

# HITACHI

## SERVICE MANUAL

YK

No.0428FE

27AX2B/C722

NTSC

M1LXU Chassis

R/C:CLU-670GR

**ATTENTION:** Avant de mettre en service ce châssis, il est important que le technicien de service lise les "Mesures de sécurité" et "Avis concernant la sécurité de l'appareil" dans ce MANUAL DE SERVISE.

**CAUTION:** Before servicing this chassis, it is important that the service technician read the "Safety Precaution" and "Product Safety Notices" in this Service Manual.

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Caractéristiques techniques et composants sont sujets à modification pour amélioration.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

## TELEVISION COULEUR/COLOR TELEVISION

## INSTRUCTIONS DE SECURITE

**AVERTISSEMENT:** Etant donné que le châssis de ce récepteur de télévision est connecté au secteur en cours de fonctionnement, aucune réparation ne doit être engagée par quiconque ne connaissant pas les instructions de sécurité indispensables à connaître pour effectuer des travaux sur ce type de matériel.

Les précautions suivantes doivent être observées:

1. Ne pas installer ni déposer ou manipuler le tube-image sans raison sans porter de lunettes de protection contre les éclats. Toute personne non équipée de la sorte doit se tenir éloignée des tubes-image au moment de leur manipulation. Tenir le tube-image loin de soi au moment de sa manipulation.
  2. Quand une réparation doit être faite un transformateur d'isolement doit être placé entre le secteur électrique et le récepteur de télévision, ceci est indispensable avant de procéder à toute réparation sur un châssis en état de marche.
  3. Quand la plaque de montage d'un téléviseur doit être changée, remplacer les dispositifs de protection tels que les dispositifs d'arrêt, les boutons non métalliques, le couvercle du coffret ou les écrans de protection, les condensateurs et résistances d'isolement, etc doivent être remis en place.
  4. Quand une réparation doit être faite, respecter la disposition d'origine des fils. Une attention spéciale est requise en ce qui concerne le passage des fils dans l'étage à haute tension.
  5. Employer toujours les composants de remplacement du fabricant, notamment les composants critiques qui sont ombragés sur le schéma de montage qui ne doivent, en aucun cas être remplacés par ceux d'un autre fabricant. En outre, quand un court-circuit s'est produit, remplacer les composants qui donnent des signes de surchauffe évidente.
  6. Avant de remettre un téléviseur réparé au client, le technicien en charge doit procéder à des essais complets du téléviseur pour être certain que son fonctionnement est tout à fait normal et ne présente aucun risque de danger ou de décharge électrique, il doit également s'assurer que les dispositifs de protection incorporés dans le téléviseur n'ont pas subis de modification ou de détérioration au cours des réparations.
- Par conséquent, les vérifications suivantes doivent être faites pour assurer une protection complète aux clients comme aux réparateurs.

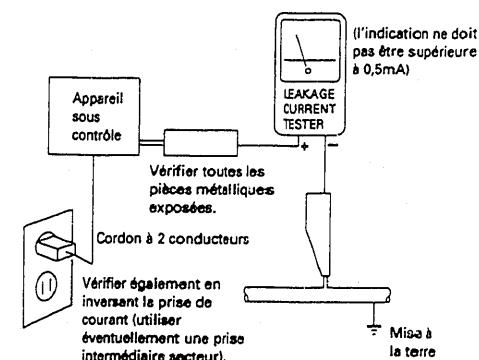
### Vérification de fuites de courant au repos

Après avoir débranché la prise du cordon secteur de la prise de sortie secteur de 120V 60Hz, court-circuiter les deux tiges de la prise. Régler l'interrupteur général sur marche. Utiliser un contrôleur d'isolement (500V C.C.) et brancher l'un des fils à la prise couplée et toucher une partie métallique de l'appareil avec l'autre (antennes, têtes de vis, revêtement métallique, axes de commande, etc.) les pièces métalliques

exposées possédant notamment une voie de retour au châssis. Les pièces métalliques exposées possédant une voie de retour au châssis doivent posséder une résistance minimale de 0,24M ohms et une résistance maximale de 5,2M ohms. Toute résistance inférieure à ces données indiquent une anomalie et ceci implique des mesures de correction. Les pièces métalliques exposées ne possédant pas de voie de retour au châssis indiqueront qu'il existe un circuit ouvert.

### Vérification de fuites de courant sous tension

Raccorder la prise du cordon secteur dans une prise de sortie secteur de 120V 60Hz (ne pas utiliser de transformateur d'isolement pour effectuer cette vérification). Régler l'interrupteur général sur marche. Utiliser un vérificateur de fuites de courant (Simpson modèle 229 ou l'équivalent) et mesurer le courant qui provient des parties métalliques exposées du coffret de l'appareil (antennes, têtes de vis, revêtement métalliques, axe de commande, etc.) les pièces métalliques exposées possédant notamment une voie de retour au châssis, à toute source de mise à la terre (conduite, tuyau de secteur, etc.). Le courant relevé ne doit pas dépasser 0,5mA.



### Vérification de fuites de courant secteur

TOUT RELEVE NE CORRESPONDANT PAS AUX TOLERANCES SPECIFIEES PLUS HAUT INDIQUE UN RISQUE DE CHOC ELECTRIQUE ET LES REPARATIONS NECESSAIRES DOIVENT ETRE FAITES AVANT DE RENDRE LE TELEVISEUR AU CLIENT.

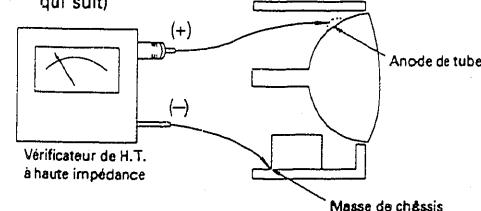
### Haute tension

Ce téléviseur est équipé d'un circuit de protection de manière à fournir une indication précise d'une augmentation de tension en comparaison de la valeur prédéterminée. Faire en sorte d'être conformes avec toutes les remarques de ce manuel de réparation concernant le circuit de protection au moment d'effectuer les réparations de telle sorte que ce circuit soit maintenu en parfait état de fonctionnement.

### Avertissement au réparateur

Quand le niveau de noir et la image sont minimum, la haute tension de ce téléviseur est inférieur à 34,0kV. Si vous remplacez des composants dans les circuit HOR et haute tension, s'assurer que la haute tension est de 34,0kV quand le niveau de noir et la image sont à leur minimum.

Le relevé de HT se fait à l'aide d'un vérificateur H.T. à haute impédance. Raccorder la pôle négatif (-) à la masse de châssis et le pôle positif (+) d'anode du tube. (S'en tenir aux branchements spécifiés sur le schéma qui suit)



### RADIATION DE RAYONS X

**TUBES-IMAGE:** La source primaire de radiation des rayons X de ce téléviseur est tout d'abord le tube-image. Le tube-image qui est employé pour le fonctionnement ci-dessus spécifié pour cette plaque de montage est d'une construction spéciale de manière à limiter les radiations de rayons X. Pour assurer une protection continue contre les radiations de rayons X, le tube-image de remplacement doit être identique au modèle d'origine et d'un type approuvé par HITACHI.

Au cours de la recherche de pannes et des essais du téléviseur présentant un problème de haute tension, éviter d'être trop près du tube-image et des composants à haute tension.

Ne pas mettre le châssis sous tension plus que nécessaire pour que la panne et l'excès de tension soit localisée.

### NOTICE DE SECURITE DE FABRICATION

De nombreux éléments électriques et mécaniques incorporés dans les téléviseurs HITACHI possèdent des caractéristiques évidentes de sécurité. Ces caractéristiques ne sont pas toujours évidentes par contrôle visuel et la protection assurée par ces éléments n'est pas forcément obtenue en utilisant des éléments de remplacement destinés pour une tension, un wattage supérieur, etc.

Les éléments de remplacement qui possèdent des caractéristiques de sécurité spéciales sont identifiés dans ce manuel de réparation.

Les composants électriques qui possèdent ces caractéristiques sont identifiés par le symbole sur les schémas de montage et dans le catalogue de pièces de rechange de ce manuel de réparation.

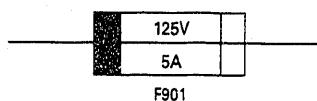
L'emploi de composants de remplacement ne possédant pas les mêmes caractéristiques de sécurité que les composants de remplacement recommandés par HITACHI indiqués dans le catalogue de pièces de rechange de ce manuel de réparation peuvent être à l'origine de décharge électrique, d'incendie, de radiation de rayons X ou présenter d'autres dangers.

Une production de fabrication est continuellement assurée par l'édition d'instructions nouvelles et révisées qui sont fournies de temps en temps. Pour connaître les renseignements les plus récents, consulter toujours le manuel de réparation HITACHI le plus récent. Une demande de manuel de réparation HITACHI ou de suppléments peut être faite auprès de votre HITACHI SALES CORPORATION pour une charge nominale.

**ATTENTION**

Le symbole suivant placé près du fusible d'alimentation correspond au fusible à fusion rapide qui doit être remplacé. La puissance du fusible est indiquée dans le symbole.

Exemple:



La puissance du fusible F901 est de 5,0A-125V.

Remplacer le fusible avec un fusible de même puissance pour qu'une protection permanente contre l'incendie soit assurée.

**SPECIFICATIONS TECHNIQUES**

Impédance d'entrée d'antenne : 75 ohms (300 ohms)

Canaux couverts : VHF : 2 à 13

UHF : 14 à 69

CATV MID: A-5 à A-1

A à I

CATV SUPER: J à W

CATV HYPER: W + 1 à W + 28

CATV ULTRA: W + 29 à W + 84

Canaux de réception : 181 canaux

Indicateur de canal : Sur l'écran / forme numérique

Fréquences

Intermédiaires :

Porteuse de fréquence

intermédiaire image : 45,75MHz

Porteuse de fréquence

intermédiaire son : 41,25MHz

Fréquence intermédiaire

son : 4,50MHz

Entrée alimentation : Secteur altern. 120V, 60Hz

Consommation : 135W

Convergence : Auto-convergent

Focalisation : Electrostatique

Tube cathodique : A68KSA60X

A68AEG20X01

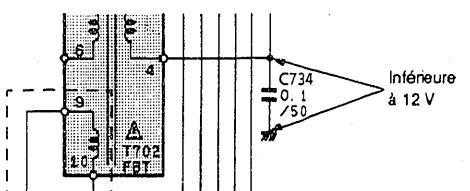
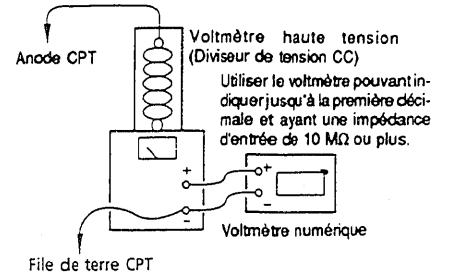
M68JOA98X01

Haut-parleur : 2 haut-parleurs (60 x 120mm)

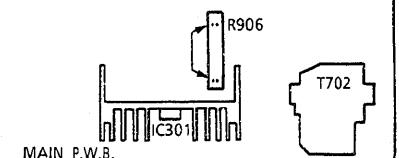
Sortie son : 3W x 2

**PRECAUTIONS TECHNIQUES****Vérification de l'opération du circuit limiteur haute tension**

1. Connecter le voltmètre haute tension entre l'anode CPT (capuchon d'anode) et la terre (TP702) de la manière indiquée dans le diagramme.
2. Régler la tension d'entrée CA à  $120 \pm 3V$ .
3. Capter le signal d'émission et régler les niveaux du noir et d'image au maximum. Régler les résistances variables d'écran et de sous-intensité pour que l'intensité du faisceau soit de  $1,30 \pm 0,1mA$ . (A ce moment, la tension à la borne ABL de FBT -entre les deux extrémités de C734 -doit être de 12V ou moins.)
4. Vérifier qu'à ce moment la haute tension constante est de  $27,5 \pm 1,0kV$ .
5. Régler la tension d'entrée CA à  $100 \pm 5V$ , puis court-circuiter les deux extrémités de R906.
6. Laisser les réglages des résistances variables d'écran, de niveau du noir et d'image comme dans l'article (3) et augmenter progressivement la tension d'entrée CA. Vérifier que l'image disparaît lorsque la haute tension est de  $31,3kV \pm 1,2kV$ .
7. Immédiatement après avoir vérifié que l'image disparaît, mettre l'interrupteur d'alimentation du récepteur sur la position "OFF".



Court circuit



MAIN P.W.B.

**SAFETY PRECAUTIONS**

**NOTICE:** Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.

**WARNING:** Since the chassis of this receiver is connected to one side of the AC power supply during operation, whenever the receiver is plugged in, service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

The following precautions should be observed:

1. 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. Keep picture tube away from the body while handling.
2. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a "HOT" chassis receiver.
3. When replacing a chassis in the receiver, all the protective devices must be put back in place, such as barriers, non-metallic knobs, adjustment and compartment cover-shields, isolation resistors-capacitors, etc.
4. When service is required, observe the original lead dress. Extra care should be taken to assure correct lead dress in the high voltage circuitry area.
5. Always use the manufacturer's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacturer's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced receiver 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, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

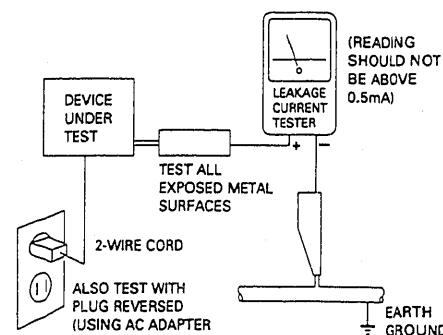
Therefore, the following checks should be performed for the continued protection of the customer and service technician.

**Leakage Current Cold Check**

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of  $0.24M\Omega$  and a maximum resistor reading of  $5.2M\Omega$ . Any resistance value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

**Leakage Current Hot Check**

Plug the AC line cord directly into a AC 120V 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power switch on. Using a "leakage Current Tester (Simpson Model 229 or equivalent)", measure for current from all exposed metal parts of the cabinet (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

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

**High Voltage**

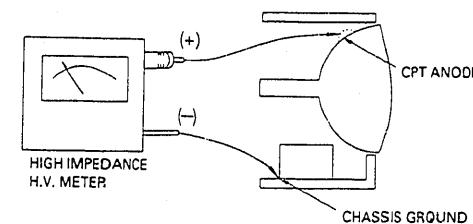
This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit is operated correctly.

**Serviceman warning**

With minimum Black Level and Picture, the operating high voltage in this receiver is lower than 34.0kV. In case any component having influence on the high voltage is replaced, confirm that high voltage with minimum Black Level and Picture is lower than 34.0kV.

To measure H.V. use a high impedance H.V. meter. Connect (-) to chassis earth and (+) to the CPT anode button (See the following connection diagram).

**NOTE:** Turn the power switch off without fail before the connection to the Anode button is made.

**X-radiation**

**TUBE:** The primary source of X radiation in this receiver is the picture tube. The tube utilized in this chassis is specially constructed to limit X radiation emission.

For continued X radiation protection, the replacement tube must be the same type as the original, HITACHI approved type.

When troubleshooting and making test measurements in a receiver with an excessive high voltage problem, avoid coming unnecessarily close to the picture tube and the high voltage component.

Do not operate the chassis longer than is necessary to locate the cause of the excessive voltage.

**PRODUCT SAFETY NOTICE**

Many electrical and mechanical parts in HITACHI television receiver have special safety related characteristics. These 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 in this Service Manual. Electrical components having such features are identified with a  $\Delta$  mark in the schematics and parts list in this Service Manual.

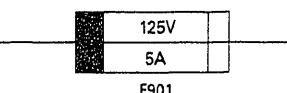
The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.

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

**CAUTION**

The following symbol near the fuse indicates fast operating fuse to be replaced. Fuse ratings appear with in the symbol.

Example:



The rating of fuse F901 is 5.0A-125V.

Replace with the same type fuse for continued protection against fire.

