

Service Service Service

Service Information

In this service information you will find corrections on the A10E service manual (3122 785 10430) and information on new items.

Corrections

- See attached '*Errata Sheet*' for an overview of the errors and its corrections.
- *Chapter 8 Electrical Alignments*, as given in the A10E Service Manual, was not complete. Attached find a new corrected version.
- Pin numbering on LSP silkscreen is not correct. All pins (except 1, 2, 79 and 80) are shifted one position to the right. This means for instance that pin 20 is in fact pin 18, pin 19 is pin 17, pin 40 is pin 38, etc.

New

- During production, the following new panels are introduced:
 - A new LSP panel. The diagram, print layout and parts list are given in this document.
 - A new CRT panel. The diagram, print layout and parts list are given in this document.
- After the layout change of the LSP, the set can not be forced into Service Default Mode (SDM) anymore by shorting the jumper wires 9261 and 9262. This because position nr. 3286 was added (see attached diagram A4, location F9), but is not used. Therefor point 9261 is floating. A possible service solution is:
 - Place a resistor of 1k8 (4822 051 20182) on pos. 3286. Now, the SDM can be reached via the 'normal' method.
- A special '*service extension board*' for the A10 Small Signal Board (SSB) has been introduced under nr. 9965 000 07933.
Note: This version is not the same as used for the EMG sets !

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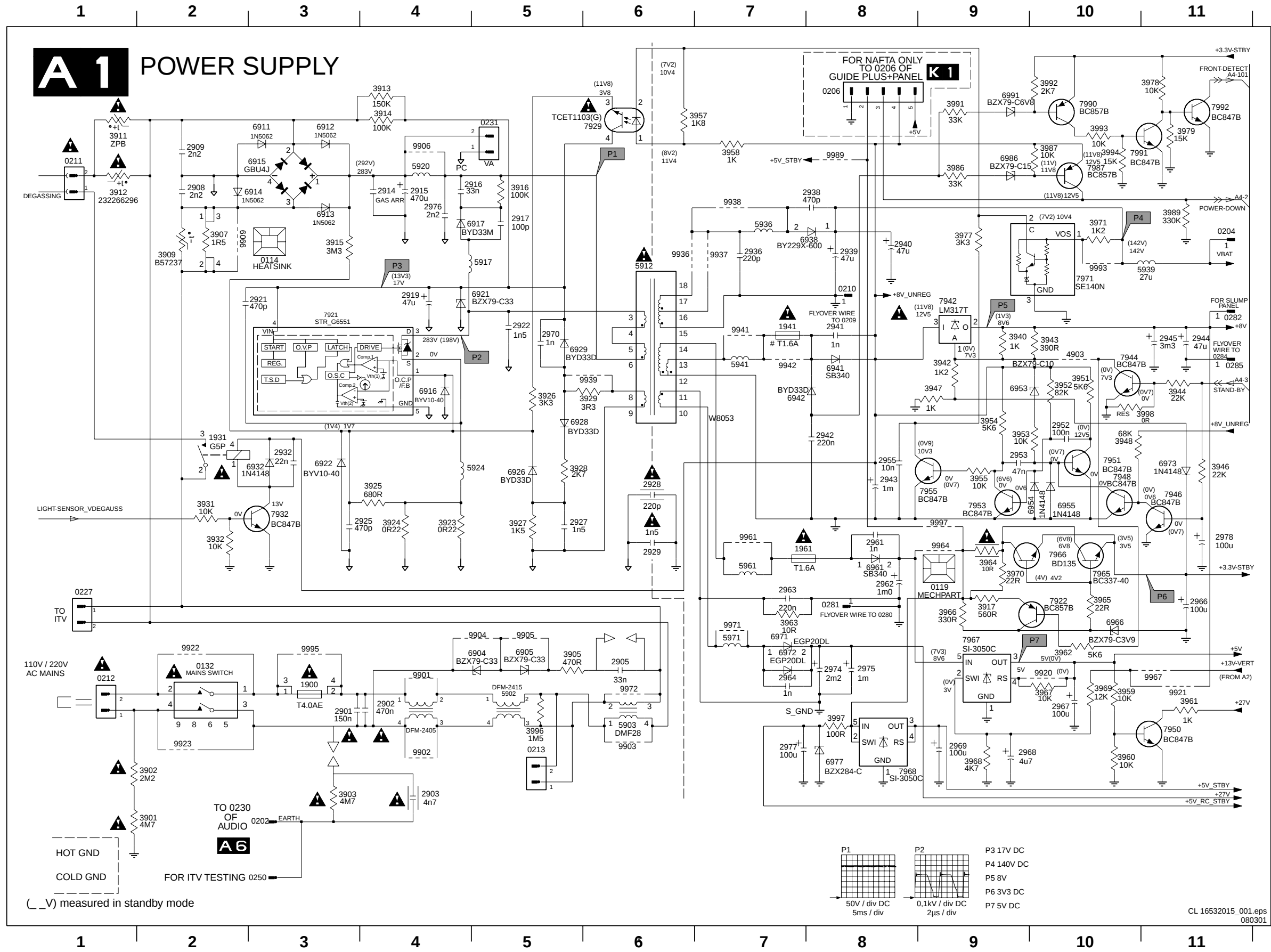
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ERRATA SHEET

<u>Subject (page)</u>	<u>Location</u>	<u>Correction</u>	
		Present situation	Corrected situation
Chapter 1 (2)	1.1.1 Reception		Add NTSC
	Stdbby consumpt.	<= 3 W	< 3 W
	1.2.2 EXT2	10-	10- Easy link
Overviews (26)	SSB comp. side	Testpoint V2 at pin 26 of IC7301	Testpoint V2 at pin 54 of IC7301
	IC overview	IC overview	I ² C overview
Diagram A1 (28)	B1	Degassing coil	Degaussing coil
Diagram A4 (31)	A3	To 0226 of SSB-connector [C6]	To 0226 of SSB-connector [C8]
	E1	A6-31	A6-30
	G2	A6-34 'AUDIO-C'	A6-34 ' AUDIO-SURR '
	G5	A6-51 'AUDIO-SURR'	A6-51 ' AUDIO-C '
Diagram A6 (33)	G2	A4-34 'AUDIO-C'	A4-34 ' AUDIO-SURR '
	H2	A4-51 'AUDIO-SURR'	A4-51 ' AUDIO-C '
Diagram C2 (41)	C1	C2-78	C1 -78
Diagram C4 (44)	D7	Internal circuit 7064 is wrong	See A10E-DPL manual page 29
	F10	To memory [C4]	To memory [C5]
	H1/H2	To SSB connector [C7]	To SSB connector [C8]
Diagram C6 (45)	D11	'AUDIO-SURR' C8-56	' AUDIO-C ' C8-56
	D11	'AUDIO-C' C8-57	' AUDIO-SURR ' C8-57
Diagram C8 (47)	F2	C6-56 'AUDIO-SURR'	C6-56 ' AUDIO-C '

