

Service Manual

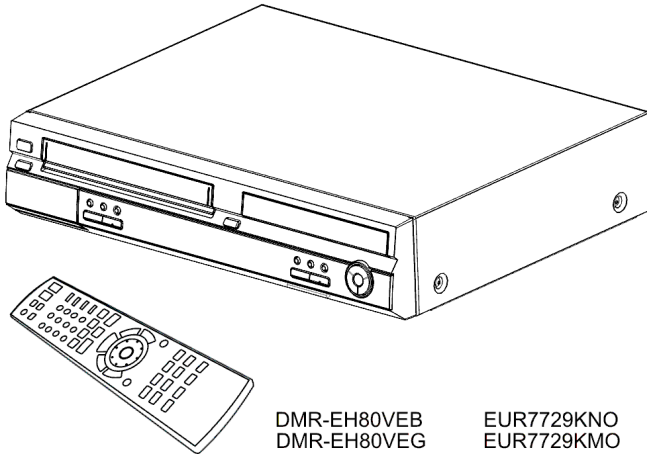
DVD Video Recorder

DMR-EH80VEG
DMR-EH80VEB

Vol. 1

Colour

(S).....Silver Type



DMR-EH80VEB EUR7729KNO
DMR-EH80VEG EUR7729KMO

Note 1:

This model's DVD Drive is VXY1872.

Note 2:

This model's VHS Mechanism is
R4-MECHANISM-CHASSIS-FOR-EURO-MODEL:
Order No. MAD0403002C2

When replacing with Digital P.C.B. or HDD,
"UNFORMAT" indication is displayed and HDD
must be formatted.

After that, **programme in the HDD will be lost.**

In detail, please refer to each content in this
service manual.

SPECIFICATIONS

Power supply:	AC220-240 V, 50/60 Hz
Power consumption:	46W +/-1,3W Power Save mode: 5W+/-0,4W
Dimensions and Mass:	430 (W)×380 (D)×89 (H) mm (excluding protrusions) / 7kg
Operating temperature range:	+5 to +40°C
Operating humidity range:	35 to 80% RH (no condensation)
Pickup:	Laser power and Wave length: CLASS2/CLASS1 662nm / 795nm No hazardous radiation is emitted with the safety protection Laser performance: Class 3B / Class 3A (optical scan unit)
(NORSK) Bølgelegde:	662nm / 795nm
Laserstyrke:	Ingen farlig stråling sendes ut
Video Recording signal:	PAL MESECAM (only EG) NTSC (only from extern and DVD)
DVD Signal system:	PAL625/50, PAL525/60 NTSC (playback on PAL TV)
DVD Region number:	Region No.2
Approximate Recording time (approximate):	DVD 4.7GB Disk / HDD 200GB
XP:	10 MBps 1h / 44h
SP:	5 MBps 2h / 89h
LP:	2,5 MBps 4h / 177h
EP:	1,7, 1,2 MBps 6h, 8h / 266h, 355h
DVD Video Recording and Playback format:	Video: MPEG2 (Hybrid VBR) / Audio: Dolby Digital 2CH DVD-RAM: 12cm 4.7GB / 9.4GB / 8cm 2.8GB DVD-R: 12cm 4.7GB / 8cm 1.4GB DVD-RW: 12cm 4.7GB DVD+R: 12cm 4.7GB
Only Playback format:	DVD-Video, DVD-Audio, DVD+RW CD-Audio (CD-DA), Video CD, S-Video CD (IEC62107) CD-R/CD-RW (CD-DA, Video CD formatted discs) MP3 (audio), JPG (picture) Maximum number of tracks and groups: 999 tracks and 99 groups
TV tuner system EB:	1x DVD / 1x VCR UHF: CH21-CH68 VHF (OIRT): CHR1-CHR12
TV tuner system EG:	1x DVD / 1x VCR VHF: CH E2-CH E12 A-H2 UHF: CH21-CH69 CATV: S01-S05 (S1-S3), S1-S20(M1-U10), S21-S41
RF out system:	DMR-EH80V EB UHF: CH21-CH68 (71 +/-3dBμ, 75Ω close) DMR-EH80V EG without RF converter
Video Recording system:	4 rotary heads (helical scanning system)
Video heads:	4 rotary video heads 2 audio HIFI heads 1 audio head (normal audio)
Video input:	EURO AV (AV1 / AV2) 21 pin connector (1.0Vp-p, 75Ω terminated) VIDEO IN (AV3 front input) cinch connector (1.0Vp-p, 75Ω terminated) S-VIDEO IN Y: 1Vp-p, C: 0.3 Vp-p (PAL-Burst) DV input IEEE1394 4pin PAL/NTSC
SD Card slot:	Still picture (JPEG, TIFF) SD Memory Card, MultiMediaCard Format: FAT12, FAT16
Video output:	EURO AV (AV1 / AV2) 21 pin connector (1.0Vp-p, 75Ω terminated) VHS / DVD 1x cinch (1.0Vp-p, 75Ω terminated) DVD (only) component 3x cinch Progressive / Interlace (Y: 1.0Vp-p, PB: 0.7Vp-p, PR: 0.7Vp-p) S-VIDEO Y (1.0Vp-p, 75Ω terminated) C PAL (0.3Vp-p, 75Ω terminated) C NTSC (0.286 Vp-p, 75Ω terminated)

DVD RGB video output:	RGB output level: 0.7 Vp-p (75Ω) +/-10% Output terminal: AV (21pin) Number of terminals: 1 system
Audio heads:	1 stationary head Mono 2 channels Hi-Fi Sound-Stereo
Audio input:	EURO AV (AV1 / AV2) 21 pin connector: -6dBV (500mV), more than 10kΩ AUDIO IN (AV3 front input) cinch connector: -6dBV (500mV), more than 10kΩ
Audio output:	VHS / DVD, DVD only cinch connector: -6dBV (500mV), less than 1kΩ EURO AV (AV1 / AV2) 21 pin connector: -6dBV (500mV), less than 1kΩ DVD optical digital output audio out (PCM, Dolby Digital, DTS, MPEG)
Audio characteristics:	S/N ratio Normal: more than 43dB (SP) Hi-Fi: 65dB, DVD: 115dB Frequency response Normal: 80Hz - 8kHz, Hi-Fi: 20Hz - 20kHz DVD: 4Hz - 22kHz (linear audio) 48kHz sampling DVD: 4Hz - 44kHz (linear audio) 96kHz sampling CD Audio: 4Hz - 20kHz Total harmonic distortion: CD Audio: 0.0025%
Dynamic range:	VCR: more than 90dB DVD (linear audio): more than 98dB CD audio: more than 96dB
Videotape speed and Recording time (PAL / SECAM 240min. tape):	SP: 23.39mm/s, 240min. LP: 11.695mm/s, 480min. EP: 7.796mm/s, 720min. FF / REW time: 60sec. (180min. tape)
Videotape speed and Recording time (NTSC 240min. tape):	SP: 33.35mm/s, 168min. EP: 11.12mm/s, 505min.
Winding Speed (180min tape):	FF time approximate 60sec. REW time approximate 43sec.

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

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

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■ **Built-in decoders**
You can play discs with these symbols.



⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 INTRODUCTION

This service manual contains technical information which will allow service personnel to understand and service these models.

Please place orders using the parts list and not the drawing reference numbers.

1. This service manual does not contain the following information, because of the impossibility of servicing at component level.

- Schematic Diagram, Block Diagram and P.C.B. layout of Digital P.C.B.
- Parts List for individual parts of Digital P.C.B.
- Exploded View and Parts List for individual parts of RAM drive.

2. The following categories are recycling module part. Please send them to Central Repair Center.

- Digital P.C.B.:
DMR-EH80VEB: RFKBEH80VEB
DMR-EH80VEG: VEP79108E
- RAM Drive: VXY1872

3. If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

4. Adjustment procedures, Disassembly Procedures and Assembly Procedures for VCR Mechanism Chassis are separate volume from this service manual. Please refer to the service manual for R4 Mechanism Chassis for EURO model (MAD0403002C2).

2 SAFETY PRECAUTIONS

2.1. GENERAL GUIDELINES

1. Be careful during removing metal parts, sharp edges.
2. 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.
3. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
4. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.1.1. 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 screw heads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal does not have a return path to the chassis, the reading must be infinity.

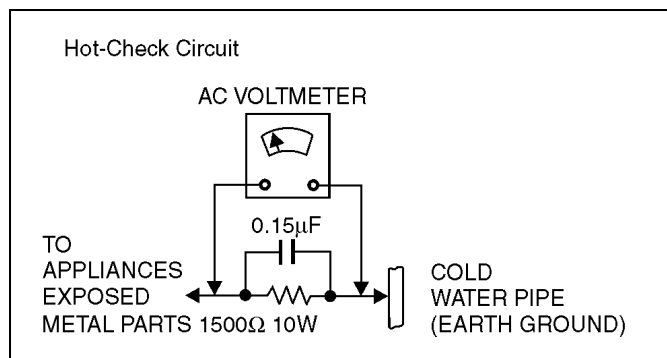


Figure 1

2.1.2. LEAKAGE CURRENT HOT CHECK

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $1.5k\Omega$, 10 watts resistor, in parallel with a $0.15\mu\text{F}$ 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 $1/2$ milliampere. 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.

3 PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATIC SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatic Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistor-sand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic 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 aluminum 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, aluminum 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 unpacked replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important 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.

4 PRECAUTION OF LASER DIODE

CAUTION:

This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens.
Wave length: 662 nm/795 nm
Maximum output radiation power from pickup: 100 μ W/VDE.
Laser radiation from the pickup lens is safety level, but be sure the followings:

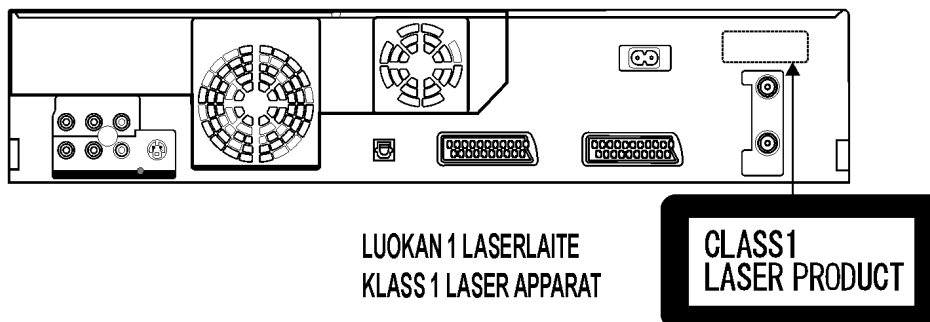
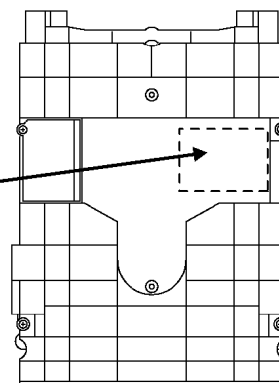
1. Do not disassemble the optical pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode.
Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit ausgestrahlt.
Wellenlänge: 662 nm/795 nm
Maximale Strahlungsleistung der Lasereinheit: 100 μ W/VDE.
Die Strahlung der eingeschalteten Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werksseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht in die Fokussierlinse blicken.
4. Auch nicht mit optischen Instrumenten in die Fokussierlinse blicken.

CAUTION	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.	FDA 21 CFR / Class II
CAUTION	- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.	IEC30365-1 / Class 3b
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.	
ADVARSEL	- SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDSÅ UDSÆTTELSE FOR STRÅLING.	
VARO!	- AVATTAESSA OLET ALTTIINA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSÄTEILYLLÄ. ÄLÄ KATSO SÄTEESEEN.	
VARNING	- SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN.	
ADVARSEL	- SYNLIG OG USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES. UNNSÅ EKSPONERING FOR STRÅLEN.	
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRÄHLUNG WEENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.	
注意	- 打开时有可见及不可见激光辐射。避免激光照射。	
注意	- ここを開くと可視及び不可視レーザー光が出ます。 ビームを見たり、触れたりしないで下さい。 RGLCA0141	



CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

5 ABOUT LEAD FREE SOLDER (PbF)

This model uses lead free solder (PbF). For repair use only lead free handsolder.

Caution:

Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70-F (30 - 40-C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 +/-20-F (370 +/-10-C). Pb free solder will tend to splash when heated too high (about 1100-F/ 600-C). When soldering or unsoldering, please completely remove all of the solder on the pins or solder area and be sure to

heat the soldering points with the Pb free solder until it melts enough.

6 PREVENTION OF STATIC ELECTRICITY DISCHARGE

The laser diode in the traverse unit (optical pickup) may brake down due to static electricity of clothes or human body. Use due caution to electrostatic breakdown when servicing and handling the laser diode.

6.1. GROUNDING FOR ELECTROSTATIC BREAKDOWN PREVENTION

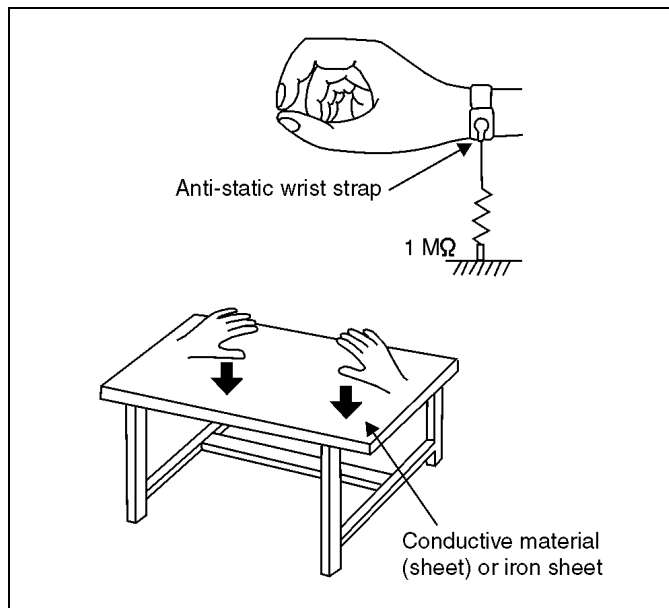
Some devices are using the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

6.1.1. WORKTABLE GROUNDING

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

6.1.2. HUMAN BODY GROUNDING

1. Use the anti-static wrist strap to discharge the static electricity form your body.



6.1.3. HANDLING OF OPTICAL PICKUP

1. To keep the good quality of the optical pickup maintenance parts during transportation and before installation, the both ends of the laser diode are short-circuit. After replacing the parts with new ones, remove the short circuit according to the correct procedure.
2. Do not use a tester to check the laser diode for the optical pickup. Failure to do so will damage the laser diode due to the power supply in the tester.

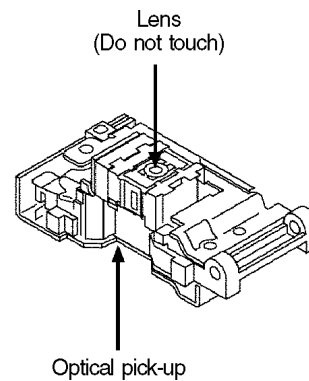
6.2. HANDLING PRECAUTIONS FOR OPTICAL PICK-UP UNIT

The laser diode in the optical pick-up unit may break down due to potential difference caused by static electricity of clothes or human body.

So be careful of electrostatic breakdown during repair of the optical pick-up unit.

6.2.1. HANDLING OF OPTICAL PICK-UP UNIT

1. The optical pick-up unit has high precision extremely sensitive structure. Be careful not to apply excessive shock.



7 GENERAL DESCRIPTION

VCR, DVD and HD Controls

DVD/VHS



Stand-by/on switch

Press to switch the unit from on to stand-by mode or vice versa. In stand-by mode, the unit is still consuming a small amount of power.



Direct TV record to DVD or HDD.

Buttons to switch between VHS, HDD, DVD and SD.



Press the corresponding button to operate the desired element.

The unit is switched on from electrical standby mode.



Launch the GUIDE Plus+ system.



Smart Wheel: Press up, down, left or right to select the Function in the menu. Rotate the wheel to select the parameter.

ENTER: Select or save a setting.

⏸ Still picture or time loop playback.



Display the programme information from the GUIDE Plus+ system.

SUB MENU



Launch DVD sub-menus.



Time and detail information appears on the screen.

GUIDE Plus+ menu: GREEN - Forward 24 hours.

INPUT SELECT



Switch button of the AV input between AV1, AV2 and AV3 (front) / TP (DVD) and DC (VHS), AV4, DV.

CANCEL/RESET



Cancel a function.
VHS - Reset the tape counter.

ShowView



ShowView menu

VIDEO Plus+



EB Model

SLOW/SEARCH

REW

FF

SLOW/SEARCH: DVD - Search or slow motion playback.

REW/FF:VHS - Fast forward or rewind from stop mode. Forward or reverse scene search during playback mode.

STOP



Stops recording, replay or forward/reverse action.
Press and hold more than 3 seconds to remove cassette.

PAUSE



Pause a recording or playback.

REC



Start the recording.

TIMER



Switch timer on and off.

EXT LINK



Record with external recording control.

DUBBING



DUBBING menu

▲ **EJECT** Front Panel Button: Remove cassette

▲ **OPEN/CLOSE** Front Panel Button: Open and close the disc tray

○ **DRIVE SELECT** Front Panel Button: Selection HDD, DVD, SD

TV



Turn the television set on and off.

AV

Select the AV input on the television set.

CH



CH: Select the channel on the television set.

VOLUME



VOLUME: Volume control of the television set.



Number buttons - direct input

VCD 5: 0 + 5 15: 1 + 5

MP3/JPEG 5: 0 + 0 + 5 15: 0 + 1 + 5



DIRECT NAVIGATOR TITLE VIEW
TOPMENU: Main menu of DVD video.



FUNCTION selection menu.



TIMER RECORDING menu.



Exit a menu.

DISPLAY



Launch the disc menu.

GUIDE Plus+ menu: RED - Back 24 hours.

TIME SLIP



JET REW



TIME SLIP: DVD - Select the timeframe to be skipped.

JET REW: VHS - Fast rewind to the beginning of the cassette.

TRACKING/LOCK



CH



CH: Channel select button.

TRACKING/LOCK + / -
VHS - Optimisation of the playback picture.

AUDIO



DVD - Depending on the disc, select the audio channel and or the sound track.

VHS - Press several times to select sound playback mode.

SKIP/INDEX



SKIP: DVD - Skip chapters, titles, or pictures.

INDEX: VHS - Search for the beginning of a recording.

PLAY



Starts playback.

PLAY/ x1.3

HDD / RAM - You can increase the playback speed
Hold **PLAY** during playback.

REC MODE



Record mode button DVD - XP, SP, LP, EP

Record mode button VHS - SP, LP, EP

MANUAL SKIP



DVD - Jumps forward 30 seconds.

HDD/DVD ERASE



Erase a title or a chapter.

GUIDE Plus+ menu: BLUE - Programme Type selection.

CREATE CHAPTER



Split the recording into chapters.

VHS/DVD

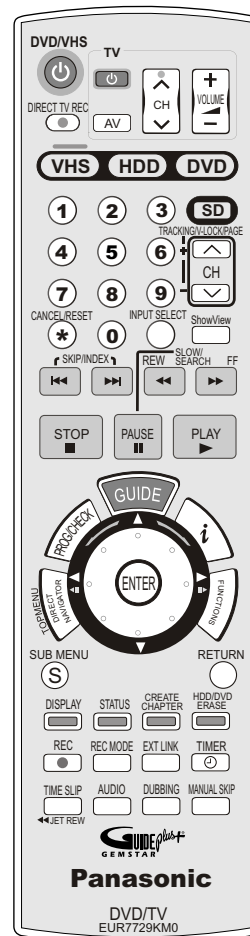
EXT LINK



Front Panel Button: Recording with external recording control



Front Panel Button: One Touch Dubbing (HD, DVD, TAPE)



8 NEW FEATURES

8.1. QUICK START FUNCTION (REC)

(Note: Descriptions concerning HDD is applied only to models with HDD.)

1. General

A few seconds after tuning on the unit, you can start recording to DVD-RAM, HDD.

You can switch the operation of this function (ON/OFF) on the menu screen.

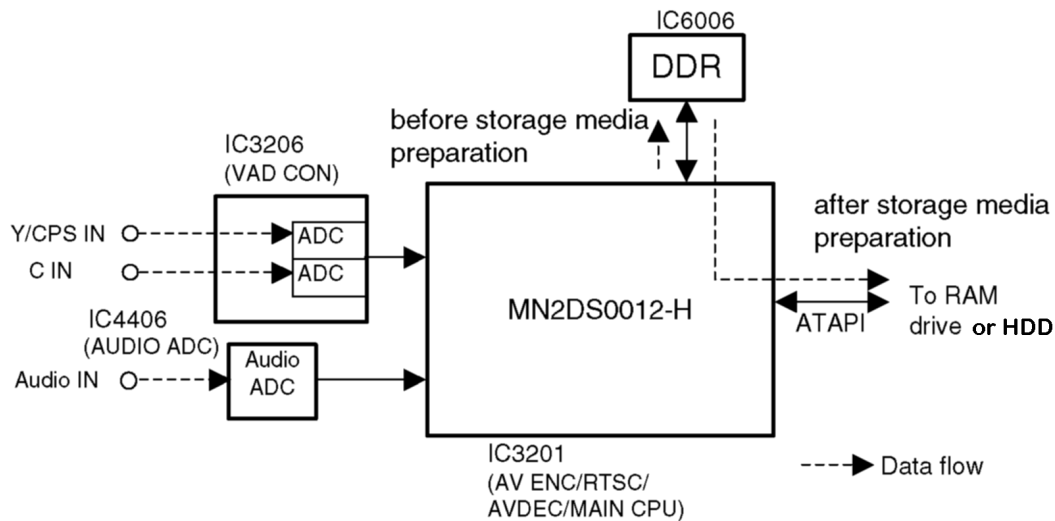
2. Quick start (REC) principle

In the power-off at Quick start, only power supplies for video IC, tuner and storage media are cut off.

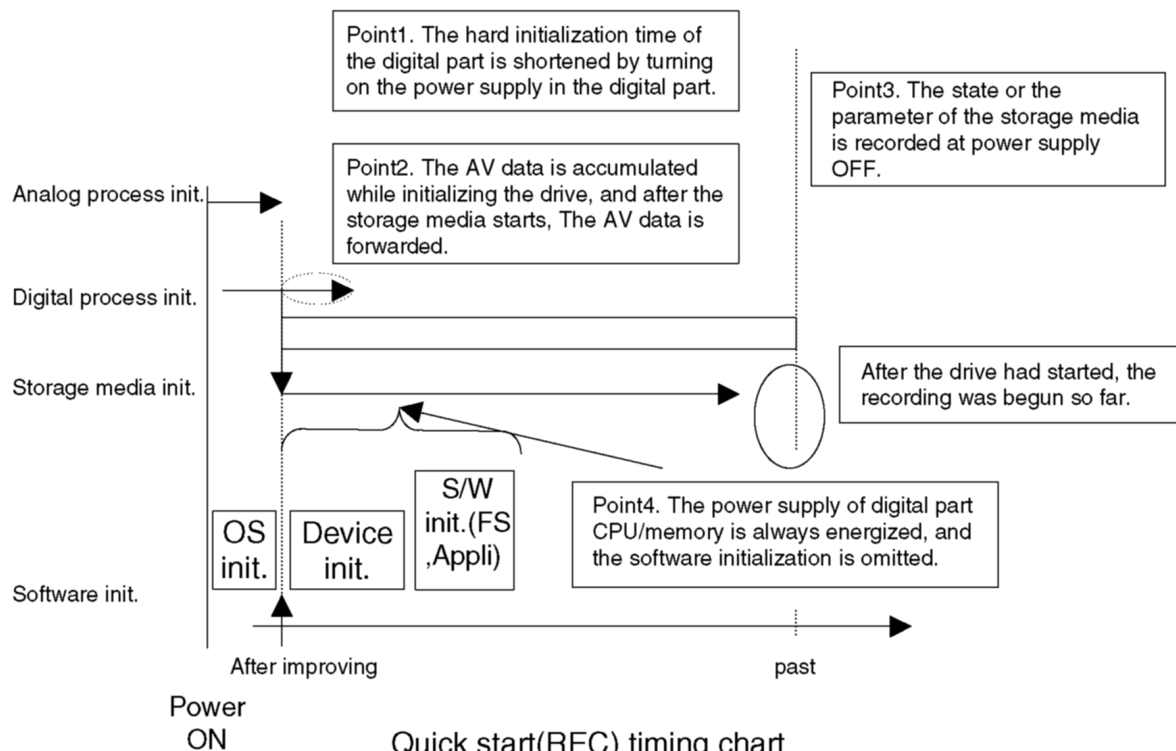
2.1. When the REC button is pushed a few second after the power button is pushed, Audio and Video data are stored in DDR SDRAM before a storage media (DVD-RAM or HDD) preparation.

*Preparation time → DVD-RAM: About 8 seconds

2.2. After a storage media DVD-RAM or HDD preparation, Audio and Video data are transferred from DDR SDRAM to the storage media.



Quick start(REC) explanation chart



Quick start(REC) timing chart

9 (DVD) TAKING OUT THE DISC FROM RAM-DRIVE UNIT WHEN THE DISC CANNOT BE EJECTED BY BUTTON

9.1. (DVD) FORCIBLE DISC EJECT

9.1.1. (DVD) WHEN THE POWER CAN BE TURNED OFF.

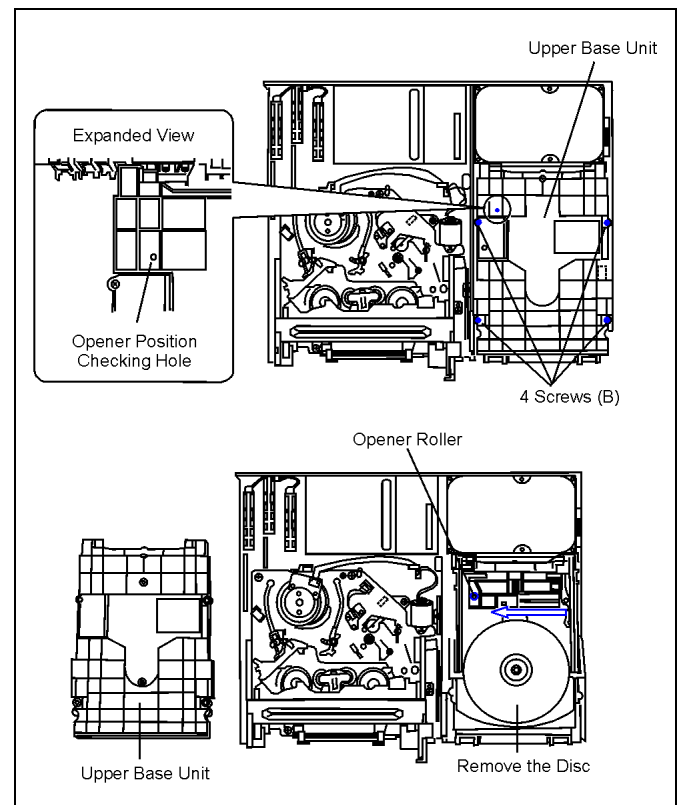
1. Turn off the power and press [(DVD) STOP], [(DVD) CH UP] keys on the front panel simultaneously for 5 seconds.

9.1.2. (DVD) WHEN THE POWER CAN NOT BE TURNED OFF.

1. Press [POWER] key on the front panel for over 10 seconds to turn off the power forcibly and press [(DVD) STOP] [(DVD) CH UP] keys on the front panel simultaneously for 5 seconds.

9.2. (DVD) WHEN THE FORCIBLE DISC EJECT CAN NOT BE DONE.

1. Turn off the power and pull out AC cord.
2. Remove the Top Case.
3. Remove the Front Panel.
4. Remove 4 screws (B) and Upper Base Unit from DVD-RAM Drive.
5. Take out the disc and put the Opener Roller on fully position for direction of Arrow.
6. Put the Upper Base Unit so that the Opener Roller is inserted into the groove.
7. Check center of Opener Roller is seen through the Opener position Checking Hole, and tighten 4 screws (B).



10 (VHS) REMOVING OF CASSETTE TAPE

When the cassette tape could not be removed after an electrical malfunction, there are 2 ways to remove a cassette tape.

10.1. (VHS) REMOVAL BY COMPULSORY UNLOADING.

If Service Mode can be activated when the power can not be turned on, this operation is able.

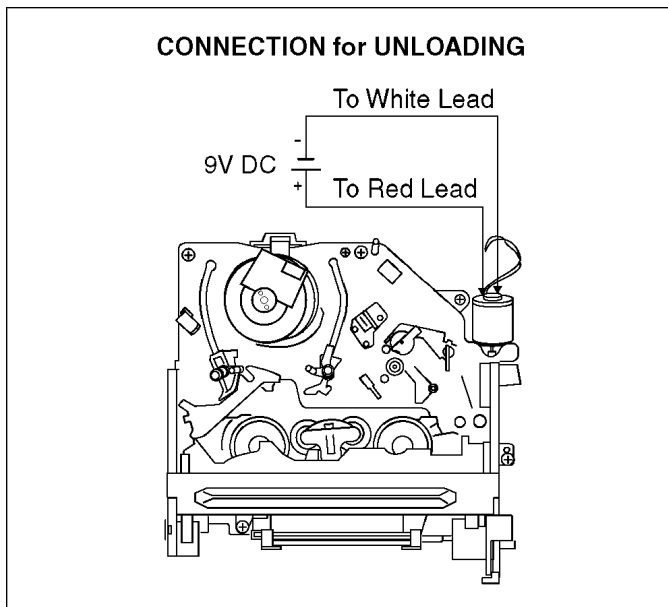
1. Press [FF] and [EJECT] button simultaneously for more than 3 seconds and set the Service Mode to 7.
2. Press [STOP] button in order to unload the mechanism. (Pay attention to tape slack)

Service Mode Display:

7 *** (STOP) → 7 0L ** (EJECT)

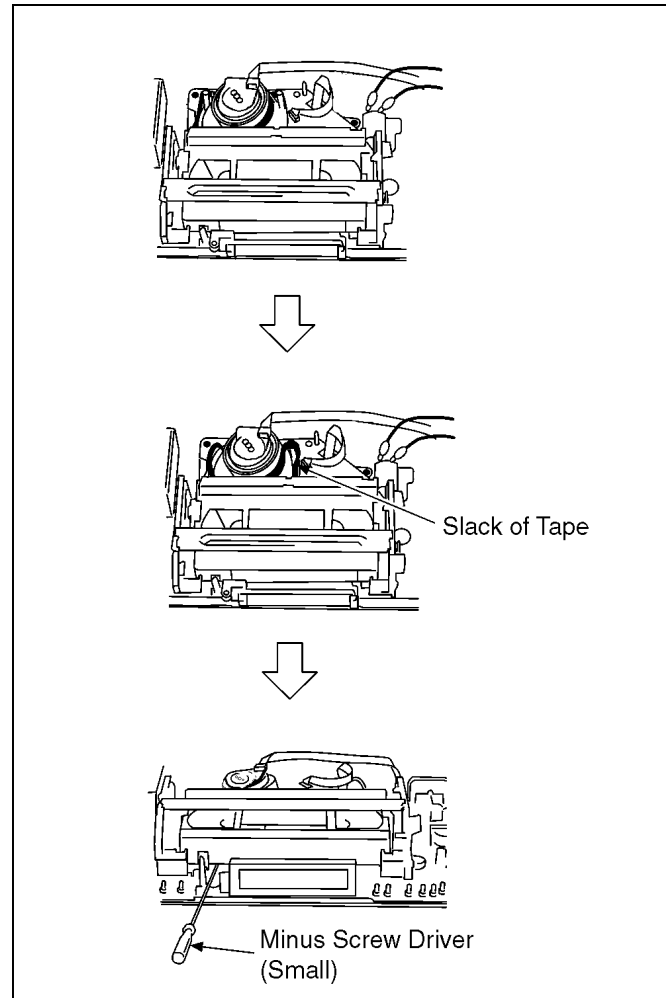
10.2. (VHS) REMOVAL BY MANUAL OPERATION.

1. Disconnect the AC plug, and remove the Top Panel and the Front Panel by referring to the Disassembly Procedures.
2. Connect a batterie (9V spec.) to the Loading Motor in series for supplying 9V to rotate the Loading Motor.

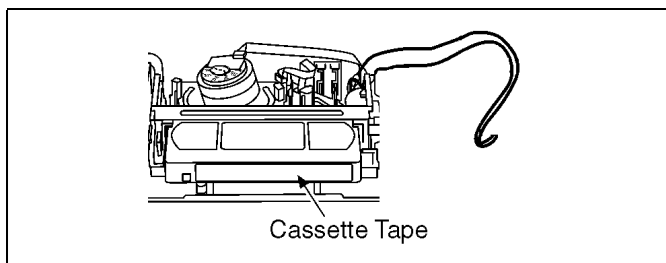


3. Stop unloading just before unloading will be completed. The tape becomes slack.

4. Rotate the S-Reel by a small minus screwdriver to remove the slack tape.



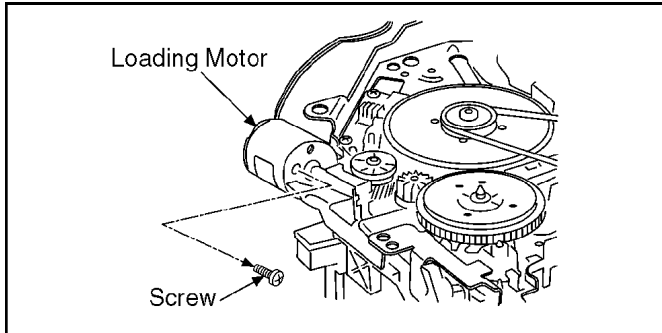
5. Then unload again to remove the cassette tape.



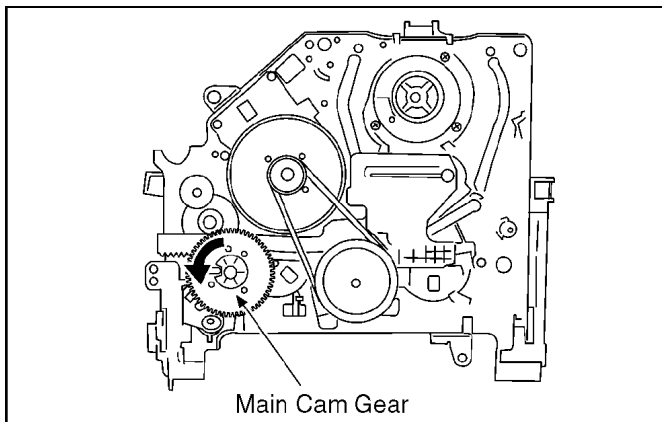
10.3. (VHS) TAKE OUT CASSETTE TAPE MANUALLY AFTER REMOVING THE MECHANISM

1. Disconnect the AC plug, and remove the Top Panel, Front Panel and the Mechanism by referring assembling and disassembling description.

2. Remove the Screw and remove the Loading Motor.

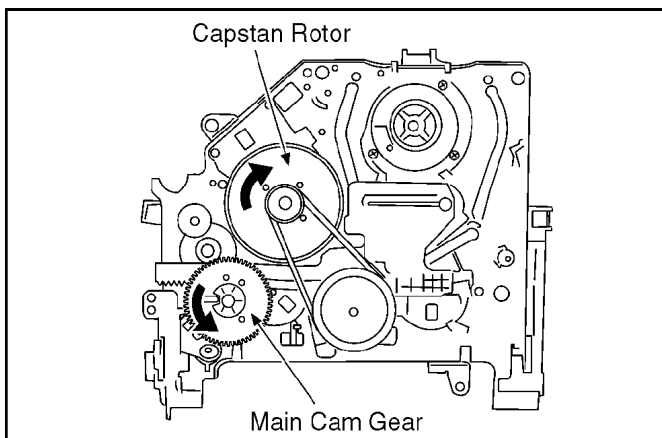


3. Rotate the Main Cam Gear counter-clockwise until just before the unloading will be completed.



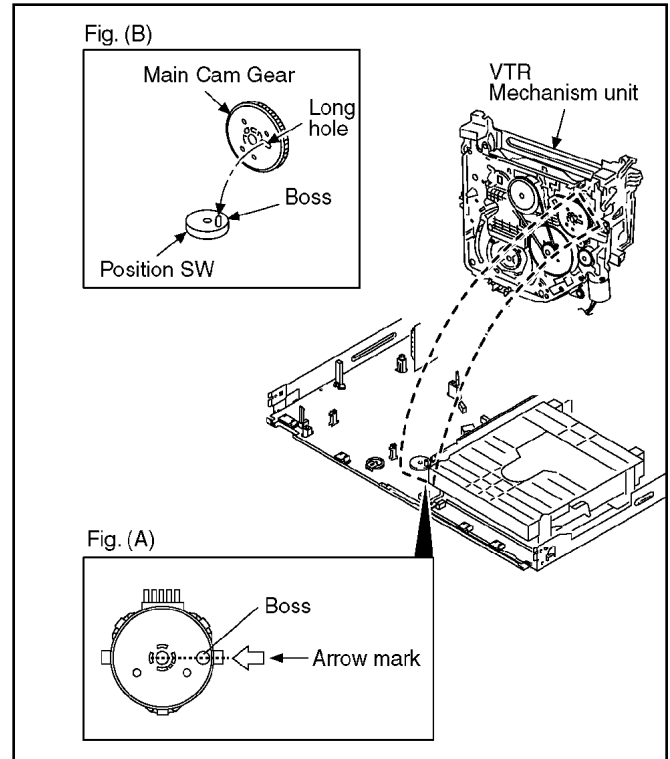
4. Rotate the Capstan Motor clockwise to remove the slack tape.

5. Rotate the Main Cam Gear counter-clockwise again to remove the cassette-tape.



6. Attach Loading Motor and tighten the screw.

7. Set the Position Switch to EJECT POSITION certainly and attach the mechanism to chassis.



11 (DVD) SERVICE EXPLORER

Confirm "RAM-Drive Last Error" in Service Mode

Execute Service Mode

1. When the power is off, press [DVD DUBBING], [OPEN/CLOSE] and [STOP] keys simultaneously for 5 seconds.

FL Display:

SERV

*After finishing display "(7). Factor of Drive Error occurring", press [0] [2] ~[1] [9] keys of the Remote Controller so that 19 memories can be displayed as maximum.

2. Press [4] [2] keys of remote controller.

Example of FL Display:

- (1) Error Number is displayed for 5 seconds.

NO 01

- (2) Time when the error has occurred is displayed for 5 seconds.

502161915

- (3) Last Drive Error (1/2) is displayed for 5 seconds.

031000

Error
Sense Key

00: Bad disc
03: Bad disc
04: Bad disc or RAM-Drive malfunction

When above error codes are displayed, confirm operation with Panasonic RAM disc or Panasonic DVD-R disc.

* If the operation is OK, judge the error is due to media.

* If the operation is NG and symptom as BLOCK NOISES and so on, that are particular symptom of Digital appears, judge the error is due to RAM-Drive or Digital P.C.B. .

- (4) Last Drive Error (2/2) is displayed for 5 seconds.

00130000

- (5) Error occurring Disc type is displayed for 5 seconds.

DVDR

Disc type

* The error disc cannot be specified, display as "DVD".

- (6) Disc Maker's ID is displayed for 5 seconds.

mxLR061

Example of Disc Maker's ID:

DVD-R Disc

No.	FL Display (Disc Maker's ID)	Disc Maker	Country
1	MEI	Panasonic	Japan
2	PVC	Pioneer	Japan
3	MCC	Mitsubishi Chemical Corporation	Japan
4	TDK	TDK	Japan
5	MXL	Maxell	Japan
6	MCI	MITUI CHEMICALS	Japan
7	JVC	Victor JVC	Japan
8	TAIYOYUDEN	Taiyo yuden	Japan
	TYG		
9	GSC	Giga Storage	Taiwan
10	PRODISC	Prodisc	Taiwan
11	PRINCO	PRINCO	Taiwan
12	RITEK	RITEK	Taiwan
13	OPTDISC	OPTDISC	Taiwan
14	LEAD DATA	LEAD DATA	Taiwan
15	CMC	CMC	Taiwan
16	AUVISTAR	AUVISTAR	Taiwan
17	ACER	Acer	Taiwan
18	VIVASTAR	VIVASTAR	Switzerland
19	LGE	LG Electronics	Korea

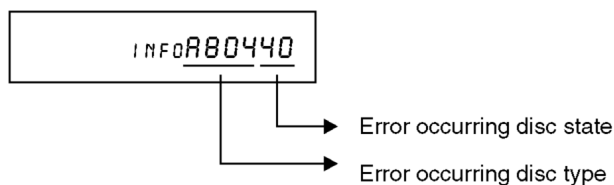
DVD-RAM Disc

No.	FL Display (Disc Maker's ID)	Disc Maker	Country
1	MEI	Panasonic	
2	MATSUSHITA	Panasonic	Japan
3	MXL	Maxell	Japan
4	PRODISC	Prodisc	Taiwan
5	OPTDISC	OPTDISC	Taiwan
6	CMC	CMC	Taiwan

*Since an display is arbitrarily set up by the disc producer side, the above-mentioned display may be changed.

Please make it reference as an example of a display.

(7) Factor of Drive Error occurring is left displayed



Error Occurring Disc Type

FL Display	Disc Type
00	DVD-ROM/Video
01	Audio-CD
02	2.6GB DVD-RAM
03	4.7GB DVD-RAM
04	DVD-R

Error Occurring Disc State

FL Displays (Hexadecimal)	Description			
	Disc distinction state	Cartridge disc state	Cartridge disc state	Disc size
00	OK	With cartridge	Has not been opened yet.	12 cm
10	OK	With cartridge	Has not been opened yet.	8 cm
20	OK	With cartridge	Has been opened.	12 cm
30	OK	With cartridge	Has been opened.	8 cm
40	OK	Bare	Has not been opened yet.	12 cm
50	OK	Bare	Has not been opened yet.	8 cm
60	OK	Bare	Has been opened.	12 cm
70	OK	Bare	Has been opened.	8 cm
80	NG	With cartridge	Has not been opened yet.	12 cm
90	NG	With cartridge	Has not been opened yet.	8 cm
A0	NG	With cartridge	Has been opened.	12 cm
B0	NG	With cartridge	Has been opened.	8 cm
C0	NG	Bare	Has not been opened yet.	12 cm
D0	NG	Bare	Has not been opened yet.	8 cm
E0	NG	Bare	Has been opened.	12 cm
F0	NG	Bare	Has been opened.	8 cm

12 (DVD) SELF-DIAGNOSIS AND SPECIAL MODE SETTING

12.1. (DVD) SELF-DIAGNOSIS FUNCTIONS

Self-Diagnosis Function provides information for errors to service personnel by "Self-Diagnosis Display" when any error has occurred.

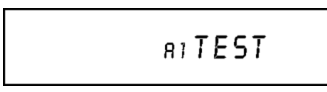
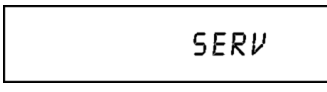
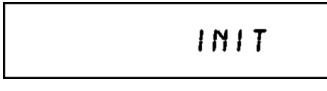

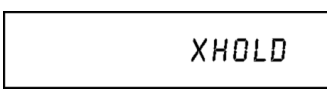

U**, **H**** and **F**** are stored in memory and held.

Display on FL will be cancelled when the power is turned off or AC input is turned off during self-diagnosis display is ON.

Error Code	Diagnosis contents	Description	Monitor Display	FL display
U30	Remote control code error	Display appears when main unit and remote controller codes are not matched.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">REMOTE MODE **</div> <p>** is remote controller code of the main unit. Display for 5 seconds.</p>
U59	Abnormal inner temperature detected	Display appears when the drive temperature exceeds 70°C. The power is turned off forcibly. For 30 minutes after this, all key entries are disabled. (Fan motor operates at the highest speed for the first 5 minutes. For the remaining 25 minutes, fan motor is also stopped.) The event is saved in memory as well.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">U59</div> <p>"U59" is displayed for 30 minutes.</p>
U80	ST Microprocessor Communication Error on Timer Bus	Displayed appears when ST Microprocessor Communication Error on Timer Bus occurs.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">U80</div> <p>"U80" is displayed till Power Key is pressed.</p>
U81	ST Microprocessor Communication Error on UART	Displayed appears when ST Microprocessor Communication Error on UART occurs.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">U81</div> <p>"U81" is displayed till Power Key is pressed.</p>
U99	Hang-up	Displayed when communication error has occurred between Main microprocessor and Timer microprocessor.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">U99</div> <p>Displayed is left until the [POWER] key is pressed.</p>
H19	Inoperative fan motor	Display appears when inoperative fan motor is detected after powered on. The power is turned off when detecting.	No display	No display
F00	No error information	Initial setting for error code in memory (Error code Initialization is possible with error code initialization and main unit initialization.)	No display	No display
F09	Serial Communication Error between VHS Microprocessor and Timer Microprocessor	Please confirm Serial Communication terminal of Microprocessor. Note: If F09 appears just after updating Firmware, pull off and insert AC plug, then it will disappear	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">F09</div>
F34	Initialization error when main microprocessor is started up for program recording	Display appears when initialization error is detected after starting up main microprocessor for program recording. The event is saved in memory. The power is turned off when detecting.	No display	No display
F58	Drive hardware error	Display appears when drive unit error is detected. The event is saved in memory.	No display	No display
F60	DVD module has not been started.	Defect of Digital P.C.B. . Mode: No change	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">F60</div>

Error Code	Diagnosis contents	Description	Monitor Display	FL display
UN-SUPPORT	Unsupported disc error	*An unsupported format disc was played, although the drive starts normally. *The data format is not supported, although the media type is supported. *Exceptionally incase of the disc is dirty.	"This disc is incompatible."	<div style="border: 1px solid black; padding: 5px; text-align: center;">UN S UPPORT</div> Display for 5 seconds.
NO READ	Disc read error	*A disc is flawed or dirty. *A poor quality failed to start. *The track information could not be read.	"Cannot read. Please check the disc."	<div style="border: 1px solid black; padding: 5px; text-align: center;">NO READ</div>
HARD ERR	Drive error	The drive detected a hard error.	"DVD drive error."	Display for 5 seconds. <div style="border: 1px solid black; padding: 5px; text-align: center;">HAR D ERR</div>
HDD NG	HDD is NG	HDD is NG. Please replace HDD.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">HDD NG</div>
SELF CHECK	Restoration operation	Since the power cord fell out during a power failure or operation, it is under restoration operation. *It will OK, if a display disappears automatically. If a display does not disappear, there is the possibility that defective Digital P.C.B. / RAM drive.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">SLF CHECK</div>
Full Program	16 programs are already set.	16 programs are already set.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">PROG FULL</div>
UN-FORMAT	The disc is not formatted	You have inserted an unformatted DVD-RAM or DVD-RW that is unformatted or recorded on other equipment. If you will use this disc, format is necessary. But, all program recorded on this disc will be deleted.	Format: This disc is not formatted properly. Format the disc in DISC MANAGEMENT?	<div style="border: 1px solid black; padding: 5px; text-align: center;">UN FORMAT</div>
PLEASE WAIT	Unit is in termination process	Unit is in termination process now. "BYE" is displayed and power will be turned off. In case "Quick Start" of setup menu is ON, it is displayed in restoration operation for AC off.	No display	<div style="border: 1px solid black; padding: 5px; text-align: center;">PLEASE WAIT</div>

12.2. (DVD) SPECIAL MODES SETTING

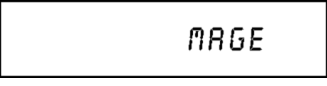
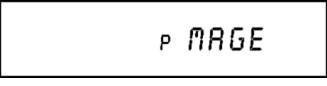
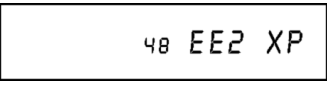
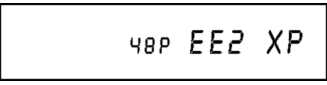
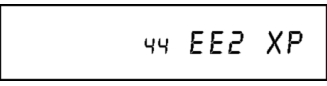
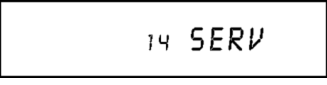
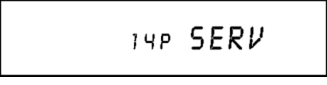
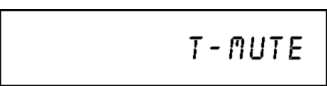
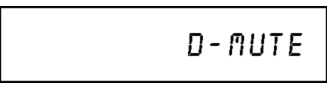
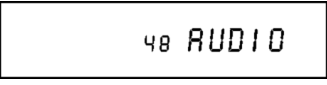
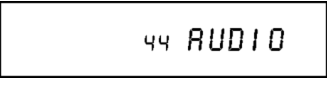
Item		FL display	Key operation
Mode name	Description		Front Key
TEST Mode	*All the main unit's parameters (include tuner) are initialized.		Press [VHS to DVD DUBBING], [OPEN/CLOSE] and [(DVD)REC] keys simultaneously for five seconds when power is off.
Service Mode	Setting every kind of modes for servicing. *Details are described in "(DVD) Service Mode".		When the power is off, press [VHS to DVD DUBBING], [OPEN/CLOSE] and [(DVD) STOP] keys simultaneously for 5 seconds.
Rating password	The audiovisual level setting password is initialized to "Level 8".		While the tray is open, press [(DVD) REC] and [(DVD) PLAY] simultaneously for five seconds.
Forced disc eject	Removing a disc that cannot be ejected. The tray will open and unit will shift to P-off mode. *When Timer REC is ON or EXT-LINK is ON, execute "Forced disc eject" after releasing TimerREC or EXT-LINK. *This command is not effective during "Child lock" is ON. If this command was executed while TIMER REC is being set, TIMER REC setting will turn to OFF.	The display before execution leaves. 	When the power is off, press [(DVD) STOP] and [(DVD) CH UP] keys simultaneously for five seconds.
Child lock/unlock	Set or release "Child Lock".		Press [ENTER] and [RETURN] by remote controller simultaneously until [X-HOLD] is displayed.
NTSC/PAL system select	To switch PAL/ NTSC alternately.	The display before execution leaves. 	When the power is on (E-E mode), press [DVD STOP] and [OPEN/CLOSE] simultaneously for five seconds.
Forced power-off	When the power button is not effective while power is ON, turn off the power forcibly. *When Timer REC is ON, execute "Forced Power-off" after releasing Timer REC or EXT-LINK. Action: The tray will open, and the power will turn off.	Display in P-off mode.	Press [Power] key over than 10 seconds.
Aging	Perform sequence of modes as * Aging Description shown below continually. Caution: All programs in HDD and DVD-RAM disc will be deleted because Formatting is done once in Aging process.	Display following the then mode.	When the power is ON, press [STOP], [POWER] and [OPEN/CLOSE] simultaneously for over 5 seconds and less than 10 seconds. NOTE1: If Unit has not turned into Aging mode by operations shown above, execute TEST MODE once and re-execute operation shown above. (*All the main unit's parameters include tuner are initialized by TEST mode.) NOTE2: If the unit has hung-up because of pressing keys for over 10 seconds, once turn off the power, and re-execute this command. *When releasing Aging mode, press [POWER] key.

Item		FL display	Key operation
Mode name	Description		Front Key
Aging Contents (Example):			
<p>At start, and in the case that the memory remainder of HDD are 0</p> <p>If the memory remainder of DVD only are 0</p> <p>At start, and in the case that the memory remainder of HDD are 0</p> <p>If the memory remainder of DVD,HDD are 0</p> <p>*1 : REC (HDD) & PLAY (DVD) content of operation HDD→REC, DVD→PLAY, CUE, REV, PLAY, PAUSE, SLOW, R-SLOW, PLAY, PROGRAM NAVI</p> <p>*2 : REC (DVD) & PLAY (HDD) content of operation DVD→REC, HDD→PLAY, CUE, REV, PLAY, PAUSE, SLOW, R-SLOW, PLAY, PROGRAM NAVI, TRAY OPEN/CLOSE</p> <p>*3 : REC & PLAY (HDD)→REC (HDD) & PLAY (DVD) content of operation HDD→REC & PLAY, DVD→PLAY, TRAY OPEN/CLOSE</p>			
Demonstration lock/unlock	Ejection of the disc is prohibited. The lock setting is effective until unlocking the tray and not released by "Main unit initialization" of service mode.	*When lock the tray. "LOCK" is displayed for 3 seconds.	When the power is on, press [(DVD) STOP] and [POWER] keys simultaneously for five seconds.
		*When unlock the tray. "UNLOCK" is displayed for 3 seconds.	When the power is on, press [(DVD) STOP] and [POWER] keys simultaneously for five seconds.
		*When pressing [OPEN/CLOSE] key while the tray is locked. Display "LOCK" for 3 seconds.	Press [OPEN/CLOSE] key while the tray is locked.
ATP re-execution	Re-execute ATP.		When the power is on (E-E mode), press [(DVD) CH UP] and [(DVD) CH DOWN] simultaneously for five seconds.
Progressive initialization	The progressive setting is initialized to Interlace.	The display before execution leaves. 	When the power is on (E-E mode), press [VHS to DVD DUBBING] and [(DVD) STOP] simultaneously for five seconds.

12.3. (DVD) SERVICE MODES

Service mode setting: While the power is off, press [DVD DUBBING], [OPEN/CLOSE] and [DVD STOP] keys simultaneously for five seconds.

Item		FL display	Key operation
Mode name	Description		(Remote controller key)
Release Items	Item of Service Mode executing is cancelled.	SERV	Press [0] [0] or [Return] in service mode.
Error Code Display	Last Error Code of U59/H/F held by Timer is displayed on FL. *Details are described in “(DVD) Self-Diagnosis Functions”.	♣ □ □ * ♣ shows U/H/F □ □ shows number	Press [0] [1] in service mode
ROM Version Display	(01)Region code, (02)MAIN firmware version, (03)TIMER firmware version, (04)DRIVE firmware version, (05)ROM correction version, (06)VHS microprocessor version are displayed on FL for five seconds per each version in order, but (07)VHS ROM correction version will be left displayed.	(01)Region code 01 NO* (02)MAIN firmware version 02 ***** (03)TIMER firmware version 03 ***** (04)DRIVE firmware version 04 ***** (05)ROM correction version+ROM Type 05 *** (06)VHS microprocessor version 06 **** (07)VHS ROM correction version 07 ** * are version displays	Press [0] [2] in service mode
White Picture Output	White picture is output as component Output from AV Decoder. *White picture (Saturation rate: 100%) *It is enable to switch Interlace/Progressive by “I/P Switch: [1] [4]”	*Initial mode is “Interlace”. WHITE	Press [1] [1] in service mode.
		Switch Interlace/Progressive P WHITE	Press [1] [4] in White Picture Output mode. *I/P are switched alternately.

Item		FL display	Key operation
Mode name	Description		(Remote controller key)
Magenta Picture Output	Magenta picture is output with Component Output from AV Decoder. *Magenta picture (Saturation rate: 100%) *It is enable to switch Interlace/Progressive by "I/P Switch: [1] [4]"	*Initial mode is "Interlace". 	Press [1] [2] in service mode.
		Switch Interlace/Progressive 	Press [1] [4] in Magenta Picture Output mode. *I/P are switched alternately.
RTSC Return in XP (A & V)	AV1 input signal is encoded (XP), decoded (XP) and output decoded signal to external without DISC recording and DISC playback.	Initial mode: EE2/ Interlace/ XP/ Audio 48kHz 	Press [1] [3] in service mode.
		Switch Interlace/Progressive 	Press [1] [4] in RTSC Return XP mode. *I/P are switched alternately.
		Audio 44.1 kHz/ 48 kHz Switch 	Press [2] [4] in RTSC Return XP mode. *48 kHz / 44.1 kHz are switched alternately.
I/P Switch	Switch Interlace and Progressive in EE mode. *Initial setting is "Interlace". *This command is effective during executing "White Picture Output", "Magenta Picture Output" and "RTSC Return in XP (A & V)" modes.	Initial mode is Interlace 	Press [1] [4] in I/P Switch mode. *I/P are switched alternately.
		Switch Interlace/Progressive 	
Audio Mute (XTMUTE)	Check whether mute is applied normally by the timer microprocessor.		Press [2] [1] in service mode.
Audio Mute (XDMUTE)	Check whether mute is applied normally by the Digital P.C.B. (GLUE IC).		Press [2] [2] in service mode.
Audio Pattern Output	The audio pattern stored in the internal memory is output (Lch: 1kHz/-18dB) (Rch: 400Hz/-18dB) *Audio sound clock switching operation of DAC can be confirmed by sub command [2] [4].	Initial mode (Audio 48kHz) 	Press [2] [3] in service mode.
		Audio 44.1kHz/48kHz switching 	Press [2] [4] in Audio Pattern Output mode. *48 kHz / 44.1 kHz are switched alternately.

Item		FL display	Key operation
Mode name	Description		(Remote controller key)
HDD READ inspection	Perform a complete read inspection of the HDD.	<p>When the HDD is OK</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">HDD R00K</div> <p>If the HDD is defective</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">HDD RDNG□○○</div> <p>□ : Judge of Forward rate. * When normal (Forward rate is 35 Mbps or more and there is no HDD error): □ is Space. * When Abnormal (Forward rate is less than 35 Mbps or HDD error existing): □ is X. ○○ : Number of what have spent time for seeking is over 100ms. * When normal: ○○ are spaces. * When Abnormal: Display Number of what have spent time fore seeking over 100 ms. However, if the number is more than 100, display [XX]. We judge it is normal that the number is less than 4.</p>	<p>Press [3] [1] in the service mode. * When canceling the checking mode while executing, do "forced power-off". Method: Press the "POWE" button more than 10 seconds.</p>
Laser Used Time Indiction	Check laser used time (hours) of drive.	<div style="border: 1px solid black; padding: 5px; text-align: center;">ERR *****</div> <p>●(*****) is the used time display in hour. ●Laser used time of DVD/CD in Playback/Recording mode is counted.</p>	<p>Press [4] [1] in service mode.</p>
Delete the Laser Used Time	Laser used time stored in the memory of the unit is deleted.	<div style="border: 1px solid black; padding: 5px; text-align: center;">CLR LASER</div>	<p>Press [9] [5] in service mode.</p>

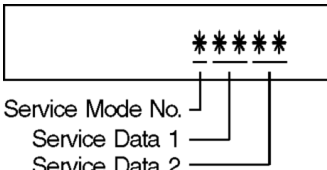
Item		FL display	Key operation
Mode name	Description		(Remote controller key)
RAM Drive Last Error	RAM Drive error code display. *For details about the drive error code, refer to the Service Manual for the specific RAM Drive. *Details are described in "(DVD) Service Explorer".	<p>1. Error Number is displayed for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">NO **</div> <p>2. Time when the error has occurred is displayed for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">YMMDDHMM</div> <p>Y: Year MM: Month DD: Day hh: Hour mm: Minute</p> <p>3. Last Drive Error (1/2) is displayed for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">*****</div> <p>4. Last Drive Error (2/2) is displayed for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">*****</div> <p>5. Error occurring Disc type is displayed for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">*****</div> <p>6. Disc Maker ID is displayed for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">*****</div> <p>7. Factor of Drive Error occurring is left displayed</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">IFO*****</div>	<p>Press [4] [2] in service mode. Then press [0] [1] ~ [9] [9], the past 99 errors are displayed.</p> <p>In case that the supplier cannot be identified, display is black out.</p>
Delete the Last Drive Error	Delete the Last Drive Error information stored on the DVD RAM-Drive.	<div style="border: 1px solid black; padding: 5px;">CLRDRIVE</div>	Press [9] [6] in service mode.
Turn on all FL/LEDs	All segments of FL and all LEDs are turned on.	All segments are turned on.	Press [5] [1] in service mode.
PB HIGH Signal Output	8 pin of AV 1 Jack (PB HIGH terminal) is High (approx. 11V DC).	<div style="border: 1px solid black; padding: 5px;">PBHIGH</div>	Press [5] [2] in service mode.
PB MIDDLE Signal Output	8 pin of AV 1 Jack (PB HIGH terminal) is Middle (approx. 5.5V DC).	<div style="border: 1px solid black; padding: 5px;">PBMIDDLE</div>	Press [5] [3] in service mode.
Front connection inspection	Press all front keys and check the connection between Main P.C.B. and Front P.C.B.	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px;">0Γ**</div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="width: 50%; text-align: center;"> (1) (2) </div> <div style="width: 50%; text-align: center;"> (1) (2) </div> </div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px;">0Γ**</div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="width: 50%; text-align: center;"> (1) (2) </div> <div style="width: 50%; text-align: center;"> (1) (2) </div> </div> </div> </div> <p>(1) Each time a key is pressed, segment turned on increases one by one. (2) Total number of keys that have been pressed.</p>	Press [5] [4] in service mode.

Item		FL display	Key operation
Mode name	Description		(Remote controller key)
Production Date Display	Display the date when the unit was produced.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> yyyYmDD </div> <p>YYY: Year MM: Month DD: Day</p>	Press [6] [1] in service mode.
Display the accumulated working time	Display the accumulated unit's working time.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> ***** </div> <p>(Indicating unit: Second)</p>	Press [6] [4] in service mode.
Display the Error History	Display the Error History stored on the unit.	<p>Display reason of error for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> *** </div> <p>Description of Error Numbers NO FTREC: No error 01: Defect of Digital P.C.B. (AV DEC/MAIN CPU) 02: Defect of RAM Drive 03: Defect of Disc 04: Defect of Digital P.C.B. or Communication Error 05: Defect of Digital P.C.B. (AV DEC/MAIN CPU) 06: Defect of HDD</p> <p>Display the time when the error has occurred for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> ymmDDHHMM </div> <p>Y: Year MM: Month DD: Day HH: Hour MM: Minute</p> <p>Display the accumulated working time to occurring of the error for 5 seconds.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> ***** </div> <p>(Indicating unit: Second)</p>	Press [6] [5] in service mode. Then press [0] [1] ~ [1] [9], the past 19 error histories are displayed.
Delete the Error History	Delete Error History information stored on the unit.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> CLRFTREC </div>	Press [9] [7] in service mode.
SD card WRITE check	Check SD card WRITE function with SD card slot.	<p>When the WRITE check is OK.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> SDCD OK </div> <p>When the WRITE check is NG.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> SDCD NG </div> <p>*Note: The image stored in the SD card will be erased.</p>	Insert a SD card to SD card slot, and press [7] [4] in service mode. * Insert SD card while the power is off. * Check for [CARD SD] display on the FL display and go on the procedure.

Item		FL display	Key operation (Remote controller key)
Mode name	Description		
AV4 (V) / AV1 (RGB) I/O Setting	Set input to AV4(V) and set output to AV1(RGB) for I/O checking	01 PRL 10	Press [8] [0] in service mode.
AV2 (Y/C) / AV1 (V) I/O Setting	Set input to AV2(Y/C) and set output to AV1(V) for I/O checking	02 PRL 10	Press [8] [1] in service mode.
AV2 (V) / AV1 (Y/C) I/O Setting	Set input to AV2(V) and set output to AV1(Y/C) for I/O checking	03 PRL 10	Press [8] [2] in service mode.
AV2 (RGB) / AV1 (V) I/O Setting	Set input to AV2(RGB) and set output to AV1(V) for I/O checking	04 PRL 10	Press [8] [3] in service mode.
P50 (H) Output	Timer Microprocessor IC7501-22 output High signal for AV1-pin 10 passing through inverter (approx. 0V DC at AV1-pin 10).	P50HI When OK. P50HI OK When NG. P50HI NG	Press [8] [4] in service mode.
P50 (L) Output	Timer Microprocessor IC7501-22 output Low signal for AV1-pin 10 passing through inverter (approx. 4.4 V DC at AV1-pin 10).	P50LOW When OK. P50LOW OK When NG. P50LOW NG	Press [8] [5] in service mode.
Tray OPEN/CLOSE Test	The RAM drive tray is opened and closed repeatedly.	***** ** is number of open/close cycle times.	Press [9] [1] in service mode *When releasing this mode, press the [POWER] button on Front Panel more than 10 seconds.
Error code initialization	Initialization of the last error code held by timer (Write in F00)	CLRE - CODE	Press [9] [8] in service mode.
Initialize Service	Last Drive Error, Error history and Error Codes stored on the unit are initialized to factory setting. Then VHS Microprocessor is initialized to shipping setting too.	CLRSERV	Press [9] [9] in service mode.
Finishing service mode	Release Service Mode.	Display in STOP (E-E) mode. *****	Press power button on the front panel in service mode.

13 (VHS) SELF-DIAGNOSIS AND SPECIAL MODE SETTING

13.1. (VHS) SPECIAL MODES SETTING

Item		FL display	Key operation
Mode name	Description		Front Key
Tracking Center	Tape Tracking is adjusted to center FIX position.	No display.	During PLAYBACK, press [VHS CH UP] and [VHS CH DOWN] keys simultaneously.
VHS Service Mode	In order to make service easy, a part of inside information of a microprocessor is displayed on FIP. *Details are described in "VHS Service Mode".		Press [FF], and [EJECT] keys simultaneously for three seconds when power is off.
Releasing EXT LINK & Timer Program	Releasing Continuation EXT LINK & Continuation Timer Program	No display.	While in EXT LINK or Timer REC mode, press [VHS STOP] key for 3 seconds.
Eject	Ejecting Cassette Tape	No display.	While in other than Timer REC mode, press [VHS STOP] key for 3 seconds or press [STOP] key of the Remote Controller for 3 seconds in VHS mode.

13.2. (VHS) SERVICE MODES

(Service Mode Setting)

- When power is OFF, press [FF] and [EJECT] keys simultaneously for 3 seconds to into Service Mode.
- In Service Mode, press [FF] and [EJECT] keys simultaneously to add Service Number.

Service Mode Number	Contents	Contents of Indication on minute	Contents of Indication on second	Remarks
0	Indication for the inner data of IC6001	VHS mode (Real time)	Process number of the mechanism movement (Real time)	
1	Indication for the inner data of IC6001	Tape beginning and ending detection data (Real time) 00: Both tape beginning and ending have not been detected 01: Tape ending is detecting now 02: Tape beginning is detecting now 03: Both tape beginning and ending are detecting now	Key code (Real time) Indicate the receiving code when the key of VCR or remote controller being operated.	
2	Indication for the inner data of IC6001	Mechanism position (Real time) 0L: EJECT position 02: DOWN position 03: RREW position 04: LOAD position 05: REV position 06: PLAY position 07: POFF position 08: STOP_R position 09: STOP_F position 0_ : FF/REW position 0_ : Intermediate between each positions	Ordering for the Motors (Real time) 0*, 2*: CYL off, CAP off 1*: CYL off, CAP on (fwd) 3*: CYL off, CAPon (rev) 8*, A*: CYL on, CAP off 9*: CYL on, CAPon (fwd) B*: CYL on, CAP on (rev) *0: Motor off *1: Loading *2: Unloading *3: Break (Load + Unload)	The following functions are prohibited to operate the mechanism without cassette tape. ●Tape beginning and ending detection. ●Reel lock detection ●Tape detection and tape position detection Press the EJET key for over 3 seconds in this mode, and then the VCR is shifted into the special modes, such as PG Adjustment, Model Code Setting, and so on. The orders for the motors are asfollows.
3	Self-diagnosis history (1st)	1st history of error number	"- -" is displayed.	
4	Self-diagnosis history (2nd)	2nd history of error number	"- -" is displayed	
5	Self-diagnosis history (3rd)	3rd history of error number	"- -" is displayed	
6	Indication for the inner data of IC6001	Servo data (4 digits) (Real time)		

Service Mode Number	Contents	Contents of Indication on minute	Contents of Indication on second	Remarks
7	Manual mechanism operation	Mechanism position (Real time) 0L: EJECT position 02: DOWN position 03: RREW position 04: LOAD position 05: REV position 06: PLAY position 07: POFF position 08: STOP_R position 09: STOP_F position 0- : FF/REW position 0_ : Intermediate between each positions	Ordering for the Motors 0*, 2*: CYL off, CAP off 1*:CYL off, CAP on (fwd) 3*: CYL off, CAPon (rev) 8*, A*: CYL on, CAP off 9*: CYL on, CAPon (fwd) B*: CYL on, CAP on (rev) *0: Motor off *1:Loading *2: Unloading *3: Break (Load + Unload)	Press the following key; PLAY key: Loading STOP key: Unloading

13.3. (VHS) SELF-DIAGNOSIS FUNCTIONS

This model has a self-diagnosis. If the VHS section detects trouble during installation or during use, the power is automatically turned off or become power-save mode and it is memorized into the EEPROM (IC37502) as error code of two-digit number. Its memorized error code can be displayed in "second" display portion (the last 2 digits of the FIP) by placing the unit in Service Mode Number 2 when turning on the Service Information Display as for example "01" or "02" etc. as below. If a second error occurs, the most recent error will be memorized and can be displayed in Service Mode Number 2. It can be memorized until 3 self-diagnosis histories in maximum.

In order to erase the memorized error code, press FF and EJECT buttons on the Front Panel simultaneously over 5 seconds during turning on Service Information Display mode.

13.3.1. MEMORY OF THE SELF-DIAGNOSIS HISTORY

*This is effective only in Service Mode 3, 4, 5.

13.3.1.1. ERROR NUMBERS AT A GLANCE

Memory No. (Error Code)	Reason
01	The cylinder could not be started. (Error of the cylinder or the cylinder driver.)
02	The CAP FG could not be detected.
03	Mechanism lock during without the unloading and the cassette-up.
04	Mechanism lock during unloading
05	S-reel pulse cannot be detected during unloading. (Error of the S-reel circuit or the Capstan circuit)
06	Mechanism lock during the Cassette-up.
09	Communication Error between VHS Microprocessor and Timer Microprocessor.
15	S-reel pulse cannot be detected when a cassette tape is inserted. (Error of the S-reel circuit or the Capstan circuit)
16	Detection of the Cylinder lock during the constant rotation
17	Detection of S-reel lock during the constant tape running
18	Detection of T-reel lock during the constant tape running
2*	An error while the PG Automatic Adjustment
Refer to following table	
80	An exceptional ejection depends on a accidental error

Note:

2* is as follows.

20	NG1 in the PG Shifter Automatic Adjustment (The cylinder rotation is unstable during the automatic adjustment.)
21	NG2 in the PG Shifter Automatic Adjustment (The vertical sync signal is lacked while over 5 seconds on the alignment tape.)
22	NG3 in the PG Shifter Automatic Adjustment (The installing position of Heads to the cylinder is out of specification.)
23	NG4 in the PG Shifter Automatic Adjustment (The servo is not locked to the cylinder for more than 10 sec.)

13.3.1.2. MEMORY FOR THE SELF-DIAGNOSIS HISTORY

3. The self-diagnosis result is memorized the state of the moment of detecting.

4. There are the histories from number 1 to number 3.

5. The latest error is memorized on history number 1, and then the old histories are shifted to the history number 2 and 3.

The error code memorized in the history number 2 and 3 is over-written by shift.

4. If the latest error is the same with the history number 1 (2nd-latest), it is not memorized.
(The same error code is not memorized in succession)

13.3.1.3. CLEAR FOR THE SELF-DIAGNOSIS HISTORY

1. Press FF and EJECT buttons on the VCR simultaneously over 5 seconds during turning on Service Information Display mode.

13.3.1.4. INDICATION OF THE SELF-DIAGNOSIS HISTORY

The self-diagnosis histories can be indicated on the FIP with Service Mode number 3 to 5.

The procedure of service mode setting and indication format are the same as usual.

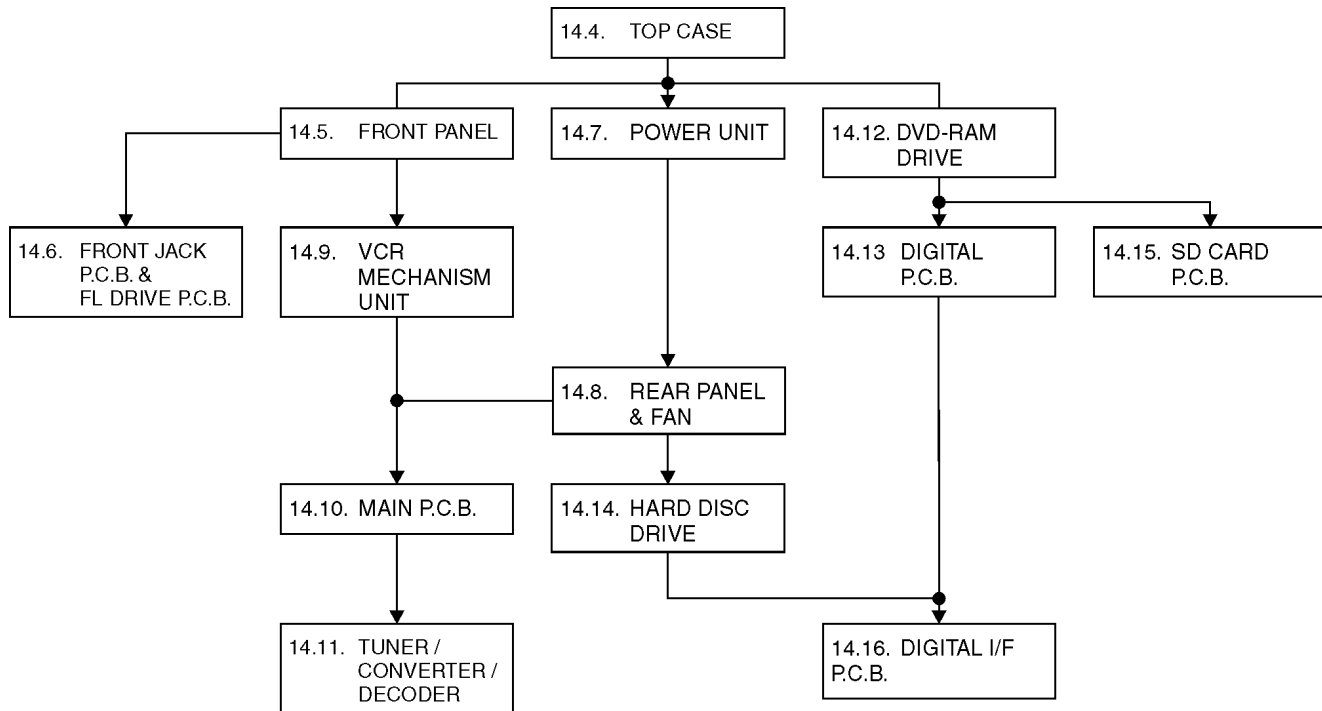
FIP INDICATION: 4 0 3 — —				
Hour of one-digit	Minute of two-digit	Minute of one-digit	Second of two-digit	Second of one-digit
Service mode number	Error code		—	—
3	Error code of history 1 (the latest)		—	—
4	Error code of history 2 (2nd latest)		—	—
5	Error code of history 3 (3rd latest)		—	—

The Error code of history 1, 2 and 3 can be indicated by selecting the Service mode 3, 4 and 5.
In case of no error code in the memory, it is indicated as "00".

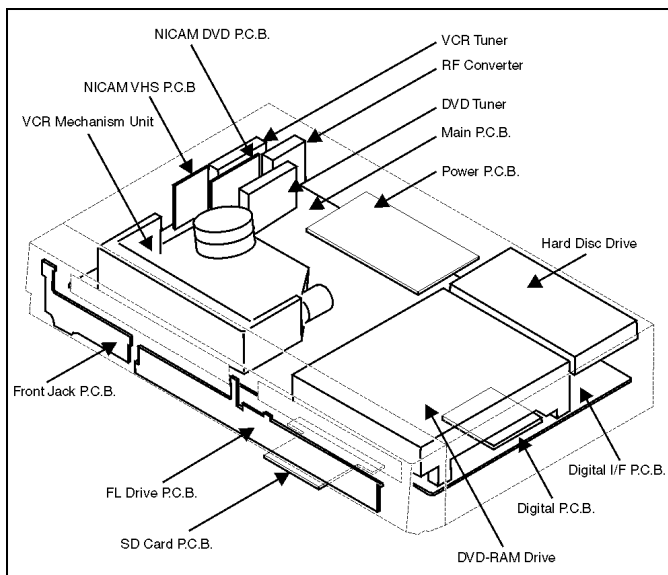
14 ASSEMBLING AND DISASSEMBLING

14.1. DISASSEMBLY FLOW CHART

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing. To assemble the unit, reverse the steps shown in the chart below.



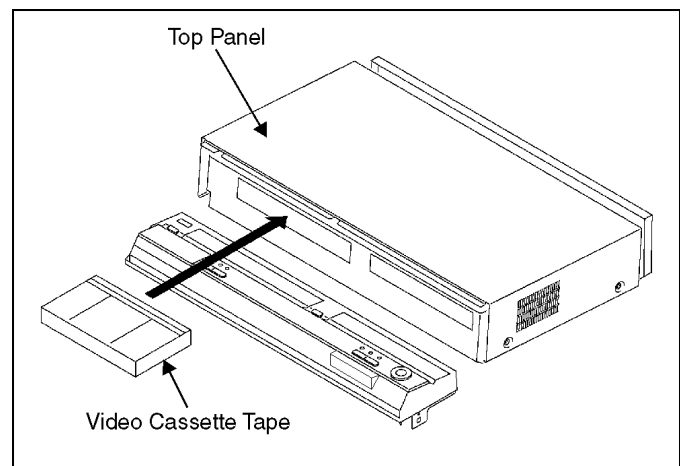
14.2. P.C.B. POSITIONS



14.3. CAUTION WHILE INSERTING CASSETTE TAPE WHEN DISASSEMBLING THE UNIT

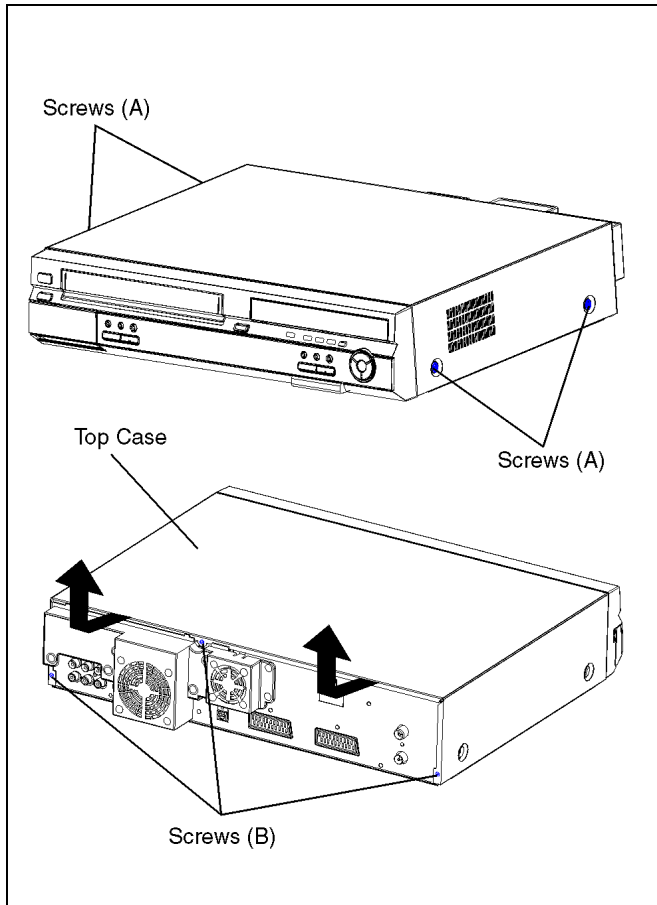
NOTE:

Video Cassette might not enter when a strong lighting is applied to VHS Mechanism when Video Cassette is inserted. Please weaken the lighting or cover with the top panel etc.



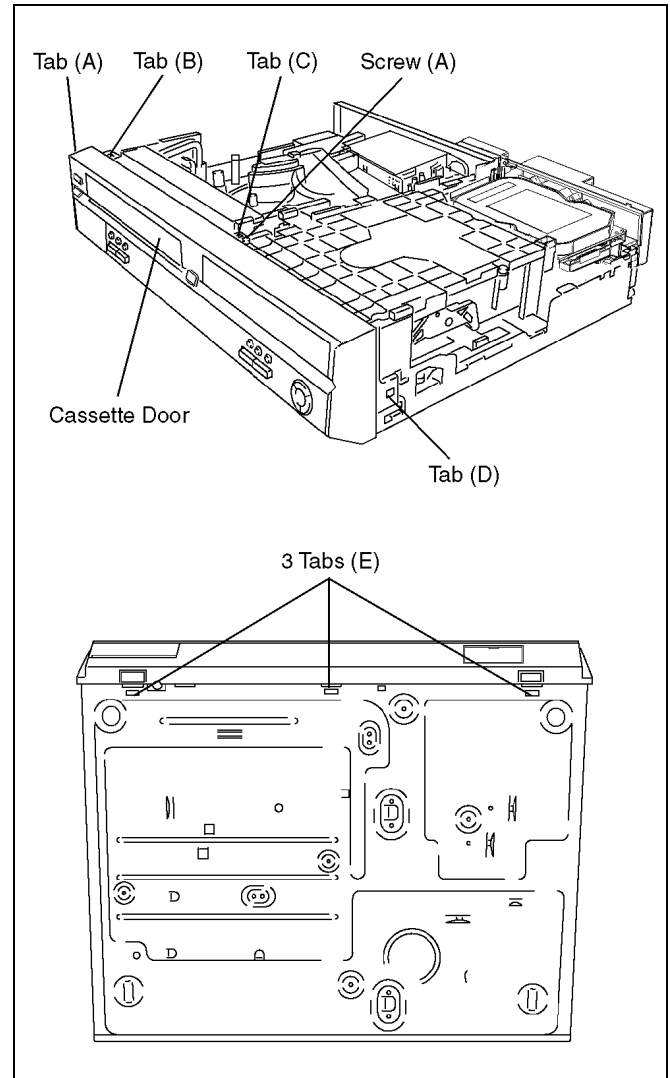
14.4. TOP CASE

1. Remove the 4 screws (A) and 3 screws (B).
2. Slide the Top Case for rear direction slightly, and open the both ends at rear side of the Top Case a little and lift up the Top Case for the direction of the arrows.



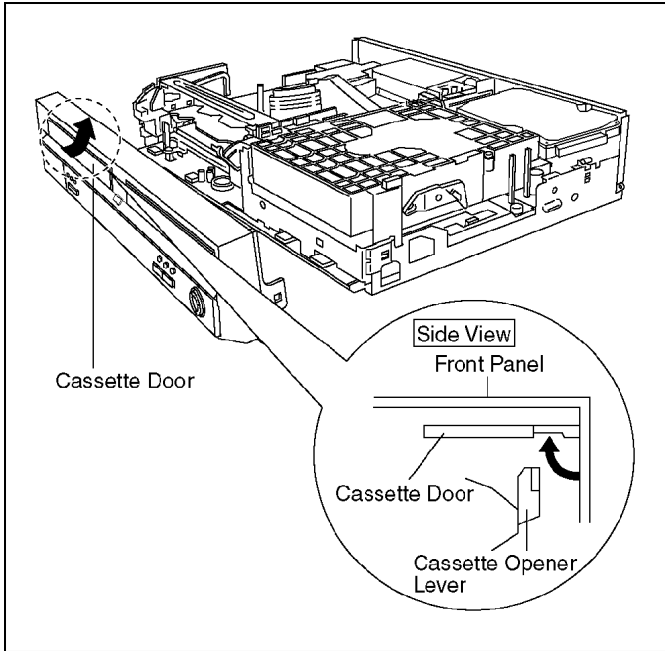
14.5. FRONT PANEL

1. Remove one screw (A).
2. Unlock tab (A) and tab (B) simultaneously.
3. Unlock tab (C) and tab (D) simultaneously.
4. Unlock 3 tabs (E) respectively and pull out Front Panel with connector slightly.



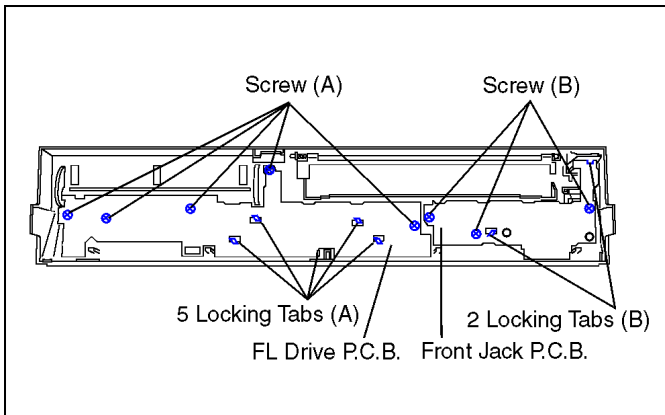
Note:

When attaching Front Panel, in order to hook Cassette Door Opener Lever to Cassette Door, push up cassette door in the direction of arrow and insert a front panel.



