

Rolsen

Plasma display television Service Manual

Classis: MST9

Product Type: RP-42H10

Ver 1.0

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Product Safety Servicing Guidelines

CAUTION: BEFORE SERVICING THE CHASSIS, READ THE “SAFETY PRECAUTION” “PRODUCT SAFETY NOTICE” ON PAGE 3 OF THIS MANUAL.

1. Safety precautions

WARNING:

Service should not be attempted by anyone unfamiliar with the necessary precaution on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as: non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
2. When replacing parts or circuit boards, disconnect the power cord.
3. When replacing a high wattage resistor (oxide metal film resistor) on the circuit board, keep the resistor 10mm (1/2in) away from circuit board.
4. Connection wires must be kept away from components with high voltage or high temperature.
5. If any fuse in this TV receiver is blown, replace it with the FUSE specified in the chassis parts list.

2. Product Safety notice

Many electrical and mechanical parts in the chassis have special safety-related characteristics.

These characteristics are often passed unnoticed by a visual inspection.

Replacement parts, which have these special safety characteristic are identified in this manual and its supplement electrical components having such features are shaded on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts, which do not have the same characteristic as specified in the parts list may create shock, fire or other hazards.

NOTES:

Screen Image retention Do not display a still image (such as on a video game or when hooking up a PC to this PDP) on plasma monitor panel for a long time as it can cause screen image retention. This image retention is also known as “screen burn”. To avoid such image retention, reduce the degree of brightness and contrast of the screen when displaying a still image.

A still image displayed too long may cause permanent damage to the PDP Panel Watching the PDP TV in 4:3 format or other non full screen formats for a long period of time may leave traces of borders displayed on the left, right and centre of the screen caused by the difference of light emission on the screen. Playing a DVD or a game console may cause similar effect to the screen. Damages caused by the above effect are not covered by the Warranty.

Afterimage on the Screen Displaying still images from Video games and PC for longer than a certain period of time may produce partial afterimages. To prevent this effect, reduce the brightness and contrast when displaying still images for a long time.

Height The PDP can normally operate only under 2000m in height. It might abnormally function at a place over 2000m in height and do not install and operate there.

Avoid operating the TV at temperatures below 5 °C(41°F)

Warranty Warranty does not cover any damage caused by image retention; Burn-in is not covered by the warranty.

Product Function Specifications

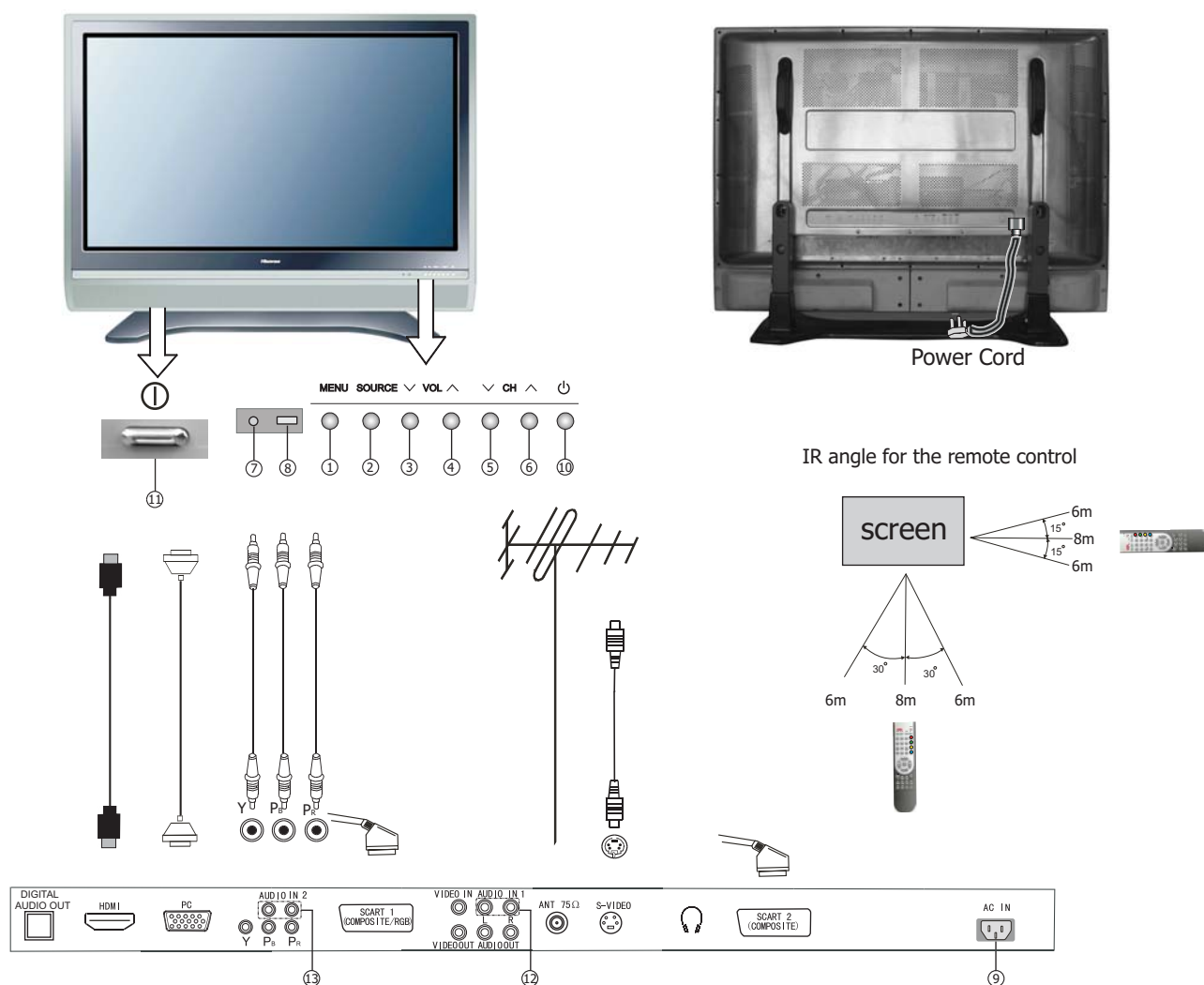
1.PDP4235EU product function



- High end flat display
- HDMI input
- High definition compatible
- Wide Screen display optimized for cinema viewing
- Multimedia display :TV/PC
- High clear picture
- Audio equalizer
- Color enhancer ,contrast enhancer
- Two Scarts ,Scart1 (RGB/CVBS),Scart2(CVBS)

2. PDP4235EU specifications

Viewing the Connection Panel



- 1 Menu button : activate OSD menu
- 3 VOL V : Volume decrease / Left button
- 5 CH V : Previous channel / Down button
- 7 POWER indicator
- 9 AC Power socket
- 11 Power switch(on/off)
- 13 PC/YPbPr Audio input

- 2 Source button : activate OSD source select
- 4 VOL ^ : Volume increase / Right button
- 6 CH ^ : Next channel / Up button
- 8 Remote sensing window
- 10 Power switch(standby)
- 12 VIDEO/S-VIDEO Audio input

Note: The above figures are for reference only, please refer to the actual units to determine the appearances.

PDP TV Service Manual

	PDP4235EU	
PDP panel	Plasma panel 42"	
Native Screen Resolution	852 x 480	
Television system	SECAM/PAL	
Sound system	BG / DK / I	
Channel coverage	VHF-L: E2-S8 VHF-H: S9-S37 UHF: S38-E69	
PC mode (DB15)	60Hz	640 x 480, 800 x 600, 1024 x 768
YPBPR mode	50Hz	576 i/p, 720p, 1080i
	60Hz	480i /P, 720p, 1080i
HDMI mode	RGB	640 x 480, 800 x 600, 1024 x 768
	YPBPR 50Hz	576p, 720p, 1080i
	YPBPR 60Hz	480p; 720p, 1080i
Static contrast ratio	40 : 1	
Brightness	400 cd/m ²	
Viewing angle	140° (H/V)	
Power source	AC 100V-240V, 50/60Hz	
Power consumption	300W	
Audio output	2 x 7 watts	
Audio filter	Equalizer 5 x bands	
Connection interface	RF Input:	RF Antenna x 1
	Video Input:	YUV x 1 ,S-Video x 1,AV x 1
	Graphic Input:	PC analog (DB15) x 1,HDMI x 1 (HDCP)
	Audio Input:	YUV x 1 ,S-Video /AV x 1,PC analog (DB15) x 1
	Audio Output:	audio output x 1 headphone x 1 (Jack 3,5mm)
	Video Output:	video output x 1
	Other:	
Dimensions	1054mmX812mmX331mm (LXWXH) (including stand)	

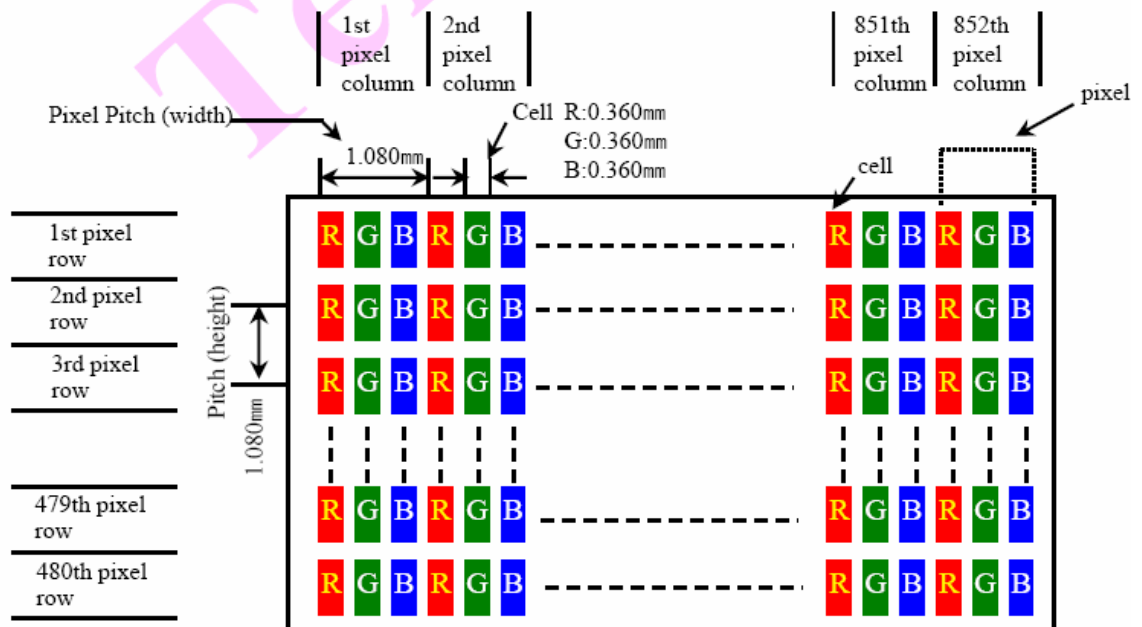
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PDP panel spec

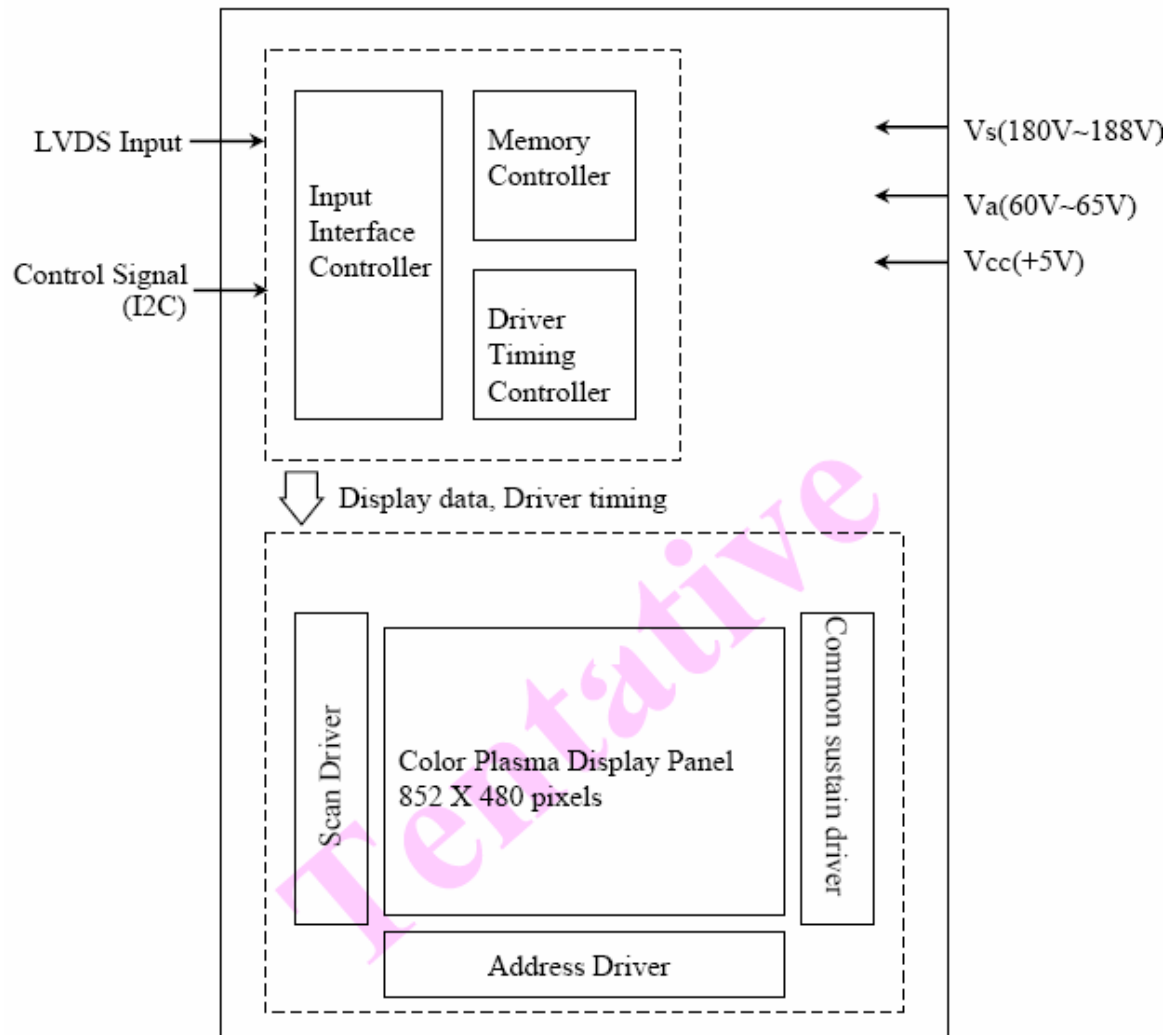
1. General description

The PDP42S1#### requires only 8/10bits of digital video signals for each RGB color.
In addition to the video signals, six different DC voltages are required to operate the display.