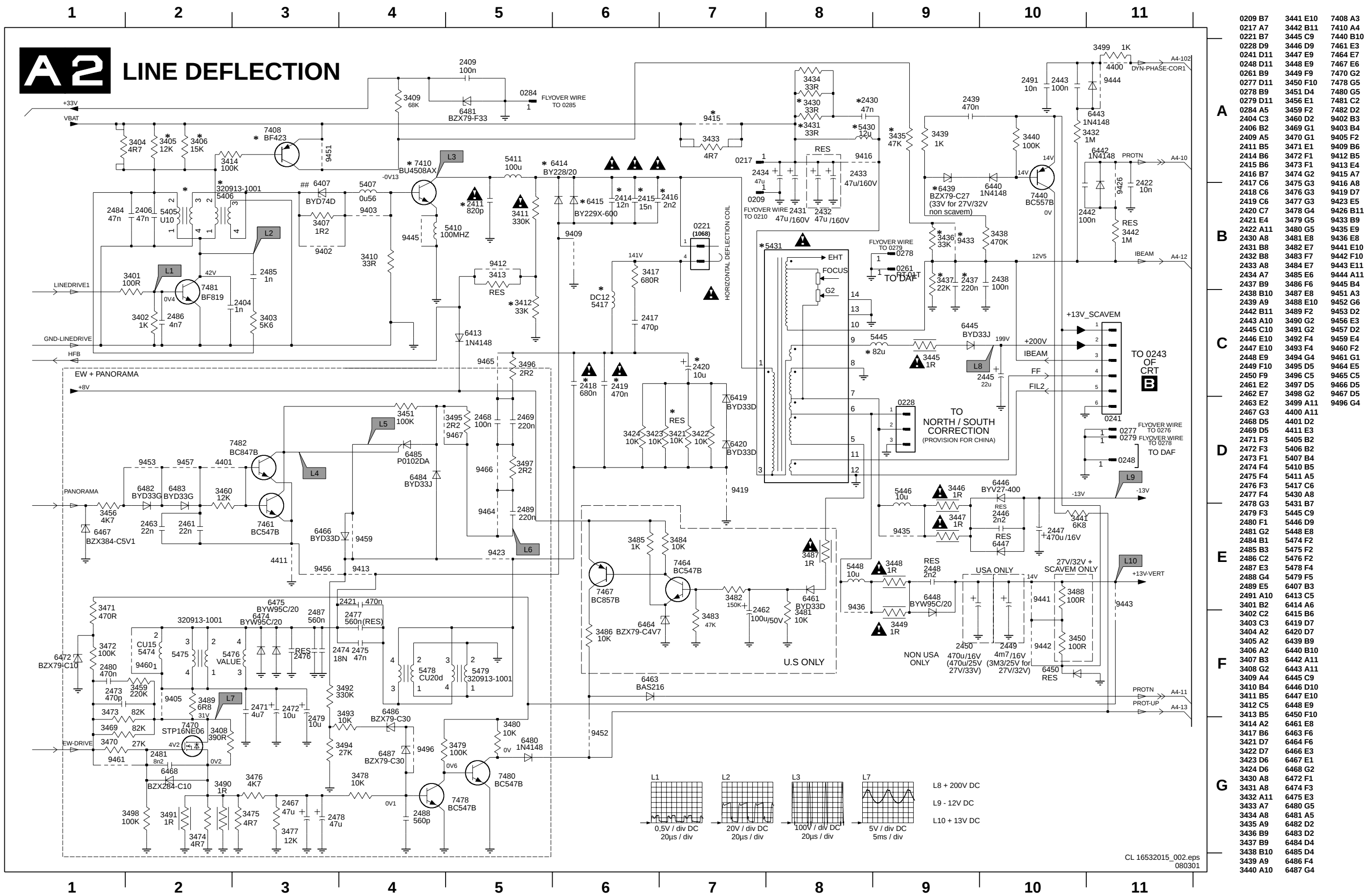
Schematics And PWB's

Power Supply



0114 C3	3954 D9	9905 F5
0119 F9	3955 E9	9906 B4
0132 F2	3957 A7	9909 B2
0202 H3	3958 B7	9920 F10
0204 B11	3959 F10	9921 F11
0206 A8	3960 G10	9922 F2
0210 C8	3961 F11	9923 G2
0211 B1	3962 F10	9936 B6
0212 F1	3963 F7	9937 B7
0213 G5	3964 E9	9938 B7
0227 F1	3965 F10	9939 D6
0231 A5	3966 F9	9941 C7
0250 H3	3967 F10	9942 D7
0281 F8	3968 G9	9961 E7
0282 C11	3969 F10	9964 E9
0285 D11	3970 E9	9967 F11
1900 F3	3971 B10	9971 F7
1931 D2	3977 B9	9972 F6
1941 C7	3978 A11	9989 B8
1961 E7	3979 A11	9993 C10
2901 G3	3986 B9	9995 F3
2902 G4	3987 B10	
2903 G4	3989 B11	
2905 F6	3991 A9	
2908 B2	3992 A10	
2909 B2	3993 A10	
2914 B4	3994 B10	
2915 B4	3996 G5	
2916 B5	3997 G8	
2917 B5	3998 D11	
2919 C4	4903 C10	
2921 C3	5902 F5	
2922 C5	5903 G6	
2925 E4	5912 C6	
2927 E5	5917 C5	
2928 E6	5920 B4	
2929 E6	5924 D5	
2932 D3	5936 B7	
2936 B7	5939 C11	
2938 B8	5941 D7	
2939 B8	5961 E7	
2940 B8	5971 F7	
2941 C8	6904 F5	
2942 D8	6905 F5	
2943 E8	6911 A3	
2944 C11	6912 A3	
2945 C11	6913 B3	
2952 D10	6914 B3	
2953 D9	6915 B3	
2955 D8	6916 D4	
2961 E8	6917 B5	
2962 E8	6921 C5	
2963 F7	6922 D3	
2964 F7	6926 D5	
2966 F11	6928 D5	
2967 G10	6929 C5	
2968 G9	6932 D3	
2969 G9	6938 B8	
2970 C5	6941 D8	
2974 F8	6942 D7	
2975 F8	6953 D9	
2976 B4	6954 E10	
2977 G7	6955 E10	
2978 E11	6961 E8	
3901 H2	6966 F10	
3902 G2	6971 F7	
3903 G3	6972 F7	
3905 F5	6973 D11	
3907 B2	6977 G8	
3909 B2	6986 B9	
3911 A1	6991 A9	
3912 B1	7921 C3	
3913 A4	7922 F10	
3914 A4	7929 A6	
3915 B3	7932 C3	
3916 B5	7942 C9	
3917 F9	7944 C10	
3923 E4	7946 E11	
3924 E4	7948 E10	
3925 E4	7950 G11	
3926 D5	7951 D10	
3927 E5	7953 E9	
3928 D5	7955 E9	
3929 D6	7965 E10	
3931 E2	7966 E10	
3932 E2	7967 F9	
3940 C9	7968 G8	
3942 D9	7971 C10	
3943 C10	7987 B10	
3944 D11	7990 A10	
3946 D11	7991 B10	
3947 D9	7992 A11	
3948 D10	9901 F4	
3951 D10	9902 G4	
3952 D10	9903 G6	
3953 D9	9904 F5	

Line Deflection



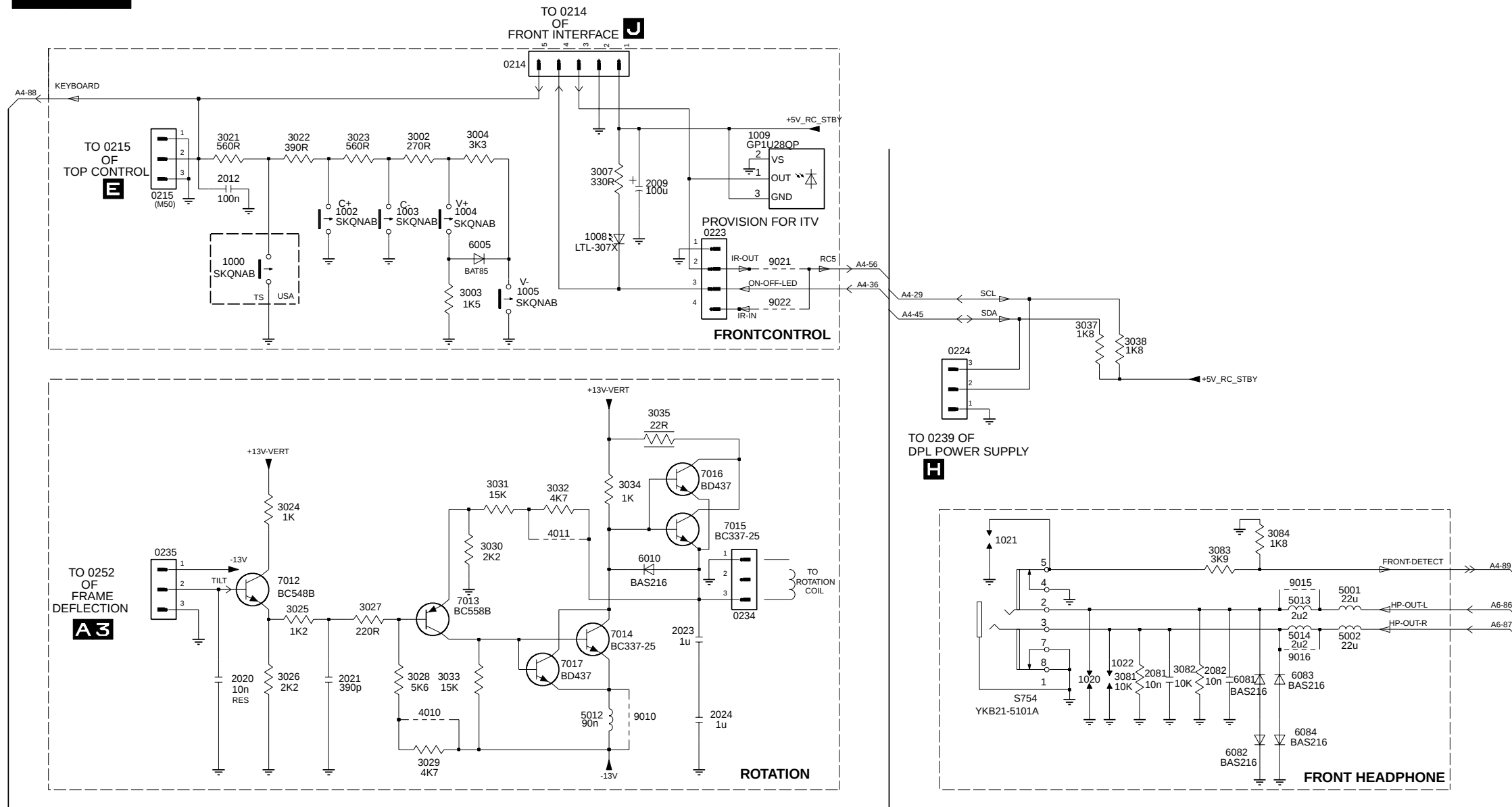
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A

A 7 FRONT CONTROL / ROTATION / HEADPHONE



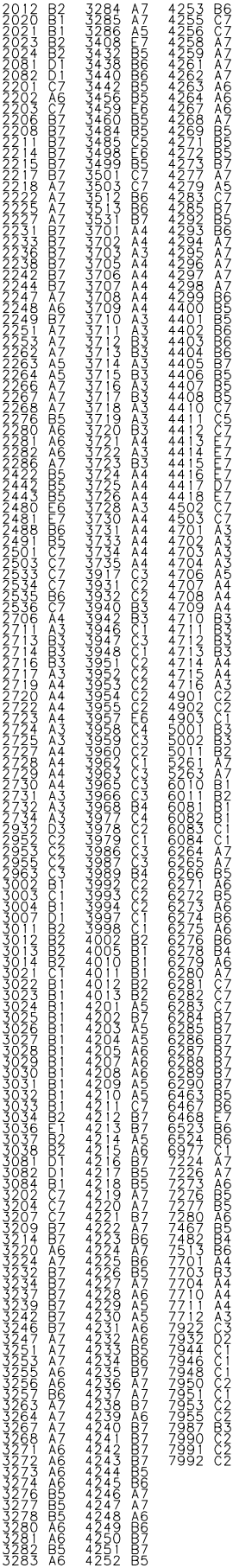
0214 B5
0215 B2
0223 C6
0224 D8
0234 E6
0235 E2
1000 C3
1002 C4
1003 C4
1004 C4
1005 C5
1008 C5
2009 B7
1020 F9
1021 E8
1022 F9
2009 B6
2012 B3
2020 F3
2021 F4
2023 F6
2024 F6
2081 F9
2082 F10
3002 B4
3003 C5
3004 B5
3007 B5
3021 B3
3022 B3
3023 B4
3024 E3
3025 E3
3026 F3
3027 E4
3028 F4
3029 F4
3030 E5
3031 D5
3032 E5
3033 F4
3034 D6
3037 C9
3038 C9
3081 F9
3082 F10
3083 E10
3084 E10
4010 F4
4011 E5
5001 E11
5002 F11
5012 F5
5013 E10
5014 F10
6005 C5
6010 E6
6081 F10
6082 F10
6083 F10
6084 F10
7012 E3
7013 E4
7014 F6
7015 E6
7016 D6
7017 F5
9010 F6
9015 E10
9016 F10
9021 C7
9022 C7
S754 F9

Mapping LSP (Top View)

Mapping LSP (Bottom View)



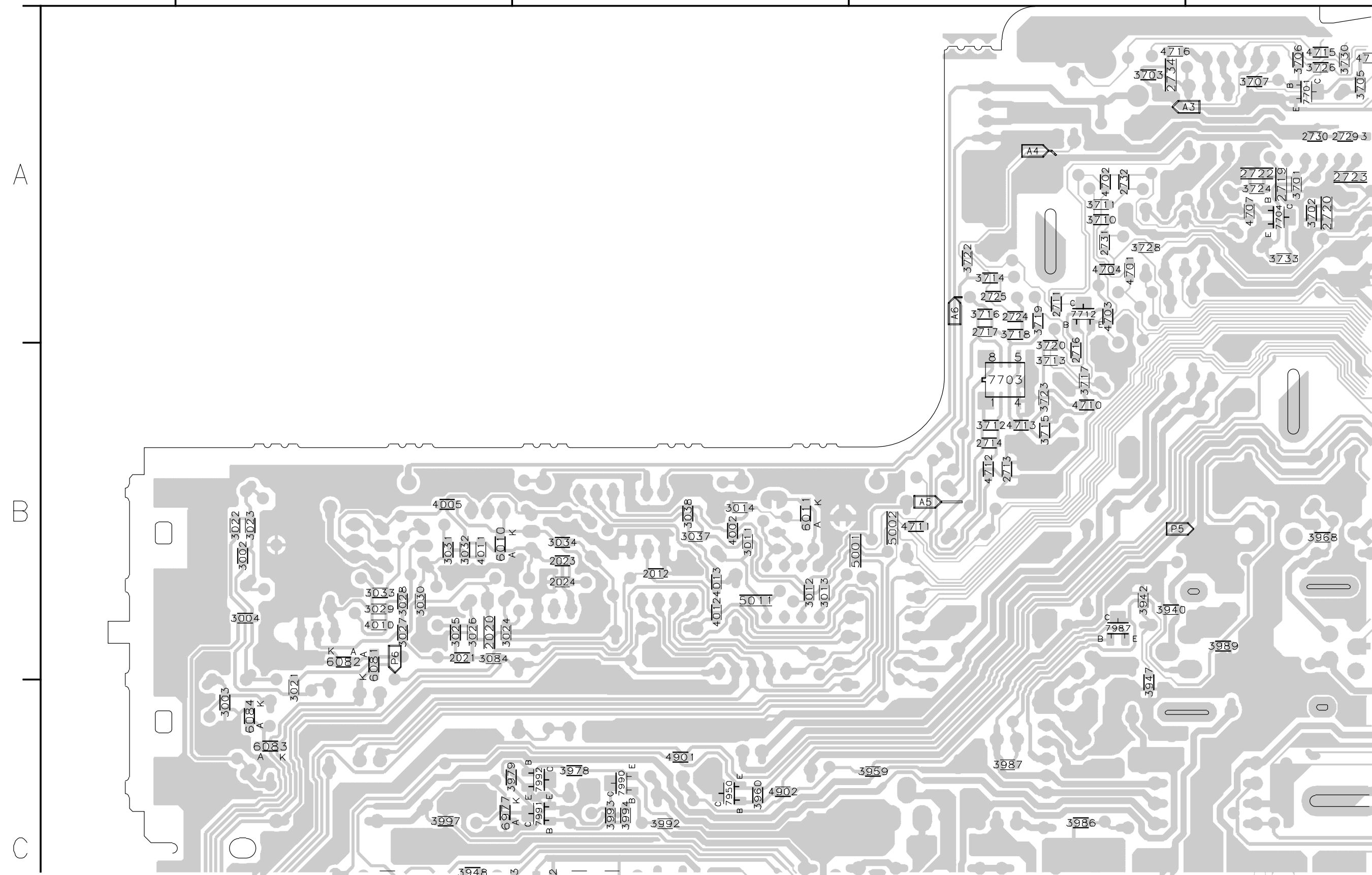
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CL 16532015_m07.eps
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CL 16532015_007.eps
270401