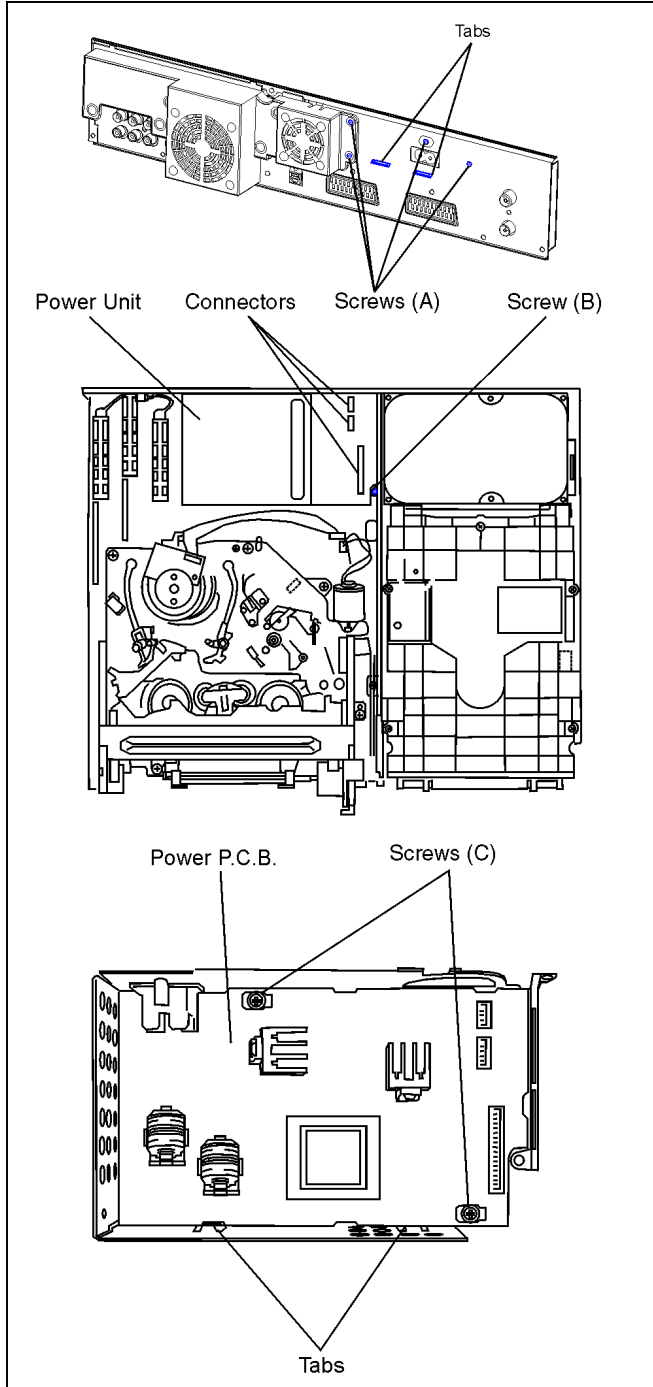
14.6. FRONT JACK P.C.B. & FL DRIVE P.C.B.

1. Remove one 5 screws (A) and unlock 5 Locking Tabs (A) to remove FL Drive P.C.B. .
2. Remove one 3 screws (B) and unlock 2 Locking Tabs (B) to remove Front Jack P.C.B. .



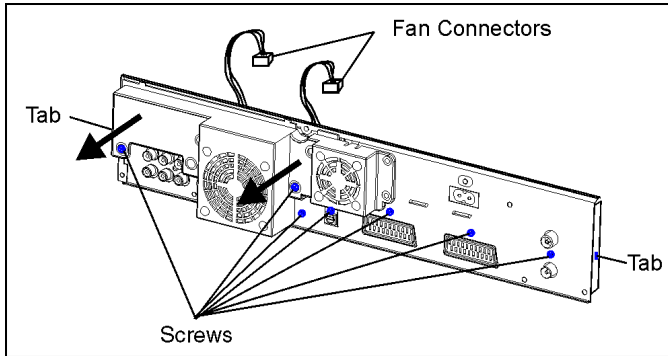
14.7. POWER P.C.B.

1. Disconnect 3 Connectors from Power P.C.B. .
2. Remove 5 Screws (A).
3. Remove Screw (B).
4. Lift up Power Unit vertically out of Tabs.
5. Open the Top Cover of the Shield Case.
6. Remove the 2 Screws (C).
7. Lift up Power P.C.B. out of the Tabs.



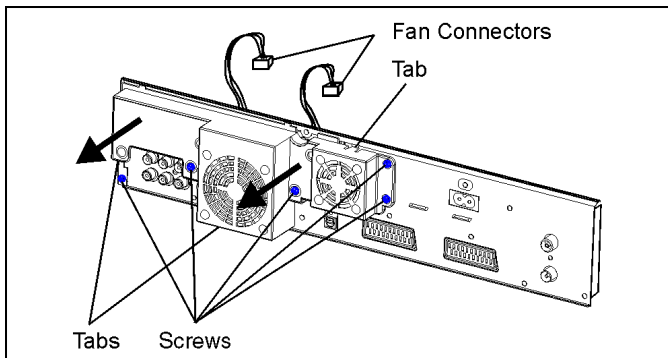
14.8. REAR PANEL & FAN MOTOR

1. Remove the 2 Fan Connectors.
2. Remove 7 Screws.
3. Unlock 2 Locking Tabs to remove Rear Panel with Fan Motor.
4. Attention when inserting Rear Panel:
Don't shut the Fan Cable between Rear Panel and Chassis.



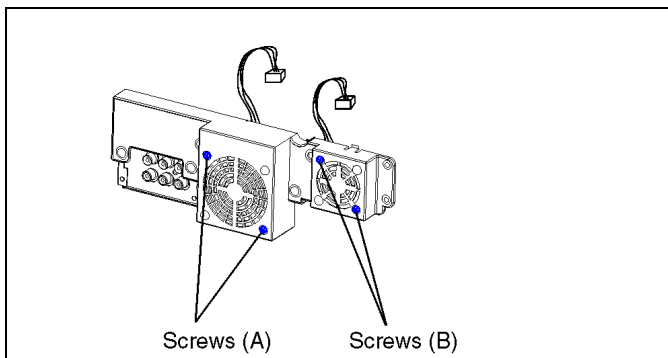
14.8.1. ONLY FAN MOTOR UNIT

1. Remove the 2 Fan Connectors.
2. Remove the 5 Screws.
3. Unlock the 3 Tabs and remove the Fan Motor Unit.



14.8.2. FAN MOTOR

1. Remove the Screws (A) or Screws (B).
2. Remove the selected Fan Motor.

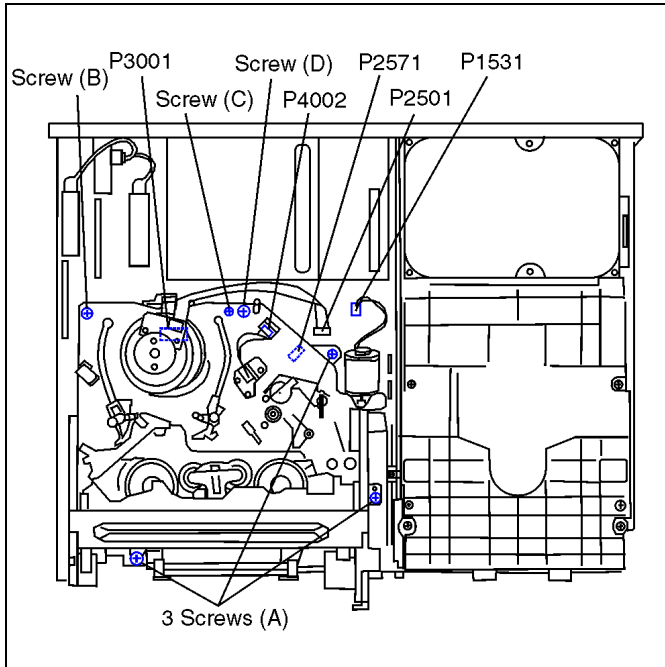


14.9. VCR MECHANISM UNIT

1. Disconnect 3 Connectors (P1531, P2501 and P4002).
2. Remove 3 Black Screws (A), Screw (B), Screw (C) and Screw (D).
3. Lift up VCR Mechanism Unit perpendicularly so to disconnect Connectors (P2571 and P3001).

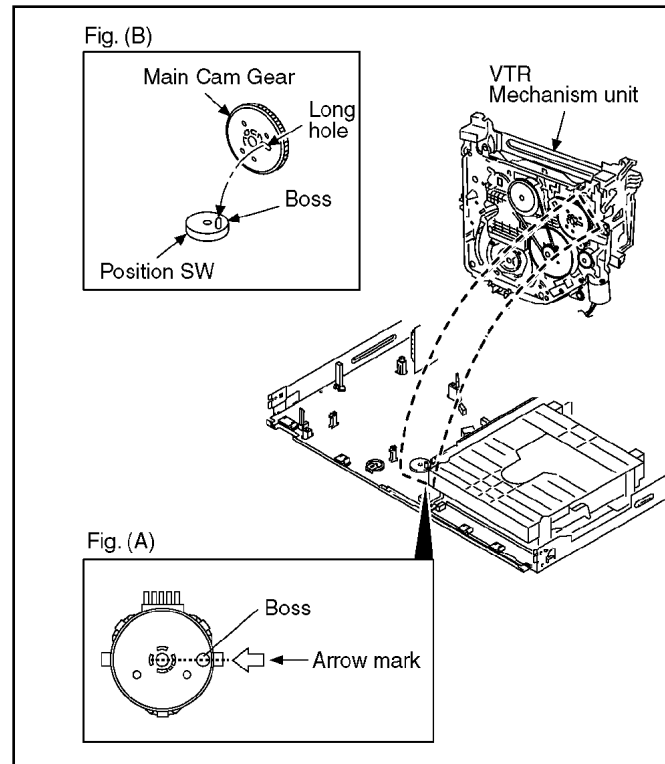
Note:

When you lift up VCR Mechanism Unit, because connections of P2501 and P3001 are tight, pay attention to that.



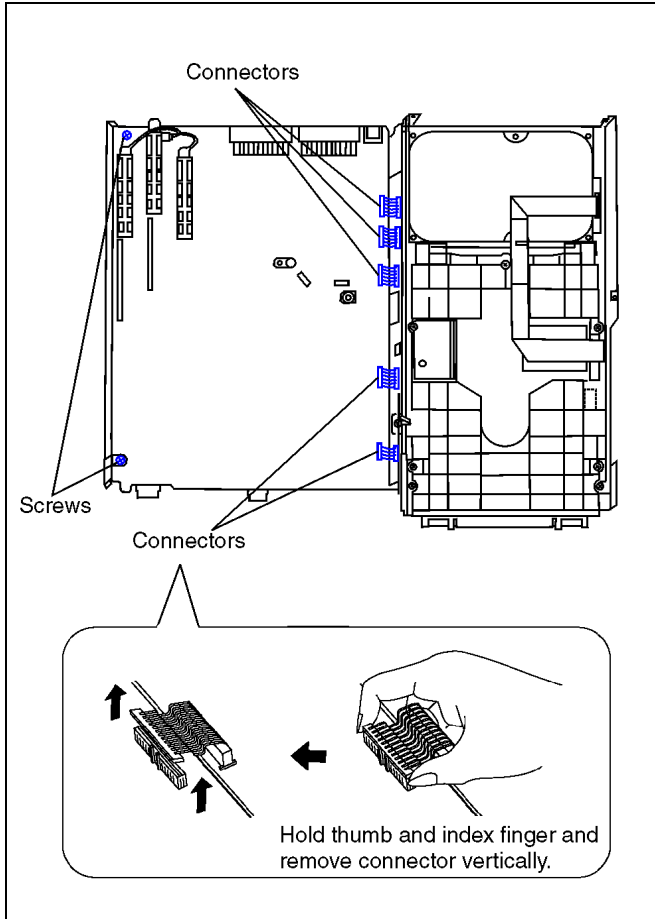
14.9.1. CAUTION FOR ATTACHING VCR MECHANISM UNIT

1. Because Position SW should be set to "Eject Position", refer to fig.(A) and set the position switch so that the boss and arrow mark come on a straight line.
2. Attach VCR Mechanism Unit so that Boss of Position SW is put into long hole of Main Cam Gear, refer to Fig. (B).



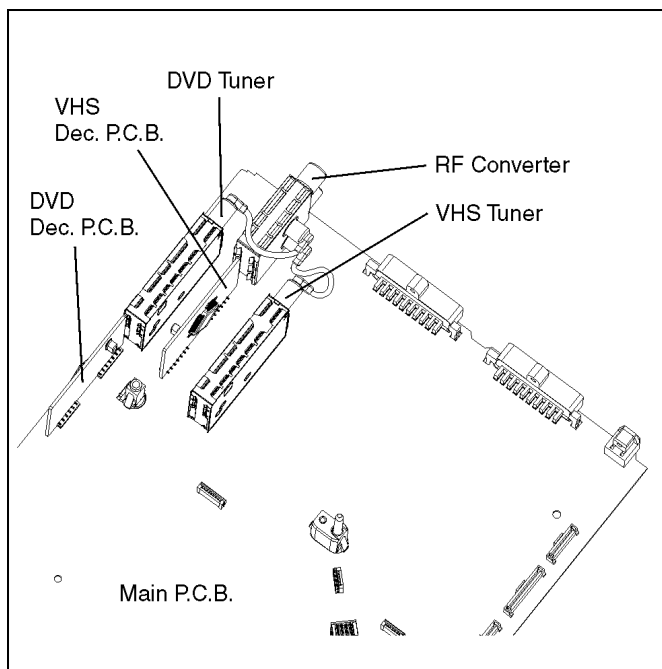
14.10. MAIN P.C.B.

1. Disconnect 5 Connectors.
2. Remove 2 Screws (A), and remove Main P.C.B.



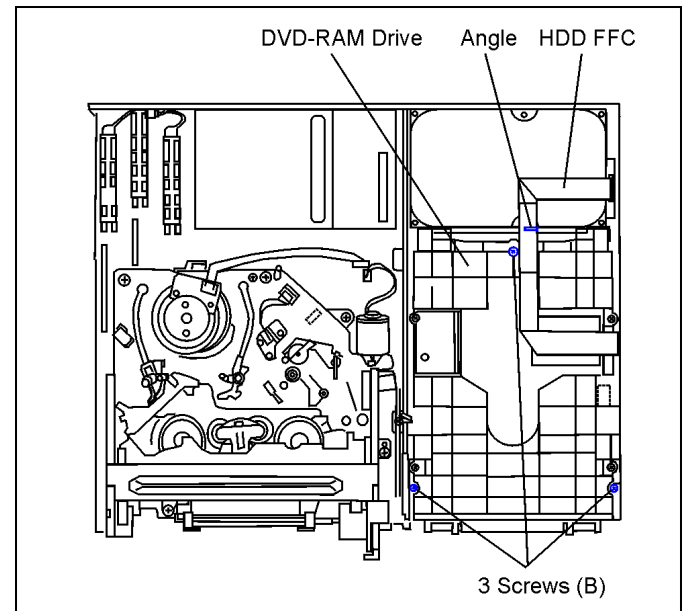
14.11. TUNER / CONVERTER / DECODER

1. Remove the solders.
2. Pull out the P.C.B. .

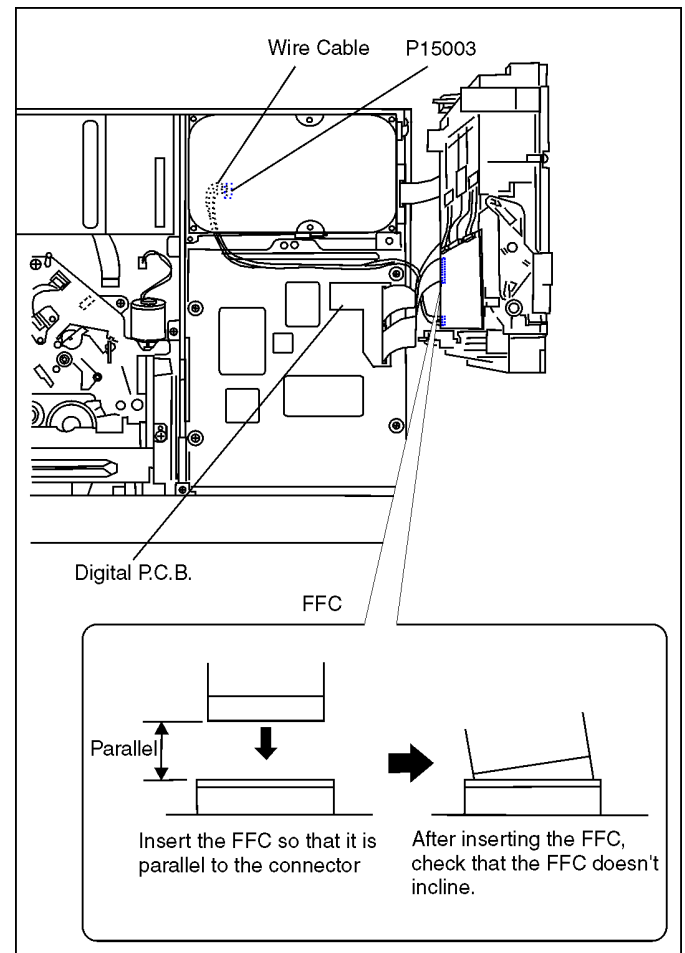


14.12. DVD-RAM DRIVE

1. Take out HDD FFC from Angle sideways.
2. Remove 3 Screws (B).
3. Lift up DVD-RAM Drive slightly.



4. Remove Wire Cable from Connector P15003.
5. Disconnect FFC from Digital P.C.B. .



14.13. DIGITAL P.C.B.

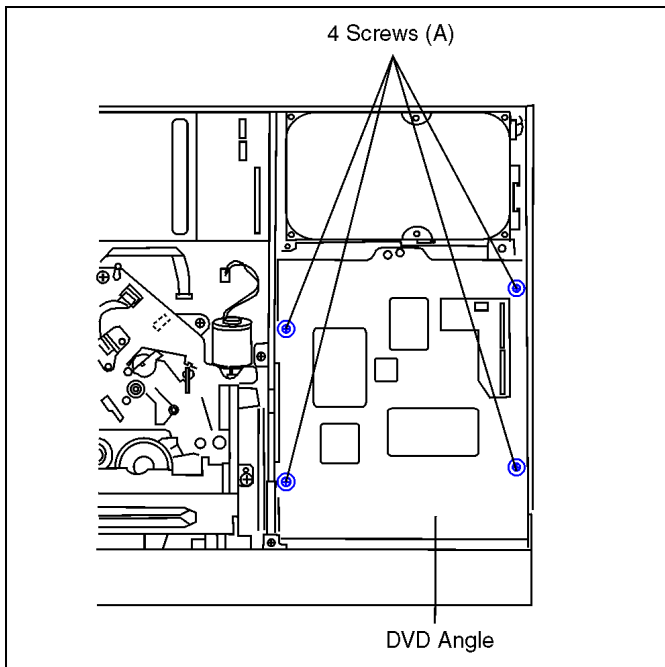
Note:

When replacing the Digital P.C.B., "UNFORMAT" indication is displayed and HDD must be formatted.

- After "UNFORMAT" is displayed on the FL display, warning message for HDD format is appeared on the TV screen.
- Select "YES" and press "ENTER" button on the remote control; the HDD will be formatted automatically.
- After that **all programme in the HDD will be lost.**

How to format the HDD.

1. Remove 4 Screws (A) and DVD Angle.



2. Disconnect FFC.
3. Remove Screw (B).
4. Unlock Clamper (A), pay attention to Connector (A), and pull out Digital P.C.B. to disconnect Connector (A).

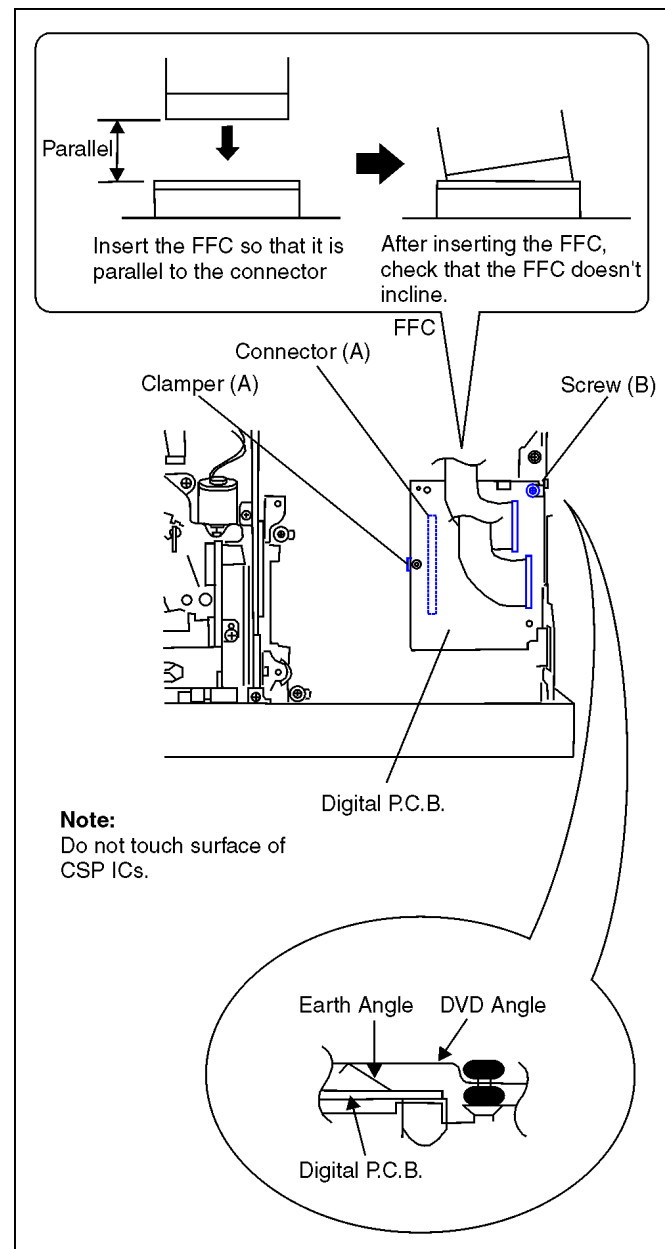
CAUTION 1:

When replacing Digital P.C.B., pay attention to inserting FFC, and be careful to do not touch surface of CSP ICs.

If you have touched surface of CSP IC, clean up with alcohol and so on to prevent oxidation.

CAUTION 2:

When attaching Digital P.C.B. on to Earth Angle, Earth Angle should be touches to DVD angle as shown.



14.14. HARD DISC DRIVE

Note:

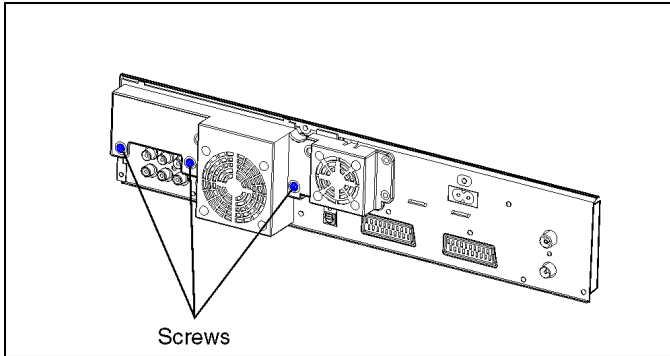
When replacing with HDD (HARD DISC DRIVE) "UNFORMAT" indication

is displayed and HDD (HARD DISC DRIVE) must be formatted.

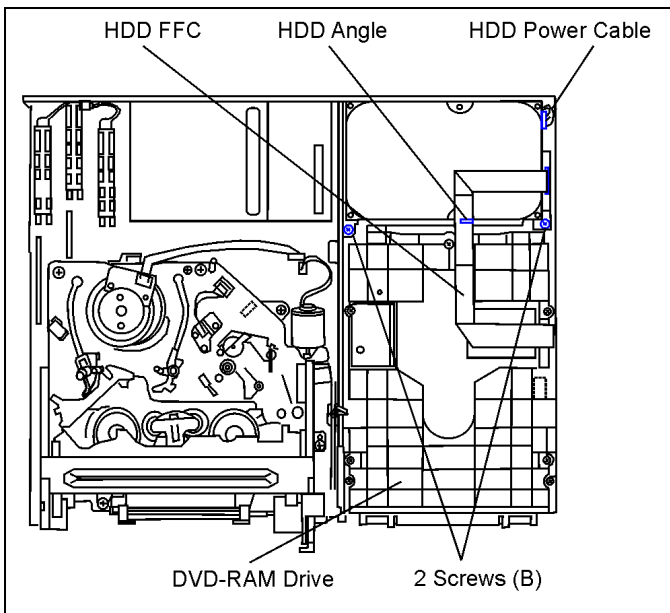
- After "UNFORMAT" is displayed on the FL display, warning message for HDD format is appeared on the TV screen.
- Select "YES" and press "ENTER" button on the remote control; the HDD will be formatted automatically.
- After that **all programme in the HDD will be lost.**

How to format the HDD.

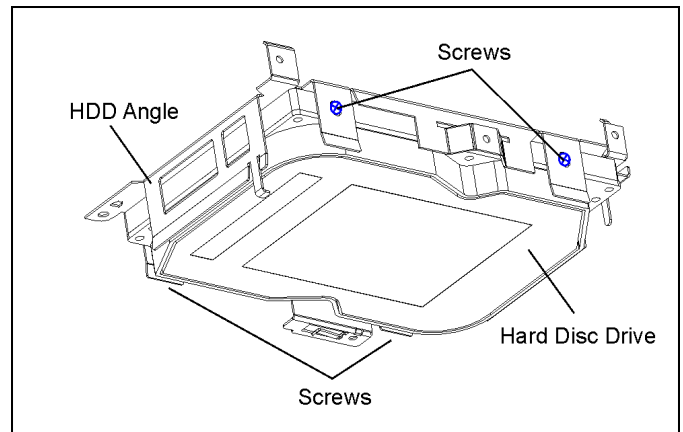
1. Remove 3 Screws from the Rear Panel.



2. Disconnect HDD Power Cable from Hard Disc Drive Unit.
3. Take out HDD FFC from HDD Angle sideways and disconnect the FFC from Hard Disc Drive Unit.
4. Remove 2 Screws (B) from HDD Angle.



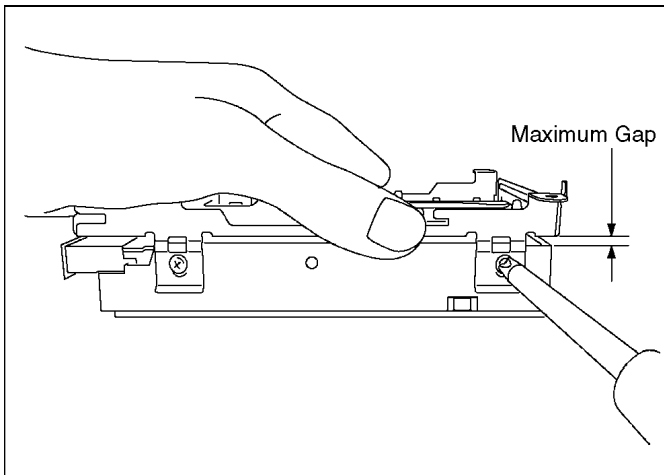
5. Lift up HDD Angle together with Hard Disc Drive.
6. Put HDD with HDD Angle up side down so as not give a shock to HDD.
7. Remove 4 Screws from Hard Disc Drive.



Caution for Attaching HDD

Put HDD up and down inversely so as not to give a shock to HDD,

and put HDD Angle on to HDD and tighten 4 screws while lifting HDD Angle so as to keep maximum gap between HDD and HDD Angle.



Handling of HDD

The following precautions should be taken when handling HDD.

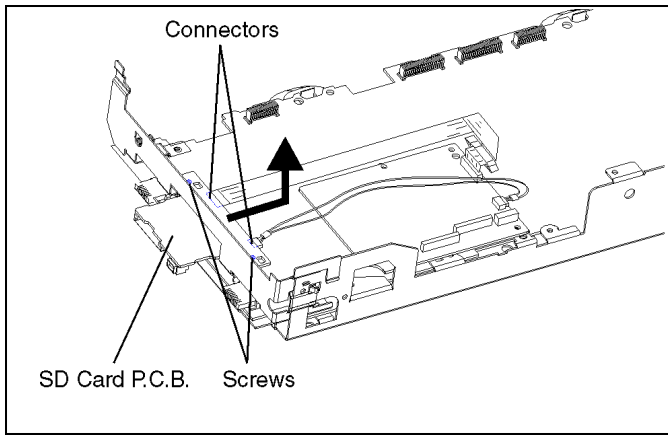
- a. Never give an impact to HDD. (Even a drop from 1 cm height can be a cause of HDD failure).
- b. When placing HDD on a workbench, provide a mat on a bench for shock absorption and anti-static purposes.
- c. When installing HDD, release it from your hands only after confirming that it is fully set on the chassis.
- d. Avoid stacking up HDD.
- e. HDD is unstable and easy to fall. Do not stand it on its side face.
- f. When handling HDD, hold its side faces to avoid static hazard.
- g. Do not place HDD on its wrapping bag after removal. (Prevention of static hazard.)
- h. Use a screwdriver with low impact and anti-static features.

Note:

When replacing HDD, please make the rear jumper slave or cable select configuration.

14.15. SD CARD P.C.B.

1. Remove Front Panel, Power Unit, Rear Panel, Hard Disc Drive Unit, DVD-RAM Drive.
2. Disconnect 2 Connectors.
3. Remove the 2 Screws.
4. Remove SD CARD P.C.B. .

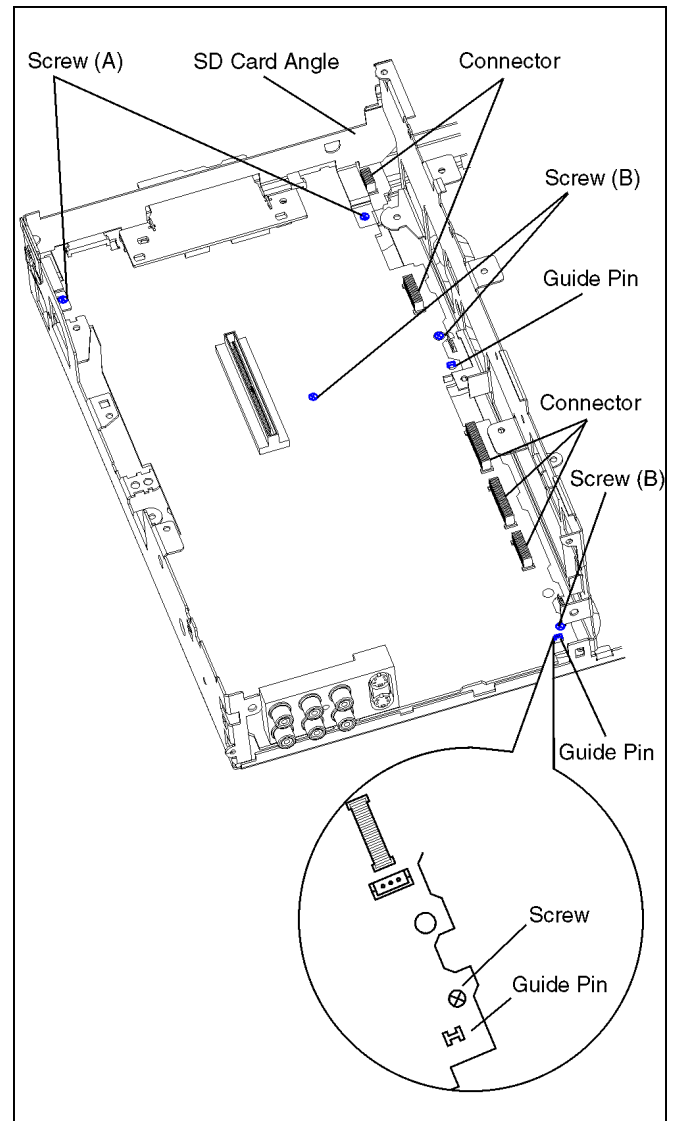


14.16. DIGITAL I/F P.C.B.

1. Remove Front Panel, Power Unit, Rear Panel, Hard Disc Drive Unit, DVD-RAM Drive, Digital P.C.B., SD Card Unit
2. Disconnect 5 Connectors.
3. Remove the 2 Screws (A) from SD Card Angle.
4. Remove SD Card Angle together with SD Card P.C.B. .
5. Remove the 3 Screws (B) from Digital I/F P.C.B. .
6. Remove Digital I/F P.C.B. .

Note:

When inserting P.C.B. confirm correct positions of Guide Pins.



15 SERVICE FIXTURE AND TOOLS

Part Number	Description	Pcs	Compatibility
RFKZ0125	Extension FFC (Digital P.C.B. - DVD-RAM Drive / 40 Pin)	1	Same as E30/HS2/E50/E55/ES10 series
VFK1729	Extension Cable (Main P.C.B. - Digital I/F P.C.B. / 13pin/40mm)	2	Same as E75V
RFKZ0240	Extension Cable (Main P.C.B. - Digital I/F P.C.B. / 19pin/40mm)	2	Same as E75V
RFKZ0178	Extension Cable (Main P.C.B. - Digital I/F P.C.B. / 7pin/40mm)	1	Same as E75V
RFKZ0215	Extension Cable (Main P.C.B. - Front Jack P.C.B. / 12 Pin)	1	Same as DMR-E55/E75V series
RFKZ0238	Extension Cable (Main P.C.B. / Digital I/F P.C.B. - FL Drive P.C.B. / 8 Pin)	1	Same as E75V
RFKZ0239	Extension Cable (Digital I/F P.C.B. - FL Drive P.C.B. / 10 Pin)	1	Same as E75V

(for VHS)

Part Number	Description	Pcs	Compatibility
VFJ8125H3F	PAL VHS Alignment Tape	1	Same as E75V
VFK0329	Post Adjustment Screwdriver	1	Same as E75V
VFK0330	Fine Adjustment Gear Driver	1	Same as E75V

16 SERVICE POSITIONS

16.1. CHECKING AND REPAIRING OF POWER P.C.B.

1. Top Case

- Remove 4 Screws (A) on side
- Remove 3 Screws (B) on rear
- Remove Top Case

2. Rear Panel

- Remove 1 Screw from Fan (right upper corner)
- Remove 1 Screw from Rearpanel (above Power Connector)
- Remove 1 Screw beside Power Connector

3. Power P.C.B. Angle

- Remove 1 Screw

4. Power P.C.B.

- Disconnect 3 Connectors from Power P.C.B.
- Lift up Power Unit vertically out of Tabs
- Open the Top Cover of the Shield Case
- Remove the 2 Screws (C)
- Lift up Power P.C.B. out of the Tabs
- Connect 3 Connectors to Power P.C.B.

Caution 1:

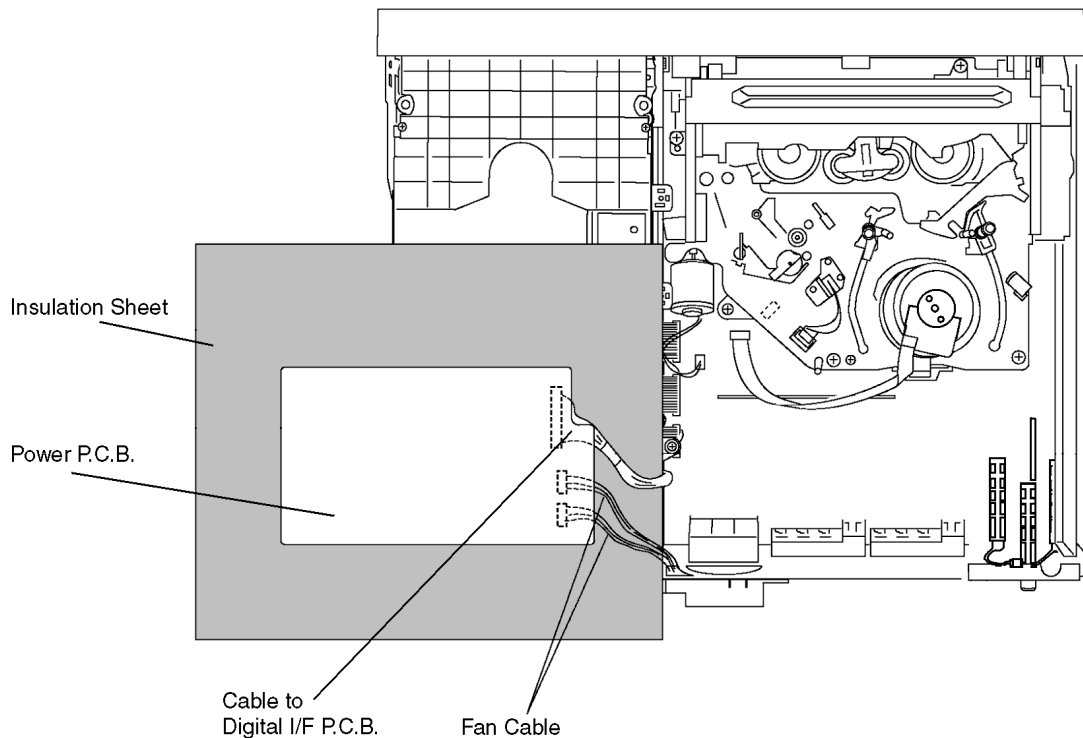
Original screw should be used.

Caution 2:

In some case, Shield Case of Power Unit is soldered.

In this case, remove solder when removing Shield Case and certainly solder Shield Case when installing.

If soldering was not done, noises mix into picture.



16.2. CHECKING AND REPAIRING OF DIGITAL I/F P.C.B.

1. Top Case

- Remove 4 Screws (A) on side
- Remove 3 Screws (B) on rear side
- Remove Top Case

2. Front Panel

- Remove one Screw (A) on center
- Unlock 2 Locking Tabs (A), (D) on Front Panel side
- Unlock 2 Locking Tabs (B), (C) on Front Panel topside
- Unlock 3 Locking Tabs (E) on Front Panel bottom side
- Remove Front Panel

3. Power Unit and Rear Panel

- Disconnect 3 Connectors from Power P.C.B.
- Remove all Screws from Rear Panel and Fan Unit (Screws for Fan Motor not necessary)
- Remove 1 Screws Power P.C.B. Angle and lift up Power Unit vertically out of Tabs
- Remove Rear Panel with Fan Motor Unit

4. Hard Disc Drive & Hard Disc Angle

- Disconnect HDD Power Cable from Hard Disc Drive Unit
- Take out HDD FFC from HDD Angle sideways
- Disconnect the HDD FFC from Hard Disc Drive Unit
- Remove 2 Screws (B) from HDD Angle
- Lift up HDD Angle together with Hard Disc Drive Unit

5. DVD-RAM Drive

- Remove Power Cable (DVD-RAM Drive) from Digital I/F P.C.B.
- Remove the 4 Screws from DVD Angle
- Lift up DVD Angle together with DVD-RAM Drive and put it upside-down
- Put a solid Insulation Sheet on DVD-Ram Drive Unit

6. SD Card Angle and Digital P.C.B.

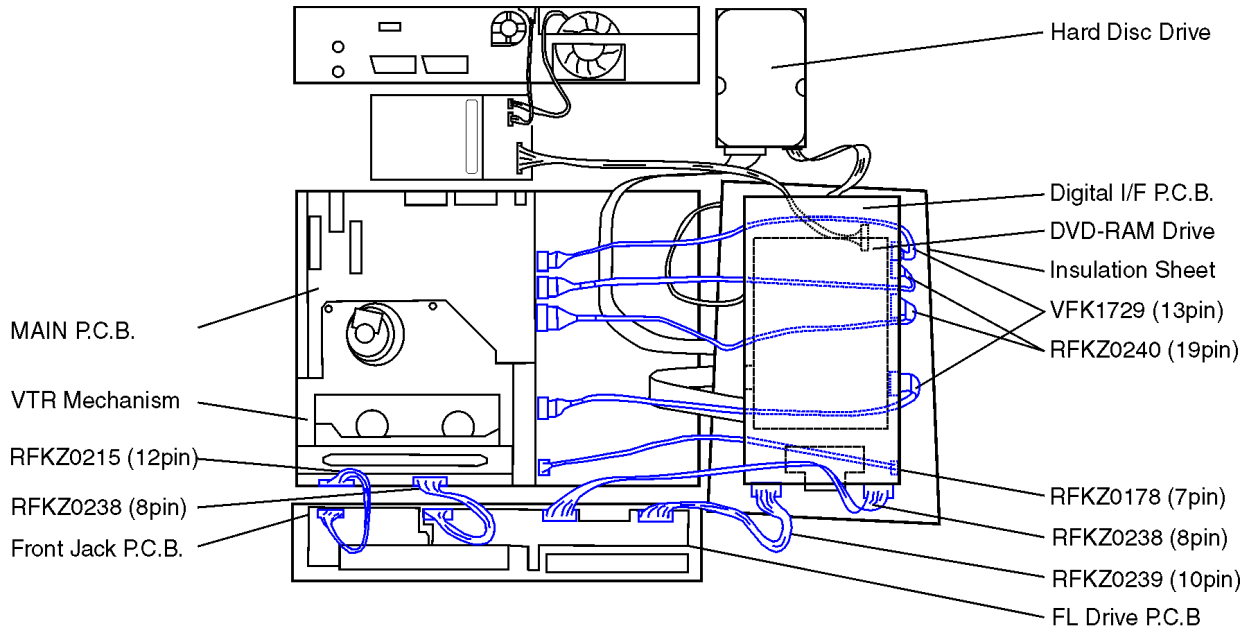
- Remove 2 Screws from SD Card Angle
- Remove Screw (B) from Digital P.C.B.

7. Remove Digital I/F P.C.B.

- Disconnect 5 Connectors from Digital I/F P.C.B.
- Remove 3 Screws (B) from Digital I/F P.C.B.
- Lift up Digital I/F P.C.B. together with Digital P.C.B. and SD Card Angle out of Chassis
- Put it upside down on the Insulation Sheet

8. Connect Digital I/F P.C.B.

- Connect the Cables:
 - between Digital I/F P.C.B. and Hard Disc Drive (2x)
 - between Digital I/F P.C.B. and DVD-RAM Drive (1x)
 - between Digital I/F P.C.B. and Power P.C.B. (1x)
 - between Power P.C.B. and Fan Motor (2x)
 - between Main P.C.B. and Digital I/F P.C.B.: RFKZ0178 (1x), RFKZ0240 (2x), VKF1729 (2x)
 - between Main P.C.B. and Front Jack P.C.B.: RFKZ0215 (1x)
 - between Main P.C.B. and FL Drive P.C.B.: RFKZ0238 (1x)
 - between Digital I/F P.C.B. and FL Drive P.C.B.: RFKZ0239 (1x)
 - between Digital I/F P.C.B. and FL Drive P.C.B.: RFKZ0238 (1x)



16.3. CHECKING AND REPAIRING OF MAIN P.C.B.

1. Top Case

- Remove 4 Screws (A) on side and 3 Screws (B) on rear side and the Top Case

2. Front Panel

- Remove one Screw (A) on center
- Unlock 2 Locking Tabs (A), (D) on Front Panel side and unlock 2 Locking Tabs (B), (C) on Front Panel top side
- Unlock 3 Locking Tabs (E) on Front Panel bottom side and remove Front Panel

3. Power Unit and Rear Panel

- Disconnect 3 Connectors from Power P.C.B.
- Remove all Screws from Rear Panel and Fan Unit (Screws for Fan Motor not necessary)
- Remove 1 Screw Power P.C.B. Angle and lift up Power Unit vertically out of Tabs
- Remove Rear Panel with Fan Motor Unit

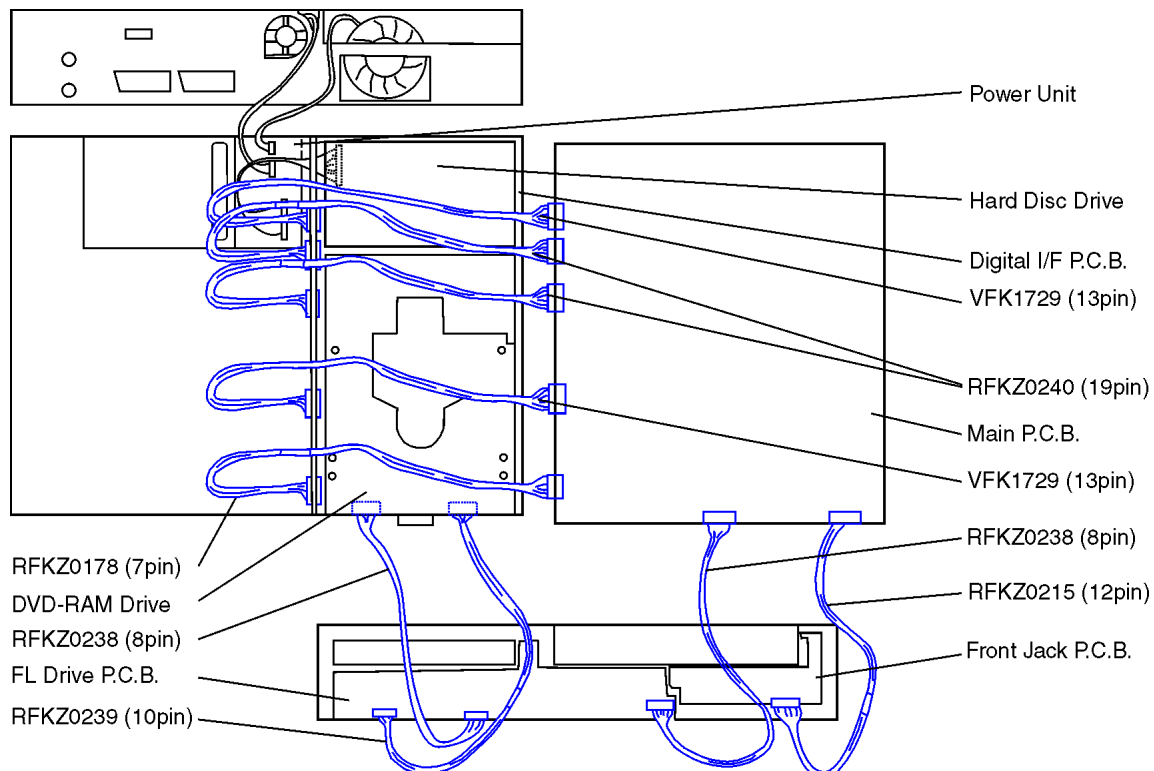
4. Main P.C.B. and VTR Mechanism

- Remove 3 black Screws (A) and 3 Screws (B), (C), (D)
- Disconnect 5 Connectors from Digital I/F P.C.B.
- Remove 2 Screws (A) from Main P.C.B.
- Lift up Main P.C.B. together with VCR Mechanism and put it upside down on the insulation sheet

5. Attach the Rear Panel to Chassis and the Power Unit to the Rear Panel

6. Connect Main P.C.B.

- Connect Cables:
 - between Power P.C.B. and Fan Motor (2x)
 - between Power P.C.B. and Digital I/F P.C.B. (1x)
 - between Main P.C.B. and Digital I/F: P.C.B. RFKZ0178 (1x), RFKZ0240 (2x), VKF1729 (2x)
 - between Main P.C.B. and Front Jack P.C.B.: RFKZ0215 (1x)
 - between Main P.C.B. and FL Drive P.C.B.: RFKZ0238 (1x)
 - between Digital I/F P.C.B. and FL Drive P.C.B.: RFKZ0239 (1x) and RFKZ0238 (1x)



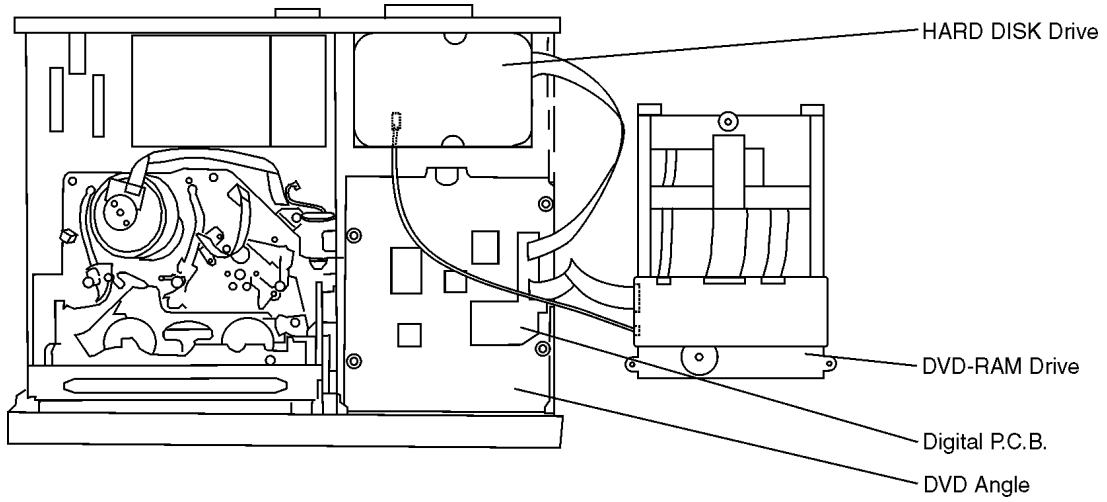
16.4. CHECKING AND REPAIRING OF DVD-RAM DRIVE

1. Top Case

- Remove 4 Screws (A) on side and 3 Screws (B) on rear side
- Remove Top Case

2. DVD-RAM Drive

- Take out HDD FFC from HDD Angle sideways
- Remove 3 Screws (B)
- Lift up DVD-RAM Drive slightly and put it upside down



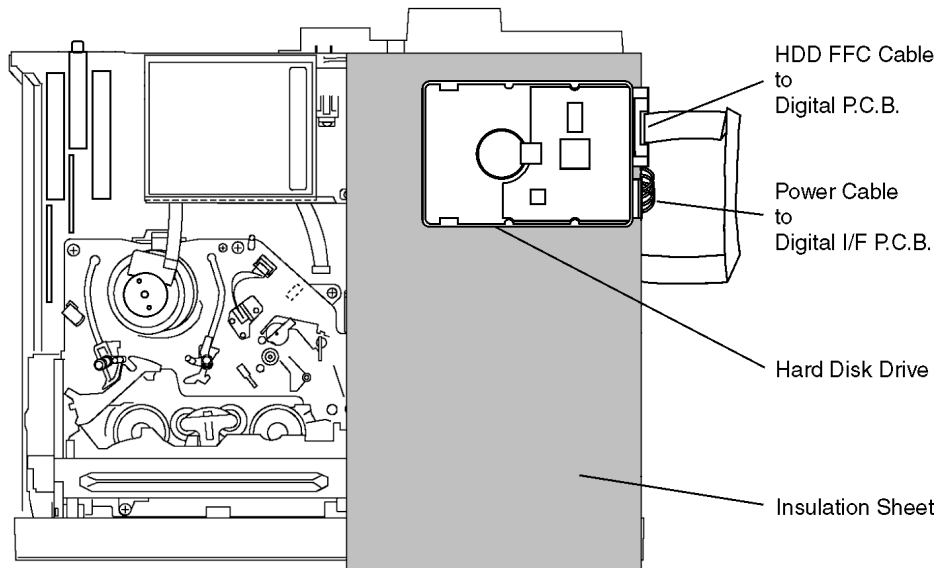
16.5. CHECKING AND REPAIRING OF HARD DISC DRIVE

1. Top Case

- Remove 4 Screws (A) on side and 3 Screws (B) on rear side
- Remove Top Case

2. Hard Disc Drive

- Take out HDD FFC from HDD Angle sideways
- Remove 2 Screws on HDD Angle
- Lift up HDD Angle together with Hard Disc Drive
- Put HDD with HDD Angle up side down so as not give a shock to HDD
- Remove 4 Screws from Hard Disc Drive



16.6. CHECKING AND REPAIRING OF SD CARD P.C.B.

1. Top Case

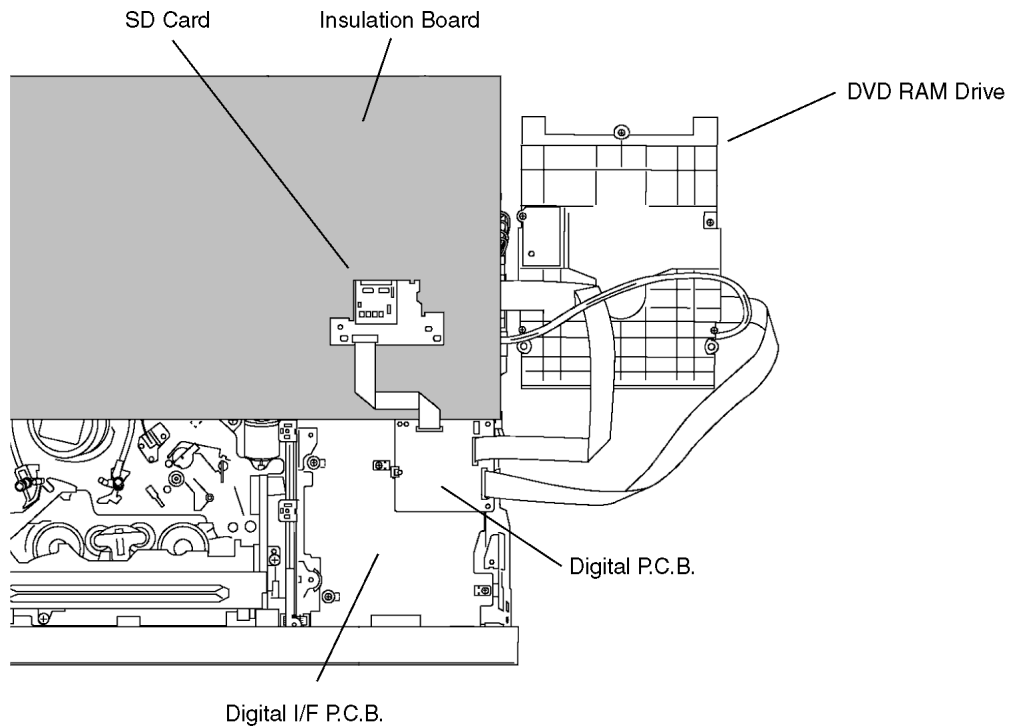
- Remove 4 Screws (A) on side and 3 Screws (B) on rear side
- Remove Top Case

2. DVD-RAM

- Take out HDD FFC from HDD Angle sideways
- Remove 3 Screws (B)
- Lift up DVD-RAM Drive slightly
- Remove 4 Screws (A)
- Disconnect 2 Connectors from Digital P.C.B.
- Remove DVD Angle
- Connect 2 Connectors to Digital P.C.B.

3. SD Card P.C.B.

- Remove 2 Screws



17 (DVD) CAUTION AFTER REPLACING PARTS

17.1. (DVD) AFTER REPLACING THE RAM DRIVE

After replacing of RAM drive unit, TEST mode is not necessary. Please confirm operation for RAM drive. In this case, all parameters are initialized.

17.2. (DVD) AFTER REPLACING THE TIMER MICROPROCESSOR

When the unit does not operate normally after replacing the Timer Microprocessor or Main P.C.B. with new one, reset Timer Microprocessor.

Step	Operation	Descriptions
1	While power is ON, short IC37508-4 pin (RESET_OUT) and the GND momentarily.	"RESET (L)" is transmitted to the XRESET terminal of Timer Microprocessor (IC37501-11 pin), then the unit operates normally.

17.3. (DVD) AFTER REPLACING EEPROM (IC37502)

IC37502 has clock setting data, Tuning data, Self-Diagnosis data (DVD & VHS) and VHS PG Shifter adjustment data.

Therefore after replacing IC37502, PG Shifter should be adjusted (refer to 18.1).

18 (VHS) CAUTION AFTER REPLACING PARTS

PG Shifter Automatic Adjustment and X-VALUE & LINEARITY (P2 and P3 Posts) ADJUSTMENT should be performed after replacing DD Cylinder, EEPROM (IC37502) or Digital I/F P.C.B.

Note:

The "X-VALUE & LINEARITY (P2 and P3 Posts) ADJUSTMENT" is not necessary after only replacement of EEPROM (IC37502) or Digital I/F P.C.B.

18.1. ADJUSTMENT PROCEDURES AFTER REPLACING DD CYLINDER, VHS MICROPROCESSOR OR MAIN P.C.B

PG SHIFTER ADJUSTMENT PROCEDURE

PROCEDURE	F.I.P. DISPLAY
Turn on the Service Mode 1. Press the FF key and the EJECT key simultaneously for more than 3 seconds.	00000
Activate the Service Mode 2 2. While keep pressing FF key, press the EJECT key twice.	20000
Activate the Entering Mode. 3. Press the EJECT key for more than 3 seconds.	2 00
Set the Mode 2. 4. Press the CH UP key once.	2 100
Insert the alignment cassette tape (VFJ8125H3F) 5. The PG Shifter Adjustment starts automatically.	2 100
When the sequence of the automatic adjustment has been terminated, the following action has been made. ● SUCCEED: The cassette tape is ejected. ● ERROR: The "F20", "F21", "F22" or "F23" is displayed. Refer to next PG Shifter Adjustment Self-Diagnosis Indication Table regarding the details of the indications.	
Exit from Service Mode. 6. Press FF and EJECT keys simultaneously in 6 times. Then the FIP becomes normal indication.	10:00 (Normal Indication)

PG SHIFTER AUTOMATIC ADJUSTMENT SELF-DIAGNOSIS INDICATION

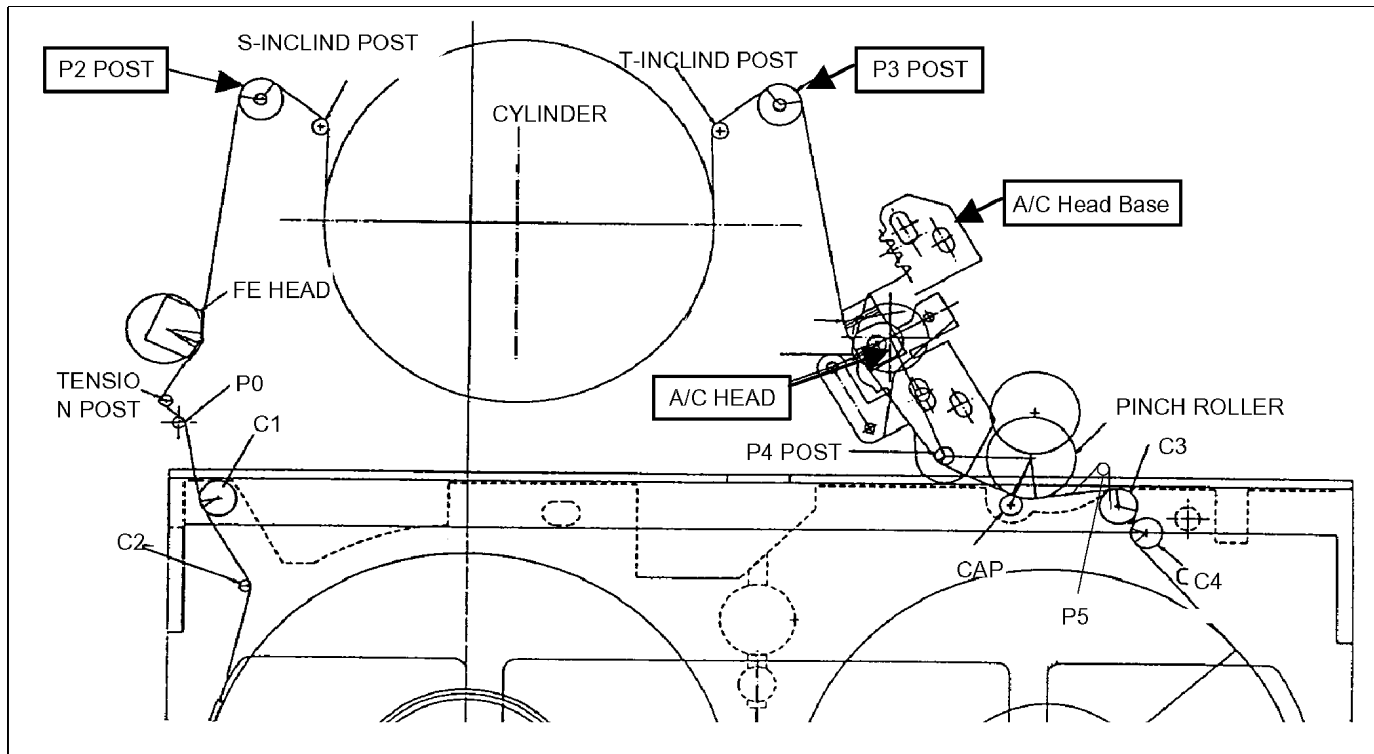
F20	NG1 in the PG Shifter Automatic Adjustment (The cylinder rotation is unstable during the automatic adjustment.)
F21	NG2 in the PG Shifter Automatic Adjustment (The vertical sync signal is lacked while over 5 seconds on the alignment tape.)
F22	NG3 in the PG Shifter Automatic Adjustment (The installing position of Heads to the cylinder is out of specification.)
F23	NG4 in the PG Shifter Automatic Adjustment (The servo is not locked to the cylinder for more than 10 sec.)

NOTE:

When DD Cylinder was replaced, the Tape Interchangeability adjustment (X-Value Adjustment, P2 and P3 Posts Adjustment) shown below should be performed after the PG Shifter Automatic Adjustment.

18.2. (VHS) X-VALUE & LINEARITY (P2 AND P3 POSTS) ADJUSTMENT

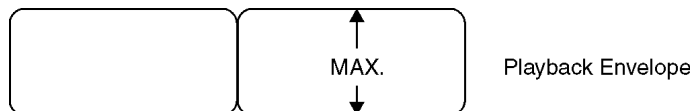
1. Set the Auto Tracking to off.
 - a. Press the FF key and the EJECT key simultaneously for more than 3 seconds to enter Service Mode.
 - b. While keep pressing FF key, press the EJECT key twice to activate Service Mode 2, then Auto-Tracking is turned off.
2. Perform the X-VALUE ADJUSTMENT



18.2.1. (VHS) X-VALUE ADJUSTMENT

1. After turning off the Auto tracking, playback the alignment Tape and press [VHS CH UP] and [VHS CH DOWN] keys simultaneously to adjust the tracking to FIX value.
2. Adjust A/C Head Base so that the envelope becomes maximum level. (It is described on "5-2. Tape Interchangeability Adjustment" in "R4 Mechanism" that is separated volume.)

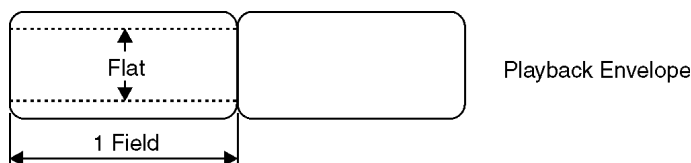
Alignment Tape	VFJ8125H3F
Test Point of Playback Envelope	TW3001 (or TW4502)



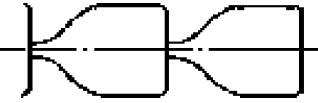





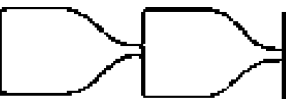




18.2.2. (VHS) LINEARITY ADJUSTMENT

1. After turning off the Auto tracking, playback the alignment Tape and press [VHS CH UP] and [VHS CH DOWN] keys simultaneously to adjust the tracking to FIX value.
2. Adjust the LINEARITY so that the envelope is flat when moving tracking to (+) and (-) directions.

Alignment Tape	VFJ8125H3F
Test Point of Playback Envelope	TW3001 (or TW4502)



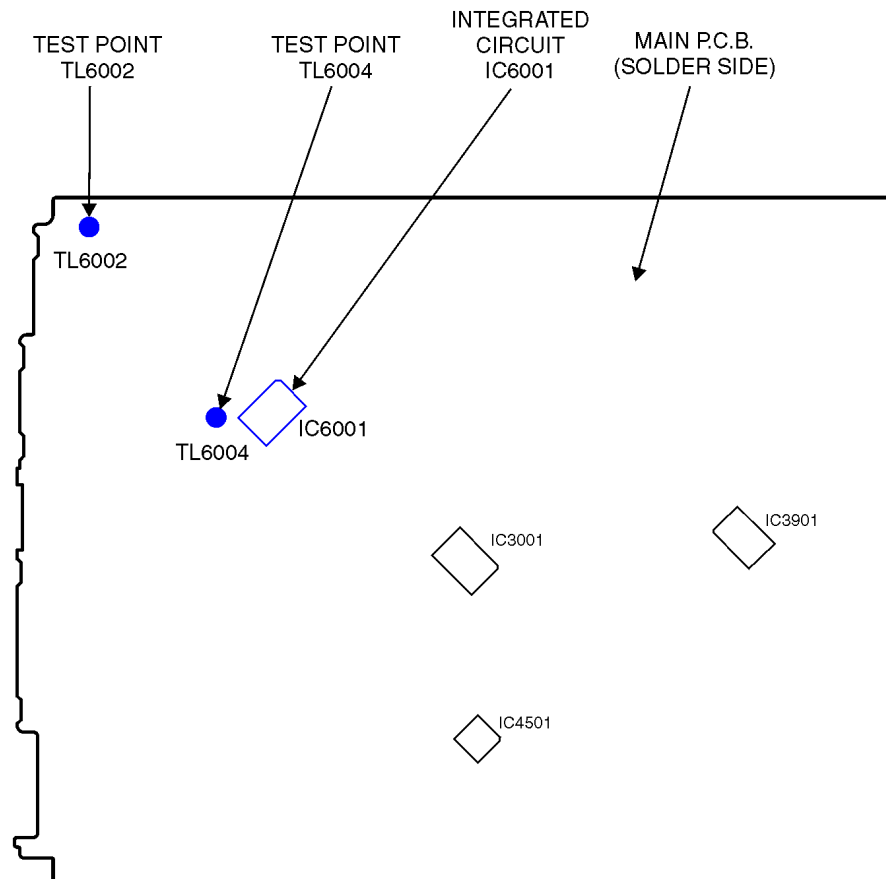
- Main symptoms and Adjustment point

Envelope	Post Name		Adjustment Method
	P2 Post		Turn P2 Post counter-clockwise (Approx. 1/2 revolution)
	P2 Post		Turn P2 Post clockwise (Approx. 1/4 revolution)
	P3 Post		Turn P3 Post clockwise (Approx. 1/2 revolution)
	P3 Post		Turn P3 Post counter-clockwise (Approx. 1/4 revolution)
	P2 Post		Turn P2 Post clockwise (Less than 1 revolution) Turn P3 Post counter-clockwise (Less than 1revolution)
	P3 Post		

18.3. (VHS) CAUTION AFTER REPLACING VHS MICROPROCESSOR (IC6001)

After replacing VHS Microprocessor IC6001, if the unit does not operate normally, reset IC6001.

1. Turn on the power.
2. Short out circuit between TL6004 (RESET_L) and TL6002 (GND) momentarily to reset IC6001.



19 (DVD) STANDARD INSPECTION SPECIFICATIONS AFTER MAKING REPAIRS

After making repairs, we recommend performing the following inspection, to check normal operation.

No.	Procedure	Item to Check
1	Turn on the power, and confirm items pointed out.	Items pointed out should reappear.
2	Insert RAM disc.	The Panasonic RAM disc should be recognized.
3	Enter the EE (TU IN / AV IN - AV OUT) mode.	No abnormality should be seen in the picture, sound or operation.
4	Perform auto recording and playback for one minute using the RAM disc.	No abnormality should be seen in the picture, sound or operation. *Panasonic DVD-RAM disc should be used when recording and playback.
5	If a problem is caused by a VCD, DVD-R, DVD-Video, Audio-CD, or MP3, playback the test disc.	No abnormality should be seen in the picture, sound or operation.
6	After checking and making repairs, upgrade the firmware to the latest version.	Make sure that [FIRM_SUCCESS] appears in the FL displays. *[UNSUPPORT] display means the unit is already updated to newest same version. Then version up is not necessary.
7	Transfer [9][9] in the service mode setting, and initialize the service settings (return various settings and error information to their default values. The laser time is not included in this initialization).	Make sure that [CLR SERV] appears in the FL display. After checking it, turn the power off.
8	When replacing of RAM drive, transfer [9] [5] in the service mode setting to delete Laser used time.	Make sure that [CLR LASER] appears in the FL display. After that, turn power off.

Use the following checklist to establish the judgement criteria for the picture and sound.

Item	Contents	Check	Item	Contents	Check
Picture	Block noise		Sound	Distorted sound	
	Crosscut noise			Noise (static, background noise, etc.)	
	Dot noise			The sound level is too low.	
	Picture disruption			The sound level is too high.	
	Not bright enough			The sound level changes.	
	Too bright				
	Flickering color				
	Color fading				

20 VOLTAGE AND WAVEFORM CHART

NOTE:

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.

Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

Ref.No.	IC11201								IC11301									
Mode	1	2	3	4	5	7	8					C	A	R				
Stop	2,40	1,60	0,00	14,00	0,00	280,00	280,00					8,50	0,00	2,47				
Play	2,40	1,60	0,00	14,00	0,00	280,00	280,00					8,50	0,00	2,47				
Rec.	2,40	1,60	0,00	14,00	0,00	280,00	280,00					8,50	0,00	2,47				

Ref.No.	IC11501								IC15001										
Mode	1	2	3	4	5	6	7	8					1	2	3	4	5		
Stop	12,40	4,50	1,24	1,29	0,79	0,00	6,23	12,39					0,04	0,02	0,02	5,04	5,06		
Play	12,40	4,50	1,24	1,29	0,79	0,00	6,23	12,39					0,04	0,02	0,02	5,04	5,06		
Rec.	12,40	4,50	1,24	1,29	0,79	0,00	6,23	12,39					0,04	0,02	0,02	5,04	5,06		

Ref.No.	IC15002								IC15003											
Mode	1	2	3	4	5	6	7	8					1	2	3	4	5	6	7	8
Stop	12,42	0,02	1,35	4,23	0,02	1,12	0,83	3,5					12,43	4,52	1,26	1,31	1,25	0,00	7,30	12,41
Play	12,42	0,02	1,35	4,23	0,02	1,12	0,83	3,5					12,43	4,52	1,26	1,31	1,25	0,00	7,30	12,41
Rec.	12,42	0,02	1,35	4,23	0,02	1,12	0,83	3,5					12,43	4,52	1,26	1,31	1,25	0,00	7,30	12,41

Ref.No.	IC15004																			
Mode	1	2	3	4	5	6	7	8												
Stop	12,43	4,58	1,26	1,26	0,84	0,00	10,58	12,43												
Play	12,43	4,58	1,26	1,26	0,84	0,00	10,58	12,43												
Rec.	12,43	4,58	1,26	1,26	0,84	0,00	10,58	12,43												

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	12,24	0,23	0,00	0,22	0,00	0,00	16,05	0,00	2,73	1,72	1,70	0,62	1,33	2,40	2,43	2,43	2,43	1,25	4,96	0,74
Play	12,24	0,23	0,00	0,23	0,00	0,00	14,54	0,00	2,74	1,72	1,69	0,61	1,37	2,38	2,43	2,43	2,43	1,25	4,96	3,15
REC	12,24	0,23	0,00	0,23	0,00	0,00	14,57	0,00	2,72	1,72	1,69	0,61	1,35	2,39	2,43	2,43	2,43	1,26	4,96	3,14
Ref.no.	21	22	23	24	25															
Stop	12,25	0,73	0,73	0,00	0,73															
Play	12,24	3,15	3,15	0,00	3,14															
REC	12,24	3,13	3,14	0,00	3,13															

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	0,00	0,00	0,05	5,01	2,07	2,56	2,81	1,96	1,90	2,26	2,08	1,64	0,00	1,39	2,77	3,31	2,77	1,98	2,77	0,00
Play	0,00	0,00	0,05	5,01	2,07	2,55	2,81	1,83	1,68	2,90	3,05	0,98	0,00	2,64	2,77	3,33	2,75	1,27	2,77	0,00
REC	0,00	0,00	0,05	5,01	2,05	2,57	2,81	2,06	2,01	1,88	2,08	1,70	0,00	1,40	2,77	3,30	2,77	2,14	2,77	0,00
Ref.no.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Stop	0,00	4,96	2,29	0,40	2,11	2,97	0,00	0,00	1,62	2,22	0,14	2,24	2,10	1,98	3,90	2,39	3,90	2,15	1,48	2,08
Play	2,77	4,39	2,30	2,80	2,11	2,76	1,63	0,00	1,60	2,82	0,37	2,25	2,05	2,78	2,72	2,15	2,82	2,17	1,46	2,10
REC	2,77	4,96	2,30	0,35	2,11	2,73	0,00	0,00	1,46	2,85	0,28	2,25	1,86	1,79	2,80	2,15	2,80	2,13	1,46	2,07
Ref.no.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Stop	2,56	1,95	2,10	0,00	3,06	3,06	0,00	0,12	3,35	4,97	2,10	4,97	2,54	0,00	1,04	0,00	2,15	1,99	4,94	4,94
Play	2,16	1,96	2,11	0,00	3,05	2,05	4,97	0,13	3,04	4,97	1,85	4,97	2,54	0,00	1,94	0,00	2,16	2,03	4,94	4,94
REC	2,55	1,96	2,10	0,00	3,06	0,00	0,00	0,13	3,06	4,97	1,88	4,97	0,00	0,00	1,94	0,00	0,00	1,97	4,89	0,00
Ref.no.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Stop	0,00	2,35	2,19	2,18	2,18	2,14	0,33	2,42	1,97	2,69	2,15	0,13	3,99	3,92	2,75	2,21	2,82	0,01	0,00	2,33
Play	0,00	2,10	2,15	2,31	2,19	2,36	0,33	2,42	1,96	2,42	2,16	0,13	4,00	3,94	2,74	2,16	2,82	0,00	0,00	2,57
REC	0,00	0,00	0,00	2,30	2,19	0,00	0,00	2,43	0,00	2,69	2,16	0,13	4,01	3,97	2,74	2,16	2,82	0,00	0,00	2,54
Ref.no.	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Stop	2,66	0,00	3,22	0,00	2,23	2,23	2,23	0,00	2,22	2,22	2,22	5,01	0,58	2,52	2,50	0,00	0,00	2,33	0,00	2,57
Play	4,73	0,00	2,96	4,92	2,23	0,00	0,00	0,00	0,00	2,22	2,22	5,01	0,51	2,52	2,50	0,00	0,00	2,54	0,00	2,55
REC	4,66	0,00	3,13	4,87	2,36	0,00	2,34	0,00	0,01	0,00	0,01	5,01	0,60	2,53	2,50	0,00	0,00	2,31	0,00	2,57

Ref.no.	IC3002								IC3003											
Mode	1	2	3	4	5	6	7	8					1	2	3	4	5	6	7	8
Stop	5,04	0,00	0,00	3,47	4,69	0,00	0,01	5,59					2,78	0,00	2,80	0,00	2,79	5,00	2,05	0,00
Play	5,04	0,00	0,00	3,47	4,69	0,00	0,01	5,58					2,79	4,88	2,78	0,00	2,79	5,03	2,05	0,00
REC	5,04	0,00	0,00	3,47	4,67	0,02	0,02	5,53					2,78	0,00	2,79	0,00	2,79	5,03	2,05	0,00

Ref.no.	IC3501																			
Mode	1	2	3	4	5	6	7	8												
Stop	2,72	4,87	2,71	4,88	2,71	4,89	1,99	0,00												
Play	2,71	0,01	2,72	4,88	2,70	4,89	1,99	0,00												
REC	2,71	4,86	2,71	4,87	2,71	4,89	1,99	0,00												

Ref.no.	IC3502													
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Stop	4,87	0,01	4,89	3,36	3,16	4,89	2,72	2,86	2,86	2,86	0,00	3,51	3,51	2,01
Play	0,01	0,01	4,89	3,37	3,14	4,89	2,48	2,02	2,02	2,02	0,00	3,53	3,53	2,01
REC	4,86	0,01	4,89	3,36	3,14	4,89	2,72	2,86	2,86	2,86	0,00	3,51	3,51	2,01

Ref.no.	IC3901																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Stop	2,03	2,50	1,57	0,00	1,56	4,95	0,00	4,95	0,55	0,04	0,00	0,53	0,00	0,00	0,04	1,56	0,55	0,00	1,68	1,71
Play	2,03	0,00	1,57	0,00	0,00	4,95	0,00	4,96	0,00	0,04	0,00	0,50	0,00	0,00	0,00	1,56	0,53	0,00	1,67	1,71
REC	2,03	2,50	1,57	0,00	1,56	0,00	0,00	4,95	0,60	0,04	0,00	0,57	0,00	0,00	0,00	1,56	0,57	0,00	1,67	1,71

Ref.no.	IC3901																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Stop	0,00	1,69	1,20	1,26	4,95	0,00	10,67	1,01	0,00	2,41	1,55	0,00	1,55	0,00	1,56	0,05	1,56	0,02	2,37	4,95
Play	0,00	1,69	1,19	1,25	4,95	1,02	10,67	1,01	0,00	2,40	0,03	0,00	1,56	0,00	1,56	0,02	1,56	0,02	2,37	0,02
REC	0,00	1,69	1,89	1,25	4,95	1,02	10,66	1,01	0,00	2,40	1,55	0,00	1,55	0,00	1,56	0,05	1,56	0,02	2,36	4,95

Ref.no.	IC3901																			
Mode	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Stop	1,55	4,96	2,90	0,00	2,90	11,24	1,75	2,00	4,54	4,49	4,50	4,50	4,50	4,50	4,50	4,50	9,10	0,00	4,50	4,50
Play	0,02	4,96	2,00	0,00	2,90	11,24	1,60	2,00	4,53	4,49	4,50	4,50	4,50	4,50	4,50	4,50	9,09	4,50	4,50	4,50
REC	1,55	4,96	2,90	0,00	2,90	11,24	1,67	2,00	4,53	4,49	4,50	4,50	4,50	4,50	4,50	4,50	9,09	4,50	4,50	4,50

Ref.no.	IC3901																			
Mode	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Stop	4,50	4,50	4,50	0,00	8,96	0,00	0,00	0,00	0,00	0,00	4,54	4,54	4,54	4,54	0,00	4,53	9,14	0,00	4,55	0,00
Play	4,50	4,50	4,50	4,50	8,96	0,00	0,00	0,00	0,00	0,00	4,54	4,54	4,54	4,54	0,00	4,53	9,14	4,55	4,55	0,00
REC	4,50	4,50	4,50	4,50	8,96	0,00	0,00	0,00	0,00	0,00	4,54	4,54	4,54	4,54	0,00	4,54	9,14	4,55	4,55	0,00

Ref.no.	IC3901																			
Mode	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Stop	2,10	4,96	2,02	4,05	3,26	4,70	3,77	4,67	4,53	0,04	2,03	0,82	1,87	4,96	1,62	0,00	1,87	0,04	1,59	2,50
Play	2,10	4,96	2,01	0,00	3,28	4,71	3,77	4,62	4,47	0,00	2,03	0,81	1,87	4,96	1,61	0,00	1,87	0,04	1,59	2,50
REC	2,09	4,96	2,00	4,96	3,25	4,70	3,77	4,66	4,53	0,04	2,03	0,81	1,87	4,96	1,61	0,00	1,87	0,04	1,59	2,50

Ref.no.	IC3902								IC3903							
Mode	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Stop	2,74	0,05	2,75	0,04	2,75	4,96	2,01	0,00	1,65	0,05	1,47	0,04	1,47	4,96	0,92	0,00
Play	2,74	0,05	2,75	0,04	2,75	4,96	2,01	0,00	1,65	0,05	1,47	0,04	1,47	4,96	0,92	0,00
REC	2,74	0,05	2,75	0,04	2,75	4,95	2,01	0,00	1,64	0,05	1,47	0,04	1,46	4,95	0,92	0,00

Ref.no.	IC3904								IC3906							
Mode	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Stop	1,42	0,05	1,47	0,04	1,47	4,96	0,70	0,00	4,98	0,00	0,00	3,41	4,46	0,00	0,00	5,53
Play	1,42	0,05	1,47	0,04	1,47	4,96	0,70	0,00	4,98	0,00	0,00	3,41	4,45	0,00	0,00	5,53
REC	1,42	0,05	1,47	0,04	1,47	4,96	0,70	0,00	4,98	0,00	0,00	3,41	4,43	0,00	0,00	5,51

Ref.no.	IC4501																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Stop	2,39	0,00	2,39	0,00	0,04	2,50	2,01	0,00	0,00	0,00	0,00	2,02	0,00	0,00	0,00	2,47	0,47	2,50	2,49	2,05
Play	2,38	0,00	2,38	0,00	0,03	2,48	2,02	0,00	0,00	0,00	0,00	0,02	0,00	0,00	0,00	2,49	0,51	2,52	2,52	0,00
REC	2,36	0,00	2,36	0,00	0,06	2,47	1,99	0,00	0,00	0,00	0,00	1,98	0,00	0,00	0,00	2,44	0,45	2,47	5,46	1,98

Ref.no.	IC4501																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Stop	2,05	2,05	0,00	2,05	5,01	2,06	0,00	4,24	1,81	1,81	0,00	2,49	2,50	0,51	2,47	4,80	1,68	0,00	0,07	5,01
Play	0,00	0,66	0,00	0,66	5,00	0,10	2,57	4,20	1,81	1,81	1,78	2,53	2,53	0,54	2,50	0,00	1,68	0,00	0,07	5,00
REC	1,90	1,98	0,00	2,06	4,96	2,04	0,00	4,21	3,97	3,97	1,09	2,46	2,47	0,49	2,44	0,00	1,67	0,00	0,06	4,96

Ref.no.	IC4501																			
Mode	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Stop	0,00	0,03	3,99	3,28	1,58	1,87	2,49	2,49	0,18	0,88	5,89	5,99	6,03	0,00	0,00	0,00	6,03	11,87	6,18	0,00
Play	0,05	0,04	4,00	3,28	1,54	4,88	2,53	2,53	0,18	0,87	5,88	5,96	6,05	0,01	0,00	0,01	6,03	11,87	6,18	0,00
REC	0,00	0,00	3,98	3,29	1,58	4,82	2,47	2,47	0,18	0,87	5,85	5,95	5,95	0,01	0,00	0,01	5,95	11,87	6,09	0,00

Ref.no.	IC4501																			
Mode	61	62	63	64																
Stop	2,49	2,42	0,00	0,00																
Play	2,48	2,41	0,00	0,00																
REC	2,46	2,39	0,00	0,00																

Ref.no.	IC6001																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Stop	0,00	0,00	4,89	0,00	4,86	4,86	4,71	4,69	3,24	0,00	0,00	3,32	0,00	4,86	3,79	4,88	0,00	2,48	0,00	0,20
Play	0,00	0,01	4,89	0,00	4,85	4,85	4,80	4,71	1,82	4,85	4,58	0,13	0,00	4,83	3,80	0,00	0,00	2,21	2,53	0,02
REC	0,00	0,01	4,87	0,00	4,82	4,82	3,90	4,45	3,12	4,82	4,56	3,30	0,00	4,82	3,82	4,86	0,00	2,81	0,00	4,85
Ref.no.	IC6001																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Stop	4,86	0,00	4,23	0,00	0,00	0,00	0,00	4,82	4,89	0,00	4,90	4,90	0,00	0,00	0,00	2,95	4,92	2,13	5,03	0,00
Play	4,85	0,00	4,21	0,00	0,00	0,00	0,00	0,00	4,90	0,00	4,90	4,90	0,00	0,00	0,00	2,95	4,92	2,13	5,03	0,00
REC	4,82	0,00	4,21	0,00	0,00	4,88	0,00	0,00	4,88	0,00	4,88	4,88	0,00	4,91	0,00	2,95	4,92	2,13	5,03	0,00
Ref.no.	IC6001																			
Mode	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Stop	0,00	4,88	4,90	4,90	0,00	0,00	1,80	2,19	0,00	1,02	2,45	1,02	4,92	2,78	0,00	1,30	0,00	0,00	0,61	0,01
Play	4,87	0,00	4,91	4,90	4,88	0,00	1,81	2,20	0,00	1,88	2,45	1,85	4,91	2,02	0,00	2,10	0,00	0,00	0,38	4,86
REC	0,00	4,87	4,89	4,88	0,00	0,00	1,82	2,19	0,00	0,84	2,45	0,84	4,92	2,75	0,00	1,16	0,00	0,00	0,45	0,01
Ref.no.	IC6001																			
Mode	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Stop	0,01	0,00	4,86	0,70	3,82	3,88	4,14	3,80	0,90	4,05	3,98	3,98	0,00	0,00	4,86	0,00	2,41	0,28	0,15	0,16
Play	4,15	0,00	4,86	0,97	3,80	3,85	4,14	3,89	1,38	4,06	4,90	3,04	0,00	0,00	4,68	2,50	3,90	0,24	4,94	4,94
REC	0,01	0,00	4,84	0,98	3,86	3,86	4,16	3,85	1,90	4,02	3,98	3,95	0,00	0,00	4,66	2,47	2,39	0,31	4,93	4,93
Ref.no.	IC6001																			
Mode	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Stop	0,00	0,00	0,00	0,00	4,85	2,46	2,46	0,00	0,00	1,25	2,46	2,47	0,00	2,44	2,44	2,46	2,46	4,95	4,84	4,67
Play	0,00	0,00	0,00	0,00	4,81	2,46	2,46	0,00	0,00	1,27	2,46	2,47	0,00	2,44	2,44	2,46	2,45	2,49	4,86	4,67
REC	0,00	0,00	0,00	0,00	4,79	2,46	2,46	0,00	0,00	1,27	2,46	2,46	0,00	2,07	2,84	2,46	2,45	4,95	4,83	4,67

Ref.no.	IC6201					IC6302				
Mode	1	2	3	4	5	1	2	3	4	5
Stop	4,91	4,91	0,00	0,00	0,00	4,96	0,00	4,68	5,65	0,00
Play	4,91	4,91	0,00	0,00	0,00	4,96	0,00	4,67	5,64	0,00
REC	4,90	4,90	0,00	0,00	0,00	4,96	0,00	4,66	5,61	0,00

