HITACHI

SM003

32PD3000E
42PD3000E

SERVICE MANUAL
MANUEL D'ENTRETIEN
WARTUNGSHANDBUCH

CAUTION:
Before servicing this chassis, it is important that the service technician read the "Safety Precautions" and "Product Safety Notices" in this service manual.

ATTENTION:
Avant d'effectuer l'entretien du châassis, le technicien doit lire les «Précautions de sécurité» et les «Notices de sécurité du produit» présentés dans le présent manuel.

VORSICHT:
Vor Öffnen des Gehäuses hat der Service-Ingenieur die „Sicherheitshinweise" und „Hinweise zur Produktsicherheit" in diesem Wartungshandbuch zu lesen.

Data contained within this Service manual is subject to alteration for improvement.

Les données fournies dans le présent manuel d'entretien peuvent faire l'objet de modifications en vue de perfectionner le produit.

Die in diesem Wartungshandbuch enthaltenen Spezifikationen können sich zwecks Verbesserungen ändern.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

Plasma TV

October 2002

Safety

ENGLISH

SAFETY PRECAUTIONS

WARNING: The following precautions must be observed.

ALL PRODUCTS

Before any service is performed on the chassis an isolation transformer should be inserted between the power line and the product.

1. When replacing the chassis in the cabinet, ensure all the protective devices are put back in place.
2. When service is required, observe the original lead dressing. Extra precaution should be taken to ensure correct lead dressing in any high voltage circuitry area.
3. Many electrical and mechanical parts in HITACHI products have special safety related characteristics. These characteristics are often not evident from visual inspection, nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified by marking with a ! on the schematics and the replacement parts list. The use of a substitute replacement component that does not have the same safety characteristics as the HITACHI recommended replacement one, shown in the parts list, may create electrical shock, fire, X-radiation, or other hazards.
4. Always replace original spacers and maintain lead lengths. Furthermore, where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Insulation resistance should not be less than 2M ohms at 500V DC between the main poles and any accessible metal parts.
6. No flashover or breakdown should occur during the dielectric strength test, applying 3kV AC or 4.25kV DC for two seconds between the main poles and accessible metal parts.
7. Before returning a serviced product to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock. The service technician must make sure that no protective device built into the instrument by the manufacturer has become defective, or inadvertently damaged during servicing.

CE MARK

1. HITACHI products may contain the CE mark on the rating plate indicating that the product contains parts that have been specifically approved to provide electromagnetic compatibility to designated levels.
2. When replacing any part in this product, please use only the correct part itemised in the parts list to ensure this standard is maintained, and take care to replace lead dressing to its original state, as this can have a bearing on the electromagnetic radiation/immunity.

PICTURE TUBE

1. The line output stage can develop voltages in excess of 25kV; if the E.H.T. cap is required to be removed, discharge the anode to chassis via a high value resistor, prior to its removal from the picture tube.
2. High voltage should always be kept at the rated value of the chassis and no higher. Operating at higher voltages may cause a failure of the picture tube or high voltage supply, and also, under certain circumstances could produce X-radiation levels moderately in excess of design levels. The high voltage must not, under any circumstances, exceed 29kV on the chassis (except for projection Televisions).
3. The primary source of X-radiation in the product is the picture tube. The picture tube utilised for the above mentioned function in this chassis is specially constructed to limit X-radiation. For continued X-radiation protection, replace tube with the same type as the original HITACHI approved type
4. Keep the picture tube away from the body while handling. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while picture tubes are handled

LASERS

If the product contains a laser avoid direct exposure to the beam when the cover is open or when interlocks are defeated or have failed.

FRANÇAIS

CONSIGNES DE SECURITE

AVERTISSEMENT: vous devez respecter les précautions suivantes

POUR TOUS LES PRODUITS Avant d'effectuer une intervention d'entretien sur le châssis, vous devez insérer un transformateur d'isolement entre la ligne d'alimentation électrique et le produit.

1. Lors de la remontage du châssis dans le coffret, vérifiez que tous les dispositifs de protection sont remis en place.
2. Lorsqu'une intervention d'entretien s'avère nécessaire, respectez l'agencement d'origine des conducteurs. Vous devez prendre des precautions supplémentaires pour garantir un agencement correct des conducteurs dans toutes les zones où des circuits haute tension sont présents.
3. De nombreux composants électriques et mécaniques des appareils HITACHI ont des caractéristiques spéciales de sécurité. Bien souvent, ces caractéristiques ne sont pas évidentes lors d'un examen visuel et la protection qu'ils offrent n'est pas forcément garantie si vous utilisez des composants de rechange conçus, par exemple, pour une tension plus élevée, une puissance plus forte. Les pièces de rechange qui offrent des caractéristiques spéciales de sécurité sont identifiées par un repérage comportant le symbole ! sur les schémas et sur la nomenclature des pièces de rechange. L'emploi d'un composant de rechange qui ne respecte pas les mêmes caractéristiques de sécurité que la pièce de rechange que recommande HITACHI et qui figure dans la nomenclature risque de provoquer un choc électrique, un incendie, des rayons X ou d'autres dangers.
4. Remettez toujours en place les entretoises d'origine et respectez la longueur des conduites. En outre, à la suite d'un court-circuit, remplacez les composants présentant des signes de surchauffe.
5. La résistance d'isolement doit être supérieure ou égale à 2 méga ohms à 500 V c.c. entre les poles principaux et des composants métalliques accessibles, quels qu'ils soient.
6. Aucun claquage et aucune rupture ne doit se produire pendant l'essai de résistance diélectrique à la suite de l'application d'une tension de 3 kV c.a. ou de 4,35 kV c.c. pendant deux secondes entre les poles principaux et des composants métalliques accessibles.
7. Avant de remettre au client un produit qui a fait l'objet d'un entretien, le technicien qui s'est chargé de cette intervention doit tester à fond cet ensemble pour s'assurer qu'il ne présente aucun danger opérationnel et aucun risque de choc électrique. Ce technicien doit s'assurer qu'aucun des dispositifs de protection intégrés à cet instrument par le fabricantn'est défectueux ou n'a été endommagé de façon accidentelle lors de l'entretien. suivantes

LABEL CE

1. Les produits HITACHI peuvent avoir reçu le label CE qui figure sur la plaque signalétique pour indiquer que cet ensemble contient des composants qui ont fait l'objet d'une homologation spécifique de respect des normes de compatibilité électromagnétique en fonction de niveaux bien spécifiés.
2. Lors du remplacement d'un des composants de ce produit, utilisez uniquement le composant correct identifié dans la nomenclature afin de maintenir le respect de cette norme ; en outre, vous devez également ramener l'agencement des conducteurs à son état d'origine car cela peut avoir une influence au niveau des rayonnements électromagnétiques et sur la protection contre ces rayons.

PICTURE TUBE

1. L'étage de sortie des lignes peut développer des tensions de plus de 25 kV ; s'il faut retirer le chapeau de protection contre les tensions extrêmement élevées, il convient de décharger l'anode contre le châssis par le biais d'une résistance de forte valeur avant de déposer ce chapeau du tube image.
2. La haute tension doit toujours se maintenir à la valeur nominale du châssis et ne pas dépasser cette dernière. Un fonctionnement à des températures élevées peut provoquer une défaillance du tube image ou l'entrée d'une tension élevée. Dans certains cas, cela peut même provoquer des rayons X d'un niveau légèrement supérieur aux valeurs de calcul. Cette haute tension ne doit en aucun cas dépasser 29 kV sur le châssis (à l'exception des téléviseurs de projection).
3. La principale source de rayons X de cet appareil est le tube image. Le tube image employé pour assurer la fonction susmentionnée dans ce châssis est spécialement construit pour limiter des rayons X. Pour maintenir cette protection contre les rayons X, il faut remplacer le tube d'origine d'un type agréé par HITACHI par un autre tube de même type.
4. Lors des manipulations, ne tenez jamais le tube image contre le corps. Pendant toutes les operations d'installation, de dépose et de manipulation de ce tube image, quelle que soit la méthode employée, vous devez toujours porter des lunettes de sécurité anti-éclatements. Les personnes qui ne portent pas ce type de lunettes doivent se tenir à l'écart du tube image lors de la manipulation de ce dernier.

RAYONS LASER

Si ce produit contient un rayon laser, évitez toute exposition directe à ce faisceau lors de l'ouverture du couvercle ou lors de l'élimination des verrouillages de sécurité ou après défaillance de ces verrouillages.

DEUTSCH

SICHERHEITSVORKEHRUNGEN

WARNUNG: Die folgenden Vorkehrungen müssen eingehalten werden.

ALLE PRODUKTE Bevor die Grundplatte gewartet wird, sollte ein Trenntrafo zwischen die Netzleitung und das Produkt eingebracht werden.

1. Wenn die Grundplatte in das Gehäuse zurückgestellt wird, stellen Sie sicher, dass alle Schutzvorrichtungen wieder an ihrem Ort sind.
2. Wenn Wartung erforderlich ist, halten Sie die originale Verdrahtungsart ein. Besondere Vorsicht ist nötig, um die korrekte Verdrahtungsart in jedem Hochspannungsstromkreis zu gewährleisten.
3. Viele elektrische und mechanische Teile von HITACHI Produkten haben besondere sicherheitsbezogene Eigenschaften. Diese Eigenschaften fallen oft nicht ins Auge, aber der durch sie gewährte Schutz kann nicht unbedingt erreicht werden, wenn man Ersatzteile benutzt, die für höhere Spannung, Leistung usw. ausgelegt sind. Ersatzteile, die diese besonderen Sicherheitsmerkmale haben, sind in den Prinzipskizzen und Ersatzteillisten an einem ! zu erkennen. Der Gebrauch von Ersatzteilen, die nicht dieselben Sicherheitsmerkmale haben wie die empfohlenen HITACHI Ersatzteile, wie sie in der Ersatzteilliste aufgeführt sind, kann zu elektrischem Schlag, Feuer, Röntgenstrahlung und anderen Gefahren führen.
4. Immer die originalen Abstandsstücke ersetzen und die Leitungslängen beibehalten. Wo ein Kurzschluss passiert ist, die Teile ersetzen, bei denen Überhitzung nachzuweisen ist.
5. Der Isolierwert sollte bei 500 V Gleichstrom zwischen den Hauptpolen und allen zugänglichen Metallteilen nicht unter 2M Ohm liegen.
6. Bei der Prüfung auf Durchschlagsfestigkeit sollte kein Überschlag oder Durchschlag vorkommen, wenn zwei Sekunden lang 3 kV Wechselstrom oder 4,25 kV Gleichstrom zwischen den Hauptpolen und allen zugänglichen Metallteilen angelegt wird.
7. Bevor das gewartete Produkt dem Kunden zurückgegeben wird, muss der Wartungstechniker das Gerät gründlich prüfen, um sicherzustellen, dass es betriebssicher ist ohne das Risiko eines elektrischen Schlages. Der Wartungstechniker muss sicherstellen, dass keine vom Hersteller im Gerät eingebaute Schutzvorkehrung schadhaft geworden ist oder bei der Wartung unabsichtlich beschädigt wurde.

CE KENNZEICHEN

1. HITACHI Produkte enthalten eventuell das CE Kennzeichen auf dem Leistungsschild, welches angibt, dass das Produkt Teile enthält, die eigens zugelassen sind, um bis zu einem spezifizierten Niveau elektromagnetische Störfreiheit zu bewirken.
2. Wenn Sie irgendein Teil in diesem Produkt ersetzen, benutzen Sie bitte nur das korrekte Teil, das in der Ersatzteilliste aufgeführt ist, um sicherzustell en, dass dieser Standard eingehalten wird, und geben Sie acht, die Verdrahtungsart in ihren ursprünglichen Zustand zurück zu versetzen, weil das einen Einfluss auf die elektromagnetische Abstrahlung/Störsicherheit haben kann.

BILDRÖHRE

1. Die Leitungsausgangsstufe kann Spannungen von mehr als 25 kV entwickeln; wenn die Höchstspannungskappe entfernt werden muss, entladen Sie die Anode zum Gehäuse über einen hochohmigen Widerstand, bevor Sie sie aus der Bildröhre entfernen.
2. Hochspannung sollte immer auf den festgelegten Wert des Gehäuses beschränkt bleiben und nicht mehr. Betrieb bei höherer Spannung kann zum Versagen der Bildröhre oder zu hoher Spannungszufuhr führen und kann unter Umständen auch Röntgenstrahlung hervorbringen, die leicht über dem Konstruktionsniveau liegt. Die Hochspannung darf auf keinen Fall 29 kV am Gehäuse überschreiten (außer bei Projektionsfernsehern).
3. Die Hauptquelle der Röntgenstrahlung im Produkt ist die Bildröhre. Die Bildröhre, die für die oben erwähnte Funktion in diesem Gehäuse benutzt wird, ist eine Spezialkonstruktion zur Begrenzung der Röntgenstrahlung. Um den Schutz vor der Röntgenstrahlung zu behalten, ersetzen Sie bitte die Röhre durch denselben Typ wie den ursprünglichen von HITACHI zugelassenen.
8. Halten Sie die Bildröhre bei der Handhabung vom Körper weg. Sie dürfen die Bildröhre nur dann installieren, entfernen oder handhaben, wenn Sie eine nicht splitternde Schutzbrille tragen. Personen ohne
derartigen Schutz sollten ferngehalten werden, solange Bildröhren gehandhabt werden.

LASER

Wenn das Produkt einen Laser enthält, setzen Sie sich keinesfalls direkt dem Strahl aus, wenn die Abdeckung geöffnet ist oder wenn die Verriegelung versagt.

Contents

Lead Free Solder

This product uses lead free (unleaded) solder to help preserve the environment. Please read these instructions before attempting any soldering work.

Caution: Always wear safety glasses to prevent fumes or molten solder from getting into the eyes. Lead free solder can splatter at high temperatures (600 °C).

- **Lead free solder indicator**
  Printed circuit board Assemblies using lead free solder shown below are engraved with an "F" following Board Name.
- **Properties of lead free solder**
  The melting point of lead free solder is 40-50 °C higher than one of leaded solder.
- **When servicing solder**
  - Solder with an alloy composition of Sn-3.0Ag-0.5Cu or Sn-0.7Cu is recommended.
  - Although servicing with leaded solder is possible, there are a few precautions that have to be taken.(Not taking these precautions may cause the solder not to harden properly and lead to consequent malfunctions.)
- **Precautions when using leaded solder**
  - Remove all lead free solder from soldered joints when replacing components.
  - If leaded solder should be added to existing lead free joints, mix in the leaded solder thoroughly after the lead free solder has been completely melted (do not apply the soldering iron without adding solder).

When servicing soldering iron

A soldering iron with a temperature setting capability (temperature control function)is recommended.
The melting point of lead free solder is higher than one of leaded solder. Use a soldering iron that maintains a high stable temperature (large heat capacity),and that allows temperature adjustment according to the part being serviced, to avoid poor servicing performance.

Recommended soldering iron:

Soldering iron with temperature control function (temperature range:320-450 °C)

Recommended temperature range per part:

Soldering Part	Soldering iron temperature
PCB with surface mount devices	320 °C ±30 °C
PCB without surface mount devices	380 °C ±30 °C
Chassis, metallic shield, etc.	420 °C ±30 °C

PCBs which use lead free solder

- FC4PDP board (AVC block)
- SIGNAL/SOUND board (MONITOR block)
- SP terminal L/R board, FILTER board, LED board (MONITOR block)

Specifications

General Specifications

Item	Spec	
	32PD3000 (PDP;32PD3000E+AVC;AV3000E)	**42PD3000 (PDP;42PD3000E+AVC;AV3000E)**
PDP panel	32" (ALSI for mat) Plasma display panel (16:9) , resolution 852(H) x1024(V)	42" (ALSI for mat) Plasma display panel (16:9) , resolution 1024(H) x1024(V)
Display size	976(W) x 258(D) x 580(H) unit: mm	1233(W) x 300(D) x 713(H) unit: mm
Sound output level	Max. 10W x 2 (6 ohm)	Max. 12W x 2 (6 ohm)
Speaker	4 x 16 cm corn type x 2	???
Power supply	AC 220 - 240 V 50Hz	AC 220 - 240 V 50Hz
Power consumption	PDP 260W (stand-by <2W) AVC 30W, (stand-by <2W)	PDP 360W (stand-by <2W) AVC 30W, (stand-by <2W)
Colour system	PAL/SECAM/NTSC4.43/NTSC3.58/PAL60	PAL/SECAM/NTSC4.43/NTSC3.58/PAL60
Sound system	I/B.G.H/LL'	I/B.G.H/LL'
Tuning freq.	45MHz ~ 889MHz, VHF low/VHF high/Hyper/UHF	45MHz ~ 889MHz, VHF low/VHF high/Hyper/UHF
Position selection	100 (0~99) positions. Plus channel direct (C--/S--) and frequency direct (---.--MHz)	100 (0~99) positions. Plus channel direct (C--/S--) and frequency direct (---.--MHz)
PC input signal	Horizontal freq. 24KHz ~ 109KHz / Vertical freq. 50Hz ~ 85Hz	Horizontal freq. 24KHz ~ 109KHz / Vertical freq. 50Hz ~ 85Hz
	Analogue RGB, input voltage 0.7Vpp/1.0Vpp selectable	Analogue RGB, input voltage 0.7Vpp/1.0Vpp selectable
	H/V separate sync (TTL level) *** sound input ; common with AV3 or AV4	H/V separate sync (TTL level) *** sound input ; common with AV3 or AV4
AV input	SCART101 (CVBS/SVHS/LR sound) - AV1	SCART101 (CVBS/SVHS/LR sound) - AV1
	SCART102 (CVBS/RGB/LR sound) - AV2	SCART102 (CVBS/RGB/LR sound) - AV2
	SCART100 (CVBS/RGB/LR sound) - AV3	SCART100 (CVBS/RGB/LR sound) - AV3
	COMPONENT (YPbPr/YCbCr/LR sound) - AV4	COMPONENT (YPbPr/YCbCr/LR sound) - AV4
	Front AV (CVBS/SVHS/LR sound) - FRONT	Front AV (CVBS/SVHS/LR sound) - FRONT
	CENTRE AUDIO input	CENTRE AUDIO input
Dimensions	PDP : 974(W) x 256(D) x 578(H) including monitor stand unit: mm	PDP : 1030(W) x ??(D) x 636(H) including monitor stand unit: mm
	AVC : 430(W) x 293(D) x 121(H) unit: mm	AVC : 430(W) x 293(D) x 121(H) unit: mm
Weight	PDP : 28.7kg (net)	PDP : 40.2kg (net)
	AVC : 3.2kg (net)	AVC : 3.2kg (net)
Remote control batteries	2 x Hitachi R6P(G) * equivalent 'AA'	2 x Hitachi R6P(G) * equivalent 'AA'

Features ;

852x1024 resolution,	Created by 32" ALIS Plasma display panel
1024x1024 resolution,	Created by 37/42" ALIS Plasma display panel
Advanced progressive & 1024 interlace,	Which materializes detailed picture without flicker
TruBass by SRS,	Which gives real bass sound
Thin (9cm) and light,	By separating monitor from tuner box (AVC). It is possible to hang monitor on the wall.
Swivel stand attached monitor,	Which is possible to swivel at 30deg toward left and right.
3 Scarts connectors plus front AV input,	Which can be connected with DVD, Set Top Box, VCR and Camera at the same time.
1 Component input,	Which allows YPbPr and PCbCr to be received. Signal is automatically identified.
PC input connection,	Supporting various PC display format.

Service Data

Soft version			issue 1			New panel		01-Nov-02	V1.A4		
	back ground CYAN means to separate data on each 32/37/42"							RED figures are new default values			
1st	**2nd**	**3rd**	**4th**	**5th**	**32" values hex**	**37" values hex**	**42" values hex**	**functions**	**Device**		
SVC>	**TUN>**	**ADC**			**read**	**read**	**read**	AGC data			
		OPT			**80**	**80**	**80**	option for destination			
		AGC			**adj**	**adj**	**adj**	AGC adjustment			
		BIF			**adj**	**adj**	**adj**	AFC adjustment for all except L'			
		LIF			**adj**	**adj**	**adj**	AFC adjustment for L'			
		AFC			**read**	**read**	**read**	AFC level indication			
	PC>	**PC1>**	**GSW**		**01**	**01**	**01**	gamma switch	PDP	10	D3:D2
			BLP		**7F**	**7F**	**7F**	Black Level (RGB);user brightness control for PC	FC4	5	D07:D00
			COP		**7F**	**7F**	**7F**	Contrast (RGB)	FC4	6	D07:D00
		PC2>	**MBC**		**7F**	**7F**	**7F**	main brightness centre	FC4	7	D15:D08
			MCC		**5D**	**5D**	**5D**	main contrast centre	FC4	7	D07:D00
			MXB		**6C**	**6C**	**6C**	brightness Max. for wide NORMAL/REAL	FC4	7	D15:D08
			BGP		**00**	**00**	**00**	Brightness/Gradation	PDP	27&28	D2&D2
			CCP		**00**	**00**	**00**	NTSC/EBU	PDP	27&28	D1&D1
			DCP		**01**	**01**	**01**	Tracking correction	PDP	27&28	D0&D0
		PC3>	**PSE**		**01**	**01**	**01**	PC power save enable/disable	FC4	4	D08
			PST		**0F**	**0F**	**0F**	power save timer			
	SIG>	**FLA**			**OK**	**OK**	**OK**	**CAUTION !! Never press OK unless proper signal is displayed.** auto signal level adjustment activates.			
		MAX			**read**	**read**	**read**	MAX signal level on screen			
		MIN			**read**	**read**	**read**	min. signal level on screen			
		SNR			**read**	**read**	**read**	FC noise level indication			
	MIS>	**RGB >**	**COL>**	**R1**	**read**	**read**	**read**	Gain R ; warm	PDP Read/Write	13/20	1st D7:D0 / D7:D0
				G1	**read**	**read**	**read**	Gain G ; warm	PDP Read/Write	13/21	2nd D7:D0 / D7:D0
				B1	**read**	**read**	**read**	Gain B ; warm	PDP Read/Write	13/22	3rd D7:D0 / D7:D0
			NOM>	**R2**	**read**	**read**	**read**	Gain R ; normal	PDP Read/Write	12/17	1st D7:D0 / D7:D0
				G2	**read**	**read**	**read**	Gain G ; normal	PDP Read/Write	12/18	2nd D7:D0 / D7:D0
				B2	**read**	**read**	**read**	Gain B ; normal	PDP Read/Write	12/19	3rd D7:D0 / D7:D0
			WAM>	**R3**	**read**	**read**	**read**	Gain R ; cool	PDP Read/Write	11/14	1st D7:D0 / D7:D0
				G3	**read**	**read**	**read**	Gain G ; cool	PDP Read/Write	11/15	2nd D7:D0 / D7:D0
				B3	**read**	**read**	**read**	Gain B ; cool	PDP Read/Write	11/16	3rd D7:D0 / D7:D0
			GSW		**01**	**01**	**01**	gamma switch	PDP	10	D3:D2
			WHB		**00**	**00**	**00**	white balance 0;cool, 1;normal, 2;warm --- synchronizing with user operation MENU	PDP	9	D3:D2&D1:D0
			HAPC		**01**	**01**	**01**	Q.MODE + Heat APC	PDP	28	D4:D3
			BRN		**01**	**01**	**01**	burn in mode	PDP	10	D5:D4

1st	2nd	3rd	4th	5th	32" values hex	37" values hex	42" values hex	functions	Device		
			APC		**00**	**00**	**00**	APC switch 0;High APC, 1;Normal	PDP	10	D7
		MI0>	**M01>**	**F01(4:3)**	**01**	**01**	**01**	wide mode selected by 16:9 key (0;on, 1;off)	4:3		
				F02(16:9)	**00**	**00**	**00**	wide mode selected by 16:9 key (0;on, 1;off)	WIDE SCREEN		
				F03(C16:9L)	**00**	**00**	**00**	wide mode selected by 16:9 key (0;on, 1;off)	LETTERBOX		
*** MAX 8 items on one page.				**F04(T16:9L)**	**01**	**01**	**01**	wide mode selected by 16:9 key (0;on, 1;off)	T16:9L		
				F05(14:9)	**01**	**01**	**01**	wide mode selected by 16:9 key (0;on, 1;off)	14:9		
			M02>	**F06(C14:9L)**	**00**	**00**	**00**	wide mode selected by 16:9 key (0;on, 1;off)	C14:9L		
				F07(T14:9L)	**01**	**01**	**01**	wide mode selected by 16:9 key (0;on, 1;off)	T14:9L		
				F08(PAN)	**01**	**01**	**01**	wide mode selected by 16:9 key (0;on, 1;off)	PANORAMIC		
				F09(14:9LS)	**00**	**00**	**00**	wide mode selected by 16:9 key (0;on, 1;off)	14:9 ZOOM		
				PCA	**02**	**02**	**02**	PC wide mode 0;NORMAL, 1;REAL, 2;FULL	FC4	3	D17:D16
		*** LTI ***	**M03>**	**HE1**	**02**	**02**	**02**	Horizontal enhancer DYNAMIC	FC4	2	D20:D19
		picture mode		**HE2**	**03**	**03**	**03**	Horizontal enhancer DYNAMIC-VIDEO	FC4	2	D20:D19
				HE3	**00**	**00**	**00**	Horizontal enhancer NATURAL	FC4	2	D20:D19
				HE4	**00**	**00**	**00**	Horizontal enhancer NATURAL-VIDEO	FC4	2	D20:D19
				HE5	**01**	**01**	**01**	Horizontal enhancer CINEMA	FC4	2	D20:D19
				HE6	**02**	**02**	**02**	Horizontal enhancer CINEMA-VIDEO	FC4	2	D20:D19
				HET	**00**	**00**	**00**	**Horizontal enhancer TEXT**	FC4	2	D20:D19
		*** LTI ***	**M04**	**VE1**	**03**	**03**	**03**	Vertical enhancer DYNAMIC	FC4	2	D22:D21
		picture mode		**VE2**	**03**	**03**	**03**	Vertical enhancer DYNAMIC-VIDEO	FC4	2	D22:D21
				VE3	**03**	**03**	**03**	Vertical enhancer NATURAL	FC4	2	D22:D21
				VE4	**03**	**03**	**03**	Vertical enhancer NATURAL-VIDEO	FC4	2	D22:D21
				VE5	**03**	**03**	**03**	Vertical enhancer CINEMA	FC4	2	D22:D21
				VE6	**03**	**03**	**03**	Vertical enhancer CINEMA-VIDEO	FC4	2	D20:D19
				VET	**00**	**00**	**00**	**Vertical enhancer TEXT**	FC4	2	D22:D21
			M05>	**BGT**	**00**	**00**	**00**	Brightness/Gradation	PDP	27&28	D2&D2
				CCT	**00**	**00**	**00**	NTSC/EBU	PDP	27&28	D1&D1
				TCR	**01**	**01**	**01**	Tracking correction W/B Warm & Norm	PDP	27&28	D0&D0
				DCC	**00**	**00**	**00**	Tracking correction W/B Cool	PDP	27&28	D0&D0
				WBC	**00**	**00**	**00**				
				BSO	**1F**	**1F**	**1F**	Black Stretch gain offset ON&MID	FC4	7	D21:D16
		*** "PDP2_service05" no.52		**SPC**	**00**	**00**	**00**	PinP(PC W) picture contrast offset	FC4	7	D07:D00
			M06>	**PHC**	**80**	**80**	**80**	Colour phase centre	FC4	8	D07:D00
				PHU	**1A**	**1A**	**1A**	PAL HUE offset (not available if AV2 is RGB)	FC4	8	D07:D00
				NHU	**20**	**20**	**20**	NTSC HUE offset	FC4	8	D07:D00
				YU6	**1D**	**1D**	**1D**	YCbCr / YPbPr @ 60Hz HUE offset	FC4	8	D07:D00

1st	2nd	3rd	4th	5th	32" values hex	37" values hex	42" values hex	functions	Device		
				YU5	**1A**	**1A**	**1A**	YCbCr / YPbPr @ 50Hz HUE offset	FC4	8	D07:D00
				THU	**1F**	**1F**	**1F**	TEXT HUE offset	FC4	8	D07:D00
				YHU	**1F**	**1F**	**1F**	Components Hue for Asian option	FC4	8	D07:D00
				FPB	**00**	**00**	**00**	FAVOURITE Peak Brightness 0;Peak, 1:Normal	PDP	10	D6
		MI1>	**M11>**	**BLT**	**7F**	**7F**	**7F**	Black level (RGB)	FC4	5	D07:D00
				MBC	**80**	**80**	**80**	main brightness centre : (50) is used in AUTO adjustment	FC4	7	D15:D08
				MBX	**80**	**80**	**80**	brightness centre TEXT	FC4	7	D15:D08
				COT	**7F**	**7F**	**7F**	Contrast (RGB)	FC4	6	D07:D00
				MCC	**89**	**89**	**89**	main contrast centre	FC4	7	D07:D00
				MCX	**70**	**70**	**70**	contrast centre TEXT	FC4	7	D07:D00
				SAC	**40**	**40**	**40**	Saturation centre NTSC/PAL/RGB/YCbCr TV	FC4	8	D14:D08
				SAX	**50**	**50**	**50**	Saturation centre TEXT	FC4	8	D14:D08
		*** CTI ***	**M12>**	**CE1**	**1F**	**1F**	**1F**	C-Vert/Horiz enhancer gain DYNAMIC-TV	FC4	2	D12:D08
		picture mode		**CE2**	**10**	**10**	**10**	C-Vert/Horiz enhancer gain DYNAMIC-VIDEO	FC4	2	D12:D08
				CE3	**1F**	**1F**	**1F**	C-Vert/Horiz enhancer gain NATURAL-TV	FC4	2	D12:D08
				CE4	**10**	**10**	**10**	C-Vert/Horiz enhancer gain NATURAL-VIDEO	FC4	2	D12:D08
				CE5	**1F**	**1F**	**1F**	C-Vert/Horiz enhancer gain CINEMA-TV	FC4	2	D12:D08
				CE6	**10**	**10**	**10**	C-Vert/Horiz enhancer gain CINEMA-VIDEO	FC4	2	D12:D08
				CET	**10**	**10**	**10**	C-Vert/Horiz enhancer gain TEXT	FC4	2	D12:D08
				YET	**00**	**00**	**00**	**sharpness centre - TEXT**	FC4	2	D04:D00
			M13>	**YE1**	**1F**	**1F**	**1F**	sharpness DYNAMIC-TV	FC4	2	D04:D00
				YE2	**12**	**12**	**12**	sharpness DYNAMICT-VIDEO	FC4	2	D04:D00
				YE3	**12**	**12**	**12**	sharpness NATURAL-TV	FC4	2	D04:D00
				YE4	**12**	**12**	**12**	sharpness NATURAL-VIDEO	FC4	2	D04:D00
				YE5	**12**	**12**	**12**	sharpness CINEMA-TV	FC4	2	D04:D00
				YE6	**12**	**12**	**12**	sharpness CINEMA-VIDEO	FC4	2	D04:D00
				YE7	**12**	**12**	**12**	sharpness centre-FAVOURITE-TV	FC4	2	D04:D00
				YE8	**12**	**12**	**12**	sharpness centre-FAVOURITE-VIDEO	FC4	2	D04:D00
		*** YNR ***	**M14>**	**YI1**	**01**	**01**	**01**	YNR input gain DYNAMIC	FC4	2	D07:D05
		picture mode		**YI2**	**01**	**01**	**01**	YNR input gain DYNAMIC-VIDEO	FC4	2	D07:D05
				YI3	**01**	**01**	**01**	YNR input gain NATURAL	FC4	2	D07:D05
				YI4	**01**	**01**	**01**	YNR input gain NATURAL-VIDEO	FC4	2	D07:D05
				YI5	**01**	**01**	**01**	YNR input gain CINEMA	FC4	2	D07:D05
				YI6	**01**	**01**	**01**	YNR input gain CINEMA-VIDEO	FC4	2	D07:D05
				YIT	**01**	**01**	**01**	**YNR input gain TEXT**	FC4	2	D07:D05
		*** CNR ***	**M15>**	**CI1**	**00**	**00**	**00**	CNR input gain DYNAMIC	FC4	2	D15:D13
		picture mode		**CI2**	**00**	**00**	**00**	CNR input gain DYNAMIC-VIDEO	FC4	2	D15:D13
				CI3	**00**	**00**	**00**	CNR input gain NATURAL	FC4	2	D15:D13
				CI4	**00**	**00**	**00**	CNR input gain NATURAL-VIDEO	FC4	2	D15:D13
				CI5	**00**	**00**	**00**	CNR input gain CINEMA	FC4	2	D15:D13

1st	2nd	3rd	4th	5th	32" values hex	37" values hex	42" values hex	functions	Device		
				CI6	**00**	**00**	**00**	CNR input gain CINEMA-VIDEO	FC4	2	D15:D13
				CIT	**00**	**00**	**00**	**CNR input gain TEXT**	FC4	2	D15:D13
			M16	**OSH**	**109**	**109**	**109**	H position - OSD			
				OSV	**40**	**40**	**40**	V position - OSD			
				OTH	**190**	**190**	**190**	H position - TEXT			
				OTV	**40**	**40**	**40**	V position - TEXT			
				SUR	**00**	**00**	**00**	SURROUND ON:1, OFF:0			
				CMB	**01**	**01**	**01**	COMB FILTER ON:1, OFF:0			
		MI2>	**M21>**	**DCN**	**3E**	**3E**	**3E**	DYNAMIC Contrast			
				DBR	**80**	**80**	**80**	DYNAMIC Brightness			
[ ];menu related value - decimal it is ok to display by hex e.g. [32] is centre of CONTRAST e.g. [63] is MAX for CONTRAST.				**DCL**	**50**	**50**	**50**	DYNAMIC Colour			
				DPB	**00**	**00**	**00**	DYNAMIC Peak Brightness 0;Peak, 1:Normal	PDP	10	D6
				DCM	**02**	**02**	**02**	DYNAMIC Contrast Mode NORM;0, AUTO;1, DYN;2			
				DBS	**1F**	**1F**	**1F**	DYNAMIC Black stretch 0;off, 01~3F; level			
				DWB	**00**	**00**	**00**	DYNAMIC White Balance 0:cool, 1;normal, 2;warm			
				DFT	**01**	**01**	**01**	DYNAMIC Film Mode 0;on, 1;off			
			M22>	**NCN**	**38**	**38**	**38**	NATURAL Contrast			
				NBR	**80**	**80**	**80**	NATURAL Brightness			
				NCL	**48**	**48**	**48**	NATURAL Colour			
				NPB	**00**	**00**	**00**	NATURAL Peak Brightness 0;Peak, 1:Normal	PDP	10	D6
				NCM	**01**	**01**	**01**	NATURAL Contrast Mode NORM;0, AUTO;1, DYN;2			
				NBS	**1A**	**1A**	**1A**	NATURAL Black stretch 0;off, 01~3F; level			
				NWB	**00**	**00**	**00**	NATURAL White Balance 0:cool, 1;normal, 2;warm			
				NFT	**01**	**01**	**01**	NATURAL Film Mode 0;on, 1;off			
			M23>	**TCN**	**3E**	**3E**	**3E**	CINEMA Contrast			
				TBR	**80**	**80**	**80**	CINEMA Brightness			
				TCL	**50**	**50**	**50**	CINEMA Colour			
				TPB	**00**	**00**	**00**	CINEMA Peak Brightness 0;Peak, 1:Normal	PDP	10	D6
				TCM	**00**	**00**	**00**	CINEMA Contrast Mode NORM;0, AUTO;1, DYN;2			
				TBS	**1F**	**1F**	**1F**	CINEMA Black stretch 0;off, 01~3F; level			
				TWB	**01**	**01**	**01**	CINEMA White Balance 0:cool, 1;normal, 2;warm			
				TFT	**00**	**00**	**00**	CINEMA Film Mode 0;on, 1;off			
			M24>	**DGS**	**01**	**01**	**01**	DYNAMIC Gamma Select			
				NGS	**01**	**01**	**01**	NATURAL Gamma Select			
				TGS	**01**	**01**	**01**	CINEMA Gamma Select			
				PGS	**02**	**02**	**02**	PERSONAL Gamma Select			
				DPM	**00**	**00**	**00**	DYNAMIC Picture Mode			
				NPM	**01**	**01**	**01**	NATURAL Picture Mode			
				TPM	**01**	**01**	**01**	CINEMA Picture Mode			
				PPM	**02**	**02**	**02**	PERSONAL Picture Mode			
		MI3>	**M31>**	**MVB**	**0B**	**0B**	**0B**	MUSIC Volume Balance			

