

TX-28/25/21MD3F Service Manual

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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

B - PCB

E - PCB

Y - PCB

B - Schematic

E - Schematic

P - Schematic

Y - Schematic


BACK


BACK

Service Manual



Colour Television

TX-28MD3F

TX-25MD3F

TX-21MD3F

EURO-2M Chassis

SPECIFICATIONS

(Information in brackets {} refer to TX-25MD3F)

(Information in brackets [] refer to TX-21MD3F)

Power Source : 220-240V AC, 50Hz
Power Consumption : 94W, {92W}, [75W]
Standby Power Consumption : 1W
Aerial Impedance : 75Ω unbalanced, Coaxial Type
Receiving System : PAL-BG, H, PAL 60, SECAM BG, L/L, MNTSC, 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 38.9 MHz, 34 MHz
 Sound 33.4 MHz, 33.16 MHz, 32.4 MHz, 33.05 MHz, 40.4 MHz
 Colour 34.47 MHz, 34.5 MHz, 34.65 MHz

Video / Audio Terminals :

| | | |
|--------------------------|--|--|
| AUDIO MONITOR OUT | Audio (RCA x 2) | 500mVrms, 1kΩ |
| AV1 IN | Video (21 pin) Audio (21 pin) RGB (21 pin) | 1V p-p 75Ω 500mV rms 10kΩ |
| AV1 OUT | Video (21 pin) Audio (21 pin) | 1V p-p 75Ω 500mV rms 1kΩ |
| AV2 IN | Video (21 pin) Audio (21 pin) S-Video IN (21 pin) | 1V p-p 75Ω 500mV rms 10kΩ Y : 1 Vp-p 75Ω C : 0.3 Vp-p 75Ω |
| AV2 OUT | Video (21 pin) Audio (21 pin) | 1V p-p 75Ω 500mV rms 1kΩ |
| AV3 IN | Audio (RCA x 2) Video (RCA x 1) | 500mV rms, 10kΩ 1 Vp-p 75Ω |

High Voltage :
(zero beam current)

28kV ± 1kV
{28kV ± 1kV}
[27kV ± 1kV]

Picture Tube :
A66ECF50X32 66 cm
{A59ECF50X32 59 cm}
[A51ECQ51X01 51 cm]

Audio Output :
Speaker 15 W (Music Power)
8 Ω Impédance

Headphones 8 Ω Impédance

Accessories supplied :
Remote Control
2 x R6 (UM3) Batteries

Dimensions :

Height : 576 mm {535 mm} [481 mm]
 Width : 472 mm {440 mm} [477 mm]
 Depth : 666 mm {601 mm} [525 mm]
Net Weight : 31kg {26kg} [22kg]

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

CARACTÉRISTIQUES

(Les informations entre parenthèses {} concernent le TX - 25MD3F)

(Les informations entre parenthèses [] concernent le TX - 21MD3F)

Alimentation : 220-240V AC, 50Hz
Consommation : 94W, {92W}, [75W]
Standby Consommation : 1W
Impédance d'antenne : 75Ω asymétrique sur prise coaxiale
Système de réception : PAL-BG, H, PAL 60, SECAM BG, L/L, MNTSC, NTSC (Entrée AV seulement)

Canaux de réception :
 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)

Fréquence Intermédiaire :
 Video 38.9 MHz, 34 MHz
 Sound 33.4 MHz, 33.16 MHz, 32.4 MHz, 33.05 MHz, 40.4 MHz
 Colour 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) Audio (21 pin) RGB (21 pin) | 1V p-p 75Ω 500mV rms 10kΩ |
| Sortie AV1 (21 broches) | Video (21 pin) Audio (21 pin) | 1V p-p 75Ω 500mV rms 1kΩ |
| Entrée AV2 (21 broches) | Video (21 pin) Audio (21 pin) S-Video IN (21 pin) | 1V p-p 75Ω 500mV rms 10kΩ Y : 1 Vp-p 75Ω C : 0.3 Vp-p 75Ω |
| Sortie AV2 (21 broches) | Video (21 pin) Audio (21 pin) | 1V p-p 75Ω 500mV rms 1kΩ |
| Entrée AV3 | Audio (RCA x 2) Video (RCA x 1) | 500mV rms, 10kΩ 1 Vp-p 75Ω |

Tension d'anode :
28kV ± 1kV
{28kV ± 1kV}
[27kV ± 1kV]

Tube image :
A66ECF50X32 66 cm
{A59ECF50X32 59 cm}
[A51ECQ51X01 51 cm]

Sortie Audio :
15 W (Music Power)
8 Ω Impédance

Casque d'écoute 8 Ω Impédance

Accessories fournis :
Télécommande
R6 (UM3) Piles x 2

Dimensions :

Hauteur : 576 mm {535 mm} [481 mm]
 Largeur : 472 mm {440 mm} [477 mm]
 Profondeur : 666 mm {601 mm} [525 mm]
Poids (NET) : 31kg {26kg} [22kg]

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

Panasonic

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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 29kV [28kV] 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.

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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 29kV [28kV], 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.

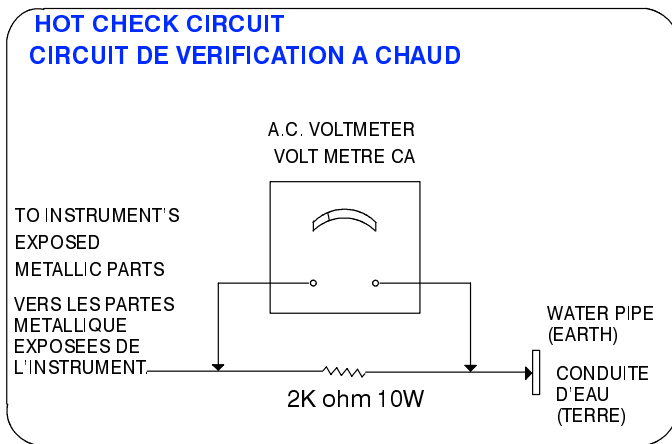


Fig.1

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 29kV [28kV] 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 28kV ± 1kV [27kV ± 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 29kV [28kV] 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 28kV ± 1kV [27kV ± 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 6 screws (A) as shown in **Fig.2/Fig.3.**

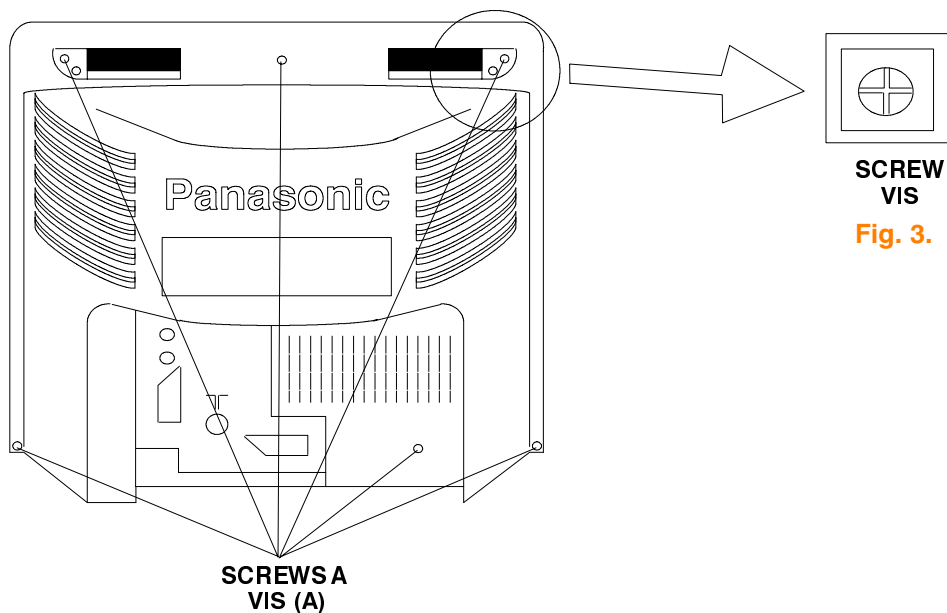


Fig. 2.

SUGGESTIONS DE DEPANNAGE COMMENT RETIRER LE PENNEAU ARRIÈRE

1. Retirer les 6 vis (A) comme sur la **Fig.2. / Fig.3.**



Fig. 3.

LOCATION OF CONTROLS

EMPLACEMENT DES COMMANDES

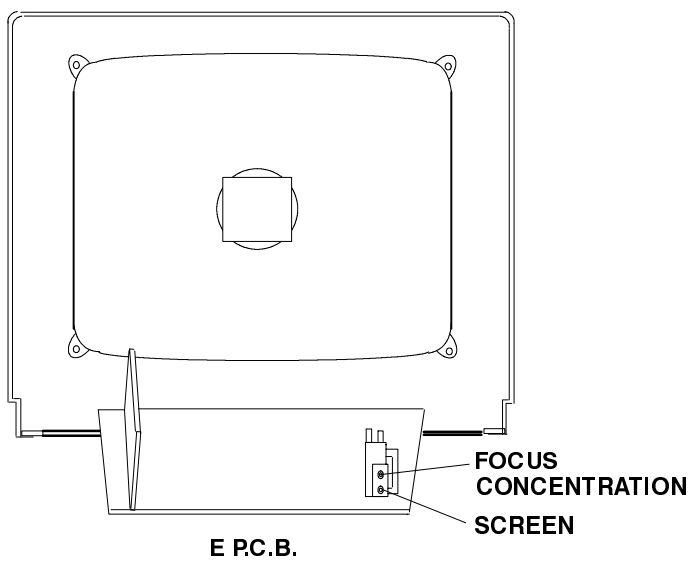


Fig. 4.

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 Volume down 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 down / up through the functions.
3. Press the YELLOW / BLUE buttons to alter the function values.
4. Press the STORE button on the preset panel 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 and analogue levels into the Memory Pack and then upload them onto another EURO-2M 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

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 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 switch off the TV.
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 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

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**. Simultanément appuyer sur: **Volume-** du tiroir en face avant et le bouton **Reveal** de la télécommande.
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 bloc-Mémoire vers un autre TV EURO-2M.

Processus de transfert "téléviseur vers bloc-mémoire"

1. 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.
2. Passer en Mode Service (voir ci-dessus). L'écran affichera:

Program
External >> TV

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

Program
TV >> External

4. Appuyer sur la bouton de mémorisation (STORE) du téléviseur et l'écran présentera la 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 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.
2. Passer en Mode Service (voir ci-dessus). L'écran affichera:

Program
External >> TV

3. Appuyer sur la bouton de mémorisation (STORE) du téléviseur et l'écran présentera la 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.

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{TX-21MD3F 130V} $\pm 1V$ 2. Confirm the following voltages. B1 200 \pm 10V B6 12 \pm 0.5V B3 27 \pm 1V B7 5 +0.1/-0.25V B4 35.5 \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 then 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 \pm 30 first. |

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 {TX-21MD3F 130V} $\pm 1V$ 2. Confirmer le réglage : B1 200 \pm 10V B6 12 \pm 0.5V B3 27 \pm 1V B7 5 \pm 0.1/-0.25V B4 35.5 \pm 1V B8 5 \pm 0.25V 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 de CUTOFF à 159V \pm 5V 5. Retirer l'oscilloscope et régler la tension d'ecran à 70 \pm 30 sur la première couleur atteignant cette valeur |

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 Function 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 | 21 — ok | P SBLED | Hex codes 6A 22 21 94 95 |
| 2 — ok | VIF | 12 — ok | P S MODE | 22 — ok | P OFF | |
| 3 — ok | EEPROM | 13 — ok | P TA0 | 23 — ok | P DEFL | |
| 4 — -- | Sound AV switch1 | 14 — ok | P TA1 | 24 — ok | P RAM | |
| 5 — ok | Video AV switch1 | 15 — ok | P TA2 | | | |
| 6 — ok | VDP | 16 — ok | P TA3 | | | |
| 7 — ok | TPU | 17 — ok | P SDA | | | |
| 8 — ok | MSP | 18 — ok | P SCL1 | | | |
| 9 — -- | Dolby Sub | 19 — ok | P SCL3 | | | |
| 10 — -- | Dolby IC for L/R | 20 — ok | P SCL4 | | | |

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: OFF TIMER 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 | 21 — ok | P SBLED | Hex codes 6A 22 21 94 95 |
| 2 — ok | VIF | 12 — ok | P S MODE | 22 — ok | P OFF | |
| 3 — ok | EEPROM | 13 — ok | P TA0 | 23 — ok | P DEFL | |
| 4 — -- | Sound AV switch1 | 14 — ok | P TA1 | 24 — ok | P RAM | |
| 5 — ok | Video AV switch1 | 15 — ok | P TA2 | | | |
| 6 — ok | VDP | 16 — ok | P TA3 | | | |
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| 9 — -- | Dolby Sub | 19 — ok | P SCL3 | | | |
| 10 — -- | Dolby IC for L/R | 20 — ok | P SCL4 | | | |

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

ALIGNMENT SETTINGS

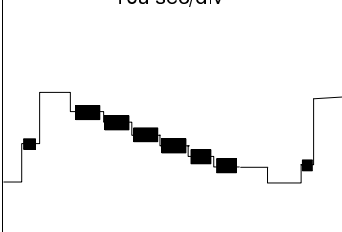
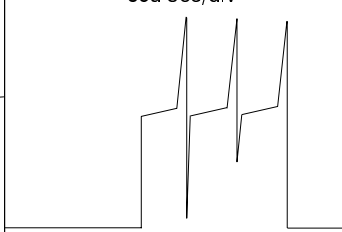
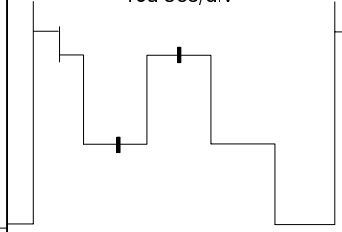
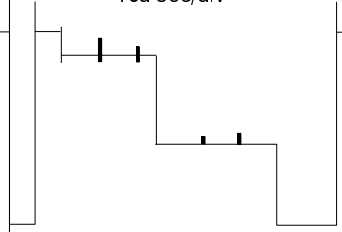
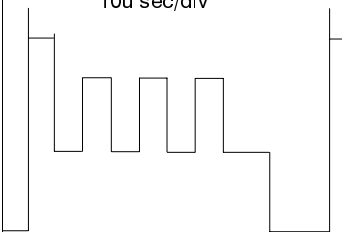
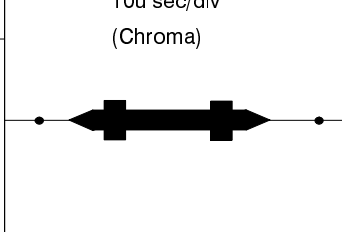
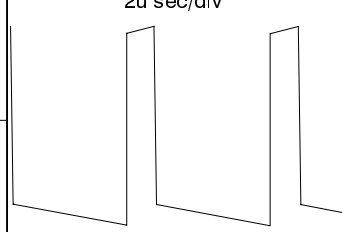
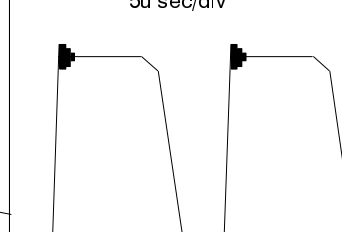
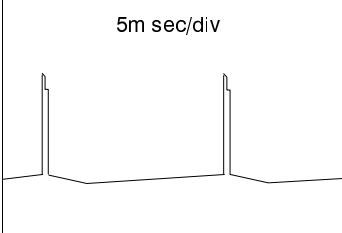
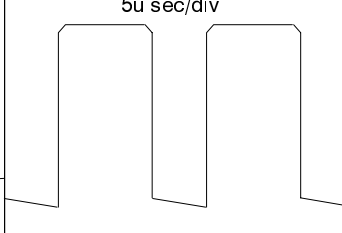
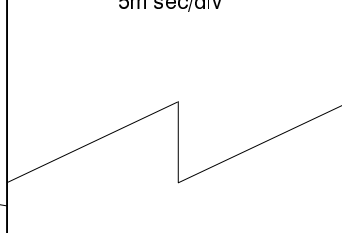
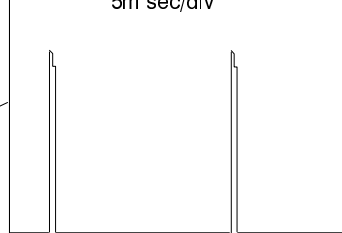
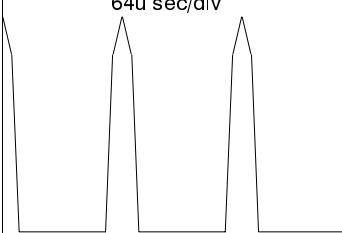
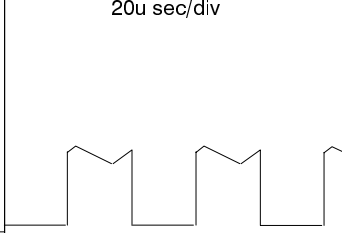
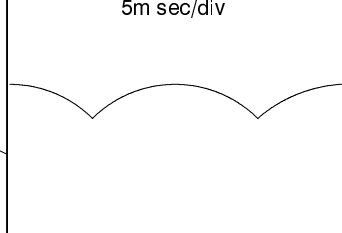
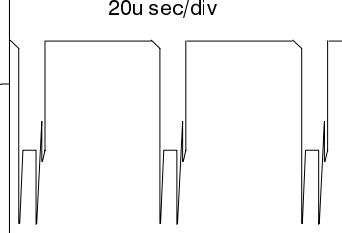
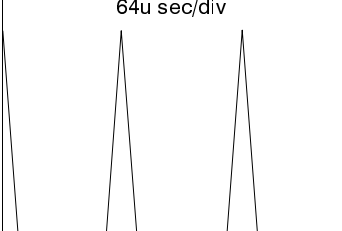
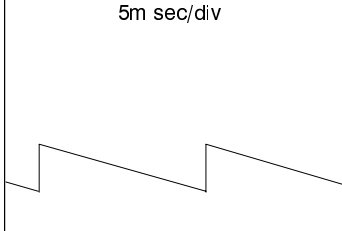
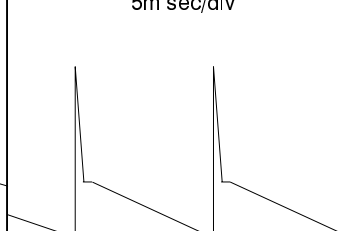
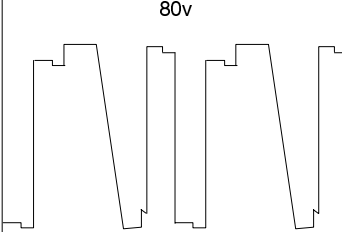
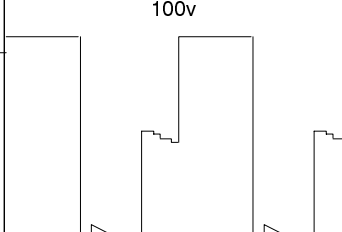
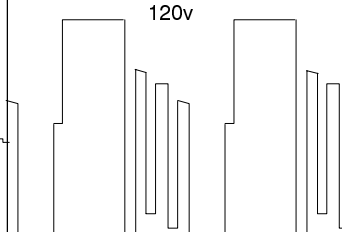
(The figures used below are nominal and used for representative purposes only)

| 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±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)

