Pioneer

Service Manual

ORDER NO.
RRV4048

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-920-K

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
VSX-920-K	UXCNCB	AC 120 V	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
VSX-820-K/CUXCNSM	RRV4043	

For SPECIFICATIONS and PANEL FACILITIES, refer to the operating instructions.

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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*
- *Nos. indicate the pages and Nos. in the service manual for the base model.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560Ω → 56 x 10^1 → 561 ····· RD1/4PU561J
47kΩ → 47 x 10^3 → 473 ····· RD1/4PU473J
0.5Ω → R50 ····· RN2HR50K
1Ω → 1R0 ····· RS1P1R0K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 x 10^1 → 5621 ····· RN1/4PC5621F

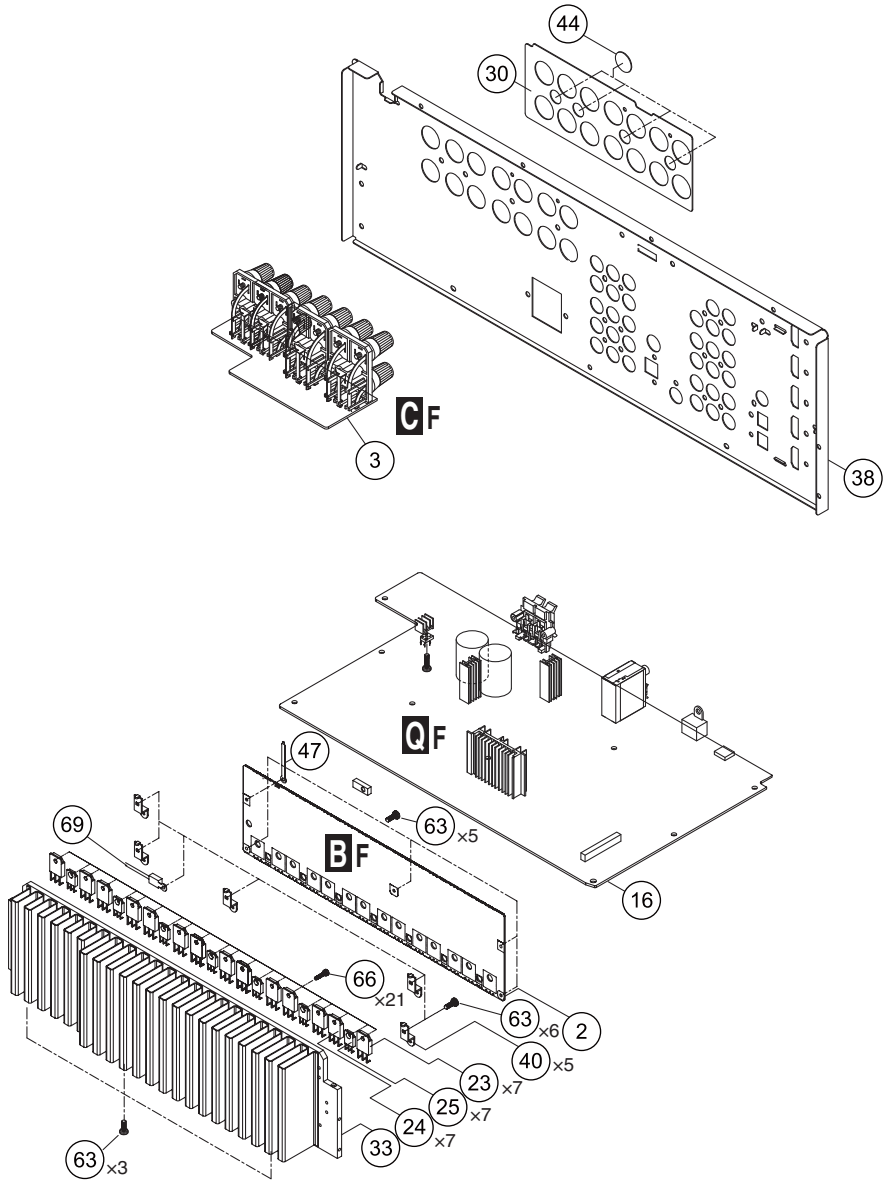
CONTRAST TABLE

VSX-820-K/CUXCNSM and VSX-920-K/UXCNCB are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-820-K/CUXCNSM	VSX-920-K/UXCNCB	Remarks
		PCB ASSEMBLIES			
NSP		1..MAIN ASSY	7025HK0916010-IL	7025HK0917060-IL	
	P68-16	2..MAIN ASSY	7028069111010-IL	7028069321010-IL	
	P68-6	2..PT ASSY	7028069112010-IL	7028069325010-IL	
	P68-9	2..CNT2 ASSY	7028069113010-IL	7028069322010-IL	
	P68-4	2..HEADPHONE ASSY	7028069114010-IL	7028069324010-IL	
	P68-7	2..HP_GUIDE ASSY	7028069115010-IL	7028069323010-IL	
	P68-5	2..MIC ASSY	7028069116010-IL	7028069327010-IL	
	P68-10	2..GUIDE_L ASSY	7028069117010-IL	7028069328010-IL	
	P68-11	2..GUIDE_R ASSY	7028069118010-IL	7028069329010-IL	
	P68-8	2..CNT1 ASSY	7028069119010-IL	7028069326010-IL	
NSP		1..VIDEO ASSY	7025HK0916013-IL	Not used	
	P68-12	2..VIDEO ASSY	7028069141010-IL	Not used	
NSP		1..VIDEO ASSY	Not used	7025HK0917062-IL	
	P68-12	2..VIDEO ASSY	Not used	7028069301010-IL	
	P68-3	2..SPEAKER ASSY	Not used	7028069302010-IL	
NSP		1..FRONT ASSY	7025HK0916011-IL	7025HK0917067-IL	
	P68-13	2..F-VIDEO ASSY	7028069123010-IL	7028069124010-IL	
NSP		1..INPUT ASSY	7025HK0916012-IL	7025HK0917061-IL	
	P68-1	2..INPUT ASSY	7028069131010-IL	7028069291010-IL	
NSP		1..SPEAKER ASSY	7025HK0916014-IL	Not used	
	P68-3	2..SPEAKER ASSY	7028069151010-IL	Not used	
NSP		1..DSP ASSY	7025HK0916015-IL	7025HK0917063-IL	
	P68-19	2..DSP ASSY	7028069161010-IL	7028069311010-IL	
	P68-17	2..REG ASSY	7028069162010-IL	7028069312010-IL	
NSP		1..HDMI ASSY	7025HK0916018-IL	7025HK0917064-IL	
	P68-18	2..HDMI ASSY	7028069191010-IL	7028069331010-IL	
NSP		1..USB ASSY	7025HK0916016-IL	7025HK0917066-IL	
	P68-20	2..USB ASSY	7028069171010-IL	7028069173010-IL	

Mark	No.	Symbol and Description	VSX-820-K/CUXCNSM	VSX-920-K/UXCNCB	Remarks
NSP		1..AMP ASSY	7025HK0916019-IL	7025HK0917065-IL	
	P68-2	2..AMP ASSY	7028067523010-IL	7028069231020-IL	
		PACKING SECTION			
	P65-7	Operating Instructions (En/Frca/Es)	5707000003160-IL	Not used	
		Operating Instructions (En/Sp)	Not used	5707000003260-IL	
	P65-10	Box, Gift	6007211700060-IL	60072117000D0-IL	
		EXTERIOR SECTION			
	P68-22	Power Trans.	8200960610590-IL	8200960610700-IL	
	P68-27	Cable, Flat Card 1.25	N712232533810-IL	N712232513880-IL	
	P68-30	Sheet	1210210762000-IL	1210211232000-IL	
	P68-35	Panel Front	3067214861000-IL	3067214861010-IL	
	P68-38	Chassis Back	3207213456000-IL	3207213456400-IL	
		Posistor	Not used	F320121021240-IL	No. 69
NSP		Label Getter 920U	Not used	5507000004550-IL	
NSP		Label Hot Surface	Not used	5507000003730-IL	

EXPLODED VIEWS
EXTERIOR SECTION

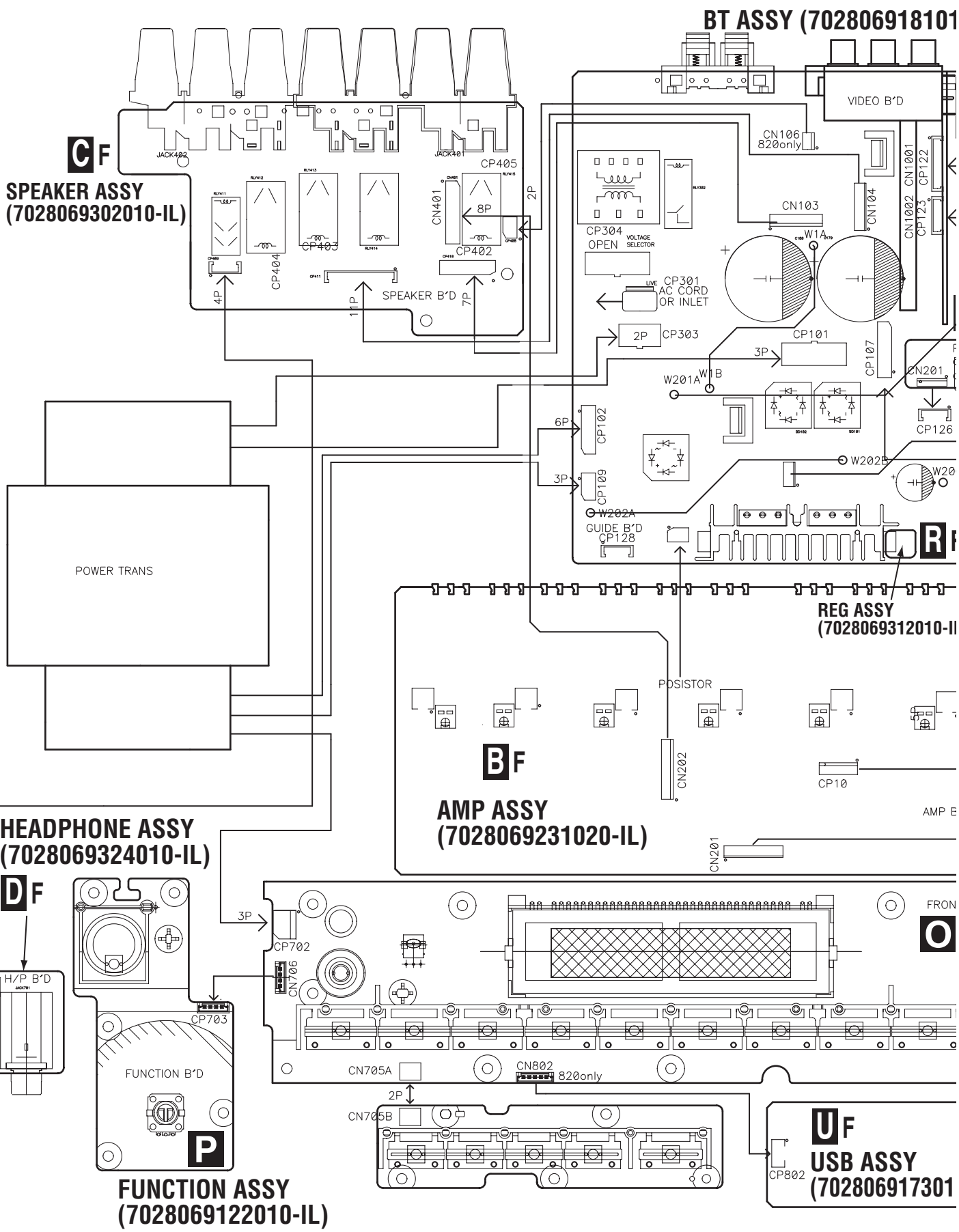


2. BASIC ITEMS FOR SERVICE
2.1 JIGS LIST

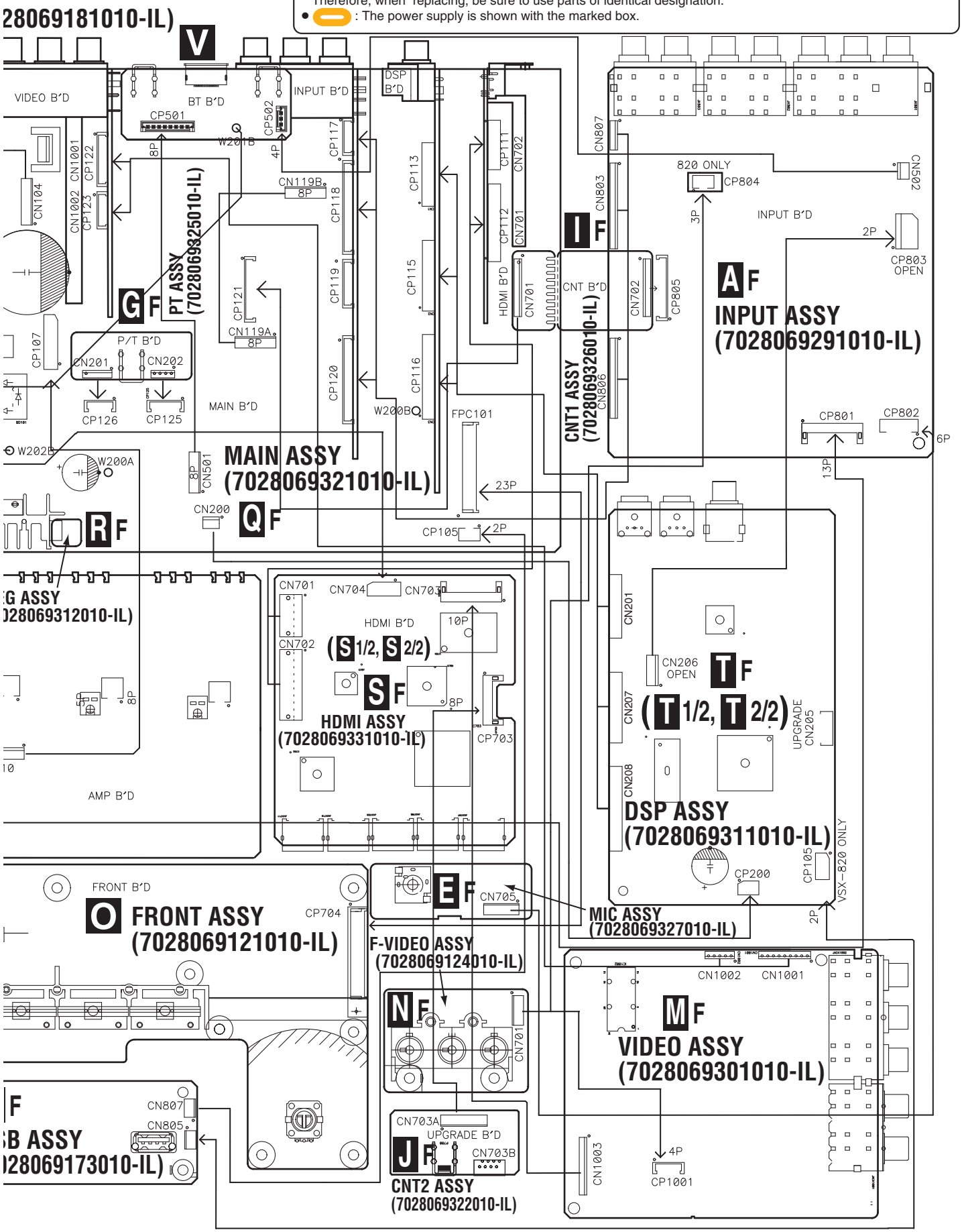
■ Jigs List

Jig Name	Part No.	Remarks
13P extension jig cable	GGD1669	Diagnosis (AMP Assy ↔ INPUT Assy)
8P extension jig cable	GGD1670	Diagnosis (AMP Assy ↔ MAIN Assy)
7P extension jig cable	GGD1671	Diagnosis (AMP Assy ↔ SPEAKER Assy)
2P short connector jig	GGD1672	Diagnosis (Posistor ↔ MAIN Assy)
Board to board extension jig cable	GGD1674	Diagnosis (DSP Assy ↔ MAIN Assy)
RS-232C upgrade jig	GGF1642	Firmware upgrade (RS-232C ↔ Rear panel)
10P to 8P FFC	GGF1676	

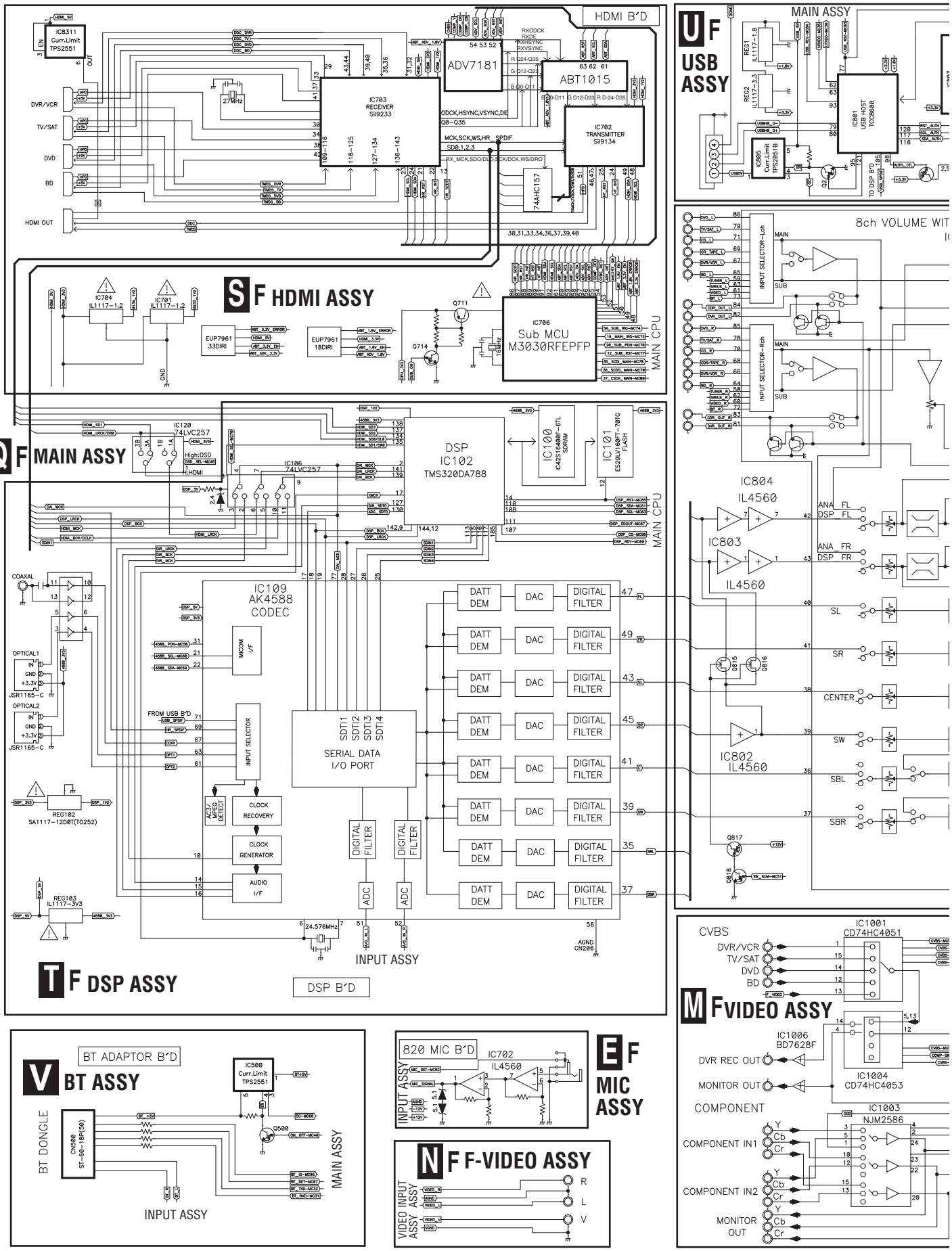
3. BLOCK DIAGRAM
3.1 OVERALL WIRING DIAGRAM

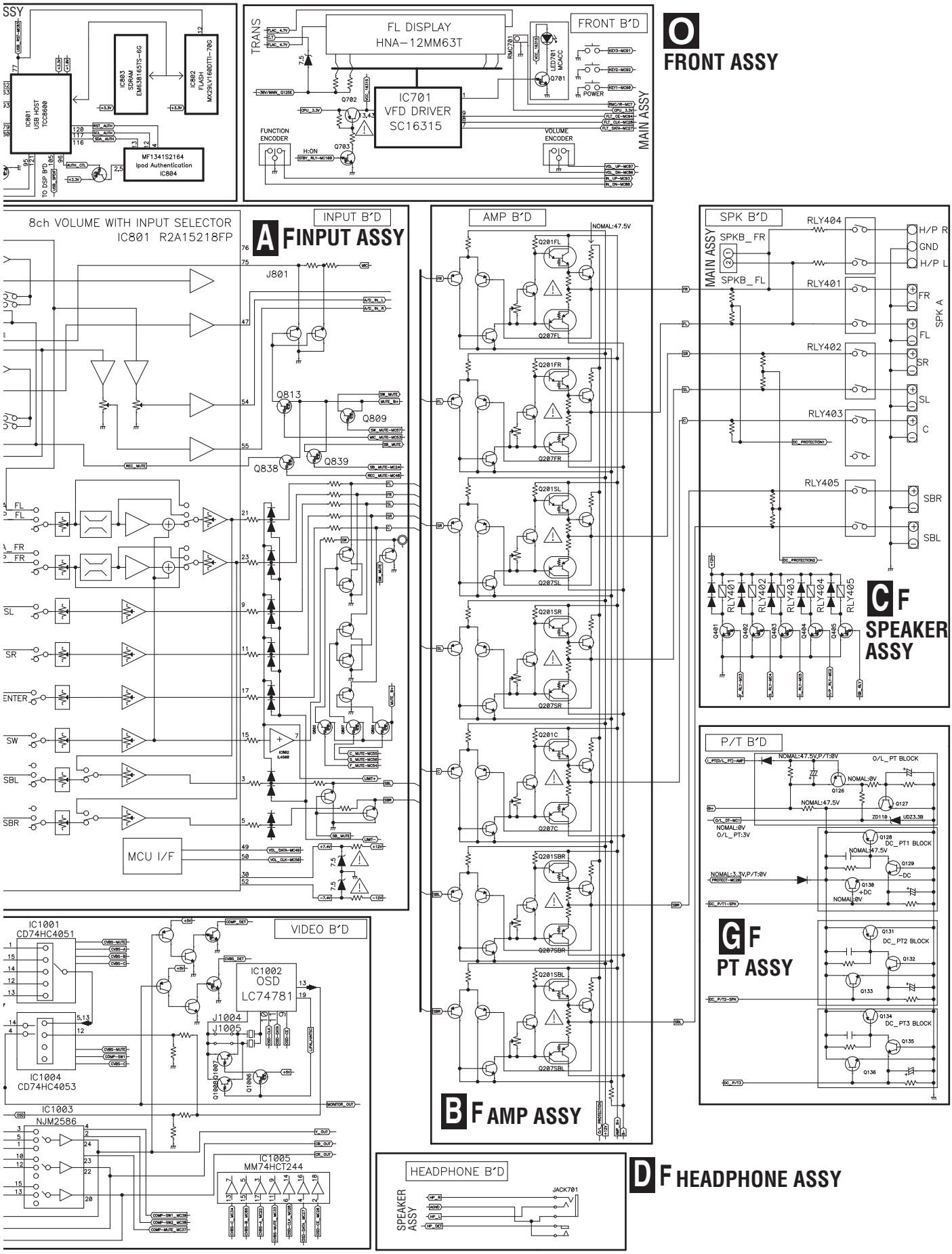


- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- : The power supply is shown with the marked box.



3.2 OVERALL BLOCK DIAGRAM

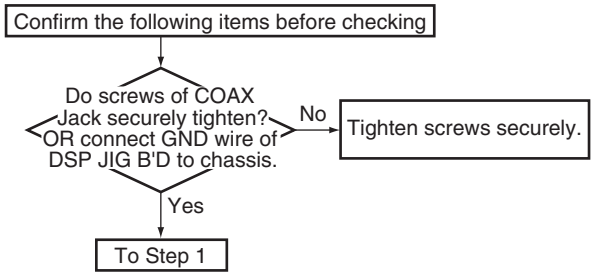



FRONT B'D
FL DISPLAY
HNA-12MM63T
IC701
VFD DRIVER
SC16315
FUNCTION ENCODER
VOLUME ENCODER
MAIN ASSY
O
FRONT ASSY
INPUT B'D
8ch VOLUME WITH INPUT SELECTOR
IC801 R2A15218FP
A FINPUT ASSY
J801
MCU I/F
AMP B'D
NOMAL:47.5V
B F AMP ASSY
SPK B'D
MAIN ASSY
SPKB_FR
SPKB_FL
RLY404
RLY401
RLY402
RLY403
RLY405
H/P R
GND
H/P L
FR
FL
SR
SL
C
SBR
SBL
SPK A
C F
SPEAKER ASSY
P/T B'D
O/L_PT BLOCK
DC_PT1 BLOCK
DC_PT2 BLOCK
DC_PT3 BLOCK
G F
PT ASSY
VIDEO B'D
IC1001
CD74HC4051
IC1002
OSD
LC74781
IC1004
CD74HC4053
IC1003
NJM2586
IC1005
MM74HCT244
HEADPHONE B'D
SPEAKER ASSY
JACK701
D F HEADPHONE ASSY

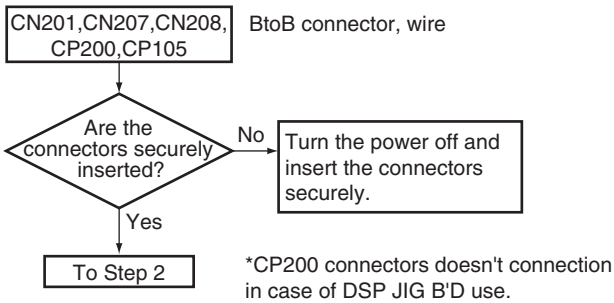
4. DIAGNOSIS
4.1 DIAGNOSIS FLOWCHART

[1] DSP TROUBLESHOOTING

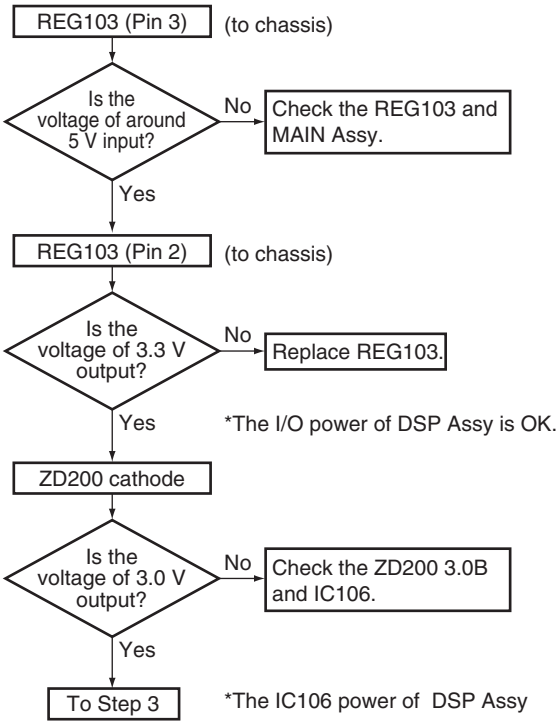
Step 0: Preliminary confirmation



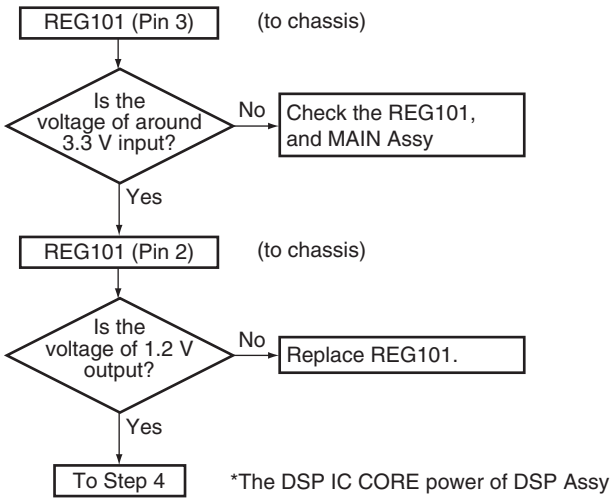
Step 1: BtoB connector, wire



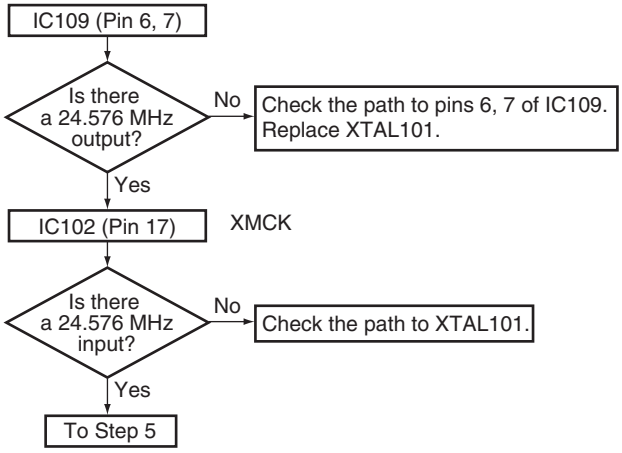
Step 2: Regulator IC



Step 3: Regulator IC

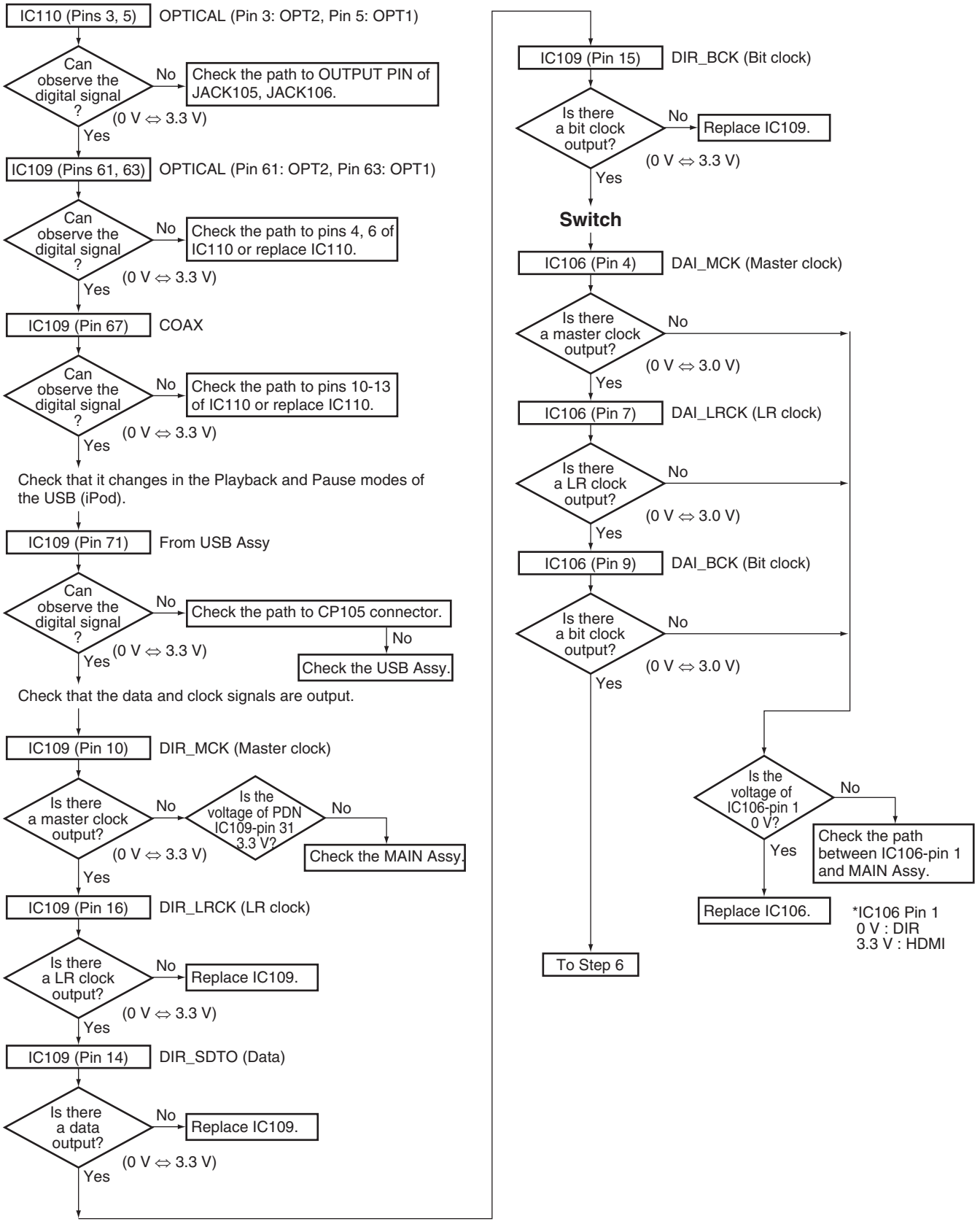


Step 4: X'tal



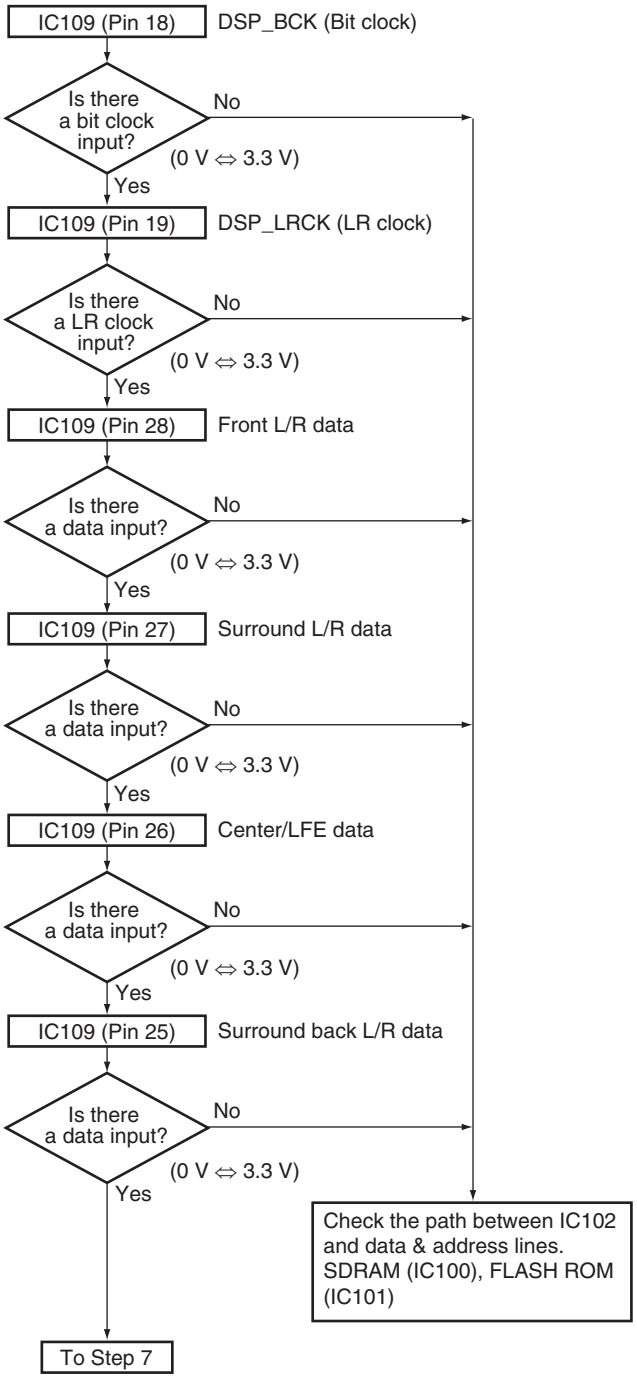
Step 5: DIR

Check that the S/PDIF signal is output.
Check that changes by pulling out and inserting the digital input lines.



