

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
<i>KV-M2180A</i>	<i>RM-836</i>	<i>Italian</i>	<i>SCC-J05C-A</i>	<i>KV-M2180E</i>	<i>RM-836</i>	<i>Spanish</i>	<i>SCC-J04C-A</i>
<i>KV-M2180B</i>	<i>RM-836</i>	<i>French</i>	<i>SCC-J06C-A</i>	<i>KV-M2181E</i>	<i>RM-836</i>	<i>Spanish</i>	<i>SCC-J04D-A</i>
<i>KV-M2181B</i>	<i>RM-836</i>	<i>French</i>	<i>SCC-J06D-A</i>	<i>KV-M2180K</i>	<i>RM-836</i>	<i>OIRT</i>	<i>SCC-J03E-A</i>
<i>KV-M2180D</i>	<i>RM-836</i>	<i>AEP</i>	<i>SCC-J08D-A</i>	<i>KV-M2181K</i>	<i>RM-836</i>	<i>OIRT</i>	<i>SCC-J03D-A</i>
<i>KV-M2181D</i>	<i>RM-836</i>	<i>AEP</i>	<i>SCC-J08C-A</i>	<i>KV-M2181U</i>	<i>RM-836</i>	<i>UK</i>	<i>SCC-J01C-A</i>



ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20 UHF: E21-E69	PAL
French	B/G/H, L	VHF: E2-E12, S1-S20, S21-S41, F2-F10, B-Q UHF: E21-E69, F21-F69	PAL, SECAM
AEP	B/G/H	VHF: E2-E12, S1-S20, S21-S41 UHF: E21-E69	PAL, SECAM
Spanish	B/G/H	VHF: E2-E12, S1-S20, S21-S41 UHF: E21-E69	PAL
OIRT	B/G, D/K	B/G VHF: E2-E12 UHF: E21-E69 Hyper: S1-S41 D/K VHF: R01-R12 UHF: R21-R69	PAL, SECAM NTSC3.58/4.43 (video input only)
UK	I	UHF: 21-69	PAL

MODEL	Italian	French	AEP	Spanish	OIRT	UK
Power Consumption	58W	58Wh	58W	58W	58W	75W

SPECIFICATIONS

Picture Tube Hi-Black Trinitron
Approx. 55 cm (21 inches)
(Approx. 51 cm picture measured
diagonally)
100° -deflection

Input/Output Terminals

[INPUTS]

21-pin connector (CENELEC standard)

- audio / video input
- RGB input

[OUTPUTS]

Ω Headphone jack : minijack

Sound output 4W (RMS)
5W (music power)

Dimensions 513x475x475 mm approx.

Weight Approx. 21.0kg

Supplied accessories RM-836 Remote Commander (1)
IEC designated batteries (2)

Other features TELETEXT (KV-M2181B/M2181D/M2181E/M2181K/M2181U only)


[RM-836]

Remote control system infrared control
 Power requirements 3V dc (2 batteries) R6 (size AA)
 Dimensions Approx. 210x45x24 mm (w/h/d)
 Weight Approx. 90g (Not including batteries)

Design and specifications are subject to change without notice.

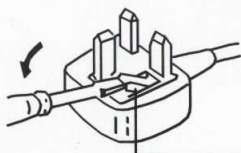
Model name	KV-M2180A	KV-M2180B KV-M2181B	KV-M2180D KV-M2181D	KV-M2180E KV-M2181E	KV-M2180K KV-M2181K	KV-M2181U
Item						
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	ON	ON	ON	ON
Woofers Box	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	OFF	OFF	OFF	OFF	OFF	OFF
Front in (3)	OFF	OFF	OFF	OFF	OFF	OFF
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	OFF	OFF	OFF	OFF	OFF	OFF
Norm B/G/H	ON	ON	ON	ON	ON	OFF
Norm I	OFF	OFF	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	OFF	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	OIRT	English

WARNING (KV-M2181U only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

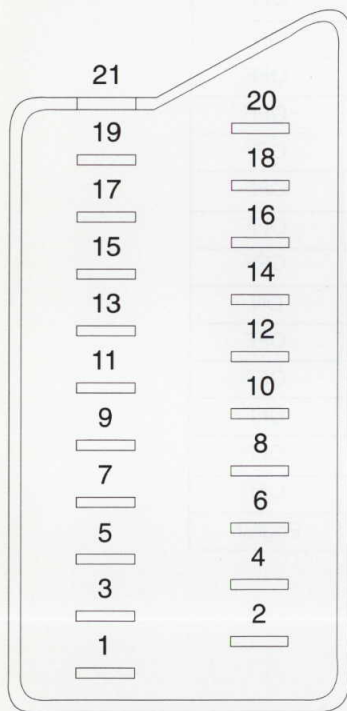
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



FUSE

How to replace the fuse.
 Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector (1)

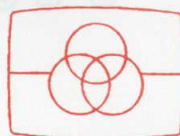


Pin No		Signal	Signal level
1	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance:less than 1kohm*
2	○	Audio input B (right)	Standard level:0.5Vrms Input impedance:More than 10kohms*
3	○	Audio output A (left)	Standard level:0.5Vrms Output impedance:less than 1kohm*
4	○	Ground (audio)	
5	○	Ground (blue)	
6	○	Audio input A (left)	Standard level:0.5Vrms Input impedance:More than 10kohms*
7	○	Blue input	0.7V±3dB, 75ohms, positive
8	○	Function select (AV control)	High state (9.5—12V):Part mode Low state (0—2V):TV mode Input impedance:More than 10kohms Input capacitance:Less than 2nF
9	○	Ground (green)	
10	○	Open	
11	○	Green	Green signal:0.7V±3dB. 75ohms, positive
12	○	Open	
13	○	Ground(red)	
14	●	Ground (blanking)	
15	○	Red input	0.7V±3dB, 75ohms, positive
	—	(S signal) chroma input	0.3V±3dB, 75ohms, positive
16	○	Blanking input (Ys signal)	High state (1—3V) Low state (0—0.4V) Input impedance:75ohms
17	○	Ground (video output)	
18	○	Ground (video input)	
19	○	Video output	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
20	○	Video input	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
	—	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
21	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

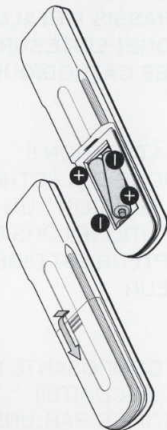
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

Getting Started

Step 1

Inserting the Batteries into the Remote Commander



Step 2

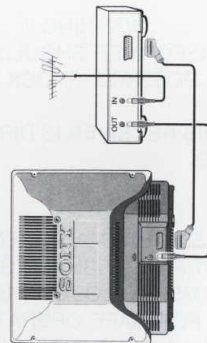
Connecting the Aerial

if you connect a VCR, skip to step 3.

Connect an external aerial to the socket .

Step 3

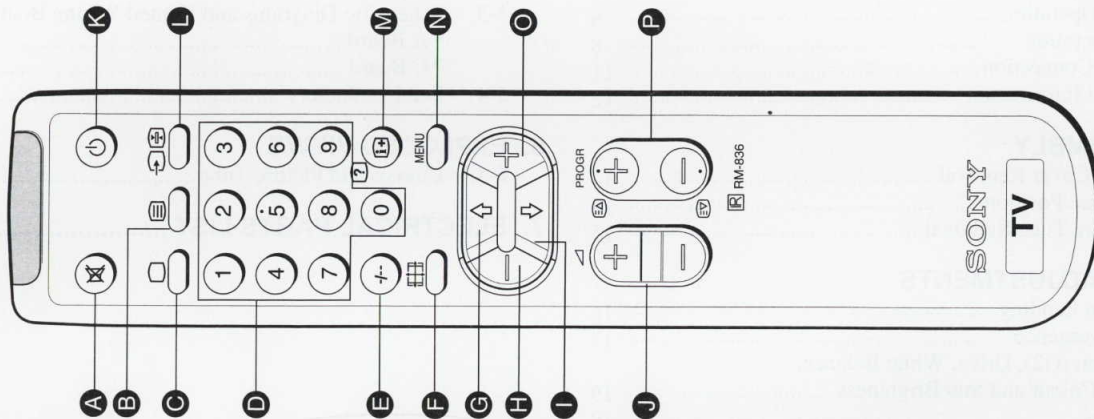
Connecting a VCR



- It is recommended to tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 12.

Getting Started

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.



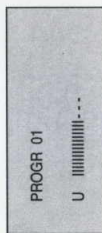
Step 4

Presetting Channels Automatically

TV searches for all available channels. If manual tuning is preferred see Menu option - Presetting Channels Manually.

- 1 Plug into mains.
Press power switch **W** on TV set.

- 2 Press and hold **S** on TV set for 2 seconds.
Auto tuning starts and screen shows.



Notes

- When Auto tuning stops the programme on position 1 is seen.

- Channels are automatically stored as follows:

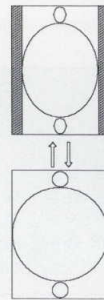
- Programme 1 BBC1
- Programme 2 BBC2
- Programme 3 ITV
- Programme 4 CH4 or S4C

TV Operation

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the Remote Commander.

To	Press
Switch on	W on TV
Switch off temporarily	K TV is now in standby mode, U indicator V on TV lights.
Switch on again	C , PROGR +/- P U or any number button D
Switch off completely	W on TV To save energy we recommend switching off completely when TV is not in use.
Select programmes	PROGR +/- P U or number buttons D For double digit numbers press --E then the number e.g. For 23, press --E then 2 and 3.
Display the programme number	M Press again to make programme number disappear.
Adjust the volume	+/- I T
Mute the sound	A Press again to restore sound.
View video input	U R Press again to return to TV programme.
View programmes in 16:9 mode	F Press again to return to 4:3 mode.



Note: **F** is to be used to optimise the viewing of 16:9 signals which will be available in the future.

Teletext Operation

Viewing Teletext

Teletext is an information service broadcast by TV stations.

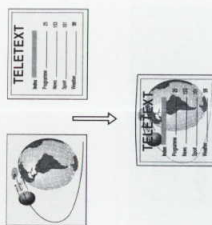
- 1 Select the channel which carries the teletext service you wish to receive.
- 2 Press **ⓑ** to switch on teletext.
- 3 Input three digits for the page number using the programme number buttons **⓪** or **PROGR +/-** **⓪**.
- 4 Press **⓪** to switch off teletext.

Note • Teletext errors may occur if the broadcasting signals are weak.

Using Other Teletext Functions

Superimposing teletext on the TV

Press **ⓑ** once in teletext mode or twice in TV mode to superimpose teletext on the TV screen.
Press **ⓑ** again to cancel superimposing.



Freezing a teletext subpage

Press **⓪** (HOLD) to freeze the subpage. Freezing the page prevents the information that is displayed from being updated.
Press **⓪** to cancel HOLD and allow update to continue.

Revealing concealed information (eg: answers to a quiz)

Press **?** to reveal information.
Press again to conceal the information.

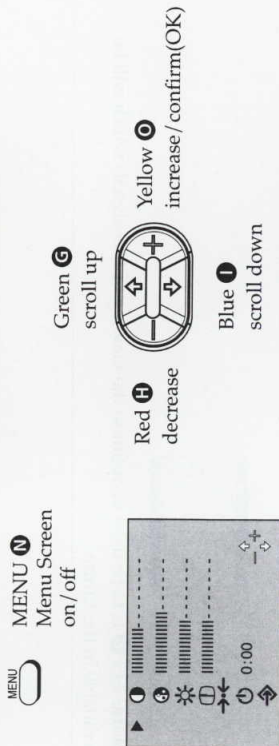
Using colour buttons to access pages

When the colour coded menu appears at the bottom of a page, press the colour button (red, green, blue or yellow) **ⓐ****ⓑ****ⓐ** to access the corresponding page.

Note • A programme status message in a blue box may appear when you change programmes (depends on broadcasters).

MENU Operation

Use buttons on Remote Commander to control Menu screen.



Green **ⓐ**
scroll up

Red **ⓑ**
decrease

Yellow **ⓐ**
increase / confirm(OK)

Blue **ⓐ**
scroll down

Adjusting the Picture

- 1 Press MENU **ⓐ**.
- 2 Press green **ⓐ** or blue **ⓐ** button to select the item you wish to change.

Symbol	Item	-	Effect	+
ⓐ	Picture	Less	More	More
ⓑ	Colour	Less	More	More
ⓐ	Brightness	Darker	Brighter	Brighter
ⓐ	Sharpness	Softer	Sharper	Sharper

3 Press red **ⓑ** or yellow **ⓐ** button to change levels.

4 Press MENU **ⓐ** to return to normal TV screen.

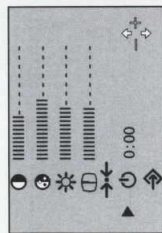
Note • To reset to factory preset picture levels, press green **ⓐ** or blue **ⓐ** button to select **↔** and press yellow (OK) **ⓐ** button.

Using the Sleep Timer

The TV may be set to switch to the standby mode automatically after a length of time chosen by you. You may set the time in 30 minutes steps up to 4 hours.

1 Press MENU **N**.

2 Press green **G** or blue **1** button to select  button to select .



3 Press red **H** or yellow **2** button to set time delay.
0:00 (OFF) 0:30 1:00 1:30 4:00

4 Press MENU **N** to return to normal TV screen.
When watching TV, press **2** to display time remaining.

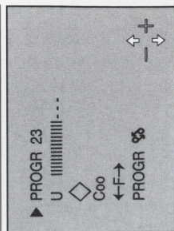
Presetting Channels Manually

Up to 60 programme positions are available for presetting channels.

1 Press MENU **N**.

2 Press green **G** or blue **1** button to select  and press yellow (OK) **2** button.

3 Select programme number using PROG + / - **P** **U** or the number buttons **0-9**.



4 Press green **G** or blue **1** button to select tuning bar (|||||....) and press red **H** or yellow **2** button to start channel search. When a channel is found the tuning bar stops moving and you see the picture.

5 If you want to store, press green **G** or blue **1** button to select  and press yellow (OK) **2** button. If you do not want to store, press red **H** or yellow **2** button to continue search.

6 Repeat steps 3 to 5 for all other channels.

7 Press MENU **N** to return to normal TV screen.



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Skipping Programme Positions

You can skip unused programme positions when selecting channels with the **PROGR +/-** buttons. You can still select them, however, using the number buttons **0-9**.

- 1 Press **MENU N**.
- 2 Press green **G** or blue **L** button to select \Rightarrow and press yellow **(OK) O** button.
- 3 Select programme number you want to skip using **PROGR +/-** buttons or number buttons **0-9**.
- 4 Press green **G** or blue **L** button to select **Coo** and press yellow **(OK) O** button.
- 5 Press green **G** or blue **L** button to select \diamond and press yellow **(OK) O** button to store.
- 6 Repeat steps 3 to 5 for other unused programme positions.
- 7 Press **MENU N** to return to normal TV screen.

Note • To restore a skipped programme number, refer to "Presetting Channels Manually".

MENU Operation

13

Fine-Tuning Channels

You can fine tune a stored channel if necessary.

- 1 Select the channel you wish to fine tune.
- 2 Press **MENU N**.
- 3 Press green **G** or blue **L** button to select \Rightarrow and press yellow **(OK) O** button.
- 4 Press green **G** or blue **L** button to select $\leftarrow F \rightarrow$ and use red **H** or yellow **O** button to adjust tuning.
- 5 Press green **G** or blue **L** button to select \diamond and press yellow **(OK) O** button to store.
- 6 Press **MENU N** to return to normal TV screen.

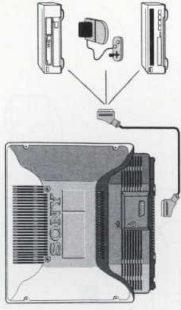
MENU Operation

14

Optional Connections

Using the 21-pin Connector

Your TV has one 21-pin connector **Y** on the rear of the set. You can connect optional audio or video equipment to this connector, such as a VCR, video games or a video disc player.



- 1 Press **→** **LR** to view the video input signal.
- 2 Press **→** **LR** or **○** to return to normal TV screen.

Connecting Headphones

Plug in the headphones to the **○** socket on the front of the TV set, then the sound from the speaker is muted.

Exchanging Programme Positions

After tuning you may wish to rearrange the programme positions.

- 1 Press **MENU**.
- 2 Press green **○** or blue **1** button to select **↔** and press yellow (OK) **○** button.
- 3 Press green **○** or blue **1** button to select **PROGR 01** and press yellow (OK) **○** button.
- 4 Press red **+** or yellow **○** button to select the first programme position.
- 5 Press the blue **1** button.
- 6 Press the red **+** or yellow **○** button to select the second programme position.
- 7 Press blue **1** button to select **↔** and press yellow (OK) **○** button to exchange.
- 8 Repeat steps 4 to 7 for other programme positions.
- 9 Press **MENU** to return to normal TV screen.

Additional Information

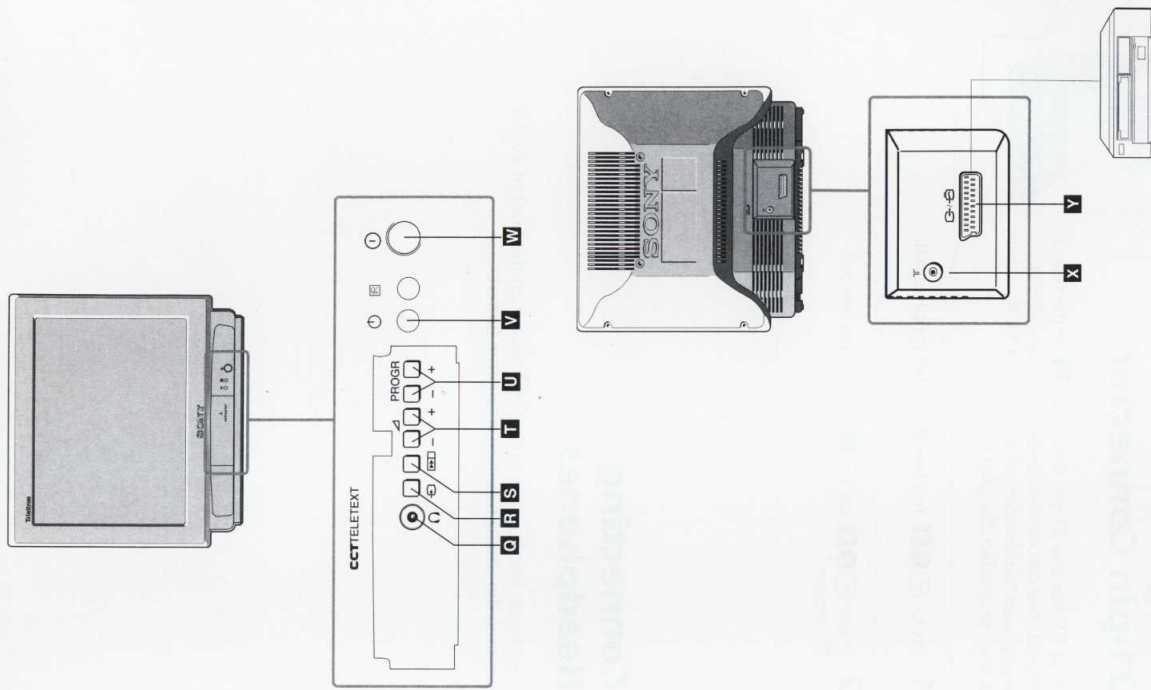
Troubleshooting

Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture, screen is dark, no sound	<ul style="list-style-type: none"> • Plug the TV in. • Press Ⓜ on the TV. • Press ⓐ or the programme number ⓓ on the remote commander if Ⓧ indicator Ⓥ is on. • Check the aerial connection. • Check that the video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using Ⓜ.
Poor or no picture (screen is dark, sound is good)	<ul style="list-style-type: none"> • Press MENU Ⓝ and adjust brightness picture and colour levels.
Good picture, no sound	<ul style="list-style-type: none"> • Adjust the volume ↗ / ↘ Ⓡ. • Disconnect any headphones. • Press Ⓡ if Ⓡ is displayed on the screen.
No colour on colour programmes	<ul style="list-style-type: none"> • Press MENU Ⓝ and adjust colour balance. • Press MENU Ⓝ and reset to factory settings.
Distorted picture when you change programmes or select teletext	<ul style="list-style-type: none"> • Turn off the equipment connected to the 21-pin connector Ⓥ.
Remote commander does not function	<ul style="list-style-type: none"> • Replace the batteries.