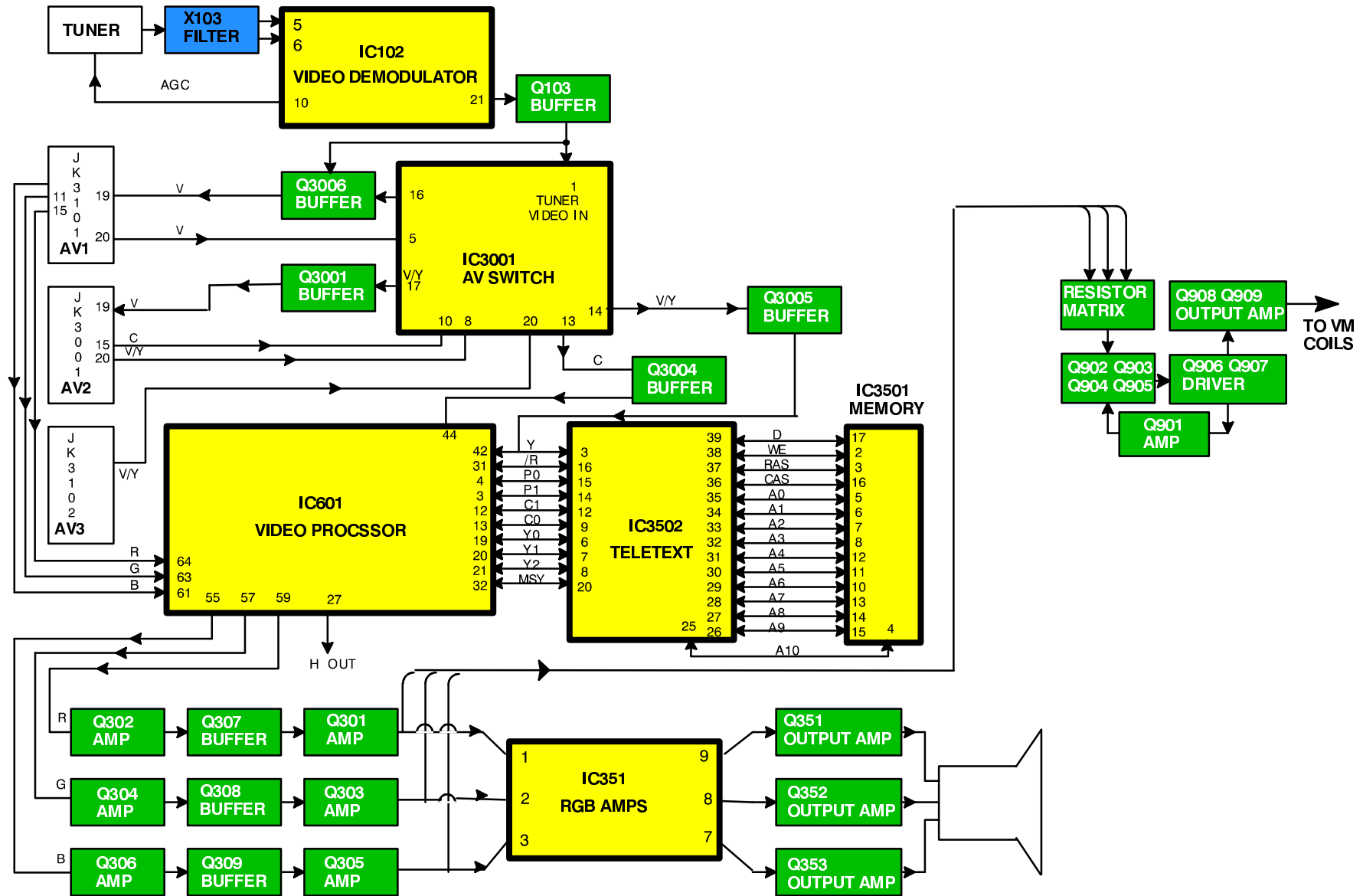
| Fonctions | | Réglages/Points particuliers |
|---------------------------------------|--------------------------|---|
| 1. Amplitude verticale | V-AMP 051 | Optimiser les réglages |
| 2. Symétric verticale | V-SYM 013 | |
| 3. Linèarité verticale | V-LIN 012 | |
| 4. Vert. DC. | Vert. D.C., 000 | Ne 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. |

WAVEFORM PATTERN TABLE TABLEAU DE MIRES DE FORMA D'ONDES

| | | | |
|---|--|--|---|
| <p>PIN 42 I601 10u sec/div</p>  | <p>PIN 6 E8 50u sec/div</p>  | <p>PIN 5 E8 10u sec/div</p>  | <p>PIN 3 E8 10u sec/div</p>  |
| <p>PIN 4 E8 10u sec/div</p>  | <p>PIN 44 IC601 10u sec/div (Chroma)</p>  | <p>PIN 7 IC801 2u sec/div</p>  | <p>PIN 18 T801 5u sec/div</p>  |
| <p>PIN 6 IC451 5m sec/div</p>  | <p>PIN 3 IC801 5u sec/div</p>  | <p>PIN 6 IC601 5m sec/div</p>  | <p>PIN 34 IC601 5m sec/div</p>  |
| <p>COLLECTOR Q551 64u sec/div</p>  | <p>BASE Q503 20u sec/div</p>  | <p>PIN 7 IC701 5m sec/div</p>  | <p>BASE Q551 20u sec/div</p>  |
| <p>PIN 8 IC701 64u sec/div</p>  | <p>PIN 1 IC451 5m sec/div</p>  | <p>PIN 5 IC451 5m sec/div</p>  | |
| <p>RED DRIVE EMITTER Q351 80v</p>  | <p>GREEN DRIVE EMITTER Q352 100v</p>  | <p>BLUE DRIVE EMITTER Q353 120v</p>  | |

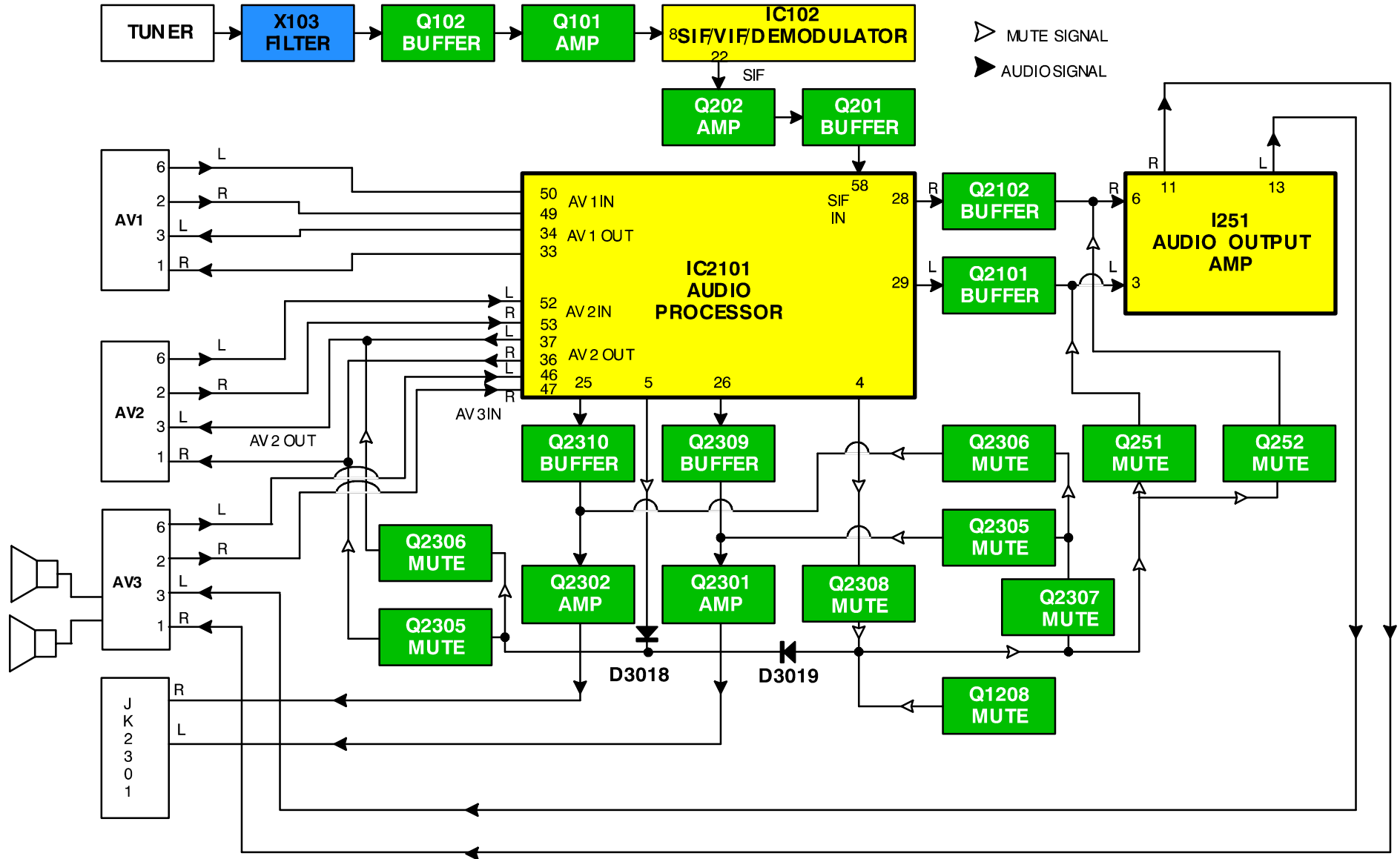
VIDEO BLOCK DIAGRAM

SYNOPTIQUE VIDEO

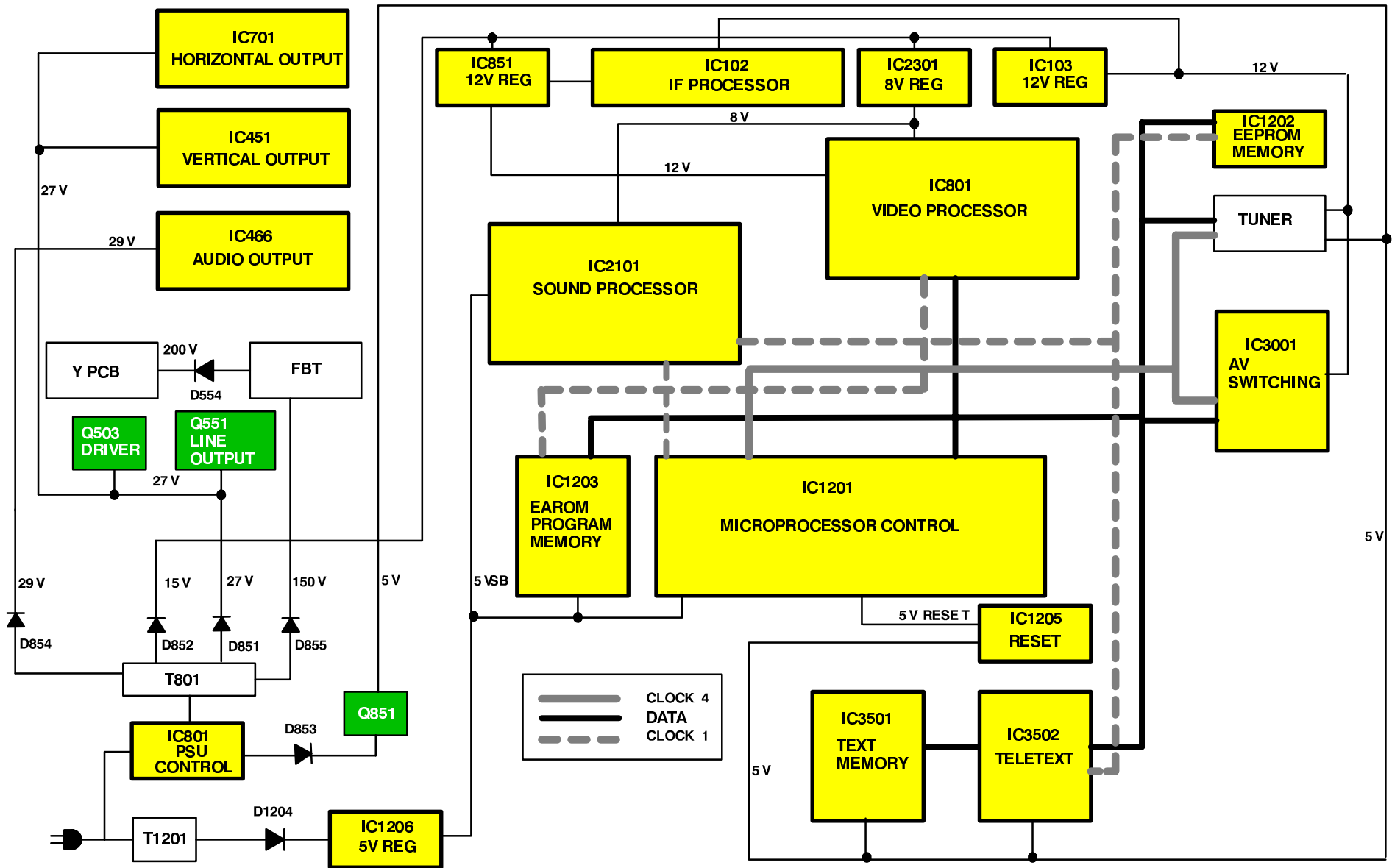


AUDIO BLOCK DIAGRAM

SYNOPTIQUE AUDIO



POWER SUPPLY AND CONTROL BLOCK DIAGRAM ALIMENTATION ET SYNOPTIQUE DE COMMANDE



PARTS LOCATION

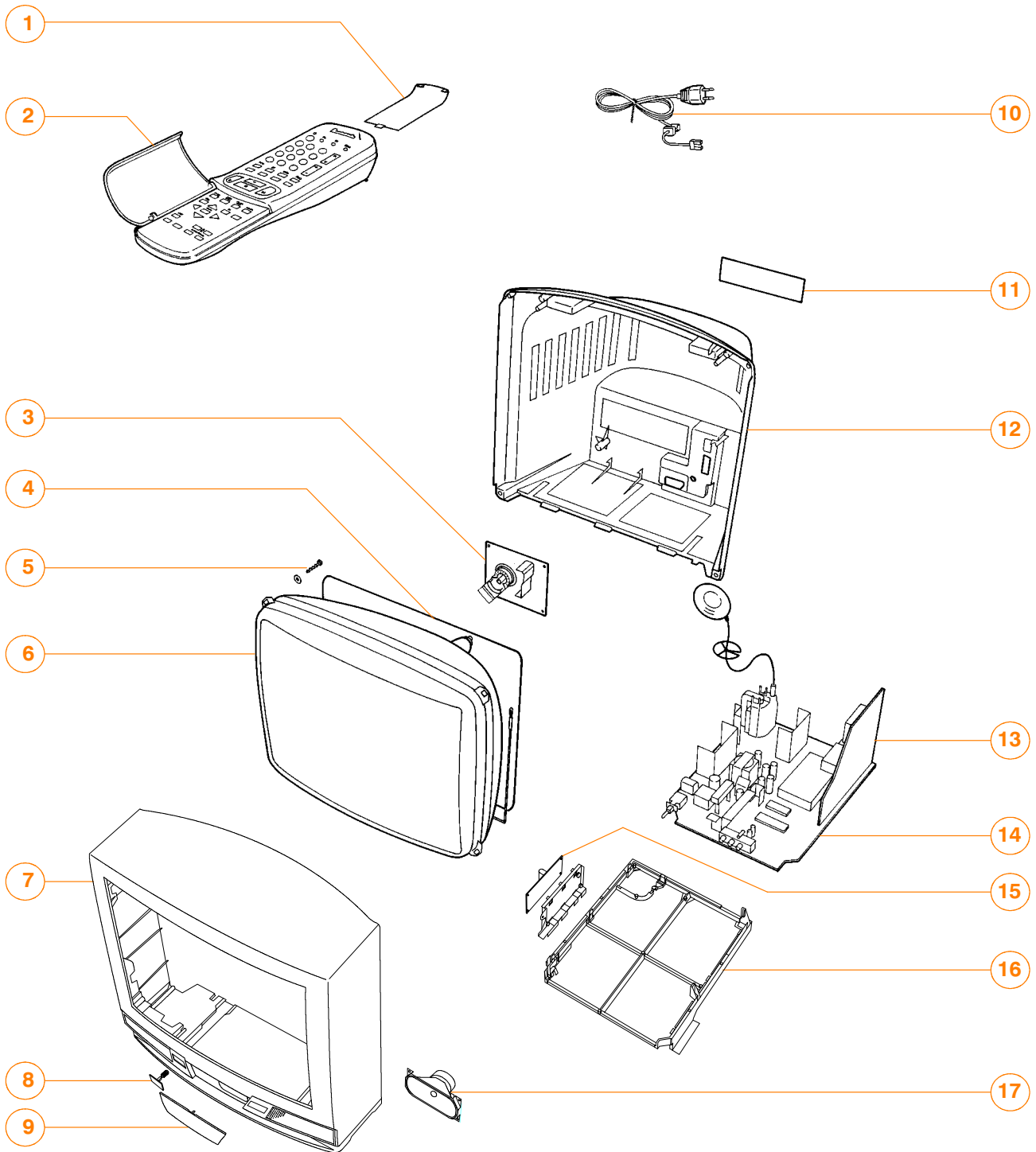
NOTE :

