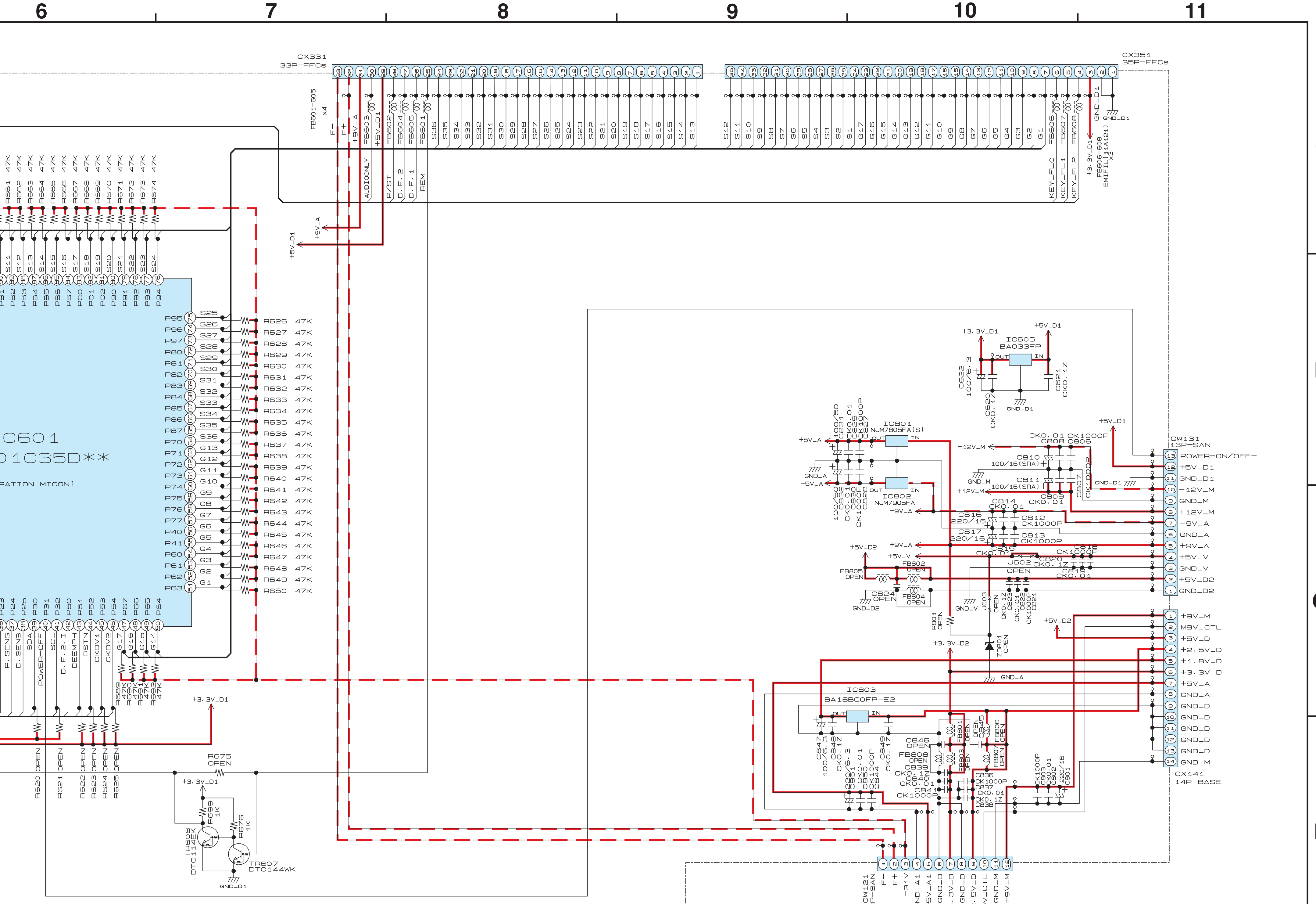
+ B LINE
– B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (15/15)

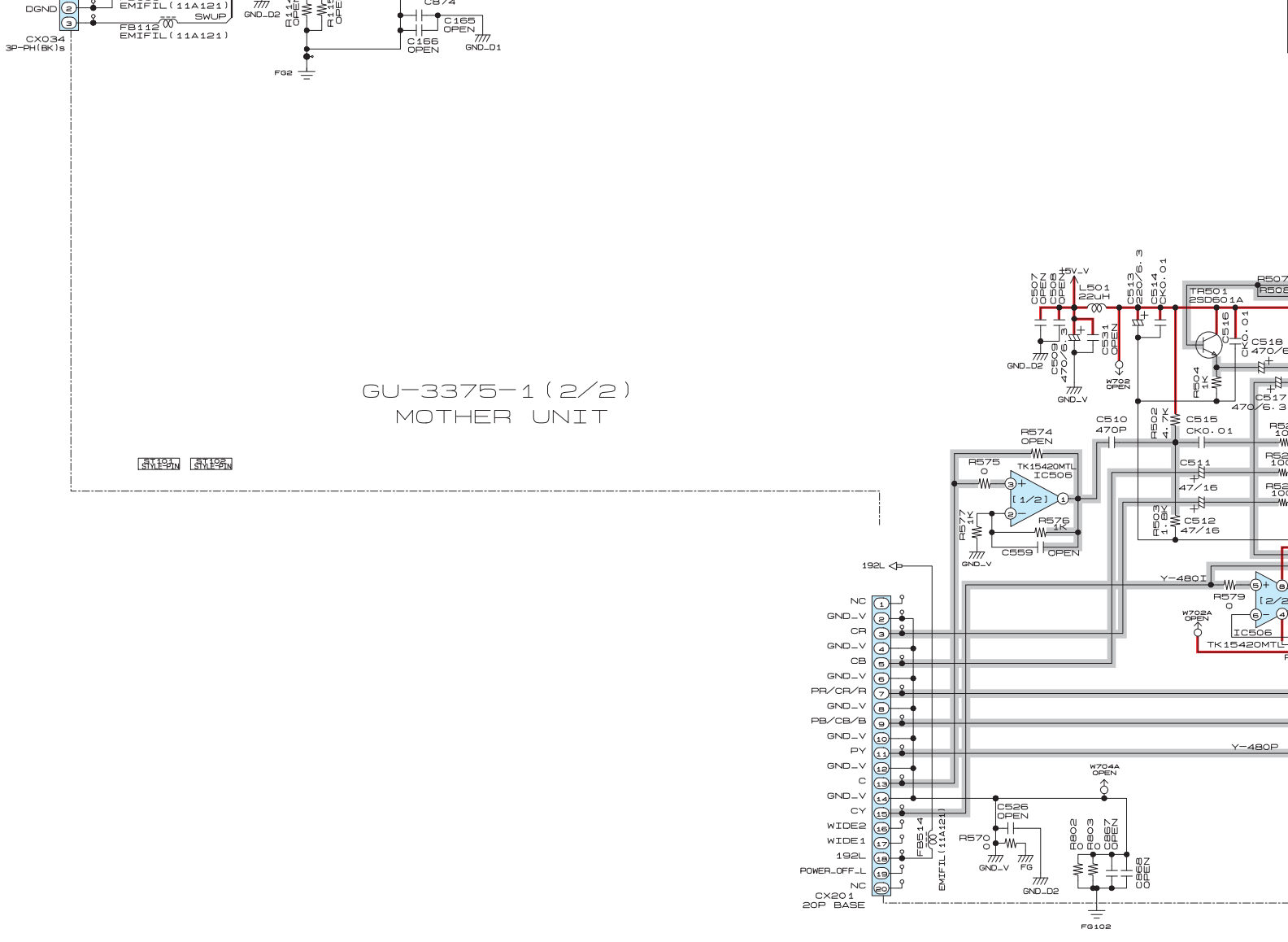
GU-3375-1 MOTHER UNIT(2/2)

SCHEMATIC DIAGRAMS (15/15)





CX331
33P-FFCs
CX351
35P-FFCs
FB601-605
x4
FB606-608
EMIFIL(11A121)
x3
IC601
RATION MICON]
IC605
BA033FP
IC801
NJM7805FA(S)
IC802
NJM7905FA
IC803
BA18BC0FP-E2
CW131
13P-SAN
POWER-ON/OFF-
+5V_D1
GND_D1
-12V_M
GND_M
+12V_M
-9V_A
GND_A
+9V_A
+5V_V
GND_V
+5V_D2
GND_D2
CX141
14P BASE
+9V_M
M9V_CTL
+5V_D
+2.5V_D
+1.8V_D
+3.3V_D
+5V_A
GND_A
GND_D
GND_M
CW121
TR606
DTC114EK
TR607
DTC144WK
R675
OPEN



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING

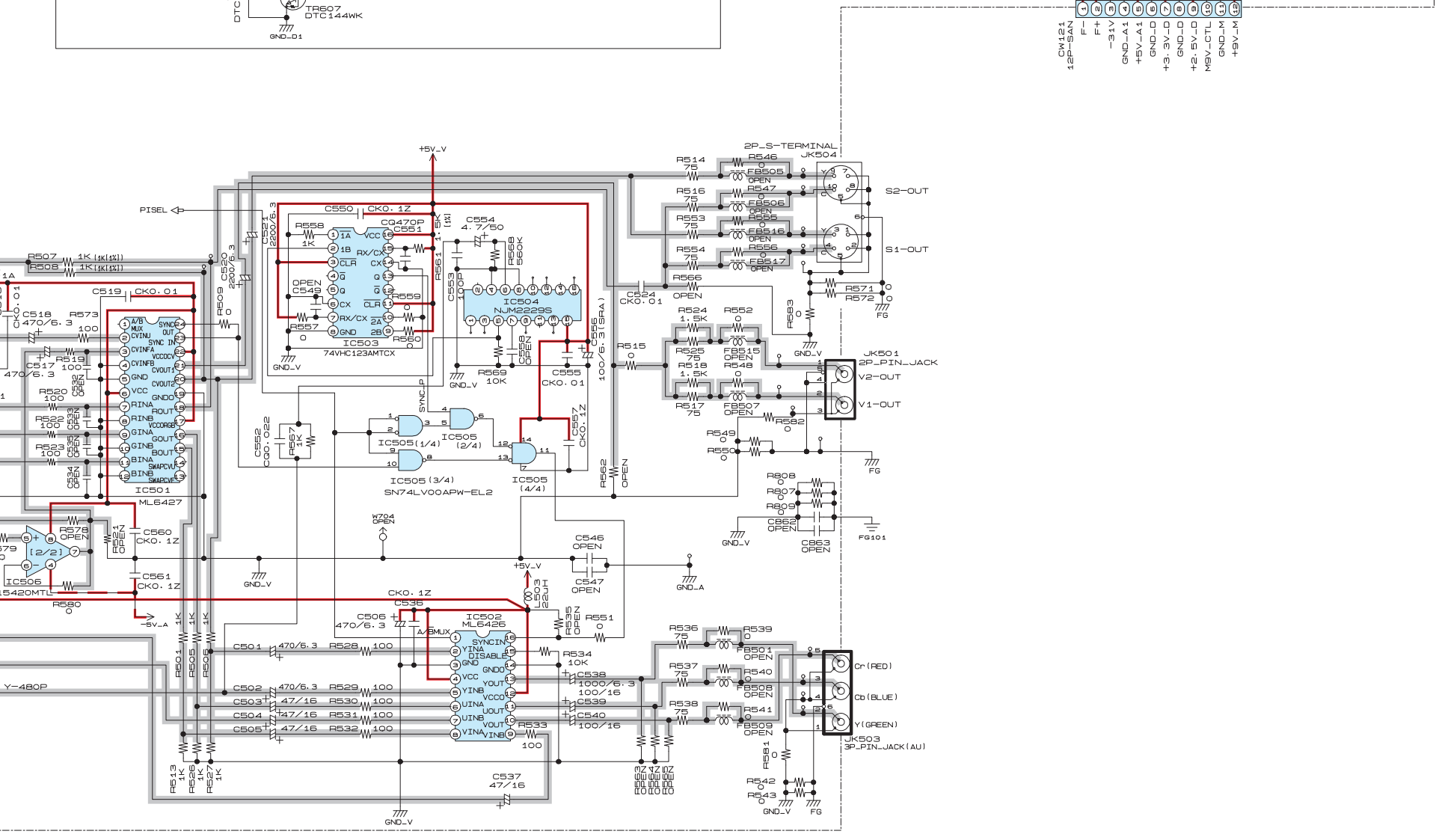
Parts marked with this symbol ⚠ have c
Use ONLY replacement parts recommended

CAUTION:

Before returning the unit to the customer, ma
leakage current check or (2) a line to chassis
current exceeds 0.5 milliamps, or if the resist
of the power card is less than 460kohms, the

WARNING

DO NOT return the unit to the customer until
corrected.



have critical characteristics.
mended by the manufacture.

mer, make sure you make either (1) a
chassis resistance check. If the leakage
ne resistance from chassis to either side
hms, the unit is defective.

mer until the problem is located and

+ B LINE
– B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (15/15)

GU-3375-1 MOTHER UNIT(2/2)

