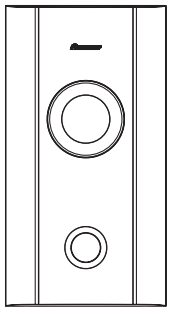
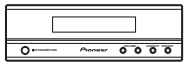
Pioneer sound.vision.soul

Service Manual





SX-SW404

ORDER NO.
RRV3336

AUDIO MULTI-CHANNEL RECEIVER SUBWOOFER

SX-SW404
SX-SW606
SX-X360

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

Model	Type	Power Requirement	Remarks
SX-SW404	WYXCN5	AC220-240V	
SX-SW606	WYXCN5	AC220-240V	
SX-X360	WYXCN5	AC220-240V	
SX-X360	WVXCN5	AC220-240V	
SX-X360	KUCXCN	AC120V	

• Ask users to bring both subwoofer and the display unit together when servicing.

For details, refer to "Important Check Points for Good Servicing".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

T-ZZK MAR. 2006 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

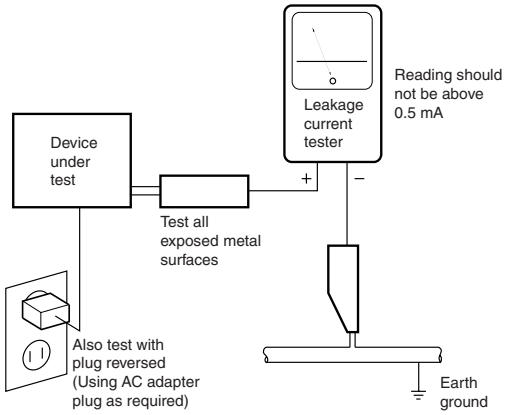
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

SX-SW404, SX-SW606

- **Amplifier section**

RMS Power Output:
Front, Center, Surround. . . . . 100 W per channel (1 kHz, 10 % T.H.D., 4Ω)
Subwoofer. . . . . 100 W (100 Hz, 10 % T.H.D., 4Ω)

- **FM tuner section**

Frequency range. . . . . 87.5 MHz to 108 MHz
Antenna . . . . . 75Ω, unbalanced

- **AM tuner section**

Frequency range. . . . . 531 kHz to 1 602 kHz
Antenna. . . . . Loop antenna

- **Subwoofer section**

Enclosure. . . . . Bass-reflex floor type
System . . . . . 16 cm 1-way system
Speaker . . . . . .16 cm cone type
Nominal impedance 4Ω
Frequency range. . . . . 25 Hz to 1.0 kHz
Maximum Input Power. . . . . 100 W

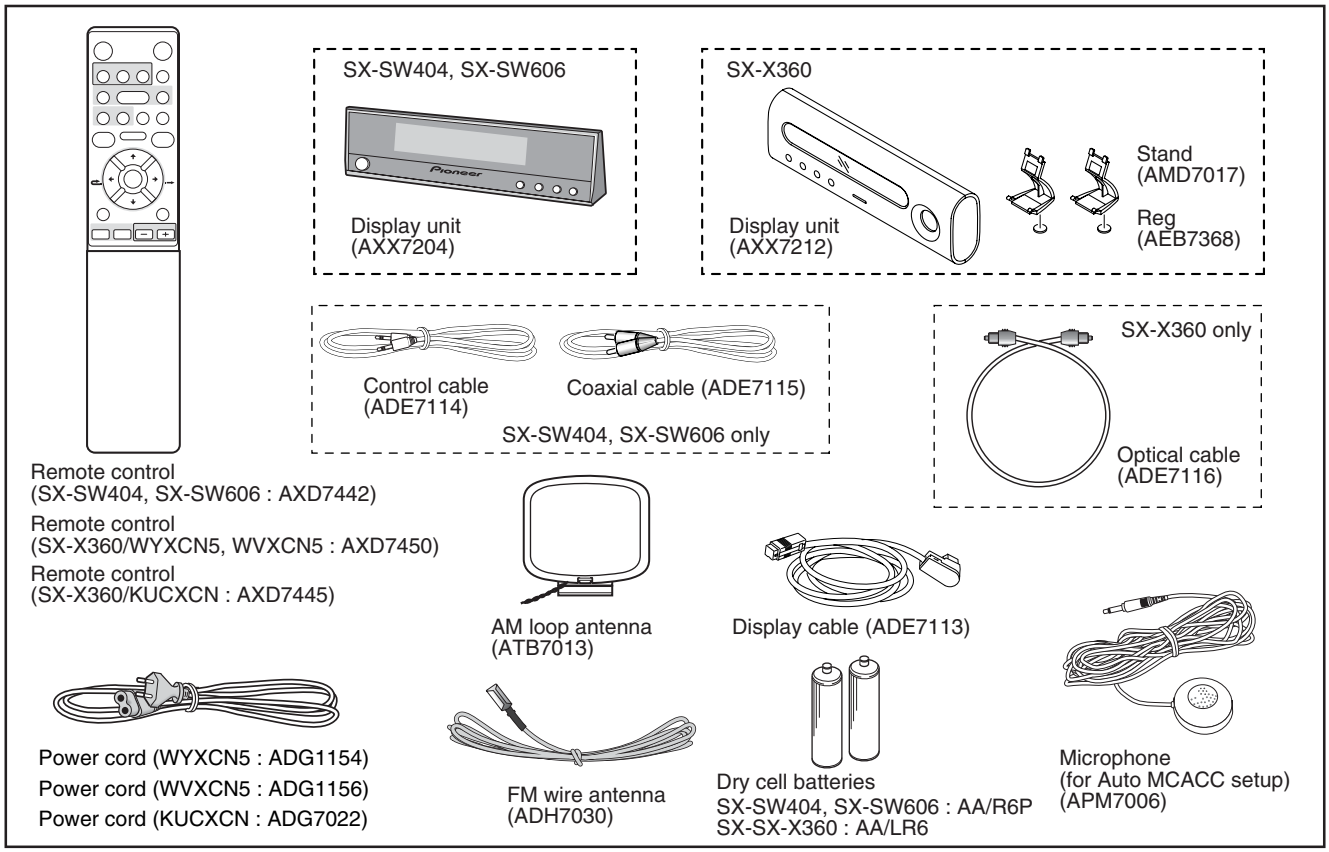
- **Miscellaneous**

Power requirements. . . . . AC 220 V to 240 V, 50 Hz/60 Hz
Power consumption. . . . . 50 W
Power consumption in standby. . . . . 0.3 W
Dimensions. . . . . 200 mm (W) x 375 mm (H) x 437 mm (D)
Weight . . . . . 9.0 kg

- **Accessories**

Remote control 1
Display unit 1
AA/R6 dry cell batteries (to confirm operation) 2
Coaxial cable. 1
Control cable. 1
Display cable. 1
AM loop antenna. 1
FM wire antenna 1
Microphone (for Auto MCACC setup) 1
Power cord 1
Warranty card 1
Operating instructions

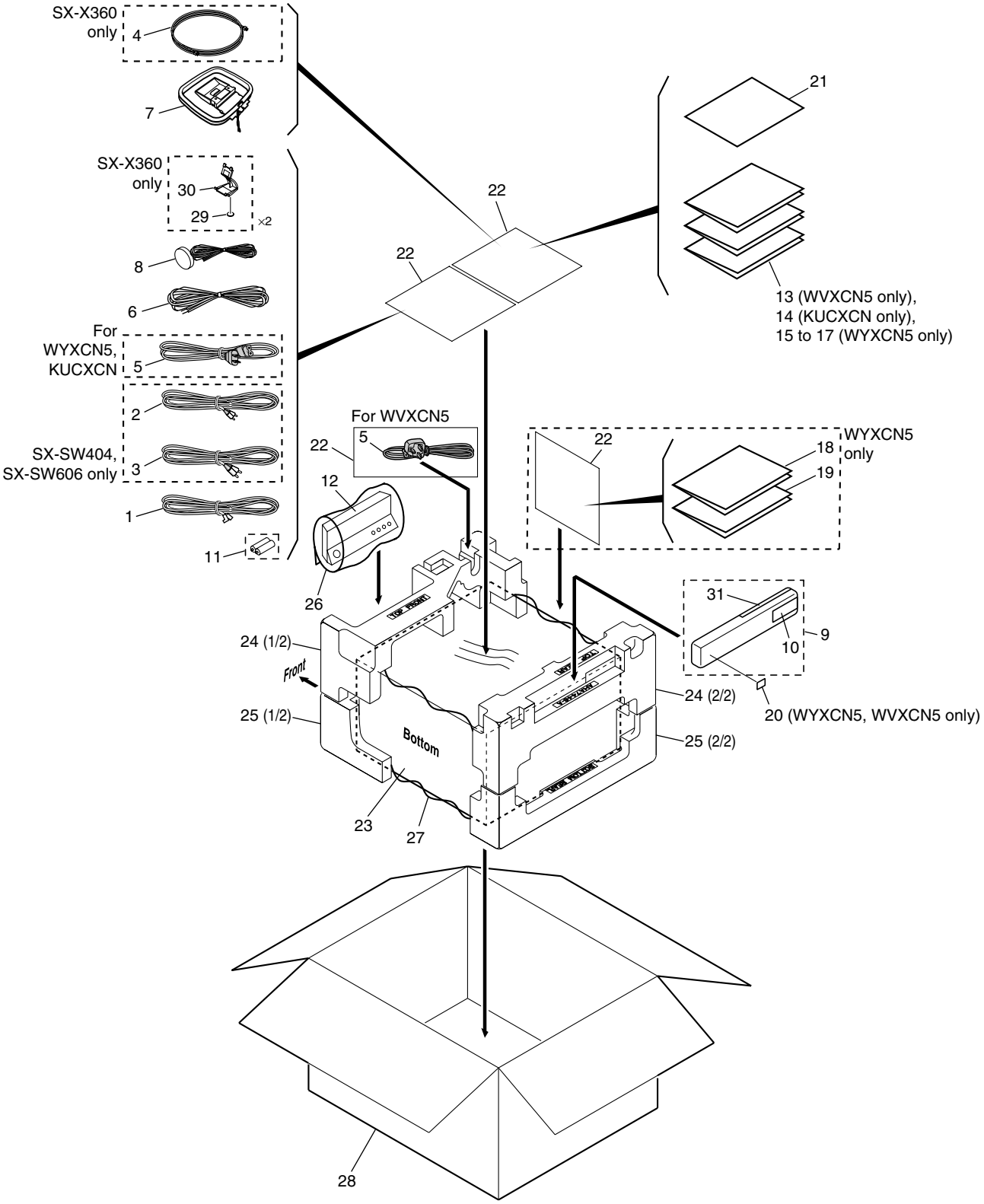
Accessories



2. EXPLODED VIEWS AND 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.*
- *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.)*

2.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

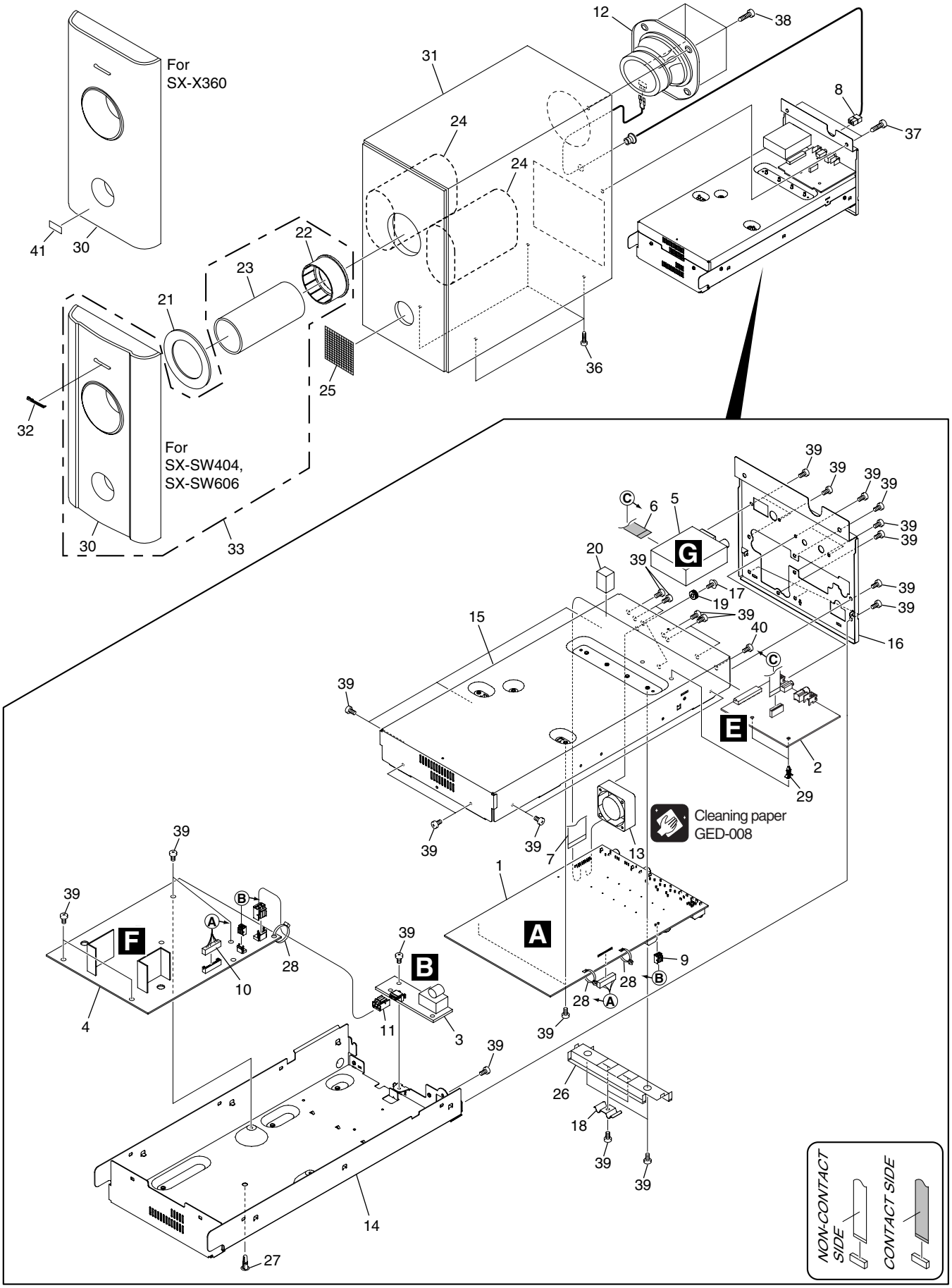
Mark	No.	Description	Part No.
	1	Display Cable	ADE7113
	2	Control Cable	See Contrast table (2)
	3	Coaxial Cable (Black)	See Contrast table (2)
	4	Optical Cable	See Contrast table (2)
⚠	5	Power Cord	See Contrast table (2)
	6	FM Wire Antenna	ADH7030
	7	AM Loop Antenna	ATB7013
	8	Microphone Assy	APM7006
	9	Remote Control	See Contrast table (2)
	10	Battery Cover	VZN1005
NSP	11	Dry Cell Battery	See Contrast table (2)
	12	DISPLAY Unit	See Contrast table (2)
	13	Operating Instructions (Enslish)	See Contrast table (2)
	14	Operating Instructions (Enslish, French)	See Contrast table (2)
	15	Operating Instructions (French)	See Contrast table (2)
	16	Operating Instructions (German)	See Contrast table (2)
	17	Operating Instructions (Italian)	See Contrast table (2)
	18	Operating Instructions (Spanish)	See Contrast table (2)
	19	Operating Instructions (Dutch)	See Contrast table (2)
	20	Label (WEEE)	See Contrast table (2)
NSP	21	Warranty Card	See Contrast table (2)
NSP	22	Polyethylene Bag	Z21-038
NSP	23	Polyethylene Bag	AHG7126
	24	Pad T	AHA7448
	25	Pad B	AHA7449
	26	Packing Sheet	AHG7125
	27	Packing Sheet L	AHG7128
	28	Packing Case SW2	See Contrast table (2)
	29	Leg	See Contrast table (2)
	30	Stand	See Contrast table (2)
	31	Top Cover	See Contrast table (2)

(2) CONTRAST TABLE

SX-SW404/WYXCN5, SX-SW606/WYXCN5, SX-X360/WYXCN5, WVXCN5 and KUCXCN are constructed the same except for the following:

Mark	No.	Symbol and Description	SX-SW404/ WYXCN5	SX-SW606/ WYXCN5	SX-X360/ WYXCN5	SX-X360/ WVXCN5	SX-X360/ KUCXCN
	2	Control Cable	ADE7114	ADE7114	Not used	Not used	Not used
	3	Coaxial Cable	ADE7115	ADE7115	Not used	Not used	Not used
	4	Optical Cable	Not used	Not used	ADE7116	ADE7116	ADE7116
⚠	5	Power Cord	ADG1154	ADG1154	ADG1154	ADG1156	ADG7022
	9	Remote Control	AXD7442	AXD7442	AXD7450	AXD7450	AXD7445
NSP	11	Dry Cell Battery (R6P, AA)	VEM1010	VEM1010	Not used	Not used	Not used
NSP	11	Dry Cell Battery (LR6, AA)	Not used	Not used	AEX7016	AEX7016	AEX7016
	12	DISPLAY Unit	AXX7204	AXX7204	AXX7212	AXX7212	AXX7212
	13	Operating Instructions (English)	Not used	Not used	Not used	ARB7364	Not used
	14	Operating Instructions (English, French)	Not used	Not used	Not used	Not used	ARE7618
	15	Operating Instructions (French)	ARC7659	ARC7659	ARC7709	Not used	Not used
	16	Operating Instructions (German)	ARC7660	ARC7660	ARC7710	Not used	Not used
	17	Operating Instructions (Italian)	ARC7661	ARC7661	ARC7711	Not used	Not used
	18	Operating Instructions (Spanish)	ARC7662	ARC7662	ARC7712	Not used	Not used
	19	Operating Instructions (Dutch)	ARC7663	ARC7663	ARC7713	Not used	Not used
	20	Label (WEEE)	ARW7322	ARW7322	ARW7322	ARW7322	Not used
NSP	21	Warranty Card	ARY7065	ARY7065	ARY7065	ARY7065	ARY7045
	28	Packing Case SW2	AHD8424	AHD8451	AHD8449	AHD8449	AHD8431
	29	Leg	Not used	Not used	AEB7368	AEB7368	AEB7368
	30	Stand	Not used	Not used	AMD7017	AMD7017	AMD7017
	31	Top Cover	AZA7434	AZA7434	AZA7433	AZA7433	AZA7433

2.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

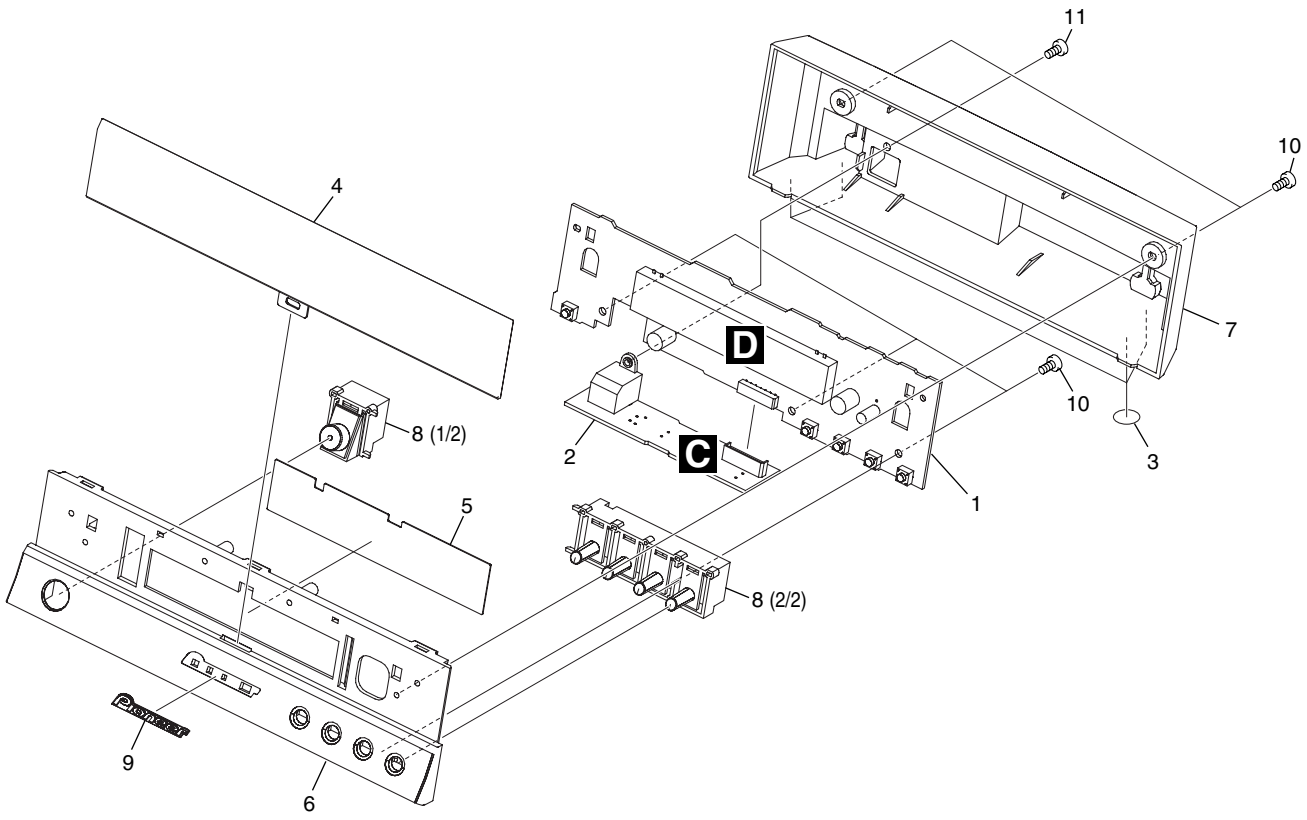
Mark	No.	Description	Part No.
	1	MAIN Assy	See Contrast table (2)
	2	JACK TX Assy	See Contrast table (2)
NSP	3	AC INLET Assy	See Contrast table (2)
⚠	4	POWER SUPPLY Unit	See Contrast table (2)
	5	FM/AM TUNER Unit	See Contrast table (2)
	6	11P Flexible Cable	ADD7538
	7	25P Flexible Cable	ADD7539
	8	Connecting Cord	ADX7484
	9	2P Lead with Housing	ADX7507
	10	11P Lead with Housing	ADX7508
⚠	11	2P Lead with Housing	ADX7510
	12	Speaker	APW7001
	13	DC Fan Motor	VXM1121
NSP	14	Chassis B	ANA7179
NSP	15	Chassis T	ANA7180
	16	Rear Panel SW	See Contrast table (2)
	17	Screw (3 x 11.5)	ABA7129
	18	Spring Plate	ABH7243
	19	Rubber Bushing	AEB7369
	20	Cushion TX	AEB7371
	21	Packing	AEC7548
NSP	22	Duct Ring	AMR7511
NSP	23	Paper Tube 60	AMR7512
NSP	24	Acoustic Absorbent	AMV7002
NSP	25	Mesh	ANC8354
NSP	26	Heatsink	ANH7187
NSP	27	PCB Holder	PNW2029
	28	Binder	VEC2414
NSP	29	PCB Support	XEC3020
NSP	30	Cosmetic Baffle	See Contrast table (2)
NSP	31	Cabinet	See Contrast table (2)
	32	Pioneer Name Plate	VAM1152
	33	Baffle Assy	See Contrast table (2)
	34	•••••	
	35	•••••	
	36	Screw	BBZ40P120FNI
	37	Screw	BYC40P160FNI
	38	Screw	BYC40P200FNI
	39	Screw	PBZ30P080FTC
	40	Screw	PSZ30P060FNI
	41	License Label	See Contrast table (2)

(2) CONTRAST TABLE

SX-SW404/WYXCN5, SX-SW606/WYXCN5, SX-X360/WYXCN5, WVXCN5 and KUCXCN are constructed the same except for the following:

Mark	No.	Symbol and Description	SX-SW404/ WYXCN5	SX-SW606/ WYXCN5	SX-X360/ WYXCN5	SX-X360/ WVXCN5	SX-X360/ KUCXCN
	1	MAIN Assy	AWK7924	AWK7924	AWK7938	AWK7938	AWK7940
	2	JACK TX Assy	AWX8707	AWX8707	AWX8707	AWX8707	AWX8708
NSP	3	AC INLET Assy	AWU8273	AWU8273	AWU8273	AWU8273	AWU8274
⚠	4	POWER SUPPLY Unit	AWR7043	AWR7043	AWR7043	AWR7043	AWR7044
	5	FM/AM TUNER Unit	AXX7170	AXX7170	AXX7170	AXX7170	AXX7172
	16	Rear Panel SW	ANC8397	Not used	Not used	Not used	ANC8428
	16	Rear Panel SW2	Not used	ANC8435	ANC8433	ANC8433	Not used
NSP	30	Cosmetic Baffle	AMB7938	AMB7938	AMB7943	AMB7943	AMB7930
NSP	31	Cabinet	AMM7009	AMM7009	AMM7010	AMM7010	AMM7010
	33	Baffle Assy	AXG7318	AXG7318	AXG7323	AXG7323	AXG7319
	41	License Label	Not used	Not used	AAX8128	AAX8128	AAX8128

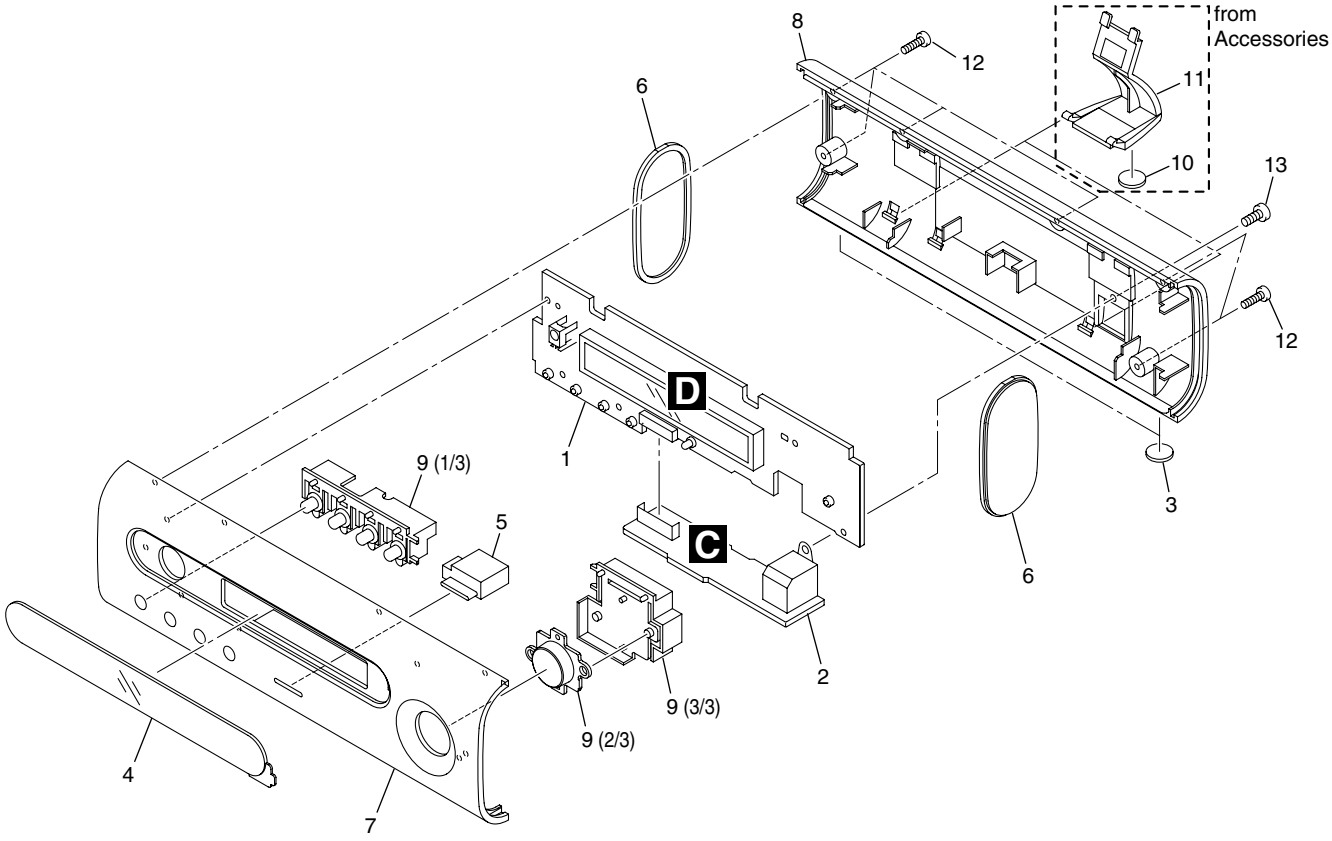
2.3 DISPLAY UNIT (SX-SW404/SX-SW606 : AXX7204)



DISPLAY UNIT (AXX7204) PARTS LIST

Mark	No.	Description	Part No.
	1	FL Assy	AWU8271
	2	CONNECT Assy	AWU8272
	3	Leg	AEB7368
	4	Window	AAK8285
	5	FL Filter	AEC7535
	6	Display Panel	AMB7899
	7	Display Cover	AMC7059
	8	PWR Button Assy	AXG7260
	9	Pioneer Name Plate	VAM1152
	10	Screw	BPZ30P080FNI
	11	Screw	PSZ30P060FNI

2.4 DISPLAY UNIT (SX-X360 : AXX7212)

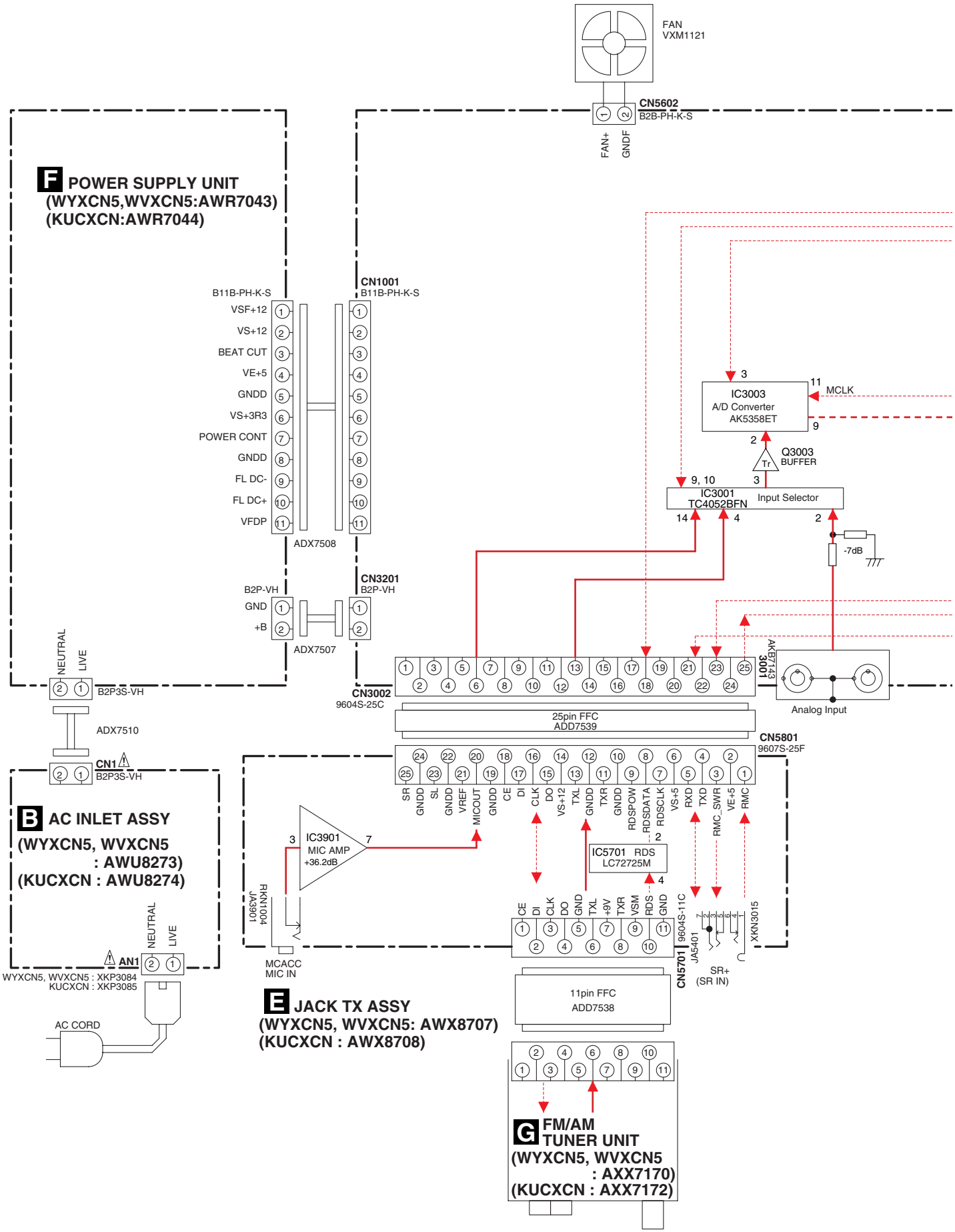


DISPLAY UNIT (AXX7212) PARTS LIST

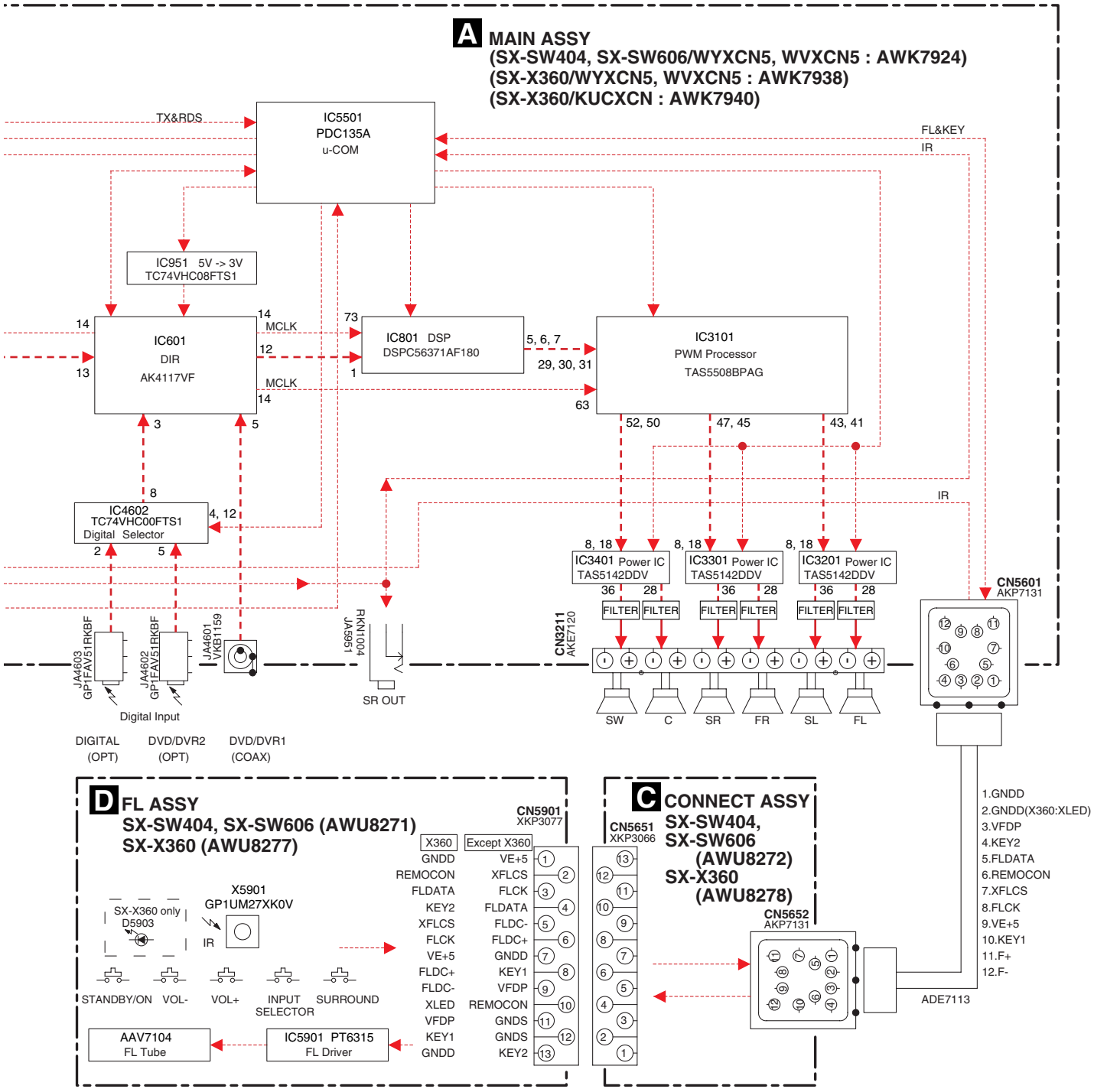
Mark	No.	Description	Part No.
	1	FL Assy	AWU8277
	2	CONNECT Assy	AWU8278
	3	Leg	AEB7368
	4	Window	AAK8335
	5	Lens	AAK8336
	6	Side Panel	AAK8337
	7	Display Panel	AMB7929
	8	Display Cover	AMC7063
	9	VOL Button Assy	AXG7305
	10	Leg	AEB7368
	11	Stand	AMD7017
	12	Screw	BPZ20P080FTC
	13	Screw	PSZ30P060FNI

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

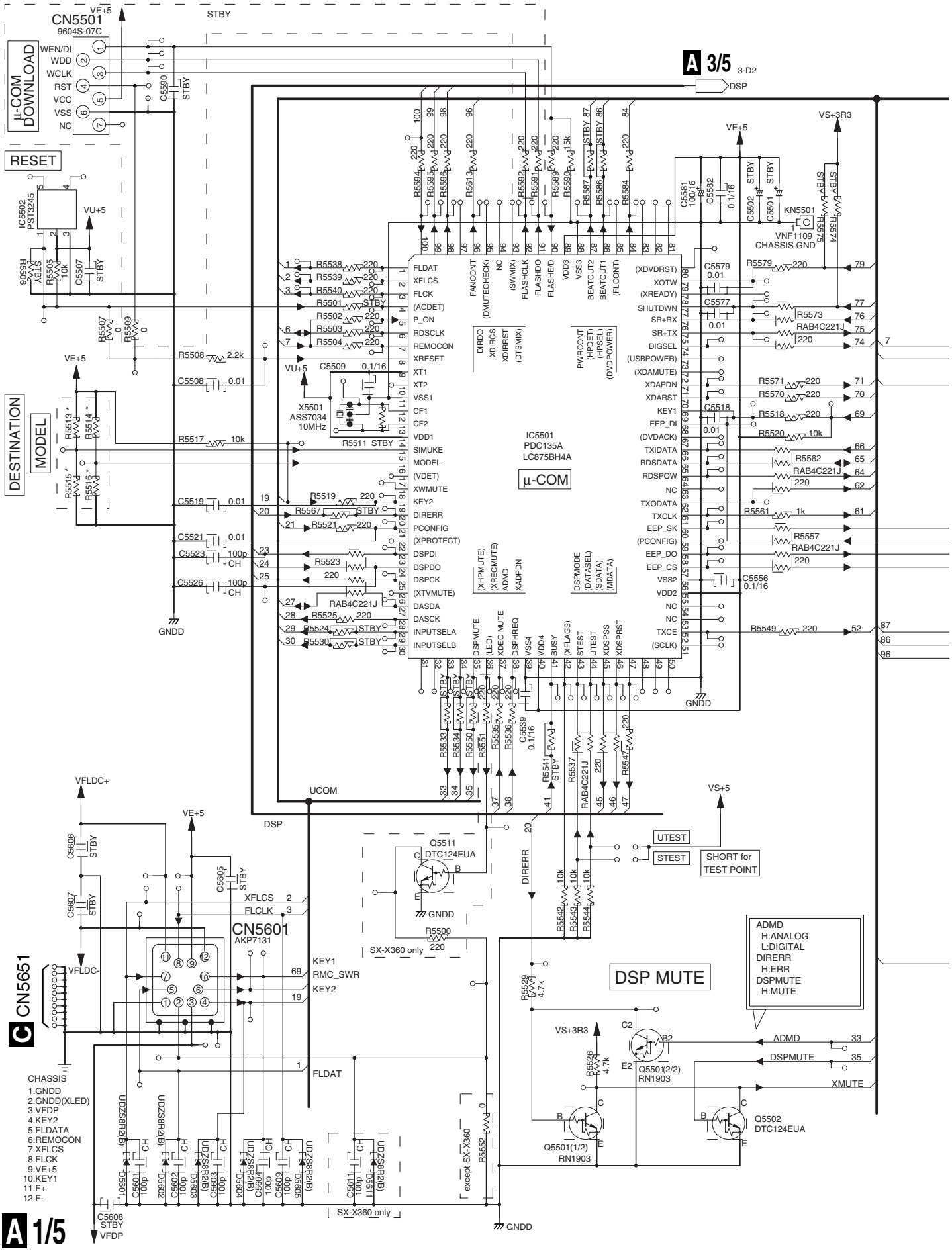
3.1 OVERALL WIRING CONNECTION DIAGRAM AND BLOCK DIAGRAM



- 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 MAIN ASSY (1/5)