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

COMMON PARTS FOR MODELS TX-28MD3F, TX-25MD3F AND TX-21MD3F

LISTE DES PIÈCES DE RECHANGE

Remarque importante pour la sécurité

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

| Ref No. | Part No. | Description | |
|---------------------------------|--------------|--------------------------|---|
| MISCELLANEOUS COMPONENTS | | | |
| 1) | UR51EC780 | BATTERY COVER (REMOTE) | |
| 2) | EUR51920 | REMOTE CONTROL | |
| 3) | ***** | REFER TO DIFFERENCE LIST | |
| 4) | ***** | REFER TO DIFFERENCE LIST | |
| 5) | ***** | REFER TO DIFFERENCE LIST | |
| 6) | ***** | REFER TO DIFFERENCE LIST | |
| 7) | ***** | REFER TO DIFFERENCE LIST | |
| 8) | ***** | REFER TO DIFFERENCE LIST | |
| 9) | TKP8E1177 | DOOR LID | |
| 10) | TSX8E0020 | POWER CORD | ▲ |
| 11) | ***** | REFER TO DIFFERENCE LIST | |
| 12) | ***** | REFER TO DIFFERENCE LIST | |
| 13) | TNP8EB007AB | B PCB | ▲ |
| 14) | ***** | REFER TO DIFFERENCE LIST | |
| 15) | TNP8EP013AB | P .PC.B. | ▲ |
| 16) | TMX8E010 | CHASSIS BRACKET | |
| 17) | EASG12D531F2 | SPEAKER | |
| | F9-4-220 | RELAY | |
| | TBM8E1619-1 | PRESET LABEL | |
| | TBM8E1622 | MODEL LABEL | |
| | TEK6935 | LID SWITCH | |
| | ENG29501G | TUNER | |
| | TKP8E1178 | LED PANEL | |
| | TKP8E1179 | LED TUBE | |
| | TMW8E020 | LED HOLDER | |
| | TQB8E2279A | GERMAN INST BOOK | ▲ |
| | TQB8E2279C | ITALIAN INST BOOK | ▲ |
| | TQB8E2279D | FRENCH INST BOOK | ▲ |
| | TQB8E2279E | SPANISH INST BOOK | ▲ |
| | UM-3DEP-2P | BATTERY | |
| | 31221212478 | FIX CLIP | |
| | TES4537 | SPRING | |
| INTEGRATED CIRCUITS | | | |
| IC100 | TSA5514AT/C2 | A.F.C.CONTROL | |
| IC103 | L78M09MRB | 9V REGULATOR | |
| IC251 | LA4280-TV | AUDIO OUTPUT | |
| IC351 | TDA6103Q-N3 | R.G.B.AMPLIFIER | |
| IC451 | LA7845N | VERTICAL OUTPUT | |
| IC601 | VDP3108APPA1 | VIDEO PROCESSOR | |
| IC701 | TEA2031A | HORIZONTAL OUTPUT | |
| IC801 | TDA4601 | POWER SUPPLY | |
| IC851 | L78M12MRB | 12V REGULATOR | |
| IC1051 | RPM-637CBRL | LED RECEIVER | |
| IC1201 | CCU30001-07 | CENTRAL CONTROL UNIT | |
| IC1205 | MN1280R | RESET | |
| IC2101 | MSP3410BPPF7 | AUDIO PROCESSOR | |
| IC2301 | AN78L08TA | 8V REGULATOR | |
| IC3001 | TEA6415C | VIDEO SWITCH | |
| IC3501 | UD61256DC-08 | DYNAMIC RAM | |
| IC3502 | TPU3040-20 | TEXT PROCESSOR | |

| Ref No. | Part No. | Description | |
|-------------------|--------------|-------------|-------------|
| CAPACITORS | | | |
| C100 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C101 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C102 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C103 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C104 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C107 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C124 | ECEA1CKA470 | ELECT | 16V 47µF |
| C130 | ECEA1CKA470 | ELECT | 16V 47µF |
| C135 | ECUV1H103ZFX | S.M.CAP | 50V 10nF |
| C136 | ECA1CM100GB | ELECT | 16V 10pF |
| C137 | ECA1EM101GB | ELECT | 25V 1µF |
| C138 | ECUV1H103ZFX | S.M.CAP | 50V 10nF |
| C139 | ECUV1H390JCX | S.M.CAP | 50V 39pF |
| C140 | ECUV1H390JCX | S.M.CAP | 50V 39pF |
| C141 | ECUV1H103ZFX | S.M.CAP | 50V 10nF |
| C144 | ECA1HMR33GB | ELECT | 50V 0.33µF |
| C145 | ECUV1H103ZFX | S.M.CAP | 50V 10nF |
| C146 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C147 | ECUV1H102KBX | S.M.CAP | 50V 1nF |
| C148 | ECEA1HKAR22 | ELECT | 50V 0.22µF |
| C149 | ECA1EM470GB | ELECT | 25V 47pF |
| C150 | ECUV1H103ZFX | S.M.CAP | 50V 10nF |
| C151 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C154 | ECA1CM221GB | ELECT | 16V 220pF |
| C170 | ECUV1H331KBX | S.M.CAP | 50V 330pF |
| C201 | ECUV1H070DCX | S.M.CAP | 50V 7pF |
| C202 | ECUV1H070DCX | S.M.CAP | 50V 7pF |
| C203 | ECUV1H470JX | S.M.CAP | 50V 47pF |
| C204 | ECUV1H560JCX | S.M.CAP | 50V 56pF |
| C205 | ECUV1H560JCX | S.M.CAP | 50V 56pF |
| C207 | ECUV1H560JCX | S.M.CAP | 50V 56pF |
| C209 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C210 | ECUV1H103ZFX | S.M.CAP | 50V 10nF |
| C211 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C253 | ECA1HM4R7GB | ELECT | 50V 4.7µF |
| C255 | ECEA1EGE101 | ELECT | 25V 100µF |
| C257 | ECA1HM4R7GB | ELECT | 50V 4.7µF |
| C260 | ECA1VM102GE | ELECT | 35V 1nF |
| C261 | ECA1VM102GE | ELECT | 35V 1nF |
| C263 | ECA1HM010GB | ELECT | 50V 1pF |
| C264 | ECEA1HGE222 | ELECT | 50V 2200µF |
| C266 | ECA1HM010GB | ELECT | 50V 1pF |
| C267 | ECUV1H104KBX | S.M.CAP | 50V 100nF |
| C268 | ECUV1H104KBX | S.M.CAP | 50V 100nF |
| C271 | ECUV1H561KBX | S.M.CAP | 50V 560pF |
| C301 | ECA1CM470GB | ELECT | 16V 47µF |
| C302 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C303 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C310 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |
| C354 | ECQM2104KZ | FILM | 250V 100nF |
| C355 | ECUV1H222JCX | S.M.CAP | 50V 2.2nF |
| C356 | ECUV1H222JCX | S.M.CAP | 50V 2.2nF |
| C357 | ECUV1H222JCX | S.M.CAP | 50V 2.2nF |
| C358 | 222236516224 | FILM | 160V 220nF |
| C360 | ECKC3D152J | CERAMIC | 2KV 1.5nF ▲ |
| C361 | ECA1HMR47GB | ELECT | 50V 0.47µF |
| C451 | ECUV1H102JX | S.M.CAP | 50V 1nF |
| C452 | ECUV1H102ZFX | S.M.CAP | 50V 1nF |
| C453 | ECUV1H472KBX | S.M.CAP | 50V 4.7nF |
| C454 | ECUV1H104ZFX | S.M.CAP | 50V 100nF |

| Ref No. | Part No. | Description | | | |
|---------|---------------------|-------------|-------|--------|---|
| C456 | ECEA1HGE221 | ELECT | 50V | 220µF | |
| C458 | ECQM1H273J | FILM | 50V | 27nF | |
| C460 | 222236516105 | FILM | 160V | 1µF | |
| C462 | ECEA1VGE332 | ELECT | 35V | 3300µF | |
| C501 | ECA1AM330GB | ELECT | 10V | 33pF | |
| C506 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C508 | 222236516105 | FILM | 160V | 1µF | |
| C509 | ECEA1HGE101 | ELECT | 50V | 100µF | |
| C510 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C511 | ECQM2683JZ | FILM | 250V | 68nF | |
| C555 | ECWH12H103J | FILM | 1250V | 10nF | △ |
| C562 | ECKC2H101J | CERAMIC | 500V | 100pF | △ |
| C563 | ECEA2EU220 | ELECT | 250V | 22µF | |
| C564 | ECEA2AU2R2 | ELECT | 100V | 2.2µF | |
| C565 | ECQP1H273J | FILM | 100V | 2700µF | |
| C601 | ECUV1H271JCX | S.M.CAP | 50V | 270pF | |
| C602 | ECUV1H121JCX | S.M.CAP | 50V | 120pF | |
| C603 | ECUV1H471JCX | S.M.CAP | 50V | 470pF | |
| C604 | ECA0JM102GB | ELECT | 6.3V | 1nF | |
| C605 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C608 | ECUV1H683ZFX | S.M.CAP | 50V | 68nF | |
| C609 | ECA1CM470GB | ELECT | 16V | 47µF | |
| C610 | ECUV1H683ZFX | S.M.CAP | 50V | 68nF | |
| C611 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C612 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C613 | ECUV1H102JCX | S.M.CAP | 50V | 1nF | |
| C614 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C615 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C616 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C618 | ECUV1H473ZFX | S.M.CAP | 50V | 47nF | |
| C619 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C620 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C621 | ECA1CM100GB | ELECT | 16V | 10pF | |
| C622 | ECA1CM100GB | ELECT | 16V | 10pF | |
| C623 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C624 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C626 | ECA0JM102GB | ELECT | 6.3V | 1nF | |
| C627 | ECUV1H100DCX | S.M.CAP | 50V | 10pF | |
| C628 | ECUV1H470JCX | S.M.CAP | 50V | 47pF | |
| C629 | ECUV1H101JCX | S.M.CAP | 50V | 100pF | |
| C630 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C631 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C632 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C633 | ECUV1H102JCX | S.M.CAP | 50V | 1nF | |
| C636 | ECUV1H101JCX | S.M.CAP | 50V | 100pF | |
| C637 | ECUV1H102KBX | S.M.CAP | 50V | 1nF | |
| C638 | ECUV1H181JCX | S.M.CAP | 50V | 180pF | |
| C639 | ECUV1H561KBX | S.M.CAP | 50V | 560pF | |
| C702 | ECUV1H103KBX | S.M.CAP | 50V | 10nF | |
| C704 | ECQB1H223K | FILM | 50V | 22nF | |
| C705 | ECQB1H152K | FILM | 50V | 1.5nF | |
| C801 | ECUV1H101JCX | S.M.CAP | 50V | 100pF | |
| C802 | ECQE6104K | FILM | 600V | 100nF | △ |
| C803 | ECUV1H560JX | S.M.CAP | 50V | 56pF | |
| C804 | ECA1HM101GB | ELECT | 50V | 100pF | |
| C805 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C806 | ECEA1HU101 | ELECT | 50V | 100µF | |
| C807 | ECEA1EGE101 | ELECT | 25V | 100µF | |
| C808 | ECQB1H103J | FILM | 50V | 10nF | |
| C809 | ECQB1H103J | FILM | 50V | 10nF | |
| C811 | ECEA1HN010 | ELECT | 50V | 1µF | |
| C815 | ECKC2H472J | CERAMIC | 500V | 4.7nF | △ |
| C816 | ECKC3D222JB | CERAMIC | 2KV | 2200pF | △ |
| C817 | ECQB1H223K | FILM | 50V | 22nF | |
| C818 | ECKC2H472J | CERAMIC | 500V | 4.7nF | △ |
| C821 | ECKWNA332MECCERAMIC | | 250V | 3.3nF | |
| C841 | 222233510224 | CAPACITOR | | 0.22µF | |
| C851 | ECKC2H681J | CERAMIC | 500V | 680pF | △ |
| C852 | ECEA1HU102 | ELECT | 50V | 1000µF | |
| C853 | ECEA1EGE222 | ELECT | 25V | 2200µF | |
| C854 | ECEA1HGE102 | ELECT | 50V | 1000µF | |

| Ref No. | Part No. | Description | | | |
|---------|--------------|-------------|------|--------|---|
| C855 | ECKC3D471JB | CERAMIC | 2KV | 470pF | △ |
| C856 | ECEA1EGE222 | ELECT | 25V | 2200µF | |
| C858 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C859 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C860 | ECA1CM471GB | ELECT | 16V | 470pF | |
| C862 | ECA1CM471GB | ELECT | 16V | 470pF | |
| C1051 | ECA0JM101G | ELECT | 6.3V | 100pF | |
| C1052 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C1201 | ECUV1H332KBX | S.M.CAP | 50V | 3.3nF | |
| C1202 | ECUV1H332KBX | S.M.CAP | 50V | 3.3nF | |
| C1203 | ECUV1H332KBX | S.M.CAP | 50V | 3.3nF | |
| C1204 | ECUV1H332KBX | S.M.CAP | 50V | 3.3nF | |
| C1205 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C1206 | ECA1HM4R7GB | ELECT | 50V | 4.7µF | |
| C1207 | ECUV1H472KBX | S.M.CAP | 50V | 4.7nF | |
| C1208 | ECUV1H390JCX | S.M.CAP | 50V | 39pF | |
| C1209 | ECUV1H390JCX | S.M.CAP | 50V | 39pF | |
| C1210 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C1211 | ECUV1H470JCX | S.M.CAP | 50V | 47pF | |
| C1212 | ECA1CM470GB | ELECT | 16V | 47µF | |
| C1213 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C1214 | ECA1CM470GB | ELECT | 16V | 47µF | |
| C1215 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C1217 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C1219 | ECA1CM471GB | ELECT | 16V | 470pF | |
| C1220 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C1221 | ECA0JM102GB | ELECT | 6.3V | 1nF | |
| C1222 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C1223 | ECA1HM101GB | ELECT | 50V | 100pF | |
| C1224 | ECA0JM222GB | ELECT | 6.3V | 2.2nF | |
| C1225 | ECA0JM472GE | ELECT | 6.3V | 4.7nF | |
| C1226 | ECA1HM101GB | ELECT | 50V | 100pF | |
| C1227 | ECA1VM221B | ELECT | 35V | 220pF | |
| C1228 | ECA1EM101GB | ELECT | 25V | 1µF | |
| C2101 | ECUV1H223KBX | S.M.CAP | 50V | 22nF | |
| C2102 | ECUV1H391KBX | S.M.CAP | 50V | 390pF | |
| C2103 | ECUV1H102KBX | S.M.CAP | 50V | 1nF | |
| C2104 | ECUV1H102KBX | S.M.CAP | 50V | 1nF | |
| C2107 | ECUV1H391KBX | S.M.CAP | 50V | 390pF | |
| C2108 | ECA1HM101GB | ELECT | 50V | 100pF | |
| C2109 | ECUV1H223KBX | S.M.CAP | 50V | 22nF | |
| C2110 | ECA1CM100GB | ELECT | 16V | 10pF | |
| C2111 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2112 | ECA1CM100GB | ELECT | 16V | 10pF | |
| C2113 | ECUV1H102KBX | S.M.CAP | 50V | 1nF | |
| C2114 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2115 | ECUV1H471KBX | S.M.CAP | 50V | 470pF | |
| C2116 | ECA1HM3R3GB | ELECT | 50V | 3.3µF | |
| C2117 | ECUV1H471KBX | S.M.CAP | 50V | 470pF | |
| C2118 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2119 | ECA1CM100GB | ELECT | 16V | 10pF | |
| C2120 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2121 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2123 | ECA1CM100GB | ELECT | 16V | 10pF | |
| C2124 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2125 | ECUV1H010CCX | S.M.CAP | 50V | 1pF | |
| C2126 | ECUV1H010CCX | S.M.CAP | 50V | 1pF | |
| C2127 | ECA1CM100GB | ELECT | 16V | 10pF | |
| C2128 | ECUV1H683ZFX | S.M.CAP | 50V | 68nF | |
| C2129 | ECQM1H334J | FILM | 50V | 330nF | |
| C2307 | ECA1CM470GB | ELECT | 16V | 47µF | |
| C2308 | ECA1CM470GB | ELECT | 16V | 47µF | |
| C2310 | ECA1CM470GB | ELECT | 16V | 47µF | |
| C2312 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2313 | ECUV1H103KBX | S.M.CAP | 50V | 10nF | |
| C2314 | ECUV1H104ZFX | S.M.CAP | 50V | 100nF | |
| C2315 | ECUV1H103KBX | S.M.CAP | 50V | 10nF | |
| C2316 | ECUV1H103ZFX | S.M.CAP | 50V | 10nF | |
| C2317 | ECA1CM470GB | ELECT | 16V | 47µF | |
| C2318 | ECUV1H222KBX | S.M.CAP | 50V | 2.2nF | |
| C2319 | ECUV1H222KBX | S.M.CAP | 50V | 2.2nF | |
| C2651 | ECUV1H103KBX | S.M.CAP | 50V | 10nF | |

| Ref No. | Part No. | Description |
|---------|----------------------|-------------|
| C2652 | ECUV1H103KBX S.M.CAP | 50V 10nF |
| C3001 | ECA1HMR47GB ELECT | 50V 0.47µF |
| C3002 | ECA1HMR47GB ELECT | 50V 0.47µF |
| C3003 | ECA1EM4R7GB ELECT | 25V 4.7µF |
| C3004 | ECA1HM4R7GB ELECT | 50V 4.7µF |
| C3005 | ECA1HM4R7GB ELECT | 50V 4.7µF |
| C3006 | ECUV1H473ZFX S.M.CAP | 50V 47nF |
| C3007 | ECA1HM470GB ELECT | 50V 47µF |
| C3011 | ECUV1H473ZFX S.M.CAP | 50V 47nF |
| C3012 | ECA1CM470GB ELECT | 16V 47µF |
| C3013 | ECUV1H104ZFX S.M.CAP | 50V 100nF |
| C3014 | ECUV1H104ZFX S.M.CAP | 50V 100nF |
| C3017 | ECEA1CN470 ELECT | 16V 47µF |
| C3018 | ECUV1H102KBX S.M.CAP | 50V 1nF |
| C3019 | ECUV1H102KBX S.M.CAP | 50V 1nF |
| C3020 | ECCR1H120J CERAMIC | 50V 12pF |
| C3021 | ECUV1H102KBX S.M.CAP | 50V 1nF |
| C3023 | ECA1CM470GB ELECT | 16V 47µF |
| C3024 | ECUV1H473ZFX S.M.CAP | 50V 47nF |
| C3025 | ECUV1H102KBX S.M.CAP | 50V 1nF |
| C3026 | ECA1CM470GB ELECT | 16V 47µF |
| C3027 | ECA1CM470GB ELECT | 16V 47µF |
| C3028 | ECUV1H221JX S.M.CAP | 50V 220pF |
| C3029 | ECUV1H221JX S.M.CAP | 50V 220pF |
| C3030 | ECUV1H221JX S.M.CAP | 50V 220pF |
| C3031 | ECUV1H221JX S.M.CAP | 50V 220pF |
| C3032 | ECA1HMR47GB ELECT | 50V 0.47µF |
| C3033 | ECA1HMR47GB ELECT | 50V 0.47µF |
| C3034 | ECUV1H221JX S.M.CAP | 50V 220pF |
| C3035 | ECUV1H221JX S.M.CAP | 50V 220pF |
| C3036 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3037 | ECUV1H561JCX S.M.CAP | 50V 560pF |
| C3038 | ECA1CM470GB ELECT | 16V 47µF |
| C3039 | ECA1CM470GB ELECT | 16V 47µF |
| C3040 | ECA1HMR47GB ELECT | 50V 0.47µF |
| C3041 | ECA1HMR47GB ELECT | 50V 0.47µF |
| C3043 | ECA1HM4R7GB ELECT | 50V 4.7µF |
| C3045 | ECUV1H104ZFX S.M.CAP | 50V 100nF |
| C3049 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3050 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3051 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3052 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3053 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3054 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3055 | ECUV1H222KBX S.M.CAP | 50V 2.2nF |
| C3056 | ECUV1H101JCX S.M.CAP | 50V 100pF |
| C3062 | ECUV1H104ZFX S.M.CAP | 50V 100nF |
| C3071 | ECUV1H104ZFX S.M.CAP | 50V 100nF |
| C3151 | ECUV1H561JCX S.M.CAP | 50V 560pF |
| C3152 | ECUV1H561JCX S.M.CAP | 50V 560pF |
| C3501 | ECUV1H104ZFX S.M.CAP | 50V 100nF |
| C3502 | ECA1HM101GB ELECT | 50V 100pF |
| C3503 | ECUV1H103ZFX S.M.CAP | 50V 10nF |
| C3504 | ECUV1H102JCX S.M.CAP | 50V 1nF |
| C3505 | ECUV1H104ZFX S.M.CAP | 50V 100nF |
| C3506 | ECA1CM470GB ELECT | 16V 47µF |
| C3507 | ECA1CM470GB ELECT | 16V 47µF |
| C3508 | ECUV1H473ZFX S.M.CAP | 50V 47nF |
| C3509 | ECUV1H103ZFX S.M.CAP | 50V 10nF |
| C3510 | ECA0JM102GB ELECT | 6.3V 1nF |
| C3511 | ECUV1H103ZFX S.M.CAP | 50V 10nF |

