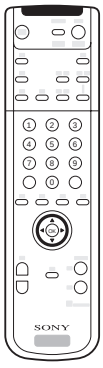
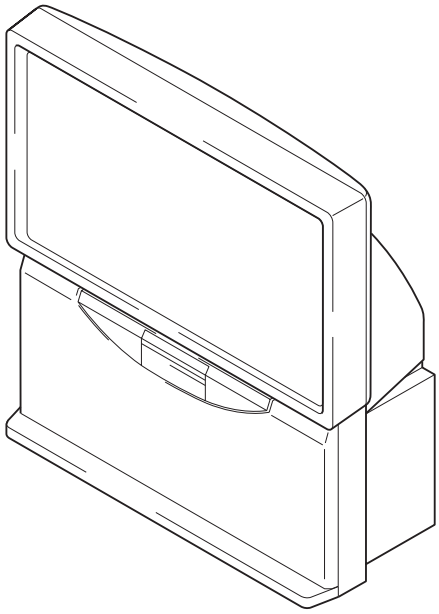
Self Diagnosis Supported model

SERVICE MANUAL RE-2D CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-41DS1U	RM-892	UK	SCC-P26A-A
KP-41PZ1B	RM-892	AEP	SCC-P23A-A
KP-41PZ1D	RM-892	FR	SCC-P22A-A
KP-41PZ1E	RM-892	AEP	SCC-P22B-A



RM-892



MICROFILM

* Please file according to model size. ...□

PROJECTION TV

SONY®

SPECIFICATIONS

TV system
I
B/GIH, D/K

Colour system
PAL, SECAM
NTSC 3.58, 4.43 (only Video In)

Channel coverage

VHF:	E2-E12	
UHF:	E21-E69	
UHF:	B21-B69	KP-41DS1U
CATV:	S1-S20	
HYPER:	S21-S41	
D/K:	R1-R12, R21-R69	

Projected picture size
41 inches
Approx. 103 cm measured diagonally

Rear Terminals
- C — Centre speaker input terminals (2 terminals)
- (L,R) audio outputs (phono jacks)
- 1/ — 21-pin Euro connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output
- 2/ S 2 — 21-pin Euro connector (CENELEC standard) including audio/video input, S video input, selectable audio/video output
- 3 — 21-pin Euro connector (CENELEC standard) including audio/video input, selectable audio/video output (selectable the same output source as 2/ S2 connector)
- PCMCIA socket KP-41DS1U
- MODEM connection KP-41DS1U

Front Terminals
2 video input - phono jack
2 audio inputs - phono jacks
S 2 S video input - 4 pin DIN
Headphones jack - minijack stereo

Sound output
2 × 30 W (music power)
2 × 15 W (RMS)

Centre SP input
30 W (RMS) (using as the centre speaker)

Power consumption
165 W KP-41DS1U
145W KP-41PZ1B/PZ1D/PZ1E

Standby Power consumption
0.7 W

Dimensions (w × h × d)
Approx. 1020 × 1 115 × 417 mm

Weight
Approx. 53 kg

Accessories supplied
1 Remote Control (RM-892)
2 Batteries (IEC designated)
1 Safety foot

Other features
Digital Comb filter (High resolution)
TELETEXT, Fastext, EPG
NICAM
Sleep Timer
Smartlink
PCMCIA connection KP-41DS1U
MODEM connection KP-41DS1U
Digital terrestrial reception KP-41DS1U

Design and specifications are subject to change without notice.

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

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

TABLE OF CONTENTS

SECTION 1
SELF DIAGNOSIS FUNCTION

Diagnostic Errors

The errors indicated below can be read using an Error Reader Display (Part Number S-188-900-10) connected to the service connector. Once an error has been detected it will then be displayed on the two digit error reader.

During the power up procedure and during normal run time, the micro's self diagnostic procedures monitor for various errors, as described in the table below:

Error Number	Error Description
00	No error (TV Error Reader shows 00 in normal condition)
01	Not allowed (may be confused with Sircs response flash on LED)
02	Protection circuit trip (OCP, OVP & No V-Sync)
03	Reserved for OVP (Included in error 2 for BE-3E)
04	Reserved for No V-Sync (Included in error 2 for BE-3E)
05	AKB
06	IIC Scl Low < Power Up Only >
07	IIC Sda Low < Power Up Only >
08	IIC Sda & Scl Low < Power Up Only >
09	Jungle controller no acknowledge < Power Up Only >
10	Video Switch (CXA2040) no acknowledge < Power Up Only >
11	Tuner no acknowledge
12	MSP no acknowledge
13	NVM no acknowledge
14	AV Switch (CXA2089) no acknowledge (DS10 & DX10)
15	Not Used
16	Port Expander (CXA1875) no acknowledge (DS10 & DX10)
17	Not Used
18	Dynamic Convergence (CXA8070) no acknowledge (Not used for RE-2D)
19	Cannot initialize jungle (after initial power on check OK) - < Chassis Initialization >
20	Jungle controller response failure after power up check (+9V test)
21	Video Switch (CXA2040) cannot power on reset - < Chassis Initialization >
22	Video Switch (CXA2040) response failure after power up check (+9V test)
23	NVM acknowledge fail after initialization (STBY +5V - same as micro!)
24	MSP run-time failure < May Not Be Fatal - Display On Error Reader >
25	DSP run-time failure < May Not Be Fatal - Display On Error Reader >
26	M3L bus Clock low time out after data send < Run-Time Failure >
27	M3L bus Clock low time out after data send < At Power Up Check >
28	M3L bus Clock low time out after data send < At Initialization >
29	M3L Txd Low < Power Up Only >
30	M3L Rxd Low < Power Up Only >
31	M3L Enable Low < Power Up Only >
32	Compact Text test fail < Power Up Only >
33	Compact Text does not respond (+5V test)
34	Compact text run-time failure < May Not Be Fatal - Display On Error Reader >

Protection Error (Error 2):

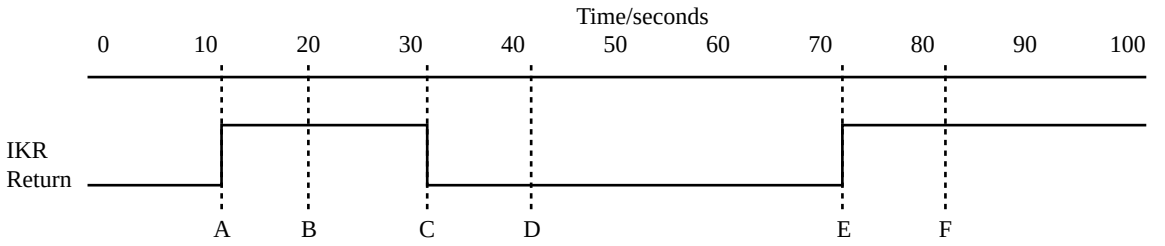
Once every main loop (approximately 200ms OSD mode, 50ms text or menu mode), the micro checks the protection pin (pin 66). If the protection pin is high 6 successive times, a protection error is diagnosed. The protection pin is **not** checked during the first 3-4 seconds after AC on.

If this error is diagnosed, the respective NVM register will be updated and the set goes straight into diagnostic standby with 2 flashes - no reset is attempted.

AKB Error (Error 5):

Once every main loop the micro checks the AKB stability by reading the IKR return from the jungle. IKR=1 means that AKB is stable, IKR=0 means that AKB is unstable. If the AKB status is unstable for 10 seconds, an AKB error is diagnosed. AKB stability is **not** checked during the first 20 seconds after AC on.

*If this error is diagnosed, the respective NVM register will be updated and the response LED will flash 5 times continually, but the set will **not** go into standby. If the AKB status becomes stable, and remains stable for 10 seconds, the LED will stop flashing.*



A. IKR Return first goes high after 12 seconds
B. Micro begins checking IKR Return status 20 seconds after power on
C. Micro detects IKR return=0
D. Micro detects that IKR has been 0 for 10 seconds; NVM counter is incremented and the LED starts flashing (flashes 5 times, off for 2 seconds, flashes 5 times, etc.)
E. Micro detects that IKR=1; LED continues to flash
F. Micro detects that IKR has been high for 10 seconds; LED stops flashing.

Startup Diagnostic Errors (Errors 6-18, 27, 29-32):

These errors are checked for during the power up sequence before attempting to retrieve data from the NVM.

6 - SCL pin low
7 - SDA pin low
8 - Both the SCL and the SDA pin are low
9 - No acknowledge from the jungle (CXA2076)
10 - No acknowledge from the video switch (CXA2040)
11 - No acknowledge from the tuner
12 - No acknowledge from the MSP
13 - No acknowledge from the NVM
14 - No acknowledge from the CXA2089 video switch (DS10 & DX10)
16 - No acknowledge from the CXA1875 Port Expander (DS10 & DX10)
18 - No acknowledge from the Dynamic Convergence (CXA8070) : Not used for RE-2D
27 - M3L_TXD pin low after Compact Text RAM test
29 - M3L_TXD pin low
30 - M3L_RXD pin low
31 - M3LEN pin low
32 - Compact Text RAM test fail

If any of these errors are detected, the respective NVM register will be incremented. The software will then carry on with the power up sequence.

General I²C Device Run-time Errors (Errors 19-23):

19 - No acknowledge from Jungle when attempting to initialize
20 - No acknowledge from Jungle when attempting to read registers
21 - AV Switch cannot complete reset during initialization
22 - No acknowledge from AV Switch when attempting to read registers
23 - No acknowledge from NVM when attempting to read or write
If any of these errors are detected, the respective NVM register will be incremented and the software will carry on.

Compact Text Run-time Errors (Errors 26, 28, 33 & 34):

26 - M3L_TXD pin low when checking register 81 (implies that no communication was possible)
28 - M3L_TXD pin low when attempting to initialize (implies that no communication was possible)
33 - Compact Text RAM test fail during initialization of devices
In the case of these errors, the 'device reset' pin will be held low for 60ms, causing a hardware reset of Compact Text. Following this reset, a longer timeout will be allowed for the M3L bus to recover. If the error still exists, the NVM register will be incremented and the software will carry on.

A. IKR Return first goes high after 12 seconds
B. Micro begins checking IKR Return status 20 seconds after power on
C. Micro detects IKR return=0
D. Micro detects that IKR has been 0 for 10 seconds; NVM counter is incremented and the LED starts flashing (flashes 5 times, off for 2 seconds, flashes 5 times, etc.)
E. Micro detects that IKR=1; LED continues to flash
F. Micro detects that IKR has been high for 10 seconds; LED stops flashing.

34 - Register 81 check fail, but M3L_TXD pin high (implies that Compact Text has either reset or become corrupted).
In this case, the 'device reset' pin will be held low for 60ms, causing a hardware reset of Compact Text. Compact Text will then be re-initialized and the NVM counter updated. This is the same as for errors 26, 28 and 33 except that the M3L bus timeout is not changed. Also, during the reset, Compact Text OSD will be disabled (using pin 59 of the micro). Only when the sync registers have been refreshed twice, will the OSD be enabled.

MSP and DSP Run-time Errors (Errors 24 & 25):

Error 24 can be caused by any of the following:
- After MSP initialization, Scart Prescale Register check fail (implies that the MSP has either reset or become corrupted).
- MSP fails to acknowledge reset instruction
- Scart Prescale Register check fail (implies that the MSP has either reset or become corrupted).

Error 25 is caused by:
- DSP test byte corrupted (implies that the DSP has either reset or become corrupted).

For both of these errors, the software will refresh the MSP and DSP registers. If the errors still exist, the NVM counter will be incremented, and the software will carry on.

Error Display Mode

Error Display Mode is entered by the following sequence of commands:

Standby → Information → Digit 5 → Volume Down → TV

This mode will display a special menu, which will list all possible errors and the number of occurrences of each error (0 – 255, as stored in the NVM). There will also be a display of the current error (00 if no error). This display mode will appear as follows:

ERROR DISPLAY MODE

Current Error Code = 00

Error Code	Occurrences	Error Code	Occurrences
2	2	19	0
3	—	20	0
4	—	21	0
5	0	22	0
6	0	23	0
7	0	24	0
8	0	25	4
9	0	26	5
10	0	27	89
11	0	28	3
12	0	29	0
13	0	30	0
14	0	31	0
15	3	32	0
16	0	33	3
17	0	34	38
18	6		

Whilst in this mode, the number of occurrences of each error can be reset to 0 by TT08.

Only AC off or standby off can exit this mode.

The Current Error Code can also be read by using a TV Error Reader (I2C slave address 42H). This device simply receives 1 data byte, which is the error number in binary coded decimal form.

TT command table

TT Mode is available by pressing the test key twice. It is exited by pressing 0 twice, or by pressing the Test key, or by pressing the TV key or by switching the set into standby.
Pressing the Menu key when in TT mode enters in main Test Menu. Pressing the Menu key again enters in the User Menus.

TT Modes 40-49 require TV to be in program 59 before the command is accepted. Some Test models are dependant upon the model.

TT command	Meaning
<Menu>	Enter into service menu
00	Exit from TT mode
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 mode enable / disable
08	Shipping condition
09	Reset language select menu on power up
11	Sub Picture adjustment (use red / yellow)
12	Sub Colour adjustment (use red / yellow)
13	Sub Brightness adjustment (use red / yellow)
14	Text H-Position
16	Picture level 50 %
21	Destination A/D (East Menu / West Text)
22	Destination L (West Menu / West Text)
23	Destination E (West Menu / West Text)
24	Destination U (West Menu / West Text)
25	Destination D (East Menu / Greek Text)
26	Destination B (East Menu / West Text)
27	Destination K (East Menu / East Text)
28	Destination R (Russian Menu / Russian Text)
32	Digital Status on/off
41	Re-initialize NVM
42	Re-initialize Geometry settings
43	Default programme info in NVM with Pencoed factory channel setup
44	Default favourite pages to 100, 101, 102, 103
45	Switch off all Channel Locks
46	Dealer commander mode (pending)
47	Default MSP Settings
48	Restore NVM test byte Undo TT49
49	Delete NVM test byte Sets virgin NVM
52	Noise on Left Speaker
53	Noise on Right Speaker Only

54	Noise on Centre Speaker Only
55	Noise on Surround Speaker Only
56	Set Colour to minimum and Picture to maximum
57	Set Colour & Picture to minimum and adjust sub-brightness
68	Pre-Set AV Labels
69	Picture Blanking Pulse Enable/ Disable
72	Balance Left/ Right (Press RED Key for balance left, YELLOW for balance right, and GREEN for centre balance
73	Dual sound Headphones (GREEN key for A, BLUE key for B)
74	Dual sound Speakers (GREEN key for A, BLUE key for B)
77	Setup Trap Switch
78	Set Screen Size
79	Wide Setup
81	Velocity Modulation ON
82	Velocity Modulation OFF
83	Special Picture Mode - Personal mode, reset & brightness =0
84	Text Interlace Odd (Non Interlace mode = 3)
85	Text Interlace Even (Non interlace mode = 2)
86	Auto Cut Off ENABLE
87	Auto Cut Off DISABLE
88	Diagnostics OFF
89	Diagnostics ON
91	Clear & Disable OSD
92	Enable OSD
93	D / K Nicam Enable
94	D / K Nicam Disable
95	Reset language select menu on power up
96	Set all programme labels to default
97	MHEG mode on/off

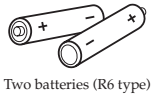
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

SECTION 2
GENERAL

KP-41PZ1B/PZ1D/PZ1E

Checking the Accessories Supplied

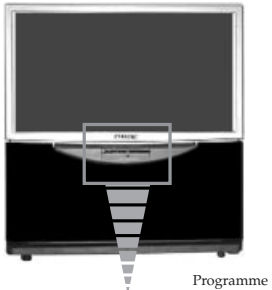
One Remote Control (RM-892)



Two batteries (R6 type)

One safety foot

Overview of Projection TV Buttons

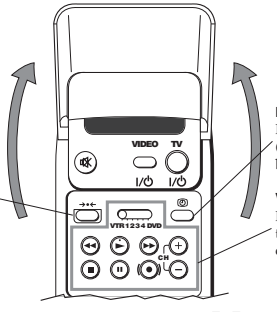


Standby indicator
Selecting input source
Volume control buttons
Programme up or down buttons (selects TV channels)
On/Off Switch

Press the flap on the front of the projection TV to reveal the front panel (press on the mark ↓)

S Video Input jack
Video Input jack
Audio Inputs jacks
Headphone jack
Auto Tune button
Auto Convergence button

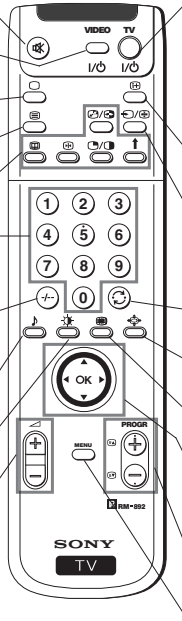
Overview of Remote Control Buttons



Resetting picture and sound settings
Press to reset picture and sound to factory levels.

Displaying the time
Press to switch the time on or off (available only when teletext is broadcast).

VCR operation
For more details, please refer to the section "Remote Control of other Sony Equipment"



Muting the Sound
Press to mute TV sound.
Press again to restore the sound.

VCR on/off
Press to switch on or off your VCR.

Selecting TV mode
Press to switch off Teletext or video input.

Selecting Teletext
Press to switch on Teletext.

These buttons do not work on this set.

Selecting channels
Press to select channels.

For double-digit programme numbers, e.g. 23, press -/-- first, then the buttons 2 and 3.
If you enter an incorrect first digit, this should be corrected by entering another digit (0-9) and then selecting -/-- button again to enter the programme number of your choice.

Selecting Sound mode
Press repeatedly to change the sound mode.

Selecting Picture mode
Press repeatedly to change the picture mode.

Adjusting TV Volume
Press to adjust the volume of the TV.

To Temporarily Switch Off projection TV
Press to temporarily switch off TV (the standby indicator ⏻ on projection TV lights up). Press again to switch on TV from standby mode.
To save energy we recommend switching off completely when TV is not in use.
⚠ After 15-30 minutes without a signal and without any button being pressed, the projection TV switches automatically into standby mode.

Displaying On Screen Information
Press to display all on-screen indications. Press again to cancel.

Selecting Input source
Press repeatedly until the desired input symbol of the source appears on the screen.

Back to the channel last watched
Press to watch the last channel selected (watched for at least 5 seconds).

Selecting Screen format
Press repeteadly to change the format of the screen.

This button only works in Teletext mode. Function ▤ associated to this button does not work with this TV.

Joystick for menu selection
▲ Scroll Up
▼ Scroll Down
◄ Previous menu or selection
► Next menu or selection
OK Confirms your selection

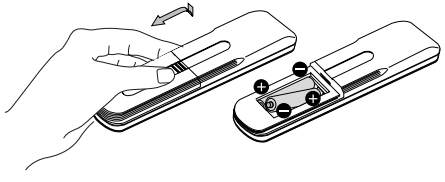
Selecting channels
Press to select the next or previous channel.

Displaying the menu system
Press to display the menu on the screen. Press again to remove the menu display from the screen.

ⓘ Besides TV functions, all coloured buttons as well as green symbols are also used for Teletext operation. For more details, please refer to the "Teletext" section of this instruction manual.

Inserting Batteries into the Remote Control

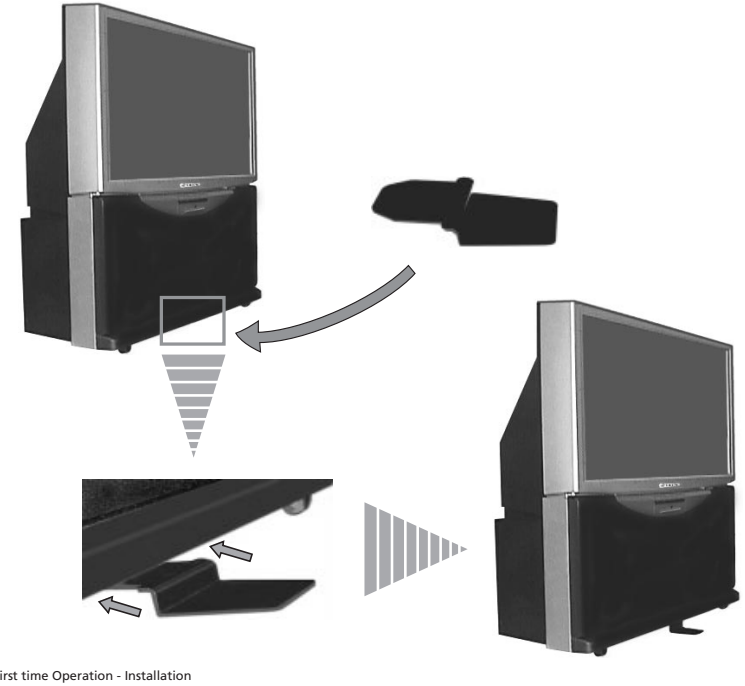
⚠ Make sure to insert the batteries using the correct polarities.
Always remember to dispose of used batteries in an environmental friendly way.



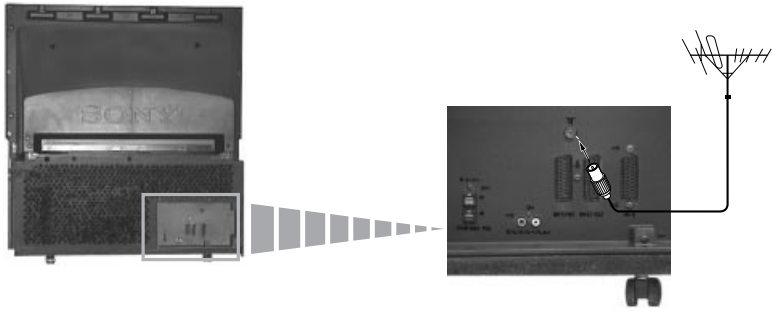
Stabilizing the Projection TV

⚠ For safety purposes, the projection TV can be stabilized with the supplied safety foot.

Fit the supplied safety foot in the support placed on the bottom of the set, as follows:

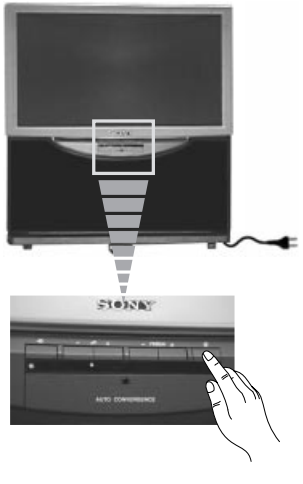


Connecting the Aerial



Connect a conventional aerial to the socket marked ⅂ on the rear of the projection TV.

Switching on the projection TV

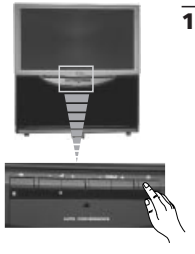


Connect the projection TV plug to the mains socket (220-240V AC, 50Hz).

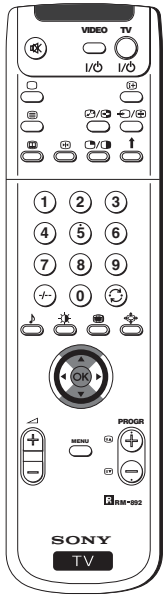
Push in the ⏻ **On/Off** switch on the front of the projection TV.

Selecting Language

Use this function to change the language of the menu screens.
The first time that you switch on your projection TV, the LANGUAGE menu appears automatically.
However, if you need to change the language menu afterwards, select the menu Language in the (PRESET) menu and proceed in the same way as described below.

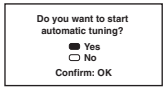


1 Press the **on/off** button on your projection TV set to switch on your TV. The first time you press the **on/off** button on your TV set, the language menu displays automatically on the TV screen.



2 Push the joystick on the remote control to ▼ or ▲ to select the language, then press **OK** to confirm your selection.

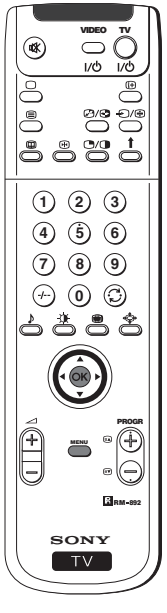
The Auto Tuning menu appears on the projection TV screen in the selected language.



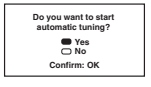
»»»

Automatically Tuning the TV using the Remote Control

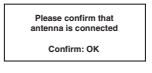
You need to tune the set to receive channels (TV Broadcast). By following the instructions below, this projection TV automatically searches and stores all available channels for you.
After having selected the language, a new menu appears automatically on the projection TV screen asking you to automatically tune the TV. However, if you need to change or repeat the tuning afterwards (e.g. when you move house), select the menu Auto Programme in the (PRESET) menu and proceed in the same way as described below or, please refer to the section "Automatically Tuning the TV" of this instruction manual.



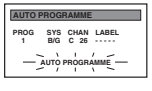
1 Press the **OK** button on the remote control to select **YES**.
A new menu appears automatically on the screen asking you to check that the antenna is connected.



2 Confirm that the antenna is connected and then press the **OK** button.

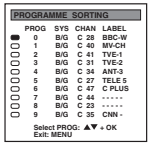


The automatic tuning starts and the message "AUTO PROGRAMME" flashes on the screen.



This procedure could take some minutes. Please, be patient and do not press any button.

When the automatic tuning is finished, the Programme Sorting menu appears on the screen.

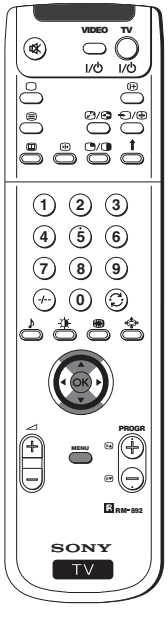


Notes:
- To stop the automatic tuning, press the **MENU** button.
- If you stop the automatic tuning by pressing the **MENU** button, the Programme Sorting menu does not appear automatically on the screen.

»»»

Changing the Programme Order of the TV channels

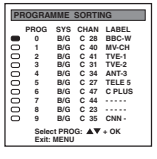
After all available channels (TV Broadcast) are captioned and stored, a new menu appears automatically on the screen to change the order in which the channels appear on the screen.
However, if you wish to rearrange the order of the channels afterwards, select the menu Programme Sorting in the (PRESET) menu and proceed in the same way as described in the b) section of this chapter.



a) If you do not wish to change the channel order:

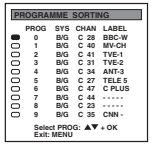
1 Press the **MENU** button on the remote control to exit and return to the normal TV screen.

Your projection TV is now ready for use.



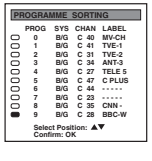
b) If you wish to change the channel order:

1 Push the joystick on the remote control to ▼ or ▲ to select the programme number with the channel (TV Broadcast) you wish to rearrange, then press **OK**.



2 Push the joystick to ▼ or ▲ to select the new programme number position for your selected channel (TV Broadcast), then press **OK**.

The selected channel now moves to its new programme position and the other channels move accordingly.



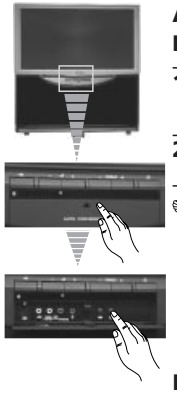
3 Repeat steps 1 and 2 if you wish to change the order of the other channels.

4 Press the **MENU** button to exit and return to the normal TV screen.

Your projection TV is now ready for use.

Adjusting Colour Registration (Convergence)

Due to the earth's magnetism, the picture might become undefined and you could see different colours on the outlines of the images. In that case, proceed as follows:

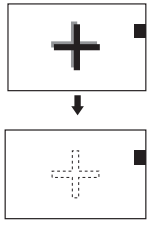


Auto converge the Red, Green, and Blue Lines

1 Press the flap on the front of the projection TV by pressing on the ⏚ mark to reveal the front control panel.

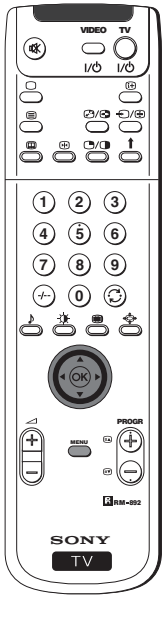
2 Press ⊕ button on the projection TV.

The Auto Convergence function works for about 30 seconds. When the white cross disappears from the screen, your projection TV is ready for use.



Notes:
The Auto Convergence function does not work:
- when no signal is input.
- when the input signal is weak.
- when the screen is exposed to spotlights or direct sunlight.
- when you watch the teletext broadcast.

If you wish a more accurate convergence adjustment



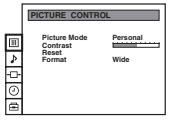
1 Press the **MENU** button on the remote control to display the menu on the screen.

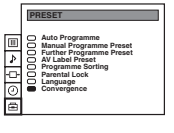
2 Push the joystick to ▼ to select the symbol 🧰, then push to ▶ to enter to the **PRESET** menu.

3 Push the joystick to ▼ or ▲ to select **Convergence**, then push to ▶.

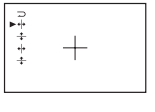
4 Push the joystick to ▼ or ▲ to select "the line" (vertical and horizontal lines in red and blue) you want to adjust.
- ⇹ : red vertical line (left/right adjustment)
- ⇳ : red horizonta line (up/down adjustment)
- ⇹ : blue vertical line (left/right adjustment)
- ⇳ : blue horizontal line (up/down adjustment)

Then press the **OK** button.





5 Push the joystick repeatedly to ▼, ▲, ◀ or ▶ to converge the selected line with the green line in the centre, then press **OK** to confirm.



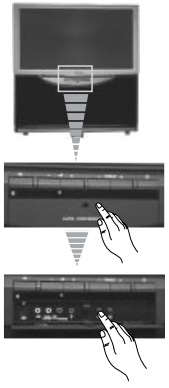
6 Repeat steps 4 and 5 to adjust the other lines, until all the lines have overlapped to form a white cross.

7 Press the **MENU** button to exit and return to the normal TV screen.

Your projection TV is ready for use.

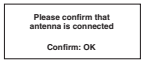
Automatically Tuning the TV

Besides the explanation in the section “Automatically Tuning the TV using the Remote Control“, by following the instructions below, this projection TV also searches and stores automatically all available channels using just one button of the projection TV set and one button of the remote control.

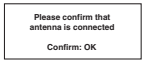


1 Press the flap on the front of the projection TV by pressing on the ⇓ mark to reveal the front control panel.

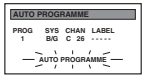
2 Press and hold in the ▶▶| button on the TV set for some seconds, until a menu appears automatically on the screen asking you to check that antenna is connected.



3 Confirm that the antenna is connected and then press the **OK** button on the remote control.



The automatic tuning starts and the message "AUTO PROGRAMME" flashes on the screen.



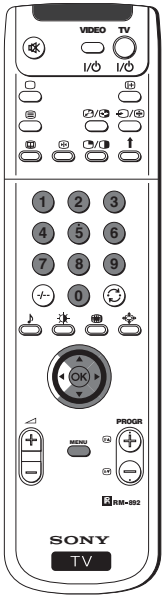
⚠ This procedure could take some minutes. Please, be patient and do not press any button.

When the automatic tuning procedure is complete, the menu disappears from the screen and your projection TV is now ready for use.

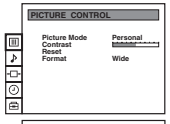
Note: To stop the automatic tuning, press the **MENU** button on the remote control.

Manually Tuning the TV

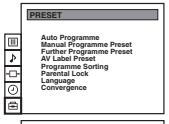
Use this function to preset channels or a video input source one by one to the programme order of your choice.



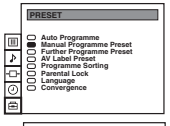
1 Press the **MENU** button on the remote control to display the menu on the screen.



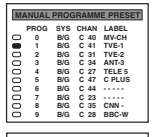
2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu.



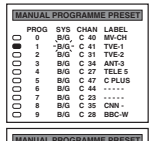
3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ▶.



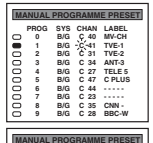
4 Push the joystick to ▼ or ▲ to select on which programme number you want to preset a channel, then push to ▶.



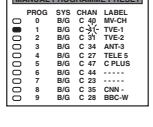
5 Push the joystick to ▼ or ▲ to select the TV Broadcast system (B/G for western european countries, D/K for eastern european countries) or a video input source (AV1, AV2...), then push to ▶.



6 Push the joystick to ▼ or ▲ to select the channel tuning, "C" for terrestrial channels or "S" for cable channels, then push to ▶.



7 Press the number buttons to enter the channel number of the TV Broadcast or push the joystick to ▲ or ▼ to search for the next available channel.
If you do not wish to store this channel, push the joystick to ▲ or ▼ to continue searching for the desired channel.



8 If this is the desired channel you wish to store, press the **OK** button.

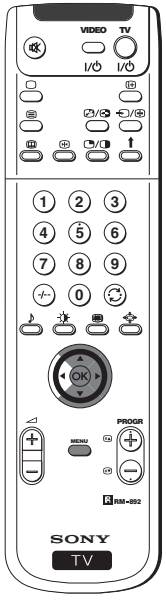
9 Repeat steps 4 to 8 if you wish to store more channels.

10 Press the **MENU** button to exit and return to the normal TV screen.

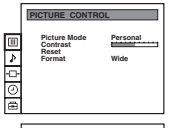
Your projection TV is now ready for use.

Using the "Further Programme Preset" function

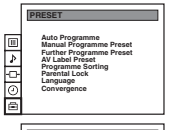
With this feature you can:
a) Even normally the automatic fine tuning (AFT) is operating, however you can manually fine-tune the TV to obtain a better picture reception if the picture is distorted or
b) preset the AV3 output for the programme positions of channels with scrambled signals (eg from a pay TV decoder). In this way a connected VCR records the unscrambled signal.



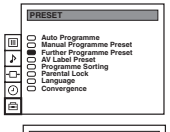
1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the 🧰 symbol, then push to ► to enter to the **PRESET** menu.



3 Push the joystick to ▼ or ▲ to select **Further Programme Preset**, then push to ►.

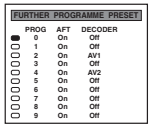


4 Push the joystick to ▼ or ▲ to select the relevant programme number, then push to ► repeatedly to select:

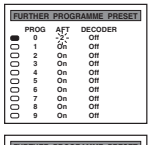
a) **AFT** or

b) **DECODER**.

The selected item changes colour.

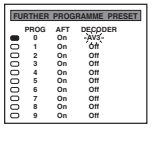


5 a) **AFT**
Push the joystick to ▼ or ▲ to fine tune the channel frequency over a range of -15 to +15, then press the **OK** button to confirm.
Repeat steps 4 and 5a) if you wish to fine tune other channels.



b) **DECODER**
Push the joystick to ▼ or ▲ to select **AV3** and press the **OK** button to confirm.

The picture from the decoder connected to the Euro AV ⇨3 on the back of the projection TV will appear on this programme number.
Repeat steps 4 and 5b) to preset the AV3 output for other programme positions.

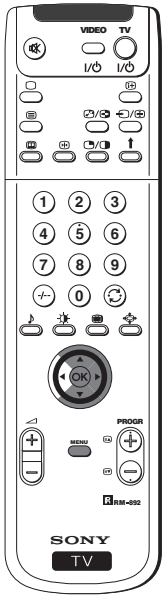


6 Press the **MENU** button to exit and return to the normal TV screen.

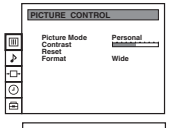
Your projection TV is now ready for use.

Locking Programmes

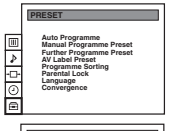
This feature enables you to prevent undesirable broadcasts appearing on the screen. We suggest you use this function to prevent children from watching programmes you consider unsuitable.



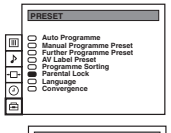
1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the 🧰 symbol, then push to ► to enter to the **PRESET** menu.

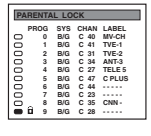


3 Push the joystick to ▼ or ▲ to select **Parental Lock**, then push to ►.



4 Push the joystick to ▼ or ▲ to select the programme number with the channel you wish to block, then press the **OK** button.

The 🔒 symbol appears before the programme position to indicate this programme is now blocked.
To unblock the programme, press the **OK** button again. The 🔒 symbol disappears.



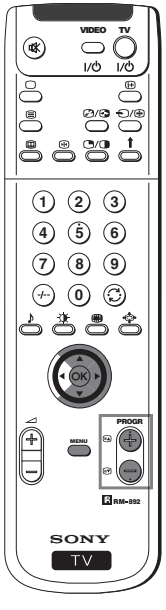
5 Repeat step 4 if you wish to block other channels.

6 Press the **MENU** button to exit and return to the normal TV screen.

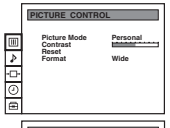
When you select a blocked programme the screen appears in black, with 🔒 symbol.

Skipping Programme positions

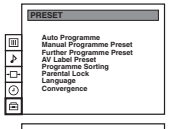
You can programme this projection TV to skip any unwanted programme numbers when they are selected with the PROGR +/- buttons. To cancel this function afterwards, proceed in the same way as described below by selecting the appropriate TV system (B/G or D/K) instead of "- - -" in step 5.



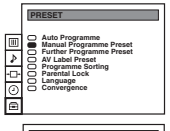
1 Press the **MENU** button on the remote control to display the menu on the screen.



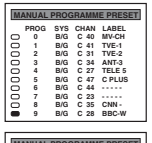
2 Push the joystick to ▼ to select the symbol, then push to ► to enter to the **PRESET** menu.



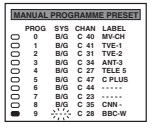
3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ►.



4 Push the joystick to ▼ or ▲ to select the programme position you want to skip, then push to ► to enter to the **SYS** column.



5 Push the joystick to ▼ to select **"- - -"**, then press the **OK** button to store.



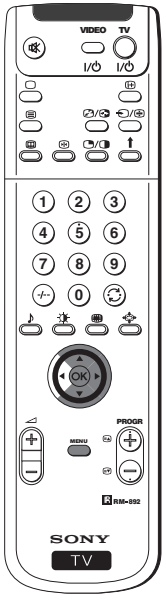
6 Repeat steps 4 and 5 to skip other unused programme positions.

7 Press the **MENU** button to exit and return to the normal TV screen.

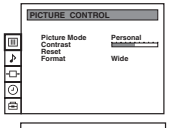
*When changing channels (TV Broadcasts) with the **PROGR +/-** buttons, the skipped programme positions do not appear. You can, however, still select them using the number buttons.*

Labeling a channel

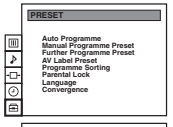
Names for channels (TV Broadcasts) are usually taken automatically from Teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers). Using this function, you can easily identify which channel (TV Broadcasts) or video source you are watching.



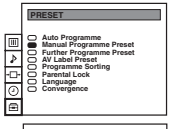
1 Press the **MENU** button on the remote control to display the menu on the screen.



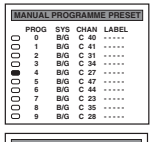
2 Push the joystick to ▼ to select the symbol, then push to ► to enter to the **PRESET** menu.



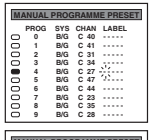
3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ►.



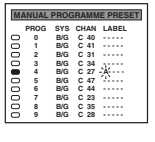
4 Push the joystick to ▼ or ▲ to select the programme number with the channel you wish to name.



5 Push the joystick to ► repeatedly until the first element of the **LABEL** column is highlighted.



6 Push the joystick to ▼ or ▲ to select a letter or number (select "-" for a blank), then push to ► to confirm this character. Select the other four characters in the same way.



7 After selecting all the characters, press the **OK** button.

8 Repeat steps 4 to 7 if you wish to label other channels.

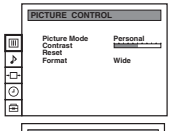
9 Press the **MENU** button to exit and return to the normal TV screen.

When you select a named channel, the name appears for a few seconds on the screen.

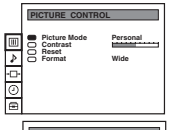
Adjusting the Picture

Although the picture is adjusted at the factory, you can modify it to suit your own taste.

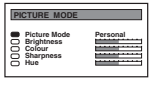
1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▶ to enter to the **PICTURE CONTROL** menu.



3 Push the joystick to ▼ or ▲ to select the item you wish to change, then push to ▶.
Refer to the table below to chose the item and for the effect of each control:



Picture Mode	▸ **Picture Mode** ▸	Personal (for individual settings)	
		▸ Movie (for films)	
		▸ Live (for live broadcast programmes)	
	▾ **Brightness***	◂ Darker	▸ Brighter
	▾ **Colour***	◂ Less	▸ More
	▾ **Sharpness***	◂ Softer	▸ Sharper
	▾ **Hue****	◂ Greenish	▸ Reddish
Contrast		◂ Less	▸ More
Reset		OK Resets picture to the factory preset levels.	
Format		(for detalis refer to the section "Changing the Screen Mode")	

* Can be only altered if Personal Mode is selected.
** Only avalaible for NTSC colour signal (e.g: USA video tapes).

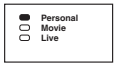
4 Push the joystick to ◀ or ▶ to alter the selected item, then press the **OK** button to store the new adjustment.

5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

Changing the Picture Mode Quickly

You can quickly change the Picture Mode without entering the Picture Control menu screen.

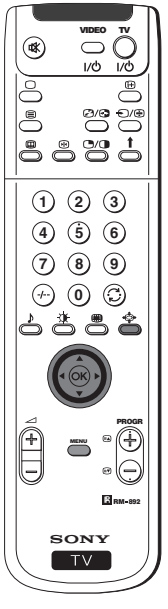


1 Press the ✳ button on the remote control to directly access the Picture Mode.

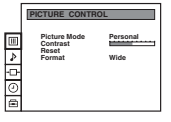
2 Push the joystick to ▼ or ▲ to select your desired picture mode (**Personal**, **Movie** or **Live**), then press the **OK** button to remove the display from the screen.

Changing the screen mode

Using this Screen Mode feature you can change the aspect ratio of the screen.

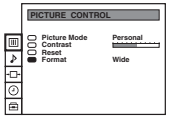


1 Press the **MENU** button on the remote control to display the menu on the screen.

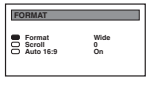


2 Push the joystick to ▶ button to enter to the **PICTURE CONTROL** menu.

3 Push the joystick to ▼ to select **Format,** then push to ▶.



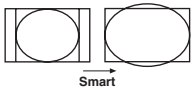
4 Push the joystick to ▼ or ▲ to select **Format**, **Scroll** or **Auto 16:9**.



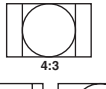
5 **Format**
Push the joystick to ▶ to enter to the menu, then push to ◀ or ▶ repeatedly to select one of the following modes:

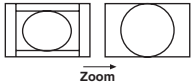
- **Smart:** imitation of wide screen effect (16:9) for 4:3 broadcasts.
- **4:3:** conventional 4:3 picture.
- **Zoom:** imitation of wide screen effect (16:9) for movies broadcast in cinemascopic format.
- **Wide:** for 16:9 broadcasts.

Press the **OK** button to store the chosen mode.



6 **Scroll**
You can use Scroll to move the screen up- or downwards in order to see the cut-off parts (eg to read subtitles). This function only works if you selected Zoom mode or Smart mode in step 5.
Push the joystick to ▶ to enter to the menu, then push to ◀ or ▶ to adjust the screen position over a range of -5 to +5. Press the **OK** button to store.





7 **Auto 16:9**
Push the joystick to ▶ to enter to the menu, then push to ◀ or ▶ to select:
On: if you wish the TV set to switch automatically to wide format if a 16:9 broadcast is detected or
Off: for normal mode.
Press the **OK** button to store.

8 Press the **MENU** button to exit and return to the normal TV screen.

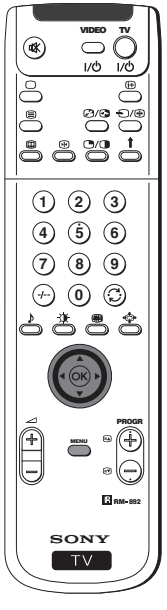
Changing the Format Screen Quickly

You can quickly change the format screen without entering the Picture Control menu screen.

1 Press the ⊕ button on the remote control repeatedly to select your desired format screen mode (**Smart**, **4:3**, **Zoom** or **Wide**).

Adjusting the Sound

Although the sound is adjusted at the factory, you can modify it to suit your own taste.

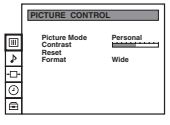


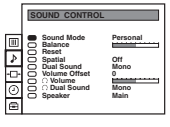
1 Press the **MENU** button on the remote control to display the menu on the screen.

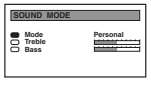
2 Push the joystick to ▼ to select the ♪ symbol, then push to ► to enter to the **SOUND CONTROL** menu.

3 Push the joystick to ▼ or ▲ to select the item you wish to change, then push to ►.

Refer to the table below to chose the item and for the effect of each control.







Sound Mode ▸ **Mode** ▸ Personal (for individual settings)
▸ Rock
▸ Jazz
▸ Pop

▾ **Treble*** ◂ Less ▸ More

▾ **Bass*** ◂ Less ▸ More

Balance ◂ Less ▸ More

Reset OK Resets picture to the factory preset levels.

Spatial ▸ **On:** volume level of the channels will stay the same.
▸ **Off:** volume level changes according to the broadcast signal.

Dual Sound
- For a stereo broadcast:
  - ▸ Mono
  - ▸ Stereo
- For a bilingual broadcast:
  - ▸ Mono (for mono channel if available)
  - ▸ A (for channel 1)
  - ▸ B (for channel 2)

Volume Offset ◂-12 ..... ▸ +12
The channel volume level can be adjusted over a range of -12 to +12.

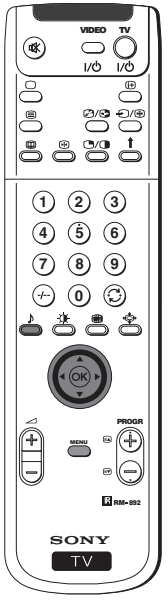
Headphones:
Ω Volume ◂ Less ▸ More

Ω Dual Sound
- For a stereo broadcast:
  - ▸ Mono
  - ▸ Stereo
- For a bilingual broadcast:
  - ▸ Mono (for mono channel if available)
  - ▸ A (for channel 1)
  - ▸ B (for channel 2)

Speaker ▸ **Main:** sound from projection TV set
▸ **Centre in:** sound from external amplifier

* Can be only altered if "Personal" mode is selected.

»»



4 Push the joystick to ◄ or ► to alter the selected item, then press the **OK** button to store the new adjustment.

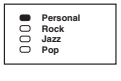
5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

Changing Sound Mode Quickly

You can quickly change Sound mode without entering the Sound Control menu screen.

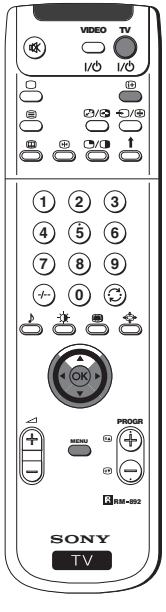
1 Press the ♪ button on the remote control to directly access to the Sound Mode.



2 Push the joystick to ▼ or ▲ to select your desired sound mode (**Personal**, **Rock**, **Jazz** or **Pop**), then press the **OK** button to remove the display from the screen.

Using the Sleep Timer

You can select a time period for the TV to switch itself automatically into the standby mode.



1 Press the **MENU** button on the remote control to display the menu on the screen.

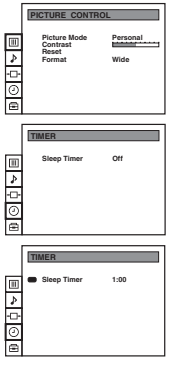
2 Push the joystick to ▼ button to select the ◴ symbol, then push to ► to enter to the **TIMER** menu.

3 Push the joystick to ◄ or ► repeatedly to set the time period delay

Off ▸ 0:30 ▸ 1:00..... 4:00 hours

4 Press the **OK** button.

5 Press the **MENU** button to exit and return to the normal TV screen.



One minute before the projection TV switches into standby mode, the time remaining is displayed on the screen automatically.

Notes:
- When watching the TV, press the ⊕ button to display the time remaining.
- To return to normal operation from standby mode, press the **TV** I/⏻ button.

Viewing Teletext

Teletext is an information service transmitted by most TV stations.

Make sure to use a TV channel with a strong signal, otherwise teletext errors may occur.

Selecting Teletext

1 Select the TV channel which carries the teletext service you wish to view.

2 Press the ▤ button on the remote control to switch on the teletext.

3 Input three digits for the page number, using the numbered buttons on the remote control. (if you have made a mistake, type in any three digits and then, re-enter the correct page number).

4 Press the ▢ button to switch off teletext.

Using other Teletext functions

TO	PRESS THE BUTTON
Access the next or preceding page	for next page or for the preceding page
Superimpose teletext on to the TV	▤ Press ▤ again to cancel teletext mode.
Freeze a teletext page	⊕ Press ⊕ again to cancel the freeze.

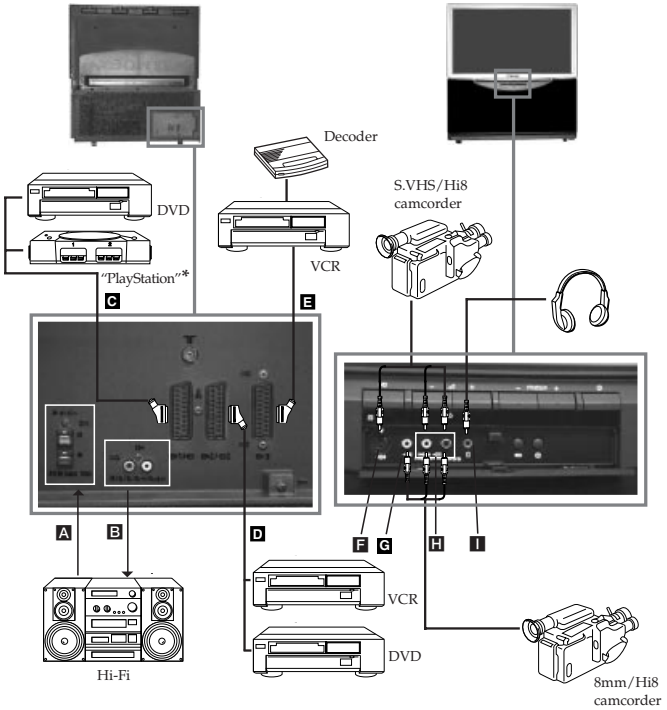
Using Fastext

Fastext lets you access pages with one button stroke.

When Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the colour button (red, green, yellow or blue) on the remote control to access the corresponding page.

Connecting Optional Equipment

Using the following instructions, you can connect a wide range of optional equipment to your projection TV.



To avoid picture distortion:
- Do not connect equipment to F and G connectors at the same time.
- Do not connect any equipment on the front connectors together with D connector.

* "**PlayStation**" is a product of Sony Computer Entertainment, Inc.

* "**PlayStation**" is a trademark of Sony Computer Entertainment, Inc.

Acceptable input signal	Available output signal
A Centre speaker input Set "Speaker" on the SOUND CONTROL menu to "Centre in".	No outputs
B No inputs	Audio signal
C Audio/video and RGB signal	Video/audio from TV tuner
D Audio/video and S video signal	Video/audio from selected source
E Audio/video signal	Video/audio from selected source (the same output source as the 2/ S 2 connector)
F S Video signal	No output
G Video signal	No output
H Audio signal	No output
I No input	Audio signal from headphones

Using Optional Equipment

Additional Information when connecting equipment

Connecting a VCR

We recommend you connect your VCR to the D or E socket using a scart lead. If you do not have a scart lead, use the "Manually Tuning the TV" section of this instruction manual to tune in the VCR signal to TV programme number "0".
If your video supports Smartlink please refer the "Smartlink" section of this instruction manual.

Connecting to External Audio Equipment

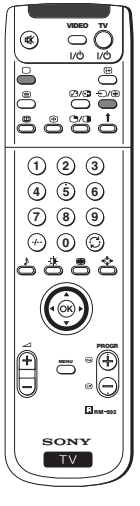
1 **To listen to the audio of your projection TV on the Hi-Fi equipment:**
Plug in your Hi-Fi equipment to the B sockets on the rear of the projection TV if you wish to amplify the audio output from the TV.
The output level from B sockets can be varied by adjusting the volume of the headphones. Refer to the "Adjusting the sound" section of this instruction manual to adjust the volume of the headphones.

2 **To listen to the Hi-Fi equipment on the projection TV speakers:**
Plug in your Hi-Fi equipment to the A socket on the rear of the projection TV if you wish to listen to the audio output from your Hi-Fi on the projection TV speaker. If you have a Dolby amplifier, connect the centre output from your amplifier to the A socket to use the projection TV as a centre speaker. Refer to the "Adjusting the Sound" section of this instructions manual and set the option "Speaker" to "Centre in".

For mono equipment

Connect the phono plug to the L/G/S/I socket on the front of the TV and select the 2 input signal using the instructions on this page below. Finally, refer to the "Adjusting the sound" section of this manual and select "A" on the sound menu screen.

Select and View the Input Signal



1 Connect your equipment to the designated projection TV socket, as it is indicated on the previous page.

2 Press the button repeatedly on your remote control until the correct input symbol appears on the screen.

Symbol	Input signals
1	• Audio/video input signal through the Euro AV connector C
	• RGB input signal through the Euro AV connector C
2	• Audio/Video input signal through the Euro AV connector D or the phono sockets H and G.
S2	• Audio/S Video input signal through the Euro AV connector D or the sockets H and F.
3	• Audio/Video input signal through the Euro AV connector E

3 Switch on the connected equipment.

4 To return to the normal TV picture, press the button on the remote control.

Smartlink

Smartlink is a direct link between your projection TV set and a VCR.

For Smartlink you need:

- A VCR which supports Smartlink, NextView Link, Easy Link or Megalogic.

  Megalogic is a trademark of Grundig Corporation.
  EasyLink is a trademark of Philips Corporation.

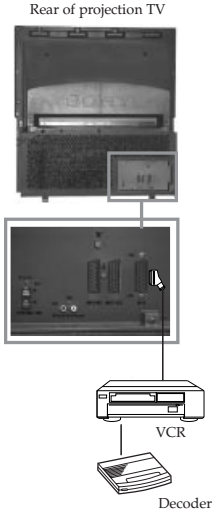
- A fully-wired 21 pin SCART cable to connect your VCR to the Euro AV connector ⇨3 on the rear of the Projection TV.

The features of Smartlink are:

- Tuning information such as the channel overview are downloaded from the projection TV set to the VCR.
- Direct projection TV recording: While watching TV you need to press just one button on the VCR to record this programme.
- Projection TV in standby mode: Press the "Play ▶" button on your VCR to switch the TV automatically on.

If you have connected a decoder to a VCR which supports Smartlink feature, select the menu Further Programme Preset in the (PRESET) menu and select **DECODER AV3** to each codified channel. For more details, please refer to the section "Using the Further Programme Preset function" of this instruction manual.

For more information on Smartlink, please refer to the Instruction Manual of your VCR.



Remote Control of other Sony Equipment

Using the buttons underneath the cover of the remote control you can control other Sony equipment.

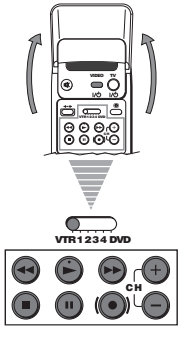
1 Open the cover of the Remote Control.

2 Set the selector VTR 1234 DVD according to the equipment you want to control:

VTR 1	Beta VCR
VTR 2	8 mm VCR
VTR 3	VHS VCR
VTR 4	Digital Video (DCR-VX 1000/9000 E, VHR-1000)
DVD	Digital Video Disk

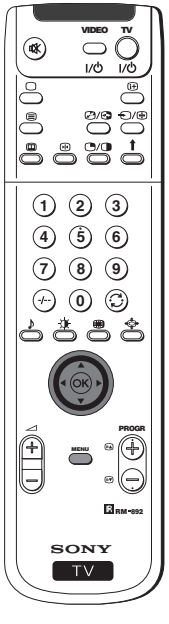
3 Use the buttons underheath the cover of the on the remote control to operate the equipment.

- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1234 DVD selector on the TV Remote Control.
- If the equipment does not have a certain function, the corresponding button on the remote control does not work.

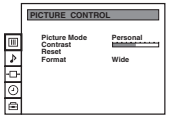


Selecting the output source for the Euro AV connectors

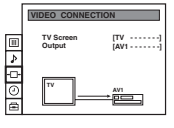
Using this function you can record on your VCR any signal coming from an external equipment connected to the Euro AV connectors ⇨2/⇦2 or ⇨3 placed on the rear of the projection TV.
In that case you have to select the output source as described below (if your VCR support Smartlink, this procedure is not necessary).



1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the ⇨ symbol, then push to ▶ button to enter to the **VIDEO CONNECTION** menu screen.



3 Push the joystick to ▼ or ▲ button to highlight**:**

TV Screen (input source for the TV screen) or

Output (output source available for ⇨2/⇦2 and ⇨3 Euro AV connectors).

Push the joystick to ▶ to confirm.

4 Push the joystick to ◀ or ▶ repeteadly to select the desired source:

TV Screen **TV, AV1, RGB, AV2, YC2** or **AV3**

Output **TV, AV1, AV2, YC2, AV3** or **AUTO**

Then press the **OK** button to confirm.

If you select **"AUTO"**, the output signal will be always the same one that is displayed on the screen.

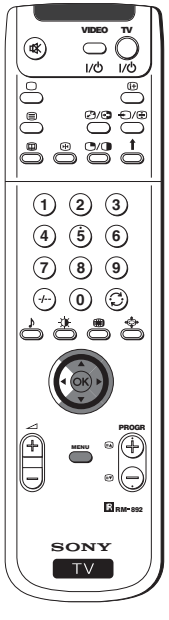
If you have connected a decoder, please remember to set back the Output to **"TV"** for a correct unscrambling.

5 Press the **MENU** button to exit and return to the normal TV screen.

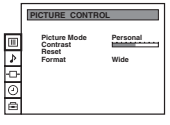
The selected signal is available for your optional equipment connected to the appropriate Euro AV connector.

Using the AV Label Preset feature

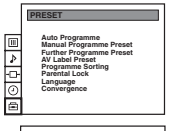
This function enables you to designate a name to the optional equipment you have conected to the sockets of this projection TV. This name can be up to 5 characters (letters or numbers).



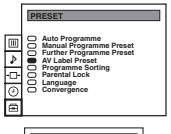
1 Press the **MENU** button on the remote control to display the menu on the screen.



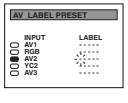
2 Push the joystick to ▼ to select the symbol, then push to ► to enter to the **PRESET** menu screen.



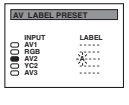
3 Push the joystick to ▼ or ▲ to select **AV Label Preset,** then push to ►.



4 Push the joystick to ▼ or ▲ to select the input source you wish to name (eg AV2), then push to ► to highlight the first element of the **LABEL** column.



5 Push the joystick to ▼ or ▲ to select a letter or number (select "-" for a blank) then push to ► to confirm this character. Select the other four characters in the same way.



6 After selecting all the characters, press the **OK** button.

7 Repeat steps 4 to 6 if you wish to label other input sources.

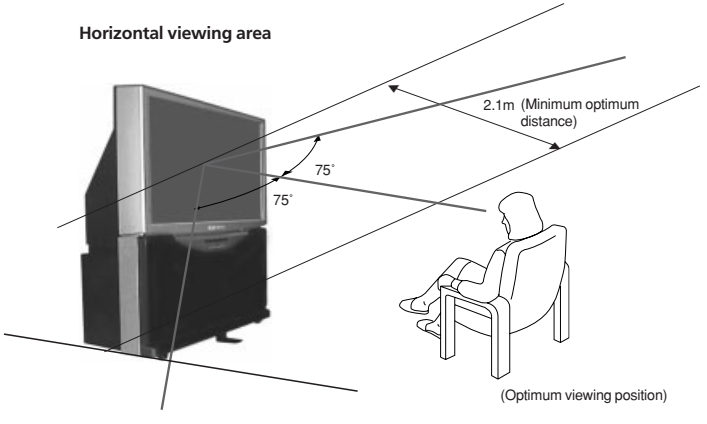
8 Press the **MENU** button to exit and return to the normal TV screen.

Whenever the equipment with the labeled input is selected for use, the name appears for a few seconds on the screen.

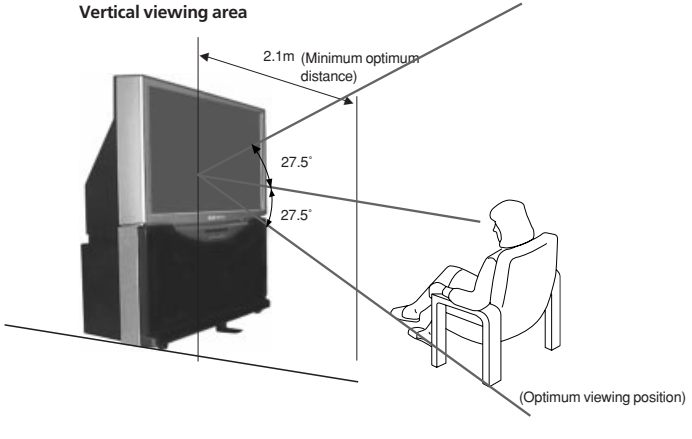
Optimum Viewing Area

For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

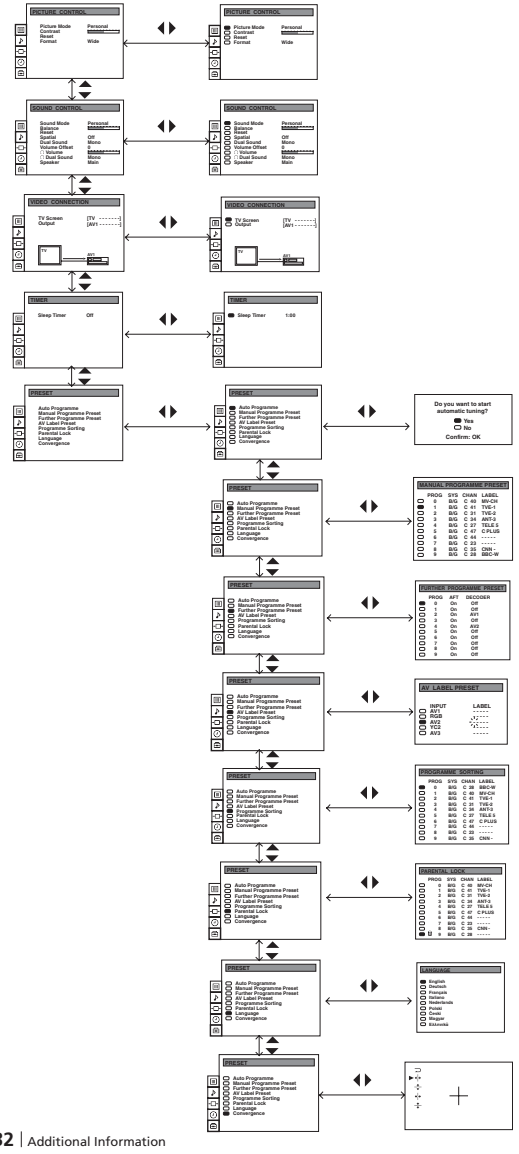
Horizontal viewing area



Vertical viewing area



On Screen display Menus Guide



(For different adjustments, please refer to the section "Adjusting the Picture")

(For different adjustments, please refer to the section "Adjusting the Sound")

(For more details, please refer to the section "Selecting the output source for the Euro AV connectors")

(For more details, please refer to the section "Using the Sleep Timer")

(For more details, please refer to the section "Automatically Tuning the TV using the Remote Control")

(For more details, please refer to the section "Manually Tuning the TV")

(For more details, please refer to the section "Using the Further Programme Preset function"

(For more details, please refer to the section "Using the AV Label Preset function")

(For more details, please refer to the section "Changing the Programme Order of the TV channels")

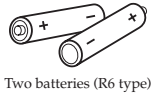
(For more details, please refer to the section "Locking Programmes").

(For more details, please refer to the section "Selecting Language")

(For more details, please refer to the section "Adjusting Colour Registration (Convergence)".

Checking the Accessories Supplied

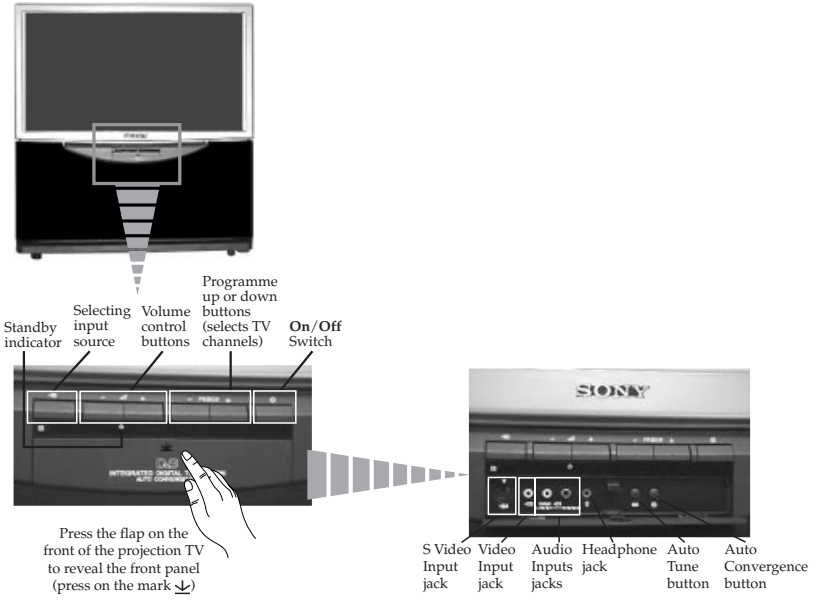
One Remote Control (RM-892)



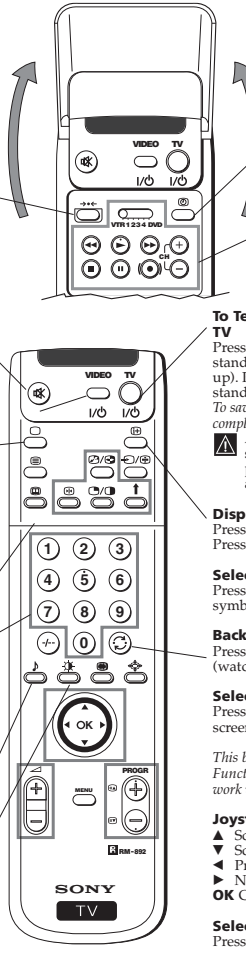
Two batteries (R6 type)

One safety foot

Overview of Projection TV Buttons



Overview of Remote Control Buttons



Resetting picture and sound settings
Press to reset picture and sound to factory levels.

Displaying the time
Press to switch the time on or off (available only when teletext is broadcast).

VCR operation
For more details, please refer to the section "Remote Control of other Sony Equipment"

Muting the Sound
Press to mute TV sound.
Press again to restore the sound.

VCR on/off
Press to switch on or off your VCR.

Selecting TV mode
Press to switch off Teletext or video input.

Selecting Teletext
Press to switch on Teletext.

Displaying EPG
Press to display the Electronic Programme Guide (EPG). Press again to switch off EPG.

These buttons do not work on this set.

Selecting channels
Press to select channels.