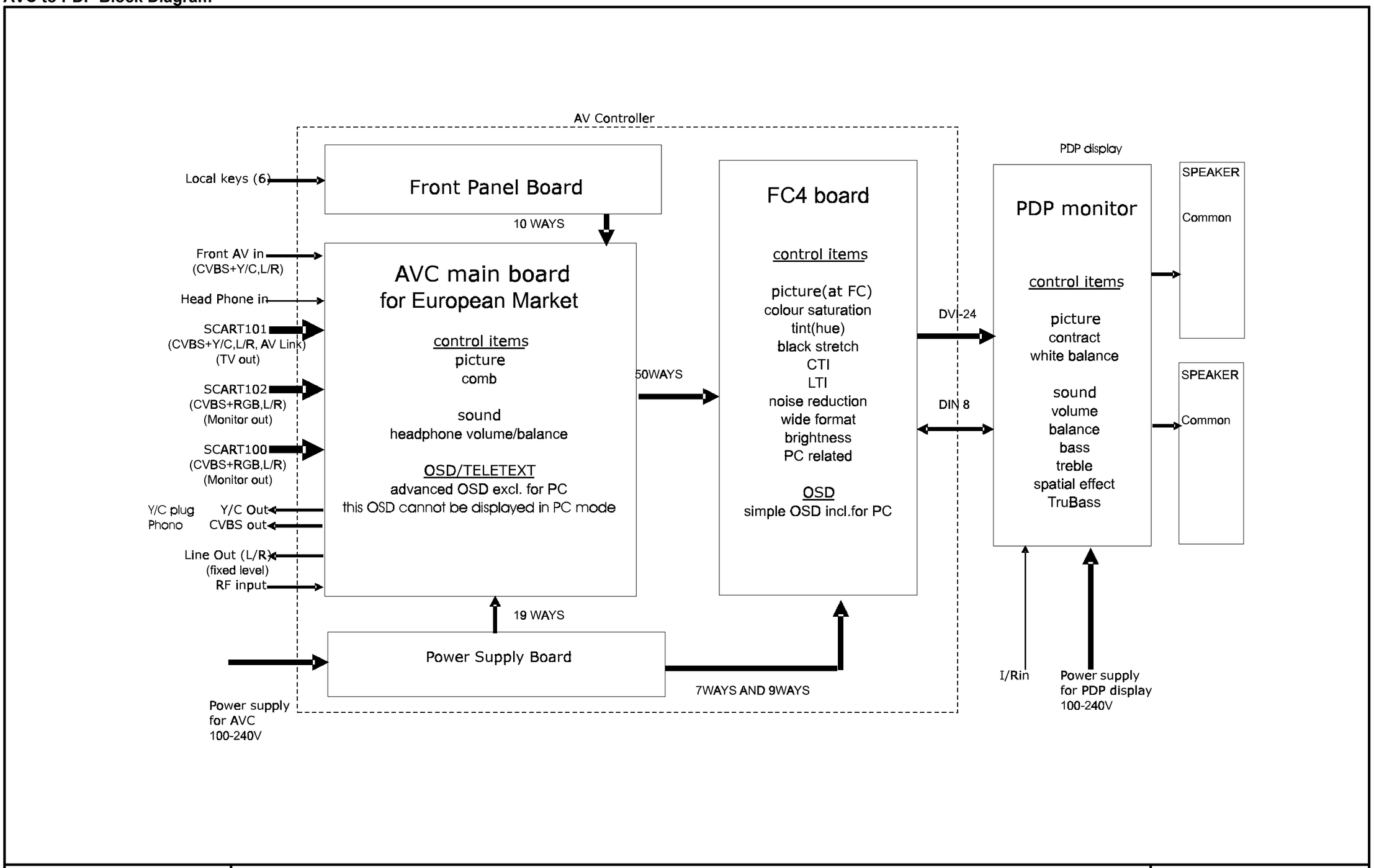
1st	2nd	3rd	4th	5th	32" values hex	37" values hex	42" values hex	functions	Device		
[ ];menu related value - decimal it is ok to display by hex e.g. [11] is centre of Balance e.g. [21] is MAX for Treble.				**MTR**	**0B**	**0B**	**0B**	MUSIC Treble			
				MBA	**0B**	**0B**	**0B**	MUSIC Bass			
				MTB	**03**	**03**	**03**	MUSIC TruBass 0;off, 1;low, 2;mid, 3;high			
				MMS	**01**	**01**	**01**	MUSIC Matrix Surround 0;off, 1;on			
			M32>	**NVB**	**0B**	**0B**	**0B**	SPEECH Volume Balance			
				NTR	**10**	**10**	**10**	SPEECH Treble			
				NBA	**0B**	**0B**	**0B**	SPEECH Bass			
				NTB	**00**	**00**	**00**	SPEECH TruBass 0;off, 1;low, 2;mid, 3;high			
				NMS	**00**	**00**	**00**	SPEECH Matrix Surround 0;off, 1;on			
			M33>	**TVB**	**0B**	**0B**	**0B**	CINEMA Volume Balance			
				TTR	**10**	**10**	**10**	CINEMA Treble			
				TBA	**10**	**10**	**10**	CINEMA Bass			
				TTB	**02**	**02**	**02**	CINEMA TruBass 0;off, 1;low, 2;mid, 3;high			
				TMS	**01**	**01**	**01**	CINEMA Matrix Surround 0;off, 1;on			
		MI4>	**M41 >**	**TSW**	**00**	**00**	**00**	TDA9178 fitted or not. 0:not fitted, 1;fitted			
TDA9178 option Those values are fixed in this menu. No individual parameter on TC1~TC4 can be set.				**TC1**	**01**	**01**	**01**	TDA9178 address 00	TDA9178	00	D07:D00
				TC2	**10**	**10**	**10**	TDA9178 address 01	TDA9178	01	D05:D00
				TC3	**00**	**00**	**00**	TDA9178 address 02	TDA9178	02	D07:D00
				TC4	**00**	**00**	**00**	TDA9178 address 03	TDA9178	03	D05:D00
				ABS	**00**	**00**	**00**	TDA9178 address 04	TDA9178	04	D05:D00
			M42 >	**NLA**	**00**	**00**	**00**	TDA9178 address 05	TDA9178	05	D05:D00
				VGM	**20**	**20**	**20**	TDA9178 address 06	TDA9178	06	D05:D00
				PKG	**00**	**00**	**00**	TDA9178 address 07	TDA9178	07	D05:D00
				STP	**00**	**00**	**00**	TDA9178 address 08	TDA9178	08	D05:D00
				CRG	**00**	**00**	**00**	TDA9178 address 09	TDA9178	09	D05:D00
				LWD	**00**	**00**	**00**	TDA9178 address 0A	TDA9178	0A	D05:D00
WB OFFSET OFF/1/2/3 option			**M43>**	**1RD**	**14**	**14**	**14**	White balance offset 1; R_DRIVE MAX			
				1GD	**0F**	**0F**	**0F**	White balance offset 1; G_DRIVE			
				1BD	**00**	**00**	**00**	White balance offset 1; B_DRIVE			
				1RG	**1F**	**1F**	**1F**	White balance offset 1; R_GAMMA			
				1GG	**1F**	**1F**	**1F**	White balance offset 1; G_GAMMA			
				1BG	**1F**	**1F**	**1F**	White balance offset 2; B_GAMMA			
			M44>	**2RD**	**00**	**00**	**00**	White balance offset 2; R_DRIVE CENTRE			
				2GD	**00**	**00**	**00**	White balance offset 2; G_DRIVE			
				2BD	**00**	**00**	**00**	White balance offset 2; B_DRIVE			
				2RG	**1F**	**1F**	**1F**	White balance offset 2; R_GAMMA			
				2GG	**1F**	**1F**	**1F**	White balance offset 2; G_GAMMA			
				2BG	**1F**	**1F**	**1F**	White balance offset 2; B_GAMMA			

1st	2nd	3rd	4th	5th	32" values hex	37" values hex	42" values hex	functions	Device		
			M45>	**3RD**	**00**	**00**	**00**	White balance offset 3; R_DRIVE MIN			
				3GD	**0F**	**0F**	**0F**	White balance offset 3; G_DRIVE			
				3BD	**29**	**29**	**29**	White balance offset 3; B_DRIVE			
				3RG	**1F**	**1F**	**1F**	White balance offset 3; R_GAMMA			
				3GG	**1F**	**1F**	**1F**	White balance offset 3; G_GAMMA			
				3BG	**1F**	**1F**	**1F**	White balance offset 3; B_GAMMA			
			M51 >	CEA	0D	0D	0D	C-Vert/Horiz enhancer gain DYNAMIC-RGB/YCbCr			
				CEB	0D	0D	0D	C-Vert/Horiz enhancer gain DYNAMIC-YPbPr			
				CEC	0D	0D	0D	C-Vert/Horiz enhancer gain NATURAL-RGB/YCbCr			
		MI5>		CED	0D	0D	0D	C-Vert/Horiz enhancer gain NATURAL-YPbPr			
		-		CEE	0D	0D	0D	C-Vert/Horiz enhancer gain CINEMA-RGB/YCbCr			
		add 27 bytes		CEF	0D	0D	0D	C-Vert/Horiz enhancer gain CINEMA-YPbPr			
				CEM	10	10	10	CTI MID level in menu (FAVOURUTE)			
			M52>	**YEA**	**10**	**10**	**10**	sharpness DYNAMIC-RGB/YCbCr			
				YEB	**10**	**10**	**10**	sharpness DYNAMIC-YPbPr			
				YEC	**08**	**08**	**08**	sharpness NATURAL-RGB/YCbCr			
				YED	**02**	**02**	**02**	sharpness NATURAL-YPbPr			
				YEE	**10**	**10**	**10**	sharpness CINEMA-RGB/YCbCr			
				YEF	**10**	**10**	**10**	sharpness DYNAMIC-YPbPr			
				YE9	**10**	**10**	**10**	sharpness centre on FAVOURITE-RGB/YCbCr			
				YE0	**10**	**10**	**10**	sharpness centre on FAVOURITE-YPbPr			
			M53 >	LC1	1F	1F	1F	Favourite + TV ; last CTI			
				LC2	10	10	10	Favourite + Video ; last CTI			
				LC3	0D	0D	0D	Favourite + RGB/YCbCr ; last CTI			
				LC4	0D	0D	0D	Favourite + YPbPr ; last CTI			
			M54>	**DCV**	**50**	**50**	**50**	DYNAMIC + VIDEO/RGB ; color			
				NCV	**3E**	**3E**	**3E**	NATURAL + VIDEO/RGB ; colour			
				TCV	**40**	**40**	**40**	CINEMA + VIDEO/RGB ; colour			
				SAV	**3E**	**3E**	**3E**	FAVOURITE + VIDEO/RGB ; colour			
				DCO	**58**	**58**	**58**	DYNAMIC + YCbCr/YPbPr ; colour			
				NCO	**4B**	**4B**	**4B**	NATURAL + YCbCr/YPbPr ; colour			
				TCO	**50**	**50**	**50**	CINEMA + YCbCr/YPbPr ; colour			
			-	**SAO**	**44**	**44**	**44**	FAVOURITE + YCbCr/YPbPr ; colour			
	OPT>	**OB0**			**78**	**78**	**78**	option byte 1			

1st	2nd	3rd	4th	5th	32" values hex	37" values hex	42" values hex	functions	Device		
		OB1			**80**	**80**	**80**	option byte 2			
		EMG			**0**	**0**	**0**	**0:Normal, 1:Macrovision improved**			
		AV DELAY			**OFF**	**OFF**	**OFF**				
		RGB Comb			**OFF**	**OFF**	**OFF**	**ON;Go through Comb, OFF;skip Comb It is affected to SVC>MIS>MI1>M11=HP2/4**			
		FC4						Enters FC4 sub menu			
		ASIAN OPTIONS>	**AV2**		**RGB**	**RGB**	**RGB**	RGB or YUV			
			INITIAL INSTALL		**ON**	**ON**	**ON**	INITIAL INSTALL menu is on or off			
			COUNTRY SELECT		**ON**	**ON**	**ON**	Country select is on or off			
			LANGUAGE SELECT		**ON**	**ON**	**ON**	European language select is on or off			
			TELETEXT		**ON**	**ON**	**ON**	TELETEXT is working or not			
	HOT>	**OPT**			**0**	**0**	**0**	hotel option, see sheet HOTEL OPTION			
		VOL		bar	**centre**	**centre**	**centre**	Maximum volume limited in Hotel mode			
		PRG			**1**	**1**	**1**	start up position number			
	VRS>	**MN**			**read**	**read**	**read**	Model name			
		MSU			**read**	**read**	**read**	MSU micro version number			
		PDU			**read**	**read**	**read**	PDP micro version number	-		
		PWT			**read**	**read**	**read**	PDP working hour			
	E2>	**E2R**			**OK**	**OK**	**OK**	EEPROM reset			
		E2F			**OK**	**OK**	**OK**	EEPROM factory setting			
		E2S			**OK**	**OK**	**OK**	EEPROM is set to the shipment			
		E24			**OK**	**OK**	**OK**	**EEPROM in FC4 is initialised**			
		EXS			**OK**	**OK**	**OK**	**escape from service menu**			

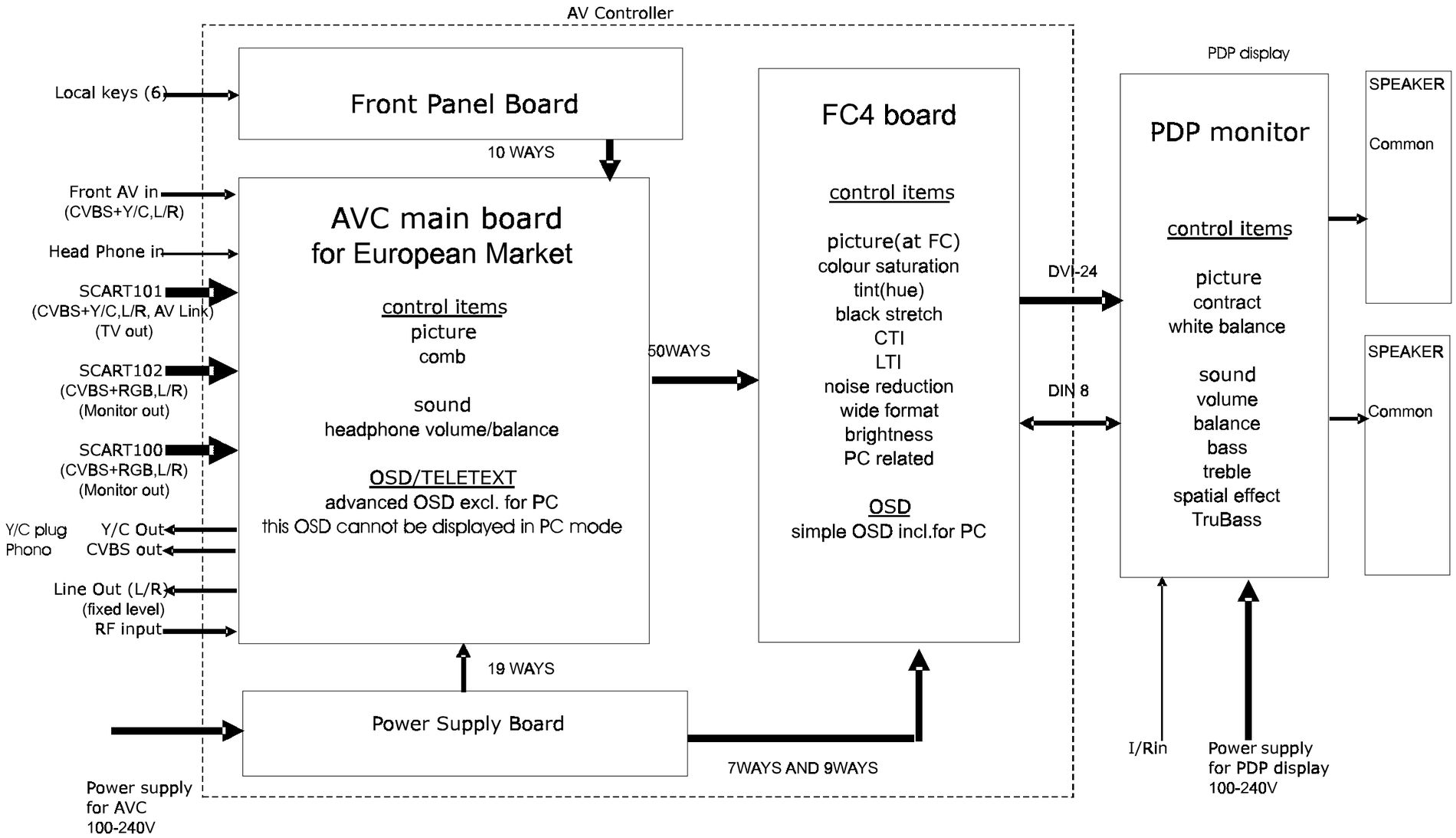
Block Diagrams

AVC to PDP Block Diagram



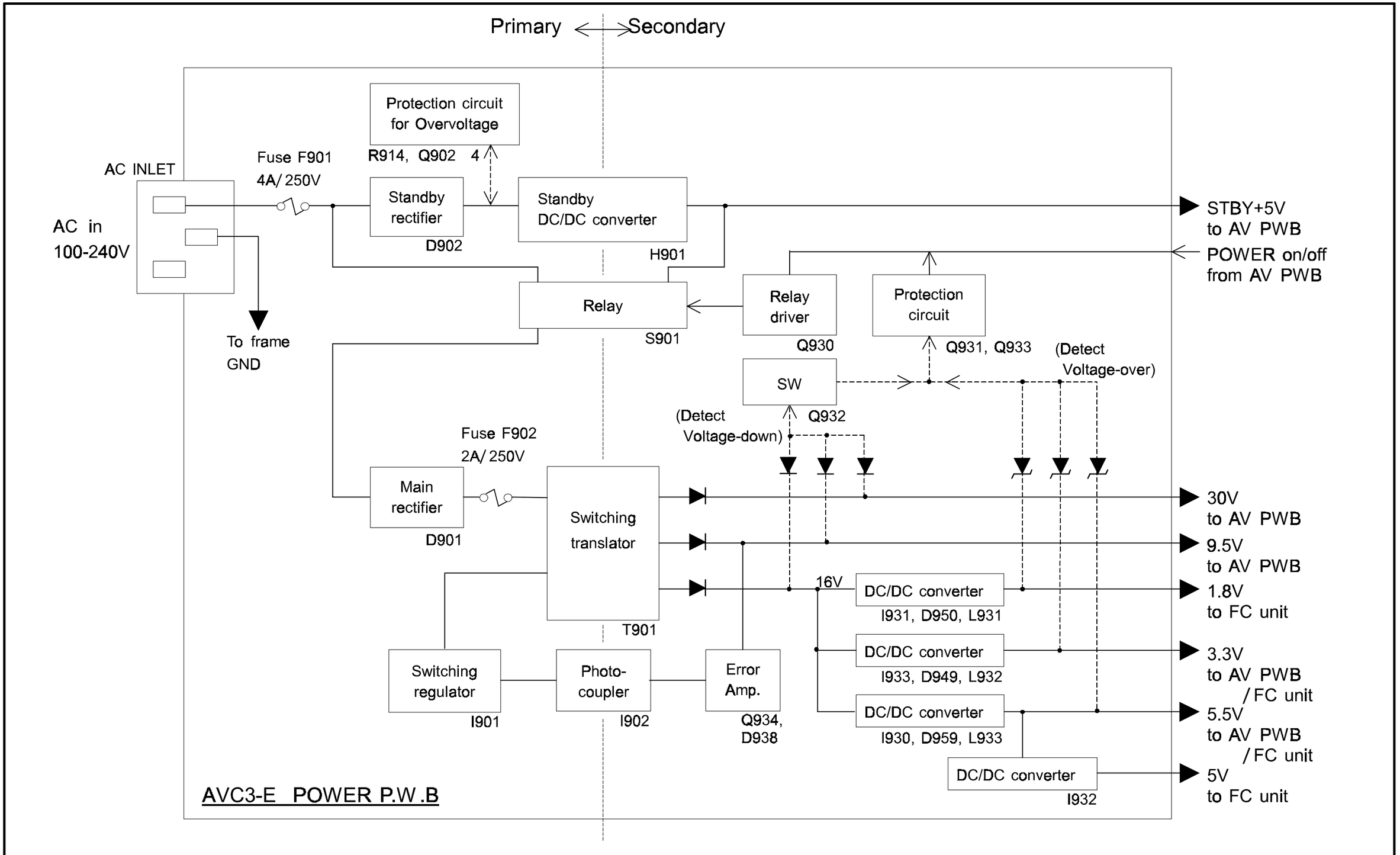
SM 003	AVC to PDP Block Diagram	HITACHI

AVC Block Diagram



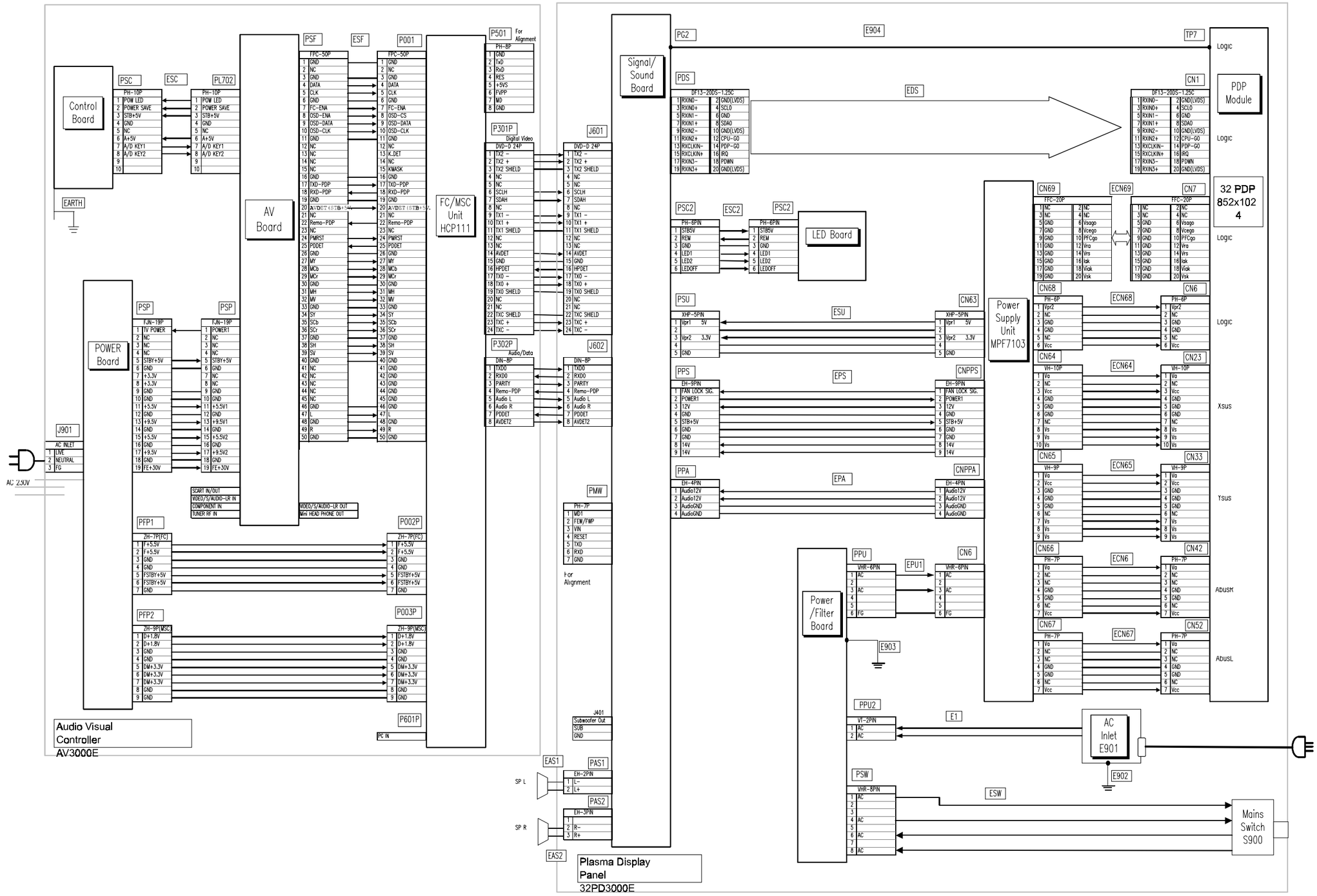
SM 003	AVC to PDP Block Diagram	HITACHI

AVC Power Block Diagram



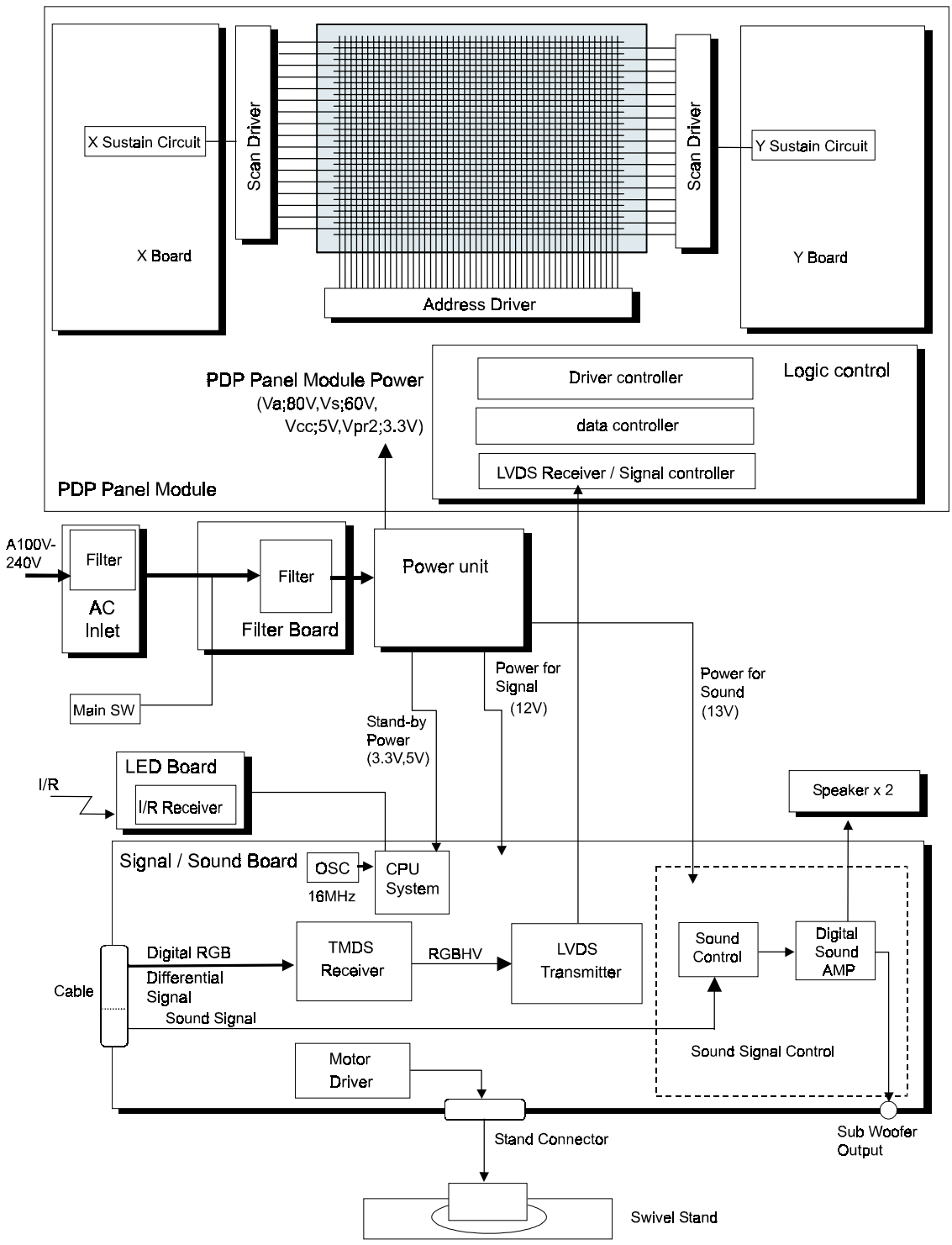
SM 003	AVC Power Block Diagram	HITACHI

Major Connectors



SM 003	Major Connections Diagram	HITACHI

Monitor Block Diagram



SM 003	Monitor Block Diagram	HITACHI

Schematic Drawing Descriptions

Schematic Page 1 ; Tuner / Video Chroma

TUN100 Asymmetrical type tuner ; UV1316/A 1G-3 313914716781

supply voltage ; +5V at pin 7 and +33V at pin 9

control by I2C, SDA at pin 5 and SCL at pin 4

SAW100 K3953M picture carrier 33.90MHz, picture to sound carrier distance 6.5MHz for standard L

SAW101 K9456M sound carrier 40.40MHz for standard L

VHF/UHF asymmetrical type tuner converts RF input signal to IF signal output through pin 11.

AGC voltage is supplied at pin1 from IC100 pin62

IF output is going through buffer Q101 to SAW filter SAW100 for VIF at pin 2 and 3 of IC100 and to SAW101 for SIF at pin 63 and 64.

IC100 Video chroma and video switch TDA9321H

supply voltage ; +8V at pin 11 and 48 (AS)

control by I2C, SDA at pin 47 and SCL at pin 46

TR100 TPWA01B - nominal centre freq. Fn1=6.0MHz and fn2=6.5MHz

TR101 TPWA04B - nominal centre freq. Fn1=5.5MHz and fn2=5.742MHz

X100 3.58MHz X'tal

X101 4.43MHz X'tal

*** IF demodulator and video chroma**

Demodulated video signal is output from pin 10 going to sound traps

There are two sound traps, TR100 for I/L signal and TR101 for BG, output from which are switched by SOUND-SWITCH from IC301 pin 5

After group delay correction at pin 13, it is connected to pin 14 where TV picture is supplied into video switch.

The TV signal from pin13 is also connected to SCART1 as TV signal output.

Quasi Split Sound converted from SIF input is output at pin 5 to connect with sound decoder IC301

H and V sync pulses are output at pin 60 and 61 to go to FC/MSC for synchronization to convert progressive scan. H pulse must be inverted by Q126.

When selecting one of video signal in video switch of IC100, CVBS signal is going to COMB filter if the video is CVBS PAL/NTSC format.

Then Y/C separated signal is coming back at pin 28 and 29. The clock must be provided from pin 30.

The video or Y/C signal selected pass through video chroma section and finally converted to YUV format at pin 49, 50, 51

IC100 is supplied 4.43MHz and 3.58MHz clock from crystal X100 and X101, which is automatically selected according to the signal received.

2 RGB inputs are also switched at the last stage in IC100. RGB signals are also converted to YUV.

*** video switch**

input	pin 14	TV signal input
	pin 16	CVBS - SCART102 (AV2) input
	pin 18	CVBS - SCART100 (AV3) input
	pin 20	CVBS/Y - SCART101 (AV1) input
	pin 21	C - SCART101 (AV1) input
	pin 23	CVBS/Y - front AV (FRONT) input
	pin 24	C - front AV (FRONT) input
	pin 28	Y - from COMB filter
	pin 29	C - from COMB filter
input	pin 15	SCART102 (AV2) pin8 detection
control	pin 17	SCART100 (AV3) pin8 detection
	---	SCART101 (AV1) pin8 detection is done by micro IC704 pin28
output	pin 26	go to COMB filter and phono video output
	pin 32	go to micro for TELETEXT decoding
	pin 34	go to SCART102(AV2) and SCART100(AV3) as monitor video output
output	pin 20	L/L' switch for SAW filter in/out at SAW101
control	pin 22	micro switch to switch SVHS or CVBS for front AV input

Schematic Page 2 ; Sound / AV3 Control

IC301 **NICAM/A2 sound decoder and audio switch ; MSP3410**
supply voltage ; +5V at pin 18 and pin 51
control by ; I2C, SDA at pin 10 and SCL at pin 9

X300 **18.432MHz**

* NICAM/A2 decoder and sound control

QSS signal is coming from IC100 to pin 58 through amplifier Q308/307. The signal level at pin 58 should be 0.1 ~ 0.8Vpp.

Sound output L/R at pin 28 and 29 are connected through amplifier Q310/Q312 for L and Q309/Q311 for R to adjust 500mVrms at PL700 pin 4 and 6 In the condition of AV sound input 500mVrms, FM modulation 54%

Sound output L/R at pin 28 and 29 are also connected through IC300 TDA7433 and IC303 to headphone.

* Audio switch

input	pin 52	SCART101(AV1) sound L input
	pin 53	SCART101(AV1) sound R input
	pin 49	SCART102(AV2) sound L input
	pin 50	SCART102(AV2) sound R input
	pin 46	SCART100(AV3) sound L input
	pin 47	SCART100(AV3) sound R input
	pin 43	front AV (FRONT) sound L inout
	pin 44	front AV (FRONT) sound R inout
	pin 55	mono sound input from IC100
output	pin 37	SCART101(AV1) sound L output
	pin 36	SCART101(AV1) sound R output
	pin 34	SCART102(AV2) / SCART3(AV3) sound L output
	pin 33	SCART102(AV2) / SCART3(AV3) sound R output
	pin 29	Speaker / Headphone/phone sound L output
	pin 28	Speaker / Headphone/phone sound R output
output	pin 5	SOUND SWITCH for trap of TV input signal

IC300 **Basic audio processor ; TDA7433**
supply voltage ; +8V at pin 17
control by ; I2C, SDA at pin 19 and SCL at pin 18

Monitor sound L/R outputs for speaker are connected headphone and phone out. IC300 contributes separate volume control

input	pin 6	Audio sound L input
	pin 5	Audio sound R input

output	pin 16	Phono sound L output
	pin 15	Phono sound R output
	pin 14	Headphone sound L output
	pin 13	Headphone sound R output

IC303 **Headphone sound amplifier ; TDA2822D**
supply voltage ; +6.5V at pin 2

Headphone sound L/R controlled its level by IC300 are amplified.

******** **front AV video switch**
PL300 **connector for front control PCB**

At pin 12 of PL700, CVBS from AV3 is coming.
At pin 11 of PL700, Y from AV3SVHS is coming
At pin 9 indication of SVHS connector insertion is supplied to micro IC704 pin38 and then it controls micro-switch from pin22 of IC100 in order to select Y from pin11 of PL700 (micro-sw=H) or to select CVBS from pin12 of PL700 (micro-sw=L)
At pin 15 of PL700, C from AV3SVHS is coming to connect to pin 24 of IC100

IC302 (OPTION) **TDA8440 is the option in the future. This is not used for this model.**

Schematic Page 3 ; Interface Board (component input, progressive sync separation, centre audio channel)

IC08 **Sync separation for Component (progressive) input ; TA1370**
supply voltage ; +9V at pin 11
control by ; I2C, SDA at pin 21 and SCL at pin 22

XC01 **50KHz**

Sync separation for progressive YPbPr input (50Hz and 60Hz) are carried out at TA1370.

Input video signal is specifically given from AV4 and connected at pin 26 through clamping circuit constituted with QC25~QC28

Sync separation for all input signal other than Progressive input are carried out at TDA9321 (page1)

TA1370 includes switch of sync signal (H and V) between H/V input (pin I and pin2) from TDA9321 and internal sync separation.

TA1370 outputs H at pin16 and V at pin 28, which are connected to PSF for FC4 board. There are 2 inputs of the connector for each main and sub.

H output at pin 16 on TA1370 is fed to IC10 to shorten H pulse waveform to avoid jittering.