Ref.no.	IC7401								IC7402							
Mode	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Stop	4,97	0,00	0,00	3,39	5,51	0,00	0,00	5,51	4,97	0,00	0,00	3,38	4,68	0,00	0,00	5,50
Play	4,97	0,00	0,00	3,39	5,50	0,00	0,00	5,50	4,97	0,00	0,00	3,39	4,67	0,00	0,00	5,50
REC	4,97	0,00	0,00	3,39	5,48	0,00	0,00	5,48	4,97	0,00	0,00	3,39	4,66	0,00	0,00	5,48

Ref.no.	IC7405							
Mode	1	2	3	4	5	6	7	8
Stop	4,97	0,00	0,00	3,39	4,95	0,00	0,00	5,50
Play	4,97	0,00	0,00	3,39	4,94	0,00	0,00	5,50
REC	4,97	0,00	0,00	3,39	4,93	0,00	0,00	5,47

Ref.no.	IC7502																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Stop	4,96	0,69	4,13	3,80	0,00	2,10	2,09	4,83	-27,00	-25,00	-25,00	-25,00	-25,00	-22,84	-0,23	-20,54	-20,52	4,83	-21,00	-23,00
Play	4,96	0,69	4,13	3,80	0,00	2,10	2,09	4,83	-27,00	-25,00	-25,00	-25,00	-25,00	-22,84	-0,23	-20,54	-20,52	4,83	-21,00	-23,00
REC	4,96	0,69	4,13	3,80	0,00	2,10	2,09	4,83	-27,00	-25,00	-25,00	-25,00	-25,00	-22,84	-0,23	-20,54	-20,52	4,83	-21,00	-23,00
Ref.no.	IC7502																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Stop	-23,20	-23,55	-23,00	-23,00	-21,00	-21,00	-21,00	-21,00	-21,00	-17,00	-18,00	-18,00	-20,00	-16,00	-23,00	-23,00	-23,00	-23,00	-23,00	-18,00
Play	-23,20	-23,55	-23,00	-23,00	-21,00	-21,00	-21,00	-21,00	-21,00	-17,00	-18,00	-18,00	-20,00	-16,00	-23,00	-23,00	-23,00	-23,00	-23,00	-18,00
REC	-23,20	-23,55	-23,00	-23,00	-21,00	-21,00	-21,00	-21,00	-21,00	-17,00	-18,00	-18,00	-20,00	-16,00	-23,00	-23,00	-23,00	-23,00	-23,00	-18,00
Ref.no.	IC7502																			
Mode	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Stop	-18,00	-18,00	-18,00	-18,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-25,00	-25,00	-25,00	-25,00	-25,00	-25,00	-25,00
Play	-18,00	-18,00	-18,00	-18,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-25,00	-25,00	-25,00	-25,00	-25,00	-25,00	-25,00
REC	-18,00	-18,00	-18,00	-18,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-28,00	-25,00	-25,00	-25,00	-25,00	-25,00	-25,00	-25,00
Ref.no.	IC7502																			
Mode	61	62	63	64																
Stop	-0,20	-25,00	-25,00	-29,12																
Play	-0,20	-25,00	-25,00	-29,12																
REC	-0,20	-25,00	-25,00	-29,12																

Ref.no.	IC31502					IC35004					
Mode	1	2	3	4	5	1	2	3	4	5	6
Stop	5,82	4,93	3,25	0,00	0,00	0,00	1,52	4,71	2,32	0,02	2,26
Play	5,82	4,93	3,25	0,00	0,00	0,00	1,33	4,71	2,12	0,02	2,06
REC	5,82	4,92	3,25	0,00	0,00	0,00	1,52	4,71	2,33	0,02	2,26

Ref.no.	IC35005															
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop	4,71	1,88	2,01	1,41	4,53	1,41	0,02	1,88	1,88	0,02	1,86	1,86	1,39	1,40	1,39	1,87
Play	4,71	1,89	2,02	1,42	4,53	1,43	0,01	1,88	1,88	0,02	1,87	1,86	1,56	1,48	1,52	1,87
REC	4,71	1,88	2,02	1,63	4,53	1,63	0,02	1,88	1,88	0,02	1,86	1,86	1,83	1,84	1,83	1,87

Ref.no.	IC37501																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Stop	4,11	4,85	2,60	0,00	0,00	0,00	0,00	0,00	0,73	0,91	4,96	1,49	0,00	2,03	3,32	4,96	3,26	3,21	3,21	3,10
Play	4,19	4,84	2,65	0,00	0,00	0,00	0,00	0,00	0,73	0,91	4,96	1,51	0,00	2,04	3,34	4,96	3,26	3,18	3,16	3,31
REC	4,12	4,83	2,62	0,00	0,00	0,00	0,00	0,00	0,73	0,91	4,96	1,50	0,00	2,03	3,33	4,96	3,25	3,17	3,17	3,31

Ref.no.	IC37501																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Stop	0,00	0,00	0,00	3,32	0,00	0,00	0,00	4,63	4,48	0,00	0,90	1,57	1,20	4,96	2,42	0,00	0,00	3,32	3,25	3,32
Play	0,00	0,00	1,81	3,32	0,00	0,00	0,00	4,68	4,56	0,00	0,89	1,58	1,20	4,96	2,42	0,00	0,00	3,32	3,24	3,32
REC	0,00	0,00	1,81	3,32	0,00	0,00	0,00	4,70	4,59	0,00	0,90	1,58	1,20	4,96	2,42	0,00	0,00	3,32	3,32	3,32

Ref.no.	IC37501																			
Mode	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Stop	0,00	0,00	3,23	3,31	0,00	0,00	4,85	4,96	4,95	4,95	4,94	4,84	0,46	0,00	0,00	0,00	4,95	0,00	0,00	4,92
Play	0,00	0,00	3,19	3,31	0,00	0,00	4,84	4,96	4,95	4,96	4,94	2,45	0,58	0,00	0,00	0,00	4,95	0,00	0,00	0,00
REC	0,00	0,00	3,20	3,30	0,00	0,00	4,85	4,96	4,95	4,95	4,94	2,55	0,12	0,00	0,00	0,00	4,95	0,00	0,00	4,93

Ref.no.	IC37501																			
Mode	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Stop	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4,96	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4,96	0,00	0,00	4,87
Play	0,00	0,00	4,96	0,00	0,00	0,00	0,00	0,00	4,96	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4,96	0,00	0,00	4,86
REC	0,00	0,00	4,96	0,00	0,00	0,00	0,00	0,00	4,96	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4,96	0,00	0,00	4,85

Ref.no.	IC37501																				
Mode	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	
Stop	0,00	4,84	0,00	0,00	0,00	4,93	0,00	NC	NC	NC	NC	NC	NC	4,96	0,00	4,85	3,82	0,00	4,86	4,67	0,00
Play	0,00	4,84	0,00	0,00	0,00	4,93	0,00	NC	NC	NC	NC	NC	NC	4,96	0,00	4,85	3,75	0,00	4,85	4,67	4,27
REC	0,00	0,00	0,00	0,00	0,00	4,93	0,00	NC	NC	NC	NC	NC	NC	4,96	0,00	4,84	3,82	0,00	4,85	4,67	0,00

Ref.no.	IC37501																			
Mode	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116				
Stop	4,86	4,86	0,00	0,11	0,12	4,96	3,94	4,96	1,86	1,22	0,00	4,96	2,60	0,00	0,15	1,33				
Play	4,85	4,85	0,00	4,86	4,86	4,97	3,95	4,97	0,00	1,22	0,00	4,97	2,61	0,00	0,00	1,78				
REC	4,85	4,86	0,00	4,85	4,86	4,96	3,95	4,97	1,87	1,22	0,00	4,96	2,61	0,00	0,16	2,35				

Ref.no.	IC37502								IC37508						
Mode	1	2	3	4	5	6	7	8	1	2	3	4	5		
Stop	0,01	0,01	0,01	0,01	4,59	4,69	4,95	4,84			0,00	0,00	0,00	4,95	4,96
Play	0,01	0,01	0,01	0,01	4,57	4,69	4,95	4,83			0,00	0,00	0,00	4,95	4,96
REC	0,01	0,01	0,01	0,01	4,58	4,69	4,95	4,83			0,00	0,00	0,00	4,95	4,96

Ref.no.	IC37505								IC45001					
Mode	1	2	3	4	5	1	2	3	4	5	6			
Stop	2,35	3,27	0,00	0,00	0,00			1,20	0,01	4,92	5,83	0,01	4,99	
Play	2,35	3,27	0,00	0,00	0,00			1,20	0,01	4,92	5,83	0,01	4,99	
REC	2,35	3,27	0,00	0,00	0,00			1,20	0,01	4,92	5,83	0,02	4,99	

Ref.no.	IC45002								IC45003									
Mode	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Stop	4,60	3,31	3,31	0,02	3,31	3,31	4,63	10,53			10,53	4,99	4,99	0,02	3,31	3,31	3,31	12,26
Play	4,60	3,31	3,31	0,02	3,31	3,31	4,63	10,53			10,53	4,99	4,99	0,02	3,31	3,31	3,31	12,26
REC	4,60	3,31	3,31	0,02	3,31	3,31	4,63	10,53			10,53	4,99	4,99	0,02	3,31	3,31	3,31	12,26

Ref.No.	P11001															
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop	20,71	6,05	6,05	6,05	12,44	12,44	12,44	0	0	0	0,02	0,02	2,57	6,08	5,06	4,95
Play	20,71	6,05	6,05	6,05	12,44	12,44	12,44	0	0	0	0,02	0,02	2,57	6,08	5,06	4,95
Rec.	20,71	6,05	6,05	6,05	12,44	12,44	12,44	0	0	0	0,02	0,02	2,57	6,08	5,06	4,95

Ref.No.	P12001								P12002							
Mode	1	2	3	4					1	2	3					
Stop	5,07	0	0,01	0					6,09	0	2,57					
Play	5,07	0	0,01	0					6,09	0	2,57					
Rec.	5,07	0	0,01	0					6,09	0	2,57					

Ref.no.	Q3002			Q3501			Q3502			Q3503			Q3901			Q3902			Q3903		
Mode	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	1,56	2,19	5,02	2,73	2,10	0,00	2,13	1,48	0,00	2,10	2,71	4,89	4,50	0,00	0,00	0,00	0,00	4,50	4,50	4,89	4,50
Play	1,56	2,19	5,02	2,75	2,12	0,00	2,02	1,36	0,00	1,87	2,49	4,89	4,50	0,00	0,00	0,00	0,00	4,50	4,50	4,89	4,50
Rec.	1,56	2,20	5,02	2,50	1,86	0,00	2,13	1,48	0,00	2,09	2,72	4,88	4,50	0,00	0,00	0,00	0,00	4,50	4,50	4,89	4,50

Ref.no.	Q3904			Q4001			Q4002			Q4003			Q4004			Q4502			Q4901		
Mode	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	4,50	4,90	4,50	0,00	0,74	0,01	0,00	0,74	0,00	0,00	0,36	0,37	5,60	5,60	0,02	11,97	11,25	11,92	12,01	11,28	11,94
Play	4,50	4,90	4,50	0,00	0,74	0,01	0,00	0,74	0,00	0,00	0,34	0,35	5,58	5,58	0,32	11,97	11,25	11,92	12,00	11,28	11,95
Rec.	4,50	4,90	4,50	0,00	-7,36	0,00	0,00	-7,33	0,00	0,00	0,37	1,12	5,56	2,91	1,29	11,97	11,25	11,92	12,00	11,27	11,94

Ref.no.	Q6101			Q6102			Q6103			Q6104			Q6305			Q6401			Q6402		
Mode	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	1,64	0,99	0,00	0,90	1,62	4,91	2,65	3,24	4,91	1,65	0,99	0,00	4,94	5,69	5,63	0,00	0,00	11,94	0,00	0,00	0,00
Play	1,64	0,99	0,00	0,97	1,60	4,91	2,62	3,28	4,91	1,64	0,98	0,00	4,94	5,69	5,63	11,32	11,91	11,94	0,01	0,00	11,90
Rec.	1,48	0,81	0,00	0,83	1,46	4,91	2,56	3,20	4,91	1,48	0,83	0,00	4,93	5,69	5,61	0,01	0,00	11,94	0,00	0,00	0,00

Ref.no.	Q6403			Q6404			Q6801			Q7401			Q7402			Q7403		
Mode	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	0,01	0,55	0,00	0,00	0,00	4,83	0,00	0,00	11,86	0,00	0,62	0,06	0,00	0,06	0,06	1,83	1,15	0,00
Play	0,01	0,55	0,00	0,00	0,00	4,81	0,00	0,00	11,86	0,00	0,62	0,06	0,00	0,61	0,06	1,83	1,15	0,00
Rec.	0,01	0,00	0,55	0,00	0,00	4,80	0,00	0,00	11,86	0,00	0,62	0,06	0,00	0,61	0,06	1,83	1,15	0,00

Ref.no.	Q7501			Q7901			Q7902		
Mode	E	B	C	E	B	C	E	B	C
Stop	-26,10	-26,00	4,70	0,00	0,80	11,60	0,00	-1,01	-0,96
Play	-26,10	-26,00	4,70	0,00	0,96	11,74	0,00	-1,01	-0,96
Rec.	-26,10	-26,10	4,70	0,00	0,96	11,74	0,00	-1,01	-0,96

Ref.No.	Q11301							Q11501							Q12001					
Mode	1	2	3	4	5	6	7	1	2	3	4	5	6	7	B	E	C			
Stop	9,50	8,50	0,00	1,40				6,15	6,15	6,23	12,38	6,15	6,15		0,01	0,00	2,57			
Play	9,50	8,50	0,00	1,40				6,15	6,15	6,23	12,38	6,15	6,15		0,01	0,00	2,57			
Rec.	9,50	8,50	0,00	1,40				6,15	6,15	6,23	12,38	6,15	6,15		0,01	0,00	2,57			

Ref.No.	Q15001								Q15002					
Mode	1	2	3	4	5	6	7	8	1	2	3	4	5	6
Stop	12,43	12,43	12,43	6,24	12,43	12,43	12,43	12,43	5,15	5,15	7,30	12,41	5,15	5,15
Play	12,43	12,43	12,43	6,24	12,43	12,43	12,43	12,43	5,15	5,15	7,30	12,41	5,15	5,15
Rec.	12,43	12,43	12,43	6,24	12,43	12,43	12,43	12,43	5,15	5,15	7,30	12,41	5,15	5,15

Ref.No.	Q15003						Q33501			Q33502			Q33503			Q33504			Q33505		
Mode	1	2	3	4	5	6	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	1,60	1,60	10,85	12,43	1,60	1,60	3,78	3,41	0,06	3,27	1,66	5,03	4,45	3,82	0,06	2,22	1,66	5,03	3,80	3,42	0,06
Play	1,60	1,60	10,85	12,43	1,60	1,60	3,78	3,41	0,06	3,27	1,66	5,03	4,45	3,82	0,06	2,22	1,66	5,03	3,80	3,42	0,06
Rec.	1,60	1,60	10,85	12,43	1,60	1,60	3,78	3,41	0,06	3,27	1,66	5,03	4,45	3,82	0,06	2,22	1,66	5,03	3,80	3,42	0,06

Ref.No.	Q37001			Q37002		
Mode	E	B	C	E	B	C
Stop	6,12	6,74	12,43	5,11	5,72	12,43
Play	6,12	6,74	12,43	5,11	5,72	12,43
Rec.	6,12	6,74	12,43	5,11	5,72	12,43

Ref.no.	QR3001			QR3002			QR3003			QR3005			QR3901			QR3902			QR4003		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	0,00	4,87	0,00	0,00	0,00	2,11	0,00	0,00	2,19	0,00	0,00	0,00	0,00	0,00	4,46	0,00	0,00	4,95	0,00	0,00	0,00
Play	0,00	4,87	0,00	0,00	0,00	2,11	0,00	0,00	2,19	0,00	0,00	0,00	0,00	0,00	4,45	0,00	0,00	4,95	0,00	0,00	0,00
Rec	0,00	4,86	0,00	0,00	0,00	2,11	0,00	0,00	2,19	0,00	0,00	0,00	0,00	0,00	4,45	0,01	0,00	4,95	0,00	0,00	0,00

Ref.no.	QR4004			QR4005			QR4501			QR4901			QR4902			QR4903			QR4904		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	5,01	0,00	4,92	0,00	0,00	5,59	0,00	4,67	0,01	0,00	0,00	4,95	4,96	4,95	0,00	0,00	0,00	0,07	0,00	0,00	-0,90
Play	5,00	0,00	4,91	0,00	0,00	5,58	0,00	4,67	0,01	0,00	0,00	4,95	4,96	4,95	0,00	0,00	0,00	0,06	0,00	0,00	-0,08
Rec	4,98	4,84	-7,39	0,00	4,87	0,02	0,00	4,66	0,01	0,00	0,00	4,95	4,96	4,95	0,00	0,00	0,00	0,06	0,00	0,00	-0,08

Ref.no.	QR4905			QR4906			QR4911			QR4912			QR4913			QR4914			QR6402		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	0,00	0,00	0,03	0,00	0,00	0,08	4,79	0,01	4,73	0,01	4,73	0,01	0,00	4,73	0,01	0,00	4,46	0,04	0,01	0,00	4,50
Play	0,00	0,00	0,03	0,00	0,00	0,08	0,00	0,01	0,00	0,01	0,00	0,01	0,01	0,00	0,02	0,00	4,46	0,04	0,01	0,00	4,50
Rec	0,00	0,00	0,02	0,00	0,00	0,08	0,00	0,01	0,00	0,01	0,00	0,09	0,01	0,00	0,08	0,00	4,45	0,04	0,01	0,00	4,50

Ref.no.	QR6403			QR6801			QR7401			QR7402			QR7505			QR15001			QR15002		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	0,00	4,92	0,00	11,97	11,86	4,78	36,16	0,06	36,11	36,20	0,06	36,15	0,00	0,00	4,20	0,02	4,91	0,06	0,02	0,06	4,51
Play	0,00	0,00	11,92	11,97	11,86	4,78	36,16	0,06	36,11	36,21	0,06	36,16	0,00	0,00	4,20	0,02	4,91	0,06	0,02	0,06	4,51
Rec	0,00	4,91	0,00	11,97	11,86	4,77	36,17	0,06	36,12	36,20	0,06	36,16	0,00	0,00	4,20	0,02	4,91	0,06	0,02	0,06	4,51

Ref.no.	QR15003			QR15004			QR15005			QR15007			QR33701			QR35007			QR35008		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	0,02	4,87	0,02	0,01	4,88	0,06	0,02	4,91	0,06	0,02	0,06	4,54	0,06	0,81	2,80	0,05	0,07	2,22	0,05	0,07	2,21
Play	0,02	4,87	0,02	0,01	4,88	0,06	0,02	4,91	0,06	0,02	0,06	4,54	0,06	0,81	2,80	0,05	0,07	2,22	0,05	0,07	2,21
Rec	0,02	4,87	0,02	0,01	4,88	0,06	0,02	4,91	0,06	0,02	0,06	4,54	0,06	0,81	2,80	0,05	0,07	2,22	0,05	0,07	2,21

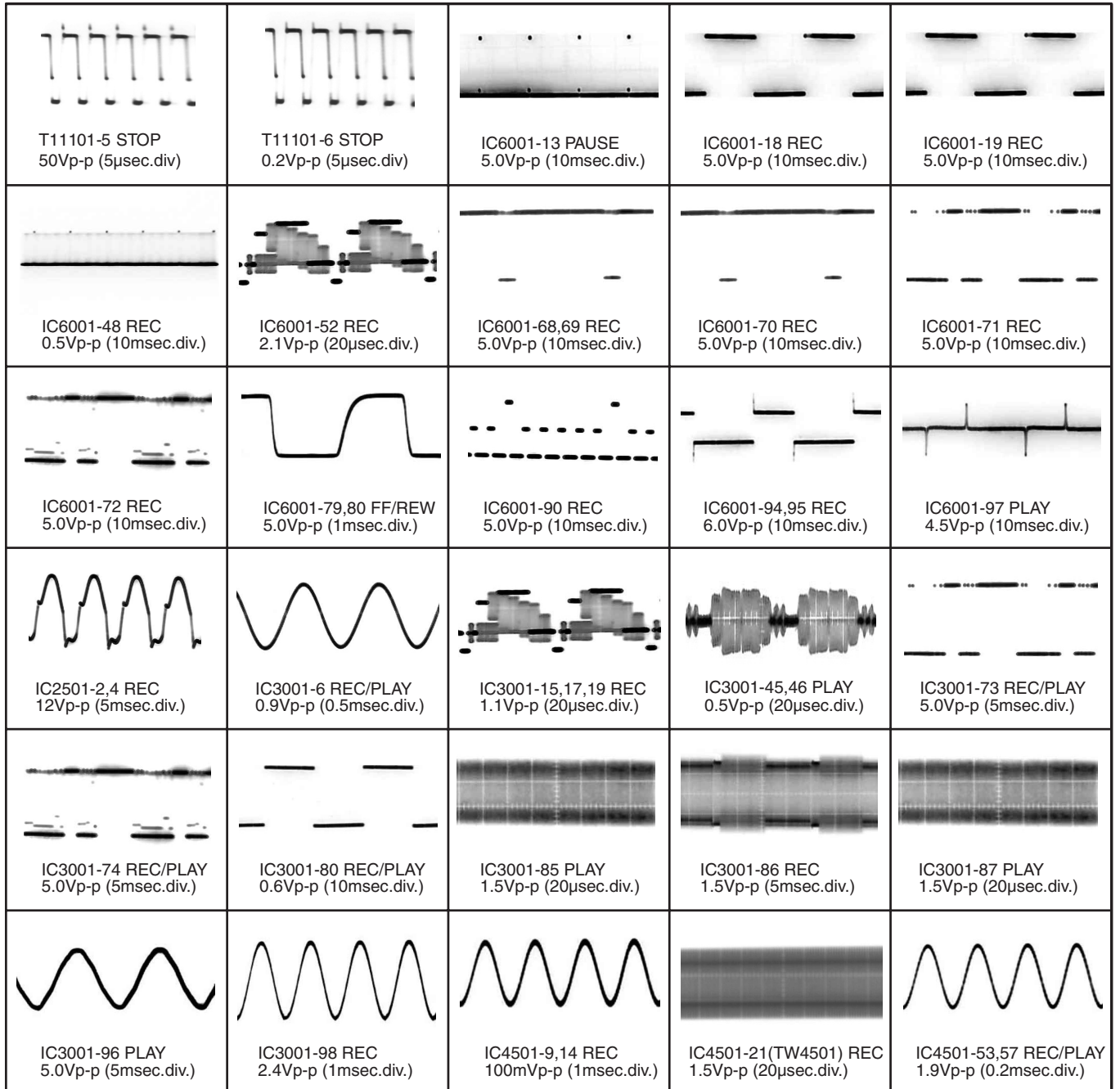
Ref.no.	QR37501			QR37502			QR37503			QR45001			QR45002			QR45003			QR45004		
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Stop	0,06	4,93	0,07	0,06	2,28	0,08	0,06	0,07	3,34	6,02	0,06	5,95	0,05	6,00	0,06	0,05	3,33	0,06	0,05	6,00	0,06
Play	0,06	4,93	0,07	0,06	2,28	0,08	0,06	0,07	3,34	6,02	6,01	0,45	0,05	0,46	0,06	0,05	0,08	0,06	0,05	0,42	0,06
Rec	0,06	4,93	0,07	0,06	2,28	0,08	0,06	0,07	3,34	6,02	0,06	5,95	0,05	6,00	0,06	0,05	3,33	0,06	0,05	6,00	0,06

Ref.no.	QR45005			QR45006			QR45007			QR45008			QR45009								
	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C						
Stop	0,05	6,00	0,01	0,05	4,91	0,06	0,05	0,06	0,06	0,05	3,33	0,06	0,05	0,06	3,32						
Play	0,05	0,42	0,07	0,05	4,91	0,06	0,05	0,06	6,01	0,05	0,08	6,01	0,05	2,36	0,08						
Rec	0,05	0,42	0,06	0,05	4,91	0,06	0,05	0,06	0,06	0,05	3,33	0,06	0,05	0,07	3,33						

20.1. WAVEFORM CHART

NOTE:

The waveforms are measured with PAL colour bar signal.



21 ABBREVIATIONS

21.1. DVD

INITIAL/LOGO	ABBREVIATIONS
A	A0-UP ACLK AD0-UP ADATA ALE AMUTE AREQ ARF ASI ASO ASYN
B	BCK BCKIN BDO BLKCK BOTTOM BYP BYTCK
C	CAV CBDO CD CDSCK CDSRDATA CDRF CDV CHNDATA CKSL CLV COFTR CPA CPCS CPDT CPUADR CPUADT CPUIRQ CPRD CPWR CS CSYNIN CSYNOUT
D	DACCK DEEMP DEMPH DIG0-UP DIN DMSRCK DMUTE DO DOUT0-UP DRF DRPOUT DREQ DRESP DSC DSLIF DVD

INITIAL/LOGO	ABBREVIATIONS
E	EC ECR ENCSEL ETMCLK ETSCLK
F	FBAL FCLK FE FFI FEO FG FSC FSCK
G	GND
H	HA0-UP HD0-UP HINT HRXW
I	IECOUT IPFRAG IREF ISEL
L	LDON LPC LRCK
M	MA0-UP MCK MCKI MCLK MDATA MDQ0-UP MDQM MLD MPEG
O	ODC OFTR OSCI OSCO OSD
P	P1-UP PCD PCK PDVD PEAK PLLCLK PLLOK PWMCTL PWMDA PWMOA, B

INITIAL/LOGO		ABBREVIATIONS
R	RE RFENV RFO RS RSEL RST RSV	READ ENABLE RF ENVELOPE RF PHASE DIFFERENCE OUTPUT (CD-ROM) REGISTER SELECT RF POLARITY SELECT RESET RESERVE
S	SBI0, 1 SBO0 SBT0, 1 SCK SCKR SCL SCLK SDA SEG0~UP SELCLK SEN SIN1, 2 SOUT1, 2 SPDI SPDO SPEN SPRCLK SPWCLK SQCK SQCX SRDATA SRMADR SRMDT0~7 SS STAT STCLK STD0~UP STENABLE STSEL STVALID SUBC SBCK SUBQ SYSCLK	SERIAL DATA INPUT SERIAL DATA OUTPUT SERIAL CLOCK SERIAL DATA CLOCK AUDIO SERIAL CLOCK RECEIVER SERIAL CLOCK SERIAL CLOCK SERIAL DATA FL SEGMENT OUTPUT SELECTCLOCK SERIAL PORT ENABLE SERIAL DATA IN SERIAL DATA OUT SERIAL PORT DATA INPUT SERIAL PORT DATA OUTPUT SERIAL PORT R/W ENABLE SERIAL PORT READ CLOCK SERIAL PORT WRITE CLOCK SUB CODE Q CLOCK SUBCODE Q DATA READ CLOCK SERIAL DATA SRAM ADDRESS BUS SRAM DATA BUS 0~7 START/STOP STATUS STREAM DATA CLOCK STREAM DATA STREAM DATA INPUT ENABLE STREAM DATA POLARITY SELECT STREAM DATAVALIDITY SUB CODE SERIAL SUB CODE CLOCK SUB CODE Q DATA SYSTEM CLOCK
T	TE TIBAL TID TIN TIP TIS TPSN TPSO TPSP TRCRS TRON TRSON	TRACKING ERROR BALANCE CONTROL BALANCE OUTPUT 1 BALANCE INPUT BALANCE INPUT BALANCE OUTPUT 2 OP AMP INPUT OP AMP OUTPUT OP AMP INVERTED INPUT TRACK CROSSIGNAL TRACKING ON TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK VCC VCDCONT VDD VFB VREF VSS	V BLANKING COLLECTOR POWER SUPPLY VOLTAGE VIDEO CD CONTROL (TRACKING BALANCE) DRAIN POWER SUPPLY VOLTAGE VIDEO FEED BACK VOLTAGE REFERENCE SOURCE POWER SUPPLYVOLTAGE
W	WAIT WDCK WEH WSR	BUS CYCLE WAIT WORD CLOCK WRITE ENABLE HIGH WORD SELECT RECEIVER
X	X XALE XAREQ XCDROM XCS XCSYNC XDS XHSYNCO XHINT XI XINT XMW XO XRE XSRMCE XSRMOE XSRMWE XVCS XVDS XVSYNCO	X' TAL X ADDRESS LATCH ENABLE X AUDIO DATA REQUEST X CD ROM CHIP SELECT X CHIP SELECT X COMPOSITE SYNC X DATA STROBE X HORIZONTAL SYNC OUTPUT XH INTERRUPTREQUEST X INTERRUPT X' TAL OSCILLATOR INPUT X INTERRUPT X MEMORY WRITE ENABLE X' TAL OSCILLATOR OUTPUT X READ ENABLE X SRAM CHIP ENABLE X SRAM OUTPUT ENABLE X SRAM WRITE ENABLE X V-DEC CHIPSELECT X V-DEC CONTROL BUS STROBE X VERTICAL SYNC OUTPUT

21.2. VHS

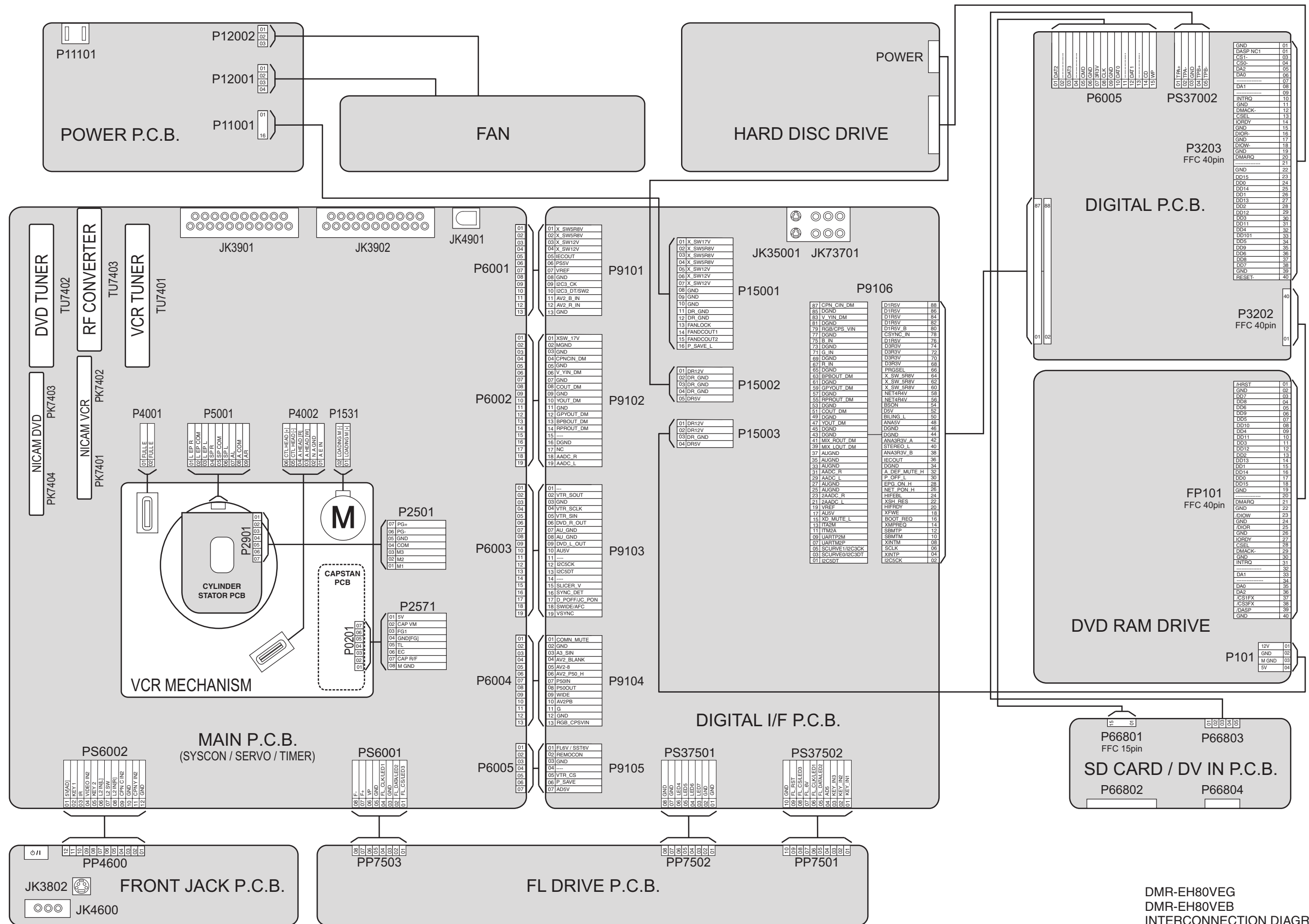
443NT [L]	4.43 NTSC (L)	BIL	BILINGUAL
A. COMP	AUDIO COMPONENT SIGNAL	BIL [L]	BILINGUAL (L)
A. COMPO	AUDIO COMPONENT SIGNAL	BIL. [H]	BILINGUAL (H)
A. D.P [L]	AUDIO DUBBING PAUSE (L)	BIL/M1 [L]	BILINGUAL (L)
A. D/L [L]	AUDIO DUBBING PAUSE (L)	BS CLOCK	BS CLOCK
A. DEF [S]	AUDIO DEFEAT	BS DATA	BS DATA
A. DEF [S] [L]	AUDIO DEFEAT	BS L CH IN	BS L CHANNEL INPUT
A. DUB P [L]	AUDIO DUBBING PAUSE (L)	BS MIX [H]	BS MIX (H)
A. DUB [H]	AUDIO DUBBING (H)	BS MON [H]	BS MONITOR (H)
A. ERASE	AUDIO ERASE	BS MONI [H]	BS MONITOR (H)
A. H. SW	AUDIO HEAD SWITCHING PULSE	BS RCH IN	BS R CHANNEL INPUT
A. HEAD [R]	AUDIO HEAD (REC)	BS VIDEO	BS VIDEO SIGNAL
A. HEAD [W]	AUDIO HEAD (PLAY)	BS VIDEO/BS1	BS VIDEO SIGNAL
A. IN [L]	AUDIO INPUT (L)	BS [H]	BS (H)
A. IN [R]	AUDIO INPUT (R)	BS. LEVEL	BS LEVEL
A. MUT [H]	AUDIO MUTE (H)	BS. M [H]	BS MONITOR (H)
A. MUTE [H]	AUDIO MUTE (H)	BS/VTR [H]	BS/VTR (H)
A. OUT [L]	AUDIO OUTPUT (L)	BUS CLK	BUS CLOCK
A. OUT [R]	AUDIO OUTPUT (R)	BUS LSN	BUS LISTEN
A. RF OUT	AUDIO RF SIGNAL OUTPUT	BUS TLK	BUS TALK
A/V/S. DATA	AV SW/SERIAL DATA	BUZZER	BUZZER
AC ONLINE	AC ONLINE	CAP EC	CAPSTAN TORQUE CONTROL
AC. O/EE. H	AC ONLINE/EE (H)	CAP M GND	CAPSTAN MOTOR GND
AFC S C	AFC S CURVE	CAP. ET	CAPSTAN TORQUE CONTROL
AFC [S]	AFC S CURVE	CAP. FG1	CAPSTAN FG1 PULSE
AFC. DEF	AFC DEFEAT	CAP. FG2	CAPSTAN FG2 PULSE
ARFC OUT	AUDIO RF SIGNAL OUTPUT	CAS. SW	CASSETTE SW
ART. V	ARTIFICIAL VERTICAL SYNC SIGNAL	CCN	PLAYBACK CONTROL SIGNAL (-)
ART. V. MM	ARTIFICIAL VERTICAL SYNC SIGNAL MONO MULTI	CCP	PLAYBACK CONTROL SIGNAL (+)
	ARTIFICIAL VERTICAL SYNC SIGNAL (H)/NORMAL	CHM	CONTROL SIGNAL (+)
ART. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL (H)/NORMAL	CHP	CONTROL SIGNAL (-)
AT. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL TEST/NORMAL/SERVICE	CINEM [L]	CINEMA (L)
ATSW/TEST/NOR/SE	TEST/NORMAL/SERVICE	CINEMA [L]	CINEMA (L)
AUDIO IN [L]	AUDIO INPUT (L)	CINEMA/MIX	CINEMA/MIX
AUDIO IN [R]	AUDIO INPUT (R)	CKL	RATCH LOCK
AUDIO OUT [L]	AUDIO OUTPUT (L)	CKS	SHIFT LOCK
AUDIO OUT [R]	AUDIO OUTPUT (R)	CL	CLOCK
AUDIO SELECT [H]	AUDIO SELECT (H)	CLK	CLOCK
AUDIO. L	AUDIO (L)	CLK (C.G)	CLOCK
AUDIO. R	AUDIO (R)	CLOCK. IN	CLOCK INPUT
AV CNT	AV CONTROL	CLP	CLAMP
AV CTL	AV CONTROL	COL/B/W/NOR	COLOUR/BLACK & WHITE/NORMAL
AV CTL/S. CLK	AV CONTROL/SERIAL CLOCK	COLOR [H]	COLOUR (H)
AV. C.M.	AV CONTROL MODE	CONV	CONVERTOR
AVCNT/METER. R	AV CONTROL/LEVEL METER (R)	CS	CHIP SELECT
AVSW/METER. L	AV SW/LEVEL METER (L)	CTL GND	CONTROL GND
B MODE. H	B MODE (H)	CTL HEAD [+]	CONTROL HEAD (+)
B.G.P	BURST GATE PULSE	CTL HEAD [-]	CONTROL HEAD (-)
BACKUP 5V	BACK UP 5V	CTL [+]	CONTROL HEAD (+)
BAND. U.E.	BAND U	CTL [-]	CONTROL HEAD (-)
BANDVL. D	BAND VL	CUE BIAS	CUE BIAS
BI/MI [L]	BILINGUAL/MIX (L)	CURRENT LIM	CURRENT LIMMITER
		CYL ET	CYLINDER TORQUE CONTROL

CYL GND	CYLINDER GND	FULL. E. 12V	FULL ERASE 12V
D.F.M. REC [H]	DELAIED FM RECORDING (H)	GND [A]	GND (ANALOG)
D. FM REC [L]	DELAIED FM RECORDING (L)	GND [TU]	GND (TUNER)
D. GND	DIGITAL GND	GND/N. SW. 12V	GND/NON SW 12V
D. REC [H]	DELAYED RECORDING (H)	H. SYNC	HORIZONTAL SYNC
D4/S. LED	D4/STILL LED	H. AMP. SW	HEAD AMP SW PULSE
D4/STILLED	D4/STILL LED	H. P <R>	HEAD PHONE (R)
DAC [CLK]	TUNER DAC (CLOCK)	H. P <L>	HEAD PHONE (L)
DAC/FSCS	TUNER DAC/FS CHIP SELECT	H. P GND	HEAD PHONE GND
DAREC [H]	DELAYED AUDIO RECORDING (H)	H. P OUT [L]	HEAD PHONE OUTPUT (L)
DATA	DATA	H. P OUT [R]	HEAD PHONE OUTPUT (R)
DECODER [L]	DECODER (L)	H. SW	HEAD SW PULSE
DECODER [R]	DECODER (R)	HEAD PHONE [L]	HEAD PHONE (L)
DEW	DEW	HEAD PHONE [R]	HEAD PHONE (R)
DEW SNS	DEW SENSOR	HEAD SW	HEAD SW
DFMRE [H]	DELAYED FM AUDIO RECORDING (H)	HEATER [+]	HEATER (+)
E. REC 5V	EXCEPT RECORDING 5V	HEATER [-]	HEATER (-)
EC	ERROR TORQUE CONTROL	HSS	HORIZONTAL SYNC SIGNAL
ECR	ERROR TORQUE CONTROL	HTR [+]	HEATER (+)
	REFERENCE VOLTAGE	HTR [-]	HEATER (-)
	EDIT TRIGGER (L)	I RFE	REFERENCE CURRENT
EDT TRIG [L]	EDIT (L)	ICL	CONTROL AGC CIRCUIT
EDIT [H]	EDIT (H)	IF	INTERMEDIATE FREQUENCY
EE [H]	EE (H)	IN SELA1	INPUT SELECT A1 POSITION
EE [H]/INS [M]	EE (H)/INSERT (M)	IN SELA2	INPUT SELECT A2 POSITION
EE. VV. TR	EE/VV/TRICK PLAY	IN SELA3	INPUT SELECT A3 POSITION
EJECT. PO	EJECT POSITION	INS L/R [L]	INSERT Lch/Rch (L)
EJECT/VDET	EJECT/REVERSE SLOW LOCK	INS. [H]	INSERT (H)
ENV. SEL	ENVELOPE SELECT	INSEL A1	INPUT SELECT A1 POSITION
ENVE. OUT	ENVELOPE OUTPUT	INSEL A2	INPUT SELECT A2 POSITION
ENVE. SEL	ENVELOPE SELECT	INSERT	INSERT
ENV SELECT	ENVELOPE SELECT	INSERT [H]	INSERT (H)
EP [H]	LP (H)	IO CS	INPUT/OUTPUT CHIP SELECT
EP/LP [H]	LP (H)	JOG1	JOG1
EP/LP/SP	LP/SP	JOG S3 LED/FOWRD	JOG LED/FORWARD LED
EP/SS [H]	LP/SLOW/STILL/STOP (H)	JOG/F. LED	JOG LED/FORWARD LED
EPROMCS	EPROM CHIP SELECT	JSB [H]	JSB (H)
EX. REC 5V	EXCEPT RECORDING 5V	JST. CLCK	JUST CLOCK
FF/REW [L]	FIRST FORWARD/REWIND (L)	JST. CLK	JUST CLOCK
FG1 IN	FG1 PULSE INPUT	JST. CLOCK	JUST CLOCK
FG2 IN	FG2 PULSE INPUT	L. OUT	Lch OUTPUT
FILTER ADJUSTMENT	FILTER ADJUSTMENT	L. CH [H]	Lch (H)
FLY ERASE [H]	FLYING ERASE HEAD ON (H)	L. CH [L]	Lch (L)
FLY ON [H]	FLYING ERASE HEAD ON (H)	LED (MAIN)	LED (MAIN)
FLY. E [H]	FLYING ERASE HEAD ON (H)	LED (STEREO)	LED (STEREO)
FM MUT [H]	FM AUDIO MUTE (H)	LED (SUB)	LED (SUB)
FM MUTE [H]	FM AUDIO MUTE (H)	LED CKL	LED SERIAL CLOCK
FM OUT [L]	FM OUTPUT (L)	LED CKS	LED SERIAL CLOCK
FM OUT [R]	FM OUTPUT (R)	LED DATA	LED SERIAL DATA
FM PACK OUT [L]	FM PACK OUTPUT (L)	LINE IN 1 [L]	LINE INPUT 1 (L)
FM PACK OUT [R]	FM PACK OUTPUT (R)	LINE IN 1 [R]	LINE INPUT 1 (R)
FM/BS SEL [L]	FM/BS SELECT (L)	LINE IN 2 [L]	LINE INPUT 2 (L)
FM/BS SEL [R]	FM/BS SELECT (R)	LINE IN 2 [R]	LINE INPUT 2 (R)
FS. CLK	FS CLOCK	LINE IN V	LINE INPUT VIDEO
FUL. E [H]	FULL ERASE HEAD ON (H)	LINE IN [L]	LINE INPUT (L)
FULL. E [H]	FULL ERASE HEAD ON (H)		

LINE IN [R]	LINE INPUT (R)	P-OFF [H]	POWER OFF (H)
LINE OUT [L]	LINE OUTPUT (L)	P-OFF [L]	POWER OFF (L)
LINE OUT [R]	LINE OUTPUT (R)	P. FAIL	POWER FAILURE DETECT
LP [H]	LP (H)	P. OFF [H]	POWER OFF (H)
LPTRI [L]	LP TRICK PLAY (L)	P. OFF [L]	POWER OFF (L)
Lch/A. DUB	Lch/AUDIO DUBBING	PAL [H]	PAL (H)
M GND	MOTOR GND	PAL [L]/NTSC [H]	PAL (L)/NTSC (H)
M REG	MOTOR REGULATOR	PB ADJ OUT	PLAYBACK ADJUST OUTPUT
MAIN OUT	MAIN OUTPUT	PB OUT	PLAYBACK OUTPUT
MAIN [L]	MAIN (L)	PB. H	PLAYBACK (H)
MAIN/MONO	MAIN/MONAUROAL	PGF	PG/FG
MAX IN	MAXIMAM INPUT	PHOTSN +B	PHOTO SENSOR +B
MES [H]	MESECAM (H)	PICT. CNT	PICTURE CONTROL
MESE [H]	MESECAM (H)	PLAY LED/RVS LED	PLAY LED/REVERSE LED
MESE [L]	MESECAM (L)	PLAY. PO	PLAY POSITION
METER 5V	LEVEL METER 5V	PLAY/R. LED	PLAY LED/REVERSE LED
METER [L]	LEVEL METER (L)	PLY/DEW	PLAY/DEW (H)
METER [R]	LEVEL METER (R)	POWER OFF [L]	POWER OFF (L)
METER. L/AVS	LEVEL METER (L)	PREROLL [H]	PREROLL (H)
METER. R/AVC	LEVEL METER (R)	PWRFAIL	POWER FAILURE DETECT
MI/BI [L]	MIX (H)/BILIGUAL	R. CH [H]	Rch (H)
MIC GND	MIC GND	R. CH [L]	Rch (L)
MIC IN	MIC INPUT	R. ST	RESET
MIC IN [L]	MIC INPUT (L)	R/S/F	REVERSE (H)/STOP (M)/FORWARD (L)
MIC IN [R]	MIC INPUT (R)	RCH [H]	Rch (H)
MIC [H]	MIC (H)	REC 12V	RECORDING 12V
MIX [H]	MIX (H)	REC CHROMA	RECORDING CHROMINANCE SIGNAL
MIX [H]/CINEMA [L]	MIX (H)/CINEMA SOUND (L)	REC H	RECORDING (H)
MIX/CINE	MIX (H)/CINEMA SOUND (L)	REC IN	RECORDING INPUT
MIX/CINEMA [L]	MIX (H)/CINEMA SOUND (L)	REC OUT [L]	RECORDING OUTPUT (L)
MN. H/M. L	MONAUROAL (H)/MAIN (L)	REC START	RECORDING START
MN. H/MAI. L	MONAUROAL (H)/MAIN (L)	REC VR [C]	RECORDING VOLUME (COMMON)
MN2/MES. L	MONAUROAL 2/MESECAM (L)	REC VR [L]	RECORDING VOLUME (L)
MODE SEL	AUDIO MODE SELECT	REC VR [R]	RECORDING VOLUME (R)
MODE SW	AUDIO MODE SW	REC Y	RECORDING LUMINANCE SIGNAL
MODE. S. IN	AUDIO MODE SELECT INPUT	REC [H]	RECORDING (H)
MODE. S. OUT	AUDIO MODE SELECT OUTPUT	REC. C	RECORDING CHROMINANCE SIGNAL
MONO [H]	MONAUROAL (H)	REC. Y	RECORDING LUMINANCE SIGNAL
MONO [H]/MAIN [L]	MONAUROAL (H)/MAIN (L)	REC/EE CTL	RECORDING/EE CONTROL
MONO2 [L]	MONAUROAL 2	REEL-T	REEL PULSE (TAKE-UP)
MONO2/MESE [FM(L)]	MONAUROAL 2/MESECAM (FM (L))	REEL-S	REEL PULSE (SUPPLY)
MOTOR GND	MOTOR GND	REGULATOR FILTER	REGULATOR FILTER
MUTE	MUTE	RESET	RESET
N. A. REC [L]	NORMAL AUDIO RECORDING	REV M F/R	REVIEW MOTOR
N. SW 12V	NON SW 12V	REV M V1	FORWARD/REVERSE
N. SW. 5. DET	NON SW 5V DETECT	REV M V2	REVIEW MOTOR V1
NICAM	NICAM	REV MOTOR F/R	REVIEW MOTOR V2
NICAM [L]	NICAM (L)	REV MOTOR V1	REVIEW MOTOR
NOL [H]	PAL (H)/4.43 NTSC (M)/3.58 NTSC (L)	REV MOTOR V2	FORWARD/REVERSE
NOR/SOFT [H]	NORMAL/SOFT TAPE PLAY (H)	REV MOTOR [H]	REVIEW MOTOR V1
NORMAL [H]	NORMAL (H)	REV MOTOR [-]	REVIEW MOTOR V2
NR BIAS	NR BIAS	REV. M. GND	REVIEW MOTOR (+)
NTSC [L]	NTSC (L)	RF. CHROMA	REVIEW MOTOR (+)
OCH	CONTROL AGC CIRCUIT		REVIEW MOTOR GND
OUT	OUTPUT		RF CHROMINANCE SIGNAL

RF OUT	RF OUTPUT	SYSCON 5V	SYSTEM CONTROL 5V
RF Y	RF LUMINANCE SIGNAL	SYSTEM	SYSTEM SW
RF. Y. IN	RF LUMINANCE SIGNAL INPUT	T-PHOTO	TAKE-UP PHOTO TRANSISTOR
RF. Y. OUT	RF LUMINANCE SIGNAL OUTPUT	T-RL. PLS	TAKE-UP REEL PULSE
ROTAR. SW	ROTARY SW	T. BUSCLK	TIMER BUS CLOCK
ROTARY	ROTARY SW	T. BUSLSN	TIMER BUS LISTEN
RST	RESET	T. BUSTLK	TIMER BUS TALK
RST [L]	RESET (L)	T. END [L]	TAPE END (L)
Rch/INST	Rch/INSERT	T. PHOTO	TAKE-UP PHOTO TRANSISTOR
S IN	SERIAL DATA INPUT	TAPE END [L]	TAPE END (L)
S OUT	SERIAL DATA OUTPUT	TAPE END [L]/CAM	TAPE END (L)/CAMERA PAUSE
S-PHOTO	SUPPLY PHOTO TRANSISTOR	TEST	TEST MODE
S-RL. PLS	SUPPLY REEL PULSE	TPZ	TRAPEZOIDAL WAVE CIRCUIT
S. CLK	SERIAL CLOCK	TRIC [L]	TRIC PLAY (L)
S. CLK/AV	SERIAL CLOCK/AV	TRICK [L]	TRIC PLAY (L)
S. DATA	SERIAL DATA	TRK. ENV	AUTO TRACKING ENVELOPE DETECT
S. DATA/A	SERIAL DATA	TU. AUDIO	TUNER AUDIO
S. PHOTO	SUPPLY PHOTO TRANSISTOR	TU. GND	TUNER GND
S. TAB [L]	SAFETY TAB SW ON (L)	TU. V. IN	TUNER VIDEO SIGNAL INPUT
S/P/N	SECAM/PAL/NTSC	TU. VIDEO	TUNER VIDEO
SC IN	SERIAL CLOCK INPUT	TUN NOR IN	TUNER NORMAL INPUT
SC OUT	SERIAL CLOCK OUTPUT	TUN R	TUNER AUDIO (R)
SCK SELECT	SERIAL CLOCK SELECT	TUN. AUDIO IN	TUNER AUDIO INPUT
SEL OUT [L]	SELECT OUTPUT (L)	TUNER 12V	TUNER 12V
SEL OUT [R]	SELECT OUTPUT (R)	TUNER L	TUNER AUDIO (L)
SHUTTLE 1	SHUTTLE 1	TUNER V IN	TUNER VIDEO SIGNAL INPUT
SIF	SOUND INTERMEDIATE FREQUENCY	TUNER [L]	TUNER AUDIO (L)
SLMUT [H]	INPUT SELECT MUTE (H)	TUNER [N]	TUNER AUDIO (NORMAL)
SLNID [+]	SOLENOID (+)	TUNER [R]	TUNER AUDIO (R)
SLNID [-]	SOLENOID (-)	TUNER. 12	TUNER 12V
SLW TR. MM	SLOW TRACKING MONO MULTI	TUOFF [H]	TUNER OFF (H)
SLW TR. REF	SLOW TRACKING REFERENCE	TV. AUDIO	TV AUDIO
	VOLTAGE	TV/VTR	TV/VTR
SNS. GND	SENSOR GND	TXTON [L]	TEXT ON (L)
SOFT [H]	SOFT TAPE PLAY (H)	U. REG45V	UNREGULATOR 45V
SOFT [H]/NORMAL	SOFT TAPE PLAY (H)/NORMAL (H)	UNREG	UNREGULATOR
SOLENOID ON [L]	SOLENOID ON (L)	UNREG19V	UNREGULATOR 19V
SP [H]	SP (H)	V. REF	REFERENCE VOLTAGE
SP/L/SLP	SP/LP	V. EE [H]	VIDEO EE (H)
SSS [L]	SLOW/STILL/STOP	V. EE [L]	VIDEO EE (L)
STEREO LED	STEREO LED	VCO REF	REFERENCE OSCILLATER
STEREO [H]	STEREO (H)	VD. IN	VIDEO SIGNAL INPUT
STEREO [L]	STEREO (L)	VD. OUT	VIDEO SIGNAL OUTPUT
STOP. PO	STOP POSITION	VIDEO EE [L]	VIDEO EE (L)
STOP/5V	STOP POSITION/5V	VIDEO IN	VIDEO SIGNAL INPUT
STOP1/TAPE SEL	STOP1 POSITION/TAPE SELECT	VIDEO OUT	VIDEO SIGNAL OUTPUT
STOP1/PAL:ST	STOP1 POSITION/PAL	VM	MOTOR VOLTAGE
STOP2. PO	STOP 2 POSITION	VM DOWN [L]	MOTOR VOLTAGE DOWN (L)
STOP2/S-TAB	STOP 2 POSITION/SAFETY TAB SW	VSS	VERTICAL SYNC SIGNAL
STREO [H]	STEREO (H)	VTR [H]	VTR (H)
SUB BIAS	SUB BIAS	VTR. 12V	VTR 12V
SUB. SW	SUB SW	X IN	OSCILLATOR INPUT
SVHS CAS [L]	S-VHS CASSETTE (L)	X OUT	OSCILLATOR OUTPUT
SW. 5. DET	SW 5V DETECT		
SYNC [L]	SYNC (L)		

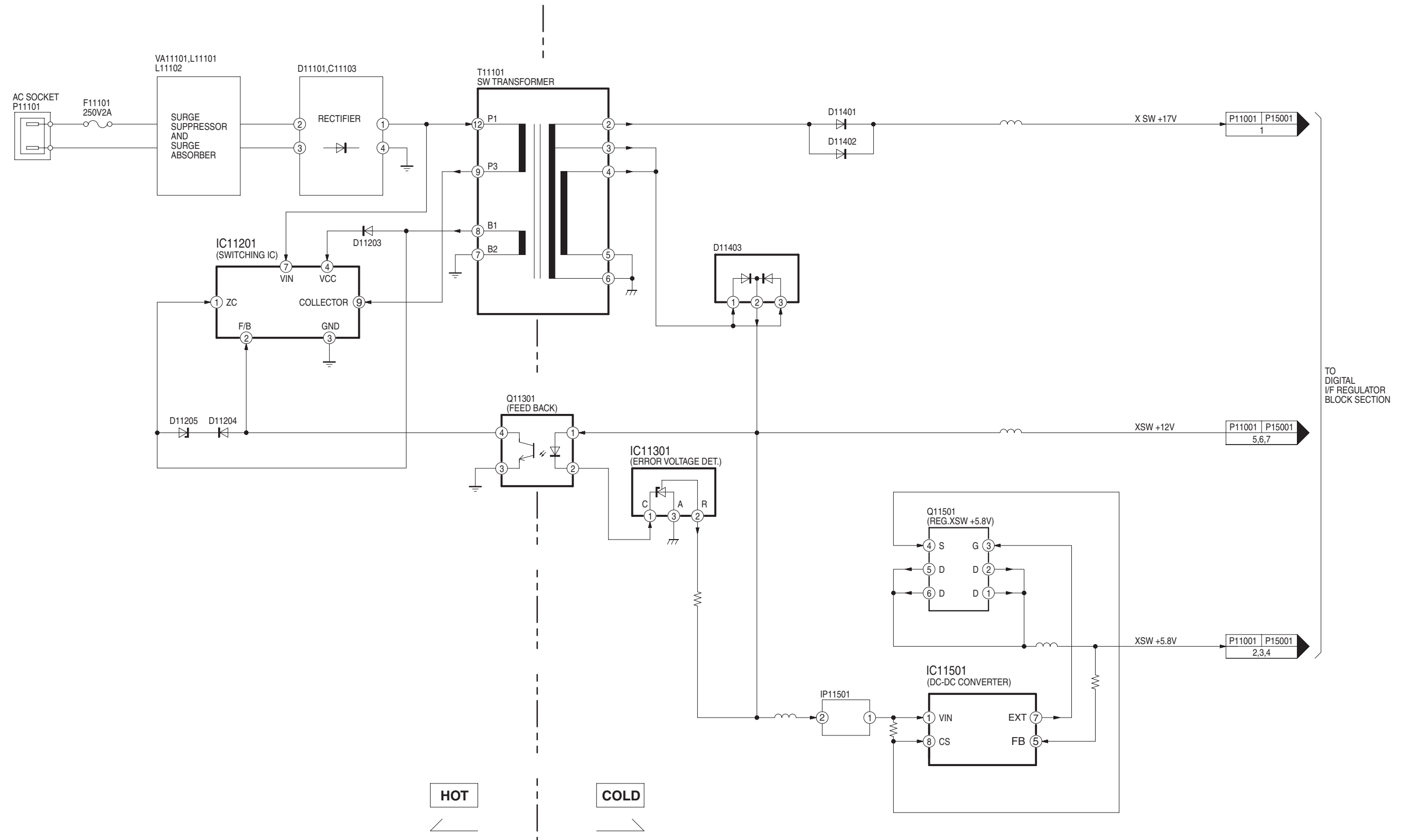
22 INTERCONNECTION DIAGRAM



DMR-EH80VEG
DMR-EH80VEB
INTERCONNECTION DIAGRAM

23 BLOCK DIAGRAM

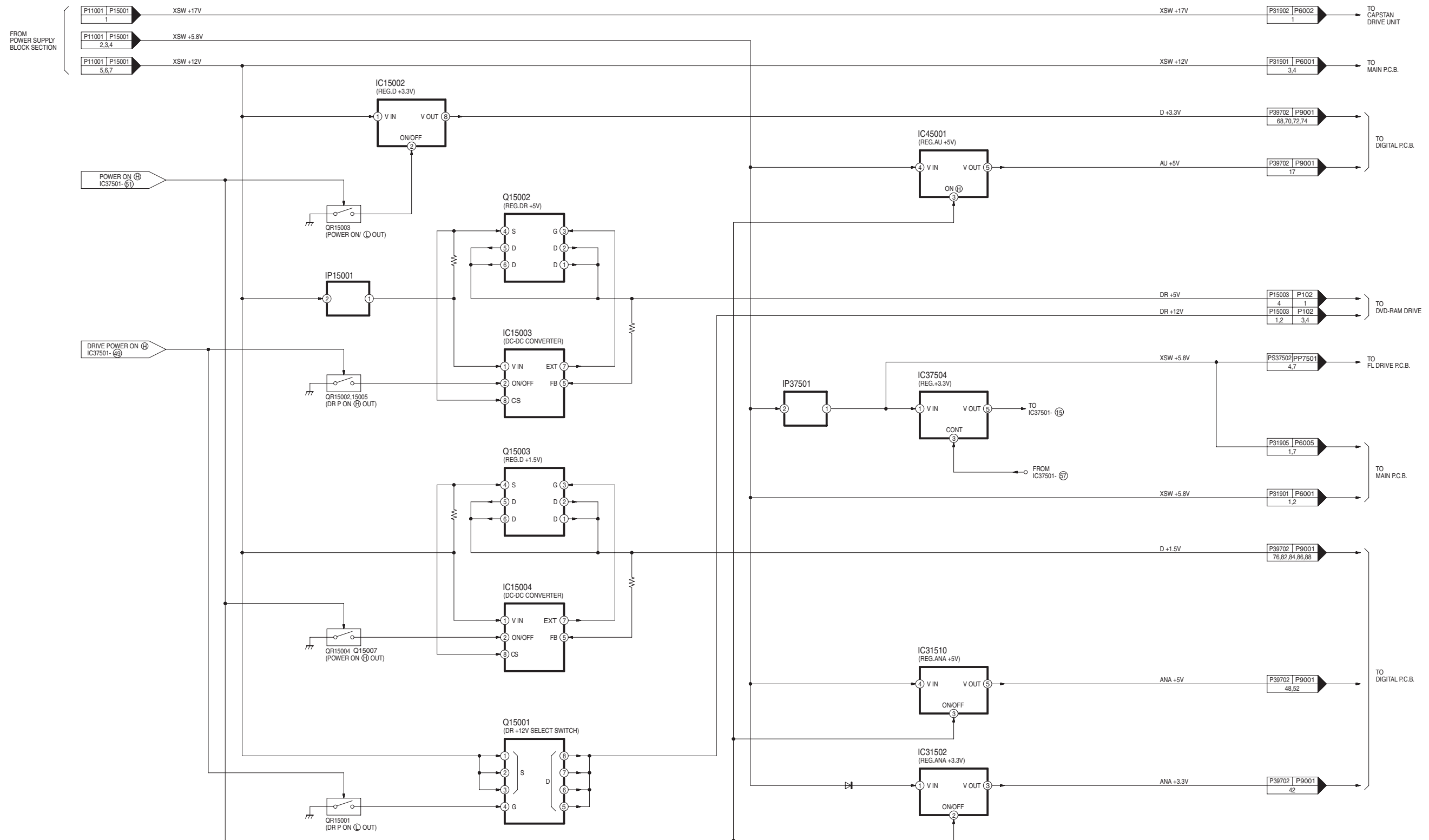
23.1. POWER SUPPLY BLOCK DIAGRAM



TO
DIGITAL
I/F REGULATOR
BLOCK SECTION

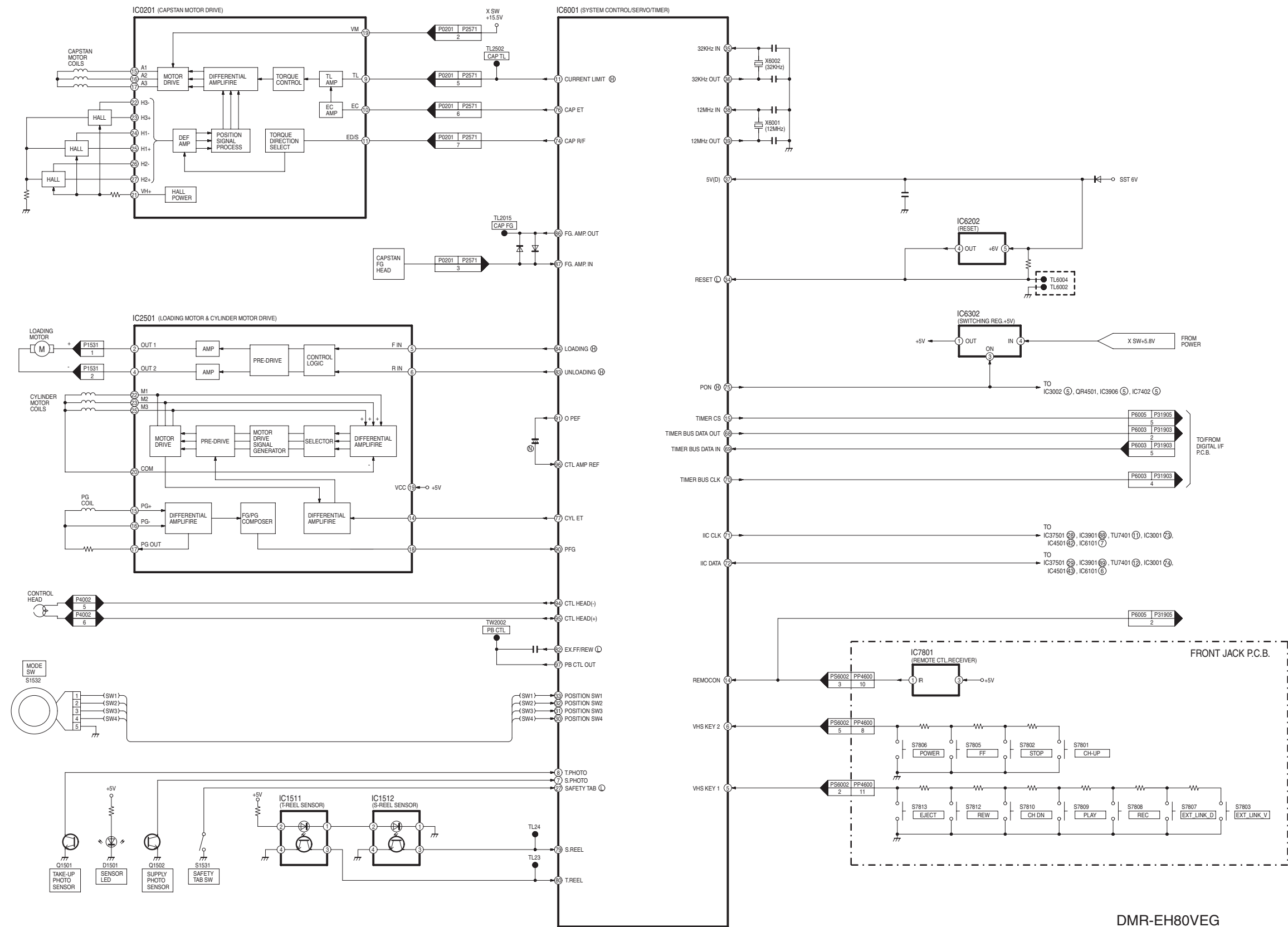
DMR-EH80VEG
DMR-EH80VEB
POWER SUPPLY
BLOCK DIAGRAM

23.2. DIGITAL I/F REGULATOR BLOCK DIAGRAM



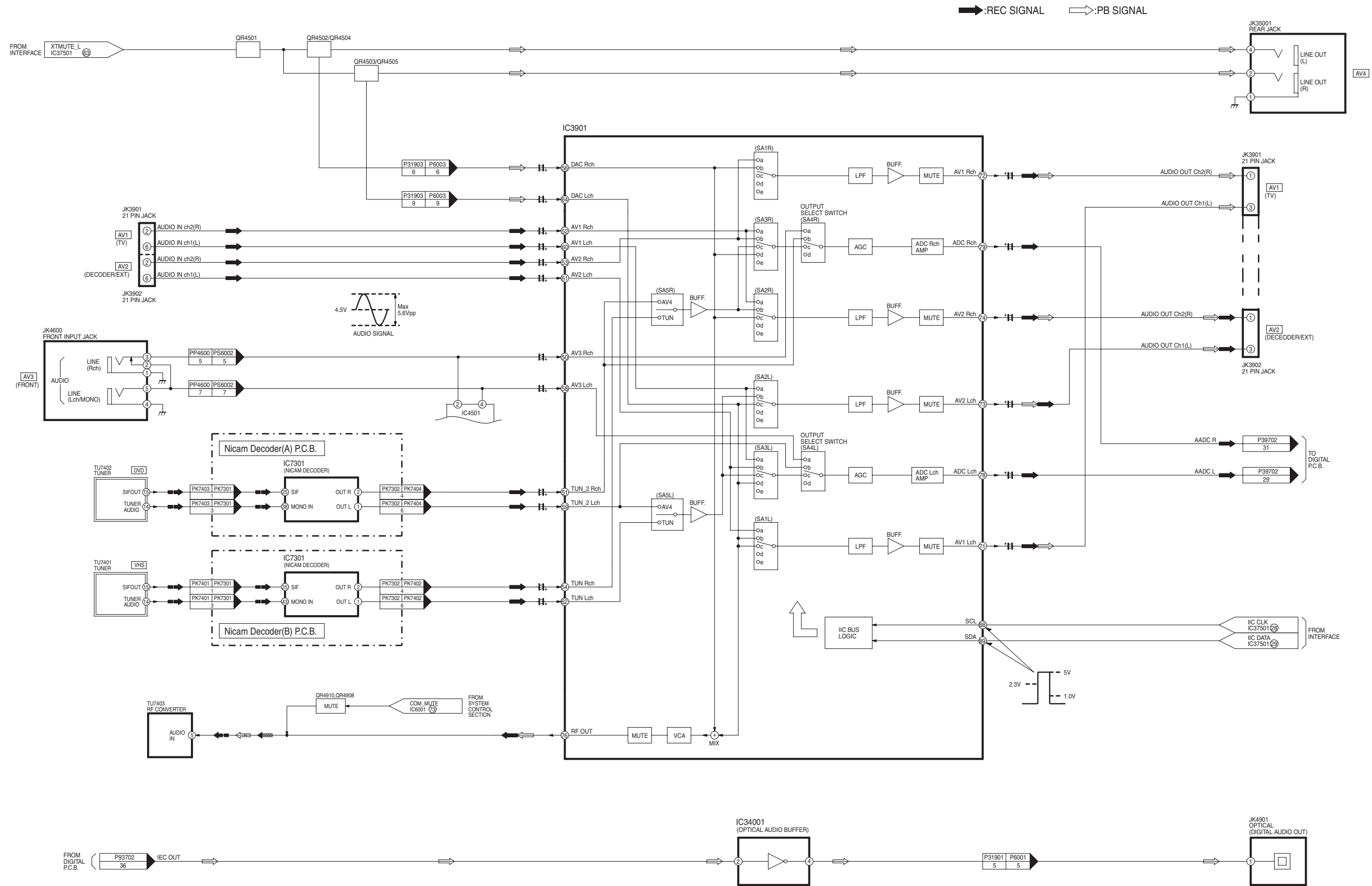
DMR-EH80VEG
DMR-EH80VEB
DIGITAL I/F REGULATOR
BLOCK DIAGRAM

23.3. SYSTEM CONTROL, SERVO & TIMER BLOCK DIAGRAM



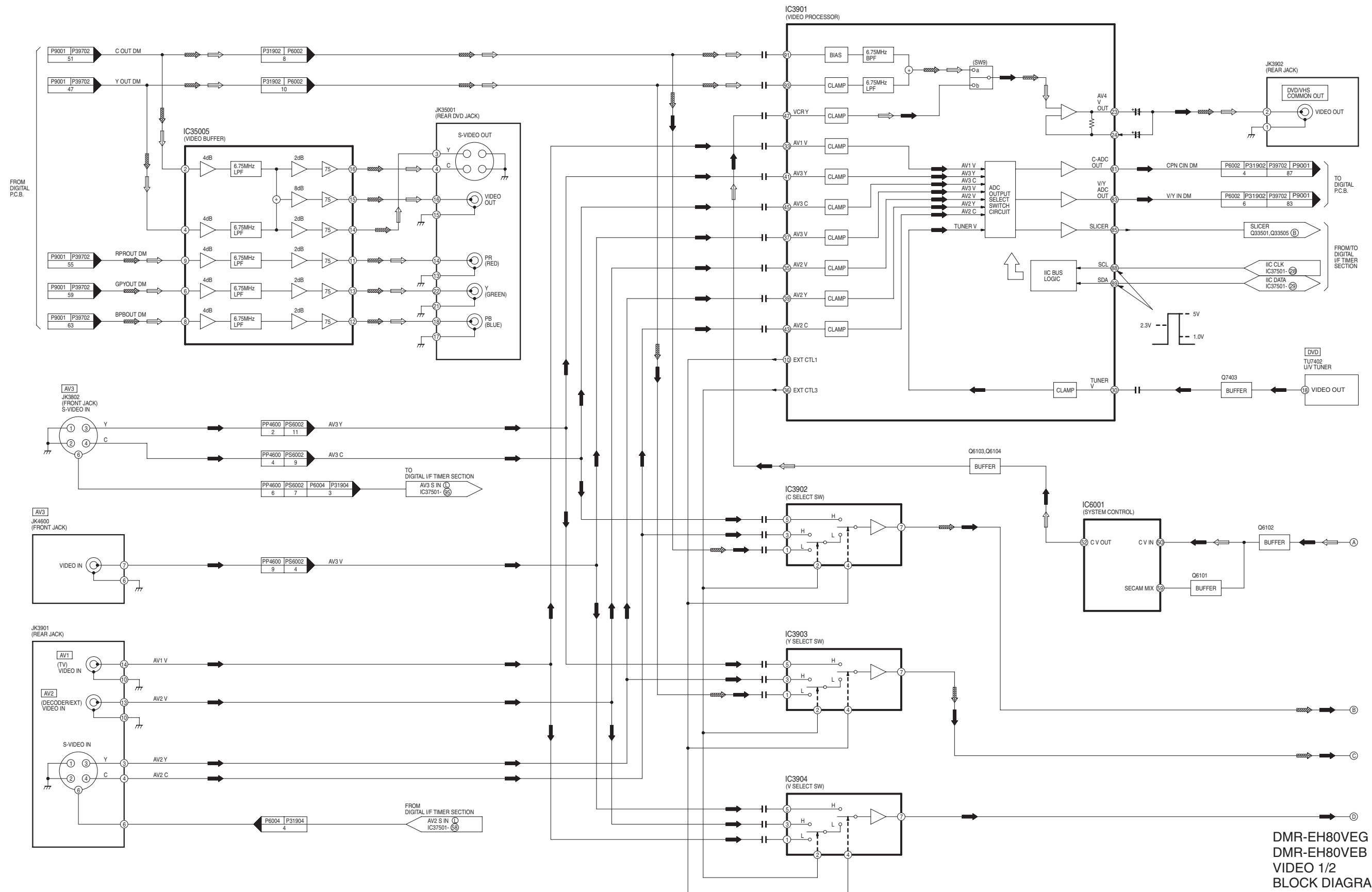
DMR-EH80VEG
DMR-EH80VEB
SYSTEM CONTROL / SERVO & TIMER
BLOCK DIAGRAM

23.4. AUDIO BLOCK DIAGRAM



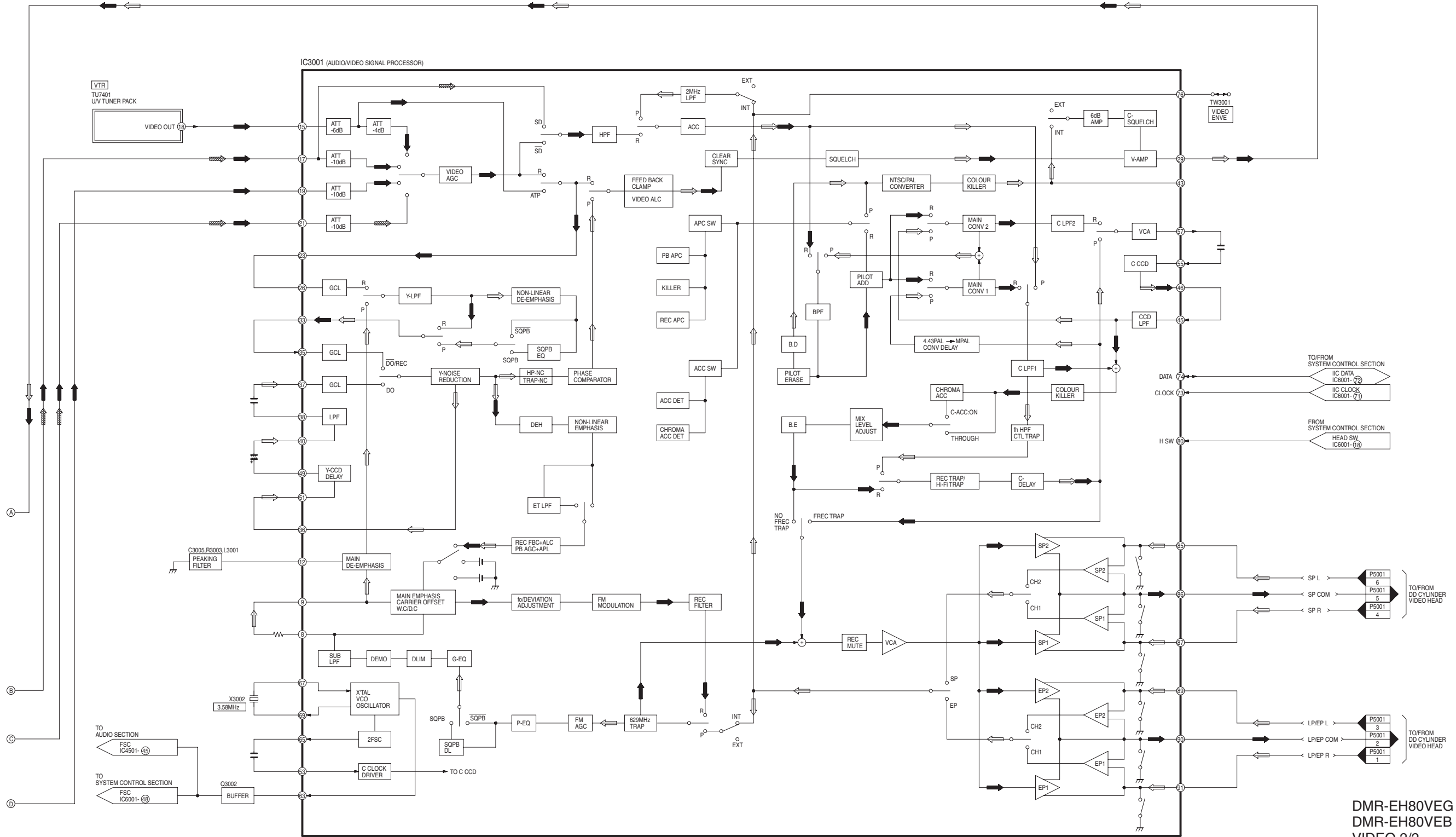
DMR-EH80VEG
DMR-EH80VEB
AUDIO
BLOCK DIAGRAM

23.5. VIDEO BLOCK DIAGRAM



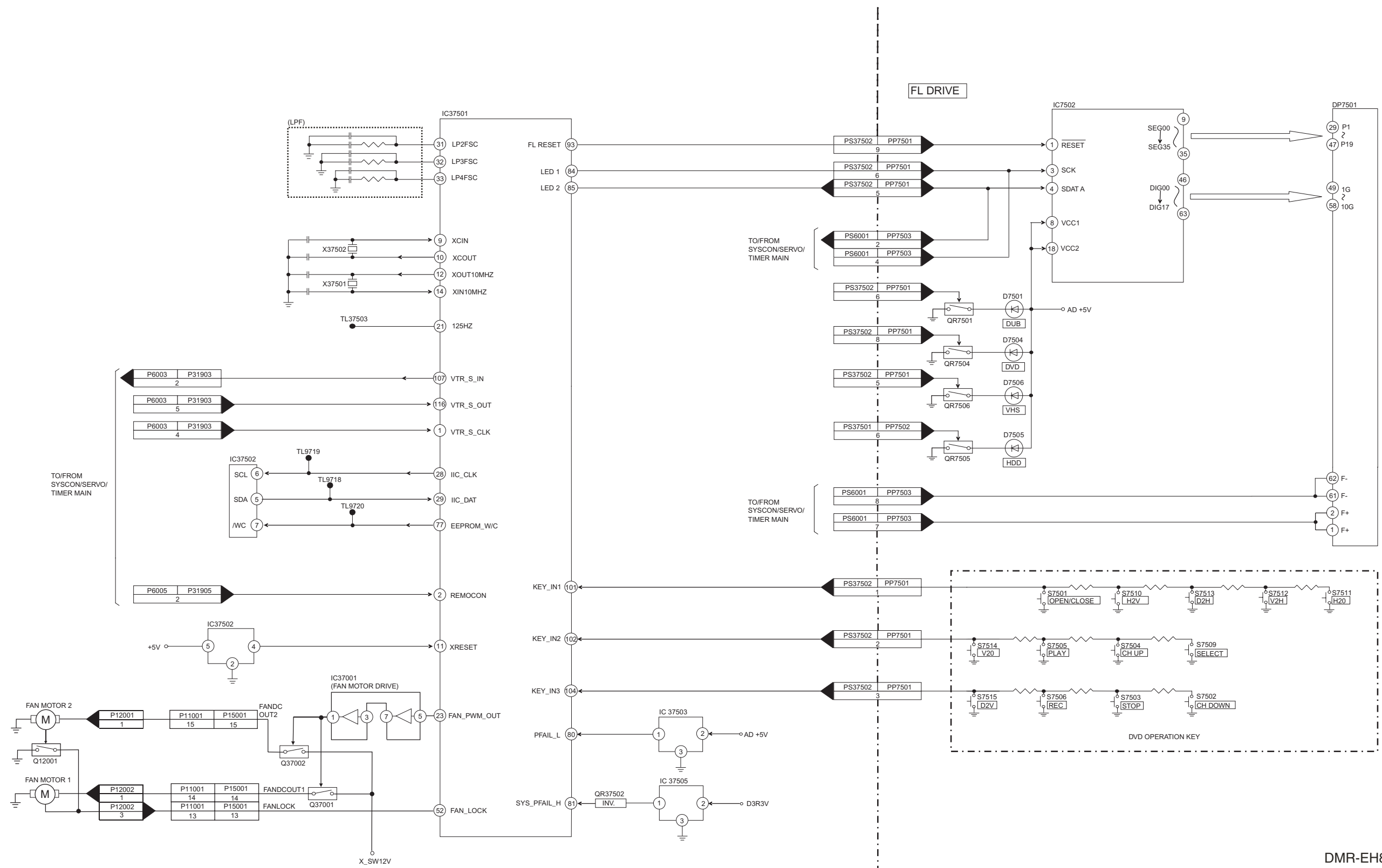
DMR-EH80VEG
DMR-EH80VEB
VIDEO 1/2
BLOCK DIAGRAM