- ✓ Model Name : PDP42S1#### (42S1#### Model)
- ✓ Number of Pixels : 852(H) × 480(V) (1pixel=3 RGB cells)
- ✓ Pixel Pitch : 1080 μ m (H) × 1080 μ m (V)
- ✓ Cell Pitch : 360 μ m (H) × 1080 μ m (V) (Green Cell basis)
- ✓ Display Area : 920.1(H) × 518.4(V) ±0.5mm
- ✓ Outline Dimension : 1005(H) × 597(V) × 60.7(D)±1mm
- ✓ Pixel Type : RGB Closed type (well)
- ✓ Number of Gradations : (R)1024 × (G)1024 × (B)1024
- ✓ Weight : 15.4 Kg ± 0.5 Kg (Net 1EA)
230 Kg ± 5 Kg (12EA/1BOX)
- ✓ Aspect Ratio : 16:9
- ✓ Practical Brightness : Typical 400cd/m² (20% White Window)
- ✓ Contrast Ratio : Average 40:1 (In a bright room with 100Lux at center)
- ✓ Power Consumption : Typical 200 W (Full White)^{*note1)}
- ✓ Expected Life-time : more than 60,000 Hours of continuous operation
- ✓ Display Dot Diagram



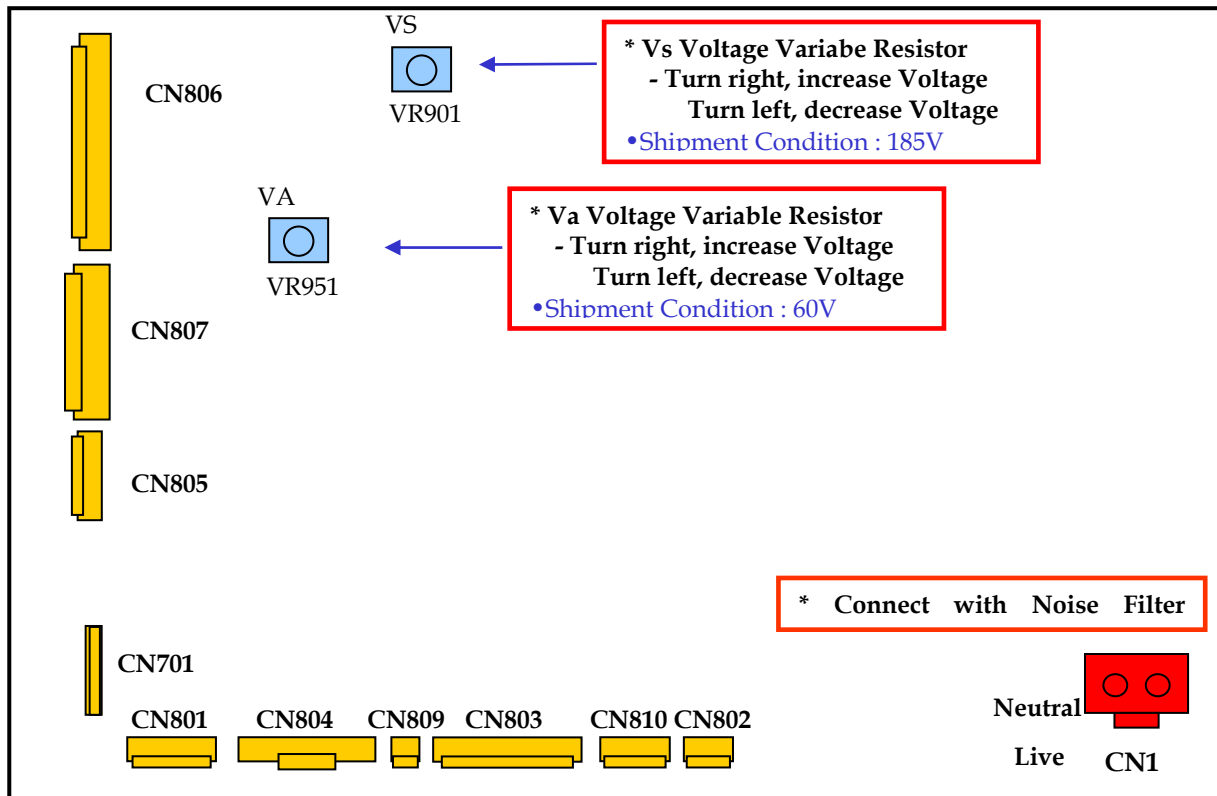
2. Panel block diagram



3. Power (PSU) description

Standard Voltage Range	AC 100V ~ 240V
Available Voltage Range	AC 90V ~ 265V
Frequency Range	50Hz ~ 60Hz(± 5Hz)

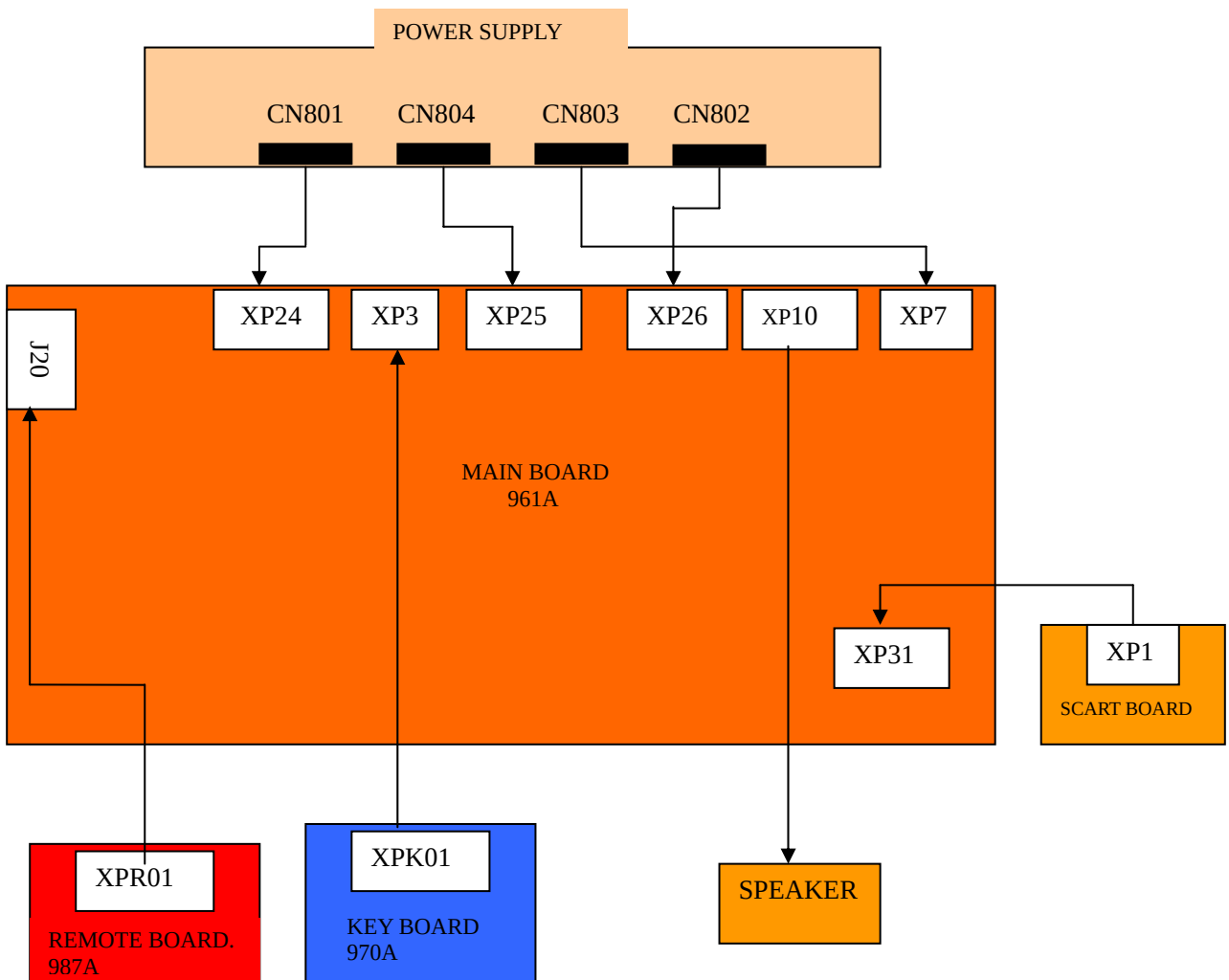
4. Power block diagram



Block Diagram

The signal board is composed by the main board .The main chip for video decoder is MST9E88L produced by MSTAR co., ltd.

1. unite sketch map



PDP TV Service Manual

FUNCTION OF CONJUNCTIONS CN801---XP24

ITEM	NAME	FUNCTION
1	ACD	GND
2	RLY_ON	HIGH LEVEL (ON)
3	5VSTB	5V POWER
4	GND	GND
5	VSON	HIGH LEVEL (ON)
6	5VD	NO USED
7	NC	NO USED

CN804---XP25

ITEM	NAME	FUNCTION
1	9VSC	power for tuner
2	9VSC	power for tuner
3	GND	GND
4	5VSC	+5V POWER
5	5VSC	+5V POWER
6	5VSC	+5V POWER
7	GND	GND
8	GND	GND
9	GND	GND

CN803--- XP7

ITEM	NAME	FUNCTION
1	5VSC	+5V POWER
2	5VSC	+5V POWER
3	5VSC	+5V POWER
4	GND	GND
5	GND	GND
6	GND	GND
7	12VSC	power for amplifier LM833
8	12VSC	power for amplifier LM833
9	GND	GND
10	GND	GND
11	12VF	NO USED
12	GNDF	GND

CN802---XP26

ITEM	NAME	FUNCTION
1	30V	power for amplifier TDA8932
2	30V	power for amplifier TDA8932
3	GND	GND
4	GND	GND

XP01---XP3

ITEM	NAME	FUNCTION
1	+3.3V	NO USED
2	KEY0	KEY CONTROL
3	KEY1	KEY CONTROL
4	GND	GND

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XPR01---XP4

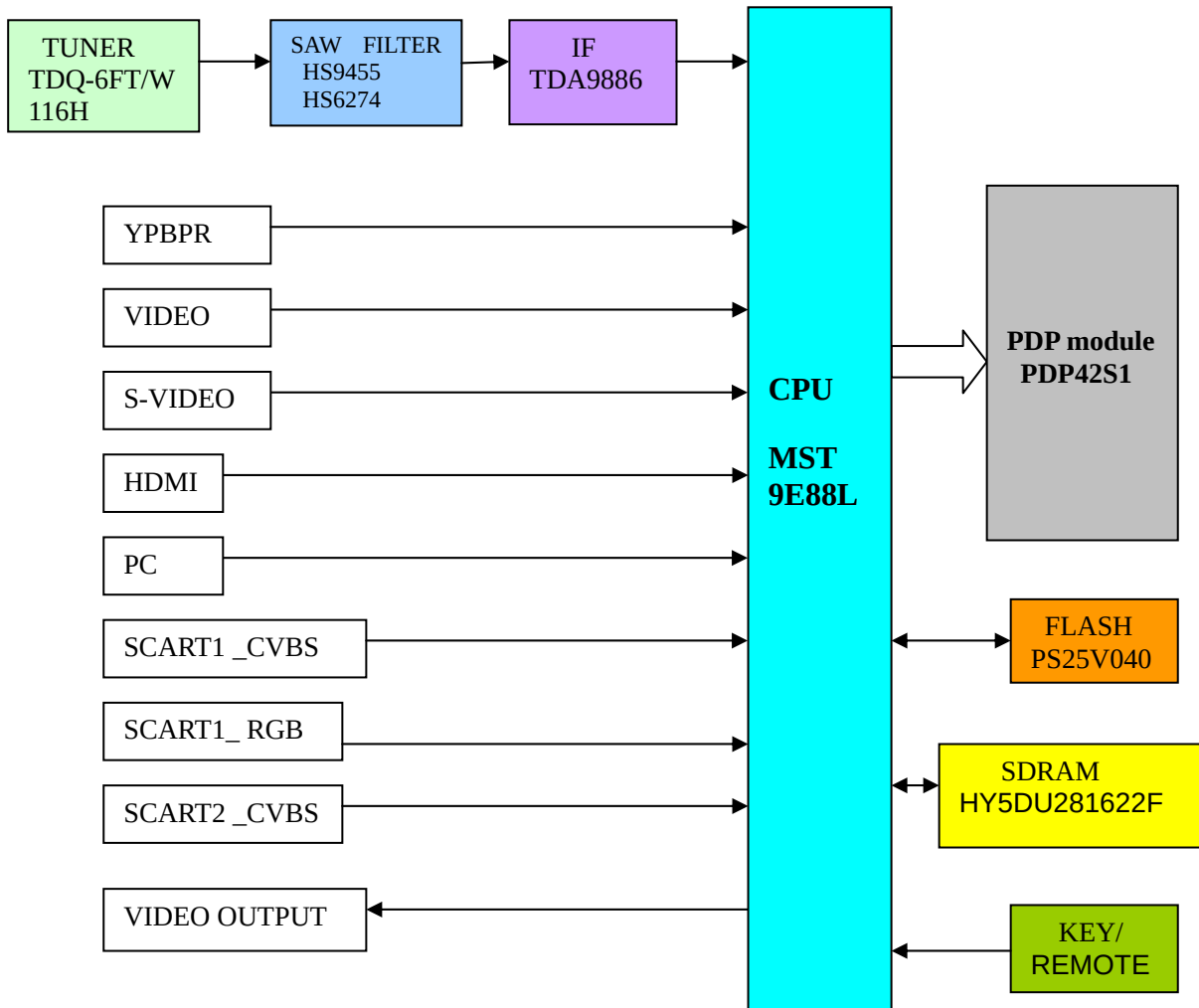
ITEM	NAME	FUNCTION
1	IR	REMOTE CONTROL
2	GND	GND
3	LEDR	LED CONTROL
4	GND	GND
5	5VST_B	POWER OF REMOTE
6	GND	GND