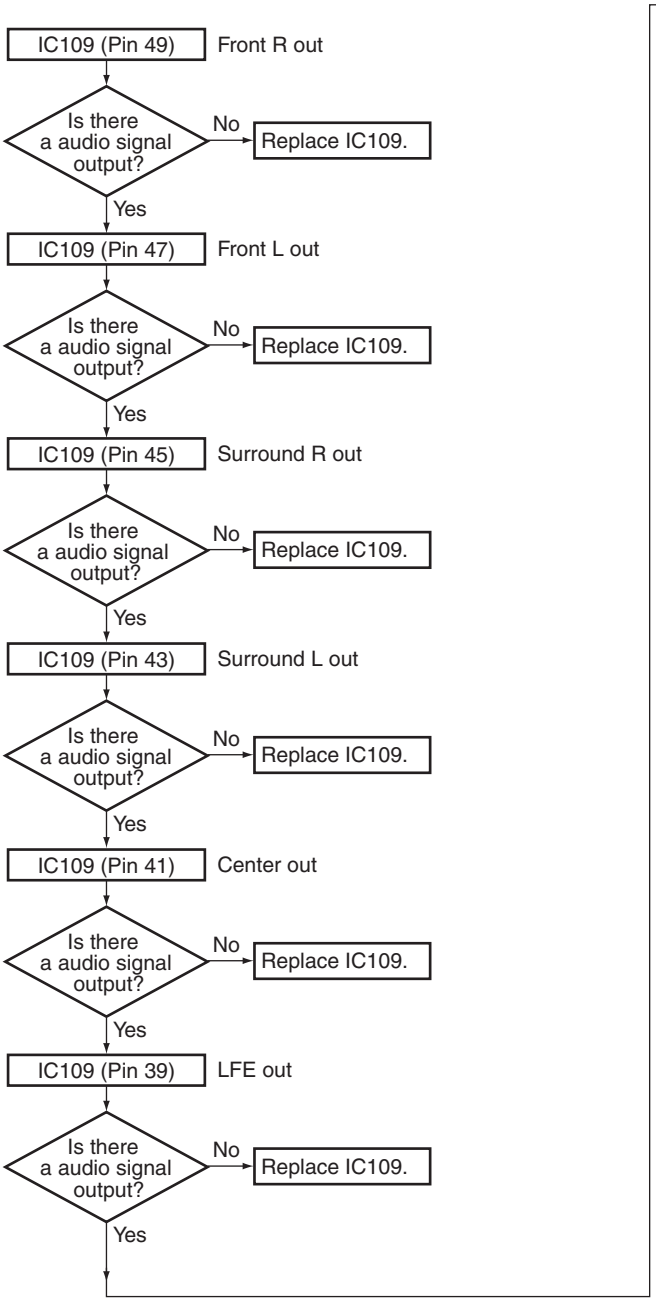
Step 6: DSP output (digital)

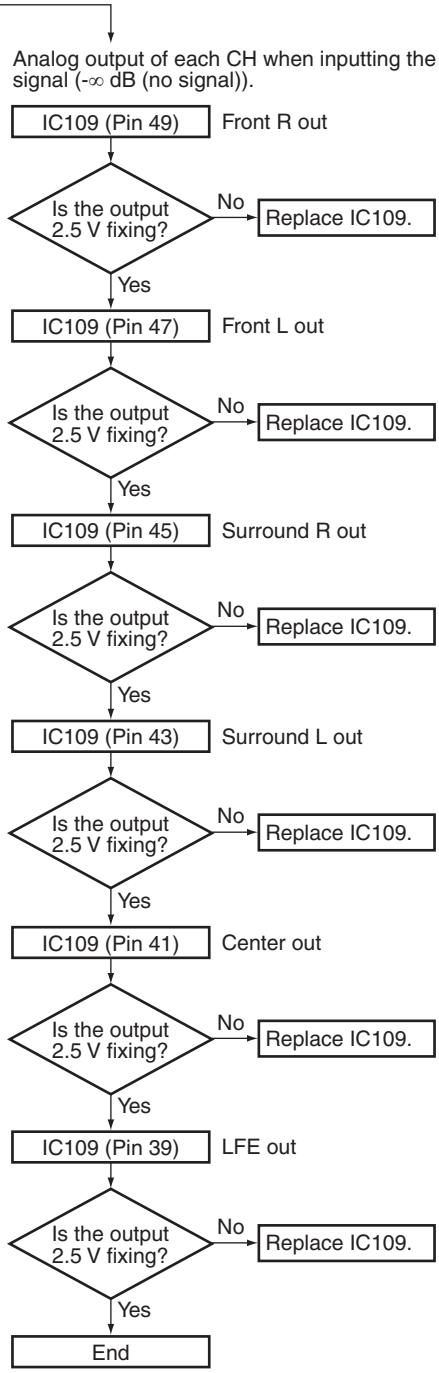
Digital output of each CH when inputting the digital signal with audio.



Step 7: Codec output (analog)

Analog output of each CH when inputting the digital signal with audio.



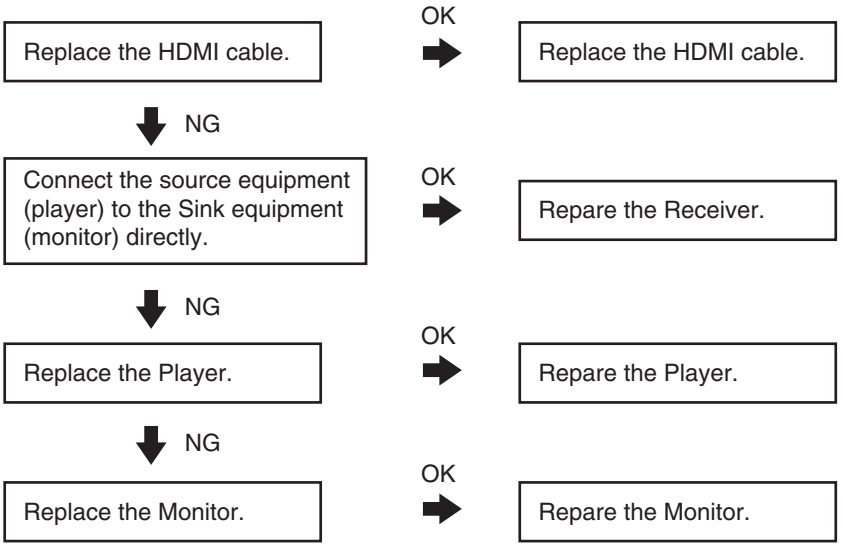


[2] HDMI TROUBLESHOOTING

1. Causes for noncompletion of HDMI authentication between the source equipment and this unit (the HDMI indicator is unlit or flashes)

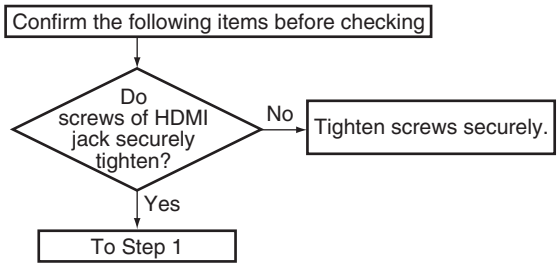
■ HDMI Simple Diagnosis

Causes for no display or sound from the monitor

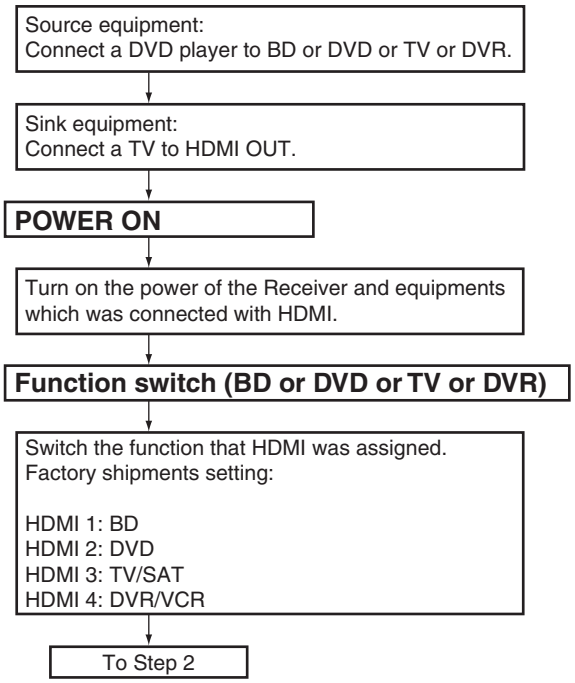


■ HDMI Troubleshooting

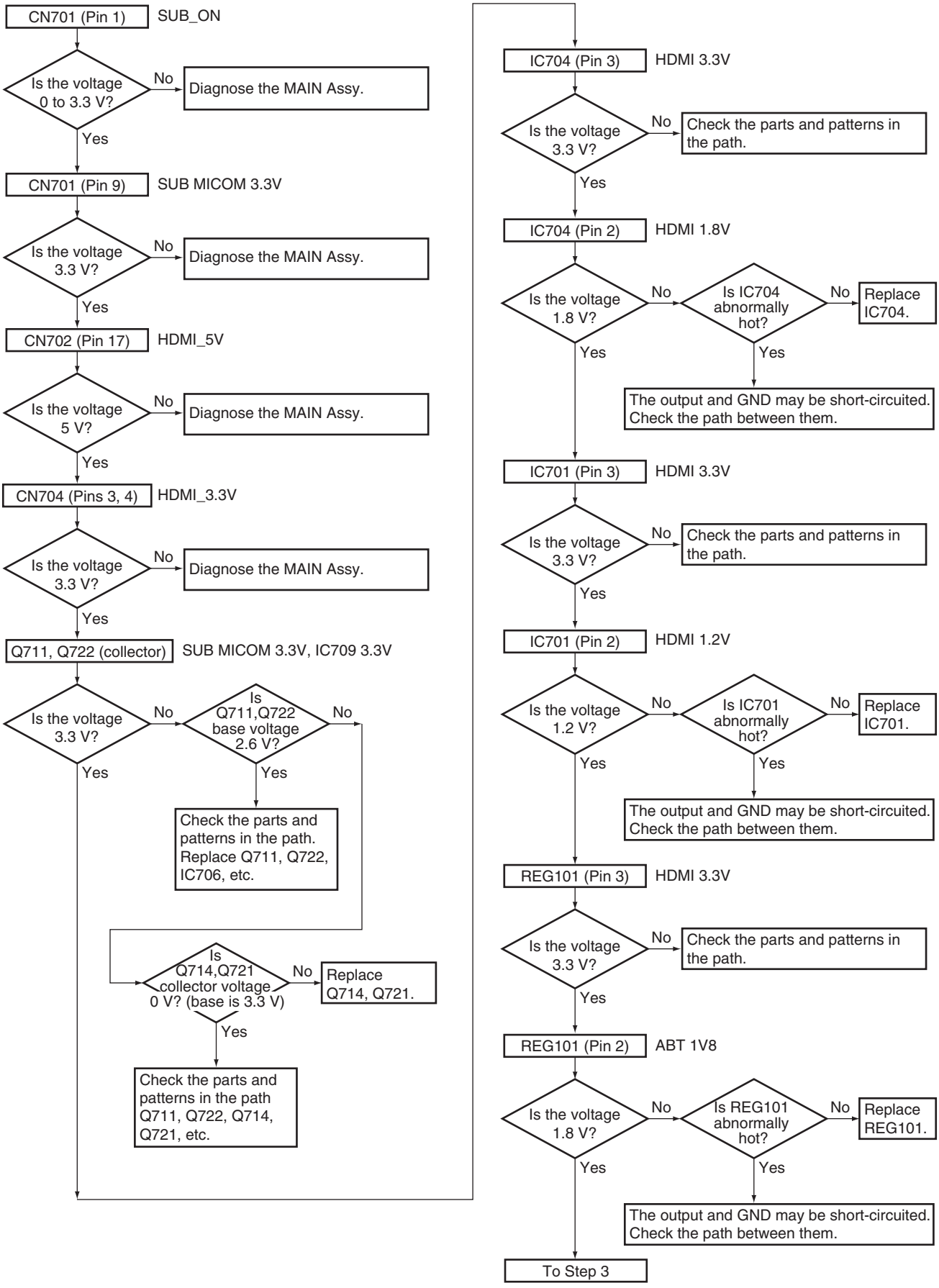
Step 0: Preliminary confirmation



Step 1: Connect the HDMI equipment

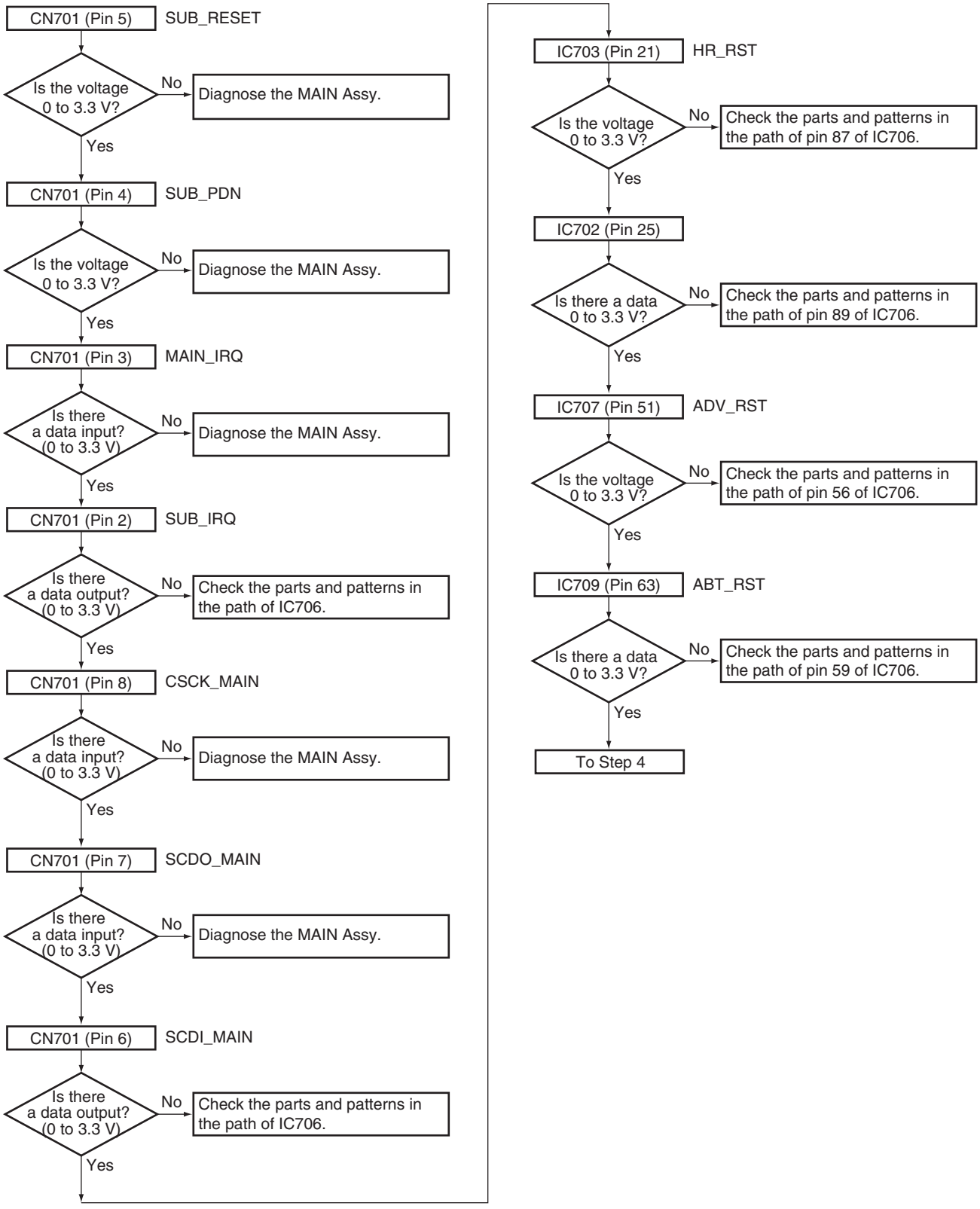


Step 2: Power supply

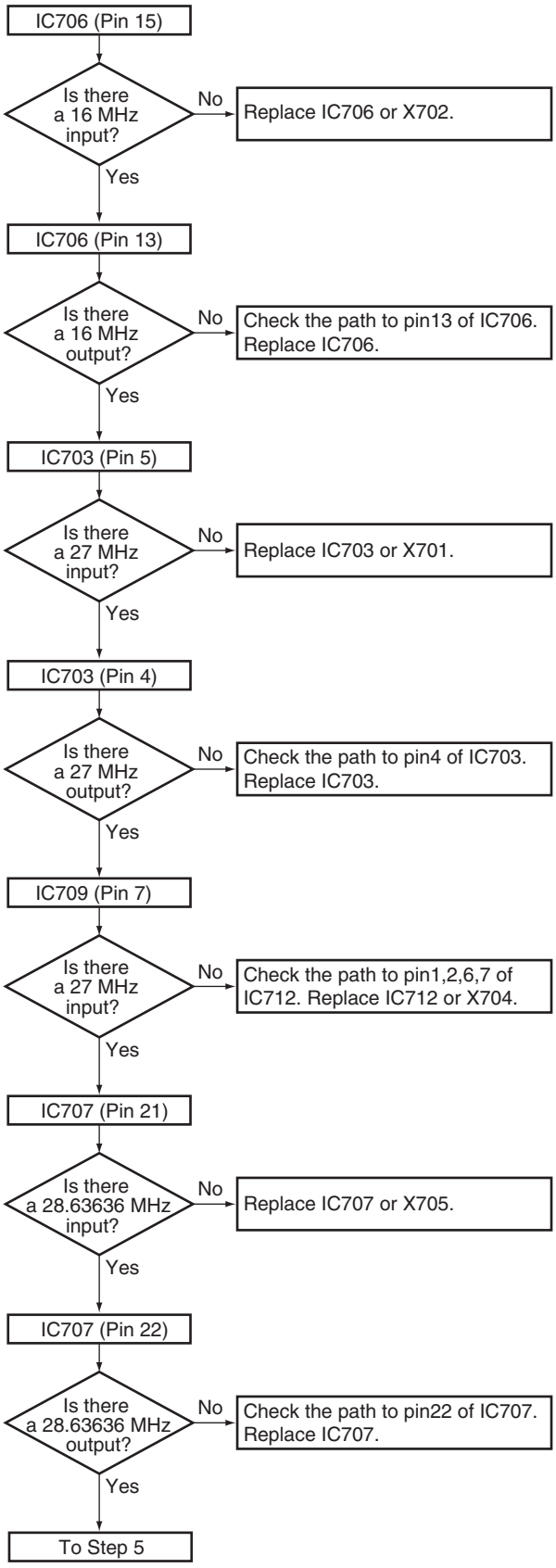


Step 3: Diagnosis

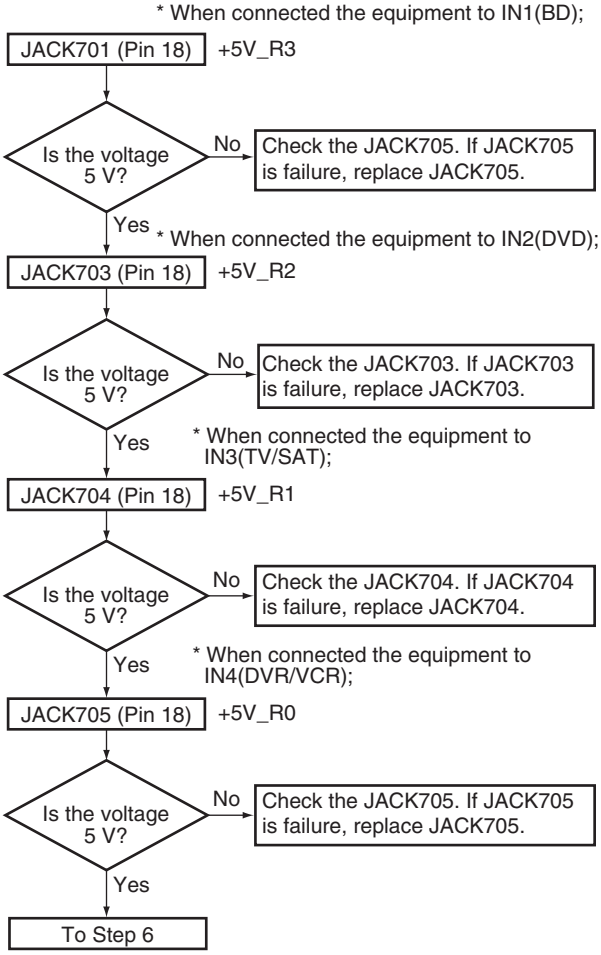
Each data lines confirmation checks it after standby OFF/ON.



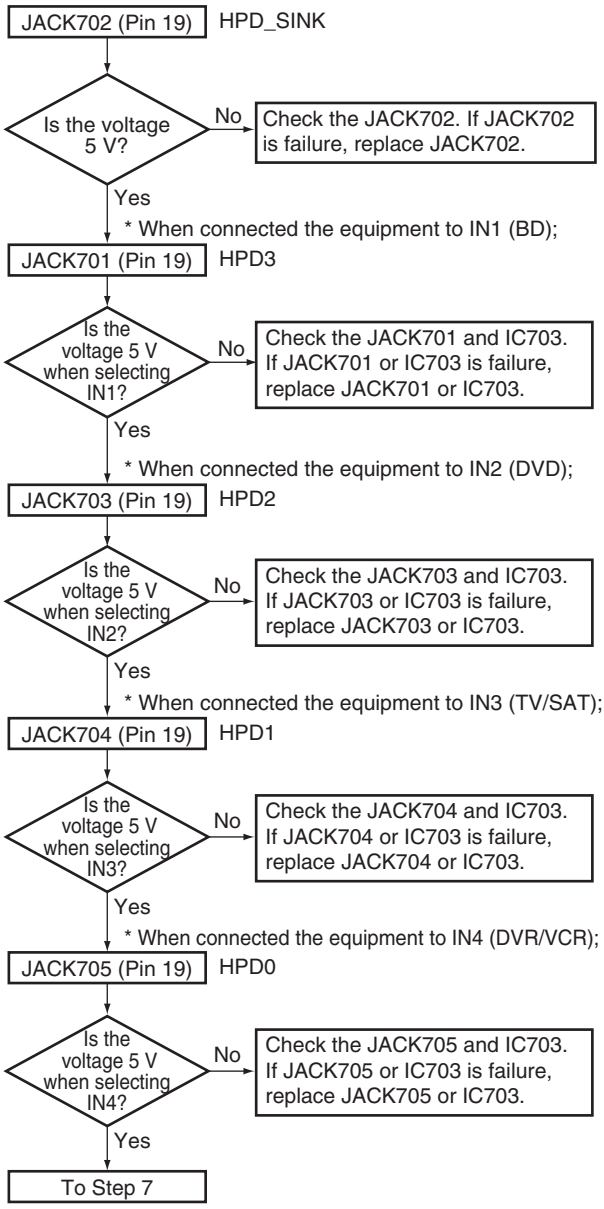
Step 4: X'TAL



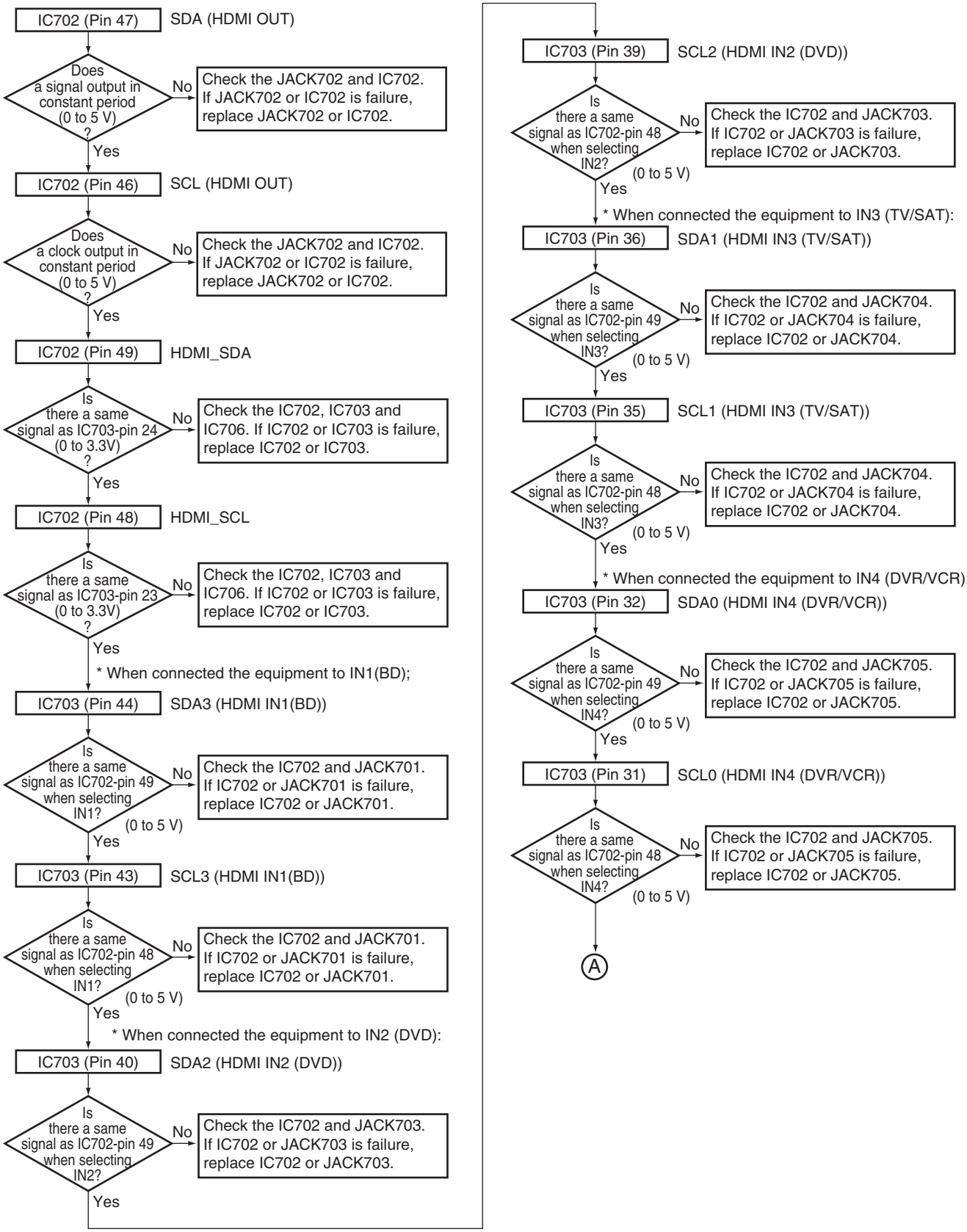
Step 5: IN/OUTPUT Diagnosis

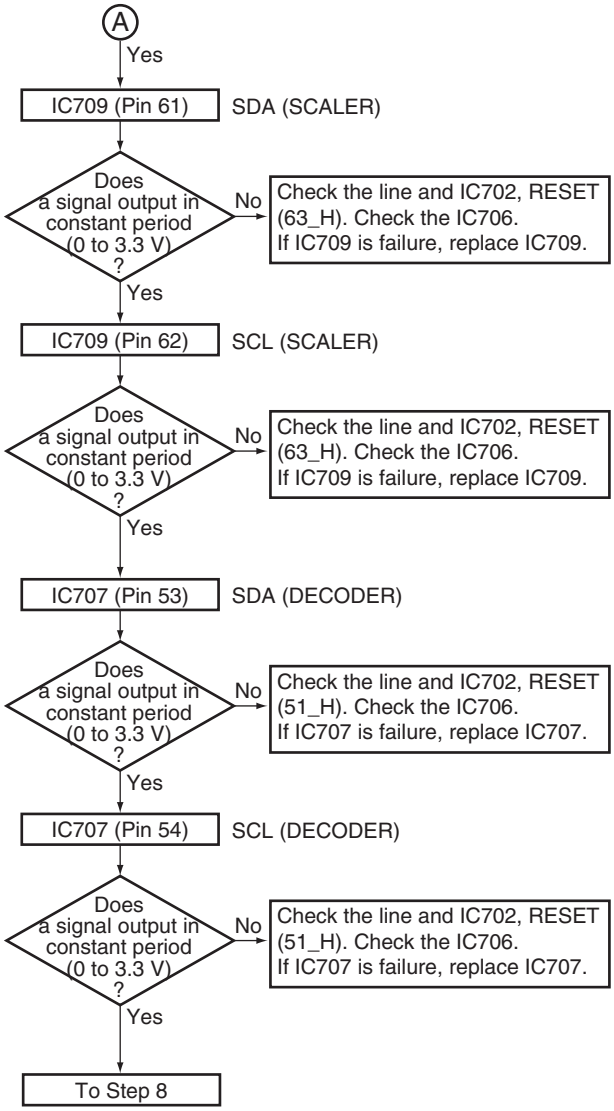


Step 6: Hot plug detect

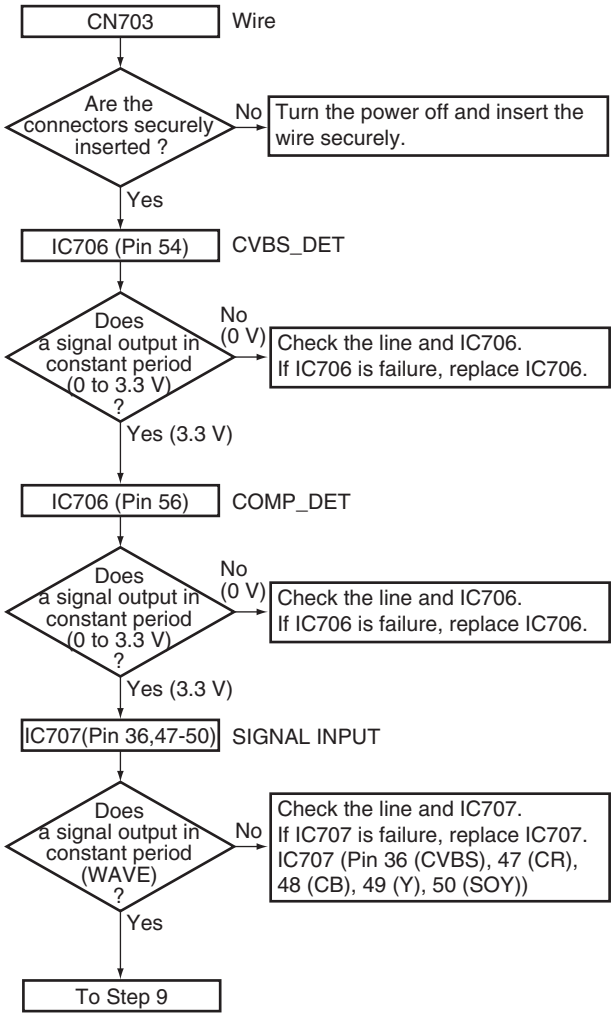


Step 7: SDA /SCL

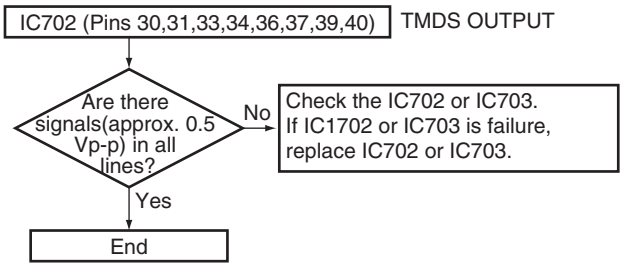




Step 8: ANALOG UP



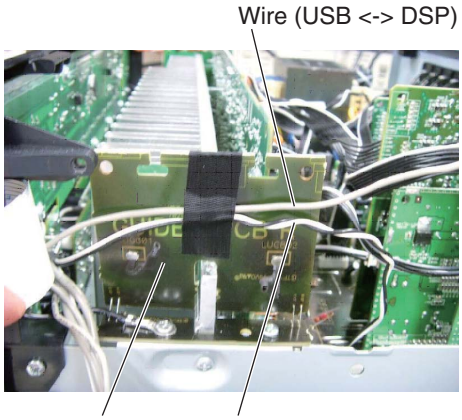
Step 9: TMDS

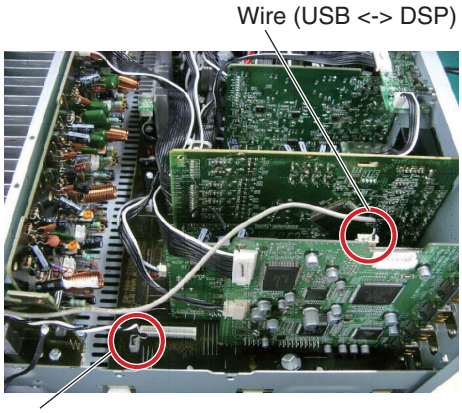


5. DISASSEMBLY
5.1 DISASSEMBLY

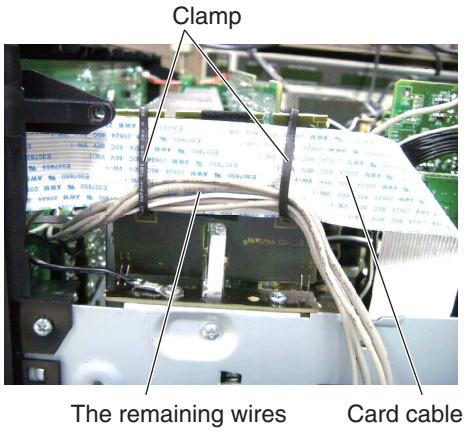
CABLE DRESSING (VSX-920-K)

(1) Secure the wires from the USB Assy.

