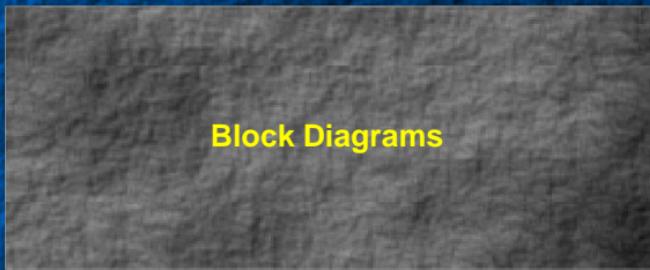
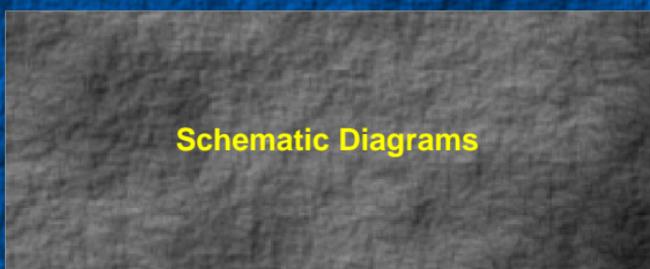


TX-29AD3F Service Manual

Safety
Specifications
Parts List
Service Information
Adjustments
Self Check
Service Hints
Mechanical View
Disassembly
Location of Controls
Waveforms



Block Diagrams



Schematic Diagrams



PCB Views

Service Support

Service and repair of this product is supported by Panasonic's LUCI interface.

This interface provides a link between the TV and a standard PC to allow a number of diagnostic and control functions to be performed.

For more details contact your local Panasonic company.

←
BACK

EXIT

Video / Audio

Control



BACK

A - PCB

B - PCB

A - Schematic

B - Schematic

E - PCB

F - PCB

E - Schematic

F - Schematic

M - PCB

Y - PCB

M - Schematic

Y - Schematic



BACK



BACK

Service Manual



Colour Television

TX-29AD3F EURO-2S Chassis

SPECIFICATIONS

Power Source :	220–240V AC, 50Hz	
Power Consumption :	96W	
Standby Power Consumption :	1W	
Aerial Impedance :	75Ω unbalanced, Coaxial Type	
Receiving System :	PAL-BG, I H, PAL 525 / 60, SECAM BG, L/L' MNTSC, NTSC (AV Only)	
Receiving Channels :	VHF E2 – E12 VHF A – H (ITALY) CATV (S01 – S05) CATV S11 – S20 (U1 – U10)	VHF H1 – H2 (ITALY) UHF E21 – E69 CATV S1 – S10 (M1 – M10) CATV S21 – S41 (HYPERBAND)
Intermediate Frequency :	38.9 MHz, 34 MHz 33.4 MHz, 33.16 MHz, 32.9MHz 32.4 MHz, 33.05 MHz, 40.4 MHz 34.47 MHz, 34.5 MHz, 34.65 MHz	
Video	38.9 MHz, 34 MHz	
Sound	33.4 MHz, 33.16 MHz, 32.9MHz	
Colour	32.4 MHz, 33.05 MHz, 40.4 MHz	
Video / Audio Terminals :		
AUDIO MONITOR OUT	Audio(RCA x 2) 500mVrms, 1kΩ	
AV1 IN	Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 10kΩ RGB (21 pin)	
AV1 OUT	Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 1kΩ	
AV2 IN	Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 10kΩ S-Video IN Y : 1 Vp–p 75Ω (21 pin) C : 0.3 Vp–p 75Ω	
AV2 OUT	Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 1kΩ	
AV3 IN	Audio (RCA x 2) 500mV rms, 10kΩ Video (RCA x 1) 1 Vp–p 75Ω	
High Voltage :	31.5kV ± 1kV	
Picture Tube :	A66EHM69X23 66 cm	
Audio Output :	20W (Music Power) 8 Ω Impédance	
Speaker	8 Ω Impédance	
Headphones	Remote Control	
Accessories supplied :	2 x R6 (UM3) Batteries	
Dimensions :		
Height :	570 mm	
Width :	698 mm	
Depth :	483 mm	
Net Weight :	39kg	

Specifications are subject to change without notice.
Weight and dimensions shown are approximate.

Panasonic

CARACTÉRISTIQUES

Alimentation :	220–240V AC, 50Hz
Consommation :	96W
Standby Consommation :	1W
Impédance d'antenne :	75Ω asymétrique sur prise coaxiale
Système de réception :	PAL-BG, I H, PAL 525 / 60, SECAM BG, L/L' MNTSC, NTSC (Entrée AV seulement)
Canaux de réception :	VHF H1 – H2 (ITALY) UHF E21 – E69 CATV S1 – S10 (M1 – M10) CATV S21 – S41 (HYPERBAND)
Fréquence Intermédiaire :	38.9 MHz, 34 MHz 33.4 MHz, 33.16 MHz, 32.9MHz 32.4 MHz, 33.05 MHz, 40.4 MHz 34.47 MHz, 34.5 MHz, 34.65 MHz
Les bornes vidéo/audio :	AUDIO MONITOR SORTIE Audio(RCA x 2) 500mVrms, 1kΩ Entrée AV1 (21 broches) Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 10kΩ RGB (21 pin)
	Sortie AV1 (21 broches) Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 1kΩ
	Entrée AV2 (21 broches) Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 10kΩ S-Video IN Y : 1 Vp–p 75Ω (21 pin) C : 0.3 Vp–p 75Ω
	Sortie AV2 (21 broches) Video (21 pin) 1V p–p 75Ω Audio (21 pin) 500mV rms 1kΩ
	Entrée AV3 Audio (RCA x 2) 500mV rms, 10kΩ Video (RCA x 1) 1 Vp–p 75Ω
Tension d'anode :	31.5kV ± 1kV
Tube image :	A66EHM69X23 66 cm
Sortie Audio :	20W (Music Power) 8 Ω Impédance
Casque d'écoute	8 Ω Impédance
Accessories fournis :	Télécommande R6 (UM3) Piles x 2
Dimensions :	
Hauteur :	570 mm
Largeur :	698 mm
Profondeur :	483 mm
Poids (NET) :	39kg

Les caractéristiques techniques sont susceptibles de modification sans Préavis.
Le poids et les dimensions indiqués sont approximatifs.

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SAFETY PRECAUTIONS	PRECAUTIONS DE SECURITE
SERVICE HINTS	SUGGESTIONS DE SERVICE
SERVICE MODE	RÉGLAGES
ADJUSTMENT PROCEDURE	RÉGLAGES
SELF CHECK	AUTO TEST
WAVEFORM PATTERN TABLE	TABLEAU DE MIRES DE FORMES D'ONDES
BLOCK DIAGRAMS	SCHEMA SYNOPTIQUE
PARTS LOCATION	EMPLACEMENT DES PIECES
REPLACEMENT PARTS LIST	LISTE DES PIÈCES DE RECHANGE
CONDUCTOR VIEWS	VUE DU CIRCUIT IMPRIMÉ
SCHEMATIC DIAGRAMS	DIAGRAMME SCHEMATIQUE

SAFETY PRECAUTIONS

GENERAL GUIDE LINES

1. It is advisable to insert an isolation transformer in the AC supply before servicing a hot chassis.
2. When servicing, observe the original lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see that all the protective devices such as insulation barriers, insulation papers, shields and isolation R-C combinations are correctly installed.
4. When the receiver is not being used for a long period of time, unplug the power cord from the AC outlet.
5. Potentials as high as 32.5kV are present when this receiver is in operation. Operation of the receiver without the rear cover involves the danger of a shock hazard from the receiver power supply. Servicing should not be attempted by anyone who is not familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture to the chassis before handling the tube.
6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs of the plug.
2. Turn on the receiver's power switch.
3. Measure the resistance value with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screw heads, aerials, connectors, control shafts etc. When the exposed metallic part has a return path to the chassis the reading should be between 4M ohm and 20M ohm. When the exposed metal does not have a return path to the chassis the reading must be infinite.

CONTENTS

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SUGGESTIONS DE SERVICE	RÉGLAGES
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TABLEAU DE MIRES DE FORMES D'ONDES	TABLEAU DE MIRES DE FORMES D'ONDES
SCHEMA SYNOPTIQUE	SCHEMA SYNOPTIQUE
EMPLACEMENT DES PIECES	EMPLACEMENT DES PIECES
LISTE DES PIÈCES DE RECHANGE	LISTE DES PIÈCES DE RECHANGE
VUE DU CIRCUIT IMPRIMÉ	VUE DU CIRCUIT IMPRIMÉ
DIAGRAMME SCHEMATIQUE	DIAGRAMME SCHEMATIQUE

PRECAUTIONS DE SECURITE

CONSEILS GENERAUX

1. Avant d'effectuer toute révision d'un châssis sous tension il est recommandé d'installer un transformateur d'isolation.
Il est important, lors des réparations, de conserver la position initial de tous les fils et faisceaux, surtout dans le circuit de la haute tension. Remplacer toutes les pièces affectées par la chaleur dégagée lors d'un cort-circuit. Après les réparations, s'assurer que toutes les pièces protectrices telles que barrières ou papiers isolants, blindages et réseaux d'isolation R-C soient convenablement placées.
Il est préférable de débrancher le fil d'alimentation si la télé -couleur ne doit pas être utilisée pendant un certain temps.
Une tension élevée, de l'ordre de 32.5kV, est présente en plusieurs endroits lorsque l'appareil est en circuit. Il y a danger de chocs électriques lorsque le contact est établi en absence du panneau arrière. Toute personne qui tente de réparer cet appareil doit d'abord être consciente des précautions à observer avant de travailler sur un circuit à haute tension. Toujours décharger l'anode du tube cathodique au châssis avant de manipuler.
Après tout réparation, on doit effectuer les tests de courant de fuite dans le but d'éviter tout choc.

VERIFICATION DES COURANTS DE FUITE SANS ALIMENTATION

Débrancher le fil d'alimentation et installer un fil STRAP entre les deux broches de la fiche.
Placer l'interrupteur comme pour établir le contact sur l'appareil.
Mesurer la résistance entre les branches de la fiche d'alimentation et les pièces métalliques visibles telles que têtes de vis, antennes, arbre des commandes, support des poignées, etc. Certaines de ces pièces sont en contact avec le châssis et la résistance mesurée devrait se situer entre 4MΩ et 20MΩ. La résistance des pièces qui ne sont pas en contact avec le châssis doit être infinie.

LEAKAGE CURRENT HOT CHECK

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $2k\Omega$ 10W resistor in series with an exposed metallic part on the receiver and an earth such as a water pipe.
3. Use an AC voltmeter with high impedance to measure the potential across the resistor.
4. Check each exposed Metallic part and check the voltage at each point.
5. Reverse the AC plug at the outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1.4 Vrms. In case a measurement is outside the limits specified, there is a possibility of a shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

HOT CHECK CIRCUIT CIRCUIT DE VERIFICATION A CHAUD

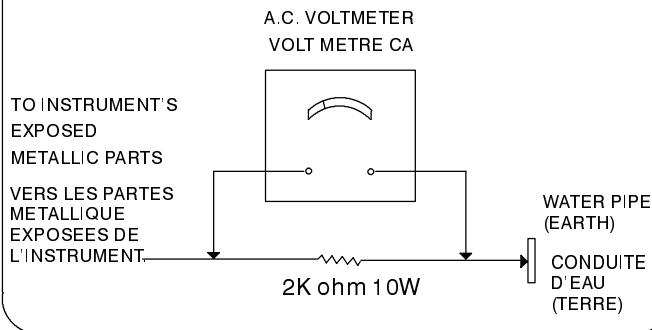


Fig.1

X-RADIATION WARNING

1. The potential sources of X-Radiation in TV sets are the high voltage section and the picture tube.
2. When using a picture tube test jig for service ensure that the jig is capable of handling 32.5kV without causing X-Radiation.

NOTE : It is important to use an accurate periodically calibrated high voltage meter

1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate $31.5kV \pm 1kV$ if the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
3. To prevent any X-Radiation possibility, it is essential to use the specified tube.

VERIFICATION A CHAUD DU COURANT DE FUITE

Brancher le cordon secteur directement à une prise secteur. Ne pas utiliser de transformateur d'isolation pour cette vérification.

Raccorder une résistance de $2k\Omega$, 10W, en série avec une partie métallique exposée du récepteur et une terre comme une conduite d'eau.

Utiliser un voltmètre CA, de type à impédance élevée, pour mesurer le potentiel à travers la résistance.

Vérifier toutes les parties métalliques exposées et mesurer la tension à chaque point.

Retourner la fiche CA dans la prise secteur et répéter toutes les mesures ci-dessus.

Le potentiel à tous les points ne doit pas dépasser 1.4 volt RMS. AU cas où une mesure est supérieure à cette limite spécifiée, il y a un risque de décharge électrique et le récepteur doit être réparé et revérifié avant d'être rendu au client.

IRRADIATION AUX RAYONS X ATTENTION:

1. Les parties de la haute tension et du tube-cathodique d'une télé-couleur sont des sources possible d'émissions de rayons X.
2. Si un tube cathodique témoin est utilisé pour la réparation, s'assurer que son assemblage pourra supporter 32.5kV sans émettre de radiations.

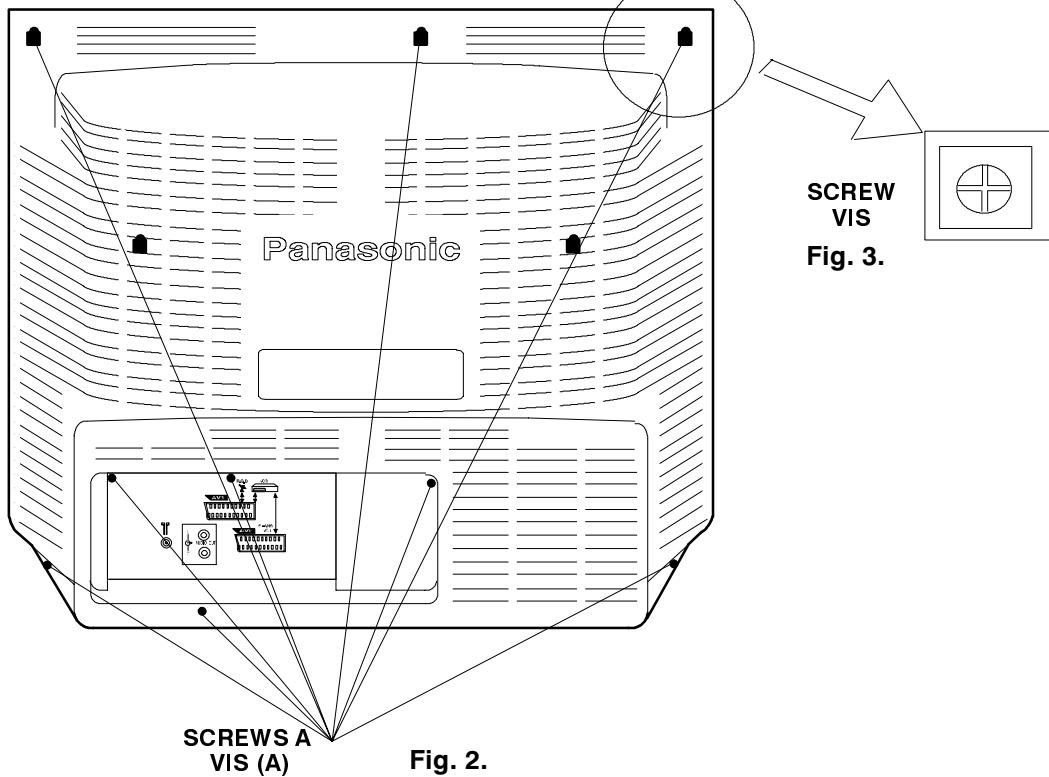
REMARQUE : Il est important que le multimètre à haute tension utilisé soit étalonné périodiquement.

1. Tourner entièrement vers la gauche la commande de lumière.
2. Mesurer la haute tension à l'aide du multimètre approprié. La valeur nominale est de $31.5kV \pm 1kV$. Si la lecture est hors des tolérances, une réparation immédiate s'impose afin de prévenir toute panne prématûre.
- Il est essentiel d'utiliser le tube cathodique d'origine pour prévenir toute émission de rayons X.

SERVICE HINTS

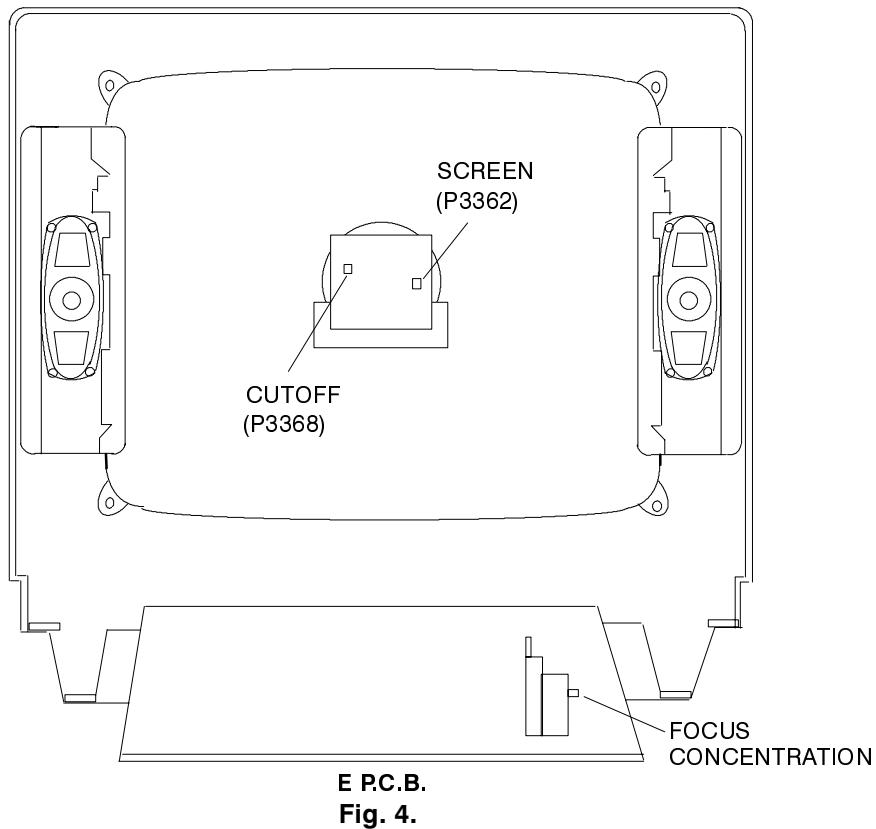
HOW TO REMOVE THE REAR COVER

1. Remove the 9 screws (A) as shown in Fig.2/Fig.3.



LOCATION OF CONTROLS

EMPLACEMENT DES COMMANDES



HOW TO REMOVE THE CONTROL PANEL

(M BOARD)

1. Remove the E-board from the cabinet with the M-board attached.
2. Unclip by lifting the front of the M-board vertically.
3. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.

COMMENT RETIRER LE PANNEAU DE

CONTROLE (PCB-M)

1. Retirer l'ensemble PCB-E et PCB-M.
2. Dégrafer la PCB-M en la levant verticalement.
3. Après intervention s'assurer que les fils de liaisons soient bien à leur place.