IC02/IC03 **YUV/RGB switch ; TA1287**
supply voltage ; +9V at pin 16
control by ; DC voltage at pin 9/10/11 and matrix at pin 16

input
IC02 YUV; Main signal
IC03 YUV; from IC02
YUV ; at pin 1/2/3, Y:1Vpp (incl.sync), UV:0.3Vpp
RGB ; at pin 6/7/8, 0.7Vpp

output
IC02 connect to IC03
IC03 connect to FC4 through buffers
YUV ; at pin13/14/15, Y:1Vpp (incl.sync), UV:0.3Vpp
matrix control of RGB input (YUV can also input. In this case, matrix control should be through)
IC02 0V; through
IC03 always 1.6V:RGB --> YUV

control
IC02 0V; external (Components input)
IC03 0V; Video

IC04/IC05/IC06 Analogue switch ; BU4066
supply voltage +9V at pin 14

IC04	Audio switch, main L/R or AV4 (components input) L/R. main L/R comes from MSP3410 audio switch.
IC05	Video switch, Front video or AV4 (in case of YCbCr normal components), which is connected to TDA9321 for sync separation
IC06	Audio switch, Centre sound or AV4 (components input) L/R. Output goes to IC04 to switch another audio input.

IC07 **Analogue Switch for Sub video ; BU4053**
supply voltage ; +9V at pin 16

2 inputs, main YUV from IC03 and RGB from micro (TELETXT), are switched and connected to sub video input for FC4

This is enabled when TV+TEXT is selected (SUB TELETEXT), and when PC window is selected (SUB VIDEO)

IC09 **I/O expanders ; M62320FP**
supply voltage ; +5V at pin 13
control by ; I2C, SDA at pin 3 and SCL at pin 2

		connect to	L	H
D00 pin 4	component video	IC02, IC05	components input	other than components
D01 pin 5	Matrix	IC02	RGB --> YUV	through
D02 pin 6	PC	IC07	Not PC mode (SUB TEXT)	PC mode (SUB video in PCW)
D03 pin 7	OSD-blank	IC03	kill OSD	OSD enabled
D04 pin 9	Cinema	IC06, IC04	Audio centre not selected	Audio centre selected
D05 pin 10	Clamp-source	IC05	CP from TA1370	SC from TDA9321
D06 pin 11	TV/TEXT	IC03	TEXT (select RGB input)	TV
D07 pin 12	N.C.			

Schematic Page 4 ; Power Circuit (Voltage Regulator) / Level Shifter

Power supply connector PSP from Power Supply board

1	POWER1	Power ON/Stand-by control	H;ON, L;Stand-by
2	N.C.		
3	N.C.		
4	N.C.		
5	+5VSTB	Stand-by 5V for micro controller circuit	
6	GND		
7	N.C.		
8	N.C.		
9	GND		
10	GND		
11	+5.5V1	5.5V supply 1	
12	GND		
13	+9.5V1	9.5V supply 1	
14	GND		
15	+5.5V2	5.5V supply 2	
16	GND		
17	+9.5V2	9.5V supply2	
18	GND		
19	FE+30V	30V supply for tuner	

Voltage regulators

I603	BA06T	Input +9.5V2 - Output +8V
		For video chroma circuit (page1)
IC602	SI-3050LSA	Input +5.5V1 - Output +5VFE
		For tuner (page1)
IC603	SI-3050LSA	Input +5.5V2 - Output +5V
		For audio processor circuit (page2), comb filter (page6)
IC601	SI-3033LSA	Input +5VSTB - Output 3.3VSTB
		For micro controller circuit
Q602	TK11125M	Input +5VSTB - Output 2.5VSTB
		For micro controller circuit
IC604	BA09FP	Input +9.5V1 - Output +9V
		For interface circuit (page 3)

Level shift for control buses

Q607	BSS138	3WB-DATA to change from 3V3 to 5V
Q603	2SC2412K	3WB-CLOCK to invert with 5V range
Q604	2SC2412K	FC-ENABLE to invert with 5V range
Q605	2SC2412K	MSC-ENABLE to invert with 5V range
Q614	BSS138	1900TX to change from 3V3 to 5V

Schematic Page 5 ; Micro Controller

IC704 Micro controller ; SDA5550
supply voltage ; +3.3VSTB at pin 8, 40, 75 and 92 and +2.5VSTB at pin 6, 22, 56 and 73
control through I^2C ; SDA3v3 at pin 52 and SCL3v3 at pin 47
3 wire bus ; 3WB-clock3v3 at pin 41 and 3WB-data3v3 at pin 46
FC-enable at pin 42
MSC-enable at pin 43
OSD enable at pin 44
control through/by AVlink ; output at pin 16 and input at pin 33
RS232C (19200bps); TxD3v3 at pin 32 and RxD3v3 at pin 38
control by I/R in ; at pin 34
X700 6MHz X'tal
IC700 EEPROM ; M24C16W (16kbits)
supply voltage ; +3.3VSTB at pin 8
control by I2C ; SDA3v3 at pin 5 and SCL3v3 at pin 6 and WC3v3 at pin 7
IC701 Flash memory for software stored ; AT49LV002N (256Kbytes)
supply voltage ; +3.3VSTB at pin 32
control by address and data buses
IC701B option not fitted.
IC703 SRAM ; SMT K6T1008V2E-GB70000 or equivalent (128kbytes)
supply voltage ; +3.3VSTB at pin 32
control by address and data buses
IC705 RESET IC for IC704 ; M62703SL/ML
supply voltage ; +3.3VSTB at pin 1

SCL3v3 and SDA3v3 are converted for 5V operation in Q700/Q701/Q705/Q706
OSD/TEXT RGB at pin 58/59/60 are syncronized with progressive sync pulses 2H(32KHz) at pin 32 and V(50/60Hz) at pin 33
RGB and BLK are also converted to 5V operation at Q713/Q714/Q715 and IC707

AV link is bi-directional bus from pin 10 of SCART101, made by Q709/D701~D703. For the micro, input and output are separated.
The signal level is also converted between 3V3 in micro and 5V for SCART.

See "micro pins" for micro controller pin functions.

FRONT PANEL BOARD connection PL702

PIN NO.	PIN NAME	PL702 IN/OUT	FUNCTIONS
1	POW LED	I	Power LED
2	POWER SAVE	I	POWER2
3	STB+5V	I	Stand-by 5V power supply
4	GND	-	GND
5	RM-IN	O	N.C.
6	A+5V	I	+5V
7	A/D KEY 2	O	Key in 1
8	A/D KEY 1	O	Key in 2
9	(BS-LED)	-	N.C.
10	(MODEM-LED)	-	N.C.
		at Front Control	

Schematic Page 6 ; COMB Filter / SVHS Output

IC101 COMB filter ; TC9090AF

supply voltage ; +5V at pin 15, 18 and 27

control by I^2C ; SDA at pin 8 and SCL at pin 9

CVBS from IC100 pin 26 is filtered by C800/C801/L800/C802 and connected to pin 3

Y/C separate signals output from IC101 pin 25/23 are also filtered by Q801 base circuit and Q802 base circuit

Y is amplified to adjust the level at Q119/Q120 for return signal to IC100 and SVHS Y signal output via buffer Q803

C is amplified to adjust the level at Q121/Q122 for return signal to IC100 and SVHS C signal output via buffer Q804

IC101 requires clock at pin 19 supplied from IC100.

SVHS100 SVHS output connector

pin	functions
1	GND
2	GND
3	C
4	Y
5	GND(SW)

Schematic Page 7 ; SCART / FC-MSC Connection

SCART connectors

	SCART101	SCART102	SCART100	
pin	**AV1**	**AV2**	**AV3**	**general spec**
1	sound output R	sound output R	sound output R	Audio output R ; =<1kohm, nominal 0.5Vrms+-3dB, max 2Vrms ; 54% modulation in FM/AM
2	sound input R	sound input R	sound input R	Audio input R ; >=10kohm, nominal 0.5Vrms, min.0.2Vrms, max 2Vrms
3	sound output L	sound output L	sound output L	Audio output L ; =<1kohm, nominal 0.5Vrms+-3dB, max 2Vrms ; 54% modulation in FM/AM
4	GND	GND	GND	Audio common return
5	GND	GND	GND	Blue return
6	sound input L	sound input L	sound input L	Audio input L ; >=10kohm, nominal 0.5Vrms, min.0.2Vrms, max 2Vrms
7	N.C.	Blue-in	Blue-in	Blue ; 75ohm, 0.7V+-0.1V
8	switch	switch	switch	Function switch ; >=10kohm, =<2nF, Level 0 ; 0~2V, Level 1A : +4.5V~+7V (16:9), Level 1B : +9.5V~+12V (4:3)
9	GND	GND	GND	Green return
10	AVLINK	N.C.	N.C.	Avlink ; TTL level
11	N.C.	Green-in	Green-in	Green ; 75ohm, 0.7V+-0.1V
12	N.C.	N.C.	N.C.	under consideration
13	GND	GND	GND	Red return
14	GND	GND	GND	Blanking return
15	C in	Red-in	Red-in	Red/C ; 75ohm, 0.7V+-0.1V (Red), +-3dB at 1Vpp Y signal (C)
16	N.C.	Fast Blanking	Fast Blanking	Blanking ; 75ohm, logical 0 (off) : 0~0.4V, logical 1 : +1~+3V
17	GND	GND	GND	Video output return
18	GND	GND	GND	Video input return
19	TV output	Monitor output	Monitor output	Video/Y output ; 75ohm, 1Vpp +-3dB (sync 0.3V-3dB, +10dB)
20	CVBS/Y in	CVBS in	CVBS in	Video input ; 75ohm, 1Vpp +-3dB (sync 0.3V-3dB, +10dB)
21	GND	GND	GND	Common return and contact 8, 10, 12

PL700 connection with FC/MSC board 26ways connector

assuming that 1Vpp video signal with 75ohm terminated is input through SCART100 (AV3)

UV are inverted by Q609/Q612/Q610/Q613 to CbCr(U'V') at pin 25/24 and those are adjusted to the level at 1.4Vpp

Y is amplified by Q608/Q611 to adjust the level at 1.4V for signal and 0.6V for sync (2Vpp in total) at pin 26

sound level L and R at pin 6/4 should be 500mVrms on the condition that -

500mVrms audio is input through SCART100(AV3)

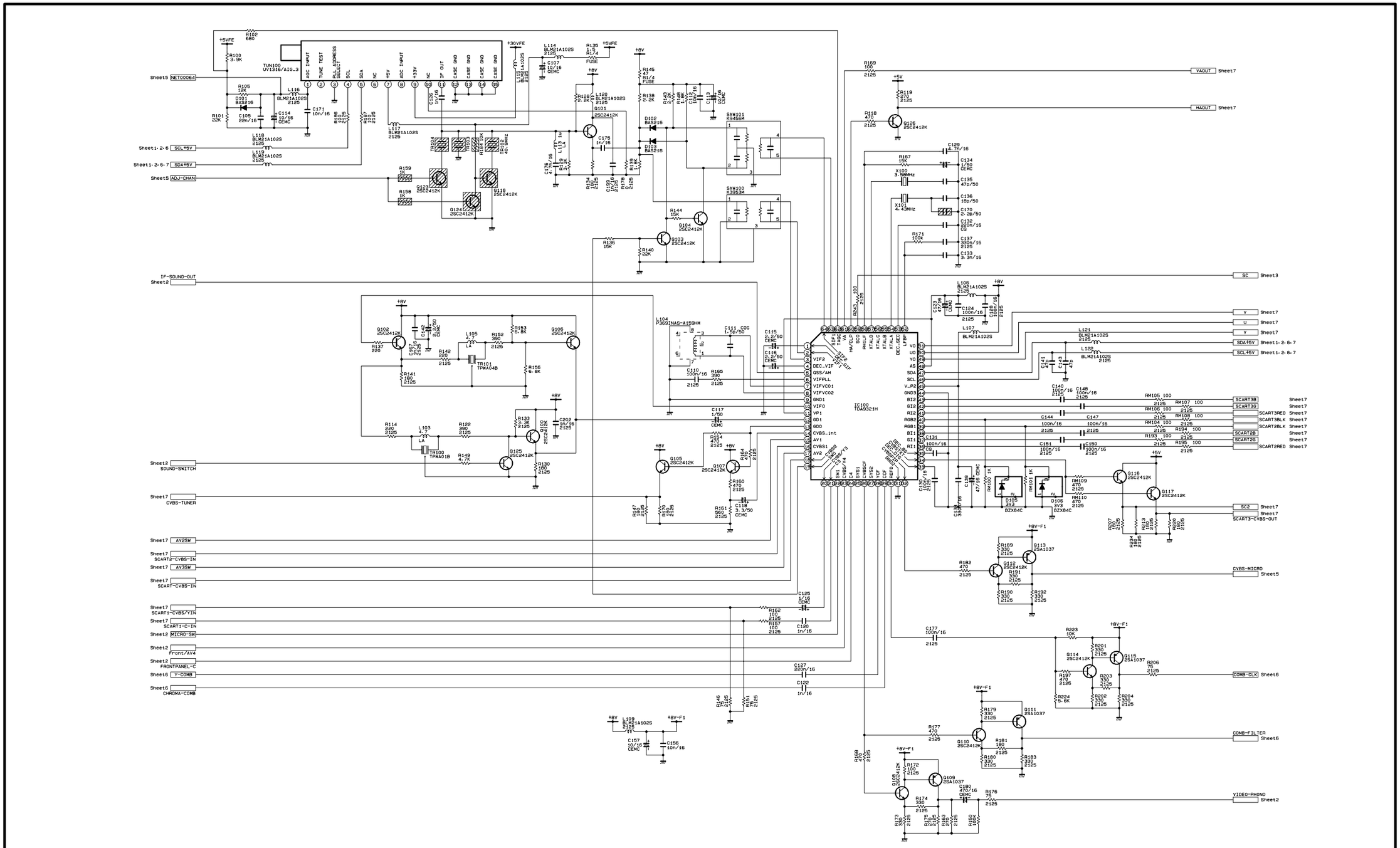
BG FM sound with 54% modulation is received

PL701 connection with FC/MSC board 26 ways connector

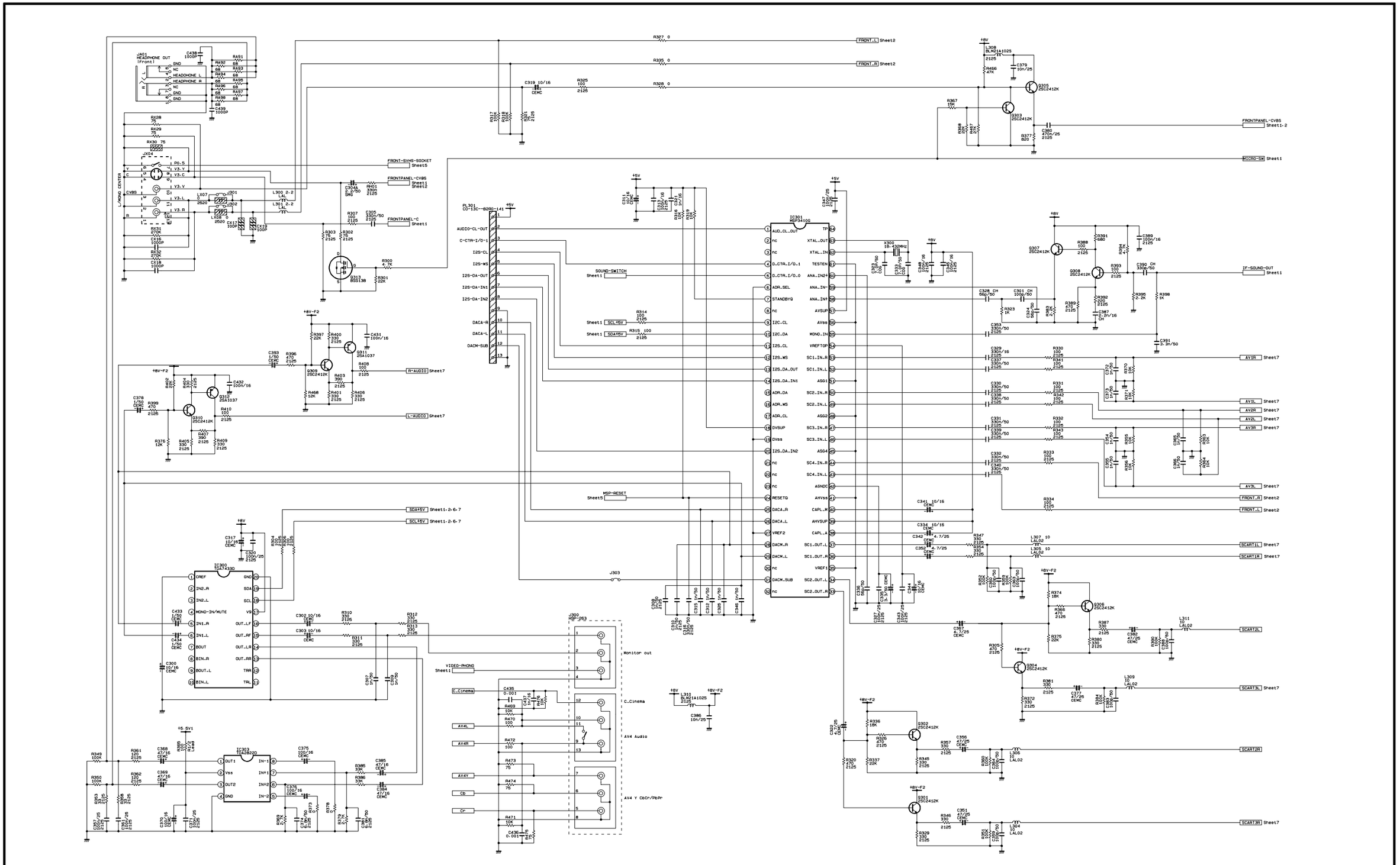
Schematic; AVC Power Supply

I901	**switching regulator - controller and power MOS FET ; STR-F6668B**	
	supply voltage at pin 4 ; over +16V (start operating)	
	pin 1	feedback input
	pin 2	Source of power MOS FET
	pin 3	Drain of power MOS FET
	pin 4	power supply input for controller
	pin 5	GND
H901	**DC+5V switching regulator module ; uPM0518SA**	
	supply voltage ; DC +120+375V at pin 1	
input	pin 1	DC(+) voltage input
	pin 5	DC(-) voltage input
	pin 7	feedback input-1
	pin 8	feedback input-2
output	pin 6	DC(-) voltage output
	pin 9	DC(+) voltage output
I902	**photocoupler ; TLP621**	
I930	**switching regulator ; SPI-8010A**	
	supply voltage ; DC +8.5+50V at pin 11	
input	pin 11	DC voltage input
	pin 15	feedback input
output	pin 7	switching output
I931	**switching regulator ; SI-8010GL**	
	supply voltage ; DC +8+50V at pin 5	
input	pin 5	DC voltage input
	pin 8	feedback input
	pin 2	output ON/OFF
output	pin 4	switching output
I932	**DC+5V series regulator ; SI-3050LSA**	
	supply voltage ; DC +5.1+8V at pin 1,3	
input	pin 1,3	DC voltage input
output	pin 7,8	DC +5V output
I933	**switching regulator ; SI-8033JD**	
	supply voltage ; DC +5.3+40V at pin 1	
input	pin 1	DC voltage input
	pin 4	feedback input
	pin 5	output ON/OFF
output	pin 2	switching output
PSP	**connector for AV P.W.B.**	
PFP1	**connector for FC4 unit**	
PFP2	**connector for FC4 unit**	

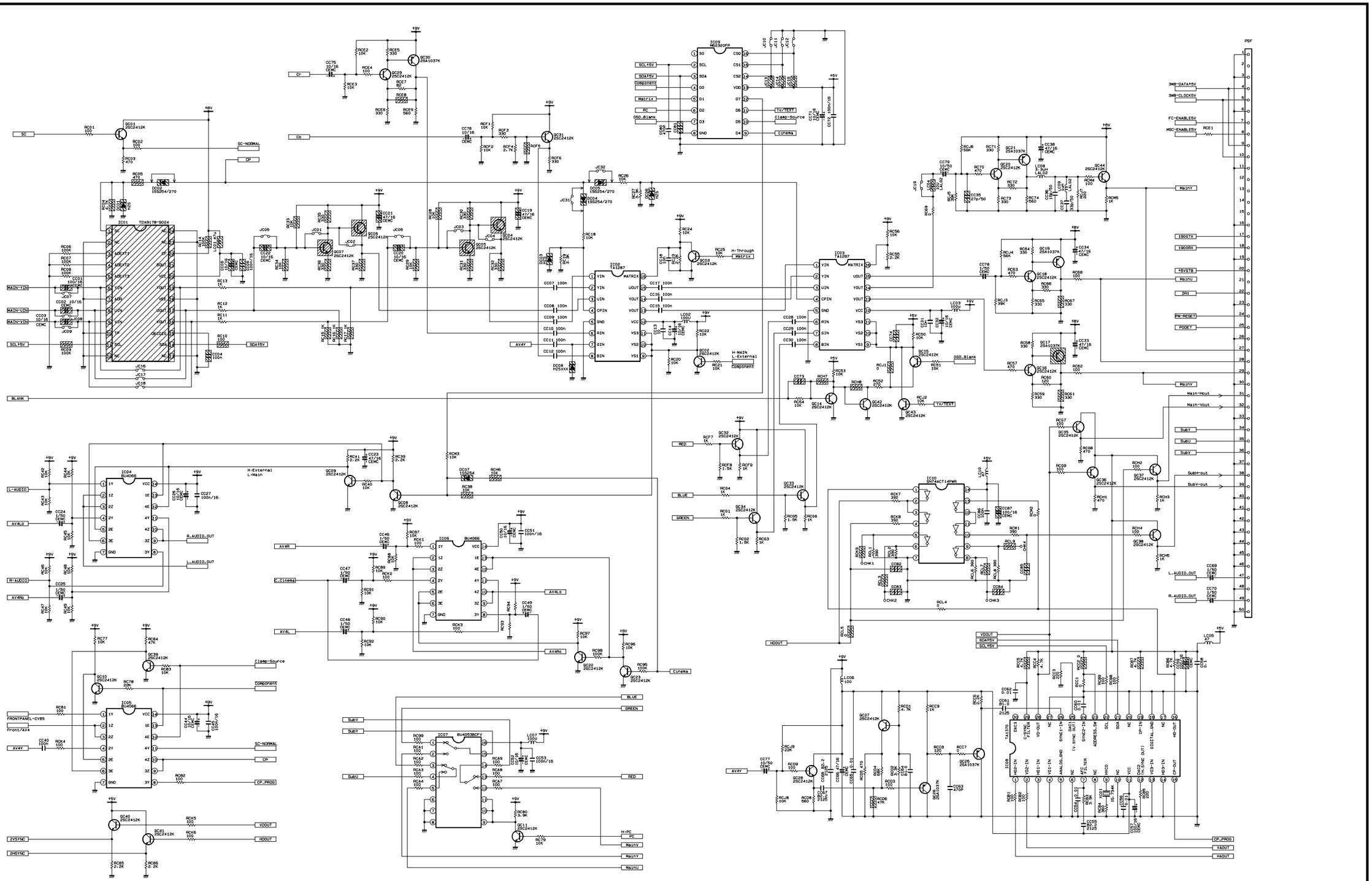
Schematic Drawings



SM 003	AV Board Sheet 1	HITACHI



SM 003	AV Board Sheet 2	HITACHI



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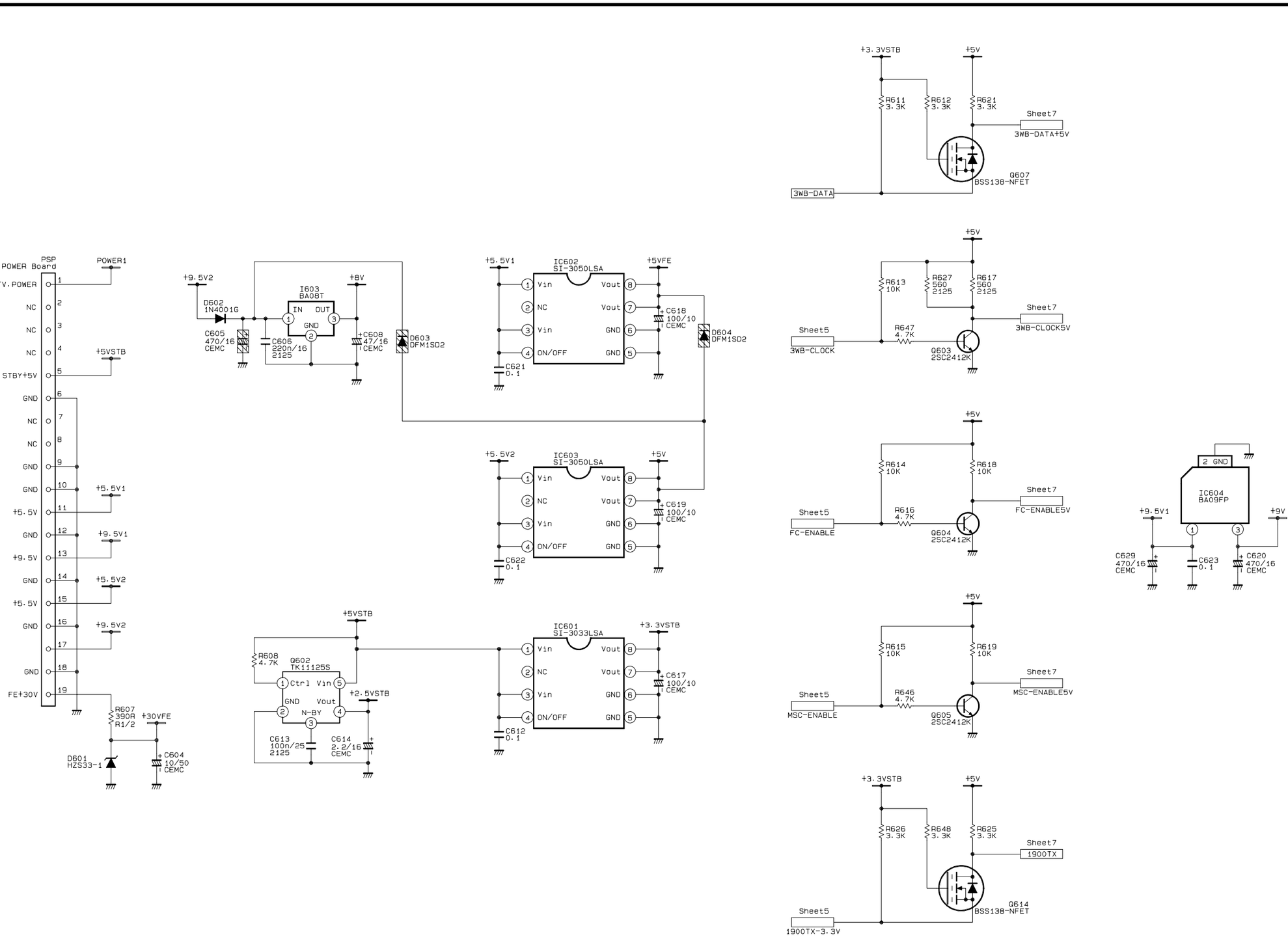
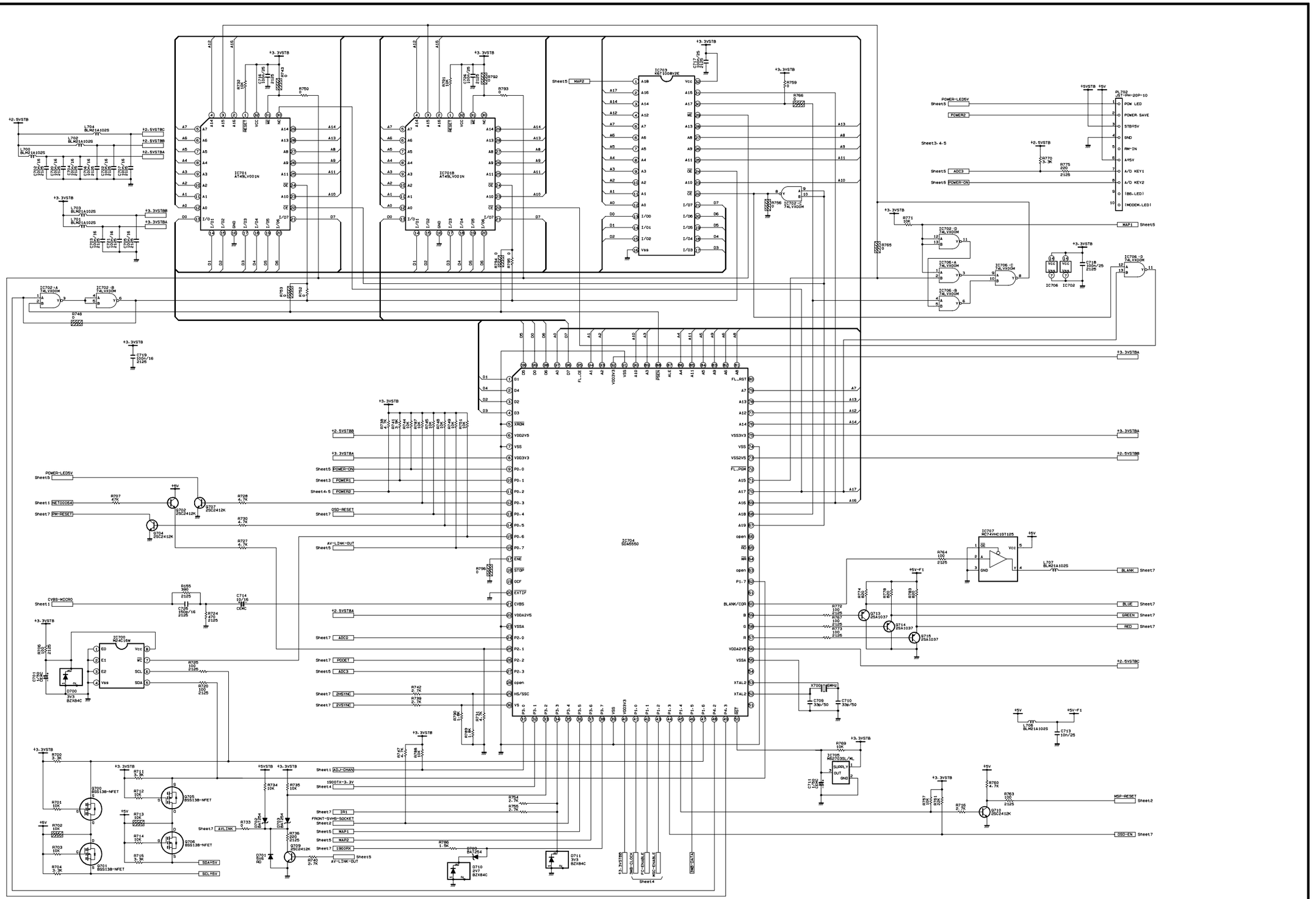
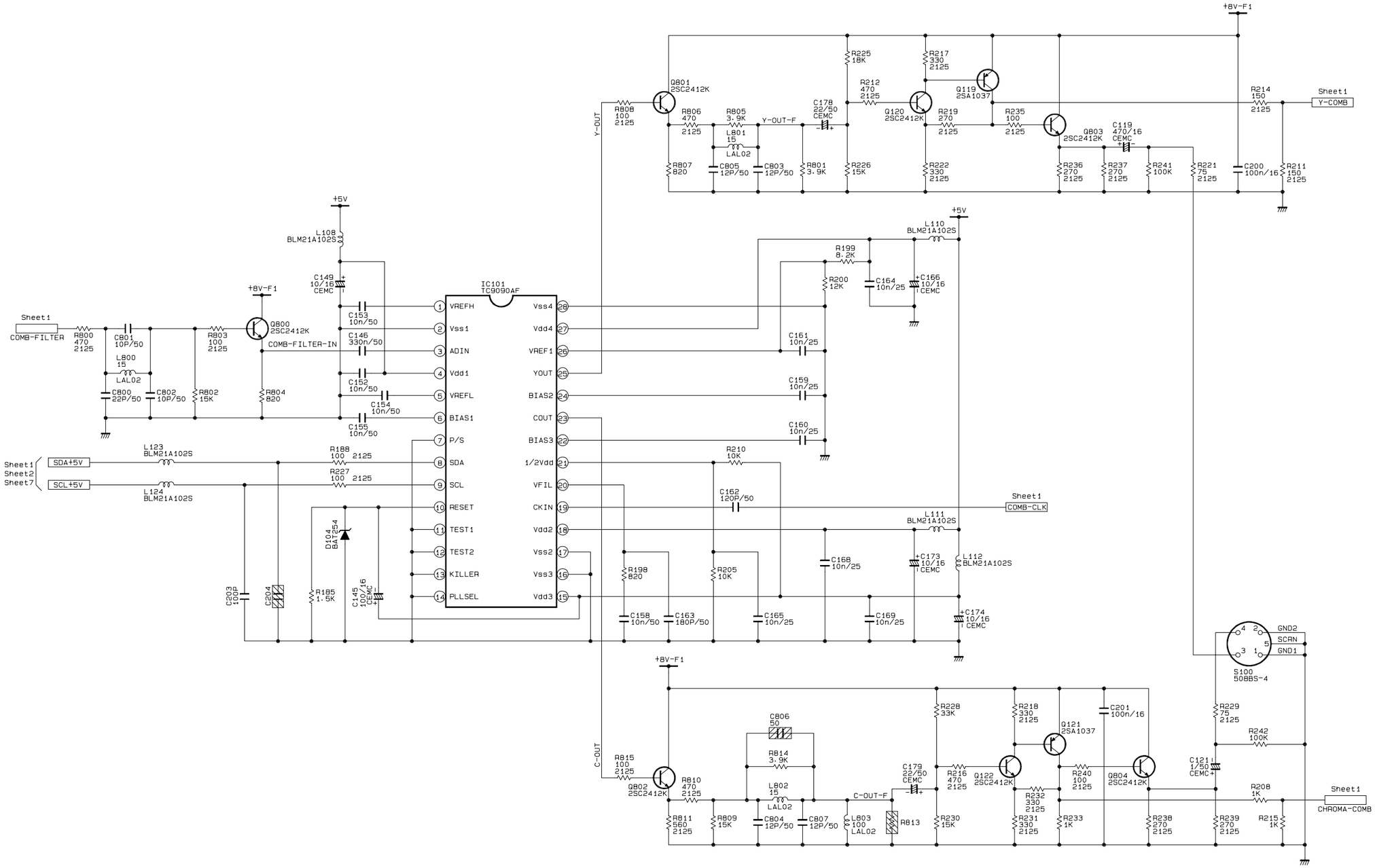


