TFT-LCD TV

Chassis	Model
GPU15KE	LE15S51BP
GPU20KE	LE20S51BP
	LE20S52BP

SERVICE Manual

TFT-LCD TV

Fashion Feature

- Easy-to-use remote control
- Easy-to-use on-screen menu system
- Automatic timer to turn the TV on and off
- Automatic channel tuning for up to 194 channels. (Air : 69 , STD : 125)
- A special filter to reduce or eliminate reception problems
- Fine tuning control for the sharpest picture possible
- Built-in, dual channel speakers
- Headphone jack for private listening

3-2 How to Access Service Mode

3-2-1 Entering Factory Mode

1. To enter “Service Mode” Press the remote -control keys in this sequence :

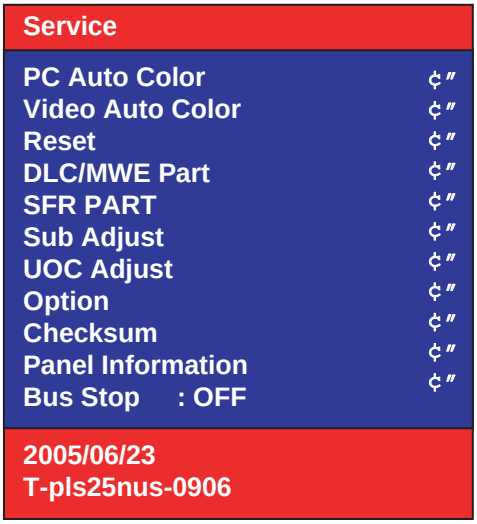
   - If you do not have Factory remote - control

POWER OFF → MUTE → 1 → 8 → 2 → POWER ON

   - If you have Factory remote - control

POWER ON → INFO → FACTORY

3-3 Factory Data



-. OSD which the basic adjustment is added.

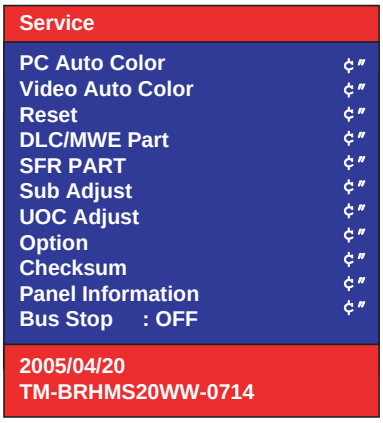
PC Auto Color
Video Auto Color
Reset
DLC/MWE Part
SFR PART
Sub Adjust
UOC Adjust
Option
Checksum
Panel Information
Bus Stop : OFF

*. 2005/06/23: MCU firmware date.

*. T-PLUS25NUS-0906: MCU firmware version information
(this information must be appended due to a compatibility problem report.)

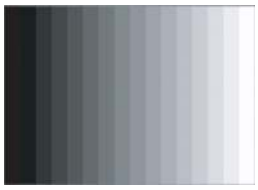
1) Reset: Factory reset
2) Bus Stop: The communication Line ON / OFF

Move to the (-) / (+) key, select the 'Enter' key.



3) Auto adjustment

4) PC Auto Color/ Video Auto Color :in case that color of all screen is wrong, excute the PC Auto color at 16 gray pattern(refer to attach left 16gray pattern)



5) Checksum: MCU firmware checksum information
(this information must be appended due to a compatibility problem report.)

DLC/MWE Part		
NVRAM Reset		¢″
DLC-	0-10	0
MWE-	0-1	1
Demo	0-1	0
Brightness+	0-255	100
Contrast+	0-255	113
Sharpness+	-10-10	1
Hue+	0-100	50
Saturation+	0-255	125
R Offset		46
G Offset		50
B Offset		56
R Gain		58
G Gain		50
B Gain		51

6) Dynamic Luma Adjustment

" - " : RF, AV, S_Video -> all store

" + " : RF, AV, S_Video -> apart store

SFR Part		
DCXO Sel.		0
DCXO Tune		64
OVMADAPT	0-1	1
OVMTHR	0-3	2
IF Demod	0-63	38
F FI	0-1	0
R0:77	R1:71	R2:81
R3:18	R4:0	R5:1F

7) Special Function Register

Sub Adjust		
R Blk Lvl+	0-63	28
G Blk Lvl+	0-63	20
Peak Frq/DLY+	0-3	0
Peak+	0-63	40
Soft Clp Lvl-	0-3	0
W Limit-	0-15	8
R White Pnt+	0-63	37
G White Pnt+	0-63	31
B White Pnt+	0-63	31
AGC T-O-	0-63	23

UOC Adjust

BKS-	0-1	1
WSx-	0-3	2

0 0 0 0 0 20 20 2
0 20 20 20 20 20 20 20 2
0 20 20 20 19 26 .....