• If you continue to have these problems, have your TV serviced by qualified personnel.

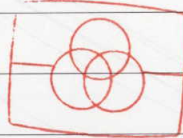
• NEVER open the casing yourself.



SECTION 2
DISASSEMBLY

MEMO

2-1. REAR COVER REMOVAL



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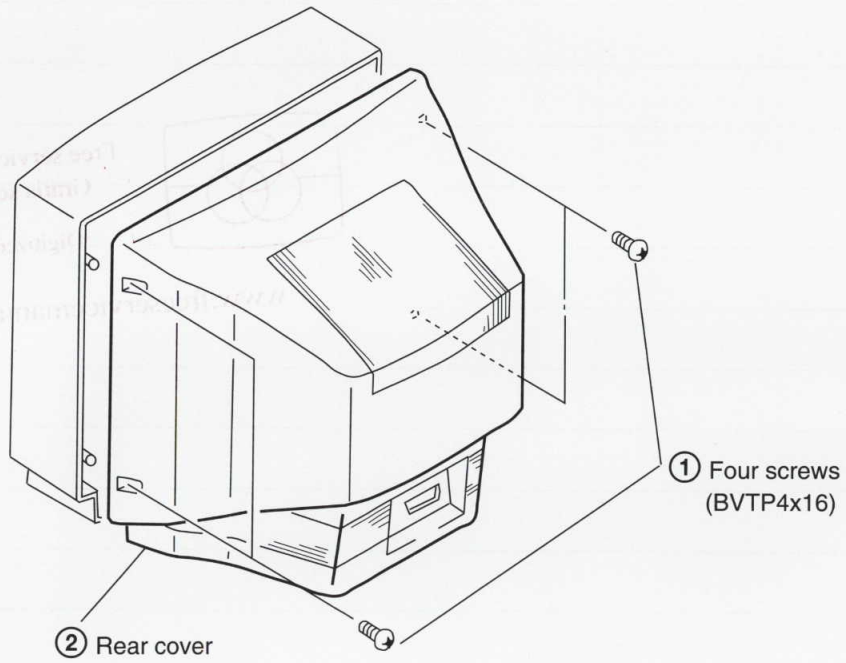
① Four screws
(BATT-10)

② Rear cover

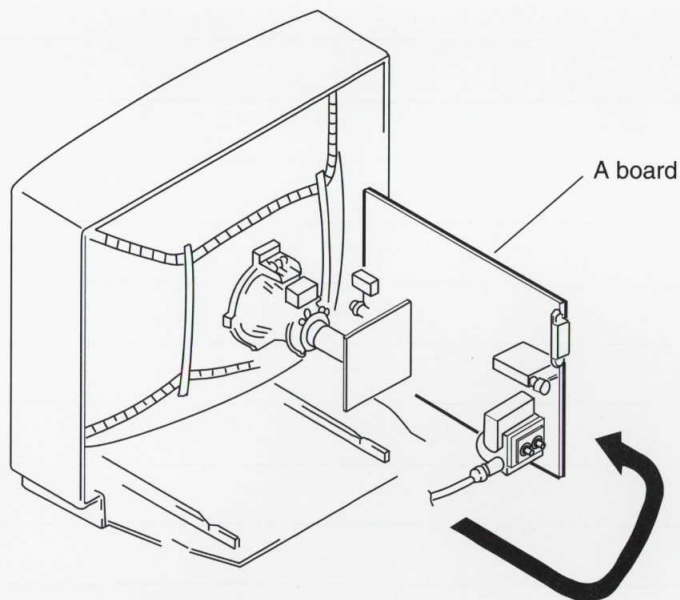
2-2. SERVICE POSITION

SECTION 2 DISASSEMBLY

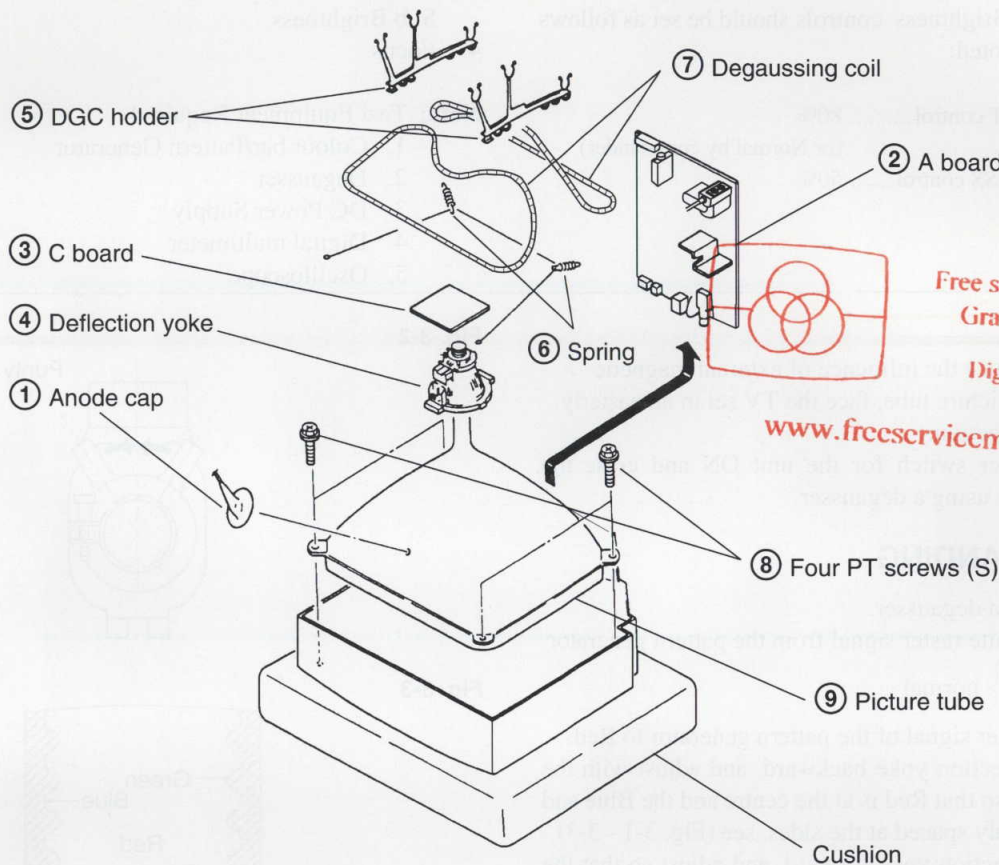
2-1. REAR COVER REMOVAL



2-2. SERVICE POSITION



2-3. PICTURE TUBE REMOVAL



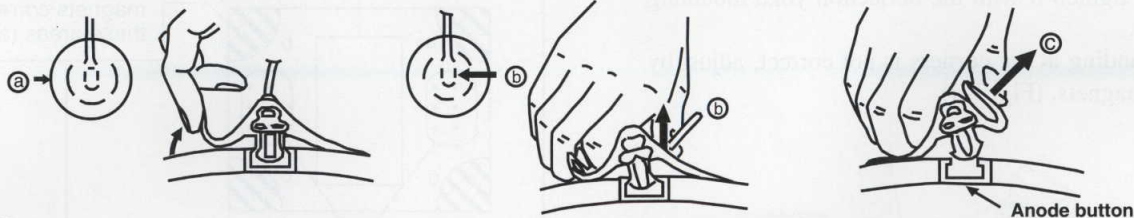
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• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

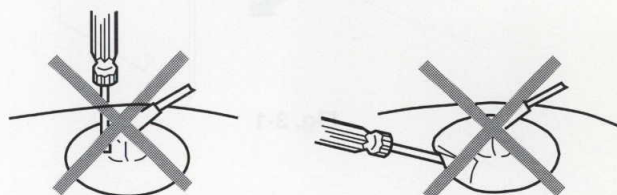
* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with the rated power supply voltage, unless otherwise noted.

The Contrast and Brightness controls should be set as follows unless otherwise noted:

- CONTRAST control 80%
(or Normal by commander)
- ☼ BRIGHTNESS control 50%

Perform the adjustments in the following order:

1. Beam Landing
2. Convergence
3. Screen (G2), Drive, White Balance, Sub Colour and Sub Brightness.
4. Focus

Note: Test Equipment Required.

1. Colour bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of external magnetic forces on the picture tube, face the TV set in an easterly or westerly direction.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

Demagnetize with a degausser.

1. Input an all white raster signal from the pattern generator.
 CONTRAST } normal
 BRIGHTNESS }
2. Switch the raster signal of the pattern generator to Red.
3. Move the deflection yoke backward, and adjust with the purity control so that Red is at the centre and the Blue and Green are evenly spaced at the sides. see (Fig. 3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes Red. (Fig. 3-1)
5. Switch the raster signal to Blue and then Green to confirm the condition.
6. When the position of the deflection yoke has been determined, tighten it with the deflection yoke mounting screw.
7. When the landing at the corners is not correct, adjust by using disk magnets. (Fig. 3-4)

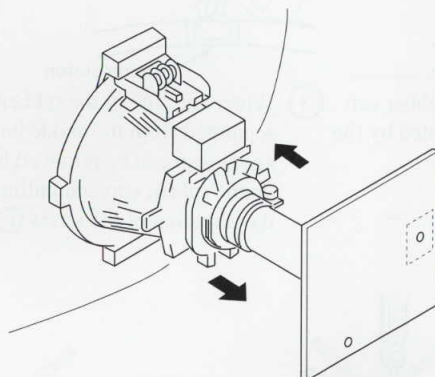


Fig. 3-1

Fig. 3-2

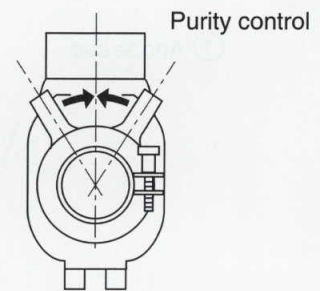


Fig. 3-3

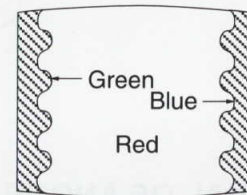
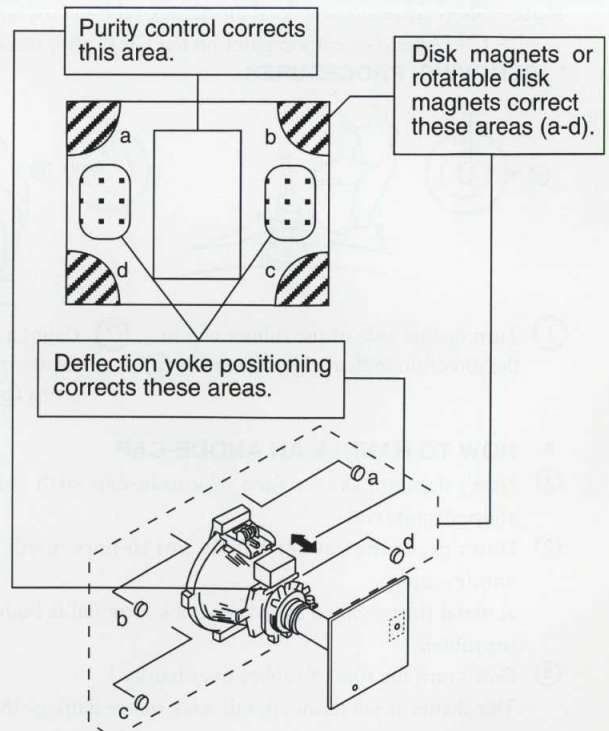


Fig. 3-4

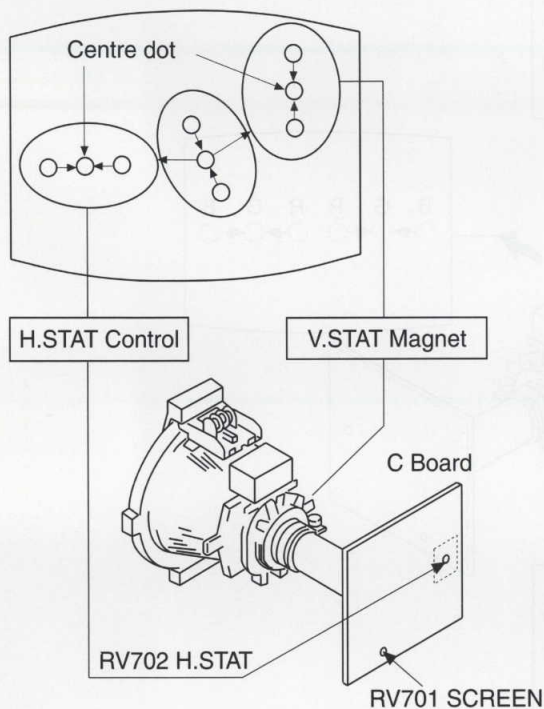


3-2. CONVERGENCE

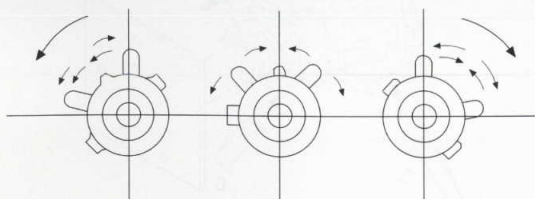
Preparation:

- Before starting, perform FOCUS, H.SIZE, and V.SIZE adjustments.
- Set the BRIGHTNESS control to minimum.
- Input a dot pattern from the pattern generator.

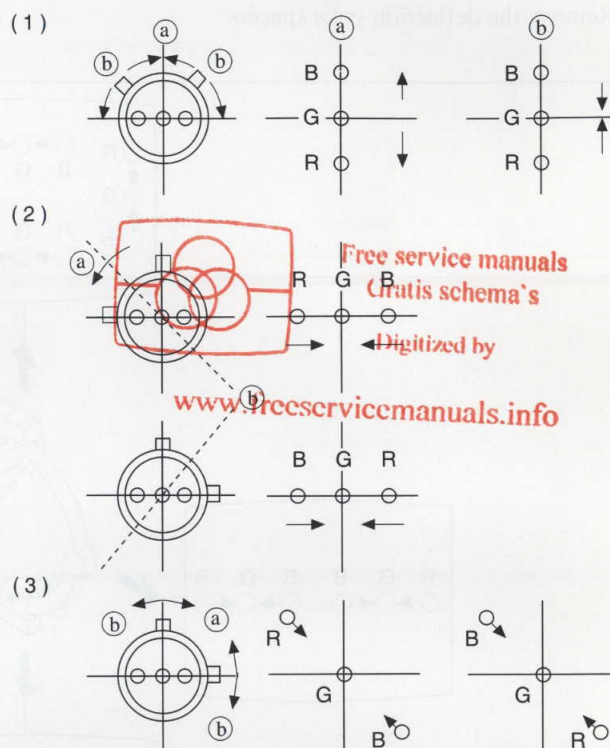
(1) Horizontal and Vertical Static Convergence



1. Adjust the H.STAT control to converge the Red, Green and Blue dots at the centre of the screen. (Horizontal movement)
 2. Adjust the V.STAT magnet to converge the Red, Green and Blue dots at the centre of the screen. (Vertical movement)
- If the horizontal dots cannot coincide with variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.
(Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



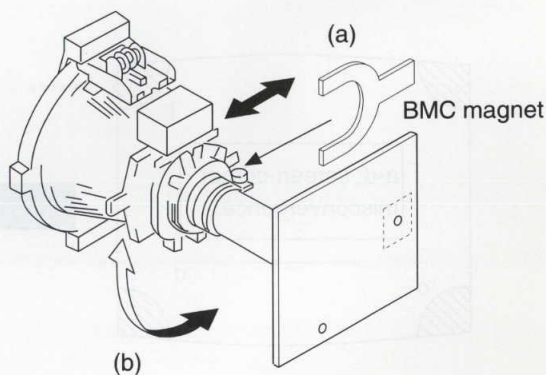
3. When the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue dots move as shown below.



If the Red and Blue dots do not converge with the Green dots, perform the following steps.

1. Move the BMC magnet (a) to correct for insufficient H.static convergence.
2. Rotate the BMC magnet (b) to correct for insufficient V.static convergence.

