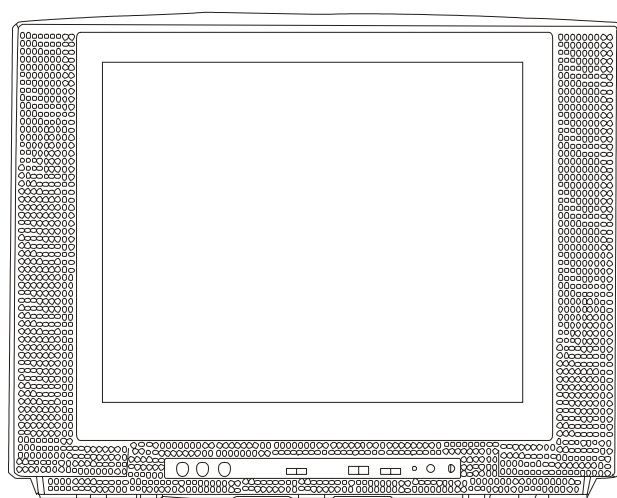


# HT-2199

COLOUR TELEVISION

## Service Manual



**Model:**  
**HT-2199**  
**(Europe)**

### Features

- 218 programs stored
- Auto-correcting black balance
- Blue extension, Green improvement
- Mult-picture modes
- Fast teletext
- Audio/video input, S-Video input, SCART terminal

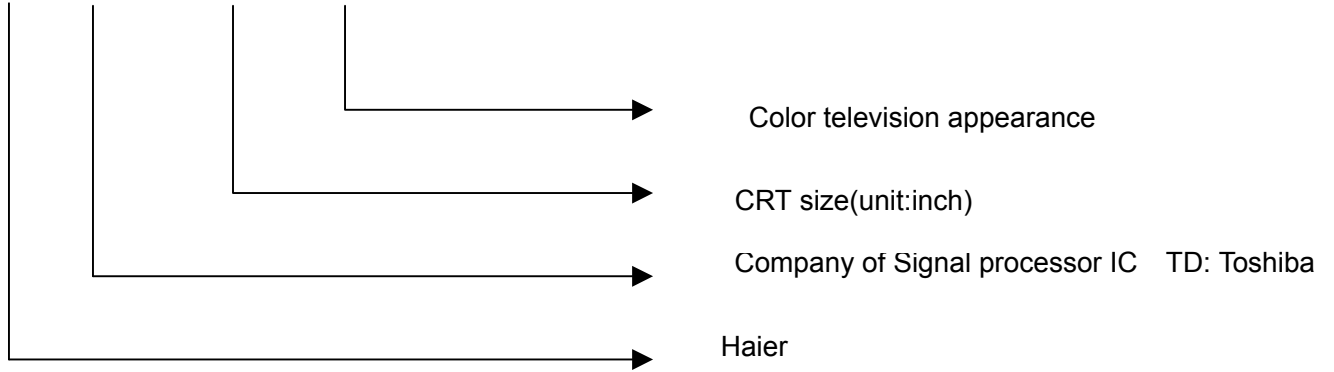
Haier Group

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## 2. Product Code illumination and Series Introduction

**H   T   -   21   99**



### 3.Features

NO.	ITEM	FUNCTION	MODEL HT-2199	NO.	ITEM	FUNCTION	MODEL HT-2199
1	PICTURE	Main IC	9361	24	SOFTWARE	Digital curtain	×
2		CRT	Flat square	25		Slow fading on & off	✓
3		Color system	PAL	26		Semitransparent menu	✓
4		Audio system	B/G	27		Non-flashing channel changing	✓
5		NO.of channels	218	28		ZOOM	×
6		OSD language	ENGLISH	29		16:9 mode	×
7		Multi-picture modes	✓	30		Games	×
8	AUDIO	AV stereo	×	31		Calendar	✓
9		Super woofer	×	32		Child-lock	✓
10		Surrounding sound	×	33		Multi-functional lock	✓
11		Treble/bass boost	×	34		No-picture listening	×
12		Left/right balancer	✓	35		Background light	✓
13		NICAM	✓	36		Auto-timer on	×
14		Multi-audio modes	×	37		CCD	×
15		Tone adjuster	×	38		V-CHIP	×
16		MTS/SAP	×	39	PARAMETER	NO. of built-in speakers	2
17		Auto-volume leveling	×	40		Audio output power(W)	3
18	JACK	AV input	back 1	41		Total power input (W)	70
19		AV output	back 1	42		Voltage range (V)	~180-250
20		DVD terminal	×	43		Power frequency (Hz)	50
21		S-video jack	✓	44		Time of sleep timer(MINS)	180
22		Headphone socket	×	45		Net weight(KG)	23
23		SCART socket	✓	46		Gross weight(KG)	25
				47		Net dimension(MM)	618×475×465
				48		Packaged dimension(MM)	685×545×520
				49		Quantity for 20' container	×
				50		Quantity for 40' container	×
				51		Quantity for 40' high container	×

## 4.Safety Precautions

# SAFETY PRECAUTIONS

### IMPORTANT SAFETY NOTICE

Many electrical identify these parts and mechanical parts in this chassis have special safety-related characteristics! In the Schematic Diagram and Replacement Parts List.

It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.

Do not modify the original design without permission of the manufacturer.

### General Guidance

An Isolation Transformer should always be used during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents that might result in personal injury caused by electrical shocks.

It will also protect the receiver and it's components from being damaged by accidental shorts of the circuitry that might be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with a specified one.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Due to the high vacuum and large surface area of the picture tube, extreme care should be taken in handling the Picture Tube. Do not lift the Picture Tube by its Neck.

### X-RAY Radiation

#### Warning:

The source of X-RAY RADIATION in this TV receiver is the High Voltage Section and the Picture Tube.

For continued X-RAY RADIATION protection, the replacement tube must be of the same type as specified in the Replacement Parts List.

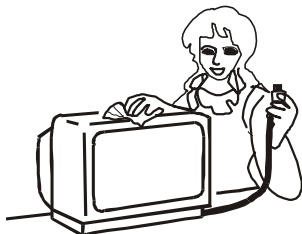
Before returning the receiver to the customer,

Always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to make sure that the set is safe to operate without any danger of electrical shock.

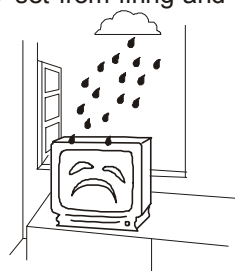
## 5. Warning and Cautions

### Warning and Cautions

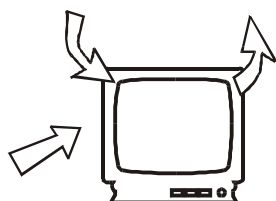
1. When you clean the TV set, please pull out the power plug from AC outlet. Don't clean the cabinet and the screen with benzene, petrol and other chemicals.



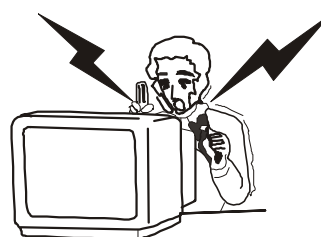
4. To prevent the TV set from firing and electric shock, don't make the TV set rain or moisture.



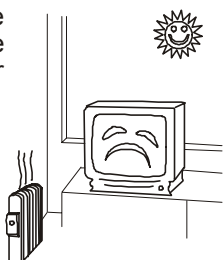
2. In order to prolong the using life of the TV set, please place it on a ventilated place.



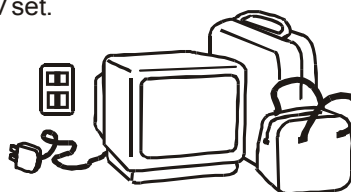
5. Don't open the back cover, otherwise it is possible to damage the components in the TV set and harm you.



3. Don't place the TV set in the sunshine or near heat source.



6. When the TV set isn't going to be used for long time or it is in thunder and lightening, please pull out the plug from AC outlet and the antenna plug from the cover of the TV set.



### Explanation on the display tube

Generally, it is not needed to clean the tube surface. However, if necessary, its surface can be cleaned with a dry cotton cloth after cutting off the power. Don't use any cleanser. If using hard cloth, the tube surface will be damaged.

**CAUTION:** Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the **SAFETY PRECAUTIONS**.

**NOTE:** If unforeseen circumstances create conflict between the following servicing precautions

and any of the safety precautions, always follow the safety precautions. **Remember: Safety First.**

### General Servicing Precautions

5.1 Always unplug the receiver AC power cord from the AC power source before:

- a. Removing or reinstalling any component, circuit board module or any other assembly of the receiver.
- b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
- c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.

**CAUTION:** A wrong substitution part or incorrect installation polarity of electrolytic capacitors may result in an explosion hazard.

- d. Discharging the picture tube anode.

5.2 Test high voltage only by measuring it with an appropriate high voltage meter or other voltage-measuring device (DVM, FETVOM, etc.) equipped with a suitable high voltage probe. Do not test high voltage by “drawing an arc”.

5.3 Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.

5.4 Do not spray chemicals on or near this receiver or any of its assemblies.

5.5 Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)

**CAUTION:** This is a flammable mixture.

Unless specified otherwise in this service manual, lubrication of contacts is not required.

5.6 Do not defeat any plug / socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.

5.7 Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.

5.8 Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.

Always remove the test receiver ground lead last.

5.9 Use with this receiver only the test fixtures specified in this service manual.

**CAUTION:** Do not connect the test fixture ground strap to any heat sink in

### Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components are usually called Electrostatically Sensitive (ES) Devices. Examples of typical ES

devices are integrated circuits and some field effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

- a. Immediately before handling any semiconductor component or semiconductor- equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock prior to applying power to the unit under test.
- b. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
- c. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
- d. Use only an anti-static type folder removal device. Some solder removal devices not classified as “anti-static” can generate electrical charges sufficient to damage ES devices.
- e. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
- f. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
- g. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

**CAUTION:** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

- h. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise even some normally harmless motions such as mutual brushing of your clothes’ fabric or lifting of your foot from a carpeted floor might generate static electricity sufficient to damage an ES device.)

### General Soldering Guidelines

- a. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range of 500 °F to 600 °F.
- b. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
- c. Keep the soldering iron tip clean and well tinned.
- d. Thoroughly clean the surfaces to be soldered. Use a mall wire bristle (0.5 inch, or 1.25cm) brush with a metal handle. Do not use freon-propelled spay-on cleaners.
- e. Use the following unsoldering technique
  - a). Allow the soldering iron tip to reach normal temperature. (500 ° F to 600° F)
  - b). Heating the component lead until the solder melts.



- a. draw the melted solder with an anti-static, suction-type solder removal device with solder braid.

**CAUTION:** Work quickly to avoid overheating the circuit board printed foil.

- f. Use the following unsoldering technique

- A). Allow the soldering iron tip to reach normal temperature. (500° F to 600° F)
- B). First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
- C). Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.

**CAUTION:** Work quickly to avoid overheating the circuit board printed foil.

- D). Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

## **Remove /Replacement**

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are of slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined.

### ***Removal***

Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.

Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

### ***Replacement***

Carefully insert the replacement IC in the circuit board.

Carefully bend each IC lead against the circuit foil pad and solder it.

Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

## **“Small-Signal” Discrete Transistor**

### **Removal/Replacement**

Remove the defective transistor by clipping its leads as close as possible to the component body.

Bend into a “U” shape the end of each of three leads remaining on the circuit board.

Bend into a “U” shape the replacement transistor leads.

Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the “U” with long nose pliers to insure metal to metal contact then solder each connection.

## **Power Output, Transistor Device**

---

**Removal/Replacement**

Heat and remove all solder from around the transistor leads.

Remove the heat sink mounting screw (if so equipped).

Carefully remove the transistor from the heat sink of the circuit board.

Insert new transistor in the circuit board.

Solder each transistor lead, and clip off excess lead.

Replace heat sink.

**Diode Removal/Replacement**

Remove defective diode by clipping its leads as close as possible to diode body.

Bend the two remaining leads perpendicularly to the circuit board.

Observing diode polarity, wrap each lead of the new diode round the corresponding lead on the circuit board.

Securely crimp each connection and solder it.

Inspect (on the circuit board copper side) the solder joints of the two “original” leads. If they are not shiny, reheat them and if necessary, apply additional solder.

**Fuse and Conventional Resistor  
Removal/Replacement**

- a. Clip each fuse or resistor lead at top of the circuit board hollow stake.
- b. Securely crimp the leads of replacement component around notch at stake top.
- c. Solder the connections

**CAUTION:** Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

**Circuit Board Foil Repair**

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds foil to the circuit board causing the foil to separate from or “lift-off” the board. The following guidelines and procedures should be followed whenever this condition is encountered.

***At IC Connections***

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

- a. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
- b. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
- c. Bend a small “U” in one end of a small gauge jumper wire and carefully crimp it around the IC

pin. Solder the IC connection.

- d. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

### ***At other connections***

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

- a. Remove the defective copper pattern with a sharp knife.

Remove at least 1/4 inch of copper, to insure that a hazardous condition will not exist if the jumper wire opens.

