



SCPH-39001

SCPH-39000 series

SERVICE MANUAL 2nd edition

for GH-017 and GH-019 MOUNT

(G-chassis)

PlayStation®2



Sony Computer Entertainment Inc.
CS Department

Published in Japan ©6. 2002.

9-927-094-12

NOTICE

Copyright by Sony Computer Entertainment Inc. All rights reserved. No reproduced and transferred required except permission by Sony Computer Entertainment Inc. No commercial use and rental required.

REVISIONS.

This manual compiled by first edition of SCPH-39000 series design data. Design and Specification will be subject to changed without notice. The latest versions of service manual, Technical memo, Technical information should be used together.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ !

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS UBLIÉS PAR SONY.

CAUTION

Replace the battery with a Sony CR2032 battery. Use of any other type of battery may present the risk of fire or explosion. The battery may explode if mistreated. Do not recharge, disassemble, or dispose of in fire.

CAUTION

The use of optical instruments with this product will increase eye Hazard. As the laser beam used in this CD/DVD player is harmful To eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

WARNING !!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 25cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION for electric shock

When power is ON, Don't touch to Power supply block, AC-inlet, Power switch and so on, not to get an electric shock at repair.

CAUTION for burning

When current is supplied, Some of part surface temperature like EE, GS, Regulator-IC, power supply, Optical device and so on. These part surface is become high temperature condition. When it repair, Don't touch them at a time during it surface is high temperature condition to take prevent against burning. Do repair after it is cooled down enough.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

VARNING

Explosionsfara vid felaktigt batteribyte. Använt samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan valmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

SAFETY CHECK-OUT

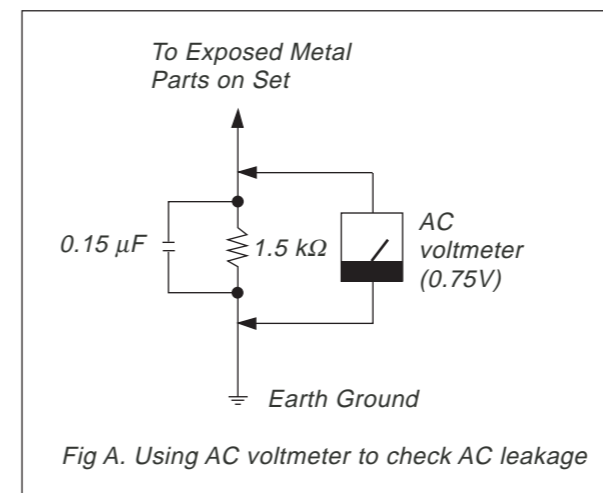
After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or cold-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the inter board wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out of the customer and recommend their replacement.
5. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
6. Check the b+ voltage to see it is at the values specified.
7. Check the antenna terminals, metal trim, "metalized" knobs, screws, and all other exposed metal parts for ac leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a Return to chassis, must not exceed 0.5 mA (500 micro-amperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the SIMPSON 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milli-ammeter. The Data Precision 245 digital multi-meter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated ac voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The SIMPSON 250 and SANWA SH-63TRD are examples of a passive VOM that is suitable. Nearly all battery operated digital multi-meters that have a 2V AC range are suitable.



NOTIFICATION for environmental assessment

This model is CR2032 lithium battery onboard inside on the GB MOUNT or GH MOUNT as Timer backup power. CR2032 life may be about 5 to 8 years, so you have very few need for changing to new one. But if you have necessary to replaced to new one or disassemble for scrapping, you have to keep your country law, regulation, standard, etc. of environmental assessment and safety.

TABLE OF CONTENTS

NOTICE AND REVISION	GH017/019-2
TABLE OF CONTENTS and SPECIFICATIONS	GH017/019-3
SUPPLIED ACCESSORIES, PACKING and INSTRUCTION MANUAL BLOCK	GH017/019-4
EXPLODED VIEWS	
Overall and Main Block	GH017/019-5
MD Block	GH017/019-6
GH Mount Block and Shield (A) Assy Block	GH017/019-7
Switch Assy Block	GH017/019-8
Power Switch, Fan and Rear Panel Assy Block	GH017/019-9
BLOCK DIAGRAM	GH017/019-10
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS	
Note for Printed Wiring Boards and Schematic Diagrams	GH017/019-11
GH017/019 Mount Schematic Diagrams	GH017/019-12
GH017/019 Mount Wiring Boards	GH017/019-20
GH017/109 Mount parts List	GH017/019-22
SWITCH MOUNT	GH017/019-27

SPECIFICATIONS

General

Power requirements

120 V AC, 60 Hz

Power consumption

79 W

Dimensions

301 × 78 × 182 mm (w/h/d)

Mass

2.4 kg

Inputs/Outputs on the front

Controller ports (2)
Memory card slots (2)
USB ports (2)
S400 (i-Link) port (1)

Inputs/Outputs on the rear

HDD bay slot (1)

Outputs on the rear

AV Multi out port (1)
RGB, Ycbr, Y/C, Composite-video,
Audio-L/R, XGA
Digital out port (1)
Optical audio

Supplied accessories

AC power cord (1)
A/V connecting cable (1)
Dualshock2 Analog controller (1)

SUPPLIED ACCESSORIES, PACKING GROUP and INSTRUCTION MANUAL BLOCK

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
METAL : Metal-film resistor.
F : nonflammable
Unit is Ω.

- SEMICONDUCTORS
In each case, u : μ, for example :
uA . . : μA . . . uPA . . : μPA . .
uPB . . : μPB . . . uPC . . : μPC . . . uPD . . : μPD . .
- CAPACITORS
uF : μF
- COILS
uH : μH

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

SUPPLIED ACCESSORIES and PACKING GROUP

PLACE CODE #23

Ref.	Part No.	Description	Remark
Δ AC	1-790-108-31	CORD, POWER	
AV	1-792-028-22	AV CABLE (INTEGRATED AUDIO/VIDEO)	
CONT	1-823-069-71	ANALOG CONTROLLER(DUALSHOCK 2)	
CU	3-064-714-01	CUSHION	not supply
CU2	3-064-713-01	CUSHION2	not supply
SH	3-065-170-01	SHEET, PROTECTION	not supply
CA	3-076-576-01	INDIVIDUAL, CARTON	not supply
MC	3-076-098-01	MASTER CARTON, 3 SETS	not supply
TA	3-987-483-11	TAPE, BERODDED PREVENTION	not supply
IMB	A-6787-494-A	MANUAL BLOCK ASSY, INSTRUCTION	not supply

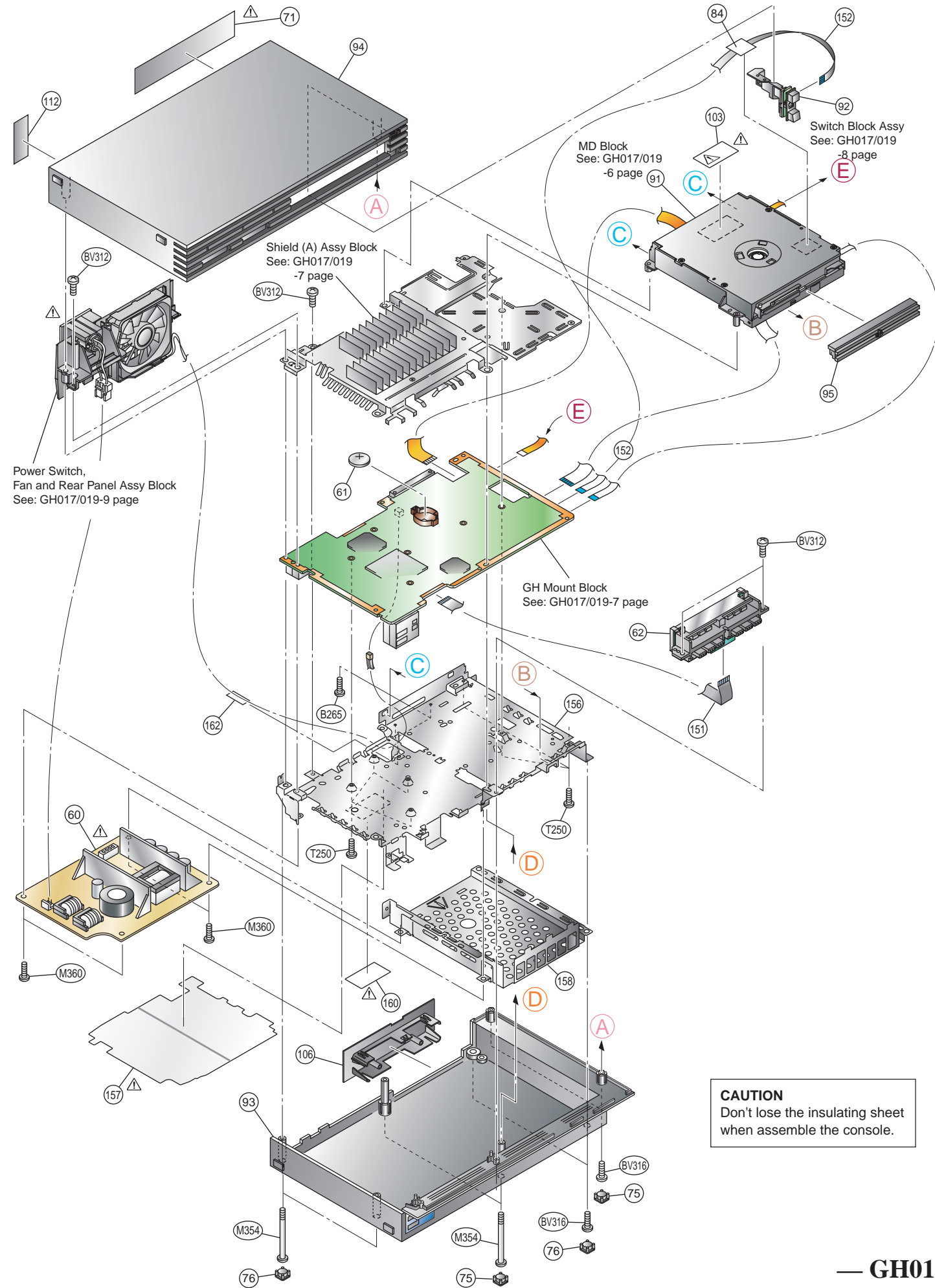
INSTRUCTION MANUAL BLOCK ASSY

PLACE CODE #23

Ref.	Part No.	Description	Remark
CI	3-072-824-01	CARD, CUSTOMER INQUIRY	not supply
CS	3-066-966-01	CARD, SERVICE NUMBER	not supply
IM	3-076-132-11	MANUAL, INSTRUCTION	not supply
ES	3-060-161-02	SHEET, ESBP	not supply