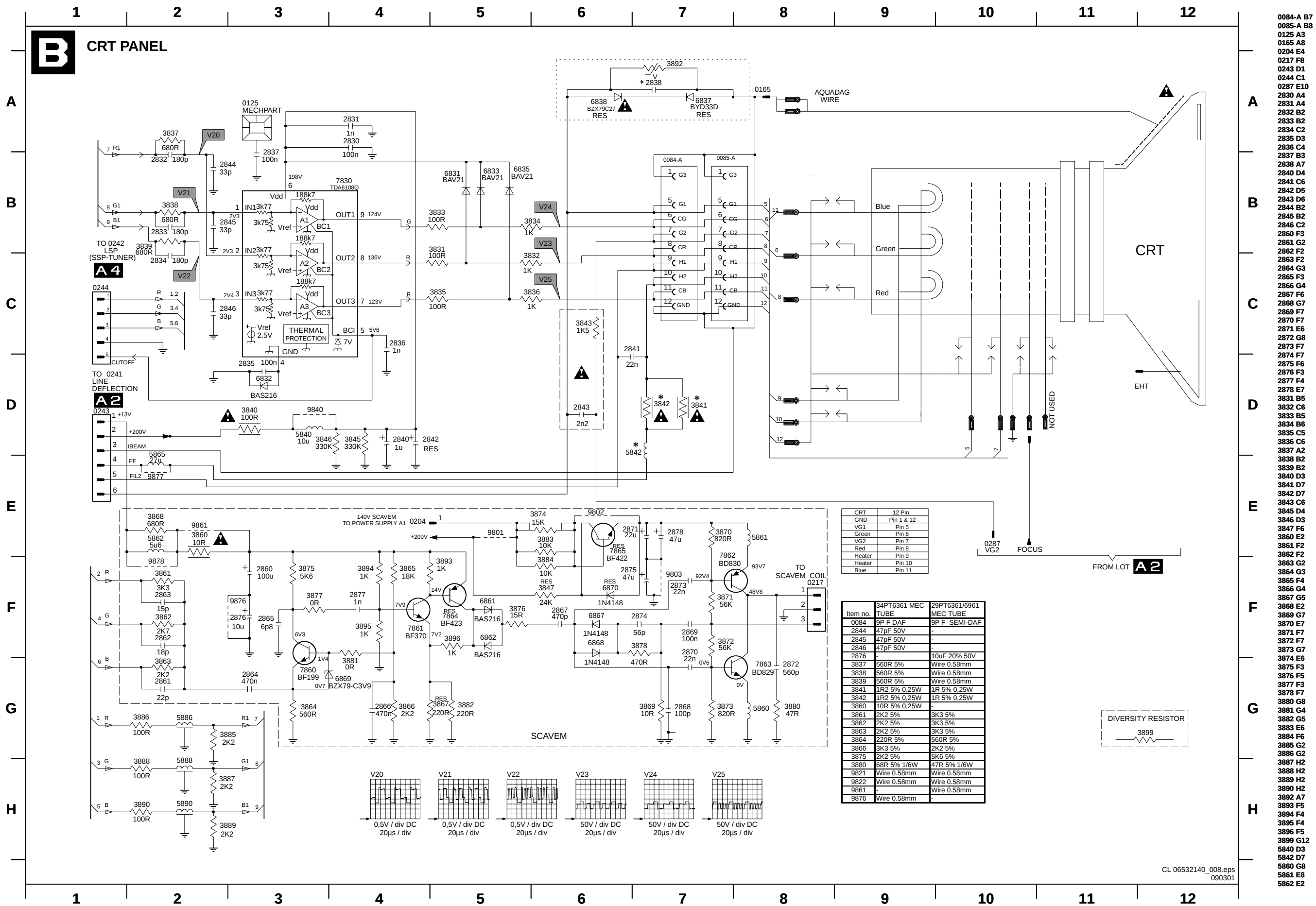
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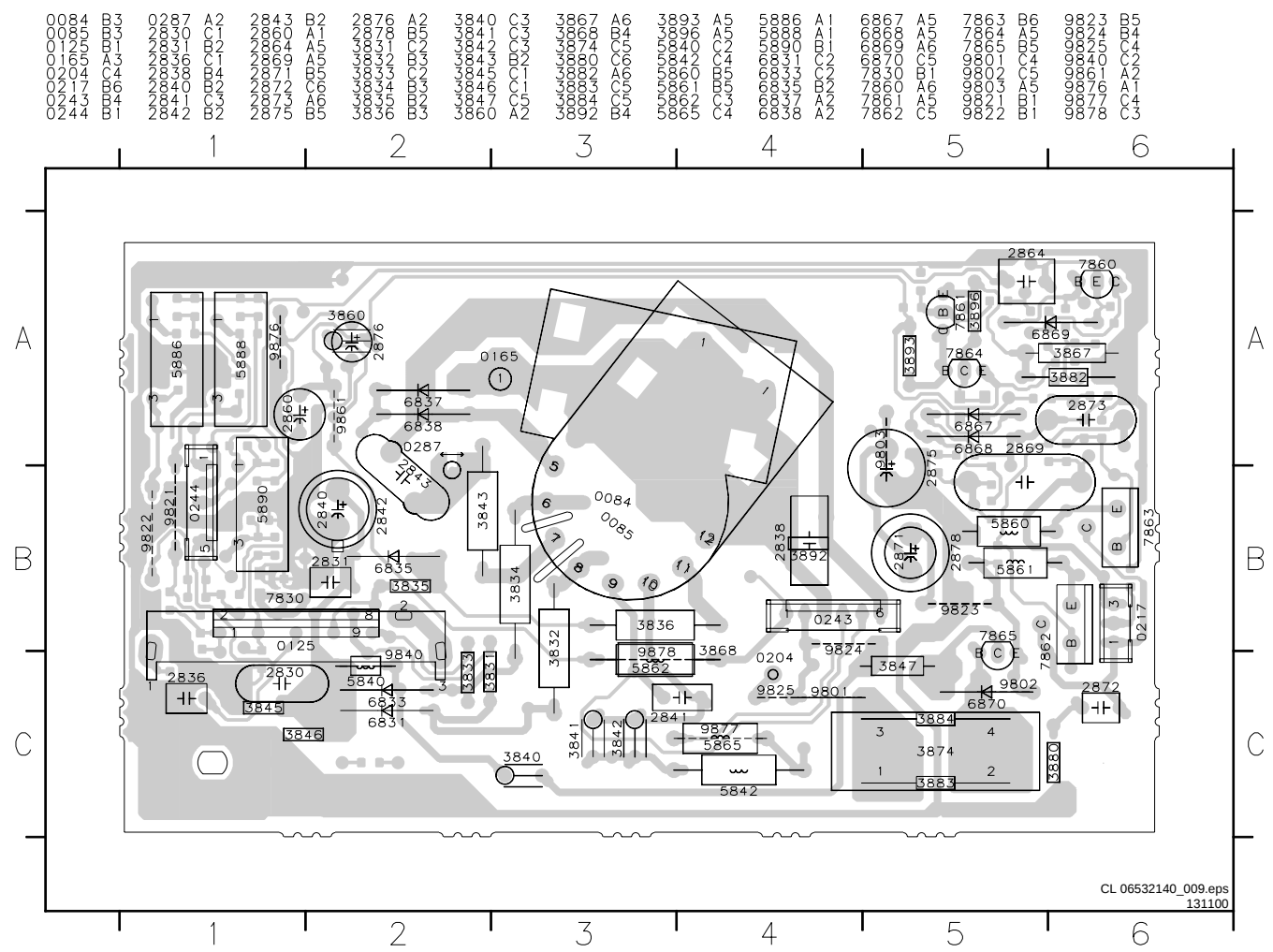
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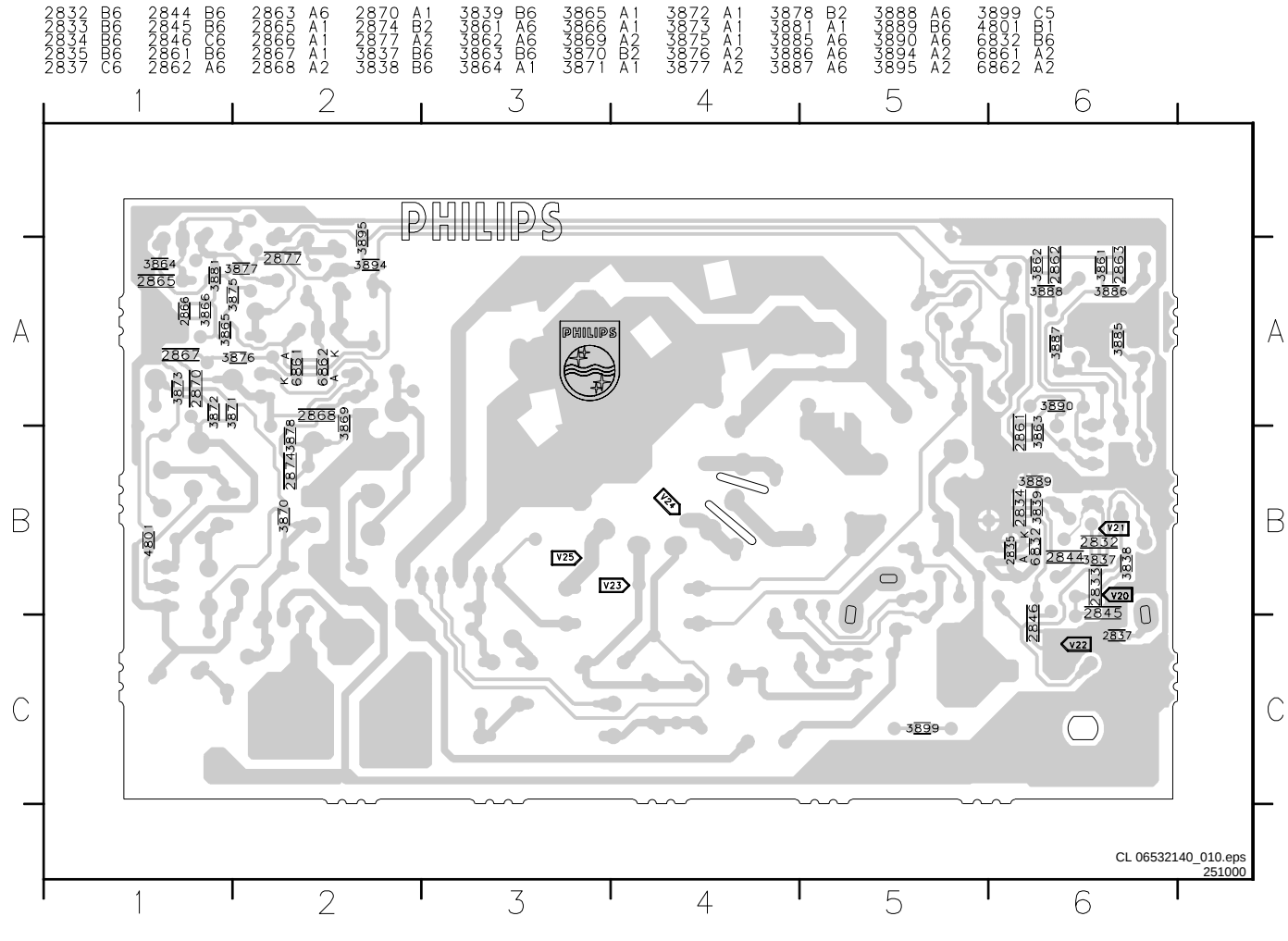
CRT Panel



Layout CRT Panel (Top View)



Layout CRT Panel (Bottom View)



Alignments

Note: The Service Default Mode (SDM) and Service Alignment Mode (SAM) are described in chapter 5.