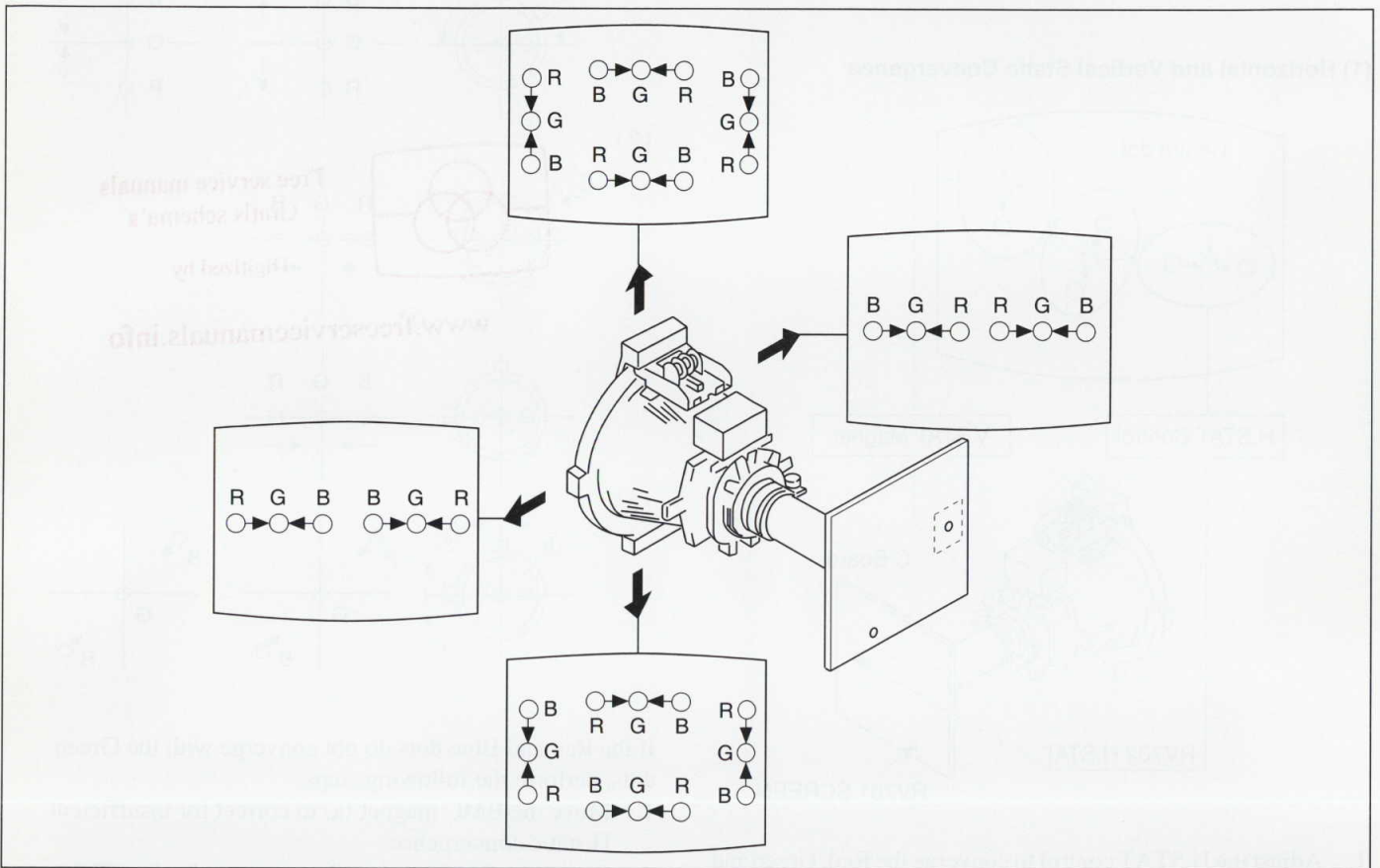
In either case, repeat the Beam Landing Adjustment.



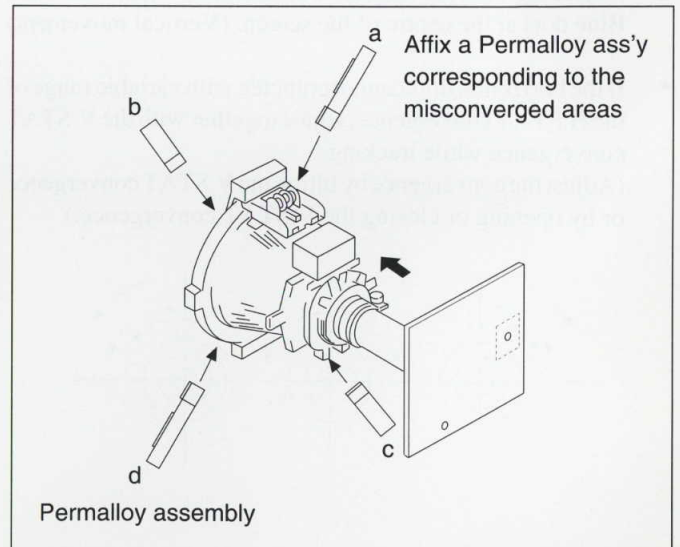
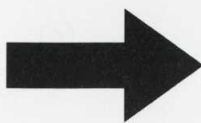
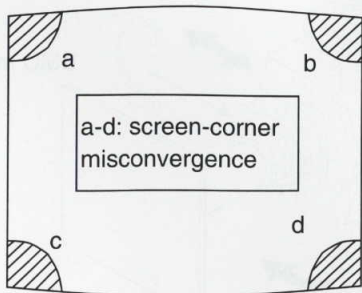
(2) Dynamic Convergence Adjustment

Preparation:

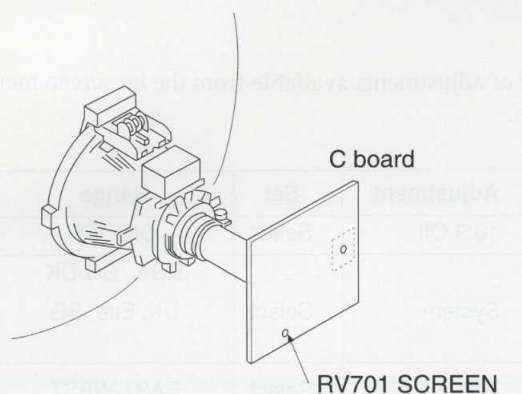
- Before starting, perform the Horizontal and Vertical static convergence adjustment.
1. Slightly loosen the deflection yoke screw.
 2. Remove the deflection yoke spacers.
 3. Move the deflection yoke for best convergence as shown below.
 4. Tighten the deflection yoke screw.
 5. Install the deflection yoke spacers.



(3) Screen-corner Convergence.



3-3. SCREEN (G2), DRIVE, WHITE BALANCE, SUB COLOUR and SUB BRIGHTNESS.

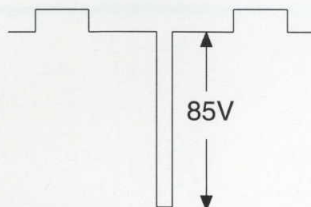


Screen (G2) setting

1. Input a 0 IRE (Black Level) signal from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 38.
3. Adjust RV701 until the Down arrow is displayed.
4. Adjust RV701 until the Down arrow just disappears.
5. Press the TV Button on the Remote Commander to store the data.

Drive Level

1. Input a Video signal containing a small area of 100% white on a black background.
2. Connect an oscilloscope to Pin (10) of J701 (R OUT) on the C Board.
3. Set the Picture to maximum using "Test""Test" and 01.
4. Enter into the Service mode (Adjust Menu).
5. Using the Blue and Green buttons select "RED HWB".
6. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform has an amplitude of 85V.

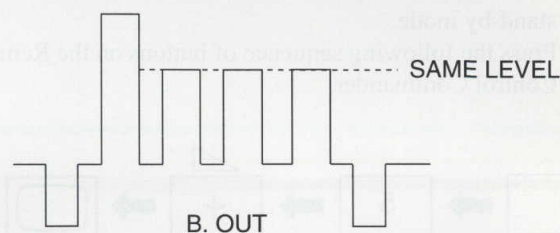


White Balance Adjustment

1. Input an all white pattern from the pattern generator.
2. Adjust the Colour and Brightness controls to the standard level.
3. Enter into the Service Mode.
4. Adjust the Green HWB and Blue HWB so that the White Balance becomes optimum.

Sub Colour Adjustment

1. Input a PAL colour bar pattern from the pattern generator.
2. Connect an oscilloscope to Pin (8) of J701 (B OUT) on the C Board.
3. Enter into the Service Mode "Test""Test" and 22.
4. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform becomes as follows :



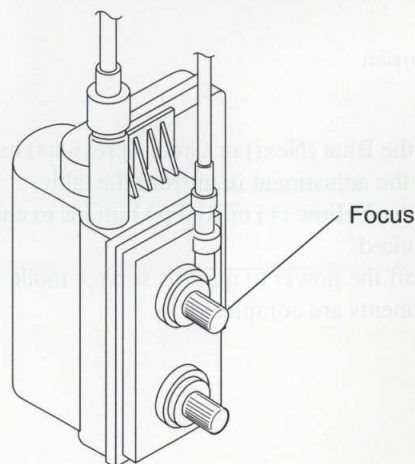
Note : If the TV is able to receive PAL and SECAM transmissions, repeat the above procedure using a Secam colour bar signal.

Sub Brightness Adjustment

1. Input a Philips pattern from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 23.
3. Using the Red and Yellow buttons on the Remote Commander adjust until the 0 IRE of the grey scale and the cut off are only slightly visible on the screen.

3-4. FOCUS

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control on the flyback transformer for the best focus at the centre of the screen. Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



SECTION 4

CIRCUIT ADJUSTMENTS

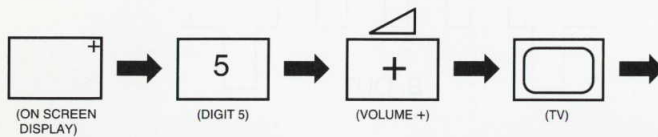
4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied Remote Control Commander RM-836.

Range of adjustments available from the on screen menu system.

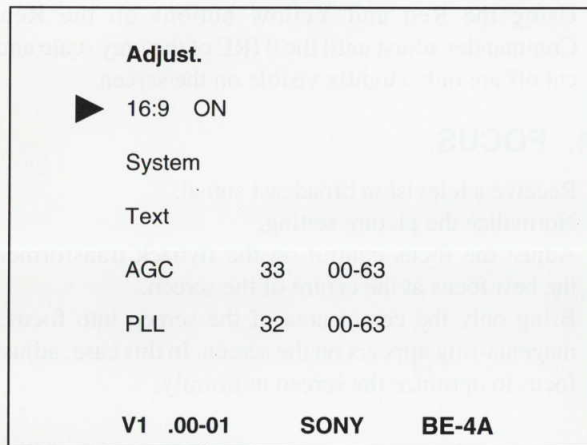
HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power of the set and enter into stand-by mode.
2. Press the following sequence of buttons on the Remote Control Commander.



"TT--" will appear in the top right corner of the screen
Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



Software version

Adjustment	Set	Range
16:9 Off	Select	ON/OFF
System	Select	BG-L, BG-DK UK, Eire, BG
Text	Select	EAST/WEST
AGC	Adj.	00 - 63
PLL	Adj.	00 - 63
B&W Delay	Adj.	00 - 63
Ver Size	Adj.	00 - 63
Ver, Breath	00	00 - 63
Par, Ampl	00	00 - 63
Par, Tilt	32	00 - 63
V, Linear	Adj.	00 - 63
Corn, corr	00	00 - 63
V, Gen or EW	Adj.	00 - 63
V, Position	42	00 - 63
H, Centre	Adj.	00 - 63
Blue HWB	Adj.	00 - 63
Green HWB	Adj.	00 - 63
Red HWB	Adj.	00 - 63

4. Press the Blue (Next) or Green (previous) buttons to select the adjustment item from the table.
5. Press the Yellow (+) or Red (-) buttons to change the data as required.
6. Turn off the power to quit the service mode when adjustments are completed.

4-2. TEST MODE 2:

TT -- Mode is available by pressing the Test button twice, O.S.D 'TT --' appears. The functions described below are available by pressing two digits. To release the 'TT --' mode, press 0 twice, press 'TEST' , press 'TV' or switch the TV into Stand-by mode.

00	Switch 'TT--' Mode off.
01	Set picture level to maximum.
02	Set picture level to minimum.
03	Set volume to 35%.
04	Set volume to 50%.
05	Set volume to 65%.
06	Set volume to 80%.
07	Ageing condition (picture max., brightness max.).
08	Shipping condition (Analog values are RESET to factory setting, Prog 1 is selected, TT--mode switched off, Vol = 35%).
09	Dummy.
10	No function.
11	Dummy
12	Text Picture Level Offset (Enable/Disable)
13	Select Odd / Even field for Non-interlaced teletext.
14	Select Interlaced / Non-interlaced teletext display.
15	Read factory setting from ROM to NVM - Reads Volume, Brightness, Picture, Hue, Sharpness and Colour values from ROM to the actual used values (Last Power Memory).
16	No function
17	Enable / Disable Sharpness Operation.
18	Enable / Disable Teletext Operation.
19	Enable / Disable NTSC Operation.
20	No function.
21	Sub Picture.
22	Sub Colour (Pal / Secam Different Stores)
23	Sub Brightness.
24	Destination System BG/L.

25	Destination Systems BG/L.
26	Destination Systems I.
27	Destination System I/I'.
28	Destination BG only.
29	Dummy.
30	No function.
31-32	Dummy.
33	Auto AGC Adjust.
34	Auto PLL Adjust.
35-37	Dummy.
38	Enter G2 adjustment mode.
39	Dummy.
40	No function.
41	Re-initialise NVM.
42	Dummy.
43	Re-initialise Geometry settings.
44-47	Dummy
48	Set NVM testbyte to 44h in NVM.
49	Erase NVM testbyte
50	No function.

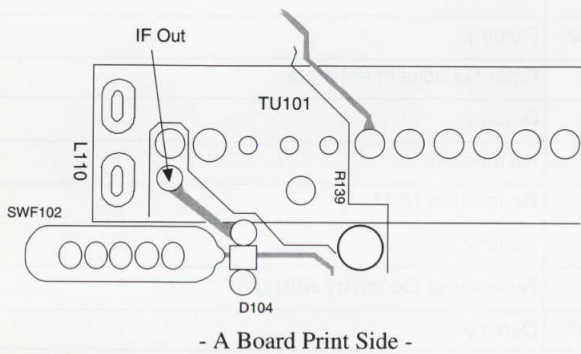
Note : For Test Modes 41 - 50, it is necessary to ensure that the TV is set to Prog 59.

IF ADJUSTMENT (AUTOMATIC)

1. Input a 38.9 MHz 100dB μ CW signal at the IF Out injection point.
2. Enter into service mode and press 34.
3. Connect a digital voltmeter to IC101 pin (23).
4. Check AFT 2.5V \pm 0.3V dc.
5. Press '00' on the Remote Commander.

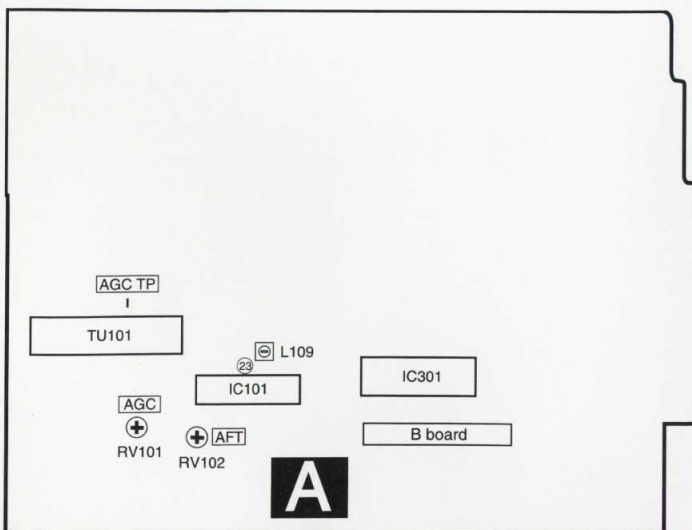
SYSTEM L ADJUSTMENT (French Models)

1. Input a 33.9MHz 100dB μ CW signal at the IF Out injection point.
2. From the On Screen Menu set System to L band 1.
3. Connect a digital voltmeter to IC101 pin (23).
4. Adjust RV102 AFT for 2.5V \pm 0.3V dc.



AGC ADJUSTMENT

1. Receive an off-air signal.
2. Enter into the Service adjust menu and select AGC.
3. Adjust the data using the Red and Yellow buttons on the Remote Commander so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



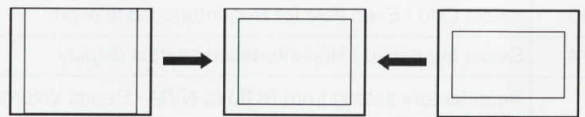
DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the service mode.
2. Using the Blue or Green buttons select the Adjust item.
3. Press the Yellow button to enter the adjustment submenu.
4. Select and adjust each item in order to obtain the optimum image.

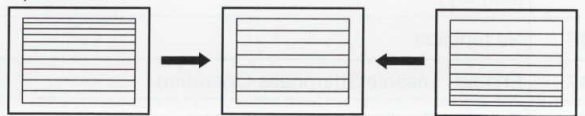
See Note on page 23

Adjustment	Set	Range
VERT, AMPL	Adj.	00 - 63
VER, BREATH	00	00 - 63
PAR, AMPL	00	00 - 63
PAR, TILT	32	00 - 63
V, LINEAR	Adj.	00 - 63
CORN, CORR	Adj.	00 - 63
V, CENTRE	Adj.	00 - 63
V, POSITION	42	00 - 63
H, CENTRE	Adj.	00 - 63

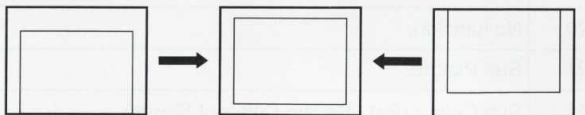
VERT, AMPL



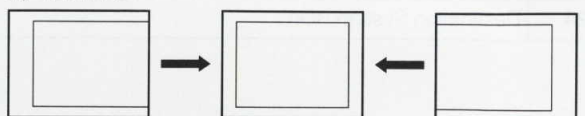
V, LINEAR



V, CENTRE



H, CENTRE



Fit the link as required to obtain the correct horizontal picture size.

4-3. BE-4 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-4 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to I²C. In the event of one of these situations arising the software will first try to release the Bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each relevant device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED by a Series of flashes which must be counted (See Table 1), Non fatal errors are reported with this method.

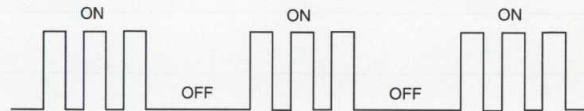
If a fatal error is found, the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue to operate.

Table 1

No of Flashes	Meaning
2	IC301 not acknowledging I ² C transmission, NVM OK.
3	IC301 FAULT (Not OK) - flags
4	IC301 - No H Flyback
5	IC301 - Stack Overflow.
6	Overvoltage / Overcurrent Protection (Pin 52) high.
7	IC002 not acknowledging I ² C transmission, IC301 OK.
8	IC002 and IC301 - No I ² C acknowledgment.
9	General I ² C Error (SDA or SCL being held low) (IC301, IC001, IC002, CN001)

Flash Timing Example : e.g. error number 3

Stby LED



Note : Deflection System Adjustments should not be carried out whilst using an NTSC (60Hz) signal, or if the signal is unlocked.