EXPLODED VIEWS

Overall and Main Block



CAUTION

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

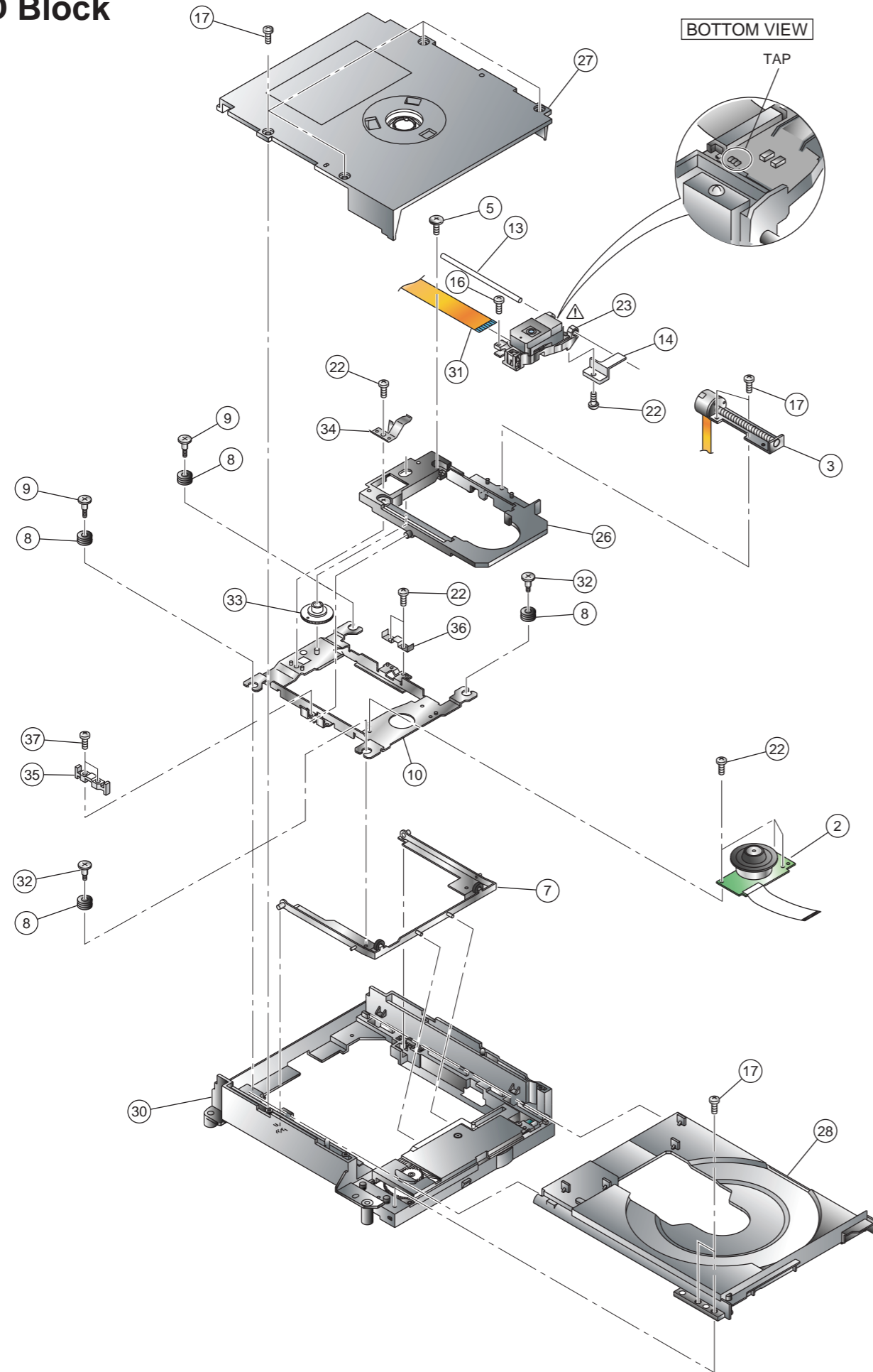
CAUTION :

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

OVERALL AND MAIN BLOCK

Ref-No.	Part No.	Description	Remark	Place code
\triangle 60	1-468-604-21	POWER BLOCK		#00
\triangle 61	1-528-174-41	BATTERY, LITHIUM (CR2032 TYPE)		#25GH
62	1-694-873-11	TERMINAL BOARD (FRONT)		#17
\triangle 71	3-076-592-01	LABEL, MODEL NUMBER (UC2)		#87
75	3-059-626-03	COVER, SCREW		#22
76	3-059-627-01	CAP		#22
84	3-067-170-01	TAPE (20X20), HARNESS STOPPER		#87
91	A-6787-618-A	MD BLOCK ASSY		#10
92	A-6787-487-A	SWITCH BLOCK ASSY	Use with GH017 MOUNT	#87
92	A-6787-644-A	SWITCH BLOCK ASSY	Use with GH019 MOUNT	#87
93	X-3951-706-2	COVER ASSY, LOWER		#87
94	X-3951-705-2	COVER ASSY, UPPER		#87
95	X-3951-099-1	PLATE ASSY, ORNAMENTAL		#87
\triangle 103	3-976-231-11	LABEL, CAUTION		#87
106	3-070-847-01	LID		#87
112	3-066-253-01	TAPE, VOID		#87
151	1-757-934-11	CABLE, FLEXIBLE FLAT (FFC-011)		#12
152	1-823-341-11	CABLE, FLEXIBLE FLAT (FFC-015)		#12
156	3-077-018-01	SHIELD B (G)		#16
\triangle 157	3-071-971-01	SHEET, INSULATING		#16
158	3-071-973-01	SHIELD HDD (F)		#87
\triangle 160	3-703-692-01	LABEL, CAUTION, BARRIER		#16
162	3-069-212-01	TAPE, HARNESS STOPPER		#87
B265	3-069-170-01	TAPPING (B2X6.5)		#87
BV312	3-325-679-21	SCREW, TAPPING +BV 3X12		#87
BV316	3-070-296-01	TAPPING +BV 3X16		#87
M354	3-059-622-02	SCREW (M3X54), HEAD TAPPING		#87
M360	3-069-168-01	TITE (CZN), M3X6 +BV S		#87
T250	3-071-976-01	TAPPING (2X5)		#87

MD Block



CAUTION

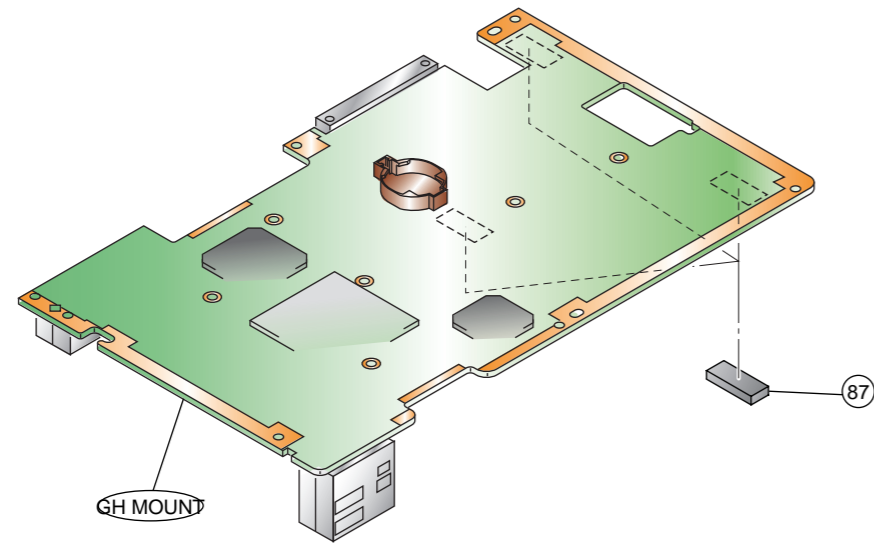
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

CAUTION :
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

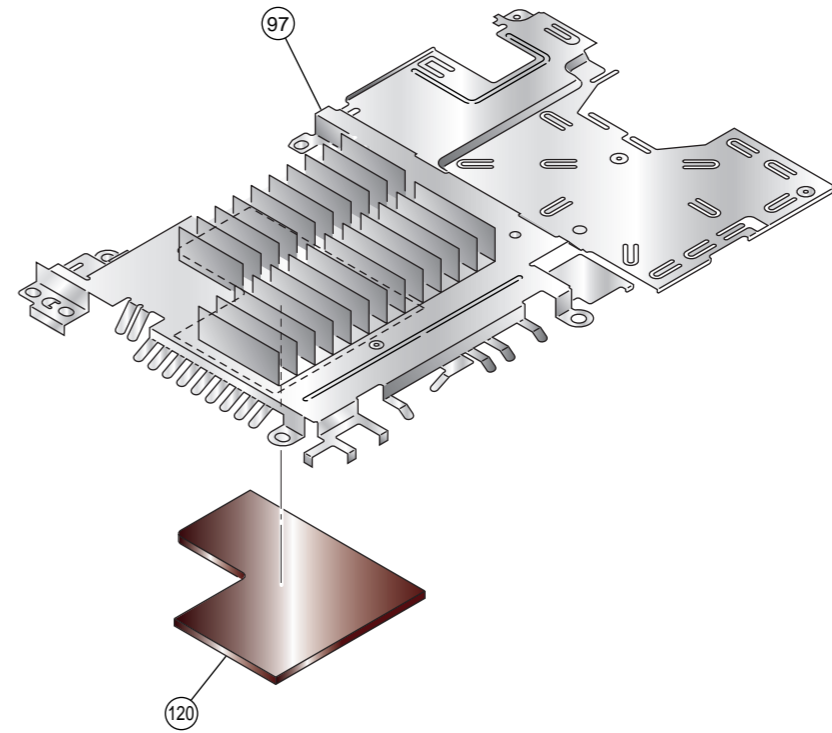
MD BLOCK

Ref-No.	Part No.	Description	Remark	Place code
2	1-763-700-21	MOTOR, DC (SPINDLE)		#10SP
3	1-763-639-21	MOTOR, DC		#10
5	3-059-845-01	SCREW (B2X6.5), SHAFT RETAINER		#10
7	X-3951-637-1	FRAME ASSY, SUB		#10
8	3-065-277-01	INSULATOR		#10
9	3-065-276-01	SCREW, STEP		#10
10	3-071-957-01	CHASSIS, MAIN		#10
13	3-059-854-02	SHAFT, MAIN		#10
14	3-059-855-02	RACK		#10
16	3-060-399-01	SCREW, SKEW		#10
17	3-060-400-01	TAPPING (B2X6.5)		#10
\triangle 22	3-062-728-01	0 PLATE 3 MAIN M2X3.2		#10
23	8-820-151-15	DEVICE, OPTICAL KHS-400C/K1NP4		#10OP
26	X-3952-057-2	CHASSIS ASSY, SUB		#10
27	X-3952-059-1	BRACKET ASSY, PULLEY		#10
28	X-3952-060-1	TRAY ASSY		#10TR
30	X-3952-058-3	FRAME ASSY, MAIN		#10
31	1-680-370-22	PWB, FLEXIBLE		#10
32	3-068-075-02	SCREW (SUB), STEP		#10
33	3-071-965-03	CAM, TILT		#10
34	3-071-966-02	SPRING (TILT), LEAF		#10
35	3-065-282-01	GUIDE (L)		#10
36	3-065-283-01	GUIDE (R)		#10
37	3-065-557-01	SCREW (M2X6.0)		#10

GH Mount Block



Shield (A) Assy Block



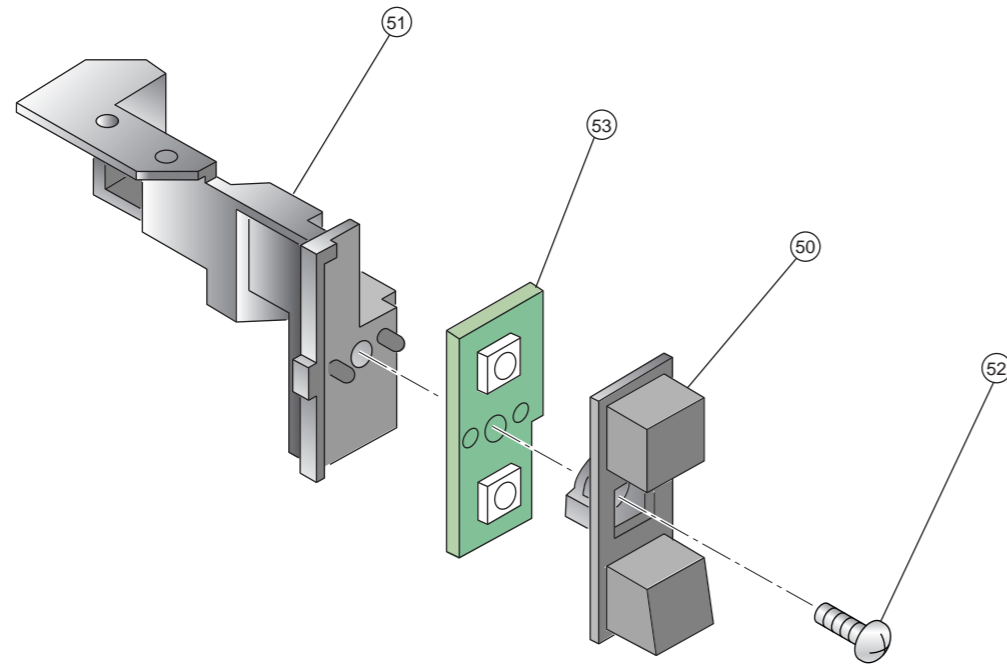
GH MOUNT BLOCK

Ref-No.	Part No.	Description	Remark	Place code
87	3-068-806-02	SHEET (DRIVER), ELECTRIC HEAT		#87
GH017	A-6787-492-A	GH-017 COMPL		#25GH
	A-6787-493-A	GH-017 MOUNT		
GH019	A-6787-649-A	GH-019 COMPL		#25GH
	A-6787-650-A	GH-019 MOUNT		

SHIELD (A) ASSY BLOCK

Ref-No.	Part No.	Description	Remark	Place code
97	X-3952-061-2	SHIELD A (F) ASSY		#87
120	3-059-652-01	SHEET (A), ELECTRIC HEAT		#87