General Alignment conditions

All electrical adjustments should be performed under the following conditions:

- Supply voltage: 220 V ($\pm 10\%$); 50 Hz ($\pm 5\%$).
- Warm-up time: ≈ 20 minutes.
- The voltages and oscillograms are measured in relation to the tuner earth (with exception of the voltages on the primary side of the power supply). Never use the cooling fins / plates as ground.
- Test probe: $R_i > 10\text{ M}\Omega$; $C_i < 2.5\text{ pF}$.
- Use an **isolated** trimmer / screwdriver for the alignments.

Electrical Alignments

Vg2

Rough Method

Using a pattern-generator displaying a black pattern.

1. Set CONTRAST to 0.
2. Set BRIGHTNESS to minimum in a black room (OSD still visible). Select any of the AV-sources.
3. Go to the SAM.
4. Set VSD to ON.
5. Adjust the Vg2 potmeter of the LOT until the horizontal line is just visible.
6. Set VSD to OFF.
7. Exit SAM.

Accurate Method

1. Activate the SAM-menu (see A10A manual chapter 5.2.2). Go to the sub-menu 'WHITE TONE' and adjust the value of NORMAL RED, GREEN and BLUE to 40 (or 42 for 29" RF).
2. Go, via the MENU key, temporarily to the normal user menu and set the values of BRIGHTNESS and CONTRAST to minimum (OSD just visible).
3. Return to the SAM-menu via the MENU-key. Disable the black current loop by changing 'AKB' to 'OFF'.
4. Connect the RF-output of the pattern generator to the antenna-input. Test pattern is a 'black' pattern (blank screen on CRT **without** any OSD info).
Set the time base of the oscilloscope to 0.5 ms with external triggering on the vertical pulse. Measure the black level pulse during the vertical flyback at the RGB cathodes of the CRT.

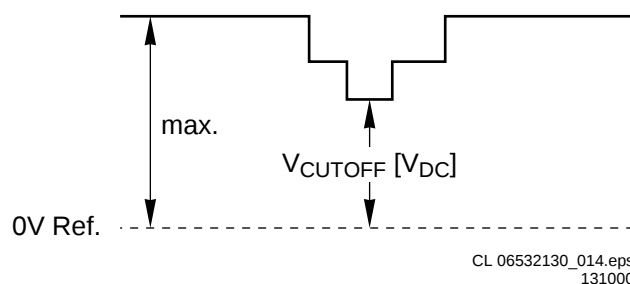


Figure 1

Adjust V_{cutoff} of the highest of the three guns (with the Vg2 potmeter of the LOT) to:

- 160 V_{DC} for 24", 25" and 28" BLD WS sets,
- 165 V_{DC} for 28"/32" BLSW, 28" RFW and 29" RF sets.

Focus

1. Tune the set to a circle or crosshatch test pattern (use an external video pattern generator).
2. Adjust the Focus potmeter until the vertical lines at 2/3 from east and west, at the height of the centre line, are of minimum width without visible haze.

Alignments And Settings In The SAM.

General

With the software alignments of the Service Alignment Mode the Tuner, White tone, Geometry, Sound and Smart Settings can be aligned. Put the set in the SAM mode. The SAM menu will now appear on the screen (see A10A manual chapter 5). Menu navigation is done with the 'CURSOR UP, DOWN, LEFT or RIGHT' keys of the RC-handset.

Tuner (Large Signal Panel And Double Window)

IF PLL OFFSET And AFC WINDOW

No adjustments needed for these alignments. The default values for these options are:

- IF PLL OFFSET: 32
- AFC WINDOW: 100 kHz

AGC

Set an external pattern generator (e.g. PM5418) to a grey scale video signal and connect it to the aerial input with RF signal. Set the signal amplitude to at least 1 mV and to a frequency of 475.25 MHz for PAL.

1. Activate the SAM-menu. Go to the sub-menu TUNER, select the sub-menu option AFC WINDOW and adjust the value to 100kHz.
2. Select the AGC sub-menu.
3. Connect a DC multi-meter to pin 1 of the tuner (1225).
4. Adjust the AGC until the voltage at pin 1 of the tuner is within 2.5 V < AGC takeover voltage < 3.8 V.
5. The value can be incremented or decremented by pressing the RIGHT/LEFT cursor keys on the RC.
6. Switch the set to standby.

White Tone

In the WHITE TONE sub menu, the colour temperature values can be changed.

The colour temperature mode (NORMAL, DELTA COOL, DELTA WARM) and the colour (R, G, B) can be selected with the UP/DOWN cursor keys. The mode or value can be changed with the RIGHT/LEFT cursor keys.

First set the values for the NORMAL colour temperature. Then set the offset values for the DELTA COOL and DELTA WARM modes.

Following default values can be used:

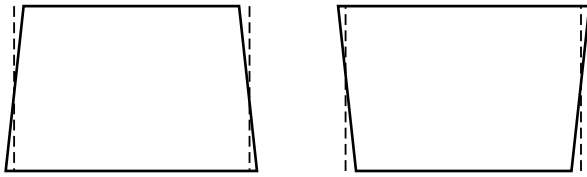
- **NORMAL:**
RED = 32,
GREEN = 32
BLUE = 32.
- **DELTA COOL:**
RED = 0,
GREEN = 2
BLUE = 9.
- **DELTA WARM:**
RED = 0,
GREEN = -3
BLUE = -11.
- CATHODE DR = 7.

Geometry

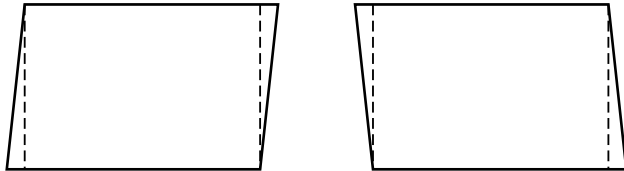
The geometry alignments menu contains several items to align the set, in order to obtain a correct picture geometry.

In widescreen sets, the 'SUPER WIDE' menu is available for separate alignments of the superwide (panorama) mode.

East/West Trapezium



Horizontal Parallel



Horizontal Bow

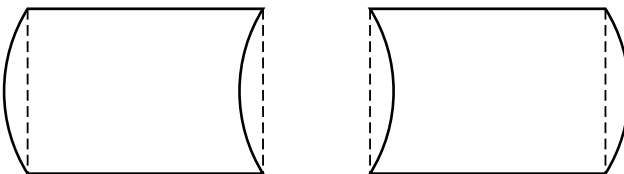
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Figure 2

Initial Set-Up

1. Connect an external video pattern generator (PAL-475.25 MHz) to the aerial input of the TV-set with a crosshatch test pattern.
2. Set SMART PICTURE to NATURAL.
3. Activate the SAM-menu and select GEOMETRY.
4. Set VER.SCOR to value:
 - '8' for 28" WS picture tubes,
 - '13' for 25", 28", 29", 32" and 34" 4:3 picture tubes,
 - '23' for 29" SF picture tubes.
5. Set VER.ZOOM to value:
 - 25 (for widescreens; set in SUPER WIDE mode to 35).

Alignment Sequence

- For all sets:
 1. Set SERV.BLK to ON
 2. Adjust VER.SLOPE
 3. Set SERV.BLK to OFF
 4. Adjust VER.AMPL and VER.SHIFT
 5. Adjust EW.WIDTH and HOR.SHIFT
 6. Adjust EW.PARA
 7. Adjust EW.UCORN and EW.LCORN
 8. Adjust EW.TRAP
 9. Adjust HOR.BOW and HOR.PARALLEL
- For widescreen sets only (go to super wide mode):
 1. Set SERV.BLK to ON
 2. Adjust VER.SLOPE
 3. Set SERV.BLK to OFF
 4. Adjust EW.WIDTH and HOR.SHIFT
 5. Adjust EW.PARA
 6. Adjust EW.UCORN and EW.LCORN
 7. Adjust EW.TRAP
 8. Adjust HOR.BOW and HOR.PARALLEL

Explanation of terminology

- *Service blanking (SERV. BLK)*
Switch the blanking of the lower half of the screen ON/OFF (to be used in combination with the vertical slope alignment).
- *Vertical slope (VER. SLOPE)*

Align the vertical centre of the picture to the vertical centre of the CRT. This is the first alignment to be performed of the vertical alignments. For an easy alignment set SERV.BLK to ON.

- *Vertical S-correction (VER. SCOR)*
Align the vertical linearity, meaning that vertical intervals of a grid-pattern must be equal over the entire height.
- *Vertical amplitude (VER. AMPL)*
Align the picture height so that the complete test pattern is visible. Note that other vertical alignments are not compensated.
- *Vertical shift (VER. SHIFT)*
Align the vertical centering so that the test pattern is located vertically in the middle. Repeat the 'vertical amplitude' alignment if necessary.
- *Horizontal shift (HOR. SHIFT)*
Align the horizontal centre of the picture to the horizontal centre of the CRT.
- *Horizontal parallelogram (HOR. PARALLEL)*
Align straight vertical lines in the top and the bottom; vertical rotation around the centre.
- *East West width (EW. WIDTH)*
Align the picture width until the complete test pattern is visible.
- *East West Upper Corner (EW. UCORN)*
Align straight vertical lines in the upper corners of the screen.
- *East West Lower Corner (EW. LCORN)*
Align straight vertical lines in the lower corners of the screen.
- *East West Trapezium (EW. TRAP)*
Align straight vertical lines in the middle of the screen.
- *East West parabola (EW. PARA)*
Align straight vertical lines at the sides of the screen.
- *Horizontal bow (HOR. BOW)*
Align straight horizontal lines in the top and the bottom; horizontal rotation around the centre.

When a NTSC signal is used on one of the **EXTERNAL** inputs, the following additional alignments can be performed to correct the picture (descriptions above):

1. Horizontal width 60 Hz (H60. WIDTH)
2. Horizontal parallelogram 60Hz (H60. PARA)
3. Horizontal shift 60 Hz (H60. SHIFT)
4. Vertical amplitude 60 Hz (V60. AMPL)

Sound

There are no adjustments needed for SOUND.

Default values:

- NIC-FMAM = 250
- 2CS-FM = 40
- PS-FM = 27
- PS-NIC-BGDK = 58
- PS-NIC-I = 127
- PS-NIC-L = 58
- DEVIATION = OFF

Smart Settings

SMART SETTINGS DEFAULT VALUES		
CRT SIZE ->	< 32"	32"
RICH BGT	35	42
RICH COL	35	61
RICH CON	55	84
RICH SHP	55	55
RICH HUE	50	50
NATURAL BGT	30	43
NATURAL COL	21	40
NATURAL CON	49	65
NATURAL SHP	40	40
NATURAL HUE	50	50
SOFT BGT	27	42
SOFT COL	22	42
SOFT CON	32	38
SOFT SHP	20	20
SOFT HUE	50	50
MULTI BGT	27	39
MULTI COL	22	38
MULTI CON	32	55
MULTI SHP	20	20
MULTI HUE	50	50

Options

Introduction

Options are used to control the presence/absence of certain features and hardware. The correct option values can be found on a sticker on the picture tube (after removal of the rear cover).

There are two ways to change the option settings:

1. Change a single option
Select an option with the MENU UP/DOWN keys and change its setting with the MENU LEFT/RIGHT keys.
2. Change multiple options via Option Bytes
When you change the option bytes directly, it is possible to set all options very fast. An option byte represents a number of different options (see tables below). All options are controlled via 8 option bytes.
Select the option byte (OB1..OB8). with the MENU UP/DOWN keys and key in the new value.

