

DVD PLAYER

DVD-S550/DV-S5750

SERVICE MANUAL

DVD-S550/DV-S5750

IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

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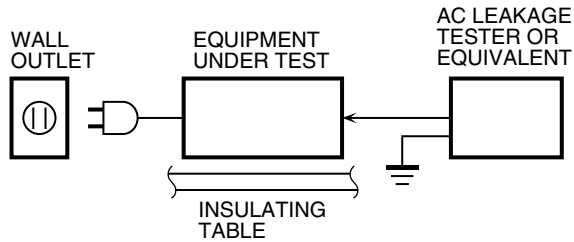


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This Service Manual uses recycled paper.



■ TO SERVICE PERSONNEL

1. Critical Components Information
Components having special characteristics are marked $\triangle$ and must be replaced with parts having specifications equal to those originally installed.
 2. Leakage Current Measurement (For 120V Models Only)
When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.
- Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.



- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

WARNING: Laser Safety

This product contains a laser beam component. This component may emit invisible, as well as visible radiation, which may cause eye damage. To protect your eyes and skin from laser radiation, the following precautions must be used during servicing of the unit.

- 1) When testing and/or repairing any component within the product, keep your eyes and skin more than 30 cm away from the laser pick-up unit at all times. Do not stare at the laser beam at any time.
- 2) Do not attempt to readjust, disassemble or repair the laser pick-up, unless noted elsewhere in this manual.
- 3) CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Emitting conditions:

- 1) When the Top Cover is removed, and the STANDBY/ON SW is turned to the "ON" position, the laser component will emit a beam for several seconds to detect if a disc is present. During this time (5-10 sec.) the laser may radiate through the lens of the laser pick-up unit. Do not attempt any servicing during this period!
If no disc is detected, the laser will stop emitting the beam. When a disc is loaded, you will not be exposed to any laser emissions.
- 2) The laser power level can be adjusted with the VR on the pick-up PWB, however, this level has been set by the factory prior to shipping from the factory. Do not adjust this laser level control unless instruction is provided elsewhere in this manual. Adjustment of this control can increase the laser emission level from the device.

Laser Diode Properties

Type: Semiconductor laser GaAlAs
 Wave length: 650 nm (DVD)
 780 nm (VCD/CD)
 Output Power: 7 mW (DVD)
 10 mW (VCD/CD)
 Beam divergence: 60 degree

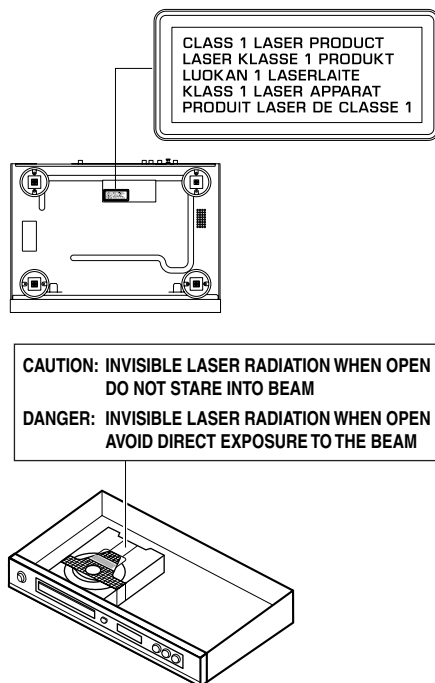
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

WARNING! : OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

WARNING

The use of optical instruments with this product will increase eye hazard.

Repair handling should take place as much as possible with a disc loaded inside the player.



CAUTION	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL	SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
ADVARSEL	SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.
VARNING	SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.
VARO!	AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASER SÄ TEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VORSICHT	SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
DANGER	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ATTENTION	RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU

Warning for power supply

The primary side of the power supply carries live mains voltage when the player is connected to the mains even when the player is switched off !

This primary area is not shielded so it is possible to touch copper tracks and/or components when servicing the player. Service personnel have to take precautions to prevent touching this area or components in this area.

Note:

The screws on the DVD mechanism may never be touched, removed or re-adjusted.

Handle the DVD mechanism with care when the unit has to be exchanged!

The DVD mechanism is very sensitive for dropping or giving shocks.

■ PREVENTION OF ELECTRO STATIC DISCHARGE

The laser diode in the DVD mechanism may be damaged due to static electricity from clothes or the human body. Use caution to prevent electro static damage when servicing or handling the DVD-mechanism.

1. Grounding for electro static damage prevention

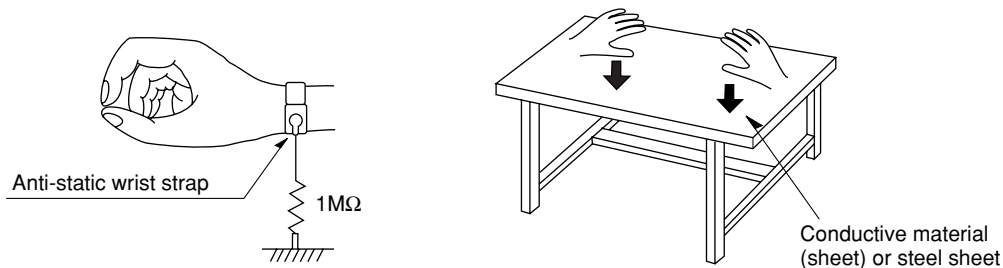
Some devices, such as the DVD player, use an optical pickup (laser diode) that will be damaged by static electricity in the working environment. Only attempt service after ensuring that all grounding procedures have been completed.

1. Worktable grounding

Put a grounded conductive material (sheet) or iron sheet on the area where the optical pickup is placed.

2. Human body grounding

Use an anti-static wrist strap to discharge the static electricity from your body.



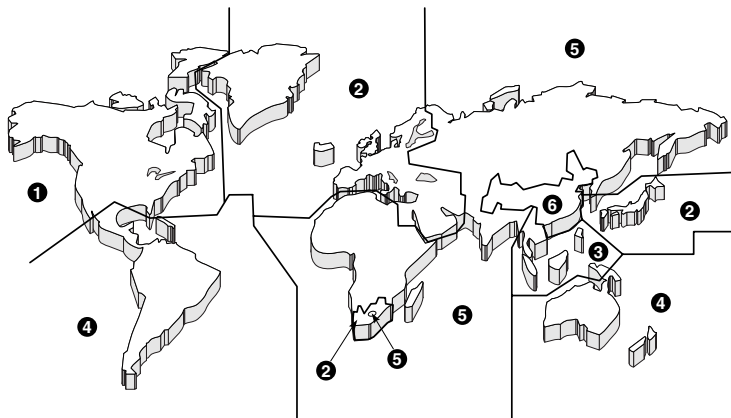
2. Handling Precautions for DVD mechanism

1. Handle the DVD mechanism gently, as it is an extremely high-precision assembly.
2. The flexible cable lines may break if an excessive force is applied to it. Use caution when handling the cable.
3. The semi-fixed resistor for laser power adjustment should not be adjusted. Do not turn the resistor.

■ LOCALE MANAGEMENT INFORMATION

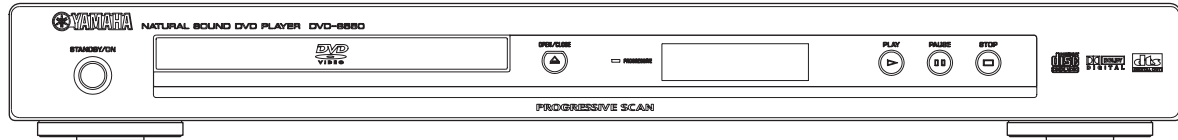
Locale Management Information : This DVD player is designed and manufactured to respond to the Locale Management Information that is recorded on a DVD disc. If the Locale number described on the DVD disc does not correspond to the Locale number of this DVD player, this DVD player cannot play this disc.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

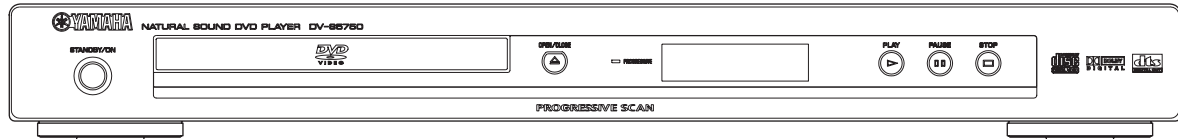


FRONT PANELS

▼ DVD-S550 (U, R, K, A, B, G, E, P models)

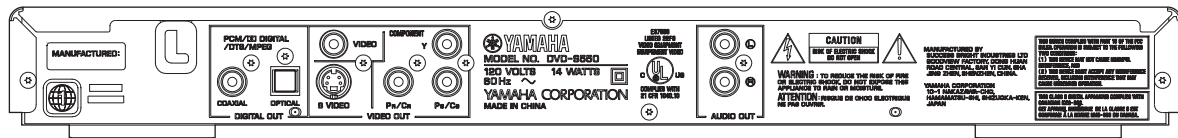


▼ DV-S5750 (U, A models)

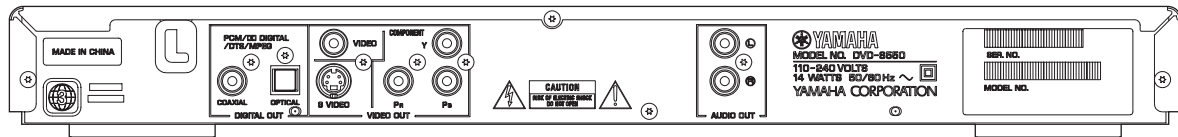


REAR PANELS

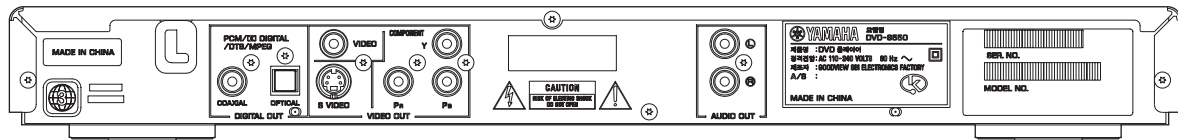
▼ DVD-S550 (U model)



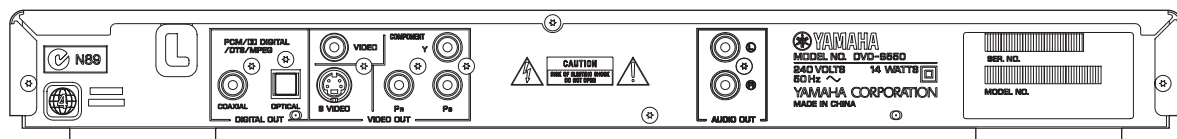
▼ DVD-S550 (R model)