8) UOC Adjustment

BKS : Black stretch
Wsx : White stretch

Adjust

R Offset		20
G Offset		20
B Offset		20
R Gain		20
G Gain		20
B Gain		20
Sclr Coring+	0-255	35

0 0 0 FF DD BD

Service

Suwon + America
Samex + America
.....
.....
.....
Help Menu : On
Auto-Auto : Off

9) Option: Spread Step / Spread Span (for EMI test)

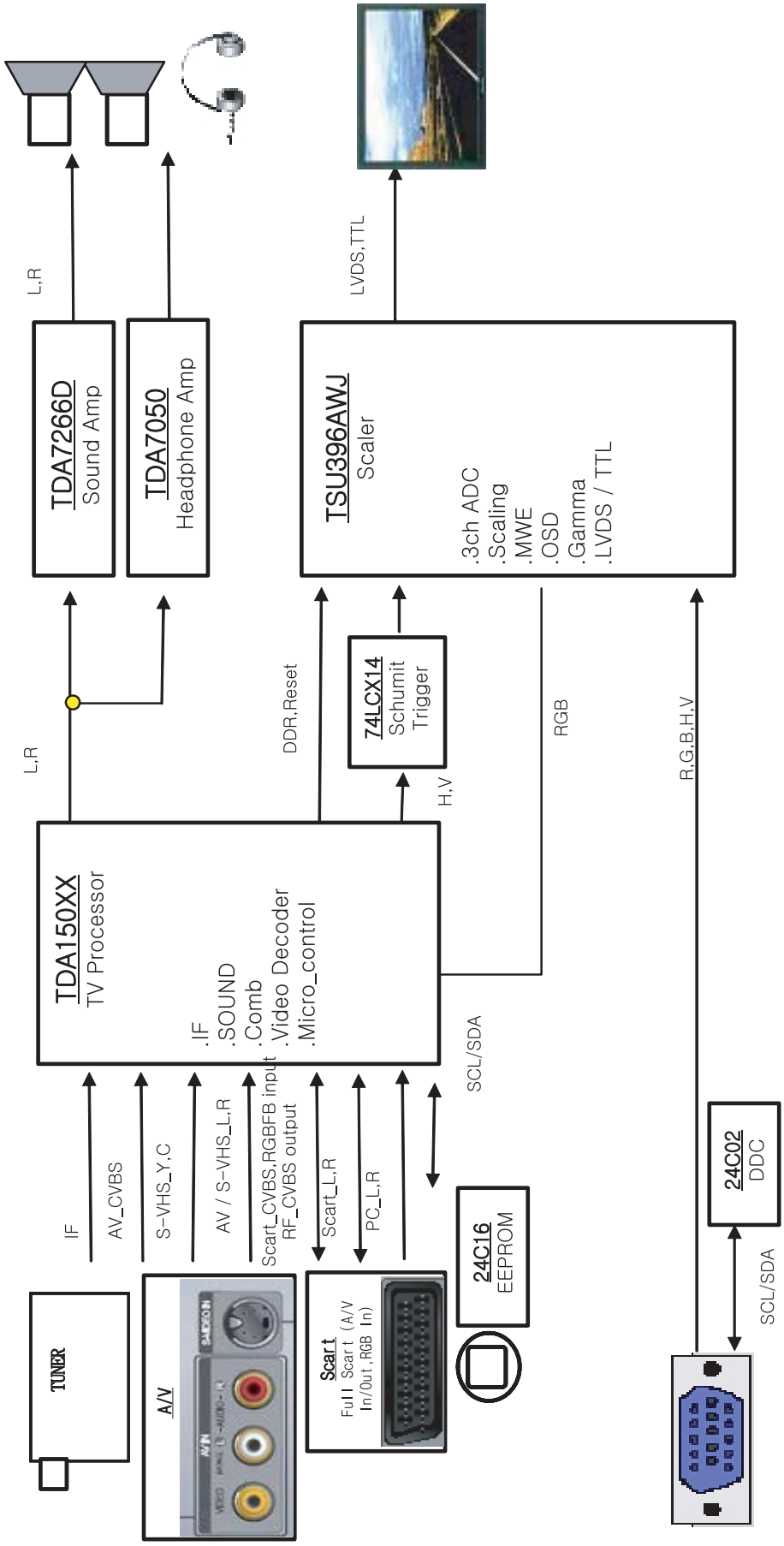
Service

Monitor	:	3 Hr	
Panel Cycle	:	249	
		Time	Ch. No
Panel	:	3 Hr	0
Upper Lamp	:	3 Hr	0
Lower Lamp	:	3 Hr	0

