
SERVICE MANUAL

Technical specifications**AR30 v2 specifications****Amplifier section**

Power output	40 watts per channel (into 8 Ω)
THD	<0.05% 20Hz-20kHz @ 80% max power <0.009% @ 1kHz 10w
Frequency response	10Hz - 50kHz +/-1dB
S/N ratio (ref 1w)	>80dB 'A' weighted
Line input impedances	47kohms (CD, DVD, Aux and MP3 inputs)
Tone controls	+/-12dB @ 100Hz and 10kHz (shelving)
Headphone output	3.5mm stereo mini jack 32-600ohm headphones recommended

Tuners

Bands	AM (530-1710kHz) FM/VHF (87.5MHz to 108MHz)
Aerial inputs	FM 75ohms, Coaxial. AM 300 ohms wire loop/single wire.
Signal to noise	80dB typical (DAB) 60dB typical (FM)
Distortion	<0.01% @ 1kHz 2V rms o/p (DAB) <0.2% @ 1kHz 50kHz deviation (FM mono) <0.6% @ 1kHz 50kHz deviation (FM stereo)

DD30 docking station for iPod

THD	<0.009% @ 1kHz
S/N ratio	<-80dB re 2V output.

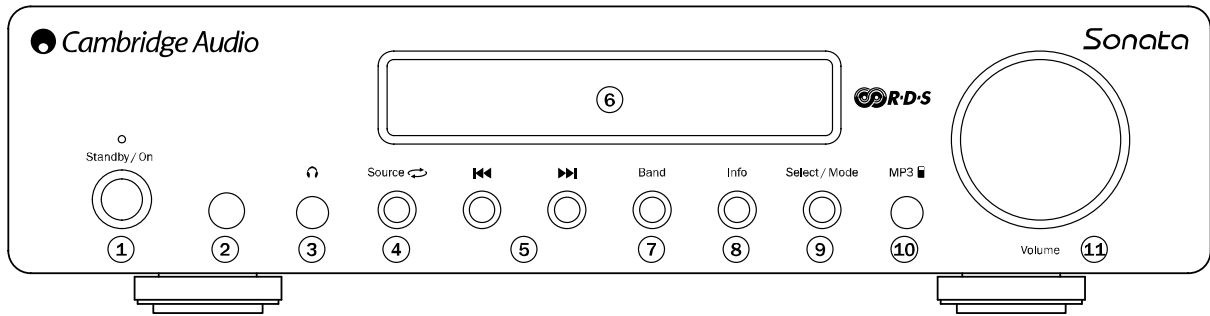
General

Trigger Outputs	3x 12V @ 30mA, 3.5mm jack, Tip positive. Corresponding to CD, DVD and Aux inputs
Power Supply	AR30-EU: 230V AC~ 50Hz (UK/EU) AR30-CU: 115V AC~ 60Hz (CU/US)
Max. power consumption	300W
Standby power consumption	<1W
Dimensions	270 x 67 x 285mm (WxHxD)
Weight	4.0kg (8.6lbs)

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Front panel controls



1. Standby/On

Switches the unit between a low power standby mode (indicated by dim power LED) and on (indicated by bright power LED). Standby is a low power mode where the power consumption is less than 3 Watts. The unit may be left in standby mode when not in use.

2. Infrared sensor

Receive IR commands from the supplied remote control. A clear unobstructed line of sight between the remote control and the sensor is required.

3. Phones

Allows for the connection of stereo headphones with a 3.5mm jack plug. Headphones with an impedance of between 32 and 600 ohms are recommended.

Note: Plugging in headphones will automatically mute the loudspeaker output.

4. Source

Press to cycle through the available input sources such as tuner, MP3, CD, DVD and aux inputs.

5. Skip/Scan

Sonata AR30 v2

- In preset mode, steps up or down through the user-stored presets.
- In manual mode, steps through the frequency band, for fine-tuning. If button is held, the unit will search for the next station with a strong signal.

Sonata DR30

- In preset mode, steps up or down through the user-stored presets.
- In FM manual mode, steps through the frequency band, for fine-tuning. If button is held, the unit will search for the next station with a strong signal.
- In DAB manual mode, browse through the available stations.

Note:

- When MP3 input is selected, and an iPod is inserted into the attached DD30 dock, the **⏮** **⏭** buttons will skip through the track lists. Press and holding the **⏮** **⏭** buttons will scan through the current track.
- When Preset Mode is activated, the unit will automatically tune to the first available preset.

6. Display

Used to display information such as station name and program type for DAB broadcasts and FM broadcasts with RDS/RBDS. Also provides feedback on volume, source, and various other data.

7. Band

Press to switch between FM, AM and SIRIUS bands (if a SIRIUS module is attached) on AR30, or

Front panel controls

DAB and FM bands on DR30.

8. Info

Changes the display mode to allow the user to view different information. In tuner mode, data varies depending on the type of broadcast, and signal quality. When in a non-tuner mode, pressing the Info button will briefly display the clock time, before returning to show the current source.

9. Select/Mode

In tuner mode, pressing once will toggle the tuning mode between preset and manual. In presets mode, the unit will automatically tune to the first available preset in the band. Alternatively, you may press and hold to store the current station in the preset bank. Use the ◀ ▶ keys or rotate the Volume control to select the preset location where you wish to store the preset, and press Select/Mode again to confirm.

10. MP3 Input

This source input allows you to connect a portable audio device such as an MP3 player directly into the front of the unit using the 3.5mm stereo-jack (labelled 'MP3 In'). Select the MP3 input source using the Source button or direct MP3 button on the remote to listen to your portable audio device.

Note: Plugging a source into the front panel MP3 input overrides the DD30 docking station (which is also selected by selecting the MP3 source via the remote control or front panel Source button). Simply remove the jack from the front panel socket to automatically re-enable the DD30 docking station as the MP3 source.

There is no need to unplug the DD30 docking station whilst using the front panel MP3 input and it will continue to charge a docked iPod as usual.

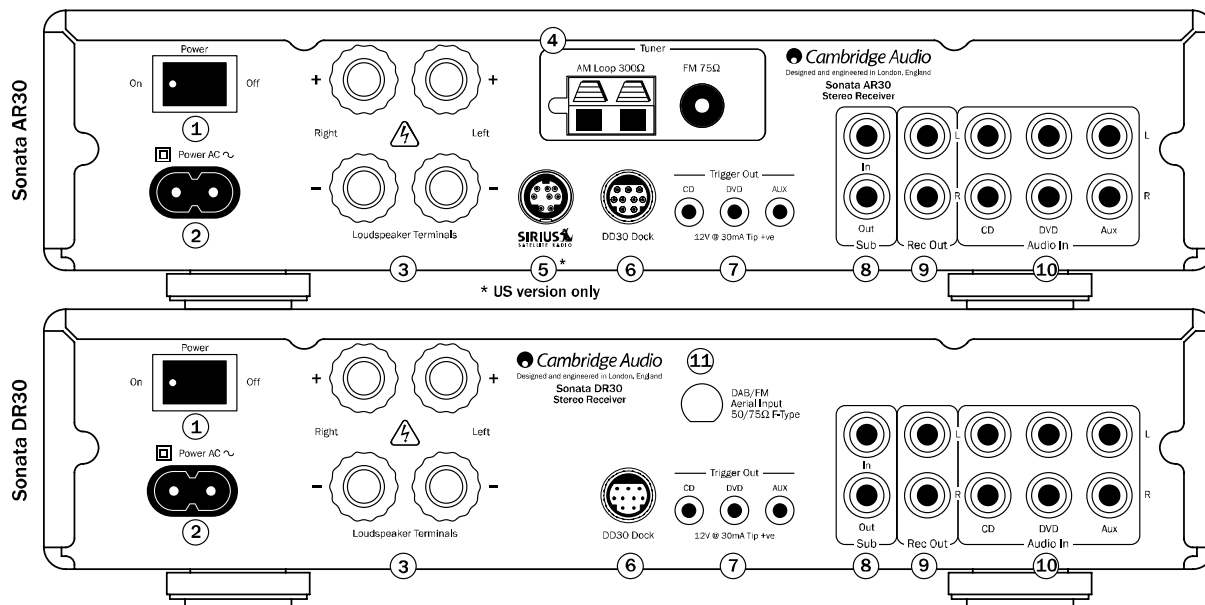
11. Volume control

Use to increase or decrease the level of the sound from the outputs of the unit. This controls the volume level of the loudspeakers, subwoofer and headphones. It does not affect the 'Rec Out' output.

It is also used to change the value of the selected settings in audio setup and advanced setup menus.

Press once to enter the audio setup menu. Press and hold to enter the advanced setup menu. See later section in this manual.

Rear panel connections



1. Power On/Off

Switches the unit on or off.

2. AC power socket

Once you have completed all connections to the amplifier, plug the AC power cable into an appropriate mains socket and turn the unit on. Your unit is now ready for use.

3. Loudspeaker terminals

Connect to loudspeakers with an impedance of 8ohms.

For best audio performance we recommend using speakers from Cambridge Audio's Sirocco range which have been designed in conjunction with the Sonata series. Please consult your dealer for details.

4. AM/FM antenna

Tuner aerial connections for picking up radio signals. Refer to 'Connections' section of this manual. For permanent use, outdoor AM/FM aerials are highly recommended.

5. SIRSUS socket (US version only)

SIRSUS satellite radio adaptor connection (requires subscription and a suitable module). Consult your dealer for more information.

6. DD30 dock connector

Connection for the supplied DD30 iPod dock. The docking station has a proprietary connector and will only work with the Cambridge DD30 docking station supplied.

iPod compatibility

The DD30 docking station for iPod is able to communicate with and control the following iPod models:

iPod nano (1st, 2nd, 3rd and 4th generation)

iPod (4th generation, photo and 5th generation)

iPod classic

iPod touch (1st and 2nd generation)

Rear panel connections

7. Trigger Out

Sonata AR30/DR30 produces trigger outputs that can be used to control the On/Standby status of other connected Cambridge Audio Sonata range source components (such as the CD30 CD player and DV30 DVD player) if desired. See 'Connections' section.

8. Sub In/Out

Connect Sub Out to the input of an active subwoofer. If your subwoofer has 2 inputs (i.e. left and right), then connect this terminal to the left input terminal (usually coloured white). The Sub In socket is for use with a Sonata DV30 DVD player.

9. Rec Out

Connect to the recording input of a tape deck, a portable music player, CD recorder input etc.

10. Audio Inputs

These inputs are suitable for any 'line level' source equipment such as the audio outputs of Sonata DV30 DVD player, Sonata CD30 CD player, satellite/cable receiver etc.

11. DAB/FM Aerial input

The Sonata DR30 has an F-type screw connection aerial for both FM and DAB signals (a temporary aerial is supplied). Extend the aerial lead and move around until you get the best reception. For permanent use, outdoor DAB and FM aerials are highly recommended.

Important safety instructions

For your own safety please read the following important safety instructions carefully before attempting to connect this unit to the mains power supply. They will also enable you to get the best performance from and prolong the life of the unit:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use with only the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power-supply adaptor having been damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



WARNING

- To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

The unit must be installed in a manner that makes disconnection of the mains plug from the mains socket outlet (or appliance connector from the rear of the unit) possible. Where the mains plug is used as the disconnect device, the disconnect device shall remain readily operable. Only use the mains cord supplied with this unit.

Please ensure there is ample ventilation. We recommend that you do not place the unit in an enclosed space; if you wish to place the unit on a shelf, use the top shelf to allow maximum ventilation. Do not put any objects on top of this unit. Do not situate it on a rug or other soft surface and do not obstruct any air inlets or outlet grilles. Do not cover the ventilation grilles with items such as newspapers, tablecloths, curtains, etc.

This unit must not be used near water or exposed to dripping or splashing water or other liquids. No objects filled with liquid, such as vases, shall be placed on the unit.

Important safety instructions



The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the service literature relevant to this appliance.



The symbol on this product indicates that it is of CLASS II (double insulated) construction.



WEEE symbol

The crossed-out wheeled bin is the European Union symbol for indicating separate collection for electrical and electronic equipment. This product contains electrical and electronic equipment which should be reused, recycled or recovered and should not be disposed of with unsorted regular waste. Please return the unit or contact the authorised dealer from whom you purchased this product for more information.



CE mark

This product complies with European Low Voltage (2006/95/EC) and Electromagnetic Compatibility (89/336/EEC) Directives when used and installed according to this instruction manual. For continued compliance only Cambridge Audio accessories should be used with this product and servicing must be referred to qualified service personnel.



C-Tick mark

This product meets the Australian Communications Authority's Radio communications and EMC requirements.



Ross Test Stamp

This product meets Russian electronic safety approvals.

FCC regulations



NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER AUTHORITY TO OPERATE THE EQUIPMENT.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Important safety instructions

Ventilation

IMPORTANT – The unit will become hot when in use. Do not place anything on top of the unit. Do not place in an enclosed area such as a bookcase or in a cabinet without sufficient ventilation. Ensure that small objects do not fall through any ventilation grille. If this happens, switch off immediately, disconnect from the mains supply and contact your dealer for advice.

Positioning

Choose the installation location carefully. Avoid placing it in direct sunlight or close to a source of heat. No naked flame sources, such as lighted candles, should be placed on the unit. Also avoid locations subject to vibration and excessive dust, cold or moisture. The unit can be used in a moderate climate.

This unit must be installed on a sturdy, level surface. Do not place in a sealed area such as a bookcase or in a cabinet. Do not place the unit on an unstable surface or shelf. The unit may fall, causing serious injury to a child or adult as well as serious damage to the product. Do not place other equipment on top of the unit.

Due to stray magnetic fields, turntables or CRT TVs should not be located nearby due to possible interference.

Electronic audio components have a running in period of around a week (if used several hours per day). This will allow the new components to settle down and the sonic properties will improve over this time.

Power sources

The unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power-supply to your home, consult your product dealer or local power company.

This unit has been designed to be left in Standby mode when not in use, this will increase the life of the unit (this is true with all electronic equipment). To turn the unit off, switch off at the rear panel. If you do not intend to use this unit for a long period of time, unplug it from the mains socket.

Overloading

Do not overload wall outlets or extension cords as this can result in a risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation and broken plugs are dangerous. They may result in a shock or fire hazard.

Be sure to insert each power cord securely. To prevent hum and noise, do not bundle the interconnect leads with the power cord or speaker leads.

Cleaning

To clean the unit, wipe its case with a dry, lint-free cloth. Do not use any cleaning fluids containing alcohol, ammonia or abrasives. Do not spray an aerosol at or near the unit.

Battery disposal

Batteries may contain substances harmful to the environment. Please dispose of any discharged batteries with due consideration and in consideration with local environmental/electronic recycling guidelines.