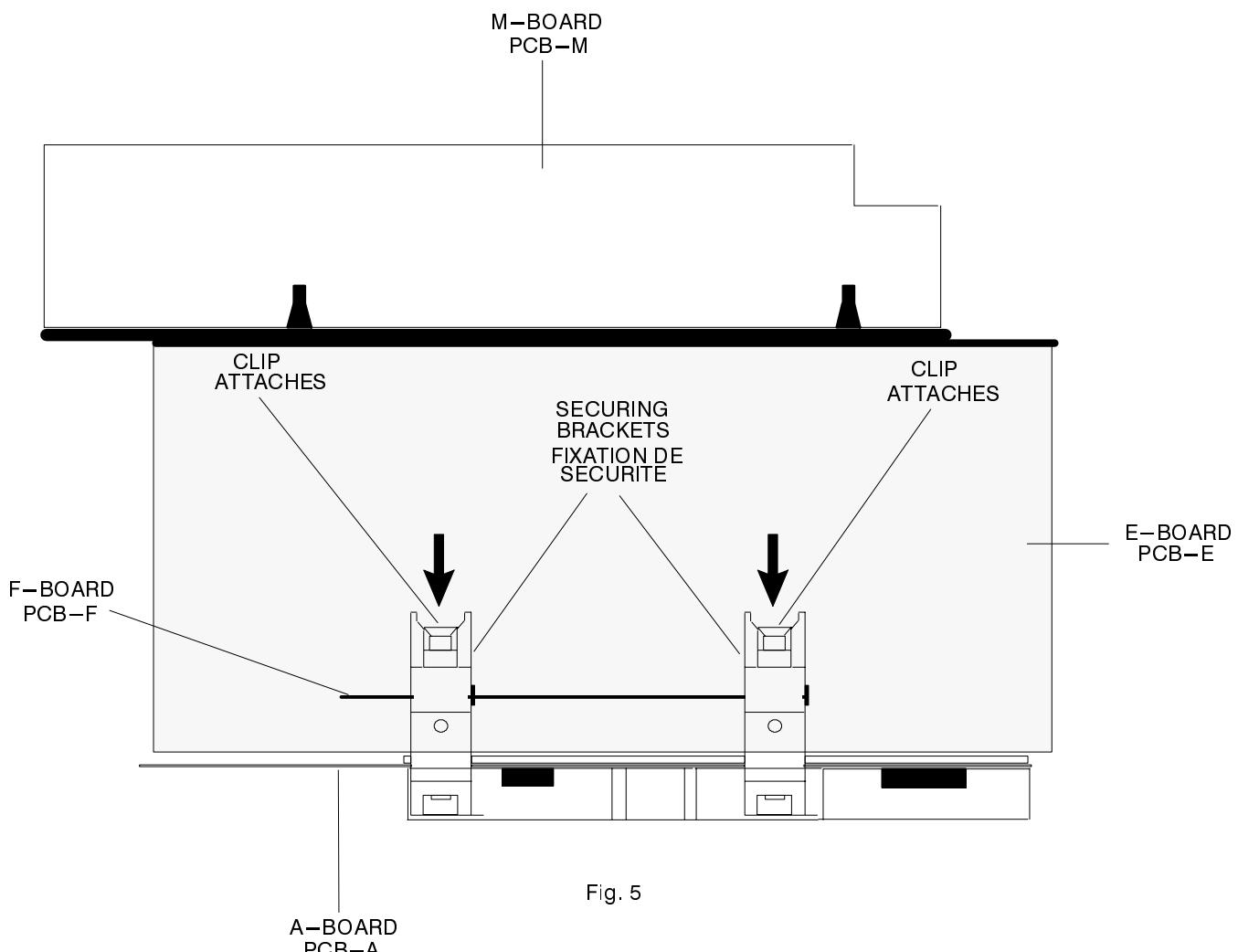


Fig. 5

HOW TO REMOVE THE A - BOARD

1. Disconnect the 5 leads from the A - board.
2. Release the A and F boards securing brackets by pushing 1. the clips in the direction shown in Fig.5, and remove the 2. A - board by gently lifting vertically.
3. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.

COMMENT RETIRER LA PCB-A

1. Déconnecter les 5 câbles de liaison de la PCB-A.
2. Retirer les fixations de sécurité des PCB-A et F en poussant les attaches dans la direction indiquée Fig.5, retirer la PCB-A en la tirant doucement verticalement.
3. Après intervention s'assurer que les fils de liaisons soient bien à leur place.

SERVICE POSITION FOR THE A-BOARD

1. Remove the A-board from the main chassis (E-board) as shown in Fig.8.
 2. Remove the two screws (A) (Fig.9) from the plastic AV cover and unclip the AV cover from the A-board (Fig. 10).
 3. Carefully unclip the three metal clips marked B in Fig.6.
 4. Unclip the front metal cover (fig.7) and remove from the A-board.
 5. Fit the 4 extension leads to the A-board making sure that the A-board does not touch the E-board (fig.8).
 6. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.
- Note :** The extension lead wire kit is supplied as a service kit. (Part number TZA4EP001).

POSITION DE SERVICE DE LA PCB-A.

- 1. Retirer la PCB-A du châssis principal ([PCB-E] tel qu'indiqué Fig.8).
 - 2. Retirer les deux vis (a) (Fig.9) du cashe plastique AV
 - 3. Dégrafer le cashe de la PCB-A (Fig.10).
 - 4. Retirer les 3 attaches métalliques repérées (B) sur la Fig.6.
 - 5. Retirer le capot métallique (Fig.7) de la PCB-A.
 - 6. Mettre en place les câbles d'extension (S'assurer que la PCB-A ne touche pas la PCB-E) (Fig.8).
 - Après intervention s'assurer que les fils de liaisons soient bien à leur place
- Remarque :** Le Kit d'extension est disponible sous la référence TZA4EP001.

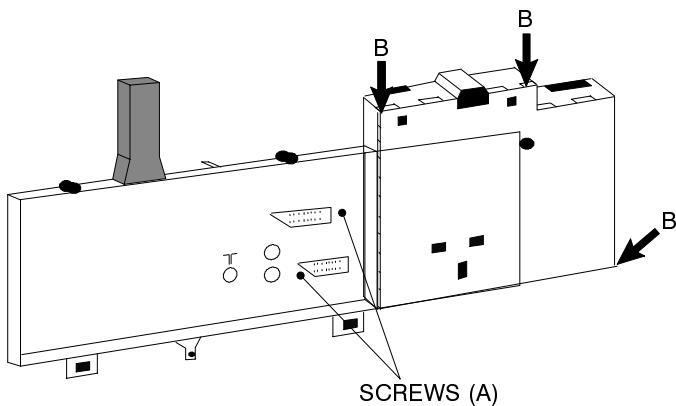


Fig. 6.

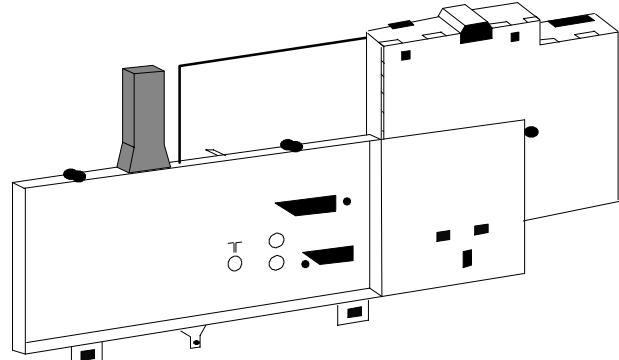


Fig. 7.

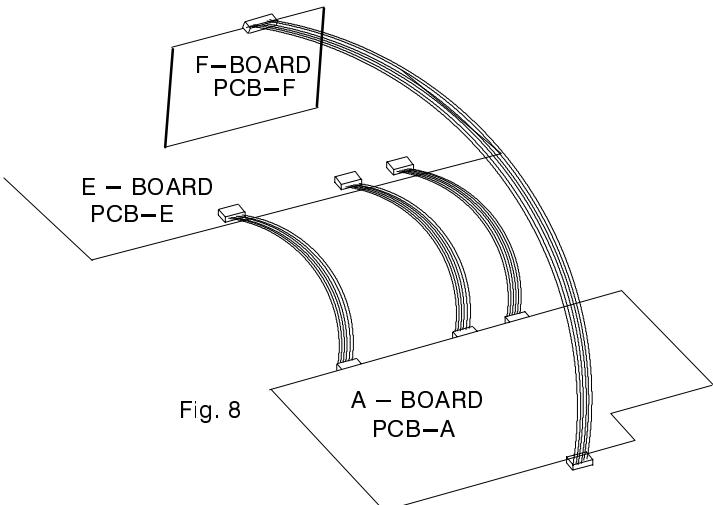


Fig. 8

ADJUSTMENT PROCEDURE

Item/Preparation	Adjustments																																
+B SET-UP 1. Receive a test pattern 2. Set the controls: Brightness minimum Contrast minimum Volume minimum	1 Set the +B voltage up as follows: Adjust R811 so that B2 shows $147V \pm 1V$ 2. Confirm the following voltages. <table style="margin-left: auto; margin-right: auto;"> <tr><td>B1</td><td>200</td><td>\pm</td><td>10V</td><td>B6</td><td>12</td><td>\pm</td><td>0.5V</td></tr> <tr><td>B3</td><td>27</td><td>\pm</td><td>1V</td><td>B7</td><td>5</td><td>$+$</td><td>0.1/-0.25V</td></tr> <tr><td>B4</td><td>41</td><td>\pm</td><td>1V</td><td>B8</td><td>5</td><td>\pm</td><td>0.25V</td></tr> <tr><td>B5</td><td>15.5</td><td>\pm</td><td>1V</td><td>U33</td><td>31</td><td>\pm</td><td>1V</td></tr> </table>	B1	200	\pm	10V	B6	12	\pm	0.5V	B3	27	\pm	1V	B7	5	$+$	0.1/-0.25V	B4	41	\pm	1V	B8	5	\pm	0.25V	B5	15.5	\pm	1V	U33	31	\pm	1V
B1	200	\pm	10V	B6	12	\pm	0.5V																										
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B4	41	\pm	1V	B8	5	\pm	0.25V																										
B5	15.5	\pm	1V	U33	31	\pm	1V																										
RF AGC 1. Receive a test pattern. 2. Connect an oscilloscope between the tuner RF AGC and ground. 3. Set the oscilloscope gain range to 1V/div.	1. Check that the noise becomes large when the RF AGC VR R126 is turned counterclockwise. After the check turn it clockwise. 2. Gradually turn the RF AGC VR anti-clockwise, and set the RF AGC VR to the point where the RF AGC voltage is just falling to a point where this voltage drops by 0.2V from the maximum value.																																
CUT OFF 1. Receive a test pattern. 2. Degauss the tube externally. 3. Set the TV into Service Mode 1. 4. Select Cutoff DC mode.	1. Confirm the value is 128 and select Ug2 mode noting colour with largest value. 2. Turn the screen VR until a colour reaches 20~30. 3. Connect an oscilloscope to the cathode with the biggest value colour. 4. Select Cutoff DC mode and adjust Cutoff pulse to $159V \pm 5V$. 5. Disconnect the oscilloscope and adjust the screen to whichever colour reaches 70 ± 30 first.																																

The remote control is used for entering and storing adjustments, with the exception of cut-off adjustments which must always be done prior to service adjustment. Perform adjustments in accordance with screen display. The display on the screen also specifies the CCU variants as well as the approx. setting values. The adjustment sequence for the service mode is indicated below.

1. Set the Bass to maximum position, set the Treble to 3. minimum position, press the Reveal button on the remote control and at the same time press the Volume down on the customer controls at the front of the TV, this will place the TV into the Service Mode. 5. Press the YELLOW / BLUE buttons to alter the function values.
2. Press the RED / GREEN buttons to step down / up through the functions. Press the STORE button on the preset panel after each adjustment has been made to store the required values.
3. To exit the Service Mode press the Normalisation button.

NOTE: This TV also has the option of using a Memory Pack which enables you to copy the preset TV channels and analogue levels into the Memory Pack and then upload them onto another EURO-2S TV set.

USING THE MEMORY PACK

TV to Memory Pack process

1. Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.
2. Go into the Service Mode as explained above. The screen will show:—

Program
External>>TV

3. Press the blue button on the remote control. The screen will show:—

Program
TV>>External

4. Press the STORE button on the TV. The screen will show:—

Storing

5. All the tuning information stored inside the TV will now be transferred to the Memory Pack. This process will take 2–3 minutes to complete and when finished the screen will show:—

OK!

Memory Pack to TV Process

Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.

Go into the Service Mode as explained above. The screen will show:—

Program
External>>TV

Press the STORE button on the TV. The screen will show:—

Loading

All the tuning information stored inside the Memory Pack will now be transferred to the TV. This process will take 2–3 minutes to complete and when finished the screen will show:—

OK!

The tuning information from the Memory Pack has now been copied into the TV

To exit from the Service Mode switch off the TV.

The process has now been completed and the Memory Pack can now be removed.

Errors

If an error occurs while using the Memory Pack the TV will detect this and the screen will show:—

Program
Error!

If this happens then switch off the TV and repeat the process that was being used. If the errors continue to occur then check the connectors between the TV and the memory pack and check the 9V battery inside the memory pack.

RÉGLAGES

Préparation	Réglages																
+B 1. Appliquer une mire à carreaux N/B 2. Régler les contrôles suivants Lumière Minimum Contraste Minimum Volume Minimum	1 Régler les tensions +B comme suit : Régler R811 tel que la tension B2 soit de $147V \pm 1V$ 2. Confirmer le réglage : <table style="margin-left: 100px;"> <tr><td>B1</td><td>$200 \pm 10V$</td><td>B6</td><td>$12 \pm 0.5V$</td></tr> <tr><td>B3</td><td>$27 \pm 1V$</td><td>B7</td><td>$5 \pm 0.1/-0.25V$</td></tr> <tr><td>B4</td><td>$41 \pm 1V$</td><td>B8</td><td>$5 \pm 0.25V$</td></tr> <tr><td>B5</td><td>$15.5 \pm 1V$</td><td>U33</td><td>$31 \pm 1V$</td></tr> </table>	B1	$200 \pm 10V$	B6	$12 \pm 0.5V$	B3	$27 \pm 1V$	B7	$5 \pm 0.1/-0.25V$	B4	$41 \pm 1V$	B8	$5 \pm 0.25V$	B5	$15.5 \pm 1V$	U33	$31 \pm 1V$
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B5	$15.5 \pm 1V$	U33	$31 \pm 1V$														
CAG RF 1. Appliquer une mire test 2. Relier l'oscilloscope entre l'AGC RF du tuner et la masse 3. Calibrer l'oscilloscope sur 1V/div	1. Vérifier que le bruit augmente en tournant le VR R126 CAG RF vers la gauche. Puis le tourner vers la droite. 2. Tourner graduellement VR R126 vers la gauche jusqu'à obtenir 0.2V de moins que la tension maximum																
CUT OFF 1. Appliquer une mire à carreaux N/B 2. Démagnétiser le tube extérieurement 3. Mettre le TV en Mode Service 1 4. Sélectionner le Mode Cutoff DC	1. Confirmer que la valeur soit 128 et sélectionner le mode Ug2 et noter la valeur de la couleur la plus élevée 2. Tourner le potentiomètre d'Ecran jusqu'à ce que la valeur d'une couleur se situe entre 20 et 30 3. Relier l'oscilloscope sur la cathode de la couleur dont la valeur est la plus élevée 4. Sélectionner le mode CUTOFF DC et régler l'impulsion deCUTOFF à $159V \pm 5V$ 5. Retirer l'oscilloscope et régler la tension d'écran à 70 ± 30 sur la première couleur atteignant cette valeur																

La télécommande sert à entrer et stocker les données des réglages. Sauf pour le cut-off qui doit être réalisé en priorité. Les réglages s'affichent sur l'écran, ainsi que les spécificités nominales du CCU.

- Régler par la télécommande le niveau de **grave** au **maximum**, **aigu** au **minimum**. Simultanément appuyer sur: **Volume**— du tiroir en face avant et le bouton **Reveal** de la télécommande.
- Appuyer sur la touche **ROUGE** ou **VERTE** pour sélectionner la fonction déstrée.
- Appuyer sur la touche **JAUNE** ou **BLEUE** pour modifier les valeurs des réglages.
- Mettre en mémoire après chaque réglage, en appuyant sur la touche **STORE**.
- Pour sortir de la position SERVICE MODE arrêter le TV

REMARQUE : Le Memory Pack permet de copier la configuration du TV, (Chaines, Niveaux analogiques) et de la transférer, via le bloc—Mémoire vers un autre TV EURO—2S.

Processus de transfert "téléviseur vers bloc—mémoire"

- La partie arrière du téléviseur comporte deux connecteurs à 21 broches : brancher le bloc—mémoire dans le connecteur inférieur (AV2), puis mettre le téléviseur en marche ("ON"). Si le téléviseur ne comporte qu'un seul connecteur à 21 broches, celui-ci pourra alors servir à reccorder le bloc—mémoire.
- Passer en Mode Service (voir ci-dessus). L'écran affiche:

Program
External>>TV

- Appuyer sur la bouton BLEU de la télécommande. L'écran présente le message suivant:

Program
TV>>External

- Appuyer sur le bouton de mémorisation (STORE) du téléviseur et l'écran présentera la message suivant:

Storing

- Toutes les informations de syntonisation enregistrées par le téléviseur seront maintenant transférées vers le bloc—mémoire. Cette opération ne prend que 2 à 3 minutes. Lorsqu'elle est terminée, l'écran du téléviseur présentera message suivant:

OK!

Processus de transfert "bloc—mémoire vers téléviseur"

- La partie arrière du téléviseur comporte deux connecteurs à 21 broches : brancher le bloc—mémoire dans le connecteur inférieur (AV2), puis mettre le téléviseur en marche ("ON"). Si le téléviseur ne comporte qu'un seul connecteur à 21 broches, celui-ci pourra alors servir à reccorder le bloc—mémoire.
- Passer en Mode Service (voir ci-dessus). L'écran affiche:

Program
External>>TV

- Appuyer sur le bouton de mémorisation (STORE) du téléviseur et l'écran présentera la message suivant:

Loading

- Toutes les informations de syntonisation enregistrées par le téléviseur seront maintenant transférées vers le bloc—mémoire. Cette opération ne prend que 2 à 3 minutes. Lorsqu'elle est terminée, l'écran du téléviseur présentera message suivant:

OK!

- Les informations de syntonisation du téléviseur du bloc—mémoire ont maintenant été copiées dans le téléviseur.
- Pour sortir du mode d'exploitation SERVICE, mettre le téléviseur hors circuit ("OFF").
- Une fois l'opération terminée, enlever le bloc—mémoir.

Erreurs

Le téléviseur détectera toutes les erreurs susceptibles de se produire éventuellement pendant l'utilisation du bloc—mémoire. L'écran présentera alors le message suivant:

Program
Error!

Dans ce cas, mettre le téléviseur hors circuit ("OFF") et répéter l'opération qui était en cours. En cas d'erreurs répétées, vérifier les connexions entre le téléviseur et le bloc—mémoire, puis contrôler l'état de la pile 9V à l'intérieur du bloc—mémoire.

SELF CHECK

Self check is used to automatically check the Bus lines and Hexadecimal code of the TV set.

To enter the Self Check mode press Volume down button, on the Preset Panel, at the same time pressing the Status button, on the Remote Control, and the screen will show:-

When exiting Self Check the customer settings will return to factory setup.

1 —— ok	Tuner	11 —— ——	Dolby IC for C/R	
2 —— ok	VIF	12 —— ok	P S MODE	
3 —— ok	EEPROM	13 —— ok	P TA0	
4 —— ——	Sound AV switch1	14 —— ok	P TA1	21 —— ok
5 —— ok	Video AV switch1	15 —— ok	P TA2	22 —— ok
6 —— ok	VDP	16 —— ok	P TA3	23 —— ok
7 —— ok	TPU	17 —— ok	P SDA	24 —— ok
8 —— ok	MSP	18 —— ok	P SCL1	P SBLED
9 —— ——	Dolby Sub	19 —— ok	P SCL3	P OFF
10 —— ——	Dolby IC for L/R	20 —— ok	P SCL4	P DEFL
				P RAM
				Hex codes
				6A
				30
				81
				94
				64

If the CCU ports have been checked and found to be incorrect then "—" will appear in place of "OK".

AUTO TEST

L'auto test est utilisé pour vérifier le BUS et les codes Hexadécimaux du TV.

Pour passer en mode test ,il faut appuyé simultanément sur : VOLUME MOINS sur le tiroir en face avant et: STATUS sur la télécommande Infra—rouge:-

Après un Auto Test (Self Check) le téléviseur retourne en position réglages usine.

1 —— ok	Tuner	11 —— ——	Dolby IC for C/R	
2 —— ok	VIF	12 —— ok	P S MODE	
3 —— ok	EEPROM	13 —— ok	P TA0	
4 —— ——	Sound AV switch1	14 —— ok	P TA1	21 —— ok
5 —— ok	Video AV switch1	15 —— ok	P TA2	22 —— ok
6 —— ok	VDP	16 —— ok	P TA3	23 —— ok
7 —— ok	TPU	17 —— ok	P SDA	24 —— ok
8 —— ok	MSP	18 —— ok	P SCL1	P SBLED
9 —— ——	Dolby Sub	19 —— ok	P SCL3	P OFF
10 —— ——	Dolby IC for L/R	20 —— ok	P SCL4	P DEFL
				P RAM
				Hex codes
				6A
				30
				81
				94
				64

Si lors du test une fonction du ccu est incorrecte l'afficheur indiquera "—" au lieu de "OK".