 :DVD VIDEO EE SIGNAL
  :REC SIGNAL
  :PB SIGNAL



DMR-EH80VEG
DMR-EH80VEB
VIDEO 2/2
BLOCK DIAGRAM

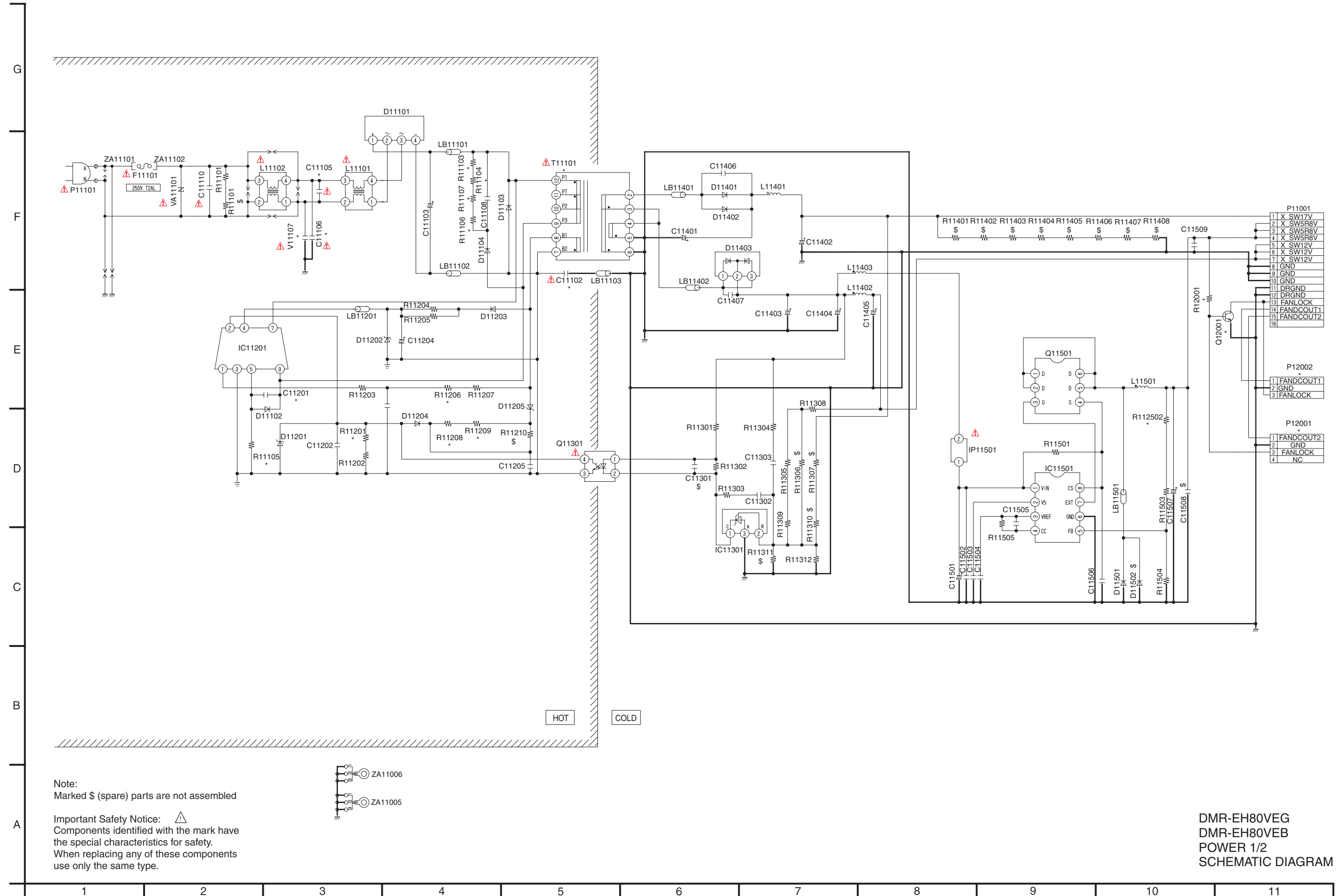
23.6. DIGITAL I/F P.C.B. BLOCK DIAGRAM

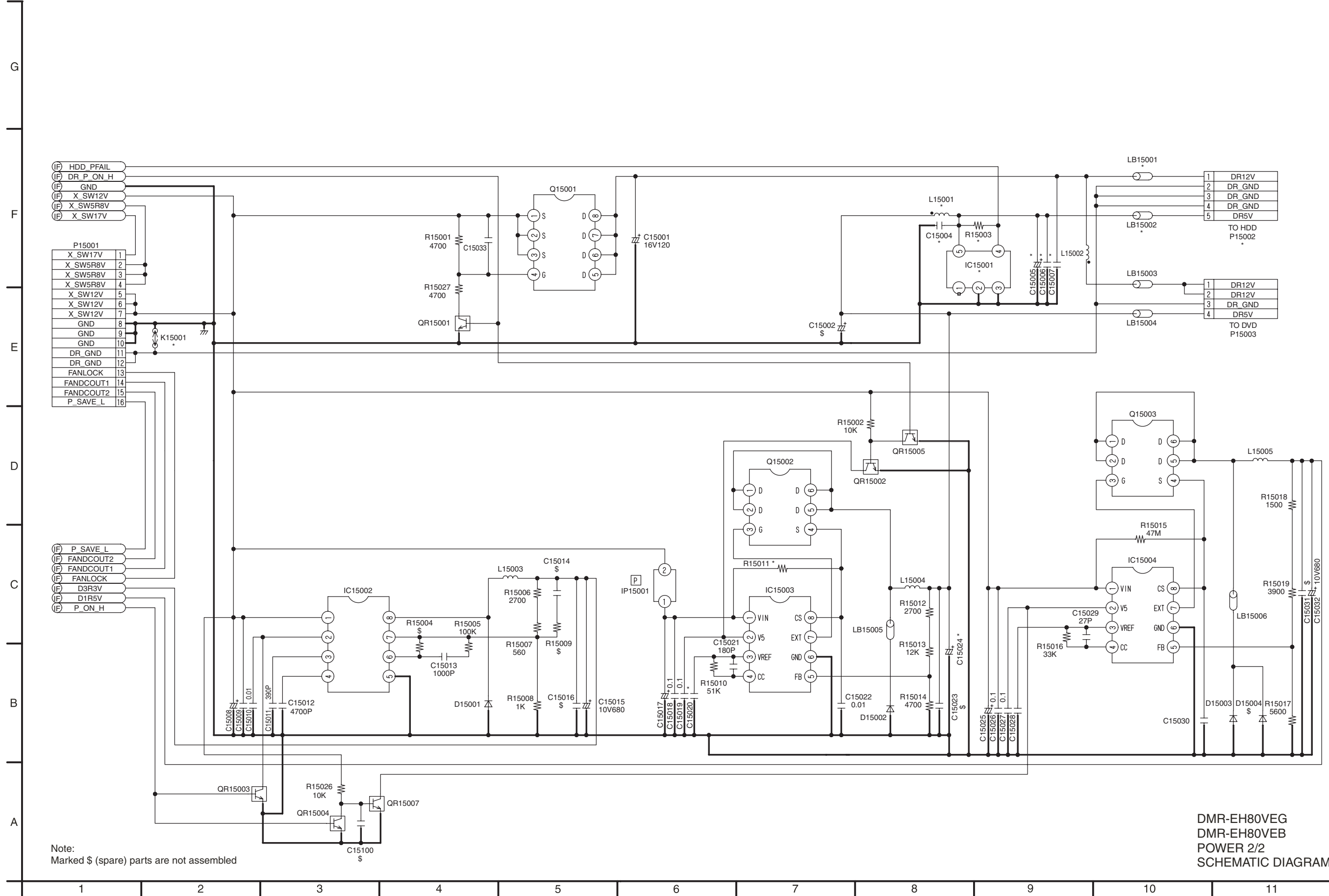


DMR-EH80VEG
DMR-EH80VEB
DIGITAL I/F PCB
BLOCK DIAGRAM

24 SCHEMATIC DIAGRAM

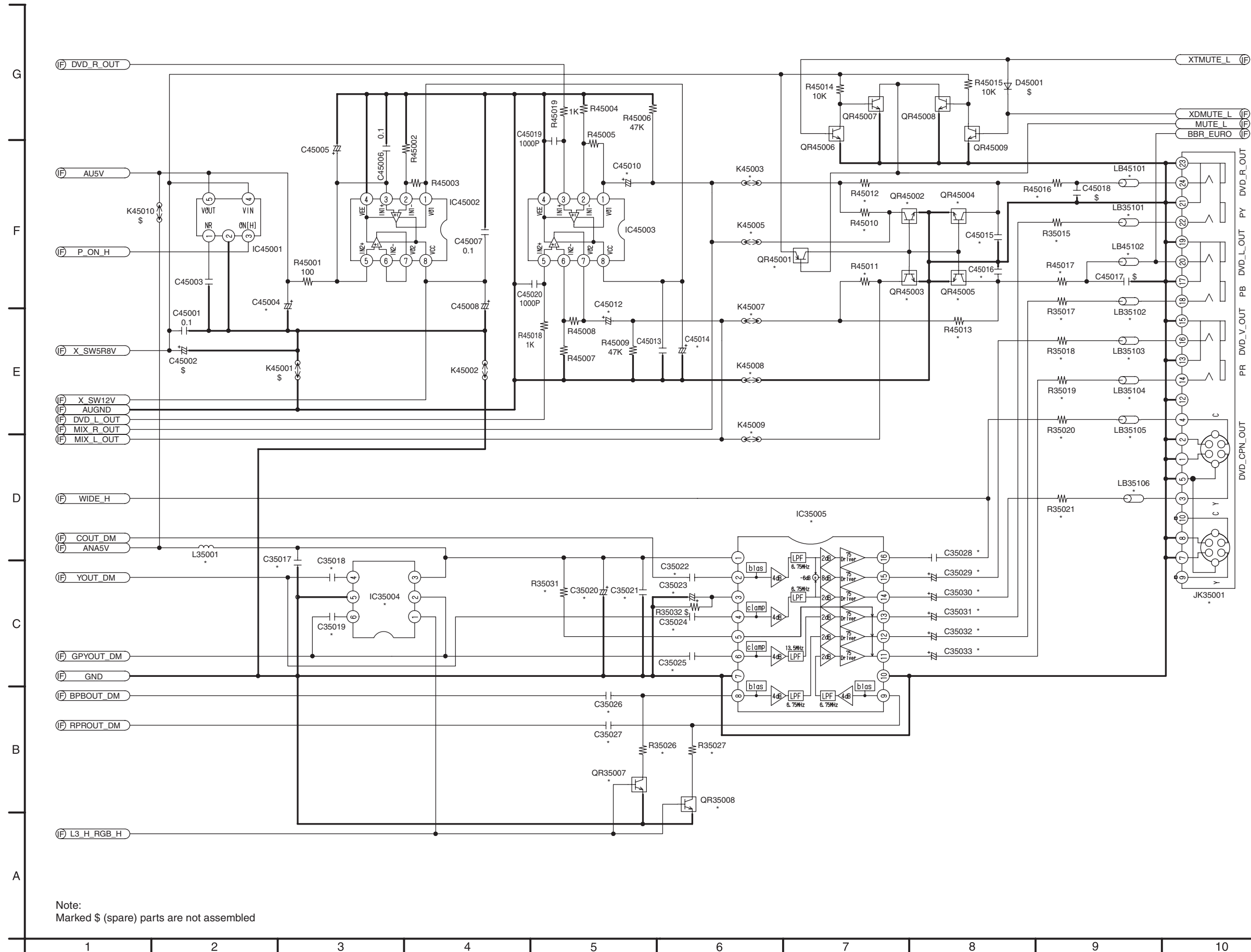
24.1. POWER SUPPLY





Note:
Marked \$ (spare) parts are not assembled

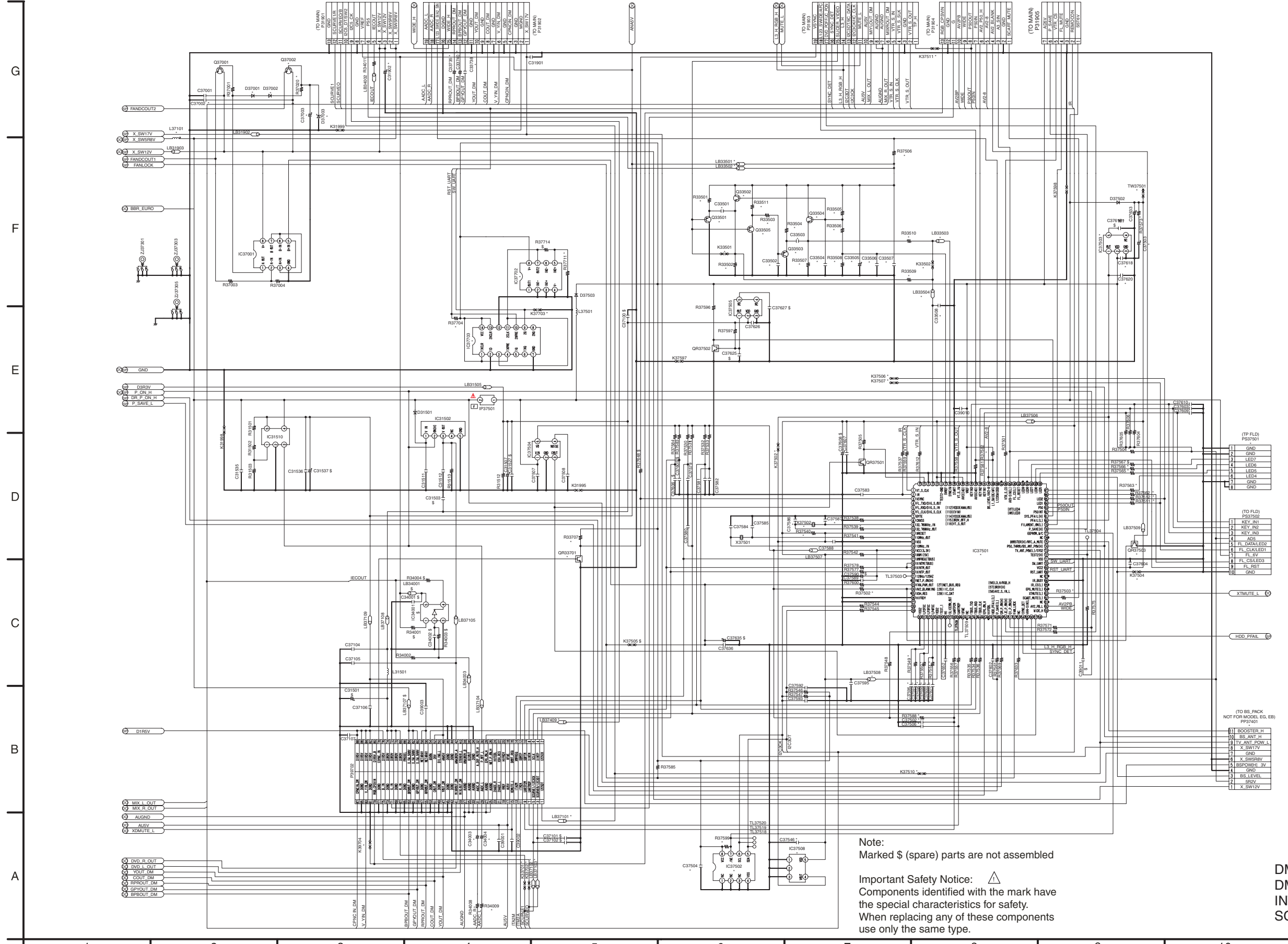
24.2. DVD OUTPUT




Note:
Marked \$ (spare) parts are not assembled

DMR-EH80VEG
DMR-EH80VEB
DVD OUTPUT
SCHEMATIC DIAGRAM

24.3. INTERFACE



Note:
Marked \$ (spare) parts are not assembled

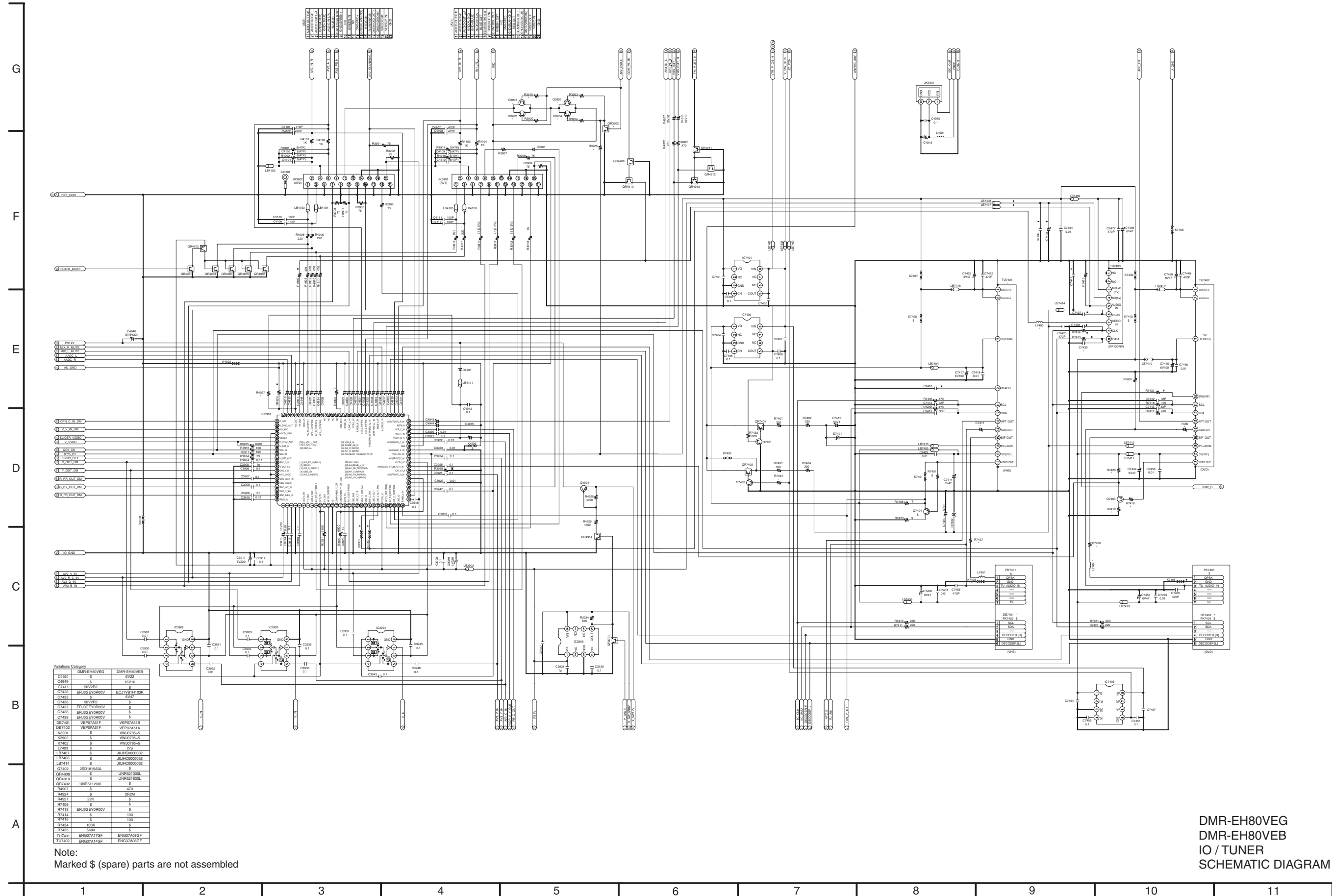
Important Safety Notice: 
Components identified with the mark have the special characteristics for safety. When replacing any of these components use only the same type.

**DMR-EH80VEG
DMR-EH80VEB
INTERFACE
SCHEMATIC DIAGRAM**

G
F
E
D
C
B
A

1 2 3 4 5 6 7 8 9 10 11

24.4. IO / TUNER

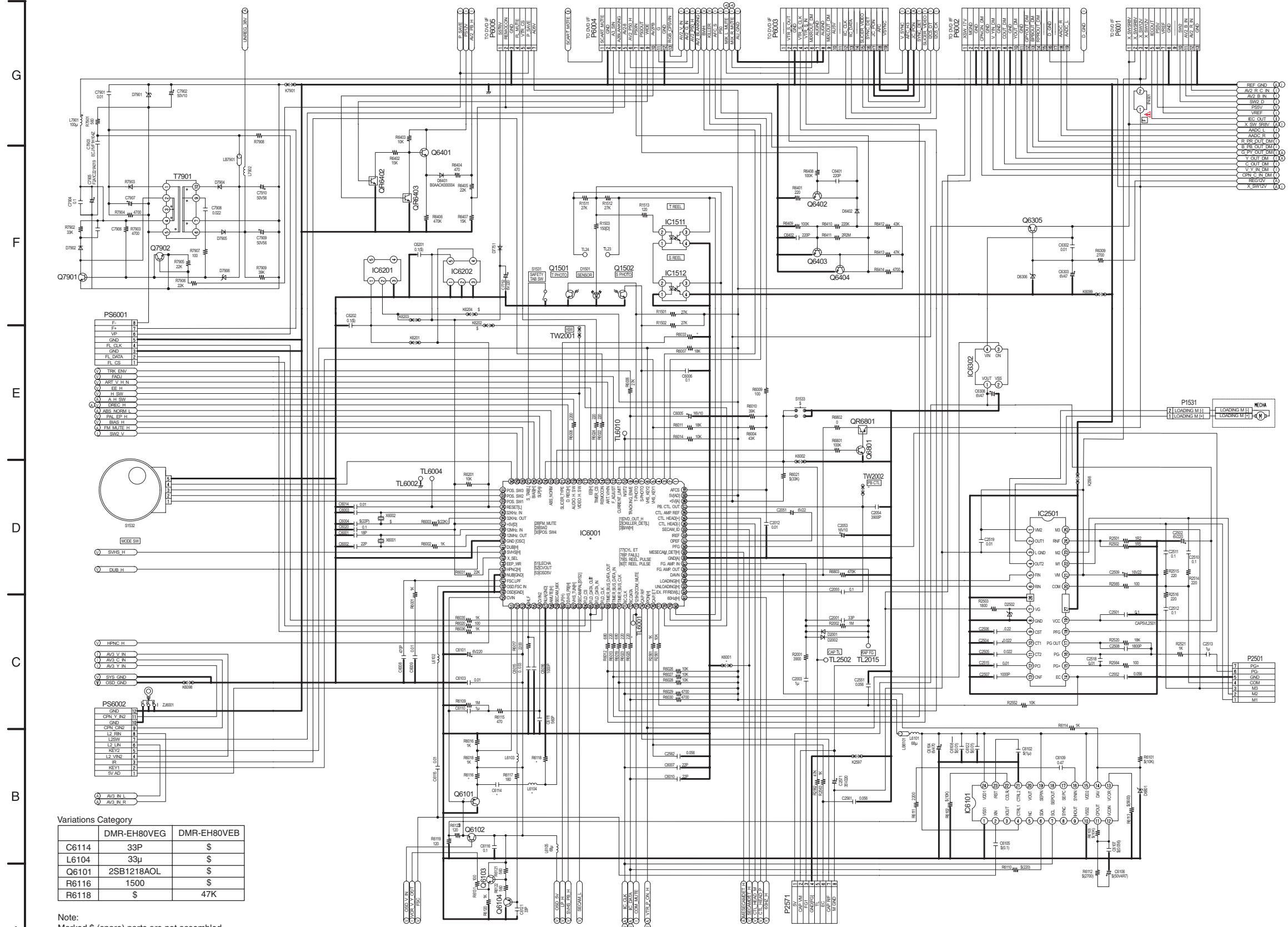


Part No.	DMR-EH80VEG	DMR-EH80VEB
C4001	100K	100K
C4002	100K	100K
C4003	100K	100K
C4004	100K	100K
C4005	100K	100K
C4006	100K	100K
C4007	100K	100K
C4008	100K	100K
C4009	100K	100K
C4010	100K	100K
C4011	100K	100K
C4012	100K	100K
C4013	100K	100K
C4014	100K	100K
C4015	100K	100K
C4016	100K	100K
C4017	100K	100K
C4018	100K	100K
C4019	100K	100K
C4020	100K	100K
C4021	100K	100K
C4022	100K	100K
C4023	100K	100K
C4024	100K	100K
C4025	100K	100K
C4026	100K	100K
C4027	100K	100K
C4028	100K	100K
C4029	100K	100K
C4030	100K	100K
C4031	100K	100K
C4032	100K	100K
C4033	100K	100K
C4034	100K	100K
C4035	100K	100K
C4036	100K	100K
C4037	100K	100K
C4038	100K	100K
C4039	100K	100K
C4040	100K	100K
C4041	100K	100K
C4042	100K	100K
C4043	100K	100K
C4044	100K	100K
C4045	100K	100K
C4046	100K	100K
C4047	100K	100K
C4048	100K	100K
C4049	100K	100K
C4050	100K	100K
R4001	10K	10K
R4002	10K	10K
R4003	10K	10K
R4004	10K	10K
R4005	10K	10K
R4006	10K	10K
R4007	10K	10K
R4008	10K	10K
R4009	10K	10K
R4010	10K	10K
R4011	10K	10K
R4012	10K	10K
R4013	10K	10K
R4014	10K	10K
R4015	10K	10K
R4016	10K	10K
R4017	10K	10K
R4018	10K	10K
R4019	10K	10K
R4020	10K	10K
R4021	10K	10K
R4022	10K	10K
R4023	10K	10K
R4024	10K	10K
R4025	10K	10K
R4026	10K	10K
R4027	10K	10K
R4028	10K	10K
R4029	10K	10K
R4030	10K	10K
R4031	10K	10K
R4032	10K	10K
R4033	10K	10K
R4034	10K	10K
R4035	10K	10K
R4036	10K	10K
R4037	10K	10K
R4038	10K	10K
R4039	10K	10K
R4040	10K	10K
R4041	10K	10K
R4042	10K	10K
R4043	10K	10K
R4044	10K	10K
R4045	10K	10K
R4046	10K	10K
R4047	10K	10K
R4048	10K	10K
R4049	10K	10K
R4050	10K	10K
L4001	100UH	100UH
L4002	100UH	100UH
L4003	100UH	100UH
L4004	100UH	100UH
L4005	100UH	100UH
L4006	100UH	100UH
L4007	100UH	100UH
L4008	100UH	100UH
L4009	100UH	100UH
L4010	100UH	100UH
L4011	100UH	100UH
L4012	100UH	100UH
L4013	100UH	100UH
L4014	100UH	100UH
L4015	100UH	100UH
L4016	100UH	100UH
L4017	100UH	100UH
L4018	100UH	100UH
L4019	100UH	100UH
L4020	100UH	100UH
L4021	100UH	100UH
L4022	100UH	100UH
L4023	100UH	100UH
L4024	100UH	100UH
L4025	100UH	100UH
L4026	100UH	100UH
L4027	100UH	100UH
L4028	100UH	100UH
L4029	100UH	100UH
L4030	100UH	100UH
L4031	100UH	100UH
L4032	100UH	100UH
L4033	100UH	100UH
L4034	100UH	100UH
L4035	100UH	100UH
L4036	100UH	100UH
L4037	100UH	100UH
L4038	100UH	100UH
L4039	100UH	100UH
L4040	100UH	100UH
L4041	100UH	100UH
L4042	100UH	100UH
L4043	100UH	100UH
L4044	100UH	100UH
L4045	100UH	100UH
L4046	100UH	100UH
L4047	100UH	100UH
L4048	100UH	100UH
L4049	100UH	100UH
L4050	100UH	100UH

Note:
Marked \$ (spare) parts are not assembled


DMR-EH80VEG
DMR-EH80VEB
IO / TUNER
SCHEMATIC DIAGRAM

24.5. SYSCON / SERVO / TIMER MAIN



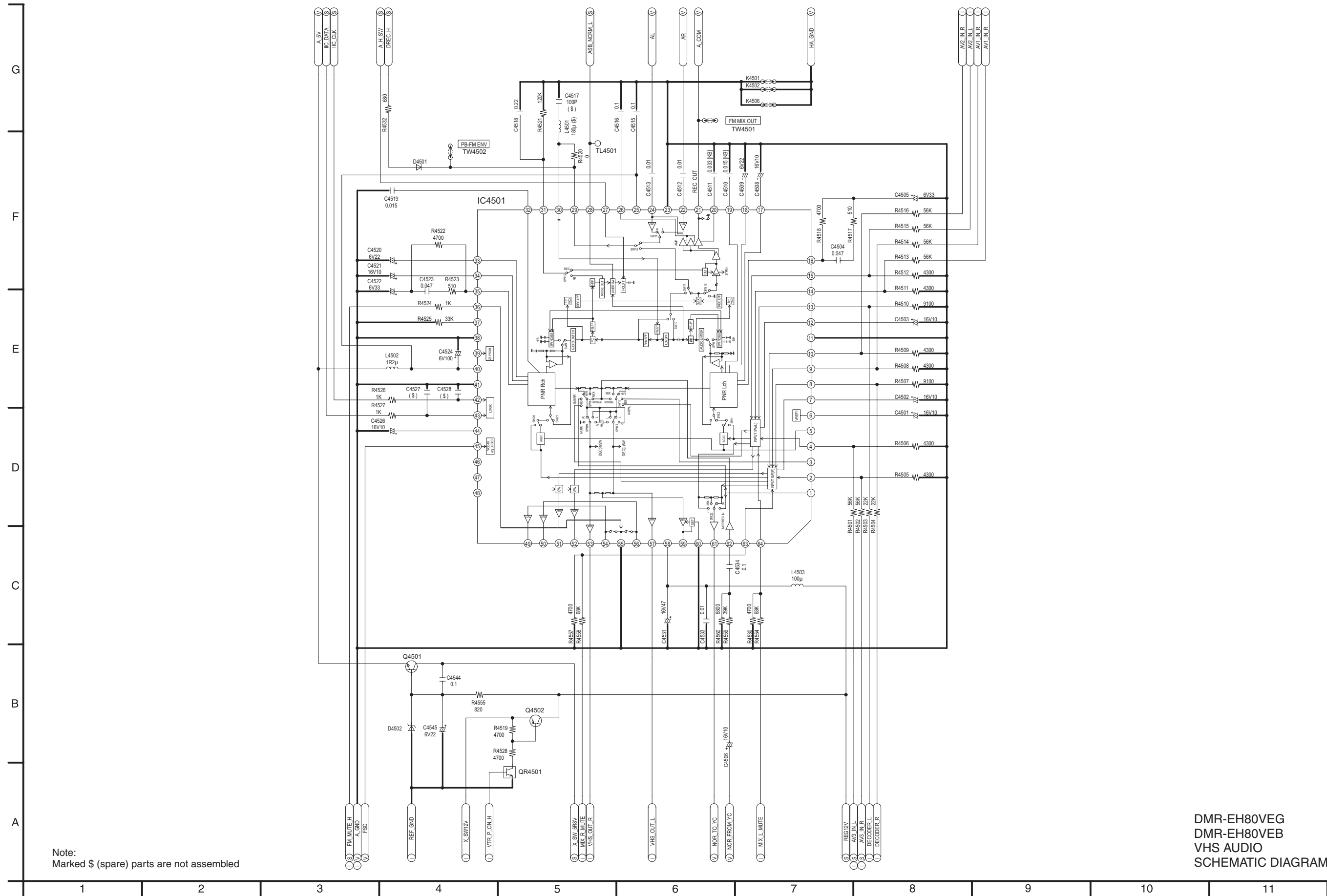
Variations Category

	DMR-EH80VEG	DMR-EH80VEB
C6114	33P	\$
L6104	33μ	\$
Q6101	2SB1218AOL	\$
R6116	1500	\$
R6118	\$	47K

Note:
 Marked \$ (spare) parts are not assembled
 Important Safety Notice: 
 Components identified with the mark have the special characteristics for safety.
 When replacing any of these components use only the same type.

DMR-EH80VEG
 DMR-EH80VEB
 SYSCON / SERVO / TIMER
 SCHEMATIC DIAGRAM

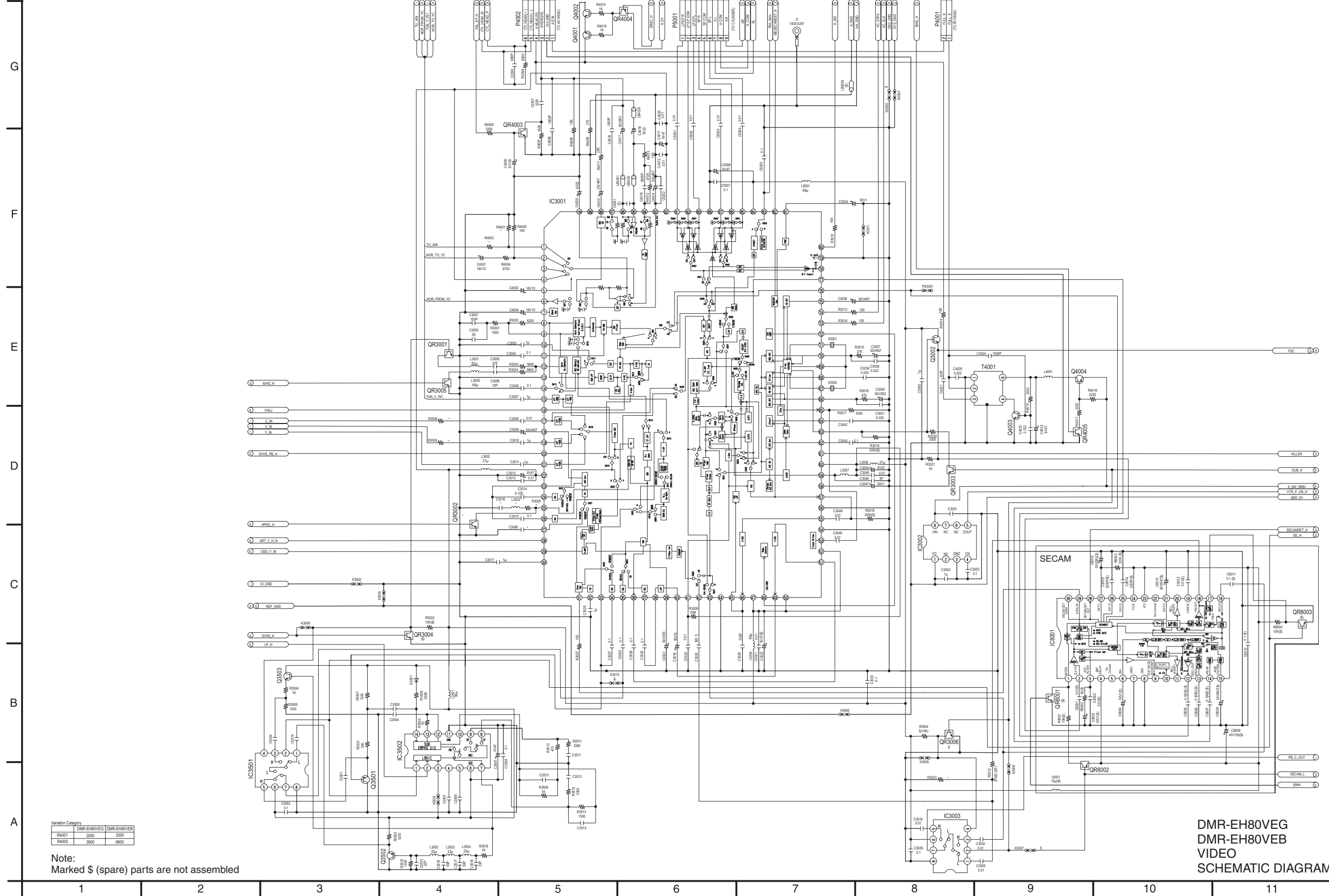
24.6. VHS AUDIO



Note: Marked \$ (spare) parts are not assembled

DMR-EH80VEG
DMR-EH80VEB
VHS AUDIO
SCHEMATIC DIAGRAM

24.7. VIDEO



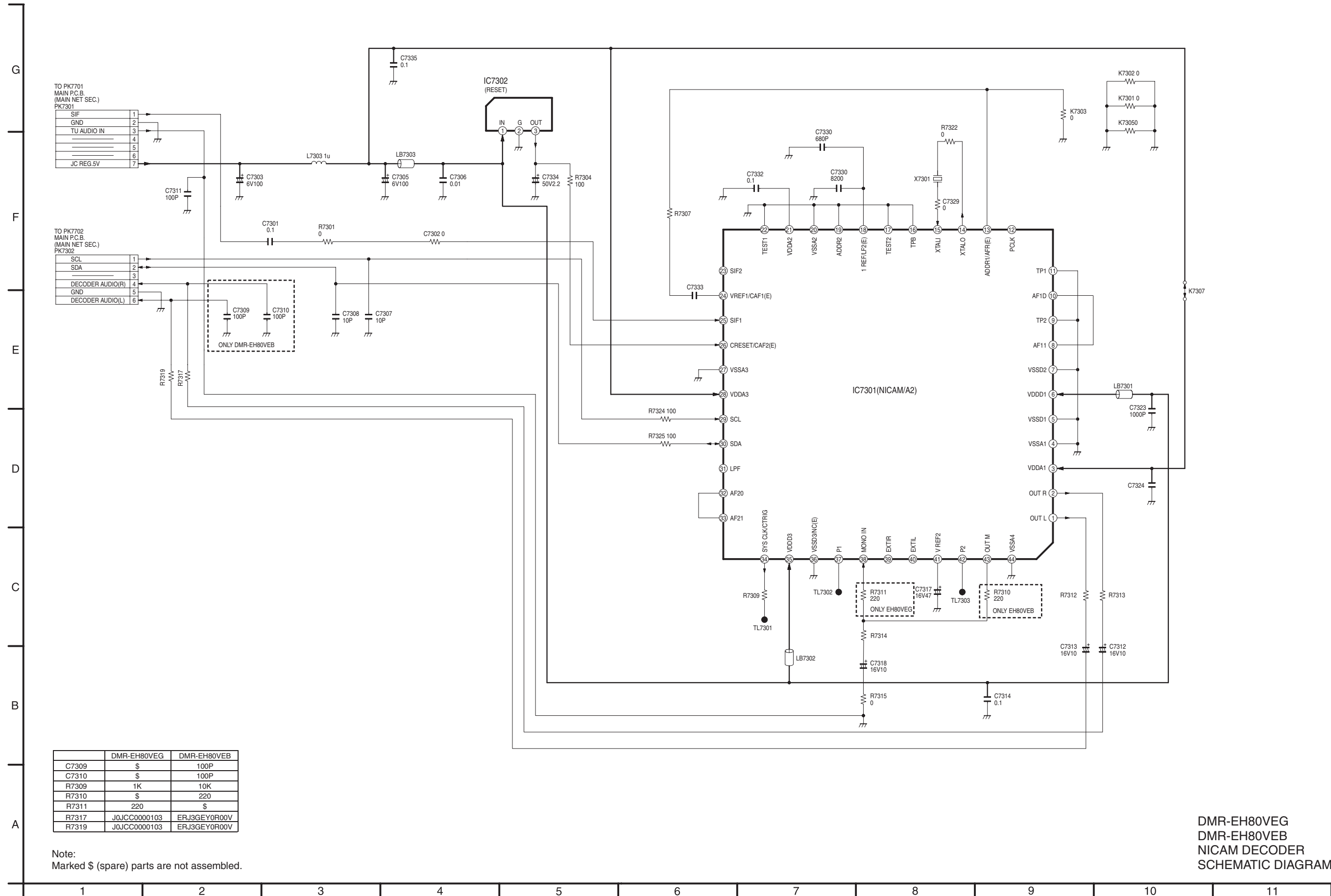
Variation Category

Part No.	DMR-EH80VEG	DMR-EH80VEB
R4001	2000	3300
R4003	3800	6800

Note:
Marked \$ (spare) parts are not assembled

DMR-EH80VEG
DMR-EH80VEB
VIDEO
SCHEMATIC DIAGRAM

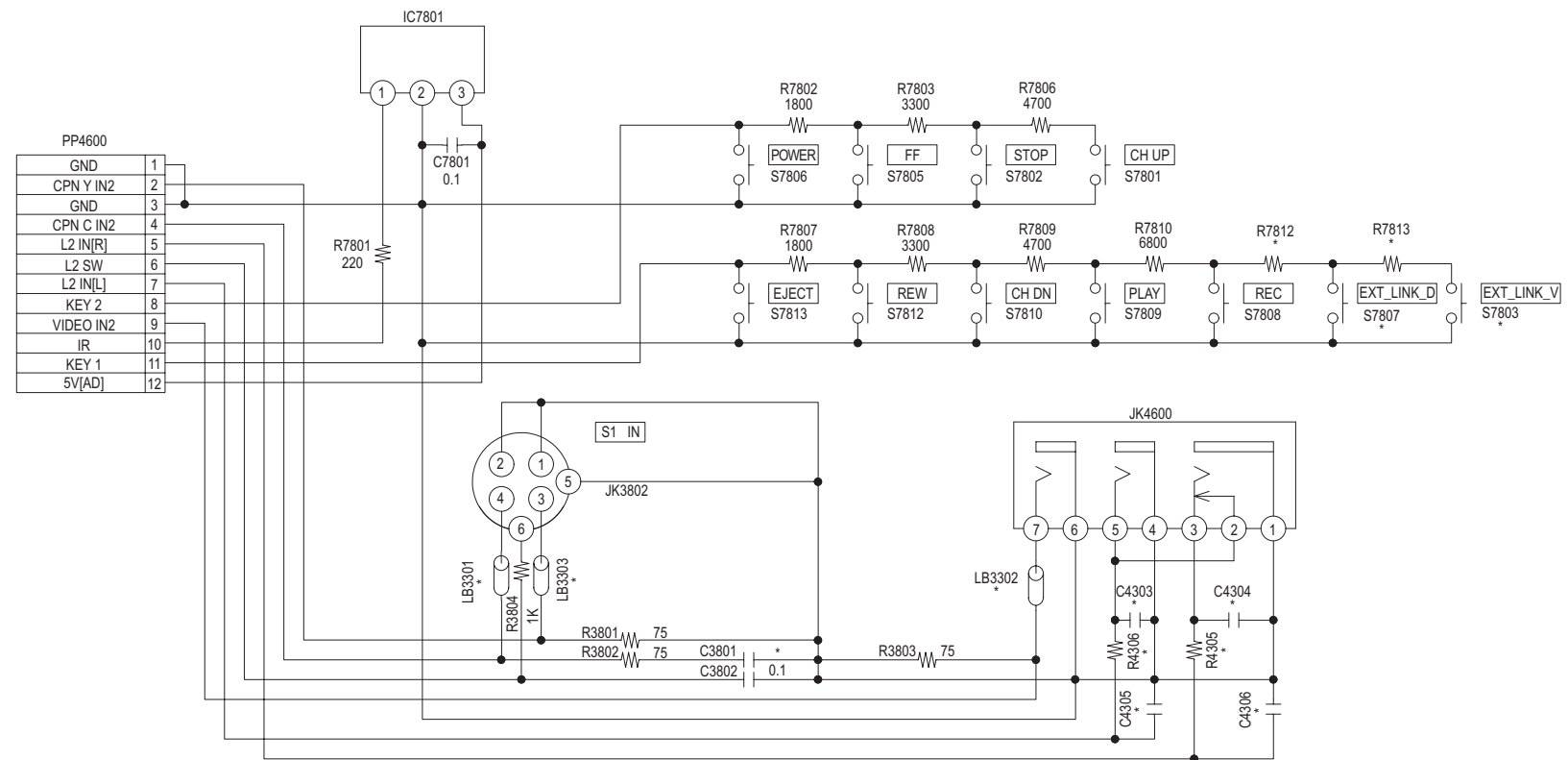
24.8. NICAM DECODER



DMR-EH80VEG
DMR-EH80VEB
NICAM DECODER
SCHEMATIC DIAGRAM

24.9. FRONT JACK

G
F
E
D
C
B
A

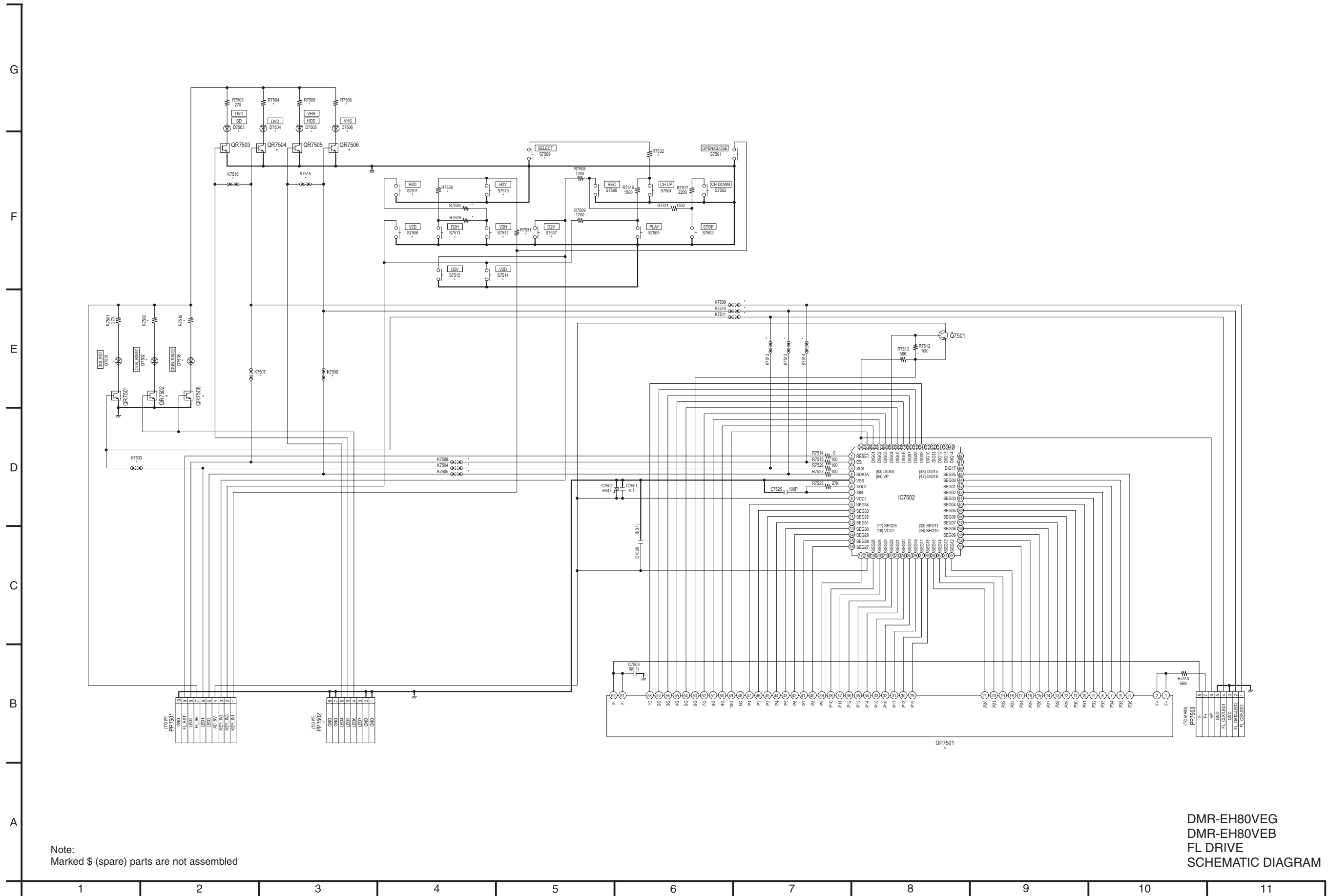


Note:
Marked \$ (spare) parts are not assembled

DMR-EH80VEG
DMR-EH80VEB
FRONT JACK
SCHEMATIC DIAGRAM

1 2 3 4 5 6 7 8 9 10 11

24.10. FL DRIVE

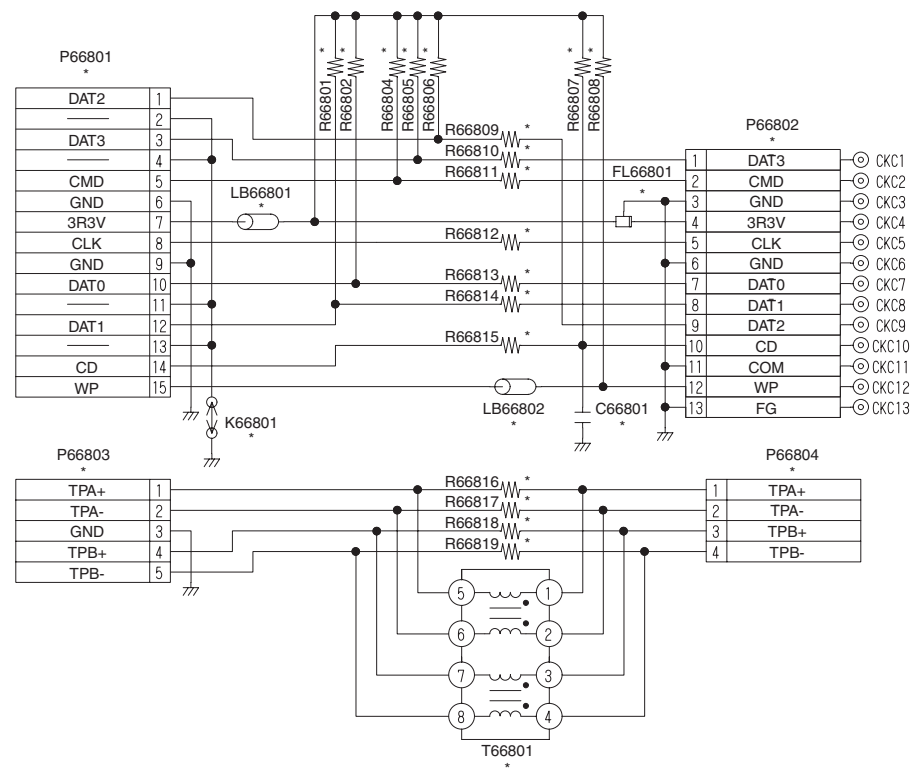


Note:
Marked \$ (spare) parts are not assembled

DMR-EH80VEG
DMR-EH80VEB
FL DRIVE
SCHEMATIC DIAGRAM

24.11. SD CARD / DV IN

G
F
E
D
C
B
A

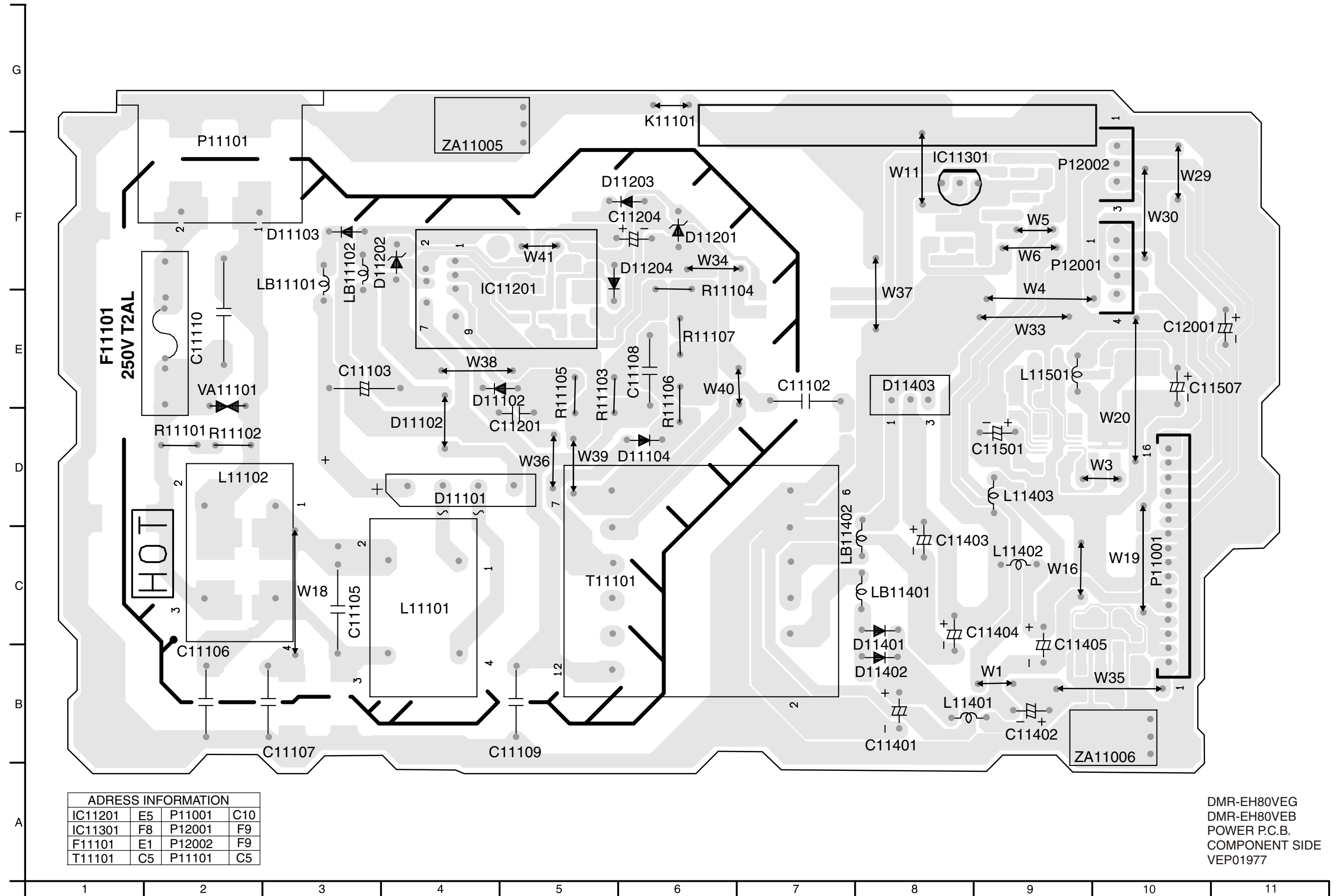


Note:
Marked \$ (spare) parts are not assembled

DMR-EH80VEG
DMR-EH80VEB
SD CARD / DV IN
SCHEMATIC DIAGRAM

25 PRINTED CIRCUIT BOARD

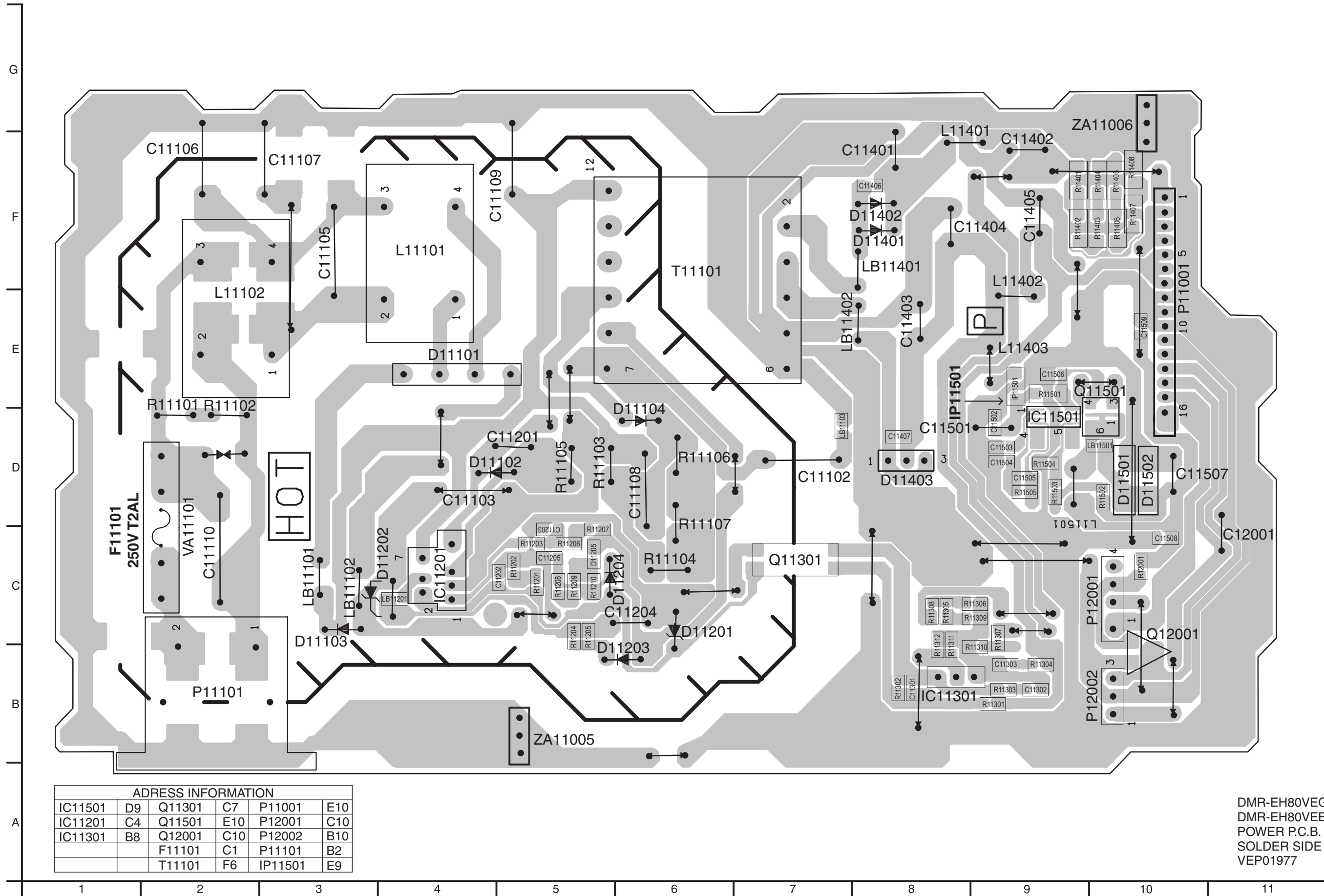
25.1. POWER P.C.B. (COMPONENT SIDE)



ADDRESS INFORMATION			
IC11201	E5	P11001	C10
IC11301	F8	P12001	F9
F11101	E1	P12002	F9
T11101	C5	P11101	C5

DMR-EH80VEG
 DMR-EH80VEB
 POWER P.C.B.
 COMPONENT SIDE
 VEP01977

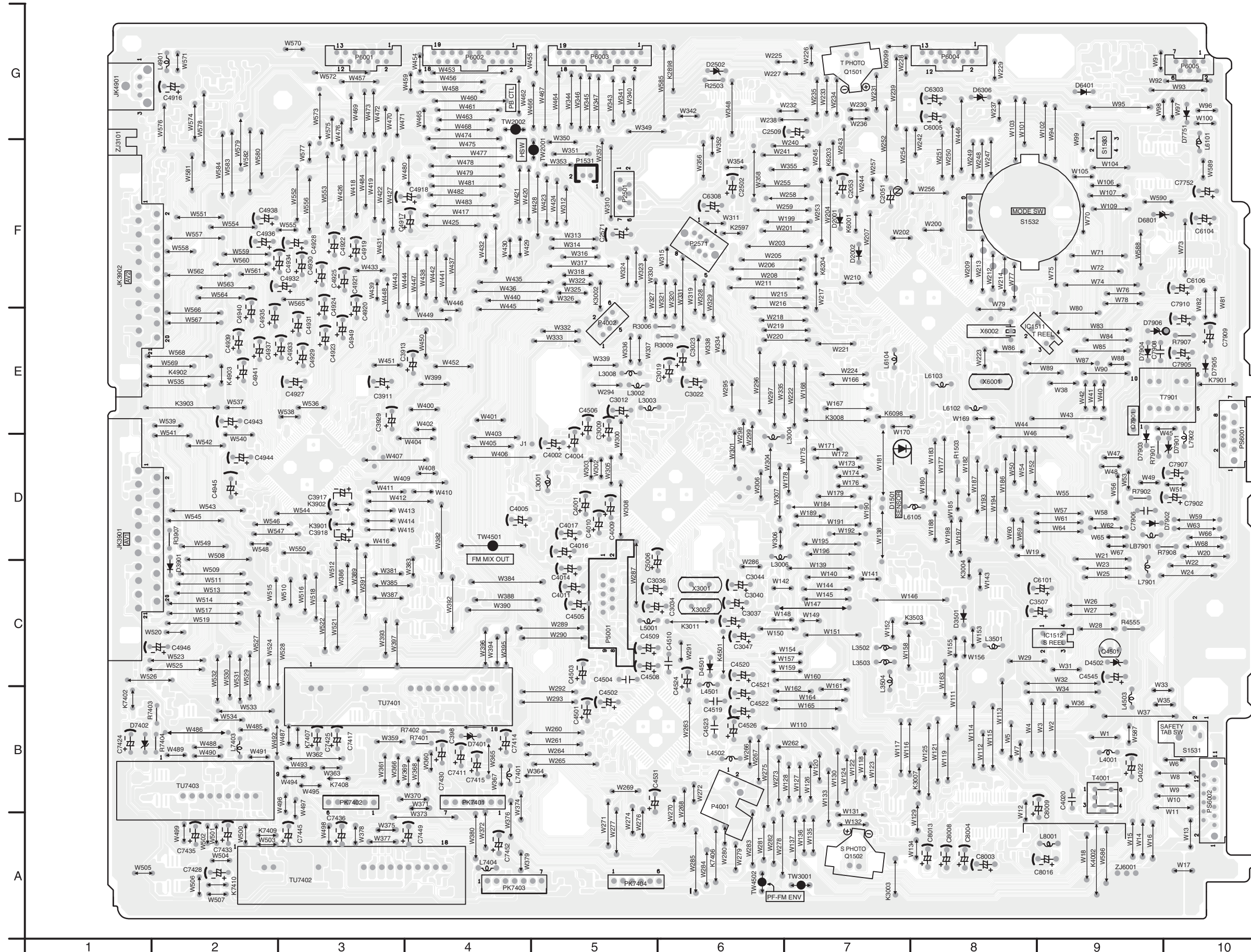
25.2. POWER P.C.B. (SOLDER SIDE)



ADDRESS INFORMATION					
IC11501	D9	Q11301	C7	P11001	E10
IC11201	C4	Q11501	E10	P12001	C10
IC11301	B8	Q12001	C10	P12002	B10
		F11101	C1	P11101	B2
		T11101	F6	IP11501	E9

DMR-EH80VEG
 DMR-EH80VEB
 POWER P.C.B.
 SOLDER SIDE
 VEP01977

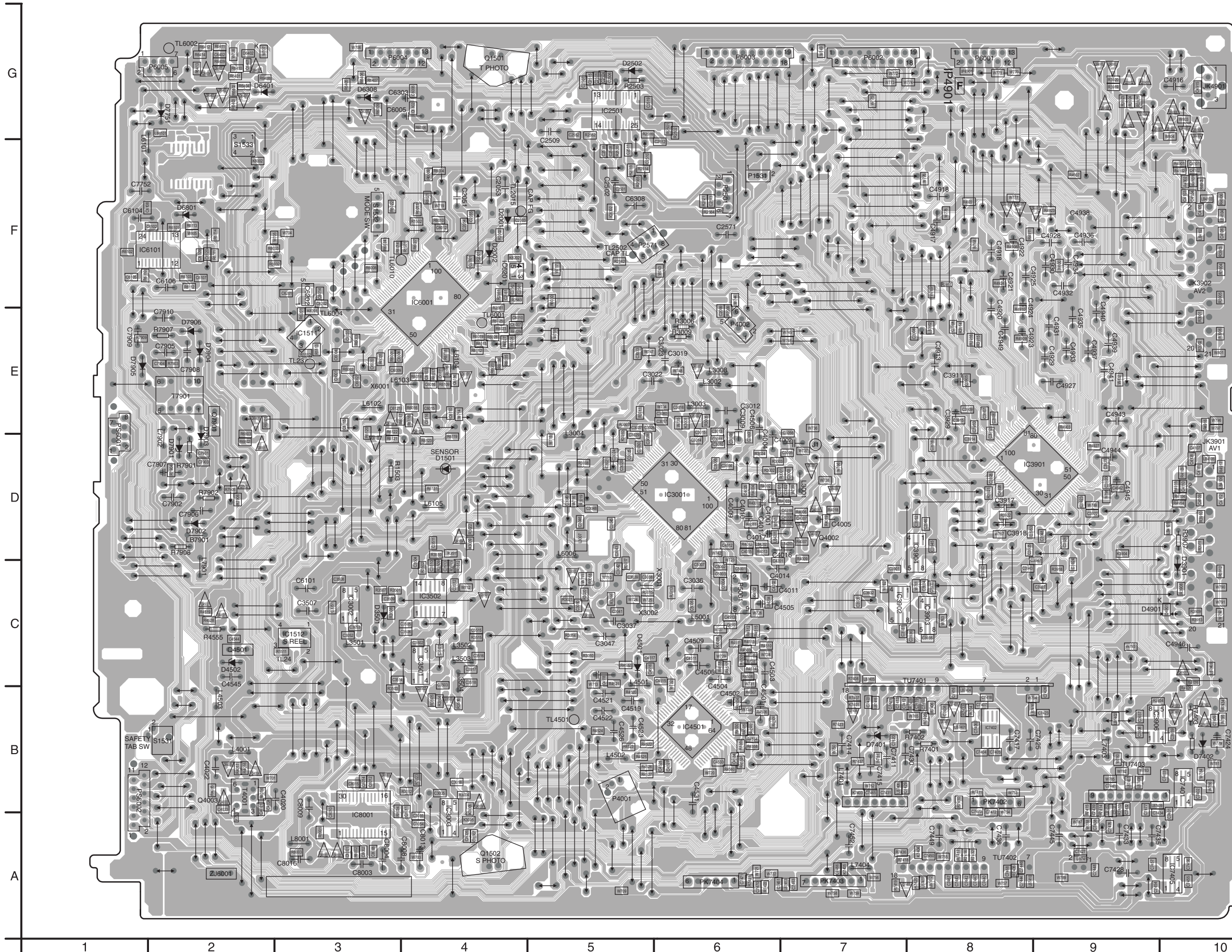
25.3. MAIN P.C.B. (COMPONENT SIDE)



ADDRESS INFORMATION			
IC1511	E9	T4001	B12
IC1512	C10	T7901	E10
Q1501	G7	TU7402	A3
Q1502	A7	TU7403	B2
Q4501	C9	TW2001	F5
Q7901	E9	TW2002	G5
		TW3001	A7
P1531	F5	TW4501	D4
P2501	F5	TW4502	A6
P2571	F6		
P4001	A6		
P4002	E5		
P5001	C5		
P6001	G3		
P6002	G4		
P6003	G5		
P6004	G8		
P6005	G10		
PK7401	B4		
PK7402	B3		
PK7403	A4		
PK7404	A5		
PS6001	D10		
PS6002	B10		

DMR-EH80VEG:
 VEP06F87D
 DMR-ES30VEB:
 VEP06F87C
 MAIN PCB
 COMPONENT SIDE

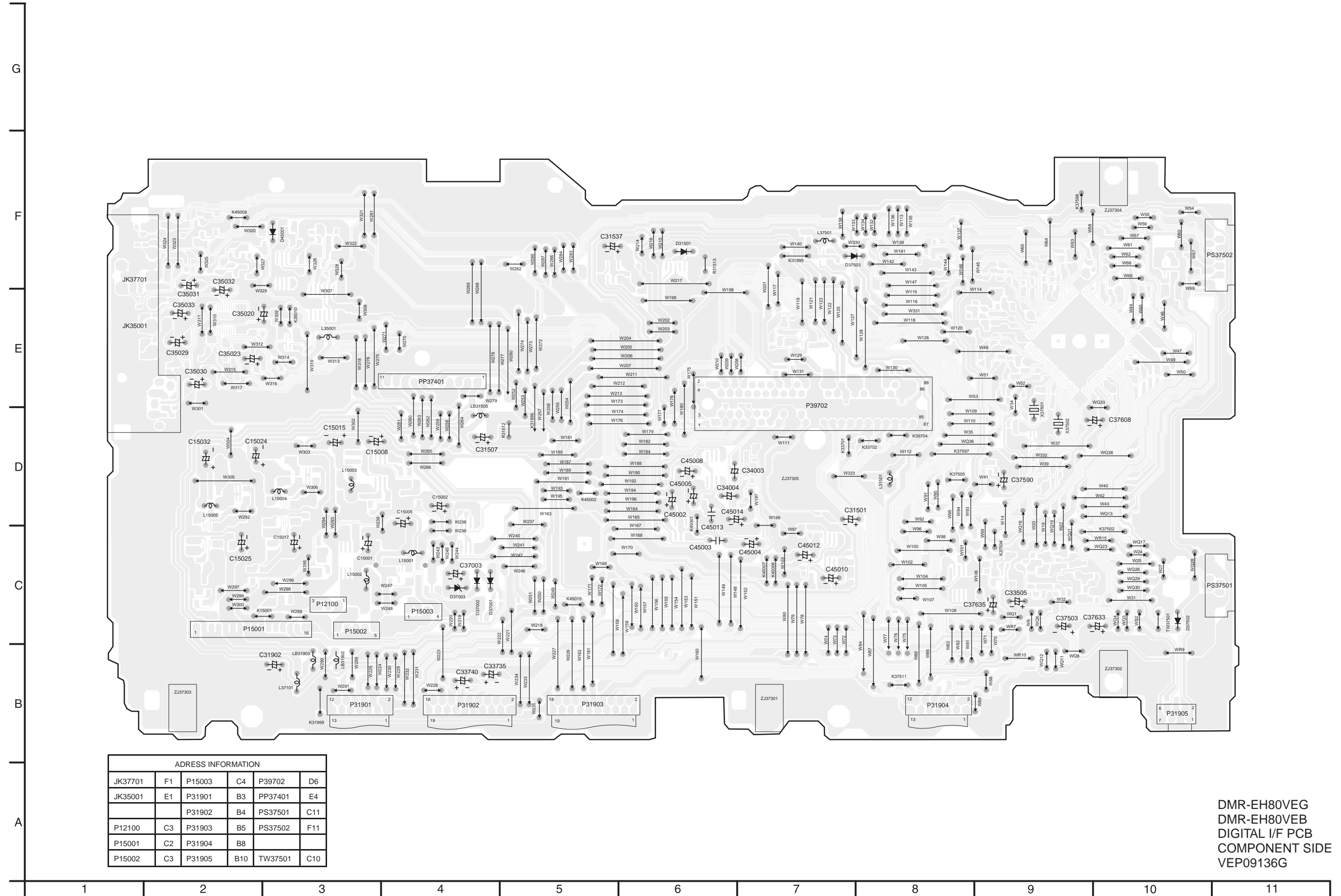
25.4. MAIN P.C.B. (SOLDER SIDE)



ADDRESS INFORMATION			
IC1511	E3	QR3001	D7
IC1512	C3	QR3002	E6
IC2501	G5	QR3003	C5
IC3001	D6	QR3004	D4
IC3002	C3	QR3005	E6
IC3501	C4	QR3006	B4
IC3502	C4	QR3901	B10
IC3901	D9	QR3902	G9
IC3902	C8	QR4003	D7
IC3903	C8	QR4004	D7
IC3904	C8	QR4005	B2
IC3906	B10	QR4501	C2
IC4501	B6	QR4901	G9
IC6001	F4	QR4902	G9
IC6101	F1	QR4903	G10
IC6201	F4	QR4904	G10
IC6202	F3	QR4905	G10
IC7401	B10	QR4906	G10
IC7405	A10	QR4908	G9
IC8001	A3	QR4910	G10
		QR4911	F9
Q1501	G4	QR4912	F10
Q1502	A4	QR4913	F9
Q3002	D5	QR4914	C10
Q3501	C5	QR6402	G2
Q3502	B4	QR6403	G2
Q3503	B4	QR6801	D2
Q3901	G9	QR7402	C10
Q3902	G9	QR8001	A3
Q3903	G9	QR8002	A3
Q3904	G9	QR8003	B3
Q4001	D7		
Q4002	D7	P1531	F6
Q4003	B2	P2501	F6
Q4004	B2	P2571	F5
Q4501	C2	P4001	B5
Q4502	C2	P4002	E6
Q4901	C10	P5001	G6
Q6101	E4	P6001	G8
Q6102	E4	P6002	G7
Q6103	D3	P6003	G6
Q6104	D3	P6004	G3
Q6305	G3	P6005	G2
Q6401	G2	PK7402	A8
Q6402	G3	PK7403	A7
Q6403	G2	PK7404	A6
Q6404	G2	PS6001	D1
Q6801	E2	PS6002	B1
Q7401	B8		
Q7402	B10	T4001	B2
Q7403	A8	T7901	E2
Q7404	B7	TL23	E2
Q7901	E2	TL24	C2
Q7902	D2	TL2015	F4
		TL2502	F5
IP4901	G8	TL4501	B5
TU7401	B8	TL6001	E4
TU7402	A8	TL6002	G2
TU7403	B9	TL6004	E3
		TL6010	F3

DMR-EH80VEG:
VEP06F87C
DMR-ES30VEB:
VEP06F87D
MAIN PCB
SOLDER SIDE

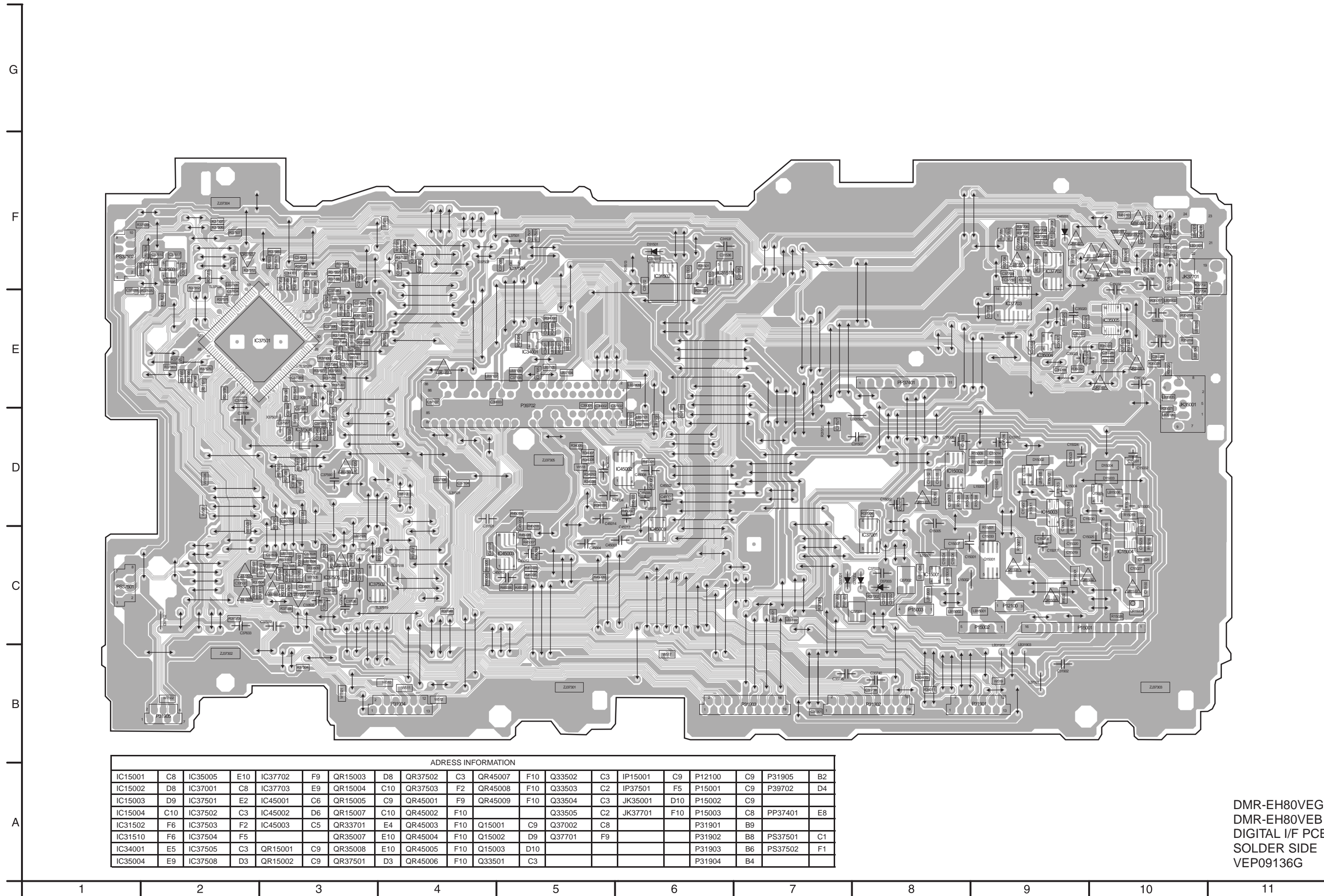
25.5. DIGITAL I/F P.C.B. (COMPONENT SIDE)



ADDRESS INFORMATION					
JK37701	F1	P15003	C4	P39702	D6
JK35001	E1	P31901	B3	PP37401	E4
		P31902	B4	PS37501	C11
P12100	C3	P31903	B5	PS37502	F11
P15001	C2	P31904	B8		
P15002	C3	P31905	B10	TW37501	C10

DMR-EH80VEG
 DMR-EH80VEB
 DIGITAL I/F PCB
 COMPONENT SIDE
 VEP09136G

25.6. DIGITAL I/F P.C.B. (SOLDER SIDE)



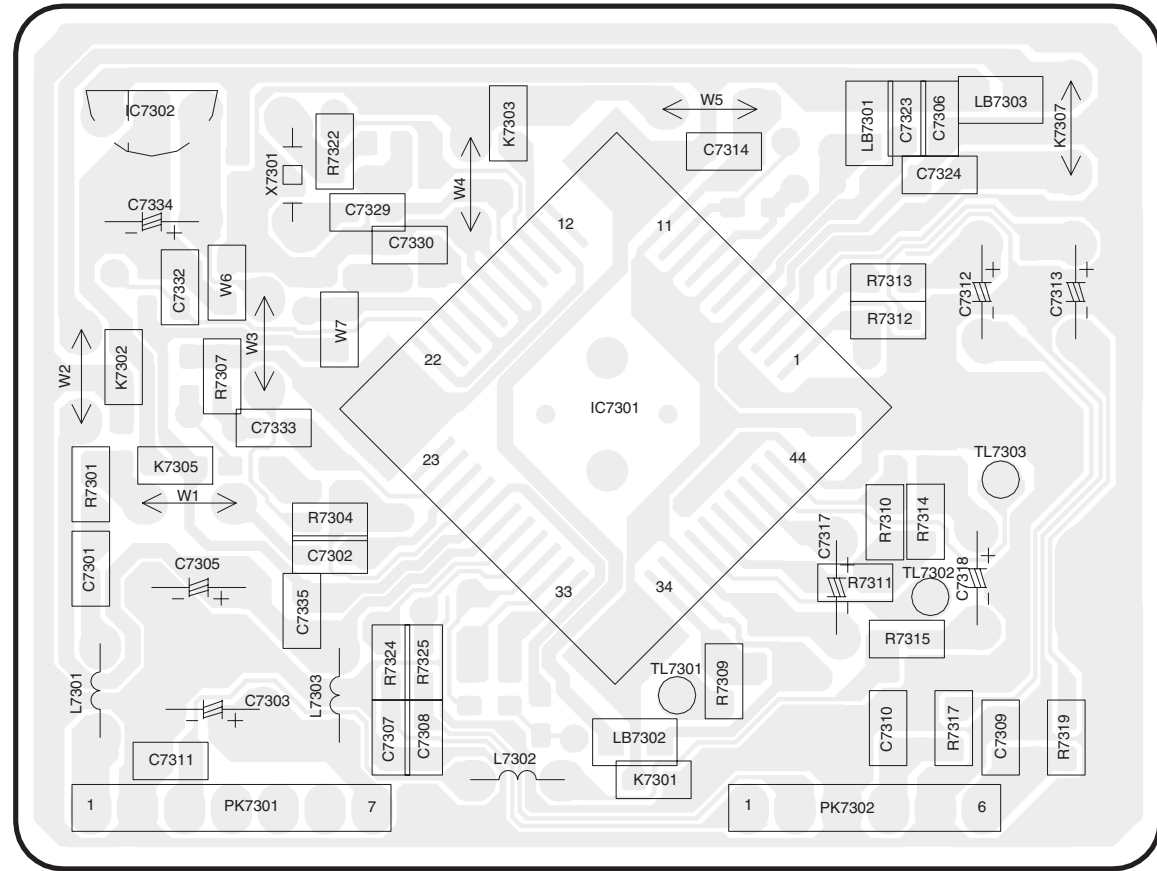
ADDRESS INFORMATION																			
IC15001	C8	IC35005	E10	IC37702	F9	QR15003	D8	QR37502	C3	QR45007	F10	Q33502	C3	IP15001	C9	P12100	C9	P31905	B2
IC15002	D8	IC37001	C8	IC37703	E9	QR15004	C10	QR37503	F2	QR45008	F10	Q33503	C2	IP37501	F5	P15001	C9	P39702	D4
IC15003	D9	IC37501	E2	IC45001	C6	QR15005	C9	QR45001	F9	QR45009	F10	Q33504	C3	JK35001	D10	P15002	C9		
IC15004	C10	IC37502	C3	IC45002	D6	QR15007	C10	QR45002	F10			Q33505	C2	JK37701	F10	P15003	C8	PP37401	E8
IC31502	F6	IC37503	F2	IC45003	C5	QR33701	E4	QR45003	F10	Q15001	C9	Q37002	C8			P31901	B9		
IC31510	F6	IC37504	F5			QR35007	E10	QR45004	F10	Q15002	D9	Q37701	F9			P31902	B8	PS37501	C1
IC34001	E5	IC37505	C3	QR15001	C9	QR35008	E10	QR45005	F10	Q15003	D10					P31903	B6	PS37502	F1
IC35004	E9	IC37508	D3	QR15002	C9	QR37501	D3	QR45006	F10	Q33501	C3					P31904	B4		

DMR-EH80VEG
DMR-EH80VEB
DIGITAL I/F PCB
SOLDER SIDE
VEP09136G

25.7. NICAM DECODER P.C.B. (VEP07A51A / VEP07A51B)

G
F
E
D
C
B
A
1 2 3 4 5 6 7 8 9 10 11

Nicam Decoder P.C.B. (VEP07A51A)

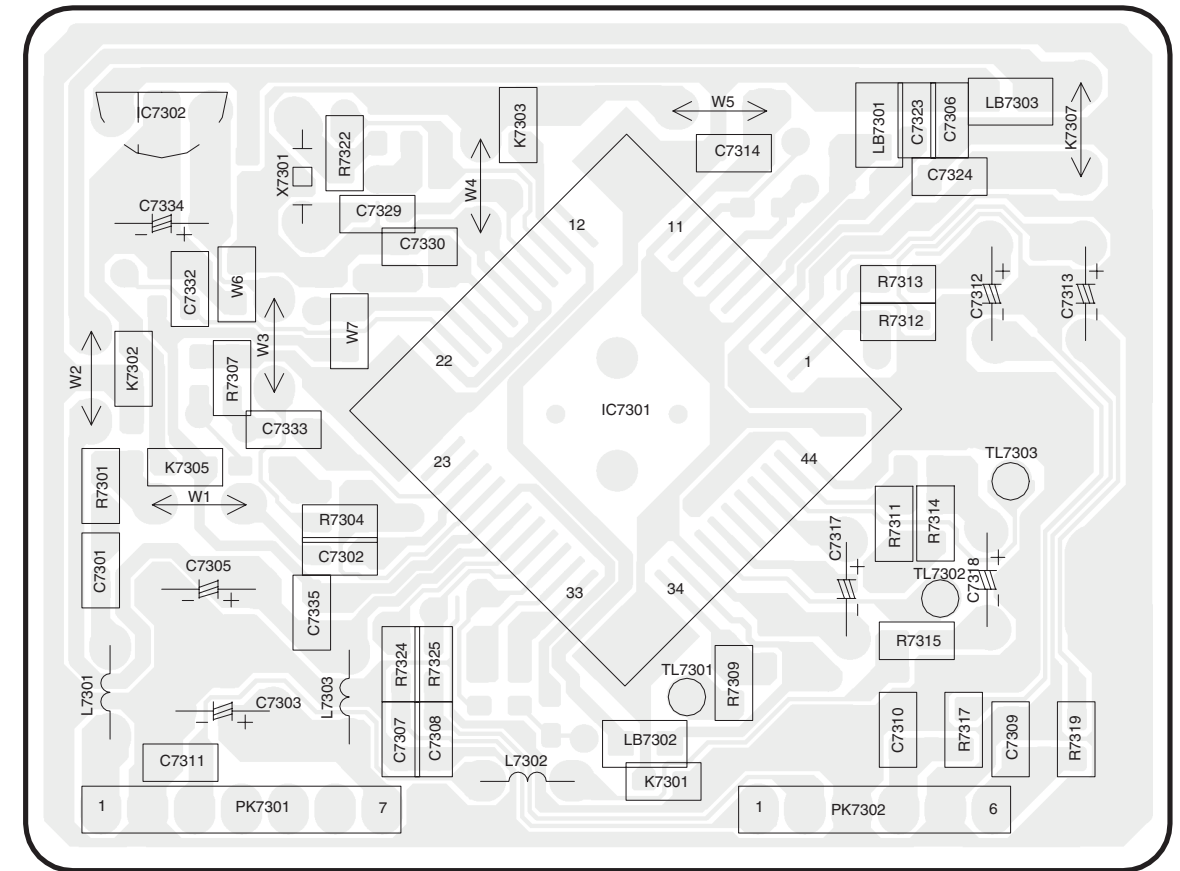


VEP07A51A	
IC7301	D3
IC7302	F1
PK7301	C2
PK7302	C4
TL7301	D3
TL7302	C5
TL7303	D5
X7301	E2

ADDRESS INFORMATION

DMR-EH80VEB
NICAM DECODER PCB
COMPONENT SIDE

Nicam Decoder P.C.B. (VEP07A51B)



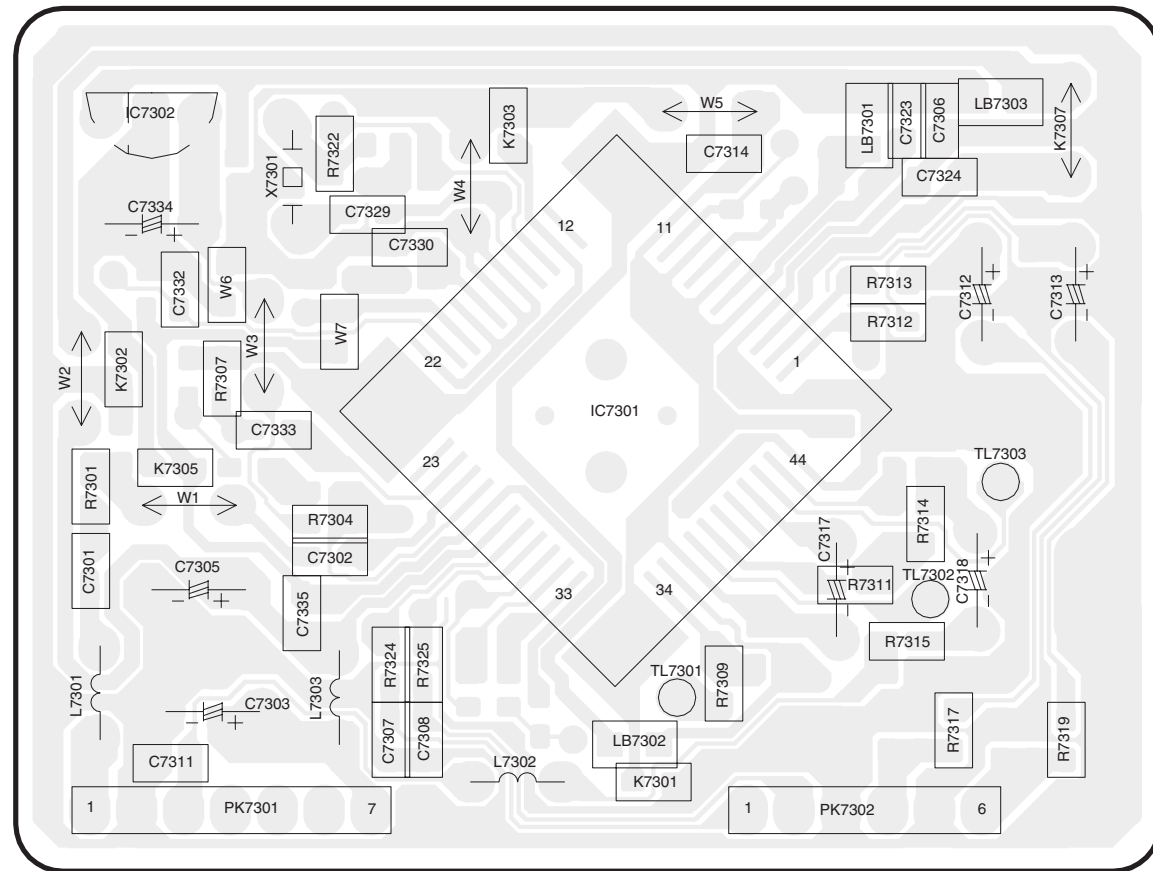
VEP07A51B	
IC7301	D9
IC7302	F7
PK7301	C8
PK7302	C10
TL7301	D9
TL7302	C10
TL7303	D11
X7301	E8

ADDRESS INFORMATION

DMR-EH80VEB
NICAM DECODER PCB
COMPONENT SIDE

25.8. NICAM DECODER P.C.B. (VEP07A51F)

Nicam Decoder P.C.B. (VEP07A51F)

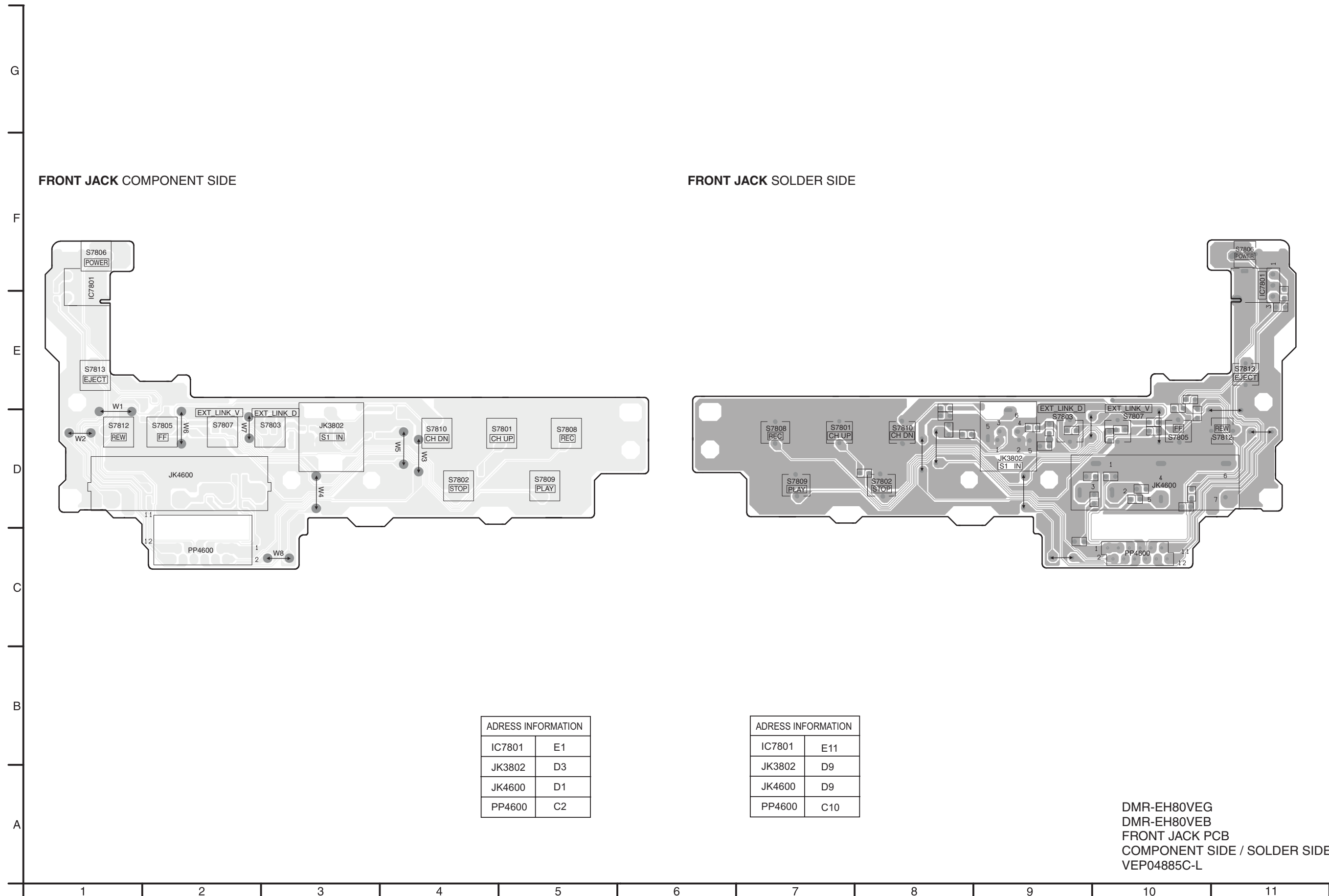


VEP07A51F	
IC7301	D3
IC7302	F1
PK7301	C2
PK7302	C4
TL7301	D3
TL7302	C5
TL7303	D5
X7301	E2

ADDRESS INFORMATION

DMR-EH80VEG
NICAM DECODER PCB
COMPONENT SIDE

25.9. FRONT JACK P.C.B.



FRONT JACK COMPONENT SIDE

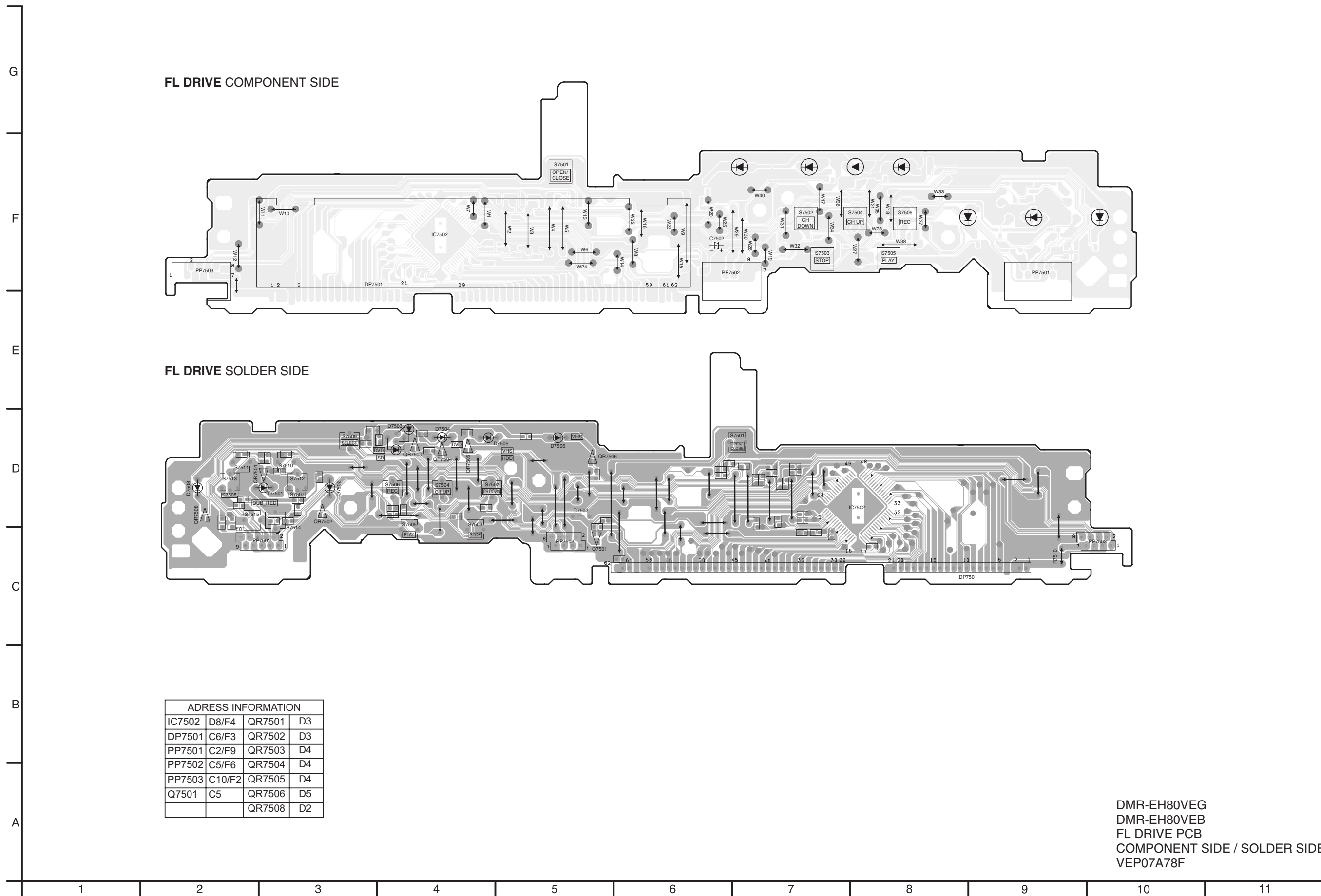
FRONT JACK SOLDER SIDE

ADDRESS INFORMATION	
IC7801	E1
JK3802	D3
JK4600	D1
PP4600	C2

ADDRESS INFORMATION	
IC7801	E11
JK3802	D9
JK4600	D9
PP4600	C10

DMR-EH80VEG
 DMR-EH80VEB
 FRONT JACK PCB
 COMPONENT SIDE / SOLDER SIDE
 VEP04885C-L

25.10. FL DRIVE P.C.B.



FL DRIVE COMPONENT SIDE

FL DRIVE SOLDER SIDE

ADDRESS INFORMATION			
IC7502	D8/F4	QR7501	D3
DP7501	C6/F3	QR7502	D3
PP7501	C2/F9	QR7503	D4
PP7502	C5/F6	QR7504	D4
PP7503	C10/F2	QR7505	D4
Q7501	C5	QR7506	D5
		QR7508	D2

DMR-EH80VEG
 DMR-EH80VEB
 FL DRIVE PCB
 COMPONENT SIDE / SOLDER SIDE
 VEP07A78F

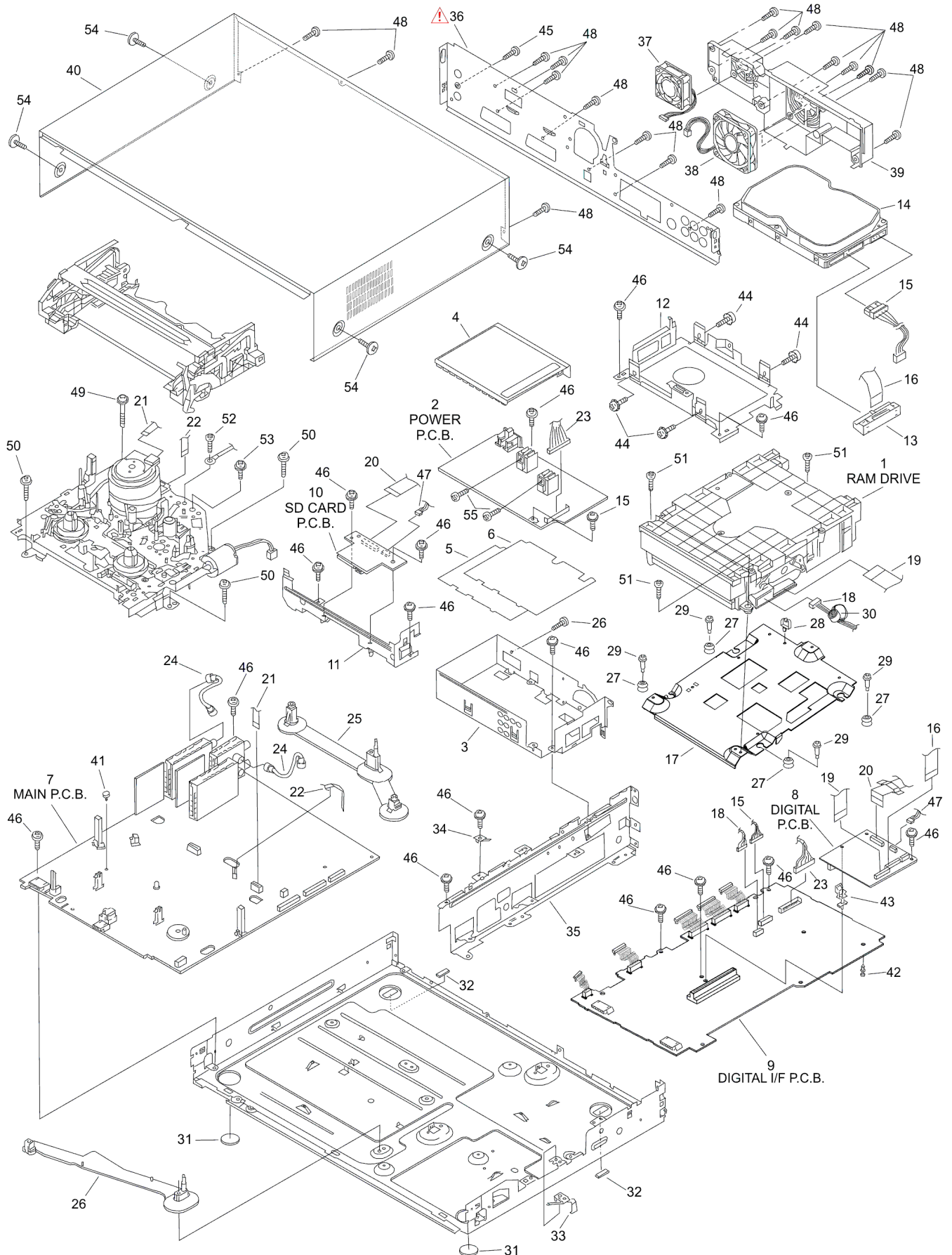
25.11. SD CARD P.C.B.