A 1/5 MAIN ASSY
(SX-SW404, SX-SW606/WYXCN5 : AWK7924)
(SX-X360/WYXCN5,WVXCN5 : AWK7938)
(SX-X360/KUCXCN : AWK7940)

A 2/5-5/5
1-C1,3-A6,4-D1
6-A1
UCOM

* Destination	AWK7924 AWK7938 (WY,WV)	AWK7940 (KUC)
R5513	—	47k
R5515	47k	—

* MODEL	SX-SW404 SX-SW606	SX-X360
R5514	—	47k
R5516	47k	-

NOTES
All Capacitors are in p-pF or uF unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified
SQ : CKSQ**(2125size)
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))
: CEAT
All Resistors are in k-kΩ, M-MΩor Ω
1/8W : RS1/8S***J(3216size)
1/10W : RS1/10S***J(2125size)
(others : RS1/16S***J(1608size)

SR OUT
EEPROM
BEAT CUT
POWER SUPPLY
FAN
FAN VOLTAGE TABLE

REMOCON
RMC
RMC_SWR
BEATCUT2
BEATCUT1
FANCONT
84 PWRCONT

IC5503 BR93L46RFJ-W
Q5451 DTC124EUA
Q5452 2SA1576A(QR)
Q5803 2SC4081(QR)
Q5804 2SC4081(QR)
Q5801 2SA1576A(QR)
Q5604 2SD1858X(QR)
Q5605 DTC124EUA
Q1301(1/2) UMF21N
L5451 QTL1013
L1501 LFEA220J 22uH

3.31V [MODULATOR] VS+3R3
5.06V [µcom] VU+5
[SR] [µcom] [FL DRIVER] VE+5
4.98V VS+5 [OPT IN] [RDS]
5.08V
11.93V VS+12
-22.70V [FL] VFLDC+
-19.10V VFLDC- [FL]
-25.30V VFDP [FL]

CN5602 B2B-PH-K-S
FAN + / GNDF
FAN (VXM1121)

CN1001 B11B-PH-K-S
1 VSF+12
2 VS+12
3 BEAT CUT
4 VE+5
5 GNDD
6 VS+3R3
7 POWER CONT
8 GNDD
9 FL DC-
10 FL DC+
11 VFDP
F CN3

KN1001 VNF1109 CHASSIS GND

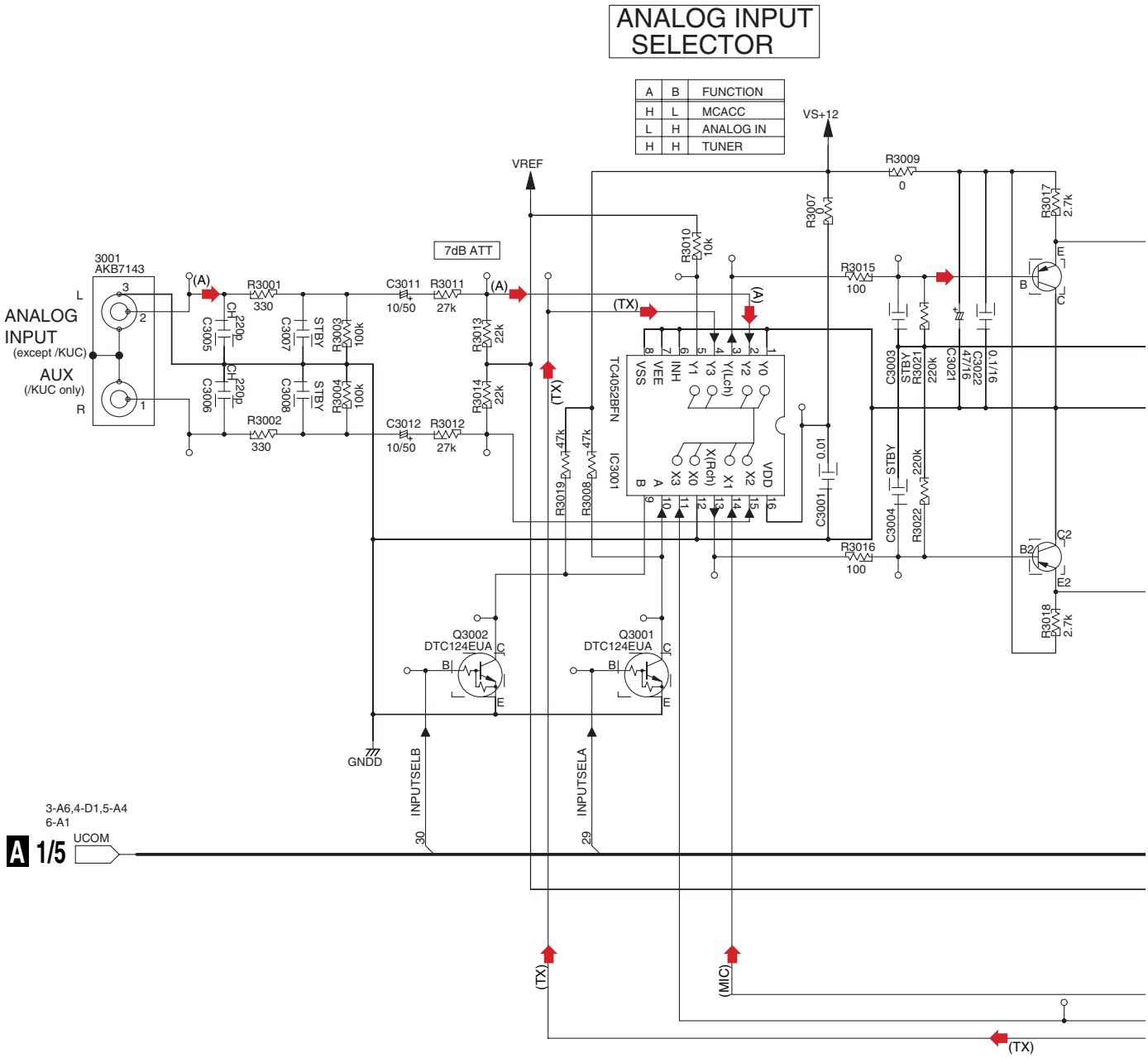
Reference voltage value
• It will be described in .
• It may fluctuate by the product.

FAN VOLTAGE TABLE

ROTATION	POWER	VOLTAGE
LOW	VSF+12	12.9
Not Digital Stream. (The Analog IN is excluded)	VSFAN	7.1
LOW	VSF+12	14.3
Analog IN (VOL19 or less)	VSFAN	7.2
HIGH	VSF+12	14.2
VOL20 or more	VSFAN	11.3

A 1/5

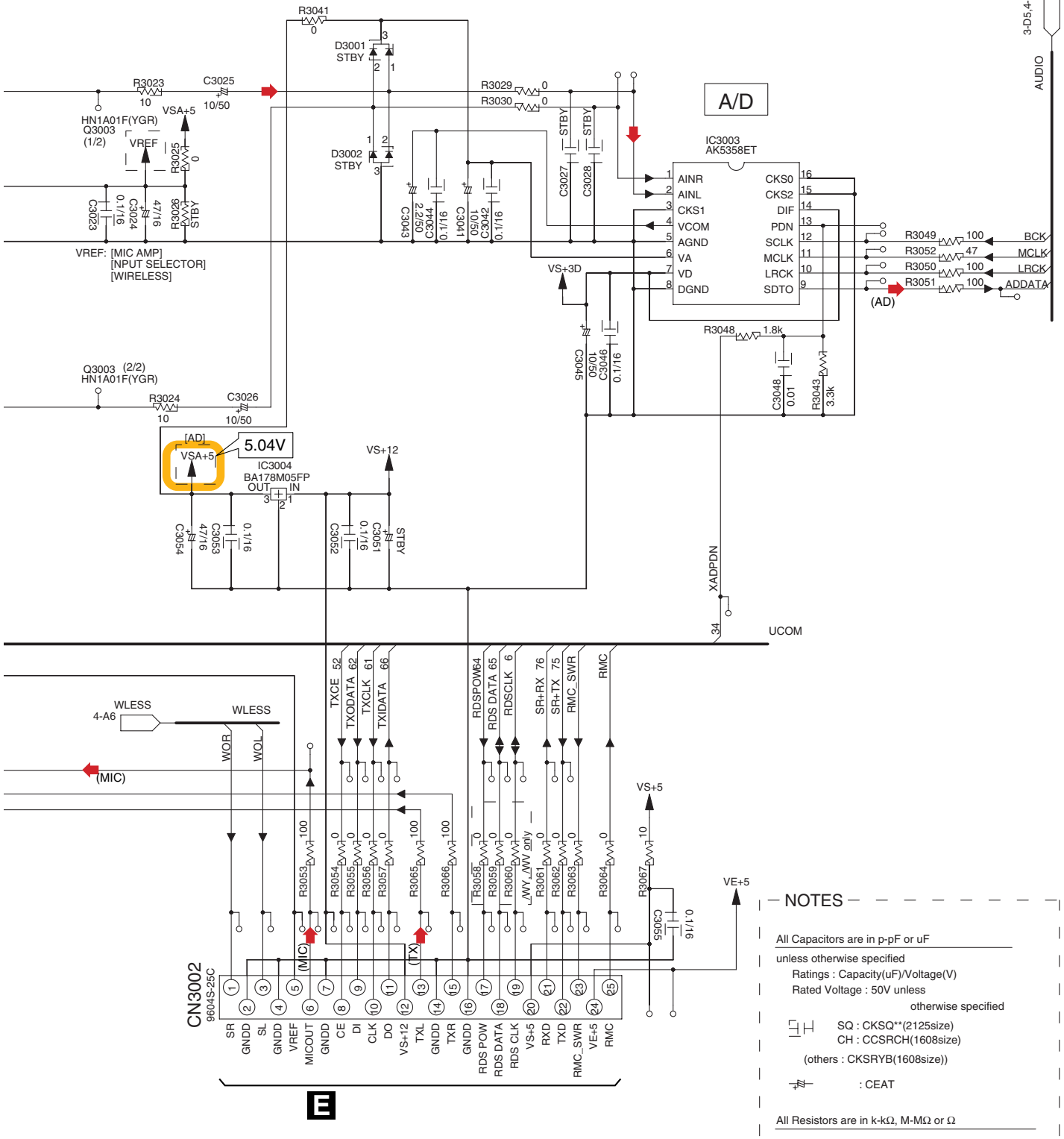
3.3 MAIN ASSY (2/5)



(A) : AUDIO SIGNAL ROUTE (ANALOG IN)
(MIC) : AUDIO SIGNAL SIGNAL (MCACC MIC)
(TX) : AUDIO SIGNAL ROUTE (FM/AM)
: AUDIO SIGNAL ROUTE
(AD) : AUDIO DATA SIGNAL ROUTE

A 2/5 MAIN ASSY
(SX-SW404, SX-SW606/WYXCN5 : AWK7924)
(SX-X360/WYXCN5,WVXCN5 : AWK7938)
(SX-X360/KUCXCN : AWK7940)

A 3/5, 4/5



NOTES

All Capacitors are in p-pF or uF
unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified

SQ : CKSQ**(2125size)
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

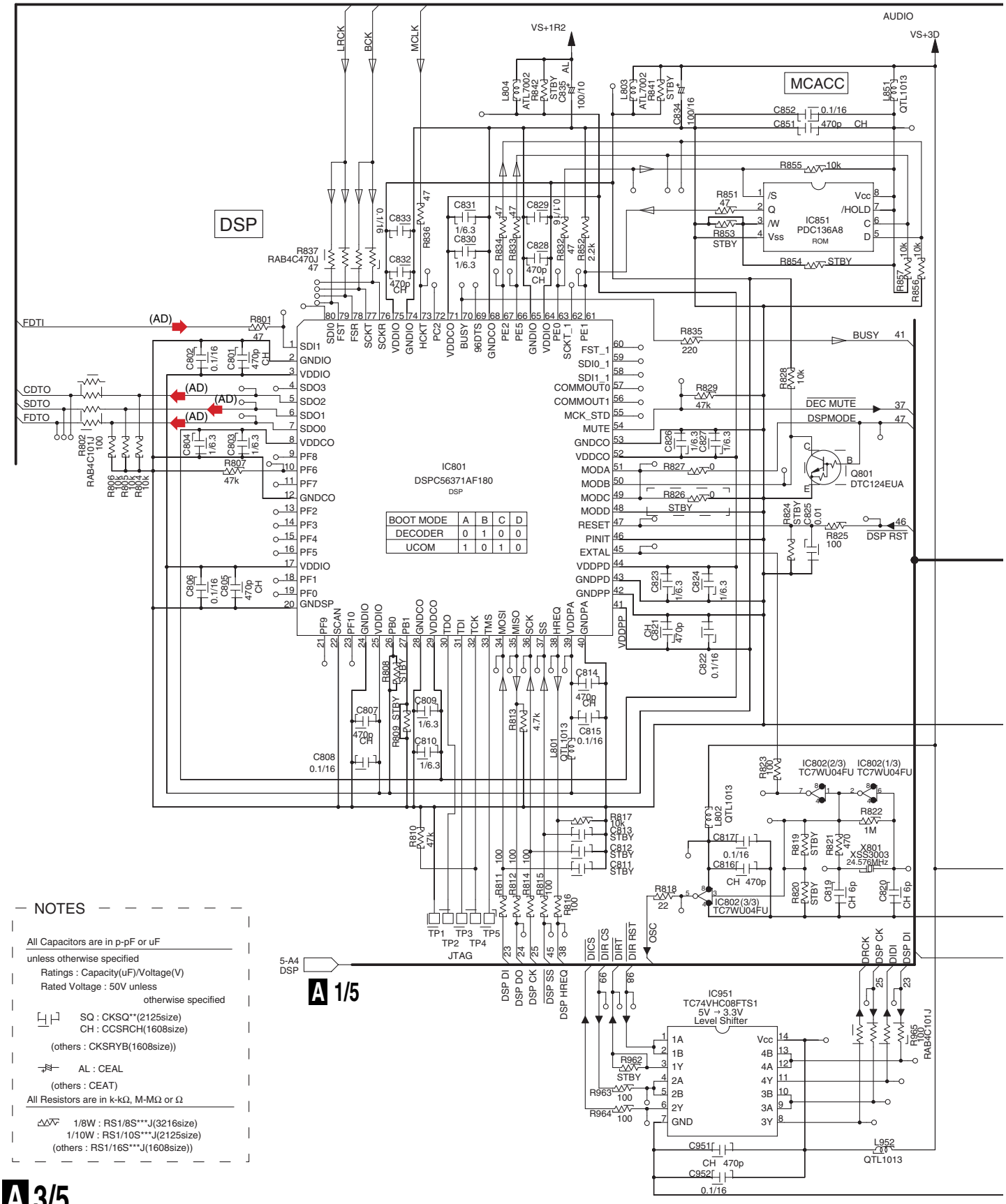
: CEAT

All Resistors are in k-kΩ, M-MΩ or Ω

1/8W : RS1/8S***J(3216size)
1/10W : RS1/10S***J(2125size)
(others : RS1/16S***J(1608size)

A 2/5

3.4 MAIN ASSY (3/5)



NOTES

All Capacitors are in p-pF or uF unless otherwise specified

Ratings : Capacity(uF)/Voltage(V)

Rated Voltage : 50V unless otherwise specified

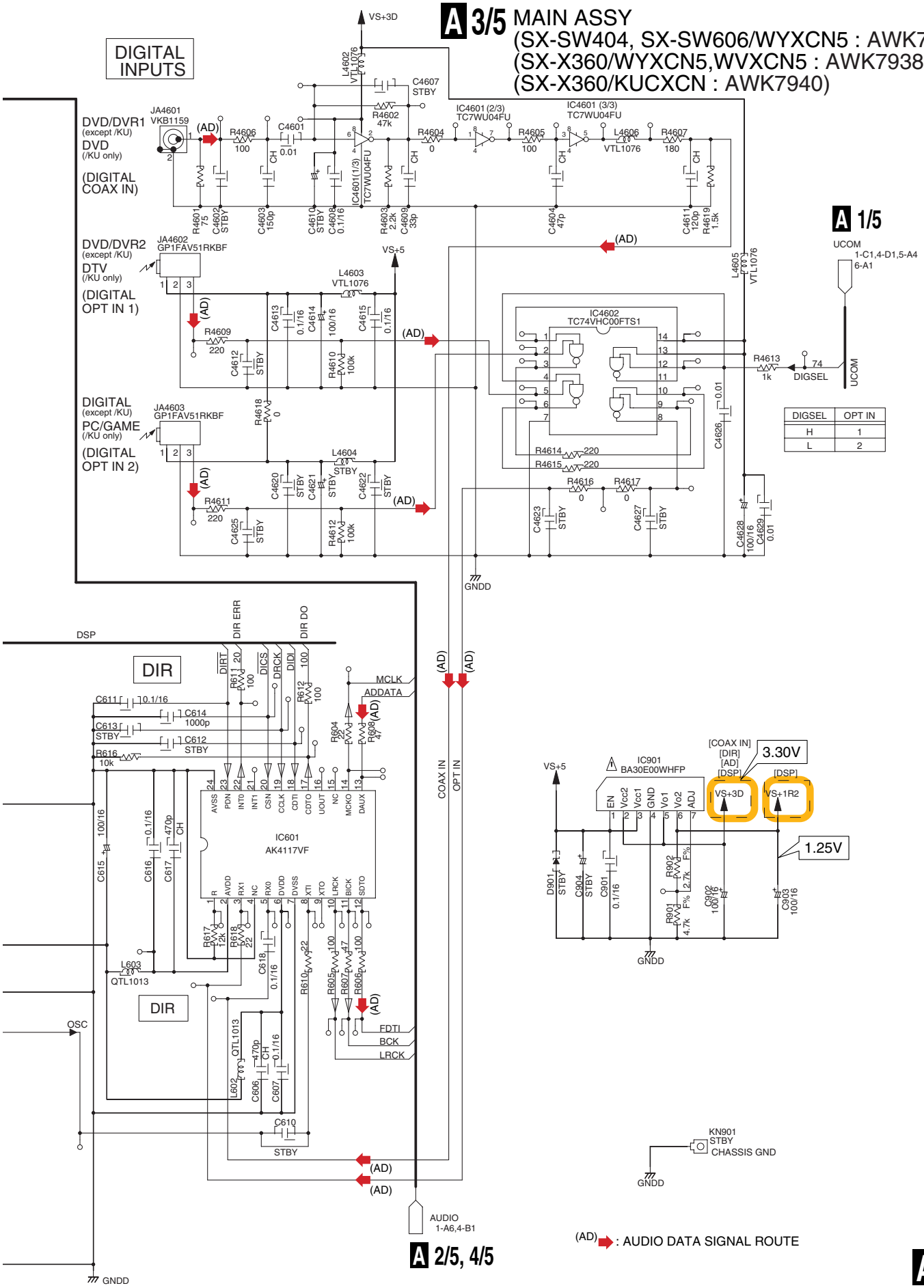
SQ : CKSQ**(2125size)
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

AL : CEAL
(others : CEAT)

All Resistors are in k-kΩ, M-MΩ or Ω

1/8W : RS1/8S***J(3216size)
1/10W : RS1/10S***J(2125size)
(others : RS1/16S***J(1608size))

A 3/5 MAIN ASSY
(SX-SW404, SX-SW606/WYXCN5 : AWK7924)
(SX-X360/WYXCN5,WVXCN5 : AWK7938)
(SX-X360/KUCXCN : AWK7940)



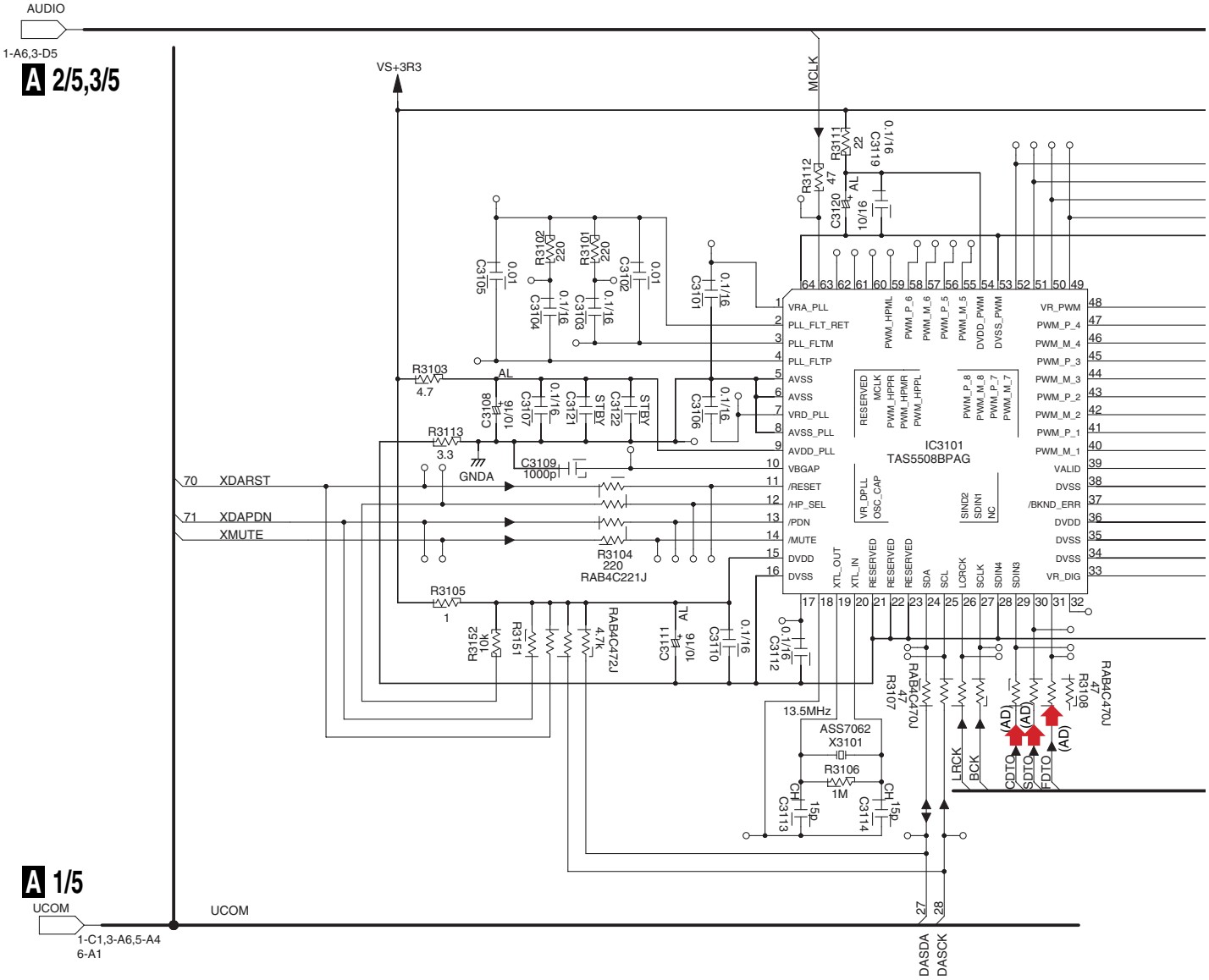
3.5 MAIN ASSY (4/5)

A 4/5 MAIN ASSY
(SX-SW404, SX-SW606/WYXCN5 : AWK7924)
(SX-X360/WYXCN5,WVXCN5 : AWK7938)
(SX-X360/KUCXCN : AWK7940)

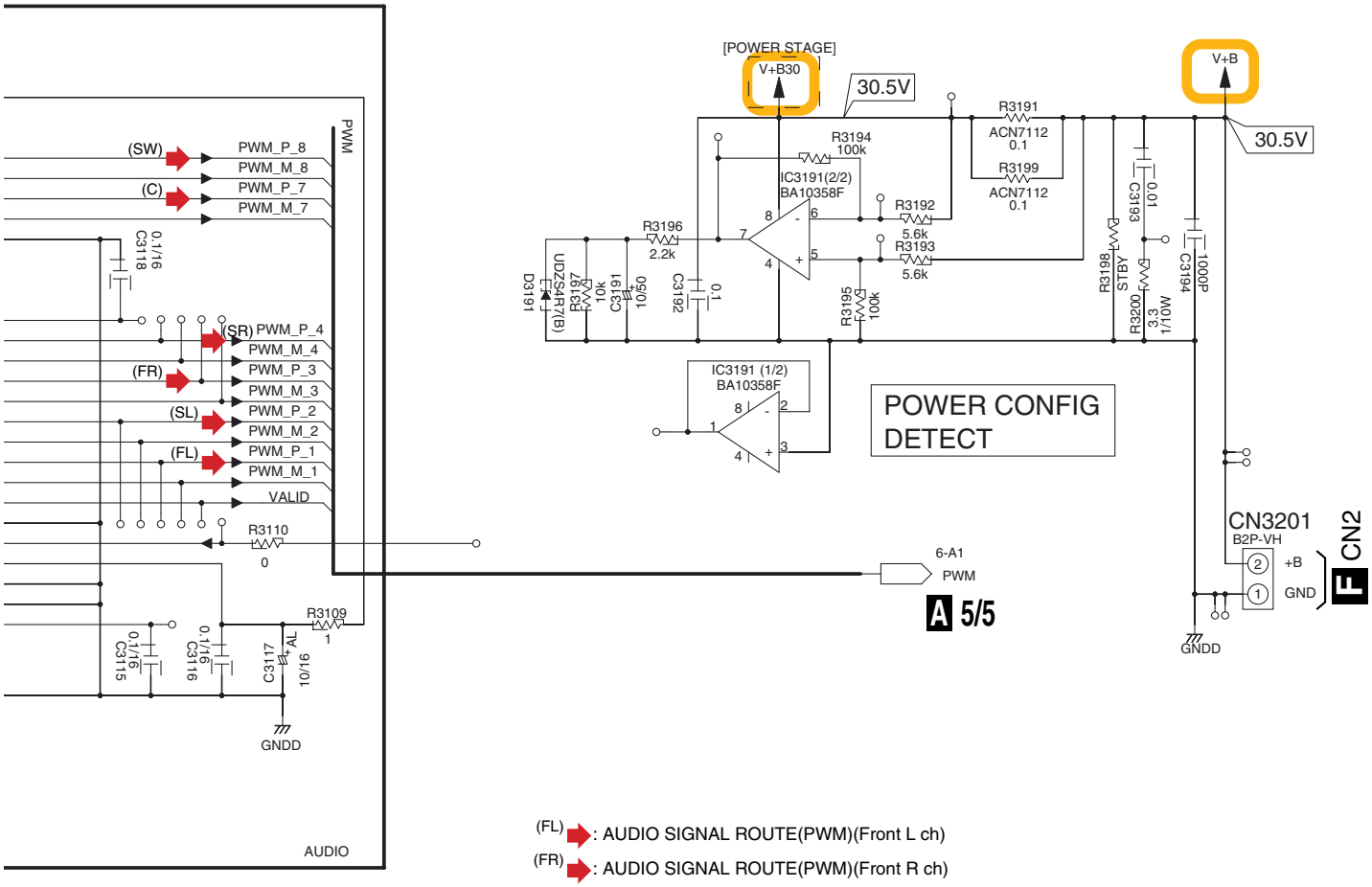
NOTES

All Capacitors are in p-pF or uF
unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified
SQ : CKSQ**(2125size)
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))
AL : CEAL
(others : CEAT)
All Resistors are in k-kΩ, M-MΩor Ω
1/8W : RS1/8S***J(3216size)
1/10W : RS1/10S***J(2125size)
(others : RS1/16S***J(1608size)

DIGITAL AUDUO
PWM PROCESSOR



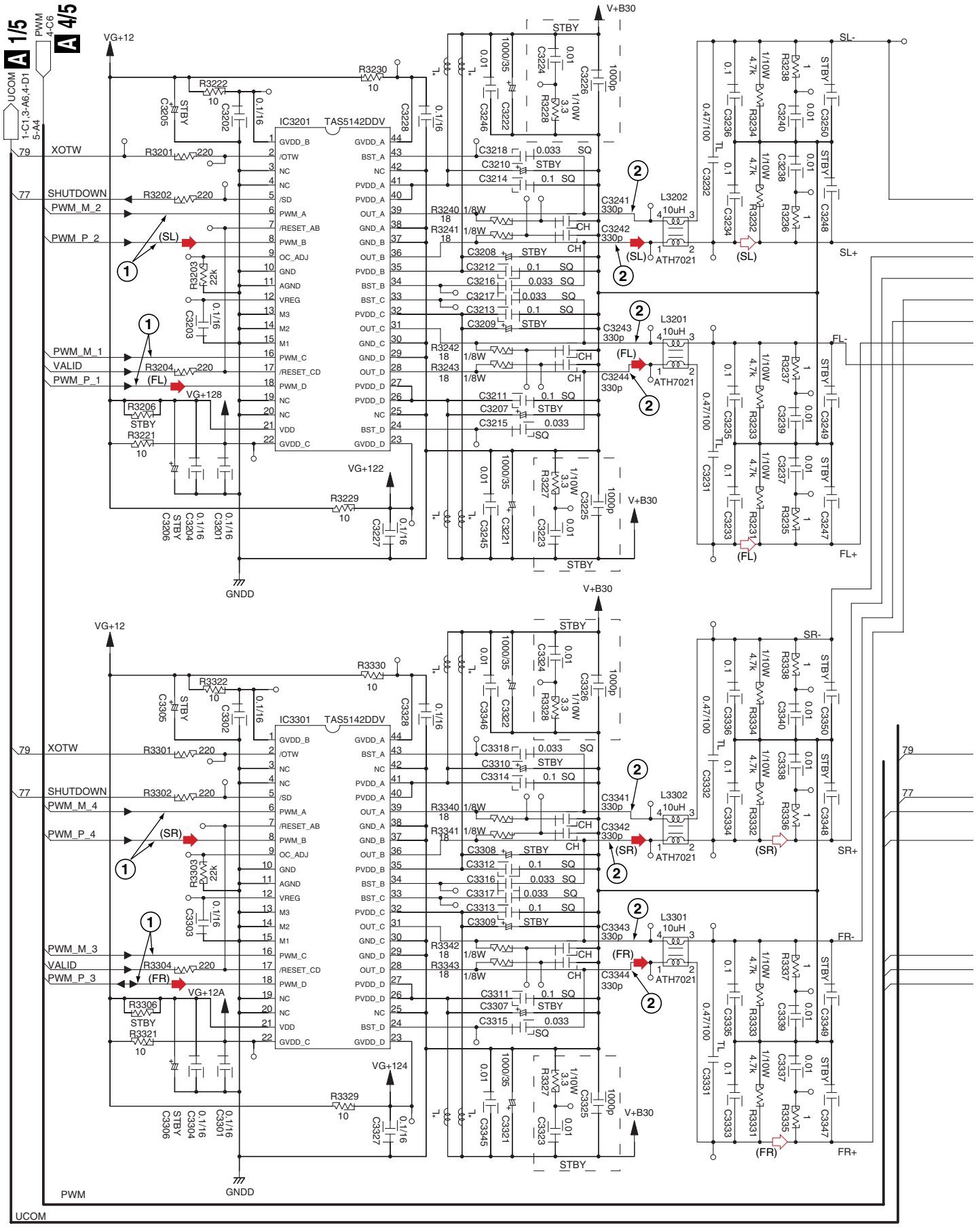
A 4/5



(FL) : AUDIO SIGNAL ROUTE(PWM)(Front L ch)
(FR) : AUDIO SIGNAL ROUTE(PWM)(Front R ch)
(SL) : AUDIO SIGNAL ROUTE(PWM)(Surround L ch)
(SR) : AUDIO SIGNAL ROUTE(PWM)(Surround R ch)
(C) : AUDIO SIGNAL ROUTE(PWM)(Center ch)
(SW) : AUDIO SIGNAL ROUTE(Sub Woofer ch)
(AD) : AUDIO DATA SIGNAL ROUTE

A 4/5

3.6 MAIN ASSY (5/5)



A 5/5

A 5/5 MAIN ASSY
(SX-SW404, SX-SW606/WYXCN5 : AWK7924)
(SX-X360/WYXCN5,WVXCN5 : AWK7938)
(SX-X360/KUCXCN : AWK7940)

NOTES
- All Capacitors are in p-pF or uF unless otherwise specified
- Ratings : Capacity(uF)/Voltage(V)
- Rated Voltage : 50V unless otherwise specified
- SQ : CKSQ**(2125size) CH : CCSRCH(1608size) (others : CKSRYB(1608size))
- TL : CFTLA
- : CEAT
- All Resistors are in k-kΩ, M-MΩ or Ω
- 1/8W : RS1/8S***J(3216size) 1/10W : RS1/10S***J(2125size) (others : RS1/16S***J(1608size)

Terminal Layout (from rear panel)

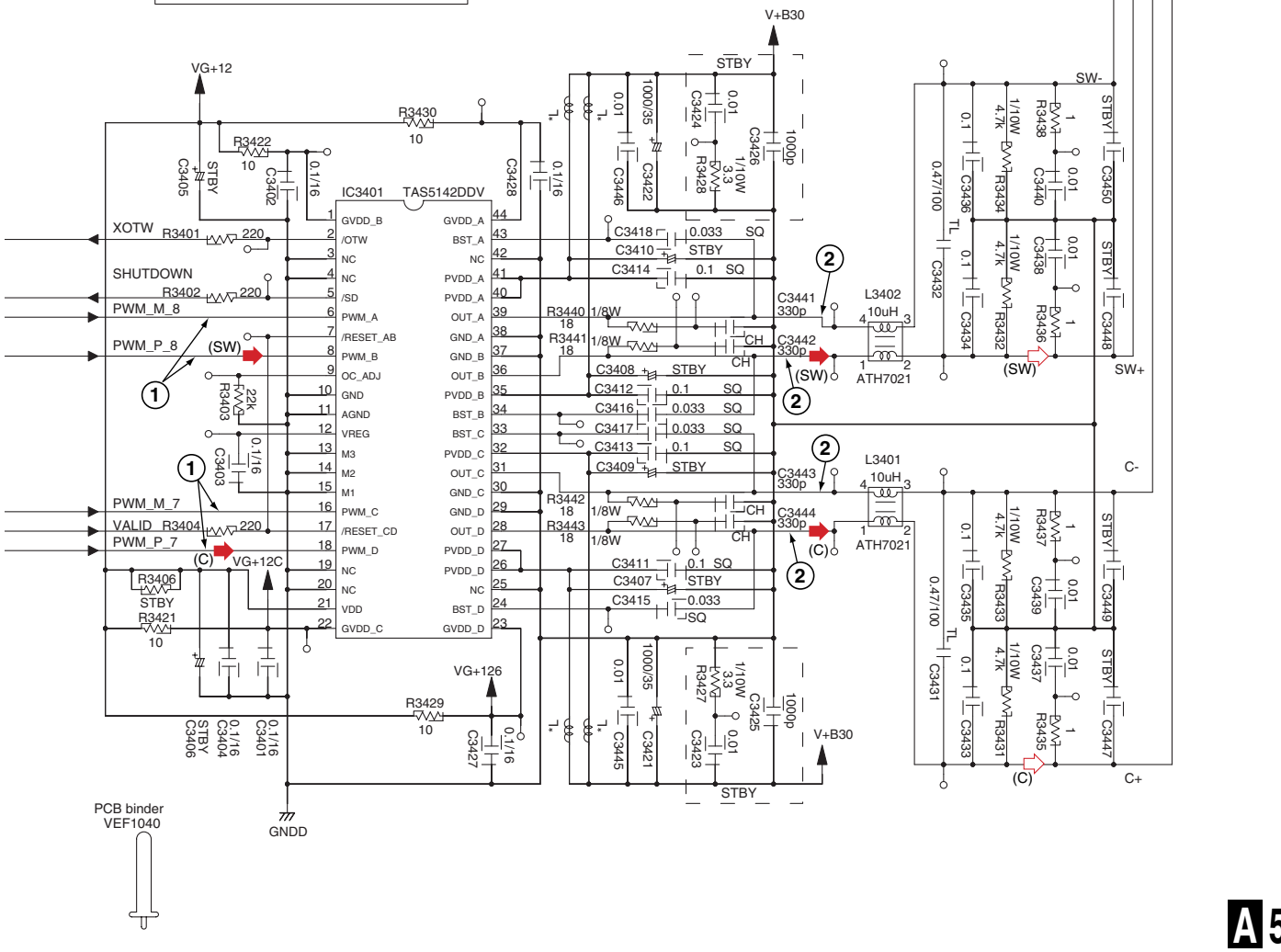
FL	FR	C	
SL	SR	SW	PCB board

CN3211 AKE7120

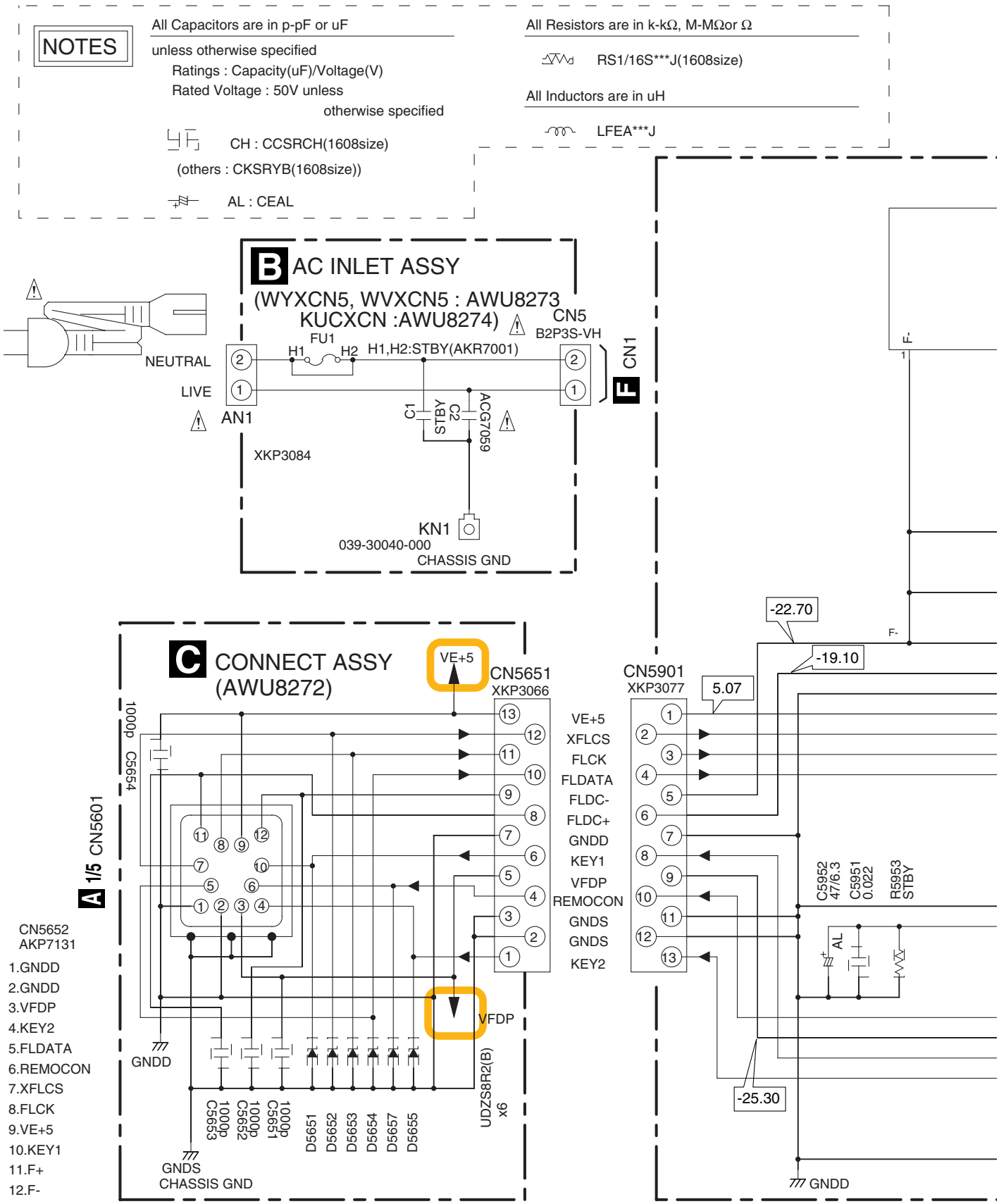
(FL) : AUDIO SIGNAL ROUTE (PWM)(Front Lch)
(FR) : AUDIO SIGNAL ROUTE (PWM)(Front Rch)
(SL) : AUDIO SIGNAL ROUTE (PWM)(Surround Lch)
(SR) : AUDIO SIGNAL ROUTE (PWM)(Surround Rch)
(C) : AUDIO SIGNAL ROUTE (PWM)(Center ch)
(SW) : AUDIO SIGNAL ROUTE (PWM)(Sub Woofer ch)