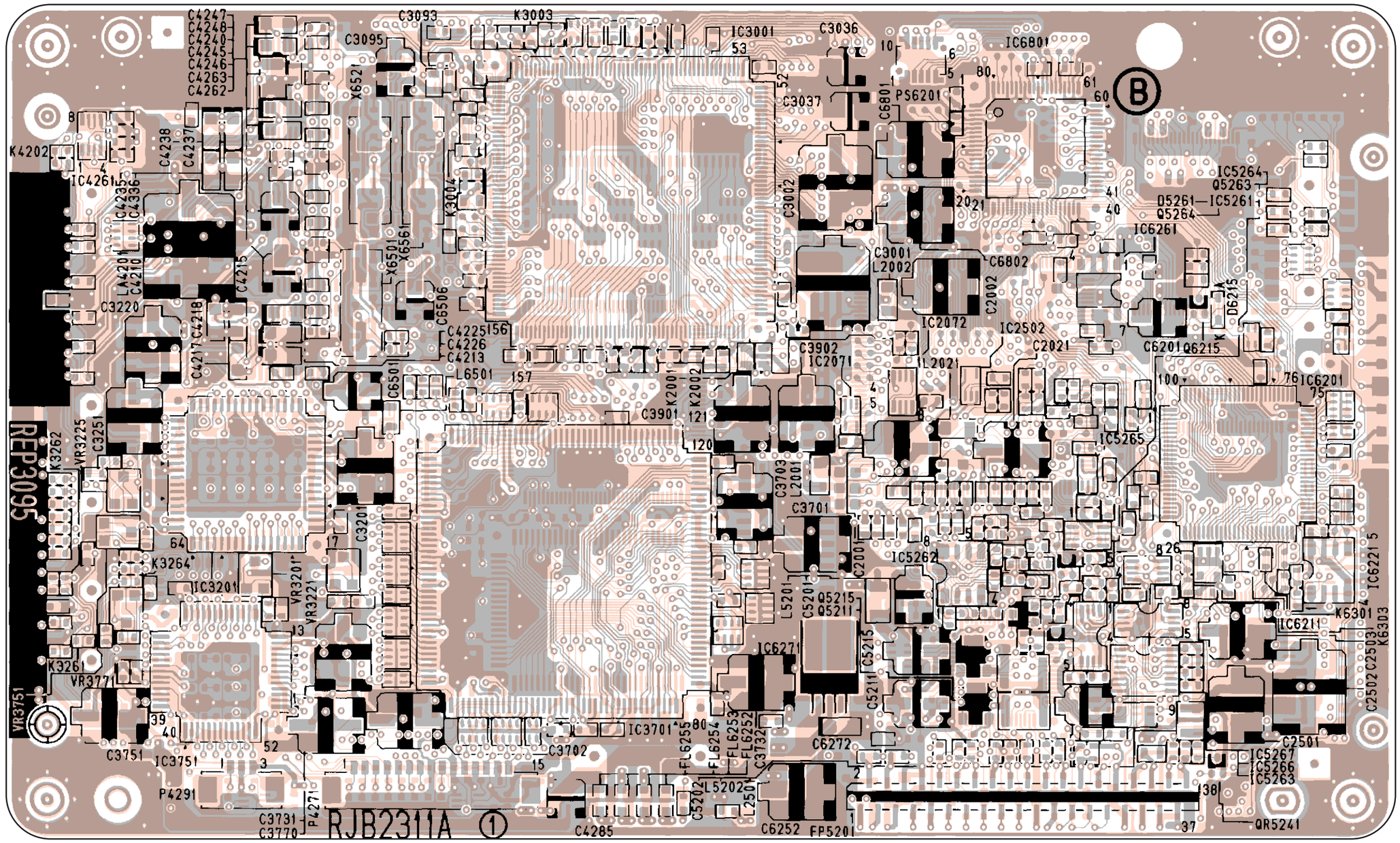
E
F
G
H

13. PRINTED WIRING BOARDS

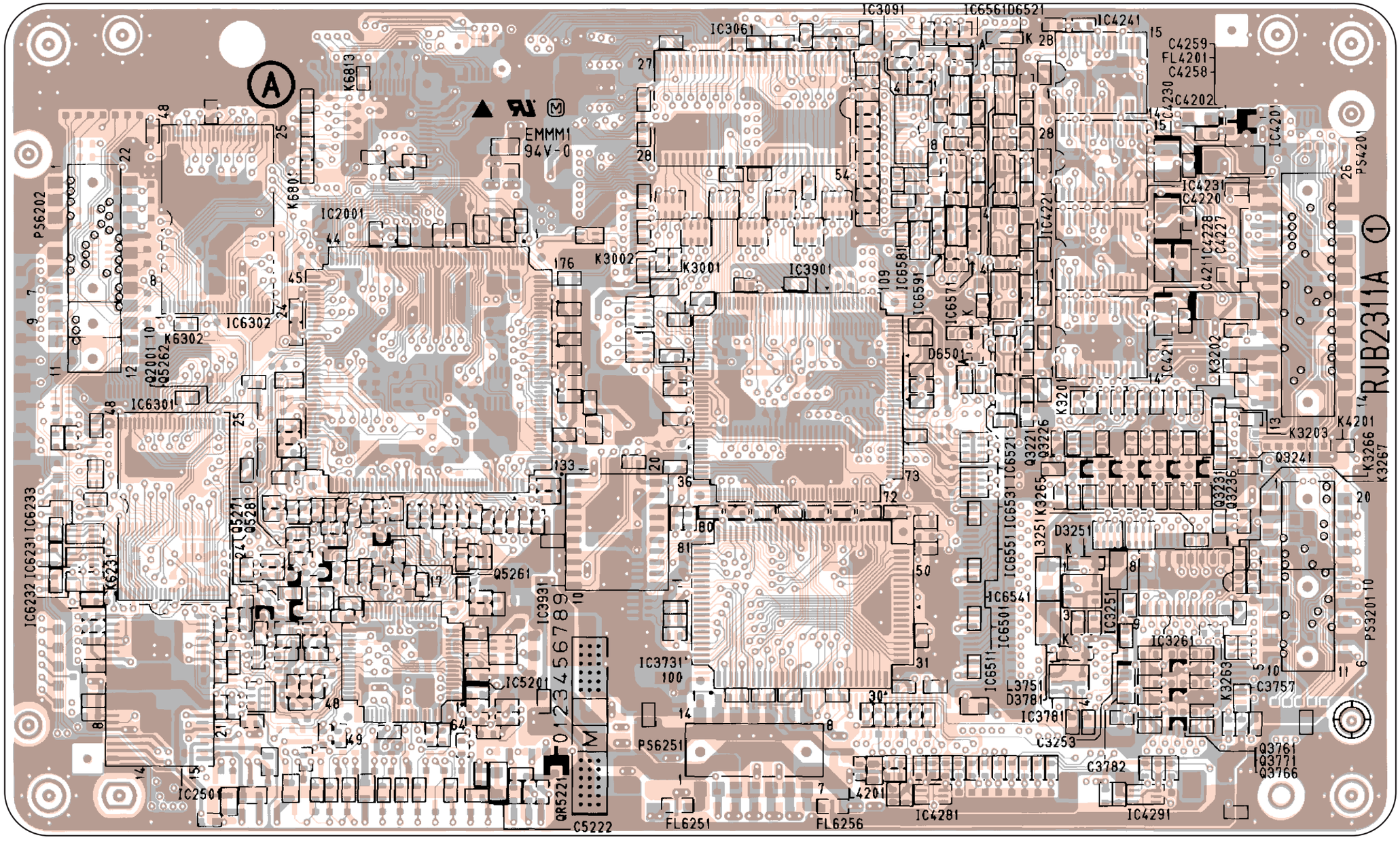
1 2 3 4 5 6 7 8

A B C D E

MAIN P.W.B. UNIT Ass'y



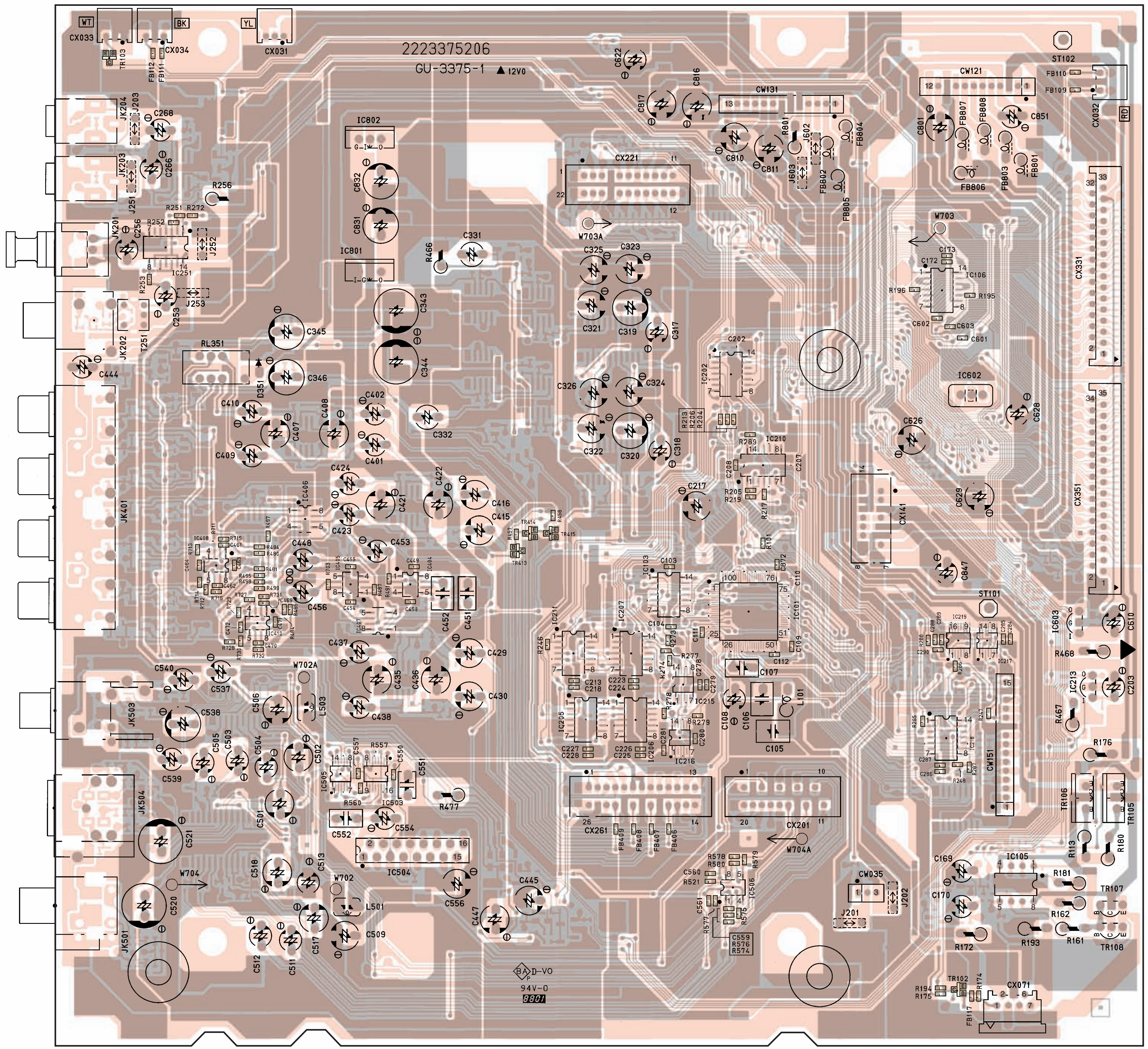
COMPONENT SIDE


1
2
3
4
5
6
7
8
A
B
C
D
E
EMMM1
94V-0
RJB2311A ①
IC3091
IC6561D6521
IC4241
IC3061
C4259
FL4201
C4258
C4230
C4202
IC4231
C4220
C4228
C4227
C4211
IC4221
IC6580
IC6591
IC6571
D6501
IC4211
K3202
K3203
K4201
K3266
K3267
Q3241
Q3221
Q3226
Q3231
Q3236
K3265
L3251
D3251
IC6551
IC6531
IC6521
IC6541
IC6501
IC6511
IC3251
IC3261
K3263
C3757
L3751
D3781
IC3781
C3253
C3782
Q3761
Q3771
Q3766
IC4281
IC4291
L4201
FL6256
FL6251
PS6251
PS4201
PS3201
K6813
K6801
K6302
K3002
K3001
IC3901
IC2001
IC6302
IC6301
Q2001
Q5262
PS6202
IC6232
IC6231
IC6233
K6231
Q5271
Q5281
Q5261
IC3931
IC5201
IC2501
QR5221
C5222
IC3731
100
0123456789