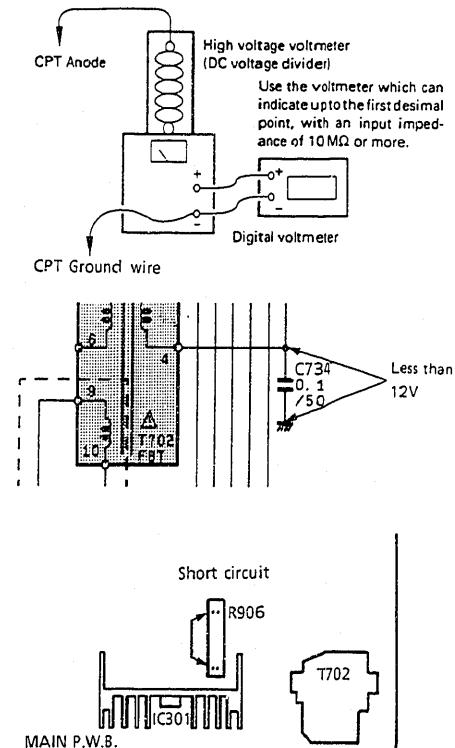
## TECHNICAL SPECIFICATIONS

ANTENNA INPUT IMPEDANCE .....	75Ω (300Ω)	POWER INPUT .....	AC120V, 60Hz
CHANNEL COVERAGE		POWER RATING .....	135W
VHF BAND .....	2~13	CONVERGENCE .....	Self convergence
UHF BAND .....	14~69	FOCUS .....	Electrostatic
CATV MID BAND .....	A-5~A-1	PICTURE TUBE .....	A68KSA60X A68AEG20X01 M68JUA98X01
	A~1	SPEAKER .....	2 Speakers (60 x 120mm)
SUPER BAND .....	J~W	SOUND OUTPUT .....	3W×2
HYPER BAND .....	W+1~W+28		
ULTRA BAND .....	W+29~W+84		
RECEIVING CHANNEL .....	181ch		
CHANNEL INDICATOR .....	DIGITAL/ON SCREEN		
INTERMEDIATE FREQUENCY			
Picture 1-F Carrier .....	45.75MHz		
Sound 1-F Carrier .....	41.25MHz		
Sound 1-F .....	4.50MHz		

## TECHNICAL CAUTIONS

## High voltage limiter circuit operation check

1. Connect the high voltage voltmeter between the CPT anode terminal (anode cap) and ground (TP702) as shown in the diagram.
2. Set the AC input voltage to  $120 \pm 3V$ .
3. Receive the broadcast signal and set the picture level and the black level to maximum. Adjust the screen VR and sub brightness VR so that beam current is  $1.30 \pm 0.1mA$ . (The voltage at ABL terminal of FBT — between both ends of C734 — should 12V or less at this time.)
4. Check that the constant high voltage is  $27.5 \pm 1.0kV$  at this time.
5. Set the AC input voltage to  $100 \pm 5V$  and then shortcircuit both ends of R906.
6. Leave the setting of the picture, black level and screen VRs as in item (3) and gradually increase the AC input voltage. Check that the picture disappears when the high voltage is  $31.3kV \pm 1.2kV$ .
7. Turn the switch of the set off immediately after checking that the picture disappears.



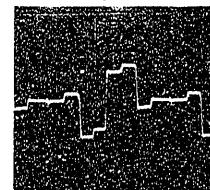
## FORME D'ONDE DE CHAQUE ÉTAGE / WAVEFORMS AT EACH SECTION

Les nombres qui sont indiqués entre parenthèses correspondent aux emplacements qui sont représentés sur schéma de câblage.

Numbers inside ( ) correspond to locations shown in the circuit diagram.

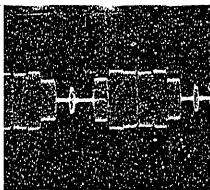
## MAIN P.W.B.

① IC201 ⑩ pin



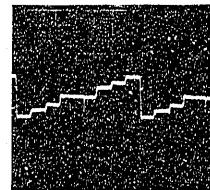
1V/div  
→ 10μsec./div

⑥ Between C503 and C518



0.1V/div  
→ 10μsec./div

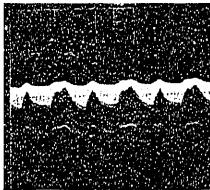
② IC201 ⑨ pin



0.5V/div  
→ 10μsec./div

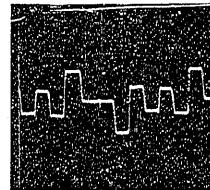
## POWER P.W.B.

⑦ IC651 ⑥ pin



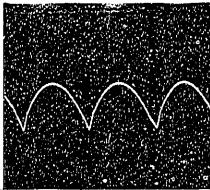
0.5V/div  
→ 5msec./div

③ IC201 ⑪ pin



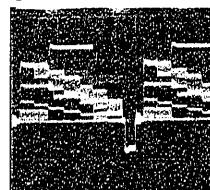
0.5V/div  
→ 10μsec./div

⑧ Between R669 and R651



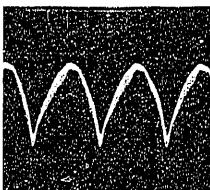
2V/div  
→ 5msec./div

④ Q201 emitter



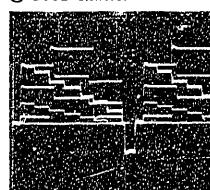
0.2V/div  
→ 10μsec./div

⑨ Q651 emitter



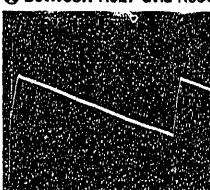
1V/div  
→ 5msec./div

⑤ Q303 emitter

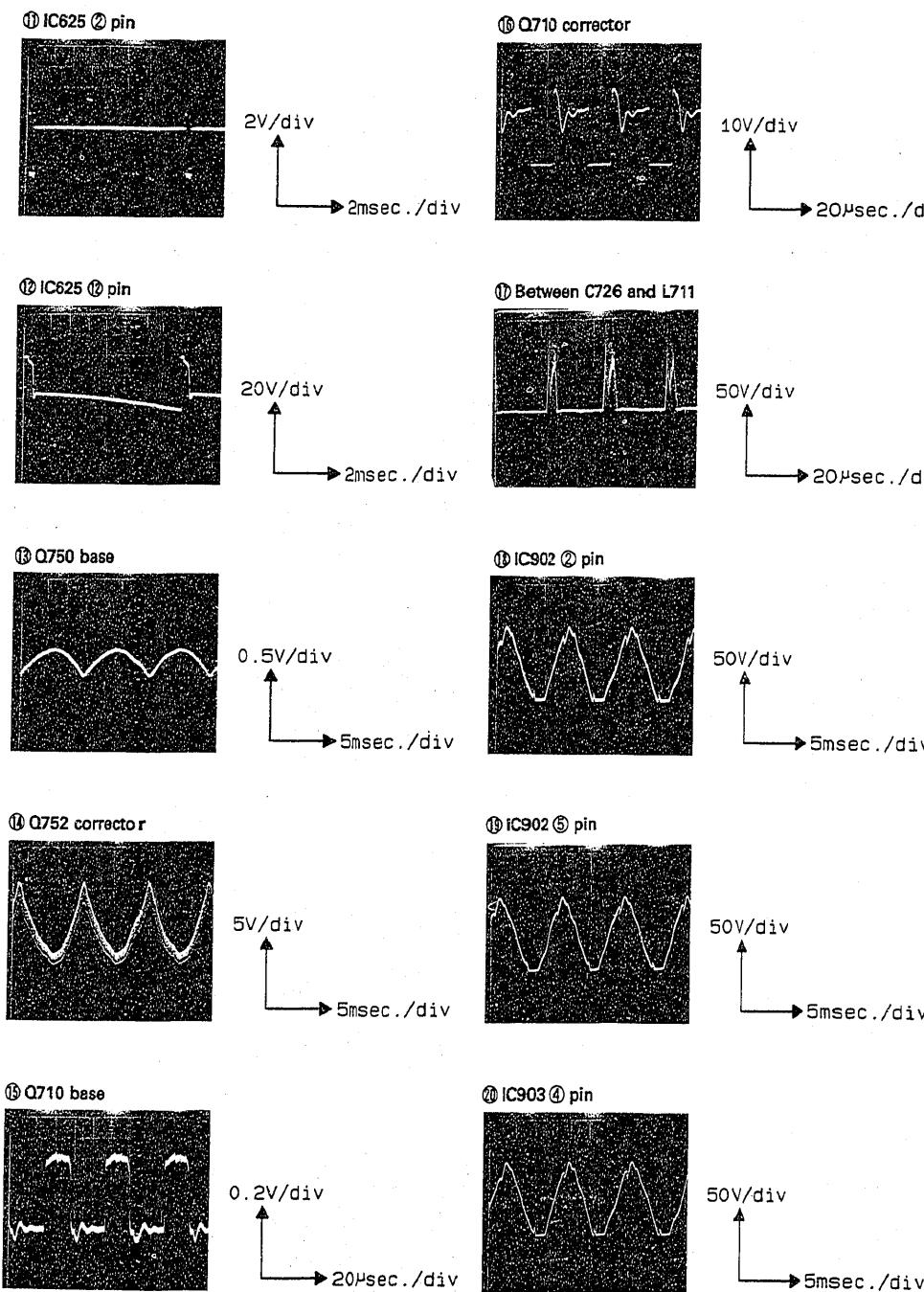


0.2V/div  
→ 10μsec./div

⑩ Between R627 and R650



0.5V/div  
→ 2msec./div



Circuit No.	Pin No.	Voltage (V)	Circuit No.	Pin No.	Voltage (V)	Circuit No.	Pin No.	Voltage (V)	Circuit No.	Pin No.	Voltage (V)	Circuit No.	Pin No.	Voltage (V)	
<b>MAIN 1/2 P.W.B.</b>															
IC102	1	4.7		11	4.0	IC401	10	0	Q201	B	1.8	Q455	B	1.1	
	2	4.7		12	0		11	2.5	C	8.7		C	2.4		
	3	0		13	2.5		12	2.5	E	1.1		E	1.6		
	4	3.8		14	3.9		13	4.5	B	2.3		B	0.7		
	5	4.8		15	5.5		14	4.5	Q456	C	1.6		E	0	
	6	1.7		16	9.0		15	2.7		B	1.8		B	3.4	
	7	1.1		1	4.7		16	0.1	Q501	C	9.0		C	9.0	
	8	5.6		2	4.8		17	4.7	E	2.7		E	2.7		
	9	0.1		3	0		18	4.6	B	0		B	0		
	10	1.7		4	4.8		19	1.6	Q502	C	9.0		E	0	
	11	1.6		5	4.8		20	4.5		B	4.1		B	4.4	
	12	1.0		6	4.8		21	9.0	Q503	C	9.0		E	3.7	
	13	0		7	4.8		22	4.5	Q504	C	8.4		B	5.5	
	14	0		8	4.8		1	1.2	Q505	C	9.0		E	3.7	
	15	4.8		1	5.7		2	1.3	Q506	C	7.4		B	7.4	
	16	0		2	5.8		3	4.7	Q507	C	3.3		E	3.3	
	17	0		3	5.6		4	4.7	Q601	C	9.0		B	7.4	
	18	0		4	5.5		5	4.6	Q602	C	4.3		E	4.8	
	19	4.7		5	4.3		6	0	Q603	C	3.9		B	0	
	20	4.7		6	4.0		7	4.7	Q604	C	8.5		E	8.0	
	21	4.7		7	0		8	6.2	Q605	C	0		B	7.3	
	22	4.7		8	4.5		9	0	Q701	C	9.01		E	6.7	
	23	0		9	4.5		10	4.5							
	24	0		10	5.0		11	4.7							
	25	0.1		11	8.7		12	4.7							
	26	2.1		12	5.8		13	1.2							
	27	0		13	5.2		14	4.8							
	28	4.8		14	8.7		15	0.3							
	29	4.8		15	12.0		16	4.7							
	30	2.1		16	11.9		17	0.3							
	31	2.1		17	12.8		18	7.7							
	32	0		18	4.9		19	4.8							
	33	0		19	5.0		20	7.6							
	34	0		20	5.0		21	4.9							
	35	0		21	3.6		22	5.1							
	36	0		22	-5.5		23	7.0							
	37	4.8		23	0.6		24	0							
	38	4.8		24	5.1		25	0							
	39	4.8		25	5.1		26	7.9							
	40	4.8		26	5.7		27	4.7							
	41	4.8		27	7.4		28	4.4							
	42	4.8		28	4.4		29	3.0							
	43	0		29	7.1		30	2.9							
	44	4.6		30	7.6		31	0.1							
	45	0.2		31	4.1		32	9.0							
	46	0.1		32	2.8		33	5.4							
	47	4.7		33	5.3		34	1.7							
	48	0		34	4.2		35	4.5							
	49	4.5		35	4.0		36	0.6							
	50	4.5		36	4.6		37	3.8							
	51	4.5		37	0		38	4.0							
	52	4.3		38	3.4		39	4.7							
	53	4.4		39	5.1		40	4.0							
	54	0.5		40	4.7		41	3.8							
	55	3.6		41	3.8		42	4.7							
	56	4.8		42	4.7		Q101	C	0						
	57	0		43	0		Q102	C	0						
	58	0		44	3.3		Q103	C	0						
	59	0		45	3.0		Q104	C	4.3						
	60	0		46	3.0		Q105	C	4.5						
	61	0		47	8.3		Q106	C	4.7						
	62	4.4		48	0		Q107	C	4.7						
	63	4.0		49	2.1		Q108	C	4.7						
	64	4.8		50	7.7		Q109	C	4.7						
	1	5.1		51	7.4		Q110	C	4.7						
	2	1.7		52	4.7		Q111	C	4.7						
	3	0.4		1	4.5		Q112	C	4.7						
	4	0.1		2	0		Q113	C	4.7						
	5	0		3	4.5		Q114	C	4.7						
	6	0		4	0		Q115	C	4.7						
	7	2.7		5	4.6		Q116	C	4.7						
	8	0		6	4.7		Q117	C	4.7						
	9	3.9		7	2.9		Q118	C	4.7						
	10	3.9		8	2.3		Q119	C	4.7						
				9	4.5		Q120	C	4.7						

Circuit No.	Pin No.	Voltage (V)
<b>MAIN 2/2 P.W.B.</b>		
	1	1.2
	2	0
	3	15.7
	4	0
	5	0
IC450	6	1.2
	7	7.9
	8	14.8
	9	0
	10	15.8
	11	14.8
	12	7.9
	13	—
	14	7.9
	15	4.3
	16	3.9
	17	3.9
	18	0
IC625	19	3.8
	20	3.8
	21	3.7
	22	25.8
	23	2.4
	24	1.3
	25	0
	26	14.2
	27	28.4
	28	—
	29	5.2
	30	5.2
	31	5.2
IC651	32	0
	33	5.7
	34	5.7
	35	6.0
	36	10.9
	37	—
	38	10.9
	39	9.7
IC701	40	0
	41	3.9
	42	32.8
	43	4.0
	44	—
	45	15.8
IC702	46	0
	47	0
	48	0
	49	15.8
IC901	50	—
	51	0
	52	131.2
	53	150.1
IC902	54	130.5
	55	—
	56	75.4
	57	—
	58	79.0
	59	73.0
IC903	60	—
	61	25.0
	62	24.0
	63	0
	64	68.2
	65	71.7
IC904	66	—
	67	—
	68	25.7
	69	7.4
	70	—
	71	11.5
Q450	72	0.8
	73	5.5
	74	0
	75	15.7
Q581	76	0
	77	0.7
	78	0
	79	0
Q825	80	6.8
	81	25.7
	82	7.4
	83	—
Q826	84	6.8
	85	0
	86	7.4