Important safety instructions

Loudspeakers

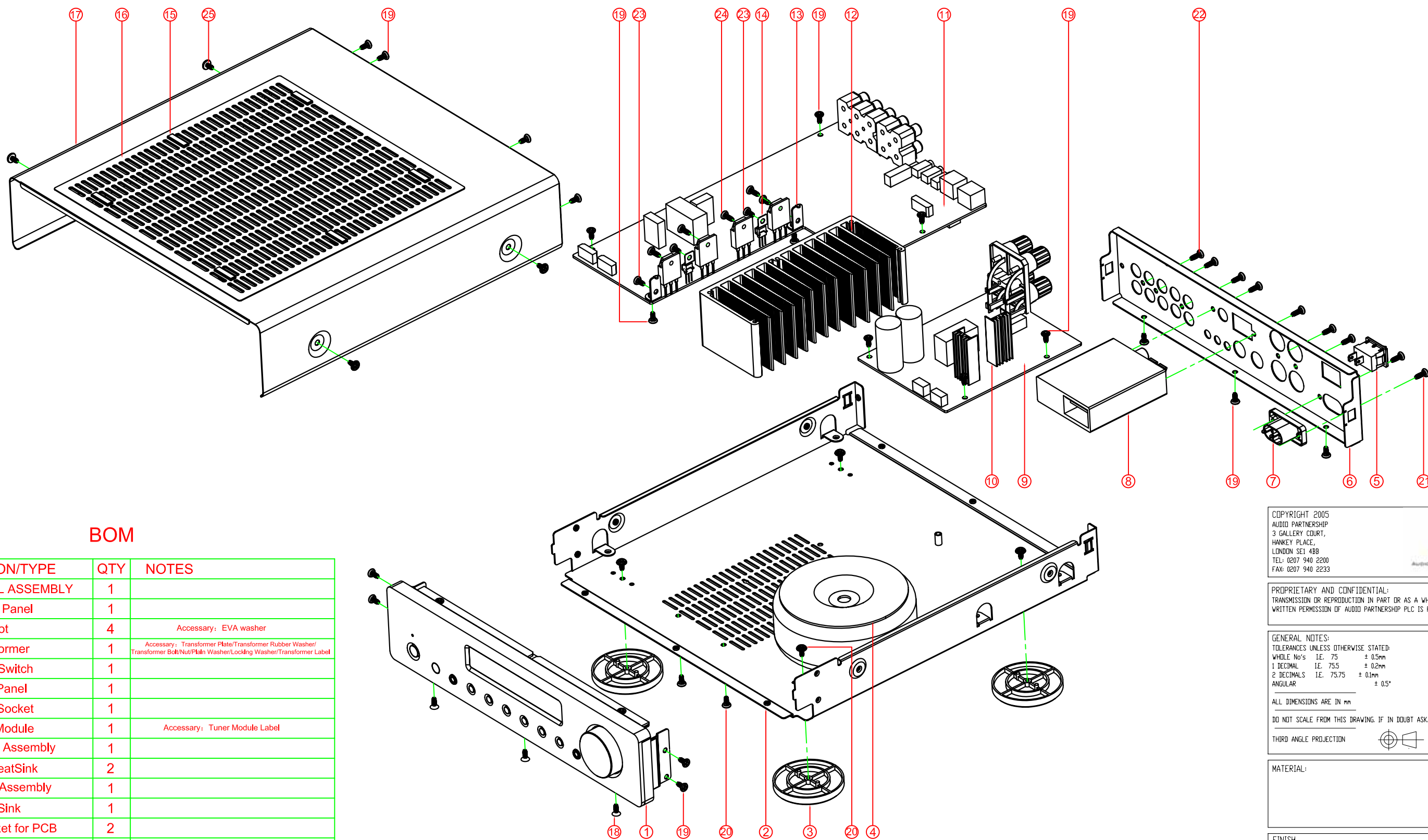
Before making any connections to loudspeakers, make sure all power is turned off and only use suitable interconnects.

Servicing

These units are not user serviceable. Never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem.

A serious electric shock could result if this precautionary measure is ignored. In the event of a problem or failure, please contact your dealer.

Cambridge Audio Sonata AR30 v2



BOM

NO.	DESCRIPTION/TYPE	QTY	NOTES
1	FRONT PANEL ASSEMBLY	1	
2	Bottom Panel	1	
3	Foot	4	Accessory: EVA washer
4	Transformer	1	Accessory: Transformer Plate/Transformer Rubber Washer/Transformer Bolt/Nut/Plain Washer/Locking Washer/Transformer Label
5	Power Switch	1	
6	Rear Panel	1	
7	Power Socket	1	
8	Tuner Module	1	Accessory: Tuner Module Label
9	Power PCB Assembly	1	
10	Small HeatSink	2	
11	Main PCB Assembly	1	
12	HeatSink	1	
13	Small Bracket for PCB	2	
14	Press Sheet	2	
15	Top Cover Rivet	6	
16	Top Cover Mylar Sheet	1	
17	Top Cover	1	
18	SCREW KTS M3X6	3	
19	SCREW STB M3X6	18	
20	SCREW PWA M3X8	9	
21	SCREW STB M3X10	2	Accessory: M3 Nut
22	SCREW BTB M3X10	7	
23	SCREW BTB M3X6	4	
24	SCREW BTB M3X12	4	Accessory: Plain Washer/Locking Washer
25	SCREW PWM M3X6	4	

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GENERAL NOTES:
TOLERANCES UNLESS OTHERWISE STATED:
WHOLE No's I.E. 75 ± 0.5mm
1 DECIMAL I.E. 75.5 ± 0.2mm
2 DECIMALS I.E. 75.75 ± 0.1mm
ANGULAR ± 0.5°

ALL DIMENSIONS ARE IN mm

DO NOT SCALE FROM THIS DRAWING. IF IN DOUBT ASK.

THIRD ANGLE PROJECTION



MATERIAL:

FINISH

MASS (g):

VOLUME (cm³):

TITLE:

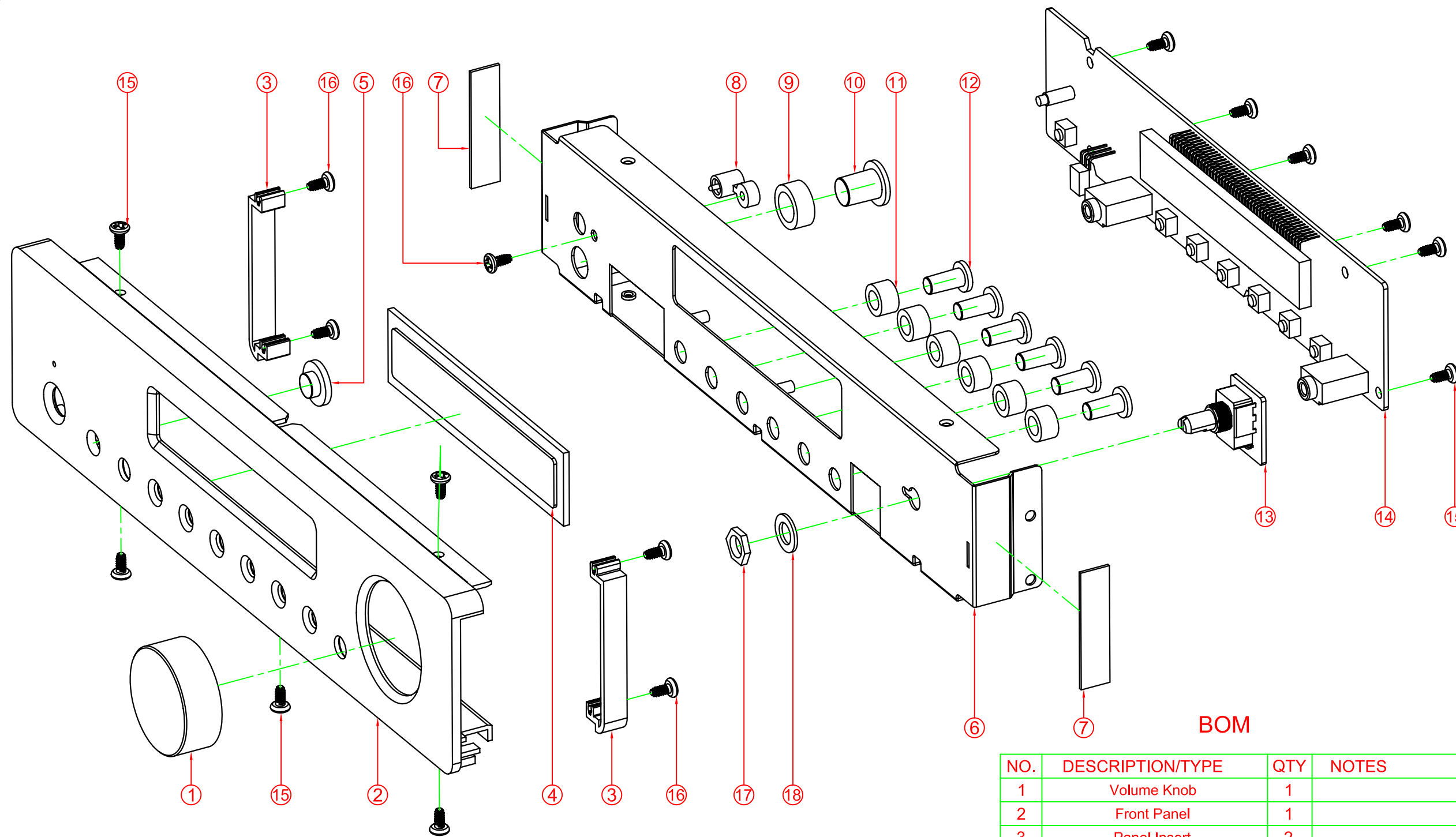
AR30 MAIN ASSEMBLY

DWG. NO.

SCALE: 1:1

SHEET 1 OF 1

Exploded Diagram



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NO.	DESCRIPTION/TYPE	QTY	NOTES
1	Volume Knob	1	
2	Front Panel	1	
3	Panel Insert	2	
4	Lens	1	
5	IR Lens	1	
6	Sub Panel	1	
7	EVA washer	2	
8	Light Guide	1	
9	9MM Button Sponge Washer	1	
10	9MM Button	1	
11	5.5MM Button Sponge Washer	6	
12	5.5MM Button	6	
13	Volume PCB	1	
14	Display PCB Assembly	1	
15	SCREW STB M3X6	11	
16	SCREW BTB M3X6	5	
17	M7 NUT	1	
18	Ø7 Plain Washer	1	

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 TOLERANCES UNLESS OTHERWISE STATED:
 WHOLE No's I.E. 75 ± 0.5mm
 1 DECIMAL I.E. 75.5 ± 0.2mm
 2 DECIMALS I.E. 75.75 ± 0.1mm
 ANGULAR ± 0.5°
 ALL DIMENSIONS ARE IN mm
 DO NOT SCALE FROM THIS DRAWING. IF IN DOUBT ASK.
 THIRD ANGLE PROJECTION

MATERIAL:

FINISH

MASS (g): VOLUME (g)

TITLE:
AR30 FRONT PANEL ASSEMBLY

DWG. NO. 12

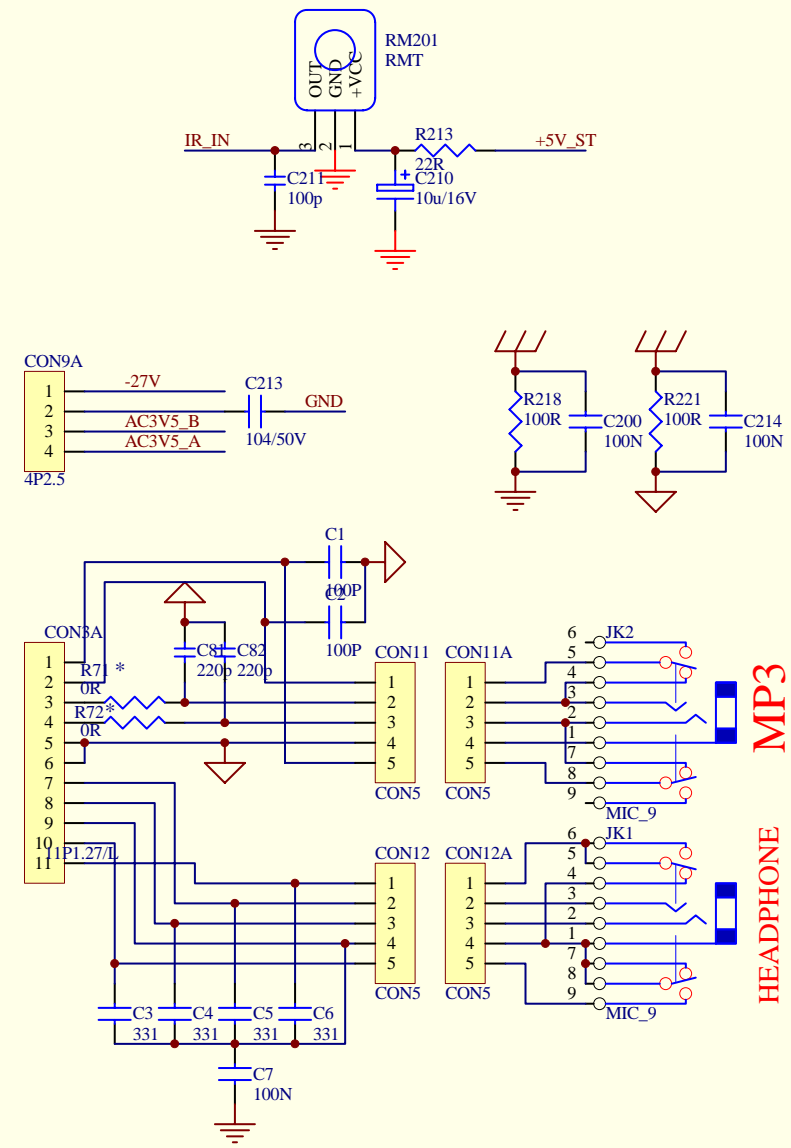
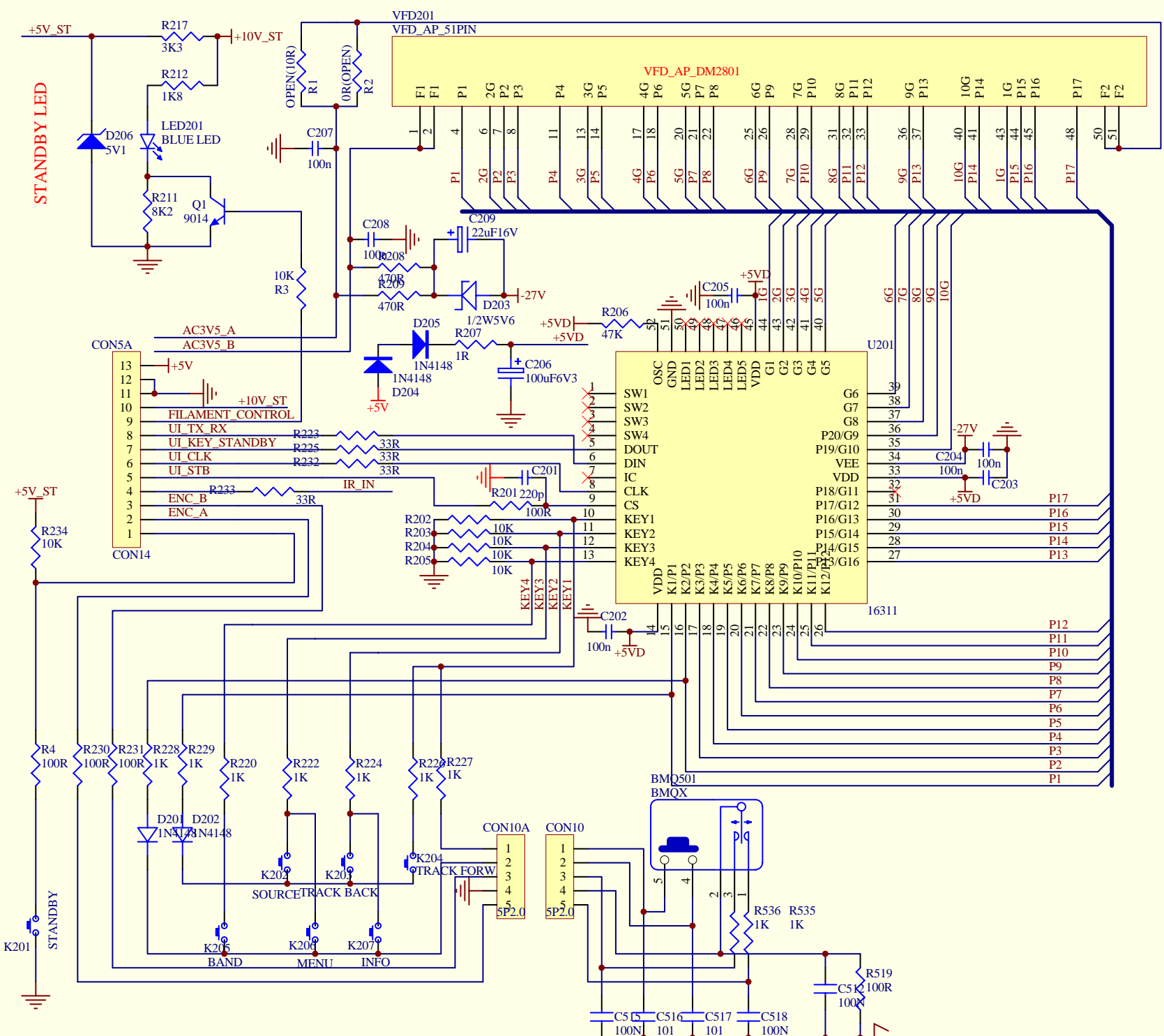
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Front Panel Assembly