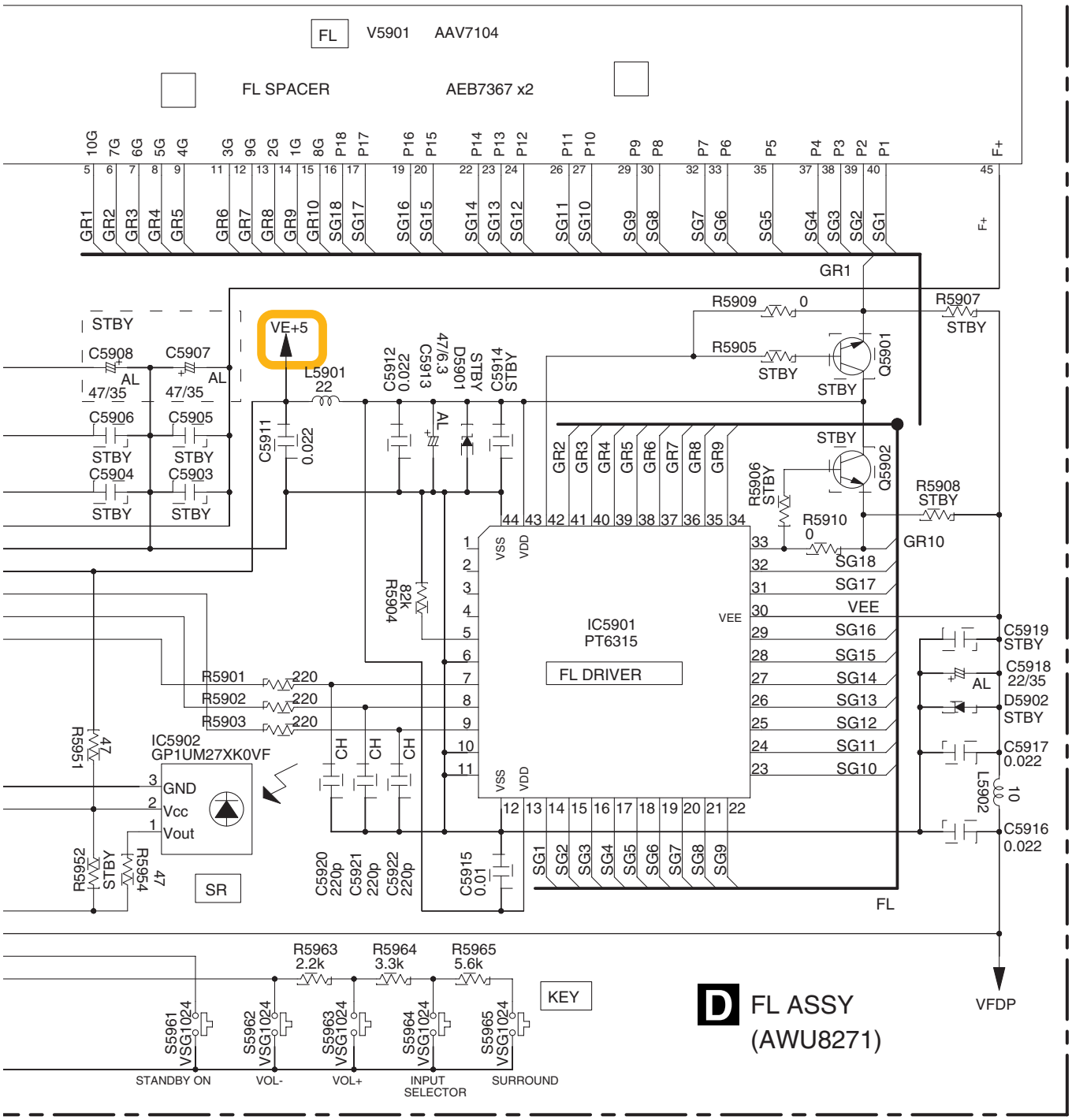
(FL) : AUDIO SIGNAL ROUTE (Front Lch)
(FR) : AUDIO SIGNAL ROUTE (Front Rch)
(SL) : AUDIO SIGNAL ROUTE (Surround Lch)
(SR) : AUDIO SIGNAL ROUTE (Surround Rch)
(C) : AUDIO SIGNAL ROUTE (Center ch)
(SW) : AUDIO SIGNAL ROUTE (Sub Woofer ch)

AMP POWER STAGE



3.7 AC INLET, CONNECT and FL ASSYS (SX-SW404, SX-SW606)



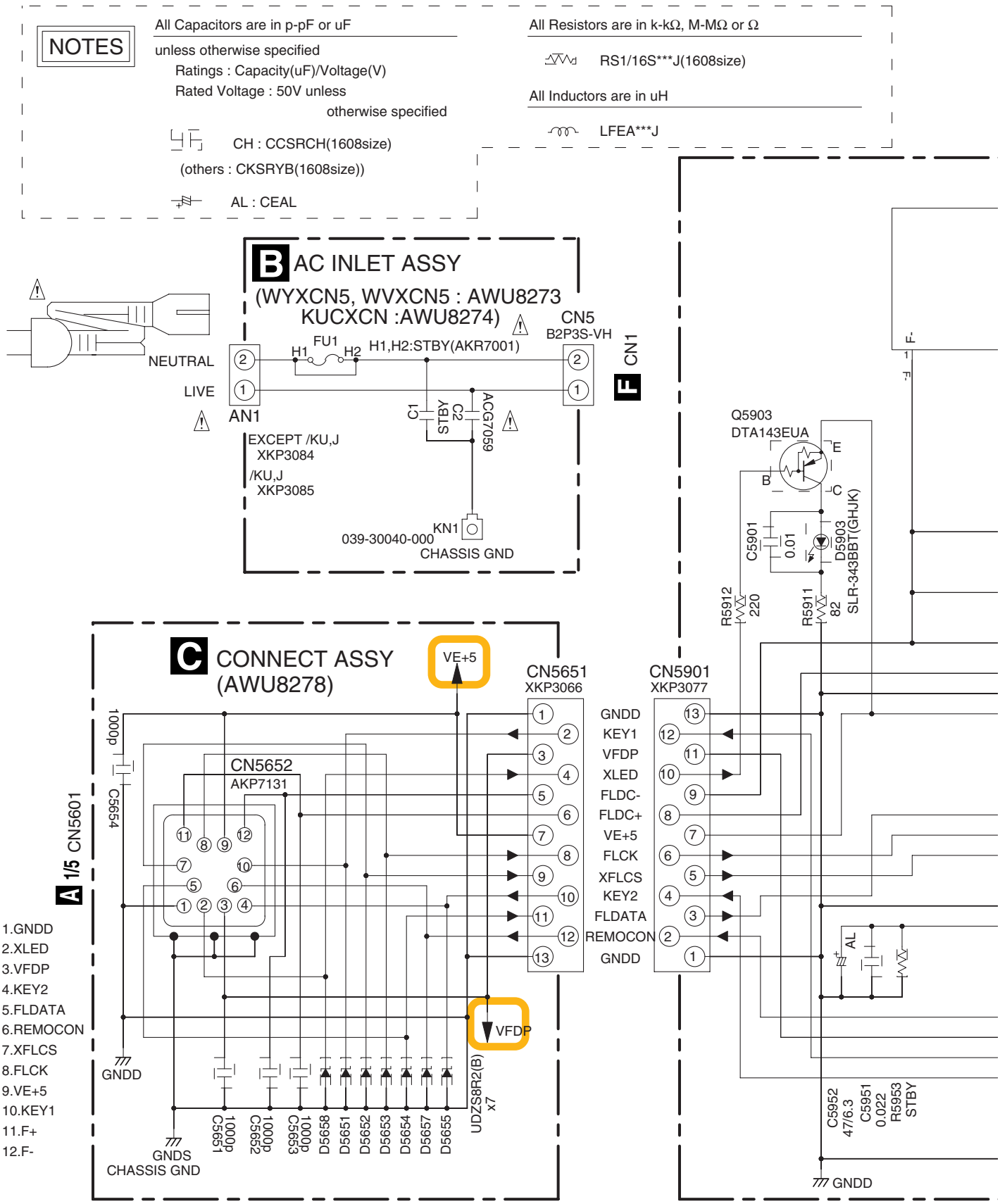


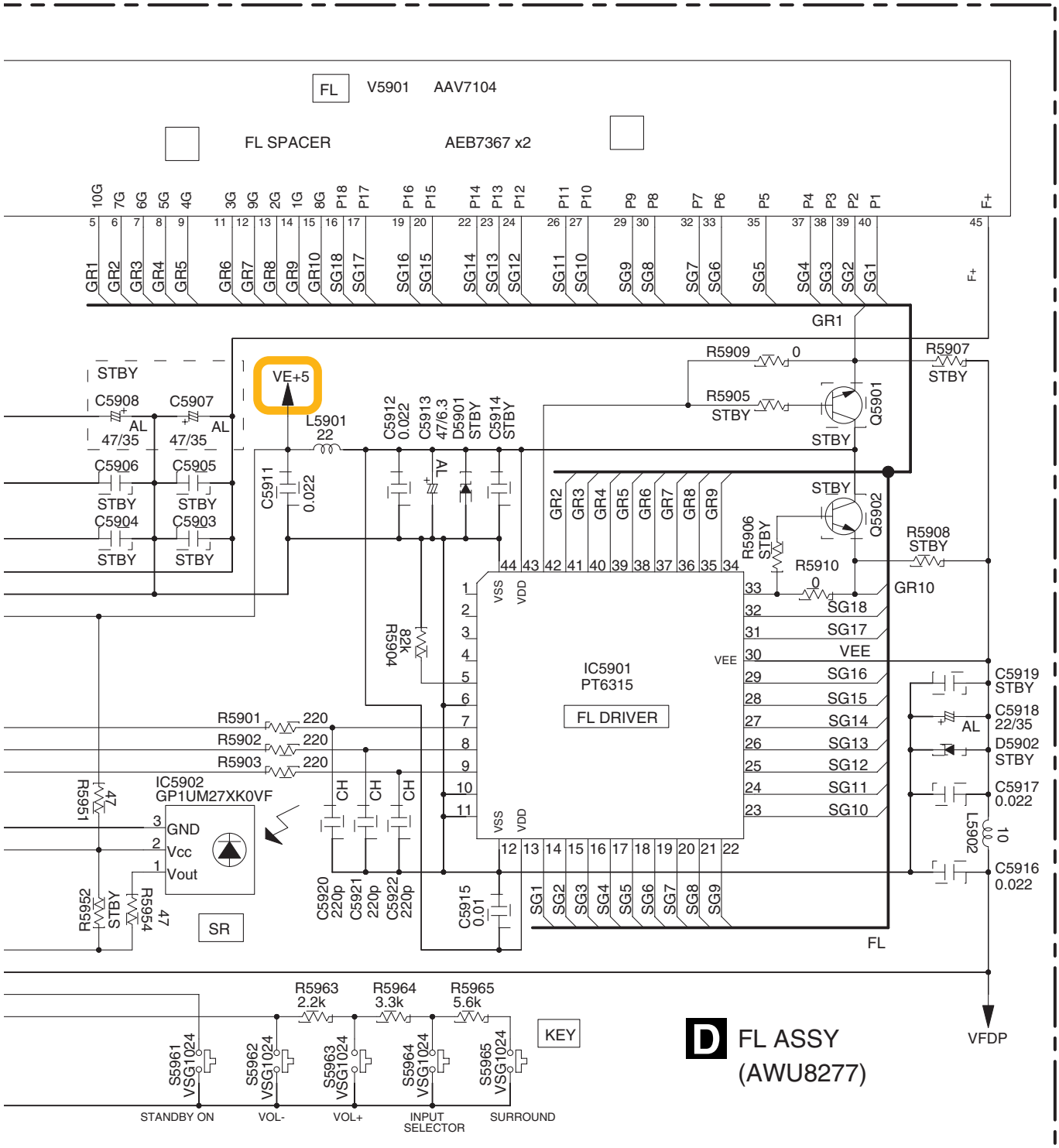
Switches

FL ASSY

S5961 : ⏻ STANDBY/ON
S5962 : – DOWN] VOLUME
S5963 : UP +]
S5964 : AUDIO INPUT
S5965 : SURROUND

3.8 AC INLET, CONNECT and FL ASSYS (SX-X360)





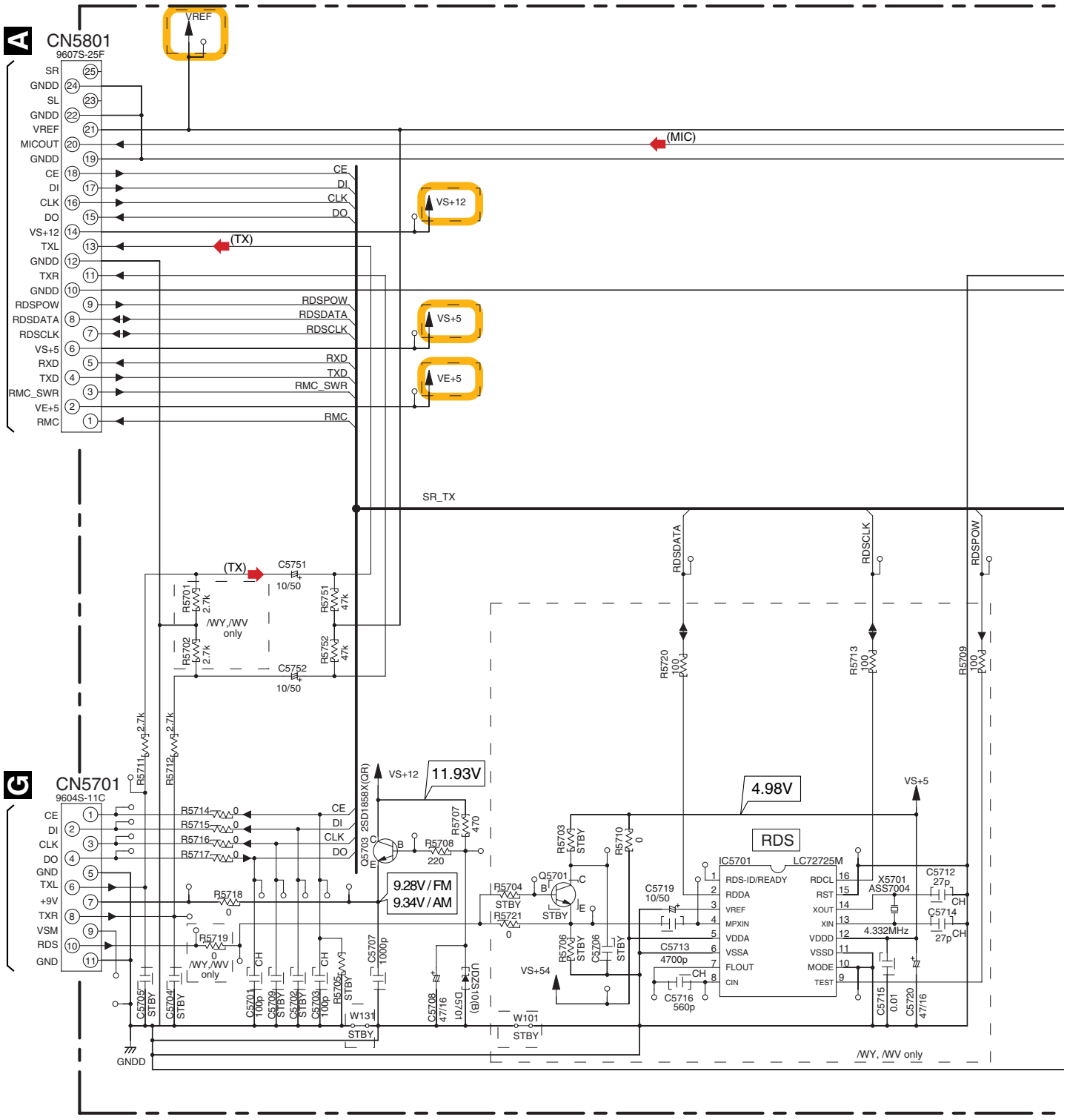
D FL ASSY
(AWU8277)

Switches

FL ASSY

S5961 : ⏻ STANDBY/ON
S5962 : – DOWN] VOLUME
S5963 : UP +]
S5964 : AUDIO INPUT
S5965 : SURROUND

3.9 JACK TX ASSY



NOTES

All Capacitors are in p-pF or uF unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified

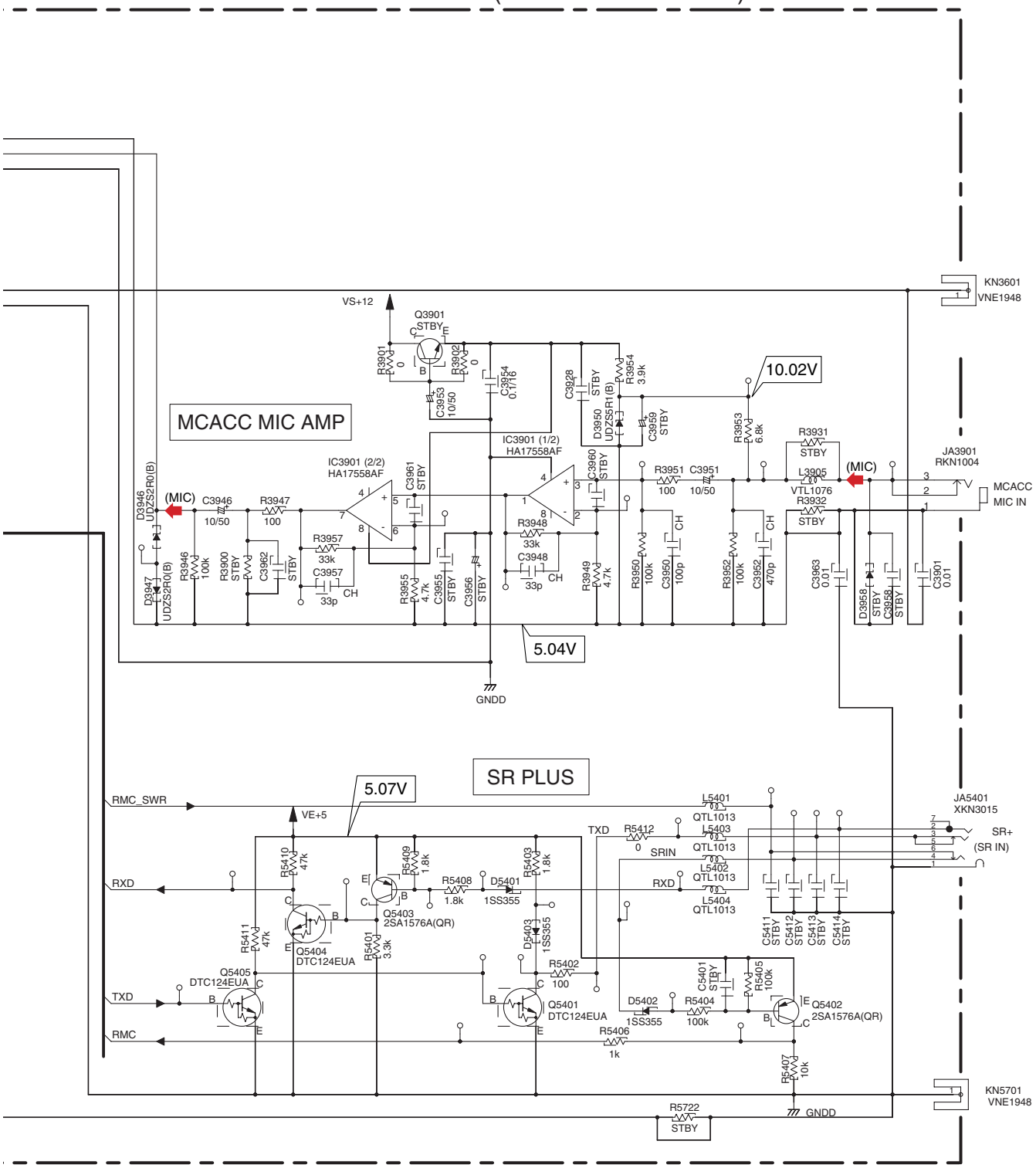
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

: CEAT

All Resistors are in k-kΩ, M-MΩ or Ω

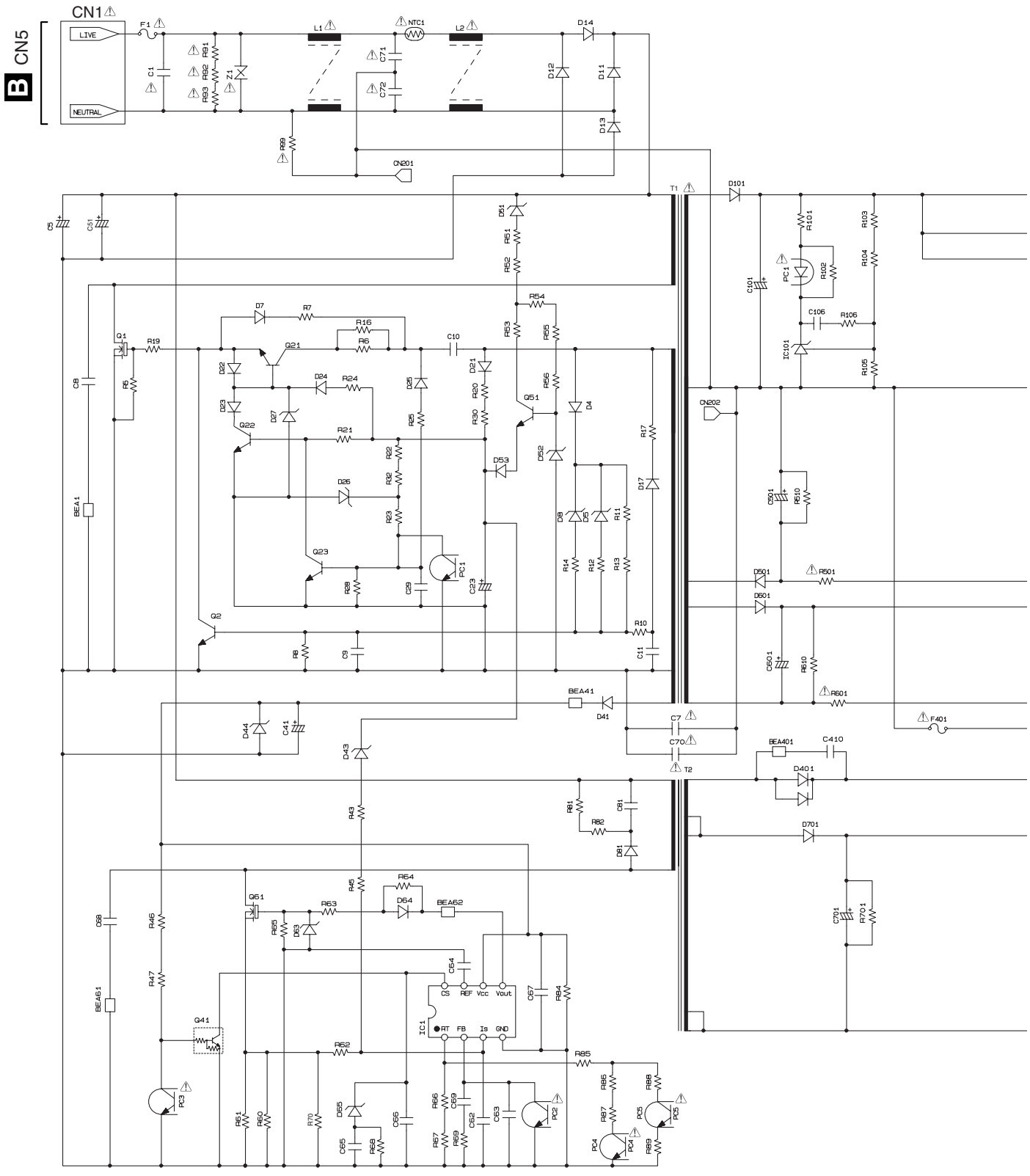
RS1/16S***J(1608size)

E JACK TX ASSY
(WYXCN5, WVXCN5 : AWK8707)
(KUCXCN : AWK8708)

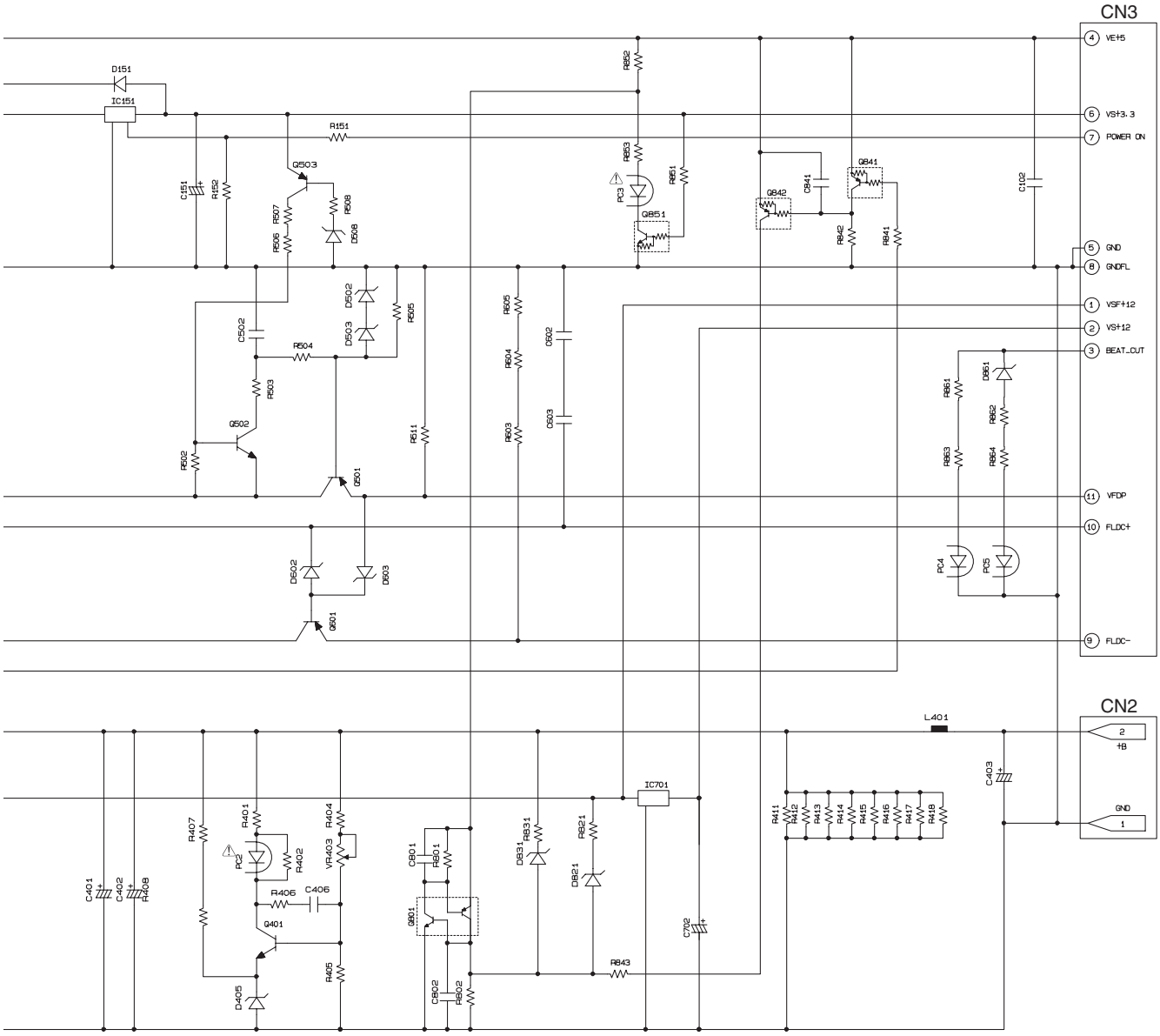


(MIC) : AUDIO SIGNAL SIGNAL (MCACC MIC)
(TX) : AUDIO SIGNAL ROUTE (FM/AM)

3.10 POWER SUPPLY UNIT



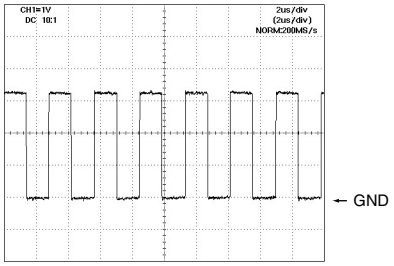
F POWER SUPPLY UNIT
(WYXCN5, WVXCN5 : AWR7043)
(KUCXCN : AWR7044)



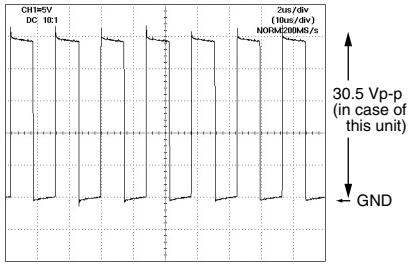
3.11 WAVEFORMS

A MAIN ASSY

① IC3201, IC3301, IC3401 [PWM_A, B, C, D]
V: 1.0V/div. H: 2µsec/div.



② IC3201, IC3301, IC3401 [OUT_A, B, C, D]
V: 5.0V/div. H: 2µsec/div.
* Reference waveform



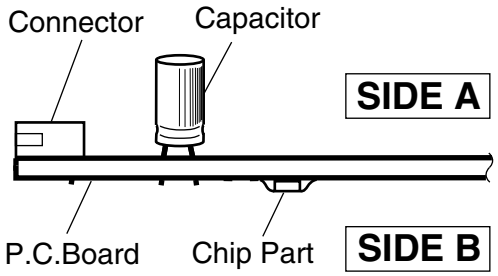
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

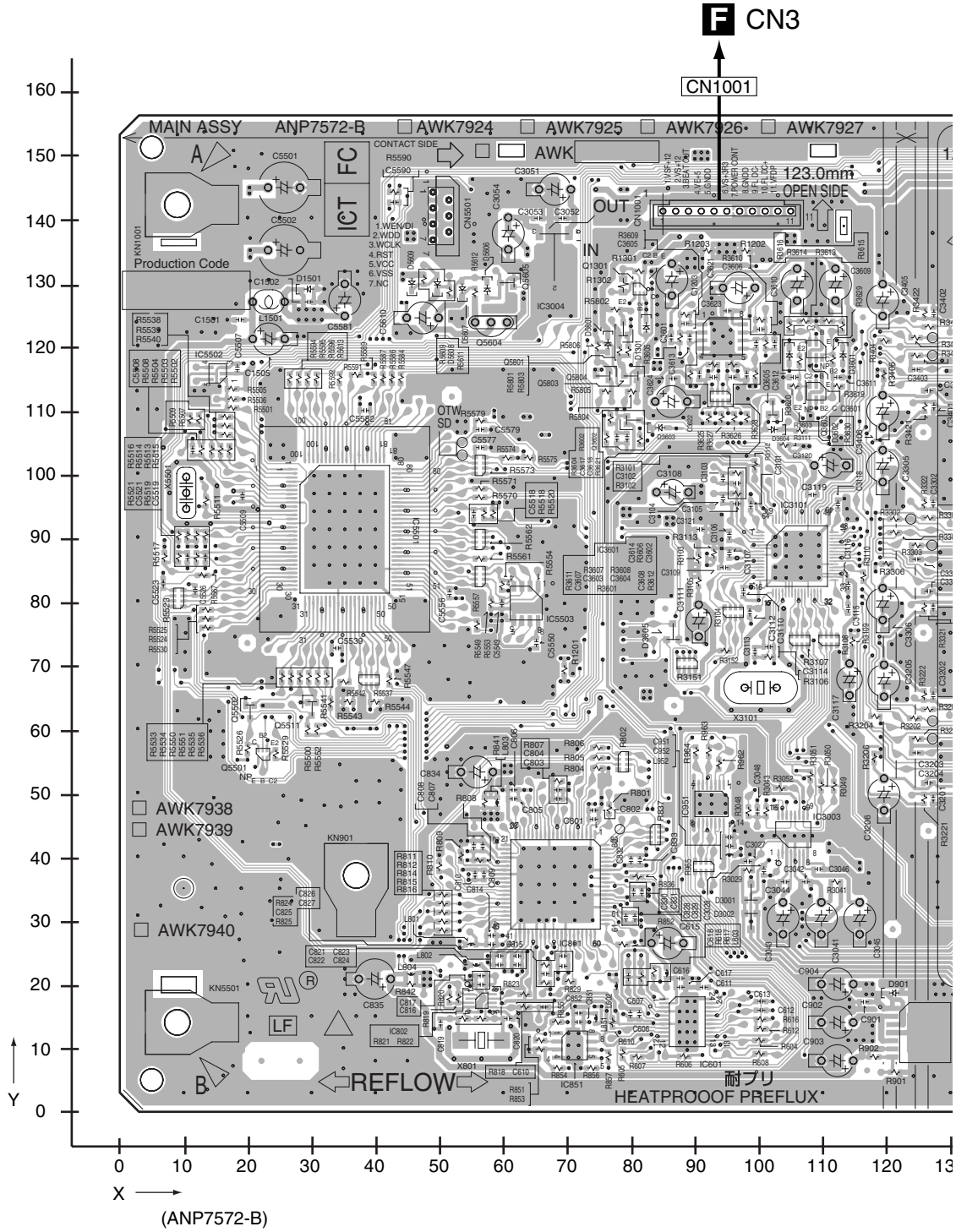
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