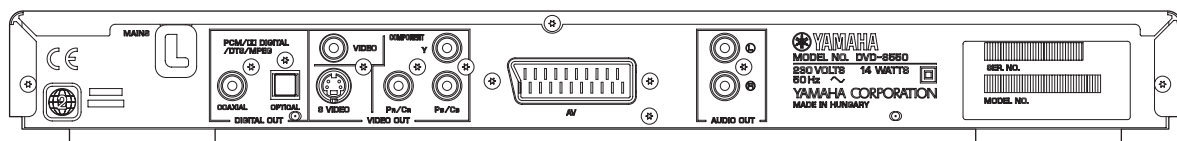
▼ DVD-S550 (K model)



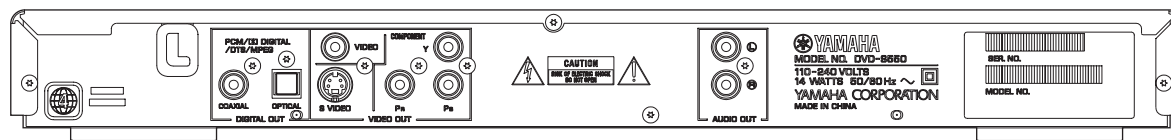
▼ DVD-S550 (A model)



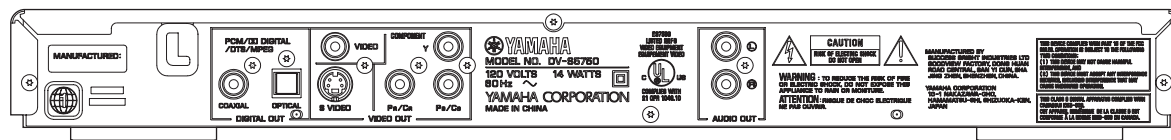
▼ DVD-S550 (B, G, E models)



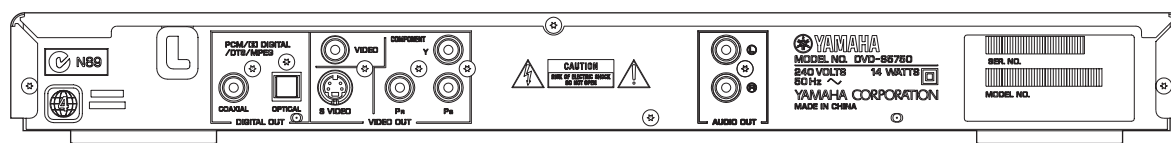
▼ DVD-S550 (P model)



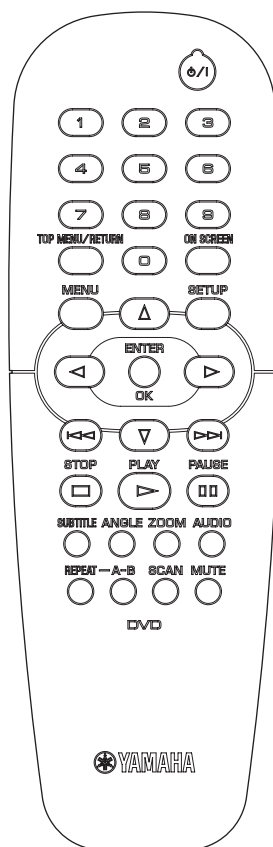
▼ DV-S5750 (U model)



▼ DV-S5750 (A model)



■ REMOTE CONTROL PANEL



SPECIFICATIONS

PLAYBACK SYSTEM

DVD Video
Video CD & SVCD
CD
PICTURE CD
CD-R, CD-RW
DVD+R, DVD+RW
DVD-R, DVD-RW

VIDEO PERFORMANCE

Video (CVBS) Output 1 Vpp into 75 ohm
S-Video Output Y: 1Vpp into 75 ohm
C: 0.3Vpp into 75 ohm
RGB (SCART) Output 0.7 Vpp into 75 ohm (B, G, E models)
Component Video Output Y: 1Vpp into 75 ohm
Pb/Cb Pr/Cr: 0.7Vpp into 75 ohm

AUDIO FORMAT

Digital	Mpeg/Dolby	Compressed Digital
	Digital/DTS	
	PCM	16, 20, 24 bits
		fs, 44.1, 48, 96 kHz
	MP3(ISO 9660)	24, 32, 56, 64, 96, 128, 256 kbps
		fs 16, 22.05, 24, 32, 44.1, 48 kHz
	WMA	32 kbps-192 kbps, mono, stereo
		(U, R, K, A, P models)

Analog Sound Stereo

AUDIO PERFORMANCE

DA Converter	24 bits
Signal-Noise (1kHz)	105 dB
Dynamic Range (1kHz)	100 dB
DVD	fs 96 kHz 2 Hz - 44 kHz
	fs 48 kHz 2 Hz - 22 kHz
SVCD	fs 48 kHz 2 Hz - 22 kHz
	fs 44.1 kHz 2 Hz - 20 kHz
CD/VCD	fs 44.1 kHz 2 Hz - 20 kHz
Distortion and Noise (1kHz)	0.003%

TV STANDARD (PAL/50Hz) (NTSC/60Hz)

Number of lines	625	525
Playback	Multistandard	(PAL/NTSC)

CONNECTIONS

SCART	Euroconnector (B, G, E models)
Y Output	Cinch (green)
Pb/Cb Output	Cinch (blue)
Pr/Cr Output	Cinch (red)
S-Video Output	Mini DIN, 4 pins
Video Output	Cinch
Audio Output (L+R)	Cinch
Digital Output	1 coaxial, 1 optical
	IEC60958 for CDDA / LPCM/
	MPEG1
	IEC61937 for MPEG 2,
	Dolby Digital and DTS

GENERAL

Dimensions (W x H x D)	435 x 51 x 310 mm (17-1/8" x 2" x 12-3/16")
Weight	Approx. 2.6 Kg (5 lbs. 12 oz)
Finish	[DVD-S550] Gold Color (R, K models) Black Color (U, A, B, G, E, P models) Titanium Color (U, G, E models) Silver Color (B, G, E models)
	[DV-S5750] Black Color (U model) Silver Color (U, A models)
Power Supply	AC120V, 60 Hz (U model) AC240V, 50 Hz (A model) AC110-240V, 50/60 Hz (R, K, P models) AC230V, 50 Hz (B, G, E models)
Power Consumption	Approx. 14W
Standby Power Consumption	< 1W

ACCESSORIES

Remote Control x 1, Battery x 2,
Audio/Video Cable (U, R, K, A, P models),
Audio Pin Cable (B, G, E models),
Video Cable (B, G, E models)

** Specifications subject to change without prior notice.*

U U.S.A model	R General model
K Korean model	A Australian model
B British model	G European model
E South European model	P South American model



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■ SERVICE HINTS

● Repair Tips

1) DVD Module

The DVD Mechanism and Mono Board together as a set are called the DVD Module.

If a failure has occurred with any part of the DVD Module, be sure to replace the DVD Module as a whole.

Neither the DVD Mechanism nor Mono Board can be replaced independently.

2) Power Supply Unit

The power supply unit has to be replaced in case of failure.

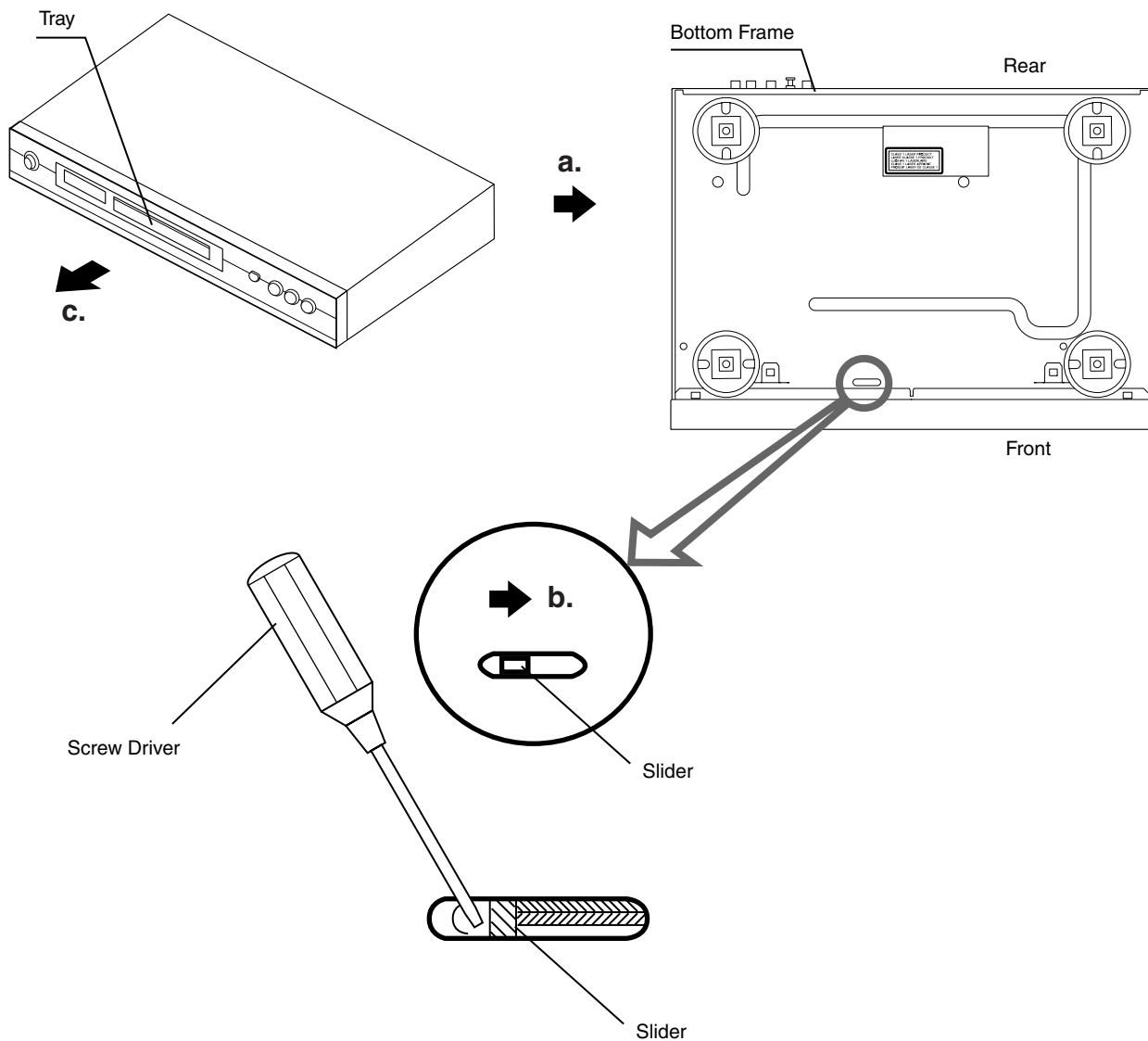
3) PCB Ass'y

When the Front Board or AV Board has failed, replace the faulty board.