Sonata AR30v2 Parts Table

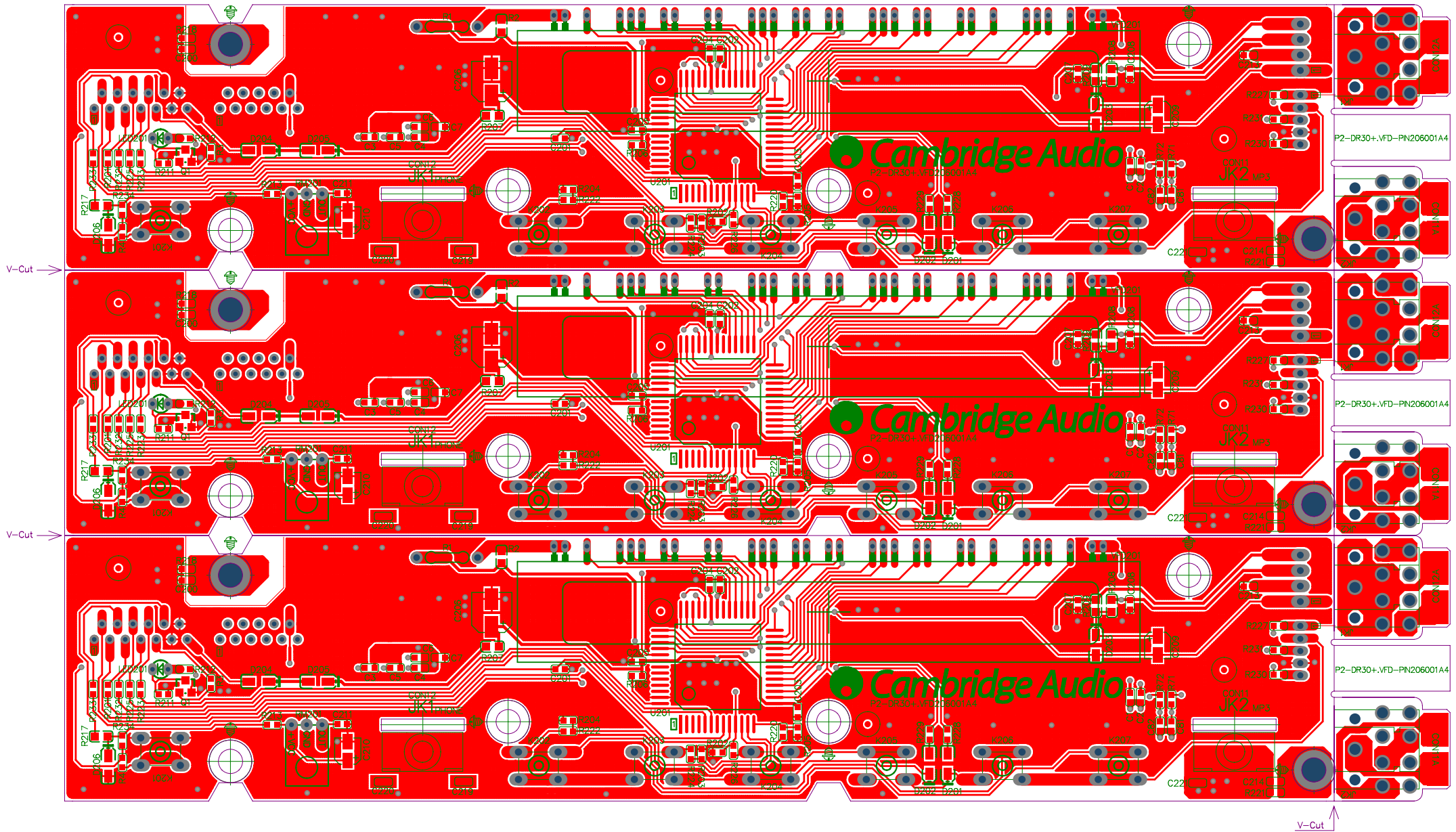
Drawing ref	Service parts AR30 v2	AP part
not shown	980-AR3001-A01R AR/DR30 Remote Control	PY1478
1	300-AR3001-M102R Front Panel Aluminium AR30-MB081013A3,,S-AR30-FQ080624A5 silver	PZ281
1	300-AR3001-M002R Front Panel Aluminium AR30-MB081013A3,S-AR30-FQ080624A5 black	PZ282
JK1/JK2	071-000422-0404R Headphone Jack PJ-329 PCS 2.000000 JK1, JK2	PZ283
U1	037-502595-3304R IC [ROHS] LM2595T-ADJ [TO..220] 5pin U1	PZ284
Q8	033-548050-D204R Transistor S8050,TO92-EBC(T002100017-R Q€	PZ285
Q6	** 2 033-548550- Transistor C8550 TO-92 Q€	PZ286
Q7	** 2 033-909014-C204R Transistor C9014 [TO-92] β300T002100006-R Q7	PZ287
FM ant	088-AR3001-W003R Antenna [ROHS] FM	PZ288
AM ant	** 2 088-AR3002-W003R Antenna [ROHS] AM	PZ289
Tuner	912-YST982-A01R AR30 tuner Module YST982-D2E3-R	PZ290
6	209-AR3001-P104R Foot [ROHS] A/AR/DR30-AP126522, silver	PZ295
7	209-AR3001-P004R Foot [ROHS] A/AR/DR30-AP126522, black	PZ296
not shown	071-00IPOD- iPod Dock	PZ132
4	001-AR3001-C0021R Transformer TC-AR/DR30-A081107A6 230V AC FOR EU	PZ297
4	001-AR3001-C1021R Transformer TC-AR/DR30-B081107A3 110V for CU	PZ298
(front panel diagram) item 14	904-AR3001- 2 081111 A02R AR/DR30 Display Board Assembly PCS	PZ299
part of item 14	040-1271NKG001R AR3/DR30 VFD [ROHS] 10-BT-271NK (FUTABA)	PZ300
RM201	041-611838-0313R IR Receiver Module [ROHS] BRM-VS-1838E006100004-R RM201	PZ301
(front panel diagram) item 13	050-031150-8143R Encoder Switch EC110101R2D-HA1-015semi axis,BMQ201	PZ302
	071-351900-2404R 4 RCA Socket WP4-10W Vertical SPK2	PZ303
9	903-AR3001-A01R AR30 v2 /DR30+ Power supply Board Assembly	PZ569
10	AR 30 v2 AMP PCB complete assy	PZ570
BNC1	071-212461-1404R 4 RCA Socket RCA-413 Golden Plating	PZ305
BNC2	071-212461-1414R 6 RCA Socket RCA-613 Golden Plating	PZ306
	071-158102-2004R iPod Socket C8102-09YKS(B00R BNC€	PZ307
Q312/412	033-211693- Transistor[ROHS] 2SA1693 T03-B Q312, Q412	PZ308
Q313/413	033-234466- Transistor[ROHS] 2SC4466 T03-B Q313, Q413	PZ309
	034-595401-0204R SMD Transistor[ROHS] 2N5401 [TO-23]	PZ310
Q307/407	2 033-265551-C204R Transistor 2N5551,TO92-EBC(β80-250)T002100010-R Q307, Q40:	PZ311
Relay RY1	007-24Q05F- Relay[ROHS] 24VDC 5A 4pin RY1	PZ312
U3	038-204560- Chip IC[ROHS] JRC4560 [SOP8Z]A001000051-R U3	PZ313
U4	2 038-301258- Chip IC[ROHS] R5F21258SNFP [LQP52] U4	PZ314
U9	2 038-501117- Chip IC[ROHS] LD1117 S33 SOT-223 [3.3V] U9	PZ315
U13	2 038-614053- Chip IC[ROHS] 4053 [SOP16] PCS 1.000000 U13	PZ316
U2/5	2 038-674141- Chip IC[ROHS] 74HCT14 [SOP14Z] U2, U5	PZ317
U8	2 038-67WH08-0004R Chip IC[ROHS] TC7WH08FU [SSOP8] U8	PZ318
U7	038-074810- Chip IC[ROHS] STC810M [SOT-23]4.38V PCS 1.000000 U7	PZ319
U201	2 038-074H1G-0004R Chip IC[ROHS] 74HAC1G14GW [SOT353] U201	PZ320
U14	2 038-202257- Chip IC[ROHS] PT2257-S [SOP8Z] U14	PZ321
U1	2 038-202319- Chip IC[ROHS] PT2319 [SOP36Z] U1	PZ322
U6	2 038-203130- Chip IC[ROHS] FM3130 [SOP8Z] U6	PZ323

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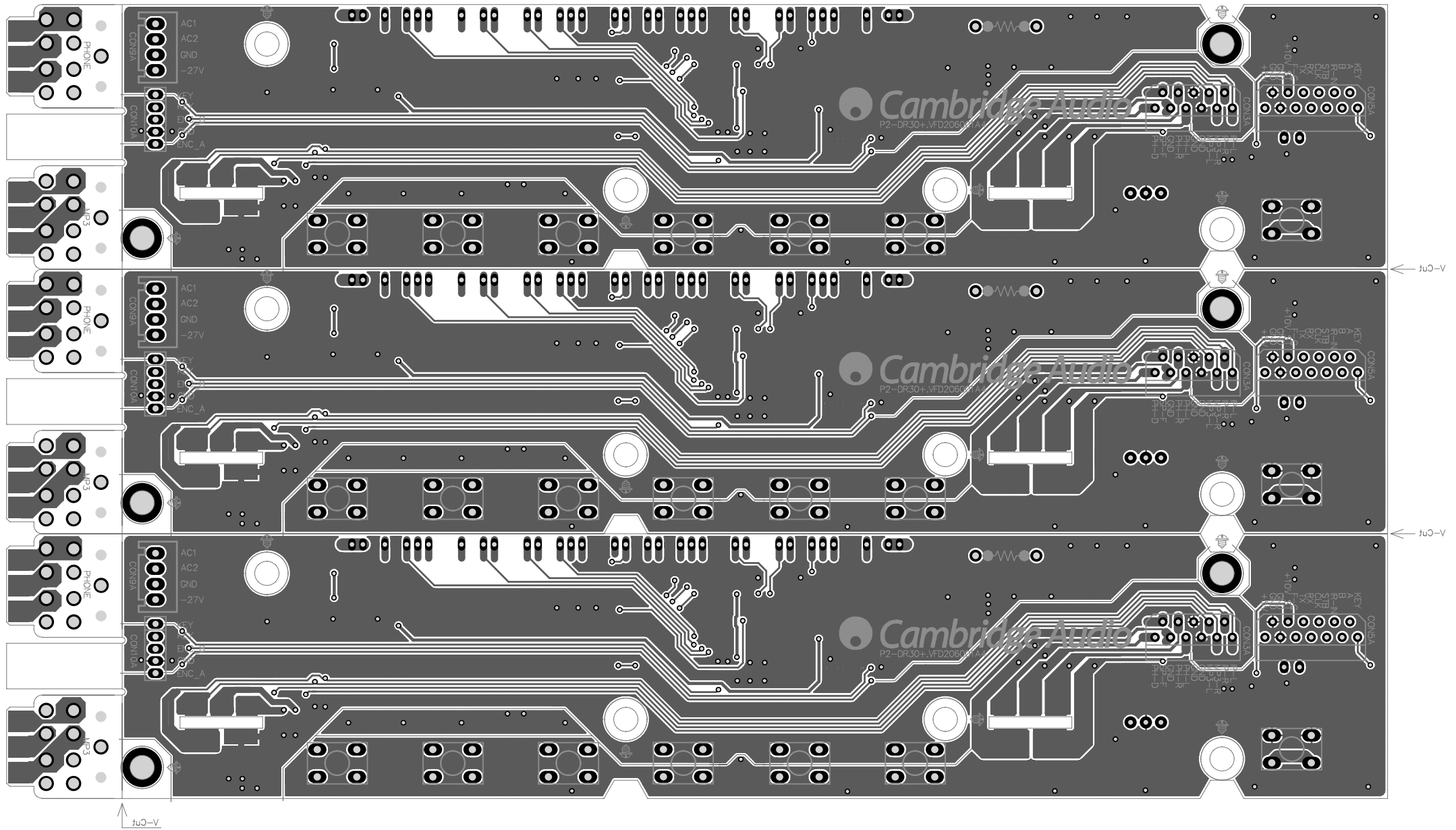
旧机工作文件	
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Cambridge Audio Sonata AR30 v2