FOIL SIDE

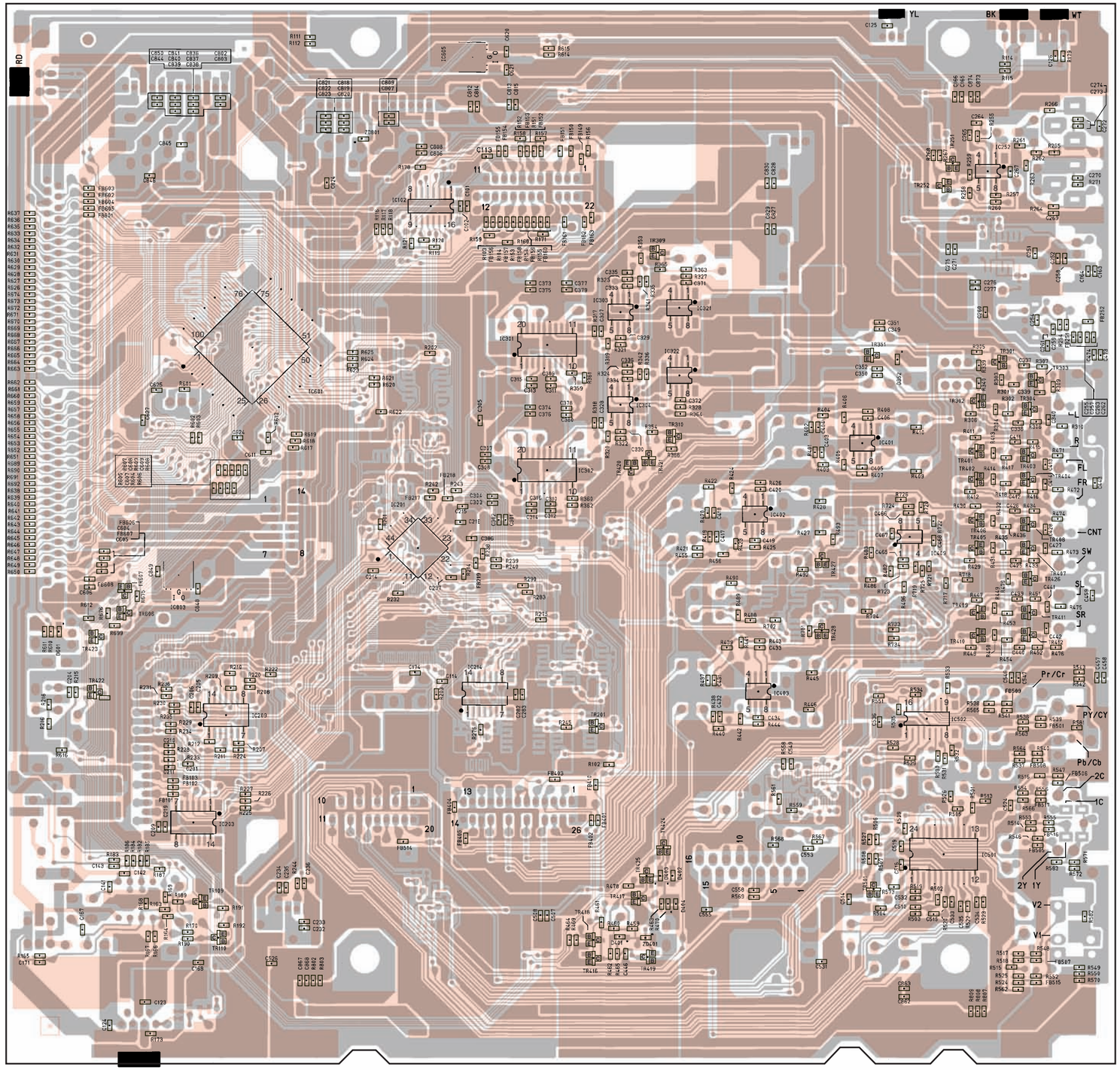
1 2 3 4 5 6 7 8

GU-3375 MOTHER P.W.B. UNIT Ass'y



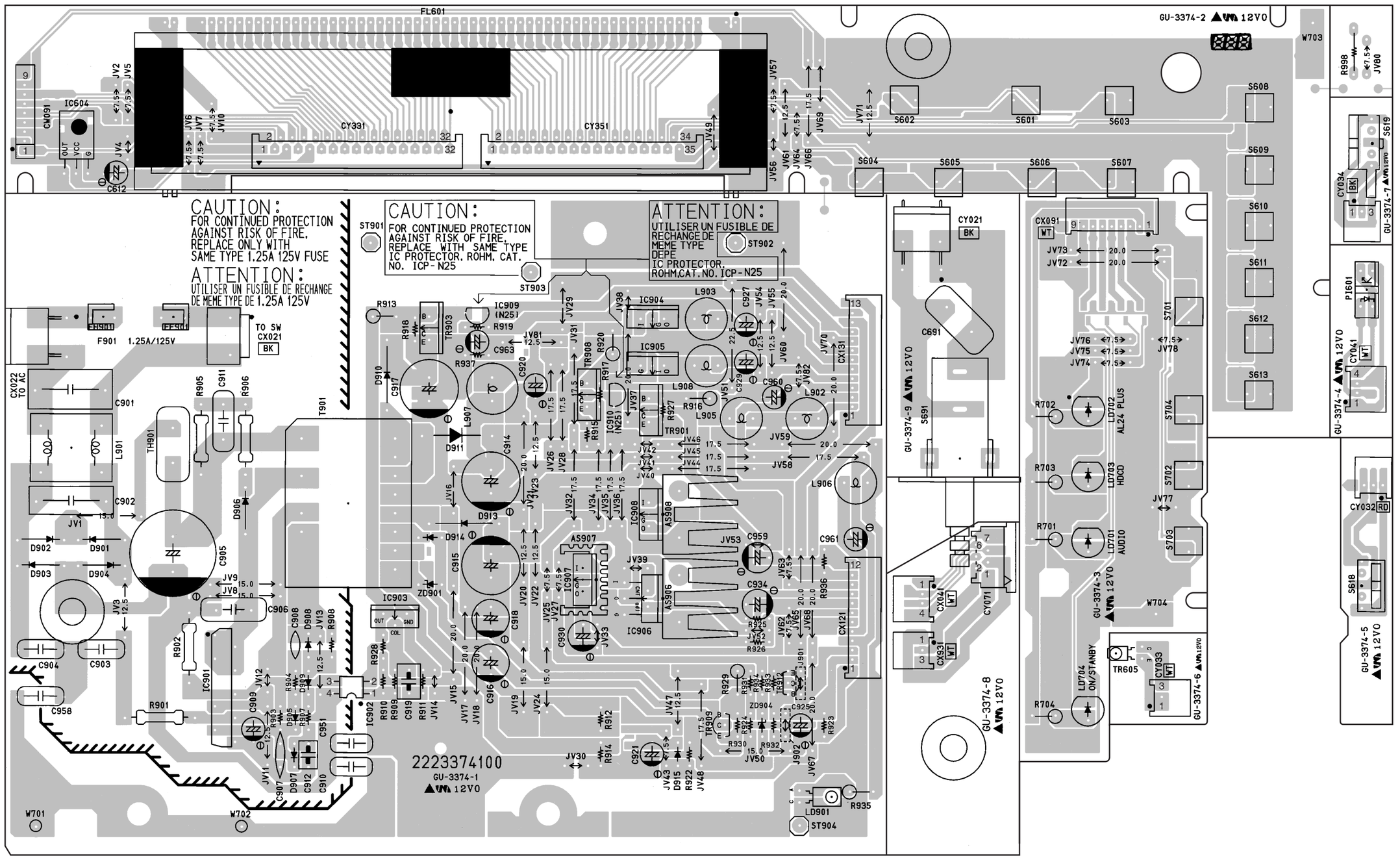
A B C D E

COMPONENT SIDE

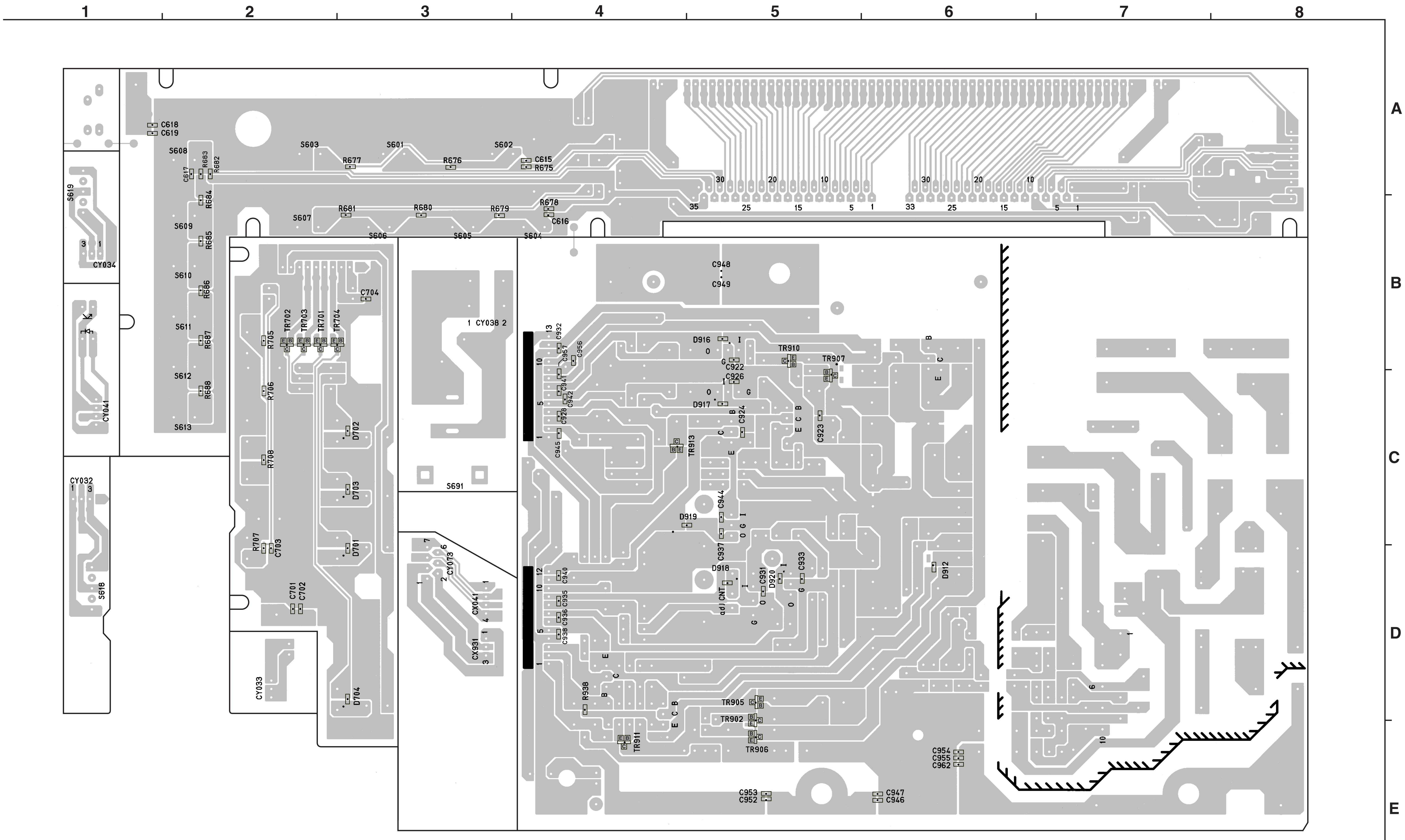

1
2
3
4
5
6
7
8
A
B
C
D
E
YL
BK
WT
RD
Pr/Cr
PY/CY
Pb/Cb
2C
1C
2Y
1Y
V2
V1
CNT
SW
SL
SR
FL
FR

FOIL SIDE

GU-3374 DISPLAY P.W.B. UNIT Ass'y



COMPONENT SIDE


1
2
3
4
5
6
7
8
A
B
C
D
E
C618
C619
S603
S601
S602
S608
R677
R676
C615
R675
C617
R683
R682
R684
S619
R681
R680
R679
R678
S607
C616
S609
R685
S606
S605
S604
CY034
S610
R686
C704
C948
C949
TR702
TR703
TR701
TR704
1 CY038 2
S611
R687
R705
D916
TR910
TR907
S612
R688
R706
C922
C926
D917
CY041
S613
D702
C924
C923
TR913
C945
R708
CY032
D703
S691
D919
C944
C937
R707
C703
D701
CY073
D918
C931
D920
C933
D912
CX041
C940
C935
C936
C938
C701
C702
S618
CX931
CY033
D704
R938
TR905
TR902
TR911
TR906
C954
C955
C962
C953
C952
C947
C946

FOIL SIDE

14. EXPLODED VIEW

1 2 3 4 5 6 7 8

A B C D E

WARNING:
Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

Attach asecro-tape to 4 edges marked with ☆.

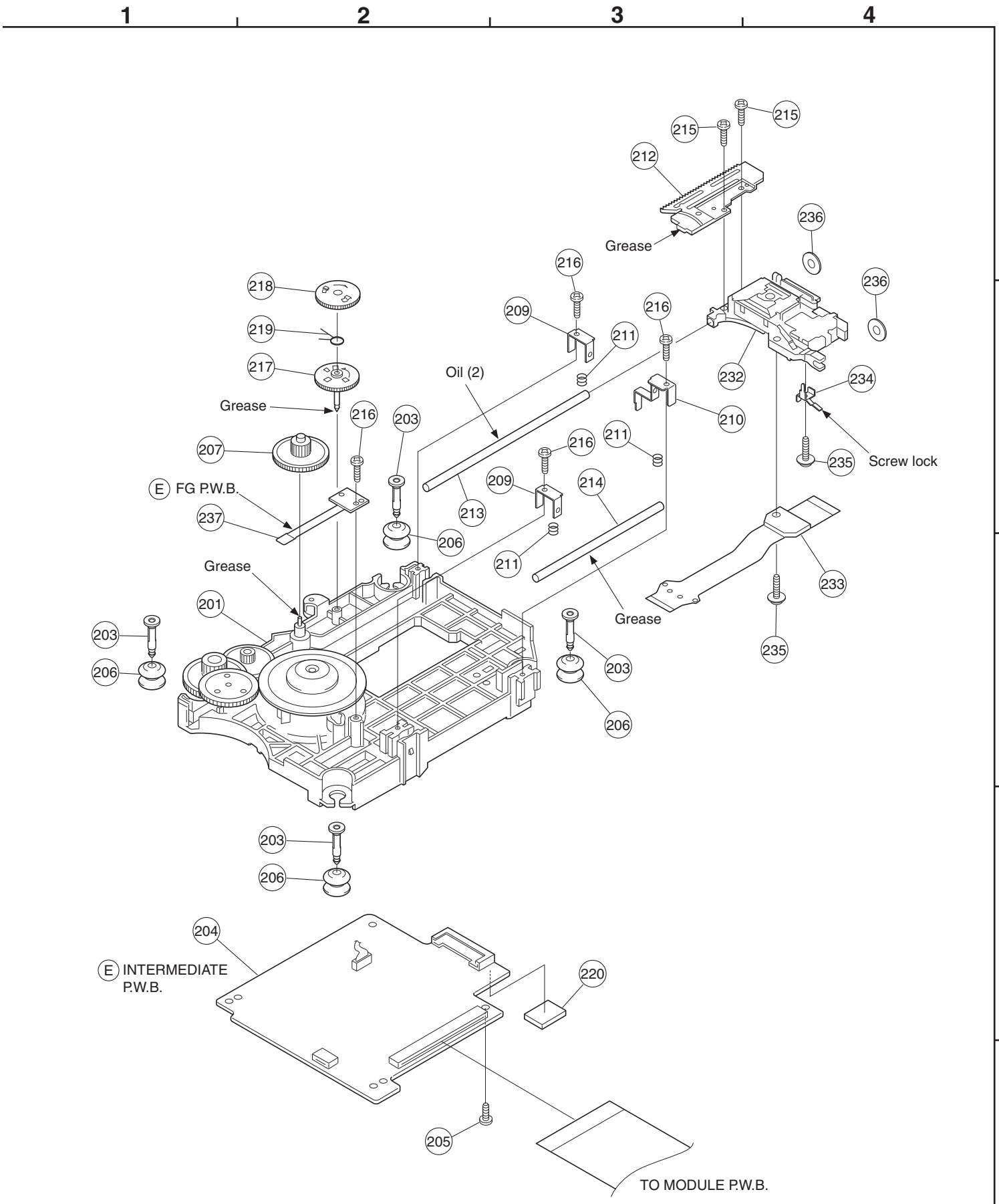
PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	GU-3374	Display unit Ass'y		1
1-1		Power unit		
1-2		Display unit		
1-3		LED/Key unit		
1-4		Roulette unit		
1-5		Open/Close switch unit		
1-7		Up/Down switch unit		
1-8		Roulette I/F unit		
1-9		Power switch unit		
1-12		Disc sensor unit		
2	GU-3375	Mother unit Ass'y		1
2-1		Mother unit		
2-2		FFC fixed PWB		
4	411 1920 606	Chassis		1
5	105 1378 104	Rear panel		1
7	104 0313 015	Foot Ass'y		4
9	449 0113 008	Snap band (SG-110)		2
10	449 0161 607	Mecha. base		1
11	439 0022 309	Side base		2
12	217 0158 000	Loading motor		1
★ 13	203 5062 095	3P PH connector cord	CN031	1
14	421 0379 103	Motor pulley		3
15	424 0221 001	Pully gear		1
16	475 1133 015	2 washer-B		1
17	477 0070 078	Washer		2
18	423 0069 011	Belt		1
19	424 0261 003	Helical gear		1
20	433 0639 105	YUSEI base		1
21	424 0266 008	YUSEI gear		2
22	431 0422 002	Lock pin		1
23	463 0922 208	Spring (Y)		1
24	421 0759 008	Mini damper		1
25	424 0263 108	Cam gear		1
26	435 0135 003	Crank		1
27	441 1912 000	Spring hook		1
28	463 0923 003	Spring (C)		1
29	421 0755 002	Loader lock pin		1
30	463 0924 002	Spring (L)		1
★ 31	203 4986 033	3P PH-PH connector cord	CN032	1
34	435 0136 206	Slider		1
35	431 0425 009	PU frame		1
36	337 0102 004	DVD Traverse unit		1
★ 37	203 4986 020	3P PH-PH connector cord	CN034	1
37A	449 0186 006	Spring plate		1
38	203 4986 033	3P PH-PH cord	CN033	
39	449 0186 006	Clamp base		1
40	421 0773 000	Spring hook		1
41	421 0775 008	Clamper		1
42	463 0942 000	Clamp SP		1
42A	445 0048 016	Cord holder (L50)		4
43	421 0074 009	Spring holder		1
★ 46	009 0221 006	38P FFC (1.0)	CN381	1
47	204 6695 008	12P PH-SAN connector cord	CW121	1
48	204 6696 007	13P PH-SAN connector cord	CW131	1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
52	431 0421 401	Loader frame		1
53	421 0758 009	Roller		4
54	441 1913 106	Gear bracket Ass'y		1
55	217 0172 002	Power motor		1
56	422 0641 009	Shaft		1
57	424 0264 204	Worm gear		1
58	425 0246 102	Holder		2
59	423 0076 004	Belt		1
60	424 0265 009	Helical gear		1
62	475 1157 017	Slit washer t0.5		1
★ 63	203 5062 079	3P PH connector cord	CN931	1
★ 64	203 6232 031	4P PH connector cord	CN041	1
65	415 0835 008	Motor cover		1
66	421 0776 007	Roulette Ass'y		1
66A	445 8028 009	Cord holder		1
★ 67	009 0211 003	7P FFC cable (1.25)	CN071	1
67A	441 1933 005	Roller bracket Ass'y		2
67B	421 0764 006	Roulette roller		2
67C	475 1157 059	Slit washer t0.5		2
68	412 4532 007	Side plate		2
69	411 1318 247	Front angle		1
70-1	441 1909 000	Stay		1
70-2	441 1909 013	Stay		1
70A	441 1942 009	Power bracket		2
★ 70B	203 5215 059	3P VH-VH connector cord	CN021	1
★ 70C	445 0033 005	Wire clamp band		2
70D	414 0915 006	Power shield		1
⚠ 74	206 2188 007	AC cord with connector		1
76	445 0056 008	Cord bush		1
★ 78	204 2812 018	9P PH-SAN connector cord	CN091	1
79	461 1109 011	PWB rubber	D-Face single side	1
80	461 1109 008	PWB rubber	D-Face both sides	1
81	144 2737 011	Front panel		1
81A	143 1073 003	Lens		1
81B	143 1068 005	Window		1
81C	146 2215 319	Inner panel		1
81D	131 9004 013	DENON mark		1
82	009 0194 023	35P FFC cable (1.25)	CN351	1
84	009 0194 010	33P FFC cable (1.25)	CN331	1
88	113 1689 001	P. switch knob		1
89	461 0598 050	Insulating rubber		3
★ 89A	445 0120 002	Wire clamper (L=165)		1
91	146 2164 020	Loader panel Ass'y		1
92	102 0605 015	Top cover		1
★ 93	513 3685 009	Rating sheet		1
★ 95	513 1381 004	Manufac. date label		1
★ 98	513 3364 003	Transport screw label		1
★ 99	513 3406 107	Label (A)	Laser Radiation	1
★ 99A	513 3541 004	Screw label		1
	513 3363 004	Caution label		
201	221 2123 003	Main unit Ass'y		1
202	461 1109 024	PWB rubber		2
203	414 0939 008	Shield plate		1
204	461 1083 001	FFC pad		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
205	461 1109 037	PWB rubber		1
206	001 0212 037	Vinyl wire		1
207	461 1111 009	Earth plate		3
208	203 5268 006	3P connector cord (51021)	CW035	1
209	204 6697 006	15P connector cord (51021)	CW151	1
SCREWS				
101	471 1810 019	Screw 2×3 CPS		2
103	473 7002 021	Screw 3×8 CBTS(S)-B		19
104	473 7007 000	Screw 4×8 CBTS(S)-B		2
105	473 7015 018	Screw 3×8 CBTS(S)-B		22
105A	473 7500 044	Screw 3×8 CBTS(P)-B		2
106	473 7505 007	Screw 2.6×8 CBTS(P)-Z		11
107	473 7505 023	Screw 2.6×10 CBTS(P)-Z		14
110	473 7507 005	Screw 2×8 CBTS(P)-B		3
111	473 7508 017	Screw 3×10 CBTS(P)-B		10
112	473 8007 025	Cup screw 3×8		13
115	473 8044 017	Special screw		2
116	412 4821 006	Fixed pin		3
117	473 8068 006	Special screw		1
118	477 0064 123	Fixing screw		8
119	477 0262 006	Special screw		6
120	477 0262 035	Special screw		1
121	477 0263 005	3P. swelling screw		4