Note:

Changes in the option byte settings are saved automatically after leaving this sub-menu.

Some changes will only take affect after the set has been switched OFF and ON with the mains switch (cold start).

List Of Options

These option bits can be set ON (= 1) or OFF (= 0). If an option is set ON, it represents a certain (decimal) value.

To calculate the Option Byte value (OB), add the values of the 8 option bits:

An option byte value is calculated in the following way:

Value 'option bit 1' x 1 =
 Value 'option bit 2' x 2 =
 Value 'option bit 3' x 4 =
 Value 'option bit 4' x 8 =
 Value 'option bit 5' x 16 =
 Value 'option bit 6' x 32 =
 Value 'option bit 7' x 64 =
 Value 'option bit 8' x 128 =
 ===== +
 Total value 'option byte' =

On the next page you'll find the option lists for the 2 software versions, and an explanation table.

SW: A10ET1-x.y	Bit 8 (128)	Bit 7 (64)	Bit 6 (32)	Bit 5 (16)	Bit 4 (8)	Bit 3 (4)	Bit 2 (2)	Bit 1 (1)
OB1	SBNP	C169	E149	HOSP	SMCK	AV3	WSCR	CBFL
OB2	IPIX	IPMU	NTSC	PITN	ACI	ATS	PLST	VMOD
OB3	SOSD	FAPG	UKPNP	DNRM	VMUT	AAVL	ROTI	SNIC
OB4	TMWIN	NPRG	WSSB	INCF	Res.	Res.	Res.	Res.
OB5	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
OB6	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
OB7	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
OB8	Res.	Res.	Res.	Res.	Res.	Res.	SYSTEM	SYSTEM

SW: A10EP1-x.y	Bit 8 (128)	Bit 7 (64)	Bit 6 (32)	Bit 5 (16)	Bit 4 (8)	Bit 3 (4)	Bit 2 (2)	Bit 1 (1)
OB1	SBNP	C169	E149	HOSP	SMCK	AV3	WSCR	CBFL
OB2	IPIX	IPMU	NTSC	VDBY	EPG	P50	PITN	ACI
OB3	ATS	PLST	VMOD	SOSD	FAPG	UKPNP	DTXT	DNRM
OB4	VMUT	AAVL	ROTI	SNIC	TMWIN	NPRG	WSSB	INCF
OB5	APC	Res.	Res.	Res.	Res.	Res.	Res.	Res.
OB6	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
OB7	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
OB8	Res.	Res.	Res.	Res.	Res.	Res.	SYSTEM	SYSTEM

Option abbreviation	Description
AAVL	Automatic Volume Level
ACI	Automatic Channel Installation
APC	Auto Picture Control
ASBY	Auto switch to STDBY after 2 hrs.
ATS	Automatic Tuning System
AUSB	Auto switch to STDBY after 2 hrs.
AV3	External 3 (Side I/O)
BLMU	Blue Mute
C169	Picture setting for Compress 16:9
CBFL	Comb Filter
CCAP	Closed Captioning
CHLK	Child Lock
CHNA	China
CVI	Ext. source selection for DW/PIP
DNRM	DNR Noise Reduction
DTXT	Dual page Teletext available
E149	Picture setting for Expand 14:9
EPG	Electronic Program Guide
FAPG	Favorite Page
HOSP	Hospitality mode
INCF	Internal Comb Filter
IPIX	Incredible Picture
IPMU	Incredible Picture via menu
ISUR	Incredible Surround
MLNK	M-Link
NPRG	Max. number of programs (80/100)
NTSC	NTSC playback
NVM	Power down circuit to protect NVM
P50	Easy Link
PIPC	PIP Control
PIPS	PIP Surf
PIPT	PIP Tuner

Option abbreviation	Description
PITN	Philips Tuner present
PLST	Program List
ROTI	Rotation
SBNP	Auto Standby with no picture
SMCK	Smart clock
SNIC	Sound IC 3451
SOSD	Smart OSD
SURF	Surf
SYSTEM	EW=West-, EE=East-, EM=Mid-EU
TIME	Timer
TMWIN	Time Window
UKPNP	UK plug and play
VDBY	Virtual Dolby
VMUT	Video Mute
VMOD	Virgin mode
VSLC	Vertical Slicing
W169	Double Window 16:9
W4X3	Double Window 4:3
WSCR	Wide screen
WSSB	Wide screen signalling bit

Spare Parts List

A10E LSP

Various

0084▲	2422 500 80052	Con 9P
0084▲	2422 500 80061	Con 9P
0127▲	3122 358 72141	Fuse holder
0132▲	4822 276 14024	Mains switch
0137	4822 492 70789	Transistor fixation
0138	4822 492 70789	Transistor fixation
0139	4822 492 70788	IC fixation
0140	4822 492 70789	Transistor fixation
0141	4822 492 70788	IC fixation
0144	4822 492 70789	Transistor fixation
0188	3122 224 04242	Heatsink clamp bracket
0189	3139 124 33361	SSB Bracket
0211▲	4822 267 10774	Con 2P
0212▲	4822 265 20723	Con 2P
0212▲	4822 267 10775	Con 2P
0214	4822 267 10734	Con 5P
0215	2422 025 16382	Con 3P
0215	4822 267 10735	Con 3P
0217	4822 267 10735	Con 3P
0221▲	4822 267 10966	Con 2P
0222	2422 025 10646	Con 2P
0226	2422 025 16599	Con 80P
0229▲	2422 025 16601	Con 3P
0232	4822 267 10565	Con 4P
0234	4822 267 10735	Con 3P
0235	2422 025 04851	Con 3P
0238	4822 267 10735	Con 3P
0240	2422 025 12485	Con 11P
0241	2422 025 04854	Con 6P
0242	4822 265 30735	Con 5P
0243	2422 025 04854	Con 6P
0244	4822 265 30735	Con 5P
0246	4822 267 10565	Con 4P
0247	4822 267 10734	Con 5P
0252	2422 025 04851	Con 3P
0253	4822 267 10735	Con 3P
0254	4822 267 10735	Con 3P
1002	4822 276 13775	Switch
1003	4822 276 13775	Switch
1004	4822 276 13775	Switch
1005	4822 276 13775	Switch
1008▲	4822 130 10859	TLDR5400
1009	9322 127 54667	IR Receiver
1225	4822 210 10848	TSOP1836UH1
1225	4822 210 10853	UV1316/A I U-2
1260	2422 025 16745	TEDE9-004A
1269	4822 267 10982	Con 42P
1754	4822 267 31014	Con 2P
1900▲	2422 086 10905	Headphone socket
1931	4822 280 10367	Fuse 4A
1941▲	4822 071 51602	Con 1P
1961▲	4822 071 51602	Fuse 1.6A
1961▲	4822 071 51602	Fuse 1.6A

-II-

2009	4822 124 40207	100µF 20% 25V
2012	4822 126 14585	100nF 10% 50V
2020	4822 122 33177	10nF 20% 50V
2021	4822 122 33172	390pF 5% 50V
2023	4822 126 14043	1µF 20% 16V
2024	4822 126 14043	1µF 20% 16V
2081	4822 122 33177	10nF 20% 50V
2082	4822 122 33177	10nF 20% 50V
2201	5322 122 31863	63V 330pF 5%
2202	4822 126 13692	47pF 1% 63V
2203	5322 122 31863	63V 330pF 5%
2206	5322 122 31863	63V 330pF 5%
2208	5322 122 31863	63V 330pF 5%
2211	5322 122 32658	22pF 5% 50V
2214	5322 122 31863	63V 330pF 5%
2215	5322 122 31863	63V 330pF 5%
2217	5322 122 32658	22pF 5% 50V
2218	5322 122 32658	22pF 5% 50V
2222	5322 122 32658	22pF 5% 50V
2225	5322 122 32658	22pF 5% 50V
2227	4822 122 33575	220pF 5% 63V
2231	5322 122 31863	63V 330pF 5%
2233	5322 122 31863	63V 330pF 5%
2236	5322 122 31863	63V 330pF 5%
2238	5322 122 31863	63V 330pF 5%
2242	5322 122 31863	63V 330pF 5%
2244	5322 122 31863	63V 330pF 5%
2246	4822 124 81286	47µF 20% 16V

2247	5322 122 32658	22pF 5% 50V
2248	5322 126 10223	4.7nF 10% 63V
2249	4822 122 33575	220pF 5% 63V
2251	5322 122 31863	63V 330pF 5%
2253	5322 122 31863	63V 330pF 5%
2261	4822 124 40196	220µF 20% 16V
2262	5322 122 31647	1nF 10% 63V
2265	4822 124 41643	100µF 20% 16V
2265	4822 124 81044	470µF 20% 6.3V
2266	2238 580 15645	50V 47nF 10% R
2271	4822 124 21913	1µF 20% 63V
2276	5322 126 10511	1nF 5% 50V
2280	5322 122 32531	100pF 5% 50V
2281	4822 122 33575	220pF 5% 63V
2281	4822 126 13486	15pF 2% 63V
2282	2238 580 15645	50V 47nF 10% R
2282	4822 126 13751	47nF 10% 63V
2284	4822 124 40207	100µF 20% 25V
2404▲	4822 122 31177	470pF 10% 500V
2406	4822 121 43526	47nF 5% 250V
2409	5322 121 42386	100nF 5% 63V
2411▲	2020 558 90491	1.8nF 10% 2KV
2411▲	4822 126 13435	1.2nF 10% 2KV
2411▲	4822 126 13451	2.2nF 10% 2KV
2411▲	4822 126 13862	1.5nF 10% 2KV
2411▲	4822 126 14053	1nF 10% 2KV
2414▲	4822 121 70618	12nF 5% 1600V
2415▲	4822 121 70434	11nF 5% 1600V
2415▲	4822 121 70617	10nF 5% 1600V
2415▲	4822 121 70618	12nF 5% 1600V
2416▲	2020 558 90491	1.8nF 10% 2KV
2416▲	4822 126 11503	820pF 10% 2KV
2416▲	4822 126 13435	1.2nF 10% 2KV
2416▲	4822 126 13451	2.2nF 10% 2KV
2416▲	4822 126 14053	1nF 10% 2KV
2417▲	4822 122 31177	470pF 10% 500V
2418	2222 479 90029	820nF 5% 250V
2418	4822 126 14097	680nF 5% 250V
2419	4822 121 10518	390nF 5% 250V
2419	4822 121 10781	470nF 5% 250V
2419	4822 126 14097	680nF 5% 250V
2420	4822 124 12265	4.7µF 20% 250V
2420	4822 124 41741	2.2µF 20% 350V
2421▲	2222 479 90022	0.43µF 250V
2421▲	4822 121 10781	470nF 5% 250V
2422	4822 126 13751	47nF 10% 63V
2430	4822 121 41857	10nF 5% 250V
2430	4822 121 70676	27P 10% 50V
2434▲	2020 021 91543	47µF 20% 160V
2437	4822 121 10619	220nF 10% 250V
2437	4822 121 40472	150nF 10% 250V
2437	4822 121 40518	100nF 10% 250V
2437	4822 121 42605	180nF 10% 250V
2439	4822 121 51252	470nF 5% 63V
2442	4822 126 13838	100nF 25V 20%
2443	4822 126 13838	100nF 25V 20%
2445	2020 012 93596	22µF 20% 250V
2447	4822 124 80791	470µF 16V 20%
2449	4822 124 80791	470µF 16V 20%
2450	4822 124 80791	470µF 16V 20%
2461	5322 121 42386	100nF 5% 63V
2462	4822 124 40255	100µF 20% 63V
2463	5322 121 42386	100nF 5% 63V
2468	5322 121 40323	100nF 10% 100V
2469	2222 479 90014	0.22µF 250V
2469	2222 479 90166	68nF 5% 400V
2473▲	4822 122 31177	470pF 10% 500V
2474▲	4822 121 43288	18nF 10% 630V
2474▲	4822 121 70545	7.5nF 5% 1600V
2475	4822 121 43526	47nF 5% 250V
2476▲	4822 121 70545	7.5nF 5% 1600V
2476▲	4822 121 70637	8.2nF 5% 1600V
2476▲	4822 121 70649	9.1nF 5% 1600V
2477	2222 479 90022	0.43µF 250V
2478	5322 121 10472	47µF 25V
2479	4822 124 80341	1µF 20% 160V
2479	4822 124 81043	10µF 20% 100V
2484	4822 121 43526	47nF 5% 250V
2485▲	4822 126 10206	2.2nF 10% 500V
2487▲	4822 121 70545	7.5nF 5% 1600V
2487▲	4822 121 70649	9.1nF 5% 1600V
2488	4822 126 14584	1µF 20% 16V
2488	4822 126 14585	100nF 10% 50V
2488	5322 126 10511	1nF 5% 50V
2489	2222 479 90014	0.22µF 250V
2491	4822 126 14076	220nF 25V
2501	4822 126 10847	63V 1N8 10%
2501	5322 122 32268	63V 470P 5%
2503	4822 126 10847	63V 1N8 10%