ALIGNMENT SETTINGS

(The figures used below are nominal and used for representative purposes only)

Alignment Function		Settings / Special features
1. Vertical amplitude	V-AMP 051	Optimum setting
2. Vertical symmetry	V-SYM 013	
3. Vertical linearity	V-LIN 012	
4. Vert. D.C.	Vert. D.C. 000	No adjustment
5. V-Pos.	V. Pos. 003	Optimum setting
6. Horizontal amplitude	H-AMP -033	Optimum setting
7. Horizontal position	H-POS 049	
8. Text Position	TEXT POSITION 045	Optimum setting
9. EW-amplitude	E-W-AMP 1 -058	Optimum setting
10. EW-amplitude	E-W-AMP 2 023	Optimum setting
11. Trapezium-comp	TRAPEZ-1 -014	Optimum setting
12. Trapezium-comp	TRAPEZ-2 012	Optimum setting
13. Colour VCO	Colour VCO 015	Optimum setting
14. Cut-off DC	Cut-off DC 050	No adjustment
15. Ug2 Test	Ug 2 Test 107 021 023	Select Cutoff DC in ServiceMode and confirm the value is 128. Select Ug 2 Test noting colour with largest value, adjust on FBT until a colour reaches 20 ~ 30. Connect an oscilloscope to the cathode of the biggest value colour, select Cutoff DC mode and adjust get Cutoff pulse voltage to $159 \pm 5V$. Disconnect the oscilloscope and adjust the screen to whichever colour reaches 70 ± 30 first.
16. Cutoff	Cutoff 045 055 050	Press the GREEN button to step through the settings. Adjust for optimum.
17. White	White 224 255 237	Press the GREEN button to step through the settings. Adjust for optimum.

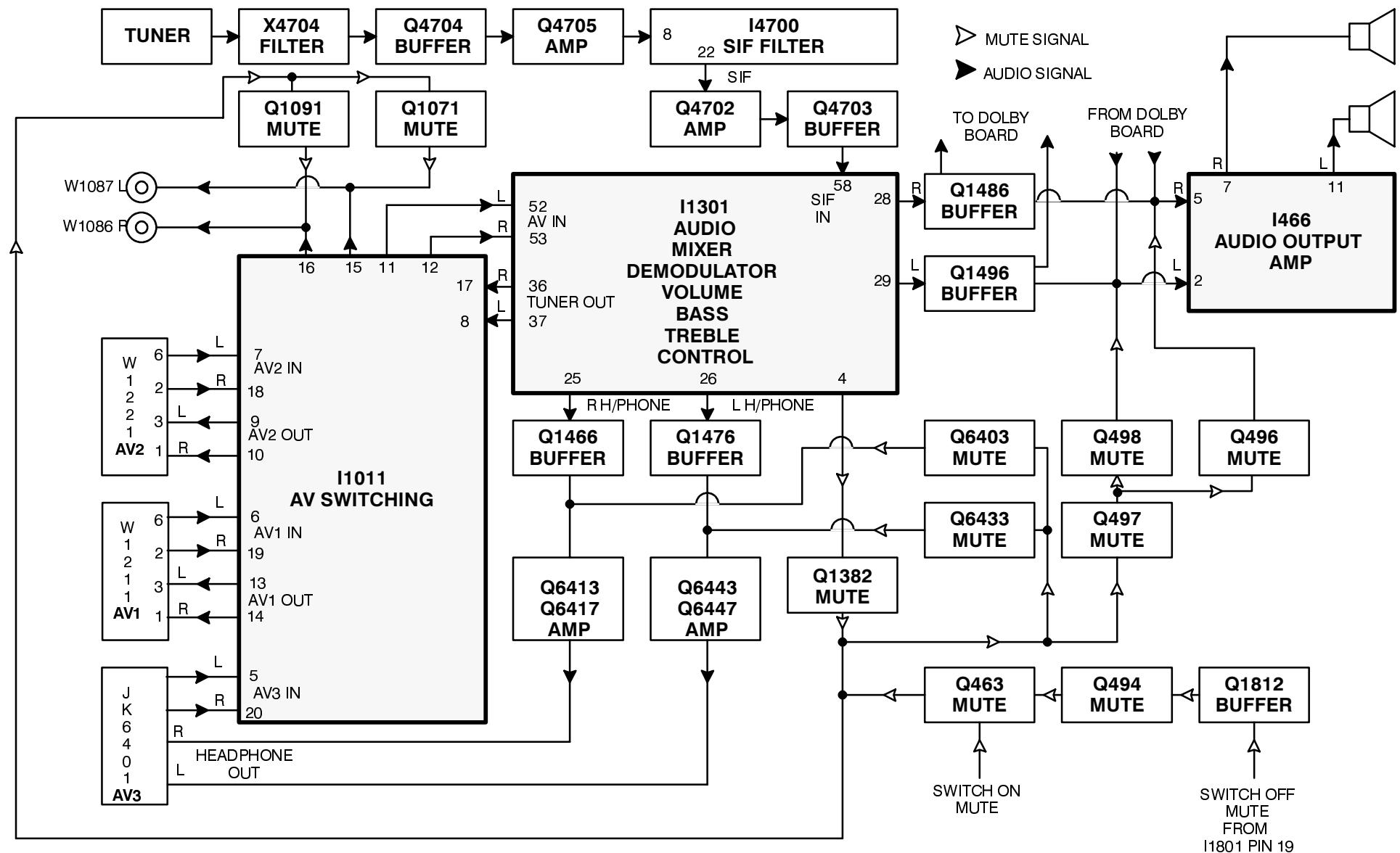
RÉGLAGES

(Les figures ci-dessous sont fictives et utilisées uniquement à des fins représentatives)

Fonctions		Réglages/Points particuliers
1. Amplitude verticale	V-AMP 051	Optimiser les réglages
2. Symétric verticale	V-SYM 013	
3. Linéarité verticale	V-LIN 012	
4. Vert. DC.	Vert. D.C.. 000	Ne pas régler
5. V-Pos.	V. Pos. 003	Optimiser les réglages
6. Amplitude horizontal	H-AMP -033	Optimiser les réglages
7. Centrage horizontal	H-POS 049	
8. Text Position	TEXT POSITION 045	Optimiser les réglages
9. Amplitude E.O.	E-W-AMP 1 -058	Optimiser les réglages
10. Amplitude E.O.	E-W-AMP 2 023	Optimiser les réglages
11. Correction trapèze	TRAPEZ-1 -014	Optimiser les réglages
12. Correction trapèze	TRAPEZ-2 012	Optimiser les réglages
13. Réglage oscillateur sous porteuse	Colour VCO 015	Régler la fréquence
14. Cut-off DC	Cut-off DC 050	Ne pas régler
15. Ug2 Test	Ug 2 Test 107 021 023	Sélectionner le Mode Cutoff DC. Confirmer que la valeur soit 128 puis sélectionner le Mode Test Ug2 et noter la valeur de la couleur la plus élevée. Ajuster le réglage situé sur le FBT jusqu'à ce que la valeur d'une des couleurs se situe entre 20 et 30. Relier l'oscilloscope sur la cathode dont la valeur de la couleur est la plus élevée. Sélectionner le mode CUTOFF DC et régler l'impulsion de CUTOFF à $159V \pm 5V$. Retirer l'oscilloscope et régler la tension d'écran à 70 ± 30 sur la première couleur atteignant cette valeur.
16. Cutoff	Cutoff 045 055 050	Appuyer sur la touche VERTE pour accéder aux réglages. Régler pour optimiser.
17. White	White 224 255 237	Appuyer sur la touche VERTE pour accéder aux réglages. Régler pour optimiser.