For double-digit programme numbers, e.g. 23, press -/-- first, then the buttons 2 and 3.
If you enter an incorrect first digit, this should be corrected by entering another digit (0-9) and then selecting -/-- button again to enter the programme number of your choice.

Selecting Sound mode
Press repeatedly to change the sound mode.

Selecting Picture mode
Press repeatedly to change the picture mode.

Adjusting TV Volume
Press to adjust the volume of the TV.

To Temporarily Switch Off projection TV
Press to temporarily switch off TV (the standby indicator ⏻ on projection TV lights up). Press again to switch on TV from standby mode.
To save energy we recommend switching off completely when TV is not in use.
⚠ After 15-30 minutes without a signal and without any button being pressed, the projection TV switches automatically into standby mode.

Displaying On Screen Information
Press to display all on-screen indications. Press again to cancel.

Selecting Input source
Press repeatedly until the desired input symbol of the source appears on the screen.

Back to the channel last watched
Press to watch the last channel selected (watched for at least 5 seconds).

Selecting Screen format
Press repeatedly to change the format of the screen.

This button only works in Teletext mode. Function ⊞ associated to this button does not work with this TV.

Joystick for menu selection
▲ Scroll Up
▼ Scroll Down
◄ Previous menu or selection
► Next menu or selection
OK Confirms your selection

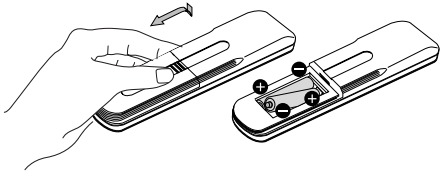
Selecting channels
Press to select the next or previous channel.

Displaying the menu system
Press to display the menu on the screen. Press again to remove the menu display from the screen.

ⓘ Besides TV functions, all coloured buttons as well as green symbols are also used for Teletext operation. For more details, please refer to the "Teletext" section of this instruction manual.

Inserting Batteries into the Remote Control

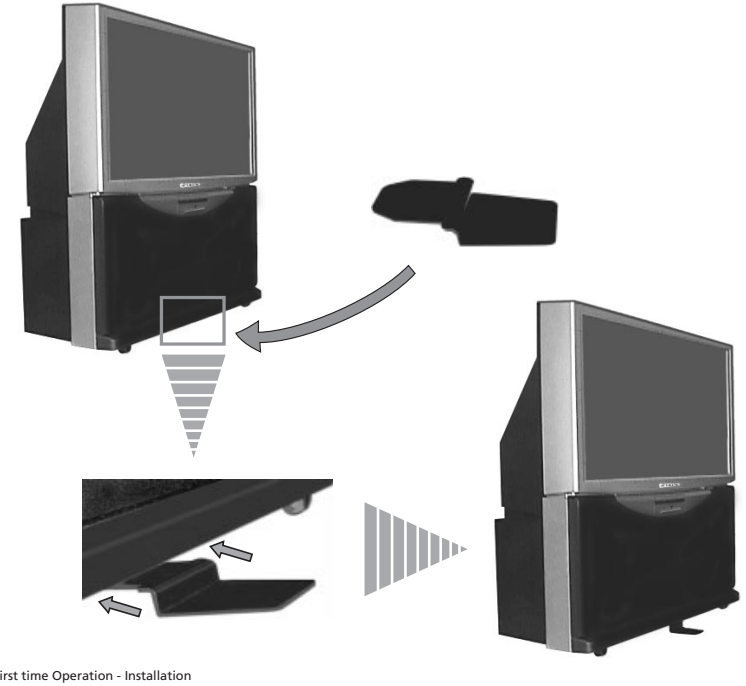
⚠ Make sure to insert the batteries using the correct polarities.
Always remember to dispose of used batteries in an environmental friendly way.



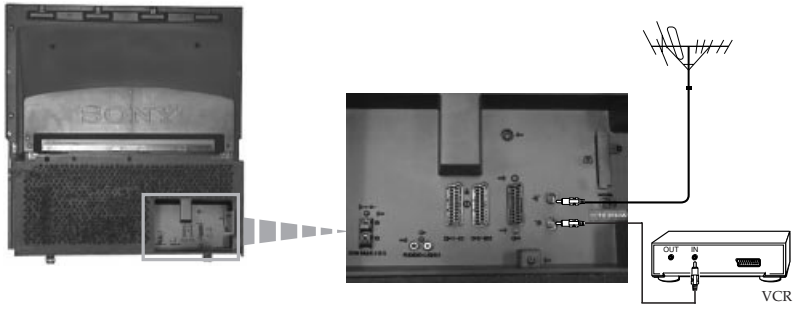
Stabilizing the Projection TV

⚠ For safety purposes, the projection TV can be stabilized with the supplied safety foot.

Fit the supplied safety foot in the support placed on the bottom of the set, as follows:

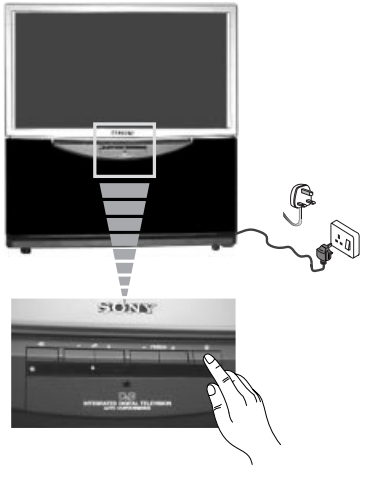


Connecting the Aerial



Connect a conventional aerial to the socket marked ⇥|Γ on the rear of the projection TV.

Switching on the projection TV

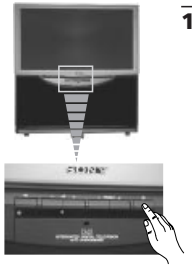


Connect the projection TV plug to the mains socket (220-240V AC, 50Hz).

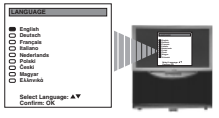
Push in the ⏻ **On/Off** switch on the front of the projection TV.

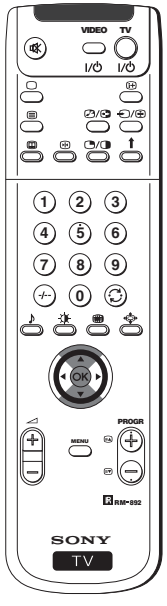
Selecting Language

Use this function to change the language of the menu screens.
The first time that you switch on your projection TV, the LANGUAGE menu appears automatically.
However, if you need to change the language menu afterwards, select the menu Language in the (PRESET) menu and proceed in the same way as described below.



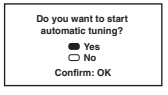
1 Press the **on/off** button on your projection TV set to switch on your TV. The first time you press the **on/off** button on your TV set, the language menu displays automatically on the TV screen.





2 Push the joystick on the remote control to ▼ or ▲ to select the language, then press **OK** to confirm your selection.

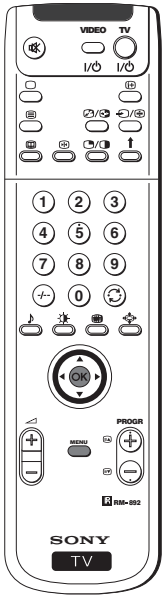
The Auto Tuning menu appears on the projection TV screen in the selected language.



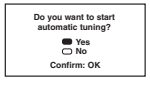
»»»

Automatically Tuning the TV using the Remote Control

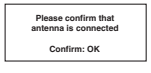
You need to tune the set to receive channels (TV Broadcast). By following the instructions below, this projection TV automatically searches and stores all available channels for you.
After having selected the language, a new menu appears automatically on the projection TV screen asking you to automatically tune the TV. However, if you need to change or repeat the tuning afterwards (e.g. when you move house), select the menu Auto Programme in the (PRESET) menu and proceed in the same way as described below or, please refer to the section "Automatically Tuning the TV" of this instruction manual.



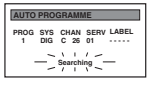
1 Press the **OK** button on the remote control to select **YES**.
A new menu appears automatically on the screen asking you to check that the antenna is connected.



2 Confirm that the antenna is connected and then press the **OK** button.

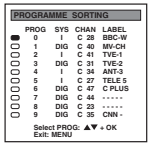


The automatic tuning starts and the message "Searching" flashes on the screen.



This procedure could take some minutes. Please, be patient and do not press any button.

When the automatic tuning is finished, the Programme Sorting menu appears on the screen.



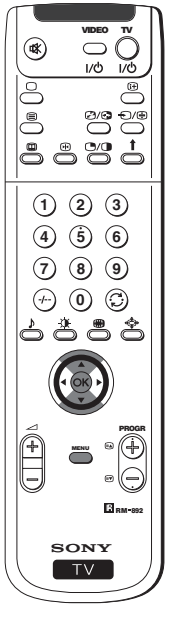
If any digital channels are found during the autotune procedure, no analogue channels will be stored, no analogue channels will be stored. If you wish to tune in any analogue channels, please refer to the section "Manually Tuning the TV" of this instruction manual.

Notes:
- To stop the automatic tuning, press the **MENU** button.
- If you stop the automatic tuning by pressing the **MENU** button, the Programme Sorting menu does not appear automatically on the screen.

»»»

Changing the Programme Order of the TV channels

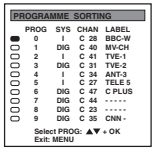
After all available channels (TV Broadcast) are captioned and stored, a new menu appears automatically on the screen to change the order in which the channels appear on the screen.
However, if you wish to rearrange the order of the channels afterwards, select the menu Programme Sorting in the (PRESET) menu and proceed in the same way as described in the b) section of this chapter.



a) If you do not wish to change the channel order:

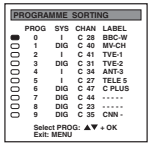
1 Press the **MENU** button on the remote control to exit and return to the normal TV screen.

Your projection TV is now ready for use.



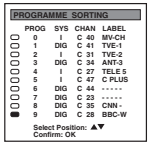
b) If you wish to change the channel order:

1 Push the joystick on the remote control to ▼ or ▲ to select the programme number with the channel (TV Broadcast) you wish to rearrange, then press **OK**.



2 Push the joystick to ▼ or ▲ to select the new programme number position for your selected channel (TV Broadcast), then press **OK**.

The selected channel now moves to its new programme position and the other channels move accordingly.



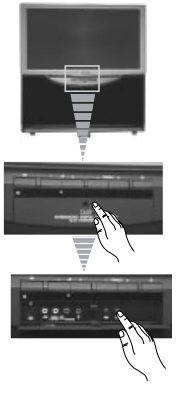
3 Repeat steps 1 and 2 if you wish to change the order of the other channels.

4 Press the **MENU** button to exit and return to the normal TV screen.

Your projection TV is now ready for use.

Adjusting Colour Registration (Convergence)

Due to the earth's magnetism, the picture might become undefined and you could see different colours on the outlines of the images. In that case, proceed as follows:

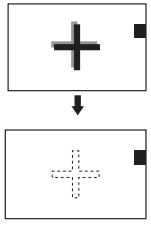


Auto converge the Red, Green, and Blue Lines

1 Press the flap on the front of the projection TV by pressing on the ⊻ mark to reveal the front control panel.

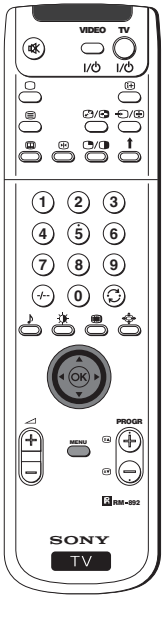
2 Press ⊕ button on the projection TV.

The Auto Convergence function works for about 30 seconds. When the white cross disappears from the screen, your projection TV is ready for use.



Notes:
The Auto Convergence function does not work:
- when no signal is input.
- when the input signal is weak.
- when the screen is exposed to spotlights or direct sunlight.
- when you watch the teletext broadcast.

If you wish a more accurate convergence adjustment



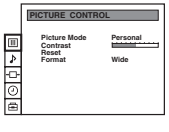
1 Press the **MENU** button on the remote control to display the menu on the screen.

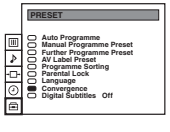
2 Push the joystick to ▼ to select the symbol 🧰, then push to ► to enter to the **PRESET** menu.

3 Push the joystick to ▼ or ▲ to select **Convergence**, then push to ►.

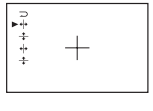
4 Push the joystick to ▼ or ▲ to select "the line" (vertical and horizontal lines in red and blue) you want to adjust.
- ⊹ : red vertical line (left/right adjustment)
- ⊹ : red horizonta line (up/down adjustment)
- ⊹ : blue vertical line (left/right adjustment)
- ⊹ : blue horizontal line (up/down adjustment)

Then press the **OK** button.





5 Push the joystick repeatedly to ▼, ▲, ◄ or ► to converge the selected line with the green line in the centre, then press **OK** to confirm.



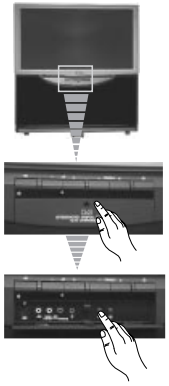
6 Repeat steps 4 and 5 to adjust the other lines, until all the lines have overlapped to form a white cross.

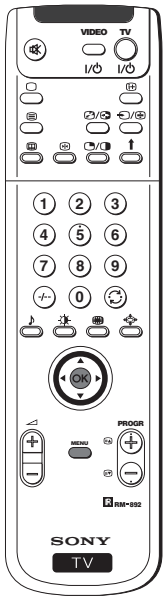
7 Press the **MENU** button to exit and return to the normal TV screen.

Your projection TV is ready for use.

Automatically Tuning the TV

Besides the explanation in the section “Automatically Tuning the TV using the Remote Control“, by following the instructions below, this projection TV also searches and stores automatically all available channels using just one button of the projection TV set and one button of the remote control.

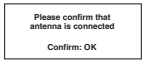




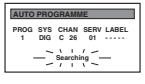
1 Press the flap on the front of the projection TV by pressing on the ⇓ mark to reveal the front control panel.

2 Press and hold in the ▶▶| button on the TV set for some seconds, until a menu appears automatically on the screen asking you to check that antenna is connected.

3 Confirm that the antenna is connected and then press the **OK** button on the remote control.



The automatic tuning starts and the message "Searching" flashes on the screen.



⚠ This procedure could take some minutes. Please, be patient and do not press any button.

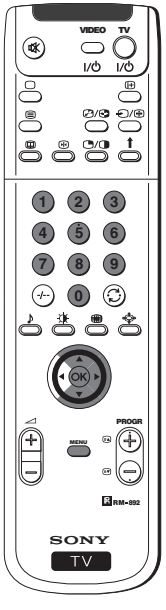
When the automatic tuning procedure is complete, the menu disappears from the screen and your projection TV is now ready for use.

If any digital channels are found during the autotune procedure, no analogue channels will be stored, no analogue channels will be stored. If you wish to tune in any analogue channels, please refer to the section "Manually Tuning the TV" of this instruction manual.

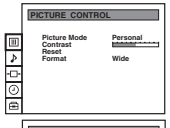
Note: To stop the automatic tuning, press the **MENU** button on the remote control.

Manually Tuning the TV

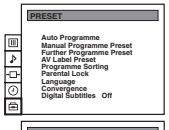
Use this function to preset channels or a video input source one by one to the programme order of your choice.



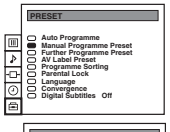
1 Press the **MENU** button on the remote control to display the menu on the screen.



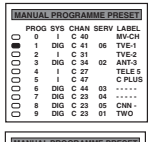
2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu.



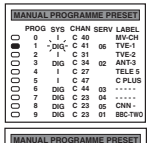
3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ▶.



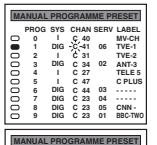
4 Push the joystick to ▼ or ▲ to select on which programme number you want to preset a channel, then push to ▶.



5 Push the joystick to ▼ or ▲ to select the TV Broadcast system (I for analogue channels or DIG for digital channels) or a video input source (AV1, AV2...), then push to ▶ to highlight the number digit of CHAN column.



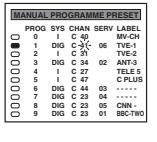
6 Press the number buttons to enter the channel number of the TV Broadcast or push the joystick to ▲ or ▼ to search for the next available channel.
If you do not wish to store this channel, push the joystick to ▲ or ▼ to continue searching for the desired channel.



7 If this is the desired channel you wish to store, press the **OK** button.

8 Repeat steps 4 to 7 if you wish to store more channels.

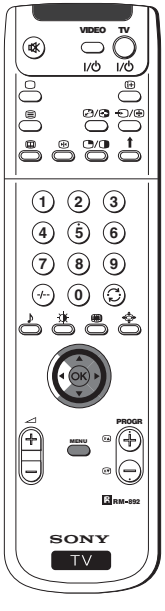
9 Press the **MENU** button to exit and return to the normal TV screen.



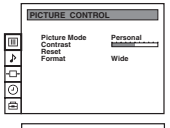
Your projection TV is now ready for use.

Using the "Further Programme Preset" function

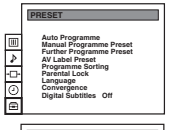
With this feature you can:
a) Even normally the automatic fine tuning (AFT) is operating, however you can manually fine-tune the TV (only available on analogue channels) to obtain a better picture reception if the picture is distorted or
b) preset the AV3 output for the programme positions of channels with scrambled signals (eg from a pay TV decoder). In this way a connected VCR records the unscrambled signal.



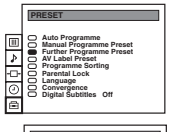
1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the 🧰 symbol, then push to ► to enter to the **PRESET** menu.



3 Push the joystick to ▼ or ▲ to select **Further Programme Preset**, then push to ►.



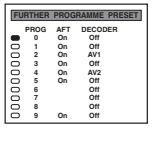
4 Push the joystick to ▼ or ▲ to select the relevant programme number, then push to ► repeatedly to select:

a) **AFT** or

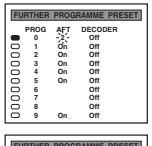
b) **DECODER**.

The selected item changes colour.

AFT will only be available on analogue channels.

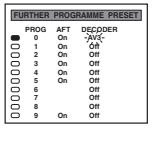


5 a) **AFT**
Push the joystick to ▼ or ▲ to fine tune the channel frequency over a range of -15 to +15, then press the **OK** button to confirm.
Repeat steps 4 and 5a) if you wish to fine tune other channels.



b) **DECODER**
Push the joystick to ▼ or ▲ to select **AV3** and press the **OK** button to confirm.

The picture from the decoder connected to the Euro AV ⇨3 on the back of the projection TV will appear on this programme number.
Repeat steps 4 and 5b) to preset the AV3 output for other programme positions.

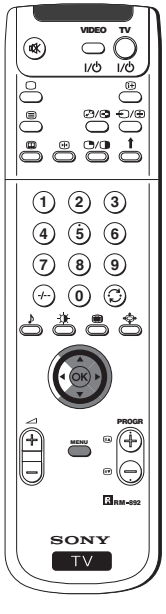


6 Press the **MENU** button to exit and return to the normal TV screen.

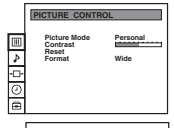
Your projection TV is now ready for use.

Locking Programmes

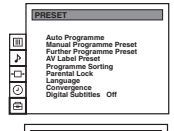
This feature enables you to prevent undesirable broadcasts appearing on the screen. We suggest you use this function to prevent children from watching programmes you consider unsuitable.



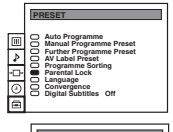
1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the 🧰 symbol, then push to ► to enter to the **PRESET** menu.

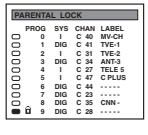


3 Push the joystick to ▼ or ▲ to select **Parental Lock**, then push to ►.



4 Push the joystick to ▼ or ▲ to select the programme number with the channel you wish to block, then press the **OK** button.

The 🔒 symbol appears before the programme position to indicate this programme is now blocked.
To unblock the programme, press the **OK** button again. The 🔒 symbol disappears.



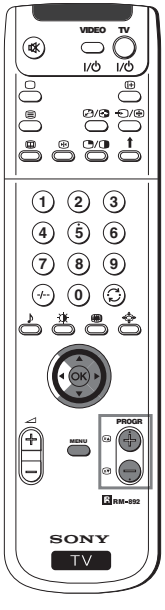
5 Repeat step 4 if you wish to block other channels.

6 Press the **MENU** button to exit and return to the normal TV screen.

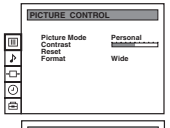
When you select a blocked programme the screen appears in black, with 🔒 symbol.

Skipping Programme positions

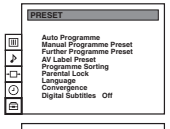
You can programme this projection TV to skip any unwanted programme numbers when they are selected with the PROGR +/- buttons. To cancel this function afterwards, proceed in the same way as described below by selecting the appropriate TV system (B/G or D/K) instead of "- - -" in step 5.



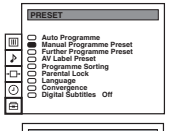
1 Press the **MENU** button on the remote control to display the menu on the screen.



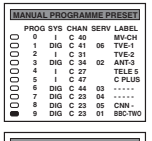
2 Push the joystick to ▼ to select the symbol, then push to ► to enter to the **PRESET** menu.



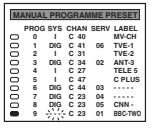
3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ►.



4 Push the joystick to ▼ or ▲ to select the programme position you want to skip, then push to ► to enter to the **SYS** column.



5 Push the joystick to ▼ to select **"- - -"**, then press the **OK** button to store.



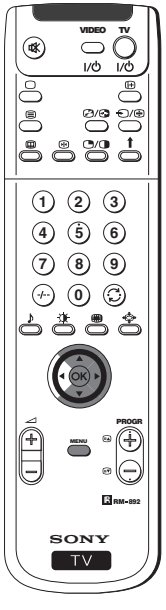
6 Repeat steps 4 and 5 to skip other unused programme positions.

7 Press the **MENU** button to exit and return to the normal TV screen.

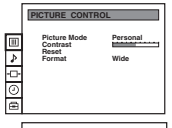
*When changing channels (TV Broadcasts) with the **PROGR +/-** buttons, the skipped programme positions do not appear. You can, however, still select them using the number buttons.*

Labeling a channel (analogue channels only)

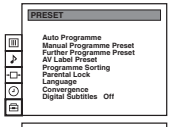
Names for analogue channels (TV Broadcasts) are usually taken automatically from Teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers). Using this function, you can easily identify which channel (TV Broadcasts) or video source you are watching.



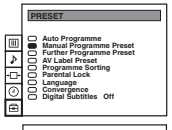
1 Press the **MENU** button on the remote control to display the menu on the screen.



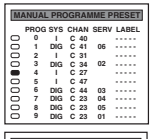
2 Push the joystick to ▼ to select the symbol, then push to ► to enter to the **PRESET** menu.



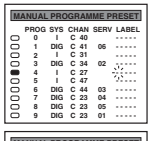
3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ►.



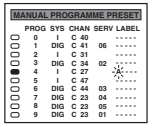
4 Push the joystick to ▼ or ▲ to select the programme number with the analogue channel you wish to name.



5 Push the joystick to ► repeatedly until the first element of the **LABEL** column is highlighted.



6 Push the joystick to ▼ or ▲ to select a letter or number (select "-" for a blank), then push to ► to confirm this character. Select the other four characters in the same way.



7 After selecting all the characters, press the **OK** button.

8 Repeat steps 4 to 7 if you wish to label other channels.

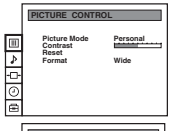
9 Press the **MENU** button to exit and return to the normal TV screen.

When you select a named channel, the name appears for a few seconds on the screen.

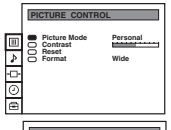
Adjusting the Picture

Although the picture is adjusted at the factory, you can modify it to suit your own taste.

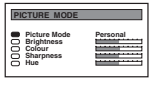
1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▶ to enter to the **PICTURE CONTROL** menu.



3 Push the joystick to ▼ or ▲ to select the item you wish to change, then push to ▶.
Refer to the table below to chose the item and for the effect of each control:



Picture Mode	▸ **Picture Mode**	▸ Personal (for individual settings)	
		▸ Movie (for films)	
		▸ Live (for live broadcast programmes)	
	▾ **Brightness***	◂ Darker	▸ Brighter
	▾ **Colour***	◂ Less	▸ More
	▾ **Sharpness***	◂ Softer	▸ Sharper
	▾ **Hue****	◂ Greenish	▸ Reddish
Contrast		◂ Less	▸ More
Reset		(OK) Resets picture to the factory preset levels.	
Format		(for detalis refer to the section "Changing the Screen Mode")	

* Can be only altered if Personal Mode is selected.
** Only avalaible for NTSC colour signal (e.g: USA video tapes).

4 Push the joystick to ◀ or ▶ to alter the selected item, then press the **OK** button to store the new adjustment.

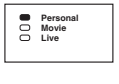
5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

Changing the Picture Mode Quickly

You can quickly change the Picture Mode without entering the Picture Control menu screen.

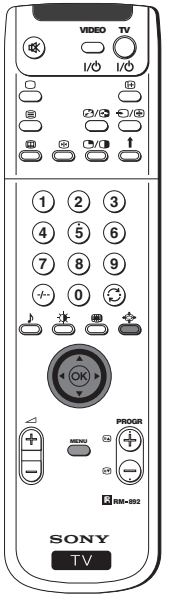
1 Press the ☼ button on the remote control to directly access the Picture Mode.



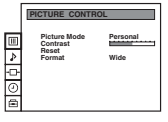
2 Push the joystick to ▼ or ▲ to select your desired picture mode (**Personal**, **Movie** or **Live**), then press the **OK** button to remove the display from the screen.

Changing the screen mode

Using this Screen Mode feature you can change the aspect ratio of the screen.

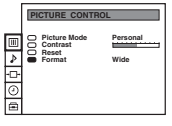


1 Press the **MENU** button on the remote control to display the menu on the screen.



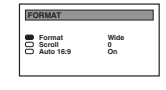
2 Push the joystick to ▶ button to enter to the **PICTURE CONTROL** menu.

3 Push the joystick to ▼ to select **Format,** then push to ▶.



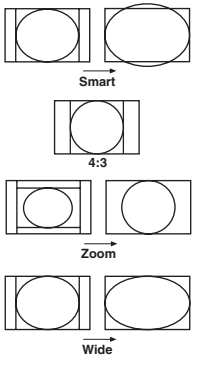
4 Push the joystick to ▼ or ▲ to select **Format**, **Scroll** or **Auto 16:9**.

5 **Format**
Push the joystick to ▶ to enter to the menu, then push to ◀ or ▶ repeatedly to select one of the following modes:



- **Smart:** imitation of wide screen effect (16:9) for 4:3 broadcasts.
- **4:3:** conventional 4:3 picture.
- **Zoom:** imitation of wide screen effect (16:9) for movies broadcast in cinemascopic format.
- **Wide:** for 16:9 broadcasts.

Press the **OK** button to store the chosen mode.



6 **Scroll**
You can use Scroll to move the screen up- or downwards in order to see the cut-off parts (eg to read subtitles). This function only works if you selected Zoom mode or Smart mode in step 5.
Push the joystick to ▶ to enter to the menu, then push to ◀ or ▶ to adjust the screen position over a range of -5 to +5. Press the **OK** button to store.

7 **Auto 16:9**
Push the joystick to ▶ to enter to the menu, then push to ◀ or ▶ to select:

On: if you wish the TV set to switch automatically to wide format if a 16:9 broadcast is detected or
Off: for normal mode.

Press the **OK** button to store.

8 Press the **MENU** button to exit and return to the normal TV screen.

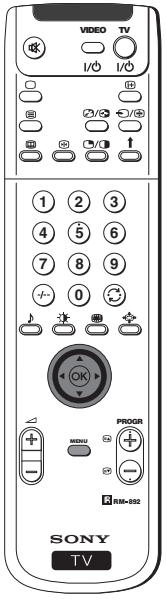
Changing the Format Screen Quickly

You can quickly change the format screen without entering the Picture Control menu screen.

1 Press the ✣ button on the remote control repeatedly to select your desired format screen mode (**Smart**, **4:3**, **Zoom** or **Wide**).

Adjusting the Sound

Although the sound is adjusted at the factory, you can modify it to suit your own taste.

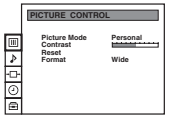


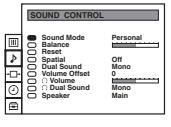
1 Press the **MENU** button on the remote control to display the menu on the screen.

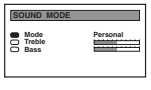
2 Push the joystick to ▼ to select the ♪ symbol, then push to ► to enter to the **SOUND CONTROL** menu.

3 Push the joystick to ▼ or ▲ to select the item you wish to change, then push to ►.

Refer to the table below to chose the item and for the effect of each control.







Sound Mode ▸ **Mode** ▸ Personal (for individual settings)
▸ Rock
▸ Jazz
▸ Pop

▾ **Treble*** ◂ Less ▸ More

▾ **Bass*** ◂ Less ▸ More

Balance ◂ Less ▸ More

Reset OK Resets picture to the factory preset levels.

Spatial ▸ **On:** volume level of the channels will stay the same.
▸ **Off:** volume level changes according to the broadcast signal.

Dual Sound
- For a stereo broadcast:
  - ▸ Mono
  - ▸ Stereo
- For a bilingual broadcast:
  - ▸ Mono (for mono channel if available)
  - ▸ A (for channel 1)
  - ▸ B (for channel 2)

Volume Offset ◂-12 ..... ▸ +12
The channel volume level can be adjusted over a range of -12 to +12.

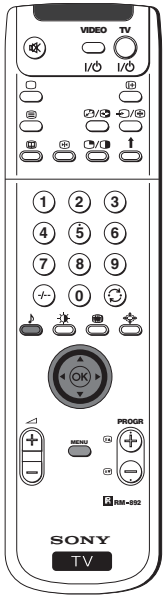
Headphones:
Ω Volume ◂ Less ▸ More

Ω Dual Sound
- For a stereo broadcast:
  - ▸ Mono
  - ▸ Stereo
- For a bilingual broadcast:
  - ▸ Mono (for mono channel if available)
  - ▸ A (for channel 1)
  - ▸ B (for channel 2)

Speaker ▸ **Main:** sound from projection TV set
▸ **Centre in:** sound from external amplifier

* Can be only altered if "Personal" mode is selected.

»»



4 Push the joystick to ◄ or ► to alter the selected item, then press the **OK** button to store the new adjustment.

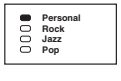
5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

Changing Sound Mode Quickly

You can quickly change Sound mode without entering the Sound Control menu screen.

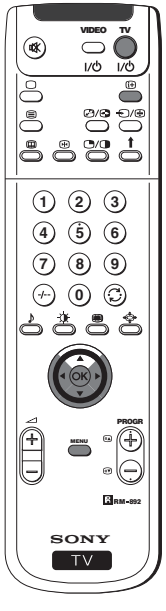
1 Press the ♪ button on the remote control to directly access to the Sound Mode.



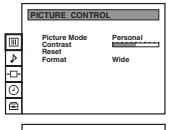
2 Push the joystick to ▼ or ▲ to select your desired sound mode (**Personal**, **Rock, Jazz** or **Pop**), then press the **OK** button to remove the display from the screen.

Using the Sleep Timer

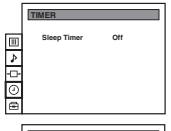
You can select a time period for the TV to switch itself automatically into the standby mode.



1 Press the **MENU** button on the remote control to display the menu on the screen.

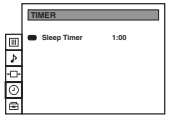


2 Push the joystick to ▼ button to select the ◴ symbol, then push to ► to enter to the **TIMER** menu.



3 Push the joystick to ◄ or ► repeatedly to set the time period delay

Off ▸ 0:30 ▸ 1:00..... 4:00 hours



4 Press the **OK** button.

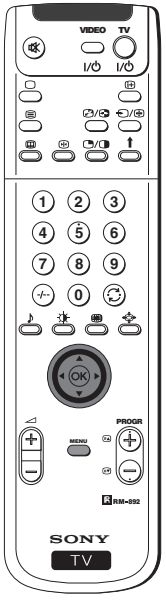
5 Press the **MENU** button to exit and return to the normal TV screen.

One minute before the projection TV switches into standby mode, the time remaining is displayed on the screen automatically.

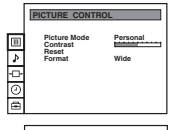
Notes:
- When watching the TV, press the ⊕ button to display the time remaining.
- To return to normal operation from standby mode, press the **TV** I/⏻ button.

Displaying subtitles for digital channels

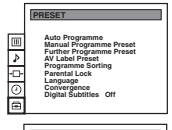
With this feature you can view subtitles (if available) on the TV screen when watching digital channels. When watching analogue channels you can view subtitles via the teletext menu.



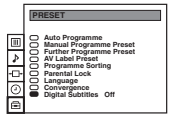
1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the 🧰 symbol, then push to ► to enter to the **PRESET** menu.



3 Push the joystick to ▼ or ▲ to select **Digital Subtitles,** then push to ► .



4 Push the joystick to ◄ or ► to select the language in which you wish the subtitles to appear. You can choose from **English**, **Welsh** or **Gaelic**.

When you wish to cancel subtitles, set to **Off**.

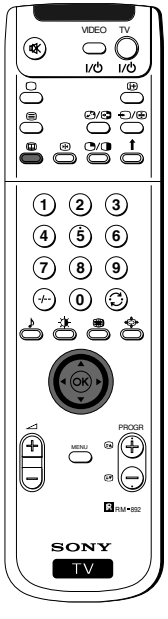
5 Press the **OK** button to confirm your selection.

6 Press the **MENU** button to exit and return to the normal TV screen.

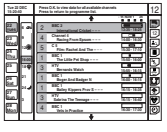
When you select a digital channel which broadcasts subtitles, the subtitles appear on the bottom of the screen in the chosen language.

Displaying and Viewing EPG

The electronic Programme Guide (EPG) is a guide which provides programme information for all digital channels supporting EPG. When looking for information you can search by theme (sports, art, etc.), date or time (e.g. broadcasts between 8 and 9 pm). When you have found a programme you can go directly to this programme, use the timer to remind you of it or preset your VCR with Smartlink.



Displaying the EPG



1 Press the ▤ button on the remote control to display the electronic programme guide (EPG) on the screen.

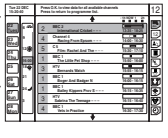
You may see the message "EPG INFORMATION IS TEMPORARILY UNAVAILABLE" whilst waiting for the EPG to appear on screen.

2 Push the joystick to ▼, ▲, ◄ or ► to move the on-screen cursor around the guide.

3 Press the ▤ button again to exit and return to the normal TV screen.

Viewing Information on the EPG

You can alter the type of information presented on the EPG by changing data in each of the EPG columns. You can for example display information for all sports programmes being shown tomorrow from 5.00pm onward.



1 Press the ▤ button on the remote control to display the EPG on the TV screen.

2 Push the joystick to ◄ or ► to highlight the **date** column, then push to ▲ or ▼ to select your chosen date.

3 Push the joystick to ◄ or ► to highlight the **time** column, then push to ▲ or ▼ to select your chosen time.

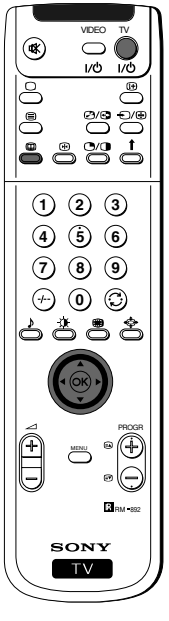
4 Press the **OK** button. The EPG will display programme information according to the date and time you selected.

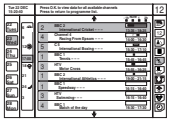
5 Push the joystick to ► to highlight **programme type** column, then push to ▲ or ▼ to select Films, News, Lifestyle, Sport, Children Programmes, Entertainment or Education.

6 Push the joystick to ◄ or ► to update the programme information accordingly. If you selected tomorrow's date, 17:00 and Sport, you should now be able to view all the sports programmes being shown tomorrow from 5.00 pm onwards.

7 Press the ▤ button to exit and return to the normal TV screen.

Recording Programmes using EPG

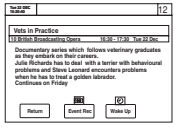




1 Press the ▤ button on the remote control to display the programme guide on the screen.

2 Push the joystick to ◄ or ► to highlight the **programme** column, then push to ▲ or ▼ to select your desired programme.

3 Press the **OK** button. If the programme is currently being broadcast, it will be displayed on your TV. If not, the **TIMER** menu will be displayed on the TV screen.



4 At the bottom of the timer page you can see the symbols Return (back to EPG), Event Rec (to record a programme) or Wake up (to set the programme to switch on automatically).

5 Push the joystick to ◄ or ► to select one of these symbols then press the **OK** button to confirm your selection. The EPG appears on screen with the relevant icon appearing next to the programme you selected in step 2.

6 If you wish to cancel a recording, select the relevant programme and press the **OK** button. A menu is displayed on screen requesting you to select **Return** if you wish to continue to record the programme or **Delete** if you wish to cancel the recording request.

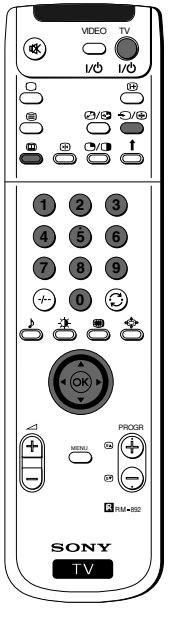
7 After making your selection, press the **OK** button to confirm. The record icon disappears from the EPG if **Delete** was selected in step 6.

8 If you have finished viewing programmes on your TV, press the **TV** I/⏻ button before the timer recording starts to leave your projection TV in standby mode for the timer settings to be activated. If, however, you wish to continue watching other programmes after setting the timer, you can do so by changing programmes in the normal way. If you are watching another programme when the timer is due to start, a display will appear on screen advising you that, if you change channels, you automatically cancel the recording.

9 If you do not wish to cancel or view the recording, press the **TV** I/⏻ button whilst one of the displays are still on screen to leave your projection TV in standby mode. The standby indicator on the front of the set will flash to show that the timer record operation is active. If, however, you choose to change programmes, you automatically cancel the recording.

Notes:
- If your video recorder (VCR) is not Smartlink-compatible, you will need to set your VCR to switch on and off automatically after setting the timer on the EPG.
- If you want to change channel once a digital programme has started recording, select the channel by using the remote control buttons as normal. The message "STOP RECORDING" will be displayed on screen. Either do nothing to allow the recording to continue or select the required channel once more while the message is still displayed on screen. The recording will then be cancelled.

Setting The Manual Timer



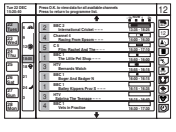
1 Press the ▭ button on the remote control to display the EPG on the screen.

2 Push the joystick to ◄ or ► to highlight the **programme type** column, then push to ▼ to select the timer symbol ⏱

3 Press the **OK** button to display a screen of 9 programme slots, each one indicating that it is either free for programming, or that it has a programme already stored in it.

4 Push the joystick to ◄ to enter the **programme** column.

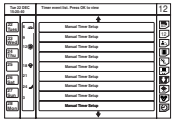
5 Push the joystick to ▼ or ▲ to select a free row then press the **OK** button to display the **Set Timer** screen. This screen asks you to confirm the date, programme number, start time and end time.



6 Push the joystick to ▼ to select the date area then press the number buttons on the remote control to enter the date.

7 Push the joystick to ► to confirm the date then push then to ▼ or ▲ to select the month.

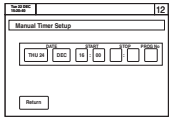
8 Push the joystick to ► to confirm the month and to enter the start time.



9 Press the number buttons to enter the time when you want the timer to switch on, preferably several minutes before you set your video recorder to start recording. If you wish to switch on at 8.25 pm, enter 2025.

10 Push the joystick to ► to confirm the entry and to enter the switch-off time.

11 Press the number buttons to enter the time you want the timer to switch off, preferably after your video has stopped recording. Again, you should enter 4 digits using the 24 hours format.



12 Push the joystick to ► to confirm the entry and to enter the programme number.

13 Press the **OK** button to save the settings, then select Return and press **OK** button to return to the **Manual Timer Setup** menu.

14 Select another available slot if you wish to record a further programme. Otherwise, push the joystick to ► to enter the **programme type** column, then press the **OK** button to return to the EPG.

15 If you have finished viewing programmes on your projection TV, press the **TV I/⏻** button before the timer recording starts to leave your projection TV in standby mode for the timer settings to be activated. If, however, you wish to continue watching other programmes after setting a timer, you can do so by changing programmes in the normal way. If you are watching another programme when the timer is due to start a display will appear on screen advising you that, if you change channels now, you automatically cancel the recording.

16 If you do not wish to cancel or view the recording, press the **TV I/⏻** button whilst the display is still on screen to leave your projection TV in standby mode. The standby indicator on the front of the set will flash to show that the timer record operation is active. If, however, you choose to change programmes, you automatically cancel the recording.

Viewing Teletext (analogue channels only)

Teletext is an information service transmitted by most TV stations.

Make sure to use a TV channel with a strong signal, otherwise teletext errors may occur.

Selecting Teletext

1 Select the TV channel which carries the teletext service you wish to view.

2 Press the ▤ button on the remote control to switch on the teletext.

3 Input three digits for the page number, using the numbered buttons on the remote control. (if you have made a mistake, type in any three digits and then, re-enter the correct page number).

4 Press the ▢ button to switch off teletext.

Using other Teletext functions

TO	PRESS THE BUTTON
Access the next or preceding page	for next page or for the preceding page
Superimpose teletext on to the TV	▤ Press ▤ again to cancel teletext mode.
Freeze a teletext page	⊟ Press ⊟ again to cancel the freeze.

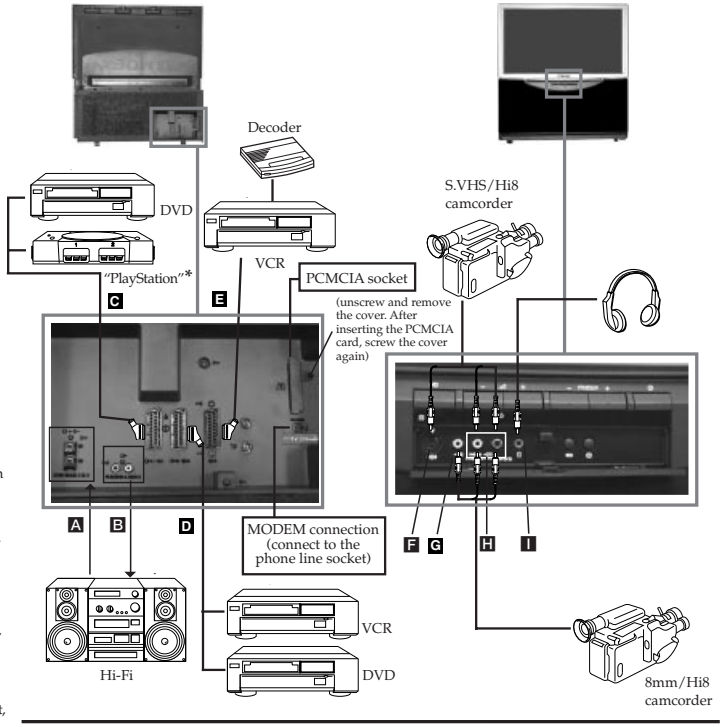
Using Fastext

Fastext lets you access pages with one button stroke.

When Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the colour button (red, green, yellow or blue) on the remote control to access the corresponding page.

Connecting Optional Equipment

Using the following instructions, you can connect a wide range of optional equipment to your projection TV.



To avoid picture distortion:
- Do not connect equipment to **F** and **G** connectors at the same time.
- Do not connect any equipment on the front connectors together with **D** connector.

*"**PlayStation**" is a product of Sony Computer Entertainment, Inc.

* "**PlayStation**" is a trademark of Sony Computer Entertainment, Inc.

Acceptable input signal	Available output signal
A Centre speaker input Set "Speaker" on the SOUND CONTROL menu to "Centre in".	No outputs
B No inputs	Audio signal
C Audio/video and RGB signal	Video/audio from TV tuner
D Audio/video and S video signal	Video/audio from selected source
E Audio/video signal	Video/audio from selected source (the same output source as the 2/ S 2 connector)
F S Video signal	No output
G Video signal	No output
H Audio signal	No output
I No input	Audio signal from headphones

Using Optional Equipment

Additional Information when connecting equipment

Connecting a VCR

We recommend you connect your VCR to the **D** or **E** socket using a scart lead. If you do not have a scart lead, use the "Manually Tuning the TV" section of this instruction manual to tune in the VCR signal to TV programme number "0".
If your video supports Smartlink please refer the "Smartlink" section of this instruction manual.

Connecting to External Audio Equipment

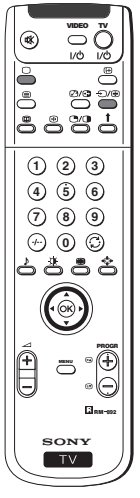
1 **To listen to the audio of your projection TV on the Hi-Fi equipment:**
Plug in your Hi-Fi equipment to the **B** sockets on the rear of the projection TV if you wish to amplify the audio output from the TV.
The output level from **B** sockets can be varied by adjusting the volume of the headphones. Refer to the "Adjusting the sound" section of this instruction manual to adjust the volume of the headphones.

2 **To listen to the Hi-Fi equipment on the projection TV speakers:**
Plug in your Hi-Fi equipment to the **A** socket on the rear of the projection TV if you wish to listen to the audio output from your Hi-Fi on the projection TV speaker. If you have a Dolby amplifier, connect the centre output from your amplifier to the **A** socket to use the projection TV as a centre speaker. Refer to the "Adjusting the Sound" section of this instructions manual and set the option "Speaker" to "Centre in".

For mono equipment

Connect the phono plug to the L/G/S/I socket on the front of the TV and select the 2 input signal using the instructions on this page below. Finally, refer to the "Adjusting the sound" section of this manual and select "A" on the sound menu screen.

Select and View the Input Signal



1 Connect your equipment to the designated projection TV socket, as it is indicated on the previous page.

2 Press the button repeatedly on your remote control until the correct input symbol appears on the screen.

Symbol	Input signals
1	• Audio/video input signal through the Euro AV connector **C**
	• RGB input signal through the Euro AV connector **C**
2	• Audio/Video input signal through the Euro AV connector **D** or the phono sockets **H** and **G**.
S2	• Audio/S Video input signal through the Euro AV connector **D** or the sockets **H** and **F**.
3	• Audio/Video input signal through the Euro AV connector **E**

3 Switch on the connected equipment.

4 To return to the normal TV picture, press the button on the remote control.

Smartlink

Smartlink is a direct link between your projection TV set and a VCR.

For Smartlink you need:

- A VCR which supports Smartlink, NextView Link, Easy Link or Megalogic.

  Megalogic is a trademark of Grundig Corporation.
  EasyLink is a trademark of Philips Corporation.

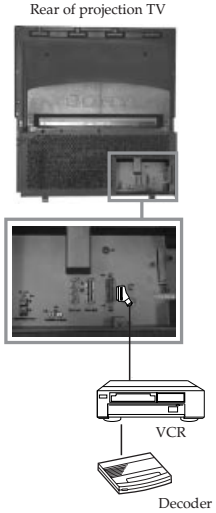
- A fully-wired 21 pin SCART cable to connect your VCR to the Euro AV connector ☞3 on the rear of the Projection TV.

The features of Smartlink are:

- Tuning information such as the channel overview are downloaded from the projection TV set to the VCR.
- Direct projection TV recording: While watching TV you need to press just one button on the VCR to record this programme.
- Projection TV in standby mode: Press the "Play ▶" button on your VCR to switch the TV automatically on.

If you have connected a decoder to a VCR which supports Smartlink feature, select the menu Further Programme Preset in the (PRESET) menu and select **DECODER AV3** to each codified channel. For more details, please refer to the section "Using the Further Programme Preset function" of this instruction manual.

For more information on Smartlink, please refer to the Instruction Manual of your VCR.



Remote Control of other Sony Equipment

Using the buttons underneath the cover of the remote control you can control other Sony equipment.

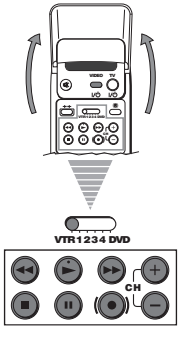
1 Open the cover of the Remote Control.

2 Set the selector VTR 1234 DVD according to the equipment you want to control:

VTR 1	Beta VCR
VTR 2	8 mm VCR
VTR 3	VHS VCR
VTR 4	Digital Video (DCR-VX 1000/9000 E, VHR-1000)
DVD	Digital Video Disk

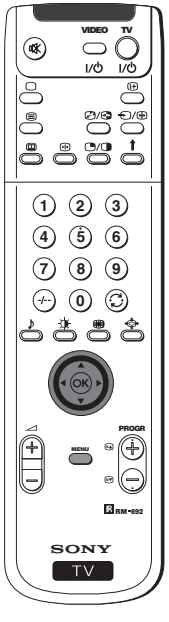
3 Use the buttons underheath the cover of the on the remote control to operate the equipment.

- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1234 DVD selector on the TV Remote Control.
- If the equipment does not have a certain function, the corresponding button on the remote control does not work.

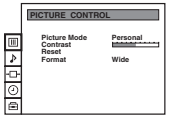


Selecting the output source for the Euro AV connectors

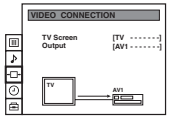
Using this function you can record on your VCR any signal coming from an external equipment connected to the Euro AV connectors ☞2 or ☞3 placed on the rear of the projection TV.
In that case you have to select the output source as described below (if your VCR support Smartlink, this procedure is not necessary).



1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the symbol, then push to ▶ button to enter to the **VIDEO CONNECTION** menu screen.



3 Push the joystick to ▼ or ▲ button to highlight**:**

TV Screen (input source for the TV screen) or

Output (output source available for ☞2 and ☞3 Euro AV connectors).

Push the joystick to ▶ to confirm.

4 Push the joystick to ◀ or ▶ repeteadly to select the desired source:

TV Screen **TV, AV1, RGB, AV2, YC2** or **AV3**

Output **TV, AV1, AV2, YC2, AV3** or **AUTO**

Then press the **OK** button to confirm.

If you select **"AUTO"**, the output signal will be always the same one that is displayed on the screen.

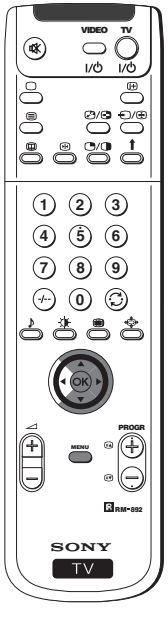
If you have connected a decoder, please remember to set back the Output to **"TV"** for a correct unscrambling.

5 Press the **MENU** button to exit and return to the normal TV screen.

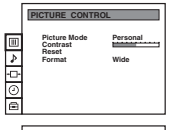
The selected signal is available for your optional equipment connected to the appropriate Euro AV connector.

Using the AV Label Preset feature

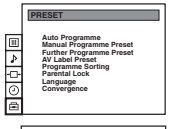
This function enables you to designate a name to the optional equipment you have conected to the sockets of this projection TV. This name can be up to 5 characters (letters or numbers).



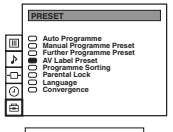
1 Press the **MENU** button on the remote control to display the menu on the screen.



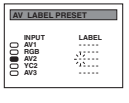
2 Push the joystick to ▼ to select the symbol, then push to ► to enter to the **PRESET** menu screen.



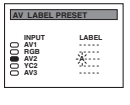
3 Push the joystick to ▼ or ▲ to select **AV Label Preset,** then push to ►.



4 Push the joystick to ▼ or ▲ to select the input source you wish to name (eg AV2), then push to ► to highlight the first element of the **LABEL** column.



5 Push the joystick to ▼ or ▲ to select a letter or number (select "-" for a blank) then push to ► to confirm this character. Select the other four characters in the same way.



6 After selecting all the characters, press the **OK** button.

7 Repeat steps 4 to 6 if you wish to label other input sources.

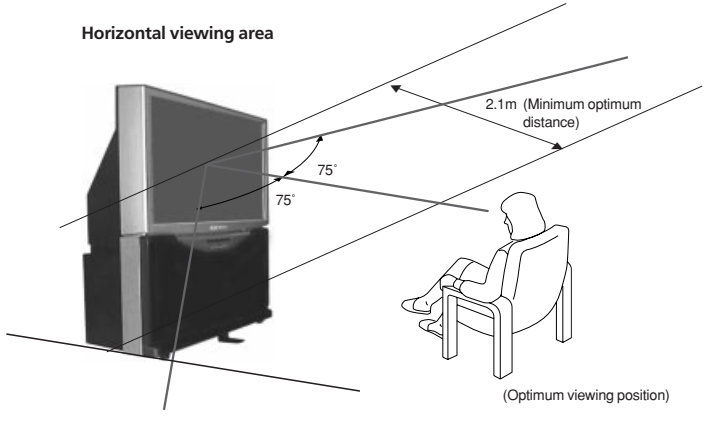
8 Press the **MENU** button to exit and return to the normal TV screen.

Whenever the equipment with the labeled input is selected for use, the name appears for a few seconds on the screen.

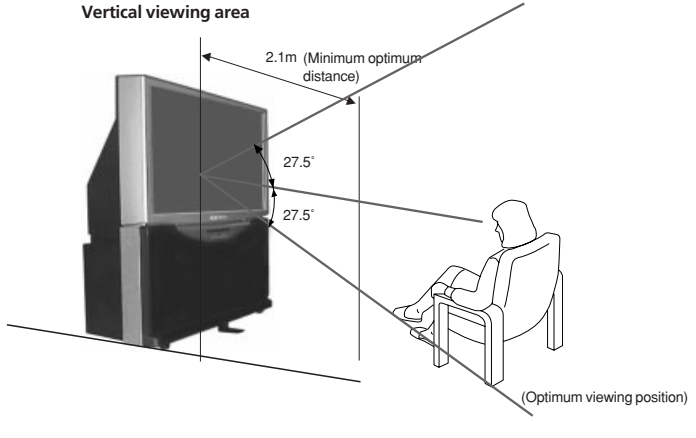
Optimum Viewing Area

For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

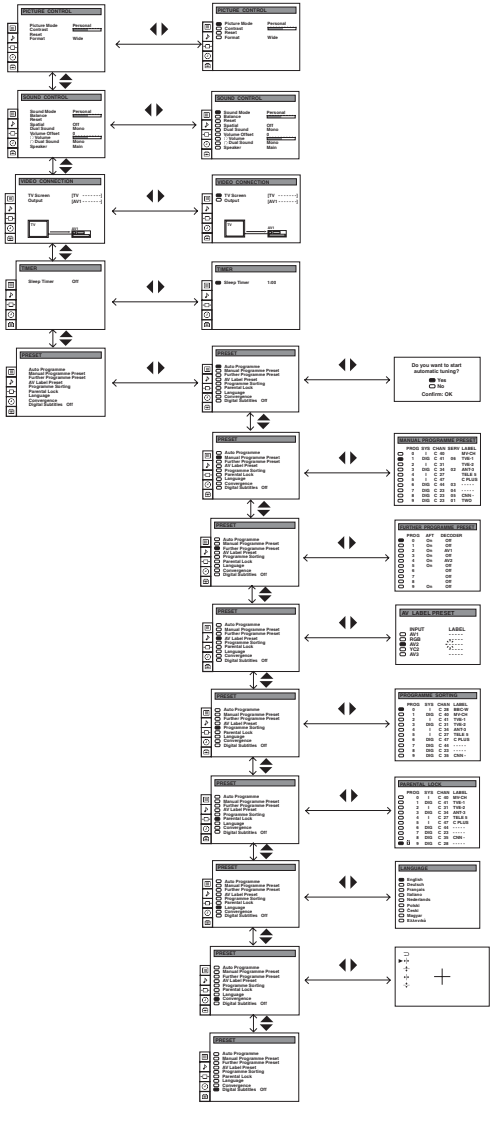
Horizontal viewing area



Vertical viewing area



On Screen display Menus Guide



(For different adjustments, please refer to the section "Adjusting the Picture")

(For different adjustments, please refer to the section "Adjusting the Sound")

(For more details, please refer to the section "Selecting the output source for the Euro AV connectors")

(For more details, please refer to the section "Using the Sleep Timer")

(For more details, please refer to the section "Automatically Tuning the TV using the Remote Control")

(For more details, please refer to the section "Manually Tuning the TV")

(For more details, please refer to the section "Using the Further Programme Preset function"

(For more details, please refer to the section "Using the AV Label Preset function")

(For more details, please refer to the section "Changing the Programme Order of the TV channels")

(For more details, please refer to the section "Locking Programmes").

(For more details, please refer to the section "Selecting Language")

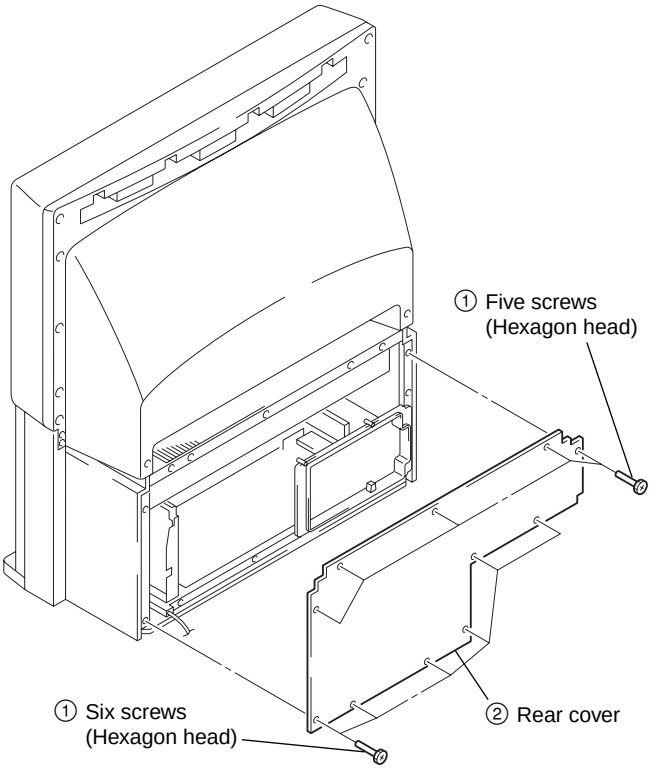
(For more details, please refer to the section "Adjusting Colour Registration (Convergence)".

(For more details, please refer to the section "Displaying subtitles for digital channels".