2503	5322 122 32268	63V 470P 5%
2505	5322 121 42386	100nF 5% 63V
2506	4822 124 40255	100µF 20% 63V
2521	4822 121 42408	220nF 5% 63V
2522	4822 124 40207	100µF 20% 25V
2522	4822 124 40255	100µF 20% 63V
2522	4822 124 41407	0,47µF 20% 63V
2523	5322 121 42386	100nF 5% 63V
2524	5322 121 42386	100nF 5% 63V
2531	4822 124 40784	3300µF 20% 16V
2532	4822 124 21913	1µF 20% 63V
2536	4822 126 14335	1nF 10% 100V
2701	4822 124 22652	2,2µF 20% 50V
2701	5322 124 41379	2,2µF 20% 50V
2702	4822 124 40255	100µF 20% 63V
2703	4822 124 22652	2,2µF 20% 50V
2703	5322 124 41379	2,2µF 20% 50V
2704	4822 124 12056	1000µF 20% 35V
2705	4822 124 21913	1µF 20% 63V
2706	4822 126 13838	100nF 25V 20%
2707	4822 123 14026	470µF 35V 20%
2708	4822 124 21913	1µF 20% 63V
2709	4822 124 12056	1000µF 20% 35V
2711	4822 126 13482	470nF 80/20% 16V
2711	4822 126 14491	2,2µF 10V
2712	4822 124 40255	100µF 20% 63V
2713	4822 126 13838	100nF 25V 20%
2714	5322 122 32531	100pF 5% 50V
2714	5322 126 10511	1nF 5% 50V
2715	4822 124 40255	100µF 20% 63V
2716	4822 126 13482	470nF 80/20% 16V
2716	4822 126 14491	2,2µF 10V
2717	5322 122 32531	100pF 5% 50V
2717	5322 126 10511	1nF 5% 50V
2718	4822 124 40255	100µF 20% 63V
2719	5322 122 31647	1nF 10% 63V
2720	5322 122 31647	1nF 10% 63V
2722	4822 122 33127	2,2nF 10% 63V
2723	4822 122 33127	2,2nF 10% 63V
2726	4822 124 40255	100µF 20% 63V
2727	5322 122 32654	22nF 10% 63V
2728	5322 122 32654	22nF 10% 63V
2729	5322 122 32654	22nF 10% 63V
2730	5322 122 32654	22nF 10% 63V
2731	4822 126 14043	1µF 20% 16V
2732	4822 126 14043	1µF 20% 16V
2733	4822 124 11947	10µF 20% 16V
2734	5322 126 10223	4,7nF 10% 63V
2830	4822 121 51473	470nF 20% 63V
2831	4822 126 13599	3,3nF 10% 500V
2832	4822 126 13694	68pF 1% 63V
2833	4822 126 13694	68pF 1% 63V
2834	4822 126 13694	68pF 1% 63V
2835	4822 126 13838	100nF 25V 20%
2836	4822 121 43897	1nF 5% 400V
2840	4822 124 11565	10µF 20% 250V
2843▲	4822 126 13451	2,2nF 10% 2KV
2860	4822 124 40207	100µF 20% 25V
2866	4822 126 13482	470nF 16V
2869	4822 121 40334	100nF 10% 100V
2870	5322 122 32654	22nF 10% 63V
2871	4822 124 40764	22µF 100 V
2872▲	4822 122 40112	560pF 10% 500V
2873	4822 121 40516	22nF 10% 250V
2877	5322 122 32658	22pF 5% 50V
2878	5322 126 10733	680pF 5% 50V
2902▲	4822 126 13589	470nF 275V
2905	4822 121 70141	33nF 5% 400V
2908	4822 126 14153	2,2nF 10%B 1KV
2909	4822 126 12263	220pF 10% 2KV
2909	4822 126 14153	2,2nF 10%B 1KV
2915▲	4822 124 12415	220µF 20% 400V
2919	2020 021 90654	47µF 20% 50V
2919	4822 124 80604	47µF 20% 50V
2921	5322 122 32311	470pF 10% 100V
2922	4822 126 13862	1,5nF 10% 2KV
2925	5322 122 32311	470pF 10% 100V
2927	3198 014 01520	1N5 10% 50V
2927	4822 121 10779	1,5nF 10% 50V
2929	4822 126 14049	1,5nF 20% 250V
2929▲	4822 126 14088	2,2nF 20% 250V
2932	5322 122 32654	22nF 10% 63V
2936▲	3198 019 62210	220P 10% 1KV
2936	4822 126 12263	220pF 10% 2KV
2938▲	3198 019 64710	470P 10% 1KV
2938	4822 122 50116	470pF 10% 1KV
2939	4822 124 42336	47µF 20% 160V
2940	2020 021 91543	47µF 20% 160V
2941	4822 122 31175	1nF 10% 500V

2942	4822 121 42408	220nF 5% 63V
2943	4822 124 40784	3300µF 20% 16V
2944	4822 124 40433	47µF 20% 25V
2945	4822 124 81144	1000µF 16V
2952	4822 126 14585	100nF 10% 50V
2953	4822 126 13751	47nF 10% 63V
2955	4822 122 33366	8.2nF 10% 50V
2961	4822 122 31175	1nF 10% 500V
2962	2020 021 91501	4700µF 20% 10V
2962	4822 124 11878	4700µF 16V
2962	4822 124 80061	1000µF 20% 25V
2963	2238 780 15654	220nF 10% 16V
2963	4822 126 13561	220nF 10% 16V
2964	4822 122 31175	1nF 10% 500V
2966	4822 124 41584	100µF 20% 10V
2967	4822 126 13561	100µF 20% 10V
2970	5322 122 32331	1nF 10% 100V
2974	4822 124 11583	2200µF 20% 35V
2974	4822 124 12056	100µF 20% 35V
2977	4822 124 41584	100µF 20% 10V



3002	4822 117 11504	270Ω 1% 0.1W
3003	4822 117 11139	1k5 1% 0.1W
3004	4822 051 20332	3k3 5% 0.1W
3007	4822 117 10361	680Ω 1% 0.1W
3007	4822 117 13577	330Ω 1% 1.25W
3008	4822 051 10102	1k 2% 0.25W
3021	4822 051 20561	560Ω 5% 0.1W
3022	4822 051 20391	390Ω 5% 0.1W
3023	4822 051 20561	560Ω 5% 0.1W
3024	4822 051 10102	1k 2% 0.25W
3025	4822 051 20391	390Ω 5% 0.1W
3026	4822 117 11449	2k2 5% 0.1W
3027	4822 051 20391	390Ω 5% 0.1W
3028	4822 051 20562	5k6 5% 0.1W
3029	4822 051 20472	4k7 5% 0.1W
3030	4822 051 20122	1k2 5% 0.1W
3031	4822 116 83933	15k 1% 0.1W
3032	4822 051 20472	4k7 5% 0.1W
3033	4822 116 83933	15k 1% 0.1W
3034	4822 117 10833	10k 1% 0.1W
3035▲	4822 052 10229	22Ω 5% 0.33W
3037	4822 051 20182	1k8 5% 0.1W
3038	4822 051 20182	1k8 5% 0.1W
3081	4822 117 10833	10k 1% 0.1W
3082	4822 117 10833	10k 1% 0.1W
3083	4822 116 52276	3k9 5% 0.5W
3201	4822 116 83868	150Ω 5% 0.5W
3202	4822 117 13579	220k 1% 0.1W
3203	4822 116 83868	150Ω 5% 0.5W
3204	4822 117 10834	47k 1% 0.1W
3206	4822 116 83868	150Ω 5% 0.5W
3207	4822 117 13579	220k 1% 0.1W
3208	4822 116 83868	150Ω 5% 0.5W
3209	4822 117 10834	47k 1% 0.1W
3211	4822 116 52201	75Ω 5% 0.5W
3212	4822 116 52175	100Ω 5% 0.5W
3213	4822 116 52264	27k 5% 0.5W
3214	4822 117 11507	6k8 1% 0.1W
3215	4822 116 52175	100Ω 5% 0.5W
3216	4822 116 52201	75Ω 5% 0.5W
3217	4822 116 52175	100Ω 5% 0.5W
3218	4822 116 52201	75Ω 5% 0.5W
3219	4822 116 52175	100Ω 5% 0.5W
3220	4822 051 20154	150k 5% 0.1W
3220	4822 117 11149	82k 1% 0.1W
3220	4822 117 13579	220k 1% 0.1W
3221	4822 116 52201	75Ω 5% 0.5W
3222	4822 116 52175	100Ω 5% 0.5W
3223	4822 116 52199	68Ω 5% 0.5W
3224	4822 051 10102	1k 2% 0.25W
3226	4822 116 52201	75Ω 5% 0.5W
3227	4822 116 52176	10Ω 5% 0.5W
3231	4822 116 83868	150Ω 5% 0.5W
3232	4822 117 13579	220k 1% 0.1W
3233	4822 116 83868	150Ω 5% 0.5W
3234	4822 117 10834	47k 1% 0.1W
3236	4822 116 83868	150Ω 5% 0.5W
3237	4822 117 13579	220k 1% 0.1W
3238	4822 116 83868	150Ω 5% 0.5W
3239	4822 117 10834	47k 1% 0.1W
3241	4822 116 52264	27k 5% 0.5W
3242	4822 117 11507	6k8 1% 0.1W
3243	4822 116 52201	75Ω 5% 0.5W
3244	4822 116 52175	100Ω 5% 0.5W
3245	4822 116 52199	68Ω 5% 0.5W
3246	4822 051 10102	1k 2% 0.25W
3247▲	5322 117 11726	10Ω 5%
3248	4822 116 52201	75Ω 5% 0.5W
3249	4822 116 52176	10Ω 5% 0.5W
3251	4822 117 13579	220k 1% 0.1W