SM 003	AV Board Sheet 4	HITACHI



SM 003	AV Board Sheet 5	HITACHI



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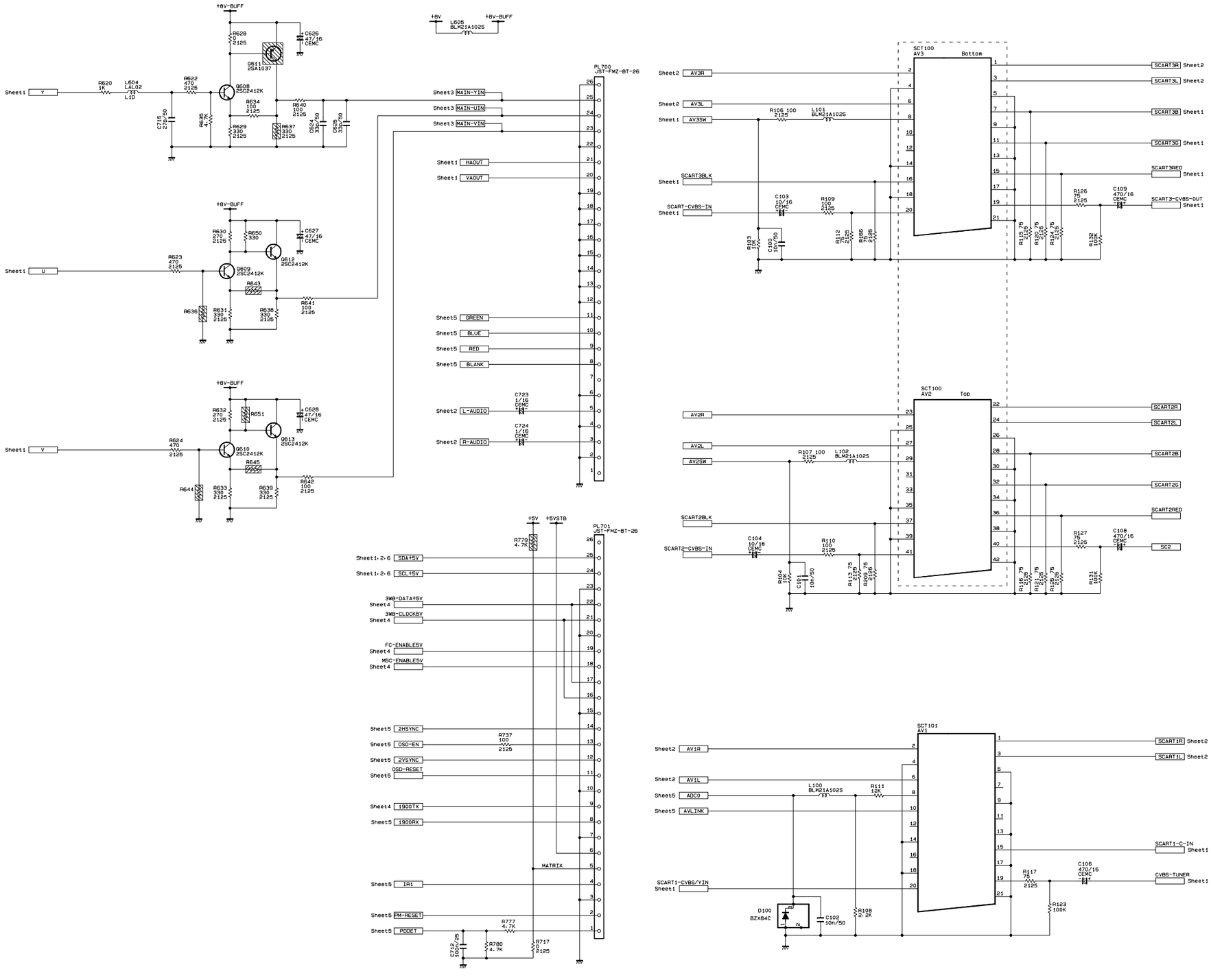
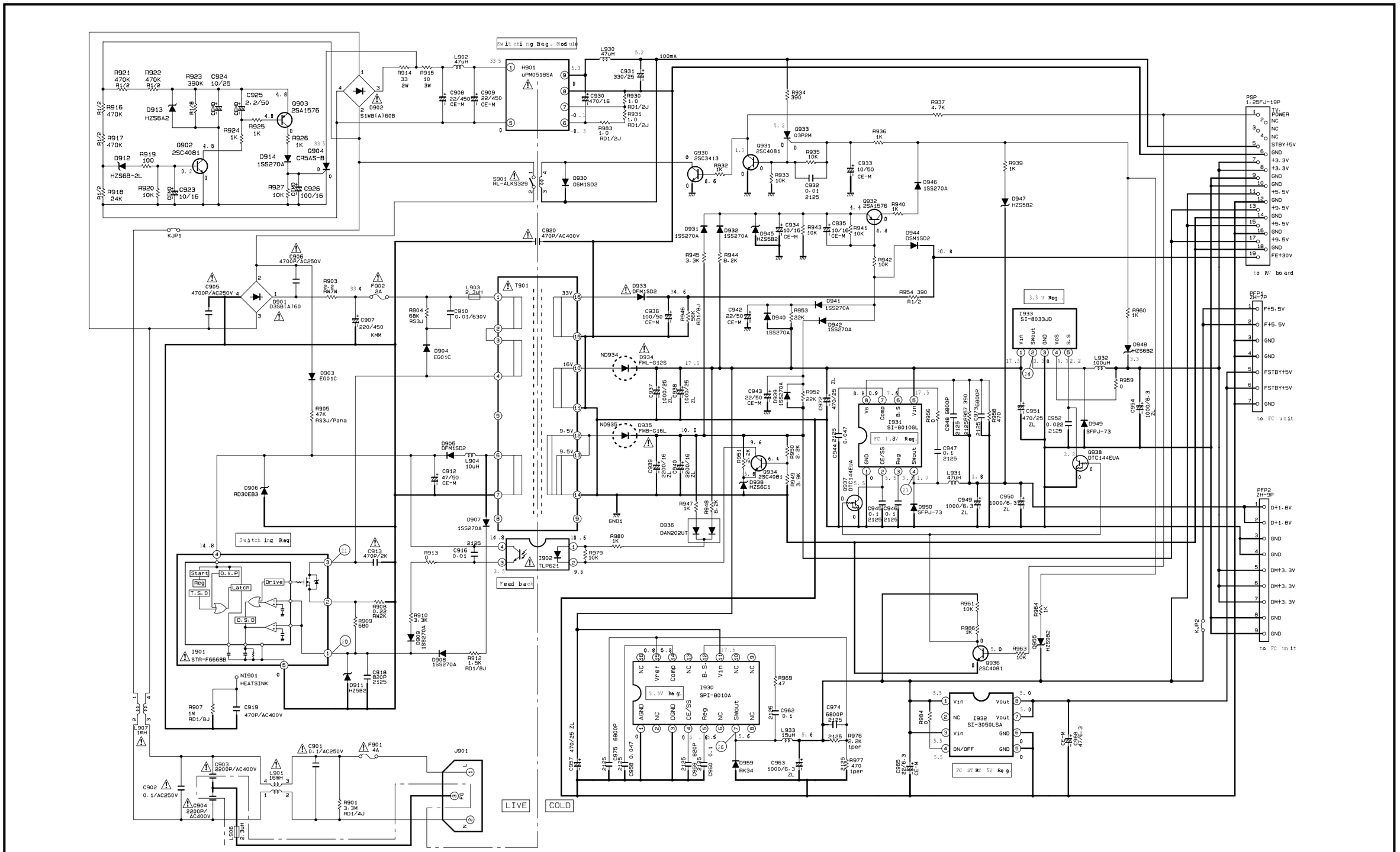
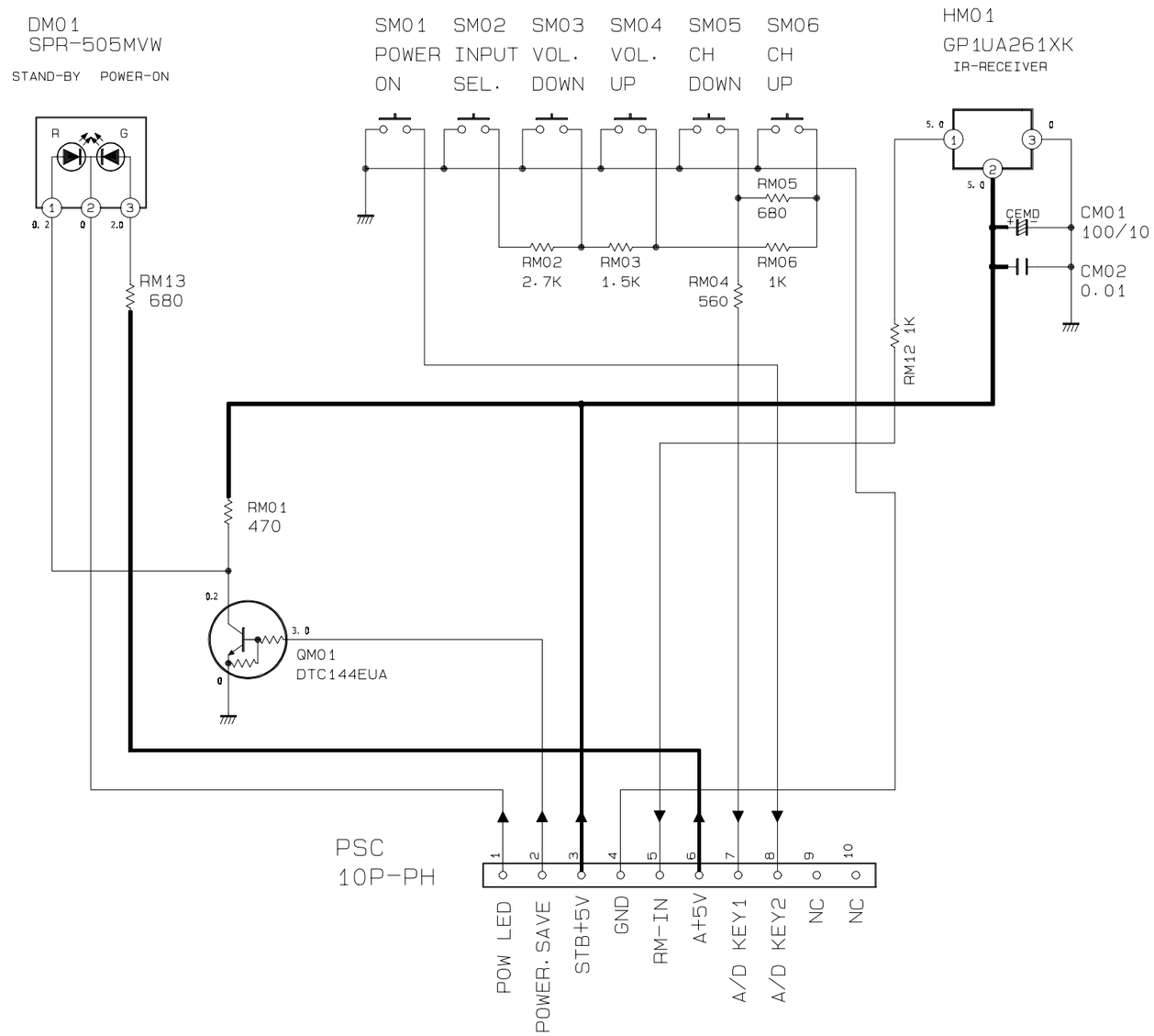


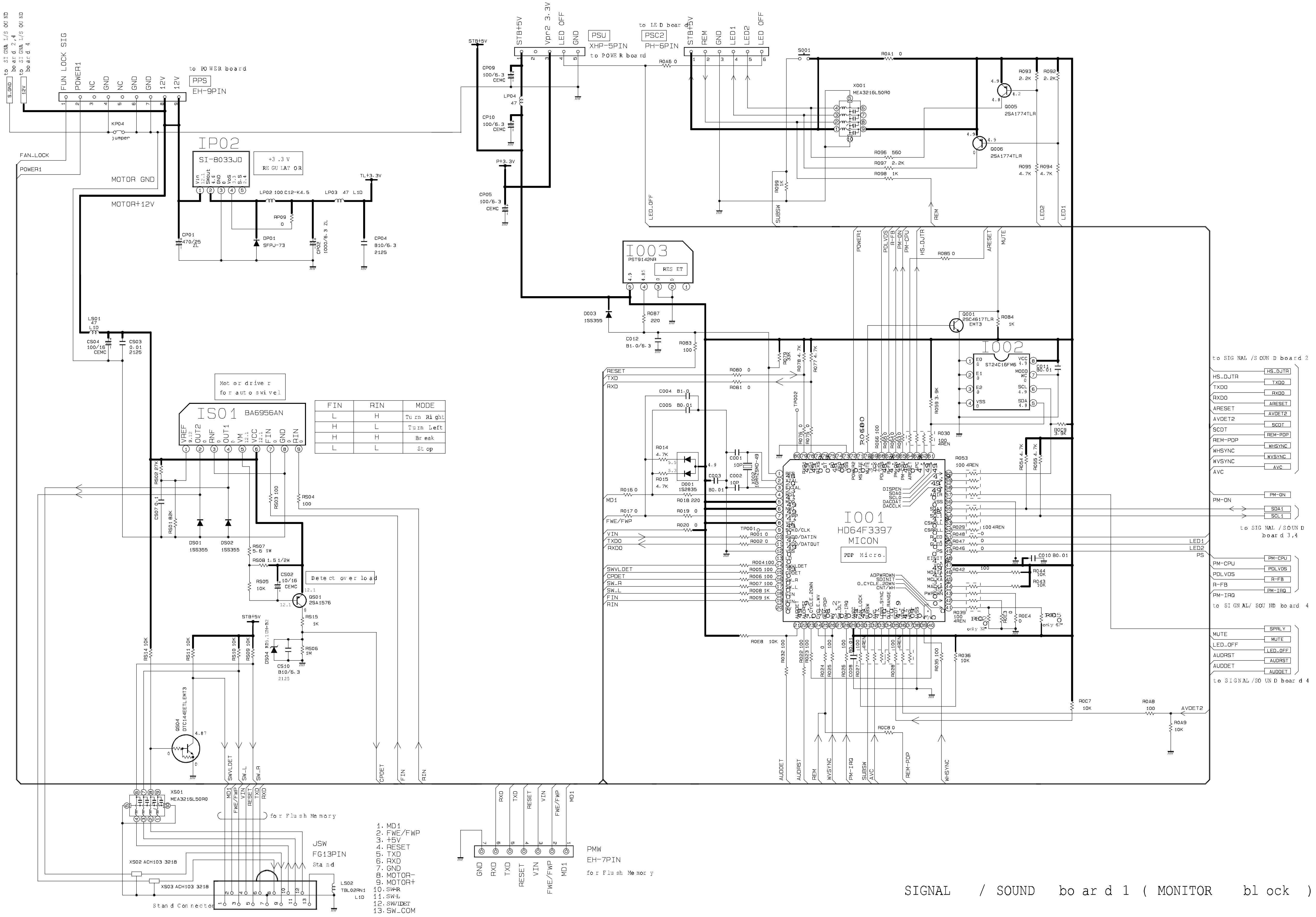
SM 003	AV Board Sheet 7	HITACHI



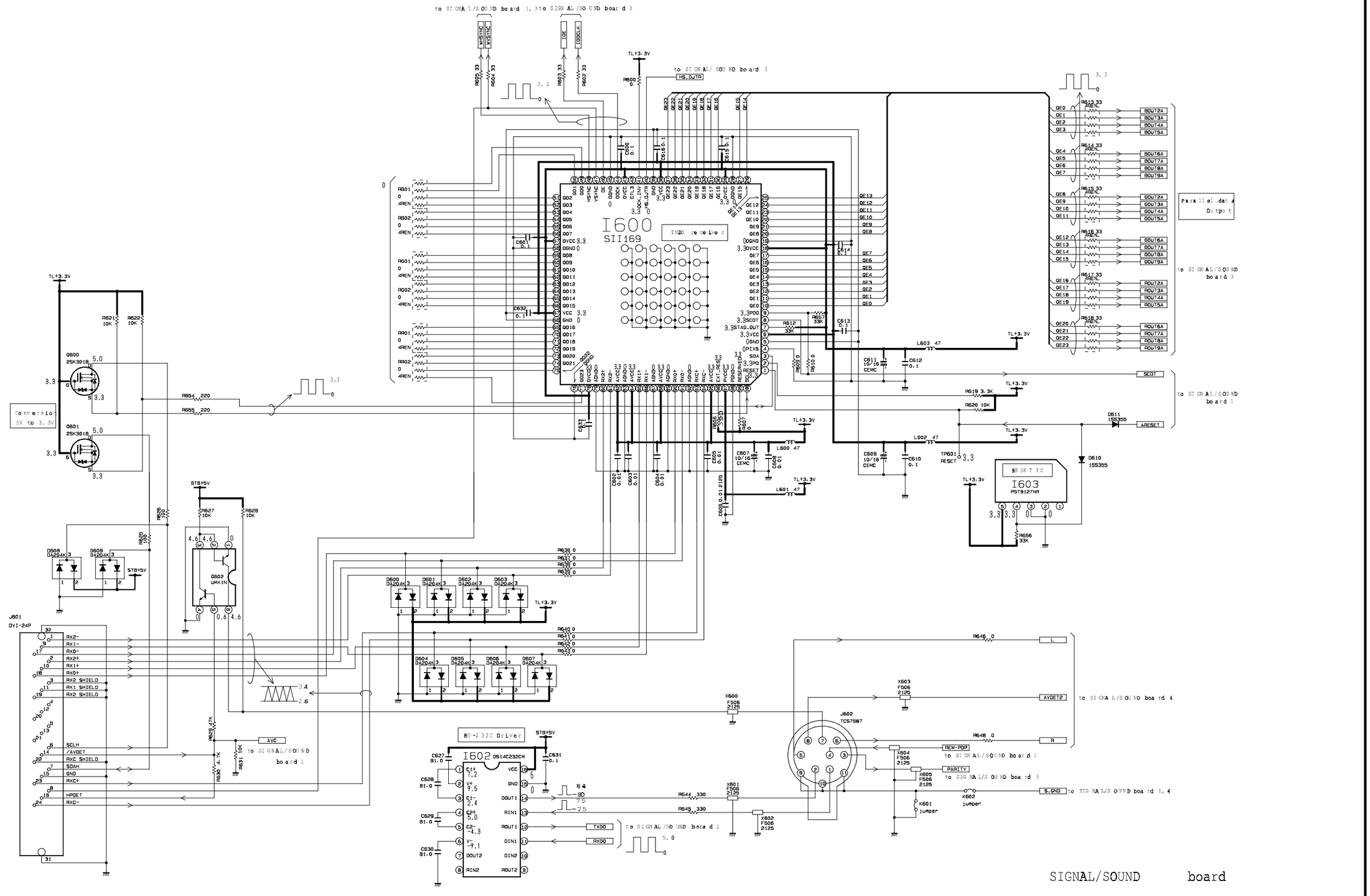
SM 003	AV Power Circuit	HITACHI



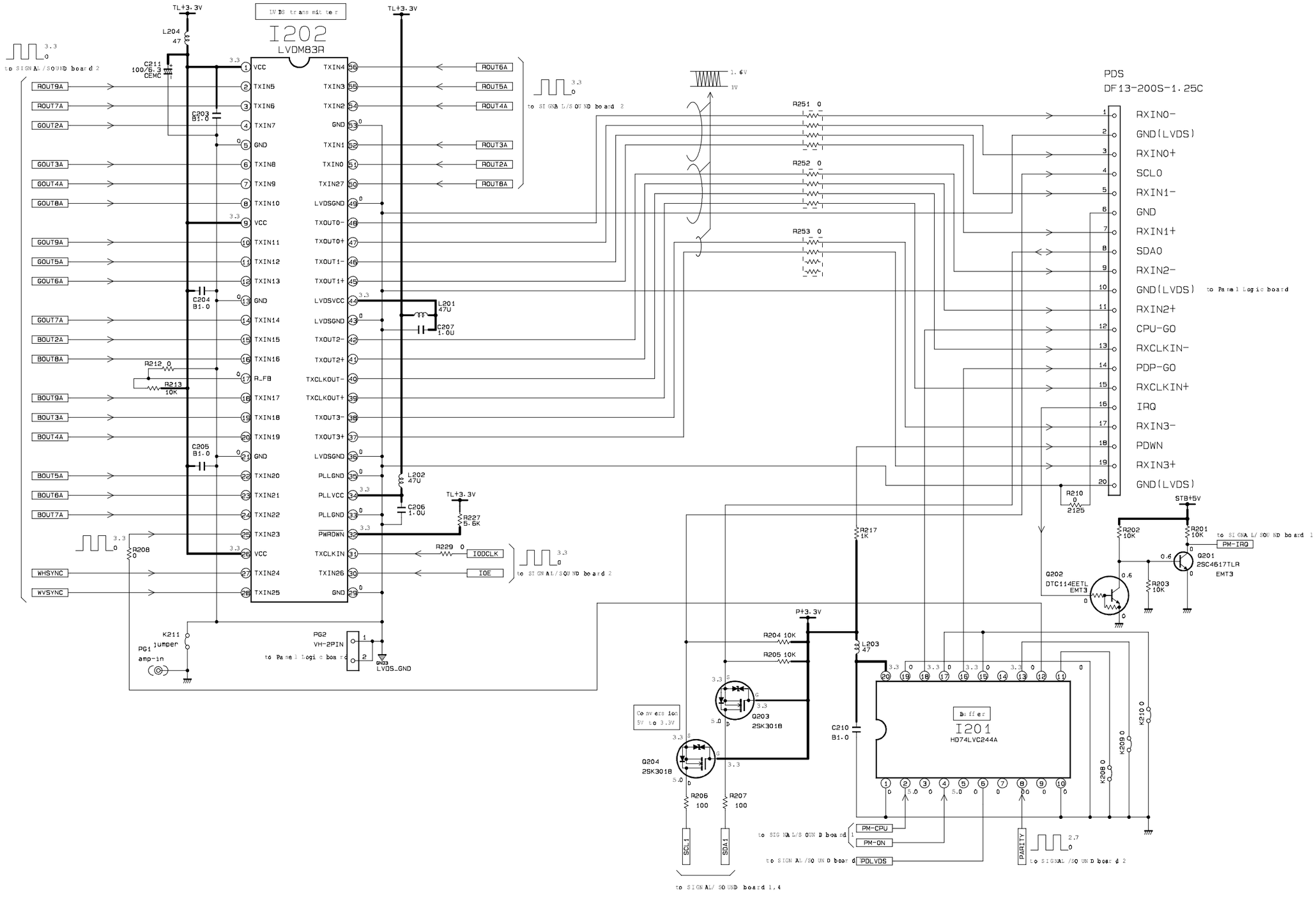
SM 003	AV Control Circuit	HITACHI



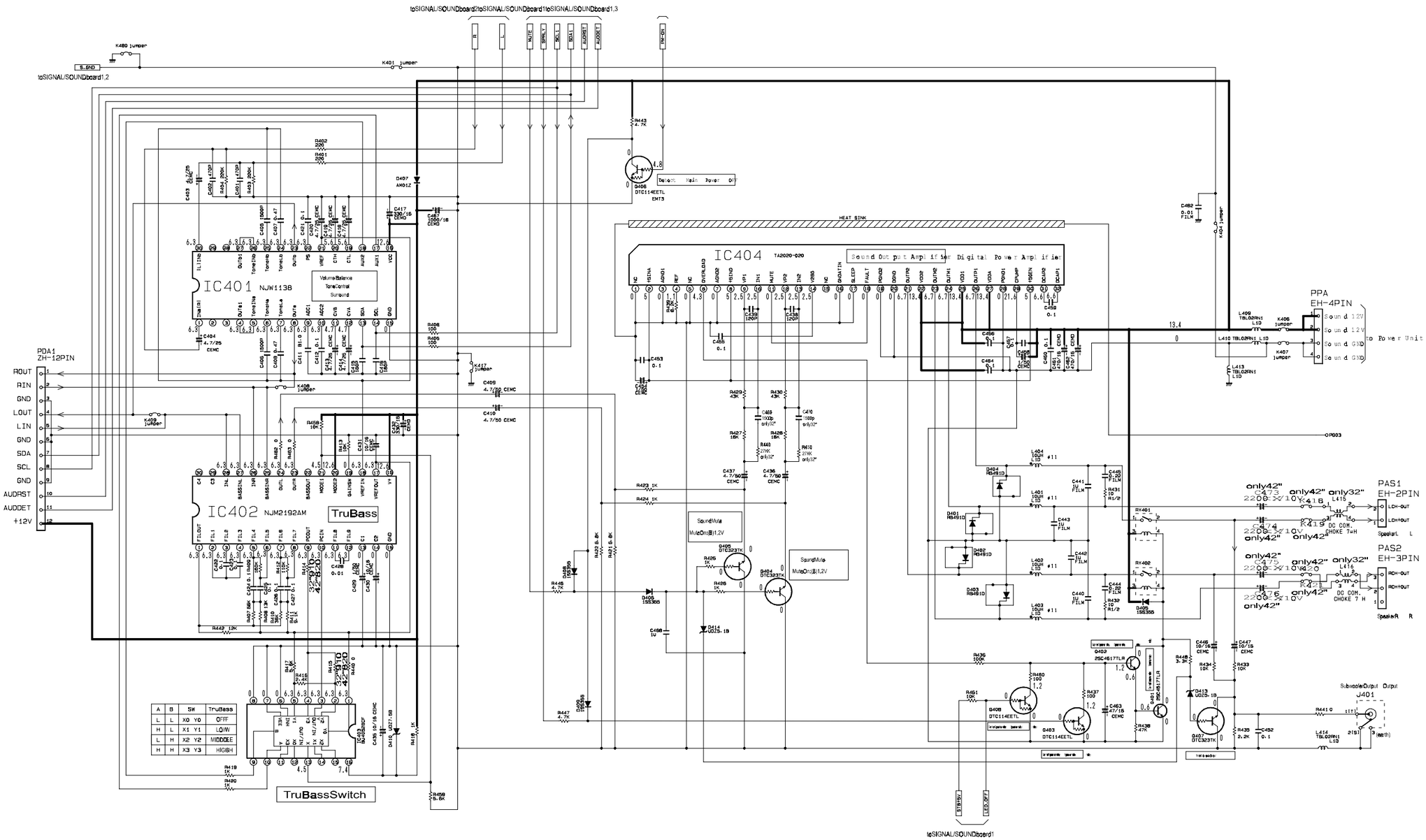
SM 003	Signal/Sound Board Sheet 1	HITACHI



SIGNAL/SOUND board

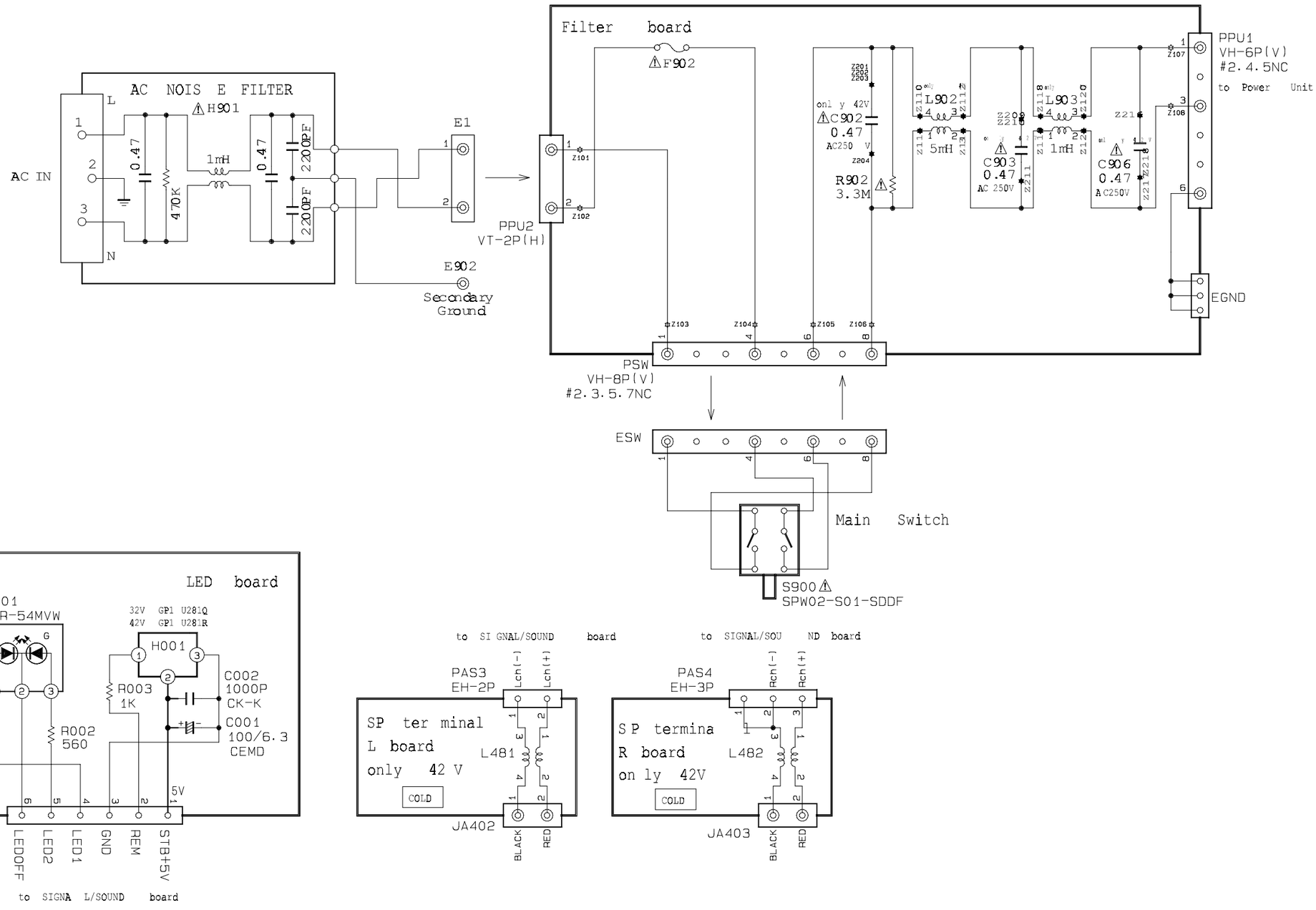


SM 003	Signal/Sound Board Sheet 3	HITACHI



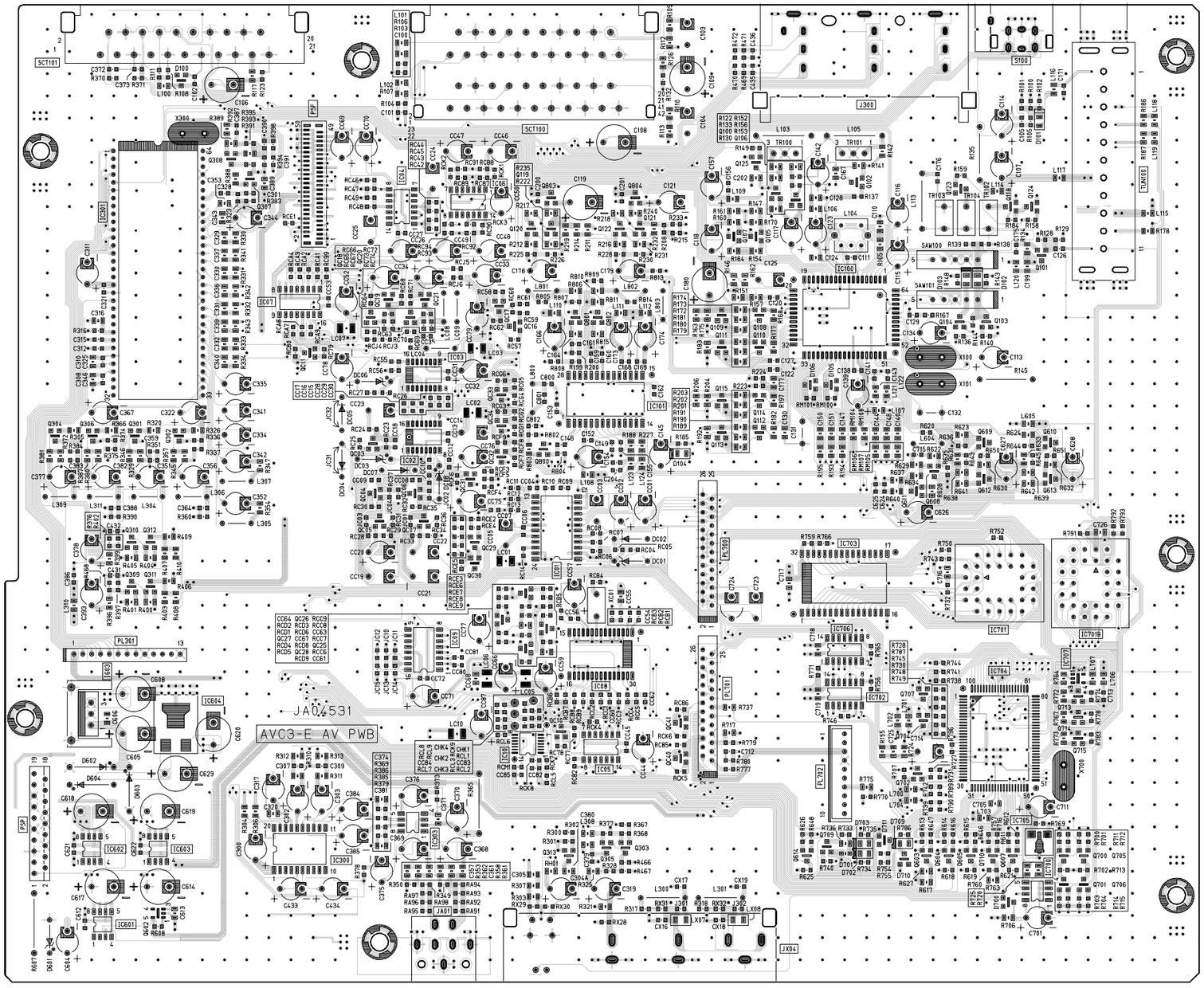
A	B	SW	TruBass
L	L	X0 Y0	OFF
H	L	X1 Y1	LOW
L	H	X2 Y2	MIDDDEE
H	H	X3 Y3	HIGH