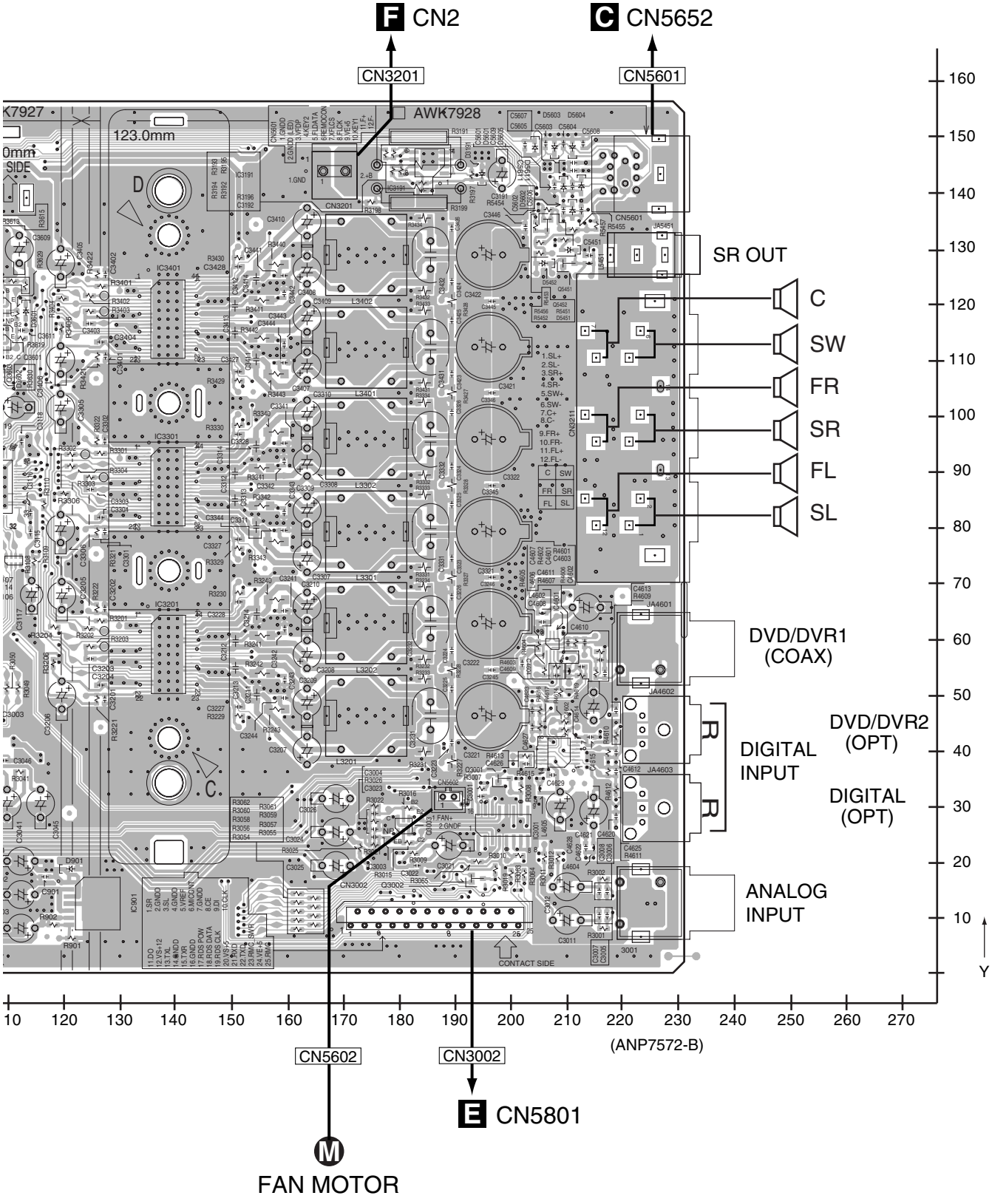
4.1 MAIN ASSY

SIDE A

A MAIN ASSY

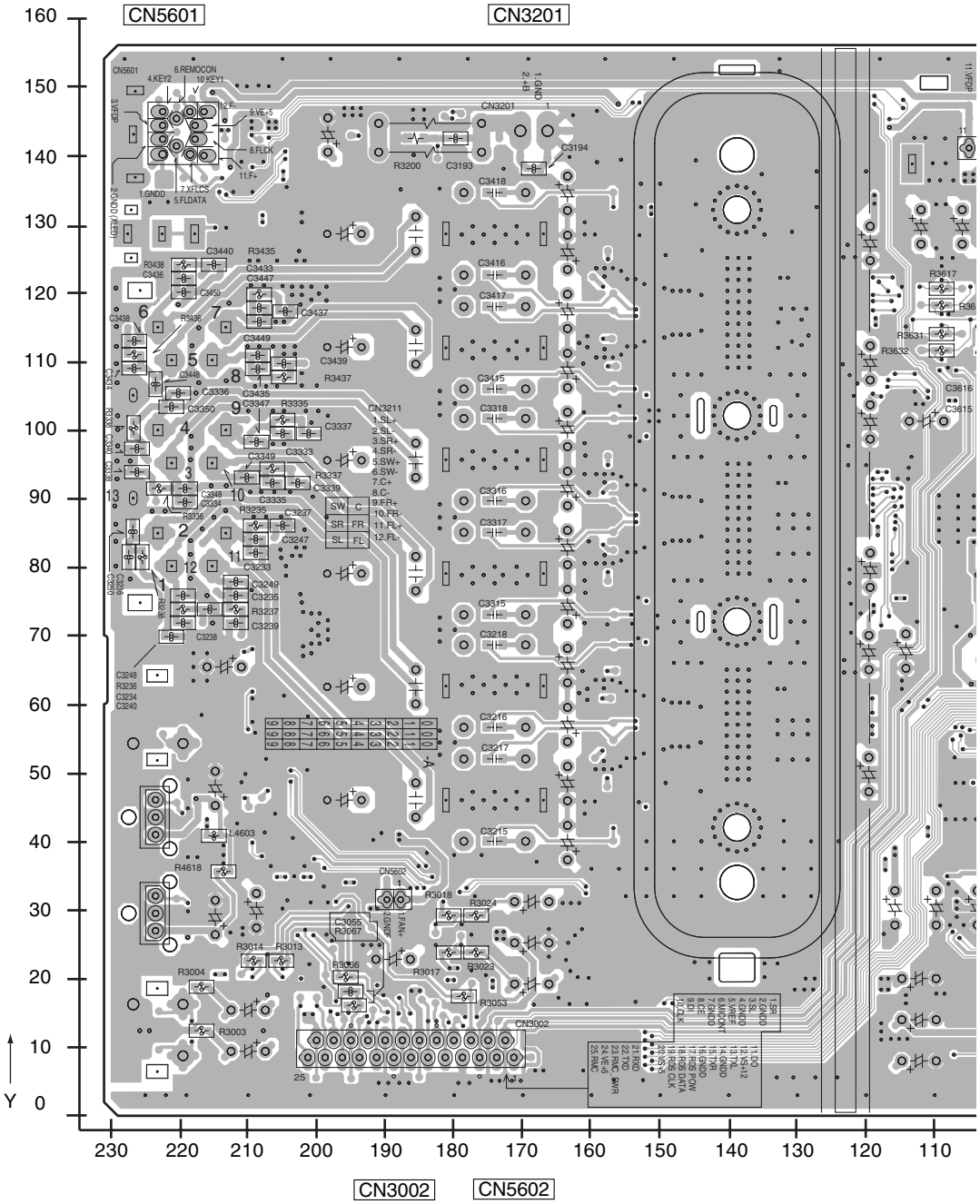


SIDE A

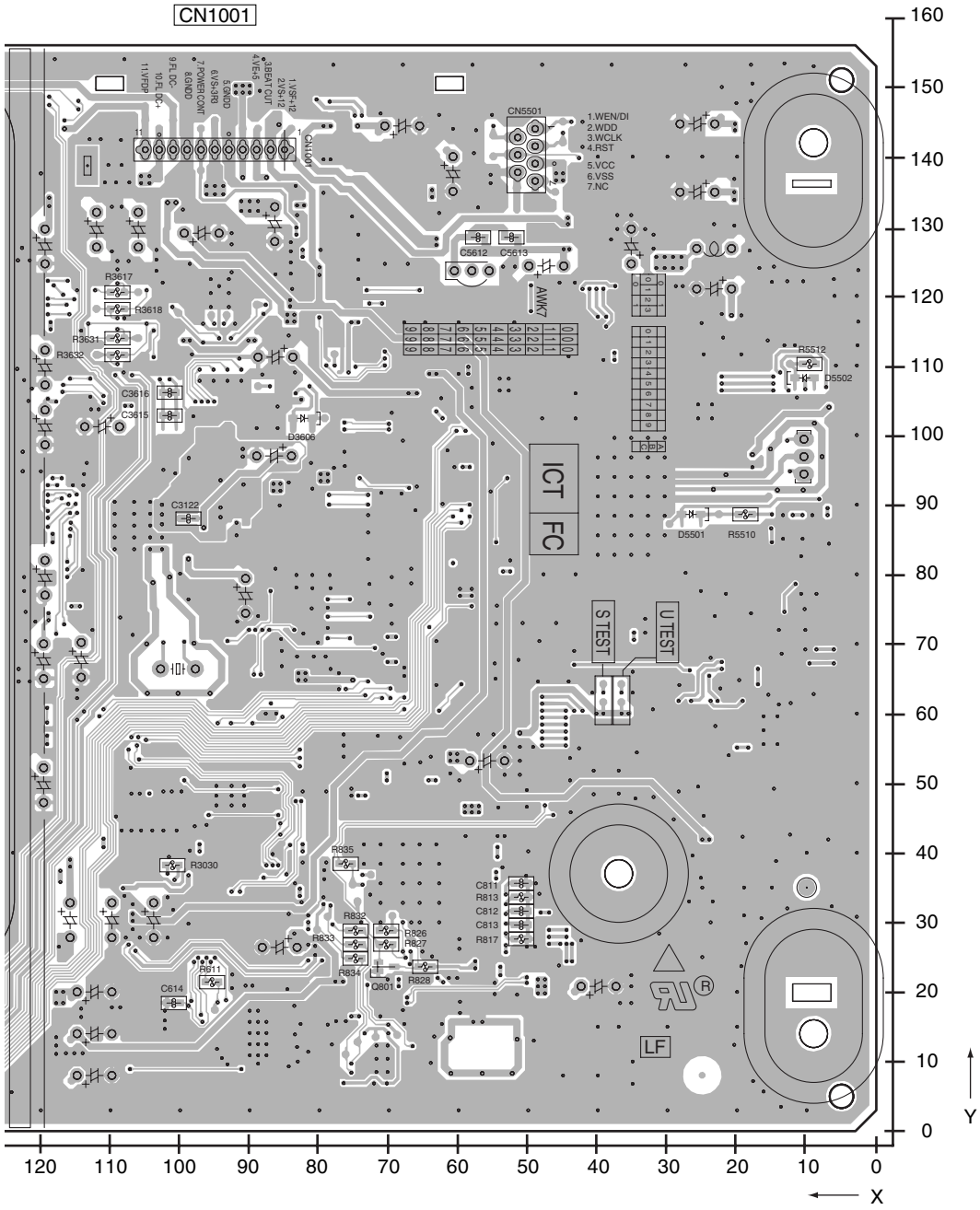

F CN2
C CN5652
CN3201
CN5601
AWK7928
123.0mm
SIDE
SR OUT
C
SW
FR
SR
FL
SL
DVD/DVR1
(COAX)
DVD/DVR2
(OPT)
DIGITAL
INPUT
DIGITAL
(OPT)
ANALOG
INPUT
CONTACT SIDE
CN5602
CN3002
E CN5801
M
FAN MOTOR
(ANP7572-B)

SIDE B

A MAIN ASSY

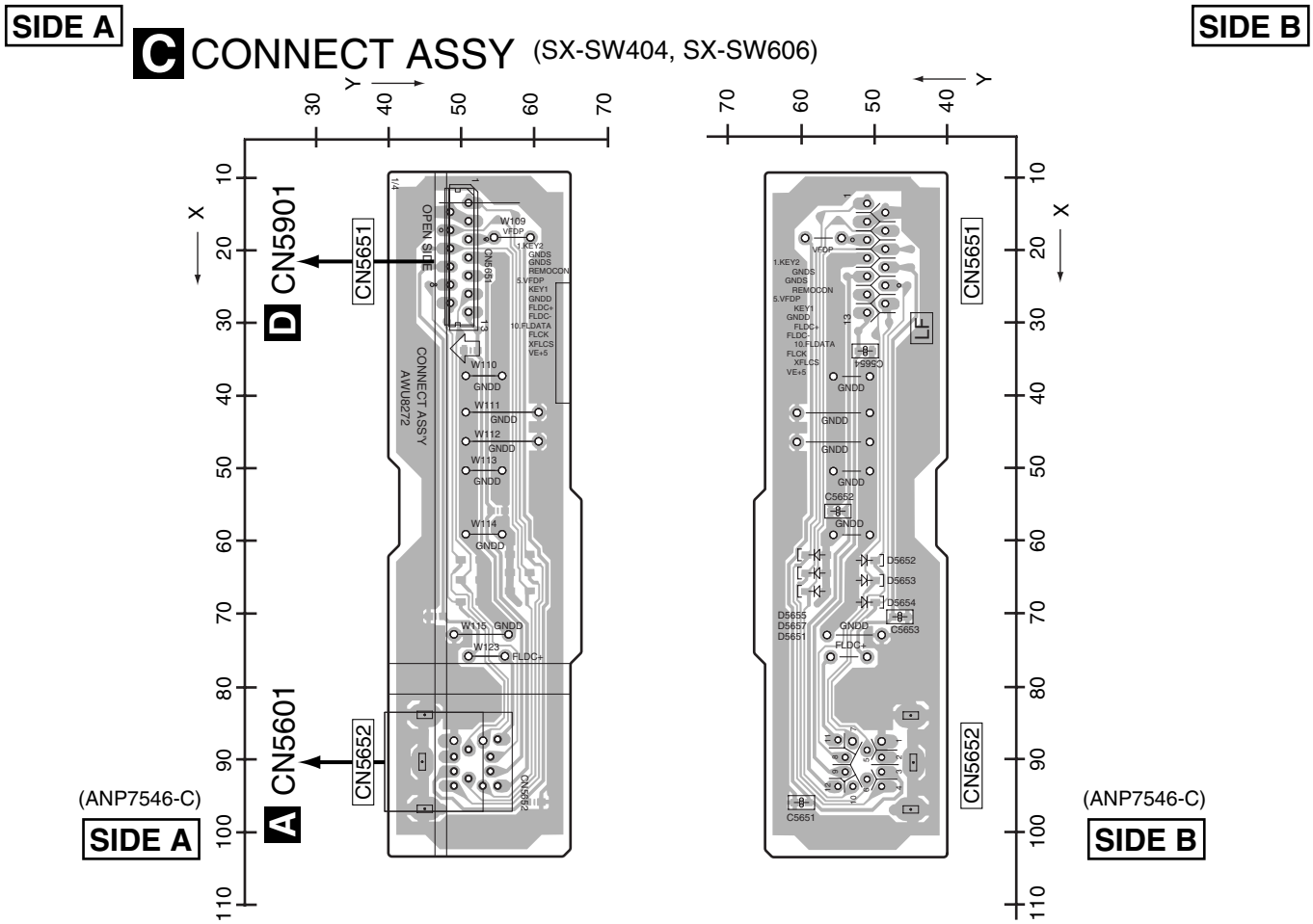


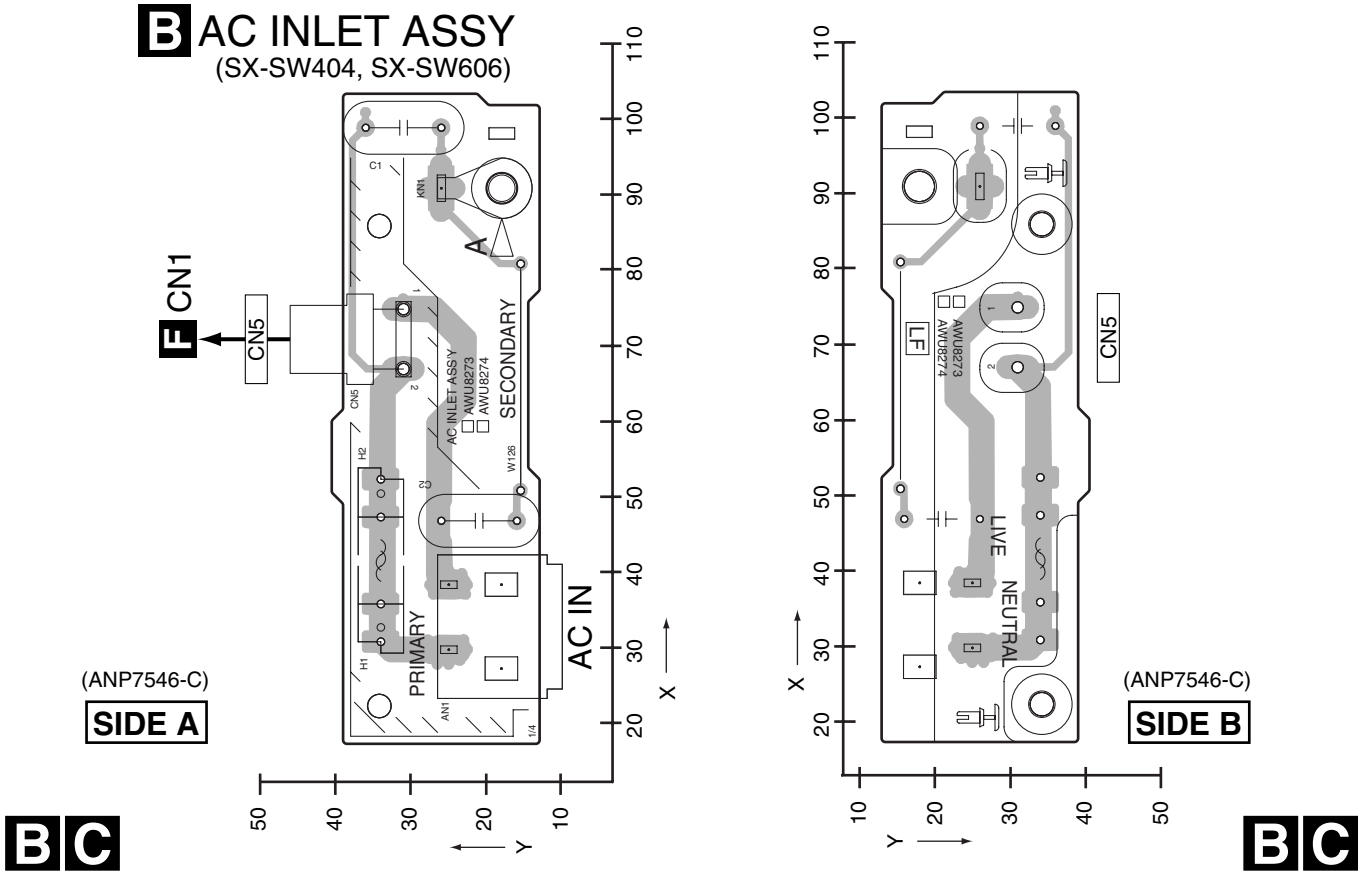
SIDE B



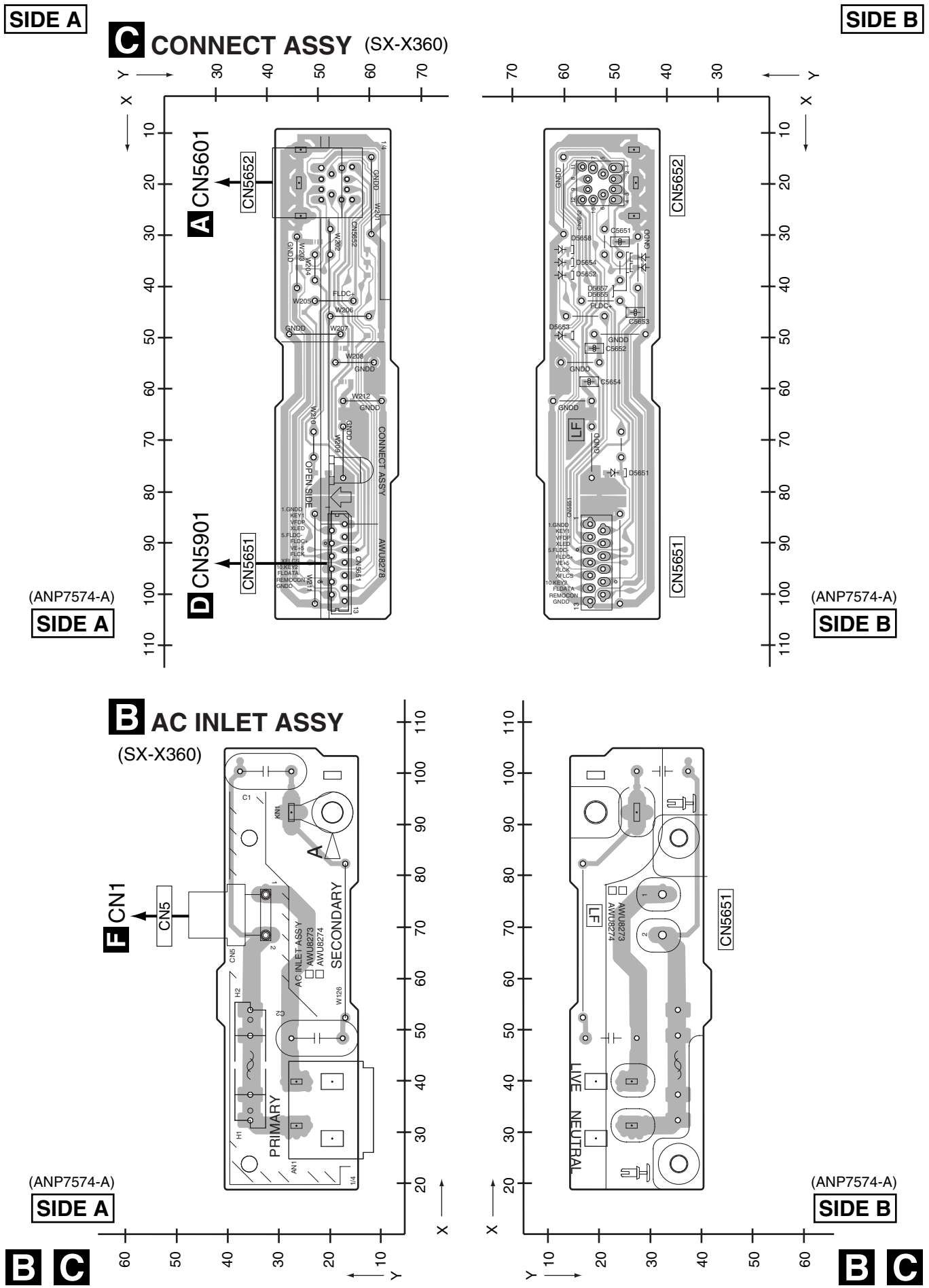
(ANP7572-B)

4.2 AC INLET and CONNECT ASSYS (SX-SW404, SX-SW606)





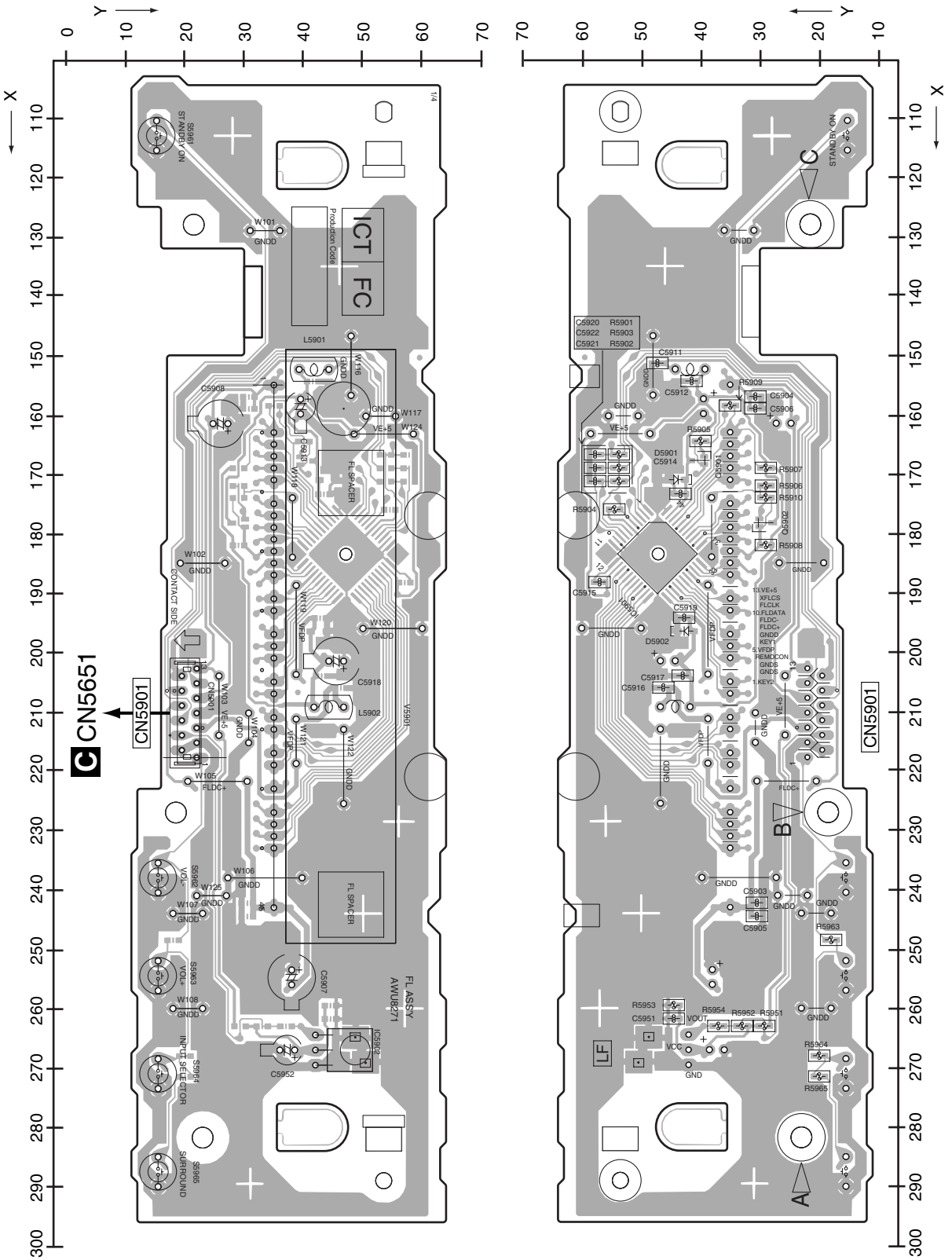
4.3 AC INLET and CONNECT ASSYS (SX-X360)



4.4 FL ASSY (SX-SW404, SX-SW606)

SIDE A **SIDE B**

D FL ASSY (SX-SW404, SX-SW606)



(ANP7546-C) (ANP7546-C)

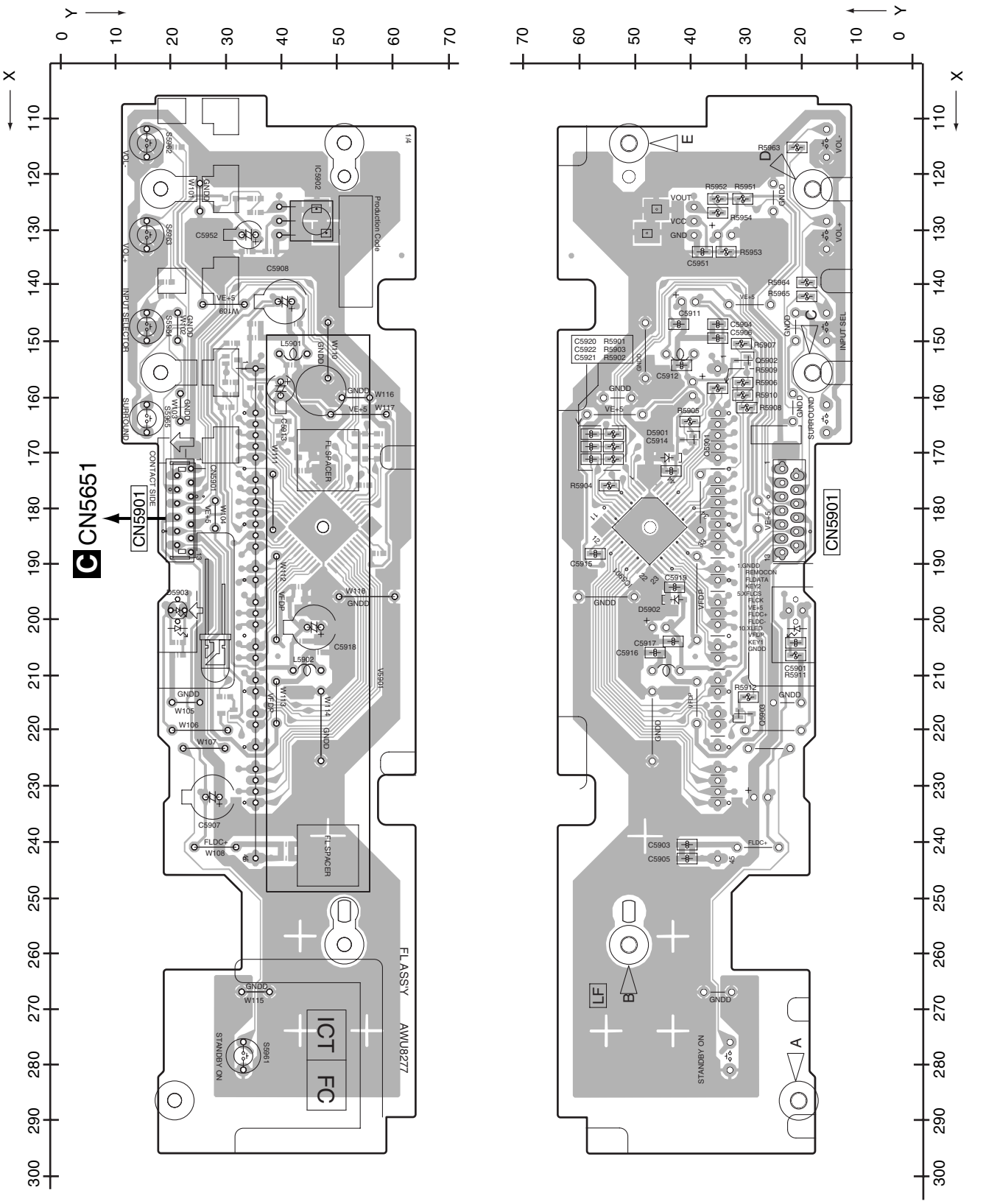
SIDE A **SIDE B**

4.5 FL ASSY (SX-X360)

SIDE A

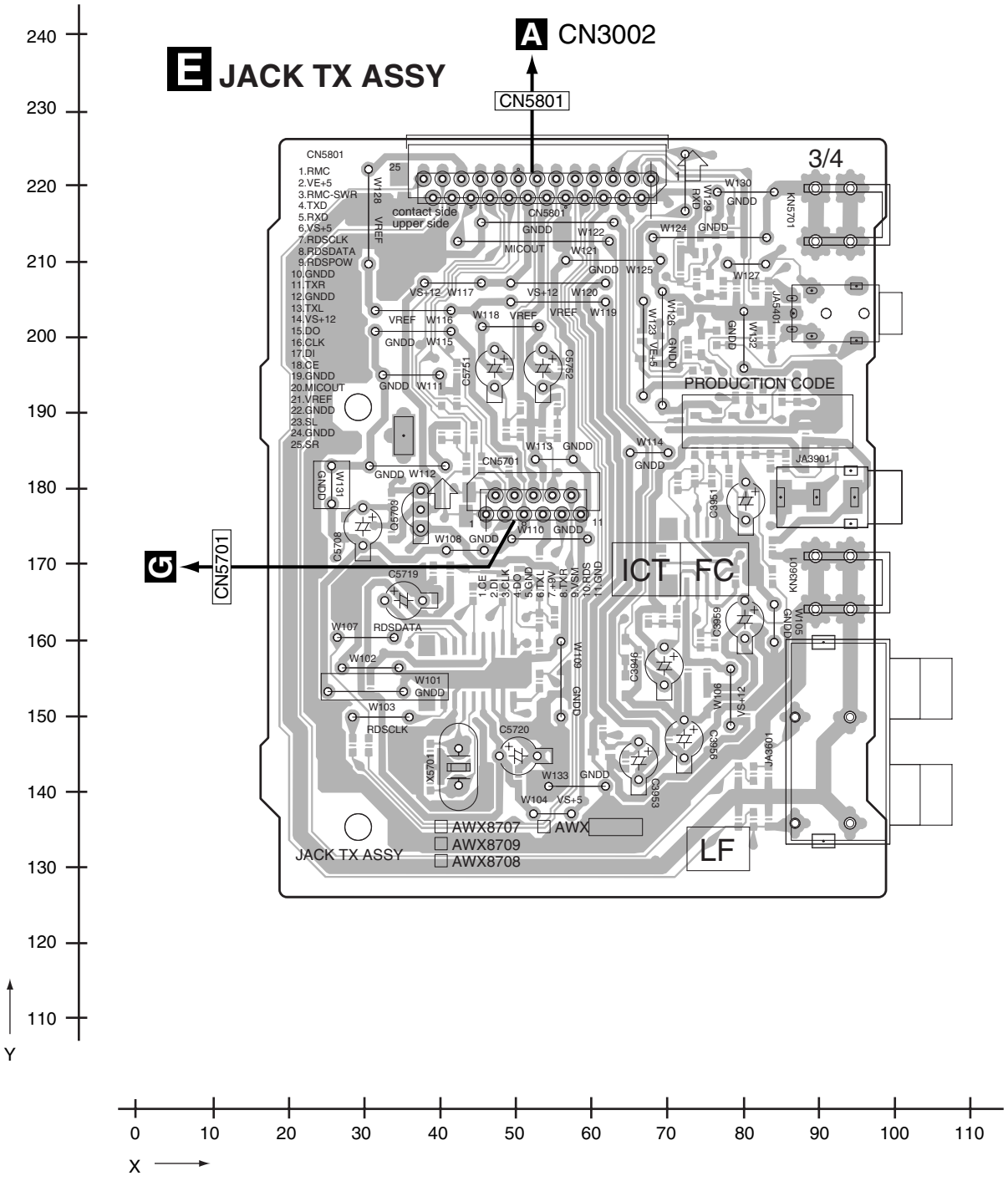
SIDE B

D FL ASSY (SX-X360)



4.6 JACK TX ASSY

SIDE A **SIDE A**

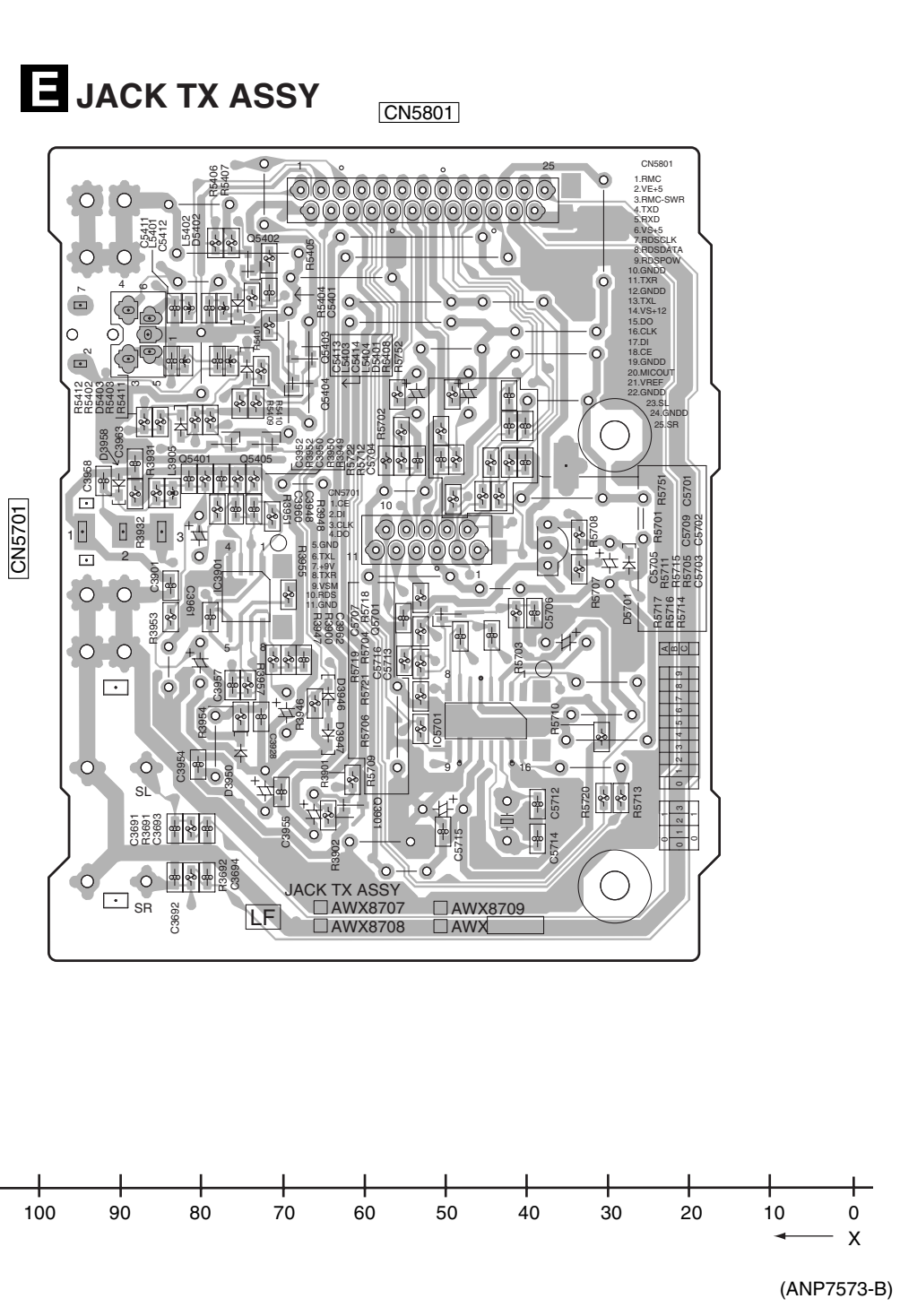


(ANP7573-B)

SIDE B

SIDE B

E JACK TX ASSY



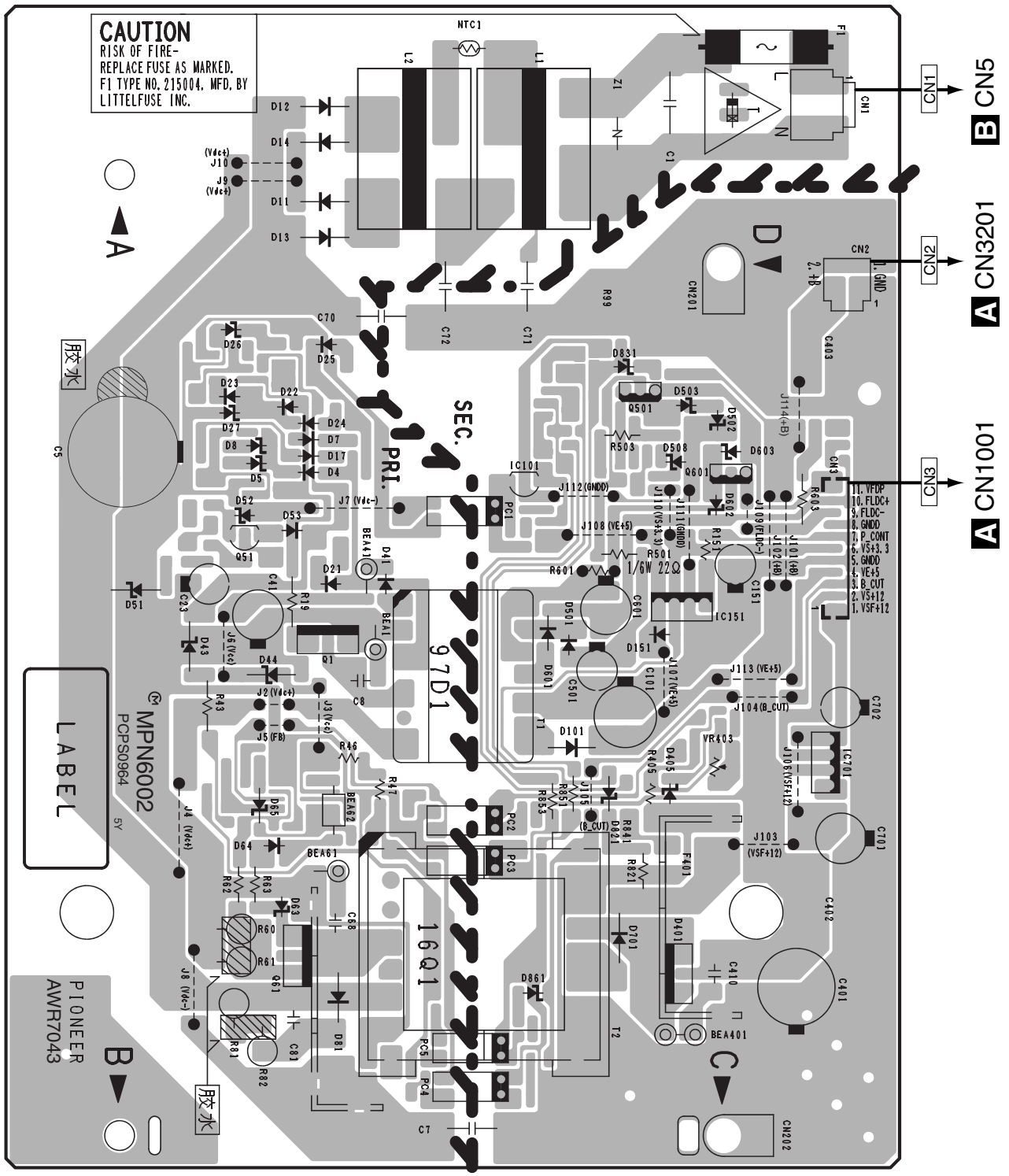
(ANP7573-B)

4.7 POWER SUPPLY UNIT

SIDE A

SIDE A

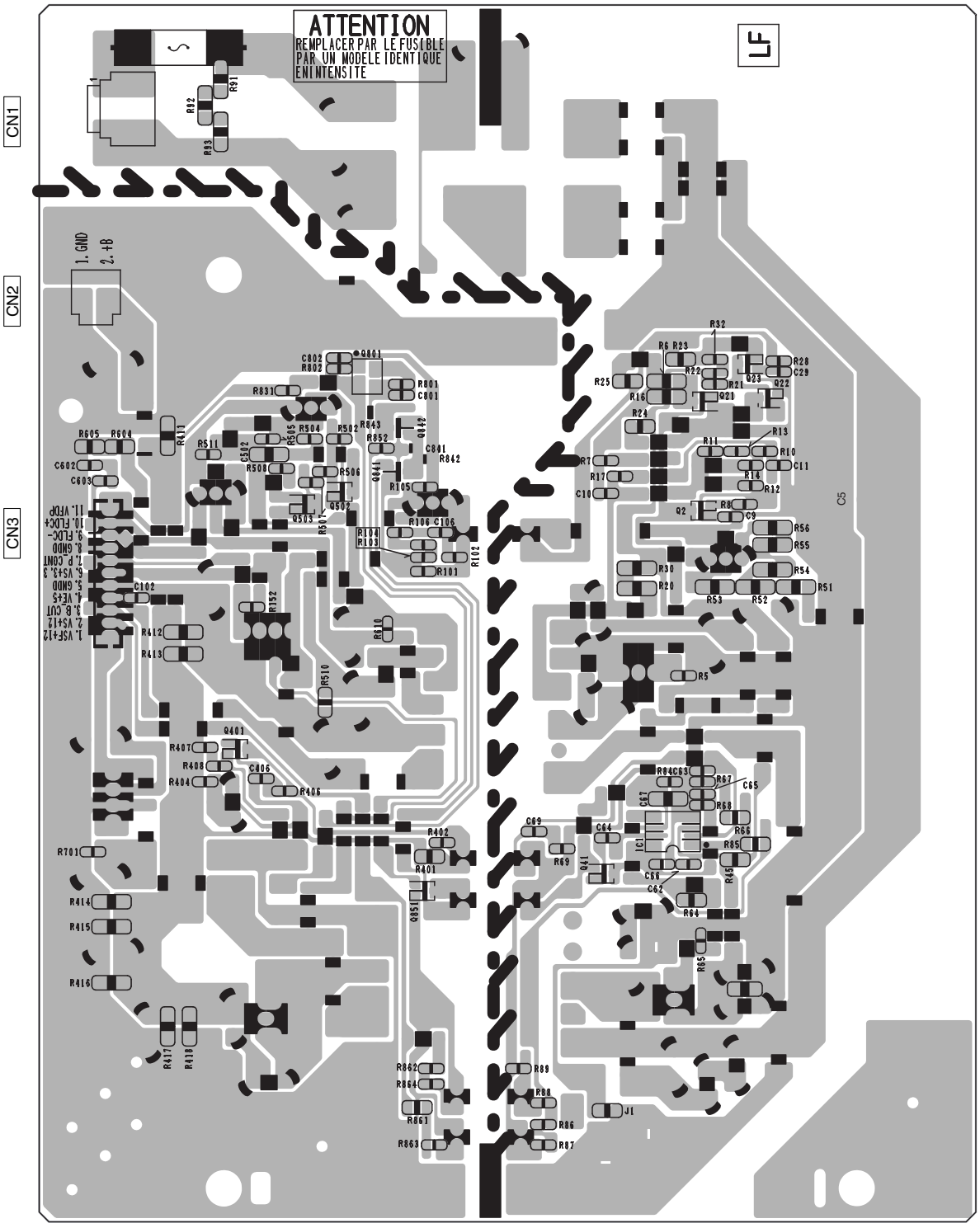
F POWER SUPPLY UNIT



SIDE B

SIDE B

F POWER SUPPLY UNIT



5. 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 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10^1 → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 x 10^3 → 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).