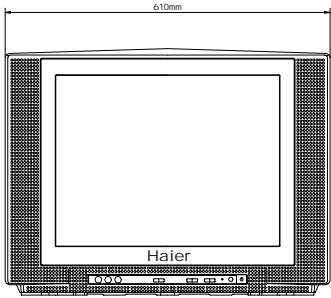
- b. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
- c. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.

Carefully crimp and solder the connections.

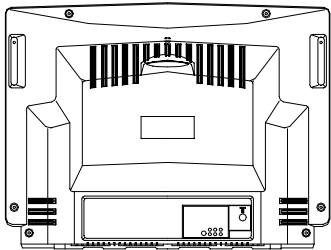
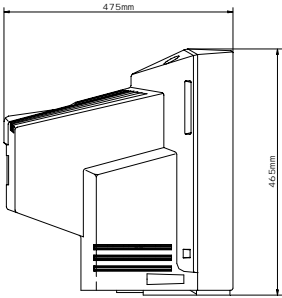
**CAUTION:** Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

6. Net dimension

Front view



Side view

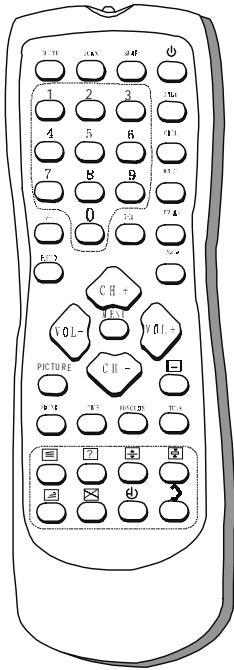


back-view

HT-2199

## 8. Remote Controller Functions

### Remote Controller




MARK	FUNCTION DESCRIPTION
SCAN	Program scan
	Standby
SW AP	Sw ap program betw een the present and the last
MUTE	M ute
ZOOM	NO USED
CALL	Program RECALL
TV /AV	TV /VIDEO SELECTION
-VOL+	VOLUME CONTROL
-CH+	CHANNEL NUMBER UP/DOWN
PICTURE	PICTURE MENU
SOUND	SOUND MENU
TIME	TIME MENU
FUNCTION	FUNCTION MENU
0-9	ONE DIG IT SELECTION
-/--	ONE OR TW O OR THREE DIG ITS PRE-SELECTION
MENU	MENU DISPLAY
EXIT	EXIT MENU DISPLAY
I-II	A2NICAM MONO SOUND SELECTION
P.STD	PICTURE MODE SELECTION
S.STD	NO USED
TUNE	TUNE MENU SELECTION
	TELETEXT SUBTITLE
	TV /TELETEXT ENTERING /EXITING
	TO REVEAL CONCEALED TELETEXT
	TELETEXT ZOOM
	TELETEXT PAGE HOLD
	TELETEXT TV MIX MODE
	TELETEXT TV /TELETEXT ALTERATION
	TIME DISPLAY (IN TV MODE)/SUBCODE SWITCH
	EAST/WEST

#### NOTE:

The function of selecting menu button on the remote controller is the same as that of program up/down button on the TV set.

The function of identifying menu button on the remote controller is the same as that of volume up/down button on the TV set.

## 9. Program Diagram

Insert the power plug into the power line socket and insert the antenna plug into the antenna socket on the rear panel. Press down the power switch of the TV set. The red indicator light goes on. If no picture appears, press the button  on the remote controller. Follow the steps below.

### A. Program preset

#### 1. Auto searching and storing program

Press MENU button on the remote controller then use the “CH+/CH-“ key to call up the “tune program” menu on the screen. Then Press the menu” VOL+/VOL- “ item to adjust. it.Use the “CH+/CH- ” key to select the bar “auto search program” then press the “VOL+/VOL-” to make sure. If you want to stop ,press the key “ MENU ”.

#### 2. Manual search and fine tune

Press MENU button then use the “CH+/CH-“ key to call up the “tune program” menu on the screen. Then Press the menu” VOL+/VOL- “ item to adjust. it.Use the “CH+/CH-” key to select the bar “Manual search program” then press the “VOL+/VOL-” to make sure.

#### 3.Deleting channel number

Press Program up/down buttons to select a channel to skip. Press MENU to call Menu. then use the “CH+/CH- “ key to call up the “tune program” menu on the screen. Then Press the menu” VOL+/VOL- “ item to adjust. it.Use the “CH+/CH-” key to select the bar “Cannal number” then press the “VOL+/VOL-” to make sure. Enter the number that you do not want to see .Then Then select “SKIP” and select SKIP to ON. Now the program number is deleted. Repeat the above steps and select SKIP to OFF, the deleted program number can be resumed.

### B. Volume tuning

Press VOLUME buttons VOL+ to increase and VOL- to decrease the volume.

### C Personal preference settings

#### Picture modes

Press SELC PICTURE repeatedly to change among MEMORY 1, MEMORY2, MEMORY3, to change the Picture Mode.

## 10. Maintenance Service and Trouble shooting

### a.Factory adjustment information

Operation method: after the appliance is switched on, press MUTE、CALL、-/--、CALL、MUTE

Button in turn and enter service mode.

Press PRO- and PRO+ buttons to select items for adjustment.

Press VOL- and VOL+ buttons to adjust selected items.

Press the POWER button to switch off the appliance and go back to the normal state.

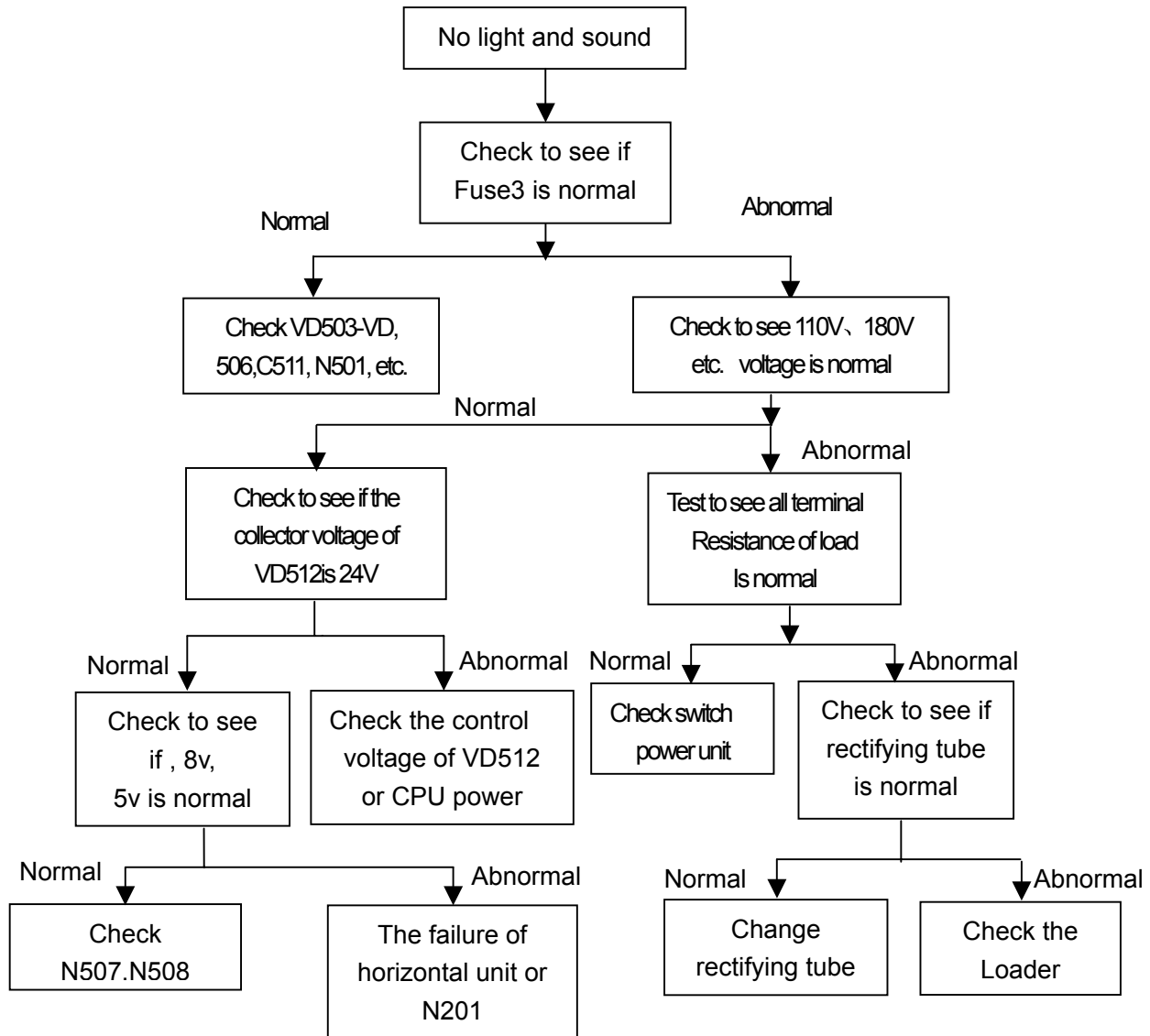
Maintenance menu (Table 8)

Item	Specifications	Default Value	Variable Mark
5PAR	Horizontal parabola		*
5BOW	Horizontal Bow		*
5HSH	Horizontal shife	40	*
5EWW	EW width		*
5EWP	EW parabola		*
5UCR	EW upper corner parabola		
5LCR	EW lower corner parabola		
5EWT	EW trapezium		
5VSL	Vertical slope	42	
5VAM	Vertical amplitude	55	
5SCL	S-Correction	21	
5VSH	Vertical Shift	28	
5VOF	OSD Vertical Offset	40	
HOF	OSD Horizontall Offset	40	
VX	Vertical Zoom		
6PAR	Horizontal parabola		
6BOW	Horizontal Bow		
6HSH	Horizontal shife		
6EWW	EW width		
6EWP	EW parabola		
6UCR	EW upper corner parabola		
6LCR	EW lower corner parabola		
6EWT	EW trapezium		
6VSL	Vertical slope		
6VAM	Vertical amplitude		
6SCL	S-Correction		
6VSH	Vertical Shift		
6VOF	OSD Vertical Offset		
HOF	OSD Horizontall Offset		
VX	Vertical Zoom		
RED	Black level offset R	32	*
GRN	Black level offset G	32	*

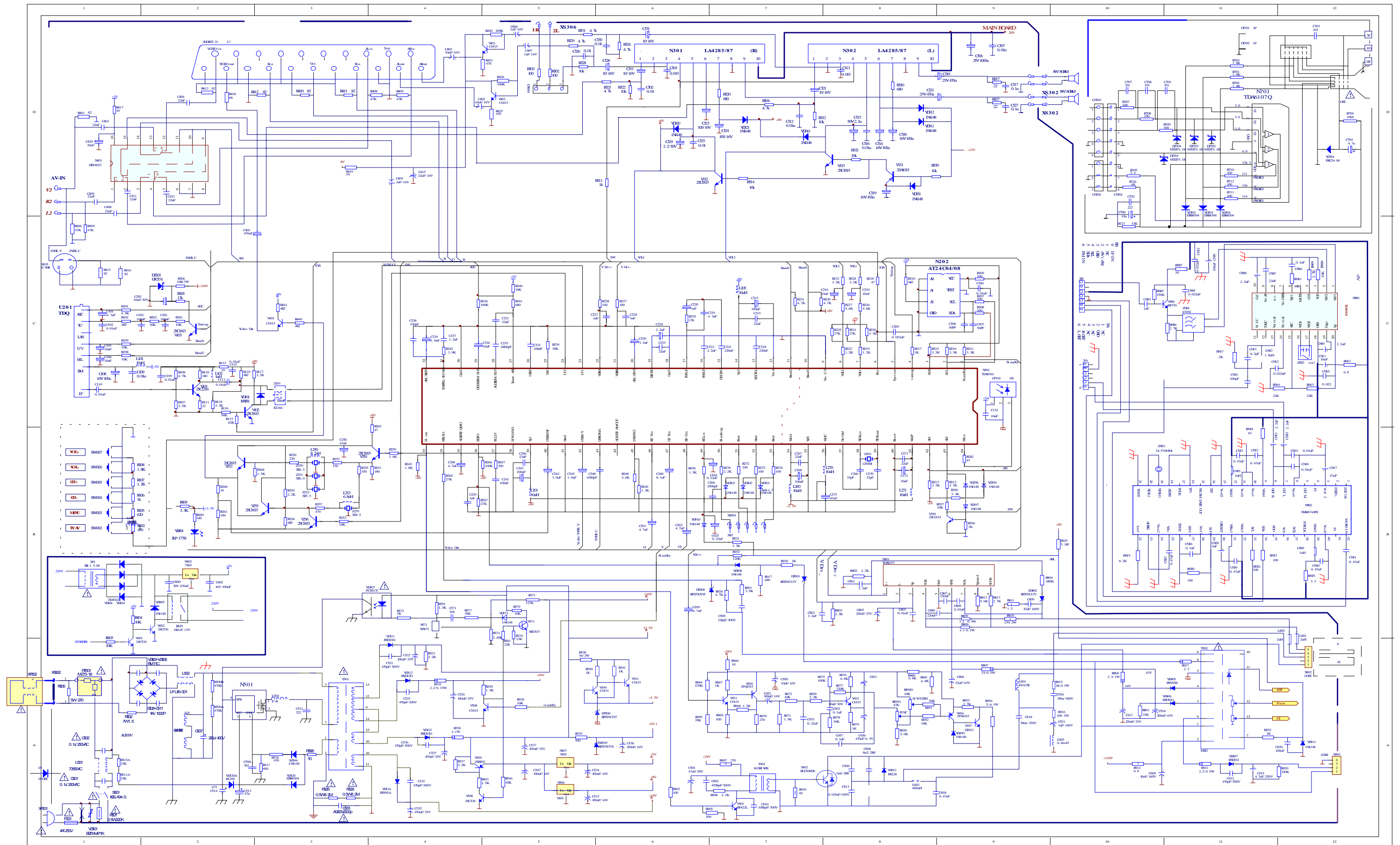
Item	Specifications	Default Value	Variable Mark
WPR	White point R	31	*
WPG	White point G	26	*
WPB	White point B	31	*
YDFP	Y-Delay for PAL	7	*
YDFN	Y-Delay for NTSC		*
YDAV	Y-Delay for AV		*
TOP	AGC Take-Over point	32	*
VOL	Volume	44	
9874	Output Gain of TDA9874A	26	
AVLT	TDA9874A AVL decay time	1	
9860	Sub volume of TDA9860/59	69	
IFFS	Vision IF	2	
HDOL	Cathode drive level	5	
AGC	IF AGC speed	1	
VF2B	VG2 Brightness	50	
0CON	Listen: Contrast	0	
0BRI	Listen: Brightness	0	
0COL	Listen: Color	50	
0SHP	Listen: Sharpness	50	
1CON	Soft: Contrast	45	
1BRI	Soft: Brightness	45	
1COL	Soft: Color	50	
1SHP	Soft: Sharpness	50	
2CON	Standard: Contrast	70	
2BRI	Standard: Brightness	50	
2COL	Standard: Color	60	
2SHP	Standard: Sharpness	50	
3CON	Dynamic: Contrast	80	
3BRI	Dynamic: Brightness	50	
3COL	Dynamic: Color	70	
3SHP	Dynamic: Sharpness	50	
OP1	Option 1	177	
OP2	Option2	127	
OP3	Option3	255	
OP4	Option4	75	
OP5	Option5	183	
OP6	Option6	89	
OP7	Option7	1	

