SERVICE MANUAL

X1160 Family/X1260 Family

X1160 Family	X1160/X1160 refresh/X1160Z/X1160Z refresh/X1160P/X1160PZ
X1260 Family	X1260/X1260 refresh/X1260K refresh/X1260P

Date	Revise Version	Description
2007.08.27	V1.0	Initial Issue
2008.07.09	V2.0	Add X1160 Refresh/X1260 Refresh
2008.08.25	V3.0	Add X1160Z/X1160Z Refresh
2008.10.10	V4.0	Add X1260K Refresh
2008.12.12	V5.0	Add X1160P/X1160PZ/X1260P

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SI : **Suzy**   TSE: **Roch**   Check: **Joanna**   Approved: **Brian**

Comparison table

PARTS	X1160	X1160refresh	X1160P	X1160Zrefresh	X1160PZ	X1160Z	X1260	X1260refresh	X1260P	X1260Krefresh
LOGO MYLAR	35.88T02G001	35.88T02G041	35.88T02G041	35.88T03G001	35.88T03G001	35.89B02G001	35.89B02G001	35.89B02G001	35.89B02G021	35.89B02G001
IO MYLAR	35.88T01G001						35.89B01G001			
DMD	48.87K01G001					48.87M01G001			48.89B01G001	
SPEAKER	N/A									
SYS FAN	49.88T01G001						49.89B01G001			
BLOWER	N/A	49.86E02G001	N/A	49.86E02G001	N/A	N/A	N/A		49.86E02G001	49.86E02G001
ZOOM RING	N/A				51.89B04G001	51.89B04G001			51.89B04G001	
FRONT IR CAP	N/A	51.88T24G001	51.88T24G001	51.88T24G001	N/A	N/A	51.88T24G001			
FRONT COVER	51.88T03G001	51.88T27G001	51.88T27G001	75.89B02G001	75.89B02G001	75.89B01G001	75.89B02G001			
IR SENSOR BD	N/A	80.87Y05G001	80.87Y05G001	N/A	N/A	N/A	N/A		80.87Y05G001	
COLOR WHEEL	70.88T11GR01	70.88T35GR01	70.8BA15GR01	70.88T35GR01	70.8BA15GR01	70.88T11GR01	70.88T11GR01	70.88T35GR01		
ENGINE	70.88T12GR01	70.88T37GR01	70.88T37GR01	70.88T20GR01	70.88T20GR01		70.89B10GR01		70.89B28GR01	
MAIN BD	70.88T13GR01	70.88T36GR01	70.88T39GR01	70.88T39GR01	70.88T40GR01	70.88T21GR01	70.89B07GR01	70.89B27GR01	70.89B44GR01	70.89B43GR01
LAMP DRIVER	70.88T22GR01	70.88T22GR01	70.88T34GR01	70.88T34GR01	70.88T22GR01	70.88T22GR01	70.88T22GR01	70.88T34GR01	70.88T34GR01	
LVPS	75.88T01G101	75.88T08G001	75.8BE01G001	75.88T08G001	75.8BE01G001	75.88T01G101	75.88T01G101	75.88T08G001	75.8BE01G001	75.8BE01G001
THERMAL SWITCH	N/A	43.89T17G001	43.89T17G001	N/A	N/A	N/A	N/A	43.89T17G001	43.89T17G001	
MB TO LVPS CABLE	42.00454G001	42.00455G001	42.00454G001	42.00455G001	42.00454G001	42.00455G001	42.00454G001	42.00455G001	42.00455G001	42.00455G002

Preface

This manual is applied to X1160 Family/X1260 Family projection system. The manual gives you a brief description of basic technical information to help in service and maintain the product.

Your customers will appreciate the quick response time when you immediately identify problems that occur with our products. We expect your customers will appreciate the service that you offer them.

This manual is for technicians and people who have an electronic background. Please send the product back to the distributor for repairing and do not attempt to do anything that is complex or is not mentioned in the troubleshooting.

Notice:

The information found in this manual is subject to change without prior notice. Any subsequent changes made to the data herein will be incorporated in future edition.