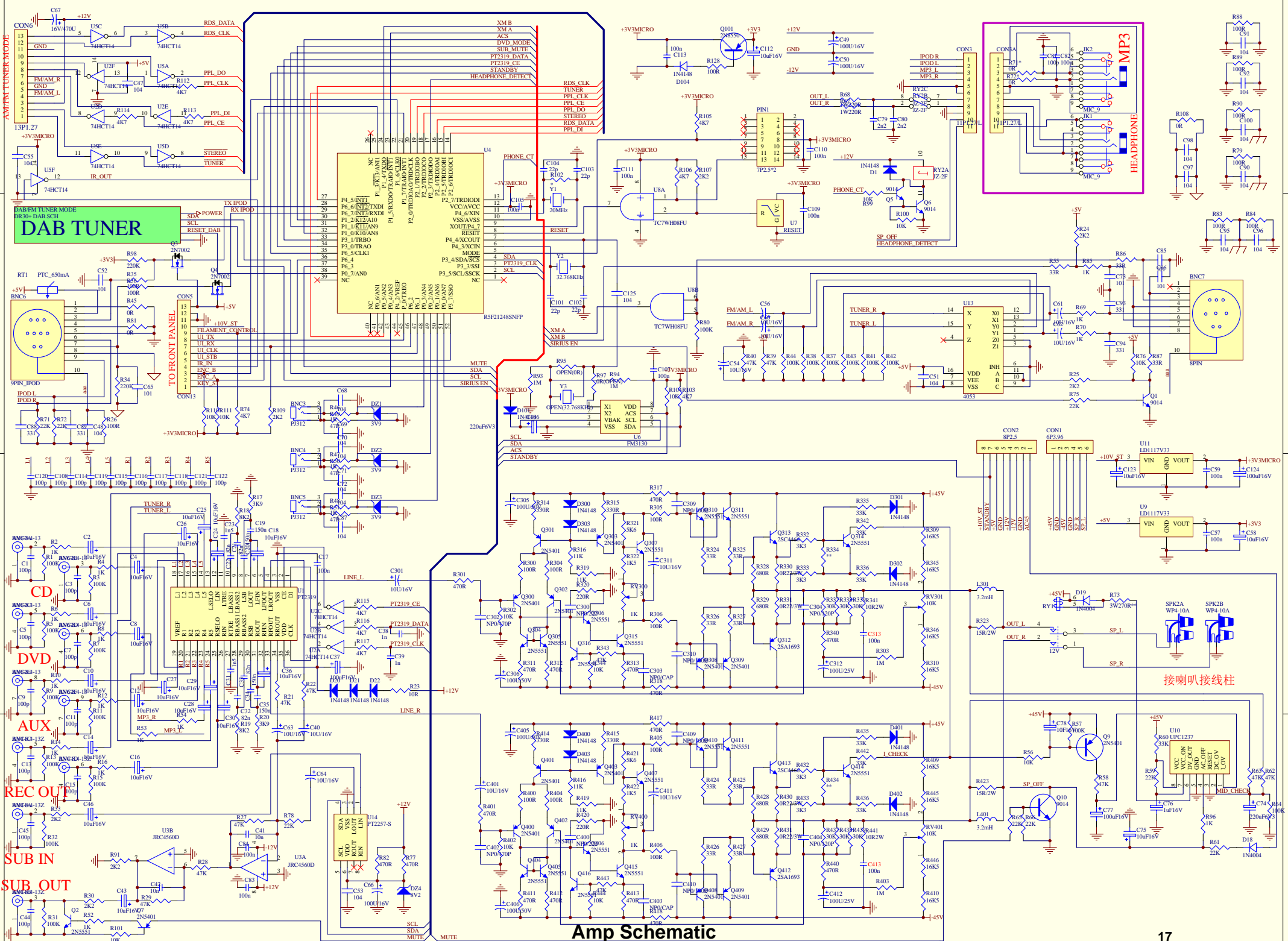
Display Layout Top

Cambridge Audio Sonata AR30 v2

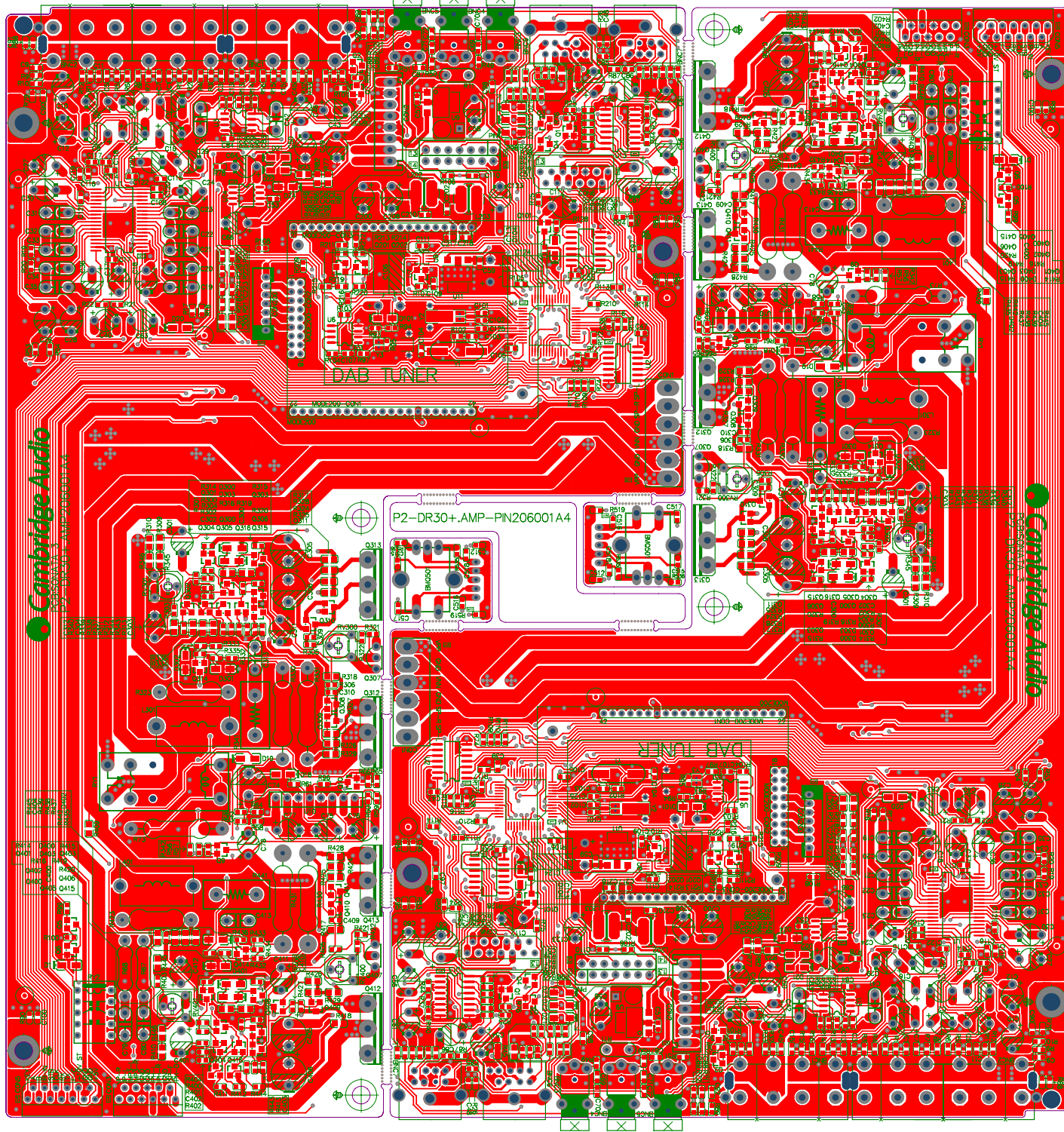


Display Layout Bottom

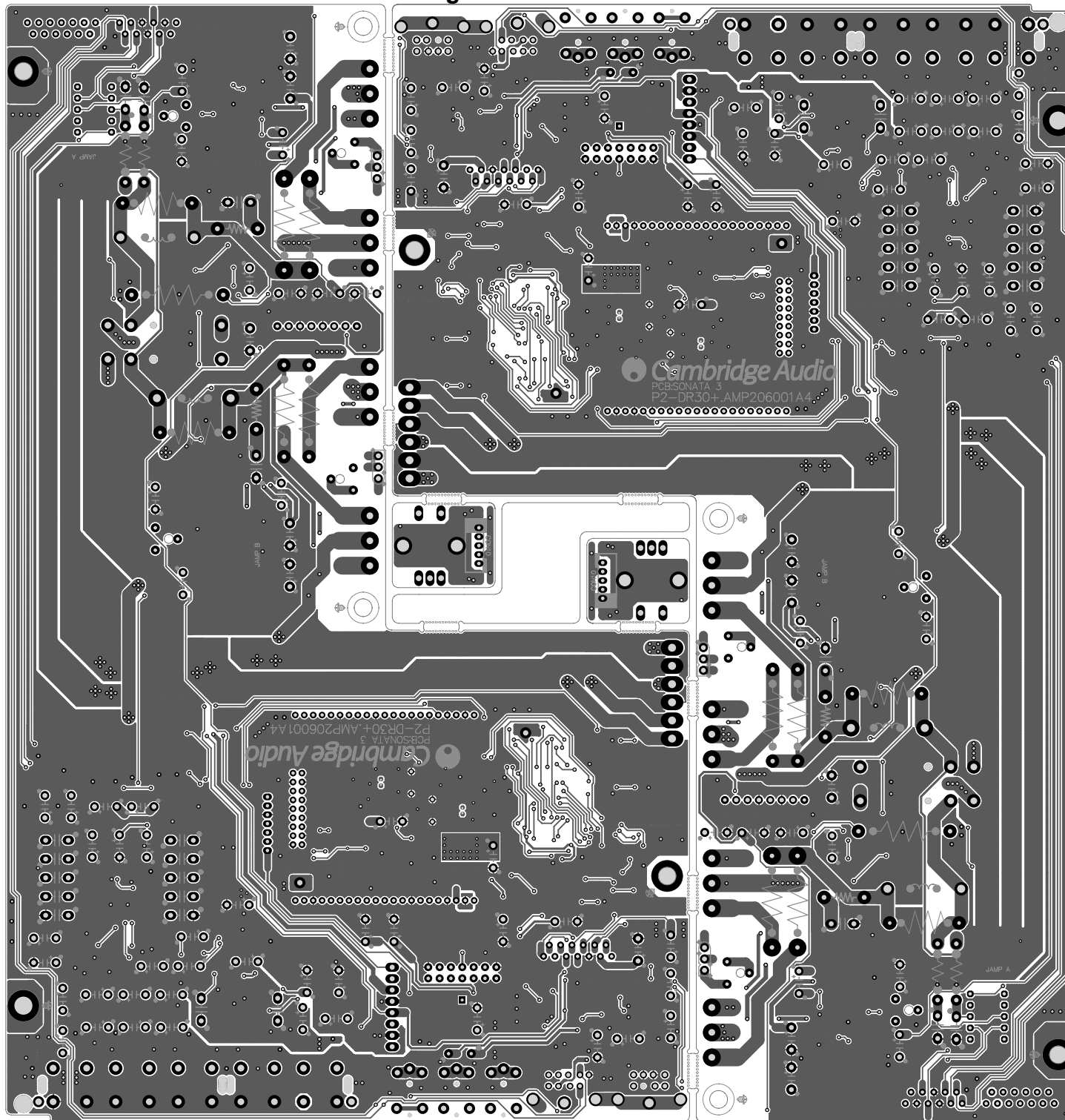
Cambridge Audio Sonata AR30 v2



Amp Schematic

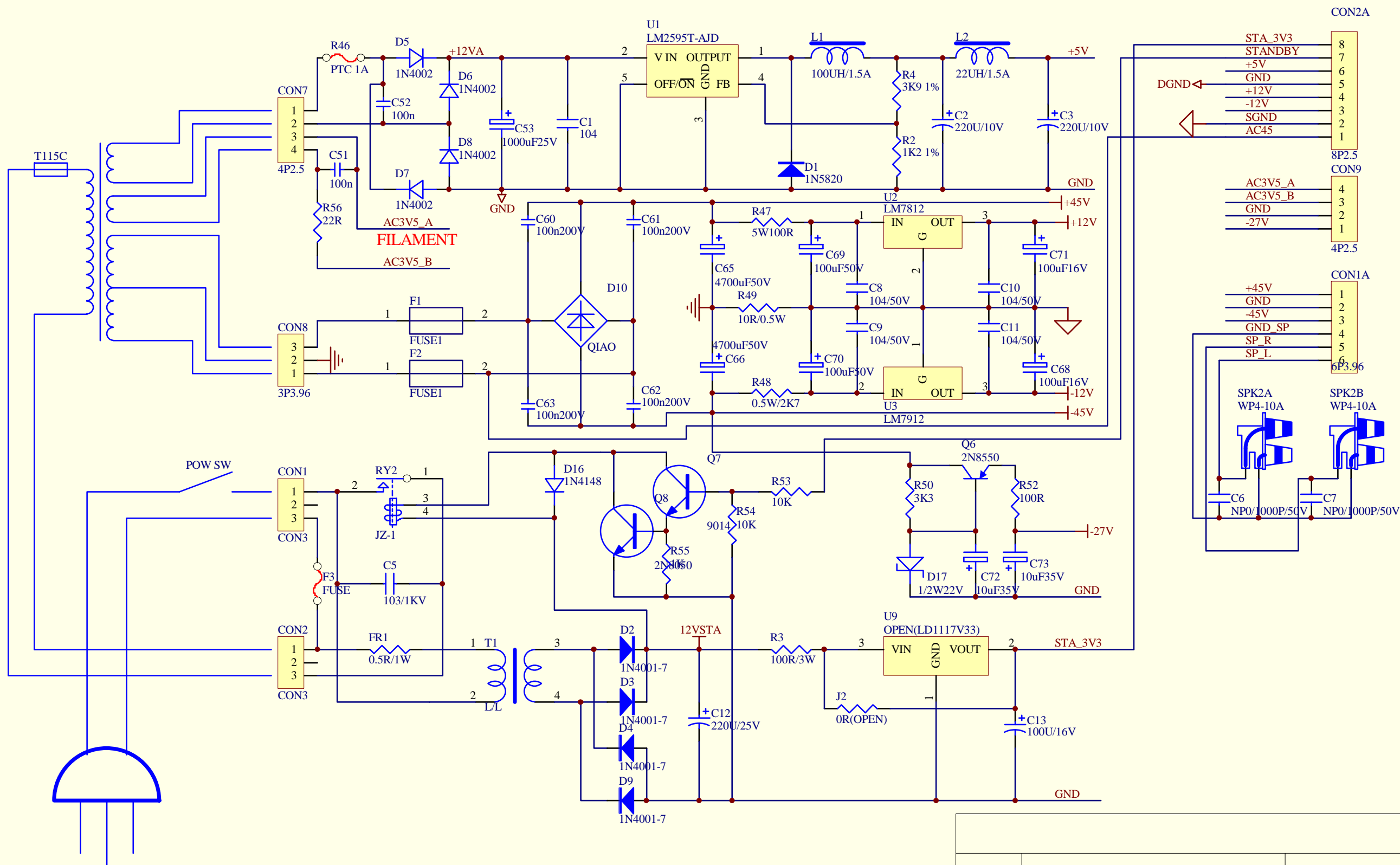


Cambridge Audio Sonata AR30 v2

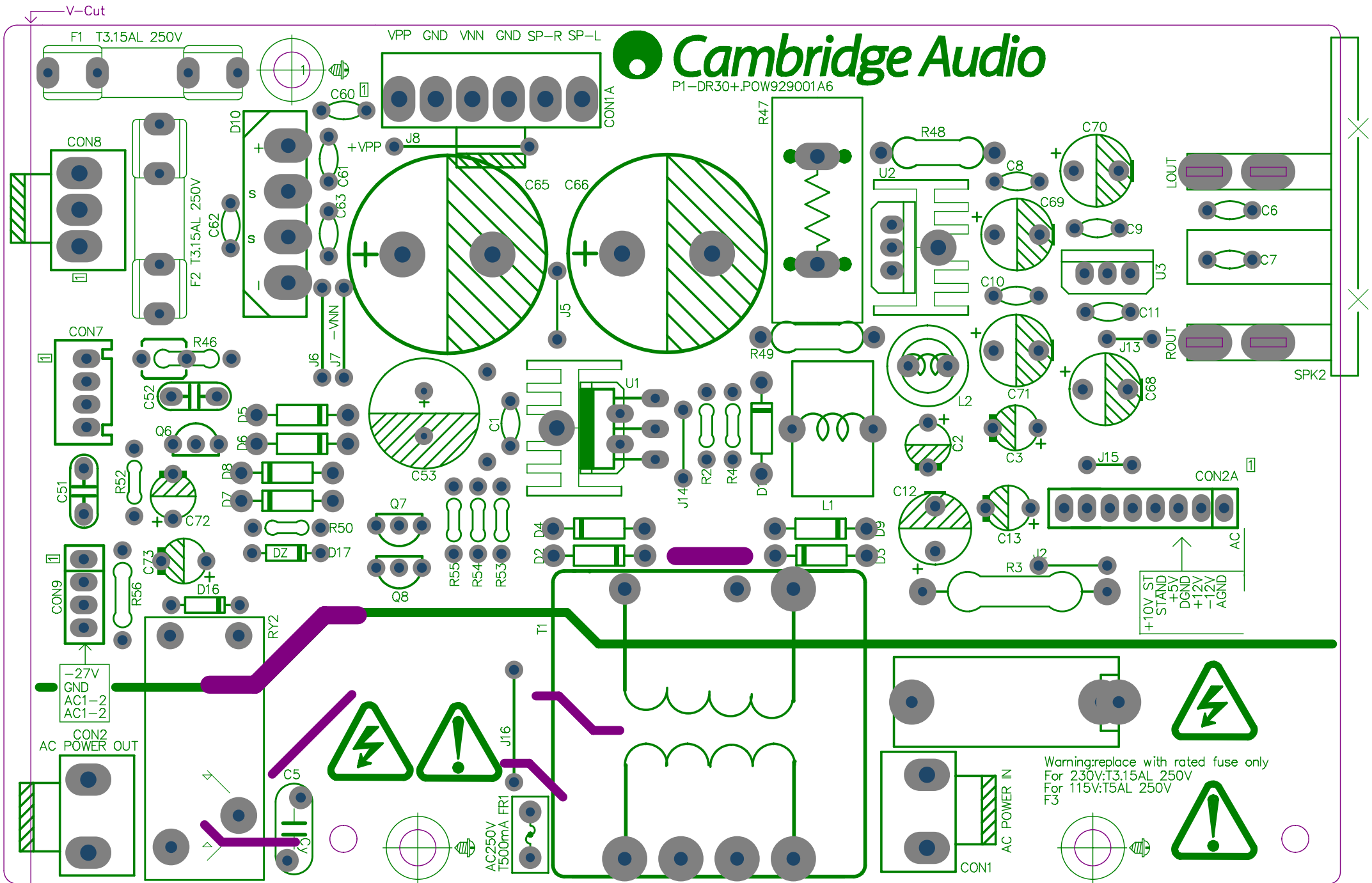


Amp Layout Bottom

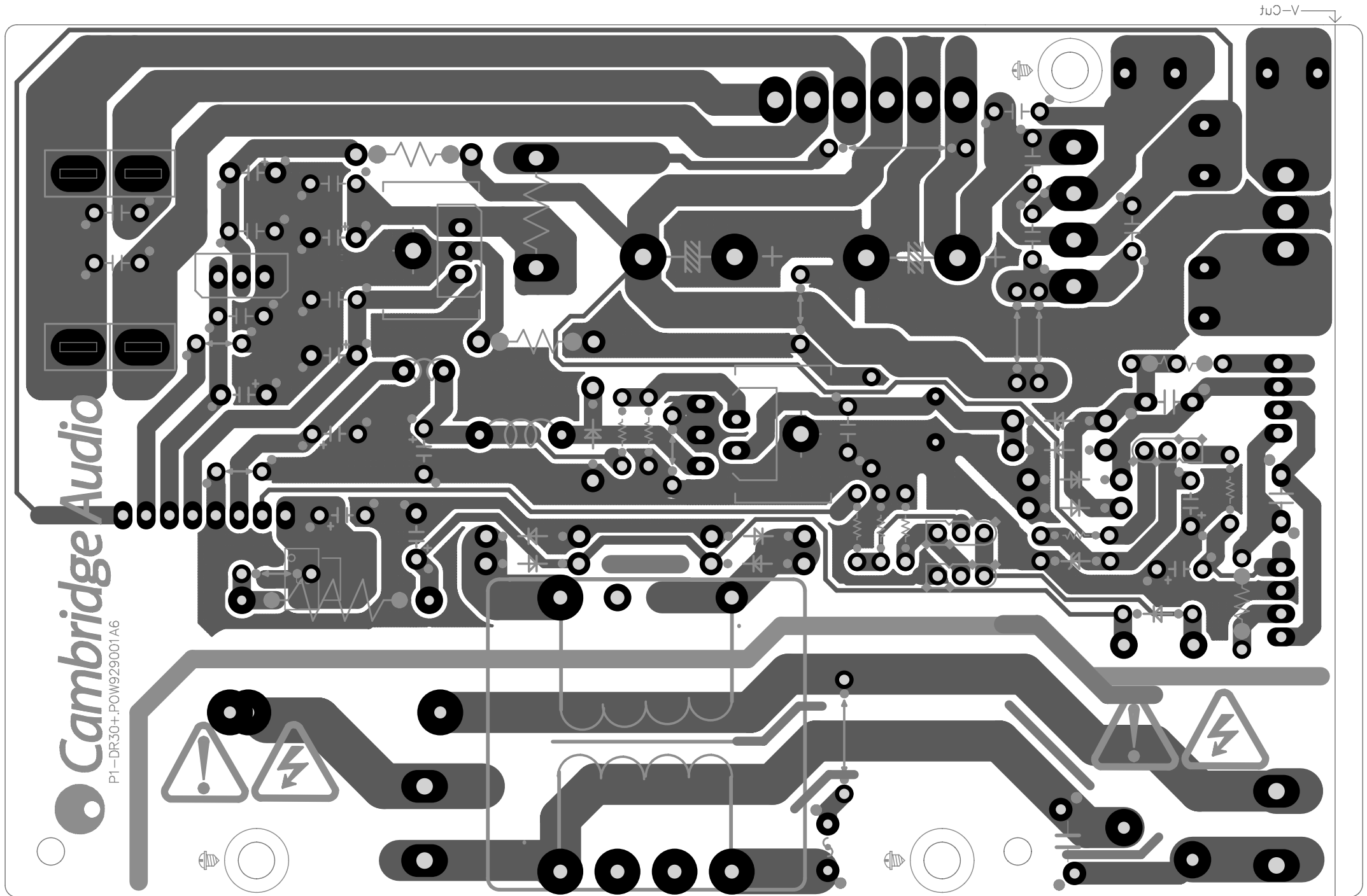
Cambridge Audio Sonata AR30 v2



Power Schematic



Power Layout Top



Power Layout Bottom

Cambridge Audio Sonata AR30 v2

Model No.: AR30 Amplifier black EU [Lead Free]
AVI-AR30EB-S01R

1.0

Layer Code	Parts Number	Name of Components	Specification & Model No.	Unit	QTY	Designator	ECN No.:
0	AVI-AR30EB-S01R	AR30 Amplifier black EU [Lead Free]	AR30 Amplifier black EU [Lead Free]	PCS			
* 1	900-AR3001-A01R	AR30Assembly(SMD Material)	AR30Assembly(SMD Material)	Set	1.000000		
** 2	017-000005-3704R	SMD Resistor[ROHS]	1/16W,0Ω-J,0603	PCS	2.000000	R320, R420	
** 2	017-000105-1704R	SMD Resistor[ROHS]	0R [0805]R110801000-R	PCS	2.000000	R45, R81	
** 2	017-100205-1704R	SMD Resistor[ROHS]	1/8W,10Ω-J,0805	PCS	1.000000	R23,	
** 2	017-101005-3704R	SMD Resistor[ROHS]	100R ±5% [0603]R110610051-R	PCS	16.000000	R88 R89 R90 R83 R84	
				PCS		R26, R128 R300, R304, R305, R306,R400, R404, R405, R406 R79	
** 2	017-102005-3704R	SMD Resistor[ROHS]	1K ±5% [0603]R120611000-R	PCS	17.000000	R2, R4, R6, R8, R10, R12, R14,R16,R85	ECN-WI-AR30-A1-007-
				PCS		R69, R70 R46, R47, R48,R52 R53 R54	
** 2	017-103005-3704R	SMD Resistor[ROHS]	10K ±5% [0603]R120610100-R	PCS	9.000000	R56, R76, R104, R110, R111 R302,R344, R402, R444	
** 2	017-104005-3704R	SMD Resistor[ROHS]	100K ±5% [0603]R120610051-R	PCS	19.000000	R1, R3, R5, R7, R9, R11, R13,R15, R31, R32, R37, R38, R41,R42, R43, R44, R57, R64, R80	
** 2	017-105005-3704R	SMD Resistor[ROHS]	1M±5% [0603]R130611000-R	PCS	2.000000	R303, R403	
** 2	017-113205-1704R	SMD Resistor[ROHS]	1/8W,11K-J,0805	PCS	4.000000	R316, R319, R416, R419	
** 2	017-152005-3704R	SMD Resistor[ROHS]	1.5K ±5% [0603]R120610551-R	PCS	2.000000	R322, R422	
** 2	017-163205-1804R	SMD Resistor[ROHS]	1/8W,16.5KΩ-J,0805	PCS	8.000000	R309, R310, R345, R346 R409, R410, R445, R446	
** 2	017-222005-3704R	SMD Resistor[ROHS]	2.2K ±5% [0603]R120620251-R	PCS	7.000000	R24, R25, R33, R107, R109 R91 R30	
** 2	017-223005-3704R	SMD Resistor[ROHS]	22K ±5% [0603]R120622100-R	PCS	7.000000	R59, R65, R66, R75, R78 R71 R72	ECN-WI-AR30-A1-007-
** 2	017-303205-1704R	SMD Resistor[ROHS]	1/8W,30KΩ-J,0805	PCS	6.000000	R337, R338, R339, R437, R438,R439	

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** 2	017-330005-3704R	SMD Resistor[ROHS]	33R ±5% [0603]R110633100-R	PCS	8.000000	R35, R36 R49, R50, R51,R87 R86 R55	ECN-WI-AR30-A1-007-