You can change the DATA with “\*” mark when necessary.

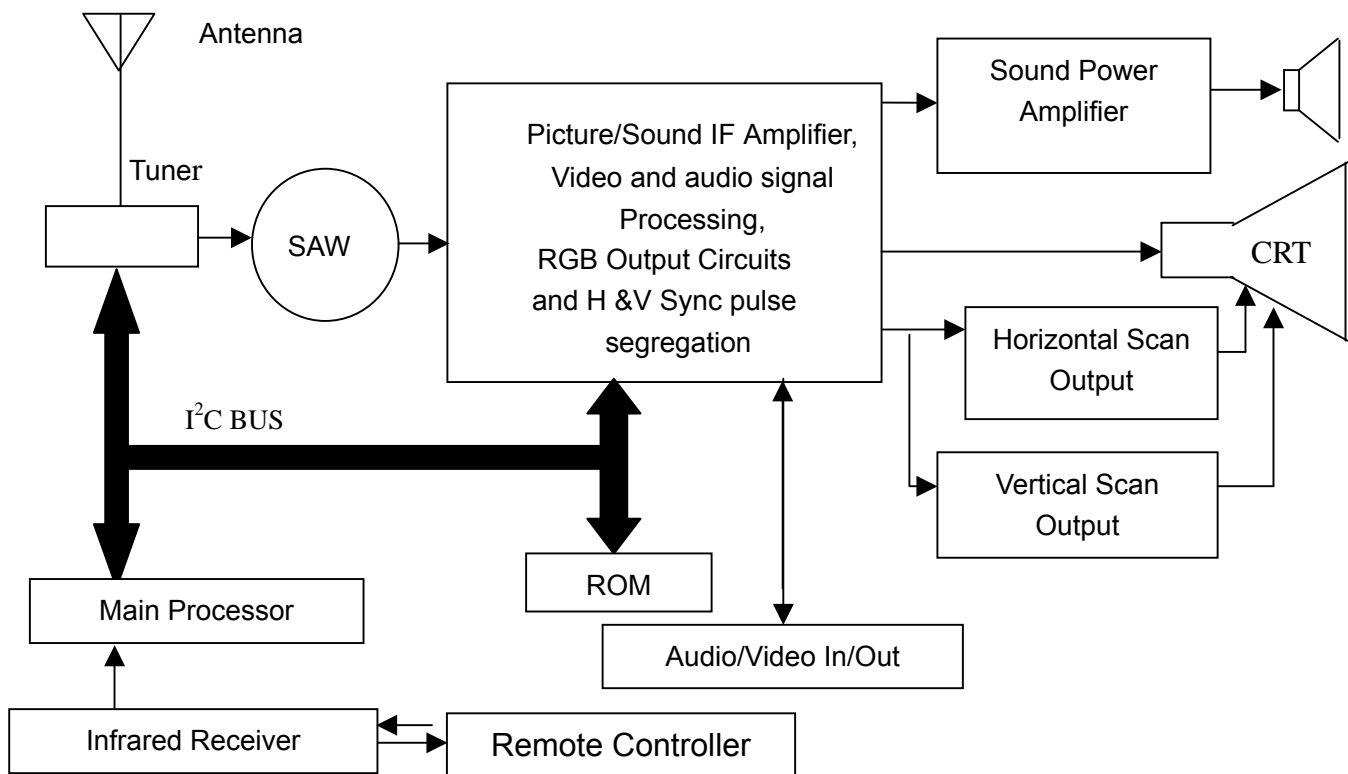




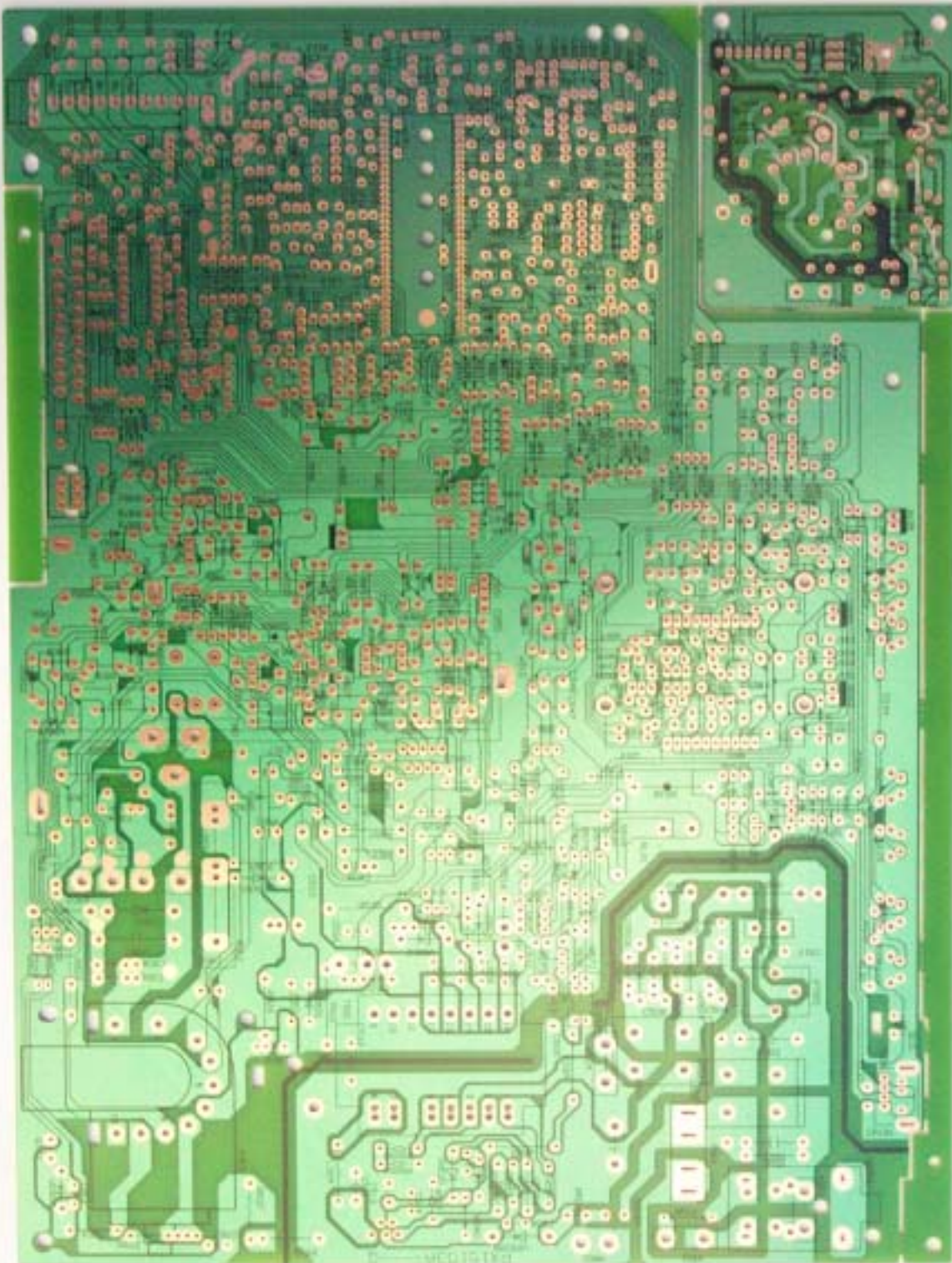
## 11. Circuit Diagram



## 11.2 Circuit Block Diagram



## 11.3 PCB



## 12. Circuit Explanation

A1.HT-2199 color TV set composed of the following sections

- (1) Small signal processing: super monolithic integrated circuits N201(TDA9361). and memory N901 (AT24C08).
- (2) Sound power amplifying: integrated circuits N301,N302 ( LA4285).
- (3) Horizontal and Vertical scan output circuits: Vertical output integrated circuits N801(TDA8357), Horizontal output transistor V902 (2SD1651), Horizontal flying back transformer T902 (JF0501-19930).
- (4) Switch power supply: switch transformer T501 (BCK-08A5), power transistor N501 (5Q0765).
- (5) AV switch integrated circuits N401(HEF4053).

A2. Main integrated circuits:

- |             |   |
|-------------|---|
| (1) TDA9361 | Microprocessor<br>Picture IF/sound IF/video processing/H and V<br>Scan/color decoding |
| (2) LA4285  | Vertical output integrated circuits   |
| (3) TDA8357 | Sound power amplifying integrated circuits  |

A3. Electrical circuit analysis

1)、Microprocessor and Small signal processing: super monolithic integrated circuits : TDA9361

TDA9361 is super large integrated circuit decoder, containing intermediate image amplifying, teletext processing, intermediate sound amplifying, horizontal and vertical scan, small signal processing, color decoding, hi-pressure tracing and over-load protection, I<sup>2</sup>C bus control.

Information introducing functions and testing data for maintenance is listed in Table 1.