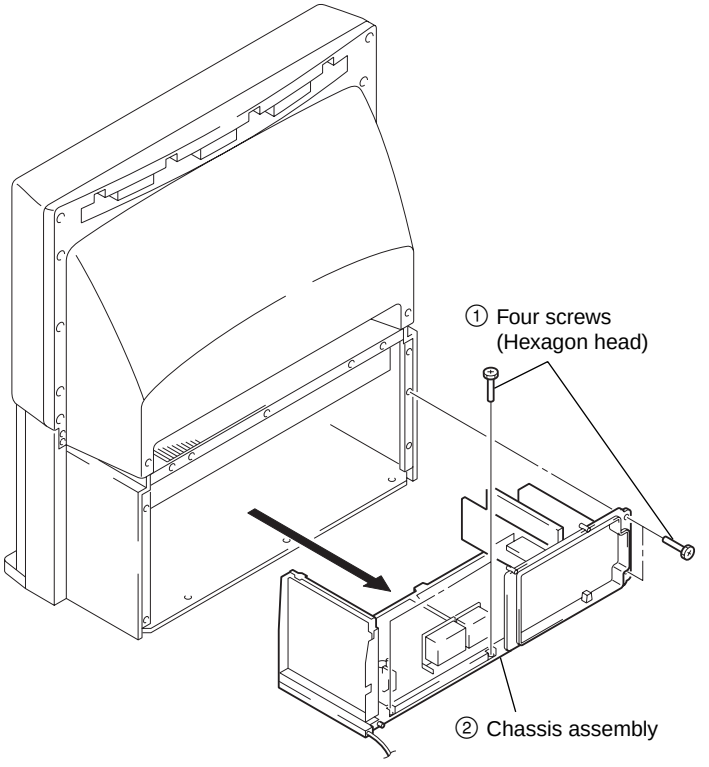
MEMO

SECTION 3
DISASSEMBLY

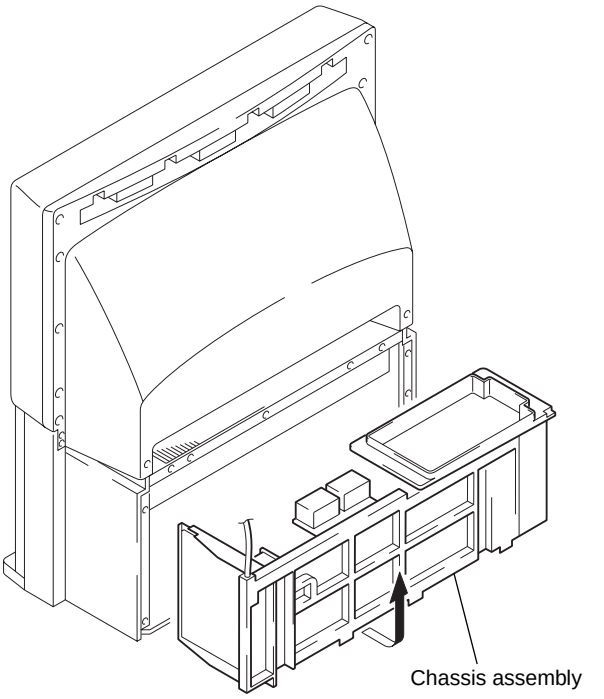
3-1. REAR COVER REMOVAL



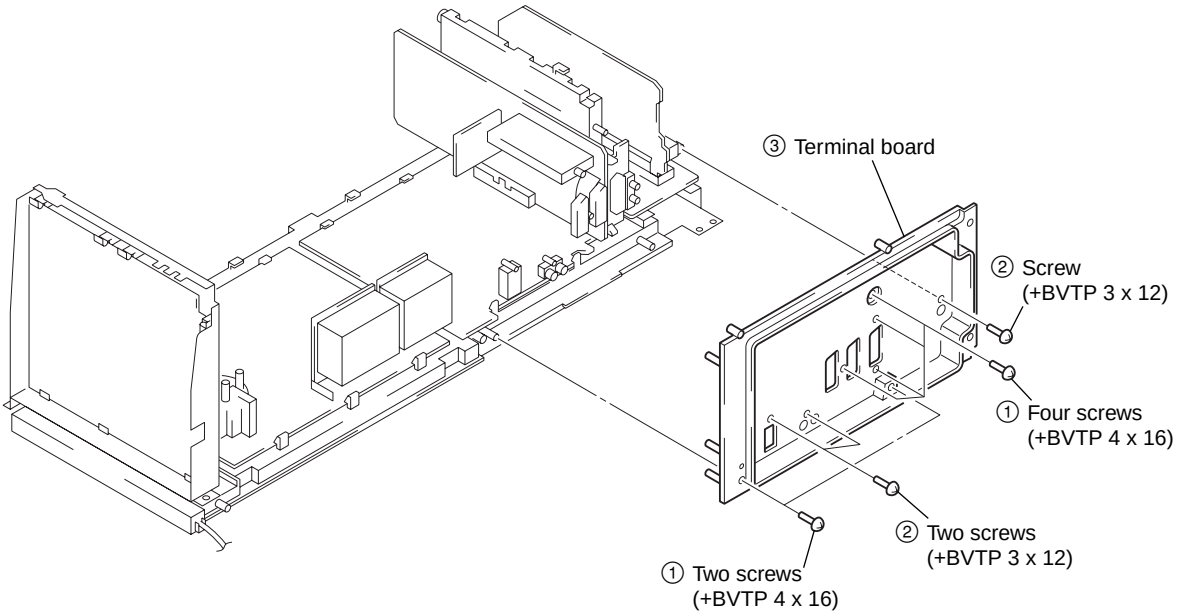
3-2. CHASSIS ASSEMBLY REMOVAL



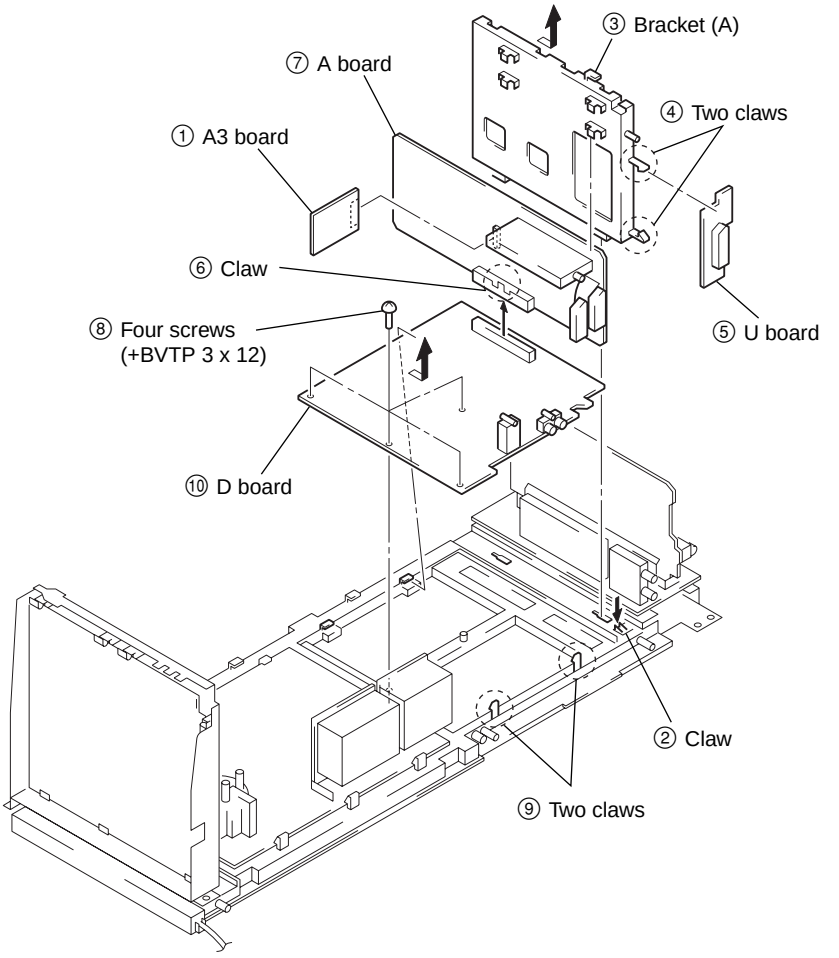
3-3. SERVICE POSITION



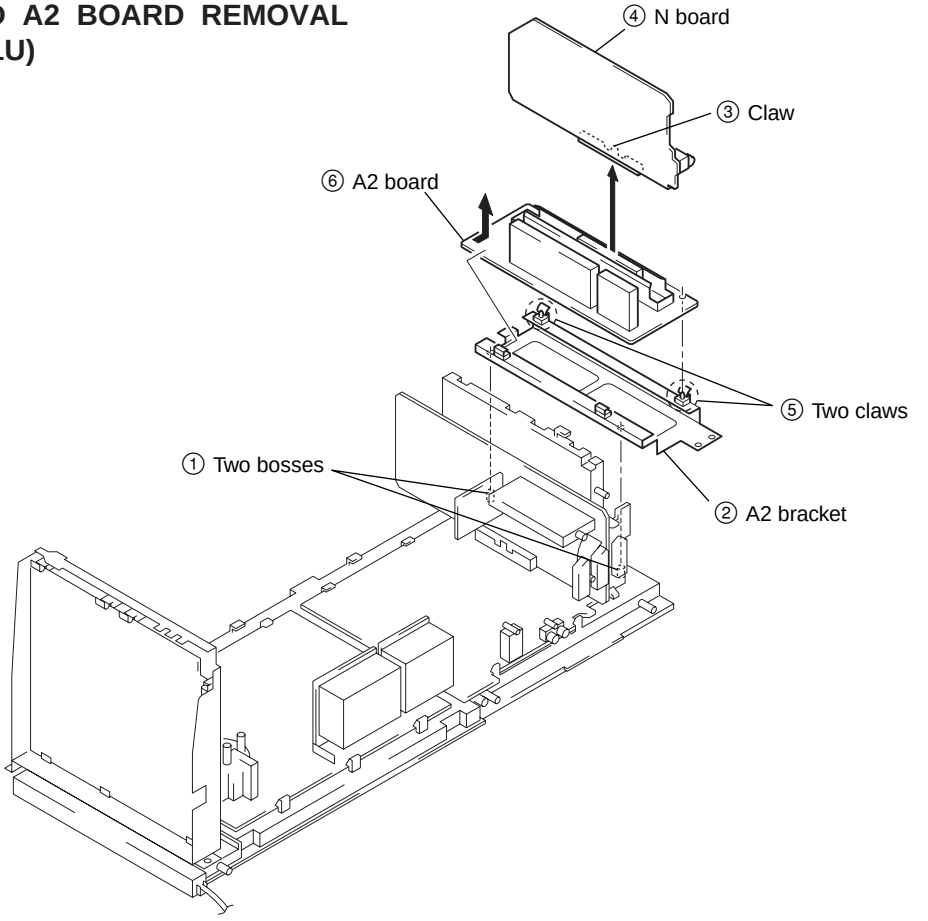
3-4. TERMINAL BOARD REMOVAL



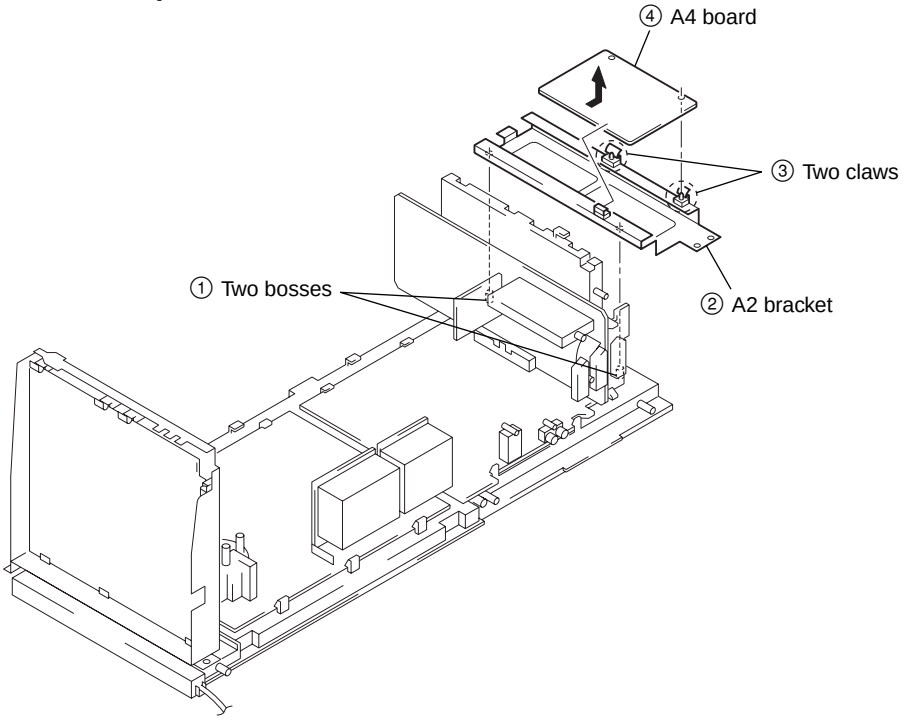
3-5. A3, U, A AND D BOARD REMOVAL



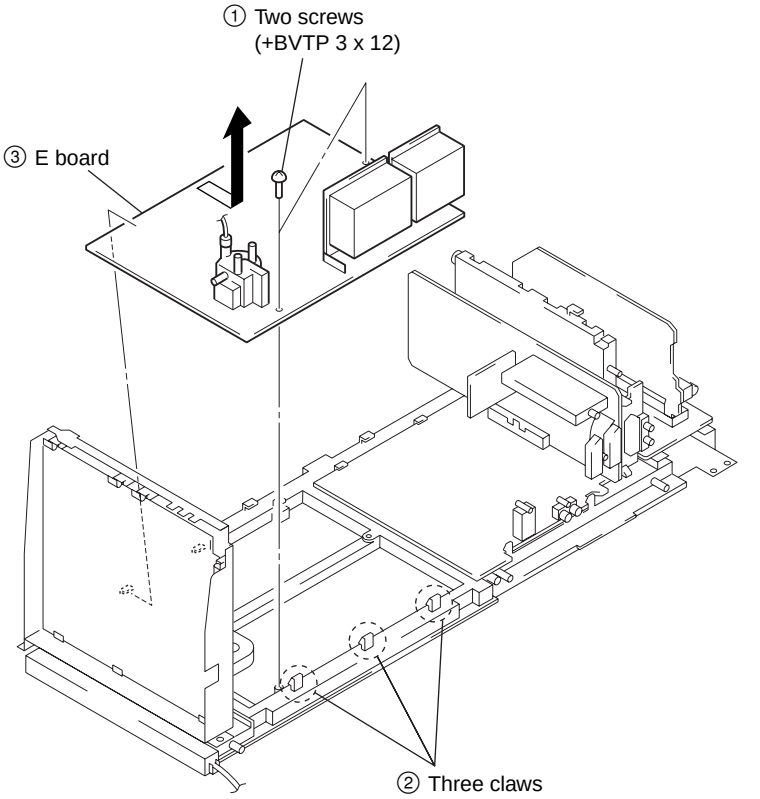
3-6. N AND A2 BOARD REMOVAL (41DS1U)



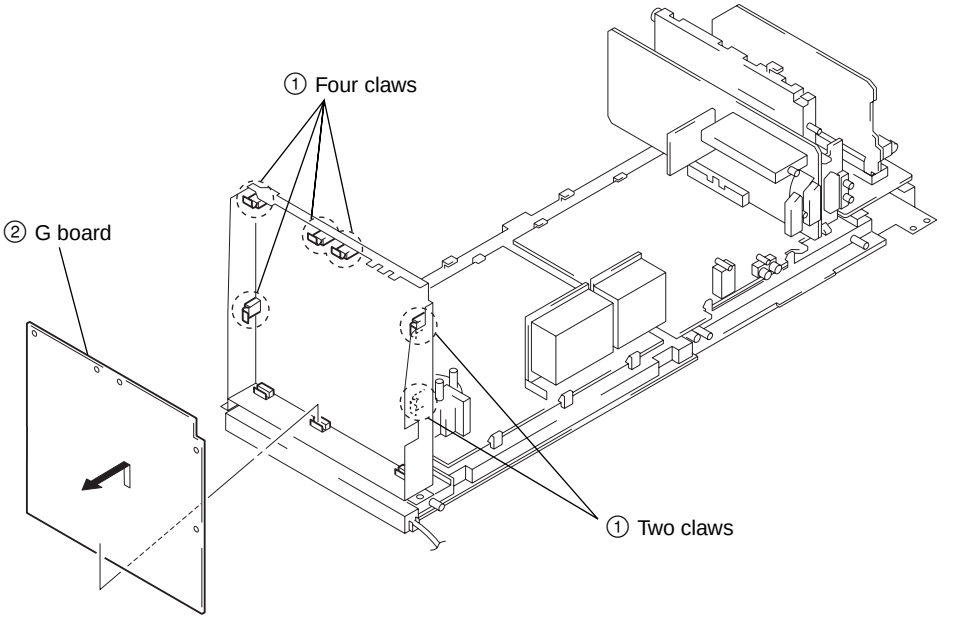
3-7. A4 BOARD REMOVAL (EXCEPT 41DS1U)



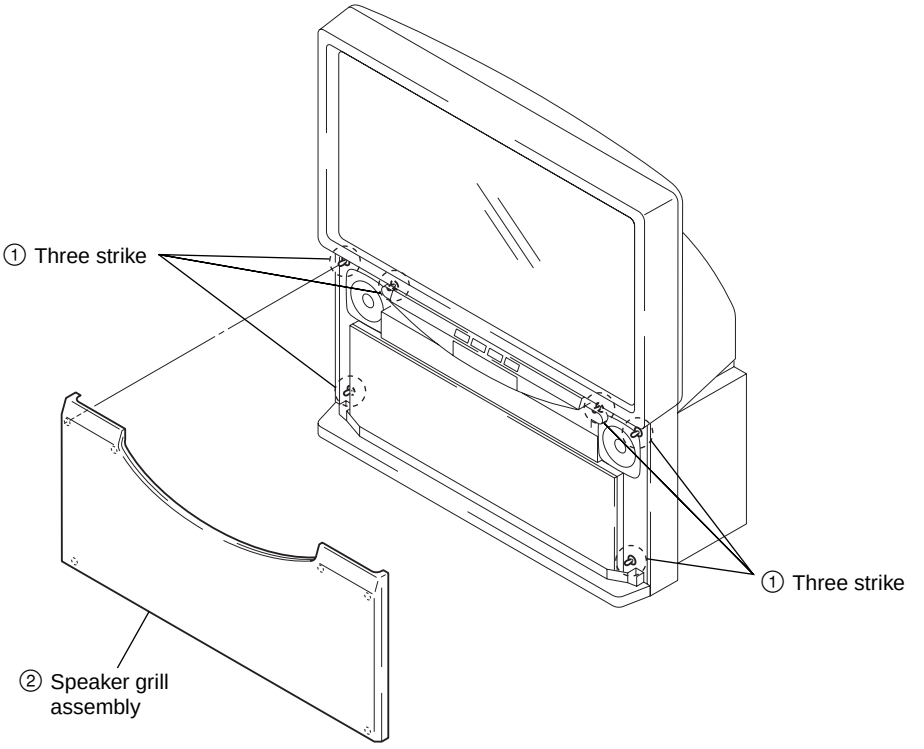
3-8. E BOARD REMOVAL



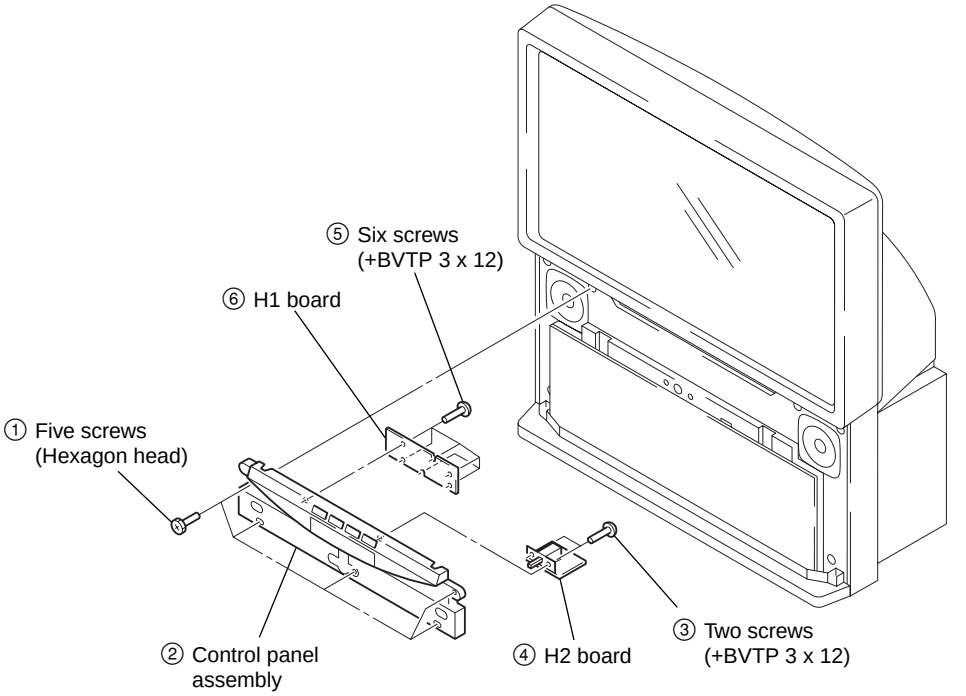
3-9. G BOARD REMOVAL



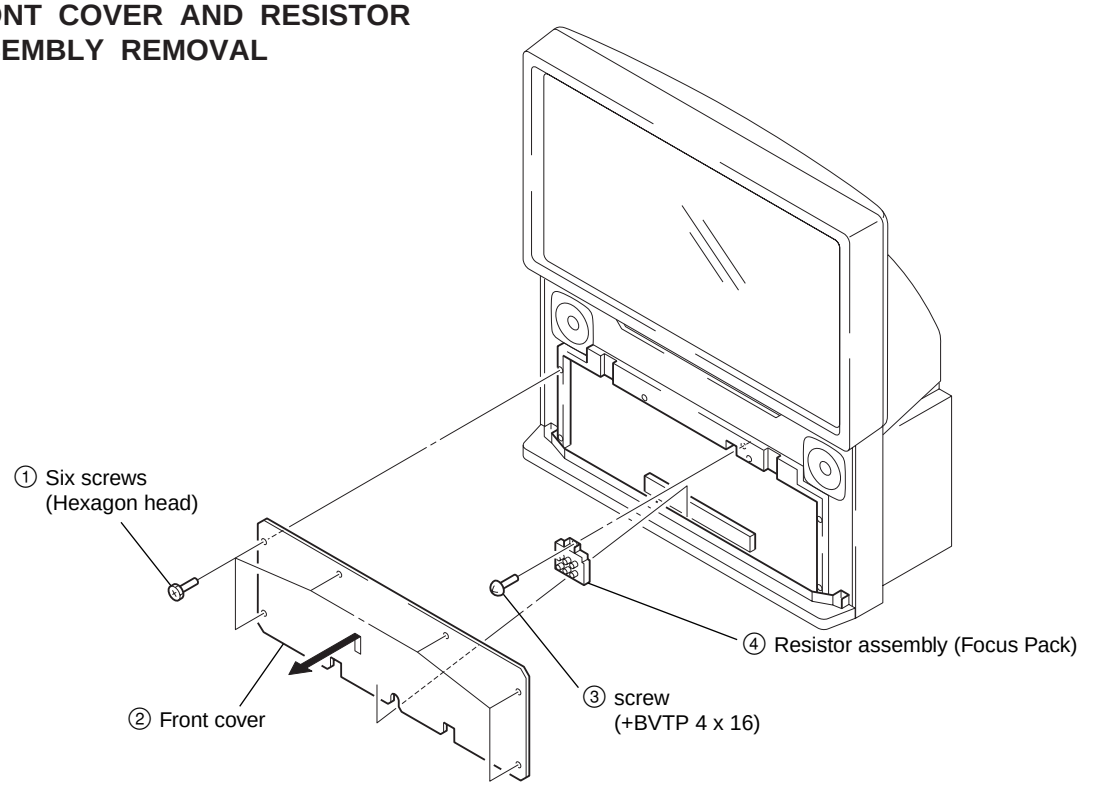
3-10. SPEAKER GRILLE ASSEMBLY REMOVAL



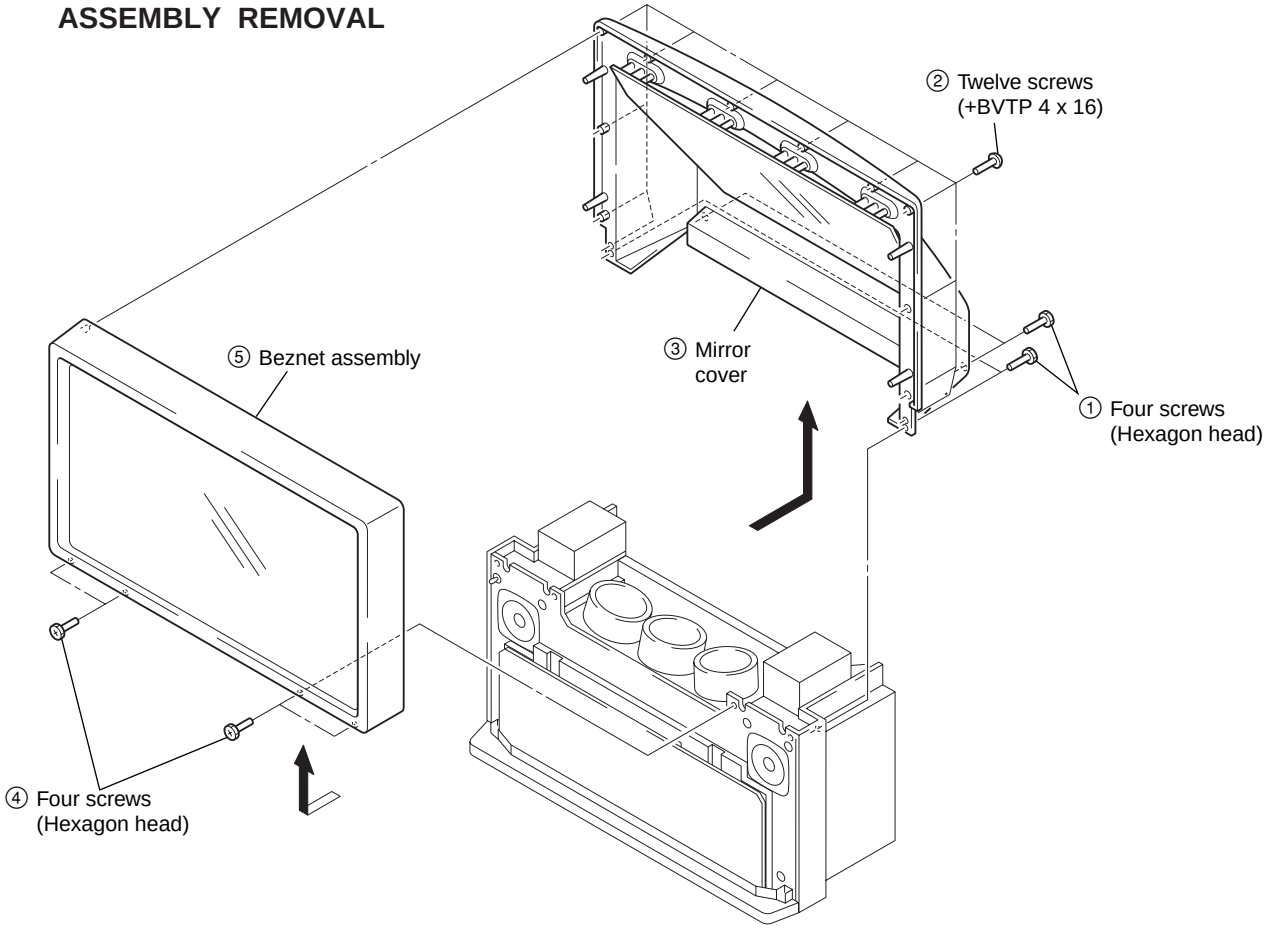
3-11. CONTROL PANEL ASSEMBLY, H1 AND H2 BOARD REMOVAL



3-12. FRONT COVER AND RESISTOR ASSEMBLY REMOVAL



3-13. MIRROR COVER AND BEZNET ASSEMBLY REMOVAL



SECTION 4
SET-UP ADJUSTMENTS

4-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the focus pack all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

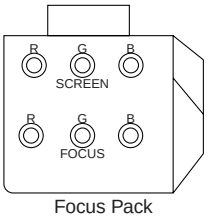


Fig. 4-1

4-2. FOCUS ADJUSTMENT

1. Loose the lens screw.
2. Set in service mode. (Refer to SECTION 6.)
3. Place the caps on the red and blue lens so that only the green color is shown.
4. Press “MENU” on the Commander and select Convergence and OSD CHSW = “00” to display the test signal (crosshatch) on the screen.
5. Rotate the green lens and align with the optimal focus point from the test signal.
6. Rotate the green focus VR on the focus pack and align to obtain the optimal focus point.
7. Perform the same alignment for red and blue lenses and electric focus.
8. Fix lens screw.

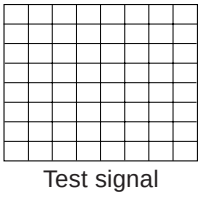


Fig. 4-2

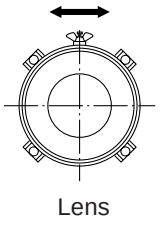


Fig. 4-3

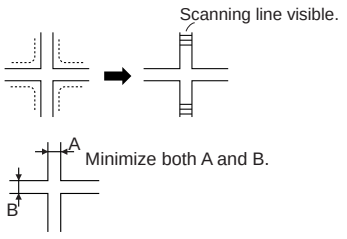


Fig. 4-4

4-3. SCREEN (G2) ADJUSTMENT

1. Connect JIG (A) to 200 V and GND.
2. Select VIDEO1 mode without signals.
3. Connect JIG to the TP701(KR), TP731(KG) or TP761(KB) of CR board, CG board and CB board.
4. Adjust R, G and B screen voltage to until retrace line disappears with screen VR on the focus pack.

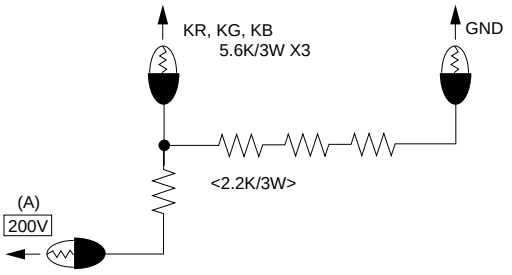
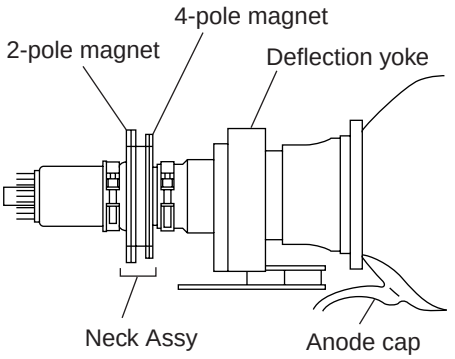


Fig. 4-5

4-4. DEFLECTION YOKE TILT ADJUSTMENT

1. Set to receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color.
3. Loosen the deflection yoke setscrew and align the tilt of the Deflection yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red and blue is aligned the same as was done for green.



Make sure deflection yoke is touching CRT closely.

Fig. 4-6

4-5. 2-POLE MAGNET ADJUSTMENT

1. Set to receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the right and set to over focus to enlarge the spot.
4. Now align the 2-Pole Magnet so that the enlarged spot is in the center of the just focus spot.
5. Align the green focus VR and set for just (precise) focus.
6. Perform the same alignment for red and blue.

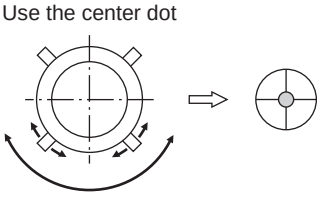


Fig. 4-7

4-6. 4-POLE MAGNET ADJUSTMENT

1. Set to receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the left and set to under focus to enlarge the spot.
4. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle.
5. Perform the same alignment for red and blue.

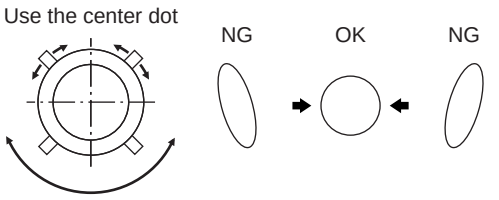


Fig. 4-8

4-7. DEFOCUS ADJUSTMENT (Blue)

1. Receive the Dot signal.
2. Place the caps on the red and green lens so that only the blue color is shown.
3. Rotate the blue focus VR on the focus pack and adjust to obtain best electrical focus.
4. Rotate the blue focus VR on the focus pack clockwise, so that diameter of the dot see caution.

[How to Blue Defocus]

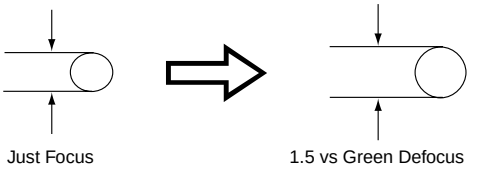


Fig. 4-9

[Change Blue Defocus]

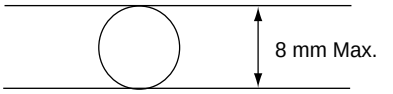


Fig. 4-10

4-8. GREEN AND RED FOCUS ADJUSTMENT

4-8-1. Green and Red Lens Focus Adjustment

1. Input a monoscope signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the Green lens and adjust to obtain the best lens focus.
4. Fix lens screw.
5. Repeat above process for Red.

4-8-2. Green and Red Electrical Focus Adjustment

1. Input a monoscope signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green focus volume on the focus pack and adjust to obtain an optimal electrical focus in center.
4. Repeat above process for Red.

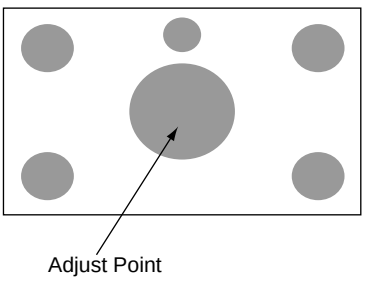


Fig. 4-11

SECTION 5
SAFETY RELATED ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram, always check hold-down voltage and if necessary re-adjust.

Part Replaced (⋈)
R1

Part Replaced (◪)					
E Board	C515, L506, R517,	C516, Q502, T502,	C554, R1, T504 (FBT)	D504, R514,	D507, R516,
G Board	IC6008				

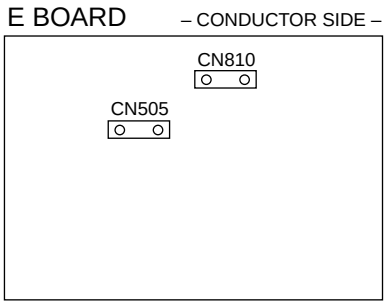


Fig. 5-3

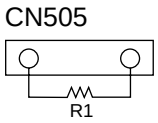


Fig. 5-4

5-1. HV HOLD-DOWN ADJUSTMENT

1. Remove CN810. Connect HV meter to HV Block.
2. Connect External Power Supply to CN810 ② pin (+135 V) and ① pin (GND).

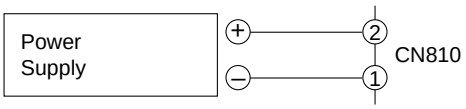


Fig. 5-1

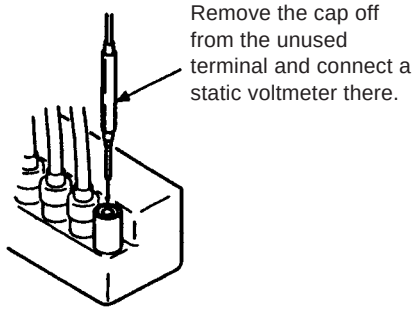


Fig. 5-2

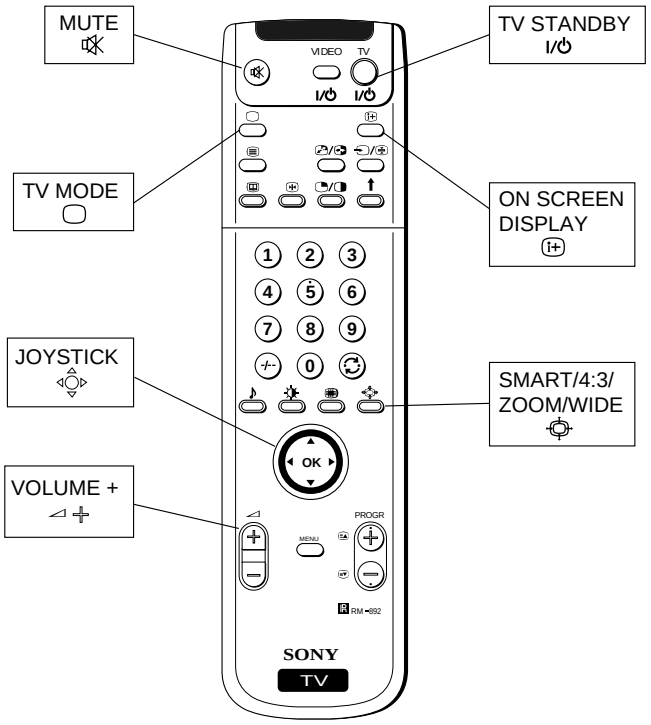
3. Turn on the set.
4. Slowly up the supply voltage from 135 V to 155 V.
5. Receive dot picture and set PICTURE/BRIGHTNESS to minimum.
6. Slowly up the voltage until hold-down circuit works (picture disappear).
7. Read the HV meter of peak HV voltage.
   Spec : 34.5 ±0.75 KV
8. If Hold-down voltage is less than 33.75 KV then solder R1 = 820 K.
9. If hold-down voltage is over than 35.25 KV then take-off R514 and solder R1 = 9.1 K.

SECTION 6
REGISTRATION ADJUSTMENTS

6-1. HOW TO ENTER THE SERVICE MODE

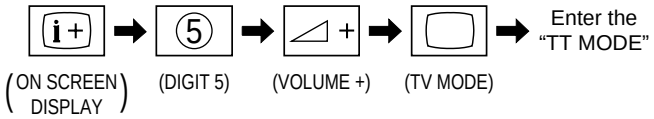
6-1-1. Adjustment Method with Commander

Service adjustment to this model can performed with the supplied remote commander RM-892.



RM-892

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



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

3. Press "MENU" on the commander to obtain the following menu on the screen.

TEST MENU

Picture Adjustment
Geometry
Wide
IC Status
MSP
Dynamic Convergence
Current TV Status
Convergence

4. Move to the corresponding adjustment using the joystick (▲ or ▼ : up or down) on the commander.
5. Move the joystick to the right (▶) to enter the selected adjustment.
6. Press "⊹ (OK)" to exit.
7. Before TURN OFF is necessary:
   DATA WRITE : Press "🔇 (MUTE)" + "⓪"
   DATA COPY : Press "i+ (ON SCREEN DISPLAY)" + "⓪"
8. Turn off the power to quit the service mode when adjustments are completed.

6-1-2. Screen Display on the Test Menu

Picture Adjustment

PICTURE ADJUSTMENT

AFC Mode	1	0 - 3
Ref Position	2	0 - 3
SCP BGR	1	0 - 3
SCP BGF	1	0 - 3
Trap F0	9	0 - 15
Sub Contrast	8	0 - 15
Sub Colour	4	0 - 15
Sub Brightness	16	0 - 63
Green Drive	16	0 - 63
Blue Drive	39	0 - 63
Green Cutoff	6	0 - 15
Blue Cutoff	12	0 - 15
Gamma	0	0 - 3
Pre / Overshoot	3	0 - 3
Y Delay	6	0 - 7
D Pic	ON	ON/OFF
D Colur	ON	ON/OFF
DC Transfer	OFF	ON/OFF

Geometry (∗ : No need to adjust)

GEOMETRY ADJUSTMENT

		Wide	Smart	4:3	Zoom	
	V Size	50	50	50	50	0 - 63
	V Position	31	31	31	31	0 - 63
	S Correction	7	7	7	7	0 - 15
	V Linearity	7	7	7	7	0 - 15
	H Size	40	40	40	40	0 - 63
∗	H Position	12	12	8	12	0 - 15
	Pin Amp	20	20	20	20	0 - 63
	Pin Phase	8	8	8	8	0 - 15
	AFC Bow	7	7	7	7	0 - 15
	AFC Angle	7	7	7	7	0 - 15
∗	EHT V	0	0	0	0	0 - 3
∗	EHT H	0	0	0	0	0 - 3
	Lo Corn Pin	2	2	2	2	0 - 15
	Up Corn Pin	5	5	5	5	0 - 15

Wide (∗ : No need to adjust)

WIDE ADJUSTMENT

	Wide	Smart	Zoom	
∗ V Aspect	0	15	47	0 - 63
∗ V Scroll	31	31	30	0 - 63
∗ Upper V Lin	0	0	0	0 - 15
∗ Lower V Lin	0	0	0	0 - 15
∗ Left Blanking	15	15	15	0 - 15
∗ Right Blanking	15	15	15	0 - 15

IC Status

IC STATUS (CXA2000 / CXA2040)

CXA2000

H lock	1
IKR	1
V NG	0
XRAY	0
Colour System	2
CV1 Sync	0

CXA2040

Sync Sep	1
S1 Mode Pin	01
S2 Mode Pin	01

TUNER

Tuner Status	01000010

MSP

MSP ADJUSTMENT
SDR 1 CONCCT 0 FAWCTIST 12

AGC On / Off	ON	ON/OFF
Constant Gain CDB	0	0 - 20
FM Prescale FMP	36	0 - 127
Zwei Mono-St WHI	36	0 - 127
Zwei St-Mono WLO	18	0 - 127
Zwei Mono-Bi WMH	36	0 - 127
Zwei Bi-Mono WLO	18	0 - 127
Time Zwei WML	41	0 - 127
FAWCT Limit	10	0 - 127
FAWCT Soll Init FAW	12	0 - 127
FAW ER Tol	2	0 - 127
NICAM Err Max CCT	10	0 - 127
NICAM Err Min	0	0 - 127
Time NICAM	26	0 - 127
Audio Clock ACO	HIZ	ON/HIZ
SCART Prescale	25	0 - 127
SCART Volume	64	0 - 127
NICAM Prescale I	127	0 - 127
NICAM Prescale L	97	0 - 127
NICAM Prescale BG	97	0 - 127
NICAM Prescale DK	97	0 - 127

Dynamic Convergence

DYNAMIC CONVERGENCE

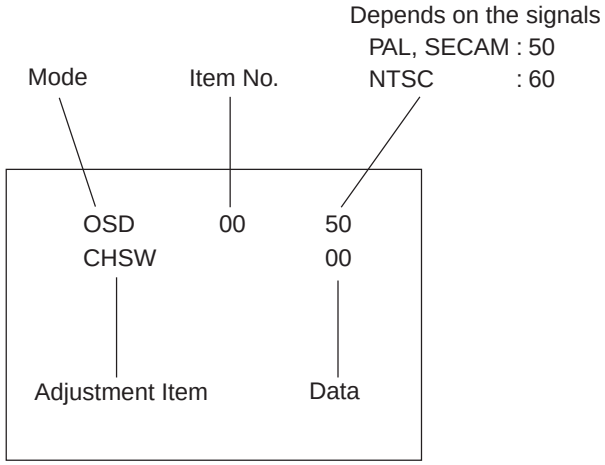
Range	0	0 - 42
H stat	0	OFF - 63
H amp l	0	OFF - 63
H amp r	0	OFF - 63
Up Y	0	OFF - 63
Low Y	0	OFF - 63
Y up l	0	OFF - 63
Y up r	0	OFF - 63
Y low l	0	OFF - 63
Y low r	0	OFF - 63
Mbow up l	0	OFF - 63
Mbow up r	0	OFF - 63
Mbow low l	0	OFF - 63
Mbow low r	0	OFF - 63
V stat	0	OFF - 63

Current TV Status

TV STATUS BE-3E(TT09)

Text System	C Text-2
Dolby Enabled	No
DSP Present	No
Text Language Set	WEST
Menu Language Set	WEST
Destination	E
Ageing	Disabled
Auto Shut Off	Enabled
Size	PJ
Colour Trap Sw	ALL
Velocity Mod	On
AFT Status	Window
Digital PF	No
Micro/Jungle	SDA30C263/CXA2000

Convergence



6-1-3. Service List (Convergence)

Mode	Item Number	Adjustment Item	Data Range	Initial Data Wide	Initial Data Smart	Initial Data Zoom	Name / Description	Device
OSD	00	CHSW	00, 01		01		HATCH DISPLAY 00 : Internal Pattern (Crosshatch) 01 : External Pattern	
	01	OSH	01 ~ 32		10		OSD H Position	
	02	OSV	01 ~ 32		10		OSD V Position	
	03	VMRK	00, 01		00		V SIZE MARKER ON / OFF (cannot write to NVM)	
SFT	00	SFTE	00, 01		00		SHIFT ENABLE 00 : Disable 01 : Enable	
	01	SFTF	00, 01		00		SHIFT FAST 00 : Normal 01 : Quick (cannot write to NVM)	
GH	00	GSEL	00, 01	00	00	00	OSD SELECT FOR GH, GV 00 : Green+Red 01 : Green	CXP86213
	01	CENT	–127 ~ +127	31	24	28	GREEN H CENTER	
	02	SKEW	–127 ~ +127	05	05	05	GREEN H SKEW	
	03	BOW	–127 ~ +127	05	06	08	GREEN H BOW	
	04	4BOW	–127 ~ +127	–01	–01	–01	GREEN H 4th BOW	
	05	SIZE	–127 ~ +127	01	24	04	GREEN H SIZE	
	06	LIN	–127 ~ +127	–24	13	–22	GREEN H LINEARITY	
	07	MSIZ	–127 ~ +127	–04	–61	–04	GREEN H MID SIZE	
	08	MLIN	–127 ~ +127	00	02	00	GREEN H MID LINEARITY	
	09	KEY	–127 ~ +127	–07	–06	–10	GREEN H KEYSTONE	
	10	SSKW	–127 ~ +127	03	03	05	GREEN H SUB SKEW	
	11	MPIN	–127 ~ +127	–02	–05	–05	GREEN H MID PINCUSHION	
	12	PIN	–127 ~ +127	–09	–15	–27	GREEN H PINCUSHION	
	13	SBOW	–127 ~ +127	06	07	14	GREEN H SUB BOW	
	14	MBOW	–127 ~ +127	04	04	04	GREEN H MID BOW	
	15	4PIN	–127 ~ +127	03	02	06	GREEN H 4th PINCUSHION	
	16	4SBO	–127 ~ +127	01	02	02	GREEN H 4th SUB BOW	

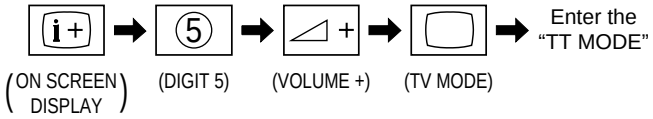
Mode	Item Number	Adjustment Item	Data Range	Initial Data			Name / Description	Device
				Wide	Smart	Zoom		
GV	00	CENT	–127 ~ +127	–01	–02	–01	GREEN V CENTER	CXP86213
	01	SKEW	–127 ~ +127	00	00	00	GREEN V SKEW	
	02	BOW	–127 ~ +127	14	14	14	GREEN V BOW	
	03	SIZE	–127 ~ +127	00	–10	24	GREEN V SIZE	
	04	LIN	–127 ~ +127	01	02	15	GREEN V LINEARITY	
	05	MSIZ	–127 ~ +127	–01	–04	–02	GREEN V MID SIZE	
	06	MKEY	–127 ~ +127	02	03	04	GREEN V MID KEYSTONE	
	07	KEY	–127 ~ +127	39	50	44	GREEN V KEYSTONE	
	08	SSKW	–127 ~ +127	03	03	03	GREEN V SUB SKEW	
	09	MPIN	–127 ~ +127	–36	–35	–33	GREEN V MID PINCUSHION	
	10	PIN	–127 ~ +127	13	40	66	GREEN V PINCUSHION	
	11	SBOW	–127 ~ +127	01	–01	–01	GREEN V SUB BOW	
	12	WAVW	–127 ~ +127	00	–05	01	GREEN V WAVE	
	13	4PIN	–127 ~ +127	07	–12	09	GREEN V 4th PINCUSHION	
RH	00	CENT	–95 ~ +96	20	14	18	RED H CENTER	
	01	SKEW	–95 ~ +96	–02	–02	–02	RED H SKEW	
	02	BOW	–127 ~ +127	07	07	09	RED H BOW	
	03	4BOW	–127 ~ +127	–01	–01	–01	RED H 4th BOW	
	04	SIZE	–127 ~ +127	00	11	–03	RED H SIZE	
	05	LIN	–127 ~ +127	53	82	56	RED H LINEARITY	
	06	MSIZ	–127 ~ +127	–35	–86	–36	RED H MID SIZE	
	07	MLIN	–127 ~ +127	–28	–13	03	RED H MID LINEARTIY	
	08	KEY	–127 ~ +127	–13	–13	–17	RED H KEYSTONE	
	09	SSKW	–127 ~ +127	05	03	06	RED H SUB SKEW	
	10	MPIN	–127 ~ +127	–06	–11	–14	RED H MID PINCUSHON	
	11	PIN	–127 ~ +127	–08	–14	–25	RED H PINCUSHON	
	12	SBOW	–127 ~ +127	65	66	99	RED H SUB BOW	
	13	MBOW	–127 ~ +127	01	01	05	RED H MID BOW	
	14	4PIN	–127 ~ +127	03	03	06	RED H 4th PINCUSHON	
	15	4SBO	–127 ~ +127	01	01	–02	RED H 4th SUB BOW	
RV	00	CENT	–95 ~ +96	–11	–11	–11	RED V CENTER	
	01	SKEW	–95 ~ +96	00	00	00	RED V SKEW	
	02	BOW	–127 ~ +127	13	13	13	RED V BOW	
	03	SIZE	–127 ~ +127	–12	–21	07	RED V SIZE	
	04	LIN	–127 ~ +127	02	02	14	RED V LINEARITY	
	05	MSIZ	–127 ~ +127	–01	–05	–02	RED V MID SIZE	
	06	MKEY	–127 ~ +127	11	13	23	RED V MID KEYSTONE	
	07	KEY	–127 ~ +127	10	32	21	RED V KEYSTONE	
	08	SSKW	–127 ~ +127	–01	–03	–07	RED V SUB SKEW	
	09	MPIN	–127 ~ +127	–38	–39	–40	RED V MID PINCUSHON	
	10	PIN	–127 ~ +127	–24	01	25	RED V PINCUSHON	
	11	SBOW	–127 ~ +127	03	–04	–06	RED V SUB BOW	
	12	WAVW	–127 ~ +127	32	19	39	RED V WAVE	
	13	4PIN	–127 ~ +127	–05	–20	–07	RED V 4th PINCUSHON	
	14	MWAV	–31 ~ +31	00	01	–01	MID WAVE	
BH	00	BSEL	00, 01	00	00	00	OSD SELECT FOR BH, BV 00 : Blue + Green 01 : Blue + Red	
	01	CENT	–95 ~ +96	05	00	03	BLUE H CENTER	
	02	SKEW	–95 ~ +96	05	05	05	BLUE H SKEW	
	03	BOW	–127 ~ +127	04	05	06	BLUE H BOW	
	04	4BOW	–127 ~ +127	01	00	01	BLUE H 4th BOW	
	05	SIZE	–127 ~ +127	–03	28	01	BLUE H SIZE	
	06	LIN	–127 ~ +127	–89	–38	–84	BLUE H LINEARITY	
	07	MSIZ	–127 ~ +127	01	–66	–07	BLUE H MID SIZE	
	08	MLIN	–127 ~ +127	31	19	29	BLUE H MID LINEARTIY	
	09	KEY	–127 ~ +127	–03	–03	–05	BLUE H KEYSTONE	
	10	SSKW	–127 ~ +127	–04	–04	–03	BLUE H SUB SKEW	
	11	MPIN	–127 ~ +127	–03	–09	–10	BLUE H MID PINCUSHON	
	12	PIN	–127 ~ +127	–03	–04	–06	BLUE H PINCUSHON	
	13	SBOW	–127 ~ +127	–38	–46	–67	BLUE H SUB BOW	
	14	MBOW	–127 ~ +127	–01	02	00	BLUE H MID BOW	
	15	4PIN	–127 ~ +127	02	02	04	BLUE H 4th PINCUSHON	
	16	4SBO	–127 ~ +127	00	02	03	BLUE H 4th SUB BOW	

Mode	Item Number	Adjustment Item	Data Range	Initial Data			Name / Description	Device
				Wide	Smart	Zoom		
BV	00	CENT	–95 ~ +96	12	12	13	BLUE V CENTER	CXP86213
	01	SKEW	–95 ~ +96	00	00	00	BLUE V SKEW	
	02	BOW	–127 ~ +127	20	20	20	BLUE V BOW	
	03	SIZE	–127 ~ +127	–08	–11	14	BLUE V SIZE	
	04	LIN	–127 ~ +127	–02	–01	11	BLUE V LINEARITY	
	05	MSIZ	–127 ~ +127	01	–03	–01	BLUE V MID SIZE	
	06	MKEY	–127 ~ +127	–08	–09	–17	BLUE V MID KEYSTONE	
	07	KEY	–127 ~ +127	72	74	76	BLUE V KEYSTONE	
	08	SSKW	–127 ~ +127	05	04	06	BLUE V SUB SKEW	
	09	MPIN	–127 ~ +127	–39	–39	–38	BLUE V MID PINCUSHON	
	10	PIN	–127 ~ +127	28	45	90	BLUE V PINCUSHON	
	11	SBOW	–127 ~ +127	–02	–05	–04	BLUE V SUB BOW	
	12	WAVW	–127 ~ +127	–42	–40	–53	BLUE V WAVE	
	13	4PIN	–127 ~ +127	–08	–23	–10	BLUE V 4th PINCUSHON	
	14	MWAV	–31 ~ +31	01	02	01	MID WAVE	
ACV	00	ART0	01 ~ 08		06		DATA SAMPLE LENGTH (1 step = 1 µsec.)	
	01	AT1T	00 ~ 255		18		Data Sampling Start Time	
	02	AT1M	00 ~ 255		132		from V BLK (50Hz)	
	03	AT1B	00 ~ 255		240		(1 step = 64 µsec = approx. 1H)	
	04	AH51	01 ~ 255		18		(1 step = 1 OSD step) OSD H POS 50 (L&R)	
	05	AH52	01 ~ 255		130		OSD H POS 50 (UP&BOTTOM)	
	06	AV5T	00 ~ 255		01		(1 step = 2 lines) OSD V POS 50 (UP)	
	07	AV5M	00 ~ 255		60		OSD V POS 50 (L&R)	
	08	AV5B	00 ~ 255		130		OSD V POS 50 (BOTTOM)	
	09	AH61	01 ~ 255		18		(1 step = 1 OSD step) OSD H POS 60 (L&R)	
	10	AH62	01 ~ 255		130		OSD H POS 60 (BOTTOM)	
	11	AV6T	00 ~ 255		01		(1 step = 2 lines) OSD V POS 50 (UP)	
	12	AV6M	00 ~ 255		46		OSD V POS 50 (L&R)	
	13	AV6B	00 ~ 255		100		OSD V POS 50 (BOTTOM)	
	14	RHCO	–127 ~ +127		00		(8 step = 1 step) RH CENT ADJ OFFSET	
	15	BHCO	–127 ~ +127		00		BH CENT ADJ OFFSET	
	16	RVCO	–127 ~ +127		00		RV CENT ADJ OFFSET	
	17	BVCO	–127 ~ +127		00		BV CENT ADJ OFFSET	
	18	RHSO	–127 ~ +127		00		RH SKEW ADJ OFFSET	
	19	BHSO	–127 ~ +127		00		BH SKEW ADJ OFFSET	
	20	RVSO	–127 ~ +127		00		RV SKEW ADJ OFFSET	
	21	BVSO	–127 ~ +127		00		BV SKEW ADJ OFFSET	
	22	AERR	00 ~ 255		00		(Error Code)	
MSC	00	ACTL	00 ~ 255		00		Lower byte of counter value	
	01	ACTH	00 ~ 255		00		Higher byte of counter value	

6-2. PAL REGISTRATION ADJUSTMENT

6-2-1. Registration Adjustment Method

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



3. Press "MENU" on the commander.
4. Move to the corresponding adjustment using the joystick (▲ or ▼ : up or down) on the commander.
5. Move the joystick to the right (▶) to enter the selected adjustment.

With the joystick :

▲ or ▼ Items change
◀ or ▶ Data change

In internal pattern :
ITEM : Convergence

OSD CHSW = "00"	Internal pattern (crosshatch)
OSD CHSW = "01"	External pattern

Color of internal pattern :
ITEM : Convergence

GH GSEL = "00"	Green + Red
GH GSEL = "01"	Green
BH BSEL = "00"	Blue + Green
BH BSEL = "01"	Blue + Red

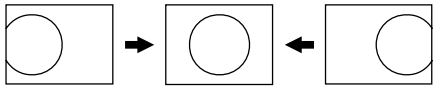
6-2-2. Geometry Adjustment

1. Receive the PAL SPCB signal.
2. Select wide mode.
   Press "⊕ (blue key)" : Wide ➡ Smart ➡ 4 : 3 ➡ Zoom
   Need geometry adjustment to wide mode, smart mode and zoom mode. Production spec of each mode.
   ∗ 4 : 3 mode no adjust. (except for H Position)
3. Select service mode and enter adjustment item for green signal.

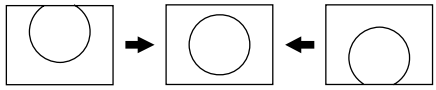
CENTER ADJUSTMENT

1. Adjust H Position and V Position.

H Position



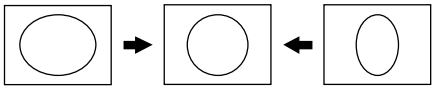
V Position



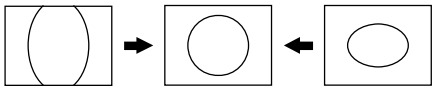
SIZE ADJUSTMENT

1. Make Convergence GH SIZE data "00".
2. Adjust Geometry H Size.
3. Make Convergence GV SIZE data "00".
4. Adjust Geometry V Size.
5. Adjust Geometry S Correction.

H Size



V Size



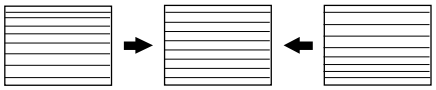
Signal : SPCB PAL

	H SIZE	V SIZE
Wide	16.6 ±0.15 sq	12.4 ±0.15 sq
Smart	17.0 ±0.15 sq	11.4 ±0.15 sq
Zoom	16.65 ±0.15 sq	9.3 ±0.15 sq

MAIN DEFLECTION ADJUSTMENT

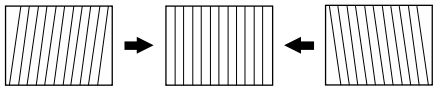
1. Adjust V Linearity.
   Correct linearity of the horizontal top and bottom lines.

   V Linearity



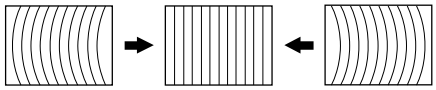
2. Adjust AFC Angle
   Correct the vertical center line to be in parallel with the screen edges and other colors.

   AFC Angle



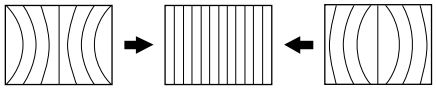
3. Adjust AFC Bow
   Correct linearity of the vertical center line.

   AFC Bow



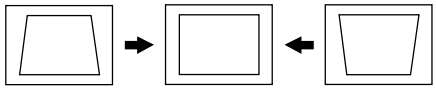
4. Adjust PIN Amp
   Correct the vertical left and right lines and eliminate pin-cushion-shaped distortion.

   PIN Amp



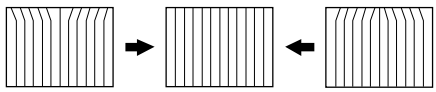
5. Adjust PIN Phase
   Correct the vertical left and right lines to be in parallel with each other.

   PIN Phase



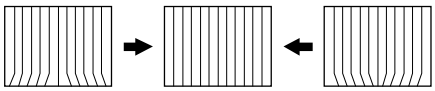
6. Adjust Up Corn Pin
   Correct the screen top section line bow.

   Up Corn Pin



7. Adjust Lo Corn Pin
   Correct the screen bottom section line bow.

   Lo Corn Pin



6-2-3. Convergence Adjustment

1. Receive the PAL SPCB signal.
2. Select wide mode.
   Press "⊕ (blue key)" : Wide ➡ Smart ➡ 4 : 3 ➡ Zoom
   Need geometry adjustment to wide mode, smart mode and zoom mode. Production spec of each mode.
   ∗ 4 : 3 mode no adjust.
3. Select service mode and enter adjustment item for green signal.

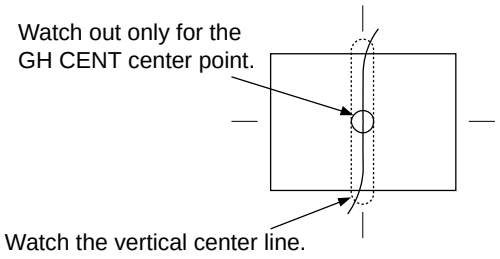
SUB DEFLECTION ADJUSTMENT ITEM

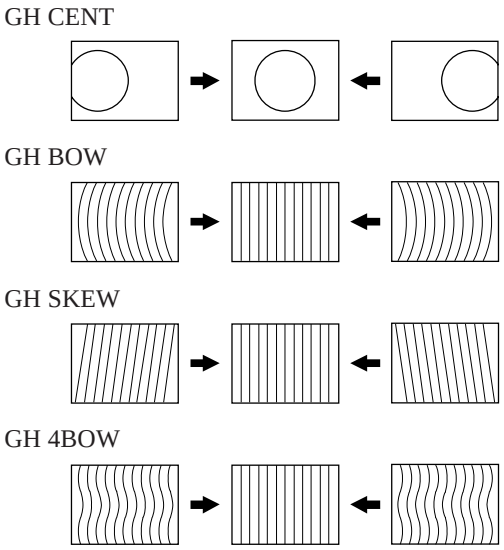
Adjustment ◯ : Yes – : No

Display	Adjustment item	Adjustment type					
		GH	GV	RH	RV	BH	BV
GSEL	COL SELECT	O	–	–	–	–	–
BSEL	COL SELECT	–	–	–	–	O	–
CENT	CENT	O	O	O	O	O	O
SKEW	SKEW	O	O	O	O	O	O
BOW	BOW	O	O	O	O	O	O
4BOW	4TH BOW	O	–	O	–	O	–
SIZE	SIZE	O	O	O	O	O	O
LIN	LIN	O	O	O	O	O	O
MSIZ	MID SIZE	O	O	O	O	O	O
MLIN	MID LIN	O	–	O	–	O	–
MKEY	MID KEY	–	O	–	O	–	O
KEY	KEY	O	O	O	O	O	O
SSKW	SUB SKEW	O	O	O	O	O	O
MPIN	MID PIN	O	O	O	O	O	O
PIN	PIN	O	O	O	O	O	O
SBOW	SUB BOW	O	O	O	O	O	O
WAVW	WAVE	–	O	–	O	–	O
MBOW	MID BOW	O	–	O	–	O	–
4PIN	4TH PIN	O	O	O	O	O	O
4SBO	4TH SUB BOW	O	–	O	–	O	–
MWAV	MID WAVE	–	–	–	O	–	O

GREEN VERTICAL LINE ADJUSTMENT

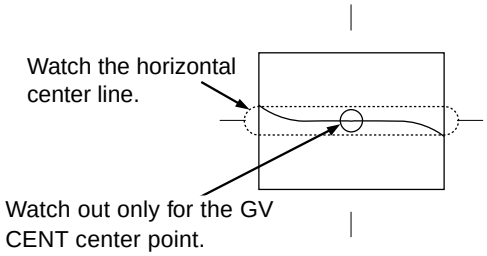
1. Receive the PAL SPCB signal.
2. Carefully watching out for the GH CENT screen center section, adjust GH CENT, GH BOW, GH SKEW.
3. GH 4BOW adjustment. Correct the corner distortion which could not be adjusted with GH BOW.

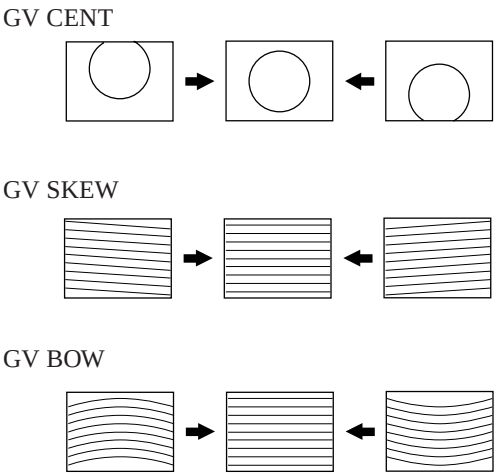




GREEN HORIZONTAL LINE ADJUSTMENT

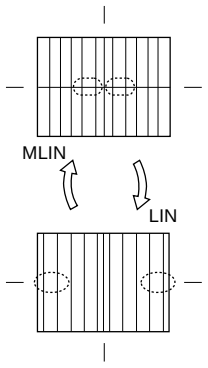
1. Receive the PAL SPCB signal.
2. Finely adjust the center position of the vertical line at the center of the screen with GV CENT.
3. Using GV SKEW and GV BOW, correct the tilt and bow of the horizontal line at the centre of the screen.





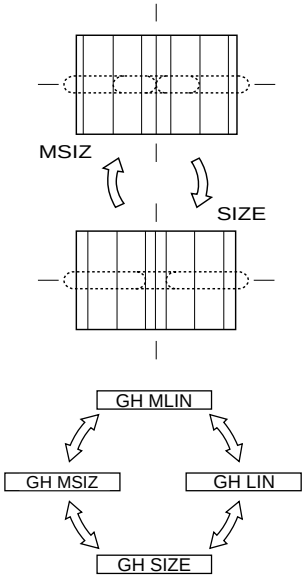
GREEN SIZE AND LINEARITY ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Balance the sizes at both sides of the center section of the screen with GH MLIN.
3. Balance the sizes on both end sections of the screen with GH LIN.
4. While tracking, adjust with GH MLIN and GH LIN so that the sizes of the horizontal line at the center of the screen are symmetrical left and right.



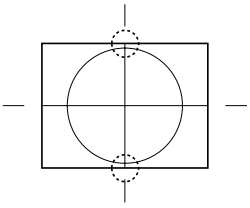
GREEN HORIZONTAL SIZE ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust with GH MSIZ, so that the sizes of both edges and centre are equal.
3. Adjust with GH SIZE, so that the horizontal sizes of both edges and centre are equal.
4. While tracking adjust GH MSIZ and GH SIZE so that the space intervals for the horizontal section of the screen are equal.
5. Adjust again if M LIN is changed after GH MSIZ and GH SIZE are complete.



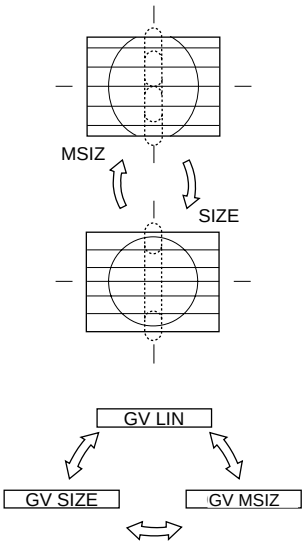
GREEN VERTICAL LINEARITY ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GV LIN so that the vertical lines at the top and bottom of the screen are symmetrical.



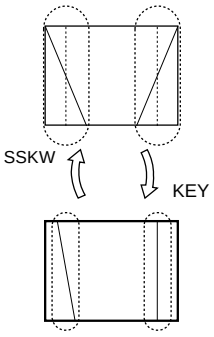
GREEN VERTICAL SIZE ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GV MSIZ so that the sizes at the top and bottom and centre are equal.
3. Set the vertical size to correct specification.
4. While tracking adjust GV MSIZ and GV SIZE so that the space intervals for the vertical line of the screen are equal, also the vertical size should be within space.
5. Adjust again if GV LIN has been altered after completing the above adjustments.



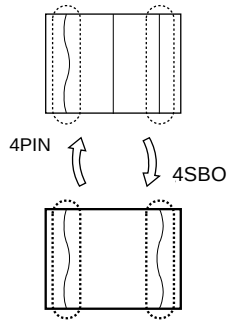
GREEN HORIZONTAL TRAPEZOIDAL DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH SSKW so that the tilt of the vertical lines at both edges of the screen are symmetrical left and right.
3. Adjust GH KEY so that there is no tilt in the vertical lines at both edges of the screen.
4. While tracking adjust GH KEY and GH SSKW.



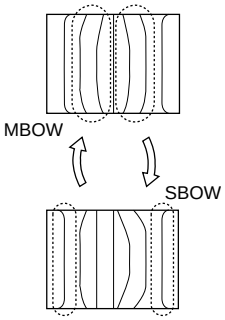
GREEN HORIZONTAL QUATERNARY ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH 4PIN, to correct the 4th order distortion.
3. Adjust GH 4SBO to balance and correct the 4th order distortion at both edges of the screen.
4. While tracking adjust GH 4PIN and GH 4SBO.



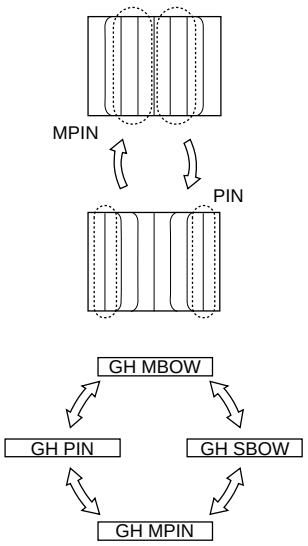
GREEN HORIZONTAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH MBOW, so that the pin asymmetry at both sides of the centre section are symmetrical left and right.
3. Adjust GH SBOW so that the bow at both edges of the screen is symmetrical left and right.
4. While tracking adjust GH MBOW and GH SBOW so that the bow of vertical lines over the entire screen is symmetrical.



GREEN HORIZONTAL SYMMETRICAL PIN DISTORTION ADJUSTMENT

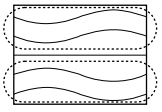
1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH MPIN to correct pin distortion at both edges of the centre section.
3. Use GH PIN to correct pin distortion at both edges of the screen.
4. While tracking adjust GH MPIN and GH PIN so that the PIN of vertical lines on the entire screen have no bowing.
5. If there is asymmetrical distortion after adjustments, readjust GH MBOW and GH SBOW while tracking.



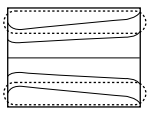
GREEN VERTICAL WAVE (3RD-ORDER) DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Check the screen at the top & bottom, and look for any 2nd or 3rd order waveform distortion of horizontal lines. Correct with GV WAVW.
3. While tracking adjust GV WAVW and GV KEY, if here are any KEY distortion.

GV WAVW



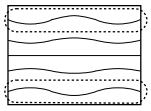
GV KEY



GREEN VERTICAL 4TH ORDER DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. By using GV 4PIN, 4th-Order distortion of the horizontal lines at the top & bottom can be corrected.
   Since there is no 4SBO for vertical correction, there will be a slight imbalance, but adjust the registration to eliminate any distortion.

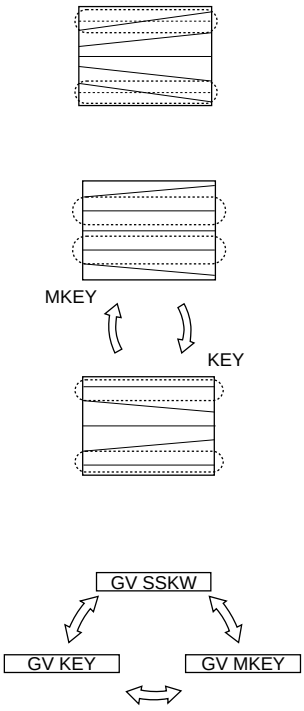
GV 4PIN



GREEN VERTICAL TRAPEZOIDAL DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GV SSKW so that the tilt of the horizontal lines at the top and bottom of the screen are symmetrical.
3. Adjust GV MKEY so that there is no tilt for the middle section.
4. Adjust GV KEY so that there is no tilt at the top and bottom of the screen.
5. While tracking adjust GV MKEY and GV KEY, so that there is no tilt over the entire screen.
6. If the tilt is unbalanced after GV MKEY and GV KEY have been adjusted, readjust GV SSKW.

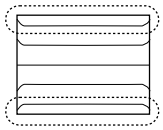
GV SSKW



GREEN VERTICAL ASYMMETRICAL PIN DISTORTION (2ND-ORDER DISTORTION) ADJUSTMENT

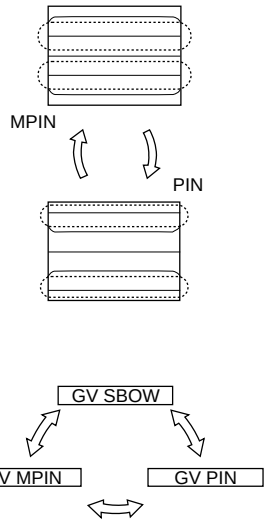
1. Receive the Internal pattern (crosshatch) signal.
2. Correct the asymmetrical pin distortion at the top and bottom of the screen with GV SBOW.

GV SBOW



GREEN VERTICAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Using GV MPIN adjust the pin distortion at both edges of the screen and at the centre.
3. Using GV PIN, adjust, so that the horizontal lines at the top & bottom of the screen are straight lines.
4. Adjust GV MPIN & GV PIN so that there is no curve in the horizontal lines on the entire screen.
5. After adjusting the items above, using tracking with GV SBOW. GV MPIN, and GV PIN to correct the entire screen.



RED REGISTRATION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
   GH GSEL = "00" (Green + Red)
2. Adjust so that the red lines lay on the green lines.
   Adjust, using the same procedure as the green sub item adjustment outline above.

Note : Main registration correction should not be while adjusting Red adjustment.
BEWARE : Not to change green sub items.
It' s easily done by mistake.

BLUE ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
   BH BSEL = "00" (Blue + Green)
2. Adjust so that the blue lines lay on the green lines.
   Adjust, using the same procedure as the green sub item adjustment outline above.

Note : Main registration correction should not be while adjusting Blue adjustment.
BEWARE : Not to change green and red sub items.
It' s easily done by mistake.

REGISTRATION DATA WRITE

1. After finish all PAL registration adjustments, write PAL registration data by pressing form the appropriate buttons.

   DATA WRITE : Press "🔇 (MUTE)" + "⓪"

DATA COPY FROM PAL TO NTSC

1. Copy PAL data to NTSC data by pressing form the appropriate buttons.

   DATA COPY : Press "i+ (ON SCREEN DISPLAY)" + "⓪"
2. Press "i+" + "⓪" to copy data from PAL to NTSC.
   If you press "i+" ,then it appears "Copy 5060" to display.

∗ Make sure input signal is PAL. If input signal is NTSC and do this process, NTSC data are copied to PAL data !

SMART AND ZOOM MODE ADJUSTMENT

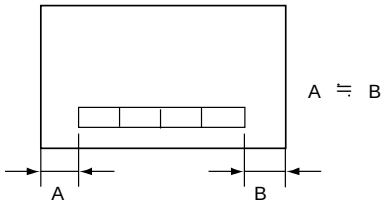
1. Smart and Zoom mode adjustment are the same as Wide mode.

AUTO CONVERGENCE PRESET

1. Set in TT mode.
2. Press " (AUTO CONVERGENCE)" button on front panel.
3. Confirm convergence is the same condition as before.
4. Press "⓪" + "⓪" button on commander to exit from TT mode.
   TT00 : Exit from TT mode

6-3. TEXT POSITION ADJUSTMENT

1. Receive RF signal with teletext.
2. Set in TT mode.
3. Press "①" + "④" button on commander.
   TT14 : TEXT H POSITION adjustment
4. Adjust H position of text.
5. Push "🖵 (TV MODE)" to exit.



