

TX-W32/28D3F 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

B2 - PCB

D - PCB

E - PCB

F - PCB

H - PCB

M1 - PCB

Y - PCB



BACK

B2 - Schematic

D - Schematic

E - Schematic

F - Schematic

H - Schematic

M1 - Schematic

Y - Schematic



BACK

Service Manual



Colour Television

TX-W32D3F

TX-W28D3F

EURO-3HW Chassis

Specifications

(Information in brackets {} refer to TX-W28D3F)

Power Source :	220 - 240 V AC, 50Hz
Power Consumption :	151W {149W}
Standby Power Consumption :	1W
Aerial Impedance :	75Ω unbalanced, Coaxial Type
Receiving System :	PAL B/G, D/K, I, H, PAL - 60 SECAM B/G, D/K, L/L ¹ M.NTSC, NTSC (AV Only)
Receiving Channels :	VHF E2 - E12
VHF H1 - H2 (ITALY)	VHF A - H (ITALY)
VHF R1 - R2	VHF R3 - R5
VHF R6 - R12	UHF E21 - E69
CATV (S01 - S05)	CATV S1 - S10 (M1 - M10)
CATV S11 - S20 (U1 - U10)	CATV S21 - S41 (HYPERBAND)
Intermediate Frequency :	
Video	38.9MHz, 34MHz
Sound	32.9MHz, 33.4MHz 33.16MHz, 32.4MHz 40.4MHz, 34.05MHz, 33.05MHz 34.65MHz, 34.47MHz, 34.5MHz
Colour	
Video / Audio Terminals	
AUDIO MONITOR OUT	Audio (RCA x 2) 500mV rms 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 10 kΩ S-Video IN (21 pin) Y : 1V p-p 75Ω C : 0.3V p-p 75Ω
AV2 OUT	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ Selectable output (21 pin)
AV3 IN S-Video IN	Y : 1V p-p 75Ω (4-pin) C : 0.3V p-p 75Ω Audio (RCA x 2) 500mV rms 10kΩ Video (RCA x 1) 1V p-p 75Ω
AV4 IN Video (21 pin)	1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ
AV4 OUT	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ
High Voltage :	30.5 kV ± 1kV
Picture Tube :	W76LFC185X05 76 cm {W66EHK51X71 66 cm}
Visible screen size:	106° deflection
Audio Output :	
Internal Speaker	2 x 20W (Music Power) 8 Ω Impedance
Headphones	8 Ω Impedance
Accessories supplied :	Remote Control 2 x R6 (UM3) Batteries
Dimensions :	Height : 555cm {497mm} Width : 862cm {760mm} Depth : 553cm {518mm}
Net Weight	52kg {39.7kg}

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

Panasonic

Caractéristiques

(Les informations entre parenthèses {} concernent le TX-W28D3F)

Alimentation :	220 - 240 V AC, 50Hz
Consommation :	151W {149W}
Standby Consommation :	1W
Impédance d'antenne :	75Ω asymétrique sur prise coaxiale
Système de réception :	PAL B/G, D/K, I, H, PAL - 60 SECAM B/G, D/K, L/L ¹ M.NTSC, NTSC (Entrée AV seulement)
Canaux de réception :	VHF E2 - E2
VHF H1 - H2 (ITALY)	VHF A - H (ITALY)
VHF R1 - R2	VHF R3 - R5
VHF R6 - R12	UHF E21 - E69
CATV (S01 - S05)	CATV S1 - S10 (M1 - M10)
CATV S11 - S20 (U1 - U10)	CATV S21 - S41 (HYPERBAND)
Fréquence Intermédiaire :	
Vidéo	38.9MHz, 34MHz
Sound	32.9MHz, 33.4MHz 33.16MHz, 32.4MHz 40.4MHz, 34.05MHz, 33.05MHz 34.65MHz, 34.47MHz, 34.5MHz
Colour	
Les bornes vidéo/audio :	
Audio monitor sortie	Audio (RCA x 2) 500mV rms 1kΩ
Entrée AV1 (21 broches)	Vidéo 1V p-p 75Ω Audio 500mV rms 10kΩ RGB (21 broches)
Sortie AV1 (21 broches)	Vidéo 1V p-p 75Ω Audio 500mV rms 1kΩ
Entrée AV2 (21 broches)	Vidéo 1V p-p 75Ω Audio 500mV rms 10 kΩ S-Video IN (21 broches) Y : 1V p-p 75Ω C : 0.3V p-p 75Ω
Sortie AV2 (21 broches)	Vidéo 1V p-p 75Ω Audio 500mV rms 1kΩ Sortie Commutable (21 broches)
Entrée AV3	S-Video IN Y : 1V p-p 75Ω (4-pin) C : 0.3V p-p 75Ω Audio (RCA x 2) 500mV rms 10kΩ Vidéo (RCA x 1) 1V p-p 75Ω
Entrée AV4 (21 broches)	Vidéo 1V p-p 75Ω Audio 500mV rms 10kΩ
Sortie AV4 (21 broches)	Vidéo 1V p-p 75Ω Audio 500mV rms 1kΩ
Tension d'anode :	30.5 kV ± 1kV
Tube image :	W76LFC185X05 76 cm {W66EHK51X71 66 cm} 106° mesure diagonale
Sortie Audio :	
Hautes parleurs intérieurs	2 x 20W (Music Power) 8 Ω Impédance
Casque d'écoute	8 Ω Impédance
Accessories fournis :	Télécommande R6 (UM3) Piles x 2
Dimensions :	Hauteur : 555cm {497mm} Largeur : 862cm {760mm} Profondeur : 553cm {518mm}
Poids (NET) :	52kg {39.7kg}

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

CONTENTS

SAFETY PRECAUTIONS
LOCATION OF CONTROLS
SERVICE HINTS
SERVICE MODE
SELF CHECK
WAVEFORM PATTERN TABLE
BLOCK DIAGRAM
PARTS LOCATION
REPLACEMENT PARTS LIST
CONDUCTOR VIEWS
SCHEMATIC DIAGRAMS

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 31.5kV 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

PRECAUTIONS DE SECURITE
EMPLACEMENT DES COMMANDES
SUGGESTIONS DE DEPANNAGE
REGLAGÉS
AUTO TEST
TABLEAU DE MIRES DE FORMES D'ONDES
SCHEMA SYNOPTIQUE
EMPLACEMENT DES PIECES
LISTE DES PIECES DE RECHANGE
VUE DU CIRCUIT IMPRIMÉ
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.
2. 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 court-circuit.
3. 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
4. Il est préférable de débrancher le fil d'alimentation si la télé—couleur ne doit pas être utilisée pendant un certain temps.
5. Une tension élevée, de l'ordre de 31.5kV, 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.
6. 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

1. Débrancher le fil d'alimentation et installer un fil STRAP entre les deux broches de la fiche.
2. Placer l'interrupteur comme pour établir le contact sur l'appareil.
3. 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 4M Ω , et 20M Ω . 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 2kΩ 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.

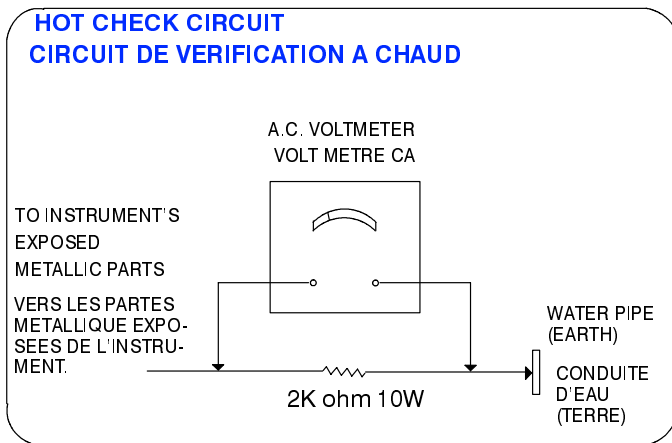


Fig.1

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 31.5kV 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 30.5kV ± 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

1. Brancher le cordon secteur directement à une prise secteur. Ne pas utiliser de transformateur d'isolation pour cette vérification.
2. Raccorder une résistance de 2kΩ, 10W, en série avec une partie métallique exposée du récepteur et une terre comme une conduite d'eau.
3. Utiliser un voltmètre CA, de type à impédance élevée, pour mesurer le potentiel à travers la résistance.
4. Vérifier toutes les parties métalliques exposées et mesurer la tension à chaque point.
5. Retourner la fiche CA dans la prise secteur et répéter toutes les mesures ci-dessus.
6. 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 31.5kV sans, émettre de radiations.

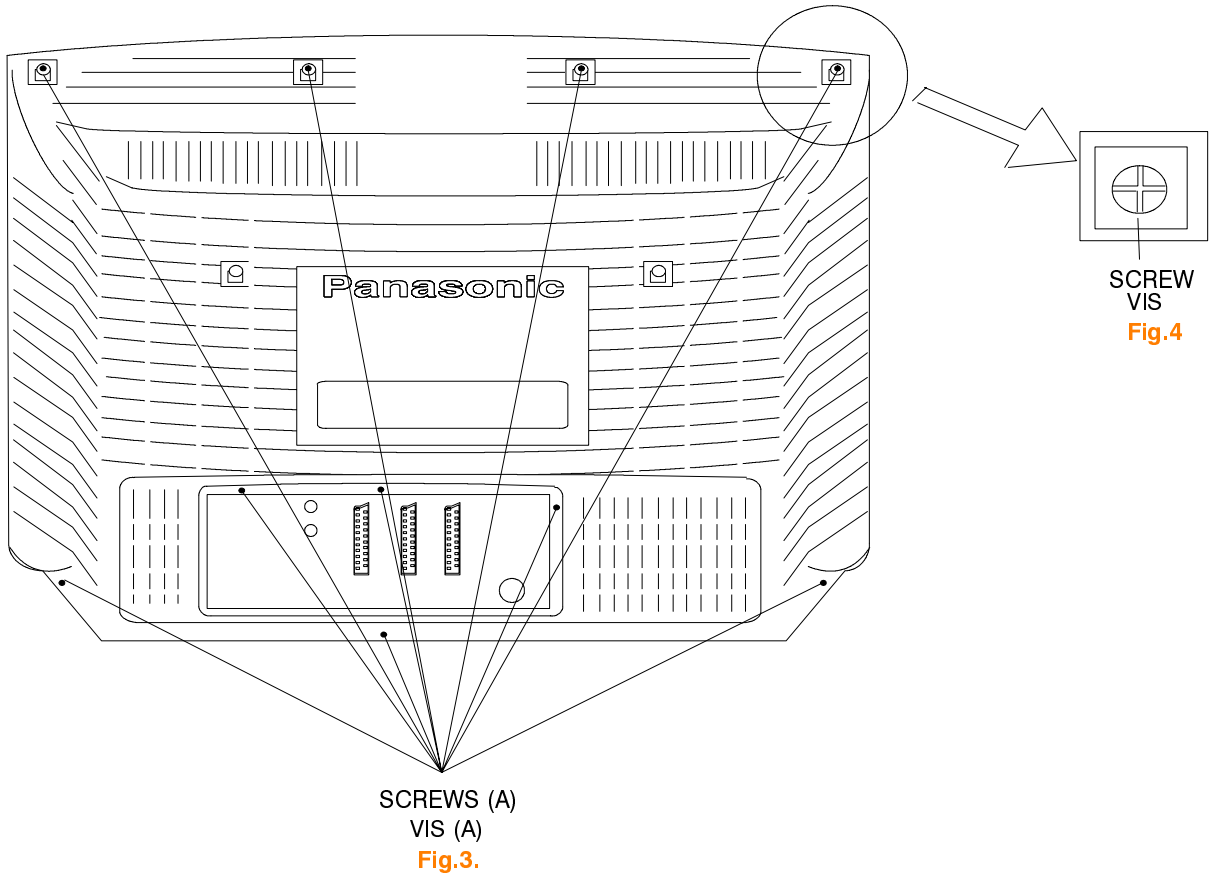
REMARQUE : Il est important que le multimètre à haute tension utilisé soit étalonné périodiquement.

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 30.5kV ± 1kV Si la lecture est hors des tolérances, une réparation immédiate s'impose afin de prévenir toute panne prématurée.
3. 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 10 screws (A) as shown in **Fig.3/Fig.4.**



SUGGESTIONS DE DEPANNAGE

COMMENT RETIRER LE PENNEAU ARRIÈRE

1. Retirer les 10 vis (A) comme sur la **Fig.3. / Fig.4.**

LOCATION OF CONTROLS

EMPLACEMENT DES COMMANDES

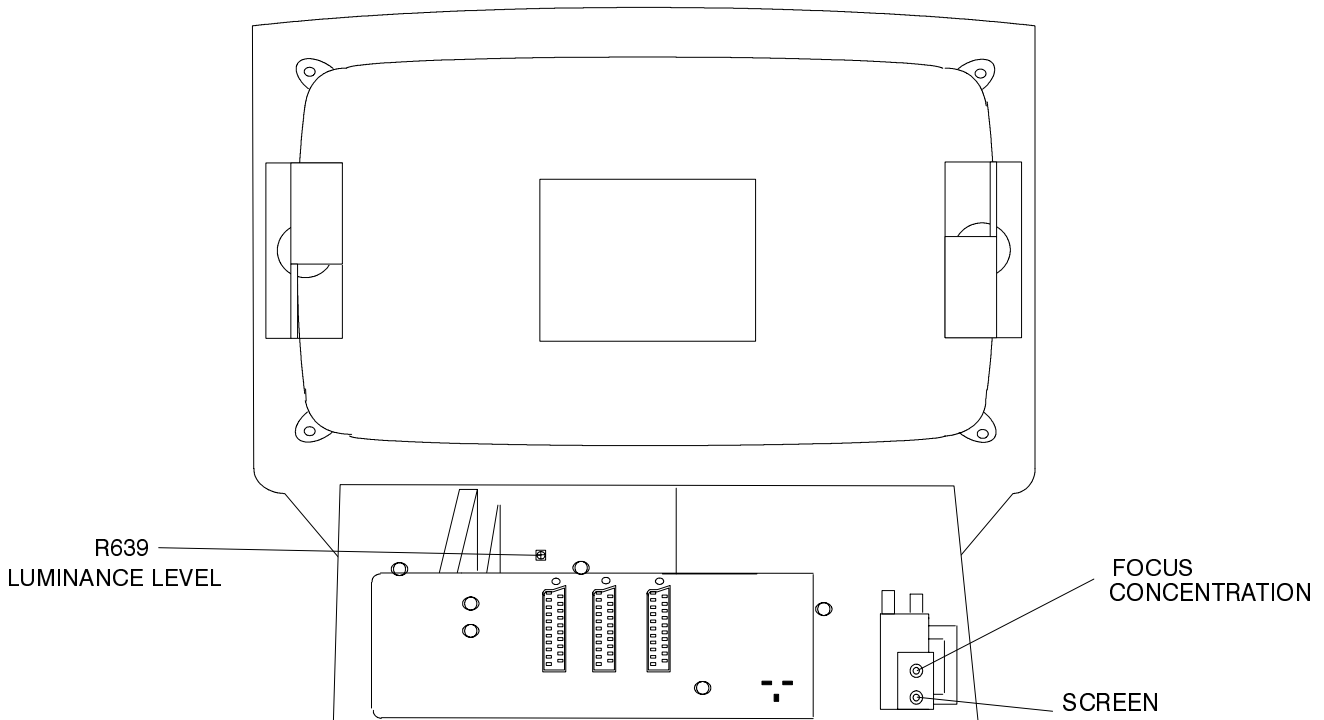


Fig.2

Service Mode

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 minimum position, press the Reveal button on the remote control and at the same time press the \pm /v button on the customer controls at the front of the TV, this will place the TV into the Service Mode.
2. Press the RED / GREEN buttons to step up / down through the functions.
3. Press the YELLOW / BLUE buttons to alter the function values.
4. Press the STORE button after each adjustment has been made to store the required values.
5. 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 into the Memory Pack and then download them onto this or any other EURO-3HW TV set.

TV to Memory Pack process

1. Plug the memory pack into the AV2 21 pin terminal at the back of the TV and switch the TV on.
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

1. Plug the memory pack into the AV2 21 pin terminal at the back of the TV and switch the TV on.
2. Go into the Service Mode as explained above. The screen will show: –

Program
External>>TV

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

Loading

4. 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!

5. The tuning information from the Memory Pack has now been copied into the TV.
6. To exit from the Service Mode press the Normalisation button.
7. 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 press the Normalisation button 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

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.

1. Régler par la télécommande le niveau de **Grave** au **maximum**, **Aigu** au **minimum**. Appuyer simultanément sur le bouton **+/v** en face avant du TV et le bouton **Reveal** de la télécommande. Ces actions positionnent le TV en Mode Service.
2. Appuyer sur la touche **ROUGE** ou **VERTE** pour sélectionner la fonction désirée.
3. Appuyer sur la touche **JAUNE** ou **BLEUE** pour modifier les valeurs des réglages.
4. Mettre en mémoire après chaque réglage, en appuyant sur la touche **STORE**.
5. 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 Memor vers un autre TV EURO-3HW.

Processus de transfert "téléviseur vers bloc-mémoire"

1. La partie arrière du téléviseur comporte trois connecteurs à 21 broches : brancher le bloc-mémoire dans le connecteur AV2, puis mettre le téléviseur en marche ("ON").
2. Passer en Mode Service (voir ci-dessus). L'écran affichera:

Program
External >> TV

3. Appuyer sur la touche BLEUE de la télécommande. L'écran du téléviseur présente le message suivant:

Program
TV >> External

4. Appuyer sur la touche de mémorisation (STORE) du téléviseur et l'écran présentera le message suivant :

Storing

5. 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"

1. La partie arrière du téléviseur comporte trois connecteurs à 21 broches : brancher le bloc-mémoire dans le connecteur AV2, puis mettre le téléviseur en marche ("ON").
2. Passer en Mode Service (voir ci-dessus). L'écran affichera:

Program
External >> TV

3. Appuyer sur la touche de mémorisation (STORE) du téléviseur et l'écran présentera le message suivant:

Loading

4. 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!

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

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") puis 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.

Alignment Settings

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

Alignment Function		Settings / Special features
Vertical amplitude	V-AMP 038	Optimum setting
Vertical linearity	V-LIN 022	
V-Pos.	V-POS 005	Optimum setting
Horizontal amplitude	H-AMP 043	Optimum setting
Horizontal position	H-POS 035	
EW-amplitude	E/W-AMP 1 020	Optimum setting
EW-amplitude	E/W-AMP 2 015	Optimum setting
Trapezium-comp	TRAPEZ-1 004	Optimum setting
Vert. DC.	VERT. D.C. 008	Not to be adjusted.
Text Position	TEXT POSITION 060	Optimum setting
Cutoff	- - -	Select a window pattern enter Service Mode and step through to Cutoff, connect an oscilloscope to the Blue Cathode and adjust the screen VR of the FBT to get $150\pm 5V$ at the base of the Cutoff pulse.
Cutoff RGB	CUTOFF RGB 032 032 032	Press the GREEN button to step through the settings. Adjust for optimum.
White RGB	WHITE RGB 032 032 032	Press the GREEN button to step through the settings. Adjust for optimum.
Sub Brightness	SUB BRIGHT 000	Optimum setting

RÉGLAGES

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

Fonctions		Réglages / Points particuliers
Amplitude verticale	V-AMP 038	Optimiser les réglages
Linéarité verticale	V-LIN 022	
V-Pos.	V-POS 005	Optimiser les réglages
Amplitude horizontal	H-AMP 043	Optimiser les réglages
Centrage horizontal	H-POS 035	
Amplitude E.O.	E/W-AMP 1 020	Optimiser les réglages
Amplitude E.O.	E/W-AMP 2 015	Optimiser les réglages
Correction trapèze	TRAPEZ-1 004	Optimiser les réglages
Vert. DC.	VERT. D.C. 008	Ne pas régler
Text Position	TEXT POSITION 060	Optimiser les réglages
Cutoff	- - -	Selectionner une mire, passer en mode service, et pas à pas atteindre le menu Cutoff. Placer la sonde de l'oscilloscope sur la cathode Bleue. Régler la tension d'écran sur le transformateur THT pour obtenir $150\pm 5V$ à la base de l'impulsion de Cutoff.
Cutoff RGB	CUTOFF RGB 032 032 032	Appuyer sur la touche VERTE pour accéder aux réglages. Régler pour optimiser.
White RGB	WHITE RGB 032 032 032	Appuyer sur la touche VERTE pour accéder aux réglages. Régler pour optimiser.
Sub brightness	SUB BRIGHT 000	Optimiser les réglages