Switch Assy Block



SWITCH ASSY BLOCK

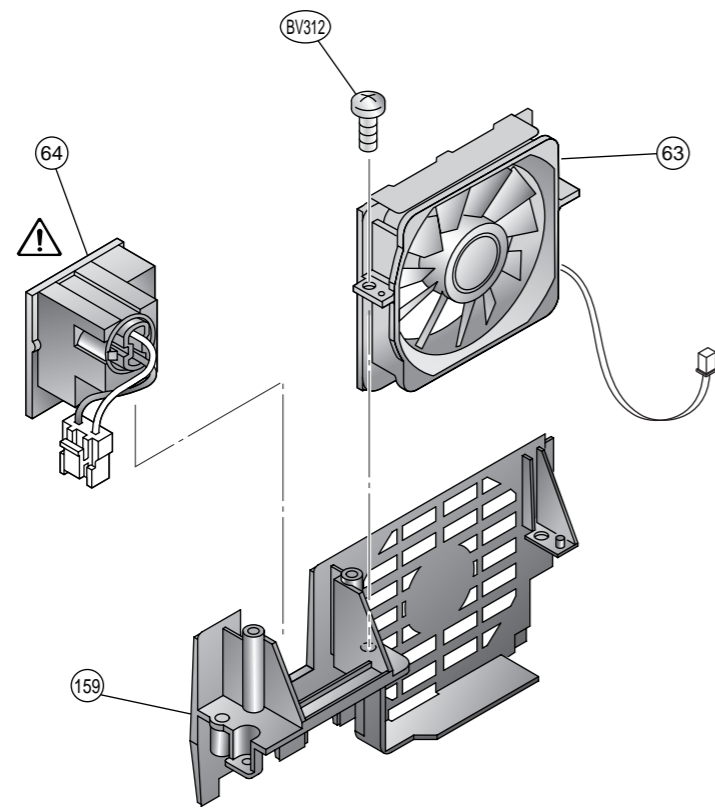
<u>Ref-No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Place code</u>
50	3-059-665-03	BUTTON, SWITCH		#25SW
51	3-059-666-05	BRACKET, SWITCH		#25SW
51	3-066-494-01	BRACKET, SWITCH		#25SW
52	7-685-105-11	TPG +P 2X8, TYPE 2, NON-SLIT		#25SW
53	A-6787-488-A A-6787-489-A	COMPLETE PWB SW-372 SW-372 MOUNT	<i>Use with GH017 MOUNT</i>	#25SW
53	A-6787-490-A A-6787-491-A	COMPLETE PWB SW-372 (VA) SW-372 MOUNT (VA)	<i>Use with GH017 MOUNT</i>	#25SW
53	A-6787-645-A A-6787-646-A	COMPLETE PWB, SW-382 SW-382 MOUNT	<i>Use with GH019 MOUNT</i>	#25SW
53	A-6787-647-A A-6787-648-A	COMPLETE PWB (VA), SW-382 (VA) SW-382 MOUNT (VA)	<i>Use with GH019 MOUNT</i>	#25SW

Power Switch, Fan and Rear Panel Assy Block

CAUTION

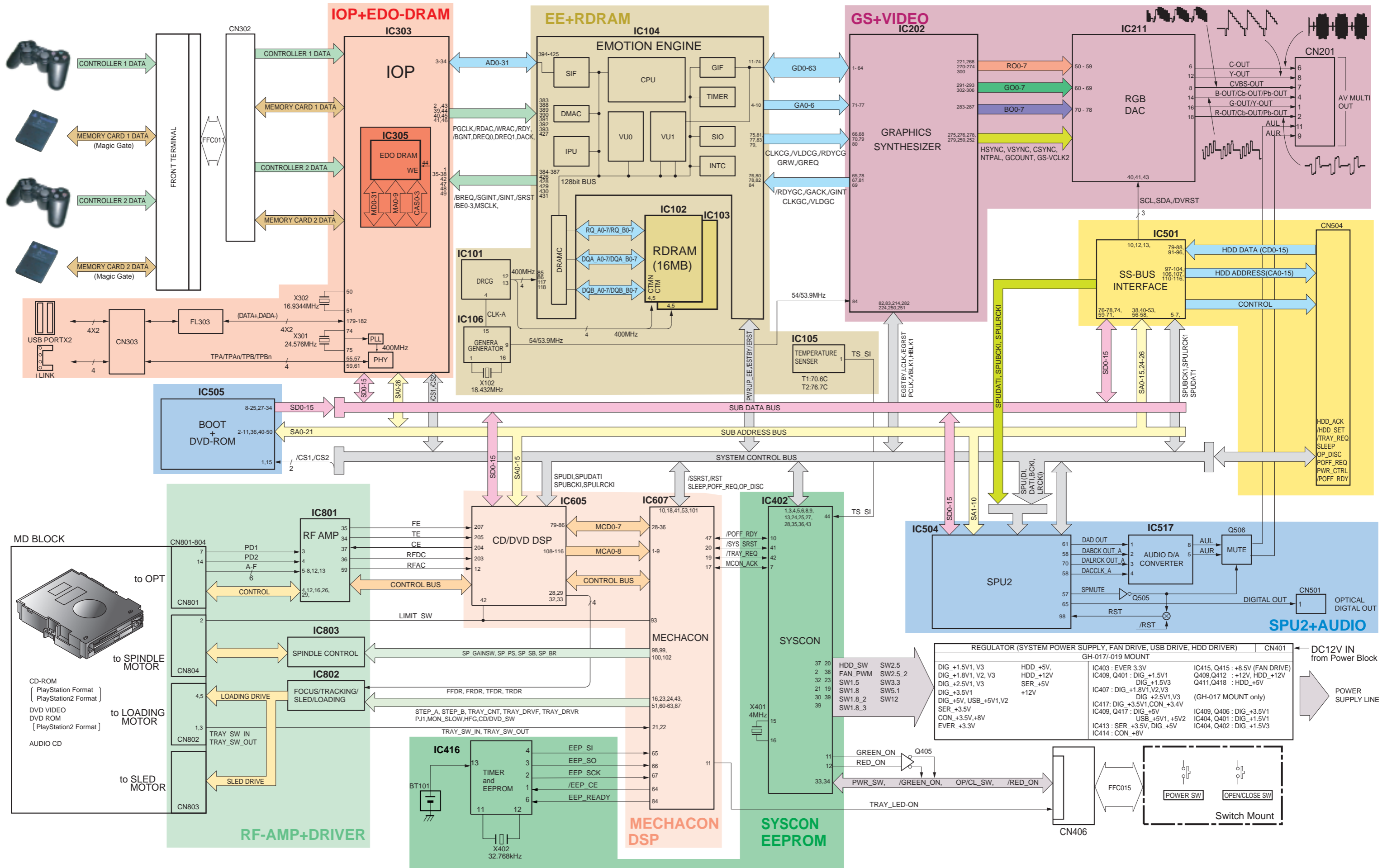
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

CAUTION :
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



<u>Ref-No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Place code</u>
63	1-763-480-31	DC. FAN		#74
\triangle 64	1-786-362-11	SWITCH, POWER (WITH AC INLET)		#00
159	3-071-901-01	PANEL, REAR		#87
BV312	3-325-679-21	SCREW, TAPPING +BV 3X12		#87


BLOCK DIAGRAM



PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.

Note on Printed Wiring Boards :

- Through hole is omitted.
-  : Pattern on the side which is seen.

Note on Schematic Diagram :

- Use caution when replacing chip parts.
New parts must be attached after removal of chip.
Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All capacitors are in μF unless otherwise noted. pF : $\mu\mu\text{F}$ 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W (Chip resistors : 1/10W) unless otherwise specified.
- Chip resistors are 1/8 W or 1/10 W unless otherwise noted.
k Ω : 1000 Ω , M Ω : 1000 k Ω .

Note :
















The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

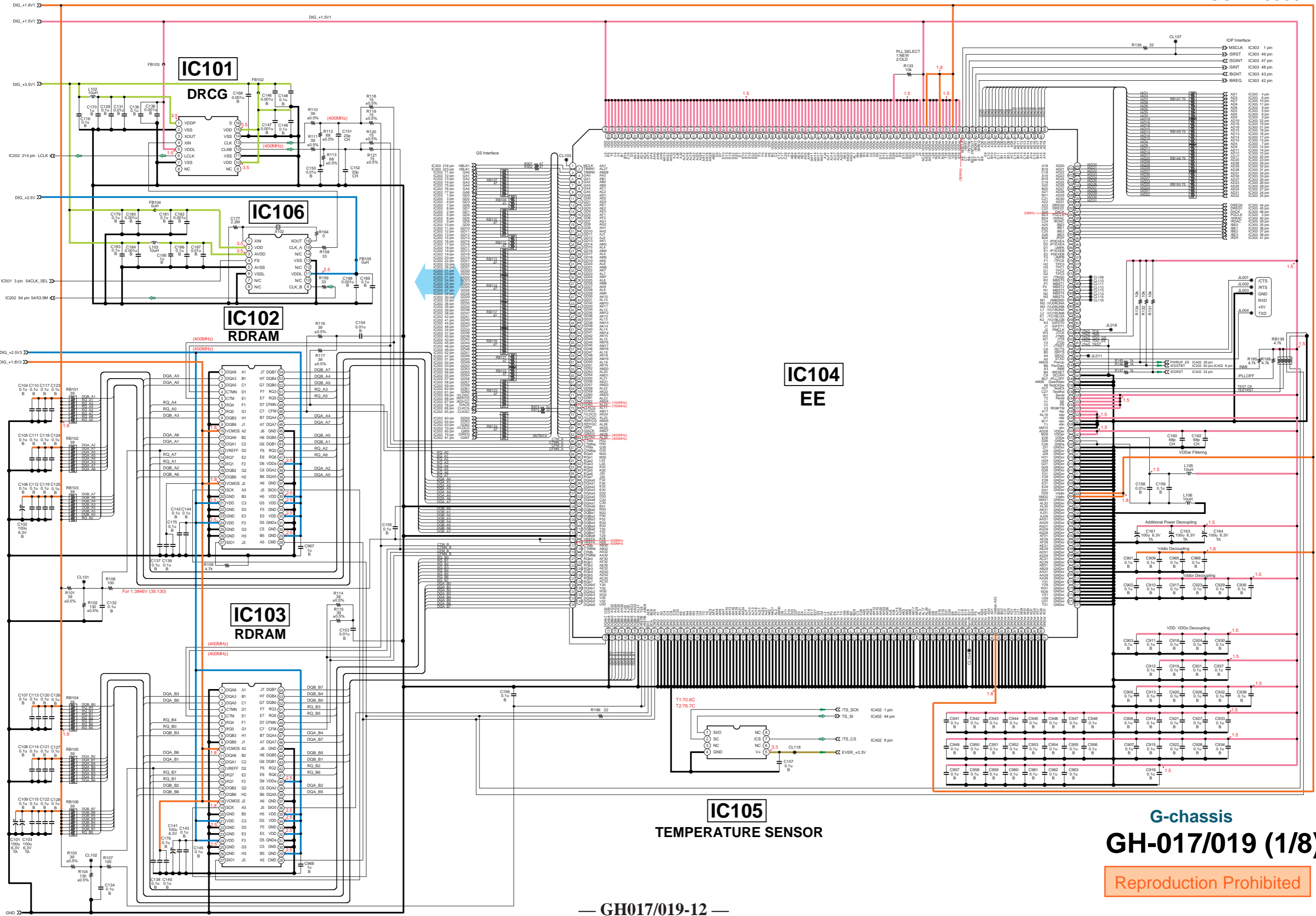
Note :

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note on DC Power line :