With the joystick ◁○▷ :
◀ (Move the Left)
▶ (Move the Right)

6-4. WHITE BALANCE ADJUSTMENT

1. Receive the monoscope signal.
2. Set in service mode and select Picture Adjustment.
3. Adjust Sub Bright so that the signal 10 IRE section barely glows.
4. Receive the all-white pattern signal.
5. Adjust the white balance with Green Cutoff and Blue Cutoff.
6. Adjust Sub Bright so that the signal 100 IRE section barely glows.
7. Adjust the white balance with Green Drive and Blue Drive.
8. Repeatedly adjust the white balance for the minimum and maximum picture setting.

6-5. SUB BRIGHT ADJUSTMENT

1. Receive the monoscope signal.
2. Set in TT mode.
3. Press "①" + "③" button on commander.
   TT13 : SUB BRIGHTNESS adjustment
4. Adjust sub brightness 10 IRE and 20 IRE border just appear point by "◀" or "▶" key of commander.

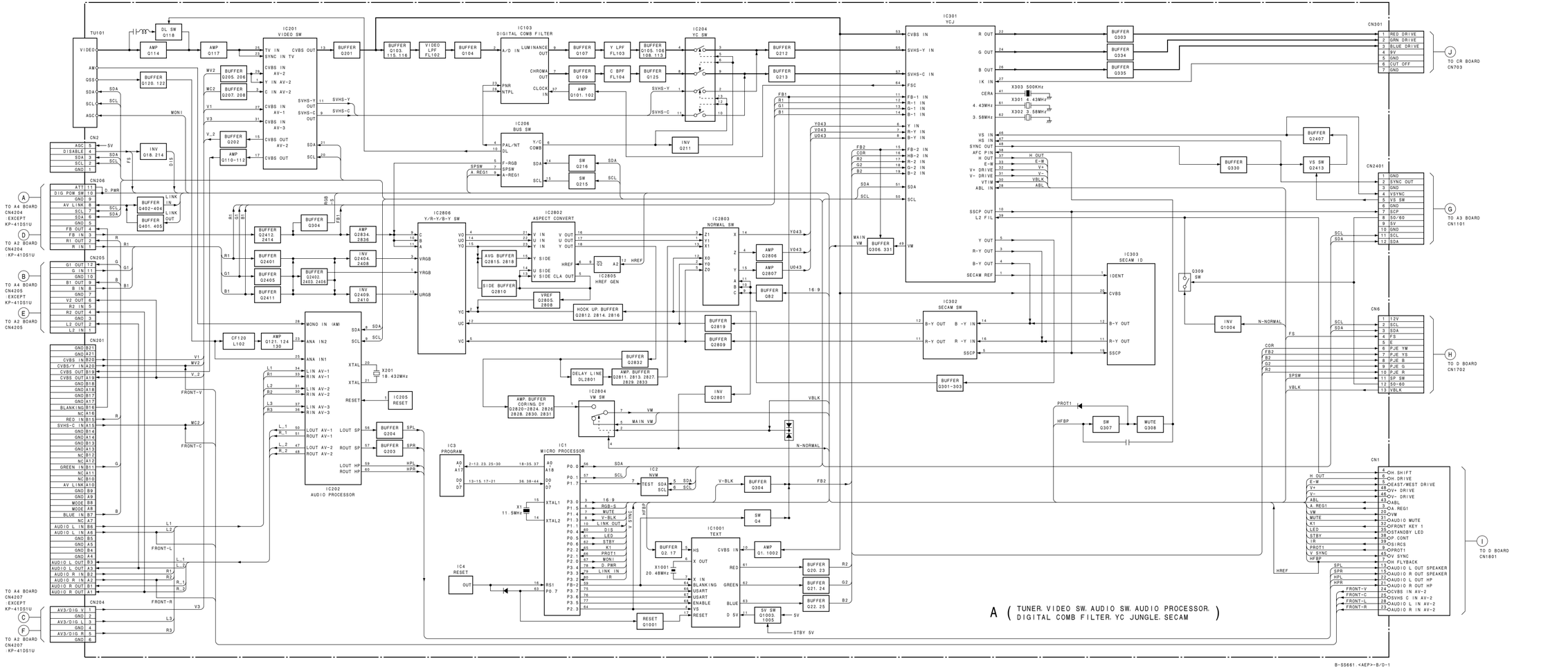
With the joystick ◁○▷ :
◀ (Down)
▶ (Up)

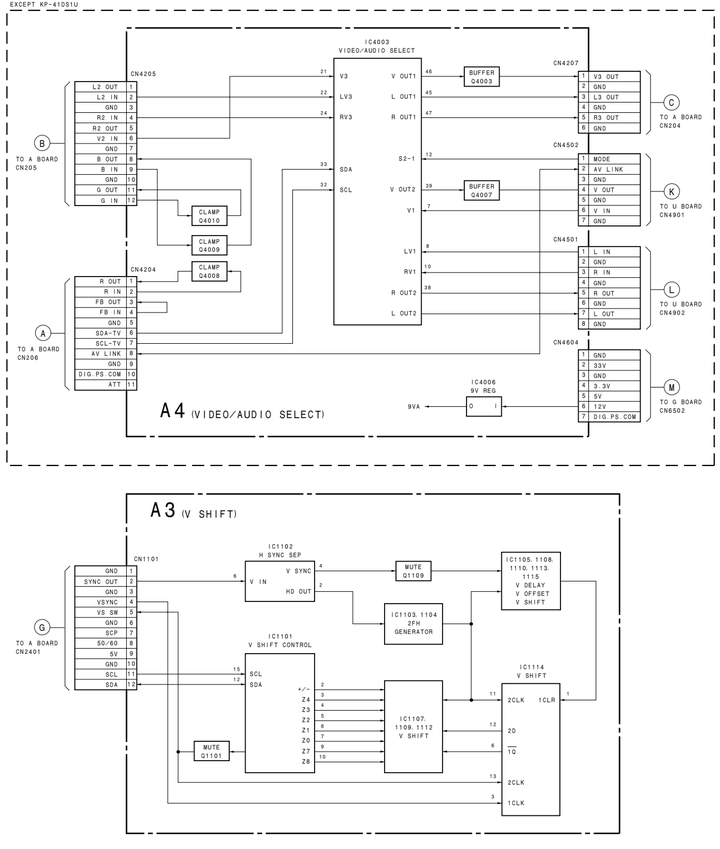
MEMO

KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

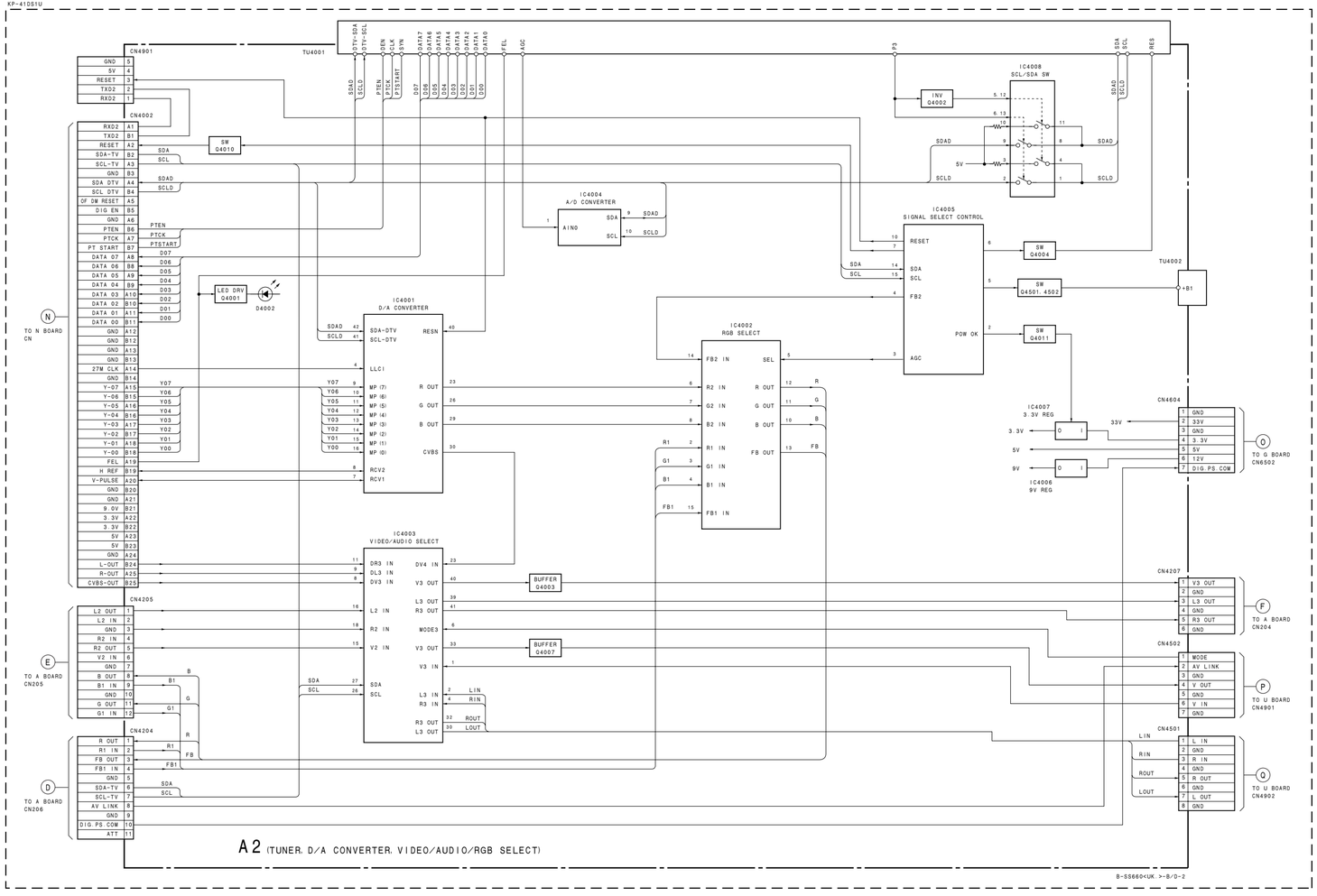
SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAMS

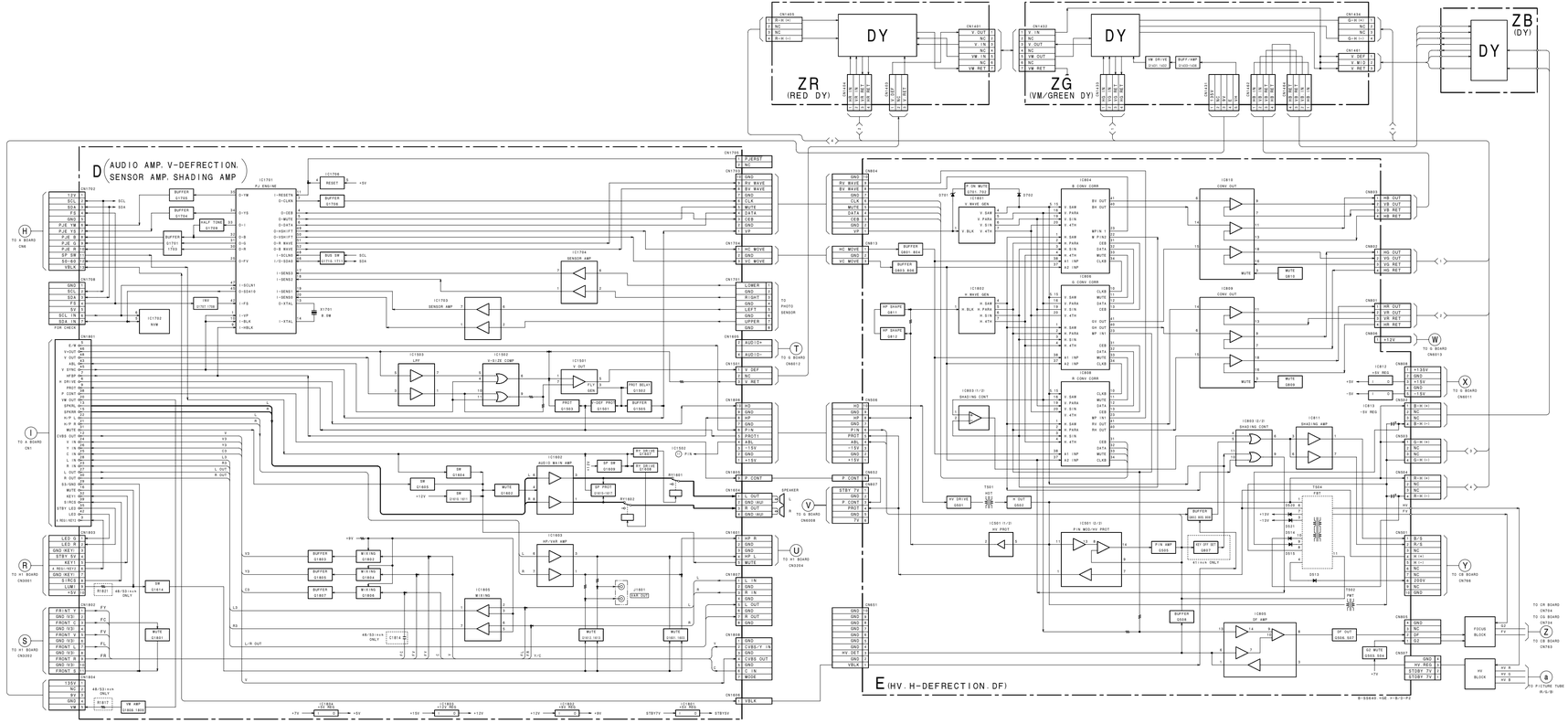


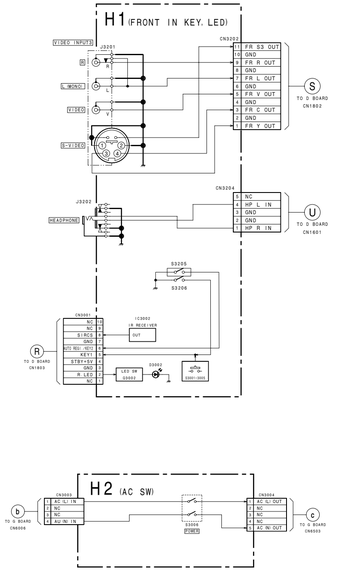


KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

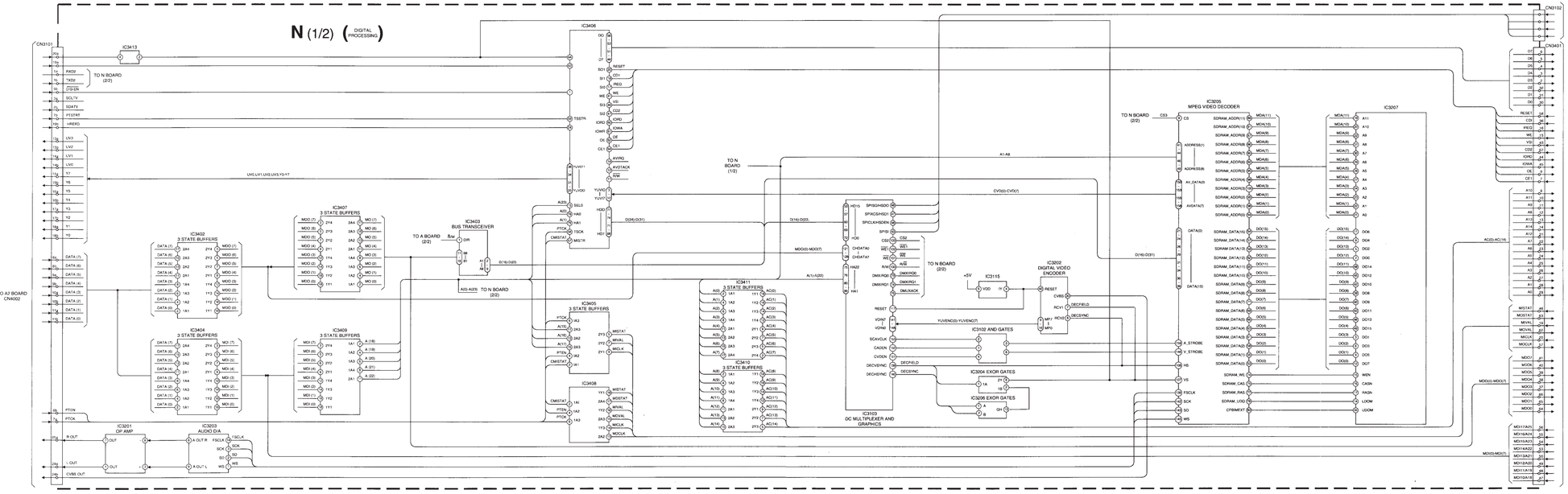


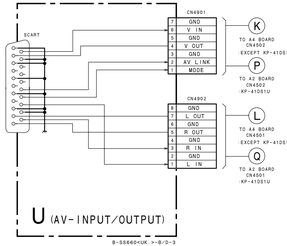
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892



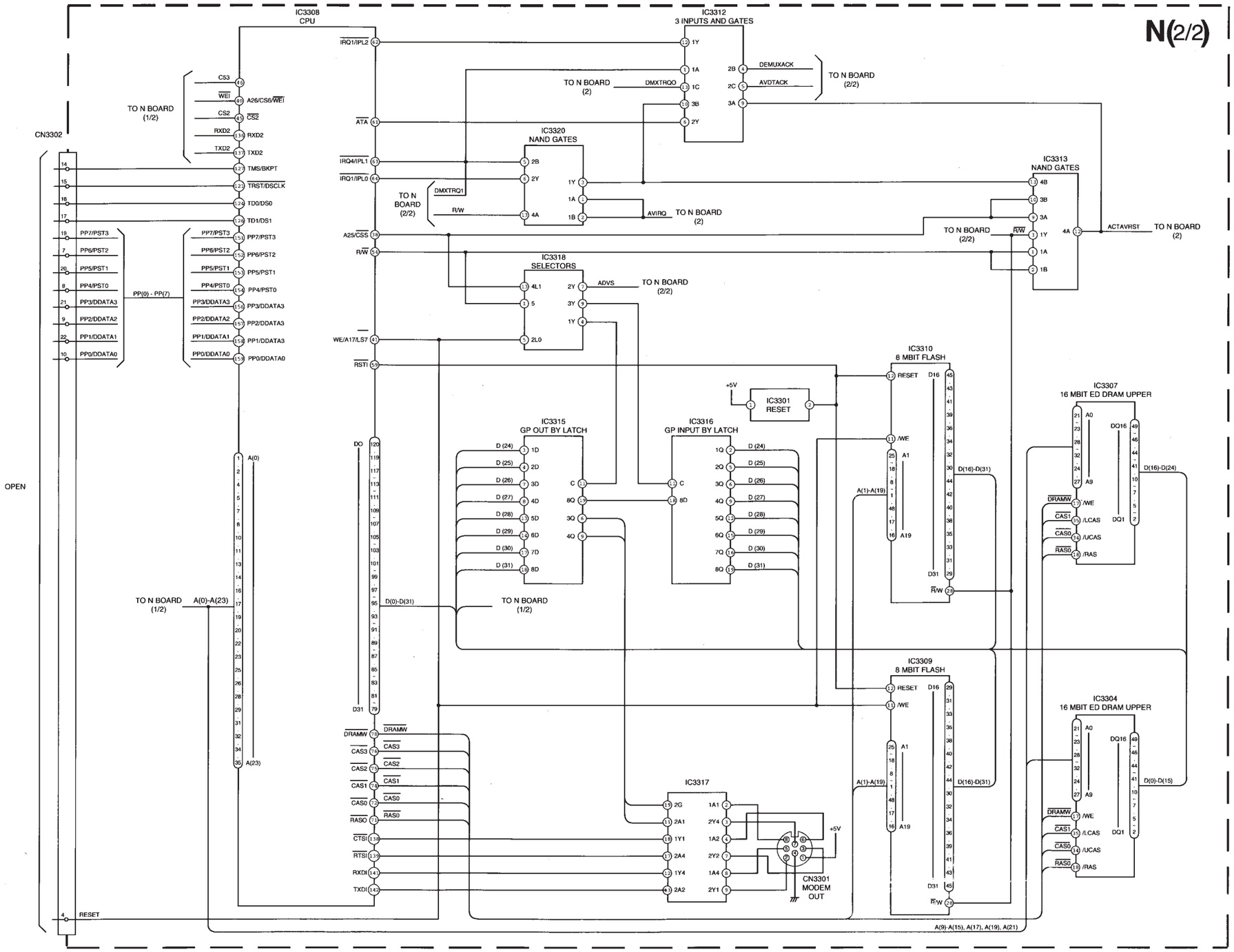


KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

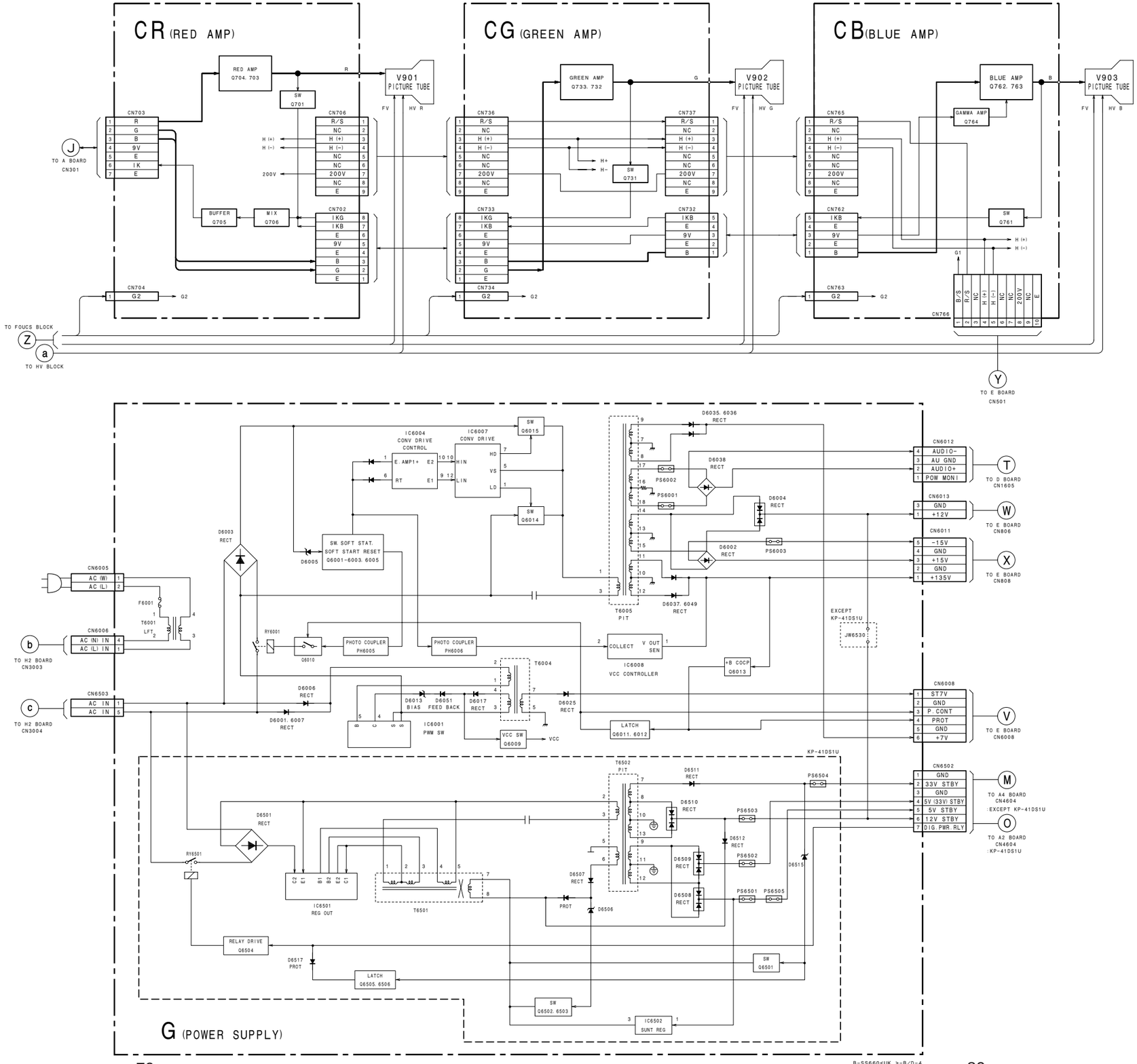




KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

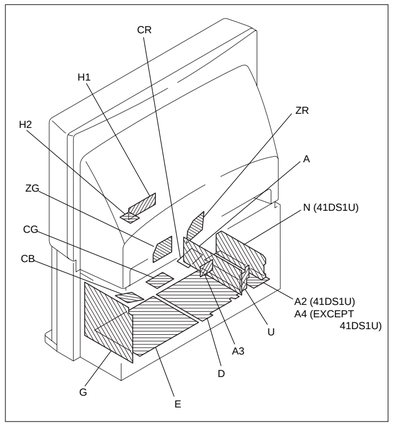


KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892



7-2. FRAME SCHEMATIC DIAGRAM

7-3. CIRCUIT BOARDS LOCATION



A AUDIO PROCESSOR, µ COM, Y/C JUNGLE, SECAM ASPECT CONVERT NORMAL SW

7-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. (pF: µµF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 M digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ∗ : Can not be measured.
- NO MARK: Common
- < > : SECAM
- ( ) : NTSC 3.58 MHz
- Circled numbers are waveform references.
- : B + bus.
- : B – bus.
- : Signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

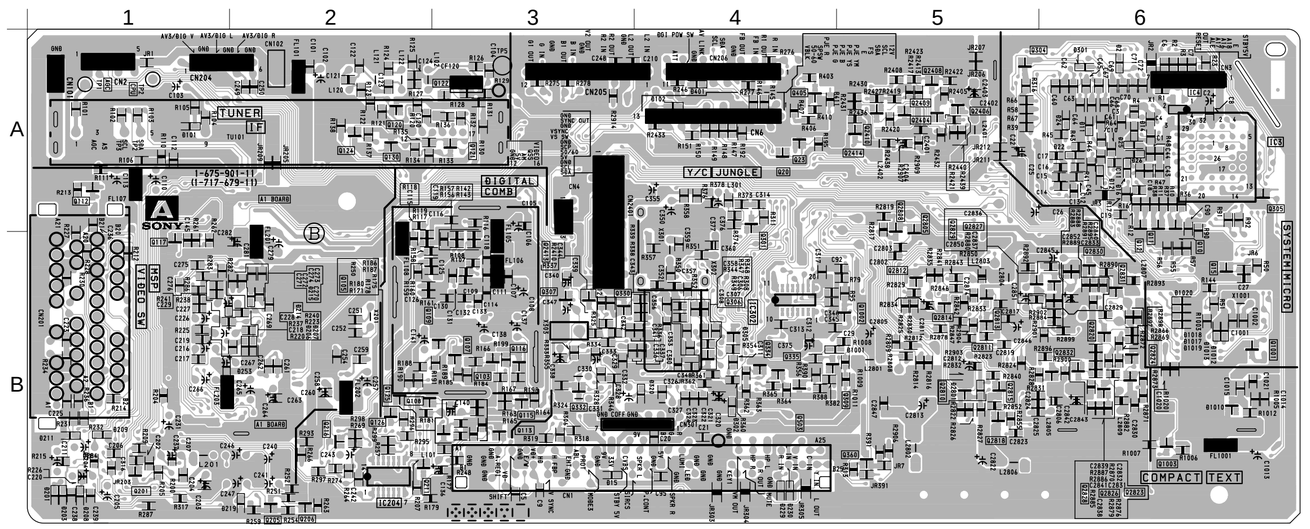
Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base T Emitter	
②	Transistor	—	Collector / Base — Emitter	
③	Diode		Cathode — Anode	
④	Diode	T	Cathode / Anode T (NC)	
⑤	Diode	—	Cathode / Anode (NC)	
⑥	Diode	T	Common / Anode T Cathode	
⑦	Diode	—	Common / Anode Cathode	
⑧	Diode	T	Common / Anode T Anode	
⑨	Diode	—	Common / Anode Anode	
⑩	Diode	T	Common / Cathode T Cathode	
⑪	Diode	—	Common / Cathode Cathode	
⑫	Diode		Anode Anode Cathode / Cathode Anode Anode	
⑬	Transistor (FET)		Drain / Source Gate	
⑭	Transistor (FET)		Drain / Source Gate	
⑮	Transistor (FET)		□ Source □ Drain □ Gate	
⑯	Transistor		□ Emitter □ Collector □ Base	
⑰	Transistor		C2(B1)E1 E2 E2 C1	
⑱	Transistor		C1(B2)E2 E1 B1 C2	
⑲	Transistor	—	C1 B2 E2 / E1 B1 C2	
⑳	Transistor	—	C1 B2 E2 / E1 B1 C2	
㉑	Transistor	—	E2 B1 E1 / C2 C1(B2)	
㉒	Transistor	—	(B2) B1 E1 E2 / C1 C2	
㉓	Transistor	—	(B2) E2 E1 B1 / C2 C1	
–	Discrete semiconductor			

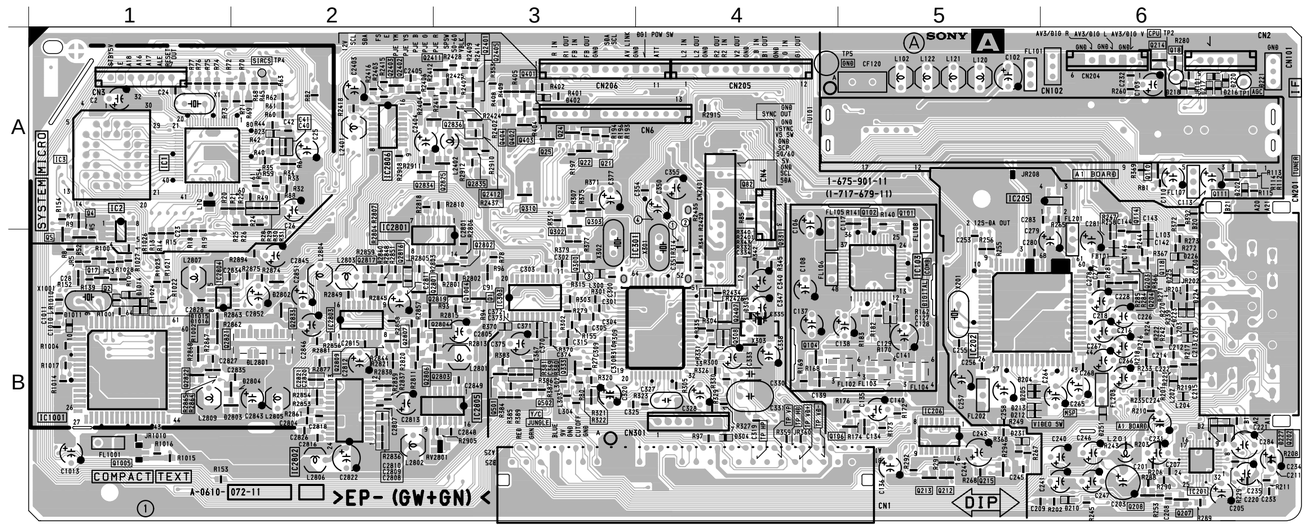
(Chip semiconductors that are not actually used are included.)

Ver.1.5

— A BOARD (Conductor Side) —



— A BOARD (Component Side) —



• A BOARD SEMICONDUCTOR LOCATION

IC	(Conductor Side)	(Component Side)
IC1		A-1
IC2		A-1
IC3	A-6	A-1
IC4	A-6	
IC103		B-5
IC201		B-6
IC202		B-5
IC204	B-2	
IC205		A-6
IC206		B-6
IC301		B-4
IC302	B-4	
IC303		B-3
IC1001		B-1
IC2802		B-2
IC2803		B-2
IC2804		B-1
IC2805		B-2
IC2806		A-2

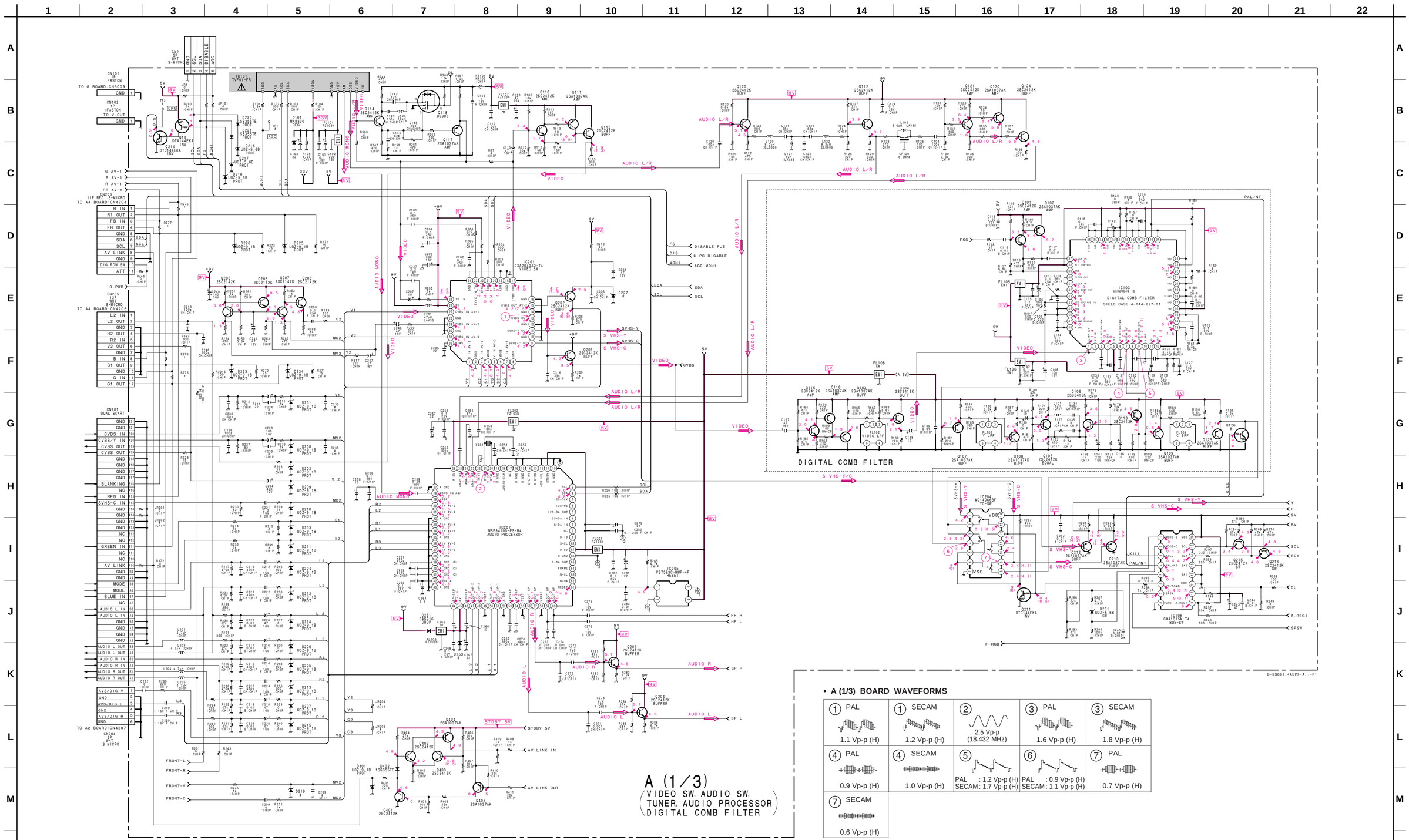
TRANSISOR	(Conductor Side)	(Component Side)	∗
Q1		B-3	②
Q2		B-1	②
Q4		A-1	②
Q17		B-1	②
Q18	A-6		②
Q20	A-4		①
Q21		A-3	②
Q22		A-3	②
Q23	A-4		①
Q24		A-3	②
Q25		A-3	②
Q82		A-4	②
Q101		A-5	②
Q102		A-5	②
Q103			②
Q104		B-4	②
Q105	B-3		①
Q106		B-4	②
Q107	B-3		①
Q108	B-2		①
Q109	B-3		①
Q110		A-6	②
Q111		A-6	②
Q112	A-1		①
Q113	B-3		①
Q114		A-6	②
Q115	B-3		①
Q116	B-3		①
Q117	B-1		①
Q118		B-6	②
Q120	A-2		①
Q121	A-3		①
Q122	A-3		①
Q124	A-2		①
Q125	B-2		①
Q130	A-2		①
Q201	B-1		①
Q202		B-6	②
Q203		B-6	②
Q204		B-6	②
Q205	B-2		①
Q206	B-2		①
Q207		B-6	②
Q208		B-6	②
Q211	B-2		①
Q212		B-5	②
Q213		B-5	②
Q214		A-6	②
Q215		B-5	②
Q216			②
Q300		B-3	②
Q301	A-4		①
Q302		A-3	②
Q303		A-3	②
Q304	A-5		①
Q305	A-6		①
Q306	B-4		①
Q307	B-3		①
Q308		B-4	②
Q309	B-5		①
Q330	B-3		①
Q331		B-4	②
Q333		B-3	②
Q334	B-4		①
Q335	B-4		①
Q360	B-5		①
Q401		A-3	②
Q402		A-3	②
Q403		A-3	②
Q404		A-3	②
Q405	A-4		①
Q1001	B-6		①
Q1002	B-5		①
Q1003	B-6		①
Q1004		B-3	②
Q1005		B-1	②
Q2401		A-3	②
Q2402		A-2	②
Q2403		A-2	②
Q2404	A-5		①
Q2405		A-3	②
Q2406	A-5		①
Q2407		B-4	②
Q2408	A-5		①
Q2409	A-5		①
Q2410	A-5		①
Q2411		A-3	②
Q2412		A-3	②
Q2413	B-3		①
Q2414	A-5		①
Q2801		B-3	②
Q2802		B-3	②
Q2805	A-5		①
Q2806		B-2	②
Q2807		B-2	②
Q2808	A-5		①
Q2809		B-2	②
Q2810	B-5		①
Q2811	B-5		①
Q2812	B-5		①
Q2813	B-5		①
Q2814	B-5		①
Q2815	B-5		①
Q2816		B-2	②
Q2818	B-5		①
Q2819		B-3	②
Q2820	B-6		①
Q2821		B-1	②
Q2822		B-1	②
Q2823	B-6		①
Q2824	B-6		①
Q2825		A-3	②
Q2826	B-6		①
Q2827	B-5		①
Q2828	B-6		①
Q2829	B-5		①
Q2830	B-6		①
Q2831	B-6		①
Q2832	B-6		①
Q2833		B-2	②
Q2834		A-2	②
Q2835		A-3	②
Q2836		A-3	②

DIODE	(Conductor Side)	(Component Side)	∗
D2	A-6		③
D11	A-6		③
D12	A-6		③
D16	A-6		③
D101	A-1		③
D102	A-4		③
D201	B-1		③
D202		A-6	③
D203	B-1		③
D204		B-5	③
D205		B-5	③
D206	B-2		③
D207	B-2		③
D208	B-1		③
D209	B-1		③
D210		B-6	③
D211	B-1		③
D212		B-5	③
D213		B-5	③
D214	B-2		③
D215	B-2		③
D216		A-6	③
D217		A-6	③
D218		A-6	③
D220		A-6	③
D221		A-6	③
D223		B-6	③
D224		B-6	③
D225		B-6	③
D226		B-6	③
D231		B-5	③
D251		B-6	③
D303		B-4	③
D304		B-4	③
D305	B-4		④
D320	B-4		③
D370		B-3	③
D401	A-4		③
D402		A-3	③
D1001	B-5		③
D1010	B-6		④
D2801		B-2	③
D2802		B-2	⑤
D2803		B-2	⑤
D2804		B-2	⑤

CRYSTAL	(Conductor Side)	(Component Side)
X1		A-1
X201		B-5
X301		B-4
X302		B-3
X303		B-4
X1001		B-1

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 81)

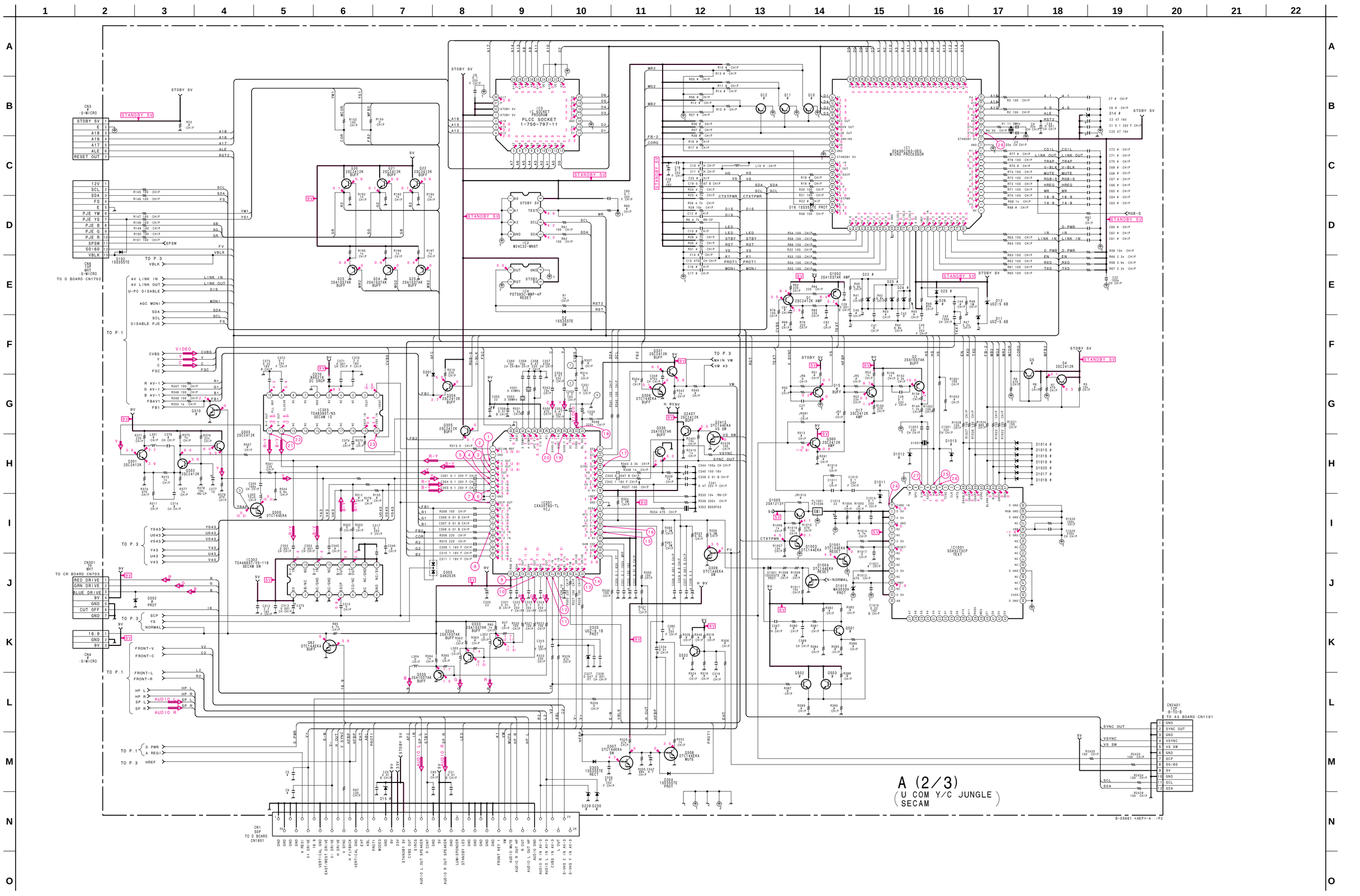
(1) Schematic Diagram of A (1/3) Board



• A (1/3) BOARD WAVEFORMS

① PAL 1.1 Vp-p (H)	① SECAM 1.2 Vp-p (H)	② 2.5 Vp-p (18.432 MHz)	③ PAL 1.6 Vp-p (H)	③ SECAM 1.8 Vp-p (H)
④ PAL 0.9 Vp-p (H)	④ SECAM 1.0 Vp-p (H)	⑤ PAL : 1.2 Vp-p (H) SECAM : 1.7 Vp-p (H)	⑥ PAL : 0.9 Vp-p (H) SECAM : 1.1 Vp-p (H)	⑦ PAL 0.7 Vp-p (H)
⑦ SECAM 0.6 Vp-p (H)				

(2) Schematic Diagram of A (2/3) Board



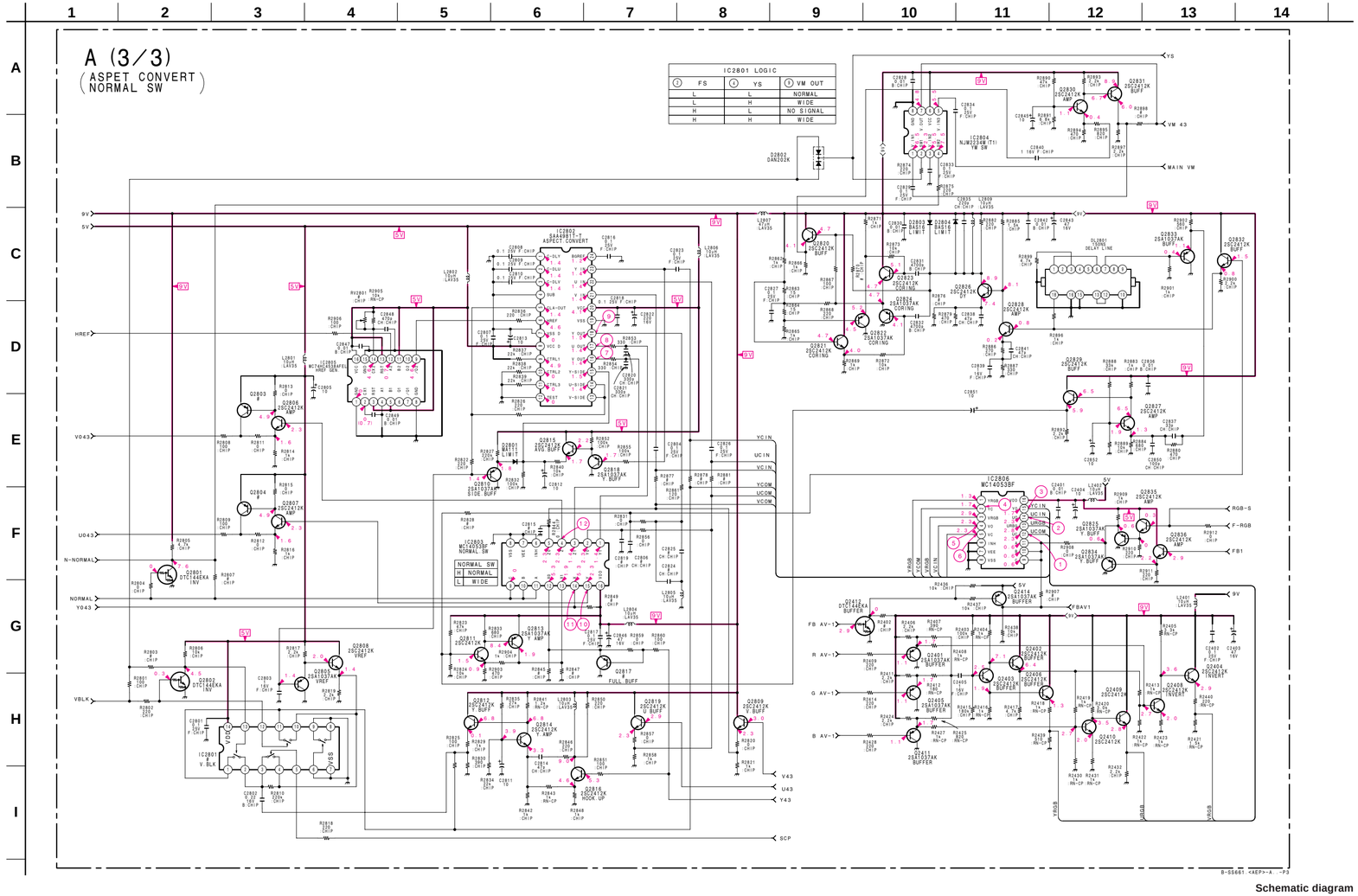
• A (2/3) BOARD WAVEFORMS

① PAL : 0.5 Vp-p (H) SECAM : 1.4 Vp-p (H)	② PAL : 0.7 Vp-p (H) SECAM : 1.8 Vp-p (H)	③ PAL 1.3 Vp-p (H)	③ SECAM 1.8 Vp-p (H)	④ PAL 1.3 Vp-p (H)	④ SECAM 1.7 Vp-p (H)	⑤ PAL : 1.0 Vp-p (H) SECAM : 1.3 Vp-p (H)
⑥ PAL : 1.3 Vp-p (H) SECAM : 1.7 Vp-p (H)	⑦ 2.6 Vp-p (H)	⑧ 1.9 Vp-p (V)	⑨ PAL 3.4 Vp-p (H)	⑨ SECAM 3.8 Vp-p (H)	⑩ PAL 2.5 Vp-p (H)	⑩ SECAM 3.1 Vp-p (H)
⑪ PAL 2.8 Vp-p (H)	⑪ SECAM 3.6 Vp-p (H)	⑫ 4.8 Vp-p (H)	⑬ 1.1 Vp-p (V)	⑭ 1.1 Vp-p (V)	⑮ 6.8 Vp-p (H)	⑯ 6.1 Vp-p (H)
⑰ PAL 2.3 Vp-p (H)	⑰ SECAM 3 Vp-p (H)	⑱ PAL 1.1 Vp-p (H)	⑱ SECAM 1.5 Vp-p (H)	⑲ 1.2 Vp-p (H)	⑳ 0.8 Vp-p (H)	㉑ PAL : 0.5 Vp-p (H) SECAM : 1.3 Vp-p (H)
㉒ PAL : 0.8 Vp-p (H) SECAM : 1.7 Vp-p (H)	㉓ PAL 1.0 Vp-p (H)	㉓ SECAM 1.5 Vp-p (H)	㉔ PAL 2.1 Vp-p (H)	㉔ SECAM 2.9 Vp-p (H)	㉕ 6.4 Vp-p (H)	㉖ 3.2 Vp-p (V)
㉗ 2.3 Vp-p (20 MHz)	㉘ 5.5 Vp-p (11.5 MHz)					

• A (3/3) BOARD WAVEFORMS

① 1.3 Vp-p (H)	② 1.3 Vp-p (H)	③ PAL 0.3 Vp-p (H)	③ SECAM 0.4 Vp-p (H)
④ PAL 0.3 Vp-p (H)	④ SECAM 0.4 Vp-p (H)	⑤ 1.0 Vp-p (H)	⑥ 1.0 Vp-p (V)
⑦ PAL : 1.1 Vp-p (H) SECAM : 1.4 Vp-p (H)	⑧ 1.4 Vp-p (H)	⑨ PAL 0.3 Vp-p (H)	⑨ SECAM 0.3 Vp-p (H)
⑩ PAL : 1.3 Vp-p (H) SECAM : 1.7 Vp-p (H)	⑪ 1.1 Vp-p (V)	⑪ 1.7 Vp-p (H)	⑫ PAL : 1.0 Vp-p (H) SECAM : 1.4 Vp-p (H)

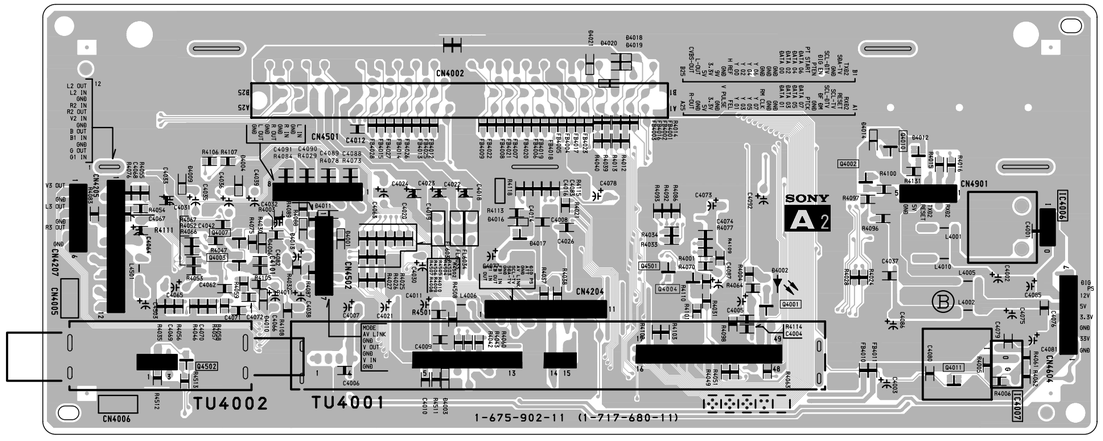
(3) Schematic Diagram of A (3/3) Board



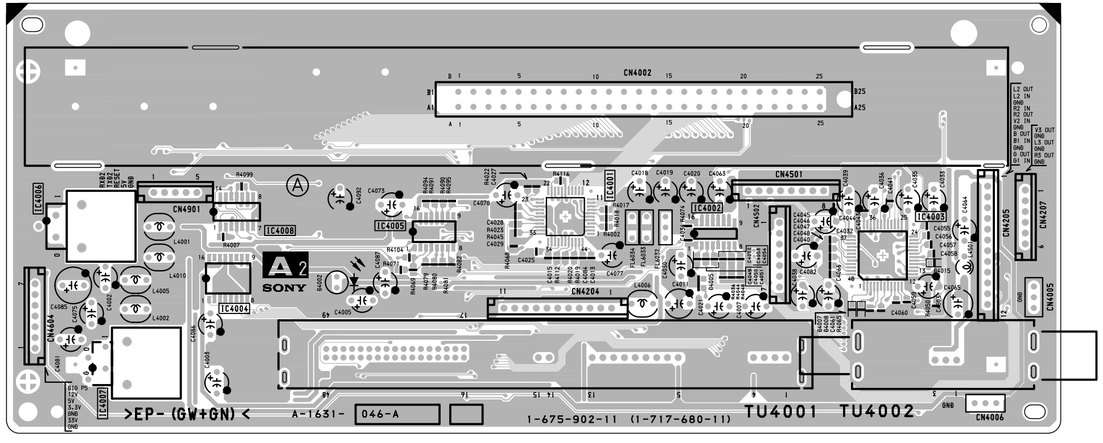
Schematic diagram
← A (3/3) board

A2 [TUNER, D/A CONVERTER V/A/RGB SELECT]

— A2 BOARD (Conductor Side) —



— A2 BOARD (Component Side) —



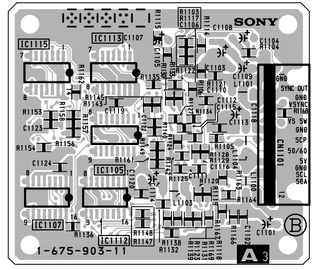
A2 BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q4001 – Q4004 Q4007 – Q4010 Q4011 Q4501, Q4502	①
D4002 – D4004 D4006 – D4011 D4015 – D4021	③
D4005	④

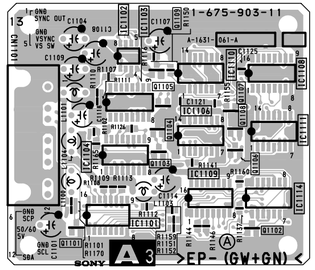
∗: Refer to Treminal name of semiconductors in silk screen printed circuit (see page 84)

A3 [V SHIFT]

— A3 BOARD (Conductor Side) —



— A3 BOARD (Component Side) —



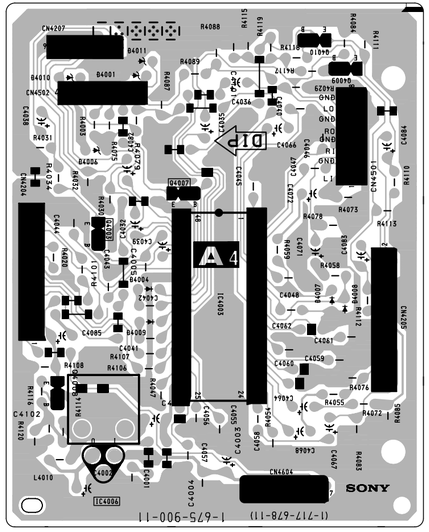
A3 BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q1101, Q1109	②

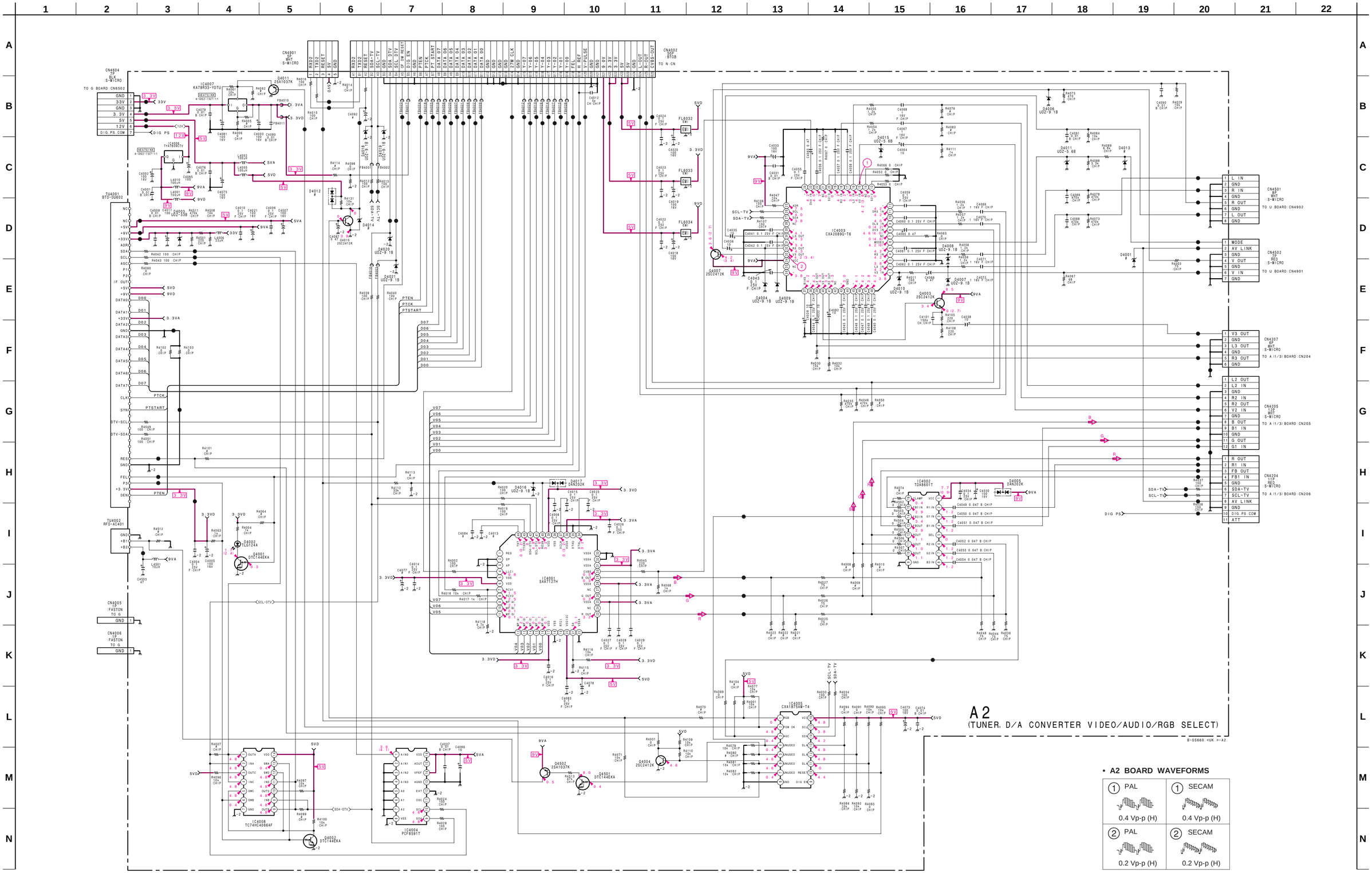
∗: Refer to Treminal name of semiconductors in silk screen printed circuit (see page 84)

A4 [VIDEO/AUDIO SELECT]

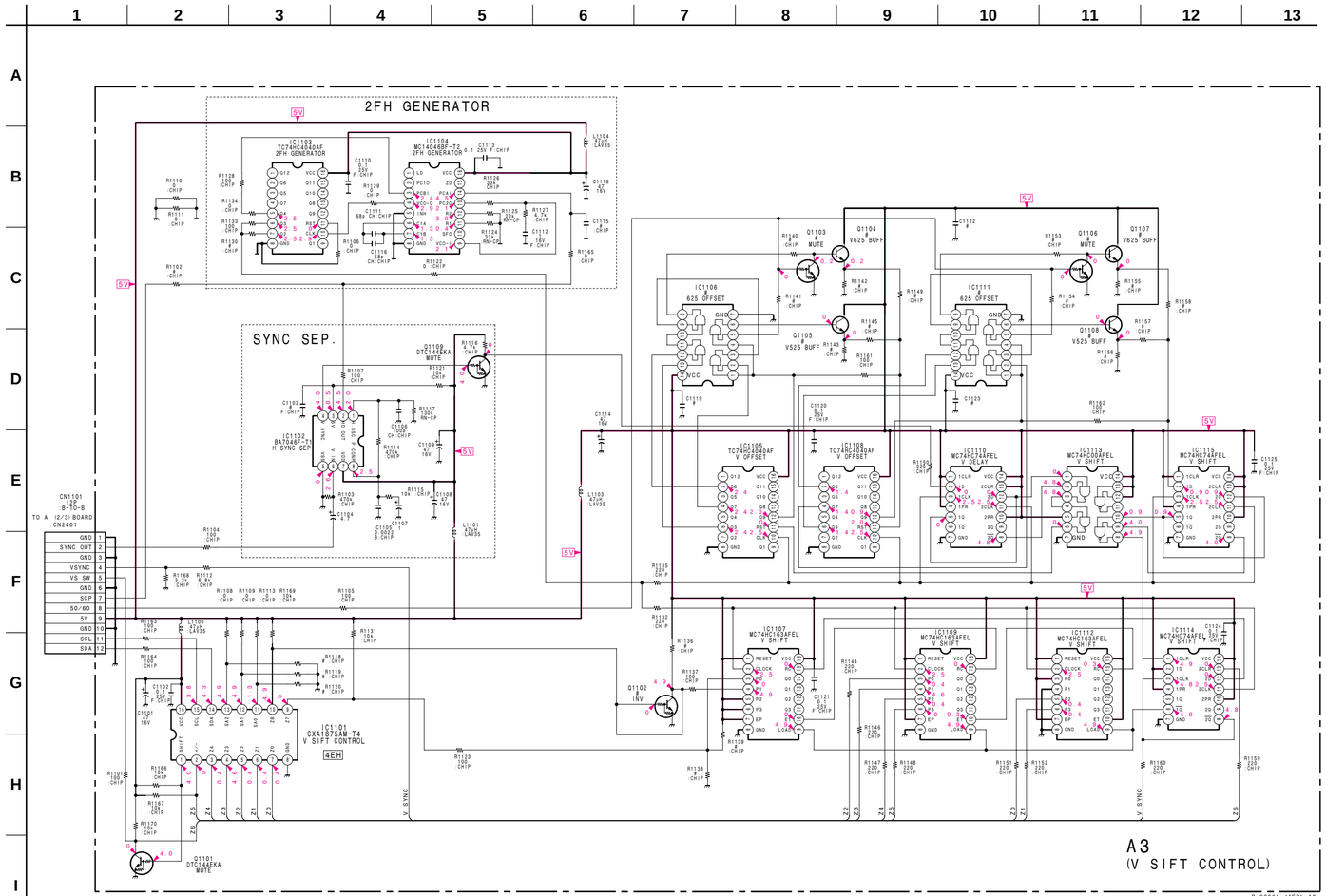
— A4 BOARD —

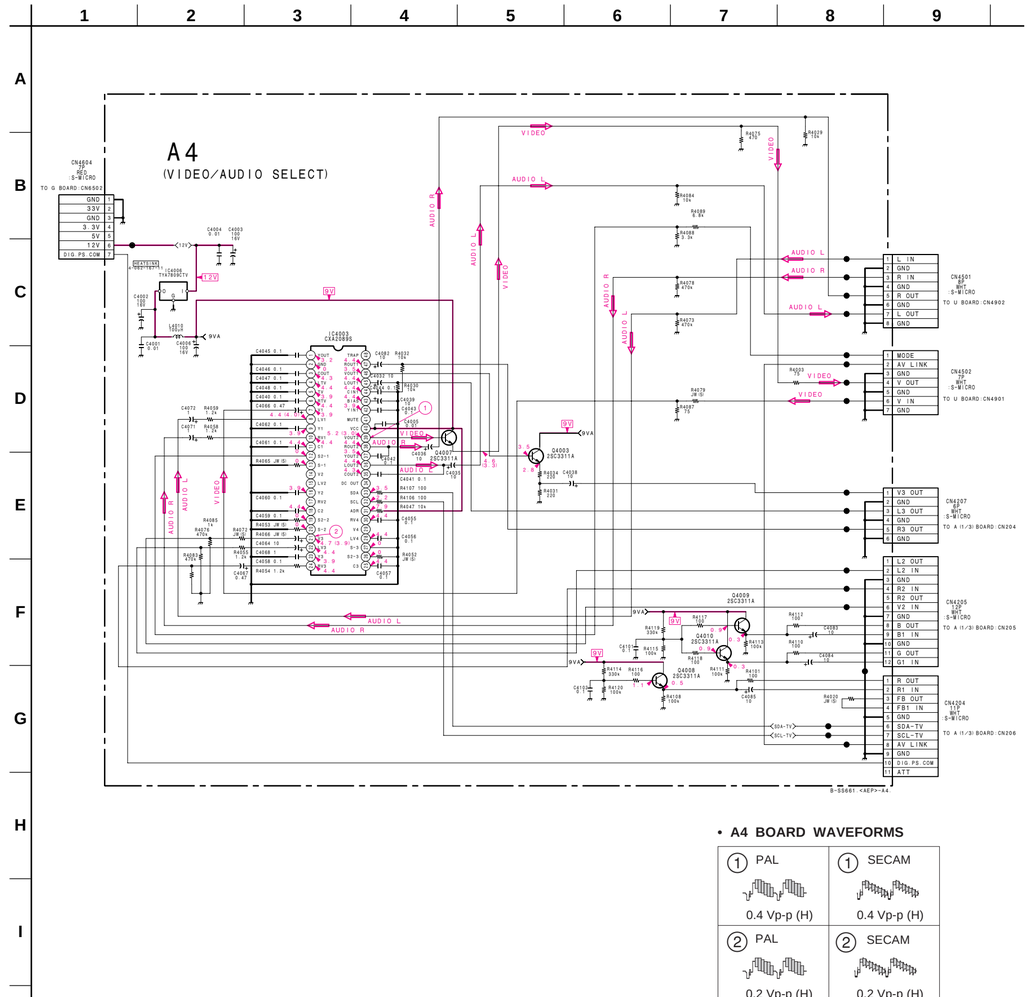


(4) Schematic Diagram of A2 Board



(5) Schematic Diagrams of A3 and A4 Boards





• **A4 BOARD WAVEFORMS**

① PAL 0.4 Vp-p (H)	① SECAM 0.4 Vp-p (H)
② PAL 0.2 Vp-p (H)	② SECAM 0.2 Vp-p (H)