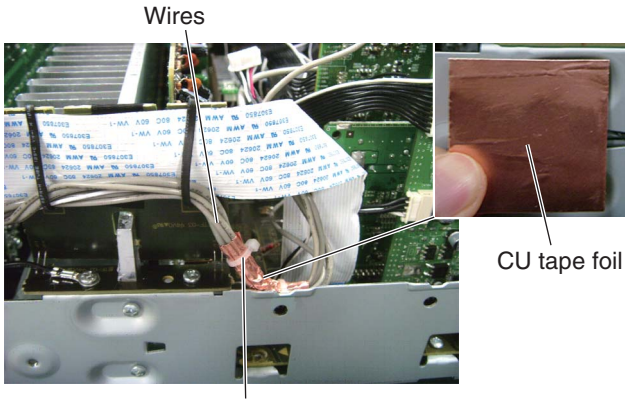




(2) Secure the card cable and the remaining wires with the clamps.

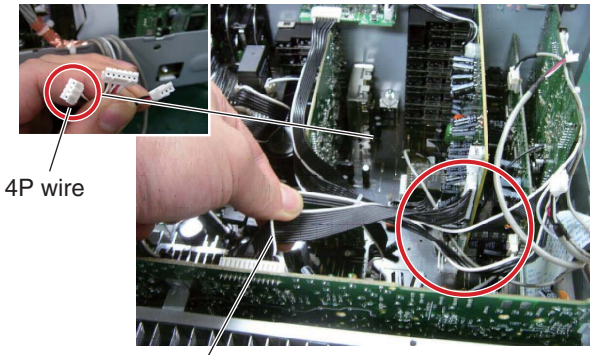


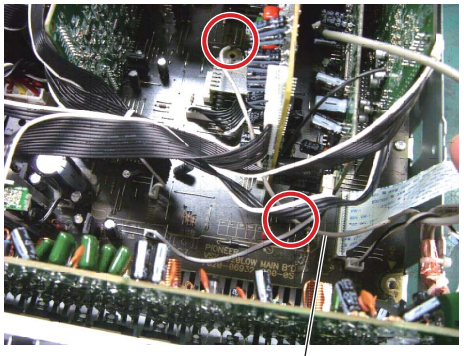
(3) Wrap the remaining wires with CU tape foil then secure them with a cable tie.



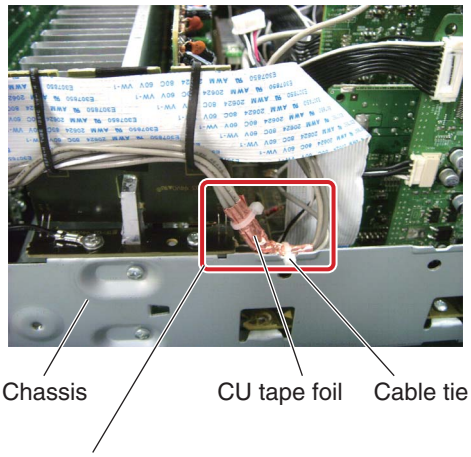
(4) Style the 4P wire (F-VIDEO) so that it goes below the corresponding cables marked with circles in the figure below.

(5) Style the remaining two wires above wire Ⓐ, which connects the AMP and INPUT Assys.

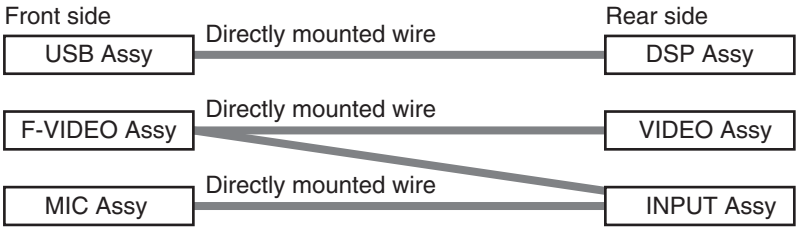




(6) Secure the cables bound with CU tape foil to the chassis, using a cable tie for grounding.



• The wires bound with CU tape foil (part No.: 1220-21087-900-0S) are shown below.



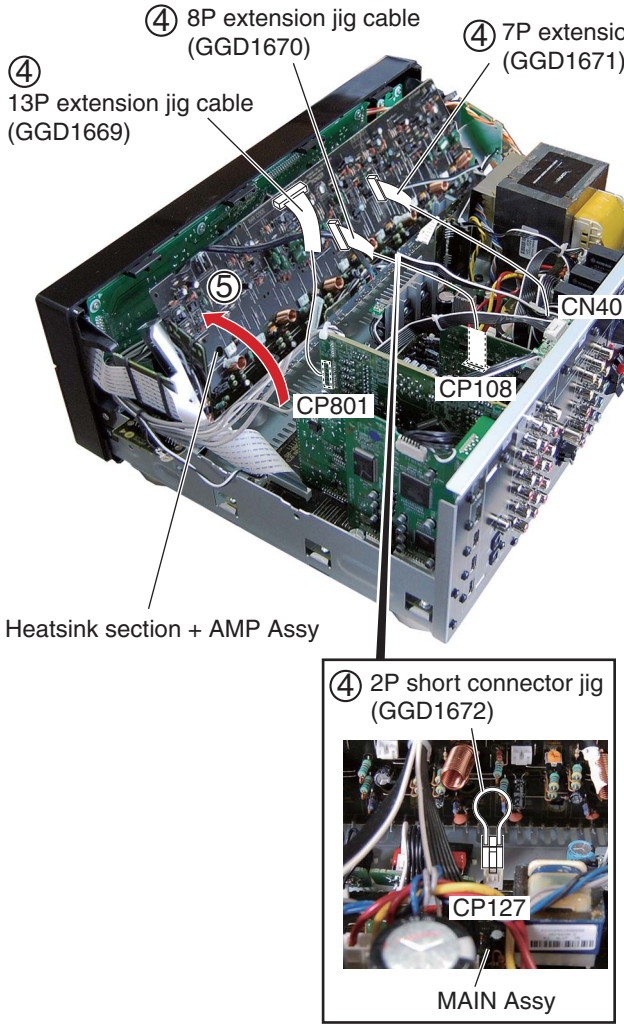
When repairing an assy on the front side, as the wires are secured to the assys, it is necessary to peel off CU tape foil to unbind the wires in order to disconnect them. After repair, wrap the wires again, using new CU tape foil.

When repairing an assy on the rear side, as the wires are disconnected/connected with connectors, you don't have to peel off CU tape foil.

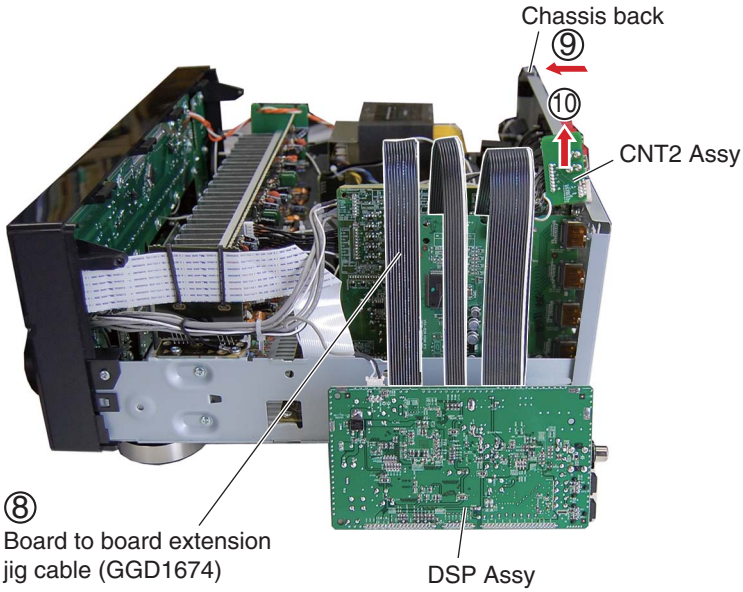
After disconnecting the wires, style them again, following the procedures shown above.

■ **Different jig cables between base model (VSX-820-K) and this model.**
(As for actual disassembling steps, refer to the SM of base model.)

[2] Heatsink Section



[4] DSP Assy



6. EACH SETTING AND ADJUSTMENT
6.1 IDLE CURRENT ADJUSTMENT

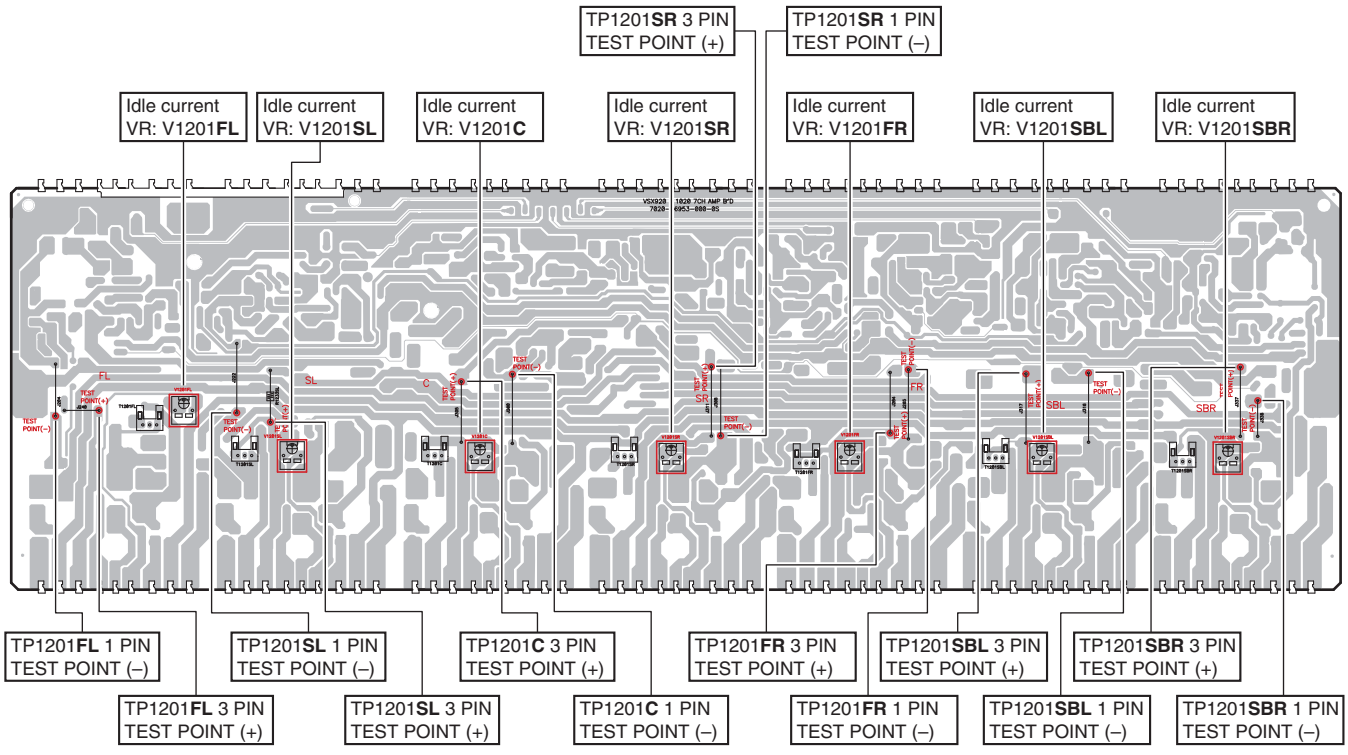
1. Idle Current Adjustment

Measurement Points	Adjustment Points	Procedure
TP1201**FL** 3PIN : TEST POINT(+) TP1201**FL** 1PIN : TEST POINT(–)	V1201**FL**	① Turn on the power. ② Perform aging for one minute. ③ Connect a digital voltmeter to the measurement point. ④ Turn the adjustment VR so that the voltage becomes in 2.0 mV ± 0.2 mV. (Condition : No signal and no load)
TP1201**FR** 3PIN : TEST POINT(+) TP1201**FR** 1PIN : TEST POINT(–)	V1201**FL**	
TP1201**C** 3PIN : TEST POINT(+) TP1201**C** 1PIN : TEST POINT(–)	V1201**C**	
TP1201**SL** 3PIN : TEST POINT(+) TP1201**SL** 1PIN : TEST POINT(–)	V1201**SL**	
TP1201**SR** 3PIN : TEST POINT(+) TP1201**SR** 1PIN : TEST POINT(–)	V1201**SR**	
TP1201**SBL** 3PIN : TEST POINT(+) TP1201**SBL** 1PIN : TEST POINT(–)	V1201**SBL**	
TP1201**SBR** 3PIN : TEST POINT(+) TP1201**SBR** 1PIN : TEST POINT(–)	V1201**SBR**	

• **Adjustment Point and Measurement Points**.... see fig1.

B F AMP ASSY

SIDE A



[Fig. 1]

A

B

C

D

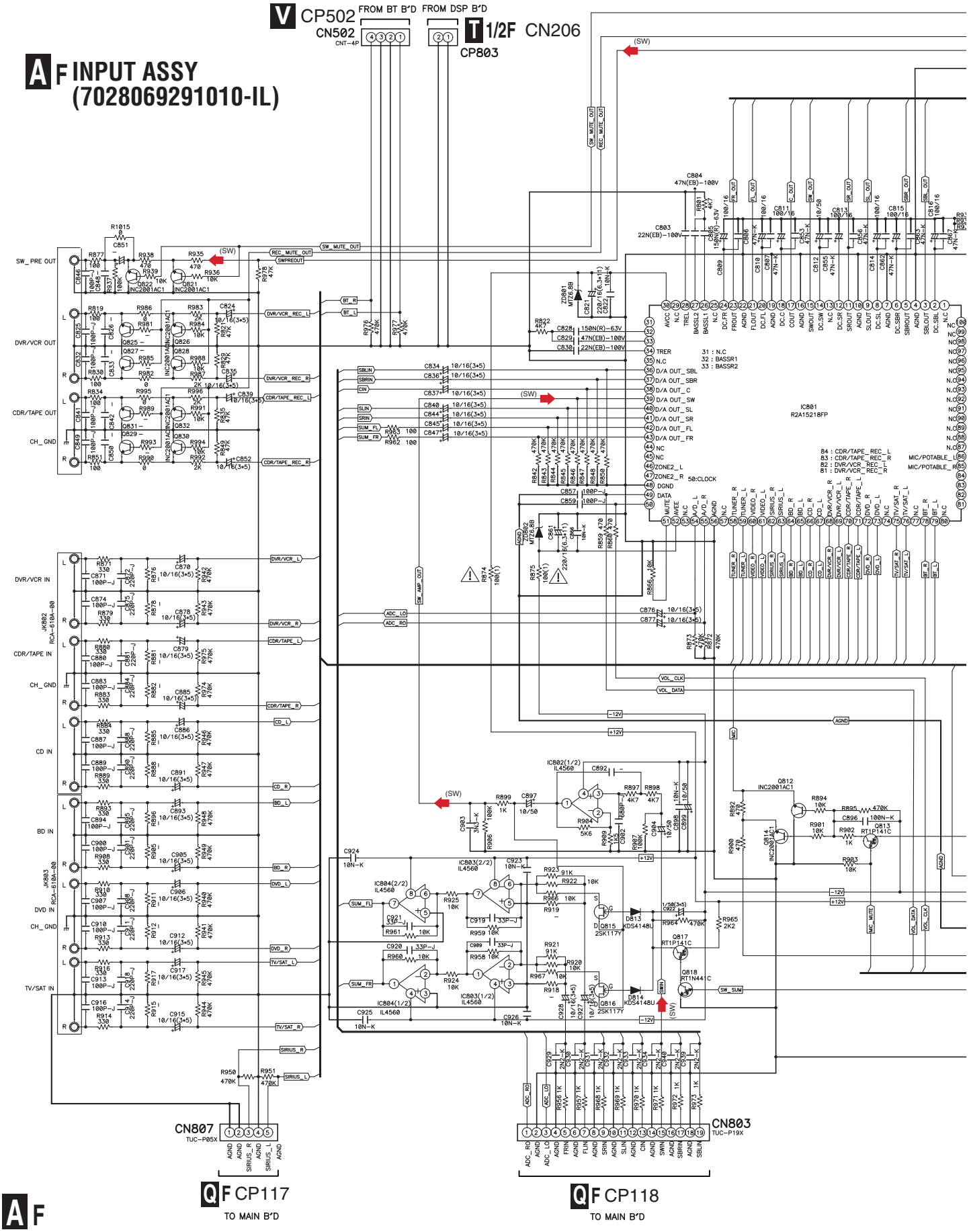
E

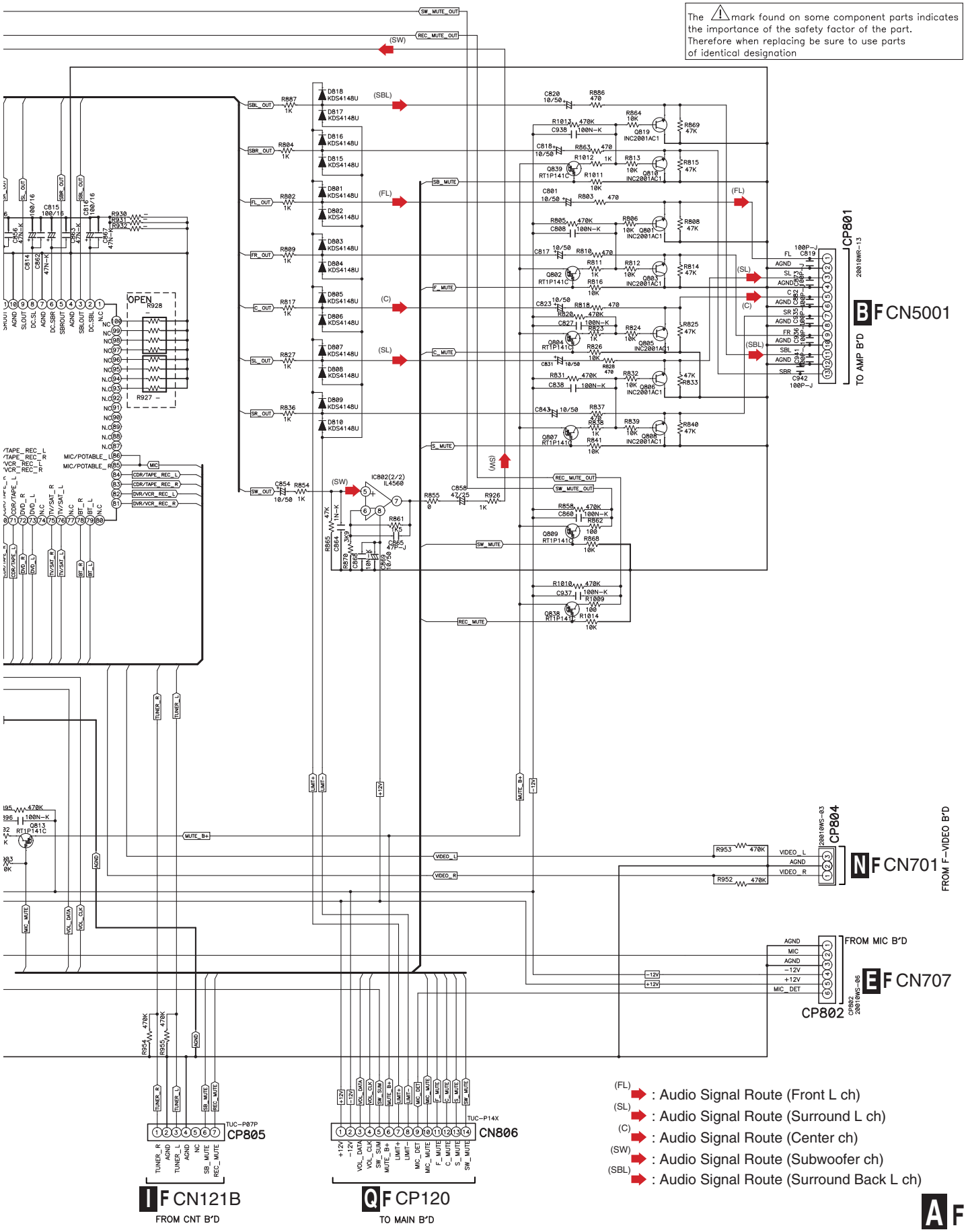
F

7. SCHEMATIC DIAGRAM

7.1 INPUT ASSY

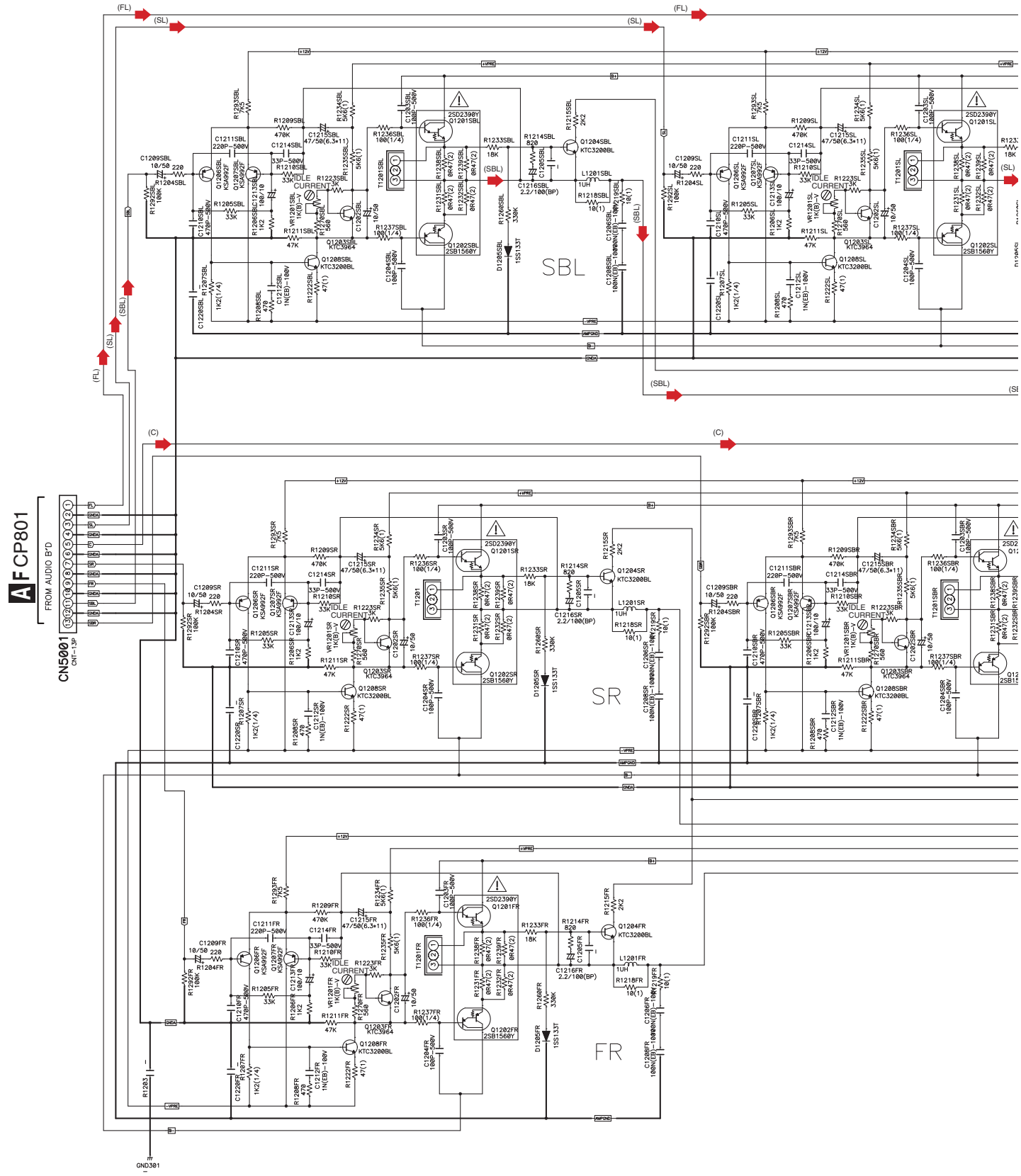
AF INPUT ASSY (7028069291010-IL)



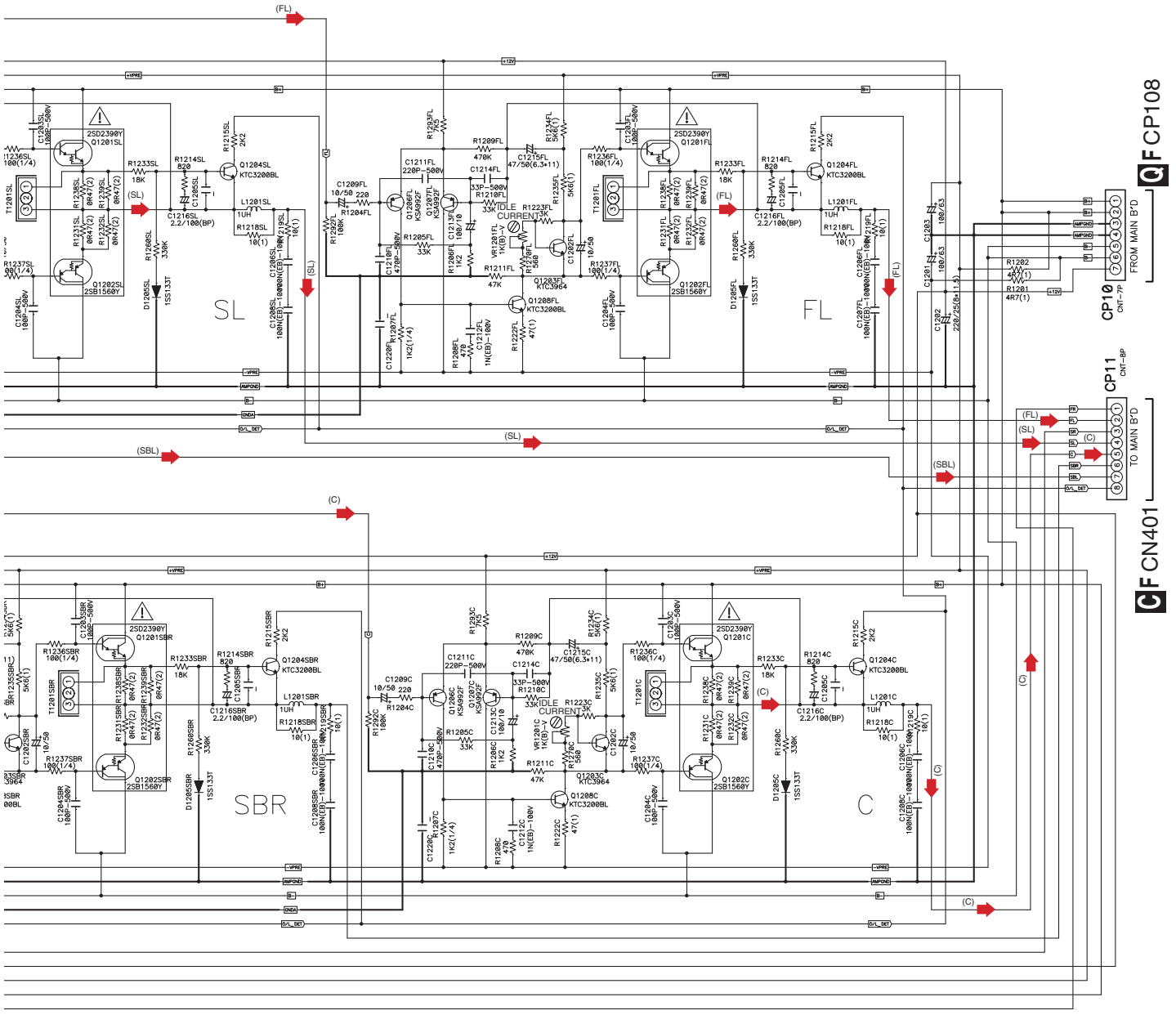

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore when replacing be sure to use parts of identical designation
(FL) : Audio Signal Route (Front L ch)
(SL) : Audio Signal Route (Surround L ch)
(C) : Audio Signal Route (Center ch)
(SW) : Audio Signal Route (Subwoofer ch)
(SBL) : Audio Signal Route (Surround Back L ch)
BF CN5001
TO AMP B'D
NF CN701
FROM F—VIDEO B'D
EF CN707
FROM MIC B'D
CP802
IF CN121B
FROM CNT B'D
QF CP120
TO MAIN B'D
CP805
CN806
AF

7.2 AMP ASSY

B F AMP ASSY (7028069231020-IL)



The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore when replacing be sure to use parts of identical designation



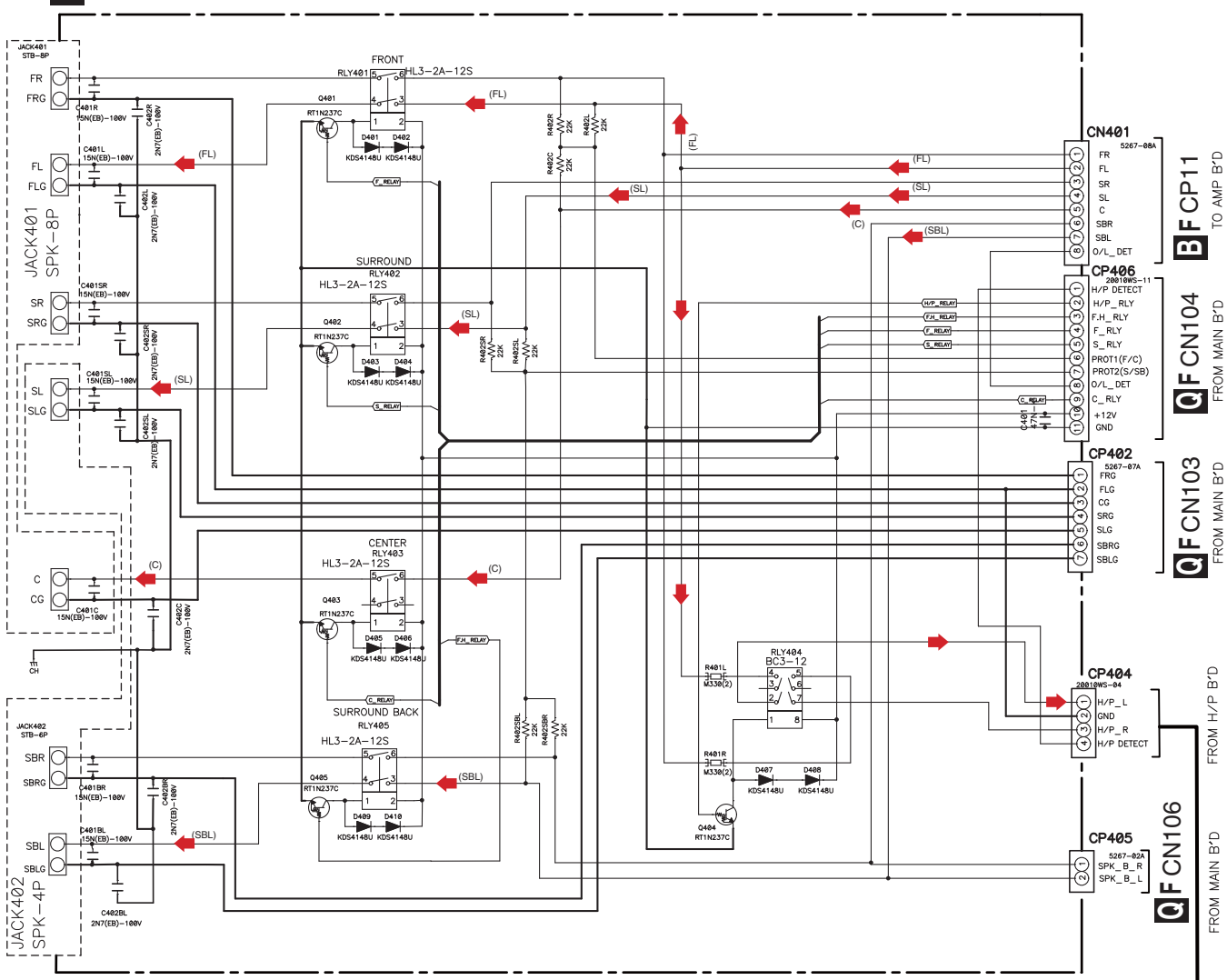
(FL) : Audio Signal Route (Front L ch)
(SL) : Audio Signal Route (Surround L ch)
(C) : Audio Signal Route (Center ch)
(SBL) : Audio Signal Route (Surround Back L ch)

*AMP PCB BLOCK (TOP VIEW)

FL	SL	C	SR	FR	SBL	SBR

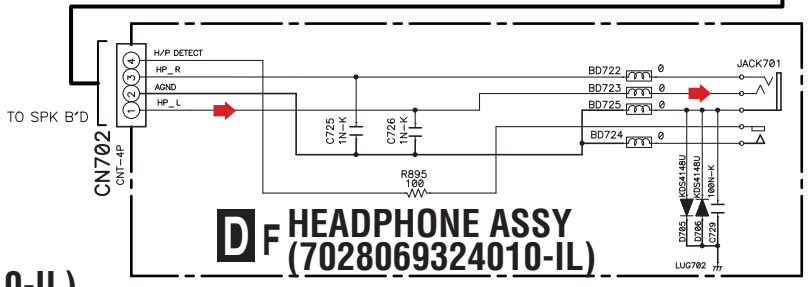
7.3 SPEAKER, HEADPHONE and MIC ASSYS

C F SPEAKER ASSY (7028069302010-IL)



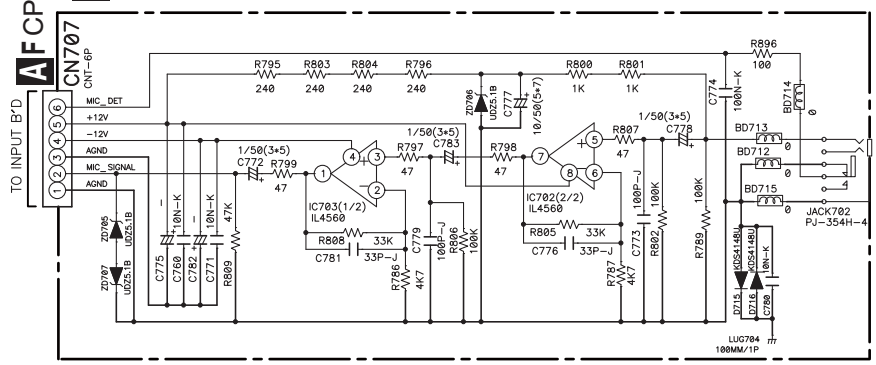
CAUTION
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS OF FUSE.