DIODES

| | | |
|------|-------------|------------------|
| D140 | MA3020TX | DIODE |
| D141 | MA3020TX | DIODE |
| D251 | MA2180TP | DIODE |
| D253 | RB721Q40T77 | DIODE |
| D254 | RB721Q40T77 | DIODE |
| D310 | MA165TA5 | DIODE 1SS133T-77 |
| D311 | MA29TA5 | DIODE |
| D312 | MA29TA5 | DIODE |

| Ref No. | Part No. | Description |
|---------|--------------|------------------|
| D354 | ERA22-04V1 | DIODE |
| D355 | ERA22-04V1 | DIODE |
| D356 | ERA22-04V1 | DIODE |
| D357 | MA165TA5 | DIODE 1SS133T-77 |
| D358 | MA165TA5 | DIODE 1SS133T-77 |
| D359 | MA165TA5 | DIODE 1SS133T-77 |
| D360 | MA4150 | DIODE |
| D451 | MA165TA5 | DIODE 1SS133T-77 |
| D452 | MA165TA5 | DIODE 1SS133T-77 |
| D454 | ERA15-02V3 | DIODE |
| D456 | MA2160BLFS | DIODE |
| D470 | MA4020 | DIODE |
| D501 | MA165TA5 | DIODE 1SS133T-77 |
| D502 | EU02 | DIODE |
| D551 | ERD07-15L7 | DIODE |
| D552 | TVSRU2AM | DIODE |
| D554 | AU02V0 | DIODE |
| D556 | MA166TA5 | DIODE |
| D601 | MA165TA5 | DIODE 1SS133T-77 |
| D602 | MA165TA5 | DIODE 1SS133T-77 |
| D604 | MA165TA5 | DIODE 1SS133T-77 |
| D605 | MA165TA5 | DIODE 1SS133T-77 |
| D606 | MA165TA5 | DIODE 1SS133T-77 |
| D609 | MA167TA5 | DIODE |
| D701 | MA165TA5 | DIODE 1SS133T-77 |
| D702 | MTZJT-775.6C | DIODE |
| D804 | ERA15-02V3 | DIODE |
| D805 | EU02 | DIODE |
| D806 | RBV4-08 | DIODE |
| D807 | EU02 | DIODE |
| D809 | MA165TA5 | DIODE 1SS133T-77 |
| D814 | MA165TA5 | DIODE 1SS133T-77 |
| D851 | EU02 | DIODE |
| D852 | ERD32-02L7 | DIODE |
| D853 | FML22SLF610 | DIODE |
| D854 | RU4AMLF-M1 | DIODE |
| D855 | RU4BLF-L1 | DIODE |
| D856 | MTZJT-775.1A | DIODE |
| D857 | MTZJ33B | DIODE |
| D858 | MA29TA5 | DIODE |
| D1201 | SLR56UR3FLF | LED |
| D1203 | MA170 | DIODE |
| D1205 | MA165TA5 | DIODE 1SS133T-77 |
| D1207 | MA165TA5 | DIODE 1SS133T-77 |
| D1208 | MA165TA5 | DIODE 1SS133T-77 |
| D1209 | MA165TA5 | DIODE 1SS133T-77 |
| D1211 | MTZJT-775.1C | DIODE |
| D1212 | MA170 | DIODE |
| D1213 | MA165TA5 | DIODE 1SS133T-77 |
| D1214 | MA170 | DIODE |
| D1216 | MTZJT-778.2C | DIODE |
| D2303 | MA165TA5 | DIODE 1SS133T-77 |
| D2304 | MTZJT-779.1C | DIODE |
| D3001 | MTZJT-7712C | DIODE |
| D3003 | MTZJT-778.2C | DIODE |
| D3004 | MA4100 | DIODE |
| D3005 | MTZJT-7712C | DIODE |
| D3006 | MTZJT-7712C | DIODE |
| D3007 | MTZJT-7712C | DIODE |
| D3008 | MTZJT-778.2C | DIODE |
| D3009 | MTZJT-778.2C | DIODE |
| D3010 | MTZJT-778.2C | DIODE |
| D3011 | MTZJT-778.2C | DIODE |
| D3012 | MTZJT-7712C | DIODE |
| D3013 | MTZJT-7712C | DIODE |
| D3014 | MTZJT-7712C | DIODE |
| D3015 | MTZJT-7712C | DIODE |
| D3016 | MTZJT-7712C | DIODE |
| D3018 | MA165TA5 | DIODE 1SS133T-77 |
| D3019 | MA165TA5 | DIODE 1SS133T-77 |
| D3501 | MA165TA5 | DIODE 1SS133T-77 |

| Ref No. | Part No. | Description | | | |
|----------------------------|--------------|---------------|----|----|--|
| FUSES | | | | | |
| F840 | 2153.15H | FUSE | | △ | |
| F851 | TR5-T1250 | FUSE | | △ | |
| F852 | TR5-T2000 | FUSE | | △ | |
| F853 | TR5-T2000 | FUSE | | △ | |
| F8401 | EYF52BC | FUSE HOLDER | | | |
| F8402 | EYF52BC | FUSE HOLDER | | | |
| SOCKETS | | | | | |
| H1202 | 832AG11D-ESL | I.C.SOCKET | | | |
| TERMINALS AND LINKS | | | | | |
| JA.1 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.10 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.11 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.12 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.13 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.14 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.15 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.16 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.17 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.18 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.19 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.2 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.20 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.21 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.22 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.24 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.25 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.26 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.27 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.28 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.29 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.3 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.30 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.4 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.5 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.6 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.7 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA.8 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA.9 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA33 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA34 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JA35 | ERJ8GEY0R00 | S.M.CAR .125W | 5% | 0Ω | |
| JA36 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB1 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB10 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB11 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB12 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB13 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB14 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB15 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB16 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB17 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB18 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB19 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB2 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB20 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB21 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB22 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB23 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB24 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB25 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB26 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB27 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB28 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB29 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB3 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB30 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |

| Ref No. | Part No. | Description | | | |
|---------|-------------|----------------|----|----|--|
| JB31 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB32 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB33 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB34 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB35 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB36 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB37 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB38 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB39 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB40 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB41 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB42 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB43 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB44 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB45 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB46 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB47 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB48 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB49 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB50 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB51 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB52 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB53 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB54 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB55 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB56 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB57 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB58 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB59 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB6 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB61 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB62 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB63 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB64 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB65 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB66 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB67 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB68 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB69 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB7 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB70 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB71 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB72 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB73 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB74 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB75 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB77 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB79 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB8 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB80 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB81 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JB9 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JK2301 | TJB18644 | AV TERMINAL | | | |
| JK3001 | TJS8E007 | 21PIN TERMINAL | | | |
| JK3101 | TJS8E007 | 21PIN TERMINAL | | | |
| JK3102 | TJB16673 | AV TERMINAL | | | |
| JSB1 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB12 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB13 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB14 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB2 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSB4 | EXCELSA35T | COIL | | | |
| JSE011 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE012 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE013 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE014 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE015 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE016 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE031 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| JSE032 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0Ω | |
| J104 | EXCELSA35T | COIL | | | |
| J106 | EXCELSA35T | COIL | | | |

| Ref No. | Part No. | Description |
|--------------------|--------------|-------------------------|
| J107 | EXCELSA35T | COIL |
| J169 | EXCELSA35T | COIL |
| COILS | | |
| L001 | TLT100K991R | COIL |
| L003 | EXCELSA35T | COIL |
| L100 | TLT181K991R | COIL |
| L111 | TLT101K991R | COIL |
| L112 | EXCELSA35T | COIL |
| L113 | EXCELSA35T | COIL |
| L130 | ELESN8R2KA | COIL |
| L132 | ELESN8R2KA | COIL |
| L202 | TLT068K991R | COIL |
| L251 | EXCELSA35T | COIL |
| L301 | TLT047K991R | COIL |
| L302 | EXCEMT101BT | COIL |
| L303 | EXCEMT101BT | COIL |
| L304 | EXCEMT101BT | COIL |
| L601 | TLT047K991R | COIL |
| L602 | EXCELD35V | COIL |
| L603 | TLT047K991R | COIL |
| L604 | EXCELD35V | COIL |
| L606 | TLT015K991R | COIL |
| L607 | EXCELSA35T | COIL |
| L701 | ELC10D006 | COIL |
| L801 | EXCELSA24T | COIL |
| L802 | TLT022K991R | COIL |
| L804 | ELESN4R7KA | COIL |
| L805 | 298-82858001 | COIL |
| L841 | ELF18D490F | COIL |
| L851 | EXCELD35V | COIL |
| L852 | EXCELSA35T | COIL |
| L853 | ELEIE470KA | COIL |
| L854 | ELEIN470KA | COIL |
| L855 | ELEIN470KA | COIL |
| L856 | ELEIN470KA | COIL |
| L1051 | TLT331K991R | COIL |
| L1201 | TLT047K991R | COIL |
| L1202 | TLT047K991R | COIL |
| L1203 | TLT047K991R | COIL |
| L1204 | EXCELD35V | COIL |
| L2101 | TLT100K991R | COIL |
| L2102 | TLT039K991R | COIL |
| L2103 | EXCELSA35T | COIL |
| L2104 | EXCELSA35T | COIL |
| L3151 | EXCEMT101BT | COIL |
| L3152 | EXCEMT101BT | COIL |
| L3153 | EXCEMT101BT | COIL |
| L3154 | EXCEMT101BT | COIL |
| L3155 | ELEBT6R8KA | COIL |
| L3156 | ELEBT6R8KA | COIL |
| L3158 | EXCELSA39V | COIL |
| L3501 | EXCELD35V | COIL |
| L3502 | EXCELD35V | COIL |
| L3503 | ELESN4R7KA | COIL |
| L3504 | EXCELSA35T | COIL |
| TRANSISTORS | | |
| Q201 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q202 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q251 | 2SD1328STX | TRANSISTOR |
| Q252 | 2SD1328STX | TRANSISTOR |
| Q301 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q302 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q303 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q304 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q305 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q306 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q307 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q308 | BC847B | TRANSISTOR OR 2SD601ATX |

| Ref No. | Part No. | Description |
|-----------------|--------------|---------------------------|
| Q309 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q310 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q311 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q351 | 2SA1767 | TRANSISTOR |
| Q352 | 2SA1767 | TRANSISTOR |
| Q353 | 2SA1767 | TRANSISTOR |
| Q451 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q501 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q502 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q503 | 2SD836-AL | TRANSISTOR |
| Q504 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q552 | 2SC1473-RN | TRANSISTOR |
| Q701 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q802 | S2000NLBMA | TRANSISTOR |
| Q851 | 2SD1273PLB | TRANSISTOR OR 2SD2396/JM3 |
| Q852 | TFD312SOF632 | DIODE |
| Q1202 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1205 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1206 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1207 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1208 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q1211 | BC547B | TRANSISTOR |
| Q1212 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q1213 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q2101 | BC860B | TRANSISTOR |
| Q2102 | BC860B | TRANSISTOR |
| Q2301 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q2302 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q2305 | 2SD1328STX | TRANSISTOR |
| Q2306 | 2SD1328STX | TRANSISTOR |
| Q2307 | BC860B | TRANSISTOR |
| Q2308 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q2309 | BC860B | TRANSISTOR |
| Q2310 | BC860B | TRANSISTOR |
| Q3001 | 2SC1318-S | TRANSISTOR |
| Q3004 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q3005 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q3006 | 2SC1318-S | TRANSISTOR |
| Q3011 | BC857B | TRANSISTOR OR 2SB709ATX |
| Q3012 | 2SD1328STX | TRANSISTOR |
| Q3013 | 2SD1328STX | TRANSISTOR |
| RESISTOR | | |
| RL1201 | TSE1885-1 | RELAY |
| R100 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R101 | ERJ6GEYJ331 | S.M.CARB 0.1W 5% 330Ω |
| R102 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R103 | ERJ6GEYJ331 | S.M.CARB 0.1W 5% 330Ω |
| R107 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R109 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R112 | ERJ6GEYOR00 | S.M.CARB 0.1W 5% 0Ω |
| R114 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R117 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R130 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R131 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R132 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R133 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R134 | ERJ6GEYOR00 | S.M.CARB 0.1W 5% 0Ω |
| R136 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39KΩ |
| R138 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R201 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R203 | ERJ6GEYOR00 | S.M.CARB 0.1W 5% 0Ω |
| R204 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R205 | ERJ6GEYJ391 | S.M.CARB 0.1W 5% 390Ω |
| R206 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R207 | ERJ6GEYJ123 | S.M.CARB 0.1W 5% 12KΩ |
| R208 | ERJ6GEYJ182 | S.M.CARB 0.1W 5% 1K8Ω |
| R210 | ERJ6GEYOR00 | S.M.CARB 0.1W 5% 0Ω |
| R251 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R252 | ERJ6GEYJ152 | S.M.CARB 0.1W 5% 1K5Ω |
| R253 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R254 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |

| Ref No. | Part No. | Description |
|---------|--------------|-------------------------|
| R255 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R256 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R258 | ERJ6GEYJ152 | S.M.CARB 0.1W 5% 1K5Ω |
| R260 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R261 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R262 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R265 | ERD25TJ2R2 | CARBON 0.25W 5% 2R2Ω |
| R266 | ERD25TJ2R2 | CARBON 0.25W 5% 2R2Ω |
| R267 | ERF7ZK4R7 | WOUND 7W 10% 4R7Ω Δ |
| R271 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R272 | ERF7ZK5R6 | WOUND 7W 10% 5R6Ω Δ |
| R273 | ERD25TJ273 | CARBON 0.25W 5% 27KΩ |
| R301 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R302 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R303 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R304 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R305 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R306 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R307 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R308 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R309 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R310 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R311 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R312 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R313 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R314 | ERJ6GEYJ332 | S.M.CARB 0.1W 5% 3K3Ω |
| R315 | ERJ6GEYJ332 | S.M.CARB 0.1W 5% 3K3Ω |
| R316 | ERJ6GEYJ332 | S.M.CARB 0.1W 5% 3K3Ω |
| R321 | ERJ6GEYJ473 | S.M.CARB 0.1W 5% 47KΩ |
| R322 | ERJ6GEYJ473 | S.M.CARB 0.1W 5% 47KΩ |
| R323 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R324 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R354 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R355 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R356 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R372 | ERQ12AJ121 | FUSIBLE 0.5W 5% 120Ω Δ |
| R373 | ERJ6GEYJ220 | S.M.CARB 0.1W 5% 22Ω |
| R375 | ERJ6GEYJ684 | S.M.CARB 0.1W 5% 680KΩ |
| R376 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18KΩ |
| R452 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R453 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R455 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R456 | ERJ6GEYJ123 | S.M.CARB 0.1W 5% 12KΩ |
| R457 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R458 | ERD25TJ1R5 | CARBON 0.25W 5% 1R5Ω |
| R459 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R460 | ERJ6GEYJ513 | S.M.CARB 0.1W 5% 51KΩ |
| R461 | ERDS1TJ471 | CARBON 0.5W 5% 470Ω |
| R462 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R463 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R465 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R466 | ERO25CKF1801 | METAL 0.25W 1% 1K8Ω Δ |
| R470 | ERD25TJ512 | CARBON 0.25W 5% 5K1Ω |
| R471 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R472 | ERDS1TJ4R7 | CARBON 0.5W 5% 4R7Ω |
| R501 | ERJ6GEYJ331 | S.M.CARB 0.1W 5% 330Ω |
| R502 | ERJ6GEYJ560 | S.M.CARB 0.1W 5% 56Ω |
| R503 | ERJ6GEYJ273 | S.M.CARB 0.1W 5% 27KΩ |
| R504 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R506 | ERD25TJ560 | CARBON 0.25W 5% 56Ω |
| R507 | ERQ14AJW3R3 | FUSIBLE 0.25W 5% 3R3Ω Δ |
| R509 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R510 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R511 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R512 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R513 | ERJ6GEYJ123 | S.M.CARB 0.1W 5% 12KΩ |
| R514 | ERJ6GEYJ123 | S.M.CARB 0.1W 5% 12KΩ |
| R551 | ERW2PKR47 | WIREWOUND2W 10% R47Ω Δ |
| R553 | ERG1SJ152 | METAL 1W 5% 1K5Ω |
| R558 | ERDS1TJ124 | CARBON 0.5W 5% 120KΩ |
| R561 | ERJ6GEYJ563 | S.M.CARB 0.1W 5% 56KΩ |
| R562 | ERJ6GEYJ225 | SM.CARBO.125W 5% 2M2Ω |