SM 003	Signal/Sound Board Sheet 4	HITACHI

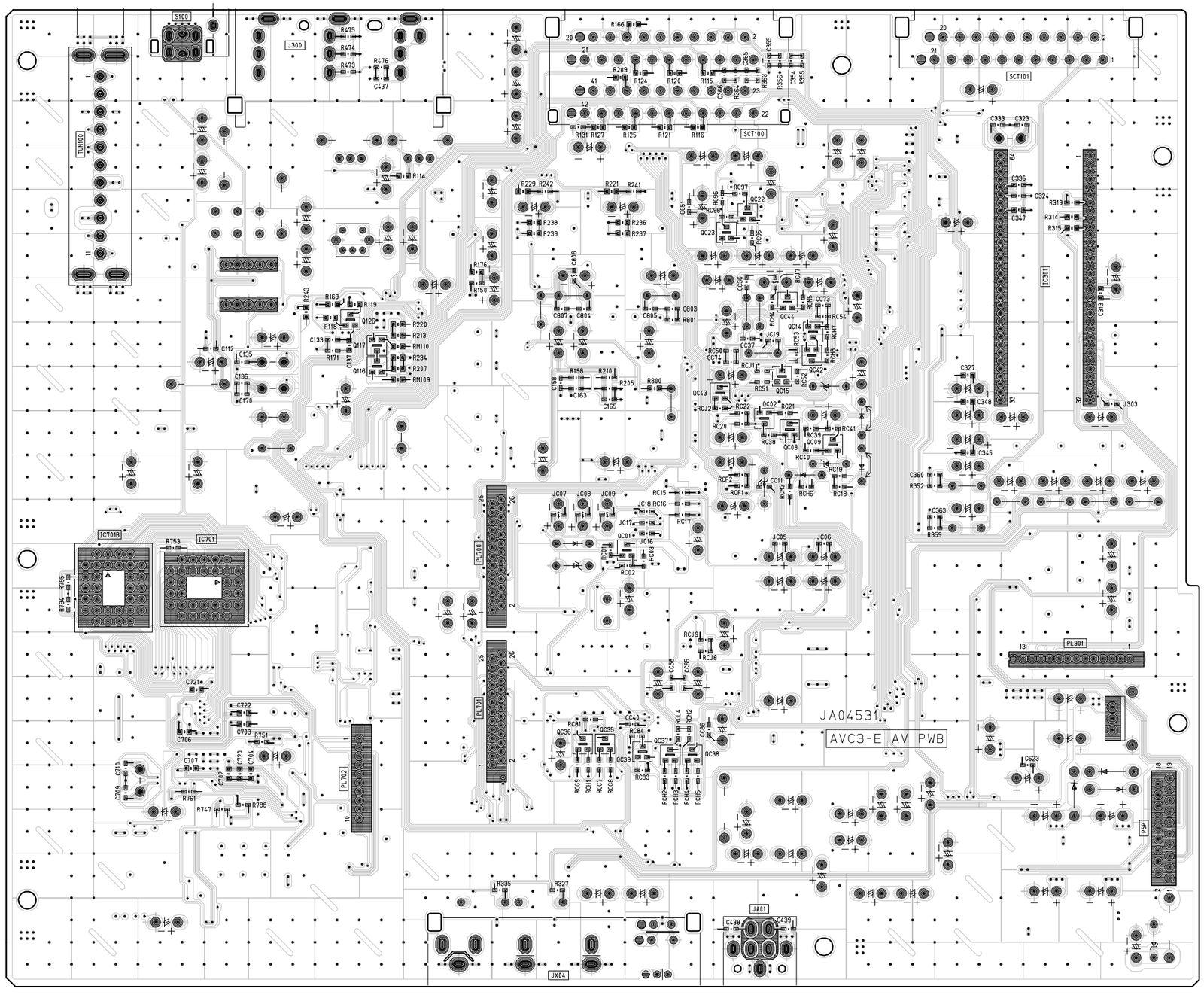


SM 003	Monitor Switch, LED, Filter, SP Terminals	HITACHI

Circuit Boards

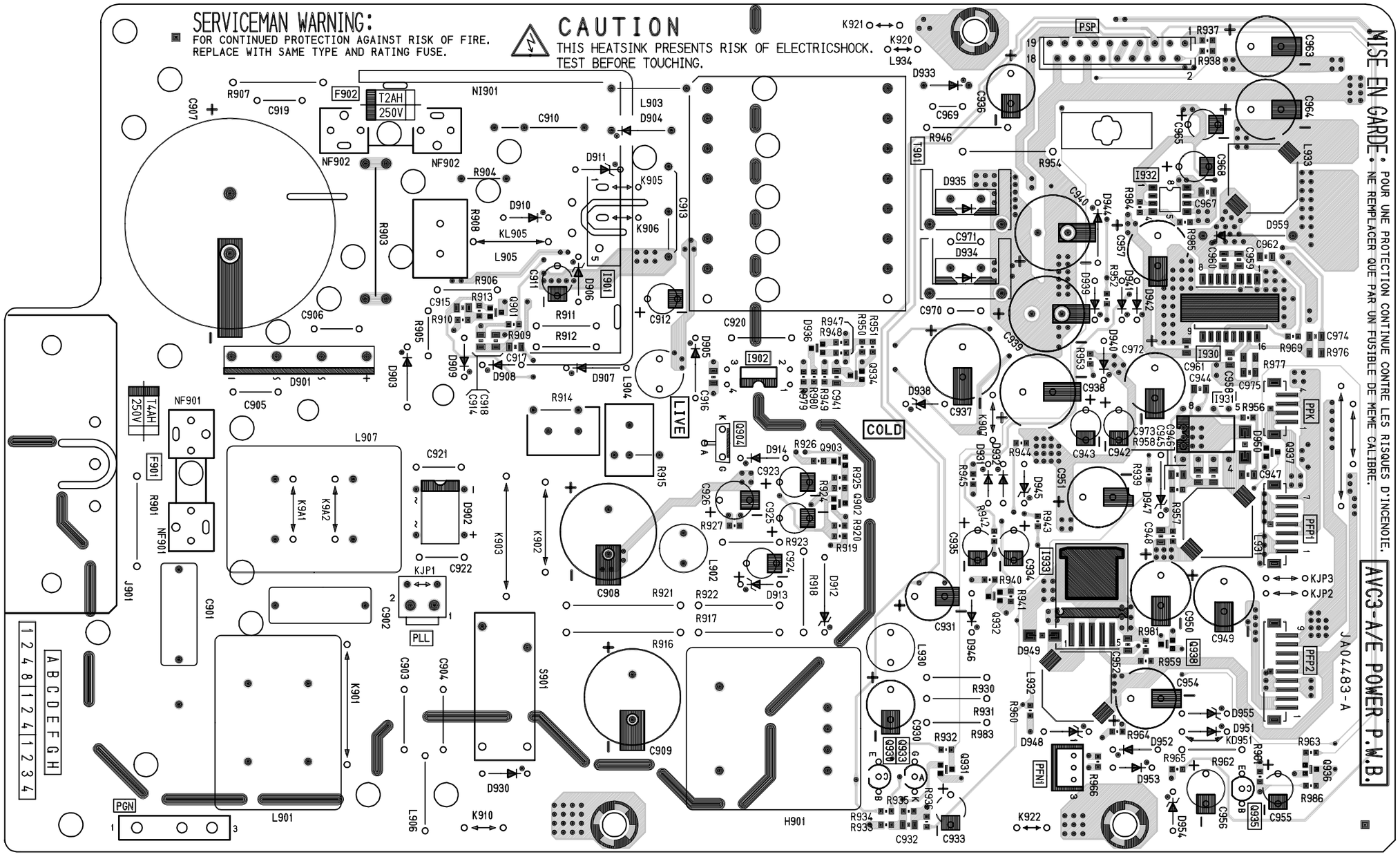


SM 003	AV Board - Side A	HITACHI



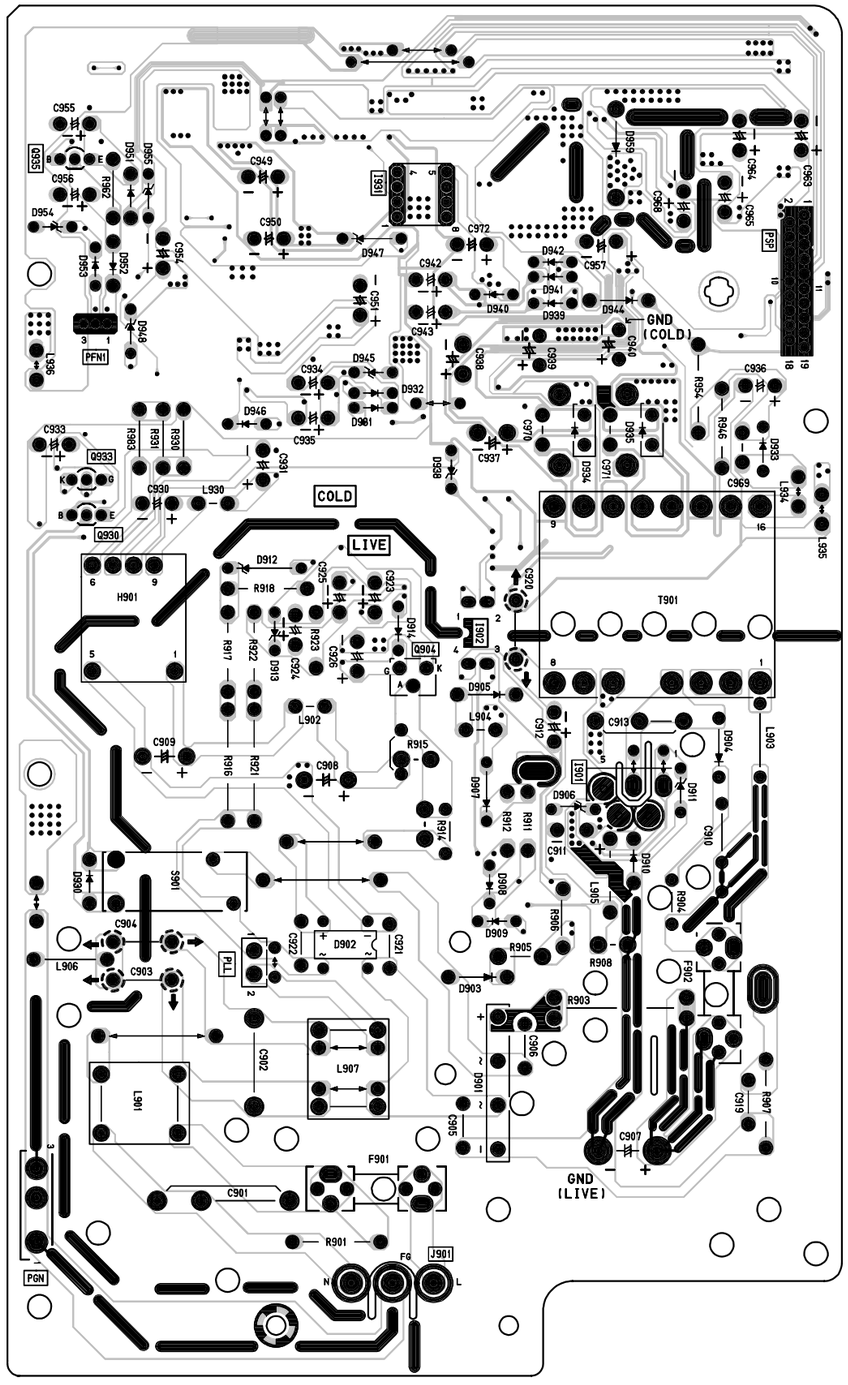
SM 003	AV Board - Side B	HITACHI

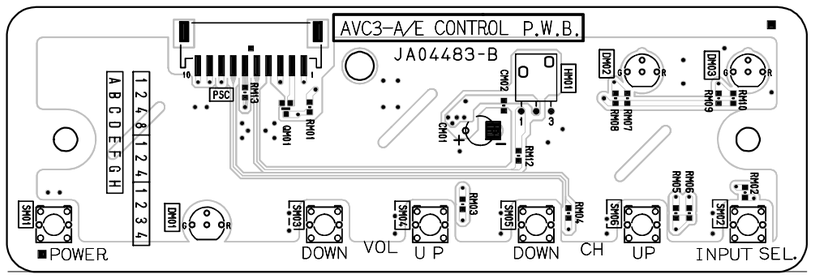
AV Power Side A



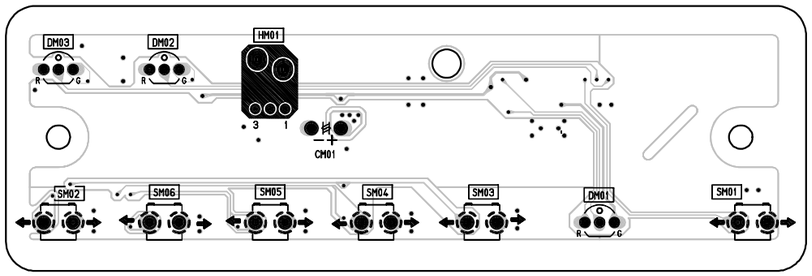
SM 003	Power Board - Side A	HITACHI

AV Power Side B





CONTROL BOARD - SIDE A

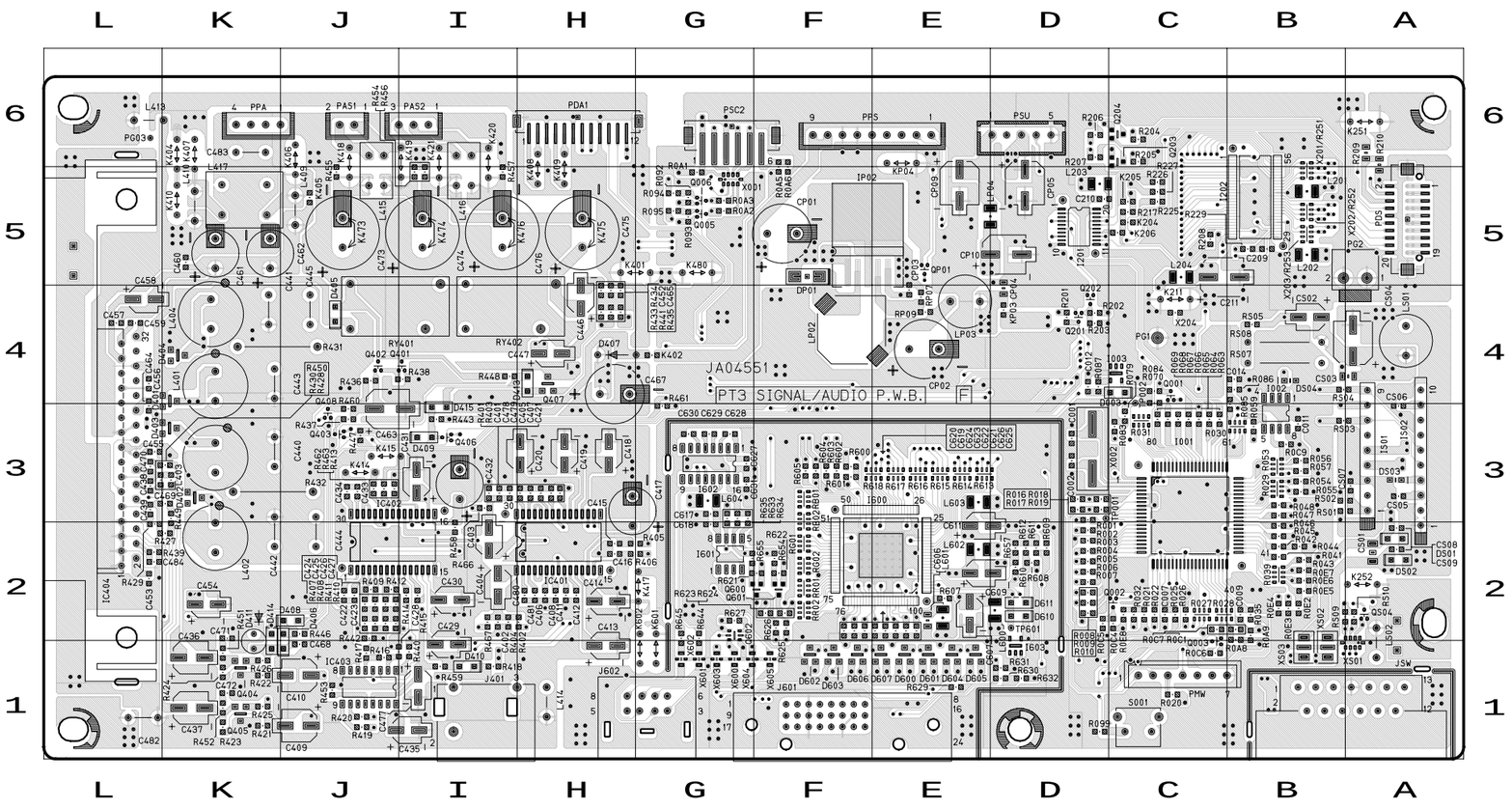


CONTROL BOARD - SIDE B

SM 003	Power Board - Side B	HITACHI

Monitor block SIGNAL/SOUND board [side - A]

SIGNAL/SOUND board is 4 layered. The inner layer is not recorded.



Main chip component location search chart

Cir.No.	Position
D003	C4
D401	K4
D402	K3
D403	K3
D404	K4
D405	J4
D406	J2
D408	J2
D409	I3
D410	I1
D413	H4
D414	K2
D415	I3
D600	E1
D601	E1

Cir.No.	Position
D602	F1
D603	F1
D604	E1
D605	E1
D606	F1
D607	E1
D610	D2
D611	D2
DP01	F5
DS01	A2
DS02	A2
DS03	A3
DS04	B4
I001	C3
I002	B3

Cir.No.	Position
I003	C4
I201	D5
I202	B5
I600	E2
I601	G2
I602	G3
I603	D1
IC401	H2
IC402	J2
IC403	J1
IP02	F5
L201	B5
L202	B5
L203	D5
L204	C5

Cir.No.	Position
L600	D2
L601	E2
L602	E2
L603	E3
L604	G3
LP02	F4
LP04	E5
PDA1	H6
PDS	A5
PSC2	G6
Q001	C4
Q002	C2
Q003	C2
Q005	G5
Q006	G5

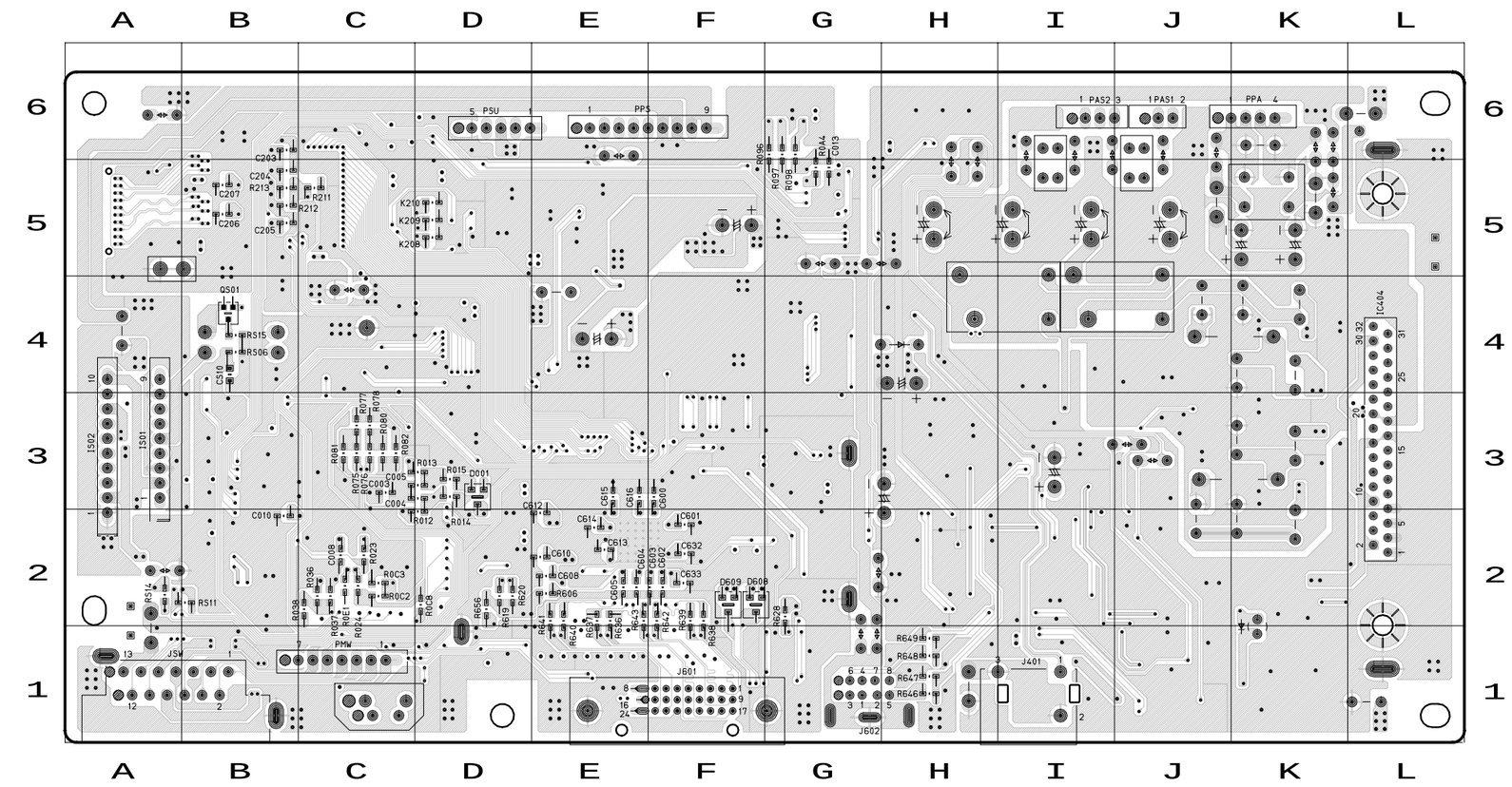
Cir.No.	Position
Q201	D4
Q202	D4
Q203	C6
Q204	C6
Q401	I4
Q402	J4
Q403	J3
Q404	K1
Q405	K1
Q406	I3
Q407	H4
Q408	J3
Q600	F2
Q601	F2
Q602	G2

Cir.No.	Position
QP01	E5
QS04	A2
TP001	D3
TP002	C4
TP601	D2
X001	G5
X002	D3
X201	B5
X202	B5
X203	B5
X204	C4
X600	G1
X601	G1
X602	G1
X603	G1

Cir.No.	Position
X604	G1
X605	F1
XS01	A2
XS02	B1
XS03	B1

Monitor block SIGNAL/SOUND board [side - B]

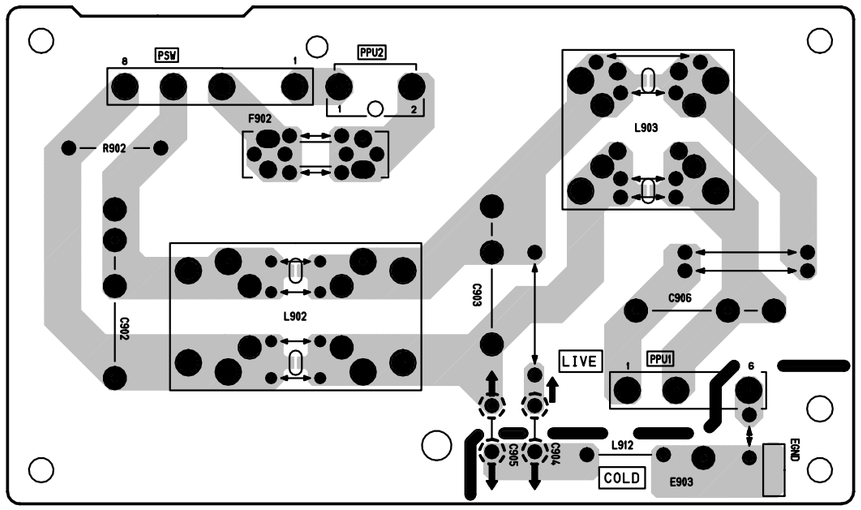
SIGNAL/SOUND board is 4 layered. The inner layer is not recorded.



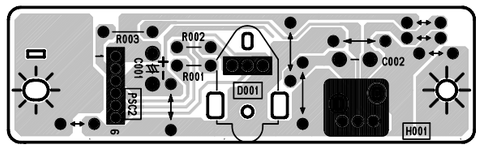
Main chip component location search chart

Cir.No.	Position
D001	D3
D608	F2
D609	F2
QS01	B4

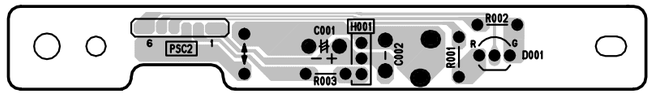
FILTER board



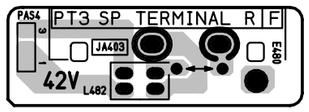
LED board for 32V



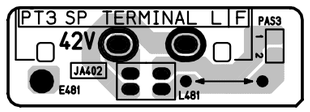
LED board for 42V



SPEAKER TERMINAL (R) bord (only 42V)

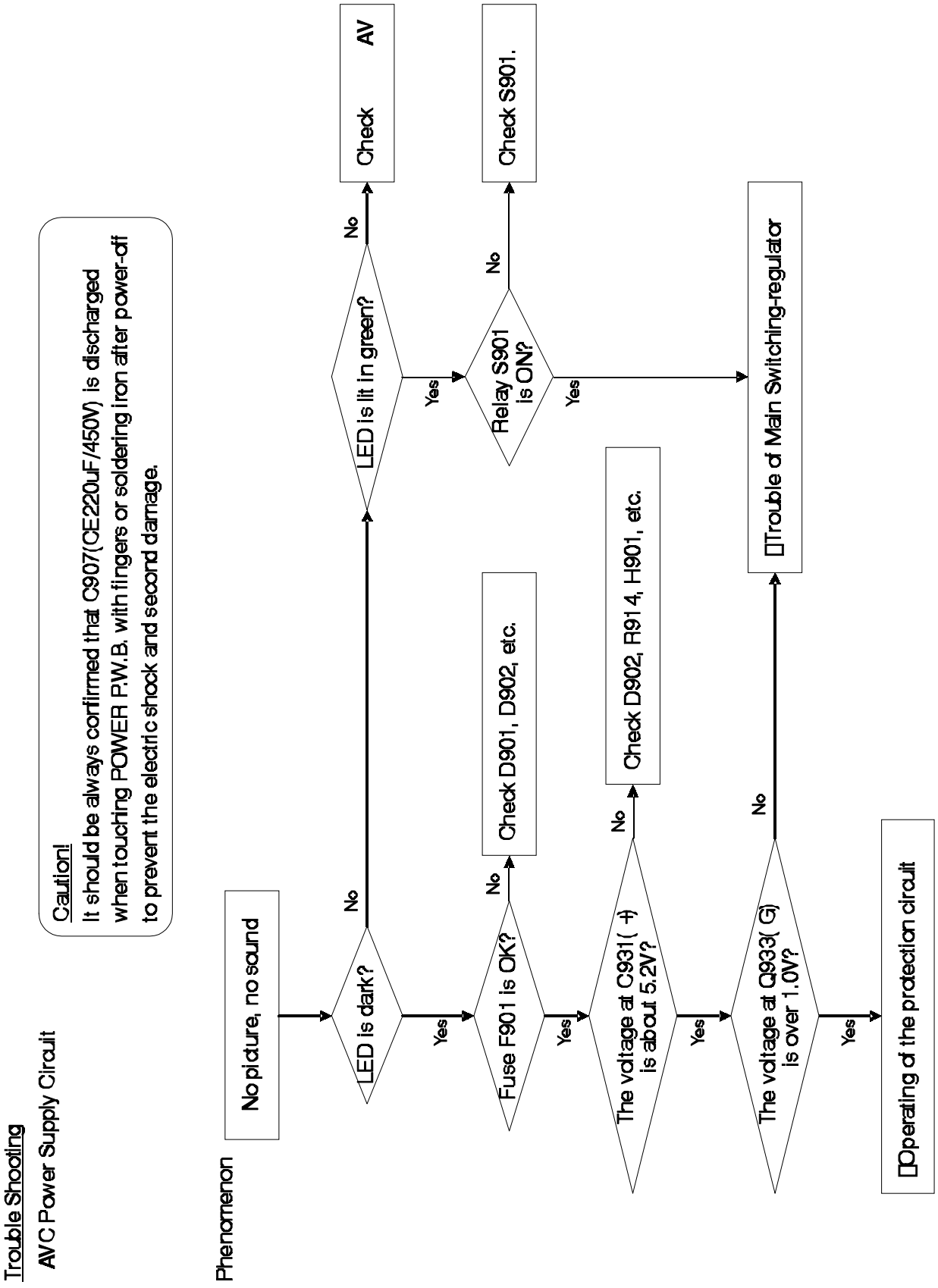


SPEAKER TERMINAL (L) bord (only 42V)

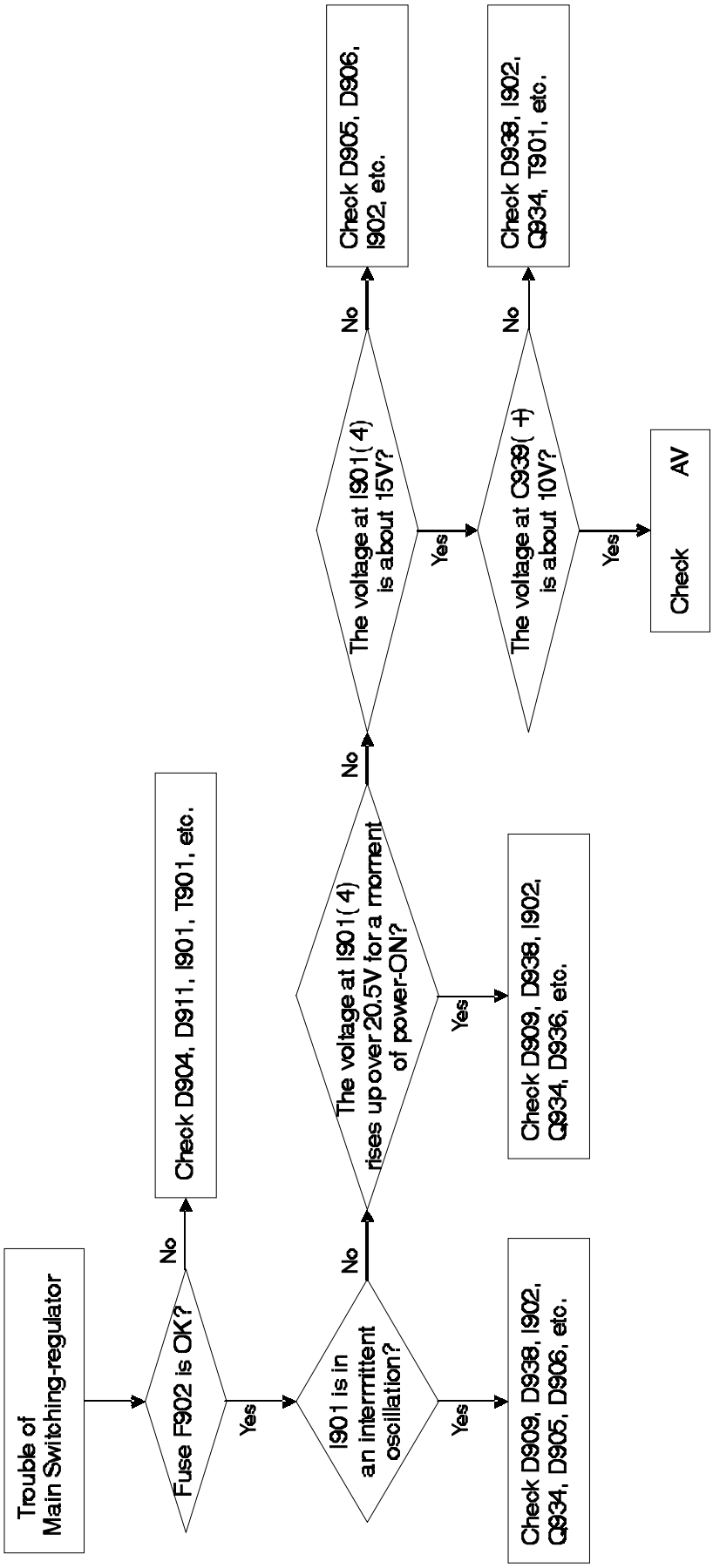


Troubleshooting Flow Charts

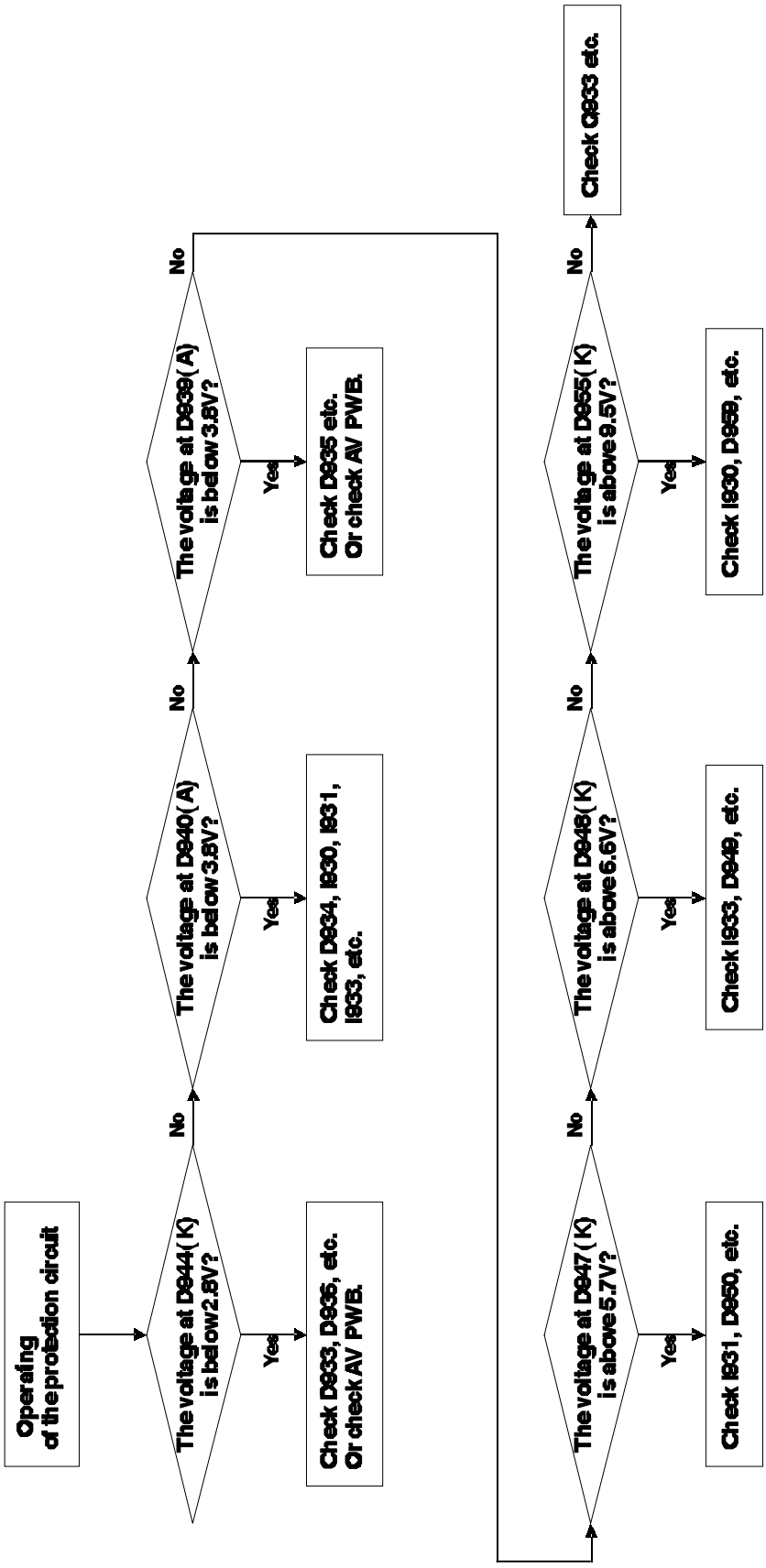
AV Power - 1



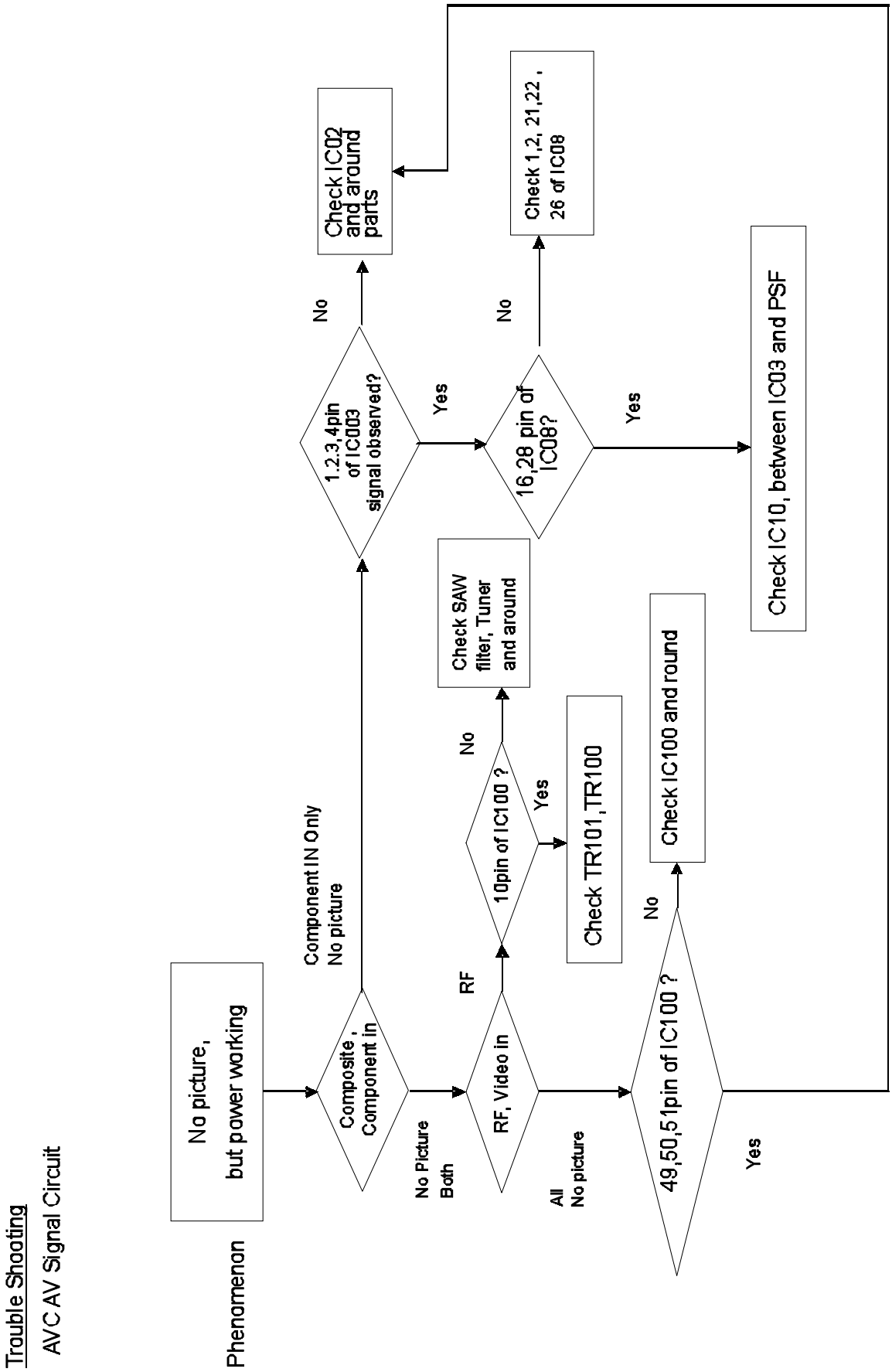
AV Power - 2


Trouble of Main Switching-regulator
Fuse F902 is OK?
No
Check D904, D911, I901, T901, etc.
Yes
I901 is in an intermittent oscillation?
No
Check D909, D938, I902, Q934, D905, D906, etc.
Yes
The voltage at I901(4) rises up over 20.5V for a moment of power-ON?
No
Check D909, D938, I902, Q934, D936, etc.
Yes
The voltage at I901(4) is about 15V?
No
Check D905, D906, I902, etc.
Yes
The voltage at C939(+) is about 10V?
No
Check D938, I902, Q934, T901, etc.
Yes
Check AV