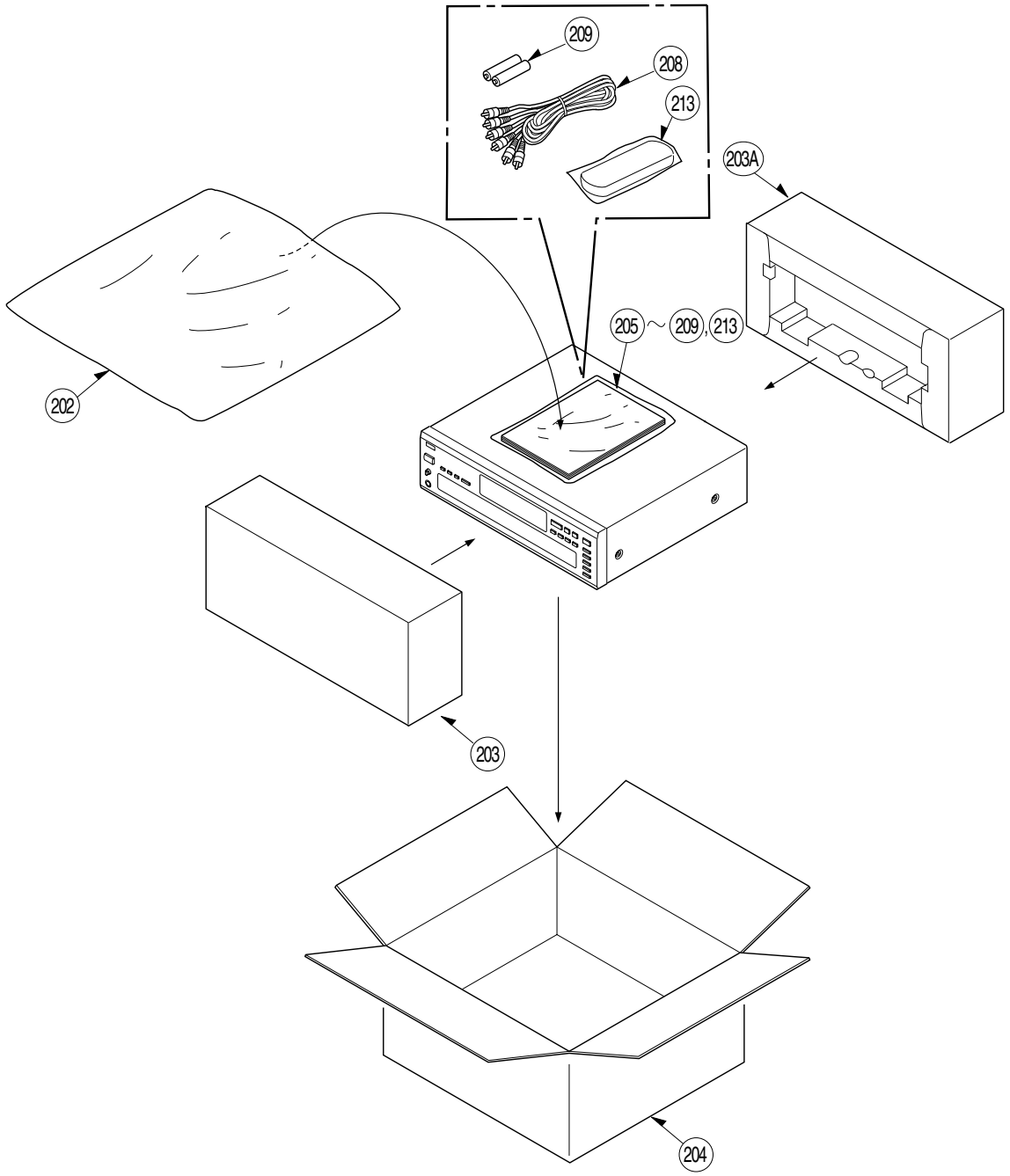
15. EXPLODED VIEW OF TRAVERSE MECHANISM UNIT



PARTS LIST OF TRAVERSE MECHANISM UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty
201	9MR XQ07 42	Spindle motor ass'y		1
203	9MR MS07 12	Fixed pin		3
204	928 0159 002	Intermediate P.C.B.		1
205	928 9019 499	Screw		1
206	928 0151 204	Floating rubber		4
207	9MR DG04 99	Traverse gear(A)		1
209	9MR MC04 15	Adjust spring holder1		2
210	9MR MC04 16	Adjust spring holder2		1
211	9MR ME03 20	Adjust spring		3
212	9MR MM02 34	Traverse drive rack		1
213	9MR MS07 10	Drive shaft		1
214	9MR MS07 11	Guide shaft		1
215	9MR HD17 028	Screw		2
216	9MV HD12 24	Screw		4
217	9MR DG05 00	Traverse gear(B)		1
218	9MR DG05 01	Traverse gear(C)		1
219	9MR ME03 19	Traverse gear spring		1
220	928 0151 301	PCB rubber		1
⚠ 232	928 0159 109	Optical pick-up		1
233	9MR JB23 08A	Interface FPC		1
234	9MR MC04 18	Shaft spring		1
235	9MV HD10 57	Screw		2
236	928 0152 106	Cushion rubber		2
237	9MR EP30 81A	FG P.C.B.		1

16. PACKING & ACCESSORIES



PARTS LIST OF PACKING & ACCESSORIES

Ref. No.	Part No.	Part Name	Remarks	Q'ty
★ 201	504 0092 060	Stylen paper		1
202	505 0131 076	Cabinet cover		1
203	503 1356 100	Cushion (Front)		1
203A	503 1357 002	Cushion (Rear)		1
204	501 2145 000	Carton case		1
205	505 0038 030	Poly. cover		1
206	511 3789 006	Instruction manual		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
207	515 0867 101	Service station list (EX)		1
208	203 5224 008	3P pin cord		1
209	—	Battery (R6P,AA)		1
213	399 0745 003	Remote controller RC-548		1
★ 214	513 1389 006	Control card base		1
★ 215	517 1430 012	UPC label		1
★ 216	515 0690 404	DEL warranty home		1

17. NOTE FOR PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol ⚠ [ ] have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.: RN (Type) 14K (Shape and performance) 2E (Power) 182 (Resistance) G (Allowable error) FR (Others)

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

✻ **Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm
- 2: Indicates number of zeros after effective number.
- 1 8: 2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
- 2: 1-digit effective number.
- 1 R: 2-digit effective number, decimal point indicated by R.

• Units: ohm

● Capacitors

Ex.: CE (Type) 04W (Shape and performance) 1H (Dielectric strength) 2R2 (Capacity) M (Allowable error) BP (Others)

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For change and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high requency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	–20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metallized	2C : 160V	–0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	= : Others	
	2J : 630V		

✻ **Capacity (electrolyte only)**

2 2 2 ⇒ 2200μF
- 2: Indicates number of zeros after effective number.
- 2 2: 2-digit effective number.

• Units: μF.

2 R 2 ⇒ 2.2μF
- 2: 1-digit effective number.
- 2 R: 2-digit effective number, decimal point indicated by R.

• Units: μF.

✻ **Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF=0.0022μF
- (More than 2): Indicates number of zeros after effective number.
- 2 2: 2-digit effective number.

• Units: pF.

2 2 1 ⇒ 220pF
- (0 or 1): Indicates number of zeros after effective number.
- 2 2: 2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dieelectric strength value.