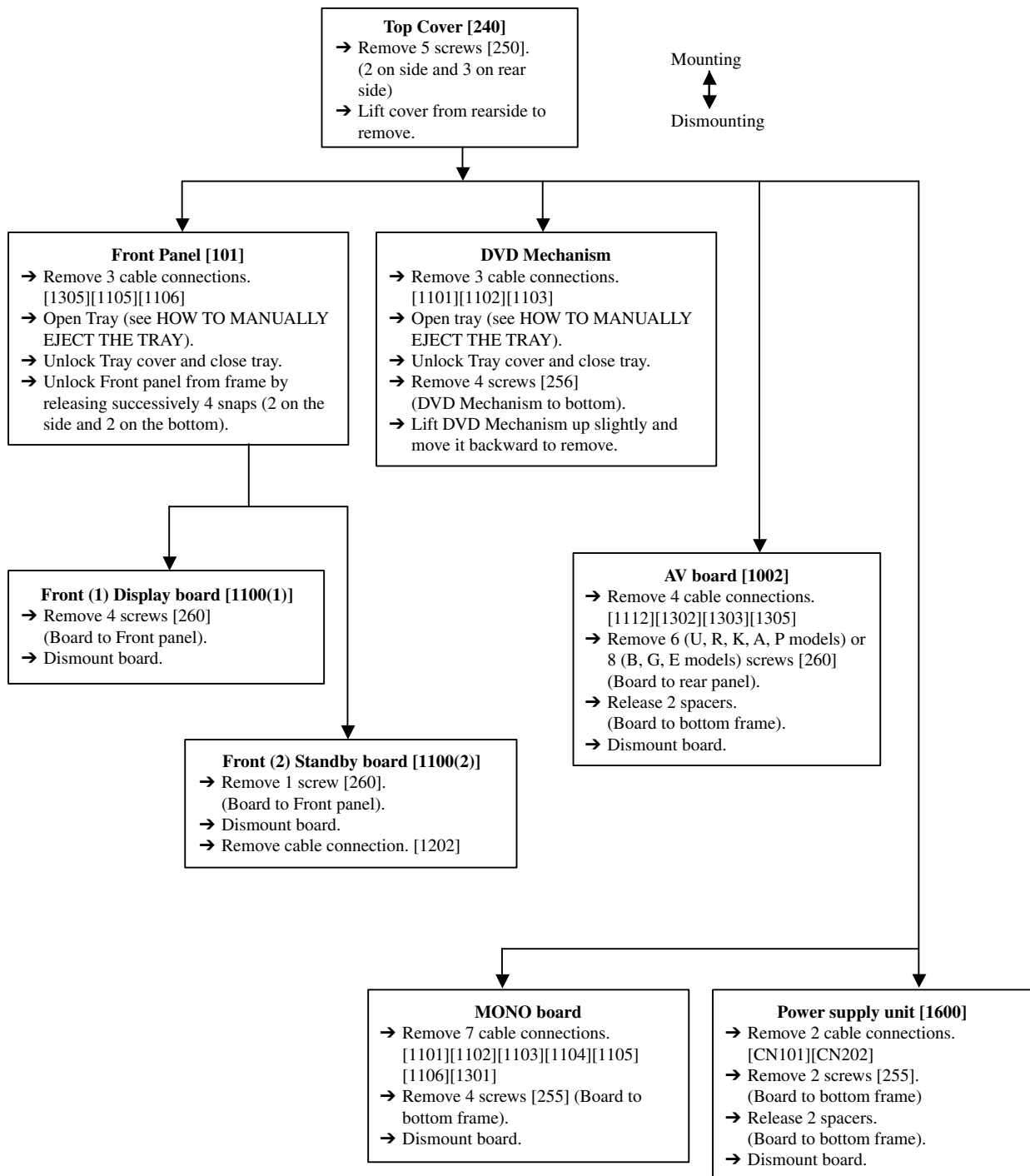
■ DISASSEMBLY PROCEDURES

HOW TO MANUALLY EJECT THE TRAY

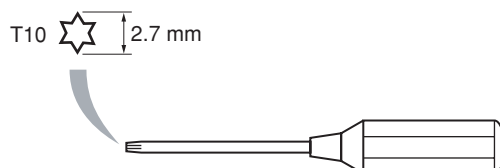
- Turn the player bottom up.
- Move the slider in the direction indicated with a screw driver until the tray is ejected.
- Gently pull the tray out.



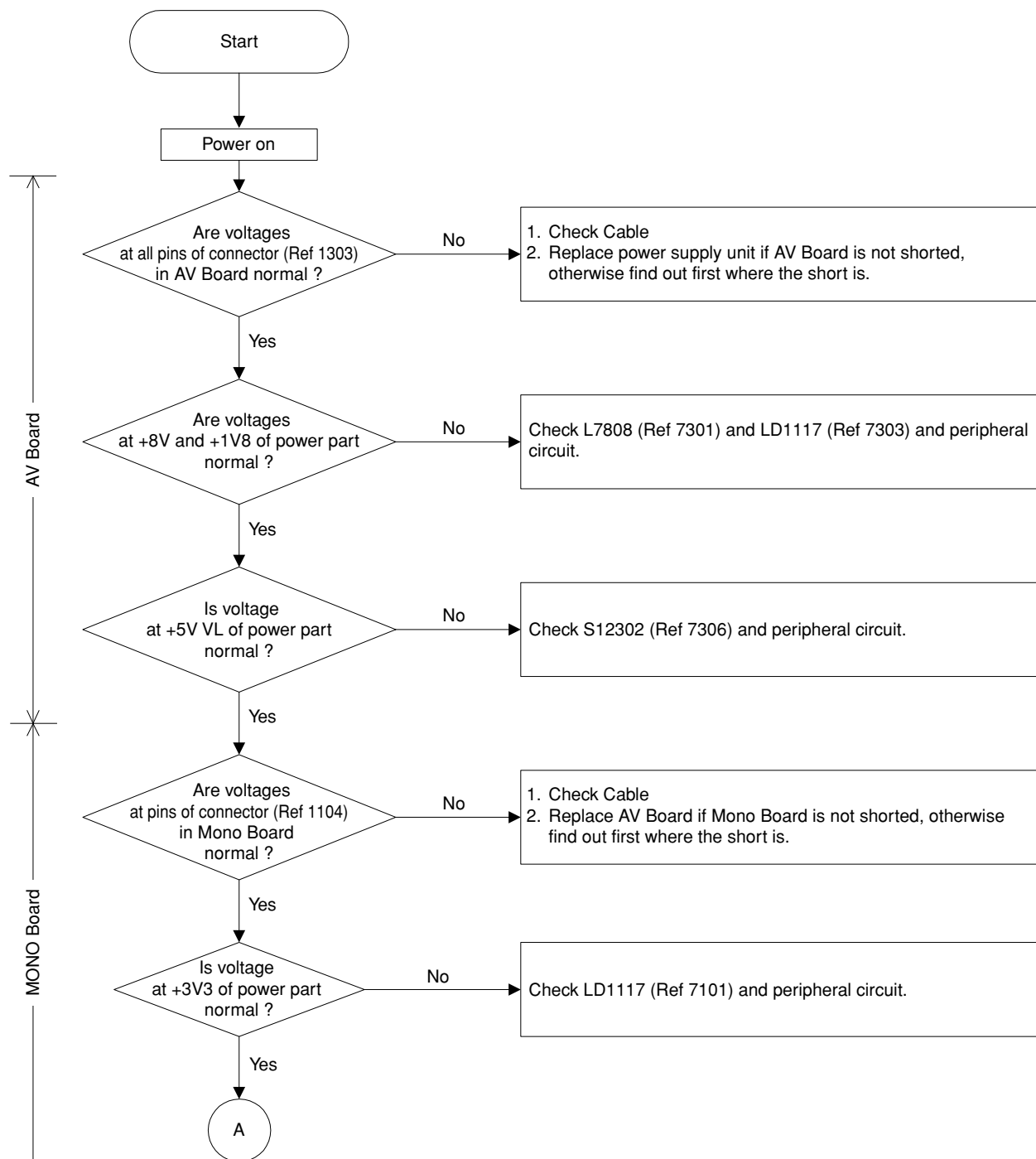
See EXPLODED VIEW for item numbers.