XP1---XP31

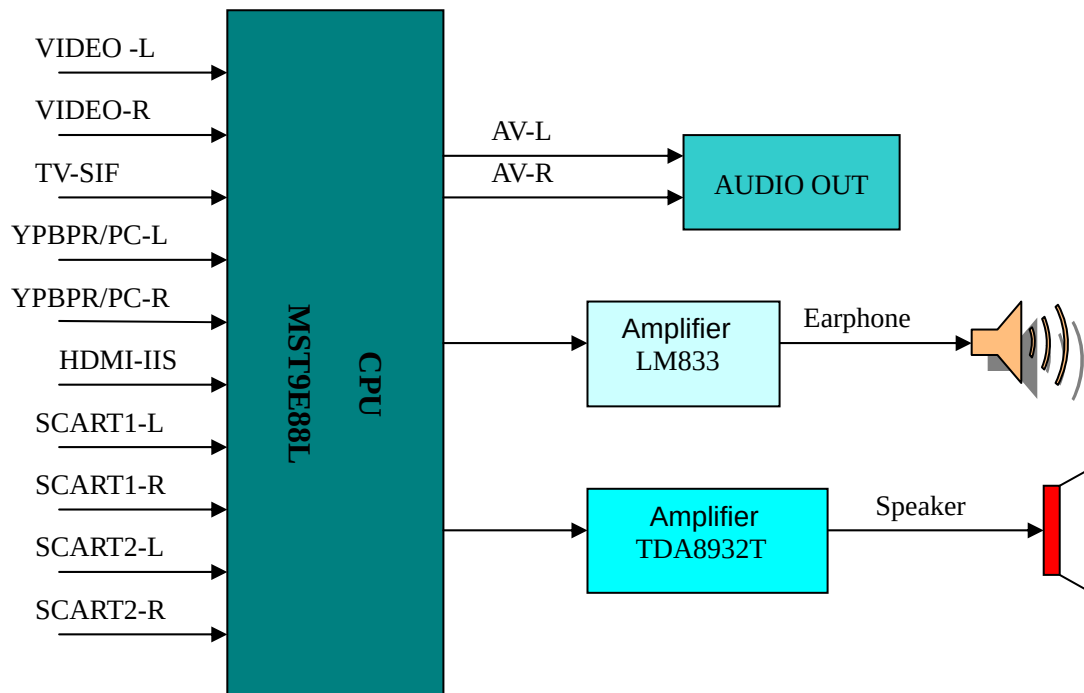
ITEM	NAME	FUNCTION
1	AV1	SCART2_Y SIGNAL
2	GND	GND
3	A-C	SCART2_C SIGNAL
4	S-PI8	SCART2 FUNCTION SELECT
5	A-L	SCART2 AUDIO IN_L
6	A-R	SCART2 AUDIO IN_R
7	A-OUT	VIDEO OUTPUT
8	GND	GND
9	S-LOUT	AUDIO OUTPUT_L
10	S-ROUT	AUDIO OUTPUT_R

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2. Video processing diagram



3. Audio processing diagram



Service Mode And Adjustment

1. Service mode

You can entry service mode menu by follow steps:

1. Press on the [MENU] key.
2. Select the sub-menu [SOUND] with [CH $\wedge$ /CH $\vee$].
3. Select the parameter [BALANCE] with the keys [VOL $\wedge$ /VOL $\vee$].
4. Press a series of numbers [0] [5] [3] [2] quickly.

SERVICE MODE MENU includes:

Fac. Menu

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Factory Menu

White Balance
Auto Calibration
LOGO
OSD Language
Country
Option
Factory Init
Test Pattern
Version:

White Balance

R DRV	10
G DRV	9
B DRV	12
R CUT	126
G CUT	128
B CUT	135
BRIGHT_H	80
CONTRAST_H	80
BRIGHT_L	40
CONTRAST_L	40

Auto Calibration

Auto Color	
Color Temp.	Standard
RED COLOR	126
GREEN COLOR	128
BLUE COLOR	135

LOGO

NULL
HISENSE
WELCOME

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Option

SOURCE	TV
BRIGHT 0	10
BRIGHT 50	100
BRIGHT 100	145
CONTRAST 0	60
CONTRAST 50	120
CONTRAST 100	155
TOFAC	M
HDMI Cable	Standard
PIXSHIFTNUMBER	1
PIXSHIFTTIME	30

Factory Init

QingDao
HuangDao
Guiyang
Hungary
France
Austria
CLEAR PROTECTLY
CLEAR UNPROTECTLY

Test Pattern

BLUE

Version

Version:
PDP4235EU_VER1.40.20070620
Panel Type:
LG 42S1 (852*480)
FLASH :
PS25LV040

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Design Menu

Picture Mode
Sound Mode
Sound Settings
Power Save
PIP Option
EMI
MOVESHARPNESS
LipSync

Picture Mode

Standard	Brightness	50
	Contrast	50
	Colour	50
Bright	Brightness	60
	Contrast	55
	Colour	55
Soft	Brightness	45
	Contrast	45
	Colour	45

Sound Mode

Standard	120Hz	12
	500Hz	10
	1.5KHz	11
	5KHz	8
	10KHz	15
Music	120Hz	19
	500Hz	11
	1.5KHz	12
	5KHz	14
	10KHz	20
Speech	120Hz	4
	500Hz	10
	1.5KHz	12
	5KHz	7
	10KHz	5

Sound Settings

VOLUME 0	120
VOLUME 1	60
VOLUME 20	40
VOLUME 40	25
VOLUME 100	11
TVPRE SCALER	5
VOLUME SCALER	0

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NOTE: We advise service hadn't better amend factory data, because it is better settings data.

Please do not tell user the purpose password.

Software updating

PDP4235EU software updating

1、 You can update the software through a special tool (show as below)



2、 Software Updating Operation

1. Connect the Debug board to the TV use VGA interface, then connect the Debug board to the computer, just as the pictures showing.

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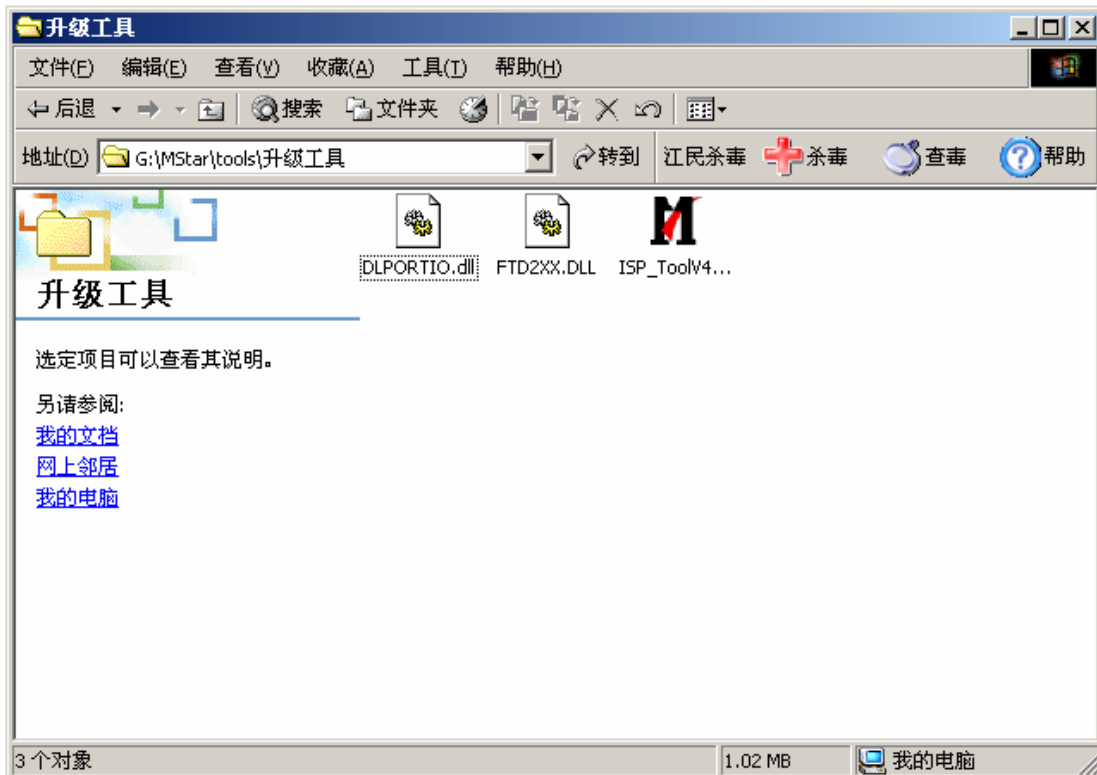


2. Set the ISP_TOOL4.0.9 -----only for the first time update.
DLPORTIO.dll and FTD2XX.DLL must be in the same folder
 - 1) Find the folder where the ISP_TOOL4.0.9 lies in.

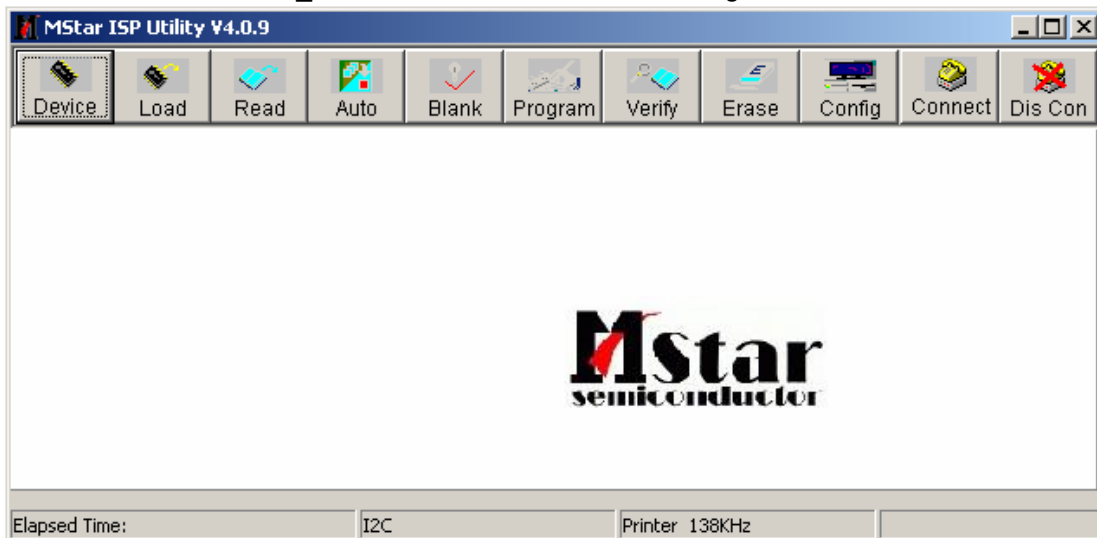
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Note: DLPORTIO.dll and FTD2XX.DLL must be in the same folder.



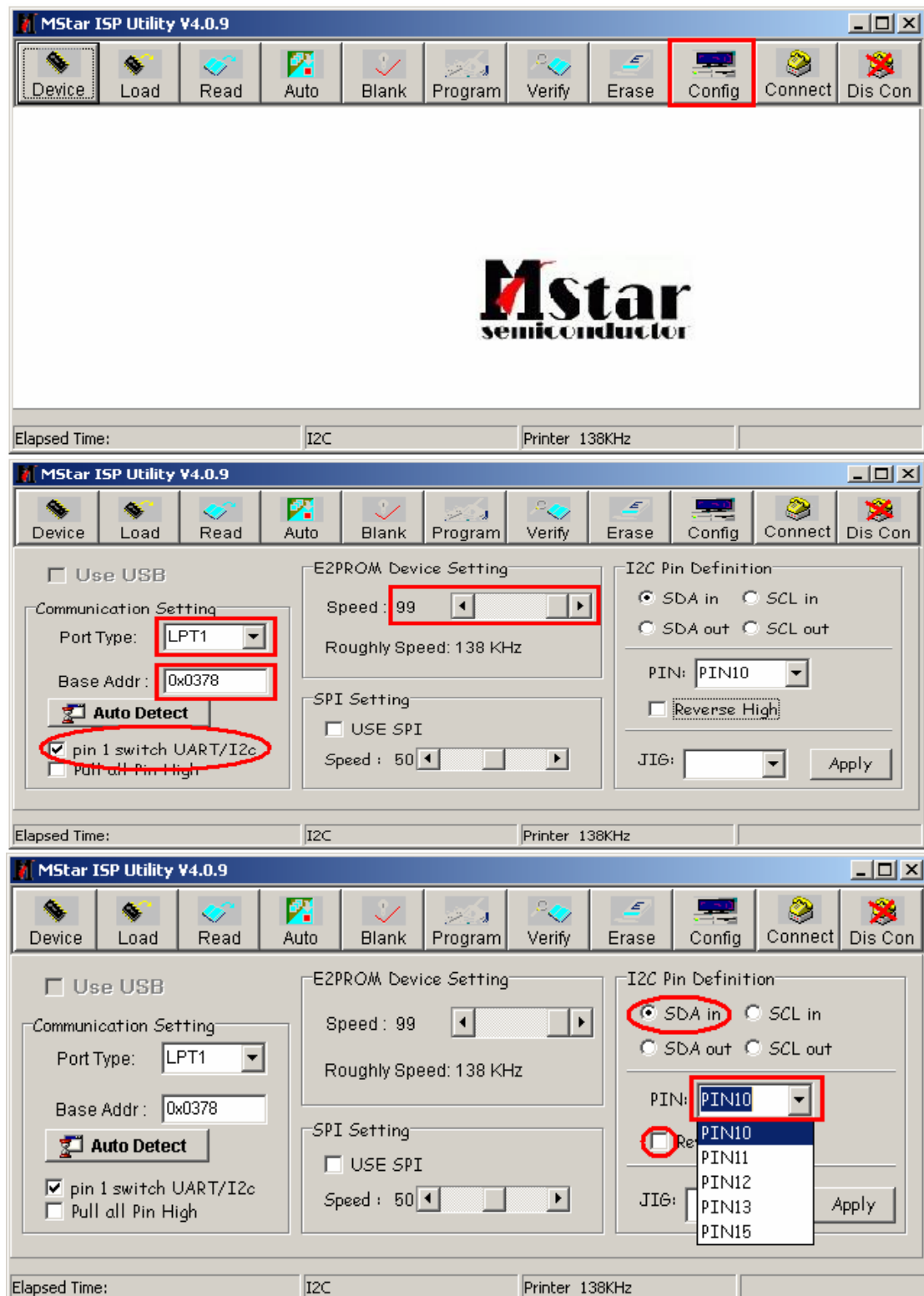
2) Double click the ISP_TOOL4.0.9 icon, and then a dialog will show as below.