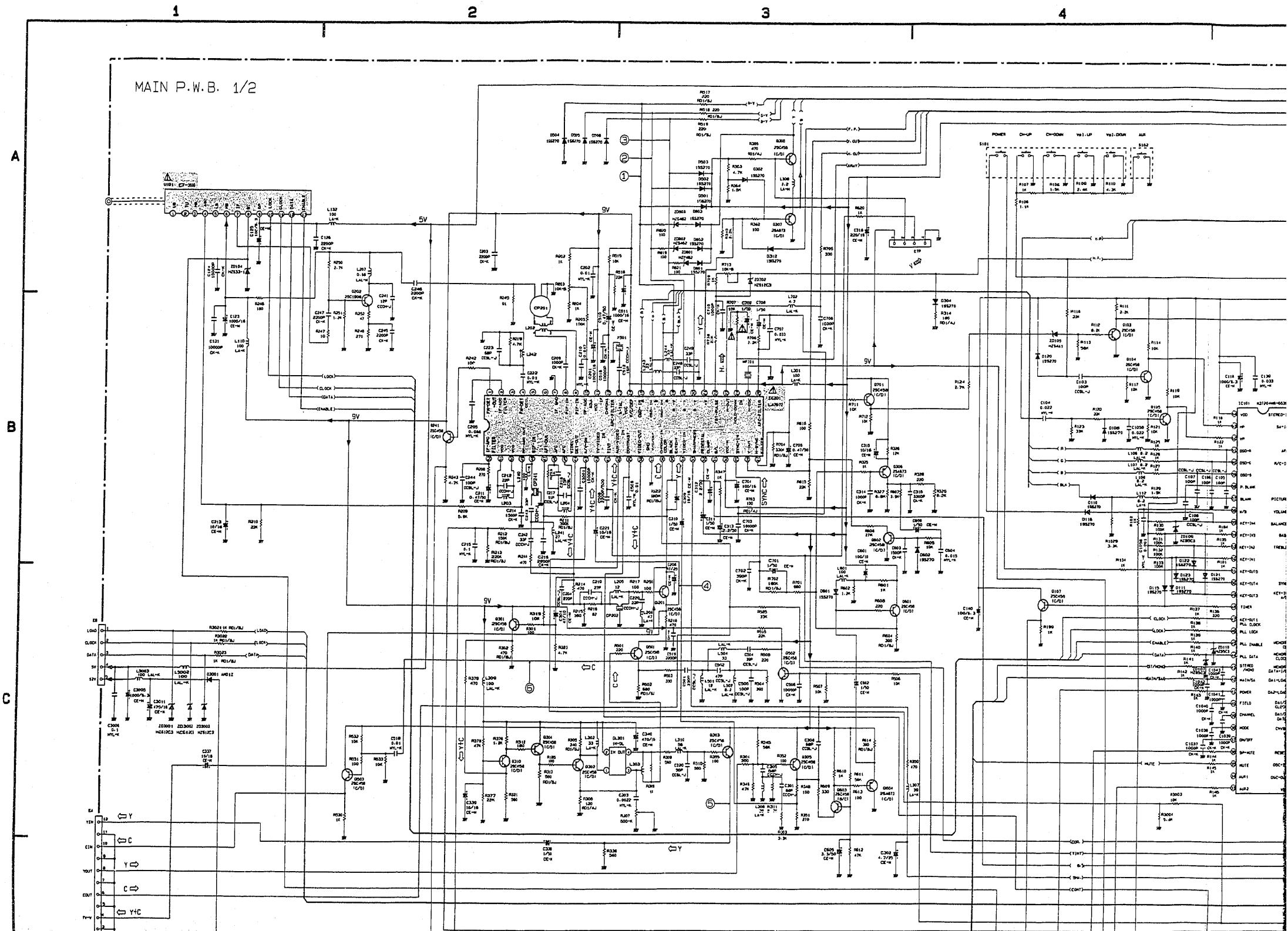
Circuit No.	Pin No.	Voltage (V)
<b>MAIN 2/2 P.W.B.</b>		
	B	6.0
Q851	C	9.7
	E	5.3
	B	0.3
Q710	C	15.7
	E	0
	B	—
Q711	C	—
	E	0
	B	—
Q712	C	15.7
	E	0
	B	—
Q750	C	12.6
	E	0.7
	B	22.5
Q751	C	0.6
	E	22.9
	B	0.6
Q752	C	17.1
	E	0
	B	—
Q753	C	0
	E	121.8
	B	67.2
Q901	C	72.0
	E	68.1
Q902	B	5.7
	C	24.0
Q903	E	5.1
	G	0
Q904	A	26.8
	L	0
Q905	B	13.3
	C	15.8
Q906	E	12.8
	B	17.9
Q907	C	18.4
	E	18.8
Q908	B	15.9
	C	0
Q909	E	16.1
	B	10.1
Q910	C	15.8
	E	9.5
Q911	B	0.7
	C	0.1
Q912	E	0
	B	26.5
Q913	C	0
	E	26.8

Circuit No.	Pin No.	Voltage (V)
<b>CPT P.W.B.</b>		
	B	4.9
Q851	C	8.1
	E	4.3
	B	5.0
Q852	C	8.0
	E	4.3
	B	5.1
Q853	C	8.1
	E	4.5
	B	9.0
Q854	C	152.0
	E	8.4
	B	9.0
Q855	C	146.0
	E	8.4
	B	9.0
Q856	C	152.0
	E	8.5
	B	0.7
Q863	C	4.3
	E	3.6
Q864	B	3.0
	C	3.7
Q865	E	3.7

**NOTICE DE SÉCURITÉ DE FABRICATION:** Les composants qui sont accompagnés du symbole  et Indiqués par une zone de couleur, possèdent des caractéristiques spéciales qui ont trait à la sécurité. Avant de procéder au remplacement de l'un de ces composants, lire attentivement la notice de sécurité de fabrication contenue dans ce manuel de réparation. Ne pas alterer le niveau de sécurité de l'appareil en procédant à des réparations erronées.

## DIAGRAMME DE CIRCUIT DE BASE / BASIC CIRCUIT DIAGRAM

**PRODUCT S.**  
replacing any  
of the recent



symbole  $\Delta$  et indiqués par une zone de recouvrement au remplacement de l'un de ces manuels de réparation. Ne pas alterer le

27AX2B/C722

DIAGRAMME DE CIRCUIT DE BASE / BASIC CIRCUIT DIAGRAM

PRODUCT SAFETY NOTE: Components marked with a  $\Delta$  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

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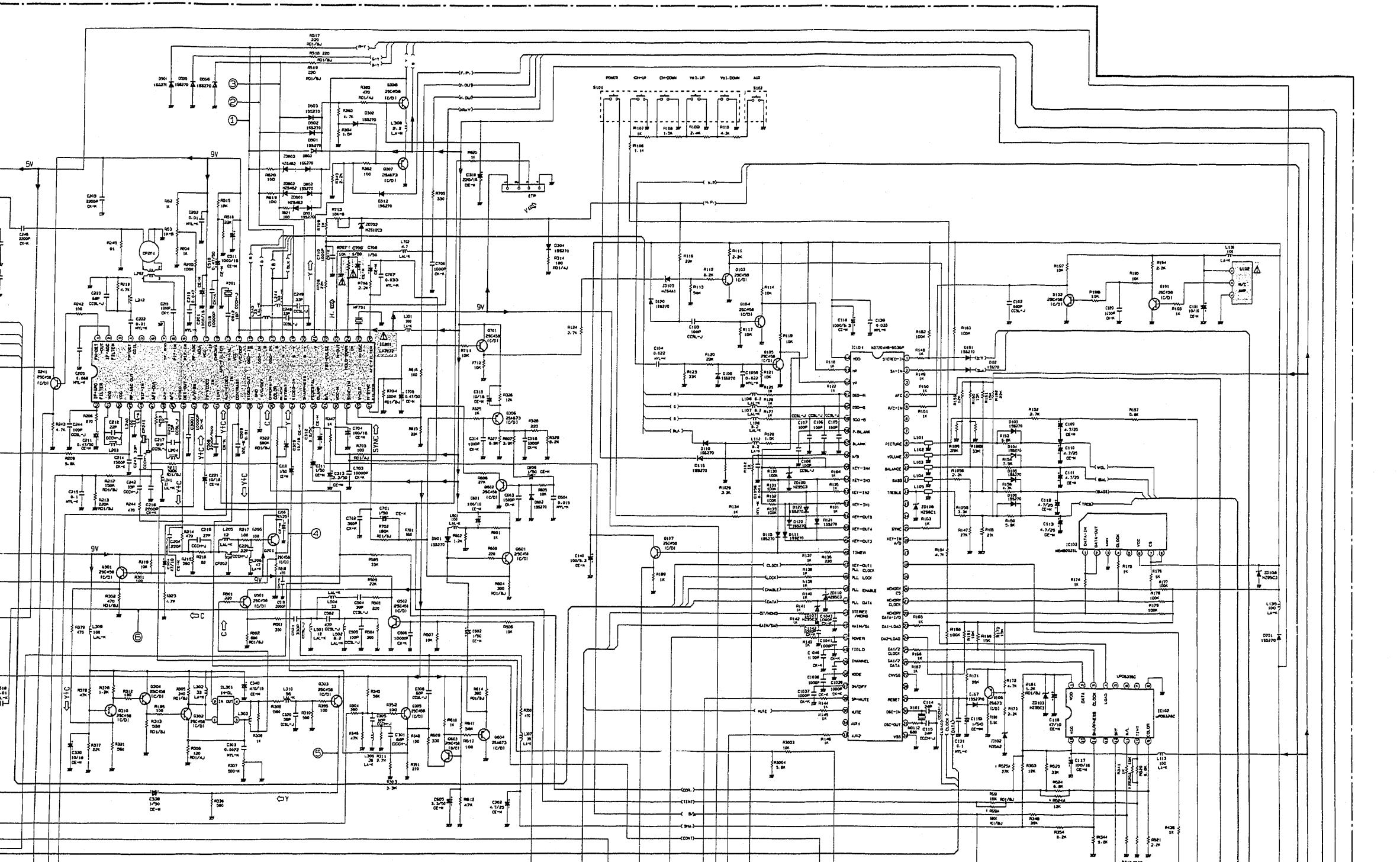
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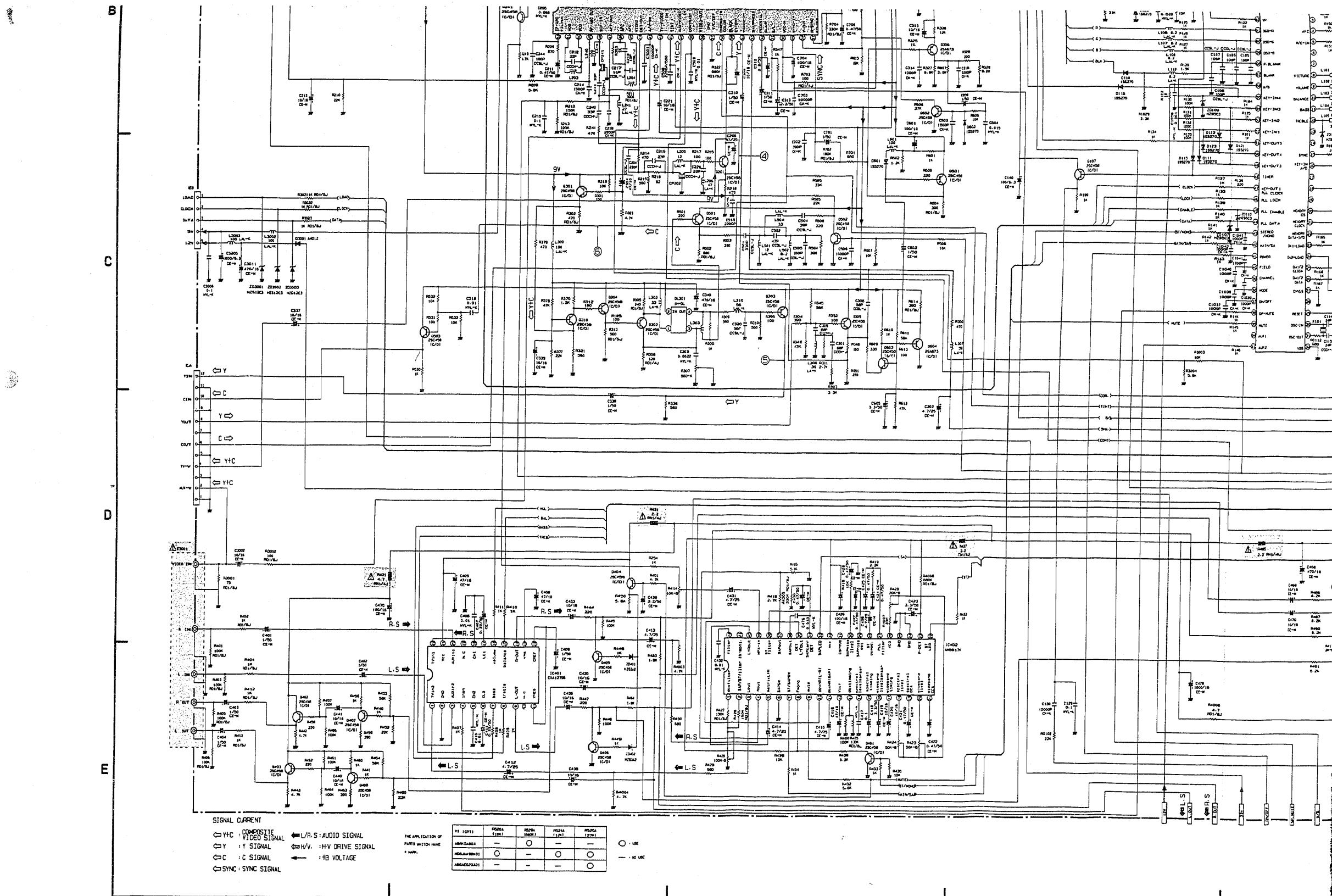
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A

B

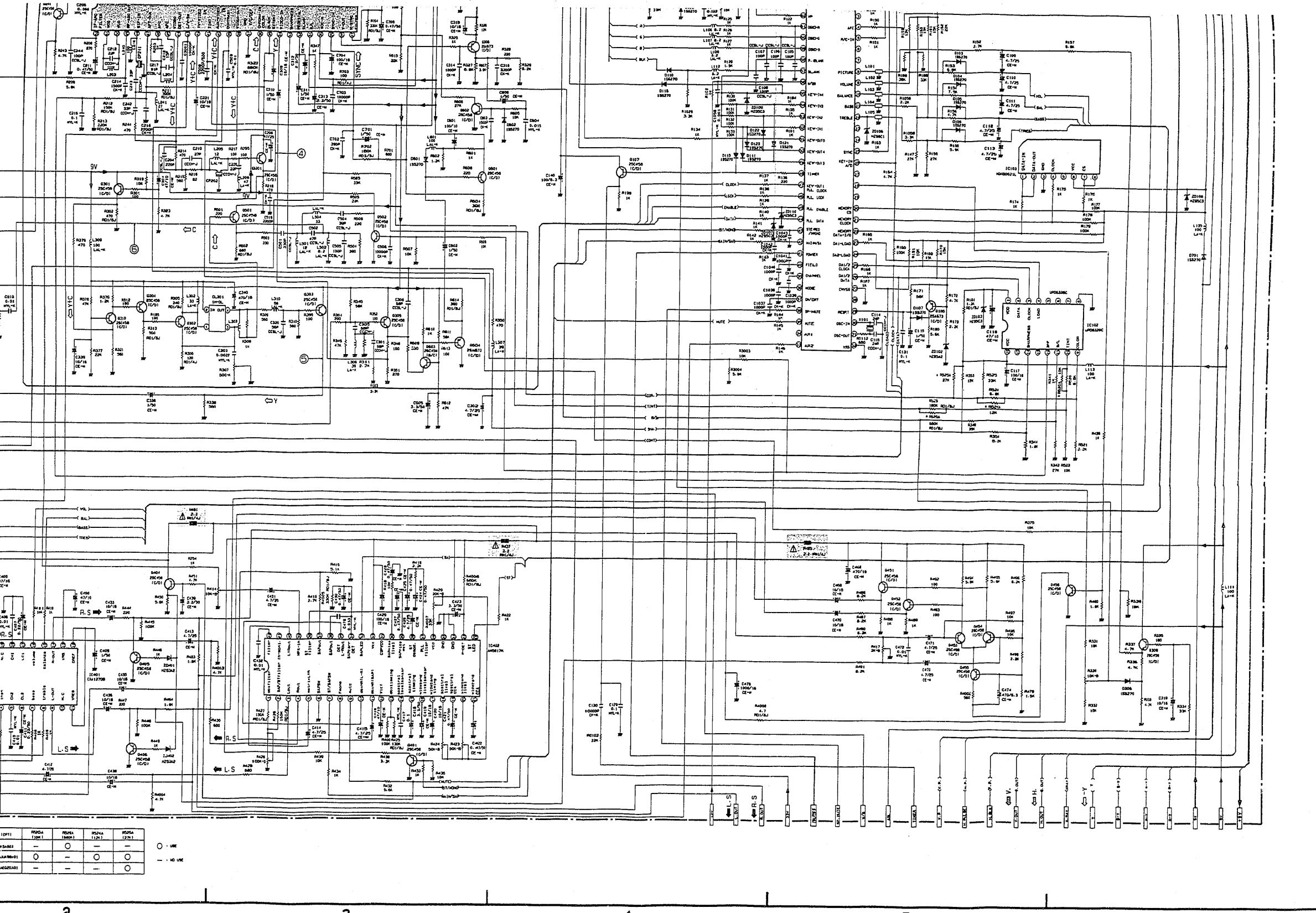
C





- Etant donné que ceci représente un diagramme schématique de base, la valeur des éléments est sujet à modificación pour des raisons d'amélioration.