| Ref No. | Part No. | Description |
|---------|--------------|------------------------|
| R563 | ERJ6GEYJ225 | SM.CARBO.125W 5% 2M2Ω |
| R567 | ERJ6GEYJ274 | S.M.CARB 0.1W 5% 270KΩ |
| R601 | ERJ6GEYJ151 | S.M.CARB 0.1W 5% 150Ω |
| R602 | ERJ6GEYJ151 | S.M.CARB 0.1W 5% 150Ω |
| R603 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R604 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R605 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18KΩ |
| R606 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R607 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R608 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R609 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R610 | ERJ6GEYJ473 | S.M.CARB 0.1W 5% 47KΩ |
| R611 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R612 | ERJ6GEYJ123 | S.M.CARB 0.1W 5% 12KΩ |
| R613 | ERJ6GEYJ271 | S.M.CARB 0.1W 5% 270Ω |
| R614 | ERJ6GEYJ470 | S.M.CARB 0.1W 5% 47Ω |
| R615 | ERJ6GEYJ333 | S.M.CARB 0.1W 5% 33KΩ |
| R616 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| R618 | ERJ6GEYJ151 | S.M.CARB 0.1W 5% 150Ω |
| R619 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R622 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R623 | ERJ6GEYJ821 | S.M.CARB 0.1W 5% 820Ω |
| R701 | ERQ12AJ101 | FUSIBLE 0.5W 5% 100Ω Δ |
| R703 | ERG2FJ821 | METAL 2W 5% 820Ω Δ |
| R704 | ERJ6GEYJ563 | S.M.CARB 0.1W 5% 56KΩ |
| R705 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R708 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39KΩ |
| R709 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39KΩ |
| R710 | ERJ6GEYJ273 | S.M.CARB 0.1W 5% 27KΩ |
| R712 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R713 | ERG1SJ101 | METAL 1W 5% 100Ω |
| R801 | ERG3FJ682H | METAL 3W 5% 6K8Ω Δ |
| R802 | ERG2FJ472 | METAL 2W 5% 4K7Ω Δ |
| R803 | ERX12SJWR47 | METAL 12W 5% R47 |
| R804 | ERJ6GEYJ682 | S.M.CARB 0.1W 5% 6K8Ω |
| R805 | ERJ6GEYJ221 | S.M.CARB 0.1W 5% 220Ω |
| R807 | ERO25CKF1201 | METAL 0.25W 1% 1K2Ω Δ |
| R810 | ERD25TJ103 | CARBON 0.25W 5% 10KΩ |
| R811 | EVMEASA00B33 | CONTROL 3KΩ |
| R812 | ERDS1TJ220 | CARBON 0.5W 5% 22Ω |
| R813 | ERD50FJ274 | CARBON 0.5W 5% 270KΩ |
| R814 | ERF7ZK2R7 | WOUND 7W 20% 2R7Ω Δ |
| R815 | ERDS1TJ563 | CARBON 0.5W 5% 56KΩ |
| R817 | ERG3FJ470 | METAL 3W 5% 47Ω Δ |
| R818 | ERD50FJ104 | CARBON 0.5W 5% 100KΩ |
| R819 | ERD50FJ184 | CARBON 0.5W 5% 180KΩ |
| R820 | ERD75TAJ825 | CARBON 0.75W 5% 8M2Ω Δ |
| R841 | ERC12ZGK335D | SOLID 0.5W 10% 3M3Ω |
| R852 | ERJ6GEYJ271 | S.M.CARB 0.1W 5% 270Ω |
| R853 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R854 | ERDS1TJ474 | CARBON 0.5W 5% 470KΩ |
| R855 | ERG2FJ223 | METAL 2W 5% 22KΩ Δ |
| R856 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R857 | ERG2SJS100H | METAL 2W 5% 10Ω Δ |
| R1201 | ERJ6GEYJ271 | S.M.CARB 0.1W 5% 270Ω |
| R1202 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1203 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1204 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1205 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1206 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1208 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R1209 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1210 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1212 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1213 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1214 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1215 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1216 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1217 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1218 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1219 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1220 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |

| Ref No. | Part No. | Description |
|---------|-------------|------------------------|
| R1221 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1222 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1224 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1225 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1226 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1227 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1229 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R1230 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R1231 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1232 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1233 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1235 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1236 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1237 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1238 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39KΩ |
| R1239 | ERJ6GEYJ392 | S.M.CARB 0.1W 5% 3K9Ω |
| R1240 | ERJ6GEYJ392 | S.M.CARB 0.1W 5% 3K9Ω |
| R1241 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1242 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1244 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R1245 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R1246 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1247 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1249 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1250 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1251 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39KΩ |
| R1252 | ERX1SJ3R3 | METAL 1W 5% 3R3Ω |
| R1253 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R1254 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R1255 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R1256 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R1257 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R1258 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R1260 | ERDS1FJ121 | CARBON 0.5W 5% 120Ω ▲ |
| R1261 | ERJ6GEYJ392 | S.M.CARB 0.1W 5% 3K9Ω |
| R1262 | ERJ6GEYJ682 | S.M.CARB 0.1W 5% 6K8Ω |
| R1263 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R1264 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R1265 | ERJ6GEYJ152 | S.M.CARB 0.1W 5% 1K5Ω |
| R1266 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R1277 | ERDS1TJ151 | CARBON 0.5W 5% 150Ω |
| R2101 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2102 | ERJ6GEYJ561 | S.M.CARB 0.1W 5% 560Ω |
| R2103 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2104 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2105 | ERJ6GEYJ561 | S.M.CARB 0.1W 5% 560Ω |
| R2106 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18KΩ |
| R2107 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2108 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R2109 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R2110 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R2111 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R2301 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R2302 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R2303 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R2304 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R2313 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R2314 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R2315 | ERJ6GEYJ473 | S.M.CARB 0.1W 5% 47KΩ |
| R2316 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R2318 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R2321 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R2322 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2323 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R2324 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2325 | ERJ6GEYJ273 | S.M.CARB 0.1W 5% 27KΩ |
| R2326 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2327 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2328 | ERJ6GEYJ473 | S.M.CARB 0.1W 5% 47KΩ |
| R2329 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R2330 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R2331 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |

| Ref No. | Part No. | Description |
|---------|-------------|------------------------|
| R2332 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2333 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R2334 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R2335 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R2651 | ERG2FJ221 | METAL 2W 5% 220Ω ▲ |
| R2652 | ERG2FJ221 | METAL 2W 5% 220Ω ▲ |
| R2653 | ERDS1TJ151 | CARBON 0.5W 5% 150Ω |
| R2654 | ERDS1TJ151 | CARBON 0.5W 5% 150Ω |
| R3001 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| R3002 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3003 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3004 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| R3005 | ERJ6GEYJ470 | S.M.CARB 0.1W 5% 47Ω |
| R3006 | ERJ6GEYJ470 | S.M.CARB 0.1W 5% 47Ω |
| R3007 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3008 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R3009 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R3010 | ERJ6GEYJ561 | S.M.CARB 0.1W 5% 560Ω |
| R3011 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3012 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3013 | ERJ6GEYJ561 | S.M.CARB 0.1W 5% 560Ω |
| R3014 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R3015 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R3016 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3017 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R3019 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R3020 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3022 | ERD2FCG560 | CARBON 2W 2% 56Ω |
| R3024 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R3025 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3026 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R3027 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R3029 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R3030 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3032 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R3034 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3036 | ERJ6GEYJ220 | S.M.CARB 0.1W 5% 22Ω |
| R3037 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3038 | ERD2FCG100 | CARB 2W 2% 10Ω |
| R3039 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3040 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3041 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| R3042 | ERJ6GEYJ682 | S.M.CARB 0.1W 5% 6K8Ω |
| R3043 | ERD2FCG100 | CARB 2W 2% 10Ω |
| R3044 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3045 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R3046 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3047 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R3048 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R3049 | ERJ6GEYJ680 | S.M.CARB 0.1W 5% 68Ω |
| R3050 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3051 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3052 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3053 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3054 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3055 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3056 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3057 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3058 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| R3059 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| R3060 | ERJ6GEYJ470 | S.M.CARB 0.1W 5% 47Ω |
| R3062 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3063 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3064 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3065 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R3066 | ERJ6GEYJ104 | S.M.CARB 0.1W 5% 100KΩ |
| R3067 | ERJ6GEYJ273 | S.M.CARB 0.1W 5% 27KΩ |
| R3068 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3069 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3070 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3071 | ERJ6GEYJ470 | S.M.CARB 0.1W 5% 47Ω |
| R3150 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |

| Ref No. | Part No. | Description |
|---------|-------------|-----------------------|
| R3151 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3152 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3153 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3155 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3156 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3158 | ERJ6GEYJ750 | S.M.CARB 0.1W 5% 75Ω |
| R3502 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3504 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R3505 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R3508 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18KΩ |
| R3511 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R3512 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |

SWITCHES

| | | |
|-------|------------|------------|
| S.351 | 0330550049 | CRT SOCKET |
| S801 | ESB91232A | SWITCH |

| Ref No. | Part No. | Description |
|---------|-----------|-------------|
| S1201 | EVQ23405R | SWITCH |
| S1202 | EVQ23405R | SWITCH |
| S1203 | EVQ23405R | SWITCH |
| S1204 | EVQ23405R | SWITCH |
| S1205 | EVQ23405R | SWITCH |

TRANSFORMERS

| | | |
|-------|--------------|-------------|
| T501 | 5270103200 | TRANSFORMER |
| T1201 | ETP35KAN61ZU | TRANSFORMER |

FILTERS

| | | |
|-------|------------|---------|
| X100 | EFGA6R5MB3 | FILTER |
| X601 | TSS2169-B | CRYSTAL |
| X1201 | TSS120M2 | CRYSTAL |
| X2101 | 4730007158 | CRYSTAL |

DIFFERENCES FOR MODEL TX-28MD3F

| Ref No. | Part No. | Description |
|---------------------------------|-------------|------------------|
| MISCELLANEOUS COMPONENTS | | |
| 3) | TNP117070AT | Y PC.B |
| 4) | TLK8E05125 | DEGAUSS COIL |
| 5) | VP17005-32 | CRT FIXING SCREW |
| 6) | A66ECF50X32 | CRT |
| 7) | TKY8E190 | CABINET |
| 8) | TBX8E041 | POWER BUTTON |
| 11) | TBM8E1640 | MODEL LABEL |
| 12) | TKU8E00330 | BACK COVER |
| 14) | TNP8EE008AT | E PC.B. |
| | SVM100 | COIL |
| | TBM173052 | BADGE |
| | TPC8E4601 | OUTER CARTON |
| | TPD8E639 | CUSHION TOP |
| | TPD8E640 | CUSHION BOTTOM |

CAPACITORS

| | | |
|------|--------------|------------------|
| C251 | ECA1HM100GB | ELECT 50V 10pF |
| C252 | ECUV1H223KBX | S.M.CAP 50V 22nF |
| C254 | 222236516334 | FILM 160V 330nF |
| C256 | ECUV1H223KBX | S.M.CAP 50V 22nF |
| C258 | ECA1HM100GB | ELECT 50V 10pF |
| C259 | 222236516334 | FILM 160V 330nF |
| C262 | ECEA1HN2R2 | ELECT 50V 2.2μF |
| C265 | ECEA1HN2R2 | ELECT 50V 2.2μF |
| C364 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C366 | ECA1CM100GB | ELECT 16V 10pF |
| C455 | ECEA1VGE222 | ELECT 35V 2200μF |
| C457 | ECUV1H223KBX | S.M.CAP 50V 22nF |
| C459 | 222236516224 | FILM 160V 220nF |
| C551 | 222237544182 | CAPACITOR 1.8nF |
| C552 | ECWH15H102H | FILM 1500V 100pF |
| C554 | ECWF2H514J | FILM 500V 510nF |
| C556 | ECQM4333J | FILM 400V 33nF |
| C559 | ECWF2H684J | FILM 500V 680nF |
| C560 | ECEA2GGE2R2 | ELECT 400V 2.2μF |
| C606 | ECUV1H040CCX | S.M.CAP 50V 4pF |
| C607 | ECUV1H040CCX | S.M.CAP 50V 4pF |
| C625 | ECEA1HNR47 | ELECT 50V 0.47μF |
| C701 | ECEA1HGE101 | ELECT 50V 100μF |
| C703 | ECEA1HGE100 | ELECT 50V 10μF |
| C820 | ECOS2GG181NG | ELECT 400V 180μF |
| C857 | ECEA2EU101 | ELECT 250V 100μF |
| C861 | ECOS2EA221AB | ELECT 250V 220μF |
| C901 | ECUV1H030CCX | S.M.CAP 50V 30pF |
| C902 | ECA1VM101GB | ELECT 35V 100pF |
| C903 | ECA1CM470GB | ELECT 16V 47μF |
| C904 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C905 | ECA1HM4R7GB | ELECT 50V 4.7μF |

| Ref No. | Part No. | Description |
|---------|--------------|--------------------|
| C906 | ECUV1H471KBX | S.M.CAP 50V 470pF |
| C907 | ECUV1H271JCX | S.M.CAP 50V 270pF |
| C908 | ECUV1H151JCX | S.M.CAP 50V 150pF |
| C909 | ECKC2H472J | CERAMIC 500V 4.7nF |
| C910 | ECKC2H472J | CERAMIC 500V 4.7nF |
| C911 | ECUV1H151JCX | S.M.CAP 50V 150pF |
| C912 | ECEA2CU100 | ELECT 160V 10μF |
| C913 | ECA1HM101GB | ELECT 50V 100pF |
| C914 | ECA1HM101GB | ELECT 50V 100pF |
| C915 | ECA1CM471GB | ELECT 16V 470pF |
| C916 | ECEA2CU100 | ELECT 160V 10μF |

DIODES

| | | |
|-------|--------------|-------------------|
| D707 | MTZJT-778.2C | DIODE |
| D901 | MA165TA5 | DIODE 1SS133T-77 |
| D902 | MA165TA5 | DIODE 1SS133T-77 |
| D904 | MA165TA5 | DIODE 1SS133T-77 |
| D906 | RLS72TE-11 | DIODE OR PMLL4148 |
| D1210 | MA165TA5 | DIODE 1SS133T-77 |

INTEGRATED CIRCUITS

| | | |
|--------|--------------|-------|
| IC1202 | 27C010-002AL | EPROM |
| IC1203 | X24LM0401EJ | EAROM |

TERMINALS AND LINKS

| | | |
|------|-------------|---------------------|
| JA.1 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| JA.2 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |

COILS

| | | |
|------|------------|------|
| L352 | SDL-4101 | COIL |
| L353 | SDL-4101 | COIL |
| L354 | SDL-4101 | COIL |
| L552 | ELH5L437 | COIL |
| L553 | ELC08D055 | COIL |
| L554 | 297-23293 | COIL |
| L901 | EXCELSA24T | COIL |
| L902 | EXCELSA24T | COIL |

TRANSISTORS

| | | |
|------|-----------|-------------------------|
| Q551 | 2SD1577LB | 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 |

| Ref No. | Part No. | Description |
|-----------------|--------------|--------------------------|
| Q908 | 2SB940APLB | TRANSISTOR |
| Q909 | 2SD1264APLB | TRANSISTOR |
| RESISTOR | | |
| R.925 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R.926 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0Ω |
| R257 | ERJ6GEYJ100 | S.M.CARB 0.1W 5% 10Ω |
| R259 | ERJ6GEYJ100 | S.M.CARB 0.1W 5% 10Ω |
| R351 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R352 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R353 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R357 | ERG1FJ683P | METAL 1W 5% 68KΩ ▲ |
| R358 | ERG1FJ683P | METAL 1W 5% 68KΩ ▲ |
| R359 | ERG1FJ683P | METAL 1W 5% 68KΩ ▲ |
| R363 | ERD25TJ103 | CARBON 0.25W 5% 10KΩ |
| R364 | ERD25TJ103 | CARBON 0.25W 5% 10KΩ |
| R365 | ERD25TJ103 | CARBON 0.25W 5% 10KΩ |
| R366 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R367 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R368 | ERDS1TJ152 | CARBON 0.5W 5% 1K5Ω |
| R369 | ERD25TJ203 | CARBON 0.25W 5% 20KΩ |
| R370 | ERJ6GEYJ822 | S.M.CARB 0.1W 5% 8K2Ω |
| R374 | ERD25TJ274 | CARBON 0.25W 5% 270KΩ |
| R377 | ERQ1CJP4R7 | FUSIBLE 1W 5% 4R7Ω ▲ |
| R381 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R382 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R383 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R451 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39KΩ |
| R464 | ERW12PKR68 | WIREWOUND0.5W 10% R68Ω ▲ |
| R467 | ERO25CKF1801 | METAL 0.25W 1% 1K8Ω ▲ |
| R554 | ERQ14AJW101 | METAL 0.25W 5% 100Ω ▲ |
| R564 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R566 | ERJ6GEYJ682 | S.M.CARB 0.1W 5% 6K8Ω |
| R702 | ERQ12HJ220 | METAL 0.5W 5% 22Ω ▲ |
| R706 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R707 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R711 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R808 | 232266296706 | THERMISTOR |
| R809 | ERO25CKF1332 | METAL 0.25W 1% 13KΩ ▲ |