18. PARTS LIST OF P.W.B. UNIT ASS'Y

MAIN UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC2001	928 0159 808	IC MN103S26EGA	
IC2501	928 0159 905	IC BA5823FP	
IC2502	928 0160 004	IC SN74AHC1G66H	
IC3001	928 0160 101	IC MN677531KA	
IC3061	928 0160 208	IC MT48LC4M16A2TG-8/75	64M SDRAM
IC3091	928 0126 909	IC NJM2115V	
IC3201	928 0160 305	IC ADV7190	
IC3251	928 0160 402	IC PQ1K333M	
IC3701	928 0160 509	IC GMVLX1A-X	
IC3731	928 0160 606	IC M54V25632A10	
IC3751	928 0160 703	IC ADV7196AKS	
IC3781	928 0160 800	IC PQ1K333M	
IC3901	928 0160 907	IC XC2S50	
IC3931	928 0161 003	IC XC17S50XLS	
IC4221,4231	928 0142 501	IC PCM1746	
IC4241	928 0142 501	IC PCM1746	
IC4261	928 0163 001	IC TC7W32FUTL	
IC4291	928 0163 108	IC TC7ST04FUTL	
IC5201	928 0161 100	IC AN8703FH	
IC5261	928 0161 207	IC NJU7015	
IC5262	928 0161 304	IC CLC58021MX	
IC5263	928 0161 401	IC SN74LV4053APW	
IC5264	928 0161 508	IC TC7W53FUTL	
IC5265	928 0160 004	IC SN74AHC1G66H	
IC5266	928 0161 207	IC NJU7015	
IC5267	928 0161 605	IC AHC2G66HDCTR	
IC6201	928 0161 702	IC MN102H60GFB	
IC6211	928 0128 208	IC PST596JNR	
IC6221	928 0161 809	IC BR24C08F	
IC6301	928 0162 002	IC RFKFRP50G160	U-COM
IC6501,6511	928 0128 703	IC AHC1GU04HDCK	
IC6521,6531	928 0128 703	IC AHC1GU04HDCK	
IC6541	928 0161 906	IC AHC2G74HDCTR	
IC6551	928 0162 109	IC AHC2G157HDCT	
IC6561,6571	928 0128 703	IC AHC1GU04HDCK	
IC6581,6591	928 0128 703	IC AHC1GU04HDCK	
IC6801	928 0162 206	IC MN67736WK	
Q2001	928 0162 303	Transistor 2SD1819ATX	
Q3221,3226	928 0094 604	Transistor 2SB1218A-R	
Q3231,3236	928 0094 604	Transistor 2SB1218A-R	
Q3761,3766	928 0162 400	Transistor 2SA1532-BC	
Q3771	928 0162 400	Transistor 2SA1532-BC	
Q5211,5215	928 0072 600	Transistor 2SB1115-T	
Q5261,5262	928 0162 507	Transistor 2SC3930-BC	
Q5263	928 0162 400	Transistor 2SA1532-BC	
Q5264	928 0162 507	Transistor 2SC3930-BC	
Q5271	928 0162 604	Transistor UN5211	
Q6215	928 0158 508	Transistor UN5212-TX	
QR5221	928 0158 401	Transistor UN2121-TX	
QR5241	928 0162 701	Transistor UN511M-TX	
D3251,3781	928 0147 904	Diode MA111-TX	
D5261	928 0162 808	Diode MA716	
D6215	928 0162 905	Diode MA728-TX	
D6501,6521	928 0110 009	Diode MA304	
RESISTORS GROUP			
K2002,3002	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
K3003,3004	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
K3201,3203	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
K3263,3265	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
K3267,6231	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
K6813	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R2020		Metal film chip 18 kohm 1/16W	ERJ3GEYJ183
R2021		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R2022,2023		Metal film chip 7.5 kohm 1/16W	ERJ3GEYJ752
R2025,2026		Metal film chip 22 kohm 1/16W	ERJ3GEYJ223
R2027,2028		Metal film chip 56 kohm 1/16W	ERJ3GEYJ563
R2029,2030		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R2031,2032		Ceramic chip 330pF/50V	ECUV1H331JCV
R2033		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R2034		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R2035		Metal film chip 2.7 kohm 1/16W	ERJ3GEYJ272
R2036	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R2037		Metal film chip 68 kohm 1/16W	ERJ3GEYJ683
R2038		Metal film chip 15 kohm 1/16W	ERJ3GEYJ153
R2039		Metal film chip 1 Mohm 1/16W	ERJ3GEYJ105
R2040,2041		Metal film chip 8.2 kohm 1/16W	ERJ3GEYJ822
R2042-2046		Metal film chip 15 kohm 1/16W	ERJ3GEYJ153
R2047,2048		Metal film chip 4700 kohm 1/16W	ERJ3GEYJ475
R2049		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R2051,2052	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R2053,2054		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R2501-2503	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R2504,2505	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R2506	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R3001		Metal film chip 22 ohm 1/16W	ERJ3GEYJ220
R3002		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473

Ref. No.	Part No.	Part Name	Remarks
R3006,3007	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R3012		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R3013		Metal film chip 680 kohm 1/16W	ERJ3GEYJ684
R3014-3016	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R3017		Metal film chip 680 kohm 1/16W	ERJ3GEYJ684
R3018	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R3031	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R3061	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R3091,3092		Metal film chip 22 kohm 1/16W	ERJ3GEYG223
R3093		Metal film chip 33 kohm 1/16W	ERJ3GEYJ333
R3094		Metal film chip 15 kohm 1/16W	ERJ3GEYJ153
R3095		Metal film chip 18 kohm 1/16W	ERJ3GEYJ183
R3096		Metal film chip 27 kohm 1/16W	ERJ3GEYJ273
R3097		Metal film chip 18 kohm 1/16W	ERJ3GEYJ183
R3098		Metal film chip 27 kohm 1/16W	ERJ3GEYJ273
R3201,3202	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R3203		Metal film chip 820 ohm 1/16W	ERJ3GEYJ821
R3204		Metal film chip 220 ohm 1/16W	ERJ3GEYJ221
R3205		Metal film chip 200 ohm 1/16W	ERJ3RBD201
R3221		Metal film chip 82 ohm 1/16W	ERJ3GEYJ820
R3222		Metal film chip 220 ohm 1/16W	ERJ3GEYJ221
R3223		Metal film chip 33 ohm 1/16W	ERJ3GEYJ330
R3224		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R3226		Metal film chip 150 ohm 1/16W	ERJ3GEYJ151
R3227		Metal film chip 220 ohm 1/16W	ERJ3GEYJ221
R3228		Metal film chip 33 ohm 1/16W	ERJ3GEYJ330
R3229		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R3231		Metal film chip 220 ohm 1/16W	ERJ3RBD221
R3232		Metal film chip 33 ohm 1/16W	ERJ3GEYJ330
R3233		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R3236		Metal film chip 220 ohm 1/16W	ERJ3RBD221
R3237		Metal film chip 33 ohm 1/16W	ERJ3GEYJ330
R3238		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R3241		Metal film chip 220 ohm 1/16W	ERJ3RBD221
R3701		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
R3702		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R3703,3704	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R3731-3733		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
R3738-3740		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
R3751,3752	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R3753		Metal film chip 1.5 kohm 1/16W	ERJ3RBD152
R3754,3755		Metal film chip 1 kohm 1/16W	ERJ3RBD102
R3761		Metal film chip 220 ohm 1/16W	ERJ3RBD221
R3762		Metal film chip 33 ohm 1/16W	ERJ3GEYJ330
R3763		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R3766		Metal film chip 220 ohm 1/16W	ERJ3RBD221
R3767		Metal film chip 33 ohm 1/16W	ERJ3GEYJ330
R3768		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R3771		Metal film chip 150 ohm 1/16W	ERJ3GEYJ151
R3772		Metal film chip 220 ohm 1/16W	ERJ3GEYJ221
R3773		Metal film chip 33 ohm 1/16W	ERJ3GEYJ330
R3774		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102

Ref. No.	Part No.	Part Name	Remarks
R3901,3902		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R3931		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R4221		Metal film chip 10 ohm 1/16W	ERDAS3G100
R4231,4241		Metal film chip 330 ohm 1/16W	ERJ3GEYJ331
R4261-4263		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
R4271-4274	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R4291		Metal film chip 150 ohm 1/16W	ERJ3GEYJ151
R5211		Metal film chip 2.2 ohm 1/16W	ERJ3GEYJ2R2
R5212	928 9019 460	Metal film chip 27 ohm 1/2W	ERJ12YJ270
R5213		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R5214		Metal film chip 22 kohm 1/16W	ERJ3GEYJ223
R5215		Metal film chip 2.2 ohm 1/16W	ERJ3GEYJ2R2
R5216	928 9019 460	Metal film chip 27 ohm 1/2W	ERJ12YJ270
R5217		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R5221	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R5231,5232		Metal film chip 8.2 kohm 1/16W	ERJ3GEYJ822
R5233		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R5241		Metal film chip 220 ohm 1/16W	ERJ3GEYJ221
R5242		Metal film chip 82 kohm 1/16W	ERJ3GEYJ823
R5256		Metal film chip 22 kohm 1/16W	ERJ3GEYF223
R5257		Metal film chip 1.8 kohm 1/16W	ERJ3GEYJ182
R5258		Metal film chip 2.2 kohm 1/16W	ERJ3GEYJ222
R5261,5262		Metal film chip 560 ohm 1/16W	ERJ3GEYJ561
R5263		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R5264		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
R5265		Metal film chip 100 kohm 1/16W	ERJ3GEYJ104
R5266		Metal film chip 56 kohm 1/16W	ERJ3GEYJ563
R5267		Metal film chip 330 kohm 1/16W	ERJ3GEYJ334
R5268		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R5269		Metal film chip 100 kohm 1/16W	ERJ3GEYJ104
R5270		Metal film chip 27 kohm 1/16W	ERJ3GEYJ273
R5271,5272	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00
R5281,5282		Metal film chip 1 Mohm 1/16W	ERJ3GEYJ105
R5284		Metal film chip 56 kohm 1/16W	ERJ3GEYJ563
R5286,5287		Metal film chip 68 ohm 1/16W	ERJ3GEYJ680
R5288		Metal film chip 5.6 kohm 1/16W	ERJ3GEYJ562
R5289		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R5290		Metal film chip 5.6 kohm 1/16W	ERJ3GEYJ562
R5291		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R5292		Metal film chip 5.6 kohm 1/16W	ERJ3GEYJ562
R5293		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R5294		Metal film chip 5.6 kohm 1/16W	ERJ3GEYJ562
R5295		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R5296		Metal film chip 3.3 kohm 1/16W	ERJ3GEYJ332
R5297,5299	928 0155 404	Metal film chip 100 ohm 1/16W	ERJ3GEYJ101
R5300		Metal film chip 3.3 kohm 1/16W	ERJ3GEYJ332
R5301		Metal film chip 56 kohm 1/16W	ERJ3GEYJ563
R6201		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R6202,6203		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103

Ref. No.	Part No.	Part Name	Remarks
R6205,6206		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
R6207,6208		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R6209		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
R6210		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R6211		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
R6215		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
R6216		Metal film chip 1 kohm 1/16W	ERJ3GEYJ102
R6501		Metal film chip 1 Mohm 1/16W	ERJ3GEYJ105
R6502		Metal film chip 220 ohm 1/16W	ERJ3RBD221
R6503		Metal film chip 100 kohm 1/16W	ERJ3GEYJ104
R6521		Metal film chip 1 Mohm 1/16W	ERJ3GEYJ105
R6522		Metal film chip 220 ohm 1/16W	ERJ3RBD221
R6523		Metal film chip 100 kohm 1/16W	ERJ3GEYJ104
R6561		Metal film chip 1 Mohm 1/16W	ERJ3GEYJ105
R6562		Metal film chip 330 ohm 1/16W	ERJ3RBD331
R6801		Metal film chip 47 kohm 1/16W	ERJ3GEYJ473
RA2021	928 9020 019	Resistor-Resistor 1 kohm	EXBV4V102J
RA2022	928 9019 431	Resistor-Resistor 4.7 kohm	EXBV4V472J
RA2501	928 9018 102	Resistor-Resistor 47 kohm	EXBV8V473J
RA3001	928 9020 019	Resistor-Resistor 1 kohm	EXBV4V102J
RA3002-3008	928 0138 201	Resistor-Resistor 82 ohm	EXBV8V820J
RA3031-3033	928 0143 403	Resistor-Resistor 0 ohm	EXBV4VR000
RA3201,3202	928 9020 006	Resistor-Resistor 10 kohm	EXBV8V103J
RA3701	928 9019 431	Resistor-Resistor 4.7 kohm	EXBV4V472J
RA3702	928 9018 131	Resistor-Resistor 10 kohm	EXBV4V103J
RA3703-3705	928 9020 006	Resistor-Resistor 10 kohm	EXBV8V103J
RA3751,3752	928 9018 157	Resistor-Resistor 470 ohm	EXBV8V471J
RA3753	928 9018 160	Resistor-Resistor 470 ohm	EXBV4V471J
RA3754,3755	928 9018 157	Resistor-Resistor 470 ohm	EXBV8V471J
RA3756	928 9018 160	Resistor-Resistor 470 ohm	EXBV4V471J
RA3757,3758	928 9018 157	Resistor-Resistor 470 ohm	EXBV8V471J
RA3759,3760	928 9018 160	Resistor-Resistor 470 ohm	EXBV4V471J
RA3901-3904	928 9018 157	Resistor-Resistor 470 ohm	EXBV8V471J
RA5201	928 9019 457	Resistor-Resistor 100 ohm	EXBV8V101J
RA6201,6202	928 9018 131	Resistor-Resistor 10 kohm	EXBV4V103J
RA6203	928 9019 431	Resistor-Resistor 4.7 kohm	EXBV4V472J
RA6204	928 9018 131	Resistor-Resistor 10 kohm	EXBV4V103J
RA6205	928 9020 006	Resistor-Resistor 10 kohm	EXBV8V103J
RA6206	928 9018 115	Resistor-Resistor 47 kohm	EXBV4V473J
VR3201	928 0096 806	Semi fixed resistor 1 kohm	VRV0293B102T
VR3221,3225	928 0096 903	Semi fixed resistor 200 ohm	VRV0293B201T
VR3751	928 0096 806	Semi fixed resistor 1 kohm	VRV0293B102T
VR3771	928 0096 903	Semi fixed resistor 200 ohm	VRV0293B201T

Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
C2001,2002	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C2003-2018		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C2021	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C2022-2025		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C2026,2031		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C2032		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C2034		Ceramic chip 0.039uF/16V	ECUV1C393KBV
C2035		Ceramic chip 8200pF/50V	ECUV1H822KBV
C2036,2038		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C2039		Ceramic chip 0.01uF/16V	ECUV1C103KBV
C2040		Ceramic chip 0.001uF/50V	ECUX1H102JCV
C2041		Metal film chip 10 kohm 1/16W	ERJ3GEYJ103
C2042		Metal film chip 560 ohm 1/16W	ERJ3GEYJ561
C2043		Ceramic chip 100pF/50V	ECUV1H101JCV
C2044-2046		Ceramic chip 390pF/50V	ECUV1H391JCV
C2047		Ceramic chip 0.01uF/16V	ECUV1C103KBV
C2048		Ceramic chip 0.015uF/16V	ECUV1C153KBV
C2050		Ceramic chip 0.033uF/16V	ECUV1C333KBV
C2051		Ceramic chip 68pF/50V	ECUV1H680JCV
C2052,2053		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C2054		Ceramic chip 680pF/50V	ECUV1H681JCV
C2055		Ceramic chip 6800pF/50V	ECUV1H682KBV
C2056,2057		Ceramic chip 2700pF/50V	ECUV1H272KBV
C2058		Ceramic chip 0.001uF/50V	ECUX1H102JCV
C2059		Ceramic chip 820pF/50V	ECUV1H821JCV
C2060		Ceramic chip 0.001uF/50V	ECUX1H102JCV
C2061,2062		Ceramic chip 330pF/50V	ECUV1H331JCV
C2063-2065		Ceramic chip 0.001uF/50V	ECUX1H102JCV
C2066-2068		Ceramic chip 4700pF/50V	ECUV1H472KBV
C2073		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C2501	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C2502	928 9020 103	Electrolytic 330uF/6.3V	ECEV0JA331
C2503	928 9020 116	Electrolytic 100uF/16V	ECEV1CA101W
C2504-2508		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C2511,2512		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3001,3002	928 9020 103	Electrolytic 330uF/6.3V	ECEV0JA331
C3003-3007		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3008,3009	928 9019 198	Ceramic chip 1uF/10V	ECUV1A105ZFV
C3010-3035		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3036,3037	928 9020 035	Electrolytic 15uF/6V	VCE0215B156
C3038,3039		Ceramic chip 1uF/10V	ECUZ1A105KBN
C3040-3053		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3054		Ceramic chip 22pF/50V	ECUV1H220JCV
C3061-3067		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3091		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C3092		Ceramic chip 1uF/6.3V	ECUV0J105KBV
C3093		Ceramic chip 1uF/10V	ECUZ1A105KBN
C3094		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3095	928 9020 048	Electrolytic 33uF/6.3V	EEVHB0J330
C3096		Ceramic chip 1uF/10V	ECUZ1A105KBN