SECTION 5
DIAGRAMS

KV-M218

KV-M218

KV-M218

KV-M218

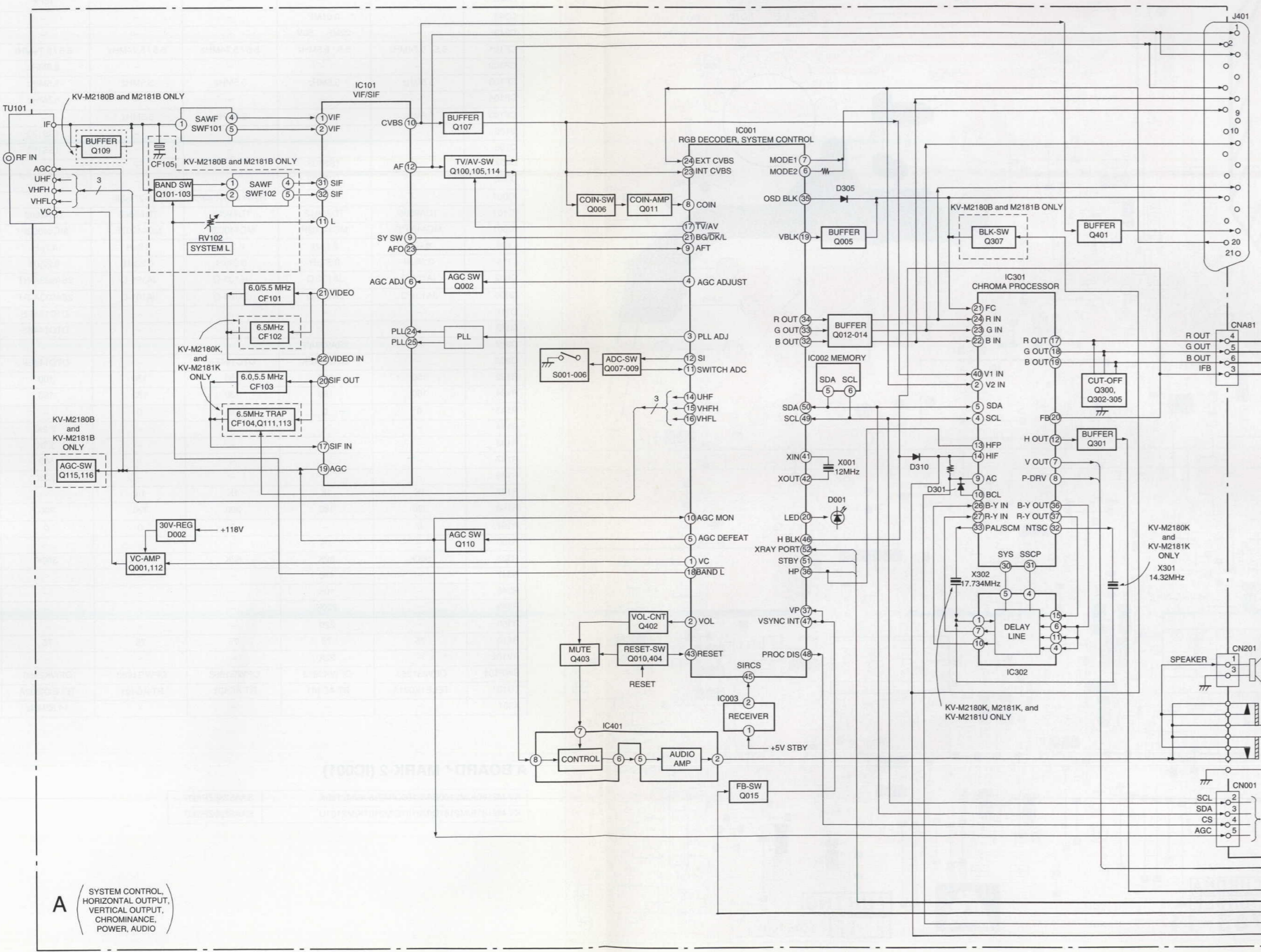


Free service manuals
Gratis schema's

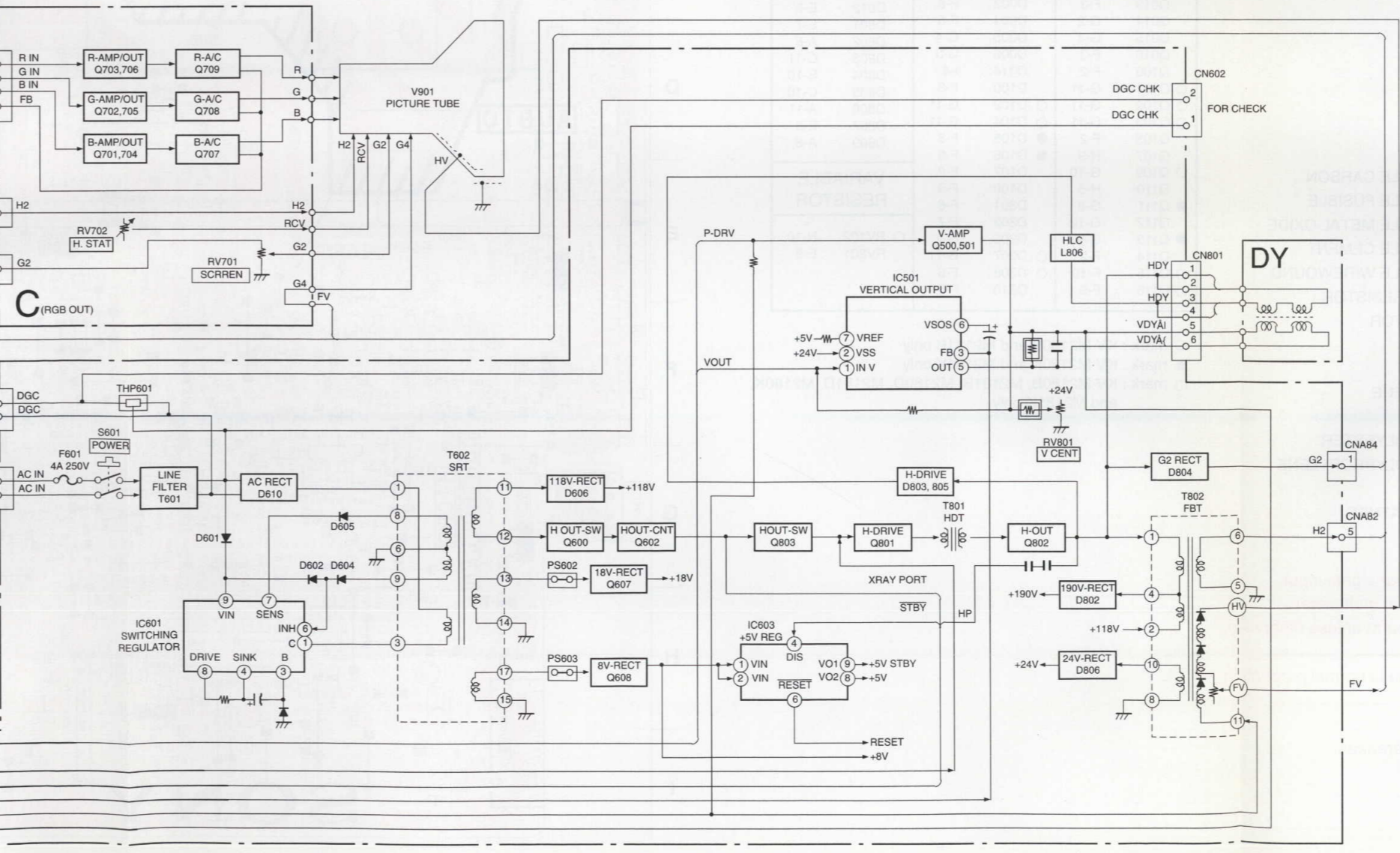
Digitized by

www.freesevicemanuals.info

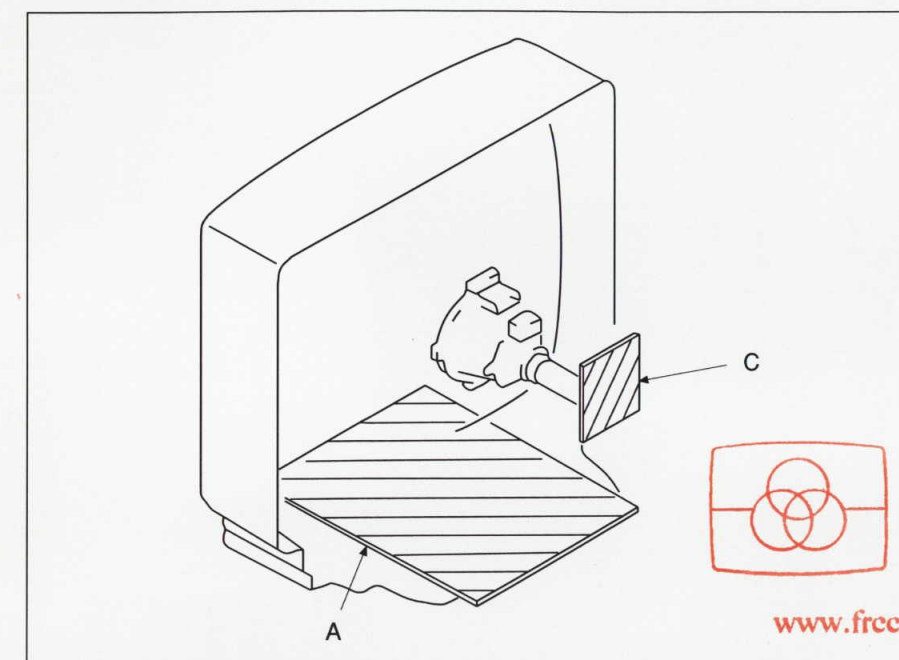
5-1. BLOCK DIAGRAM



A (SYSTEM CONTROL, HORIZONTAL OUTPUT, VERTICAL OUTPUT, CHROMINANCE, POWER, AUDIO)



5-2. CIRCUIT BOARDS LOCATION



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5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in µF unless otherwise noted. pF: µµF
50WV or less are not indicated except for electrolytic and tantalums.
All resistors are in ohms.
k = 1000 , M = 1000K
Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/4 W

- nonflammable resistor.
internal component.
panel designation, or adjustment for repair.
All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
earth - ground.
earth - chassis.
no mounted.

Note : The components identified by shading and marked with a triangle are critical for safety. Replace only with the part number specified.

Note : Les composants identifiés par une trame et une marque triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Reference information table with columns for component type (RESISTOR, COIL, CAPACITOR) and material/property (METAL FILM, SOLID, NONFLAMMABLE CARBON, etc.).

- Readings are taken with a colour-bar signal input.
Readings are taken with 10M digital multimeter.
Voltages are dc with respect to ground unless otherwise noted.
Voltage variations may be noted due to normal production tolerances.
All voltages are in V.
Circled numbers are waveform references.
B+ bus.
signal path. (RF)

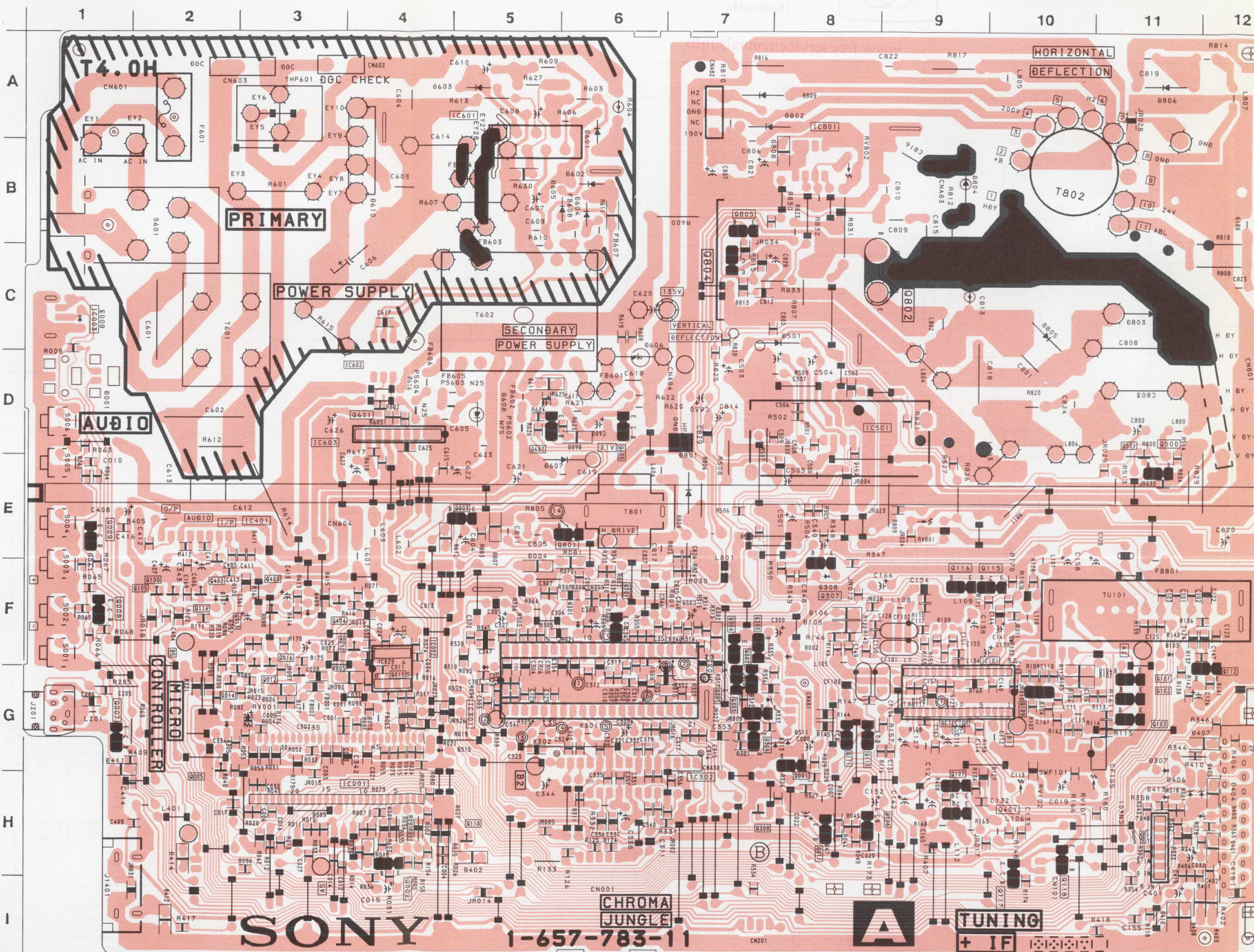
A BOARD

IC, TRANSISTOR, DIODE, and VARIABLE RESISTOR lists for the A board, including part numbers and pin configurations.

mark : KV-M2180B and M2181B only
mark : KV-M2180K and M2181K only
mark : KV-M2180B, M2181B, M2180D, M2181D, M2180K, and M2181K only

SYSTEM CONTROL, HORIZONTAL OUTPUT, VERTICAL OUTPUT, CHROMINANCE, POWER, AUDIO

- A BOARD -



NOTE: The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

A BOARD * MARK

Table listing component values for various models (M2180A to M2181U) including capacitor values and frequencies.

Table listing component values for various models (M2180A to M2181U) including resistor values and IC part numbers.

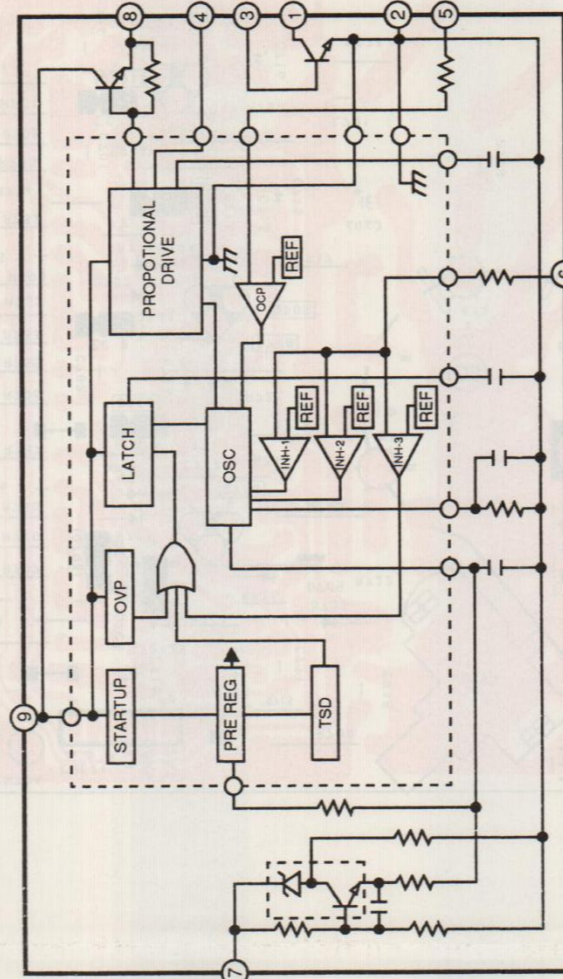
A BOARD * MARK-2 (IC001)

Table listing IC001 part numbers for different models.