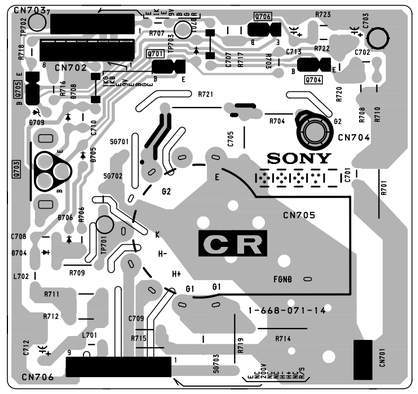
CR [RED AMP]

CG [GREEN AMP]

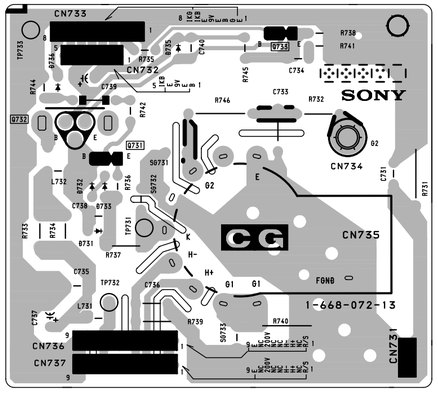
CB [BLUE AMP]

(6) Schematic Diagrams of CB, CG and CR Boards

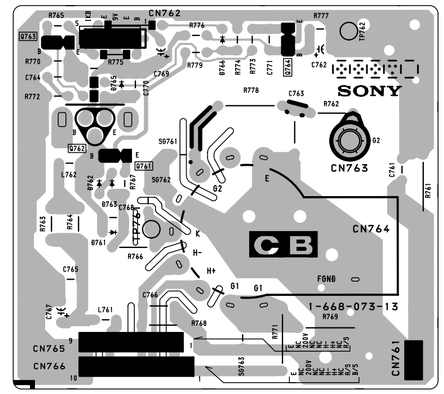
— CR BOARD —



— CG BOARD —



— CB BOARD —



• CR BOARD WAVEFORMS

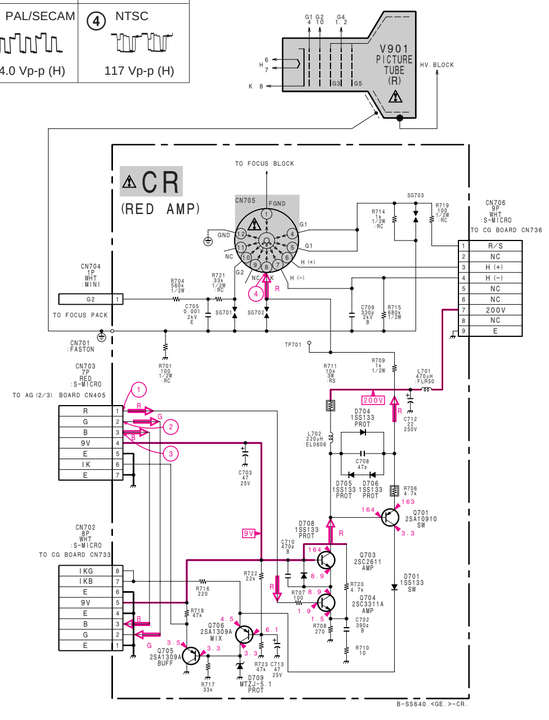
① PAL/SECAM 3.5 Vp-p (H)	① NTSC 4.4 Vp-p (H)
② PAL/SECAM 3.5 Vp-p (H)	② NTSC 3.8 Vp-p (H)
③ PAL/SECAM 3.6 Vp-p (H)	③ NTSC 3.8 Vp-p (H)
④ PAL/SECAM 94.0 Vp-p (H)	④ NTSC 117 Vp-p (H)

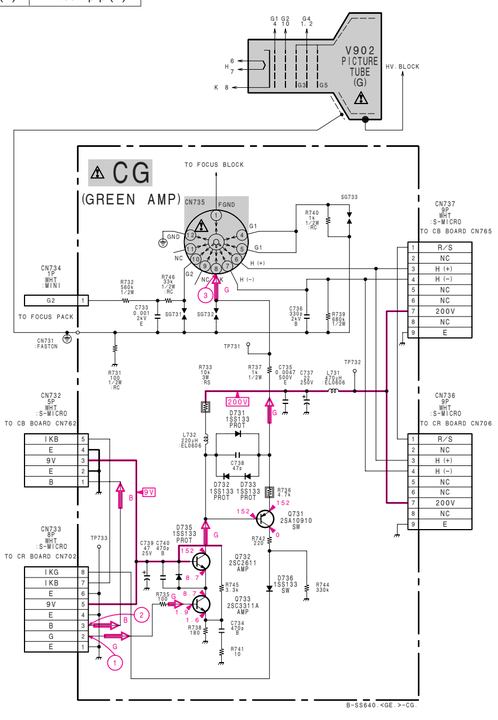
• CG BOARD WAVEFORMS

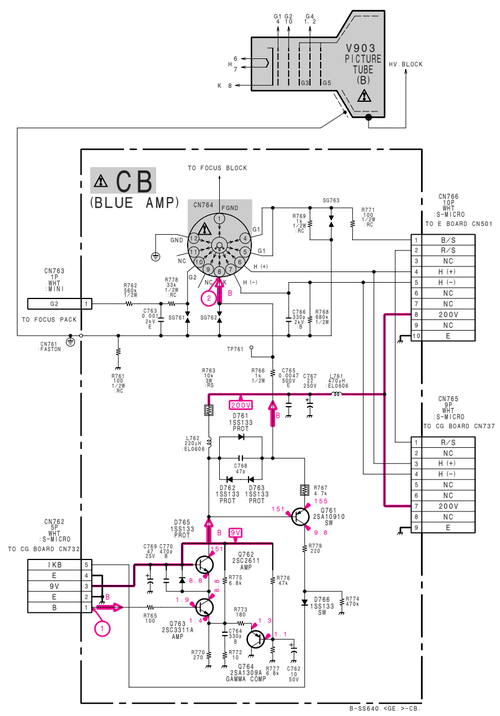
① PAL/SECAM 3.5 Vp-p (H)	① NTSC 3.6 Vp-p (H)
② PAL/SECAM 3.5 Vp-p (H)	② NTSC 3.8 Vp-p (H)
③ PAL/SECAM 126 Vp-p (H)	③ NTSC 139 Vp-p (H)

• CB BOARD WAVEFORMS

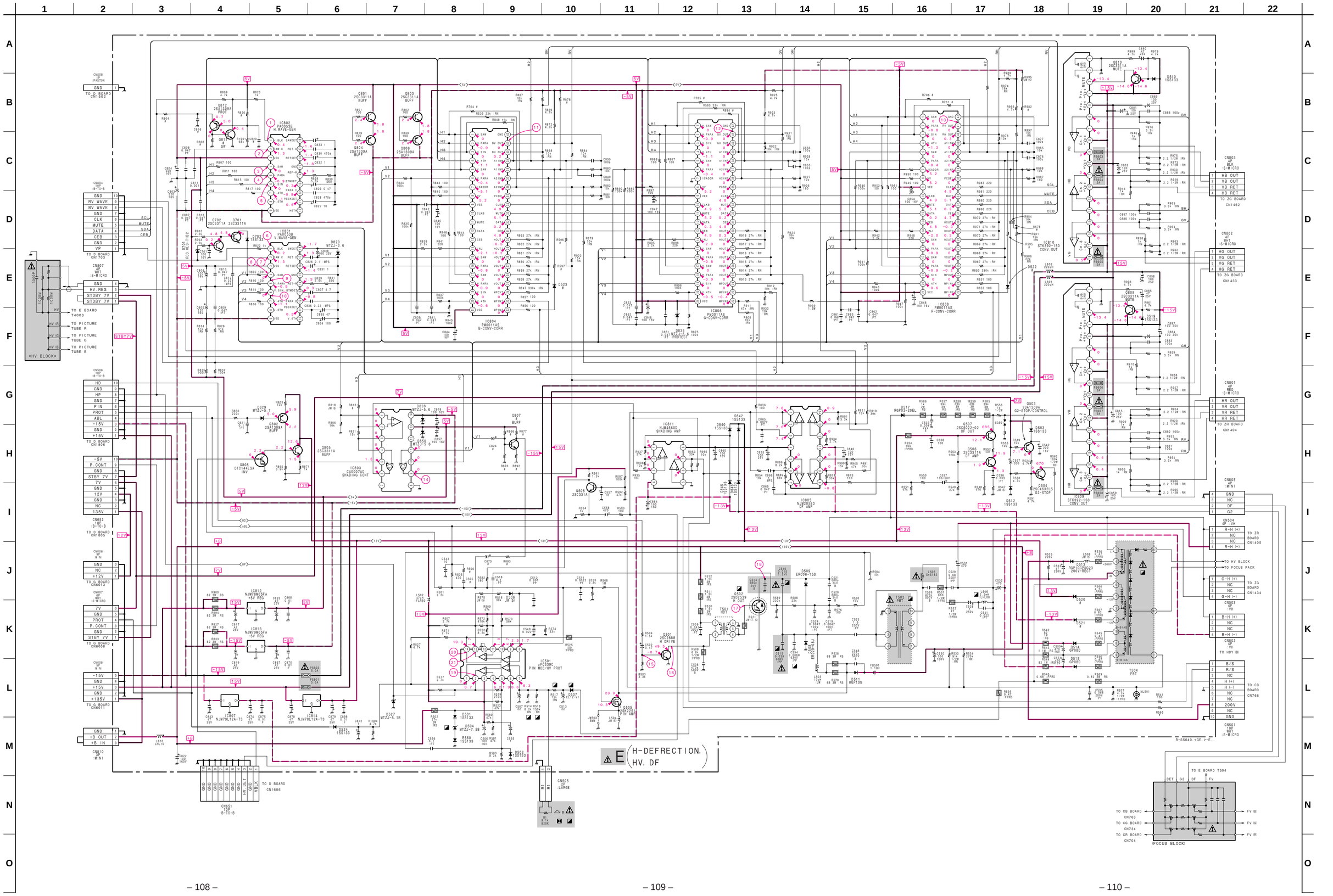
① PAL/SECAM 3.5 Vp-p (H)	① NTSC 3.7 Vp-p (H)
② PAL/SECAM 117 Vp-p (H)	② NTSC 125 Vp-p (H)







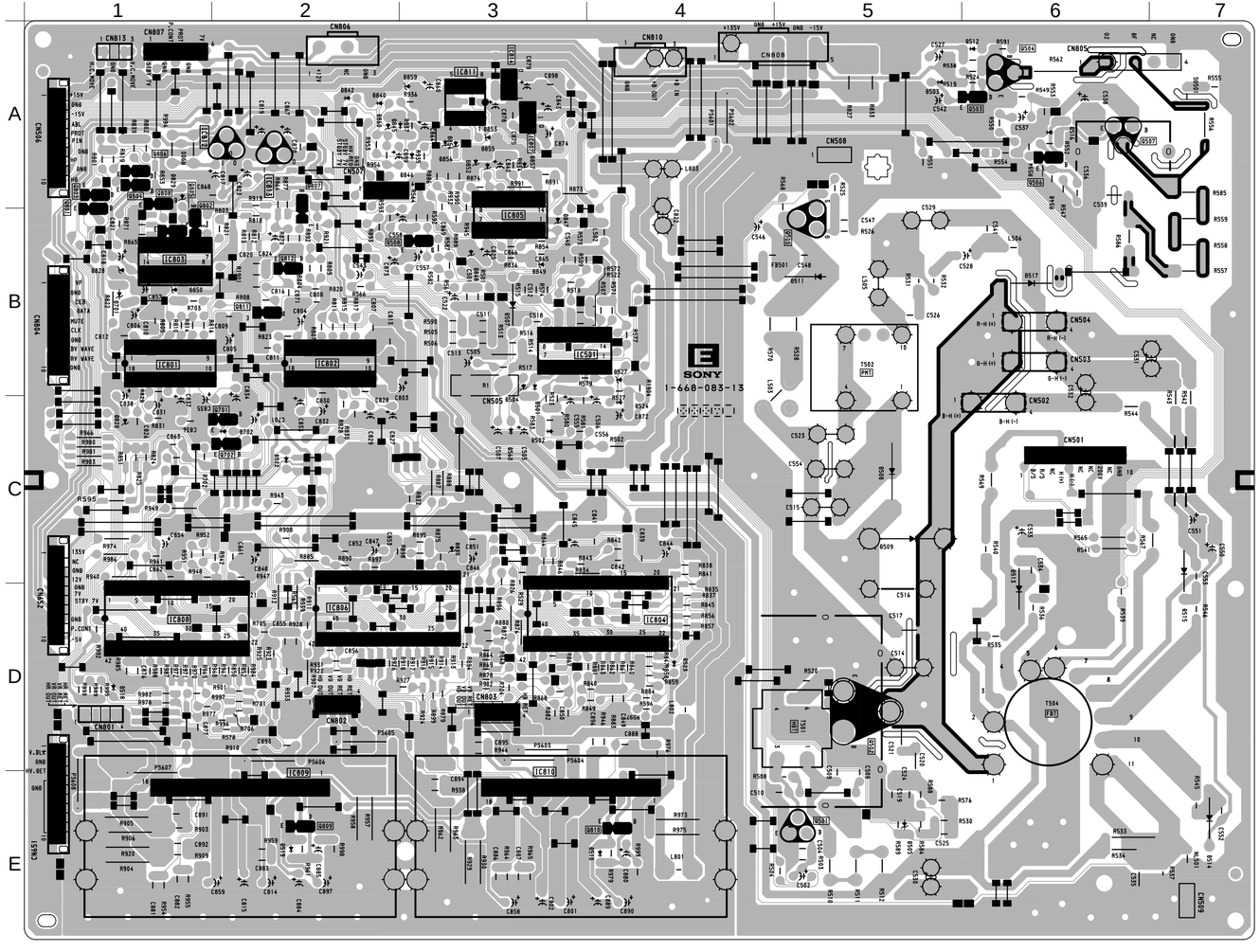
(7) Schematic Diagram of E Board



KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

E H-DEFRECTION, HV, DF

— E BOARD —



KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

• E BOARD SEMICONDUCTOR LOCATION

IC		Q808	A-1
IC501	B-3	Q809	E-2
IC801	B-1	Q810	E-4
IC802	B-2	**DIODE**	
IC803	B-1		*
IC804	D-4	D501	B-3 –
IC805	B-3	D502	C-3 –
IC806	D-2	D503	A-5 –
IC807	A-3	D504	B-3 –
IC808	D-1	D507	B-3 –
IC809	E-2	D508	C-5 –
IC810	E-3	D509	C-5 –
IC811	A-3	D510	E-4 –
IC812	A-2	D511	B-5 –
IC813	A-2	D512	A-6 –
IC814	A-3	D513	C-6 –
TRANSISTOR		D514	E-7 –
	*	D515	C-7 –
Q501	E-5	D517	B-6 –
Q502	D-5	D519	E-2 –
Q503	A-6	D524	C-4 –
Q504	A-6	D527	B-4 –
Q505	B-5	D560	C-3
Q506	A-6	D701	B-1 –
Q507	A-6	D702	C-2 –
Q508	B-3	D820	C-1 –
Q701	C-2	D828	B-1
Q702	C-2	D829	A-1 –
Q801	A-1	D835	C-3 –
Q802	B-1	D840	A-3 –
Q803	A-1	D842	A-3 –
Q804	A-1	D845	A-3 –
Q805	B-1	D846	A-3 –
Q806	A-1	D850	

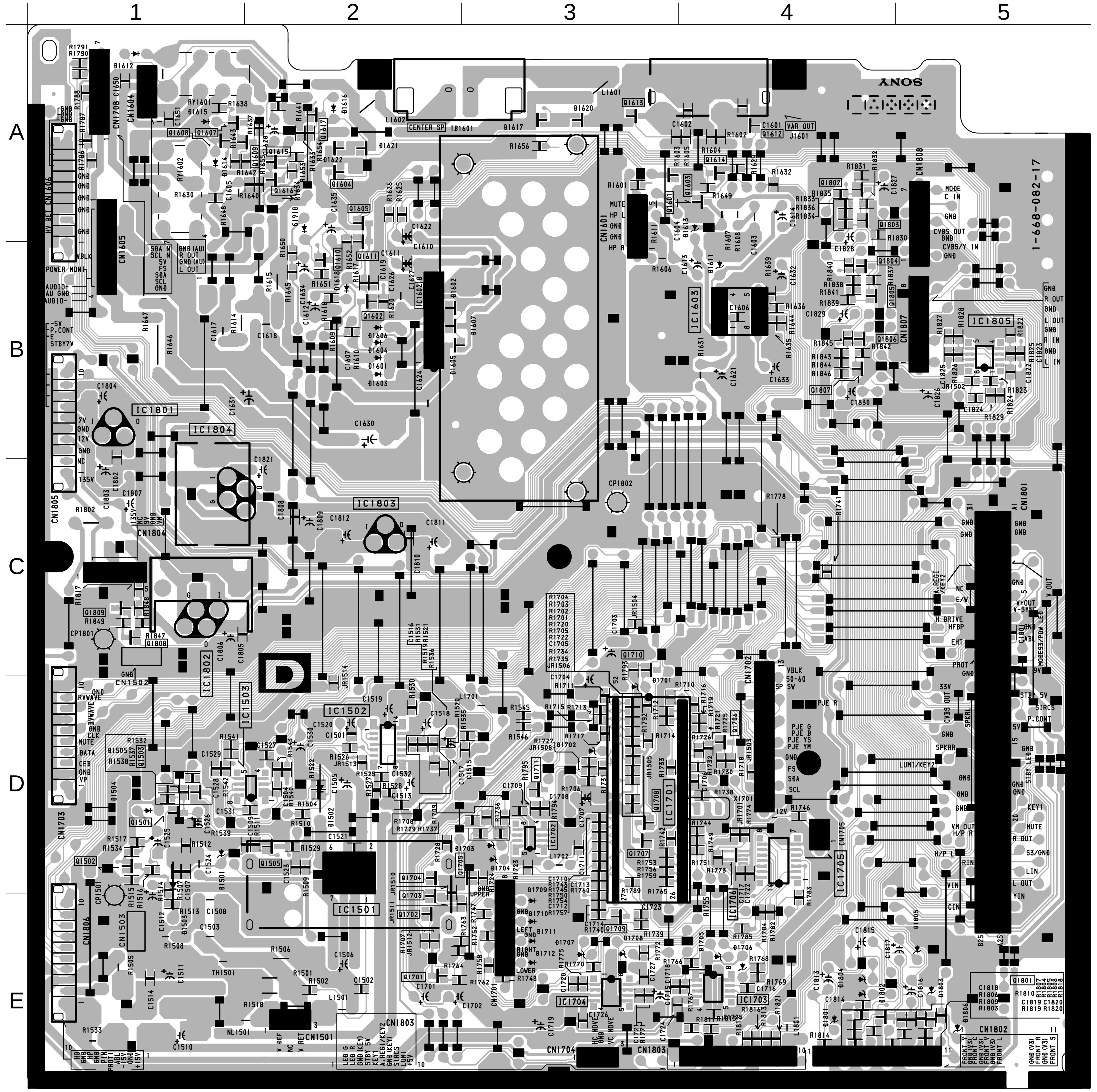
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 84)

• E BOARD WAVEFORMS

① 4.7 Vp-p (H)	② 2.5 Vp-p (H)	③ 2.5 Vp-p (H)	④ 2.4 Vp-p (H)	⑤ 2.2 Vp-p (H)	⑥ 4.7 Vp-p (V)
⑦ 2.5 Vp-p (V)	⑧ 2.4 Vp-p (V)	⑨ 2.4 Vp-p (V)	⑩ 2.3 Vp-p (V)	⑪ 2.3 Vp-p (V)	⑫ 1.6 Vp-p (V)
⑬ 2.3 Vp-p (V)	⑭ 1.4 Vp-p (V)	⑮ 2.5 Vp-p (H)	⑯ 89.5 Vp-p (H)	⑰ 10.9 Vp-p (H)	⑱ 1100 Vp-p (H)
⑲ 4.7 Vp-p (H)	⑳ 12.4 Vp-p (H)	㉑ 11.3 Vp-p (H)			

D [AUDIO AMP, V-DEFRECTION, SENCOR AMP, SHADING AMP]

— D BOARD (Conductor Side) —



• D BOARD SEMICONDUCTOR LOCATION

IC

	(Conductor Side)	(Component Side)
IC1501	E-2	D-4
IC1502	D-2	
IC1503	D-2	
IC1602	B-2	B-4
IC1603	B-4	B-2
IC1701	D-3	D-3
IC1702	D-3	
IC1703	E-4	
IC1704	E-3	
IC1706	D-4	
IC1801	B-1	B-5
IC1802	C-1	C-5
IC1803	C-2	C-4
IC1804	C-1	C-4
IC1805	B-5	

TRANSISTOR

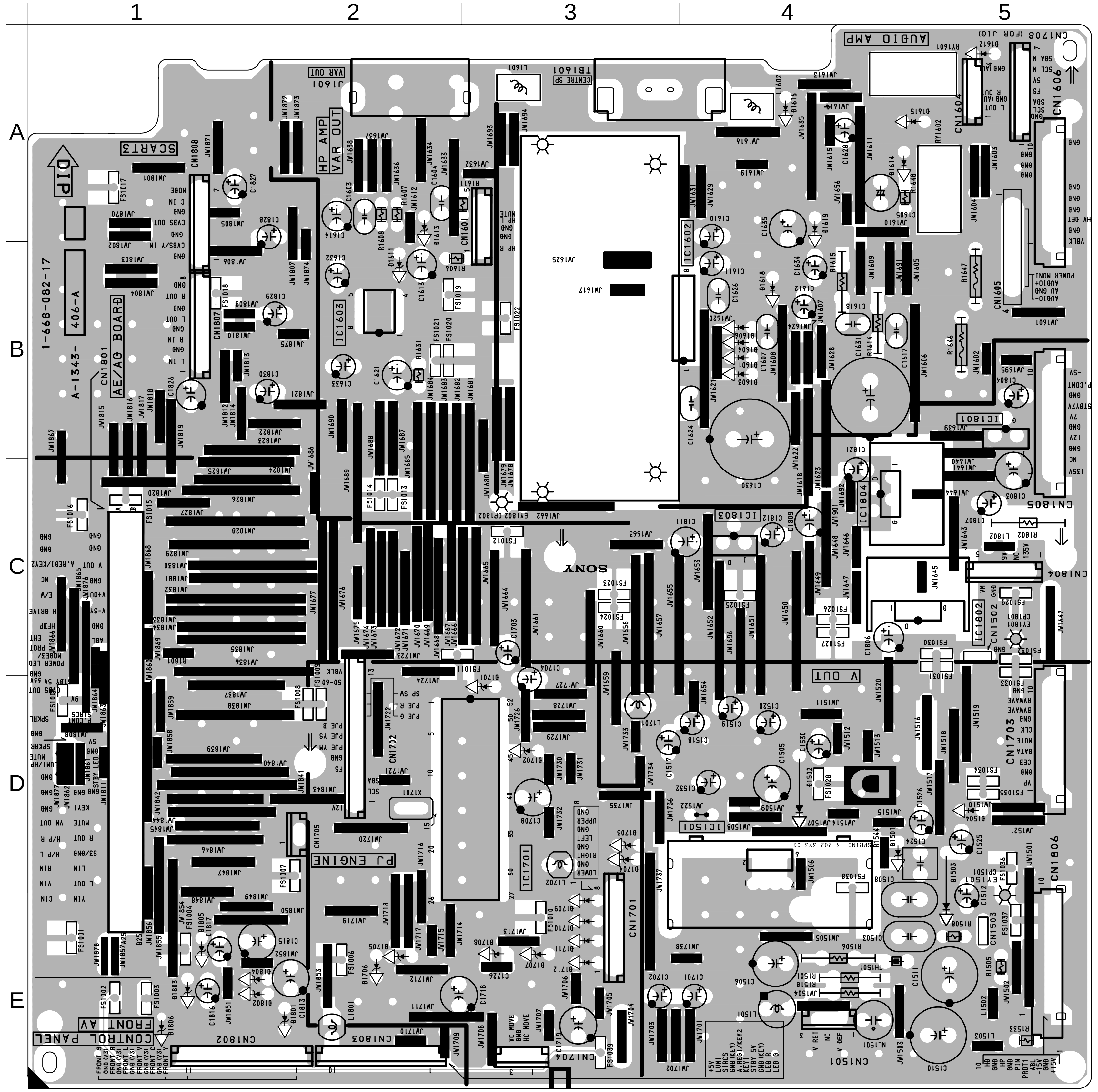
	(Conductor Side)	(Component Side)	*
Q1501	D-1		①
Q1502	D-1		①
Q1503	D-1		①
Q1505	D-2		①
Q1601	A-4		①
Q1602	B-2		①
Q1603	A-4		①
Q1604	A-2		①
Q1605	A-2		①
Q1607	A-1		①
Q1608	A-1		①
Q1609	A-2		①
Q1610	B-2		①
Q1611	B-2		①
Q1612	A-4		①
Q1613	A-3		①
Q1614	A-4		①
Q1615	A-2		①
Q1616	A-2		①
Q1617	A-2		①
Q1701	E-2		①
Q1702	E-2		①
Q1703	E-2		①
Q1704	D-2		①
Q1705	D-2		①
Q1706	D-4		①
Q1707	D-3		①
Q1708	D-3		①
Q1709	E-3		①
Q1710	C-3		①
Q1711	D-3		①
Q1801	E-4		①
Q1802	A-4		①
Q1803	A-4		①
Q1804	B-4		①
Q1805	B-4		①
Q1806	B-4		①
Q1807	B-4		①
Q1808	C-1		①
Q1809	C-1		①

DIODE

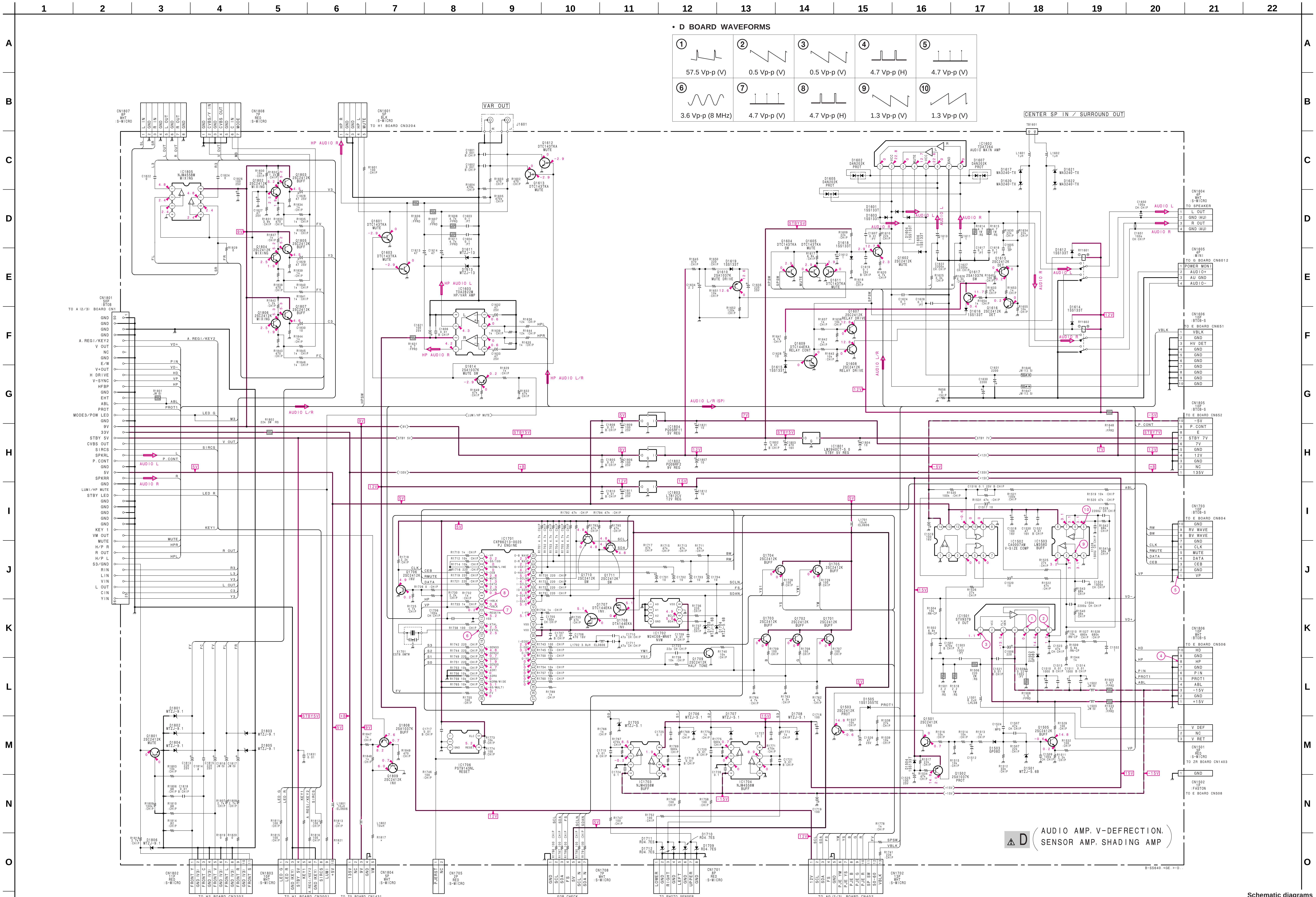
	(Conductor Side)	(Component Side)	*
D1501	D-1	D-4	–
D1502	D-2	D-4	–
D1503	D-1	D-5	–
D1504	D-1	D-5	–
D1505	D-1		③
D1601	B-2	B-4	–
D1602	B-2		④
D1603	B-2	B-4	–
D1604	B-2	B-4	–
D1605	B-2		④
D1606	B-2	B-4	–
D1607	B-2		④
D1611	B-4	B-2	–
D1612	A-1	A-5	–
D1613	A-4	A-2	–
D1614	A-1	A-4	–
D1615	A-1	A-5	–
D1616	A-2	A-4	–
D1617	A-3		④
D1618	B-2	B-4	–
D1619	A-2	A-4	–
D1620	A-3		④
D1621	A-2		④
D1622	A-2		④
D1703	D-3	D-3	–
D1704	D-3	D-3	–
D1705	E-4	E-2	–
D1706	E-4	E-2	–
D1707	E-3	E-3	–
D1708	E-3	E-3	–
D1709	E-3	E-3	–
D1710	E-3	E-3	–
D1711	E-3	E-3	–
D1712	E-3	E-3	–
D1801	E-4	E-2	–
D1802	E-4	E-2	–
D1803	E-5	E-1	–
D1804	E-4	E-2	–
D1805	E-5	E-1	–
D1806	E-5	E-1	–

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 84)

— D BOARD (Component Side) —



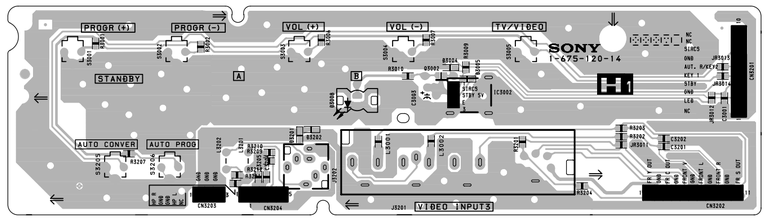
(8) Schematic Diagram of D Board



H1 [FRONT IN KEY, LED] **H2** [AC SW] **ZG** [VM/GREEN DY] **ZR** [RED DY] **U** [AV LINK MODE]

(9) Schematic Diagrams of H1, H2, ZG, ZR and U Boards

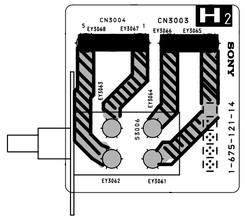
— H1 BOARD —



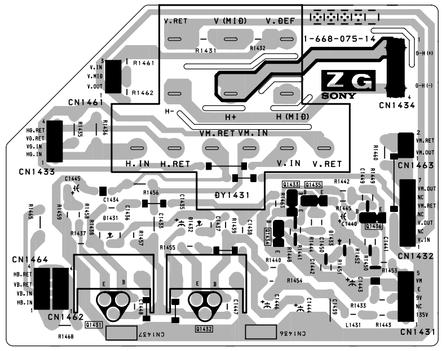
H1 BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q3002	①

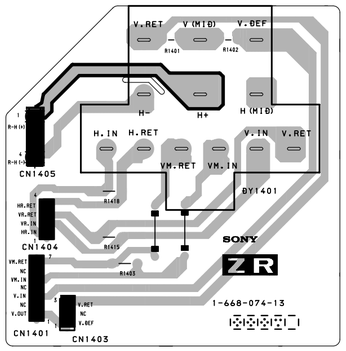
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 84)



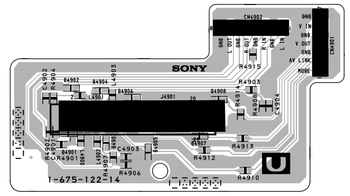
— ZG BOARD —



— ZR BOARD —



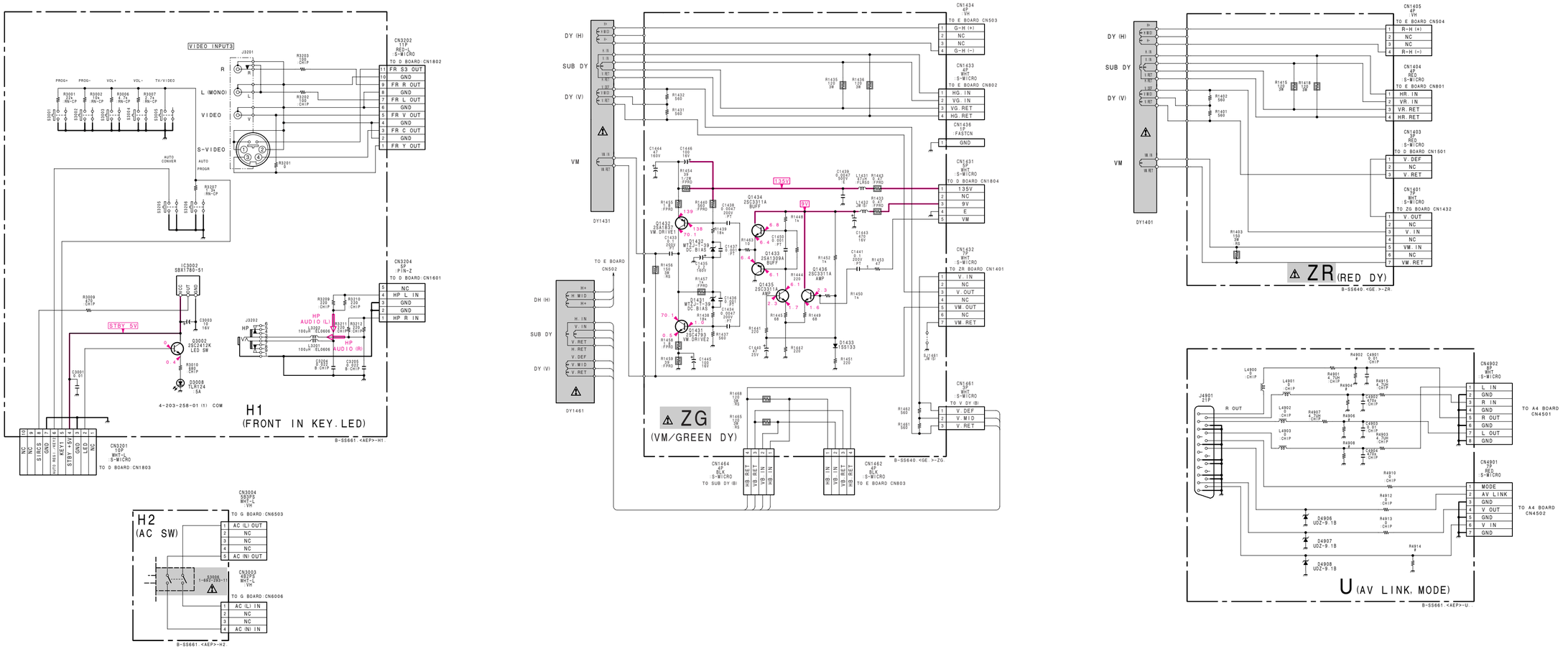
— U BOARD —



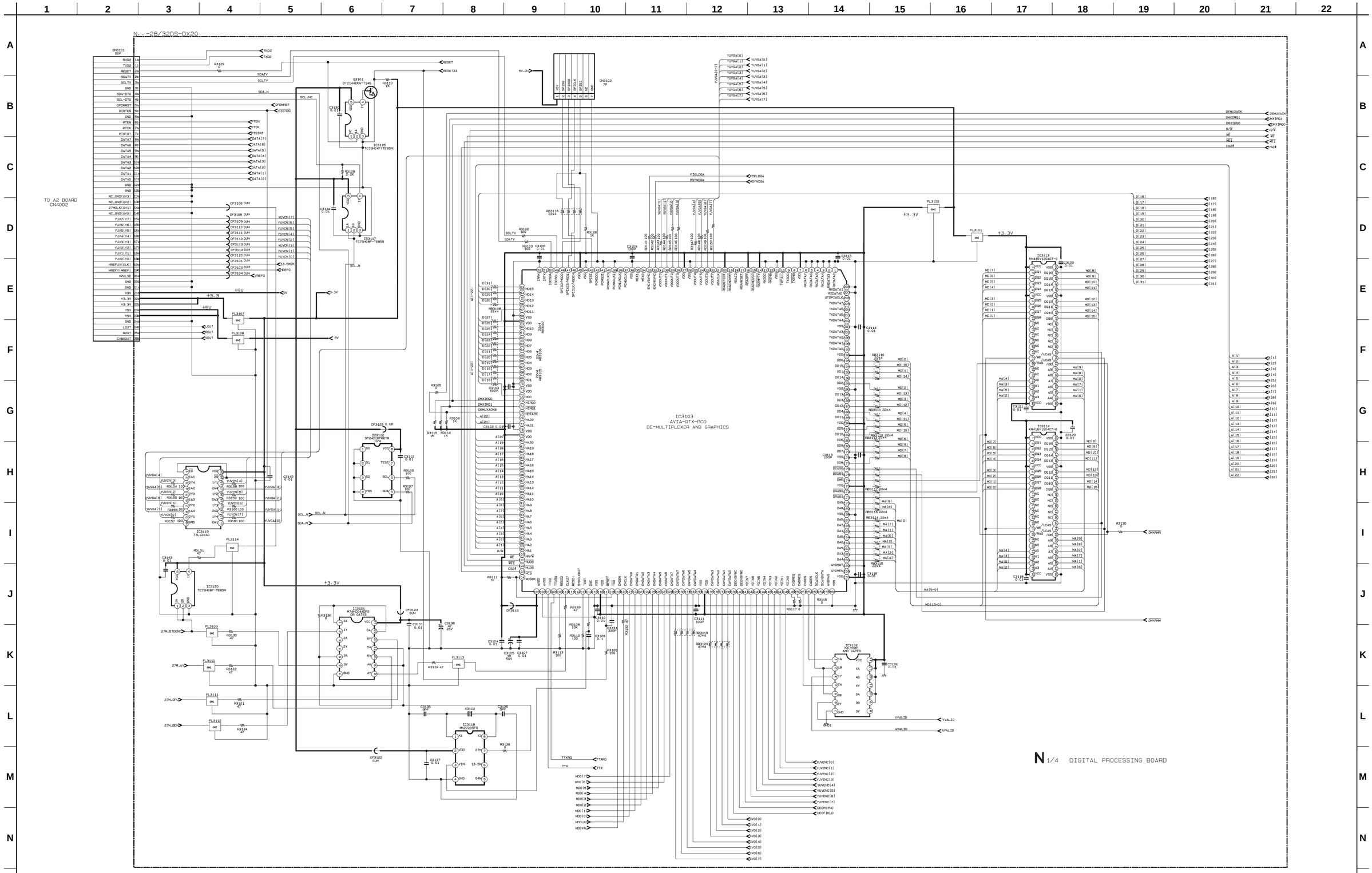
U BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D4906 – D4908	③

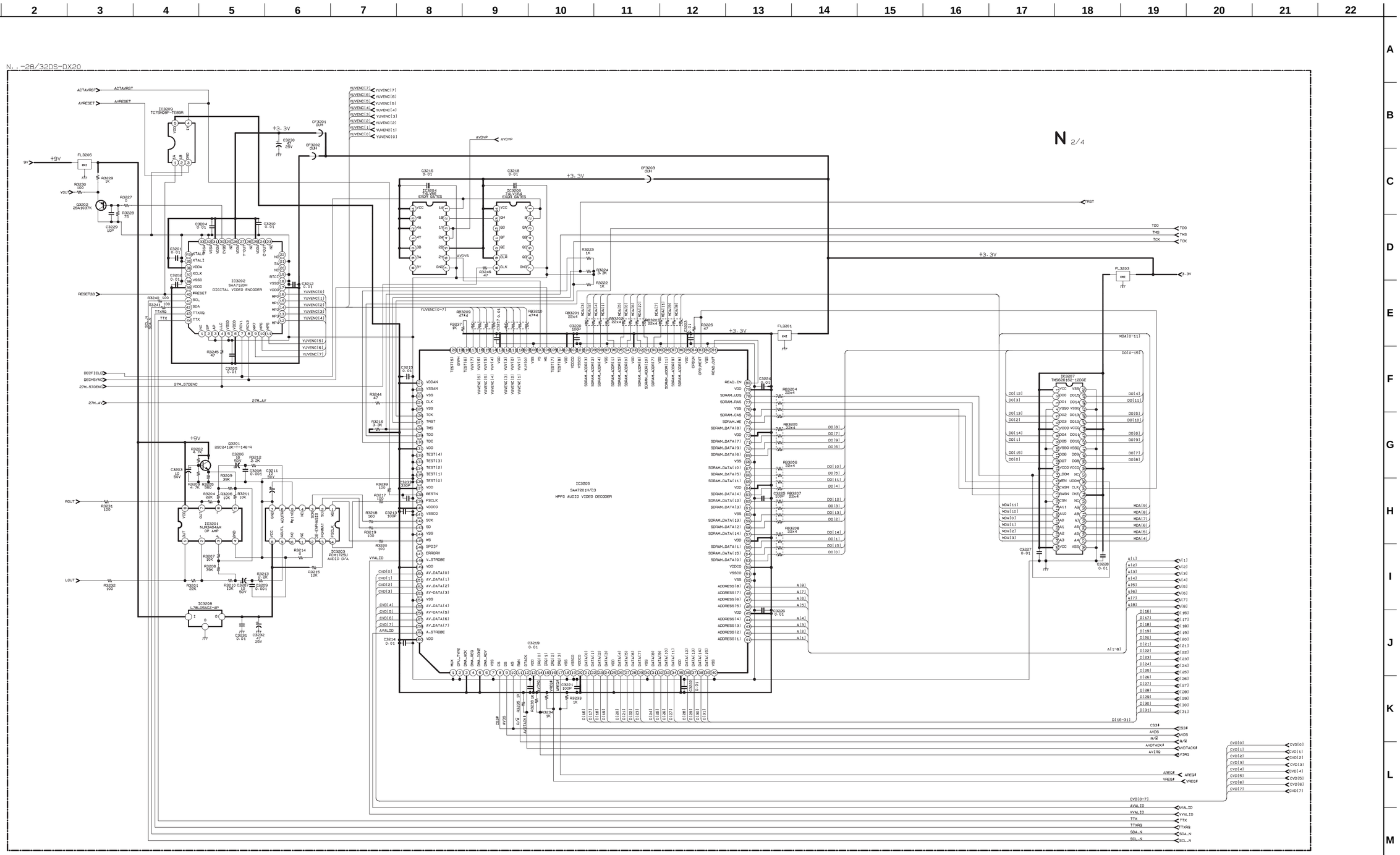
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 84)



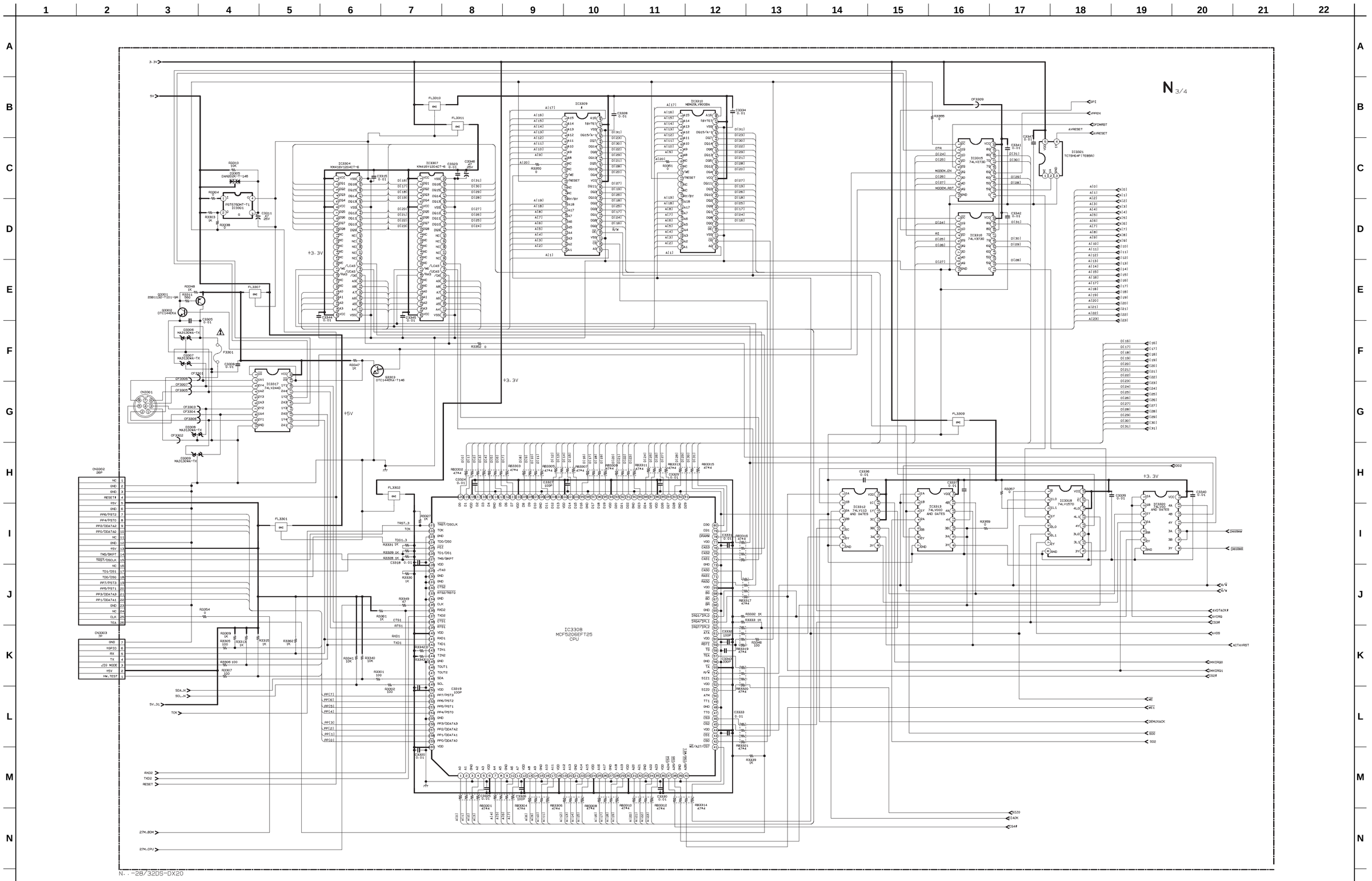
(10) Schematic Diagram of N (1/4) Board



(11) Schematic Diagram of N (2/4) Board



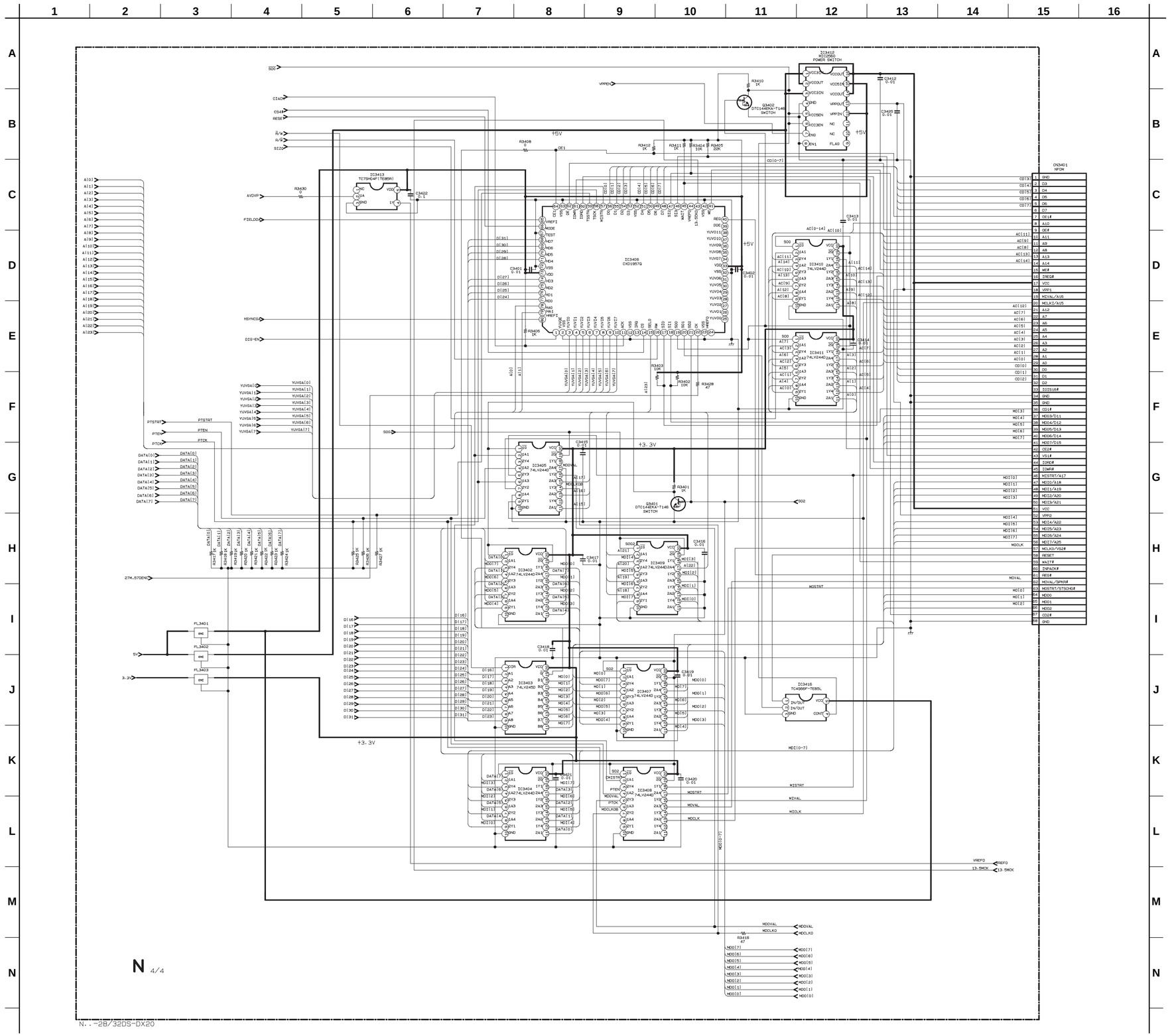
(12) Schematic Diagram of N (3/4) Board



Schematic diagram
← N (3/4) board

Schematic diagram
N (4/4) board →

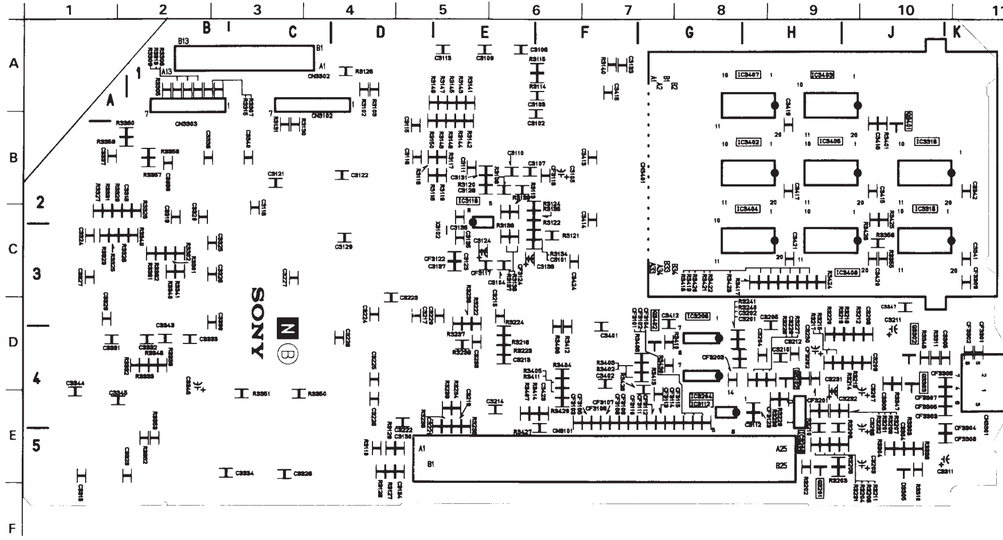
(13) Schematic Diagram of N (4/4) Board



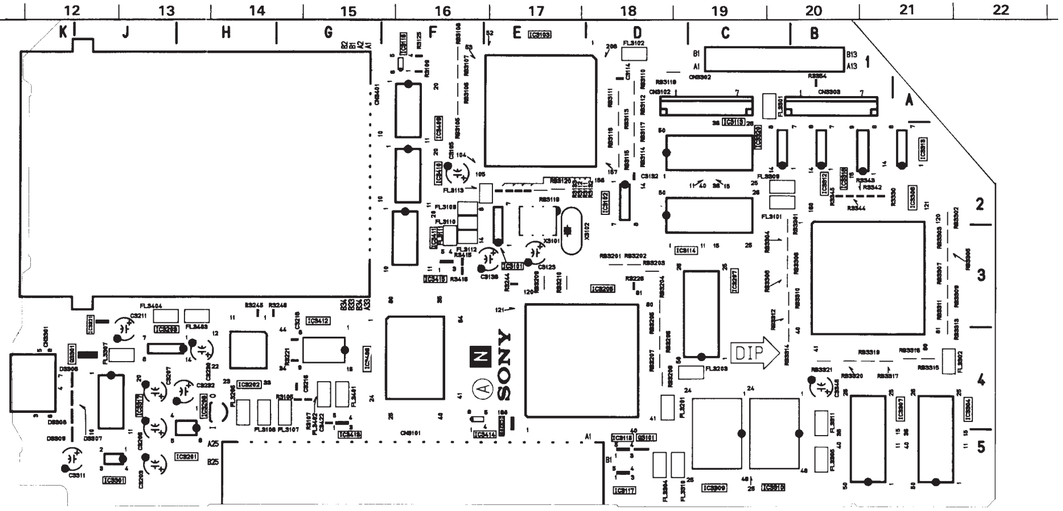
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892
KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

N [DIGITAL PROCESSING]

— N BOARD (Conductor Side) —



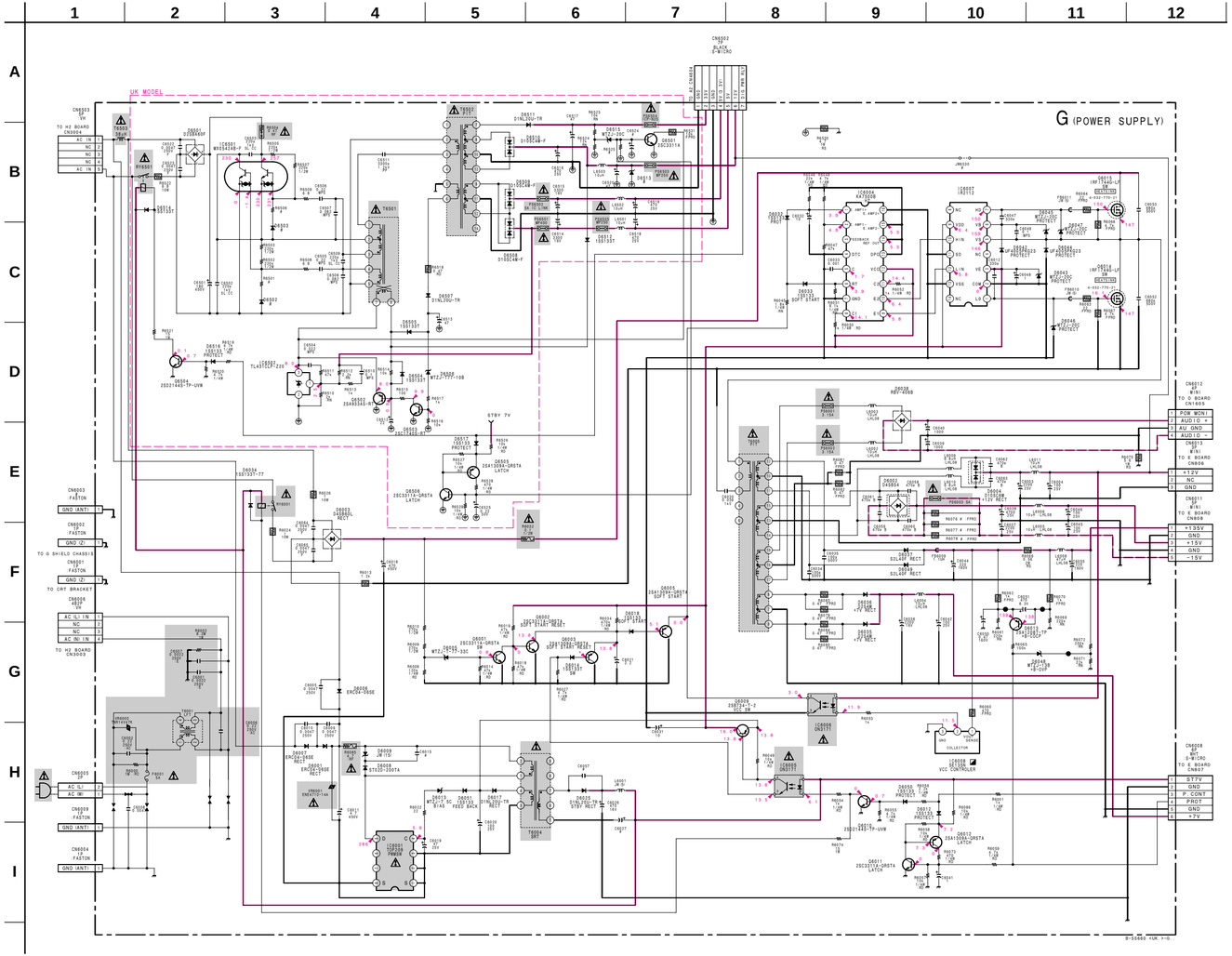
— N BOARD (Component Side) —



- **N BOARD SEMICONDUCTOR LOCATION**

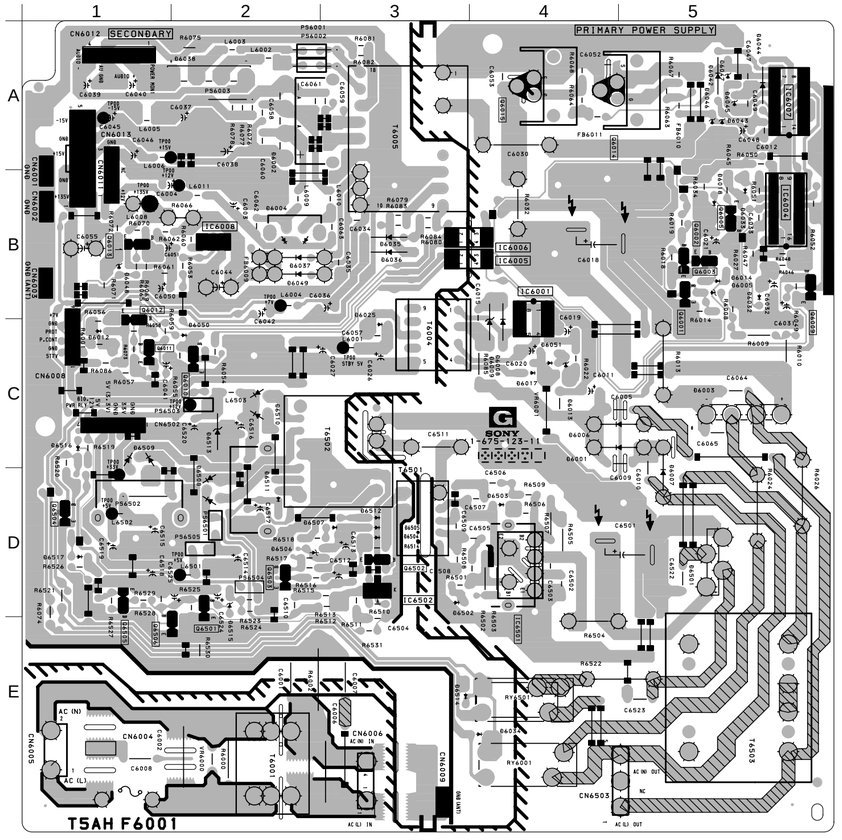
IC		IC	
		IC3403	A-9
		IC3404	C-9
		IC3405	B-9
IC3101	C-18	IC3406	D-16
IC3102	B-19	IC3407	B-17
IC3103	A-18	IC3408	C-9
IC3112	E-8	IC3409	B-17
IC3113	B-18	IC3410	B-17
IC3114	C-18	IC3411	C-17
IC3116	A-16	IC3412	D-16
IC3117	E-18	IC3413	E-16
IC3118	C-6		
IC3201	E-14	**TRANSISTOR**	
IC3202	D-15		
IC3203	D-14		
IC3204	D-8		
IC3205	C-19	Q3101	E-19
IC3206	D-8	Q3201	E-9
IC3207	D-20	Q3202	D-9
IC3208	E-9	Q3301	D-13
IC3301	E-13	Q3302	D-10
IC3304	E-22	Q3303	D-10
IC3307	E-22	Q3401	A-10
IC3308	B-22	Q3402	D-7
IC3309	F-2		
IC3310	F-2	**DIODE**	
IC3312	B-22		
IC3313	B-22		
IC3315	E-19	D3305	E-10
IC3316	B-10	D3306	D-13
IC3317	E-13	D3307	D-13
IC3318	C-10	D3308	E-13
IC3320	B-20	D3309	E-13
IC3321	D-12		
IC3402	B-8		

(14) Schematic Diagram of G Board



G [POWER SUPPLY]

— G BOARD —



- **G BOARD SEMICONDUCTOR LOCATION**

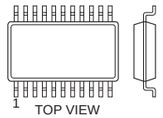
IC	
IC6001	B-4
IC6004	B-5
IC6005	B-4
IC6006	B-4
IC6007	A-5
IC6008	B-2
IC6501	D-4
IC6502	D-3

TRANSISTOR	
Q6001	B-5
Q6002	B-5
Q6003	B-5
Q6005	B-5
Q6009	B-5
Q6010	C-2
Q6011	C-1
Q6012	B-1
Q6013	B-1
Q6014	A-4
Q6015	A-4
Q6501	D-2
Q6502	D-3
Q6503	D-2
Q6504	D-1
Q6505	D-1
Q6506	E-1

DIODE	
D6001	C-4
D6002	A-2
D6003	C-5
D6004	B-2
D6005	B-5
D6006	C-4
D6007	D-5
D6008	C-4
D6012	C-1
D6013	C-4
D6014	B-5
D6017	C-4
D6018	B-5
D6025	C-3
D6032	B-5
D6033	B-5
D6034	E-4
D6035	B-3
D6036	B-3
D6037	B-2
D6038	A-2
D6042	A-5
D6043	A-5
D6044	A-5
D6045	A-5
D6046	A-5
D6047	A-5
D6048	B-1
D6049	B-2
D6050	C-2
D6051	C-4
D6501	D-5
D6504	D-3
D6505	D-3
D6506	D-2
D6507	D-3
D6508	D-2
D6509	C-1
D6510	C-2
D6511	D-2
D6512	D-3
D6514	E-3
D6515	D-2
D6516	C-1
D6517	D-1

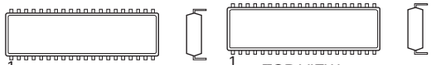
7-5. SEMICONDUCTORS

BA7606F-T2
CXA1315M
CXA1875AM-T4
MC14046BF-12
MC14053BF
MC74HC163AFEL
MC74HC4538AFEL
TC74HC4040AF
SN74HC4040ANS



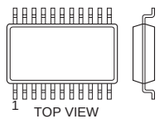
16pin SOP

CA0007AD
IR2112
NJM2058D
µPC339C



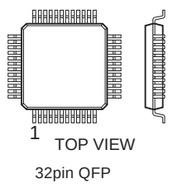
14pin DIP

CA0007AM
MC14066BF
MC74HC00AFEL
MC74HC74AFEL



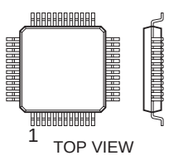
14pin SOP

CXA2040AQ-T4



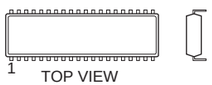
32pin QFP

SDA30C263-GEG



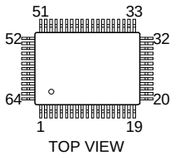
80pin QFP

CXA2089S



48pin DIP

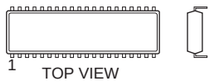
CXA2076Q-TL



CXP86213-003S

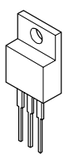
52pin DIP

TDA4665T-T
KA7500B

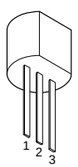


16pin DIP

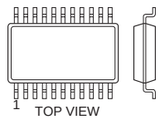
LM2940CT-5.0
L7812CV
NJM78M05FA
PQ09RF2
TA7812S
TYA7809CTV
µPC2405HF



NJM78L12A-T3
NJM79L12A-T3

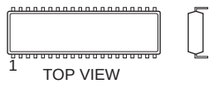


LM358D
LM358DR
M24C32-MN6T
M24C64-WMN6T
NJM2234M
NJM4558M-T2
NJM4558M-TE2
µPC4558G2



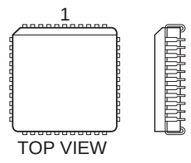
8pin SOP

LM393P
NJM4560D
RC4560D
TDA2822M
TDA7264
TOP209P
µPC393C



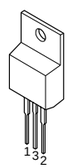
8pin DIP

MSP3410D-PS-B4-T-ND
SDA527CP-GEG

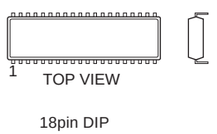


68pin QFJ

NJM79M05FA



PA0053B

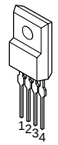


18pin DIP

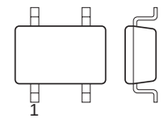
PM0011AS

42pin DIP

PQ05RF11

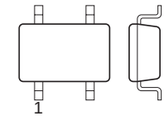


PST593C-MMP-4P



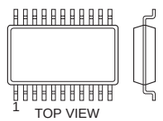
4pin Chip

PST9143NL



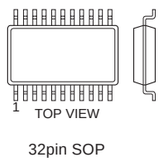
5pin Chip

SAA4981T-T



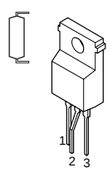
24pin SOP

SDA9189XGEG
SDA9189XGEGA132

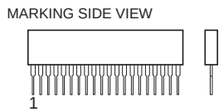


32pin SOP

SE135N-LF12
SE-135N

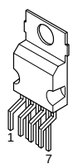


STK392-150

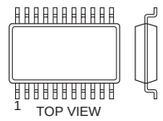


18pin SIP

STV9379



TDA8395T/N3

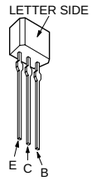


20pin SOP

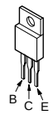
DTA144EKA-T146
DTC114EK
DTC114EKA-T146
DTC143TKA-T146
DTC144EKA
DTC144EKA-T146
2SA1037AK-T146-QR
2SA1037AK-T146-R
2SA1037K-T-146-QR
2SA1162G
2SC1623-L5L6
2SC2412K-T-146-QR

KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

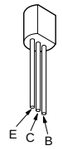
DTC144ESA
DTC144ESA-TP
2SA1175-HFE
2SA1309A-QRSTA
2SC2785-HFE
2SC3311A-QRSTA



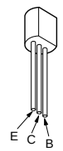
IRFI744G-LF
2SA1837
2SC4793
2SC5022-02



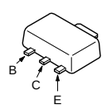
2SA1091-O
2SA1091-TPE2



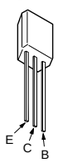
2SA1208



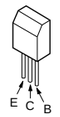
2SA1213Y-TE12L



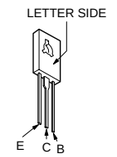
2SA1524
2SA1524-TP
2SD2144S-UVW



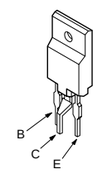
2SB734-34



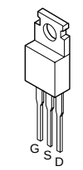
2SC2611
2SC2688-LK



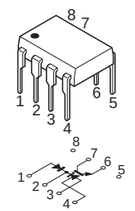
2SC4632LS-CB7
2SD2539 (LBSONY-1)



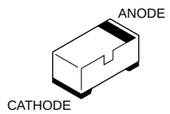
2SK2251-01-F19



BAS16



BAS216



DAP202K

DTZ9.1
DTZ33B
MA111-TX
UDZ-TE-17-5.6B
UDZ-TE-17-6.8B
UDZ-TE-17-9.1B
1SS355
1SS355TE-17

DAN202K
DAN202K-T-146

D1NL20-TR
D2S4M

D10SC6M-4012

D4SBS4
D4SBS4-F
D6SB60L
RBA-406B

ERC04-06S
ERC06-15S
ERD29-08J
1SS133T-72
1SS133T-77

EL1Z
EL1Z-V1
GP08D
GP08DPKG23
MTZJ-T-77-9.1A
RGP02-17EL-6433
RGP02-17PKG23
RGP02-20EL-6394
RGP10GPKG23
S2L40F
UF4005PKG23

MA3030-H (TX)

MA3240-TX

MTZJ-T-77-12B
MTZJ-T-77-13
MTZJ-T-77-13B
MTZJ-T-77-20C
MTZJ-T-77-33
MTZJ-T-77-3.6
MTZJ-T-77-39
MTZJ-T-77-5.1
MTZJ-T-77-5.1B
MTZJ-T-77-5.6
MTZJ-T-77-5.6B
MTZJ-T-77-7.5B
MTZJ-T-77-7.5C
MTZJ-T-77-9.1B
MTZJ-13
MTZJ-13B
MTZJ-33B
MTZJ-7.5B
RD12ES-B2
RD20ES-B2
RD3.0ESB2
RD3.0ES-T1B2
RD3.6ES-B1
RD39ES-B2
RD4.7ES-B2
RD5.1ES-B1
RD5.1ES-B2
RD5.6ESB2
RD7.5ESB2

TLR124

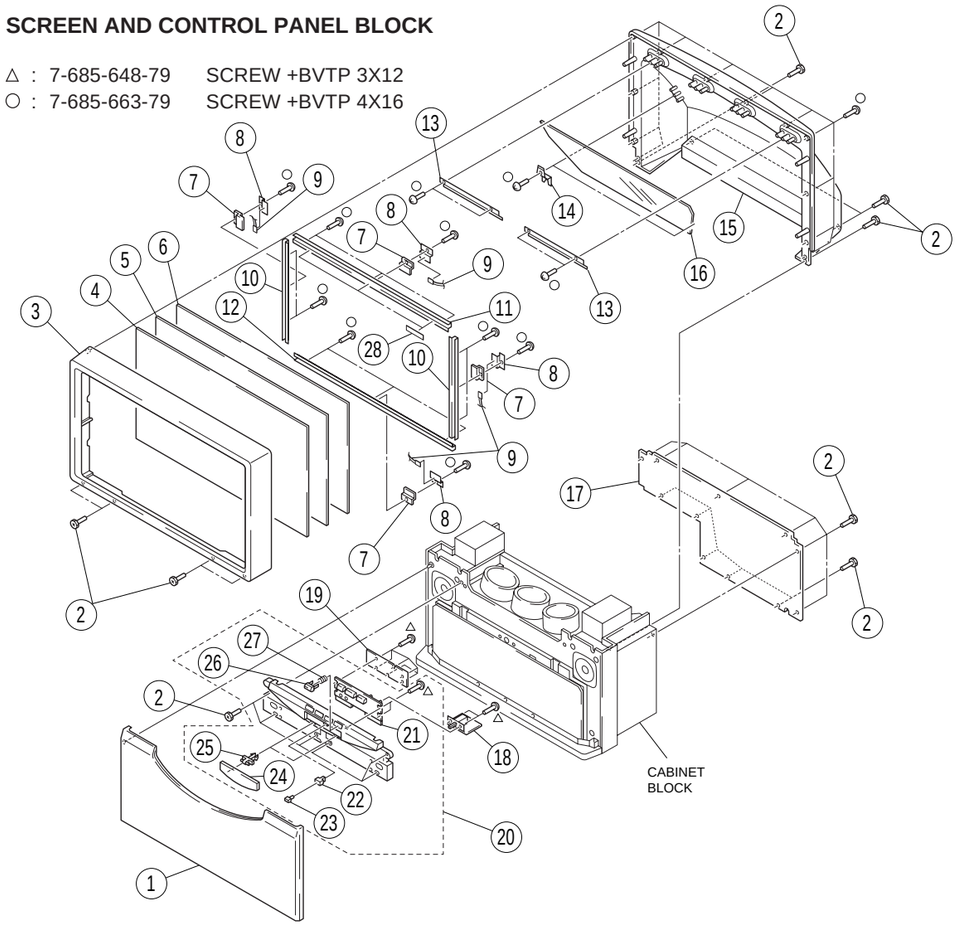
SECTION 8
EXPLODED VIEWS

- 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 remark 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 mark ⚠ are critical for safety.
Replace only with part number specified.