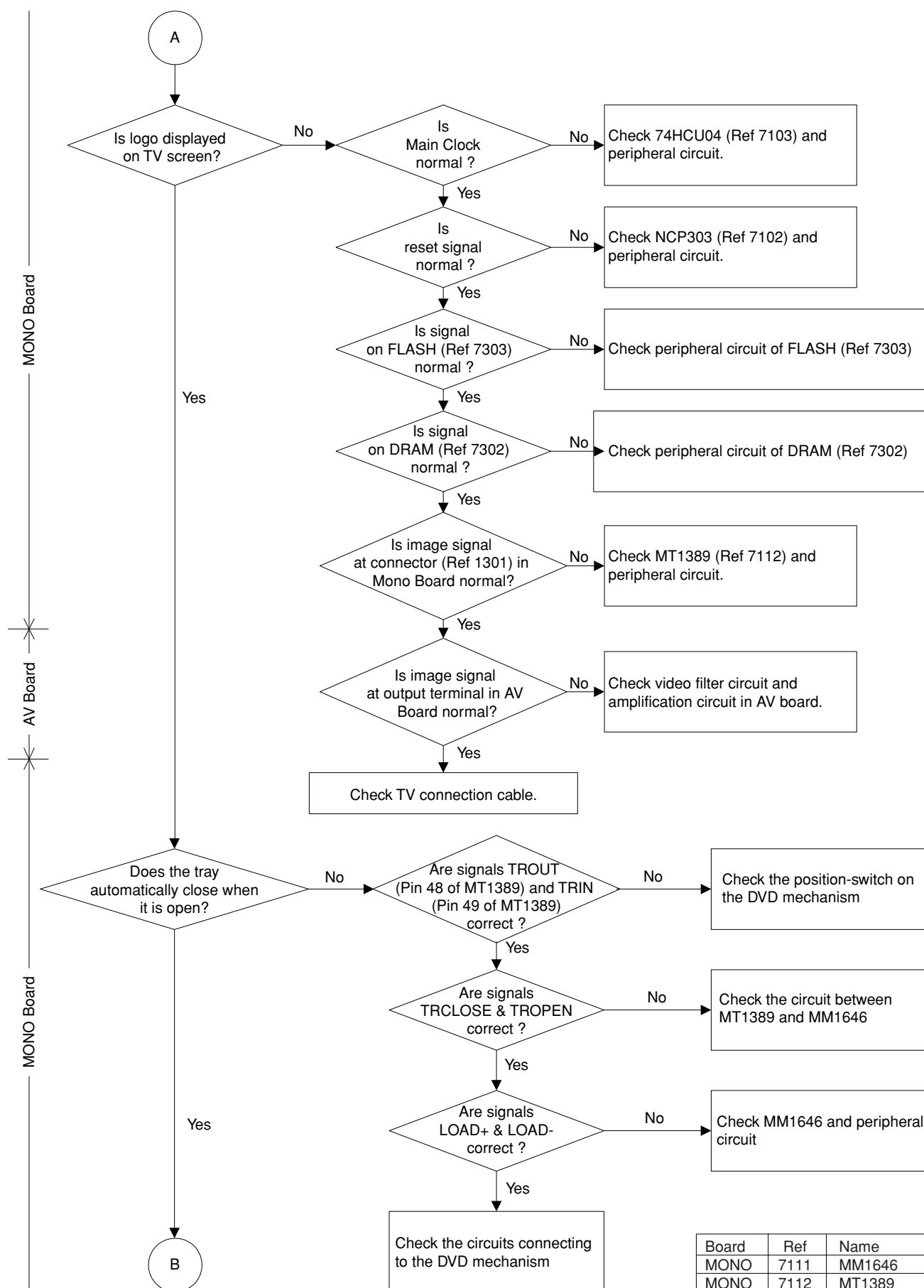


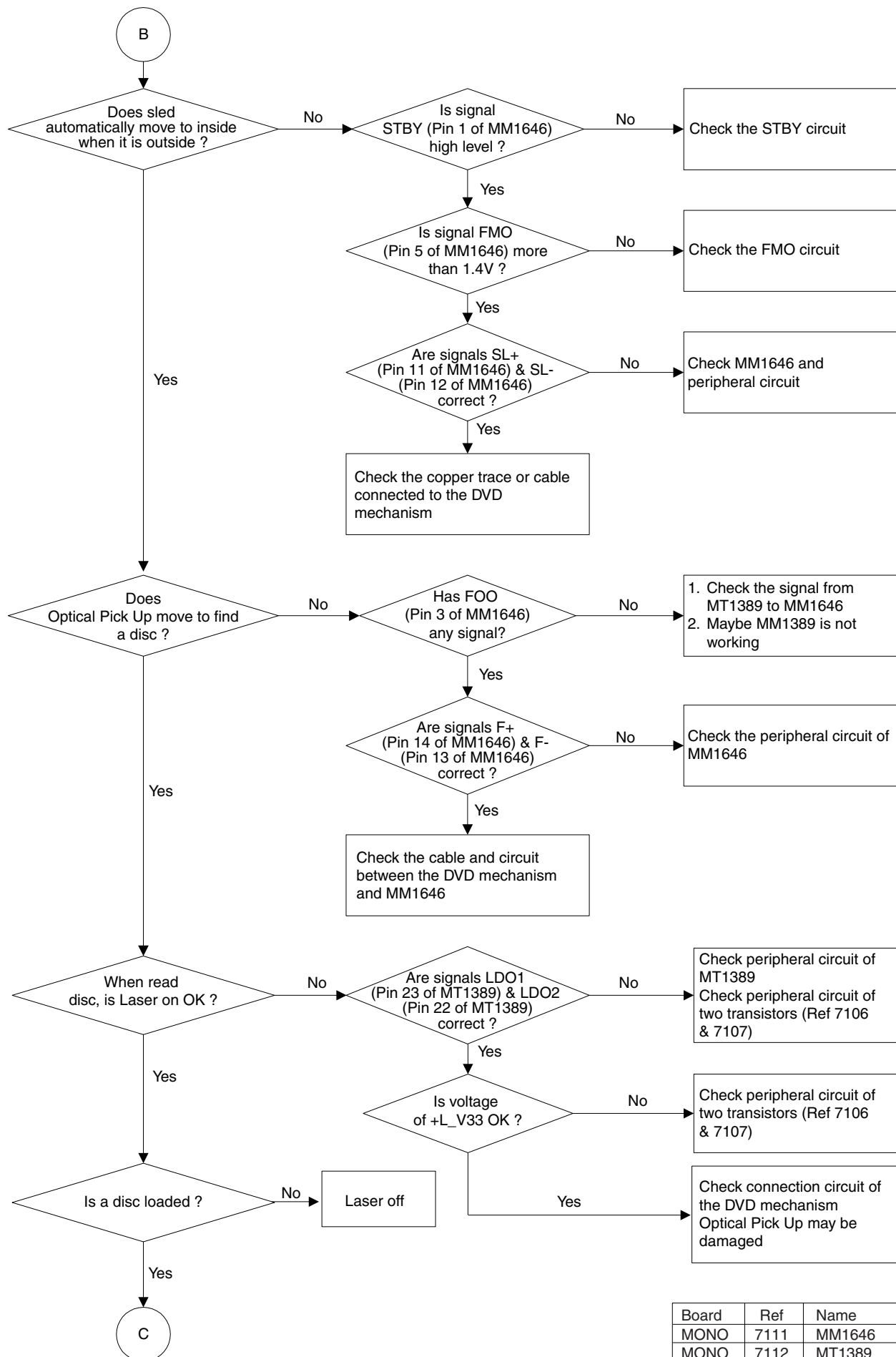
When disassembling, use the special screw driver with such tip shape as shown in figure.