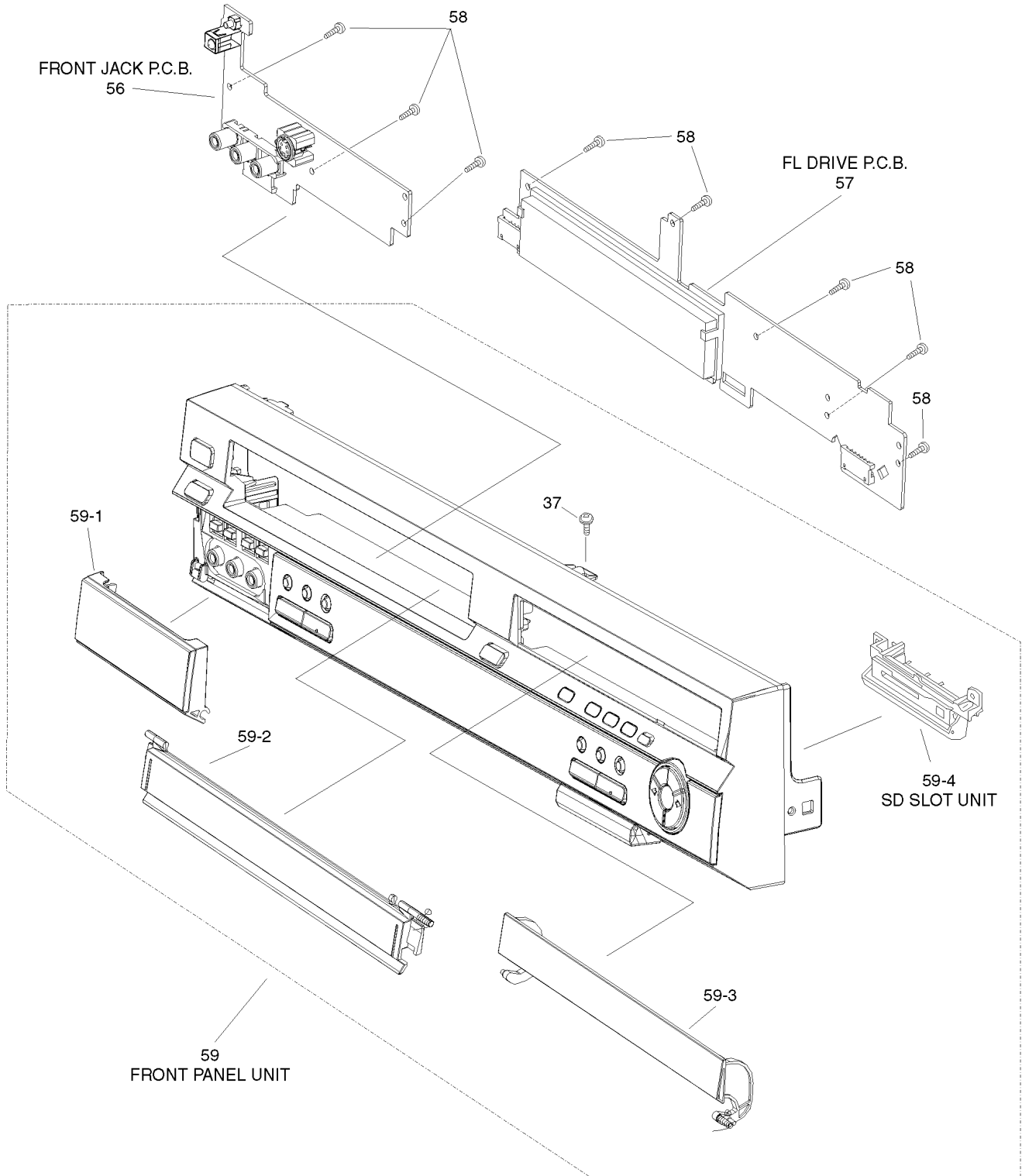
DMR-EH80VEG
 DMR-EH80VEB
 DIGITAL P.C.B./DV-JACK P.C.B.
 COMPONENT SIDE
 VEP001J19B

26 EXPLODED VIEWS

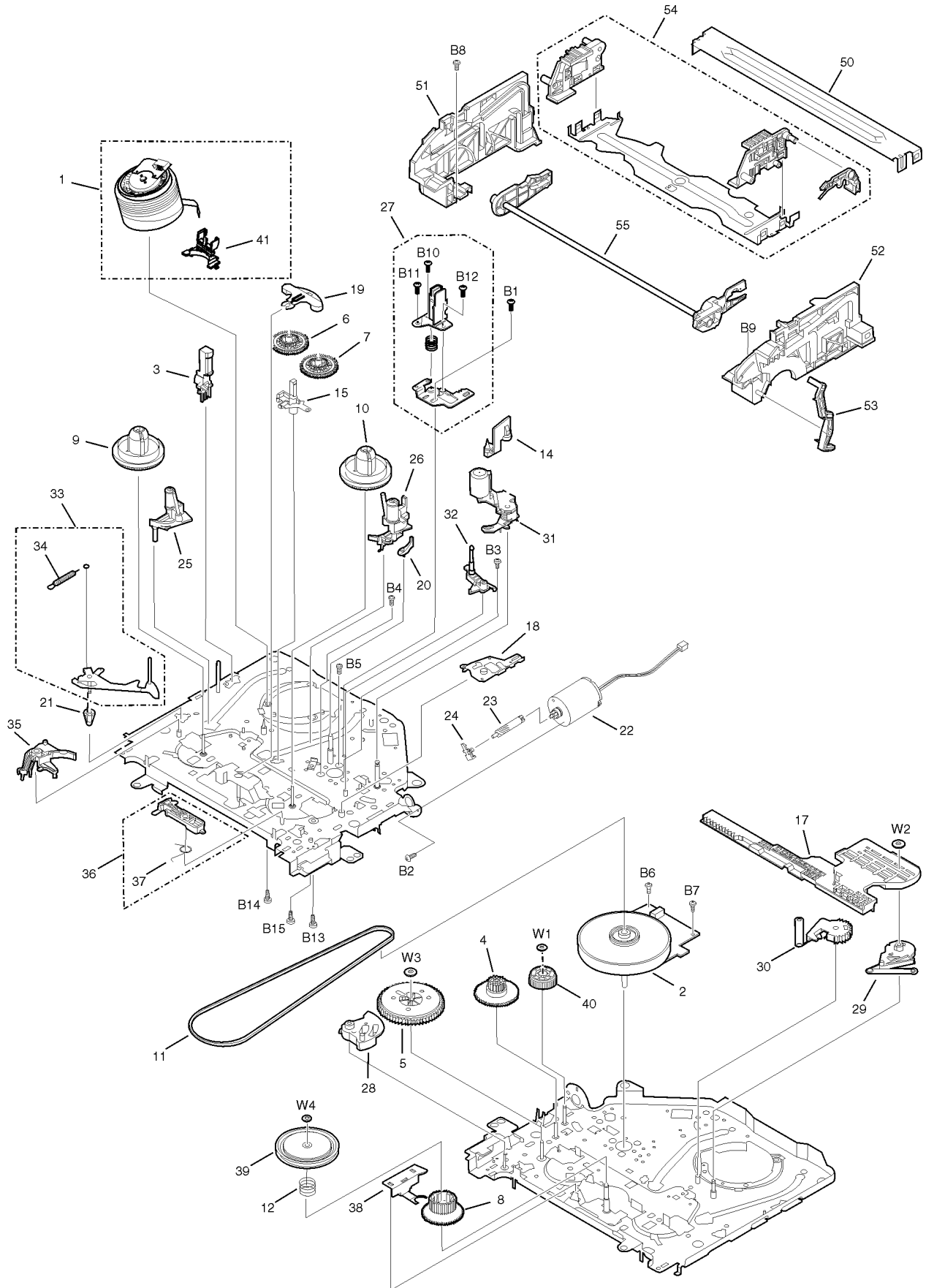
26.1. MECHANISM & CASING PARTS



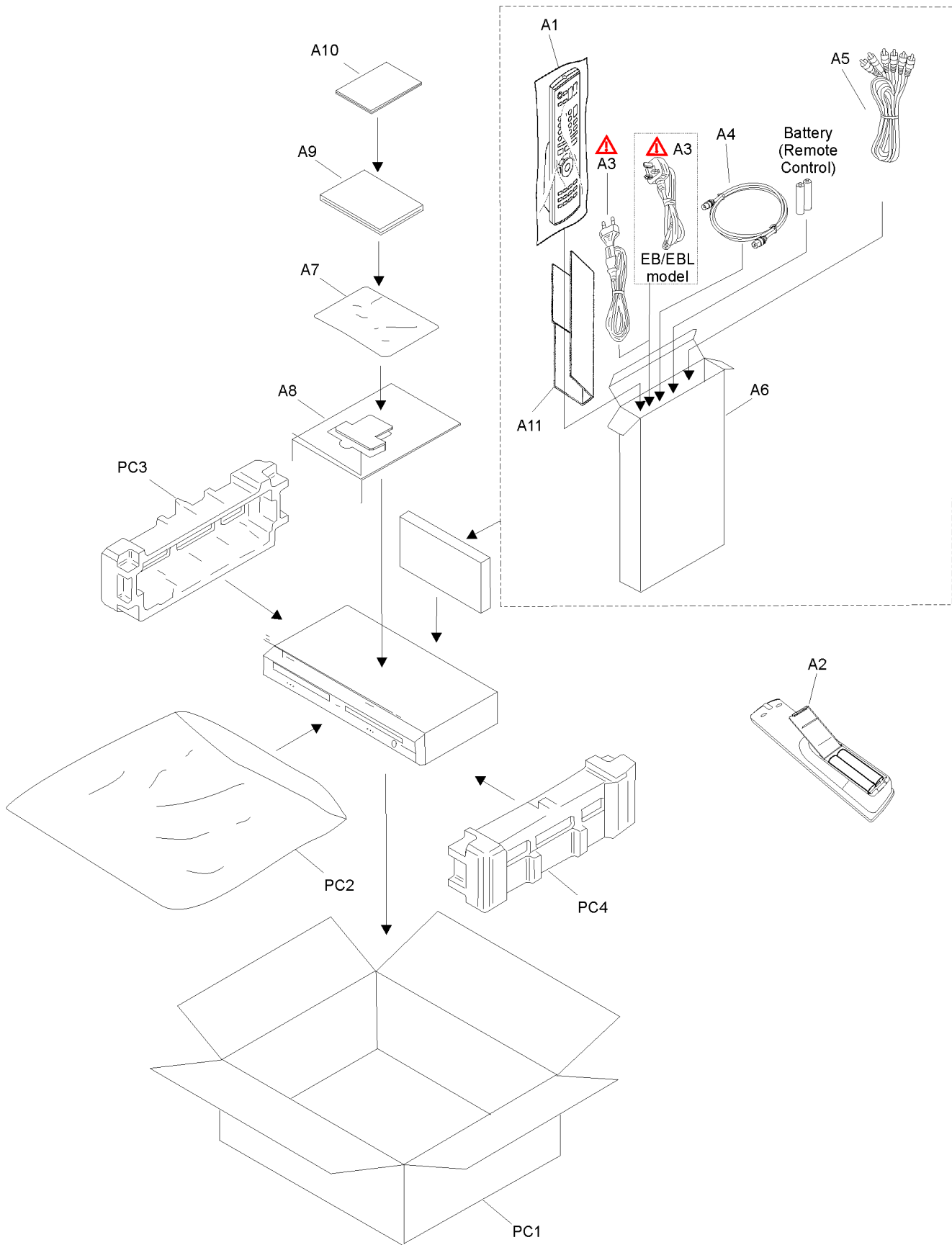
26.2. FRONT PANEL PARTS



26.3. VHS MECHANISM PARTS



26.4. PACKING & ACCESSORIES



27 REPLACEMENT PARTS LIST

NOTES:

*Important safety notice:

Components identified by \triangle mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.

*Warning: This product uses a laser diode.

Refer to caution statements.

*Capacity values are in microfarads (μ F) unless specified otherwise, P=Pico-farads (pF), F=Farads (F).

*Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).

*The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

*Printed Circuit Board's are identified by "■" character.

*All parts except parts mentioned [SPC] in the Remarks column are supplied from PAVCG.

*Parts mentioned [SPC] are supplied from PAVC.

No indication = all models

27.1. VHS MECHANISM PARTS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	VEG1648-DT	RDD CYLINDER	1	
2	VEM0750	CAPSTAN UNIT	1	
3	L1AZ00000004	FE HEAD UNIT	1	
4	VDG1510	INTERMEDIATE GEAR	1	
5	VDG1511-4	MAIN CAM GEAR	1	
6	VDG1512	IDLER GEAR	1	
7	VDG1512	IDLER GEAR	1	
8	VDG1514-1	CHANGE GEAR	1	
9	VDR0372	REEL TABLE	1	
10	VDR0372	REEL TABLE	1	
11	VDV0391-2	CAPSTAN BELT	1	
12	VMB3550	CHANGE GEAR SPRING	1	
14	VMD4252	OPENER PIECE	1	
15	VMD4253	LED PRISM	1	
17	VML3624-1	MAIN LEVER	1	
18	VML3626-1	PINCH CHARGE ARM	1	
19	VML3632	IDLER ARM	1	
20	VMX3092	P4 CAP	1	
21	VDB1431	TENSION ARM BOSH	1	
22	VEM0796	LOADING MOTOR UNIT	1	
23	VDG1637	WORM GEAR	1	
24	VMD4987	WORM BEARING	1	
25	VXA7105-2	SUPPLY SHAFT HOLDER UNIT	1	
26	VXA7106-2	TAKE UP SHAFT HOLDER UNIT	1	
27	L1AE00000036	AC HEAD UNIT	1	
28	VXA7311	SECTOR GEAR UNIT	1	
29	VXL3107	SUPPLY LOADING ARM UNIT	1	
30	VXL3108	TAKE UP LOADING ARM UNIT	1	
31	VXL3109-4	PINCH ARM UNIT	1	
32	VXL3110	P5 ARM UNIT	1	
33	VXL3111-1	TENSION ARM UNIT	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
34	VMB3547-3	TENSION SPRING	1	
35	VXL3112	SUPPLY BRAKE ARM UNIT	1	
36	VXL3113	TAKE UP BRAKE ARM UNIT	1	
37	VMB3548-2	TAKE UP BRAKE SPRING	1	
38	VXL3124-2	CHANGE LEVER UNIT	1	
39	VXP2133-1	CENTRE CLUTCH UNIT	1	
40	VXP2168	TORQUE CLUTCH UNIT	1	
41	VMD4983	FPC HOLDER	1	
50	VMA0L25	TOP PLATE	1	
51	VMD4255-4	SIDE PLATE (L)	1	
52	VMD4254-4	SIDE PLATE (R) UNIT	1	
53	VML3706-1	OPENER LEVER	1	
54	VXA7110-3	CASSETTE HOLDER UNIT	1	
55	VXL3160	MAIN SHAFT UNIT	1	
B1	VHD1044	SCREW	1	
B2	XSN3+35	SCREW	1	
B3	XTN26+7J	SCREW	1	
B4	XTN26+7J	SCREW	1	
B5	XTN26+7J	SCREW	1	
B6	XTV26+5F	SCREW	1	
B7	XTV26+5F	SCREW	1	
B8	XTV26+8FR	SCREW	1	
B9	XTV26+8FR	SCREW	1	
B10	VHD1066	SCREW	1	
B11	VHD1066	SCREW	1	
B12	VHD1185	SCREW	1	
B13	VHD1095-1	SCREW	1	
B14	VHD1117-1	SCREW	1	
B15	VHD1117-1	SCREW	1	
W1	VMX2208	WASHER	1	
W2	VMX3196	WASHER	1	
W3	VMX2699	WASHER	1	
W4	VMX3196	WASHER	1	

27.2. MECHANISM & CASING PARTS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	VXY1872	RAM DRIVE UNIT	1	(RTL) (SPC)
█ 2	VEP01977A	POWER PCB	1	(RTL)
3	RSC0770B	SHIELD CASE (B)	1	
4	VSC5586-1	SHIELD CASE (T)	1	
5	RMZ0778	P.BARRIER (B)	1	
6	RMZ0788	P.BARRIER (C)	1	
█ 7	VEP06F87D	MAIN PCB	1	DMR-EH80VEBS (RTL)
█ 7	VEP06F87C	MAIN PCB	1	DMR-EH80VEGS (RTL)
█ 8	VEP79108E	DIGITAL PCB	1	DMR-EH80VEGS (RTL)
█ 8	RFKBEH80VEB	DIGITAL PCB	1	DMR-EH80VEBS (RTL)
█ 9	VEP09136G	DIGITAL INTERFACE PCB	1	(RTL)
█ 10	VEP001J9B	SD DV PCB	1	(RTL)
11	RMA1908-1	FRONT ANGLE	1	
12	RMA1917-1	HDD BRACKET	1	
13	K1MZ40Z00002	CONNECTOR	1	
14	RFKV0052HDK	HARD DISC DRIVE	1	
15	VEE1A65	HDD CABLE	1	
16	VWJ1777	HDD-DIGITAL PCB FFC	1	
17	RMA1905	DVD ANGLE	1	
18	VEE1A64	DRIVE MAIN CABLE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
19	VWJ1779	FFC 40P	1	
20	VEE1B77	SD-DIGITAL PCB FFC	1	
21	VWJ1727	CYL FFC	1	
22	VWJ1728	A/C HEAD FFC	1	
23	VEE0Z83	POWER WIRE	1	
24	K2KA29A00013	COAX CABLE	2	
25	VMX3399	MECHA SPACER(R)	1	
26	VMX3398	MECHA SPACER(F)	1	
27	RMG0677-K	DAMPER	4	
28	VKC0412	MINI CLAMPER	1	
29	VHD1662	SCREW	4	
30	JOKE00000067	FILTER	1	
31	RKA0178-X	LEG	2	
32	VKA0382	LEG CUSHION	2	
33	RMC0622	EARTH SPRING (DI)	1	
34	RMC0632	EARTH SPRING (T)	1	
35	RMA1897	CENTER ANGLE	1	
36	RGR0357B-B	REAR PANEL	1	△ DMR- EH80VEBS
36	RGR0357B-A	REAR PANEL	1	△ DMR- EH80VEGS
37	L6FAHCBE0001	FAN POWER	1	
38	L6FAKCE0007	FAN HDD	1	
39	RMN0817A	FAN COVER	1	
40	RKM0537-S	TOP PANEL	1	
41	VKC0554	PCB SUPPORT	1	
42	VKC0295	MINI CARD SPACER	1	
43	VKC0612	PCB SPACER	1	
44	RHD32001	SCREW WITH WASHER	4	
45	XSN3+4FJK	SCREW (TUNER)	1	
46	RHD30111-3	SCREW	16	
47	VEE1A66	DV-DIGITAL CABLE U	1	
48	VHD0690-1	SCREW	19	
49	VHD1452-2	SCREW	1	
50	VHD1453-3	SCREW	3	
51	RHD30115-3	SCREW	3	
52	VHD1092-1	SCREW	1	
53	XTV26+6FFJ	SCREW	1	
54	RHD30113	SCREW	4	
55	XYN3+J8FJ	SCREW	2	
█ 56	VEP04885C-L	FRONT JACK PCB	1	(RTL)
█ 57	VEP07A78F	FL DRIVE PCB	1	(RTL)
58	RHD26045	SCREW	8	
59	RYP1278L-S	FRONTPANEL	1	DMR- EH80VEBS
59	RYP1278F-S	FRONTPANEL	1	DMR- EH80VEGS
59-1	RYF0762C-S	DOOR ASS'Y	1	
59-2	RKF0722C-S	BLINDER PANEL	1	
59-3	RKF0723A-S	TRAY DOOR	1	
59-4	REKD0039	SD SLOT UNIT	1	

27.3. PRINTED CIRCUIT BOARDS INCLUDED IN MAIN PCB

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
TU7401	ENG37A08GF	TUNER	1	DMR- EH80VEBS (RTL)
TU7401	ENG37A07GF	TUNER	1	DMR- EH80VEGS (RTL)
TU7402	ENG37A08GF	TUNER	1	DMR- EH80VEBS (RTL)
TU7402	ENG37A14GF	TUNER	1	DMR- EH80VEGS (RTL)
TU7403	ENC879T3F	RF MODULATOR	1	(RTL)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■ DE7401	VEP07A51B	DECODER PCB	1	DMR- EH80VEBS (RTL)
■ DE7401	VEP07A51F	DECODER PCB	1	DMR- EH80VEGS (RTL)
■ DE7402	VEP07A51A	DECODER PCB	1	DMR- EH80VEBS (RTL)
■ DE7402	VEP07A51F	DECODER PCB	1	DMR- EH80VEGS (RTL)

27.4. PACKING & ACCESSORIES PARTS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A1	EUR7729KN0	REMOTE CONTROL	1	DMR- EH80VEBS
A1	EUR7729KM0	REMOTE CONTROL	1	DMR- EH80VEGS
A2	UR77EC2903	BATTERY COVER	1	
A3	RJA0044-3C	POWER CORD	1	△ DMR- EH80VEBS
A3	RJA0043-1C	POWERCORD	1	△ DMR- EH80VEGS
A4	K1TWACC00001	RF CABLE	1	
A5	K2KA6BA00003	AV CORD	1	
A6	RPQFD0007	ACCESSORY BOX	1	
A7	RPF0003	PAPER BAG	1	DMR- EH80VEBS
A7	RPF0001	PE-BAG	1	DMR- EH80VEGS
A8	RPQD0005	CORRUGATED PAD	1	DMR- EH80VEGS
A9	RQTD0179-B	O/I BOOK ENG UK	1	DMR- EH80VEBS
A9	RQTD0180-D	O/I BOOK GER	1	DMR- EH80VEGS
A9	RQTD0181-V	O/I BOOK ITA	1	DMR- EH80VEGS
A9	RQTD0182-H	O/I BOOK DUT	1	DMR- EH80VEGS
A9	RQTD0184-A	O/I BOOK ENG CONT	1	DMR- EH80VEGS
A9	RQTD0183-C	O/I BOOK FRE PAL	1	DMR- EH80VEGS
A9	RQTD0185-M	O/I BOOK SPA	1	DMR- EH80VEGS
A9	RQTD0186-Z	O/I BOOK SWE	1	DMR- EH80VEGS
A9	RQTD0187-J	O/I BOOK DAN	1	DMR- EH80VEGS
A10	RQCA1405-1	EPG CAUTION SHEET	1	DMR- EH80VEGS
A10	RQCAD0024	QUICK START GUIDE	1	DMR- EH80VEBS
A10	RQCC2704	DVD-MEDIA LEAFLET	1	
A10	RQCA1395	CARD CAUTION SHEET	1	
A11	RPQ1594	PAD	1	
PC1	RPQ7619	PACKING CASE	1	DMR- EH80VEBS
PC1	RPQ7618	PACKING CASE	1	DMR- EH80VEGS
PC2	RPF0006	MIRAMAT BAG	1	
PC3	RPN1819A	CUSHION (LEFT)	1	
PC4	RPN1819B	CUSHION (RIGHT)	1	

27.5. ELECTRICAL PARTS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C11102	ECKMNA222MEV	CERAMIC CAPACITOR	1	△
C11103	F2B2G680A050	ALU ELEC CAPACITOR	1	
C11105	ECQU2A223MLC	EMI CAPACITOR	1	△
C11106	F1B2G4710001	CERAMIC CAPACITOR	1	△
C11107	F1B2G4710001	CERAMIC CAPACITOR	1	
C11108	F1B3A3320011	CERAMIC CAPACITOR	1	
C11110	ECQU2A683MLC	X2 CAPACITOR	1	△
C11201	F1B3D271A011	CERAMIC CAPACITOR	1	
C11202	ECJ2VB1H102K	CHIP CAPACITOR	1	
C11203	ECJ2VC1H470J	CHIP CAPACITOR	1	
C11204	F2A1V5600013	ALU ELEC CAPACITOR	1	
C11205	F1J1H222A532	CHIP CAPACITOR	1	
C11302	ECJ2VB1E823K	CHIP CAPACITOR	1	
C11303	ECJ2VB1E473K	CHIP CAPACITOR	1	
C11401	EEUFM1V221B	ALU ELEC CAPACITOR	1	
C11402	F2A1V5600013	ALU ELEC CAPACITOR	1	
C11403	F2A1C152A619	ALU ELEC CAPACITOR	1	
C11404	F2A1C152A619	ALU ELEC CAPACITOR	1	
C11405	EEUFM1C471B	ALU ELEC CAPACITOR	1	
C11406	F1J2A332A023	CHIP CAPACITOR	1	
C11407	F1J2A332A023	CHIP CAPACITOR	1	
C11501	EEUFM1E221B	ALU ELEC CAPACITOR	1	
C11502	F1J1H1040007	CHIP CAPACITOR	1	
C11503	F1J1H1040007	CHIP CAPACITOR	1	
C11504	F1J1E104A081	CHIP CAPACITOR	1	
C11505	ECJ2VC1H181J	CHIP CAPACITOR	1	
C11506	ECJ2VB1H103K	CHIP CAPACITOR	1	
C11507	F2A1A2210063	ALU ELEC CAPACITOR	1	
C11509	F1J1E104A081	CHIP CAPACITOR	1	
C12001	ECEA1CKA220B	ALU ELEC CAPACITOR	1	
C15001	EEUFM1C121B	ALU ELEC CAPACITOR	1	
C15004	ECJ2VF1H103Z	CHIP CAPACITOR	1	
C15005	F2A1A4710038	ALU ELEC CAPACITOR	1	
C15006	F1J0J106A014	CHIP CAPACITOR	1	
C15007	F1K1C106A062	CHIP CAPACITOR	1	
C15008	EEUFM1E221B	ALU ELEC CAPACITOR	1	
C15009	F1J1C1050030	CHIP CAPACITOR	1	
C15010	ECJ2VF1H103Z	CHIP CAPACITOR	1	
C15011	ECJ2VB1H391K	CHIP CAPACITOR	1	
C15012	ECJ2VB1H472K	CHIP CAPACITOR	1	
C15013	ECJ2VB1H102K	CHIP CAPACITOR	1	
C15015	F2A1A681A540	ALU ELEC CAPACITOR	1	
C15017	EEUFM1E221B	ALU ELEC CAPACITOR	1	
C15018	F1J1H1040007	CHIP CAPACITOR	1	
C15019	F1J1H1040007	CHIP CAPACITOR	1	
C15020	F1J1H2230005	CHIP CAPACITOR	1	
C15021	ECJ2VC1H181J	CHIP CAPACITOR	1	
C15022	ECJ2VB1H103K	CHIP CAPACITOR	1	
C15024	F2A1A4710038	ALU ELEC CAPACITOR	1	
C15025	EEUFM1E221B	ALU ELEC CAPACITOR	1	
C15026	F1J1H1040007	CHIP CAPACITOR	1	
C15027	F1J1H1040007	CHIP CAPACITOR	1	
C15028	ECJ2VB1E473K	CHIP CAPACITOR	1	
C15029	ECJ2VC1H270J	CHIP CAPACITOR	1	
C15030	F1J1C334A091	CHIP CAPACITOR	1	
C15032	F2A1A681A540	ALU ELEC CAPACITOR	1	
C15033	F1J1C105A091	CHIP CAPACITOR	1	
C2001	F1H1H330A736	CHIP CAPACITOR	1	
C2003	F1H1A1050029	CHIP CAPACITOR	1	
C2051	ECEA0JKN220B	ALU ELEC CAPACITOR	1	
C2053	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C2054	ECJ1VB1H392K	CHIP CAPACITOR	1	
C2055	F1H1C104A008	CHIP CAPACITOR	1	
C2099	ECJ1VC1H681J	CHIP CAPACITOR	1	
C2501	F1H1C104A008	CHIP CAPACITOR	1	
C2502	ECEA0JKA221B	ALU ELEC CAPACITOR	1	
C2504	F1H1E223A029	CHIP CAPACITOR	1	
C2505	F1H1E223A029	CHIP CAPACITOR	1	
C2506	F1H1A2240004	CHIP CAPACITOR	1	
C2507	F1H1H1020005	CHIP CAPACITOR	1	
C2508	F1H1H182A219	CHIP CAPACITOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2509	ECEA1CKA220B	ALU ELEC CAPACITOR	1	
C2510	F1H1C104A042	CHIP CAPACITOR	1	
C2511	F1H1C104A042	CHIP CAPACITOR	1	
C2512	F1H1C104A042	CHIP CAPACITOR	1	
C2513	F1H1A1050029	CHIP CAPACITOR	1	
C2515	F1H1H1030007	CHIP CAPACITOR	1	
C2518	F1H1H1030007	CHIP CAPACITOR	1	
C2519	F1H1H1030007	CHIP CAPACITOR	1	
C2551	ECJ1VB1C563K	CHIP CAPACITOR	1	
C2552	ECJ1VB1C563K	CHIP CAPACITOR	1	
C2561	ECJ1VB1C563K	CHIP CAPACITOR	1	
C2562	ECJ1VB1C563K	CHIP CAPACITOR	1	
C2571	ECA1VM221B	ALU ELEC CAPACITOR	1	
C3001	F1H1H1510001	CHIP CAPACITOR	1	
C3003	F1H0J1050012	CHIP CAPACITOR	1	
C3004	F1H1C104A042	CHIP CAPACITOR	1	
C3005	F1H1H2700003	CHIP CAPACITOR	1	
C3006	F1H1C104A042	CHIP CAPACITOR	1	
C3007	F1H0J1050012	CHIP CAPACITOR	1	
C3008	F1H1H1030006	CHIP CAPACITOR	1	
C3009	ECEA1HKA4R7B	ALU ELEC CAPACITOR	1	
C3010	F1H0J1050012	CHIP CAPACITOR	1	
C3011	F1H0J1050012	CHIP CAPACITOR	1	
C3012	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C3013	F1H1H1030007	CHIP CAPACITOR	1	
C3015	F1H1C104A042	CHIP CAPACITOR	1	
C3016	F1H1H4700004	CHIP CAPACITOR	1	
C3017	F1H0J1050012	CHIP CAPACITOR	1	
C3018	F1H1H1030006	CHIP CAPACITOR	1	
C3019	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C3020	ECJ1VC1H331J	CHIP CAPACITOR	1	
C3021	F1H1H1030007	CHIP CAPACITOR	1	
C3023	ECEA1HKA3R3B	ALU ELEC CAPACITOR	1	
C3024	F1H1H1030006	CHIP CAPACITOR	1	
C3026	F1H0J1050012	CHIP CAPACITOR	1	
C3027	F1H1C104A042	CHIP CAPACITOR	1	
C3028	F1H1C104A042	CHIP CAPACITOR	1	
C3029	F1H1C104A042	CHIP CAPACITOR	1	
C3030	F1H1C104A042	CHIP CAPACITOR	1	
C3033	F1H1C104A042	CHIP CAPACITOR	1	
C3034	ECEA1HKA010B	ALU ELEC CAPACITOR	1	
C3035	F1H1C104A042	CHIP CAPACITOR	1	
C3036	ECEA1HKA4R7B	ALU ELEC CAPACITOR	1	
C3037	ECEA1HKAR47B	ALU ELEC CAPACITOR	1	
C3038	F1H1E223A029	CHIP CAPACITOR	1	
C3039	F1H1C333A041	CHIP CAPACITOR	1	
C3040	ECEA1HKA2R2B	ALU ELEC CAPACITOR	1	
C3041	F1H1E223A029	CHIP CAPACITOR	1	
C3042	ECJ2YB0J335K	CHIP CAPACITOR	1	
C3043	F1H1C104A042	CHIP CAPACITOR	1	
C3044	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C3045	F1H1H1030007	CHIP CAPACITOR	1	
C3046	ECJ1VC1H030C	CHIP CAPACITOR	1	
C3047	ECEA1HKA010B	ALU ELEC CAPACITOR	1	
C3048	F1H1H1030007	CHIP CAPACITOR	1	
C3049	F1H1H1030007	CHIP CAPACITOR	1	
C3050	F1H1A1050029	CHIP CAPACITOR	1	
C3051	ECJ1VB1A105K	CHIP CAPACITOR	1	
C3052	F1H0J1050012	CHIP CAPACITOR	1	
C3053	F1H1C104A042	CHIP CAPACITOR	1	
C3054	F1H1H1030006	CHIP CAPACITOR	1	
C3055	F1H1H1030006	CHIP CAPACITOR	1	
C3056	ECJ1VC1H100D	CHIP CAPACITOR	1	
C3080	F1H1H1030006	CHIP CAPACITOR	1	
C31507	F2A1A2210063	ALU ELEC CAPACITOR	1	
C31511	ECJ1VB1A105K	CHIP CAPACITOR	1	
C31512	F1J0J106A014	CHIP CAPACITOR	1	
C31535	ECJ1VB1A105K	CHIP CAPACITOR	1	
C31536	F1J0J106A014	CHIP CAPACITOR	1	
C31901	ECJ1VC1H102J	CHIP CAPACITOR	1	
C33501	F1J0J475A008	CHIP CAPACITOR	1	
C33502	F1H1H1010005	CHIP CAPACITOR	1	
C33503	F1J0J475A008	CHIP CAPACITOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C33504	F1H1C104A042	CHIP CAPACITOR	1	
C33505	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C33506	F1H1C104A042	CHIP CAPACITOR	1	
C33507	F1H1C104A008	CHIP CAPACITOR	1	
C33738	DOYBR0000020	CHIP RESISTOR	1	
C3501	FLJ0J475A002	CHIP CAPACITOR	1	
C3502	F1H1C104A042	CHIP CAPACITOR	1	
C3503	FLJ0J475A002	CHIP CAPACITOR	1	
C3504	F1H1H271A832	CHIP CAPACITOR	1	
C3505	FLJ0J475A002	CHIP CAPACITOR	1	
C3506	FLJ0J475A002	CHIP CAPACITOR	1	
C3507	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C3508	F1H1C104A008	CHIP CAPACITOR	1	
C3509	FLJ0J475A002	CHIP CAPACITOR	1	
C3510	F1H1H8200004	CHIP CAPACITOR	1	
C3511	F1H1H271A832	CHIP CAPACITOR	1	
C3512	F1H1H271A832	CHIP CAPACITOR	1	
C3513	F1H1H221A832	CHIP CAPACITOR	1	
C3514	FLJ0J475A002	CHIP CAPACITOR	1	
C3515	ECJ1VC1H220J	CHIP CAPACITOR	1	
C3516	ECJ1VC1H560J	CHIP CAPACITOR	1	
C3517	ECJ1VC1H560J	CHIP CAPACITOR	1	
C3518	ECJ1VC1H220J	CHIP CAPACITOR	1	
C35017	F1H1C104A042	CHIP CAPACITOR	1	
C35018	F1H0J1050012	CHIP CAPACITOR	1	
C35019	F1H0J1050012	CHIP CAPACITOR	1	
C35020	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C35021	F1H1C104A042	CHIP CAPACITOR	1	
C35022	F1H1H1030006	CHIP CAPACITOR	1	
C35023	ECEA1CKA220B	ALU ELEC CAPACITOR	1	
C35024	F1H0J1050012	CHIP CAPACITOR	1	
C35025	F1H0J1050012	CHIP CAPACITOR	1	
C35026	F1H0J1050012	CHIP CAPACITOR	1	
C35027	F1H0J1050012	CHIP CAPACITOR	1	
C35028	F1H1C104A042	CHIP CAPACITOR	1	
C35029	F2A0J102A016	ALU ELEC CAPACITOR	1	
C35030	F2A0J102A016	ALU ELEC CAPACITOR	1	
C35031	F2A0J102A016	ALU ELEC CAPACITOR	1	
C35032	F2A0J471A016	ALU ELEC CAPACITOR	1	
C35033	F2A0J471A016	ALU ELEC CAPACITOR	1	
C37001	F1H1C104A008	CHIP CAPACITOR	1	
C37002	F1H1C104A008	CHIP CAPACITOR	1	
C37003	ECEA1CKS100B	ALU ELEC CAPACITOR	1	
C37104	F1H1H1030006	CHIP CAPACITOR	1	
C37105	F1H1H1030006	CHIP CAPACITOR	1	
C37106	F1H1H1030006	CHIP CAPACITOR	1	
C37107	F1H1H1030006	CHIP CAPACITOR	1	
C37502	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37503	F4D55473A013	ALU ELEC CAPACITOR	1	
C37504	F1H1C104A008	CHIP CAPACITOR	1	
C37506	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37507	F1H0J1050012	CHIP CAPACITOR	1	
C37508	F1H1H1030007	CHIP CAPACITOR	1	
C37546	F1H1C104A008	CHIP CAPACITOR	1	
C37579	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37580	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37581	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37582	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37583	F1H1H1010005	CHIP CAPACITOR	1	
C37584	F1H1H2700003	CHIP CAPACITOR	1	
C37585	F1H1H2700003	CHIP CAPACITOR	1	
C37586	ECJ1VC1H180J	CHIP CAPACITOR	1	
C37587	ECJ1VC1H180J	CHIP CAPACITOR	1	
C37588	F1H1H1030007	CHIP CAPACITOR	1	
C37589	F1H1C104A008	CHIP CAPACITOR	1	
C37592	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37593	ECJ1VC1H100D	CHIP CAPACITOR	1	
C37595	F1H1C104A008	CHIP CAPACITOR	1	
C37596	F1H1H4700004	CHIP CAPACITOR	1	
C37597	F1H1H1030007	CHIP CAPACITOR	1	
C37598	F1H1H4700004	CHIP CAPACITOR	1	
C37599	F1H1C104A008	CHIP CAPACITOR	1	
C37600	F1H1H4700004	CHIP CAPACITOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C37601	F1H1C104A008	CHIP CAPACITOR	1	
C37602	F1H1H1030007	CHIP CAPACITOR	1	
C37603	F1H1H1030007	CHIP CAPACITOR	1	
C37604	F1H1C104A008	CHIP CAPACITOR	1	
C37607	F1H1C104A008	CHIP CAPACITOR	1	
C37609	F1H1H1030007	CHIP CAPACITOR	1	
C37610	F1H1H1030007	CHIP CAPACITOR	1	
C37618	F1H1H1030007	CHIP CAPACITOR	1	
C37620	F1H1H1030007	CHIP CAPACITOR	1	
C37626	F1H1H1030007	CHIP CAPACITOR	1	
C37633	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C37636	F1H1A1050029	CHIP CAPACITOR	1	
C37652	F1H1A1050029	CHIP CAPACITOR	1	
C3801	DOYBR0000020	CHIP RESISTOR	1	
C3802	F1H1C104A008	CHIP CAPACITOR	1	
C3901	F1H1H1030006	CHIP CAPACITOR	1	
C3904	F1H1H1030006	CHIP CAPACITOR	1	
C3905	F1H0J1050012	CHIP CAPACITOR	1	
C3906	F1H1C104A042	CHIP CAPACITOR	1	
C3907	F1H1C104A042	CHIP CAPACITOR	1	
C3908	F1H1C104A042	CHIP CAPACITOR	1	
C3909	F1H1C104A042	CHIP CAPACITOR	1	
C3910	F1H1H1030006	CHIP CAPACITOR	1	
C3911	ECEA0JKA221B	ALU ELEC CAPACITOR	1	
C3912	F1H1C104A042	CHIP CAPACITOR	1	
C3913	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C3914	F1H1H1030006	CHIP CAPACITOR	1	
C3915	F1H1C104A042	CHIP CAPACITOR	1	
C3916	F1H1C104A042	CHIP CAPACITOR	1	
C3920	F1H1H1030006	CHIP CAPACITOR	1	
C3921	F1H1C104A042	CHIP CAPACITOR	1	
C3922	F1H1H1030006	CHIP CAPACITOR	1	
C3923	F1H1H1030006	CHIP CAPACITOR	1	
C3924	F1H1C104A042	CHIP CAPACITOR	1	
C3925	F1H1C104A042	CHIP CAPACITOR	1	
C3926	F1H1C104A042	CHIP CAPACITOR	1	
C3927	F1H1H1030006	CHIP CAPACITOR	1	
C3928	F1H1C104A042	CHIP CAPACITOR	1	
C3929	ECEA0JKA221B	ALU ELEC CAPACITOR	1	
C3930	F1H1H1030006	CHIP CAPACITOR	1	
C3931	F1H1C104A042	CHIP CAPACITOR	1	
C3932	F1H1H1030006	CHIP CAPACITOR	1	
C3933	F1H1C104A042	CHIP CAPACITOR	1	
C3934	F1H1C104A042	CHIP CAPACITOR	1	
C3935	F1H1C104A042	CHIP CAPACITOR	1	
C3936	F1H1C104A042	CHIP CAPACITOR	1	
C3937	ECJ1VB1A105K	CHIP CAPACITOR	1	
C3938	F1H0J1050012	CHIP CAPACITOR	1	
C3939	F1H1C104A042	CHIP CAPACITOR	1	
C3943	F1H1C104A042	CHIP CAPACITOR	1	
C3945	F1H1C104A042	CHIP CAPACITOR	1	
C3946	F1H1C104A042	CHIP CAPACITOR	1	
C3947	F1H1C104A042	CHIP CAPACITOR	1	
C3948	F1H1C104A042	CHIP CAPACITOR	1	
C3952	F1H1C104A042	CHIP CAPACITOR	1	
C3953	F1H1C104A042	CHIP CAPACITOR	1	
C39001	F1H1H1030006	CHIP CAPACITOR	1	
C39002	F1H1H1030006	CHIP CAPACITOR	1	
C39003	F1H1H1030006	CHIP CAPACITOR	1	
C39010	F1H1C104A042	CHIP CAPACITOR	1	
C4001	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4002	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4004	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4005	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C4007	F1H1H222A219	CHIP CAPACITOR	1	
C4008	F1H1H182A219	CHIP CAPACITOR	1	
C4009	ECEA0JKA220B	ALU ELEC CAPACITOR	1	
C4010	ECEA1EKA4R7B	ALU ELEC CAPACITOR	1	
C4014	ECEA1HKA4R7B	ALU ELEC CAPACITOR	1	
C4015	F1H1H682A219	CHIP CAPACITOR	1	
C4016	ECEA0JKA220B	ALU ELEC CAPACITOR	1	
C4017	ECEA1HKA3R3B	ALU ELEC CAPACITOR	1	
C4018	F1H1H182A219	CHIP CAPACITOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4020	ECQB1H223JF3	PLAST FILM CAPACITOR	1	
C4021	ECJ1VC1H221J	CHIP CAPACITOR	1	
C4022	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C4023	F1H1E223A029	CHIP CAPACITOR	1	
C4024	ECJ1VB1H152K	CHIP CAPACITOR	1	
C4025	ECJ2VF1H103Z	CHIP CAPACITOR	1	
C4101	ECJ1VC1H471J	CHIP CAPACITOR	1	
C4102	ECJ1VC1H471J	CHIP CAPACITOR	1	
C4105	F1H1H1010005	CHIP CAPACITOR	1	
C4106	F1H1H1010005	CHIP CAPACITOR	1	
C4107	ECJ1VC1H471J	CHIP CAPACITOR	1	
C4108	ECJ1VC1H471J	CHIP CAPACITOR	1	
C4111	F1H1H1010005	CHIP CAPACITOR	1	
C4112	F1H1H1010005	CHIP CAPACITOR	1	
C4303	F1H1H1010005	CHIP CAPACITOR	1	
C4304	F1H1H1010005	CHIP CAPACITOR	1	
C4305	F1H1H1020005	CHIP CAPACITOR	1	
C4306	F1H1H1020005	CHIP CAPACITOR	1	
C4501	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4502	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4503	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4504	ECQB1H473JF3	PLAST FILM CAPACITOR	1	
C4505	ECEA0JKA330B	ALU ELEC CAPACITOR	1	
C4506	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4508	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4509	ECEA0JKA220B	ALU ELEC CAPACITOR	1	
C4510	ECQB1H153JF3	PLAST FILM CAPACITOR	1	
C4511	F1H1C333A041	CHIP CAPACITOR	1	
C4512	F1H1H1030007	CHIP CAPACITOR	1	
C4513	F1H1H1030007	CHIP CAPACITOR	1	
C4515	F1H1C104A008	CHIP CAPACITOR	1	
C4516	F1H1C104A042	CHIP CAPACITOR	1	
C4518	F1H1A2240004	CHIP CAPACITOR	1	
C4519	ECQB1H153JF3	PLAST FILM CAPACITOR	1	
C4520	ECEA0JKA220B	ALU ELEC CAPACITOR	1	
C4521	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4522	ECEA0JKA330B	ALU ELEC CAPACITOR	1	
C4523	ECQB1H473JF3	PLAST FILM CAPACITOR	1	
C4524	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C4526	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4531	ECEA1CKA470B	ALU ELEC CAPACITOR	1	
C4533	F1H1H1030007	CHIP CAPACITOR	1	
C4534	F1H1C104A042	CHIP CAPACITOR	1	
C4544	F1H1C104A008	CHIP CAPACITOR	1	
C4545	ECEA0JKA220B	ALU ELEC CAPACITOR	1	
C45001	F1H1C104A008	CHIP CAPACITOR	1	
C45003	ECQV1H104JL3	PLAST FILM CAPACITOR	1	
C45004	F2A1C471A628	ALU ELEC CAPACITOR	1	
C45005	F2A0J101A592	ALU ELEC CAPACITOR	1	
C45006	F1H1C104A008	CHIP CAPACITOR	1	
C45007	F1H1C104A008	CHIP CAPACITOR	1	
C45008	F2A1C101A699	ALU ELEC CAPACITOR	1	
C45010	F2A1C470A637	ALU ELEC CAPACITOR	1	
C45012	F2A1C470A637	ALU ELEC CAPACITOR	1	
C45013	ECQB1H473JF3	PLAST FILM CAPACITOR	1	
C45014	F2A1H4R7A638	ALU ELEC CAPACITOR	1	
C45015	F1H1H1020005	CHIP CAPACITOR	1	
C45016	F1H1H1020005	CHIP CAPACITOR	1	
C45019	F1H1H1020005	CHIP CAPACITOR	1	
C45020	F1H1H1020005	CHIP CAPACITOR	1	
C4915	F1H1C104A042	CHIP CAPACITOR	1	
C4916	F2A0J470A599	ALU ELEC CAPACITOR	1	
C4917	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4918	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C4919	F2A1V100A534	ALU ELEC CAPACITOR	1	
C4920	F2A1V100A534	ALU ELEC CAPACITOR	1	
C4921	ECEA0JKA220B	ALU ELEC CAPACITOR	1	DMR-EH80VEBS
C4922	F2A1V100A534	ALU ELEC CAPACITOR	1	
C4923	F2A1V100A534	ALU ELEC CAPACITOR	1	
C4924	F2A1V100A534	ALU ELEC CAPACITOR	1	
C4925	F2A1V100A534	ALU ELEC CAPACITOR	1	
C4926	F1H0J1050012	CHIP CAPACITOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4927	F2A1E1010067	ALU ELEC CAPACITOR	1	
C4928	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4929	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4930	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4931	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4932	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4933	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4934	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4935	F2A1E1010067	ALU ELEC CAPACITOR	1	
C4936	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4937	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4938	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4939	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4940	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4941	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4942	F1H1C104A008	CHIP CAPACITOR	1	
C4943	F2A1H1R0A236	ALU ELEC CAPACITOR	1	
C4944	F2A1C470A637	ALU ELEC CAPACITOR	1	
C4945	F2A1C221A637	ALU ELEC CAPACITOR	1	
C4949	ECEA1CKA100B	ALU ELEC CAPACITOR	1	DMR-EH80VEBS
C5001	F1H1H1030006	CHIP CAPACITOR	1	
C5002	F1H1H1030006	CHIP CAPACITOR	1	
C5003	F1H1H1030006	CHIP CAPACITOR	1	
C5004	F1H1H1030006	CHIP CAPACITOR	1	
C5005	F1H1C104A008	CHIP CAPACITOR	1	
C5006	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C5007	F1H1C104A042	CHIP CAPACITOR	1	
C6001	ECJ1VC1H180J	CHIP CAPACITOR	1	
C6002	ECJ1VC1H220J	CHIP CAPACITOR	1	
C6003	DOYBR0000020	CHIP RESISTOR	1	
C6005	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C6006	F1H1C104A008	CHIP CAPACITOR	1	
C6007	ECJ1VC1H220J	CHIP CAPACITOR	1	
C6008	ECJ1VC1H471J	CHIP CAPACITOR	1	
C6009	F1H1H1030007	CHIP CAPACITOR	1	
C6010	ECJ1VC1H220J	CHIP CAPACITOR	1	
C6012	F1H1H1030007	CHIP CAPACITOR	1	
C6014	F1H1H1030007	CHIP CAPACITOR	1	
C6015	F1H1C333A041	CHIP CAPACITOR	1	
C6016	F1H1H1020005	CHIP CAPACITOR	1	
C6020	F1J1H1040007	CHIP CAPACITOR	1	
C6101	ECEA0JKA221B	ALU ELEC CAPACITOR	1	
C6102	F1H1A1050029	CHIP CAPACITOR	1	
C6103	F1H0J1050012	CHIP CAPACITOR	1	
C6104	F2A0J471A016	ALU ELEC CAPACITOR	1	
C6105	F1H1C104A008	CHIP CAPACITOR	1	
C6106	ECEA1HKA4R7B	ALU ELEC CAPACITOR	1	
C6107	ECJ1VB1C563K	CHIP CAPACITOR	1	
C6108	F1H1H1030007	CHIP CAPACITOR	1	
C6109	F1H1A1050029	CHIP CAPACITOR	1	
C6110	F1H1A1050029	CHIP CAPACITOR	1	
C6111	ECJ1VC1H561J	CHIP CAPACITOR	1	
C6114	F1H1H330A736	CHIP CAPACITOR	1	DMR-EH80VEGS
C6115	F1H1H1030007	CHIP CAPACITOR	1	
C6116	F1H1C104A042	CHIP CAPACITOR	1	
C6121	F1H1H330A736	CHIP CAPACITOR	1	
C6302	F1H1H1030007	CHIP CAPACITOR	1	
C6303	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C6308	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C6401	ECJ1VC1H221J	CHIP CAPACITOR	1	
C6402	ECJ1VC1H221J	CHIP CAPACITOR	1	
C66801	F1H1H1030007	CHIP CAPACITOR	1	
C7301	F1H1C104A008	CHIP CAPACITOR	1	
C7302	DOYBR0000020	CHIP RESISTOR	1	
C7303	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C7305	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C7306	F1H1H1030007	CHIP CAPACITOR	1	
C7307	ECJ1VC1H100D	CHIP CAPACITOR	1	
C7308	ECJ1VC1H100D	CHIP CAPACITOR	1	
C7309	F1H1H1010005	CHIP CAPACITOR	1	DMR-EH80VEBS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7310	F1H1H1010005	CHIP CAPACITOR	1	DMR-EH80VEBS
C7311	F1H1H1010005	CHIP CAPACITOR	1	
C7312	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C7313	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C7314	F1H1C104A008	CHIP CAPACITOR	1	
C7317	ECEA1CKA470B	ALU ELEC CAPACITOR	1	
C7318	ECEA1CKA100B	ALU ELEC CAPACITOR	1	
C7323	ECJ1VC1H102J	CHIP CAPACITOR	1	
C7323	F1H1H1020005	CHIP CAPACITOR	1	DMR-EH80VEBS
C7324	F1H1C104A008	CHIP CAPACITOR	1	
C7329	DOYBR0000020	CHIP RESISTOR	1	
C7330	DOGB822JA057	CHIP RESISTOR	1	
C7332	F1H1C104A008	CHIP CAPACITOR	1	
C7333	F1H1C104A042	CHIP CAPACITOR	1	
C7334	ECEA1HKA2R2B	ALU ELEC CAPACITOR	1	
C7335	F1H1C104A008	CHIP CAPACITOR	1	
C7401	F1H0J1050012	CHIP CAPACITOR	1	
C7402	F1H1C104A042	CHIP CAPACITOR	1	
C7403	FLJ1A105A003	CHIP CAPACITOR	1	
C7404	F1H0J1050012	CHIP CAPACITOR	1	
C7405	F1H1C104A042	CHIP CAPACITOR	1	
C7406	F1H1C104A042	CHIP CAPACITOR	1	
C7407	FLJ1A105A003	CHIP CAPACITOR	1	
C7411	ECEA1HKA2R2B	ALU ELEC CAPACITOR	1	DMR-EH80VEGS
C7412	F1H1H330A736	CHIP CAPACITOR	1	
C7413	F1H1H330A736	CHIP CAPACITOR	1	
C7414	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7415	ECEA1HKA010B	ALU ELEC CAPACITOR	1	
C7417	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C7418	F1H1H1030006	CHIP CAPACITOR	1	
C7422	F1H1H1030006	CHIP CAPACITOR	1	
C7424	ECEA1HKA010B	ALU ELEC CAPACITOR	1	
C7425	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7426	ECJ1VC1H471J	CHIP CAPACITOR	1	
C7428	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7430	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7431	F1H1H1030006	CHIP CAPACITOR	1	
C7432	F1H1H1030006	CHIP CAPACITOR	1	DMR-EH80VEBS
C7432	DOYBR0000020	CHIP RESISTOR	1	DMR-EH80VEGS
C7433	ECEA0JKA470B	ALU ELEC CAPACITOR	1	DMR-EH80VEBS
C7434	F1H1H1030006	CHIP CAPACITOR	1	
C7435	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7436	ECEA1HKA2R2B	ALU ELEC CAPACITOR	1	DMR-EH80VEGS
C7437	DOYBR0000020	CHIP RESISTOR	1	DMR-EH80VEGS
C7438	DOYBR0000020	CHIP RESISTOR	1	DMR-EH80VEGS
C7439	DOYBR0000020	CHIP RESISTOR	1	DMR-EH80VEGS
C7441	ECJ1VC1H471J	CHIP CAPACITOR	1	
C7442	F1H1H330A736	CHIP CAPACITOR	1	
C7443	F1H1H330A736	CHIP CAPACITOR	1	
C7445	ECEA0JKA101B	ALU ELEC CAPACITOR	1	
C7446	F1H1H1030006	CHIP CAPACITOR	1	
C7448	ECJ1VC1H471J	CHIP CAPACITOR	1	
C7449	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7450	F1H1H1030006	CHIP CAPACITOR	1	
C7452	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7453	F1H1H1030006	CHIP CAPACITOR	1	
C7454	F1H0J1050012	CHIP CAPACITOR	1	
C7455	F1H1C104A042	CHIP CAPACITOR	1	
C7456	F1H1C104A042	CHIP CAPACITOR	1	
C7457	FLJ1A105A003	CHIP CAPACITOR	1	
C7465	ECJ1VC1H471J	CHIP CAPACITOR	1	
C7466	ECJ1VC1H471J	CHIP CAPACITOR	1	
C7476	ECJ1VC1H471J	CHIP CAPACITOR	1	
C7477	ECJ1VC1H471J	CHIP CAPACITOR	1	
C7501	F1H1C104A008	CHIP CAPACITOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7502	ECEA0JKA470B	ALU ELEC CAPACITOR	1	
C7525	F1H1H1010005	CHIP CAPACITOR	1	
C7752	F2A0J221A016	ALU ELEC CAPACITOR	1	
C7801	F1H1C104A008	CHIP CAPACITOR	1	
C7901	F1H1H1030007	CHIP CAPACITOR	1	
C7902	ECEA1HKA100B	ALU ELEC CAPACITOR	1	
C7903	F1H1H104A220	CHIP CAPACITOR	1	
C7904	F1H1C104A042	CHIP CAPACITOR	1	
C7905	F2A1C221A019	ALU ELEC CAPACITOR	1	
C7906	ECQB1H473JF4	PLAST FILM CAPACITOR	1	
C7907	F2A1A1010072	ALU ELEC CAPACITOR	1	
C7908	ECQB1H223JF3	PLAST FILM CAPACITOR	1	
C7909	F2A1H5600009	ALU ELEC CAPACITOR	1	
C7910	F2A1H5600009	ALU ELEC CAPACITOR	1	
D11101	B0EBKT000008	DIODE	1	
D11102	B0AAGV000004	SWITCHING DIODE	1	
D11103	B0AAGR000003	SWITCHING DIODE	1	
D11104	B0AAGV000004	SWITCHING DIODE	1	
D11201	MAZ73000BC	DIODE	1	
D11202	MAZ73000BC	DIODE	1	
D11203	B0AADM000003	DIODE	1	
D11204	B0AACK000004	SWITCHING DIODE	1	
D11205	MAZ80820ML	DIODE	1	
D11401	B0JAMK000015	DIODE	1	
D11402	B0JAMK000015	DIODE	1	
D11403	B0JBSG000009	BARRIER DIODE	1	
D11501	B0JCPD000021	DIODE	1	
D1501	B3EA00000072	DIODE	1	
D15001	B0JCPE000015	DIODE	1	
D15002	B0JCPD000021	DIODE	1	
D15003	B0JCPD000021	DIODE	1	
D2001	B0AACK000004	SWITCHING DIODE	1	
D2002	B0AACK000004	SWITCHING DIODE	1	
D2502	MAZ4160NMF	DIODE	1	
D31501	B0EAKL000062	DIODE	1	
D3501	B0AACK000004	SWITCHING DIODE	1	
D37001	B0AACK000004	SWITCHING DIODE	1	
D37002	B0AACK000004	SWITCHING DIODE	1	
D37003	MAZ4091NLF	DIODE	1	
D37502	B0AACK000004	SWITCHING DIODE	1	
D37503	B0AACK000004	SWITCHING DIODE	1	
D3901	B0AACK000004	SWITCHING DIODE	1	
D4501	B0AACK000004	SWITCHING DIODE	1	
D4502	MAZ4056NHF	DIODE	1	
D4901	MA2J11200L	DIODE	1	
D6306	MAZ4056NHF	DIODE	1	
D6401	B0AACK000004	SWITCHING DIODE	1	
D6402	B0ACCK000005	DIODE	1	
D6801	MAZ4051NMF	DIODE	1	
D7401	MAZ4300NMF	DIODE	1	
D7402	MAZ4300NMF	DIODE	1	
D7501	B3AAA0000752	DIODE	1	
D7502	B3AEA0000069	DIODE	1	
D7503	B3ABA0000595	LED	1	
D7504	B3ACA0000273	DIODE	1	
D7505	B3AEA0000069	DIODE	1	
D7506	B3ADA0000173	DIODE	1	
D7508	B3AEA0000069	DIODE	1	
D7751	B0AACK000004	SWITCHING DIODE	1	
D7901	MAZ4220NMF	DIODE	1	
D7902	B0AAGM000007	DIODE	1	
D7903	B0JAME000025	DIODE	1	
D7904	MA2C18500E	DIODE	1	
D7905	MA2C18500E	DIODE	1	
D7906	MAZ4300NMF	DIODE	1	
DP7501	A2BB0000145	FL DISPLAY	1	
F11101	K5D202BK0005	FUSE	1	△
FL6801	F1H0J4740004	CHIP CAPACITOR	1	△
IC11201	C0DACZH00017	IC	1	
IC11301	C0DAEMB00003	IC	1	△
IC11501	C0DBAKG00007	IC	1	
IC1511	B3NAA0000073	IC	1	
IC1512	B3NAA0000073	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC15001	C0EBJ0000143	IC	1	
IC15002	C0DAAJG00007	IC	1	
IC15003	C0DBAKG00005	IC	1	
IC15004	C0DBAKG00007	IC	1	
IC2501	C1AB00001767	IC	1	
IC3001	C1AB00002080	IC	1	
IC3002	C0CBCDD00007	IC	1	
IC3003	C1AB00001681	IC	1	
IC31502	C0CBCBG00012	IC	1	
IC31510	C0CBCYE00001	IC	1	
IC3501	C1AB00001681	IC	1	
IC3502	AN3293S-E2V	IC	1	
IC35004	C1AB00001486	IC	1	
IC35005	C9ZB00000498	IC	1	
IC37001	C0ABBA000146	IC	1	
IC37501	C2CBKH000211	IC	1	
IC37502	C3EBJC000055	IC	1	
IC37503	C0EBH0000172	IC	1	
IC37504	C0CBCBC00037	IC	1	
IC37505	C0EBE0000194	IC	1	
IC37508	C0EBE0000504	IC	1	
IC3901	C1AB00002100	IC	1	
IC3902	C1AB00001681	IC	1	
IC3903	C1AB00001682	IC	1	
IC3904	C1AB00001682	IC	1	
IC3906	C0CBCDD00006	IC	1	
IC4501	AN3656NFBPBV	IC	1	
IC45001	C0DBAHD00013	IC	1	
IC45002	C0ABBB000119	IC	1	
IC45003	C0ABBA000054	IC	1	
IC6001	C2CBJG0000544	IC	1	
IC6101	C1AB00002140	IC	1	
IC6201	C0EBH0000172	IC	1	
IC6302	C0CBCDC00020	IC	1	
IC7301	C1AB00002225	IC	1	
IC7302	C0EAH0000051	IC	1	
IC7401	C0CBCDD00006	IC	1	
IC7402	C0CBCDD00006	IC	1	
IC7405	C0CBCDD00006	IC	1	
IC7502	C0HBB0000048	IC	1	
IC7801	PNA4618M13VT	IC	1	
IP11501	K5H3022A0013	FUSE	1	△
IP15001	K5H3022A0013	FUSE	1	
IP37501	K5H5012A0010	FUSE	1	
IP4901	K5H5012A0010	FUSE	1	
JK35001	K1U717B00005	CONNECTOR	1	
JK3802	K1CB106A0012	CONNECTOR	1	
JK3901	K1FB121B0018	CONNECTOR	1	
JK3902	K1FB121B0018	CONNECTOR	1	
JK4600	K2HA307A0009	CONNECTOR	1	
JK4901	B3ZAZ0000017	OPTICAL LINK	1	
K3005	D0YBR0000020	CHIP RESISTOR	1	
K3006	D0YBR0000020	CHIP RESISTOR	1	
K3009	D0YBR0000020	CHIP RESISTOR	1	
K37703	D0YBR0000020	CHIP RESISTOR	1	
K45003	D0YBR0000020	CHIP RESISTOR	1	
K45005	D0YBR0000020	CHIP RESISTOR	1	
K45009	D0YBR0000020	CHIP RESISTOR	1	
K4502	D0YBR0000020	CHIP RESISTOR	1	
K6002	D0YBR0000020	CHIP RESISTOR	1	
K6201	D0YBR0000020	CHIP RESISTOR	1	
K66801	D0YBR0000020	CHIP RESISTOR	1	
K7301	D0YBR0000020	CHIP RESISTOR	1	
K7302	D0YBR0000020	CHIP RESISTOR	1	
K7303	D0YBR0000020	CHIP RESISTOR	1	
K7305	D0YBR0000020	CHIP RESISTOR	1	
K7401	D0YBR0000020	CHIP RESISTOR	1	
K7403	D0YBR0000020	CHIP RESISTOR	1	
K7405	D0YBR0000020	CHIP RESISTOR	1	
K7503	D0YBR0000020	CHIP RESISTOR	1	
K7506	D0YBR0000020	CHIP RESISTOR	1	
K7507	D0YBR0000020	CHIP RESISTOR	1	
K7512	D0YBR0000020	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
K7513	D0YBR0000020	CHIP RESISTOR	1	
K7514	D0YBR0000020	CHIP RESISTOR	1	
L11101	G0B233D00001	LINE FILTER	1	
L11102	G0B233D00001	LINE FILTER	1	△
L11401	G0A220GA0026	CHOKE COIL RADIAL	1	
L11402	G0A100H00025	CHOKE COIL	1	
L11403	G0A100HA0023	CHOKE COIL	1	
L11501	G0A150ZA0051	CHOKE COIL	1	
L15001	G0A100HA0023	CHOKE COIL	1	
L15002	G0A220GA0026	CHOKE COIL RADIAL	1	
L15003	G0A330ZA0041	CHOKE COIL	1	
L15004	G0A150ZA0041	CHOKE COIL	1	
L15005	G0A220ZA0041	CHOKE COIL	1	
L3001	G0C820JA0019	CHOKE COIL AXIAL	1	
L3002	G0C270JA0019	CHOKE COIL AXIAL	1	
L3003	G0C390JA0019	CHOKE COIL AXIAL	1	
L3004	G0C680JA0019	CHOKE COIL AXIAL	1	
L3006	G0C270JA0019	CHOKE COIL AXIAL	1	
L3007	ELJFAL20KFB	CHIP INDUCTOR	1	
L3008	G0C680JA0019	CHOKE COIL AXIAL	1	
L31501	G0A220ZA0041	CHOKE COIL	1	
L3501	G0C560JA0019	CHOKE COIL AXIAL	1	
L3502	G0C330JA0019	CHOKE COIL AXIAL	1	
L3503	G0C330JA0019	CHOKE COIL AXIAL	1	
L3504	G0C330JA0019	CHOKE COIL AXIAL	1	
L35001	G0C680JA0019	CHOKE COIL AXIAL	1	
L37101	G0A100HA0023	CHOKE COIL	1	
L4001	G0C471KA0065	FIXED INDUCTOR	1	
L4502	G0C1R2J00004	CHOKE COIL AXIAL	1	
L4503	G0C101JA0019	CHOKE COIL AXIAL	1	
L4901	G0C220JA0019	CHOKE COIL AXIAL	1	
L5001	G0C680JA0019	CHOKE COIL AXIAL	1	
L6101	G0C100JA0019	CHOKE COIL AXIAL	1	
L6103	G0C1R5JA0019	CHOKE COIL	1	
L6104	G0C330JA0019	CHOKE COIL AXIAL	1	DMR-EH80VEGS
L6105	G0C680JA0019	CHOKE COIL AXIAL	1	
L7303	G0C1R0JA0019	CHOKE COIL AXIAL	1	
L7401	G0C2R2JA0019	CHOKE COIL AXIAL	1	
L7403	G0C270JA0019	CHOKE COIL AXIAL	1	DMR-EH80VEBS
L7404	G0C2R2JA0019	CHOKE COIL AXIAL	1	
L7901	G0A101EA0017	CHOKE COIL	1	
LB11101	J0JKB0000003	BEAD CORE	1	
LB11102	J0JKB0000003	BEAD CORE	1	
LB11103	J0JHC0000048	BEAD CORE	1	
LB11201	J0JHC0000048	BEAD CORE	1	
LB11501	J0JHC0000048	BEAD CORE	1	
LB15001	J0JHC0000048	BEAD CORE	1	
LB15002	J0JHC0000048	BEAD CORE	1	
LB15003	J0JHC0000048	BEAD CORE	1	
LB15004	J0JHC0000048	BEAD CORE	1	
LB15005	J0JHC0000048	BEAD CORE	1	
LB15006	J0JHC0000048	BEAD CORE	1	
LB31505	J0JKB0000003	BEAD CORE	1	
LB3301	D0YBR0000020	CHIP RESISTOR	1	
LB3302	D0YBR0000020	CHIP RESISTOR	1	
LB3303	D0YBR0000020	CHIP RESISTOR	1	
LB33502	D0YBR0000020	CHIP RESISTOR	1	
LB33503	D0YBR0000020	CHIP RESISTOR	1	
LB33504	D0YBR0000020	CHIP RESISTOR	1	
LB34002	J0JCC0000103	BEAD CORE	1	
LB34003	D0YBR0000020	CHIP RESISTOR	1	
LB35101	D0YBR0000020	CHIP RESISTOR	1	
LB35102	D0YBR0000020	CHIP RESISTOR	1	
LB35103	D0YBR0000020	CHIP RESISTOR	1	
LB35104	D0YBR0000020	CHIP RESISTOR	1	
LB35105	D0YBR0000020	CHIP RESISTOR	1	
LB35106	D0YBR0000020	CHIP RESISTOR	1	
LB37104	J0JCC0000103	BEAD CORE	1	
LB37105	J0JHC0000032	BEAD CORE	1	
LB37108	J0JHC0000032	BEAD CORE	1	
LB37109	J0JHC0000032	BEAD CORE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB37506	DOYBR0000020	CHIP RESISTOR	1	
LB37507	DOYBR0000020	CHIP RESISTOR	1	
LB37508	DOYBR0000020	CHIP RESISTOR	1	
LB37509	DOYBR0000020	CHIP RESISTOR	1	
LB3902	JOJGC0000020	BEAD CORE	1	
LB4101	JOJBC0000041	BEAD CORE	1	
LB4102	JOJBC0000041	BEAD CORE	1	
LB4103	JOJBC0000041	BEAD CORE	1	
LB4104	JOJBC0000041	BEAD CORE	1	
LB4105	JOJBC0000041	BEAD CORE	1	
LB4106	JOJBC0000041	BEAD CORE	1	
LB4201	JOJBC0000070	CHIP INDUCTOR	1	
LB4202	JOJBC0000070	CHIP INDUCTOR	1	
LB4203	DOYBR0000020	CHIP RESISTOR	1	
LB45101	DOYBR0000020	CHIP RESISTOR	1	
LB45102	DOYBR0000020	CHIP RESISTOR	1	
LB6101	DOYBR0000020	CHIP RESISTOR	1	
LB6801	JOJHC0000032	BEAD CORE	1	
LB6802	JOJHC0000045	BEAD CORE	1	
LB7301	JOJCC0000124	BEAD CORE	1	
LB7302	JOJCC0000124	BEAD CORE	1	
LB7303	JOJCC0000080	BEAD CORE	1	
LB7401	JOJHC0000032	BEAD CORE	1	
LB7402	JOJHC0000032	BEAD CORE	1	
LB7403	JOJHC0000032	BEAD CORE	1	
LB7404	JOJHC0000032	BEAD CORE	1	
LB7405	JOJHC0000032	BEAD CORE	1	
LB7406	DOYBR0000020	CHIP RESISTOR	1	
LB7407	JOJHC0000032	BEAD CORE	1	DMR-EH80VEBS
LB7408	JOJHC0000032	BEAD CORE	1	DMR-EH80VEBS
LB7409	DOYBR0000020	CHIP RESISTOR	1	
LB7410	JOJHC0000032	BEAD CORE	1	
LB7411	JOJHC0000032	BEAD CORE	1	
LB7412	DOYBR0000020	CHIP RESISTOR	1	
LB7413	DOYBR0000020	CHIP RESISTOR	1	
LB7414	JOJHC0000032	BEAD CORE	1	DMR-EH80VEBS
LB7415	DOYBR0000020	CHIP RESISTOR	1	
LB7416	JOJHC0000032	BEAD CORE	1	
LB7417	JOJHC0000032	BEAD CORE	1	
LB7901	JOJKB0000028	BEAD CORE	1	
P11001	K1KA16AA0194	CONNECTOR	1	
P11101	K2AA2H000007	AC INLET	1	△
P12001	K1KA04AA0180	CONNECTOR	1	
P12002	K1KA03AA0301	CONNECTOR	1	
P15001	K1KA16AA0194	CONNECTOR	1	
P15002	K1KA05AA0180	CONNECTOR	1	
P15003	K1KA04AA0180	CONNECTOR	1	
P1531	K1KA02A00375	CONNECTOR	1	
P2501	K1MN07A00019	CONNECTOR	1	
P2571	K1KA08A00290	CONNECTOR	1	
P31901	K1KA13A00074	CONNECTOR	1	
P31902	K1KA19A00007	CONNECTOR	1	
P31903	K1KA19A00007	CONNECTOR	1	
P31904	K1KA13A00074	CONNECTOR	1	
P31905	K1KA07A00083	CONNECTOR	1	
P39702	K1KA88A00003	CONNECTOR	1	
P4001	K1MZ02A00003	CONNECTOR	1	
P4002	K1MN06A00033	CONNECTOR	1	
P5001	K1MN09A00022	CONNECTOR	1	
P6001	K1KB13AA0032	CONNECTOR 13POL.	1	
P6002	K1KB19AA0032	CONNECTOR 19POL.	1	
P6003	K1KB19AA0032	CONNECTOR 19POL.	1	
P6004	K1KB13AA0032	CONNECTOR 13POL.	1	
P6005	K1KB07AA0032	CONNECTOR	1	
P66801	K1KA05BA0047	CONNECTOR	1	
P66802	K1NA09E00051	CONNECTOR	1	
P66803	K1MN15B00037	CONNECTOR	1	
P66804	K2HZ104B0015	CONNECTOR	1	
PK7301	K1MM07B00002	CONNECTOR	1	
PK7302	K1MM06B00002	CONNECTOR	1	
PP4600	K1KA12B00129	CONNECTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
PP7501	K1KA10B00176	CONNECTOR	1	
PP7502	K1KA08B00210	CONNECTOR	1	
PP7503	K1KA08B00210	CONNECTOR	1	
PS37501	K1KB08B00043	CONNECTOR	1	
PS37502	K1KB10B00045	CONNECTOR	1	
PS6001	K1KB08B00043	CONNECTOR	1	
PS6002	K1KB12B00040	CONNECTOR	1	
Q11301	B3PBA0000237	PHOTO COUPLER	1	△
Q11501	B1DHDD000022	TRANSISTOR	1	
Q12001	2SD0601ARN	TRANSISTOR	1	
Q1501	PNB2302MF	PHOTO TRANSISTOR	1	
Q1502	PNB2302MF	PHOTO TRANSISTOR	1	
Q15001	B1DHED000008	TRANSISTOR	1	
Q15002	B1DHDD000022	TRANSISTOR	1	
Q15003	B1DHDD000022	TRANSISTOR	1	
Q3002	2SD1819ARL	TRANSISTOR	1	
Q33501	2SB1218ARL	SS-TRANSISTOR	1	
Q33502	2SD1819ARL	TRANSISTOR	1	
Q33503	2SB1218ARL	SS-TRANSISTOR	1	
Q33504	2SD1819ARL	TRANSISTOR	1	
Q33505	2SB1218ARL	SS-TRANSISTOR	1	
Q3501	2SB1218ARL	SS-TRANSISTOR	1	
Q3502	2SB1218ARL	SS-TRANSISTOR	1	
Q3503	2SD1819ARL	TRANSISTOR	1	
Q37001	2SD0874A0L	TRANSISTOR	1	
Q37002	2SD0874A0L	TRANSISTOR	1	
Q3901	2SD132800L	CHIP TRANSISTOR	1	
Q3902	2SD132800L	CHIP TRANSISTOR	1	
Q3903	2SD132800L	CHIP TRANSISTOR	1	
Q3904	2SD132800L	CHIP TRANSISTOR	1	
Q4001	2SD114900L	TRANSISTOR	1	
Q4002	2SD1819ARL	TRANSISTOR	1	
Q4003	2SD0602ARL	TRANSISTOR	1	
Q4004	2SB0710ARL	TRANSISTOR	1	
Q4501	B1AAGD000016	TRANSISTOR	1	
Q4502	2SB0710ARL	TRANSISTOR	1	
Q4901	2SB0710ARL	TRANSISTOR	1	
Q6101	2SB1218ARL	SS-TRANSISTOR	1	DMR-EH80VEGS
Q6102	2SD1819ARL	TRANSISTOR	1	
Q6103	2SD1819ARL	TRANSISTOR	1	
Q6104	2SB1218ARL	SS-TRANSISTOR	1	
Q6305	2SD0601ARN	TRANSISTOR	1	
Q6401	2SD1819ARL	TRANSISTOR	1	
Q6402	2SD1819ARL	TRANSISTOR	1	
Q6403	2SD1819ARL	TRANSISTOR	1	
Q6404	2SD1819ARL	TRANSISTOR	1	
Q6801	2SD1819ARL	TRANSISTOR	1	
Q7401	2SD1819ARL	TRANSISTOR	1	
Q7402	2SD1819ARL	TRANSISTOR	1	DMR-EH80VEGS
Q7403	2SB1218ARL	SS-TRANSISTOR	1	
Q7501	2SD1819ARL	TRANSISTOR	1	
Q7901	2SD21770SA	TRANSISTOR	1	
Q7902	2SD1819ARL	TRANSISTOR	1	
QR15001	UNR221300L	TRANSISTOR	1	
QR15002	UNR221300L	TRANSISTOR	1	
QR15003	UNR221300L	TRANSISTOR	1	
QR15004	UNR221300L	TRANSISTOR	1	
QR15005	UNR221300L	TRANSISTOR	1	
QR15007	UNR221300L	TRANSISTOR	1	
QR3001	UNR521300L	TRANSISTOR	1	
QR3002	UNR521200L	TRANSISTOR	1	
QR3003	UNR521200L	TRANSISTOR	1	
QR3005	UNR521200L	TRANSISTOR	1	
QR33701	UNR521100L	TRANSISTOR	1	
QR35007	UNR521200L	TRANSISTOR	1	
QR35008	UNR521200L	TRANSISTOR	1	
QR37501	UNR521300L	TRANSISTOR	1	
QR37502	UNR521200L	TRANSISTOR	1	
QR37503	UNR521400L	TRANSISTOR	1	
QR3901	UNR521100L	TRANSISTOR	1	
QR3902	UNR521300L	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR4003	UNR521100L	TRANSISTOR	1	
QR4004	UNR511100L	TRANSISTOR	1	
QR4005	UNR521300L	TRANSISTOR	1	
QR4501	UNR521100L	TRANSISTOR	1	
QR45001	UNR511100L	TRANSISTOR	1	
QR45002	UNR521600L	TRANSISTOR	1	
QR45003	UNR521600L	TRANSISTOR	1	
QR45004	UNR521600L	TRANSISTOR	1	
QR45005	UNR521600L	TRANSISTOR	1	
QR45006	UNR521100L	TRANSISTOR	1	
QR45007	UNR521100L	TRANSISTOR	1	
QR45008	UNR521100L	TRANSISTOR	1	
QR45009	UNR521100L	TRANSISTOR	1	
QR4901	UNR521300L	TRANSISTOR	1	
QR4902	UNR511100L	TRANSISTOR	1	
QR4903	UNR521600L	TRANSISTOR	1	
QR4904	UNR521600L	TRANSISTOR	1	
QR4905	UNR521600L	TRANSISTOR	1	
QR4906	UNR521600L	TRANSISTOR	1	
QR4908	UNR511300L	TRANSISTOR	1	DMR-EH80VEBS
QR4910	UNR521600L	TRANSISTOR	1	DMR-EH80VEBS
QR4911	UNR511300L	TRANSISTOR	1	
QR4912	UNR521600L	TRANSISTOR	1	
QR4913	UNR521600L	TRANSISTOR	1	
QR4914	UNR521300L	TRANSISTOR	1	
QR6402	UNR521500L	TRANSISTOR	1	
QR6403	UNR521500L	TRANSISTOR	1	
QR6801	UNR511300L	TRANSISTOR	1	
QR7401	UNR511200L	TRANSISTOR	1	
QR7402	UNR511200L	TRANSISTOR	1	DMR-EH80VEGS
QR7501	UNR521100L	TRANSISTOR	1	
QR7502	UNR521100L	TRANSISTOR	1	
QR7503	UNR521100L	TRANSISTOR	1	
QR7504	UNR521100L	TRANSISTOR	1	
QR7505	UNR521100L	TRANSISTOR	1	
QR7506	UNR521100L	TRANSISTOR	1	
QR7508	UNR521100L	TRANSISTOR	1	
R11103	ERG2SJ153E	METAL OXIDE RESISTOR	1	
R11104	ERG2SJ153E	METAL OXIDE RESISTOR	1	
R11105	ERX2SZJR18E	METAL RESISTOR	1	
R11106	ERG2SJ223E	METAL OXIDE RESISTOR	1	
R11107	ERG2SJ153E	METAL OXIDE RESISTOR	1	
R11201	ERJ6GEYG273V	CHIP RESISTOR	1	
R11202	D0YDR0000006	CHIP RESISTOR	1	
R11203	ERJ6GEYJ223V	CHIP RESISTOR	1	
R11204	ERJ6GEYJ470V	CHIP RESISTOR	1	
R11205	ERJ6GEYJ470V	CHIP RESISTOR	1	
R11206	ERJ6GEYG822V	CHIP RESISTOR	1	
R11207	D0YDR0000006	CHIP RESISTOR	1	
R11208	ERJ6GEYG471V	CHIP RESISTOR	1	
R11209	ERJ6GEYG752V	CHIP RESISTOR	1	
R11301	ERJ6GEYJ222V	CHIP RESISTOR	1	
R11302	ERJ6GEYJ102V	CHIP RESISTOR	1	
R11303	ERJ6GEYJ102V	CHIP RESISTOR	1	
R11304	ERJ6GEYJ103V	CHIP RESISTOR	1	
R11305	ERJ6GEYG912V	CHIP RESISTOR	1	
R11308	D0YDR0000006	CHIP RESISTOR	1	
R11309	ERJ6GEYG471V	CHIP RESISTOR	1	
R11312	ERJ6GEYG242V	CHIP RESISTOR	1	
R11501	D1BFR0150001	RESISTOR ARRAY	1	
R11502	ERJ6RBD302V	CHIP RESISTOR	1	
R11503	ERJ6RBD153V	CHIP RESISTOR	1	
R11504	ERJ6RBD272V	CHIP RESISTOR	1	
R11505	ERJ6GEYJ513V	CHIP RESISTOR	1	
R12001	ERJ6GEYJ473V	CHIP RESISTOR	1	
R15001	ERJ6GEYJ472V	CHIP RESISTOR	1	
R15002	ERJ6GEYJ103V	CHIP RESISTOR	1	
R15003	ERJ6GEYJ473V	CHIP RESISTOR	1	
R15005	ERJ6GEYJ104V	CHIP RESISTOR	1	
R15006	ERJ6RBD272V	CHIP RESISTOR	1	
R15007	ERJ6RBD561V	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R15008	ERJ6RBD102V	CHIP RESISTOR	1	
R1501	D0GB273JA057	CHIP RESISTOR	1	
R15010	ERJ6GEYJ513V	CHIP RESISTOR	1	
R15011	D1BFR0150001	RESISTOR ARRAY	1	
R15012	ERJ6RBD272V	CHIP RESISTOR	1	
R15013	ERJ6RBD123V	CHIP RESISTOR	1	
R15014	ERJ6RBD472V	CHIP RESISTOR	1	
R15015	D1BFR047A010	RESISTOR ARRAY	1	
R15016	ERJ6GEYJ333V	CHIP RESISTOR	1	
R15017	ERJ6RBD562V	CHIP RESISTOR	1	
R15018	ERJ6RBD152V	CHIP RESISTOR	1	
R15019	ERJ6RBD392V	CHIP RESISTOR	1	
R1502	D0GB273JA057	CHIP RESISTOR	1	
R15026	ERJ6GEYJ103V	CHIP RESISTOR	1	
R15027	ERJ6GEYJ472V	CHIP RESISTOR	1	
R1503	ERDS2TJ151T	CARBON RESISTOR	1	
R1511	D0GB273JA057	CHIP RESISTOR	1	
R1512	D0GB273JA057	CHIP RESISTOR	1	
R1513	ERJ6GEYJ121V	CHIP RESISTOR	1	
R2001	D0GB392JA057	CHIP RESISTOR	1	
R2002	D0GB105JA057	CHIP RESISTOR	1	
R2099	D0GB682JA057	CHIP RESISTOR	1	
R2501	ERJ6GEYJ1R2V	CHIP RESISTOR	1	
R2502	ERJ6GEYJ1R5V	CHIP RESISTOR	1	
R2503	ERDS2TJ182T	CARBON RESISTOR	1	
R2514	D0GB221JA057	CHIP RESISTOR	1	
R2515	D0GB221JA057	CHIP RESISTOR	1	
R2516	D0GB221JA057	CHIP RESISTOR	1	
R2520	D0GB183JA057	CHIP RESISTOR	1	
R2521	D0GB102JA057	CHIP RESISTOR	1	
R2551	D0GB103JA057	CHIP RESISTOR	1	
R2552	D0GB103JA057	CHIP RESISTOR	1	
R2561	D0GB102JA057	CHIP RESISTOR	1	
R2562	D0GB473JA057	CHIP RESISTOR	1	
R2563	D0GB102JA057	CHIP RESISTOR	1	
R2564	D0GB101JA057	CHIP RESISTOR	1	
R2565	D0GB101JA057	CHIP RESISTOR	1	
R3001	D0GB152JA057	CHIP RESISTOR	1	
R3002	D0GB622JA057	CHIP RESISTOR	1	
R3003	D0GB562JA057	CHIP RESISTOR	1	
R3005	D0GB122JA057	CHIP RESISTOR	1	
R3007	D0GB101JA057	CHIP RESISTOR	1	
R3008	D0GB106JA057	CHIP RESISTOR	1	
R3010	D0GB153JA057	CHIP RESISTOR	1	
R3013	D0GB101JA057	CHIP RESISTOR	1	
R3014	D0GB101JA057	CHIP RESISTOR	1	
R3015	D0GB273JA057	CHIP RESISTOR	1	
R3016	D0GB471JA057	CHIP RESISTOR	1	
R3017	D0GB332JA057	CHIP RESISTOR	1	
R3020	D0GB332JA057	CHIP RESISTOR	1	
R3021	D0GB102JA057	CHIP RESISTOR	1	
R3023	D0YBR0000020	CHIP RESISTOR	1	
R3024	D0GB682JA057	CHIP RESISTOR	1	
R31501	D1BB6802A010	CHIP RESISTOR	1	
R31502	D0YBR0000020	CHIP RESISTOR	1	
R31503	D1BB22020002	CHIP RESISTOR	1	
R31512	ERDS2TJ271T	CARBON RESISTOR	1	
R31513	ERDS2TJ271T	CARBON RESISTOR	1	
R33501	D0GB102JA057	CHIP RESISTOR	1	
R33502	D0GB104JA057	CHIP RESISTOR	1	
R33503	D0GB392JA057	CHIP RESISTOR	1	
R33504	D0GB102JA057	CHIP RESISTOR	1	
R33505	D1BB1502A010	CHIP RESISTOR	1	
R33506	D1BB15010002	CHIP RESISTOR	1	
R33507	D0GB104JA057	CHIP RESISTOR	1	
R33508	D1BB5601A010	CHIP RESISTOR	1	
R33509	D0YBR0000020	CHIP RESISTOR	1	
R33510	D0YBR0000020	CHIP RESISTOR	1	
R33511	D0GB102JA057	CHIP RESISTOR	1	
R33707	D0GB472JA057	CHIP RESISTOR	1	
R34002	D0YBR0000020	CHIP RESISTOR	1	
R34008	D0YBR0000020	CHIP RESISTOR	1	
R34009	D0YBR0000020	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R34011	D0GB221JA057	CHIP RESISTOR	1	
R3501	D1BB5600A010	CHIP RESISTOR	1	
R3502	D1BB1001A010	CHIP RESISTOR	1	
R3503	D0GB122JA057	CHIP RESISTOR	1	
R3504	D0GB102JA057	CHIP RESISTOR	1	
R3505	D0GB122JA057	CHIP RESISTOR	1	
R3507	D1BB1201A010	CHIP RESISTOR	1	
R3508	D0GB394JA057	CHIP RESISTOR	1	
R3509	D1BB1001A010	CHIP RESISTOR	1	
R3510	D1BB4700A010	CHIP RESISTOR	1	
R3511	D1BB33010002	CHIP RESISTOR	1	
R3512	D1BB33010002	CHIP RESISTOR	1	
R3513	D1BB15010002	CHIP RESISTOR	1	
R3515	D1BB1201A010	CHIP RESISTOR	1	
R3516	D1BB1001A010	CHIP RESISTOR	1	
R35015	D1BB75R0A010	CHIP RESISTOR	1	
R35017	D1BB75R0A010	CHIP RESISTOR	1	
R35018	D1BB75R0A010	CHIP RESISTOR	1	
R35019	D1BB75R0A010	CHIP RESISTOR	1	
R35020	D1BB75R0A010	CHIP RESISTOR	1	
R35021	D1BB75R0A010	CHIP RESISTOR	1	
R35026	D0GB102JA057	CHIP RESISTOR	1	
R35027	D0GB102JA057	CHIP RESISTOR	1	
R35031	D0GB102JA057	CHIP RESISTOR	1	
R37001	D0GB821JA057	CHIP RESISTOR	1	
R37002	D0GB821JA057	CHIP RESISTOR	1	
R37003	D0GB183JA057	CHIP RESISTOR	1	
R37004	D0GB103JA057	CHIP RESISTOR	1	
R37501	D0GB101JA057	CHIP RESISTOR	1	
R37502	D0GB103JA057	CHIP RESISTOR	1	
R37503	D0GB101JA057	CHIP RESISTOR	1	
R37504	D0GB103JA057	CHIP RESISTOR	1	
R37505	D0GB473JA057	CHIP RESISTOR	1	
R37506	D0GB103JA057	CHIP RESISTOR	1	
R37511	D0GB101JA057	CHIP RESISTOR	1	
R37512	D0GB101JA057	CHIP RESISTOR	1	
R37530	D0GB473JA057	CHIP RESISTOR	1	
R37531	D0GB473JA057	CHIP RESISTOR	1	
R37532	D0GB473JA057	CHIP RESISTOR	1	
R37533	D0GB473JA057	CHIP RESISTOR	1	
R37534	D0GB101JA057	CHIP RESISTOR	1	
R37535	D0GB101JA057	CHIP RESISTOR	1	
R37536	D0GB101JA057	CHIP RESISTOR	1	
R37537	D0GB101JA057	CHIP RESISTOR	1	
R37538	D0GB472JA057	CHIP RESISTOR	1	
R37539	D0YBR0000020	CHIP RESISTOR	1	
R37540	D0GB332JA057	CHIP RESISTOR	1	
R37541	D0YBR0000020	CHIP RESISTOR	1	
R37542	D0GB103JA057	CHIP RESISTOR	1	
R37544	D0GB221JA057	CHIP RESISTOR	1	
R37545	D0GB221JA057	CHIP RESISTOR	1	
R37546	D0GB472JA057	CHIP RESISTOR	1	
R37547	D0GB472JA057	CHIP RESISTOR	1	
R37548	D0GB472JA057	CHIP RESISTOR	1	
R37549	D0GB511JA057	CHIP RESISTOR	1	
R37550	D0GB202JA057	CHIP RESISTOR	1	
R37551	D0GB202JA057	CHIP RESISTOR	1	
R37556	D0GB101JA057	CHIP RESISTOR	1	
R37557	D0GB101JA057	CHIP RESISTOR	1	
R37558	D0GB101JA057	CHIP RESISTOR	1	
R37559	D0GB101JA057	CHIP RESISTOR	1	
R37561	D0GB392JA057	CHIP RESISTOR	1	
R37562	D0GB101JA057	CHIP RESISTOR	1	
R37563	D0GB101JA057	CHIP RESISTOR	1	
R37565	D0GB101JA057	CHIP RESISTOR	1	
R37566	D0GB101JA057	CHIP RESISTOR	1	
R37569	D0GB101JA057	CHIP RESISTOR	1	
R37571	D0GB101JA057	CHIP RESISTOR	1	
R37572	D0GB101JA057	CHIP RESISTOR	1	
R37573	D0GB181JA057	CHIP RESISTOR	1	
R37575	D0GB104JA057	CHIP RESISTOR	1	
R37577	D0GB101JA057	CHIP RESISTOR	1	
R37578	D0GB101JA057	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R37581	D1BB3902A010	CHIP RESISTOR	1	
R37582	D1BB4302A010	CHIP RESISTOR	1	
R37583	D0GB473JA057	CHIP RESISTOR	1	
R37584	D0GB473JA057	CHIP RESISTOR	1	
R37585	D0GB223JA057	CHIP RESISTOR	1	
R37588	D0GB472JA057	CHIP RESISTOR	1	
R37596	D0GB473JA057	CHIP RESISTOR	1	
R37597	D0GB153JA057	CHIP RESISTOR	1	
R37599	D0GB223JA057	CHIP RESISTOR	1	
R37600	D0GB153JA057	CHIP RESISTOR	1	
R37604	D0GB822JA057	CHIP RESISTOR	1	
R37605	D0GB822JA057	CHIP RESISTOR	1	
R37606	D0GB822JA057	CHIP RESISTOR	1	
R37612	D0GB101JA057	CHIP RESISTOR	1	
R37633	D0GB223JA057	CHIP RESISTOR	1	
R3801	D0GB750JA057	CHIP RESISTOR	1	
R3802	D0GB750JA057	CHIP RESISTOR	1	
R3803	D0GB750JA057	CHIP RESISTOR	1	
R3804	D0GB102JA057	CHIP RESISTOR	1	
R3901	ERJ6GEYG750V	CHIP RESISTOR	1	
R3902	ERJ6GEYG750V	CHIP RESISTOR	1	
R3903	ERJ6GEYG750V	CHIP RESISTOR	1	
R3904	ERJ6GEYG750V	CHIP RESISTOR	1	
R3905	ERJ6GEYG750V	CHIP RESISTOR	1	
R3906	ERJ6GEYG750V	CHIP RESISTOR	1	
R3907	ERD52TJ221T	CARBON RESISTOR	1	
R3908	ERJ6GEYJ750V	CHIP RESISTOR	1	
R3909	ERJ6GEYG750V	CHIP RESISTOR	1	
R3910	ERJ3RED750V	CHIP RESISTOR	1	
R3911	ERJ3RED750V	CHIP RESISTOR	1	
R3912	ERJ3RED750V	CHIP RESISTOR	1	
R3913	ERJ6GEYG750V	CHIP RESISTOR	1	
R3914	D0GB330JA057	CHIP RESISTOR	1	
R3915	D0GB822JA057	CHIP RESISTOR	1	
R3916	D0GB101JA057	CHIP RESISTOR	1	
R3917	D0GB101JA057	CHIP RESISTOR	1	
R3918	D0GB102JA057	CHIP RESISTOR	1	
R3919	D0GB154JA057	CHIP RESISTOR	1	
R3920	D0GB154JA057	CHIP RESISTOR	1	
R3921	D0GB682JA057	CHIP RESISTOR	1	
R3922	D0GB682JA057	CHIP RESISTOR	1	
R3923	D0GB124JA057	CHIP RESISTOR	1	
R3924	D0GB124JA057	CHIP RESISTOR	1	
R3925	D0GB153JA057	CHIP RESISTOR	1	
R3934	D0GB103JA057	CHIP RESISTOR	1	
R4001	D0GB332JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R4001	D0GB202JA057	CHIP RESISTOR	1	DMR-EH80VEGS
R4002	D0GB153JA057	CHIP RESISTOR	1	
R4003	D0GB682JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R4003	D0GB392JA057	CHIP RESISTOR	1	DMR-EH80VEGS
R4004	D0GB472JA057	CHIP RESISTOR	1	
R4006	D0GB332JA057	CHIP RESISTOR	1	
R4007	D0GB104JA057	CHIP RESISTOR	1	
R4008	D0GB153JA057	CHIP RESISTOR	1	
R4009	D0GB271JA057	CHIP RESISTOR	1	
R4011	D0GB203JA057	CHIP RESISTOR	1	
R4012	D0GB474JA057	CHIP RESISTOR	1	
R4013	D0GB153JA057	CHIP RESISTOR	1	
R4014	D0GB103JA057	CHIP RESISTOR	1	
R4015	D0GB332JA057	CHIP RESISTOR	1	
R4016	D0GB222JA057	CHIP RESISTOR	1	
R4017	D0GB222JA057	CHIP RESISTOR	1	
R4018	ERJ6GEYJ102V	CHIP RESISTOR	1	
R4019	ERJ6GEYJ102V	CHIP RESISTOR	1	
R4101	D0GB102JA057	CHIP RESISTOR	1	
R4102	D0GB102JA057	CHIP RESISTOR	1	
R4103	D0GB102JA057	CHIP RESISTOR	1	
R4104	D0GB102JA057	CHIP RESISTOR	1	
R4305	D0GB471JA057	CHIP RESISTOR	1	
R4306	D0GB471JA057	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4501	D0GB563JA057	CHIP RESISTOR	1	
R4502	D0GB563JA057	CHIP RESISTOR	1	
R4503	D0GB223JA057	CHIP RESISTOR	1	
R4504	D0GB223JA057	CHIP RESISTOR	1	
R4505	D0GB432JA057	CHIP RESISTOR	1	
R4506	D0GB432JA057	CHIP RESISTOR	1	
R4507	D0GB912JA057	CHIP RESISTOR	1	
R4508	D0GB432JA057	CHIP RESISTOR	1	
R4509	D0GB432JA057	CHIP RESISTOR	1	
R4510	D0GB912JA057	CHIP RESISTOR	1	
R4511	D0GB432JA057	CHIP RESISTOR	1	
R4512	D0GB432JA057	CHIP RESISTOR	1	
R4513	D0GB563JA057	CHIP RESISTOR	1	
R4514	D0GB563JA057	CHIP RESISTOR	1	
R4515	D0GB563JA057	CHIP RESISTOR	1	
R4516	D0GB563JA057	CHIP RESISTOR	1	
R4517	D0GB511JA057	CHIP RESISTOR	1	
R4518	D0GB472JA057	CHIP RESISTOR	1	
R4519	D0GB472JA057	CHIP RESISTOR	1	
R4520	D0YBR0000020	CHIP RESISTOR	1	
R4521	D0GB124JA057	CHIP RESISTOR	1	
R4522	D0GB472JA057	CHIP RESISTOR	1	
R4523	D0GB511JA057	CHIP RESISTOR	1	
R4524	D0GB102JA057	CHIP RESISTOR	1	
R4525	D0GB333JA057	CHIP RESISTOR	1	
R4526	D0GB102JA057	CHIP RESISTOR	1	
R4527	D0GB102JA057	CHIP RESISTOR	1	
R4528	D0GB472JA057	CHIP RESISTOR	1	
R4530	D0GB472JA057	CHIP RESISTOR	1	
R4532	D0GB681JA057	CHIP RESISTOR	1	
R4554	D0GB683JA057	CHIP RESISTOR	1	
R4555	ERDS2TJ821T	CARBON RESISTOR	1	
R4557	D0GB472JA057	CHIP RESISTOR	1	
R4558	D0GB683JA057	CHIP RESISTOR	1	
R4559	D0GB393JA057	CHIP RESISTOR	1	
R4560	D0GB682JA057	CHIP RESISTOR	1	
R45001	D0GB101JA057	CHIP RESISTOR	1	
R45002	D0HB202ZA002	CHIP RESISTOR	1	
R45003	D0HB222ZA002	CHIP RESISTOR	1	
R45004	D0HB183ZA002	CHIP RESISTOR	1	
R45005	D0HB103ZA002	METAL FILM RESISTOR	1	
R45006	D0GB473JA057	CHIP RESISTOR	1	
R45007	D0HB183ZA002	CHIP RESISTOR	1	
R45008	D0HB103ZA002	METAL FILM RESISTOR	1	
R45009	D0GB473JA057	CHIP RESISTOR	1	
R45010	D0GB471JA057	CHIP RESISTOR	1	
R45011	D0GB471JA057	CHIP RESISTOR	1	
R45012	D0GB471JA057	CHIP RESISTOR	1	
R45013	D0GB471JA057	CHIP RESISTOR	1	
R45014	D0GB103JA057	CHIP RESISTOR	1	
R45015	D0GB103JA057	CHIP RESISTOR	1	
R45016	D0GB221JA057	CHIP RESISTOR	1	
R45017	D0GB221JA057	CHIP RESISTOR	1	
R45018	D0GB102JA057	CHIP RESISTOR	1	
R45019	D0GB102JA057	CHIP RESISTOR	1	
R4903	D0YBR0000020	CHIP RESISTOR	1	
R4905	D0GB221JA057	CHIP RESISTOR	1	
R4906	D0GB221JA057	CHIP RESISTOR	1	
R4907	D0GB471JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R4908	D0GB471JA057	CHIP RESISTOR	1	
R4909	D0GB471JA057	CHIP RESISTOR	1	
R4910	D0GB471JA057	CHIP RESISTOR	1	
R4911	D0GB471JA057	CHIP RESISTOR	1	
R4916	D0GB221JA057	CHIP RESISTOR	1	
R4917	D0GB221JA057	CHIP RESISTOR	1	
R4922	D0GB471JA057	CHIP RESISTOR	1	
R4923	D0GB471JA057	CHIP RESISTOR	1	
R4924	D0GB225JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R4925	D0GB472JA057	CHIP RESISTOR	1	
R4926	D0GB472JA057	CHIP RESISTOR	1	
R4927	D0GB223JA057	CHIP RESISTOR	1	DMR-EH80VEGS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6001	D0GB102JA057	CHIP RESISTOR	1	
R6002	D0GB102JA057	CHIP RESISTOR	1	
R6004	D0GB433JA057	CHIP RESISTOR	1	
R6006	D0GB273JA057	CHIP RESISTOR	1	
R6007	D0GB183JA057	CHIP RESISTOR	1	
R6008	D0GB222JA057	CHIP RESISTOR	1	
R6009	D0GB101JA057	CHIP RESISTOR	1	
R6010	D0GB393JA057	CHIP RESISTOR	1	
R6011	D0GB183JA057	CHIP RESISTOR	1	
R6012	D0GB681JA057	CHIP RESISTOR	1	
R6013	D0GB221JA057	CHIP RESISTOR	1	
R6014	D0GB103JA057	CHIP RESISTOR	1	
R6016	D0GB102JA057	CHIP RESISTOR	1	
R6017	D0GB222JA057	CHIP RESISTOR	1	
R6018	D0GB102JA057	CHIP RESISTOR	1	
R6019	D0GB681JA057	CHIP RESISTOR	1	
R6020	D0GB101JA057	CHIP RESISTOR	1	
R6022	D0GB221JA057	CHIP RESISTOR	1	
R6023	D0GB221JA057	CHIP RESISTOR	1	
R6024	D0GB221JA057	CHIP RESISTOR	1	
R6025	D0GB221JA057	CHIP RESISTOR	1	
R6026	D0GB103JA057	CHIP RESISTOR	1	
R6027	D0GB103JA057	CHIP RESISTOR	1	
R6028	D0GB103JA057	CHIP RESISTOR	1	
R6029	D0GB472JA057	CHIP RESISTOR	1	
R6030	D0GB472JA057	CHIP RESISTOR	1	
R6031	D0GB223JA057	CHIP RESISTOR	1	
R6033	D0GB103JA057	CHIP RESISTOR	1	
R6035	D0GB102JA057	CHIP RESISTOR	1	
R6036	D0GB102JA057	CHIP RESISTOR	1	
R6101	D0GB103JA057	CHIP RESISTOR	1	
R6102	D0GB103JA057	CHIP RESISTOR	1	
R6103	D0GB103JA057	CHIP RESISTOR	1	
R6109	D0GB105JA057	CHIP RESISTOR	1	
R6110	D0GB221JA057	CHIP RESISTOR	1	
R6111	D0GB101JA057	CHIP RESISTOR	1	
R6112	D0GB272JA057	CHIP RESISTOR	1	
R6113	D0GB562JA057	CHIP RESISTOR	1	
R6114	D0GB102JA057	CHIP RESISTOR	1	
R6115	D0GB471JA057	CHIP RESISTOR	1	
R6116	D0GB152JA057	CHIP RESISTOR	1	DMR-EH80VEGS
R6117	D0GB181JA057	CHIP RESISTOR	1	
R6118	D0GB473JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R6119	D0GB241JA057	CHIP RESISTOR	1	
R6120	D0GB102JA057	CHIP RESISTOR	1	
R6121	D0GB561JA057	CHIP RESISTOR	1	
R6122	D0GB561JA057	CHIP RESISTOR	1	
R6123	D0YBR0000020	CHIP RESISTOR	1	
R6131	D0GB101JA057	CHIP RESISTOR	1	
R6201	D0GB103JA057	CHIP RESISTOR	1	
R6309	D0GB272JA057	CHIP RESISTOR	1	
R6401	D0GB221JA057	CHIP RESISTOR	1	
R6402	D0GB153JA057	CHIP RESISTOR	1	
R6403	D0GB103JA057	CHIP RESISTOR	1	
R6404	D0GB471JA057	CHIP RESISTOR	1	
R6405	D0GB223JA057	CHIP RESISTOR	1	
R6406	D0GB474JA057	CHIP RESISTOR	1	
R6407	D0GB153JA057	CHIP RESISTOR	1	
R6408	D0GB104JA057	CHIP RESISTOR	1	
R6409	D0GB104JA057	CHIP RESISTOR	1	
R6410	D0GB224JA057	CHIP RESISTOR	1	
R6411	D0GB225JA057	CHIP RESISTOR	1	
R6412	D0GB433JA057	CHIP RESISTOR	1	
R6413	D0GB473JA057	CHIP RESISTOR	1	
R6414	D0GB472JA057	CHIP RESISTOR	1	
R66801	D0GB123JA057	CHIP RESISTOR	1	
R66802	D0GB123JA057	CHIP RESISTOR	1	
R66804	D0GB123JA057	CHIP RESISTOR	1	
R66805	D0GB123JA057	CHIP RESISTOR	1	
R66806	D0GB123JA057	CHIP RESISTOR	1	
R66807	D0GB223JA057	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R66808	D0GB223JA057	CHIP RESISTOR	1	
R66809	D0GB750JA057	CHIP RESISTOR	1	
R66810	D0GB750JA057	CHIP RESISTOR	1	
R66811	D0GB750JA057	CHIP RESISTOR	1	
R66812	D0GB750JA057	CHIP RESISTOR	1	
R66813	D0GB750JA057	CHIP RESISTOR	1	
R66814	D0GB750JA057	CHIP RESISTOR	1	
R66815	D0GB101JA057	CHIP RESISTOR	1	
R66816	D0YBR0000020	CHIP RESISTOR	1	
R66817	D0YBR0000020	CHIP RESISTOR	1	
R66818	D0YBR0000020	CHIP RESISTOR	1	
R66819	D0YBR0000020	CHIP RESISTOR	1	
R6801	D0GB104JA057	CHIP RESISTOR	1	
R6802	D0YBR0000020	CHIP RESISTOR	1	
R6803	D0GB474JA057	CHIP RESISTOR	1	
R7301	D0YBR0000020	CHIP RESISTOR	1	
R7304	D0GB101JA057	CHIP RESISTOR	1	
R7307	D0YBR0000020	CHIP RESISTOR	1	
R7309	D0GB103JA057	CHIP RESISTOR	1	
R7310	D0GB221JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R7311	D0GB221JA057	CHIP RESISTOR	1	
R7312	D1BB2200A010	CHIP RESISTOR	1	DMR-EH80VEBS
R7312	D1BB18010002	CHIP RESISTOR	1	DMR-EH80VEGS
R7313	D1BB2200A010	CHIP RESISTOR	1	DMR-EH80VEBS
R7313	D1BB18010002	CHIP RESISTOR	1	DMR-EH80VEGS
R7314	D0YBR0000020	CHIP RESISTOR	1	
R7315	D0YBR0000020	CHIP RESISTOR	1	
R7317	D0YBR0000020	CHIP RESISTOR	1	DMR-EH80VEBS
R7317	J0JCC0000103	BEAD CORE	1	DMR-EH80VEGS
R7319	D0YBR0000020	CHIP RESISTOR	1	DMR-EH80VEBS
R7319	J0JCC0000103	BEAD CORE	1	DMR-EH80VEGS
R7322	D0YBR0000020	CHIP RESISTOR	1	
R7324	D0GB101JA057	CHIP RESISTOR	1	
R7325	D0GB101JA057	CHIP RESISTOR	1	
R7401	ERDS2TJ331T	CARBON RESISTOR	1	
R7402	ERDS2TJ331T	CARBON RESISTOR	1	
R7403	ERDS2TJ331T	CARBON RESISTOR	1	
R7404	ERDS2TJ331T	CARBON RESISTOR	1	
R7405	D0GB471JA057	CHIP RESISTOR	1	
R7406	D0GB471JA057	CHIP RESISTOR	1	
R7410	D0GB221JA057	CHIP RESISTOR	1	
R7411	D0GB221JA057	CHIP RESISTOR	1	
R7413	D0YBR0000020	CHIP RESISTOR	1	DMR-EH80VEGS
R7414	D0GB101JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R7415	D0GB101JA057	CHIP RESISTOR	1	DMR-EH80VEBS
R7416	D0GB471JA057	CHIP RESISTOR	1	
R7417	D0GB471JA057	CHIP RESISTOR	1	
R7418	D0YBR0000020	CHIP RESISTOR	1	
R7419	D0YBR0000020	CHIP RESISTOR	1	
R7420	D0GB681JA057	CHIP RESISTOR	1	
R7421	D0GB221JA057	CHIP RESISTOR	1	
R7422	D0GB221JA057	CHIP RESISTOR	1	
R7433	D0GB104JA057	CHIP RESISTOR	1	
R7434	D0GB104JA057	CHIP RESISTOR	1	DMR-EH80VEGS
R7435	D0GB562JA057	CHIP RESISTOR	1	DMR-EH80VEGS
R7436	D0YBR0000020	CHIP RESISTOR	1	
R7437	D0YBR0000020	CHIP RESISTOR	1	
R7501	D0GB271JA057	CHIP RESISTOR	1	
R7502	D0GB151JA002	CHIP RESISTOR	1	
R7503	D0GB681JA057	CHIP RESISTOR	1	
R7504	D0GB391JA057	CHIP RESISTOR	1	
R7505	D0GB471JA057	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7506	D0GB391JA057	CHIP RESISTOR	1	
R7508	D0GB122JA057	CHIP RESISTOR	1	
R7509	D0GB122JA057	CHIP RESISTOR	1	
R7510	ERDS2TJ5R6T	CARBON RESISTOR	1	
R7511	D0GB152JA057	CHIP RESISTOR	1	
R7512	D0GB103JA057	CHIP RESISTOR	1	
R7513	D0GB683JA057	CHIP RESISTOR	1	
R7514	D0YBR0000020	CHIP RESISTOR	1	
R7515	D0GB101JA057	CHIP RESISTOR	1	
R7516	D0GB152JA057	CHIP RESISTOR	1	
R7517	D0GB222JA057	CHIP RESISTOR	1	
R7518	D0GB151JA002	CHIP RESISTOR	1	
R7525	D0GB273JA057	CHIP RESISTOR	1	
R7526	D0GB101JA057	CHIP RESISTOR	1	
R7527	D0GB101JA057	CHIP RESISTOR	1	
R7528	D0GB222JA057	CHIP RESISTOR	1	
R7529	D0GB332JA057	CHIP RESISTOR	1	
R7530	D0GB152JA057	CHIP RESISTOR	1	
R7531	D0GB122JA057	CHIP RESISTOR	1	
R7532	D0GB222JA057	CHIP RESISTOR	1	
R7801	D0GB221JA057	CHIP RESISTOR	1	
R7802	D0GB182JA057	CHIP RESISTOR	1	
R7803	D0GB332JA057	CHIP RESISTOR	1	
R7806	D0GB472JA057	CHIP RESISTOR	1	
R7807	D0GB182JA057	CHIP RESISTOR	1	
R7808	D0GB332JA057	CHIP RESISTOR	1	
R7809	D0GB472JA057	CHIP RESISTOR	1	
R7810	D0GB682JA057	CHIP RESISTOR	1	
R7812	D0GB123JA057	CHIP RESISTOR	1	
R7813	D0GB273JA057	CHIP RESISTOR	1	
R7901	ERDS2TJ561T	CARBON RESISTOR	1	
R7902	ERDS2TJ333T	CARBON RESISTOR	1	
R7903	D0GB472JA057	CHIP RESISTOR	1	
R7904	D0GB472JA057	CHIP RESISTOR	1	
R7905	D0GB223JA057	CHIP RESISTOR	1	
R7906	D0GB223JA057	CHIP RESISTOR	1	
R7907	ERDS2TJ101T	CARBON RESISTOR	1	
R7909	D0GB393JA057	CHIP RESISTOR	1	
S1531	K0C111A00006	SAFETY TAB SWITCH	1	
S1532	K0ZZ00000598	MODE SWITCH	1	
S7501	EVQ11G04M	TOUCH SWITCH	1	
S7502	EVQ11G07K	TOUCH SWITCH	1	
S7503	EVQ11G07K	TOUCH SWITCH	1	
S7504	EVQ11G07K	TOUCH SWITCH	1	
S7505	EVQ11G07K	TOUCH SWITCH	1	
S7506	EVQ11G07K	TOUCH SWITCH	1	
S7509	EVQ11G07K	TOUCH SWITCH	1	
S7510	EVQ11G07K	TOUCH SWITCH	1	
S7511	EVQ11G07K	TOUCH SWITCH	1	
S7512	EVQ11G07K	TOUCH SWITCH	1	
S7513	EVQ11G07K	TOUCH SWITCH	1	
S7514	EVQ11G07K	TOUCH SWITCH	1	
S7515	EVQ11G07K	TOUCH SWITCH	1	
S7801	EVQ11G07K	TOUCH SWITCH	1	
S7802	EVQ11G07K	TOUCH SWITCH	1	
S7803	EVQ11G07K	TOUCH SWITCH	1	
S7805	EVQ11G07K	TOUCH SWITCH	1	
S7806	EVQ11G07K	TOUCH SWITCH	1	
S7807	EVQ11G07K	TOUCH SWITCH	1	
S7808	EVQ11G07K	TOUCH SWITCH	1	
S7809	EVQ11G07K	TOUCH SWITCH	1	
S7810	EVQ11G07K	TOUCH SWITCH	1	
S7812	EVQ11G07K	TOUCH SWITCH	1	
S7813	EVQ11G07K	TOUCH SWITCH	1	
T11101	G4D3A0000188	SWITCH. TRANSFORMER	1	△
T4001	G2A362C00004	BIAS TRANSFORMER	1	
T7901	ETS13TB159AP	TRANSFORMER	1	
VA11101	ERZVA5V471	SURGE ABSORBER	1	△
W501	D0YDR0000006	CHIP RESISTOR	1	
W501	D0YBR0000020	CHIP RESISTOR	1	
W502	D0YDR0000006	CHIP RESISTOR	1	
W503	D0YBR0000020	CHIP RESISTOR	1	
W503	D0YDR0000006	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W504	D0YBR0000020	CHIP RESISTOR	1	
W505	D0YDR0000006	CHIP RESISTOR	1	
W505	D0YBR0000020	CHIP RESISTOR	1	
W506	D0YBR0000020	CHIP RESISTOR	1	
W507	D0YBR0000020	CHIP RESISTOR	1	
W507	D0YDR0000006	CHIP RESISTOR	1	
W508	D0YBR0000020	CHIP RESISTOR	1	
W509	D0YBR0000020	CHIP RESISTOR	1	
W510	D0YDR0000006	CHIP RESISTOR	1	
W511	D0YDR0000006	CHIP RESISTOR	1	
W512	D0YDR0000006	CHIP RESISTOR	1	
W513	D0YBR0000020	CHIP RESISTOR	1	
W514	D0YBR0000020	CHIP RESISTOR	1	
W516	D0YBR0000020	CHIP RESISTOR	1	
W517	D0YDR0000006	CHIP RESISTOR	1	
W518	D0YBR0000020	CHIP RESISTOR	1	
W519	D0YBR0000020	CHIP RESISTOR	1	
W520	D0YDR0000006	CHIP RESISTOR	1	
W521	D0YBR0000020	CHIP RESISTOR	1	
W6	D0YBR0000020	CHIP RESISTOR	1	
W7	D0YBR0000020	CHIP RESISTOR	1	
W701	D0YDR0000006	CHIP RESISTOR	1	
W702	D0YBR0000020	CHIP RESISTOR	1	
W703	D0YBR0000020	CHIP RESISTOR	1	
W704	D0YDR0000006	CHIP RESISTOR	1	
W705	D0YBR0000020	CHIP RESISTOR	1	
W706	D0YDR0000006	CHIP RESISTOR	1	
W707	D0YDR0000006	CHIP RESISTOR	1	
W708	D0YDR0000006	CHIP RESISTOR	1	
W709	D0YBR0000020	CHIP RESISTOR	1	
W710	D0YBR0000020	CHIP RESISTOR	1	
W711	D0YBR0000020	CHIP RESISTOR	1	
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W716	D0YBR0000020	CHIP RESISTOR	1	
W717	D0YDR0000006	CHIP RESISTOR	1	
W718	D0YBR0000020	CHIP RESISTOR	1	
W719	D0YDR0000006	CHIP RESISTOR	1	
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W727	D0YDR0000006	CHIP RESISTOR	1	
W728	D0YBR0000020	CHIP RESISTOR	1	
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W730	D0YBR0000020	CHIP RESISTOR	1	
W731	D0YDR0000006	CHIP RESISTOR	1	
W732	D0YBR0000020	CHIP RESISTOR	1	
W733	D0YBR0000020	CHIP RESISTOR	1	
W734	D0YBR0000020	CHIP RESISTOR	1	
W735	D0YDR0000006	CHIP RESISTOR	1	
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W737	D0YBR0000020	CHIP RESISTOR	1	
W738	D0YDR0000006	CHIP RESISTOR	1	
W739	D0YBR0000020	CHIP RESISTOR	1	
W740	D0YBR0000020	CHIP RESISTOR	1	
W741	D0YDR0000006	CHIP RESISTOR	1	
W742	D0YDR0000006	CHIP RESISTOR	1	
W743	D0YBR0000020	CHIP RESISTOR	1	
W744	D0YBR0000020	CHIP RESISTOR	1	
W745	D0YDR0000006	CHIP RESISTOR	1	
W746	D0YDR0000006	CHIP RESISTOR	1	
W747	D0YBR0000020	CHIP RESISTOR	1	
W748	D0YBR0000020	CHIP RESISTOR	1	
W749	D0YDR0000006	CHIP RESISTOR	1	
W750	D0YBR0000020	CHIP RESISTOR	1	
W751	D0YBR0000020	CHIP RESISTOR	1	
W752	D0YBR0000020	CHIP RESISTOR	1	
W753	D0YBR0000020	CHIP RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W754	D0YBR0000020	CHIP RESISTOR	1	
W755	D0YDR0000006	CHIP RESISTOR	1	
W756	D0YDR0000006	CHIP RESISTOR	1	
W757	D0YDR0000006	CHIP RESISTOR	1	
W758	D0YDR0000006	CHIP RESISTOR	1	
W759	D0YBR0000020	CHIP RESISTOR	1	
W760	D0YDR0000006	CHIP RESISTOR	1	
W761	D0YDR0000006	CHIP RESISTOR	1	
W762	D0YBR0000020	CHIP RESISTOR	1	
W763	D0YBR0000020	CHIP RESISTOR	1	
W764	D0YBR0000020	CHIP RESISTOR	1	
W765	D0YBR0000020	CHIP RESISTOR	1	
W766	D0YBR0000020	CHIP RESISTOR	1	
W767	D0YDR0000006	CHIP RESISTOR	1	
W768	D0YDR0000006	CHIP RESISTOR	1	
W769	D0YDR0000006	CHIP RESISTOR	1	
W770	D0YBR0000020	CHIP RESISTOR	1	
W771	D0YDR0000006	CHIP RESISTOR	1	
W772	D0YBR0000020	CHIP RESISTOR	1	
W773	D0YBR0000020	CHIP RESISTOR	1	
W774	D0YDR0000006	CHIP RESISTOR	1	
W775	D0YBR0000020	CHIP RESISTOR	1	
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W780	D0YDR0000006	CHIP RESISTOR	1	
W781	D0YDR0000006	CHIP RESISTOR	1	
W782	D0YBR0000020	CHIP RESISTOR	1	
W783	D0YDR0000006	CHIP RESISTOR	1	
W784	D0YDR0000006	CHIP RESISTOR	1	
W785	D0YBR0000020	CHIP RESISTOR	1	
W786	D0YDR0000006	CHIP RESISTOR	1	
W787	D0YBR0000020	CHIP RESISTOR	1	
W788	D0YBR0000020	CHIP RESISTOR	1	
W789	D0YDR0000006	CHIP RESISTOR	1	
W790	D0YBR0000020	CHIP RESISTOR	1	
W791	D0YBR0000020	CHIP RESISTOR	1	
W792	D0YBR0000020	CHIP RESISTOR	1	
W793	D0YBR0000020	CHIP RESISTOR	1	
W794	D0YDR0000006	CHIP RESISTOR	1	
W795	D0YBR0000020	CHIP RESISTOR	1	
W796	D0YBR0000020	CHIP RESISTOR	1	
W797	D0YBR0000020	CHIP RESISTOR	1	
W798	D0YDR0000006	CHIP RESISTOR	1	
W799	D0YBR0000020	CHIP RESISTOR	1	
W800	D0YDR0000006	CHIP RESISTOR	1	
W801	D0YBR0000020	CHIP RESISTOR	1	
W802	D0YBR0000020	CHIP RESISTOR	1	
W803	D0YBR0000020	CHIP RESISTOR	1	
W804	D0YDR0000006	CHIP RESISTOR	1	
W805	D0YBR0000020	CHIP RESISTOR	1	
X3001	H0D443400040	CRYSTAL OSCILLATOR	1	
X3002	H0D357400067	CRYSTAL OSCILLATOR	1	
X37501	H0D100500006	CRYSTAL OSCILLATOR	1	
X37502	H0A327200108	CRYSTAL OSCILLATOR	1	
X6001	H0D120500009	CRYSTAL OSCILLATOR	1	
X7301	H0D245500016	CRYSTAL OSCILLATOR	1	
ZA11005	K9ZZ00001279	EARTH FITTING	1	
ZA11006	K9ZZ00001279	EARTH FITTING	1	
ZA11101	EYF52BCY	FUSE HOLDER	1	
ZA11102	EYF52BCY	FUSE HOLDER	1	
ZA11200	VSC5757	HEAT SINK	1	
ZA11400	VSC5604	HEAT SINK	1	
ZG11200	VSC5763	HEAT RADIATION SEAT	1	
ZJ3101	VMC1359	EARTH SPRING	1	
ZJ37301	K9ZZ00001279	EARTH FITTING	1	
ZJ37303	K9ZZ00001279	EARTH FITTING	1	
ZJ37305	K9ZZ00001279	EARTH FITTING	1	
ZJ6001	K9ZZ00001279	EARTH FITTING	1	