Table 1

Step	Function	Working Voltage (V)	Ground Resistance(R)	
			Positive (Ω)	Negative (Ω)
1.	STANDBY	0.1	12.58K	12.87K
2.	SCL	3.5	12.62K	12.9K
3.	SDA	3.2	12.62K	12.9K
4.	Tuning	0.4	0.5M	257K
5.	SYSTEM	3.2	11.7K	11.9K
6.	KEY	3.1	33K	30K
7.	VOL1	4.42	10.6K	10.9K
8.	VOL2	4.42	10.6K	10.9K
9.	VSS C/P	0	0	0

Step	Function	Working Voltage (V)	Ground Resistance(R)	
			Positive (Ω)	Negative (Ω)
10.	BAND1	0	11.9K	10K
11.	BAND2	6.38	3.0K	3.0K
12.	VSSA	0	0	0
13.	SEC.PLL	2.3	6.86M	4.4M
14.	VP2	7.7	0.77K	0.75K
15.	DECD/G	5.0	30K	29.9K
16.	PH2.LF	2.9	1.33M	0.45M
17.	PH1.LF	3.9	6.8M	4.2M
18.	GND3	0	0	0
19.	DEC.BG	4.0	37.3K	37.2K
20.	AVL/EWD	0	6.9M	4.6M
21.	V.DRB	0.7	1.9K	1.9K
22.	V.DRA	0.7	1.9K	1.9K
23.	IF.IN1	1.9	35.3K	35.6K
24.	IF.IN2	1.9	35.3K	35.6K
25.	I.REF	3.84	39.1K	39K
26.	V.S.C.	3.8	6.72M	4.96M
27.	TUNER.AGC	0.1	13K	10.5K
28.	AU.DEEM/SIF1	2.9	1.44M	2.04M
29.	DECS.DEM/SIF2	2.4	6.92M	4.64M
30.	GND2	0	0	0
31.	SND.PLL/SIF AGC	2.3	1.38M	0.42M
32.	AVL/REFO	0.2	6.82M	3.96M
33.	H.OUT	0.6	2.56K	2.54K
34.	F.B.L.SO	0.4	30.2K	30K
35.	AUO.EXT	3.6	6.92M	4.92M
36.	EHTO	1.1	12K	12K
37.	PLL.IF	1.4	6.76M	4.93M
38.	IF.VO/SVO	2.6	0.98M	0.38M
39.	VP1	7.7	0.77K	0.75K
40.	CVBS.INT	3.44	6.76M	4.2M
41.	GND1	0	0	0
42.	CVBS/Y	3.8	4.56M	384K
43.	CHROMA	1.5	80.8K	80.8K
44.	AUD.OUT/AMOUT	3.4	1.2M	1.66M
45.	INSS.W2 (BL)	3.1	0.72K	0.71K
46.	R2/V.IN	2.6	1.88M	2.12M
47.	G2/Y.IN	2.6	1.86M	2.12M
48.	B2/U.IN	2.6	1.85M	2.16M
49.	BCL.IN	2.3	321.5K	4.68M
50.	BLK.IN	5.1	23.2K	23.1K
51.	R.OUT	3.3	5.6K	5.54K
52.	G.OUT	3.3	5.5K	5.48K
53.	B.OUT	3.3	5.5K	5.5K
54.	VDD.A	3.1	30K	26.2K
55.	VPE	0	0	0

Step	Function	Working Voltage (V)	Ground Resistance(R)	
			Positive (Ω)	Negative (Ω)
56.	VDD.C	3.1	30K	26.2K
57.	OSC.GND	0	15.4	14
58.	XTAL.IN	1.5	1.17M	262K
59.	XTAL.OUT	1.6	0.74M	227K
60.	RESET	0	0	0
61.	VDDP	3.1	30K	26.2K
62.	AV1	4.8	12.8K	12.9K
63.	AV2	4.8	12.8K	12.9K
64.	IRin	4.9	36.9K	34.6K

## 2). Analysis of common path circuits

High frequency television signals, received via an antenna (or transmitted through a cable TV system) to the input terminal of the high frequency tuner U101, are processed for tuning and high frequency amplifying and mixing, then a 38.9MHz image intermediate frequency and 31.5MHz sound intermediate frequency signal will be released at the IF terminal of TU101 to b of the transistor V101, where signals are amplified to compensate for the insertion losses of the sound surface wave filter. Single or dual-ended input is used for the sound surface wave filters Z101 of this appliance according to system properties. Intermediate frequency signals will be transmitted to (23) and (24) of N201(TDA9361). High frequency amplify AGC output from (27) of N201 controls the gain of the high frequency tuner.

## 3). Analysis of signal trap switch circuit

Color video signal output from (38) of N201 through V250 to Z250-Z252 and Z255. All television signal is selected by V255 and V256 then pass. V255 and V256 are band-pass transistors, take part in switch at the location. The pin 5 of N201 is high level (sound frequency isn't 4.5MHz), V256 conducts the signal pass through Z250-Z252 channel. When pin 6 of N201 is low level. V256 cut off and V255 conducts, the signal pass through Z255 channel. After the all television signal pass through the traps, video signal is gained, then after it pass through R260, R261, C242, N201(pin 40), V403, it is used in AV output.

Video signal of AV and Y signal of s-terminal pass through N401 (HEF4053BP) are selected and go into pin 42 of N201; C signal of s-terminal go into pin 43 of N201.

R, G, B signal of RGB component respectively pass C291, C260, C261 to couple, go to pin 46, pin 47, pin 48 of N201.

## 4). Analysis of sound power amplifying circuits

Sound power amplifying circuits are composed of integrated circuits N301 (LA4285/87) and N302 (LA4285/87) peripheral components. LA4285/87 is an integrated electrical circuit. Information introducing functions and testing data for LA4285/87 maintenance is listed in Table



Table 4

No.	Function	Working Voltage (V)	Ground Resistance(R)	
			Positive (Ω)	Negative (Ω)
1	INT	6.27	54.4K	53.3K
2	GND	0	2.6	0
3	EXT	5.51	54.1K	53.1K
4	SW	1.21	86.2K	86.6K
5	VOL	4.19	20K	20.5K
6	FL1	9.21	13.5K	13.3K
7	NFB	9.19	32.5K	32.3K
8	GND	0	3	1.5
9	OUT	9.25	44K	42K
10	VCC	20	0.4M	0.4M

#### 5). Analysis of horizontal sync and horizontal scan output circuits

As the horizontal oscillation circuit is installed inside N201 (TDA9361), . Some brightness signals including compound sync signals are transmitted to the internal sync segregation circuits, where horizontal sync and vertical sync pulses are segregated. C219(472) , R235(15K) 、 C220(1u) are connected to N201 (17) are phase-lock loop filters. Horizontal pumping signals are transmitted from (33) of N201 to horizontal promotion transistor V901 (2SD2383), and then drive the H-DRIVE transformer. After being amplified through it switches power transistor to control the horizontal scan of the electronic-beam. C918 is a horizontal S correction capacitor and L901 is for horizontal linear inductor. T902 is a horizontal output transformer.VD908,R932,R267,R266,C229 are ABL circuits. R930,R931,VD910,C925 consist of beam-current limit circuit. H-return-trace pulse from pin 4 and pin 3 of horizontal output transformer T444 via rectification, filt and obtain DC voltage +16.5V and +46V and feedback to pin 3 and pin6 of N801 for forward and return trace Vertical IC to supply power.

Pin 8 of N801 put out heater voltage 6.3V, pin 6 of N801 supply sync signal for N201 ; pin 9 of N801 put out Horizontal return trace pulse, via rectification, filt and obtain DC +180V for video amplifying circuit supply power.

#### 6). Analysis of video amplifying circuits

The video amplifying circuits are comprised of N701 (TDA6107Q) and peripheral components. B, G and R signals output from N201 (51), (52) and (53) go into pin2, pin3, pin1 of N701, TDA6107Q has 3 video power transistor are available for amplifying the input R, G, B and they go into cathode of CRT. Pin 5 of N501 is used to check black balance output and checking signal go into pin 50 of N201 and adjust picture black balance. White balance adjustment is completed through control of an I<sup>2</sup>C serial bus control system. Information introducing functions and testing data for TDA6107Q maintenance is listed in Table 6.



Table 6

Step	FUNCTION	Working Voltage (V)	Ground Resistance (R)	
			Positive (Ω)	Negative (Ω)
1	B IN	2.9	5.44K	5.43K
2	R IN	2.9	5.44K	5.45K
3	G IN	2.9	5.38K	5.39K
4	GND	0	0	0
5	F/B	3.8	13.24K	13.3K
6	VCC	164.9	34K	30K
7	G OUT	114.5	2.1M	3.24M
8	R OUT	114.2	1.8M	3.22M
9	B OUT	113.4	2.1M	3.22M

#### 7). Analysis of switching mode power circuits

The installed switching mode power source is a typical autonomous pulse switch power source. The circuits are comprised of IC N501, switching mode transformer T501, bridge-rectifier components. When the switch is set to on, the pulse voltage of the 220V voltage rectified by VD503-VD506 rectifier is filtered by the capacitor C511 (1500uF) to obtain +300V direct current, which is added through (3)-(7) of the switching mode transformer T501 to the pin1 of IC N501. When the appliance is first switched on. The coupler VD507 (PC817B inlet) functions to control voltage, and the voltage tolerance information from T501 are transmitted to pin4 of N501 via VD507 to control the switch velocity and hold the output voltage normal.

The pulse voltage output from the secondary (12) of the switching mode transformer T501, rectified and filtered by V511(RU3A) and C522 is +110V direct current voltage which is horizontal voltage. The pulse voltage output from (14) is rectified and filtered by VD512 and C526 and the resultant +24V direct current voltage is supplied for sound power amplifier. The pulse voltage output from (15) is rectified and filtered by VD515 and C537 and the resultant +12V direct current voltage is supplied to the little signal circuits. The pulse voltage output from (15) is rectified and filtered via V509 and N507 to obtain +8V direct current voltage to supply the decode circuit of IC N201. +12V direct current voltage output, after rectification of the secondary source, +3.3V and +5v are supplied to N201 and EEPROM.

## 13. Adjustment

The chassis of this TV set uses Toshiba IC with the latest digital bus processing technology. The adjustment points are fewer and the adjustment is simpler. The adjustment method is as follows:

### 13.1. +B: $110 \pm 0.3V$ adjustment.

- 1) Switch on the power and connect PAL circular signals to the tuner.
- 2) Adjust variable resistor RP501 until the voltage of the main power is  $110 \pm 0.3V$ .

### 13.2. Screen voltage adjustment.

- 1) Switch on the power and receive PAL system circular signal. Warm up the TV set for 15 min.
- 2) Enter the adjustment D state. Press the “-/-” button, then a bright horizontal line appears. Adjust screen potentiometer to let the horizontal line just appears.

### 13.3. Focus adjustment.

- 1) Receive electronic circular signal.
- 2) Set picture mode on standard mode.
- 3) Adjust focus potentiometer until the optimum picture is achieved.

### 13.4. White balance adjustment.

- 1) Set the picture mode on standard mode.
- 2) Enter the Factory state and adjust WPR, WPG, WPB, RED and GRN.
- 3) Coordinate of reference white color: (X=0.281, Y=0.311).

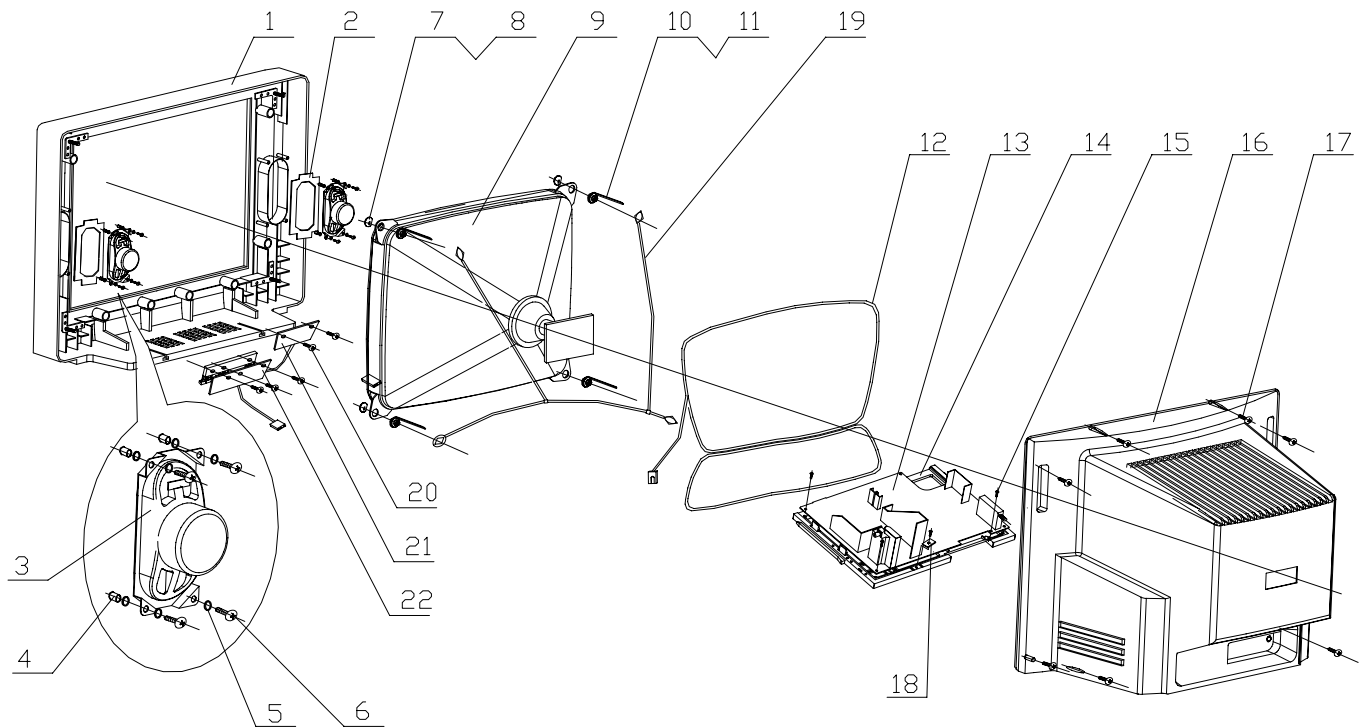
### 13.5. Adjustment of horizontal and vertical position and size.

- 1) Switch on the power and connect the signals to the tuner to receive PAL/NTSC system circular signal.
- 2) Enter the Factory state. Adjust 5HSH to change the horizontal position and 5VAM to change the vertical position. Adjust 5VSH to change the vertical size until the vertical size is 90-92%. Horizontal size is related to the capacitor C906. Hold the horizontal size is 90-92%.

### 13.6. Adjustment of character positions

Adjust OSD for the horizontal positions of the screen menu.