- Since this is a basic circuit diagram
- All DC voltage to be measured



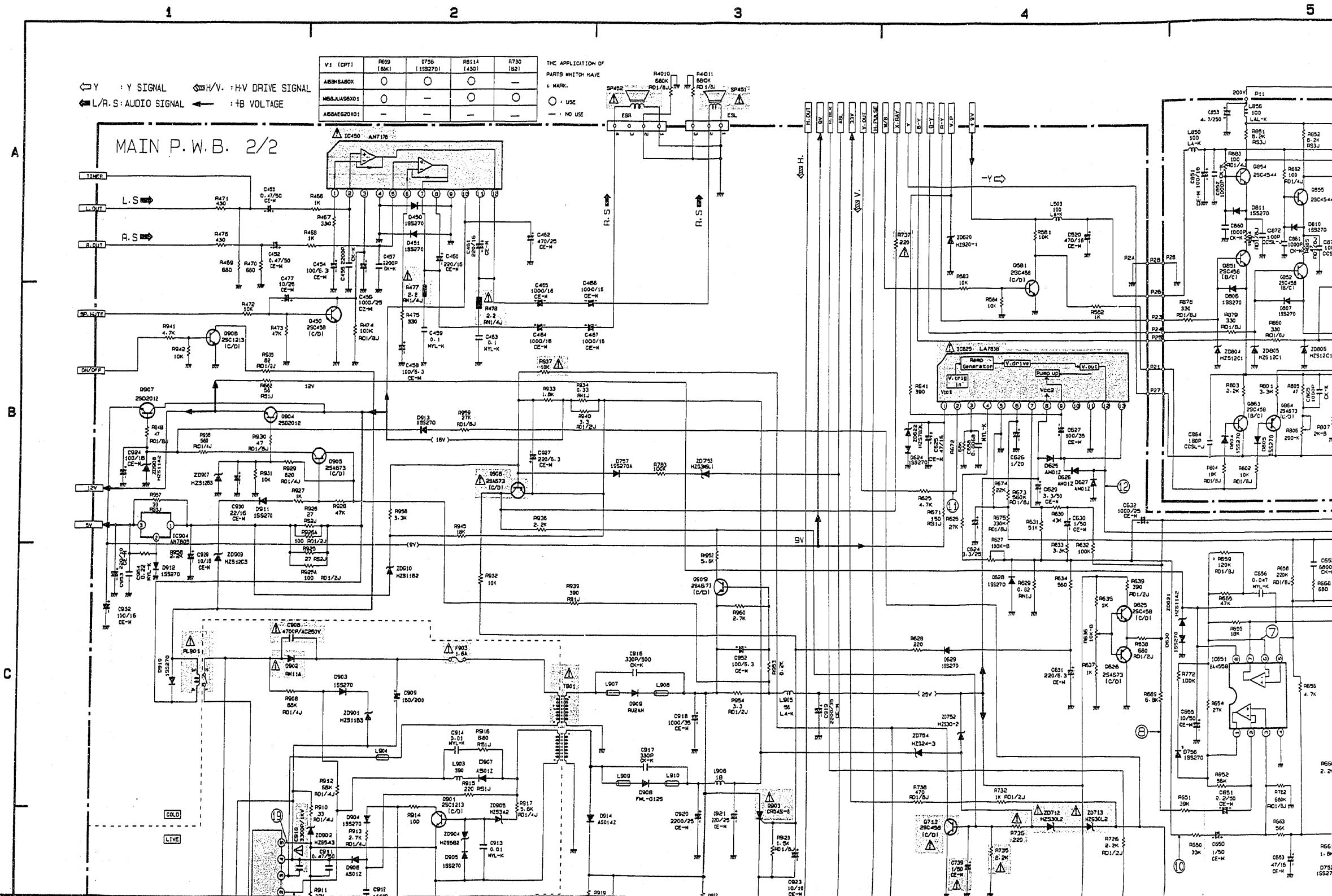
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

**NOTICE DE SÉCURITÉ DE FABRICATION:** Les composants qui sont accompagnés du symbole  et indiqués par une zone de couleur, possèdent des caractéristiques spéciales qui ont trait à la sécurité. Avent de procéder au remplacement de l'un de ces composants, lire attentivement la notice de sécurité de fabrication contenue dans ce manuel de réparation. Ne pas altérer le niveau de sécurité de l'appareil en procédant à des réparations erronées.

## **DIAGRAMME DE CIRCUIT DE BASE / BASIC CIRCUIT DIAGRAM**

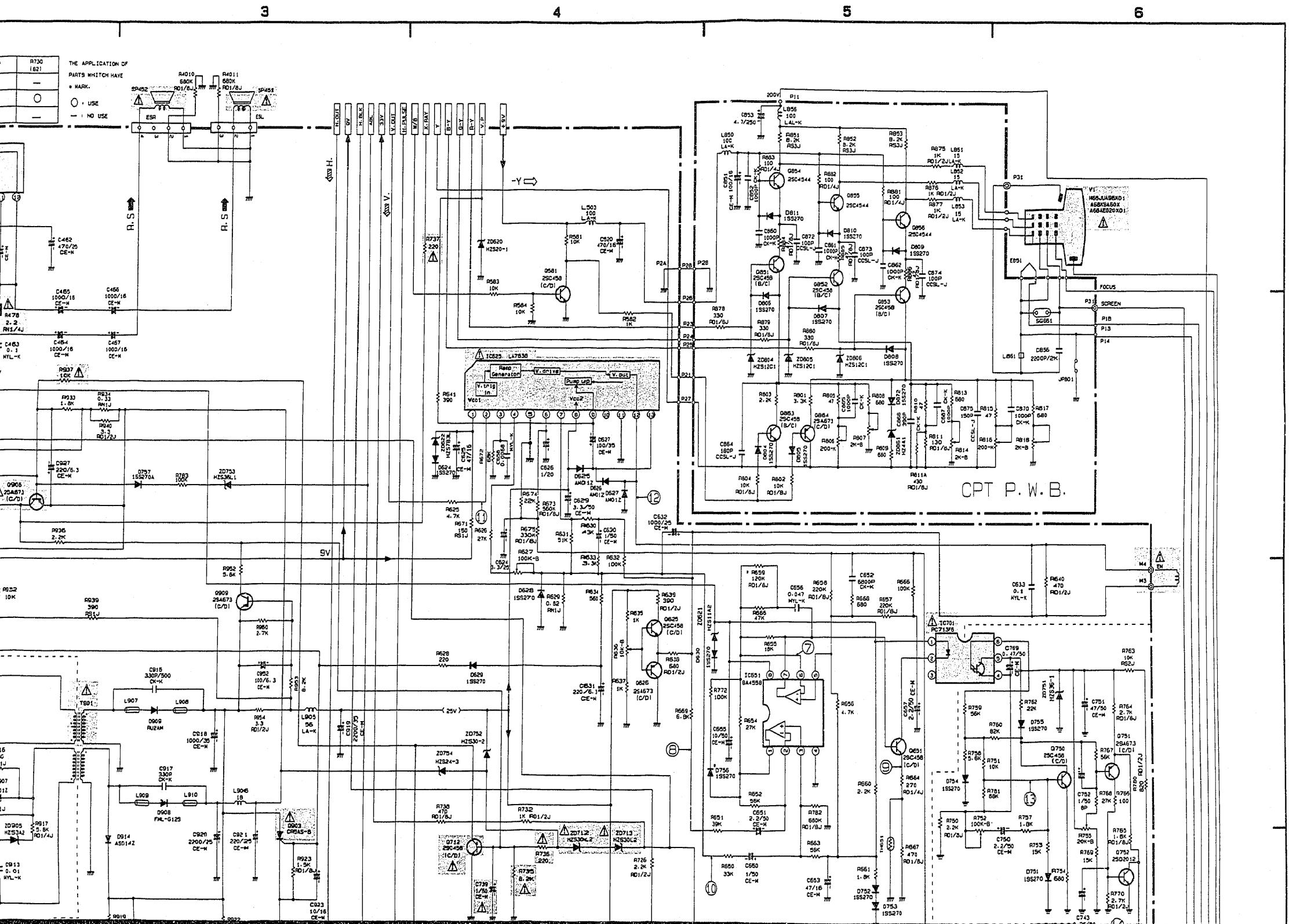
## **PRODUCT SAFETY**

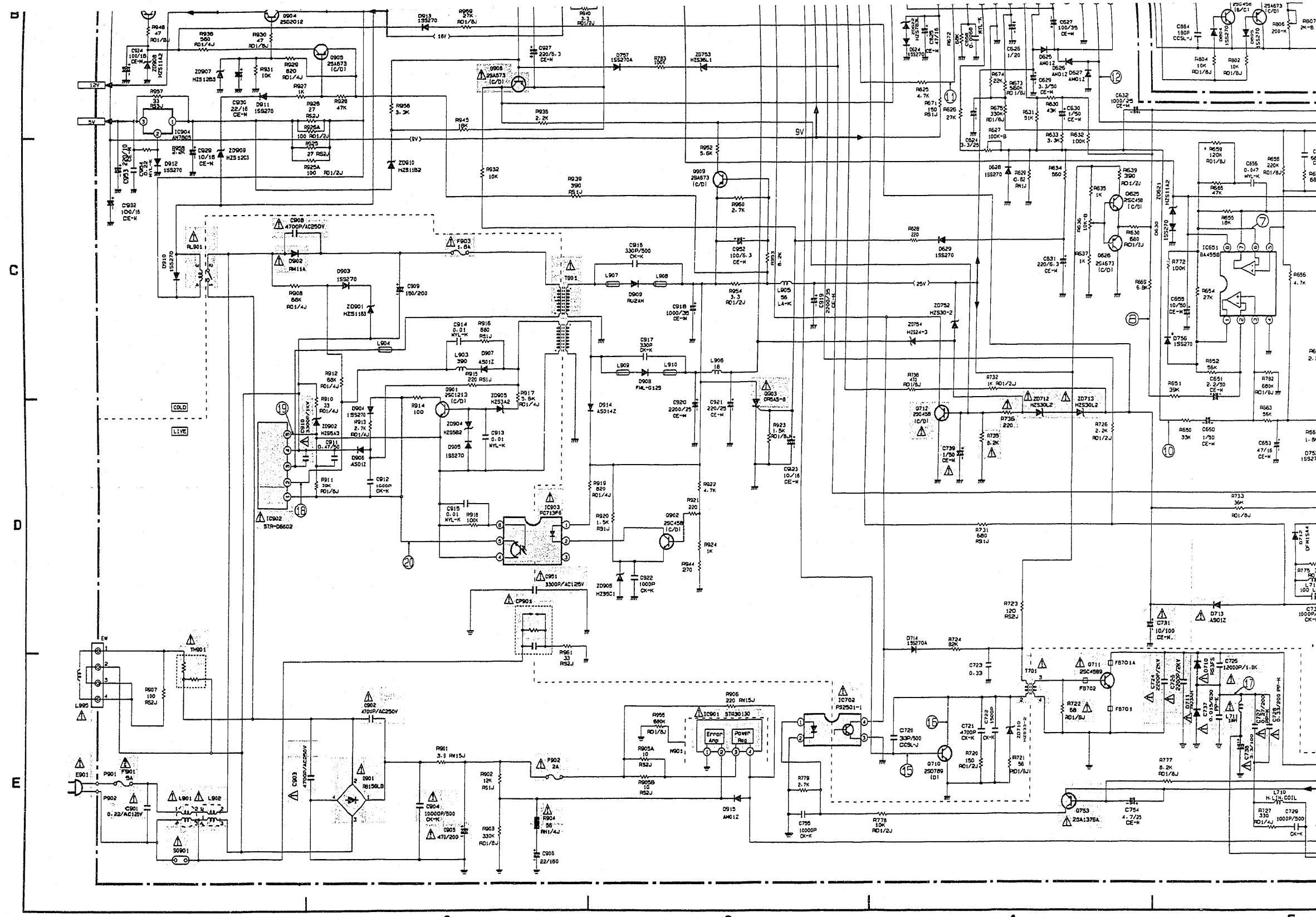


indiqués par une zone de  
placement de l'un de ces  
éléments. Ne pas alterer le

### DIAGRAMME DE CIRCUIT DE BASE / BASIC CIRCUIT DIAGRAM

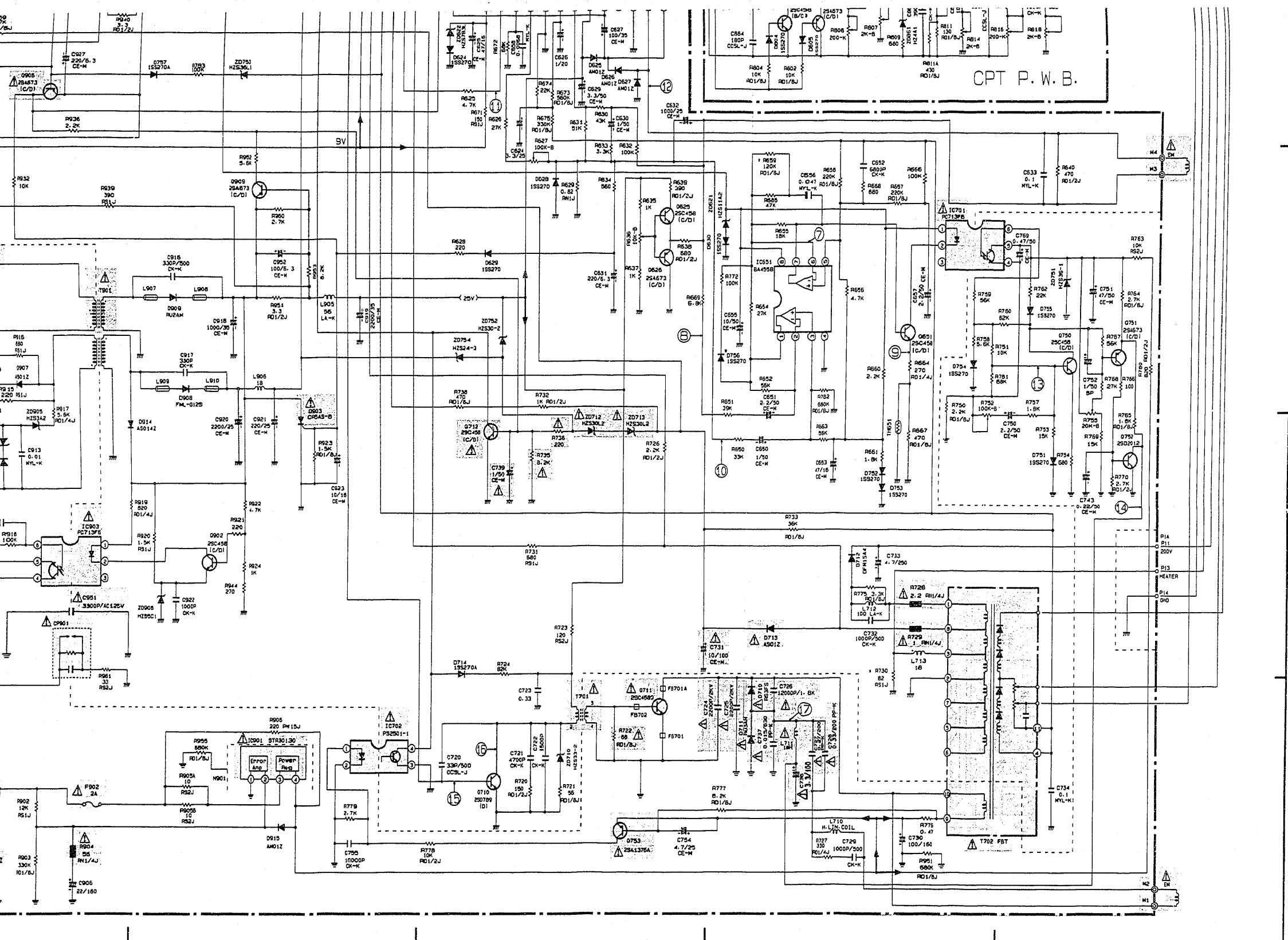
PRODUCT SAFETY NOTE: Components marked with a and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver though improper servicing.





- Etant donné que ceci représente un diagramme schématique de base, la valeur des éléments est sujette à modification pour des raisons d'amélioration.