8-1. SCREEN AND CONTROL PANEL BLOCK

△ : 7-685-648-79 SCREW +BVTP 3X12
○ : 7-685-663-79 SCREW +BVTP 4X16



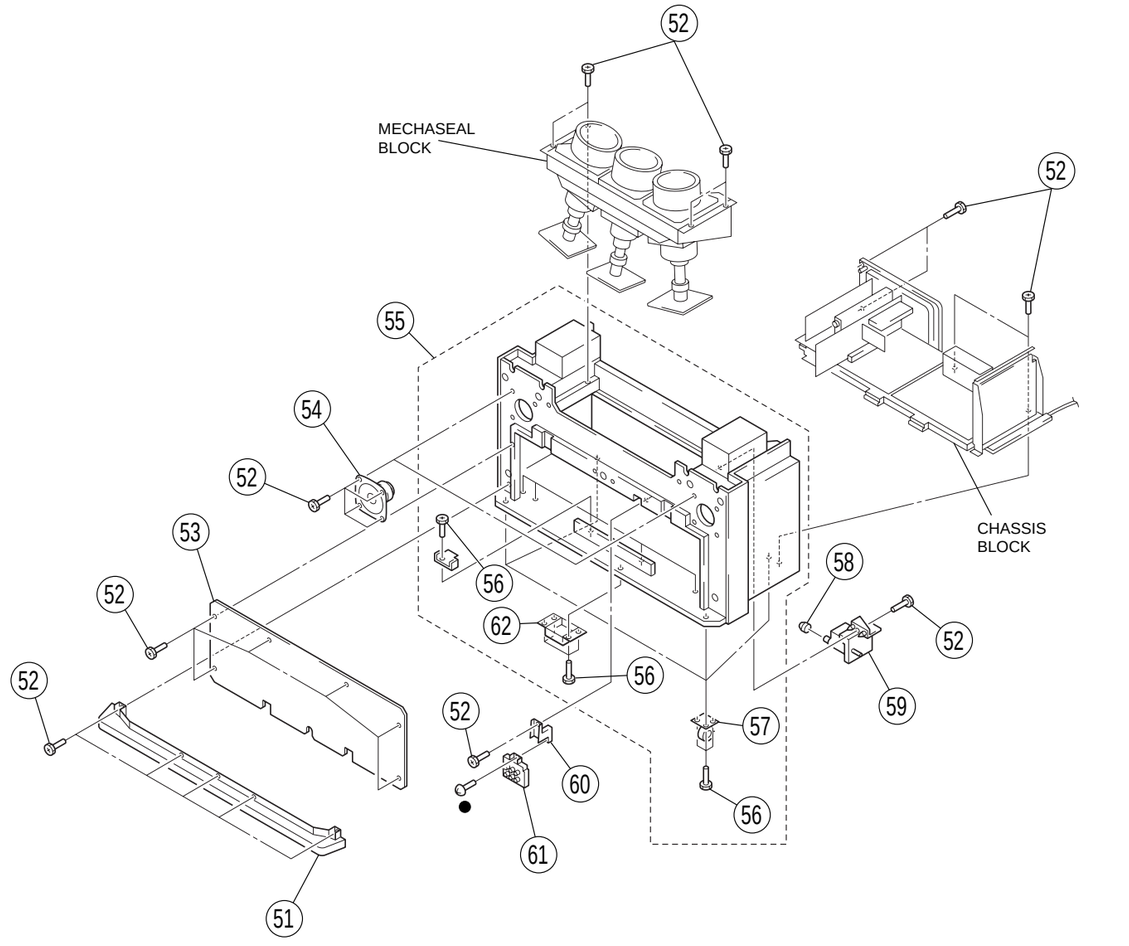
REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4200-549-1	GRILLE ASSY, SPEAKER	
2	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
3	X-4200-547-1	BEZNET ASSY	
4	4-070-825-11	SCREEN (41W), CONTRAST	
5	4-070-824-11	PLATE(L), DIFFUSION	
6	4-070-826-11	PLATE(F), DIFFUSION	
7	* 4-205-155-01	COVER, SENSOR	
8	* 4-063-173-01	HOLDER, SENSOR	
9	1-528-864-11	BATTERY, SOLAR	
10	* 4-205-154-21	HOLDER, SCREEN	
11	* 4-205-154-01	HOLDER, SCREEN	
12	* 4-205-154-11	HOLDER, SCREEN	
13	4-064-042-01	HOLDER, MIRROR	
14	* 4-038-863-11	HOLDER (S), MIRROR	
15	* 4-049-645-02	COVER, MIRROR	
16	4-205-153-01	MIRROR (41W)	
17	* 4-205-138-01	COVER, REAR	
18	* A-1646-201-A	H2 BOARD, COMPLETE	
19	* A-1646-200-A	H1 BOARD, COMPLETE	
20	X-4200-510-1	PANEL ASSY, CONTROL (41DS1U)	21-27
20	X-4200-520-1	PANEL ASSY, CONTROL (EXCEPT 41DS1U)	
21	4-049-651-21	BUTTON, MULTI	
22	4-045-250-21	DAMPER	
23	4-042-192-01	CATCHER, PUSH	
24	4-049-649-11	DOOR, CONTROL (EXCEPT 41DS1U)	
24	4-049-649-51	DOOR, CONTROL (41DS1U)	
25	3-703-035-11	SHAFT, LID	
26	4-049-647-01	BUTTON, POWER	
27	4-205-135-01	SPRING, COMPRESSION	
28	* 4-203-553-01	SHEET, BLOTTING	

KP-41DS1U/PZ1B/PZ1D/PZ1E
RM-892

8-2. CABINET BLOCK

● : 7-685-663-71 SCREW +BVTP 4X16

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

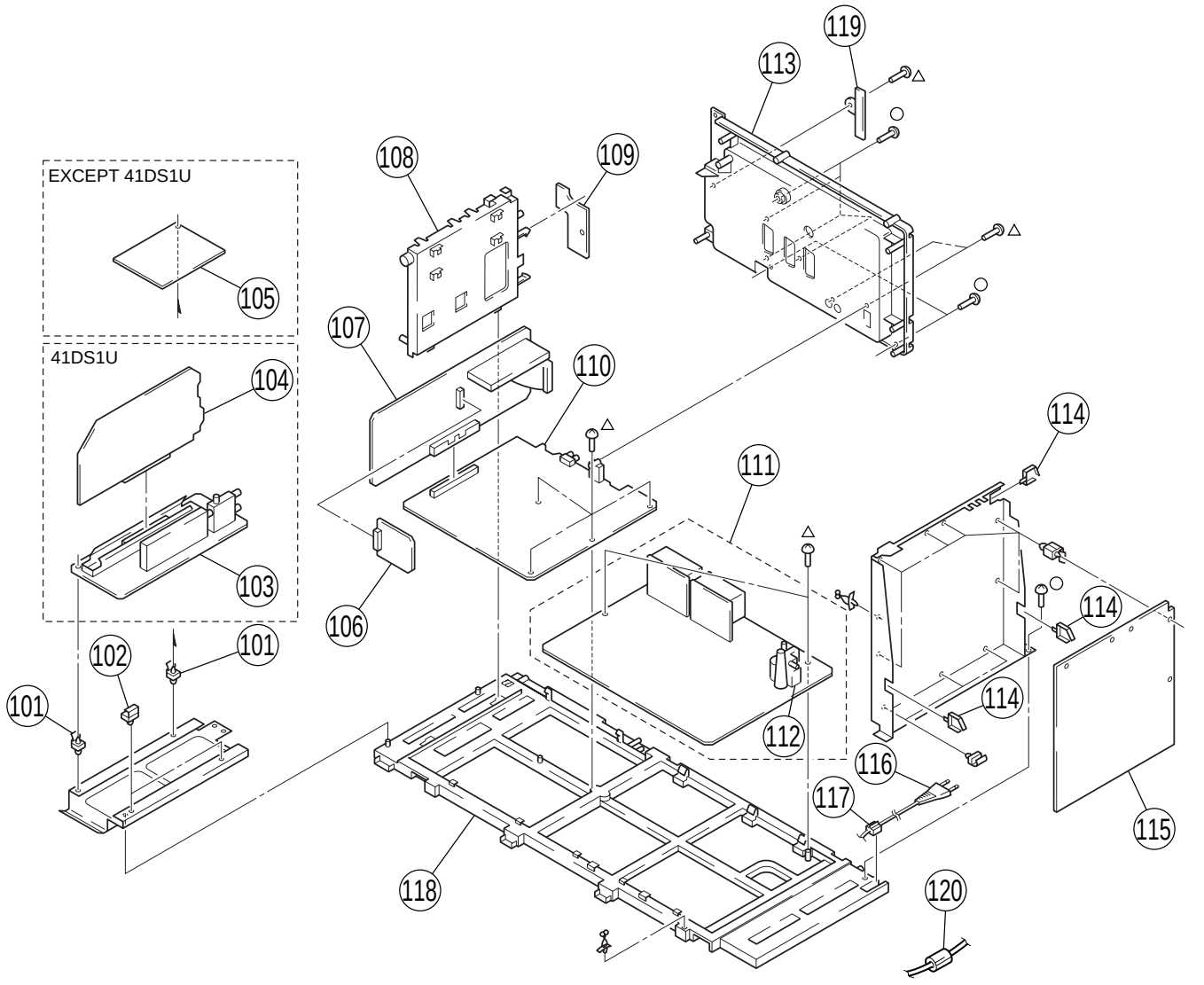


REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* 4-205-250-01	COVER, BOTTOM	
52	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
53	* 4-205-139-01	COVER, FRONT	
54	1-529-524-11	SPEAKER (12 CM)	
55	X-4200-548-1	CABINET ASSY	56,57, 62
56	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
57	4-040-755-01	CASTER (DIA. 30)	
58	4-373-137-01	CAP (Z), RUBBER	
59	⚠ 8-598-955-12	BLOCK ASSY, HIGH-VOLTAGE	
60	* 4-054-825-01	BRACKET, FOCUS PACK	
61	⚠ 1-223-925-31	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)	
62	4-205-159-01	SUPPORT, FOOT	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

8-3. CHASSIS BLOCK

△ : 7-685-648-79 SCREW +BVTP 3X12
○ : 7-685-663-79 SCREW +BVTP 4X16



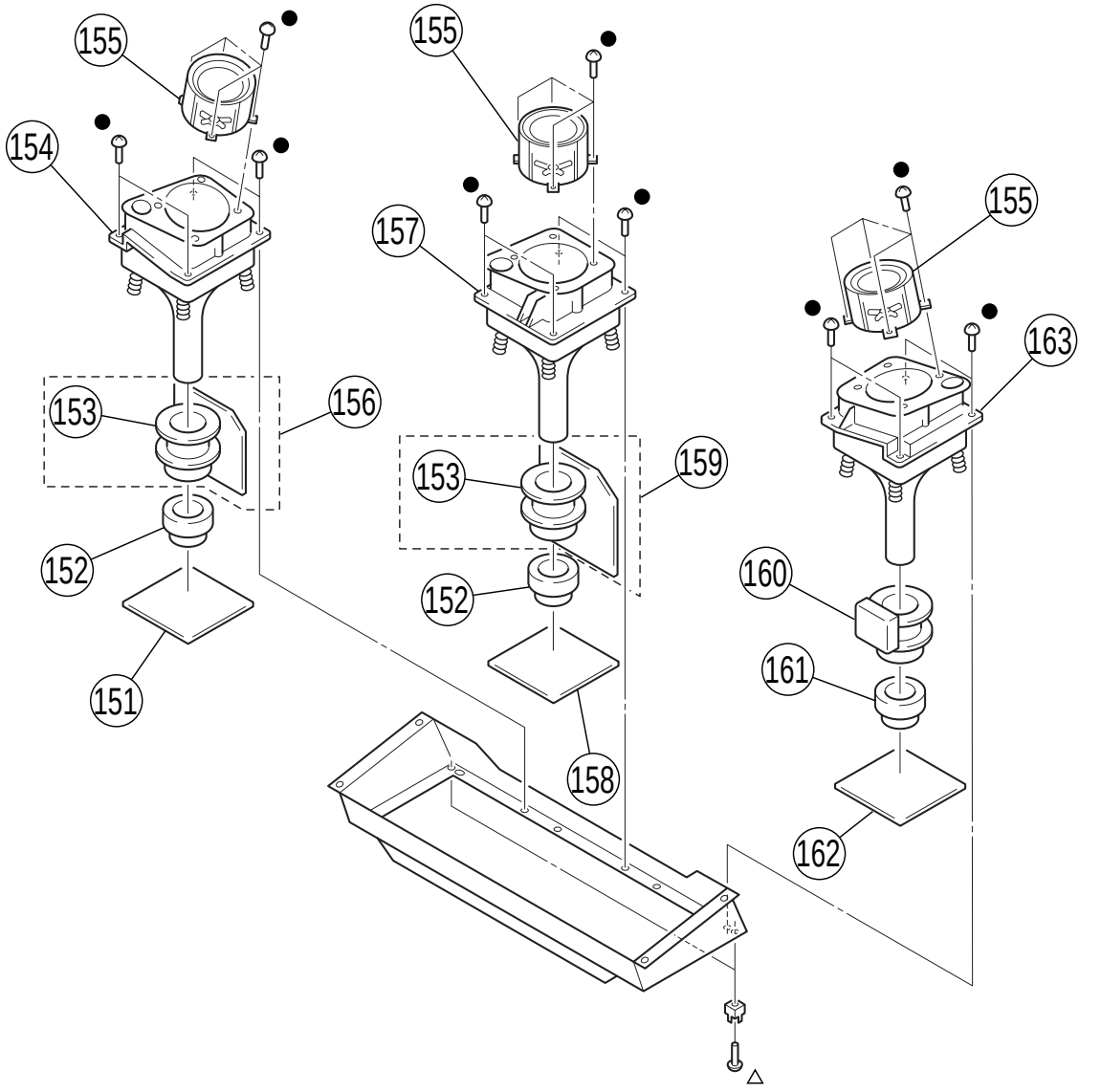
REF. NO.	PART NO.	DESCRIPTION	REMARK
101	* 3-703-141-00	HOLDER, PRINTED CIRCUIT BOARD	
102	* 3-659-682-11	HOLDER, PRINTED CIRCUIT BOARD	
103	* A-1631-046-A	A2 BOARD, COMPLETE (41DS1U)	
104	* A-1652-065-A	N BOARD, COMPLETE (41DS1U)	
105	* A-1631-062-A	A4 BOARD, COMPLETE (EXCEPT 41DS1U)	
106	* A-1631-061-A	A3 BOARD, COMPLETE	
107	* A-1632-862-A	A BOARD, COMPLETE (41DS1U)	
107	* A-1632-863-A	A BOARD, COMPLETE (EXCEPT 41DS1U)	
108	* 4-062-536-02	BRACKET (A)	
109	* A-1648-028-A	U BOARD, COMPLETE	
110	* A-1640-375-A	D BOARD, COMPLETE	
111	* A-1640-374-A	E BOARD, COMPLETE	112

REF. NO.	PART NO.	DESCRIPTION	REMARK
112	⚠1-453-331-11	FBT ASSY NX-4012//M	
113	4-205-136-01	BOARD, TERMINAL (41DS1U)	
113	4-205-136-11	BOARD, TERMINAL (EXCEPT 41DS1U)	
114	* 4-316-015-02	HOLDER, WIRE	
115	* A-1636-047-A	G BOARD, COMPLETE (41DS1U)	
115	* A-1636-048-A	G BOARD, COMPLETE (EXCEPT 41DS1U)	
116	⚠1-765-286-11	CORD, POWER (EXCEPT 41DS1U)	
116	⚠1-776-860-11	POWER CORD, FILTER (UK) (41DS1U)	
117	4-389-201-11	HOLDER, AC CORD	
118	* 4-062-537-03	BRACKET, MAIN	
119	4-204-656-11	COVER, PCMCIA	
120	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

8-4. MECHASEAL BLOCK

△ : 7-685-648-79 SCREW +BVTP 3X12
● : 7-685-663-71 SCREW +BVTP 4X16



REF. NO.	PART NO.	DESCRIPTION	REMARK
151	* A-1638-133-A	CR BOARD, COMPLETE	
152	⚠1-452-790-11	NECK ASSY	
153	⚠1-451-455-11	DEFLECTION YOKE	
154	⚠A-1678-183-A	MECHASEAL ASSY (R)	
155	4-050-891-01	LENS (DELTA 67)	
156	* A-1628-002-A	ZR BOARD, COMPLETE	153
157	⚠A-1678-184-A	MECHASEAL ASSY (G)	
158	* A-1638-134-A	CG BOARD, COMPLETE	
159	* A-1652-068-A	ZG BOARD, COMPLETE	153
160	⚠1-451-455-41	DEFLECTION YOKE	
161	⚠1-452-909-31	MAGNET ASSY, 4 POLE	
162	* A-1638-135-A	CB BOARD, COMPLETE	
163	⚠A-1678-185-A	MECHASEAL ASSY (B)	

ZR A2

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- 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

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

- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION				REMARK
	* A-1628-002-A	ZR BOARD, COMPLETE				
		**********				
		<CONNECTOR>				
CN1401	* 1-564-510-11	PLUG, CONNECTOR 7P				
CN1403	* 1-564-506-11	PLUG, CONNECTOR 3P				
CN1404	* 1-564-507-11	PLUG, CONNECTOR 4P				
CN1405	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P				
		<CONNECTOR>				
DY1401	⚠1-451-455-11	DEFLECTION YOKE (R)				
		<RESISTOR>				
R1401	1-249-414-11	CARBON	560	5%	1/4W	
R1402	1-249-414-11	CARBON	560	5%	1/4W	
R1403	1-215-912-11	METAL OXIDE	150	5%	3W	F
R1415	1-216-475-11	METAL OXIDE	120	5%	3W	F
R1418	1-216-475-11	METAL OXIDE	120	5%	3W	F
**********						
	* A-1631-046-A	A2 BOARD, COMPLETE (KP-41DS1U)				
		**********				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C4001	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	
C4002	1-126-933-11	ELECT	100μF	20%	16V	
C4003	1-126-933-11	ELECT	100μF	20%	16V	
C4004	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4005	1-126-933-11	ELECT	100μF	20%	16V	
C4006	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4007	1-126-933-11	ELECT	100μF	20%	16V	
C4008	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4009	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	
C4010	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4011	1-126-968-11	ELECT	100μF	20%	50V	
C4012	1-163-222-11	CERAMIC CHIP	5pF	0.25pF	50V	
C4014	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4015	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4016	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4018	1-126-933-11	ELECT	100μF	20%	16V	
C4019	1-126-933-11	ELECT	100μF	20%	16V	
C4020	1-126-933-11	ELECT	100μF	20%	16V	
C4021	1-126-933-11	ELECT	100μF	20%	16V	
C4022	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4023	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4024	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4025	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4026	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4027	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4028	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4029	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4030	1-126-933-11	ELECT	100μF	20%	16V	
C4031	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	
C4032	1-126-964-11	ELECT	10μF	20%	50V	
C4033	1-126-933-11	ELECT	100μF	20%	16V	
C4034	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4035	1-126-964-11	ELECT	10μF	20%	50V	
C4036	1-126-964-11	ELECT	10μF	20%	50V	
C4037	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	
C4038	1-126-964-11	ELECT	10μF	20%	50V	
C4039	1-126-964-11	ELECT	10μF	20%	50V	
C4040	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4041	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4042	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4043	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4044	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4045	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4046	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4047	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4048	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4049	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	
C4050	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	
C4051	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	
C4052	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	
C4053	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	
C4054	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	
C4055	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4056	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4057	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4058	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4059	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4060	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4061	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4062	1-163-038-00	CERAMIC CHIP	0.1μF		25V	
C4063	1-126-959-11	ELECT	0.47μF	20%	50V	
C4064	1-126-964-11	ELECT	10μF	20%	50V	
C4065	1-126-959-11	ELECT	0.47μF	20%	50V	
C4066	1-126-959-11	ELECT	0.47μF	20%	50V	
C4067	1-164-346-11	CERAMIC CHIP	1μF		16V	
C4068	1-164-346-11	CERAMIC CHIP	1μF		16V	
C4069	1-164-346-11	CERAMIC CHIP	1μF		16V	
C4070	1-164-346-11	CERAMIC CHIP	1μF		16V	
C4071	1-164-346-11	CERAMIC CHIP	1μF		16V	
C4072	1-164-346-11	CERAMIC CHIP	1μF		16V	
C4073	1-126-933-11	ELECT	100μF	20%	16V	

A2

REF. NO.	PART NO.	DESCRIPTION			REMARK
C4074	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4075	1-126-933-11	ELECT	100µF	20%	16V
C4076	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4079	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4080	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4081	1-126-933-11	ELECT	100µF	20%	16V
C4082	1-126-964-11	ELECT	10µF	20%	50V
C4083	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C4085	1-126-968-11	ELECT	100µF	20%	50V
C4086	1-126-964-11	ELECT	10µF	20%	50V
C4087	1-126-959-11	ELECT	0.47µF	20%	50V
C4088	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C4089	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C4090	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4091	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4101	1-163-121-00	CERAMIC CHIP	150pF	5%	50V
C4503	1-126-967-11	ELECT	47µF	20%	50V
		<CONNECTOR>			
CN4002	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P			
CN4005	1-695-915-11	TAB (CONTACT)			
CN4006	1-695-915-11	TAB (CONTACT)			
CN4204	* 1-764-334-11	PLUG, CONNECTOR 11P			
CN4205	* 1-564-515-11	PLUG, CONNECTOR 12P			
CN4207	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN4501	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN4502	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN4604	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN4901	* 1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D4002	8-719-812-43	DIODE TLG124A			
D4003	8-719-977-81	ZENER DIODE DTZ33B			
D4004	8-719-977-22	ZENER DIODE DTZ9.1			
D4005	8-719-914-43	DIODE DAN202K			
D4006	8-719-977-22	ZENER DIODE DTZ9.1			
D4007	8-719-977-22	ZENER DIODE DTZ9.1			
D4008	8-719-977-22	ZENER DIODE DTZ9.1			
D4009	8-719-977-22	ZENER DIODE DTZ9.1			
D4010	8-719-977-22	ZENER DIODE DTZ9.1			
D4011	8-719-158-15	ZENER DIODE RD5.6SB			
D4015	8-719-158-15	ZENER DIODE RD5.6SB			
D4016	8-719-977-22	ZENER DIODE DTZ9.1			
D4017	8-719-914-43	DIODE DAN202K			
D4018	8-719-977-22	ZENER DIODE DTZ9.1			
D4019	8-719-977-22	ZENER DIODE DTZ9.1			
D4020	8-719-977-22	ZENER DIODE DTZ9.1			
D4021	8-719-977-22	ZENER DIODE DTZ9.1			
		<FERRITE BEAD>			
FB4001	1-414-234-22	INDUCTOR CHIP			
FB4002	1-414-234-22	INDUCTOR CHIP			
FB4003	1-414-234-22	INDUCTOR CHIP			
FB4004	1-414-234-22	INDUCTOR CHIP			
FB4005	1-414-234-22	INDUCTOR CHIP			
FB4006	1-414-234-22	INDUCTOR CHIP			
FB4007	1-414-234-22	INDUCTOR CHIP			
FB4008	1-414-234-22	INDUCTOR CHIP			
FB4009	1-414-234-22	INDUCTOR CHIP			
FB4010	1-414-234-22	INDUCTOR CHIP			
FB4011	1-414-234-22	INDUCTOR CHIP			
FB4012	1-414-234-22	INDUCTOR CHIP			
FB4013	1-414-234-22	INDUCTOR CHIP			
FB4014	1-414-234-22	INDUCTOR CHIP			
FB4015	1-414-234-22	INDUCTOR CHIP			
FB4016	1-414-234-22	INDUCTOR CHIP			
FB4017	1-414-234-22	INDUCTOR CHIP			
FB4018	1-414-234-22	INDUCTOR CHIP			
FB4019	1-414-234-22	INDUCTOR CHIP			
FB4020	1-414-234-22	INDUCTOR CHIP			
FB4021	1-414-234-22	INDUCTOR CHIP			
FB4022	1-414-234-22	INDUCTOR CHIP			
FB4023	1-414-234-22	INDUCTOR CHIP			
FB4025	1-414-234-22	INDUCTOR CHIP			
FB4026	1-414-234-22	INDUCTOR CHIP			
FB4027	1-414-234-22	INDUCTOR CHIP			
FB4028	1-414-234-22	INDUCTOR CHIP			
		<FILTER>			
FL6032	1-236-071-11	ENCAPSULATED COMPONENT			
FL6033	1-236-071-11	ENCAPSULATED COMPONENT			
FL6034	1-236-071-11	ENCAPSULATED COMPONENT			
		<IC>			
IC4001	8-759-587-04	IC SAA7127H			
IC4002	8-759-587-03	IC TDA8601T			
IC4003	8-752-087-76	IC CXA2089Q-T6			
IC4004	8-759-057-06	IC PCF8591T			
IC4005	8-752-072-94	IC CXA1875AM-T4			
IC4006	8-759-648-19	IC L7809CV/LSY			
IC4007	8-759-574-75	IC KA78R33-YDTU			
IC4008	8-759-239-25	IC TC74HC4066AF			
		<COIL>			
L4001	1-410-645-31	INDUCTOR	100µH		
L4002	1-410-645-31	INDUCTOR	100µH		
L4005	1-410-645-31	INDUCTOR	100µH		
L4006	1-410-667-31	INDUCTOR	22µH		
L4010	1-410-645-31	INDUCTOR	100µH		
L4501	1-414-856-11	INDUCTOR	10µH		
		<TRANSISTOR>			
Q4001	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q4002	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q4003	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4004	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4007	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4010	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4011	8-729-216-22	TRANSISTOR 2SA1162-G			
Q4501	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q4502	8-729-216-22	TRANSISTOR 2SA1162-G			
		<RESISTOR>			
R4001	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4002	1-216-025-91	RES,CHIP	100	5%	1/10W
R4003	1-216-022-00	RES,CHIP	75	5%	1/10W
R4004	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4006	1-216-295-91	SHORT	0		
R4011	1-216-025-91	RES,CHIP	100	5%	1/10W
R4012	1-216-025-91	RES,CHIP	100	5%	1/10W
R4013	1-216-025-91	RES,CHIP	100	5%	1/10W
R4014	1-216-295-91	SHORT	0		
R4015	1-216-025-91	RES,CHIP	100	5%	1/10W
R4016	1-216-025-91	RES,CHIP	100	5%	1/10W
R4017	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4018	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4019	1-216-025-91	RES,CHIP	100	5%	1/10W
R4020	1-216-025-91	RES,CHIP	100	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R4024	1-216-025-91	RES,CHIP	100	5%	1/10W
R4025	1-216-022-00	RES,CHIP	75	5%	1/10W
R4026	1-216-022-00	RES,CHIP	75	5%	1/10W
R4027	1-216-022-00	RES,CHIP	75	5%	1/10W
R4028	1-216-025-91	RES,CHIP	100	5%	1/10W
R4029	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4030	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4031	1-216-295-91	SHORT	0		
R4032	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4033	1-216-025-91	RES,CHIP	100	5%	1/10W
R4034	1-216-025-91	RES,CHIP	100	5%	1/10W
R4035	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4036	1-216-022-00	RES,CHIP	75	5%	1/10W
R4037	1-216-025-91	RES,CHIP	100	5%	1/10W
R4038	1-216-025-91	RES,CHIP	100	5%	1/10W
R4039	1-216-025-91	RES,CHIP	100	5%	1/10W
R4040	1-216-025-91	RES,CHIP	100	5%	1/10W
R4042	1-216-025-91	RES,CHIP	100	5%	1/10W
R4043	1-216-025-91	RES,CHIP	100	5%	1/10W
R4044	1-216-022-00	RES,CHIP	75	5%	1/10W
R4045	1-216-033-00	RES,CHIP	220	5%	1/10W
R4046	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4047	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4048	1-216-022-00	RES,CHIP	75	5%	1/10W
R4049	1-216-025-91	RES,CHIP	100	5%	1/10W
R4051	1-216-025-91	RES,CHIP	100	5%	1/10W
R4052	1-216-295-91	SHORT	0		
R4053	1-216-295-91	SHORT	0		
R4054	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R4055	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R4056	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R4057	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R4058	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R4059	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R4060	1-216-295-91	SHORT	0		
R4061	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4063	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4065	1-216-295-91	SHORT	0		
R4066	1-216-295-91	SHORT	0		
R4067	1-216-295-91	SHORT	0		
R4068	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4069	1-216-295-91	SHORT	0		
R4071	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4073	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4075	1-216-041-00	RES,CHIP	470	5%	1/10W
R4077	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4078	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4079	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4081	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4082	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4084	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4086	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4087	1-216-021-00	RES,CHIP	68	5%	1/10W
R4088	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R4089	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R4090	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4091	1-216-295-91	SHORT	0		
R4092	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4093	1-216-295-91	SHORT	0		
R4094	1-216-295-91	SHORT	0		
R4095	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4096	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4097	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4098	1-216-295-91	SHORT	0		
R4100	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4102	1-216-295-91	SHORT	0		
R4103	1-216-295-91	SHORT	0		
R4105	1-216-033-00	RES,CHIP	220	5%	1/10W
R4106	1-216-025-91	RES,CHIP	100	5%	1/10W
R4107	1-216-025-91	RES,CHIP	100	5%	1/10W
R4108	1-216-033-00	RES,CHIP	220	5%	1/10W
R4109	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4110	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4111	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4112	1-216-085-00	RES,CHIP	33K	5%	1/10W
R4116	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4118	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R4131	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4501	1-216-033-00	RES,CHIP	220	5%	1/10W
R4502	1-216-295-91	SHORT	0		
R4503	1-216-295-91	SHORT	0		
R4504	1-216-295-91	SHORT	0		
R4505	1-216-295-91	SHORT	0		
R4506	1-216-295-91	SHORT	0		
R4507	1-216-295-91	SHORT	0		
R4508	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4511	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4513	1-216-089-91	RES,CHIP	47K	5%	1/10W

<TUNER>

TU4001	8-598-502-00	FRONTEND BTD-DU602	
TU4002	8-598-515-00	RF SPLITTER RFD-AC401	

****

* A-1631-061-A A3 BOARD, COMPLETE
****

<CAPACITOR>

C1101	1-104-664-11	ELECT	47µF	20%	16V
C1102	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1104	1-126-963-11	ELECT	4.7µF	20%	50V
C1105	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C1106	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1107	1-126-960-11	ELECT	1µF	20%	50V
C1108	1-104-664-11	ELECT	47µF	20%	16V
C1109	1-104-664-11	ELECT	47µF	20%	16V
C1110	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1111	1-163-113-00	CERAMIC CHIP	68pF	5%	50V
C1112	1-164-346-11	CERAMIC CHIP	1µF		16V
C1113	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1114	1-104-664-11	ELECT	47µF	20%	16V
C1116	1-163-113-00	CERAMIC CHIP	68pF	5%	50V
C1118	1-104-664-11	ELECT	47µF	20%	16V
C1120	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1121	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1124	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1125	1-163-038-91	CERAMIC CHIP	0.1µF		25V

<CONNECTOR>

CN1101	* 1-770-748-11	CONNECTOR, BOARD TO BOARD 12P	

<IC>

IC1101	8-752-072-94	IC CXA1875AM-T4	
IC1102	8-759-514-57	IC BA7046F	
IC1103	8-759-926-98	IC SN74HC4040ANS	
IC1104	8-759-009-02	IC MC14046BF	
IC1105	8-759-926-98	IC SN74HC4040ANS	
IC1107	8-759-424-27	IC MC74HC163AFEL	
IC1108	8-759-926-98	IC SN74HC4040ANS	

A3 A4

REF. NO.	PART NO.	DESCRIPTION			REMARK
IC1109	8-759-424-27	IC MC74HC163AFEL			
IC1110	8-759-367-69	IC MC74HC74AFEL			
IC1112	8-759-424-27	IC MC74HC163AFEL			
IC1113	8-759-424-13	IC MC74HC00AFEL			
IC1114	8-759-367-69	IC MC74HC74AFEL			
IC1115	8-759-367-69	IC MC74HC74AFEL			
		<COIL>			
L1100	1-414-187-11	INDUCTOR	47µH		
L1101	1-414-187-11	INDUCTOR	47µH		
L1103	1-414-187-11	INDUCTOR	47µH		
L1104	1-414-187-11	INDUCTOR	47µH		
		<TRANSISTOR>			
Q1101	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q1109	1-801-806-11	TRANSISTOR DTC144EKA-T146			
		<RESISTOR>			
R1101	1-216-025-91	RES,CHIP	100	5%	1/10W
R1103	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1104	1-216-025-91	RES,CHIP	100	5%	1/10W
R1105	1-216-025-91	RES,CHIP	100	5%	1/10W
R1106	1-216-295-91	SHORT	0		
R1107	1-216-025-91	RES,CHIP	100	5%	1/10W
R1108	1-216-295-91	SHORT	0		
R1109	1-216-295-91	SHORT	0		
R1110	1-216-295-91	SHORT	0		
R1111	1-216-295-91	SHORT	0		
R1112	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1113	1-216-295-91	SHORT	0		
R1114	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1115	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1116	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1117	1-218-755-11	METAL CHIP	130K	0.50%	1/10W
R1121	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1122	1-216-295-91	SHORT	0		
R1123	1-216-025-91	RES,CHIP	100	5%	1/10W
R1124	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R1125	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R1126	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1127	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1128	1-216-025-91	RES,CHIP	100	5%	1/10W
R1129	1-216-295-91	SHORT	0		
R1131	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1132	1-216-033-00	RES,CHIP	220	5%	1/10W
R1133	1-216-025-91	RES,CHIP	100	5%	1/10W
R1134	1-216-295-91	SHORT	0		
R1135	1-216-033-00	RES,CHIP	220	5%	1/10W
R1137	1-216-025-91	RES,CHIP	100	5%	1/10W
R1144	1-216-033-00	RES,CHIP	220	5%	1/10W
R1146	1-216-033-00	RES,CHIP	220	5%	1/10W
R1147	1-216-033-00	RES,CHIP	220	5%	1/10W
R1148	1-216-033-00	RES,CHIP	220	5%	1/10W
R1150	1-216-033-00	RES,CHIP	220	5%	1/10W
R1151	1-216-033-00	RES,CHIP	220	5%	1/10W
R1152	1-216-033-00	RES,CHIP	220	5%	1/10W
R1159	1-216-033-00	RES,CHIP	220	5%	1/10W
R1160	1-216-033-00	RES,CHIP	220	5%	1/10W
R1161	1-216-025-91	RES,CHIP	100	5%	1/10W
R1162	1-216-025-91	RES,CHIP	100	5%	1/10W
R1163	1-216-025-91	RES,CHIP	100	5%	1/10W
R1164	1-216-025-91	RES,CHIP	100	5%	1/10W
R1165	1-216-295-91	SHORT	0		
R1166	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1167	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1168	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R1169	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1170	1-216-073-00	RES,CHIP	10K	5%	1/10W

****

* A-1631-062-A A4 BOARD, COMPLETE (KP-41PZ1B/PZ1D/PZ1E)

****

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<CAPACITOR>			
C4001	1-136-153-00	MYLAR	0.01µF	5%	50V
C4002	1-126-933-11	ELECT	100µF	20%	16V
C4003	1-126-933-11	ELECT	100µF	20%	16V
C4004	1-102-129-00	CERAMIC	0.01µF	10%	50V
C4005	1-102-129-00	CERAMIC	0.01µF	10%	50V
C4006	1-126-933-11	ELECT	100µF	20%	16V
C4032	1-126-964-11	ELECT	10µF	20%	50V
C4035	1-126-964-11	ELECT	10µF	20%	50V
C4036	1-126-964-11	ELECT	10µF	20%	50V
C4038	1-126-964-11	ELECT	10µF	20%	50V
C4039	1-126-964-11	ELECT	10µF	20%	50V
C4040	1-136-165-00	MYLAR	0.1µF	5%	50V
C4041	1-136-165-00	MYLAR	0.1µF	5%	50V
C4042	1-136-165-00	MYLAR	0.1µF	5%	50V
C4043	1-136-165-00	MYLAR	0.1µF	5%	50V
C4044	1-136-165-00	MYLAR	0.1µF	5%	50V
C4045	1-136-165-00	MYLAR	0.1µF	5%	50V
C4046	1-136-165-00	MYLAR	0.1µF	5%	50V
C4047	1-136-165-00	MYLAR	0.1µF	5%	50V
C4048	1-136-165-00	MYLAR	0.1µF	5%	50V
C4055	1-136-165-00	MYLAR	0.1µF	5%	50V
C4056	1-136-165-00	MYLAR	0.1µF	5%	50V
C4057	1-136-165-00	MYLAR	0.1µF	5%	50V
C4058	1-136-165-00	MYLAR	0.1µF	5%	50V
C4059	1-136-165-00	MYLAR	0.1µF	5%	50V
C4060	1-136-165-00	MYLAR	0.1µF	5%	50V
C4061	1-136-165-00	MYLAR	0.1µF	5%	50V
C4062	1-136-165-00	MYLAR	0.1µF	5%	50V
C4064	1-126-964-11	ELECT	10µF	20%	50V
C4066	1-126-959-11	ELECT	0.47µF	20%	50V
C4067	1-126-959-11	ELECT	0.47µF	20%	50V
C4068	1-126-960-11	ELECT	1µF	20%	50V
C4071	1-126-960-11	ELECT	1µF	20%	50V
C4072	1-126-960-11	ELECT	1µF	20%	50V
C4082	1-126-964-11	ELECT	10µF	20%	50V
C4083	1-126-964-11	ELECT	10µF	20%	50V
C4084	1-126-964-11	ELECT	10µF	20%	50V
C4085	1-126-964-11	ELECT	10µF	20%	50V
C4101	1-136-165-00	MYLAR	0.1µF	5%	50V
C4102	1-136-165-00	MYLAR	0.1µF	5%	50V
		<CONNECTOR>			
CN4204	1-764-334-11	PLUG, CONNECTOR 11P			
CN4205	* 1-564-515-11	PLUG, CONNECTOR 12P			
CN4207	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN4501	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN4502	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN4604	* 1-564-510-11	PLUG, CONNECTOR 7P			
		<IC>			
IC4003	8-752-086-25	IC CXA2089S			
IC4006	8-759-648-19	IC L7809CV/LSY			

REF. NO.	PART NO.	DESCRIPTION			REMARK
	<COIL>				
L4010	1-410-645-31	INDUCTOR	100µH		
	<TRANSISTOR>				
Q4003	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q4007	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q4008	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q4009	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q4010	8-729-119-78	TRANSISTOR 2SC2785-HFE			
	<RESISTOR>				
R4003	1-247-804-11	CARBON	75	5% 1/4W	
R4029	1-249-429-11	CARBON	10K	5% 1/4W	
R4030	1-249-429-11	CARBON	10K	5% 1/4W	
R4031	1-247-815-91	CARBON	220	5% 1/4W	
R4032	1-249-429-11	CARBON	10K	5% 1/4W	
R4034	1-247-815-91	CARBON	220	5% 1/4W	
R4047	1-249-429-11	CARBON	10K	5% 1/4W	
R4054	1-249-418-11	CARBON	1.2K	5% 1/4W	
R4055	1-249-418-11	CARBON	1.2K	5% 1/4W	
R4058	1-249-418-11	CARBON	1.2K	5% 1/4W	
R4059	1-249-418-11	CARBON	1.2K	5% 1/4W	
R4073	1-247-895-91	CARBON	470K	5% 1/4W	
R4075	1-249-413-11	CARBON	470	5% 1/4W	
R4076	1-247-895-91	CARBON	470K	5% 1/4W	
R4078	1-247-895-91	CARBON	470K	5% 1/4W	
R4083	1-247-895-91	CARBON	470K	5% 1/4W	
R4084	1-249-429-11	CARBON	10K	5% 1/4W	
R4085	1-249-417-11	CARBON	1K	5% 1/4W	
R4087	1-247-804-11	CARBON	75	5% 1/4W	
R4088	1-247-843-11	CARBON	3.3K	5% 1/4W	
R4089	1-249-427-11	CARBON	6.8K	5% 1/4W	
R4101	1-247-807-31	CARBON	100	5% 1/4W	
R4106	1-247-807-31	CARBON	100	5% 1/4W	
R4107	1-247-807-31	CARBON	100	5% 1/4W	
R4108	1-249-441-11	CARBON	100K	5% 1/4W	
R4110	1-247-807-31	CARBON	100	5% 1/4W	
R4111	1-249-441-11	CARBON	100K	5% 1/4W	
R4112	1-247-807-31	CARBON	100	5% 1/4W	
R4113	1-249-441-11	CARBON	100K	5% 1/4W	
R4114	1-247-891-00	CARBON	330K	5% 1/4W	
R4115	1-249-441-11	CARBON	100K	5% 1/4W	
R4116	1-247-807-31	CARBON	100	5% 1/4W	
R4117	1-247-807-31	CARBON	100	5% 1/4W	
R4118	1-247-807-31	CARBON	100	5% 1/4W	
R4119	1-247-891-00	CARBON	330K	5% 1/4W	
R4120	1-249-441-11	CARBON	100K	5% 1/4W	

****

* A-1632-862-A A BOARD, COMPLETE (KP-41DS1U)
* A-1632-863-A A BOARD, COMPLETE (KP-41PZ1B/PZ1D/PZ1E)

****

REF. NO.	PART NO.	DESCRIPTION			REMARK
	<CAPACITOR>				
C1	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C2	1-104-664-11	ELECT	47µF	20% 16V	
C3	1-163-239-11	CERAMIC CHIP	33pF	5% 50V	
C4	1-163-239-11	CERAMIC CHIP	33pF	5% 50V	
C8	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C15	1-163-133-00	CERAMIC CHIP	470pF	5% 50V	
C18	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C19	1-163-017-00	CERAMIC CHIP	0.0047µF	10% 50V	
C20	1-163-021-91	CERAMIC CHIP	0.01µF	10% 50V	
C21	1-163-021-91	CERAMIC CHIP	0.01µF	10% 50V	
C22	1-163-251-11	CERAMIC CHIP	100pF	5% 50V	
C24	1-163-275-11	CERAMIC CHIP	0.001µF	5% 50V	
C25	1-104-664-11	ELECT	47µF	20% 16V	
C26	1-104-664-11	ELECT	47µF	20% 16V	
C28	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C29	1-163-009-11	CERAMIC CHIP	0.001µF	10% 50V	
C43	1-163-121-00	CERAMIC CHIP	150pF	5% 50V	
C45	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C90	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C101	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C102	1-126-934-11	ELECT	220µF	20% 16V	
C103	1-126-965-11	ELECT	22µF	20% 50V	
C104	1-163-251-11	CERAMIC CHIP	100pF	5% 50V	
C105	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C106	1-126-933-11	ELECT	100µF	20% 16V	
C107	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C108	1-126-933-11	ELECT	100µF	20% 16V	
C109	1-163-037-11	CERAMIC CHIP	0.022µF	10% 50V	
C110	1-104-664-11	ELECT	47µF	20% 16V	
C111	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C112	1-163-275-11	CERAMIC CHIP	0.001µF	5% 50V	
C113	1-104-664-11	ELECT	47µF	20% 16V	
C114	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C115	1-163-021-91	CERAMIC CHIP	0.01µF	10% 50V	
C116	1-115-340-11	CERAMIC CHIP	0.22µF	10% 25V	
C117	1-163-021-91	CERAMIC CHIP	0.01µF	10% 50V	
C118	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C119	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C120	1-163-251-11	CERAMIC CHIP	100pF	5% 50V	
C121	1-163-113-00	CERAMIC CHIP	68pF	5% 50V	
C122	1-163-137-00	CERAMIC CHIP	680pF	5% 50V	
C123	1-163-113-00	CERAMIC CHIP	68pF	5% 50V	
C124	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C125	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C126	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C127	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C128	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C129	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C130	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C131	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C132	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C133	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C134	1-163-251-11	CERAMIC CHIP	100pF	5% 50V	
C136	1-126-964-11	ELECT	10µF	20% 50V	
C137	1-104-664-11	ELECT	47µF	20% 16V	
C138	1-126-964-11	ELECT	10µF	20% 50V	
C139	1-163-021-91	CERAMIC CHIP	0.01µF	10% 50V	
C140	1-126-964-11	ELECT	10µF	20% 50V	
C141	1-126-934-11	ELECT	220µF	20% 16V	
C142	1-163-249-11	CERAMIC CHIP	82pF	5% 50V	
C143	1-163-121-00	CERAMIC CHIP	150pF	5% 50V	
C144	1-163-249-11	CERAMIC CHIP	82pF	5% 50V	
C145	1-163-227-11	CERAMIC CHIP	10pF	0.5pF 50V	
C146	1-164-346-11	CERAMIC CHIP	1µF	16V	
C201	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C202	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C203	1-104-661-91	ELECT	330µF	20% 16V	
C204	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C205	1-126-965-11	ELECT	22µF	20% 50V	
C206	1-163-275-11	CERAMIC CHIP	0.001µF	5% 50V	
C207	1-126-964-11	ELECT	10µF	20% 50V	
C208	1-163-038-91	CERAMIC CHIP	0.1µF	25V	
C209	1-216-295-91	SHORT	0		
C210	1-163-251-11	CERAMIC CHIP	100pF	5% 50V	
C211	1-126-965-11	ELECT	22µF	20% 50V	

A

REF. NO.	PART NO.	DESCRIPTION			REMARK
C212	1-164-346-11	CERAMIC CHIP	1µF		16V
C213	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C214	1-164-346-11	CERAMIC CHIP	1µF		16V
C215	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C216	1-104-664-11	ELECT	47µF	20%	16V
C217	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C218	1-104-664-11	ELECT	47µF	20%	16V
C219	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C220	1-126-933-11	ELECT	100µF	20%	16V
C221	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C222	1-164-346-11	CERAMIC CHIP	1µF		16V
C223	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C224	1-164-346-11	CERAMIC CHIP	1µF		16V
C225	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C226	1-104-664-11	ELECT	47µF	20%	16V
C227	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C228	1-104-664-11	ELECT	47µF	20%	16V
C229	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C230	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C231	1-104-664-11	ELECT	47µF	20%	16V
C232	1-216-295-91	SHORT	0		
C236	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C237	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C240	1-126-933-11	ELECT	100µF	20%	16V
C241	1-104-664-11	ELECT	47µF	20%	16V
C242	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C243	1-126-967-11	ELECT	47µF	20%	50V
C244	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C245	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C246	1-104-664-11	ELECT	47µF	20%	16V
C247	1-104-664-11	ELECT	47µF	20%	16V
C248	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C249	1-164-346-11	CERAMIC CHIP	1µF		16V
C250	1-164-346-11	CERAMIC CHIP	1µF		16V
C251	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C252	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C253	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C254	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C255	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C256	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C257	1-126-965-11	ELECT	22µF	20%	50V
C258	1-126-964-11	ELECT	10µF	20%	50V
C259	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C260	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C261	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C262	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C263	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C264	1-126-962-11	ELECT	3.3µF	20%	50V
C265	1-126-964-11	ELECT	10µF	20%	50V
C266	1-126-964-11	ELECT	10µF	20%	50V
C267	1-126-965-11	ELECT	22µF	20%	50V
C268	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C269	1-163-131-00	CERAMIC CHIP	390pF	5%	50V
C270	1-163-131-00	CERAMIC CHIP	390pF	5%	50V
C271	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C272	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C273	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C274	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C275	1-164-346-11	CERAMIC CHIP	1µF		16V
C276	1-164-346-11	CERAMIC CHIP	1µF		16V
C277	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C278	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C279	1-126-965-11	ELECT	22µF	20%	50V
C280	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C281	1-126-965-11	ELECT	22µF	20%	50V
C282	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C283	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C284	1-126-925-11	ELECT	470µF	20%	10V
C300	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C301	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C302	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C303	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C304	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C305	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C306	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C307	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C308	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C309	1-164-346-11	CERAMIC CHIP	1µF		16V
C310	1-164-346-11	CERAMIC CHIP	1µF		16V
C311	1-164-346-11	CERAMIC CHIP	1µF		16V
C312	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C313	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C315	1-216-295-91	SHORT	0		
C316	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C317	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C320	1-126-965-11	ELECT	22µF	20%	50V
C321	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C322	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C323	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C324	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C325	1-164-346-11	CERAMIC CHIP	1µF		16V
C326	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C327	1-137-374-11	MYLAR	0.047µF	5%	50V
C328	1-126-964-11	ELECT	10µF	20%	50V
C330	1-130-777-00	MYLAR	0.1µF	5%	63V
C331	1-137-581-11	FILM	0.1µF	5%	100V
C332	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C333	1-126-933-11	ELECT	100µF	20%	16V
C334	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C335	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C336	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C337	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C338	1-126-962-11	ELECT	3.3µF	20%	50V
C339	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C340	1-126-933-11	ELECT	100µF	20%	16V
C341	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C342	1-164-346-11	CERAMIC CHIP	1µF		16V
C343	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C344	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C347	1-126-963-11	ELECT	4.7µF	20%	50V
C348	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C350	1-126-964-11	ELECT	10µF	20%	50V
C351	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C352	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C353	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C354	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C355	1-126-965-11	ELECT	22µF	20%	50V
C356	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C357	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C358	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C359	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C360	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C370	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C371	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C372	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C373	1-164-489-11	CERAMIC CHIP	0.22µF	10%	16V
C377	1-126-964-11	ELECT	10µF	20%	50V
C380	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1001	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C1002	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C1010	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1013	1-126-965-11	ELECT	22µF	20%	50V
C1014	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1015	1-164-489-11	CERAMIC CHIP	0.22µF	10%	16V
C1020	1-163-259-91	CERAMIC CHIP	220pF	5%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C2401	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2402	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2403	1-104-664-11	ELECT	47µF	20%	16V
C2404	1-126-964-11	ELECT	10µF	20%	50V
C2405	1-164-346-11	CERAMIC CHIP	1µF		16V
C2801	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2802	1-164-489-11	CERAMIC CHIP	0.22µF	10%	16V
C2803	1-164-346-11	CERAMIC CHIP	1µF		16V
C2804	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2805	1-126-964-11	ELECT	10µF	20%	50V
C2807	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2808	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2809	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2810	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2811	1-126-964-11	ELECT	10µF	20%	50V
C2812	1-126-964-11	ELECT	10µF	20%	50V
C2813	1-126-964-11	ELECT	10µF	20%	50V
C2814	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C2816	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2817	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2818	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2820	1-163-263-11	CERAMIC CHIP	330pF	5%	50V
C2821	1-163-263-11	CERAMIC CHIP	330pF	5%	50V
C2822	1-126-934-11	ELECT	220µF	20%	16V
C2823	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2826	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2827	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2828	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2829	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2830	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2831	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C2832	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C2833	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2834	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C2835	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
C2836	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2837	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C2838	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C2839	1-164-346-11	CERAMIC CHIP	1µF		16V
C2840	1-164-346-11	CERAMIC CHIP	1µF		16V
C2841	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C2842	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2843	1-104-664-11	ELECT	47µF	20%	16V
C2845	1-126-964-11	ELECT	10µF	20%	50V
C2846	1-104-664-11	ELECT	47µF	20%	16V
C2847	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2848	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C2849	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2850	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C2851	1-126-964-11	ELECT	10µF	20%	50V
C2852	1-126-964-11	ELECT	10µF	20%	50V
		<FILTER>			
CF120	1-409-327-00	TRAP, CERAMIC (6.5MHZ)			
		<CONNECTOR>			
CN1	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P			
CN2	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN6	* 1-564-516-11	PLUG, CONNECTOR 13P			
CN101	1-695-915-11	TAB (CONTACT)			
CN102	1-695-915-11	TAB (CONTACT)			
CN201	1-766-296-11	CONNECTOR, DUAL SCART			
CN204	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN205	* 1-564-515-11	PLUG, CONNECTOR 12P			
CN206	* 1-764-334-11	PLUG, CONNECTOR 11P			
CN301	* 1-564-510-11	PLUG, CONNECTOR 7P			

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN2401	* 1-770-747-11	CONNECTOR, BOARD TO BOARD 12P	
		<DIODE>	
D2	8-719-988-61	DIODE 1SS355TE-17	
D11	8-719-158-15	ZENER DIODE RD5.6SB	
D12	8-719-158-15	ZENER DIODE RD5.6SB	
D16	8-719-988-61	DIODE 1SS355TE-17	
D101	8-719-977-81	ZENER DIODE DTZ33B	
D102	8-719-988-61	DIODE 1SS355TE-17	
D201	8-719-977-22	ZENER DIODE DTZ9.1	
D202	8-719-977-22	ZENER DIODE DTZ9.1	
D203	8-719-977-22	ZENER DIODE DTZ9.1	
D204	8-719-977-22	ZENER DIODE DTZ9.1	
D205	8-719-977-22	ZENER DIODE DTZ9.1	
D206	8-719-977-22	ZENER DIODE DTZ9.1	
D207	8-719-977-22	ZENER DIODE DTZ9.1	
D208	8-719-977-22	ZENER DIODE DTZ9.1	
D209	8-719-977-22	ZENER DIODE DTZ9.1	
D210	8-719-977-22	ZENER DIODE DTZ9.1	
D211	8-719-977-22	ZENER DIODE DTZ9.1	
D212	8-719-977-22	ZENER DIODE DTZ9.1	
D213	8-719-977-22	ZENER DIODE DTZ9.1	
D214	8-719-977-22	ZENER DIODE DTZ9.1	
D215	8-719-977-22	ZENER DIODE DTZ9.1	
D216	8-719-158-15	ZENER DIODE RD5.6SB	
D217	8-719-158-15	ZENER DIODE RD5.6SB	
D218	8-719-158-15	ZENER DIODE RD5.6SB	
D220	8-719-988-61	DIODE 1SS355TE-17	
D221	8-719-988-61	DIODE 1SS355TE-17	
D223	8-719-977-22	ZENER DIODE DTZ9.1	
D224	8-719-977-22	ZENER DIODE DTZ9.1	
D225	8-719-977-22	ZENER DIODE DTZ9.1	
D226	8-719-977-22	ZENER DIODE DTZ9.1	
D231	8-719-158-15	ZENER DIODE RD5.6SB	
D251	8-719-047-16	DIODE BAS216	
D302	8-719-158-02	ZENER DIODE RD3.9SB2	
D303	8-719-988-61	DIODE 1SS355TE-17	
D304	8-719-988-61	DIODE 1SS355TE-17	
D305	8-719-914-43	DIODE DAN202K	
D320	8-719-977-22	ZENER DIODE DTZ9.1	
D370	8-719-047-16	DIODE BAS216	
D401	8-719-977-22	ZENER DIODE DTZ9.1	
D402	8-719-988-61	DIODE 1SS355TE-17	
D1001	8-719-988-61	DIODE 1SS355TE-17	
D1010	8-719-036-58	DIODE MA3030-H(TX)	
D2801	8-719-073-01	DIODE MA111-(K8).S0	
D2802	8-719-914-43	DIODE DAN202K	
D2803	8-719-047-37	DIODE BAS16	
D2804	8-719-047-37	DIODE BAS16	
		<DELAY LINE>	
DL2801	1-234-460-21	DELAY LINE	
		<FERRITE BEAD>	
FB101	1-414-235-22	INDUCTOR CHIP	
		<FILTER>	
FL101	1-236-071-11	ENCAPSULATED COMPONENT	
FL102	1-233-765-21	FILTER	
FL103	1-233-765-21	FILTER	
FL104	1-233-765-21	FILTER	
FL105	1-236-071-11	ENCAPSULATED COMPONENT	
FL106	1-236-071-11	ENCAPSULATED COMPONENT	

A

REF. NO.	PART NO.	DESCRIPTION	REMARK
FL107	1-236-071-11	ENCAPSULATED COMPONENT	
FL108	1-236-071-11	ENCAPSULATED COMPONENT	
FL201	1-236-071-11	ENCAPSULATED COMPONENT	
FL202	1-236-071-11	ENCAPSULATED COMPONENT	
FL203	1-236-071-11	ENCAPSULATED COMPONENT	
FL1001	1-236-071-11	ENCAPSULATED COMPONENT	
	<IC>		
IC1	8-759-376-77	IC SDA30C263-GEG	
IC2	8-759-492-55	IC M24C64-WMN6T (KP-41DS1U)	
IC2	8-759-564-06	IC M24C32-MN6T (KP-41PZ1B/PZ1D/PZ1E)	
IC3	1-750-797-11	SOCKET, PLCC	
IC4	8-759-394-57	IC PST593C-MMP-4P	
IC103	8-752-390-37	IC CXD2064Q-T6	
IC201	8-752-081-26	IC CXA2040AQ-T4	
IC202	8-759-491-95	IC MSP3410D-PS-B4-T-ND	
IC204	8-759-008-67	IC MC14066BF	
IC205	8-759-394-57	IC PST593C-MMP-4P	
IC206	8-752-058-68	IC CXA1315M	
IC301	8-752-081-43	IC CXA2076Q-TL	
IC302	8-759-565-20	IC TDA4665T/V5-118	
IC303	8-759-430-79	IC TDA8395T/N3	
IC1001	8-759-584-20	IC SDA5273-3CP-C55-22-GEG	
IC2802	8-759-342-13	IC SAA4981T-T	
IC2803	8-759-300-71	IC HD14053BFP	
IC2804	8-759-710-07	IC NJM2234M(T1)	
IC2805	8-759-038-15	IC MC74HC4538AF	
IC2806	8-759-300-71	IC HD14053BFP	
	<CHIP CONDUCTOR>		
JR1	1-216-295-91	SHORT 0	
JR2	1-216-296-91	SHORT 0	
JR3	1-216-296-91	SHORT 0	
JR6	1-216-295-91	SHORT 0	
JR201	1-216-295-91	SHORT 0	
JR205	1-216-295-91	SHORT 0	
JR206	1-216-295-91	SHORT 0	
JR207	1-216-295-91	SHORT 0	
JR208	1-216-296-91	SHORT 0	
JR209	1-216-295-91	SHORT 0	
JR211	1-216-295-91	SHORT 0	
JR212	1-216-295-91	SHORT 0	
JR303	1-216-296-91	SHORT 0	
JR304	1-216-296-91	SHORT 0	
JR305	1-216-296-91	SHORT 0	
JR360	1-216-295-91	SHORT 0	
JR362	1-216-295-91	SHORT 0	
JR391	1-216-295-91	SHORT 0	
	<COIL>		
L101	1-410-993-42	INDUCTOR CHIP 1µH	
L102	1-410-506-11	INDUCTOR 5.6µH	
L103	1-412-009-31	INDUCTOR CHIP 18µH	
L120	1-408-602-31	INDUCTOR 8.2µH	
L121	1-414-177-11	INDUCTOR 1µH	
L122	1-408-602-31	INDUCTOR 8.2µH	
L201	1-414-187-11	INDUCTOR 47µH	
L202	1-412-002-31	INDUCTOR CHIP 4.7µH	
L203	1-412-002-31	INDUCTOR CHIP 4.7µH	
L204	1-412-002-31	INDUCTOR CHIP 4.7µH	
L205	1-412-002-31	INDUCTOR CHIP 4.7µH	
L300	1-412-006-31	INDUCTOR CHIP 10µH	
L302	1-216-295-91	SHORT 0	
L303	1-216-295-91	SHORT 0	
L304	1-216-295-91	SHORT 0	

REF. NO.	PART NO.	DESCRIPTION	REMARK
L2401	1-414-183-41	INDUCTOR 10µH	
L2402	1-414-183-41	INDUCTOR 10µH	
L2801	1-414-183-41	INDUCTOR 10µH	
L2802	1-414-183-41	INDUCTOR 10µH	
L2803	1-414-183-41	INDUCTOR 10µH	
L2804	1-414-183-41	INDUCTOR 10µH	
L2805	1-414-183-41	INDUCTOR 10µH	
L2806	1-414-183-41	INDUCTOR 10µH	
L2807	1-414-187-11	INDUCTOR 47µH	
L2809	1-414-183-41	INDUCTOR 10µH	
	<TRANSISTOR>		
Q1	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q17	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q18	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q20	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q21	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q22	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q23	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q24	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q25	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q82	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q103	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q108	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q109	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q111	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q116	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q117	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q118	8-729-039-67	TRANSISTOR BSS83	
Q120	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q122	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q124	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q125	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q130	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q204	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q205	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q208	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q211	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q212	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q213	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q214	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q215	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q216	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q300	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q305	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q306	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q307	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q308	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q309	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q330	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q331	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q333	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q334	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q335	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q360	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q405	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1001	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1002	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1003	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1004	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1005	8-729-101-07	TRANSISTOR 2SB798-DL	
Q2401	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2404	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2405	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2406	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2407	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2408	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2409	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2410	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2411	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2412	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2413	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2414	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2801	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2802	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2805	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2806	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2807	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2808	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2809	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2810	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2811	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2812	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2813	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2814	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2815	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2816	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2818	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2819	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2820	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2821	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2822	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2823	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2824	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2825	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2826	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2827	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2828	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2829	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2830	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2831	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2832	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2833	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2834	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2835	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2836	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