3) Click the Config button. And then a dialog will show as below.
You should set the Config like what the picture shows.

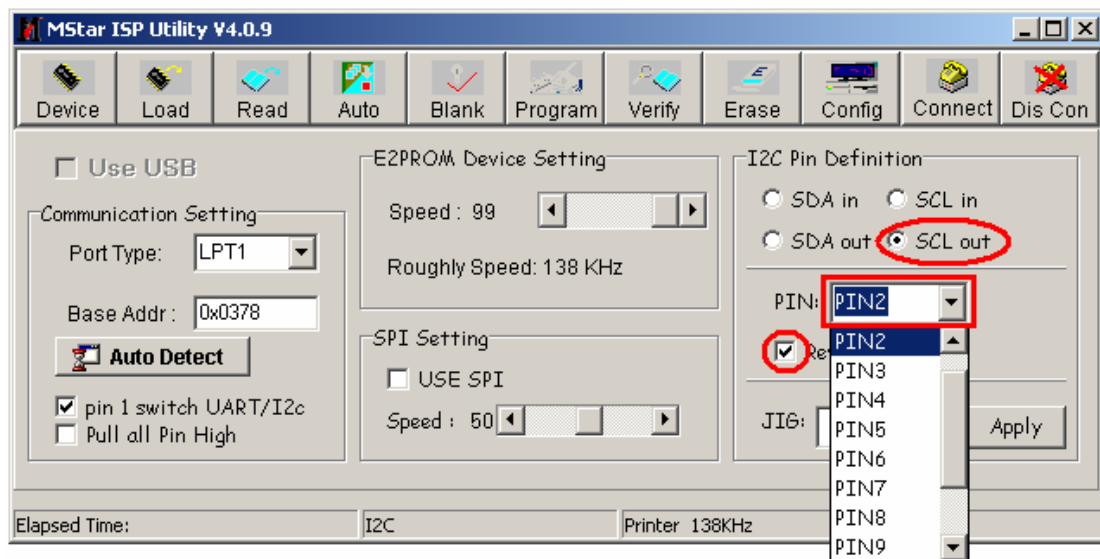
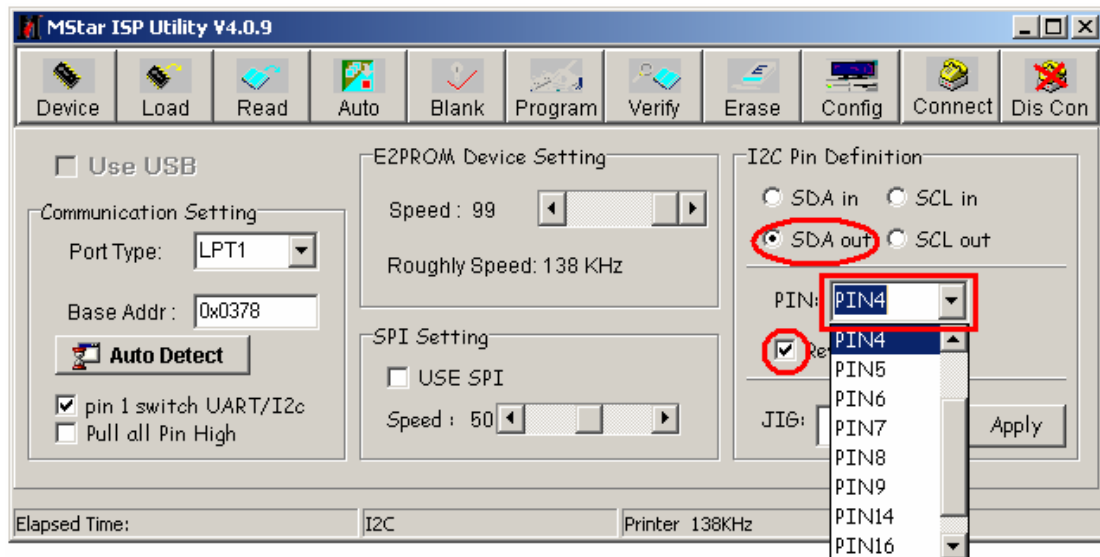
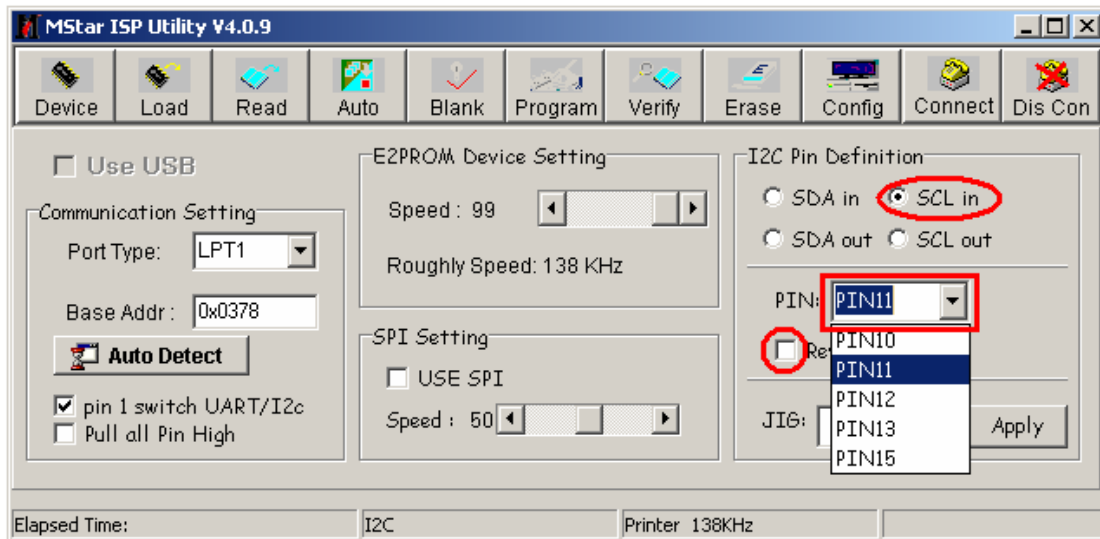
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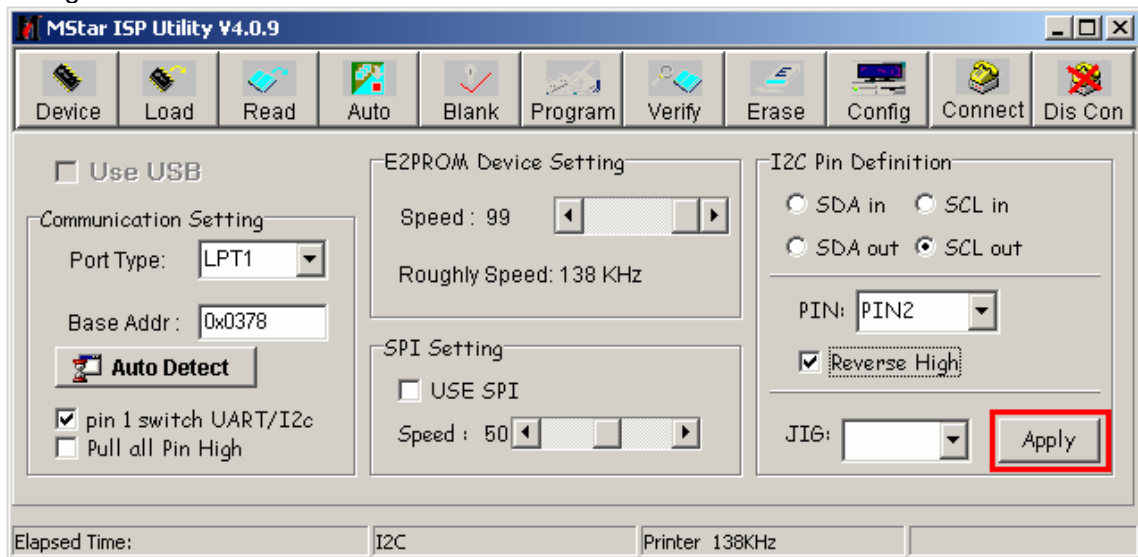
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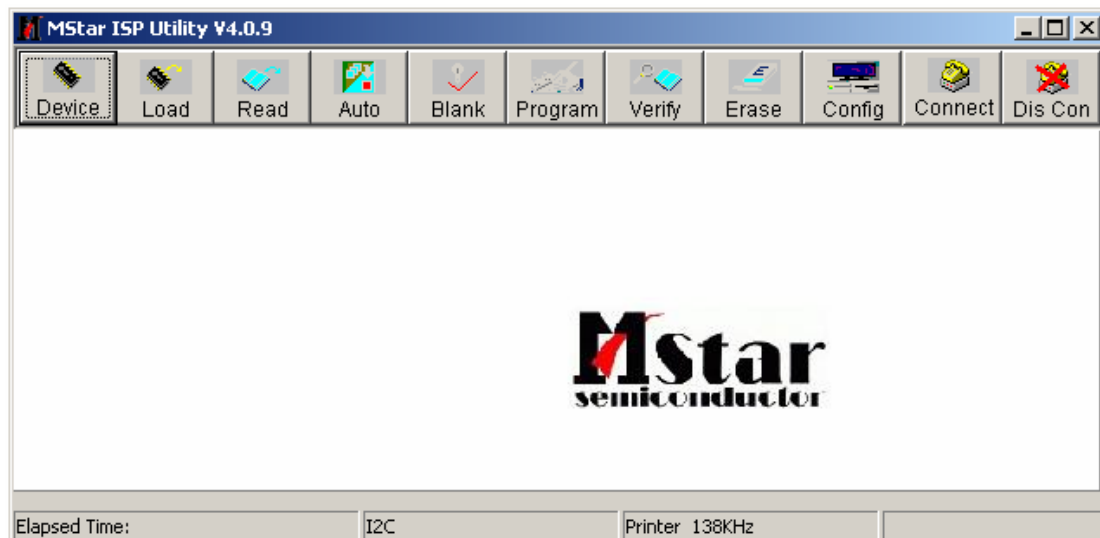
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4) After you have finished all above, you should click the Apply button to complete the configuration.



3. Turn on the TV, then we can update.

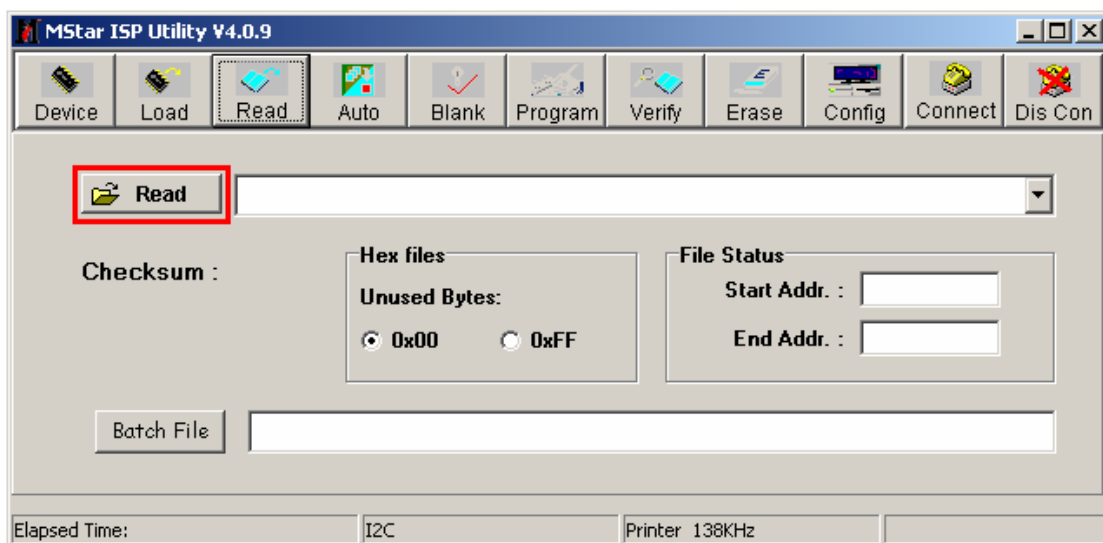
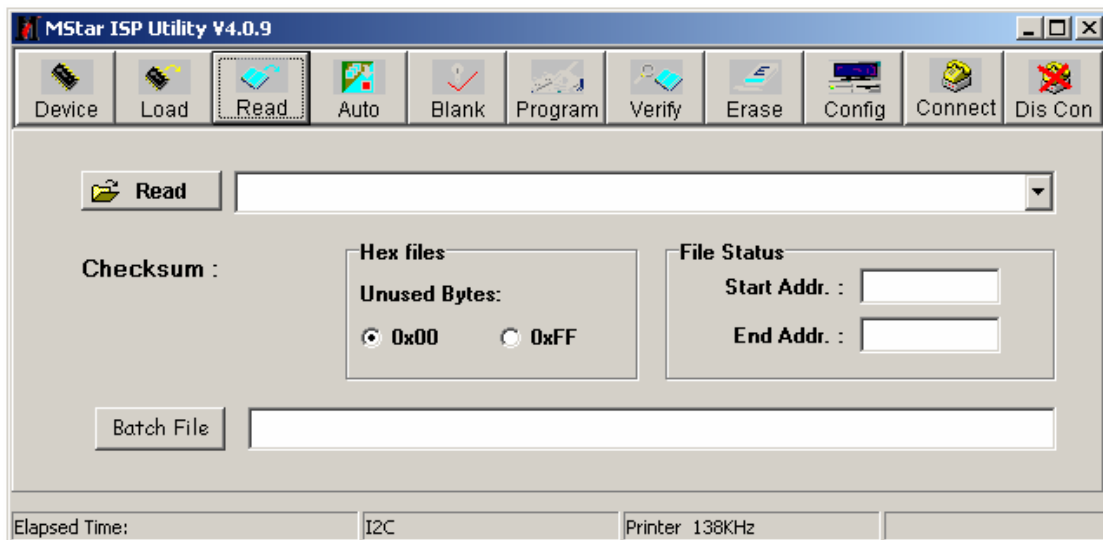
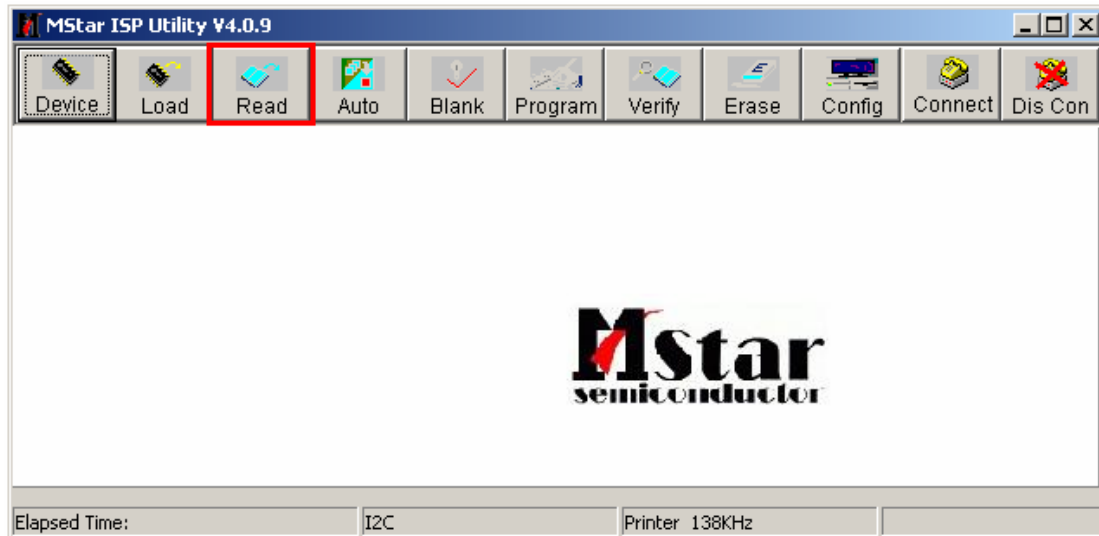
4. Double click the ISP_TOOL4.0.9 icon, and then a dialog will show as below.