WAVEFORMS A BOARD

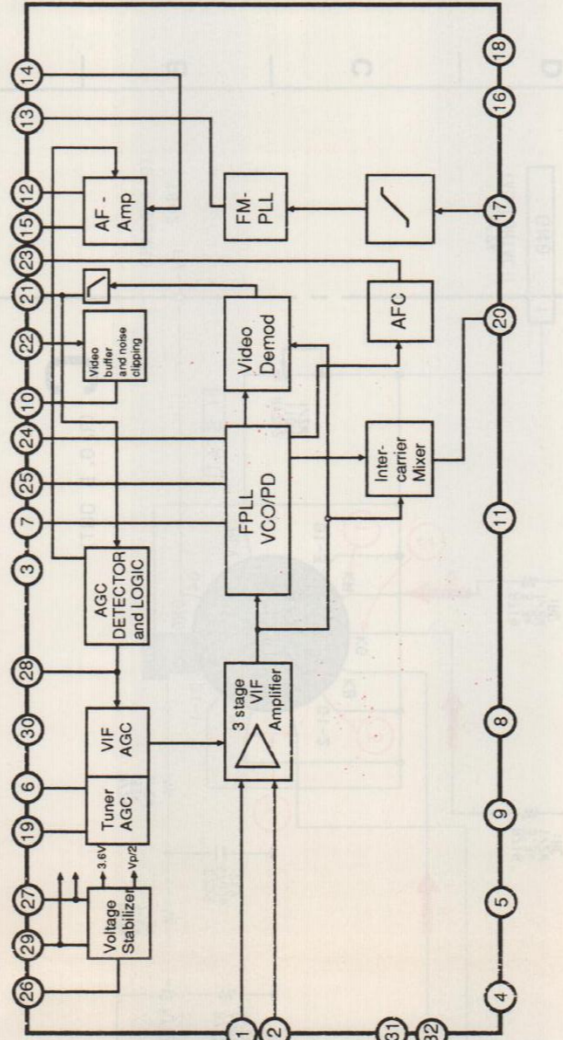


A BOARD IC601 STRS5706

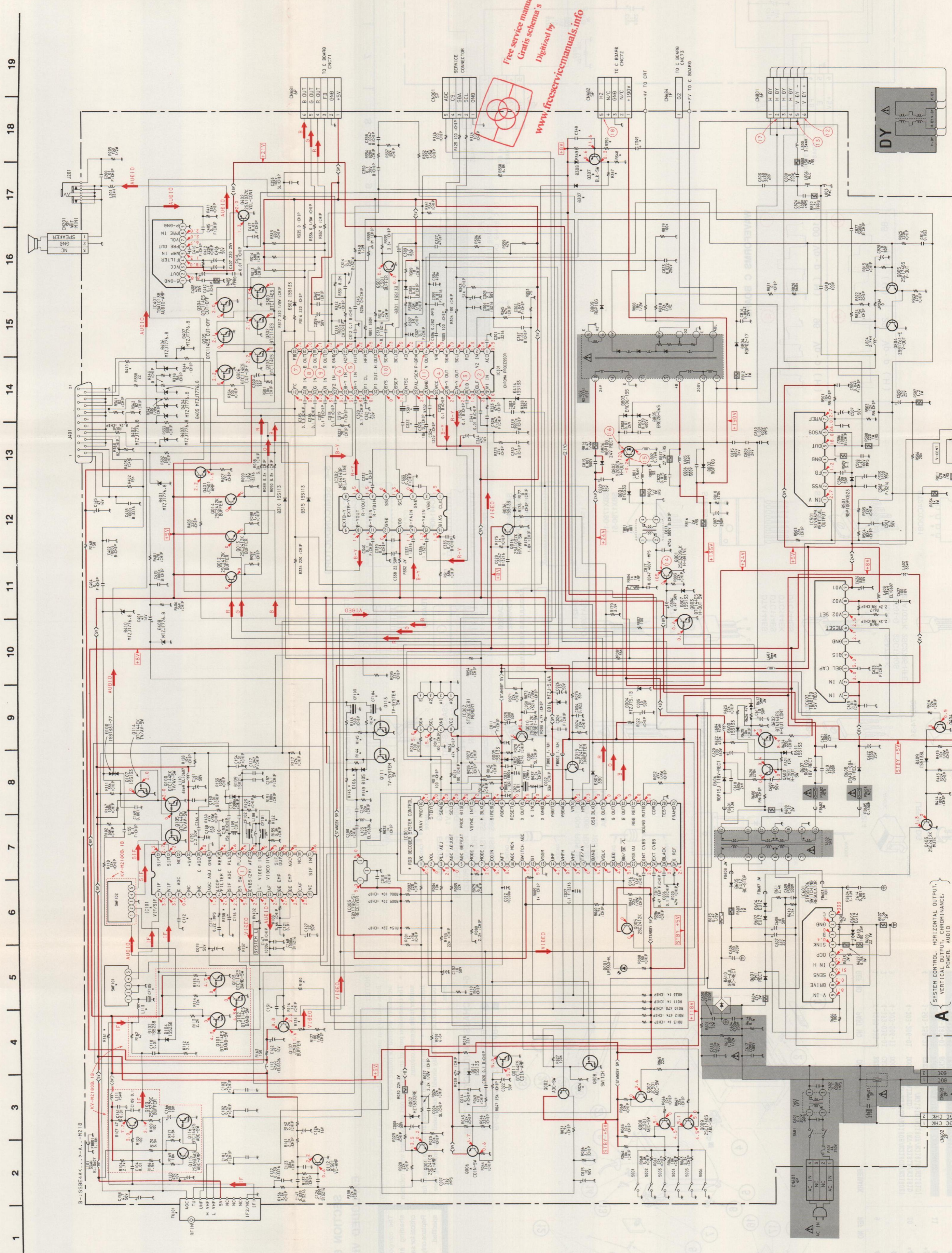
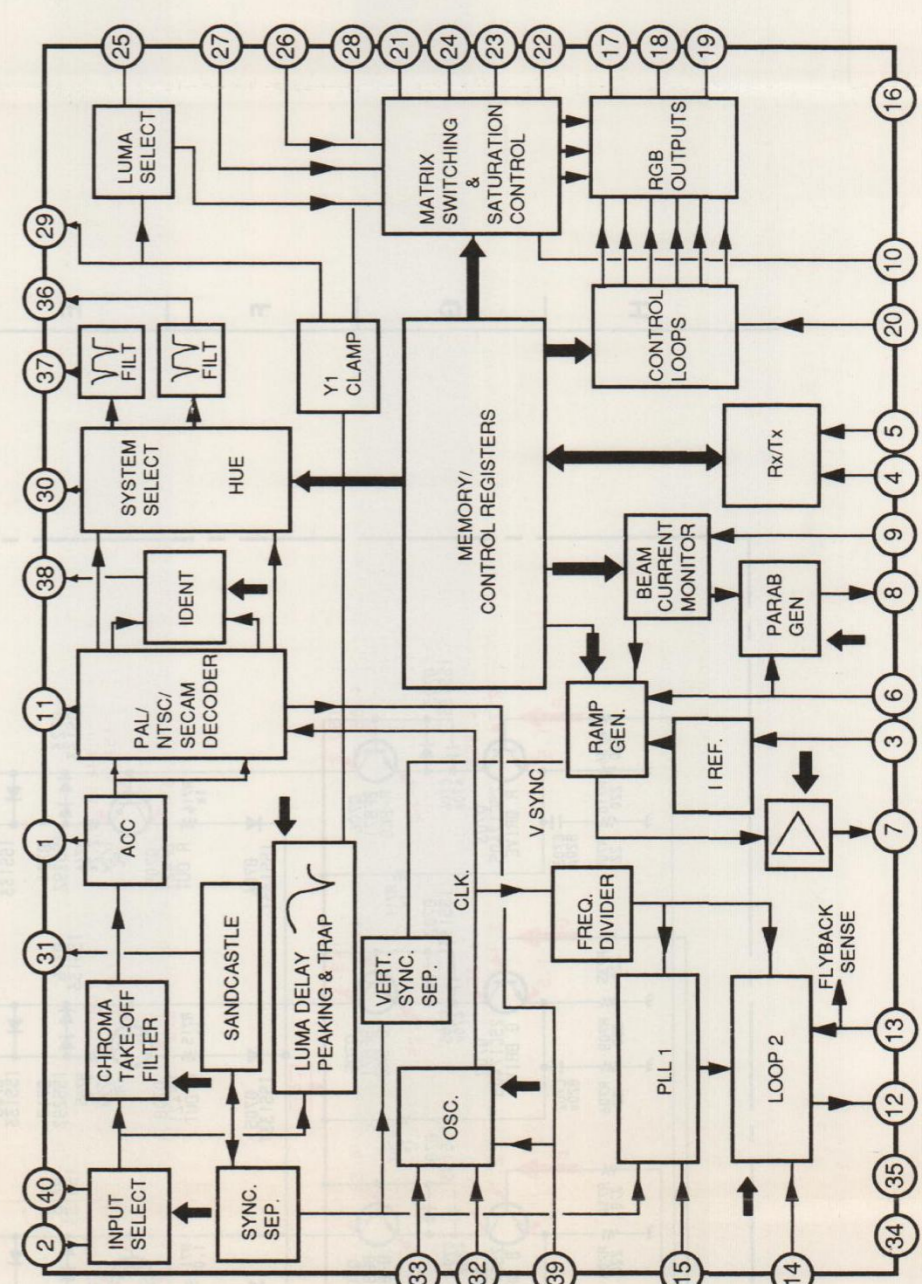


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A BOARD IC101 TDA9806/TDA9812



A BOARD IC301 MC44002P/MC44007P



19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H I J K L M N O

**SECTION 6
EXPLODED VIEWS**

NOTE :

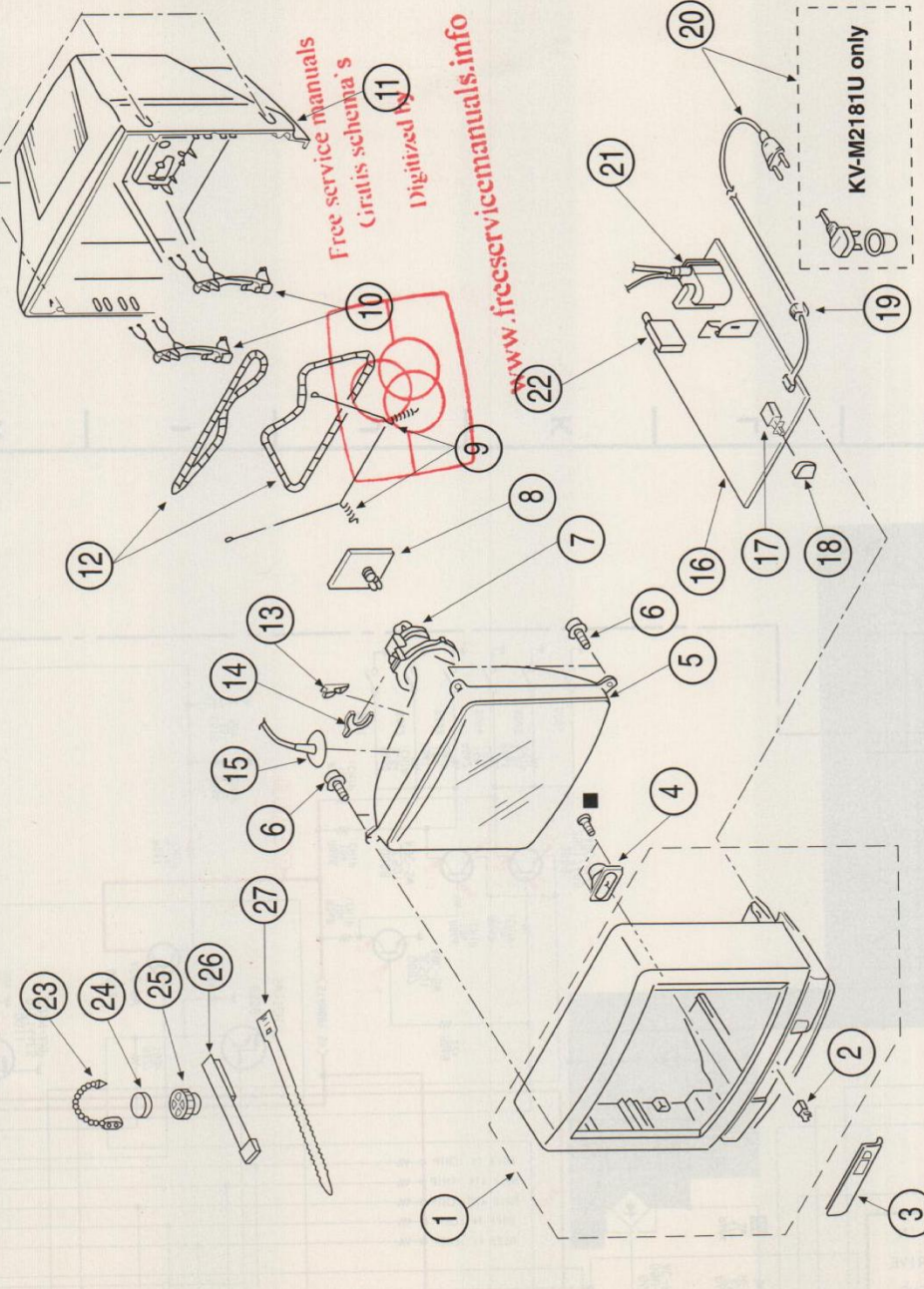
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked .i. are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une teinte et marqués .i. sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

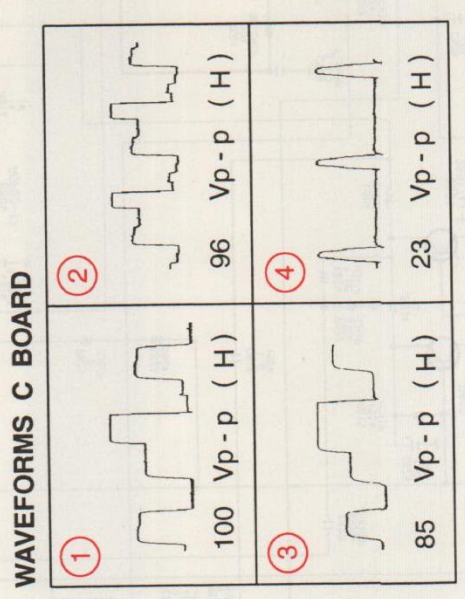
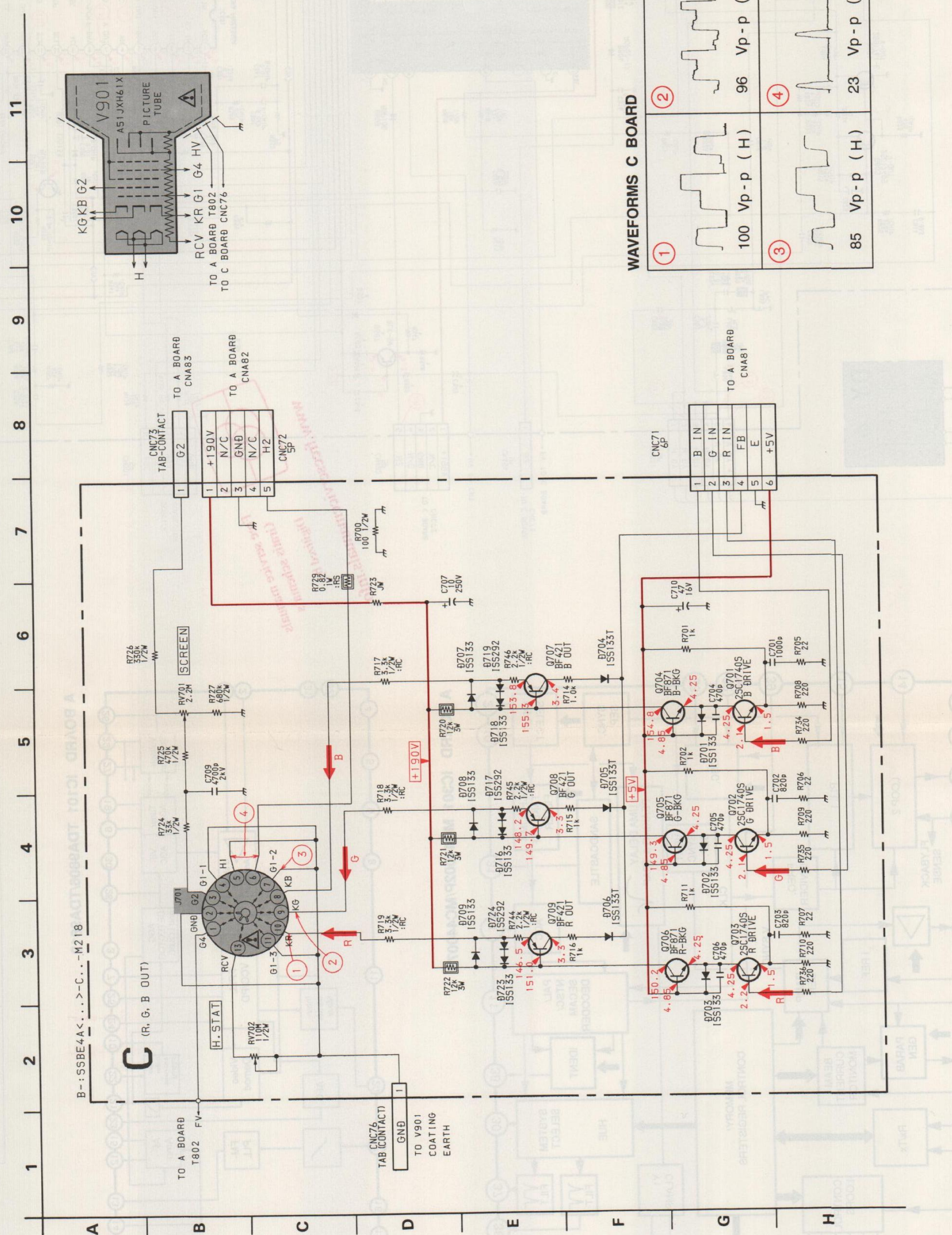
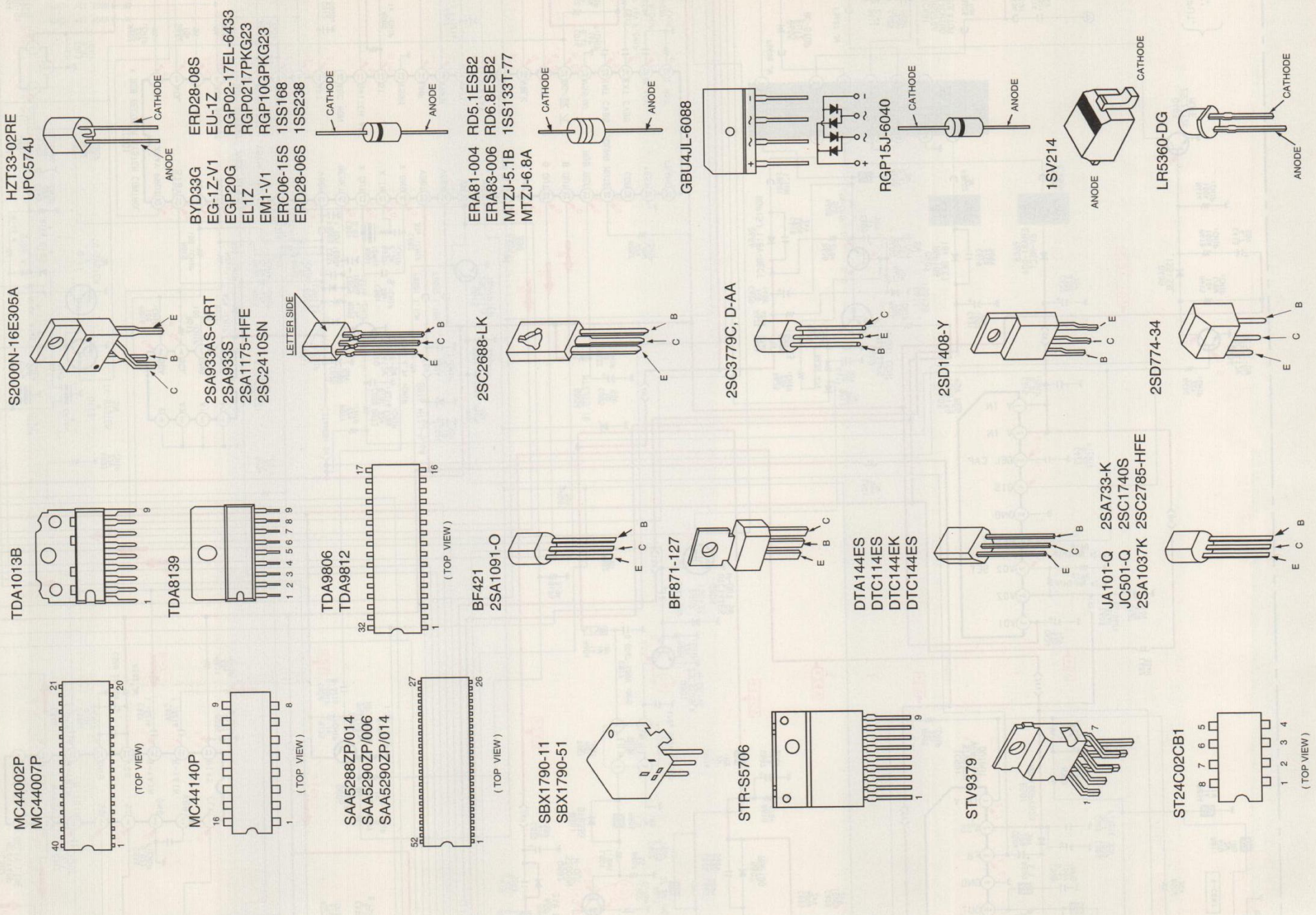
6-1. CHASSIS AND PICTURE TUBE