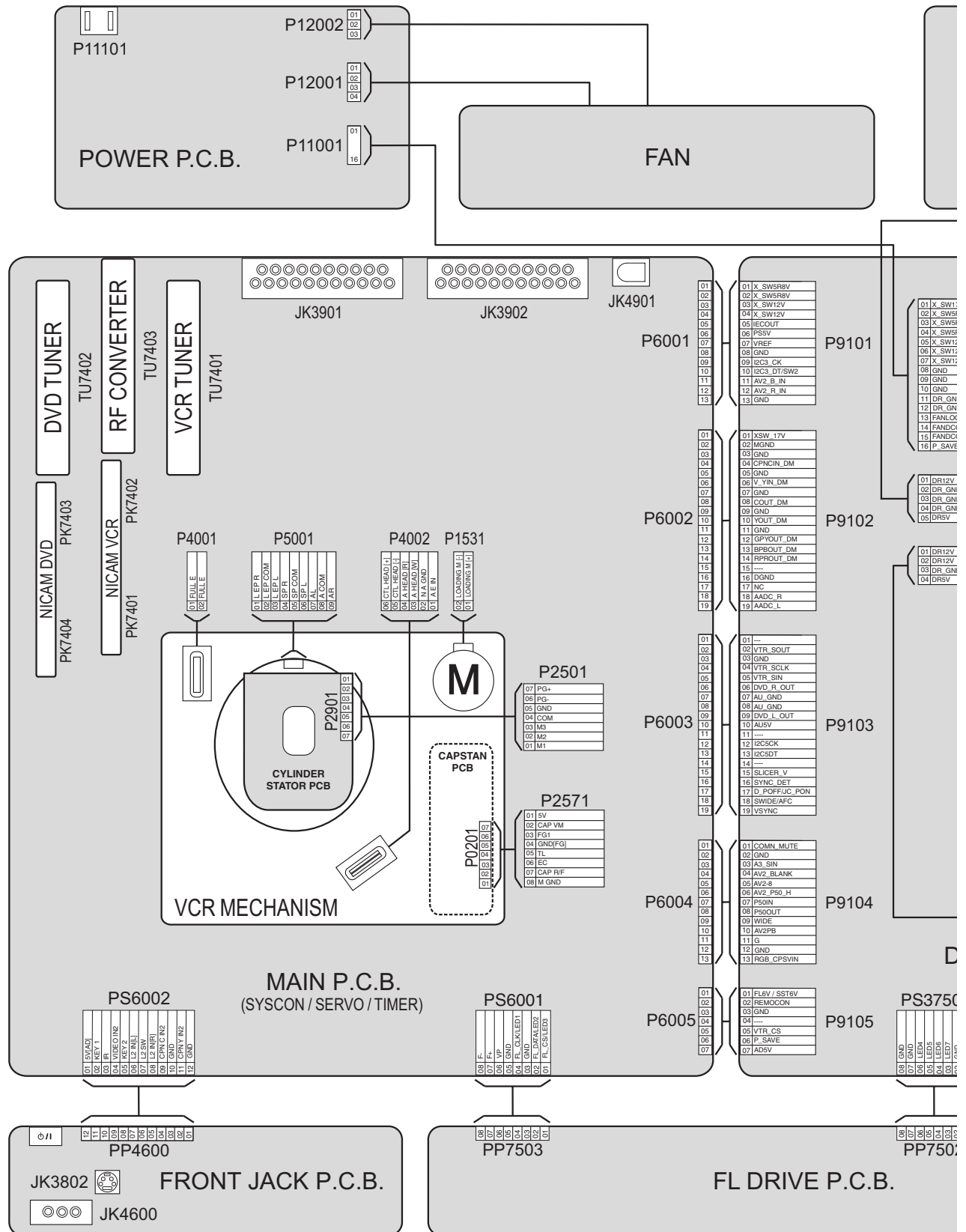
27.6. SERVICE FIXTURE AND TOOLS

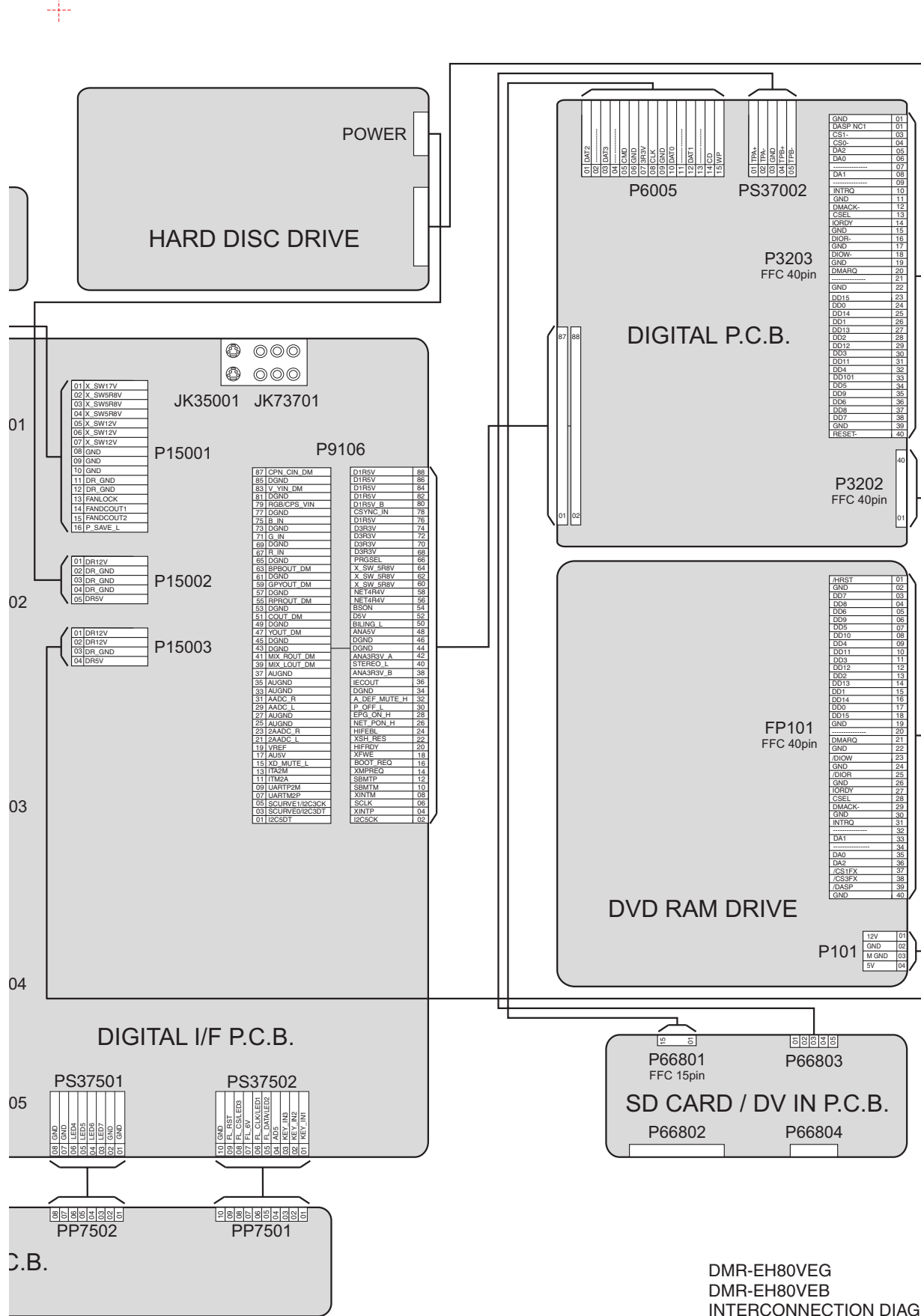
Ref. No.	Part No.	Part Name & Description	PCS	Remarks
	RFKZ0125	Extension FFC (Digital P.C.B. - DVD-RAM Drive / 40 Pin)	1	Same as E30/HS2/E 50/ E55/ES10 series (SPC)
	VFK1729	Extension Cable (Main P.C.B. - Digital I/F P.C.B. / 13 pin / 40 mm)	2	Same as E75V (SPC)
	RFKZ0240	Extension Cable (Main P.C.B. - Digital I/F P.C.B. / 19 pin / 40 mm)	2	Same as E75V (SPC)
	RFKZ0178	Extension Cable (Main P.C.B. - Digital I/F P.C.B. / 7 pin / 40 mm)	1	Same as E75V (SPC)
	RFKZ0215	Extension Cable (Main P.C.B. - Front Jack P.C.B. / 12 Pin)	1	Same as DMR- E55/E75V series (SPC)
	RFKZ0238	Extension Cable (Main P.C.B. / Digital I/F P.C.B. - FL Drive P.C.B. / 8 Pin)	1	Same as E75V (SPC)
	RFKZ0239	Extension Cable (Digital I/F P.C.B. - FL Drive P.C.B. / 10 Pin)	1	Same as E75V (SPC)
		for VHS		
	VFJ8125H3F	PAL VHS Alignment Tape	1	Same as E75V (SPC)
	VFK0329	Post Adjustment Screwdriver	1	Same as E75V (SPC)
	VFK0330	Fine Adjustment Gear Driver	1	Same as E75V (SPC)

28 DIAGRAMS FOR PRINTING A4 SIZE

28.1. BLOCK DIAGRAM FOR PRINTING A4 SIZE

22 INTERCONNECTION DIAGRAM

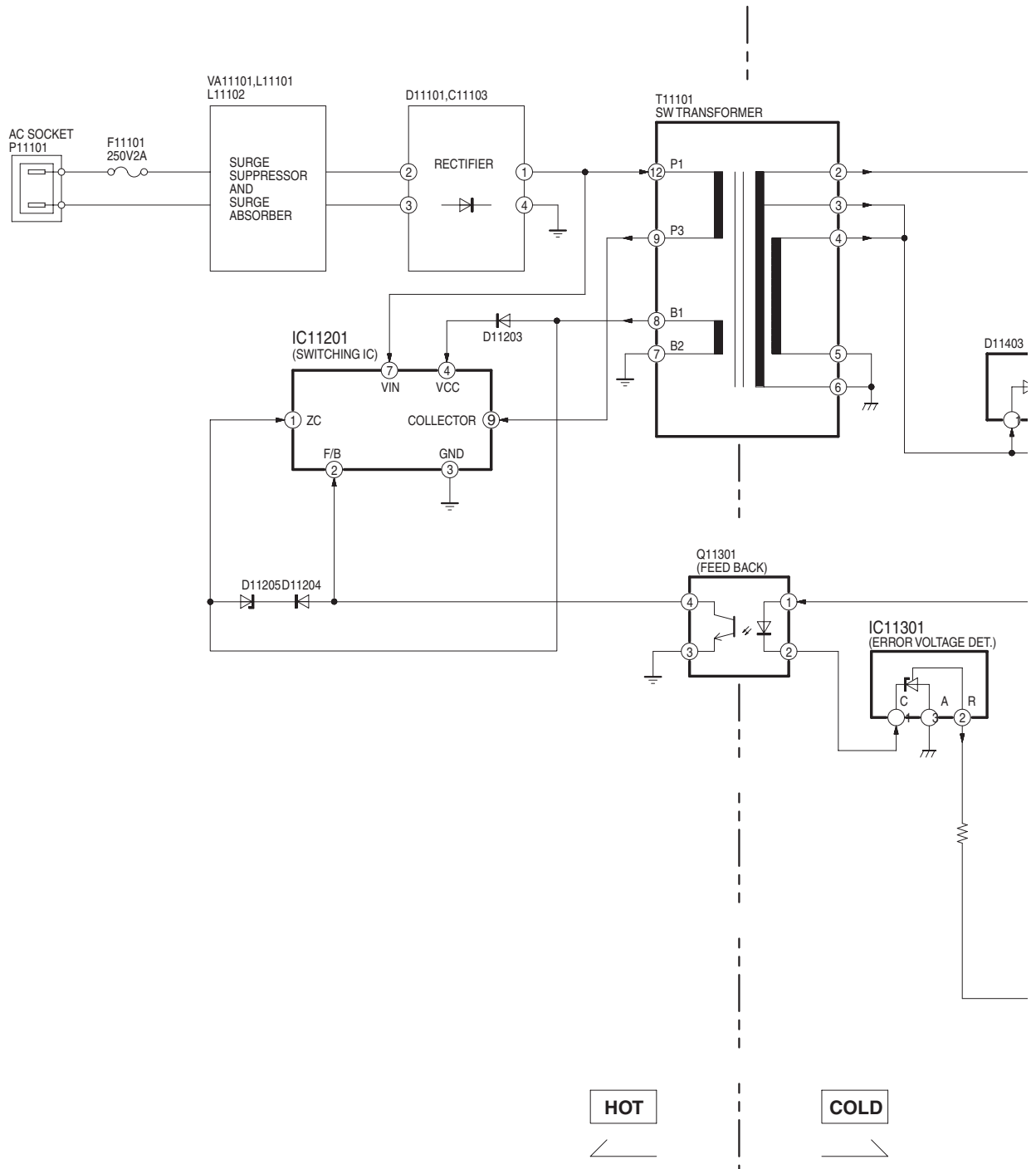


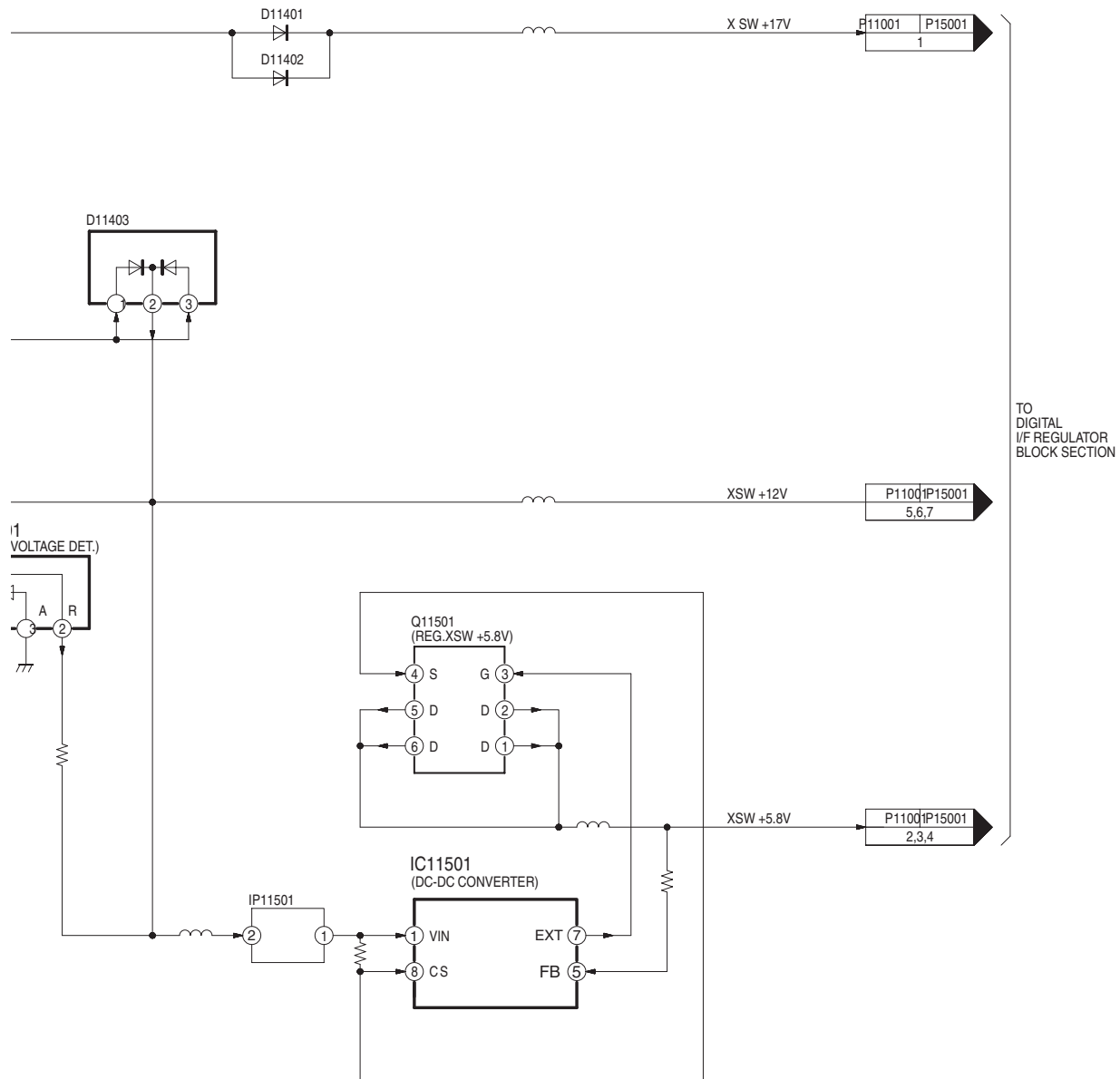


DMR-EH80VEG
DMR-EH80VEB
INTERCONNECTION DIAGRAM

23 BLOCK DIAGRAM

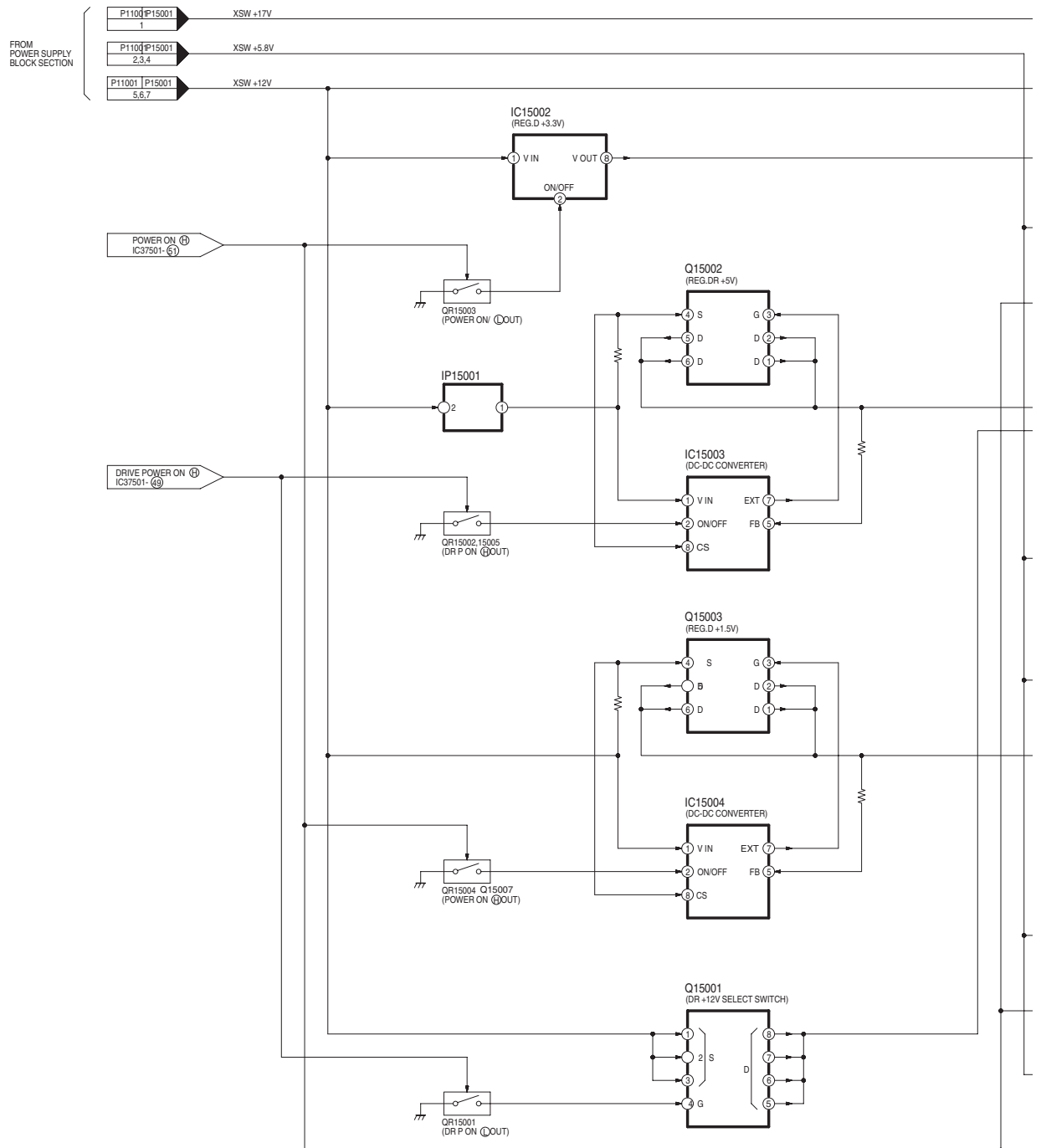
23.1. POWER SUPPLY BLOCK DIAGRAM

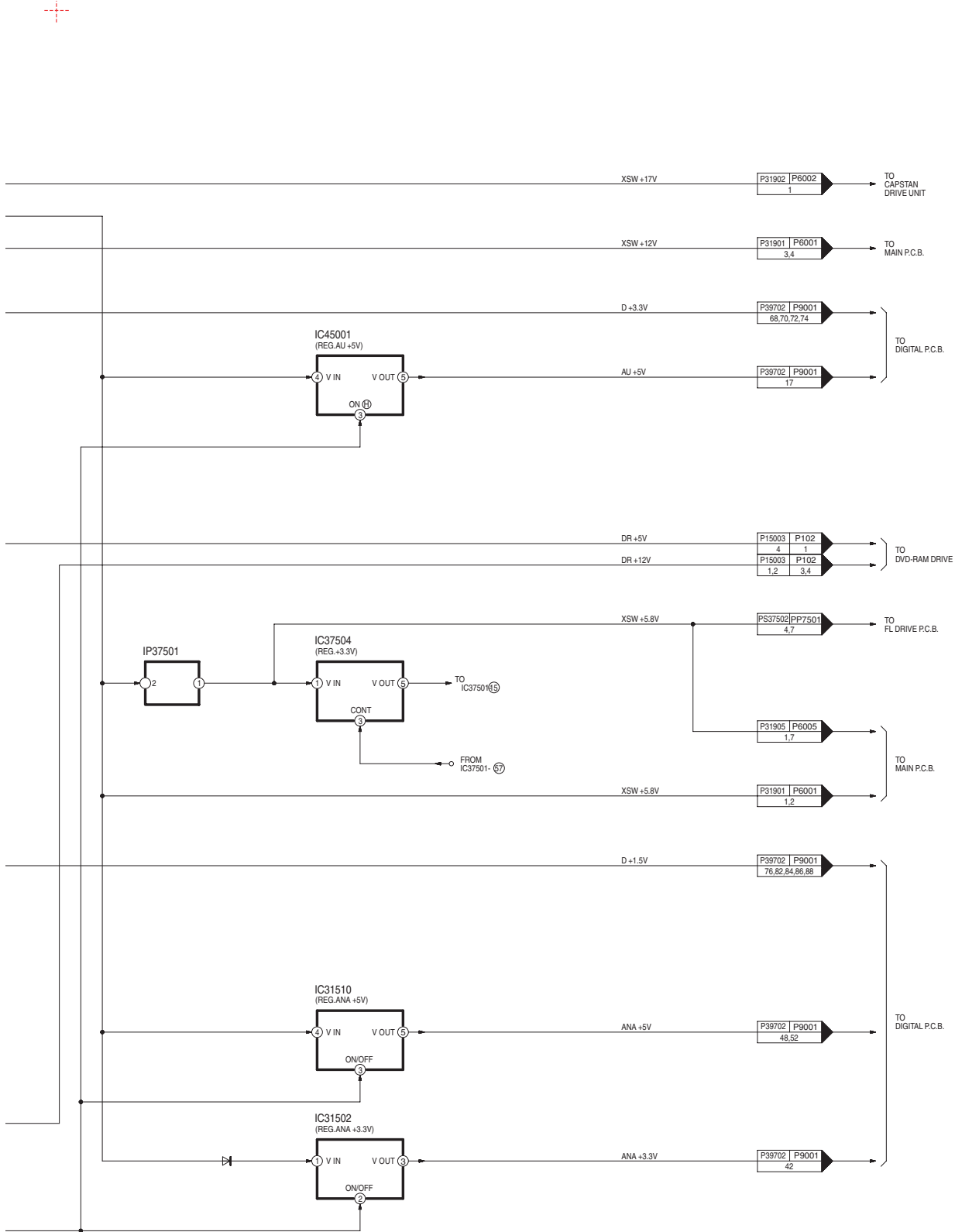




DMR-EH80VEG
DMR-EH80VEB
POWER SUPPLY
BLOCK DIAGRAM

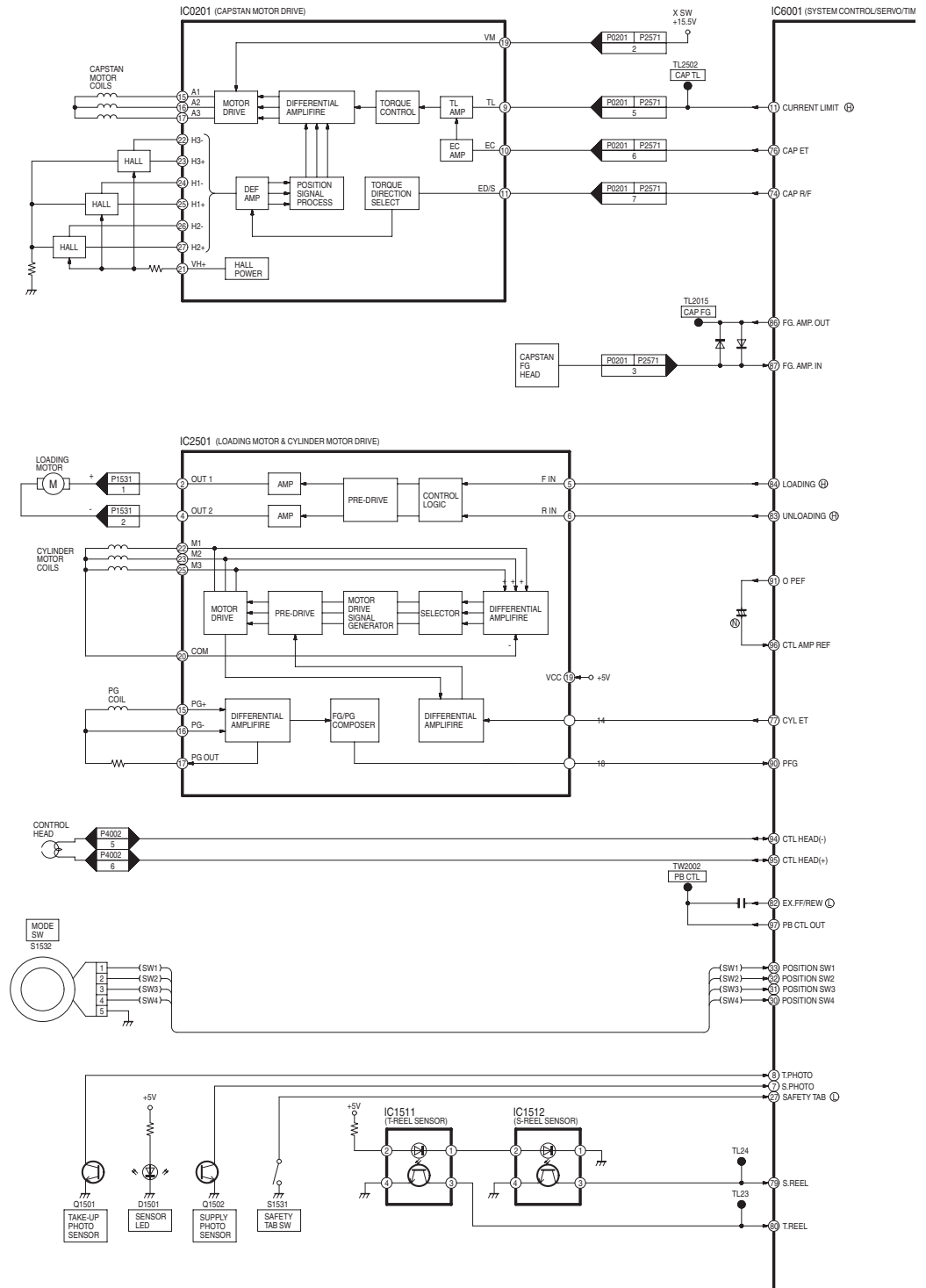
23.2. DIGITAL I/F REGULATOR BLOCK DIAGRAM

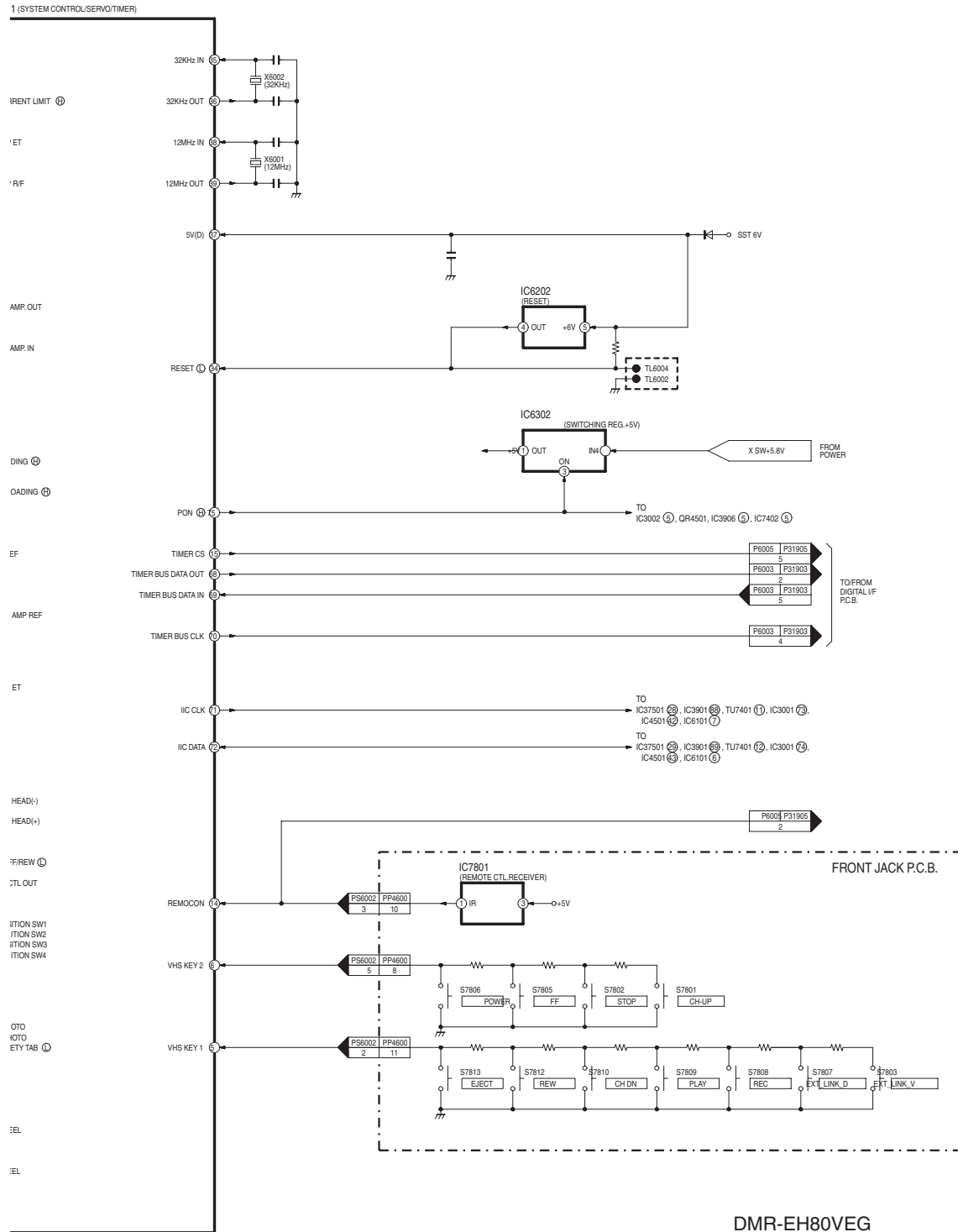




DMR-EH80VEG
DMR-EH80VEB
DIGITAL I/F REGULATOR
BLOCK DIAGRAM

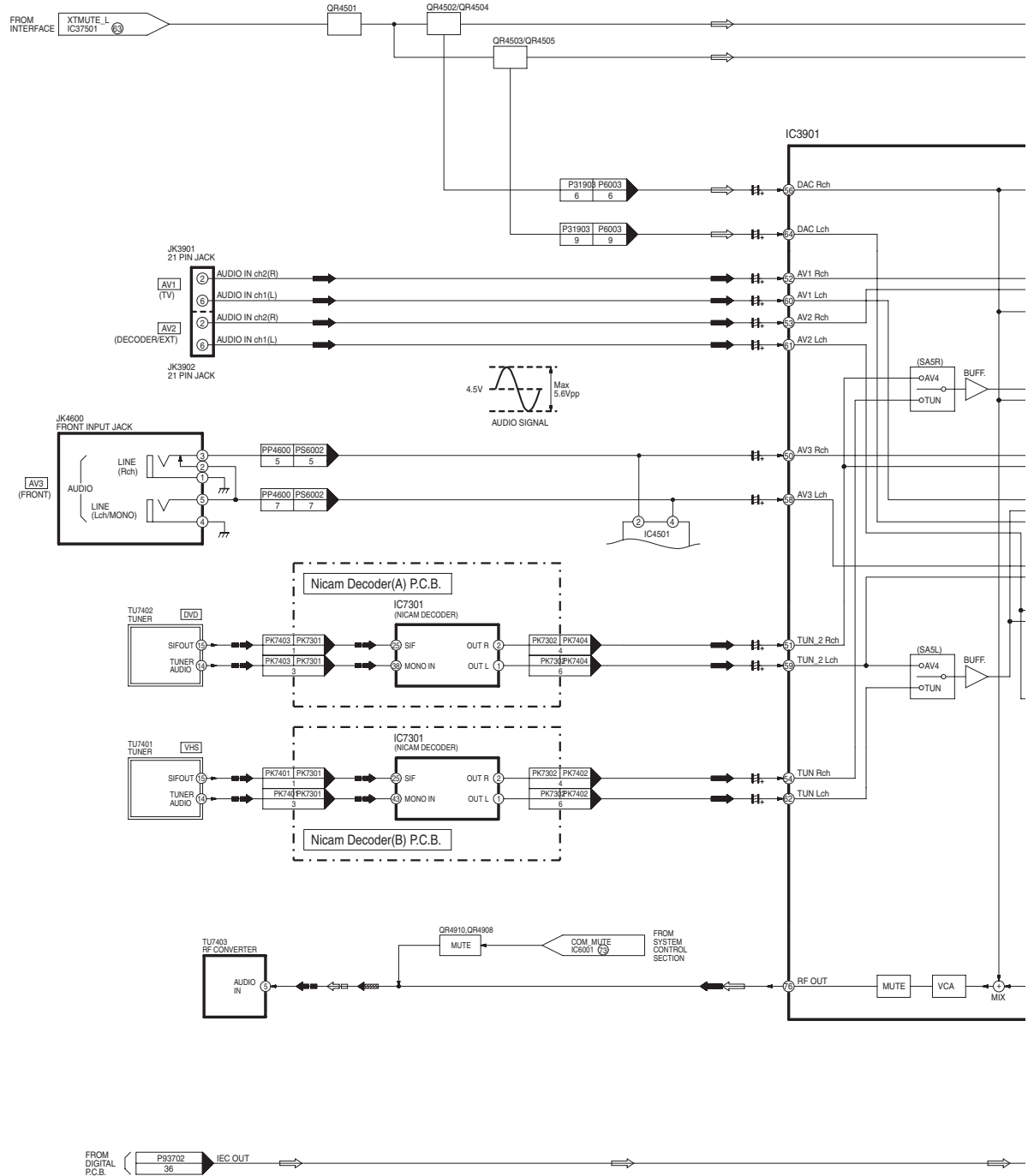
23.3. SYSTEM CONTROL, SERVO & TIMER BLOCK DIAGRAM