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore when replacing be sure to use parts of identical designation



D F HEADPHONE ASSY (7028069324010-IL)

E F MIC ASSY (7028069327010-IL)



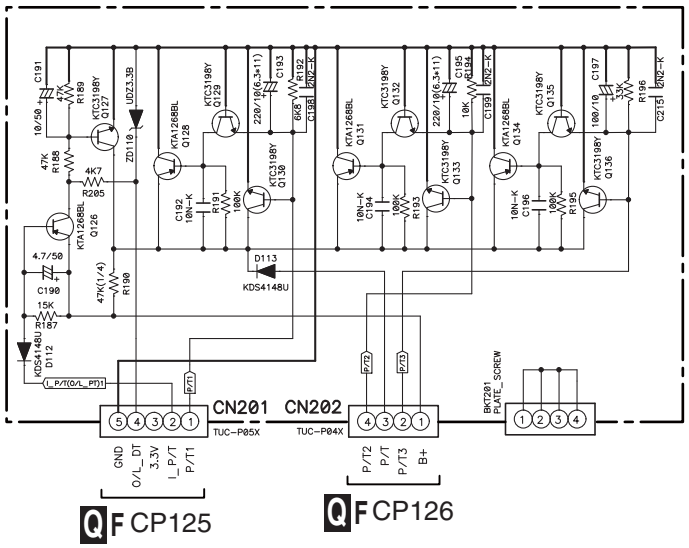
NOTES
1. Resistor values are indicated in ohms unless otherwise specified [k = 1,000 m = 1,000,000]
2. Capacitor values are indicated in microfarades unless otherwise specified. [p = micro-microfarades]
3. : These resistor are to be segregated from printed wiring board or other acessible parts.
CAUTION
Safety precaution to be followed during servicing
1] Since those parts marked with are critical parts for safety. use only the one described in the parts list
2] Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are prorerly insulated from the supply circuit.

(FL) : Audio Signal Route (Front L ch)
(SL) : Audio Signal Route (Surround L ch)
(C) : Audio Signal Route (Center ch)
: Audio Signal Route (Headphone L ch)
(SBL) : Audio Signal Route (Surround Back L ch)

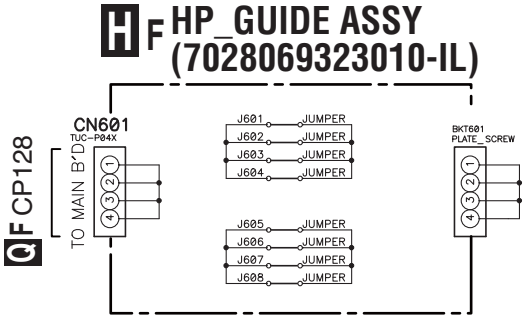
C F D F E F

7.4 PT, HP_GUIDE, CNT1, CNT2, GUIDE_L and GUIDE_R ASSYS

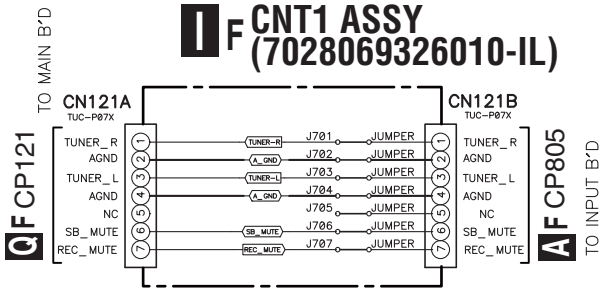
G F PT ASSY (7028069325010-IL)



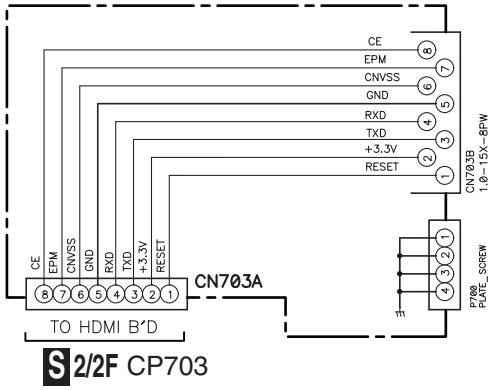
H F HP_GUIDE ASSY (7028069323010-IL)



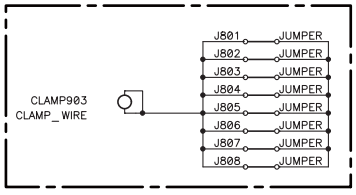
I F CNT1 ASSY (7028069326010-IL)



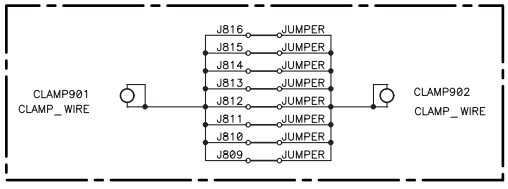
J F CNT2 ASSY (7028069322010-IL)



K F GUIDE_L ASSY (7028069328010-IL)



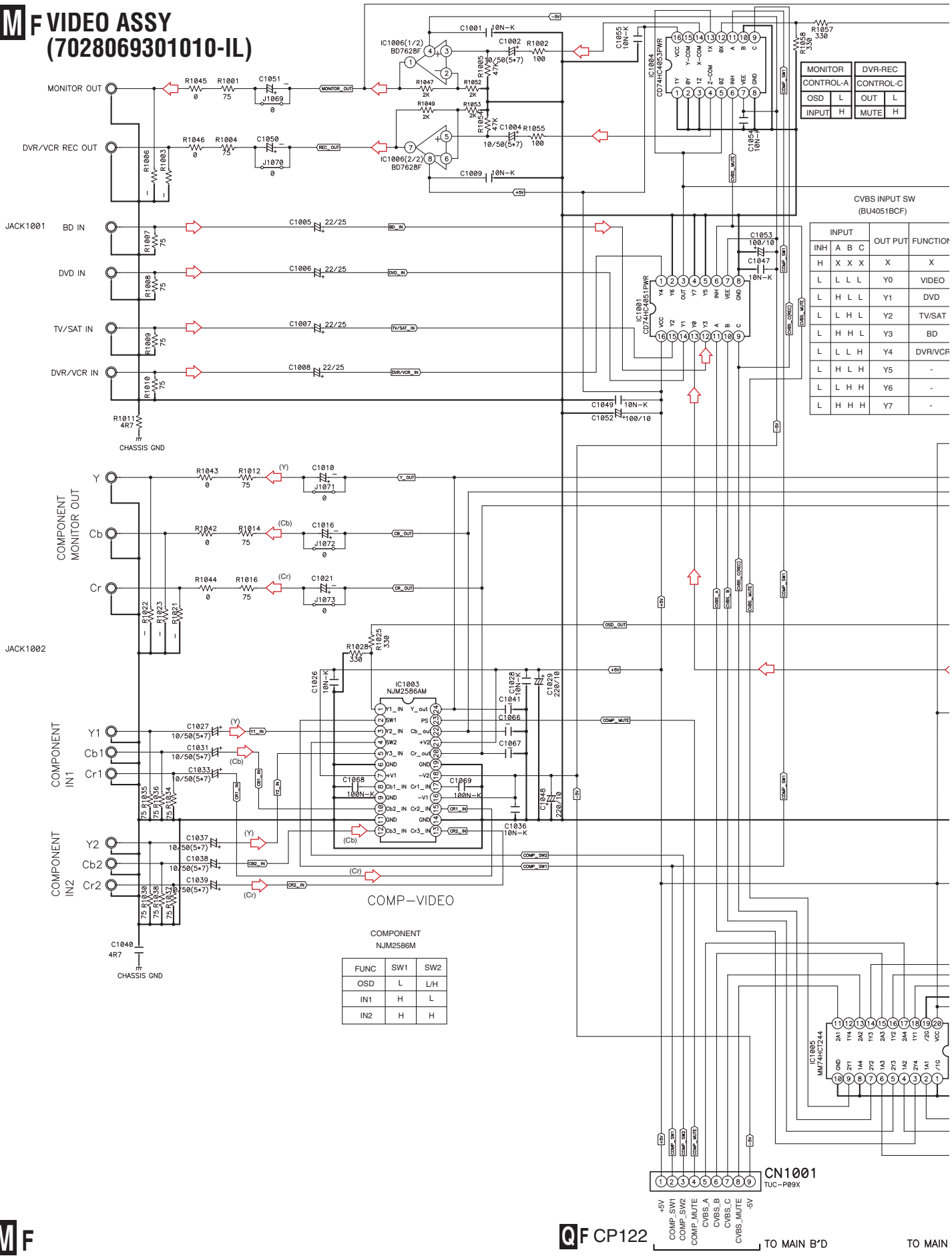
L F GUIDE_R ASSY (7028069329010-IL)



G F H F I F J F K F L F

7.5 VIDEO ASSY

MF VIDEO ASSY (7028069301010-IL)



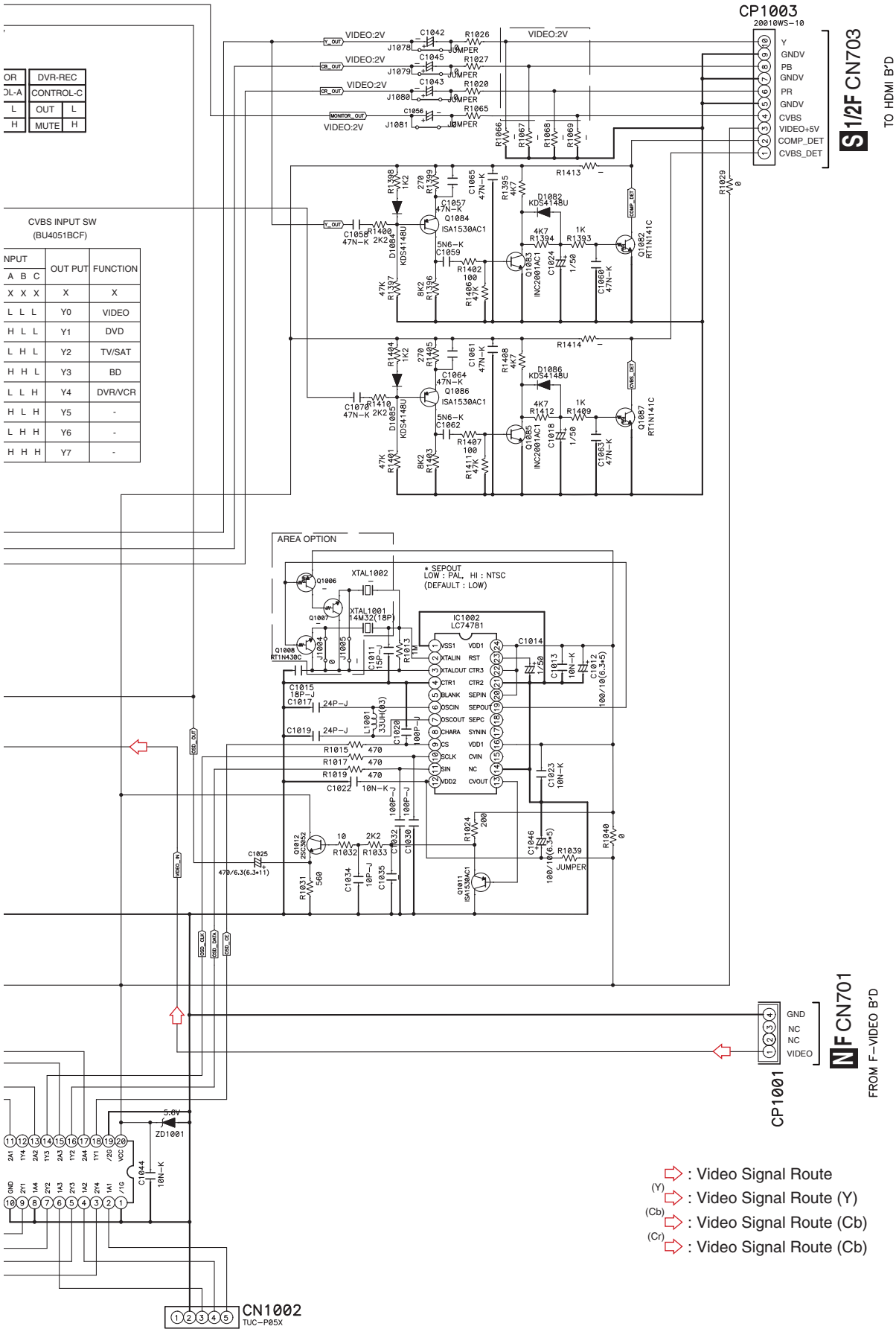
MONITOR		DVR-REC	
CONTROL-A		CONTROL-C	
OSD	L	OUT	L
INPUT	H	MUTE	H

CVBS INPUT SW (BU4051BCF)

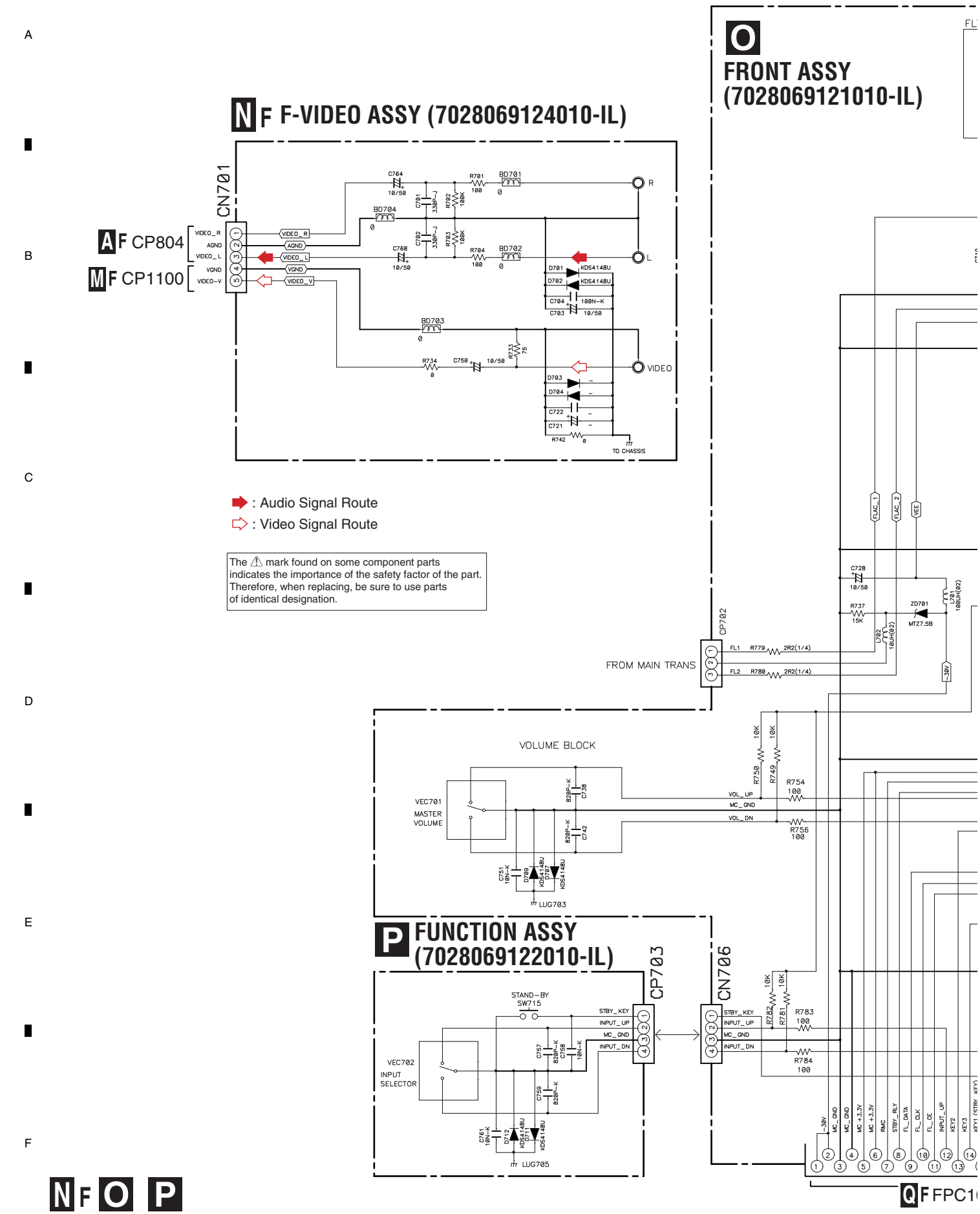
INPUT				OUT PUT	FUNCTION
INH	A	B	C		
H	X	X	X	X	X
L	L	L	L	Y0	VIDEO
L	H	L	L	Y1	DVD
L	L	H	L	Y2	TV/SAT
L	H	H	L	Y3	BD
L	L	L	H	Y4	DVR/VCR
L	H	L	H	Y5	-
L	L	H	H	Y6	-
L	H	H	H	Y7	-

COMPONENT NJM2586M

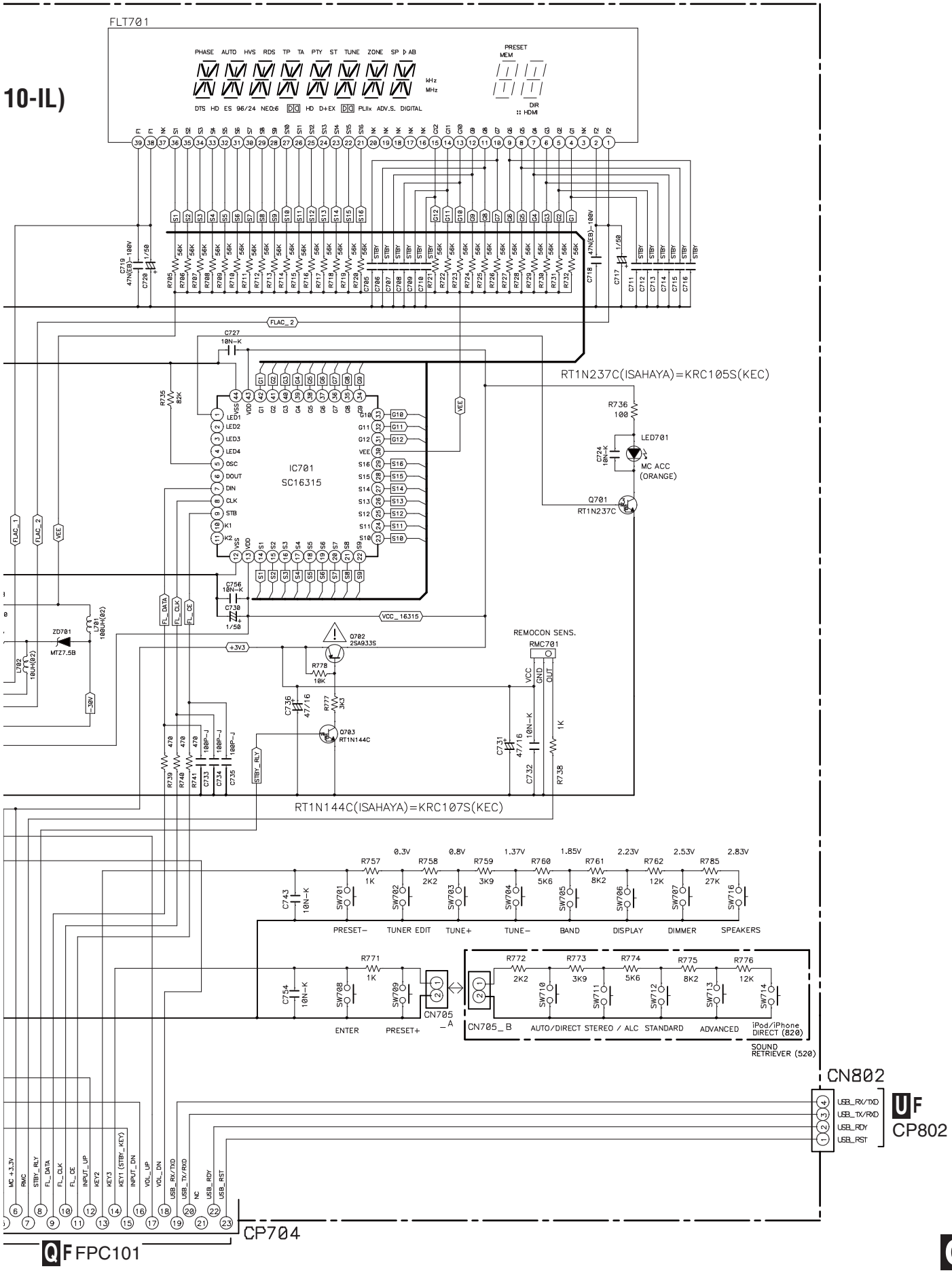
FUNC	SW1	SW2
OSD	L	L/H
IN1	H	L
IN2	H	H


CP1003
20010WS-10
S1/2F CN703
TO HDMI B'D
Y
GNDV
PB
GNDV
PR
GNDV
CVBS
VIDEO+5V
COMP_DET
CVBS_DET
VIDEO:2V
Y_OUT
CB_OUT
CR_OUT
MONITOR_OUT
CVBS INPUT SW
(BU4051BCF)
INPUT
A B C
OUT PUT
FUNCTION
X X X X
L L L Y0 VIDEO
H L L Y1 DVD
L H L Y2 TV/SAT
H H L Y3 BD
L L H Y4 DVR/VCR
H L H Y5 -
L H H Y6 -
H H H Y7 -
DVR-REC
CONTROL-C
OUT
MUTE
AREA OPTION
XTAL1002
XTAL1001
14M32(18P)
IC1002
LC74781
* SEPOUT
LOW : PAL, HI : NTSC
(DEFAULT : LOW)
OSD_OUT
VIDEO_IN
OSD_CLK
OSD_DATA
OSD_CE
NF CN701
FROM F-VIDEO B'D
GND
NC
NC
VIDEO
CP1001
ZD1001
5.6V
CN1002
TUC-P05X
NC
VGND
OSD_CLK
OSD_DATA
OSD_CE
QF CP123
TO MAIN B'D
: Video Signal Route
(Y) : Video Signal Route (Y)
(Cb) : Video Signal Route (Cb)
(Cr) : Video Signal Route (Cb)

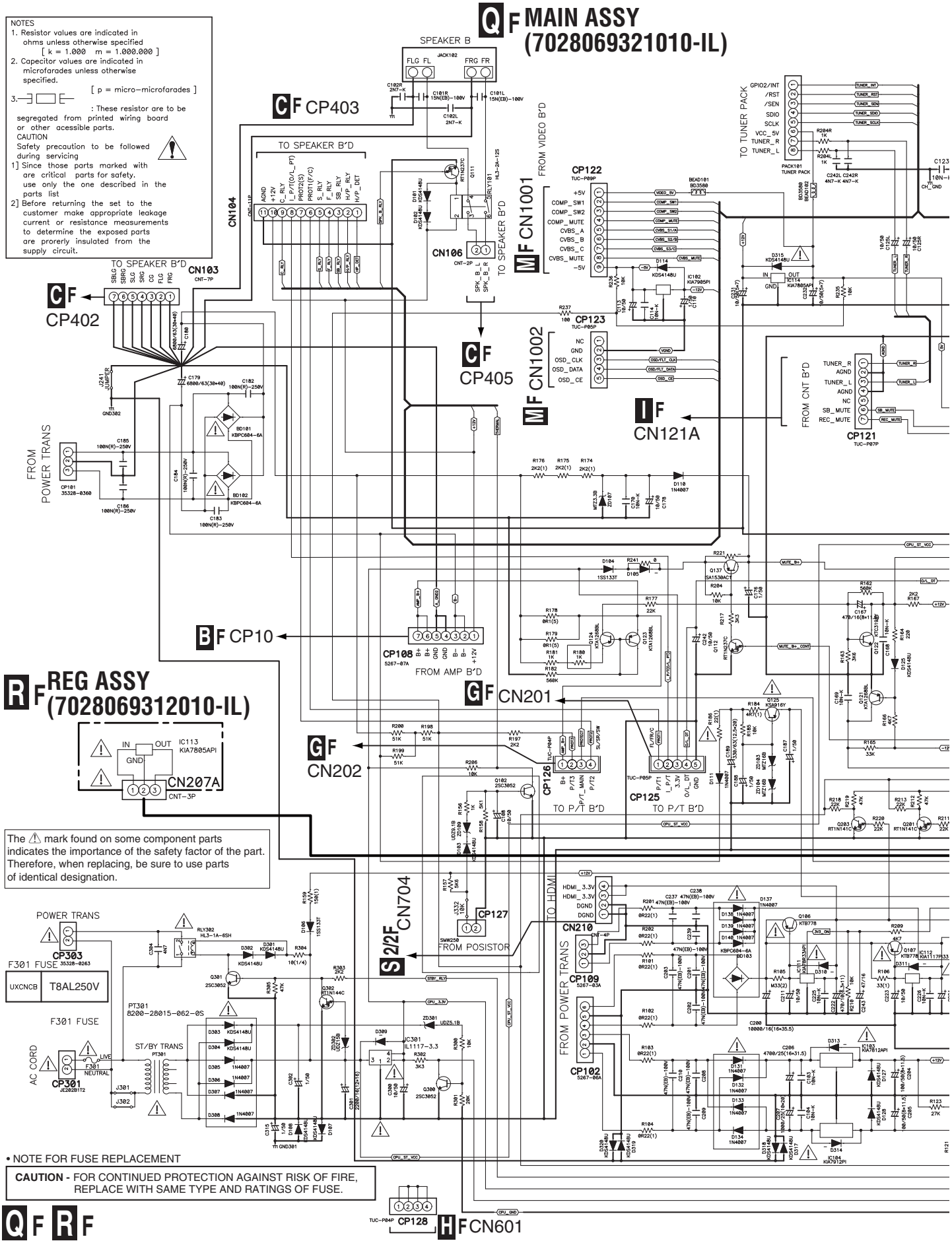
7.6 F-VIDEO, FRONT and FUNCTION ASSYS

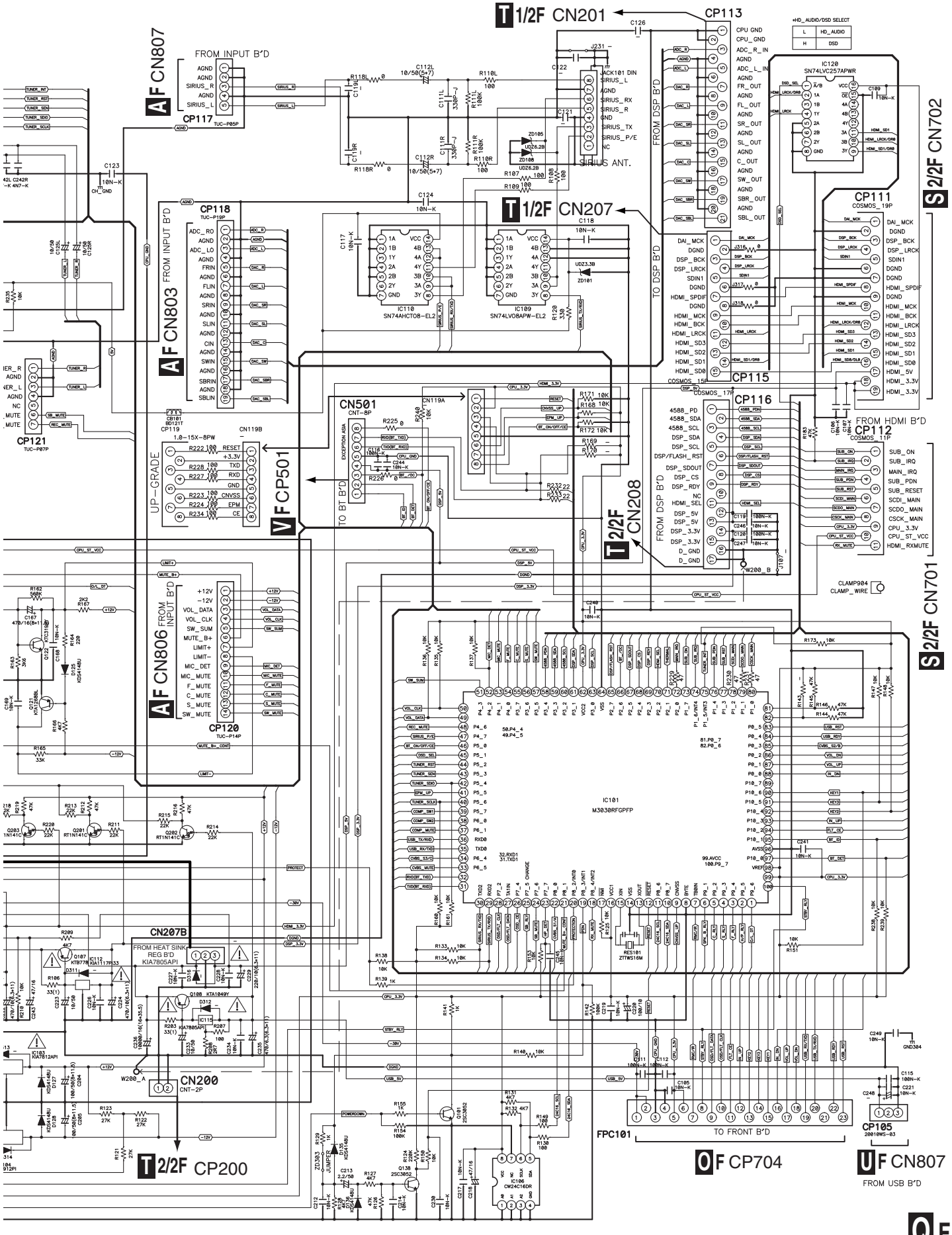


10-IL)

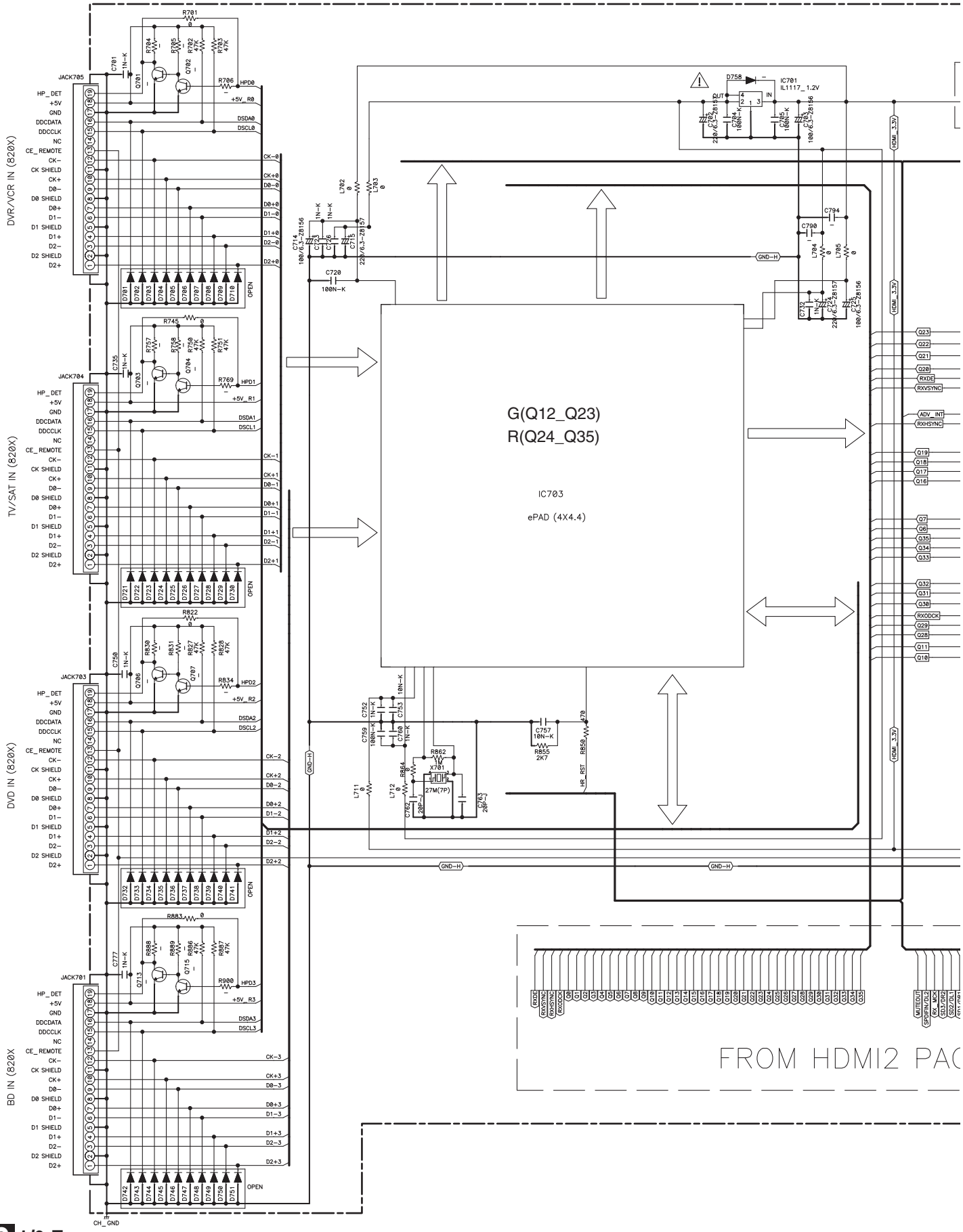

FLT701
PHASE AUTO HVS RDS TP TA PTY ST TUNE ZONE SP ▷ AB
PRESET MEM
kHz MHz
DTS HD ES 96/24 NEO:6 HD D+EX PLIIx ADV.S. DIGITAL
DIR HDMI
IC701 SC16315
LED1 LED2 LED3 LED4 OSC DOUT DIN CLK STB K1 K2
RT1N237C(ISAHAYA)=KRC105S(KEC)
LED701 MC ACC (ORANGE)
Q701 RT1N237C
Q702 2SA933S
Q703 RT1N144C
RT1N144C(ISAHAYA)=KRC107S(KEC)
REMOCON SENS. RMC701 VCC GND OUT
ZD701 MTZ7.5B
L701 100uH(02)
L702 10uH(02)
FLAC_1 FLAC_2 VEE FL_DATA FL_CLK FL_CE VCC_16315 +3V3 -30V STBY_RLY
PRESET− TUNER EDIT TUNE+ TUNE− BAND DISPLAY DIMMER SPEAKERS
ENTER PRESET+
CN705 −A
CN705_B
AUTO/DIRECT STEREO / ALC STANDARD ADVANCED iPod/iPhone DIRECT (820) SOUND RETRIEVER (520)
CN802
USB_RX/TXD USB_TX/RXD USB_RDY USB_RST
UF CP802
MC +3.3V RMC STBY_RLY FL_DATA FL_CLK FL_CE INPUT_UP KEY2 KEY3 KEY1 (STBY_KEY) INPUT_DN VOL_UP VOL_DN USB_RX/TXD USB_TX/RXD NC USB_RDY USB_RST
CP704
QF FPC101