3252	4822 116 83868	150Ω 5% 0.5W
3253	4822 117 13579	220k 1% 0.1W
3254	4822 116 83868	150Ω 5% 0.5W
3255	4822 051 20479	47Ω 5% 0.1W
3256	4822 051 20479	47Ω 5% 0.1W
3257	4822 051 20479	47Ω 5% 0.1W
3263	4822 051 10102	1k 2% 0.25W
3263	4822 117 11449	2k2 5% 0.1W
3264	4822 117 10833	10k 1% 0.1W
3267	4822 051 20109	10Ω 5% 0.1W
3267	4822 051 20479	47Ω 5% 0.1W
3268	4822 051 20109	10Ω 5% 0.1W
3268	4822 051 20479	47Ω 5% 0.1W
3271	4822 051 20333	33k 5% 0.1W
3271	4822 117 11149	82k 1% 0.1W
3272	4822 117 10833	10k 1% 0.1W
3272	4822 117 11449	2k2 5% 0.1W
3273	4822 051 20223	22k 5% 0.1W
3274	4822 051 20154	10k 5% 0.1W
3276	4822 117 10833	10k 1% 0.1W
3276	4822 117 11449	2k2 5% 0.1W
3277	4822 051 20101	100Ω 5% 0.1W
3277	4822 117 11373	100Ω 1% 0.1W
3278	4822 117 11503	220Ω 1% 0.1W
3280	4822 051 20333	33k 5% 0.1W
3281	4822 051 20472	4k7 5% 0.1W
3282	4822 117 10834	47k 1% 0.1W
3286	4822 051 20182	1k8 5% 0.1W
3401	4822 116 52175	100Ω 5% 0.5W
3402	4822 050 11002	1k 1% 0.4W
3403	4822 116 52269	3k3 5% 0.5W
3405	4822 117 12514	6k8 5% 5W
3405	4822 117 12517	5k6 5% 5W
3409	2322 193 53333	33k 5%
3409	4822 053 10333	33k 5% 1W
3410	4822 116 52191	33Ω 5% 0.5W
3411	4822 053 21334	330k 5% 0.5W
3412	4822 116 52234	100k 5% 0.5W
3412	4822 116 52251	18k 5% 0.5W
3414	4822 116 52234	100k 5% 0.5W
3417	4822 116 52228	680Ω 5% 0.5W
3422	3198 012 11030	10k 5% 1W
3422	4822 053 10103	10k 5% 1W
3430	4822 053 12339	33Ω 5% 3W
3430	4822 053 12689	68Ω 5% 3W
3432	4822 051 20824	820k 5% 0.1W
3434	4822 053 12689	68Ω 5% 3W
3435	4822 116 52264	27k 5% 0.5W
3435	4822 116 83882	39k 5% 0.5W
3435	4822 116 83884	47k 5% 0.5W
3436	4822 116 52291	56k 5% 0.5W
3436	4822 116 52297	68k 5% 0.5W
3436	4822 116 83882	39k 5% 0.5W
3436	4822 116 83884	47k 5% 0.5W
3437	4822 050 23303	33k 1% 0.6W
3437	4822 116 52257	22k 5% 0.5W
3438	4822 051 20474	470k 5% 0.1W
3439	4822 050 11002	1k 1% 0.4W
3440	4822 117 10837	100k 1% 0.1W
3441	4822 116 83961	6k8 5%
3442	4822 051 20105	1M 5% 0.1W
3442	4822 051 20564	560k 5% 0.1W
3442	4822 051 20824	820k 5% 0.1W
3445▲	4822 052 11108	1Ω 5% 0.5W
3446▲	4822 052 11108	1Ω 5% 0.5W
3447▲	4822 052 11108	1Ω 5% 0.5W
3448▲	4822 052 11108	1Ω 5% 0.5W
3449▲	4822 052 11108	1Ω 5% 0.5W
3451	4822 116 52234	100k 5% 0.5W
3451	4822 117 10837	100k 1% 0.1W
3456	4822 051 10102	1k 2% 0.25W
3470	4822 116 52264	27k 5% 0.5W
3471	4822 116 83883	470Ω 5% 0.5W
3472	4822 050 23303	33k 1% 0.6W
3472	4822 116 52264	27k 5% 0.5W
3472	4822 116 52304	82k 5% 0.5W
3472	4822 116 83882	39k 5% 0.5W
3473	4822 116 52234	100k 5% 0.5W
3473	4822 116 52304	82k 5% 0.5W
3474	4822 050 24708	4Ω7 1% 0.6W
3475	4822 050 24708	4Ω7 1% 0.6W
3476	4822 116 52283	4k7 5% 0.5W
3477	4822 116 52238	12k 5% 0.5W
3478	4822 050 21003	10k 1% 0.6W
3479	4822 116 52234	100k 5% 0.5W
3480	4822 050 21003	10k 1% 0.6W
3481	4822 050 21003	10k 1% 0.6W
3482	4822 116 52245	150k 5% 0.5W
3483	4822 116 52291	56k 5% 0.5W
3486	4822 050 21003	10k 1% 0.6W
3487	4822 052 11108	1Ω 5% 0.5W
3492	4822 053 21334	330k 5% 0.5W
3493	4822 050 21003	10k 1% 0.6W

3494	4822 116 52264	27k 5% 0,5W
3494	4822 116 83882	39k 5% 0,5W
3495	3198 012 32280	2Ω2 5% 3W
3496	3198 012 32280	2Ω2 5% 3W
3497	3198 012 32280	2Ω2 5% 3W
3498	4822 117 10837	100k 1% 0,1W
3498	4822 117 11149	82k 1% 0,1W
3499	4822 117 13579	220k 1% 0,1W
3501	4822 051 10102	1k 2% 0,25W
3503	4822 051 10102	1k 2% 0,25W
3504	4822 050 22202	2k2 1% 0,6W
3504	4822 116 52256	2k2 5% 0,5W
3511	4822 116 52283	4k7 5% 0,5W
3512	4822 117 10833	10k 1% 0,1W
3513	4822 117 10833	10k 1% 0,1W
3521▲	4822 052 10158	1Ω5 5% 0,33W
3522	4822 050 21003	10k 1% 0,6W
3522	4822 116 83866	1M 5% 0,5W
3523	4822 116 52175	100Ω 5% 0,5W
3524	4822 116 52175	100Ω 5% 0,5W
3525	4822 050 24708	4Ω7 1% 0,6W
3525	4822 116 81154	2Ω2 5% 0,5W
3525	5322 116 53564	3Ω3 5% 0,5W
3526	4822 050 24708	4Ω7 1% 0,6W
3526	5322 116 53564	3Ω3 5% 0,5W
3527	4822 116 81039	1Ω8 5% 0,5W
3527	5322 116 53564	3Ω3 5% 0,5W
3528	4822 050 22202	2k2 1% 0,6W
3528	4822 116 52256	2k2 5% 0,5W
3531	4822 051 20688	6Ω8 5% 0,1W
3701	4822 051 20472	4k7 5% 0,1W
3701	4822 051 20562	5k6 5% 0,1W
3702	4822 051 20472	4k7 5% 0,1W
3702	4822 051 20562	5k6 5% 0,1W
3703	4822 117 11449	2k2 5% 0,1W
3704	4822 116 52291	56k 5% 0,5W
3705	4822 051 20182	1k8 5% 0,1W
3705	4822 051 20471	470Ω 5% 0,1W
3706	4822 117 10833	10k 1% 0,1W
3707	4822 117 10833	10k 1% 0,1W
3708	4822 117 10837	100k 1% 0,1W
3709	4822 117 11503	220Ω 1% 0,1W
3710	4822 051 20392	3k9 5% 0,1W
3710	4822 117 10833	10k 1% 0,1W
3711	4822 051 20392	3k9 5% 0,1W
3711	4822 117 10833	10k 1% 0,1W
3712	4822 051 20822	8k2 5% 0,1W
3713	4822 051 20223	22k 5% 0,1W
3713	4822 117 11139	1k5 1% 0,1W
3715	4822 051 20332	3k3 5% 0,1W
3716	4822 051 20822	8k2 5% 0,1W
3717	4822 117 11139	1k5 1% 0,1W
3717	4822 117 12955	2k7 1% 0,1W
3719	4822 117 12955	2k7 1% 0,1W
3720	4822 051 10102	1k 2% 0,25W
3720	4822 051 20332	3k3 5% 0,1W
3721	4822 117 10837	100k 1% 0,1W
3722	4822 117 12955	2k7 1% 0,1W
3723	4822 051 20332	3k3 5% 0,1W
3724	4822 051 20472	4k7 5% 0,1W
3724	4822 051 20562	5k6 5% 0,1W
3725	4822 051 20472	4k7 5% 0,1W
3725	4822 051 20562	5k6 5% 0,1W
3726	4822 051 20109	10Ω 5% 0,1W
3727	4822 116 52176	10Ω 5% 0,5W
3728	4822 051 20109	10Ω 5% 0,1W
3730	4822 051 20273	27k 5% 0,1W
3731	4822 051 20273	27k 5% 0,1W
3732	4822 116 52234	27k 5% 0,5W
3733	4822 051 20561	560Ω 5% 0,1W
3734	4822 051 20478	4Ω7 5% 0,1W
3735	4822 051 20478	4Ω7 5% 0,1W
3736▲	4822 052 10108	1Ω 5% 0,33W
3737▲	4822 052 10108	1Ω 5% 0,33W
3831	4822 116 52175	100Ω 5% 0,5W
3832	3198 013 01020	1k PM2 1/2W
3833	4822 116 52175	100Ω 5% 0,5W
3834	3198 013 01020	1k PM2 1/2W
3835	4822 116 52175	100Ω 5% 0,5W
3836	3198 013 01020	1k PM2 1/2W
3837	4822 051 20561	560Ω 5% 0,1W
3837	4822 117 10361	680Ω 1% 0,1W
3838	4822 051 20561	560Ω 5% 0,1W
3838	4822 117 10361	680Ω 1% 0,1W
3839	4822 051 20561	560Ω 5% 0,1W
3839	4822 117 10361	680Ω 1% 0,1W
3840▲	4822 052 10101	100Ω 5% 0,33W
3841▲	4822 052 10108	1Ω 5% 0,33W
3842▲	4822 052 10108	1Ω 5% 0,33W
3843	3198 013 01520	1k5 PM2 1/2W
3845	4822 116 52272	330k 5% 0,5W
3860▲	4822 052 10109	10Ω 5% 0,33W
3864	4822 117 11503	220Ω 1% 0,1W
3865	4822 117 10833	10k 1% 0,1W

3866	4822 117 11139	1k5 1% 0,1W
3867	4822 116 52176	10Ω 5% 0,5W
3869	4822 051 20008	0Ω jumper
3870	4822 116 52231	820Ω 5% 0,5W
3871	4822 116 52291	56k 5% 0,5W
3872	4822 117 11148	56k 1% 0,1W
3873	4822 117 11454	820Ω 1% 0,1W
3874	4822 117 13424	8k2 5% 5W
3875	4822 051 20122	1k2 5% 0,1W
3876	4822 051 20159	15Ω 5% 0,1W
3877	4822 051 20008	0Ω jumper
3878	4822 051 20471	470Ω 5% 0,1W
3880	4822 116 83872	220Ω 5% 0,5W
3881	4822 051 20008	0Ω jumper
3885	4822 117 11449	2k2 5% 0,1W
3886	2322 194 63338	3Ω3 5%
3887	2322 194 63338	3Ω3 5%
3888	4822 051 20159	15Ω 5% 0,1W
3891	4822 117 11454	820Ω 1% 0,1W
3892	4822 117 13016	1M 50V
3901	4822 053 21475	4M7 5% 0,5W
3902	4822 053 21225	220Ω 5% 0,5W
3905	3198 013 04710	470Ω PM2 1/2W
3907	4822 117 12074	7W 1Ω5 10%
3911▲	4822 116 10075	9Ω 220V
3911▲	4822 116 10105	9Ω 220V PTC
3913▲	2322 193 53154	150k 5%
3915	4822 053 20335	3M3 5% 0,25W
3917	4822 051 20561	560Ω 5% 0,1W
3923	2120 106 90555	0Ω33 5% 1W
3923	4822 117 11342	0Ω33 5% 2W
3924	2120 106 90554	0Ω22 5% 1W
3924	4822 117 11744	0Ω22 5% 1W
3925	4822 116 52228	680Ω 5% 0,5W
3926	4822 116 52269	3k3 5% 0,5W
3928	4822 116 52263	2k7 5% 0,5W
3929	5322 116 53564	3Ω3 5% 0,5W
3931	4822 117 10833	10k 1% 0,1W
3932	4822 117 10833	10k 1% 0,1W
3942	2120 108 92616	1k2 5% 0,1W
3942	4822 051 20122	1k2 5% 0,1W
3943	4822 116 83881	390Ω 5% 0,5W
3944	4822 116 52257	22k 5% 0,5W
3946	4822 051 20223	22k 5% 0,1W
3947	4822 051 10102	1k 2% 0,25W
3947	5322 117 12487	1k 1% 0,125W
3948	4822 051 20683	68k 5% 0,1W
3951	4822 051 20562	5k6 5% 0,1W
3952	4822 117 11149	82k 1% 0,1W
3953	4822 117 10833	10k 1% 0,1W
3954	4822 051 20562	5k6 5% 0,1W
3955	4822 117 10833	10k 1% 0,1W
3957	4822 051 20182	1k8 5% 0,1W
3958	4822 051 10102	1k 2% 0,25W
3962	4822 051 20562	5k6 5% 0,1W
3963	4822 051 20109	10Ω 5% 0,1W
3965	4822 051 20229	22Ω 5% 0,1W
3966	4822 117 10361	680Ω 1% 0,1W
3967	4822 116 52219	330Ω 5% 0,5W
3968	4822 117 12955	2k7 1% 0,1W
3969	4822 050 21003	10k 1% 0,6W
3970	3198 012 32290	22Ω 5% 3W
3970	4822 053 12229	22Ω 5% 3W
3977	4822 117 12955	2k7 1% 0,1W
3978	4822 117 10833	10k 1% 0,1W
3979	4822 116 83933	15k 1% 0,1W
3986	4822 051 20333	33k 5% 0,1W
3987	4822 117 10833	10k 1% 0,1W
3989	4822 051 20334	330k 5% 0,1W
3991	4822 116 52257	22k 5% 0,5W
3992	4822 117 10833	10k 1% 0,1W
3993	4822 117 10833	10k 1% 0,1W
3994	4822 116 83933	15k 1% 0,1W
3996▲	4822 053 21155	1M5 5% 0,5W
3997	4822 117 11373	100Ω 1%
4xxx	4822 051 10008	0Ω 5% 0,25W
4xxx	4822 051 20008	0Ω 5% 0,25W