ADJUSTMENT PROCEDURE

Item/Preparation	Adjustments																																																												
Supply Voltage Check 1. Receive a greyscale pattern 2. Set the controls: Brightness Minimum Contrast Minimum Volume Minimum	1. Confirm the following voltages. <table border="0"> <tr> <td>E PCB</td> <td></td> <td></td> <td>D PCB</td> <td></td> <td></td> </tr> <tr> <td>U5B 5</td> <td>±</td> <td>0.5V</td> <td>U5A 5.1</td> <td>±</td> <td>0.12/0.1V</td> </tr> <tr> <td>U8A 8</td> <td>±</td> <td>0.5V</td> <td>U5SB 5</td> <td>±</td> <td>0.25V</td> </tr> <tr> <td>U9 9</td> <td>±</td> <td>0.5V</td> <td>U15 15</td> <td>±</td> <td>0.7V</td> </tr> <tr> <td>U12 11.8</td> <td>±</td> <td>0.5V</td> <td>U16 16.1</td> <td>±</td> <td>0.8V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U22 22.5</td> <td>±</td> <td>1V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U38 19</td> <td>±</td> <td>1V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U47 47.5</td> <td>±</td> <td>2.5V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U150 150</td> <td>±</td> <td>1V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U200 204</td> <td>±</td> <td>10V</td> </tr> </table>	E PCB			D PCB			U5B 5	±	0.5V	U5A 5.1	±	0.12/0.1V	U8A 8	±	0.5V	U5SB 5	±	0.25V	U9 9	±	0.5V	U15 15	±	0.7V	U12 11.8	±	0.5V	U16 16.1	±	0.8V				U22 22.5	±	1V				U38 19	±	1V				U47 47.5	±	2.5V				U150 150	±	1V				U200 204	±	10V
E PCB			D PCB																																																										
U5B 5	±	0.5V	U5A 5.1	±	0.12/0.1V																																																								
U8A 8	±	0.5V	U5SB 5	±	0.25V																																																								
U9 9	±	0.5V	U15 15	±	0.7V																																																								
U12 11.8	±	0.5V	U16 16.1	±	0.8V																																																								
			U22 22.5	±	1V																																																								
			U38 19	±	1V																																																								
			U47 47.5	±	2.5V																																																								
			U150 150	±	1V																																																								
			U200 204	±	10V																																																								

RÉGLAGES

Préparation	Réglages																																																												
1. Appliquer une mire à carreaux N/B 2. Régler les contrôles suivants Lumière Minimum Contraste Minimum Volume Minimum	1. Confirmer le réglage : <table border="0"> <tr> <td>E PCB</td> <td></td> <td></td> <td>D PCB</td> <td></td> <td></td> </tr> <tr> <td>U5B 5</td> <td>±</td> <td>0.5V</td> <td>U5A 5.1</td> <td>±</td> <td>0.12/0.1V</td> </tr> <tr> <td>U8A 8</td> <td>±</td> <td>0.5V</td> <td>U5SB 5</td> <td>±</td> <td>0.25V</td> </tr> <tr> <td>U9 9</td> <td>±</td> <td>0.5V</td> <td>U15 15</td> <td>±</td> <td>0.7V</td> </tr> <tr> <td>U12 11.8</td> <td>±</td> <td>0.5V</td> <td>U16 16.1</td> <td>±</td> <td>0.8V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U22 22.5</td> <td>±</td> <td>1V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U38 19</td> <td>±</td> <td>1V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U47 47.5</td> <td>±</td> <td>2.5V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U150 150</td> <td>±</td> <td>1V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>U200 204</td> <td>±</td> <td>10V</td> </tr> </table>	E PCB			D PCB			U5B 5	±	0.5V	U5A 5.1	±	0.12/0.1V	U8A 8	±	0.5V	U5SB 5	±	0.25V	U9 9	±	0.5V	U15 15	±	0.7V	U12 11.8	±	0.5V	U16 16.1	±	0.8V				U22 22.5	±	1V				U38 19	±	1V				U47 47.5	±	2.5V				U150 150	±	1V				U200 204	±	10V
E PCB			D PCB																																																										
U5B 5	±	0.5V	U5A 5.1	±	0.12/0.1V																																																								
U8A 8	±	0.5V	U5SB 5	±	0.25V																																																								
U9 9	±	0.5V	U15 15	±	0.7V																																																								
U12 11.8	±	0.5V	U16 16.1	±	0.8V																																																								
			U22 22.5	±	1V																																																								
			U38 19	±	1V																																																								
			U47 47.5	±	2.5V																																																								
			U150 150	±	1V																																																								
			U200 204	±	10V																																																								

SELF CHECK

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

To get into the Self Check mode press the Status button on the Remote Control at the same time pressing the $-/v$ button on the customer controls at the front of the TV, and the screen will show:—

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

0 — ok	Test Byte	8 — ok	Col Decoder (M)
1 — ok	Lst Power	9 — ok	Clock generator
2 — ok	U5 Det	10 — ok	V — Processor
3 — ok	Protector	11 — ok	DFU
4 — ok	Not Used	12 — ok	Display Processor
5 — ok	Not Used	13 — ok	RGB Processor
6 — ok	Not Used	14 — ok	Deflection IC
7 — ok	Not Used	15 — ok	MSP

If the CCU ports have been checked and found to be incorrect or not located then "—" will appear in place of "OK".

Hex codes

		TX-W32D3F	TX-W28D3F
16 — --	Col Decoder (P)	49	09
17 — --	Q — PIP	73	73
18 — ok	Not Used	E5	E5
19 — ok	Not Used	BF	BF
20 — ok	EAROM	BB	BB
21 — ok	Audio Matrix	FB	FB
22 — ok	Video Matrix	03	03
23 — ok	Tuner		

AUTO TEST

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

Pour rentrer dans le mode **Auto Test** presser le bouton Statu de la télécommande et simultanément le bouton $-/v$ en face avant du TV. Le menu Auto Test s'affiche:—

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

0 — ok	Test Byte	8 — ok	Col Decoder (M)
1 — ok	Lst Power	9 — ok	Clock generator
2 — ok	U5 Det	10 — ok	V — Processor
3 — ok	Protector	11 — ok	DFU
4 — ok	Not Used	12 — ok	Display Processor
5 — ok	Not Used	13 — ok	RGB Processor
6 — ok	Not Used	14 — ok	Deflection IC
7 — ok	Not Used	15 — ok	MSP

Si les ports du CCU ont été testés et qu'ils soient incorrectes ou non identifiés lorsqu'il apparaît "—" au lieu de "OK".

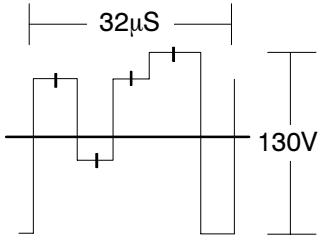
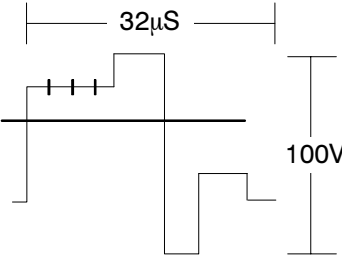
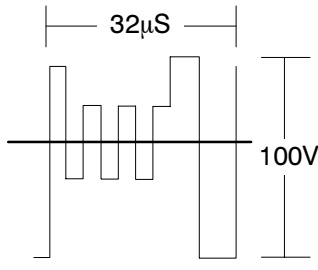
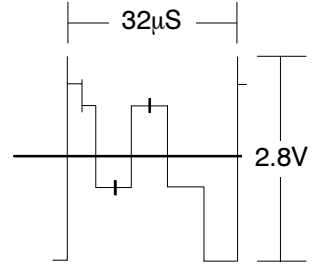
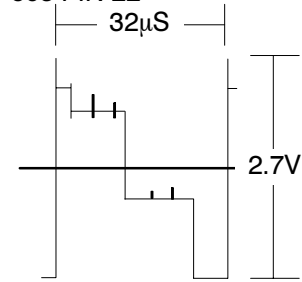
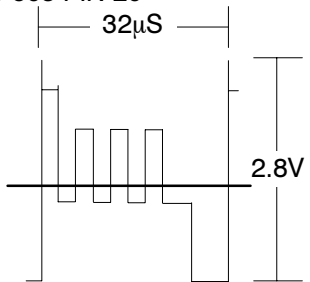
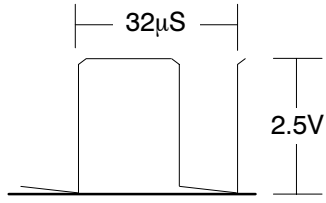
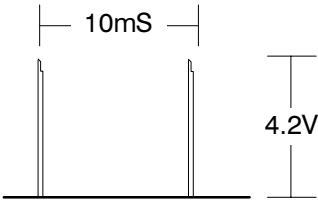
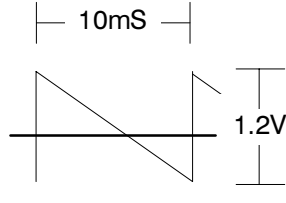
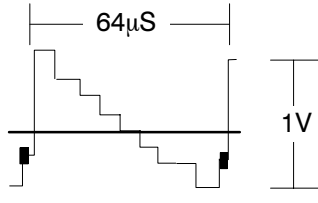
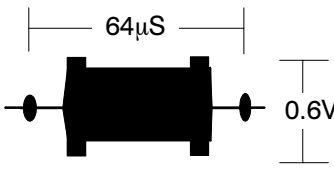
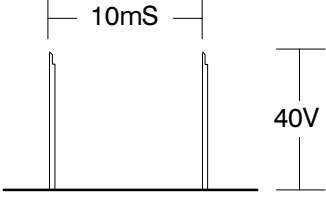
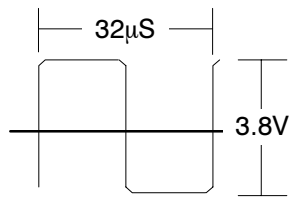
Hex codes

		TX-W32D3F	TX-W28D3F
16 — --	Col Decoder (P)	49	09
17 — --	Q — PIP	73	73
18 — ok	Not Used	E5	E5
19 — ok	Not Used	BF	BF
20 — ok	EAROM	BB	BB
21 — ok	Audio Matrix	FB	FB
22 — ok	Video Matrix	03	03
23 — ok	Tuner		

WAVEFORM PATTERN TABLE TABLEAU DE MIRES DE FORMA D'ONDES

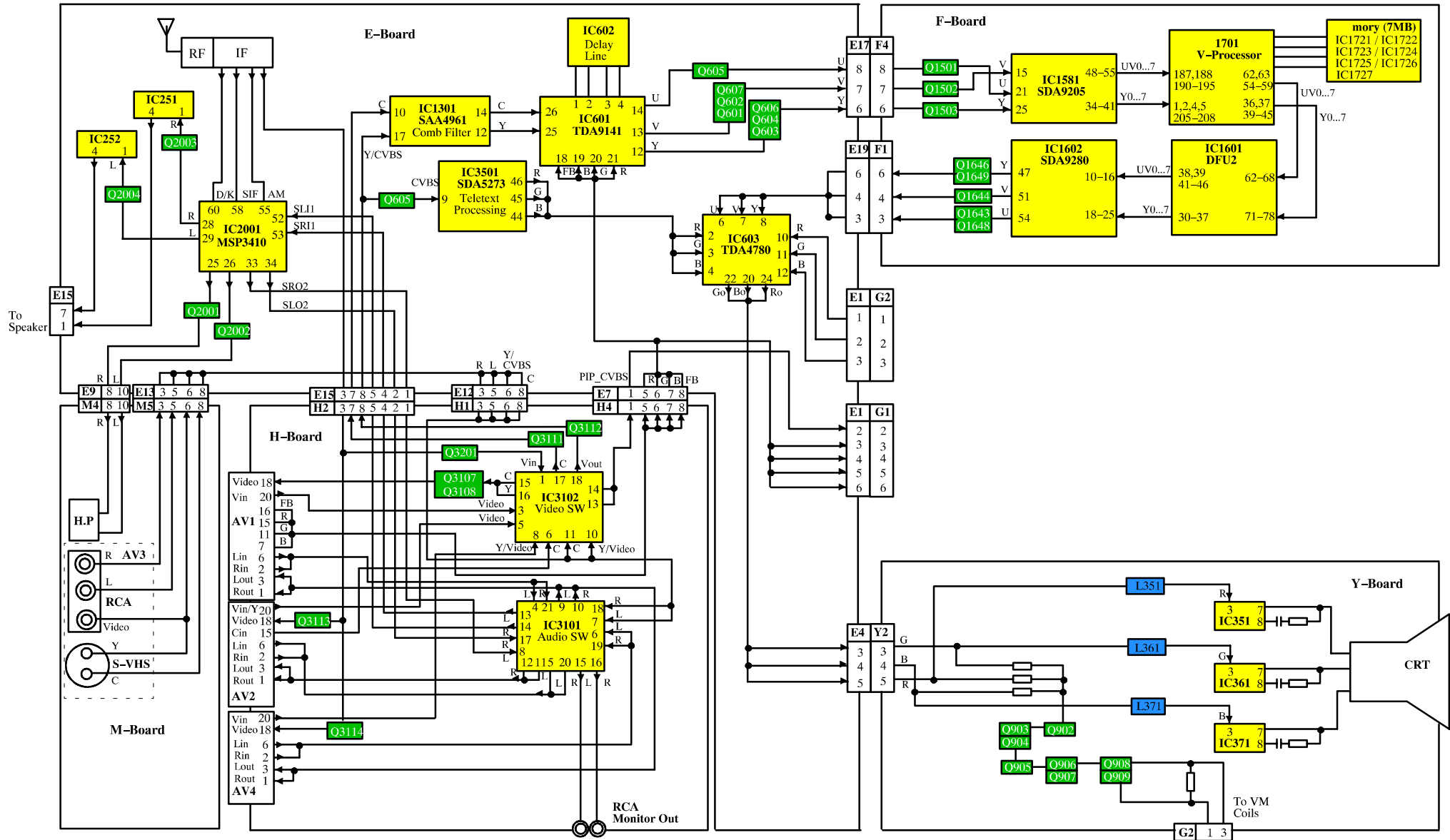
NOTE: All waveforms have been taken using a standard colour bar pattern

REMARQUE: Tous les oscillogrammes ont été relevés avec une mire de barres couleur standard.

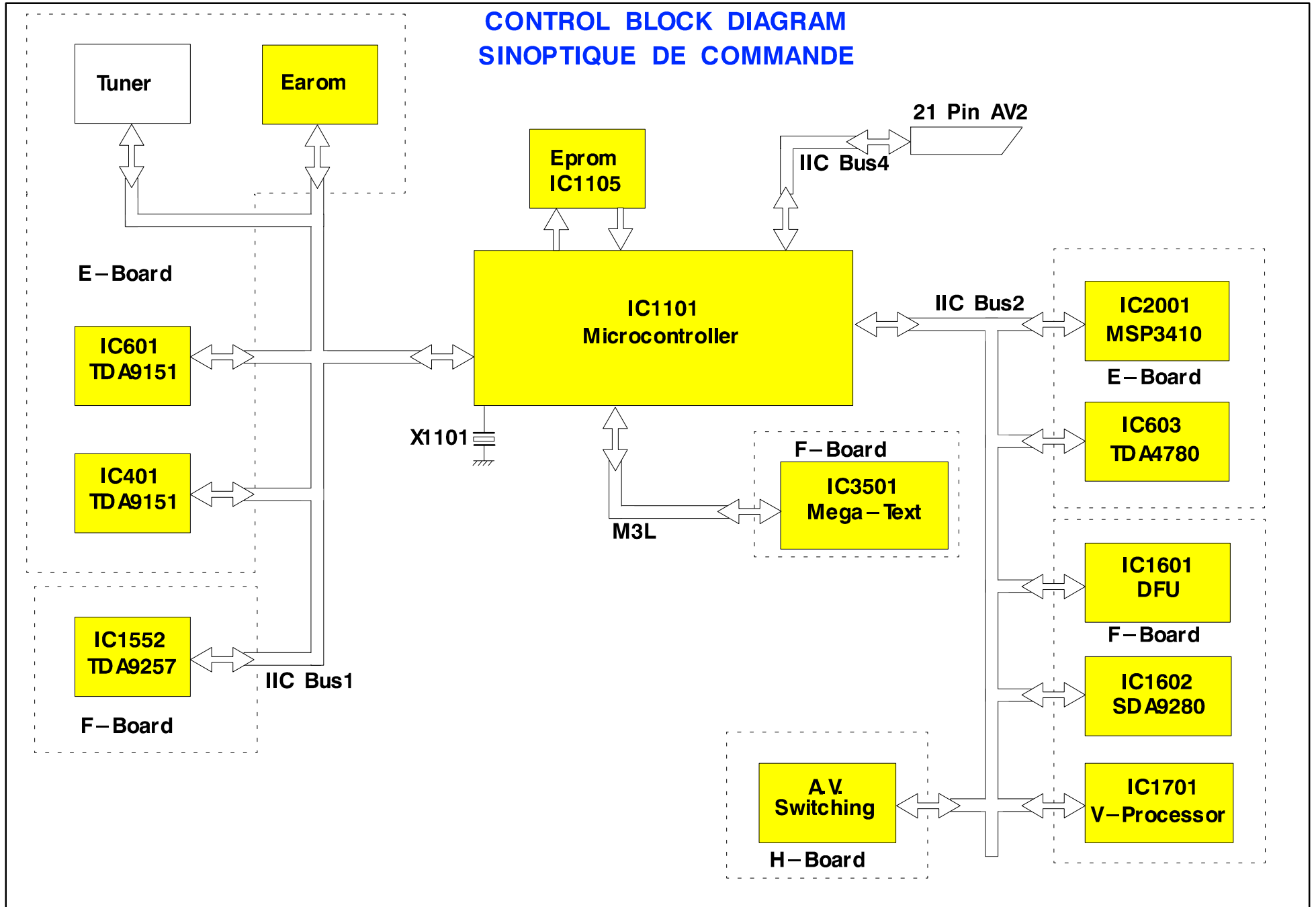
<p>RED DRIVE TPY1</p>  <p>32µS 130V</p>	<p>GREEN DRIVE TPY2</p>  <p>32µS 100V</p>	<p>BLUE DRIVE TPY3</p>  <p>32µS 100V</p>
<p>RED OUTPUT IC 603 PIN 24</p>  <p>32µS 2.8V</p>	<p>GREEN OUTPUT IC 603 PIN 22</p>  <p>32µS 2.7V</p>	<p>BLUE OUTPUT IC 603 PIN 20</p>  <p>32µS 2.8V</p>
<p>HORIZONTAL SYNC IC 3501 PIN 4</p>  <p>32µS 2.5V</p>	<p>VERTICAL SYNC IC 3501 PIN 3</p>  <p>10mS 4.2V</p>	<p>VERT OUTPUT IC (INPUT) IC 451 PIN 1</p>  <p>10mS 1.2V</p>
<p>LUMINANCE IN IC601 PIN 26</p>  <p>64µS 1V</p>	<p>CHROMINANCE IN IC601 PIN 25</p>  <p>64µS 0.6V</p>	<p>VERTICAL OUTPUT (DRIVE) IC 451 PIN 9</p>  <p>10mS 40V</p>
<p>HORIZONTAL OUTPUT IC401 PIN 20</p>  <p>32µS 3.8V</p>		

VIDEO AND AUDIO SIGNAL PROCESSING BLOCK DIAGRAM

SINOPTIQUE VIDEO / AUDIO



CONTROL BLOCK DIAGRAM SINOPTIQUE DE COMMANDE



PARTS LOCATION

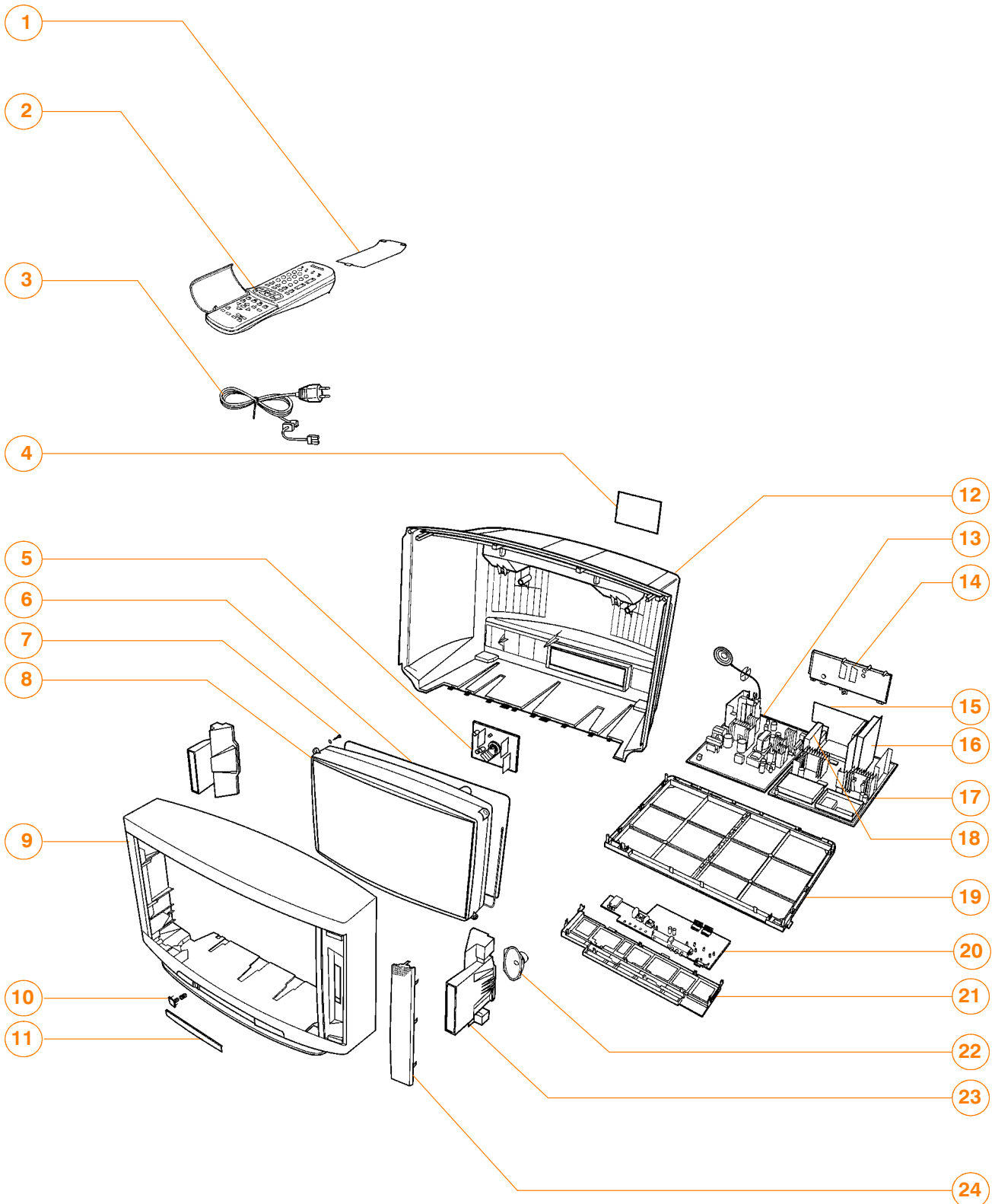
NOTE :

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. de la liste des pièces de rechange.