7.7 MAIN and REG ASSYS

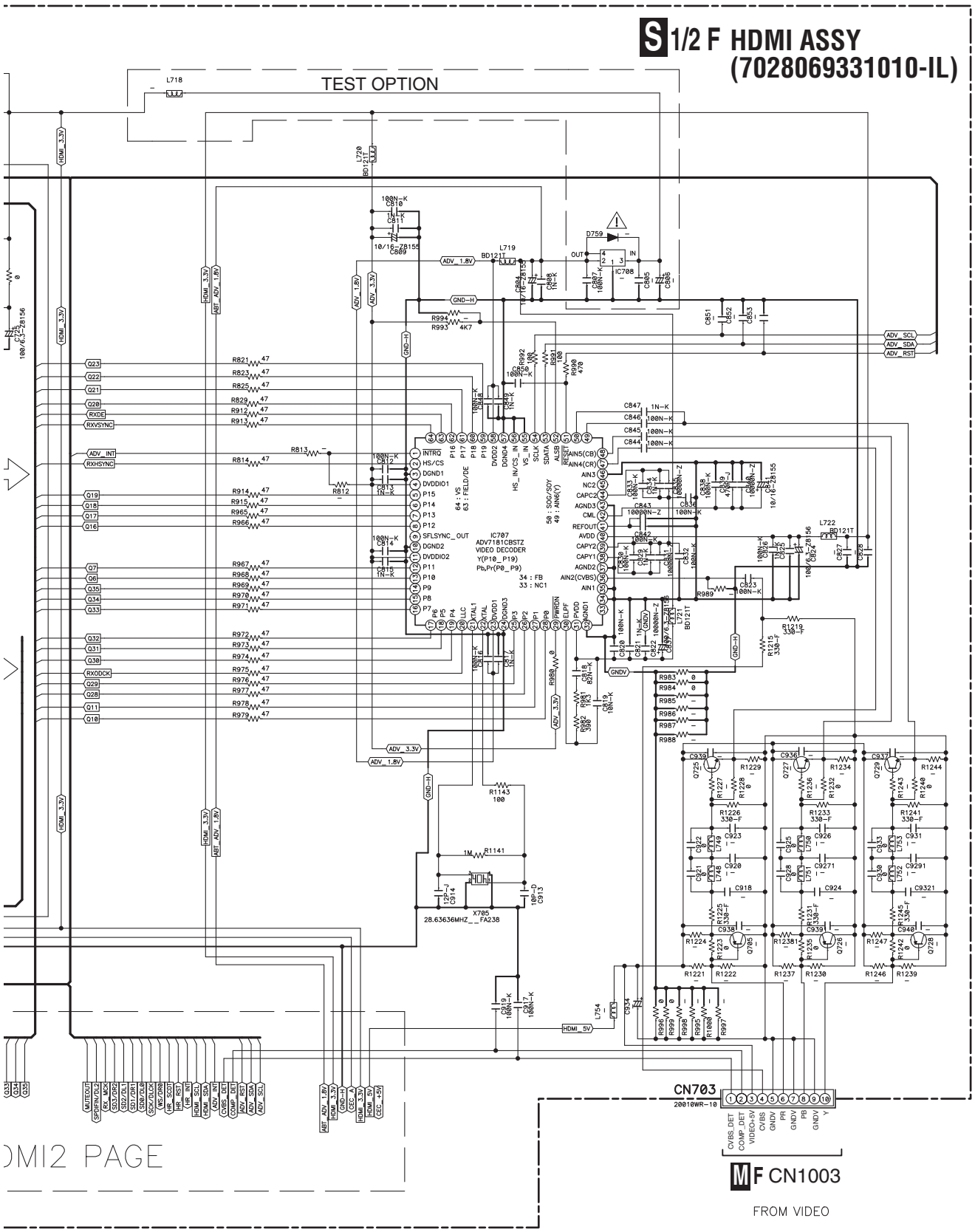



T 1/2F CN201
CP113
AF CN807
FROM INPUT B'D
CP117
TUC-P05P
SIRIUS ANT.
T 1/2F CN207
AF CN803 FROM INPUT B'D
CP118
TUC-P19P
IC110
SN74AHCT08-EL2
IC109
SN74LV08APW-EL2
TO DSP B'D
FROM DSP B'D
S 2/2F CN702
IC120
SN74LVC257APWR
CP111
COSMOS_19P
CP115
COSMOS_15P
CP116
COSMOS_17P
CP112
COSMOS_11P
FROM HDMI B'D
CN501
CNT-8P
TO BT B'D
CN119A
CN119B
CB101
BD1211
CP119
1.0-15X-8PW
UP-GRADE
VF CP501
CP121
TUC-P07P
T 2/2F CN208
S 2/2F CN701
CLAMP904
CLAMP_WIRE
AF CN806 FROM INPUT B'D
CP120
TUC-P14P
IC101
M3030RFGPFP
CN207B
FROM HEAT SINK REG B'D
KIA7805API
CN200
CNT-2P
T 2/2F CP200
FPC101
TO FRONT B'D
OF CP704
UF CN807
FROM USB B'D
CP105
20010WS-03
QF
VSX-920-K
37

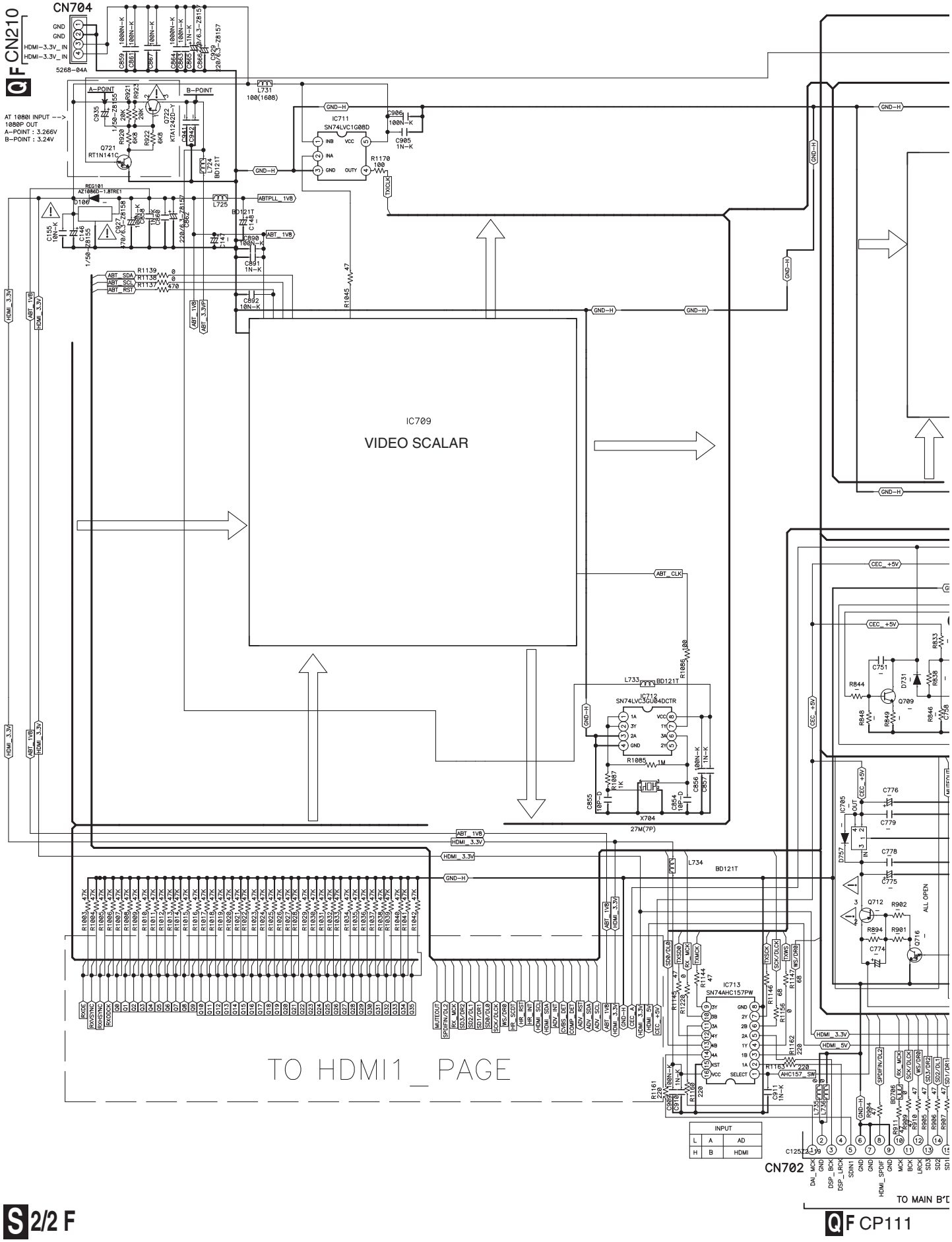
7.8 HDMI ASSY (1/2)



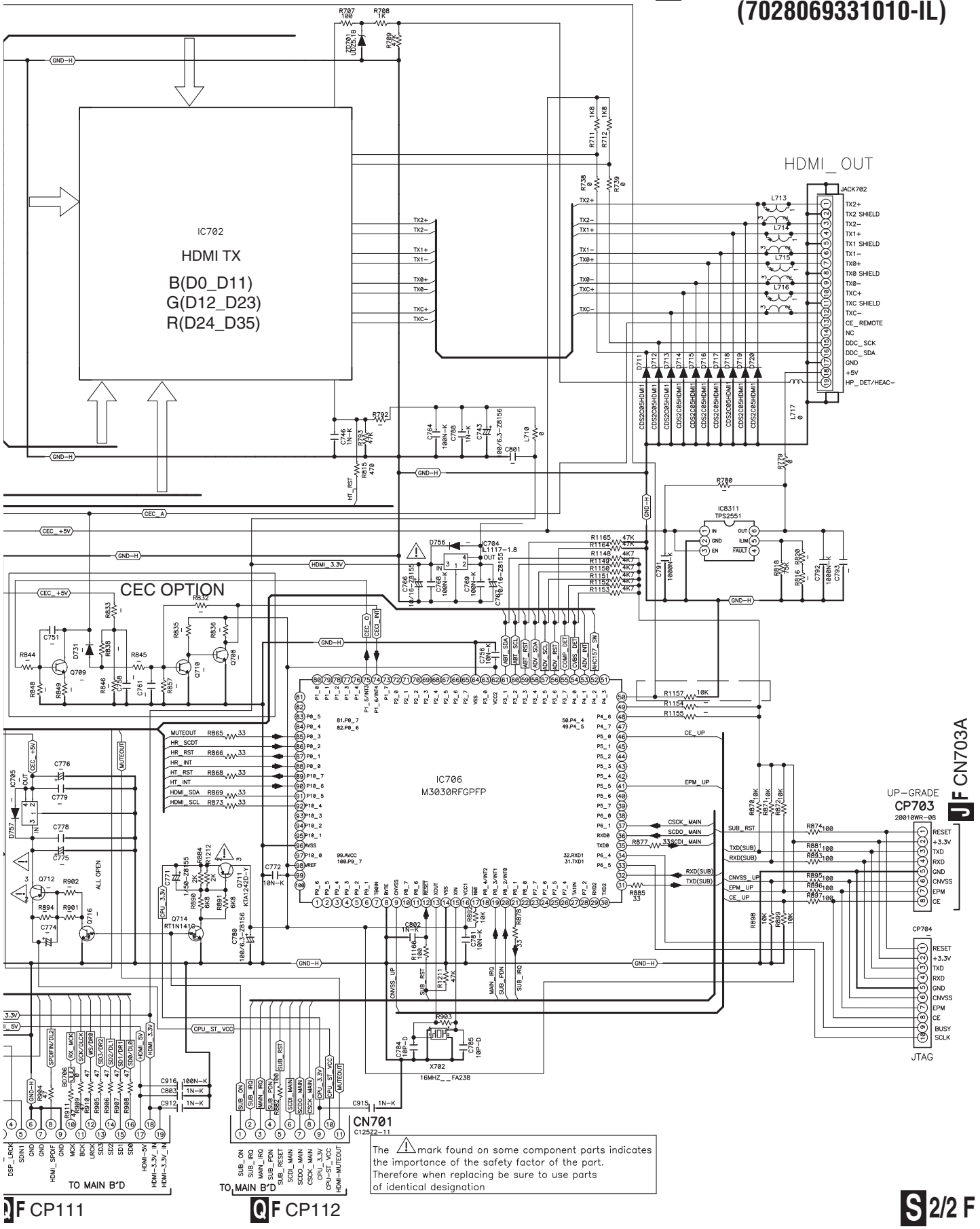
S 1/2 F HDMI ASSY (7028069331010-IL)



7.9 HDMI ASSY (2/2)

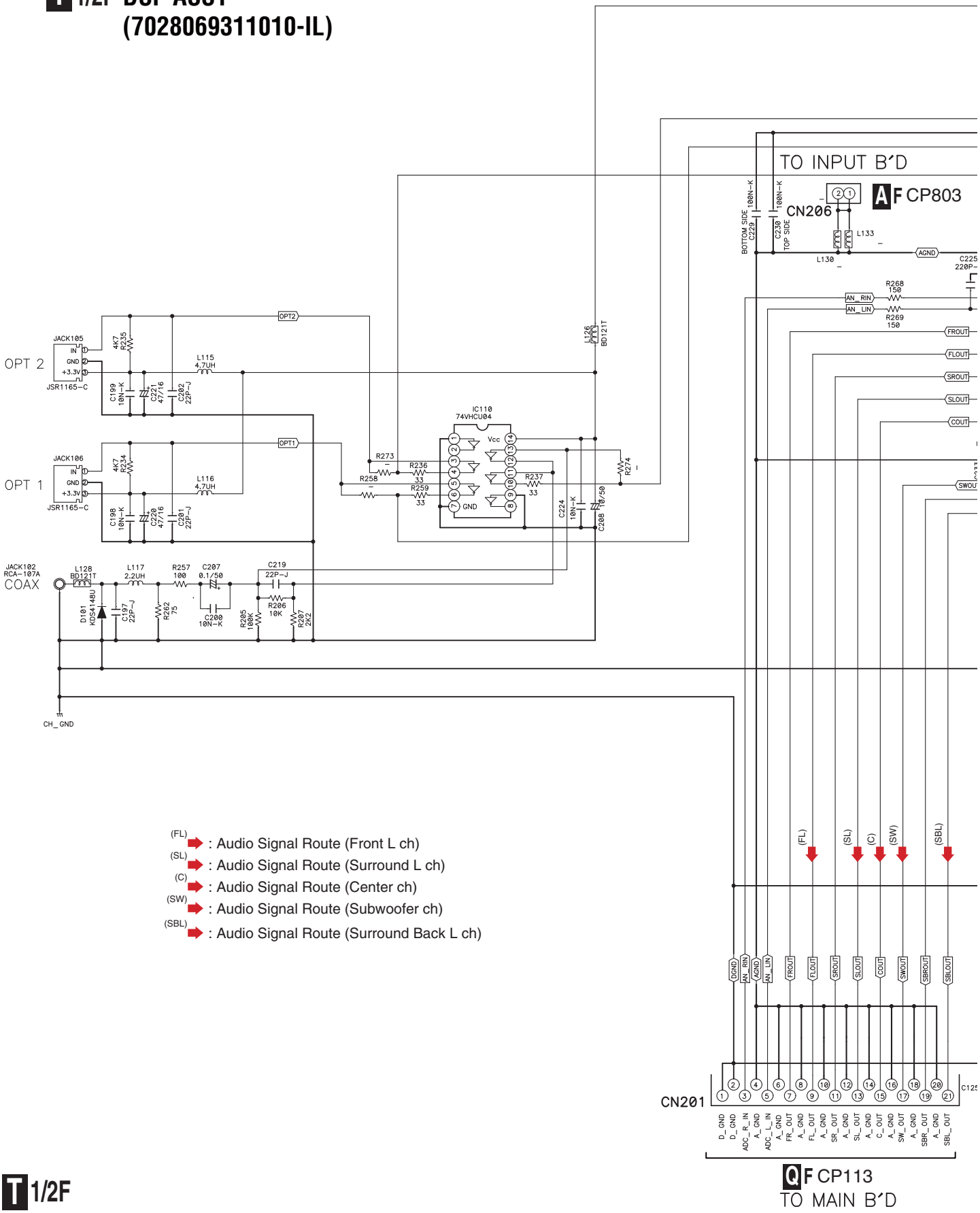


S 2/2 F HDMI ASSY (7028069331010-IL)

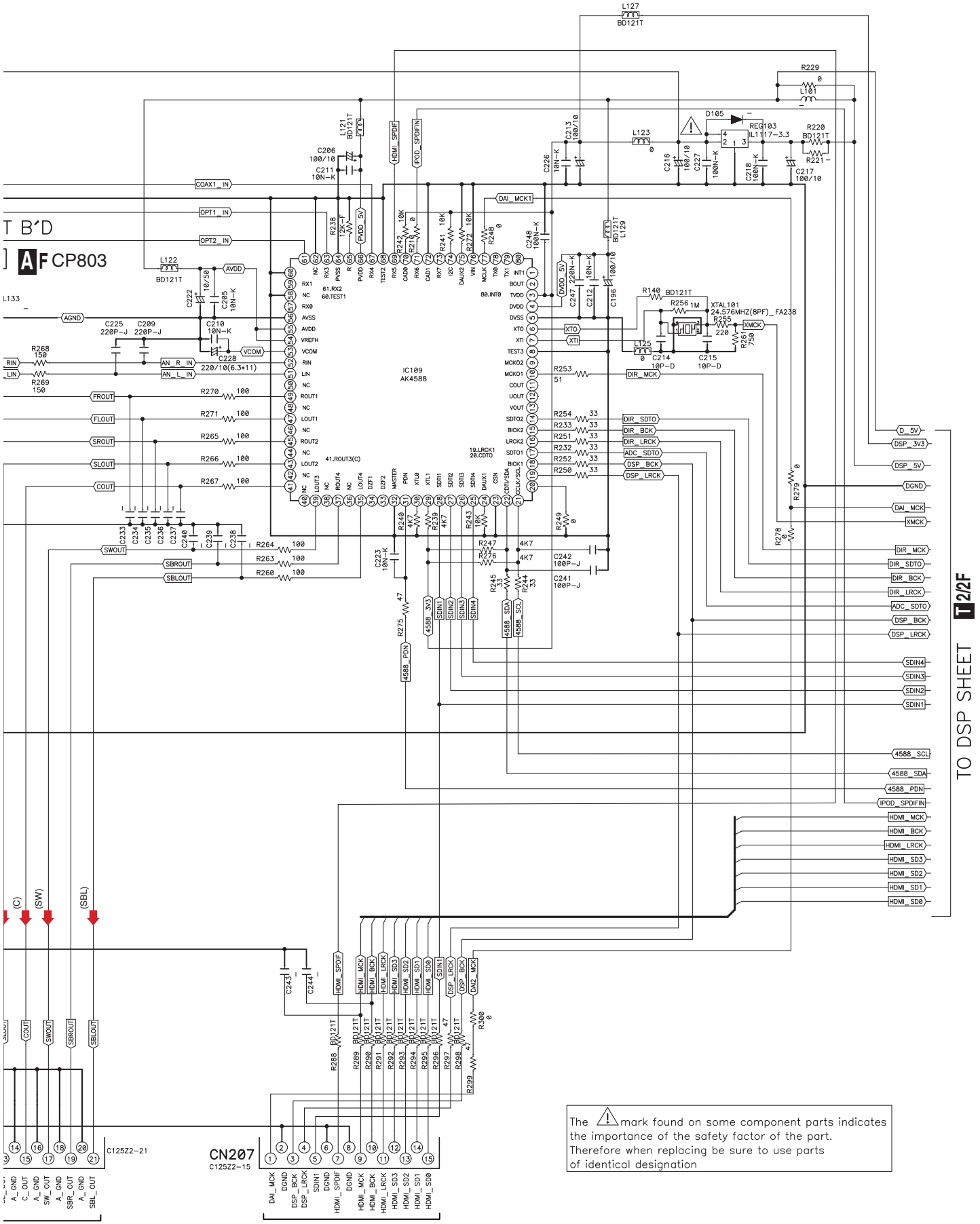


7.10 DSP ASSY (1/2)

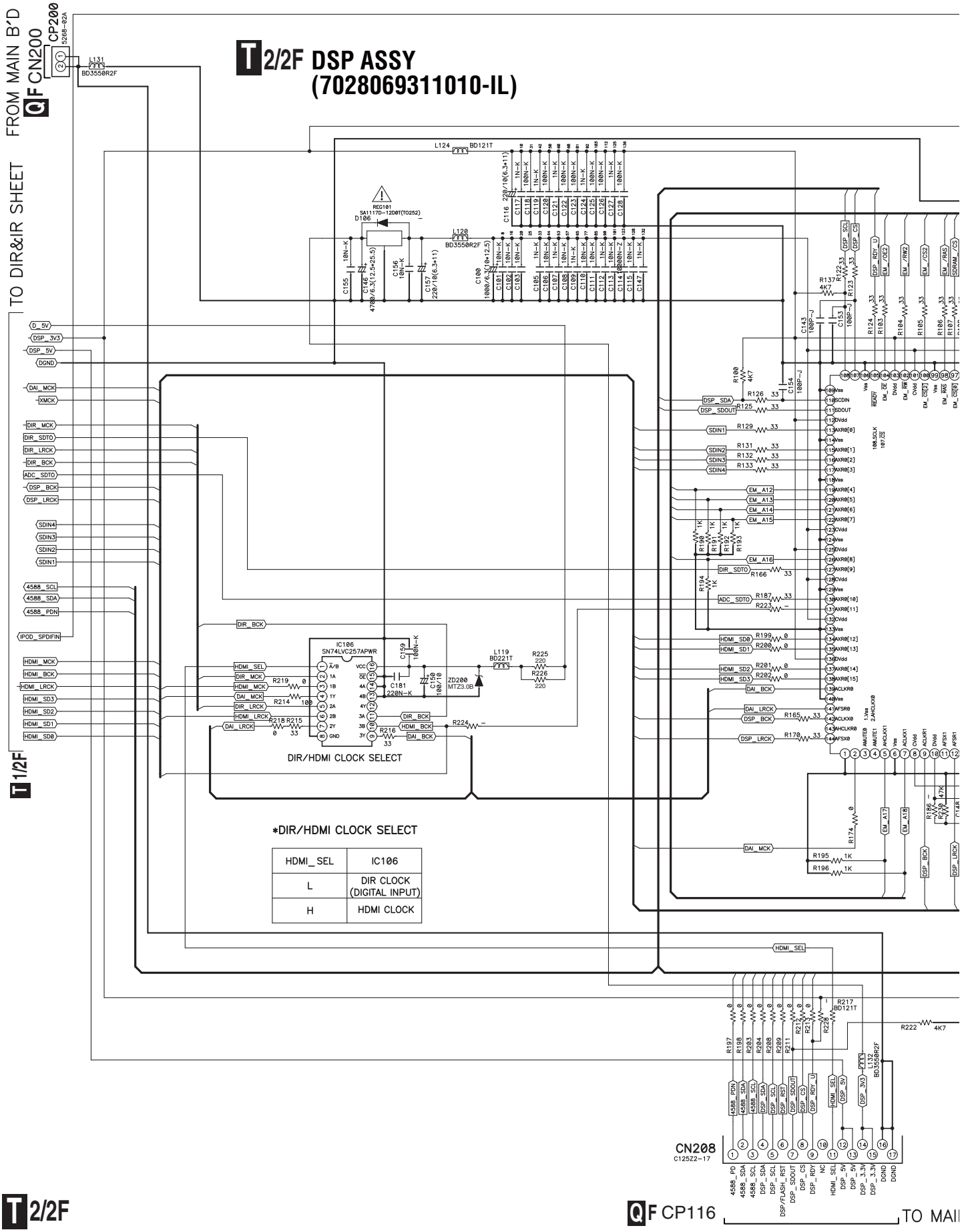
T 1/2F DSP ASSY (7028069311010-IL)

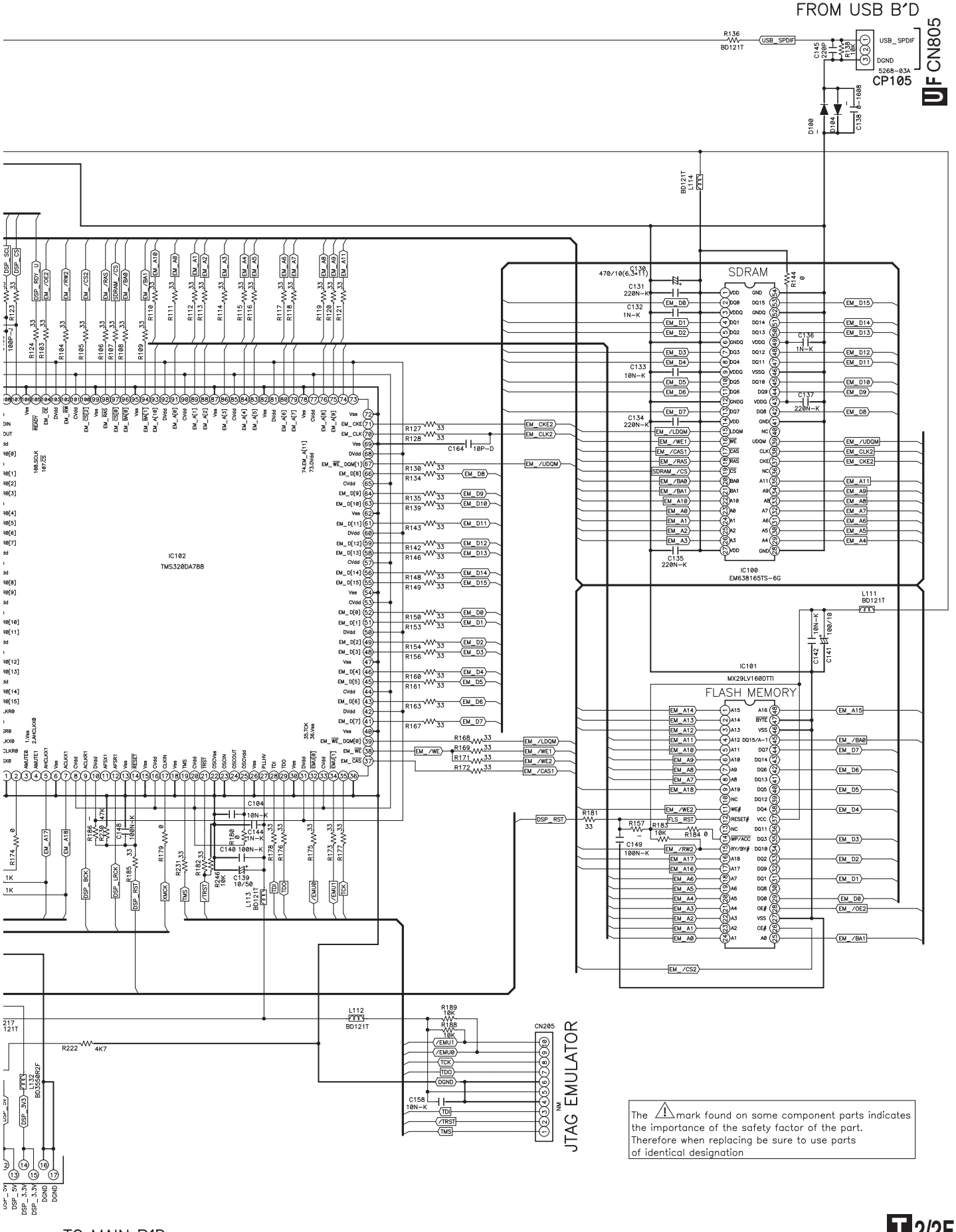


(FL) ➡ : Audio Signal Route (Front L ch)
(SL) ➡ : Audio Signal Route (Surround L ch)
(C) ➡ : Audio Signal Route (Center ch)
(SW) ➡ : Audio Signal Route (Subwoofer ch)
(SBL) ➡ : Audio Signal Route (Surround Back L ch)


IC109
AK4588
CN207
C125Z2-15
C125Z2-21
TO DSP SHEET T2/2F
QF CP115
TO MAIN B'D
T B'D
AF CP803
I3
B'D
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore when replacing be sure to use parts of identical designation

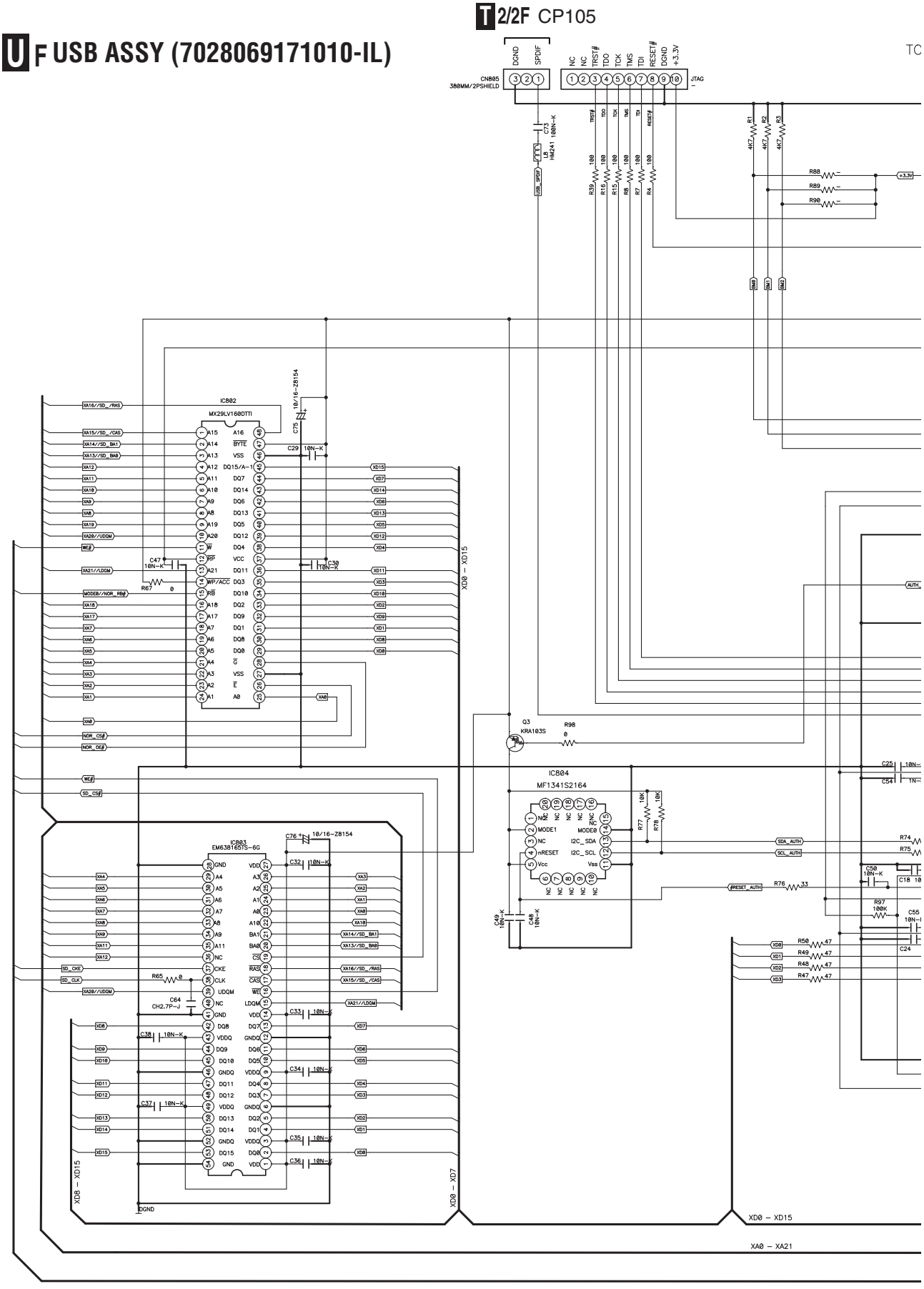
7.11 DSP ASSY (2/2)




FROM USB B'D
CN805
CP105
USB_SPDIF
DGND
SDRAM
IC100
EM638165TS-6G
IC102
TMS320DA788
IC101
MX29LV160DTTI
FLASH MEMORY
JTAG EMULATOR
CN205
TO MAIN B'D
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore when replacing be sure to use parts of identical designation