5001	4822 051 20008	0R00 jumper
5001	4822 157 11828	22U 20%
5002	4822 051 20008	0R00 Jumper
5002	4822 157 11828	22U 20%
5012	4822 157 11771	0,09μH 10%
5201	4822 157 11235	22μH 5%
5202	4822 157 11235	22μH 5%
5261	4822 157 11778	5U6 10%
5262	4822 157 50943	12μH
5406	3128 138 33811	Line drive trafo
5406	4822 142 40351	Line drive trafo
5411	4822 157 11411	Bead
5417▲	3128 138 53221	Lin. cor. coil

5417▲	4822 157 11673	Lin. cor. coil
5417▲	4822 157 11854	Lin. cor. coil
5417▲	4822 157 71914	Lin. cor. coil
5430	4822 157 10359	33U 5%
5431▲	2422 531 98025	LOT 1362.0004
5431▲	2422 531 98026	LOT 1362.0003
5431▲	3128 138 21001	LOT type1
5431▲	4822 140 10651	LOT 1342.0005
5445	4822 157 50964	100μH
5446	4822 157 11672	12μH 5%
5448	4822 157 11672	12μH 5%
5474▲	3128 138 31012	Choke coil
5474▲	4822 157 62828	Choke coil
5478	2422 531 02419	Bridge coil
5521	4822 157 11771	0,09μH 10%
5523	4822 157 11771	0,09μH 10%
5524	4822 157 11771	0,09μH 10%
5842	4822 157 71514	18U 5%
5842	4822 157 71515	68U 5%
5862	4822 157 51216	5,6μH
5902▲	4822 157 11122	Line filter 15mH
5902▲	4822 157 11523	Line filter 5mH
5903▲	4822 157 10999	Line filter
5912▲	2422 531 02375	Transformer SMT
5920	4822 526 10704	Bead
5924	4822 526 10704	Bead
5936	4822 526 10704	Bead
5939	4822 157 71401	27μH
5941	4822 526 10704	Bead
5961	4822 526 10704	Bead
5971	4822 526 10704	Bead



6005	4822 130 31983	BAT85
6010	4822 130 83757	BAS216
6012	4822 130 31983	BAT85
6013	4822 130 31983	BAT85
6264	4822 130 83757	BAS216
6265	4822 130 83757	BAS216
6266	4822 130 11397	BAS316
6271	4822 130 11397	BAS316
6273	4822 130 11397	BAS316
6274	4822 130 11397	BAS316
6275	4822 130 11397	BAS316
6276	4822 130 11397	BAS316
6278	4822 130 11397	BAS316
6279	3198 020 55680	BZX384-C5V6
6279	4822 130 10185	UDZS5.6B
6280	4822 130 10852	BZX284-C6V8
6280	9322 107 42685	UDZ12B
6280	9340 548 61115	PDZ12B
6281	4822 130 10852	BZX284-C6V8
6281	9322 107 42685	UDZ12B
6281	9340 548 61115	PDZ12B
6282	4822 130 10852	BZX284-C6V8
6282	9322 107 42685	UDZ12B
6282	9340 548 61115	PDZ12B
6283	4822 130 10852	BZX284-C6V8
6283	9322 107 42685	UDZ12B
6283	9340 548 61115	PDZ12B
6284	4822 130 10852	BZX284-C6V8
6284	9322 107 42685	UDZ12B
6284	9340 548 61115	PDZ12B
6285	4822 130 10852	BZX284-C6V8
6285	9322 107 42685	UDZ12B
6285	9340 548 61115	PDZ12B
6286	4822 130 10852	BZX284-C6V8
6286	9322 107 42685	UDZ12B
6286	9340 548 61115	PDZ12B
6287	4822 130 10852	BZX284-C6V8
6287	9322 107 42685	UDZ12B
6287	9340 548 61115	PDZ12B
6288	4822 130 10852	BZX284-C6V8
6288	9322 107 42685	UDZ12B
6288	9340 548 61115	PDZ12B
6289	4822 130 10852	BZX284-C6V8
6289	9322 107 42685	UDZ12B
6289	9340 548 61115	PDZ12B
6413	4822 130 30621	1N4148
6414▲	4822 130 83825	BY328/20
6414	9340 559 50112	BY228/24
6419	4822 130 42488	BYD33D
6420	4822 130 42488	BYD33D
6439	4822 130 34379	BZX79-B27
6440	4822 130 30621	1N4148
6442	4822 130 30621	1N4148
6443	4822 130 30621	1N4148
6445	4822 130 42606	BYD33J
6447	4822 130 41602	BYW95C
6448	4822 130 41602	BYW95C
6461	4822 130 42488	BYD33D
6467	4822 130 11148	UDZ4.7B

6468	3198 020 51090	BZX384-C10
6468	9322 107 41685	UDZ10B
6472	4822 130 61219	BZX79-B10
6474▲	9340 559 53112	BYW95C-24
6475	9340 559 53112	BYW95C-24
6480	4822 130 30621	1N4148
6481	3198 010 53390	BZX79-B33
6482	4822 130 42606	BYD33J
6483	4822 130 42606	BYD33J
6484	4822 130 42606	BYD33J
6485	4822 130 20299	P0102DA
6486	4822 130 34379	BZX79-B27
6487	4822 130 34142	BZX79-B33
6505	4822 130 42488	BYD33D
6511	4822 130 30621	1N4148
6512	4822 130 34173	BZX79-B5V6
6522	4822 130 42488	BYD33D
6523	4822 130 11397	BAS316
6524	4822 130 11397	BAS316
6701	4822 130 30621	1N4148
6831	4822 130 30842	BAV21
6832	4822 130 83757	BAS216
6833	4822 130 30842	BAV21
6835	4822 130 30842	BAV21
6837	4822 130 82969	BZD23-C24
6838	4822 130 82969	BZD23-C24
6863	4822 130 30621	1N4148
6904	4822 130 34142	BZX79-B33
6905	4822 130 34142	BZX79-B33
6911	4822 130 31083	BYW55
6912	4822 130 31083	BYW55
6913	4822 130 31083	BYW55
6914	4822 130 31083	BYW55
6921	4822 130 34142	BZX79-B33
6926	4822 130 42488	BYD33D
6928	4822 130 42488	BYD33D
6929	4822 130 42488	BYD33D
6932	4822 130 30621	1N4148
6938	4822 130 10218	BY229X-800
6941	4822 130 32715	SB340
6941	4822 130 83865	SB360
6942	4822 130 42488	BYD33D
6953	4822 130 34382	BZX79-B8V2
6955	4822 130 30621	1N4148
6961	4822 130 32715	SB340
6966	3198 010 53980	BZX79-B3V9
6966	4822 130 31981	BZX79-B3V9
6971	4822 130 10256	EGP20DL-5300
6973	4822 130 30621	1N4148
6977	9322 127 99685	UDZS5.1B
6986	4822 130 34281	BZX79-B15
6991	4822 130 34382	BZX79-B8V2



7012	4822 130 40959	BC547B
7013	4822 130 44568	BC557B
7014	4822 130 40981	BC337-25
7015	4822 130 40981	BC337-25
7224	4822 130 60511	BC847B
7224	5322 130 60159	BC846B
7226	4822 130 60511	BC847B
7226	5322 130 60159	BC846B
7273	4822 130 60373	BC856B
7276	4822 130 60511	BC847B
7276	5322 130 60159	BC846B
7277	4822 130 60373	BC856B
7280	4822 130 60511	BC847B
7280	5322 130 60159	BC846B
7408	4822 130 41646	BF423
7410▲	9340 550 89127	BU4508AX
7440	4822 130 44568	BC557B
7464	4822 130 44568	BC557B
7467	4822 130 60373	BC856B
7470	4822 130 11336	STP16NE06FP
7478	4822 130 40959	BC547B
7480	4822 130 40959	BC547B
7481	4822 130 42159	BF819
7482	9340 547 00215	PDTC143ZT
7501	4822 209 61117	TDA18172
7513	4822 130 60511	BC847B
7513	5322 130 60159	BC846B
7701	4822 130 60511	BC847B
7701	5322 130 60159	BC846B
7702	9322 148 81667	AN5277
7703	4822 209 33165	TDA1308T/N1
7704	4822 130 60511	BC847B
7704	5322 130 60159	BC846B
7710	4822 130 60511	BC847B
7710	5322 130 60159	BC846B
7711	4822 130 60373	BC856B
7712	4822 130 60373	BC856B
7830	9352 576 50112	TDA6107Q/N2

7860	4822 130 44154	BF199
7861	4822 130 42589	BF370
7862	4822 130 41617	BD830
7863	4822 130 41616	BD829
7864	4822 130 44568	BC557B
7865	9340 350 20116	BFQ151
7921▲	9322 140 38682	STR-F6454
7922	4822 130 60373	BC856B
7929▲	8238 274 02070	TCET1103G
7932	4822 130 60511	BC847B
7932	5322 130 60159	BC846B
7942	4822 209 80591	LM317T
7944	4822 130 60511	BC847B
7944	5322 130 60159	BC846B
7946	4822 130 60511	BC847B
7946	5322 130 60159	BC846B
7948	4822 130 60511	BC847B
7948	5322 130 60159	BC846B
7951	4822 130 60511	BC847B
7951	5322 130 60159	BC846B
7953	4822 130 60511	BC847B
7953	5322 130 60159	BC846B
7955	4822 130 60511	BC847B
7955	5322 130 60159	BC846B
7965	4822 130 40855	BC337
7967	9322 137 01682	SI-3050C
7971	4822 209 16707	SE140N
7987	4822 130 60373	BC856B
7990	4822 130 60373	BC856B
7991	4822 130 60511	BC847B
7991	5322 130 60159	BC846B
7992	4822 130 60511	BC847B
7992	5322 130 60159	BC846B
9015	4822 157 62552	2,2UH
9016	4822 157 62552	2,2UH