Ref. No.	Part No.	Part Name	Remarks
C3201	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3202-3206		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3207		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C3208,3209		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3210		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C3211,3212		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3220	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3221,3226		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3231,3236		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3251	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3252		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3253	928 9020 051	Electrolytic 10uF/10V	RCST1AY106RC
C3254		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3701-3703	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3711-3724		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3731,3732	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3733-3744		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3751	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3752-3755		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3756		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C3757	928 9020 129	Ceramic chip 1uF/10V	ECUZ1A105KBN
C3758,3759		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3761,3766		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3770	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3771,3781		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3782	928 9020 051	Electrolytic 10uF/10V	RCST1AY106RC
C3783		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3901,3902	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C3903-3919		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C3931		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4220	928 9020 077	Electrolytic 22uF/10V	RCST1AX226RC
C4221-4224		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4225-4228	928 9020 051	Electrolytic 10uF/10V	RCST1AY106RC
C4229		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4230	928 9020 077	Electrolytic 22uF/10V	RCST1AX226RC
C4231-4234		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4235	928 9020 051	Electrolytic 10uF/10V	RCST1AY106RC
C4237,4238	928 9020 051	Electrolytic 10uF/10V	RCST1AY106RC
C4239		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4240	928 9020 077	Electrolytic 22uF/10V	RCST1AX226RC
C4241-4244		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4245-4248	928 9020 051	Electrolytic 10uF/10V	RCST1AY106RC
C4249		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4251-4253		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4258,4259	928 9020 080	Electrolytic 47uF/16V	RCST1CC476RC
C4261		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4262,4263	928 9020 035	Electrolytic 15uF/6V	VCE0215B156
C4285	928 9020 035	Electrolytic 15uF/6V	VCE0215B156
C4291		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C4292		Ceramic chip 39pF/50V	ECUV1H390JCV
C4336		Electrolytic 0.1uF/50V	ECUM1H104ZFN

Ref. No.	Part No.	Part Name	Remarks
C5201,5202	928 9020 093	Electrolytic 10uF/16V	EEVHB1C100
C5203-5205		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5211,5215	928 9020 064	Electrolytic 47uF/6.3V	EEVHB0J470
C5221		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5222	928 9020 051	Electrolytic 10uF/10V	RCST1AY106RC
C5231		Metal film chip 4.7 kohm 1/16W	ERJ3GEYJ472
C5232-5234		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5235,5236		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C5251		Ceramic chip 100pF/50V	ECUV1H101JCV
C5252		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C5261		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5262		Ceramic chip 820pF/50V	ECUV1H821JCV
C5263		Ceramic chip 220pF/50V	ECUV1H221JCV
C5264		Ceramic chip 820pF/50V	ECUV1H821JCV
C5271,5272		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5273		Ceramic chip 1800pF/50V	ECUV1H182KBV
C5274		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C5281		Ceramic chip 3900pF/50V	ECUV1H392KBV
C5282		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5283,5284		Ceramic chip 560pF/50V	ECUV1H561JCV
C5285		Ceramic chip 0.027uF/16V	ECUV1C273KBV
C5287		Ceramic chip 0.22uF/10V	ECUV1A224KBV
C5288		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5289		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C5290-5292		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C5293-5296		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C5297,5298		Ceramic chip 0.047uF/16V	ECUV1C473KBV
C5299		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6201	928 9020 048	Electrolytic 33uF/6.3V	EEVHB0J330
C6202-6206		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6211		Ceramic chip 100pF/50V	ECUV1H101JCV
C6215		Ceramic chip 0.1uF/16V	ECUX1C104KBV
C6221		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6251		Ceramic chip 0.01uF/50V	ECUV1H103KBV
C6252	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C6301,6302		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6501	928 9020 035	Electrolytic 15uF/6V	VCE0215B156
C6502,6503		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6504		Ceramic chip 0.001uF/50V	ECUX1H102JCV
C6505		Ceramic chip 8pF/50V	ECUV1H080DCV
C6506	928 9020 035	Electrolytic 15uF/6V	VCE0215B156
C6511,6521		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6522		Ceramic chip 0.001uF/50V	ECUX1H102JCV
C6523		Ceramic chip 5pF/50V	ECUV1H050DCV
C6531,6541		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6551,6561		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6562,6563		Ceramic chip 15pF/50V	ECUV1H150JCV
C6571,6581		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6591		Ceramic chip 0.1uF/16V	ECUX1C104ZFV
C6801,6802	928 9020 022	Electrolytic 100uF/6.3V	EEVHB0J101
C6803-6814		Ceramic chip 0.22uF/16V	ECUX1C224ZFV

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
FL4201	928 0143 607	Filter	VLF1491S105T	1
FL6251	928 0143 704	Filter	VLF1491S104T	1
FL6252-6256	928 0143 607	Filter	VLF1491S105T	5
FP5201	928 0159 206	38P connector	K1MN38A00005	1
L2001,2002	928 0148 505	Coil 10uH	VLQ0910K100	2
L2021	928 0148 505	Coil 10uH	VLQ0910K100	1
L2501	928 9018 186	Metal film chip 0 ohm 1/4W	ERJ14Y0R00	1
L3251,3751	928 0138 007	Coil 10uH	ELJEA100KF	2
L5201,5202	928 0138 007	Coil 10uH	ELJEA100KF	2
L6501	928 0148 709	Coil 22uH	VLQ0909J220T	1
LA4201	928 0146 303	Coil - Coil	VLP0412A601	1
LA6211,6212	928 0146 303	Coil - Coil	VLP0412A601	2
LB3001,3002	928 0078 303	Coil	JALBK2HS470T	2
LB3091	928 0129 401	Chip solid inductor	VLP0323A601R	1
LB3201-3207	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00	7
LB3208-3210	928 0129 401	Chip solid inductor	VLP0323A601R	3
LB3213	928 0129 401	Chip solid inductor	VLP0323A601R	1
LB3214	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00	1
LB3701	928 0078 303	Coil	JALBK2HS470T	1
LB3901,3902	928 0078 303	Coil	JALBK2HS470T	2
LB4201-4210	928 0129 401	Chip solid inductor	VLP0323A601R	10
LB4270-4273	928 0078 219	Coil	VLP0155-T	4
LB4274-4280	928 0129 401	Chip solid inductor	VLP0323A601R	7
LB4291,4292	928 0129 401	Chip solid inductor	VLP0323A601R	2
LB5201,5202	928 0129 401	Chip solid inductor	VLP0323A601R	2
LB5203-5207	928 0078 303	Coil	JALBK2HS470T	5
LB5208-5210	928 0129 401	Chip solid inductor	VLP0323A601R	3
LB5211	928 0078 219	Coil	VLP0155-T	1
LB5212-5214	928 0129 401	Chip solid inductor	VLP0323A601R	3
LB5215	928 0078 303	Coil	JALBK2HS470T	1
LB5216-5219	928 0078 219	Coil	VLP0155-T	4
LB5220,5221	928 0129 401	Chip solid inductor	VLP0323A601R	2
LB5222,5223	928 0078 219	Coil	VLP0155-T	2
LB5224,5225	928 0129 401	Chip solid inductor	VLP0323A601R	2
LB5226-5229	9MV LP01 74	Coil	VLP0174	4
LB6201	928 0129 401	Chip solid inductor	VLP0323A601R	1
LB6202	928 0078 219	Coil	VLP0155-T	1
LB6211-6214	928 0129 401	Chip solid inductor	VLP0323A601R	4
LB6216-6221	928 0129 401	Chip solid inductor	VLP0323A601R	6
LB6501,6511	928 0129 401	Chip solid inductor	VLP0323A601R	2
LB6512	928 0078 219	Coil	VLP0155-T	1
LB6521,6531	928 0129 401	Chip solid inductor	VLP0323A601R	2
LB6532	928 0078 219	Coil	VLP0155-T	1
LB6541	928 0129 401	Chip solid inductor	VLP0323A601R	1
LB6542	928 0078 219	Coil	VLP0155-T	1
LB6551	928 0129 401	Chip solid inductor	VLP0323A601R	1
LB6552	928 9018 005	Metal film chip 0 ohm 1/16W	ERJ3GEY0R00	1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
LB6561,6571	928 0129 401	Chip solid inductor	VLP0323A601R	2
LB6572	928 0078 219	Coil	VLP0155-T	1
LB6581	928 0129 401	Chip solid inductor	VLP0323A601R	1
LB6582	928 0078 219	Coil	VLP0155-T	1
LB6591	928 0129 401	Chip solid inductor	VLP0323A601R	1
LB6592	928 0078 219	Coil	VLP0155-T	1
LB6801,6802	928 0078 303	Coil	JALBK2HS470T	2
P4271	928 0159 303	15P Connector(MALE)	VJP3904C015	1
P4291	928 0159 400	3P Connector (MALE)	K1KA03A00234	1
PS3201	928 0159 507	20P Connector (FEMALE)	K1KB20A00101	1
PS4201	928 0159 604	26P Connector (FEMALE)	VJS4222C026B	1
PS6201	928 0149 449	10P Connector (FEMALE)	VJS2961C010	1
PS6202	928 0144 101	22P Connector (FEMALE)	VJS4222C022B	1
PS6251	928 0159 701	14P Connector (FEMALE)	VJS4222C014B	1
X6501	9MV SX10 44	Crystal oscillator	VSX1044	1
X6521	9MV SX10 45	Crystal oscillator	VSX1045	1
X6561	9MV SX09 44	Crystal oscillator	VSX0944	1

GU-3375 MOTHER UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	262 2974 004	IC PMD200	
IC102	262 2975 906	IC BU2098F	
IC103	262 2376 903	IC TC74HCT7007AF(TP1)	
IC105	263 0081 002	IC NJM4558D	
IC201	262 2978 000	IC DXP7001AF	
IC202,203	262 2376 903	IC TC74HCT7007AF(TP1)	
IC205	262 2699 907	IC SN74LV164ANS-EL2	
IC206	262 2698 908	IC SN74LV86ANS-EL2	
IC207	262 2696 900	IC SN74LV32ANS-EL2	
IC209	262 1421 901	IC TC74HCT04AF(TAPE1)	
IC210	262 1205 907	IC TC74HCU04AF(TP1)	
IC211	262 1421 901	IC TC74HCT04AF(TAPE1)	
IC214	262 2699 907	IC SN74LV164ANS-EL2	
IC215	262 2518 907	IC SN74LV74APW-EL2	
IC216	262 2517 908	IC SN74LV08APW-EL2	
IC217	262 2518 907	IC SN74LV74APW-EL2	
IC218	262 2699 907	IC SN74LV164ANS-EL2	
IC219	262 2669 908	IC SN74LV157APW	
IC251	262 1205 907	IC TC74HCU04AF(TP1)	
IC252	262 2580 906	IC CXA1511M	
IC301,302	262 2530 914	IC PCM1704U/2K	
IC303,304	263 0896 909	IC NJM2068MD-T1	
IC321,322	263 0896 909	IC NJM2068MD-T1	
IC401-405	263 0896 909	IC NJM2068MD-T1	
IC406	262 1793 901	IC TC4W53F	
IC408-410	263 0615 902	IC BA15218F-DXE2	
IC501	262 2829 900	IC ML6427	
IC502	262 2976 905	IC ML6426	
IC503	262 2861 900	IC 74VHC123AMTCX	
IC504	263 0682 003	IC NJM2229S	
IC505	262 2519 906	IC SN74LV00APW-EL2	
IC506	263 1082 903	IC TK15420MTL	
IC601	262 2979 009	IC MN101C35DAG	
IC602	399 0195 909	Ceramic oscillator EROEC8004T	
IC603	263 0913 905	IC PST600C TP	
IC605	263 1079 903	IC BA033FP	
IC801	263 0809 006	IC NJM7805FA(S)	
IC802	263 0554 005	IC NJM7905FA	
IC803	262 2977 904	IC BA18BC0FP-E2	
TR102,103	269 0054 901	Transistor DTC144EK	
TR105	274 0136 012	Transistor 2SD1913 (R/S)	
TR106	272 0093 010	Transistor 2SB1274 (R/S)	
TR107	274 0036 905	Transistor 2SD468(C)	
TR108	272 0025 907	Transistor 2SB562(C)	
TR109,110	274 0163 904	Transistor 2SD601A	
TR201	273 0460 905	Transistor KTC2875B	
TR251	269 0082 902	Transistor DTC114EK	
TR252	269 0122 901	Transistor DTC144WK	
TR253	273 0460 905	Transistor KTC2875B	
TR301-304	273 0460 905	Transistor KTC2875B	
TR309,310	273 0460 905	Transistor KTC2875B	
TR351	269 0082 902	Transistor DTC114EK	
TR401-412	273 0460 905	Transistor KTC2875B	
TR413	274 0163 904	Transistor 2SD601A	
TR414	269 0083 901	Transistor DTA114EK	
TR415-417	269 0082 902	Transistor DTC114EK	
TR418	274 0163 904	Transistor 2SD601A	
TR419	269 0083 901	Transistor DTA115EK	
TR420	269 0119 901	Transistor DTA124EK	
TR421	269 0082 902	Transistor DTC115EK	
TR423	269 0083 901	Transistor DTA116EK	
TR427	269 0082 902	Transistor DTC116EK	
TR501	274 0163 904	Transistor 2SD601A	
TR606	269 0082 902	Transistor DTC117EK	
TR607	269 0122 901	Transistor DTC144WK	
D352	276 0717 903	Diode 1SS355	
D401-404	276 0717 903	Diode 1SS355	
D601	276 0717 903	Diode 1SS355	
RESISTORS GROUP			
R102	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R111,112	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R113	244 2052 960	Metal oxide 220 ohm 1W(NB)	RS14B3A221JNBST(S)
R116-121	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R156	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R161,162	244 2052 960	Metal oxide 220 ohm 1W(NB)	RS14B3A221JNBST(S)
R163,164	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R165	247 2011 971	Carbon chip 62 kohm 1/16W	RM73B--623JT
R166	247 2009 970	Carbon chip 9.1 kohm 1/16W	RM73B--912JT
R167	247 2011 968	Carbon chip 56 kohm 1/16W	RM73B--563JT
R168	247 2009 970	Carbon chip 9.1 kohm 1/16W	RM73B--912JT
R169,170	247 2009 941	Carbon chip 6.8 kohm 1/16W	RM73B--682JT
R172	244 2050 933	Metal oxide 180 ohm 1W(NB)	RS14B3A181JNBST(S)
R173	247 2010 914	Carbon chip 13 kohm 1/16W	RM73B--133JT
R175	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R176	244 2051 945	Metal oxide 1 ohm 1W(NB)	RS14B3A010JNBST(S)
R178	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R179	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT (1608)