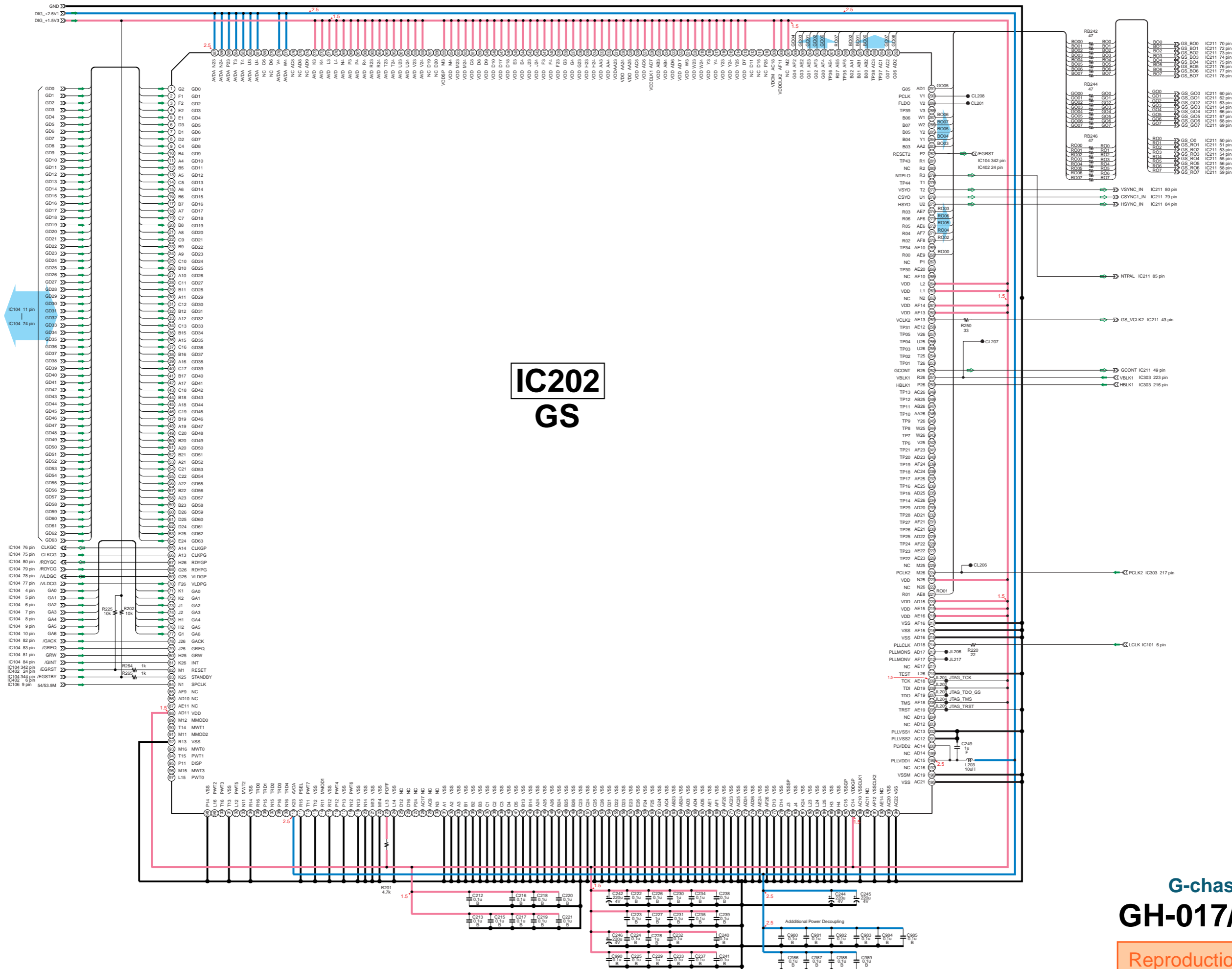
Unit of voltage is V (volt)

- | | |
|---|--|
| • +12V :  | • +3.3V :  |
| • +8.0V :  | • +2.5V :  |
| • +5.0V :  | • +1.8V :  |
| • +3.5V :  | • VC :  |
| • +3.4V :  | • +1.5V :  |
| • +1.7V :  | • +8.5V :  |
| • IN :  | • Main Signal Line :  |
| • OUT :  | |



G-chassis
GH-017/019 (1/8)