REPLACEMENT PARTS LIST

Important Safety Notice

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

LISTE DES PIÈCES DE RECHANGE

Remarque importante pour la sécurité

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

COMMON PARTS FOR TX-W32D3F AND TX-W28D3F

Ref No.	Part No.	Description
MISCELLANEOUS COMPONENTS		
1)	UR51EC780	BATTERY COVER (REMOTE)
2)	EUR51923	REMOTE CONTROL
3)	TSX8E0020	POWER CORD Δ
4)	*****	REFER TO DIFFERENCE LIST
5)	*****	REFER TO DIFFERENCE LIST
6)	*****	REFER TO DIFFERENCE LIST
7)	THT1062	CRT FIXING SCREW
8)	*****	REFER TO DIFFERENCE LIST
9)	*****	REFER TO DIFFERENCE LIST
10)	TBX8E033	POWER BUTTON
11)	TBM8E1728	PANASONIC BADGE
12)	*****	REFER TO DIFFERENCE LIST
13)	*****	REFER TO DIFFERENCE LIST
14)	TKP8E1153	AV COVER
15)	TNPA0293AJ	H P.C.B. Δ
16)	TNPA0294AD	F P.C.B. Δ
17)	*****	REFER TO DIFFERENCE LIST
18)	TNPA0317AA	B P.C.B. Δ
19)	TMX8E014	CHASSIS FRAME
20)	*****	REFER TO DIFFERENCE LIST
21)	TMW8E023	CONTROL BRACKET
22)	EAGG1218F2	SPEAKER
23)	TKK8E026	SPEAKER REFLECTOR
24)	*****	REFER TO DIFFERENCE LIST
	TKP8E1149	LID
	TKP8E1150	FRONT PANEL RIGHT
	TKP8E1160	FRONT PANEL RIGHT
	ENV57D03G3	TUNER Δ
	TEK6940	LID CATCHER
	TBM8E1778	REAR AV LABEL
	TLT100K991R	COIL
	TMW8E017	L.E.D.HOLDER
	TMX8E015	PCB SUPPORT BRACKET
	TQB8E2381A	GERMAN INST BOOK Δ
	TQB8E2381B	DUTCH INST BOOK Δ
	TQB8E2381C	ITALIAN INST BOOK Δ
	TQB8E2381D	FRENCH INST BOOK Δ
	TQB8E2381E	SPANISH INST BOOK Δ
	TQB8E2381F	SWEDISH INST BOOK Δ
	TQB8E2381G	NORWEGIAN INST BOOK Δ
	TQB8E2381H	SUOMI INST BOOK Δ
	TQB8E2381K	DANISH INST BOOK Δ
	TQA8E2043	SCHEMATIC DIAGRAM (ITALY) Δ
	TBM8E1532-2	PRESET PANEL
	UM-3DJ-2P	BATTERY-SET
	832AG11D-ESL	I.C.SOCKET
	31221212478	FIX CLIP
	TES4537	SPRING
	TES4537	SPRING
	TES4537	SPRING
	TES4537	SPRING
	F9-4-220	RELAY
	PCS-068A-1	68 PIN I.C.SOCKET
	ERC12GK825	SOLID 0.5W 10% 8M2 Ω
	ERDS1TJ6R8	CARBON 0.5W 5% 6R8 Ω
INTEGRATED CIRCUITS		
IC101	TDA9814TV3	VIF
IC251	TDA2030AV	AUDIO AMPLIFIER
IC252	TDA2030AV	AUDIO AMPLIFIER
IC351	TDA6111	RGB OUTPUT
IC361	TDA6111	RGB OUTPUT
IC371	TDA6111	RGB OUTPUT

Ref No.	Part No.	Description
IC401	TDA9151-B	DEFLECTION CONTROL
IC451	TDA8350Q/N5	VERTICAL OUTPUT
IC601	TDA9143-N1	COLOUR DECODER
IC602	TDA4665-V4	DELAY LINE
IC603	TDA4780	RGB VIDEO PROCESSOR
IC845	SE140N	ERROR AMPLIFIER
IC851	TL431ACLPM	COIL
IC852	TL431ACLPM	COIL
IC1051	RPM-637CBRS1	LED RECEIVER
IC1101	SDA30C164-2	MICRO PROCESSOR
IC1102	S-80745AL-Z	RESET
IC1103	MN1280R	RESET
IC1301	SA44961	COMB FILTER
IC1551	SN74F04DR	CLOCK
IC1552	SDA9257	CLOCK GENERATOR
IC1581	SDA9205-2GEG	A/D CONVERTER
IC1601	UPD93213GF	DFU
IC1602	SDA9280B21GE	VISUAL PROCESSOR
IC1701	MB87D202A	VIDEO PROCESSOR
IC1721	SDA9251-2XGE	RAM
IC1722	SDA9251-2XGE	RAM
IC1723	SDA9251-2XGE	RAM
IC1724	SDA9251-2XGE	RAM
IC1725	SDA9251-2XGE	RAM
IC1726	SDA9251-2XGE	RAM
IC1727	SDA9251-2XGE	RAM
IC2001	MSP3410DPPB4	AUDIO PROCESSOR
IC3101	TEA6420	AUDIO SWITCH
IC3102	TEA6415C	VIDEO SWITCH
IC3501	SDA5273S/134	MEGA TEXT
IC3502	M514256B70RS	DRAM
IC3801	AN7808LB	8V REGULATOR
IC3803	AN7805LB	5V REGULATOR
IC3804	AN7809FLB	9V REGULATOR
IC3805	AN78L08TA	8V REGULATOR
CAPACITORS		
C002	ECUV1H102JCX	S.M.CAP 50V 1nF
C003	ECA1HM101GB	ELECT 50V 100pF
C004	ECUV1H102JCX	S.M.CAP 50V 1nF
C005	ECUV1H102JCX	S.M.CAP 50V 1nF
C006	ECUV1H102JCX	S.M.CAP 50V 1nF
C007	ECUV1H102JCX	S.M.CAP 50V 1nF
C009	ECA1HMR22GB	ELECT 50V 0.22 μ F
C010	ECUV1H102KXB	S.M.CAP 50V 1nF
C014	ECUV1H103ZFX	S.M.CAP 50V 10nF
C015	ECUV1H390JCX	S.M.CAP 50V 39pF
C016	ECUV1H390JCX	S.M.CAP 50V 39pF
C017	ECA1CM470GB	ELECT 16V 47 μ F
C019	ECUV1H561JCX	S.M.CAP 50V 560pF
C020	ECUV1H103ZFX	S.M.CAP 50V 10nF
C022	ECUV1H103ZFX	S.M.CAP 50V 10nF
C023	ECUV1H681JCX	S.M.CAP 50V 680pF
C024	ECUV1H103ZFX	S.M.CAP 50V 10nF
C025	ECUV1H101JCX	S.M.CAP 50V 100pF
C026	ECUV1H681JCX	S.M.CAP 50V 680pF
C101	ECUV1H104ZFX	S.M.CAP 50V 100nF
C106	ECUV1H104ZFX	S.M.CAP 50V 100nF
C108	ECUV1H104ZFX	S.M.CAP 50V 100nF
C109	ECUV1H104ZFX	S.M.CAP 50V 100nF
C111	ECUV1H103ZFX	S.M.CAP 50V 10nF
C113	ECUV1H393KXB	S.M.CAP 50V 39nF
C115	ECUV1H104ZFX	S.M.CAP 50V 100nF
C116	ECUV1H030CPX	S.M.CAP 50V 30pF
C117	ECUV1H070DTX	S.M.CAP 50V 70pF
C118	ECEA1CKA100	ELECT 16V 10 μ F
C120	ECEA1HKA2R2	ELECT 50V 2.2 μ F

Ref No.	Part No.	Description		
C121	ECEA1HKA2R2	ELECT	50V	2.2 μ F
C122	ECUV1C105ZFX	S.M.CAP	16V	1000nF
C123	ECEA1HKA2R2	ELECT	50V	2.2 μ F
C124	ECUV1H471JCX	S.M.CAP	50V	470pF
C125	ECUV1H104ZFX	S.M.CAP	50V	100nF
C126	ECUV1H104ZFX	S.M.CAP	50V	100nF
C127	ECEA1CKA100	ELECT	16V	10 μ F
C128	ECUV1H102KBX	S.M.CAP	50V	1nF
C129	ECEA1CKA100	ELECT	16V	10 μ F
C130	ECUV1H104ZFX	S.M.CAP	50V	100nF
C131	ECUV1H102KBX	S.M.CAP	50V	1nF
C132	ECUV1H102KBX	S.M.CAP	50V	1nF
C133	ECUV1H102KBX	S.M.CAP	50V	1nF
C134	ECUV1H104ZFX	S.M.CAP	50V	100nF
C135	ECEA1CKA100	ELECT	16V	10 μ F
C136	ECUV1H104ZFX	S.M.CAP	50V	100nF
C137	ECUV1H100DCX	S.M.CAP	50V	10pF
C138	ECUV1H151JCX	S.M.CAP	50V	150pF
C139	ECUV1H104ZFX	S.M.CAP	50V	100nF
C140	ECUV1H151JCX	S.M.CAP	50V	150pF
C142	ECUV1H100DCX	S.M.CAP	50V	10pF
C143	ECUV1H220JCX	S.M.CAP	50V	22pF
C144	ECUV1H151JCX	S.M.CAP	50V	150pF
C145	ECUV1H151JCX	S.M.CAP	50V	150pF
C146	ECUV1H120JCX	S.M.CAP	50V	12pF
C148	ECUV1H103ZFX	S.M.CAP	50V	10nF
C150	ECEA1CKA100	ELECT	16V	10 μ F
C151	ECUV1H104ZFX	S.M.CAP	50V	100nF
C152	ECUV1H104ZFX	S.M.CAP	50V	100nF
C153	ECUV1H120JCX	S.M.CAP	50V	12pF
C158	ECUV1H103ZFX	S.M.CAP	50V	10nF
C159	ECUV1H080CCX	S.M.CAP	50V	80pF
C251	ECQM1H474J	FILM	50V	470nF
C252	ECUV1H222JCX	S.M.CAP	50V	2.2nF
C253	ECUV1H393KBX	S.M.CAP	50V	39nF
C254	ECUV1H393KBX	S.M.CAP	50V	39nF
C255	ECEA1CN100	ELECT	16V	10 μ F
C256	ECA1HM100GB	ELECT	50V	10pF
C257	ECA1HM100GB	ELECT	50V	10pF
C258	ECQM1H474J	FILM	50V	470nF
C259	ECUV1H222JCX	S.M.CAP	50V	2.2nF
C260	ECUV1H393KBX	S.M.CAP	50V	39nF
C261	ECUV1H393KBX	S.M.CAP	50V	39nF
C262	ECEA1CN100	ELECT	16V	10 μ F
C263	ECA1HM100GB	ELECT	50V	10pF
C264	ECA1HM100GB	ELECT	50V	10pF
C267	ECUV1H103ZFX	S.M.CAP	50V	10nF
C268	ECUV1H223ZFX	S.M.CAP	50V	22nF
C269	ECA1EM222GB	ELECT	25V	2.2nF
C270	ECA1EM222GB	ELECT	25V	2.2nF
C271	ECA1HM010GB	ELECT	50V	1pF
C272	ECA1HM010GB	ELECT	50V	1pF
C273	ECA1HM010GB	ELECT	50V	1pF
C274	ECA1HM010GB	ELECT	50V	1pF
C275	ECUV1C184KBX	S.M.CAP	16V	0.18 μ F
C276	ECUV1C184KBX	S.M.CAP	16V	0.18 μ F
C277	ECEA1HU471	ELECT	50V	470 μ F
C281	ECUV1H104ZFX	S.M.CAP	50V	100nF
C282	ECUV1H561JCX	S.M.CAP	50V	560pF
C283	ECUV1H561JCX	S.M.CAP	50V	560pF
C352	ECUV1H224ZFX	S.M.CAP	50V	0.22 μ F
C353	ECUV1H103KBX	S.M.CAP	50V	10nF
C354	ECKC2H103J	CERAMIC	50V	10nF
C355	ECKC2H102J	CERAMIC	500V	1nF
C362	ECUV1H224ZFX	S.M.CAP	50V	0.22 μ F
C363	ECUV1H103KBX	S.M.CAP	50V	10nF
C364	ECKC2H103J	CERAMIC	50V	10nF
C365	ECKC2H102J	CERAMIC	500V	1nF
C372	ECUV1H224ZFX	S.M.CAP	50V	0.22 μ F
C373	ECUV1H103KBX	S.M.CAP	50V	10nF
C374	ECKC2H103J	CERAMIC	50V	10nF
C375	ECKC2H102J	CERAMIC	500V	1nF
C381	ECA1HM101GB	ELECT	50V	100pF
C382	ECA0JM471GB	ELECT	6.3V	470pF
C383	ECUV1H103KBX	S.M.CAP	50V	10nF
C384	ECQM2104KZ	FILM	250V	100nF
C385	ECEA2EU220	ELECT	250V	22 μ F
C386	ECKC3D152J	CERAMIC	2KV	1.5nF
C395	ECQM1H104J	FILM	50V	100nF
C402	ECUV1H104ZFX	S.M.CAP	50V	100nF
C403	ECA1AM332E	ELECT	10V	3.3nF

Ref No.	Part No.	Description		
C404	ECUV1H104ZFX	S.M.CAP	50V	100nF
C405	ECUV1H104ZFX	S.M.CAP	50V	100nF
C406	ECUV1H471JCX	S.M.CAP	50V	470pF
C409	ECUV1H101JCX	S.M.CAP	50V	100pF
C413	ECUV1H561KBX	S.M.CAP	50V	560pF
C451	ECUV1H104ZFX	S.M.CAP	50V	100nF
C452	ECA1EM332E	ELECT	25V	3.3nF
C453	ECEA1HU101	ELECT	50V	100 μ F
C455	ECEA1HN100	ELECT	50V	10 μ F
C456	ECQV1104JZ3	FILM	100V	100nF
C457	ECUV1H102JCX	S.M.CAP	50V	1nF
C461	ECUV1C224KBX	S.M.CAP	16V	220nF
C462	ECKC3A471J	CERAMIC	1KV	470pF
C463	ECUV1H102KBX	S.M.CAP	50V	1nF
C464	ECKC1H102J	CERAMIC	50V	1000pF
C501	ECQM1H224J	FILM	50V	220nF
C502	ECQM2683JZ	FILM	250V	68nF
C503	ECKC2H102J	CERAMIC	500V	1nF
C504	ECQB1H223K	FILM	50V	22nF
C506	ECKC2H102J	CERAMIC	500V	1nF
C552	ECWH15H102J	FILM	1500V	1nF
C553	ECQP1223JZW	FILM	100V	22nF
C555	ECWH15H622J	FILM	1500V	6.2nF
C556	ECEA2CNR47SB	ELECT	160V	R47 μ F
C557	ECKC2H331J	CERAMIC	500V	330pF
C558	ECA2EM330B	ELECT	250V	33pF
C559	ECKC2H101J	CERAMIC	500V	100pF
C560	ECA1EM332E	ELECT	25V	3.3nF
C561	ECKC2H561J	CERAMIC	500V	560pF
C562	ECA1JM220B	ELECT	63V	22pF
C563	TAC7A2D564JC	CERAMIC	1500V	0.56 μ F
C564	ECKC1H472J	CERAMIC	50V	4.7nF
C565	ECQP1223JZW	FILM	100V	22nF
C571	ECQV1H105JZ	FILM	50V	1 μ F
C572	ECWH15H682J	FILM		6.8nF
C573	ECQF4153JZH	FILM	400V	15nF
C575	TAC1114Z564A	CERAMIC	400V	0.56 μ F
C577	TAC1114Z105A	CERAMIC	400V	1 μ F
C580	ECKC1H103JB	CERAMIC	50V	10nF
C584	ECKC3D391J	CERAMIC	2KV	390pF
C585	ECKC3A471J	CERAMIC	1KV	470pF
C586	ECKC1H103JB	CERAMIC	50V	10nF
C601	ECUV1H104ZFX	S.M.CAP	50V	100nF
C602	ECUV1H104ZFX	S.M.CAP	50V	100nF
C603	ECUV1H104ZFX	S.M.CAP	50V	100nF
C604	ECUV1H104ZFX	S.M.CAP	50V	100nF
C605	ECUV1H104ZFX	S.M.CAP	50V	100nF
C606	ECUV1H104ZFX	S.M.CAP	50V	100nF
C608	ECUV1H104ZFX	S.M.CAP	50V	100nF
C609	ECUV1H180JCX	S.M.CAP	50V	18pF
C610	ECUV1H150JCX	S.M.CAP	50V	15pF
C611	ECUV1H104ZFX	S.M.CAP	50V	100nF
C612	ECUV1H332ZFX	S.M.CAP	50V	3.3nF
C613	ECUV1C474ZFX	S.M.CAP	16V	0.47 μ F
C614	ECUV1H332ZFX	S.M.CAP	50V	3.3nF
C615	ECUV1H104ZFX	S.M.CAP	50V	100nF
C616	ECUV1H104ZFX	S.M.CAP	50V	100nF
C617	ECA1CM220GB	ELECT	16V	22 μ F
C618	ECUV1H104ZFX	S.M.CAP	50V	100nF
C619	ECUV1H104ZFX	S.M.CAP	50V	100nF
C620	ECUV1H104ZFX	S.M.CAP	50V	100nF
C621	ECUV1H104ZFX	S.M.CAP	50V	100nF
C622	ECUV1H104ZFX	S.M.CAP	50V	100nF
C623	ECUV1H103ZFX	S.M.CAP	50V	10nF
C624	ECUV1H103ZFX	S.M.CAP	50V	10nF
C625	ECUV1H103ZFX	S.M.CAP	50V	10nF
C626	ECUV1H103ZFX	S.M.CAP	50V	10nF
C627	ECUV1H103ZFX	S.M.CAP	50V	10nF
C628	ECUV1H103ZFX	S.M.CAP	50V	10nF
C629	ECUV1H103ZFX	S.M.CAP	50V	10nF
C630	ECUV1H103ZFX	S.M.CAP	50V	10nF
C631	ECUV1H103ZFX	S.M.CAP	50V	10nF
C632	ECUV1H103ZFX	S.M.CAP	50V	10nF
C633	ECUV1H470JCX	S.M.CAP	50V	47pF
C634	ECA1CM221GB	ELECT	16V	220pF
C635	ECA1HM220GB	ELECT	50V	22pF
C636	ECA1HM010GB	ELECT	50V	1pF
C637	ECQM1H224J	FILM	50V	220nF
C638	ECA1HM010GB	ELECT	50V	1pF
C639	ECQM1H224J	FILM	50V	220nF
C640	ECQM1H224J	FILM	50V	220nF