● : +BVTP 4X16 7-685-663-79
■ : +BVTP 3X12 7-685-648-79

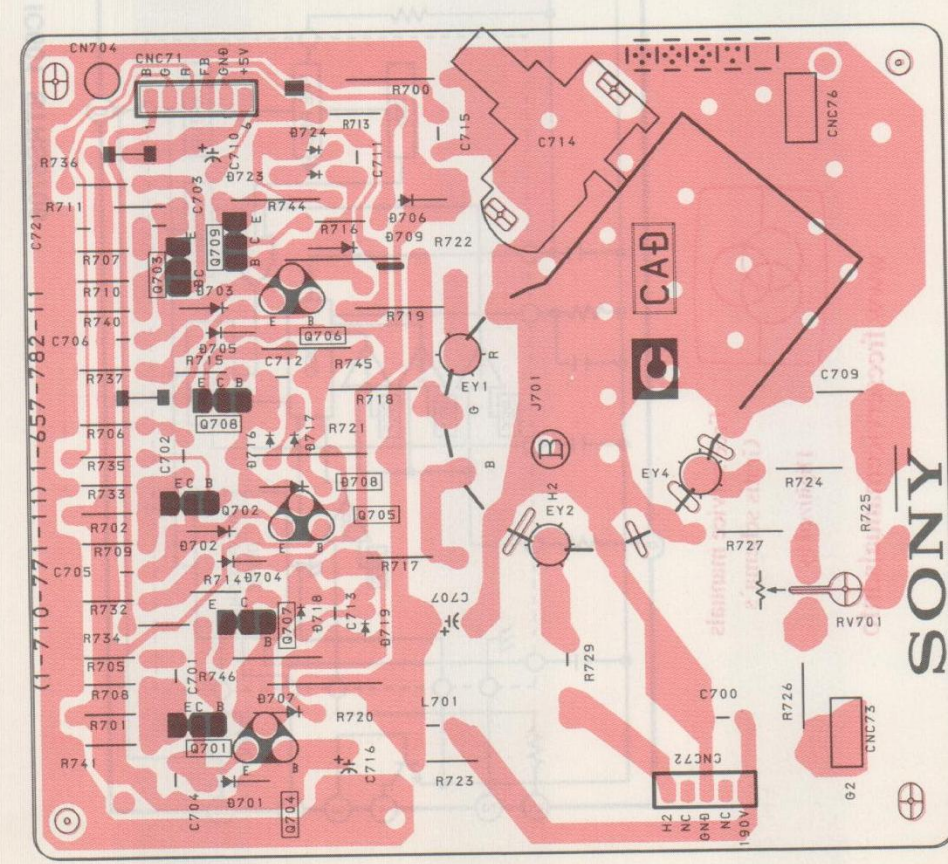


REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	X-4200-235-1	BEZEL ASSY		9	4-369-318-21	SPRING, TENSION	(KV-M2180A/M2180B/M2181D/M2180E/M2181E)
2	4-392-036-01	CATCHER, PUSH		10	4-200-433-01	SPRING, TENSION	(KV-M2180K/M2181K/M2181U)
3	4-203-206-11	DOOR, (PAINTED)		11	*4-386-622-11	BAND, DGC	(KV-M2180A/M2180B/M2181B/M2181E)
4	4-203-206-01	DOOR, (PAINTED)		12	*4-386-622-01	BAND, DGC	(KV-M2180D/M2181D/M2181E)
5	1-503-258-21	SPEAKER		13	4-200-732-01	COVER, REAR	(KV-M2180A/M2180B/M2181B/M2181E)
6	B-736-784-05	PICTURE TUBE (S)	(A51XVH61X)	14	4-200-099-21	COVER, REAR	(KV-M2180D/M2181D/M2181E)
7	4-036-189-01	SCREW (S)	(Z11PFB3)	15	1-460-099-21	COIL, DEGAUSSING	
8	*A-1638-074-A	C BOARD, COMPLETE	(Z11PFB3)	16	3-704-495-01	SPACER, DY	
				17	1-452-277-00	MAGNET, BNC	

5-4. SEMICONDUCTORS



C (R.G.B OUT)



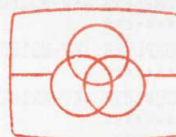
The components identified by shading and marked ⚠ are critical for safety.

Replace only with the part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
15	⚠ 1-540-006-22	CAP ASSY, HIGH-VOLTAGE (KV-M2180A/M2180B/M2181B/M2180D /M2181D/M2180E/M2181E)					
	⚠ 1-540-007-11	CAP ASSY, HIGH-VOLTAGE (KV-M2180K/M2181K/M2181U)					
16	*A-1632-310-A	A BOARD, COMPLETE (KV-M2180A)					
	*A-1632-314-A	A BOARD, COMPLETE (KV-M2180B)					
	*A-1632-315-A	A BOARD, COMPLETE (KV-M2181B)					
	*A-1632-308-A	A BOARD, COMPLETE (KV-M2180D)					
	*A-1632-307-A	A BOARD, COMPLETE (KV-M2181D)					
	*A-1632-313-A	A BOARD, COMPLETE (KV-M2180E)					
	*A-1632-311-A	A BOARD, COMPLETE (KV-M2181E)					
	*A-1632-306-A	A BOARD, COMPLETE (KV-M2180K)					
	*A-1632-304-A	A BOARD, COMPLETE (KV-M2181K)					
	*A-1632-300-A	A BOARD, COMPLETE (KV-M2181U)					
17	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)					
18	4-203-204-01	BUTTON, POWER					
19	4-389-201-11	HOLDER, AC CORD (KV-M2180A/M2180B /M2181B/M2180D/M2181D/M2180E/M2181E)					
	4-389-201-01	HOLDER, AC CORD (KV-M2180K/M2181K/ M2181U)					
20	⚠ 1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-M2180A/M2180B/M2181B/M2180D/M2181D /M2180E/M2181E/M2180K/M2181K)					
	⚠ 1-590-762-11	CORD, POWER (WITH PLUG) 2.5A/250V (KV-M2181U)					
21	⚠ 1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2A)					
22	1-693-303-11	TUNER (TELE1X001A) (KV-M2180A)					
	8-598-331-00	TUNER (BT-AC401) (KV-M2180B/M2181B /M2180D/M2181D/M2180E/M2181E)					
	1-693-310-11	TUNER (TELE4X002A) (KV-M2180K/M2181K)					
	8-598-333-00	TUNER (BT-AU601) (KV-M2181U)					
23	4-308-870-00	CLIP, LEAD WIRE					
24	1-452-032-00	MAGNET, DISK; 10MM Ø					
25	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø					
26	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE					
27	3-701-007-00	BAND, BINDING					



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KV-M218

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : mF, PF : mmF

COILS

MMH : mH, μ H : μ H

A

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

• All resistors are in ohms

• F : nonflammable

The components identified by shading and marked Δ are critical for safety.

Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1632-310-A	A BOARD, COMPLETE (KV-M2180A) *****		C016	1-164-005-11	CERAMIC CHIP 0.47MF	16V
	*A-1632-314-A	A BOARD, COMPLETE (KV-M2180B) *****		C017	1-164-005-11	CERAMIC CHIP 0.47MF	16V
	*A-1632-315-A	A BOARD, COMPLETE (KV-M2181B) *****		C019	1-124-903-11	ELECT 1MF	20% 50V
	*A-1632-308-A	A BOARD, COMPLETE (KV-M2180D) *****		C020	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
	*A-1632-307-A	A BOARD, COMPLETE (KV-M2181D) *****		C021	1-163-059-00	CERAMIC CHIP 0.01MF	50V
	*A-1632-313-A	A BOARD, COMPLETE (KV-M2180E) *****		C022	1-124-903-11	ELECT 1MF	20% 50V
	*A-1632-311-A	A BOARD, COMPLETE (KV-M2181E) *****		C024	1-163-038-91	CERAMIC CHIP 0.1MF	25V
	*A-1632-306-A	A BOARD, COMPLETE (KV-M2180K) *****		C025	1-107-884-11	ELECT 1000MF	20% 16V
	*A-1632-304-A	A BOARD, COMPLETE (KV-M2181K) *****		C026	1-126-964-11	ELECT 10MF	20% 50V
	*A-1632-300-A	A BOARD, COMPLETE (KV-M2181U) *****		C027	1-163-038-91	CERAMIC CHIP 100000PF	25V
	4-201-023-11	SPACER, INSULATING (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E)		C028	1-163-055-00	CERAMIC CHIP 0.0047MF	10% 50V
	4-201-023-01	SPACER, INSULATING (KV-M2180K/M2181K/M2181U)		C029	1-163-009-11	CERAMIC CHIP 1000PF	10% 50V
	4-202-373-01	SPRING, IC		C030	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*4-368-683-11	SPRING, TRANSISTOR (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E)		C031	1-163-009-91	CERAMIC CHIP 1000PF	5% 25V
	*4-368-683-21	SPRING, TRANSISTOR (KV-M2180K/M2181K/M2181U)		C034	1-136-157-00	FILM 0.0022MF	5% 50V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C101	1-164-005-11	CERAMIC CHIP 0.47MF	16V
	4-812-134-00	RIVET (DIA. 3.5), NYLON (KV-M2180K/M2181K/M2181U)		C102	1-164-005-11	CERAMIC CHIP 0.47MF	16V
	< CAPACITOR >			C103	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C001	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V (KV-M2180B/M2181B)
C002	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C109	1-163-038-91	CERAMIC CHIP 0.1MF	25V (KV-M2180B/M2181B)
C004	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C110	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V (KV-M2180B/M2181B)
C005	1-126-964-11	ELECT 10MF	20% 50V	C112	1-137-399-11	FILM 0.1MF	5% 50V (KV-M2180B/M2181B)
C006	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C114	1-136-169-00	FILM 0.22MF	5% 50V
C007	1-130-777-00	FILM 0.1MF	5% 63V	C116	1-124-925-11	ELECT 2.2MF	20% 50V (KV-M2180B/M2181B)
C008	1-126-965-11	ELECT 22MF	20% 50V	C117	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C010	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C120	1-126-925-11	ELECT 470MF	20% 10V
C011	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C121	1-136-153-00	FILM 0.01MF	5% 50V
C012	1-163-031-11	CERAMIC CHIP 10000PF	50V	C122	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V
C014	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C123	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C015	1-126-964-11	ELECT 10MF	20% 50V	C124	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V
				C126	1-126-967-11	ELECT 47MF	20% 16V
				C127	1-126-965-11	ELECT 22MF	20% 50V
				C131	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V (KV-M2180K/M2181K)
				C138	1-124-925-11	ELECT 2.2MF	20% 50V
				C139	1-124-925-11	ELECT 2.2MF	20% 50V
				C140	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C141	1-126-965-11	ELECT 22MF	20% 50V
				C147	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V
				C149	1-163-101-00	CERAMIC CHIP 22PF	5% 50V

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A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C150	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C345	1-163-139-00	CERAMIC CHIP 820PF	10% 50V
C151	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C347	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V
C152	1-126-964-11	ELECT 10MF	20% 50V	C348	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C153	1-163-097-00	CERAMIC CHIP 15PF	5% 50V			(KV-M2180B/M2181B)	20% 50V
C154	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C349	1-126-965-11	ELECT 22MF	(KV-M2180B/M2181B)
C155	1-163-038-91	CERAMIC CHIP 0.1MF	25V				
C157	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C350	1-163-004-11	CERAMIC CHIP 0.1MF	10% 25V
C158	1-124-927-11	ELECT 4.7MF	20% 50V	C353	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C161	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C354	1-163-197-00	CERAMIC CHIP 470PF	10% 50V
			(KV-M2180B/M2181B)	C355	1-163-059-00	CERAMIC CHIP 0.01MF	50V
C162	1-126-967-11	ELECT 47MF	20% 16V	C358	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C164	1-162-638-11	CERAMIC CHIP 1MF	16V				
			(KV-M2180B/M2181B)	C359	1-126-964-11	ELECT 10MF	20% 50V
C165	1-126-967-11	ELECT 47MF	20% 16V	C360	1-164-232-11	CERAMIC CHIP 0.01MF	10% 100V
C166	1-126-967-11	ELECT 100MF	20% 10V	C401	1-126-967-11	ELECT 47MF	20% 16V
			(KV-M2180B/M2181B)	C402	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C404	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C167	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C405	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C168	1-163-205-00	CERAMIC CHIP 0.001MF	10% 50V	C406	1-124-927-11	ELECT 4.7MF	20% 50V
C169	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C407	1-104-666-11	ELECT 220MF	20% 25V
C200	1-163-059-00	CERAMIC CHIP 0.01MF	50V	C408	1-126-941-11	ELECT 470MF	20% 25V
C300	1-126-934-11	ELECT 220MF	20% 16V	C410	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C301	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	C412	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C302	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C413	1-124-927-11	ELECT 4.7MF	20% 50V
C303	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C415	1-163-009-91	CERAMIC CHIP 0.001MF	10% 50V
C304	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V	C416	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C305	1-124-925-11	ELECT 2.2MF	20% 50V	C417	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C306	1-130-494-11	FILM 0.082MF	5% 50V	C418	1-163-205-00	CERAMIC CHIP 0.001MF	10% 50V
C307	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C501	1-124-927-11	ELECT 4.7MF	20% 50V
C308	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C502	1-163-077-91	CERAMIC CHIP 0.1MF	50V
C309	1-124-927-11	ELECT 4.7MF	20% 50V	C503	1-126-952-11	ELECT 1000MF	20% 35V
C310	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	C504	1-124-122-11	ELECT 100MF	20% 50V
C312	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C505	1-126-941-11	ELECT 470MF	20% 25V
C313	1-163-145-00	CERAMIC CHIP 0.0015MF	5% 50V	C506	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C314	1-163-077-00	CERAMIC CHIP 0.1MF	50V	C507	1-124-903-11	ELECT 1MF	20% 50V
C315	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C508	1-130-785-11	MYLAR 0.47MF	10% 100V
C316	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C509	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C317	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C600	1-126-967-11	ELECT 47MF	20% 50V
C318	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C601	A 1-136-516-12	FILM 0.1MF	20% 300V
C319	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C602	A 1-136-516-12	FILM 0.1MF	20% 300V
C320	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C603	A 1-161-964-91	CERAMIC 0.0047MF	250V
C321	1-124-927-11	ELECT 4.7MF	20% 50V	C604	A 1-161-964-91	CERAMIC 0.0047MF	250V
C322	1-163-163-00	CERAMIC CHIP 18PF	5% 50V	C606	1-113-473-11	CAP, ELECT 180MF	
			(KV-M2180K/M2181K)	C607	1-104-666-11	ELECT 220MF	20% 25V
C323	1-163-163-00	CERAMIC CHIP 18PF	5% 50V	C608	1-126-964-11	ELECT 10MF	20% 50V
C324	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	C609	1-109-921-11	CERAMIC 0.0015MF	10% 500V
C325	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C610	1-104-665-11	ELECT 100MF	20% 25V
C326	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C611	1-126-964-11	ELECT 10MF	20% 50V
C327	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C612	A 1-161-742-00	CERAMIC 0.0022MF	20% 400V
C328	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C613	A 1-161-742-00	CERAMIC 0.0022MF	20% 400V
C329	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V	C614	1-136-538-11	FILM 0.001MF	3% 2KV
C330	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C615	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C332	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C618	1-162-116-00	CERAMIC 680PF	10% 2KV
C333	1-163-033-91	CERAMIC CHIP 0.022MF	50V	C619	1-102-228-00	CERAMIC 470PF	10% 500V
C335	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C620	1-124-347-00	ELECT 100MF	20% 160V
C336	1-162-638-11	CERAMIC CHIP 1MF	16V	C621	1-126-942-61	ELECT 1000MF	20% 25V
C337	1-162-638-11	CERAMIC CHIP 1MF	16V	C622	1-128-320-11	ELECT 2200MF	20% 16V
C338	1-126-965-11	ELECT 22MF	20% 50V	C625	1-163-081-00	CERAMIC CHIP 0.22MF	25V
C339	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C626	1-124-119-00	ELECT 330MF	20% 16V
C340	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C627	1-126-933-11	ELECT 100MF	20% 10V
C341	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C628	A 1-162-599-12	ELECT 0.0047MF	20% 400V
C344	1-126-925-11	ELECT 470MF	20% 10V	C800	1-107-642-91	ELECT 3.3MF	20% 200V