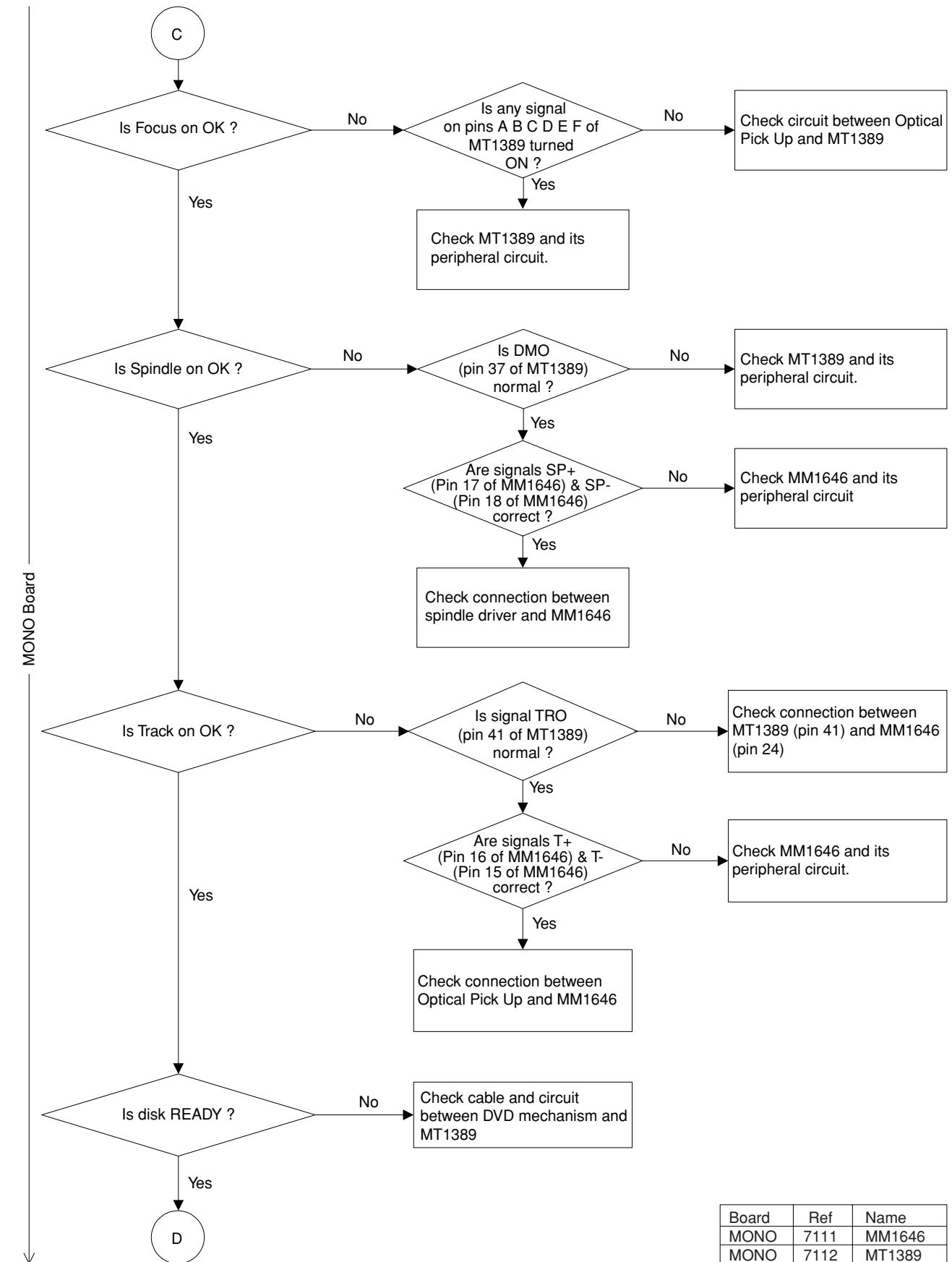


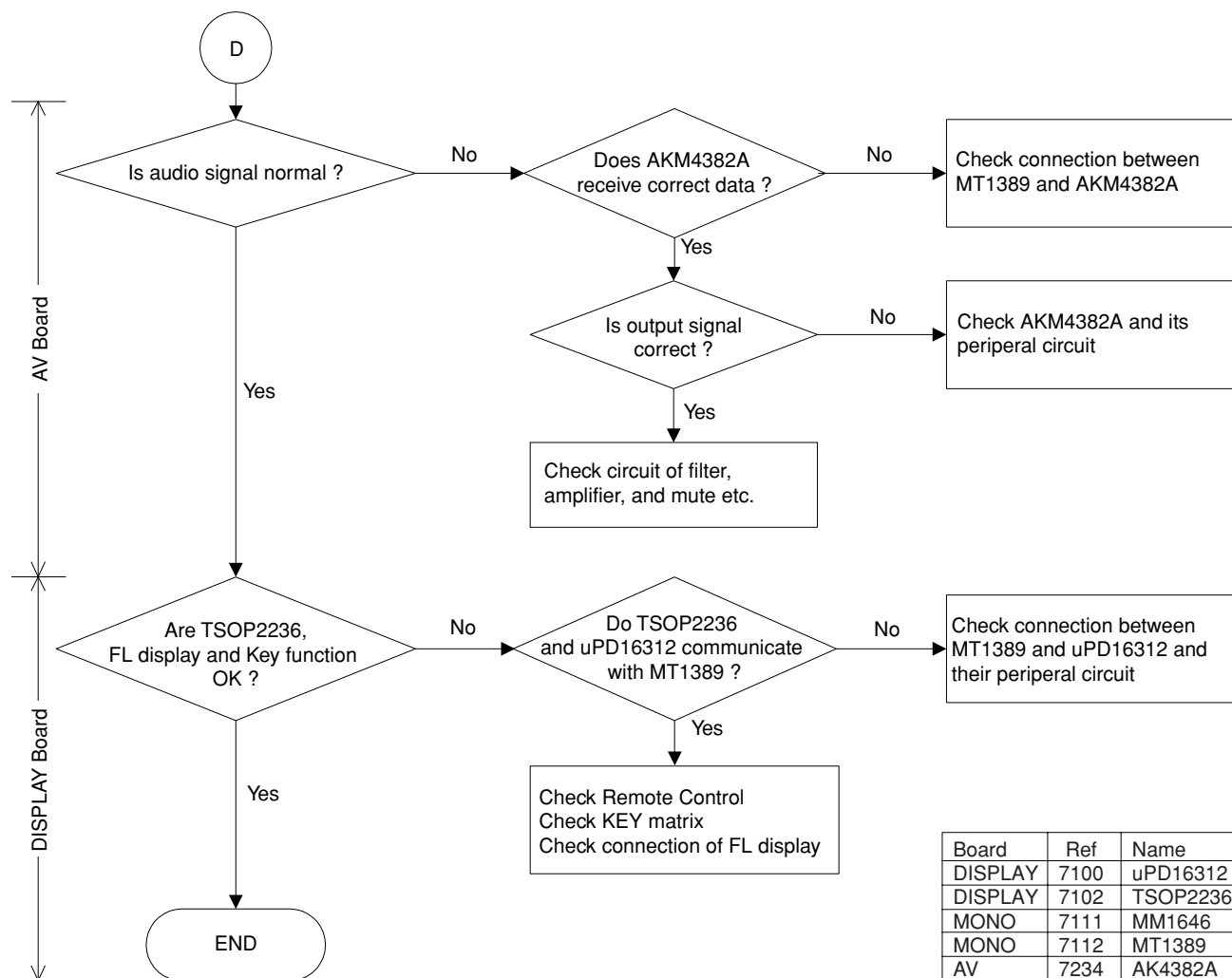
■ MAINTENANCE FLOW CHART



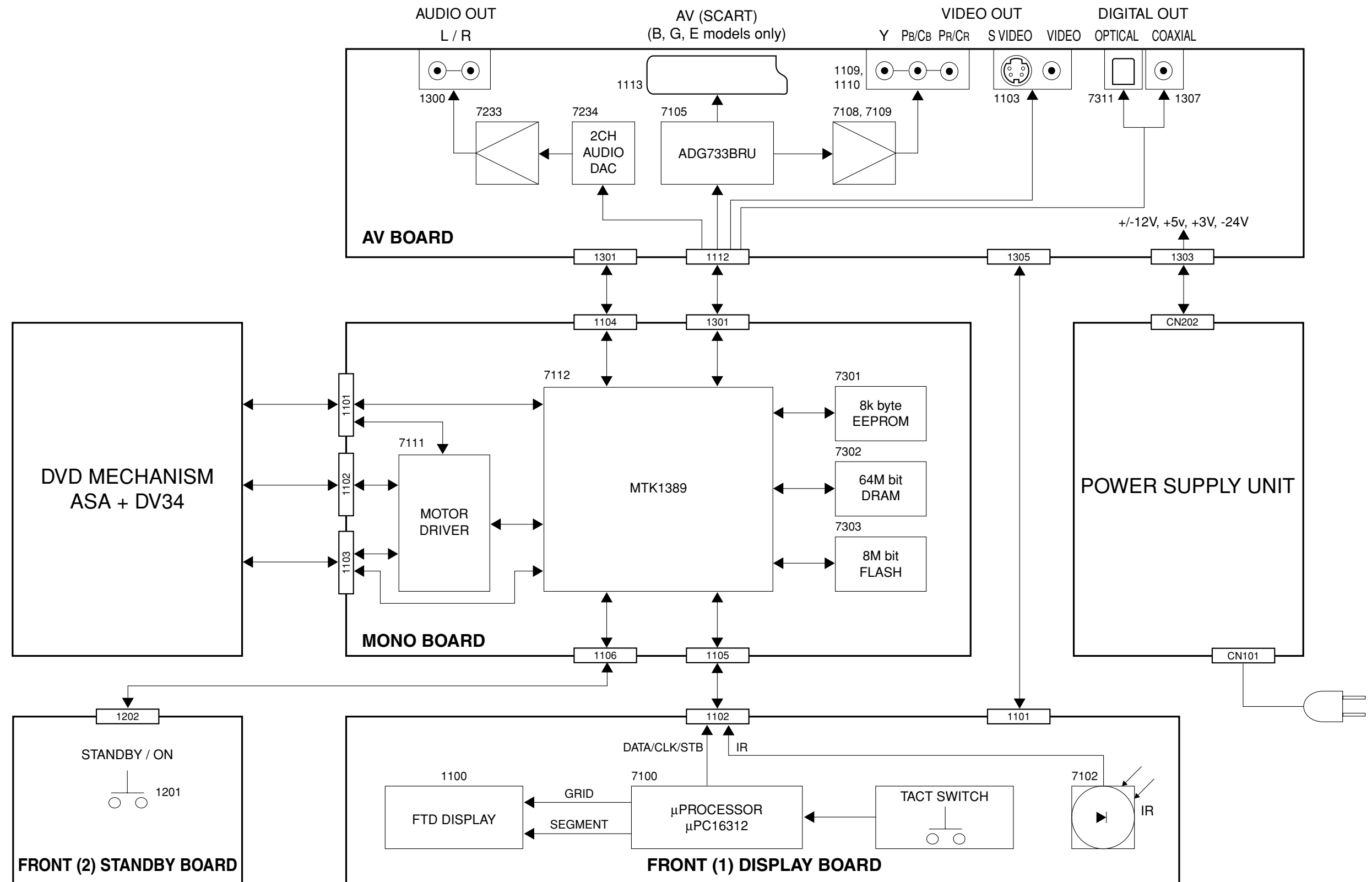




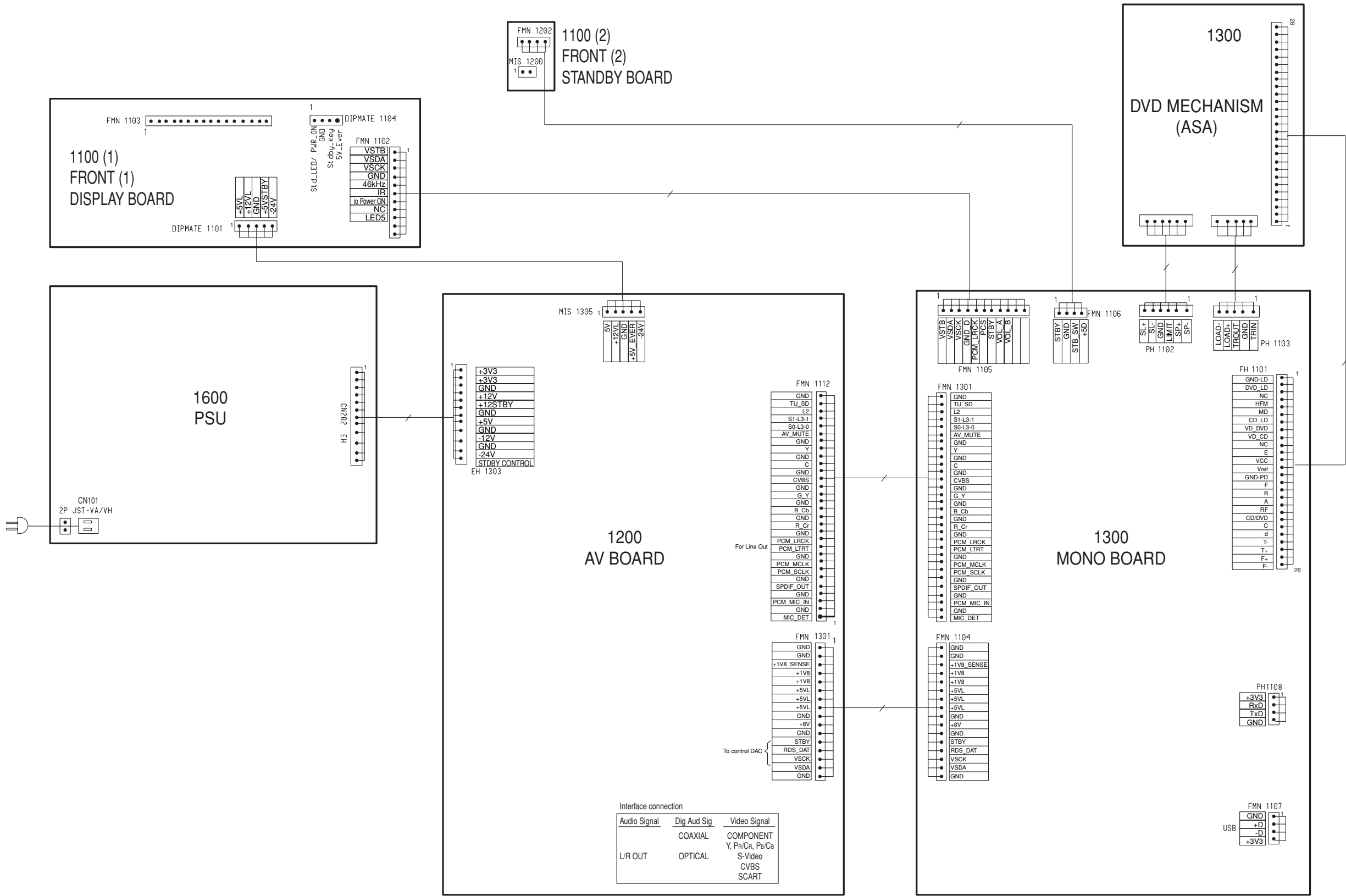




■ BLOCK DIAGRAM



WIRING DIAGRAM



1xxx : Connector	3xxx : Resistor	5xxx : Coil	7xxx : IC, Transistor, FET
2xxx : Capacitor	4xxx : SMD jumper	6xxx : Diode	9xxx : Wire jumper