5. Click the Read button. And then do as shown below.

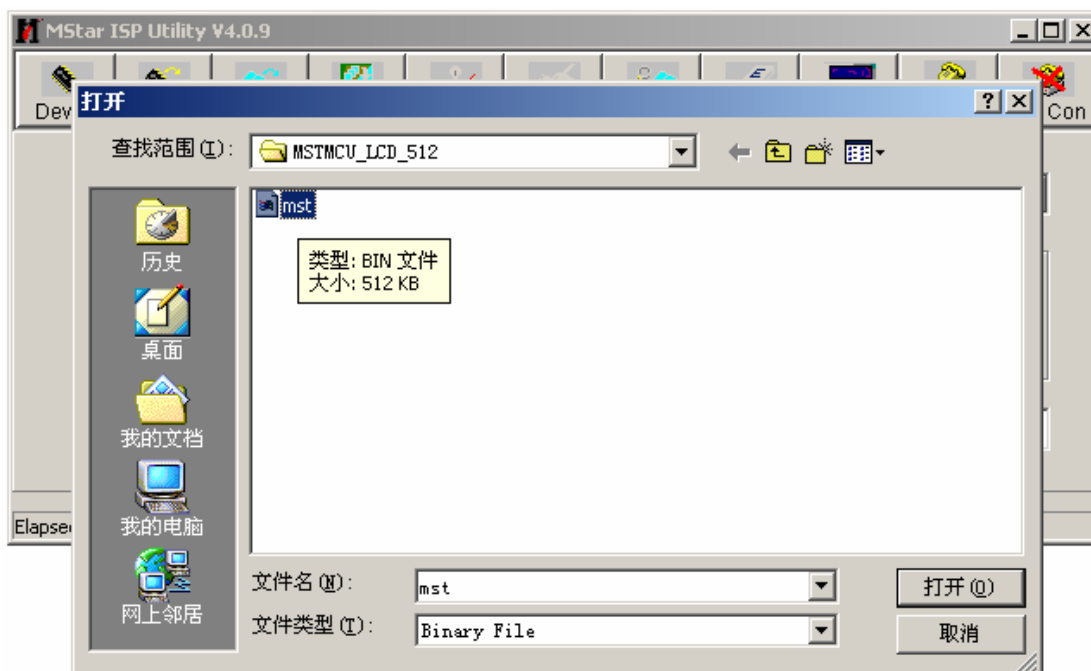
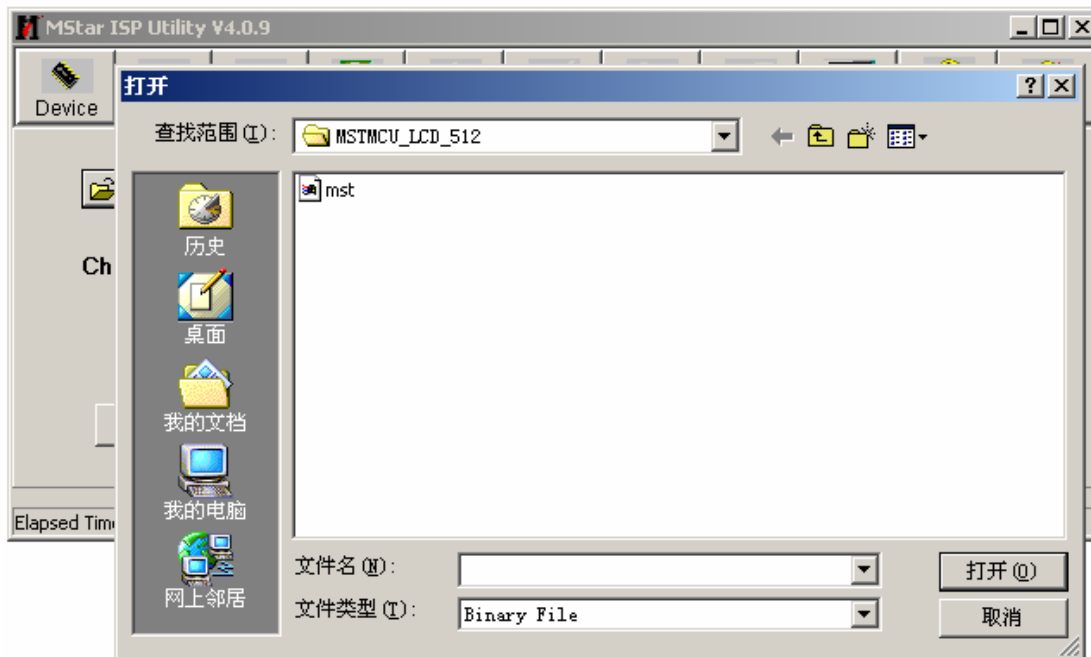
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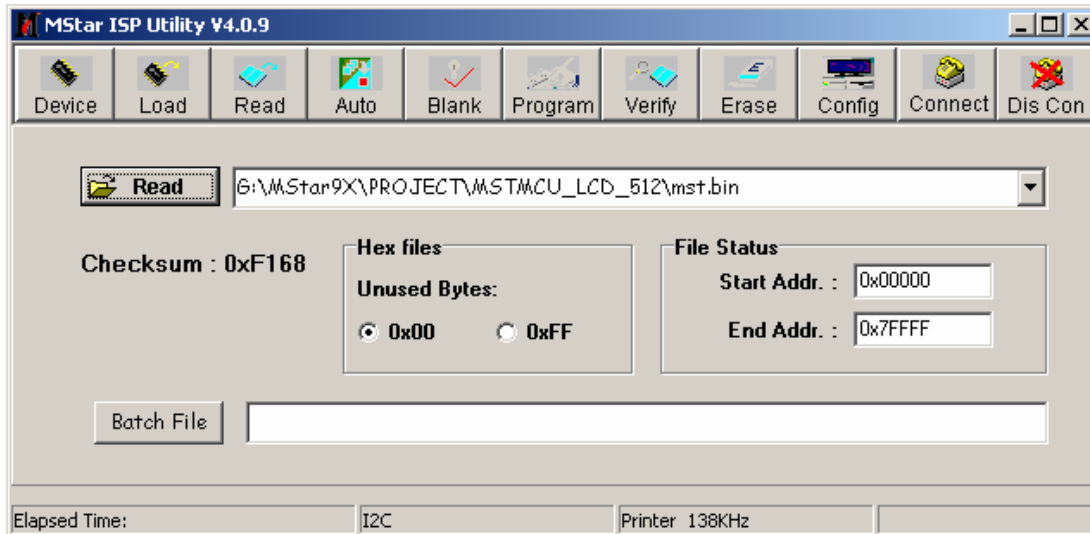
6. Find the update file in your computer.

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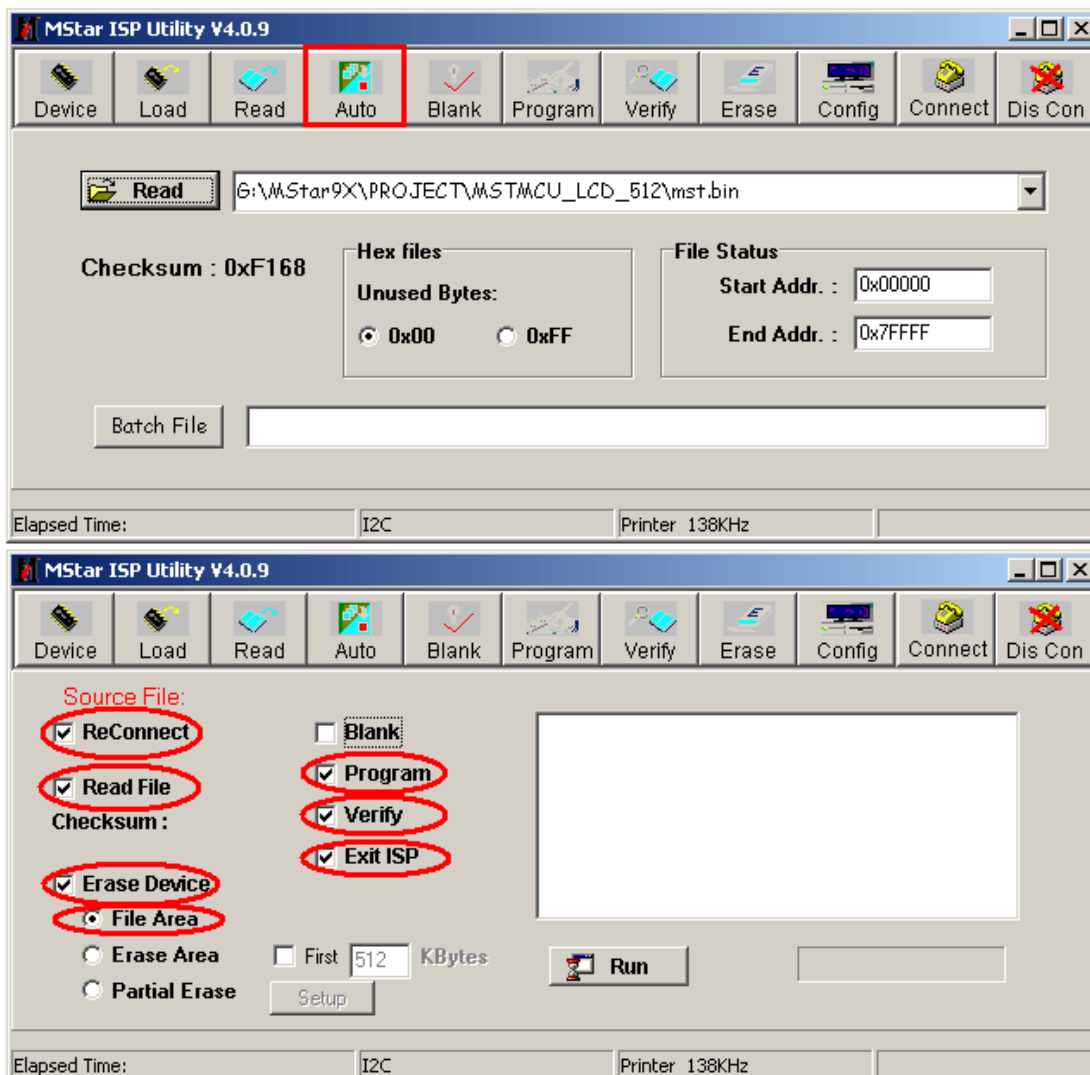