** 2	017-330205-1804R	SMD Resistor[ROHS]	1/8W,33Ω-J,0805	PCS	8.000000	R324, R325, R326, R327, R424,R425, R426, R427	
** 2	017-331005-3704R	SMD Resistor[ROHS]	1/16W,330Ω-J,0603R110633051-R	PCS	8.000000	R314,R315, R414, R415 R332, R333, R432, R433	
** 2	017-332005-3704R	SMD Resistor[ROHS]	3K3 ±5%0603R120630351-R	PCS	1.000000	R61	ECN-WI-AR30-A1-007-
** 2	017-333005-3704R	SMD Resistor[ROHS]	33K ±5% [0603]R120633100-R	PCS	7.000000	R60, R335, R336, R342, R435,R436, R442	
** 2	017-392105-1704R	SMD Resistor[ROHS]	3.9K±5%[0603]R120630951-R	PCS	2.000000	R17, R20	
** 2	017-471005-3704R	SMD Resistor[ROHS]	470R ±5% [0603]R110647051-R	PCS	8.000000	R301, R311, R312, R313, R401,R411, R412, R413	
** 2	017-471205-1704R	SMD Resistor[ROHS]	470R ±5% [0805]R110847051-R	PCS	8.000000	R317, R318, R340, R417, R418,R440 R77 R82	
** 2	017-472005-3704R	SMD Resistor[ROHS]	4.7K ±5% [0603]R120640751-R	PCS	4.000000	R74, R103, R105,R106	
** 2	017-473005-3704R	SMD Resistor[ROHS]	47K ±5% [0603]R120647100-R	PCS	13.000000	R21, R22, R27, R28, R29, R34,R39, R40, R58, R62, R63, R343, R443	
** 2	017-511005-3704R	SMD Resistor[ROHS]	1/16W,510Ω-J,0603	PCS	2.000000	R334, R434	
** 2	017-562105-3704R	SMD Resistor[ROHS]	5K6±5%,0603	PCS	2.000000	R421 R321	
** 2	017-681205-1804R	SMD Resistor[ROHS]	680R ±5% [0805]R110868051-R	PCS	4.000000	R328, R329, R428, R429	
** 2	017-822005-1704R	SMD Resistor[ROHS]	8.2K±5%[0603]	PCS	2.000000	R18, R19	
** 2	028-101141-9604R	SMD Capacitor[ROHS]	101 /50V ±10% [0603]C061015051-R	PCS	23.000000	C1, C3, C5, C7, C9, C11, C13,C15, C44, C45,C108 C114 C115 C116	ECN-WI-AR30-A1-007-
				PCS		C117 C118 C119 C120 C121 C122 C73 C85 C86	
** 2	028-101141-9704R	SMD Ceramic Capacitor[ROHS]	101/50V,0603,NPO	PCS	8.000000	C309, C310,C404, C409, C410 C304 C300 C400	
** 2	028-102152-9704R	SMD Ceramic Capacitor[ROHS]	102 /50V ±10% [0603]	PCS	2.000000	C38, C39	
** 2	028-104161-9704R	SMD Ceramic Capacitor[ROHS]	104/50V ±20% [0603]	PCS	30.000000	C47, C48, C51, C53, C55 C17, C57, C83, C84, C105, C107,C109, C110, C111, C113	ECN-WI-AR30-A1-007-
				PCS		C68 C69 C70 C71 C72 C87 C96 C95 C91 C92 C100 C90 C99 C98 C97	