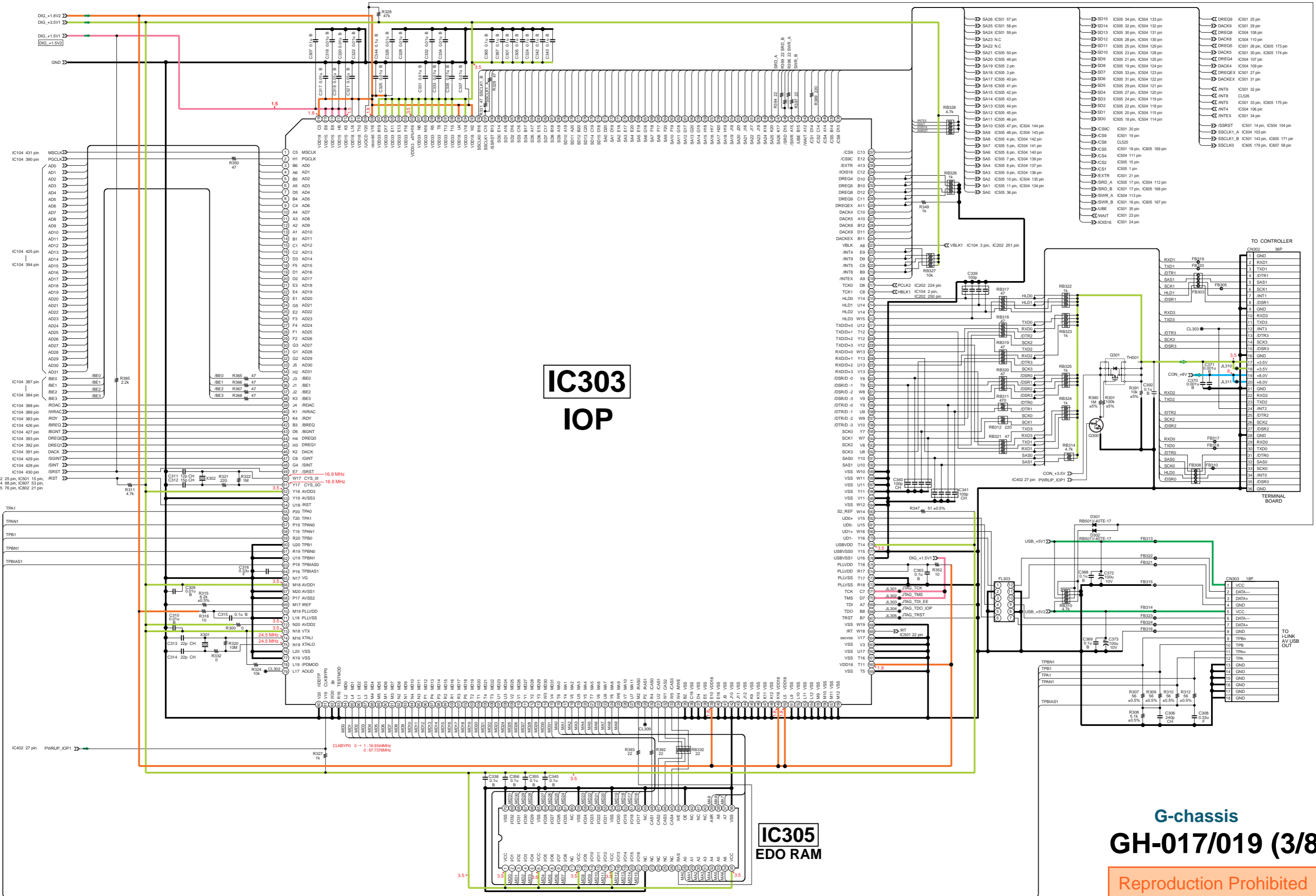
Reproduction Prohibited



**IC202
GS**

**G-chassis
GH-017/019 (2/8)**

Reproduction Prohibited

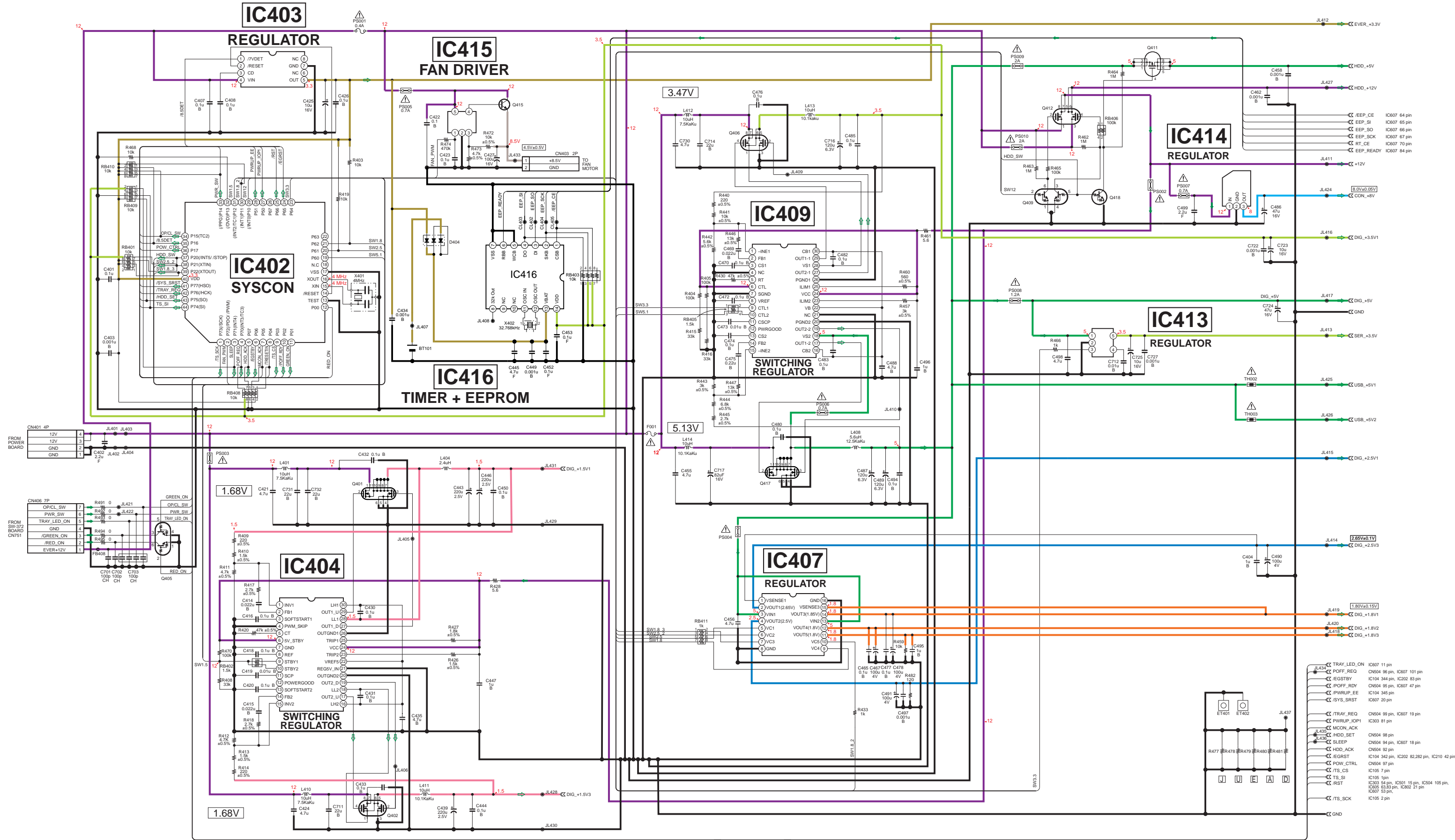


**IC303
IOP**

**IC305
EDO RAM**

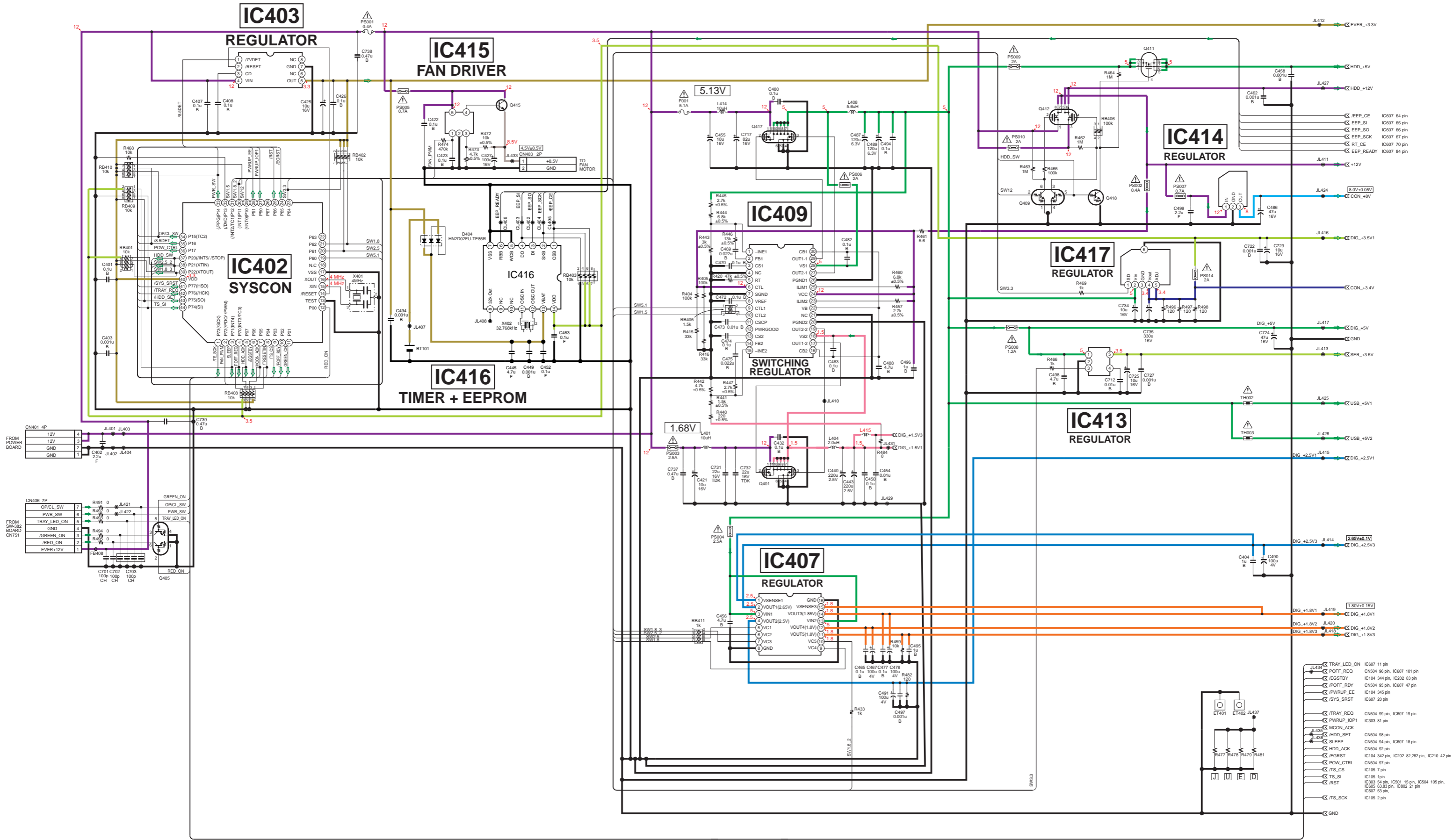
**G-chassis
GH-017/019 (3/8)**

Reproduction Prohibited



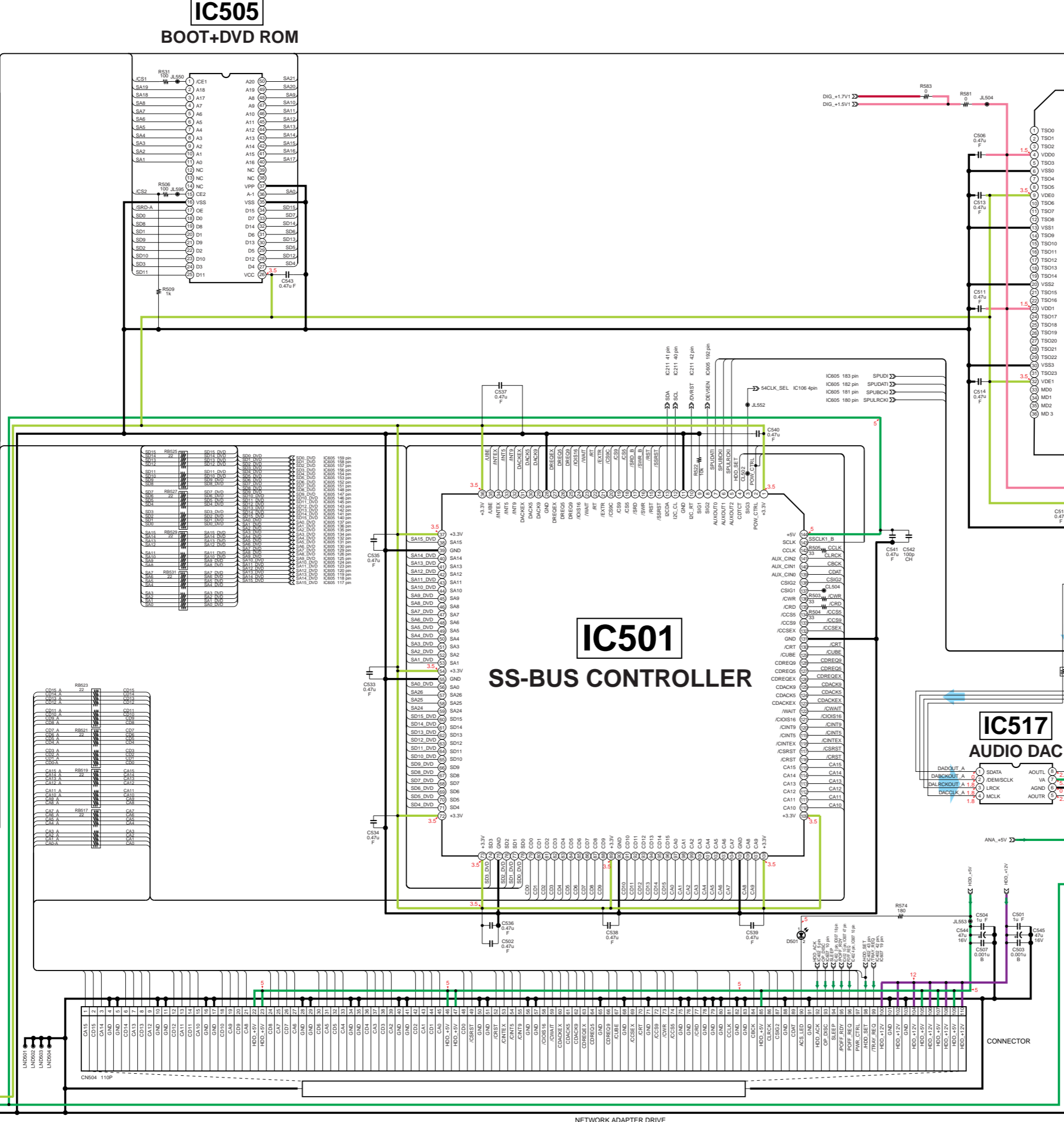
**G-chassis
GH-017 (4/8)**

Reproduction Prohibited



IC505
BOOT+DVD ROM

- IC303 239 pin, IC605 164 pin ICSS >>>
- IC303 220 pin, IC605 168 pin INT5 >>>
- IC303 232 pin, IC605 166 pin DREQ5 >>>
- IC303 227 pin, IC605 167 pin DACK5 >>>
- IC303 237 pin, IC605 169 pin ICSS >>>
- IC303 221 pin INT5 >>>
- IC303 230 pin DREQ5 >>>
- IC303 225 pin DACK5 >>>
- IC303 240 pin ICSD >>>
- IC303 222 pin INT4 >>>
- IC303 233 pin DREQ4 >>>
- IC303 228 pin DACK4 >>>
- IC303 243 pin /WAIT >>>
- IC303 165 pin RT1 >>>
- IC303 231 pin DREQ3 >>>
- IC303 226 pin DACK3 >>>
- IC303 242 pin /CS1 >>>
- IC303 241 pin /CS2 >>>
- IC303 235 pin /EXTA >>>
- IC303 218 pin /INTEX >>>
- IC303 236 pin /CS9C >>>
- IC303 234 pin /AOS16 >>>
- IC303 244 pin /AUB >>>
- IC303 224 pin DACKEX >>>
- IC303 229 pin DREQEX >>>
- IC303 257 pin SA16 >>>
- IC303 256 pin SA17 >>>
- IC303 255 pin SA18 >>>
- IC303 254 pin SA19 >>>
- IC303 253 pin SA20 >>>
- IC303 252 pin SA21 >>>
- IC303 251 pin SA22 >>>
- IC303 250 pin SA23 >>>
- IC303 249 pin SA24 >>>
- NC SA25 >>>
- NC SA26 >>>
- IC303 292 pin, IC605 173 pin S5CLK0 >>>
- IC303 238 pin /CS8 >>>
- IC303 219 pin INT8 >>>
- IC303 273 pin >>>
- IC303 258 pin >>>
- IC303 289 pin >>>
- IC303 274 pin >>>
- IC303 246 pin /SRD_A >>>
- IC303 246 pin, IC605 168 pin /SRD_B >>>
- IC303 245 pin, IC605 167 pin /SWR_A >>>
- IC303 245 pin, IC605 167 pin /SWR_B >>>
- IC303 54 pin, IC402 25 pin, /RST >>>
- IC303 53 pin, IC605 76, 72 pin, /RST >>>
- IC303 291 pin S5CLK1_A >>>
- IC303 291 pin, IC605 176 pin S5CLK1_B >>>
- IC402 36 pin POW_CTRL >>>
- DIG_+3.5V2 >>>
- DIG_+1.5V1 >>>
- DIG_+5V >>>
- GND >>>



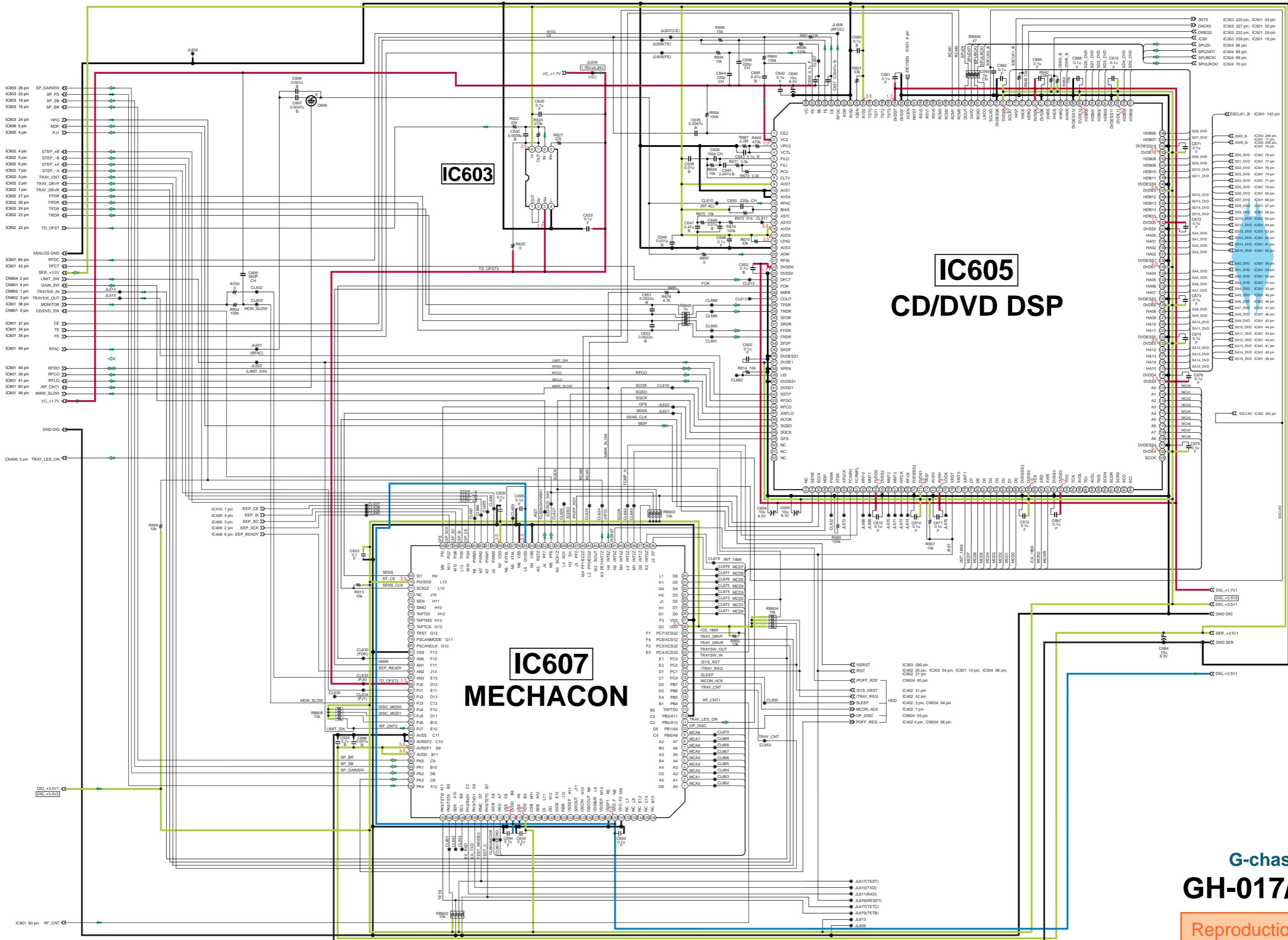
IC504
SPU2

IC517
AUDIO DAC

IC501
SS-BUS CONTROLLER

G-chassis
GH-017/019 (5/8)