X1160 Family/X1260 Family Service Manual

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Manual Version 5.0

Table of Content

Chapter 3   Troubleshooting

Chapter 4   Function Test & Alignment Procedure

Chapter 1

Introduction

1-1 Highlight

No	Item	Description
1	Dimensions (LxWxH)	- 267 mm x 187 mm x 80 mm
2	Weight	- <5 lbs
3	Tilt Angle	- 7 degree with elevator mechanism (for X1160/X1260/ X1160Z) - 3 degree with elevator mechanism (for X1160 refresh /X1260 refresh/X1160Z refresh/X1260K refresh/X1160P/X1160PZ/X1260P)
4	Power Supply	- Universal AC 100 – 240 V ~ 50-60 Hz with PFC input - 160W for Osram E20.6 Lamp @ normal operation (for X1160/X1160 refresh/X1260/X1260 refresh/X1160Z/ X1160Z refresh) - 180W for Osram E20.6 Lamp @ normal operation (for x1260k refresh/X1160P/X1160PZ/X1260P) - Variant FAN speed control (Depends on temperature variance)
5	Keystone correction	- +/- 40 degree (80 degree)
6	Cooling system	- Advanced Air Flow - One fan with system acoustic noise level 36 dB(A) (typical) - Temperature control circuits with adaptive fan rotational speeds - Maximum touch temperature follow UL60950-1

No	Item	Description
7	Brightness	Engineering Spec: - 1700 ANSI Lumens (Typical) (for X1160/X1260/X1160Z) - 1445 ANSI Lumens (Minimum) (for X1160/X1260/X1160Z) - 1800 ANSI Lumens (Typical) (for X1160 refresh/X1260 refresh/X1160Z refresh/X1260K refresh) - 1600 ANSI Lumens (Minimum) (for X1160 refresh /X1260 refresh/X1160Z refresh/X1260K refresh) - 2100 ANSI Lumens (Typical) (for X1160P/X1260P/ X1160PZ) - 1850 ANSI Lumens (Minimum) (for X1160P/X1260P/ X1160PZ) Marketing Spec: - 2000 ANSI Lumens (for X1160/X1160 refresh/X1260/ X1260 refresh/X1160Z/X1160Z refresh/X1260K refresh) - 2400 ANSI Lumens (for X1160P/X1160PZ/X1260P)
8	Contrast	Engineering Spec: - 1500 : 1 Full White and Black (Minimum; Full power mode) - 1800 : 1 Full White and Black (Typical; Full power mode) (for X1160/X1260/X1160Z) - 1400 : 1 Full White and Black (Minimum; Full power mode) - 1800 : 1 Full White and Black (Typical; Full power mode) (for X1160 refresh/X1260 refresh/X1160Z refresh) - 400 : 1 Full White and Black (Minimum; Full power mode) - 600 : 1 Full White and Black (Typical; Full power mode) (only for X1260K refresh) - 1900 : 1 Full White Black (Minimum; full power mode) - 2400 : 1 Full White Black (Typical; full power mode) (for X1160P/X1160PZ/X1260P) Marketing Spec: - 2000:1 (for X1160/X1160 refresh/X1260/ X1260 refresh/X1160Z/X1160Z refresh/X1260K refresh) - 2500:1 (for X1160P/X1160PZ/X1260P)
9	Uniformity	Engineering Spec: - 65% Japan standard (Minimum; Full power mode) - 80% Japan standard (Typical; Full power mode) Marketing Spec: - 85%
10	Throw ratio	- 1.95:1 distance/width @60" (For X1160 refresh /X1160/X1160P) - 1.95 – 2.15:1 distance/width @60" (For X1260 refresh /X1260/X1160Z/X1160Z refresh/ X1260K refresh/ X1160PZ/X1260P)
11	Lamp door protection	- Lamp Power Supply shut off automatically when lamp cover open