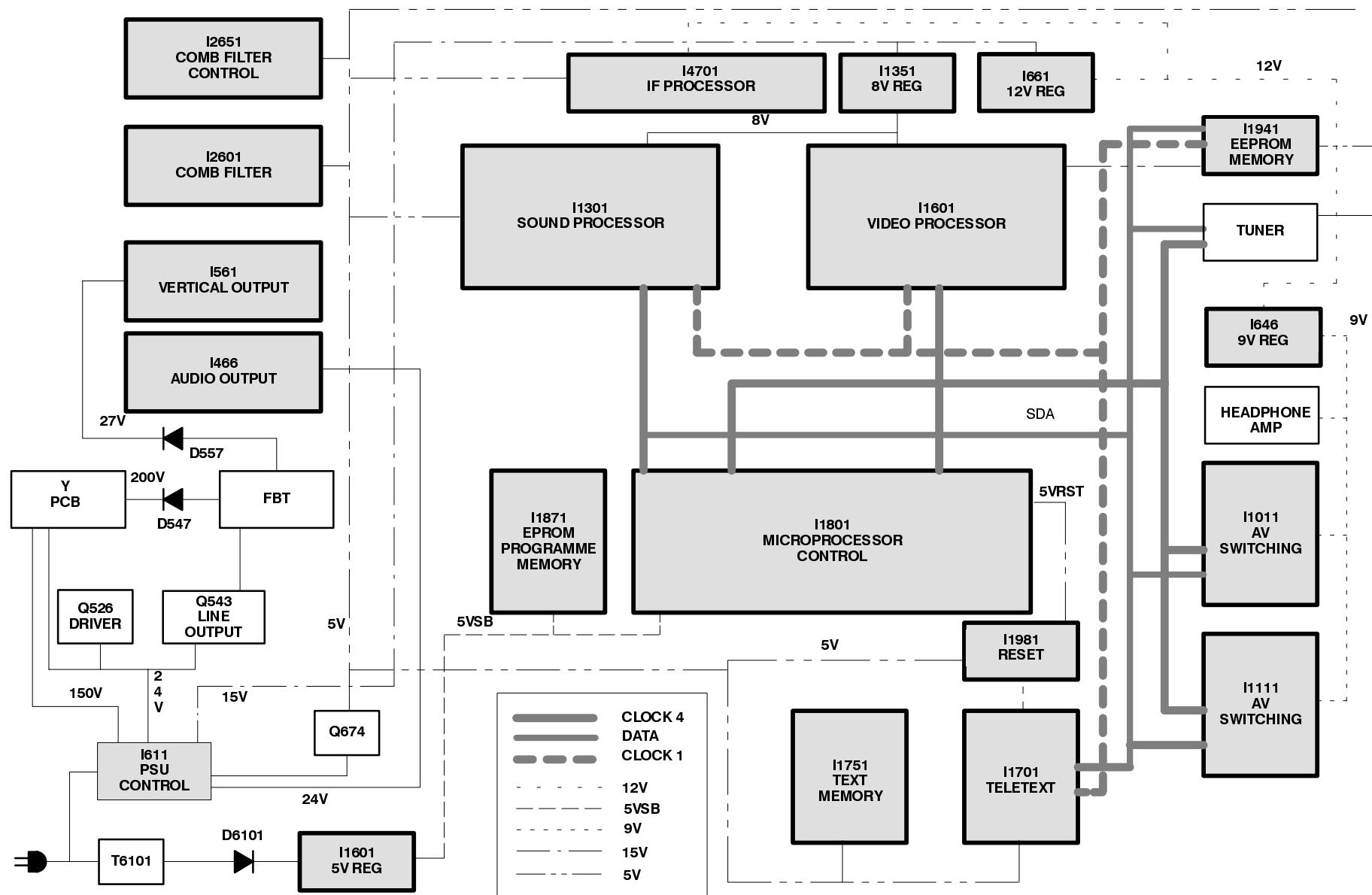
AUDIO BLOCK DIAGRAM

SYNOPTIQUE AUDIO

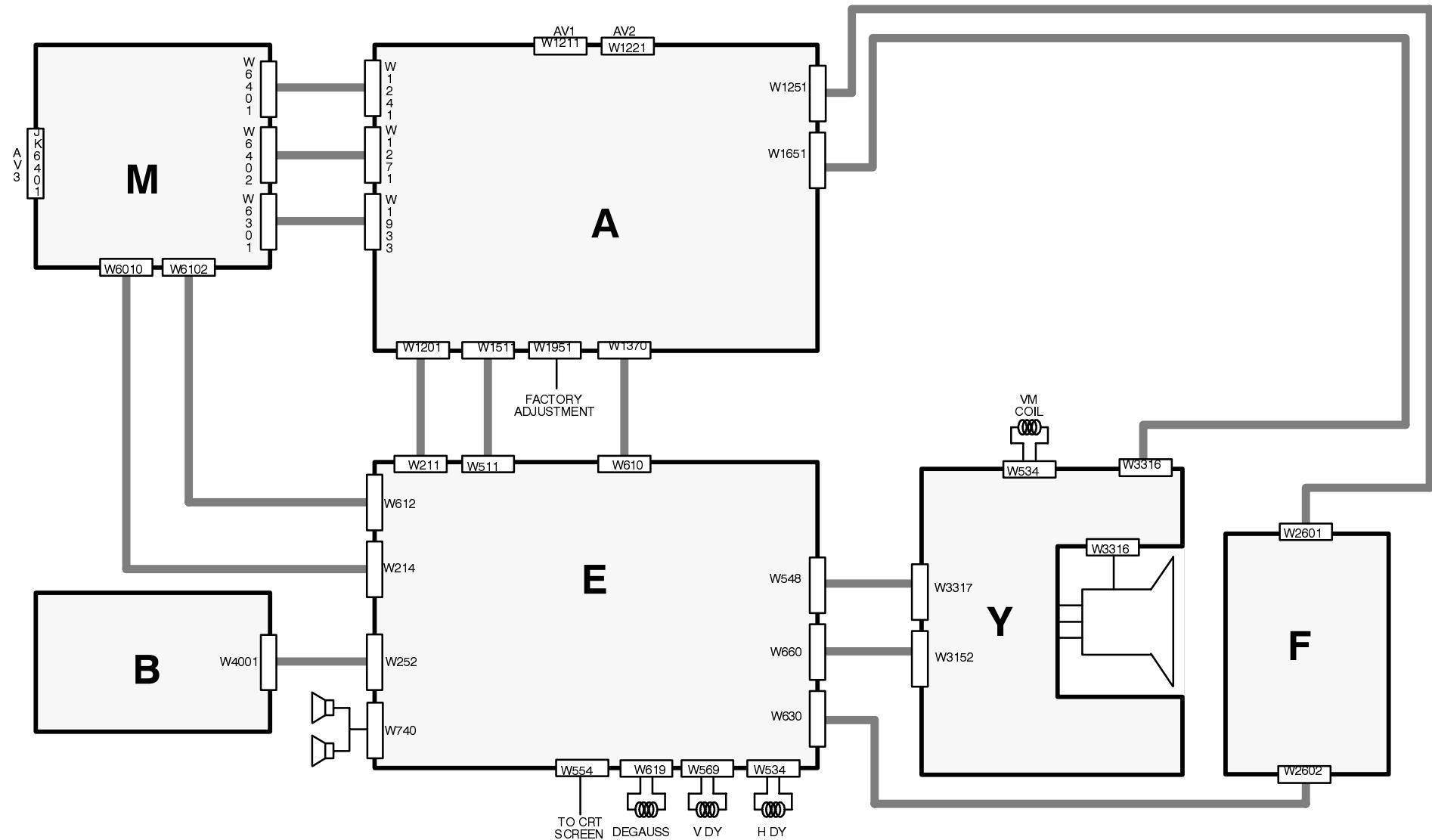


POWER SUPPLY AND CONTROL BLOCK DIAGRAM

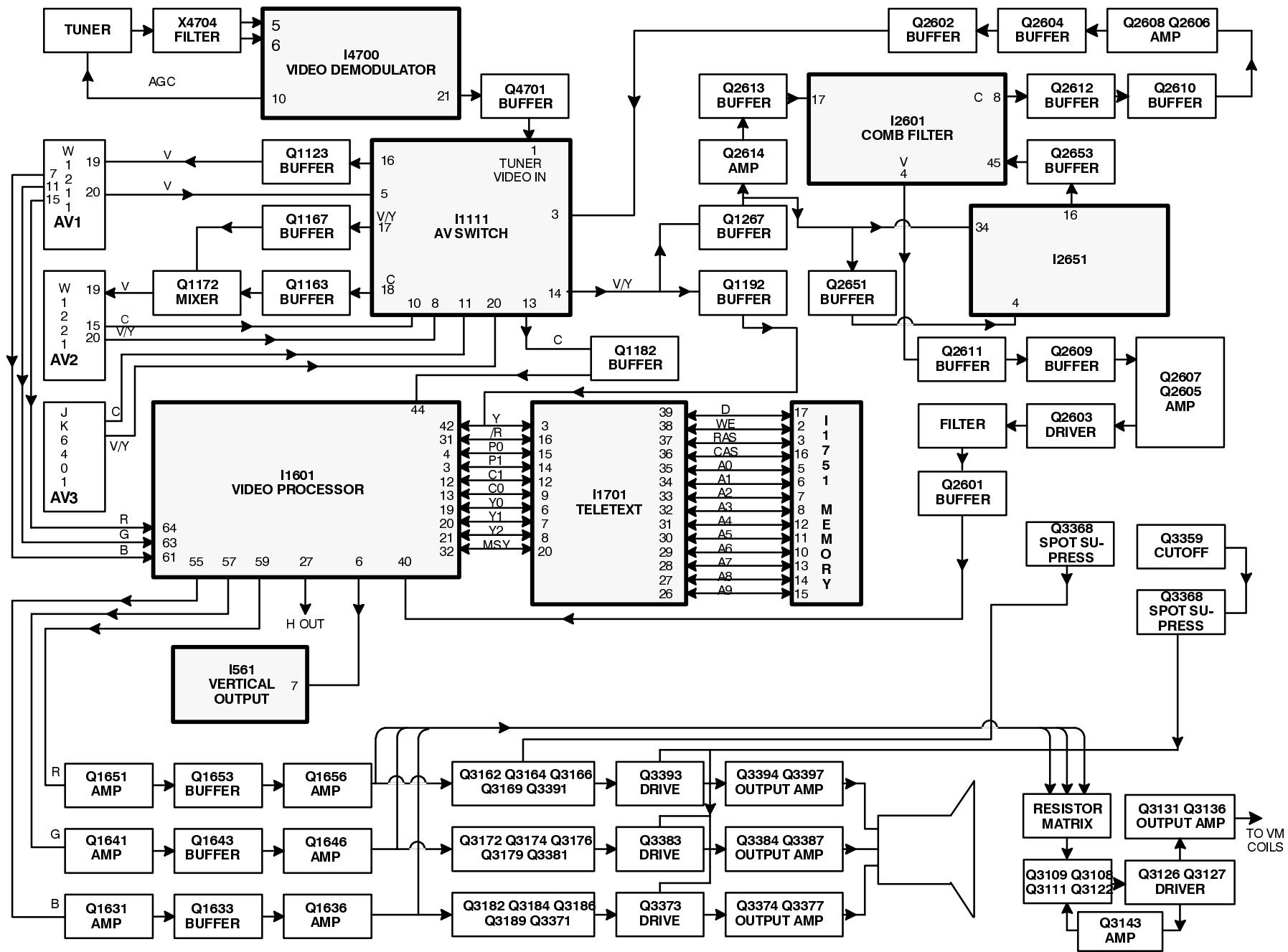
ALIMENTATION ET SYNOPTIQUE DE COMMANDE



WIRING BLOCK DIAGRAM

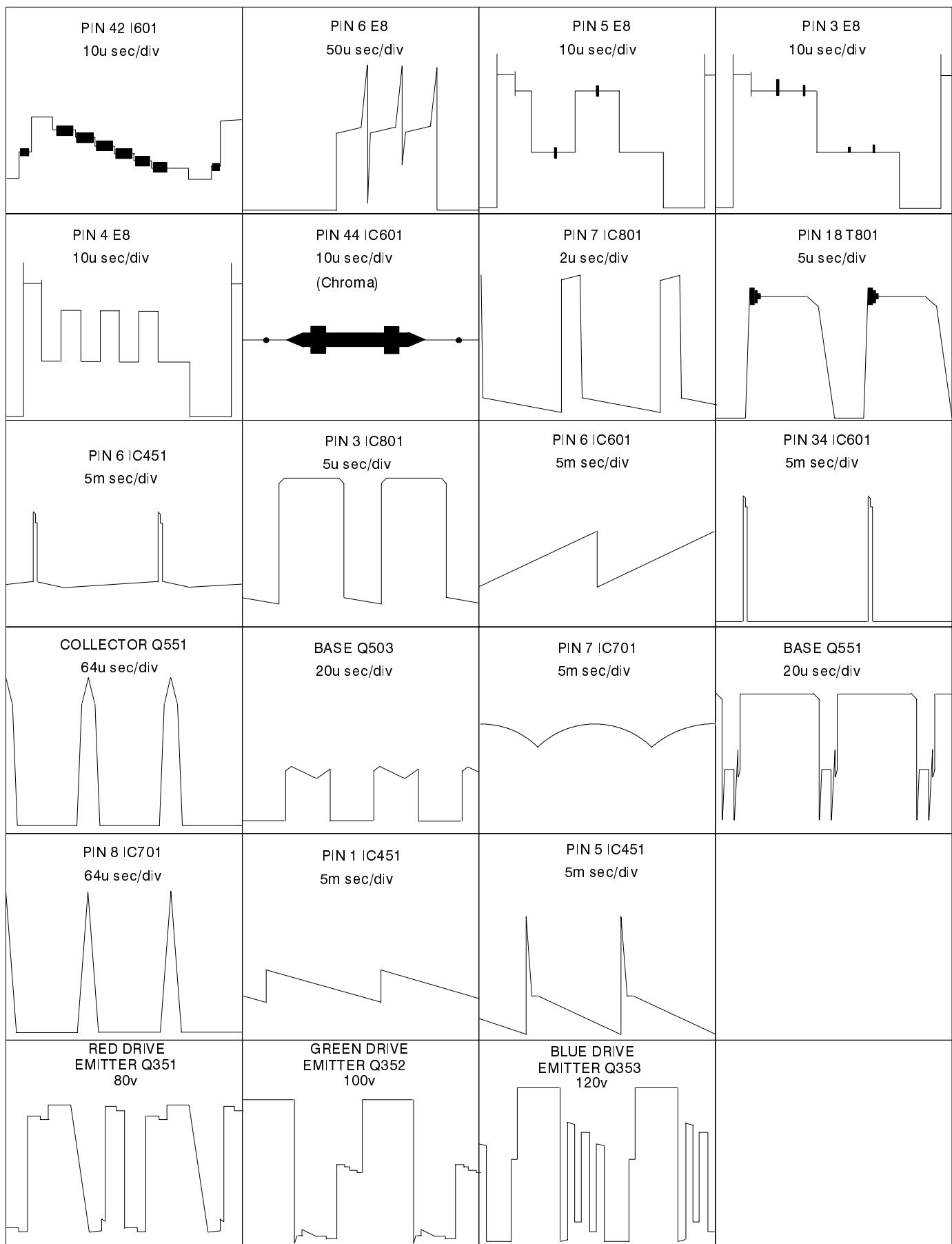


VIDEO BLOCK DIAGRAM SYNOPTIQUE VIDEO



WAVEFORM PATTERN TABLE

TABLEAU DE MIRES DE FORMA D'ONDES



PARTS LOCATION

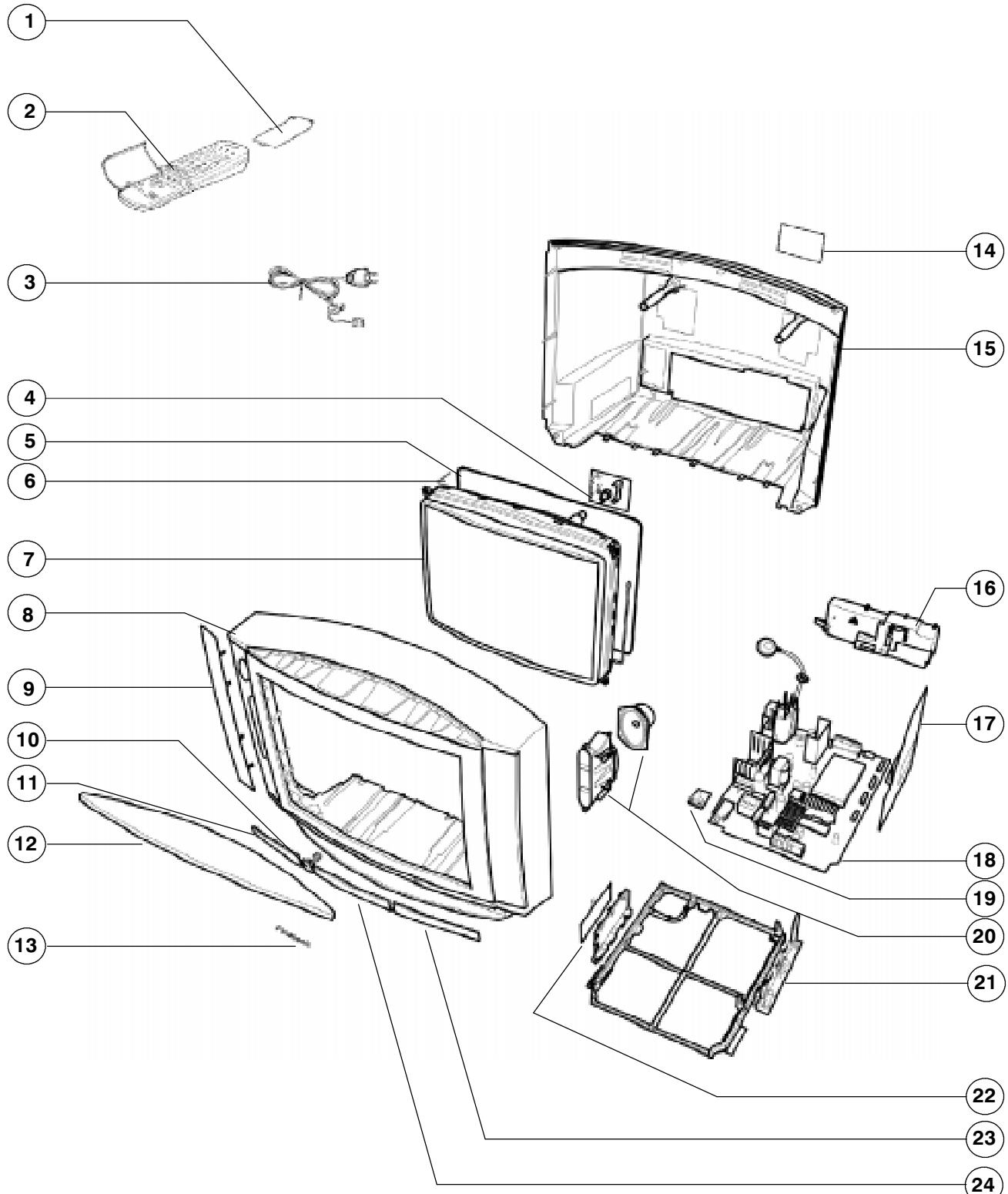
NOTE :

The numbers on the exploded view below refer to the miscellaneous section of the Replacement Parts List.

EMPLACEMENT DES PIÈCES

REMARQUE :

Les numéros sur les pièces mécaniques indiquent les NO. de réf. da la liste des pieces de rechange.



REPLACEMENT PARTS LIST

Important Safety Notice

Components identified by a mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

Ref No.	Part No.	Description				
MISCELLANEOUS COMPONENTS						
1)	UR51EC780	BACK COVER (REMOTE)				
2)	EUR51920	REMOTE CONTROL				
3)	TNP117037BF	Y P.C.B.	▲			
4)	TSX8E0020	POWER CORD	▲			
5)	THT1009R	CRT FIXING SCREW				
6)	A68EHM69X23	C.R.T.				
7)	TKY8E081	CABINET	▲			
8)	TBX8E032	POWER BUTTON				
9)	TBM173052	PANASONIC BADGE				
10)	TKP8E1141	DOOR LID				
11)	TKP8E1144	SPEAKER NET				
12)	EAGG1218E2	SPEAKER				
13)	TNP8EM012AA	M P.C.B.	▲			
14)	TMW8E016-1	CONTROL BLOCK FRAME				
15)	TMX8E012	CHASSIS FRAME				
16)	TNP197087BV	E P.C.B.	▲			
17)	TNP117039AC	B P.C.B.	▲			
18)	TNP117034CB	A P.C.B.	▲			
19)	TKP8E1145	AV PANEL				
20)	TLK8E05125	DEGAUSS COIL				
21)	TKU8E00270	BACK COVER	▲			
22)	TBM8E1710	MODEL LABEL				
	TBM8E1532-2	PRESET PANEL				
	TEK6940	LID CATCHER				
	TKP8E1142	PANEL RIGHT				
	TKP8E1143	PANEL LEFT				
	TMW8E017	L.E.D. HOLDER				
	TNP117035AD	F P.C.B.	▲			
	TPC8E4636	OUTER CARTON				
	TPD8E617	CUSHION TOP				
	TPD8E618	CUSHION BOTTOM				
	ERC12GK825	SOLID 0.5W 10% 8M2Ω				
TNR002	ENV578F5G3J	TUNER	▲			
	UM-3DEP-2P	BATTERY				
LINKS						
BC1	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
BC2	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
BC4	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
BC5	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
CAPACITORS						
C200	ECBT1E103ZF5	CERAMIC	25V	10pF		
C203	ECA1CM221GB	ELECT	16V	220pF		
C204	ECQB1H104J	FILM	50V	100nF		
C205	ECBT1H102KB3	CERAMIC	50V	1nF		
C206	222236516334	FILM	160V	330nF		
C211	ECEA1HFQ101	ELECT	50V	100μF		
C212	ECQB1H104J	FILM	50V	100nF		
C226	ECQB1H104J	FILM	50V	100nF		
C228	ECKC1H102J	CERAMIC	50V	1000pF		
C461	ECKC1H821J	CERAMIC	50V	820pF		
C462	ECA1EM101GB	ELECT	25V	1μF		
C463	ECA1EM471GB	ELECT	25V	470pF		
C464	ECQM1H104J	FILM	50V	100nF		
C465	ECA1CM470GB	ELECT	16V	47μF		
C466	ECEA1HU222	ELECT	50V	2200μF		

Ref No.	Part No.	Description				
C467	ECQB1H103J	FILM	50V	10nF		
C468	ECBT1C222MR3	CERAMIC	16V	2200μF		
C470	222236516184	FILM	160V	180nF		
C471	ECA1HM010GB	ELECT	50V	1pF		
C472	ECA1HM101GB	ELECT	50V	100pF		
C473	ECEA1EGE222	ELECT	25V	2200μF		
C476	ECA1HM4R7GB	ELECT	50V	4.7μF		
C477	ECA1HM101GB	ELECT	50V	100pF		
C479	222236576104	FILM	760V	100nF		
C480	222236516184	FILM	160V	180nF		
C481	ECA1HM010GB	ELECT	50V	1pF		
C482	ECA1HM101GB	ELECT	50V	100pF		
C483	ECEA1EGE222	ELECT	25V	2200μF		
C486	ECA1HM4R7GB	ELECT	50V	4.7μF		
C487	ECA1HM101GB	ELECT	50V	100pF		
C489	222236576104	FILM	760V	100nF		
C492	ECA1VM4R7GB	ELECT	35V	4.7μF		
C495	ECA1EM101GB	ELECT	25V	1μF		
C496	ECA1CM100GB	ELECT	16V	10pF		
C501	ECKC1H103JB	CERAMIC	50V	10nF		
C511	ECQM1H393J	FILM	50V	0.039μF		
C521	ECEA1HU101	ELECT	50V	100μF		
C524	222236516105	FILM	160V	1μF		
C525	ECKC1H271J	CERAMIC	50V	270pF		
C527	ECQM2683JZ	FILM	250V	68nF		
C531	ECQM2564KZ	FILM	250V	560nF		
C534	ECWH12H562J	CERAMIC	1250V	5600pF		▲
C536	ECWH12H103J	FILM	1250V	10nF		▲
C537	ECQF4273JZH	FILM	400V	0.027μF		
C538	ECWF2H514J	FILM	500V	510nF		▲
C541	ECWF2H105J	FILM	500V	1000nF		▲
C543	ECA2VM2R2B	ELECT	350V	2R2μF		
C544	ECKC3D152J	CERAMIC	2KV	1.5nF		▲
C547	ECKC2H101J	CERAMIC	500V	100pF		▲
C548	ECEA2EU220	ELECT	250V	22μF		
C549	ECEA2AU2R2	ELECT	100V	2.2μF		
C557	ECKC2H101J	CERAMIC	500V	100pF		▲
C558	ECA1VM102GB	ELECT	35V	1nF		
C561	ECEA1VU222	ELECT	35V	2200μF		
C562	222236576104	FILM	760V	100nF		
C563	ECA1VM471GB	ELECT	35V	470pF		
C564	ECQB1H473K	FILM	50V	47nF		
C565	ECKC2H151J	CERAMIC	500V	150pF		▲
C567	ECQB1H223K	FILM	50V	22nF		
C568	222236516224	FILM	160V	220nF		
C574	ECEA1VU332	ELECT	35V	3300μF		
C576	ECQM1H684J	FILM	50V	680nF		
C577	222236516105	FILM	160V	1μF		
C578	222236516154	FILM	160V	150nF		
C579	ECKC1H472J	CERAMIC	50V	4.7nF		
C583	ECQB1H333J	FILM	50V	33nF		
C591	ECA1HW4R7UE	ELECT	50V	4.7μF		
C592	ECA1CM330GB	ELECT	16V	33pF		
C593	ECKC1H103JB	CERAMIC	50V	10nF		
C594	ECKC1H103JB	CERAMIC	50V	10nF		
C595	ECQB1H102J	FILM	50V	1nF		
C596	ECQE2474KFW	FILM	200V	470nF		
C597	ECQB1H332K	FILM	50V	3.3nF		
C618	ECOS2GG181NSELECT		400V	180μF		▲
C619	ECQE6104K	FILM	600V	100nF		▲
C620	ECKC2H561J	CERAMIC	500V	560pF		▲
C622	ECEA1HFS470	ELECT	50V	47μF		
C623	222236516224	FILM	160V	220nF		

Ref No.	Part No.	Description				
C626	ECKC3D471JB	CERAMIC	2KV	470pF	▲	
C628	ECKC1H221J	CERAMIC	50V	220pF		
C629	ECQB1H153K	FILM	50V	15nF		
C631	ECQB1H472J	FILM	50V	4.7nF		
C632	ECQB1H103J	FILM	50V	10nF		
C634	ECEA1HGE010	ELECT	50V	1μF		
C635	ECKC3D331J	CERAMIC	2KV	330pF	▲	
C636	ECKC2H472J	CERAMIC	500V	4.7nF	▲	
C637	ECQB1H222J	FILM	50V	2200pF		
C638	ECQF6333JZH	FILM	600V	0.033μF		
C639	ECKWNA222MECCERAMIC	250V	2.2nF			
C647	222236516334	FILM	160V	330nF		
C650	ECKC3A102J	CERAMIC	1KV	1nF	▲	
C651	ECOS2EA221AB	ELECT	250V	220μF		
C656	ECKC2H681J	CERAMIC	500V	680pF	▲	
C657	ECEA1HU471	ELECT	50V	470μF		
C661	ECKC2H821J	CERAMIC	500V	820pF	▲	
C662	ECA1VM222GE	ELECT	35V	2.2nF		
C666	222236516224	FILM	160V	220nF		
C667	ECA1CM471GB	ELECT	16V	470pF		
C671	ECKC2H681J	CERAMIC	500V	680pF	▲	
C672	ECA1VM222GE	ELECT	35V	2.2nF		
C677	ECA1CM471GB	ELECT	16V	470pF		
C681	ECEA1EGE101	ELECT	25V	100μF		
C682	ECKC2H331J	CERAMIC	500V	330pF	▲	
C687	ECEA1HGE102	ELECT	50V	1000μF		
C1012	ECUV1H473ZFX	S.M.CAP	50V	47nF		
C1023	ECUV1H221JCX	S.M.CAP	50V	220pF		
C1024	ECUV1H221JCX	S.M.CAP	50V	220pF		
C1033	ECUV1H221JCX	S.M.CAP	50V	220pF		
C1034	ECUV1H221JCX	S.M.CAP	50V	220pF		
C1112	ECUV1H473ZFX	S.M.CAP	50V	47nF		
C1116	ECUV1H473ZFX	S.M.CAP	50V	47nF		
C1124	ECUV1H473ZFX	S.M.CAP	50V	47nF		
C1151	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1161	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1178	ECUV1H473ZFX	S.M.CAP	50V	47nF		
C1226	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1241	ECUV1H472KBX	S.M.CAP	50V	4.7nF		
C1242	ECUV1H472KBX	S.M.CAP	50V	4.7nF		
C1263	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1271	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1321	ECUV1H010CCX	S.M.CAP	50V	1pF		
C1322	ECUV1H010CCX	S.M.CAP	50V	1pF		
C1327	ECUV1H221JCX	S.M.CAP	50V	220pF		
C1331	ECUV1H391JCX	S.M.CAP	50V	390pF		
C1332	ECUV1H391JCX	S.M.CAP	50V	390pF		
C1346	ECUV1H221JCX	S.M.CAP	50V	220pF		
C1347	ECUV1H221JCX	S.M.CAP	50V	220pF		
C1409	ECUV1H470JCX	S.M.CAP	50V	47pF		
C1411	ECUV1H070DCX	S.M.CAP	50V	7pF		
C1412	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1413	ECUV1H220JCX	S.M.CAP	50V	22pF		
C1416	ECUV1H070DCX	S.M.CAP	50V	7pF		
C1417	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1444	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1454	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1463	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1465	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1467	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1468	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1473	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1475	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1483	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1493	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1608	ECUV1H040CCX	S.M.CAP	50V	4pF		
C1609	ECUV1H040CCX	S.M.CAP	50V	4pF		
C1614	ECUV1H473ZFX	S.M.CAP	50V	47nF		
C1616	ECUV1H101JCX	S.M.CAP	50V	100pF		
C1617	ECUV1H470JCX	S.M.CAP	50V	47pF		
C1618	ECUV1H470JCX	S.M.CAP	50V	47pF		
C1620	ECUV1H102KBX	S.M.CAP	50V	1nF		

Ref No.	Part No.	Description				
C1625	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω	
C1661	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1662	ECUV1H683ZFX	S.M.CAP	50V	68nF		
C1663	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1666	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1667	ECUV1H683ZFX	S.M.CAP	50V	68nF		
C1681	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1682	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1683	ECUV1H271JCX	S.M.CAP	50V	270pF		
C1684	ECUV1H121JCX	S.M.CAP	50V	120pF		
C1685	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1686	ECUV1H271JCX	S.M.CAP	50V	270pF		
C1687	ECUV1H121JCX	S.M.CAP	50V	120pF		
C1696	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1697	ECUV1H100DCX	S.M.CAP	50V	10pF		
C1698	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1699	ECUV1H100DCX	S.M.CAP	50V	10pF		
C1717	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1721	ECUV1H473ZFX	S.M.CAP	50V	47nF		
C1722	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1811	ECUV1H332KBX	S.M.CAP	50V	3.3nF		
C1816	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ	
C1826	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ	
C1838	ECUV1H101JCX	S.M.CAP	50V	100pF		
C1843	ECUV1H472KBX	S.M.CAP	50V	4.7nF		
C1845	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1851	ECUV1H470JCX	S.M.CAP	50V	47pF		
C1852	ECUV1H390JCX	S.M.CAP	50V	39pF		
C1853	ECUV1H390JCX	S.M.CAP	50V	39pF		
C1857	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1859	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1879	ECUV1H560JCX	S.M.CAP	50V	56pF		
C1891	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1893	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1894	ECUV1H102KBX	S.M.CAP	50V	1nF		
C1982	ECUV1H101JCX	S.M.CAP	50V	100pF		
C2601	ECUV1H180JCX	S.M.CAP	50V	18pF		
C2602	ECUV1H220JCX	S.M.CAP	50V	22pF		
C2603	ECUV1H100DCX	S.M.CAP	50V	10pF		
C2604	ECUV1H104ZFX	S.M.CAP	50V	100nF		
C2605	ECEA1CKA470	ELECT	16V	47μF		
C2606	ECUV1H104ZFX	S.M.CAP	50V	100nF		
C2607	ECUV1H104ZFX	S.M.CAP	50V	100nF		
C2609	ECEA1CKA470	ELECT	16V	47μF		
C2611	ECUV1H104ZFX	S.M.CAP	50V	100nF		
C2612	ECEA1CKA470	ELECT	16V	47μF		
C2613	ECUV1H104ZFX	S.M.CAP	50V	100nF		
C2614	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2615	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2616	ECEA1CKA470	ELECT	16V	47μF		
C2617	ECEA1HKNR47	ELECT	50V	0.47μF		
C2618	ECEA1CKA470	ELECT	16V	47μF		
C2619	ECUV1H104ZFX	S.M.CAP	50V	100nF		
C2620	ECEA1CKA100	ELECT	16V	10μF		
C2621	ECQM1H474J	FILM	50V	470nF		
C2623	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2624	ECEA1CKA101	ELECT	16V	100μF		
C2625	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2626	ECUV1H271JCX	S.M.CAP	50V	270pF		
C2627	ECEA1CKA470	ELECT	16V	47μF		
C2628	ECUV1H180JCX	S.M.CAP	50V	18pF		
C2629	ECUV1H271JCX	S.M.CAP	50V	270pF		
C2630	ECEA1CKA470	ELECT	16V	47μF		
C2631	ECEA1CKA470	ELECT	16V	47μF		
C2632	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2633	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2634	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2635	ECUV1H103ZFX	S.M.CAP	50V	10nF		
C2636	ECEA1CKA100	ELECT	16V	10μF		
C2637	ECUV1H330JCX	S.M.CAP	50V	33pF		
C2645	ECUV1H390JCX	S.M.CAP	50V	39pF		
C2651	ECUV1H103ZFX	S.M.CAP	50V	10nF		