## 14. Exploded View



HT-2199 EXPLOSION BOM

Serial Number	Name	Part code	Specification	Quantity	Notes
1	Front Frame	0090201600	MTAA5054AC--Q	1	
2	Speaker crash pad	0090300099	613 Speaker	2	
3	Speaker	0094000018	YDT613-4W-16Ω	2	
4	Rivet	0090100132	MTBS0004BB--Q	8	
5	Washer Rubber	0090300095	Inner Diameter 4.8	16	
6	Screw	0090600023	SJ2824-87 ST4*16F	8	
7	Washer	0090100128	MTBH2004BA--Q	4	
8	Rubber Washer	0090300076	1 mm	4	
9	CRT	0094000222	54SX503Y22-DC01	1	
10	Degaussing coil clip	0090800171	BJZ0001-----Q	4	
11	Combined Nut	0090600069	M6(98025)	4	
12	Degaussing coil	0094500443	HXC-54	1	
13	Main Board	0094003295	BXA5137---J-Q	1	
14	Bracket	0090200266	MTAC0043AC--Q	1	
15	Screw	0090600028	SJ2825-87 ST3*10F	5	
16	Back Cover	0090200262	MTAA0097AC--Q	1	
17	Screw	0090600023	SJ2824-87 ST4*16F	8	
18	Block	0090201452	MTAH5010AA--Q	1	
19	Screw	0090600028	SJ2825-87 ST3*10F	5	
20	PCB	0091800656	PX65109-----Q	1	
21	PCB	0091800260	PX65023A----Q	1	

## 15. List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
	10900400999			1	
	0090200480	Mains-cord hoke	MTAJ5002AG--Q	1	
	0094000748	CRT	A51JXS098X96	1	
	0094500443	Degaussing coil	HXC-54	1	
	0090400194	CRT grounding assembly	JE221-02-4--Q	1	
	0090800171	Degaussing coil tie	BJZ0001-----Q	4	
	0090400885	Deflection wire	JG4401-614--Q	1	
	0090400238	Wire	JT2481-B0035Q	1	
	0090400255	Wire	JT2801-B0035Q	1	
	0090501291	plastic bag	240*160	1	
	0090200453	Clamp	TMMOA101(阻燃)	1	
	0090300076	Rubber washer	厚 1mm φ6.5	4	
	0090300081	Rubber washer	厚 2mm φ8.5	4	
	0090100122	Washer	(铁)厚 1MM φ8.5	4	
	0090600069	combined nut	M6 (98025)	4	
	0090202162	clamp	MTAJ5020AG--Q(UL)	2	
	0090300084	crash pad	30×30×30 带胶	2	
	0090203575	Back label	MTFB5359CA--Q	1	
	0090600023	Screw	SJ2824-87 ST4*16F	8	
	0090600193	Screw	SJ2825-87 ST3*16F(发黑)	2	
	0090201543	Front mask	MTAA2037AC--Q	1	
	0094000018	speaker	YDT613-64AV,10W,8Ω	2	
	0090300099	speaker crash pad	613 扬声器	2	
	0090300095	Rubber washer	内径 Φ4.8	16	
	0090100132	Rivet	MTBS0004BB--Q	8	
	0090600023	Screw	SJ2824-87 ST4*16F	8	
	0090201547	holder	MTAC2024AC--Q	1	
	0090200275	switch transition pad	MTAW0002AA--Q	1	
	0090600013	Screw	SJ2825-87 ST3*12F	3	
	0090600015	Screw	SJ2824-87 ST4*12F	2	
	0090600074	Screw	GB9074.4-88 M3*8	2	
	0090201544	Back cover	MTAA2038AC--Q	1	
	0090300079	Cloth	15*200	2	
	0090300096	Cloth	15*420	1	
	0090203475	terminal board	MTAH5026AC--Q	1	
	0090203555	Function indirecting label	MTFC5021AJ--Q	1	
	0090600015	Screw	SJ2824-87 ST4*12F	3	
	0090803213	Package assembly	BBJ5429-----Q	1	
	0090503017	Carton	MTED5278CA--Q	1	
	0090500102	plastic bag	21"通用	1	
	0090501062	Top pad	MTEE2039AK--Q	1	
	0090501063	Bottom pad	MTEE2040AK--Q	1	
	0090100165	Staple	65*2	8	
	0090500094	Accessory poke	270*180	1	
	0090502979	Operating instructions	MTDB5487CA--Q	1	
	0094000299	battery	5#(英文)	1	
	0094002462	Remote controller	HTR-024	1	
	0091800631	PCB	PX15103A----Q	1	
R112	0094100065	Resister	RT13-1/6W-10Ω±5%-----T	1	
R417	0094100065	Resister	RT13-1/6W-10Ω±5%-----T	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
R419	0094100065	Resister	RT13-1/6W-10Ω±5%-----T	1	
R265	0094100820	Resister	RT13-1/6W-22Ω±5%-----T	1	
R317	0094100820	Resister	RT13-1/6W-22Ω±5%-----T	1	
R327	0094100820	Resister	RT13-1/6W-22Ω±5%-----T	1	
R111	0094100820	Resister	RT13-1/6W-22Ω±5%-----T	1	
R218	0094100797	Resister	RT13-1/6W-33Ω±5%-----T	1	
R282	0094100066	Resister	RT13-1/6W-47Ω±5%-----T	1	
R441	0094100066	Resister	RT13-1/6W-47Ω±5%-----T	1	
R418	0094100805	Resister	RT13-1/6W-68Ω±5%-----T	1	
R415	0094100783	Resister	RT13-1/6W-82Ω±5%-----T	1	
R401	0094100783	Resister	RT13-1/6W-82Ω±5%-----T	1	
R410	0094100783	Resister	RT13-1/6W-82Ω±5%-----T	1	
R411	0094100783	Resister	RT13-1/6W-82Ω±5%-----T	1	
R412	0094100783	Resister	RT13-1/6W-82Ω±5%-----T	1	
R413	0094100783	Resister	RT13-1/6W-82Ω±5%-----T	1	
R207	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R208	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R209	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R237	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R238	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R260	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R261	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R255	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R272	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R275	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R276	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R902	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R219	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R222	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R110	0094100132	Resister	RT13-1/6W-180Ω±5%-----T	1	
R251	0094100802	Resister	RT13-1/6W-150Ω±5%-----T	1	
R252	0094100802	Resister	RT13-1/6W-150Ω±5%-----T	1	
R217	0094100019	Resister	RT13-1/6W-220Ω±5%-----T	1	
R256	0094100019	Resister	RT13-1/6W-220Ω±5%-----T	1	
R247	0094100134	Resister	RT13-1/6W-390Ω±5%-----T	1	
R257	0094100020	Resister	RT13-1/6W-470Ω±5%-----T	1	
R421	0094100020	Resister	RT13-1/6W-470Ω±5%-----T	1	
R425	0094100020	Resister	RT13-1/6W-470Ω±5%-----T	1	
R241	0094100021	Resister	RT13-1/6W-560Ω±5%-----T	1	
R310	0094100792	Resister	RT13-1/6W-680Ω±5%-----T	1	
R320	0094100792	Resister	RT13-1/6W-680Ω±5%-----T	1	
R917	0094100792	Resister	RT13-1/6W-680Ω±5%-----T	1	
R107	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R226	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R227	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R311	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R296	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R440	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R249	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R918	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
540	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R908	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
R541	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R922	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R198	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R199	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R221	0094100753	Resister	RT13-1/6W-1.2KΩ±5%-----T	1	
R225	0094100753	Resister	RT13-1/6W-1.2KΩ±5%-----T	1	
R248	0094100025	Resister	RT13-1/6W-1.5kΩ±5%-----T	1	
R529	0094100025	Resister	RT13-1/6W-1.5kΩ±5%-----T	1	
R503	0094100025	Resister	RT13-1/6W-1.5kΩ±5%-----T	1	
R268	0094100025	Resister	RT13-1/6W-1.5kΩ±5%-----T	1	
R250	0094100722	Resister	RT13-1/6W-1.8KΩ±5%-----T	1	
R245	0094100722	Resister	RT13-1/6W-1.8KΩ±5%-----T	1	
R802	0094100722	Resister	RT13-1/6W-1.8KΩ±5%-----T	1	
R803	0094100722	Resister	RT13-1/6W-1.8KΩ±5%-----T	1	
R117	0094100026	Resister	RT13-1/6W-2.2KΩ±5%-----T	1	
R259	0094100026	Resister	RT13-1/6W-2.2KΩ±5%-----T	1	
R537	0094100026	Resister	RT13-1/6W-2.2KΩ±5%-----T	1	
R242	0094100027	Resister	RT13-1/6W-2.7KΩ±5%-----T	1	
R813	0094100027	Resister	RT13-1/6W-2.7KΩ±5%-----T	1	
R126	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R231	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R118	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R211	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R215	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R216	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R220	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R212	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R213	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R299	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R228	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R232	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R931	0094100028	Resister	RT13-1/6W-3.3KΩ±5%-----T	1	
R901	0094100071	Resister	RT13-1/6W-3.9KΩ±5%-----T	1	
R108	0094100029	Resister	RT13-1/6W-4.7KΩ±5%-----T	1	
R258	0094100029	Resister	RT13-1/6W-4.7KΩ±5%-----T	1	
R304	0094100029	Resister	RT13-1/6W-4.7KΩ±5%-----T	1	
R320	0094100029	Resister	RT13-1/6W-4.7KΩ±5%-----T	1	
R119	0094100029	Resister	RT13-1/6W-4.7KΩ±5%-----T	1	
R210	0094100029	Resister	RT13-1/6W-4.7KΩ±5%-----T	1	
R925	0094100721	Resister	RT13-1/6W-5.6KΩ±5%-----T	1	
R101	0094100031	Resister	RT13-1/6W-6.8KΩ±5%-----T	1	
R342	0094100031	Resister	RT13-1/6W-6.8KΩ±5%-----T	1	
R240	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R102	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R115	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R270	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R253	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R205	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R297	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R312	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R322	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R330	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
R546	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R314	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R332	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R530	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R201	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R202	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R579	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R812	0094100073	Resister	RT13-1/6W-12KΩ±5%-----T	1	
R576	0094100034	Resister	RT13-1/6W-15KΩ±5%-----T	1	
R537	0094100034	Resister	RT13-1/6W-15KΩ±5%-----T	1	
R267	0094100034	Resister	RT13-1/6W-15KΩ±5%-----T	1	
R278	0094100779	Resister	RT13-1/6W-22kΩ±5%-----T	1	
R581	0094100779	Resister	RT13-1/6W-22kΩ±5%-----T	1	
R262	0094100780	Resister	RT13-1/6W-27kΩ±5%-----T	1	
R235	0094100780	Resister	RT13-1/6W-27kΩ±5%-----T	1	
R277	0094100036	Resister	RT13-1/6W-33kΩ±5%-----T	1	
R239	0094100110	Resister	RJ13-1/6W-39K-G-----T	1	
R604	0094100800	Resister	RT13-1/6W-47kΩ±5%-----T	1	
R409	0094100800	Resister	RT13-1/6W-47kΩ±5%-----T	1	
R499	0094100800	Resister	RT13-1/6W-47kΩ±5%-----T	1	
R408	0094100800	Resister	RT13-1/6W-47kΩ±5%-----T	1	
R116	0094100038	Resister	RT13-1/6W-56KΩ±5%-----T	1	
R236	0094100077	Resister	RT13-1/6W-100KΩ±5%-----T	1	
R426	0094100077	Resister	RT13-1/6W-100KΩ±5%-----T	1	
R420	0094100077	Resister	RT13-1/6W-100KΩ±5%-----T	1	
R932	0094101024	Resister	RT13-1/6W-120KΩ±5%-----T	1	
R266	0094101024	Resister	RT13-1/6W-120KΩ±5%-----T	1	
R804	0094102502	Resister	RT13-1/6W-220KΩ±5%-----R	1	
R598	0094101063	Resister	RT14-1/4W-10Ω±5%-----T	1	
R574	0094101149	Resister	RT15-1/2W-470Ω±5%-----T	1	
R801	0094101380	Resister	RT15X-1/2W-33KΩ±5%-----T	1	
R910	0094101373	Resister	RT15X-1/2W-33Ω±5%-----T	1	
R926	0094101002	Resister	RT15-1/2W-3.3KΩ±5%-----T	1	
R501	0094102246	Resister	RT15X-1/2W-220KΩ±5%-----T	1	
R915	0094101000	Resister	RT15-1/2W-1KΩ±5%-----T	1	
R922	0094101000	Resister	RT15-1/2W-1KΩ±5%-----T	1	
R528	0094101090	Resister	RS11-1/2W-12MΩ±20%-----T	1	
R527	0094101090	Resister	RS11-1/2W-12MΩ±20%-----T	1	
R500A	0094100090	Resister	RY15S-1/2W-470K-J-----T	1	
R500B	0094100090	Resister	RY15S-1/2W-470K-J-----T	1	
R591	0094100085	Resister	RY15S-1/2W-1.5K-J-----T	1	
R577	0094102161	Resister	RY15S-1/2W-39KΩ-J-----T	1	
R571	0094101360	Resister	RJ15X-1/2W-127KΩ±1%-----T	1	
R578	0094102162	Resister	RJ15S-1/2W-600-J-----T	1	
R517	0094102162	Resister	RJ15S-1/2W-600-J-----T	1	
R572	0094100112	Resister	RJ15S-1/2W-1K-F-----T	1	
R573	0094101355	Resister	RJ15X-1/2W-2.49kΩ±1%-----R	1	
C269	0094201124	Capacitor	CC1-06-CH-63V-33pF-J-----F	1	
C270	0094201124	Capacitor	CC1-06-CH-63V-33pF-J-----F	1	
C207	0094201228	Capacitor	CC1-06-CH-63V-56pF-J-----F	1	
C208	0094201228	Capacitor	CC1-06-CH-63V-56pF-J-----F	1	
C200	0094201201	Capacitor	CC1-06-CH-63V-220PF-K-----F	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
C266	0094200977	Capacitor	CT1-05-2B4-63V-390PF-K-----F	1	
C238	0094200977	Capacitor	CT1-05-2B4-63V-390PF-K-----F	1	
C801	0094201130	Capacitor	CT1-08-2B4-63V-2200PF-K-----F	1	
C802	0094201130	Capacitor	CT1-08-2B4-63V-2200PF-K-----F	1	
C222	0094201130	Capacitor	CT1-08-2B4-63V-2200PF-K-----F	1	
C237	0094200981	Capacitor	CT1-06-2B4-63V-1000pF-K-----F	1	
C227	0094200981	Capacitor	CT1-06-2B4-63V-1000pF-K-----F	1	
C228	0094200981	Capacitor	CT1-06-2B4-63V-1000pF-K-----F	1	
C229	0094200981	Capacitor	CT1-06-2B4-63V-1000pF-K-----F	1	
C248	0094200981	Capacitor	CT1-06-2B4-63V-1000pF-K-----F	1	
C235	0094201178	Capacitor	CT1-08-2B4-63V-3300PF-K-----F	1	
C290	0094201462	Capacitor	CL21X-63V-0.1μF-J-----F	1	
C291	0094201462	Capacitor	CL21X-63V-0.1μF-J-----F	1	
C260	0094201462	Capacitor	CL21X-63V-0.1μF-J-----F	1	
C102	0094201463	Capacitor	CL21X-63V-0.22μF-J-----F	1	
C809	0094201458	Capacitor	CL11-63V-0.047μF-J-----F	1	
C267	0094201457	Capacitor	CL11-63V-0.033μF-J-----F	1	
C271	0094201456	Capacitor	CL11-63V-0.022μF-J-----F	1	
C110	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C307	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C325	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C112	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C115	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C206	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C302	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C312	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C316	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C199	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C803	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
C912	0094200912	Capacitor	CK45B-500V-470PF-K-----F	1	
C910	0094201740	Capacitor	CT1-B-500V-1000PF-K-----F	1	
C902	0094201639	Capacitor	CT1-B-500V-4700PF-K-----F	1	
W280	0094200043	Capacitor	CD110-50V-1μF-M-----F	1	
C406	0094200043	Capacitor	CD110-50V-1μF-M-----F	1	
C407	0094200043	Capacitor	CD110-50V-1μF-M-----F	1	
C230	0094200043	Capacitor	CD110-50V-1μF-M-----F	1	
C242	0094200043	Capacitor	CD110-50V-1μF-M-----F	1	
C239	0094200043	Capacitor	CD110-50V-1μF-M-----F	1	
C226	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
C329	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
C315	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
C924	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
C275	0094200992	Capacitor	CD110-50V-4.7μF-M-----F	1	
C240	0094200992	Capacitor	CD110-50V-4.7μF-M-----F	1	
C101	0094200992	Capacitor	CD110-50V-4.7μF-M-----F	1	
C210	0094200046	Capacitor	CD110-50V-10μF-M-----F	1	
C925	0094200042	Capacitor	CD110-50V-0.22μF-M-----F	1	
C105	0094200046	Capacitor	CD110-50V-10μF-M-----F	1	
C321	0094200046	Capacitor	CD110-50V-10μF-M-----F	1	
C106	0094200046	Capacitor	CD110-50V-10μF-M-----F	1	
C205	0094200046	Capacitor	CD110-50V-10μF-M-----F	1	
C236	0094200046	Capacitor	CD110-50V-10μF-M-----F	1	



## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
C250	0094201113	Capacitor	CD110-25V-47μF-M-----F	1	
C901	0094200990	Capacitor	CD110-35V-47μF-M-----F	1	
C405	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C402	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C403	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C404	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C216	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C249	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C320	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C311	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C272	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C420	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
C538	0094200476	Capacitor	CD110X-16V-22μF-M-----F	1	
C415	0094200476	Capacitor	CD110X-16V-22μF-M-----F	1	
C324	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C323	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C108	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C212	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C247	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C268	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C314	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C318	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C319	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C547	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C548	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C515	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C322	0094202224	Capacitor	CD110X-25V-470μF-M-----F	1	
C310	0094202224	Capacitor	CD110X-25V-470μF-M-----F	1	
C806	0094201265	Capacitor	CD110-50V-22μF-M-----F	1	
C513	0094200858	Capacitor	CD110X-50V-47μF-M-----F	1	
C534	0094200991	Capacitor	CD110-35V-100μF-M-----F	1	
C526	0094200991	Capacitor	CD110-35V-100μF-M-----F	1	
C921	0094202169	Capacitor	CD112-160V-1μF-M-----F	1	
C927	0094201385	Capacitor	CD110-160V-2.2μF-M-----F	1	
C219	0094200995	Capacitor	CL11-63V-4700PF-K-----F	1	
C246	0094201232	Capacitor	CL11-100V-0.022μF-K-----F	1	
C598	0094201739	Capacitor	CT1-B-500V-3900PF-K-----F	1	
C218	0094200738	Capacitor	CL21X-100V-0.22μF-J-----F	1	
C221	0094200738	Capacitor	CL21X-100V-0.22μF-J-----F	1	
C498	0094200738	Capacitor	CL21X-100V-0.22μF-J-----F	1	
C499	0094200738	Capacitor	CL21X-100V-0.22μF-J-----F	1	
C412	0094200738	Capacitor	CL21X-100V-0.22μF-J-----F	1	
C411	0094200738	Capacitor	CL21X-100V-0.22μF-J-----F	1	
C303	0094201267	Capacitor	CL11-100V-0.015μF-K-----F	1	
C313	0094201267	Capacitor	CL11-100V-0.015μF-K-----F	1	
C514	0094201464	Capacitor	CL21X-100V-0.047μF-J-----F	1	
C232	0094201530	Capacitor	CL21X-63V-0.1μF-K-----F	1	
C215	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C241	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C103	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C571	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C253	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	

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Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
C254	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C201	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C202	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C225	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C327	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C920	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
C317	0094200096	Capacitor	CL21X-100V-0.1μF-J-----F	1	
L102	0094500350	Inducer	LGA0307-1μH±10%-----T	1	
L271	0094500285	Inducer	LGA0307-10μH±10%-----T	1	
L270	0094500285	Inducer	LGA0307-10μH±10%-----T	1	
L201	0094500285	Inducer	LGA0307-10μH±10%-----T	1	
L205	0094500285	Inducer	LGA0307-10μH±10%-----T	1	
L260	0094500285	Inducer	LGA0307-10μH±10%-----T	1	
L101	0094500713	Inducer	LGA0204-10μH±10%-----R	1	
L401	0094500713	Inducer	LGA0204-10μH±10%-----R	1	
L402	0094500713	Inducer	LGA0204-10μH±10%-----R	1	
L403	0094500713	Inducer	LGA0204-10μH±10%-----R	1	
L404	0094500713	Inducer	LGA0204-10μH±10%-----R	1	
L252	0094500351	Inducer	LGA0307-6.8μH±10%-----T	1	
L250	0094500351	Inducer	LGA0307-6.8μH±10%-----T	1	
VD201	0094400049	Diode	1N4148-----T	1	
VD202	0094400049	Diode	1N4148-----T	1	
VD203	0094400049	Diode	1N4148-----T	1	
VD297	0094400063	Diode	MTZ5.1B-----T	1	
VD298	0094400063	Diode	MTZ5.1B-----T	1	
VD299	0094400063	Diode	MTZ5.1B-----T	1	
VD321	0094400049	Diode	1N4148-----T	1	
VD311	0094400049	Diode	1N4148-----T	1	
VD322	0094400049	Diode	1N4148-----T	1	
VD310	0094400049	Diode	1N4148-----T	1	
VD320	0094400049	Diode	1N4148-----T	1	
VD331	0094400049	Diode	1N4148-----T	1	
VD312	0094400049	Diode	1N4148-----T	1	
VD908	0094400049	Diode	1N4148-----T	1	
VD598	0094400049	Diode	1N4148-----T	1	
VD910	0094400049	Diode	1N4148-----T	1	
VD911	0094400049	Diode	1N4148-----T	1	
VD572	0094400049	Diode	1N4148-----T	1	
VD596	0094400049	Diode	1N4148-----T	1	
DZ506	0094401618	Diode	HZ3A2-T-----T	1	
DZ294	0094400359	Diode	RD5.1EB2-----T	1	
DZ295	0094400359	Diode	RD5.1EB2-----T	1	
DZ296	0094400359	Diode	RD5.1EB2-----T	1	
DZ595	0094400359	Diode	RD5.1EB2-----T	1	
VD900	0094400397	Diode	RD8.2EB3-----T	1	
DZ901	0094401533	Diode	MTZJ15B-----T	1	
VD802	0094401533	Diode	MTZJ15B-----T	1	
VD702	0094400858	Diode	BAV21-----T	1	
VD703	0094400858	Diode	BAV21-----T	1	
VD704	0094400858	Diode	BAV21-----T	1	
VD907	0094400328	Diode	ES1-----T	1	
VD905	0094401113	Diode	RU3A-----T	1	