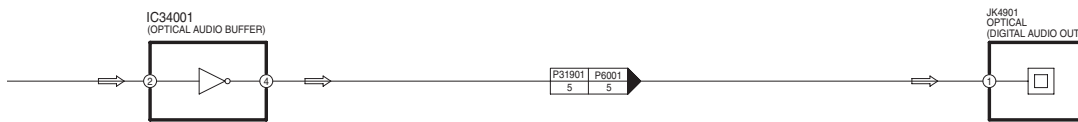
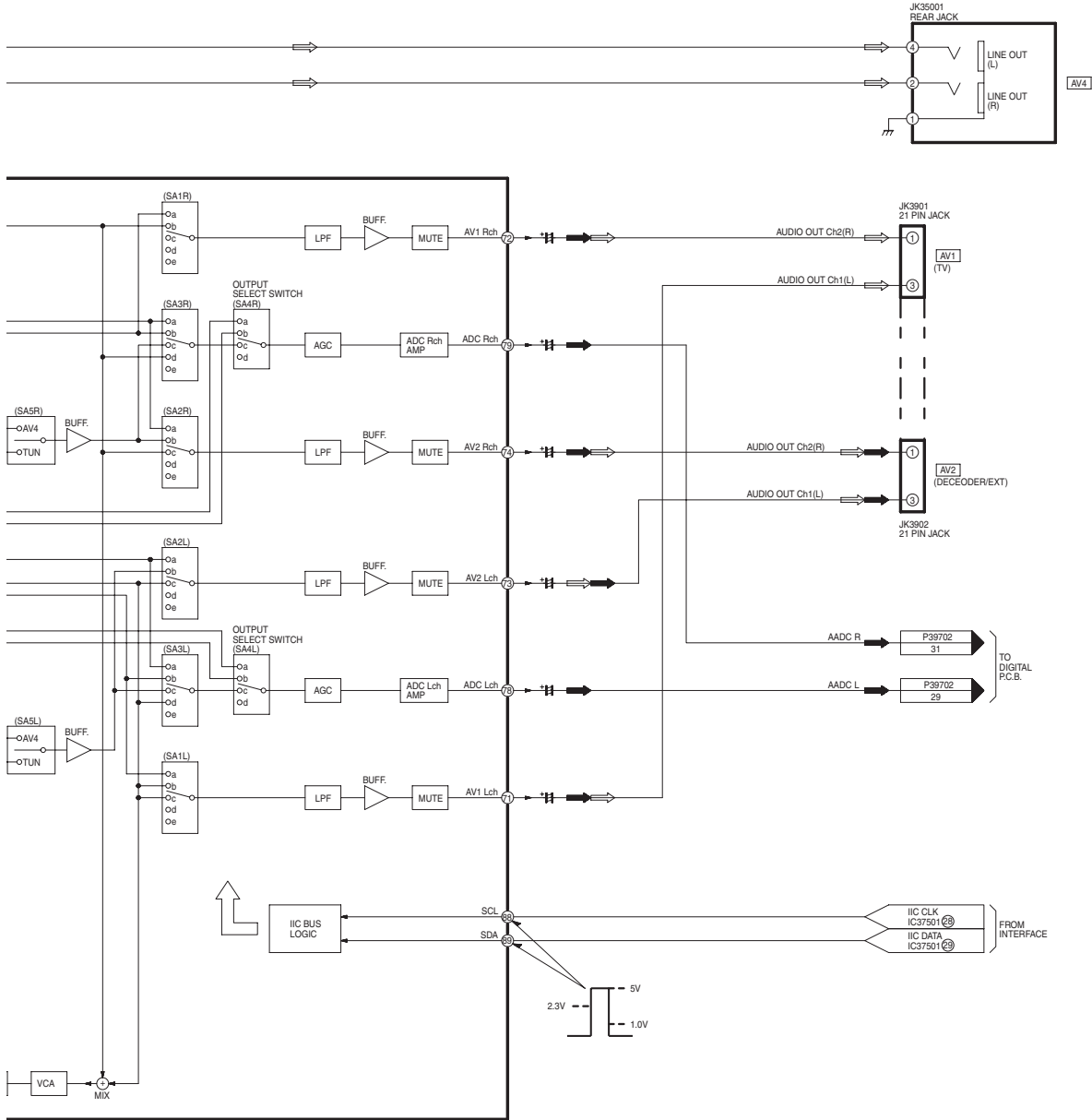
DMR-EH80VEG
DMR-EH80VEB
SYSTEM CONTROL / SERVO & TIMER
BLOCK DIAGRAM

23.4. AUDIO BLOCK DIAGRAM





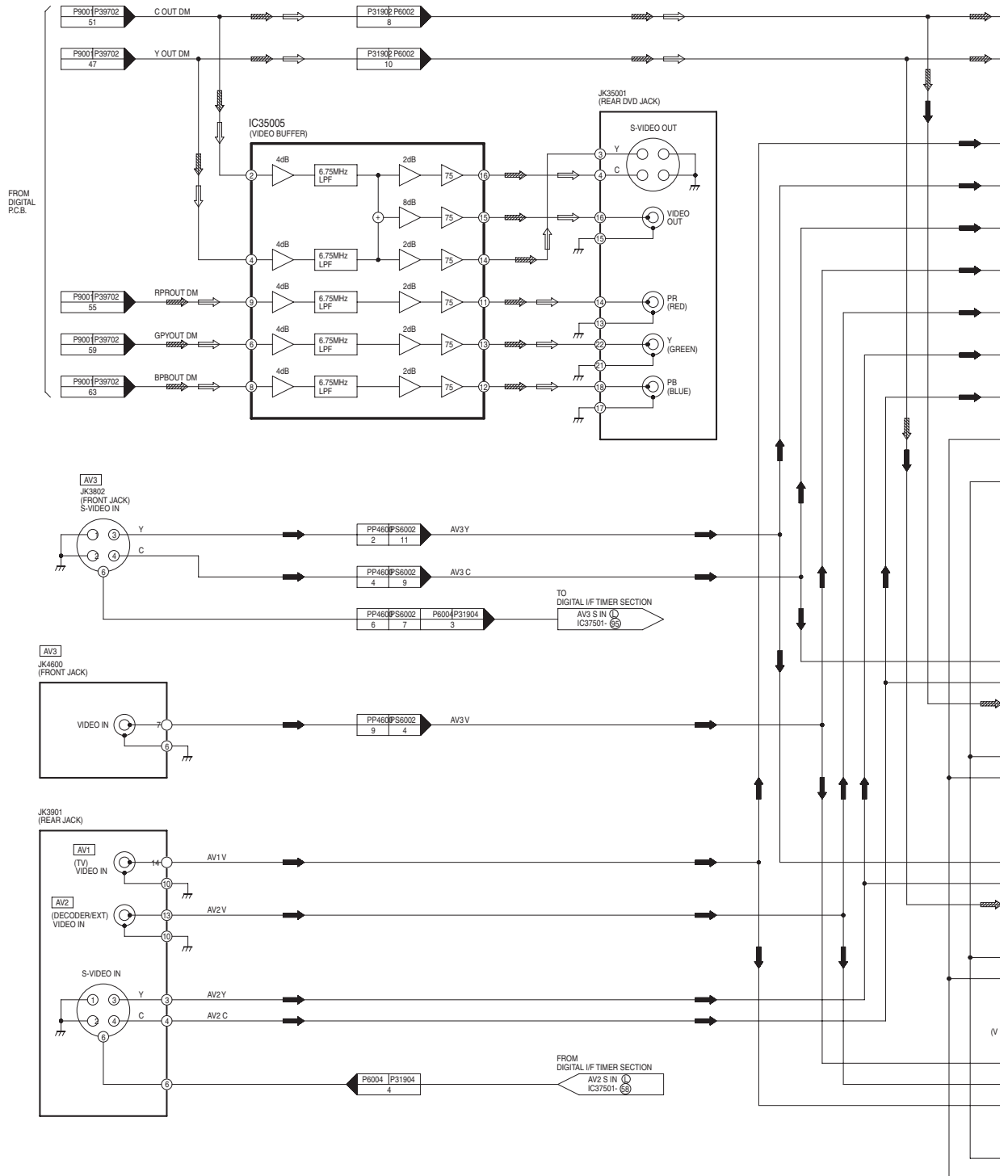
➡: REC SIGNAL ⇨: PB SIGNAL

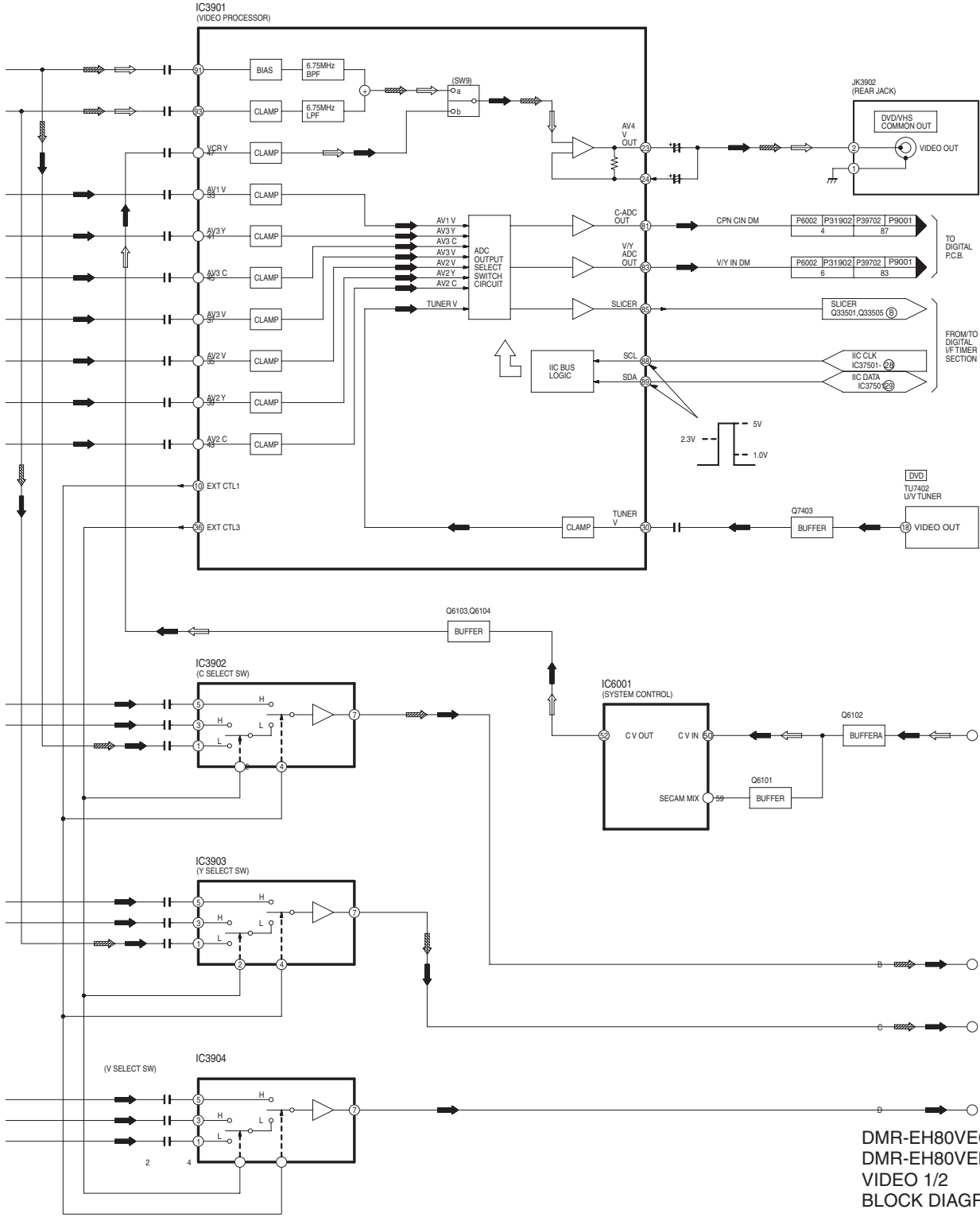


DMR-EH80VEG
DMR-EH80VEB
AUDIO
BLOCK DIAGRAM

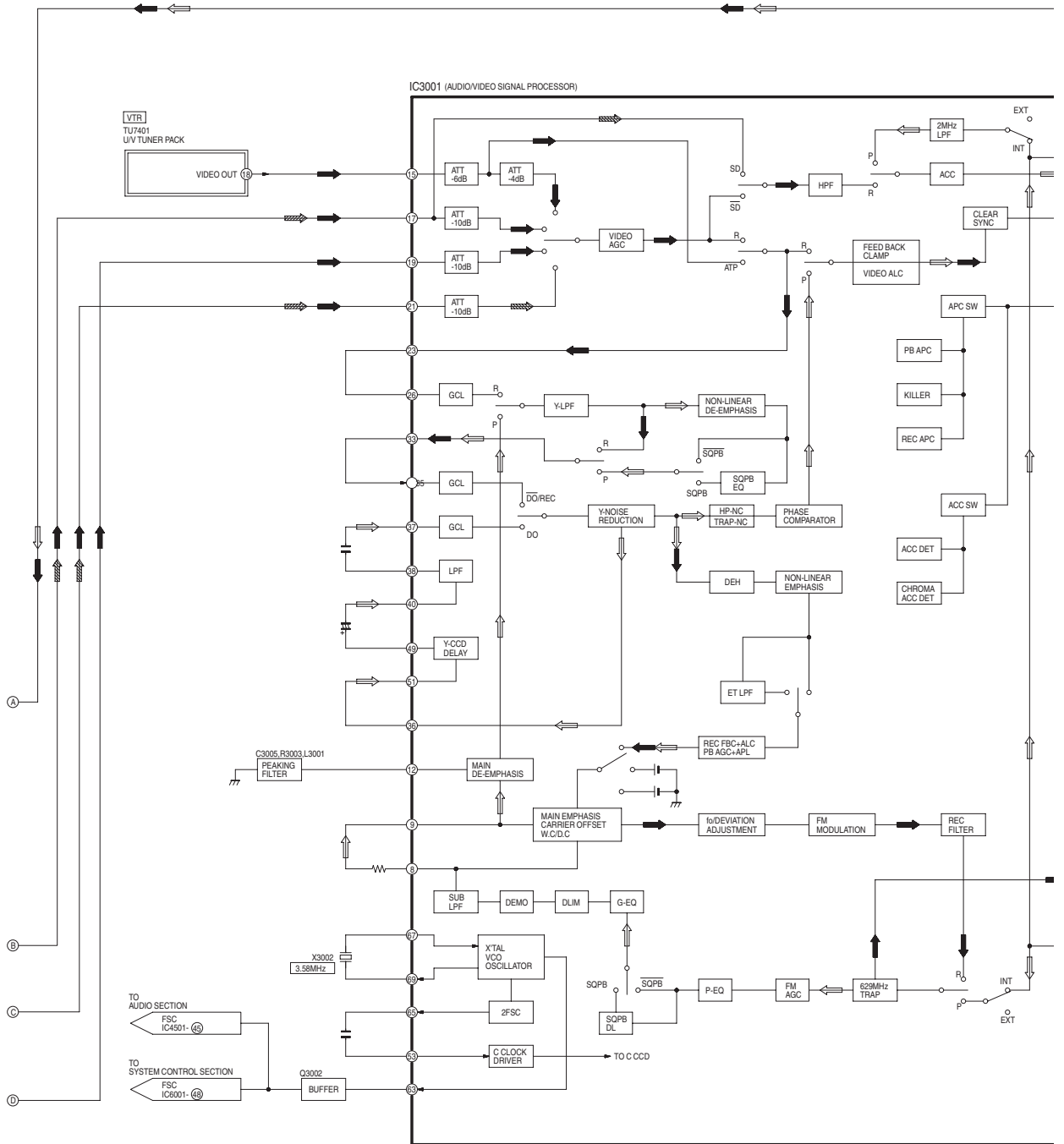


23.5. VIDEO BLOCK DIAGRAM



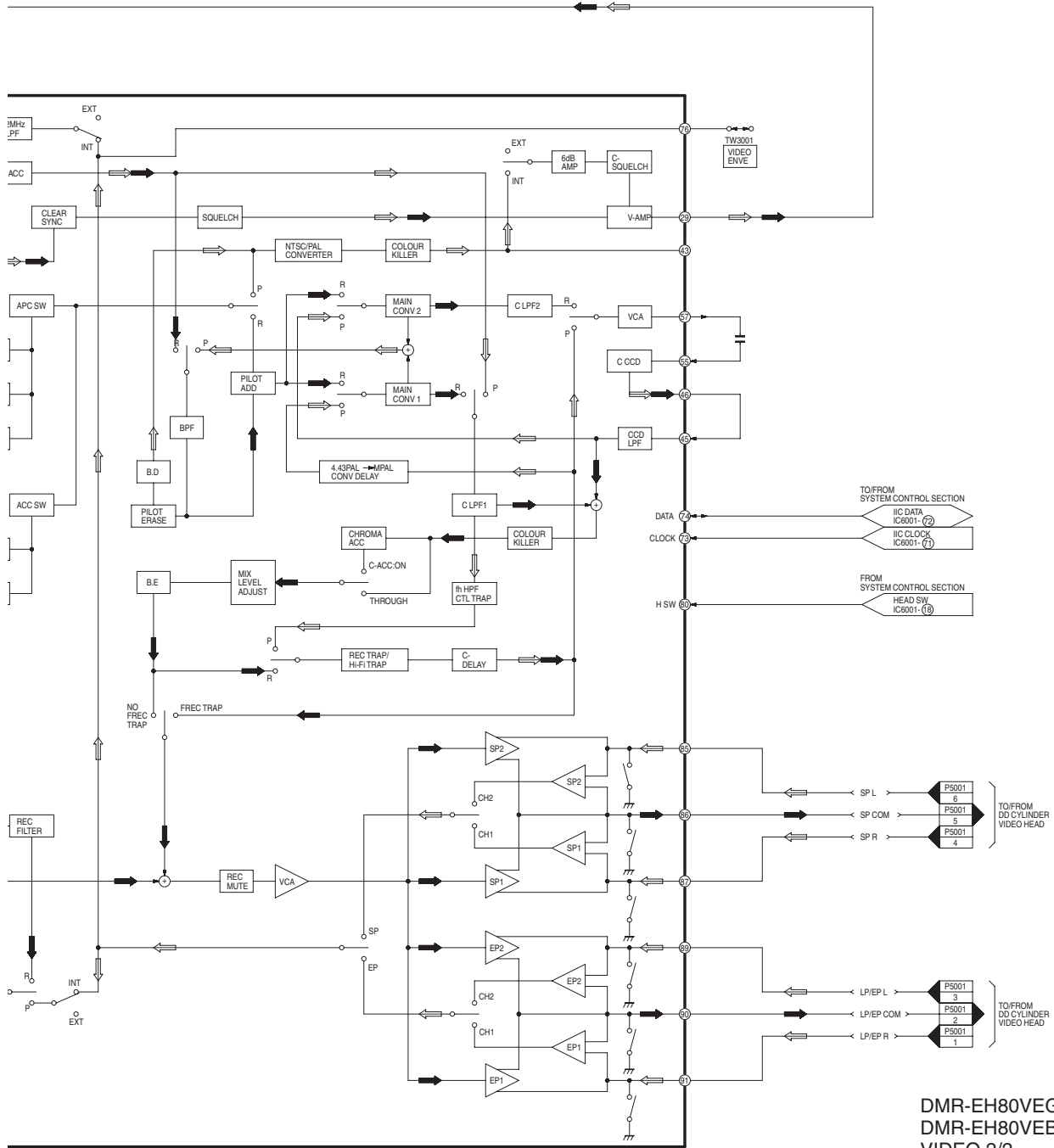


DMR-EH80VEG
DMR-EH80VEB
VIDEO 1/2
BLOCK DIAGRAM



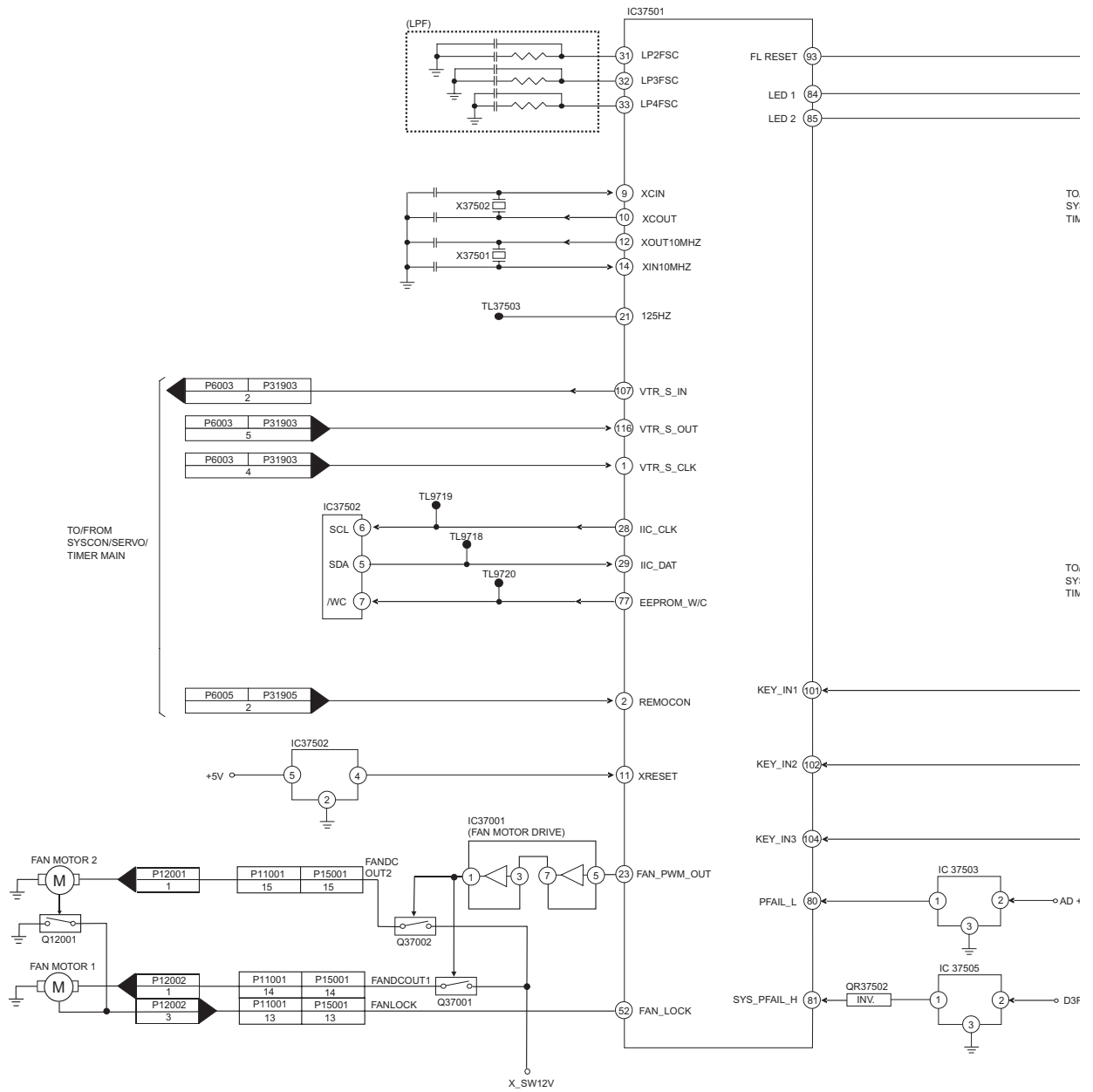


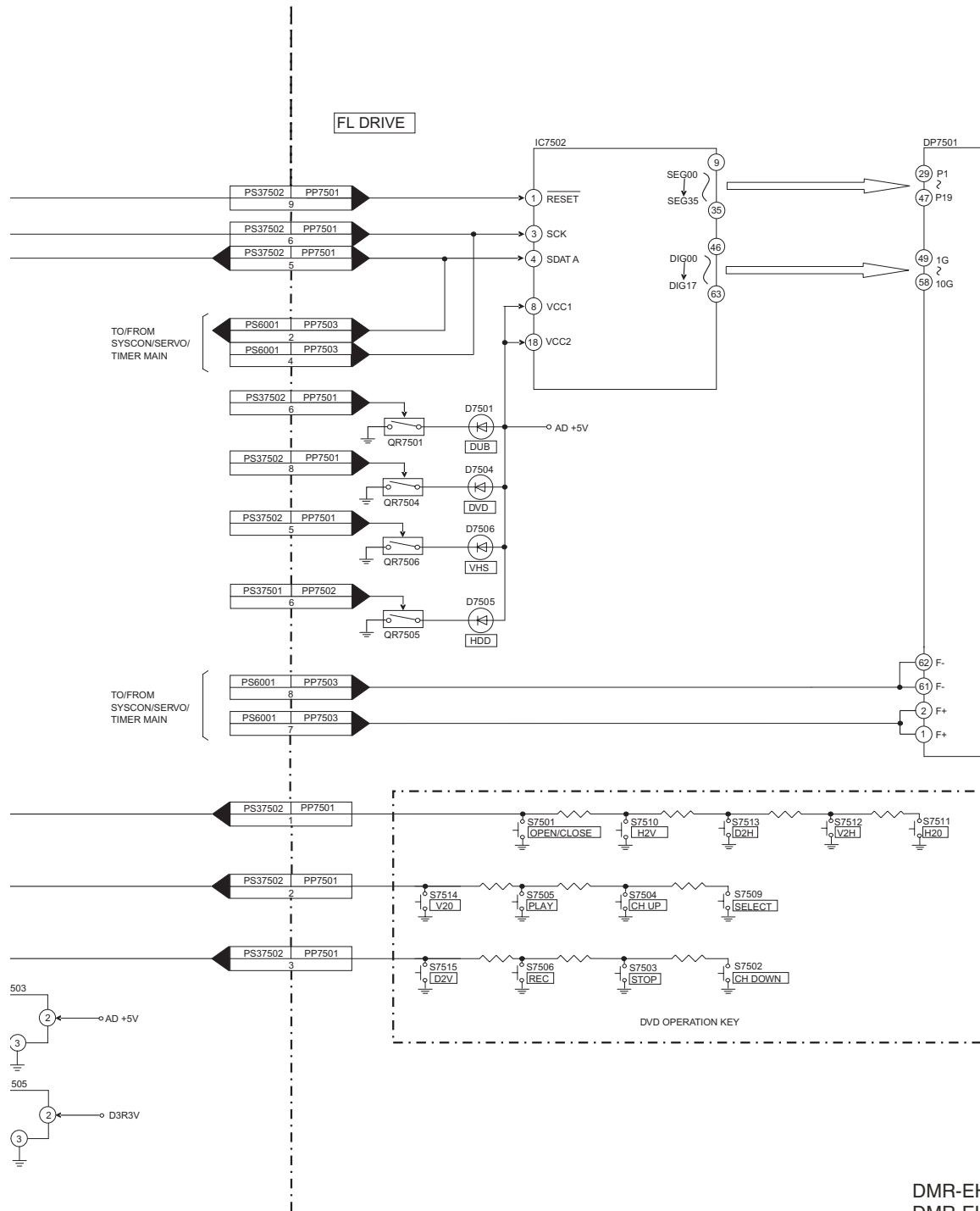
:DVD VIDEO EE SIGNAL
 :REC SIGNAL
 :PB SIGNAL



DMR-EH80VEG
 DMR-EH80VEB
 VIDEO 2/2
 BLOCK DIAGRAM

23.6. DIGITAL I/F P.C.B. BLOCK DIAGRAM



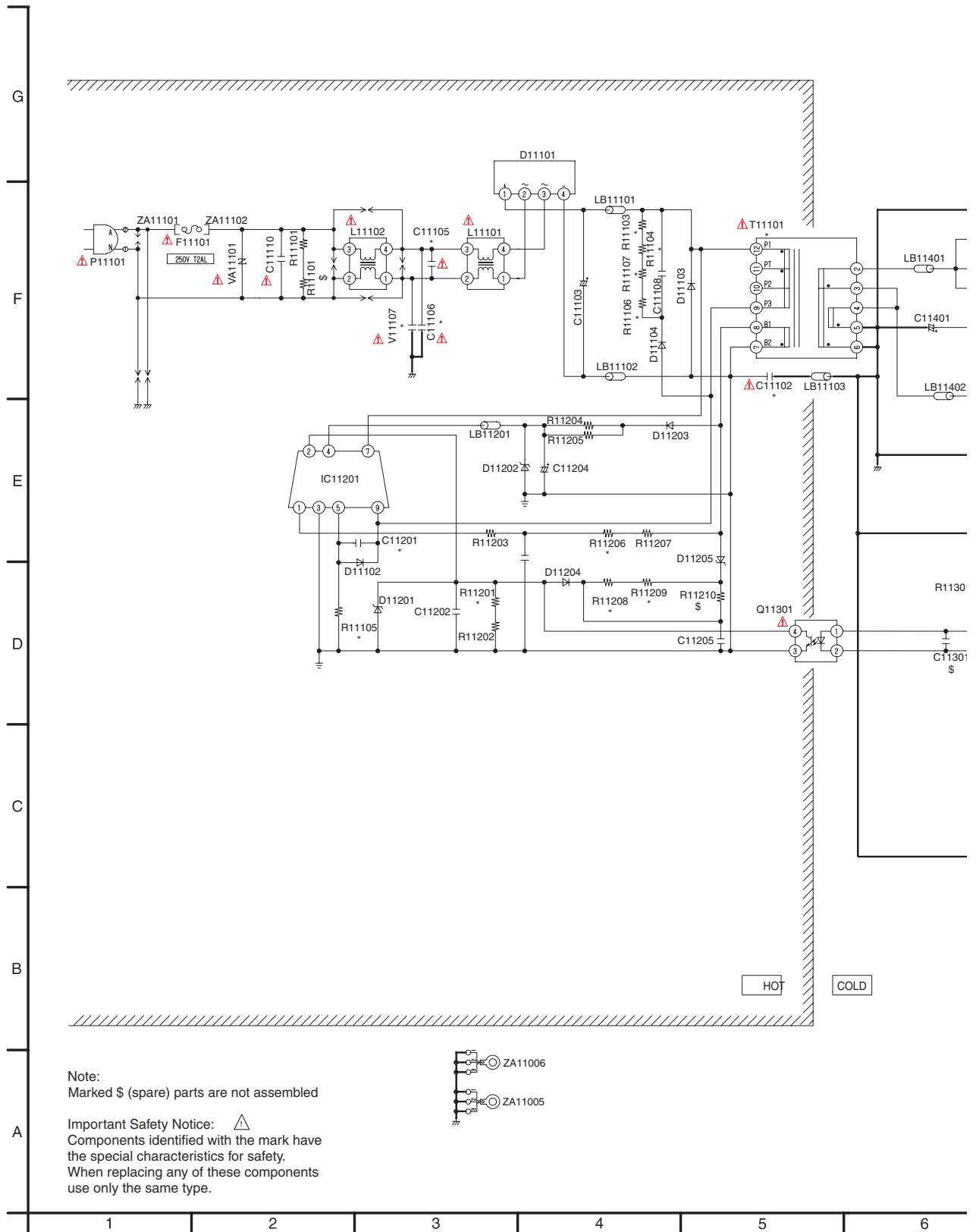


DMR-EH80VEG
DMR-EH80VEB
DIGITAL I/F PCB
BLOCK DIAGRAM


28.2. SCHEMATIC DIAGRAM FOR PRINTING A4 SIZE

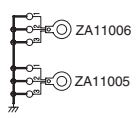
24 SCHEMATIC DIAGRAM

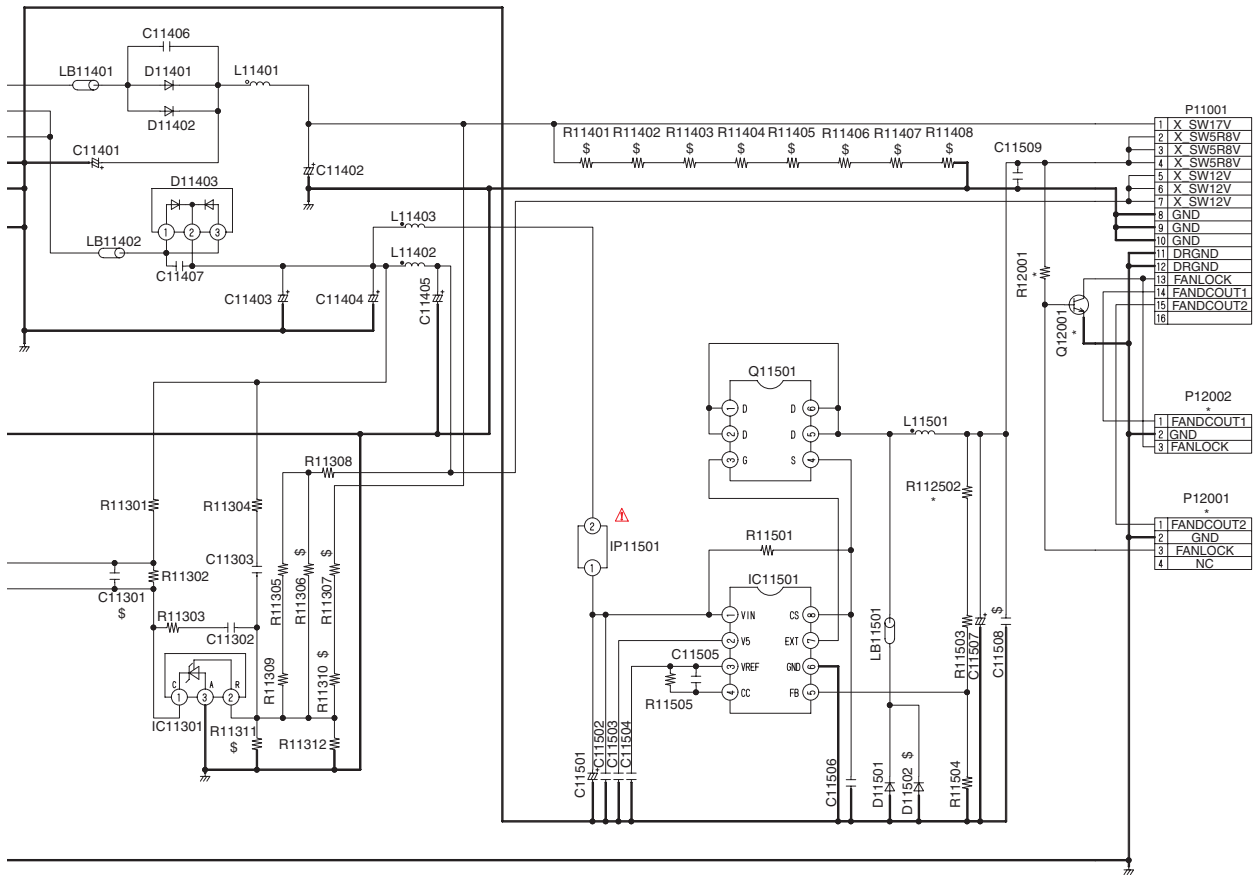
24.1. POWER SUPPLY



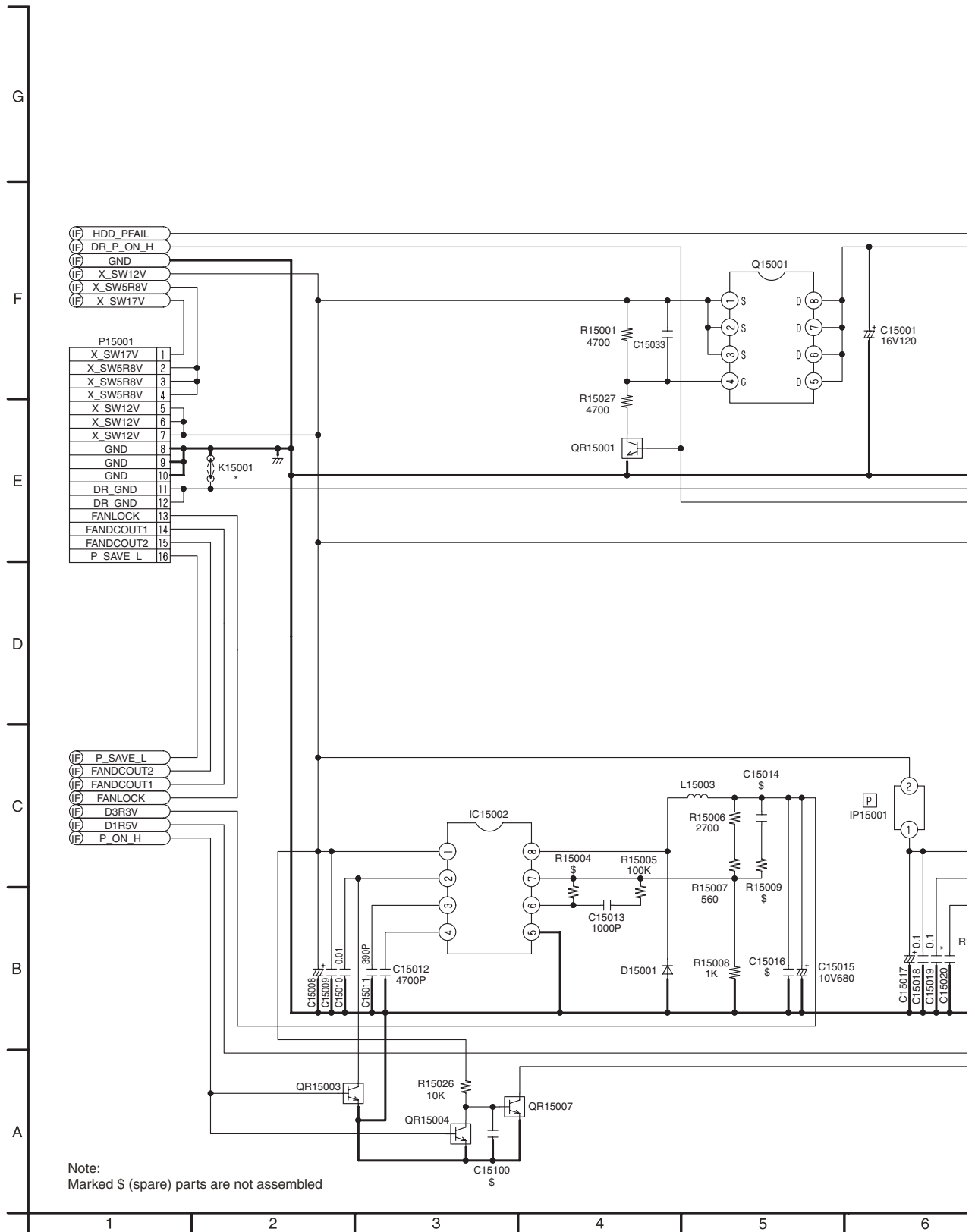
Note:
Marked \$ (spare) parts are not assembled

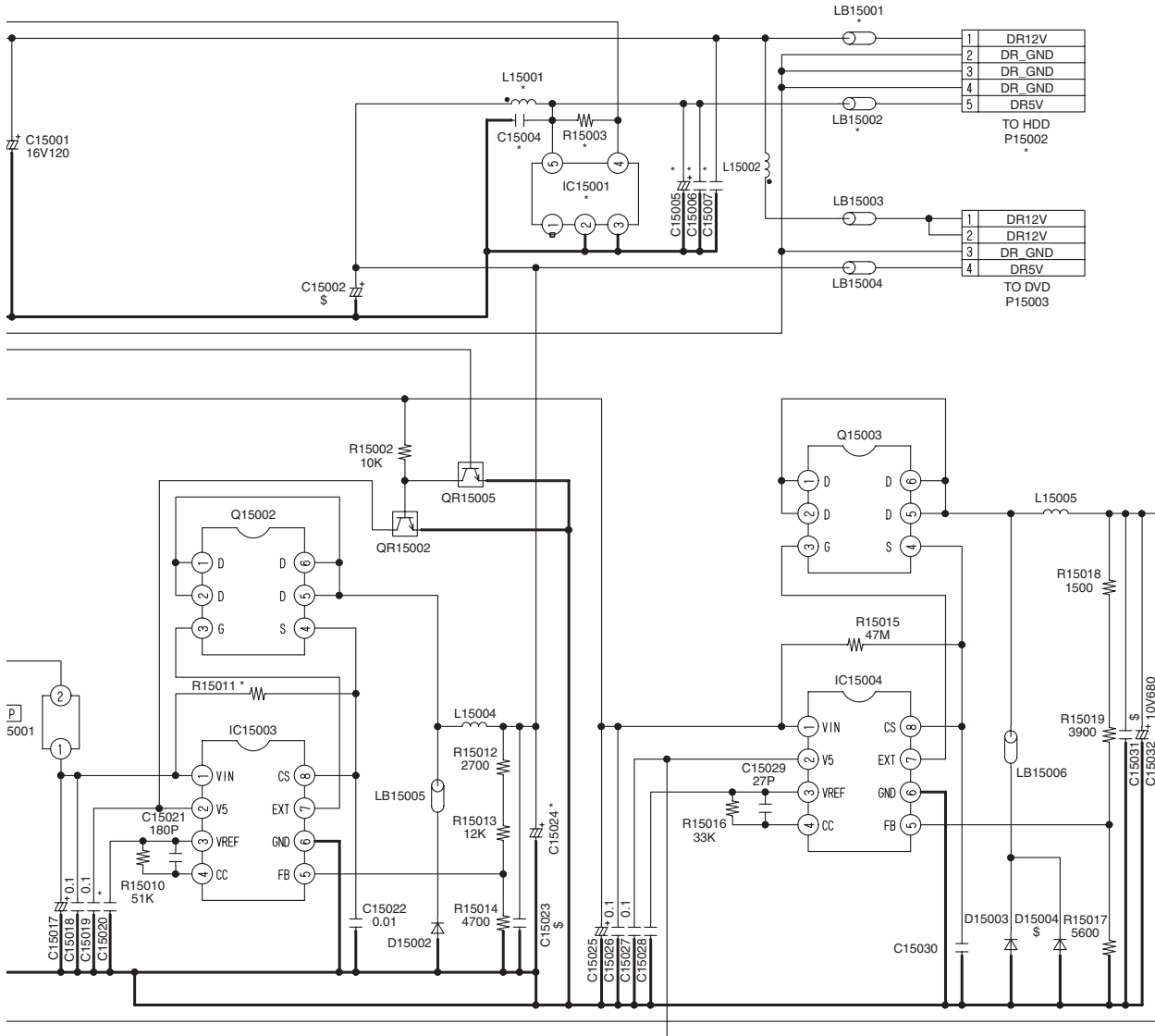
Important Safety Notice: 
Components identified with the mark have the special characteristics for safety. When replacing any of these components use only the same type.





DMR-EH80VEG
DMR-EH80VEB
POWER 1/2
SCHEMATIC DIAGRAM

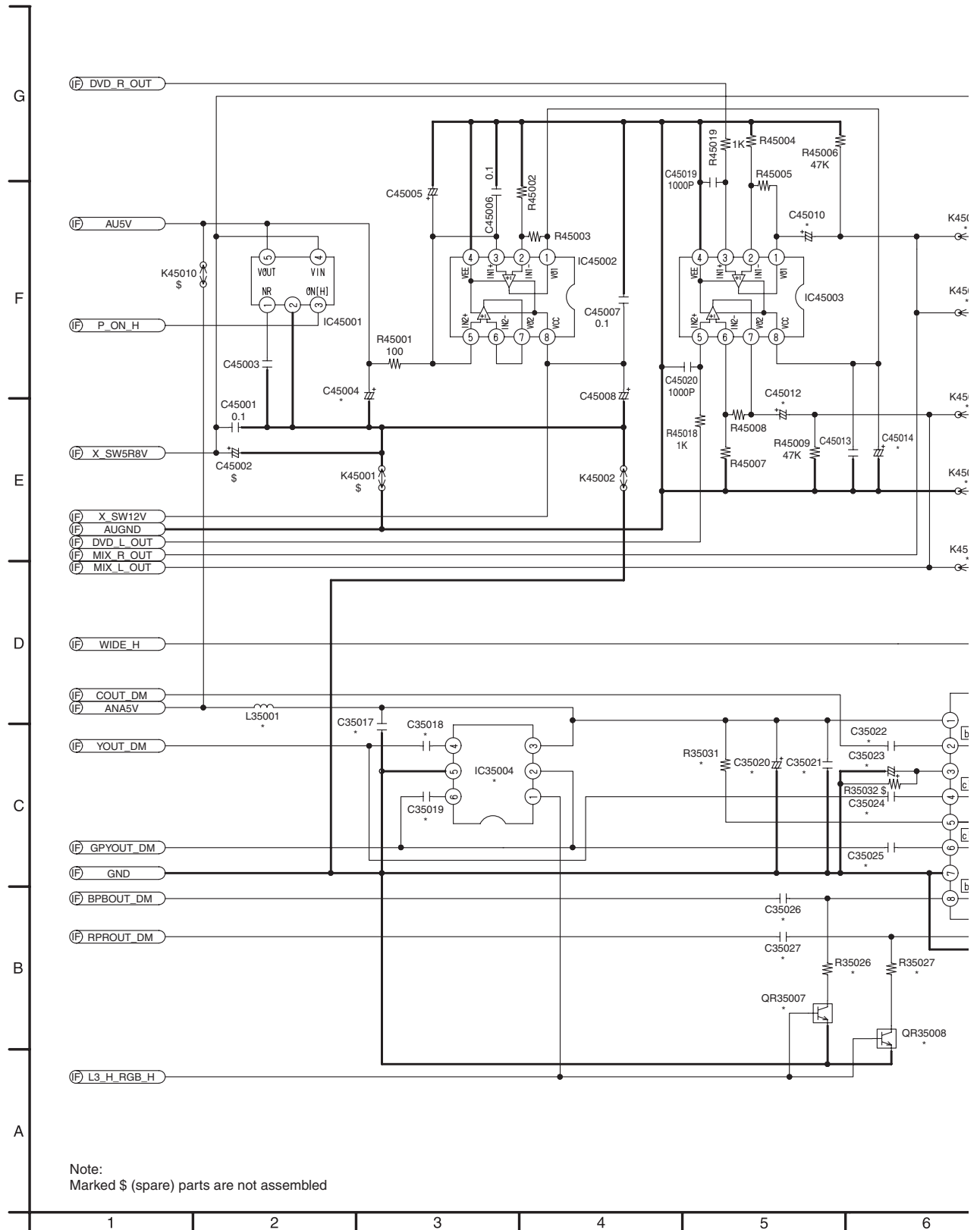


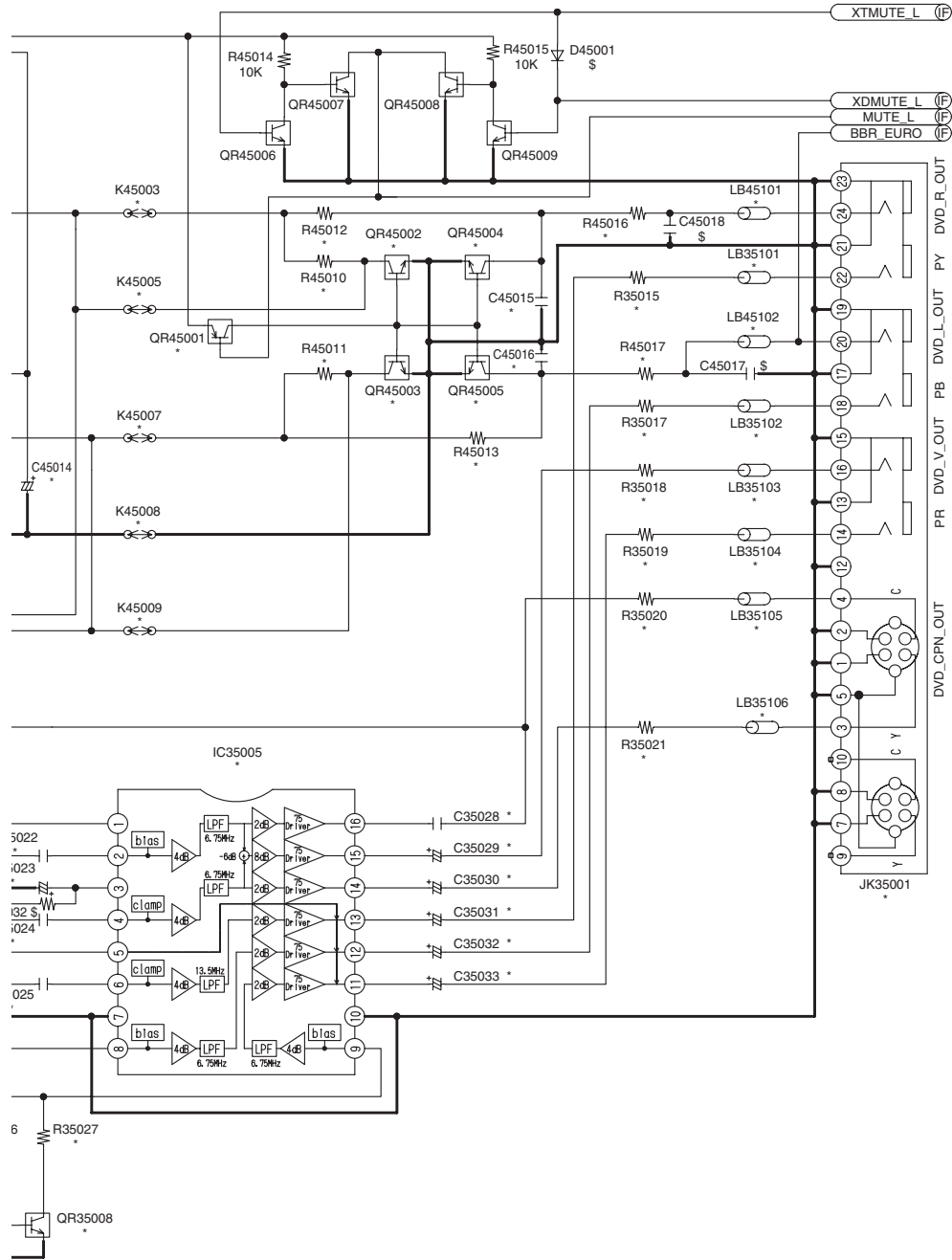


DMR-EH80VEG
DMR-EH80VEB
POWER 2/2
SCHEMATIC DIAGRAM



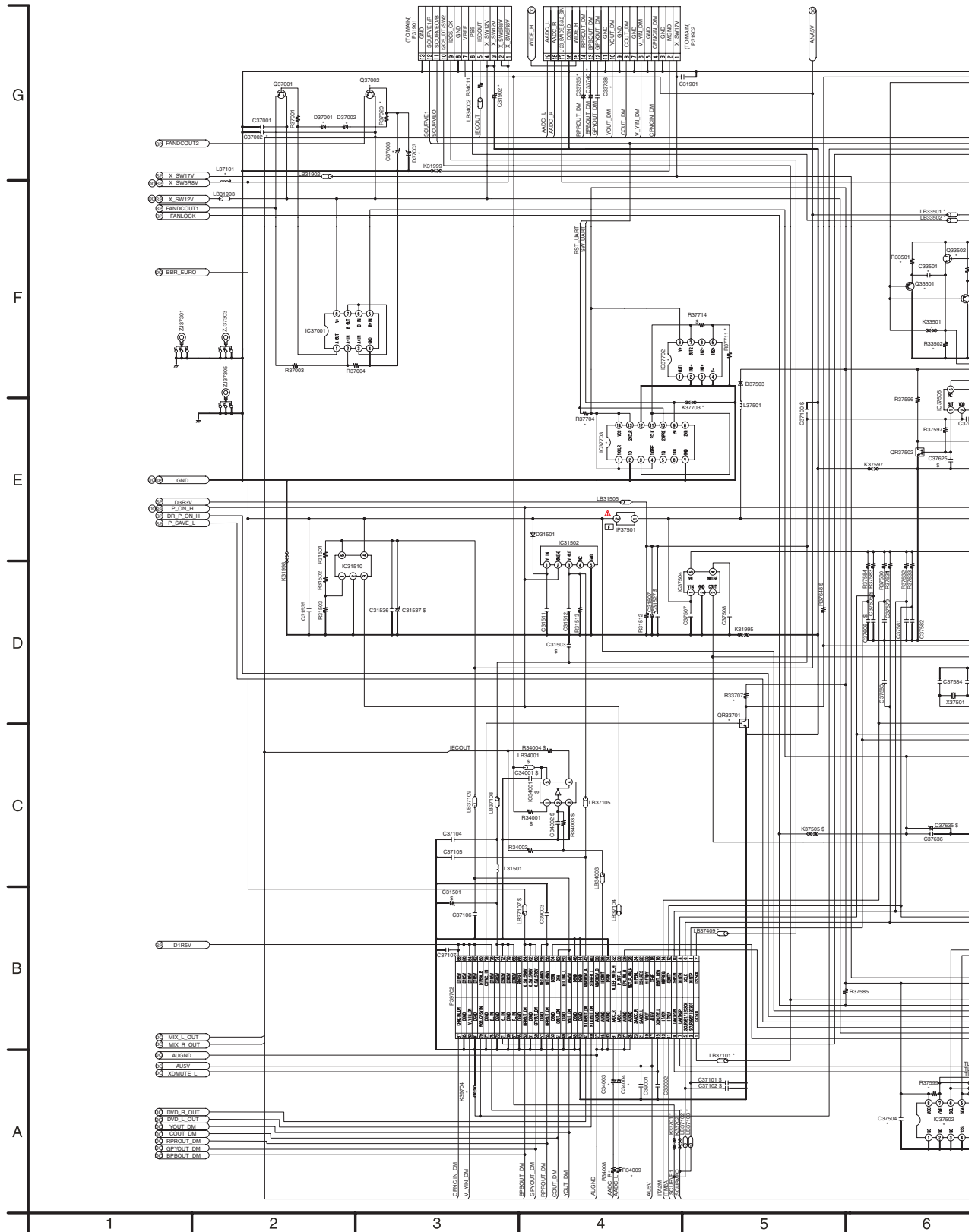
24.2. DVD OUTPUT

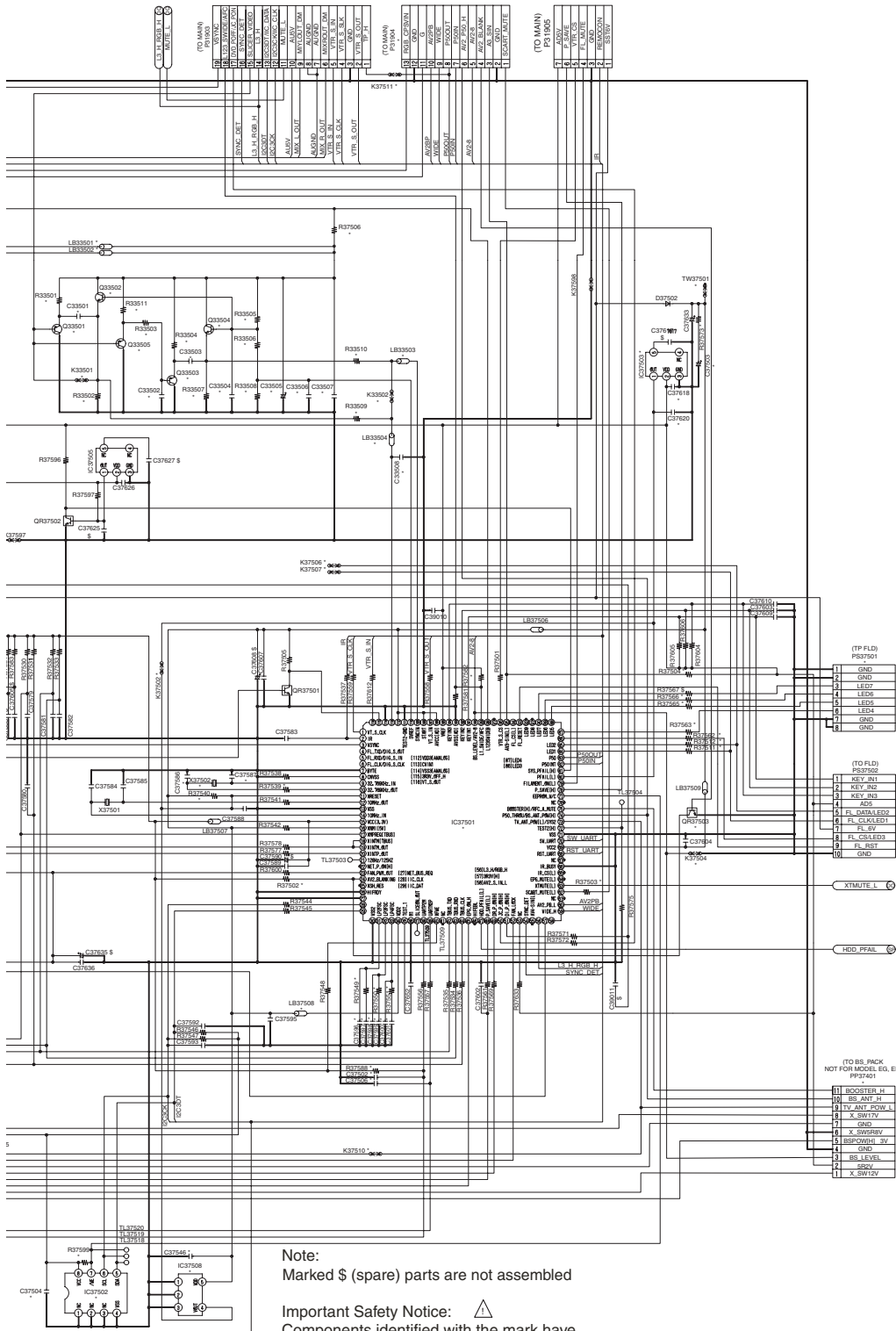





DMR-EH80VEG
DMR-EH80VEB
DVD OUTPUT
SCHEMATIC DIAGRAM

24.3. INTERFACE



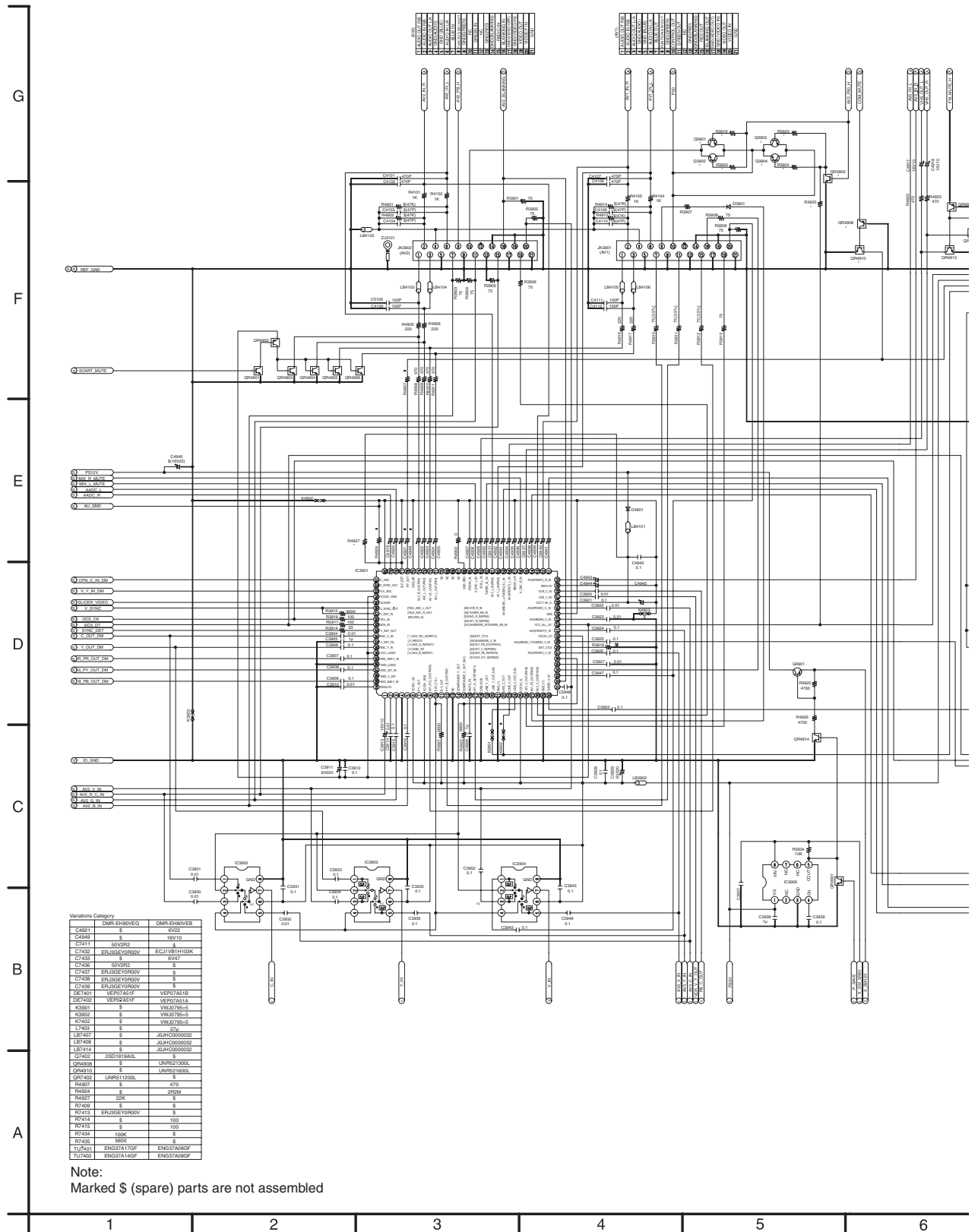


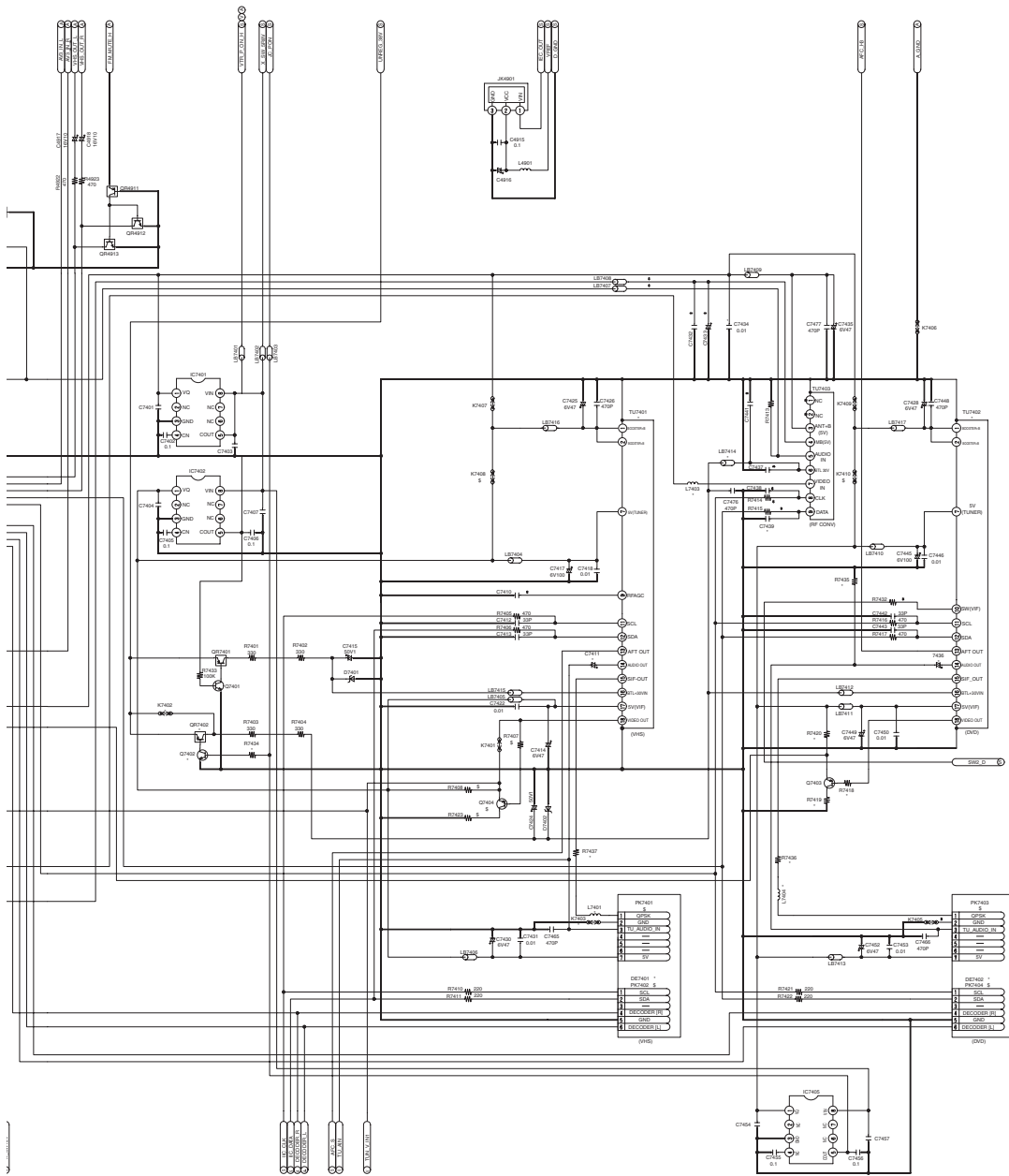
Note:
Marked \$ (spare) parts are not assembled

Important Safety Notice: 
Components identified with the mark have the special characteristics for safety. When replacing any of these components use only the same type.

DMR-EH80VEG
DMR-EH80VEB
INTERFACE
SCHEMATIC DIAGRAM

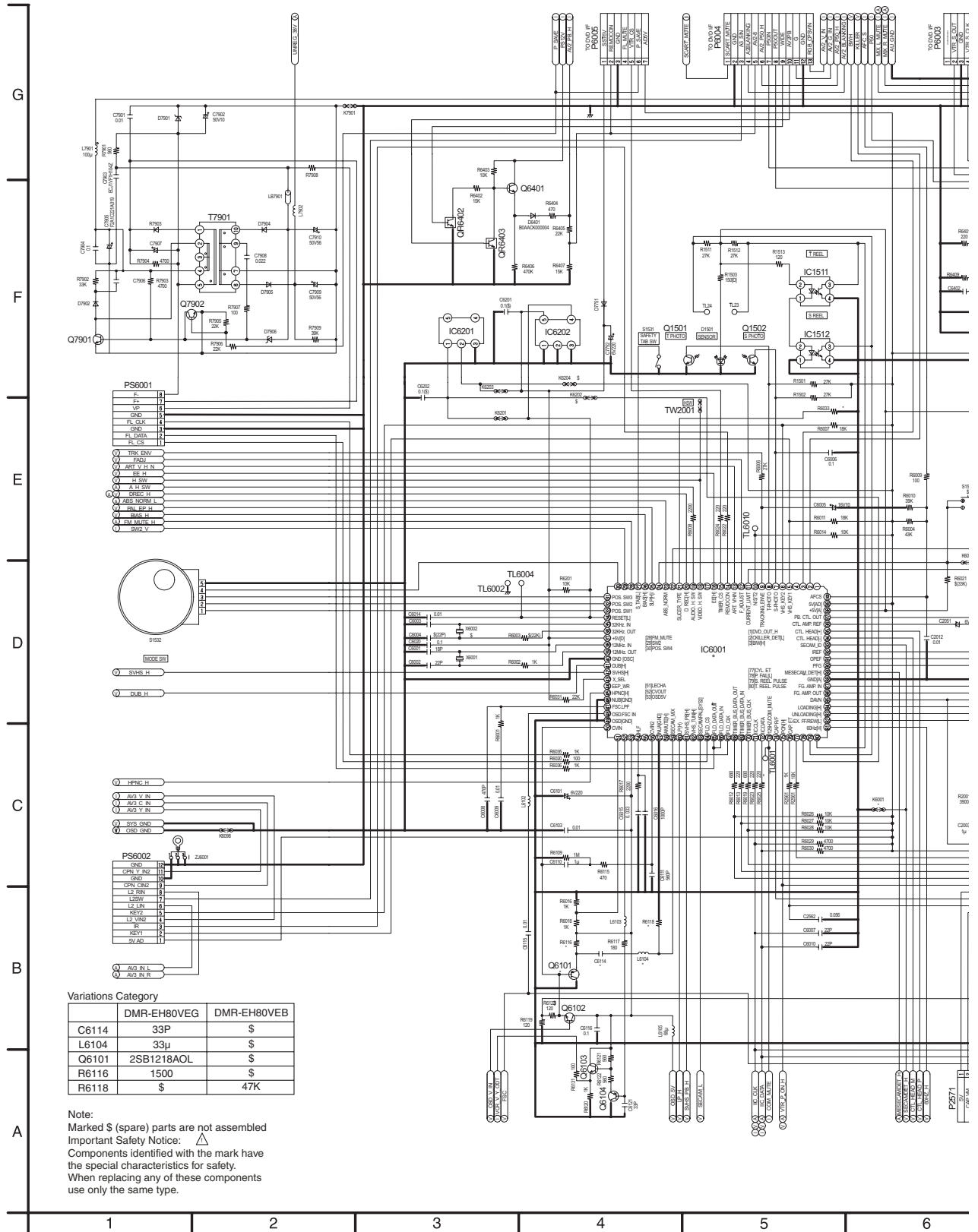
24.4. IO / TUNER





DMR-EH80VEG
DMR-EH80VEB
IO / TUNER
SCHEMATIC DIAGRAM

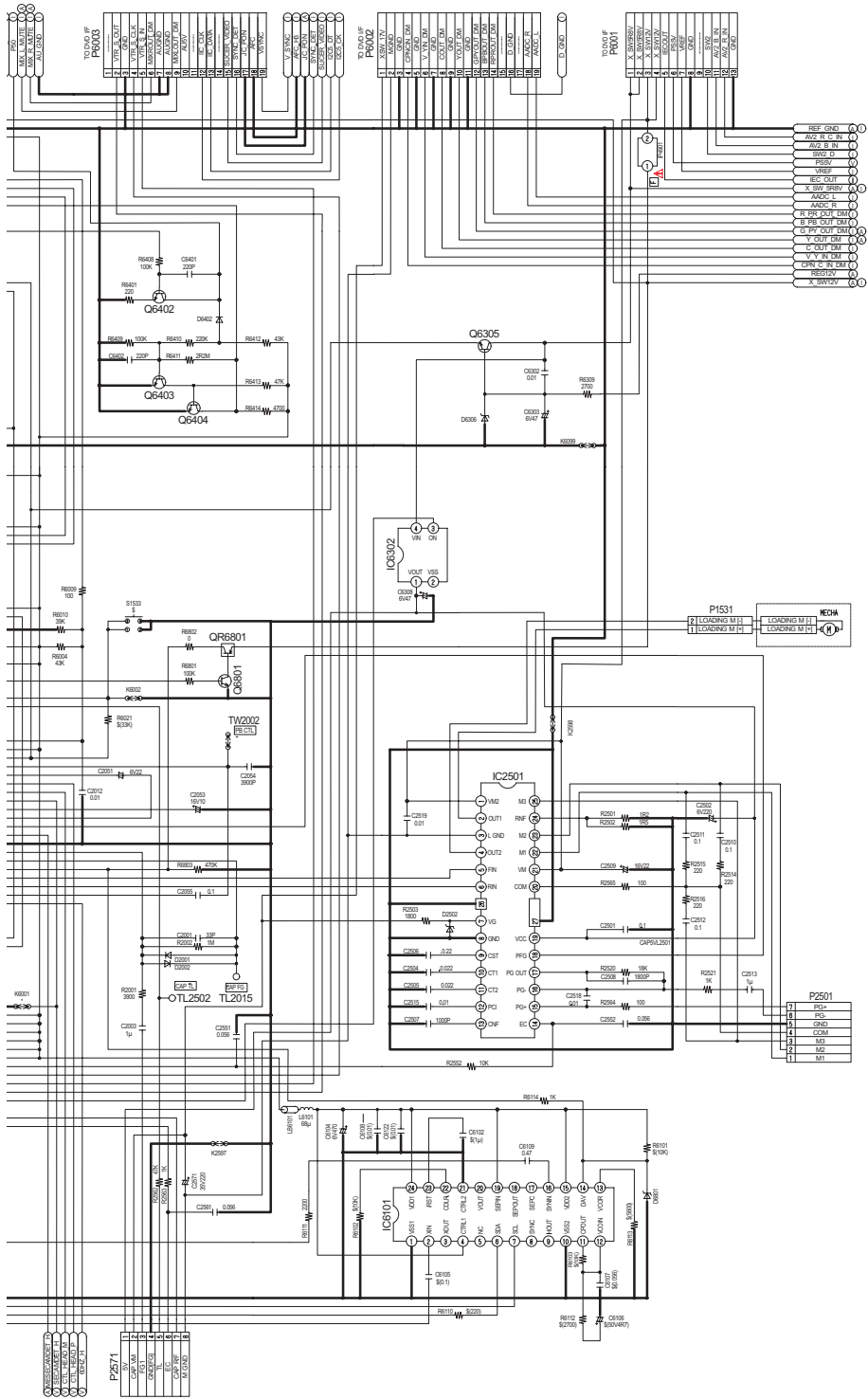
24.5. SYSCON / SERVO / TIMER MAIN



Variations Category

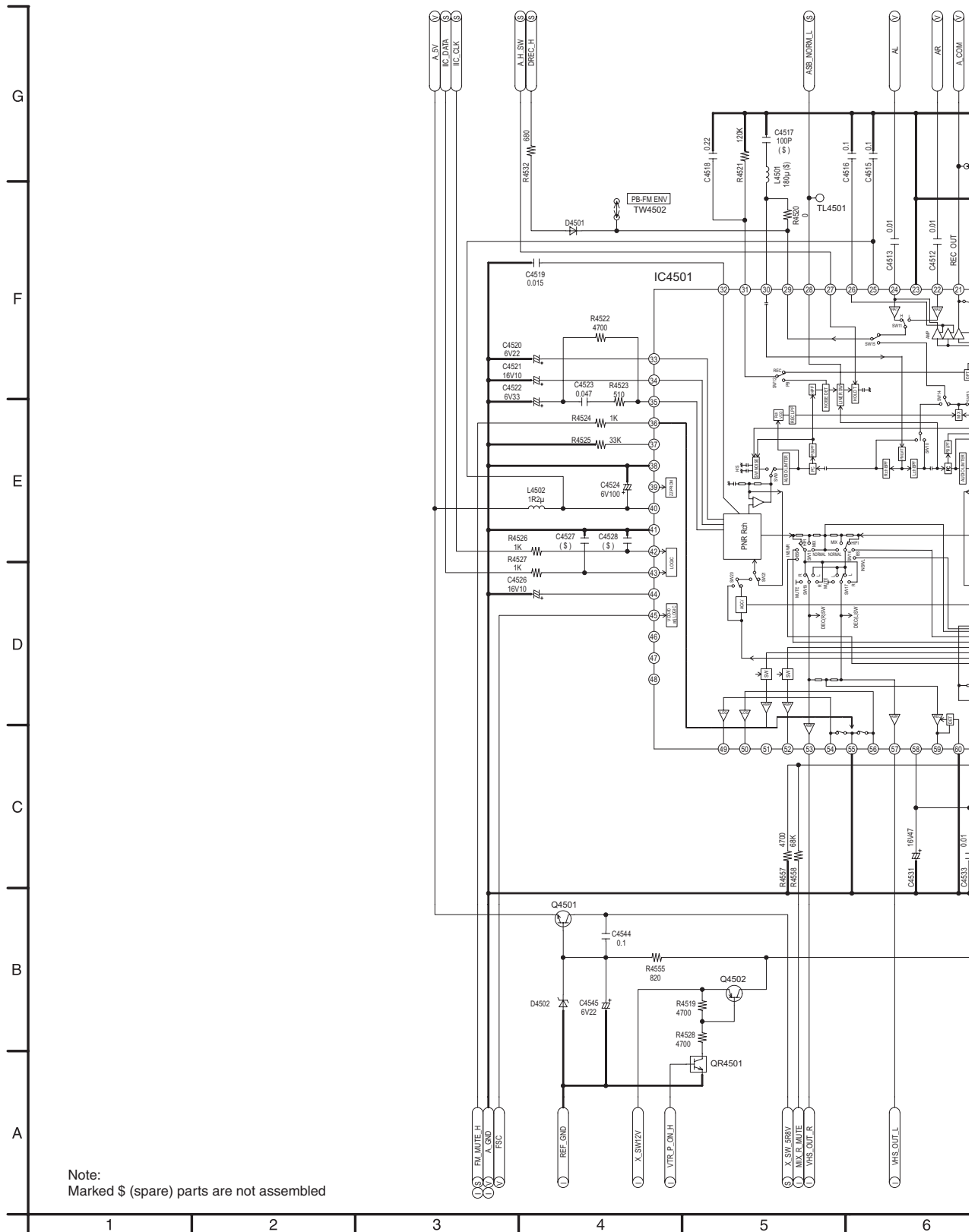
	DMR-EH80VEG	DMR-EH80VEB
C6114	33P	\$
L6104	33μ	\$
Q6101	2SB1218AOL	\$
R6116	1500	\$
R6118	\$	47K

Note:
 Marked \$ (spare) parts are not assembled
 Important Safety Notice: Δ
 Components identified with the mark have the special characteristics for safety.
 When replacing any of these components use only the same type.