- Since this is a basic circuit diagram, the values
- All DC voltage to be measured with a tester



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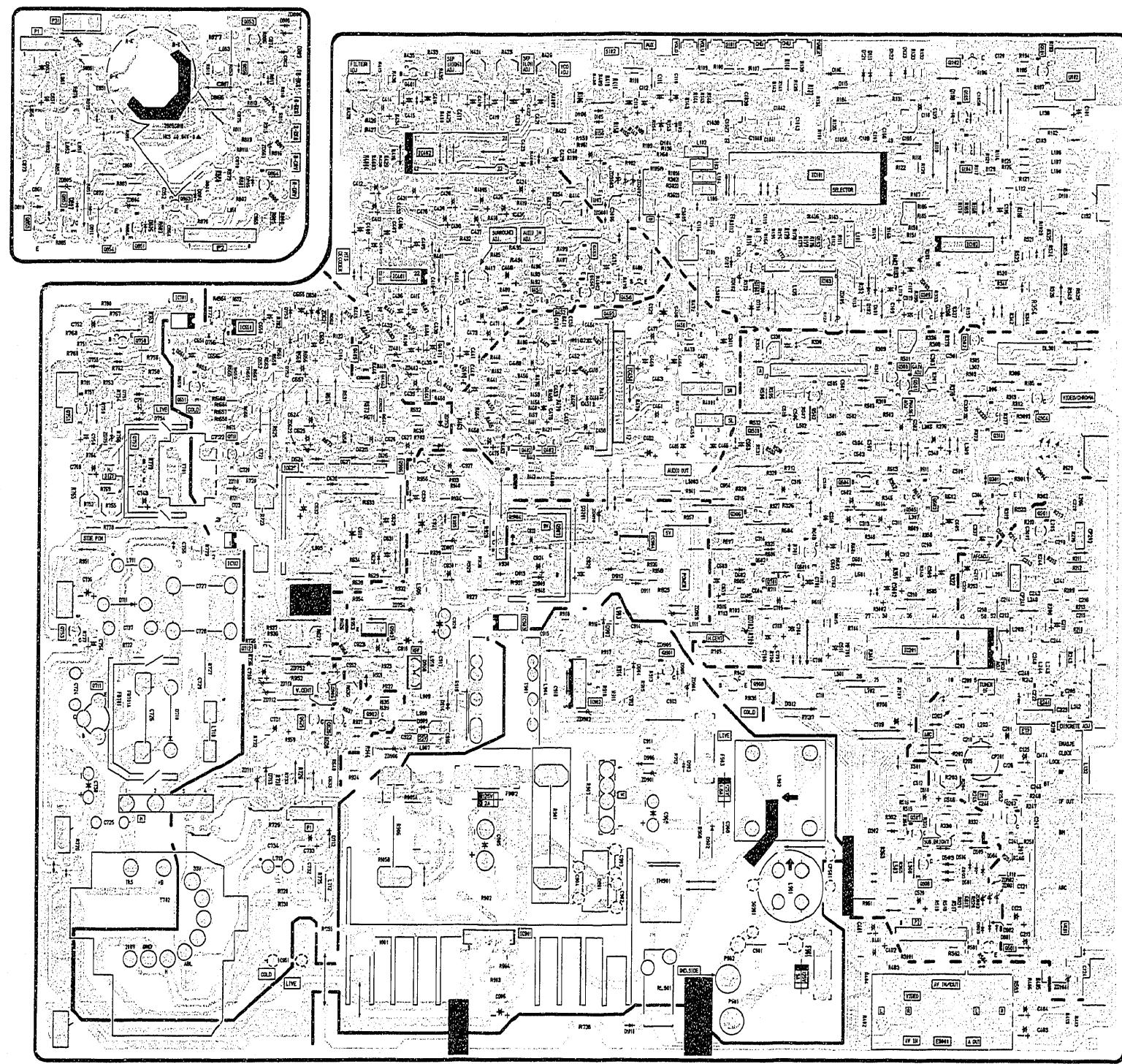
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• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

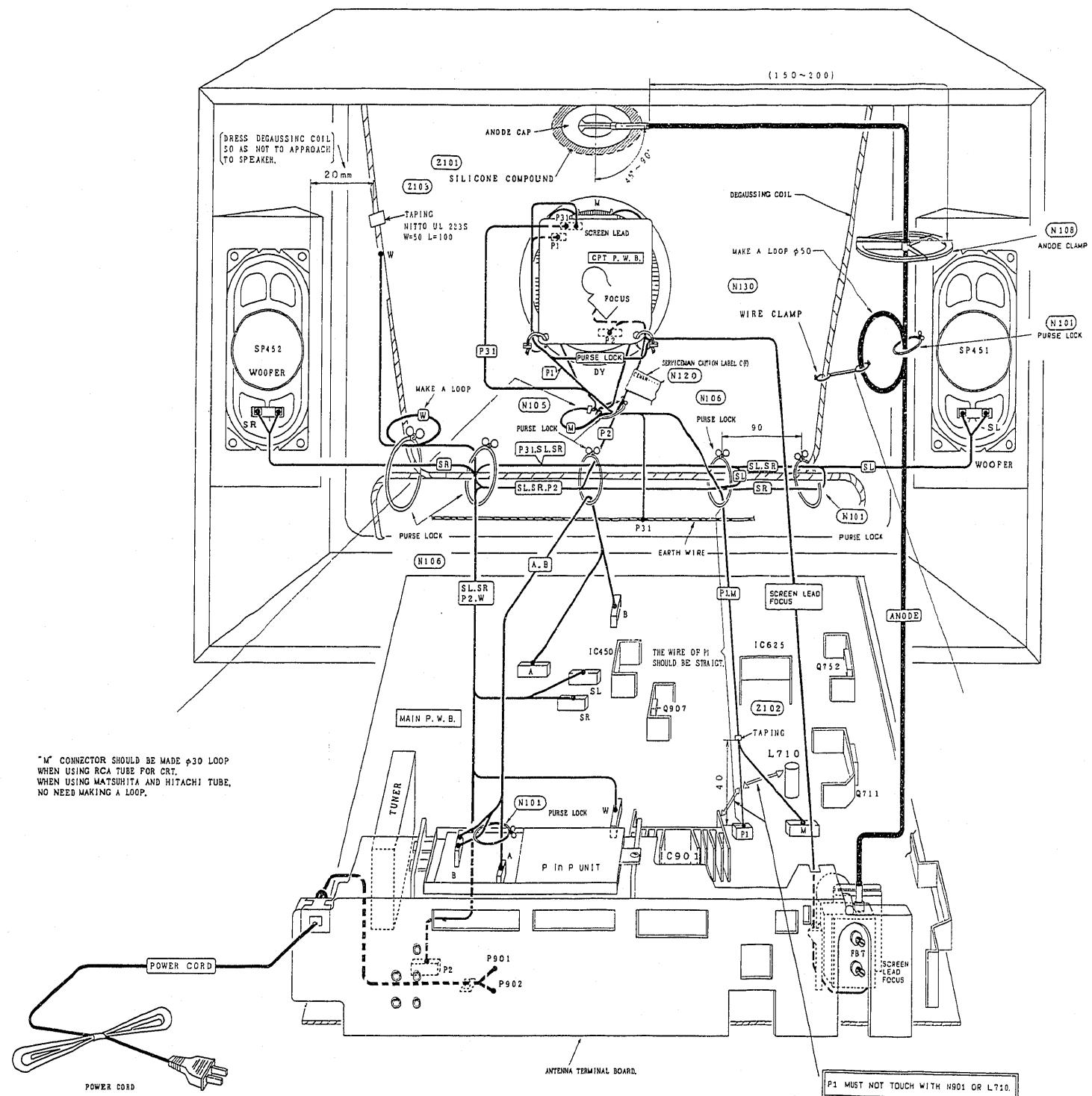
## PLAQUETTE DE CABLAGE IMPRIMÉS / PRINTED WIRING BOARD

MAIN P.W.B.



## **DIAGRAMME DE CABLAGE / WIRING DIAGRAM**

WIRING DRAWING OF 27AX2B FINAL ASSEMBLY



## LISTE DES PIÈCES DE RECHANGE / REPLACEMENT PARTS LIST

**PRODUCT SAFETY NOTE:** Components marked with a  $\Delta$  have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

<b>ABBREVIATIONS</b>	Capacitors .....	CD:Ceramic disk, PF:Polyester film, EL:Electrolytic, PP:Polypropylene, PR:Paper, TA:Tantalum, TM:Trimmer.
	Resistors .....	CF:Carbon film, CC:Carbon composition, MF:Metal oxide film, VR:Variable resistor, WW:Wire wound, FR:Fuse resistor, MG:Metal glazed
	Semiconductor ....	TR:Transistor, DI:Diode, ZD:Zener diode, VA:Varistor, TH:Thermistor, IC:IC.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
<b>CAPACITORS</b>					
C101	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C203	0244105	CD 2200PF +-10% 50V
C102	0890085	CD 680PF +-10% 50V	C205	0880055	PF 0.068MF +-10% 50V
C103	0890074	CD 100PF +-5% 50V	C209	0890087	CD 1000PF +-10% 50V
C1037	0890087	CD 1000PF +-10% 50V	C210	0880053	PF 0.047MF +-10% 50V
C1038	0890087	CD 1000PF +-10% 50V	C211	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V
C1039	0890087	CD 1000PF +-10% 50V	C212	0890118	CD 22PF +-5% 50V
C104	0880048	PF 0.022MF +-10% 50V	C213	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1040	0890087	CD 1000PF +-10% 50V	C214	0890089	CD 1500PF +-10% 50V
C1041	0890087	CD 1000PF +-10% 50V	C215	0880057	PF 0.1MF +-10% 50V
C1042	0890087	CD 1000PF +-10% 50V	C216	0244105	CD 2200PF +-10% 50V
C1043	0890087	CD 1000PF +-10% 50V	C217	0246463	CD 91PF +-5% 50V
C105	0890074	CD 100PF +-5% 50V	C218	0890116	CD 15PF +-5% 50V
C1056	0890087	CD 1000PF +-10% 50V	C219	0890119	CD 27PF +-5% 50V
C1058	0880048	PF 0.022MF +-10% 50V	C220	0890118	CD 22PF +-5% 50V
C106	0890074	CD 100PF +-5% 50V	C221	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C107	0890074	CD 100PF +-5% 50V	C222	0880044	PF 0.01MF +-10% 50V
C108	0890074	CD 100PF +-5% 50V	C223	0246460	CD 68PF +-5% 50V
C109	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C241	0890115	CD 12PF +-5% 50V
C110	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C242	0890121	CD 33PF +-5% 50V
C111	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C243	0890121	CD 33PF +-5% 50V
C112	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C244	0246464	CD 100PF +-5% 50V
C113	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C245	0244105	CD 2200PF +-10% 50V
C114	0236359	CD 24PF +-2% 50V	C246	0244105	CD 2200PF +-10% 50V
C115	0236359	CD 24PF +-2% 50V	C247	0244105	CD 2200PF +-10% 50V
C116	0800039	CAPACITOR ELECTROLYTIC 47MF 10V	C248	0890121	CD 33PF +-5% 50V
C117	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C249	0890121	CD 33PF +-5% 50V
C118	0800079	CAPACITOR ELECTROLYTIC 1000MF 6.3V	C3001	0244171	CD 0.01MF +80-20% 50V
C119	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C3002	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C120	0890097	CD 100PF +-10% 50V	C3005	0800079	CAPACITOR ELECTROLYTIC 1000MF 6.3V
C121	0244171	CD 0.01MF +80-20% 50V	C3006	0880057	PF 0.1MF +-10% 50V
C123	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V	C301	0890073	CD 82PF +-5% 50V
C124	0244171	CD 0.01MF +80-20% 50V	C3011	0800074	CAPACITOR ELECTROLYTIC 47MF 16V
C125	0800047	CAPACITOR ELECTROLYTIC 100MF 6.3V	C302	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C126	0244105	CD 2200PF +-10% 50V	C303	0880035	PF 2200PF +-10% 50V
C129	0880057	PF 0.1MF +-10% 50V	C304	0800039	CAPACITOR ELECTROLYTIC 47MF 10V
C130	0244171	CD 0.01MF +80-20% 50V	C308	0890068	CD 39PF +-5% 50V
C131	0880057	PF 0.1MF +-10% 50V	C309	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C132	0800057	PF 0.033MF +-10% 50V	C310	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C133	0880051	PF 0.033MF +-10% 50V	C311	0800003	CAPACITOR,ELECTROLYTIC 1MF 50V
C134	0800047	CAPACITOR ELECTROLYTIC 100MF 6.3V	C312	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C201	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V	C313	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C202	0880044	PF 0.01MF +-10% 50V	C314	0890087	CD 1000PF +-10% 50V
			C315	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
			C316	0244107	CD 3300PF +-10% 50V

**PRODUCT SAFETY NOTE:** Components marked with a  $\Delta$  have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C318	0800058	CAPACITOR ELECTROLYTIC 220MF 16V	C462	0800075	CAPACITOR ELECTROLYTIC 470MF 25V
C319	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C463	0880057	PF 0.1MF +-10% 50V
C337	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C464	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C338	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C465	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C339	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C466	0800082	CAPACITOR,ELECTROLYTIC 1000MF 16V
C340	0800074	CAPACITOR ELECTROLYTIC 470MF 16V	C467	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C401	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C468	0800074	CAPACITOR ELECTROLYTIC 470MF 16V
C402	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C469	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C403	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C470	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C404	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C471	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C405	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C472	0880044	PF 0.01MF +-10% 50V
C406	0880044	PF 0.01MF +-10% 50V	C473	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C407	0253079	EL 0.22MF 50V	C474	0800072	CAPACITOR ELECTROLYTIC 470MF 6.3V
C408	0800039	CAPACITOR ELECTROLYTIC 47MF 10V	C475	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C409	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C476	0244171	CD 0.01MF +80-20% 50V
C410	0880044	PF 0.01MF +-10% 50V	C477	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C411	0253079	EL 0.22MF 50V	C478	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C412	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C501	0890081	CD 330PF +-10% 50V
C413	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C502	0890061	CD 10PF +-0.5% 50V
C414	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C503	0890077	CD 180PF +-10% 50V
C415	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C504	0890071	CD 56PF +-5% 50V
C416	0800039	CAPACITOR ELECTROLYTIC 47MF 10V	C505	0890074	CD 100PF +-5% 50V
C417	0880057	PF 0.1MF +-10% 50V	C506	0244171	CD 0.01MF +80-20% 50V
C418	0292712F	TA 3.3MF 16V	C507	0880044	PF 0.01MF +-10% 50V
C419	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C508	0244105	CD 2200PF +-10% 50V
C420	0292714F	TA 10MF +-10% 16V	C509	0244171	CD 0.01MF +80-20% 50V
C421	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C510	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V
C422	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C511	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C423	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V	C512	0245445	CD 16PF +-5% 50V
C424	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C516	0244171	CD 0.01MF +80-20% 50V
C425	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C518	0880044	PF 0.01MF +-10% 50V
C426	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C519	0244105	CD 2200PF +-10% 50V
C427	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C520	0800074	CAPACITOR ELECTROLYTIC 470MF 16V
C428	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C601	0800048	CAPACITOR ELECTROLYTIC 100MF 10V
C429	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C602	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C430	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C603	0890089	CD 1500PF +-10% 50V
C431	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C604	0880046	PF 0.015MF +-10% 50V
C432	0880044	PF 0.01MF +-10% 50V	C605	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V
C433	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C624	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V
C435	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C625	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C436	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C626	0292716	TA 1MF +-10% 20V
C438	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C627	0800052	CAPACITOR ELECTROLYTIC 100MF 35V
C439	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V	C629	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V
C440	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C630	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C441	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C631	0800056	CAPACITOR,ELECTROLYTIC 220MF 6.3V
C452	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C632	080C083	CAPACITOR ELECTROLYTIC 1000MF 25V
C453	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C633	0880057	PF 0.1MF +-10% 50V
C454	0800047	CAPACITOR ELECTROLYTIC 100MF 6.3V	C650	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C455	0244105	CD 2200PF +-10% 50V	C651	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C456	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V	C652	0244111	CD 6800PF +-10% 50V</td