MONO BOARD 1105
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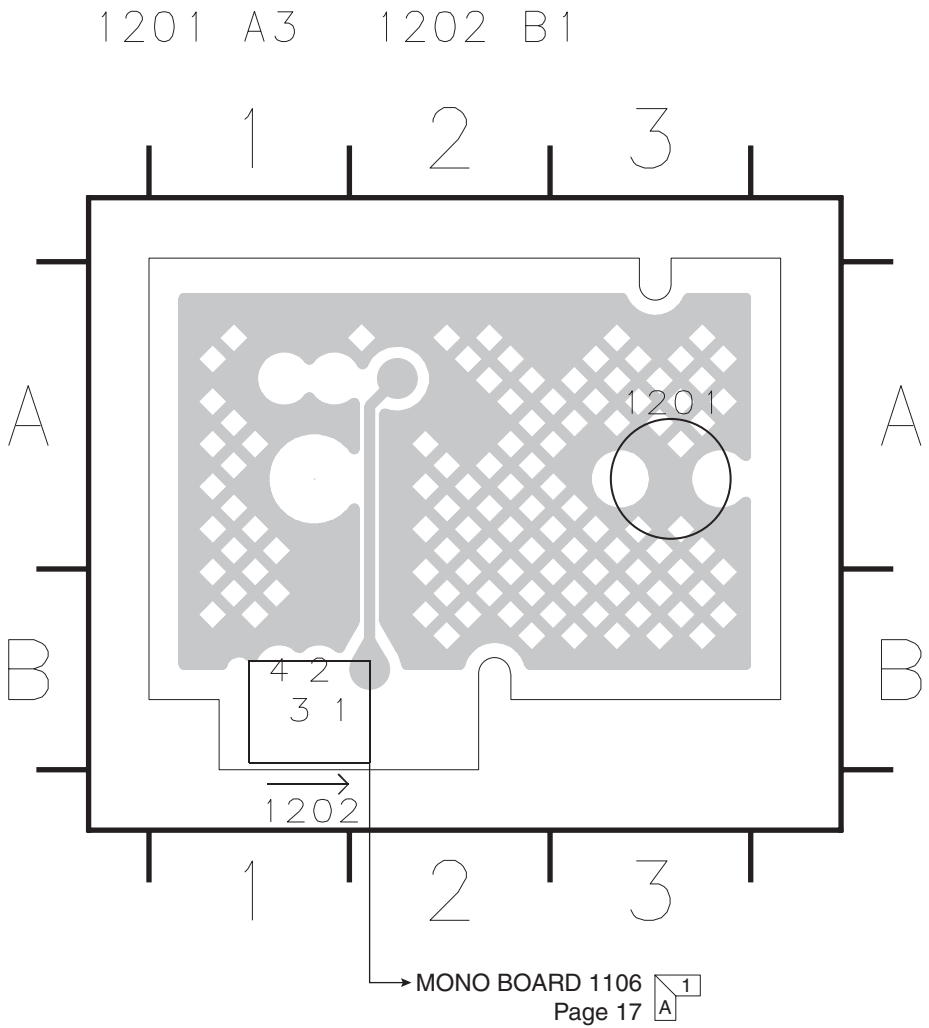
Part	Ref	Part	Ref	Part	Ref	Part	Ref	Part	Ref	Part	Ref	Part	Ref	Part	Ref	Part	Ref	Part	Ref	Part	Ref		
2101	A2	2111	A2	3104	A7	3110	A10	3116	A3	3122	A3	4105	A4	4111	A6	6107	A8						
2103	A1	2113	A2	3105	A7	3111	A10	3117	A2	3123	A2	4106	A4	4112	A6	7100	A9						
2104	A2	3100	A2	3106	A7	3112	A10	3118	A4	3128	A6	4107	A5	6100	A1	7101	A7						
2105	A6	3101	A6	3107	A7	3113	A10	3119	A4	3129	A5	4108	A5	6101	A7	7103	A3						
2107	A7	3102	A6	3108	A10	3114	A10	3120	A2	3130	A12	4109	A12	6102	A3	7104	A3						
2109	A8	3103	A7	3109	A8	3115	A10	3121	A3	3141	A11	4110	A12	6106	A7	7105	A3						

■ **PRINTED CIRCUIT BOARD**
FOR INFORMATION ONLY (NO SERVICE PARTS WILL BE AVAILABLE)

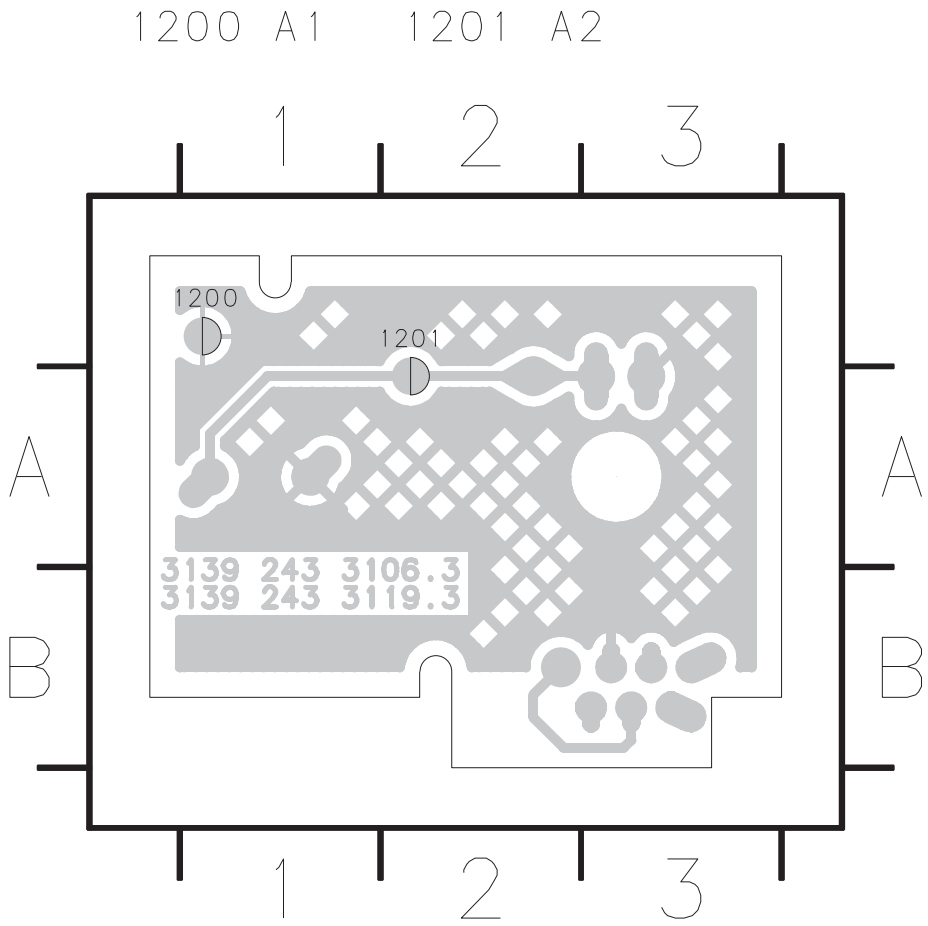
The first digit of a component indicates the component type.

1xxx : Connector	3xxx : Resistor	5xxx : Coil	7xxx : IC, Transistor, FET
2xxx : Capacitor	4xxx : SMD jumper	6xxx : Diode	9xxx : Wire jumper

FRONT (2) Standby Board-Top View



FRONT (2) Standby Board-Bottom View

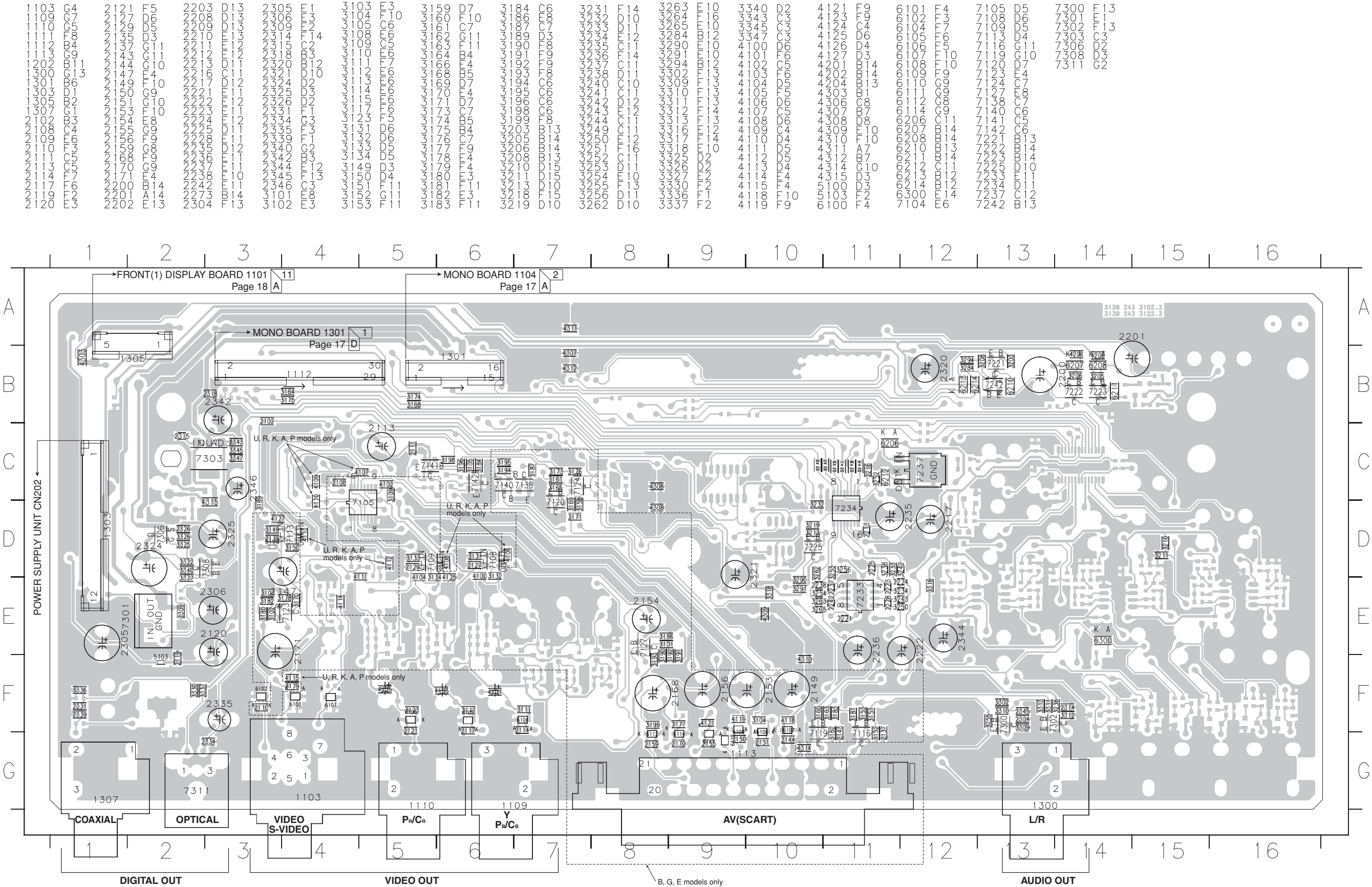


■ PRINTED CIRCUIT BOARD
FOR INFORMATION ONLY (NO SERVICE PARTS WILL BE AVAILABLE)

AV Board-Top View

The first digit of a component indicates the component type.