No	Item	Description
12	Projection lens	- F# 2.41 ,f = 21.79mm, Fix lens (For X1160 refresh /X1160/ X1160P) - F# 2.41~2.55, f = 21.79~23.99 mm, 1.10X Mechanical Zoom Lens (For X1260 refresh/X1260/X1160Z/X1160Z refresh/X1260K refresh/ X1160PZ/X1260P)
13	Lamp life	- 3500 hours min, 50% survival rate - 4000 hours, 50% survival rate (Eco power Mode)
14	System controller	- TI DDP2230
15	Terminal	For X1160 refresh/X1160/X1160P/X1160PZ - One D-sub VGA input - One Composite input - One S-Video input(4 pin Mini din) - One USB port (Type B Female) For X1260 refresh/X1260/X1260K refresh/X1260P - One D-sub VGA input - One D-sub VGA output - One Composite input - One S-Video input(4 pin Mini din) - One audio input (2.5m phone jack) - One USB port (Type B Female) - One RS-232 (3 pin Mini din)
16	Number of active dots	- Number of active dots : 800(H) x 600(V) (for X1160/ X1160 refresh/1160Z/X1160Z refresh/X1160P/X1160PZ) - Number of active dots : 1024(H) x 768(V) (for X1260/X1260 refresh/X1260K refresh/X1260P)
17	Input signal spec.	- Hsync Frequency 31 ~ 69 kHz (for X1160 refresh/X1160/ X1160Z/X1160Z refresh/X1160P/X1160PZ) - Hsync Frequency 31 ~ 80 kHz (for X1260 refresh/X1260K refresh/X1260P) - Vsync Frequency 50 ~ 85 Hz - Video Signal RGB (PC) ● Analog RGB 0.7Vp-p, 75 ohm, Separate TTL H,V Sync ● Analog RGB 1Vp-p, 75 ohm, Sync. On Green signal ● Analog RGB 0.7Vp-p, 75 ohm, Composite TTL Sync - Video ● Composite video 1Vp-p,75 ohm ● S-video Luminance 0.714Vp-p, 75 ohm,Chrominance 0.286Vp-p, 75 ohm ● Component Video 1Vp-p, 75 ohm
18	TI DMD	- TI DMD 0.55" 12° 2xLVDS Type-X SVGA Digital Mirror Device (for X1160/X1160 refresh/X1160Z/X1160Z refresh/ X1160P/X1160PZ) - TI DMD 0.55" 12° 2xLVDS Type-X XGA Digital Mirror De vice (for X1260 refresh/X1260/X1260K refresh/X1260P)

No	Item	Description
19	Video compatibility	- Standards : ● NTSC (3.58/4.43) ● PAL (B/D/G/H/I/M/N) ● SECAM (B/D/G/K/K1/L) ● HDTV - 480i, 576i, 480p, 576p, 720p, 1080i

20	Power consumption	- 225W Max
		- Standby < 8W at AC 110V (for X1160/X1260/X1160Z)
		- Standby < 5W at AC 110V
		  (for X1160 refresh/X1260 refresh/X1160Z refresh)
		- 250W Max.
		- Standby < 5W at AC 110V
		  (only for X1260K refresh/X1160P/X1160PZ/X1260P)

21	Color wheel	- 6 segments (R90/Y28/G90/C28/W42/B82)
		  (for X1160 refresh/X1260 refresh/X1160Z refresh/X1260K
		  refresh)
		- 6 segments (R85Y37G90C28W42B78)
		  (for X1160P/X1160PZ/X1260P)
		- 7200 rpm CW 2X
		- 9000 rpm @ CW 3X, PAL 50Hz

22	Lamp	- 160 Watt OSRAM (for X1160/X1160 refresh/X1260/X1260
		  refresh/X1160Z/X1160Z refresh)
		- 180 Watt OSRAM (only for X1260K refresh/X1160P/
		  X1160PZ/X1260P)