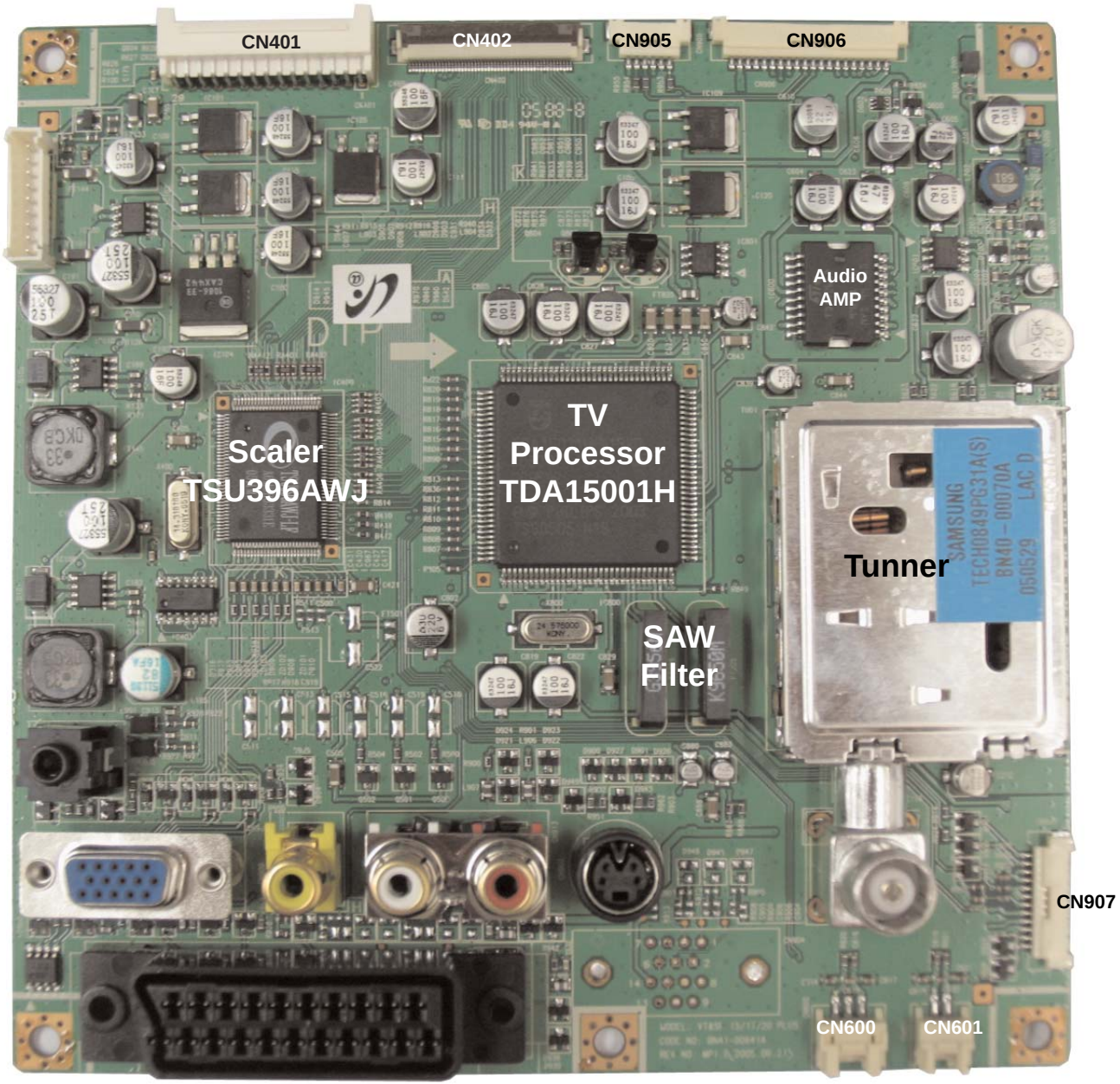
10) Panel Information
various function are included in information.