REF. NO.	PART NO.	DESCRIPTION			REMARK
	<RESISTOR>				
R1	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2	1-216-025-91	RES,CHIP	100	5%	1/10W
R3	1-216-025-91	RES,CHIP	100	5%	1/10W
R4	1-216-013-00	RES,CHIP	33	5%	1/10W
R5	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R7	1-216-041-00	RES,CHIP	470	5%	1/10W
R9	1-216-041-00	RES,CHIP	470	5%	1/10W
R20	1-216-025-91	RES,CHIP	100	5%	1/10W
R21	1-216-025-91	RES,CHIP	100	5%	1/10W
R24	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R25	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R26	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R28	1-216-073-00	RES,CHIP	10K	5%	1/10W
R29	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R30	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R31	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R32	1-216-025-91	RES,CHIP	100	5%	1/10W
R33	1-216-025-91	RES,CHIP	100	5%	1/10W
R34	1-216-025-91	RES,CHIP	100	5%	1/10W
R35	1-216-025-91	RES,CHIP	100	5%	1/10W
R39	1-216-073-00	RES,CHIP	10K	5%	1/10W
R40	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R42	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R44	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R46	1-216-095-00	RES,CHIP	82K	5%	1/10W
R47	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R48	1-216-121-91	RES,CHIP	1M	5%	1/10W
R49	1-216-025-91	RES,CHIP	100	5%	1/10W
R52	1-216-081-00	RES,CHIP	22K	5%	1/10W
R53	1-216-049-91	RES,CHIP	1K	5%	1/10W
R54	1-216-025-91	RES,CHIP	100	5%	1/10W
R58	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R59	1-216-025-91	RES,CHIP	100	5%	1/10W
R60	1-216-025-91	RES,CHIP	100	5%	1/10W
R61	1-216-025-91	RES,CHIP	100	5%	1/10W
R62	1-216-025-91	RES,CHIP	100	5%	1/10W
R63	1-216-025-91	RES,CHIP	100	5%	1/10W
R64	1-216-025-91	RES,CHIP	100	5%	1/10W
R65	1-216-025-91	RES,CHIP	100	5%	1/10W
R66	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R67	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R69	1-216-049-91	RES,CHIP	1K	5%	1/10W
R70	1-216-025-91	RES,CHIP	100	5%	1/10W
R71	1-216-025-91	RES,CHIP	100	5%	1/10W
R72	1-216-025-91	RES,CHIP	100	5%	1/10W
R73	1-216-025-91	RES,CHIP	100	5%	1/10W
R74	1-216-025-91	RES,CHIP	100	5%	1/10W
R76	1-216-025-91	RES,CHIP	100	5%	1/10W
R78	1-216-025-91	RES,CHIP	100	5%	1/10W
R79	1-216-033-00	RES,CHIP	220	5%	1/10W
R80	1-216-049-91	RES,CHIP	1K	5%	1/10W
R85	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R88	1-216-025-91	RES,CHIP	100	5%	1/10W
R91	1-216-025-91	RES,CHIP	100	5%	1/10W
R92	1-216-025-91	RES,CHIP	100	5%	1/10W
R93	1-216-033-00	RES,CHIP	220	5%	1/10W
R94	1-216-033-00	RES,CHIP	220	5%	1/10W
R95	1-216-033-00	RES,CHIP	220	5%	1/10W
R97	1-216-025-91	RES,CHIP	100	5%	1/10W
R100	1-216-033-00	RES,CHIP	220	5%	1/10W
R101	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R102	1-216-025-91	RES,CHIP	100	5%	1/10W
R103	1-216-025-91	RES,CHIP	100	5%	1/10W
R104	1-216-073-00	RES,CHIP	10K	5%	1/10W
R105	1-216-113-00	RES,CHIP	470K	5%	1/10W

A

REF. NO.	PART NO.	DESCRIPTION			REMARK
R106	1-216-073-00	RES,CHIP	10K	5%	1/10W
R107	1-216-043-91	RES,CHIP	560	5%	1/10W
R108	1-216-091-00	RES,CHIP	56K	5%	1/10W
R109	1-216-049-91	RES,CHIP	1K	5%	1/10W
R110	1-216-073-00	RES,CHIP	10K	5%	1/10W
R111	1-216-029-00	RES,CHIP	150	5%	1/10W
R112	1-216-029-00	RES,CHIP	150	5%	1/10W
R113	1-216-001-00	RES,CHIP	10	5%	1/10W
R114	1-216-029-00	RES,CHIP	150	5%	1/10W
R115	1-216-037-00	RES,CHIP	330	5%	1/10W
R116	1-216-041-00	RES,CHIP	470	5%	1/10W
R117	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R118	1-216-017-91	RES,CHIP	47	5%	1/10W
R119	1-216-075-00	RES,CHIP	12K	5%	1/10W
R120	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R121	1-216-073-00	RES,CHIP	10K	5%	1/10W
R122	1-216-041-00	RES,CHIP	470	5%	1/10W
R123	1-216-031-00	RES,CHIP	180	5%	1/10W
R124	1-216-049-91	RES,CHIP	1K	5%	1/10W
R125	1-216-081-00	RES,CHIP	22K	5%	1/10W
R126	1-216-025-91	RES,CHIP	100	5%	1/10W
R127	1-216-081-00	RES,CHIP	22K	5%	1/10W
R128	1-216-035-00	RES,CHIP	270	5%	1/10W
R129	1-216-037-00	RES,CHIP	330	5%	1/10W
R130	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R131	1-216-073-00	RES,CHIP	10K	5%	1/10W
R132	1-216-025-91	RES,CHIP	100	5%	1/10W
R133	1-216-041-00	RES,CHIP	470	5%	1/10W
R134	1-216-001-00	RES,CHIP	10	5%	1/10W
R135	1-216-045-00	RES,CHIP	680	5%	1/10W
R136	1-216-033-00	RES,CHIP	220	5%	1/10W
R137	1-216-049-91	RES,CHIP	1K	5%	1/10W
R138	1-216-041-00	RES,CHIP	470	5%	1/10W
R139	1-216-049-91	RES,CHIP	1K	5%	1/10W
R140	1-216-041-00	RES,CHIP	470	5%	1/10W
R141	1-216-047-91	RES,CHIP	820	5%	1/10W
R142	1-216-295-91	SHORT	0		
R144	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R145	1-216-025-91	RES,CHIP	100	5%	1/10W
R146	1-216-025-91	RES,CHIP	100	5%	1/10W
R147	1-216-025-91	RES,CHIP	100	5%	1/10W
R148	1-216-025-91	RES,CHIP	100	5%	1/10W
R149	1-216-025-91	RES,CHIP	100	5%	1/10W
R150	1-216-025-91	RES,CHIP	100	5%	1/10W
R151	1-216-025-91	RES,CHIP	100	5%	1/10W
R152	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R153	1-216-025-91	RES,CHIP	100	5%	1/10W
R154	1-216-295-91	SHORT	0		
R157	1-216-295-91	SHORT	0		
R160	1-216-295-91	SHORT	0		
R161	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W
R162	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R163	1-216-033-00	RES,CHIP	220	5%	1/10W
R164	1-216-089-91	RES,CHIP	47K	5%	1/10W
R165	1-216-089-91	RES,CHIP	47K	5%	1/10W
R166	1-216-033-00	RES,CHIP	220	5%	1/10W
R167	1-216-043-91	RES,CHIP	560	5%	1/10W
R168	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R169	1-216-033-00	RES,CHIP	220	5%	1/10W
R170	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R171	1-216-025-91	RES,CHIP	100	5%	1/10W
R172	1-216-033-00	RES,CHIP	220	5%	1/10W
R174	1-216-049-91	RES,CHIP	1K	5%	1/10W
R175	1-216-049-91	RES,CHIP	1K	5%	1/10W
R176	1-216-049-91	RES,CHIP	1K	5%	1/10W
R177	1-208-811-11	METAL CHIP	16K	0.50%	1/10W
R178	1-216-081-00	RES,CHIP	22K	5%	1/10W
R179	1-216-041-00	RES,CHIP	470	5%	1/10W
R180	1-216-089-91	RES,CHIP	47K	5%	1/10W
R181	1-216-089-91	RES,CHIP	47K	5%	1/10W
R182	1-208-766-11	METAL CHIP	220	0.50%	1/10W
R183	1-208-766-11	METAL CHIP	220	0.50%	1/10W
R184	1-216-041-00	RES,CHIP	470	5%	1/10W
R185	1-216-043-91	RES,CHIP	560	5%	1/10W
R186	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R187	1-216-049-91	RES,CHIP	1K	5%	1/10W
R188	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R189	1-216-043-91	RES,CHIP	560	5%	1/10W
R190	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R191	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R192	1-216-049-91	RES,CHIP	1K	5%	1/10W
R193	1-216-049-91	RES,CHIP	1K	5%	1/10W
R194	1-216-049-91	RES,CHIP	1K	5%	1/10W
R195	1-216-049-91	RES,CHIP	1K	5%	1/10W
R196	1-216-049-91	RES,CHIP	1K	5%	1/10W
R197	1-216-049-91	RES,CHIP	1K	5%	1/10W
R198	1-216-033-00	RES,CHIP	220	5%	1/10W
R199	1-208-764-11	METAL CHIP	180	0.50%	1/10W
R200	1-216-049-91	RES,CHIP	1K	5%	1/10W
R201	1-216-295-91	SHORT	0		
R202	1-216-049-91	RES,CHIP	1K	5%	1/10W
R203	1-216-025-91	RES,CHIP	100	5%	1/10W
R204	1-216-025-91	RES,CHIP	100	5%	1/10W
R205	1-216-081-00	RES,CHIP	22K	5%	1/10W
R206	1-216-033-00	RES,CHIP	220	5%	1/10W
R207	1-216-089-91	RES,CHIP	47K	5%	1/10W
R208	1-216-041-00	RES,CHIP	470	5%	1/10W
R209	1-216-049-91	RES,CHIP	1K	5%	1/10W
R210	1-216-017-91	RES,CHIP	47	5%	1/10W
R211	1-216-049-91	RES,CHIP	1K	5%	1/10W
R212	1-216-022-00	RES,CHIP	75	5%	1/10W
R213	1-216-022-00	RES,CHIP	75	5%	1/10W
R214	1-216-049-91	RES,CHIP	1K	5%	1/10W
R216	1-216-025-91	RES,CHIP	100	5%	1/10W
R217	1-216-113-00	RES,CHIP	470K	5%	1/10W
R218	1-216-025-91	RES,CHIP	100	5%	1/10W
R219	1-216-113-00	RES,CHIP	470K	5%	1/10W
R220	1-216-295-91	SHORT	0		
R221	1-216-039-00	RES,CHIP	390	5%	1/10W
R222	1-216-089-91	RES,CHIP	47K	5%	1/10W
R223	1-216-295-91	SHORT	0		
R224	1-216-039-00	RES,CHIP	390	5%	1/10W
R225	1-216-089-91	RES,CHIP	47K	5%	1/10W
R226	1-216-049-91	RES,CHIP	1K	5%	1/10W
R227	1-216-023-00	RES,CHIP	82	5%	1/10W
R228	1-216-022-00	RES,CHIP	75	5%	1/10W
R229	1-216-049-91	RES,CHIP	1K	5%	1/10W
R230	1-216-023-00	RES,CHIP	82	5%	1/10W
R232	1-216-049-91	RES,CHIP	1K	5%	1/10W
R233	1-216-025-91	RES,CHIP	100	5%	1/10W
R234	1-216-113-00	RES,CHIP	470K	5%	1/10W
R235	1-216-025-91	RES,CHIP	100	5%	1/10W
R236	1-216-113-00	RES,CHIP	470K	5%	1/10W
R237	1-216-295-91	SHORT	0		
R238	1-216-089-91	RES,CHIP	47K	5%	1/10W
R239	1-216-039-00	RES,CHIP	390	5%	1/10W
R240	1-216-295-91	SHORT	0		
R241	1-216-089-91	RES,CHIP	47K	5%	1/10W
R242	1-216-039-00	RES,CHIP	390	5%	1/10W
R243	1-216-295-91	SHORT	0		
R244	1-216-041-00	RES,CHIP	470	5%	1/10W
R245	1-216-049-91	RES,CHIP	1K	5%	1/10W
R246	1-216-295-91	SHORT	0		
R247	1-216-041-00	RES,CHIP	470	5%	1/10W
R248	1-216-025-91	RES,CHIP	100	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R250	1-216-295-91	SHORT	0		
R251	1-216-049-91	RES,CHIP	1K	5%	1/10W
R252	1-216-073-00	RES,CHIP	10K	5%	1/10W
R253	1-216-049-91	RES,CHIP	1K	5%	1/10W
R254	1-216-041-00	RES,CHIP	470	5%	1/10W
R255	1-216-025-91	RES,CHIP	100	5%	1/10W
R256	1-216-025-91	RES,CHIP	100	5%	1/10W
R257	1-216-073-00	RES,CHIP	10K	5%	1/10W
R258	1-216-049-91	RES,CHIP	1K	5%	1/10W
R259	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R260	1-216-033-00	RES,CHIP	220	5%	1/10W
R261	1-216-041-00	RES,CHIP	470	5%	1/10W
R262	1-216-025-91	RES,CHIP	100	5%	1/10W
R263	1-216-049-91	RES,CHIP	1K	5%	1/10W
R264	1-216-089-91	RES,CHIP	47K	5%	1/10W
R265	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R266	1-216-081-00	RES,CHIP	22K	5%	1/10W
R267	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R268	1-216-089-91	RES,CHIP	47K	5%	1/10W
R269	1-216-089-91	RES,CHIP	47K	5%	1/10W
R270	1-216-022-00	RES,CHIP	75	5%	1/10W
R271	1-216-022-00	RES,CHIP	75	5%	1/10W
R272	1-216-022-00	RES,CHIP	75	5%	1/10W
R273	1-216-022-00	RES,CHIP	75	5%	1/10W
R274	1-216-089-91	RES,CHIP	47K	5%	1/10W
R280	1-216-049-91	RES,CHIP	1K	5%	1/10W
R281	1-216-089-91	RES,CHIP	47K	5%	1/10W
R282	1-216-093-91	RES,CHIP	68K	5%	1/10W
R283	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R284	1-216-089-91	RES,CHIP	47K	5%	1/10W
R285	1-216-093-91	RES,CHIP	68K	5%	1/10W
R286	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R287	1-216-041-00	RES,CHIP	470	5%	1/10W
R288	1-216-049-91	RES,CHIP	1K	5%	1/10W
R289	1-216-033-00	RES,CHIP	220	5%	1/10W
R290	1-216-033-00	RES,CHIP	220	5%	1/10W
R291	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R292	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R293	1-216-089-91	RES,CHIP	47K	5%	1/10W
R294	1-216-097-91	RES,CHIP	100K	5%	1/10W
R295	1-216-049-91	RES,CHIP	1K	5%	1/10W
R296	1-216-049-91	RES,CHIP	1K	5%	1/10W
R297	1-216-033-00	RES,CHIP	220	5%	1/10W
R298	1-216-033-00	RES,CHIP	220	5%	1/10W
R300	1-216-025-91	RES,CHIP	100	5%	1/10W
R301	1-216-033-00	RES,CHIP	220	5%	1/10W
R302	1-216-295-91	SHORT	0		
R303	1-216-295-91	SHORT	0		
R304	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R305	1-216-033-00	RES,CHIP	220	5%	1/10W
R308	1-216-025-91	RES,CHIP	100	5%	1/10W
R309	1-216-033-00	RES,CHIP	220	5%	1/10W
R310	1-216-033-00	RES,CHIP	220	5%	1/10W
R314	1-216-295-91	SHORT	0		
R315	1-216-295-91	SHORT	0		
R316	1-216-033-00	RES,CHIP	220	5%	1/10W
R317	1-216-033-00	RES,CHIP	220	5%	1/10W
R320	1-216-025-91	RES,CHIP	100	5%	1/10W
R321	1-216-025-91	RES,CHIP	100	5%	1/10W
R322	1-216-025-91	RES,CHIP	100	5%	1/10W
R323	1-216-033-00	RES,CHIP	220	5%	1/10W
R325	1-216-089-91	RES,CHIP	47K	5%	1/10W
R326	1-216-025-91	RES,CHIP	100	5%	1/10W
R327	1-216-025-91	RES,CHIP	100	5%	1/10W
R329	1-216-089-91	RES,CHIP	47K	5%	1/10W
R330	1-216-025-91	RES,CHIP	100	5%	1/10W
R331	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R332	1-216-049-91	RES,CHIP	1K	5%	1/10W
R333	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R334	1-216-041-00	RES,CHIP	470	5%	1/10W
R335	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R336	1-216-109-00	RES,CHIP	330K	5%	1/10W
R337	1-216-025-91	RES,CHIP	100	5%	1/10W
R338	1-216-049-91	RES,CHIP	1K	5%	1/10W
R339	1-216-049-91	RES,CHIP	1K	5%	1/10W
R340	1-216-025-91	RES,CHIP	100	5%	1/10W
R341	1-216-025-91	RES,CHIP	100	5%	1/10W
R342	1-216-049-91	RES,CHIP	1K	5%	1/10W
R343	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R344	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R347	1-216-025-91	RES,CHIP	100	5%	1/10W
R348	1-216-025-91	RES,CHIP	100	5%	1/10W
R349	1-216-025-91	RES,CHIP	100	5%	1/10W
R350	1-216-041-00	RES,CHIP	470	5%	1/10W
R351	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R352	1-216-077-91	RES,CHIP	15K	5%	1/10W
R353	1-216-049-91	RES,CHIP	1K	5%	1/10W
R354	1-216-295-91	SHORT	0		
R355	1-216-093-91	RES,CHIP	68K	5%	1/10W
R356	1-216-133-00	RES,CHIP	3.3M	5%	1/10W
R358	1-216-105-91	RES,CHIP	220K	5%	1/10W
R359	1-216-295-91	SHORT	0		
R360	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R361	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R362	1-216-049-91	RES,CHIP	1K	5%	1/10W
R364	1-216-049-91	RES,CHIP	1K	5%	1/10W
R366	1-216-073-00	RES,CHIP	10K	5%	1/10W
R367	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R368	1-216-025-91	RES,CHIP	100	5%	1/10W
R370	1-216-295-91	SHORT	0		
R371	1-216-033-00	RES,CHIP	220	5%	1/10W
R373	1-216-049-91	RES,CHIP	1K	5%	1/10W
R374	1-216-041-00	RES,CHIP	470	5%	1/10W
R375	1-216-049-91	RES,CHIP	1K	5%	1/10W
R376	1-216-081-00	RES,CHIP	22K	5%	1/10W
R377	1-216-049-91	RES,CHIP	1K	5%	1/10W
R378	1-208-811-11	METAL CHIP	16K	0.50%	1/10W
R379	1-216-041-00	RES,CHIP	470	5%	1/10W
R392	1-216-049-91	RES,CHIP	1K	5%	1/10W
R401	1-216-033-00	RES,CHIP	220	5%	1/10W
R402	1-216-073-00	RES,CHIP	10K	5%	1/10W
R403	1-216-081-00	RES,CHIP	22K	5%	1/10W
R404	1-216-083-00	RES,CHIP	27K	5%	1/10W
R405	1-216-073-00	RES,CHIP	10K	5%	1/10W
R406	1-216-073-00	RES,CHIP	10K	5%	1/10W
R407	1-216-073-00	RES,CHIP	10K	5%	1/10W
R408	1-216-049-91	RES,CHIP	1K	5%	1/10W
R409	1-216-049-91	RES,CHIP	1K	5%	1/10W
R410	1-216-081-00	RES,CHIP	22K	5%	1/10W
R411	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1001	1-216-025-91	RES,CHIP	100	5%	1/10W
R1002	1-216-025-91	RES,CHIP	100	5%	1/10W
R1006	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1007	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1008	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1009	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1010	1-216-295-91	SHORT	0		
R1011	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1012	1-216-041-00	RES,CHIP	470	5%	1/10W
R1014	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1015	1-216-041-00	RES,CHIP	470	5%	1/10W
R1016	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1017	1-216-295-91	SHORT	0		
R1020	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1021	1-216-029-00	RES,CHIP	150	5%	1/10W

A

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1022	1-216-029-00	RES,CHIP	150	5%	1/10W
R1023	1-216-029-00	RES,CHIP	150	5%	1/10W
R1024	1-216-045-00	RES,CHIP	680	5%	1/10W
R1026	1-216-025-91	RES,CHIP	100	5%	1/10W
R1027	1-216-025-91	RES,CHIP	100	5%	1/10W
R1028	1-216-025-91	RES,CHIP	100	5%	1/10W
R2401	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2403	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2404	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2405	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W
R2406	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2407	1-208-772-11	METAL CHIP	390	0.50%	1/10W
R2408	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2409	1-216-033-00	RES,CHIP	220	5%	1/10W
R2410	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2411	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2412	1-208-764-11	METAL CHIP	180	0.50%	1/10W
R2413	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2414	1-216-033-00	RES,CHIP	220	5%	1/10W
R2415	1-216-103-00	RES,CHIP	180K	5%	1/10W
R2416	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2417	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R2418	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2419	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2420	1-208-793-11	METAL CHIP	3K	0.50%	1/10W
R2421	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R2422	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2423	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2424	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2425	1-208-780-11	METAL CHIP	820	0.50%	1/10W
R2426	1-216-025-91	RES,CHIP	100	5%	1/10W
R2427	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2428	1-216-033-00	RES,CHIP	220	5%	1/10W
R2429	1-216-025-91	RES,CHIP	100	5%	1/10W
R2430	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2431	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2432	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2433	1-216-025-91	RES,CHIP	100	5%	1/10W
R2434	1-216-025-91	RES,CHIP	100	5%	1/10W
R2435	1-216-025-91	RES,CHIP	100	5%	1/10W
R2436	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2437	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2438	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2439	1-208-775-11	METAL CHIP	510	0.50%	1/10W
R2440	1-208-766-11	METAL CHIP	220	0.50%	1/10W
R2801	1-216-025-91	RES,CHIP	100	5%	1/10W
R2802	1-216-033-00	RES,CHIP	220	5%	1/10W
R2804	1-216-295-91	SHORT	0		
R2805	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R2806	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2808	1-216-025-91	RES,CHIP	100	5%	1/10W
R2809	1-216-025-91	RES,CHIP	100	5%	1/10W
R2810	1-216-105-91	RES,CHIP	220K	5%	1/10W
R2811	1-216-295-91	SHORT	0		
R2812	1-216-295-91	SHORT	0		
R2813	1-216-295-91	SHORT	0		
R2814	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2815	1-216-295-91	SHORT	0		
R2816	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2817	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2818	1-216-033-00	RES,CHIP	220	5%	1/10W
R2819	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2820	1-216-295-91	SHORT	0		
R2821	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2822	1-216-033-00	RES,CHIP	220	5%	1/10W
R2823	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2824	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2825	1-216-025-91	RES,CHIP	100	5%	1/10W
R2826	1-216-033-00	RES,CHIP	220	5%	1/10W
R2827	1-216-105-91	RES,CHIP	220K	5%	1/10W
R2829	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2830	1-216-039-00	RES,CHIP	390	5%	1/10W
R2831	1-216-295-91	SHORT	0		
R2832	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2833	1-216-045-00	RES,CHIP	680	5%	1/10W
R2834	1-216-081-00	RES,CHIP	22K	5%	1/10W
R2835	1-216-083-00	RES,CHIP	27K	5%	1/10W
R2836	1-216-033-00	RES,CHIP	220	5%	1/10W
R2837	1-216-081-00	RES,CHIP	22K	5%	1/10W
R2838	1-216-081-00	RES,CHIP	22K	5%	1/10W
R2839	1-216-081-00	RES,CHIP	22K	5%	1/10W
R2840	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2841	1-208-784-11	METAL CHIP	1.2K	0.50%	1/10W
R2842	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2843	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R2844	1-216-295-91	SHORT	0		
R2846	1-216-033-00	RES,CHIP	220	5%	1/10W
R2848	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2850	1-216-033-00	RES,CHIP	220	5%	1/10W
R2851	1-216-025-91	RES,CHIP	100	5%	1/10W
R2852	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2853	1-216-037-00	RES,CHIP	330	5%	1/10W
R2854	1-216-037-00	RES,CHIP	330	5%	1/10W
R2855	1-216-097-91	RES,CHIP	100K	5%	1/10W
R2856	1-216-295-91	SHORT	0		
R2857	1-216-295-91	SHORT	0		
R2858	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2859	1-216-295-91	SHORT	0		
R2860	1-216-025-91	RES,CHIP	100	5%	1/10W
R2861	1-216-027-00	RES,CHIP	120	5%	1/10W
R2862	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2863	1-216-005-00	RES,CHIP	15	5%	1/10W
R2864	1-216-005-00	RES,CHIP	15	5%	1/10W
R2865	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2866	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2867	1-216-025-91	RES,CHIP	100	5%	1/10W
R2868	1-216-033-00	RES,CHIP	220	5%	1/10W
R2869	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2871	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2872	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2873	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2874	1-216-033-00	RES,CHIP	220	5%	1/10W
R2875	1-216-033-00	RES,CHIP	220	5%	1/10W
R2879	1-216-041-00	RES,CHIP	470	5%	1/10W
R2880	1-216-041-00	RES,CHIP	470	5%	1/10W
R2882	1-216-033-00	RES,CHIP	220	5%	1/10W
R2883	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2884	1-216-045-00	RES,CHIP	680	5%	1/10W
R2885	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R2886	1-216-035-00	RES,CHIP	270	5%	1/10W
R2887	1-216-037-00	RES,CHIP	330	5%	1/10W
R2888	1-216-085-00	RES,CHIP	33K	5%	1/10W
R2889	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2890	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2891	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R2892	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2893	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2894	1-216-041-00	RES,CHIP	470	5%	1/10W
R2895	1-216-047-91	RES,CHIP	820	5%	1/10W
R2896	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2897	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2899	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R2900	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2901	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2902	1-216-043-91	RES,CHIP	560	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
R2903	1-216-041-00	RES,CHIP	470	5%	1/10W
R2904	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2905	1-208-802-11	METAL CHIP	6.8K	0.50%	1/10W
R2906	1-216-025-91	RES,CHIP	100	5%	1/10W
R2908	1-216-295-91	SHORT	0		
R2909	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2910	1-216-033-00	RES,CHIP	220	5%	1/10W
R2911	1-216-033-00	RES,CHIP	220	5%	1/10W
R2912	1-216-295-91	SHORT	0		
R2914	1-216-025-91	RES,CHIP	100	5%	1/10W
R2915	1-216-025-91	RES,CHIP	100	5%	1/10W
		<TUNER>			
TU101	⚠1-693-340-14	TUNER/VIF, TVF01-FR (KP41-DS1U)			
TU101	⚠1-693-340-23	TUNER/VIF, TVF01-FR (KP-41PZ1B/PZ1D/PZ1E)			
		<CRYSTAL>			
X1	1-767-154-21	VIBRATOR, CERAMIC			
X201	1-781-148-21	VIBRATOR, CRYSTAL			
X301	1-567-504-11	OSCILLATOR, CRYSTAL			
X302	1-567-505-11	OSCILLATOR, CRYSTAL			
X303	1-767-127-11	VIBRATOR, CERAMIC			
X1001	1-760-551-21	VIBRATOR, CERAMIC			
**********					
	* A-1636-047-A	G BOARD, COMPLETE (KP41-DS1U)			
	* A-1636-048-A	G BOARD, COMPLETE (KP-41PZ1B/PZ1D/PZ1E)			
		**********			
	* 1-533-725-11	HOLDER, FUSE			
	* 4-374-846-01	COVER, CAPACITOR, CAP TYPE			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C6001	⚠1-119-894-51	CERAMIC	2200pF	20%	250V
C6002	⚠1-104-706-51	MYLAR	0.22µF	20%	250V
C6003	1-126-943-11	ELECT	2200µF	20%	25V
C6004	1-104-665-11	ELECT	100µF	20%	25V
C6005	1-161-964-51	CERAMIC	0.0047µF		250V
C6006	⚠1-104-706-51	MYLAR	0.22µF	20%	250V
C6007	⚠1-119-894-51	CERAMIC	2200pF	20%	250V
C6008	1-113-912-11	CERAMIC	0.0047µF	20%	250V
C6009	1-161-964-51	CERAMIC	0.0047µF		250V
C6010	1-161-964-51	CERAMIC	0.0047µF		250V
C6011	1-107-678-11	ELECT	4.7µF	20%	450V
C6012	1-102-112-00	CERAMIC	330pF	10%	50V
C6018	1-117-753-11	ELECT(BLOCK)	470µF	20%	450V
C6019	1-104-664-11	ELECT	47µF	20%	25V
C6020	1-104-665-11	ELECT	100µF	20%	25V
C6021	1-126-961-11	ELECT	2.2µF	20%	50V
C6026	1-126-935-11	ELECT	470µF	20%	16V
C6030	1-115-405-11	FILM	0.039µF	3%	1KV
C6031	1-126-964-11	ELECT	10µF	20%	50V
C6032	1-126-964-11	ELECT	10µF	20%	50V
C6033	1-136-479-11	FILM	0.001µF	2%	50V
C6034	1-101-810-00	CERAMIC	100pF	5%	500V
C6035	1-101-810-00	CERAMIC	100pF	5%	500V
C6036	1-126-768-11	ELECT	2200µF	20%	16V
C6037	1-126-943-11	ELECT	2200µF	20%	25V
C6038	1-128-548-11	ELECT	4700µF	20%	25V
C6039	1-126-972-11	ELECT	1000µF	20%	50V
C6040	1-126-972-11	ELECT	1000µF	20%	50V
C6041	1-126-960-11	ELECT	1µF	20%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C6042	1-104-665-11	ELECT	100µF	20%	25V
C6044	1-107-641-11	ELECT	220µF	20%	160V
C6045	1-104-665-11	ELECT	100µF	20%	25V
C6046	1-104-665-11	ELECT	100µF	20%	25V
C6047	1-102-112-00	CERAMIC	330pF	10%	50V
C6048	1-126-960-11	ELECT	1µF	20%	50V
C6049	1-136-165-00	MYLAR	0.1µF	5%	50V
C6050	1-109-954-11	ELECT	0.47µF	20%	160V
C6051	1-126-935-11	ELECT	470µF	20%	6.3V
C6052	1-164-625-11	CERAMIC	680pF	10%	500V
C6053	1-164-625-11	CERAMIC	680pF	10%	500V
C6055	1-107-641-11	ELECT	220µF	20%	160V
C6058	1-102-114-00	CERAMIC	470pF	10%	50V
C6059	1-102-114-00	CERAMIC	470pF	10%	50V
C6060	1-102-114-00	CERAMIC	470pF	10%	50V
C6061	1-102-114-00	CERAMIC	470pF	10%	50V
C6062	1-102-114-00	CERAMIC	470pF	10%	50V
C6063	1-102-114-00	CERAMIC	470pF	10%	50V
C6064	1-161-964-51	CERAMIC	0.0047µF		250V
C6065	1-161-964-51	CERAMIC	0.0047µF		250V
C6501	1-117-802-11	ELECT	180µF	20%	450V (KP-41DS1U)
C6502	1-107-824-11	CERAMIC	220pF	5%	1KV (KP-41DS1U)
C6503	1-107-824-11	CERAMIC	220pF	5%	1KV (KP-41DS1U)
C6504	1-136-157-00	MYLAR	0.022µF	5%	50V (KP-41DS1U)
C6505	1-136-169-00	MYLAR	0.22µF	5%	50V (KP-41DS1U)
C6506	1-136-169-00	MYLAR	0.22µF	5%	50V (KP-41DS1U)
C6507	1-136-164-00	MYLAR	0.082µF	5%	50V (KP-41DS1U)
C6508	1-136-164-00	MYLAR	0.082µF	5%	50V (KP-41DS1U)
C6509	1-107-824-11	CERAMIC	220pF	5%	1KV (KP-41DS1U)
C6510	1-136-165-00	MYLAR	0.1µF	5%	50V (KP-41DS1U)
C6511	1-117-631-21	FILM	3300pF	3%	1.2KV (KP-41DS1U)
C6512	1-126-965-11	ELECT	22µF	20%	50V (KP-41DS1U)
C6513	1-126-967-11	ELECT	47µF	20%	50V (KP-41DS1U)
C6514	1-126-936-11	ELECT	3300µF	20%	16V (KP-41DS1U)
C6515	1-126-936-11	ELECT	3300µF	20%	16V (KP-41DS1U)
C6516	1-126-941-11	ELECT	470µF	20%	25V (KP-41DS1U)
C6517	1-126-967-11	ELECT	47µF	20%	50V (KP-41DS1U)
C6518	1-126-941-11	ELECT	470µF	20%	25V (KP-41DS1U)
C6519	1-126-941-11	ELECT	470µF	20%	25V (KP-41DS1U)
C6520	1-126-967-11	ELECT	47µF	20%	50V (KP-41DS1U)
C6522	1-161-964-51	CERAMIC	0.0047µF		250V (KP-41DS1U)
C6523	1-161-964-51	CERAMIC	0.0047µF		250V (KP-41DS1U)
C6525	1-126-957-11	ELECT	0.22µF	20%	50V (KP-41DS1U)
		<CONNECTOR>			
CN6001	1-695-915-11	TAB (CONTACT)			
CN6002	1-695-915-11	TAB (CONTACT)			

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

G

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN6004	1-695-915-11	TAB (CONTACT)	
CN6005	*1-580-843-11	PIN, CONNECTOR (POWER)	
CN6006	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN6008	*1-564-509-11	PLUG, CONNECTOR 6P	
CN6009	1-695-915-11	TAB (CONTACT)	
CN6011	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
CN6012	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN6013	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN6502	*1-564-510-11	PLUG, CONNECTOR 7P	
CN6503	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
		<DIODE>	
D6001	8-719-068-00	DIODE ERC04-06SE	
D6002	8-719-052-91	DIODE D4SBS4-F	
D6003	8-719-510-53	DIODE D4SB60L	
D6004	8-719-057-96	DIODE D10SC6M-4012	
D6005	8-719-982-27	DIODE MTZJ-33C	
D6006	8-719-068-00	DIODE ERC04-06SE	
D6007	8-719-068-00	DIODE ERC04-06SE	
D6008	8-719-073-23	ZENER DIODE ST02D-200TA	
D6012	8-719-991-33	DIODE 1SS133T-77	
D6013	8-719-110-03	ZENER DIODE RD7.5ESB2	
D6014	8-719-991-33	DIODE 1SS133T-77	
D6017	8-719-063-73	DIODE D1NL20U-TR	
D6018	8-719-991-33	DIODE 1SS133T-77	
D6025	8-719-063-73	DIODE D1NL20U-TR	
D6032	8-719-991-33	DIODE 1SS133T-77	
D6033	8-719-991-33	DIODE 1SS133T-77	
D6034	8-719-991-33	DIODE 1SS133T-77	
D6035	8-719-018-83	DIODE D2S4M	
D6036	8-719-018-83	DIODE D2S4M	
D6037	8-719-031-78	DIODE S2L40F	
D6038	8-719-312-47	DIODE RBA-406B	
D6042	8-719-979-64	DIODE UF4005PKG23	
D6043	8-719-110-53	ZENER DIODE RD20ESB2	
D6044	8-719-979-64	DIODE UF4005PKG23	
D6045	8-719-110-53	ZENER DIODE RD20ESB2	
D6046	8-719-110-53	ZENER DIODE RD20ESB2	
D6047	8-719-110-53	ZENER DIODE RD20ESB2	
D6048	8-719-921-88	DIODE MTZJ-13B	
D6049	8-719-031-78	DIODE S2L40F	
D6050	8-719-991-33	DIODE 1SS133T-77	
D6051	8-719-991-33	DIODE 1SS133T-77	
D6501	8-719-510-35	DIODE D2SBA60F (KP-41DS1U)	
D6504	8-719-991-33	DIODE 1SS133T-77 (KP-41DS1U)	
D6505	8-719-991-33	DIODE 1SS133T-77 (KP-41DS1U)	
D6506	8-719-110-17	ZENER DIODE RD10ESB2 (KP-41DS1U)	
D6507	8-719-063-73	DIODE D1NL20U-TR (KP-41DS1U)	
D6508	8-719-510-12	DIODE D10SC4M (KP-41DS1U)	
D6509	8-719-510-12	DIODE D10SC4M (KP-41DS1U)	
D6510	8-719-510-12	DIODE D10SC4M (KP-41DS1U)	
D6511	8-719-063-73	DIODE D1NL20U-TR (KP-41DS1U)	
D6512	8-719-991-33	DIODE 1SS133T-77 (KP-41DS1U)	
D6514	8-719-991-33	DIODE 1SS133T-77 (KP-41DS1U)	
D6515	8-719-110-53	ZENER DIODE RD20ESB2 (KP-41DS1U)	
D6516	8-719-991-33	DIODE 1SS133T-77 (KP-41DS1U)	
D6517	8-719-991-33	DIODE 1SS133T-77 (KP-41DS1U)	
		<FUSE>	
F6001	⚠1-576-232-11	FUSE (H.B.C.) 5A/250V	
		<FERRITE BEAD>	
FB6009	1-410-397-21	FERRITE 1.1µH	

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<IC>	
IC6001	⚠8-759-468-89	IC TOP209P	
IC6004	8-759-537-24	IC KA7500B	
IC6005	⚠8-749-924-35	PHOTO COUPLER ON3171-R	
IC6006	⚠8-749-924-35	PHOTO COUPLER ON3171-R	
IC6007	8-759-185-47	IC IR2112	
IC6008	8-749-920-61	IC SE-135N	
IC6501	8-729-045-61	TRANSISTOR MX0542AB-F (KP-41DS1U)	
IC6502	8-759-908-15	IC TL431CLP (KP-41DS1U)	
		<COIL>	
L6002	1-412-525-31	INDUCTOR 10µH	
L6003	1-412-525-31	INDUCTOR 10µH	
L6004	1-412-525-31	INDUCTOR 10µH	
L6005	1-412-525-31	INDUCTOR 10µH	
L6006	1-412-525-31	INDUCTOR 10µH	
L6008	1-412-533-21	INDUCTOR 47µH	
L6009	1-412-523-41	INDUCTOR 6.8µH	
L6010	1-412-523-41	INDUCTOR 6.8µH	
L6011	1-412-525-31	INDUCTOR 10µH	
L6501	1-412-525-31	INDUCTOR 10µH (KP-41DS1U)	
L6502	1-412-525-31	INDUCTOR 10µH (KP-41DS1U)	
L6503	1-412-525-31	INDUCTOR 10µH (KP-41DS1U)	
		<IC LINK>	
PS6001	⚠1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS6002	⚠1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS6003	⚠1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS6501	⚠1-801-549-21	PROTECTOR, MODULE (KP-41DS1U)	
PS6502	⚠1-533-597-31	LINK, IC (5A/90V AC, 60V DC) (KP-41DS1U)	
PS6503	⚠1-801-550-21	PROTECTOR, MODUL (KP-41DS1U)	
PS6504	⚠1-532-637-00	LINK, IC (1A/150V) (KP-41DS1U)	
PS6505	⚠1-801-550-21	PROTECTOR, MODUL (KP-41DS1U)	
		<TRANSISTOR>	
Q6001	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6002	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6003	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q6005	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q6009	8-729-140-97	TRANSISTOR 2SB734-34	
Q6010	8-729-922-37	TRANSISTOR 2SD2144S-UVW	
Q6011	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6012	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q6013	8-729-820-82	TRANSISTOR 2SA1208-S	
Q6014	8-729-028-10	TRANSISTOR IRFI744G-LF	
Q6015	8-729-028-10	TRANSISTOR IRFI744G-LF	
Q6501	8-729-119-78	TRANSISTOR 2SC2785-HFE (KP-41DS1U)	
Q6502	8-729-026-39	TRANSISTOR 2SA933AS-QT (KP-41DS1U)	
Q6503	8-729-119-78	TRANSISTOR 2SC2785-HFE (KP-41DS1U)	
Q6504	8-729-922-37	TRANSISTOR 2SD2144S-UVW (KP-41DS1U)	
Q6505	8-729-119-76	TRANSISTOR 2SA1175-HFE (KP-41DS1U)	
Q6506	8-729-119-78	TRANSISTOR 2SC2785-HFE (KP-41DS1U)	
		<RESISTOR>	

R6000	⚠1-202-719-00	SOLID	1M	20%	1/2W
R6001	1-249-417-11	CARBON	1K	5%	1/4W
R6002	⚠1-218-265-11	METAL	8.2M	5%	1W
R6008	1-247-881-00	CARBON	120K	5%	1/4W
R6009	1-260-128-91	CARBON	270K	5%	1/2W
R6010	1-260-128-91	CARBON	270K	5%	1/2W
R6013	1-202-968-11	CEMENTED	1.2	5%	10W
R6014	1-249-437-11	CARBON	47K	5%	1/4W
R6018	1-249-437-11	CARBON	47K	5%	1/4W
R6019	1-249-437-11	CARBON	47K	5%	1/4W

G CR

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
R6022	1-247-791-91	CARBON	22	5%	1/4W
R6024	1-205-998-11	CEMENTED	1	5%	10W
R6026	1-205-998-11	CEMENTED	1	5%	10W
R6027	1-249-425-11	CARBON	4.7K	5%	1/4W
R6032	⚠1-202-933-61	FUSIBLE	0.1	10%	1/2W F
R6034	1-247-895-91	CARBON	470K	5%	1/4W
R6045	1-215-427-00	METAL	1.8K	1%	1/4W
R6046	1-247-863-91	CARBON	22K	5%	1/4W
R6047	1-249-437-11	CARBON	47K	5%	1/4W
R6048	1-249-425-11	CARBON	4.7K	5%	1/4W
R6049	1-249-429-11	CARBON	10K	5%	1/4W
R6050	1-249-417-11	CARBON	1K	5%	1/4W
R6051	1-215-444-00	METAL	9.1K	1%	1/4W
R6052	1-249-417-11	CARBON	1K	5%	1/4W
R6053	1-249-417-11	CARBON	1K	5%	1/4W
R6054	1-249-417-11	CARBON	1K	5%	1/4W
R6055	1-249-425-11	CARBON	4.7K	5%	1/4W
R6056	1-249-421-11	CARBON	2.2K	5%	1/4W
R6057	1-249-429-11	CARBON	10K	5%	1/4W
R6058	1-249-429-11	CARBON	10K	5%	1/4W
R6059	1-249-425-11	CARBON	4.7K	5%	1/4W
R6060	1-249-413-11	CARBON	470	5%	1/4W F
R6061	1-215-477-00	METAL	220K	1%	1/4W
R6062	1-249-417-11	CARBON	1K	5%	1/4W F
R6063	1-249-397-11	CARBON	22	5%	1/4W F
R6064	1-249-397-11	CARBON	22	5%	1/4W F
R6065	1-249-441-11	CARBON	100K	5%	1/4W
R6066	1-216-366-00	METAL OXIDE	0.56	5%	2W F
R6067	1-249-425-11	CARBON	4.7K	5%	1/4W F
R6068	1-249-425-11	CARBON	4.7K	5%	1/4W F
R6069	1-215-477-00	METAL	220K	1%	1/4W
R6070	1-249-417-11	CARBON	1K	5%	1/4W F
R6071	1-215-453-00	METAL	22K	1%	1/4W
R6072	1-215-476-00	METAL	200K	1%	1/4W
R6073	1-249-413-11	CARBON	470	5%	1/4W
R6074	1-215-858-00	METAL OXIDE	15	5%	1W F
R6075	1-216-358-11	METAL OXIDE	5.6	5%	1W F
R6079	1-249-377-11	CARBON	0.47	5%	1/4W F
R6080	1-249-377-11	CARBON	0.47	5%	1/4W F
R6081	1-249-377-11	CARBON	0.47	5%	1/4W F
R6082	1-249-377-11	CARBON	0.47	5%	1/4W F
R6083	1-249-377-11	CARBON	0.47	5%	1/4W F
R6084	1-249-377-11	CARBON	0.47	5%	1/4W F
R6085	⚠1-212-849-61	FUSIBLE	4.7	5%	1/4W F
R6086	1-249-429-11	CARBON	10K	5%	1/4W
R6502	1-260-127-11	CARBON	220K	5%	1/2W (KP-41DS1U)
R6503	1-260-127-11	CARBON	220K	5%	1/2W (KP-41DS1U)
R6504	⚠1-220-926-11	FUSIBLE	0.47	10%	1/2W F (KP-41DS1U)
R6505	1-260-127-11	CARBON	220K	5%	1/2W (KP-41DS1U)
R6507	1-260-127-11	CARBON	220K	5%	1/2W (KP-41DS1U)
R6508	1-249-391-11	CARBON	6.8	5%	1/4W (KP-41DS1U)
R6509	1-249-391-11	CARBON	6.8	5%	1/4W (KP-41DS1U)
R6510	1-215-428-00	METAL	2K	1%	1/4W (KP-41DS1U)
R6511	1-249-437-11	CARBON	47K	5%	1/4W (KP-41DS1U)
R6512	1-215-429-00	METAL	2.2K	1%	1/4W (KP-41DS1U)
R6513	1-249-417-11	CARBON	1K	5%	1/4W (KP-41DS1U)
R6514	1-249-429-11	CARBON	10K	5%	1/4W (KP-41DS1U)
R6515	1-247-807-31	CARBON	100	5%	1/4W (KP-41DS1U)
R6516	1-249-429-11	CARBON	10K	5%	1/4W (KP-41DS1U)
R6517	1-249-417-11	CARBON	1K	5%	1/4W (KP-41DS1U)
R6518	1-249-377-11	CARBON	0.47	5%	1/4W F (KP-41DS1U)
R6519	1-249-425-11	CARBON	4.7K	5%	1/4W (KP-41DS1U)
R6520	1-249-425-11	CARBON	4.7K	5%	1/4W (KP-41DS1U)
R6521	1-215-858-00	METAL OXIDE	15	5%	1W F (KP-41DS1U)
R6522	1-240-251-11	CMT,MELF	6.8	5%	10W (KP-41DS1U)
R6523	1-215-445-00	METAL	10K	1%	1/4W (KP-41DS1U)
R6524	1-215-447-00	METAL	12K	1%	1/4W (KP-41DS1U)
R6526	1-249-429-11	CARBON	10K	5%	1/4W (KP-41DS1U)
R6527	1-249-429-11	CARBON	10K	5%	1/4W (KP-41DS1U)
R6528	1-249-413-11	CARBON	470	5%	1/4W (KP-41DS1U)
R6529	1-249-429-11	CARBON	10K	5%	1/4W (KP-41DS1U)
R6530	1-216-357-00	METAL OXIDE	4.7	5%	1W F (KP-41DS1U)
R6531	1-249-429-11	CARBON	10K	5%	1/4W F (KP-41DS1U)

<RELAY>

RY6001	⚠1-755-266-11	RELAY, AC POWER	
RY6501	⚠1-755-245-11	RELAY, AC POWER	(KP-41DS1U)

<TRANSFORMER>

T6001	⚠1-424-682-11	TRANSFORMER, LINE FILTER	
T6004	⚠1-431-732-21	TRANSFORMER, CONVERTER (SRT)	
T6005	⚠1-429-807-12	TRANSFORMER, CONVERTER (PIT)	
T6501	⚠1-431-616-11	TRANSFORMER, CONVERTER	(KP-41DS1U)
T6502	⚠1-433-490-11	TRANSFORMER, CONVERTER (PIT)	(KP-41DS1U)
T6503	⚠1-419-388-11	INDUCTOR	38mH (KP-41DS1U)

<VARISTOR>

VR6000	⚠1-801-073-31	VARISTOR TNR14V471K660
VR6001	⚠1-803-614-11	VARISTOR

****

* A-1638-133-A CR BOARD, COMPLETE
****

<CAPACITOR>

C702	1-102-113-00	CERAMIC	390pF	10%	50V
C703	1-104-664-11	ELECT	47µF	20%	25V
C705	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C708	1-101-880-00	CERAMIC	47pF	5%	50V
C709	1-162-115-00	CERAMIC	330pF	10%	2KV
C710	1-102-114-00	CERAMIC	470pF	10%	50V
C712	1-107-662-11	ELECT	22µF	20%	250V
C713	1-104-664-11	ELECT	47µF	20%	25V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

CR CG CB

REF. NO.	PART NO.	DESCRIPTION				REMARK
		<CONNECTOR>				
CN701	1-695-915-11	TAB (CONTACT)				
CN702	* 1-564-511-11	PLUG, CONNECTOR 8P				
CN703	* 1-564-510-11	PLUG, CONNECTOR 7P				
CN704	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN705	⚠1-251-182-41	SOCKET, PICTURE TUBE				
CN706	* 1-564-512-11	PLUG, CONNECTOR 9P				
		<DIODE>				
D701	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				
D708	8-719-991-33	DIODE 1SS133T-77				
D709	8-719-109-84	ZENER DIODE RD5.1ESB1				
		<COIL>				
L701	1-410-682-31	INDUCTOR	470µH			
L702	1-408-619-31	INDUCTOR	220µH			
		<TRANSISTOR>				
Q701	8-729-200-17	TRANSISTOR 2SA1091-O				
Q703	8-729-045-56	TRANSISTOR 2SC2611-15				
Q704	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q705	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q706	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		<RESISTOR>				
R701	1-219-743-11	CARBON	100	5%	1/2W	
R704	1-260-132-11	CARBON	560K	5%	1/2W	
R706	1-249-425-11	CARBON	4.7K	5%	1/4W	
R707	1-247-807-31	CARBON	100	5%	1/4W	
R708	1-249-410-11	CARBON	270	5%	1/4W	
R709	1-260-099-11	CARBON	1K	5%	1/2W	
R710	1-249-393-11	CARBON	10	5%	1/4W	
R711	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R714	1-202-818-00	SOLID	1K	20%	1/2W	
R715	1-260-133-11	CARBON	680K	5%	1/2W	
R716	1-247-815-91	CARBON	220	5%	1/4W	
R717	1-249-435-11	CARBON	33K	5%	1/4W	
R718	1-249-437-11	CARBON	47K	5%	1/4W	
R719	1-219-743-11	CARBON	100	5%	1/2W	
R720	1-249-425-11	CARBON	4.7K	5%	1/4W	
R721	1-202-814-11	SOLID	33K	20%	1/2W	
R722	1-247-863-91	CARBON	22K	5%	1/4W	
R723	1-249-437-11	CARBON	47K	5%	1/4W	
		<SPARK GAP>				
SG701	1-519-422-11	GAP, SPARK				
SG702	1-519-422-11	GAP, SPARK				
SG703	1-519-422-11	GAP, SPARK				

****

* A-1638-134-A CG BOARD, COMPLETE
****

REF. NO.	PART NO.	DESCRIPTION				REMARK
		<CAPACITOR>				
C733	1-161-754-00	CERAMIC	0.001µF	10%	2KV	
C734	1-102-114-00	CERAMIC	470pF	10%	50V	
C735	1-161-830-00	CERAMIC	0.0047µF		500V	
C736	1-162-115-00	CERAMIC	330pF	10%	2KV	
C737	1-107-662-11	ELECT	22µF	20%	250V	
C738	1-101-880-00	CERAMIC	47pF	5%	50V	
C739	1-104-664-11	ELECT	47µF	20%	25V	
C740	1-102-114-00	CERAMIC	470pF	10%	50V	
		<CONNECTOR>				
CN731	1-695-915-11	TAB (CONTACT)				
CN732	* 1-564-508-11	PLUG, CONNECTOR 5P				
CN733	* 1-564-511-11	PLUG, CONNECTOR 8P				
CN734	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN735	⚠1-251-182-41	SOCKET, PICTURE TUBE				
CN736	* 1-564-512-11	PLUG, CONNECTOR 9P				
CN737	* 1-564-512-11	PLUG, CONNECTOR 9P				
		<DIODE>				
D731	8-719-991-33	DIODE 1SS133T-77				
D732	8-719-991-33	DIODE 1SS133T-77				
D733	8-719-991-33	DIODE 1SS133T-77				
D735	8-719-991-33	DIODE 1SS133T-77				
D736	8-719-991-33	DIODE 1SS133T-77				
		<COIL>				
L731	1-408-623-31	INDUCTOR	470µH			
L732	1-408-619-31	INDUCTOR	220µH			
		<TRANSISTOR>				
Q731	8-729-200-17	TRANSISTOR 2SA1091-O				
Q732	8-729-045-56	TRANSISTOR 2SC2611-15				
Q733	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R731	1-219-743-11	CARBON	100	5%	1/2W	
R732	1-260-132-11	CARBON	560K	5%	1/2W	
R733	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R735	1-247-807-31	CARBON	100	5%	1/4W	
R736	1-249-425-11	CARBON	4.7K	5%	1/4W	
R737	1-260-099-11	CARBON	1K	5%	1/2W	
R738	1-249-407-11	CARBON	150	5%	1/4W	
R739	1-260-133-11	CARBON	680K	5%	1/2W	
R740	1-202-818-00	SOLID	1K	20%	1/2W	
R741	1-249-393-11	CARBON	10	5%	1/4W	
R742	1-247-815-91	CARBON	220	5%	1/4W	
R744	1-247-891-00	CARBON	330K	5%	1/4W	
R745	1-247-843-11	CARBON	3.3K	5%	1/4W	
R746	1-202-814-11	SOLID	33K	20%	1/2W	
		<SPARK GAP>				
SG731	1-519-422-11	GAP, SPARK				
SG732	1-519-422-11	GAP, SPARK				
SG733	1-519-422-11	GAP, SPARK				

****

* A-1638-135-A CB BOARD, COMPLETE
****

REF. NO.	PART NO.	DESCRIPTION				REMARK
		<CAPACITOR>				
C762	1-126-964-11	ELECT	10µF	20%	50V	

CB E

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
C763	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C764	1-102-112-00	CERAMIC	330pF	10%	50V
C765	1-161-830-00	CERAMIC	0.0047µF		500V
C766	1-162-115-00	CERAMIC	330pF	10%	2KV
C767	1-107-662-11	ELECT	22µF	20%	250V
C768	1-101-880-00	CERAMIC	47pF	5%	50V
C769	1-104-664-11	ELECT	47µF	20%	25V
C770	1-102-114-00	CERAMIC	470pF	10%	50V
		<CONNECTOR>			
CN761	1-695-915-11	TAB (CONTACT)			
CN762	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN763	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN764	⚠1-251-182-41	SOCKET, PICTURE TUBE			
CN765	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN766	* 1-564-513-11	PLUG, CONNECTOR 10P			
		<DIODE>			
D761	8-719-991-33	DIODE 1SS133T-77			
D762	8-719-991-33	DIODE 1SS133T-77			
D763	8-719-991-33	DIODE 1SS133T-77			
D765	8-719-991-33	DIODE 1SS133T-77			
D766	8-719-991-33	DIODE 1SS133T-77			
		<COIL>			
L761	1-408-623-31	INDUCTOR	470µH		
L762	1-408-619-31	INDUCTOR	220µH		
		<TRANSISTOR>			
Q761	8-729-200-17	TRANSISTOR 2SA1091-O			
Q762	8-729-045-56	TRANSISTOR 2SC2611-15			
Q763	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q764	8-729-119-76	TRANSISTOR 2SA1175-HFE			
		<RESISTOR>			
R761	1-219-743-11	CARBON	100	5%	1/2W
R762	1-260-132-11	CARBON	560K	5%	1/2W
R763	1-215-923-00	METAL OXIDE	10K	5%	3W F
R765	1-247-807-31	CARBON	100	5%	1/4W
R766	1-260-099-11	CARBON	1K	5%	1/2W
R767	1-249-425-11	CARBON	4.7K	5%	1/4W
R768	1-260-133-11	CARBON	680K	5%	1/2W
R769	1-202-818-00	SOLID	1K	20%	1/2W
R770	1-247-815-91	CARBON	220	5%	1/4W
R771	1-219-743-11	CARBON	100	5%	1/2W
R772	1-249-393-11	CARBON	10	5%	1/4W
R773	1-249-407-11	CARBON	150	5%	1/4W
R775	1-249-427-11	CARBON	6.8K	5%	1/4W
R776	1-249-437-11	CARBON	47K	5%	1/4W
R777	1-249-427-11	CARBON	6.8K	5%	1/4W
R778	1-202-814-11	SOLID	33K	20%	1/2W
R779	1-247-815-91	CARBON	220	5%	1/4W
		<SPARK GAP>			
SG761	1-519-422-11	GAP, SPARK			
SG762	1-519-422-11	GAP, SPARK			
SG763	1-519-422-11	GAP, SPARK			

****

REF. NO.	PART NO.	DESCRIPTION			REMARK
	* A-1640-374-A	E BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	7-682-952-09	SCREW +PSW 3X16			
		<CAPACITOR>			
C502	1-126-959-11	ELECT	0.47µF	20%	50V
C506	1-126-933-11	ELECT	100µF	20%	16V
C507	1-126-965-11	ELECT	22µF	20%	50V
C508	1-102-228-00	CERAMIC	470pF	10%	500V
C509	1-106-383-00	MYLAR	0.047µF	10%	200V
C511	1-130-475-00	MYLAR	0.0022µF	5%	50V
C512	1-136-479-11	FILM	0.001µF	5%	50V
C513	1-126-965-11	ELECT	22µF	20%	50V
C514	⚠1-162-116-91	CERAMIC	680pF	10%	2KV
C515	⚠1-136-759-91	FILM	0.039µF	5%	630V
C516	⚠1-117-648-11	FILM	15000pF	3%	1.2KV
C518	1-130-495-00	MYLAR	0.1µF	5%	50V
C519	1-106-359-00	MYLAR	0.0047µF	10%	100V
C520	1-162-116-00	CERAMIC	680pF	10%	2KV
C521	1-162-116-00	CERAMIC	680pF	10%	2KV
C523	1-117-673-11	FILM	1.5µF	5%	250V
C524	1-106-359-00	MYLAR	0.0047µF	10%	100V
C526	1-102-228-00	CERAMIC	470pF	10%	500V
C527	1-126-970-11	ELECT	330µF	20%	50V
C528	1-107-957-11	ELECT	1µF	20%	250V
C529	1-109-844-11	FILM	0.68µF	5%	250V
C530	1-107-648-91	ELECT	100µF	20%	160V
C531	1-126-971-11	ELECT	470µF	20%	50V
C532	1-126-971-11	ELECT	470µF	20%	50V
C533	1-107-655-11	ELECT	47µF	20%	250V
C535	1-106-387-00	MYLAR	0.068µF	10%	200V
C536	1-130-489-00	MYLAR	0.033µF	5%	50V
C537	1-126-968-11	ELECT	100µF	20%	50V
C538	1-126-968-11	ELECT	100µF	20%	50V
C539	1-162-114-00	CERAMIC	0.0047µF		2KV
C540	1-137-372-11	MYLAR	0.022µF	5%	50V
C541	1-137-372-11	MYLAR	0.022µF	5%	50V
C542	1-126-934-11	ELECT	220µF	20%	16V
C543	1-126-964-11	ELECT	10µF	20%	50V
C548	1-102-244-00	CERAMIC	220pF	10%	500V
C550	1-126-935-11	ELECT	470µF	20%	16V
C551	1-126-935-11	ELECT	470µF	20%	16V
C554	1-137-501-11	FILM	0.0068µF	5%	630V
C555	1-126-960-11	ELECT	1µF	20%	50V
C556	1-130-495-00	MYLAR	0.1µF	5%	50V
C557	1-126-964-11	ELECT	10µF	20%	50V
C558	1-126-935-11	ELECT	470µF	20%	16V
C701	1-126-933-11	ELECT	100µF	20%	16V
C801	1-104-665-11	ELECT	100µF	20%	25V
C802	1-104-665-11	ELECT	100µF	20%	25V
C803	1-126-934-11	ELECT	220µF	20%	16V
C804	1-126-934-11	ELECT	220µF	20%	16V
C805	1-126-934-11	ELECT	220µF	20%	16V
C806	1-126-934-11	ELECT	220µF	20%	16V
C807	1-137-374-11	MYLAR	0.047µF	5%	50V
C808	1-137-374-11	MYLAR	0.047µF	5%	50V
C809	1-137-374-11	MYLAR	0.047µF	5%	50V
C810	1-137-374-11	MYLAR	0.047µF	5%	50V
C811	1-102-074-00	CERAMIC	0.001µF	10%	50V
C812	1-136-169-00	MYLAR	0.22µF	5%	50V
C813	1-137-374-11	MYLAR	0.047µF	5%	50V
C815	1-104-665-11	ELECT	100µF	20%	25V
C817	1-104-664-11	ELECT	47µF	20%	25V
C818	1-126-933-11	ELECT	100µF	20%	16V
C819	1-104-664-11	ELECT	47µF	20%	25V

E

REF. NO.	PART NO.	DESCRIPTION			REMARK
C821	1-130-495-00	MYLAR	0.1µF	5%	50V
C822	1-107-648-91	ELECT	100µF	20%	160V
C823	1-104-664-11	ELECT	47µF	20%	25V
C825	1-104-665-11	ELECT	100µF	20%	25V
C826	1-136-165-00	MYLAR	0.1µF	5%	50V
C827	1-126-964-11	ELECT	10µF	20%	50V
C828	1-102-824-00	CERAMIC	470pF	5%	50V
C829	1-126-959-11	ELECT	0.47µF	20%	50V
C830	1-102-824-00	CERAMIC	470pF	5%	50V
C831	1-126-960-11	ELECT	1µF	20%	50V
C832	1-126-960-11	ELECT	1µF	20%	50V
C833	1-126-960-11	ELECT	1µF	20%	50V
C834	1-126-968-11	ELECT	100µF	20%	50V
C835	1-126-967-11	ELECT	47µF	20%	50V
C836	1-136-169-00	MYLAR	0.22µF	5%	50V
C837	1-126-963-11	ELECT	4.7µF	20%	50V
C838	1-104-665-11	ELECT	100µF	20%	25V
C839	1-137-374-11	MYLAR	0.047µF	5%	50V
C840	1-104-665-11	ELECT	100µF	20%	25V
C841	1-137-374-11	MYLAR	0.047µF	5%	50V
C842	1-137-374-11	MYLAR	0.047µF	5%	50V
C843	1-104-664-11	ELECT	47µF	20%	25V
C844	1-126-933-11	ELECT	100µF	20%	16V
C845	1-126-933-11	ELECT	100µF	20%	16V
C846	1-126-933-11	ELECT	100µF	20%	16V
C847	1-126-933-11	ELECT	100µF	20%	16V
C848	1-126-933-11	ELECT	100µF	20%	16V
C849	1-102-973-00	CERAMIC	100pF	5%	50V
C850	1-102-973-00	CERAMIC	100pF	5%	50V
C851	1-137-374-11	MYLAR	0.047µF	5%	50V
C852	1-137-374-11	MYLAR	0.047µF	5%	50V
C853	1-137-374-11	MYLAR	0.047µF	5%	50V
C854	1-126-933-11	ELECT	100µF	20%	16V
C855	1-102-973-00	CERAMIC	100pF	5%	50V
C856	1-102-973-00	CERAMIC	100pF	5%	50V
C857	1-126-933-11	ELECT	100µF	20%	16V
C858	1-104-665-11	ELECT	100µF	20%	25V
C859	1-104-665-11	ELECT	100µF	20%	25V
C860	1-126-933-11	ELECT	100µF	20%	16V
C861	1-137-374-11	MYLAR	0.047µF	5%	50V
C862	1-137-374-11	MYLAR	0.047µF	5%	50V
C863	1-137-374-11	MYLAR	0.047µF	5%	50V
C864	1-126-933-11	ELECT	100µF	20%	16V
C865	1-137-366-11	MYLAR	0.0022µF	5%	50V
C866	1-136-177-00	MYLAR	1µF	5%	50V
C867	1-104-664-11	ELECT	47µF	20%	25V
C868	1-164-096-11	CERAMIC	0.01µF		50V
C869	1-130-491-00	MYLAR	0.047µF	5%	50V
C870	1-164-096-11	CERAMIC	0.01µF		50V
C872	1-126-960-11	ELECT	1µF	20%	50V
C874	1-104-664-11	ELECT	47µF	20%	25V
C875	1-164-096-11	CERAMIC	0.01µF		50V
C876	1-102-973-00	CERAMIC	100pF	5%	50V
C877	1-102-973-00	CERAMIC	100pF	5%	50V
C878	1-104-664-11	ELECT	47µF	20%	25V
C879	1-104-664-11	ELECT	47µF	20%	25V
C880	1-104-664-11	ELECT	47µF	20%	25V
C881	1-102-973-00	CERAMIC	100pF	5%	50V
C882	1-102-973-00	CERAMIC	100pF	5%	50V
C883	1-102-973-00	CERAMIC	100pF	5%	50V
C884	1-104-665-11	ELECT	100µF	20%	25V
C885	1-104-664-11	ELECT	47µF	20%	25V
C886	1-102-973-00	CERAMIC	100pF	5%	50V
C887	1-102-973-00	CERAMIC	100pF	5%	50V
C888	1-102-973-00	CERAMIC	100pF	5%	50V
C889	1-104-665-11	ELECT	100µF	20%	25V
C897	1-104-665-11	ELECT	100µF	20%	25V
C898	1-164-096-11	CERAMIC	0.01µF		50V