Ref No.	Part No.	Description
C1586	ECUV1H104ZFX S.M.CAP	50V 100nF
C1588	ECA1CM470GB ELECT	16V 47µF
C1590	ECUV1H104ZFX S.M.CAP	50V 100nF
C1591	ECUV1H104ZFX S.M.CAP	50V 100nF
C1592	ECUV1H104ZFX S.M.CAP	50V 100nF
C1593	ECA1CM470GB ELECT	16V 47µF
C1594	ECUV1H104ZFX S.M.CAP	50V 100nF
C1595	ECUV1H104ZFX S.M.CAP	50V 100nF
C1596	ECUV1H104ZFX S.M.CAP	50V 100nF
C1599	ECA1CM470GB ELECT	16V 47µF
C1601	ECUV1H104ZFX S.M.CAP	50V 100nF
C1602	ECUV1H104ZFX S.M.CAP	50V 100nF
C1603	ECUV1H103KBX S.M.CAP	50V 10nF
C1604	ECUV1H104ZFX S.M.CAP	50V 100nF
C1605	ECUV1H104ZFX S.M.CAP	50V 100nF
C1606	ECUV1H104ZFX S.M.CAP	50V 100nF
C1607	ECUV1H104ZFX S.M.CAP	50V 100nF
C1608	ECA1CM470GB ELECT	16V 47µF
C1610	ECUV1H104ZFX S.M.CAP	50V 100nF
C1611	ECUV1H103KBX S.M.CAP	50V 10nF
C1612	ECUV1H104ZFX S.M.CAP	50V 100nF
C1613	ECUV1H104ZFX S.M.CAP	50V 100nF
C1614	ECUV1H104ZFX S.M.CAP	50V 100nF
C1616	ECUV1H152JCX S.M.CAP	50V 1.5pF
C1617	ECUV1H104ZFX S.M.CAP	50V 100nF
C1618	ECUV1H104ZFX S.M.CAP	50V 100nF
C1619	ECUV1H104ZFX S.M.CAP	50V 100nF
C1620	ECUV1H104ZFX S.M.CAP	50V 100nF
C1621	ECA1CM470GB ELECT	16V 47µF
C1622	ECUV1H104ZFX S.M.CAP	50V 100nF
C1625	ECA1CM470GB ELECT	16V 47µF
C1641	ECA1CM470GB ELECT	16V 47µF
C1642	ECUV1H104ZFX S.M.CAP	50V 100nF
C1701	ECA1CM470GB ELECT	16V 47µF
C1702	ECUV1H104ZFX S.M.CAP	50V 100nF
C1703	ECUV1H104ZFX S.M.CAP	50V 100nF
C1704	ECUV1H104ZFX S.M.CAP	50V 100nF
C1705	ECUV1H104ZFX S.M.CAP	50V 100nF
C1706	ECUV1H104ZFX S.M.CAP	50V 100nF
C1707	ECUV1H104ZFX S.M.CAP	50V 100nF
C1708	ECUV1H104ZFX S.M.CAP	50V 100nF
C1709	ECUV1H104ZFX S.M.CAP	50V 100nF
C1710	ECUV1H104ZFX S.M.CAP	50V 100nF
C1711	ECUV1H103KBX S.M.CAP	50V 10nF
C1712	ECUV1H104ZFX S.M.CAP	50V 100nF
C1713	ECUV1H104ZFX S.M.CAP	50V 100nF
C1714	ECUV1H104ZFX S.M.CAP	50V 100nF
C1721	ECA1CM470GB ELECT	16V 47µF
C1722	ECA1CM470GB ELECT	16V 47µF
C1723	ECUV1H104ZFX S.M.CAP	50V 100nF
C1724	ECUV1H104ZFX S.M.CAP	50V 100nF
C1725	ECUV1H104ZFX S.M.CAP	50V 100nF
C1726	ECUV1H104ZFX S.M.CAP	50V 100nF
C1727	ECUV1H104ZFX S.M.CAP	50V 100nF
C1728	ECUV1H104ZFX S.M.CAP	50V 100nF
C1729	ECUV1H104ZFX S.M.CAP	50V 100nF
C1730	ECUV1H104ZFX S.M.CAP	50V 100nF
C1731	ECUV1H104ZFX S.M.CAP	50V 100nF
C1732	ECUV1H104ZFX S.M.CAP	50V 100nF
C1733	ECUV1H104ZFX S.M.CAP	50V 100nF
C1734	ECUV1H104ZFX S.M.CAP	50V 100nF
C1735	ECUV1H104ZFX S.M.CAP	50V 100nF
C1736	ECUV1H104ZFX S.M.CAP	50V 100nF
C1740	ECUV1H102KBX S.M.CAP	50V 1nF
C2001	ECA1CM100GB ELECT	16V 10pF
C2002	ECUV1H104ZFX S.M.CAP	50V 100nF
C2003	ECUV1H104ZFX S.M.CAP	50V 100nF
C2004	ECUV1H102JCX S.M.CAP	50V 1nF
C2005	ECUV1H391JCX S.M.CAP	50V 390pF
C2006	ECUV1H391JCX S.M.CAP	50V 390pF
C2007	ECUV1H102JCX S.M.CAP	50V 1nF
C2008	ECUV1H102JCX S.M.CAP	50V 1nF
C2009	ECUV1H102JCX S.M.CAP	50V 1nF
C2010	ECUV1H102JCX S.M.CAP	50V 1nF
C2011	ECUV1H102JCX S.M.CAP	50V 1nF
C2012	ECUV1H102JCX S.M.CAP	50V 1nF
C2014	ECQM1H334J FILM	50V 330nF
C2017	ECA1CM100GB ELECT	16V 10pF
C2018	ECA1CM100GB ELECT	16V 10pF
C2019	ECA1CM221GB ELECT	16V 220pF
C2020	ECUV1H104ZFX S.M.CAP	50V 100nF
C2021	ECUV1H104ZFX S.M.CAP	50V 100nF

Ref No.	Part No.	Description
C2022	ECA1HM3R3GB ELECT	50V 3.3µF
C2023	ECUV1H471JCX S.M.CAP	50V 470pF
C2024	ECUV1H471JCX S.M.CAP	50V 470pF
C2025	ECUV1H221JCX S.M.CAP	50V 220pF
C2026	ECUV1H221JCX S.M.CAP	50V 220pF
C2027	ECUV1H221JCX S.M.CAP	50V 220pF
C2028	ECUV1H221JCX S.M.CAP	50V 220pF
C2029	ECUV1H221JCX S.M.CAP	50V 220pF
C2030	ECUV1H221JCX S.M.CAP	50V 220pF
C2031	ECUV1H104ZFX S.M.CAP	50V 100nF
C2032	ECA1CM100GB ELECT	16V 10pF
C2034	ECUV1H070DCX S.M.CAP	50V 7pF
C2035	ECUV1H560JCX S.M.CAP	50V 56pF
C2036	ECUV1H100DCX S.M.CAP	50V 10pF
C2037	ECUV1H220JCX S.M.CAP	50V 22pF
C2039	ECUV1H070DCX S.M.CAP	50V 7pF
C2040	ECUV1H560JCX S.M.CAP	50V 56pF
C2041	ECUV1H560JCX S.M.CAP	50V 56pF
C2042	ECUV1H104ZFX S.M.CAP	50V 100nF
C2043	ECA1CM100GB ELECT	16V 10pF
C2044	ECUV1H010CCX S.M.CAP	50V 1pF
C2045	ECUV1H010CCX S.M.CAP	50V 1pF
C2050	ECUV1H223ZFX S.M.CAP	50V 22nF
C2051	ECUV1H223ZFX S.M.CAP	50V 22nF
C2052	ECUV1H103ZFX S.M.CAP	50V 10nF
C2053	ECUV1H103ZFX S.M.CAP	50V 10nF
C2054	ECA1CM331B ELECT	16V 330pF
C2055	ECA1CM331B ELECT	16V 330pF
C2058	ECUV1H683ZFX S.M.CAP	50V 68nF
C2059	ECUV1H102KBX S.M.CAP	50V 1nF
C2060	ECUV1H102KBX S.M.CAP	50V 1nF
C2351	ECA1CM471GB ELECT	16V 470pF
C2352	ECA1CM471GB ELECT	16V 470pF
C2353	ECA1HM4R7GB ELECT	50V 4.7µF
C2354	ECKC1H103JB CERAMIC	50V 10nF
C2355	ECA1HMR33GB ELECT	50V 0.33µF
C2356	ECKC1H103JB CERAMIC	50V 10nF
C2360	ECKC1H103JB CERAMIC	50V 10nF
C2361	ECA1CM471GB ELECT	16V 470pF
C2362	ECA1CM471GB ELECT	16V 470pF
C2363	ECA1HM4R7GB ELECT	50V 4.7µF
C2364	ECKC1H103JB CERAMIC	50V 10nF
C2365	ECA1HMR33GB ELECT	50V 0.33µF
C2366	ECKC1H103JB CERAMIC	50V 10nF
C3001	ECKC1H561J CERAMIC	50V 560pF
C3002	ECKC1H561J CERAMIC	50V 560pF
C3005	ECCR1H151J CERAMIC	50V 150pF
C3101	ECEA1HN4R7UB ELECT	50V 4.7µF
C3102	ECA1HM470GB ELECT	50V 47µF
C3103	ECA1CM470GB ELECT	16V 47µF
C3106	ECUV1H561JCX S.M.CAP	50V 560pF
C3107	ECA1HM470GB ELECT	50V 47µF
C3108	ECA1CM470GB ELECT	16V 47µF
C3110	ECUV1H561JCX S.M.CAP	50V 560pF
C3111	ECUV1H102JCX S.M.CAP	50V 1nF
C3112	ECA1HM470GB ELECT	50V 47µF
C3113	ECA1HM470GB ELECT	50V 47µF
C3114	ECA1CM470GB ELECT	16V 47µF
C3115	ECEA1HNR47UB ELECT	50V 0.47µF
C3116	ECA1HM470GB ELECT	50V 47µF
C3117	ECEA1HN4R7UB ELECT	50V 4.7µF
C3118	ECEA1HN4R7UB ELECT	50V 4.7µF
C3119	ECA1HM470GB ELECT	50V 47µF
C3120	ECA1CM470GB ELECT	16V 47µF
C3122	ECUV1H561JCX S.M.CAP	50V 560pF
C3123	ECEA1HN4R7UB ELECT	50V 4.7µF
C3125	ECUV1H561JCX S.M.CAP	50V 560pF
C3126	ECEA1HN4R7UB ELECT	50V 4.7µF
C3127	ECEA1HN4R7UB ELECT	50V 4.7µF
C3128	ECEA1HN4R7UB ELECT	50V 4.7µF
C3129	ECUV1H102JCX S.M.CAP	50V 1nF
C3130	ECEA1HN4R7UB ELECT	50V 4.7µF
C3131	ECUV1H473KBX S.M.CAP	50V 47nF
C3132	ECA1CM470GB ELECT	16V 47µF
C3133	ECA1CM470GB ELECT	16V 47µF
C3134	ECA1CM470GB ELECT	16V 47µF
C3135	ECA1HMR47GB ELECT	50V 0.47µF
C3136	ECA1CM470GB ELECT	16V 47µF
C3137	ECA1HM470GB ELECT	50V 47µF
C3138	ECA1HM470GB ELECT	50V 47µF
C3139	ECUV1H222JCX S.M.CAP	50V 2.2nF
C3140	ECUV1H222JCX S.M.CAP	50V 2.2nF

Ref No.	Part No.	Description			
C3144	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3145	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3147	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3148	ECA1HM4R7GB	ELECT	50V	4.7µF	
C3150	ECA1HM4R7GB	ELECT	50V	4.7µF	
C3152	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3154	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3156	ECA1CM470GB	ELECT	16V	47µF	
C3158	ECUV1H102JCX	S.M.CAP	50V	1nF	
C3160	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3162	ECA1CM471GB	ELECT	16V	470pF	
C3163	ECA1HMR47GB	ELECT	50V	0.47µF	
C3165	ECA1HM470GB	ELECT	50V	47µF	
C3167	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3168	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3169	ECUV1H102JCX	S.M.CAP	50V	1nF	
C3173	ECA1HMR47GB	ELECT	50V	0.47µF	
C3175	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3177	ECUV1H561JCX	S.M.CAP	50V	560pF	
C3180	ECA1HMR47GB	ELECT	50V	0.47µF	
C3181	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
C3182	ECUV1H102JCX	S.M.CAP	50V	1nF	
C3183	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
C3184	ECUV1H473KBX	S.M.CAP	50V	47nF	
C3185	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
C3186	ECEA1HNR47UB	ELECT	50V	0.47µF	
C3187	ECA1HM470GB	ELECT	50V	47µF	
C3188	ECEA1CN470	ELECT	16V	47µF	
C3189	ECEA1CN470	ELECT	16V	47µF	
C3190	ECA1HMR47GB	ELECT	50V	0.47µF	
C3191	ECA1HM470GB	ELECT	50V	47µF	
C3192	ECUV1H473KBX	S.M.CAP	50V	47nF	
C3193	ECUV1H473KBX	S.M.CAP	50V	47nF	
C3194	ECA1HM470GB	ELECT	50V	47µF	
C3201	ECA1HM010GB	ELECT	50V	1pF	
C3202	ECUV1H473ZFX	S.M.CAP	50V	47nF	
C3203	ECA1CM100GB	ELECT	16V	10pF	
C3204	ECUV1H473ZFX	S.M.CAP	50V	47nF	
C3351	ECA1HM101GB	ELECT	50V	100pF	
C3501	ECUV1H220JCX	S.M.CAP	50V	22pF	
C3502	ECUV1H220JCX	S.M.CAP	50V	22pF	
C3503	ECEA1HKN010	ELECT	50V	1µF	
C3504	ECUV1H224ZFX	S.M.CAP	50V	0.22µF	
C3510	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C3511	ECA1HM101GB	ELECT	50V	100pF	
C3512	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3514	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3515	ECA0JM331GB	ELECT	6.3V	330pF	
C3516	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3521	ECA1HM101GB	ELECT	50V	100pF	
C3522	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3801	ECA1HM010GB	ELECT	50V	1pF	
C3802	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3803	ECA1CM471GB	ELECT	16V	470pF	
C3807	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3808	ECUV1H104ZFX	S.M.CAP	50V	100nF	
C3809	ECA0JM101G	ELECT	6.3V	100pF	
C3810	ECUV1H103KBX	S.M.CAP	50V	10nF	
C3812	ECA1CM221GB	ELECT	16V	220pF	
DIODES					
D001	MA4020	DIODE			
D002	MA4020	DIODE			
D103	BA582	DIODE			
D104	BA582	DIODE			
D251	MA165TA5	DIODE	1SS133T-77		
D252	MA165TA5	DIODE	1SS133T-77		
D253	MA165TA5	DIODE	1SS133T-77		
D254	MA165TA5	DIODE	1SS133T-77		
D351	ERA15-04V3	COIL			
D352	ERA15-04V3	COIL			
D361	ERA15-04V3	COIL			
D362	ERA15-04V3	COIL			
D371	ERA15-04V3	COIL			
D372	ERA15-04V3	COIL			
D387	MA2160LFS	DIODE			
D451	MA4056	DIODE			
D452	MA2330-ALF	DIODE			
D453	TVSEM01ZV0	DIODE			
D457	1SS252T-77	DIODE			

Ref No.	Part No.	Description			
D502	1SS254T-77	DIODE			
D503	EU02	DIODE			
D504	EU02	DIODE			
D531	1SS254T-77	DIODE			
D532	1SS254T-77	DIODE			
D533	1SS254T-77	DIODE			
D551	EU02	DIODE			
D556	AU02V0	DIODE			
D557	ERC91-02L9	DIODE			
D558	AU02V0	DIODE			
D559	MTZJT-7736A	DIODE			
D560	1SS252T-77	DIODE			
D561	1SS254T-77	DIODE			
D563	RH3GLF102	DIODE			
D571	FMV-3GULF027	DIODE			
D572	RU3NLF1	DIODE			
D573	1SS254T-77	DIODE			
D574	1SS252T-77	DIODE			
D575	1SS252T-77	DIODE			
D602	MA165TA5	DIODE	1SS133T-77		
D603	MA165TA5	DIODE	1SS133T-77		
D604	MA4062	DIODE			
D706	MA165TA5	DIODE	1SS133T-77		
D707	MA188TA	DIODE			
D803	MTZJT-7711C	DIODE			
D806	TF361MALF3	DIODE			
D807	RBV-608LF-B	DIODE			
D808	1SS254T-77	DIODE			
D809	ERA22-02V3	DIODE			
D810	MA2160LFS	DIODE			
D812	MTZJT-775.6B	DIODE			
D813	MA700TA5	DIODE			
D814	AU01ZV0	DIODE			
D815	PC123FY2	DIODE			
D817	D5L60F4015	DIODE			
D818	TMPG10G3	DIODE			
D819	ERA81004V3	DIODE			
D820	MA4100	DIODE			
D821	EU02AV0	DIODE			
D822	MTZJT-7718C	DIODE			
D845	1SS254T-77	DIODE			
D846	TVSS1WBS20	DIODE			
D847	ERA15-01V1	DIODE			
D849	FMGG26S	DIODE			
D850	EU02	DIODE			
D851	FMGG2CS	DIODE			
D853	1SS254T-77	DIODE			
D854	1SS254T-77	DIODE			
D855	D10SC6MRL	DIODE			
D857	FML22SLF610	DIODE			
D860	1SS254T-77	DIODE			
D861	MTZJT-7713B	DIODE			
D901	1SS254T-77	DIODE			
D902	1SS254T-77	DIODE			
D903	1SS254T-77	DIODE			
D1051	LN81RPHL	DIODE			
D1056	AU01V0	DIODE			
D1057	AU01V0	DIODE			
D1102	MA4051	DIODE			
D1107	MTZJT-775.6A	DIODE			
D1108	1SS254T-77	DIODE			
D1109	1SS254T-77	DIODE			
D1113	MA4051	DIODE			
D1552	RLS72TE-11	DIODE	OR PMLL4148		
D2005	MA723TA5	DIODE			
D2006	MA723TA5	DIODE			
D3101	PMLL5242B	DIODE			
D3102	PMLL5242B	DIODE			
D3103	PMLL5242B	DIODE			
D3104	PMLL5242B	DIODE			
D3105	PMLL5242B	DIODE			
D3107	PMLL5242B	DIODE			
D3108	PMLL5242B	DIODE			
D3109	PMLL5242B	DIODE			
D3110	PMLL5242B	DIODE			
D3111	PMLL5242B	DIODE			
D3112	PMLL5242B	DIODE			
D3115	PMLL5242B	DIODE			
D3117	PMLL5242B	DIODE			
D3120	RLS72TE-11	DIODE	OR PMLL4148		
D3121	RLS72TE-11	DIODE	OR PMLL4148		

Ref No.	Part No.	Description
D3351	1SS254T-77	DIODE
D3501	MA4030	DIODE
D3801	MA4043	DIODE
D3802	MTZJT-778.2A	DIODE
D3803	ERA81004V3	DIODE
D3805	MA4091	DIODE
D3806	MA165TA5	DIODE 1SS133T-77
D3807	MA165TA5	DIODE 1SS133T-77

FUSES

F531	TR5-T1000	FUSE	△
F801	XBA2C50TH15	FUSE	
F845	TR5-T2000	FUSE	△
F846	TR5-T1250	FUSE	△
F8011	EYF52BC	FUSE HOLDER	
F8012	EYF52BC	FUSE HOLDER	

TERMINALS AND LINKS

JA2	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JA3	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JA5	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JA6	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JA7	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JA8	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JA9	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JK3001	TJB16656	A.VTERMINAL			
JSB3	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE010	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE011	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE012	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE015	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE02	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE022	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE023	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE024	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE025	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE028	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE042	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE050	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE056	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE057	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE058	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE062	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE064	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE066	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSE091	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF001	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF002	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF004	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF005	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF015	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF026	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF038	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF040	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF041	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF045	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF046	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF049	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF050	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF054	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF056	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF059	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF061	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSF062	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSH004	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSH005	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSH01	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSH010	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
JSH02	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω

COILS

LC1503	ELKTR391CA	DELAY LINE
LC1507	EXCEMT103DTM	COIL
LC1508	EXCEMT103DTM	COIL
LC1509	EXCEMT103DTM	COIL
LC1510	EXCEMT103DTM	COIL

Ref No.	Part No.	Description
LC1601	ELKTR391CA	DELAY LINE
LC1602	ELKTR391CA	DELAY LINE
LC1603	ELKTR391CA	DELAY LINE
LC1609	ELKTR560BA	DELAY LINE
L002	TLT047K991R	COIL
L004	TLT047K991R	COIL
L005	TLT047K991R	COIL
L102	TLT056K991R	COIL
L103	EQV7EN203B	COIL
L105	ELESNR22MA	COIL
L107	ELESNR22MA	COIL
L108	ELESNR22MA	COIL
L109	EIL7EN015Q	COIL
L110	EQL7EN022Q	COIL
L113	EIL7EN015Q	COIL
L252	EXCELSA35T	COIL
L253	EXCELSA35T	COIL
L254	EXCELSA35T	COIL
L255	EXCELSA35T	COIL
L351	SDL5000	DELAY LINE
L352	EXCELDR25V	COIL
L353	TLT150K991R	COIL
L361	SDL5000	DELAY LINE
L362	EXCELDR25V	COIL
L363	TLT150K991R	COIL
L371	SDL5000	DELAY LINE
L372	EXCELDR25V	COIL
L373	TLT150K991R	COIL
L381	TLT220K991R	COIL
L401	EXCELDR35V	COIL
L402	EXCELDR35V	COIL
L451	EXCELDR35V	COIL
L552	EXCELSA35T	COIL
L553	EXCELSA35T	COIL
L554	EXCELDR35V	COIL
L555	EXCELDR35C	COIL
L571	ELC18B801L	COIL
L572	ELHKLBO25B	COIL
L575	ELC18B331E	COIL
L576	ELC08D101E	COIL
L601	TLT047K991R	COIL
L602	TLT047K991R	COIL
L603	TLT047K991R	COIL
L605	ERD25TC0T	CARBON 0.25W 5% 0Ω
L801	ELF18D486D	COIL
L802	ELF18D486D	COIL
L807	ELF18D856A	COIL
L808	EXCELSA35T	COIL
L809	EXCELDR35C	COIL
L810	EXCELSA39V	COIL
L811	EXCELSA39V	COIL
L812	EXCELDR35V	COIL
L813	EXCELDR35V	COIL
L817	EXCELDR35V	COIL
L845	EXCELSA35T	COIL
L847	EXCELSA35B	COIL
L848	EXCELSA35T	COIL
L850	EXCELSA35T	COIL
L851	EXCELSA35B	COIL
L854	ELEIE150KA	COIL
L856	EXCELSA35T	COIL
L859	EXCELSA35T	COIL
L860	EXCELSA35T	COIL
L861	EXCELSA35T	COIL
L862	EXCELSA35T	COIL
L864	EXCELDR35V	COIL
L1102	EXCELDR35V	COIL
L1103	EXCELDR35V	COIL
L1104	EXCELSA35T	COIL
L1105	ELEXT4R7KA	COIL
L1301	TLT330K991R	COIL
L1302	TLT100K991R	COIL
L1303	TLT101K991R	COIL
L1304	TLT100K991R	COIL
L1306	TLT101K991R	COIL
L1307	ERD25TC0T	CARBON 0.25W 5% 0Ω
L1501	EXCELDR35V	COIL
L1502	TLT033K991R	COIL
L1503	TLT033K991R	COIL
L1504	TLT033K991R	COIL
L1552	EXCELDR35V	COIL