DIFFERENCES FOR MODEL TX-25MD3F

| Ref No. | Part No. | Description |
|---------------------------------|--------------|------------------|
| MISCELLANEOUS COMPONENTS | | |
| 3) | TNP117070AT | Y PC.B ▲ |
| 4) | TLK8E05120 | DEGAUSS COIL ▲ |
| 5) | VP17005-32 | CRT FIXING SCREW |
| 6) | A59ECF50X32 | CRT ▲ |
| 7) | TKY8E180 | CABINET ▲ |
| 8) | TBX8E042 | POWER BUTTON |
| 11) | TBM8E1637 | MODEL LABEL |
| 12) | TKU8E00190 | REAR COVER ▲ |
| 14) | TNP8EE008AE | E PC.B ▲ |
| | SVM100 | COIL |
| | TBM173052 | BADGE |
| | TPC8E4606 | OUTER CARTON |
| | TPD8E608-1 | CUSHION-SET |
| | TPD8E609 | CUSHION-SET |
| | TQB8E2278 | INST BOOK ▲ |
| | TQB8E2279 | INST BOOK ▲ |
| CAPACITORS | | |
| C251 | ECA1HM100GB | ELECT 50V 10pF |
| C252 | ECUY1H563KBX | S.M.CAP 50V 56nF |
| C254 | 222236516334 | FILM 160V 330nF |
| C256 | ECUY1H563KBX | S.M.CAP 50V 56nF |
| C258 | ECA1HM100GB | ELECT 50V 10pF |
| C259 | 222236516334 | FILM 160V 330nF |

| Ref No. | Part No. | Description |
|---------------------|-------------|-------------------------|
| R901 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6Ω |
| R902 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6Ω |
| R903 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6Ω |
| R904 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R905 | ERJ6GEYJ681 | S.M.CARB 0.1W 5% 680Ω |
| R906 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22KΩ |
| R907 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7Ω |
| R908 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470Ω |
| R909 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1KΩ |
| R910 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100Ω |
| R911 | ERJ6GEYJ152 | S.M.CARB 0.1W 5% 1K5Ω |
| R913 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18KΩ |
| R914 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R915 | ERJ6GEYJ182 | S.M.CARB 0.1W 5% 1K8Ω |
| R916 | ERJ6GEYJ221 | S.M.CARB 0.1W 5% 220Ω |
| R917 | ERJ6GEYJ121 | S.M.CARB 0.1W 5% 120Ω |
| R919 | ERQ14AJ390 | FUSIBLE 0.25W 5% 39Ω ▲ |
| R920 | ERQ14AJ390 | FUSIBLE 0.25W 5% 39Ω ▲ |
| R921 | ERD25TJ471 | CARBON 0.25W 5% 470Ω |
| R922 | ERD25TJ393 | CARBON 0.25W 5% 39KΩ |
| R923 | ERD25TJ393 | CARBON 0.25W 5% 39KΩ |
| R924 | ERDS1FJ390 | CARBON 0.5W 5% 39Ω ▲ |
| R927 | ERD25TJ471 | CARBON 0.25W 5% 470Ω |
| R928 | ERD25TJ5R6 | CARBON 0.25W 5% 5R6Ω |
| R929 | ERDS1FJ471 | CARBON 0.5W 5% 470Ω ▲ |
| R930 | ERD25TJ5R6 | CARBON 0.25W 5% 5R6Ω |
| R931 | ERDS1FJ390 | CARBON 0.5W 5% 39Ω ▲ |
| R932 | ERDS1FJ101 | CARBON 0.5W 5% 100Ω ▲ |
| R933 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10KΩ |
| R934 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2Ω |
| R935 | ERQ14AJ3R9 | FUSIBLE 0.25W 5% 3R9Ω ▲ |
| R936 | ERQ1CJP331 | METAL 1W 5% 330Ω ▲ |
| R937 | ERQ14AJ100 | METAL 0.25W 5% 10Ω ▲ |
| R3154 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| R3157 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15KΩ |
| TRANSFORMERS | | |
| T551 | ZTFH44011A | F.B.T. ▲ |
| T801 | TLP8E1002 | TRANSFORMER ▲ |

| Ref No. | Part No. | Description |
|---------|--------------|--------------------|
| C262 | ECEA1HN2R2 | ELECT 50V 2.2μF |
| C265 | ECEA1HN2R2 | ELECT 50V 2.2μF |
| C269 | ECA1CM100GB | ELECT 16V 10pF |
| C364 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C366 | ECA1CM100GB | ELECT 16V 10pF |
| C455 | ECEA1VGE222 | ELECT 35V 2200μF |
| C457 | ECUV1H223KBX | S.M.CAP 50V 22nF |
| C459 | 222236516224 | FILM 160V 220nF |
| C551 | 222237544182 | CAPACITOR 1.8nF |
| C552 | ECWH15H102H | FILM 1500V 100pF |
| C554 | ECWF2H514J | FILM 500V 510nF ▲ |
| C556 | ECQM4333JC | FILM 400V 33nF |
| C559 | ECWF2H684J | FILM 500V 680nF ▲ |
| C560 | ECEA2GGE2R2 | ELECT 400V 2.2μF |
| C606 | ECUV1H040CCX | S.M.CAP 50V 4pF |
| C607 | ECUV1H040CCX | S.M.CAP 50V 4pF |
| C625 | ECEA1HNR47 | ELECT 50V 0.47μF |
| C701 | ECEA1HGE101 | ELECT 50V 100μF |
| C703 | ECEA1HGE100 | ELECT 50V 10μF |
| C820 | ECOS2GG181NG | ELECT 400V 180μF ▲ |
| C857 | ECEA2EU101 | ELECT 250V 100μF |
| C861 | ECOS2EA221AB | ELECT 250V 220μF |
| C901 | ECUV1H030CCX | S.M.CAP 50V 30pF |
| C902 | ECA1VM101GB | ELECT 35V 100pF |
| C903 | ECA1CM470GB | ELECT 16V 47μF |
| C904 | ECUV1H103ZFX | S.M.CAP 50V 10nF |
| C905 | ECA1HM4R7GB | ELECT 50V 4.7μF |
| C906 | ECUV1H471KBX | S.M.CAP 50V 470pF |

| Ref No. | Part No. | Description |
|---------|--------------|-----------------------------|
| C907 | ECUV1H271JCX | S.M.CAP 50V 270pF |
| C908 | ECUV1H151JCX | S.M.CAP 50V 150pF |
| C909 | ECKC2H472J | CERAMIC 500V 4.7nF Δ |
| C910 | ECKC2H472J | CERAMIC 500V 4.7nF Δ |
| C911 | ECUV1H151JCX | S.M.CAP 50V 150pF |
| C912 | ECEA2CU100 | ELECT 160V 10 μ F |
| C913 | ECA1HM101GB | ELECT 50V 100pF |
| C914 | ECA1HM101GB | ELECT 50V 100pF |
| C915 | ECA1CM471GB | ELECT 16V 470pF |
| C916 | ECEA2CU100 | ELECT 160V 10 μ F |

DIODES

| | | |
|-------|--------------|-------------------|
| D252 | MA165TA5 | DIODE 1SS133T-77 |
| D707 | MTZJT-778.2C | DIODE |
| D901 | MA165TA5 | DIODE 1SS133T-77 |
| D902 | MA165TA5 | DIODE 1SS133T-77 |
| D904 | MA165TA5 | DIODE 1SS133T-77 |
| D906 | RLS72TE-11 | DIODE OR PMLL4148 |
| D1210 | MA165TA5 | DIODE 1SS133T-77 |

INTEGRATED CIRCUITS

| | | |
|--------|--------------|-------|
| IC1202 | 27C010-002AK | EPROM |
| IC1203 | X24LM0401E | EAROM |

TERMINALS AND LINKS

| | | | | |
|--------|-------------|---------------|----|------------|
| JA.1 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0 Ω |
| JA.2 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0 Ω |
| JSE035 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0 Ω |
| JSE037 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0 Ω |

COILS

| | | |
|------|------------|------|
| L352 | SDL-4101 | COIL |
| L353 | SDL-4101 | COIL |
| L354 | SDL-4101 | COIL |
| L552 | ELH5L437 | COIL |
| L553 | ELC08D055 | COIL |
| L554 | 297-23293 | COIL |
| L901 | EXCELSA24T | COIL |
| L902 | EXCELSA24T | COIL |

TRANSISTORS

| | | |
|------|-------------|-------------------------|
| Q253 | BC847B | TRANSISTOR OR 2SD601ATX |
| Q551 | 2SD1577LB | 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 | 2SB940APLB | TRANSISTOR |
| Q909 | 2SD1264APLB | TRANSISTOR |

RESISTOR

| | | | | |
|-------|-------------|---------------|----|---------------|
| R.925 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0 Ω |
| R.926 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% | 0 Ω |
| R257 | ERJ6GEYJ100 | S.M.CARB 0.1W | 5% | 10 Ω |
| R259 | ERJ6GEYJ100 | S.M.CARB 0.1W | 5% | 10 Ω |
| R263 | ERJ6GEYJ104 | S.M.CARB 0.1W | 5% | 100K Ω |
| R264 | ERJ6GEYJ473 | S.M.CARB 0.1W | 5% | 47K Ω |
| R268 | ERJ6GEYJ103 | S.M.CARB 0.1W | 5% | 10K Ω |
| R269 | ERJ6GEYJ273 | S.M.CARB 0.1W | 5% | 27K Ω |
| R351 | ERJ6GEYJ102 | S.M.CARB 0.1W | 5% | 1K Ω |
| R352 | ERJ6GEYJ102 | S.M.CARB 0.1W | 5% | 1K Ω |

| Ref No. | Part No. | Description |
|---------|--------------|--|
| R353 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1K Ω |
| R357 | ERG1FJ683P | METAL 1W 5% 68K Ω Δ |
| R358 | ERG1FJ683P | METAL 1W 5% 68K Ω Δ |
| R359 | ERG1FJ683P | METAL 1W 5% 68K Ω Δ |
| R363 | ERD25TJ103 | CARBON 0.25W 5% 10K Ω |
| R364 | ERD25TJ103 | CARBON 0.25W 5% 10K Ω |
| R365 | ERD25TJ103 | CARBON 0.25W 5% 10K Ω |
| R366 | ERDS1TJ152 | CARBON 0.5W 5% 1K5 Ω |
| R367 | ERDS1TJ152 | CARBON 0.5W 5% 1K5 Ω |
| R368 | ERDS1TJ152 | CARBON 0.5W 5% 1K5 Ω |
| R369 | ERD25TJ203 | CARBON 0.25W 5% 20K Ω |
| R370 | ERJ6GEYJ822 | S.M.CARB 0.1W 5% 8K2 Ω |
| R374 | ERD25TJ274 | CARBON 0.25W 5% 270K Ω |
| R377 | ERQ1CJP4R7 | FUSIBLE 1W 5% 4R7 Ω Δ |
| R381 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1K Ω |
| R382 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1K Ω |
| R383 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1K Ω |
| R451 | ERJ6GEYJ393 | S.M.CARB 0.1W 5% 39K Ω |
| R464 | ERW12PKR68 | WIREWOUND0.5W 10% 68 Ω Δ |
| R467 | ERO25CKF1801 | METAL 0.25W 1% 1K8 Ω Δ |
| R554 | ERQ14AJW101 | METAL 0.25W 5% 100 Ω Δ |
| R564 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10K Ω |
| R566 | ERJ6GEYJ682 | S.M.CARB 0.1W 5% 6K8 Ω |
| R702 | ERQ12HJ220 | METAL 0.5W 5% 22 Ω Δ |
| R706 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10K Ω |
| R707 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1K Ω |
| R711 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1K Ω |
| R808 | 232266296706 | THERMISTOR |
| R809 | ERO25CKF1332 | METAL 0.25W 1% 13K Ω Δ |
| R901 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6 Ω |
| R902 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6 Ω |
| R903 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6 Ω |
| R904 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2 Ω |
| R905 | ERJ6GEYJ681 | S.M.CARB 0.1W 5% 680 Ω |
| R906 | ERJ6GEYJ223 | S.M.CARB 0.1W 5% 22K Ω |
| R907 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7 Ω |
| R908 | ERJ6GEYJ471 | S.M.CARB 0.1W 5% 470 Ω |
| R909 | ERJ6GEYJ102 | S.M.CARB 0.1W 5% 1K Ω |
| R910 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100 Ω |
| R911 | ERJ6GEYJ152 | S.M.CARB 0.1W 5% 1K5 Ω |
| R913 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18K Ω |
| R914 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2 Ω |
| R915 | ERJ6GEYJ182 | S.M.CARB 0.1W 5% 1K8 Ω |
| R916 | ERJ6GEYJ221 | S.M.CARB 0.1W 5% 220 Ω |
| R917 | ERJ6GEYJ121 | S.M.CARB 0.1W 5% 120 Ω |
| R919 | ERQ14AJ390 | FUSIBLE 0.25W 5% 39 Ω Δ |
| R920 | ERQ14AJ390 | FUSIBLE 0.25W 5% 39 Ω Δ |
| R921 | ERD25TJ471 | CARBON 0.25W 5% 470 Ω |
| R922 | ERD25TJ393 | CARBON 0.25W 5% 39K Ω |
| R923 | ERD25TJ393 | CARBON 0.25W 5% 39K Ω |
| R924 | ERDS1FJ390 | CARBON 0.5W 5% 39 Ω Δ |
| R927 | ERD25TJ471 | CARBON 0.25W 5% 470 Ω |
| R928 | ERD25TJ5R6 | CARBON 0.25W 5% 5R6 Ω |
| R929 | ERDS1FJ471 | CARBON 0.5W 5% 470 Ω Δ |
| R930 | ERD25TJ5R6 | CARBON 0.25W 5% 5R6 Ω |
| R931 | ERDS1FJ390 | CARBON 0.5W 5% 39 Ω Δ |
| R932 | ERDS1FJ101 | CARBON 0.5W 5% 100 Ω Δ |
| R933 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10K Ω |
| R934 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2 Ω |
| R935 | ERQ14AJ3R9 | FUSIBLE 0.25W 5% 3R9 Ω Δ |
| R936 | ERQ1CJP331 | METAL 1W 5% 330 Ω Δ |
| R937 | ERQ14AJ100 | METAL 0.25W 5% 10 Ω Δ |
| R3154 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18K Ω |
| R3157 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18K Ω |

TRANSFORMERS

| | | | |
|------|------------|-------------|----------|
| T551 | KFT4AA098F | F.B.T. | Δ |
| T801 | TLP8E1002 | TRANSFORMER | Δ |


DIFFERENCES FOR MODEL TX-21MD3F

| Ref No. | Part No. | Description | |
|---------------------------------|--------------|------------------|-------------|
| MISCELLANEOUS COMPONENTS | | | |
| 3) | TNP117069AD | Y P.C.B. | △ |
| 4) | TLK8E05117 | DEGAUSS COIL | △ |
| 5) | VP15005-35 | CRT FIXING SCREW | |
| 6) | A51ECQ51X01 | CRT | △ |
| 7) | TKY8E170 | CABINET | △ |
| 8) | TBX8E041 | POWER BUTTON | |
| 11) | TBM8E1634 | MODEL LABEL | |
| 12) | TKU8E00260 | REAR COVER | △ |
| 14) | TNP8EE008AB | E P.C.B. | △ |
| | TBM153022 | PANASONIC BADGE | |
| | TPC8E4605 | OUTER CARTON | |
| | TPD8E606-1 | CUSHION | |
| | TPD8E607-1 | CUSHION | |
| CAPACITORS | | | |
| C251 | ECA1EM101GB | ELECT | 25V 1μF |
| C252 | ECUY1H563KBX | S.M.CAP | 50V 56nF |
| C254 | 222236516474 | FILM | 160V 470nF |
| C256 | ECUY1H563KBX | S.M.CAP | 50V 56nF |
| C258 | ECA1EM101GB | ELECT | 25V 1μF |
| C259 | 222236516474 | FILM | 160V 470nF |
| C262 | ECEA1HN010 | ELECT | 50V 1μF |
| C265 | ECEA1HN010 | ELECT | 50V 1μF |
| C269 | ECA1CM100GB | ELECT | 16V 10pF |
| C455 | ECA1VM222GE | ELECT | 35V 2.2nF |
| C457 | ECUV1H103KBX | S.M.CAP | 50V 10nF |
| C459 | 222236516154 | FILM | 160V 150nF |
| C463 | ECQB1H222J | FILM | 50V 2200pF |
| C551 | ECWH12H272J | CERAMIC | 1250V 2.7nF |
| C552 | ECWH12H102J | FILM | 1250V 1nF |
| C556 | ECQF4273JZH | FILM | 400V 27nF |
| C559 | ECWF2H474J | FILM | 500V 470nF |
| C625 | ECEA1HNR22 | ELECT | 50V 0.22μF |
| C701 | ECEA1HU101 | ELECT | 50V 100μF |
| C703 | ECA1HM100GB | ELECT | 50V 10pF |
| C820 | ECOS2GA151CB | ELECT | 400V 150pF |
| C857 | ECA2CM101E | ELECT | 160V 100μF |
| C861 | ECA2CGE221 | ELECT | 160V 220μF |
| DIODES | | | |
| D252 | MA165TA5 | DIODE 1SS133T-77 | |
| INTEGRATED CIRCUITS | | | |
| IC1202 | 27C010-002AH | EPROM | |
| IC1203 | X24LM0401EF | EAROM | |
| TERMINALS AND LINKS | | | |
| JSE035 | ERJ6GEY0R00 | S.M.CARB | 0.1W 5% 0Ω |
| JSE037 | ERJ6GEY0R00 | S.M.CARB | 0.1W 5% 0Ω |







| Ref No. | Part No. | Description | |
|---------------------|--------------|-------------------------|-----------|
| COILS | | | |
| L552 | ELH5L429 | COIL | |
| TRANSISTORS | | | |
| Q253 | BC847B | TRANSISTOR OR 2SD601ATX | |
| Q551 | BU2506DXLB | TRANSISTOR | |
| RESISTOR | | | |
| R257 | ERJ6GEYJ2R2 | SM.CARB0.125W | 5% 2R2Ω |
| R259 | ERJ6GEYJ2R2 | SM.CARB0.125W | 5% 2R2Ω |
| R263 | ERJ6GEYJ104 | S.M.CARB 0.1W | 5% 100KΩ |
| R264 | ERJ6GEYJ473 | S.M.CARB 0.1W | 5% 47KΩ |
| R268 | ERJ6GEYJ103 | S.M.CARB 0.1W | 5% 10KΩ |
| R269 | ERJ6GEYJ273 | S.M.CARB 0.1W | 5% 27KΩ |
| R351 | ERJ6GEYJ182 | S.M.CARB 0.1W | 5% 1K8Ω |
| R352 | ERJ6GEYJ182 | S.M.CARB 0.1W | 5% 1K8Ω |
| R353 | ERJ6GEYJ182 | S.M.CARB 0.1W | 5% 1K8Ω |
| R357 | ERG1FJ563 | METAL 1W | 5% 56KΩ △ |
| R358 | ERG2FJ563 | METAL 2W | 5% 56KΩ △ |
| R359 | ERG1FJ563 | METAL 1W | 5% 56KΩ △ |
| R363 | ERDS1TJ103 | CARBON 0.5W | 5% 10KΩ |
| R364 | ERDS1TJ103 | CARBON 0.5W | 5% 10KΩ |
| R365 | ERDS1TJ103 | CARBON 0.5W | 5% 10KΩ |
| R366 | ERDS1TJ222 | CARBON 0.5W | 5% 2K2Ω |
| R367 | ERDS1TJ222 | CARBON 0.5W | 5% 2K2Ω |
| R368 | ERDS1TJ222 | CARBON 0.5W | 5% 2K2Ω |
| R369 | ERD25TJ223 | CARBON 0.25W | 5% 22KΩ |
| R370 | ERD25TJ103 | CARBON 0.25W | 5% 10KΩ |
| R374 | ERDS1TJ274 | CARBON 0.5W | 5% 270KΩ |
| R377 | ERQ12HJ1R2 | METAL 0.5W | 5% 1R2Ω △ |
| R378 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% 0Ω |
| R379 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% 0Ω |
| R380 | ERJ6GEY0R00 | S.M.CARB 0.1W | 5% 0Ω |
| R451 | ERJ6GEYJ273 | S.M.CARB 0.1W | 5% 27KΩ |
| R464 | ERW12PK1R5 | WIRE 12W | 10% 1R5Ω |
| R467 | ERO25CKF1201 | METAL 0.25W | 1% 1K2Ω △ |
| R564 | ERJ6GEYJ623 | SM.CARB0.125W | 5% 62KΩ |
| R566 | ERJ6GEYJ473 | S.M.CARB 0.1W | 5% 47KΩ |
| R702 | ERQ12HJ330 | METAL 0.5W | 5% 33Ω △ |
| R706 | ERJ6GEYJ272 | S.M.CARB 0.1W | 5% 2K7Ω |
| R707 | ERJ6GEYJ122 | S.M.CARB 0.1W | 5% 1K2Ω |
| R711 | ERJ6GEYJ681 | S.M.CARB 0.1W | 5% 680Ω |
| R808 | 232266296319 | THERMISTOR | |
| R809 | ERO25CKF1302 | METAL 0.25W | 1% 13KΩ △ |
| R3154 | ERJ6GEYJ183 | S.M.CARB 0.1W | 5% 18KΩ |
| R3157 | ERJ6GEYJ183 | S.M.CARB 0.1W | 5% 18KΩ |
| TRANSFORMERS | | | |
| T551 | ZTFH44010A | F.B.T. | △ |
| T801 | TLP8E1001 | TRANSFORMER | △ |

SCHEMATIC DIAGRAM FOR MODELS
TX-28MD3F TX-25MD3F
TX-21MD3F
(Euro-2M 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

1. **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).
2. **CAPACITORS**
All capacitors are ceramic 50V, unless marked as follows:
Unit of capacitance is μ F, unless otherwise stated.
3. **COIL**
Unit of inductance is μ H, unless otherwise stated.
4. Components marked 'L' on the schematic diagram shows leadless parts.
5. **TEST POINT**
 : Test Point position
6. **EARTH SYMBOL**
 : Chassis Earth (Cold)  : Line Earth (Hot)
7. **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
8.  : Indicates the Video signal path
 : Indicates the Audio signal path
 : Indicates the Vertical/Horizontal signal path
9. 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.
- b. Do not short-circuit the hot and cold circuits as electrical components may be damaged.
- 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.
- d. Make sure to disconnect the power plug before removing the chassis.