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C659	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C904	0244571	CD 0.01MF +100-0% 500V
C701	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	$\Delta$ C905	0253891	EL 470MF 200V
C702	0890082	CD 390PF +-10% 50V	C906	0253957	EL 22MF 160V
C703	0244171	CD 0.01MF +80-20% 50V	$\Delta$ C908	0248593F	CD 4700PF +80-20% 250V
C704	0800049	CAPACITOR, ELECTROLYTIC 100MF 16V	C909	0284891F	EL 150MF 200V
C705	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	$\Delta$ C910	0245611	CD 3300PF +-10% 1KV
C706	0890087	CD 1000PF +-10% 50V	C911	0276673	PF 0.47MF +-10% 50V
C707	0880051	PF 0.033MF +-10% 50V	C912	0890087	CD 1000PF +-10% 50V
C708	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C913	0880044	PF 0.01MF +-10% 50V
C709	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C914	0880044	PF 0.01MF +-10% 50V
C713	0890087	CD 1000PF +-10% 50V	C915	0880044	PF 0.01MF +-10% 50V
C720	0247842	CD 33PF +-5% 500V	C916	0243507	CD 330PF +-10% 500V
C721	0244109	CD 4700PF +-10% 50V	C917	0890081	CD 330PF +-10% 50V
C722	0890089	CD 1500PF +-10% 50V	C918	0800084	CAPACITOR ELECTROLYTIC 1000MF 35V
C723	0880019	PF 0.33MF +-10% 50V	C919	0253934	EL 2200MF 35V
$\Delta$ C724	0244215	CD 2200PF +-10% 2KV	C920	0258192F	EL 2200MF 25V
C725	0244215	CD 2200PF +-10% 2KV	C921	0800059	CAPACITOR ELECTROLYTIC 220MF 25V
$\Delta$ C726	0262429F	PP 0.012MF +-5% 1800V	C922	0890087	CD 1000PF +-10% 50V
$\Delta$ C727	0299931	PP 0.27MF +-10% 200V	C923	0800015	CAPACITOR, ELECTROLYTIC 10MF 16V
$\Delta$ C728	0299932	PP 0.33MF +-10% 200V	C924	0800049	CAPACITOR, ELECTROLYTIC 100MF 16V
C729	0244501	CD 1000PF +-10% 500V	C927	0800056	CAPACITOR, ELECTROLYTIC 220MF 6.3V
C730	0255510	EL 100MF +-20% 160V	C929	0800015	CAPACITOR, ELECTROLYTIC 10MF 16V
$\Delta$ C731	0800021	CAPACITOR ELECTROLYTIC 10MF 100V	C930	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C732	0244501	CD 1000PF +-10% 500V	C932	0800049	CAPACITOR, ELECTROLYTIC 100MF 16V
C733	0259171	EL 4.7MF 250V	$\Delta$ C951	0249393	CD 3300PF +-20%
C734	0880057	PF 0.1MF +-10% 50V	C952	0800047	CAPACITOR ELECTROLYTIC 100MF 6.3V
$\Delta$ C736	0263001	EL 3.3MF 100V	C953	0800057	CAPACITOR ELECTROLYTIC 220MF 10V
$\Delta$ C737	0299707	PP 0.015MF +-10% 630V	C954	0880062	PF 0.22MF +-10% 50V
C739	0800003	CAPACITOR ELECTROLYTIC 1MF 50V			<b>RESISTORS</b>
C743	0253942	EL 0.22MF 50V			
C750	0800005	CAPACITOR, ELECTROLYTIC 2.2MF 50V	R0102	0700067	CF 100K OHM +-5% 1/16W
C751	0800044	CAPACITOR ELECTROLYTIC 47MF 50V	R0112	0700038	CF 680OHM +-5% 1/16W
C752	0284623R	EL 1MF 50V	R101	0700041	CF 1K OHM +-5% 1/16W
C754	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	R102	0700041	CF 1K OHM +-5% 1/16W
C755	0244171	CD 0.01MF +80-20% 50V	R1029	0700047	CF 3.3K OHM +-5% 1/16W
C769	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	R1056	0700045	CF 2.2K OHM +-5% 1/16W
C851	0800049	CAPACITOR, ELECTROLYTIC 100MF 16V	R1058	0700047	CF 3.3K OHM +-5% 1/16W
C852	0890087	CD 1000PF +-10% 50V	R106	0187066	CF 1.1K OHM +-5% 1/16W
C853	0257540	EL 4.7MF 250V	R107	0700041	CF 1K OHM +-5% 1/16W
C856	0244215	CD 2200PF +-10% 2KV	R108	0700043	CF 1.5K OHM +-5% 1/16W
C860	0890087	CD 1000PF +-10% 50V	R109	0187074	CF 2.4K OHM +-5% 1/16W
C861	0890087	CD 1000PF +-10% 50V	R110	0187080	CF 4.3K OHM +-5% 1/16W
C862	0890087	CD 1000PF +-10% 50V	R111	0700045	CF 2.2K OHM +-5% 1/16W
C864	0890077	CD 180PF +-10% 50V	R112	0700053	CF 8.2K OHM +-5% 1/16W
C865	0890087	CD 1000PF +-10% 50V	R113	0700054	CF 10K OHM +-5% 1/16W
C866	0890082	CD 390PF +-10% 50V	R114	0700054	CF 10K OHM +-5% 1/16W
C870	0890087	CD 1000PF +-10% 50V	R116	0700058	CF 22K OHM +-5% 1/16W
C872	0890074	CD 100PF +-5% 50V	R117	0700054	CF 10K OHM +-5% 1/16W
C873	0890074	CD 100PF +-5% 50V	R118	0700041	CF 1K OHM +-5% 1/16W
C874	0890074	CD 100PF +-5% 50V	R119	0700054	CF 10K OHM +-5% 1/16W
C875	0890076	CD 150PF +-10% 50V	R120	0700058	CF 22K OHM +-5% 1/16W
C887	0890087	CD 1000PF +-10% 50V	R121	0700054	CF 10K OHM +-5% 1/16W
$\Delta$ C901	0279719	PF 0.22MF +-10% 125V	R122	0700041	CF 1K OHM +-5% 1/16W
$\Delta$ C902	0248593F	CD 4700PF +-80-20% 250V	R123	0700061	CF 33K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R124	0700046	CF 2.7K OHM +-5% 1/16W	R180	0700051	CF 5.6K OHM +-5% 1/16W
R125	0700041	CF 1K OHM +-5% 1/16W	R181	0700042	CF 1.2K OHM +-5% 1/16W
R126	0700041	CF 1K OHM +-5% 1/16W	R182	0700067	CF 100K OHM +-5% 1/16W
R127	0700041	CF 1K OHM +-5% 1/16W	R183	0700067	CF 100K OHM +-5% 1/16W
R129	0700043	CF 1.5K OHM +-5% 1/16W	R184	0700041	CF 1K OHM +-5% 1/16W
R130	0700067	CF 100K OHM +-5% 1/16W	R185	0700027	CF 100 OHM +-5% 1/16W
R131	0700067	CF 100K OHM +-5% 1/16W	R188	0700061	CF 33K OHM +-5% 1/16W
R132	0700067	CF 100K OHM +-5% 1/16W	R189	0700062	CF 39K OHM +-5% 1/16W
R133	0700067	CF 100K OHM +-5% 1/16W	R191	0700054	CF 10K OHM +-5% 1/16W
R134	0700041	CF 1K OHM +-5% 1/16W	R193	0700041	CF 1K OHM +-5% 1/16W
R135	0700041	CF 1K OHM +-5% 1/16W	R194	0700045	CF 2.2K OHM +-5% 1/16W
R136	0700032	CF 220 OHM +-5% 1/16W	R195	0700054	CF 10K OHM +-5% 1/16W
R137	0700041	CF 1K OHM +-5% 1/16W	R196	0700054	CF 10K OHM +-5% 1/16W
R138	0700041	CF 1K OHM +-5% 1/16W	R197	0700054	CF 10K OHM +-5% 1/16W
R139	0700041	CF 1K OHM +-5% 1/16W	R199	0700041	CF 1K OHM +-5% 1/16W
R140	0700041	CF 1K OHM +-5% 1/16W	R202	0700041	CF 1K OHM +-5% 1/16W
R141	0700041	CF 1K OHM +-5% 1/16W	R203	0150287	VR 10K OHM-B
R142	0700041	CF 1K OHM +-5% 1/16W	R204	0700041	CF 1K OHM +-5% 1/16W
R143	0700041	CF 1K OHM +-5% 1/16W	R205	0700067	CF 100K OHM +-5% 1/16W
R144	0700041	CF 1K OHM +-5% 1/16W	R208	0700033	CF 270 OHM +-5% 1/16W
R145	0700041	CF 1K OHM +-5% 1/16W	R209	0700051	CF 5.6K OHM +-5% 1/16W
R146	0700041	CF 1K OHM +-5% 1/16W	R210	0700058	CF 22K OHM +-5% 1/16W
R147	0700059	CF 27K OHM +-5% 1/16W	R211	0100127	CF 390K OHM +-5% 1/8W
R148	0700041	CF 1K OHM +-5% 1/16W	R212	0100117	CF 150K OHM +-5% 1/8W
R149	0700041	CF 1K OHM +-5% 1/16W	R213	0100121	CF 220K OHM +-5% 1/8W
R150	0700041	CF 1K OHM +-5% 1/16W	R214	0700036	CF 470 OHM +-5% 1/16W
R151	0700041	CF 1K OHM +-5% 1/16W	R215	0700037	CF 560 OHM +-5% 1/16W
R152	0700046	CF 2.7K OHM +-5% 1/16W	R216	0700026	CF 82 OHM +-5% 1/16W
R153	0700052	CF 6.8K OHM +-5% 1/16W	R217	0700027	CF 100 OHM +-5% 1/16W
R154	0187086	CF 7.5K OHM +-5% 1/16W	R218	0700036	CF 470 OHM +-5% 1/16W
R155	0700059	CF 27K OHM +-5% 1/16W	R219	0700049	CF 4.7K OHM +-5% 1/16W
R156	0700049	CF 4.7K OHM +-5% 1/16W	R242	0700027	CF 100 OHM +-5% 1/16W
R157	0700052	CF 6.8K OHM +-5% 1/16W	R243	0700049	CF 4.7K OHM +-5% 1/16W
R158	0700051	CF 5.6K OHM +-5% 1/16W	R244	0700036	CF 470 OHM +-5% 1/16W
R159	0700055	CF 12K OHM +-5% 1/16W	R245	0187040	CF 91 OHM +-5% 1/16W
R160	0700056	CF 15K OHM +-5% 1/16W	R246	0700031	CF 180 OHM +-5% 1/16W
R161	0700056	CF 15K OHM +-5% 1/16W	R247	0700014	CF 10 OHM +-5% 1/16W
R162	0700058	CF 22K OHM +-5% 1/16W	R248	0700033	CF 270 OHM +-5% 1/16W
R163	0700041	CF 1K OHM +-5% 1/16W	R250	0700046	CF 2.7K OHM +-5% 1/16W
R164	0700049	CF 4.7K OHM +-5% 1/16W	R251	0700042	CF 1.2K OHM +-5% 1/16W
R165	0700041	CF 1K OHM +-5% 1/16W	R252	0700023	CF 47 OHM +-5% 1/16W
R166	0700041	CF 1K OHM +-5% 1/16W	R253	0700041	CF 1K OHM +-5% 1/16W
R167	0700041	CF 1K OHM +-5% 1/16W	R254	0700041	CF 1K OHM +-5% 1/16W
R168	0700067	CF 100K OHM +-5% 1/16W	R255	0700027	CF 100 OHM +-5% 1/16W
R169	0700056	CF 15K OHM +-5% 1/16W	R3001	0100038	CF 75 OHM +-5% 1/8W
R170	0700056	CF 15K OHM +-5% 1/16W	R3002	010004	