AV Power - 3


Operating of the protection circuit
The voltage at D944(K) is below2.8V?
Yes
Check D933, D935, etc. Or check AV PWB.
No
The voltage at D940(A) is below3.8V?
Yes
Check D934, I930, I931, I933, etc.
No
The voltage at D939(A) is below3.8V?
Yes
Check D935 etc. Or check AV PWB.
No
Check Q933 etc.
The voltage at D955(K) is above9.5V?
Yes
Check I930, D959, etc.
No
The voltage at D948(K) is above6.6V?
Yes
Check I933, D949, etc.
No
The voltage at D947(K) is above5.7V?
Yes
Check I931, D950, etc.
No

AV Circuit

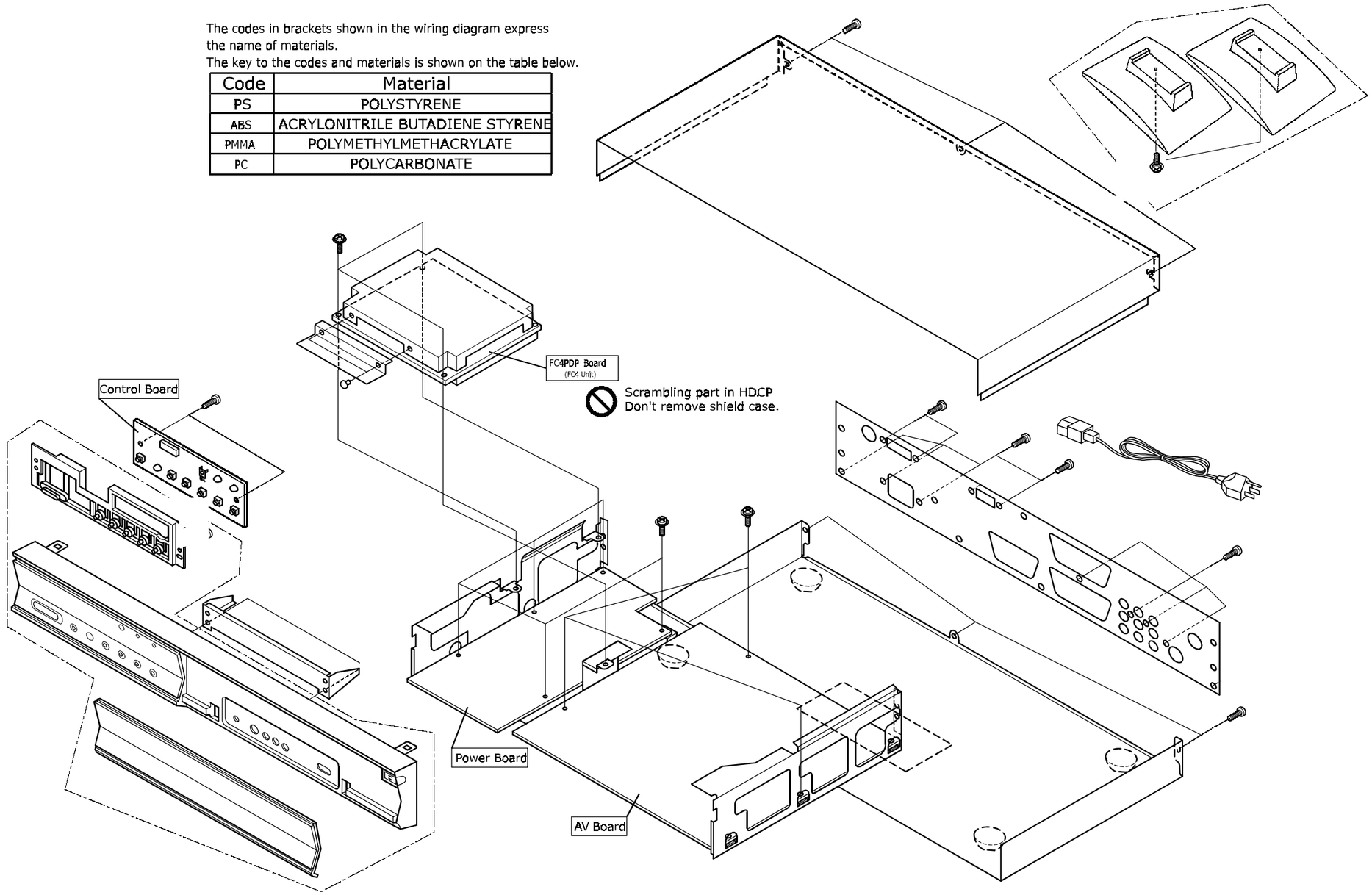

Trouble Shooting
AVC AV Signal Circuit
Phenomenon
No picture, but power working
Composite , Component in
Component IN Only No picture
No Picture Both
RF, Video in
RF
10pin of IC100 ?
No
Yes
Check SAW filter, Tuner and around
Check TR101,TR100
All No picture
49,50,51pin of IC100 ?
No
Check IC100 and round
Yes
1.2.3.4pin of IC003 signal observed?
No
Check IC02 and around parts
Yes
16,28 pin of IC08?
No
Check 1,2, 21,22 , 26 of IC08
Yes
Check IC10, between IC03 and PSF

Assembly Drawings

Audio / Video

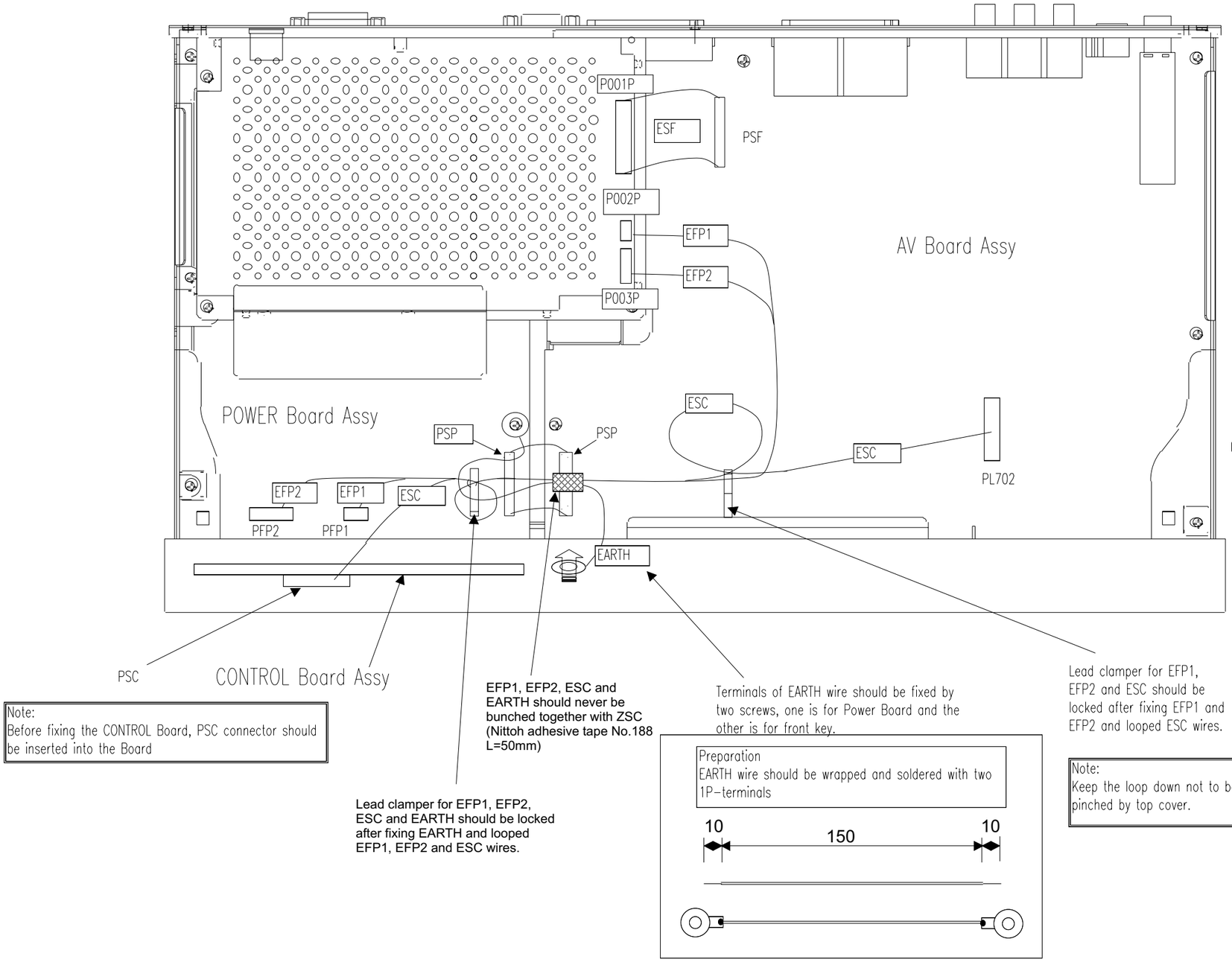
The codes in brackets shown in the wiring diagram express the name of materials.
The key to the codes and materials is shown on the table below.

Code	Material
PS	POLYSTYRENE
ABS	ACRYLONITRILE BUTADIENE STYRENE
PMMA	POLYMETHYLMETHACRYLATE
PC	POLYCARBONATE



SM 003	Disassembly Diagram	HITACHI

Wiring for Audio / Video Components



Specification

1. This Drawing shows the wire dressing and connectors' connection of AVC3-E Final Assy.

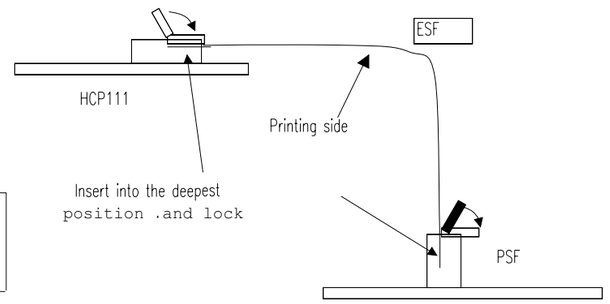
2. Connectors with wire should be inserted into Plug Pin Posts as shown on the table below

Connector with wire		Plug Pin 1		Plug Pin 2	
Name	Assy List	Board	Name	Board	Name
ESC	FINAL ASSY	Control Board	PSC	AV Board	PL702
EFP1	FINAL ASSY	Power Board	PFP1	HCP111	P002P
EFP2	FINAL ASSY	Power Board	PFP2	HCP111	P003P
ESF	FINAL ASSY	AV Board	PSF	HCP111	P001
PSP	Power Board Assy	AV Board	PSP	-	-

3. Into Plug Pin Post with Lock function, connector housing should be inserted deeply until it can be locked.

4. Into Plug Pin Post without Lock function, connector housing should be inserted most deeply.

5. Flexible Flat Cable ESF should be fixed as shown on the drawing below

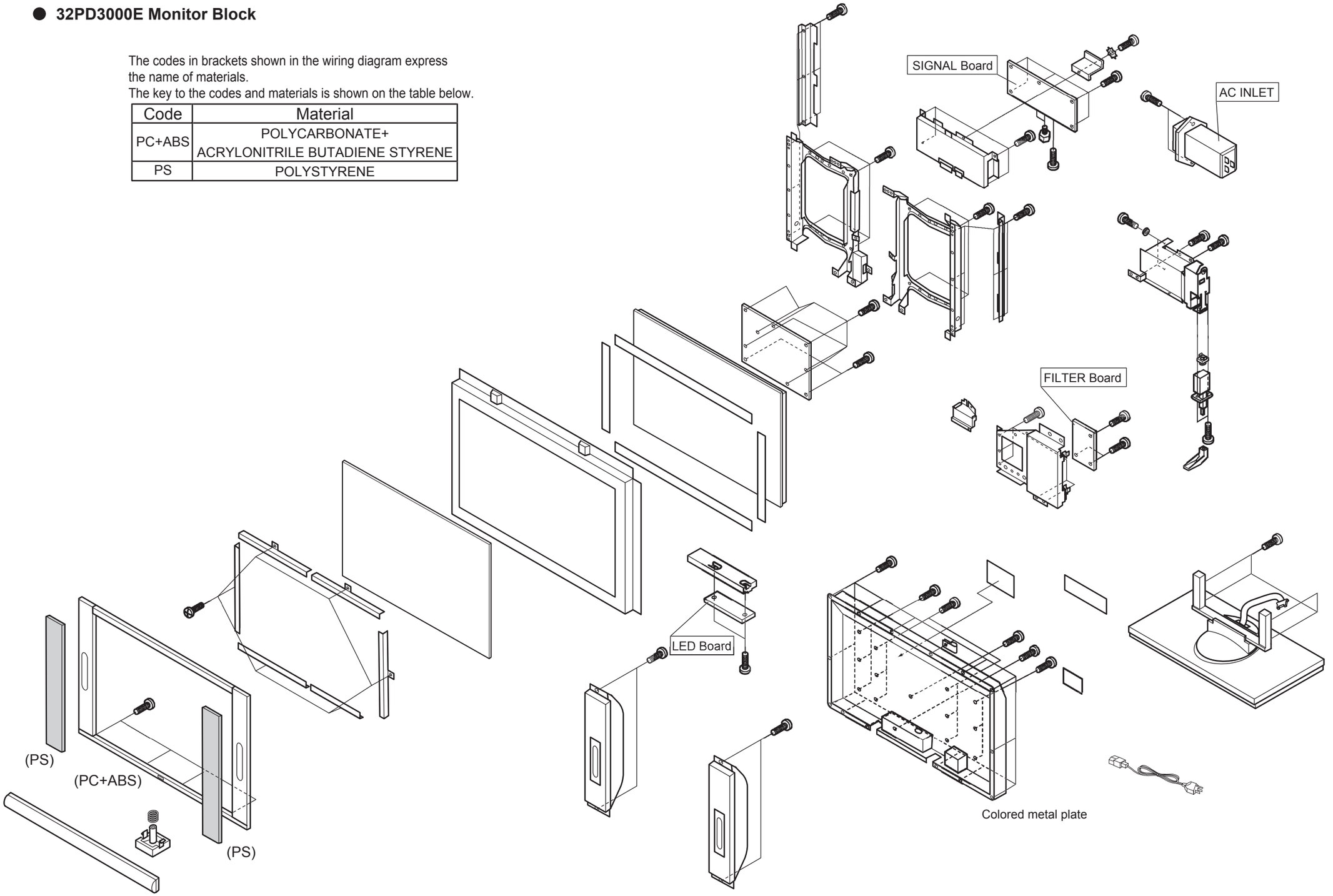


32PD3000E
42PD3000E

● 32PD3000E Monitor Block

The codes in brackets shown in the wiring diagram express the name of materials.
The key to the codes and materials is shown on the table below.

Code	Material
PC+ABS	POLYCARBONATE+ ACRYLONITRILE BUTADIENE STYRENE
PS	POLYSTYRENE

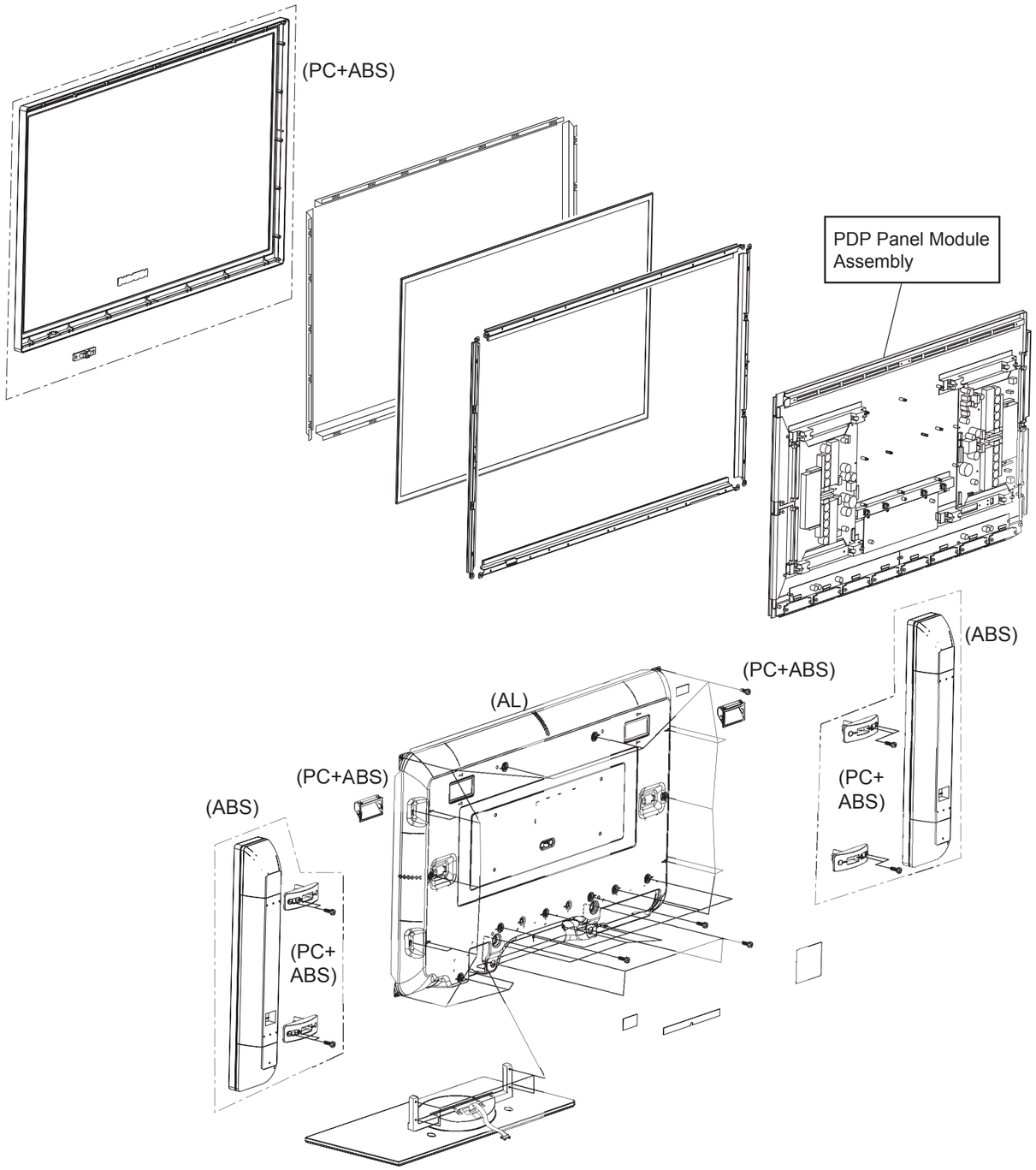


32PD3000E
42PD3000E

● 42PD3000E Monitor Block

The codes in brackets shown in the wiring diagram express the name of materials.
The key to the codes and materials is shown on the table below.

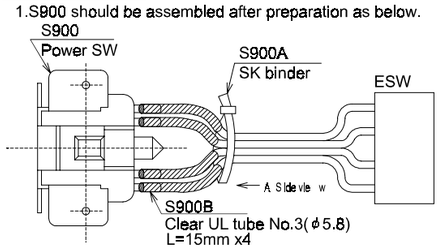
Code	Material
ABS	ACRYLONITRILE BUTADIENE STYRENE
PC+ABS	POLYCARBONATE+ ACRYLONITRILE BUTADIENE STYRENE
AL	ALUMINUM



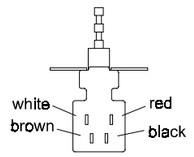
32 inch Monitor Wiring A

Preparative work

1.S900 should be assembled after preparation as below.



A Side view

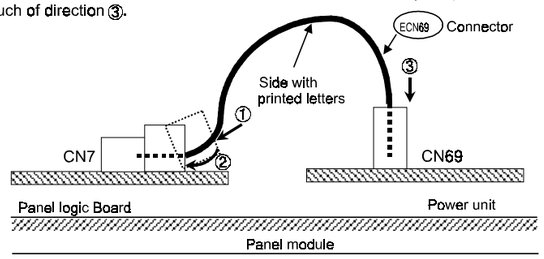


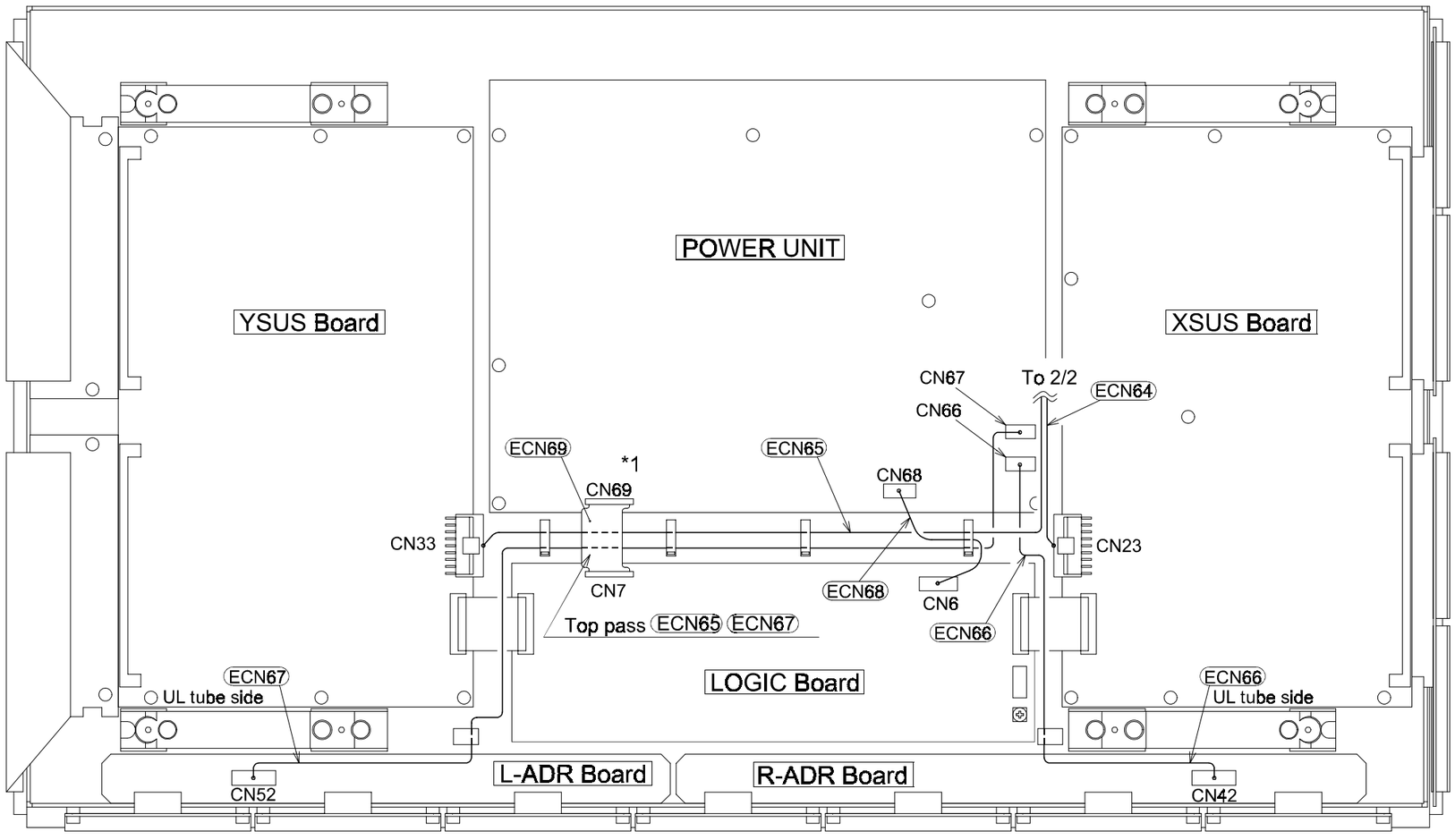
(1) This drawing shows from topside of power switch.
(2) The marked as ◎ means twist and soldered.
(3) UL clear tube should inset to end of terminals of power switch and SK binder should fix end of tube.

Specification of part *1

Printing part of ECN69 connector should be set to module side of panel.

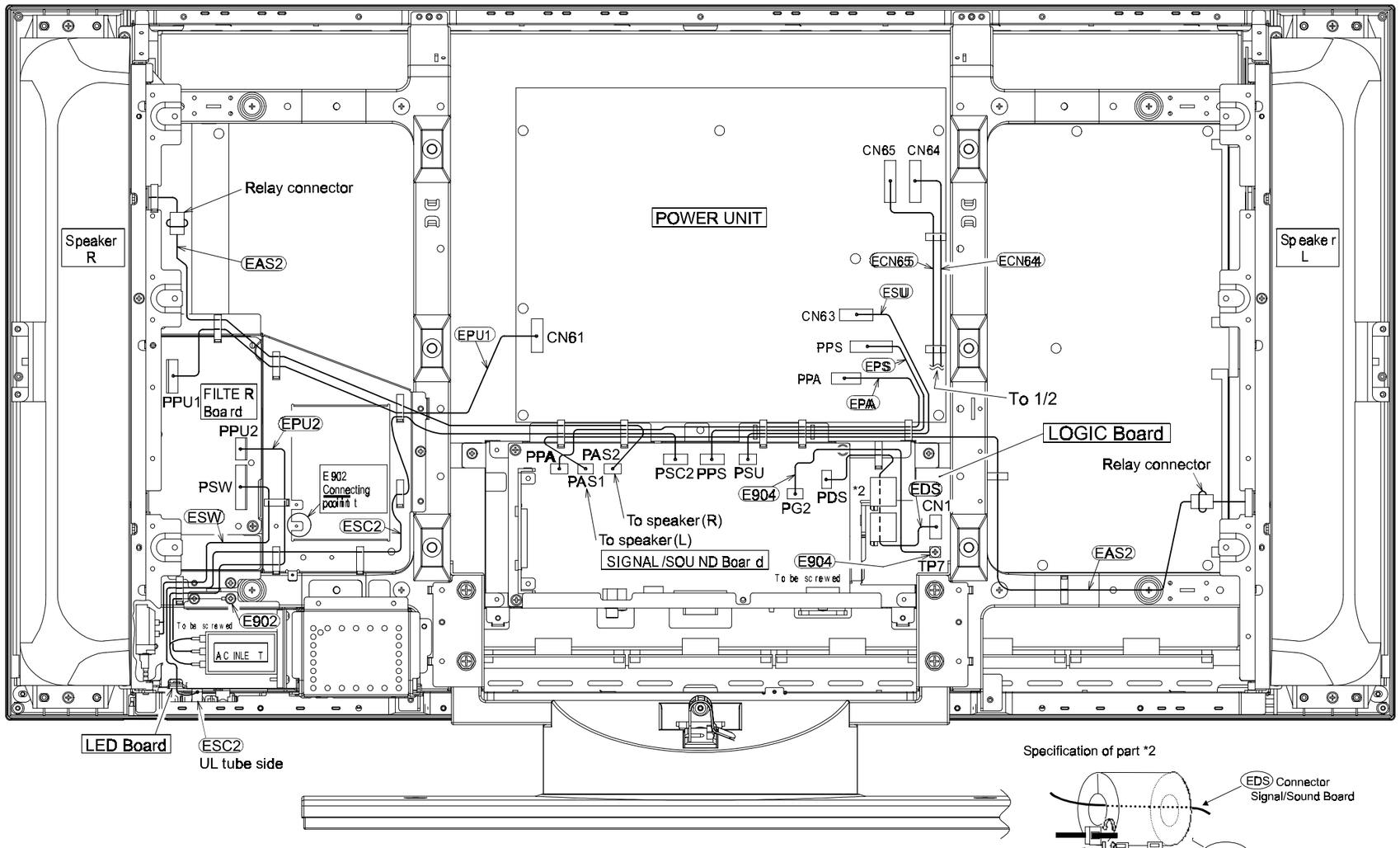
(1) Release the lock of CN7 (position of dot line as figures), then ECN69 connector should be inset to CN7 until touch of direction ① as figures.
(2) Keep condition (1), lock of CN7 shift to direction 2 and fix.
(3) The other side; which is CN69 side of ECN69 should be completely insert until touch of direction ③.





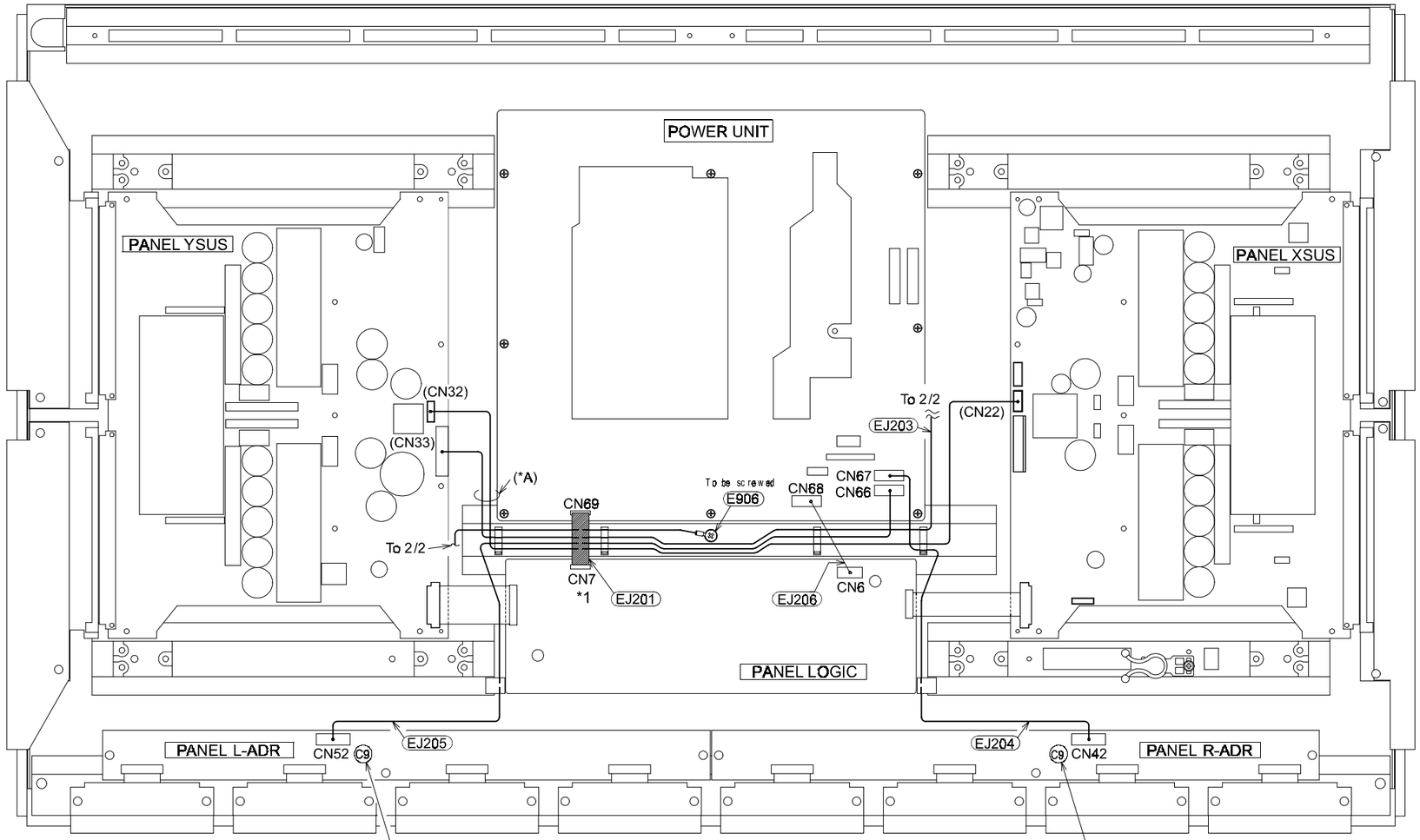
SM 003	32 PD Monitor Wiring Diagram Part 1	HITACHI

32 inch Monitor Wiring B



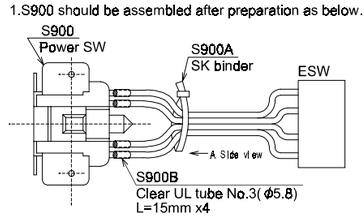
SM 003	32 PD Monitor Wiring Diagram Part 2	HITACHI

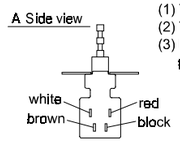
42 inch Monitor Wiring A



Preparative work

1.S900 should be assembled after preparation as below.

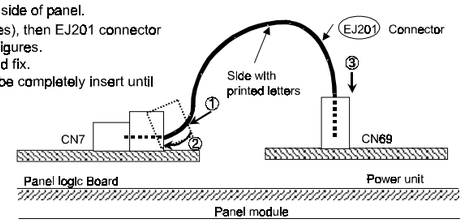


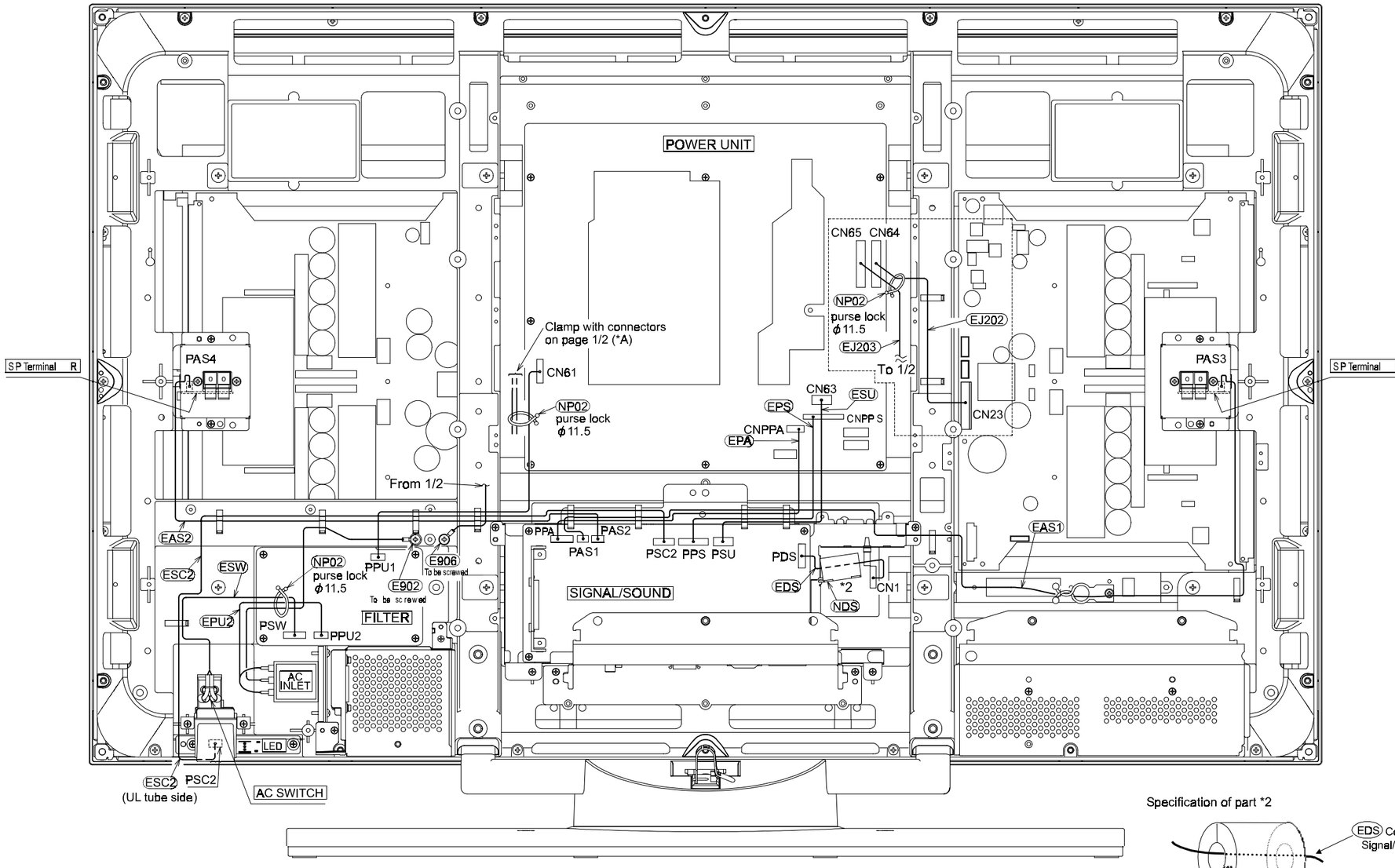


(1) This drawing shows from topside of power switch.
(2) The marked as ◎ means twist and soldered.
(3) UL clear tube should inset to end of terminals of power switch and SK binder should fix end of tube.