Ref No.	Part No.	Description			
C2652	ECUV1H470JCX	S.M.CAP	50V	47pF	
C2653	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2654	ECUV1H680JCX	S.M.CAP	50V	68pF	
C2655	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2656	ECUV1H102KBX	S.M.CAP	50V	1nF	
C2657	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2658	ECEA1HKA4R7	ELECT	50V	4.7μF	
C2660	ECEA1HKA4R7	ELECT	50V	4.7μF	
C2661	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2662	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2664	ECEA1HKA4R7	ELECT	50V	4.7μF	
C2665	ECEA1HKA4R7	ELECT	50V	4.7μF	
C2666	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2667	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2668	ECEA1HKA0R1	ELECT	50V	0.1μF	
C2669	ECUV1H181JCX	S.M.CAP	50V	180pF	
C2670	ECEA1HKAR33	ELECT	50V	R33μF	
C2671	ECUV1H152KBX	S.M.CAP	50V	1.5pF	
C2672	ECUV1H223KBX	S.M.CAP	50V	22nF	
C2673	ECUV1H820JCX	S.M.CAP	50V	82pF	
C2674	ECEA1HKA4R7	ELECT	50V	4.7μF	
C2675	ECUV1H181JCX	S.M.CAP	50V	180pF	
C2676	ECEA1CKA100	ELECT	16V	10μF	
C2677	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2678	ECUV1H180JCX	S.M.CAP	50V	18pF	
C2679	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2680	ECEA1CKA470	ELECT	16V	47μF	
C2681	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2682	ECEA1CKA100	ELECT	16V	10μF	
C2683	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2684	ECEA1CKA470	ELECT	16V	47μF	
C2685	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C2686	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3101	ECUV1H030CCX	S.M.CAP	50V	30pF	
C3102	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C3103	ECA1HM100GB	ELECT	50V	10pF	
C3122	ECUV1H102KBX	S.M.CAP	50V	1nF	
C3124	ECUV1H471JCX	S.M.CAP	50V	470pF	
C3131	ECKC2H471J	CERAMIC	500V	470pF	▲
C3134	ECA1HM101GB	ELECT	50V	100pF	
C3136	ECKC2H471J	CERAMIC	500V	470pF	▲
C3139	ECA1HM101GB	ELECT	50V	100pF	
C3141	ECA1CM471GB	ELECT	16V	470pF	
C3143	ECA1CM100GB	ELECT	16V	10pF	
C3144	ECA1CM470GB	ELECT	16V	47μF	
C3146	ECEA2EU220	ELECT	250V	22μF	
C3152	ECEA2EU220	ELECT	250V	22μF	
C3153	ECA1VM101GB	ELECT	35V	100pF	
C3167	ECUV1H100DCX	S.M.CAP	50V	10pF	
C3168	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C3169	ECA1CM100GB	ELECT	16V	10pF	
C3178	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C3179	ECA1CM100GB	ELECT	16V	10pF	
C3187	ECUV1H270JCX	S.M.CAP	50V	27pF	
C3188	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C3189	ECA1CM100GB	ELECT	16V	10pF	
C3356	ECA1CM220GB	ELECT	16V	22μF	
C3357	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3362	TACA1103P2KV	I.C.			
C3363	TACA1103P2KV	I.C.			
C3366	ECEA2EU220	ELECT	250V	22μF	
C3367	ECQM2104KZ	FILM	250V	100nF	
C3369	ECA1HM010GB	ELECT	50V	1pF	
C3371	ECUV1H180JCX	S.M.CAP	50V	18pF	
C3373	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3377	ECUV1H681JCX	S.M.CAP	50V	680pF	
C3383	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3387	ECUV1H681JCX	S.M.CAP	50V	680pF	
C3392	ECA1CM471GB	ELECT	16V	470pF	
C3393	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3397	ECUV1H681JCX	S.M.CAP	50V	680pF	
C3398	ECKC1H102J	CERAMIC	50V	1000pF	

Ref No.	Part No.	Description			
C4701	ECUV1H120JCX	S.M.CAP	50V	12pF	
C4702	ECUV1H151JCX	S.M.CAP	50V	150pF	
C4703	ECUV1H151JCX	S.M.CAP	50V	150pF	
C4704	ECUV1H151JCX	S.M.CAP	50V	150pF	
C4705	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4707	ECUV1H151JCX	S.M.CAP	50V	150pF	
C4708	ECUV1H100DCX	S.M.CAP	50V	10pF	
C4709	ECUV1H100DCX	S.M.CAP	50V	10pF	
C4710	ECUV1H080DCX	S.M.CAP	50V	80pF	
C4711	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4712	ECUV1H471JCX	S.M.CAP	50V	470pF	
C4713	ECUV1C224KBX	S.M.CAP	16V	220nF	
C4714	ECEA1HKA2R2	ELECT	50V	2.2μF	
C4715	ECEA1CKA100	ELECT	16V	10μF	
C4718	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4719	ECEA1CKA100	ELECT	16V	10μF	
C4720	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4721	ECEA1CKA100	ELECT	16V	10μF	
C4723	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4724	ECEA1CKA470	ELECT	16V	47μF	
C4725	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4726	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4727	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4730	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4731	ECUV1H080DTX	S.M.CAP	50V	80pF	
C4732	ECEA1HKA2R2	ELECT	50V	2.2μF	
C4733	ECEA1HKA2R2	ELECT	50V	2.2μF	
C4734	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4735	ECEA1CKA100	ELECT	16V	10μF	
C4736	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4737	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4738	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4739	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4740	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4741	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4742	ECUV1H102KBX	S.M.CAP	50V	1nF	
C4743	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C4744	ECUV1H102KBX	S.M.CAP	50V	1nF	
C4747	ECUV1H102KBX	S.M.CAP	50V	1nF	
C4748	ECUV1H393KBX	S.M.CAP	50V	39nF	
C4760	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C6101	ECEA1HU471	ELECT	50V	470μF	
C6102	ECQM1H334J	FILM	50V	330nF	
C6103	ECQM1H104J	FILM	50V	100nF	
C6104	ECA0JM222GB	ELECT	6.3V	2.2nF	
C6106	ECEA1HU101	ELECT	50V	100μF	
C6301	ECA1CM470GB	ELECT	16V	47μF	
C6303	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C6401	ECA1HM101GB	ELECT	50V	100pF	
C6402	ECA1HM101GB	ELECT	50V	100pF	
C6403	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C6406	ECA1HM4R7GB	ELECT	50V	4.7μF	
C6407	ECUV1H102KBX	S.M.CAP	50V	1nF	
C6408	ECA1HM4R7GB	ELECT	50V	4.7μF	
C6409	ECUV1H561JCX	S.M.CAP	50V	560pF	
C6410	ECUV1H561JCX	S.M.CAP	50V	560pF	
C6417	ECA1CM471GB	ELECT	16V	470pF	
C6418	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C6436	ECA1HM4R7GB	ELECT	50V	4.7μF	
C6437	ECUV1H102KBX	S.M.CAP	50V	1nF	
C6438	ECA1HM4R7GB	ELECT	50V	4.7μF	
C6447	ECA1CM471GB	ELECT	16V	470pF	
C6448	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C6491	ECUV1H271JCX	S.M.CAP	50V	270pF	
C6591	ECUV1H271JCX	S.M.CAP	50V	270pF	
C6812	222233510154	CAPACITOR	0.15μF		
C6815	222233510224	CAPACITOR	0.22μF		

Ref No.	Part No.	Description
DIODES		
D206	MA4300	DIODE
D465	MA165TA5	DIODE 1SS133T-77
D466	MA165TA5	DIODE 1SS133T-77
D467	MA165TA5	DIODE 1SS133T-77
D468	MA165TA5	DIODE 1SS133T-77
D471	MA700TA5	DIODE
D481	MA700TA5	DIODE
D491	MA167TA5	DIODE
D507	MA723TA5	DIODE
D508	MA723TA5	DIODE
D521	MA170	DIODE
D526	MA165TA5	DIODE 1SS133T-77
D527	EU02	DIODE
D536	ERB0615	DIODE TYPD0753VAG
D537	TVSRU2AM	DIODE
D544	TVSRC2V1	DIODE
D547	AU02V0	DIODE
D548	MA165TA5	DIODE 1SS133T-77
D549	MA167TA5	DIODE
D557	EU02	DIODE
D561	ERA15-02V3	DIODE
D562	MA165TA5	DIODE 1SS133T-77
D563	MA165TA5	DIODE 1SS133T-77
D564	MTZJ33B	DIODE
D566	MA2082ALFS	DIODE
D567	MTZJT776.2B	DIODE
D568	MA2100LFS	DIODE
D569	MA2082ALFS	DIODE
D591	MTZJT7739D	DIODE
D613	RBV4-08	DIODE
D622	MA171TA5	DIODE
D624	BYT56K15/10	DIODE
D630	MA165TA5	DIODE 1SS133T-77
D636	MA167TA5	DIODE
D651	RG4CLFL1	DIODE
D656	EU02	DIODE
D661	ERD32-02L7	DIODE
D671	ERD32-02L7	DIODE
D674	MTZJT-7712C	DIODE
D678	MTZJT772.7B	DIODE
D681	EU02	DIODE
D686	RU4AMLF-M1	DIODE
D3126	RLS72TE-11	DIODE OR PMLL4148
D3127	RLS72TE-11	DIODE OR PMLL4148
D3133	RLS72TE-11	DIODE OR PMLL4148
D3138	RLS72TE-11	DIODE OR PMLL4148
D3368	RLS72TE-11	DIODE OR PMLL4148
D3372	MA165TA5	DIODE 1SS133T-77
D3373	RLS72TE-11	DIODE OR PMLL4148
D3374	RLS72TE-11	DIODE OR PMLL4148
D3377	RLS72TE-11	DIODE OR PMLL4148
D3382	MA165TA5	DIODE 1SS133T-77
D3383	RLS72TE-11	DIODE OR PMLL4148
D3384	RLS72TE-11	DIODE OR PMLL4148
D3387	RLS72TE-11	DIODE OR PMLL4148
D3391	MA165TA5	DIODE 1SS133T-77
D3392	MA165TA5	DIODE 1SS133T-77
D3393	RLS72TE-11	DIODE OR PMLL4148
D3394	RLS72TE-11	DIODE OR PMLL4148
D3397	RLS72TE-11	DIODE OR PMLL4148
D4701	BA582	DIODE
D4702	BA582	DIODE
D4720	MA3020TX	DIODE
D4721	MA3020TX	DIODE
D6101	TVSS1WBS20	DIODE
D6103	RLS72TE-11	DIODE OR PMLL4148
D6106	RLS72TE-11	DIODE OR PMLL4148
D6301	LN81RPHL	DIODE
D6381	RLS72TE-11	DIODE OR PMLL4148
D6382	RLS72TE-11	DIODE OR PMLL4148

Ref No.	Part No.	Description
D6391	RLS72TE-11	DIODE OR PMLL4148
D6392	RLS72TE-11	DIODE OR PMLL4148
D6491	RLS72TE-11	DIODE OR PMLL4148
D6492	RLS72TE-11	DIODE OR PMLL4148
D6591	RLS72TE-11	DIODE OR PMLL4148
D6592	RLS72TE-11	DIODE OR PMLL4148
FUSES		
F547	TR5-T2000	FUSE ▲
F656	TR5-T1250	FUSE ▲
F661	TR5-T2000	FUSE ▲
F671	TR5-T2000	FUSE ▲
F6811	2153.15H	FUSE ▲
F68111	EYF52BC	FUSE HOLDER
F68112	EYF52BC	FUSE HOLDER
SOCKETS		
H1871	832AG11D-ESL I.C.SOCKET	
INTEGRATED CIRCUITS		
I466	LA4282	AUDIO OUTPUT
I561	TDA8175-3	VERTICAL OUTPUT
I611	TDA4605-3	SWITCHABLE POWER SUPPLY
I646	L78M09MRB	9V REGULATOR
I661	LM317T	12V REGULATOR
I676	TL431ACLPM	COIL
I1011	TEA6420	AUDIO SWITCH
I1111	TEA6415C	VIDEO SWITCH
I1301	MSP3410BPPF7	AUDIO PROCESSOR
I1701	TPU3040-20	TEXT PROCESSOR
I1751	81C1000A-70P	DRAM
I1801	CCU3000I-07	CENTRAL CONTROL UNIT
I1802	MN1280R	RESET
I1871	27C010-150DC	EPROM
I1941	ST24C16CB1	EAROM
I1981	MN1280R	RESET
I2601	MC141625A	FILTER
I2651	UPC1860GS-E1	DELAY
I4701	TDA9814TV3	VIF
I4702	TSA5514AT/C2	A.F.C.CONTROL
I6101	AN78L05TA	5V REGULATOR
I6301	RPM-637CBRS1	LED RECEIVER
TERMINALS AND LINKS		
JC2	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
JC5	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
JC6	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
JC7	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
JK6401	TJB16656	A.V.TERMINAL
J12	EXCELSA39V	COIL
J23	EXCELSA39V	COIL
J204	EXCELSA35T	COIL
COILS		
L202	ELER220KA	COIL
L204	ELER220KA	COIL
L206	EXCELSA35T	COIL
L507	ELESN331KA	COIL
L511	297-23477	TRANSFORMER
L538	297-23293	COIL
L541	ELH5L7002	COIL
L542	ELC08D055	COIL
L594	297-017696	COIL
L624	EXCELSA35T	COIL
L626	EXCELSR35S	COIL
L650	EXCELDR35C	COIL
L661	EXCELDR35V	COIL

Ref No.	Part No.	Description
L671	EXCELDR35V	COIL
L686	EXCELSA35T	COIL
L1037	TSC925-4	CHOKE
L2601	TLT390K991R	COIL
L2602	TLT221K991R	COIL
L2603	TLT221K991R	COIL
L2604	TLT221K991R	COIL
L2605	TLT220K991R	COIL
L2606	TLT047K991R	COIL
L2607	TLT220K991R	COIL
L2608	EXCELDR35V	COIL
L2609	EXCELDR35V	COIL
L2637	TLT068K991R	COIL
L2651	TLT150K991R	COIL
L2653	TLT101K991R	COIL
L2654	TLT101K991R	COIL
L2655	TLT101K991R	COIL
L2656	TLT100K991R	COIL
L3161	SDL-4101	COIL
L3171	SDL-4101	COIL
L3181	SDL-4101	COIL
L4701	ELB5A077	COIL
L4702	ELESN102KA	COIL
L4703	ELESNR22KA	COIL
L4706	ELESN5R6KA	COIL
L4707	EQV7EN203B	COIL
L4708	ELESN181KA	COIL
L4710	ELB5A077	COIL
L4799	TLTR39K991R	COIL
L6403	ELEBT6R8KA	COIL
L6404	ELEBT6R8KA	COIL
L6417	ELEBT6R8KA	COIL
L6447	ELEBT6R8KA	COIL
L6811	ELF18D415F	FILTER
L6812	ELF18D415F	FILTER

CONTROLS

P633	EVMEAS A00B52	CONTROL	500Ω
P2601	EVNDXAA03B13	CONTROL	1KΩ
P3362	RH092GDJ6J	VARIABLE RESISTOR	
P3368	EVN65UA00B24	CONTROL	20KΩ
P4701	EVNDXAA03B24	CONTROL	20KΩ
P4702	EVNDXAA03B24	CONTROL	20KΩ

TRANSISTORS

Q463	BC557B	TRANSISTOR
Q465	BC547B	TRANSISTOR
Q494	BC547B	TRANSISTOR
Q496	BC547B	TRANSISTOR
Q497	BC557B	TRANSISTOR
Q498	BC547B	TRANSISTOR
Q506	2SK301TA	TRANSISTOR
Q526	2SD836-AL	TRANSISTOR
Q534	BU2508AXRL	TRANSISTOR
Q591	BC557B	TRANSISTOR
Q592	BC557B	TRANSISTOR
Q593	BC547B	TRANSISTOR
Q594	2SD1265A	TRANSISTOR
Q624	2SK1118LB	TRANSISTOR
Q651	TFD312SOF632	DIODE
Q667	BC547B	TRANSISTOR
Q674	BUZ71AF1	TRANSISTOR
Q681	BC557B	TRANSISTOR
Q682	2SA1535LB	TRANSISTOR
Q1071	BC817-25	TRANSISTOR
Q1091	BC817-25	TRANSISTOR
Q1123	BC847B	TRANSISTOR OR 2SD601ATX
Q1163	BC847B	TRANSISTOR OR 2SD601ATX
Q1167	BC857B	TRANSISTOR OR 2SB709ATX
Q1172	BC847B	TRANSISTOR OR 2SD601ATX

Ref No.	Part No.	Description
Q1182	BC847B	TRANSISTOR OR 2SD601ATX
Q1192	BC847B	TRANSISTOR OR 2SD601ATX
Q1221	BC847B	TRANSISTOR OR 2SD601ATX
Q1222	BC847B	TRANSISTOR OR 2SD601ATX
Q1267	BC847B	TRANSISTOR OR 2SD601ATX
Q1382	BC857B	TRANSISTOR OR 2SB709ATX
Q1466	BC860B	TRANSISTOR
Q1476	BC860B	TRANSISTOR
Q1486	BC860B	TRANSISTOR
Q1496	BC860B	TRANSISTOR
Q1612	BC847B	TRANSISTOR OR 2SD601ATX
Q1631	BC847B	TRANSISTOR OR 2SD601ATX
Q1633	BC847B	TRANSISTOR OR 2SD601ATX
Q1636	BC857B	TRANSISTOR OR 2SB709ATX
Q1641	BC847B	TRANSISTOR OR 2SD601ATX
Q1643	BC847B	TRANSISTOR OR 2SD601ATX
Q1646	BC857B	TRANSISTOR OR 2SB709ATX
Q1651	BC847B	TRANSISTOR OR 2SD601ATX
Q1653	BC847B	TRANSISTOR OR 2SD601ATX
Q1656	BC857B	TRANSISTOR OR 2SB709ATX
Q1663	BC847B	TRANSISTOR OR 2SD601ATX
Q1664	BC847B	TRANSISTOR OR 2SD601ATX
Q1667	BC847B	TRANSISTOR OR 2SD601ATX
Q1673	BC847B	TRANSISTOR OR 2SD601ATX
Q1812	BC847B	TRANSISTOR OR 2SD601ATX
Q1816	BC847B	TRANSISTOR OR 2SD601ATX
Q1822	BC847B	TRANSISTOR OR 2SD601ATX
Q1824	BC847B	TRANSISTOR OR 2SD601ATX
Q1827	BC857B	TRANSISTOR OR 2SB709ATX
Q1831	BC847B	TRANSISTOR OR 2SD601ATX
Q2601	BC847B	TRANSISTOR OR 2SD601ATX
Q2602	BC847B	TRANSISTOR OR 2SD601ATX
Q2603	BC847B	TRANSISTOR OR 2SD601ATX
Q2604	BC847B	TRANSISTOR OR 2SD601ATX
Q2605	BC857B	TRANSISTOR OR 2SB709ATX
Q2606	BC857B	TRANSISTOR OR 2SB709ATX
Q2607	BC847B	TRANSISTOR OR 2SD601ATX
Q2608	BC847B	TRANSISTOR OR 2SD601ATX
Q2609	BC857B	TRANSISTOR OR 2SB709ATX
Q2610	BC857B	TRANSISTOR OR 2SB709ATX
Q2611	BC857B	TRANSISTOR OR 2SB709ATX
Q2612	BC857B	TRANSISTOR OR 2SB709ATX
Q2613	BC847B	TRANSISTOR OR 2SD601ATX
Q2614	BC847B	TRANSISTOR OR 2SD601ATX
Q2615	BC857B	TRANSISTOR OR 2SB709ATX
Q2616	BC847B	TRANSISTOR OR 2SD601ATX
Q2651	BC847B	TRANSISTOR OR 2SD601ATX
Q2653	BC847B	TRANSISTOR OR 2SD601ATX
Q3108	BC847B	TRANSISTOR OR 2SD601ATX
Q3109	BC847B	TRANSISTOR OR 2SD601ATX
Q3111	BC857B	TRANSISTOR OR 2SB709ATX
Q3122	BC847B	TRANSISTOR OR 2SD601ATX
Q3126	BC847B	TRANSISTOR OR 2SD601ATX
Q3127	BC857B	TRANSISTOR OR 2SB709ATX
Q3131	2SB940APLB	TRANSISTOR
Q3136	2SD1264APLB	TRANSISTOR
Q3143	BC847B	TRANSISTOR OR 2SD601ATX
Q3162	BC857B	TRANSISTOR OR 2SB709ATX
Q3164	BC847B	TRANSISTOR OR 2SD601ATX
Q3166	BC857B	TRANSISTOR OR 2SB709ATX
Q3169	BC857B	TRANSISTOR OR 2SB709ATX
Q3172	BC857B	TRANSISTOR OR 2SB709ATX
Q3174	BC847B	TRANSISTOR OR 2SD601ATX
Q3176	BC857B	TRANSISTOR OR 2SB709ATX
Q3179	BC857B	TRANSISTOR OR 2SB709ATX
Q3182	BC857B	TRANSISTOR OR 2SB709ATX
Q3184	BC847B	TRANSISTOR OR 2SD601ATX
Q3186	BC857B	TRANSISTOR OR 2SB709ATX
Q3189	BC857B	TRANSISTOR OR 2SB709ATX
Q3359	BC847B	TRANSISTOR OR 2SD601ATX
Q3368	2SB710A-XR	TRANSISTOR
Q3371	BC857B	TRANSISTOR OR 2SB709ATX