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** 2	028-220151-4704R	SMD Ceramic Capacitor[ROHS]	22P /50V ±10% [0603]C062205051-R	PCS	4.000000	C101, C102, C103, C104	
** 2	028-331151-4704R	SMD Ceramic Capacitor[ROHS]	331/50V±10%,0603C063315051-R	PCS	4.000000	C88 C89 C93 C94	
** 2	028-470141-4704R	SMD Ceramic Capacitor[ROHS]	47P/50V±10%,0603C064705051-R	PCS	2.000000	C52 C65	
** 2	028-471151-9704R	SMD Ceramic Capacitor[ROHS]	471 /50V [0603]NPO	PCS	2.000000	C302, C402	
** 2	032-114148-1214R	SMD Diode[ROHS]	IN4148 [LL-34] Glass Tube Package D001000002-R	PCS	15.000000	D20, D21, D101, D104,D300, D301, D302, D303, D400 D401, D402, D403 D18 D19 D22	
** 2	032-115819-	SMD	IN5819 [D7227A]D001000003-R	PCS	1.000000	D9	
** 2	032-140039-1D04R	SMD Zener Diode[ROHS]	1/2W 3V9 [LL-34]	PCS	3.000000	DZ1, DZ2, DZ3	
** 2	032-140082-1D04R	SMD Zener Diode[ROHS]	1/2W 8V2 [LL-34]	PCS	1.000000	DZ4	
** 2	034-218550-C104R	SMD Transistor[ROHS]	S8550 [SOT-23]	PCS	1.000000	Q101	
** 2	034-265551-C204R	SMD Transistor[ROHS]	2N5551 [SOT-23]	PCS	17.000000	Q304, Q305, Q306, Q310, Q311,Q314, Q315, Q316, Q404, Q405,Q406, Q410,Q415,Q416 Q411, Q414,Q2	
** 2	034-595401-0204R	SMD Transistor[ROHS]	2N5401 [TO-23]	PCS	13.000000	Q9, Q300, Q301, Q302, Q303, Q308, Q309, Q400, Q401, Q402,Q403, Q408, Q409	
** 2	034-909014-C214R	SMD Transistor[ROHS]	9014 [SOT-23] [β100-300]T001000003-R	PCS	2.000000	Q1, Q10	
** 2	038-074810-	Chip IC[ROHS]	STC810M [SOT-23]4.38V	PCS	1.000000	U7	
** 2	038-202257-	Chip IC[ROHS]	PT2257-S [SOP8Z]	PCS	1.000000	U14	
** 2	038-202319-	Chip IC[ROHS]	PT2319 [SOP36Z]	PCS	1.000000	U1	
** 2	038-203130-	Chip IC[ROHS]	FM3130 [SOP8Z]	PCS	1.000000	U6	
** 2	038-204560-	Chip IC[ROHS]	JRC4560 [SOP8Z]A001000051-R	PCS	1.000000	U3	
** 2	038-301258-	Chip IC[ROHS]	R5F21258SNFP [LQP52]	PCS	1.000000	U4	
** 2	038-501117-	Chip IC[ROHS]	LD1117 S33 SOT-223 [3.3V]	PCS	1.000000	U9	
** 2	038-614053-	Chip IC[ROHS]	4053 [SOP16]	PCS	1.000000	U13	
** 2	038-674141-	Chip IC[ROHS]	74HCT14 [SOP14Z]	PCS	2.000000	U2, U5	
** 2	038-67WH08-0004R	Chip IC[ROHS]	TC7WH08FU [SSOP8]	PCS	1.000000	U8	
** 2	039-200004-1401R	SMD Transistor[ROHS]	20MHz HC-49S-SMD	PCS	1.000000	Y1	
** 2	090-AR3003-B003R	PCB [ROHS]	PCB No.:P2-140A.AMP-PIN211180A6	PCS	1.000000		ECN-WI-AR30-A1-006-
* 1	900-AR3001-	AR30-	AR30-EUAssembly	Set	1.000000		

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** 2	005-110015-1004R	Inductance [ROHS]	15*Rolls Vertical Dia: 8mm 1.0 PIN Span: 16.5MM	PCS	2.000000	L401 L301	
** 2	007-24Q05F-	Relay[ROHS]	24VDC 5A 4pin	PCS	1.000000	RY1	
** 2	011-102000-1113R	Adjustable Resistance[ROHS]	1K Vertical PA0630NOXOX-HA1-080	PCS	2.000000	RV300, RV400	
** 2	011-103000-1113R	Adjustable Resistance[ROHS]	10K Vertical PA0630NOXOX-VIAI-075	PCS	2.000000	RV301, RV401	
** 2	013-100550-1214R	Carbon Film Resistor[ROHS]	10R 2W ±5% PIN Span:15mm,	PCS	2.000000	R323, R423	
** 2	013-100723-5104R	Cement Resistance [ROHS]	10R/5W ±5% 15*6.5 PIN Span:10mm Curved pin10MM	PCS	2.000000	R341, R441	
** 2	013-221450-1224R	Carbon Film Resistor[ROHS]	220R/1W ±5% PIN Span:15mm, Curved pin10mm	PCS	2.000000	R67, R68	
** 2	013-228657-5404R	Wire Wound Resistors [ROHS]	0.22R 3W ±5% PIN Span:20mm Curved pin10mmR791300221-R	PCS	4.000000	R330, R331, R430, R431	
** 2	013-561655-6414R	Metal Film Resistor [ROHS]	"560R 3W ±5% PIN Span:20mm Curved pin10mm"	PCS	1.000000	R73	
** 2	026-104155-0104R	Capacitance [ROHS Brede]	"104 /50V ±20% PIN Span:5MM"C510450101-R	PCS	2.000000	C313, C413	
** 2	026-152141-0104R	Mylar Capacitance [ROHS Brede]	CL21X-50V±5%-152 PIN Span:5mmC415250101-R	PCS	2.000000	C23, C31	
** 2	026-154141-0104R	Mylar Capacitance [ROHS]	CL21X-50V±5%-154 PIN Span:5mmC415450100-R	PCS	4.000000	C19, C20, C34, C35	
** 2	026-222141-0204R	Mylar Capacitance [ROHS]	CL21X-50V±5%-222 PIN Span:5mm	PCS	2.000000	C79, C80	
** 2	026-333161-0104R	Capacitance [ROHS]	333/50V ±20% PIN Span:5mm	PCS	2.000000	C41, C42	
** 2	026-823141-0104R	Mylar Capacitance [ROHS]	CL21X-50V-±5%-823 ,FTP=5.0mmC482350102-RP	PCS	4.000000	C21, C22, C32, C33	
** 2	027-105561-0114R	Electrolytic Capacitor[ROHS]	1µF-M/16V,C5-5	PCS	1.000000	C76	
** 2	027-106561-0124R	Electrolytic Capacitor[ROHS]	10uF /16V ±20% PIN Span:5mm Dia: 5mmC210161001-R	PCS	36.000000	C2, C4, C6, C8, C10, C12, C14,C16, C18, C24, C25, C26,	
						C27,C28, C29, C43,C58, C59, C75, C112 C46,C30, C36,C40, C54,	
						C56, C60, C61, C62,C63, C64,,C301,C311, C401, C411 C78	
** 2	027-107561-5134R	Electrolytic Capacitor[ROHS]	16V/100uF±20% PIN Span:5mm Dia: 5mm	PCS	7.000000	C49, C50 C37, C66, C77 C312, C412	

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** 2	027-107961-5124R	Electrolytic Capacitor[ROHS]	100µ-M/50V,C5-8	PCS	4.000000	C305, C306, C405, C406	
** 2	027-227361-5134R	Electrolytic Capacitor[ROHS]	220uF/6V3 ±20% PIN Span:5mm Dia: 6mm*7.5	PCS	1.000000	C106	
** 2	027-477561-5144R	Electrolytic Capacitor[ROHS]	470uF /16V ±20% PIN Span:5mm Dia: 8mmC247016102-R	PCS	2.000000	C74 C67	
** 2	033-211693-	Transistor[ROHS]	2SA1693 T03-B	PCS	2.000000	Q312, Q412	
** 2	033-234466-	Transistor[ROHS]	2SC4466 T03-B	PCS	2.000000	Q313, Q413	
** 2	033-265551-C204R	Transistor[ROHS Brede]	"2N5551,TO92-EBC(β80-250)"T002100010-R	PCS	2.000000	Q307, Q407	
** 2	039-327680-	Crystal [ROHS]	32.768KHz,JU206	PCS	2.000000	Y2, Y3	
** 2	070-512711-1204R	Flat Connector [ROHS]	11P1.27 PIN Span:(Vertical)	PCS	2.000000	CON5 CON3	
** 2	070-512713-1204R	Flat Connector [ROHS]	13P1.27 PIN Span:(Vertical)	PCS	1.000000	CON6	
** 2	070-525407-1224R	In-line Connector [ROHS]	7PIN,JP2.54-7	PCS	1.000000	CON2	
** 2	070-525407-1424R	In-line Connector [ROHS]	7P2.54	PCS	1.000000	PIN1	
** 2	070-525440-6914R	In-line Connector [ROHS]	40P2.54	PCS	0.167000	CON200	
** 2	070-539606-1144R	In-line Connector [ROHS]	6PIN,JP3.96-6	PCS	1.000000	CON1	
** 2	071-000421-0404R	Headphone Jack[ROHS]	PJ-313,	PCS	3.000000	BNC3, BNC4, BNC5	
** 2	071-158102-2004R	iPod Socket [ROHS]	C8102-09YKSB00R	PCS	1.000000	BNC6	
** 2	071-212461-1404R	4 RCA Socket [ROHS]	RCA-413 Golden Plating	PCS	1.000000	BNC1	ECN-WI-AR30-A1-003-
** 2	071-212461-1414R	6 RCA Socket [ROHS]	RCA-613 Golden Plating	PCS	1.000000	BNC2	ECN-WI-AR30-A1-003-
** 2	072-P140A0-W003R	Connector [ROHS]	18# RED Double-isolating Connector, No.:140A-PX081225A4 10	PCS	1.000000		ECN-WI-AR30-A1-007-
** 2	072-P140A4-W003R	Connector [ROHS]	11P Connector,140A-PX080911A3 1	PCS	2.000000	AMP-VFD	
** 2	072-P140A5-W003R	Connector [ROHS]	VH6P3.96 Double Sockets Connector (18# black Double-isolating line) 140A-PX080911A3 2	PCS	1.000000	CON1-CON1A	
** 2	072-P140A6-W003R	Connector [ROHS]	7P2.54 Double Sockets Connector (24# black) 140A-PX080911A3 5	PCS	1.000000	CON2-CON2A	

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** 2	072-P140A7-W003R	Connector [ROHS]	13P ConnectorAMP-Tuner 140A-PX080911A3 7	PCS	1.000000	AMP-Tuner	
** 2	072-P140A8-W003R	Connector [ROHS]	18# RED Double-isolating Connector,140A-PX080911A3 8	PCS	1.000000	140A-PX080911A3	
** 2	072-P140A9-W003R	Connector [ROHS]	18# RED Double-isolating Connector, No.:140A-PX081225A4 9	PCS	1.000000		ECN-WI-AR30-A1-007-
** 2	072-P140AA-W003R	Connector [ROHS]	18# RED Double-isolating Connector, No.:140A-PX081225A4 11	PCS	1.000000		ECN-WI-AR30-A1-007-
** 2	088-AR3001-W003R	Antenna [ROHS]	FM	PCS	1.000000		
** 2	088-AR3002-W003R	Antenna [ROHS]	AM	PCS	1.000000		
** 2	091-016070-	PTC [ROHS]	PSL070 16V 0.7A	PCS	1.000000	RT1	
** 2	098-220240-3104R	Power Transistor Silicon Insulating Washer [ROHS]	22*24(mm) with hole	PCS	4.000000		
** 2	879-115015-CB1	Power Transistor SiliconCotton Varnished Sleeve	Φ1.5mm	Meter	0.020000	Set R431 R430 Close to the Protection mould	
** 2	912-YST982-A01R	DAB Module [ROHS]	YST982-D2E3-R	Set	1.000000		
* 1	903-AR3001-A01R	AR30 Power supply Board Assembly[Lead Free]	AR30 Power supply Board Assembly[Lead Free]	Set	1.000000		
** 2	006-221D02-9001R	Common Mode Filter [ROHS]	AR30-C No.:TC-AR30-C081030A08	PCS	1.000000	L1	ECN-WI-AR30-A0-006-1-081110
** 2	006-AR3001-3005R	Inductance [ROHS]	AR30-D No.:TC-AR30-D081029A0	PCS	1.000000	L2	ECN-WI-AR30-A0-006-1-081110
** 2	007-21412L-	Relay[ROHS]	12VDC HK-14FD-DC12V-SH	PCS	1.000000	RY2	
** 2	013-100355-1204R	Carbon Film Resistor[ROHS]	1/2W,10Ω-J,Ftp=12.5mmR211210102-R	PCS	1.000000	R49	
** 2	013-101150-1204R	Carbon Film Resistor [ROHS Brede]	100R 1/8W ±5% PIN Span:7.5mmR211810052-R	PCS	1.000000	R52	
** 2	013-101758-5104R	Cement Resistor[horizontal ROHS]	5W100R ±5% SQZ L=25mm PIN Span:12mm	PCS	1.000000	R47	

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** 2	013-103150-1204R	Carbon Film Resistor [ROHS Brede]	10K 1/8W ±5% PIN Span:7.5mmR221810101-R	PCS	2.000000	R53, R54	
** 2	013-122130-1204R	Precision Resistor [ROHS]	1.2K 1/8W ±1% PIN Span:7.5mm	PCS	1.000000	R2	
** 2	013-220250-1204R	Carbon Film Resistor [ROHS Brede]	22R 1/4W ±5% PIN Span:10mmR211422101-R	PCS	1.000000	R56	ECN-WI-AR30-A1-002-081128
** 2	013-221150-1204R	Carbon Film Resistor [ROHS Brede]	1/6W,220Ω-J	PCS	1.000000	R51	
** 2	013-272450-1214R	Carbon Film Resistor[ROHS]	"2.7K 1W ±5% PIN Span:15mm Curved pin10mmR292120751-R	PCS	1.000000	R48	
** 2	013-332150-1204R	Carbon Film Resistor [ROHS Brede]	3.3K 1/8W ±5% PIN Span:7.5mmR221830352-R	PCS	2.000000	R55 R50	ECN-WI-AR30-A1-002/007-
** 2	013-392130-1204R	Precision Resistor [ROHS]	1/6W,3.9KΩ-F	PCS	1.000000	R4	ECN-WI-AR30-A0-006-1-081110
** 2	023-102141-0114R	NPO Capacitor [ROHS]	1000P/50V NPO, PIN Span:=5MM	PCS	2.000000	C6, C7	ECN-WI-AR30-A0-006-1-081110
** 2	023-104161-0904R	Ceramic Capacitor [ROHS]	104 /50V ±20% PIN Span:5mmC310450102-R	PCS	5.000000	C8, C9, C10, C11,C1	
** 2	023-104561-0904R	Ceramic Capacitor [ROHS Brede]	104 /150V ±20% PIN Span:5mmC310415052-R	PCS	4.000000	C60, C61, C62, C63	
** 2	026-104341-0115R	Capacitance [ROHS]	104/100V ±20% PIN Span:=5mm	PCS	2.000000	C52 C51	
** 2	027-106761-0114R	Electrolytic Capacitor[ROHS]	10uF/35V ±20% PIN Span:5mm Dia: 5mm	PCS	2.000000	C72, C73	
** 2	027-107561-5134R	Electrolytic Capacitor[ROHS]	16V/100uF±20% PIN Span:5mm Dia: 5mm	PCS	2.000000	C68, C71	
** 2	027-107961-5124R	Electrolytic Capacitor[ROHS]	100μ-M/50V,C5-8	PCS	2.000000	C69, C70	
** 2	027-227462-5104R	Electrolytic Capacitor[ROHS]	220uF/10V ±20% PIN Span:5mm Dia: 5mm*12.5	PCS	2.000000	C2, C3	ECN-WI-AR30-A0-006-1-081110
** 2	027-228561-5124R	Electrolytic Capacitor[ROHS]	2200uF /25V ±20% PIN Span:5mm Dia: 13mm*21C222002551-R	PCS	1.000000	C53	