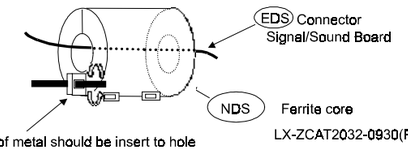
Specification of part *1

Printing part of EJ201 connector should be set to module side of panel.
(1) Release the lock of CN7 (position of dot line as figures), then EJ201 connector should be inset to CN7 until touch of direction ① as figures.
(2) Keep condition (1), lock of CN7 shift to direction 2 and fix.
(3) The other side; which is CN69 side of EJ201 should be completely insert until touch of direction ③.





Specification of part *2



LX-ZCAT2032-0930(P#2169513)

The lib of metal should be insert to hole of ferrite core.
The lib of metal should be bend (about 45 deg to 90 deg) for fix the ferrite core.

※ The ferrite core should be closed after wire drop in to ferrite core.
The ferrite core never give damage to leads after fix.

SM 003	42PD3000 Wiring Diagram - 2	HITACHI

24 way Digital Interface Cable Connection

AVC(FC4) P301P DV174320-4004			PDP
1	TX2-	→	TX2-
2	TX2+	→	TX2+
3	SHIELD	---	SHIELD
4	N.C.	---	N.C.
5	N.C.	---	N.C.
6	SCLH	→	SCLH
7	SDAH	→	SDAH
8	N.C.	---	N.C.
9	TX1-	→	TX1-
10	TX1+	→	TX1+
11	SHIELD	---	SHIELD
12	N.C.	---	N.C.
13	N.C.	---	N.C.
14	+5VAVDET	→	+5VAVDET
15	GND	---	GND
16	HPDET	→	HPDET
17	TXD-	→	TXD-
18	TXD+	→	TXD+
19	SHIELD	---	SHIELD
20	N.C.	---	N.C.
21	N.C.	---	N.C.
22	SHIELD	---	SUIELD
23	TXC+	→	TXC+
24	TXC-	→	TXC-

AVC(FC4) P302P TC57587-01-401			PDP
1	TXD	→	TXD
2	RXD	←	RXD
3	PARITY	→	PARITY
4	REMO-PDP	←	REMO-PDP
5	AUDIO L	→	AUDIO L
6	AUDIO R	→	AUDIO R
7	PDDET	←	PDDET
8	AVDET2	→	AVDET2

Microprocessor Pins

Pin No.		FUNCTION	INVERTED (I) OR BUFFERED (B) FUNCTION	IN/OUT				
Port 0								
9	0.0	POWER-ON		IN	Power key input	on	stand-by	power save
10	0.1	POWER1		OUT	Power control 1	H(1.5V)	L	H(1.2V)
11	0.2	POWER2		OUT	Power control 2	H(1.0V)	L	L
12	0.3		(I) POWER-LED 5V	OUT	Power LED control	H(1.5V)	H(1.5V)	H(1.5V)
13	0.4		(I) OSD-RESET	OUT	PC OSD reset			
14	0.5		(I) PM-RESET	OUT	PDP reset			
15	0.6	WC# EEPROM		OUT	EEPROM enable			
16	0.7	AV-LINK-OUT	(I) AV LINK	OUT	AV link output			
Port 1								
41	1.0	3WB-CLOCK	(I) 3WB-CLOCK 5V	OUT	3 wire bus clock			
42	1.1	FC-ENABLE	(I) FC-ENABLE 5V	OUT	FC enable			
43	1.2	MSC-ENABLE	(I) MSC-ENABLE 5V	OUT	MSC enable			
44	1.3		(I) OSD-EN	OUT	PC OSD enable			
45	1.4		(I) MSP-RESET	OUT	MSP3410 reset			
46	1.5	3WB-DATA	(B) 3WB-DATA+5V	IN/OUT	3 wire buses data			
47	1.6	SCL-3V3	(B) SCL+5V	OUT	I2C bus clock			
52	1.7	SDA-3V3	(B) SDA+5V	IN/OUT	I2C bus data			
Port 2								
24	2.0	ADC0	FROM SCART1 PIN 8	IN	Scart 101 (AV1) pin 8 detect			

25	2.1	ADC1	FROM TUNER AGC	IN	AGC level detect			
26	2.2	PDDET	FROM PDP	IN	PDP ON detect			
27	2.3	ADC3	FROM FRONT SWITCHES	IN	Vol+/- &Prog.+/- key input			
Port 3								
31	3.0	IF TRAP	ADJACENT CHANNELS	OUT	Not used			
32	3.1	1900TX-3v3		OUT	PDP communication via RS232C			
33	3.2	SCI	FROM AVLINK	IN	AV link input			
34	3.3	IR1	IR FROM PDP	IN	IR input			
35	3.4	FRONT-SVHS-SOCKET		IN	S-VHS socket detect			
36	3.5	MAP1	A18 ON SRAM	OUT	SRAM mapping			
37	3.6	MAP2	A15/A18 SWITCH	OUT	SRAM mapping			
38	3.7	1900RX		IN	PDP communication via RS232C			
Port 4								
48	4.2	MEM RD#		OUT	SRAM output enable			
49	4.3	MEM WR#		OUT	SRAM write enable			

Connections to FC4

	PSF at AVC	P001 at FC4			
Pin No.	PIN NAME	PIN NAME	IN/OUT	FUNCTIONS	NOTE
1	GND	GND	I/O	I^2C bus DATA	
2	N.C.	N.C.	I/O	I^2C bus CLOCK	
3	GND	GND	-	GND	
4	DATA	DATA	I/O	3 wires DATA	5V CMOS
5	CLK	CLK	I	3 wires CLOCK	5V CMOS
6	GND	GND	-	GND	
7	FC-ENA	FC-ENA	I	FC micro enable	5V CMOS
8	MSC-ENA	OSD-CS	I	MSC micro enable	5V CMOS
9	DATA	OSD-DATA	I	3 wires DATA	5V CMOS
10	CLK	OSD-CLK	I	3 wires CLOCK	5V CMOS
11	GND	GND	-	GND	
12	N.C.	N.C.(2H)	O	2H sync for OSD	
13	N.C.	K_DET	I	Enable for OSD generator	
14	N.C.	N.C.(2V)	O	2V sync for OSD	
15	N.C.	KMASK	I	RESET for OSD generator	
16	GND	GND	-	GND	
17	RS232C-PDP(TxD)	32C-PDP (TXD)	I	RS232C-TxD	5V CMOS
18	RS232C-PDP(RxD)	32C-PDP (RXD)	O	RS232C-RxD	5V CMOS
19	GND	GND	-	GND	
20	+5VSTB	AVDET	I	PDP control	
21	N.C.	N.C.	I	MATRIX control	
22	Remo-PDP	Remo-PDP	O	R/C command from PDP	5V CMOS
23	GND	N.C.	-	GND	
24	PM RST	PM RST	I	PDP control	5V CMOS
25	PD DET	PD DET	O	PDP control	5V CMOS
26	GND	GND	-	GND	
27	MY	MY	I	Video Y	1.4V±0.06Vp-p
28	MCb	MCb	I	Video Cb	0.7v±0.03Vp-p
29	MCr	MCr	I	Video Cr	0.7v±0.03Vp-p

30	GND	GND	-	GND	
31	MH	MH	I	Main H sync	5V CMOS
32	MV	MV	I	Main V sync	5V CMOS
33	GND	GND	-	GND	
34	SY	SY	I	Sub Y/G	1.4V±0.06Vp-p (Y) / 0.7Vpp±0.03Vpp (G)
35	SCb	SCb	I	Sub Cb/B	0.7v±0.03Vp-p
36	SCr	SCr	I	Sub Cr/R	0.7v±0.03Vp-p
37	GND	GND	-	GND	
38	SH	SH	I	Sub H sync	5V CMOS
39	SV	SV	I	Sub V sync	5V CMOS
40	GND	GND	-	GND	
41	GND	GND(OSD/TXT G)	I	GND	
42	GND	GND(OSD/TXT B)	I	GND	
43	GND	GND(OSD/TXT R)	I	GND	
44	GND	GND(OSD BLK/Ys)	I	GND	
45	GND	GND(OSD/Ym)	I	GND	
46	GND	GND	-	GND	
47	AUDIO L	AUDIO L	I	Audio L	typ 500mVrms
48	GND	GND	-	GND	
49	AUDIO R	AUDIO R	I	Audio R	typ 500mVrms
50	GND	GND	-	GND	
P002P			**at FC4**		
PIN NO.	**PIN NAME**		**IN/OUT**	**FUNCTIONS**	**NOTE**
1	FA+6.0V		I	6V power supply	460mA
2	FA+6.0V		I	6V power supply	
3	GND		-	GND	
4	GND		-	GND	
5	FSTB+5V		I	Stand-by +5V	50mA
6	FSTB+5V		I	Stand-by +5V	
7	GND		-	GND	

P003P			**at FC4**		
PIN NO.	**PIN NAME**		**IN/OUT**	**FUNCTIONS**	**NOTE**
1	D+1.8V		I	1.8V power supply	500mA
2	D+1.8V		I	1.8V power supply	
3	GND		-	GND	
4	GND		-	GND	
5	D+3.3V		I	3.3V power supply	350mA
6	D+3.3V		I	3.3V power supply	
7	D+3.3V		I	3.3V power supply	
8	GND		-	GND	
9	GND		-	GND	

PCB Connectors

AVC											
ESC	2908877	FINAL ASSY	CO-10C-C2R0-431	Control Board	PSC	EA00069R	CPC10PH2R0HTPH-SM3	AV Board	PL702	EA00349R	CPC10PH2R0VTPH-SM3
EFP1	EF22161	FINAL ASSY	CO-07C-C1R5-391-ZH	Power Board	PFP1	EA01246R	CPC07BP1R5VT-SM3	FC4	P002P	EA01266R	CPC07BP1R5HT-SM3A
EFP2	EF22171	FINAL ASSY	CO-09C-C1R5-391-ZH	Power Board	PFP2	EA01248R	CPC09BP1R5VT-SM3	FC4	P003P	EA01268R	CPC09BP1R5HT-SM3A
ESF	EK01108	FINAL ASSY	PRW-SML2CD-50P-L700	AV Board	PSF	EA00932R	CPC50FP0R5VT-FH12	FC4	P001	EA01561R	CPC50FP0R5HT-FLZX
PSP	ED04153U	Power Board	CP-19BP1R2VU1.25FJN	AV Board	PSP	ED04163U	CP-19BS1R2VU1.25FJN	-	-	-	-

FC4				
P001	EA01561R	CPC50FP0R5HT-FLZX	PSF	AV Board
P002P	EA01266R	CPC07BP1R5HT-SM3A	PFP1	Power Board
P003P	EA01268R	CPC09BP1R5HT-SM3A	PFP2	Power Board
P301P	EY01501	PJX-DVI(F)24P RA SOK		PDP Signal Audio Board
P302P	EY01491	PJX-YKF51-5376		PDP Signal Audio Board
P501P	EA01247R	CPC08BP1R5VT-SM3		For Alignment
P601P	EY01062	PJX-DSUB JACK		PC Input Terminal

AV Board				
PSF	EA00932R	CPC50FP0R5VT-FH12	P001	FC4
PSP	ED04163U	CP-19BS1R2VU1.25FJN	PSP	PowerBoard
PL702	EA00349R	CPC10PH2R0VTPH-SM3	PSC	ControlBoard

Power Control Board				
PFP1	EA01246R	CPC07BP1R5VT-SM3	P002P	FC4
PFP2	EA01248R	CPC09BP1R5VT-SM3	P003P	FC4
PSC	EA00069R	CPC10PH2R0HTPH-SM3	PL702	AV Board

Replacement Parts

Signal / Sound Board

CIR No. DESCRIPTION ECN#[040] Part No.
PSA PT3 SIGNAL/AUDIO JP06091
"PSA PT3 SIGNAL/AUDIO FOR ""42" JP06092
PSA PT3 SIGNAL/AUDIO JP06093
PSA PT3 SIGNAL/AUDIO JP06094
B PWB PT3 SIGNAL/AUDIO JA04554
CP01 470UF 25V ALUMINIUM ELECTROLYTIC CAPACITOR AL01857R
CP02 1000UF 6.3V ALUMINIUM ELECTROLYTIC CAPACITOR AL01833R
CP04 CCC106M06-B-20CT (10UF 6.3V 2012M) AA00968R
CP05 CEC101M06-EWCT AD00416R
CP09 CEC101M06-EWCT AD00416R
CP10 CEC101M06-EWCT AD00416R
CS02 CEC100M16-EWCT AD00436R
CS03 CAP2125CHIP 10000PFKB 50V TAPE0893044R
CS04 CEC101M16-EWCT AD00441R
CS07 CCC333K50-B-16CT AA01814R
CS10 CCC106M06-B-20CT (10UF 6.3V 2012M) AA00968R
C001 CAP 1608CHIP 10PFCCH 50V TAPE 0893113R
C002 CAP 1608CHIP 10PFCCH 50V TAPE 0893113R
C003 CCC103K50-B-16CT MCH18 AA01802R
C004 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C005 CCC103K50-B-16CT MCH18 AA01802R
C008 CCC103K50-B-16CT MCH18 AA01802R
C010 CCC103K50-B-16CT MCH18 AA01802R
C011 CCC103K50-B-16CT MCH18 AA01802R
C012 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C203 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C204 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C205 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C206 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C207 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C210 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C211 CEC101M06-EWCT AD00416R
C401 CAP 1608CHIP 470PFJCH 50V TAPE 0893135R
C402 CAP 1608CHIP 470PFJCH 50V TAPE 0893135R
C403 CEC4R7M25-EWCT AD00447R
C404 CEC4R7M25-EWCT AD00447R
C405 CAP 1608CHIP 1500PFKB 50V TAPE 0893211R
C406 CAP 1608CHIP 1500PFKB 50V TAPE 0893211R
C407 CERAMIC CAPACITOR(0.47UF 10V)AA01121R
C408 CERAMIC CAPACITOR(0.47UF 10V)AA01121R
C409 CEC4R7M50-EWCT AD00478R
C410 CEC4R7M50-EWCT AD00478R
C411 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C412 CCC333K50-B-16CT AA01814R
C413 CEC4R7M25-EWCT AD00447R
C414 CEC4R7M25-EWCT AD00447R
C415 CAP 1608CHIP 180PFJCH 50V TAPE 0893129R
C416 CAP 1608CHIP 180PFJCH 50V TAPE 0893129R
C417 CAP.-ELECTRO. 330UF-M(SMG) 16V 0800344R
C418 CEC4R7M25-EWCT AD00447R
C419 CEC4R7M25-EWCT AD00447R
C420 CEC4R7M25-EWCT AD00447R
C421 CCC333K50-B-16CT AA01814R
C422 CCC333K50-B-16CT AA01814R
C423 CCC333K50-B-16CT AA01814R
C424 CCC333K50-B-16CT AA01814R
C425 CCC333K50-B-16CT AA01814R
C426 CCC333K50-B-16CT AA01814R
C427 CCC333K50-B-16CT AA01814R
C428 CCC103K50-B-16CT MCH18 AA01802R
C429 CEC010M50-EWCT AD00475R
C430 CEC100M16-EWCT AD00436R
C431 CEC100M16-EWCT AD00436R
C432 CAP.-ELECTRO. 330UF-M(SMG) 16V 0800344R
C435 CEC100M16-EWCT AD00436R
C436 CEC4R7M50-EWCT AD00478R
C437 CEC4R7M50-EWCT AD00478R
C438 CAP 1608CHIP 120PFJCH 50V TAPE 0893127R
C439 CAP 1608CHIP 120PFJCH 50V TAPE 0893127R
C440 CAP.-POLYESTER 1.0UF-J 50V 0880207R
C441 CAP.-POLYESTER 1.0UF-J 50V 0880207R
C442 CAP.-POLYESTER 1.0UF-J 50V 0880207R
C443 CAP.-POLYESTER 1.0UF-J 50V 0880207R
C444 CAP.-POLYESTER FILM 0.22UF-K 50V 0880018R
C445 CAP.-POLYESTER FILM 0.22UF-K 50V 0880018R
C446 CEC100M16-EWCT AD00436R
C447 CEC100M16-EWCT AD00436R
C452 CCC333K50-B-16CT AA01814R
C453 CCC333K50-B-16CT AA01814R
C454 CEC010M50-EWCT AD00475R
C455 CCC333K50-B-16CT AA01814R
C456 CCC333K50-B-16CT AA01814R
C457 CCC333K50-B-16CT AA01814R
C458 CEC010M50-EWCT AD00475R
C459 CCC333K50-B-16CT AA01814R
C460 CCC333K50-B-16CT AA01814R
C461 CAP.-ELECTRO.470UF-M 16V 0800353R
C462 CAP.-ELECTRO.470UF-M 16V 0800353R
C463 CEC470M16-EWCT AD00439R
C464 CCC333K50-B-16CT AA01814R
C467 CAP.-ELECTRO 1000UF 16V 0800361N
C468 CERAMIC CAPACITOR(1UF 10V-F) AA01101R
C469 CAP 1608CHIP 1500PFKB 50V TAPE 0893211R
C470 CAP 1608CHIP 1500PFKB 50V TAPE 0893211R
C473 2200UF 10V ALUMINIUM ELECTROLYTIC CAPACITOR AL01843R
C474 2200UF 10V ALUMINIUM ELECTROLYTIC CAPACITOR AL01843R
C475 2200UF 10V ALUMINIUM ELECTROLYTIC CAPACITOR AL01843R
C476 2200UF 10V ALUMINIUM ELECTROLYTIC CAPACITOR AL01843R
C482 CAP.-POLYESTER 0.01UF-K 50V 0880009R
C600 CCC333K50-B-16CT AA01814R
C601 CCC333K50-B-16CT AA01814R
C602 CCC103K50-B-16CT MCH18 AA01802R
C603 CCC103K50-B-16CT MCH18 AA01802R
C604 CCC103K50-B-16CT MCH18 AA01802R
C605 CCC103K50-B-16CT MCH18 AA01802R
C606 CAP2125CHIP 10000PFKB 50V TAPE0893044R
C607 CEC100M16-EWCT AD00436R
C608 CCC103K50-B-16CT MCH18 AA01802R
C609 CEC100M16-EWCT AD00436R
C610 CCC333K50-B-16CT AA01814R
C611 CEC100M16-EWCT AD00436R
C612 CCC333K50-B-16CT AA01814R
C613 CCC333K50-B-16CT AA01814R
C614 CCC333K50-B-16CT AA01814R
C615 CCC333K50-B-16CT AA01814R
C616 CCC333K50-B-16CT AA01814R
C627 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C628 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C629 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C630 CERAMIC CAPACITOR(1.0UF 6.3V) AA01111R
C631 CCC333K50-B-16CT AA01814R
C632 CCC333K50-B-16CT AA01814R
C633 CCC333K50-B-16CT AA01814R
DP01 DIODE SFPJ-73 CC01661R
DS01 DIODE.CHIP 1SS355 CC00003R
DS02 DIODE.CHIP 1SS355 CC00003R
DS04 CHIP DIODE RD5.1UM(B2-T) CC00142R
D001 DIO-1S2835(T2B) 2333121R
D003 DIODE.CHIP 1SS355 CC00003R
D401 DIODE.CHIP RB491D (20V)CC00632R
D402 DIODE.CHIP RB491D (20V)CC00632R
D403 DIODE.CHIP RB491D (20V)CC00632R
D404 DIODE.CHIP RB491D (20V)CC00632R
D405 DIODE.CHIP 1SS355 CC00003R
D406 DIODE.CHIP 1SS355 CC00003R
D407 DIODE AM01Z (200 TAPE) 1A 2339491M
D408 DIODE.CHIP 1SS355 CC00003R
D409 DIODE.CHIP 1SS355 CC00003R
D410 ZENER.CHIP UDZ 7.5B CC00826R
D413 ZENER.CHIP UDZ 5.1B CC00822R
D414 ZENER.CHIP UDZ 5.1B CC00822R
D600 DIODE CHIP DA204K-TPTX CC10721R
D601 DIODE CHIP DA204K-TPTX CC10721R
D602 DIODE CHIP DA204K-TPTX CC10721R
D603 DIODE CHIP DA204K-TPTX CC10721R
D604 DIODE CHIP DA204K-TPTX CC10721R
D605 DIODE CHIP DA204K-TPTX CC10721R
D606 DIODE CHIP DA204K-TPTX CC10721R
D607 DIODE CHIP DA204K-TPTX CC10721R
D608 DIODE CHIP DA204K-TPTX CC10721R
D609 DIODE CHIP DA204K-TPTX CC10721R
D610 DIODE.CHIP 1SS355 CC00003R
D611 DIODE.CHIP 1SS355 CC00003R
IC401 IC NJW1138M CK36481R
IC402 NJM2192AM CK35311R
IC403 ANALOG MONOLITHIC IC BU4052BCF-E2 CK31991R

IC404 DIGITAL POWER IC(TA2020-020) CP07681U
IP02 MONO IC SI-8033JD CK37162R
IS01 ANALOG MONOLITHIC IC (BA6956AN) CP08241U
I001 DIGITAL MONOLITHIC IC (HD64F3397) CK06571U
I002 DIGITAL MONOLITHIC IC (M24C16-WMN6T) CK32542R
I003 DIGITAL MONOLITHIC IC (PST9142-T(FP)) CK06091R
I201 DIGITAL MONOLITHIC IC (HD74LVC244AT) CK32661R
I202 DIGITAL MONOLITHIC IC (THC63LVDM83R) CK32072R
I600 DIGITAL MONOLITHIC IC (SII169) CK37891U
I602 DIGITAL MONOLITHIC IC (DS14C232CM) CK04681R
I603 ANALOG MONOLITHIC IC(PST9127NR) CK06097R
JSW 1.5MM PITCH 13P FG CONNECTOR SOCKET ED04241
J401 JAK-YKC21-1P-BLK 2672967
J601 CONNECTOR ED03473
J602 SOCKET YKF51-5376 EY01491
KP04 0.60MM TAPED JUMP.WIRE 2784381M
K208 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
K209 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
K210 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
K211 0.60MM TAPED JUMP.WIRE 2784381M
K401 0.60MM TAPED JUMP.WIRE 2784381M
K404 0.60MM TAPED JUMP.WIRE 2784381M
K406 0.60MM TAPED JUMP.WIRE 2784381M
K407 0.60MM TAPED JUMP.WIRE 2784381M
K408 0.60MM TAPED JUMP.WIRE 2784381M
K409 0.60MM TAPED JUMP.WIRE 2784381M
K417 0.60MM TAPED JUMP.WIRE 2784381M
K418 0.60MM TAPED JUMP.WIRE 2784381M
K419 0.60MM TAPED JUMP.WIRE 2784381M
K420 0.60MM TAPED JUMP.WIRE 2784381M
K421 0.60MM TAPED JUMP.WIRE 2784381M
K473 0.60MM TAPED JUMP.WIRE 2784381M
K474 0.60MM TAPED JUMP.WIRE 2784381M
K475 0.60MM TAPED JUMP.WIRE 2784381M
K476 0.60MM TAPED JUMP.WIRE 2784381M
K480 0.60MM TAPED JUMP.WIRE 2784381M
K601 0.60MM TAPED JUMP.WIRE 2784381M
K602 0.60MM TAPED JUMP.WIRE 2784381M
LP02 C12-K4.5L SMD COIL 100UH BA00632R
LP03 FILT.COIL(LHL08 47UH) 2125806N
LP04 3225 CHIP COIL 47UH BA00712R
LS01 FILT.COIL(LHL08 47UH) 2125806N
LS02 COIL FERRITE BEAD BL02RN1-R62T4 BZ01421R
L201 3225 CHIP COIL 47UH BA00712R
L202 3225 CHIP COIL 47UH BA00712R
L203 3225 CHIP COIL 47UH BA00712R
L204 3225 CHIP COIL 47UH BA00712R
L401 COIL 10UH 2.1A BH01811R
L402 COIL 10UH 2.1A BH01811R
L403 COIL 10UH 2.1A BH01811R
L404 COIL 10UH 2.1A BH01811R
L409 COIL FERRITE BEAD BL02RN1-R62T4 BZ01421R
L410 COIL FERRITE BEAD BL02RN1-R62T4 BZ01421R
L413 COIL FERRITE BEAD BL02RN1-R62T4 BZ01421R
L414 COIL FERRITE BEAD BL02RN1-R62T4 BZ01421R
L415 DC COM. MODE CHOKE COIL 7UH 2A BZ05521
L416 DC COM. MODE CHOKE COIL 7UH 2A BZ05521
L600 3225 CHIP COIL 47UH BA00712R
L601 3225 CHIP COIL 47UH BA00712R
L602 3225 CHIP COIL 47UH BA00712R
L603 3225 CHIP COIL 47UH BA00712R
N401 SOUND HEATSINK 3000 MA01474
N403 M3X10 SCREW WITH WASHER4520889
PAS1 PLUG PIN SUB MINI 2P 2902261
PAS2 PLUG 03P EH TAPE 2902262R
PDA1 1.5MM PITCH 12P CONNECTOR BASE SM3 EA01252R
PDS CONNECTOR DF13-20DP-1.25V(59) EA01092R
PG2 PLUG 02BP3R9V-VH(PBT) ED01531
PMW PLUG 07P EH TAPE 2902266R
PPA PLUG 04P EH TAPE 2902263R
PPS PLUG PIN SUB MINI 9P 2902268
PSC2 CONNECTOR CPC06PH2R0VTPH-SM3 EA00345R
PSU 5P XH CONNECTOR PLUG B 5B-XH-A ED03494
QS01 TRS 2SA1576-T107-R 2316231R
QS04 TRS.CHIP DTC144EE TL CA00983R
Q001 TRS.CHIP 2SC4617 TL (R/S) 1323293R
Q005 TRS.CHIP 2SA1774 TL (R/S) 1323294R
Q006 TRS.CHIP 2SA1774 TL (R/S) 1323294R
Q201 TRS.CHIP 2SC4617 TL (R/S) 1323293R
Q202 TRS.CHIP DTC114EE TL CA00981R
Q203 TRS.CHIP 2SK3018 CA01011R
Q204 TRS.CHIP 2SK3018 CA01011R
Q401 TRS.CHIP 2SC4617 TL (R/S) 1323293R
Q402 TRS.CHIP 2SC4617 TL (R/S) 1323293R
Q403 TRS.CHIP DTC114EE TL CA00981R
Q404 TRS.CHIP DTC323TK CA00771R
Q405 TRS.CHIP DTC323TK CA00771R
Q406 TRS.CHIP DTC114EE TL CA00981R
Q407 TRS.CHIP DTC323TK CA00771R
Q408 TRS.CHIP DTC114EE TL CA00981R
Q600 TRS.CHIP 2SK3018 CA01011R
Q601 TRS.CHIP 2SK3018 CA01011R
Q602 TRS.CHIP UMX1N 1323392
RB01 RES.CHIP 1/16W 0 OHM AQ00001R
RB02 RES.CHIP 1/16W 0 OHM AQ00001R
RG01 RES.CHIP 1/16W 0 OHM AQ00001R
RG02 RES.CHIP 1/16W 0 OHM AQ00001R
RP09 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
RR01 RES.CHIP 1/16W 0 OHM AQ00001R
RR02 RES.CHIP 1/16W 0 OHM AQ00001R
RS01 RES.CHIP 1/16W 82K OHM 0790063R
RS02 RES.CHIP 1/16W 27K OHM 0790056R
RS03 RES.CHIP 1/16W 100 OHM 0790024R
RS04 RES.CHIP 1/16W 100 OHM 0790024R
RS05 RES.CHIP 1/16W 10K OHM 0790051R
RS06 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
RS06 RES.CHIP 1/16W 1.0M OHM 0790077R
RS07 RES.MTL FLM 1W 5.6 OHM AT01049S
RS08 ES.-CARBON FLM 1/2W 1.5-J 0188093M
RS09 RES.CHIP 1/16W 10K OHM 0790051R
RS10 RES.CHIP 1/16W 10K OHM 0790051R
RS11 RES.CHIP 1/16W 10K OHM 0790051R
RS14 RES.CHIP 1/16W 10K OHM 0790051R
RS15 RES.CHIP 1/16W 1.0K OHM0790037R
RY401 RELAY DQ1SU FJ00291
RY402 RELAY DQ1SU FJ00291
R0A1 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R0A6 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R0A8 RES.CHIP 1/16W 100 OHM 0790024R
R0A9 RES.CHIP 1/16W 10K OHM 0790051R
R0C7 RES.CHIP 1/16W 10K OHM 0790051R
R0C8 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R0C9 RES.CHIP 1/16W 3.9K OHM0790045R
R0E2 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R0E3 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R0E4 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R0E5 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R0E8 RES.CHIP 1/16W 10K OHM 0790051R
R001 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R002 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R004 RES.CHIP 1/16W 100 OHM 0790024R
R005 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R005 RES.CHIP 1/16W 100 OHM 0790024R
R006 RES.CHIP 1/16W 100 OHM 0790024R
R007 RES.CHIP 1/16W 100 OHM 0790024R
R008 RES.CHIP 1/16W 1.0K OHM0790037R
R009 RES.CHIP 1/16W 1.0K OHM0790037R
R014 RES.CHIP 1/16W 4.7K OHM0790046R
R015 RES.CHIP 1/16W 4.7K OHM0790046R
R016 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R017 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R018 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R019 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R020 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R022 RES.CHIP 1/16W 100 OHM 0790024R
R023 RES.CHIP 1/16W 100 OHM 0790024R
R024 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R025 RES.CHIP 1/16W 100 OHM 0790024R
R026 RES.CHIP 1/16W 100 OHM 0790024R
R027 RES.CHIP 1/16W 100 OHM (4 R) AQ00024R
R028 RES.CHIP 1/16W 100 OHM (4 R) AQ00024R
R029 RES.CHIP 1/16W 100 OHM (4 R) AQ00024R
R030 RES.CHIP 1/16W 100 OHM (4 R) AQ00024R
R032 RES.CHIP 1/16W 100 OHM 0790024R
R035 RES.CHIP 1/16W 100 OHM 0790024R
R036 RES.CHIP 1/16W 10K OHM 0790051R
R039 RES.CHIP 1/16W 100 OHM (4 R) AQ00024R
R042 RES.CHIP 1/16W 100 OHM 0790024R
R043 RES.CHIP 1/16W 10K OHM 0790051R
R044 RES.CHIP 1/16W 10K OHM 0790051R
R046 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R047 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R048 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R053 RES.CHIP 1/16W 100 OHM (4 R) AQ00024R
R054 RES.CHIP 1/16W 4.7K OHM0790046R
R055 RES.CHIP 1/16W 4.7K OHM0790046R
R059 RES.CHIP 1/16W 3.9K OHM0790045R
R063 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R064 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R065 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R