Ref No.	Part No.	Description		
Q3373	2SC4714RL2	TRANSISTOR		
Q3374	2SC3063RL	TRANSISTOR		
Q3377	2SA1698RL	TRANSISTOR		
Q3381	BC857B	TRANSISTOR OR 2SB709ATX		
Q3383	2SC4714RL2	TRANSISTOR		
Q3384	2SC3063RL	TRANSISTOR		
Q3387	2SA1698RL	TRANSISTOR		
Q3391	BC857B	TRANSISTOR OR 2SB709ATX		
Q3392	2SA1309ATA	TRANSISTOR		
Q3393	2SC4714RL2	TRANSISTOR		
Q3394	2SC3063RL	TRANSISTOR		
Q3397	2SA1698RL	TRANSISTOR		
Q4701	BC847B	TRANSISTOR OR 2SD601ATX		
Q4702	BC847B	TRANSISTOR OR 2SD601ATX		
Q4703	BF799E6327	CHIPTRANSISTOR		
Q4704	BC847B	TRANSISTOR OR 2SD601ATX		
Q4705	BC847B	TRANSISTOR OR 2SD601ATX		
Q4706	BC847B	TRANSISTOR OR 2SD601ATX		
Q6111	BC847B	TRANSISTOR OR 2SD601ATX		
Q6114	BC847B	TRANSISTOR OR 2SD601ATX		
Q6403	BC847B	TRANSISTOR OR 2SD601ATX		
Q6413	BC847B	TRANSISTOR OR 2SD601ATX		
Q6417	BC857B	TRANSISTOR OR 2SB709ATX		
Q6433	BC847B	TRANSISTOR OR 2SD601ATX		
Q6443	BC847B	TRANSISTOR OR 2SD601ATX		
Q6447	BC857B	TRANSISTOR OR 2SB709ATX		
RESISTOR				
RL6101	TSE10818	RELAY		
R201	ERD25TJ223	CARBON 0.25W 5% 22KΩ		
R206	ERG2ANJ223	METAL 2W 5% 22KΩ		
R259	ERD25TJ473	CARBON 0.25W 5% 47KΩ		
R462	ERD25TJ101	CARBON 0.25W 5% 10Ω		
R463	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R466	ERD25TJ153	CARBON 0.25W 5% 15KΩ		
R470	ERD25TJ1R0	CARBON 0.25W 5% 1Ω		
R471	ERD25TJ102	CARBON 0.25W 5% 1KΩ		
R472	ERD25TJ333	CARBON 0.25W 5% 33KΩ		
R473	ERD25TJ680	CARBON 0.25W 5% 68Ω		
R477	ERD25TJ684	CARBON 0.25W 5% 680KΩ		
R478	ERD25TJ332	CARBON 0.25W 5% 3K3Ω		
R479	ERDS1TJ2R2	CARBON 0.5W 5% 2.2Ω		
R480	ERD25TJ1R0	CARBON 0.25W 5% 1Ω		
R481	ERD25TJ102	CARBON 0.25W 5% 1KΩ		
R482	ERD25TJ333	CARBON 0.25W 5% 33KΩ		
R483	ERD25TJ680	CARBON 0.25W 5% 68Ω		
R484	ERD25TJ273	CARBON 0.25W 5% 27KΩ		
R485	ERD25TJ561	CARBON 0.25W 5% 560Ω		
R486	ERD25TJ333	CARBON 0.25W 5% 33KΩ		
R487	ERD25TJ684	CARBON 0.25W 5% 680KΩ		
R488	ERD25TJ332	CARBON 0.25W 5% 3K3Ω		
R489	ERDS1TJ2R2	CARBON 0.5W 5% 2.2Ω		
R490	ERD25TJ563	CARBON 0.25W 5% 56KΩ		
R491	ERQ14AJ100	METAL 0.25W 5% 10Ω △		
R492	ERD25TJ102	CARBON 0.25W 5% 1KΩ		
R493	ERD25TJ473	CARBON 0.25W 5% 47KΩ		
R494	ERD25TJ684	CARBON 0.25W 5% 680KΩ		
R496	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R497	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R498	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R499	ERD25TJ473	CARBON 0.25W 5% 47KΩ		
R501	ERD25TJ470	CARBON 0.25W 5% 47Ω		
R507	ERD25TJ2R2	CARBON 0.25W 5% 2R2Ω		
R521	ERQ14AJ3R3	METAL 0.25W 5% 3R3Ω △		
R526	ERD25TJ560	CARBON 0.25W 5% 56Ω		
R527	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω		
R528	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω		
R531	ERF10ZK6R8	WIRE 10W 5% 6R8Ω △		
R532	ERW2PKR47	WIREWOUND2W 10%0R47Ω △		
R533	ERDS1TJ220	CARBON 0.5W 5% 22Ω		
R541	ERG1ANJ152	METAL 1W 5% 1K5Ω		

Ref No.	Part No.	Description		
R542	ERQ1ABJ101	FUSABLE 1W 5% 100Ω △		
R543	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R546	ERDS1TJ184	CARBON 0.5W 5% 180K		
R548	ERD25TJ223	CARBON 0.25W 5% 22KΩ		
R549	ERDS1TJ224	CARBON 0.5W 5% 220KΩ		
R557	ERQ12HKR22	FUSIBLE 0.5W 5% R22Ω △		
R559	ERDS1TJ100	CARBON 0.5W 5% 10Ω		
R561	ERQ12HJ1R5	FUSIBLE 0.5W 5% 1R5Ω △		
R563	ERD25TJ104	CARBON 0.25W 5% 100KΩ		
R564	ERD25TJ223	CARBON 0.25W 5% 22KΩ		
R566	ERD25TJ472	CARBON 0.25W 5% 4K7Ω		
R567	ERD25TJ472	CARBON 0.25W 5% 4K7Ω		
R568	ERD25TJ1R5	CARBON 0.25W 5% 1R5Ω		
R569	ERDS1TJ221	CARBON 0.5W 5% 220Ω		
R572	ERO25CKF1801	METAL 0.25W 1% 1K8Ω △		
R573	ERO25CKF1801	METAL 0.25W 1% 1K8Ω △		
R574	ERW12PKR56	WIREWOUND0.5W 10% R56Ω △		
R576	ERD25TJ682	CARBON 0.25W 5% 6K8Ω		
R577	ERD25TJ822	CARBON 0.25W 5% 8K2Ω		
R578	ERD25TJ680	CARBON 0.25W 5% 68Ω		
R579	ERD25TJ332	CARBON 0.25W 5% 3K3Ω		
R583	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R584	ERO25CKF1002	METAL 0.25W 1% 10KΩ △		
R590	ERD25TJ224	CARBON 0.25W 5% 220KΩ		
R591	ERD25TJ472	CARBON 0.25W 5% 4K7Ω		
R592	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R593	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R594	ERD25TJ394	CARBON 0.25W 5% 390KΩ		
R595	ERD25TJ473	CARBON 0.25W 5% 47KΩ		
R596	ERD25TJ473	CARBON 0.25W 5% 47KΩ		
R597	ERD25TJ475	CARBON 0.25W 5% 4M7Ω		
R598	ERD25TJ102	CARBON 0.25W 5% 1KΩ		
R599	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R613	ERF10ZK5R6	WIRE 10W 5% 5R6Ω △		
R614	ERDS1TJ394	CARBON 0.5W 5% 390KΩ		
R616	ERC12GK154D	SOLID 0.5W 10% 150KΩ		
R619	232266296706	THERMISTOR		
R621	ERG2FJ183	METAL 0.5W 5% 18KΩ △		
R622	ERDS1TJ394	CARBON 0.5W 5% 390KΩ		
R623	ERD25TJ472	CARBON 0.25W 5% 4K7Ω		
R624	ERD25TJ121	CARBON 0.25W 5% 120Ω		
R625	ERC12GK154D	SOLID 0.5W 10% 150KΩ		
R626	ERG2FJ183	METAL 0.5W 5% 18KΩ △		
R627	ERD25TJ103	CARBON 0.25W 5% 10KΩ		
R628	ERG3FJ393	METAL 0.25W 5% 39KΩ △		
R629	ERG1ANJ470	METAL 1W 5% 47Ω		
R630	ERD25TJ270	CARBON 0.25W 5% 27Ω		
R631	ERD25TJ101	CARBON 0.25W 5% 100Ω		
R632	ERO25CKF1400	METAL 0.25W 1% 140Ω △		
R633	ERO25CKF3921	METAL 0.25W 1%3R92KΩ △		
R634	ERDS1TJ1R5	CARBON 0.5W 5% 1R5Ω		
R636	ERD25TJ473	CARBON 0.25W 5% 47KΩ		
R639	ERD75TAJ825	CARBON 0.75W 5% 8M2Ω △		
R651	ERDS1TJ474	CARBON 0.5W 5% 470KΩ		
R652	ERD25TJ102	CARBON 0.25W 5% 1KΩ		
R666	ERO25CKF3301	METAL 0.25W 1% 3K3Ω △		
R667	ERO25CKF3900	METAL 0.25W 1%3R9KΩ △		
R674	ERD25TJ223	CARBON 0.25W 5% 22KΩ		
R675	ERD25TJ155	CARBON 0.25W 5% 1M5Ω		
R676	ERO25CKF1002	METAL 0.25W 1% 10KΩ △		
R677	ERO25CKF1002	METAL 0.25W 1% 10KΩ △		
R678	ERD25TJ121	CARBON 0.25W 5% 120Ω		
R680	ERQ12HJ1R5	FUSIBLE 0.5W 5% 1R5Ω △		
R681	ERDS1TJ4R7	CARBON 0.5W 5% 4R7Ω		
R682	ERD25TJ222	CARBON 0.25W 5% 2K2Ω		
R683	ERG3FJ101	METAL 3W 5% 100Ω △		
R684	ERD25TJ682	CARBON 0.25W 5% 6K8Ω		
R686	FN4R1KR	FUSIBLE 0.25W 5% 0.1Ω		
R688	FN4R1KR	FUSIBLE 0.25W 5% 0.1Ω		
R1019	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω		
R1020	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω		

Ref No.	Part No.	Description			
R1021	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R1022	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R1023	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1024	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1031	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R1032	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R1033	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1034	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1036	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1038	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1041	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1042	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1071	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1072	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1073	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω
R1074	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1091	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1092	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1093	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω
R1094	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1095	ERJ6GEYJ474	S.M.CARB	0.1W	5%	470KΩ
R1116	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1117	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1120	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1121	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R1122	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R1123	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1124	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1125	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1131	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1132	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1133	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1152	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1153	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1156	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R1158	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1161	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8Ω
R1162	ERJ6GEYJ333	S.M.CARB	0.1W	5%	33KΩ
R1163	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1166	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1167	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1168	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68Ω
R1169	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1172	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1173	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1174	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1177	ERJ6GEYJ561	S.M.CARB	0.1W	5%	560Ω
R1181	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1182	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1183	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68Ω
R1184	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1185	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1191	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1192	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1193	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68Ω
R1194	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1221	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1222	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1225	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1237	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1241	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1242	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1264	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1266	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68Ω
R1267	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1268	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1270	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R1273	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R1276	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1277	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1281	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R1282	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω

Ref No.	Part No.	Description			
R1283	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R1284	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1349	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1381	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KΩ
R1382	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1412	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1464	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1465	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18KΩ
R1466	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R1474	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1476	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R1484	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1486	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R1487	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1494	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1496	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R1497	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1612	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1613	ERJ6GEYJ560	S.M.CARB	0.1W	5%	56Ω
R1614	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω
R1615	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R1616	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1617	ERJ6GEYJ333	S.M.CARB	0.1W	5%	33KΩ
R1618	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1619	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R1621	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1622	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1623	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12KΩ
R1624	ERJ6GEYJ333	S.M.CARB	0.1W	5%	33KΩ
R1626	ECUV1H151JCX	S.M.CAP	50V	150pF	
R1630	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1631	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R1632	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1633	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1634	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω
R1642	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1643	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1644	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω
R1652	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1653	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1654	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω
R1661	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1664	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1666	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1667	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R1668	ERJ6GEYJ474	S.M.CARB	0.1W	5%	470KΩ
R1669	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1670	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1671	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1672	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1673	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1674	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1681	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1682	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1683	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1698	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1717	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1718	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1719	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1807	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R1808	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1809	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1811	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1812	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1815	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1816	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1819	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1821	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1822	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R1823	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1824	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R1825	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω

Ref No.	Part No.	Description			
R1826	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56KΩ
R1827	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39KΩ
R1828	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1829	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R1831	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R1832	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1837	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1838	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω
R1842	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1843	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1844	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1845	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R1847	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1849	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1851	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1856	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1857	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1859	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1863	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1872	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1873	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1878	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1879	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1882	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1884	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R1886	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R1888	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1893	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1897	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1921	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R1922	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R1925	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω
R1953	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1957	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1958	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1959	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1961	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1962	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1963	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1964	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R1983	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R1993	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R2601	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R2602	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2603	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R2604	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R2605	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390Ω
R2606	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R2607	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2608	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R2609	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2610	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2612	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2613	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2616	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R2617	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R2619	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R2620	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2621	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2622	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2623	ERJ6GEYJ561	S.M.CARB	0.1W	5%	560Ω
R2624	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2625	ERJ6GEYJ561	S.M.CARB	0.1W	5%	560Ω
R2626	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω
R2627	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω
R2628	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R2631	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R2632	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R2633	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R2634	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R2636	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R2637	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ

Ref No.	Part No.	Description			
R2638	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R2639	ERJ6GEYJ754	S.M.CARB	0.1W	5%	750KΩ
R2640	ERJ6GEYJ121	S.M.CARB	0.1W	5%	120Ω
R2641	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R2642	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ
R2643	ERJ6GEYJ333	S.M.CARB	0.1W	5%	33KΩ
R2644	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω
R2645	ERJ6GEYJ821	S.M.CARB	0.1W	5%	820Ω
R2646	ERJ6GEYJ821	S.M.CARB	0.1W	5%	820Ω
R2647	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω
R2648	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R2651	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R2652	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680Ω
R2653	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R2654	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680Ω
R2655	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R2656	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R2658	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R2659	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R2660	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KΩ
R2662	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω
R2664	ERJ6GEYJ335	S.M.CARB	0.1W	5%	3M3Ω
R2665	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R2666	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R2667	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R2668	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R2669	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270Ω
R2670	ERJ6GEYJ511	S.M.CARB	0.1W	5%	510Ω
R2671	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7Ω
R2672	ERJ6GEYJ822	S.M.CARB	0.1W	5%	8K2Ω
R2673	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R2675	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R2676	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R2677	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680Ω
R2680	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R3101	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R3102	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R3103	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R3104	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R3106	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56KΩ
R3107	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R3108	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R3109	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R3111	ERDS1FYJ222	CARBON	0.5W	5%	2K2Ω ▲
R3112	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω
R3113	ERD25TJ681	CARBON	0.25W	5%	680Ω
R3121	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R3122	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R3123	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R3124	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680Ω
R3126	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω
R3127	ERQ14AJ100	METAL	0.25W	5%	10Ω ▲
R3128	ERQ14AJ820	METAL	0.25W	5%	82Ω ▲
R3129	ERQ14AJ820	METAL	0.25W	5%	82Ω ▲
R3130	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω
R3131	ERD25TJ563	CARBON	0.25W	5%	56KΩ
R3132	ERD25TJ122	CARBON	0.25W	5%	1K2Ω
R3133	ERD25TJ2R7	CARBON	0.25W	5%	2R7Ω
R3134	ERDS1FVJ390	CARBON	0.5W	5%	39Ω ▲
R3135	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω
R3136	ERD25TJ563	CARBON	0.25W	5%	56KΩ
R3137	ERD25TJ122	CARBON	0.25W	5%	1K2Ω
R3138	ERD25TJ2R7	CARBON	0.25W	5%	2R7Ω
R3139	ERDS1FVJ390	CARBON	0.5W	5%	39Ω ▲
R3141	ERDS1FYJ101	CARBON	0.5W	5%	100Ω ▲
R3142	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R3143	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R3144	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680Ω
R3146	ERDS1FYJ181	CARBON	0.5W	5%	180Ω ▲
R3152	ERQ12HJ102	METAL	0.5W	5%	1KΩ ▲
R3153	ERQ14AJ3R9	FUSIBLE	0.25W	5%	3R9Ω ▲
R3160	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω

Ref No.	Part No.	Description				
R3161	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3162	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3163	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω	
R3164	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3166	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3167	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3168	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3169	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω	
R3170	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R3171	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3172	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3173	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω	
R3174	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3176	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3177	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3178	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3179	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω	
R3180	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R3181	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3182	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3183	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω	
R3184	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3186	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3187	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω	
R3188	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3189	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω	
R3307	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω	
R3308	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω	
R3309	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω	
R3354	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ	
R3358	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R3359	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω	
R3361	ERQ12HKR39	METAL	0.5W	5%	R39Ω	▲
R3362	ERC12GK105D	SOLID	0.5W	10%	1MΩ	
R3364	ERC12GK821D	SOLID	0.5W	10%	820Ω	
R3365	ERD25TJ220	CARBON	0.25W	5%	22Ω	
R3366	ERQ12AJ101	FUSIBLE	0.5W	5%	100Ω	▲
R3367	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R3368	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R3369	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8Ω	
R3370	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R3371	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7Ω	
R3372	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω	
R3373	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω	
R3374	ERDS1TJ913	CARBON	0.5W	5%	91KΩ	
R3375	ERG2ANJ183	METAL	2W	5%	18KΩ	
R3376	ERD25TJ561	CARBON	0.25W	5%	560Ω	
R3377	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω	
R3378	ERC12GK821D	SOLID	0.5W	10%	820Ω	
R3379	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R3380	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R3381	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7Ω	
R3382	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω	
R3383	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω	
R3384	ERDS1TJ913	CARBON	0.5W	5%	91KΩ	
R3385	ERG2ANJ183	METAL	2W	5%	18KΩ	
R3386	ERD25TJ561	CARBON	0.25W	5%	560Ω	
R3388	ERC12GK821D	SOLID	0.5W	10%	820Ω	
R3389	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R3390	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R3391	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7Ω	
R3392	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω	
R3393	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω	
R3394	ERDS1TJ913	CARBON	0.5W	5%	91KΩ	
R3395	ERG2ANJ183	METAL	2W	5%	18KΩ	
R3396	ERD25TJ561	CARBON	0.25W	5%	560Ω	
R3398	ERC12GK821D	SOLID	0.5W	10%	820Ω	
R3399	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R4702	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R4704	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12KΩ	
R4705	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω	
R4706	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5Ω	

Ref No.	Part No.	Description				
R4707	ERJ6GEYJ330	S.M.CARB	0.1W	5%	33Ω	
R4708	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R4709	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω	
R4710	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150KΩ	
R4711	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω	
R4712	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150KΩ	
R4713	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2Ω	
R4725	ERJ6GEYJ512	S.M.CARB	0.1W	5%	5K1Ω	
R4726	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180Ω	
R4727	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KΩ	
R4729	ERJ6GEYJ121	S.M.CARB	0.1W	5%	120Ω	
R4730	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω	
R4733	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KΩ	
R4734	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R4735	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R4737	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390Ω	
R4738	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R4739	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68Ω	
R4740	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R4741	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω	
R4742	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56KΩ	
R4743	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ	
R4744	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R4746	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R4747	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R4749	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R4750	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R4753	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω	
R4754	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω	
R4756	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KΩ	
R4757	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270Ω	
R4758	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R4759	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R4760	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R4770	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180Ω	
R4771	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω	
R4780	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270Ω	
R4781	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39KΩ	
R6102	ERD25TJ151	CARBON	0.25W	5%	150Ω	
R6106	ERD25TJ330	CARBON	0.25W	5%	33Ω	
R6111	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R6112	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ	
R6113	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω	
R6114	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R6301	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω	
R6302	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω	
R6305	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R6401	ERD25TJ220	CARBON	0.25W	5%	22Ω	
R6402	ERD25TJ220	CARBON	0.25W	5%	22Ω	
R6403	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R6404	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R6405	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R6406	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R6407	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω	
R6408	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R6411	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ	
R6412	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27KΩ	
R6413	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R6416	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R6417	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R6418	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R6433	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R6436	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R6437	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω	
R6438	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω	
R6441	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KΩ	
R6442	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27KΩ	
R6443	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ	
R6446	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R6447	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R6448	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω	
R6811	ERC12ZGK335D	SOLID	0.5W	10%	3M3Ω	

Ref No.	Part No.	Description
SWITCHES		
S6304	EVQ23405R	SWITCH
S6305	EVQ23405R	SWITCH
S6306	EVQ23405R	SWITCH
S6307	EVQ23405R	SWITCH
S6308	EVQ23405R	SWITCH
S6811	ESB91232A	SWITCH
		▲
TRANSFORMERS		
T528	ETH19Y173AY	TRANS FORMER
T531	ZTFH65005A	TRANSFORMER
T639	ETS39AH127AC	TRANSFORMER
T6101	ETP35KAN614U	TRANS FORMER

Ref No.	Part No.	Description
FILTERS		
X2651	TAFCSB503F35	CRYSTAL
X2652	TSS4006-B	CRYSTAL(10082031)
X4701	EFCV4095A4	CERAMIC FILTER
X4702	EFCV4035A3A	CRYSTAL
X4704	K3953-M100	SAW FILTER
X4705	K9453M	SAW FILTER
X4706	EFCS5M7MW3	CERAMIC FILTER
X4707	EFCS6R0MW5	FILTER
X4709	EFCA7004BF	FILTER
X4710	EFCV4035A3A	CRYSTAL
X4711	EFCA6504BF	FILTER

SCHEMATIC DIAGRAM FOR MODELS TX-29AD3F (Euro-2S Chassis)

- IMPORTANT SAFETY NOTICE -

Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Notes

- RESISTOR**
All resistors are carbon 1/4W resistor, unless marked as follows:
Unit of resistance is OHM (Ω) ($K=1,000$, $M=1,000,000$).
 - CAPACITORS**
All capacitors are ceramic 50V, unless marked as follows:
Unit of capacitance is μF , unless otherwise stated.
 - COIL**
Unit of inductance is μH , unless otherwise stated.
 - Components marked 'L' on the schematic diagram shows leadless parts.
 - TEST POINT**
 : Test Point position
 - EARTH SYMBOL**
 : Chassis Earth (Cold)  : Line Earth (Hot)
 - VOLTAGE MEASUREMENT**
Voltage is measured by a DC voltmeter.
Measurement conditions are as follows:
Power source AC 220V–240V, 50Hz
Receiving Signal Colour Bar signal (RF)
All customer controls Maximum position
 -  : Indicates the Video signal path
 -  : Indicates the Audio signal path
 -  : Indicates the Vertical/Horizontal signal path
 - This schematic diagram is the latest at the time of printing and is subject to change without notice.