Ref No.	Part No.	Description
L1553	EXCELD35V	COIL
L1575	EXCELD35V	COIL
L1576	EXCELD35V	COIL
L1601	EXCELD35V	COIL
L1602	EXCELD35V	COIL
L1603	TLT100K991R	COIL
L1604	TLT100K991R	COIL
L1605	TLT100K991R	COIL
L1606	TLT100K991R	COIL
L1607	EXCELD35V	COIL
L1641	EXCELD35V	COIL
L1701	EXCELD35V	COIL
L1721	EXCELD35V	COIL
L1722	EXCELD35V	COIL
L2001	TLT047K991R	COIL
L2003	EXCELD35V	COIL
L2004	TLT068K991R	COIL
L2005	TLT068K991R	COIL
L2351	ELEBR6R8KA	COIL
L2361	ELEBR6R8KA	COIL
L3001	ELEBR6R8KA	COIL
L3002	ELEBR6R8KA	COIL
L3003	ELEBR470KA	COIL
L3101	ELEMV1R5MA	COIL
L3102	ELEMV1R5MA	COIL
L3103	ELEMV1R5MA	COIL
L3104	ELEMV1R5MA	COIL
L3107	ELEMV1R5MA	COIL
L3108	ELEMV1R5MA	COIL
L3109	ELEMV1R5MA	COIL
L3110	ELEMV1R5MA	COIL
L3111	ELEMV1R5MA	COIL
L3112	ELEMV1R5MA	COIL
L3113	ELEMV1R5MA	COIL
L3114	ELEMV1R5MA	COIL
L3503	EXCELD35V	COIL
L3507	EXCELD35V	COIL
L3509	EXCELD35V	COIL
L3511	TLT100K991R	COIL

TRANSISTORS

Q008	BC847B	TRANSISTOR OR 2SD601ATX
Q101	BC847B	TRANSISTOR OR 2SD601ATX
Q102	BC847B	TRANSISTOR OR 2SD601ATX
Q103	BC847B	TRANSISTOR OR 2SD601ATX
Q104	BC847B	TRANSISTOR OR 2SD601ATX
Q105	BC847B	TRANSISTOR OR 2SD601ATX
Q106	BF799E6327	CHIP TRANSISTOR
Q107	BC847B	TRANSISTOR OR 2SD601ATX
Q108	BC847B	TRANSISTOR OR 2SD601ATX
Q109	BC860B	TRANSISTOR
Q251	BC847B	TRANSISTOR OR 2SD601ATX
Q252	BC847B	TRANSISTOR OR 2SD601ATX
Q401	BC847B	TRANSISTOR OR 2SD601ATX
Q502	2SC2925STA	TRANSISTOR
Q531	BC547B	TRANSISTOR
Q532	BC547B	TRANSISTOR
Q533	BC547B	TRANSISTOR
Q535	BC547B	TRANSISTOR
Q551	BC547B	TRANSISTOR
Q552	2SC5144LBMA1	TRANSISTOR
Q553	2SC1473—RN	TRANSISTOR
Q554	2SC1473—RN	TRANSISTOR
Q572	BC547B	TRANSISTOR
Q573	BC557B	TRANSISTOR
Q574	2SD1265AOPLB	TRANSISTOR
Q601	BC847B	TRANSISTOR OR 2SD601ATX
Q602	BC857B	TRANSISTOR OR 2SB709ATX
Q603	BC847B	TRANSISTOR OR 2SD601ATX
Q604	BC857B	TRANSISTOR OR 2SB709ATX
Q605	BC857B	TRANSISTOR OR 2SB709ATX
Q607	BC847B	TRANSISTOR OR 2SD601ATX
Q608	BC847B	TRANSISTOR OR 2SD601ATX
Q609	BC847B	TRANSISTOR OR 2SD601ATX
Q610	BC847B	TRANSISTOR OR 2SD601ATX
Q611	BC847B	TRANSISTOR OR 2SD601ATX
Q612	BC847B	TRANSISTOR OR 2SD601ATX
Q801	2SK1489MAT	TRANSISTOR
Q803	2SD965—R	TRANSISTOR
Q804	2SA719—TA	TRANSISTOR

Ref No.	Part No.	Description
Q845	2SA684R	TRANSISTOR
Q846	BC547B	TRANSISTOR
Q847	BC557B	TRANSISTOR
Q848	BC547B	TRANSISTOR
Q849	2SA1018QTA	TRANSISTOR
Q850	2SD1474PLB	TRANSISTOR
Q851	BC547B	TRANSISTOR
Q852	BC547B	TRANSISTOR
Q901	BC847B	TRANSISTOR OR 2SD601ATX
Q902	BC847B	TRANSISTOR OR 2SD601ATX
Q903	BC847B	TRANSISTOR OR 2SD601ATX
Q904	BC857B	TRANSISTOR OR 2SB709ATX
Q905	BC847B	TRANSISTOR OR 2SD601ATX
Q906	BC847B	TRANSISTOR OR 2SD601ATX
Q907	BC857B	TRANSISTOR OR 2SB709ATX
Q908	2SA1535ARLB	TRANSISTOR
Q909	2SC3944ARLB	TRANSISTOR
Q1052	BC557B	TRANSISTOR
Q1101	BC847B	TRANSISTOR OR 2SD601ATX
Q1102	BC847B	TRANSISTOR OR 2SD601ATX
Q1103	BC847B	TRANSISTOR OR 2SD601ATX
Q1106	BC847B	TRANSISTOR OR 2SD601ATX
Q1107	BC847B	TRANSISTOR OR 2SD601ATX
Q1108	BC847B	TRANSISTOR OR 2SD601ATX
Q1112	2SC3757QRTX	TRANSISTOR
Q1191	BC847B	TRANSISTOR OR 2SD601ATX
Q1301	BC847B	TRANSISTOR OR 2SD601ATX
Q1303	BC847B	TRANSISTOR OR 2SD601ATX
Q1304	BC847B	TRANSISTOR OR 2SD601ATX
Q1501	BC847B	TRANSISTOR OR 2SD601ATX
Q1502	BC847B	TRANSISTOR OR 2SD601ATX
Q1503	BC847B	TRANSISTOR OR 2SD601ATX
Q1575	BC847B	TRANSISTOR OR 2SD601ATX
Q1642	BC847B	TRANSISTOR OR 2SD601ATX
Q1643	BC847B	TRANSISTOR OR 2SD601ATX
Q1644	BC857B	TRANSISTOR OR 2SB709ATX
Q1647	BC847B	TRANSISTOR OR 2SD601ATX
Q1648	BC857B	TRANSISTOR OR 2SB709ATX
Q1649	BC857B	TRANSISTOR OR 2SB709ATX
Q2001	BC860B	TRANSISTOR
Q2002	BC860B	TRANSISTOR
Q2003	BC860B	TRANSISTOR
Q2004	BC860B	TRANSISTOR
Q2006	BC857B	TRANSISTOR OR 2SB709ATX
Q2007	BC847B	TRANSISTOR OR 2SD601ATX
Q2351	BC547B	TRANSISTOR
Q2352	BC547B	TRANSISTOR
Q2353	BC557B	TRANSISTOR
Q2361	BC547B	TRANSISTOR
Q2362	BC547B	TRANSISTOR
Q2363	BC557B	TRANSISTOR
Q3101	BC847B	TRANSISTOR OR 2SD601ATX
Q3102	BC847B	TRANSISTOR OR 2SD601ATX
Q3103	BC847B	TRANSISTOR OR 2SD601ATX
Q3104	BC847B	TRANSISTOR OR 2SD601ATX
Q3105	BC847B	TRANSISTOR OR 2SD601ATX
Q3106	BC847B	TRANSISTOR OR 2SD601ATX
Q3107	BC857B	TRANSISTOR OR 2SB709ATX
Q3108	BC847B	TRANSISTOR OR 2SD601ATX
Q3113	BC847B	TRANSISTOR OR 2SD601ATX
Q3114	BC847B	TRANSISTOR OR 2SD601ATX
Q3115	BC857B	TRANSISTOR OR 2SB709ATX
Q3201	BC847B	TRANSISTOR OR 2SD601ATX
Q3351	BC847B	TRANSISTOR OR 2SD601ATX
Q3352	BC857B	TRANSISTOR OR 2SB709ATX
Q3501	BC847B	TRANSISTOR OR 2SD601ATX
Q3502	BC847B	TRANSISTOR OR 2SD601ATX
Q3503	2SC3130TX	TRANSISTOR
Q3801	2SD1474PLB	TRANSISTOR

RESISTOR

RL571	TSEH8012	RELAY
RL806	TSE1885—1	RELAY
R003	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R006	ERJ6GEYJ393	S.M.CARB 0.1W 5% 39KΩ
R011	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R012	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R101	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R102	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R103	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ

Ref No.	Part No.	Description
R104	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R105	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R106	ERJ6GEYJ680	S.M.CARB 0.1W 5% 68Ω
R107	ERJ6GEYJ123	S.M.CARB 0.1W 5% 12KΩ
R109	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R110	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R111	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R113	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R115	ERJ6GEYJ121	S.M.CARB 0.1W 5% 120Ω
R117	ERJ6GEYJ683	S.M.CARB 0.1W 5% 68KΩ
R118	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R119	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R120	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R121	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R122	EVNDXAA03B24	CONTROL 20KΩ
R123	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R124	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R125	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R126	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R127	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R128	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R130	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R132	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2Ω
R133	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2Ω
R134	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R135	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R136	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2Ω
R137	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R138	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2Ω
R139	ERJ6GEYJ154	S.M.CARB 0.1W 5% 150KΩ
R141	ERJ6GEYJ330	S.M.CARB 0.1W 5% 33Ω
R142	ERJ6GEYJ271	S.M.CARB 0.1W 5% 270Ω
R143	ERJ6GEYJ123	S.M.CARB 0.1W 5% 12KΩ
R144	ERJ6GEYJ152	S.M.CARB 0.1W 5% 1K5Ω
R145	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R146	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R147	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2Ω
R148	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18KΩ
R149	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8Ω
R150	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R151	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R152	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R154	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R156	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R157	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R159	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R251	ERJ6GEYJ2R2	SM.CARBO.125W 5% 2R2Ω
R252	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R253	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R254	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R255	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R256	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R257	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R258	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R259	ERG3SJS120	METAL 3W 5% 12Ω Δ
R260	ERJ6GEYJ2R2	SM.CARBO.125W 5% 2R2Ω
R261	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R262	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R263	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R264	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R265	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R266	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R267	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R268	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R269	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R270	ERG3SJS120	METAL 3W 5% 12Ω Δ
R351	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R352	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R354	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R355	ERG2FJ823	METAL 2W 5% 82KΩ Δ
R356	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R357	ERJ6GEYJ822	S.M.CARB 0.1W 5% 8K2Ω
R358	ERDS1TJ821	CARBON 0.5W 5% 820Ω
R359	ERJ6GEYJ334	S.M.CARB 0.1W 5% 330KΩ
R360	ERDS1TJ103	CARBON 0.5W 5% 10KΩ
R361	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R362	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R364	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R365	ERG2FJ823	METAL 2W 5% 82KΩ Δ
R366	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R367	ERJ6GEYJ822	S.M.CARB 0.1W 5% 8K2Ω

Ref No.	Part No.	Description
R368	ERDS1TJ821	CARBON 0.5W 5% 820Ω
R369	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R371	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R372	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R374	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R375	ERG2FJ823	METAL 2W 5% 82KΩ Δ
R376	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R377	ERJ6GEYJ822	S.M.CARB 0.1W 5% 8K2Ω
R378	ERDS1TJ821	CARBON 0.5W 5% 820Ω
R379	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0Ω
R380	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R381	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R383	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R384	ERQ12HJ101	FUSIBLE 0.5W 5% 100Ω Δ
R390	ERDS1TJ184	CARBON 0.5W 5% 180K
R401	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R402	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R403	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R406	ERJ6GEYJ393	S.M.CARB 0.1W 5% 39KΩ
R407	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R408	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R409	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R410	ERJ6GEYJ100	S.M.CARB 0.1W 5% 10Ω
R411	ERJ6GEYJ123	S.M.CARB 0.1W 5% 12KΩ
R412	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R451	ERJ6GEYJ302	S.M.CARB 0.1W 5% 3K0Ω
R452	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R453	ERG2FJ820	METAL 2W 5% 82Ω Δ
R454	ERX12SJ1R0	RESISTOR 12W 5% 1R0Ω
R455	ERX12SJ1R2	RESISTOR 12W 5% 1R2Ω
R456	ERDS1TJ220	CARBON 0.5W 5% 22Ω
R457	ERDS1TJ223	CARBON 0.5W 5% 22KΩ
R458	ERG1SJ272	METAL 1W 5% 2K7Ω Δ
R459	ERJ6GEYJ393	S.M.CARB 0.1W 5% 39KΩ
R460	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R461	ERJ6GEYJ184	S.M.CARB 0.1W 5% 180KΩ
R504	ERD25TJ271	CARBON 0.25W 5% 270Ω
R505	ERG3SJS330	METAL 3W 5% 33Ω Δ
R506	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R507	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R531	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R532	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R533	ERD25TJ683	CARBON 0.25W 5% 68KΩ
R534	ERD25TJ473	CARBON 0.25W 5% 47KΩ
R535	ERD25TJ472	CARBON 0.25W 5% 4K7Ω
R536	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R539	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R540	ERD25TJ183	CARBON 0.25W 5% 18KΩ
R541	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R542	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R543	ERD25TJ222	CARBON 0.25W 5% 2K2Ω
R547	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R551	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R552	ERD25TJ473	CARBON 0.25W 5% 47KΩ
R553	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R554	ERX3SJSR27H	RESISTOR 3W 5% R27Ω
R556	ERO50PKF2802	METAL 50W 1% 28KΩ Δ
R559	ERO25CKF1002	METAL 0.25W 1% 10KΩ Δ
R560	ERD25TJ222	CARBON 0.25W 5% 2K2Ω
R562	ERD25TJ473	CARBON 0.25W 5% 47KΩ
R564	ERDS1TJ394	CARBON 0.5W 5% 390KΩ
R565	ERQ14AJW2R2	FUSIBLE 14W 5% 2R2Ω Δ
R566	ERDS1TJ183	CARBON 0.5W 5% 18KΩ
R567	ERG2ANJ223	METAL 2W 5% 22KΩ
R568	ERQ12HJ330	METAL 0.5W 5% 33Ω Δ
R569	ERDS1TJ120	CARBON 0.5W 5% 12Ω
R570	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R571	ERX3FJ2R7H	RESISTOR 3W 5% 2R7Ω
R572	ERG3FJ821	METAL 3W 5% 820Ω Δ
R577	ERD25TJ683	CARBON 0.25W 5% 68KΩ
R578	ERD25TJ153	CARBON 0.25W 5% 15KΩ
R579	ERD25TJ274	CARBON 0.25W 5% 270KΩ
R580	ERD25TJ563	CARBON 0.25W 5% 56KΩ
R581	ERD25TJ104	CARBON 0.25W 5% 100KΩ
R582	ERD25TJ225	CARBON 0.25W 5% 2M2Ω
R583	ERD25TJ225	CARBON 0.25W 5% 2M2Ω
R584	ERD25TJ152	CARBON 0.25W 5% 1K5Ω
R585	TSF19201	FS LINK Δ
R587	ERD25TJ222	CARBON 0.25W 5% 2K2Ω
R588	ERD25TJ222	CARBON 0.25W 5% 2K2Ω

Ref No.	Part No.	Description
R1108	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1111	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1112	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1113	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1116	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1117	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1118	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1119	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1120	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1121	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1122	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1123	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1124	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1125	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1126	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1127	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1128	ERJ6GEYJ100	S.M.CARB 0.1W 5% 10Ω
R1129	ERJ6GEYJ100	S.M.CARB 0.1W 5% 10Ω
R1133	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1134	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1135	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1136	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R1137	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R1138	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1142	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1143	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R1144	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1145	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1149	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R1150	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1151	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1152	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1153	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1154	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1156	ERJ6GEYJ182	S.M.CARB 0.1W 5% 1K8Ω
R1163	ERJ6GEYJ152	S.M.CARB 0.1W 5% 1K5Ω
R1164	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1169	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1170	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R1171	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8Ω
R1172	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R1174	ERDS1TJ561	CARBON 0.5W 5% 560Ω
R1182	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1183	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1184	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1185	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1186	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1188	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R1190	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1191	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R1192	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R1193	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1194	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1301	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1302	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R1305	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1306	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1307	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R1308	ERJ6GEYJ105	S.M.CARB 0.1W 5% 1MΩ
R1313	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1315	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1317	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R1318	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R1319	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1320	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1321	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1322	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1323	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1324	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1325	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1326	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1327	ERJ6GEYJ470	S.M.CARB 0.1W 5% 47Ω
R1328	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1329	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1337	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R1340	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R1501	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1502	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1504	ERJ6GEYJ121	S.M.CARB 0.1W 5% 120Ω
R1507	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R1508	ERJ6GEYJ121	S.M.CARB 0.1W 5% 120Ω
R1510	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω

Ref No.	Part No.	Description
R1511	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R1513	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R1515	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1516	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1517	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1518	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1519	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1520	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1523	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1550	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R1551	ERJ6GEYJ180	S.M.CARB 0.1W 5% 18Ω
R1552	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1554	ERJ6GEYJ180	S.M.CARB 0.1W 5% 18Ω
R1555	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R1560	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1561	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1562	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1563	ERJ6GEYJ180	S.M.CARB 0.1W 5% 18Ω
R1568	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R1570	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R1572	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R1575	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R1576	ERJ6GEYJ821	S.M.CARB 0.1W 5% 820Ω
R1577	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R1578	ERJ6GEYJ100	S.M.CARB 0.1W 5% 10Ω
R1581	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1605	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1606	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1608	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1620	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1621	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1622	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1624	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1625	ERJ6GEYJ271	S.M.CARB 0.1W 5% 270Ω
R1626	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R1627	ERJ6GEYJ622	S.M.CARB 0.125W 5% 6K2Ω
R1628	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R1629	ERJ6GEYJ201	S.M.CARB 0.1W 5% 200Ω
R1630	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R1631	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1632	ERJ6GEYJ133	S.M.CARB 0.125W 5% 13KΩ
R1633	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R1634	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1641	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1643	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1644	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1646	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R1647	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R1648	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1649	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1650	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1652	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1653	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1654	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1656	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1659	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1662	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1666	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1667	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1668	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R1679	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R1680	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R1681	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1682	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R1683	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R1688	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R1701	ERJ6GEYJ180	S.M.CARB 0.1W 5% 18Ω
R1703	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1704	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1705	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R1706	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R1707	ERJ6GEYJ180	S.M.CARB 0.1W 5% 18Ω
R1710	ERJ6GEYJ180	S.M.CARB 0.1W 5% 18Ω
R1713	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1716	ERJ6GEYOR00	S.M.CARB 0.1W 5% 0Ω
R1724	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R1730	ERJ6GEYJ821	S.M.CARB 0.1W 5% 820Ω
R1777	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R1778	ERJ6GEYJ821	S.M.CARB 0.1W 5% 820Ω
R2001	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R2004	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2005	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω

Ref No.	Part No.	Description			
R3501	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω
R3502	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R3503	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R3505	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω
R3506	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10Ω
R3507	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R3508	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150Ω
R3509	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R3513	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R3514	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R3515	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470Ω
R3516	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R3517	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R3518	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R3520	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R3521	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R3522	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R3523	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R3526	ERD25TC0T	CARBON	0.25W	5%	0Ω
R3531	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R3532	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390Ω
R3534	ERD25TJ181	CARBON	0.25W	5%	180Ω
R3536	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R3539	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0Ω
R3540	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R3541	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R3542	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R3802	ERG3FJ100	METAL	3W	5%	10Ω
R3803	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R3804	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω

Ref No.	Part No.	Description		
SWITCHES				
S801	ESB91232A	SWITCH		△
S1051	EVQ23405R	SWITCH		
S1052	EVQ23405R	SWITCH		
S1053	EVQ23405R	SWITCH		
S1054	EVQ23405R	SWITCH		
S1055	EVQ23405R	SWITCH		
TRANSFORMERS				
T501	TLHA003	TRANSFORMER		
T551	ZTFH65011A	F.B.T.		△
T801	ETP35KAN615U	TRANSFORMER		△
T802	ETS49AH137ND	TRANSFORMER		
T803	ETQ19K55AY	TRANSFORMER		
FILTERS				
X101	EFCT6504BF	FILTER		
X102	EFCT5M7MW3	FILTER		
X103	EFCT6R0MW5	FILTER		
X104	K3953—M100	SAW FILTER		
X105	L9454M	SAW FILTER		
X106	EFCV3195T6	CERAMIC FILTER		
X107	EFCT7004BF	CERAMIC FILTER		
X109	EFCV4045T4	CERAMIC FILTER		
X601	TSSA024	CRYSTAL		
X602	TSSA025	CRYSTAL		
X1101	TAF10020	CRYSTAL		
X1551	TSSA009	CRYSTAL		
X2001	4730007158	CRYSTAL		
X3501	TSSA009	CRYSTAL		