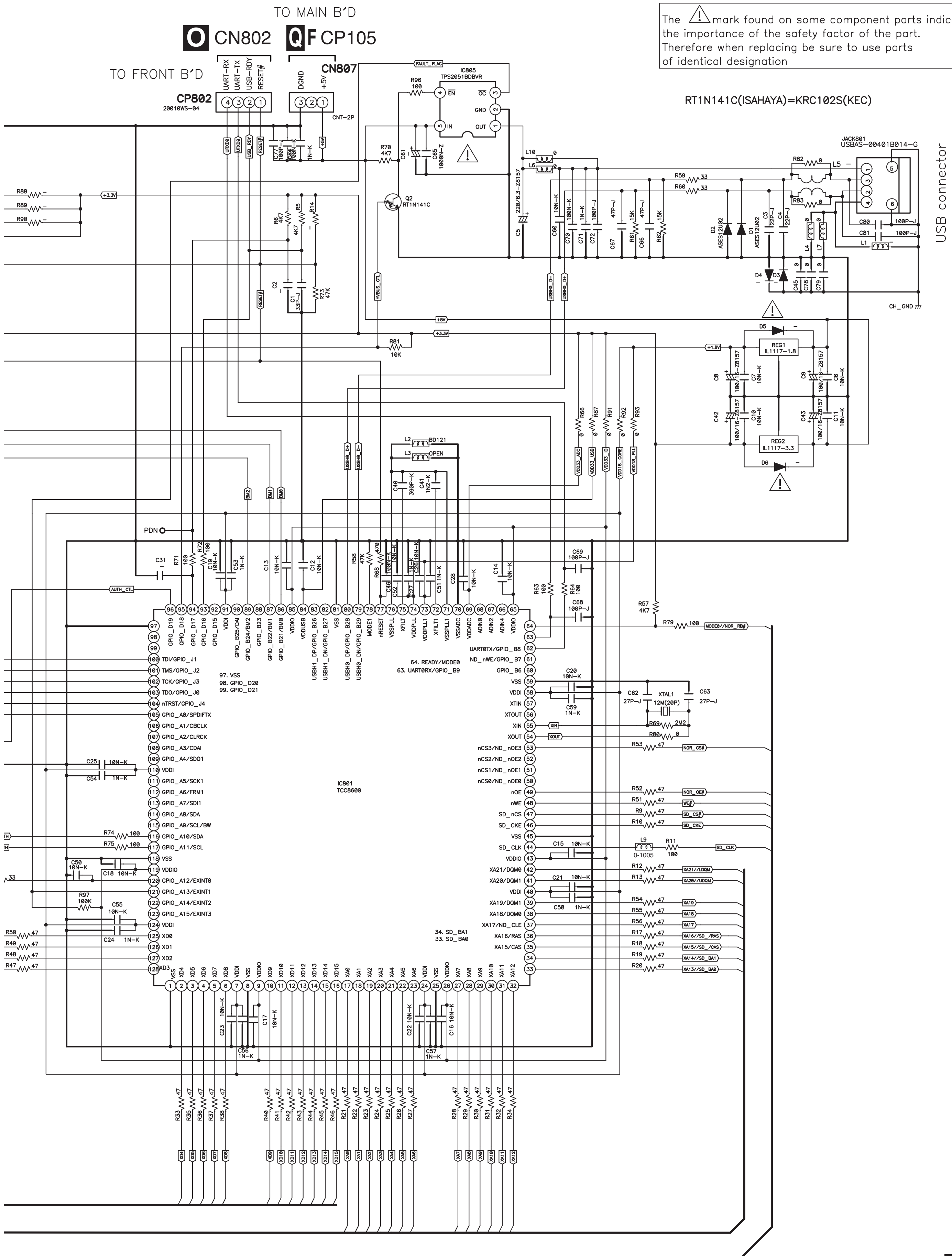
7.12 USB ASSY

UF USB ASSY (7028069171010-IL)



The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore when replacing be sure to use parts of identical designation

RT1N141C(ISAHAYA)=KRC102S(KEC)

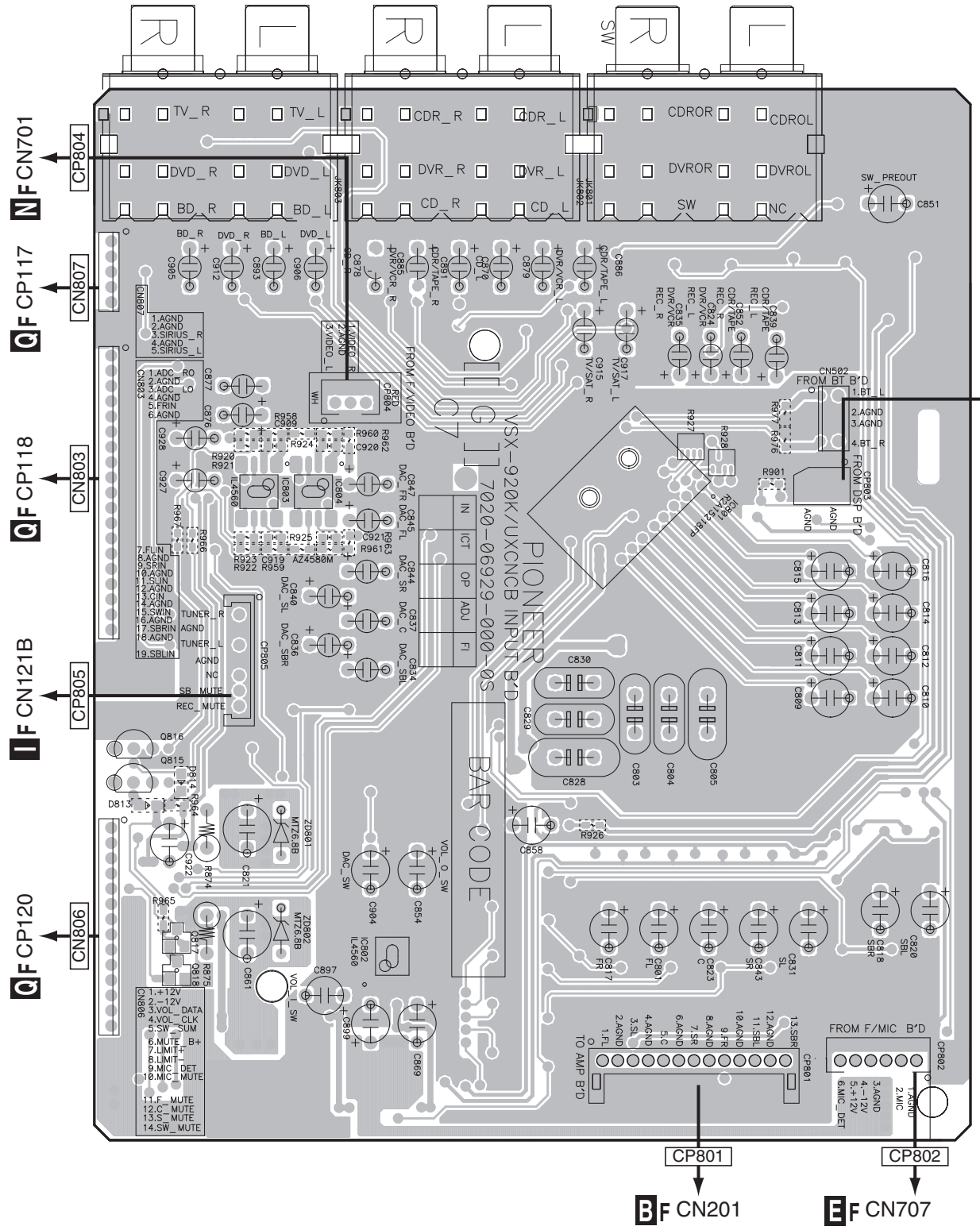


8. PCB CONNECTION DIAGRAM
8.1 INPUT ASSY

SIDE A

SIDE A

A F INPUT ASSY



N F CN701

Q F CP117

Q F CP118

I F CN121B

Q F CP120

V CP502

B F CN201

E F CN707

Q816 Q817 IC803 IC804
Q815 Q818

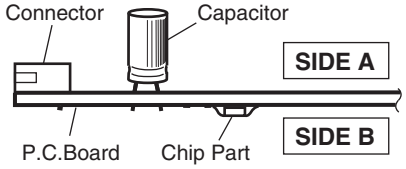
A F

SIDE B

NOTE FOR PCB DIAGRAMS :

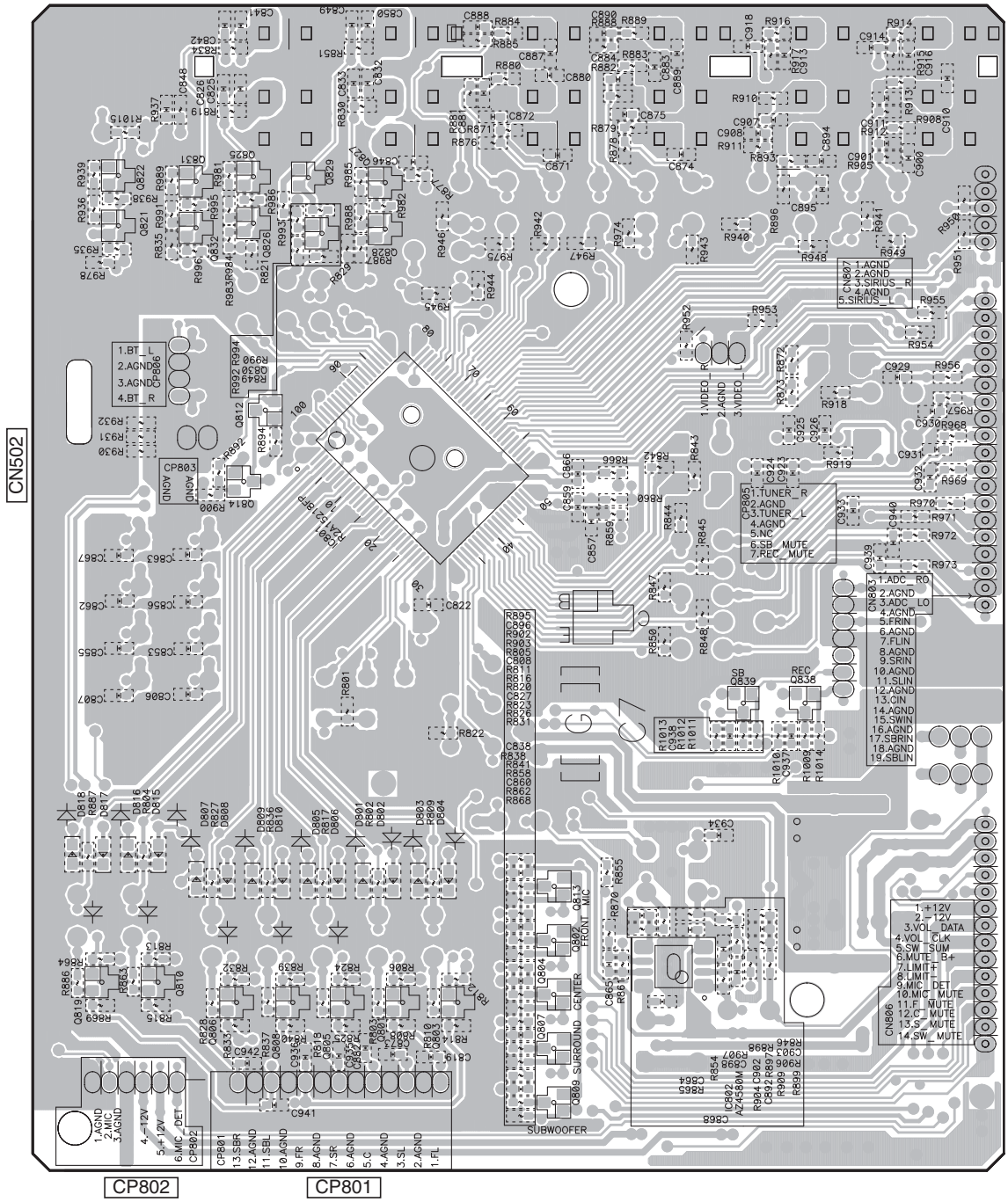
1. The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

2. View point of PCB diagrams.



SIDE B

AF INPUT ASSY



Q822 Q835 Q831 Q825 Q833 Q829 Q827
Q821 Q836 Q832 Q826 Q834 Q830 Q828
Q823 Q824 IC801
Q820 Q819 Q810
Q812 Q814 Q806 Q808 Q805 Q801 Q803 Q811

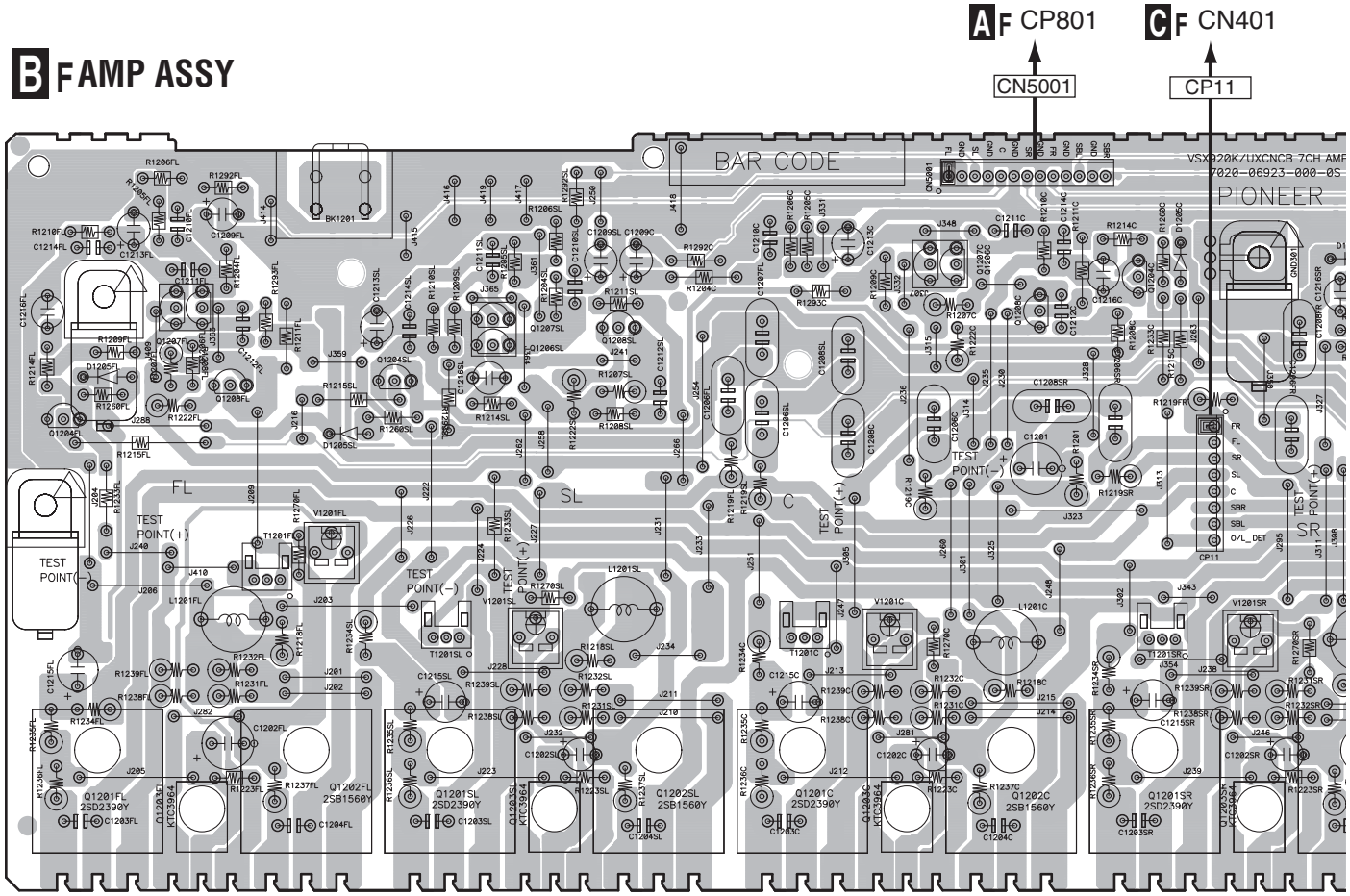
Q813
Q802
Q804
Q807
Q809

Q837 Q813 Q813
IC802

8.2 AMP ASSY

SIDE A

BF AMP ASSY



VR V1201FL V1201SL V1201C V1201SR

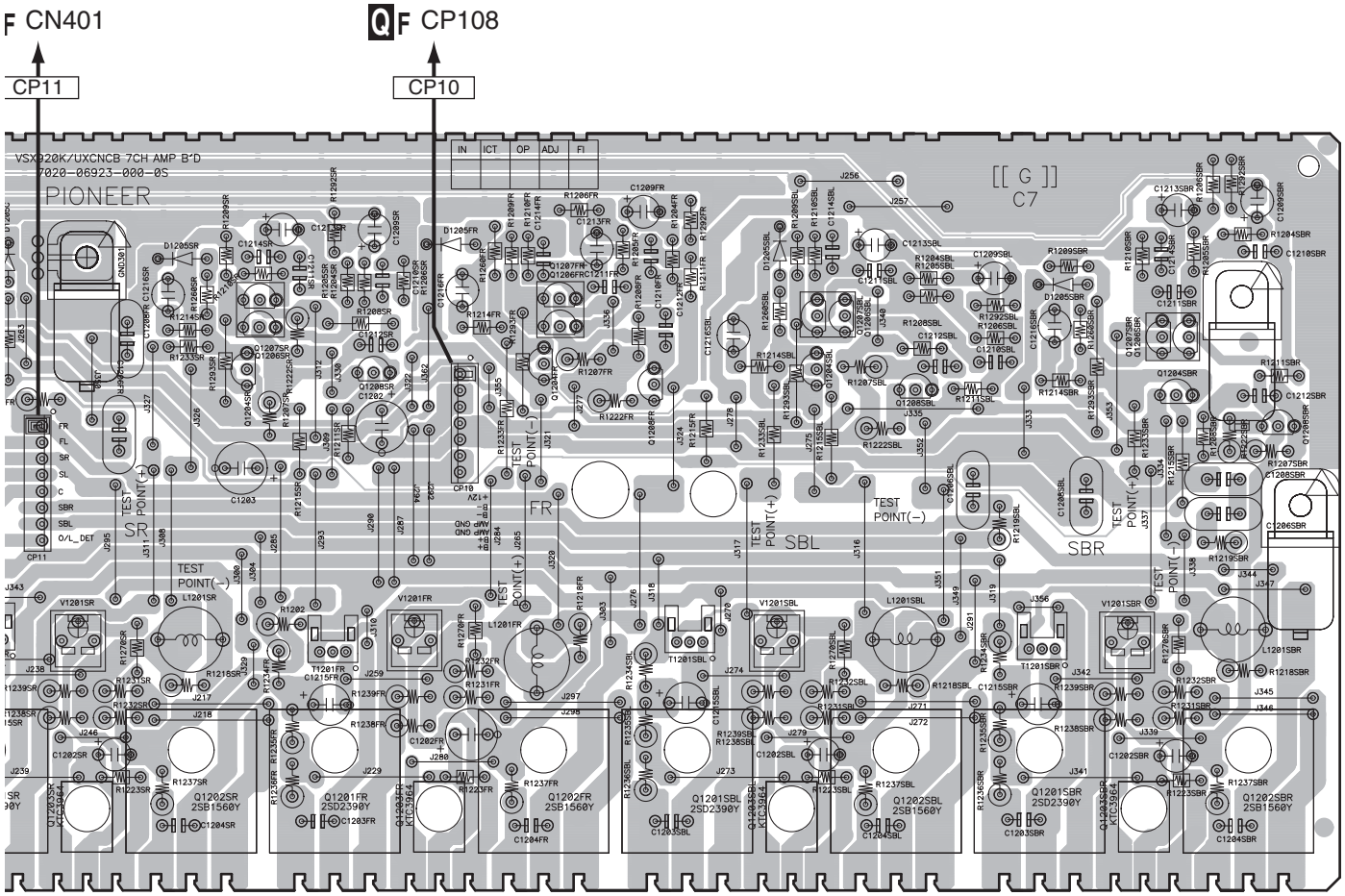
Q Q1207FL Q1206FL Q1207SL Q1208SL Q1207C Q1206C Q1204C

Q1204FL Q1208FL Q1204SL Q1206SL Q1208C

Q1201FL Q1203FL Q1202FL Q1201SL Q1203SL Q1202SL Q1201C Q1203C Q1202C Q1201SR Q1203SR Q1

BF

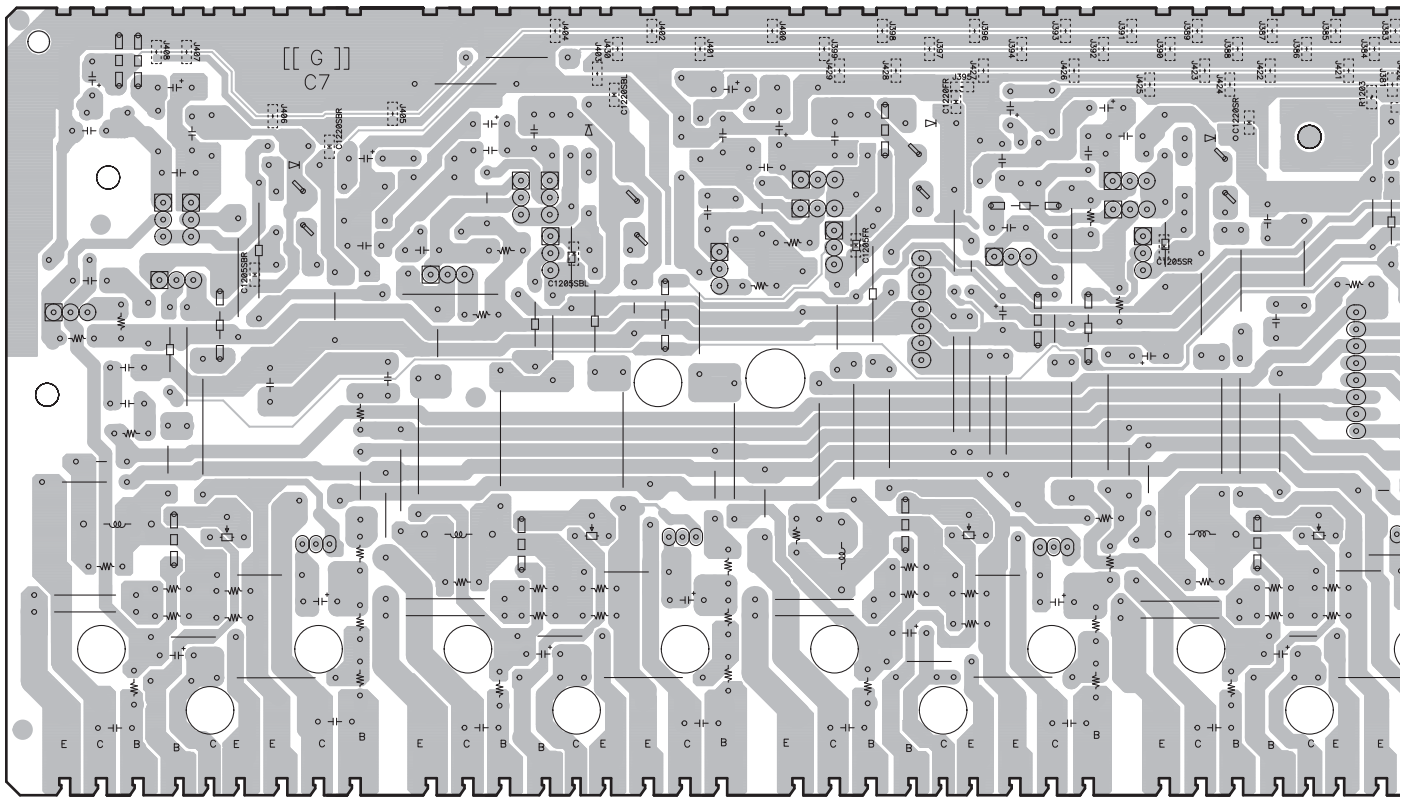
SIDE A


F CN401
QF CP108
CP11
CP10
VSX920K/UXCNCB 7CH AMP B'D
7020-06923-000-0S
PIONEER
IN ICT OP ADJ FI
[[G]]
C7
TEST POINT(+)
TEST POINT(-)
FR
SR
SBL
SBR
V1201SR
V1201FR
V1201SBL
V1201SBR
Q1207SR
Q1206SR
Q1207FR
Q1206FR
Q1207SBL Q1206SBL
Q1207SBR Q1206SBR
Q1204SR Q1208SR Q1204FR Q1208FR Q1204SBL Q1208SBL Q1204SBR Q1208SBR
Q1203SR Q1202SR Q1201FR Q1203FR Q1202FR Q1201SBL Q1203SBL Q1202SBL Q1201SBR Q1203SBR Q1202SBR
2SB1560Y
2SD2390Y