- Monitor On Time : Power On Time
- Panel Cycle : Panel On/off time (Power off, Mode change, DPMS on/off ...)
- Panel : Panel on Time
  (when the panel is changed , select the Reset)
- Lower lamp : Lower lamp on time
  (when the Lower lamp is changed , select the Reset)
- Upper lamp : Upper Lamp on time
  (when the Upper Lamp is changed , select the Reset)

7 Block Diagram



8 Wiring Diagram

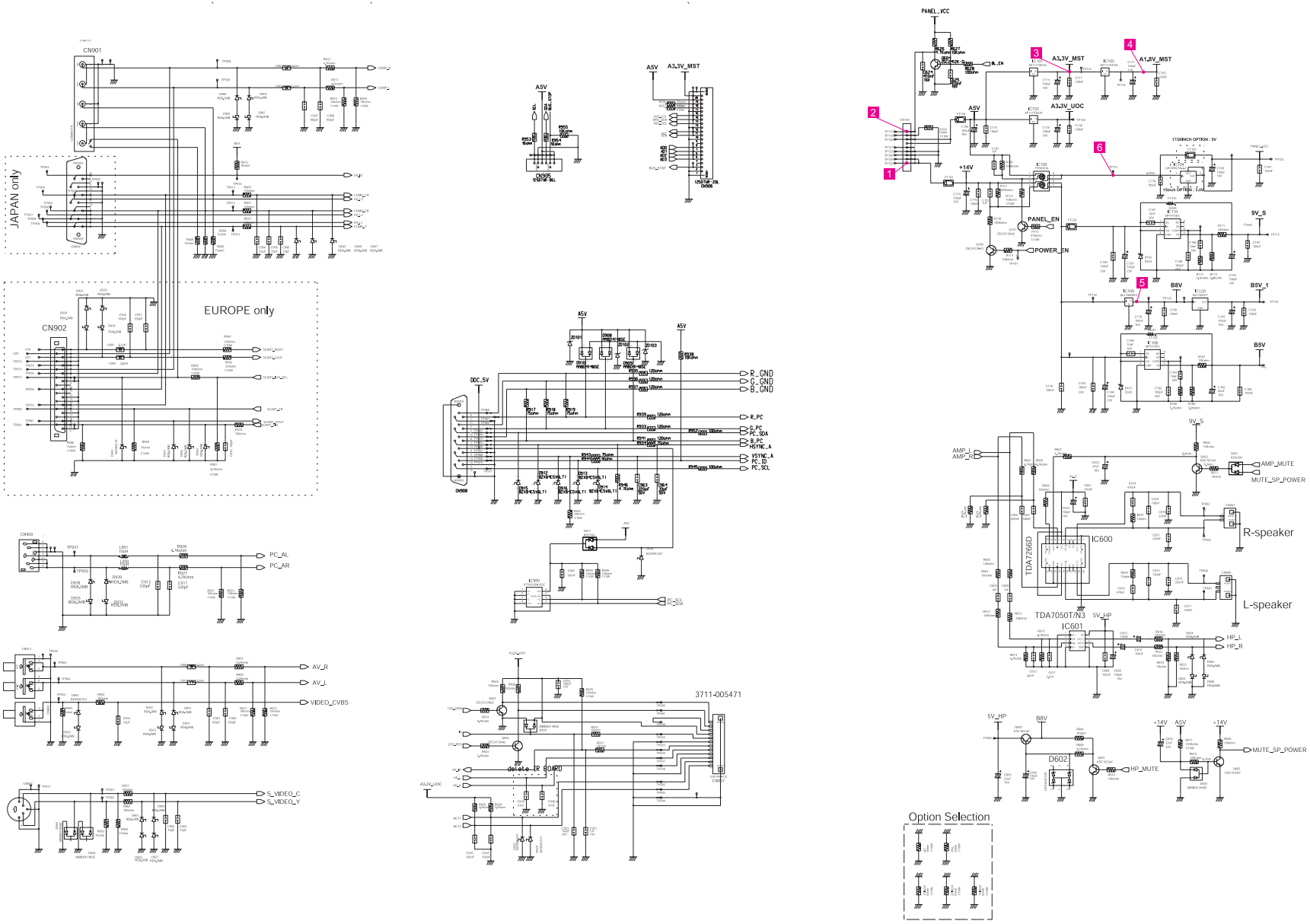


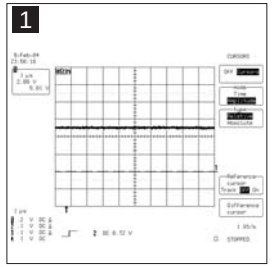
CN100(9P) : To IP Board
CN401(30P) : To 15",17" Panel
CN402(50P) : To 20" Panel
CN905(5P) : To Program Download Jig
CN906(20P) : To Scart
CN600(3P) : To Left Speaker
CN601(2P) : To Right Speaker
CN907(12P) : To Function Board

9 Schematic Diagrams

-This Document can not be used without Samsung's authorization.