Remarks

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COLD indications in the schematic diagram. All circuits, except the Power Circuit, are COLD. Take the following precautions:

Precautions

- a. Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard. P
 - b. Do not short-circuit the hot and cold circuits as electrical components may be damaged. a.
 - c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously, as this may cause fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured. b.
c.
 - d. Make sure to disconnect the power plug before removing the chassis. d

SCHEMA TECHNIQUE POUR MODELE TX-29AD3F (Euro-2S Chassis)

REMARQUE IMPORTANTE POUR LA SÉCURITÉ—

Les éléments portant la marque  possèdent des caractéristiques de sécurité spéciales. Lors du remplacement de l'une quelconque de ces pièces n'utiliser que celles spécifiées par le fabricant.

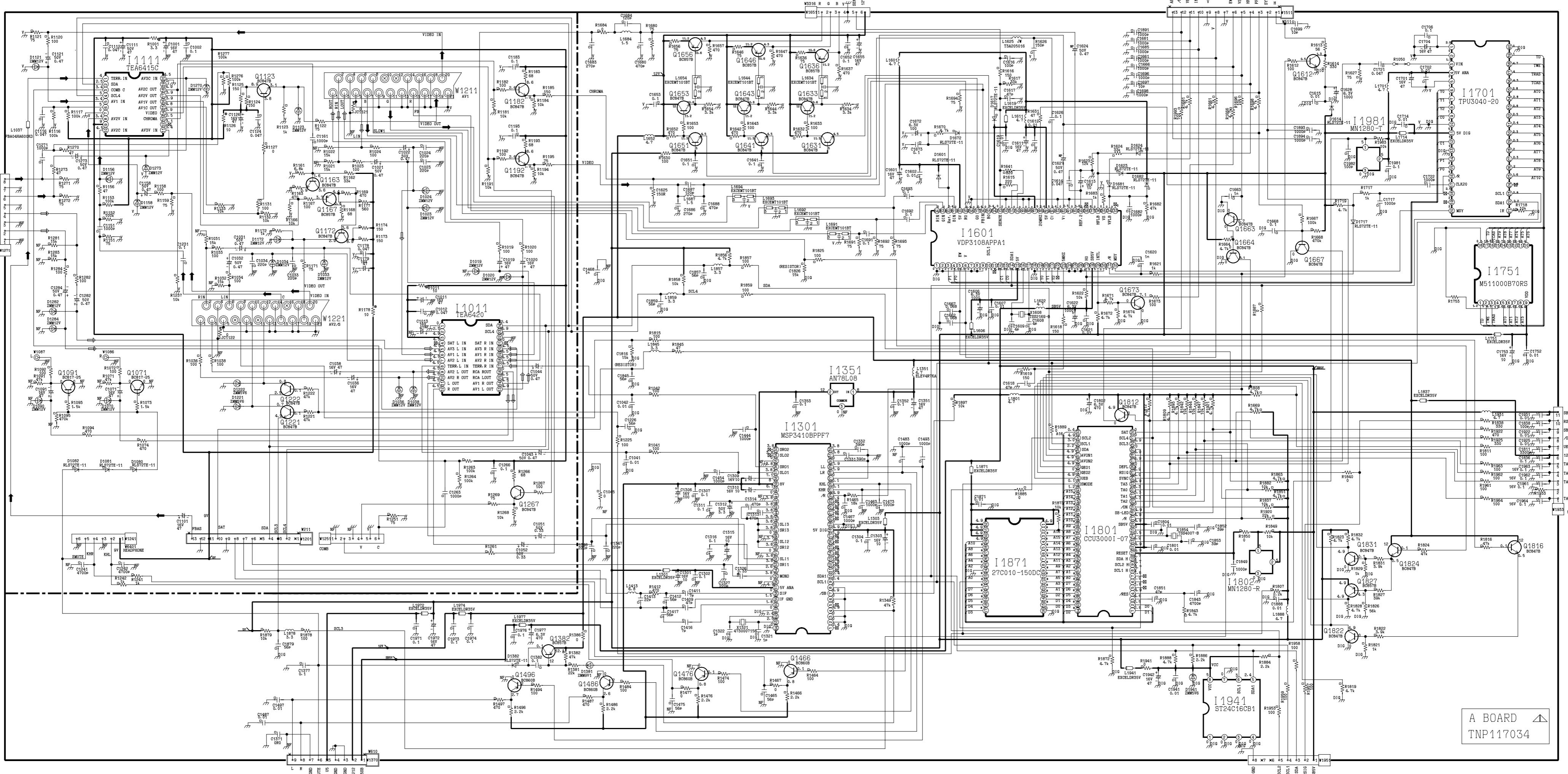
Nota :

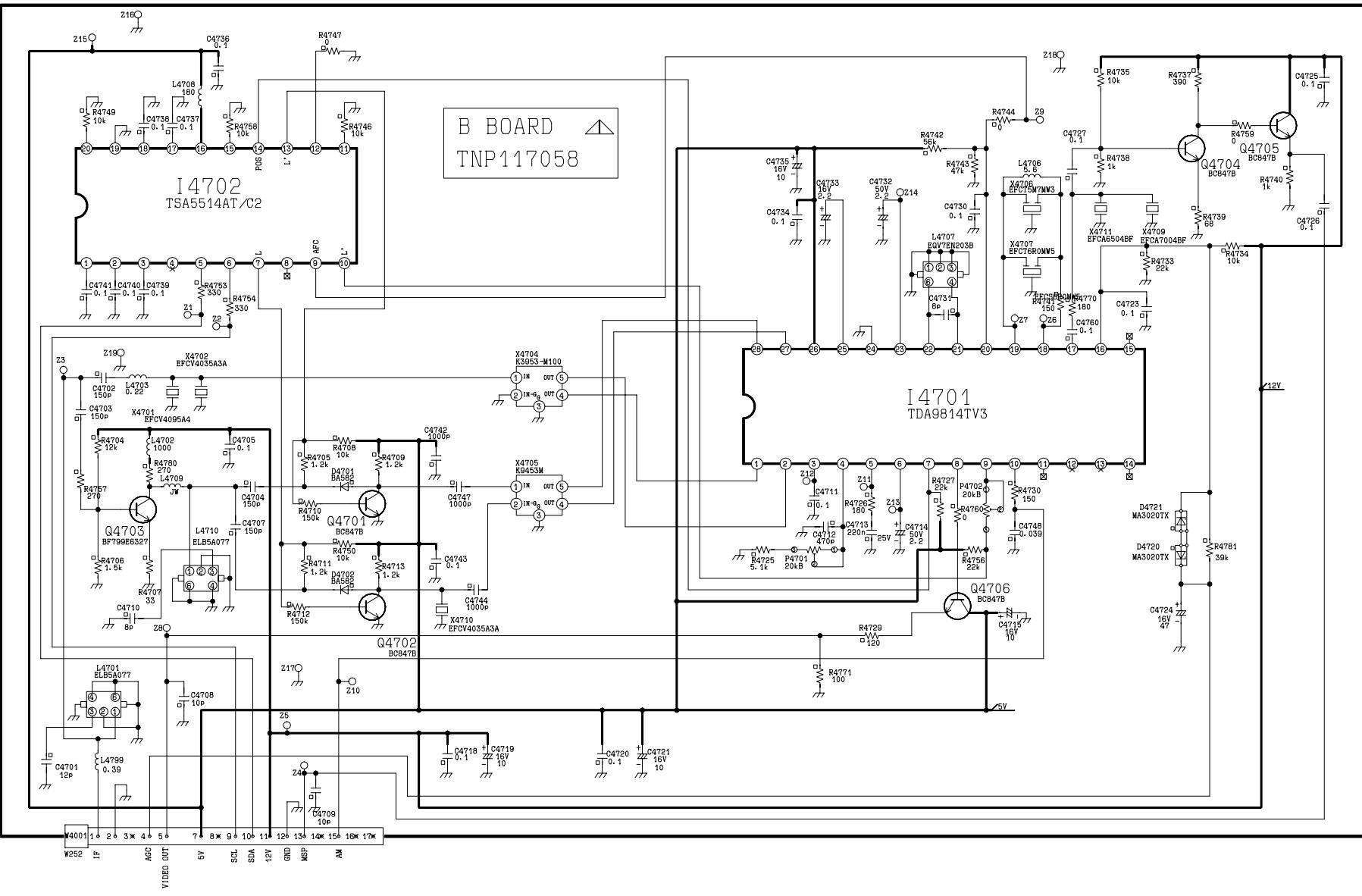
Remarque

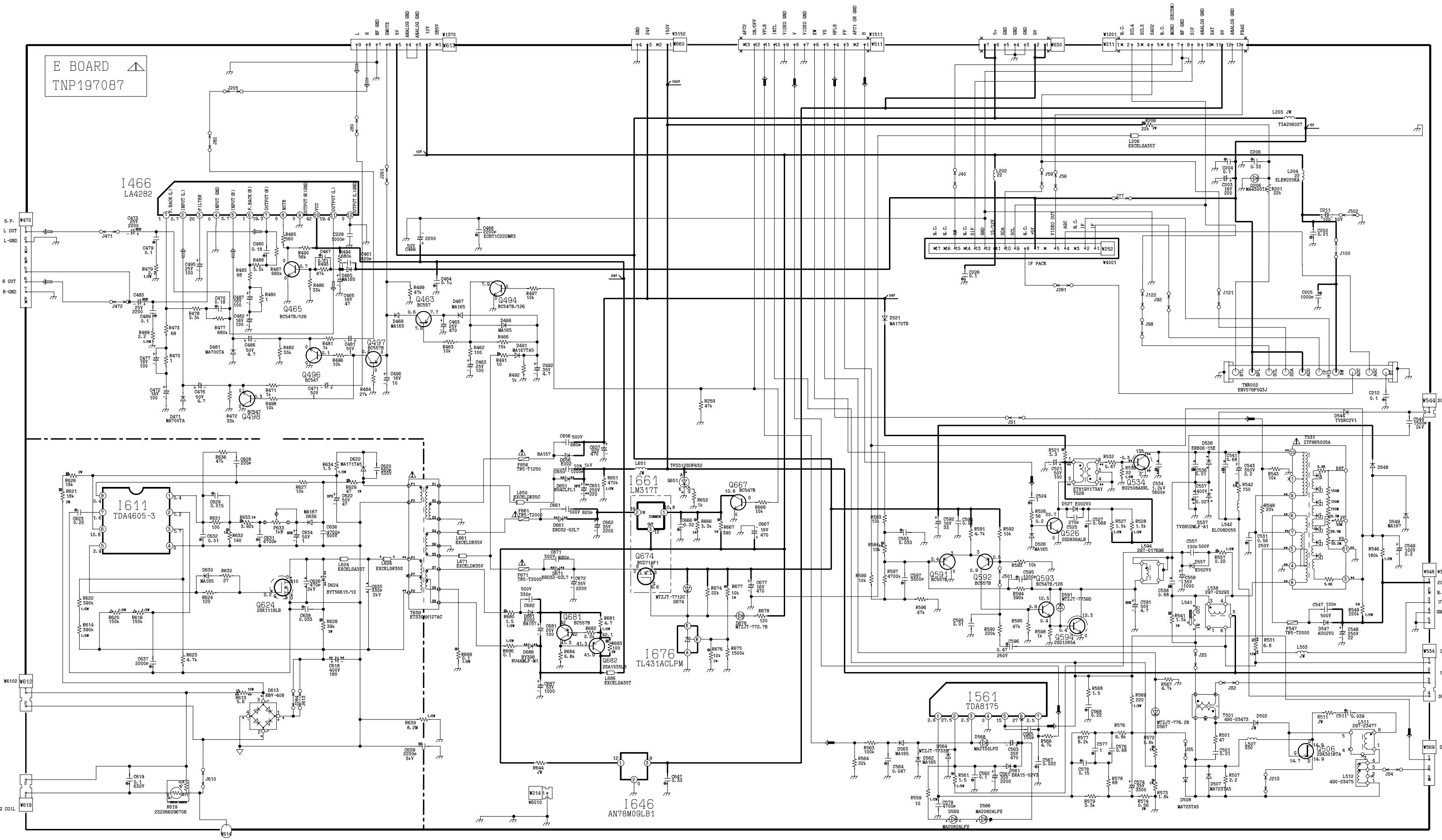
1. Le circuit d'alimentation contient une zone de qui utilise une alimentation séparée pour isoler la connexion à la terre. Le circuit est défini par les indications chaud (HOT) et froid (COLD) dans le diagramme schématique. Prendre les précautions suivantes. Tous les circuits, sauf le circuit d'alimentation, sont froids.

Précautions

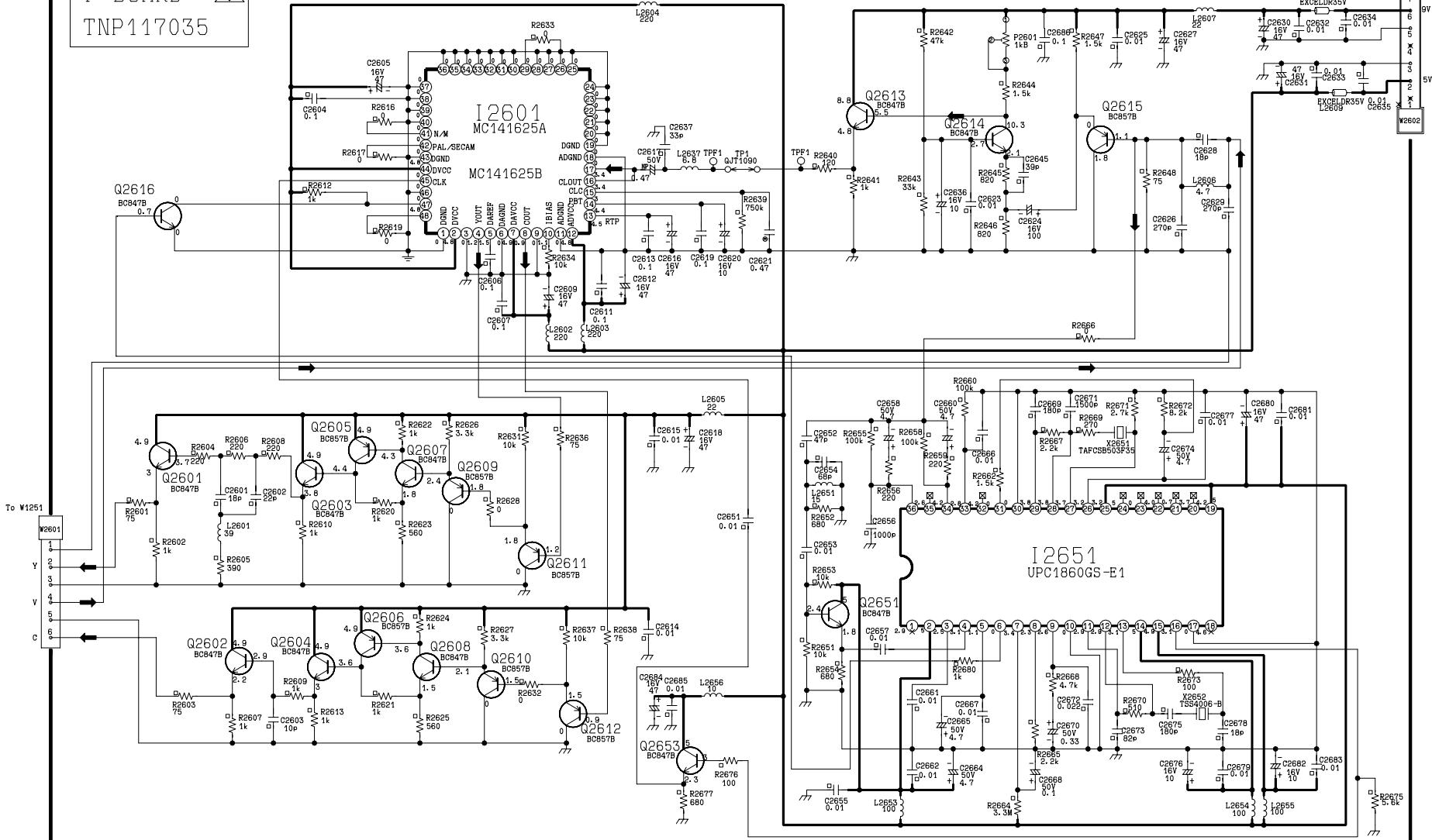
- a. Ne pas toucher la partie chaude ou en même temps les parties chaud et froid. Cela présente un risque de décharge électrique.
 - b. Ne pas court-circuite les circuits chaud et froid car un fusible peut sauter et des pièces se casser.
 - c. Ne pas raccorder un instrument, comme un oscilloscope, simultanément aux circuits chaud et froid car un fusible peut sauter. Raccorder la terre des instruments à la connexion de terre du circuit mesuré.
 - d. Toujours débrancher la fiche d'alimentation avant de déposer le châssis.