SIDE B

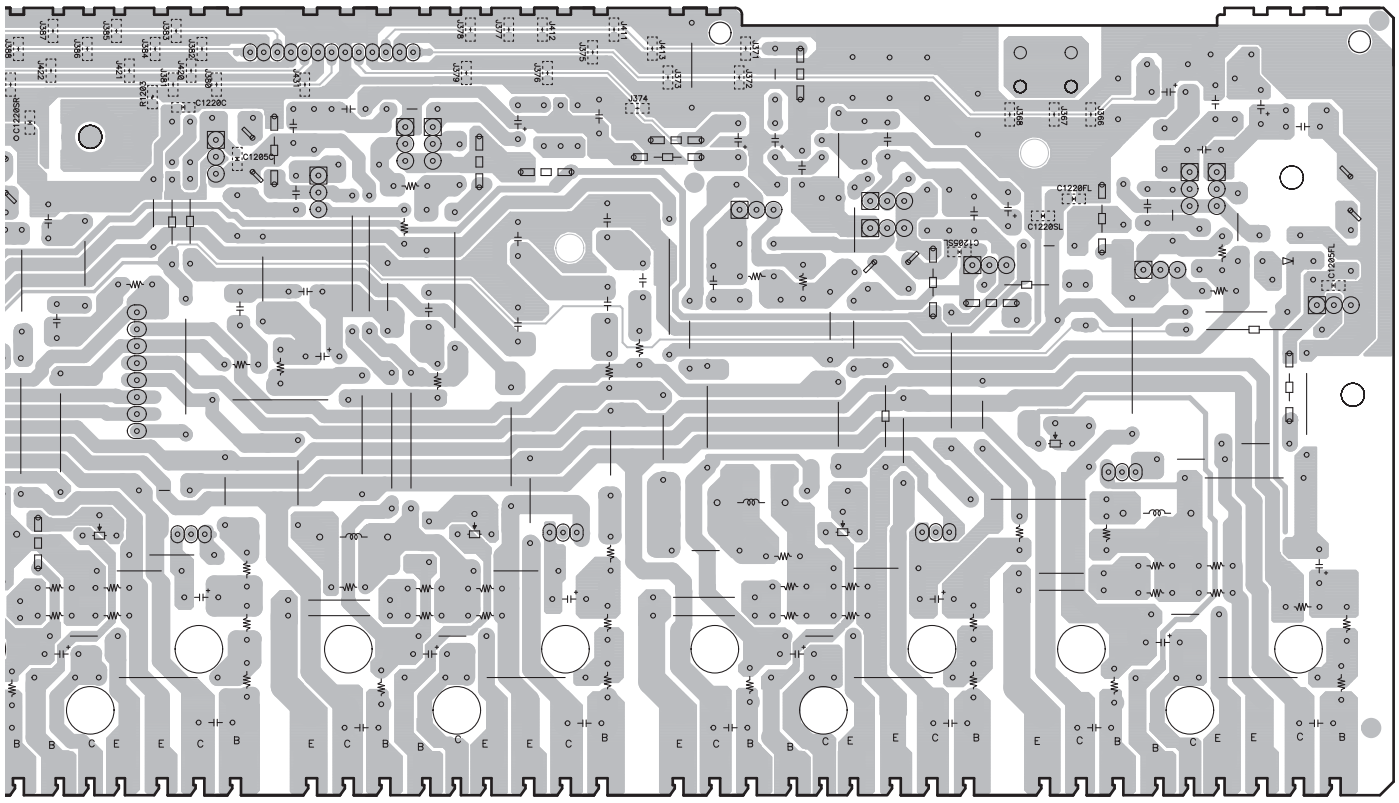
B F AMP ASSY

CP10 CP11



SIDE B

CP11 CN5001

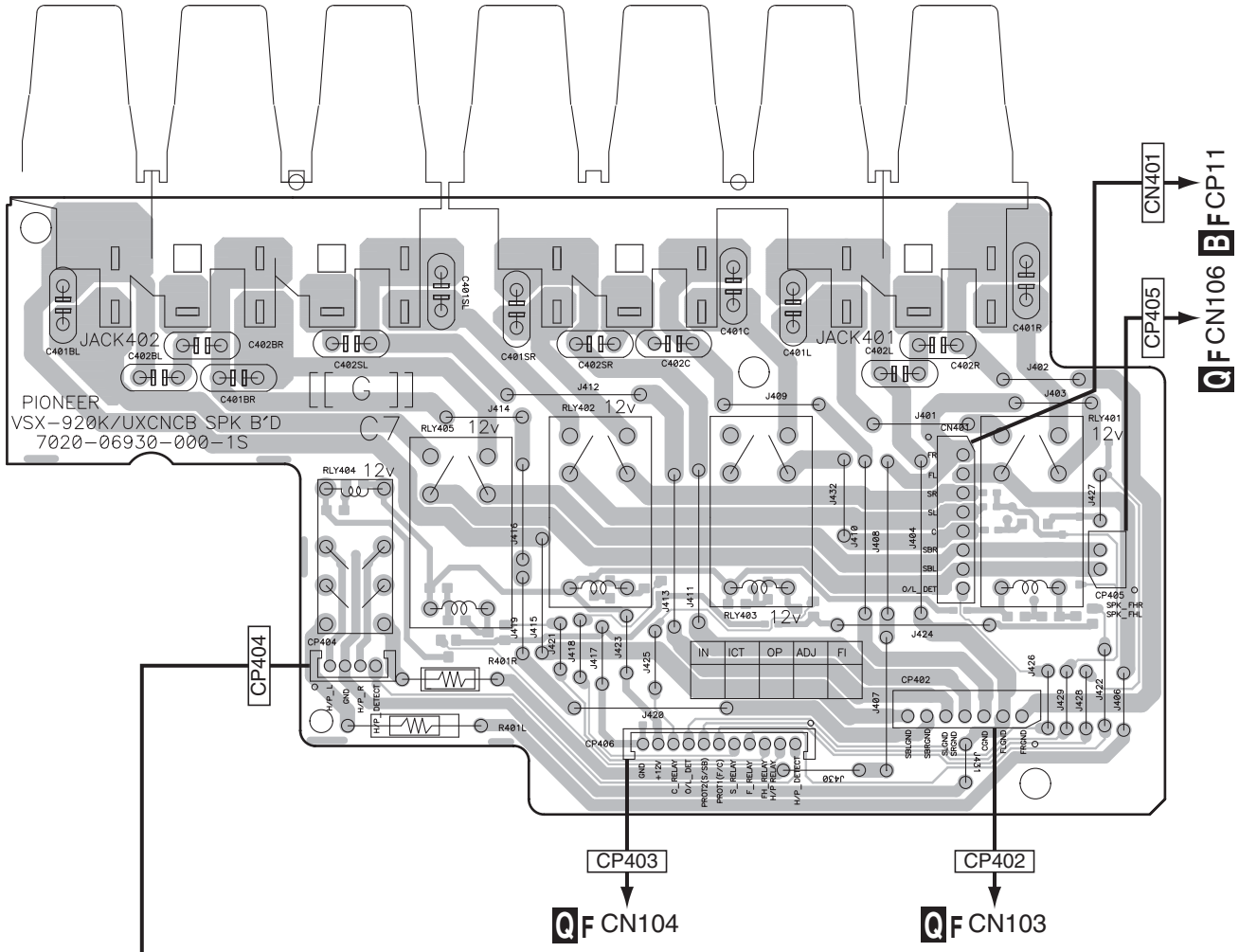


8.3 SPEAKER, HEADPHONE and MIC ASSYS

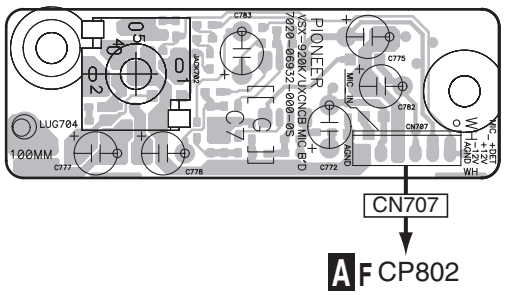
SIDE A

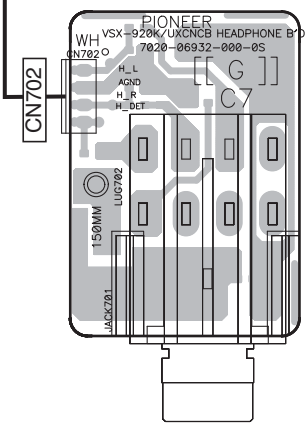
SIDE A

C F SPEAKER ASSY



E F MIC ASSY





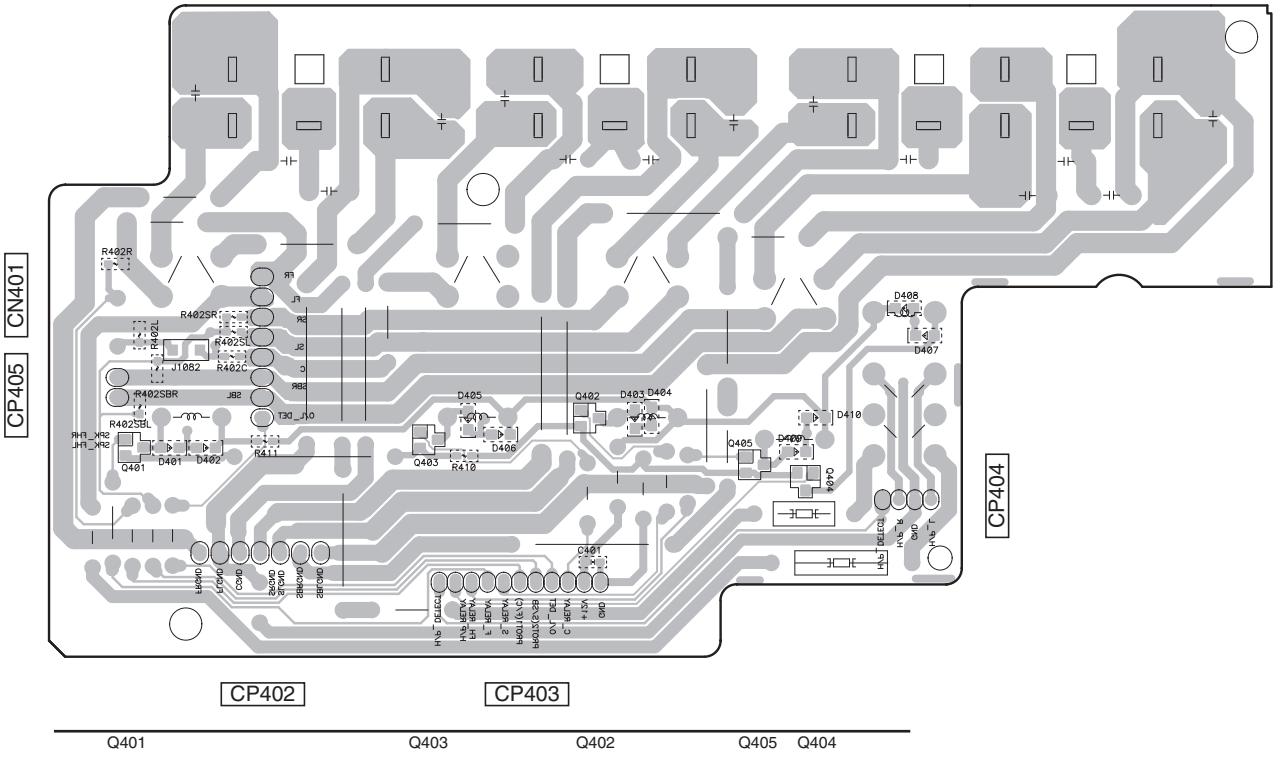
D F HEADPHONE ASSY

C F D F E F

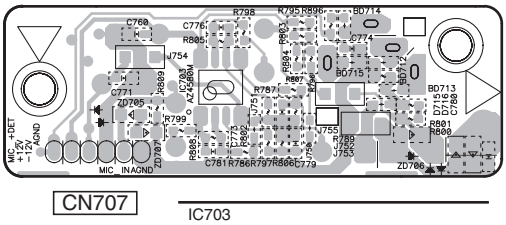
SIDE B

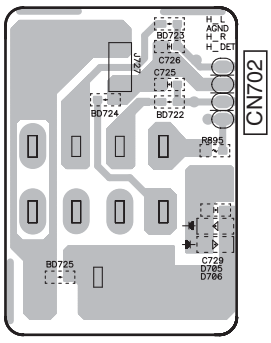
SIDE B

C F SPEAKER ASSY



E F MIC ASSY





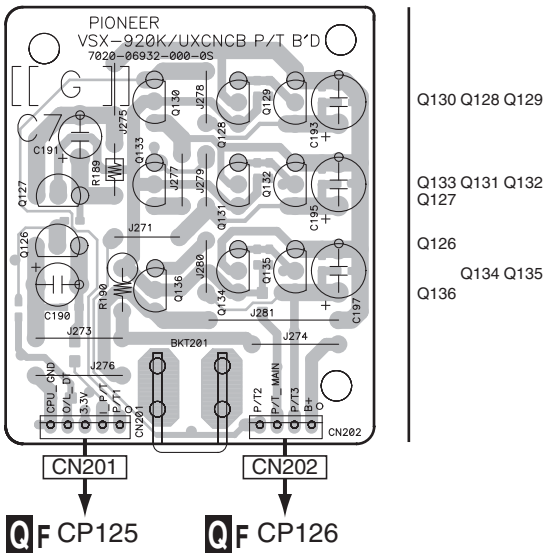
D F HEADPHONE ASSY

8.4 PT, HP_GUIDE, CNT1, CNT2, GUIDE_L and GUIDE_R ASSYS

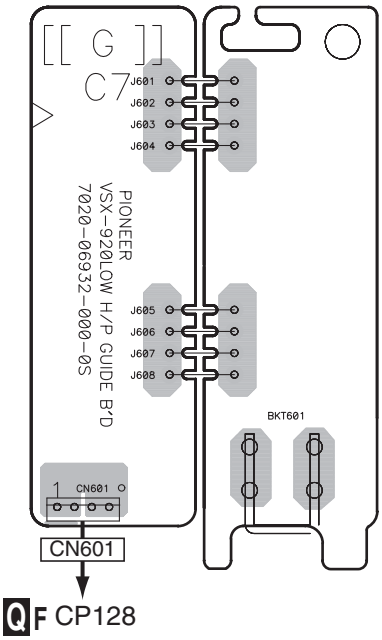
SIDE A

SIDE A

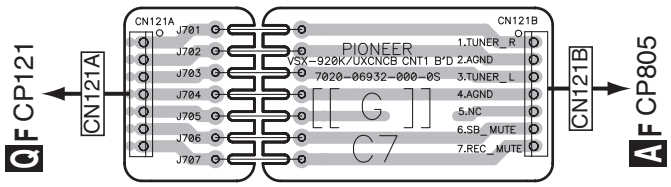
G F PT ASSY



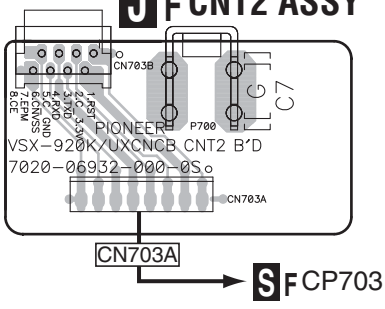
H F HP_GUIDE ASSY



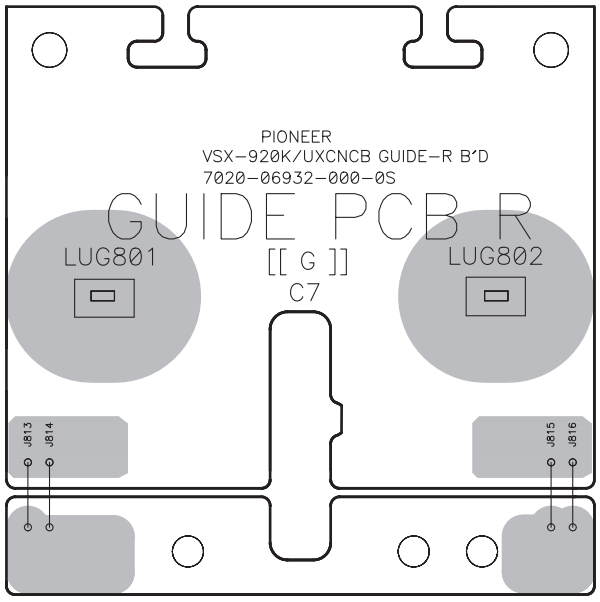
I F CNT1 ASSY



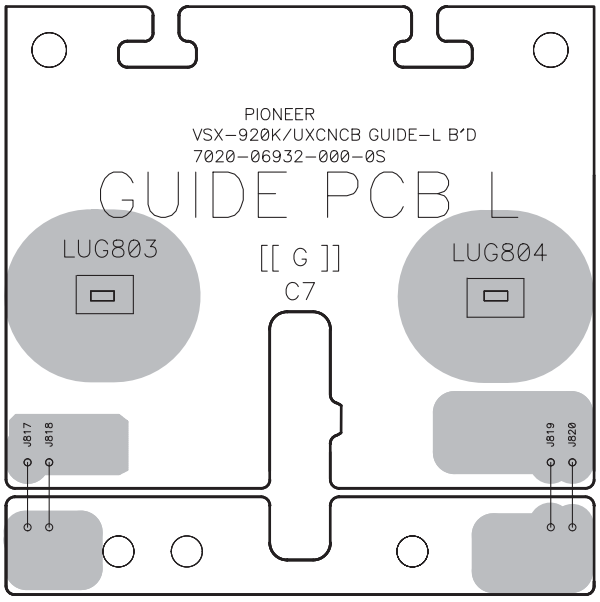
J F CNT2 ASSY



L F GUIDE_R ASSY



K F GUIDE_L ASSY

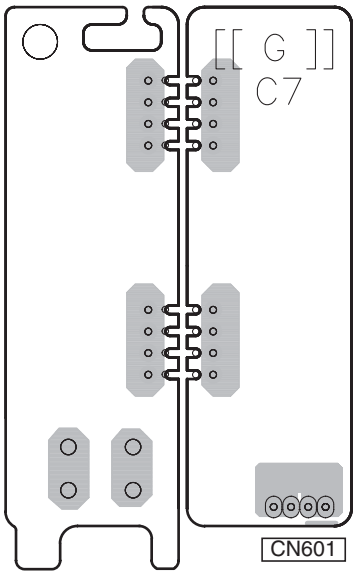


G F H F I F J F K F L F

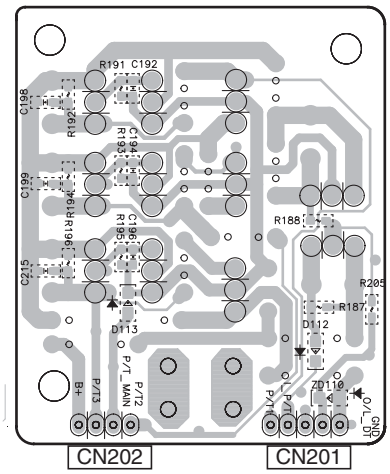
SIDE B

SIDE B

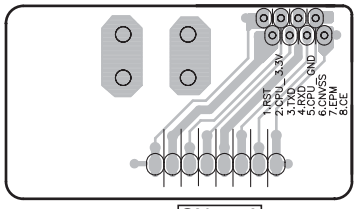
H F HP_GUIDE ASSY



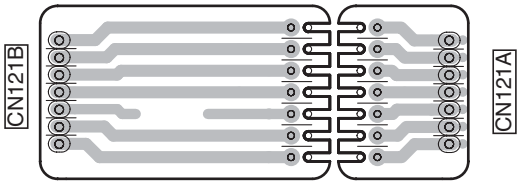
G F PT ASSY



J F CNT2 ASSY

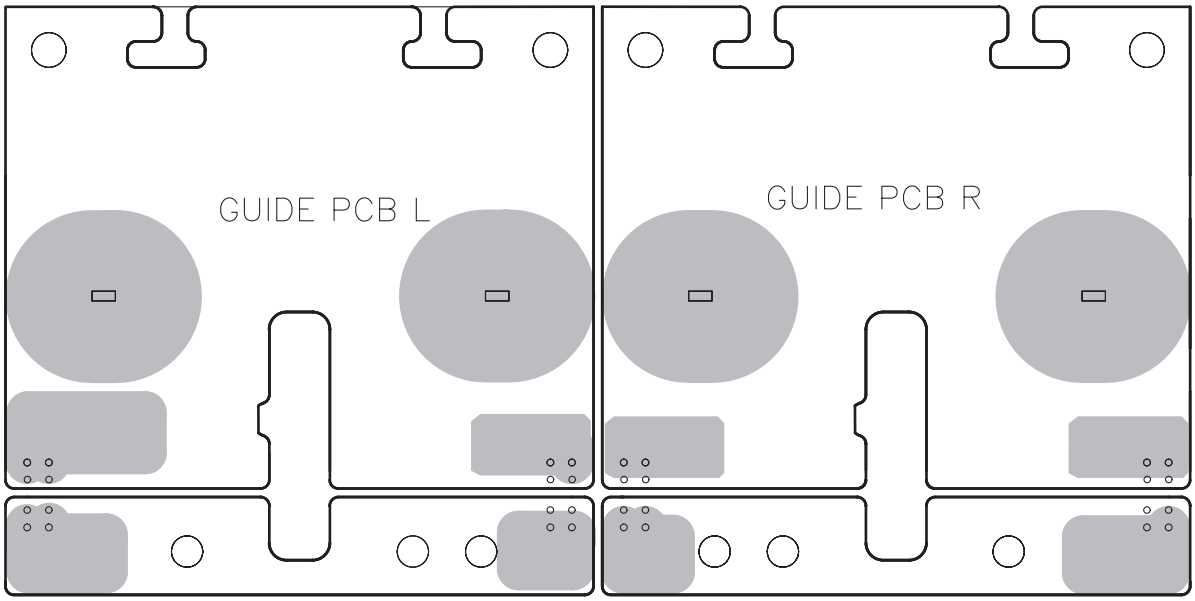


I F CNT1 ASSY



K F GUIDE_L ASSY

L F GUIDE_R ASSY



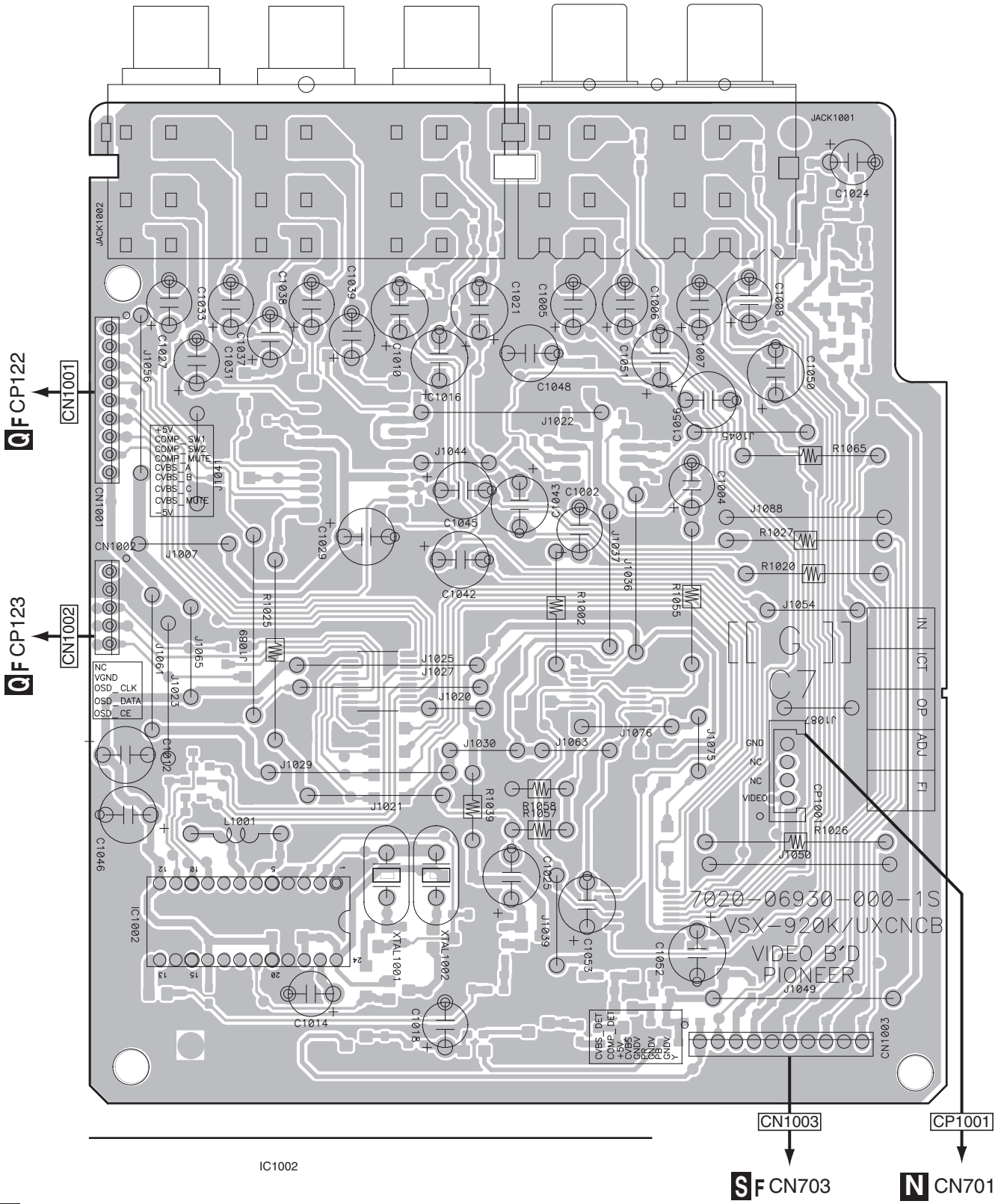
G F H F I F J F K F L F

8.5 VIDEO ASSY

SIDE A

SIDE A

MF VIDEO ASSY



QF CP122 — CN1001

QF CP123 — CN1002

IC1002

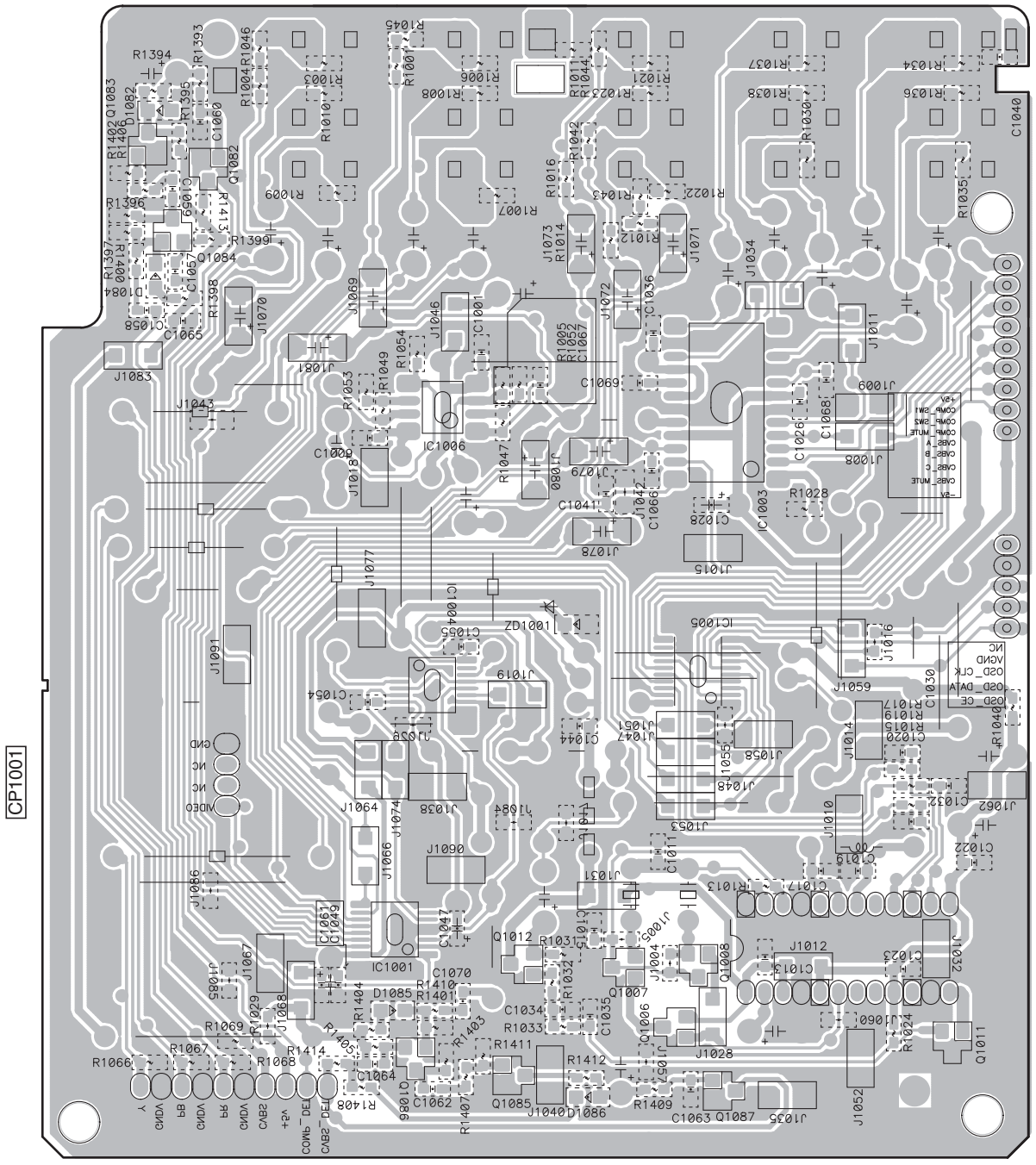
CN1003 → SF CN703

CP1001 → N CN701

SIDE B

SIDE B

M F VIDEO ASSY

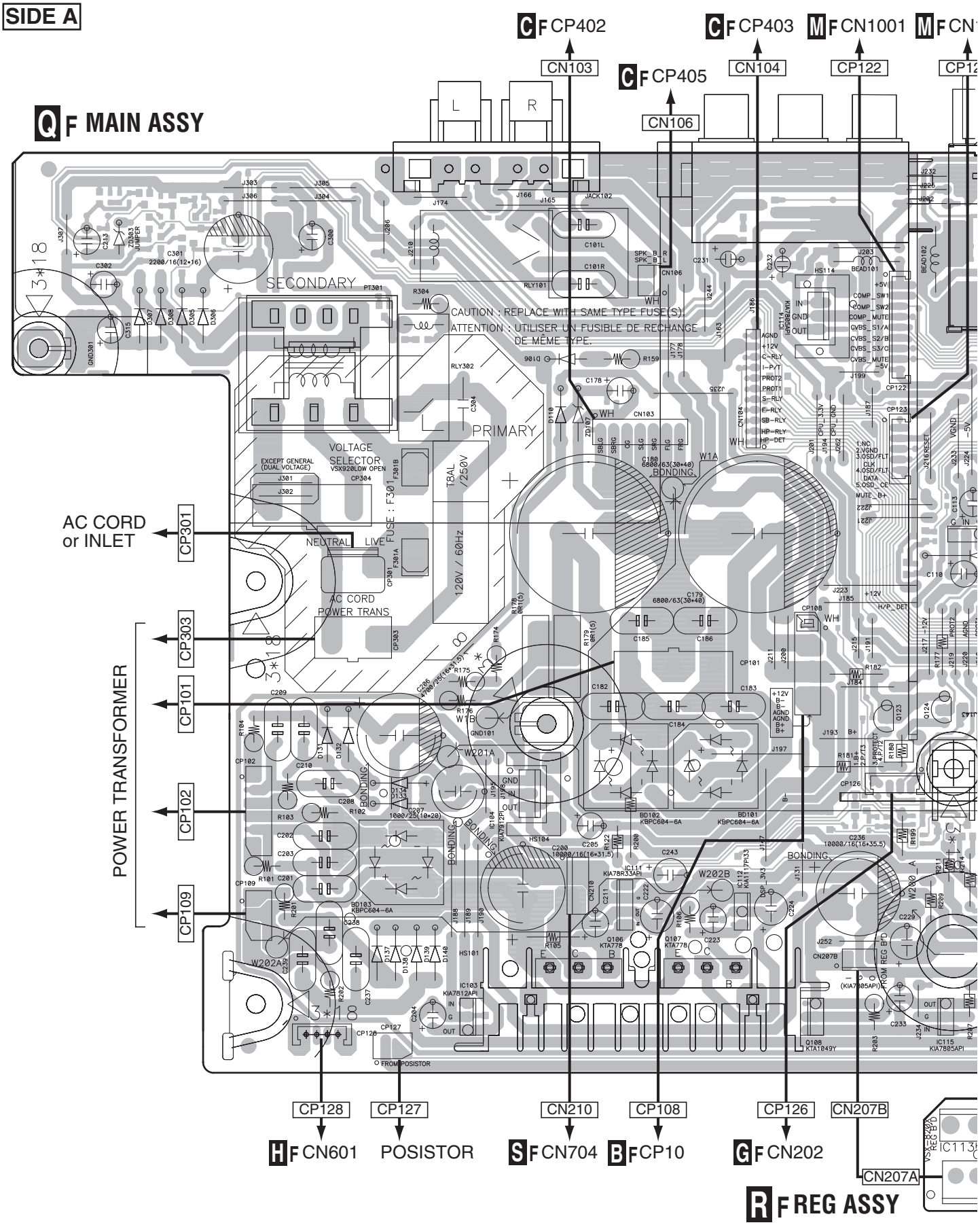


Q1082-Q1084 IC1006 IC1003
IC1004 IC1005
IC1001 Q1005 Q1007 Q1008
Q1086 Q1085 Q1012 Q1006 Q1087 Q1011

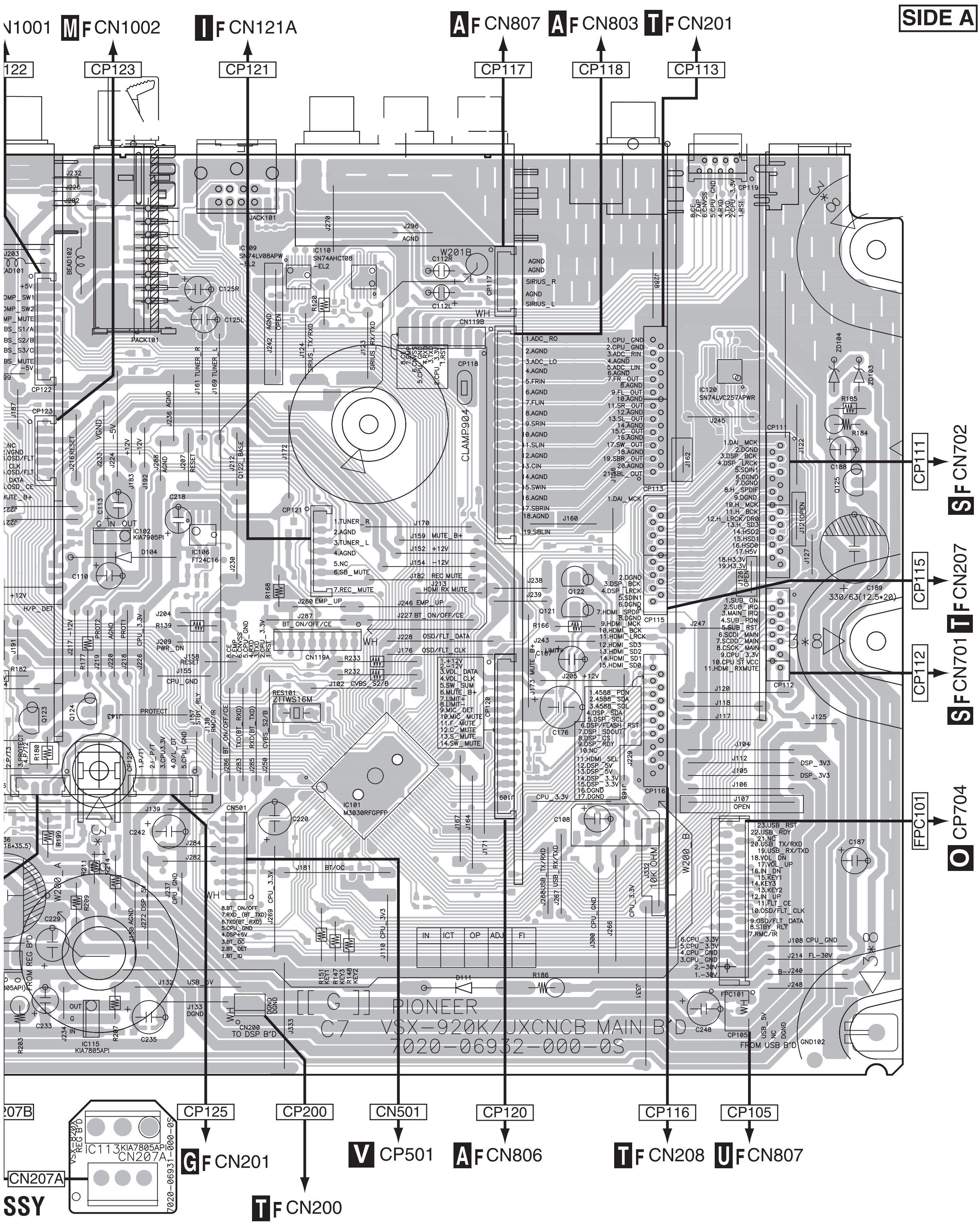
5 6 7 8

8.6 MAIN and REG ASSYS

SIDE A



IC103 IC104 Q106 IC111 Q107 IC114 Q123 Q124 IC102
IC112 Q108 IC115

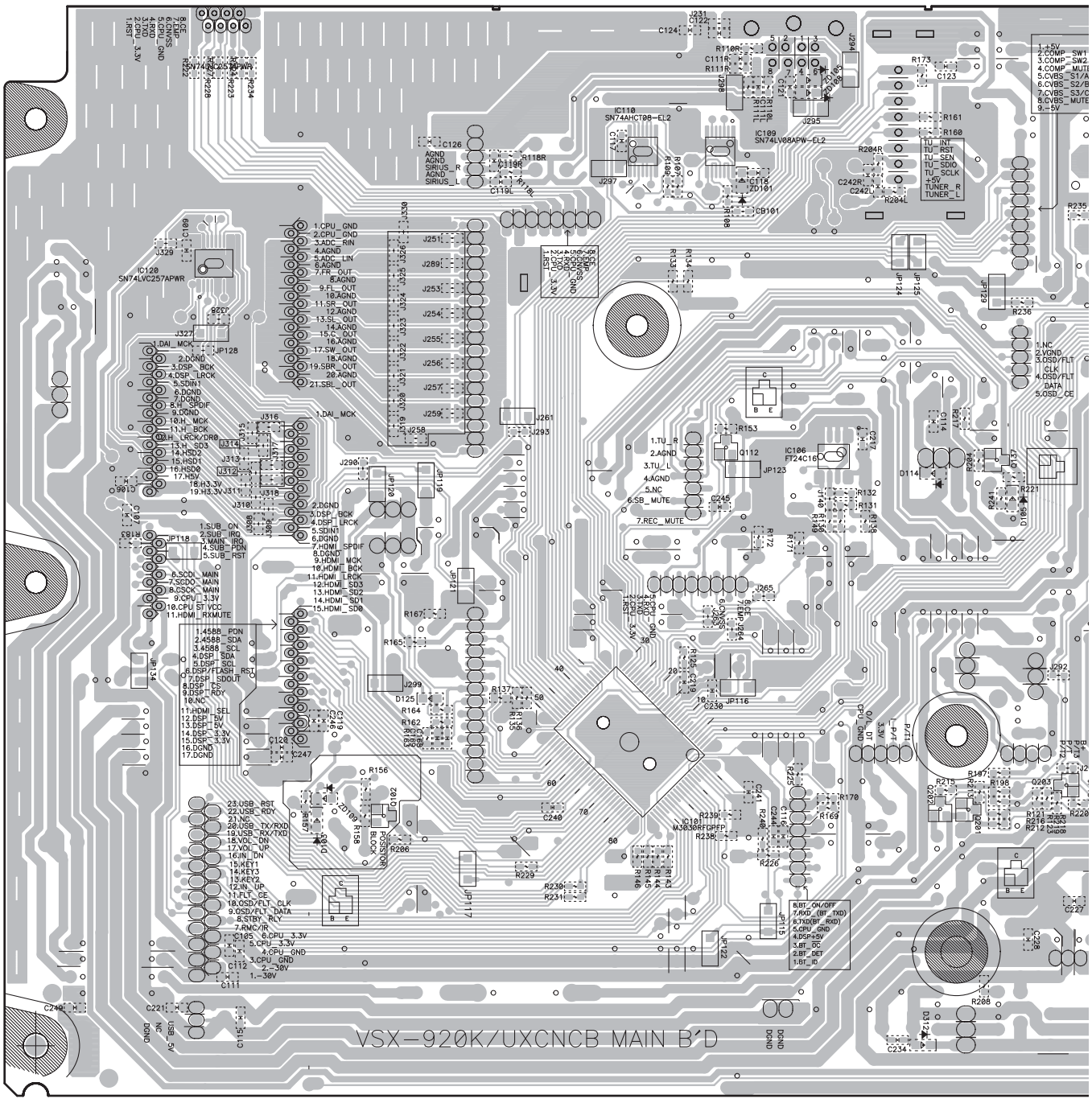


Q123	Q124	IC102	IC106	IC109	IC110	Q122		IC120
		IC115			IC101	Q121		

Q F R F

SIDE B

QF MAIN ASSY

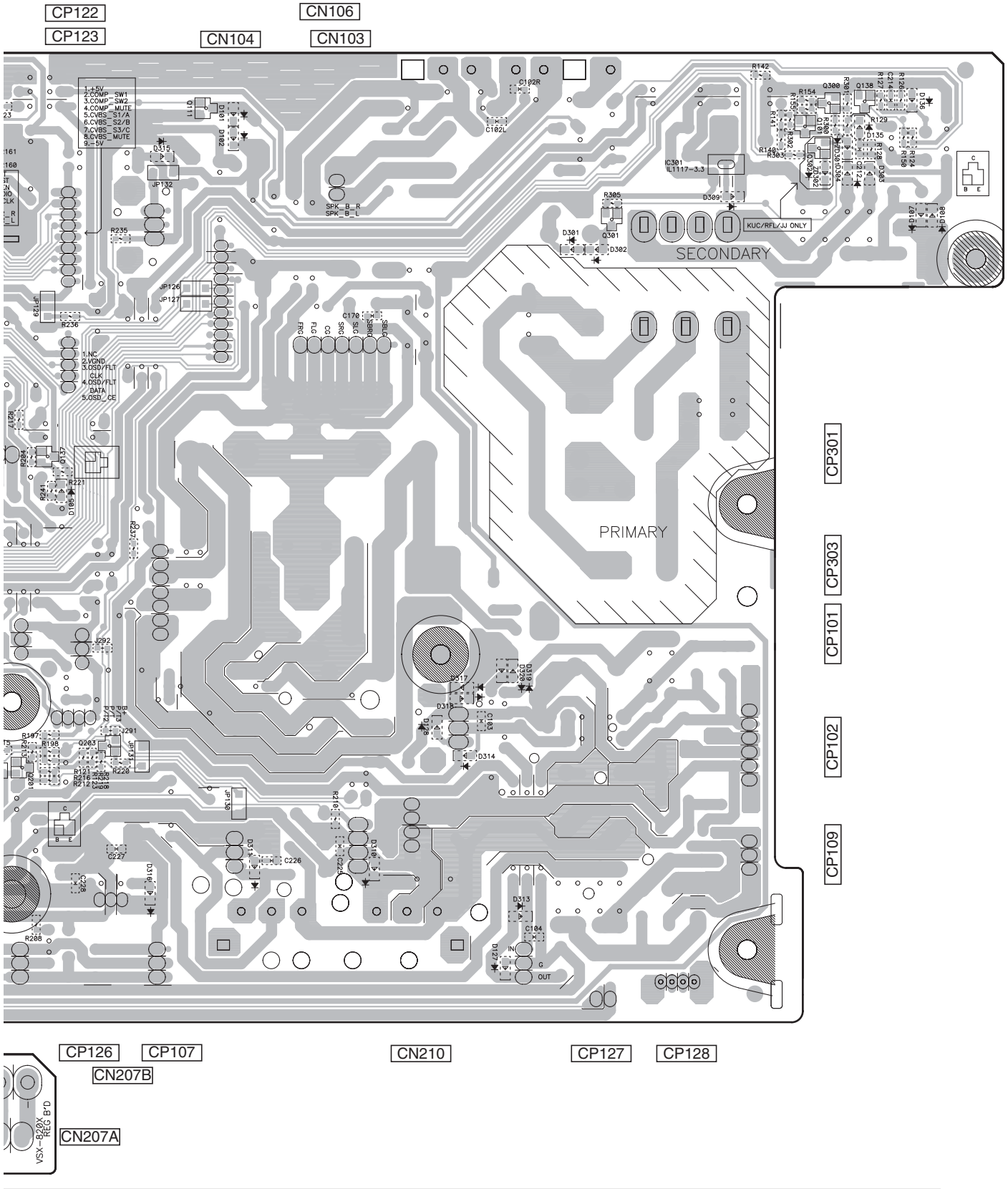


RF REG ASSY

IC120 IC110 IC101 IC109 Q112 IC106 Q202 Q201 Q137 Q2

QF RF

SIDE B

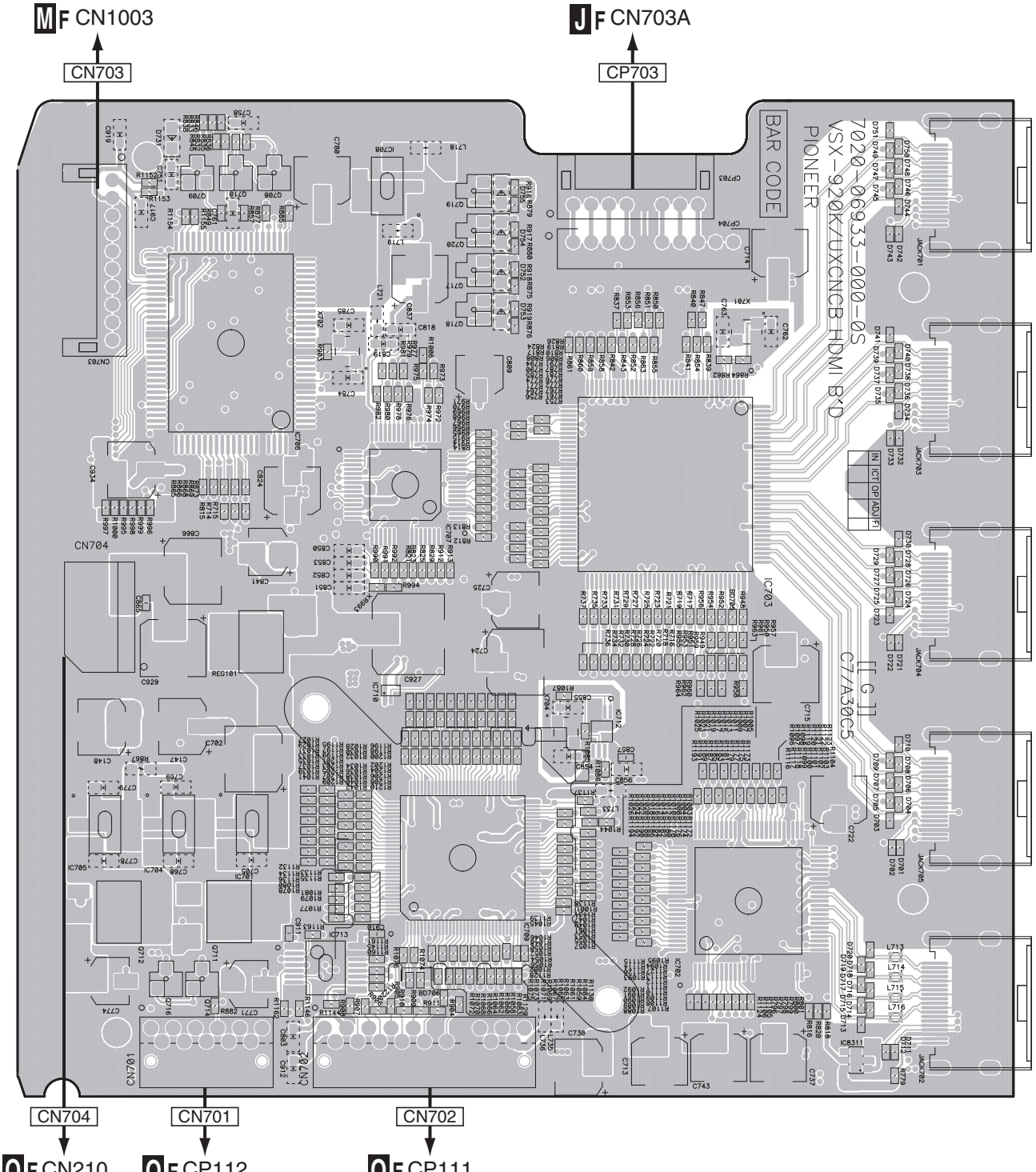

CP122
CP123
CN104
CN106
CN103
SECONDARY
PRIMARY
KUC/RFL/JJ ONLY
CP301
CP303
CP101
CP102
CP109
CP126
CP107
CN207B
CN210
CP127
CP128
CN207A