5.62k Ω → 562 x 10^1 → 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

LIST OF HOLE PCB ASSEMBLIES

Mark	Symbol and Description	SX-SW404 /WYXCN5	SX-SW606 /WYXCN5	SX-X360 /WYXCN5	SX-X360 /WVXCN5	SX-X360 /KUCXCN
	1..MAIN Assy	AWK7924	AWK7924	AWK7938	AWK7938	AWK7940
	1..DISPLAY ASSY	AWM8010	AWM8010	AWM8022	AWM8022	AWM8022
	2..FL Assy	AWU8271	AWU8271	AWU8277	AWU8277	AWU8277
	2..CONNECT Assy	AWU8272	AWU8272	AWU8278	AWU8278	AWU8278
NSP	2..AC INLET Assy	AWU8273	AWU8273	AWU8273	AWU8273	AWU8274
	1..JACK TX Assy	AWX8707	AWX8707	AWX8707	AWX8707	AWX8708
⚠	1..POWER SUPPLY Unit	AWR7043	AWR7043	AWR7043	AWR7043	AWR7044
	1..FM/AM TUNER Unit	AXX7170	AXX7170	AXX7170	AXX7170	AXX7172

■ CONTRAST OF PCB ASSEMBLIES

A MAIN ASSY

AWK7938, AWK7940 and AWK7924 are constructed the same except for the following :

Mark	Symbol and Description	AWK7924	AWK7938	AWK7940
	Q5511	Not used	DTC124EUA	DTC124EUA
	D5611	Not used	UDZS8R2(B)	UDZS8R2(B)
	R3058–R3060	RS1/16S0R0J	RS1/16S0R0J	Not used
	R5500, R5551	Not used	RS1/16S221J	RS1/16S221J
	R5513	Not used	Not used	RS1/16S473J
	R5514	Not used	RS1/16S473J	RS1/16S473J
	R5515	RS1/16S473J	RS1/16S473J	Not used
	R5516	RS1/16S473J	Not used	Not used
	R5552	RS1/16S0R0J	Not used	Not used
	C5611	Not used	CCSRCH101J50	CCSRCH101J50

B AC INLET ASSY

AWU8274 and AWU8273 are constructed the same except for the following :

Mark	Symbol and Description	AWU8273	AWU8274
⚠	AN1 1P AC INLET	XKP3084	XKP3085

E JACK TX ASSY

AWX8708 and AWX8707 are constructed the same except for the following :

Mark	Symbol and Description	AWX8707	AWX8708
	IC5701	LC72725M	Not used
	X5701 (4.332 MHz)	ASS7004	Not used
	R5701, R5702	RS1/16S272J	Not used
	R5709, R5713, R5720	RS1/16S101J	Not used
	R5710, R5719, R5721	RS1/16S0R0J	Not used
	C5712, C5714	CCSRCH270J50	Not used
	C5713	CKSRYB472K50	Not used
	C5715	CKSRYB103K50	Not used
	C5716	CCSRCH561J50	Not used
	C5719	CEAT100M50	Not used
	C5720	CEAT470M16	Not used

■ PCB PARTS LIST FOR SX-SW404/WYXCN5 UNLESS OTHER WISE NOTED

A MAIN ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
	IC 601	(A,89,14) DIR IC	AK4117VF
	IC 801	(A,68,36) DSP IC	DSPC56371AF180
	IC 802	(A,57,17) IC	TC7WU04FU
	IC 851	(A,71,10) FLASH ROM IC	PDC136A8
⚠	IC 901	(A,126,12) REGULATOR IC	BA30E00WHFP
	IC 951	(A,93,48) IC	TC74VHC08FTS1
	IC 3001	(A,199,26) IC	TC4052BFN
	IC 3003	(A,105,43) AD CONVERTER IC	AK5358ET
	IC 3004	(A,68,133) IC	BA178M05FP
	IC 3101	(A,106,87) 8CH PWM PROCESSOR IC	TAS5508BPAG
	IC 3191	(A,185,145) OP-AMP IC	BA10358F
	IC 3201	(A,139,57) DIGITAL AMP IC	TAS5142DDV
	IC 3301	(A,139,87) DIGITAL AMP IC	TAS5142DDV
	IC 3401	(A,139,117) DIGITAL AMP IC	TAS5142DDV
	IC 4601	(A,207,59) IC	TC7WU04FU
	IC 4602	(A,209,39) IC	TC74VHC00FTS1
	IC 5501	(A,35,91) SYSTEM CONTROL MICON	PDC135A
	IC 5502	(A,15,116) RESET IC	PST3245
	IC 5503	(A,64,80) EEPROM	BR93L46RFJ-W
	Q 801	(B,70,24) DIGITAL TRANSISTOR	DTC124EUA
	Q 1301	(A,81,129) CHIP TRANSISTOR	UMF21N
	Q 3001	(A,199,35) DIGITAL TRANSISTOR	DTC124EUA
	Q 3002	(A,194,17) DIGITAL TRANSISTOR	DTC124EUA
	Q 3003	(A,181,26) CHIP TRANSISTOR	HN1A01F
	Q 5451	(A,210,127) DIGITAL TRANSISTOR	DTC124EUA
	Q 5501	(A,22,56) CHIP TRANSISTOR	RN1903
	Q 5502	(A,20,63) DIGITAL TRANSISTOR	DTC124EUA
	Q 5604	(A,61,124) TRANSISTOR	2SD1858X
	Q 5605	(A,61,130) DIGITAL TRANSISTOR	DTC124EUA
	Q 5801	(A,79,123) TRANSISTOR	2SA1576A
	Q 5803	(A,80,115) TRANSISTOR	2SC4081
	Q 5804	(A,76,115) TRANSISTOR	2SC4081
	D 1301	(A,82,123) DIODE	1SS355
	D 3191	(A,195,143) DIODE	UDZS4R7(B)
	D 5451	(A,210,129) DIODE	1SS355
	D 5452	(A,206,127) DIODE	1SS355
	D 5601	(A,209,141) DIODE	UDZS8R2(B)
	D 5602	(A,211,136) DIODE	UDZS8R2(B)
	D 5603	(A,208,148) DIODE	UDZS8R2(B)
	D 5604	(A,211,148) DIODE	UDZS8R2(B)
	D 5605	(A,213,141) DIODE	UDZS8R2(B)
	D 5606	(A,58,129) DIODE	UDZS8R2(B)
	D 5607	(A,54,129) DIODE	1SS355
	D 5608	(A,50,130) DIODE	1SS355
	D 5609	(A,46,130) DIODE	1SS355
	D 5801	(A,76,120) DIODE	1SS355
	L 602	(A,78,20) CHIP SOLID INDUCTOR	QTL1013
	L 603	(A,86,22) CHIP SOLID INDUCTOR	QTL1013
	L 801	(A,55,26) CHIP SOLID INDUCTOR	QTL1013
	L 802	(A,56,23) CHIP SOLID INDUCTOR	QTL1013
	L 803	(A,59,48) CHIP SOLID INDUCTOR	ATL7002
	L 804	(A,46,22) CHIP SOLID INDUCTOR	ATL7002
	L 851	(A,75,15) CHIP SOLID INDUCTOR	QTL1013
	L 952	(A,95,40) CHIP SOLID INDUCTOR	QTL1013
	L 1501	(A,26,127) INDUCTOR	LFEA220J
	L 3201	(A,170,40) INDUCTOR	ATH7021
	L 3202	(A,170,57) INDUCTOR	ATH7021
	L 3301	(A,170,73) INDUCTOR	ATH7021
	L 3302	(A,170,90) INDUCTOR	ATH7021
	L 3401	(A,170,106) INDUCTOR	ATH7021
	L 3402	(A,170,123) INDUCTOR	ATH7021
	L 4602	(A,206,64) CHIP BEADS	VTL1076
	L 4603	(B,215,41) CHIP BEADS	VTL1076
	L 4605	(A,205,33) CHIP BEADS	VTL1076
	L 4606	(A,210,54) CHIP BEADS	VTL1076
	L 5451	(A,214,127) CHIP SOLID INDUCTOR	QTL1013
	JA 4601	(A,232,58) JACK	VKB1159
	JA 4602	(A,232,44) OPT. LINK IN	GP1FAV51RKBF
	JA 4603	(A,232,30) OPT. LINK IN	GP1FAV51RKBF
	JA 5451	(A,229,129) JACK	RKN1004
	KN1001	(A,13,142) EARTH METAL FITTING	VNF1109
	KN5501	(A,13,14) EARTH METAL FITTING	VNF1109
	X 801	(A,57,11) CRYSTAL RESONATOR (24.576 MHz)	XSS3003
	X 3101	(A,103,66) CRYSTAL RESONATOR (13.5 MHz)	ASS7062
	X 5501	(A,10,94) CERAMIC RESONATOR	ASS7034

Mark	No.	Description	Part No.
	CN1001	(A,85,141) CONNECTOR	B11B-PH
	CN3002	(A,171,9) 25P FFC CONNECTOR	9604S-25C
	CN3201	(A,166,144) 2P CONNECTOR	B2P-VH
A	CN3211	(A,232,98) 6CH SPEAKER JACK(V0)	AKE7120
	CN5601	(A,232,143) 12P CONNECTOR	AKP7131
	CN5602	(A,188,32) CONNECTOR POST	B2B-PH
		PCB BINDER	VEF1040
	3001	(A,232,13) PIN JACK(2P)	AKB7143

RESISTORS

	R	604 (A,100,11)	RS1/16S220J
	R	605 (A,79,9)	RS1/16S101J
	R	606 (A,88,9)	RS1/16S101J
	R	607 (A,81,9)	RS1/16S470J
	R	608 (A,100,9)	RS1/16S470J
B			
	R	610 (A,77,14)	RS1/16S220J
	R	611 (B,95,21)	RS1/16S101J
	R	612 (A,100,13)	RS1/16S101J
	R	616 (A,100,15)	RS1/16S103J
	R	617 (A,84,22)	RS1/16S123J
	R	618 (A,82,21)	RS1/16S220J
	R	801 (A,77,47)	RS1/16S470J
	R	802 (A,79,55)	RAB4C101J
	R	804 (A,75,54)	RS1/16S103J
	R	805 (A,75,55)	RS1/16S103J
C			
	R	806 (A,75,57)	RS1/16S103J
	R	807 (A,69,52)	RS1/16S473J
	R	810 (A,50,38)	RS1/16S473J
	R	811 (A,51,34)	RS1/16S101J
	R	812 (A,51,33)	RS1/16S101J
	R	813 (B,51,34)	RS1/16S472J
	R	814 (A,51,31)	RS1/16S101J
	R	815 (A,51,30)	RS1/16S101J
	R	816 (A,51,28)	RS1/16S101J
	R	817 (B,51,28)	RS1/16S103J
	R	818 (A,63,16)	RS1/16S220J
D	R	821 (A,54,15)	RS1/16S471J
	R	822 (A,57,15)	RS1/16S105J
	R	823 (A,63,18)	RS1/16S101J
	R	825 (A,67,20)	RS1/16S101J
	R	827 (B,70,27)	RS1/16S0R0J
	R	828 (B,65,24)	RS1/16S103J
	R	829 (A,70,20)	RS1/16S473J
	R	832 (B,75,29)	RS1/16S470J
	R	833 (B,75,27)	RS1/16S470J
	R	834 (B,75,25)	RS1/16S470J
E	R	835 (B,76,38)	RS1/16S221J
	R	836 (A,81,37)	RS1/16S470J
	R	837 (A,84,43)	RAB4C470J
	R	851 (A,66,11)	RS1/16S470J
	R	852 (A,79,26)	RS1/16S222J
	R	855 (A,68,14)	RS1/16S103J
	R	856 (A,74,7)	RS1/16S103J
	R	857 (A,77,9)	RS1/16S103J
	R	901 (A,121,6)	RS1/16S4701F
	R	902 (A,118,9)	RS1/16S2701F
	R	963 (A,92,56)	RS1/16S101J
F	R	964 (A,90,56)	RS1/16S101J
	R	965 (A,91,38)	RAB4C101J
	R	1203 (A,92,135)	RS1/16S0R0J

Mark	No.	Description	Part No.
	R	1301 (A,81,132)	RS1/16S473J
	R	1302 (A,79,129)	RS1/10S561J
	R	3001 (A,217,8)	RS1/16S331J
	R	3002 (A,217,17)	RS1/16S331J
	R	3003 (B,217,12)	RS1/16S104J
	R	3004 (B,217,19)	RS1/16S104J
	R	3007 (A,195,33)	RS1/16S0R0J
	R	3008 (A,202,33)	RS1/16S473J
	R	3009 (A,183,21)	RS1/16S0R0J
	R	3010 (A,202,21)	RS1/16S103J
	R	3011 (A,206,21)	RS1/16S273J
	R	3012 (A,208,21)	RS1/16S273J
	R	3013 (B,205,23)	RS1/16S223J
	R	3014 (B,209,23)	RS1/16S223J
	R	3015 (A,182,23)	RS1/16S101J
	R	3016 (A,182,30)	RS1/16S101J
	R	3017 (B,181,24)	RS1/16S272J
	R	3018 (B,181,29)	RS1/16S272J
	R	3019 (A,197,19)	RS1/16S473J
	R	3021 (A,176,23)	RS1/16S224J
	R	3022 (A,176,30)	RS1/16S224J
	R	3023 (B,177,24)	RS1/16S100J
	R	3024 (B,177,29)	RS1/16S100J
	R	3025 (A,173,22)	RS1/16S0R0J
	R	3029 (A,98,38)	RS1/16S0R0J
	R	3030 (B,101,38)	RS1/16S0R0J
	R	3041 (A,112,36)	RS1/16S0R0J
	R	3043 (A,101,47)	RS1/16S332J
	R	3048 (A,98,47)	RS1/16S182J
	R	3049 (A,112,51)	RS1/16S101J
	R	3050 (A,110,51)	RS1/16S101J
	R	3051 (A,108,53)	RS1/16S101J
	R	3052 (A,103,51)	RS1/16S470J
	R	3053 (B,179,17)	RS1/16S101J
	R	3054 (A,162,8)	RS1/16S0R0J
	R	3055 (A,165,9)	RS1/16S0R0J
	R	3056 (A,162,9)	RS1/16S0R0J
	R	3057 (A,165,10)	RS1/16S0R0J
	R	3058 (A,162,11)	RS1/16S0R0J
	R	3059 (A,165,12)	RS1/16S0R0J
	R	3060 (A,162,13)	RS1/16S0R0J
	R	3061 (A,165,13)	RS1/16S0R0J
	R	3062 (A,162,14)	RS1/16S0R0J
	R	3063 (A,200,18)	RS1/16S0R0J
	R	3064 (A,202,18)	RS1/16S0R0J
	R	3065 (A,194,20)	RS1/16S101J
	R	3066 (B,196,20)	RS1/16S101J
	R	3067 (B,195,16)	RS1/16S100J
	R	3101 (A,97,100)	RS1/16S221J
	R	3102 (A,97,97)	RS1/16S221J
	R	3103 (A,91,87)	RS1/16S4R7J
	R	3104 (A,96,78)	RAB4C221J
	R	3105 (A,91,83)	RS1/16S1R0J
	R	3106 (A,102,71)	RS1/16S105J
	R	3107 (A,106,74)	RAB4C470J
	R	3108 (A,111,74)	RAB4C470J
	R	3109 (A,115,74)	RS1/16S1R0J
	R	3110 (A,116,84)	RS1/16S0R0J
	R	3111 (A,104,104)	RS1/16S220J
	R	3112 (A,99,101)	RS1/16S470J

Mark No.	Description	Part No.
R 3113(A,93,87)		RS1/16S3R3J
R 3151(A,89,70)		RAB4C472J
R 3152(A,95,72)		RS1/16S103J
R 3191(A,191,145)	RESISTOR (0.1OHM,2W)	ACN7112
R 3192(A,180,144)		RS1/16S562J
R 3193(A,178,147)		RS1/16S562J
R 3194(A,179,144)		RS1/16S104J
R 3195(A,179,147)		RS1/16S104J
R 3196(A,184,141)		RS1/16S222J
R 3197(A,193,143)		RS1/16S103J
R 3199(A,191,140)	RESISTOR (0.1OHM,2W)	ACN7112
R 3200(B,186,142)		RS1/10S3R3J
R 3201(A,127,63)		RS1/16S221J
R 3202(A,124,62)		RS1/16S221J
R 3203(A,125,58)		RS1/16S223J
R 3204(A,118,62)		RS1/16S221J
R 3221(A,126,49)		RS1/16S100J
R 3222(A,126,65)		RS1/16S100J
R 3229(A,151,46)		RS1/16S100J
R 3230(A,151,68)		RS1/16S100J
R 3231(A,185,40)		RS1/10S472J
R 3232(A,185,56)		RS1/10S472J
R 3233(A,185,53)		RS1/10S472J
R 3234(A,185,69)		RS1/10S472J
R 3235(B,209,86)		RS1/16S1R0J
R 3236(B,220,74)		RS1/16S1R0J
R 3237(B,212,74)		RS1/16S1R0J
R 3238(B,225,81)		RS1/16S1R0J
R 3240(A,158,67)		RS1/8S180J
R 3241(A,156,60)		RS1/8S180J
R 3242(A,156,54)		RS1/8S180J
R 3243(A,158,47)		RS1/8S180J
R 3301(A,127,93)		RS1/16S221J
R 3302(A,121,93)		RS1/16S221J
R 3303(A,125,89)		RS1/16S223J
R 3304(A,121,91)		RS1/16S221J
R 3321(A,126,79)		RS1/16S100J
R 3322(A,126,95)		RS1/16S100J
R 3329(A,151,76)		RS1/16S100J
R 3330(A,151,98)		RS1/16S100J
R 3331(A,185,73)		RS1/10S472J
R 3332(A,185,89)		RS1/10S472J
R 3333(A,185,86)		RS1/10S472J
R 3334(A,185,102)		RS1/10S472J
R 3335(B,205,101)		RS1/16S1R0J
R 3336(B,223,91)		RS1/16S1R0J
R 3337(B,207,94)		RS1/16S1R0J
R 3338(B,227,100)		RS1/16S1R0J
R 3340(A,158,97)		RS1/8S180J
R 3341(A,155,90)		RS1/8S180J
R 3342(A,155,84)		RS1/8S180J
R 3343(A,158,77)		RS1/8S180J
R 3401(A,127,123)		RS1/16S221J
R 3402(A,125,121)		RS1/16S221J
R 3403(A,125,118)		RS1/16S223J
R 3404(A,120,121)		RS1/16S221J
R 3421(A,126,110)		RS1/16S100J
R 3422(A,126,125)		RS1/16S100J
R 3429(A,151,106)		RS1/16S100J
R 3430(A,151,128)		RS1/16S100J

Mark No.	Description	Part No.
R 3431(A,185,106)		RS1/10S472J
R 3432(A,185,122)		RS1/10S472J
R 3433(A,185,119)		RS1/10S472J
R 3434(A,185,135)		RS1/10S472J
R 3435(B,208,120)		RS1/16S1R0J
R 3436(B,227,111)		RS1/16S1R0J
R 3437(B,205,108)		RS1/16S1R0J
R 3438(B,219,124)		RS1/16S1R0J
R 3440(A,158,127)		RS1/8S180J
R 3441(A,155,120)		RS1/8S180J
R 3442(A,155,114)		RS1/8S180J
R 3443(A,158,107)		RS1/8S180J
R 4601(A,216,58)		RS1/16S750J
R 4602(A,212,59)		RS1/16S473J
R 4603(A,208,55)		RS1/16S222J
R 4604(A,206,54)		RS1/16S0R0J
R 4605(A,205,59)		RS1/16S101J
R 4606(A,215,54)		RS1/16S101J
R 4607(A,213,53)		RS1/16S181J
R 4609(A,219,42)		RS1/16S221J
R 4610(A,217,39)		RS1/16S104J
R 4611(A,219,33)		RS1/16S221J
R 4612(A,217,36)		RS1/16S104J
R 4613(A,203,39)		RS1/16S102J
R 4614(A,210,45)		RS1/16S221J
R 4615(A,210,44)		RS1/16S221J
R 4616(A,205,47)		RS1/16S0R0J
R 4617(A,205,44)		RS1/16S0R0J
R 4618(B,214,36)		RS1/16S0R0J
R 4619(A,209,50)		RS1/16S152J
R 5451(A,210,131)		RS1/16S472J
R 5452(A,205,129)		RS1/16S102J
R 5456(A,205,131)		RS1/16S0R0J
R 5502(A,17,104)		RS1/16S221J
R 5503(A,16,104)		RS1/16S221J
R 5504(A,14,104)		RS1/16S221J
R 5505(A,18,113)		RS1/16S103J
R 5507(A,12,108)		RS1/16S0R0J
R 5508(A,13,104)		RS1/16S222J
R 5515(A,13,90)		RS1/16S473J
R 5516(A,9,90)		RS1/16S473J
R 5517(A,7,87)		RS1/16S103J
R 5518(A,57,94)		RS1/16S221J
R 5519(A,12,87)		RS1/16S221J
R 5520(A,58,94)		RS1/16S103J
R 5521(A,9,87)		RS1/16S221J
R 5523(A,9,80)		RAB4C221J
R 5525(A,14,79)		RS1/16S221J
R 5526(A,20,57)		RS1/16S472J
R 5529(A,24,56)		RS1/16S472J
R 5535(A,31,68)		RS1/16S221J
R 5536(A,32,68)		RS1/16S221J
R 5537(A,39,68)		RAB4C221J
R 5538(A,17,109)		RS1/16S221J
R 5539(A,17,107)		RS1/16S221J
R 5540(A,17,106)		RS1/16S221J
R 5542(A,35,67)		RS1/16S103J
R 5543(A,36,64)		RS1/16S103J
R 5544(A,40,64)		RS1/16S103J
R 5547(A,42,68)		RS1/16S221J

Mark	No.	Description	Part No.
	R 5549	(A,56,76)	RS1/16S221J
	R 5552	(A,31,60)	RS1/16S0R0J
	R 5553	(A,58,80)	RS1/16S473J
A	R 5554	(A,60,82)	RS1/16S473J
	R 5557	(A,56,84)	RAB4C221J
	R 5561	(A,56,87)	RS1/16S102J
	R 5562	(A,56,90)	RAB4C221J
	R 5570	(A,56,96)	RS1/16S221J
	R 5571	(A,56,98)	RS1/16S221J
	R 5573	(A,56,101)	RAB4C221J
	R 5579	(A,56,108)	RS1/16S221J
	R 5584	(A,44,115)	RS1/16S221J
	R 5589	(A,40,115)	RS1/16S221J
	R 5590	(A,43,144)	RS1/16S153J
B	R 5594	(A,27,115)	RS1/16S221J
	R 5595	(A,28,115)	RS1/16S221J
	R 5596	(A,29,115)	RS1/16S221J
	R 5611	(A,52,128)	RS1/16S102J
	R 5612	(A,56,128)	RS1/16S221J
	R 5613	(A,31,115)	RS1/16S221J
	R 5801	(A,78,119)	RS1/16S223J
	R 5802	(A,78,126)	RS1/16S151J
	R 5803	(A,80,119)	RS1/16S223J
	R 5804	(A,80,113)	RS1/16S223J
	R 5805	(A,76,113)	RS1/16S102J
C	R 5806	(A,75,120)	RS1/16S223J

CAPACITORS

	C 606	(A,81,15)	CCSRCH471J50
	C 607	(A,80,15)	CKSRYB104K16
	C 611	(A,91,20)	CKSRYB104K16
	C 614	(B,101,18)	CKSRYB102K50
	C 615	(A,83,26)	CEAT101M16
	C 616	(A,88,21)	CKSRYB104K16
	C 617	(A,88,20)	CCSRCH471J50
	C 618	(A,80,21)	CKSRYB104K16
D	C 801	(A,74,46)	CCSRCH471J50
	C 802	(A,74,47)	CKSRYB104K16
	C 803	(A,69,49)	CKSRYB105K6R3
	C 804	(A,69,50)	CKSRYB105K6R3
	C 805	(A,62,49)	CCSRCH471J50
	C 806	(A,62,50)	CKSRYB104K16
	C 807	(A,57,42)	CCSRCH471J50
	C 808	(A,55,42)	CKSRYB104K16
	C 809	(A,57,37)	CKSRYB105K6R3
	C 810	(A,56,37)	CKSRYB105K6R3
	C 814	(A,58,28)	CCSRCH471J50
E	C 815	(A,58,26)	CKSRYB104K16
	C 816	(A,57,20)	CCSRCH471J50
	C 817	(A,57,21)	CKSRYB104K16
	C 819	(A,50,14)	CCSRCH6R0D50
	C 820	(A,61,15)	CCSRCH6R0D50
	C 821	(A,59,24)	CCSRCH471J50
	C 822	(A,59,23)	CKSRYB104K16
	C 823	(A,62,24)	CKSRYB105K6R3
	C 824	(A,62,23)	CKSRYB105K6R3
	C 825	(A,67,22)	CKSRYB103K50
F	C 826	(A,69,24)	CKSRYB105K6R3
	C 827	(A,69,23)	CKSRYB105K6R3
	C 828	(A,79,30)	CCSRCH471J50

Mark	No.	Description	Part No.
	C 829	(A,81,30)	CKSRYB104K16
	C 830	(A,80,34)	CKSRYB105K6R3
	C 831	(A,82,34)	CKSRYB105K6R3
	C 832	(A,80,39)	CCSRCH471J50
	C 833	(A,81,39)	CKSRYB104K16
	C 834	(A,58,53)	CEAT101M16
	C 835	(A,42,21)	CEAL101M10
	C 851	(A,72,14)	CCSRCH471J50
	C 852	(A,72,15)	CKSRYB104K16
	C 901	(A,117,17)	CKSRYB104K16
	C 902	(A,115,14)	CEAT101M16
	C 903	(A,115,8)	CEAT101M16
	C 951	(A,95,43)	CCSRCH471J50
	C 952	(A,95,42)	CKSRYB104K16
	C 1501	(A,19,124)	CKSRYB103K50
	C 1502	(A,30,127)	CKSRYB104K16
	C 1505	(A,21,121)	CEAT101M16
	C 3001	(A,195,32)	CKSRYB103K50
	C 3005	(A,217,10)	CCSRCH221J50
	C 3006	(A,217,15)	CCSRCH221J50
	C 3011	(A,208,9)	CEAT100M50
	C 3012	(A,208,15)	CEAT100M50
	C 3021	(A,186,23)	CEAT470M16
	C 3022	(A,183,19)	CKSRYB104K16
	C 3023	(A,176,26)	CKSRYB104K16
	C 3024	(A,171,25)	CEAT470M16
	C 3025	(A,171,19)	CEAT100M50
	C 3026	(A,171,31)	CEAT100M50
	C 3041	(A,110,33)	CEAT100M50
	C 3042	(A,107,36)	CKSRYB104K16
	C 3043	(A,104,33)	CEAT2R2M50
	C 3044	(A,104,36)	CKSRYB104K16
	C 3045	(A,116,33)	CEAT100M50
	C 3046	(A,109,38)	CKSRYB104K16
	C 3048	(A,100,47)	CKSRYB103K50
	C 3052	(A,69,140)	CKSRYB104K16
	C 3053	(A,66,140)	CKSRYB104K16
	C 3054	(A,61,140)	CEAT470M16
	C 3055	(B,195,18)	CKSRYB104K16
	C 3101	(A,99,95)	CKSRYB104K16
	C 3102	(A,97,98)	CKSRYB103K50
	C 3103	(A,94,99)	CKSRYB104K16
	C 3104	(A,94,96)	CKSRYB104K16
	C 3105	(A,97,95)	CKSRYB103K50
	C 3106	(A,95,90)	CKSRYB104K16
	C 3107	(A,95,87)	CKSRYB104K16
	C 3108	(A,84,97)	CEAL100M16
	C 3109	(A,95,85)	CKSRYB102K50
	C 3110	(A,98,81)	CKSRYB104K16
	C 3111	(A,91,79)	CEAL100M16
	C 3112	(A,99,78)	CKSRYB104K16
	C 3113	(A,99,72)	CCSRCH150J50
	C 3114	(A,102,73)	CCSRCH150J50
	C 3115	(A,114,79)	CKSRYB104K16
	C 3116	(A,114,82)	CKSRYB104K16
	C 3117	(A,114,70)	CEAL100M16
	C 3118	(A,112,95)	CKSRYB104K16
	C 3119	(A,108,97)	CKSRYB104K16
	C 3120	(A,109,101)	CEAL100M16
	C 3191	(A,198,140)	CEAT100M50

Mark No.	Description	Part No.
C 3192(A,184,140)		CKSRYB104K50
C 3193(B,180,142)		CKSRYB103K50
C 3194(B,168,138)		CKSRYB102K50
C 3201(A,127,49)		CKSRYB104K16
C 3202(A,127,65)		CKSRYB104K16
C 3203(A,125,56)		CKSRYB104K16
C 3204(A,127,52)		CKSRYB104K16
C 3211(A,155,50)		CKSQYB104K50
C 3212(A,151,59)		CKSQYB104K50
C 3213(A,151,55)		CKSQYB104K50
C 3214(A,155,64)		CKSQYB104K50
C 3215(B,174,40)		CKSQYB333K50
C 3216(B,174,57)		CKSQYB333K50
C 3217(B,174,52)		CKSQYB333K50
C 3218(B,174,69)		CKSQYB333K50
C 3221(A,194,46)	ELECT. CAPACITOR	CEAT102M35
C 3222(A,194,63)	ELECT. CAPACITOR	CEAT102M35
C 3227(A,151,48)		CKSRYB104K16
C 3228(A,151,66)		CKSRYB104K16
C 3231(A,186,49)		CFTLA474J2A
C 3232(A,186,65)		CFTLA474J2A
C 3233(B,209,82)		CKSRYB104K50
C 3234(B,220,72)		CKSRYB104K50
C 3235(B,212,76)		CKSRYB104K50
C 3236(B,227,81)		CKSRYB104K50
C 3237(B,205,86)		CKSRYB103K50
C 3238(B,216,74)		CKSRYB103K50
C 3239(B,212,72)		CKSRYB103K50
C 3240(B,221,70)		CKSRYB103K50
C 3241(A,160,65)		CCSRCH331J50
C 3242(A,160,62)		CCSRCH331J50
C 3243(A,160,52)		CCSRCH331J50
C 3244(A,160,49)		CCSRCH331J50
C 3245(A,197,54)		CKSRYB103K50
C 3246(A,197,71)		CKSRYB103K50
C 3301(A,127,79)		CKSRYB104K16
C 3302(A,127,95)		CKSRYB104K16
C 3303(A,125,87)		CKSRYB104K16
C 3304(A,127,82)		CKSRYB104K16
C 3311(A,154,80)		CKSQYB104K50
C 3312(A,151,89)		CKSQYB104K50
C 3313(A,151,85)		CKSQYB104K50
C 3314(A,154,94)		CKSQYB104K50
C 3315(B,174,73)		CKSQYB333K50
C 3316(B,174,90)		CKSQYB333K50
C 3317(B,174,85)		CKSQYB333K50
C 3318(B,174,102)		CKSQYB333K50
C 3321(A,194,79)	ELECT. CAPACITOR	CEAT102M35
C 3322(A,194,96)	ELECT. CAPACITOR	CEAT102M35
C 3327(A,151,78)		CKSRYB104K16
C 3328(A,151,96)		CKSRYB104K16
C 3331(A,186,82)		CFTLA474J2A
C 3332(A,186,98)		CFTLA474J2A
C 3333(B,205,99)		CKSRYB104K50
C 3334(B,219,89)		CKSRYB104K50
C 3335(B,207,92)		CKSRYB104K50
C 3336(B,220,105)		CKSRYB104K50
C 3337(B,201,99)		CKSRYB103K50
C 3338(B,226,94)		CKSRYB103K50
C 3339(B,203,92)		CKSRYB103K50

Mark No.	Description	Part No.
C 3340(B,226,97)		CKSRYB103K50
C 3341(A,159,95)		CCSRCH331J50
C 3342(A,159,92)		CCSRCH331J50
C 3343(A,159,82)		CCSRCH331J50
C 3344(A,159,79)		CCSRCH331J50
C 3345(A,197,87)		CKSRYB103K50
C 3346(A,197,104)		CKSRYB103K50
C 3401(A,127,110)		CKSRYB104K16
C 3402(A,127,125)		CKSRYB104K16
C 3403(A,125,116)		CKSRYB104K16
C 3404(A,127,113)		CKSRYB104K16
C 3411(A,154,110)		CKSQYB104K50
C 3412(A,151,119)		CKSQYB104K50
C 3413(A,151,115)		CKSQYB104K50
C 3414(A,154,124)		CKSQYB104K50
C 3415(B,174,106)		CKSQYB333K50
C 3416(B,174,123)		CKSQYB333K50
C 3417(B,174,118)		CKSQYB333K50
C 3418(B,174,135)		CKSQYB333K50
C 3421(A,194,112)	ELECT. CAPACITOR	CEAT102M35
C 3422(A,194,129)	ELECT. CAPACITOR	CEAT102M35
C 3427(A,151,108)		CKSRYB104K16
C 3428(A,151,126)		CKSRYB104K16
C 3431(A,186,115)		CFTLA474J2A
C 3432(A,186,131)		CFTLA474J2A
C 3433(B,208,118)		CKSRYB104K50
C 3434(B,227,109)		CKSRYB104K50
C 3435(B,209,109)		CKSRYB104K50
C 3436(B,219,122)		CKSRYB104K50
C 3437(B,205,117)		CKSRYB103K50
C 3438(B,227,113)		CKSRYB103K50
C 3439(B,205,110)		CKSRYB103K50
C 3440(B,215,124)		CKSRYB103K50
C 3441(A,159,125)		CCSRCH331J50
C 3442(A,159,122)		CCSRCH331J50
C 3443(A,159,112)		CCSRCH331J50
C 3444(A,159,109)		CCSRCH331J50
C 3445(A,197,120)		CKSRYB103K50
C 3446(A,203,133)		CKSRYB103K50
C 4601(A,213,59)		CKSRYB103K50
C 4603(A,216,56)		CCSRCH151J50
C 4604(A,202,55)		CCSRCH470J50
C 4608(A,206,63)		CKSRYB104K16
C 4609(A,208,53)		CCSRCH330J50
C 4611(A,213,55)		CCSRCH121J50
C 4613(A,219,47)		CKSRYB104K16
C 4614(A,215,45)		CEAT101M16
C 4615(A,214,42)		CKSRYB104K16
C 4626(A,203,37)		CKSRYB103K50
C 4628(A,209,32)		CEAT101M16
C 4629(A,208,35)		CKSRYB103K50
C 5508(A,11,104)		CKSRYB103K50
C 5509(A,19,96)		CKSRYB104K16
C 5518(A,55,94)		CKSRYB103K50
C 5519(A,13,87)		CKSRYB103K50
C 5521(A,11,87)		CKSRYB103K50
C 5523(A,7,83)		CCSRCH101J50
C 5526(A,12,82)		CCSRCH101J50
C 5539(A,34,73)		CKSRYB104K16
C 5549(A,60,80)		CCSRCH470J50

Mark	No.		Description	Part No.
	C	5550(A,65,73)		CKSRYB104K16
	C	5556(A,52,81)		CKSRYB104K16
	C	5577(A,56,104)		CKSRYB103K50
	C	5579(A,56,107)		CKSRYB103K50
	C	5581(A,35,125)		CEAT101M16
	C	5582(A,38,110)		CKSRYB104K16
	C	5601(A,208,141)		CCSRCH101J50
	C	5602(A,209,136)		CCSRCH101J50
	C	5603(A,206,148)		CCSRCH101J50
	C	5604(A,209,148)		CCSRCH101J50
	C	5609(A,211,141)		CCSRCH101J50
	C	5610(A,50,124)		CEAT100M50
	C	5612(B,57,128)		CKSRYB104K16
	C	5613(B,52,128)		CKSRYB104K16

B AC INLET ASSY (SX-SW404, SX-SW606)

MISCELLANEOUS

⚠	AN1	(A,33 ,12)	AC INLET 1P	XKP3084
⚠	CN5	(A,75 ,31)	CONNECTOR	B2P3S-VH
	1		C4 SOLDERING LUG	039-30040-000

CAPACITORS

	C	2	(A,47 ,16) CERAMIC CAPACITOR	ACG7059

B AC INLET ASSY (SX-X360)

MISCELLANEOUS

⚠	AN1	(A,35,13)	AC INLET 1P (WYXCN5, WVXCN5)	XKP3084
⚠	AN1	(A,35,13)	AC INLET 1P (KUCXCN)	XKP3085
⚠	CN5	(A,77,32)	CONNECTOR	B2P3S-VH
	1		C4 SOLDERING LUG	039-30040-000

CAPACITORS

	C	2	(A,49,17) CERAMIC CAPACITOR	ACG7059

C CONNECT ASSY (SX-SW404,SX-SW606)

MISCELLANEOUS

	D	5651(B,67 ,58)	DIODE	UDZS8R2(B)
	D	5652(B,63 ,51)	DIODE	UDZS8R2(B)
	D	5653(B,66 ,51)	DIODE	UDZS8R2(B)
	D	5654(B,69 ,51)	DIODE	UDZS8R2(B)
	D	5655(B,62 ,58)	DIODE	UDZS8R2(B)
	D	5657(B,65 ,58)	DIODE	UDZS8R2(B)
	CN5651	(A,14 ,51)	13P PLUG	XKP3066
	CN5652	(A,91 ,40)	12P CONNECTOR	AKP7131

CAPACITORS

C	5651(B,96 ,60)		CKSRYB102K50
C	5652(B,56 ,55)		CKSRYB102K50
C	5653(B,71 ,47)		CKSRYB102K50
C	5654(B,34 ,51)		CKSRYB102K50