Reproduction Prohibited



IC603

IC605
CD/DVD DSP

IC607
MECHACON

G-chassis
GH-017/019 (6/8)

Reproduction Prohibited

IC806

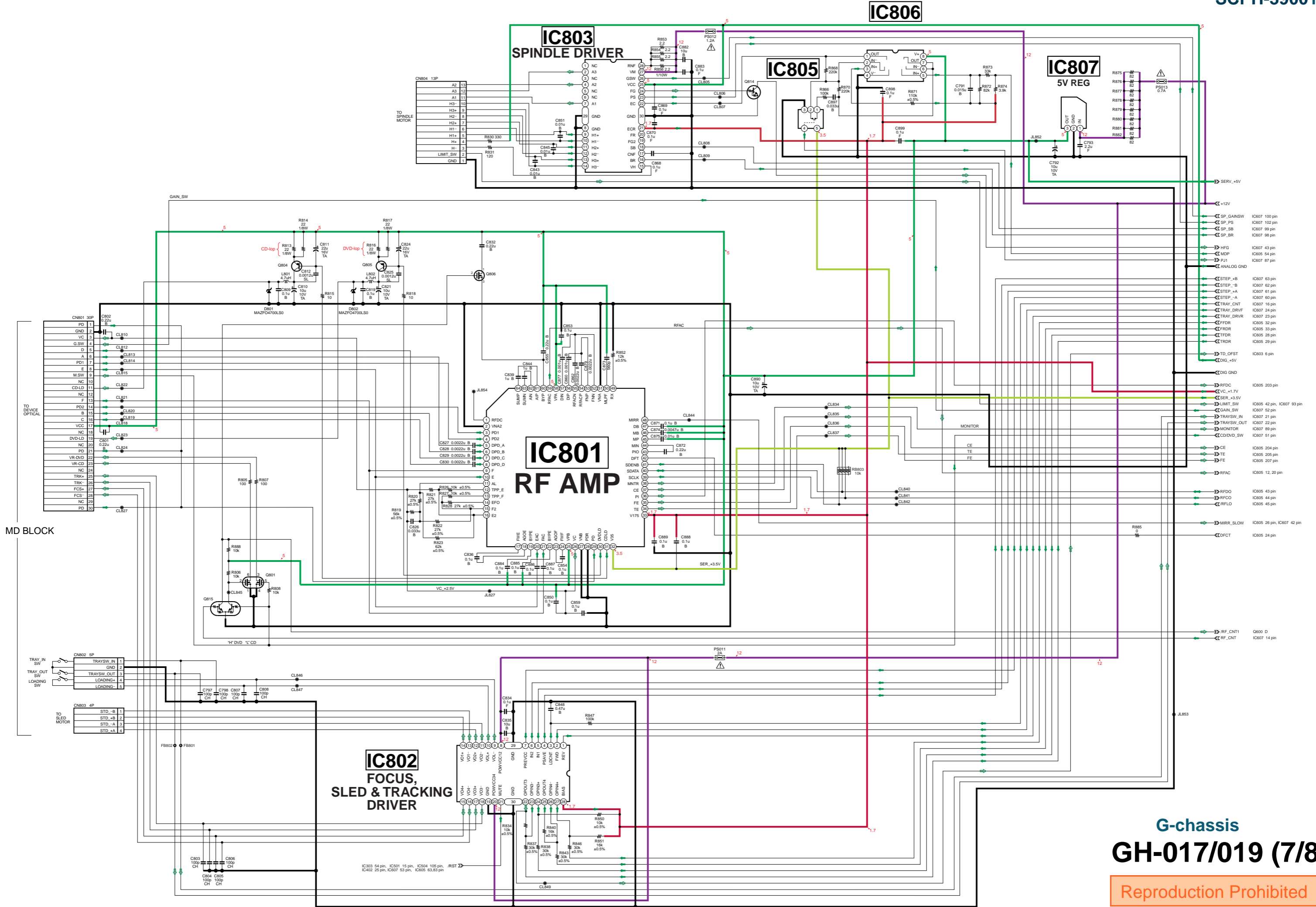
IC803 SPINDLE DRIVER

IC805

IC807 5V REG

IC801 RF AMP

IC802 FOCUS, SLED & TRACKING DRIVER



IC807 100 pin	SP_GAINSW
IC807 102 pin	SP_PS
IC807 99 pin	SP_SB
IC807 98 pin	SP_BR
IC807 43 pin	HFG
IC805 54 pin	MDP
IC807 87 pin	PAJ1
IC807 63 pin	STEP.+B
IC807 62 pin	STEP.-B
IC807 61 pin	STEP.-A
IC807 60 pin	STEP.-A
IC807 16 pin	TRAY_CNT
IC807 24 pin	TRAY_DRIF
IC807 23 pin	TRAY_DRVIF
IC805 32 pin	FFDR
IC805 33 pin	CFDR
IC805 28 pin	TFDR
IC805 29 pin	TRDR
IC803 6 pin	TD_OFST
IC803 12K	DI0.+5V
IC805 203 pin	RFDC
IC805 204 pin	VC.+1.7V
IC805 42 pin, IC807 83 pin	SER.+3.5V
IC807 52 pin	LIMIT_SW
IC807 21 pin	TRAYSW_IN
IC807 22 pin	TRAYSW_OUT
IC807 88 pin	MONITOR
IC807 51 pin	CD/DVD_SW
IC805 204 pin	CE
IC805 205 pin	TE
IC805 207 pin	FE
IC805 12, 20 pin	RFAC
IC805 43 pin	RFDO
IC805 44 pin	RFDO
IC805 45 pin	RFLO
IC805 24 pin	MIRR_SLOW
IC805 26 pin, IC807 42 pin	DFCT
IC800 D	RF_CNT1
IC807 14 pin	RF_CNT

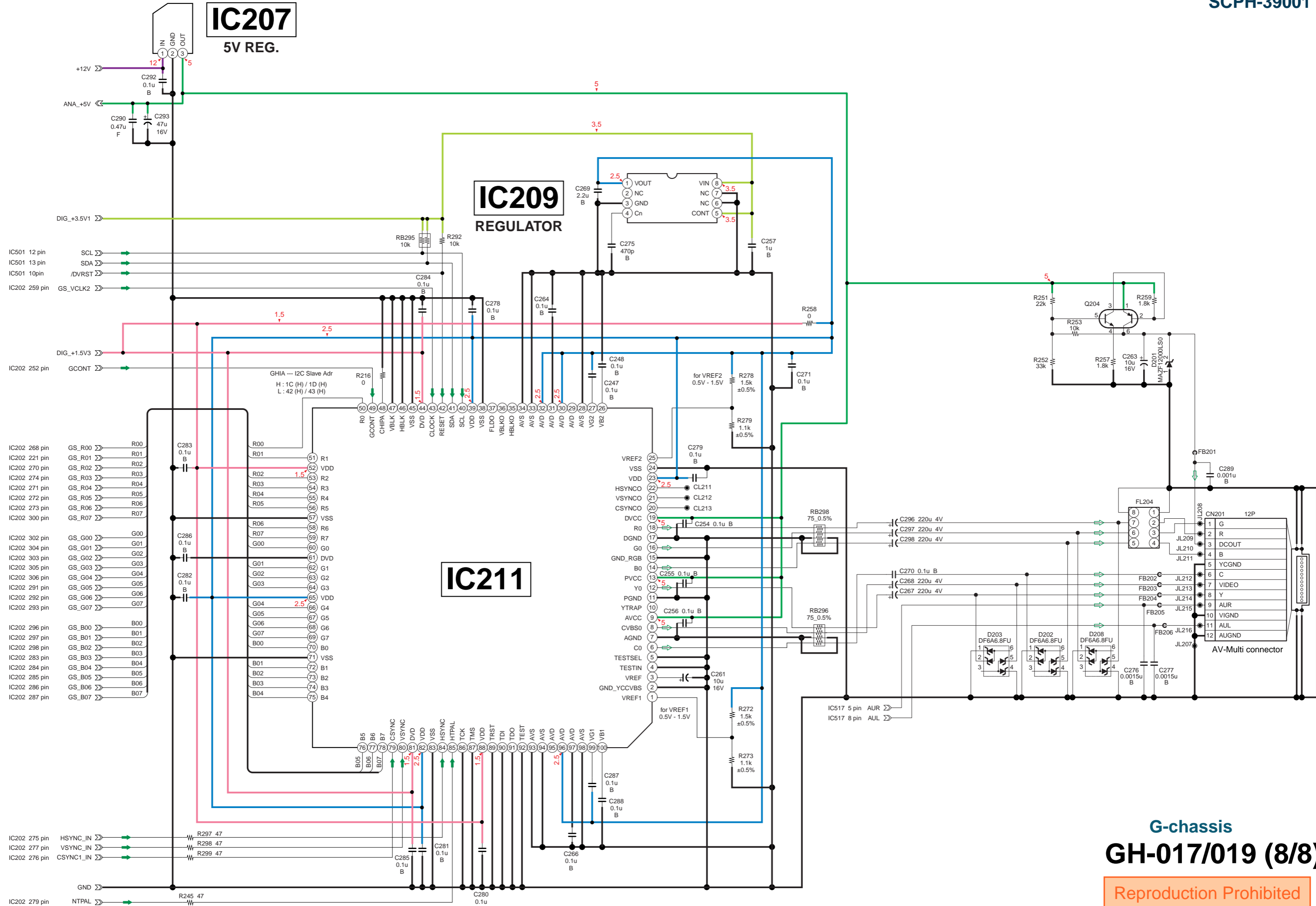
G-chassis
GH-017/019 (7/8)

Reproduction Prohibited

IC207 5V REG.

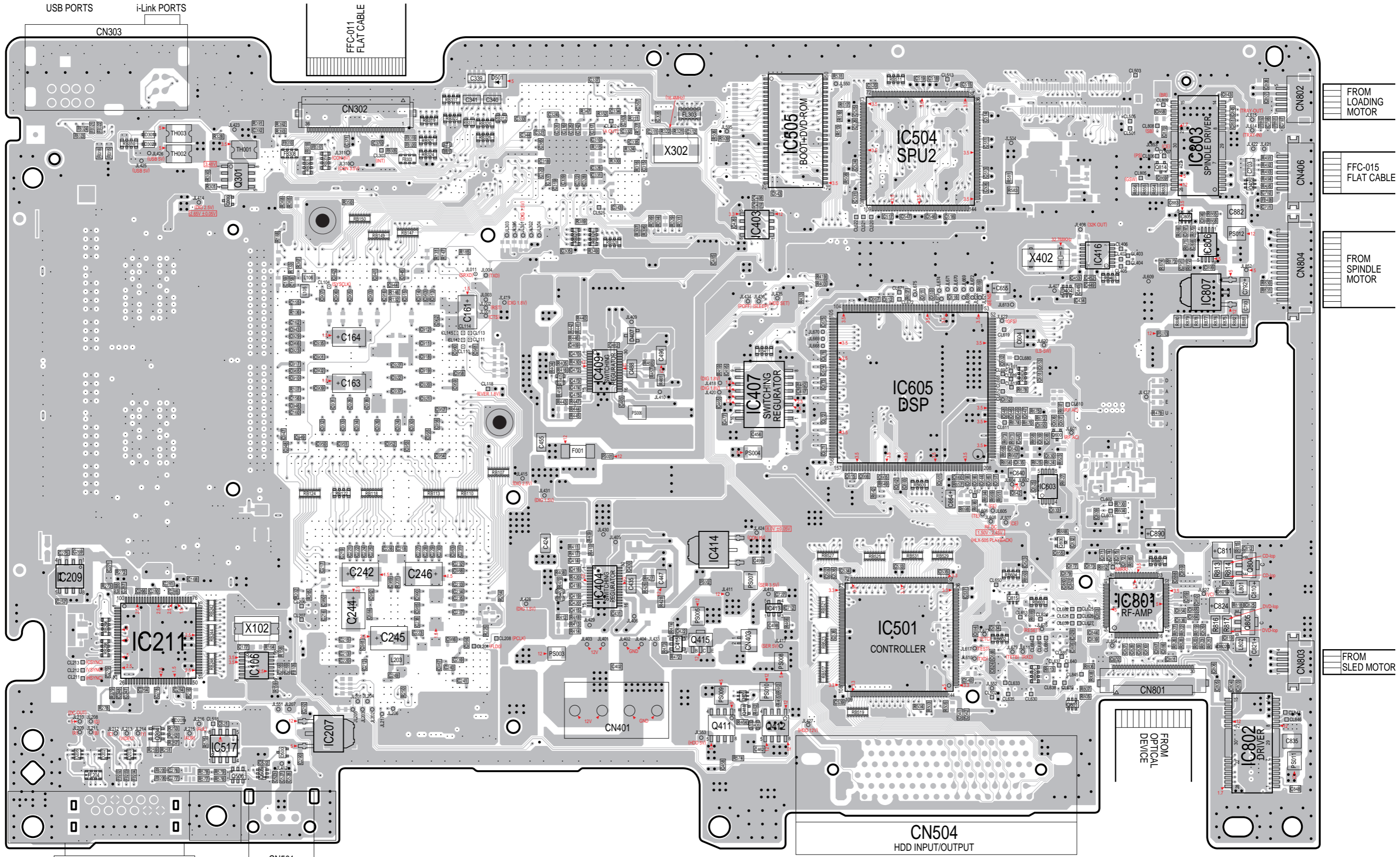
IC209 REGULATOR

IC211



G-chassis
GH-017/019 (8/8)