7. Double click the update file. A dialog will show as below.

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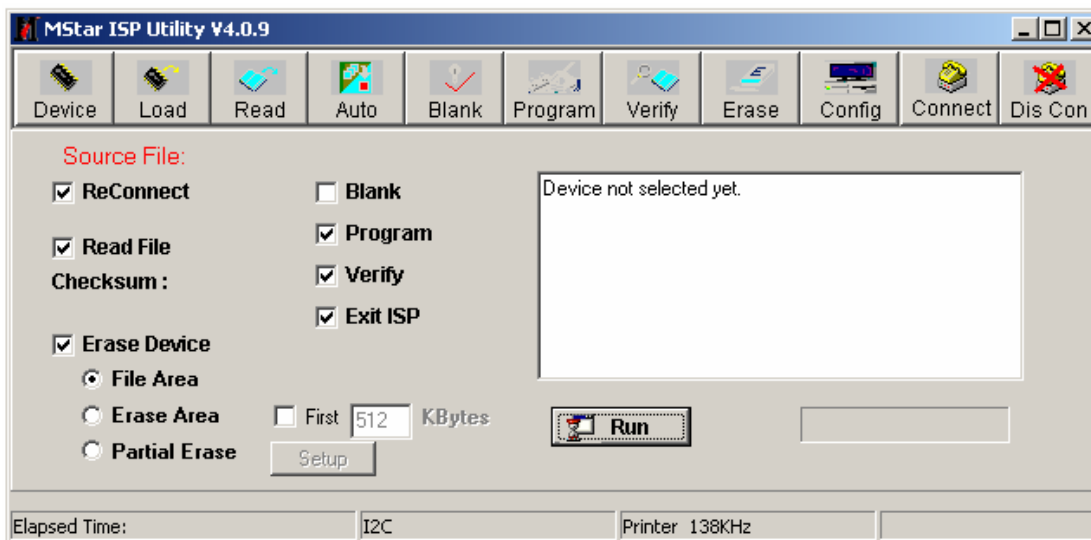
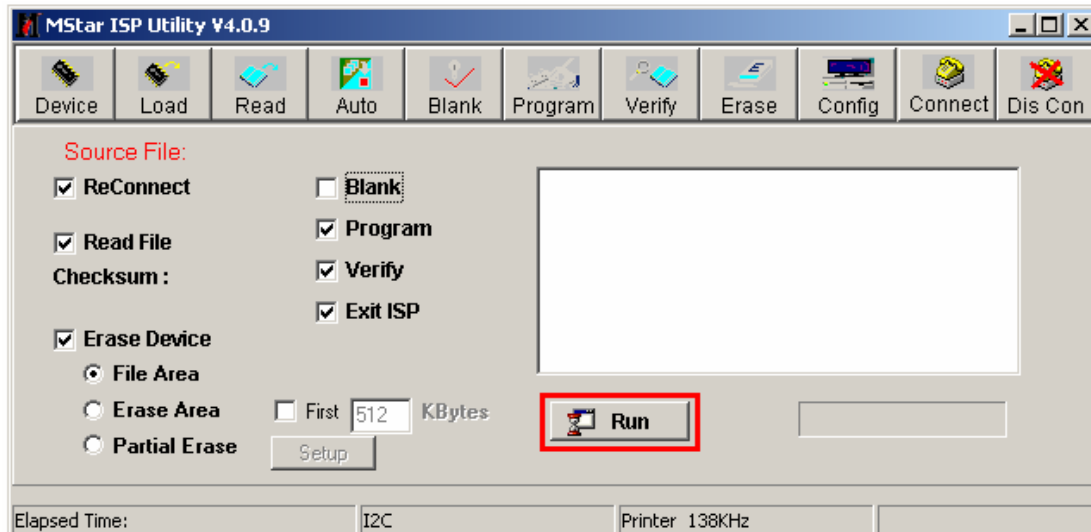


8. Click the Auto button. And then do as shown below.

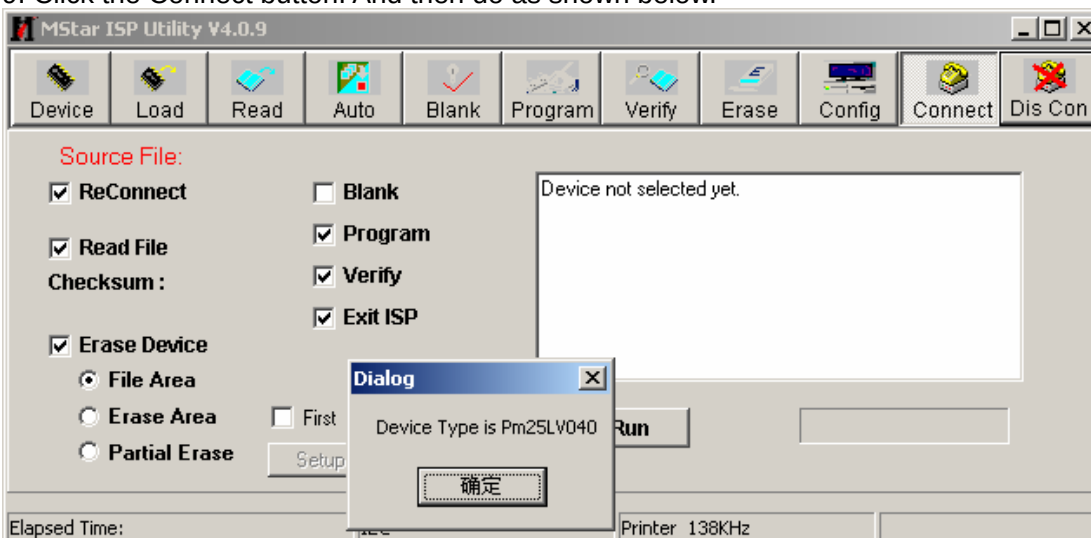


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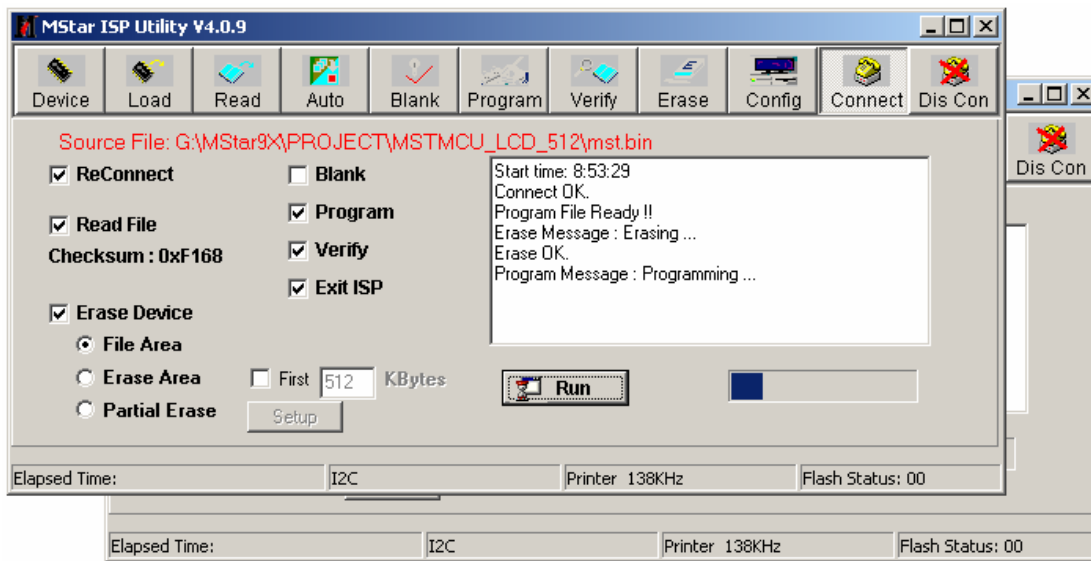
9. Click the Connect button. And then do as shown below.



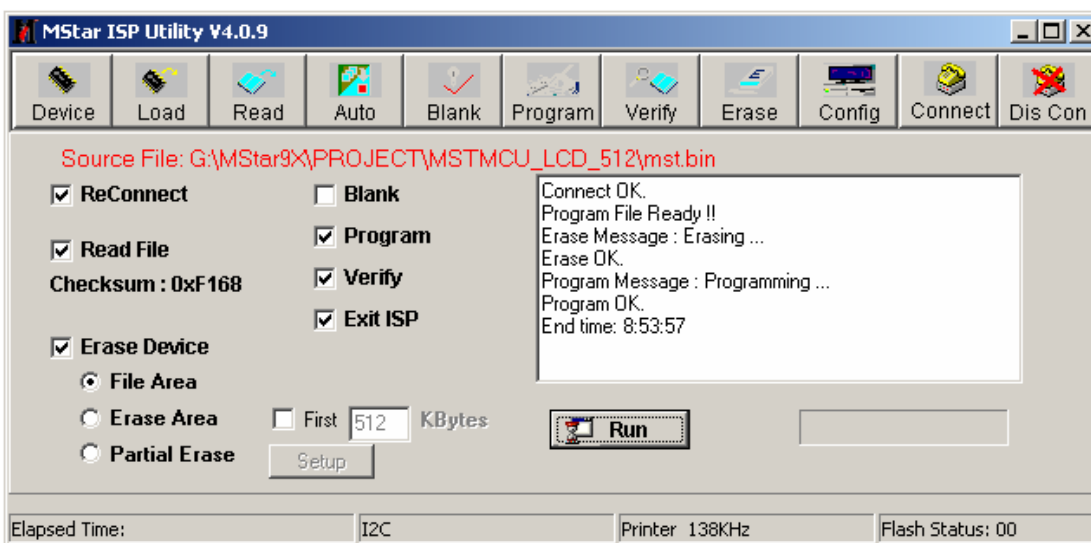
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10. Click the Run button.



11. When the update is finished, a dialog will show as below.



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PDP4235EU Explode View and Bom

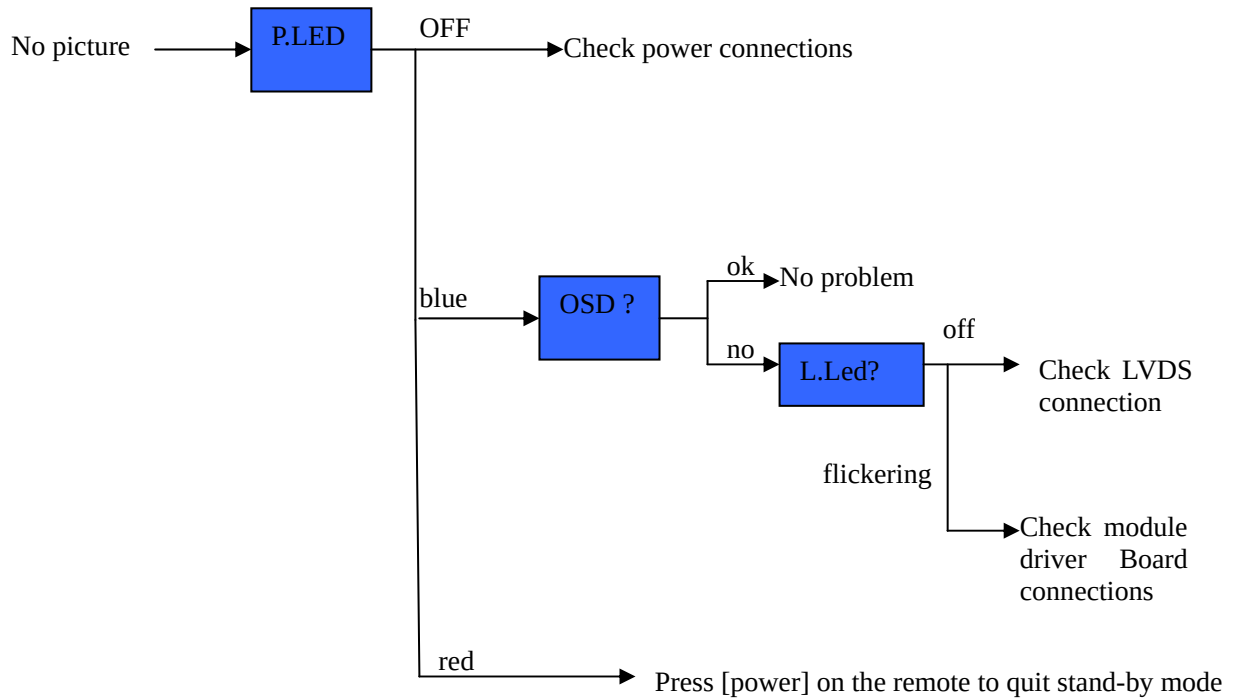
Spare Parts List

Main Spare Parts

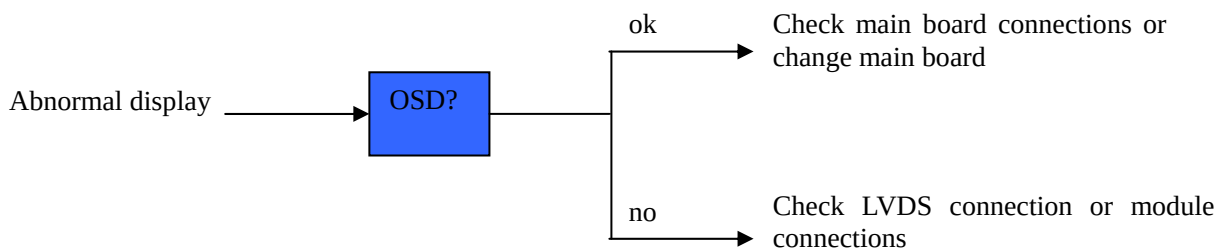
	Name	Type	Part No.
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

Troubleshooting

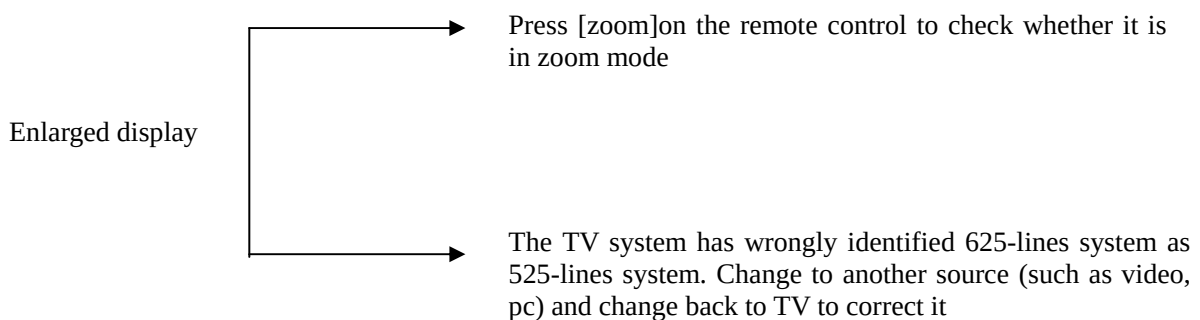
1.