C CONNECT ASSY (SX-X360)

MISCELLANEOUS

	D	5651(B,77,50)	DIODE	UDZS8R2(B)
	D	5652(B,38,61)	DIODE	UDZS8R2(B)
	D	5653(B,50,61)	DIODE	UDZS8R2(B)
	D	5654(B,36,61)	DIODE	UDZS8R2(B)
	D	5655(B,37,45)	DIODE	UDZS8R2(B)
	D	5657(B,35,45)	DIODE	UDZS8R2(B)
	D	5658(B,33,61)	DIODE	UDZS8R2(B)
	CN5651	(A,87,55)	13P PLUG	XKP3066
	CN5652	(A,20,41)	12P CONNECTOR	AKP7131

CAPACITORS

C	5651(B,32,49)		CKSRYB102K50
C	5652(B,52,54)		CKSRYB102K50
C	5653(B,45,46)		CKSRYB102K50
C	5654(B,59,55)		CKSRYB102K50

D FL ASSY (SX-SW404, SX-SW606)

MISCELLANEOUS

IC	5901(B,184 ,47)		FL DRIVER IC	PT6315
IC	5902(A,267 ,49)		REMOTE RECEIVER UNIT	GP1UM27XK0VF
L	5901(A,152 ,44)		INDUCTOR	LFEA220J
L	5902(A,209 ,42)		RADIAL INDUCTOR	LFEA100J
V	5901(A,155 ,35)		FL TUBE	AAV7104
S	5961(A,111 ,15)		SWITCH	VSG1024
S	5962(A,236 ,16)		SWITCH	VSG1024
S	5963(A,252 ,16)		SWITCH	VSG1024
S	5964(A,269 ,16)		SWITCH	VSG1024
S	5965(A,285 ,16)		SWITCH	VSG1024
CN5901	(A,203 ,22)		13P SOCKET	XKP3077
	2		FL SPACER	AEB7367
	3		FL SPACER	AEB7367

CAPACITORS

C	5911(B,151 ,47)		CKSRYB223K50
C	5912(B,154 ,42)		CKSRYB223K50
C	5913(A,157 ,40)		CEAL470M6R3
C	5915(B,188 ,57)		CKSRYB103K50
C	5916(B,206 ,46)		CKSRYB223K50
C	5917(B,204 ,43)		CKSRYB223K50
C	5918(A,202 ,47)	ELECTR. CAPACITOR	CEAL470M35
C	5920(B,167 ,58)		CCSRCH221J50
C	5921(B,171 ,58)		CCSRCH221J50
C	5922(B,169 ,58)		CCSRCH221J50
C	5951(B,262 ,45)		CKSRYB223K50
C	5952(A,267 ,39)		CEAL470M6R3

RESISTORS

R	5901(B,167 ,54)		RS1/16S221J
R	5902(B,171 ,54)		RS1/16S221J
R	5903(B,169 ,54)		RS1/16S221J
R	5904(B,176 ,55)		RS1/16S823J
R	5909(B,158 ,35)		RS1/16S0R0J
R	5910(B,174 ,29)		RS1/16S0R0J
R	5951(B,263 ,29)		RS1/16S470J
R	5954(B,263 ,37)		RS1/16S470J
R	5963(B,249 ,18)		RS1/16S222J
R	5964(B,268 ,20)		RS1/16S332J
R	5965(B,272 ,20)		RS1/16S562J

D FL ASSY (SX-X360)

MISCELLANEOUS

IC	5901(B,184,47)		FL DRIVER IC	PT6315
IC	5902(A,129,46)		REMOTE RECEIVER UNIT	GP1UM27XK0VF
Q	5903(B,217,30)		DIGITAL TRANSISTOR	DTA143EUA

Mark	No.	Description	Part No.
D	5903(A,198,22)	LED(BLUE)	SLR-343BBT(GHJK)
L	5901(A,152,44)	INDUCTOR	LFEA220J
L	5902(A,209,42)	RADIAL INDUCTOR	LFEA100J
V	5901(A,155,35)	FL TUBE	AAV7104
S	5961(A,276,33)	SWITCH	VSG1024
S	5962(A,112,15)	SWITCH	VSG1024
S	5963(A,129,15)	SWITCH	VSG1024
S	5964(A,145,15)	SWITCH	VSG1024
S	5965(A,162,15)	SWITCH	VSG1024
CN5901(A,173,23)		13P SOCKET	XKP3077
3		FL SPACER	AEB7367
2		FL SPACER	AEB7367

RESISTORS

R	5901(B,167,54)		RS1/16S221J
R	5902(B,171,54)		RS1/16S221J
R	5903(B,169,54)		RS1/16S221J
R	5904(B,176,55)		RS1/16S823J
R	5909(B,159,35)		RS1/16S0R0J
R	5910(B,160,31)		RS1/16S0R0J
R	5911(B,207,21)		RS1/16S820J
R	5912(B,214,30)		RS1/16S221J
R	5951(B,125,31)		RS1/16S470J
R	5954(B,127,35)		RS1/16S470J
R	5963(B,115,21)		RS1/16S222J
R	5964(B,140,19)		RS1/16S332J
R	5965(B,142,19)		RS1/16S562J

CAPACITORS

C	5901(B,204,21)		CKSRYB103K50
C	5911(B,147,42)		CKSRYB223K50
C	5912(B,154,42)		CKSRYB223K50
C	5913(A,157,40)		CEAL470M6R3
C	5915(B,188,57)		CKSRYB103K50
C	5916(B,206,46)		CKSRYB223K50
C	5917(B,204,43)		CKSRYB223K50
C	5918(A,202,47)		CEAL220M35
C	5920(B,167,58)		CCSRCH221J50
C	5921(B,171,58)		CCSRCH221J50
C	5922(B,169,58)		CCSRCH221J50
C	5951(B,134,38)		CKSRYB223K50
C	5952(A,131,35)		CEAL470M6R3

E JACK TX ASSY

MISCELLANEOUS

IC	3901(B,75,168)	OP-AMP IC	HA17558AF
IC	5701(B,45,153)	RDS DECORDER IC	LC72725M
Q	5401(B,78,187)	DIGITAL TRANSISTOR	DTC124EUA
Q	5402(B,75,210)	TRANSISTOR	2SA1576A
Q	5403(B,68,198)	TRANSISTOR	2SA1576A
Q	5404(B,68,195)	DIGITAL TRANSISTOR	DTC124EUA
Q	5405(B,73,187)	DIGITAL TRANSISTOR	DTC124EUA
Q	5703(A,38,172)	TRANSISTOR	2SD1858X
D	3946(B,65,156)	DIODE	UDZS2R0(B)
D	3947(B,65,151)	DIODE	UDZS2R0(B)
D	3950(B,75,149)	DIODE	UDZS5R1(B)
D	5401(B,75,196)	DIODE	1SS355
D	5402(B,76,204)	DIODE	1SS355
D	5403(B,83,189)	DIODE	1SS355
D	5701(B,28,172)	DIODE	UDZS10(B)

Mark	No.	Description	Part No.
L	3905(B,84,181)	CHIP BEADS	VTL1076
L	5401(B,82,204)	CHIP SOLID INDUCTOR	QTL1013
L	5402(B,78,204)	CHIP SOLID INDUCTOR	QTL1013
L	5403(B,82,197)	CHIP SOLID INDUCTOR	QTL1013
L	5404(B,77,197)	CHIP SOLID INDUCTOR	QTL1013
JA	3901(A,97,176)	JACK	RKN1004
JA	5401(A,98,201)	MINI JACK(4P) /W SW	XKN3015
KN	3601(A,94,169)	SCREW PLATE	VNE1948
KN	5701(A,94,217)	SCREW PLATE	VNE1948
X	5701(A,43,143)	CRYSTAL RESONATOR (4.332 MHz)	ASS7004
CN	5701(A,46,174)	CONNECTOR	9604S-11C
CN	5801(A,68,218)	CONNECTOR	9607S-25F

RESISTORS

R	3901(B,62,146)		RS1/16S0R0J
R	3902(B,65,141)		RS1/16S0R0J
R	3946(B,66,155)		RS1/16S104J
R	3947(B,71,161)		RS1/16S101J
R	3948(B,72,178)		RS1/16S333J
R	3949(B,74,183)		RS1/16S472J
R	3950(B,76,183)		RS1/16S104J
R	3951(B,78,179)		RS1/16S101J
R	3952(B,80,183)		RS1/16S104J
R	3953(B,84,166)		RS1/16S682J
R	3954(B,75,154)		RS1/16S392J
R	3955(B,70,169)		RS1/16S472J
R	3957(B,75,157)		RS1/16S333J
R	5401(B,72,202)		RS1/16S332J
R	5402(B,85,190)		RS1/16S101J
R	5403(B,81,190)		RS1/16S182J
R	5404(B,74,205)		RS1/16S104J
R	5405(B,72,210)		RS1/16S104J
R	5406(B,79,212)		RS1/16S102J
R	5407(B,77,212)		RS1/16S103J
R	5408(B,73,196)		RS1/16S182J
R	5409(B,76,192)		RS1/16S182J
R	5410(B,74,192)		RS1/16S473J
R	5411(B,79,190)		RS1/16S473J
R	5412(B,87,190)		RS1/16S0R0J
R	5701(B,51,189)		RS1/16S272J
R	5702(B,56,189)		RS1/16S272J
R	5707(B,34,172)		RS1/16S471J
R	5708(B,34,176)		RS1/16S221J
R	5709(B,53,152)		RS1/16S101J
R	5710(B,31,151)		RS1/16S0R0J
R	5711(B,49,185)		RS1/16S272J
R	5712(B,56,185)		RS1/16S272J
R	5713(B,29,144)		RS1/16S101J
R	5714(B,44,181)		RS1/16S0R0J
R	5715(B,45,185)		RS1/16S0R0J
R	5716(B,46,181)		RS1/16S0R0J
R	5717(B,49,180)		RS1/16S0R0J
R	5718(B,53,168)		RS1/16S0R0J
R	5719(B,55,160)		RS1/16S0R0J
R	5720(B,31,144)		RS1/16S101J
R	5721(B,53,160)		RS1/16S0R0J
R	5751(B,49,193)		RS1/16S473J
R	5752(B,56,193)		RS1/16S473J

CAPACITORS

Mark	No.	Description	Part No.
C	3901(B,84,170)		CKSRYB103K50
C	3946(A,70,157)		CEAT100M50
C	3948(B,74,179)		CCSRCH330J50
C	3950(B,78,183)		CCSRCH101J50
C	3951(A,81,178)		CEAT100M50
C	3952(B,82,183)		CCSRCH471J50
C	3953(A,66,144)		CEAT100M50
C	3954(B,81,148)		CKSRYB104K16
C	3957(B,76,157)		CCSRCH330J50
C	3963(B,88,185)		CKSRYB103K50
C	5701(B,42,193)		CCSRCH101J50
C	5703(B,40,185)		CCSRCH101J50
C	5707(B,55,166)		CKSRYB102K50
C	5708(A,30,175)		CEAT470M16
C	5712(B,39,143)		CCSRCH270J50
C	5713(B,45,164)		CKSRYB472K50
C	5714(B,39,139)		CCSRCH270J50
C	5715(B,51,139)		CKSRYB103K50
C	5716(B,48,163)		CCSRCH561J50
C	5719(A,33,163)		CEAT100M50
C	5720(A,48,142)		CEAT470M16
C	5751(A,47,196)		CEAT100M50
C	5752(A,54,196)		CEAT100M50

F POWER SUPPLY UNIT

This unit has no service part.

G FM/AM TUNER UNIT

This unit has no service part.

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TEST MODE

1. Conditions During Test Mode

- During Test mode, the unit will not be shut down for an emergency even if one of the failures mentioned below occurs.
- After the unit has been shut down in Normal mode for an emergency upon detection of one of the failures mentioned below, you can turn it on immediately, without waiting for one minute, in Test mode.

2. How to enter Test mode

- Immediately after the power is turned off (within 5 seconds after the "-OFF-" indication goes dark), simultaneously hold the AUDIO INPUT and STANDBY/ON keys on the Display unit pressed for more than 3 seconds.
- Test mode can also be entered in either of the following ways:
  1. Connect the power cord to the wall outlet with the STEST port (microcomputer terminal IC5501: 43-pin) at High (5 V). (See "Test mode connecting point".)
  2. Connect the power cord to the wall outlet while holding both the AUDIO INPUT and STANDBY/ON keys on the Display unit pressed.

  Note: If the power cord was disconnected immediately before, be sure to wait at least one minute before turning on the power in the manner mentioned above. Otherwise, the unit may not operate properly.

3. How to quit Test mode, and conditions for quitting

- To quit Test mode, press STANDBY/ON key and turn the power off.
- When Test mode is quit, only data on failure in RAM will be initialized, and data on user settings in RAM will not be initialized.

4. Indications on the FL display when Test mode is entered

- The function setting will be COAXIAL input.
- The indication on the FL display when Test mode is entered will differ depending on whether the unit was shut down normally or with an abnormality detected, as shown below:
- ADV mode will become 5-channel STEREO so that multichannel output can be obtained.

[After a normal power-off]

FL display `POWER ON` ⇩ FL display `VOL 0` ⇩ FL display `COA SERV`

[After a shutdown caused by over current detection]

FL display `OC ERROR` ⇩ FL display `VOL 0` ⇩ FL display `COA SERV`

[After a shutdown caused by an EEPROM failure]

FL display `EEP ERR` ⇩ FL display `VOL 0` ⇩ FL display `COA SERV`

[After a shutdown caused by high-temperature detection]

FL display `OVERTEMP` ⇩ FL display `VOL 0` ⇩ FL display `COA SERV`

5. Operations during Test Mode

- Basically, operations in Test mode are the same as in Normal mode. However, to indicate that the unit is in Test mode, the following are displayed when the functions are changed:

[Functions]

• SX-SW404, SX-SW606	• SX-X360 (All Destination)	[FL display]
TUNER	TUNER	`TX SERV`
DVD/DVR1	DVD/DVR	`COA SERV`
DVD/DVR2	XBOX 360	`OP1 SERV`
DIGITAL	DIGITAL	`OP2 SERV`
ANALOG	ANALOG	`ANA SERV`

6. Failures

• Depending on the types of errors, one of the following error messages will be displayed when the unit is turned on:

E E P E R R

1. Breakage or short-circuiting of the communication line to the EEPROM can be suspected.
2. A failure in the EEPROM can be suspected.

O C E R R O R

- If "OC ERROR" is not displayed when the unit is turned on in Normal mode, short-circuiting of the speaker terminals can be suspected.
- If "OC ERROR" is displayed again when the unit is turned on in Normal mode, the following causes can be suspected:
  1. One or more of the ICs among the three digital amplifier ICs (IC3201, IC3301, and IC3401: TAS5142DDV) on the MAIN Assy is in failure.
  2. The line between one of the above digital amplifier ICs and the speaker terminals is short-circuited.
  3. The SHUTDOWN line from one of the above digital amplifier ICs to the system-control IC (PDC135A) is short-circuited by grounding or is broken.
  4. The voltage at VS+12 is low (less than 10 V).
  5. (In a case when an error claimed by the customer could not be duplicated) The customer let the volume of the speakers increase when two poles of the speaker cable had been short-circuited.
  6. (In a case when an error claimed by the customer could not be duplicated) The customer let the conductor of the speaker cable touch the chassis of the main unit.

O V E R T E M P

- If "OVERTEMP" is not displayed when the unit is turned on in Normal mode, the unit is normal. (It might be caused by a temporary temperature rise.)
- If "OVERTEMP" is displayed again when the unit is turned on in Normal mode, the following causes can be suspected:
  1. One or more of the ICs among the three digital amplifier ICs (IC3201, IC3301, and IC3401: TAS5142DDV) on the MAIN Assy is in failure.
  2. The XOTW line from one of the above digital amplifier ICs to the system-control IC (PDC135A) is short-circuited by grounding or is broken.
  3. Inappropriate installation of the heat sink (loose screws, failure to apply silicon grease, etc.)

7. DSP error display

• Each time the SOUND key on the remote control unit is pressed while the power is on in Test mode, the DSP error display and the normal display are alternately switched.

8. Accumulated power-on time display and speaker setting display

• You can check the accumulated power-on time and speaker settings by holding the AUDIO INPUT key on the Display unit pressed for more than 8 seconds while the power is on in Test mode. While the key is held pressed, the accumulated power-on time indication and speaker-setting indication are alternately displayed for 3 seconds each.

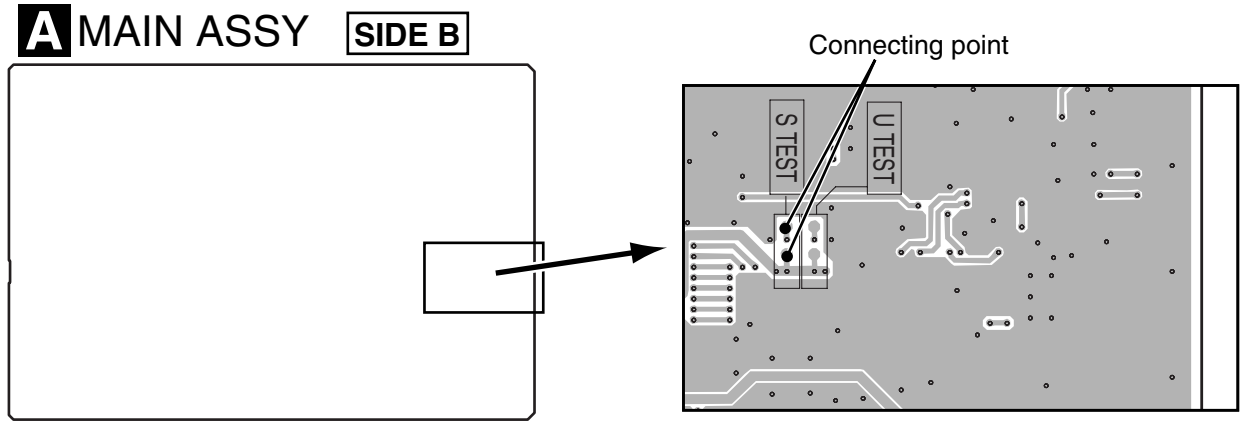
Speaker-setting display **T A L L – 1**

⇳ At intervals of 3 seconds

Accumulated power-on time display **1 0 H 3 0 M**

- Power-on time is always counted while the power is on, regardless of unit's functions and operations. However, it is not counted during Standby mode.
- The maximum countable power-on time is 255H59M (255 hours 59 minutes.) The indication will not advance beyond that.
- The accumulated power-on time basically cannot be cleared.

■ Test Mode connecting point



7.1.2 SPECIFICATIONS OF SPEAKER SETUP

1. Overview

Several types of speakers are planned to be used with this product, and according to speaker type, the sound-quality parameters to be sent to the Digital Amplifier section are different. Since the parameters for the planned speaker types have been written in the EEPROM, by simply selecting the speaker type, as shown below, speaker setting is completed.

2. How to select the settings

• Except SX-X360 (XBOX model)

1. While holding the VOL+ and STANDBY/ON keys on the Display unit pressed, connect the power cord to the wall outlet.
   Note: If the power cord was disconnected immediately before, be sure to wait at least one minute before turning on the power in this way. Otherwise, the unit may not operate properly.
   Or, Immediately after the power is turned off (within 5 seconds after the "-OFF-" indication goes dark), simultaneously hold the VOL+ and STANDBY/ON keys on the Display unit pressed for more than 3 seconds.
2. The power comes on; then the following indication appears.

   SP TYPE

3. Press the key corresponding to the speaker to be used to determine the setting. The power will automatically be turned off.

VOL- key	REGULAR
VOL+ key	TALL-1
AUDIO INPUT key	TALL-2
SURROUND key	AV RACK
STANDBY/ON key	Not used

   For Japan model

   : Flashing

Note: Be sure to select the setting corresponding to the model number of the speaker. (See the table below.)

Destination	Model Number	Speaker setting
Europe (Continent)	SX-SW404/WYXCN5 SX-SW606/WYXCN5	REGULAR TALL-1
Europe (UK)	SX-SW505HX/WVXCN5	REGULAR
North America	SX-SW260/KUCXCN SX-SW560/KUCXCN	REGULAR TALL-1
General	SX-SW303/WLPWXCN SX-SW505/WLPWXCN	REGULAR TALL-1

For reference

• SX-X360 (XBOX model) only

No setting is required. After the power cord is plugged in, "XBOX" is automatically set.

Destination	Model Number	Speaker setting
Europe	SX-X360/WYXCN5, WVXCN5	XBOX
North America	SX-X360/KUCXCN	XBOX

3. How to confirm the speaker setting

1. While holding the AUDIO INPUT and STANDBY/ON keys on the Display unit pressed, connect the power cord to the wall outlet.
   Note: If the power cord was disconnected immediately before, be sure to wait at least one minute before turning on the power in this way. Otherwise, the unit may not operate properly.
   Or, in the standby mode, simultaneously hold the VOL+ and STANDBY/ON keys on the Display unit pressed for more than 3 seconds.
2. Enter Test mode.
3. Hold the AUDIO INPUT key pressed for more than 8 seconds.
4. The setting is displayed.

   TALL-1

   If no setting has been written in the EEPROM, "UNKNOWN" is displayed.

   UNKNOWN

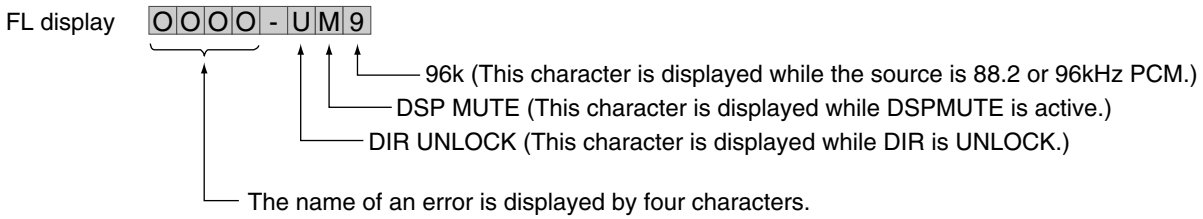
4. Error indication

When the unit is turned on without any speaker setting, a warning "NO SPTYP" will be displayed. Even with this warning displayed, all key operation is possible. After a key operation, the display will return to this warning indication.

NO SPTYP

7.1.3 PROPOSAL OF DSP ERROR DISPLAY

• Specification of DSP error display



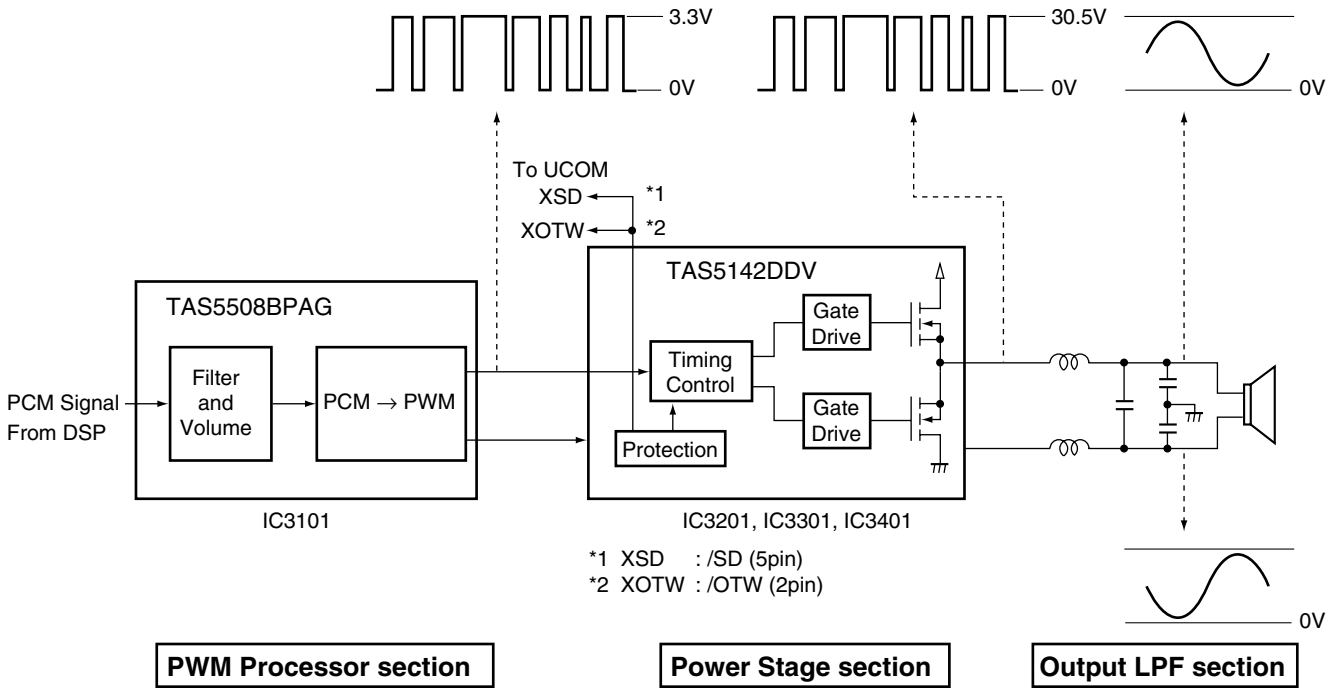
Example)

DIR ERR	D I E R - U M	Data cannot be received from DIR. → DIR is assumed to be in failure.
DSP ERR	D S E R - U M	Data cannot be received from DSP. → Communication between DIR and DSP is in failure. → DSP is assumed to be in failure.
HREQ ERR	H R E Q - U M	No value is returned from HREQ. → DSP is assumed to be in failure.
DSP NG	D S N G - U M	There are DSP error data. → Communication between DIR and DSP is in failure. → DSP is assumed to be in failure.
DMUTE ON	D M U T - M	DECMUTE is always activated. → Communication between DIR and DSP is in failure. → DSP is assumed to be in failure.
NO ERR (The source is 88.2/96kHz.)	D S O K - 9	96-kHz source data are being played back. (No abnormality)
NO ERR (The source is not 88.2/96kHz.)	D S O K -	No abnormality

• DSP error message mode

Press the "SOUND" key in test mode, to select the mode that DSP error messages are displayed.
Press the "SOUND" key again to return to the normal test mode display.
For this reason, the usual function of "SOUND" does not work in the test mode.

7.1.4 CIRCUIT DESCRIPTION OF DIGITAL AMP. SECTION



PWM Processor section

The PCM signals output from the DSP are input to this section, and their volume and sound quality are digitally adjusted. At the output stage, after conversion from PCM to PWM, the signals are output to the Power stage.

Power Stage section

In this section, timing is controlled so that the MOSFETs on the high and low sides will not be turned on simultaneously. The voltage of the PWM signals are raised to drive the gates of the MOSFET, and the PWM signals to drive the speakers are output from the MOSFET at the output stage. Detection and protection functions against short-circuiting of the output signals and temperature exceeding the standard value are also provided.

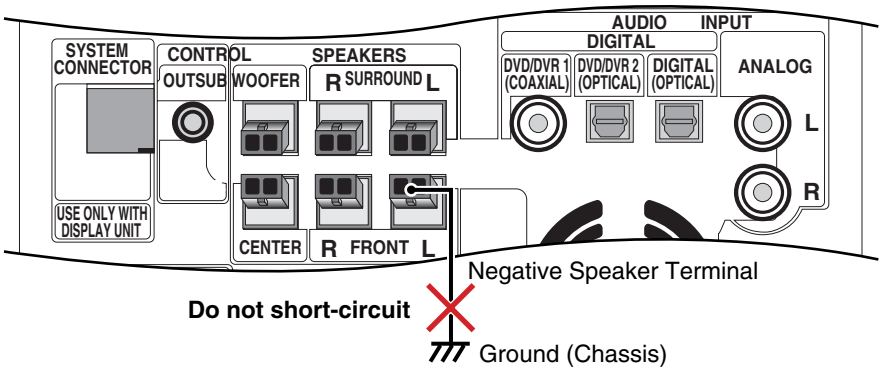
If the detection and protection work, the ports of the power stage ICs become the following state.

Power Stage ICs No.	Protection Enable State
IC3201	/SD (5pin) ⇒ L
IC3301	
IC3401	/OTW (2pin) ⇒ L

Output LPF section

The carrier elements, high-frequency signals that are unnecessary for these speakers, are eliminated. The signals passed through the LPF will become sine-wave signals, as shown in the figure above.

Attention :
As a signal to drive the BTL is output from the negative speaker terminal, DO NOT short-circuit between the negative speaker terminal and ground, such as the chassis.
Do not short-circuit between the plus speaker terminal and ground, such as the chassis, too.



7.1.5 SPECIFICATIONS FOR THE PROTECTION CIRCUITS FOR THE DIGITAL AMPLIFIER

The protection circuits for the Digital Amplifier are activated, following the specifications shown below. The error indication on the FL display shows the reason a protection circuit was activated.
Upon diagnosis of the Digital Amplifier, refer to the specifications for the protection circuits here and the overview of the Digital Amplifier circuitry.

1. Overview

The system microcomputer monitors the ports for shutdown requests (Pin 5 : /SD) and the ports for abnormal-temperature detection (Pin 2 : /OTW) of the Power Stage ICs (IC3201, IC3301, and IC3401). As soon as any abnormality is detected, it shuts the unit down.
To notify the user of the possibility of a too high a volume, when the unit is turned on the next time, the volume level will be set to 0, and an error message will be displayed on the FL display.

2. Ports on the system microcomputer to be used for detection

Pin 77: SHUTDOWN
Low voltage at this pin means overcurrent at the Power Stage ICs or that the power supply voltage for the gate drive for the Power Stage ICs (= GVDD, Pins 1, 22, 23, and 24), i.e., VS+12 is less than 10 V.

Pin 79: XOTW
Low voltage at this pin means the temperature at the Power Stage ICs exceeded 125°C.

Note: As one Power Stage IC is provided with two channels, three Power Stage ICs (in total 6 channels) are mounted in this unit. For abnormality detection, the unit implements a logical OR operation regarding these three ICs. Therefore, which IC is abnormal cannot be known directly. To find which IC is abnormal, it is required to check whether abnormality detection is activated or not with the abnormality detection port of each IC open (by temporarily removing a series resistor (IC3201:R3201, R3202, IC3301:R3301, R3302, IC3401:R3401, R3402)).

3. Detection timing

Start : Detection starts 500 ms after the PWRCONT port (Pin 84) of the system microcomputer becomes active by your pressing the STANDBY/ON key.

Finish : When the STANDBY/ON key is pressed again (when the power-off process starts).

4. Operation of the protection circuits

The following three protection circuits are activated when the conditions shown below are met:

Overcurrent detection: Indication on the FL display: OC ERROR
Conditions: If the SHUTDOWN ports, which are monitored every 10 ms, become low 7 times in succession.

Abnormal temperature detection 1: Indication on the FL display: OVERTEMP
Conditions: If the XOTW ports, which are monitored every 10 ms, become low in succession for one minute.

Abnormal temperature detection 2: Indication on the FL display: OVERTEMP
(Prerequisite: The XOTW ports, which are monitored every 10 ms, become low three times in succession.)
Conditions: The above prerequisite is upheld, and the conditions for an overcurrent detection are met.

5. Process when the protection circuits are activated

The unit is shut down within 30 ms after abnormality detection then the volume level is set to 0. The unit can be turned on immediately after the shutdown.

7.1.6 CONDITIONS FOR SWITCHING THE ROTATION SPEED OF THE FAN

A fan is provided with this unit. Its rotation speed can be switched between low and high under the following conditions.

1. Conditions for switching the rotation speed from low to high

In a case where an audio signal is input and the main volume becomes VOL 20 or more
- The rotation speed is not switched to high immediately after the main volume becomes VOL 20 but with a delay of 30 seconds.
- If a digital audio signal is not input, the rotation speed is not switched to high even if the main volume becomes VOL 20 or more.
- If the function is ANALOG IN (AUX), even if there is no audio signal input, 30 seconds after the main volume becomes VOL 20 or more, the rotation speed is switched to high.

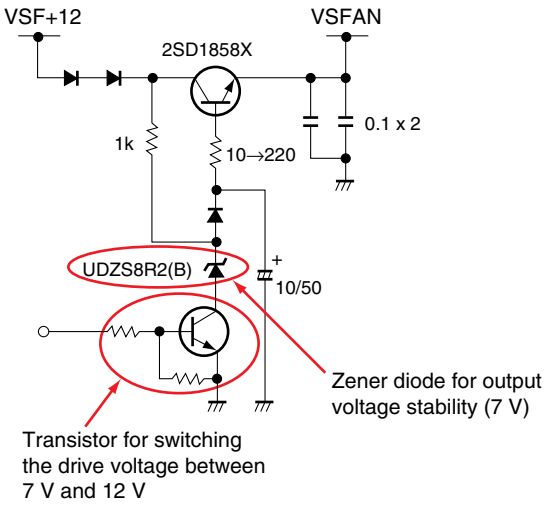
2. Conditions for switching the rotation speed from high to low

- If the main volume becomes less than VOL 20
- During muting
- If a digital audio signal is not input
- If DIR IC has gone to an unlocking state, such as during function selection or surround selection

Note: The rotation speed is immediately switched to low when one of the above conditions is met.

3. Fan drive circuit and drive voltage

The fan drive circuit and the drive voltages at low/high rotation speed are shown below:



	Power	Voltage (V)
Low speed, no digital stream signal (except when the function setting is ANALOG IN)	VSF+12	12.9
	VSFAN	7.1
Low speed, with audio input, with VOL 19 or less	VSF+12	14.3
	VSFAN	7.2
High speed, with VOL 20 or more	VSF+12	14.2
	VSFAN	11.3

Note: The above voltage values are references. They differ from product to product.

■ Compatibility among the SX-SW77 series, SX-SW404 series, and SX-X360

● About compatibility among the SX-SW77 series (SW receiver I), SX-SW404 series (SW receiver II), and SX-X360 (SW receiver II, XBOX model)

All the above-mentioned models comprises of the Main unit and the Display unit. For a case in which either component is brought to a service station by a customer, the service station must be provided with the SX-SW77 series model (SW receiver I) to be used for servicing. The SX-X360 is not provided for servicing.

As for the SX-SW404 series (SW receiver II,) the successor model of SX-SW77 series, the display is the same as that for the SX-SW77 series. So, there is a full compatibility between them.

A blue LED is added to the display of the SX-X360.
See below for compatibility and what should be noted for the SX-X360:

Component to be repaired	Unit to be used for servicing	Speaker settings
SX-X360 Display unit	SX-SW77 series Main unit	• No problem for connection • Check if the blue LED on the Display unit of the SX-X360 always lights. → If it does not, the LED itself or the lighting circuit for the LED on the Display unit is defective. • A failure in the Display unit can be diagnosed with the combination of these units.
SX-X360 Main unit	SX-SW77 series Display unit	• No problem for connection • Diagnosis is impossible for failure of the blue LED on the Display unit of the SX-X360 (not lit). → Because the lighting circuits for the LED are on both the Main unit and Display unit, a failure point cannot be diagnosed only with the Main unit. • A failure in the Main unit, other than of the blue LED, can be diagnosed with the combination of these units.

● Model numbers of the SX-SW77 series and SX-SW404 series

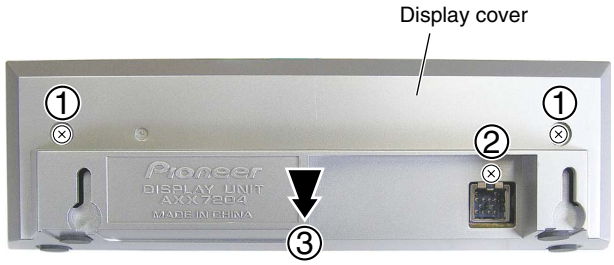
SX-SW77 series (SW receiver I)	SX-SW404 series (SW receiver II)
SX-SW77	SX-SW404
SX-SW55	SX-SW606
Reference model	Reference model
	SX-SW505HX
SX-SW950	SX-SW260
	SX-SW560
SX-SW100	SX-SW303
	SX-SW505
SX-E230	SX-SW707
SX-06SW	SX-07SW

7.1.8 DISASSEMBLY

Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

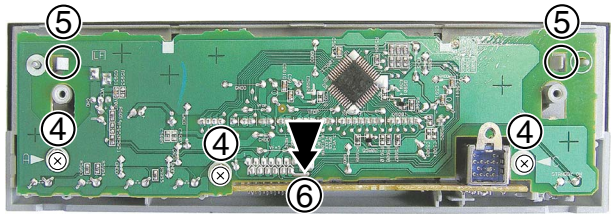
1 DISPLAY Unit (AXX7204)

① Remove the two screws.
② Remove the one screw.
③ Remove the display cover.

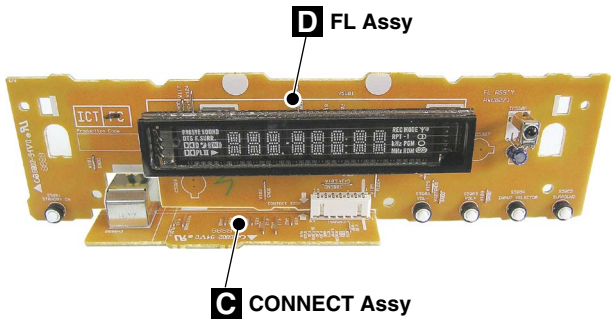


● **Rear view**

④ Remove the three screws.
⑤ Unhook the two hooks.
⑥ Remove the FL and CONNECT Assys.

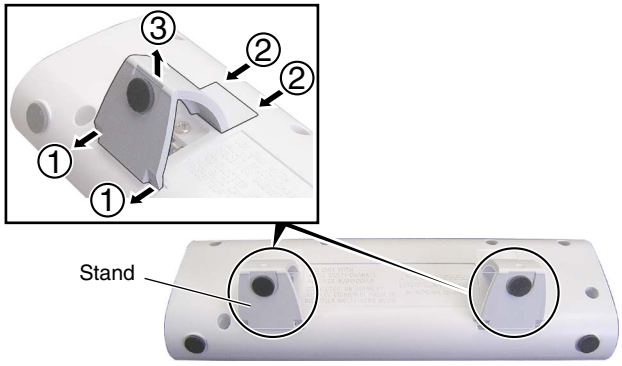


● **Rear view**



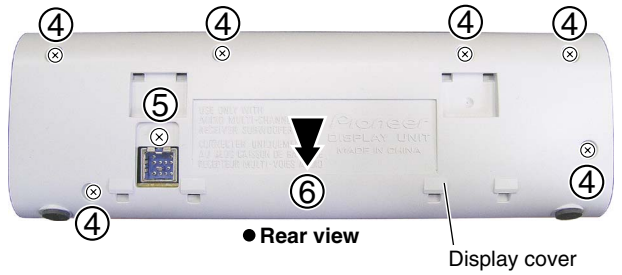
2 DISPLAY Unit (AXX7212)

① Unhook the two hooks.
② Unhook the two hooks.
③ Remove the stand.

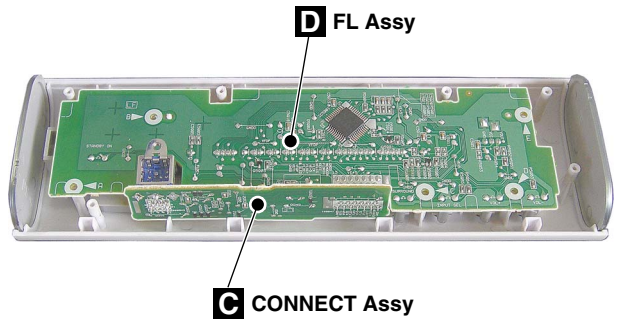


● **Rear view**

④ Remove the six screws.
⑤ Remove the one screw.
⑥ Remove the display cover.