DIFFERENCES FOR MODEL TX-W32D3F

DIFFERENCES FOR MODEL TX-W28D3F

Ref No.	Part No.	Description			
MISCELLANEOUS COMPONENTS					
4)	TBM8E1742	MODEL LABEL			
5)	TNPA0292AA	Y P.C.B.			△
6)	TLK8E05123	DEGAUSS COIL			△
8)	W76LFC185X05	CRT			
9)	TKY8E110	CABINET			△
12)	TKU8E00290	BACK COVER			△
13)	TNPA0295AW	D P.C.B.			△
17)	TNPH0063AZ	E P.C.B.			△
20)	TNPA0291AB	M P.C.B.			△
24)	TKP8E1148	SPEAKER NET			
	TLK8E05124	GEOMAGNETIC CORRECTION COIL			△
	TPC8E4651	OUTER CARTON			
	TPD8E621	TOP CUSHION			
	TPD8E622	BOTTOM CUSHION			
CAPACITORS					
C574	TAC1114Z564A	CERAMIC	400V	0.56μF	
C581	ECQF4153JZH	FILM	400V	15nF	
C819	ECOS2GA181DB	ELECT	400V	180pF	
C820	ECOS2GA181DB	ELECT	400V	180pF	
C1901	ECQM1H474J	FILM	50V	470nF	
C1902	ECQM1H474J	FILM	50V	470nF	
C1903	ECA1EM470GB	ELECT	25V	47pF	
C1904	ECKC1H103JB	CERAMIC	50V	10nF	
DIODES					
D401	MA167TA5	DIODE			
D848	EU02	DIODE			
D852	MTZJT-779.1C	DIODE			
D1052	AU01V0	DIODE			
D1053	AU01V0	DIODE			
D1054	AU01V0	DIODE			
D1055	AU01V0	DIODE			
INTEGRATED CIRCUITS					
IC1104	X24C0302EK	EAROM			
IC1105	27C2001C14AC	EPR0M			
IC1901	LA6515	EARTH CORRECTION			
COILS					
L573	ELHKL B028B	COIL			
L1901	EXCELDR25V	COIL			
RESISTOR					
R370	ERQ1CJP1R0	FUSIBLE	1W	5% 1R0Ω	△
R555	ERD25CKF2802	METAL	25W	1% 28KΩ	△
R557	ERD25CKF6492	METAL	25W	1% 65KΩ	△
R558	ERO50PKF4532	METAL	50W	1% 45KΩ	△
R574	ERG3FJ151	METAL	3W	5% 150Ω	△
R591	ERF2AKR15	WIRE	2W	10% R15Ω	
R847	ERQ1CKPR68	FUSIBLE	1W	5% R68Ω	△
R909	ERJ6GEYJ222	S.M.CARB	0.1W	5% 2K2Ω	
R910	ERJ6GEYJ101	S.M.CARB	0.1W	5% 100Ω	
R1901	ERD25TJ110	CARBON	0.25W	5% 11Ω	
R1902	ERD25TJ110	CARBON	0.25W	5% 11Ω	
R1903	ERD25TJ154	CARBON	0.25W	5% 150KΩ	
R1904	ERD25TJ154	CARBON	0.25W	5% 150KΩ	
R1905	ERD25TJ154	CARBON	0.25W	5% 150KΩ	
R1906	ERD25TJ753	CARBON	0.25W	5% 75KΩ	
R1908	ERD25TJ682	CARBON	0.25W	5% 6K8Ω	
R1909	ERD25TJ362	CARBON	0.25W	5% 3K6Ω	

Ref No.	Part No.	Description			
MISCELLANEOUS COMPONENTS					
4)	TBM8E1738	MODEL LABEL			
5)	TNPA0292AD	Y P.C.B.			△
6)	TXFLK01DAG	DEGAUSS COIL			△
8)	W66EHK51X71	CRT			
9)	TKY8E120	CABINET			△
12)	TKU8E00300	BACK COVER			△
13)	TNPA0295AN	D P.C.B.			△
17)	TNPH0063BA	E P.C.B.			△
20)	TNPA0348AE	M P.C.B.			△
24)	TKP8E1152	SPEAKER NET			
	TPC8E4652	OUTER CARTON			
	TPD8E623	CUSHION TOP			
	TPD8E624	CUSHION BOTTOM			
CAPACITORS					
C028	ECUV1H103KBX	S.M.CAP	50V	10nF	
C574	TAC1114Z824A	CERAMIC	400V	0.82μF	
C581	ECQF4123JZH	FILM	400V	12nF	
C664	ECUV1H103ZFX	S.M.CAP	50V	10nF	
C665	ECUV1H103KBX	S.M.CAP	50V	10nF	
C705	ECUV1H101JCX	S.M.CAP	50V	100pF	
C819	ECOS2GG181NGELECT	400V	180μF		△
C820	ECOS2GG181NGELECT	400V	180μF		△
C848	ECKC2H471J	CERAMIC	500V	470pF	△
C3813	ECUV1H471JCX	S.M.CAP	50V	470pF	
DIODES					
D373	MTZJT-7715A	DIODE			
D401	MA165TA5	DIODE 1SS133T-77			
D848	ERB32-02E	DIODE RU30LFS1			
D852	MTZJT776.2B	DIODE			
INTEGRATED CIRCUITS					
IC1104	X24C0302EI	EAROM			
IC1105	27C2001C14AE	EPR0M			
COILS					
L573	ELHKL B026B	COIL			
RESISTOR					
R370	ERQ1CKPR82	METAL	1W	5% R82Ω	△
R555	ERD25TJ223	CARBON	0.25W	5% 22KΩ	
R557	ERD25CKF7152	METAL	25W	1% 72KΩ	△
R558	ERO50PKF5762	METAL	50W	1% 58KΩ	△
R574	ERG3FJ121	METAL	3W	5% 120Ω	△
R591	ERF5AKR22	WIRE	5W	10% R22Ω	
R847	ERQ1CKPR33	METAL	0.5W	10% R33Ω	△
R909	ERJ6GEYJ102	S.M.CARB	0.1W	5% 1KΩ	
R910	ERJ6GEYJ151	S.M.CARB	0.1W	5% 150Ω	


SCHEMATIC DIAGRAM FOR MODELS

TX-W32D3F







TX-W28D3F

(Euro-3HW 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 μ F, unless otherwise stated.
- COIL**
Unit of inductance is μ H, 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 path
- This schematic diagram is the latest at the time of printing and is subject to change without notice.

Remarks

- 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

- Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.
- Do not short-circuit the hot and cold circuits as electrical components may be damaged.
- 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.
- Make sure to disconnect the power plug before removing the chassis.


SCHEMA TECHNIQUE POUR MODELE

TX-W32D3F







TX-W28D3F

(Euro-3HW 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 la fabricant.

Nota :

- RESISTOR**
Toutes les résistances sont des résistances au carbone 1/4W, sauf indication contraire par les indications suivantes
L'unité de résistance est l' OHM (Ω) (K=1,000, M=1,000,000).
- CONDENSATEUR**
Tous les condensateurs sont des condensateurs céramique 50V, sauf indication contraire par les indications suivantes :
L'unité de capacité est le μ F, sauf indication contraire.
- BOBINE**
L'unité d'inductance est le μ H, sauf indication contraire
- Les composants entourés de pointillés, sur le schéma, représentent des éléments non câblés.
- POINT D'ESSAI**
 Position du point d'essai
- SYMBOL DE TERRE**
 :Terre du châssis (froid)  :Terre de ligne (chaud)
- MESURE DE TENSION**
La tension est mesurée avec un voltmètre c.c.
Les conditions de mesure sont les suivantes:
Source d'alimentation CA 220V-240V, 50Hz
Signal de réception Signal barre couleur (RF)
Toutes les commandes utilisateur Position maximum
-  :Vidéo
 :Audio
 : Vertical / Horizontal
- Ce schéma est à jour moment de l'impression et modifiable sans préavis.

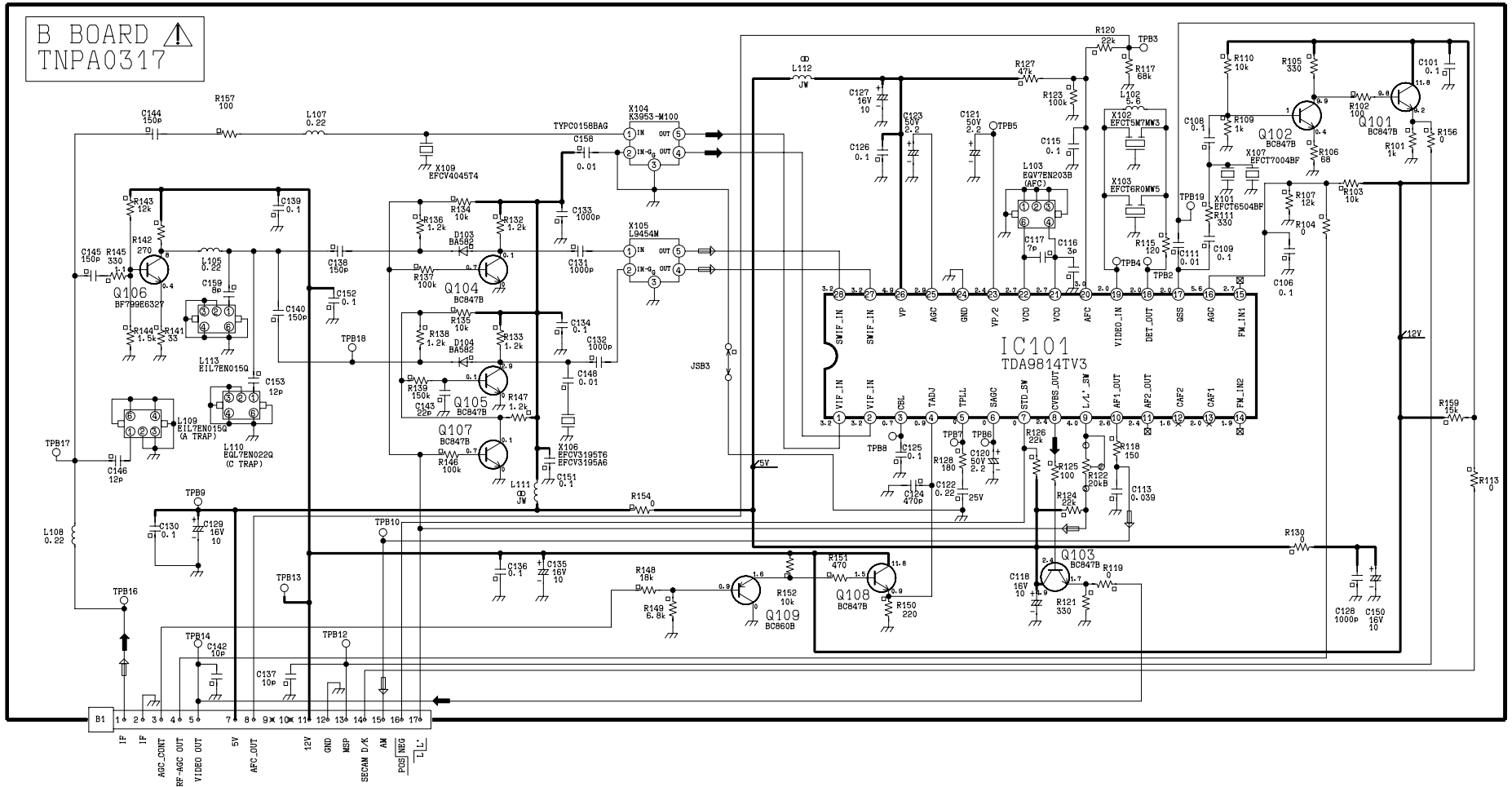
Remarque

- 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.

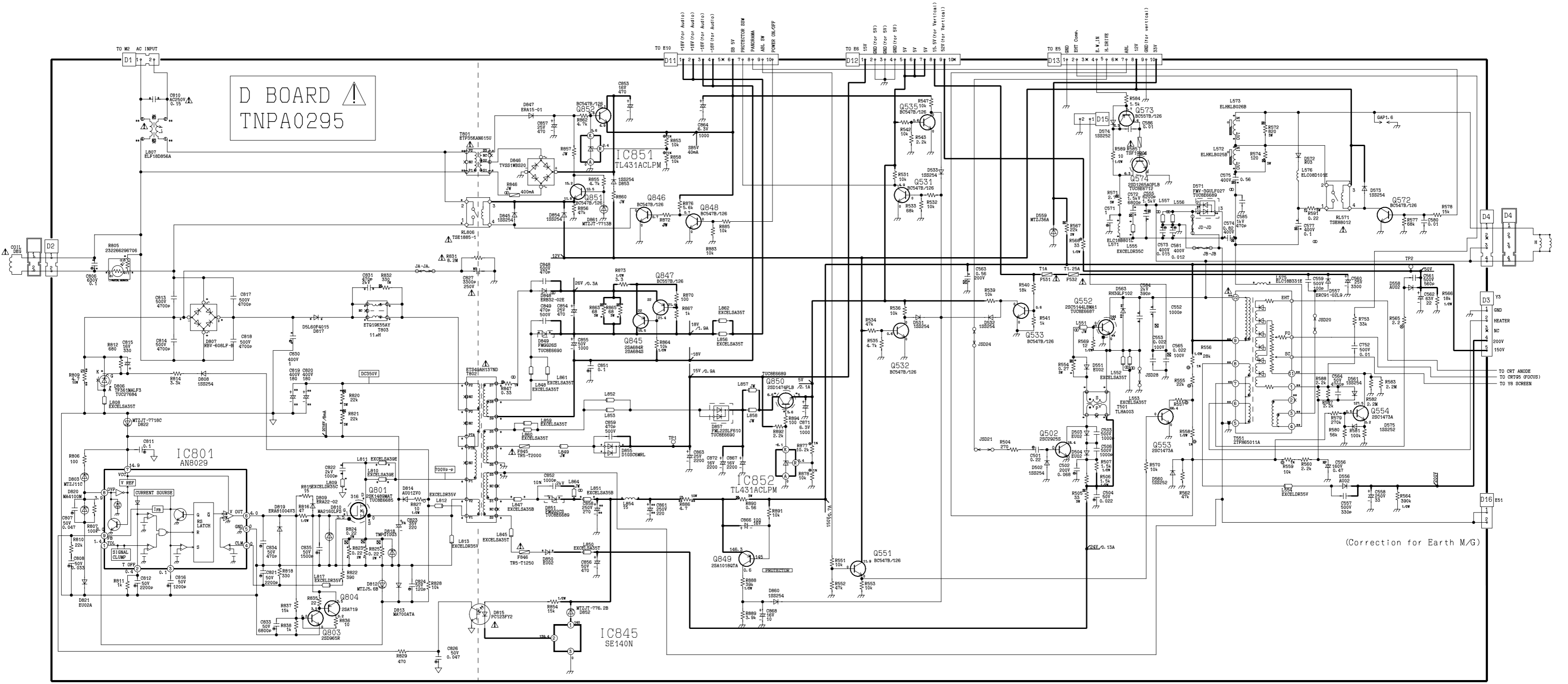
Précautions

- Ne pas toucher la partie chaude ou en même temps les parties chaud et froide. Cela présente un risque de décharge électrique.
- Ne pas court-circuiter les circuits chaud et froid car un fusible peut sauter et des pièces se casser.
- 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.
- Toujours débrancher la fiche d'alimentation avant de déposer le châssis.

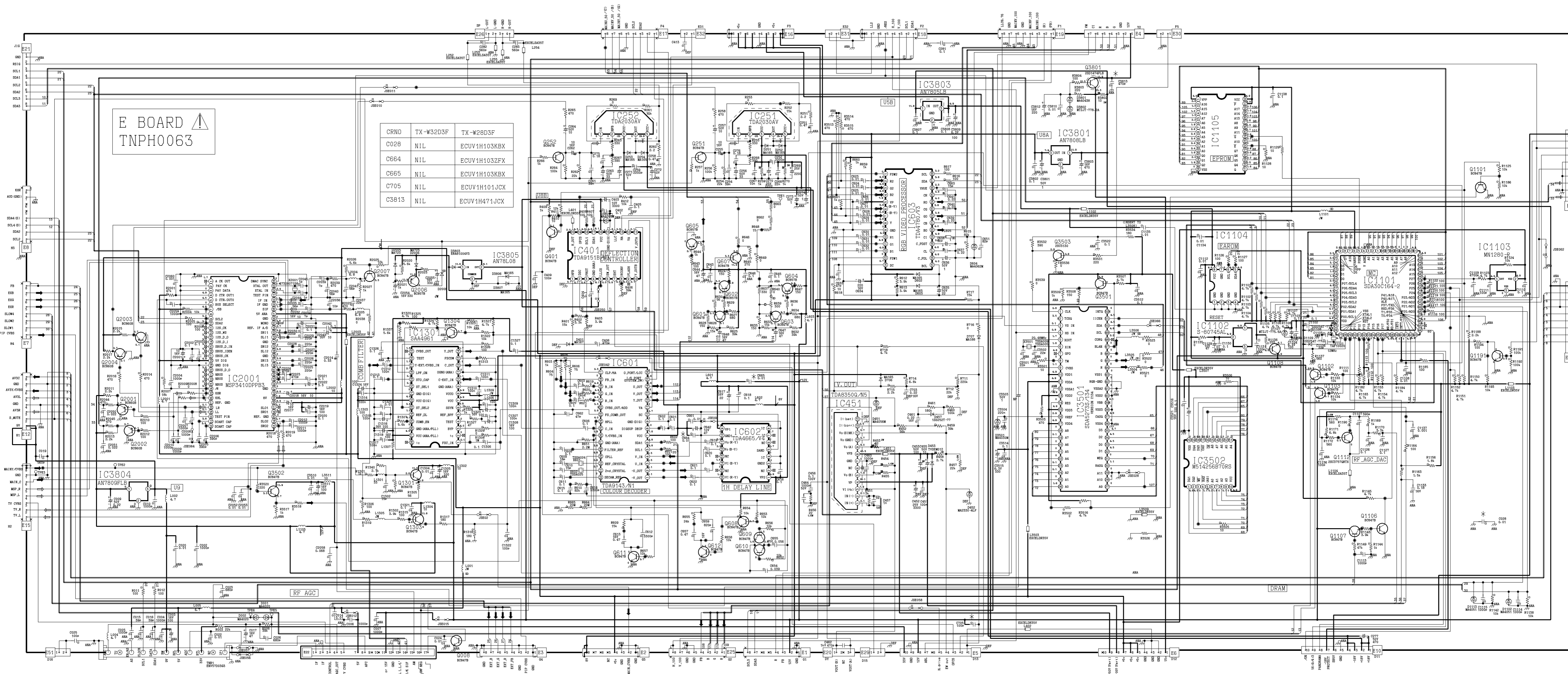
B BOARD
TNPA0317



D BOARD
TNPA0295



(Correction for Earth M/G)



E BOARD
TNP0063

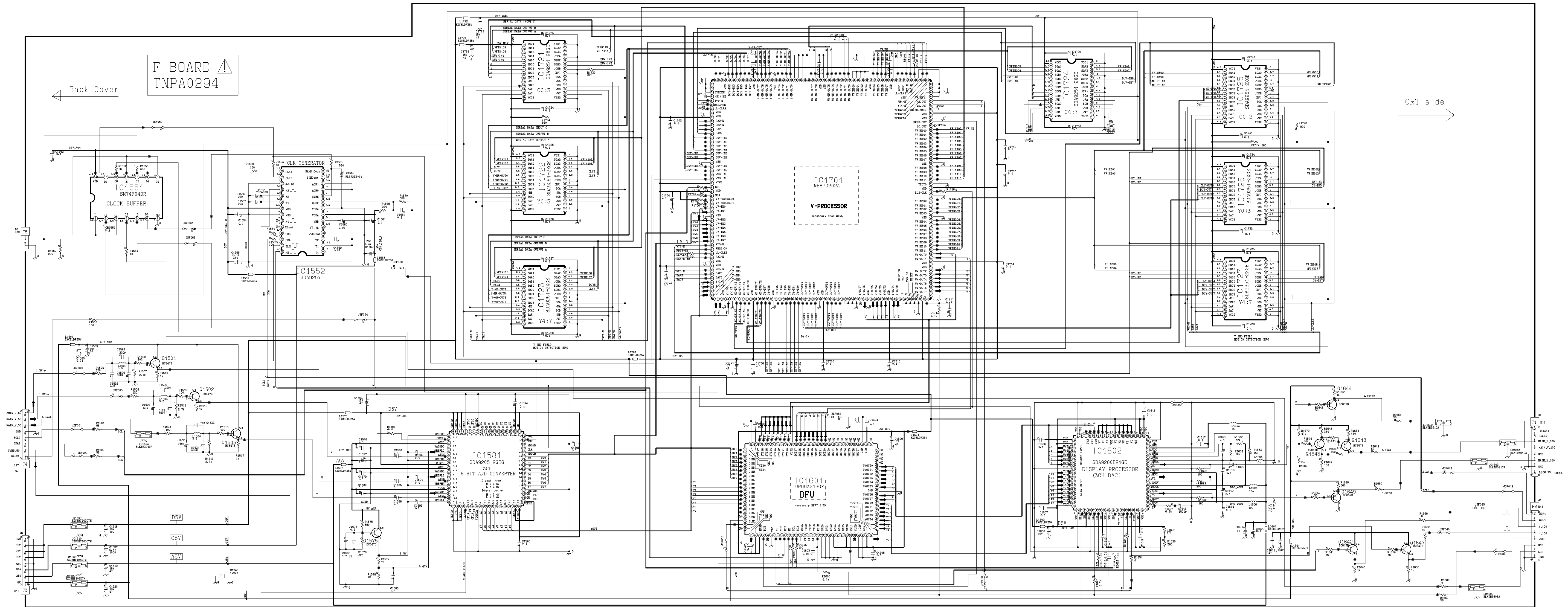
CRN0	TX-W32D3F	TX-W28D3F
C028	NIL	ECUV1H103KBX
C664	NIL	ECUV1H103ZFX
C665	NIL	ECUV1H103KBX
C705	NIL	ECUV1H471JCX
C3813	NIL	ECUV1H471JCX