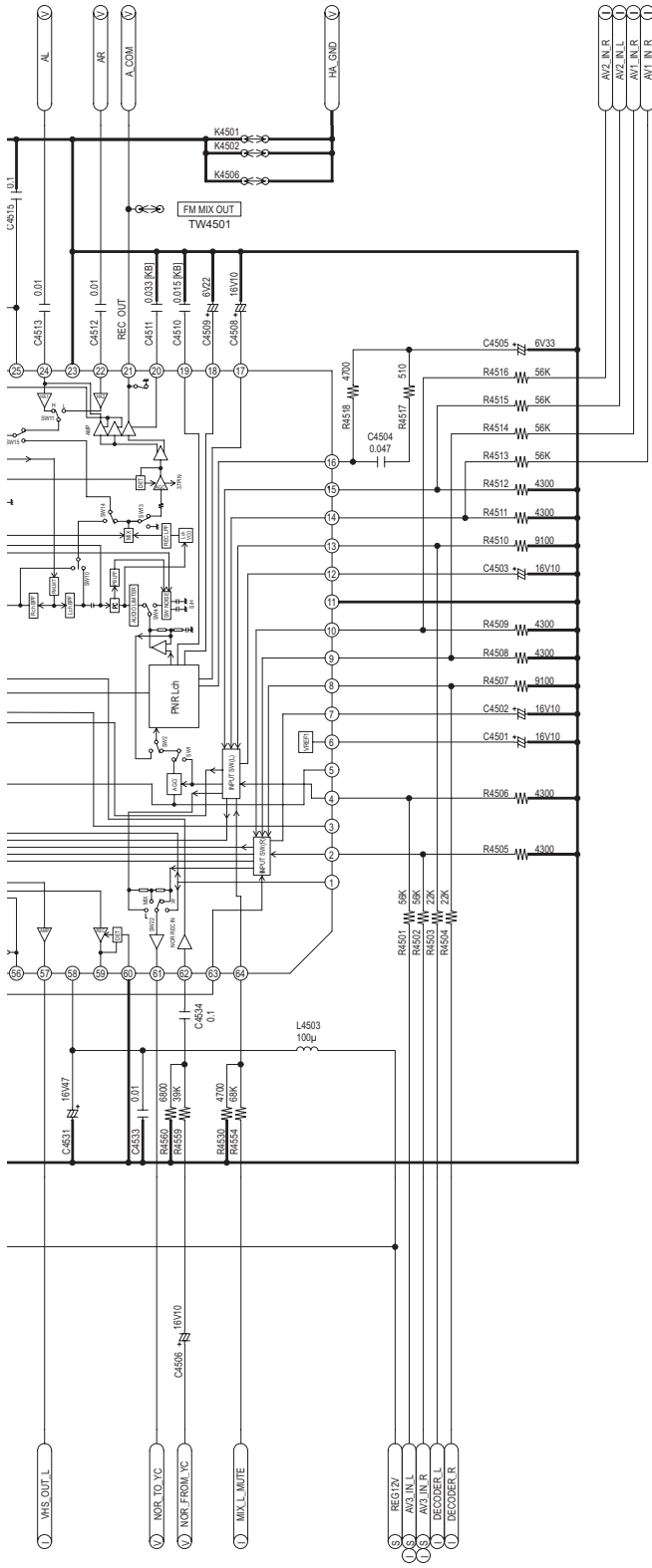
DMR-EH80VEG
DMR-EH80VEB
SYSCON / SERVO / TIMER
SCHEMATIC DIAGRAM

24.6. VHS AUDIO



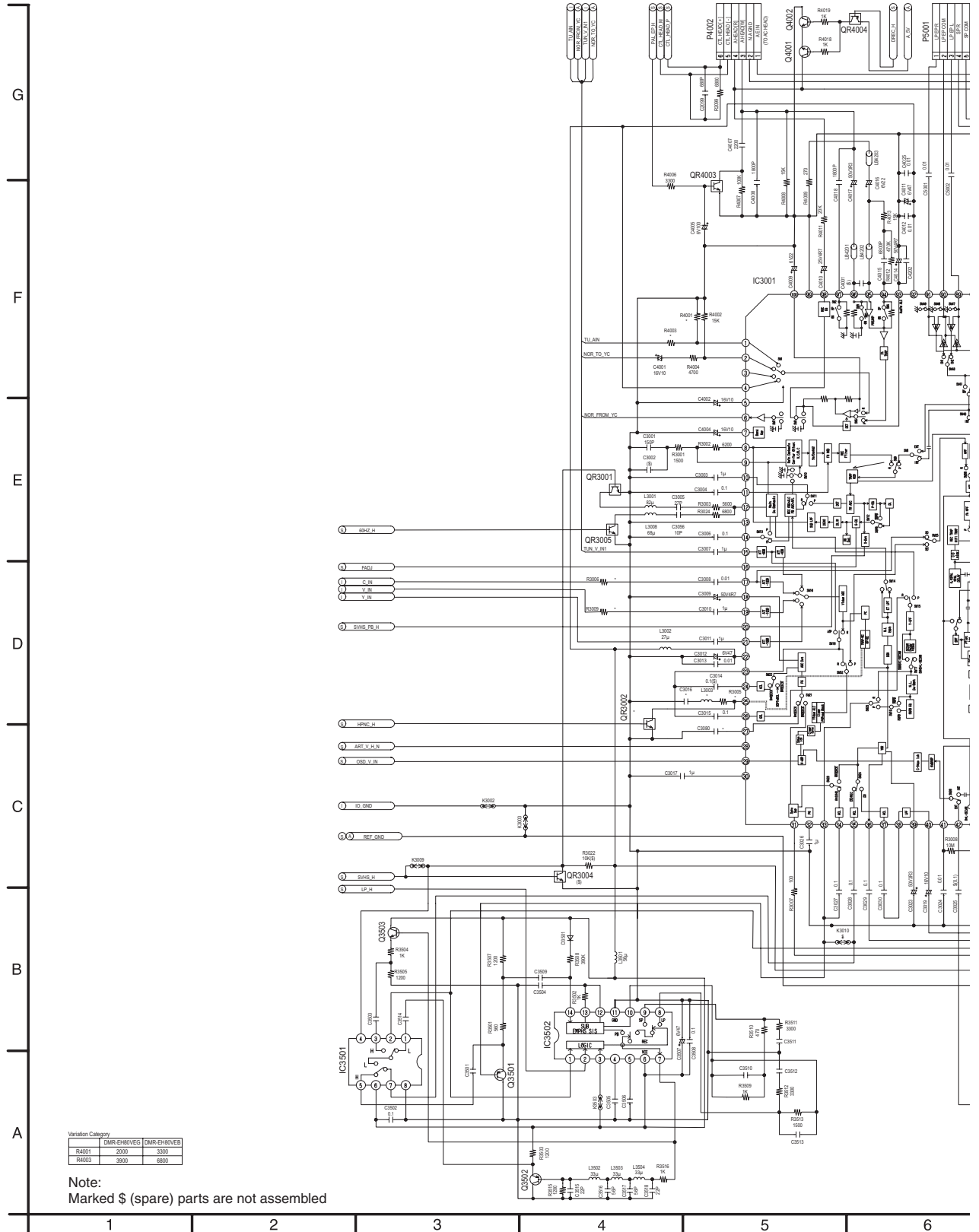
Note:
Marked \$ (spare) parts are not assembled

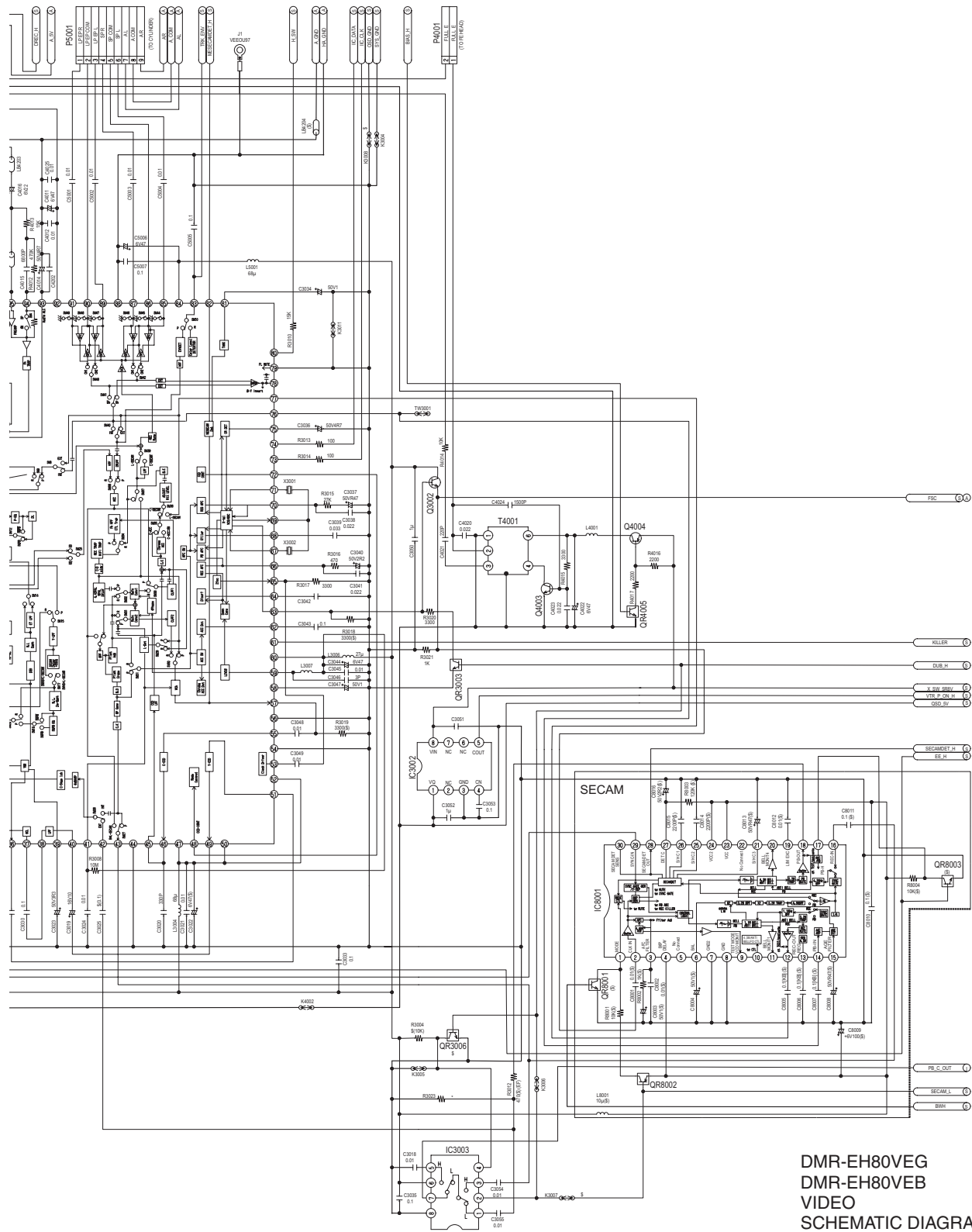
- | | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|



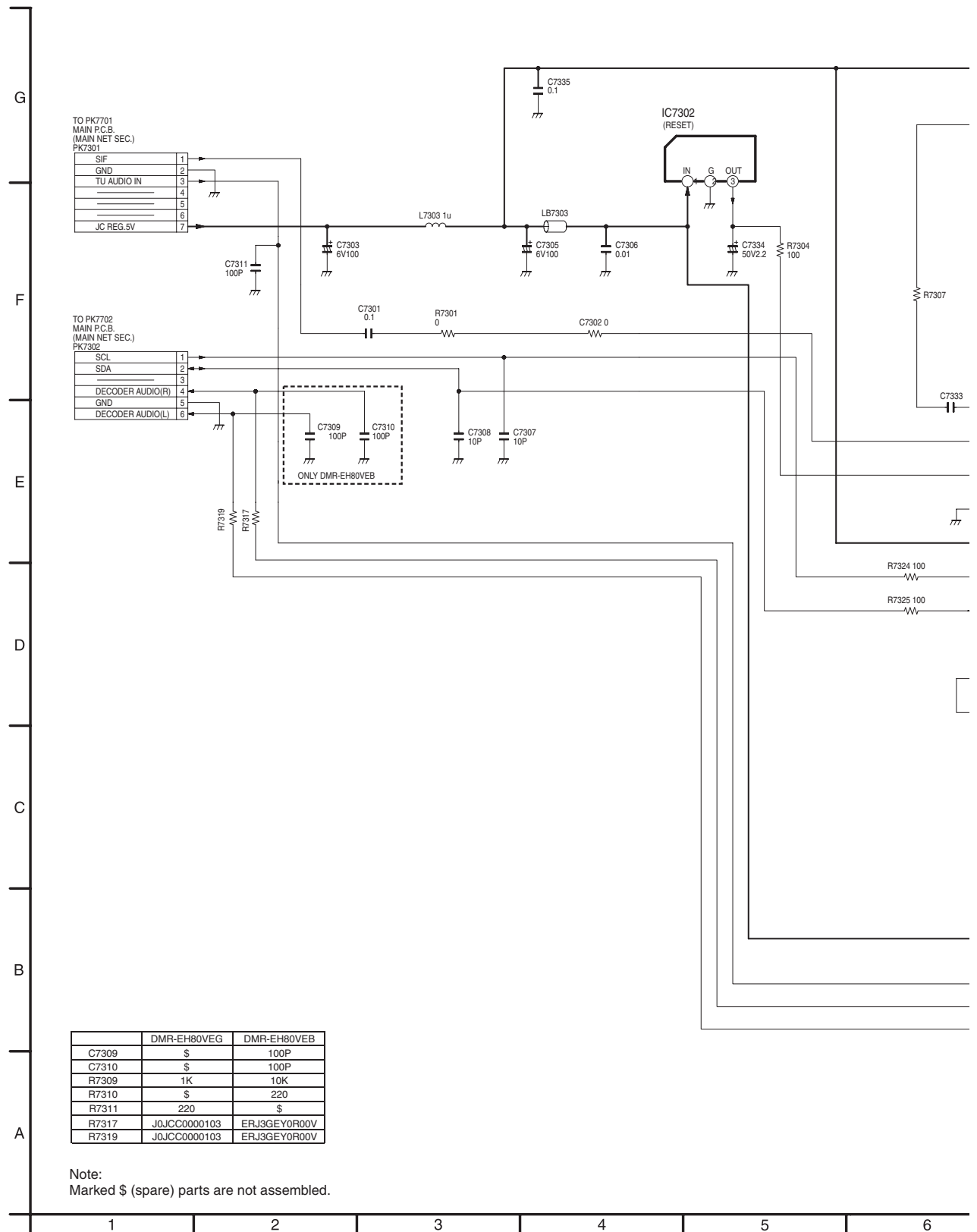
DMR-EH80VEG
DMR-EH80VEB
VHS AUDIO
SCHEMATIC DIAGRAM

24.7. VIDEO



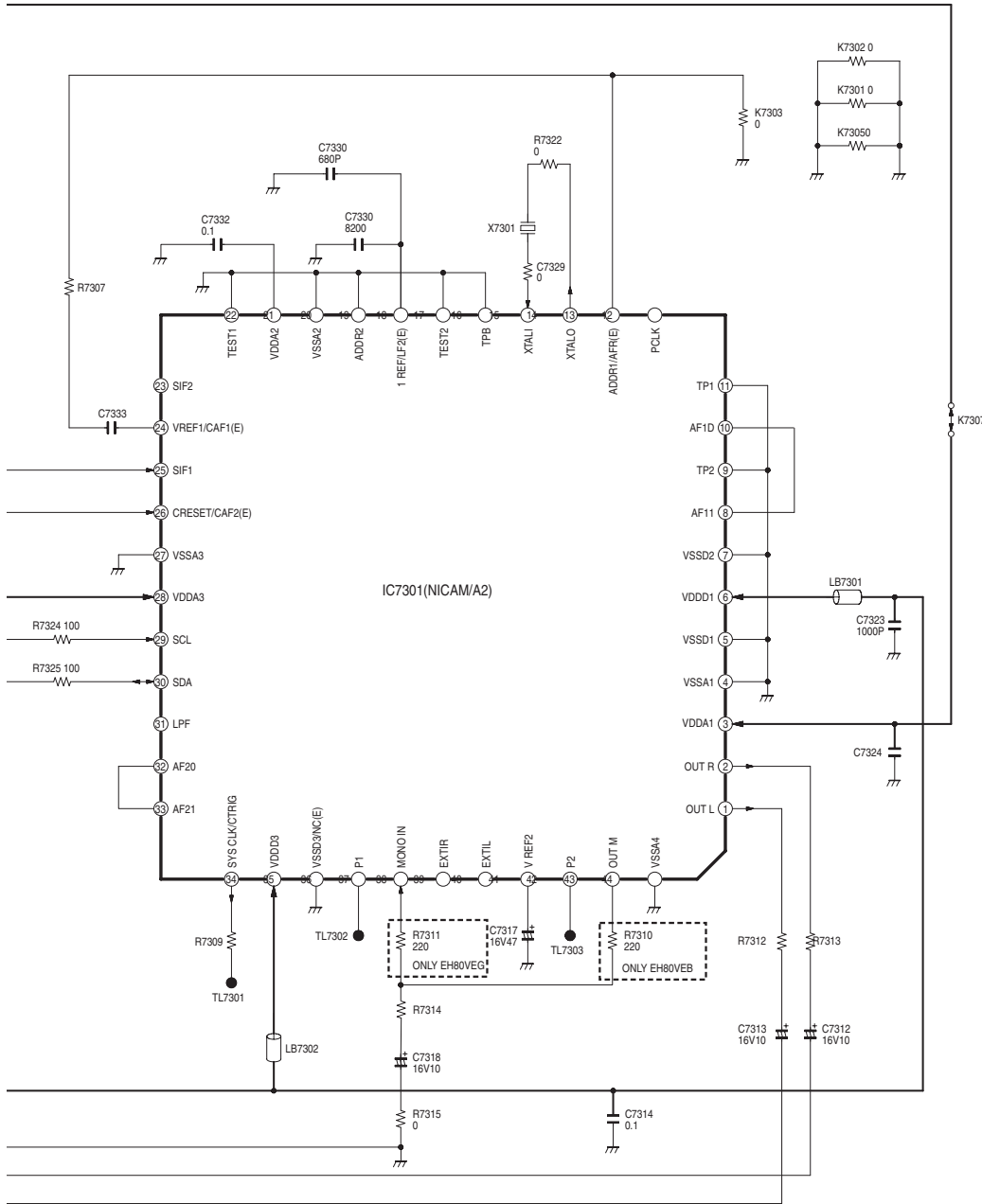


24.8. NICAM DECODER



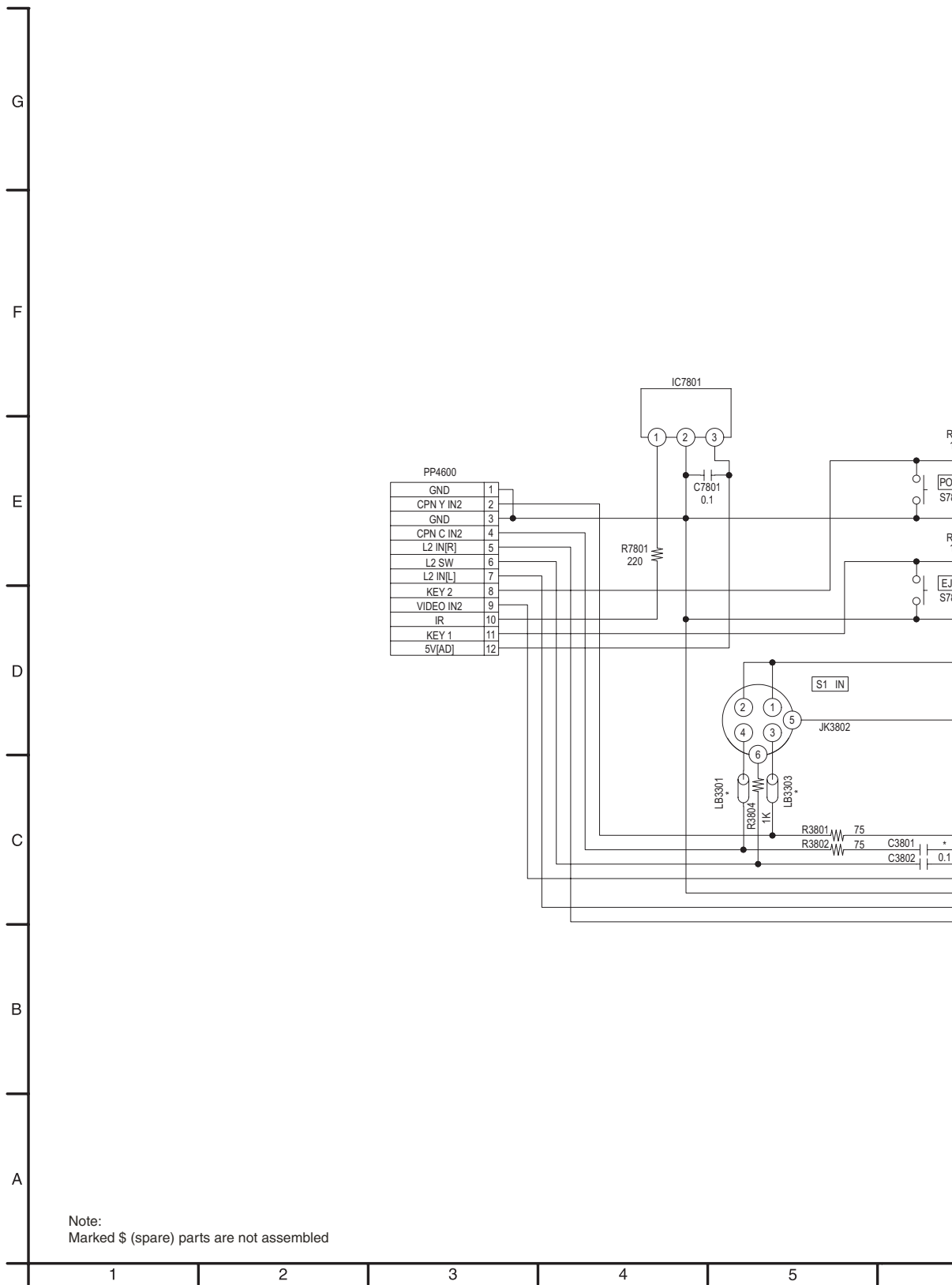
	DMR-EH80VEG	DMR-EH80VEB
C7309	\$	100P
C7310	\$	100P
R7309	1K	10K
R7310	\$	220
R7311	220	\$
R7317	J0JCC0000103	ERJ3GEY0R00V
R7319	J0JCC0000103	ERJ3GEY0R00V

Note:
Marked \$ (spare) parts are not assembled.

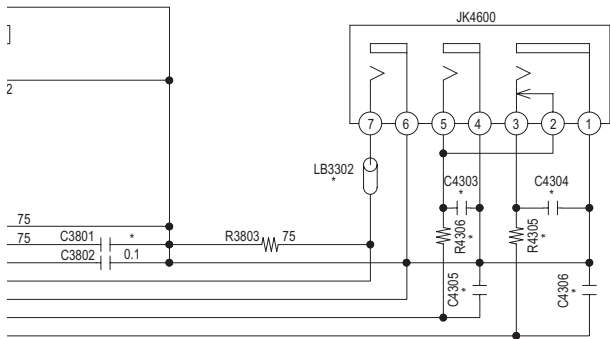
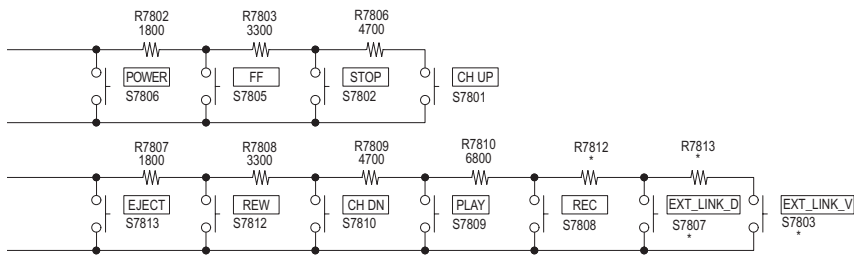


DMR-EH80VEG
DMR-EH80VEB
NICAM DECODER
SCHEMATIC DIAGRAM

24.9. FRONT JACK



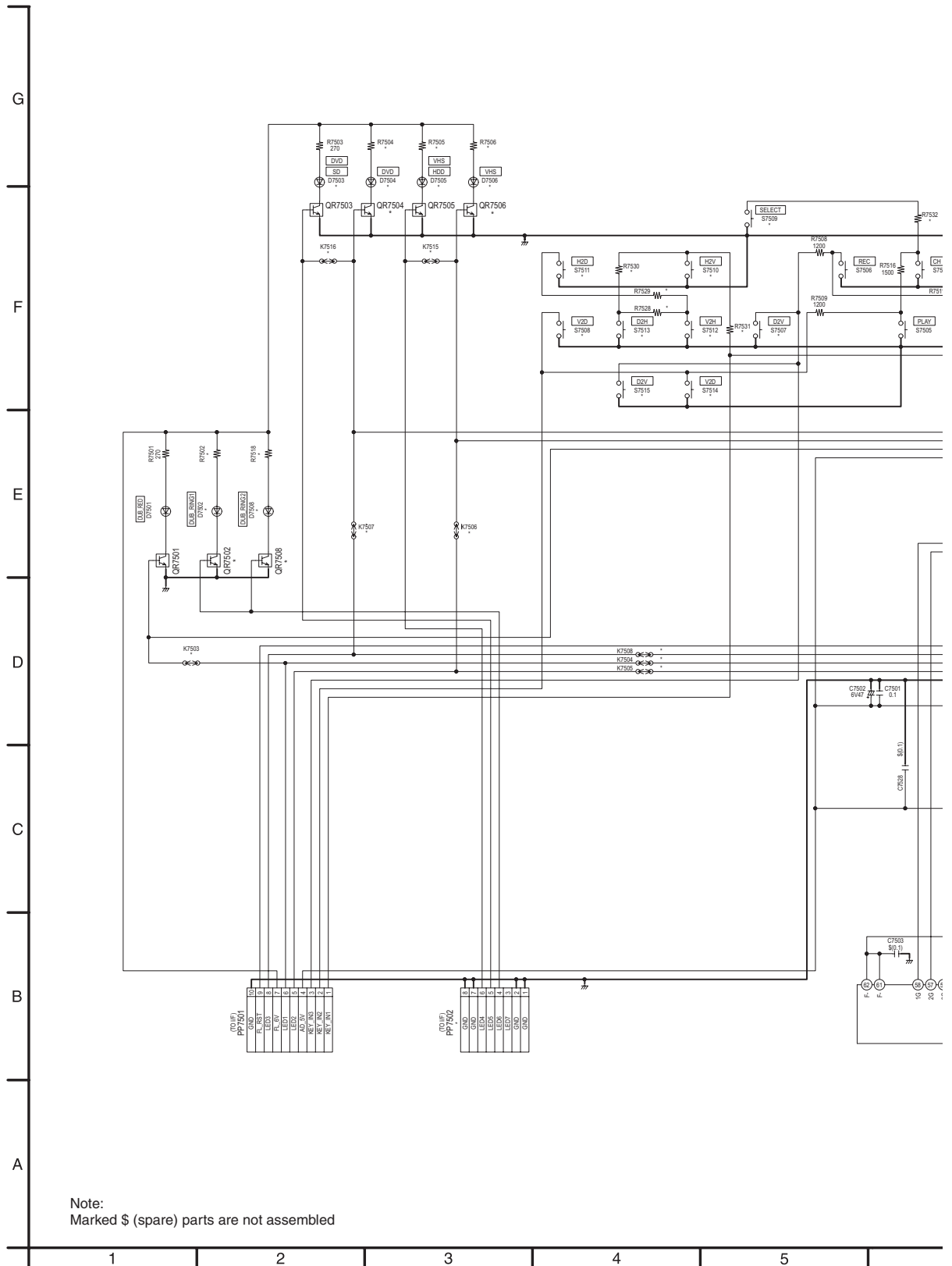
Note:
Marked \$ (spare parts are not assembled)

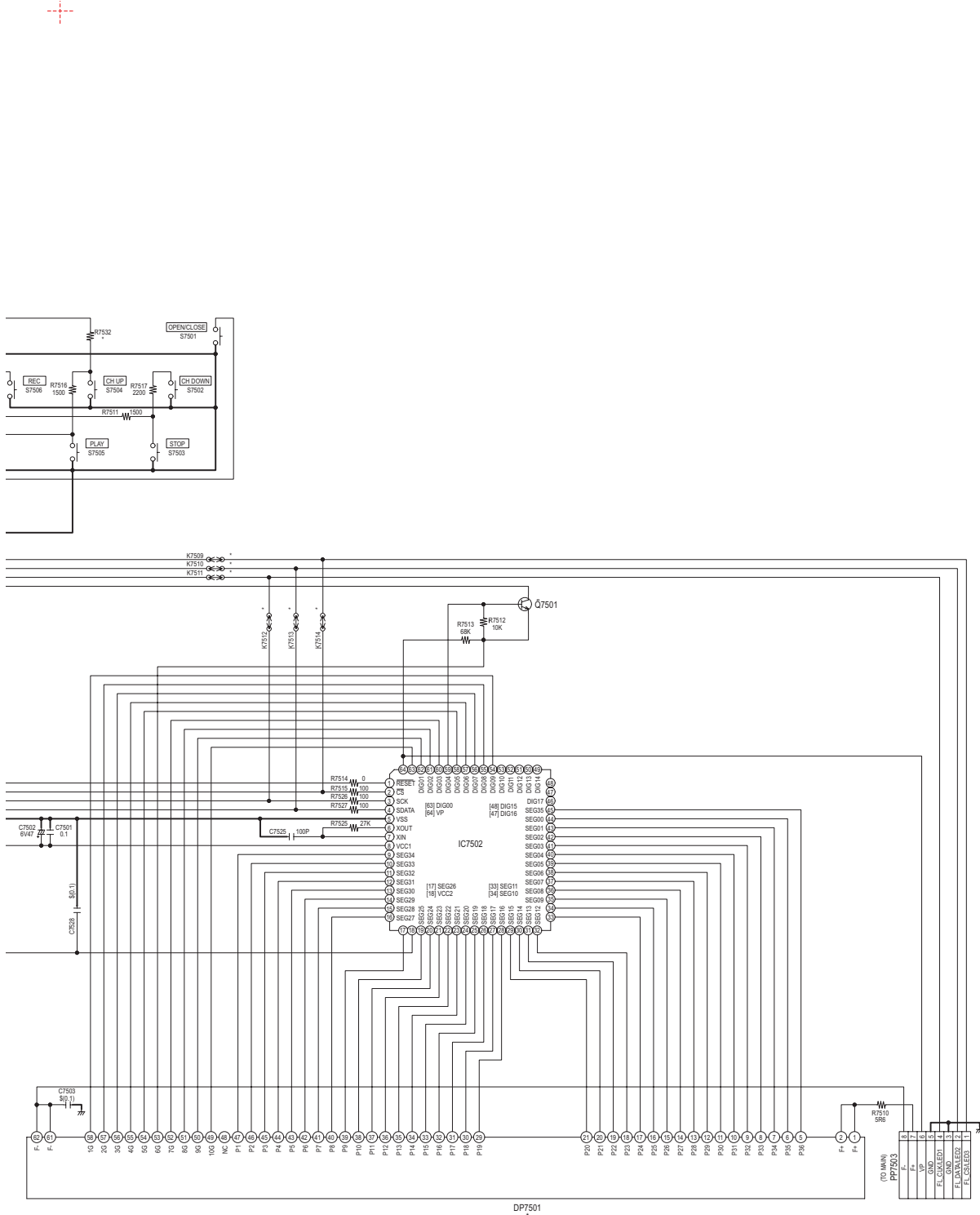


DMR-EH80VEG
DMR-EH80VEB
FRONT JACK
SCHEMATIC DIAGRAM



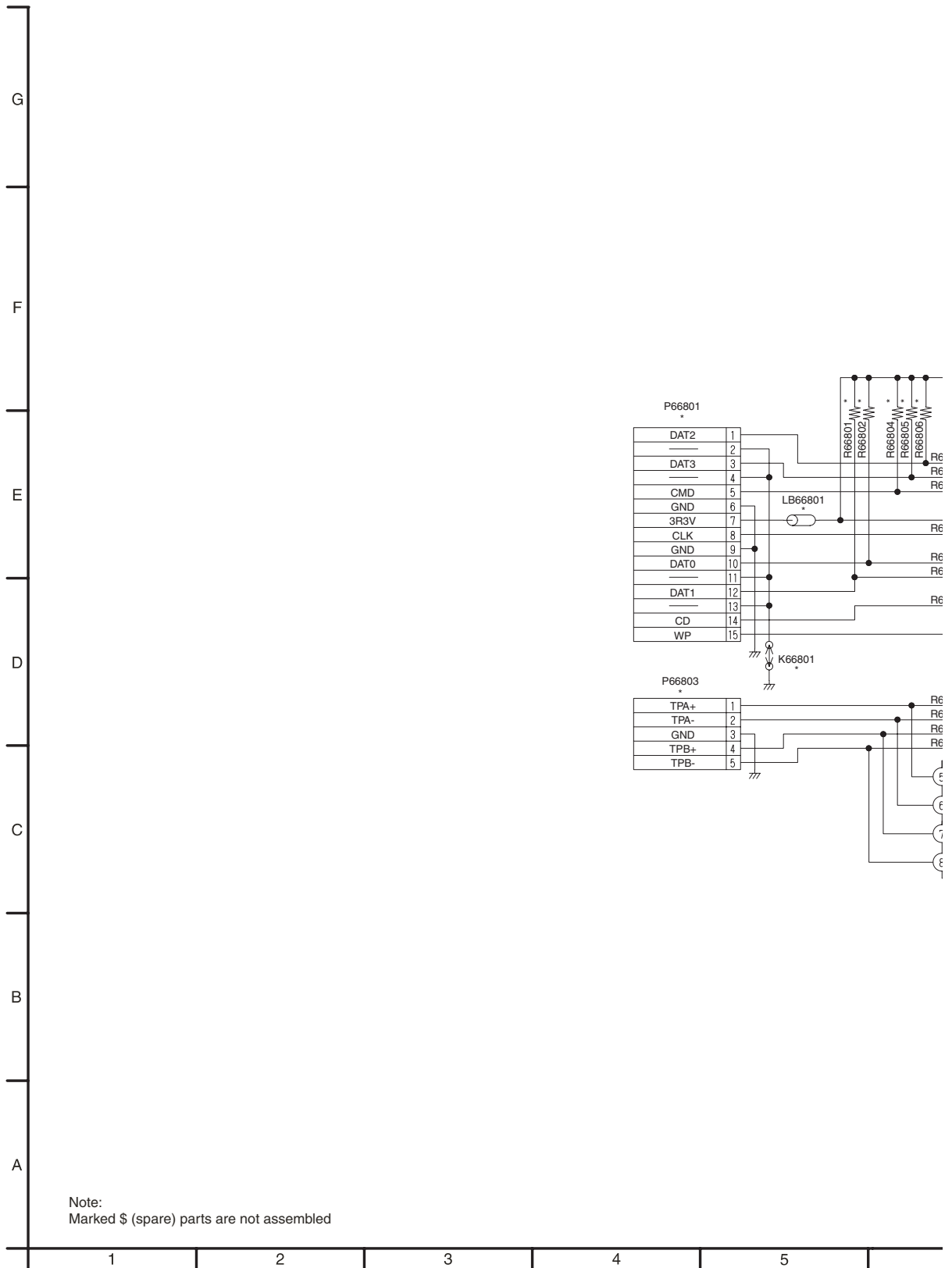
24.10. FL DRIVE





DMR-EH80VEG
DMR-EH80VEB
FL DRIVE
SCHEMATIC DIAGRAM

24.11. SD CARD / DV IN



Note:
Marked \$ (spare) parts are not assembled

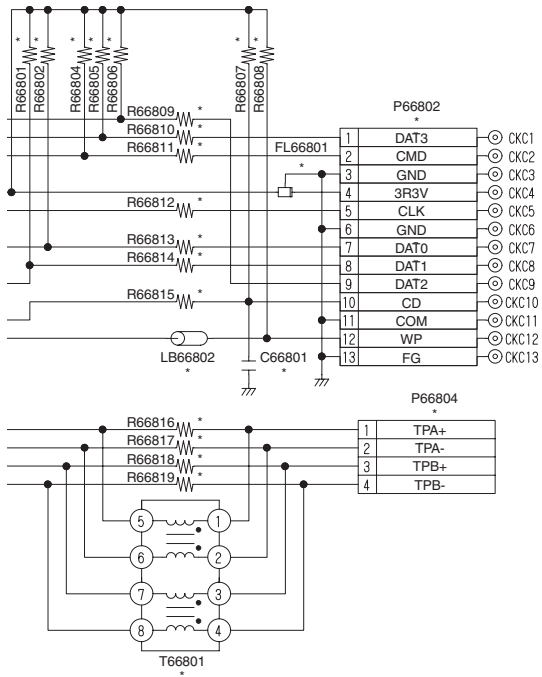
1

2

3

4

5



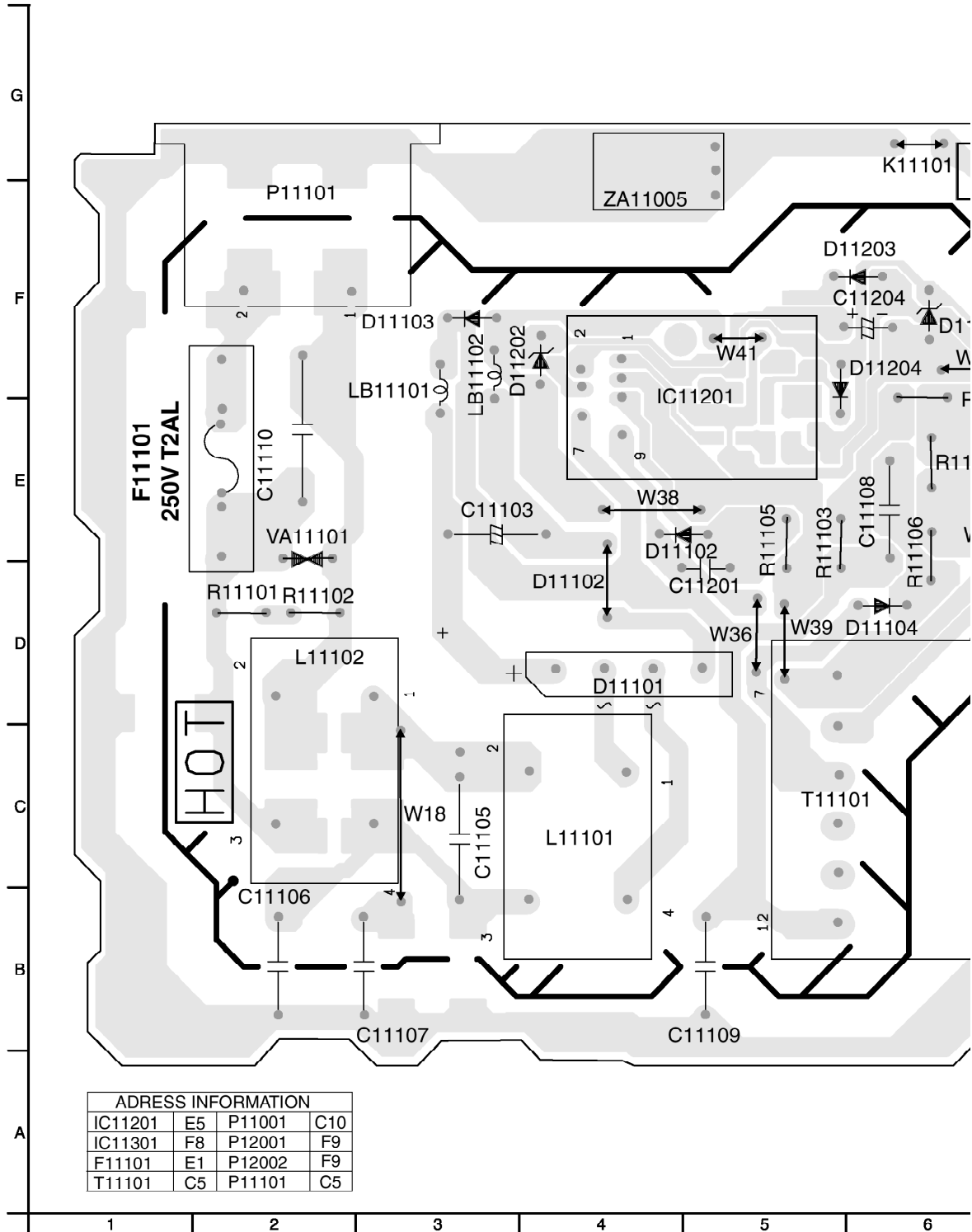
DMR-EH80VEG
DMR-EH80VEB
SD CARD / DV IN
SCHEMATIC DIAGRAM

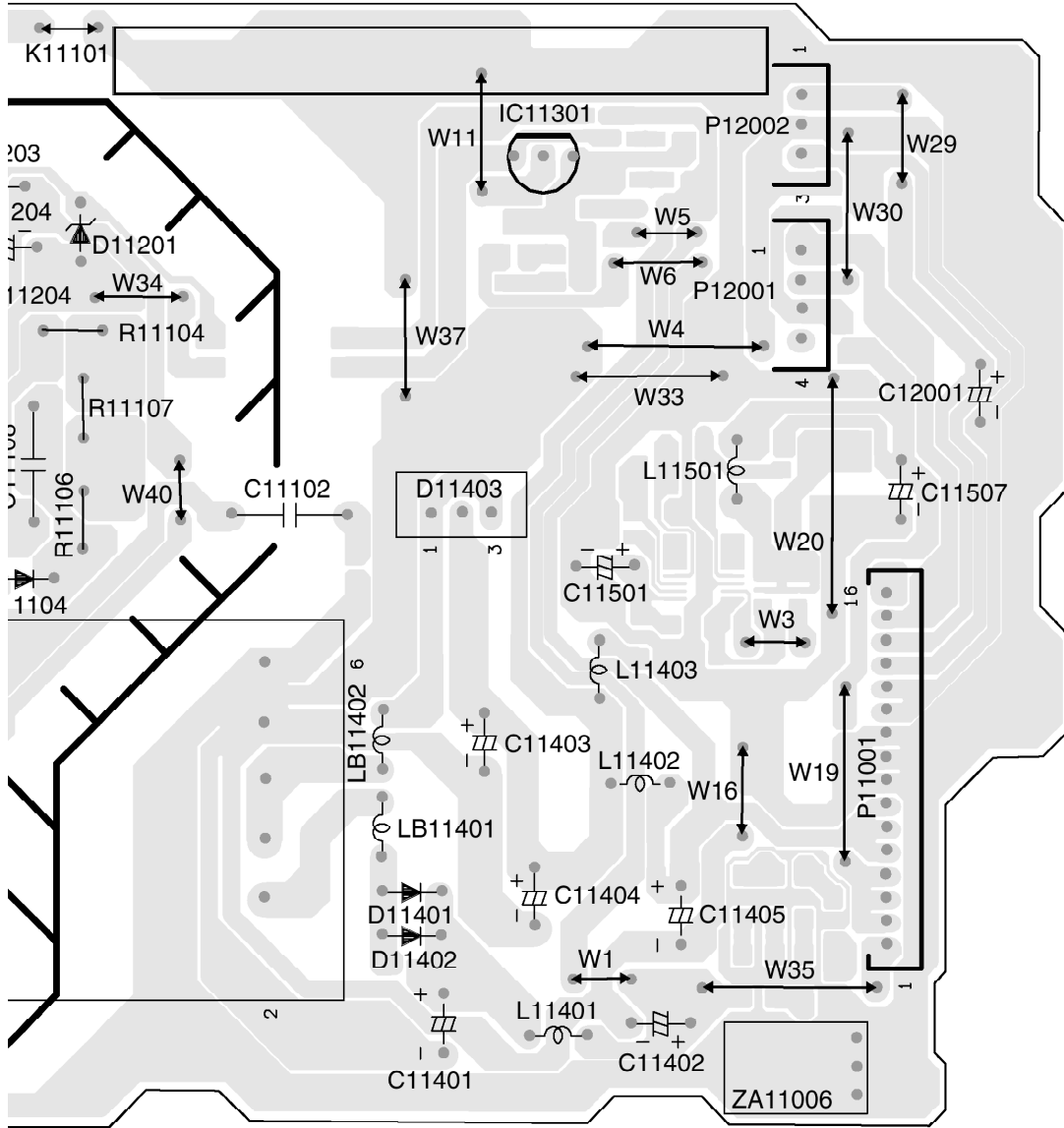


28.3. POWER P.C.B. FOR PRINTING A4 SIZE

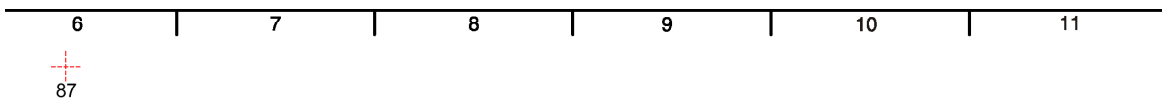
25 PRINTED CIRCUIT BOARD

25.1. POWER P.C.B. (COMPONENT SIDE)

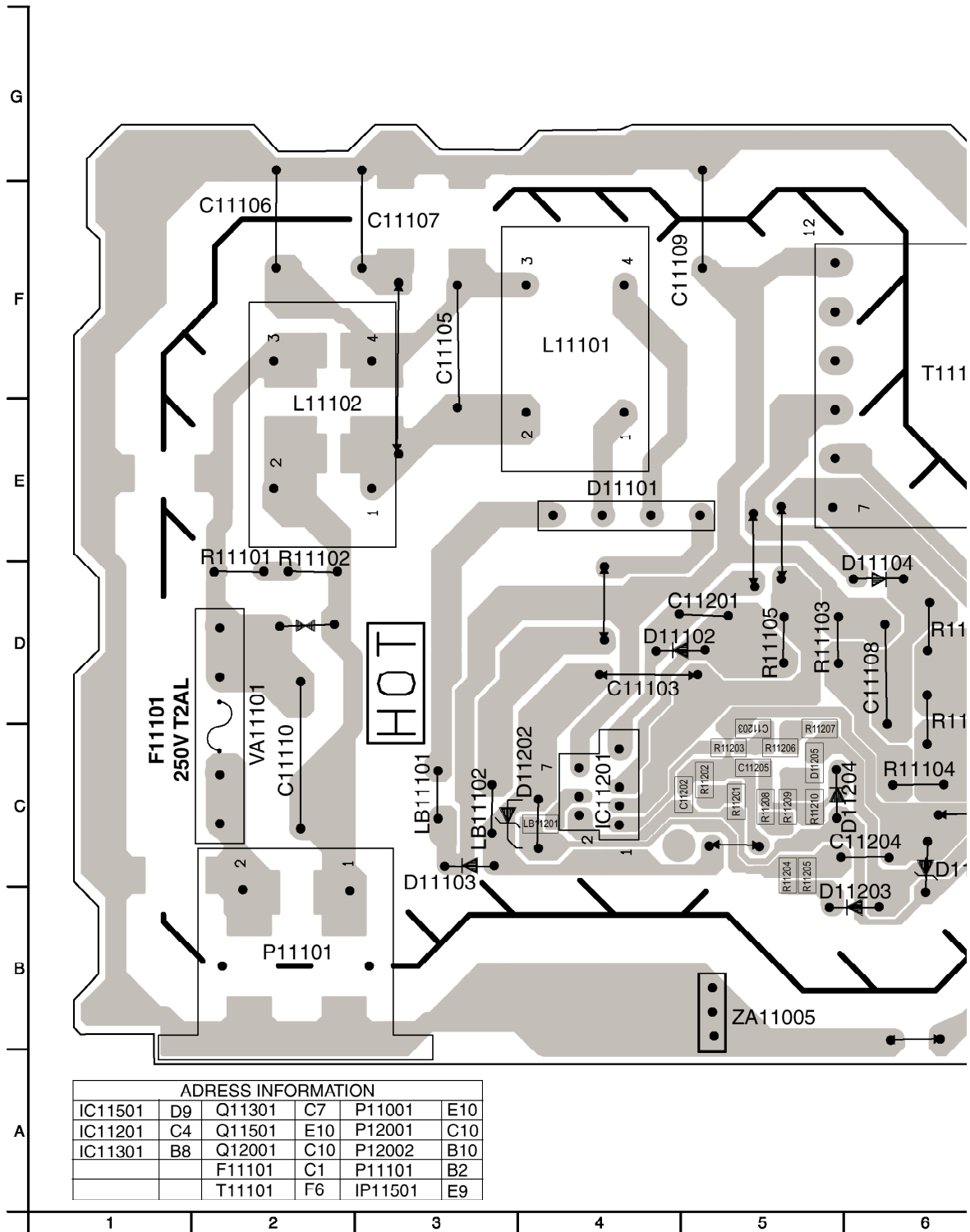




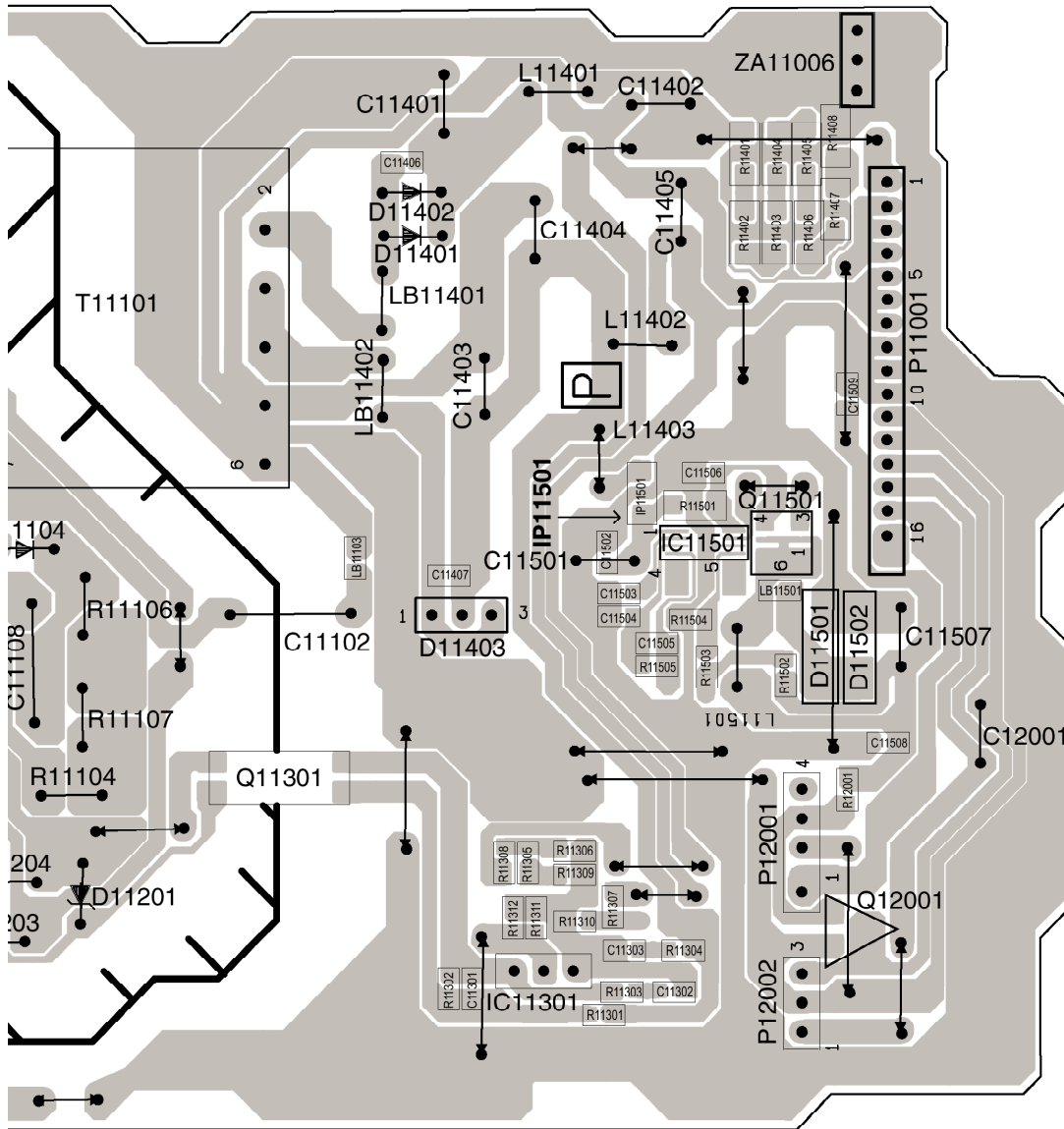
DMR-EH80VEG
 DMR-EH80VEB
 POWER P.C.B.
 COMPONENT SIDE
 VEP01977



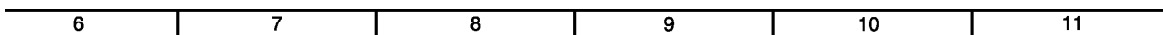
25.2. POWER P.C.B. (SOLDER SIDE)



ADDRESS INFORMATION					
IC11501	D9	Q11301	C7	P11001	E10
IC11201	C4	Q11501	E10	P12001	C10
IC11301	B8	Q12001	C10	P12002	B10
		F11101	C1	P11101	B2
		T11101	F6	IP11501	E9



DMR-EH80VEG
DMR-EH80VEB
POWER P.C.B.
SOLDER SIDE
VEP01977



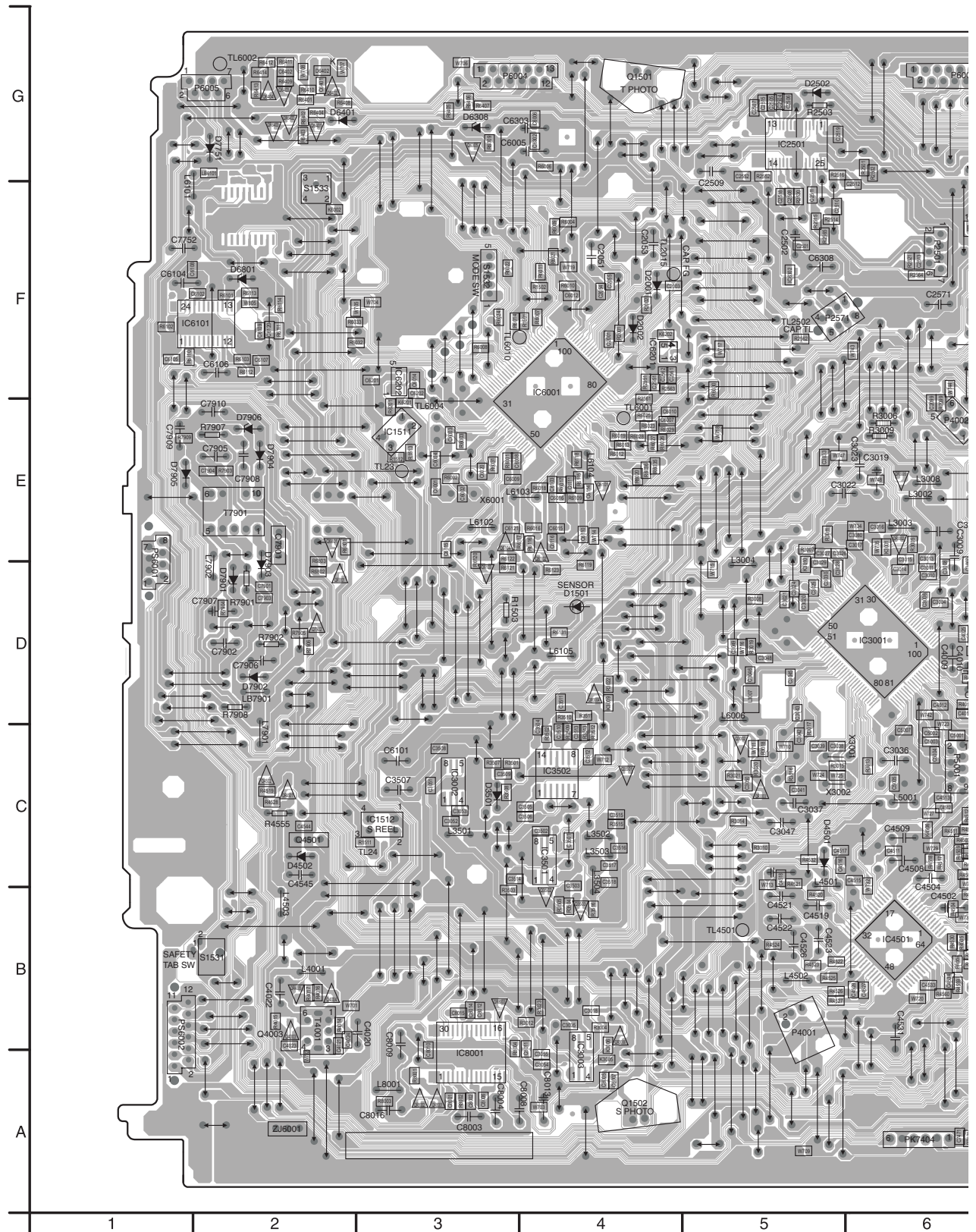
28.4. MAIN P.C.B. (COMPONENT SIDE) FOR PRINTING A4 SIZE

25.3. MAIN P.C.B. (COMPONENT SIDE)



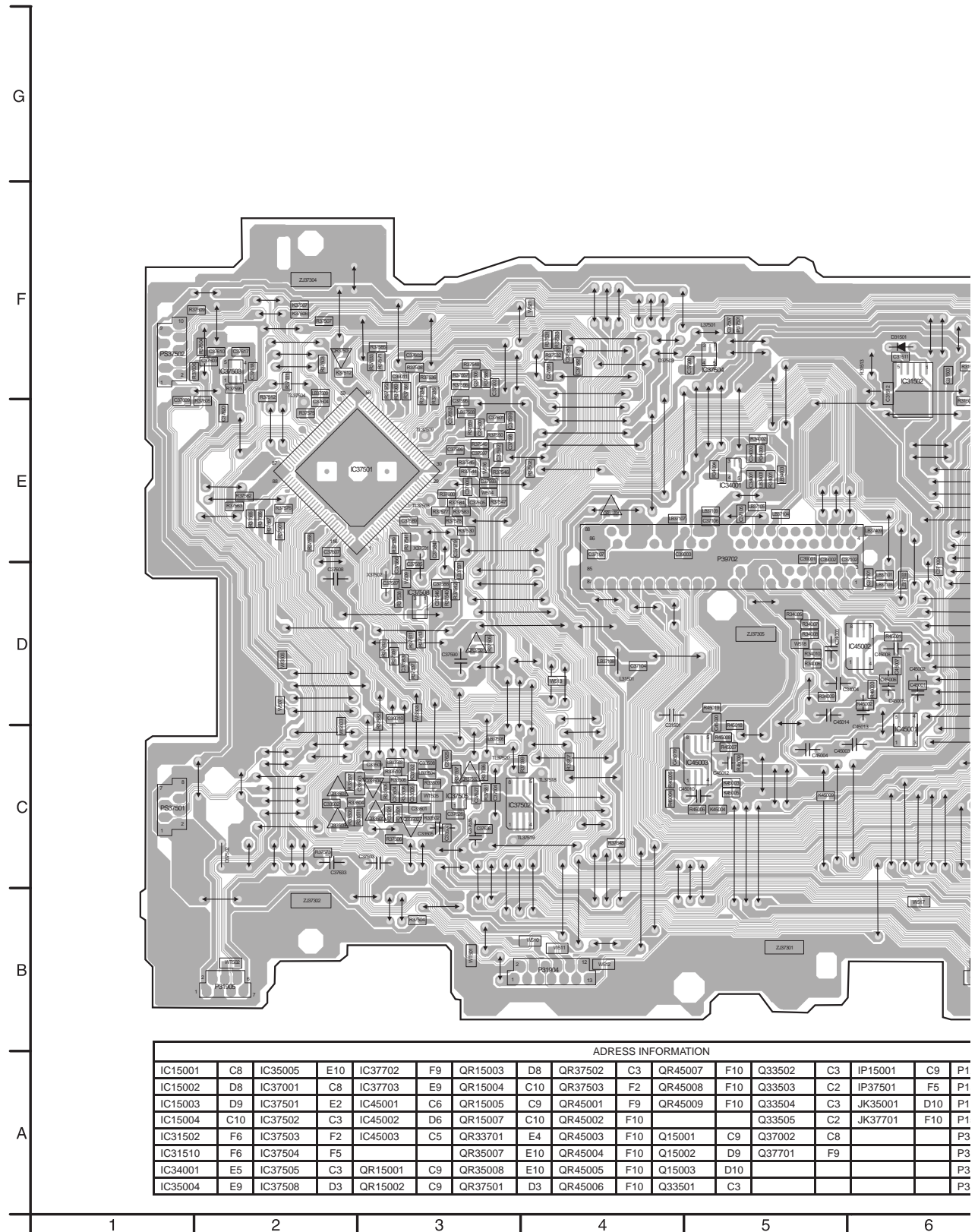
28.5. MAIN P.C.B. (SOLDER SIDE) FOR PRINTING A4 SIZE

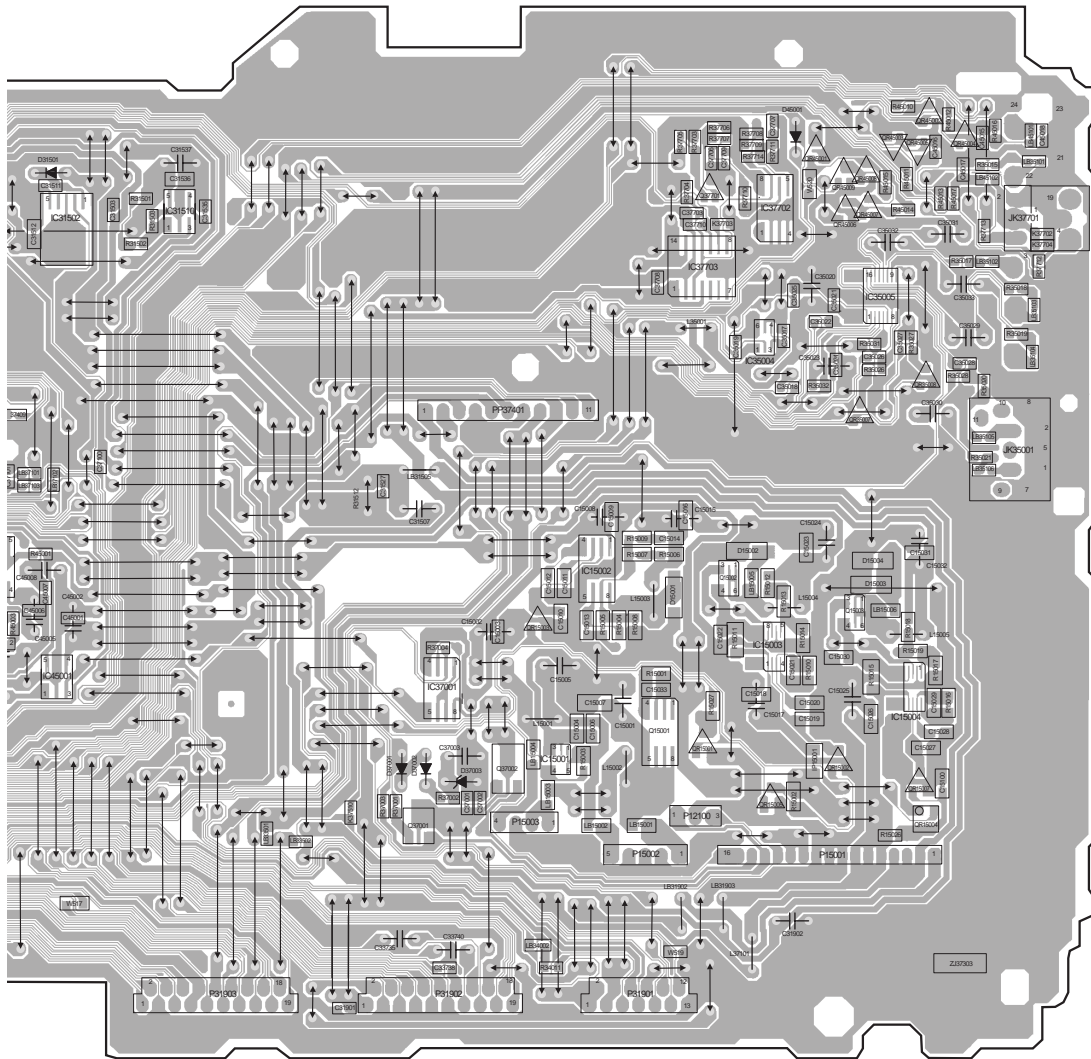
25.4. MAIN P.C.B. (SOLDER SIDE)



28.6. OTHER P.C.B.'s FOR PRINTING A4 SIZE

25.6. DIGITAL I/F P.C.B. (SOLDER SIDE)





5001	C9	P12100	C9	P31905	B2
7501	F5	P15001	C9	P39702	D4
35001	D10	P15002	C9		
37701	F10	P15003	C8	PP37401	E8
		P31901	B9		
		P31902	B8	PS37501	C1
		P31903	B6	PS37502	F1
		P31904	B4		

DMR-EH80VEG
DMR-EH80VEB
DIGITAL I/F PCB
SOLDER SIDE
VEP09136G

6

7

8

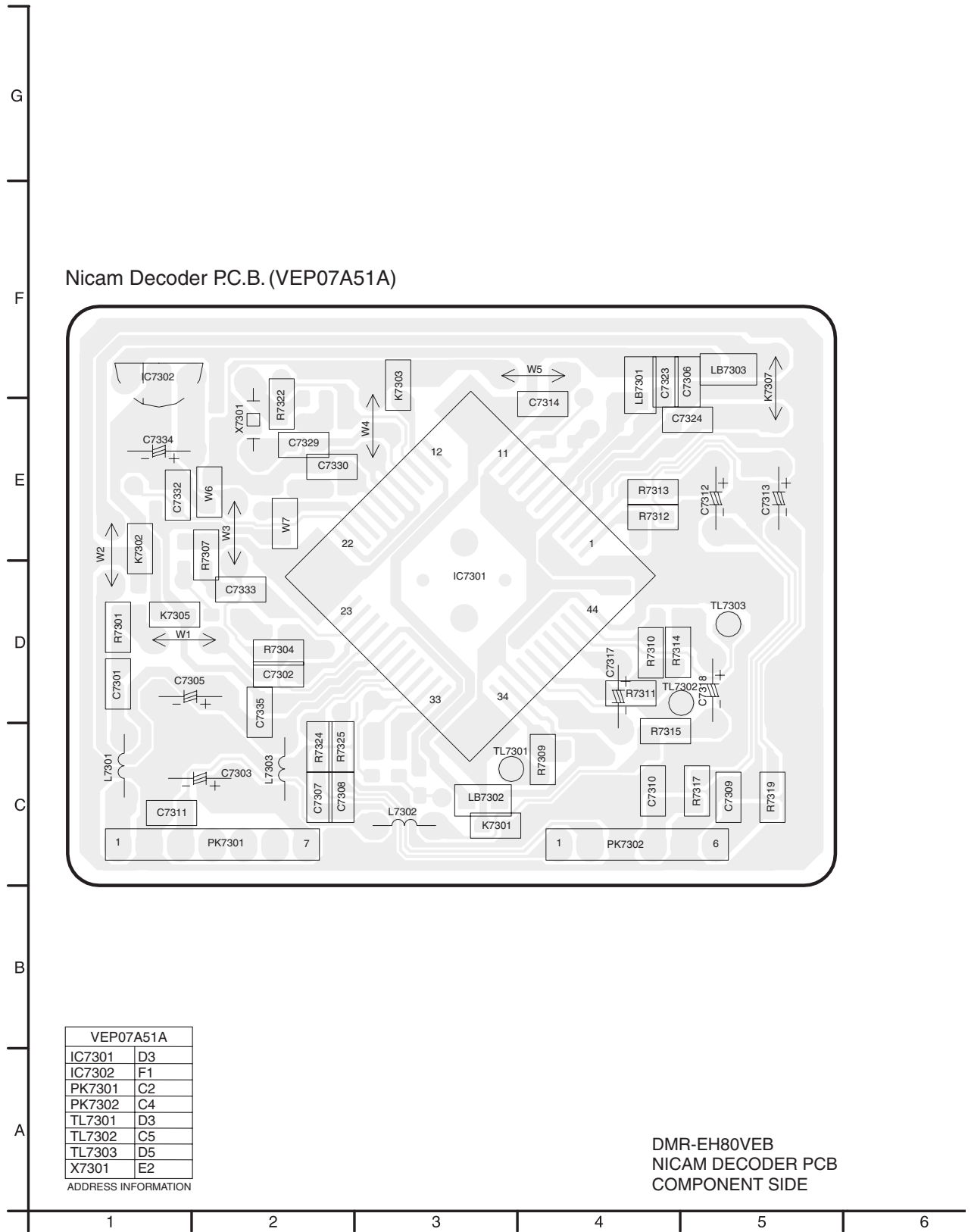
9

10

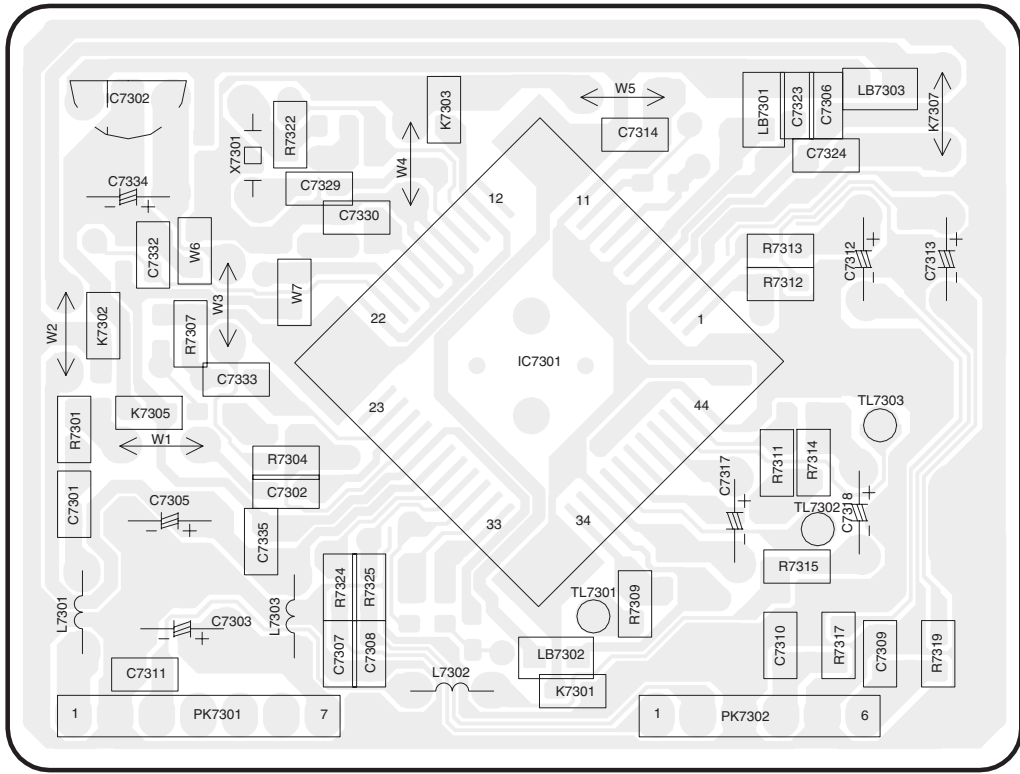
11



25.7. NICAM DECODER P.C.B. (VEP07A51A / VEP07A51B)



Nicam Decoder P.C.B. (VEP07A51B)



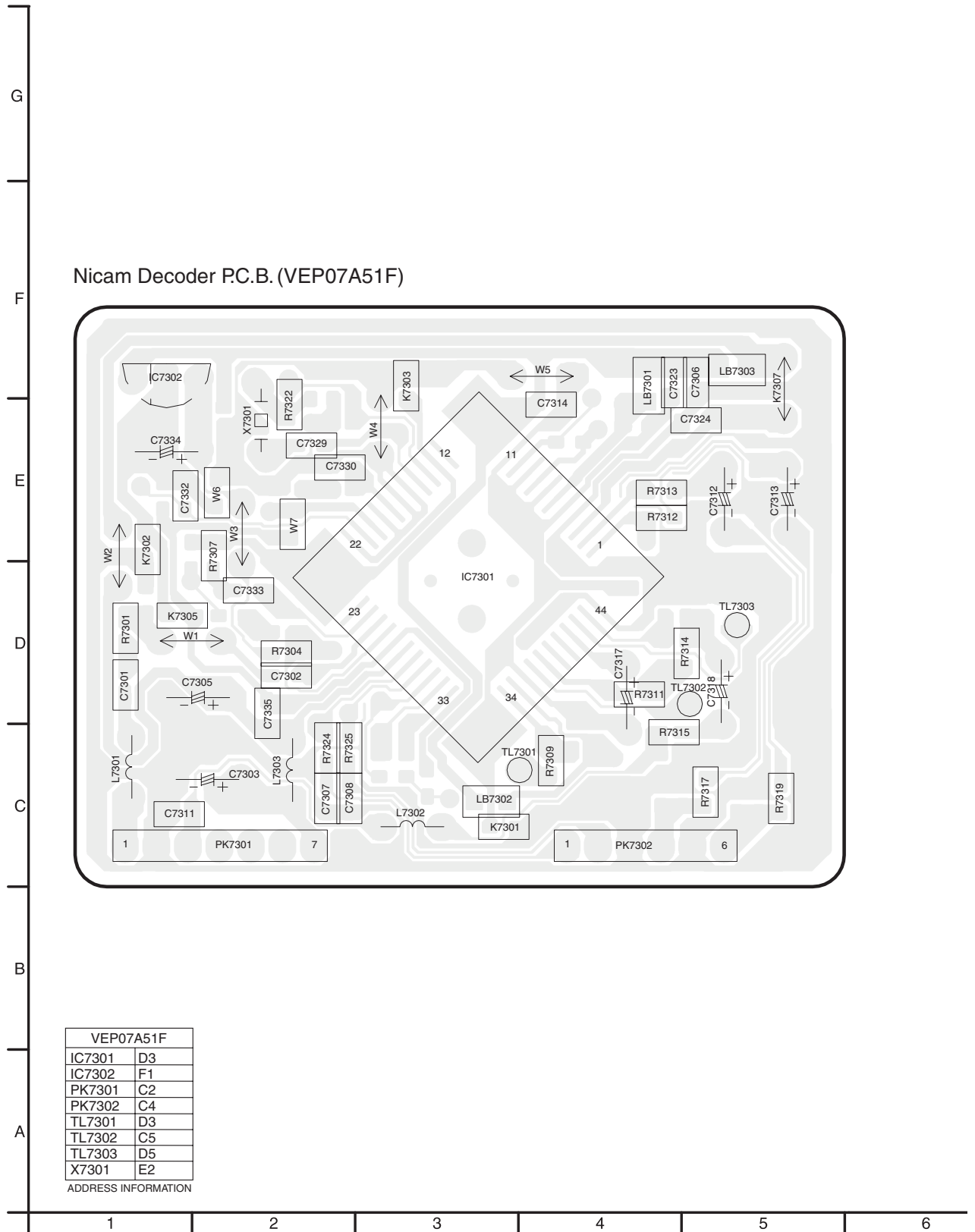
VEP07A51B	
IC7301	D9
IC7302	F7
PK7301	C8
PK7302	C10
TL7301	D9
TL7302	C10
TL7303	D11
X7301	E8

ADDRESS INFORMATION

DMR-EH80VEB
NICAM DECODER PCB
COMPONENT SIDE



25.8. NICAM DECODER P.C.B. (VEP07A51F)



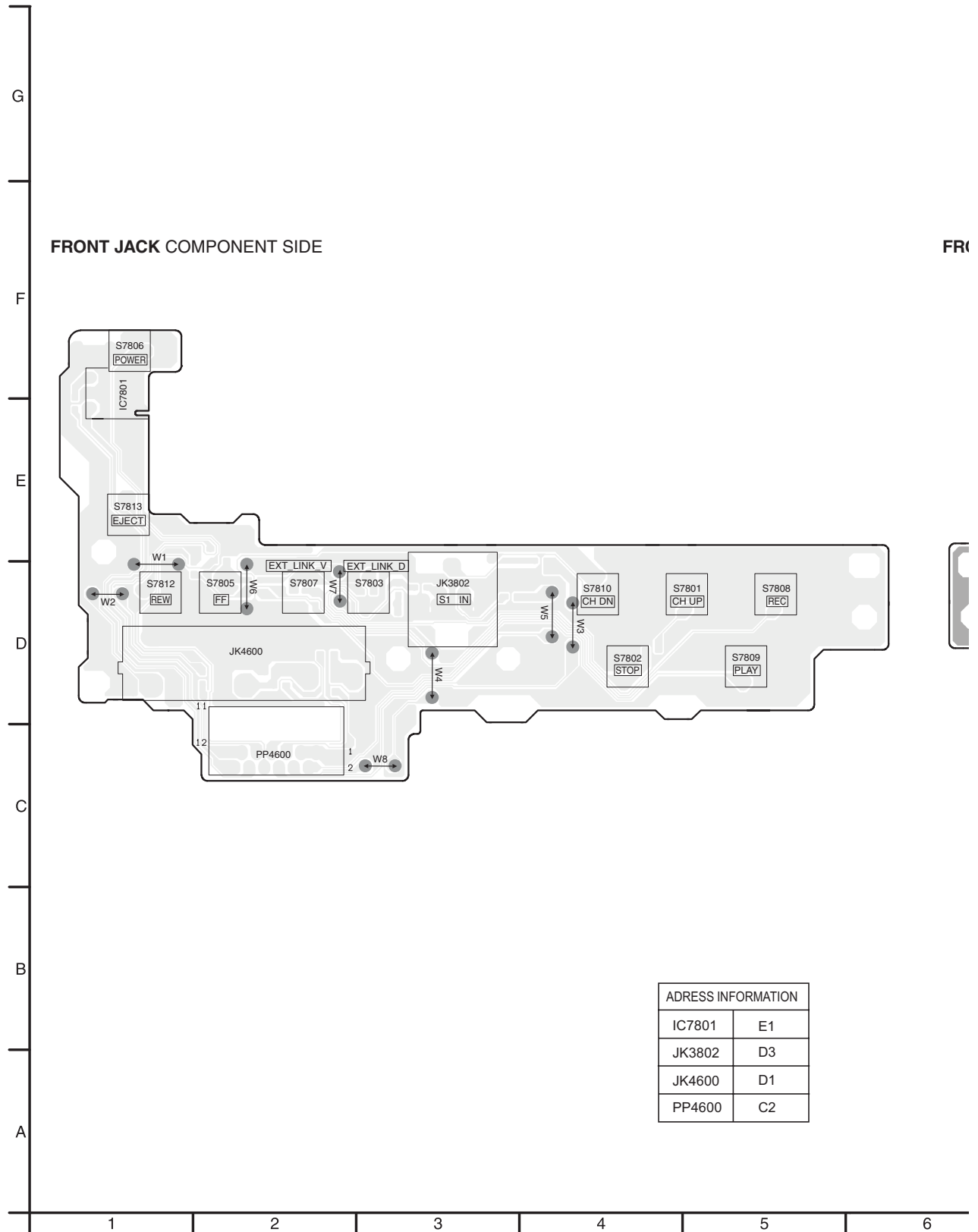


DMR-EH80VEG
NICAM DECODER PCB
COMPONENT SIDE



94

25.9. FRONT JACK P.C.B.

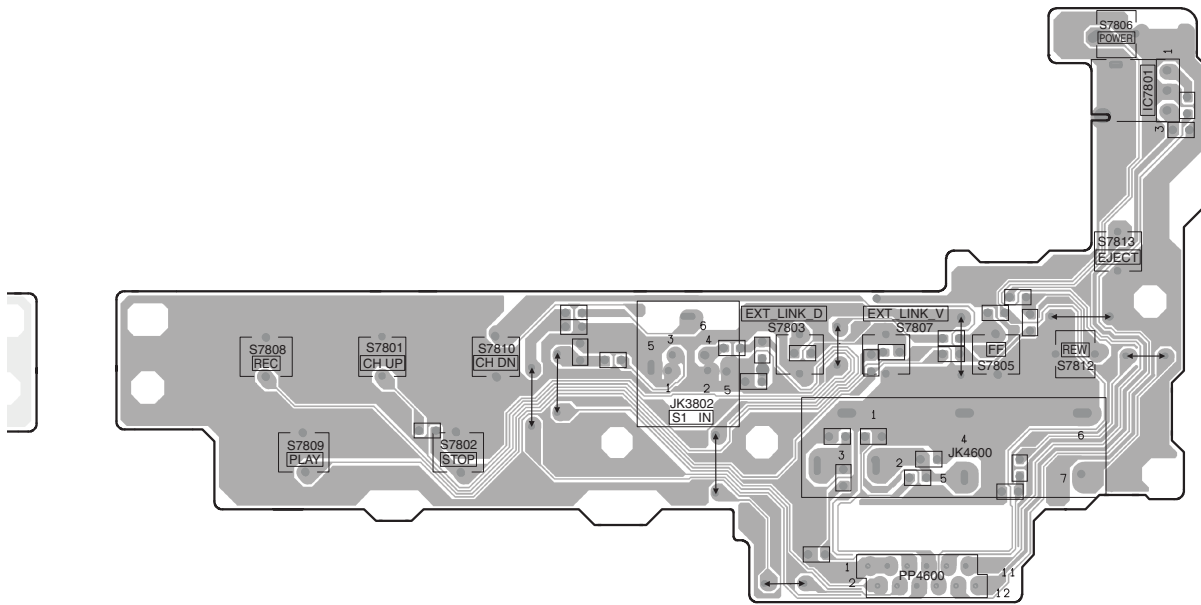


FRONT JACK P.C.B.





FRONT JACK SOLDER SIDE

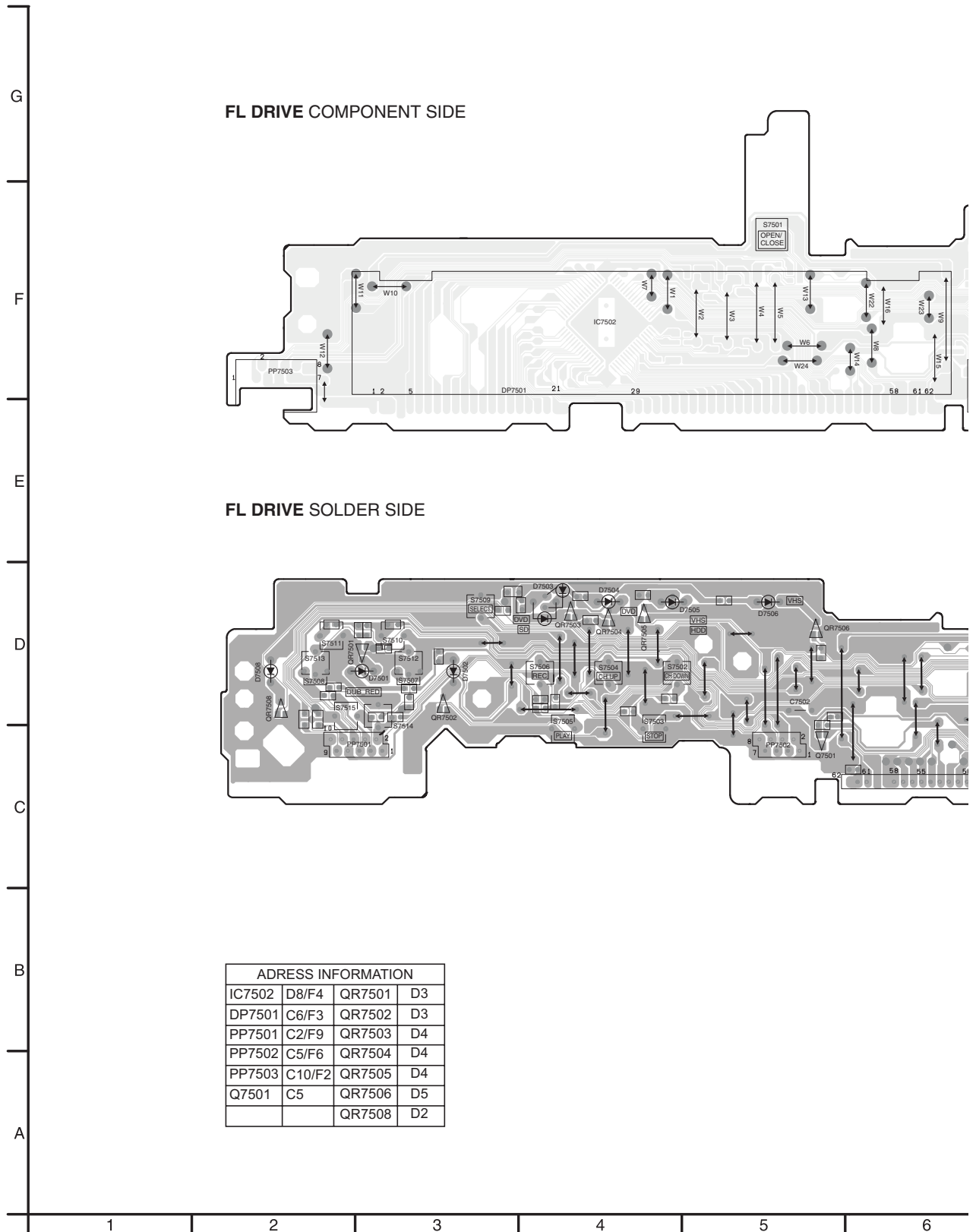


ADDRESS INFORMATION	
IC7801	E11
JK3802	D9
JK4600	D9
PP4600	C10

DMR-EH80VEG
 DMR-EH80VEB
 FRONT JACK PCB
 COMPONENT SIDE / SOLDER SIDE
 VEP04885C-L

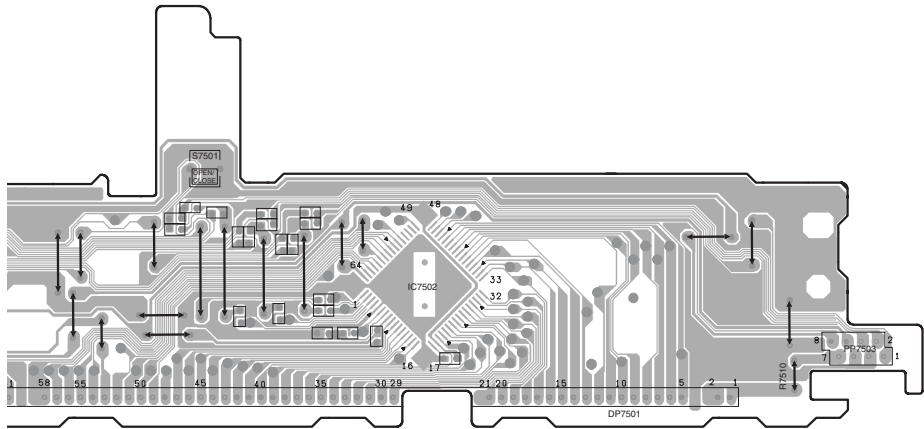
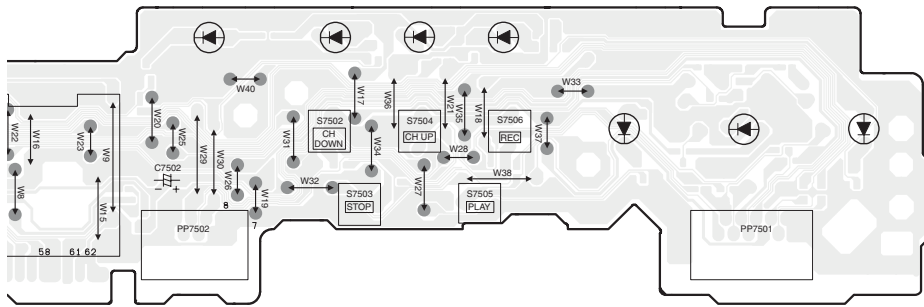


25.10. FL DRIVE P.C.B.



ADDRESS INFORMATION			
IC7502	D8/F4	QR7501	D3
DP7501	C6/F3	QR7502	D3
PP7501	C2/F9	QR7503	D4
PP7502	C5/F6	QR7504	D4
PP7503	C10/F2	QR7505	D4
Q7501	C5	QR7506	D5
		QR7508	D2

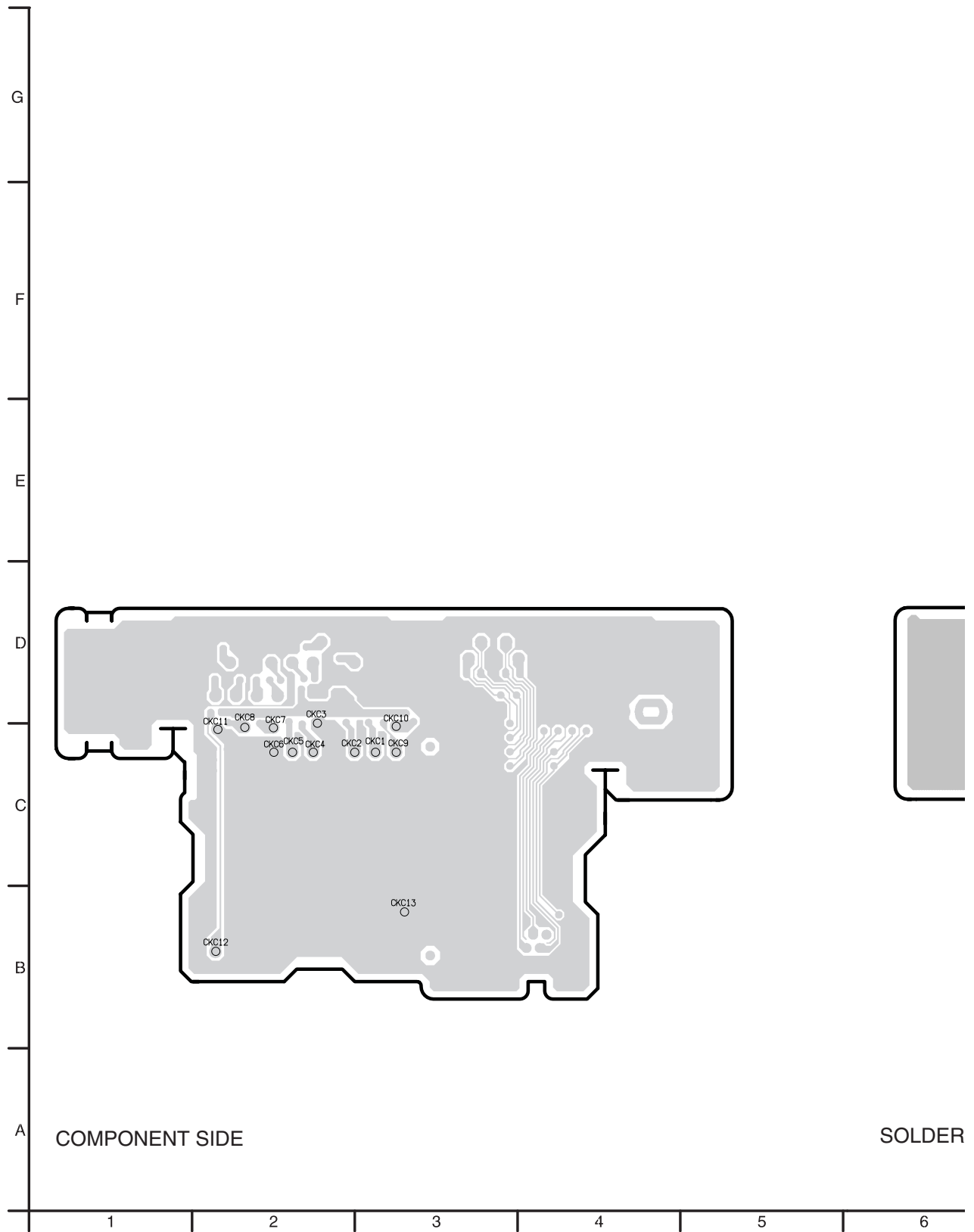


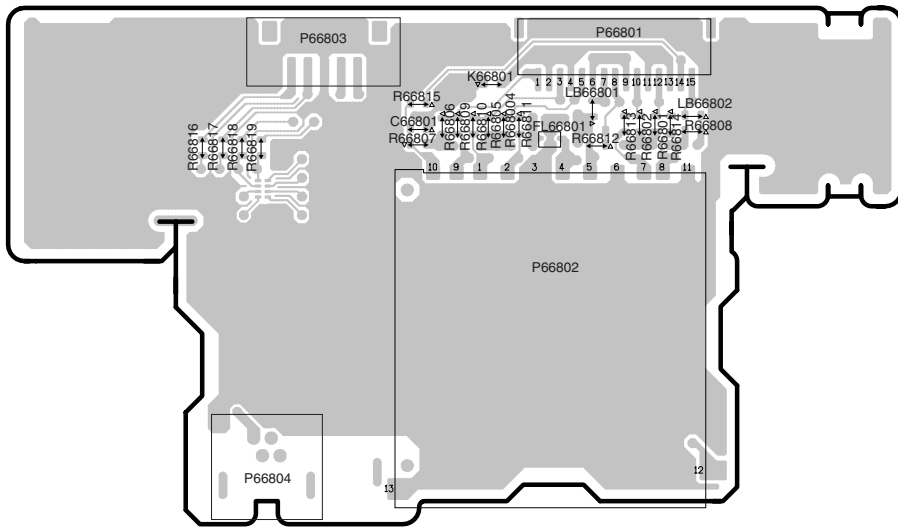


DMR-EH80VEG
 DMR-EH80VEB
 FL DRIVE PCB
 COMPONENT SIDE / SOLDER SIDE
 VEP07A78F



25.11. SD CARD P.C.B.





SOLDER SIDE

DMR-EH80VEG
DMR-EH80VEB
DIGITAL P.C.B./DV-JACK P.C.B.
COMPONENT SIDE
VEP001J19B