SCHEMA TECHNIQUE POUR MODELE
TX-28MD3F TX-25MD3F
TX-21MD3F
(Euro-2M 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 :

1. **RESISTOR**
Toutes les résistances sont des résistance 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).
2. **CONDENSATEUR**
Toutes 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.
3. **BOBINE**
L'unité d'inductance est le μ H, sauf indication contraire
4. Les composants entourés de pointillés, sur le schéma, représentent des éléments non câblés.
5. **POINT D'ESSAI**
 Position du point d'essai
6. **SYMBOL DE TERRE**
:Terre du châssis (froid)  Terre de ligne (chaud) 
7. **MESURE DE TENSION**
La tension est mesurée avec un voltmètre c.c.
Les conditions de mesure sont les suivantes:
Source d'alignement CA 220V-240V, 50Hz
Signal de réception Signal barre couleur (RF)
Toutes les commandes utilisateur Position maximum
8.  : Vidéo
 : Audio
 : Vertical / Horizontal
9. Ce schéma est à jour moment de l'impression et modifiable sans préavis.

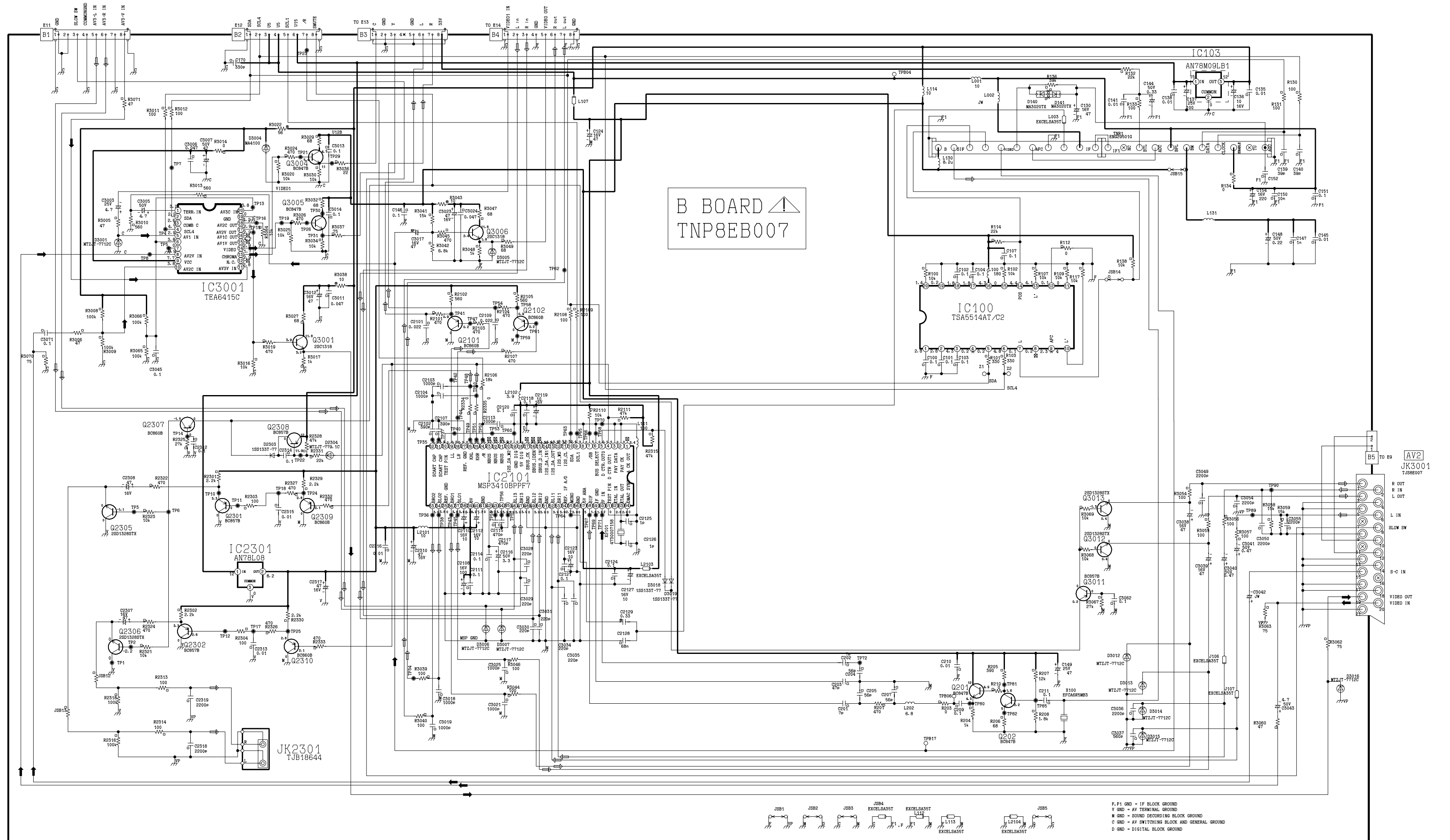
Remarque

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.

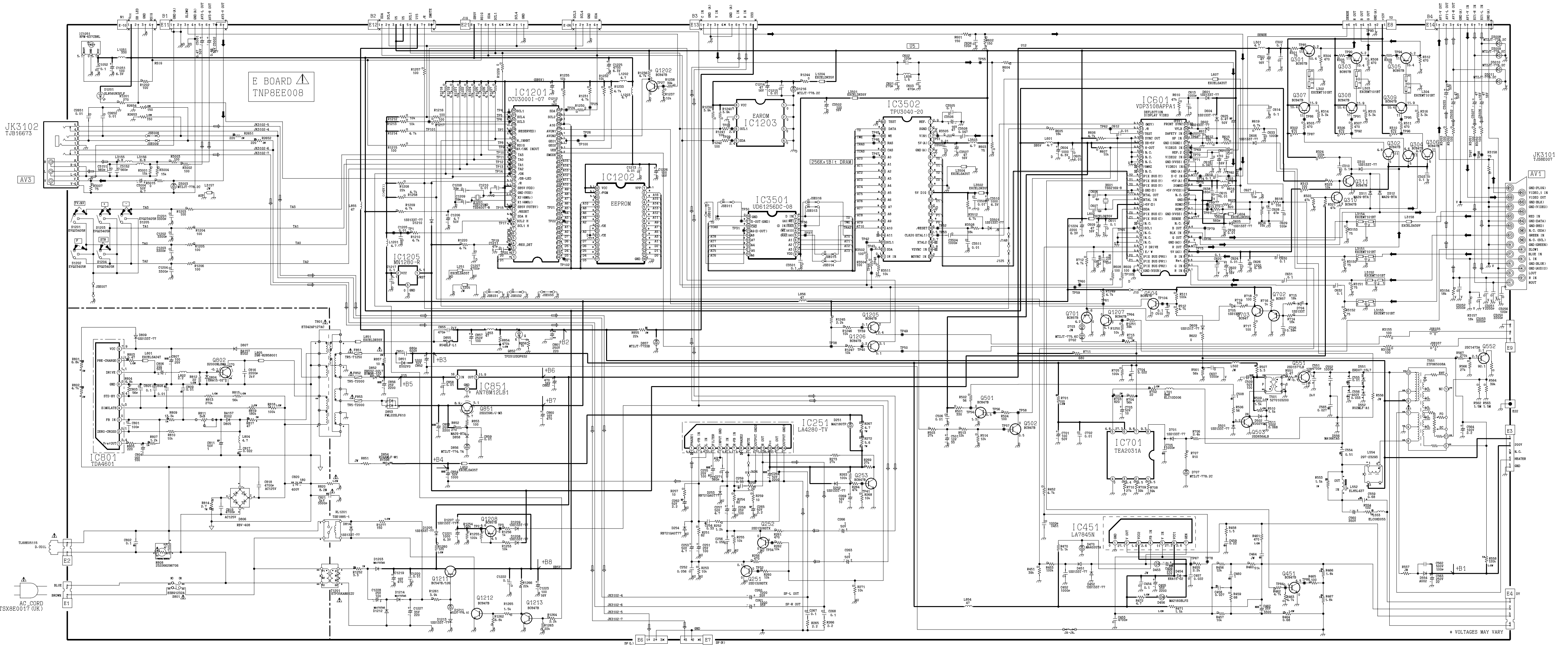
Précautions

- a. Ne pas toucher la partie chaude ou en même temps les parties chaud et froide. Cela présente un risque de décharge électrique.
- b. Ne pas court-circuit 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.

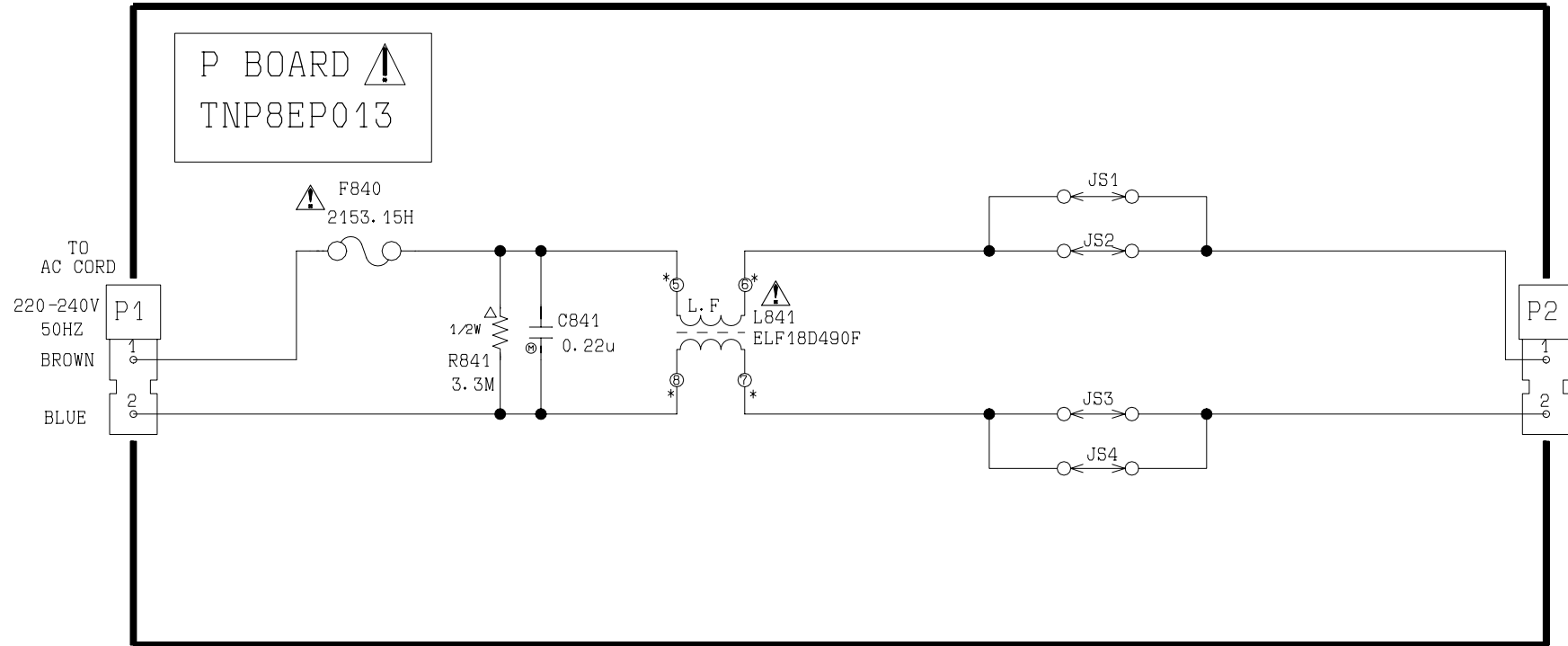
B-BOARD TX-28MD3F / TX-25MD3F / TX-21MD3F