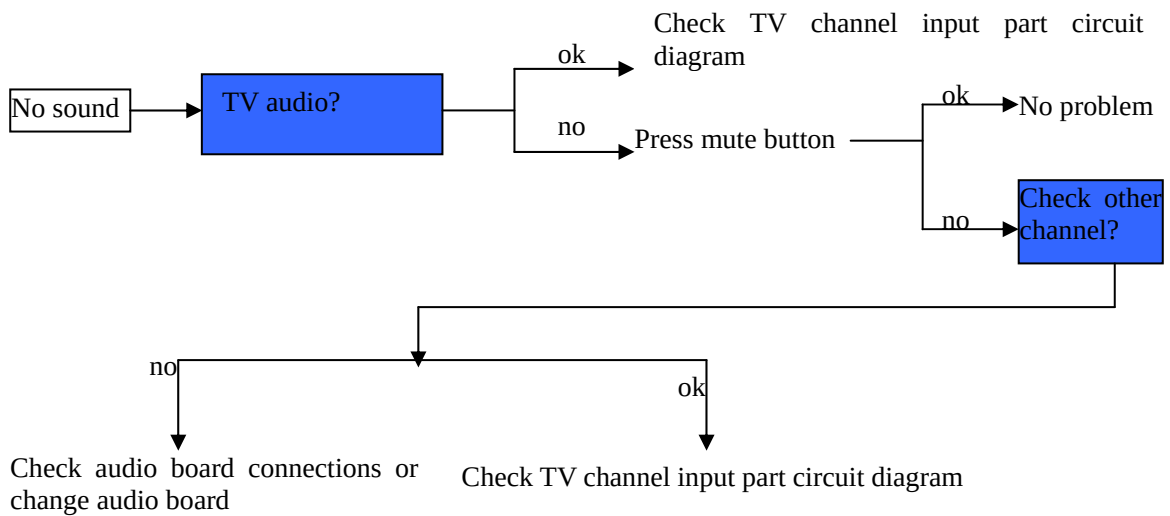
2.



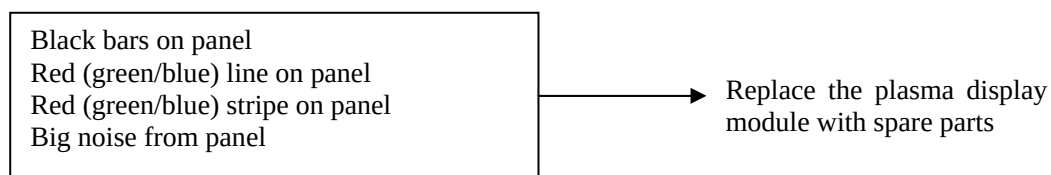
3.



4.



5.



Note:

p.LED?

Power indicator at the centre of the front panel. Normal state : blue; remote command state: blue flickering.

L.LED?

LVDS indicator on the logic processing board. Normal state: yellow flickering.

OSD?

Press [MENU] to display menu on the screen.

Problem solutions:

1. Adjusting sharpness can improve picture definition.
2. Adjusting bright can improve picture administrative levels, it can display black background something.
3. If VGA or YPBPR color isn't natural. You can optimize VGA.
4. PDP power is very large system. As you power off power. Power component must discharge period of time. Power can work steadily. If you power off and power on TV continuously. Then power work unsteadily. Then PDP TV will display deviant picture.
5. TV, AV and S.video are the same white balance setting. VGA is a set white balance setting. HDTV is a set white balance setting.
6. Picture mode does be divided four modes. such as standard, brightness, soft and custom. If you adjust factory data, they will increase the same data.
7. If TV don't work normally, it will take place follow some phenomena.

No.	Trouble	Measure
1	Turn on the TV, The LED is red, no display on screen	Replace the main board or updating the software.
2	Turn on the TV, The LED is blue, but no picture or/and no sound	You should to replace the main board.
3	In TV state, can not to tuning	You should to replace the main board.
4	No teletext	You should to replace the main board.
5	No sound	You should to replace the main board.
6	can not to updating software	You should to replace the main board
7	No reaction with PC	You should change the main board

8. If the picture color is not correct in the scart1 RGB source, but the scart1 CVBS is normal ,you can check the fast blank signal is whether high. If it is low, please check the circuit.
- 9.If the picture is not normal 16:9 mode or 4:3 mode when the signal equipment send 16:9 mode or 4:3 mode, please check the aspect mode whether is in "normal" mode.

Stand installing

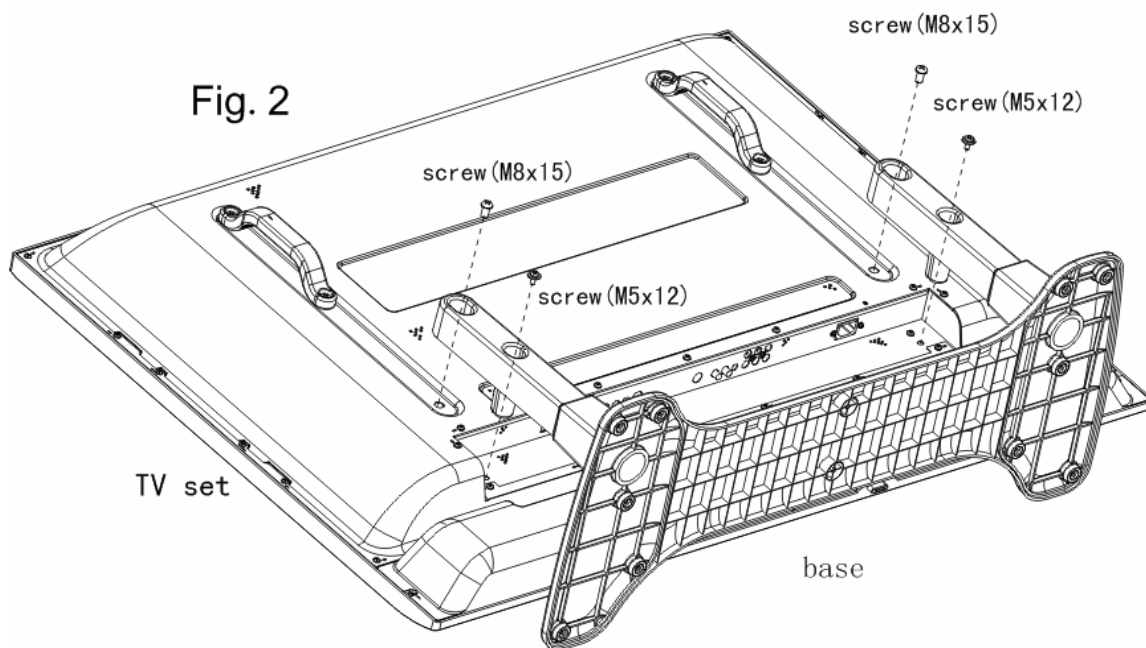
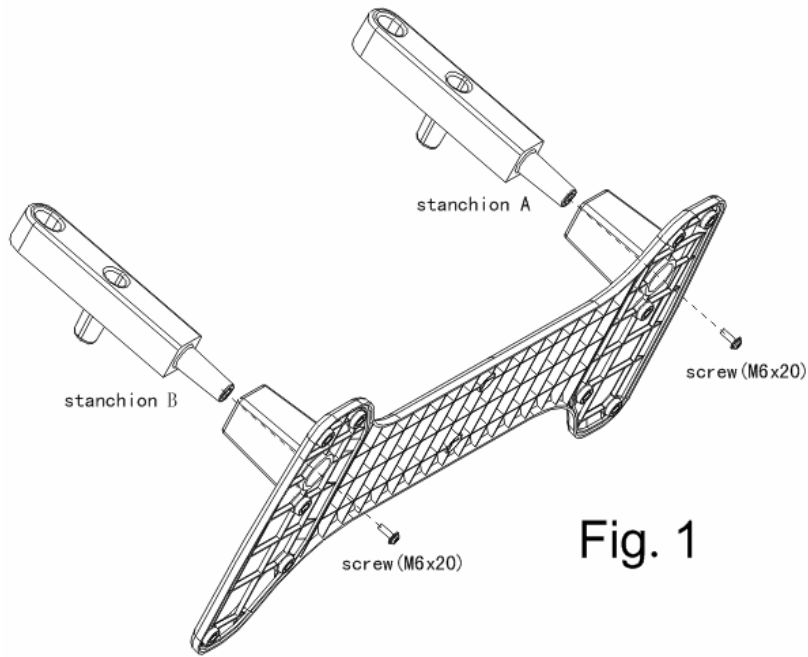
Assemble instruction

Mount Installation

Mount Preparation

1. Take the mounting components out of the box.
2. Fix stanchion A and stanchion B onto the base subassembly with two screws (M6x20) as Fig.1, turn the screws to tighten it.
3. Assemble the base subassembly onto the TV set with screw (M8X15) and screw (M5X12) as Fig.2.You can find these screws in the box of the base.

NOTE: Failure to do so may result in breaking, denting and scratching the plasma display.



PDP Wall-mounting Bracket Installation Guide

READ CAREFULLY BEFORE INSTALLATION!
THE INSTALLATION GUIDE SHOULD BE RETAINED FOR FUTURE REFERENCE.

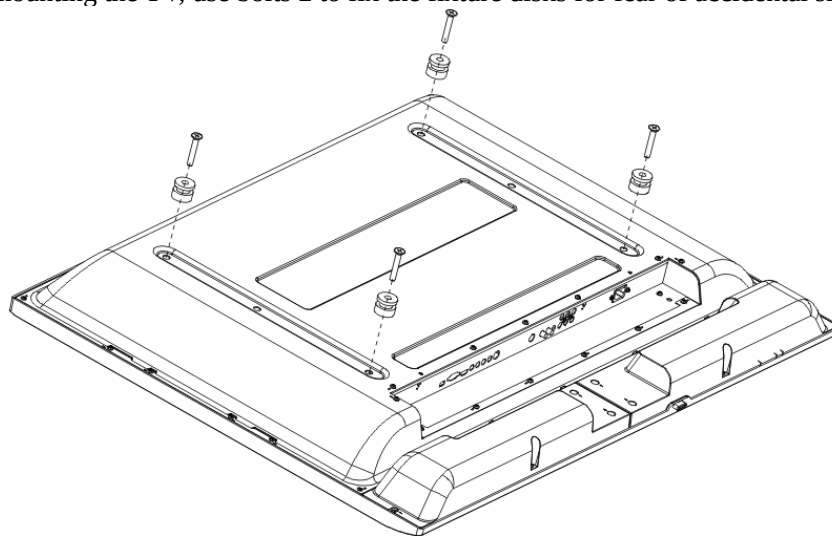
Caution:

PDP TV Service Manual

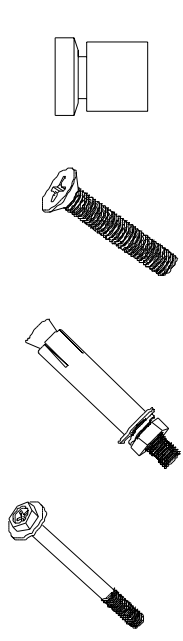
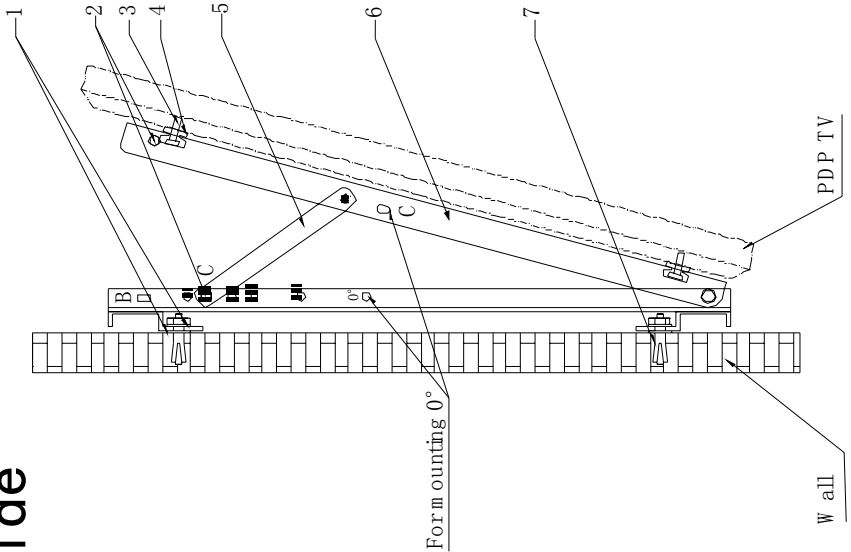
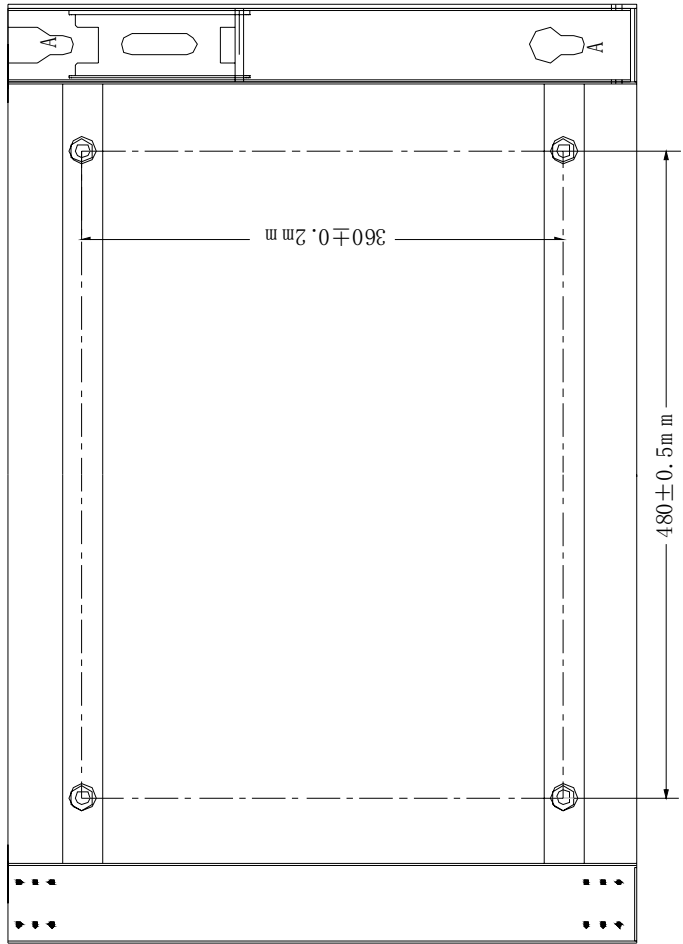
1. Do NOT attempt to install the TV by yourself to avoid mistakes or hazard. Refer all installation to qualified servicing personnel.
2. Do NOT install the TV on a wall aslope or a wall that makes the TV screen sloping over 25° off plumb line. Otherwise, it may cause tumble or injury.
3. Refer all installation to qualified servicing personnel.
4. One must follow the instructions in this guide to correctly install the TV.
5. It requires more than one person to install the TV.
6. Before installation, examine whether the wall conforms to the specifications and whether the supplied parts can be fixed on it. The wall for mounting should sustain the weight of TV and speakers, e.g. cement wall or brick wall. Do NOT attempt to install the TV on a flexible wall such as sand wall or plaster wall, unless the bolt are fixed on an area with standard building rigidity which sustains the weight of the TV and speakers. If the rigidity of the wall can not be measured, every mounting hole should sustain a frontal force of over 100N and a shearing force of over 200N.
7. Use the specified electric drill and drill bit for drilling. The drilling holes should conform to the specifications.
8. To avoid fire and shock, do NOT place radiator, heater or humidifier below the installed TV.
9. The TV should be kept away from moisture, sensors and power line. The TV should be kept away from impact and vibration.
10. Ensure that the power supply be disconnected before installation for fear of fire and shock.
11. The max adjusting degree is 5°

Wall-mounting Installation Steps:

1. Take out the brackets from the package, and check if there are serious defects (e.g. infirm juncture).
2. Adjust the bracket to the desired angle. Use the bolts 2 to adjust the angle by meeting holes of column beam 8 and holes of lever 5
3. Drill locating holes in the specified dimension in a vertical wall of concrete or brick. The hole size should be 11mm. The hole depth should accommodate the expanding tube of the bolt.
4. Fix the bolts into the drilled holes in step3, and then cover each bolt with a metal washer. Meet the four mounting holes in the bracket with the four bolts in the wall, cover each bolt with a metal washer, and then fasten with a screw nut. Check its rigidity by pulling the bracket.
5. Take away the handles and the base from the back of TV;
6. Fix the fixture disk 4 to the back cover of the TV using four bolt 3(M8X45) .
7. Wall-mount the TV by putting the four fixture disks into the four mounting holes A.
8. If the customer is not satisfied with the mounting angle, take down the TV and adjust the angle before re-mounting.
9. After wall-mounting the TV, use bolts 2 to fix the fixture disks for fear of accidental slide.