Ref. No.	Part No.	Part Name	Remarks
R180,181	244 2052 960	Metal oxide 220 ohm 1W(NB)	RS14B3A221JNBST(S)
R182	247 2010 969	Carbon chip 22 kohm 1/16W	RM73B--223JT
R183	247 2011 955	Carbon chip 51 kohm 1/16W	RM73B--513JT
R184	247 2011 926	Carbon chip 39 kohm 1/16W	RM73B--393JT
R185	247 2014 907	Carbon chip 560 kohm 1/16W	RM73B--564JT
R186,187	247 2011 955	Carbon chip 51 kohm 1/16W	RM73B--513JT
R189,190	247 2009 967	Carbon chip 8.2 kohm 1/16W	RM73B--822JT
R191,192	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R193	244 2051 945	Metal oxide 1 ohm 1W(NB)	RS14B3A010JNBST(S)
R194-196	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R201	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R203	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
R204	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R205	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R206	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R213,214	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R217	247 2004 933	Carbon chip 51 ohm 1/16W	RM73B--510JT
R219	247 2013 940	Carbon chip 330 kohm 1/16W	RM73B--334JT
R220	247 2006 902	Carbon chip 330 ohm 1/16W	RM73B--331JT (1608)
R222	247 2006 902	Carbon chip 330 ohm 1/16W	RM73B--331JT (1608)
R224	247 2007 914	Carbon chip 750 ohm 1/16W	RM73B--751JT
R225-227	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R228	247 2004 920	Carbon chip 47 ohm 1/16W	RM73B--470JT
R229	247 2008 900	Carbon chip 1.8 kohm 1/16W	RM73B--182JT
R230,231	247 2006 902	Carbon chip 330 ohm 1/16W	RM73B--331JT (1608)
R232	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R233	247 2004 920	Carbon chip 47 ohm 1/16W	RM73B--470JT
R234-236	247 2006 902	Carbon chip 330 ohm 1/16W	RM73B--331JT (1608)
R238	247 2004 920	Carbon chip 47 ohm 1/16W	RM73B--470JT
R239	247 2006 915	Carbon chip 270 ohm 1/16W	RM73B--271JT
R240	247 2004 920	Carbon chip 47 ohm 1/16W	RM73B--470JT
R242,243	247 2004 920	Carbon chip 47 ohm 1/16W	RM73B--470JT
R244	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R245	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R246	247 2004 920	Carbon chip 47 ohm 1/16W	RM73B--470JT
R247,248	247 2006 902	Carbon chip 330 ohm 1/16W	RM73B--331JT (1608)
R251	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R252	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT
R253	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R254	247 2019 928	Carbon chip 75 ohm 1/16W	RM73B--750FT
R255	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT
R256	244 2052 928	Metal oxide 47 ohm 1W(NB)	RS14B3A470JNBST(S)
R258	247 2012 996	Carbon chip 200 kohm 1/16W	RM73B--204JT
R259,260	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R261	247 2019 902	Carbon chip 1 kohm 1/16W	RM73B--102FT
R262	247 2011 926	Carbon chip 39 kohm 1/16W	RM73B--393JT
R263	247 2019 902	Carbon chip 1 kohm 1/16W	RM73B--102FT
R264,265	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R267,268	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R271-279	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R283	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT

Ref. No.	Part No.	Part Name	Remarks
R285,286	247 2006 902	Carbon chip 330 ohm 1/16W	RM73B--331JT (1608)
R288-290	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R291	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R301-304	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R305-308	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R309,310	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R319,320	247 2013 966	Carbon chip 390 kohm 1/16W	RM73B--394JT
R321,322	247 2008 939	Carbon chip 2.4 kohm 1/16W	RM73B--242JT
R323,324	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R327,328	247 2008 913	Carbon chip 2 kohm 1/16W	RM73B--202JT
R335,336	247 2008 926	Carbon chip 2.2 kohm 1/16W	RM73B--222JT
R339,340	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R341,342	247 2008 926	Carbon chip 2.2 kohm 1/16W	RM73B--222JT
R353,354	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R359,360	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R363,364	247 2007 998	Carbon chip 1.6 kohm 1/16W	RM73B--162JT
R365,366	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R401,402	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT
R403,404	247 2008 984	Carbon chip 3.9 kohm 1/16W	RM73B--392JT
R405,406	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R407,408	247 2009 967	Carbon chip 8.2 kohm 1/16W	RM73B--822JT
R409,410	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R411,412	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R413,414	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R415,416	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R417,418	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R419,420	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT
R421,422	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT (1608)
R423	247 2010 956	Carbon chip 20 kohm 1/16W	RM73B--203JT
R424	247 2008 984	Carbon chip 3.9 kohm 1/16W	RM73B--392JT
R425	247 2012 909	Carbon chip 82 kohm 1/16W	RM73B--823JT
R426	247 2010 956	Carbon chip 20 kohm 1/16W	RM73B--203JT
R427,428	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R429,430	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R431,432	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R433,434	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R435,436	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R437,438	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT
R439,440	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT (1608)
R441,442	247 2008 984	Carbon chip 3.9 kohm 1/16W	RM73B--392JT
R443,444	247 2010 956	Carbon chip 20 kohm 1/16W	RM73B--203JT
R445,446	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R447,448	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R449,450	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R451,452	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R453,454	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R455	247 2008 926	Carbon chip 2.2 kohm 1/16W	RM73B--222JT
R456	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT (1608)
R457	247 2008 926	Carbon chip 2.2 kohm 1/16W	RM73B--222JT
R458	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT

Ref. No.	Part No.	Part Name	Remarks
R459	247 2008 926	Carbon chip 2.2 kohm 1/16W	RM73B--222JT
R461	247 2008 926	Carbon chip 2.2 kohm 1/16W	RM73B--222JT
R462	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R463	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R464	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R465	247 2010 969	Carbon chip 22 kohm 1/16W	RM73B--223JT
R466	244 2052 902	Metal oxide 2.7 kohm 1W(NB)	RS14B3A272JNBST(S)
R468	244 2052 960	Metal oxide 220 ohm 1W(NB)	RS14B3A221JNBST(S)
R470	247 2010 956	Carbon chip 20 kohm 1/16W	RM73B--203JT
R471-476	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R480,481	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R482	247 2010 927	Carbon chip 15 kohm 1/16W	RM73B--153JT
R483-487	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R488,489	247 2010 972	Carbon chip 24 kohm 1/16W	RM73B--243JT
R490,491	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT (1608)
R492	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT
R493	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R501	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R502	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT (1608)
R503	247 2008 900	Carbon chip 1.8 kohm 1/16W	RM73B--182JT
R504	247 2019 902	Carbon chip 1 kohm 1/16W	RM73B--102FT
R505,506	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R507,508	247 2019 902	Carbon chip 1 kohm 1/16W	RM73B--102FT
R509	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R513	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R514	247 2019 928	Carbon chip 75 ohm 1/16W	RM73B--750FT
R515	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R516,517	247 2019 928	Carbon chip 75 ohm 1/16W	RM73B--750FT
R518	247 2019 915	Carbon chip 1.5 kohm 1/16W	RM73B--152FT
R519,520	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
R522,523	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
R524	247 2019 915	Carbon chip 1.5 kohm 1/16W	RM73B--152FT
R525	247 2019 928	Carbon chip 75 ohm 1/16W	RM73B--750FT
R526,527	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R528-533	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
R534	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R536-538	247 2019 928	Carbon chip 75 ohm 1/16W	RM73B--750FT
R539-543	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R546-552	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R553,554	247 2019 928	Carbon chip 75 ohm 1/16W	RM73B--750FT
R555-557	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R558	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R559,560	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R561	247 2019 915	Carbon chip 1.5 kohm 1/16W	RM73B--152FT
R567	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R568	247 2014 907	Carbon chip 560 kohm 1/16W	RM73B--564JT
R569	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R570-572	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R573	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
R575	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R576,577	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R579-583	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R601	247 2014 965	Carbon chip 1 Mohm 1/16W	RM73B--105JT
R602-604	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R605	247 2009 967	Carbon chip 8.2 kohm 1/16W	RM73B--822JT
R606	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R607	247 2007 969	Carbon chip 1.2 kohm 1/16W	RM73B--122JT
R608	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R609	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R610	247 2005 987	Carbon chip 220 ohm 1/16W	RM73B--221JT
R612,613	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R614,615	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R626-674	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R676	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R689-692	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R699	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R702,703	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R711,712	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R715,716	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R719,720	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R723,724	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R727,728	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R731,732	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R802,803	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R807-809	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
CAPACITORS GROUP			
C101	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C102,103	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C104	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C105,106	256 1058 971	Metalized 0.1uF/50V	CF93A1H104JT (JL)
C107	255 1265 981	Mylar film 0.027uF/50V	CQ93M1H273JT(B)
C108	254 4299 919	Electrolytic 22uF/16V	CE04W1C220MT(SRE)
C109-111	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C113	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C114	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C123	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C126	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C141	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C142	257 0503 925	Ceramic chip 10pF/50V	CC73CH1H100DT
C143	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C167	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C168	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C169,170	254 4524 930	Electrolytic 0.47uF/50V	CE04W1HR47MT SMG/RE3
C171	257 0504 982	Ceramic chip 47pF/50V	CC73CH1H470JT
C201,202	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C205	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C206	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C207	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)

Ref. No.	Part No.	Part Name	Remarks
C208	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C209	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C213-215	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C216	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C217	254 4299 964	Electrolytic 47uF/16V	CE04W1C470MT(SRE)
C218,219	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C223	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C224	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C225	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C226	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C227	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C228	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C237	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C251	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C252	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C253	254 4525 900	Electrolytic 33uF/50V	CE04W1H330MT SMG/RE3
C255	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C256	254 4524 985	Electrolytic 10uF/50V	CE04W1H100MT SMG/RE3
C257	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C258	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C260	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C261	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C262	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C263	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C264	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C265	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C266	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C267	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C268	254 4524 943	Electrolytic 1uF/50V	CE04W1H010MT SMG/RE3
C269	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C271	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C272	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C273	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C274	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C275	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C276	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C277,278	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C279	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C280	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C281	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C282	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C283,284	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C285	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C286	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C287	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C288	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C289	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C301	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C302	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C303	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C304	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT

Ref. No.	Part No.	Part Name	Remarks
C305	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C306	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C307	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C308	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C317,318	254 4299 919	Electrolytic 22uF/16V	CE04W1C220MT(SRE)
C319,320	254 4302 974	Electrolytic 100uF/10V	CE04W1A101MT(SRE)
C321-326	254 4299 964	Electrolytic 47uF/16V	CE04W1C470MT(SRE)
C327,328	257 0509 903	Ceramic chip 820pF/50V	CK73B1H821KT
C329,330	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C331,332	254 3053 910	Electrolytic 22uF/16V	CE04D1C220MBPT(SME)
C333,334	257 0507 918	Ceramic chip 180pF/50V	CC73CH1H181JT
C335,336	257 0508 933	Ceramic chip 560pF/50V	CC73CH1H561JT
C339,340	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT
C343,344	254 4525 751	Electrolytic 470uF/50V	CE04W1H471MC SMG/RE3
C345,346	254 4541 955	Electrolytic 220uF/25V	CE04W1E221MT SMG/RE3
C371,372	257 0503 996	Ceramic chip 20pF/50V	CC73CH1H200JT
C373,374	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C375,376	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C377,378	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C379,380	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C401,402	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C403,404	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C405,406	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C407,408	254 4538 955	Electrolytic 220uF/16V	CE04W1C221MT SMG/RE3
C409,410	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C413,414	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C415,416	254 4299 964	Electrolytic 47uF/16V	CE04W1C470MT(SRE)
C417,418	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C419,420	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C423,424	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C427,428	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C429,430	254 4299 964	Electrolytic 47uF/16V	CE04W1C470MT(SRE)
C431,432	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C433,434	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C437,438	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C441,442	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C445	254 4213 937	Electrolytic 100uF/6.3V	CE04W0J101MT(SRA)
C446	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C447	254 4192 948	Electrolytic 220uF/10V	CE04W1A221MT(SRA)
C448	254 4538 900	Electrolytic 10uF/16V	CE04W1C100MT SMG/RE3
C451	256 1058 942	Metalized 0.056uF/50V	CF93A1H563JT (JL)
C452	256 1058 984	Metalized 0.12uF/50V	CF93A1H124JT (JL)
C453	254 4538 900	Electrolytic 10uF/16V	CE04W1C100MT SMG/RE3
C457	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C458	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C463,464	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C467,468	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C471,472	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C473	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C474	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)