12V
G.WITE
AVX
AVX1
AVX2
AVX3
AVX4
AVX5
AVX6
AVX7
AVX8
AVX9
AVX10
AVX11
AVX12
AVX13
AVX14
AVX15
AVX16
AVX17
AVX18
AVX19
AVX20
AVX21
AVX22
AVX23
AVX24
AVX25
AVX26
AVX27
AVX28
AVX29
AVX30
AVX31
AVX32
AVX33
AVX34
AVX35
AVX36
AVX37
AVX38
AVX39
AVX40
AVX41
AVX42
AVX43
AVX44
AVX45
AVX46
AVX47
AVX48
AVX49
AVX50
AVX51
AVX52
AVX53
AVX54
AVX55
AVX56
AVX57
AVX58
AVX59
AVX60
AVX61
AVX62
AVX63
AVX64
AVX65
AVX66
AVX67
AVX68
AVX69
AVX70
AVX71
AVX72
AVX73
AVX74
AVX75
AVX76
AVX77
AVX78
AVX79
AVX80
AVX81
AVX82
AVX83
AVX84
AVX85
AVX86
AVX87
AVX88
AVX89
AVX90
AVX91
AVX92
AVX93
AVX94
AVX95
AVX96
AVX97
AVX98
AVX99
AVX100

F BOARD
TNPA0294

Back Cover

CRT side

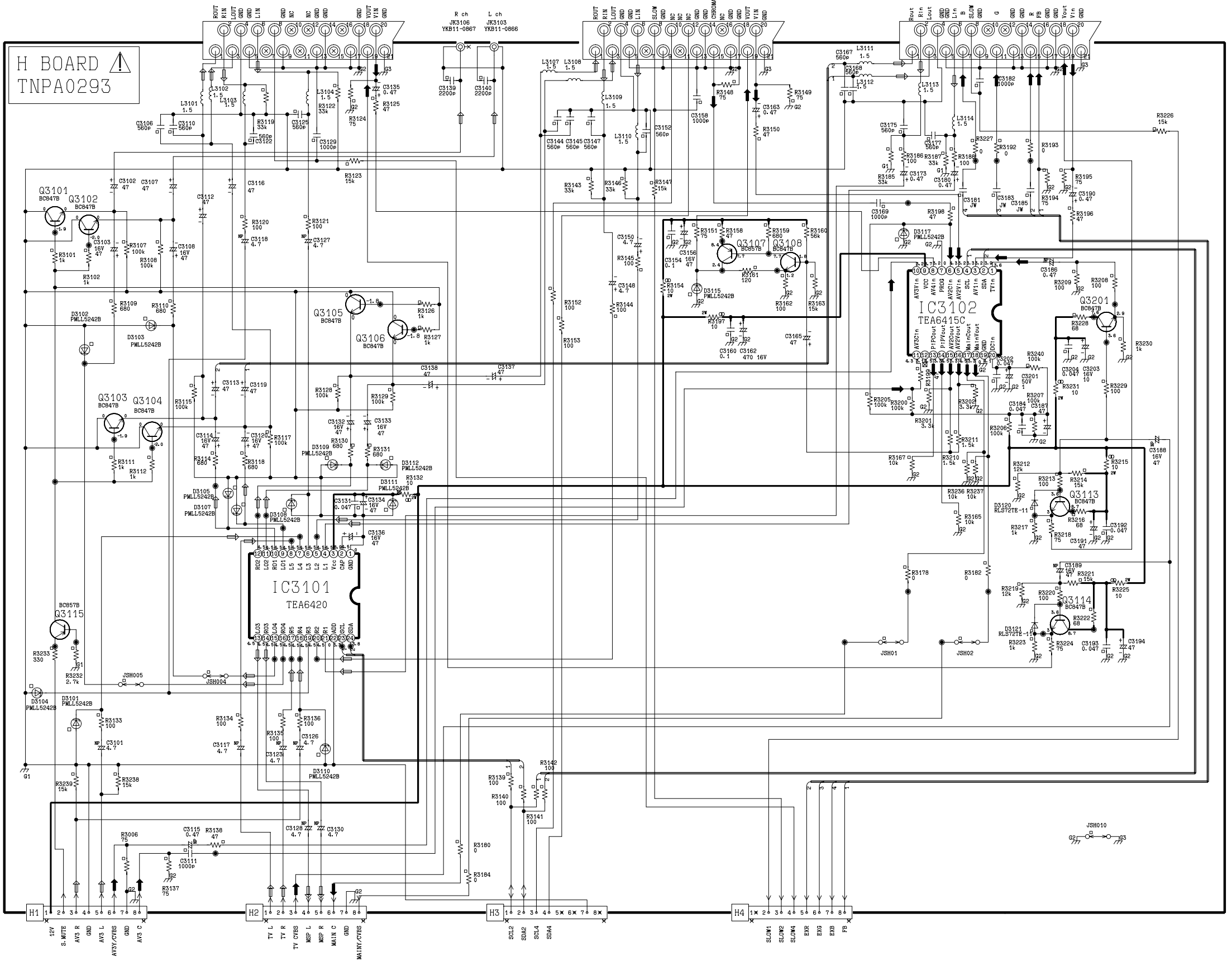


H BOARD
TNPA0293

AV4 JK3104

AV2 JK3102

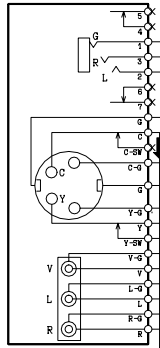
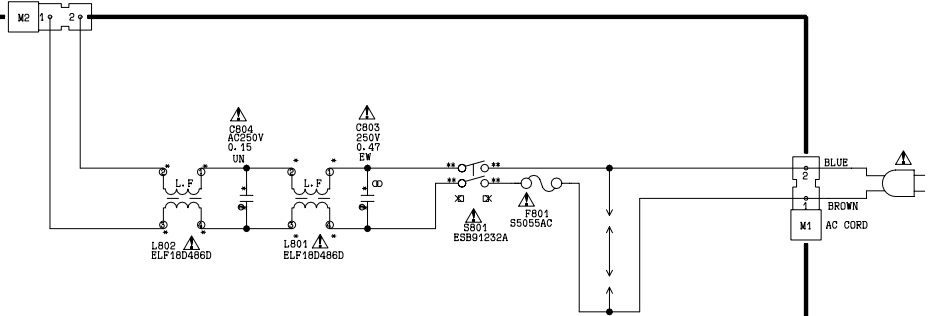
AV1 JK3101



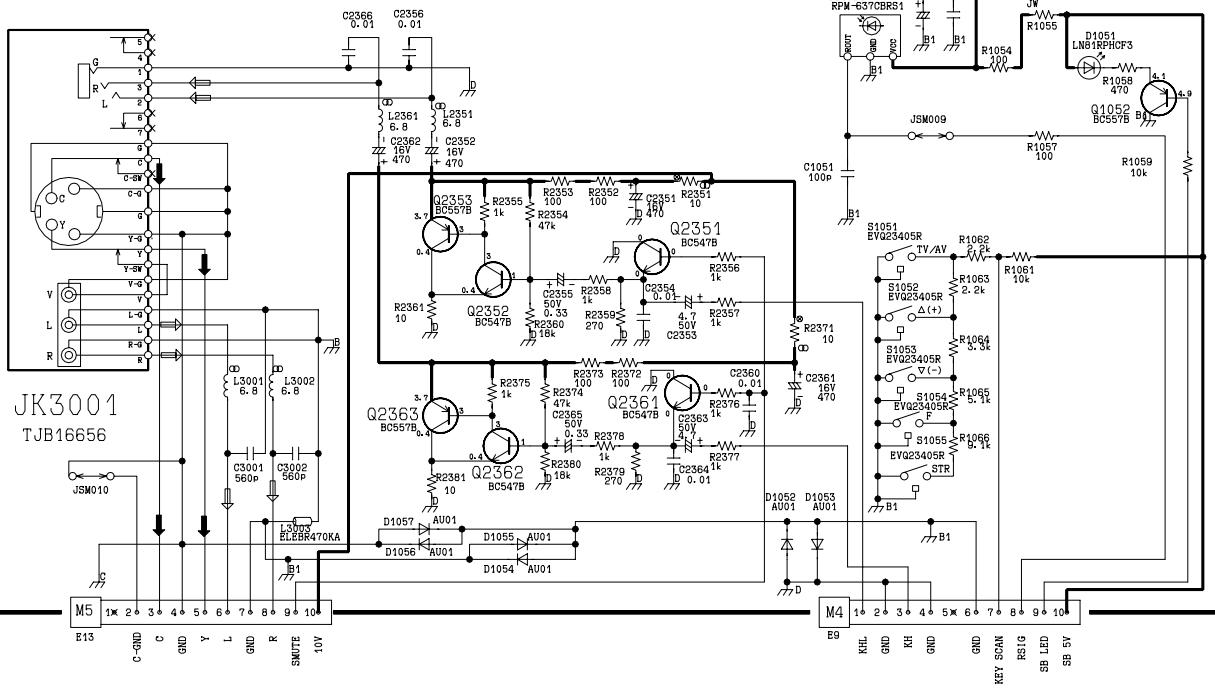
M BOARD
TNPA0291

COLD

HOT



JK3001
TJB16656



M BOARD
TNPA0348

COLD

HOT

M2 1 2

C804
AC250V
0.15

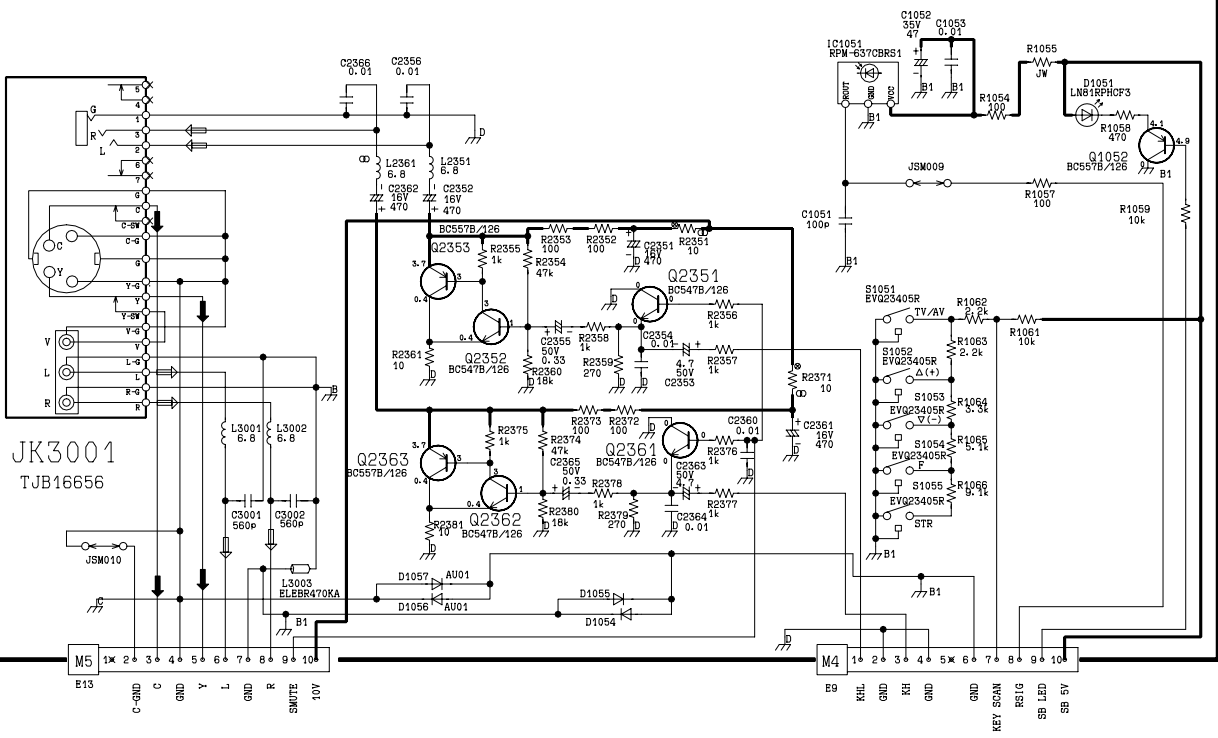
C803
250V
0.47

L802
ELF18D486D

L801
ELF16D486D

F801
S501
ES891232A

BLUE
BROWN
M1 AC CORD



JK3001
TJB16656

M5 1X 2 3 4 5 6 7 8 9 10

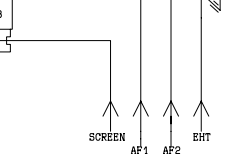
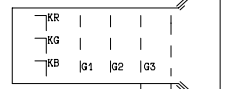
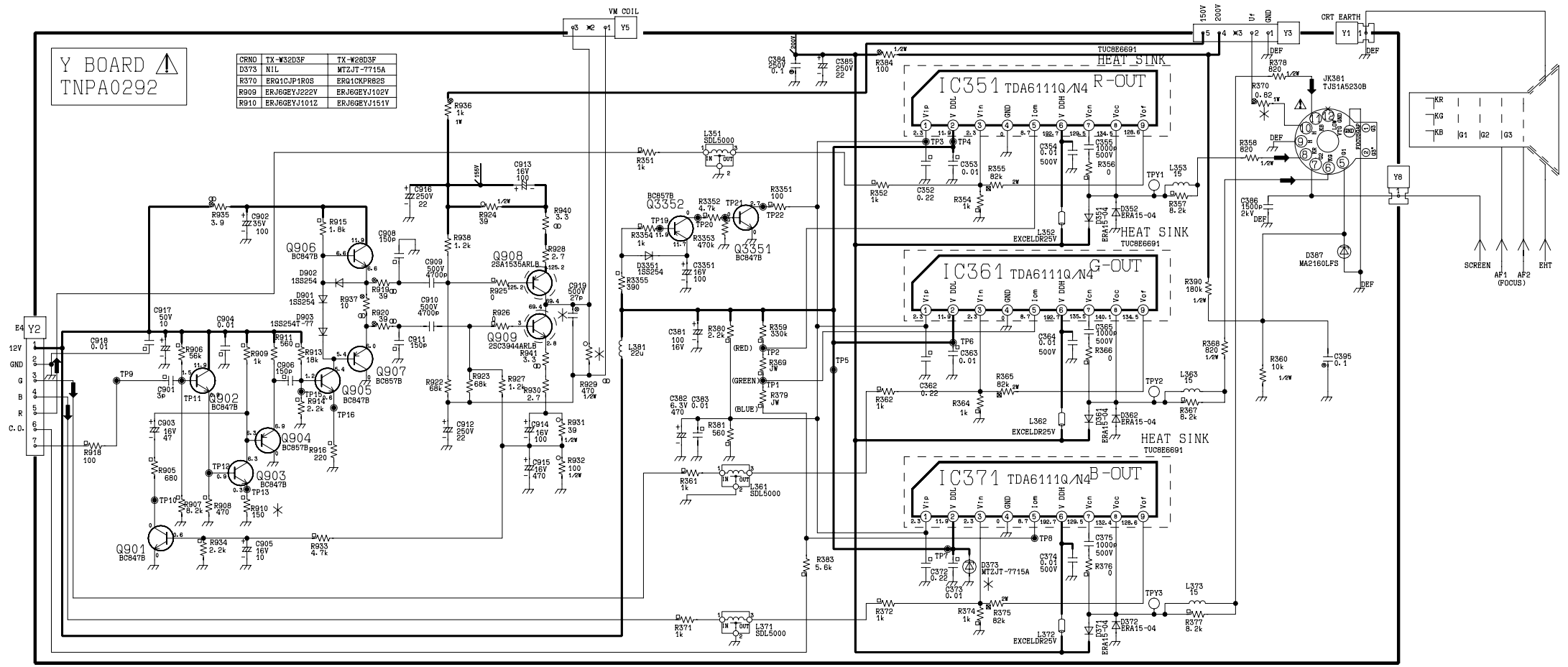
M4 1 2 3 4 5 6 7 8 9 10

C-OND C OND Y L OND R SMUTE 10V

E9 KHL OND XH OND OND KEY SCAN RSIG SB LED SB 5V

Y BOARD
TNPA0292

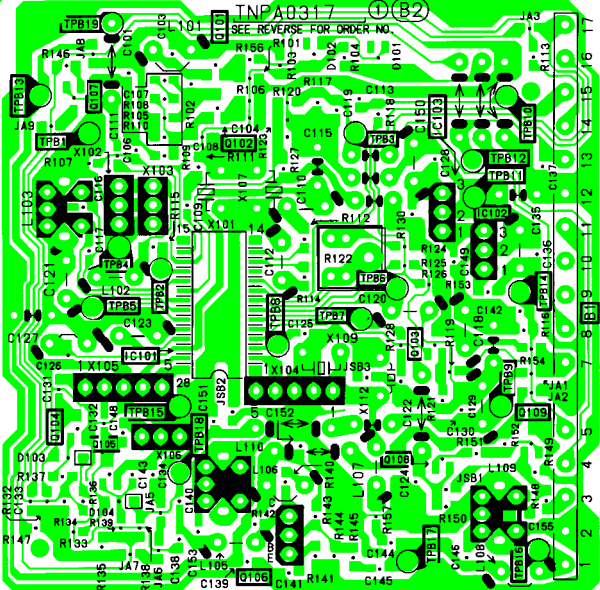
CRND	TX-W32DSF	TX-W28DSF
D373	N1L	MTZJT-7715A
R370	ERQ1CJP1R0S	ERQ1CKPR2S
R909	ERJ6GEYJ222V	ERJ6GEYJ102V
R910	ERJ6GEYJ101Z	ERJ6GEYJ151V