8.7 HDMI ASSY

SIDE A

SIDE A

SF HDMI ASSY

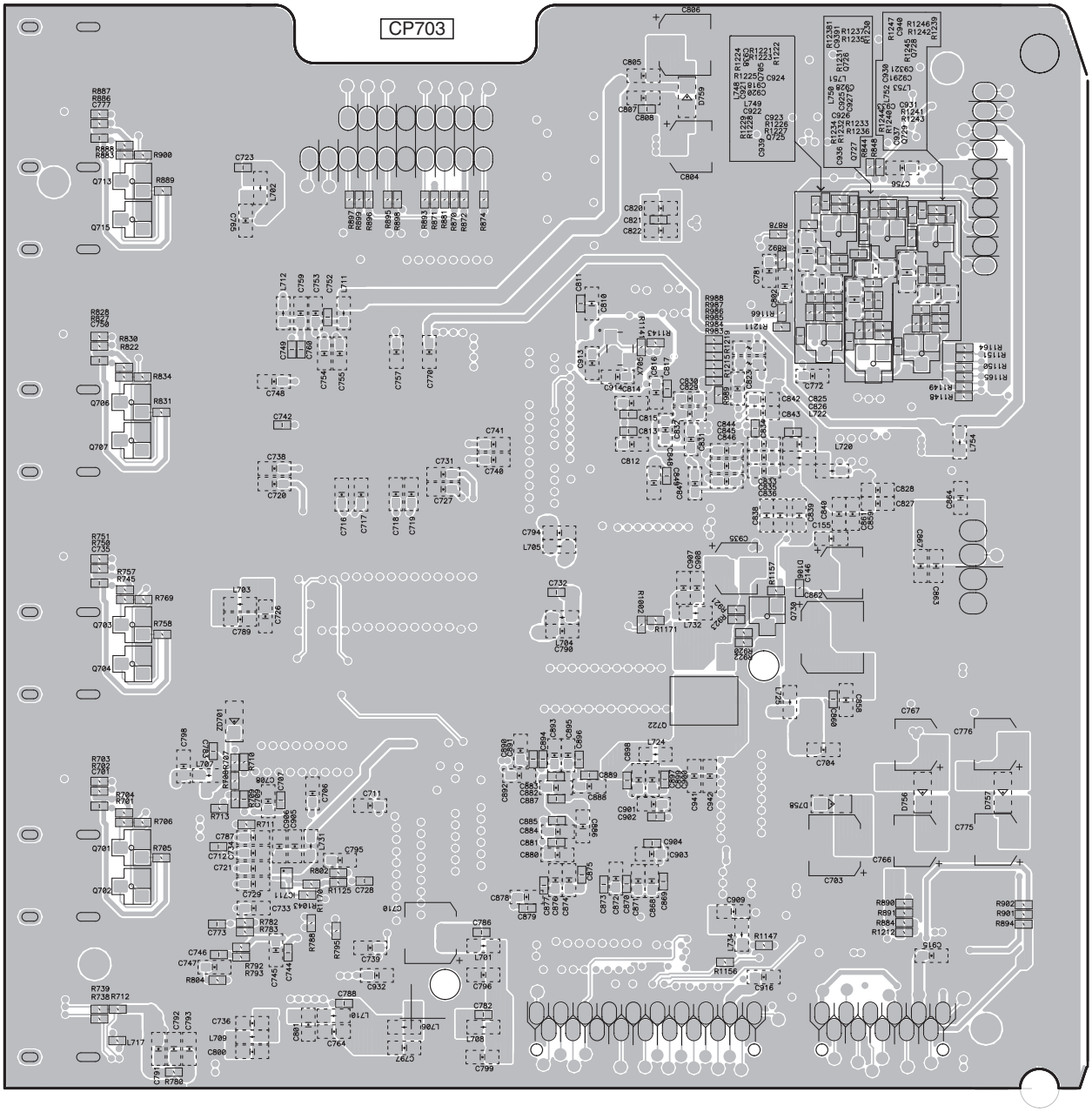


SF

SIDE B

SIDE B

SF HDMI ASSY



Q713 Q715
Q706 Q707
Q703 Q704
Q701 Q702

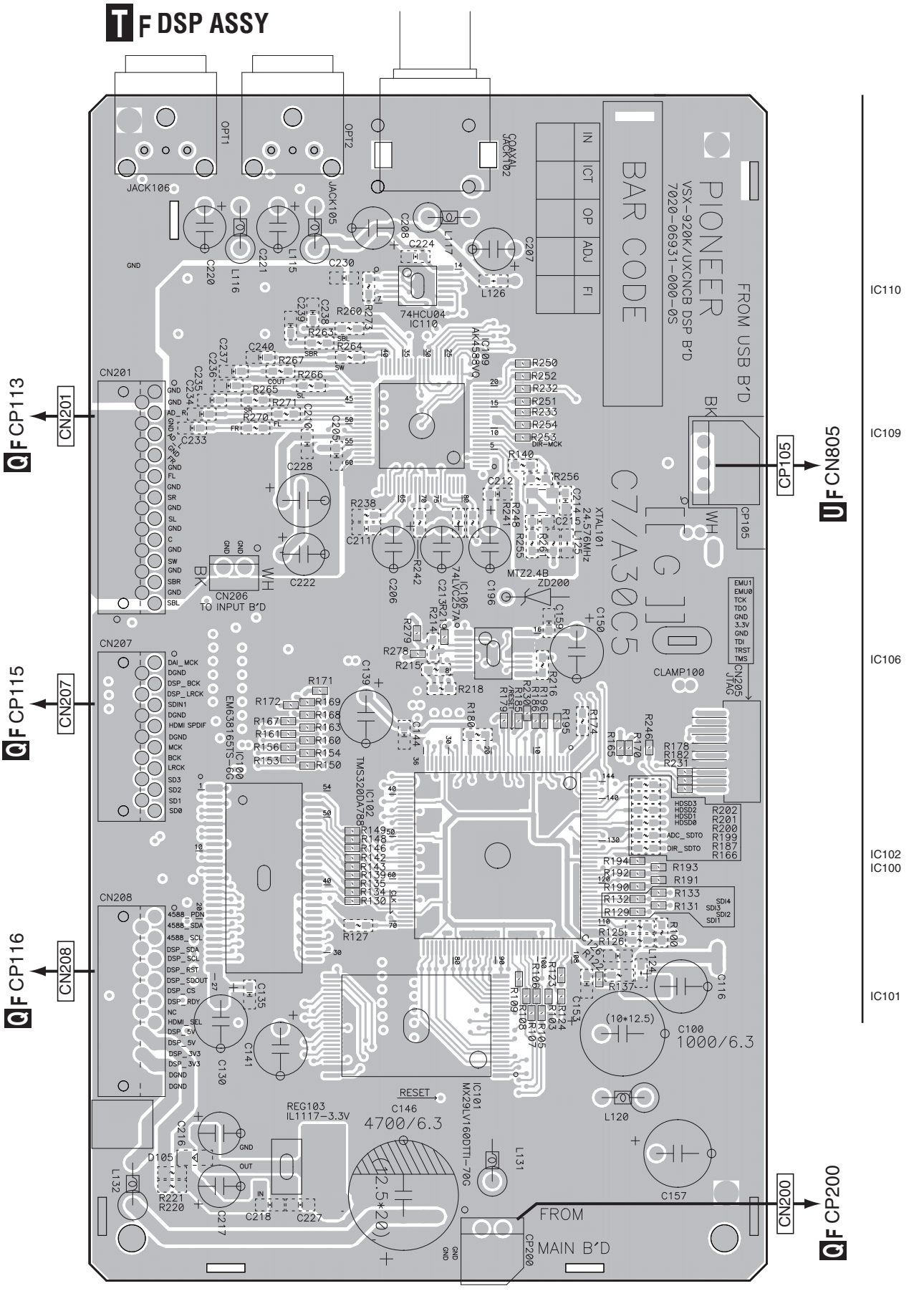
Q730

Q705 Q725-Q729

8.8 DSP ASSY

SIDE A

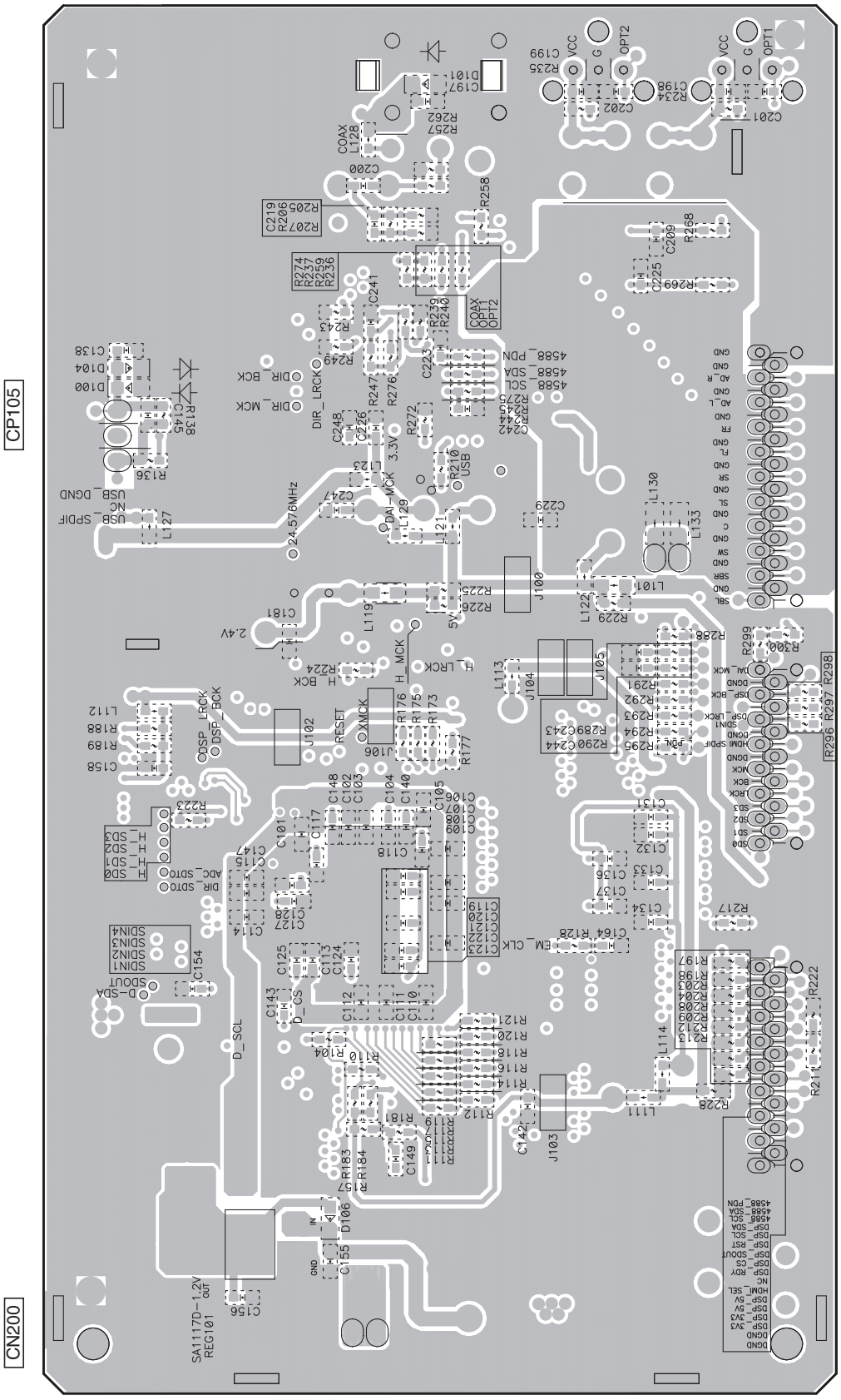
SIDE A



SIDE B

SIDE B

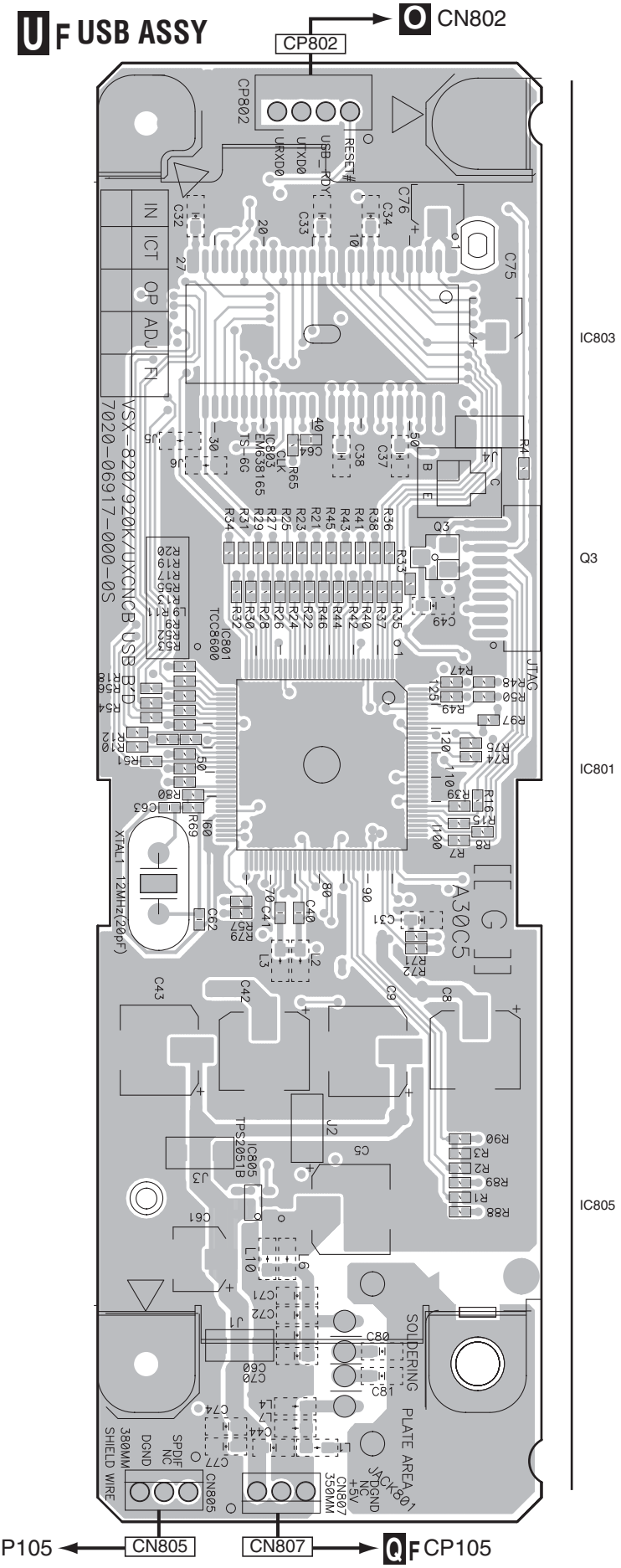
TF DSP ASSY



8.9 USB ASSY

SIDE A

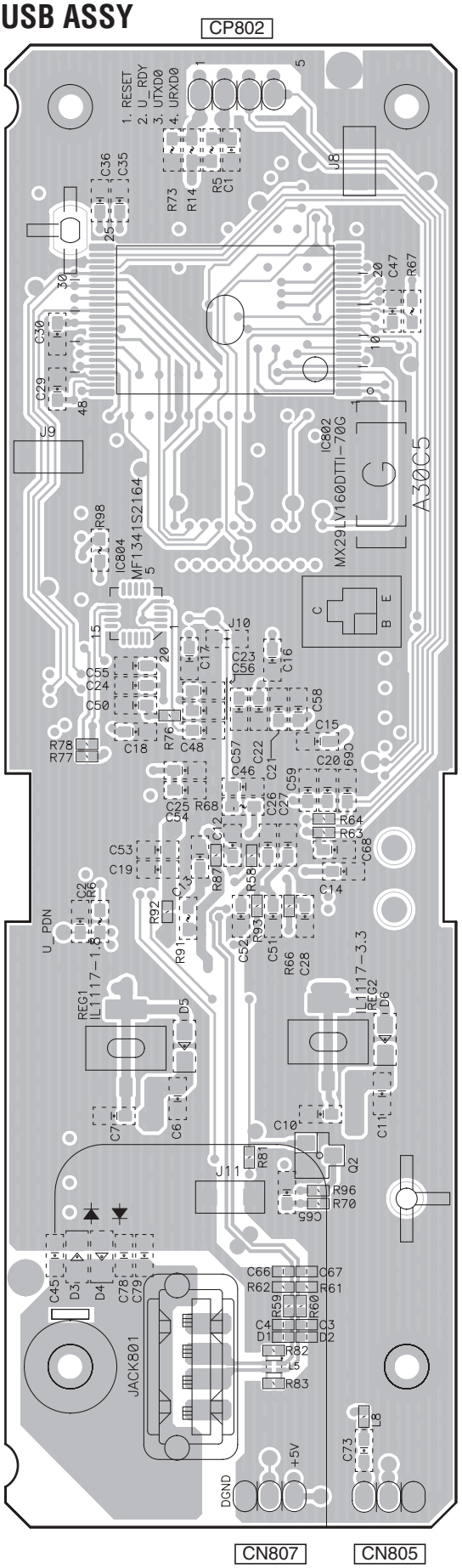
SIDE A



SIDE B

U F USB ASSY

SIDE B



VSX-920-K

9. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*

● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47 k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω	→	*56 × 10¹*	→	*561* ····· *RD1/4PU 5 6 1 J*
47 kΩ	→	*47 × 10³*	→	*473* ····· *RD1/4PU 4 7 3 J*
0.5 Ω	→	*R50*		····· *RN2H R 5 0 K*
1 Ω	→	*1R0*		····· *RS1P 1 R 0 K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62 kΩ	→	*562 × 10¹*	→	*5621* ····· *RN1/4PC 5 6 2 1 F*

● *Meaning of the figures and others in the parentheses in the parts list.*

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.
IC 301 (A, 91, 111) IC NJM2068V

● *PCB PARTS LIST*	● *SCHEMATIC DIAGRAM and PCB CONNECTION DIAGRAM*
*JA****	*JACK***, JK****
*RY****	*RLY****
*T****	*PT****
*X****	*XTAL***, RES*** (CERAMIC)*
*FU****	*F****
*V****	*FLT****
*S****	*SW***, VEC*** (ENCODER)*
*L****	*FB****
*CN****	*CP***, PN****
*Q****	*Q***FL, Q***FR, Q***C, Q***SL, Q***SR*
*D****	*ZD****

Mark	No.	Description	Part No.
A		**F INPUT ASSY**	
		SEMICONDUCTORS	
	IC	801	J084152180010-IL
	IC	802-804	J121456000080-IL
	Q	801,803,805,806	INC2001AC1
	Q	802,804,807,809	J520101411210-IL
	Q	808,810,812,814	INC2001AC1
	Q	813,817,838,839	J520101411210-IL
	Q	815,816	J5441170Y0050-IL
	Q	818	J522104411210-IL
	Q	819,821,822,826	INC2001AC1
	Q	828,830,832	INC2001AC1
	D	801-810,813-818	K005041480030-IL
	D	9801,9802 (ZD801,802)	MTZJ6R8(B)
		MISCELLANEOUS	
	JA	801 TER,RCA 6PIN	G603610A0211Y-IL
	JA	802,803 TER,RCA 6PIN	G603610A02000-IL
	CN	803 CONNECTOR(19P)	L101100031910-IL
	CN	806 CONNECTOR(14P)	L101100031410-IL
	CN	807 CN.WAFER 2.0MM	L101100030510-IL
	CN	8805 CN.WAFER 2.0MM	L101100040710-IL
B		**F AMP ASSY**	
		SEMICONDUCTORS	
	Q	1204,1208	J5023200B0050-IL
	Q	1206,1207	J5000992F0050-IL
	D	1205	1SS133
		MISCELLANEOUS	
	L	1201 COIL,FILTER-INDUCTOR	D330256800010-IL
	VR	1201 VR,SEMI CARBON MOLD	C541102315000-IL
		RESISTORS	
	R	1201,1202	C0604R7065050-IL
	R	1207	C060012263050-IL
	R	1218,1219	C060010065050-IL
	R	1222	C060047065060-IL
⚠	R	1231,1232,1238,1239	N113136647820-IL
	R	1234,1235	N113135656220-IL
	R	1236,1237	C060010163050-IL
		Other Resistors	RD1/4PU###J
		CAPACITORS	
	C	1203,1204	D00410107D051-IL
	C	1206,1207	D02010406C060-IL
	C	1210	D00447127D050-IL
	C	1212	D02010206C060-IL
	C	1214	D00033006D051-IL
C		**F SPEAKER ASSY**	
		SEMICONDUCTORS	
	Q	401-405	J522102371210-IL
	D	401-410	K005041480030-IL
		MISCELLANEOUS	
	JA	401 TER,BOARD SCREW 8P	G614108V1010M-IL
	JA	402 TER,BOARD SCREW 6P	G613602A0200Y-IL
	RY	401-403,405 RELAY	G680120503020-IL
	RY	404 RELAY	G680240202030-IL
D		**F HEADPHONE ASSY**	

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	D	705,706	K005041480030-IL
		MISCELLANEOUS	
	JA	701 JACK,D6.5	G402PJ612AG0Y-IL

E F MIC ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	D	715,716	K005041480030-IL
	D	9705-9707 (ZD705-707)	UDZS5R1(B)
		MISCELLANEOUS	
	JA	702 JACK,D3.5	G401PJ354H40Y-IL

G F PT ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	Q	126,128,131,134	J5001268B0050-IL
	Q	127,129,130,132	J5023198Y0000-IL
	Q	133,135,136	J5023198Y0000-IL
	D	112,113	K005041480030-IL
	D	9110	K06603R34P400-IL
		MISCELLANEOUS	
	CN	201 CN.WAFER 2.0MM	L101100030510-IL

H F HP_GUIDE ASSY

Mark	No.	Description	Part No.
		MISCELLANEOUS	
	CN	601 CONNECTOR(4P)	L101100030410-IL

I F CNT1 ASSY

Mark	No.	Description	Part No.
		MISCELLANEOUS	
	CN	121 (CN121A,121B) CN.WAFER 2.0MM	L101100030710-IL

J F CNT2 ASSY

CNT2 ASSY has no service part.

K F GUIDE_L ASSY

GUIDE_L ASSY has no service part.

L F GUIDE_R ASSY

GUIDE_R ASSY has no service part.

M F VIDEO ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	IC	1001	CD74HC4051PW
	IC	1002	J170747810010-IL
	IC	1003	NJM2586AM
	IC	1004	CD74HC4053PW
	IC	1005	J040742440190-IL
	IC	1006	J127762800010-IL
	Q	1008	J522104301210-IL
	Q	1011,1084,1086	J520015301210-IL
	Q	1012	2SC3052
	Q	1082,1087	J522101411210-IL
	Q	1083,1085	INC2001AC1
	D	1082,1084-1086	K005041480030-IL
		MISCELLANEOUS	
	JA	1001 TER,RCA 6PIN	G603610D0400Y-IL
	JA	1002 TER,RCA 9PIN	G607902AD016Y-IL
	X	1001 CRYSTAL	E80014R318080-IL
	CN	1001 CN.WAFER 2.0MM	L101100030910-IL
	CN	1002 CN.WAFER 2.0MM	L101100030510-IL

N F F-VIDEO ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	D	701,702	K005041480030-IL
		MISCELLANEOUS	
	JA	704 TER,RCA 3PIN	G60603W0192GD-IL

Q F MAIN ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	IC	101	8952920000010-IL
	IC	102	J126790500070-IL
⚠	IC	103	KIA7812API
⚠	IC	104	KIA7912PI
	IC	106	J000241600170-IL
	IC	109	J040740800230-IL
	IC	110	SN74AHCT08PW
⚠	IC	111	J12678R330010-IL
⚠	IC	112	J126111733050-IL
⚠	IC	114,115	KIA7805API
	IC	120	J040742570030-IL
⚠	IC	301	J126111700041-IL
	Q	101,102,138,300	J522305200050-IL
⚠	Q	106,107	J501778000010-IL
⚠	Q	108	J5011049Y0010-IL
	Q	111,112	J522102371210-IL
	Q	121,123,124	J5001268B0050-IL
	Q	122	J5023198Y0000-IL
⚠	Q	125	J5000916Y0050-IL
	Q	137	J520015301210-IL
	Q	201-203,302	J522101411210-IL
	Q	301	J522305200050-IL
	D	101-103,107,108	K005041480030-IL
	D	103,104	K06016R044520-IL
	D	104,106	1SS133
	D	107	MTZJ3R3(B)
	D	110,111,131-134	K000400700010-IL
	D	125,127,128,135	K005041480030-IL
	D	136,301,302	K005041480030-IL
	D	137-140	K000400700010-IL
	D	180	D040682088010-IL
⚠	D	303,304	K005041480030-IL
⚠	D	305-308	K000400700010-IL
	D	317-320	K005041480030-IL
	D	7101 (BD101)	K047604000020-IL
⚠	D	7102,7103 (BD102,103)	K047604000020-IL
	D	9101 (ZD101)	K06603R34P400-IL
	D	9105,9108 (ZD105,108)	K06606R24P400-IL

Mark	No.	Description	Part No.
	D 9109		K06609R14P400-IL
	D 9301(ZD301)		UDZS5R1(B)
	D 9302 (ZD302)		K06615R04P400-IL

MISCELLANEOUS

	JA 101	JACK,DIN	G403515397000-IL
	JA 102	TER,BOARD PUSH 4P	G594408SA030Y-IL
	JA 9101 (TUNER101)	TUNER	E903004100020-IL
	RY 101	RELAY	G680120503020-IL
⚠	RY 302	RELAY	G680060102020-IL
	T 301	POWER TRANS	8200280150620-IL
	X 101	RESONATOR,CERAMIC	E830160000060-IL
	CN 9101 (CP101)	CN.FPC 1.25MM	L131125022310-IL
	CN 9111 (CP111)	CN,WAFER	L109012511910-IL
	CN 9112 (CP112)	CN,WAFER	L109012511110-IL
	CN 9113	CN,WAFER	L109012512110-IL
	CN 9115 (CP115)	CN,WAFER	L109012511510-IL
	CN 9116 (CP116)	CN,WAFER	L109012511710-IL
	CN 9117,9123,9125 (CP117,123,125)	CN.WAFER 2.0MM	L101100040510-IL
	CN 9118 (CP118)	CONNECTOR(19P)	L101100041910-IL
	CN 9119 (CN119B)	CN.FPC 1.0MM	L130100150820-IL
	CN 9120 (CP120)	CONNECTOR(14P)	L101100041410-IL
	CN 9121 (CP121)	CN.WAFER 2.0MM	L101100040710-IL
	CN 9122 (CP122)	CN.WAFER 2.0MM	L101100040910-IL
	CN 9126,9128 (CP126,128)	CONNECTOR(4P)	L101100040410-IL
⚠	FU 301	FUSE GLASS TUBE 20MM	N751508001160-IL

RESISTORS

R 178,179		D00847208H010-IL

CAPACITORS

C 179		D040682088010-IL
C 189		D040331088230-IL
C 200,236		D040103083000-IL
C 206		D040472084020-IL
C 207		D040102084060-IL
C 301		D040222083010-IL
C 304		D00847208H010-IL

R F REG ASSY

SEMICONDUCTORS

⚠	IC 113		KIA7805API

S F HDMI ASSY

SEMICONDUCTORS

IC 101		J126108618080-IL
IC 701		J126111712040-IL
IC 702		SII9134CTU
IC 703		SII9233ACTU
IC 704		J126111710011-IL
IC 706		8952920000020-IL
IC 707		ADV7181CBSTZ
IC 709		ABT1015
IC 711		J040741080060-IL
IC 712		J040740400320-IL
IC 713		J040741570070-IL
IC 8311		J046255100010-IL
Q 711,722		J500124200010-IL
Q 714,730		J522101411210-IL
D 711-713,715-720		K067020500010-IL
D 714		J522101411210-IL
D 9071 (ZD701)		UDZS5R1(B)

MISCELLANEOUS

JA 701-705	CN.WAFER	L109100190050-IL
CN 701	CN,WAFER	L109012521110-IL
CN 702	CN,WAFER	L109012521910-IL
CN 703	CN.WAFER 2.0MM	L101200100820-IL

T F DSP ASSY

SEMICONDUCTORS

IC 100		J001638165610-IL
IC 101		8952520000030-IL
IC 102		J080320788010-IL
IC 106		J040742570030-IL
IC 109		J080458800010-IL
IC 110		J040740400270-IL
IC 9101 (REG101)		J126111712070-IL
IC 9103 (REG103)		J126111700041-IL
D 101		K005041480030-IL
D 200		K06002R444520-IL

MISCELLANEOUS

JA 102		TER,RCA 1PIN	G600107A0000Y-IL
JA 105,106		OPTICAL RECEIVER	E100116500040-IL
X 101		CRYSTAL CHIP (24.576 MHz)	E80524R576050-IL
CN 201		CN,WAFER	L109012522110-IL
CN 207		CN,WAFER	L109012521510-IL
CN 208		CN,WAFER	L109012521710-IL

CAPACITORS

C 146		D040472081050-IL

U F USB ASSY

SEMICONDUCTORS

IC 1		J126111710011-IL
IC 2		J126111700041-IL
IC 801		J085860000010-IL
IC 802		8952920000040-IL
IC 803		J001638165610-IL
IC 804		J044341216430-IL
IC 805		J046205100010-IL
Q 2		J522101411210-IL
Q 3		J520103S00210-IL
D 1,2		K067012020020-IL

MISCELLANEOUS

JA 801		CN,PLUG CONTACT	G480040101410-IL
X 1		CRYSTAL (12 MHz)	E80012R000010-IL