Ref. No.	Part No.	Part Name	Remarks
C501,502	254 4533 950	Electrolytic 470uF/6.3V	CE04W0J471MT SMG/RE3
C503-505	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C506	254 4533 950	Electrolytic 470uF/6.3V	CE04W0J471MT SMG/RE3
C509	254 4533 950	Electrolytic 470uF/6.3V	CE04W0J471MT SMG/RE3
C510	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT
C511,512	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C513	254 4533 934	Electrolytic 220uF/6.3V	CE04W0J221MT SMG/RE3
C514-516	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C517,518	254 4533 950	Electrolytic 470uF/6.3V	CE04W0J471MT SMG/RE3
C519	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C520,521	254 4425 709	Electrolytic 2200uF/6.3V	CE04W0J222MC(SMG)
C524	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C536	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C537	254 4538 939	Electrolytic 47uF/16V	CE04W1C470MT SMG/RE3
C538	254 4327 904	Electrolytic 1000uF/6.3V	CE04W0J102MT(SMG)
C539,540	254 4538 942	Electrolytic 100uF/16V	CE04W1C101MT SMG/RE3
C550	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C551	255 1273 986	Mylar film 470pF/50V	CQ93M1H471JT(B)
C552	255 1265 978	Mylar film 0.022uF/50V	CQ93M1H223JT(B)
C553	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C554	254 4524 972	Electrolytic 4.7uF/50V	CE04W1H4R7MT SMG/RE3
C555	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C556	254 4213 937	Electrolytic 100uF/6.3V	CE04W0J101MT (SRA)
C557	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C560,561	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C602	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C610	254 4533 918	Electrolytic 47uF/6.3V	CE04W0J470MT SMG/RE3
C611	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C620,621	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C622	254 4533 921	Electrolytic 100uF/6.3V	CE04W0J101MT SMG/RE3
C624	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C625	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C626	254 4302 974	Electrolytic 100uF/10V	CE04W1A101MT(SRE)
C627	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C628	254 4524 985	Electrolytic 10uF/50V	CE04W1H100MT SMG/RE3
C629	254 4533 934	Electrolytic 220uF/6.3V	CE04W0J221MT SMG/RE3
C801	254 4538 955	Electrolytic 220uF/16V	CE04W1C221MT SMG/RE3
C802	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C803	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C806,807	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C808,809	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C810,811	254 4193 947	Electrolytic 100uF/16V	CE04W1C101MT (SRA)
C812,813	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C814,815	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C816,817	254 4538 955	Electrolytic 220uF/16V	CE04W1C221MT SMG/RE3
C818	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C819	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C820	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C821	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C822	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C823	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C827,828	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C829,830	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C831,832	254 4525 926	Electrolytic 100uF/50V	CE04W1H101MT SMG/RE3
C836	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C837	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C838,839	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C840	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C841	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C844	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C847	254 4533 921	Electrolytic 100uF/6.3V	CE04W0J101MT SMG/RE3
C848,849	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C850	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)
C851	254 4533 934	Electrolytic 220uF/6.3V	CE04W0J221MT SMG/RE3
C872	257 0501 901	Ceramic chip 0.01uF/50V	CK73B1H103KT (1608)

OTHER PARTS GROUP				Q'ty
CW35	203 5268 006	3P connector cord (51021)		1
CW121	204 6695 008	12P PH-SAN connector cord		1
CW131	204 6696 007	13P PH-SAN connector cord		1
CW151	204 6697 006	15P connector cord (51021)		1
CX31	205 0687 031	3P connector base (YEL) L		1
CX32	205 0395 035	3P KR connector base (L) RED		1
CX33	205 0355 033	3P KR connector base (L)		1
CX34	205 0685 033	3P connector base (BLK) L		1
CX71	205 0911 008	7P FFC connector base (R)1		
CX141	205 1205 027	14P connector base		1
CX201	205 1205 001	20P connector base		1
CX221	205 1205 030	22P connector base		1
CX261	205 1205 014	26P connector base		1
CX331	205 0770 058	33P FFC base (SIDE)		1
CX351	205 0770 074	35P FFC base (SIDE)		1
FB101-103	235 0130 903	Chip emifil (11A121)		3
FB109-112	235 0130 903	Chip emifil (11A121)		4
FB117	235 0130 903	Chip emifil (11A121)		1
FB149-163	235 0130 903	Chip emifil (11A121)		15
FB217-219	235 0130 903	Chip emifil (11A121)		3
FB251,252	235 0130 903	Chip emifil (11A121)		2
FB401-410	235 0130 903	Chip emifil (11A121)		10
FB416,417	235 0130 903	Chip emifil (11A121)		2
FB514	235 0130 903	Chip emifil (11A121)		1
FB601-608	235 0130 903	Chip emifil (11A121)		8
JK201	269 0177 008	Optical connector GP1F38T2		1
JK202	204 8597 007	1P pin jack		1
JK203,204	204 8612 005	Mini jack		2
JK401	204 8632 001	8P pin jack (AU)		1
JK501	204 8631 002	2P pin jack (AU)		1
JK503	204 8630 003	3P pin jack (AU)		1
JK504	204 8633 000	2P S-terminal (AU)		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
L101	235 0060 905	Inductor 2.2uH		1
L501	235 0134 909	Inductor ELESA220KA		1
L503	235 0134 909	Inductor ELESA220KA		1
RL351	214 0203 008	Relay (NA12W-K)		1
ST101,102	—	Style pin		2
T251	231 8063 009	Pulse trans.		1

GU-3374 DISPLAY UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC604	499 0290 007	IC GP1U271X	
IC901	265 0111 004	IC STR-L422	
IC902	262 0874 009	IC TLP521-1(BL)	
IC903	263 1113 005	IC SE005N	
IC904	263 0753 000	IC NJM7809FA(S)	
IC905	263 0878 008	IC NJM7909FA	
IC906	263 1132 002	IC PQ070VK01FZ	
IC907	263 1048 002	IC BA033T	
IC908	263 0753 000	IC NJM7809FA(S)	
IC909,910	268 0075 903	IC ICP-N25T	
TR605	278 0009 002	Photo transistor PT491F	
TR701-704	269 0082 902	Transistor DTC118EK	
TR901	272 0093 010	Transistor 2SB1274 (R/S)	
TR902	269 0082 902	Transistor DTC119EK	
TR903	272 0093 010	Transistor 2SB1274 (R/S)	
TR905	269 0083 901	Transistor DTA117EK	
TR906	269 0082 902	Transistor DTC120EK	
TR907	275 0106 906	Transistor HAT2053M	
TR908	274 0136 012	Transistor 2SD1913 (R/S)	
TR909	274 0036 905	Transistor 2SD468(C)	
TR910	269 0083 901	Transistor DTA118EK	
TR913	269 0082 902	Transistor DTC121EK	
D701-704	276 0717 903	Diode 1SS355	
D901-904	276 0729 904	Rectifier diode EM01AT	
D905	276 0730 906	Fast recovery diode AG01ZT	
D906	276 0724 909	Diode SARS01T	
D907-909	276 0730 906	Fast recovery diode AG01ZT	
D910	276 0725 704	Shottkey barrier diode RK39	
D911	276 0726 703	Shottkey barrier diode RJ43	
D912	276 0745 904	Shottkey barrier diode RB411DT	
D913	276 0725 704	Shottkey barrier diode RK39	
D914	276 0727 906	Fast recovery diode AL01ZT	
D919	276 0737 909	Shottkey barrier diode RB161L-40	
ZD901	276 0456 905	Zener diode HZS4B-1TD	
LD701	393 9453 916	LED SEL1810A	
LD702	393 9576 903	LED SELU1E10CXM	
LD703	393 9453 916	LED SEL1810A	
LD704	393 9504 904	LED SEL1210S	
LD901	278 0010 004	LED GL450	
TH901	279 0044 002	Thermistor NTH11D8R0LA	NTH11D8R0LA

Ref. No.	Part No.	Part Name	Remarks
RESISTORS GROUP			
R675	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R676	247 2005 945	Carbon chip 150 ohm 1/16W	RM73B--151JT
R677	247 2005 961	Carbon chip 180 ohm 1/16W	RM73B--181JT
R678	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R679	247 2005 945	Carbon chip 150 ohm 1/16W	RM73B--151JT
R680	247 2005 961	Carbon chip 180 ohm 1/16W	RM73B--181JT
R681	247 2006 915	Carbon chip 270 ohm 1/16W	RM73B--271JT
R682	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R683	247 2005 945	Carbon chip 150 ohm 1/16W	RM73B--151JT
R684	247 2005 961	Carbon chip 180 ohm 1/16W	RM73B--181JT
R685	247 2006 915	Carbon chip 270 ohm 1/16W	RM73B--271JT
R686	247 2006 944	Carbon chip 390 ohm 1/16W	RM73B--391JT
R687	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT
R688	247 2007 972	Carbon chip 1.3 kohm 1/16W	RM73B--132JT
R701	244 2051 929	Metal oxide 820 ohm 1W(NB)	RS14B3A821JNBST(S)
R702	244 2052 915	Metal oxide 1.8 kohm 1W(NB)	RS14B3A182JNBST(S)
R703	244 2051 929	Metal oxide 820 ohm 1W(NB)	RS14B3A821JNBST(S)
R704	244 2052 973	Metal oxide 560 ohm 1W(NB)	RS14B3A561JNBST(S)
R705	247 2006 944	Carbon chip 390 ohm 1/16W	RM73B--391JT
R706	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT
R707	247 2006 915	Carbon chip 270 ohm 1/16W	RM73B--271JT
R708	247 2007 972	Carbon chip 1.3 kohm 1/16W	RM73B--132JT
R901	244 2675 716	Metal oxide 68 kohm 2W(NB)	RS14B3D683JNBF(ERG)
R902	244 2674 717	Metal oxide 0.33 ohm 2W(NB)	RS14B3DR33JNBF(ERX)
R905	244 2675 732	Metal oxide 100 kohm 2W(NB)	RS14B3D104JNBF(ERG)
R906	244 2675 703	Metal oxide 47 ohm 2W(NB)	RS14B3D470JNBF(ERG)
R913	244 2043 953	Metal oxide 470 ohm 1W(NB)	RS14B3A471JNBST(S)
R916	244 2043 953	Metal oxide 470 ohm 1W(NB)	RS14B3A471JNBST(S)
R920	244 2051 929	Metal oxide 820 ohm 1W(NB)	RS14B3A821JNBST(S)
R929	244 2050 991	Metal oxide 6.8 kohm 1W(NB)	RS14B3A682JNBST(S)
R935	241 2378 917	Carbon film 200 ohm 1/4W(NB)	RD14B2E201JNBST
R938	247 2018 916	Carbon chip 1 ohm 1/16W	RM73B--010KT
CAPACITORS GROUP			
C612	254 4541 939	Electrolytic 47uF/25V	CE04W1E470MT SMG/RE3
C618	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C619	257 0511 904	Ceramic chip 0.01uF/50V	CK73F1H103ZT
⚠C691	253 8022 707	Ceramic 0.01 uF/250V(AC)	CK45F2EAC103MC
C701	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C702	257 0511 904	Ceramic chip 0.01uF/50V	CK73F1H103ZT
⚠C901	256 8038 017	Metalized 0.22uF/250V(AC)	CF99--2EAC224M
⚠C902	256 8038 004	Metalized 0.1uF/250V(AC)	CF99--2EAC104M
C905	254 4588 701	Electrolytic 100uF/200V	CE04W2D101MC(KMG)
C906	253 4546 708	Ceramic 470pF/2kV	CC45SL3D471JC
C907	253 4452 902	Ceramic 470pF/50V	CC45SL1H471JT
C908	253 9030 963	Ceramic 0.01uF/25V	CK45=1E103KT
C909	254 4522 945	Electrolytic 47uF/35V	CE04W1V470MT SMG/RE3

Ref. No.	Part No.	Part Name	Remarks
⚠C910	253 8022 710	Ceramic 0.0022uF/250V(AC)	CK45F2EAC222MC
C911	253 8028 701	Ceramic 0.0022uF/1kV	CK45R3A222KC
C912	255 1264 908	Mylar film 1000pF/50V	CQ93M1H102JT(B)
C914	254 4595 707	Electrolytic 2200uF/6.3V	CE04W0J222MC J30(LXV
C915	254 4596 706	Electrolytic 1200uF/16V	CE04W1C122MC J30(LXJ
C916	254 4591 905	Electrolytic 100uF/50V	CE04W1H101MT (KMF)
C917	254 4596 706	Electrolytic 1200uF/16V	CE04W1C122MC J30(LXJ
C918	254 4591 905	Electrolytic 100uF/50V	CE04W1H101MT (KMF)
C919	256 1058 971	Metalized 0.1uF/50V	CF93A1H104JT (JL)
C920	254 4533 934	Electrolytic 220uF/6.3V	CE04W0J221MT SMG/RE3
C922,923	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C925	254 4522 945	Electrolytic 47uF/35V	CE04W1V470MT SMG/RE3
C926	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C927	254 4538 942	Electrolytic 100uF/16V	CE04W1C101MT SMG/RE3
C928	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C929	254 4538 942	Electrolytic 100uF/16V	CE04W1C101MT SMG/RE3
C930	254 4533 950	Electrolytic 470uF/6.3V	CE04W0J471MT SMG/RE3
C931-933	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C934	254 4533 950	Electrolytic 470uF/6.3V	CE04W0J471MT SMG/RE3
C935,936	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C938	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C940-942	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C944-946	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C947	257 0511 904	Ceramic chip 0.01uF/50V	CK73F1H103ZT
C948	257 0512 903	Ceramic chip 0.1uF/25V	CK73F1E104ZT
C949	257 0511 904	Ceramic chip 0.01uF/50V	CK73F1H103ZT
C954	257 0509 990	Ceramic chip 2200pF/50V	CK73B1H222KT
C959	254 4538 955	Electrolytic 220uF/16V	CE04W1C221MT SMG/RE3
C963	254 4524 985	Electrolytic 10uF/50V	CE04W1H100MT SMG/RE3

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
AS906	417 0621 001	Heat sink	OSH-1625SP	1
CW91	204 2812 018	9P PH-SAN connector cord		1
CX21	205 0581 056	2P VH connector base		1
CX22	205 0453 003	2P VH connector base (L)		1
CX41	205 0355 046	4P KR connector base (L)		1
CX91	205 0355 091	9P KR connector base (L)		1
CX121	205 0480 021	12P KR connector base (L)		1
CX131	205 0480 034	13P KR connector base (L)		1
CX931	205 0355 033	3P KR connector base (L)		1
CY21	205 0453 016	2P VH connector base (L)		1
CY32	205 0395 035	3P KR connector base (L) RED		1
CY33	205 0355 033	3P KR connector base (L)		1
CY34	205 0685 033	3P connector base (BLK) L		1
CY41	205 0355 046	4P KR connector base (L)		1
CY71	205 0911 008	7P FFC connector base (R)		1
CY331	205 0770 058	33P FFC base (SIDE)		1
CY351	205 0770 074	35P FFC base (SIDE)		1
⚠F901	206 1039 047	FUSE 1.25A		1
FF901	202 0040 909	Fuse clip		1
FH901	202 0040 909	Fuse clip		1
FL601	393 8053 003	FL tube (17-BT-14GNK)		1
L901	235 0141 002	Line filter (PLA10A)		1
L905,906	235 0142 904	Coil LHL08TB220KT		2
L907	235 0142 917	Coil LHL08TB4R7MT		1
PI601	269 0179 006	ON1021(Inter rupter)		1
S601-613	212 0431 900	Tact switch		13
S618	212 1059 006	OP/CL switch		1
S619	212 1072 009	Detect switch (SSCF21)		1
⚠S691	212 1030 009	Power switch (TV-5)		1
S701-704	212 0431 900	Tact switch		4
ST902,903	—	Style pin		2
⚠T901	233 0616 007	SW transformer		1
	461 0862 045	FL spacer (T=5)		2
	471 3303 016	Screw 3x6 CBS-Z		1