23	Temperature	- Operating: 5°C -- 35°C - Storage: -20°C -- 60°C

1-2 Compatible Mode

VGA Analog - PC Signal

Compatibility	Resolution	V-Sync [Hz]	H-Sync [KHz]
VGA	640x480	60	31.50
	640x480	72	37.90
	640x480	75	37.50
	640x480	85	43.30
	720x400	70	31.50
	720x400	85	37.90
SVGA	800x600	56	35.10
	800x600	60	37.90
	800x600	72	48.10
	800x600	75	46.90
	800x600	85	53.70
	832x624	75	49.70
XGA	1024x768	60	48.40
	1024x768	70	56.50
	1024x768	75	60.00
	1024x768	85	68.70
SXGA	1152x864	70	63.80
	1152x864	75	67.50
	1280x1024	60	64.00
	1152x864 (For X1260 Family)	85	77.10
	1280x1024 (For X1260 Family)	72	77.00
	1280x1024 (For X1260 Family)	75	80.00
QuadVGA	1280x960	60	60.00
	1280x960 (For X1260 Family)	75	75.20
Power Mac G4	640x480	66.6(67)	34.90
	800x600	60	37.90
	1024x768	60	48.40
	1152x870	75	68.70
	1280x960 (For X1260 Family)	75	75.00

Compatibility	Resolution	V-Sync [Hz]	H-Sync [KHz]
PowerBook G4	640x480	60	31.40
	640x480	66.6(67)	34.90
	800x600	60	37.90
	1024x768	60	48.40
	1152x870	75	68.70
	1280x960 (For X1260 Family)	75	75.00
i Mac DV(G3)	1024x768	75	60.00
SXGA+ (For X1260 Family)	1400x1050	60	63.98

VGA Analog - Extended Wide timing

Compatibility	Resolution	V-Sync [Hz]	H-Sync [KHz]
WXGA	1280x768	60	48.36
	1280x768	75	60.30
	1280x720	60	44.80
	1280x768 (For X1260 Family)	85	68.60
	1280x800	60	49.60
	1440x900	60	59.90

Product Overview

Projector Outlook

Front /Upper side
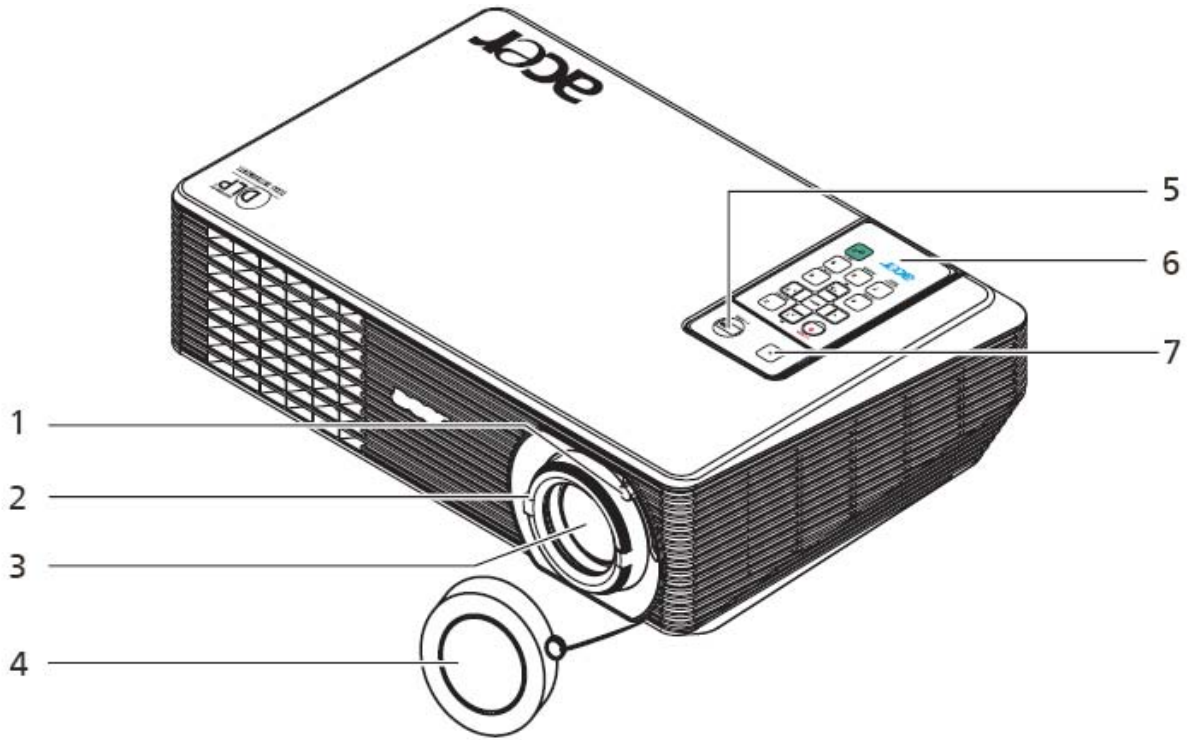
Item	Description	Item	Description
1	Zoom ring (X1160Z/X1160Z refresh/X1160P/X1160PZ/ X1260 Family)	5	Power button and Power Indicator LED
2	Focus ring	6	Remote controller
3	Zoom lens	7	Remote control receiver
4	Lens cap		