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
CN501	* 1-564-513-11	PLUG, CONNECTOR 10P	
CN502	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN503	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN504	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN505	* 1-506-371-00	PIN, CONNECTOR 2P	
CN506	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN507	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN508	1-695-915-11	TAB (CONTACT)	
CN651	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN652	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN801	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN802	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN803	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN804	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN805	* 1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN806	* 1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	
CN807	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN808	* 1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
CN810	* 1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	
		<DIODE>	
D501	8-719-991-33	DIODE 1SS133T-77	
D502	8-719-991-33	DIODE 1SS133T-77	
D503	8-719-991-33	DIODE 1SS133T-77	
D504	8-719-921-63	DIODE MTZJ-7.5B	
D507	8-719-302-43	DIODE EL1Z	
D508	8-719-900-26	DIODE ERD29-08J	
D509	8-719-945-80	DIODE ERC06-15S	
D510	8-719-991-33	DIODE 1SS133T-77	
D511	8-719-302-43	DIODE EL1Z	
D512	8-719-991-33	DIODE 1SS133T-77	
D513	8-719-302-43	DIODE EL1Z	
D514	8-719-908-03	DIODE GP08D	
D515	8-719-908-03	DIODE GP08D	
D517	8-719-018-82	DIODE RGP02-20EL-6394	
D519	8-719-991-33	DIODE 1SS133T-77	
D524	8-719-991-33	DIODE 1SS133T-77	
D527	8-719-109-85	ZENER DIODE RD5.1ESB2	
D560	8-719-991-33	DIODE 1SS133T-77	
D701	8-719-109-63	ZENER DIODE RD3.0ESB2	
D702	8-719-991-33	DIODE 1SS133T-77	
D820	8-719-109-68	ZENER DIODE RD3.6ESB1	
D828	8-719-109-89	ZENER DIODE RD5.6ESB2	
D829	8-719-109-84	ZENER DIODE RD5.1ESB1	
D835	8-719-109-89	ZENER DIODE RD5.6ESB2	
D840	8-719-991-33	DIODE 1SS133T-77	
D842	8-719-991-33	DIODE 1SS133T-77	
D845	8-719-991-33	DIODE 1SS133T-77	
D846	8-719-991-33	DIODE 1SS133T-77	
D850	8-719-109-89	ZENER DIODE RD5.6ESB2	
D901	8-719-110-08	ZENER DIODE RD8.2ESB2	
		<FERRITE BEAD>	
FB501	1-410-397-21	FERRITE 1.1µH	
		<IC>	
IC501	8-759-133-90	IC µPC339C	
IC801	8-759-327-51	IC PA0053B	
IC802	8-759-327-51	IC PA0053B	
IC803	8-759-183-37	IC CA0007AD	
IC804	8-759-464-79	IC PM0011AS	
IC805	8-759-711-28	IC NJM2058D	
IC806	8-759-464-79	IC PM0011AS	
IC807	8-759-700-69	IC NJM79L12A	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION				REMARK
IC808	8-759-464-79	IC PM0011AS				
IC809	8-749-014-37	IC STK392-150				
IC810	8-749-014-37	IC STK392-150				
IC811	8-759-981-96	IC RC4560D				
IC812	8-759-701-56	IC NJM78M05FA				
IC813	8-759-701-65	IC NJM79M05FA				
IC814	8-759-595-88	IC AN77L12-TA				
		<COIL>				
L502	1-410-478-11	INDUCTOR	47µH			
L503	1-459-111-00	INDUCTOR	10mH			
L505	⚠1-416-637-11	COIL, HORIZONTAL LINEARITY				
L506	1-412-552-11	INDUCTOR	2.2mH			
L801	1-406-979-11	INDUCTOR	220µH			
L802	1-406-979-11	INDUCTOR	220µH			
L803	1-406-665-11	INDUCTOR	100µH			
		<NEON LAMP>				
NL501	1-519-108-99	LAMP, NEON				
		<IC LINK>				
PS601	⚠1-533-597-31	LINK, IC (5A/90V AC, 60V DC)				
PS602	⚠1-533-597-31	LINK, IC (5A/90V AC, 60V DC)				
PS603	⚠1-533-593-31	LINK, IC (2A/90V AC, 60V DC)				
PS604	⚠1-533-593-31	LINK, IC (2A/90V AC, 60V DC)				
PS605	⚠1-533-593-31	LINK, IC (2A/90V AC, 60V DC)				
PS606	⚠1-533-593-31	LINK, IC (2A/90V AC, 60V DC)				
PS607	⚠1-533-593-31	LINK, IC (2A/90V AC, 60V DC)				
PS608	⚠1-533-593-31	LINK, IC (2A/90V AC, 60V DC)				
		<TRANSISTOR>				
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q502	8-729-044-29	TRANSISTOR 2SD2539(LBSONY-1)				
Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q504	8-729-823-81	TRANSISTOR 2SC4632LS-CB7				
Q505	8-729-038-83	TRANSISTOR 2SK2251-01-F19				
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q507	8-729-032-61	TRANSISTOR 2SC5022-02				
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q804	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q806	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q808	8-729-030-02	TRANSISTOR DTC144ESA				
Q809	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q810	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
⋈R1	⚠	METAL		1%	1/4W	
R501	1-249-421-11	CARBON	2.2K	5%	1/4W	
R502	1-216-465-21	METAL OXIDE	27K	5%	2W	F
R503	1-247-843-11	CARBON	3.3K	5%	1/4W	
R504	1-249-419-11	CARBON	1.5K	5%	1/4W	
R505	1-247-887-00	CARBON	220K	5%	1/4W	
R507	1-249-422-11	CARBON	2.7K	5%	1/4W	
R508	1-260-338-51	CARBON	6.8K	5%	1/2W	
R509	1-249-437-11	CARBON	47K	5%	1/4W	
R510	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R511	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F

REF. NO.	PART NO.	DESCRIPTION				REMARK
R512	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R513	1-247-843-11	CARBON	3.3K	5%	1/4W	
R514	1-215-443-00	METAL	8.2K	1%	1/4W	
R516	1-215-467-00	METAL	82K	1%	1/4W	
R517	1-215-449-00	METAL	15K	1%	1/4W	
R518	1-249-436-11	CARBON	39K	5%	1/4W	
R519	1-249-429-11	CARBON	10K	5%	1/4W	
R522	1-249-428-11	CARBON	8.2K	5%	1/4W	
R523	1-249-437-11	CARBON	47K	5%	1/4W	
R524	1-249-425-11	CARBON	4.7K	5%	1/4W	
R525	1-249-405-11	CARBON	100	5%	1/4W	F
R527	1-249-425-11	CARBON	4.7K	5%	1/4W	
R528	1-215-910-00	METAL OXIDE	68	5%	3W	F
R529	1-215-453-00	METAL	22K	1%	1/4W	
R530	1-249-429-11	CARBON	10K	5%	1/4W	
R531	1-260-326-11	CARBON	680	5%	1/2W	
R532	1-260-312-11	CARBON	47	5%	1/2W	
R533	1-214-912-00	METAL	91K	1%	1/2W	
R534	1-215-479-00	METAL	270K	1%	1/4W	
R535	1-247-887-00	CARBON	220K	5%	1/4W	
R536	1-249-377-11	CARBON	0.47	5%	1/4W	F
R537	1-260-336-11	CARBON	4.7K	5%	1/2W	
R538	1-249-425-11	CARBON	4.7K	5%	1/4W	
R539	1-249-377-11	CARBON	0.47	5%	1/4W	F
R540	1-249-377-11	CARBON	0.47	5%	1/4W	F
R541	1-247-807-31	CARBON	100	5%	1/4W	
R542	1-216-426-11	METAL OXIDE	82	5%	1W	F
R543	1-216-349-00	METAL OXIDE	1	5%	1W	F
R544	1-216-426-11	METAL OXIDE	82	5%	1W	F
R545	1-249-377-11	CARBON	0.47	5%	1/4W	F
R546	1-249-377-11	CARBON	0.47	5%	1/4W	F
R548	1-249-413-11	CARBON	470	5%	1/4W	
R549	1-249-434-11	CARBON	27K	5%	1/4W	
R550	1-247-807-31	CARBON	100	5%	1/4W	
R551	1-249-437-11	CARBON	47K	5%	1/4W	
R552	1-247-807-31	CARBON	100	5%	1/4W	
R553	1-247-881-00	CARBON	120K	5%	1/4W	
R554	1-249-405-11	CARBON	100	5%	1/4W	F
R555	1-247-807-31	CARBON	100	5%	1/4W	
R556	1-260-099-11	CARBON	1K	5%	1/2W	
R557	1-216-490-11	METAL OXIDE	39K	5%	3W	F
R558	1-216-490-11	METAL OXIDE	39K	5%	3W	F
R559	1-216-490-11	METAL OXIDE	39K	5%	3W	F
R561	1-249-418-11	CARBON	1.2K	5%	1/4W	
R562	1-202-838-00	SOLID	100K	10%	1/2W	
R563	1-215-453-00	METAL	22K	1%	1/4W	
R564	1-249-417-11	CARBON	1K	5%	1/4W	
R566	1-249-425-11	CARBON	4.7K	5%	1/4W	
R567	1-216-388-11	METAL OXIDE	0.82	5%	3W	F
R568	1-247-903-00	CARBON	1M	5%	1/4W	
R569	1-216-388-11	METAL OXIDE	0.82	5%	3W	F
R570	1-215-910-00	METAL OXIDE	68	5%	3W	F
R571	1-249-422-11	CARBON	2.7K	5%	1/4W	
R572	1-247-895-91	CARBON	470K	5%	1/4W	
R573	1-249-438-11	CARBON	56K	5%	1/4W	
R574	1-249-435-11	CARBON	33K	5%	1/4W	
R576	1-247-807-31	CARBON	100	5%	1/4W	
R577	1-249-422-11	CARBON	2.7K	5%	1/4W	
R579	1-247-889-00	CARBON	270K	5%	1/4W	
R580	1-249-437-11	CARBON	47K	5%	1/4W	
R581	1-215-460-00	METAL	43K	1%	1/4W	
R582	1-247-881-00	CARBON	120K	5%	1/4W	
R583	1-249-428-11	CARBON	8.2K	5%	1/4W	
R584	1-249-429-11	CARBON	10K	5%	1/4W	
R585	1-216-490-11	METAL OXIDE	39K	5%	3W	F
R586	1-215-892-11	METAL OXIDE	1K	5%	2W	F
R587	1-249-441-11	CARBON	100K	5%	1/4W	
R588	1-247-863-91	CARBON	22K	5%	1/4W	

E

REF. NO.	PART NO.	DESCRIPTION			REMARK
R589	1-247-887-00	CARBON	220K	5%	1/4W
R591	1-249-425-11	CARBON	4.7K	5%	1/4W
R592	1-249-437-11	CARBON	47K	5%	1/4W
R593	1-247-807-31	CARBON	100	5%	1/4W
R702	1-249-421-11	CARBON	2.2K	5%	1/4W
R703	1-249-421-11	CARBON	2.2K	5%	1/4W
R801	1-247-807-31	CARBON	100	5%	1/4W
R802	1-247-807-31	CARBON	100	5%	1/4W
R803	1-249-430-11	CARBON	12K	5%	1/4W
R805	1-247-807-31	CARBON	100	5%	1/4W
R806	1-249-429-11	CARBON	10K	5%	1/4W
R807	1-247-807-31	CARBON	100	5%	1/4W
R809	1-249-425-11	CARBON	4.7K	5%	1/4W
R810	1-247-807-31	CARBON	100	5%	1/4W
R811	1-247-807-31	CARBON	100	5%	1/4W
R814	1-247-807-31	CARBON	100	5%	1/4W
R815	1-247-807-31	CARBON	100	5%	1/4W
R816	1-247-807-31	CARBON	100	5%	1/4W
R817	1-247-807-31	CARBON	100	5%	1/4W
R819	1-247-807-31	CARBON	100	5%	1/4W
R821	1-249-431-11	CARBON	15K	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W
R823	1-249-417-11	CARBON	1K	5%	1/4W
R824	1-215-462-00	METAL	51K	1%	1/4W
R825	1-249-441-11	CARBON	100K	5%	1/4W
R826	1-215-462-00	METAL	51K	1%	1/4W
R827	1-216-474-11	METAL OXIDE	82	5%	3W F
R828	1-249-426-11	CARBON	5.6K	5%	1/4W
R829	1-249-426-11	CARBON	5.6K	5%	1/4W
R830	1-249-414-11	CARBON	560	5%	1/4W
R831	1-249-414-11	CARBON	560	5%	1/4W
R832	1-249-441-11	CARBON	100K	5%	1/4W
R833	1-216-474-11	METAL OXIDE	82	5%	3W F
R834	1-249-441-11	CARBON	100K	5%	1/4W
R835	1-249-441-11	CARBON	100K	5%	1/4W
R836	1-247-807-31	CARBON	100	5%	1/4W
R837	1-249-441-11	CARBON	100K	5%	1/4W
R838	1-249-421-11	CARBON	2.2K	5%	1/4W
R839	1-247-807-31	CARBON	100	5%	1/4W
R841	1-247-815-91	CARBON	220	5%	1/4W
R842	1-247-807-31	CARBON	100	5%	1/4W
R843	1-247-807-31	CARBON	100	5%	1/4W
R844	1-247-807-31	CARBON	100	5%	1/4W
R845	1-249-441-11	CARBON	100K	5%	1/4W
R846	1-247-807-31	CARBON	100	5%	1/4W
R847	1-215-481-00	METAL	330K	1%	1/4W
R850	1-215-481-00	METAL	330K	1%	1/4W
R851	1-247-807-31	CARBON	100	5%	1/4W
R852	1-247-807-31	CARBON	100	5%	1/4W
R853	1-247-887-00	CARBON	220K	5%	1/4W
R854	1-249-429-11	CARBON	10K	5%	1/4W
R856	1-247-807-31	CARBON	100	5%	1/4W
R857	1-247-807-31	CARBON	100	5%	1/4W
R858	1-215-455-00	METAL	27K	1%	1/4W
R859	1-215-455-00	METAL	27K	1%	1/4W
R860	1-215-455-00	METAL	27K	1%	1/4W
R861	1-215-455-00	METAL	27K	1%	1/4W
R862	1-215-455-00	METAL	27K	1%	1/4W
R863	1-215-455-00	METAL	27K	1%	1/4W
R865	1-249-424-11	CARBON	3.9K	5%	1/4W
R867	1-215-451-00	METAL	18K	1%	1/4W
R868	1-215-445-00	METAL	10K	1%	1/4W
R869	1-249-425-11	CARBON	4.7K	5%	1/4W
R871	1-249-417-11	CARBON	1K	5%	1/4W
R872	1-249-425-11	CARBON	4.7K	5%	1/4W
R873	1-247-807-31	CARBON	100	5%	1/4W
R874	1-249-435-11	CARBON	33K	5%	1/4W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R875	1-249-441-11	CARBON	100K	5%	1/4W
R879	1-215-445-00	METAL	10K	1%	1/4W
R881	1-249-408-11	CARBON	180	5%	1/4W
R882	1-249-429-11	CARBON	10K	5%	1/4W
R883	1-249-429-11	CARBON	10K	5%	1/4W
R884	1-215-445-00	METAL	10K	1%	1/4W
R885	1-249-441-11	CARBON	100K	5%	1/4W
R886	1-249-428-11	CARBON	8.2K	5%	1/4W
R887	1-247-807-31	CARBON	100	5%	1/4W
R888	1-247-807-31	CARBON	100	5%	1/4W
R889	1-249-435-11	CARBON	33K	5%	1/4W
R890	1-249-441-11	CARBON	100K	5%	1/4W
R891	1-247-843-11	CARBON	3.3K	5%	1/4W
R895	1-249-421-11	CARBON	2.2K	5%	1/4W
R896	1-249-441-11	CARBON	100K	5%	1/4W
R897	1-247-807-31	CARBON	100	5%	1/4W
R898	1-247-815-91	CARBON	220	5%	1/4W
R900	1-216-474-11	METAL OXIDE	82	5%	3W F
R901	1-215-449-00	METAL	15K	1%	1/4W
R902	1-215-449-00	METAL	15K	1%	1/4W
R903	1-215-421-00	METAL	1K	1%	1/4W
R904	1-214-800-11	METAL	2.2	1%	1/2W
R905	1-214-800-11	METAL	2.2	1%	1/2W
R906	1-214-800-11	METAL	2.2	1%	1/2W
R908	1-215-445-00	METAL	10K	1%	1/4W
R909	1-215-421-00	METAL	1K	1%	1/4W
R910	1-215-421-00	METAL	1K	1%	1/4W
R911	1-215-461-00	METAL	47K	1%	1/4W
R912	1-215-445-00	METAL	10K	1%	1/4W
R913	1-215-455-00	METAL	27K	1%	1/4W
R914	1-215-455-00	METAL	27K	1%	1/4W
R915	1-215-455-00	METAL	27K	1%	1/4W
R916	1-215-455-00	METAL	27K	1%	1/4W
R917	1-215-455-00	METAL	27K	1%	1/4W
R918	1-215-455-00	METAL	27K	1%	1/4W
R919	1-249-436-11	CARBON	39K	5%	1/4W
R920	1-214-800-11	METAL	2.2	1%	1/2W
R921	1-249-431-11	CARBON	15K	5%	1/4W
R922	1-215-445-00	METAL	10K	1%	1/4W
R923	1-249-425-11	CARBON	4.7K	5%	1/4W
R924	1-215-445-00	METAL	10K	1%	1/4W
R925	1-249-425-11	CARBON	4.7K	5%	1/4W
R926	1-249-408-11	CARBON	180	5%	1/4W
R927	1-249-429-11	CARBON	10K	5%	1/4W
R928	1-249-429-11	CARBON	10K	5%	1/4W
R929	1-214-800-11	METAL	2.2	1%	1/2W
R930	1-214-800-11	METAL	2.2	1%	1/2W
R931	1-215-445-00	METAL	10K	1%	1/4W
R933	1-215-445-00	METAL	10K	1%	1/4W
R934	1-249-422-11	CARBON	2.7K	5%	1/4W
R935	1-249-429-11	CARBON	10K	5%	1/4W
R936	1-249-431-11	CARBON	15K	5%	1/4W
R937	1-249-436-11	CARBON	39K	5%	1/4W
R938	1-215-421-00	METAL	1K	1%	1/4W
R939	1-259-878-11	CARBON	1.5M	5%	1/4W
R940	1-249-441-11	CARBON	100K	5%	1/4W
R941	1-249-441-11	CARBON	100K	5%	1/4W
R942	1-249-421-11	CARBON	2.2K	5%	1/4W
R943	1-249-441-11	CARBON	100K	5%	1/4W
R944	1-215-421-00	METAL	1K	1%	1/4W
R945	1-249-437-11	CARBON	47K	5%	1/4W
R946	1-215-421-00	METAL	1K	1%	1/4W
R947	1-249-441-11	CARBON	100K	5%	1/4W
R948	1-247-815-91	CARBON	220	5%	1/4W
R949	1-247-807-31	CARBON	100	5%	1/4W
R950	1-247-807-31	CARBON	100	5%	1/4W
R951	1-247-807-31	CARBON	100	5%	1/4W
R952	1-247-807-31	CARBON	100	5%	1/4W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
R953	1-249-435-11	CARBON	33K	5%	1/4W
R954	1-215-433-00	METAL	3.3K	1%	1/4W
R955	1-215-433-00	METAL	3.3K	1%	1/4W
R956	1-249-429-11	CARBON	10K	5%	1/4W
R957	1-214-800-11	METAL	2.2	1%	1/2W
R958	1-214-800-11	METAL	2.2	1%	1/2W
R959	1-215-433-00	METAL	3.3K	1%	1/4W
R961	1-249-425-11	CARBON	4.7K	5%	1/4W
R962	1-214-800-11	METAL	2.2	1%	1/2W
R963	1-214-800-11	METAL	2.2	1%	1/2W
R964	1-215-433-00	METAL	3.3K	1%	1/4W
R965	1-215-433-00	METAL	3.3K	1%	1/4W
R966	1-247-815-91	CARBON	220	5%	1/4W
R967	1-215-455-00	METAL	27K	1%	1/4W
R968	1-215-455-00	METAL	27K	1%	1/4W
R969	1-215-455-00	METAL	27K	1%	1/4W
R970	1-215-455-00	METAL	27K	1%	1/4W
R971	1-215-455-00	METAL	27K	1%	1/4W
R972	1-215-455-00	METAL	27K	1%	1/4W
R973	1-214-800-11	METAL	2.2	1%	1/2W
R974	1-215-451-00	METAL	18K	1%	1/4W
R975	1-214-800-11	METAL	2.2	1%	1/2W
R976	1-215-433-00	METAL	3.3K	1%	1/4W
R978	1-215-445-00	METAL	10K	1%	1/4W
R979	1-249-425-11	CARBON	4.7K	5%	1/4W
R980	1-247-815-91	CARBON	220	5%	1/4W
R981	1-247-815-91	CARBON	220	5%	1/4W
R983	1-247-815-91	CARBON	220	5%	1/4W
R984	1-215-445-00	METAL	10K	1%	1/4W
R985	1-249-429-11	CARBON	10K	5%	1/4W
R986	1-215-453-00	METAL	22K	1%	1/4W
R987	1-249-408-11	CARBON	180	5%	1/4W
R988	1-249-429-11	CARBON	10K	5%	1/4W
R989	1-249-425-11	CARBON	4.7K	5%	1/4W
R990	1-249-431-11	CARBON	15K	5%	1/4W
R991	1-249-429-11	CARBON	10K	5%	1/4W
R993	1-249-425-11	CARBON	4.7K	5%	1/4W
R994	1-216-474-11	METAL OXIDE	82	5%	3W F
R997	1-215-445-00	METAL	10K	1%	1/4W
R998	1-249-425-11	CARBON	4.7K	5%	1/4W
R999	1-249-425-11	CARBON	4.7K	5%	1/4W
R1904	1-249-425-11	CARBON	4.7K	5%	1/4W
		<SPARK GAP>			
SG501	1-519-422-11	GAP, SPARK			
		<TRANSFORMER>			
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T502	⚠1-431-211-11	TRANSFORMER, FERRITE (PMT)			
T504	⚠1-453-331-11	FBT ASSY NX-4012//M			

****

* A-1640-375-A D BOARD, COMPLETE
****

	4-201-023-11	SPACER, INSULATING
	4-202-373-01	SPRING, IC
	4-382-854-11	SCREW (M3X10), P, SW (+)
		<CAPACITOR>
C1501	1-163-005-11	CERAMIC CHIP 470pF 10% 50V
C1503	1-137-399-11	MYLAR 0.1µF 5% 100V
C1504	1-164-690-91	CERAMIC CHIP 0.0022µF 5% 50V
C1506	1-126-969-11	ELECT 220µF 20% 50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C1507	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1508	1-137-401-11	MYLAR	0.22µF	10%	100V
C1509	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1510	1-126-972-11	ELECT	1000µF	20%	50V
C1511	1-126-972-11	ELECT	1000µF	20%	50V
C1512	1-126-960-11	ELECT	1µF	20%	50V
C1513	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1514	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1516	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1517	1-126-964-11	ELECT	10µF	20%	50V
C1518	1-126-933-11	ELECT	100µF	20%	16V
C1519	1-126-933-11	ELECT	100µF	20%	16V
C1520	1-126-964-11	ELECT	10µF	20%	50V
C1521	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1523	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1524	1-136-177-00	MYLAR	1µF	5%	50V
C1525	1-104-665-11	ELECT	100µF	20%	25V
C1526	1-104-664-11	ELECT	47µF	20%	25V
C1527	1-163-145-00	CERAMIC CHIP	0.0015µF	5%	50V
C1528	1-163-145-00	CERAMIC CHIP	0.0015µF	5%	50V
C1529	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C1530	1-104-664-11	ELECT	47µF	20%	16V
C1531	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1532	1-126-960-11	ELECT	1µF	20%	50V
C1601	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1602	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1603	1-130-495-00	MYLAR	0.1µF	5%	50V
C1604	1-130-495-00	MYLAR	0.1µF	5%	50V
C1605	1-107-715-11	ELECT	22µF	20%	50V
C1606	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1607	1-137-370-11	MYLAR	0.01µF	5%	50V
C1610	1-126-960-11	ELECT	1µF	20%	50V
C1611	1-126-960-11	ELECT	1µF	20%	50V
C1612	1-126-960-11	ELECT	1µF	20%	50V
C1613	1-126-967-11	ELECT	47µF	20%	50V
C1614	1-126-967-11	ELECT	47µF	20%	50V
C1617	1-130-495-00	MYLAR	0.1µF	5%	50V
C1618	1-130-495-00	MYLAR	0.1µF	5%	50V
C1619	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1621	1-104-665-11	ELECT	100µF	20%	25V
C1622	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C1624	1-130-495-00	MYLAR	0.1µF	5%	50V
C1626	1-130-495-00	MYLAR	0.1µF	5%	50V
C1627	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C1628	1-126-964-11	ELECT	10µF	20%	50V
C1630	1-128-550-21	ELECT	2200µF	20%	50V
C1631	1-128-550-21	ELECT	2200µF	20%	50V
C1632	1-104-664-11	ELECT	47µF	20%	25V
C1633	1-104-664-11	ELECT	47µF	20%	25V
C1634	1-126-961-11	ELECT	2.2µF	20%	50V
C1635	1-104-666-11	ELECT	220µF	20%	25V
C1650	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1651	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1661	1-136-165-00	MYLAR	0.1µF	5%	50V
C1701	1-126-960-11	ELECT	1µF	20%	50V
C1702	1-126-960-11	ELECT	1µF	20%	50V
C1703	1-126-964-11	ELECT	10µF	20%	50V
C1704	1-126-964-11	ELECT	10µF	20%	50V
C1705	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1706	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1707	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1708	1-126-935-11	ELECT	470µF	20%	16V
C1709	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1710	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1711	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1715	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1716	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V

D

REF. NO.	PART NO.	DESCRIPTION				REMARK
C1717	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1718	1-126-968-11	ELECT	100µF	20%	50V	
C1719	1-126-968-11	ELECT	100µF	20%	50V	
C1720	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1721	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1723	1-163-235-11	CERAMIC CHIP	22pF	5%	50V	
C1724	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C1725	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C1726	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C1727	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C1802	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1803	1-126-935-11	ELECT	470µF	20%	16V	
C1804	1-126-964-11	ELECT	10µF	20%	50V	
C1805	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1806	1-104-665-11	ELECT	100µF	20%	25V	
C1807	1-126-964-11	ELECT	10µF	20%	50V	
C1808	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1809	1-104-665-11	ELECT	100µF	20%	25V	
C1810	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1811	1-104-665-11	ELECT	100µF	20%	25V	
C1812	1-126-964-11	ELECT	10µF	20%	50V	
C1813	1-104-666-11	ELECT	220µF	20%	25V	
C1814	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C1815	1-104-666-11	ELECT	220µF	20%	25V	
C1818	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C1821	1-126-964-11	ELECT	10µF	20%	50V	
C1822	1-216-295-91	SHORT	0			
C1824	1-216-295-91	SHORT	0			
C1826	1-104-665-11	ELECT	100µF	20%	25V	
C1827	1-104-664-11	ELECT	47µF	20%	25V	
C1828	1-104-664-11	ELECT	47µF	20%	25V	
C1829	1-104-664-11	ELECT	47µF	20%	25V	
C1830	1-126-964-11	ELECT	10µF	20%	50V	
C1831	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	

<CONNECTOR>

CN1501	*	1-564-506-11	PLUG, CONNECTOR 3P
CN1502		1-695-915-11	TAB (CONTACT)
CN1601	*	1-564-508-11	PLUG, CONNECTOR 5P
CN1604	*	1-564-507-11	PLUG, CONNECTOR 4P
CN1605	*	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
CN1606	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN1701	*	1-564-511-11	PLUG, CONNECTOR 8P
CN1702	*	1-564-516-11	PLUG, CONNECTOR 13P
CN1703	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN1705	*	1-564-505-11	PLUG, CONNECTOR 2P
CN1708	*	1-564-510-11	PLUG, CONNECTOR 7P
CN1801		1-695-299-11	CONNECTOR, BOARD TO BOARD 50P
CN1802	*	1-764-334-11	PLUG, CONNECTOR 11P
CN1803	*	1-564-513-11	PLUG, CONNECTOR 10P
CN1804	*	1-564-508-11	PLUG, CONNECTOR 5P
CN1805	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN1806	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN1807	*	1-564-511-11	PLUG, CONNECTOR 8P
CN1808	*	1-564-510-11	PLUG, CONNECTOR 7P

<DIODE>

D1501	8-719-109-89	ZENER DIODE RD5.6ESB2
D1502	8-719-908-03	DIODE GP08D
D1503	8-719-908-03	DIODE GP08D
D1504	8-719-991-33	DIODE 1SS133T-77
D1505	8-719-988-61	DIODE 1SS355TE-17
D1601	8-719-991-33	DIODE 1SS133T-77
D1602	8-719-914-43	DIODE DAN202K
D1603	8-719-991-33	DIODE 1SS133T-77
D1604	8-719-991-33	DIODE 1SS133T-77
D1605	8-719-914-43	DIODE DAN202K
D1606	8-719-991-33	DIODE 1SS133T-77
D1607	8-719-914-43	DIODE DAN202K
D1611	8-719-921-86	DIODE MTZJ-13
D1612	8-719-991-33	DIODE 1SS133T-77
D1613	8-719-921-86	DIODE MTZJ-13
D1614	8-719-991-33	DIODE 1SS133T-77
D1615	8-719-991-33	DIODE 1SS133T-77
D1616	8-719-991-33	DIODE 1SS133T-77
D1617	8-719-403-00	DIODE MA3240-TX
D1618	8-719-991-33	DIODE 1SS133T-77
D1619	8-719-991-33	DIODE 1SS133T-77
D1620	8-719-403-00	DIODE MA3240-TX
D1621	8-719-403-00	DIODE MA3240-TX
D1622	8-719-403-00	DIODE MA3240-TX
D1703	8-719-109-89	ZENER DIODE RD5.6ESB2
D1704	8-719-109-89	ZENER DIODE RD5.6ESB2
D1705	8-719-109-84	ZENER DIODE RD5.1ESB1
D1706	8-719-109-84	ZENER DIODE RD5.1ESB1
D1707	8-719-109-84	ZENER DIODE RD5.1ESB1
D1708	8-719-109-84	ZENER DIODE RD5.1ESB1
D1709	8-719-109-81	ZENER DIODE RD4.7ESB2
D1710	8-719-109-81	ZENER DIODE RD4.7ESB2
D1711	8-719-109-81	ZENER DIODE RD4.7ESB2
D1712	8-719-109-81	ZENER DIODE RD4.7ESB2
D1801	8-719-923-60	DIODE MTZJ-T-77-9.1A
D1802	8-719-923-60	DIODE MTZJ-T-77-9.1A
D1803	8-719-108-12	ZENER DIODE RD9.1EW
D1804	8-719-923-60	DIODE MTZJ-T-77-9.1A
D1805	8-719-108-12	ZENER DIODE RD9.1EW
D1806	8-719-923-60	DIODE MTZJ-T-77-9.1A

<IC>

IC1501	8-759-192-71	IC STV9379
IC1502	8-759-251-31	IC CA0007AM
IC1503	8-759-998-98	IC LM358D
IC1602	8-759-250-68	IC TDA7264
IC1603	8-759-502-21	IC TDA2822M
IC1701	8-752-908-27	IC CXP86213-003S
IC1702	8-759-527-76	IC M24C08-MN6T
IC1703	8-759-100-96	IC µPC4558G2
IC1704	8-759-100-96	IC µPC4558G2
IC1706	8-759-352-91	IC PST9143NL
IC1801	8-759-144-82	IC µPC2405HF
IC1802	8-759-095-63	IC PQ09RF2
IC1803	8-759-231-58	IC TA7812S
IC1804	8-759-069-28	IC PQ05RF11

<JACK>

J1601	1-784-653-11	JACK, PHONO 2P

<CHIP CONDUCTOR>

JR1502	1-216-295-91	SHORT	0
JR1503	1-216-295-91	SHORT	0
JR1504	1-216-295-91	SHORT	0
JR1505	1-216-295-91	SHORT	0
JR1506	1-216-295-91	SHORT	0
JR1508	1-216-295-91	SHORT	0
JR1510	1-216-295-91	SHORT	0
JR1511	1-216-295-91	SHORT	0
JR1512	1-216-295-91	SHORT	0
JR1513	1-216-295-91	SHORT	0
JR1514	1-216-295-91	SHORT	0
JR1701	1-216-295-91	SHORT	0

REF. NO.	PART NO.	DESCRIPTION				REMARK
	<COIL>					
L1501	1-412-524-11	INDUCTOR	8.2µH			
L1601	1-402-711-11	INDUCTOR				
L1602	1-402-711-11	INDUCTOR				
L1701	1-408-603-31	INDUCTOR	10µH			
L1702	1-408-598-31	INDUCTOR	3.9µH			
L1802	1-408-603-31	INDUCTOR	10µH			
	<TRANSISTOR>					
Q1501	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R				
Q1503	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1505	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1601	8-729-027-56	TRANSISTOR DTC143TKA-T146				
Q1602	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1603	8-729-027-56	TRANSISTOR DTC143TKA-T146				
Q1604	8-729-027-56	TRANSISTOR DTC143TKA-T146				
Q1605	8-729-027-56	TRANSISTOR DTC143TKA-T146				
Q1607	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1608	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1609	1-801-806-11	TRANSISTOR DTC144EKA-T146				
Q1610	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R				
Q1611	8-729-027-56	TRANSISTOR DTC143TKA-T146				
Q1612	8-729-027-56	TRANSISTOR DTC143TKA-T146				
Q1613	8-729-027-56	TRANSISTOR DTC143TKA-T146				
Q1614	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R				
Q1615	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1616	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1617	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R				
Q1701	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1702	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1703	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1704	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1705	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1706	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1707	1-801-806-11	TRANSISTOR DTC144EKA-T146				
Q1708	8-729-027-38	TRANSISTOR DTA144EKA-T146				
Q1709	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1710	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1711	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1801	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1802	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1803	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1804	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1805	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1806	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1807	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1808	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R				
Q1809	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
	<RESISTOR>					
R1501	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R1502	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1504	1-216-675-91	METAL CHIP	10K	0.50%	1/10W	
R1505	1-249-377-11	CARBON	0.47	5%	1/4W	F
R1506	1-215-888-00	METAL OXIDE	220	5%	2W	F
R1507	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1508	1-249-383-11	CARBON	1.5	5%	1/4W	F
R1509	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R1510	1-216-675-91	METAL CHIP	10K	0.50%	1/10W	
R1511	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1512	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R1513	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R1514	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1515	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1516	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1517	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1518	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R1519	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1520	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R1521	1-216-097-00	RES,CHIP	100K	5%	1/10W	
R1522	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1525	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R1526	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R1527	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R1528	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R1529	1-216-025-00	RES,CHIP	100	5%	1/10W	
R1530	1-216-097-00	RES,CHIP	100K	5%	1/10W	
R1531	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R1532	1-216-025-00	RES,CHIP	100	5%	1/10W	
R1533	1-249-377-11	CARBON	0.47	5%	1/4W	F
R1534	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1537	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1538	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R1539	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1540	1-216-091-00	RES,CHIP	56K	5%	1/10W	
R1541	1-216-091-00	RES,CHIP	56K	5%	1/10W	
R1542	1-216-093-91	RES,CHIP	68K	5%	1/10W	
R1543	1-216-093-91	RES,CHIP	68K	5%	1/10W	
R1544	1-215-421-00	METAL	1K	1%	1/4W	
R1601	1-216-025-00	RES,CHIP	100	5%	1/10W	
R1602	1-216-041-00	RES,CHIP	470	5%	1/10W	
R1603	1-216-041-00	RES,CHIP	470	5%	1/10W	
R1604	1-216-113-00	RES,CHIP	470K	5%	1/10W	
R1605	1-216-113-00	RES,CHIP	470K	5%	1/10W	
R1606	1-249-397-11	CARBON	22	5%	1/4W	F
R1607	1-249-397-11	CARBON	22	5%	1/4W	F
R1608	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1609	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1610	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1611	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1614	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R1615	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R1617	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	
R1618	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1620	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	
R1625	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	
R1626	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	
R1629	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R1630	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1631	1-249-389-11	CARBON	4.7	5%	1/4W	F
R1632	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1633	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1634	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1635	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1636	1-216-075-00	RES,CHIP	12K	5%	1/10W	
R1637	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R1638	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1639	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1640	1-216-025-00	RES,CHIP	100	5%	1/10W	
R1641	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	
R1642	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R1643	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1644	1-216-075-00	RES,CHIP	12K	5%	1/10W	
R1645	1-216-041-00	RES,CHIP	470	5%	1/10W	
R1648	1-249-381-11	CARBON	1	5%	1/4W	F
R1649	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R1650	1-216-033-00	RES,CHIP	220	5%	1/10W	
R1651	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1652	1-216-099-00	RES,CHIP	120K	5%	1/10W	
R1653	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1654	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1655	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1701	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	

D

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1702	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1703	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1704	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1705	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1706	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1707	1-216-025-00	RES,CHIP	100	5%	1/10W
R1708	1-216-025-00	RES,CHIP	100	5%	1/10W
R1709	1-216-025-00	RES,CHIP	100	5%	1/10W
R1710	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1711	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1712	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1713	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1714	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1715	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1716	1-216-033-00	RES,CHIP	220	5%	1/10W
R1717	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1718	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1719	1-216-033-00	RES,CHIP	220	5%	1/10W
R1720	1-216-033-00	RES,CHIP	220	5%	1/10W
R1721	1-216-033-00	RES,CHIP	220	5%	1/10W
R1722	1-216-033-00	RES,CHIP	220	5%	1/10W
R1725	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1726	1-216-295-91	SHORT	0		
R1727	1-216-033-00	RES,CHIP	220	5%	1/10W
R1728	1-216-025-00	RES,CHIP	100	5%	1/10W
R1729	1-216-025-00	RES,CHIP	100	5%	1/10W
R1730	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1731	1-216-033-00	RES,CHIP	220	5%	1/10W
R1732	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1733	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1734	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1735	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1736	1-216-033-00	RES,CHIP	220	5%	1/10W
R1737	1-216-033-00	RES,CHIP	220	5%	1/10W
R1738	1-216-025-00	RES,CHIP	100	5%	1/10W
R1739	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1740	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1741	1-216-033-00	RES,CHIP	220	5%	1/10W
R1742	1-216-033-00	RES,CHIP	220	5%	1/10W
R1743	1-216-025-00	RES,CHIP	100	5%	1/10W
R1744	1-216-033-00	RES,CHIP	220	5%	1/10W
R1745	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1746	1-216-025-00	RES,CHIP	100	5%	1/10W
R1747	1-216-025-00	RES,CHIP	100	5%	1/10W
R1748	1-216-025-00	RES,CHIP	100	5%	1/10W
R1749	1-216-033-00	RES,CHIP	220	5%	1/10W
R1750	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1751	1-216-033-00	RES,CHIP	220	5%	1/10W
R1752	1-216-025-00	RES,CHIP	100	5%	1/10W
R1753	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1754	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1755	1-216-025-00	RES,CHIP	100	5%	1/10W
R1756	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1757	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1758	1-216-025-00	RES,CHIP	100	5%	1/10W
R1759	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1760	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1762	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1763	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W
R1764	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R1765	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1766	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1767	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1768	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1769	1-216-115-00	RES,CHIP	560K	5%	1/10W
R1770	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1771	1-216-113-00	RES,CHIP	470K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1772	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1773	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1774	1-216-025-00	RES,CHIP	100	5%	1/10W
R1775	1-216-115-00	RES,CHIP	560K	5%	1/10W
R1778	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1786	1-216-025-00	RES,CHIP	100	5%	1/10W
R1787	1-216-025-00	RES,CHIP	100	5%	1/10W
R1788	1-216-025-00	RES,CHIP	100	5%	1/10W
R1789	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1790	1-216-025-00	RES,CHIP	100	5%	1/10W
R1791	1-216-025-00	RES,CHIP	100	5%	1/10W
R1792	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1793	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1794	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1795	1-216-089-00	RES,CHIP	47K	5%	1/10W
R1802	1-215-925-11	METAL OXIDE	22K	5%	3W F
R1803	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1806	1-216-021-00	RES,CHIP	68	5%	1/10W
R1807	1-216-295-91	SHORT	0		
R1808	1-216-295-91	SHORT	0		
R1809	1-216-097-00	RES,CHIP	100K	5%	1/10W
R1810	1-216-021-00	RES,CHIP	68	5%	1/10W
R1811	1-216-025-00	RES,CHIP	100	5%	1/10W
R1812	1-216-025-00	RES,CHIP	100	5%	1/10W
R1813	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1814	1-216-023-00	RES,CHIP	82	5%	1/10W
R1815	1-216-025-00	RES,CHIP	100	5%	1/10W
R1816	1-216-025-00	RES,CHIP	100	5%	1/10W
R1817	1-216-025-00	RES,CHIP	100	5%	1/10W
R1818	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1819	1-216-295-91	SHORT	0		
R1820	1-216-295-91	SHORT	0		
R1821	1-216-025-00	RES,CHIP	100	5%	1/10W
R1824	1-216-295-91	SHORT	0		
R1825	1-216-295-91	SHORT	0		
R1826	1-216-295-91	SHORT	0		
R1829	1-216-295-91	SHORT	0		
R1830	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1831	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R1832	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1833	1-216-041-00	RES,CHIP	470	5%	1/10W
R1834	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1835	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1836	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1837	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1838	1-216-041-00	RES,CHIP	470	5%	1/10W
R1839	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1840	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1841	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1842	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1843	1-216-041-00	RES,CHIP	470	5%	1/10W
R1844	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1845	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1846	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1847	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1848	1-216-049-00	RES,CHIP	1K	5%	1/10W
R1849	1-216-041-00	RES,CHIP	470	5%	1/10W

<RELAY>

RY1601	1-755-028-11	RELAY
RY1602	1-755-028-11	RELAY

<TERMINAL BOARD>

TB1601	1-694-303-11	TERMINAL, PUSH

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
	<CRYSTAL>				
X1701	1-579-125-11	VIBRATOR, CERAMIC			
**********					
	* A-1646-200-A	H1 BOARD, COMPLETE			
		**********			
	<CAPACITOR>				
C3001	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3003	1-126-157-11	ELECT	10µF	20%	16V
C3204	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C3205	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
	<CONNECTOR>				
CN3201	* 1-564-525-11	PLUG, CONNECTOR 10P			
CN3202	* 1-564-526-31	PLUG, CONNECTOR 11P			
CN3204	* 1-564-520-11	PLUG, CONNECTOR 5P			
	<DIODE>				
D3008	* 4-348-208-00	HOLDER, LED			
D3008	8-719-069-94	DIODE TLSU124			
	<IC>				
IC3002	8-742-088-10	HYB IC SBX1780-51			
	<JACK>				
J3201	1-764-073-11	TERMINAL BLOCK, S 4P (S-VIDEO IN)			
J3202	1-691-293-11	JACK (HEAD PHONE)			
	<CHIP CONDUCTOR>				
JR3011	1-216-295-91	SHORT	0		
JR3012	1-216-295-91	SHORT	0		
JR3013	1-216-295-91	SHORT	0		
JR3014	1-216-295-91	SHORT	0		
	<COIL>				
L3201	1-408-615-31	INDUCTOR	100µH		
L3202	1-408-615-31	INDUCTOR	100µH		
	<TRANSISTOR>				
Q3002	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
	<RESISTOR>				
R3001	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R3002	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R3006	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R3007	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R3009	1-216-041-00	RES,CHIP	470	5%	1/10W
R3010	1-216-045-00	RES,CHIP	680	5%	1/10W
R3201	1-216-295-91	SHORT	0		
R3202	1-216-025-91	RES,CHIP	100	5%	1/10W
R3203	1-216-025-91	RES,CHIP	100	5%	1/10W
R3207	1-216-654-11	METAL CHIP	1.3K	0.50%	1/10W
R3209	1-216-033-00	RES,CHIP	220	5%	1/10W
R3210	1-216-033-00	RES,CHIP	220	5%	1/10W
R3211	1-216-033-00	RES,CHIP	220	5%	1/10W
R3212	1-216-033-00	RES,CHIP	220	5%	1/10W
	<SWITCH>				
S3001	1-571-731-11	SWITCH, TACTIL (PROG +)			
S3002	1-571-731-11	SWITCH, TACTIL (PROG –)			
S3003	1-571-731-11	SWITCH, TACTIL (VOL +)			
S3004	1-571-731-11	SWITCH, TACTIL (VOL –)			
S3005	1-571-731-11	SWITCH, TACTIL (TV/VIDEO)			
S3205	1-571-731-11	SWITCH, TACTIL (AUTO CONVER)			
S3206	1-571-731-11	SWITCH, TACTIL (AUTO PROGR)			
**********					
	* A-1646-201-A	H2 BOARD, COMPLETE			
		**********			
	<CONNECTOR>				
CN3003	* 1-580-690-11	PIN, CONNECTOR (PC BOARD) 4P			
CN3004	* 1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P			
	<SWITCH>				
S3006	⚠1-692-293-11	SWITCH, PUSH (AC POWER)(1 KEY)			
**********					
	* A-1648-028-A	U BOARD, COMPLETE			
		**********			
	<CAPACITOR>				
C4901	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4902	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C4903	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4904	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
	<CONNECTOR>				
CN4901	* 1-564-522-11	PLUG, CONNECTOR 7P			
CN4902	* 1-564-523-11	PLUG, CONNECTOR 8P			
	<DIODE>				
D4906	8-719-977-22	ZENER DIODE DTZ9.1			
D4907	8-719-977-22	ZENER DIODE DTZ9.1			
D4908	8-719-977-22	ZENER DIODE DTZ9.1			
	<JACK>				
J4901	1-695-549-11	SOCKET, PIN 21P			
	<COIL>				
L4900	1-216-295-91	SHORT	0		
L4901	1-216-295-91	SHORT	0		
L4902	1-216-295-91	SHORT	0		
L4903	1-216-295-91	SHORT	0		
	<RESISTOR>				
R4901	1-412-002-31	INDUCTOR CHIP	4.7µH		
R4903	1-412-002-31	INDUCTOR CHIP	4.7µH		
R4907	1-412-002-31	INDUCTOR CHIP	4.7µH		

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

U ZG N

REF. NO.	PART NO.	DESCRIPTION			REMARK
R4910	1-216-295-91	SHORT	0		
R4912	1-216-295-91	SHORT	0		
R4913	1-216-295-91	SHORT	0		
R4915	1-412-002-31	INDUCTOR CHIP	4.7µH		

****

* A-1652-068-A ZG BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C1433	1-104-999-11	MYLAR	0.1µF	10%	200V
C1434	1-107-362-11	MYLAR	0.0047µF	10%	200V
C1435	1-107-667-11	ELECT	2.2µF	20%	160V
C1436	1-130-471-00	MYLAR	0.001µF	5%	50V
C1437	1-130-471-00	MYLAR	0.001µF	5%	50V
C1438	1-107-362-11	MYLAR	0.0047µF	10%	200V
C1439	1-161-830-00	CERAMIC	0.0047µF	99%	500V
C1440	1-104-664-11	ELECT	47µF	20%	25V
C1441	1-104-999-11	MYLAR	0.1µF	10%	200V
C1443	1-126-935-11	ELECT	470µF	20%	16V
C1444	1-107-639-11	ELECT	47µF	20%	160V
C1445	1-126-933-11	ELECT	100µF	20%	16V
C1446	1-126-933-11	ELECT	100µF	20%	16V
C1450	1-130-471-00	MYLAR	0.001µF	5%	50V

<CONNECTOR>

CN1431	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN1432	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN1433	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1434	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN1436	1-695-915-11	TAB (CONTACT)	
CN1461	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN1462	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1464	* 1-564-507-11	PLUG, CONNECTOR 4P	

<DIODE>

D1431	8-719-110-88	ZENER DIODE RD39ESB2 (G)
D1432	8-719-110-88	ZENER DIODE RD39ESB2
D1433	8-719-991-33	DIODE 1SS133T-77

<CONNECTOR>

DY1431	⚠1-451-455-11	DEFLECTION YOKE (G)	

<COIL>

L1431	1-410-478-11	INDUCTOR	47µH

<TRANSISTOR>

Q1431	8-729-017-06	TRANSISTOR 2SC4793
Q1432	8-729-017-05	TRANSISTOR 2SA1837
Q1433	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1434	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1435	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1436	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R1431	1-249-414-11	CARBON	560	5%	1/4W
R1432	1-249-414-11	CARBON	560	5%	1/4W
R1433	1-249-377-11	CARBON	0.47	5%	1/4W F
R1435	1-216-475-11	METAL OXIDE	120	5%	3W F
R1436	1-216-475-11	METAL OXIDE	120	5%	3W F
R1437	1-249-414-11	CARBON	560	5%	1/4W
R1438	1-215-451-00	METAL	18K	1%	1/4W
R1439	1-215-451-00	METAL	18K	1%	1/4W
R1440	1-249-414-11	CARBON	560	5%	1/4W F
R1441	1-247-815-91	CARBON	220	5%	1/4W
R1442	1-247-815-91	CARBON	220	5%	1/4W
R1443	1-249-377-11	CARBON	0.47	5%	1/4W F
R1444	1-247-815-91	CARBON	220	5%	1/4W
R1445	1-249-403-11	CARBON	68	5%	1/4W
R1448	1-249-417-11	CARBON	1K	5%	1/4W
R1449	1-249-403-11	CARBON	68	5%	1/4W
R1450	1-249-417-11	CARBON	1K	5%	1/4W
R1451	1-247-815-91	CARBON	220	5%	1/4W
R1452	1-249-417-11	CARBON	1K	5%	1/4W
R1453	1-249-401-11	CARBON	47	5%	1/4W
R1454	1-260-311-11	CARBON	39	5%	1/2W
R1455	1-249-384-11	CARBON	1.8	5%	1/4W F
R1456	1-215-912-11	METAL OXIDE	150	5%	3W F
R1457	1-249-417-11	CARBON	1K	5%	1/4W F
R1458	1-249-384-11	CARBON	1.8	5%	1/4W F
R1459	1-249-400-11	CARBON	39	5%	1/4W F
R1461	1-249-414-11	CARBON	560	5%	1/4W
R1462	1-249-414-11	CARBON	560	5%	1/4W
R1463	1-249-393-11	CARBON	10	5%	1/4W
R1465	1-216-475-11	METAL OXIDE	120	5%	3W F
R1468	1-216-475-11	METAL OXIDE	120	5%	3W F

****

* A-1652-065-A N BOARD, COMPLETE
****

< CAPACITOR >

C3101	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3102	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3103	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3104	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3105	1-126-964-11	ELECT	10µF	20%	50V
C3106	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3107	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3109	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3110	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3111	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3112	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3113	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3114	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3115	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3116	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3118	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3121	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3122	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3128	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3129	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3130	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3131	1-163-263-11	CERAMIC CHIP	330pF	5%	50V
C3132	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3134	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3135	1-163-222-11	CERAMIC CHIP	5pF	0.25pF	50V
C3136	1-163-222-11	CERAMIC CHIP	5pF	0.25pF	50V
C3137	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3138	1-107-888-11	ELECT	47µF	20%	25V
C3142	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3143	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
C3201	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3202	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3203	1-126-964-11	ELECT	10µF	20%	50V
C3204	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3205	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3206	1-126-964-11	ELECT	10µF	20%	50V
C3207	1-126-964-11	ELECT	10µF	20%	50V
C3208	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C3209	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C3210	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3211	1-126-964-11	ELECT	10µF	20%	50V
C3212	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3213	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3214	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3215	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3216	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3217	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3218	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3219	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3220	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3221	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3222	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3223	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3224	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3225	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3226	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3227	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3228	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3229	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C3230	1-107-888-11	ELECT	47µF	20%	25V
C3231	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3232	1-107-888-11	ELECT	47µF	20%	25V
C3233	1-163-263-11	CERAMIC CHIP	330pF	5%	50V
C3305	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3308	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3311	1-107-888-11	ELECT	47µF	20%	25V
C3315	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3318	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3319	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3320	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3323	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3324	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3325	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3326	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3327	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3328	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3329	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3330	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3331	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3332	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C3333	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3334	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3336	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3337	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3339	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3340	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3341	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3342	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3343	1-163-263-11	CERAMIC CHIP	330pF	5%	50V
C3344	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3345	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3346	1-107-888-11	ELECT	47µF	20%	25V
C3347	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3401	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3402	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3412	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3413	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3414	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3415	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3416	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3417	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3418	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3419	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3420	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3421	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3422	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3425	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
		< FILTER >			
CF3101	1-543-948-22	FERRITE	0µH		
CF3102	1-543-948-22	FERRITE	0µH		
CF3104	1-543-948-22	FERRITE	0µH		
CF3106	1-216-295-91	SHORT	0		
CF3108	1-543-948-22	FERRITE	0µH		
CF3109	1-543-948-22	FERRITE	0µH		
CF3110	1-543-948-22	FERRITE	0µH		
CF3111	1-543-948-22	FERRITE	0µH		
CF3112	1-543-948-22	FERRITE	0µH		
CF3113	1-543-948-22	FERRITE	0µH		
CF3114	1-543-948-22	FERRITE	0µH		
CF3115	1-543-948-22	FERRITE	0µH		
CF3116	1-500-245-11	FERRITE	0µH		
CF3122	1-500-245-11	FERRITE	0µH		
CF3123	1-500-245-11	FERRITE	0µH		
CF3124	1-500-245-11	FERRITE	0µH		
CF3201	1-500-245-11	FERRITE	0µH		
CF3202	1-500-245-11	FERRITE	0µH		
CF3203	1-500-245-11	FERRITE	0µH		
CF3301	1-414-232-22	INDUCTOR CHIP		0µH	
CF3302	1-414-232-22	INDUCTOR CHIP		0µH	
CF3303	1-414-232-22	INDUCTOR CHIP		0µH	
CF3304	1-414-232-22	INDUCTOR CHIP		0µH	
CF3305	1-414-232-22	INDUCTOR CHIP		0µH	
CF3306	1-414-232-22	INDUCTOR CHIP		0µH	
CF3307	1-414-232-22	INDUCTOR CHIP		0µH	
CF3308	1-414-232-22	INDUCTOR CHIP		0µH	
CF3309	1-500-245-11	FERRITE	0µH		
		< CONNECTOR >			
CN3101	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P			
CN3102	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN3301	1-563-486-11	SOCKET, CONNECTOR			
CN3302	* 1-785-719-11	CONNECTOR 26P			
CN3303	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN3401	1-785-770-11	CONNECTOR, PCMCIA			
		< DIODE >			
D3305	8-719-914-43	DIODE DAN202K			
D3306	8-719-421-59	DIODE MA3130WA-TX			
D3307	8-719-421-59	DIODE MA3130WA-TX			
D3308	8-719-421-59	DIODE MA3130WA-TX			
D3309	8-719-421-59	DIODE MA3130WA-TX			
		< FUSE >			
F3301	⚠1-533-900-21	FUSE			
		< FILTER >			
FL3101	1-239-899-21	FILTER, CHIP EMI			
FL3102	1-239-899-21	FILTER, CHIP EMI			
FL3107	1-239-899-21	FILTER, CHIP EMI			
FL3108	1-239-899-21	FILTER, CHIP EMI			

N

REF. NO.	PART NO.	DESCRIPTION	REMARK
FL3109	1-239-558-11	FILTER, CHIP EMI	
FL3110	1-239-558-11	FILTER, CHIP EMI	
FL3111	1-239-558-11	FILTER, CHIP EMI	
FL3112	1-239-558-11	FILTER, CHIP EMI	
FL3113	1-239-558-11	FILTER, CHIP EMI	
FL3114	1-239-558-11	FILTER, CHIP EMI	
FL3201	1-239-899-21	FILTER, CHIP EMI	
FL3203	1-239-899-21	FILTER, CHIP EMI	
FL3206	1-239-899-21	FILTER, CHIP EMI	
FL3301	1-239-899-21	FILTER, CHIP EMI	
FL3302	1-239-899-21	FILTER, CHIP EMI	
FL3307	1-239-899-21	FILTER, CHIP EMI	
FL3309	1-239-899-21	FILTER, CHIP EMI	
FL3310	1-239-899-21	FILTER, CHIP EMI	
FL3311	1-239-899-21	FILTER, CHIP EMI	
FL3401	1-239-899-21	FILTER, CHIP EMI	
FL3402	1-239-899-21	FILTER, CHIP EMI	
FL3403	1-239-899-21	FILTER, CHIP EMI	
		< IC >	
IC3101	8-759-398-17	IC MC74HC04ADR2	
IC3102	8-759-560-76	IC 74LV08D-118	
IC3103	8-759-590-03	IC AVIA-GTX-PCO	
IC3112	8-759-378-26	IC ST24C16FM6-TR	
IC3113	8-759-542-02	IC KM416V1204CT-6	
IC3114	8-759-542-02	IC KM416V1204CT-6	
IC3115	8-759-271-86	IC TC7SH04FU	
IC3117	8-759-394-05	IC TC7SH08F-TE85R	
IC3118	8-759-544-28	IC MK2720STR	
IC3119	8-759-542-07	IC 74LV244D-118	
IC3120	8-759-394-05	IC TC7SH08F-TE85R	
IC3201	8-759-701-39	IC NJM3404AM	
IC3202	8-759-485-02	IC SAA7120H/V1	
IC3203	8-759-491-20	IC PCM1725U	
IC3204	8-759-492-07	IC 74LV86D-118	
IC3205	8-759-587-87	IC SAA7201H/C3	
IC3206	8-759-492-08	IC 74LV164D-118	
IC3207	8-759-470-99	IC TMS626162-DGE	
IC3208	8-759-991-41	IC LM78L05ACZ	
IC3209	8-759-394-05	IC TC7SH08F-TE85R	
IC3301	8-759-342-60	IC PST575DMT-T1	
IC3304	8-759-542-02	IC KM416V1204CT-6	
IC3307	8-759-542-02	IC KM416V1204CT-6	
IC3308	8-759-539-09	IC MCF5206EFT25	
IC3310	8-759-561-60	IC MBM29LV160B-90PTFN	
IC3312	8-759-542-03	IC 74LV11D-118	
IC3313	8-759-492-09	IC 74LV00D-118	
IC3315	8-759-577-89	IC 74LV273D-118	
IC3316	8-759-542-08	IC 74LV373D-118	
IC3317	8-759-542-07	IC 74LV244D-118	
IC3318	8-759-560-75	IC 74LV157D-118	
IC3320	8-759-492-09	IC 74LV00D-118	
IC3321	8-759-271-86	IC TC7SH04FU	
IC3402	8-759-542-07	IC 74LV244D-118	
IC3403	8-759-542-06	IC 74LV245D-118	
IC3404	8-759-542-07	IC 74LV244D-118	
IC3405	8-759-542-07	IC 74LV244D-118	
IC3406	8-752-394-14	IC CXD1957Q-TL	
IC3407	8-759-542-07	IC 74LV244D-118	
IC3408	8-759-542-07	IC 74LV244D-118	
IC3409	8-759-542-07	IC 74LV244D-118	
IC3410	8-759-542-07	IC 74LV244D-118	
IC3411	8-759-542-07	IC 74LV244D-118	
IC3412	*8-759-346-63	IC MIC2560-0BWM-T&R	
IC3413	8-759-271-86	IC TC7SH04FU	
IC3416	8-759-234-77	IC TC4S66F	

REF. NO.	PART NO.	DESCRIPTION			REMARK
		< TRANSISTOR >			
Q3101	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q3201	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3202	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q3301	8-729-106-60	TRANSISTOR 2SB1115A-YQ			
Q3302	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q3303	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q3401	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q3402	1-801-806-11	TRANSISTOR DTC144EKA-T146			
		< RESISTOR >			
R3102	1-216-025-91	RES, CHIP	100	5%	1/10W
R3103	1-216-025-91	RES, CHIP	100	5%	1/10W
R3105	1-216-025-91	RES, CHIP	100	5%	1/10W
R3107	1-216-025-91	RES, CHIP	100	5%	1/10W
R3108	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3109	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3110	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3111	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3112	1-216-025-91	RES, CHIP	100	5%	1/10W
R3113	1-216-025-91	RES, CHIP	100	5%	1/10W
R3114	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3115	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3116	1-216-295-91	SHORT	0		
R3117	1-216-295-91	SHORT	0		
R3120	1-216-025-91	RES, CHIP	100	5%	1/10W
R3121	1-216-017-91	RES, CHIP	47	5%	1/10W
R3122	1-216-017-91	RES, CHIP	47	5%	1/10W
R3124	1-216-017-91	RES, CHIP	47	5%	1/10W
R3125	1-216-295-91	SHORT	0		
R3126	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3128	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3129	1-216-295-91	SHORT	0		
R3130	1-216-295-91	SHORT	0		
R3132	1-216-017-91	RES, CHIP	47	5%	1/10W
R3133	1-216-017-91	RES, CHIP	47	5%	1/10W
R3134	1-216-017-91	RES, CHIP	47	5%	1/10W
R3135	1-216-017-91	RES, CHIP	47	5%	1/10W
R3136	1-216-295-91	SHORT	0		
R3138	1-216-295-91	SHORT	0		
R3141	1-216-025-91	RES, CHIP	100	5%	1/10W
R3142	1-216-025-91	RES, CHIP	100	5%	1/10W
R3143	1-216-025-91	RES, CHIP	100	5%	1/10W
R3144	1-216-025-91	RES, CHIP	100	5%	1/10W
R3145	1-216-025-91	RES, CHIP	100	5%	1/10W
R3146	1-216-025-91	RES, CHIP	100	5%	1/10W
R3147	1-216-025-91	RES, CHIP	100	5%	1/10W
R3148	1-216-025-91	RES, CHIP	100	5%	1/10W
R3149	1-216-025-91	RES, CHIP	100	5%	1/10W
R3150	1-216-025-91	RES, CHIP	100	5%	1/10W
R3151	1-216-017-91	RES, CHIP	47	5%	1/10W
R3154	1-216-025-91	RES, CHIP	100	5%	1/10W
R3155	1-216-025-91	RES, CHIP	100	5%	1/10W
R3156	1-216-025-91	RES, CHIP	100	5%	1/10W
R3157	1-216-025-91	RES, CHIP	100	5%	1/10W
R3158	1-216-025-91	RES, CHIP	100	5%	1/10W
R3159	1-216-025-91	RES, CHIP	100	5%	1/10W
R3160	1-216-025-91	RES, CHIP	100	5%	1/10W
R3161	1-216-025-91	RES, CHIP	100	5%	1/10W
R3201	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R3202	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R3203	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R3204	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R3205	1-216-043-91	RES, CHIP	560	5%	1/10W
R3206	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R3207	1-216-073-00	RES, CHIP	10K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3208	1-216-689-11	RES, CHIP	39K	5%	1/10W
R3209	1-216-689-11	RES, CHIP	39K	5%	1/10W
R3210	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R3211	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3212	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3213	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3214	1-216-295-91	SHORT	0		
R3215	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3216	1-216-061-00	RES, CHIP	3.3K	5%	1/10W
R3217	1-216-025-91	RES, CHIP	100	5%	1/10W
R3218	1-216-025-91	RES, CHIP	100	5%	1/10W
R3219	1-216-025-91	RES, CHIP	100	5%	1/10W
R3220	1-216-025-91	RES, CHIP	100	5%	1/10W
R3222	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3223	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3224	1-216-061-00	RES, CHIP	3.3K	5%	1/10W
R3226	1-216-017-91	RES, CHIP	47	5%	1/10W
R3227	1-216-295-91	SHORT	0		
R3228	1-216-022-00	RES, CHIP	75	5%	1/10W
R3229	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3230	1-216-025-91	RES, CHIP	100	5%	1/10W
R3231	1-216-025-91	RES, CHIP	100	5%	1/10W
R3232	1-216-025-91	RES, CHIP	100	5%	1/10W
R3233	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3234	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3235	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3237	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3238	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3239	1-216-025-91	RES, CHIP	100	5%	1/10W
R3240	1-216-025-91	RES, CHIP	100	5%	1/10W
R3241	1-216-025-91	RES, CHIP	100	5%	1/10W
R3244	1-216-017-91	RES, CHIP	47	5%	1/10W
R3245	1-216-017-91	RES, CHIP	47	5%	1/10W
R3246	1-216-017-91	RES, CHIP	47	5%	1/10W
R3301	1-216-025-91	RES, CHIP	100	5%	1/10W
R3302	1-216-025-91	RES, CHIP	100	5%	1/10W
R3303	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3304	1-216-295-91	SHORT	0		
R3305	1-216-025-91	RES, CHIP	100	5%	1/10W
R3306	1-216-025-91	RES, CHIP	100	5%	1/10W
R3307	1-216-025-91	RES, CHIP	100	5%	1/10W
R3309	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3310	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3311	1-216-043-91	RES, CHIP	560	5%	1/10W
R3313	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3315	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3327	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3328	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3329	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3330	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3331	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3332	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3333	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3338	1-216-295-91	SHORT	0		
R3339	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3340	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3341	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3342	1-216-295-91	SHORT	0		
R3343	1-216-295-91	SHORT	0		
R3346	1-216-025-91	RES, CHIP	100	5%	1/10W
R3347	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3348	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3349	1-216-017-91	RES, CHIP	47	5%	1/10W
R3350	1-216-295-91	SHORT	0		
R3351	1-216-295-91	SHORT	0		
R3352	1-216-295-91	SHORT	0		
R3354	1-216-295-91	SHORT	0		
R3355	1-216-295-91	SHORT	0		

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3357	1-216-295-91	SHORT	0		
R3359	1-216-295-91	SHORT	0		
R3361	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3362	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3401	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3402	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3403	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3404	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3405	1-216-081-00	RES, CHIP	22K	5%	1/10W
R3406	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3408	1-216-295-91	SHORT	0		
R3410	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3411	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3412	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3416	1-216-017-91	RES, CHIP	47	5%	1/10W
R3417	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3418	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3419	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3420	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3421	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3422	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3423	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3424	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3425	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3426	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3427	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3428	1-216-017-91	RES, CHIP	47	5%	1/10W
R3430	1-216-295-91	SHORT	0		

< RESISTOR CHIP NETWORK >

RB3105	1-233-575-11	RES, CHIP	NETWORK 22
RB3106	1-233-575-11	RES, CHIP	NETWORK 22
RB3107	1-233-575-11	RES, CHIP	NETWORK 22
RB3108	1-233-575-11	RES, CHIP	NETWORK 22
RB3110	1-233-575-11	RES, CHIP	NETWORK 22
RB3111	1-233-575-11	RES, CHIP	NETWORK 22
RB3112	1-233-575-11	RES, CHIP	NETWORK 22
RB3113	1-233-575-11	RES, CHIP	NETWORK 22
RB3114	1-233-575-11	RES, CHIP	NETWORK 22
RB3115	1-233-575-11	RES, CHIP	NETWORK 22
RB3116	1-233-575-11	RES, CHIP	NETWORK 22
RB3117	1-233-575-11	RES, CHIP	NETWORK 22
RB3118	1-233-575-11	RES, CHIP	NETWORK 22
RB3119	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3120	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3201	1-233-575-11	RES, CHIP	NETWORK 22
RB3202	1-233-575-11	RES, CHIP	NETWORK 22
RB3203	1-233-575-11	RES, CHIP	NETWORK 22
RB3204	1-233-575-11	RES, CHIP	NETWORK 22
RB3205	1-233-575-11	RES, CHIP	NETWORK 22
RB3206	1-233-575-11	RES, CHIP	NETWORK 22
RB3207	1-233-575-11	RES, CHIP	NETWORK 22
RB3208	1-233-575-11	RES, CHIP	NETWORK 22
RB3209	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3210	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3301	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3302	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3303	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3304	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3305	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3306	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3307	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3308	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3309	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3310	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3311	1-239-409-11	RES, CHIP	NETWORK 47 (3216)

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

N

REF. NO.	PART NO.	DESCRIPTION	REMARK
RB3312	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3313	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3314	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3315	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3316	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3317	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3319	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3320	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
RB3321	1-239-409-11	RES, CHIP	NETWORK 47 (3216)
	< CRYSTAL >		
X3102	1-781-212-21	VIBRATOR, CRYSTAL	

****

MISCELLANEOUS
****

	⚠1-223-925-31	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)	
	⚠1-451-455-11	DEFLECTION YOKE	
	⚠1-451-455-41	DEFLECTION YOKE	
	⚠1-452-790-11	NECK ASSY	
	⚠1-452-909-31	MAGNETASSY, 4 POLE	
	1-528-864-11	BATTERY, SOLAR	
	1-529-524-11	SPEAKER (12 CM)	
	⚠1-765-286-11	CORD, POWER (EXCEPT 41DS1U)	
	⚠1-776-860-11	POWER CORD, FILTER (UK) (41DS1U)	
	⚠1-453-331-11	FBT ASSY NX-4012//M	
	⚠8-598-955-12	BLOCK ASSY, HIGH-VOLTAGE	
	⚠A-1678-183-A	MECHASEAL ASSY (R)	
	⚠A-1678-184-A	MECHASEAL ASSY (G)	
	⚠A-1678-185-A	MECHASEAL ASSY (B)	

****

ACCESSORIES&PACKING MATERIALS
****

*	3-704-356-01	SHEET (STANDARD), PROTECTION	
*	4-030-594-11	BAG, PROTECTION	
*	4-030-895-01	JOINT	
*	4-205-108-01	INDIVIDUAL CARTON	
*	4-205-109-01	TRAY	
*	4-205-110-01	TOP, BOARD	
*	4-205-111-01	CUSHION UPPER ASSY	
*	4-205-112-01	CUSHION LOWER ASSY	
*	4-205-113-01	CUSHION FRONT ASSY	
	4-205-137-61	MANUAL, INSTRUCTION (ENGLISH) (41DS1U)	
	4-205-149-11	MANUAL, INSTRUCTION (ENGLISH, GERMAN, ITALIAN, GREEK) (41PZ1D)	
	4-205-149-51	MANUAL, INSTRUCTION (FRENCH, GERMAN, ITALIAN, DUTCH) (41PZ1B)	
	4-205-149-81	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE, DANISH, NORWEGIAN, SWEDISH, FINNISH) (41PZ1E)	
	X-4200-550-1	FOOT ASSY, SAFETY	

****

REMOTE COMMANDER
****

1-418-572-11	REMOTE COMMANDER (RM-892)	