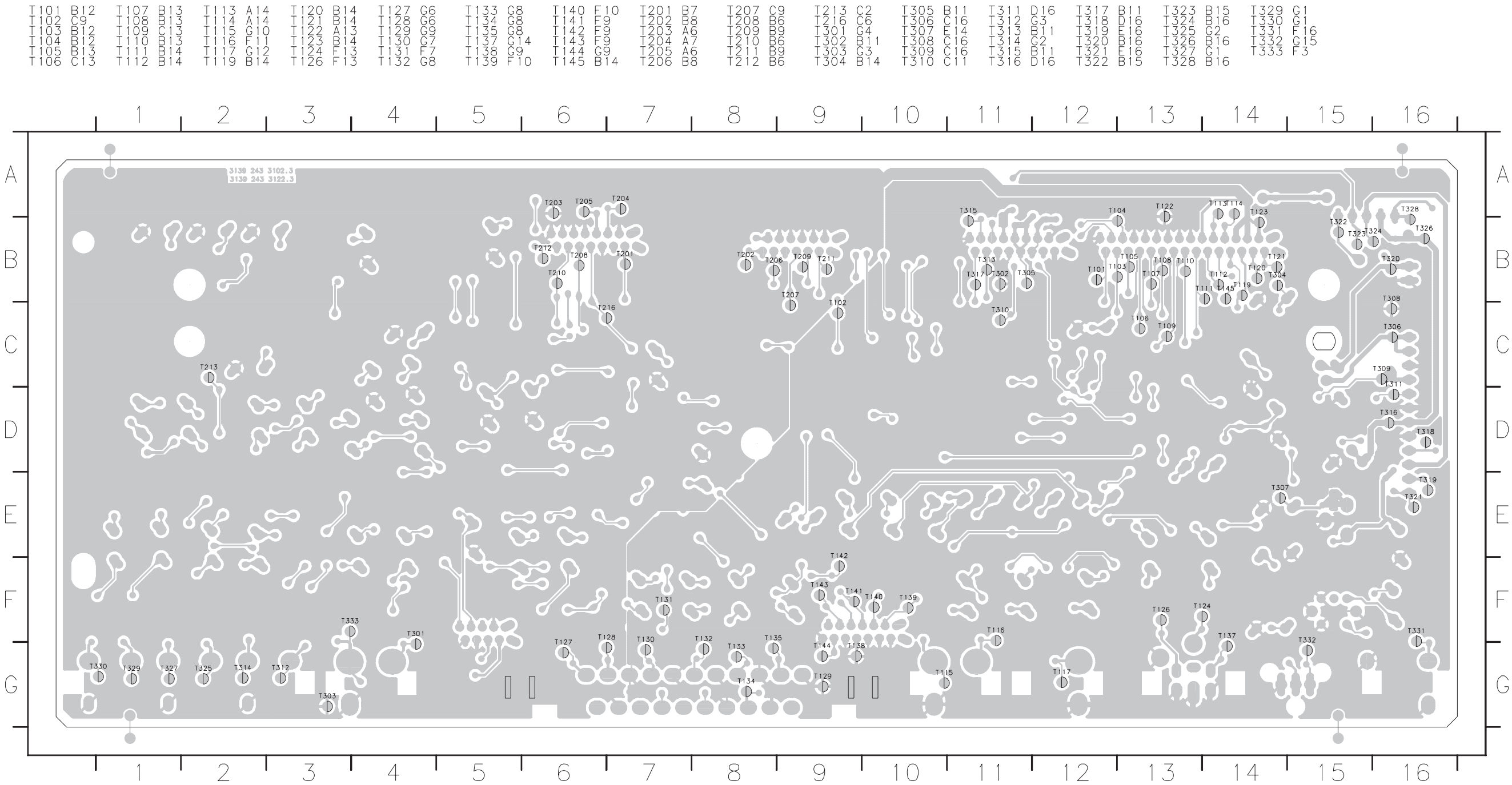
- | | | | |
|------------------|-------------------|--------------|----------------------------|
| 1xxx : Connector | 3xxx : Resistor | 5xxx : Coil | 7xxx : IC, Transistor, FET |
| 2xxx : Capacitor | 4xxx : SMD jumper | 6xxx : Diode | 9xxx : Wire jumper |



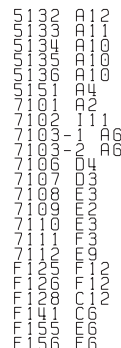
■ **PRINTED CIRCUIT BOARD**
FOR INFORMATION ONLY (NO SERVICE PARTS WILL BE AVAILABLE)

AV Board-Bottom View

The first digit of a component indicates the component type.
1xxx : Connector 3xxx : Resistor 5xxx : Coil 7xxx : IC, Transistor, FET
2xxx : Capacitor 4xxx : SMD jumper 6xxx : Diode 9xxx : Wire jumper



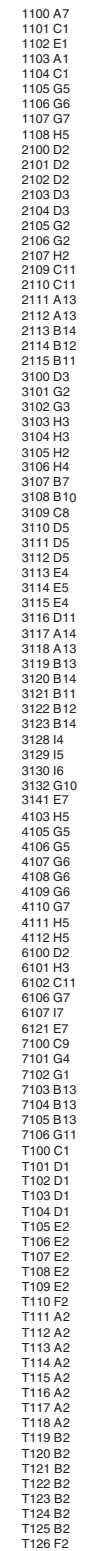
1xxx : Connector	3xxx : Resistor	5xxx : Coil	7xxx : IC, Transistor, FET
2xxx : Capacitor	4xxx : SMD jumper	6xxx : Diode	9xxx : Wire jumper



1xxx : Connector	3xxx : Resistor	5xxx : Coil	7xxx : IC, Transistor, FET
2xxx : Capacitor	4xxx : SMD jumper	6xxx : Diode	9xxx : Wire jumper

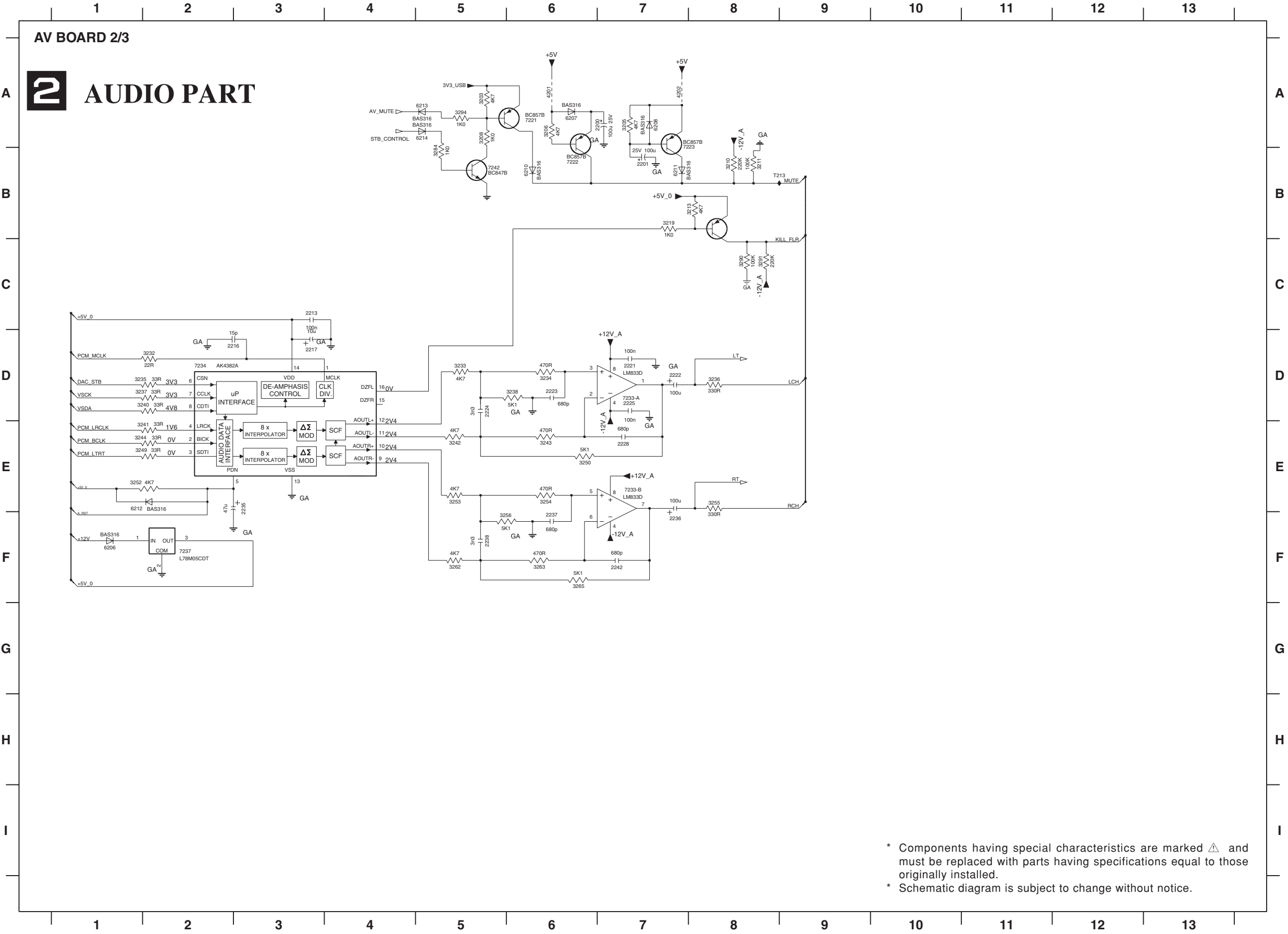


2xxx : Capacitor 4xxx : SMD jumper 6xxx : Diode 9xxx : Wire jumper



■ SCHEMATIC DIAGRAM
FOR INFORMATION ONLY (NO SERVICE PARTS WILL BE AVAILABLE)

The first digit of a component indicates the component type.
1xxx : Connector 3xxx : Resistor 5xxx : Coil 7xxx : IC, Transistor, FET
2xxx : Capacitor 4xxx : SMD jumper 6xxx : Diode 9xxx : Wire jumper