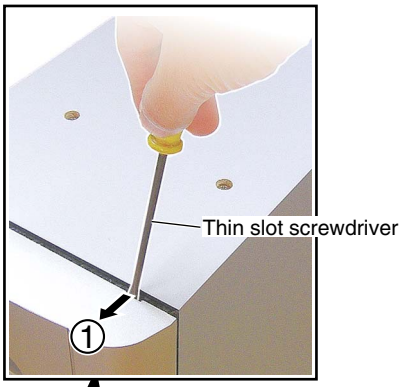
● **Rear view**

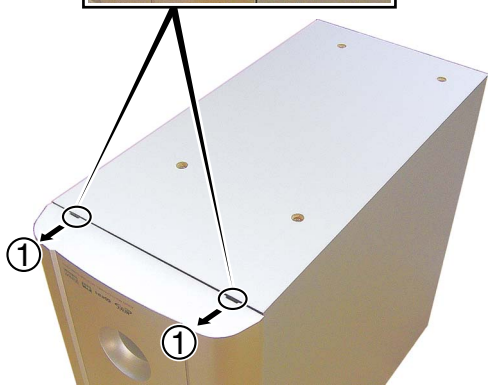


3 Cosmetic Baffle

① Insert a thin slot screwdriver into the gap between the cosmetic baffle and main housing and gently pry the baffle away.

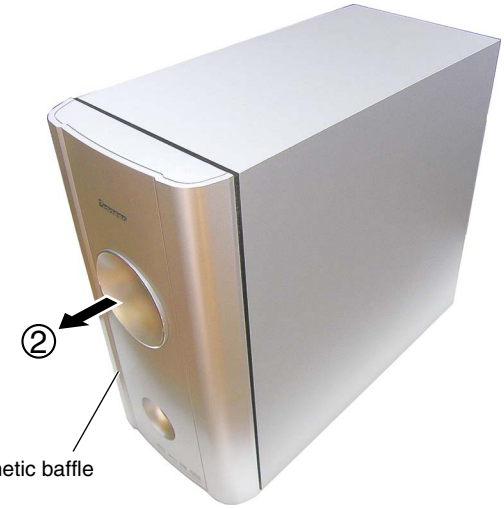
Note: To avoid damage, alternately pry at two points, as shown in the photo below, little by little, not in a single motion.





● **Bottom view**

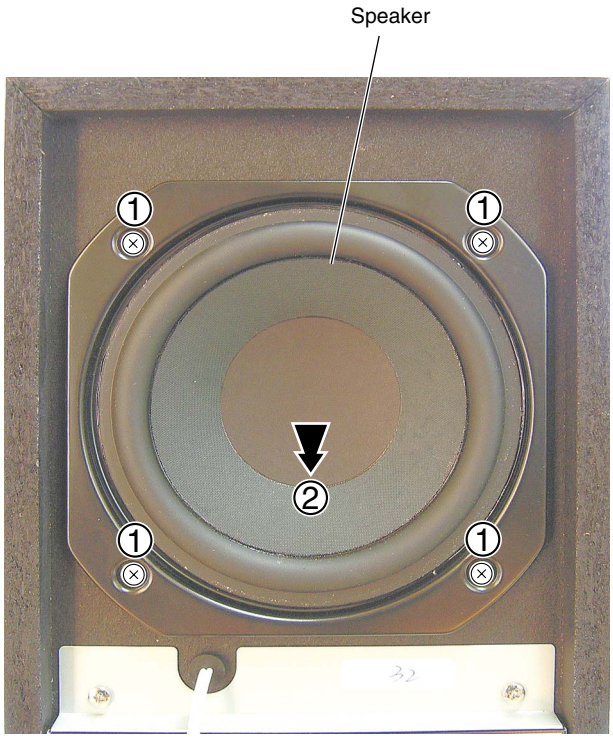
② Remove the cosmetic baffle.



4 Speaker

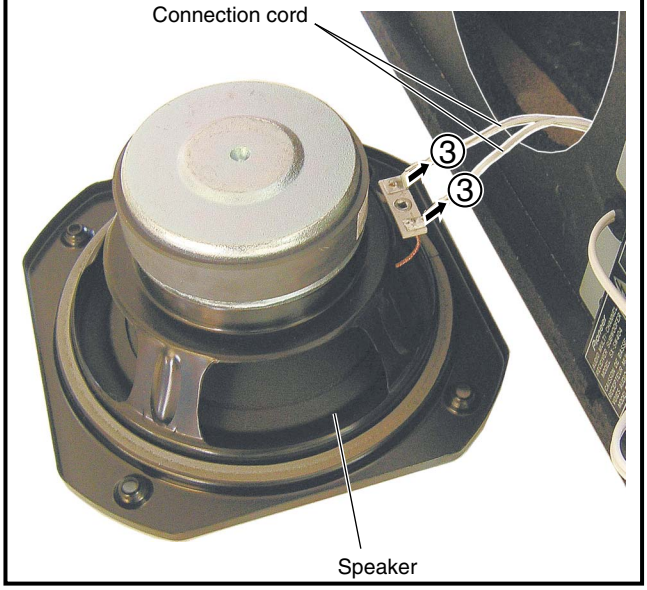
① Remove the four screws.

② Remove the speaker.



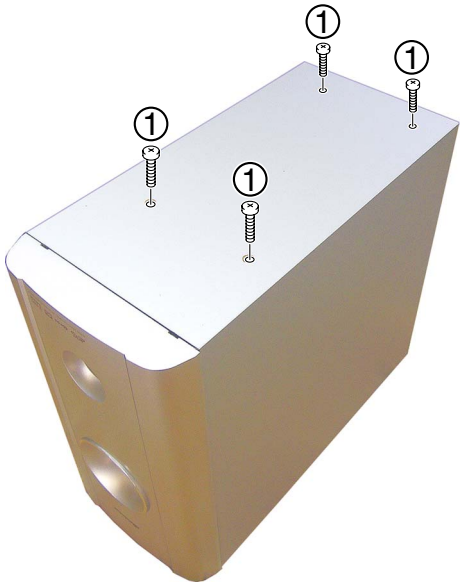
● **Rear view**

③ Disconnect the connection cord.



5 Main Section

① Remove the four screws.

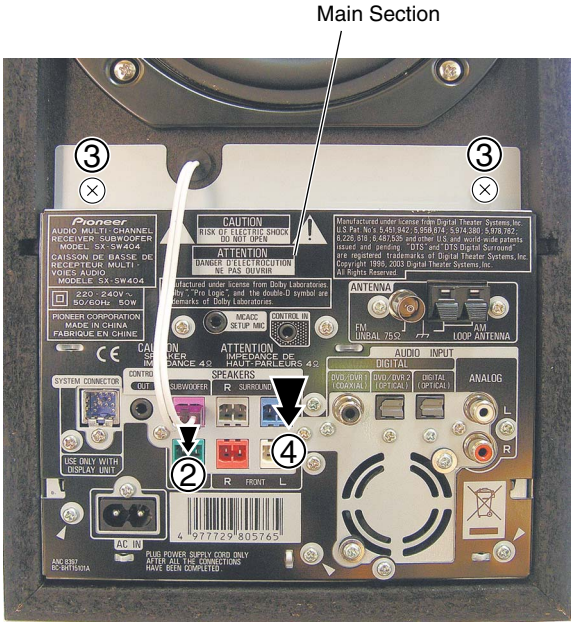


● **Bottom view**

② Disconnect the connection cord.

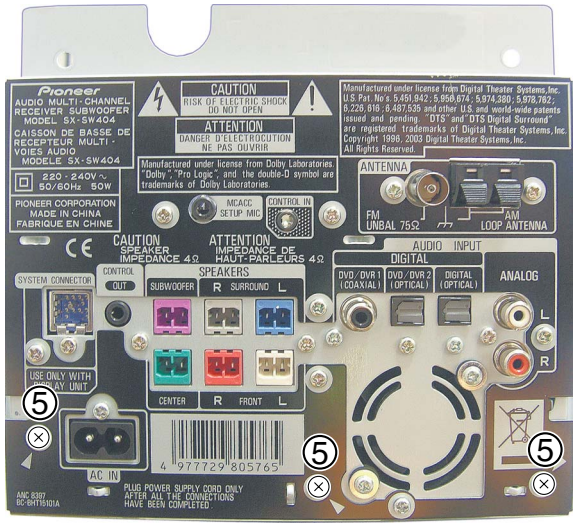
③ Remove the two screws.

④ Pull out the Main Section.



● **Rear view**

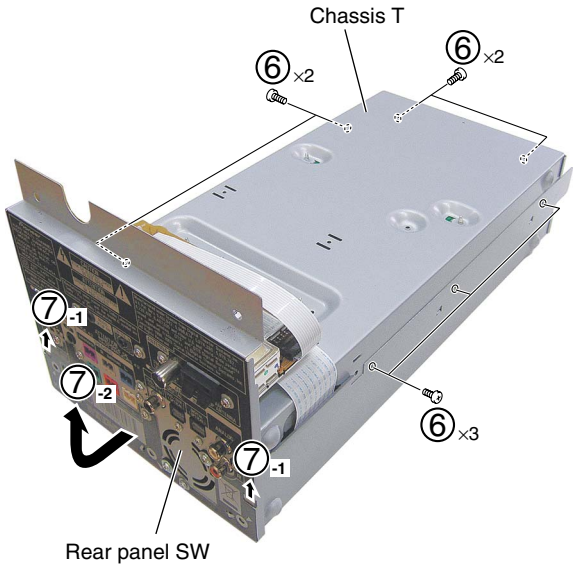
⑤ Remove the three screws.



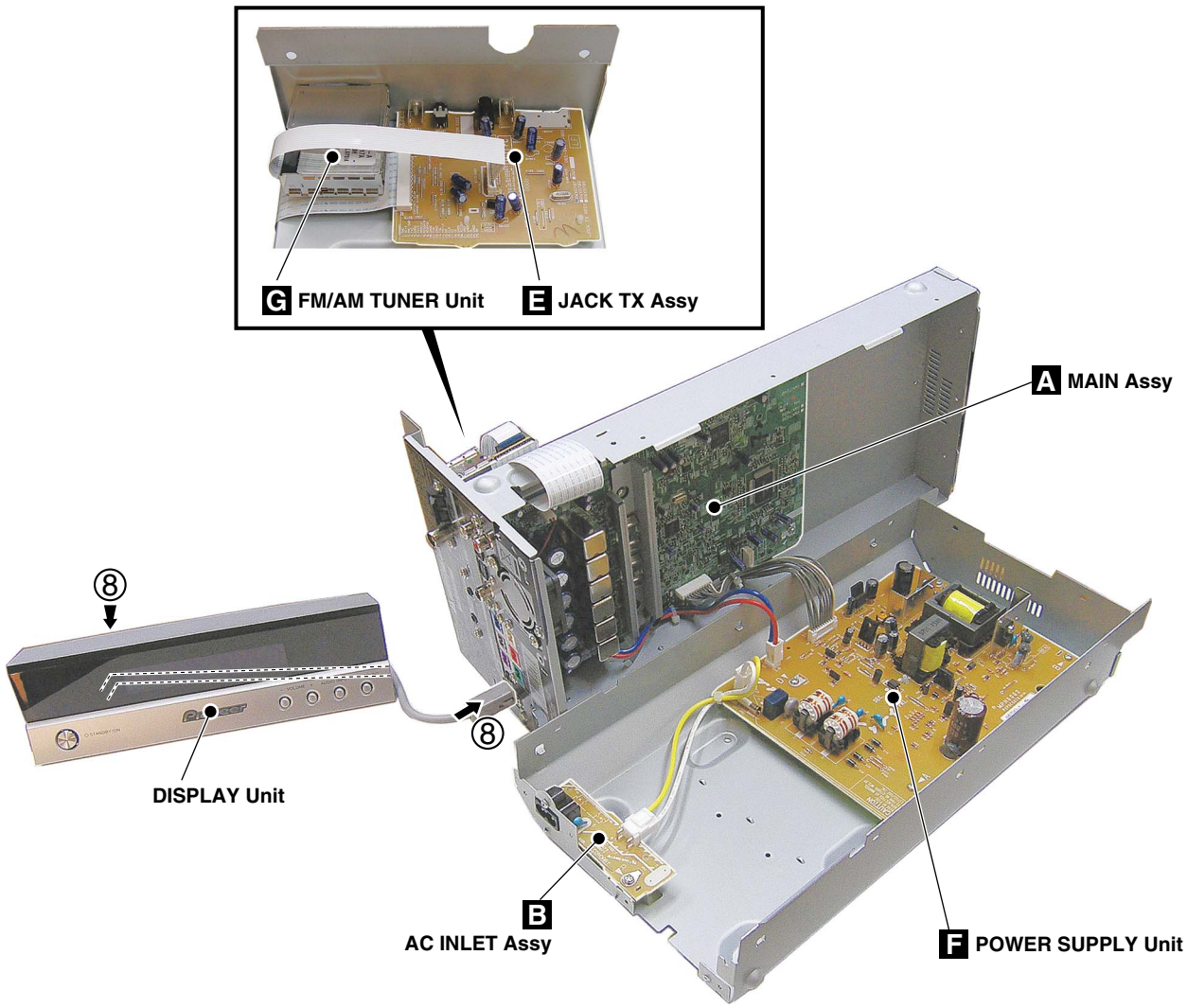
● **Rear view**

⑥ Remove the seven screws.

⑦ Remove the chassis T with rear panel SW by unhooking the two hooks.



⑧ Connect the DISPLAY Unit.



Diagnosis

7.2 PARTS
7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

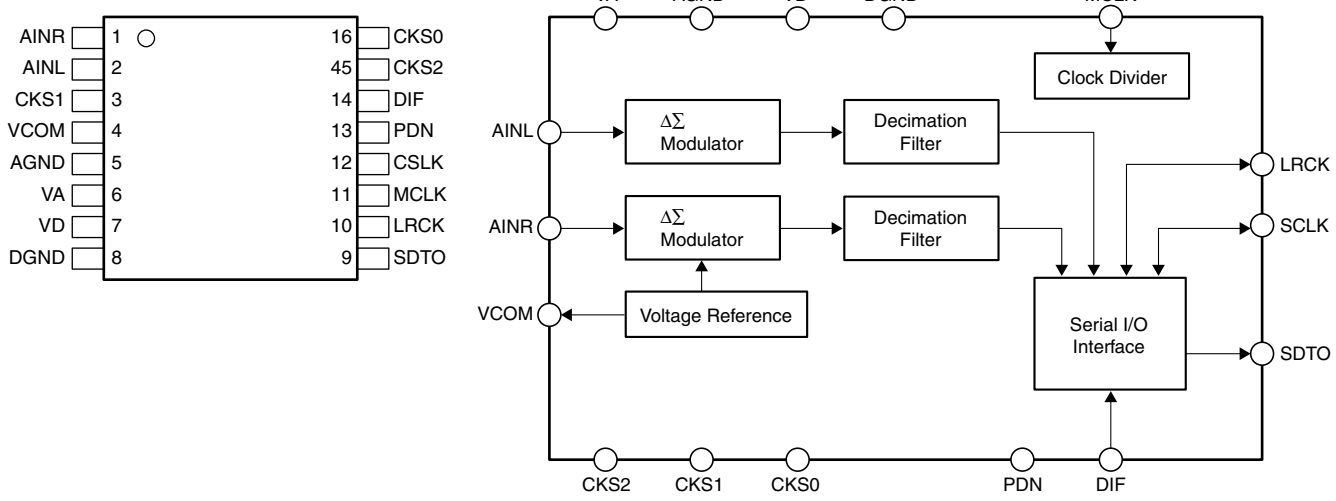
● **List of IC**

AK5358ET, LC72725, TAS5508BPAG, TAS5142DDV, PDC135A, AK4117VF, BR93L46RFJ-W, DSPC56371AF180, PT6315

■ AK5358ET (MAIN ASSY : IC3003)

• A/D Converter IC

● **Pin Arrangement (Top view)** ● **Block Diagram**



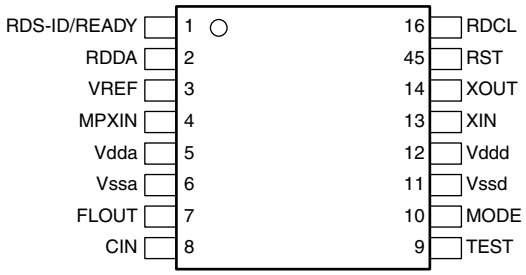
● **Pin Function**

No.	Pin Name	I/O	Pin Function
1	AINR	I	Rch Analog Input Pin
2	AINL	I	Lch Analog Input Pin
3	CKS1	I	Mode Select Pin
4	VCOM	O	Common Voltage Output Pin,VA/2 Bias voltage of ADC input.
5	AGND	–	Analog Ground Pin
6	VA	–	Analog Power Supply Pin, 4.5~5.5V
7	VD	–	Digital Power Supply Pin, 2.7~3.6V
8	DGND	–	Digital Ground Pin
9	SDTO	O	Audio Serial Data Output Pin "L" Output at Power-down mode.
10	LRCK	I/O	Output Channel Clock Pin "L" Output in Master Mode at Power-down mode.
11	MCLK	I	Master Clock Input Pin
12	SCLK	I/O	Audio Serial Data Clock Pin "L" Output in Master Mode at Power-down mode.
13	PDN	I	Power-down mode & Reset Pin "H" : Power up, "L" : Power down & Reset The AK5358 must be reset once upon power-up.
14	DIF	I	Audio Interface Format Pin "H" : 24bit ^{2}S Compatible, "L" : 24bit MSB justified.
15	CKS2	I	Mode Select 2 Pin
16	CKS0	I	Mode Select 0 Pin

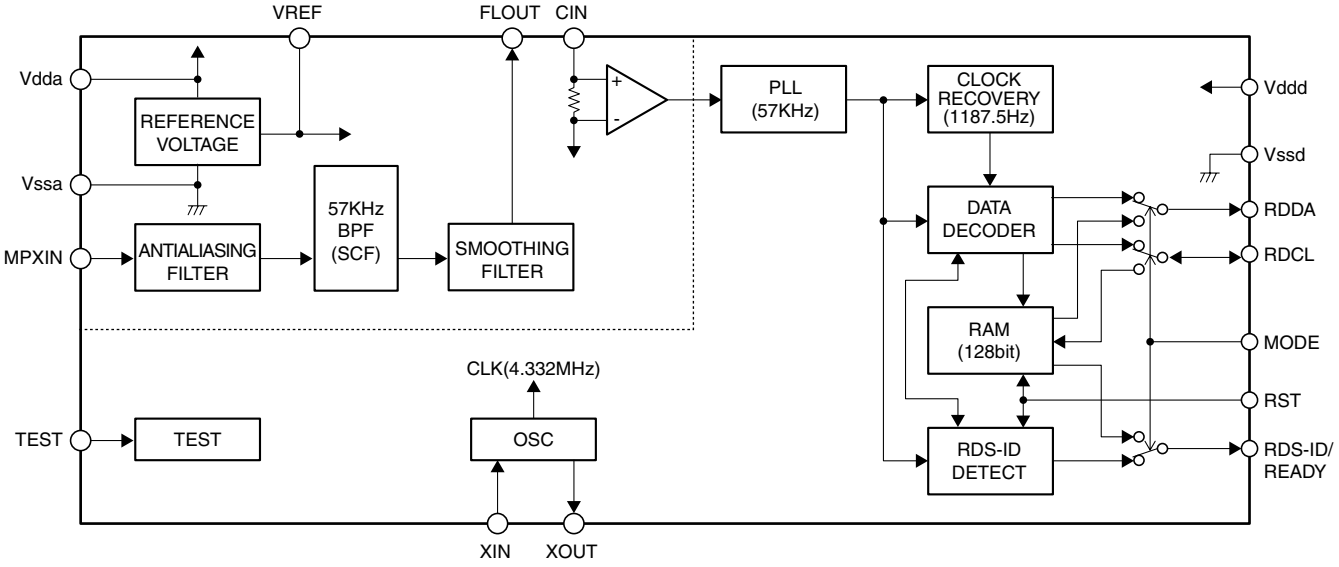
■ LC72725M (MAIN ASSY : IC5701)

• RDS Decorder IC

● Pin Arrangement (Top view)



● Block Diagram



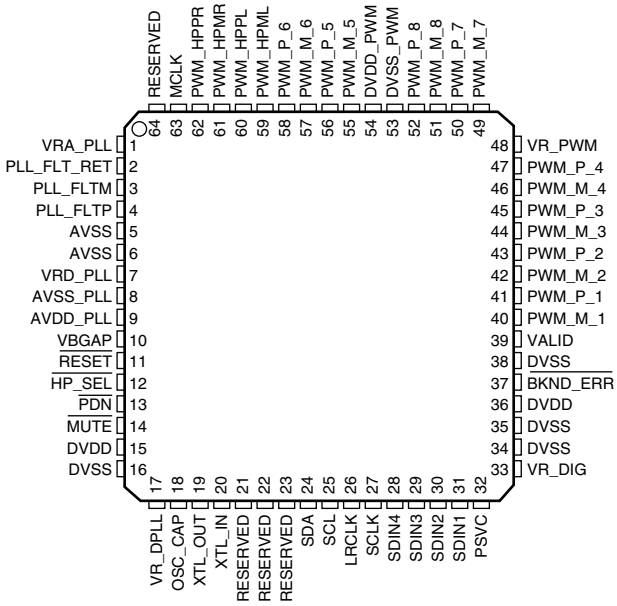
● Pin Function

No.	Pin Name	I/O	Pin Function
1	RDS-ID/READY	O	RDS-ID/READY output (positive polarity) (LC72723 : negative polarity)
2	RDDA	O	RDS data output
3	VREF	O	Reference voltage ouput (Vdda/2)
4	MPXIN	I	Baseband (multiplexed) signal input
5	Vdda	–	Analog power supply
6	Vssa	–	Analog ground
7	FLOUT	O	Subcarrier output (filter output)
8	CIN	I	Subcarrier input (comparator input)
9	TEST	I	Test Input
10	MODE	I	Read mode setting(0:master, 1:slave)
11	Vssd	–	Digital ground
12	Vddd	–	Digital power supply(+3V)
13	XIN	I	Crystal oscillator input (external reference signal input)
14	XOUT	O	Crystal oscillator output (4.332MHz)
15	RST	I	RDS-ID/RAM reset (positive polarity)
16	RDCL	I/O	RDS clock output (master mode) / RDS clock input (slave mode)

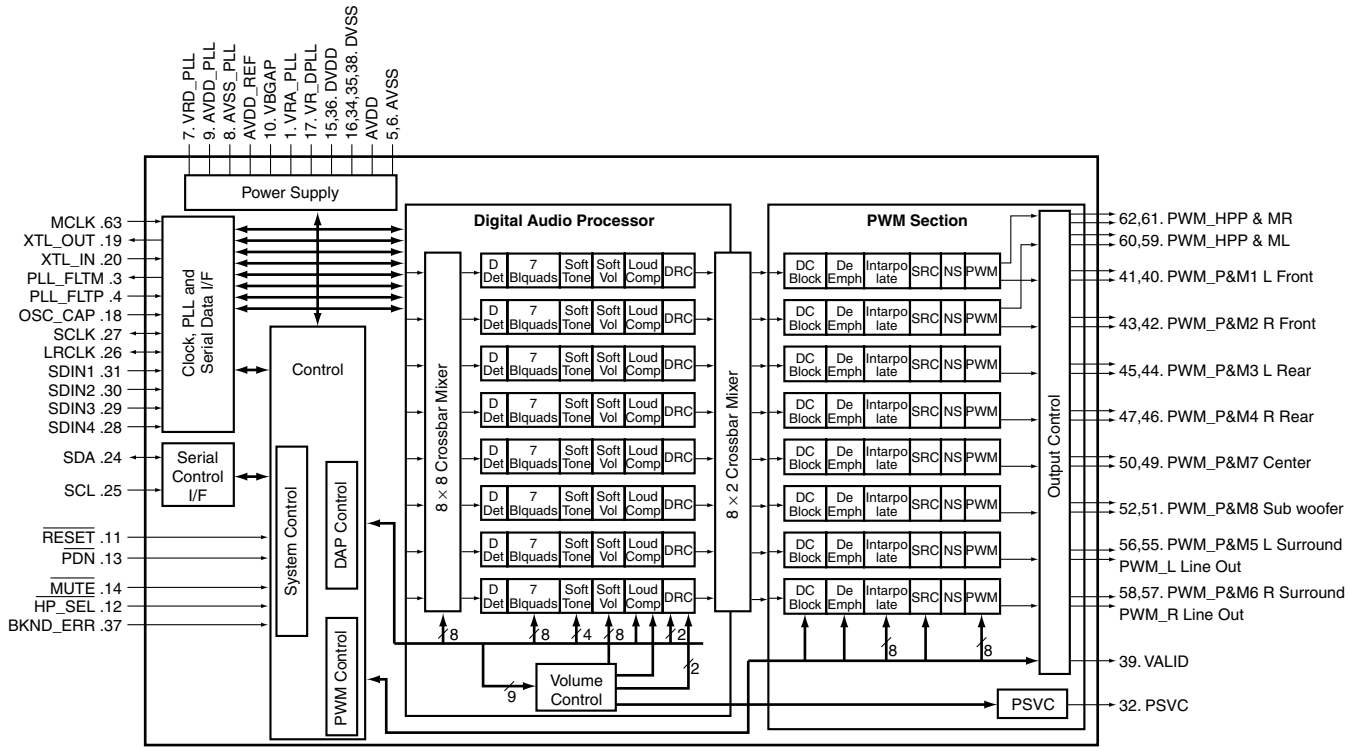
■ TAS5508BPAG (MAIN ASSY : IC3101)

• 8 Channel Digital Audio PWM Processor

● Pin Arrangement (Top view)



● Block Diagram



● Pin Function

No.	Pin Name	I/O	Pin Function
1	VRA_PLL	–	Voltage reference for PLL analog supply 1.8V
2	PLL_FLT_RET	AO	PLL external filter return
3	PLL_FLTM	AO	PLL negative input
4	PLL_FLTP	AI	PLL positive input
5	AVSS	P	Analog ground
6	AVSS	P	Analog ground
7	VRD_PLL	P	Voltage reference for PLL digital supply 1.8V
8	AVSS_PLL	P	Analog ground for PLL
9	AVDD_PLL	P	3.3V analog power supply for PLL
10	VBGAP	P	Band gap voltage reference
11	$\overline{\text{RESET}}$	DI	System reset input, active low
12	$\overline{\text{HP\_SEL}}$	DI	Headphone input/output selector
13	PDN	DI	Power down, active low
14	$\overline{\text{MUTE}}$	DI	Soft mute of outputs, active low
15	DVDD	P	Digital power supply 3.3V supply for digital core and most of I/O buffers
16	DVSS	P	Digital ground for digital core and most of I/O buffers
17	VR_DPLL	P	Voltage reference for digital PLL supply 1.8V
18	OSC_CAP	AO	Oscillator capacitor
19	XTL_OUT	AO	XTL_OUT and XTL_IN are the only LVCMOS terminals on the device
20	XTL_IN	AI	XTL_OUT and XTL_IN are the only LVCMOS terminals on the device
21	RESERVED	–	Connect to digital ground
22	RESERVED	–	Connect to digital ground
23	RESERVED	–	Connect to digital ground
24	SDA	DIO	I^2C serial control data interface input/output
25	SCL	DI	I^2C serial control clock input/output
26	LRCLK	DI	Serial audio data left/right clock (sampling rate clock)
27	SCLK	DI	Serial audio data clock (shift clock)
28	SDIN4	DI	Serial audio data 4 input is one of the serial data input ports
29	SDIN3	DI	Serial audio data 3 input is one of the serial data input ports
30	SDIN2	DI	Serial audio data 2 input is one of the serial data input ports
31	SDIN1	DI	Serial audio data 1 input is one of the serial data input ports
32	PSVC	O	Power supply volume control PWM output
33	VR_DIG	P	Voltage reference for digital core supply 1.8V
34	DVSS	P	Digital ground
35	DVSS	P	Digital ground
36	DVDD	P	3.3V digital power supply
37	$\overline{\text{BKND\_ERR}}$	DI	Active low. A backend error sequence is generated by applying logic low to this terminal
38	DVSS	P	Digital ground
39	VALID	DO	Output indicating validity of PWM outputs active high
40	PWM_M_1	DO	PWM 1 output (differential –)
41	PWM_P_1	DO	PWM 1 output (differential +)
42	PWM_M_2	DO	PWM 2 output (differential –)
43	PWM_P_2	DO	PWM 2 output (differential +)
44	PWM_M_3	DO	PWM 3 output (differential –)
45	PWM_P_3	DO	PWM 3 output (differential +)
46	PWM_M_4	DO	PWM 4 output (differential –)
47	PWM_P_4	DO	PWM 4 output (differential +)
48	VR_PWM	P	Voltage reference for digital PWM core supply 1.8V
49	PWM_M_7	DO	PWM 7 (Line out L) output (differential –)
50	PWM_P_7	DO	PWM 7 (Line out L) output (differential +)

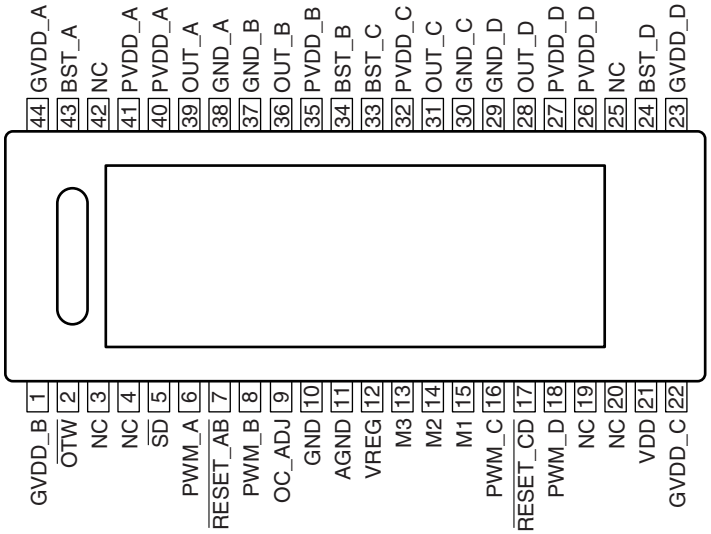
No.	Pin Name	I/O	Pin Function
51	PWM_M_8	DO	PWM 8 (Line out R) output (differential -)
52	PWM_P_8	DO	PWM 8 (Line out R) output (differential +)
53	DVSS_PWM	P	Digital ground for PWM
54	DVDD_PWM	P	3.3V digital power supply for PWM
55	PWM_M_5	DO	PWM 5 output (differentil -)
56	PWM_P_5	DO	PWM 5 output (differentil +)
57	PWM_M_6	DO	PWM 6 output (differentil -)
58	PWM_P_6	DO	PWM 6 output (differentil +)
59	PWM_HPML	DO	PWM left channel headphone (differential -)
60	PWM_HPPL	DO	PWM left channel headphone (differential +)
61	PWM_HPMR	DO	PWM right channel headphone (differential -)
62	PWM_HPPR	DO	PWM right channel headphone (differential +)
63	MCLK	DI	MCLK is a 3.3V clock master clock input
64	RESERVED	–	Connect to digital ground

Note of types : A = analog, D = 3.3V digital, P = power/ground/decoupling, I = input, O = output

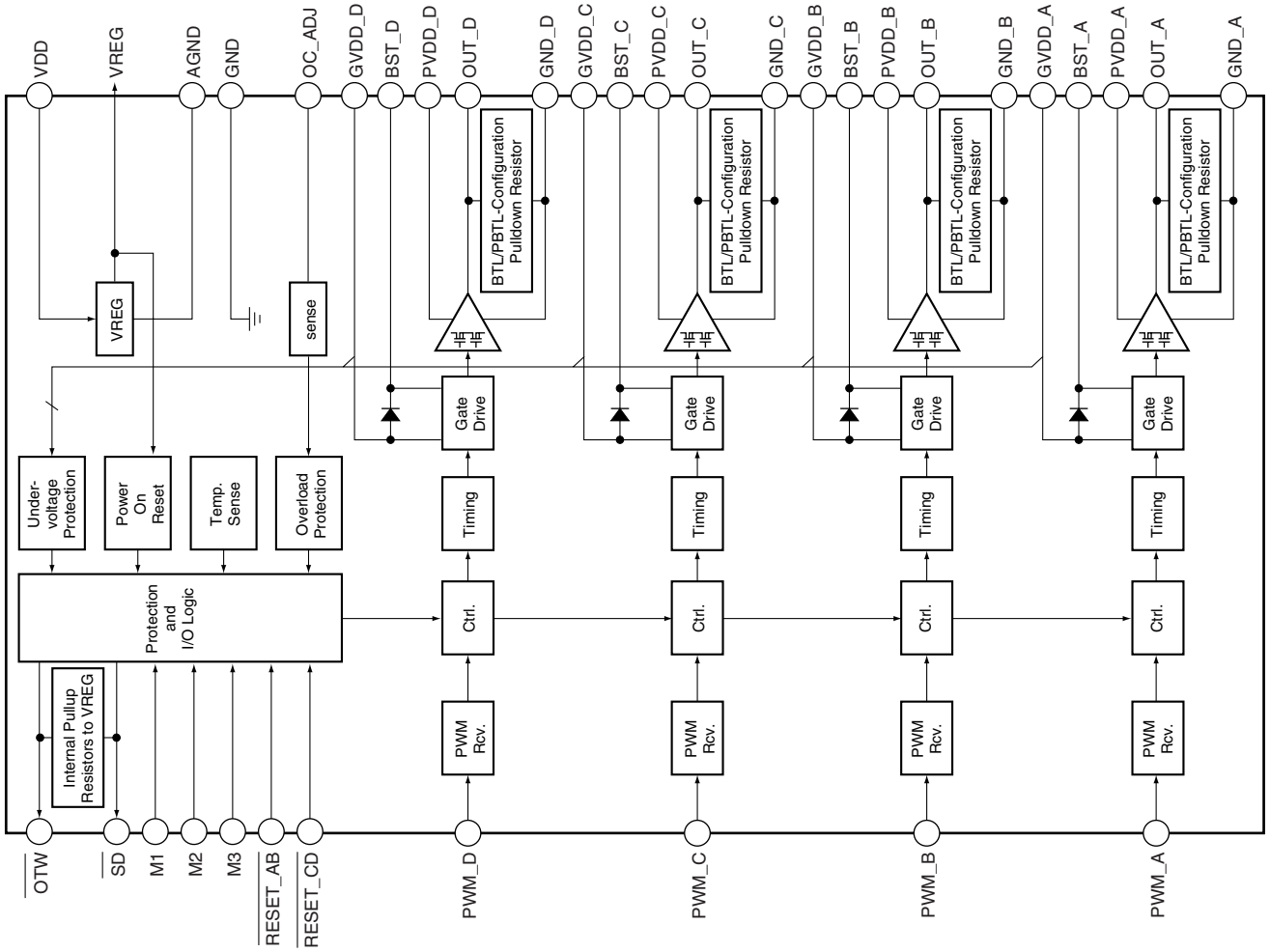
■ TAS5142DDV (MAIN ASSY : IC3201, IC3301, IC3401)

• Stereo Digital Amplifier Power Stage

● Pin Arrangement (Top view)



● Block Diagram



● Pin Function

No.	Pin Name	I/O	Pin Function
1	GVDD_B		Gate-drive voltage supply requires 0.1-μF capacitor to AGND
2	$\overline{\text{OTW}}$	O	Overtemperature warning signal, open-drain, active-low
3,4	NC	–	No connect. Pins may be grounded.
5	$\overline{\text{SD}}$	O	Shutdown signal, open-drain,active-low
6	PWM_A	I	Input signal for half-bridge A
7	$\overline{\text{RESET\_AB}}$	I	Reset signal for half-bridge A and half-bridge B, active-low
8	PWM_B	I	Input signal for half-bridge B
9	OC_ADJ	O	Analog overcurrent programming pin requires resistor to ground
10	GND		Ground
11	AGND		Analog ground
12	VREG		Digital regulator supply filter pin requires 0.1-μF capacitor to GND.
13	M3	I	Mode selection pin
14	M2	I	Mode selection pin
15	M1	I	Mode selection pin
16	PWM_C	I	Input signal for half-bridge C
17	$\overline{\text{RESET\_CD}}$	I	Reset signal for half-bridge A and half-bridge B, active-low
18	PWM_D	I	Input signal for half-bridge D
19,20	NC	–	No connect.Pins may be grounded.
21	VDD		Power supply for digital voltage regulator requires 0.1-μF capacicor to GND.
22	GVDD_C		Gate-drive voltage supply requires 0.1-μF capacitor to AGND
23	GVDD_D		Gate-drive voltage supply requires 0.1-μF capacitor to AGND
24	BST_D		HS bootstrap (BST),external capacitor to OUT_D required
25	NC	–	No connect.Pins may be grounded.
26,27	PVDD_D	–	Power supply input for half-bridge D requires close decoupling of 0.1-μF capacitor to GND_D
28	OUT_D	O	Output,half-bridge D
29	GND_D		Power ground for half-bridge D
30	GND_C		Power ground for half-bridge C
31	OUT_C	O	Output,half-bridge C
32	PVDD_C		Power supply input for half-bridge D requires close decoupling of 0.1-μF capacitor to GND_D
33	BST_C		HS bootstrap supply (BST), external capacitor to OUT_C required
34	BST_B		HS bootstrap supply (BST), external capacitor to OUT_B required
35	PVDD_B		Power supply input for half-bridge B requires close decoupling of 0.1-μF capacitor to GND_B
36	OUT_B	O	Output, half-bridge B
37	GND_B		Power ground for half-bridge B
38	GND_A		Power ground for half-bridge A
39	OUT_A		Output, half-bridge A
40,41	PVDD_A		Power supply input for half-bridge A requires close decoupling of 0.1-μF capacitor to GND_A
42	NC	–	No connect.Pins may be grounded.
43	BST_A		HS bootstrap supply (BST), external capacitor to OUT_A required
44	GVDD_A		Gate-drive voltage supply requires 0.1-μF capacitor to AGND

PDC135A (MAIN ASSY : IC5501)

• System Control Microcomputer

● Pin Function

No.	Mark	Pin Name	I/O	Pin Function
1	PA3/WR#	FLDAT	O	Data for FL driver
2	PA4/RD#	XFLCS	O	Chip enable for FL driver
3	PA5/RS	FLCLK	O	Clock for FL driver
4	P70 / INT0 / T0LCP / AN8	(ACDET)	O	no use
5	P71 / INT1 / T0HCP / AN9	P_ON	I	REMOCON 2 (Power On)
6	P72 / INT2 / T0IN	RDSCLK	I (O)	Clock input from RDS decoder (Interruption 2)/ non-RDS model = Low output
7	P73 / INT3 / T0IN	REMOCON	I	REMOCON signal input (Interruption 3)
8	RES#	XRESET	I	μ -com reset input
9	XT1 / AN10	XT1	–	Subclock (connect to VDD when no use)
10	XT2 / AN11	XT2	–	Subclock (leave open when no use, and set the bit 6 of OCR SFR)
11	VSS1	VSS1	–	
12	CF1	CF1	–	Main Clock (connect to VDD when no use)
13	CF2	CF2	–	Main Clock (leave open when no use)
14	VDD1	VDD1	–	
15	P80 / AN0	SIMUKE	I	Destination distinction input
16	P81 / AN1	MODEL	I	Model distinction input
17	P82 / AN2	(VDET)	O	no use
18	P83 / AN3	XWMUTE	O	Wireless output MUTE ON/OFF (Wireless model only)
19	P84 / AN4	KEY2	I	Key2 input
20	P85 / AN5	DIRERR	I	LOCK/UNLOCK from DIR
21	P86 / AN6	PCONFIG	I	POWER CONFIG INPUT
22	P87 / AN7	(XPROTECT)	O	no use
23	P10/SO0	DSPDI	O	Data output to DSP and DIR
24	P11 / SI0 / SB0	DSPDO	I	Data input from DSP
25	P12 / SCK0	DSPCK	O	Clock output to DSP and DIR
26	P13 / SO1	(XTVMUTE)	O	no use
27	P14 / SI1 / SB1	DASDA	I /O	I2C data for PWM processor IC
28	P15 / SCK1	DASCK	O	I2C clock for PWM processor IC
29	P16/T1PWML	INPUTSELA	O	AUDIO INPUT SELECT A
30	P17/T1PWMH/BUZ	INPUTSELB	O	AUDIO INPUT SELECT B
31	PE0	(XHPMUTE)	O	no use
32	PE1	(XRECMUTE)	O	no use
33	PE2	ADMD	O	Control of DSPMUTE combining DIRERR., "L" at digital mode, "H" at analog mode.
34	PE3	XADPDN	O	POWER DOWN for A/D
35	PE4	DSPMUTE	O	MUTE request to PWM processor IC
36	PE5	(LED)	O	Control of LED (SX-X360 only)
37	PE6	XDEC MUTE	I	Detection of DSP boot success from DSP
38	PE7	DSPHREQ	I	Error detection from DSP
39	VSS4	VSS4	–	
40	VDD4	VDD4	–	