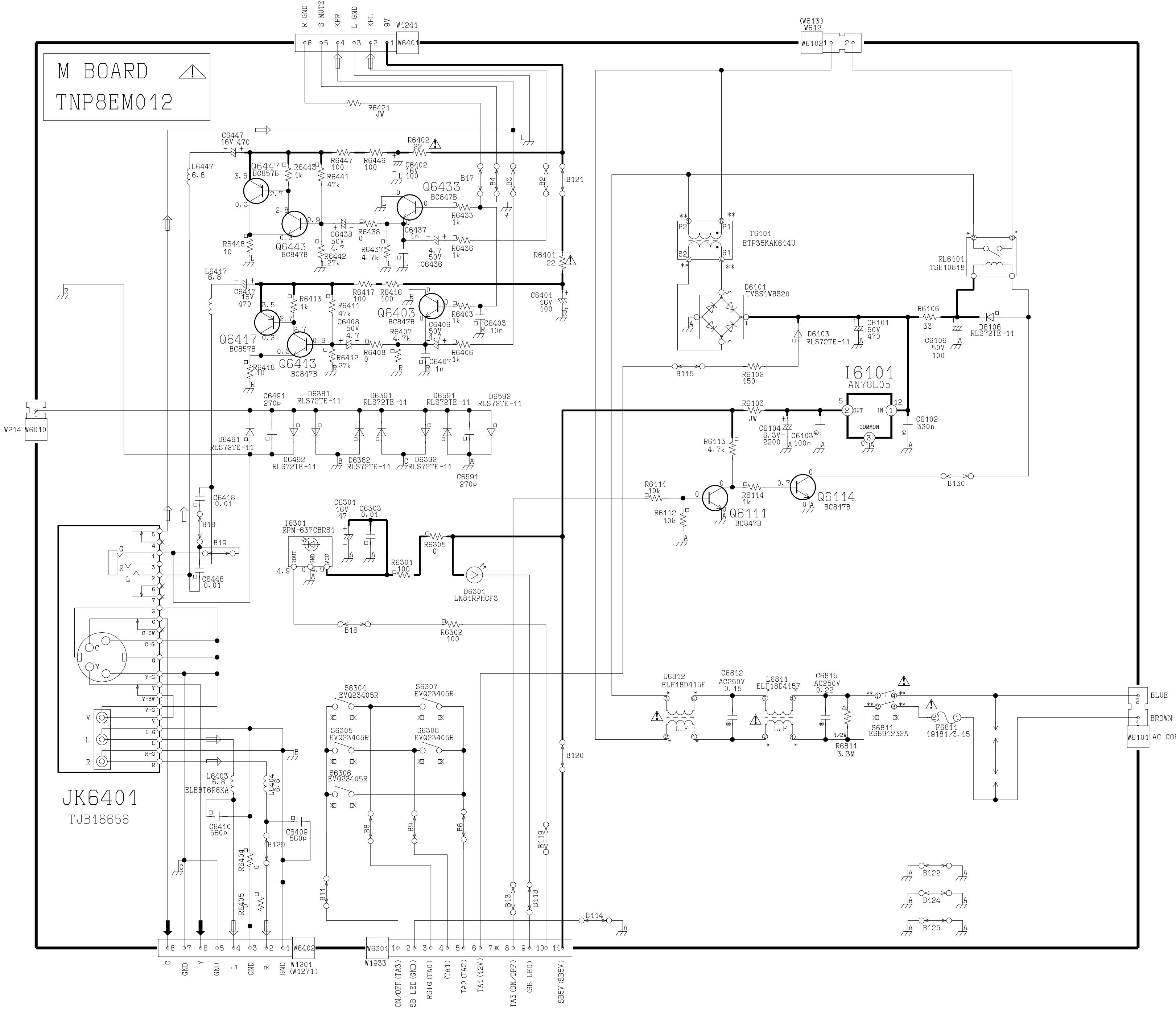


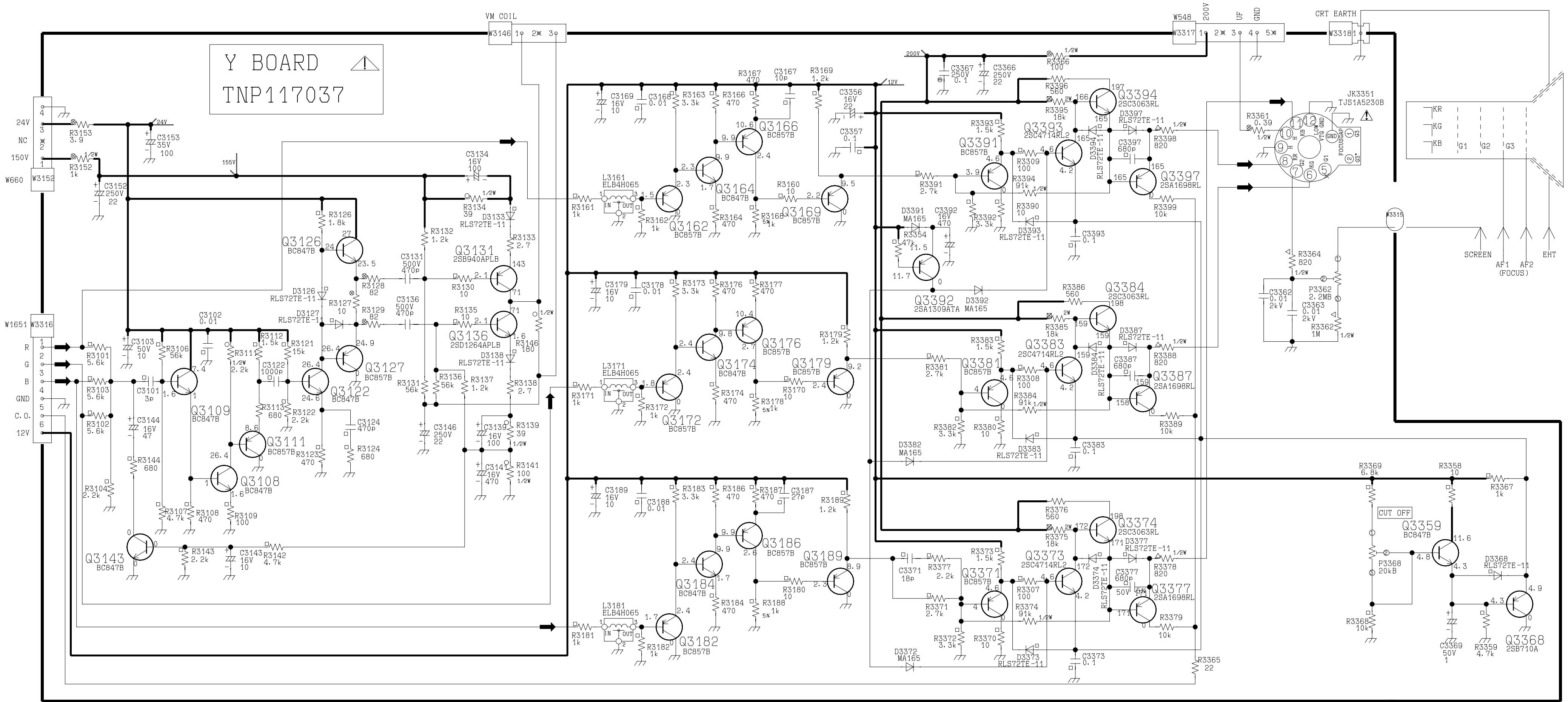


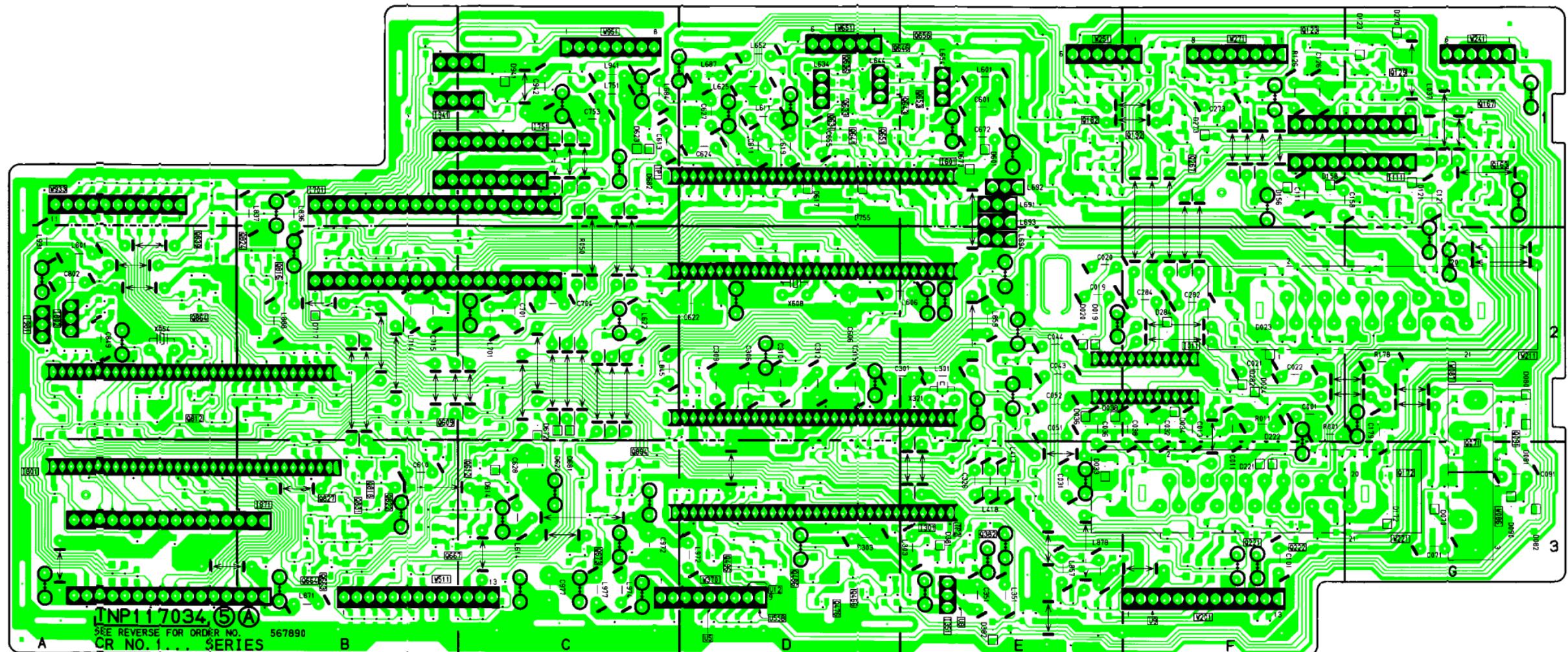
F BOARD 
TNP117035

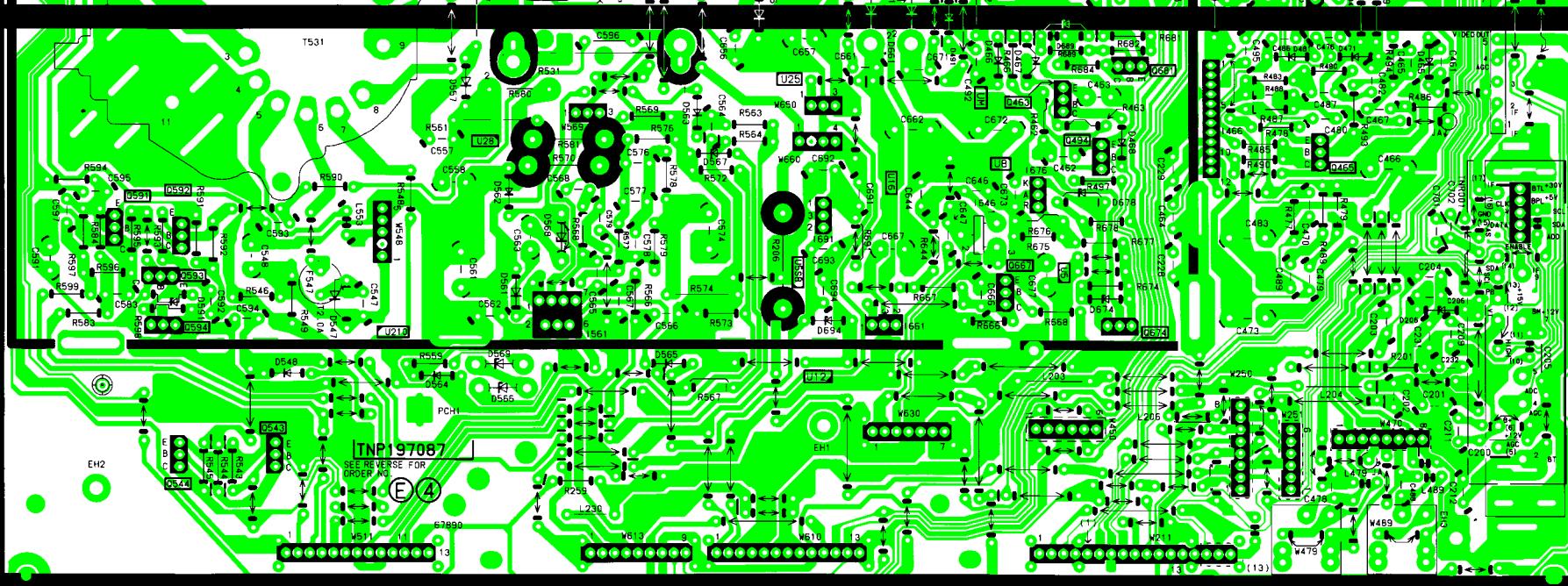
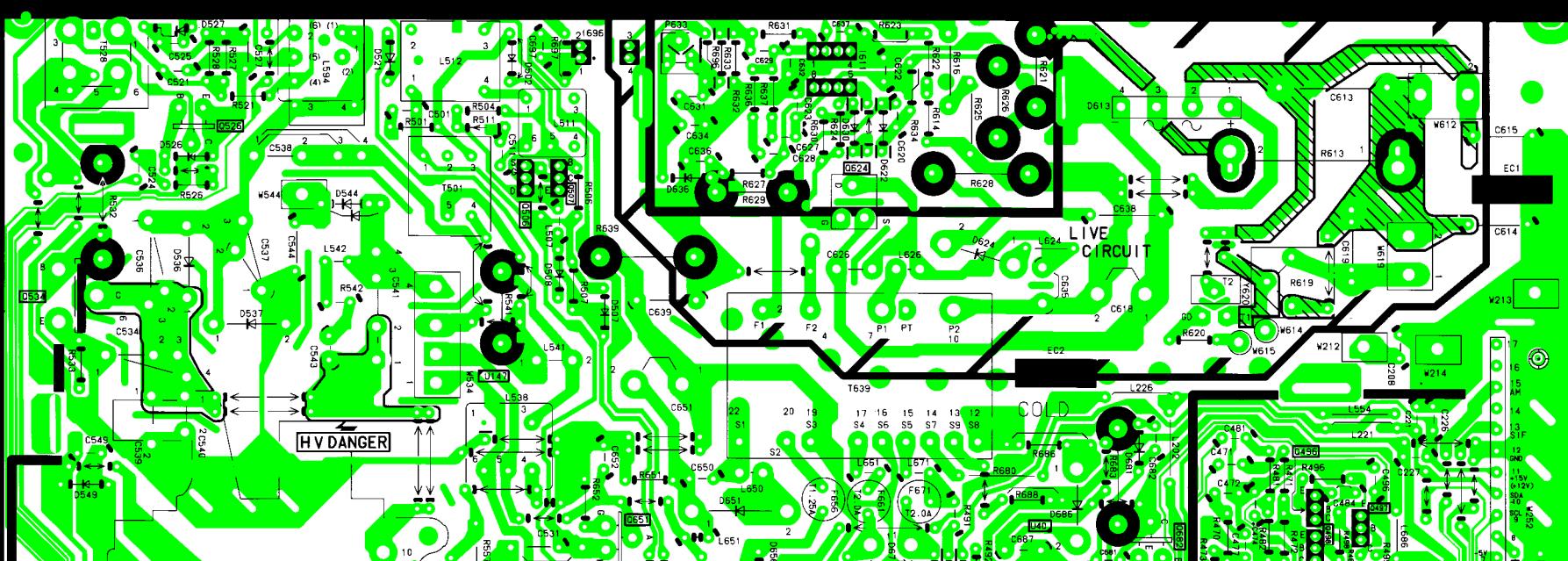


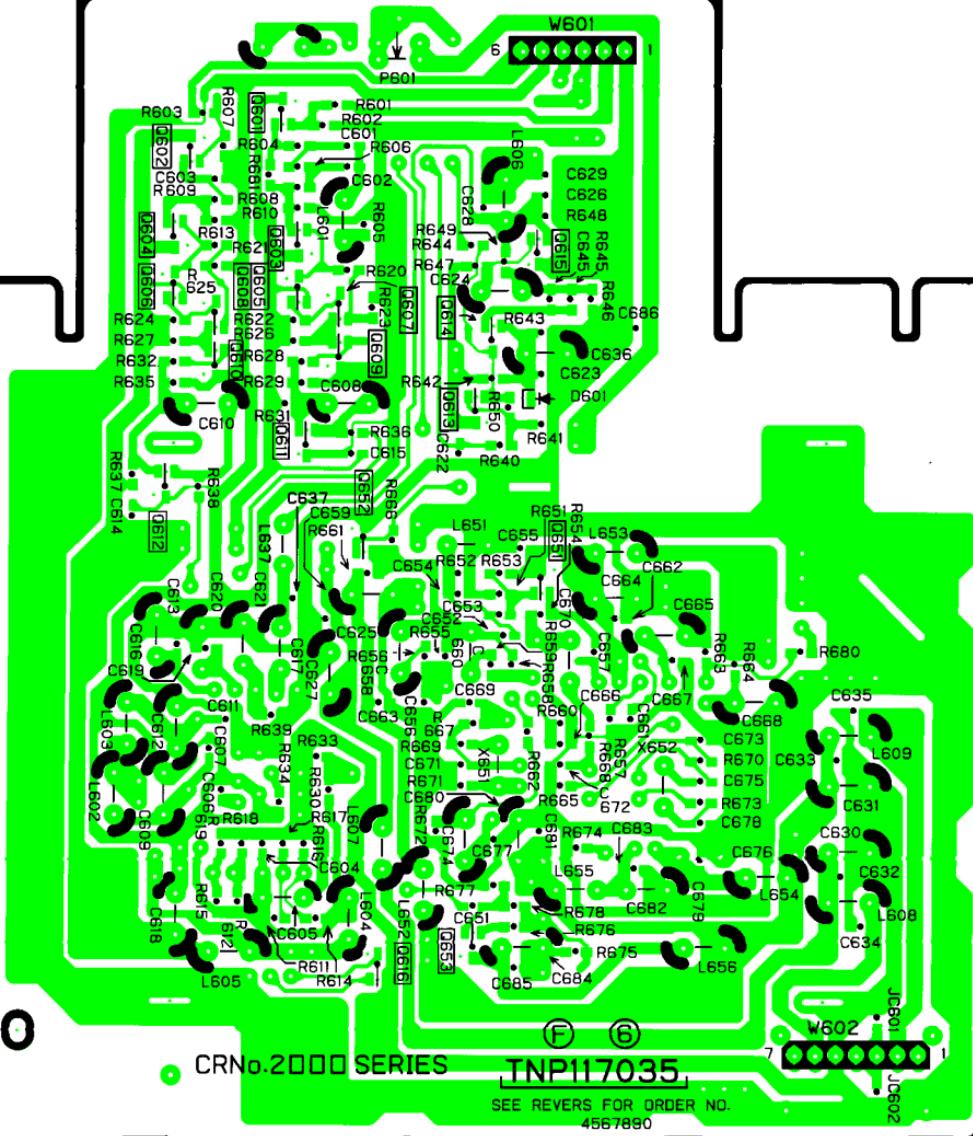
M BOARD
TNP8EM012

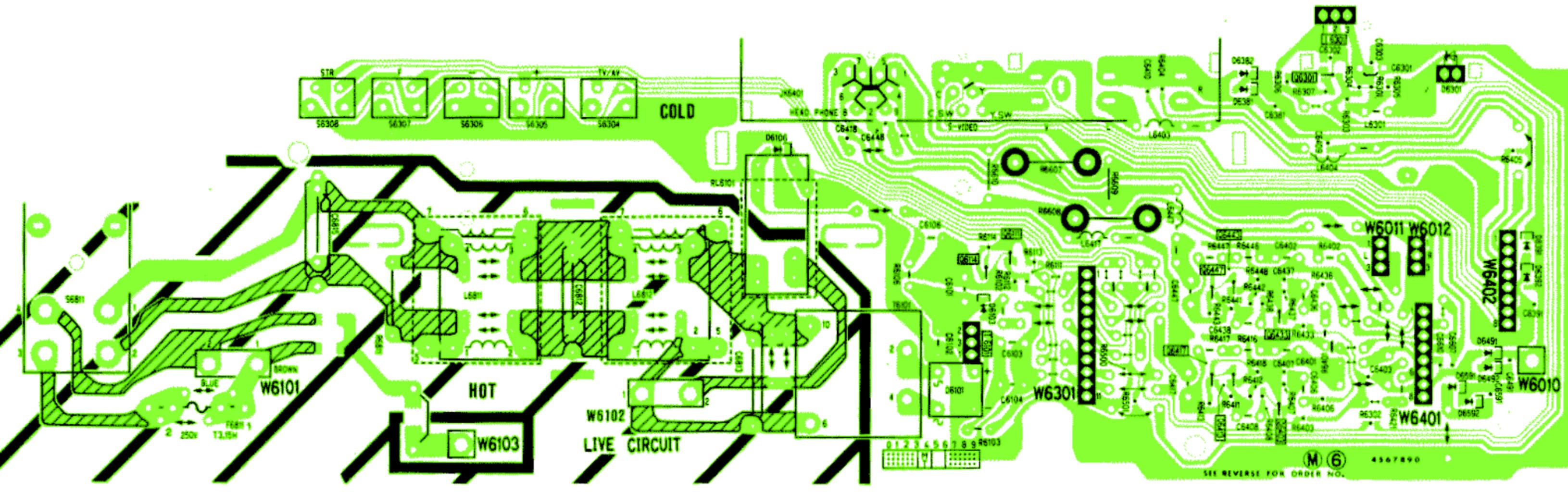












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