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R306	0114133	CF120 OHM + -5% 1/4W	R4006	0100133	CF 680K OHM + -5% 1/8W
R307	0150282	VR500 OHM(B)	R4007	0700061	CF 33K OHM + -5% 1/16W
R308	0700041	CF 1K OHM + -5% 1/16W	R4008	0100009	CF 4.7 OHM + -5% 1/8W
R309	0700037	CF 560 OHM + -5% 1/16W	R401	0100113	CF 100K OHM + -5% 1/8W
R310	0700037	CF 560 OHM + -5% 1/16W	R402	0100065	CF 1K OHM + -5% 1/8W
R312	0700031	CF 180 OHM + -5% 1/8W	R403	0100113	CF 100K OHM + -5% 1/8W
R313	0100059	CF 560 OHM + -5% 1/8W	R404	0100065	CF 1K OHM + -5% 1/8W
R314	0100047	CF 180 OHM + -5% 1/8W	R405	0100113	CF 100K OHM + -5% 1/8W
R319	0700054	CF 10K OHM + -5% 1/16W	R406	0100113	CF 100K OHM + -5% 1/8W
R321	0700037	CF 560 OHM + -5% 1/16W	R407	0700041	CF 1K OHM + -5% 1/16W
R322	0100133	CF 680K OHM + -5% 1/8W	R408	0700041	CF 1K OHM + -5% 1/16W
R323	0700049	CF 4.7K OHM + -5% 1/16W	R409	0700041	CF 1K OHM + -5% 1/16W
R325	0700041	CF 1K OHM + -5% 1/16W	R410	0700041	CF 1K OHM + -5% 1/16W
R326	0700055	CF 12K OHM + -5% 1/16W	R411	0700041	CF 1K OHM + -5% 1/16W
R327	0700052	CF 6.8K OHM + -5% 1/16W	R412	0100065	CF 1K OHM + -5% 1/8W
R328	0700032	CF 220 OHM + -5% 1/16W	R413	0100065	CF 1K OHM + -5% 1/8W
R329	0700053	CF 8.2K OHM + -5% 1/16W	R414	0150287	VR 10K OHM-B
R330	0150287	VR 10K OHM-B	R415	0187082	CF 5.1K OHM + -5% 1/16W
R331	0700057	CF 18K OHM + -5% 1/16W	R416	0700046	CF 2.7K OHM + -5% 1/16W
R332	0700056	CF 15K OHM + -5% 1/16W	R417	0150284	VR 2K OHM-B
R333	0700049	CF 4.7K OHM + -5% 1/16W	R418	0700054	CF 10K OHM + -5% 1/16W
R334	0700061	CF 33K OHM + -5% 1/16W	R419	0700045	CF 2.2K OHM + -5% 1/16W
R335	0700031	CF 180 OHM + -5% 1/16W	R420	0150157	VR 200K OHM-B RV-6
R336	0700049	CF 4.7K OHM + -5% 1/16W	$\Delta$ R421	0119687	FR 4.7 OHM + -5% 1/4W
R337	0700049	CF 4.7K OHM + -5% 1/16W	R422	0700041	CF 1K OHM + -5% 1/16W
R338	0700037	CF 560 OHM + -5% 1/16W	R423	0150290	VR 50K OHM (B)
R339	0700057	CF 18K OHM + -5% 1/16W	R424	0150290	VR 50K OHM (B)
R340	0700045	CF 2.2K OHM + -5% 1/16W	R425	0100116	CF 130K OHM + -5% 1/8W
R341	0700041	CF 1K OHM + -5% 1/16W	R426	0100117	CF 150K OHM + -5% 1/8W
R342	0700059	CF 27K OHM + -5% 1/16W	R427	0100116	CF 130K OHM + -5% 1/8W
R344	0700048	CF 3.9K OHM + -5% 1/16W	R428	0150160	VR 10K OHM-B + 30%
R345	0700064	CF 56K OHM + -5% 1/16W	R429	0700038	CF 680 OHM + -5% 1/16W
R346	0700063	CF 47K OHM + -5% 1/16W	R430	0700038	CF 680 OHM + -5% 1/16W
R347	0700041	CF 1K OHM + -5% 1/16W	R432	0700051	CF 5.6K OHM + -5% 1/16W
R348	0700027	CF 100 OHM + -5% 1/16W	R433	0700041	CF 1K OHM + -5% 1/16W
R349	0700062	CF 39K OHM + -5% 1/16W	R434	0700041	CF 1K OHM + -5% 1/16W
R350	0700036	CF 470 OHM + -5% 1/16W	R435	0700054	CF 10K OHM + -5% 1/16W
R351	0700033	CF 270 OHM + -5% 1/16W	R436	0700041	CF 1K OHM + -5% 1/16W
R352	0700027	CF 100 OHM + -5% 1/16W	$\Delta$ R437	01195051	FR 2.2 OHM + -5% 1/4W
R353	0700059	CF 27K OHM + -5% 1/16W	R438	0700047	CF 3.3K OHM + -5% 1/16W
R354	0700058	CF 22K OHM + -5% 1/16W	R439	0700054	CF 10K OHM + -5% 1/16W
R362	0700027	CF 100 OHM + -5% 1/16W	R440	0700041	CF 1K OHM + -5% 1/16W
R363	0700049	CF 4.7K OHM + -5% 1/16W	R441	0700041	CF 1K OHM + -5% 1/16W
R364	0700043	CF 1.5K OHM + -5% 1/16W	R442	0700049	CF 4.7K OHM + -5% 1/16W
R365	0100057	CF 470 OHM + -5% 1/8W	R443	0700049	CF 4.7K OHM + -5% 1/16W
R375	0700054	CF 10K OHM + -5% 1/16W	R444	0700032	CF 220 OHM + -5% 1/16W
R376	0700042	CF 1.2K OHM + -5% 1/16W	R445	0700067	CF 100K OHM + -5% 1/16W
R377	0700058	CF 22K OHM + -5% 1/16W	R446	0700041	CF 1K OHM + -5% 1/16W
R378	0700063	CF 47K OHM + -5% 1/16W	R447	0700032	CF 220 OHM + -5% 1/16W
R379	0700036	CF 470 OHM + -5% 1/16W	R448	0700067	CF 100K OHM + -5% 1/16W
R400	0700067	CF 100K OHM + -5% 1/16W	R449	0700041	CF 1K OHM + -5% 1/16W
R4002	0700037	CF 560 OHM + -5% 1/16W	R450	0700051	CF 5.6K OHM + -5% 1/16W
R4003	0700049	CF 4.7K OHM + -5% 1/16W	R451	0700049	CF 4.7K OHM + -5% 1/16W
R4004	0700049	CF 4.7K OHM + -5% 1/16W	R452	0700058	CF 22K OHM + -5% 1/16W
R4005	0100125	CF 330K OHM + -5% 1/8W	R453	0700064	CF 56K OHM + -5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R454	0700064	CF 56K OHM + -5% 1/16W	R518	0100049	CF 220 OHM + -5% 1/8W
R455	0700058	CF 22K OHM + -5% 1/16W	R519	0100049	CF 220 OHM + -5% 1/8W
R456	0700041	CF 1K OHM + -5% 1/16W	R520	0700052	CF 6.8K OHM + -5% 1/16W
R457	0700067	CF 100K OHM + -5% 1/16W	R521	0700045	CF 2.2K OHM + -5% 1/16W
R458	0700032	CF 220 OHM + -5% 1/16W	R523	0700054	CF 10K OHM + -5% 1/16W
R459	0700035	CF 390 OHM + -5% 1/16W	R524	0700052	CF 6.8K OHM + -5% 1/16W
R460	0700041	CF 1K OHM + -5% 1/16W	R525	0700061	CF 33K OHM + -5% 1/16W
R461	0700067	CF 100K OHM + -5% 1/16W	R525A	0700059	CF 27K OHM + -5% 1/16W
R462	0700032	CF 220 OHM + -5% 1/16W	R529	0100119	CF 180K OHM + -5% 1/8W
R463	0700035	CF 390 OHM + -5% 1/16W	R530	0700041	CF 1K OHM + -5% 1/16W
R464	0700067	CF 100K OHM + -5% 1/16W	R531	0700027	CF 100 OHM + -5% 1/16W
R465	0700067	CF 100K OHM + -5% 1/16W	R532	0700054	CF 10K OHM + -5% 1/16W
R466	0700041	CF 1K OHM + -5% 1/16W	R533	0700054	CF 10K OHM + -5% 1/16W
R467	0700034	CF 330 OHM + -5% 1/16W	R581	0700054	CF 10K OHM + -5% 1/16W
R468	0700041	CF 1K OHM + -5% 1/16W	R582	0700041	CF 1K OHM + -5% 1/16W
R469	0700038	CF 680 OHM + -5% 1/16W	R583	0700054	CF 10K OHM + -5% 1/16W
R470	0700038	CF 680 OHM + -5% 1/16W	R584	0700054	CF 10K OHM + -5% 1/16W
R471	0187056M	RD 430 OHM + -5% 1/16W	R585	0700061	CF 33K OHM + -5% 1/16W
R472	0700054	CF 10K OHM + -5% 1/16W	R601	0700041	CF 1K OHM + -5% 1/16W
R473	0700063	CF 47K OHM + -5% 1/16W	R602	0700042	CF 1.2K OHM + -5% 1/16W
R474	0100113	CF 100K OHM + -5% 1/8W	R604	0100055	CF 390 OHM + -5% 1/8W
R475	0700034	CF 330 OHM + -5% 1/16W	R605	0700054	CF 10K OHM + -5% 1/16W
R476	0187056M	RD 430 OHM + -5% 1/16W	R606	0700059	CF 27K OHM + -5% 1/16W
$\Delta$ R477	01195051	FR 2.2 OHM + -5% 1/4W	R607	0700048	CF 3.9K OHM + -5% 1/16W
$\Delta$ R478	01195051	FR 2.2 OHM + -5% 1/4W	R608	0700032	CF 220 OHM + -5% 1/16W
R479	0700043	CF 1.5K OHM + -5% 1/16W	R609	0700034	CF 330 OHM + -5% 1/16W
R480	0700044	CF 1.8K OHM + -5% 1/16W	R610	0700041	CF 1K OHM + -5% 1/16W
$\Delta$ R481	01195051	FR 2.2 OHM + -5% 1/4W	R611	0700064	CF 56K OHM + -5% 1/16W
R483	0700044	CF 1.8K OHM + -5% 1/16W	R612	0700063	CF 47K OHM + -5% 1/16W
R484	0700044	CF 1.8K OHM + -5% 1/16W	R613	0700027	CF 100 OHM + -5% 1/16W
$\Delta$ R485	01195051	FR 2.2 OHM + -5% 1/4W	R614	0100055	CF 390 OHM + -5% 1/8W
R486	0700053	CF 8.2K OHM + -5% 1/16W	R615	0700058	CF 22K OHM + -5% 1/16W
R487	0700053	CF 8.2K OHM + -5% 1/16W	R616	0700027	CF 100 OHM + -5% 1/16W
R488	0700041	CF 1K OHM + -5% 1/16W	R620	0700041	CF 1K OHM + -5% 1/16W
R489	0700041	CF 1K OHM + -5% 1/16W	R625	0700049	CF 4.7K OHM + -5% 1/16W
R490	0700053	CF 8.2K OHM + -5% 1/16W	R626	0700059	CF 27K OHM + -5% 1/16W
R491	0700053	CF 8.2K OHM + -5% 1/16W	R627	0150160	VR 10K OHM-B + -30%
R492	0700027	CF 100 OHM + -5% 1/16W	R628	0700032	CF 220 OHM + -5% 1/16W
R493	0700027	CF 100 OHM + -5% 1/16W	R629	0119841	MF 0.82 OHM + -5% 1W
R494	0700051	CF 5.6K OHM + -5% 1/16W	R630	0187104	CF 43K OHM + -5% 1/16W
R495	0700051	CF 5.6K OHM + -5% 1/16W	R631	0187106	CF 51K OHM + -5% 1/16W
R496	0700053	CF 8.2K OHM + -5% 1/16W	R632	0700067	CF 100K OHM + -5% 1/16W
R497	0700054	CF 10K OHM + -5% 1/16W	R633	0700047	CF 3.3K OHM + -5% 1/16W
R498	0700054	CF 10K OHM + -5% 1/16W	R634	0700037	CF 560 OHM + -5% 1/16W
R499	0700045	CF 2.2K OHM + -5% 1/16W	R635	0700041	CF 1K OHM + -5% 1/16W
R501	0700032	CF 220 OHM + -5% 1/16W	R636	0150287	VR 10K OHM-B
R502	0100061	CF 680 OHM + -5% 1/8W	R637	0700041	CF 1K OHM + -5% 1/16W
R503	0700034	CF 330 OHM + -5% 1/16W	R638	0113746	CF 680 OHM + -5% 1/2W
R504	0700037	CF 560 OHM + -5% 1/16W	R639	0113739	CF 390 OHM + -5% 1/2W
R505	0700058	CF 22K OHM + -5% 1/16W	R640	0113742	CF 470 OHM + -5% 1/2W
R506	0700054	CF 10K OHM + -5% 1/16W	R641	0700035	CF 390 OHM + -5% 1/16W
R507	0700054	CF 10K OHM + -5% 1/16W	R650	0700061	CF 33K OHM + -5% 1/16W
R515	0700057	CF 18K OHM + -5% 1/16W	R651	0700062	CF 39K OHM + -5% 1/16W
R516	0700058	CF 22K OHM + -5% 1/16W	R652	0700064	CF 56K OHM + -5% 1/16W
R517	0100049	CF 220 OHM + -5% 1/8W	R654	0700059	CF 27K OHM + -5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R655	0700057	CF 18K OHM + -5% 1/16W	R759	0700064	CF 56K OHM + -5% 1/16W
R656	0700049	CF 4.7K OHM + -5% 1/16W	R760	0700066	CF 82K OHM + -5% 1/16W
R657	0100121	CF 220K OHM + -5% 1/8W	R762	0700058	CF 22K OHM + -5% 1/16W
R658	0100121	CF 220K OHM + -5% 1/8W	R763	0110269	MF 10K OHM + -5% 2W
R660	0700045	CF 2.2K OHM + -5% 1/16W	R764	0100075	CF 2.7K OHM + -5% 1/8W
R661	0700044	CF 1.8K OHM + -5% 1/16W	R765	0100071	CF 1.8K OHM + -5% 1/8W
R662	0110115	MF 56 OHM + -5% 1W	R766	0700027	CF 100 OHM + -5% 1/16W
R663	0700064	CF 56K OHM + -5% 1/16W	R767	0700064	CF 56K OHM + -5% 1/16W
R664	0114141	CF 270 OHM + -5% 1/4W	R768	0700059	CF 27K OHM + -5% 1/16W
R665	0700063	CF 47K OHM + -5% 1/16W	R769	0700056	CF 15K OHM + -5% 1/16W
R666	0700067	CF 100K OHM + -5% 1/16W	R770	0114171	CF 2.7K OHM + -5% 1/4W
R667	0100057	CF 470 OHM + -5% 1/8W	R772	0700067	CF 100K OHM + -5% 1/16W
R668	0700038	CF 680 OHM + -5% 1/16W	R775	0100077	CF 3.3K OHM + -5% 1/8W
R669	0700052	CF 6.8K OHM + -5% 1/16W	R776	0119695	MF 0.47 OHM + -5% 1W
R671	0110125	MF 150 OHM + -5% 1W	R777	0100087	CF 8.2K OHM + -5% 1/8W
R672	0700065	CF 68K OHM + -5% 1/16W	R778	0113774	CF 10K OHM + -5% 1/2W
R673	0100131	CF 560K OHM + -5% 1/8W	R779	0700046	CF 2.7K OHM + -5% 1/16W
R674	0700058	CF 22K OHM + -5% 1/16W	R780	0113748	CF 820 OHM + -5% 1/2W
R675	0100125	CF 330K OHM + -5% 1/8W	R781	0700065	CF 68K OHM + -5% 1/16W
R701	0700038	CF 680 OHM + -5% 1/16W	R782	0100133	CF 680K OHM + -5% 1/8W
R702	0100119	CF 180K OHM + -5% 1/8W	R783	0700067	CF 100K OHM + -5% 1/16W
R703	0114131	CF 100 OHM + -5% 1/4W	R801	0700047	CF 3.3K OHM + -5% 1/16W
R704	0100125	CF 330K OHM + -5% 1/8W	R802	0100089	CF 10K OHM + -5% 1/8W
R705	0700034	CF 330 OHM + -5% 1/16W	R803	0700045	CF 2.2K OHM + -5% 1/16W
R706	0700045	CF 2.2K OHM + -5% 1/16W	R804	0100089	CF 10K OHM + -5% 1/8W
R707	0700054	CF 10K OHM + -5% 1/16W	R805	0700023	CF 47 OHM + -5% 1/16W
R708	0700045	CF 2.2K OHM + -5% 1/16W	R806	0150109	VR 200 OHM-B RS-6
R709	0700041	CF 1K OHM + -5% 1/16W	R807	0150112	VR 2K OHM-B
R711	0700054	CF 10K OHM + -5% 1/16W	R808	0700038	CF 680 OHM + -5% 1/16W
R712	0700054	CF 10K OHM + -5% 1/16W	R809	0700038	CF 680 OHM + -5% 1/16W
R713	0150287	VR 10K OHM-B	R810	0700023	CF 47 OHM + -5% 1/16W
R720	0113729	CF 150 OHM + -5% 1/2W	R811	0100044	CF 130 OHM + -5% 1/8W
R721	0100035	CF 56 OHM + -5% 1/8W	R813	0700038	CF 680 OHM + -5% 1/16W
R722	0100037	CF 68 OHM + -5% 1/8W	R814	0150112	VR 2K OHM-B
R723	0110223	MF 120 OHM + -5% 2W	R815	0700023	CF 47 OHM + -5% 1/16W
R724	0700066	CF 82K OHM + -5% 1/16W	R816	0150109	VR 200 OHM-B RS-6
R726	0113758	CF 2.2K OHM + -5% 1/2W	R817	0700038	CF 680 OHM + -5% 1/16W
R727	0114143	CF 330 OHM + -5% 1/4W	R818	0150112	VR 2K OHM-B
$\Delta$ R728	01195051	FR 2.2 OHM + -5% 1/4W	R819	0700027	CF 100 OHM + -5% 1/16W
$\Delta$ R729	01195121	FR 1 OHM + -5% 1/4W	R820	0700027	CF 100 OHM + -5% 1/16W
R731	0101041	MF 680 OHM + -5% 1W	R821	0700027	CF 100 OHM + -5% 1/16W
R732	0113750	CF 1K OHM + -5% 1/2W	R851	0110367	MF 8.2K OHM + -5% 3W
R73					

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R886	0100033	CF 47 OHM + -5% 1/8W	R958	0700045	CF 2.2K OHM + -5% 1/16W
R901	0147821	WW 3.9 OHM + -10% 16W	R959	0100099	CF 27K OHM + -5% 1/8W
R902	0110171	MF 12K OHM + -5% 1W	R960	0700046	CF 2.7K OHM + -5% 1/16W
R903	0100125	CF 330K OHM + -5% 1/8W	R961	014760	WW 33 OHM + -5% 2W
$\Delta$ R904	0119508	FR 56 OHM + -5% 1/4W			ICs
R905A	0110197	MF 10 OHM + -5% 2W			
R905B	0110197	MF 10 OHM + -5% 2W			
R906	0141161	WW 220 OHM + -5% 15W	IC101	2001661	IC M37204M8-653SP (MICON)
R907	0110221	MF 100 OHM + -5% 2W	IC102	2380391	IC UPD6326C
R908	0114221	CF 68K OHM + -5% 1/4W	IC103	2381111	IC M6M80021L
R910	0114053	CF 33 OHM + -5% 1/4W	$\Delta$ IC201	2004132	IC LA7672 (LINEAR)
R911	0100103	CF 39K OHM + -5% 1/8W	IC401	2004361	IC CXA1279AS (LINEAR)
R912	0114221	CF 68K OHM + -5% 1/4W	IC402	2004591	IC AN5817K (LINEAR)
R913	0114171	CF 2.7K OHM + -5% 1/4W	IC450	2004341	IC AN7178 (LINEAR)
R914	0700027	CF 100 OHM + -5% 1/16W	$\Delta$ IC625	2003541	IC LA7838 (LINEAR)
R915	0110129	MF 220 OHM + -5% 1W	IC651	2362605	IC BA4558
R916	0110141	MF 680 OHM + -5% 1W	$\Delta$ IC701	2000521	IC PC713F6 (LINEAR)
R917	0114179	CF 5.6K OHM + -5% 1/4W	$\Delta$ IC702	2000465	IC PS2501-1 (KD/LD) (PHOTO COUPLER)
R918	0700067	CF 100K OHM + -5% 1/16W	$\Delta$ IC901	2912177	IC STR30130
R919	0114153	CF 820 OHM + -5% 1/4W	$\Delta$ IC902	2373292	IC STR-D6602 (HYBRID)
R920	01101495	MF 1.5 KOHM + -5% 1W	$\Delta$ IC903	2000521	IC PC713F6 (LINEAR)
R921	0700032	CF 220 OHM + -5% 1/16W	IC904	2003251	IC AN7805 (LINEAR)
R922	0700049	CF 4.7K OHM + -5% 1/16W			TRANSISTORS
R923	0700043	CF 1.5K OHM + -5% 1/16W			
R924	0700041	CF 1K OHM + -5% 1/16W			
R925	0110207	MF 27 OHM + -5% 2W	Q101	2320596	TR 2SC458C/D SI 230MHZ 200MW
R925A	0113725	CF 100 OHM + -5% 1/2W	Q102	2320596	TR 2SC458C/D SI 230MHZ 200MW
R926	0110207	MF 27 OHM + -5% 2W	Q103	2320596	TR 2SC458C/D SI 230MHZ 200MW
R926A	0113725	CF 100 OHM + -5% 1/2W	Q104	2320596	TR 2SC458C/D SI 230MHZ 200MW
R927	0700041	CF 1K OHM + -5% 1/16W	Q105	2320596	TR 2SC458C/D SI 230MHZ 200MW
R928	0700063	CF 47K OHM + -5% 1/16W	Q106	2320637	TR 2SA673C/D SI 80MHZ 400MW
R929	0114153	CF 820 OHM + -5% 1/4W	Q107	2320596	TR 2SC458C/D SI 230MHZ 200MW
R930	0100033	CF 47 OHM + -5% 1/8W	Q201	2320596	TR 2SC458C/D SI 230MHZ 200MW
R931	0700054	CF 10K OHM + -5% 1/16W	Q202	2320144	TR5.2SC1906
R932	0700054	CF 10K OHM + -5% 1/16W	Q241	2320596	TR 2SC458C/D SI 230MHZ 200MW
R933	0700044	CF 1.8K OHM + -5% 1/16W	Q301	2320596	TR 2SC458C/D SI 230MHZ 200MW
R934	0119691	MG 0.33OHM + -5% 1W	Q302	2320596	TR 2SC458C/D SI 230MHZ 200MW
R935	0113723	CF 82 OHM + -5% 1/2W	Q303	2320596	TR 2SC458C/D SI 230MHZ 200MW
R936	0700045	CF 2.2K OHM + -5% 1/16W	Q304	2320596	TR 2SC458C/D SI 230MHZ 200MW
R937	0700054	CF 10K OHM + -5% 1/16W	Q305	2320596	TR 2SC458C/D SI 230MHZ 200MW
R938	0114149	CF 560 OHM + -5% 1/4W	Q306	2320637	TR 2SA673C/D SI 80MHZ 400MW
R939	0110135	MF 390 OHM + -5% 1W	Q307	2320637	TR 2SA673C/D SI 80MHZ 400MW
R940	0113688	CF 3.3 OHM + -5% 1/2W	Q308	2320596	TR 2SC458C/D SI 230MHZ 200MW
R941	0700049	CF 4.7K OHM + -5% 1/16W	Q309	2320596	TR 2SC458C/D SI 230MHZ 200MW
R942	0700054	CF 10K OHM + -5% 1/16W	Q310	2320596	TR 2SC458C/D SI 230MHZ 200MW
R944	0700033	CF 270 OHM + -5% 1/16W	Q401	2320596	TR 2SC458C/D SI 230MHZ 200MW
R945	0700057	CF 18K OHM + -5% 1/16W	Q402	2320596	TR 2SC458C/D SI 230MHZ 200MW
R948	0100033	CF 47 OHM + -5% 1/8W	Q403	2320596	TR 2SC458C/D SI 230MHZ 200MW
R951	0100133	CF 680K OHM + -5% 1/8W	Q404	2320596	TR 2SC458C/D SI 230MHZ 200MW
R952	0700051	CF 5.6K OHM + -5% 1/16W	Q405	2320596	TR 2SC458C/D SI 230MHZ 200MW
R953	0700053	CF 8.2K OHM + -5% 1/16W	Q406	2320596	TR 2SC458C/D SI 230MHZ 200MW
R954	0113688	CF 3.3 OHM + -5% 1/2W	Q407	2320596	TR 2SC458C/D SI 230MHZ 200MW
R955	0100133	CF 680K OHM + -5% 1/8W	Q408	2320596	TR 2SC458C/D SI 230MHZ 200MW
R956	0700047	CF 3.3K OHM + -5% 1/16W	Q450	2320596	TR 2SC458C/D SI 230MHZ 200MW
R957	0110309	MF 33 OHM + -5% 3W	Q451	2320596	TR 2SC458C/D SI 230MHZ 200MW