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** 2	027-478963-5163R	Electrolytic Capacitor[ROHS]	4700uF /50V ±20% PIN Span:10mm Dia: 22mm*40C247005052-R	PCS	2.000000	C65, C66	
** 2	031-134148-2104R	Diode [ROHS Brede]	1N4148D003000005-R	PCS	1.000000	D16	
** 2	031-314002-3104R	Diode [ROHS Brede]	1N4002,Ftp=7.5mm	PCS	4.000000	D5, D6, D7, D8	
** 2	031-315404-	Diode [ROHS]	1N5404,Height Limit=10MM	PCS	4.000000	D10, D11, D12, D13	
** 2	031-315819-2104R	Diode [ROHS]	1N5819 [TO41]	PCS	1.000000	D1	ECN-WI-AR30-A0-006-1-081110
** 2	031-410220-2104R	Zener Diode [ROHS]	BZX55/C,22V-0.5W,DV-7.5,±5%	PCS	1.000000	D17	ECN-WI-AR30-A1-002-
** 2	033-548050-D204R	Transistor[ROHS Brede]	S8050,TO92-EBCT002100017-R	PCS	1.000000	Q8	
** 2	033-548550-	Transistor	C8550 TO-92	PCS	1.000000	Q6	
** 2	033-909014-C204R	Transistor[ROHS Brede]	C9014 [TO-92] β300T002100006-R	PCS	1.000000	Q7	
** 2	037-502595-3304R	IC [ROHS]	LM2595T-ADJ [TO..220] 5pin	PCS	1.000000	U1	ECN-WI-AR30-A0-006-1-081110
** 2	037-507812-0914R	Voltage Regulator IC [ROHS]	KA7812,TO-220,T002200002 -R	PCS	1.000000	U2	
** 2	037-507912-0924R	Voltage Regulator IC [ROHS]	KA7912 [TO-220]	PCS	1.000000	U3	
** 2	070-525404-1204R	In-line Connector [ROHS]	4P2.5 4	PCS	1.000000	CON7	
** 2	070-525407-1224R	In-line Connector [ROHS]	7PIN,JP2.54-7	PCS	1.000000	CON2A	
** 2	070-539603-1204R	In-line Connector [ROHS]	3P3.96	PCS	1.000000	CON8	
** 2	070-539606-1144R	In-line Connector [ROHS]	6PIN,JP3.96-6	PCS	1.000000	CON1A	
** 2	071-351900-2404R	4 RCA Socket [ROHS]	WP4-10W Vertical (Output Connectors are blocked)	PCS	1.000000	SPK2	
** 2	072-P140A1-W003R	Connector [ROHS]	4P2.54 single socket/ drop-out line (26# black) POW-VDF,140A-PX080911A3	PCS	1.000000	CON9	
** 2	072-P140A2-W003R	Connector [ROHS]	18# RED Double-isolating Connector Power Socket,140A-PX080911A3 3	PCS	1.000000		
** 2	080-726100-	Wire link [ROHS]	10MMM009000003-R	PCS	4.000000	J4, J8, J11, J12	
** 2	080-726150-	Wire link [ROHS]	15MMM009000004-R	PCS	2.000000	J1, J10	

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** 2	080-726759-	Wire link [ROHS]	7.5MMM009000002-R	PCS	2.000000	J2, J13	
** 2	090-AR3001-B003R	PCB [ROHS]	Power supply Board PCB,P1-140A.POW110180A4, Double blue face	PCS	1.000000		ECN-WI-AR30-A0-007-2-081111
** 2	091-060110-	PTC [ROHS]	PSL110 16V 1.1A	PCS	1.000000	R46	
** 2	091-220315-	Fuse [ROHS]	AC250V T3.15A 5*20(mm)	PCS	2.000000	F1, F2	
** 2	092-422501-1204R	Fuse Holder [ROHS]	5*20 [LSB-501]	PCS	4.000000	F1, F2	
** 2	360-AR3003-M002R	Small HeatSink [ROHS]	15*10.5* 3 7 SRZ-A1 black	PCS	2.000000	U2 U1	
** 2	471-AR3001-A004R	Rubber Washer [ROHS]	Provided by AP	PCS	4.000000	Output Connectors are blocked	
** 2	600-300506-0614R	B Head Coarse Thread Self-Tapping Screw [ROHS]	3x6PTS-HOj	PCS	2.000000	U2 U1	
* 1	904-AR3001-A01R	AR30 Display Board Assembly(SMD Material)	AR30 Display Board Assembly(SMD Material)	Set	1.000000		
** 2	017-000005-3704R	SMD Resistor[ROHS]	1/16W,0Ω-J,0603	PCS	4.000000	R2 R3 R71 R72	ECN-WI-AR30-A0-006-
** 2	017-101005-3704R	SMD Resistor[ROHS]	100R ±5% [0603]R110610051-R	PCS	6.000000	R201, R218, R230, R231 R221 R219 (R219 拼板)	ECN-WI-AR30-A0-006-
** 2	017-102005-3704R	SMD Resistor[ROHS]	1K ±5% [0603]R120611000-R	PCS	7.000000	R220, R222, R224,R226, R227, R228, R229	ECN-WI-AR30-A0-006-
** 2	017-103005-3704R	SMD Resistor[ROHS]	10K ±5% [0603]R120610100-R	PCS	10.000000	R200, R202, R203, R204, R205,R210, R214, R215, R216, R217	
** 2	017-109205-1704R	SMD Resistor[ROHS]	1R ±5% [0805]R110811000-R	PCS	1.000000	R207	
** 2	017-202005-3704R	SMD Resistor[ROHS]	1/16W,2KΩ-J,0603	PCS	1.000000	R211	
** 2	017-220005-3704R	SMD Resistor[ROHS]	1/16W,22Ω-J,0603	PCS	1.000000	R213	
** 2	017-330005-3704R	SMD Resistor[ROHS]	33R ±5% [0603]R110633100-R	PCS	4.000000	R223 R225 R232 R233	ECN-WI-AR30-A0-006-
** 2	017-471205-1704R	SMD Resistor[ROHS]	470R ±5% [0805]R110847051-R	PCS	2.000000	R208, R209	
** 2	017-473005-3704R	SMD Resistor[ROHS]	47K ±5% [0603]R120647100-R	PCS	1.000000	R206	

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** 2	017-162005-3704R	SMD Resistor[ROHS]	1.6K±5% [0603]	PCS	1.000000	R212	
** 2	024-106561-0204R	SMD Electrolytic Capacitor[ROHS]	10uF /16V ±20% [Dia=4mm]C010164001-R	PCS	1.000000	C210	
** 2	024-107362-0204R	SMD Electrolytic Capacitor[ROHS]	100uF/6V3 ±20% [Dia=6mm]	PCS	1.000000	C206	
** 2	024-226562-0204R	SMD Electrolytic Capacitor[ROHS]	22µ-M/16V,φ4C022164001-R	PCS	1.000000	C209	
** 2	028-101141-9604R	SMD Capacitor[ROHS]	101 /50V ±10% [0603]C061015051-R	PCS	5.000000	C211 C1 C2 C216 C217(C216 C217)	ECN-WI-AR30-A0-009-
** 2	028-104161-9704R	SMD Ceramic Capacitor[ROHS]	104/50V ±20% [0603]	PCS	13.000000	C202, C203, C204, C205, C207,C208 C200 C213 C212 C7 C214 C215	ECN-WI-AR30-A0-009-
				PCS		C218 (C218 C212 C215)	
** 2	028-221151-9704R	SMD Ceramic Capacitor[ROHS]	221/50V ±5%0603	PCS	3.000000	C201 C81 C82	ECN-WI-AR30-A0-006-
** 2	028-331151-4704R	SMD Ceramic Capacitor[ROHS]	331/50V±10%,0603C063315051-R	PCS	4.000000	C3 C4 C5 C6	ECN-WI-AR30-A0-006-
** 2	032-114148-1214R	SMD Diode[ROHS]	IN4148 [LL-34] Glass Tube Package D001000002-R	PCS	4.000000	D201, D202 D204 D205	ECN-WI-AR30-006-
** 2	032-140039-1D05R	SMD Zener Diode[ROHS]	1/2W 3V9 [D0805]	PCS	1.000000	D203	ECN-WI-AR30-A1-007-
** 2	034-268050-D104R	SMD Transistor [ROHS]	8050 [SOT-23] [β120-200]T001000002-R	PCS	1.000000	Q204	
** 2	034-268550-D104R	SMD Transistor[ROHS]	8550-D SOT-23	PCS	1.000000	Q202	
** 2	034-909014-C214R	SMD Transistor[ROHS]	9014 [SOT-23] [β100-300]T001000003-R	PCS	2.000000	Q201, Q203	
** 2	034-909015-C204R	SMD Transistor[ROHS]	9015 [SOT-23] [β60-280]T001000004-R	PCS	1.000000	Q200	
** 2	038-606311-	Digital IC[ROHS]	PT6311-[52-QFP]	PCS	1.000000	U201	
** 2	090-AR3002-B003R	PCB [ROHS]	P2-140A.VFD-PIN120180A3,Double blue face with white graphics	PCS	1.000000		ECN-WI-AR30-A0-007-2-081111
* 1	904-AR3001-A02R	AR30 Display Board Assembly	AR30 Display Board Assembly	Set	1.000000		
** 2	031-683B4S-B623R	LED [ROHS]	Φ3mm blue LED 494UBW	PCS	1.000000	LED201	
** 2	040-1271NK-G001R	VFD [ROHS]	10-BT-271NK (FUTABA)	PCS	1.000000	VFD201	

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** 2	041-611838-0313R	IR Receiver Module [ROHS]	BRM-VS-1838E006100004-R	PCS	1.000000	RM201	
** 2	050-031150-8143R	Encoder Switch [ROHS]	EC110101R2D-HA1-015semi axis Fixing Washers 1PCS,locking washer	PCS	1.000000	BMQ201	
** 2	056-410650-2214R	TAC Switch Button [ROHS]	6*6*5(mm)KFC-A06-5H 160g	PCS	7.000000	K207 K206 K205 K204 K203 K202 K201	
** 2	070-512711-1204R	Flat Connector [ROHS]	11P1.27 PIN Span:(Vertical)	PCS	2.000000	CON3A CON5A	
** 2	070-520005-1204R	Extension Cord/Multi-plug Socket[Lead Free]	5P2.0 PIN Span:	PCS	1.000000	CON10	
** 2	070-525404-1304R	Extension Cord/Multi-plug Socket[Lead Free]	4P2.54 PIN Span:J442541000-R	PCS	1.000000	CON9A	
** 2	071-000422-0404R	Headphone Jack[ROHS]	PJ-329	PCS	2.000000	JK1, JK2	
** 2	072-P140A3-W003R	Connector [ROHS]	5P2.0 single socket/ drop-out line 24# black,140A-080815A2 4CON10A-CON10	PCS	1.000000	CON10A-CON10	
** 2	291-0AR301-P004R	LED Support [ROHS]	Φ3(mm) H=8mm	PCS	1.000000	LED201	
** 2	293-0A1002-P004R	Double Side Sponge Washer[ROHS]	20*10*5(mm)(Lead Free)V001100001-R	PCS	2.000000	fill up display window-2	
** 2	293-AM1052-P044R	Double Side Sponge Washer	10*10*8,V001100002-R	PCS	1.000000	Fill up receiver	
* 1	933-AR3001-A01R	Protection mould PCS[Lead Free]	AR30/DR30Protection mould PCS[Lead Free]	PCS	1.000000		
** 2	017-103005-3704R	SMD Resistor[ROHS]	10K ±5% [0603]R120610100-R	PCS	6.000000	R8 R7 R6 R5 R4 R3	
** 2	017-333005-3704R	SMD Resistor[ROHS]	33K ±5% [0603]R120633100-R	PCS	1.000000	R1	
** 2	017-472005-3704R	SMD Resistor[ROHS]	4.7K ±5% [0603]R120640751-R	PCS	1.000000	Q3基极 地之间	ECN-WI-AR30-A1-007-
** 2	032-114148-1214R	SMD Diode[ROHS]	IN4148 [LL-34] Glass Tube Package D001000002-R	PCS	4.000000	D4 D3 D2 D1	
** 2	032-140033-1D04R	SMD Zener Diode[ROHS]	1/2W3V3, Glass Tube Package [LL-34]D001123031-R	PCS	1.000000	DZ1	
** 2	034-268050-D104R	SMD Transistor [ROHS]	8050 [SOT-23] [β120-200]T001000002-R	PCS	1.000000	Q3	ECN-WI-AR30-A1-002-

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** 2	034-909014-C214R	SMD Transistor[ROHS]	9014 [SOT-23] [β100-300]T001000003-R	PCS	6.000000	Q7 Q6 Q5 Q4 Q2 Q1	ECN-WI-AR30-A1-002-
** 2	034-909015-C204R	SMD Transistor[ROHS]	9015 [SOT-23] [β60-280]T001000004-R	PCS	1.000000	Q8	
** 2	070-425408-7504R	In-line Socket [ROHS]	8PIN,JP2.54-8,Curve In-Line,	PCS	1.000000	CON1	
** 2	090-AR3004-B003R	PCB [ROHS]	P2-UPC1237.PIN801180A0,40 to 1,Double blue face with white graphics	PCS	0.025000		
* 1	990-AR3001-A01R	AR30-EU-B Configuration Assembly[Lead Free]	AR30-EU-B Configuration Assembly[Lead Free]	Set	1.000000		
** 2	001-AR3001-C0021R	Transformer [ROHS]	TC-AR30-A081107A6,	PCS	1.000000		ECN-WI-AR30-A0-007-3-081110
** 2	059-020250-9104R	Power Switch [ROHS]	V000706 2A/8A/250V rocker CQC/UL(CUL)/VDE/CE/CCC Certificate	PCS	1.000000		
** 2	071-00IPOD-	iPod Dock		PCS	1.000000		
** 2	071-070180-0305R	Power Socket [ROHS]	2 PIN RF-180 250V/10A CQC/UL(CUL)/ VDE/CE/CCC Certificate	PCS	1.000000		
** 2	073-AR3001-W003R	Power Cord [ROHS]	European Standard 2 PIN L=1.8MM CQC UL VDE	PCS	1.000000		
** 2	097-717015-B704R	7# Batteries [ROHS]	7#	PCS	3.000000		
** 2	209-AR3001-P004R	Foot [ROHS]	A/AR30-AP126522, black	PCS	4.000000		
** 2	221-AR3001-P004R	Light Guide [ROHS]	Ap provided A/AR30-DGT080305A1	PCS	1.000000		
** 2	224-AR3001-P003R	Lens [ROHS]	A/AR30-JP080305A1	PCS	1.000000		
** 2	224-AR3002-P003R	IR Receiver Module [ROHS]	AP provided A/AR30-YKC080305A1	PCS	1.000000		
** 2	277-080030-2204R	Cable ties [ROHS]	L=80mm,W=3mm,Unidirectional snap-in insulating, black	PCS	4.000000		
** 2	294-AR3001-P004R	14MM Sponge Washer [ROHS]	A/AR30-14HMQ081013A2	PCS	1.000000		
** 2	294-AR3002-P004R	10MM Sponge Washer [ROHS]	A/AR30-10HMQ081013A2	PCS	6.000000		
** 2	296-AR3001-P004R	Rubber Washer [ROHS]	A/AR30-JD080610A1	PCS	1.000000		