No.	Mark	Pin Name	I/O	Pin Function
41	PF0	BUSY	I	For MCACC FUNCTION
42	PF1	(XFLAGS)	I	no use
43	PF2	STEST	I	Set TESTMODE for Service
44	PF3	UTEST	I	Set UNITCHECK for checker
45	PF4	XDSPSS	O	Slave selection to DSP
46	PF5	XDSPRST	O	RESET to DSP
47	PF6	DSPMODE	O	Selection of MCACC function
48	PF7	(DATASEL)	O	no use
49	SI2P0/SO2	(SDATA)	O	no use
50	SI2P1/SI2/SB2	(MDATA)	O	no use
51	SI2P2/SCK2	(SCLK)	O	no use
52	SI2P3/SCK20	TXCE	O	Chip enable for tuner LSI
53	PWM1		O	no use
54	PWM0		O	no use
55	VDD2	VDD2	–	
56	VSS2	VSS2	–	
57	P00	EEP_CS	O	EEPROM CHIP SELECT
58	P01	EEP_DO	O	EEPROM DATA OUT
59	P02	(PCONFIG1)	O	no use
60	P03	EEP_SK	O	EEPROM CLOCK
61	P04	TXCLK	O	Clock for tuner LSI
62	P05	TXODATA	O	Data for tuner LSI
63	P06	(PCONFIG2)	O	no use
64	P07	RDSPOW	O	Control power supply of RDS (L: POWER ON)
65	P20/INT4/T1IN	RDSDATA	I (O)	Input RDS data/ non-RDS model = Low output
66	P21/INT4/T1IN	TXIDATA	I	Input data from tuner LSI
67	P22/INT4/T1IN	(DVDACK)	O	no use
68	P23/INT4/T1IN	EEP_DI	I	EEPROM DATA IN
69	P24/INT5/T1IN	KEY1	I	Key1 input (PowerOn/Standby key only)
70	P25/INT5/T1IN	XDARST	O	RESET for PWM processor IC
71	P26/INT5/T1IN	XDAPDN	O	POWER DOWN for PWM processor IC
72	P27/INT5/T1IN	(XDAMUTE)	O	no use
73	P30	(USBPOWER)	O	no use
74	P31	DIGSEL	O	DIGITAL INPUT SELECT
75	P32/UTX1	SR+TX	O	UART Tx of SR+ function
76	P33/URX1	SR+RX	I	UART Rx of SR+ function
77	P34/UTX2	SHUTDWN	I	SHUTDOWN detection from Power Stage IC
78	P35/URX2	(XREADY)	O	no use
79	P36	XOTW	I	Over Temperature Warning from Power Stage IC
80	PB7/D7	(XDVDRST)	O	no use

No.	Mark	Pin Name	I/O	Pin Function
81	PB6/D6	(DVDPOWER)	O	no use
82	PB5/D5	(HPSEL)	O	no use
83	PB4/D4	(HPDET)	O	no use
84	PB3/D3	PWRCONT	O	Power control
85	PB2/D2	(FLCONT)	O	no use
86	PB1/D1	BEATCUT1	O	BEATCUT Control 1
87	PB0/D0	BEATCUT2	O	BEATCUT Control 2
88	VSS3	VSS3	–	
89	VDD3	VDD3	–	
90	PC7/A7	FLASHE/D	I(O)	no use
91	PC6/A6	FLASHDO	O	no use
92	PC5/A5	FLASHCLK	O	no use
93	PC4/A4	(SWMIX)	O	no use
94	PC3/A3	(PCONFIG3)	O	no use
95	PC2/A2	(DMUTECHECK)	O	SOFT MUTE MONITOR for PWM processor IC
96	PC1/A1	FANCONT	O	Control fan speed
97	PC0/A0	(DTSMIX)	O	no use
98	PA0/CS2#	XDIRRST	O	Reset to DIR
99	PA1/CS1#	XDIRCS	O	Chip select to DIR
100	PA2/CS0#	DIRDO	I	Data input from DIR

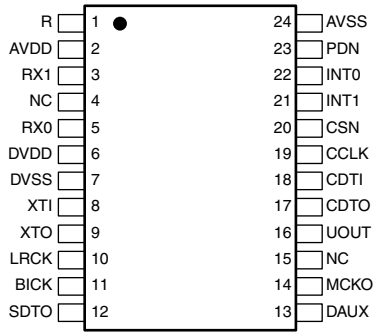
- Port0 (P00-P07) can be selected for input or output by each 4 bits (P00-P03,P04-P07). Set for input when reset. And it can be set C-MOS or Nch-OD by each 1 bit in option.
- Port1 (P10-P17) can be selected for input or output by each 1 bit. Set for input when reset. And it can be set C-MOS or Nch-OD by each 1bit in option.
- Port2 (P20-P27) can be selected for input or output by each 1 bit. Set for input when reset. And it can be set C-MOS or Nch-OD by each 1 bit in option.
- Port3 (P30-P36) can be selected for input or output by each 1 bit. Set for input when reset. And it can be set C-MOS or Nch-OD by each 1 bit in option.
- Port7 (P70-P73) can be selected for input or output by each 1 bit. Set for input when reset.
- Port8 (P80-P87) can be selected for input or output by each 1 bit. Set for input when reset.
- PortA (PA0-PA5) can be selected for input or output by each 1 bit. Set for input when reset. And it can be set C-MOS or Nch-OD by each 1 bit in option.
- PortB (PB0-PB7) can be selected for input or output by each 1 bit. Set for input when reset. And it can be set C-MOS or Nch-OD by each 1 bit in option.
- PortC (PC0-PC7) can be selected for input or output by each 1 bit. Set for input when reset. And it can be set C-MOS or Nch-OD by each 1 bit in option.
- PortE and PortF can be selected for input or output by each 2 bits.

- In case of without RDS, it is best that RDSDATA and RDSCLK are assigned as I/O port which can be set output and output low level.

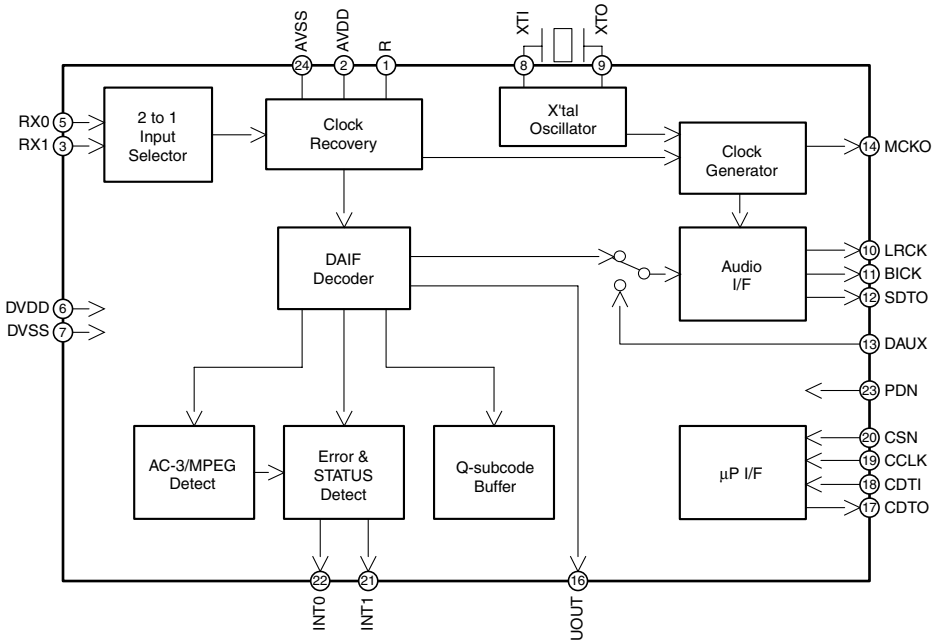
■ AK4117VF (MAIN ASSY : IC601)

• Low Power 192 kHz Digital Audio Receiver

● **Pin Arrangement (Top view)**



● **Block Diagram**



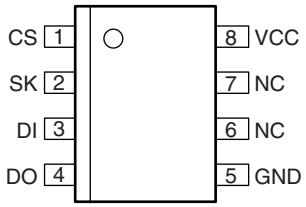
● **Pin Function**

No.	Pin Name	I/O	Pin Function
1	R	–	External Resistor Pin 12Ω-5% ~ 13Ω+5% resistor to AVSS externally.
2	AVDD	–	Analog Power Supply Pin
3	RX1	I	Receiver Channel 1 (Internal Biased Pin)
4	NC	–	No Connect
5	RX0	I	Receiver Channel 0 (Internal Biased Pin)
6	DVDD	–	Digital Power Supply Pin
7	DVSS	–	Digital Ground Pin
8	XTI	I	X'tal Input Pin
9	XTO	O	X'tal Output Pin
10	LRCK	O	Output Channel Clock Pin
11	BICK	O	Audio Serial Data Clock Pin
12	SDTO	O	Audio Serial Data Output Pin
13	DAUX	I	Auxiliary Audio Data Input Pin
14	MCKO	O	Master Clock Output Pin
15	NC	–	No Connect
16	UOUT	O	U-bit Output Pin When UOUTE bit = "0", UOUT pin = "L".
17	CDTO	O	Control Data Output Pin
18	CDTI	I	Control Data Input Pin
19	CCLK	I	Control Data Clock Pin
20	CSN	I	Chip Select Pin
21	INT1	O	Interrupt 1 Pin
22	INT0	O	Interrupt 0 Pin
23	PDN	I	Power-Down & Reset Pin When "L", the AK4117 is powered-down and reset, and all output pins go to "L" and the control registers are reset to default state.
24	AVSS	–	Analog Ground Pin

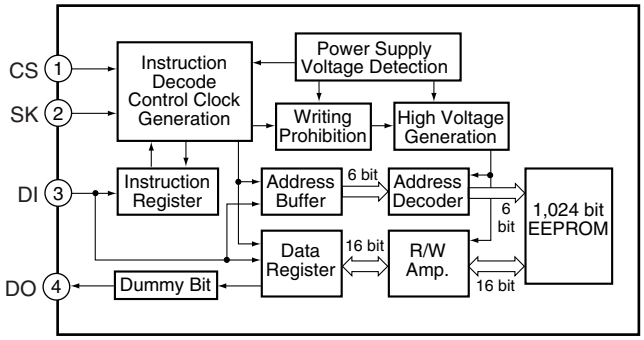
■ BR93L46RFJ-W (MAIN ASSY : IC5503)

• 64 × 16 bit EEPROM

● Pin Arrangement (Top view)



● Block Diagram



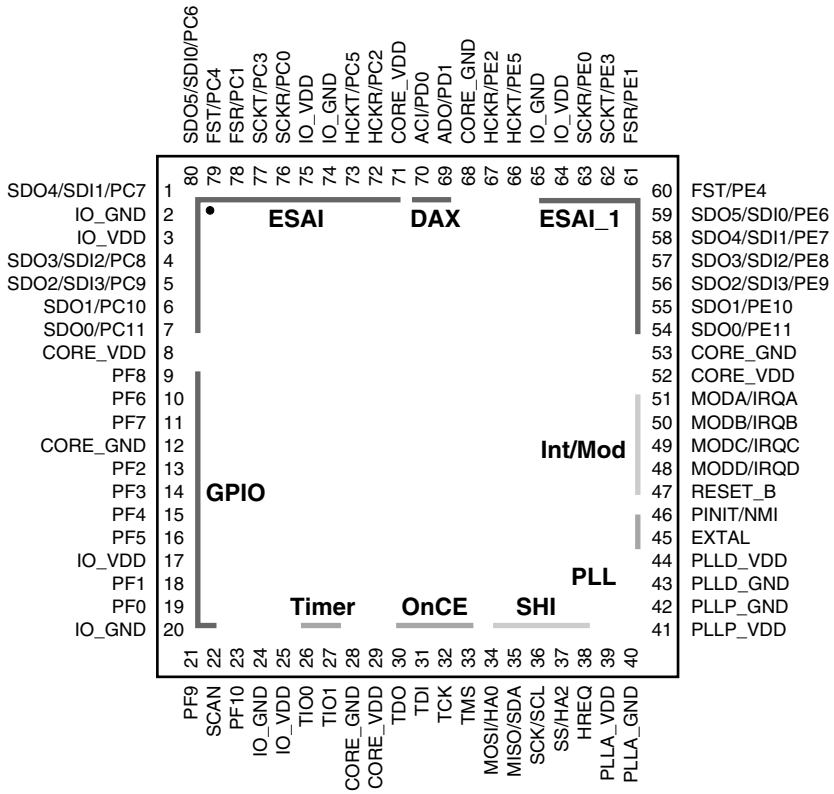
● Pin Function

No.	Pin Name	I/O	Pin Function
1	CS	I	Chip select input
2	SK	I	Serial clock input
3	DI	I	Start bit, OP code, address and serial data inputs
4	DO	O	Serial data output and READY/$\overline{\text{BUSY}}$ internal state display output
5	GND	–	Ground
6	NC	–	Non connection
7	NC	–	Non connection
8	VCC	–	Power supply

■ DSPC56371AF180 (MAIN ASSY : IC801)

• DSP IC

● Pin Arrangement (Top view)



● Pin Functions

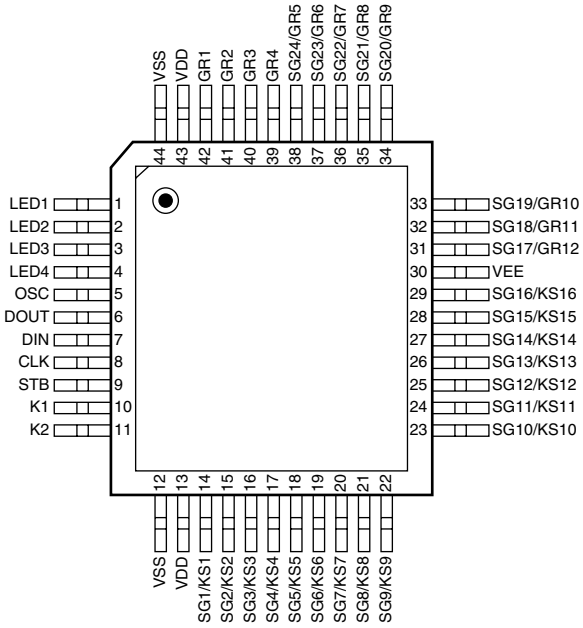
No.	Pin Name	I/O	Pin Function
1	SDO4/SDI1/PC7	I/O	Serial Data Output 4/Serial Data Input 1/Port C7
2	IO_GND	–	I/O ground
3	IO_VDD	–	I/O power supply (3.3V)
4	SDO3/SDI2/PC8	I/O	Serial Data Output 3/Serial Data Input 2/Port C8
5	SDO2/SDI3/PC9	I/O	Serial Data Output 2/Serial Data Input 3/Port C9
6	SDO1/PC10	I/O	Serial Data Output 1/Port C10
7	SDO0/PC11	I/O	Serial Data Output 0/Port C11
8	CORE_VDD	–	Core power supply (1.25V)
9	PF8	I/O	Port F8
10	PF6	I/O	Port F6
11	PF7	I/O	Port F7
12	CORE_GND	–	Core ground
13	PF2	I/O	Port F2
14	PF3	I/O	Port F3
15	PF4	I/O	Port F4
16	PF5	I/O	Port F5
17	IO_VDD	–	I/O power supply (3.3V)
18	PF1	I/O	Port F1
19	PF0	I/O	Port F0
20	IO_GND	–	GPIO I/O Ground
21	PF9	I/O	Port F9
22	SCAN	I	SCAN-Manufacturing test pin. This pin should be pulled low.
23	PF10	I/O	Port F10
24	IO_GND	–	I/O ground

No.	Pin Name	I/O	Pin Function
25	IO_VDD	–	I/O power supply (3.3V)
26	TIO0	I/O	Timer 0 Schmitt-Trigger Input/Output
27	TIO1	I/O	Timer 1 Schmitt-Trigger Input/Output
28	CORE_GND	–	Core ground
29	CORE_VDD	–	Core power supply (1.25V)
30	TDO	O	Test Data Output
31	TDI	I	Test Data Input
32	TCK	I	Test Clock
33	TMS	I	Test Mode Select
34	MOSI/HA0	I/O	SPI Master-Out-Slave-In/2C Slave Address 0 input
35	MISO/SDA	I/O	SPI Master-In-Slave-Out/I2C Data and Acknowledge
36	SCK/SCL	I/O	SPI Serial Clock/I2C Serial Clock
37	SS/HA2	I	SPI Slave Select/I2C Slave Address 2
38	HREQ	I/O	Host Request
39	PLLA_VDD	–	PLL power supply (3.3V)
40	PLLA_GND	–	PLL ground
41	PLLP_VDD	–	PLL power supply (3.3V)
42	PLLP_GND	–	PLL ground
43	PLLD_GND	–	PLL ground
44	PLLD_VDD	–	PLL power supply (1.25V)
45	EXTAL	I	External Clock Input
46	PINIT/NMI	I	PLL Initial/Nonmaskable Interrupt
47	RESET_B	I	Reset
48	MODD/IRQD	I	Mode Select D/External Interrupt Request D
49	MODC/IRQC	I	Mode Select C/External Interrupt Request C
50	MODB/IRQB	I	Mode Select B/External Interrupt Request B
51	MODA/IRQA	I	Mode Select A/External Interrupt Request A
52	CORE_VDD	–	Core power supply (1.25V)
53	CORE_GND	–	Core ground
54	SDO0/PE11	I/O	Serial Data Output 0/Port E11
55	SDO1/PE10	I/O	Serial Data Output 1/Port E10
56	SDO2/SDI3/PE9	I/O	Serial Data Output 2/Serial Data Input 3/Port E9
57	SDO3/SDI2/PE8	I/O	Serial Data Output 3/Serial Data Input 2/Port E8
58	SDO4/SDI1/PE7	I/O	Serial Data Output 4/Serial Data Input 1/Port E7
59	SDO5/SDI0/PE6	I/O	Serial Data Output 5/Serial Data Input 0/Port E6
60	FST/PE4	I/O	Frame Sync for Transmitter/Port E4
61	FSR/PE1	I/O	Frame Sync for Receiver/Port E1
62	SCKT/PE3	I/O	Transmitter Serial Clock/Port E3
63	SCKR/PE0	I/O	Receiver Serial Clock/Port E0
64	IO_VDD	–	I/O power supply (3.3V)
65	IO_GND	–	I/O ground
66	HCKT/PE5	I/O	High Frequency Clock for Transmitter/Port E5
67	HCKR/PE2	I/O	High Frequency Clock for Receiver/Port E2
68	CORE_GND	–	Core ground
69	ADO/PD1	I/O	Digital Audio Data Output/Port D1
70	ACI/PD0	I/O	Audio Clock Input/Port D0
71	CORE_VDD	–	Core power supply (1.25V)
72	HCKR/PC2	I/O	High Frequency Clock for Receiver/Port C2
73	HCKT/PC5	I/O	High Frequency Clock for Transmitter/Port C5
74	IO_GND	–	I/O ground
75	IO_VDD	–	I/O power supply (3.3V)
76	SCKR/PC0	I/O	Receiver Serial Clock/Port C0
77	SCKT/PC3	I/O	Transmitter Serial Clock/Port C3
78	FSR/PC1	I/O	Frame Sync for Receiver/Port C1
79	FST/PC4	I/O	Frame Sync for Transmitter/Port C4
80	SDO5/SDI0/PC6	I/O	Serial Data Output 5/Serial Data Input 0/Port C6

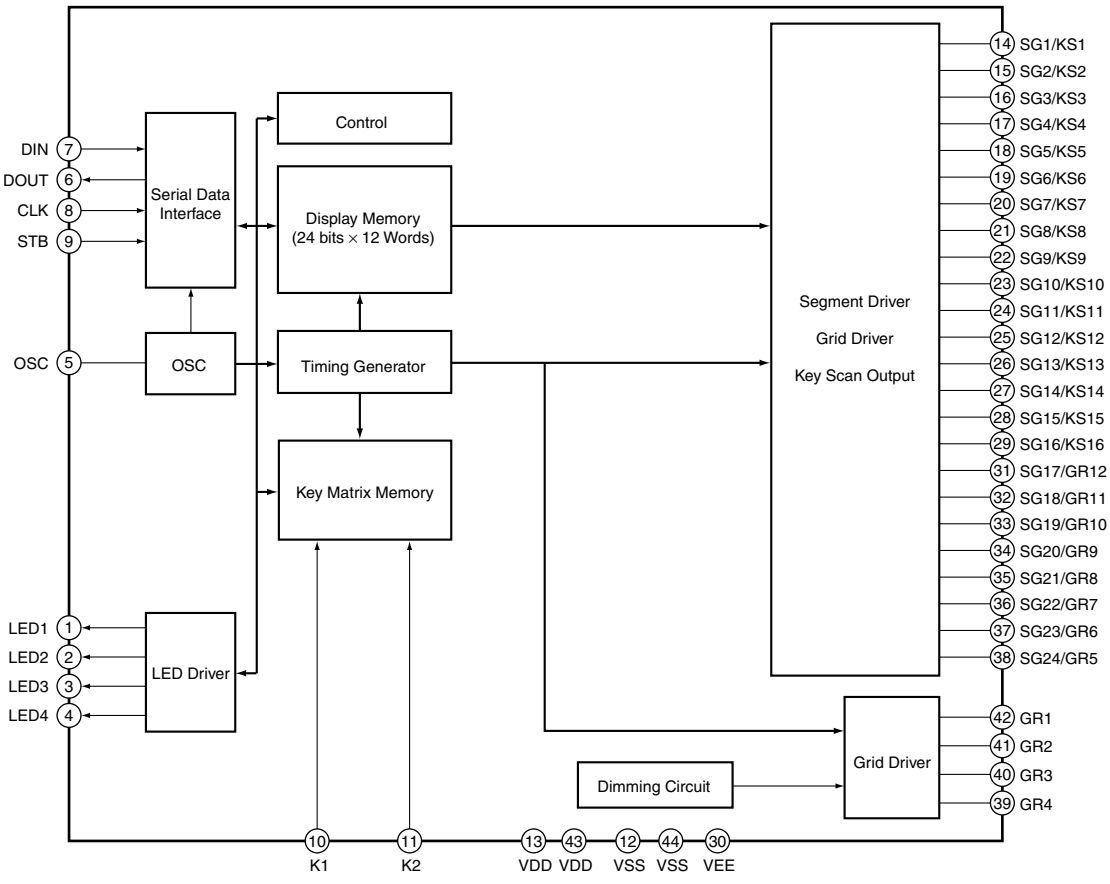
■ PT6315 (FL ASSY : IC5901)

• FL Driver IC

● Pin Arrangement



● Block Diagram



● Pin Function

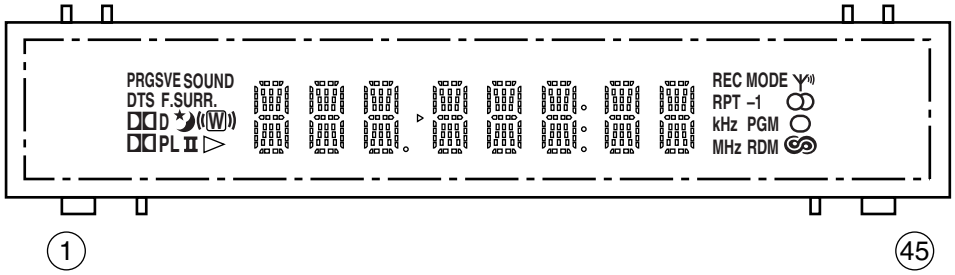
No.	Pin Name	I/O	Pin Function
1	LED1	O	LED output pin
2	LED2		
3	LED3		
4	LED4		
5	OSC	I	Oscillator input pin
6	DOUT	O	Data output pin
7	DIN	I	Data input pin
8	CLK	I	Clock input pin
9	STB	I	Serial interface strobe pin
10	K1	I	Key data input pin
11	K2		
12	VSS	–	Logic ground pin
13	VDD	–	Logic power supply
14	SG1/KS1	O	High-voltage segment output pin
15	SG2/KS2		
16	SG3/KS3		
17	SG4/KS4		
18	SG5/KS5		
19	SG6/KS6		
20	SG7/KS7		
21	SG8/KS8		
22	SG9/KS9		
23	SG10/KS10		
24	SG11/KS11		
25	SG12/KS12		
26	SG13/KS13		
27	SG14/KS14		
28	SG15/KS15		
29	SG16/KS16		
30	VEE	–	Pull-down level
31	SG17/GR12	O	High-voltage segment / Grid output pin
32	SG18/GR11		
33	SG19/GR10		
34	SG20/GR9		
35	SG21/GR8		
36	SG22/GR7		
37	SG23/GR6		
38	SG24/GR5		
39	GR4	O	High-voltage grid output pin
40	GR3		
41	GR2		
42	GR1		
43	VDD	–	Logic power supply
44	VSS	–	Logic ground pin

7.2.2 DISPLAY

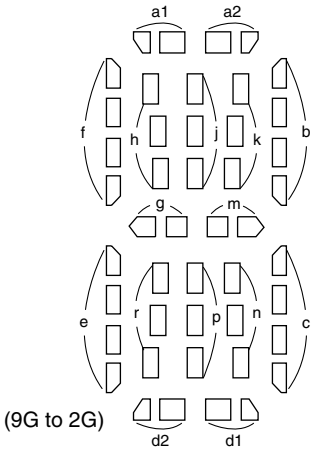
■ AAV7104 (FL ASSY : V5901)

• FL DISPLAY

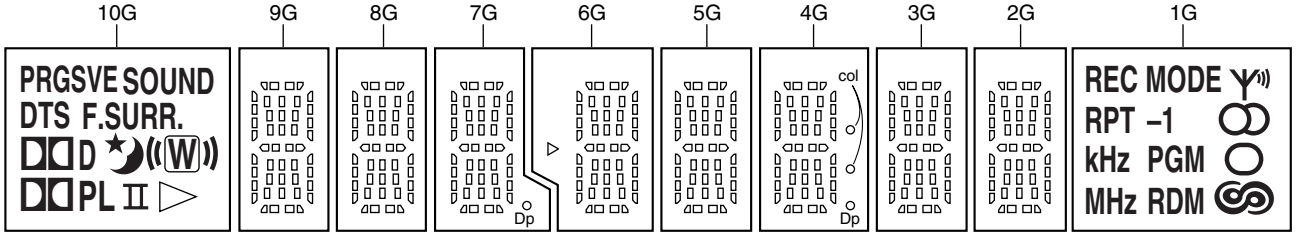
• Pin Assignment



• Segment Designation



• Grid Assignment



• Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Connection	F–	NX	NP	NP	10G	7G	6G	5G	4G	NX	3G	9G	2G	1G	8G	P18	P17	NX	P16	P15	NX	P14	P13	P12	NX
Pin No.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	49	41	42	43	44	45					
Connection	P11	P10	NX	P9	P8	NX	P7	P6	NX	P5	NX	P4	P3	P2	P1	NX	NP	NP	NX	F+					

NOTE
1) F–, F+..... Filament
2) NP..... No pin
3) NX..... No extend pin
4) Cut lead is side A.
5) Solder composition is Sn-3Ag-0.5Cu.
6) DL..... Datum Line
7) 1G to 10G..... Grid

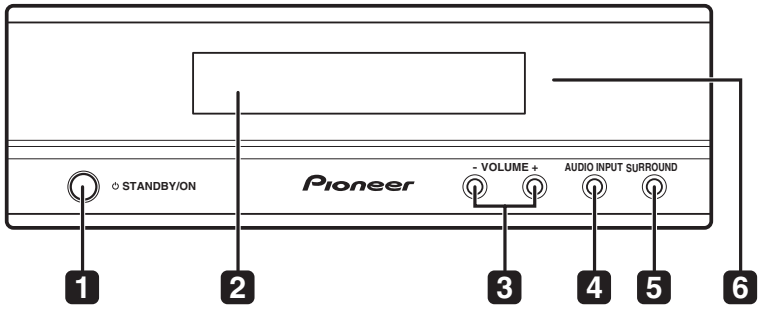
• Anode Connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	PRGSVE	a2	a2	a2	a2	a2	a2	a2	a2	REC MODE
P2	SOUND	a1	a1	a1	a1	a1	a1	a1	a1	
P3	DTS	k	k	k	k	k	k	k	k	RPT
P4	F.	j	j	j	j	j	j	j	j	–1
P5	SURR.	h	h	h	h	h	h	h	h	
P6	D	b	b	b	b	b	b	b	b	kHz
P7		f	f	f	f	f	f	f	f	PGM
P8		m	m	m	m	m	m	m	m	
P9	PLII	g	g	g	g	g	g	g	g	MHz
P10		c	c	c	c	c	c	c	c	RDM
P11	-	e	e	e	e	e	e	e	e	
P12	-	n	n	n	n	n	n	n	n	-
P13	-	p	p	p	p	p	p	p	p	-
P14	-	r	r	r	r	r	r	r	r	-
P15	-	d1	d1	d1	d1	d1	d1	d1	d1	-
P16	-	d2	d2	d2	d2	d2	d2	d2	d2	-
P17	-	-	-	Dp		-	col	-	-	-
P18	-	-	-	-	-	-	Dp	-	-	-

8. PANEL FACILITIES

Display unit

(SX-SW404)
(SX-SW606)



1 ⏻ STANDBY/ON
Press to switch the system on/into standby.

2 Front panel display
See below for details.

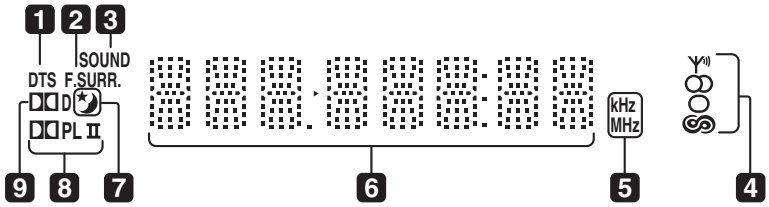
3 VOLUME buttons
Use to adjust the volume.

4 AUDIO INPUT
Press repeatedly to select one of the external audio inputs (**DVD/DVR1**, **DVD/DVR2**, **DIGITAL** or **ANALOG**).

5 SURROUND
Use to select a Surround mode.

6 IR remote sensor

Display



1 DTS
Lights during playback of a DTS source.

2 F.SURR. (RCS-404H/505H only)
Lights when one of the Front Surround listening modes is selected.

SURR.
Lights when one of the Advanced Surround listening modes is selected.

3 SOUND
Lights when Sound Retriever is on.

4 Tuner indicators
– Lights when a broadcast is being received.

– Lights when a stereo FM broadcast is being received in auto stereo mode.

– Lights when FM mono reception is selected.

– Lights when in one of the RDS display or search modes.

5 kHz / MHz
Indicates the frequency unit shown in the character display (**kHz** for AM, **MHz** for FM).

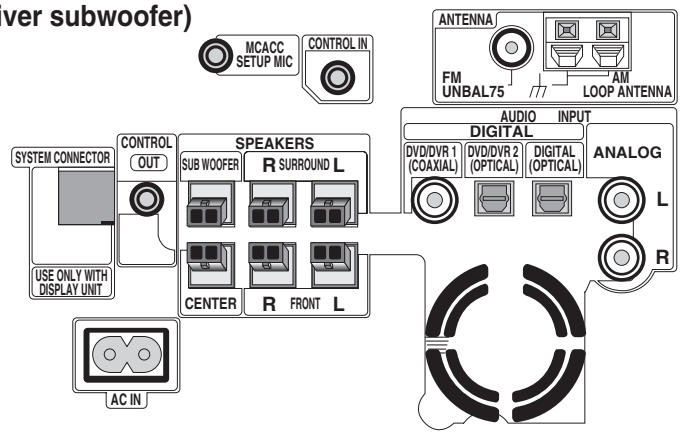
6 Character display

7
Lights when sleep timer is active.

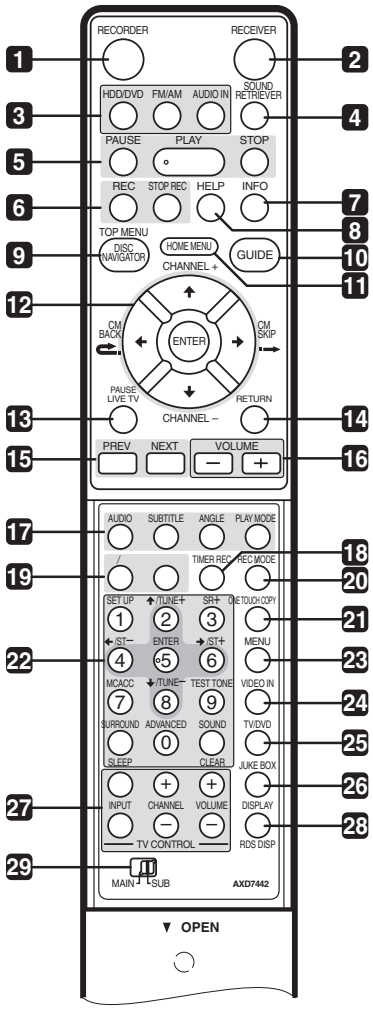
8 PL II
Lights during Dolby Pro Logic II decoding.

9 D
Lights during playback of a Dolby Digital source.

Rear Panel (Receiver subwoofer)



Remote control (SX-SW404, SX-SW606)



Important

- Functions printed in green on the remote control are accessed by switching the **MAIN**/**SUB** switch to **SUB**.

1 ⏻ RECORDER
Press to switch the recorder on or into standby.

2 ⏻ RECEIVER
Press to switch the receiver subwoofer on or into standby.

3 Input select buttons

HDD/DVD
Press to select the hard disk (HDD) or DVD for recording or playback. The receiver subwoofer's audio input is also switched to **DVD/DVR1**.[1]

FM/AM
Press to select the built-in radio tuner.

AUDIO IN
Press repeatedly to select one of the receiver subwoofer's audio inputs (**DVD/DVR1**, **DVD/DVR2**, **DIGITAL** or **ANALOG**).

4 SOUND RETRIEVER
Press to restore CD quality sound to compressed audio sources.

5 Playback controls

II PAUSE
Press to pause playback or recording.

► PLAY
Press to start playback.

■ STOP
Press to stop playback.

6 Recording controls

● REC
Press to start recording. Press repeatedly to set the recording time in blocks of 30 mins.

When the red action button is visible in a GUIDE Plus+™ screen, use for One-Button-Record.

■ STOP REC
Press to stop recording.

7 INFO
Press to see additional information for the highlighted item in GUIDE Plus+™.

8 HELP
Press for help on how to use the current GUI screen.

9 DISC NAVIGATOR / TOP MENU
Press to display the Disc Navigator screen, or the top menu if a DVD-Video or finalized DVD-R/RW (Video) disc is loaded.

10 GUIDE
Press to display the GUIDE Plus+ô screen; press again to exit.

11 HOME MENU
Press to display the Home Menu, from which you can navigate many the functions of the system.

12 ↑/↓/←/→ (cursor buttons) and ENTER
Use to navigate all DVD recorder on-screen displays. Press **ENTER** to select the currently highlighted option.

CHANNEL +/–
Press to change the channel of the built-in TV tuner.

CM BACK (commercial back)
Press repeatedly to skip progressively backward through the audio or video playing.

CM SKIP (commercial skip)
Press repeatedly to skip progressively forward through the audio or video playing.

Note
1 If the recorder is set to remote mode 2 or 3, the receiver subwoofer's audio input will not be switched. See also Remote Control Mode.

13 PAUSE LIVE TV
Press to start recording the current TV channel, but with playback paused, effectively pausing the broadcast.

14 RETURN
Press to go back one level in the on-screen menu or display.

15 I◄◄ PREV / NEXT ►►I
Press to skip to the previous or next title/chapter/track/ folder; or to display the previous or next menu page.

When GUIDE Plus+ô is displayed, use to display the previous/next page.

16 VOLUME +/–
Use to adjust the volume.

17 GUIDE Plus+™ Action buttons and DVD playback function buttons
When in the GUIDE Plus+™ system, these buttons act as the Red, Green, Yellow and Blue Action buttons (the functions of these buttons change according to the GUIDE Plus+™ Area).

AUDIO
Press to change the audio language or channel. (When the recorder is stopped, press to change the tuner audio.)

SUBTITLE
Press to display/change the subtitles included in multilingual DVD-Video discs.

ANGLE
Press to switch camera angles on discs with multi-angle scenes.

PLAY MODE
Press to change the play mode (search, repeat, program play, etc.)

18 TIMER REC
Press to set a timer recording from the GUIDE Plus+™ system.

19 ◄◄ / ►►
Press to start reverse or forward scanning. Press again to change the speed.

◄II /◄I, I►/ II►
While paused, press and hold to start slow-motion playback. Press repeatedly to change the playback speed.

While paused, press to advance a single frame in either direction.

When GUIDE Plus+™ is displayed, use to display the previous/next day.

20 REC MODE
Press repeatedly to change the recording mode (picture quality).

21 ONE TOUCH COPY
Press to start One Touch Copy of the currently playing title to DVD or the HDD.

22 Number buttons
Use the number buttons for track/chapter/title selection; channel selection, and so on. The same buttons can also be used to enter names for titles, discs and so on.

↑/↓/←/→ (cursor buttons) and ENTER
Use to control receiver functions.

SETUP
Use to access the menu system for surround sound setup, tuner settings and so on .

SR+
Use to setup the SR+ features and to select the SR+ mode.

MCACC
Starts the Auto MCACC setup.

TEST TONE
Use to output the test tone (for speaker setup)

SURROUND
Use to select a Surround mode.

SLEEP
Press to set the sleep timer.

ADVANCED
Use to select an Advanced Surround mode .

SOUND
Press to access the sound menu, from which you can adjust bass and treble, etc.

CLEAR
Press to clear an entry and start again.

23 MENU
Press to display the disc menu if a DVD-Video, finalized DVD-R/-RW or finalized DVD+R/+RW disc is loaded.

When in the GUIDE Plus+™ system, use to jump directly to the Menu bar.

24 VIDEO IN
Press to change the DVD recorder input for recording and playback.

25 TV/DVD
Press to switch between 'TV mode', in which you get the picture and sound from the TVís tuner, and 'DVD mode', in which you get picture and sound from the system's tuner (or an external input).

26 JUKEBOX

27 TV CONTROL
After setting up, use these controls to control your TV.

28 DISPLAY
Displays/changes the on-screen information displays.

RDS DISP
Changes RDS displays

29 MAIN/SUB
Change from **MAIN** to **SUB** to access the green functions/ commands on the remote.

A

B

C

D

E

F

■ Jigs list

Name	Jig No.	Remarks
Speaker Cable with terminal	SDS1174 (FL/WHITE) SDS1175 (FR/RED), SDS1176 (SL/BLUE) SDS1177 (SR/GRAY), SDS1178 (C/GREEN)	For checking audio at the SP terminal

■ CLEANING

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008