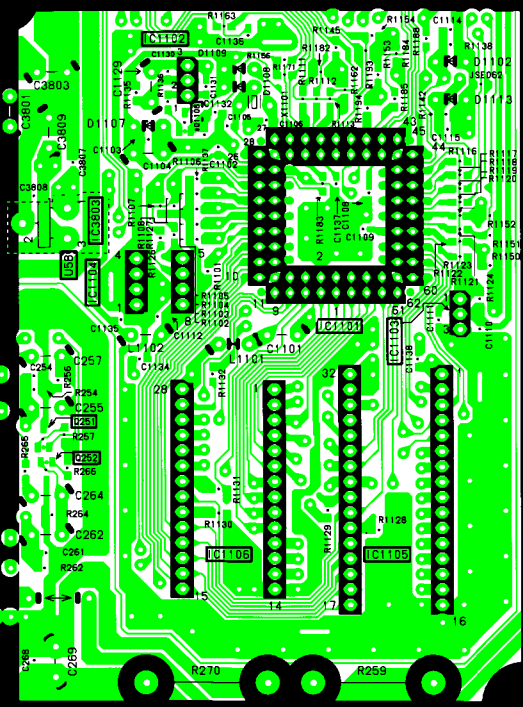
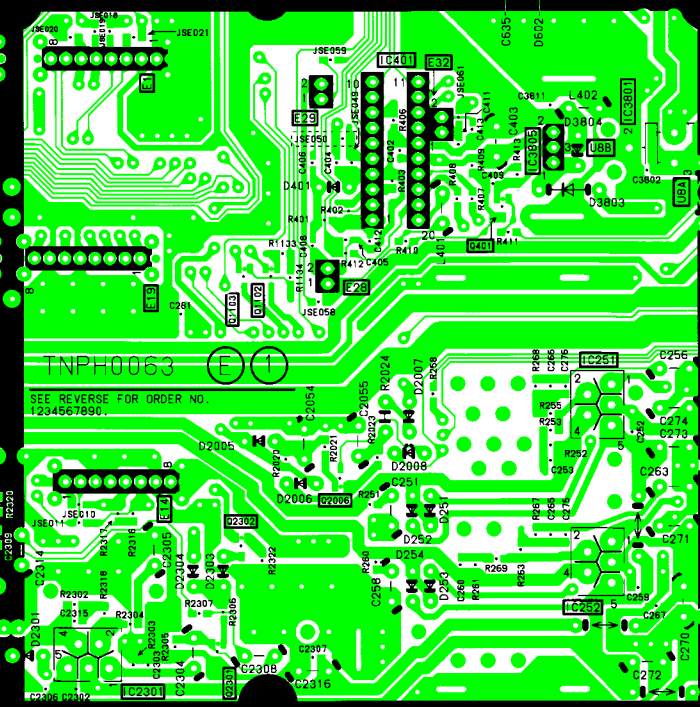
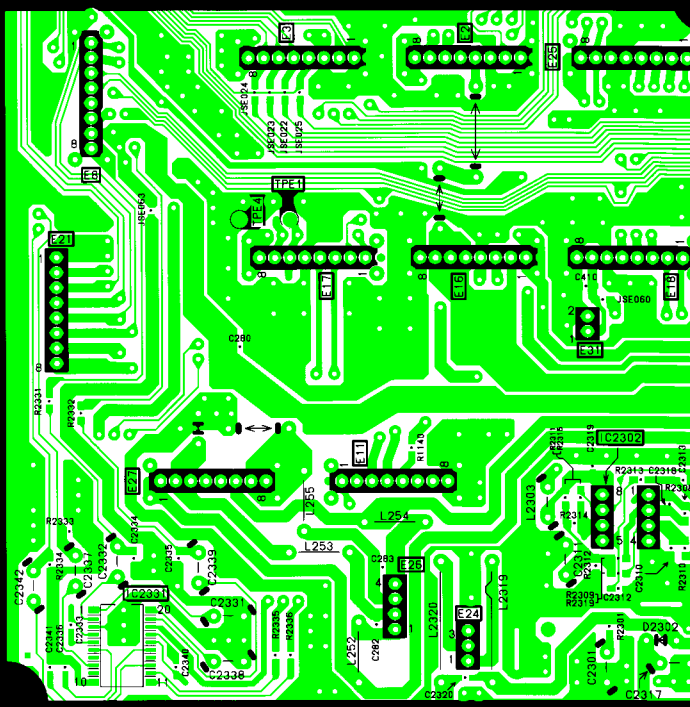
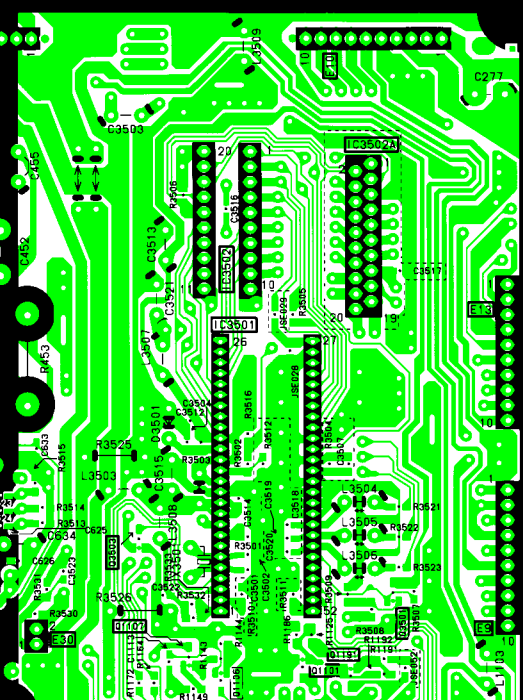
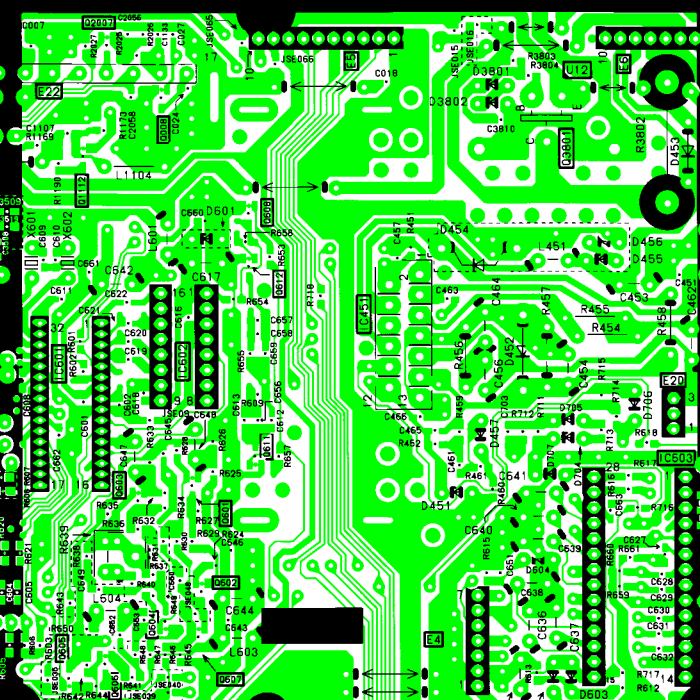
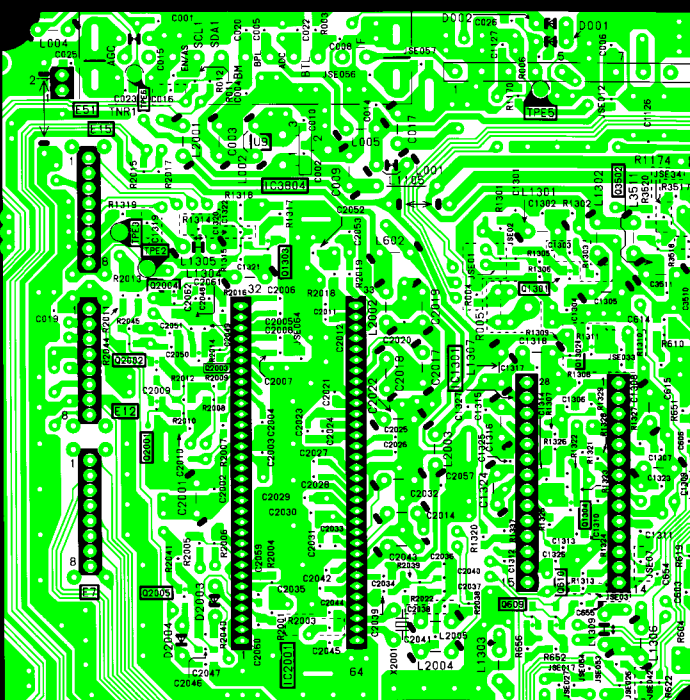


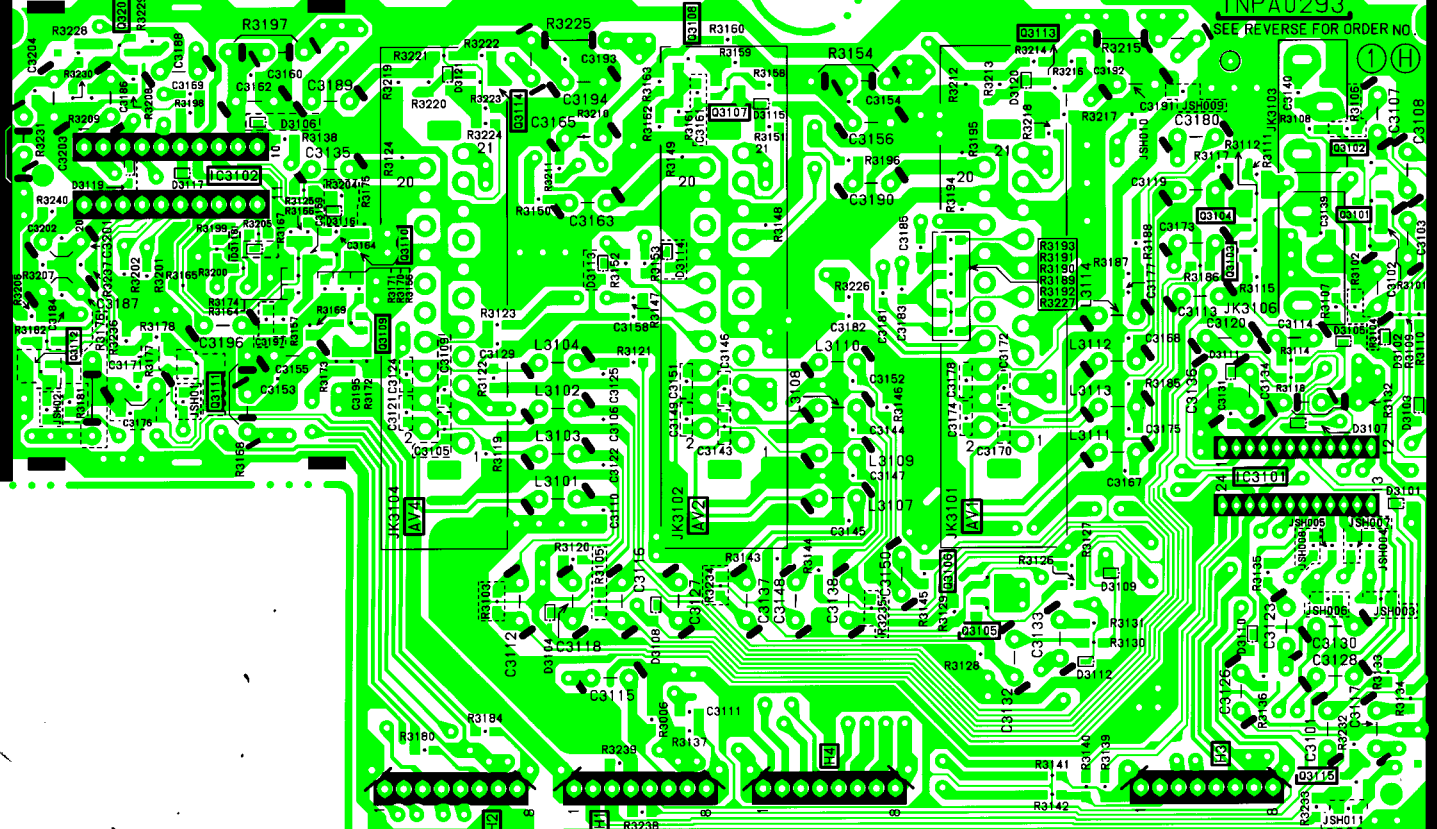
TNP A0317

(B2)

SEE REVERSE FOR ORDER NO.







(1) (H)

① ②

③ ④

⑤ ⑥

⑦ ⑧

⑨ ⑩

⑪ ⑫

⑬ ⑭

⑮ ⑯

⑰ ⑱

⑲ ⑳

㉑ ㉒

㉓ ㉔

㉕ ㉖

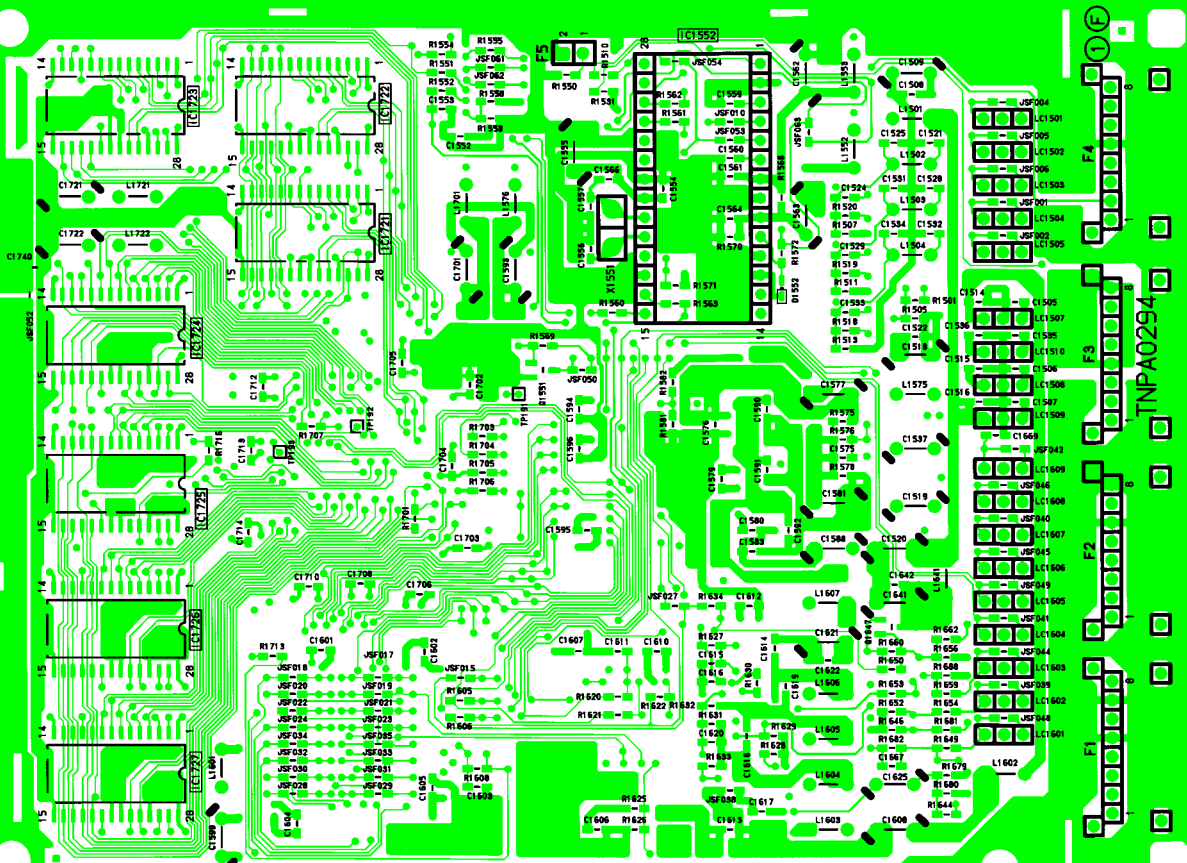
㉗ ㉘

㉙ ㉚

㉛ ㉜

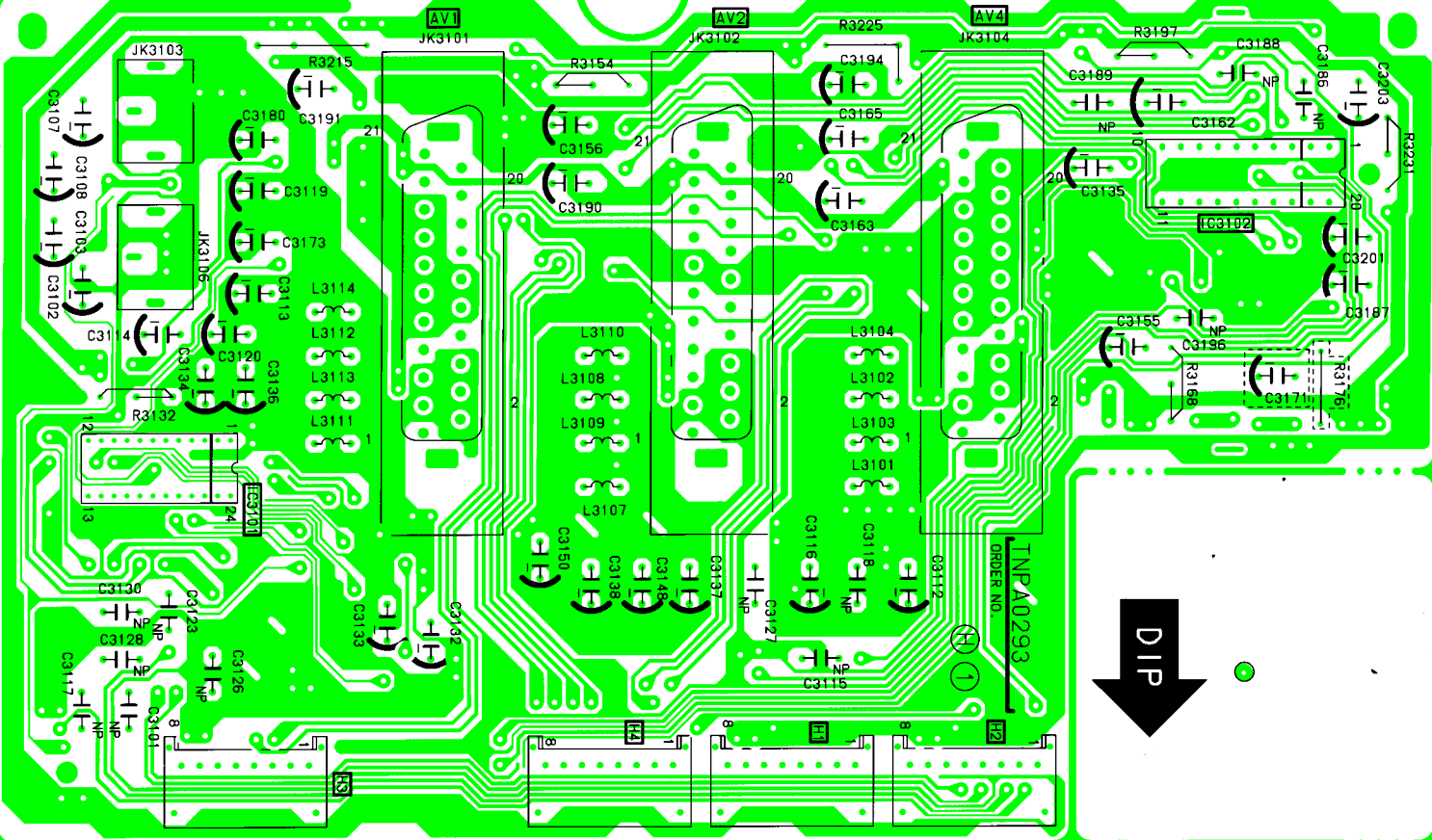
㉝ ㉞

㉟ ㊱



TNP A0294

F1 F2 F3 F4 F5



INPA0293
ORDER NO. F32

DIP

AV1

AV2

AV3

AV4

C3107
C3108
C3109
C3102

JK3103

R3215
C3191
C3180
C3119
C3173
C3113

L3114
L3112
L3113
L3111

R3132
C3134
C3136
C3120

C3128
C3126
C3117
C3123
C3101

JK3101

R3154
C3156
C3190

L3110
L3108
L3109
L3107

C3150
C3148
C3138

JK3102

R3225
C3194
C3165
C3163

L3104
L3102
L3103
L3101

C3116
C3118
C3112

JK3104

R3197
C3189
C3182
C3135

C3155
C3156
R3188

C3127
C3125

R3197

C3188

C3186
C3187

C3171
R3176

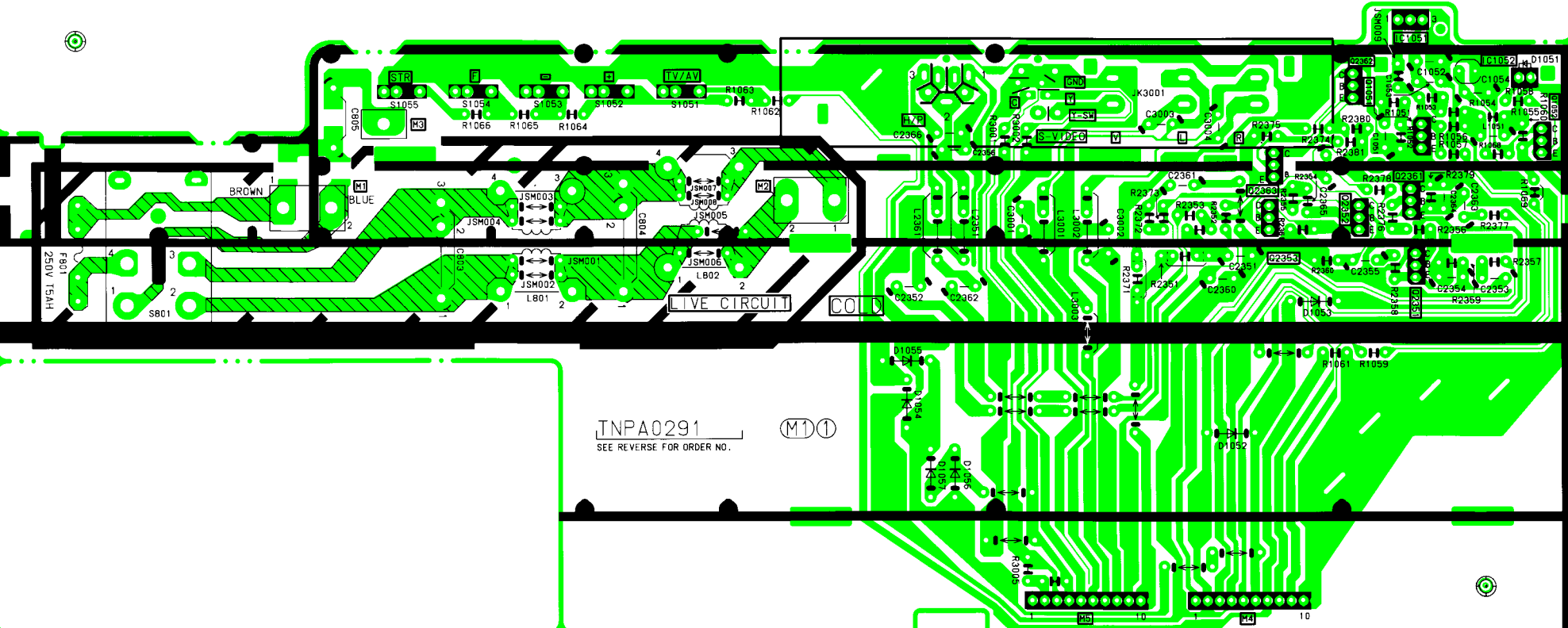
C3203
R2231

C3201

C3187

C3171
R3176

C3127
C3125



250V 15AH

F801

S801

C805

M3

BROWN

BLUE

C805

S1055

S1054

S1053

S1052

S1051

R1063

R1062

M1

M2

C803

JSM004

JSM003

JSM007

JSM008

JSM005

L801

JSM002

JSM001

L802

JSM006

LIVE CIRCUIT

COLD

D1055

D1054

D1051

D1056

D1057

R3005

D1052

R1061

R1059

TNPA0291
SEE REVERSE FOR ORDER NO.

(M1) ①

TNPA0292

SEE REVERSE FOR ORDER NO.

(2) (Y)

H.V. DANGER

JK381