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Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
VD511	0094401113	Diode	RU3A-----T	1	
VD906	0094400329	Diode	EU2Z-----T	1	
VD516	0094400329	Diode	EU2Z-----T	1	
VD515	0094400329	Diode	EU2Z-----T	1	
VD512	0094400329	Diode	EU2Z-----T	1	
VD503	0094400453	Diode	RM11C-----T	1	
VD504	0094400453	Diode	RM11C-----T	1	
VD505	0094400453	Diode	RM11C-----T	1	
VD506	0094400453	Diode	RM11C-----T	1	
VD520A	0094400052	Diode	TB1206-----T	1	
VD520	0094400059	Diode	TERB4304-----T	1	
V331	0094400586	Transistor	2SA608(E)----D-A	1	
V958	0094400586	Transistor	2SA608(E)----D-A	1	
V508	0094400552	Transistor	2SC536(E)----D-A	1	
V332	0094400552	Transistor	2SC536(E)----D-A	1	
V333	0094400552	Transistor	2SC536(E)----D-A	1	
V102	0094400552	Transistor	2SC536(E)----D-A	1	
V571	0094400552	Transistor	2SC536(E)----D-A	1	
V403	0094400552	Transistor	2SC536(E)----D-A	1	
V250	0094400552	Transistor	2SC536(E)----D-A	1	
V252	0094400552	Transistor	2SC536(E)----D-A	1	
V255	0094400552	Transistor	2SC536(E)----D-A	1	
V256	0094400552	Transistor	2SC536(E)----D-A	1	
V299	0094400552	Transistor	2SC536(E)----D-A	1	
V401	0094400552	Transistor	2SC536(E)----D-A	1	
V402	0094400552	Transistor	2SC536(E)----D-A	1	
V540	0094400552	Transistor	2SC536(E)----D-A	1	
V541	0094400552	Transistor	2SC536(E)----D-A	1	
V599	0094400552	Transistor	2SC536(E)----D-A	1	
V507	0094400552	Transistor	2SC536(E)----D-A	1	
V509	0094400442	Transistor	2SB892(S)----D-A	1	
V901	0094400857	Transistor	2SC2383(O)-----F	1	
V103	0094400481	Transistor	PH2369----D-A	1	
N203	0094400201	Diode	KA33VTA-----F	1	
L801	0094500546	Bend	3.5*6-----T	1	
L802	0094500546	Bend	3.5*6-----T	1	
L503	0094500547	Bend	3.5*5-----F	1	
L505	0094500547	Bend	3.5*5-----F	1	
L506	0094500547	Bend	3.5*5-----F	1	
L507	0094500547	Bend	3.5*5-----F	1	
W318	0094101102	Jumper	φ0.6mm/5mm-----B	1	
W305	0094101102	Jumper	φ0.6mm/5mm-----B	1	
C243	0094101102	Jumper	φ0.6mm/5mm-----B	1	
W600	0094101102	Jumper	φ0.6mm/5mm-----B	1	
W495	0094101102	Jumper	φ0.6mm/5mm-----B	1	
C292	0094101102	Jumper	φ0.6mm/5mm-----B	1	
W408	0094101102	Jumper	φ0.6mm/5mm-----B	1	
C328	0094101102	Jumper	φ0.6mm/5mm-----B	1	
W402	0094101102	Jumper	φ0.6mm/5mm-----B	1	
W407	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W509	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W599	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
W896	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W897	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W517	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W405	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W199	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W124	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W521	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W311	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W894	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W912	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W913	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W409	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W507	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W247	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W289	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W202	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W108	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W105	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W395	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W805	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W309	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W310	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W307	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W312	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
R246	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W293	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W294	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W295	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W211	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W198	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W810	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W212	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W394	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W209	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W404	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W412	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W415	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W416	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W418	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W419	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W400	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W230	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W220	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W246	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W381	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W101	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W401	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W908	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W221	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W106	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W420	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W280	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
W197	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W245	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W397	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W491	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
R329	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W482	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W410	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W580	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W510	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W242	0094101104	Jumper	φ0.6mm/10mm-----B	1	
R214	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W880	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W909	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W201	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W203	0094101104	Jumper	φ0.6mm/10mm-----B	1	
X504	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W895	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W811	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W503	0094101104	Jumper	φ0.6mm/10mm-----B	1	
R223	0094101104	Jumper	φ0.6mm/10mm-----B	1	
ZD902	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W901	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W902	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W499	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W804	0094101104	Jumper	φ0.6mm/10mm-----B	1	
R930	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W803	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W802	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W502	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W392	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W296	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W303	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W317	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W380	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W493	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W494	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W413	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W281	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W206	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W205	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W207	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W208	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W498	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W497	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W403	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W702	0094101104	Jumper	φ0.6mm/10mm-----B	1	
W316	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W398	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W304	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W617	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W400	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W490	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
W492	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W893	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W489	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W471	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
VD518	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W480	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W481	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W417	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W213	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W199	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W999	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W396	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W302	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W515	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W393	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W378	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W399	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W377	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W382	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W301	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W523	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W402	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W906	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W414	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W885	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W513	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W801	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W504	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W507	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W514	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W315	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W110	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W907	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W899	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W898	0094101106	Jumper	φ0.6mm/15mm-----B	1	
W501	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W905	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W210	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W297	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W319	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W512	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W215	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W520	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
	0090100078	Rivet	φ2.3mm*3.0mm	16	
	0090100079	Rivet	φ1.6mm*3.0mm	20	
	0091800633	PCB	PXA5104-----Q	1	
R1001	0094100132	Resister	RT13-1/6W-180Ω±5%-----T	1	
R1003	0094100020	Resister	RT13-1/6W-470Ω±5%-----T	1	
R1002	0094100792	Resister	RT13-1/6W-680Ω±5%-----T	1	
R1007	0094100023	Resister	RT13-1/6W-1KΩ±5%-----T	1	
R1006	0094100753	Resister	RT13-1/6W-1.2KΩ±5%-----T	1	
R1004	0094100722	Resister	RT13-1/6W-1.8KΩ±5%-----T	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
R1005	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
C1001	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
	0091800158	PCB	PY-6101-----Q	1	
CN16	0094101102	Jumper	φ0.6mm/5mm-----B	1	
CN01	0094101102	Jumper	φ0.6mm/5mm-----B	1	
RN12	0094101102	Jumper	φ0.6mm/5mm-----B	1	
RN25	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
WN01	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W198	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
W199	0094101103	Jumper	φ0.6mm/7.5mm-----B	1	
RN05	0094100734	Resister	RT13-1/6W-150KΩ±5%-----T	1	
RN06	0094100027	Resister	RT13-1/6W-2.7KΩ±5%-----T	1	
RN07	0094100820	Resister	RT13-1/6W-22Ω±5%-----T	1	
RN08	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
RN09	0094100027	Resister	RT13-1/6W-2.7KΩ±5%-----T	1	
RN10	0094100134	Resister	RT13-1/6W-390Ω±5%-----T	1	
RN15	0094100779	Resister	RT13-1/6W-22kΩ±5%-----T	1	
RN16	0094100779	Resister	RT13-1/6W-22kΩ±5%-----T	1	
RN18	0094100065	Resister	RT13-1/6W-10Ω±5%-----T	1	
RN19	0094100032	Resister	RT13-1/6W-8.2KΩ±5%-----T	1	
RN21	0094100065	Resister	RT13-1/6W-10Ω±5%-----T	1	
RN22	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
RN23	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
CN03	0094200981	Capacitor	CT1-06-2B4-63V-1000pF-K-----F	1	
CN15	0094202339	Capacitor	CC1-CH-50V-8PF-M-----F	1	
CN18	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
CN19	0094201351	Capacitor	CT1-08-2F4-63V-0.01μF-K-----F	1	
CN27	0094200816	Capacitor	CC1-SL-50V-47PF-J-----F	1	
CN05	0094201090	Capacitor	CL21X-50V-0.022μF-J-----F	1	
CN10	0094201090	Capacitor	CL21X-50V-0.022μF-J-----F	1	
CN12	0094201090	Capacitor	CL21X-50V-0.022μF-J-----F	1	
CN32	0094201090	Capacitor	CL21X-50V-0.022μF-J-----F	1	
CN06	0094201462	Capacitor	CL21X-63V-0.1μF-J-----F	1	
CN26	0094201462	Capacitor	CL21X-63V-0.1μF-J-----F	1	
CN31	0094201462	Capacitor	CL21X-63V-0.1μF-J-----F	1	
CN07	0094201463	Capacitor	CL21X-63V-0.22μF-J-----F	1	
CN22	0094201465	Capacitor	CL21X-63V-0.47μF-J-----F	1	
CN23	0094201465	Capacitor	CL21X-63V-0.47μF-J-----F	1	
CN25	0094201465	Capacitor	CL21X-63V-0.47μF-J-----F	1	
CN29	0094201465	Capacitor	CL21X-63V-0.47μF-J-----F	1	
CN30	0094201465	Capacitor	CL21X-63V-0.47μF-J-----F	1	
CN08	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
CN09	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
CN20	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
CN21	0094200044	Capacitor	CD110-50V-2.2μF-M-----F	1	
CN28	0094200043	Capacitor	CD110-50V-1μF-M-----F	1	
CN11	0094200008	Capacitor	CD110-16V-10μF-M-----F	1	
CN35	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
CN17	0094200469	Capacitor	CD110X-16V-47μF-M-----F	1	
LN02	0094500018	Inducer	LGA0204-1μH±10%-----T	1	
LN03	0094500018	Inducer	LGA0204-1μH±10%-----T	1	
LN05	0094500018	Inducer	LGA0204-1μH±10%-----T	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
	0091800665	PCB	PX65113-----Q	1	
R603	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
R604	0094100033	Resister	RT13-1/6W-10KΩ±5%-----T	1	
VD605	0094400049	Diode	1N4148-----T	1	
VD601	0094400388	Diode	EM01Z-----T	1	
VD602	0094400388	Diode	EM01Z-----T	1	
VD603	0094400388	Diode	EM01Z-----T	1	
VD604	0094400388	Diode	EM01Z-----T	1	
V601	0094400552	Transistor	2SC536(E)----D-A	1	
V602	0094400552	Transistor	2SC536(E)----D-A	1	
C602	0094200433	Capacitor	CD110X-16V-100μF-M-----F	1	
C600	0094200965	Capacitor	CD110X-50V-470uF-M-05-G-A	1	
N601	0094101102	Jumper	φ0.6mm/5mm-----B	1	
	0091800680	PCB	PX65114-----Q	1	
R707	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R708	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R709	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R710	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R711	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R712	0094100017	Resister	RT13-1/6W-100Ω±5%-----T	1	
R701H	0094101142	Resister	RS11-1/2W-1.8KΩ±20%-----T	1	
R702H	0094101142	Resister	RS11-1/2W-1.8KΩ±20%-----T	1	
R703	0094101142	Resister	RS11-1/2W-1.8KΩ±20%-----T	1	
R704	0094100091	Resister	RY15S-1/2W-10M-J-----T	1	
DZ701	0094400398	Diode	RD9.1EB2-----T	1	
DZ702	0094400398	Diode	RD9.1EB2-----T	1	
DZ703	0094400398	Diode	RD9.1EB2-----T	1	
DZ704	0094400398	Diode	RD9.1EB2-----T	1	
VD701	0094400053	Diode	TC2406-----T	1	
VD702	0094400858	Diode	BAV21-----T	1	
VD703	0094400858	Diode	BAV21-----T	1	
VD704	0094400858	Diode	BAV21-----T	1	
C704	0094200727	Capacitor	CD110X-250V-4.7μF-M-----F	1	
R705	0094101102	Jumper	φ0.6mm/5mm-----B	1	
W701	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W702	0094101105	Jumper	φ0.6mm/12.5mm-----B	1	
W703	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
W704	0094101107	Jumper	φ0.6mm/17.5mm-----B	1	
R808	0094101469	Resister	RF10-1W-2.2Ω±5%-15-C-A	1	
R811	0094101539	Resister	RY16-1W-1.5Ω±5%-15-C-A	1	
R810	0094102109	Resister	RY17-2W-220Ω±5%-20-C-A	1	
R545	0094100972	Resister	RY17-2W-68Ω±5%-20-C-A	1	
R909	0094101541	Resister	RY17-2W-100Ω±5%-20-C-A	1	
R907	0094100719	Resister	RY17-2W-270Ω±5%-20-C-A	1	
R206	0094100975	Resister	RY17-2W-10KΩ±5%-20-C-A	1	
R521	0094102447	Resister	RY17-2W-47KΩ±5%-20-C-A	1	
R515A	0094100101	Resister	RY17S-2W-33K-J-05-E-A	1	
R511A	0094100101	Resister	RY17S-2W-33K-J-05-E-A	1	
R927	0094101286	Resister	RF10-2W-2.2Ω±5%-15-C-A	1	
R809	0094101559	Resister	RF10-2W-2.7Ω±5%-15-C-A	1	
R536	0094101109	Resister	RF10-1W-1Ω±5%-12-C-A	1	
R535	0094101109	Resister	RF10-1W-1Ω±5%-12-C-A	1	



## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
R911	0094101174	Resister	RJ15-1/2W-2.2Ω±5%-12-D-A	1	
R807	0094101082	Resister	RF11-5W-5.1-J-17-L-A	1	
R806	0094102340	Resister	RF10-1W-0.27Ω-J-15-C-A	1	
R502	0094102441	Resister	RX27-3A-7W-1.5Ω±5%-15-J-A	1	
R912	0094102373	Resister	RX27-6-5W-3.9Ω±5%-15-P-A	1	
N571	0094401185	Diode	TL431(进口)	1	
C535	0094201011	Capacitor	CD110-25V-1000μF-M-05-E-A	1	
C306	0094201011	Capacitor	CD110-25V-1000μF-M-05-E-A	1	
C805	0094201335	Capacitor	CD110X-35V-220μF-M-05-G-A	1	
C537	0094201015	Capacitor	CD110-35V-470μF-M-05-E-A	1	
C917	0094201285	Capacitor	CD110-25V-330μF-M-05-F-A	1	
C916	0094201289	Capacitor	CD110-63V-100μF-M-05-F-A	1	
C522	0094202152	Capacitor	CD287-160V-220μF-M-07-E-A	1	
C909	0094201397	Capacitor	CD110-250V-10μF-M-05-G-A	1	
C915	0094202156	Capacitor	CD287-250V-22μF-M-05-E-A	1	
C511	0094201723	Capacitor	CD293-450V-150μF-M-10-G-A	1	
C501	0094201440	Capacitor	CL21-AC250V-0.1μF-K-20-H-A	1	
C502	0094201440	Capacitor	CL21-AC250V-0.1μF-K-20-H-A	1	
C517	0094201392	Capacitor	CL21X-AC250V-0.027μF-K-10-B-A	1	
C918	0094201665	Capacitor	CBB21-400V-0.39μF-J-20-B-A	1	
C907	0094201384	Capacitor	CBB81-1600V-7500PF-J-20-B-A	1	
C906	0094201059	Capacitor	CT81-10B-2B4-2KV-680PF-K-10-C-A	1	
C900	0094201057	Capacitor	CT81-10B-2B4-2KV-470PF-K-10-C-A	1	
C506	0094201071	Capacitor	CT81-10B-2B4-1KV-1000PF-K-07-C-A	1	
C507	0094201071	Capacitor	CT81-10B-2B4-1KV-1000PF-K-07-C-A	1	
C508	0094201071	Capacitor	CT81-10B-2B4-1KV-1000PF-K-07-C-A	1	
C509	0094201071	Capacitor	CT81-10B-2B4-1KV-1000PF-K-07-C-A	1	
C926	0094202321	Capacitor	CT81-B-1KV-220PF-K-07-C-A	1	
C905	0094201055	Capacitor	CT81-10B-2B4-1KV-470PF-K-07-C-A	1	
C521	0094201055	Capacitor	CT81-10B-2B4-1KV-470PF-K-07-C-A	1	
C525	0094201055	Capacitor	CT81-10B-2B4-1KV-470PF-K-07-C-A	1	
C532	0094201055	Capacitor	CT81-10B-2B4-1KV-470PF-K-07-C-A	1	
C536	0094201057	Capacitor	CT81-10B-2B4-2KV-470PF-K-10-C-A	1	
C531	0094201186	Capacitor	CT81-12-2B4-2KV-2200PF-K-07-C-A	1	
C533	0094201753	Capacitor	CT81-11-2E4-AC400V-1000PF-M-10-C-A	1	
V101	0094400462	Transistor	2SC2216(O)-----F	1	
V509	0094400856	Transistor	2SB892(S)-----F	1	
L504	0094500325	Inducer	ZZ0008-15-A-A	1	
L901	0094500544	Inducer	LX460	1	
L905	0094500381	Inducer	6.8mH-K(G)	1	
Z250	0094600083	trap	XT6.5MHZ	1	
Z251	0094600090	trap	XT6.0MHZ	1	
Z252	0094600084	trap	XT5.5MHZ	1	
VD507	0094400036	photo coupler	PC817B	1	
Z201	0094600082	Filter	D38.9	1	
U101	0094004532	Tuner	ENV59D69F1B	1	
Z202	0094600245	Oscillator	HC-49/U	1	
N202	0094400636	IC	CAT24C08P	1	
N201	0094401534	IC	TDA9361	1	
N401	0094400417	IC	TC4053BP	1	
T902	0094500985	Transformer	JF0501-21920	1	
T501	0094500300	Transformer	BCK-08A5	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
T901	0094500341	Transformer	JDT1904	1	
L501	0094500384	Filter	LCL-05	1	
L502	0094500384	Filter	LCL-05	1	
RT501	0094400296	Resister	MZ73L18RM270	1	
XP401	0094300278	Audio/video terminal	CS-102	1	
X1002	0094300097	S-Video terminal	S-8	1	
X602	0090401272	Wire	JT24010D0113Q	1	
X502	0094300063	Connect housing	TJC2-2A	1	
X503	0094300110	Connect housing	TJC1-2A	1	
X902	0094300307	Connect housing	TJC1-4A	1	
X903	0094300111	Connect housing	TJC3-3A	1	
XS402	0094300112	Connect housing	TJC3-4A	1	
X203	0094300104	Connect housing	TJC3-5A	1	
X105	0094300092	Connect housing	TJC3-2A	1	
X599	0094300111	Connect housing	TJC3-3A	1	
X204	0094300092	Connect housing	TJC3-2A	1	
XS301	0094300062	Connect housing	TJC9-2A	1	
XS302	0094300062	Connect housing	TJC9-2A	1	
X106	0094300027	Connect housing	TJC9-3A	1	
X202	0094300132	Connect housing	TJC8-6Y	1	
X201	0094300361	Connect housing	TJC8-7Y	1	
	0090100483	pad	MTBH5004BA--Q	1	
	0090300526	plastic board	MTCC5013CD--Q	1	
	0090202268	bracket	MTAC5042AC--Q	1	
	0090200361	plastic board	MTAH2001AA--Q	1	
	0090600013	Screw	SJ2825-87 ST3*12F	7	
	0090600015	Screw	SJ2824-87 ST4*12F	2	
	0090200452	clamp	040	1	
	0090203583	holder	MTAC5058AC--Q	1	
	0090600028	Screw	SJ2825-87 ST3*10F	3	
	0090803117	heatsink assembly	BJB5099----Q	1	
	0090801018	heatsink assembly	BJB2040----Q	1	
N601	0094401619	IC	5Q0765RT	1	
	0090600065	Screw	GB9074.4-88 M3*12	1	
	0090600066	Nut	GB6170-86 M3	1	
	0090803118	heatsink assembly	BJB5100----Q	1	
	0090100421	Heatsink	MTBT2019BC--Q	1	
	0090100114	pad	MTBH2002BA--Q	1	
V902	0094400465	Transistor	2SD1651---B-A	1	
N801	0094401409	IC	TDA8357	1	
	0090600070	Screw	GB9074.4-88 M3*14	1	
	0090600067	Screw	GB9074.4-88 M3*10	1	
	0090600066	Nut	GB6170-86 M3	2	
	0090200250	Wire holder	MTAJ0071AG--Q	1	
	0090803147	heatsink assembly	BJB5101----Q	2	
	0090100155	heatsink assembly	MTBT0094BB--Q	1	
N301	0094401089	IC	LA4285	1	
	0090600074	Screw	GB9074.4-88 M3*8	1	
	0090600066	Nut	GB6170-86 M3	1	
	0090803177	heatsink assembly	BJB5102----Q	1	
	0090100115	Heatsink	MTBT2001BC--Q	1	
N506	0094400517	Transistor	L7808CV	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
	0090600012	Screw	SJ2824-87 ST3*8F	1	
	0090800185	heatsink assembly	BJB0116-----Q	1	
	0090100115	Heatsink	MTBT2001BC--Q	1	
N507	0094400450	Transistor	L7805CV	1	
	0090600012	Screw	SJ2824-87 ST3*8F	1	
	0090803216	Power switch assembly	BJC5027-----Q	1	
	0094000230	Power switch	KDC-A04	1	
	0090401018	Mains cord	JPRVVZ202DKDQ	1	
	0090400573	Wire	JT23510D0095Q	1	
	0090202559	sleeve	MTAS5015AN--Q	4	
X106	0090400527	Wire	JT33019C0048Q	1	
X105	0090400976	Wire	JT2301-C0154Q	1	
SW1001	0094000440	Push switch	KFC-A06-21050	1	
SW1002	0094000440	Push switch	KFC-A06-21050	1	
SW1003	0094000440	Push switch	KFC-A06-21050	1	
SW1004	0094000440	Push switch	KFC-A06-21050	1	
SW1005	0094000440	Push switch	KFC-A06-21050	1	
SW1006	0094000440	Push switch	KFC-A06-21050	1	
VD001	0094400282	Diode	BT205-L	1	
VD001	0090300203	Rubber washer	φ6, 3,	1	
A1001	0094000216	Infrared sensor	HS0038	1	
	0091800365	PCB	PXA5068-----Q	1	
SW001	0094300202	Audio/video terminal	AV3-8.4-6AK	1	
XP001	0090401259	Wire	JT4351-70235Q	1	
	0090600028	Screw	SJ2825-87 ST3*10F	3	
ZZN01	0094600137	Filter	K9261M	1	
NN01	0094400844	IC	TDA9801	1	
NN02	0094400843	IC	TDA9874APS	1	
ZN02	0094500672	Inducer	HAC1442	1	
X100	0094300027	Connect housing	TJC9-3A	1	
ZN03	0094600187	Oscillator	HC-49U-24.576MHZ	1	
SNA	0094300135	Connect housing	TJC8-6A	1	
SNB	0094300360	Connect housing	TJC8-7A	1	
	0090100115	Heatsink	MTBT2001BC--Q	1	
N602	0094400450	Transistor	L7805CV	1	
	0090600012	Screw	SJ2824-87 ST3*8F	1	
RLP2	0094000314	relay	LK1aF-12V	1	
F601A	0090100037	Fuser holder	MTBJ0001BB--Q	1	
F601B	0090100037	Fuser holder	MTBJ0001BB--Q	1	
F601	0094000012	Fuse	T4A/250V	1	
X601	0094300110	Connect housing	TJC1-2A	1	
X602	0094300110	Connect housing	TJC1-2A	1	
X603	0090401273	Wire	JT5351-C0239Q	1	
TP1	0094500449	Transformer	DB-1.3-08	1	
R726	0094100128	Resister	RF10-2W-68-J-05-E-A	1	
R727	0094100101	Resister	RY17S-2W-33K-J-05-E-A	1	
R728	0094102457	Resister	RY17S-2W-1KΩ-J-05-E-A	1	
L701	0094500227	Inducer	LGB0606-47μH-J-----F	1	
C703	0094201356	Capacitor	CT81-10-2B4-2KV-1000PF-K-07-B-A	1	
C701	0094200728	Capacitor	CD110X-250V-10uF-M-----F	1	
C706	0094200728	Capacitor	CD110X-250V-10uF-M-----F	1	
C702	0094201234	Capacitor	CL23B-AC250V-0.1μF-K-15-B-A	1	

## List of Parts

Location	Material code	Parts Name	Type	Qt.(Unit)	Remark
C711	0094200098	Capacitor	CL21X-400V-104-J-07-A-A	1	
X702	0094300063	Connect housing	TJC2-2A	1	
X704	0094300007	CRT Socket	GZS10-2-BD	1	
CN701	0090800009	Wire	JT8411-B3002Q	1	
	0090802373	heatsink assembly	BJB2089-----Q	1	
	0090100016	Heatsink	QHS-30175D	1	
N701	0094400186	IC	TDA6107Q	1	
	0090600012	Screw	SJ2824-87 ST3*8F	1	

## 16. Damageable Parts List

Location	Material Code	Parts Name	Type	Qt.(unit)	Remark
F501	0094000012	Fuse	T4A/250V	1	
U101	0094004532	Tuner	ENV59D69F1B	1	
N701	0094400186	IC	TDA6107Q	1	
N401	0094400417	IC	TC4053BP	1	
V902	0094400465	Transistor	2SD1651----B-A	1	
N506	0094400517	Transistor	L7808CV	1	
N202	0094400636	IC	CAT24C08P	1	
NN02	0094400843	IC	TDA9874APS	1	
NN01	0094400844	IC	TDA9801	1	
V508	0094400856	Transistor	2SB892(S)-----F	1	
V901	0094400857	Transistor	2SC2383(O)-----F	1	
N301	0094401089	IC	LA4285	1	
N801	0094401409	IC	TDA8357	1	
N201	0094401534	IC	TDA9361	1	
N501	0094401619	IC	5Q0765RT	1	

## 17. Information of Resistors and Capacitors

### CAPACITORS

#### RESISTORS & CAPACITORS-PARTS NO.CODE

**Notes:** 1. part numbers are indicated on most mechanical parts.

Please use this part number for parts orders.

2. The unit of resistance is  $\Omega$  (ohm). K=1000  $\Omega$ , M=1000K  $\Omega$

3. The unit of capacitance is  $\mu$  F (microfarad). 1pF=10<sup>-6</sup>  $\mu$  F.

#### Numbering system of Capacitor

Example

<u>CL42</u>	----	<u>17</u>	----	<u>50V</u>	----	<u>2F4</u>	----	<u>104 *</u>	----	<u>Z</u>
Type				Voltage				Value (pF)		Tolerance
<u>CL21X</u>	----	<u>100V</u>	----	<u>223 *</u>	----	<u>J</u>				
Type		Voltage		Value (pF)		Tolerance				
<u>CL110X</u>	----	<u>25V</u>	----	<u>100 <math>\mu</math> F</u>		$\pm$		<u>20%</u>		
Type		Voltage		Value		Tolerance				
* <u>104</u> = $10 \times 10^4$ <u>223</u> = $22 \times 10^3$										

#### Numbering system of resistor

Example

<u>RY17S</u>	----	<u>2W</u>	----	<u>390</u>	----	<u>J</u>	----	<u>05-E-A</u>
Type		Wattage		Value ( $\Omega$ )		Tolerance		
<u>RS11</u>	----	<u>1/2W</u>	----	<u>1.8K</u>	----	<u>K</u>		
Type		Wattage		Value		Tolerance		

#### ABBREVIATION OF PART NAME AND DESCRIPTION

##### RESISTOR

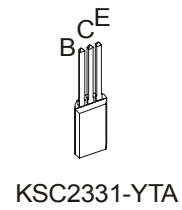
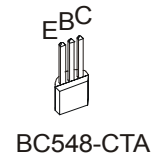
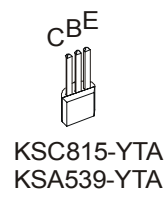
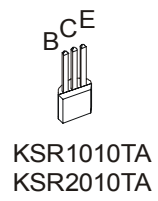
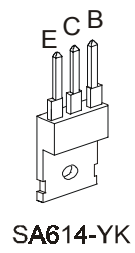
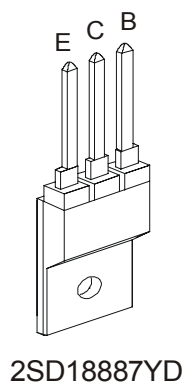
PART NAME & DESCRIPTION			
TYPE		ALLOWANCE	
T	Carbon	F	$\pm 1\%$
S	Solid	J	$\pm 5\%$
J	Metal	K	$\pm 10\%$
Y	Oxide	M	$\pm 20\%$
F	Fuse	G	$\pm 2\%$

##### CAPACITOR

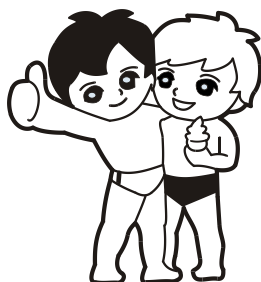
PART NAME & DESCRIPTION			
TYPE		ALLOWANCE	
C	Ceramic	J	$\pm 5\%$
T	Ceramic	K	$\pm 10\%$
L	Film	L	$\pm 15\%$
D	Electrolytic	M	$\pm 20\%$
A	Tantalum	P	+100%-0%
		Z	+80%-0%

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## Terminal view of transistors



# Sincere Forever



# Haier Group

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