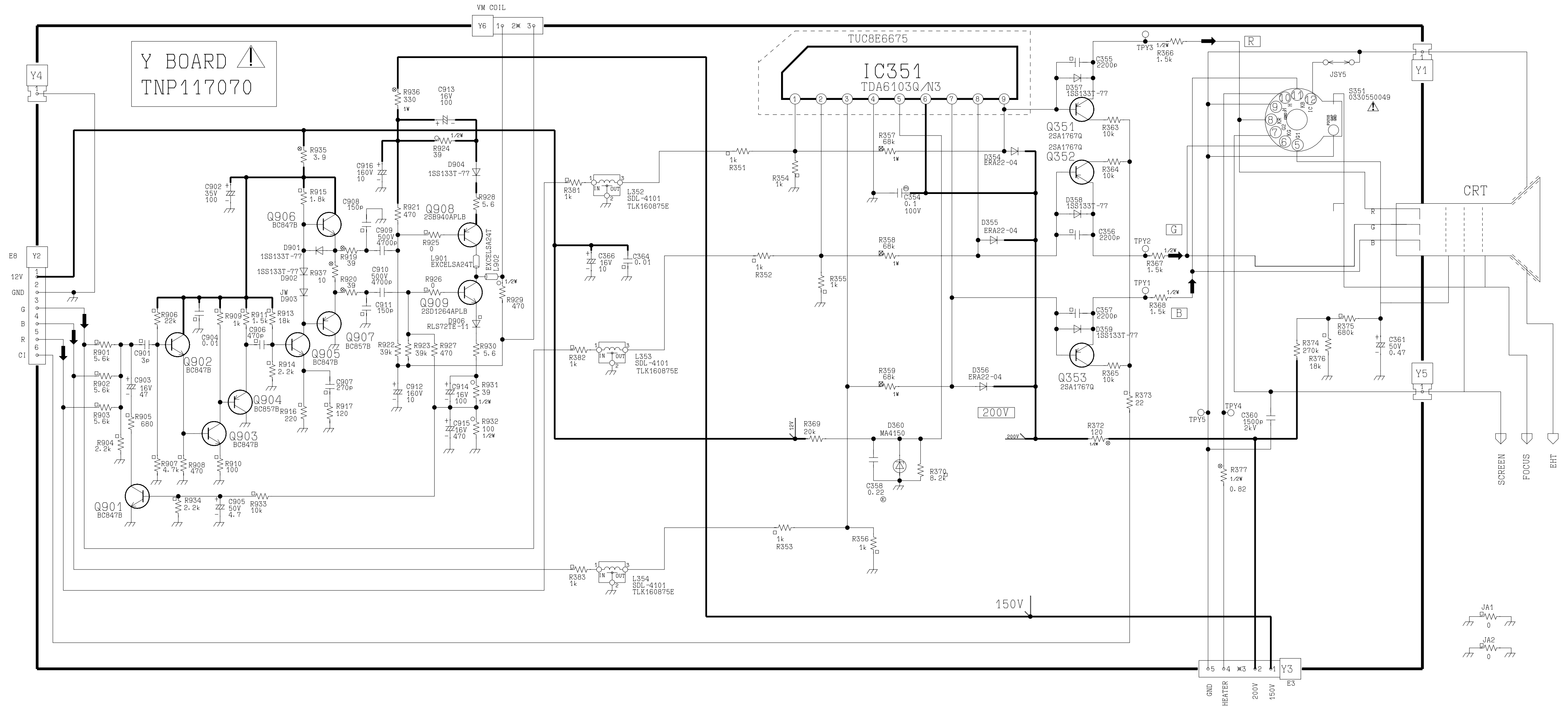
E-BOARD TX-25MD3F



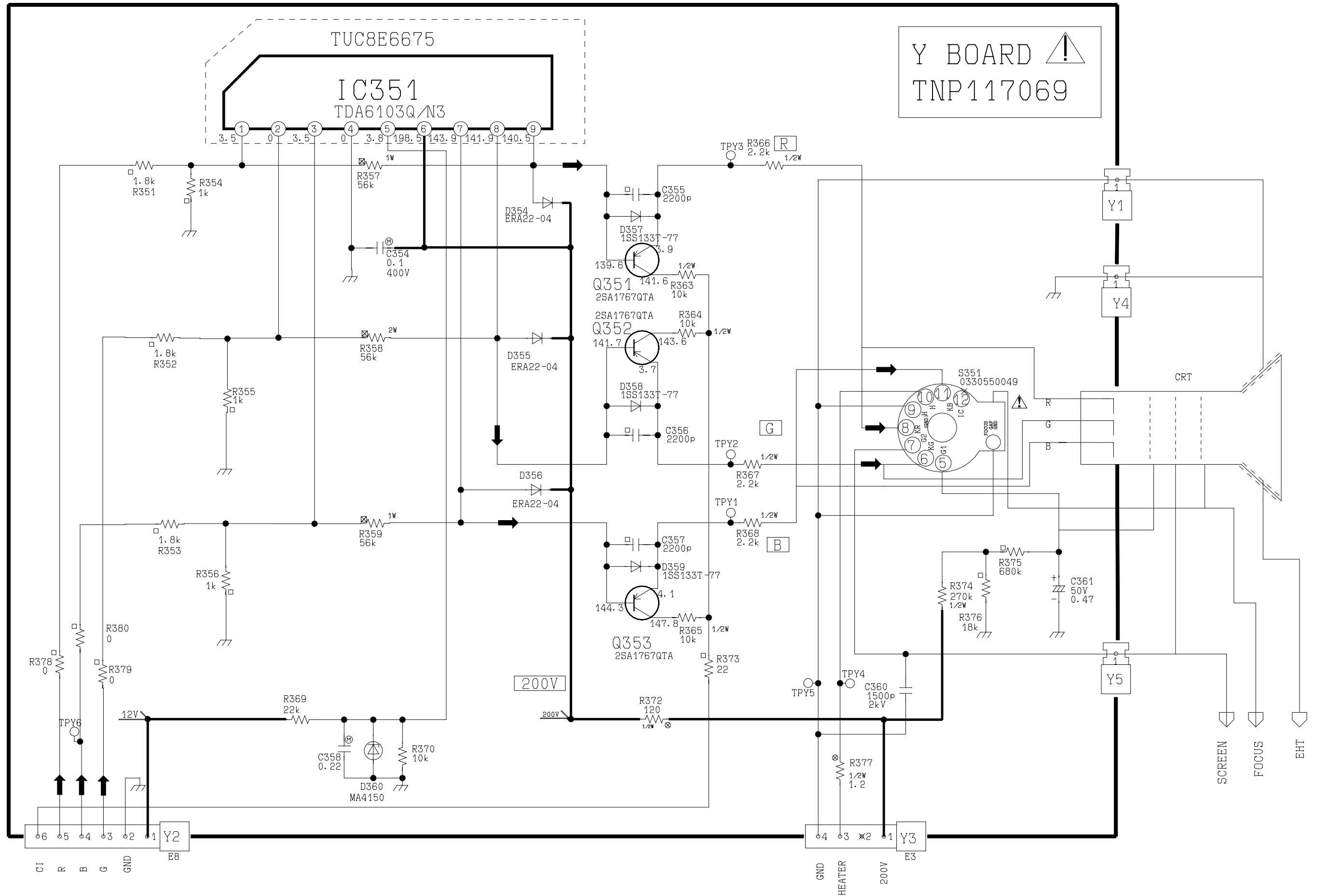
P-BOARD TX-28MD3F / TX-25MD3F / TX-21MD3F



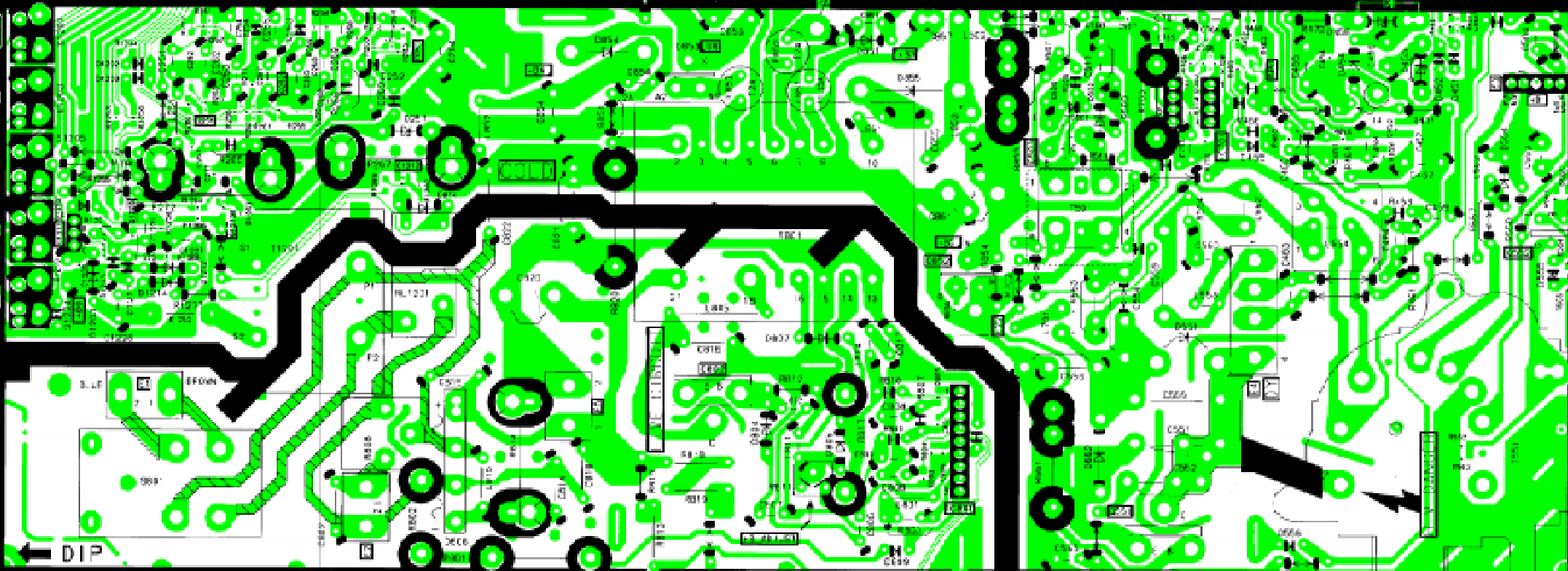
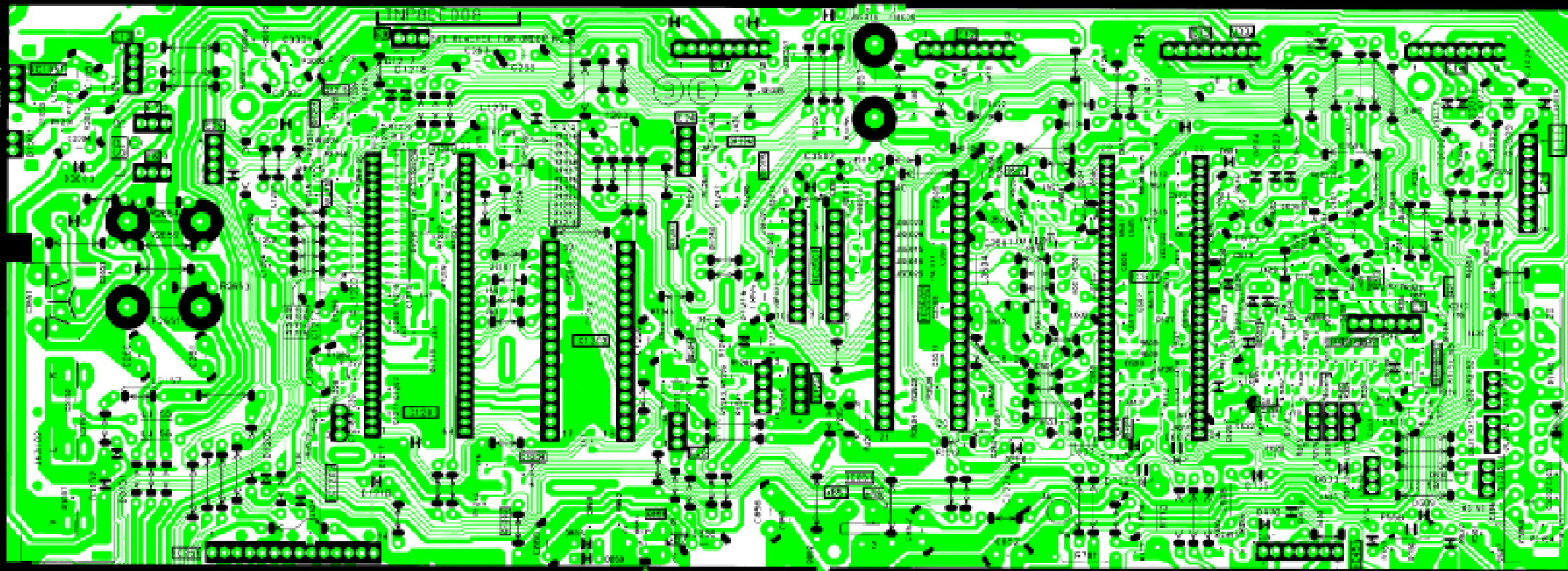
Y-BOARD TX-28MD3F / TX-25MD3F

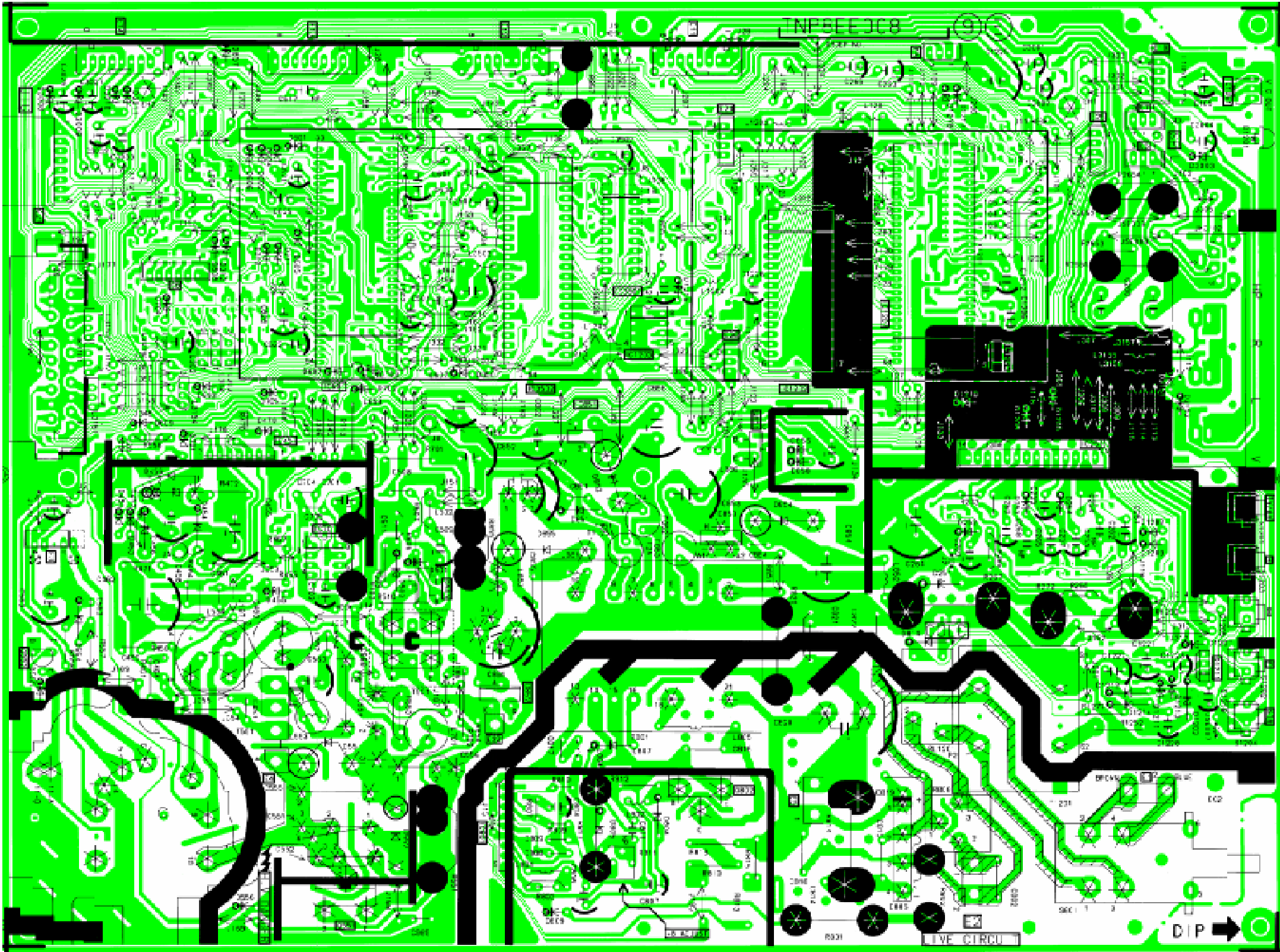


Y-BOARD TX-21MD3F









INP5EEJC8

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LIVE CIRCU

RO31

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DIP CAV

ECD

SEC 1 2 3 4

DIP CAV

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SEC 1 2 3 4

DIP CAV

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SEC 1 2 3 4

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SEC 1 2 3 4

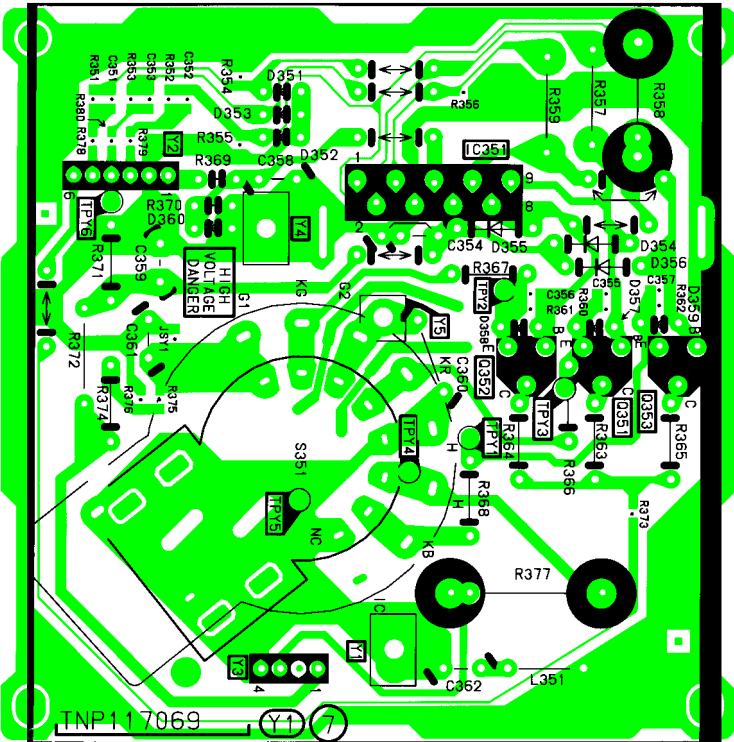
DIP CAV

ECD

SEC 1 2 3 4

DIP CAV

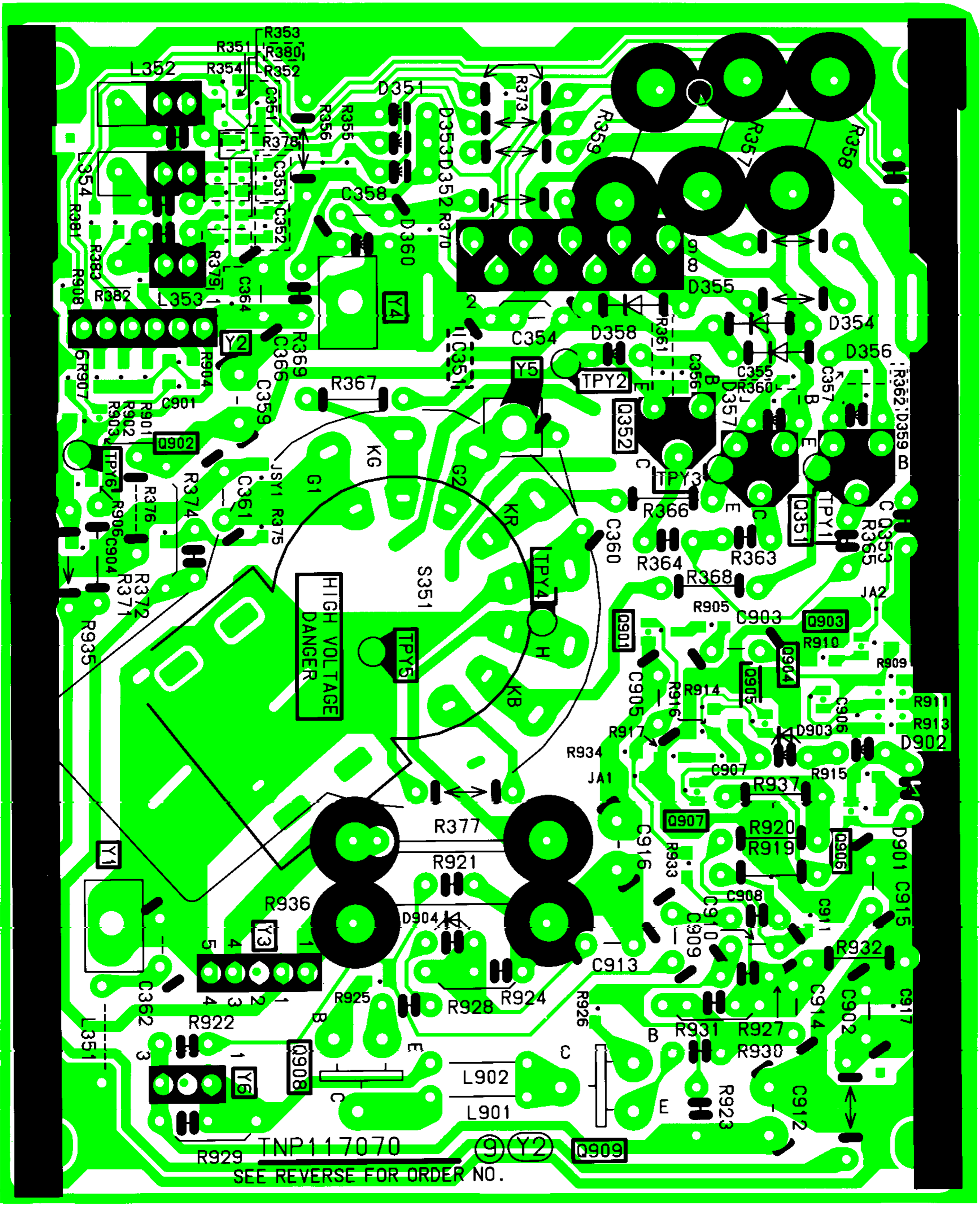
ECD



TNP117069

(Y1) 7

HIGH
VOLTAGE
DANGER



**HIGH VOLTAGE
DANGER**

R929 TNP117070

SEE REVERSE FOR ORDER NO.

9 Y2

Q909