9-1 Input Power Sound Schematic Diagram

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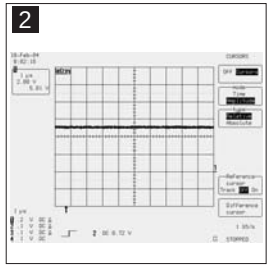
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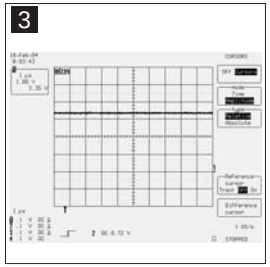
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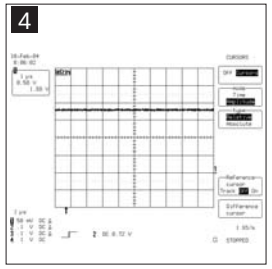
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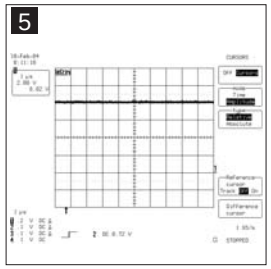
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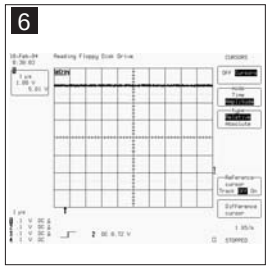
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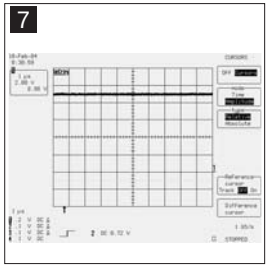
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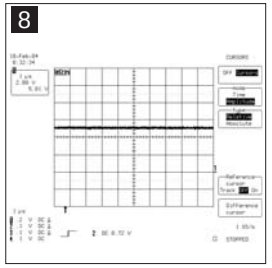
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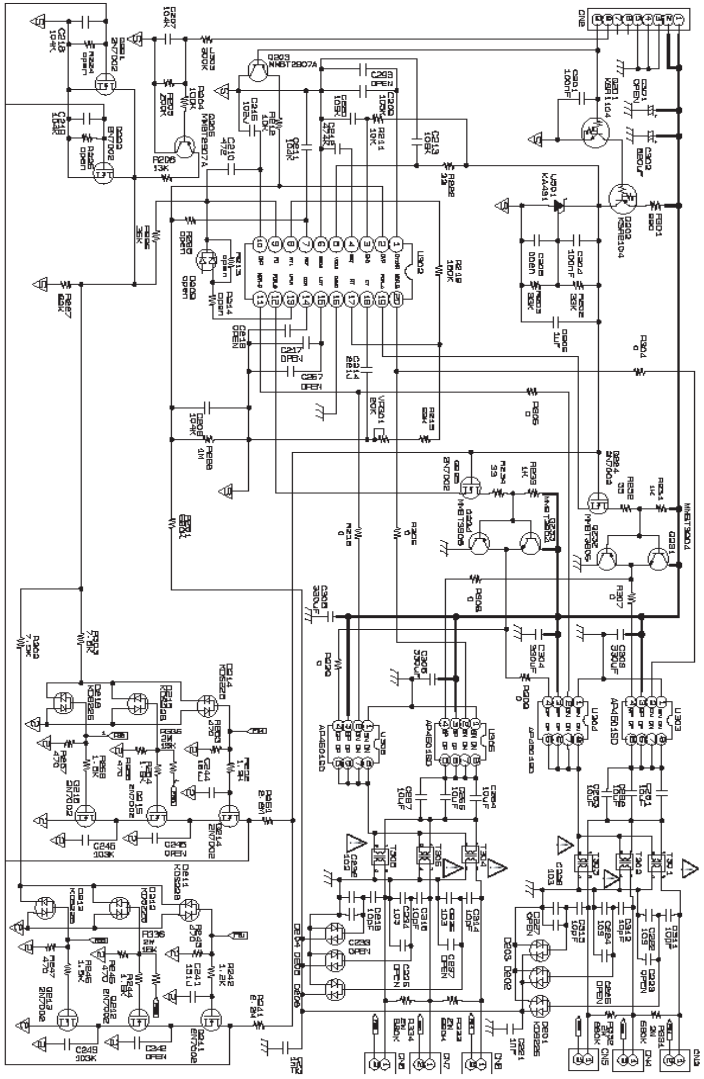
PART SPEC



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