Reproduction Prohibited



GH-017

B side

— GH017-21 —

Reproduction Prohibited

USB PORTS

i-Link PORTS

FFC-011
FLAT CABLE

FROM
LOADING
MOTOR

FFC-015
FLAT CABLE

FROM
SPINDLE
MOTOR

FROM
SLED
MOTOR

FROM
OPTICAL
DEVICE

CN201
AV MULTI OUT

CN501
DIGITAL OUT
(OPTICAL)

CN504
HDD INPUT/OUTPUT

FROM
LOADING
MOTOR

FFC-015
FLAT CABLE

FROM
SPINDLE
MOTOR

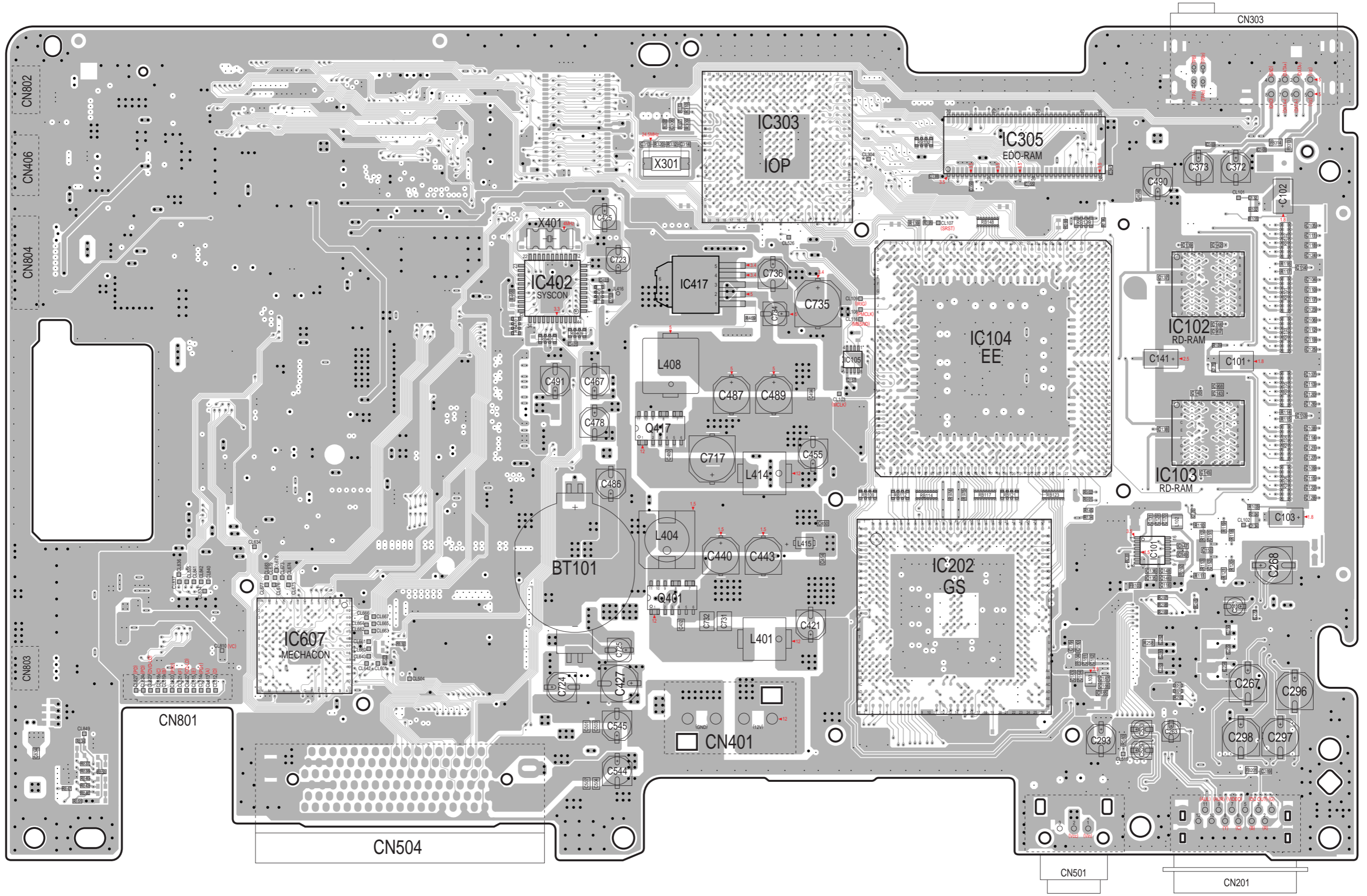
FROM
SLED
MOTOR

FROM
OPTICAL
DEVICE

CN201
AV MULTI OUT

CN501
DIGITAL OUT
(OPTICAL)