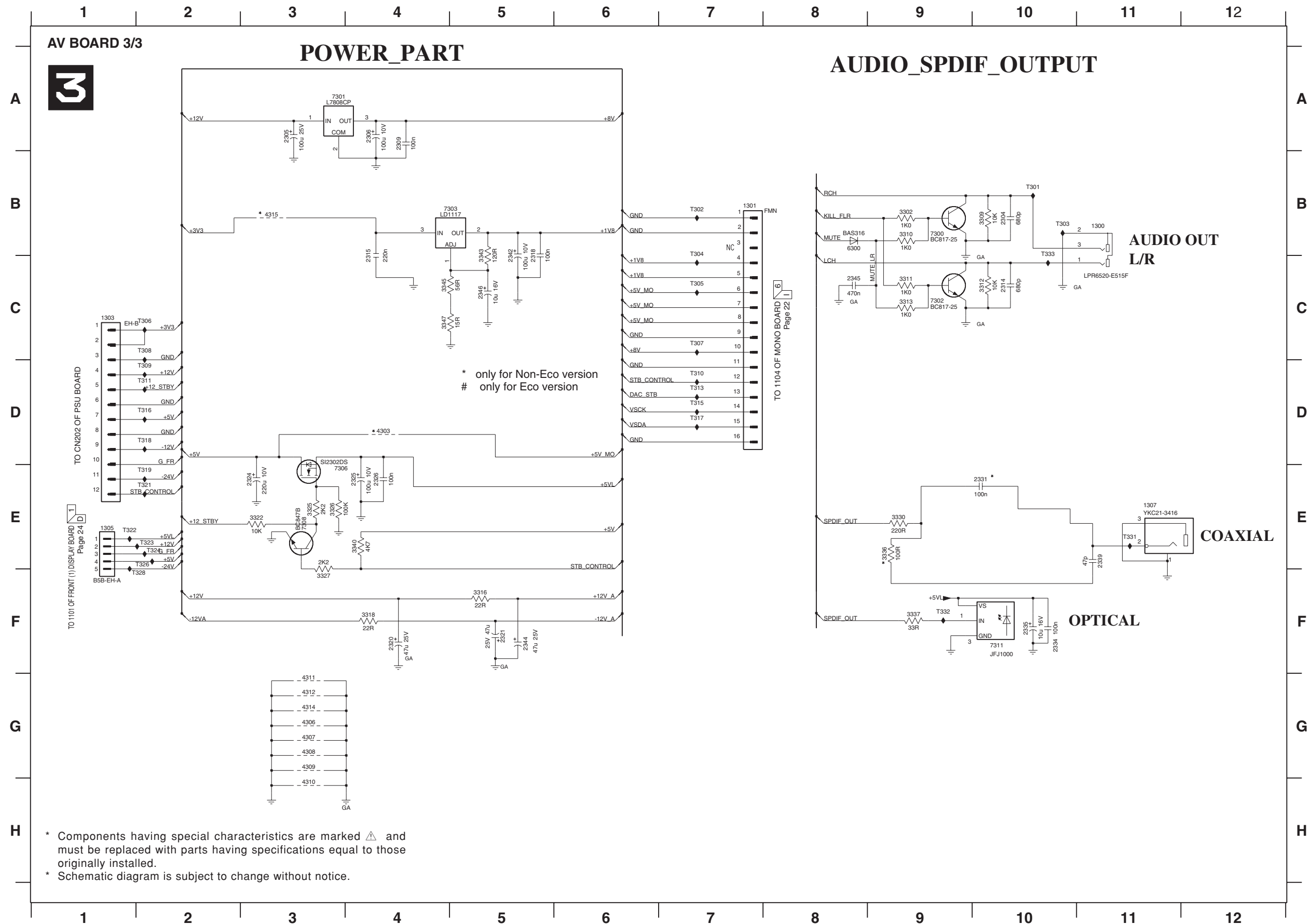


* Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
* Schematic diagram is subject to change without notice.

FOR INFORMATION ONLY (NO SERVICE PARTS WILL BE AVAILABLE)

The first digit of a component indicates the component type.

1xxx : Connector	3xxx : Resistor	5xxx : Coil	7xxx : IC, Transistor, FET
2xxx : Capacitor	4xxx : SMD jumper	6xxx : Diode	9xxx : Wire jumper



EXPLODED VIEW

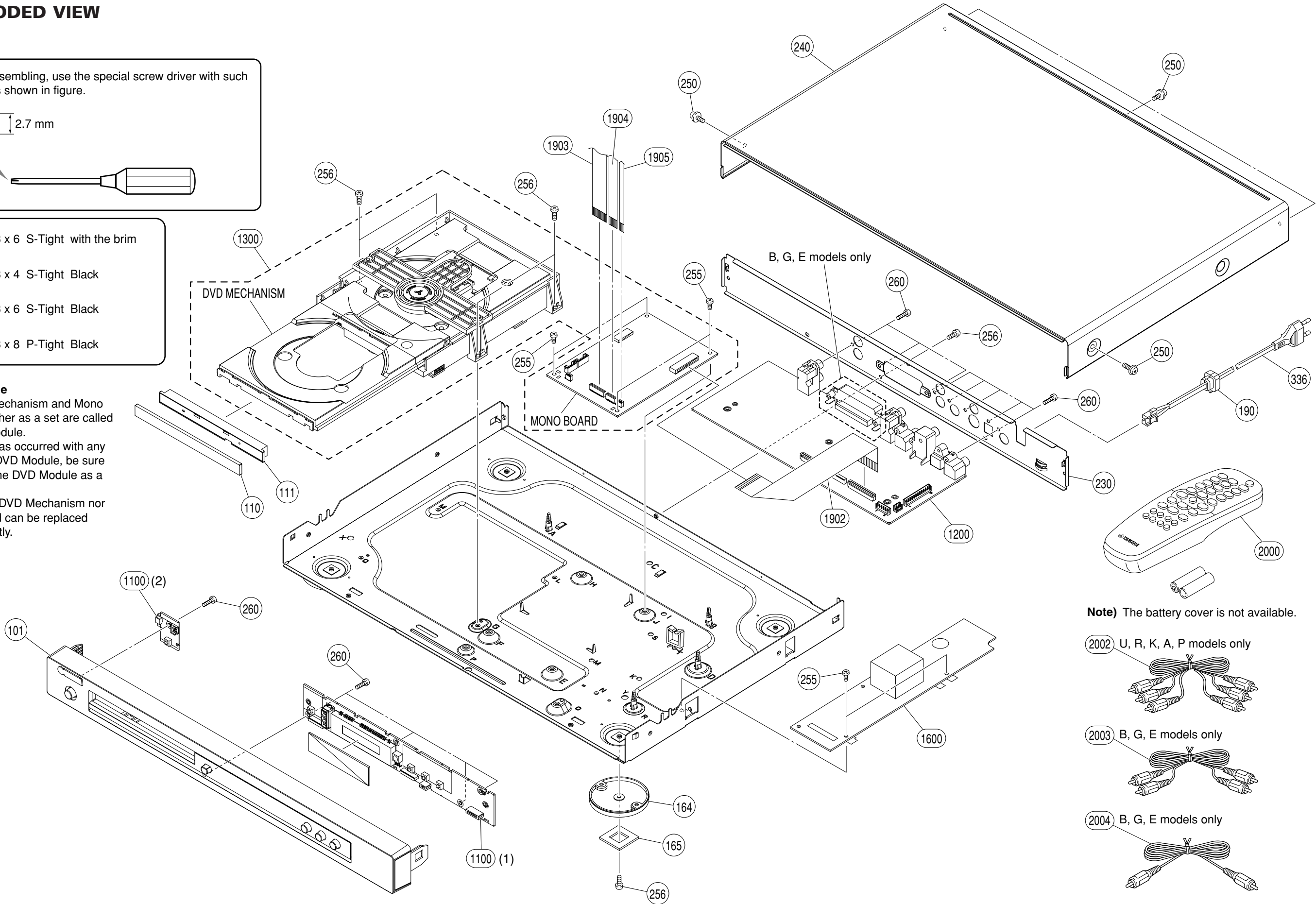
When disassembling, use the special screw driver with such tip shape as shown in figure.

T10 2.7 mm

- 250 3 x 6 S-Tight with the brim
- 255 3 x 4 S-Tight Black
- 256 3 x 6 S-Tight Black
- 260 3 x 8 P-Tight Black

DVD Module

- The DVD Mechanism and Mono Board together as a set are called the DVD Module.
- If a failure has occurred with any part of the DVD Module, be sure to replace the DVD Module as a whole.
- Neither the DVD Mechanism nor Mono Board can be replaced independently.



Note) The battery cover is not available.

2002 U, R, K, A, P models only

2003 B, G, E models only

2004 B, G, E models only

MECHANICAL PARTS

WARNING

- Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.

Ref. No.	PART NO.	Description	Remarks	Markets
* 101	AAX59610	FRONT PANEL ASS'Y	S550GD 3141 079 02931	RK
* 101	AAX59590	FRONT PANEL ASS'Y	S550BL 3141 079 02911	UABGEP
* 101	AAX59600	FRONT PANEL ASS'Y	S550TI 3141 079 02921	UGE
* 101		FRONT PANEL ASS'Y	S550SI	BGE
* 101	AAX59620	FRONT PANEL ASS'Y	S5750BL 3141 079 02941	U
* 101	AAX59630	FRONT PANEL ASS'Y	S5750SI 3141 079 02951	UA
* 110	AAX58300	TRAY COVER	3139 244 05121	
* 111	AAX58310	TRAY CATCH	3139 244 05131	
* 164	AAX59120	FOOT	GD 3139 244 05411	
* 164	AAX58460	FOOT	BL, TI, SI 3139 244 05111	
* 165	AAX58260	CUSHION	3139 243 10181	
190	AAX53540	BUSH	450H259010 3139 114 26671	
* 230	AAX59100	REAR PANEL	S550 3139 241 22152	UAP
* 230	AAX59110	REAR PANEL	S550 3139 241 22301	RK
* 230	AAX58440	REAR PANEL	S550 3139 241 22151	BGE
* 230	AAX59090	REAR PANEL	S5750 3139 241 22141	UA
* 240	AAX59020	TOP COVER	GD 3139 241 22391	
* 240	AAX58270	TOP COVER	BL 3139 241 22171	
* 240	AAX58290	TOP COVER	TI 3139 241 22191	
* 240	AAX58280	TOP COVER	SI 3139 241 22181	
250	AAX57730	PW HEAD TORX S-TIGHT SCREW	GD 3x6 MFN133 3103 301 45951	
250	AAX55450	PW HEAD TORX S-TIGHT SCREW	BL 3x6 MFZN2BL 3139 110 40611	
250	AAX53440	PW HEAD TORX S-TIGHT SCREW	TI, SI 3x6 MFN133 3104 120 40081	
255	AAX55930	PAN HEAD TORX S-TIGHT SCREW	3x4 MFZN2BL 3141 010 40591	
256	AAX23640	PAN HEAD TORX S-TIGHT SCREW	3x6 MFZN2BL 2511 077 00039	
260	AAX53520	PAN HEAD TORX P-TIGHT SCREW	3x8 MFZN2BL 2511 076 50012	
*  336	AAX47750	POWER CABLE	1.8m 2422 070 98235	U
 336	AAX53630	POWER CABLE	1.8m 2422 070 98231	RGEP
*  336	AAX59130	POWER CABLE	1.8m 2422 070 98222	K
*  336	AAX47740	POWER CABLE	1.8m 2422 070 98233	A
*  336	AAX58470	POWER CABLE	1.8m 3103 140 25882	B
* 1100	AAX58190	P.C.B. ASS'Y	FRONT 3139 248 83061	
* 1200	AAX59010	P.C.B. ASS'Y	A/V 3139 248 83151	URKAP
* 1200	AAX58170	P.C.B. ASS'Y	A/V 3139 248 83161	BGE
* 1300	AAX58160	DVD MODULE	MODULE SD6.1 PL 3139 117 10641	
* 1600	AAX58480	POWER SUPPLY UNIT	HE 2004 MIT 3139 248 72062	
* 1902	AAX58250	FLEXIBLE FLAT CABLE	30P 120mm P=1mm 3139 241 00541	
* 1903	AAX58220	FLEXIBLE FLAT CABLE	16P 220mm P=1mm 3139 111 02421	
* 1904	AAX58230	FLEXIBLE FLAT CABLE	9P 140mm P=1mm 3139 241 00521	
* 1905	AAX58240	FLEXIBLE FLAT CABLE	4P 400mm P=1mm 3139 241 00531	
ACCESSORIES				
* 2000	AAX58450	REMOTE CONTROL	3139 248 71873	
2002	AAX23450	AUDIO/VIDEO PIN CABLE	YE/RD/WH 1.5m 1pc 2422 076 00304	URKAP
2003	AAX21980	AUDIO PIN CABLE	RD/WH 1.5m 1pc 3103 308 92611	BGE
2004	AAX22970	VIDEO PIN CABLE	YE 1.5m 1pc 3104 108 45432	BGE
		BATTERY	UM-3 (2pcs)	

* New Parts

DVD-S550/DV-S5750