A

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Replace only with the part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C801	1-129-746-00	FILM 0.039MF	10% 400V	D006	8-719-991-33	DIODE 1SS133T-77	
C803	1-136-109-00	FILM 0.68MF	5% 200V	D014	8-719-991-33	DIODE 1SS133T-77	
C804	1-124-902-00	ELECT 0.47MF	20% 50V	D016	8-719-109-88	DIODE RD5.6ESB1	
C806	1-102-244-00	CERAMIC 220PF	10% 500V	D100	8-719-991-33	DIODE 1SS133T-77	
C807	1-107-652-11	ELECT 10MF	20% 250V	D102	8-719-903-27	DIODE 1SS168 (KV-M2180B/M2181B)	
C808	1-136-079-00	FILM 0.01MF	3% 2KV	D104	8-719-903-27	DIODE 1SS168 (KV-M2180B/M2181B)	
C809	1-161-754-00	CERAMIC 0.001MF	10% 2KV	D105	8-719-991-33	DIODE 1SS133T-77 (KV-M2180K/M2181K)	
C810	1-129-702-00	FILM 0.001MF	10% 400V	D106	8-719-991-33	DIODE 1SS133T-77 (KV-M2180K/M2181K)	
C811	1-102-228-00	CERAMIC 470PF	10% 500V	D107	8-719-991-33	DIODE 1SS133T-77	
C814	1-136-159-00	FILM 0.033MF	5% 50V	D109	8-719-820-71	DIODE 1SV214	
C815	1-162-116-00	CERAMIC 680PF	10% 2KV	D301	8-719-991-33	DIODE 1SS133T-77	
C816	1-162-114-00	CERAMIC 0.0047MF	2KV	D302	8-719-991-33	DIODE 1SS133T-77	
C817	1-136-559-11	MYLAR 0.0047MF	10% 400V	D305	1-249-412-11	CARBON 390 5% 1/4W	
C818	1-136-933-11	FILM 1MF	5% 100V	D307	8-719-991-33	DIODE 1SS133T-77 (KV-M2180B/M2181B)	
C819	1-162-318-11	CERAMIC 0.001MF	10% 500V	D308	8-719-991-33	DIODE 1SS133T-77 (KV-M2180B/M2181B)	
C820	1-126-951-11	ELECT 220MF	20% 35V	D310	8-719-991-33	DIODE 1SS133T-77	
C822	1-104-696-11	FILM 0.015MF	10% 100V	D315	8-719-991-33	DIODE 1SS133T-77	
C823	1-106-375-12	MYLAR 0.022MF	10% 250V	D401	8-719-109-97	DIODE RD6.8ESB2	
C824	1-106-367-00	MYLAR 0.01MF	10% 400V	D402	8-719-109-97	DIODE RD6.8ESB2	
C827	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	D403	8-719-109-97	DIODE RD6.8ESB2	
C828	1-124-903-11	ELECT 1MF	20% 50V	D404	8-719-109-97	DIODE RD6.8ESB2	
< FILTER >							
CF101	1-404-801-11	TRAP, CERAMIC (KV-M2180A/M2180D/M2181D/M2180E/M2181E/M2180K/M2181K)		D405	8-719-109-97	DIODE RD6.8ESB2	
	1-409-429-11	TRAP, CERAMIC (KV-M2181U)		D406	8-719-109-97	DIODE RD6.8ESB2	
	1-409-430-11	TRAP, CERAMIC (KV-M2180B/M2181B)		D407	8-719-109-97	DIODE RD6.8ESB2	
CF102	1-409-327-00	TRAP, CERAMIC (6.5 MHz) (KV-M2180K/M2181K)		D408	8-719-109-97	DIODE RD6.8ESB2	
CF103	1-760-106-11	FILTER, CERAMIC (KV-M2180A/M2180B/M2181B/M2180D/M2181D/M2180E/M2181E/M2180K/M2181K)		D409	8-719-991-33	DIODE 1SS133T-77	
	1-567-100-00	FILTER, CERAMIC (KV-M2181U)		D410	8-719-109-97	DIODE RD6.8ESB2	
CF104	1-567-101-11	FILTER, CERAMIC (KV-M2180K/M2181K)		D414	8-719-991-33	DIODE 1SS133T-77	
CF105	1-760-154-11	TRAP, CERAMIC (KV-M2180B/M2181B)		D501	8-719-302-43	DIODE EL1Z	
SWF101	1-579-120-11	FILTER, SURFACE WAVE (KV-M2180A/M2180D/M2181D/M2180E/M2181E)		D600	8-719-991-33	DIODE 1SS133T-77	
	1-579-273-11	FILTER, SURFACE WAVE (KV-M2180B/M2181B)		D601	8-719-046-77	DIODE EM1-V1	
	1-579-414-11	FILTER, SURFACE WAVE (KV-M2180K/M2181K)		D602	8-719-312-61	DIODE EU-1Z	
	1-760-711-11	FILTER, SURFACE WAVE (KV-M2181U)		D603	8-719-046-78	DIODE EG-1Z-V1	
SWF102	1-760-722-11	FILTER, SURFACE WAVE (KV-M2180B/M2181B)		D604	8-719-312-61	DIODE EU-1Z	
< CONNECTOR >							
CN001	*1-568-880-51	PIN, CONNECTOR 5P		D605	8-719-312-61	DIODE EU-1Z	
CN201	*1-564-506-11	PLUG, CONNECTOR 3P		D606	8-719-979-85	DIODE EGP20G	
CN601	A *1-580-844-11	PIN, CONNECTOR (POWER)		D607	8-719-302-43	DIODE EL1Z	
CN602	1-508-786-11	PIN, CONNECTOR (5MM PITCH) 2P		D608	8-719-980-78	DIODE ERA83-006	
CN603	A 1-508-765-11	PIN, CONNECTOR (5MM PITCH) 3P		D610	8-719-025-88	DIODE GBU4JL-6088	
CN801	*1-580-798-11	CONNECTOR PIN (DY) 6P		D611	8-719-991-33	DIODE 1SS133T-77	
CNA81	*1-568-881-51	PIN, CONNECTOR 6P		D801	8-719-950-57	DIODE BYD33G	
CNA82	*1-568-880-71	PIN, CONNECTOR 5P		D802	8-719-302-43	DIODE EL1Z	
CNA84	1-508-784-00	PIN, CONNECTOR 5P (5MM PITCH) 1P		D803	8-719-945-80	DIODE ERC06-15S	
< DIODE >							
D001	8-719-057-56	DIODE LS5360HL		D804	8-719-028-72	DIODE RGP02-17EL-6433	
D002	8-759-157-40	IC μ PC574J		D805	8-719-928-08	DIODE ERD28-08S	
D004	8-719-109-85	DIODE RD5.1ESB2		D806	8-719-302-43	DIODE EL1Z	
D005	8-719-991-33	DIODE 1SS133T-77		D807	8-719-991-33	DIODE 1SS133T-77	
< FUSE >							
F601	A 1-576-231-11	FUSE (H.B.C.) 4A, 250V		D809	8-719-302-43	DIODE EL1Z	
	A 1-533-230-11	HOLDER, FUSE ; F601		< FERRITE BEAD >			
FB001	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		FB001	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB002	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		FB002	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB003	1-410-397-31	FERRITE BEAD INDUCTOR 1.1UH		FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		FB603	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	

The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifique.

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
FB604	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		PS603	Δ 1-532-637-91	LINK, IC 1.0A (ICP-N25)	
FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH					
FB801	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH				< TRANSISTOR >	
		< IC >					
IC001	8-759-368-69	IC SAA5288ZP/014 (KV-M2180A/M2180B/M2180D/M2180E/M2180K)		Q001	8-729-922-66	TRANSISTOR 2SC2410SN	
	8-759-368-23	IC SAA5290ZP/014 (KV-M2181B/M2181D/M2181E/M2181K/M2181U)		Q002	8-729-173-38	TRANSISTOR 2SA733-K (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E)	
IC002	8-759-280-74	IC ST24C02CB1			8-729-119-76	TRANSISTOR 2SA1175-HFE (KV-M2180K/M2181K/M2181U)	
IC003	8-741-790-11	IC SBX1790-11		Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC101	8-759-333-19	IC TDA9806 (KV-M2180A/M2180D/M2181D/M2180E/M2181E/ M2180K/M2181K/M2181U)		Q006	8-729-173-38	TRANSISTOR 2SA733-K (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E)	
	8-759-333-17	IC TDA9812 (KV-M2180B/M2181B)			8-729-119-76	TRANSISTOR 2SA1175-HFE (KV-M2180K/M2181K/M2181U)	
IC301	8-759-333-44	IC MC44007P (KV-M2180A/M2180E/M2181E/M2181U)		Q007	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	8-759-333-45	IC MC44002P (KV-M2180B/M2181B/M2180D/M2181D/M2180K/ M2181K)		Q008	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC302	8-759-333-46	IC MC44140P		Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC401	8-759-041-82	IC TDA1013B		Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC501	8-759-192-71	IC STV9379		Q011	8-729-900-89	TRANSISTOR DTC144ES	
IC601	8-749-011-02	IC STR-S5706		Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC603	8-759-337-99	IC TDA8139		Q013	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		< SOCKET >		Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR	
J201	1-568-267-21	JACK		Q015	8-729-920-74	TRANSISTOR 2SC2412K-QR	
J401	1-561-534-00	SOCKET 21P		Q016	8-729-216-22	TRANSISTOR 2SA1162-G	
		< COIL >		Q100	8-729-901-01	TRANSISTOR DTC144EK	
L101	1-410-669-31	INDUCTOR 33UH		Q101	8-729-900-80	TRANSISTOR DTC114ES (KV-M2180B/M2181B)	
L105	1-408-411-00	INDUCTOR 15UH		Q102	8-729-900-80	TRANSISTOR DTC114ES (KV-M2180B/M2181B)	
L108	1-408-405-00	INDUCTOR 4.7UH (KV-M2180K/M2181K)		Q103	8-729-900-80	TRANSISTOR DTC114ES (KV-M2180B/M2181B)	
	1-408-408-00	INDUCTOR 8.2UH (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E/M2181U)		Q105	8-729-901-01	TRANSISTOR DTC144EK	
L109	1-403-686-11	COIL		Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L110	1-410-673-31	INDUCTOR 68UH		Q109	8-729-022-54	TRANSISTOR 2SC3779C, D-AA (KV-M2180B/M2181B)	
L111	1-410-665-31	INDUCTOR 15UH (KV-M2180B/M2181B)		Q111	8-729-900-89	TRANSISTOR DTC144ES (KV-M2180K/M2181K)	
L112	1-408-417-00	INDUCTOR 47UH		Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L113	1-410-985-41	INDUCTOR CHIP 0.22UH (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E/M2180K/M2181K)		Q113	8-729-900-89	TRANSISTOR DTC144ES (KV-M2180K/M2181K)	
	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-M2181U)		Q114	8-729-901-01	TRANSISTOR DTC144EK	
L201	1-412-531-31	INDUCTOR 33UH		Q115	8-729-026-41	TRANSISTOR 2SA933AS-QRT (KV-M2180B/M2181B)	
L602	1-408-609-41	INDUCTOR 33UH		Q116	8-729-900-89	TRANSISTOR DTC144ES (KV-M2180B/M2181B)	
L603	1-410-669-31	INDUCTOR 33UH		Q300	8-729-900-80	TRANSISTOR DTC114ES	
L604	1-408-417-00	INDUCTOR 47UH		Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L800	1-412-553-41	INDUCTOR 3.3MMH		Q302	8-729-900-80	TRANSISTOR DTC114ES	
L801	1-420-872-00	COIL, AIR CORE		Q303	8-729-900-80	TRANSISTOR DTC114ES	
L802	1-407-365-00	COIL, CHOKE		Q304	8-729-900-80	TRANSISTOR DTC114ES	
L803	1-459-390-00	COIL (WITH CORE)		Q305	8-729-900-80	TRANSISTOR DTC114ES	
L804	1-459-105-21	COIL (WITH CORE)		Q306	8-729-900-80	TRANSISTOR DTC114ES	
L805	1-412-531-31	INDUCTOR 33UH		Q307	8-729-026-41	TRANSISTOR 2SA933AS-QRT (KV-M2180B/M2181B)	
L806	1-459-652-12	COIL, HORIZONTAL LINEARITY		Q308	8-729-901-01	TRANSISTOR DTC144EK (KV-M2180B/M2181B/M2180D/M2181D/M2180K/ M2181K)	
		< IC LINK >		Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
PS602	Δ 1-532-686-91	LINK, IC 2.7A (ICP-N75)		Q402	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q600	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q602	8-729-900-65	TRANSISTOR DTA144ES	
				Q801	8-729-140-96	TRANSISTOR 2SD774-34	

KV-M218



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q802	8-729-033-85	TRANSISTOR S2000N-16E305A		R037	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q803	8-729-900-89	TRANSISTOR DTC144ES		R039	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q804	8-729-202-03	TRANSISTOR 2SD1408-Y		R040	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE					
< RESISTOR >							
JR003	1-216-296-91	METAL GLAZE 0 5%	1/8W	R042	1-216-230-00	METAL GLAZE 22K 5%	1/8W
JR004	1-216-296-91	METAL GLAZE 0 5%	1/8W	R044	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR007	1-216-295-00	METAL GLAZE 0 5%	1/10W	R045	1-216-081-00	METAL GLAZE 22K 5%	1/10W
JR008	1-216-295-00	METAL GLAZE 0 5%	1/10W	R046	1-216-105-00	METAL GLAZE 220K 5%	1/10W
JR009	1-216-295-00	METAL GLAZE 0 5%	1/10W	R047	1-216-077-00	METAL GLAZE 15K 5%	1/10W
JR013	1-216-295-00	METAL GLAZE 0 5%	1/10W	R049	1-216-041-00	METAL GLAZE 470 5%	1/10W
JR014	1-216-296-91	METAL GLAZE 0 5%	1/8W	R052	1-216-238-00	METAL GLAZE 47K 5%	1/8W
JR015	1-216-295-00	METAL GLAZE 0 5%	1/10W	R055	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
JR017	1-216-295-00	METAL GLAZE 0 5%	1/10W	R060	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
JR018	1-216-296-91	METAL GLAZE 0 5%	1/8W	R061	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR019	1-216-296-91	METAL GLAZE 0 5%	1/8W	R062	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR020	1-216-295-00	METAL GLAZE 0 5%	1/10W	R063	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
JR021	1-216-296-91	METAL GLAZE 0 5%	1/8W	R064	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR022	1-216-296-91	METAL GLAZE 0 5%	1/8W	R065	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR023	1-216-295-00	METAL GLAZE 0 5%	1/10W	R066	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR027	1-216-296-91	METAL GLAZE 0 5%	1/8W	R067	1-216-081-00	METAL GLAZE 22K 5%	1/10W
JR028	1-216-296-91	METAL GLAZE 0 5%	1/8W	R068	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR029	1-216-295-00	METAL GLAZE 0 5%	1/10W	R069	1-247-863-00	CARBON 22K 5%	1/4W
JR030	1-216-296-91	METAL GLAZE 0 5%	1/8W	R070	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
JR032	1-216-296-91	METAL GLAZE 0 5%	1/8W	R071	1-216-081-00	METAL GLAZE 22K 5%	1/10W
JR034	1-216-296-91	METAL GLAZE 0 5%	1/8W	R072	1-216-230-00	METAL GLAZE 22K 5%	1/8W
JR035	1-216-295-00	METAL GLAZE 0 5%	1/10W	R073	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R001	1-216-198-91	METAL GLAZE 1K 5%	1/8W	R074	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R002	1-216-033-00	METAL GLAZE 220 5%	1/10W	R075	1-249-436-11	CARBON 39K 5%	1/4W
R005	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R078	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R006	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R079	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R008	1-216-031-00	METAL GLAZE 180 5%	1/10W	R080	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R009	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R081	1-249-438-11	CARBON 56K 5%	1/4W
R010	1-216-041-00	METAL GLAZE 470 5%	1/10W	R088	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R011	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R089	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R012	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R090	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R013	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R091	1-249-427-11	CARBON 6.8K 5%	1/4W
R014	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R093	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R015	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R094	1-216-085-00	METAL GLAZE 22K 5%	1/10W
R016	1-216-025-00	METAL GLAZE 100 5%	1/10W	R095	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R017	1-216-025-00	METAL GLAZE 100 5%	1/10W	R096	1-216-033-00	METAL GLAZE 220 5%	1/10W
R018	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R097	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R019	1-216-174-00	METAL GLAZE 100 5%	1/8W	R098	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R020	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R099	1-216-200-00	METAL GLAZE 1.2K 5%	1/8W
R021	1-216-174-00	METAL GLAZE 100 5%	1/8W	R102	1-216-234-00	METAL GLAZE 33K 5%	1/8W
R022	1-216-295-00	METAL GLAZE 0 5%	1/10W	R104	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R024	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R105	1-216-025-00	METAL GLAZE 100 5%	1/10W
R025	1-216-222-00	METAL GLAZE 10K 5%	1/8W	R106	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R026	1-216-081-00	METAL GLAZE 22K 5%	1/10W				(KV-M2180B/M2181B)
R027	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W	R107	1-216-017-00	METAL GLAZE 47 5%	1/10W
R028	1-216-081-00	METAL GLAZE 22K 5%	1/10W				(KV-M2180B/M2181B)
R029	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R108	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R030	1-215-900-11	METAL OXIDE 22K 5%	2W F	R109	1-216-025-00	METAL GLAZE 100 5%	1/10W
R031	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W				(KV-M2180B/M2181B)
R032	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R110	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R033	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R111	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R034	1-249-429-11	CARBON 10K 5%	1/4W	R112	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R035	1-247-863-00	CARBON 22K 5%	1/4W				(KV-M2180B/M2181B)
R036	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W	R113	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
							(KV-M2180B/M2181B)

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R114	1-216-073-00	METAL GLAZE 10K 5%	1/10W (KV-M2180B/M2181B)	R167	1-216-246-91	METAL GLAZE 100K 5%	1/8W
R115	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-M2180B/M2181B)	R168	1-249-407-11	CARBON 150 5%	1/4W
R116	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R169	1-216-073-00	METAL GLAZE 10K 5%	1/10W (KV-M2180B/M2181B)
R117	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R170	1-216-063-91	METAL GLAZE 3.9K 5%	1/10W (KV-M2180B/M2181B)
R118	1-216-075-00	METAL GLAZE 12K 5%	1/10W	R171	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W (KV-M2180B/M2181B)
R122	1-216-025-91	METAL GLAZE 100 5%	1/10W (KV-M2180K/M2181K)	R175	1-216-049-00	METAL GLAZE 1K 5%	1/10W
	1-216-029-00	METAL GLAZE 150 5%	1/10W (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E/M2181U)	R176	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R123	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R177	1-216-295-00	METAL GLAZE 0 5%	1/10W
R124	1-216-025-00	METAL GLAZE 100 5%	1/10W	R178	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R125	1-216-025-00	METAL GLAZE 100 5%	1/10W	R179	1-216-212-00	METAL GLAZE 3.9K 5%	1/8W
R126	1-216-025-00	METAL GLAZE 100 5%	1/10W	R180	1-216-049-00	METAL GLAZE 1K 5%	1/10W (KV-M2180B/M2181B)
R127	1-216-180-00	METAL GLAZE 180 5%	1/8W	R205	1-247-741-11	CARBON 150 5%	1/2W
R128	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R301	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R134	1-216-029-00	METAL GLAZE 150 5%	1/10W (KV-M2181U)	R302	1-216-037-00	METAL GLAZE 330 5%	1/10W
	1-216-031-00	METAL GLAZE 180 5%	1/10W (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E/M2180K/M2181K)	R303	1-216-090-00	METAL GLAZE 51K 5%	1/10W
R136	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R304	1-216-025-00	METAL GLAZE 100 5%	1/10W
R137	1-216-109-00	METAL GLAZE 330K 5%	1/10W	R305	1-216-025-00	METAL GLAZE 100 5%	1/10W
R138	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R306	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R141	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R307	1-216-121-00	METAL GLAZE 1M 5%	1/10W
R142	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R308	1-216-234-00	METAL GLAZE 33K 5%	1/8W
R143	1-216-295-00	METAL GLAZE 0 5%	1/10W (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E/M2181U)	R309	1-216-121-00	METAL GLAZE 1M 5%	1/10W
R144	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W (KV-M2180K/M2181K)	R310	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R145	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W (KV-M2180K/M2181K)	R311	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R146	1-216-043-91	METAL GLAZE 560 5%	1/10W	R312	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R147	1-216-043-91	METAL GLAZE 560 5%	1/10W (KV-M2180K/M2181K)	R313	1-216-045-00	METAL GLAZE 680 5%	1/10W
R149	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-M2180K/M2181K)	R314	1-216-045-00	METAL GLAZE 680 5%	1/10W
R151	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R315	1-216-045-00	METAL GLAZE 680 5%	1/10W
R153	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R316	1-216-033-00	METAL GLAZE 220 5%	1/10W
R154	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R317	1-216-182-00	METAL GLAZE 220 5%	1/8W
R155	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R318	1-216-019-00	METAL GLAZE 56 5%	1/10W
R157	1-216-049-00	METAL GLAZE 1K 5%	1/10W (KV-M2180B/M2181B)	R322	1-216-022-00	METAL GLAZE 75 5%	1/10W
R158	1-216-031-00	METAL GLAZE 180 5%	1/10W (KV-M2180B/M2181B)	R323	1-216-089-00	METAL GLAZE 47K 5%	1/10W
	1-216-039-00	METAL GLAZE 390 5%	1/10W (KV-M2180A/M2180D/M2181D/M2180E/M2181E/ M2180K/M2181K/M2181U)	R325	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R159	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R326	1-216-115-00	METAL GLAZE 560K 5%	1/10W (KV-M2180A/M2180E/M2181E/M2180K/M2181K/ M2181U)
R160	1-216-238-91	METAL GLAZE 47K 5%	1/8W		1-216-095-00	METAL GLAZE 82K 5%	1/8W (KV-M2180B/M2181B/M2180D/M2181D)
R161	1-216-295-00	METAL GLAZE 0 5%	1/10W (KV-M2180A/M2180D/M2181D/M2180E/M2181E/ M2180K/M2181K/M2181U)	R327	1-216-097-00	METAL GLAZE 100 5%	1/10W
R162	1-216-017-91	METAL GLAZE 47 5%	1/10W (KV-M2180B/M2181B)	R328	1-216-258-00	METAL GLAZE 330K 5%	1/8W
R163	1-249-407-11	CARBON 150 5%	1/4W	R330	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
				R333	1-216-037-00	METAL GLAZE 330 5%	1/10W
				R334	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R335	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R336	1-216-296-91	METAL GLAZE 0 5%	1/8W
				R337	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R339	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
				R340	1-216-121-91	METAL GLAZE 1M 5%	1/10W
				R341	1-216-091-00	METAL GLAZE 56K 5%	1/10W
				R342	1-216-186-00	METAL GLAZE 330 5%	1/8W
				R343	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R344	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R345	1-216-238-91	METAL GLAZE 47K 5%	1/8W
				R347	1-216-041-00	METAL GLAZE 470 5%	1/10W (KV-M2180B/M2181B)