CN504
HDD INPUT/OUTPUT

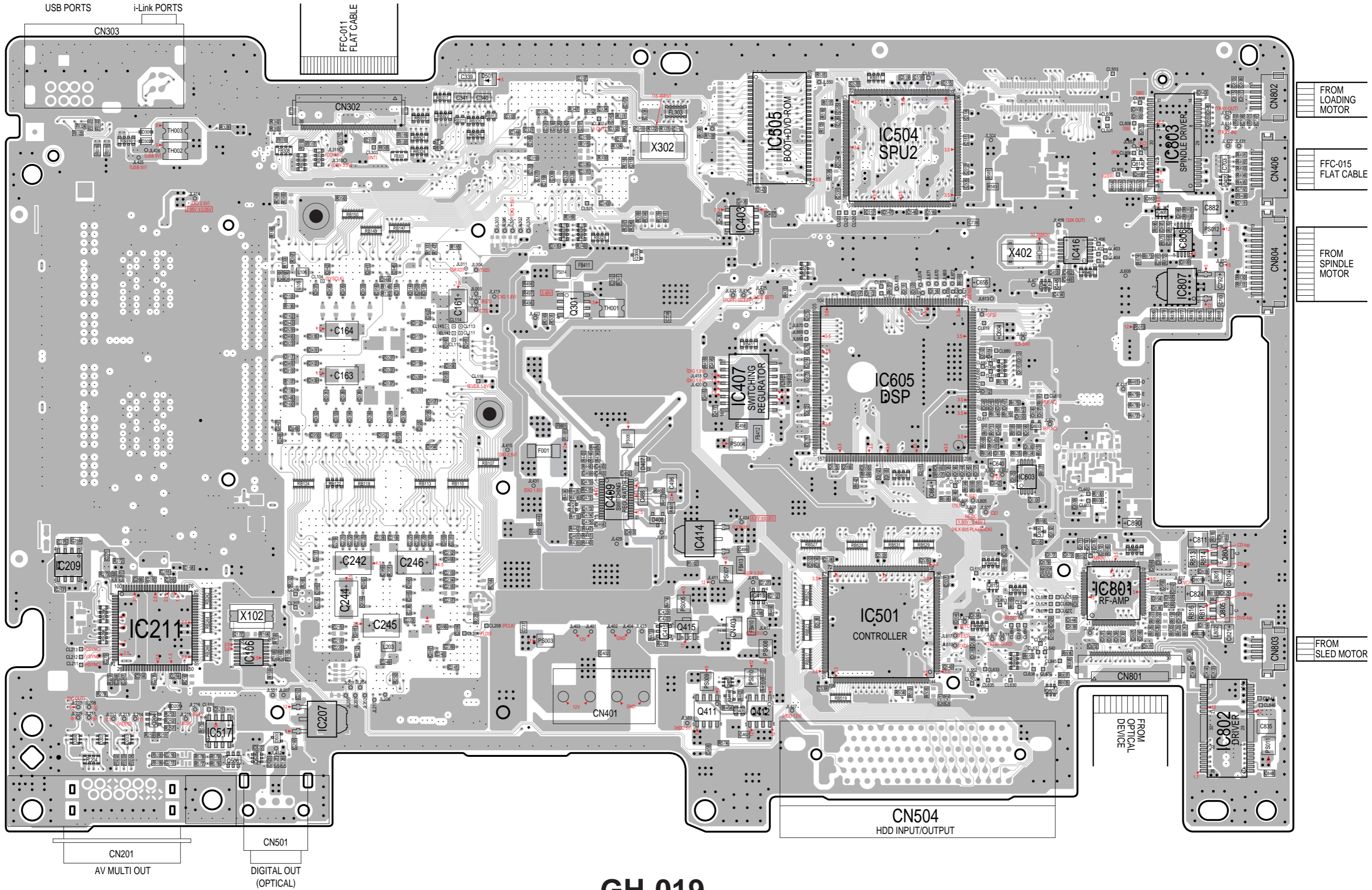


GH-019

A side

— GH019-20 —

Reproduction Prohibited



GH-019
B side
— GH019-21 —

Reproduction Prohibited

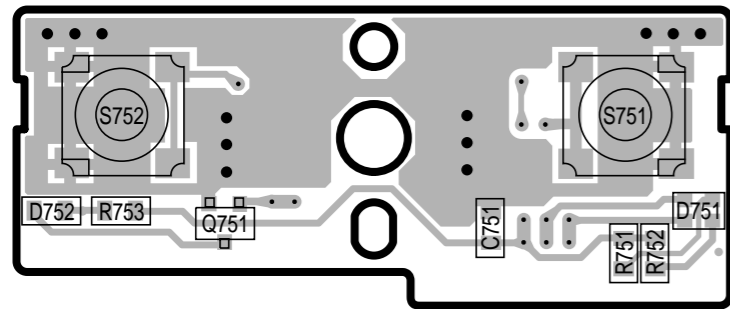
Ref.	Part No.	Description
R696	1-216-846-91	RES, CHIP 120K (1608)
R697	1-216-864-91	CONDUCTOR, CHIP (1608)
R698	1-216-835-91	RES, CHIP 15K (1608)
R699	1-216-833-91	RES, CHIP 10K (1608)
R700	1-216-864-91	CONDUCTOR, CHIP (1608)
R805	1-216-809-91	RES, CHIP 100 (1608)
R806	1-216-833-91	RES, CHIP 10K (1608)
R807	1-216-809-91	RES, CHIP 100 (1608)
R808	1-216-833-91	RES, CHIP 10K (1608)
R813	1-216-158-91	RES, CHIP 22 (1608)
R814	1-216-158-91	RES, CHIP 22 (1608)
R815	1-216-797-91	RES, CHIP 10 (1608)
R816	1-216-158-91	RES, CHIP 22 (1608)
R817	1-216-158-91	RES, CHIP 22 (3216)
R818	1-216-797-91	RES, CHIP 10 (1608)
R819	1-218-889-91	RES, CHIP 56K (1608)
R820	1-218-881-91	RES, CHIP 27K (1608)
R821	1-218-881-91	RES, CHIP 27K (1608)
R822	1-218-881-91	RES, CHIP 27K (1608)
R873	1-216-839-91	RES, CHIP 33K (1608)
R874	1-216-828-91	RES, CHIP 3.9K (1608)
R875	1-216-023-91	RES, CHIP 82 (2012)
R876	1-216-023-91	RES, CHIP 82 (2012)
R877	1-216-023-91	RES, CHIP 82 (2012)
R878	1-216-023-91	RES, CHIP 82 (2012)
R823	1-218-890-91	RES, CHIP 62K (1608)
R826	1-218-871-91	RES, CHIP 10K (1608)
R827	1-218-871-91	RES, CHIP 10K (1608)
R828	1-218-881-91	RES, CHIP 27K (1608)
R830	1-216-815-91	RES, CHIP 330 (1608)
R831	1-216-810-91	RES, CHIP 120 (1608)
R834	1-208-911-81	RES, CHIP 10K (1005)
R837	1-208-922-81	RES, CHIP 30K (1005)
R838	1-208-922-81	RES, CHIP 30K (1005)
R840	1-208-916-81	RES, CHIP 16K (1005)
R843	1-208-922-81	RES, CHIP 30K (1005)
R846	1-208-922-81	RES, CHIP 30K (1005)
R847	1-218-977-81	RES, CHIP 100K
R850	1-208-911-81	RES, CHIP 10K (1005)
R851	1-208-916-81	RES, CHIP 16K (1005)
R852	1-218-873-91	RES, CHIP 12K (1608)
R853	1-216-298-91	RES, CHIP 2.2 (2012)
R854	1-216-298-91	RES, CHIP 2.2 (2012)
R855	1-216-298-91	RES, CHIP 2.2 (2012)
R856	1-216-298-91	RES, CHIP 2.2 (2012)
R866	1-216-845-91	RES, CHIP 100K (1608)
R868	1-216-849-91	RES, CHIP 220K (1608)
R870	1-216-849-91	RES, CHIP 220K (1608)
R871	1-218-896-91	RES, CHIP 110K (1608)
R872	1-216-844-91	RES, CHIP 82K (1608)
R879	1-216-023-91	RES, CHIP 82 (2012)
R880	1-216-023-91	RES, CHIP 82 (2012)
R881	1-216-023-91	RES, CHIP 82 (2012)
R882	1-216-023-91	RES, CHIP 82 (2012)
R885	1-216-864-91	CONDUCTOR, CHIP (1608)
R888	1-216-833-91	RES, CHIP 10K (1608)
R901	1-218-937-81	RES, CHIP 47
R902	1-218-937-81	RES, CHIP 47
R974	1-216-801-91	RES, CHIP 22 (1608)
R975	1-216-801-91	RES, CHIP 22 (1608)
<RESISTOR BLOCK>		
RB101	1-234-496-21	ARRAY, RESISTOR 39

Ref.	Part No.	Description
RB102	1-234-496-21	ARRAY, RESISTOR 39
RB103	1-234-496-21	ARRAY, RESISTOR 39
RB104	1-234-496-21	ARRAY, RESISTOR 39
RB105	1-234-496-21	ARRAY, RESISTOR 39
RB106	1-234-496-21	ARRAY, RESISTOR 39
RB107	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB109	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB110	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB112	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB113	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB114	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB117	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB118	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB121	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB122	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB123	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB124	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB139	1-233-414-21	RES, CHIP NETWORK 4.7K (3216)
RB147	1-234-763-11	RES, CHIP NETWORK 75X8 (3816)
RB148	1-234-763-11	RES, CHIP NETWORK 75X8 (3816)
RB149	1-234-763-11	RES, CHIP NETWORK 75X8 (3816)
RB150	1-234-763-11	RES, CHIP NETWORK 75X8 (3816)
RB242	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB244	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB246	1-234-710-21	RES, CHIP NETWORK 47X8 (3816)
RB295	1-233-789-91	RES, NETWORK 10K (1608)
RB296	1-234-598-21	RES, CHIP NETWORK 75X4 (3216)
RB298	1-234-598-21	RES, CHIP NETWORK 75X4 (3216)
RB310	1-233-414-21	RES, CHIP NETWORK 4.7K (3216)
RB311	1-233-679-91	RES, NETWORK (1608) 470
RB312	1-233-786-91	RES, NETWORK 220 (1608)
RB314	1-233-681-91	RES, NETWORK (1608) 4.7K
RB317	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB318	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB319	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB320	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB321	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB322	1-233-412-21	RES, CHIP NETWORK 1.0K (3216)
RB323	1-233-412-21	RES, CHIP NETWORK 1.0K (3216)
RB324	1-233-412-21	RES, CHIP NETWORK 1.0K (3216)
RB325	1-233-412-21	RES, CHIP NETWORK 1.0K (3216)
RB326	1-233-412-21	RES, CHIP NETWORK 1.0K (3216)
RB327	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB328	1-233-414-21	RES, CHIP NETWORK 4.7K (3216)
RB332	1-233-575-21	RES, CHIP NETWORK 22
RB401	1-233-415-21	RES, CHIP NETWORK 10K (3216)
for GH-17 MOUNT only		
RB402	1-233-803-91	RES, CHIP NETWORK 1.5K (3216)
for GH-19 MOUNT only		
RB402	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB403	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB405	1-233-803-91	RES, NETWORK 1.5K (1608)
RB406	1-233-792-91	RES, NETWORK 100K (1608)
RB408	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB409	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB410	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB411	1-233-412-21	RES, CHIP NETWORK 1.0K (3216)
RB511	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB517	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)
RB519	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)
RB521	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)
RB523	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)
RB525	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)

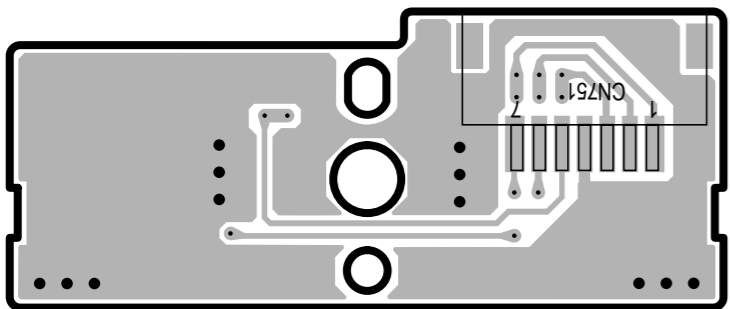
Ref.	Part No.	Description
RB527	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)
RB529	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)
RB531	1-234-711-21	RES, CHIP NETWORK 22X8 (3816)
RB602	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB603	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB604	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB605	1-233-415-21	RES, CHIP NETWORK 10K (3216)
RB606	1-233-412-21	RES, CHIP NETWORK 1.0K (3216)
RB609	1-233-423-21	RES, CHIP NETWORK 47 (3216)
RB803	1-233-415-21	RES, CHIP NETWORK 10K (3216)
<THERMISTOR>		
△ TH001	1-533-817-21	THERMISTOR
△ TH002	1-533-817-21	THERMISTOR
△ TH003	1-533-817-21	THERMISTOR
<CRYSTAL>		
X102	1-781-640-21	VIBRATOR, CRYSTAL
X301	1-781-856-21	VIBRATOR, CRYSTAL
X302	1-781-768-21	VIBRATOR, CRYSTAL
X401	1-760-496-22	VIBRATOR, LITHIUM NIOBATE
X402	1-760-928-41	VIBRATOR, CRYSTAL

Ref.	Part No.	Description
------	----------	-------------

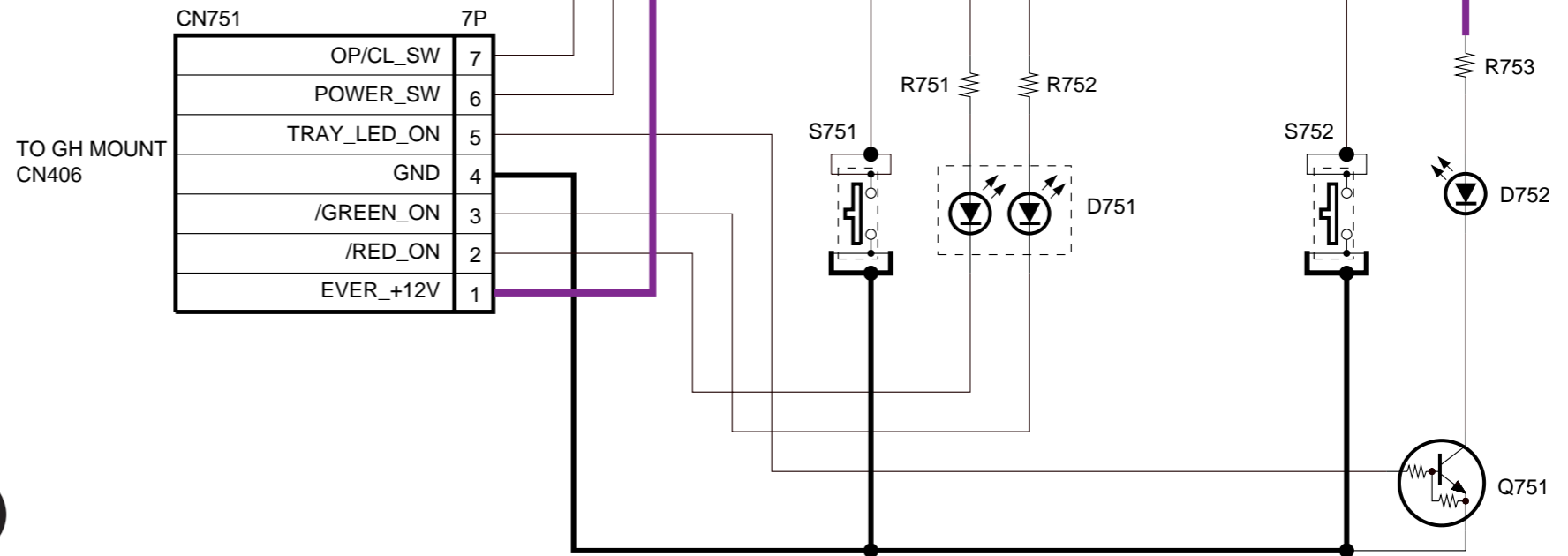
SWITCH MOUNT



SW-372/-372(VA)/-382/-382(VA)
A side



SW-372/-372(VA)/-382/-382(VA)
B side



SW-372/-372(VA)/-382/-382(VA)

SWITCH MOUNTED CIRCUIT BOARD

Ref-No.	Part No.	Description	Remark	Place code
PWB	1-685-424-11	PWB, SW-372		#25SW
PWB	1-685-424-21	PWB, SW-372		#25SW
PWB	1-685-774-11	PWB, SW-382		#25SW
PWB	1-685-774-21	PWB, SW-382		#25SW
PWB	1-685-774-31	PWB, SW-382		#25SW
PWB	1-685-774-41	PWB, SW-382		#25SW
CN751	1-785-470-21	CONNECTOR, FPC(LIF(NON-ZIF))7P		#25SW
D751	8-719-078-90	DIODE CL-165HR/G1-D-T	for SW-372/-382	#25SW
D751	6-500-232-01	DIODE CL-165HR/G2-D-T	for SW-372(VA)/-382(VA)	#25SW
D751	6-500-245-01	DIODE SECS2D68C	for SW-372(VA)/-382(VA)	#25SW
D752	6-500-204-01	DIODE CL-190UB2-X-T		#25SW
D752	8-719-080-04	DIODE CL-190UB-X-T		#25SW
Q751	6-550-076-01	TRANSISTOR MUN5213T1		#25SW
Q751	8-729-013-97	TRANSISTOR RN1304-TE85L		#25SW
Q751	8-729-029-14	TRANSISTOR DTC144EUA-T106		#25SW
Q751	8-729-402-44	TRANSISTOR UN5213-TX		#25SW
R751	1-216-833-91	RES, CHIP 10K (1608)	for SW-372/-382	#25SW
R751	1-216-832-91	RES, CHIP 8.2K (1608)	for SW-372(VA)/-382(VA)	#25SW
R752	1-216-835-91	RES, CHIP 15K (1608)	for SW-372/-382	#25SW
R752	1-216-831-91	RES, CHIP 6.8K (1608)	for SW-372(VA)/-382(VA)	#25SW
R753	1-216-993-91	RES, CHIP 2.4K (1608)		#25SW
S751	1-771-917-21	SWITCH, TACTILE		#25SW
S752	1-771-917-21	SWITCH, TACTILE		#25SW

Reproduction Prohibited