R066 RES.CHIP 1/16W 100 OHM 0790024R
R068 RES.CHIP 1/16W 100 OHM 0790024R
R075 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R076 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R077 RES.CHIP 1/16W 4.7K OHM0790046R
R078 RES.CHIP 1/16W 4.7K OHM0790046R
R079 RES.CHIP 1/16W 33K OHM 0790057R
R080 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R081 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R083 RES.CHIP 1/16W 100 OHM 0790024R
R084 RES.CHIP 1/16W 1.0K OHM0790037R
R085 RES.CHIP 1/16W 100 OHM 0790024R
R087 RES.CHIP 1/16W 220 OHM 0790028R
R092 RES.CHIP 1/16W 2.2K OHM0790042R
R093 RES.CHIP 1/16W 2.2K OHM0790042R
R094 RES.CHIP 1/16W 4.7K OHM0790046R
R095 RES.CHIP 1/16W 4.7K OHM0790046R
R096 RES.CHIP 1/16W 560 OHM 0790034R
R097 RES.CHIP 1/16W 2.2K OHM0790042R
R098 RES.CHIP 1/16W 1.0K OHM0790037R
R099 RES.CHIP 1/16W 1.0K OHM0790037R
R201 RES.CHIP 1/16W 10K OHM 0790051R
R202 RES.CHIP 1/16W 10K OHM 0790051R
R203 RES.CHIP 1/16W 10K OHM 0790051R
R204 RES.CHIP 1/16W 10K OHM 0790051R
R205 RES.CHIP 1/16W 10K OHM 0790051R
R206 RES.CHIP 1/16W 100 OHM 0790024R
R207 RES.CHIP 1/16W 100 OHM 0790024R
R208 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R209 RES 2125 CHIP JAMPER WIRE 0195250R
R210 RES 2125 CHIP JAMPER WIRE 0195250R
R212 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R213 RES.CHIP 1/16W 10K OHM 0790051R
R217 RES.CHIP 1/16W 1.0K OHM0790037R
R227 RES.CHIP 1/16W 5.6K OHM0790047R
R229 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R251 RES.CHIP 1/16W 0 OHM AQ00001R
R252 RES.CHIP 1/16W 0 OHM AQ00001R
R253 RES.CHIP 1/16W 0 OHM AQ00001R
R401 RES.CHIP 1/16W 220 OHM 0790028R
R402 RES.CHIP 1/16W 220 OHM 0790028R
R403 RES.CHIP 1/16W 220K OHM 0790068R
R404 RES.CHIP 1/16W 220K OHM 0790068R
R405 RES.CHIP 1/16W 100 OHM 0790024R
R406 RES.CHIP 1/16W 100 OHM 0790024R
R407 RES.CHIP 1/16W 56K OHM 0790061R
R408 RES.-1608CHIP 1/16W 13K-J TAPE 0196096R
R409 RES.-1608CHIP 1/16W 160K-J TAPE 0196123R
R410 RES 1608 CHIP 1/16W 36KJ TAPE 0196106R
R411 RES.-1608CHIP 1/16W 9.1K-J TAPE 0196091R
R412 RES.-1608CHIP 1/16W 110K-J TAPE 0196119R
R413 RES.CHIP 1/16W 10K OHM 0790051R
R414 RES.-1608CHIP 1/16W 910-J TAPE 0196066R
R414 RES.CHIP 1/16W 820 OHM 0790036R
R415 RES.-1608CHIP 1/16W 910-J TAPE 0196066R
R415 RES.CHIP 1/16W 820 OHM 0790036R
R416 RES.-1608CHIP 1/16W 2.4K-J TAPE 0196077R
R417 RES.CHIP 1/16W 5.6K OHM0790047R
R418 RES.CHIP 1/16W 1.0K OHM0790037R
R419 RES.CHIP 1/16W 1.0K OHM0790037R
R420 RES.CHIP 1/16W 1.0K OHM0790037R
R421 RES.CHIP 1/16W 6.8K OHM0790048R
R422 RES.CHIP 1/16W 6.8K OHM0790048R
R423 RES.CHIP 1/16W 1.0K OHM0790037R
R424 RES.CHIP 1/16W 1.0K OHM0790037R
R425 RES.CHIP 1/16W 1.0K OHM0790037R
R426 RES.CHIP 1/16W 1.0K OHM0790037R
R427 RES.-1608CHIP 1/16W 16K-J TAPE 0196098R
R428 RES.-1608CHIP 1/16W 16K-J TAPE 0196098R
R429 RES.-1608CHIP 1/16W 43K-J TAPE 0196108R
R430 RES.-1608CHIP 1/16W 43K-J TAPE 0196108R
R431 RESISTOR CARBON FILM SRD1/2P-B 10-J 0113701M
R432 RESISTOR CARBON FILM SRD1/2P-B 10-J 0113701M
R433 RES.CHIP 1/16W 10K OHM 0790051R
R434 RES.CHIP 1/16W 10K OHM 0790051R
R435 RES.CHIP 1/16W 2.2K OHM0790042R
R436 RES.CHIP 1/16W 100K OHM 0790064R
R437 RES.CHIP 1/16W 100 OHM 0790024R
R438 RES.CHIP 1/16W 47K OHM 0790059R
R439 RES.CHIP 1/16W 8.2K OHM0790049R
R440 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R441 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R442 RES.CHIP 1/16W 12K OHM 0790052R
R443 RES.CHIP 1/16W 4.7K OHM0790046R
R446 RES.CHIP 1/16W 4.7K OHM0790046R
R447 RES.CHIP 1/16W 4.7K OHM0790046R
R448 RES.CHIP 1/16W 3.3K OHM0790044R
R449 RES.CHIP 1/16W 27K OHM 0790056R
R450 RES.CHIP 1/16W 27K OHM 0790056R
R458 RES.CHIP 1/16W 10K OHM 0790051R
R459 RES.CHIP 1/16W 5.6K OHM0790047R
R460 RES.CHIP 1/16W 100 OHM 0790024R
R461 RES.CHIP 1/16W 10K OHM 0790051R
R462 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R463 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R600 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R602 RES.CHIP 1/16W 33 OHM 0790017R
R603 RES.CHIP 1/16W 33 OHM 0790017R
R604 RES.CHIP 1/16W 33 OHM 0790017R
R605 RES.CHIP 1/16W 33 OHM 0790017R
R606 RES.CHIP 1/16W 390 OHM 0790032R
R607 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R609 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R610 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R612 RES.CHIP 1/16W 33K OHM 0790057R
R613 RES.CHIP 1/16W 33 OHM (4 R) AQ00017R
R614 RES.CHIP 1/16W 33 OHM (4 R) AQ00017R
R615 RES.CHIP 1/16W 33 OHM (4 R) AQ00017R
R616 RES.CHIP 1/16W 33 OHM (4 R) AQ00017R
R617 RES.CHIP 1/16W 33 OHM (4 R) AQ00017R
R618 RES.CHIP 1/16W 33 OHM (4 R) AQ00017R
R619 RES.CHIP 1/16W 3.3K OHM0790044R
R620 RES.CHIP 1/16W 10K OHM 0790051R
R621 RES.CHIP 1/16W 10K OHM 0790051R
R622 RES.CHIP 1/16W 10K OHM 0790051R
R625 RES.CHIP 1/16W 100 OHM 0790024R
R626 RES.CHIP 1/16W 100 OHM 0790024R
R627 RES.CHIP 1/16W 10K OHM 0790051R
R628 RES.CHIP 1/16W 10K OHM 0790051R
R629 RES.CHIP 1/16W 47K OHM 0790059R
R630 RES.CHIP 1/16W 4.7K OHM0790046R
R631 RES.CHIP 1/16W 10K OHM 0790051R
R636 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R637 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R638 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R639 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R640 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R641 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R642 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R643 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R644 RES.CHIP 1/16W 330 OHM 0790031R
R645 RES.CHIP 1/16W 330 OHM 0790031R
R646 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R648 CHIP RESISTOR RECJUMPER-1-16C16T1608 0790001R
R654 RES.CHIP 1/16W 220 OHM 0790028R
R655 RES.CHIP 1/16W 220 OHM 0790028R
R656 RES.CHIP 1/16W 33K OHM 0790057R
R657 RES.CHIP 1/16W 33K OHM 0790057R
S001 TACT SWITCH SKHH 2632971
XS01 SMD LC FILTER MEA3216L50R0 BE00391R
XS02 3218 CHIP LC FILTER BE00412R
XS03 3218 CHIP LC FILTER BE00412R
X001 SMD LC FILTER MEA3216L50R0 BE00391R
X002 OSCILLATOR (SMD-49) BL00291R
X600 CHIP CERAMIC FILTER NFL21SP506X1C3D BK00191R
X601 CHIP CERAMIC FILTER NFL21SP506X1C3D BK00191R
X602 CHIP CERAMIC FILTER NFL21SP506X1C3D BK00191R
X603 CHIP CERAMIC FILTER NFL21SP506X1C3D BK00191R
X604 CHIP CERAMIC FILTER NFL21SP506X1C3D BK00191R
X605 CHIP CERAMIC FILTER NFL21SP506X1C3D BK00191R
Z001 UNDECIDED 0
Z002 UNDECIDED 0

Filter Board

CIR No. DESCRIPTION ECN#[035] P#
PWB ASS'Y PT3 FILTER JT23651
"PWA PT3 FILTER(""42"")" JT23652
PWA PT3 FILTER(42/37) JT23653
PWA PT3 FILTER JT23654
PWA PT3 FILTER(JP.42) JT23655
PWA PT3 FILTER JT23656
PWA PT3 FILTER(W32-PD1) JT23657
PWA PT3 FILTER(W37-PDH1/PDT1) JT23658
#01 INLET PWB METAL PT3 NA59591
#02 3*12 SCREW WITH WASHER 4520883
#03 LOCK SPACER ML00702

B001 PWB PT3 FILTER JK08262
C001 CAP.-ELECTRO. 100UF-M(SMG) 6.3V 0800324R
C002 CAP.-CERAMIC 0.01UF-Z F 50V TAPE 0244171R
C901 ACROSS CAPA 0.47UF 250V RE474 AN01447S
C902 ACROSS CAPA 0.47UF 250V RE474 AN01447S
C903 ACROSS CAPA 0.47UF 250V RE474 AN01447S
C904 CAP. CERAMIC CS10-B2GA102KYVS AJ00157R
C905 CAP. CERAMIC CS10-B2GA102KYVS AJ00157R
C906 ACROSS CAPA 0.47UF 250V RE474 AN01447S
D001 LED SPR-54MVW 2343561
EGND CONNECTOR ED01651R
E902 CONNECTOR EF09584
E902 CONNECTOR EF09585
E902 CONNECTOR EF09588
F901 HT FUSE 250V 6.3A 5.2X20MM FN00439
F902 HT FUSE 250V 6.3A 5.2X20MM FN00439
H001 GP1U281Q CZ00641
H001 R/C REC.GP1U281R CZ00833
JA402 JACK SP TERMINAL ER00061
JA403 JACK SP TERMINAL ER00061
J901 PLAG-AC INLET SK-1019 2676371
KL911 0.60MM TAPED JUMP.WIRE 2784381M
KL912 0.60MM TAPED JUMP.WIRE 2784381M
KR001 0.60MM TAPED JUMP.WIRE 2784381M
KR002 0.60MM TAPED JUMP.WIRE 2784381M
K001 0.60MM TAPED JUMP.WIRE 2784381M
K004 0.60MM TAPED JUMP.WIRE 2784381M
K005 0.60MM TAPED JUMP.WIRE 2784381M
K007 0.60MM TAPED JUMP.WIRE 2784381M
K008 0.60MM TAPED JUMP.WIRE 2784381M
K480 0.60MM TAPED JUMP.WIRE 2784381M
K481 0.60MM TAPED JUMP.WIRE 2784381M
K902 0.60MM TAPED JUMP.WIRE 2784381M
K903 0.60MM TAPED JUMP.WIRE 2784381M
K904 0.60MM TAPED JUMP.WIRE 2784381M
K905 0.60MM TAPED JUMP.WIRE 2784381M
K906 0.60MM TAPED JUMP.WIRE 2784381M
K907 0.60MM TAPED JUMP.WIRE 2784381M
K908 0.60MM TAPED JUMP.WIRE 2784381M
K909 0.60MM TAPED JUMP.WIRE 2784381M
K910 0.60MM TAPED JUMP.WIRE 2784381M
K911 0.60MM TAPED JUMP.WIRE 2784381M
K913 0.60MM TAPED JUMP.WIRE 2784381M
K921 0.60MM TAPED JUMP.WIRE 2784381M
K922 0.60MM TAPED JUMP.WIRE 2784381M
K925 0.60MM TAPED JUMP.WIRE 2784381M
L481 DC COM. MODE CHOKE COIL 7UH 2A BZ05521
L482 DC COM. MODE CHOKE COIL 7UH 2A BZ05521
L901 LINE FILTER 1.0MH BZ00571
L902 LINE FILTER 5MH 5A BZ04602
L903 LINE FILTER 1.0MH BZ00571
L911 FERRITE BEADS CORE B 2.3UH 2123462M
ND01 LED SPACER LDT-45B MN03331
NF901 FUSE HOLDER FP00031R
NF902 FUSE HOLDER FP00031R
N001 LED HOLDER A5WS NJ01171
N33 PRINTED MATTER QT37872
N902 PRINTED MATTER QT39133
PAS3 PLUG PIN SUB MINI 2P 2902261
PAS4 PLUG PIN SUB MINI 3P 2902262
PPU1 "6P VH CONNECTOR PLUG #2,4,5 NC" ED02812
PPU2 2P PLUG PIN ED02801
PPU3 2P PLUG PIN ED02801
PSC2 PIN POST (PH 6P) 2675285
PSC2 CONNECTOR-6P(PH) 2959055
PSW 8P VH PLUG PIN ED02811
R001 RES.-CARBON FLM 1/16W 680-JB 0700038M
R002 RES.-CARBON FLM 1/16W 560-JB 0700037M
R003 RES.-CARBON FLM 1/16W 1.0K-JB 0700041M
R901 RES.MTL GRAZD FLM 1/2W 3.3M AT03672M
R902 RES.MTL GRAZD FLM 1/2W 3.3M AT03672M
ZJ901 ADHESIVE TAPE (SCOTCH NO.3 W=9) 9449503
Z101 TERMINAL PIN EYELET EU00211
Z102 TERMINAL PIN EYELET EU00211
Z103 TERMINAL PIN EYELET EU00211
Z104 TERMINAL PIN EYELET EU00211
Z105 TERMINAL PIN EYELET EU00211
Z106 TERMINAL PIN EYELET EU00211
Z107 TERMINAL PIN EYELET EU00211
Z108 TERMINAL PIN EYELET EU00211
Z109 TERMINAL PIN EYELET EU00211
Z110 TERMINAL PIN EYELET EU00211
Z111 TERMINAL PIN EYELET EU00211
Z112 TERMINAL PIN EYELET EU00211
Z113 TERMINAL PIN EYELET EU00211
Z130 TERMINAL PIN EYELET EU00211
Z131 TERMINAL PIN EYELET EU00211
Z202 TERMINAL PIN EYELET EU00212
Z204 TERMINAL PIN EYELET EU00212
Z209 TERMINAL PIN EYELET EU00212
Z211 TERMINAL PIN EYELET EU00212
Z212 TERMINAL PIN EYELET EU00212
Z213 TERMINAL PIN EYELET EU00212
Z214 TERMINAL PIN EYELET EU00212
Z215 TERMINAL PIN EYELET EU00212
Z216 TERMINAL PIN EYELET EU00212
Z218 TERMINAL PIN EYELET EU00212
Z230 TERMINAL PIN EYELET EU00212
Z232 TERMINAL PIN EYELET EU00212
Z234 TERMINAL PIN EYELET EU00212
Z235 TERMINAL PIN EYELET EU00212
Z236 TERMINAL PIN EYELET EU00212
Z237 TERMINAL PIN EYELET EU00212

32PD3000

CIR No. DESCRIPTION ECN#[097] P#
FINAL ASS'Y W32-M3000 UQ32901
FINAL ASS'Y 32PD3000E UQ32902
FINAL ASS'Y 32PD3000E UQ32903
FINAL ASS'Y PD32-A3000-051/081 UQ32904
FINAL ASS'Y W32-PD1 UQ32907
#001W W103330
#002W W111112
#003W W151217
#003W W151222
#004W UNDECIDED 0
#005W UNDECIDED 0
#01A BEZEL ASSY 32M3000 QD35261
#01AG BEZEL ASS'Y 32PD1 QD35527
#01B BEZEL ASSY 32A3000 QD35262
#011 BEZEL 32M3000 QD35251
#011G BEZEL PDP32 QD21492
#012 POW SW BUTTON 32M PC05601
#012G POWER BUTTON PDP32 PC04961
#012SV POW SW BUTON(SV) PC05631
#013 LED LENS 32M3000 PH32171
#013G LAMP LENS PDP32 PH30111
#014 90 KNOB SPRING SUS 3332452
#014G 90 KNOB SPRING SUS 3332452
#015G SP NET 32PD1 PH30064
#015L SP NET 32M3000 L PH32162
#015L SP NET 32A3000 R PH32163
#015R SP NET 32M3000 R PH32161
#015R SP NET 32A3000 PH32164
#016 HITACHI BADE W40 PU00781
#016G HITACHI BADGE PDP32 PU00651
#0173*12 SCREW WITH WASHER 4319361
#017G 3*12 SCREW WITH WASHER 4319361
#018 DECO PANEL 32M3000 PH32151
#018C DECO PANEL 32A3000 PH32152
#018G UNDECIDED 0
#021 COVER 32M3000 QA02652
#021G COVER PDP32H QA02252
#022 ST BRIND LABEL QL22761
#023 AC & EARTH LABEL P32 QL20401
#023AE AC LABEL QL21001
#024 SIGNAL PLATE 32M3000 QL22701
#024A LABEL QL22704
#024E LABEL QL22705
#024G SIGNAL PLATE PDP32H QL20392
#03 STAND ASS'Y 32-3000 QJ01131
#03G STAND ASS'Y PDP32 QJ00923
#030G STAND UPPER PDP32 QD21531
#031G STAND BASE 32 QD21483
#032G STAND SLIDER PDP32 NX06971
#033G STAND CAP 32 NJ05251
#034G STAND BASE METAL 32 NQ09881
#035 STAND ASSY 32-MAN QJ01171
#035G 3782951
#036G PLASTIC LEG P323782954
#037G 4X12 B TAPPING SCREW STEEL 4519511
#038G SCREW 4*16 B-TAPPING (BLACK) SWRM 4519513
#039G STAND SUPPORT 2200 NQ20042
#041 CENTER FRAME PDP32 NQ22331
#042 FILTER SUPPORT 32A NA52411
#042 FILTER SUPPORT 32A NA59521
#042G FILTER SUPPORT 32A NA52411
#043 FILTER SUPPORT 32B NA52412
#043 FILTER SUPPORT 32B NA59522
#043G FILTER SUPPORT 32B NA52412
#046G FRAME SPACER MTL U NQ22691
#047G FRAME SPACER MTL B NQ22692

#0501 MAIN FRAME R M3000 NQ22281
#0505 MAIN FRAME L M3000 NQ22282
#0510 SIDE SHIELD R M3000 MD07951
#0512 SIDE SHIELD L M3000 MD07952
#0521 SIG METAL W32M3000 NA59491
#0531 FILTER MTL 32M3000 NA59511
#0541 AC METAL M3000 NA59481
#0542 AC INLET/SW MTL J NA59482
#0543 LED PWB MTL 32M3000 NA59501
#0544 INLET INSULAT C MN04901
#0545 GR MTL PDP32 MD07021
#0546 W32 INLET INS MN04941
#0547 FIL INSULAT 32 MN04841
#0548 EDGE COVER 32 MN04911
#0549 INLET HOLD MTL M3000 MK01181
#0550 GASKET 10-1-170 MF01051
#0551 BUSHING ML01121
#0552 GASKET MF01052
#0554 GASKET MF01053
#0555 GASKET 10-2-43 MF01055
#0556 GASKET MF01054
#0557 GASKET 10-2-264 MF00718
#0558 SW INSULATION 32 MN03591
#0559 AIR FILTER MN03551
#0560 AIR FILTER MN03556
#0561 INLET SHIELD W32 MD08051
#0562 INLET MTL A W32 MD08061
#0564 INLET MTL B W32 MD08071
#0566 W32 INLET COVER A ME03311
#0568 W32 INLET COVER B ME03321
#0601 SPEAKER UNIT GM01211
#0611 BUTTON HOLDER HL300 3274061
#0613 POW RELAY BUTTON 32 NJ05371
#0622 WIRE CLAMP ML01082
#0628 BRACKET NJ02902
#0629 PWB STOPPER ML01131
#0631 FASTINING PARTS ML00692
#0632 WIRE CLAMP LWS-1316 ML00694
#0636 CABLE CRAMPER 3705264
#0704 M3*8 SCREW WITH WASHER 4520881
#0705 3*8 CE KNURLED SCREW 4522881
#0706 3*8 CE KNURLED SCREW 4522881
#0708 3*8 CE KNURLED SCREW 4522881
#0709 3*8 CE KNURLED SCREW 4522881
#0710 3*8 CE KNURLED SCREW 4522881
#0711 3*12 SCREW WITH WASHER 4520883
#0712 SCREW 3X16T WITH WA MJ02211
#0712A SCREW 3X16T WITH WA MJ02211
#0713 3*8 CE KNURLED SCREW 4522881
#0714 3*8 CE KNURLED SCREW 4522881
#0715 3*8SEREW WITH WASHER MJ02781
#0720 6*12 SCREW MJ02101
#0721 M5*12 DT SCREW 4520782
#0723 SCREW M4*84518383
#0724 3PIECES M3 DT SCREW SWCH16A-DA
#0732 BOLT M6X20 WITH WASHER SWRM12A 4527821
#0734 M3*10 SCREW WITH S.W AND R.W 4341291
#0740 3*8 CE KNURLED SCREW 4522881
#0741 3X10 BT SCREW BLACK 8699410
#0742 3X10 BT SCREW BLACK 8699410
#0744 WASHER (LOCKING) 8815126
#0745 SCREW 4 * 8 PAN HEAD 8711608
#0746 WASHER (LOCKING) 8815126
#0747 SCREW 4 * 8 PAN HEAD 8711608
#0748 M3*8 SCREW WITH WASHER 4520881
#0760 NITTO TAPE NO.5 W25 (BLACK) 9449538
#0770 NITTO TAPE NO.5 W20 (BLACK) 9449545
#0775 MARK LABEL NX08781
#0790 SCREW 6 ANGLE FOR D SUB MJ01195
#0800 OTHER OPTICAL PARTS KS04891
#0800 OTHER OPTICAL PARTS KS05361
#0800 OTHER OPTICAL PARTS KS05401
#30 GRIP JOINT MM00182
A FPF32C106128UA-61 DD00453
A PDP 32V(H2) DD00531
A011 PSA PT3 SIGNAL/AUDIO JP06091
A011L LJP0609
A012 PSA PT3 SIGNAL/AUDIO JP06093
A012L LJP0609
A021 PWB ASS'Y PT3 FILTER JT23651
A021L LJT2365
A022 "PWA PT3 FILTER(""42"")" JT23652
A022L LJT2365
A023 PWA PT3 FILTER(W32-PD1) JT23657
A023L LJT2365
EAS1 CONNECTOR EF21353
EAS2 CONNECTOR EF21363
ECN64 CONNECTOR EF21623
ECN65 CONNECTOR EF21613
ECN66 CONNECTOR EF22402
ECN67 CONNECTOR EF22401
ECN68 "CONNECTOR CO-06C-C2R0-111#2,5N" EF21631
ECN69 FLEXIBLE FLAT WIRE EK01491
EDS CONNECTOR CO-20C-C1R2S171-DF13 EF21671
EDS CONNECTOR EF21673
EPA CONN. W/WIRE SEH 4J L330(C-C) 2973734S
EPS 9P EH CONNE L=220 2973879S
EPU1 CONNECTOR EF22381
EPU2 CONNECTOR EF21894
ESC2 CONNECTOR CO-06C-C2R0-621PH UL EF21331
ESS 1.5MM PITCH 13P FG CONNECTOR L=180MM EF22291
ESU CONNECTOR EF21386
ESW CONNECTOR EF21395
E1 CONNECTOR EF21373
E901 JACK EP00241
E901 RECEPTACLE EP00261
E901A UL-TUBE NO.9/16 INCH CLEAR 9451119
E901A UL FR-1 TUBE NO.3 9451138
E901B SK BINDER 3763751
E901C UL-TUBE NO.9/16 INCH CLEAR 9451119
E901C UL FR-1 TUBE NO.3 9451138
E902 CONNECTOR CO-01T-N0R0-111 EF09605
E902 CONNECTOR EF22541
E904 CONNECTOR EF22421
E906 2990787
NDSCLAMP NOISE FILTER ZCAT3035 2169512
NDS1 COIL LX-ZCAT2032 2169513
NDS2 COIL LX-ZCAT1518 2169511
NPS COIL LX-ZCAT2032 2169513
NPU1 COIL LX-ZCAT2032 2169513
N906 COIL LX-ZCAT1518 2169511
S900 POWER SWITCH SDDFC3002A 2634733
S900A SK BINDER 3763751
S900B UL FR-1 TUBE NO.3 9451138
U1 POWER UNIT MPF7103 HA01121

42PD3000

CIR No. DESCRIPTION ECN#[067] P#
FINAL ASS'Y W42-M3000 UQ32921
FINAL ASS'Y 42PD3000E UQ32922
FINAL ASS'Y PD42-A3000-051/081 UQ32923
FINAL ASS'Y PD42-A3000-751 UQ32924
#01W W103330
#02W W111112
#03W W151215
#03W UNDECIDED 0
#0800 OTHER OPTICAL PARTS KS05363
#0800 OTHER OPTICAL PARTS KS05403
#090PT3 F/FRAME ASS'Y 42 QD34902
#091F/FRAME ASSY 42PD3000 QD34903
#095PT3 FRONT FRAME 42QD34782
#097PT3 DECO PANEL 42 PH32011
#097PT3 DECO PANEL 42E PH32012
#098PT3 RC LENS 42 PC05481
#099HITACHI BADGE PD42 PU00723
#1003X10 BT SCREW BLACK 8699410 8699410
#104L FILTER FIX MTL R 42PT3 NA54123
#104R FILTER FIX MTL L 42PT3 NA54124
#105FILTER FIX MTL U 42PT3 NA54223
#106FILTER FIX MTL B 42PT3 NA54232
#1074X12 3P??? ????? TNE MJ02743
#1074X12 B TAPPING SCREW STEEL 4519511
#108GASKET 3-4-982 MF00714
#109GASKET 3-4-593 MF00715
#110GASKET TCS 6-0.7-584 MF00914
#110A GASKET TCS 6-0.7-584 MF00914
#111GASKET TCS 6-0.7-964 MF00915
#111A GASKET TCS 6-0.7-964 MF00915
#112AIR FILTER A PDP42 MN03553
#113AIR FILTER 10-4-579 MN03554
#116HIMERON 15-12-0.8 MS00793
#120PT3 FILTER S MTL 42 NA58773
#121PT3 FILTER MTL UB 42 NA58781
#122PT3 FILTER MTL B 42 NA58782
#191BACK COVER ASSY W42M3000 QA02604
#192BACK COVER ASSY 42PD3000 QA02605
#193BACK COVER ASSY PD42A3000 QA02606
#201BACK COVER W42M3000 QA02503
#202SIGNAL LABEL 42PT3 QL22471
#202SIGNAL LABEL 42PT3E QL22472
#202SIGNAL LABEL 42PT3A QL22473

#204SPEAKER TERMINAL LABEL W42-PDH2100 QL21191
#204SPEAKER LABEL CL42 QL21193
#205GRIP PD2100 PH31101
#210TEMP CAUTION LABEL QL21401
#210TEMP CAUTION LABEL QL21402
#212AC & EARTH LABEL P32 QL20401
#212AC LABEL QL21001
#214 4198577
#215CABLE CRAMPER 3705264
#216M4X10 AL-TAP SCREW MJ02671
#220ST BRIND LABEL QL22761
#250M4X10 AL-TAP SCREW MJ02671
#300STAND ASS'Y 3000 QJ01101
#300STAND ASSY 42-MAN QJ01191
#402MAIN FRAME 42PT3 QA02436
#404INS LABEL 42PT3 QL06163
#410AC INLET METAL P4121 QA02521
#410AC INLET COVER PD1 QA02522
#411AC INLET COVER B QA02551
#413INLET INSLATOR PT3 ME03281
#418FASTINING PARTS ML00861
#420VIDEO COVER MTL 42PT3 NA54164
#421PT3 SIGNAL PWB MTL 42 NA59221
#422PCB SUPPORT 4SPA 3782718
#441SIGNAL METAL P4121 NA54181
#451POW BUTTON PANEL PT2 PH31141
#452POWER BUTTON PT2 PC05361
#453AC SW METAL PT2 NA54081
#481SP TERM METAL P42 NA54131
#481A SP SHIELD 42PT2 MD07331
#481B SP SPACER 42PT2 MS00731
#482EDGE SADDLE 0505 ML01051
#491POW SHIELD SHEET (2) MF00752
#491A M3X8 AL-TAP SCREW MJ02661
#491B SPONGE CUSHION 10*10*245 MN04181
#492FILTER INS UP PD1A MN05031
#492A M3X8 AL-TAP SCREW MJ02661
#502FILTER PWB INS 42PT3 ME03042
#601FASTINING PARTS ML00692
#604BUSHING ML01121
#616PWB STOPPER ML01131
#617LEAD CLAMP 3731214
#620PWB STOPPER 12S ML01134
#690EARTH MARK LABEL QL21311
#690A EARTH MARK LABEL QL21311
#702M3X8 AL-TAP SCREW MJ02661
#704M3X8 AL-TAP SCREW MJ02661
#704A M3*10 SCREW WITH S.W AND R.W 4341291
#705M3X8 AL-TAP SCREW MJ02661
#7073X10 BT SCREW BLACK 8699410 8699410
#708M3 SCREW WITH WASHER 4520882
#709M3*10 SCREW WITH S.W AND R.W 4341291
#711M3X8 AL-TAP SCREW MJ02661
#721M3X8 AL-TAP SCREW MJ02661
#722M3X8 AL-TAP SCREW MJ02661
#730M3X8 AL-TAP SCREW MJ02661
#731M3X8 AL-TAP SCREW MJ02661
#732M3X12 SCREW 3P W B MJ00926
#733M3X8 AL-TAP SCREW MJ02661
#734M3X8 AL-TAP SCREW MJ02661
#7514X10 SCREW WITH WASHER MJ02721
#751A WASHER (LOCKING) 8815126
#7524X10 SCREW WITH WASHER MJ02721
#752A WASHER (LOCKING) 8815126
#7534X10 SCREW WITH WASHER MJ02721
#761M5*12 DT SCREW 4520782
#7643X10 BT SCREW BLACK 8699410 8699410
#765SCREW 6 ANGLE FOR D SUB MJ01195
#7674X16 3P??? ????? TNE MJ02744
#7674X16 D TAPPING SCREW SWCH16A4520232
#7704X10 SCREW WITH WASHER MJ02721
#790M6X30 BOLT WITH WASHER SWRM12A 4527823
#801GRIP JOINT MM00182
A PDP 42V(H2) DD00551
A11 "PSA PT3 SIGNAL/AUDIO FOR ""42" JP06092
A11L LJP0609
A21 PWA PT3 FILTER(JP.42) JT23655
A21L LJT2365
A22 PWA PT3 FILTER JT23656
A22L LJT2365
EAS1 2J CONNE L=820 2973685S
EAS2 2973709S
EDS CONNECTOR CO-20C-C1R2-101DF13C EF21343
EJ201 WIRE (PROCESSED) EK01492
EJ202 CONNECTOR EF21622
EJ203 CONNECTOR EF21612
EJ204 CONNECTOR CO-07C-C2R0-301#236N EF21643
EJ205 CONNECTOR CO-07C-C2R0-511#236N EF21644
EJ206 "CONNECTOR CO-06C-C2R0-800#2,5N" EF21632
EPA 2973733S
EPS 2973878S
EPU1 CONNECTOR EF22381
EPU2 CONNECTOR EF21892
ESC2 CONNECTOR CO-06C-C2R0-681PH UL EF21332
ESS 1.5MM PITCH 13P FG CONNECTOR L=180MM EF22291
ESU CONNECTOR EF21385
ESW CONNECTOR CO-08C-N3R9-241#2357 EF21391
E1 CONNECTOR CO-02C-N110-161 EF21371
E901 JACK EP00241
E901A UL FR-1 TUBE NO.3 9451138
E901B SK BINDER 3763751
E901C UL FR-1 TUBE NO.3 9451138
E902 CONNECTOR CO-01T-N0R0-111 EF09605
E906 CONNECTOR EF08475
NDSCOIL LX-ZCAT2032 2169513
NP02 PURSE LOCK NYLON NJ04401
S900 POWER SWITCH SDDFC3002A 2634733
S900A SK BINDER 3763751
S900B UL FR-1 TUBE NO.3 9451138
U1 POWER UNIT(W37/W42) HA01131
U1 POW-UNIT MPF7404 TV HA01133

No	ITEM	POTENTIAL PROBLEM/QUESTION	CAUSE and COUNTERMEASURE/ADVICE	NOTE
1	**CVBS & S.INPUT SOFTER**	CVBS and S-VHS input is softer than CL32PD2100 (with NR=off). When DVD signal input through AV1, Front by CVBS or S-VHS, picture is soft.	CAUSE ; DVD output signal includes noise equivalent to picture frequency. CL32PD2100 displays a picture more detail with NR=off than 32PD3000 but DVD noise is also emphasized especially seeing sky, you can see dot noise on CL32PD2100. 32PD3000 is filtered noise so you cannot see noise but a picture is also becoming softer. ADVICE; CVBS and S-input is not good for demonstration. Because almost all DVD has RGB, please use RGB for demo or YCbCr/YpbPr instead (new feature) RGB input of 32PD3000 is more crisp and less noise than CL32PD2100.	
2	**BLACK LEVEL BRIGHT** (Black level set- up)	CVBS and S-output from DVD player has set up voltage of black level around 0.1V. This causes black brighter and loose contrast. This was found with DVD player DV P305 with Spanish DVD disc. I have never found the same phenomenon in any other places so far. In HEL, I have checked DV P305 with UK DVD disc and confirmed OK (no set up voltage) In Italy, this was not found with DVD player DV P250 with Italy DVD disc. CVBS and S-input from DVD	The set up black level is not expected on PAL signal. So something wrong probably when DVD disc is copied in Spanish DVD software company. Or Some DVD player may have potential cause of this problem. But it is recommended that the demonstration should be done by RGB or component input to avoid this phenomenon. Almost all DVD players have RGB output.	This is observed only in Spain. This is caused by DVD player option. DV P305 has menu option to switch SET UP > DISPLAY OPTION > BLACK LEVEL = On/Off. When it is set to On, the signal on left hand drawing is output from DVD.
3	**LTI EFFECT** Luminance Transient Improvement	**PICTURE > MORE > LTI** LTI effect is not significant in CVBS and S-INPUT but very significant on RGB and component input.	CL32PD2100 has LTI but it is so strong that noise is also emphasised very much. On 32PD3000, this is improved to effect clear signal avoiding noise enhancement.	
4	**NOISE REDUCTION EFFECT**	**PICTURE > MORE > YNR** **PICTURE > MORE > CNR** Noise reduction effect is not as strong as CL32PD2100. CL32PD2100 is too strong to give crisp picture. Instead, there are 2 types Noise	Sometime on TV, noise appears close to colour frequency. By previous noise reduction, when this noise is reduced by NR feature, it affect luminance causing loose of picture sharpness. CNR only reduce this noise without affecting picture sharpness.	

No	ITEM	POTENTIAL PROBLEM/QUESTION	CAUSE and COUNTERMEASURE/ADVICE	NOTE
		Reduction on 32PD3000. YNR and CNR. YNR ; Luminance noise is reduced without affecting Chrominane transient. CNR ; Chrominace noise is reduced without loosing sharpness of picture (Luminance)		
5	**WHITE BALANCE**	WHITE BALANCE adjustment is done by menu bar. COOL/NORMAL/WARM selection is also possible but in service menu. In Picture mode is selected as shown below. DYNAMIC ; COOL NATURAL ; COOL CINEMA ; NORMAL FAVOURITE ; COOL	White balance adjustment in menu bar ranges from 6500K to 11000K in DYNAMIC/NATURAL/FAVOURITE. In CINEMA, colour temperature range is shifted to warm side.	
6	**CLOCK NOISE ON SOUND**	When selecting **CENTRE speaker** or **AV4** mode, you can hear clock noise in sound when volume level is increased more than half. This is caused by cross-talk in the cable. AV4 sound and centre sound are located after audio decoder (MSP3410) which leads audio input impedance	Screened interface cable cures this problem.	It will be applied after trail 100 Q'ty. For 100, DMD send HEL improved one.
7	**RGB MODE STREAK NOISE**	When you see streak noise on RGB input, this is caused by clamping error accidentally.	In service mode, check SVC > OPT > RGB Comb = off	
8	**MENU WIDEMODE**	When you select MENU, picture wide mode is changed to WIDESCREEN wherever wide mode is.	This is because OSD is inserted BEFORE a picture is scaled to any of wide modes. If a picture is zoomed to LETTER BOX or T16:9L, some of the menu is hidden if wide mode remains as it is. This system gets TV+TEXT feature possible.	
9	**PC WINDOW LIMITATION**	When selecting PC window, sub picture is displayed. Sub picture is not possible to display YPbPr and PC so those are prohibited to be selected.	By AV key selection, AV4 and PC is skipped. AV/PC in position, FRONT is displayed when selecting the position where AV4 and PC is stored. In case of AV in position ideally that psotion should be skipped. But it is not easy for software to carry out so FRONT is selected as alternative to blanking.	

No	ITEM	POTENTIAL PROBLEM/QUESTION	CAUSE and COUNTERMEASURE/ADVICE	NOTE
10	**PICTURE MODE**	Picture mode provides 4 kinds of modes. DYNAMIC, NATURAL, CINEMA, FAVOURITE	We recommend DYNAMIC ; DVD for DEMO NATURAL ; TV, VCR, STB CINEMA ; DVD, STB FAVOURITE ; TV, VCR, DVD, STB Only selecting FAVOURITE allows a user to adjust CONTRAST, BRIGHTNESS, etc.	
11	**AUDIO MODE**	Audio mode provides 4 kinds of modes. MUSIC, SPEECH, CINEMA, FAVOURITE	We recommend MUSIC ; MUSIC SPEECH ; NEWS, TALK SHOW CINEMA ; MOVIE, DRAMA FAVOURITE ; any of those and adjust to users' preference. Only selecting FAVOURITE allows a user to adjust TREBLE, BASS, TruBASS, etc	
12	**TRUBASS & MATRIX SURROUND**	The effect is the same as PDP1st generation. But operation is a little different.	TruBass/Matrix are adjusted in each audio mode when selected as follows; MUSIC ; TruBASS=HIGH, MATRIX=ON SPEECH ; TruBASS=OFF, MATRIX=OFF CINEMA ; TruBASS=MID, MATRIX=ON Those can be changed in service menu. FAVOURITE ; according to user menu. Shipping is TruBASS=LOW, MTRIX=OFF However, MATRIX can be switched on and off by surround key in each audio modes after that.	
13	**AV4 Components INPUT**	AV4 supports 4 types of components inputs. Normal 50Hz (PAL) ; YCbCb50 Normal 60Nz (NTSC) ; YCbCr60 Progressive 50Hz (PAL) ; YPbPr50 Progressive 60Hz (NTSC) ; YPbPr60	When you select AV4, input signal is automatically identified to display properly on screen.	
14	**TV + TEXT**	In TV+TEXT, R/C operation follows TELETEXT operation. Ten keys select page number not a position number.	As operation, [A|B] key is switched to TV+TEXT on and off. From TELETEXT mode, it switches TV+TEXT ✌ TEXT ✌ TV+TEXT …. From TV mode, it switches TV+TEXT ✌ TV ✌ TV+TEXT …. In TV+TEXT, menu is not available to adjust picture and any other menu items. (In TEXT mode, the same thing happens.)	

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