The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R348	1-216-073-00	METAL GLAZE 10K	5% 1/10W (KV-M2180B/M2181B)	R620	1-215-479-00	METAL 270K	1% 1/4W
R349	1-216-105-91	METAL GLAZE 220K	5% 1/10W (KV-M2180B/M2181B)	R621	1-249-429-11	CARBON 10K	5% 1/4W
R350	1-216-033-00	METAL GLAZE 220	5% 1/10W (KV-M2180B/M2181B)	R622	1-247-895-91	METAL GLAZE 470K	5% 1/4W
R351	1-216-292-11	METAL GLAZE 8.2M	5% 1/8W	R623	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R352	1-216-262-00	METAL GLAZE 470K	5% 1/8W	R624	1-216-033-00	METAL GLAZE 220	5% 1/10W
R353	1-247-804-11	CARBON 75	5% 1/4W	R625	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R354	1-216-025-00	METAL GLAZE 100	5% 1/10W	R626	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R355	1-216-121-91	METAL GLAZE 1M	5% 1/10W	R627	1-216-346-00	METAL OXIDE 0.56	5% 1W F
R356	1-216-119-00	METAL GLAZE 820K	5% 1/10W	R630	1-249-401-11	CARBON 47	5% 1/4W
R357	1-216-095-00	METAL GLAZE 82K	5% 1/10W	R800	1-215-887-00	METAL OXIDE 150	5% 2W F
R358	1-216-009-00	METAL GLAZE 22	5% 1/10W	R801	1-247-891-00	CARBON 330K	5% 1/4W
R359	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R802	1-247-807-31	CARBON 100	5% 1/4W
R361	1-216-023-00	METAL GLAZE 82	5% 1/10W	R803	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R362	1-216-023-00	METAL GLAZE 82	5% 1/10W	R804	1-217-778-11	FUSIBLE 1K	5% 1W F
R363	1-216-023-00	METAL GLAZE 82	5% 1/10W	R806	1-216-349-00	METAL OXIDE 1	5% 1W F
R401	1-216-041-00	METAL GLAZE 470	5% 1/10W	R807	1-249-399-11	METAL GLAZE 33	5% 1/4W
R402	1-249-431-11	CARBON 15K	5% 1/4W	R808	1-202-833-11	SOLID 18K	10% 1/2W
R403	1-249-431-11	CARBON 15K	5% 1/4W	R810	1-247-895-91	CARBON 470K	5% 1/4W
R405	1-249-389-11	CARBON 4.7	5% 1/4W F	R811	1-215-890-11	METAL OXIDE 470	5% 2W F
R406	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R812	1-215-869-11	METAL OXIDE 1K	5% 1W F
R407	1-216-041-00	METAL GLAZE 470	5% 1/10W	R814	1-249-377-11	CARBON 0.47	5% 1/4W F
R408	1-216-033-00	METAL GLAZE 220	5% 1/10W	R815	1-216-250-00	METAL GLAZE 150K	5% 1/8W
R410	1-247-804-11	METAL GLAZE 75	5% 1/4W (KV-M2180A/M2180B/M2181B/M2180D/M2181D/ M2180E/M2181E/M2180K/M2181K)	R816	1-216-369-00	METAL OXIDE 1	5% 2W F
	1-247-698-11	METAL GLAZE 68	5% 1/4W (KV-M2181U)	R817	1-216-447-00	METAL OXIDE 27	5% 2W F
R411	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R818	1-202-813-00	SOLID 22K	10% 1/2W
R412	1-216-105-91	METAL GLAZE 220K	5% 1/10W	R819	1-249-441-11	CARBON 100K	5% 1/4W
R413	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R820	1-249-935-11	CARBON 3.3K	5% 1/4W F
R414	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R821	1-216-295-00	METAL GLAZE 0	5% 1/10W
R415	1-216-222-00	METAL GLAZE 10K	5% 1/8W	R822	1-216-109-00	METAL GLAZE 330K	5% 1/10W
R416	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R823	1-249-413-11	CARBON 470	5% 1/4W
R501	1-208-806-11	METAL CHIP 10K	0.50% 1/10W	R824	1-216-125-00	METAL GLAZE 1.5M	5% 1/10W
R502	1-216-677-11	METAL CHIP 12K	0.50% 1/10W	R825	1-216-105-91	METAL GLAZE 220K	5% 1/10W
R503	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R828	1-216-115-00	METAL GLAZE 560K	5% 1/10W
R504	1-216-095-00	METAL GLAZE 82K	5% 1/10W	R834	1-215-869-11	METAL OXIDE 1K	5% 1W F
R505	1-216-075-00	METAL GLAZE 12K	5% 1/10W	< VARIABLE RESISTOR >			
R506	1-216-080-00	METAL GLAZE 20K	5% 1/10W	RV102	1-241-765-11	RES, ADJ, METAL GLAZE 22K	(KV-M2180B/M2181B)
R507	1-216-350-11	METAL OXIDE 1.2	5% 1W F	RV801	1-241-630-11	RES, ADJ, CARBON 10K	
R508	1-215-865-11	METAL OXIDE 220	5% 1W F	< SWITCH >			
R509	1-249-387-11	CARBON 3.3	5% 1/4W F	S001	1-571-532-21	SWITCH, TACTIL	
R600	1-216-365-00	METAL OXIDE 0.47	5% 2W F	S002	1-571-532-21	SWITCH, TACTIL	
R601	Δ 1-205-909-11	WIREWOUND 3.3	5% 10W	S003	1-571-532-21	SWITCH, TACTIL	
R603	1-215-858-00	METAL OXIDE 15	5% 1W F	S004	1-571-532-21	SWITCH, TACTIL	
R604	1-215-927-00	METAL OXIDE 47K	5% 3W F	S005	1-571-532-21	SWITCH, TACTIL	
R606	1-249-441-11	CARBON 100K	5% 1/4W	S006	1-571-532-21	SWITCH, TACTIL	
R607	1-216-366-00	METAL OXIDE 0.56	5% 2W F	S601	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)	
R608	1-216-645-11	METAL CHIP 560	0.50% 1/10W	< TRANSFORMER >			
R609	1-215-859-00	METAL OXIDE 22	5% 1W F	T601	Δ 1-427-962-11	TRANSFORMER, LINE FILTER	
R610	1-249-419-11	CARBON 1.5K	5% 1/4W	T602	Δ 1-429-207-11	TRANSFORMER, CONVERTER	
R611	1-215-430-00	METAL 2.4K	1% 1/4W	T801	1-437-090-31	HDT	
R612	Δ 1-202-719-91	SOLID 1M	10% 1/2W	T802	Δ 1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2E)	
R614	Δ 1-218-265-21	METAL 8.2M	5% 1W	< THERMISTOR >			
R615	1-217-418-61	FUSIBLE 0.47	10% 1/2W F	THP601	Δ 1-808-059-32	THERMISTOR (POSITIVE)	
R617	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W				
R618	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W				


The components identified by shading and marked **A** are critical for safety. Replace only with the part number specified.


Les composants identifiés par une trame et une marque **A** sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.












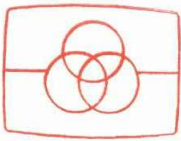
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< TUNER >							
TU101	1-693-303-11	TUNER (TELE1X001A) (KV-M2180A)		Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	8-598-331-00	TUNER (BT-AC401) (KV-M2180B/M2181B/M2180D/M2181D/M2180E/ M2181E)		Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	1-693-310-11	TUNER (TELE4X002A) (KV-M2180K/M2181K)		Q704	8-729-906-70	TRANSISTOR BF871-127	
	8-598-333-00	TUNER (BT-AU601) (KV-M2181U)		Q705	8-729-906-70	TRANSISTOR BF871-127	
< CRYSTAL >							
X001	1-578-774-11	VIBRATOR, CRYSTAL		Q706	8-729-906-70	TRANSISTOR BF871-127	
X301	1-760-907-21	VIBRATOR, CRYSTAL (KV-M2180K/M2181K)		Q707	8-729-200-17	TRANSISTOR 2SA1091-0	
X302	1-760-710-21	VIBRATOR, CRYSTAL (KV-M2180K/M2181K/M2181U)		Q708	8-729-200-17	TRANSISTOR 2SA1091-0	
*****				Q709	8-729-200-17	TRANSISTOR 2SA1091-0	
*A-1638-074-A	C BOARD, COMPLETE	(KV-M2180A/M2180B/ M2181B/M2180D/ M2181D/M2180E/ M2181E)		< RESISTOR >			
*A-1638-068-A	C BOARD, COMPLETE	(KV-M2180K/M2181K/ M2181U)		R700	1-202-549-00	SOLID 100 20%	1/2W
				R701	1-249-417-11	CARBON 1K 5%	1/4W
				R702	1-249-417-11	CARBON 1K 5%	1/4W
				R705	1-247-791-91	CARBON 22 5%	1/4W
				R706	1-247-791-91	CARBON 22 5%	1/4W
				R707	1-247-791-91	CARBON 22 5%	1/4W
				R708	1-247-815-91	CARBON 220 5%	1/4W
				R709	1-247-815-91	CARBON 220 5%	1/4W
				R710	1-247-815-91	CARBON 220 5%	1/4W
				R711	1-249-417-11	CARBON 1K 5%	1/4W
				R714	1-249-417-11	CARBON 1K 5%	1/4W
				R715	1-249-417-11	CARBON 1K 5%	1/4W
				R716	1-249-417-11	CARBON 1K 5%	1/4W
				R717	1-247-758-11	CARBON 3.3K 5%	1/2W
				R718	1-247-758-11	CARBON 3.3K 5%	1/2W
				R719	1-247-758-11	CARBON 3.3K 5%	1/2W
				R720	1-216-487-11	METAL OXIDE 12K 5%	3W F
				R721	1-216-487-11	METAL OXIDE 12K 5%	3W F
				R722	1-216-487-11	METAL OXIDE 12K 5%	3W F
				R724	1-202-814-11	SOLID 33K 10%	1/2W
				R725	1-202-846-00	SOLID 470K 10%	1/2W
				R726	1-202-844-00	SOLID 330K 10%	1/2W
				R727	1-202-848-00	SOLID 680K 10%	1/2W
				R729	1-216-348-00	METAL OXIDE 0.82 5%	1W F
				R734	1-247-815-91	CARBON 220 5%	1/4W
				R735	1-247-815-91	CARBON 220 5%	1/4W
				R736	1-247-815-91	CARBON 220 5%	1/4W
				R744	1-247-756-11	CARBON 2.2K 5%	1/2W
				R745	1-247-756-11	CARBON 2.2K 5%	1/2W
				R746	1-247-756-11	CARBON 2.2K 5%	1/2W
				< VARIABLE RESISTOR >			
				RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
				RV702	1-241-656-21	RES, ADJ, METAL FILM 110M	

< CAPACITOR >							
C701	1-102-074-91	CERAMIC 1000PF 10% 50V					
C702	1-102-117-00	CERAMIC 820PF 10% 50V					
C703	1-102-117-00	CERAMIC 820PF 10% 50V					
C704	1-102-824-00	CERAMIC 470PF 5% 50V					
C705	1-102-824-00	CERAMIC 470PF 5% 50V					
C706	1-102-824-00	CERAMIC 470PF 5% 50V					
C707	1-107-652-11	ELECT 10MF 20% 250V					
C709	1-162-114-00	CERAMIC 0.0047MF 2KV					
C710	1-126-967-11	ELECT 47MF 20% 16V					
< CONNECTOR >							
CNC71	*1-568-881-51	PIN, CONNECTOR 6P					
CNC72	*1-568-880-71	PIN, CONNECTOR 5P					
CNC73	1-695-915-11	TAB (CONTACT)					
CNC76	1-695-915-11	TAB (CONTACT)					
< DIODE >							
D701	8-719-991-33	DIODE 1SS133T-77					
D702	8-719-991-33	DIODE 1SS133T-77					
D703	8-719-991-33	DIODE 1SS133T-77					
D704	8-719-991-33	DIODE 1SS133T-77					
D705	8-719-991-33	DIODE 1SS133T-77					
D706	8-719-991-33	DIODE 1SS133T-77					
D707	8-719-991-33	DIODE 1SS133T-77					
D708	8-719-991-33	DIODE 1SS133T-77					
D709	8-719-991-33	DIODE 1SS133T-77					
D716	8-719-991-33	DIODE 1SS133T-77					
D717	8-719-054-81	DIODE 1SS292					
D718	8-719-991-33	DIODE 1SS133T-77					
D719	8-719-054-81	DIODE 1SS292					
D723	8-719-991-33	DIODE 1SS133T-77					
D724	8-719-054-81	DIODE 1SS292					
< CRT SOCKET >							
J701	A 1-526-990-22	SOCKET, CRT					
< TRANSISTOR >							
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE					

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Les composants identifiés par une trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifique.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
MISCELLANEOUS *****				ACCESSORIES AND PACKING MATERIALS *****			
	1-452-032-00	MAGNET, DISK; 10MM Ø		*4-035-765-01	CUSHION (UPPER) (ASSY)	(KV-M2180A/M2180B/M2181B/M2180D/M2181D/M2180E/M2181E)	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø		*4-035-765-11	CUSHION (UPPER) (ASSY)	(KV-M2180K/M2181K)	
	1-452-277-00	MAGNET, BMC		*4-035-766-01	CUSHION (LOWER) (ASSY)	(KV-M2180A/M2180B/M2181B/M2180D/M2181D/M2180E/M2181E)	
	 1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2E)		*4-035-766-11	CUSHION (LOWER) (ASSY)	(KV-M2180K/M2181K)	
	 1-460-090-21	COIL, DEGAUSSING		*4-039-905-02	BAG, PROTECTION	(KV-M2180K/M2181K)	
	1-503-258-21	SPEAKER		*4-203-124-11	INDIVIDUAL CARTON	(KV-M2180A/M2180B/M2181B/M2180E/M2181E)	
	 1-540-006-12	CAP ASSY, HIGH-VOLTAGE (KV-M2180A/M2180B/M2181B/M2180D/M2181D/M2180E/M2181E)		*4-203-124-01	INDIVIDUAL CARTON	(KV-M2180K/M2181K)	
	 1-540-007-11	CAP ASSY, HIGH-VOLTAGE (KV-M2180K/M2181K/M2181U)		*4-203-123-01	INDIVIDUAL CARTON	(KV-M2181U)	
	 1-571-433-21	SWITCH, PUSH (AC POWER)		4-203-177-01	SCREW SELF TAPPING	(KV-M2180D/M2181D)	
	 1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-M2180A/M2180B/M2181B/M2180D/M2181D/M2180E/M2181E/M2180K/M2181K)		4-203-200-41	MANUAL, INSTRUCTION	(KV-M2180A) (ITALIAN)	
	 1-590-762-11	CORD, POWER (WITH PLUG) 2.5A/250V (KV-M2181U)		4-203-200-51	MANUAL, INSTRUCTION	(KV-M2180B/M2181B) (FRENCH/GERMAN/ITALIAN)	
	1-693-303-11	TUNER (TELE1X001A) (KV-M2180A)		4-203-202-11	MANUAL, INSTRUCTION	(KV-M2180D/M2181D) (ENGLISH/GERMAN/DUTCH/FRENCH)	
	8-598-331-00	TUNER (BT-AC401) (KV-M2180B/M2181B/M2180D/M2181D/M2180E/M2181E)		4-203-244-11	MANUAL, INSTRUCTION	(KV-M2180D/M2181D) (ENGLISH/DANISH/SWEDISH/FINNISH/GREEK)	
	1-693-310-11	TUNER (TELE4X002A) (KV-M2180K/M2181K)		4-203-200-71	MANUAL, INSTRUCTION	(KV-M2180E/M2181E) (SPANISH)	
	8-598-333-00	TUNER (BT-AU601) (KV-M2181U)		4-203-200-81	MANUAL, INSTRUCTION	(KV-M2180E/M2181E) (PORTUGUESE)	
	 8-451-295-45	DEFLECTION YOKE (Y21PF2BA)		4-203-202-91	MANUAL, INSTRUCTION	(KV-M2180K/M2181K) (ENGLISH/RUSSIAN/CZECH/HUNGARIAN/ POLISH/BULGARIAN)	
V901	 8-738-784-05	PICTURE TUBE (SD-169) (A51JXH61X)		4-203-202-61	MANUAL, INSTRUCTION	(KV-M2181U) (ENGLISH)	
*****				REMOTE COMMANDER *****			
				1-473-194-11 COMMANDER, STANDARD TYPE (RM-836)			

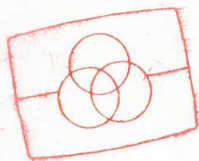


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Consumer A & V Products Company
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Printed in U.K.
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