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** 2	297-AR3001-G004R	Dust Sponge[Lead Free]	A/AR30-FCM080513A1	PCS	1.000000		
** 2	300-AR3001-M002R	Front Panel [ROHS]	Aluminium Material:AIVIN070921-042 A/AR30-MB081013A3,S-AR30-FQ080624A5 black	PCS	1.000000		
** 2	300-AR3002-M003R	Sub Panel [ROHS]	A/AR30-QB080505A2	PCS	1.000000		
** 2	301-AR3001-M003R	Rear Panel [ROHS]	A/AR30EU-HB081110A2,S-AR30EU-BQ081108A7 black	PCS	1.000000		ECN-WI-AR30-A0-008-
** 2	302-AR3001-M002R	Top Cover [ROHS]	A/AR30-JG081110A4, black	PCS	1.000000		ECN-WI-AR30-A0-010-
** 2	303-AR3001-M002R	Bottom Panel [ROHS]	A/AR30-DB081013A3	PCS	1.000000		
** 2	308-AR3001-M003R	Panel Insert [ROHS]	Aluminium Material:AIVIN070921-043 A/AR30-CT080305A1, black	PCS	2.000000		
** 2	311-00S635-M004R	L Small Bracket [ROHS]	A/S635T-LZJ051109A2	PCS	2.000000		
** 2	340-AR3001-M003R	34.5MM Volume Knob	A/AR30-34.5XN080605A1, black	PCS	1.000000		
** 2	344-AR3001-M004R	remote receiver[Lead	A/AR30-YKTP081105A1	PCS	4.000000		
** 2	347-AR3001-M003R	9MM Button [ROHS]	A/AR30-9AJ080305A1, black	PCS	1.000000		
** 2	347-AR3002-M003R	5.5MM Button [ROHS]	A/AR30-5.5AJ080305A1, black	PCS	6.000000		
** 2	353-AR3001-M002R	Grounding Terminals[Lead Free]	A/AR30-JDDZ081110A1	PCS	1.000000		
** 2	356-AR3001-M004R	Top Cover Rivet [ROHS]	A/AR30-GKJ081112/A1, black	PCS	6.000000		ECN-WI-AR30-A1-005-
** 2	360-AR3001-M002R	HeatSink [ROHS]	blackA/AR30-SR081110A3	PCS	1.000000		ECN-WI-AR30-A0-008-
** 2	377-AR3001-M004R	Press Sheet [ROHS]	A/AR30-YP080506A1	PCS	2.000000		
** 2	379-AR3001-M203R	Top Cover Mylar Sheet [ROHS]	A/AR30-JGGB081113A3, black	PCS	1.000000		ECN-WI-AR30-A1-008-
** 2	400-AR3001-A013R	Left Poly [ROHS]	A/AR30-PML080818A3	PCS	1.000000		
** 2	400-AR3002-A013R	Right Poly [ROHS]	A/AR30-PMR080818A3	PCS	1.000000		

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** 2	410-AR3001-A003R	Woven Bag [ROHS]	AR30-AP249291,450x360mm	PCS	1.000000		
** 2	411-A10001-A004R	Accessory Bag(Self-Sealed Bag) [ROHS]	225*310(mm)F003200004-R	PCS	1.000000		
** 2	420-AR3001-A003R	Colour Carton [ROHS]	内尺寸382X350X120 ARTWORK NO.:AP23969-3,	PCS	1.000000		
** 2	429-AR3001-A003R	Transformer Label [ROHS]	T-AR30-TF080825A3	PCS	1.000000		
** 2	432-AR3001-A004R	Serial Number Label [ROHS]	40x10mm	PCS	2.000000		
** 2	440-AR3001-A004R	Carton Label [ROHS]		PCS	1.000000		
** 2	442-AR3001-A004R	Label	T-AR30-LOWTack081023A1	PCS	1.000000		
** 2	442-AR3002-A004R	Label	S-AR30cn-LS081108A1	PCS	1.000000		
** 2	449-AR3001-A004R	Tuner Label [Lead Free]	T-AR30-AMFM080902A3,EUP/N:AP242701EU	PCS	1.000000		ECN-WI-AR30-A1-008-
** 2	450-AR3001-A003R	User's Manual [ROHS]		PCS	1.000000		
** 2	456-M36001-A004R	Card the follow unit [ROHS]	L111*W72(mm)F004200001-R	PCS	1.000000		
** 2	600-300506-0614R	B Head Coarse Thread Self-Tapping Screw [ROHS]	3x6PTS-HOj	PCS	30.000000	4*Top Cover 1 5*front panel 6*PCB 2*Top Cover 3*Rear Panel	
** 2	600-300506-1014R	B Head Coarse Thread Self-Tapping Screw [ROHS]	3x10PTS-HOj	PCS	2.000000	To fix the Power Socket and rear panel	
** 2	600-301106-0614R	B Head Coarse Thread Self-Tapping Screw [ROHS]	BTB3*6-HojM072361001-R	PCS	9.000000	2*Q307 and Q407 4*panel insert 2*Top Cover	
				PCS		1	
** 2	600-301106-1014R	B Head Coarse Thread Self-Tapping Screw [ROHS]	BTB3*10-HojM072310100-R	PCS	7.000000	To fix tuners,Output Connectors and back panel	

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** 2	600-301106-1214R	B Head Coarse Thread Self-Tapping Screw [ROHS]	BTB3*12-Hoj	PCS	4.000000	To fix transistors and heat sink	
** 2	622-300506-0614R	Cross Recessed Flat Countersunk Head Mechanical Screws[Lead Free]	3x6FM-Hoj	PCS	3.000000	To fix front panel and the bottom	
** 2	651-030050-0234R	hexagon nuts[Lead Free]	M3 2.3mm,White zinc plated	PCS	2.000000	To fix Power Socket	
** 2	660-032080-1164R	Fixing Washers [ROHS]	8*3.2*0.5(mm)	PCS	4.000000	To fix transistors and heat sink	
** 2	662-032050-1864R	locking washer [ROHS]	Φ3.2mm M008100001-R	PCS	4.000000	To fix transistors and heat sink	
** 2	755-300036-0814R	Plain round washer head Cross recessed self-tapping screws[Lead Free]	3x8PWAJ-HOJ	PCS	9.000000	5*Heatsink and bottom 4*feet	
** 2	755-301106-0614R	Plain round washer head Cross recessed self-tapping screws[Lead Free]	3X6PWAJ-Hoj.	PCS	4.000000	To fix the Top Cover	
** 2	829-004545-A03R	Desiccant [ROHS]	25gF006000001-R	BAG	2.000000		
** 2	879-100005-CB1R	Heat-Shrinkable Tube [ROHS]	Φ5.0mm,(100m/roll)	Meter	0.080000	Power Socket	ECN-WI-AR30-A0-003-
** 2	980-AR3001-A01R	Remote Control [ROHS]		PCS	1.000000		

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审核:

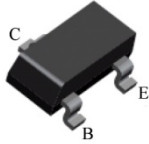
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Bill of Materials

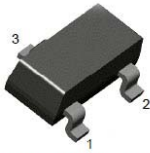
IC Pin Layouts for the Cambridge Audio Sonata AR30 v2 Amplifier

Amp PCB

S8550 (Q101)

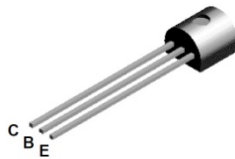


2N5551 (Q2, Q304, Q205, Q306, Q310, Q311, Q314, Q315, Q316, Q404, Q405, Q406, Q410, Q411, Q414, Q415 & Q416)

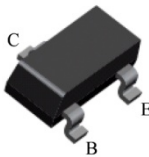


1. Base 2. Emitter 3. Collector

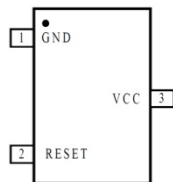
2N5401 (Q9, Q300, Q301, Q302, Q303, Q308, Q309, Q400, Q401, Q402, Q403, Q408 & Q409)



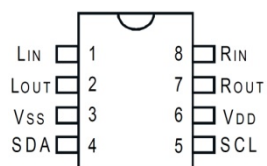
S9014 (Q1 & Q10)



STC810M (U7)

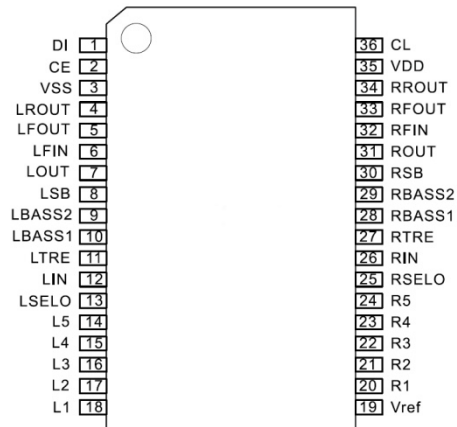


PT2257-S (U14)

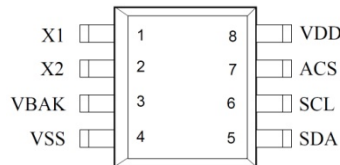


IC Pin Layouts for the Cambridge Audio Sonata AR30 v2 Amplifier

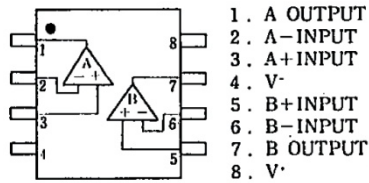
PT2319 (U1)



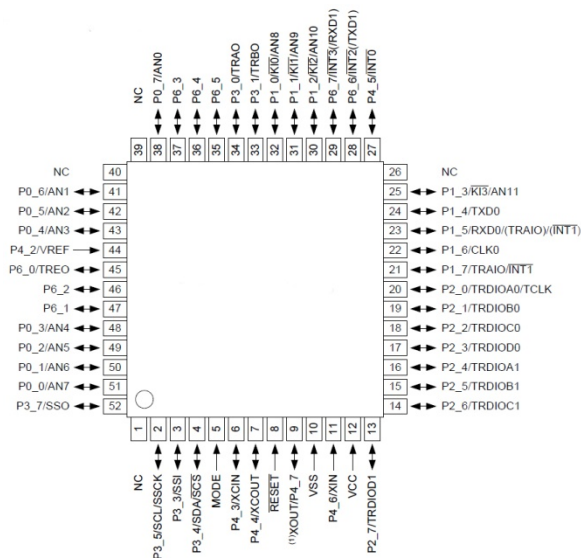
FM3130 (U6)



JRC4560 (U3)

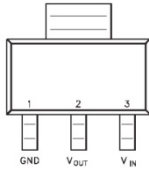


R5F21258SNFP (U4)

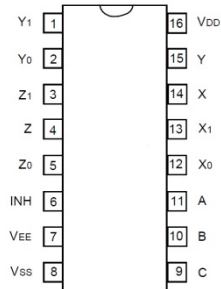


IC Pin Layouts for the Cambridge Audio Sonata AR30 v2 Amplifier

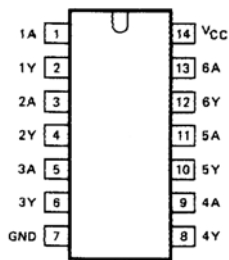
LD1117 S33 (U9)



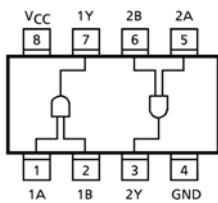
4053 (U13)



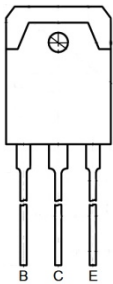
74HCT14 (U2 & U5)



TC7WH08FU (U8)

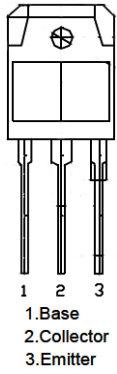


2SA1693 (Q312 & Q412)

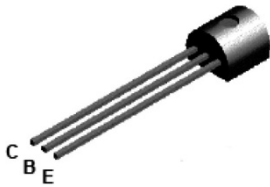


IC Pin Layouts for the Cambridge Audio Sonata AR30 v2 Amplifier

2SC4466 (Q313 & Q413)

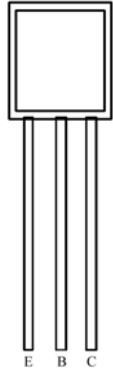


2N5551 (Q307 & Q407)

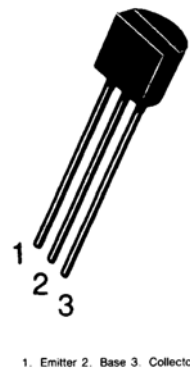


Power PCB

S8050 (Q8)

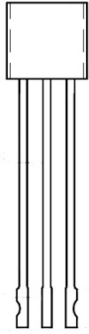


C8550 (Q6)



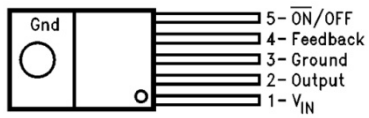
IC Pin Layouts for the Cambridge Audio Sonata AR30 v2 Amplifier

C9014 (Q7)

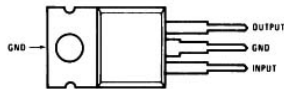


- 1 2 3
1. Emitter
2. Base
3. Collector

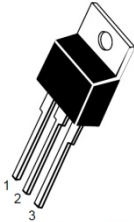
LM2595T (U1)



KA7812 (U2)



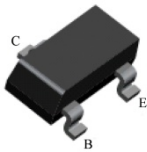
KA7912 (U3)



- Pin 1. Ground
2. Input
3. Output

VFD PCB

8050 (Q204)



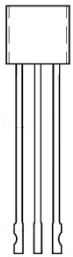
IC Pin Layouts for the Cambridge Audio Sonata AR30 v2 Amplifier

8550 (Q202)



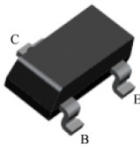
1. Emitter 2. Base 3. Collector

9014 (Q201 & Q203)



1. Emitter
2. Base
3. Collector

9015 (Q200)



PT6311 (U201)