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
Q452	2320596	TR 2SC458C/D SI 230MHZ 200MW	D116	23383211	DI 1SS270
Q453	2320596	TR 2SC458C/D SI 230MHZ 200MW	D120	23383211	DI 1SS270
Q454	2320596	TR 2SC458C/D SI 230MHZ 200MW	D121	23383211	DI 1SS270
Q455	2320596	TR 2SC458C/D SI 230MHZ 200MW	D122	23383211	DI 1SS270
Q456	2320596	TR 2SC458C/D SI 230MHZ 200MW	D123	23383211	DI 1SS270
Q501	2320596	TR 2SC458C/D SI 230MHZ 200MW	D3001	23394911	DI AM01Z
Q502	2320596	TR 2SC458C/D SI 230MHZ 200MW	D302	23383211	DI 1SS270
Q503	2320596	TR 2SC458C/D SI 230MHZ 200MW	D304	23383211	DI 1SS270
Q581	2320596	TR 2SC458C/D SI 230MHZ 200MW	D306	23383211	DI 1SS270
Q601	2320596	TR 2SC458C/D SI 230MHZ 200MW	D312	23383211	DI 1SS270
Q602	2320596	TR 2SC458C/D SI 230MHZ 200MW	D450	23383211	DI 1SS270
Q603	2320596	TR 2SC458C/D SI 230MHZ 200MW	D501	23383211	DI 1SS270
Q604	2320637	TR 2SA673C/D SI 80MHZ 400MW	D502	23383211	DI 1SS270
Q625	2320596	TR 2SC458C/D SI 230MHZ 200MW	D503	23383211	DI 1SS270
Q626	2320637	TR 2SA673C/D SI 80MHZ 400MW	D504	23383211	DI 1SS270
Q651	2320596	TR 2SC458C/D SI 230MHZ 200MW	D505	23383211	DI 1SS270
Q701	2320596	TR 2SC458C/D SI 230MHZ 200MW	D506	23383211	DI 1SS270
Q710	2323523	TRANSISTOR 2SD789 (D)	$\Delta$ Q711	2315272	TRANSISTOR 2SC4589-03
			Q711	2320596	TR 2SC458C/D SI 230MHZ 200MW
			Q712	2320596	TR 2SC458C/D SI 230MHZ 200MW
			Q750	2320596	TR 2SC458C/D SI 230MHZ 200MW
			Q751	2320637	TR 2SA673C/D SI 80MHZ 400MW
			Q752	2315411	TRANSISTOR 2SD2012
			$\Delta$ Q753	2315471	TRANSISTOR 2SA1376A-L/K
			Q851	2320591	TR 2SC458B/C SI 230MHZ 200MW
			Q852	2320591	TR 2SC458B/C SI 230MHZ 200MW
			Q853	2320591	TR 2SC458B/C SI 230MHZ 200MW
			Q854	2315491	TRANSISTOR 2SC4544
			Q855	2315491	TRANSISTOR 2SC4544
			Q856	2315491	TRANSISTOR 2SC4544
			Q863	2320591	TR 2SC458B/C SI 230MHZ 200MW
			Q864	2320637	TR 2SA673C/D SI 80MHZ 400MW
			Q901	2320643	TR 2SC1213C SI 80MHZ 400MW
			Q902	2320596	TR 2SC458C/D SI 230MHZ 200MW
			$\Delta$ Q903	2326631	THYRISTOR CR5AS-8
			Q904	2315411	TRANSISTOR 2SD2012
			Q905	2320637	TR 2SA673C/D SI 80MHZ 400MW
			Q906	2320637	TR 2SA673C/D SI 80MHZ 400MW
			Q907	2315411	TRANSISTOR 2SD2012
			Q908	2320643	TR 2SC1213C SI 80MHZ 400MW
			Q909	2320637	TR 2SA673C/D SI 80MHZ 400MW
					DIODES
			D101	23383211	DI 1SS270
			D102	23383211	DI 1SS270
			D103	23383211	DI 1SS270
			D104	23383211	DI 1SS270
			D105	23383211	DI 1SS270
			D106	23383211	DI 1SS270
			D107	23383211	DI 1SS270
			D108	23383211	DI 1SS270
			D109	23383211	DI 1SS270
			D110	23383211	DI 1SS270
			D111	23383211	DI 1SS270
			D115	23383211	DI 1SS270
			D804	23383211	DI 1SS270
			D805	23383211	DI 1SS270
			D806	23383211	DI 1SS270
			D807	23383211	DI 1SS270
			D808	23383211	DI 1SS270
			D809	23383211</	

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
D905	23383211	DI 1SS270			
D906	23394811	DI AS01Z			
D907	23394811	DI AS01Z			
D908	2338944	DI FML-G12S(F)	$\Delta$ T701	2274353	TRANSFORMERS
D909	2333001	DI RU2M	$\Delta$ T702	2436772	H, DRIVE TRANSFORMER
D910	23383211	DI 1SS270	$\Delta$ T901	2216001	FLYBACK TRANSFORMER C87LLI
D911	23383211	DI 1SS270			POWER TRANSFORMER
D912	23383211	DI 1SS270			
D913	23383211	DI 1SS270			
D914	23394811	DI AS01Z	$\Delta$ F901	2721053	FUSES
D915	23394811	DI AS01Z	$\Delta$ F902	2720814	UL FUSE 5A
ZD102	2339833M	DIODE-ZENER HZ55A3	$\Delta$ F903	2721051	FUSE 2A
ZD103	2339839	ZD HZ55C3			UL FUSE 1.6A
ZD104	2339972M	DIODE-ZENER HZS33-2			
ZD105	2339822	DIODE-ZENER HZS4A2			
ZD106	2339847	DIODE-ZENER HZS6C1	CP201	2300477	COMPOUND COMPONENTS
ZD107	2339839	ZD HZ55C3	CP202	2143492	SAW FILTER HW2267
ZD108	2339839	ZD HZ55C3	CP241	2143691	CERAMIC TRAP 4.5MHZ
ZD109	2339839	ZD HZ55C3	$\Delta$ CP901	2793313	CERAMIC FILTER 4.5MHZ
ZD110	2339839	ZD HZ55C3	MF701	2167241	COMPOUND COMPONENT
ZD3001	2339889	ZD HZS12C3			CERAMIC OSC 0.5MHZ
ZD3002	2339889	ZD HZS12C3			
ZD3003	2339889	ZD HZS12C3			
ZD401	2339812M	DIODE-ZENER HZS3A2	L101	2791754	COILS
ZD402	2339812M	DIODE-ZENER HZS3A2	L102	2791754	DSS306-55B101M
ZD620	2339921M	DIODE-ZENER HZS20-1	L103	2791754	DSS306-55B101M
ZD621	2339872M	DIODE-ZENER HZS11A2	L104	2791754	DSS306-55B101M
ZD622	2339053	DIODE-ZENER HZS7B3L	L105	2791754	DSS306-55B101M
ZD702	2339889	ZD HZS12C3	L106	2122942	LA AXIAL COIL 8.2 MICRO H +-10%
ZD710	2339972M	DIODE-ZENER HZS33-2	L107	2122942	LA AXIAL COIL 8.2 MICRO H +-10%
$\Delta$ ZD712	2339232	ZD HZS30-2L	L108	2122942	LA AXIAL COIL 8.2 MICRO H +-10%
$\Delta$ ZD713	2339232	ZD HZS30-2L	L110	2122253	LA AXIAL COIL 100 MICRO H
ZD751	2339981	DIODE-ZENER HZS36-1	L111	2122253	LA AXIAL COIL 100 MICRO H
ZD752	2339972M	DIODE-ZENER HZS33-2	L112	2122942	LA AXIAL COIL 8.2 MICRO H +-10%
ZD753	2339251	ZD HZS36-1L	L113	2122956	LA AXIAL COIL 100 MICRO H +-10%
ZD754	2339943M	ZD HZS24-3	L132	2122253	LA AXIAL COIL 100 MICRO H
ZD801	2339822	DIODE-ZENER HZS4A2	L135	2122253	LA AXIAL COIL 100 MICRO H
ZD802	2339822	DIODE-ZENER HZS4A2	L136	2122253	LA AXIAL COIL 100 MICRO H
ZD803	2339822	DIODE-ZENER HZS4A2	L202	2143672	IFCOIL
ZD804	2339887M	ZD HZS12C1TA	L203	2143678	IFCOIL
ZD805	2339887M	ZD HZS12C1TA	L204	2142445	CARRIER FILTER AFS COIL
ZD806	2339887M	ZD HZS12C1TA	L205	2122944	LA AXIAL COIL 12 MICRO H
ZD861	2331781	ZD HZ4 (A1)	L206	2122952	LALAXALCOIL
ZD901	2339876	DIODE-ZENER HZS11B3	L207	2122927	LA AXIAL COIL 0.68 MICRO H
ZD902	2339833M	DIODE-ZENER HZS5A3	L240	2122956	LA AXIAL COIL 100 MICRO H +-10%
ZD904	2339835M	ZD HZS5B2TA	L241	2122948	LA AXIAL COIL 27 MICRO H +-10%
ZD905	2339812M	DIODE-ZENER HZS3A2	L242	2143281	HIGH FREQUENCY COIL
ZD906	2339837	ZD HZS-5C1	L243	2122949	LA AXIAL COIL 33 MICRO H +-10%
ZD907	2339886M	DIODE-ZENER HZS12B3	L244	2122949	LA AXIAL COIL 33 MICRO H +-10%
ZD908	2339872M	DIODE-ZENER HZS11A2	L3002	2122253	LA AXIAL COIL 100 MICRO H
ZD909	2339889	ZD HZS12C3	L3003	2122956	LA AXIAL COIL 100 MICRO H +-10%
ZD910	2339876	DIODE-ZENER HZS11B3	L301	2122253	LA AXIAL COIL 100 MICRO H
			L302	2122949	LA AXIAL COIL 33 MICRO H +-10%
			L303	2141148	1H DL COIL
			L306	2122947	LA AXIAL COIL 22 MICRO H +-10%

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
L307	2122951	LA AXIAL COIL 39 MICRO H +-10%		4520881	M3X8 SCREW WITH WASHER
L308	2122934	LA AXIAL COIL 2.2 MICRO H		(IC450,IC625,IC904,Q907)	
L309	2122956	LA AXIAL COIL 100 MICRO H +-10%		8821234	3 NUT (IC450,IC625,Q711)
L501	2122944	LA AXIAL COIL 12 MICRO H		8813124	WASHER (Q711)
L502	2122942	LA AXIAL COIL 8.2 MICRO H +-10%		4520883	M3X12 SCREW WITH WASHER
L503	2122253	LA AXIAL COIL 100 MICRO H		(Q752,IC901)	
L601	2122956	LA AXIAL COIL 100 MICRO H +-10%		4137974	4X12 TAPPING SCREW WITH WASHER
L702	2122938	LA AXIAL COIL 4.7 MICRO H		(IC901)	
L710	2165403	H LINEARITY COIL		3737101	PURSE LOCK 15
$\Delta$ L711	2124181	CHOKE COIL		2788841	ANODE CLAMP
L712	2122253	LA AXIAL COIL 100 MICRO H		3700342	WIRE CLAMP
L713	2122099	FILTER COIL 18 MICRO H		3330941	EARTH SPRING
L850	2122253	LA AXIAL COIL 100 MICRO H		3763751	SK BINDER
L851	2122242	LA AXIAL COIL 15 MICRO H		2772981	FERRITE SHEET
L852	2122242	LA AXIAL COIL 15 MICRO H		DL301	DELAY LINE
L853	2122242	LA AXIAL COIL 15 MICRO H		2687791	F-US ADAPTOR
L856	2122956	LA AXIAL COIL 100 MICRO H +-10%		$\Delta$ EANT	
L861	2122653	FERRITE BEADS CORE		$\Delta$ EF901	FUSE HOLDER
$\Delta$ L901	2125481	HIGH FREQUENCY COIL		$\Delta$ EF902	FUSE HOLDER
$\Delta$ L902	2272293	LINE FILTER LL (T)		$\Delta$ EF903	FUSE HOLDER
L903	2122261	LA AXIAL COIL 390 MICRO H		$\Delta$ M	4P PLUG PIN WITH BASE
L904	2122653	FERRITE BEADS CORE		SR	4P SUB MINI PLUG PIN
$\Delta$ L905	2122093	FILTER COIL		W	PIN PLUG WITH BASE
L906	2220581	CHOKING COIL		$\Delta$ E201	300-75 VHF ADAPTER
L907	2122652	FERRITE CORE		$\Delta$ E3001	5P PIN JACK
L908	2122652	FERRITE CORE		$\Delta$ E301	REMOTE CONTROL TRANSMITTER CLU-
L909	2122652	FERRITE CORE		670GR (HHEA MD) (HSCC MD)	
L910	2122652	FERRITE CORE		E851	CPT SOCKET
L995	2165743	DEGAUSSING COIL		$\Delta$ E901	POWER CORD
				E903	MICA PLATE
				E952	AC CORD HOLDER
				FB701	FERRITE BEADS CORE
				FB701A	FERRITE BEADS CORE
S101	2633171	5 KEY TACT SWITCH 5P		FB702	FERRITE BEADS CORE
S102	2632923	TACT SWITCH		RF	MINI PIN PLUG WITH COAXIAL CABLE
				$\Delta$ RL901	POWER RELAY
				SG851	SPARK GAP
				$\Delta$ SG901	SPARK GAP
				SP451	SPEAKER (HHEA MD) (HSCC MD)
				SP452	SPEAKER (HHEA MD) (HSCC MD)
				TH651	THERMISTOR 112301-9
				$\Delta$ TH901	THERMISTOR
				U0501	PIN P UNIT (HHEA MD) (HSCC MD)
				U101	TUNER ET-350G
				U102	REMOTE CONTROL RECEIVER SPS-409-1G
				X101	CRYSTAL 6.00MHZ
				X501	CRYSTAL
				3821296	VR-DOOR ASS'Y (HHEA MD) (HSCC MD)
				3105371	FRAME ASS'Y (HHEA MD) (HSCC MD)
				3872873	ANTENNA TERMINAL BOARD
				3739671	CORD HOLDER
				3875771	LATCH
				3164111	BACK COVER ASS'Y (HHEA MD) (HSCC MD)
				3727972	HOLDER-AC LINE CORD
				4963532	ANTENNA TERMINAL BOARD LABEL
				2784342	CONDENSER COVER (CP901)
				4243445	G51 INSULATOR (FBT)
				4518742	M2.3X12 SCREW WITH WASHER (FBT)

# HITACHI

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**HITACHI HOME ELECTRONICS (AMERICA), INC.**

NATIONAL HEADQUARTERS OFFICE:	401 West Artesia Blvd, Compton, Calif. 90220	Tel. 213-537-8383
Western Regional Office:	401 West Artesia Blvd, Compton, Calif. 90220	Tel. 213-537-8383
Eastern Regional Office:	1290 Wall St. West, Lyndhurst, N.J. 07071	Tel. 201-935-8980
Mid-Western Regional Office:	1400 Morse Ave., Elk Grove Village, Illinois.60007	Tel. 708-593-1550
Southern Regional Office:	510 Plaza Dr., College Park, Georgia 30349	Tel. 404-763-0360

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**HITACHI SALES CORPORATION OF HAWAII, INC.**

3219 Koapaka Street Honolulu, Hawaii 96819	Tel. 836-3621
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**HITACHI SALES CORPORATION DE PANAMA, S.A.**

Apartado 7657, Panamá 5, Panamá City, Rep. of Panamá.	Tel. 61-3100
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**HITACHI (HSC) CANADA INC.**

3300 Route Trans Canada, Pointe Claire, Qué, H9R 1B1	Tel. 514-697-9150
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**HITACHI (HSC) CANADA INC.**

3300 Trans Canada Highway, Pointe Claire, Quebec, H9R 1B1	Tel. 514-697-9150
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