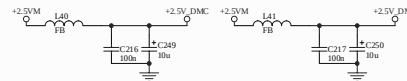
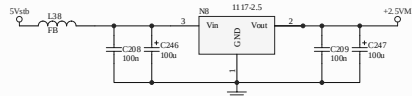
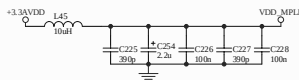
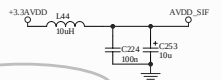
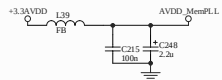
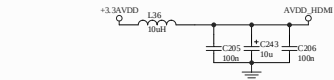
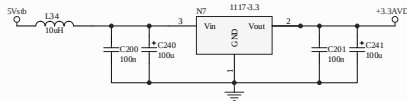
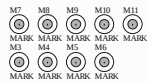


Wall-mounting Quick Guide

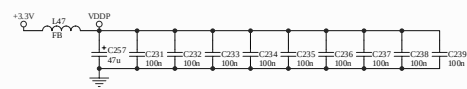
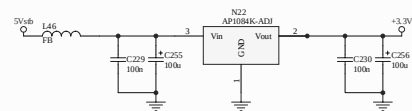
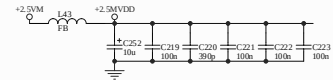
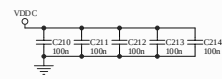
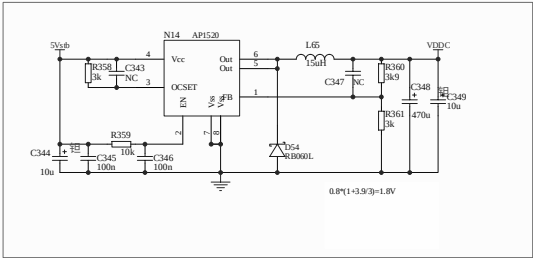


Bolt M 6x70 (black) Expanding Bolt Bolt M 8x45 (black) Fixture disk

No.	name	Material	Quantity	No.	name	Material	Quantity
1	Plain Washer	Steel	8	5	Lever	Iron	2
2	Bolt M 6x70 (black)	Steel	4	6	Vertical Beam	Iron	2
3	Bolt M 8x45 (black)	Steel	4	7	Expanding Bolt	Steel	4
4	Fixture disk	Nybn	4				



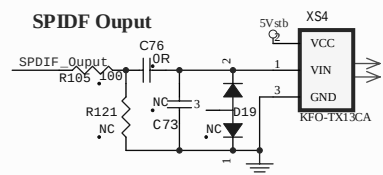
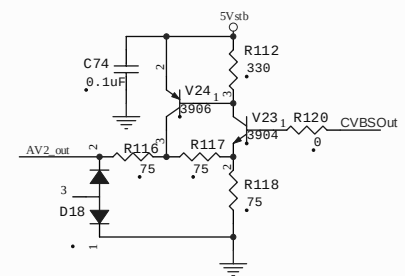
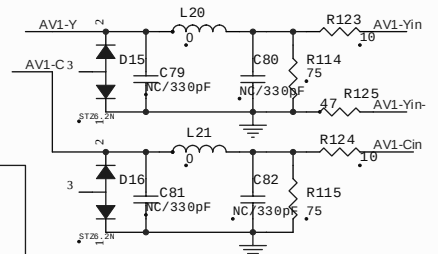
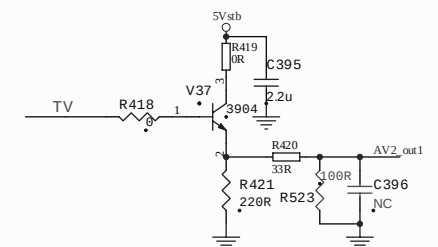
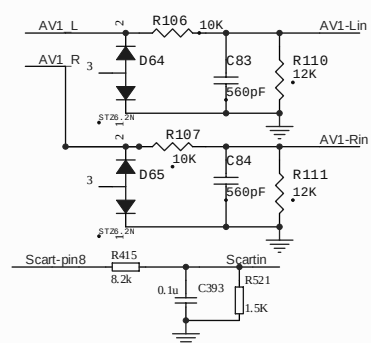
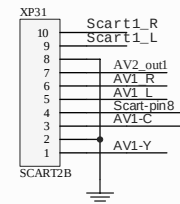
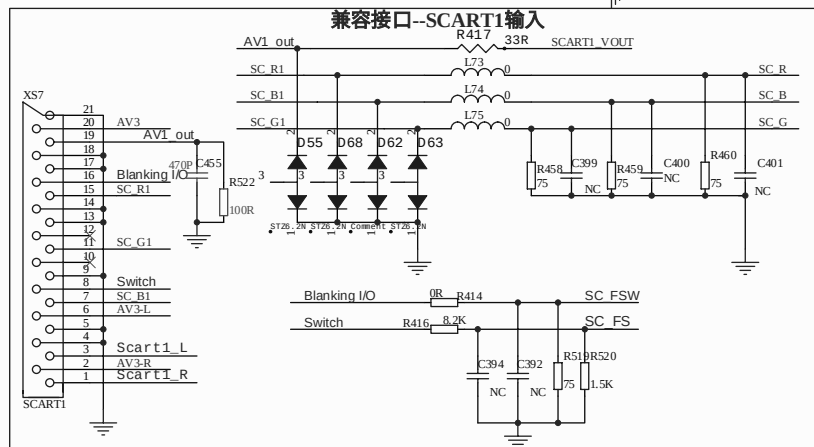
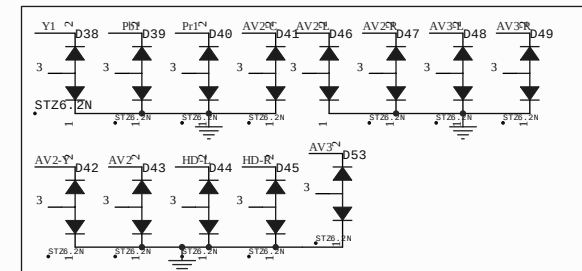
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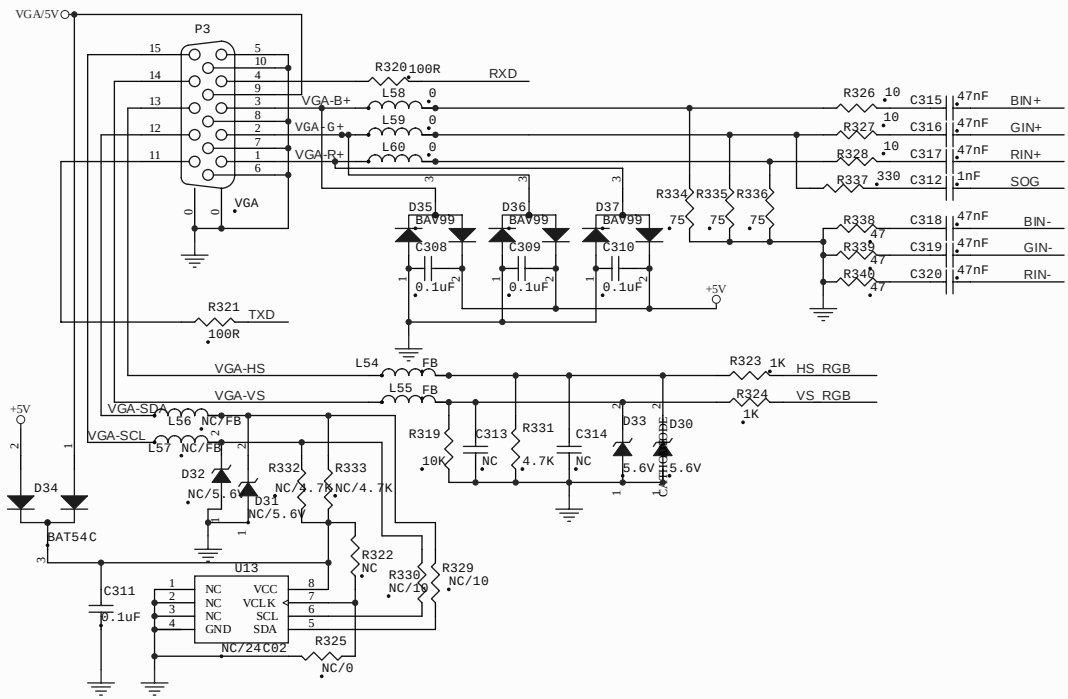
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底图总号
签 名 日期
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审				审				审			
工				工				工			
批				批				批			
准				准				准			
制图：				描图：				幅面：	A2		



		数量	更改单号	签 名	日期	类别		数量	更改单号	签 名	日期	类别		数量	更改单号	签 名	日期				
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审	核																				
工	艺																				
标准	化																				
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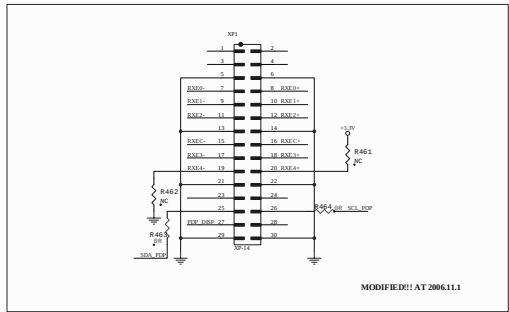
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签 名 日期

格式(3)

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审	核																			
工	艺																			
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制图： 描图： 图幅：A3



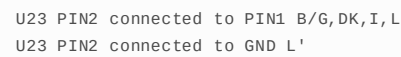


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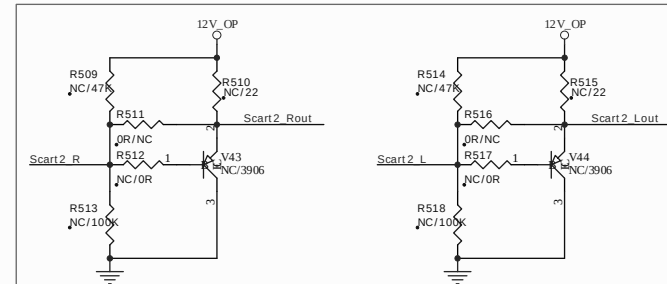
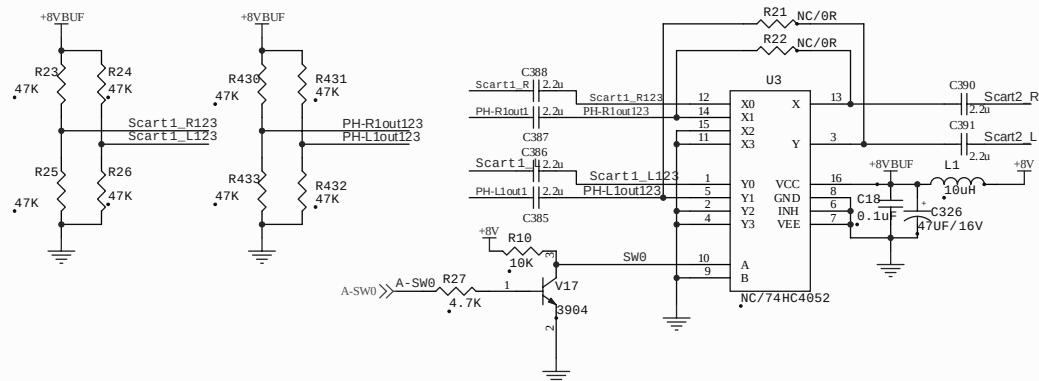
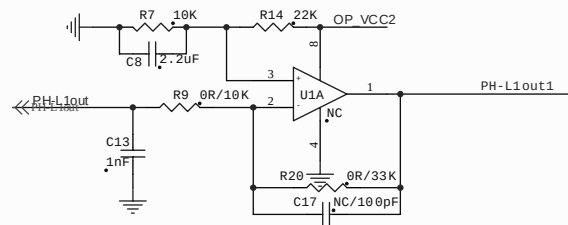
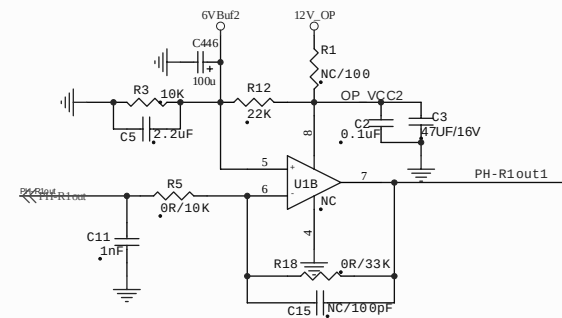
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