Rear side
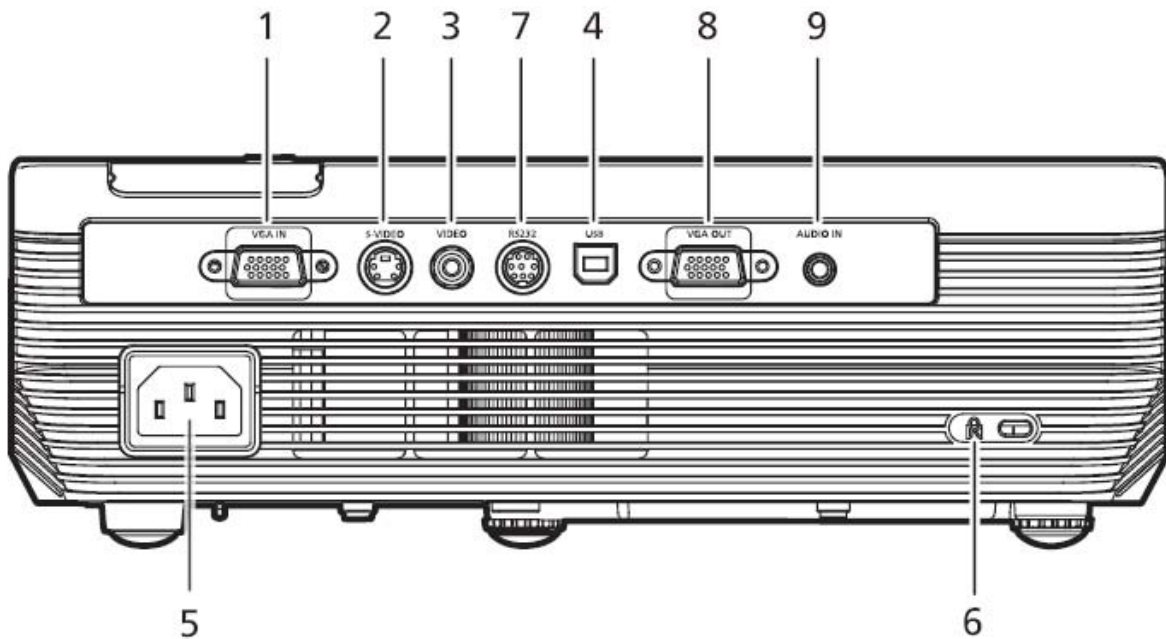
Item	Description	Item	Description
1	PC analog signal/HDTV/component video input connector	6	KensingtonTM lock port
2	S-Video input connector	7	RS232 connector (Only for X1260 refresh/ X1260/X1260K refresh/X1260P)
3	Composite video input connector	8	Monitor loop-through output connector (VGA-Out) (Only for X1260 refresh/ X1260/X1260K refresh/X1260P)
4	USB connector	9	Audio input connector (Only for X1260 re-fresh/X1260/X1260K refresh/X1260P)
5	Power socket		

Remote Control and Control Panel Layout
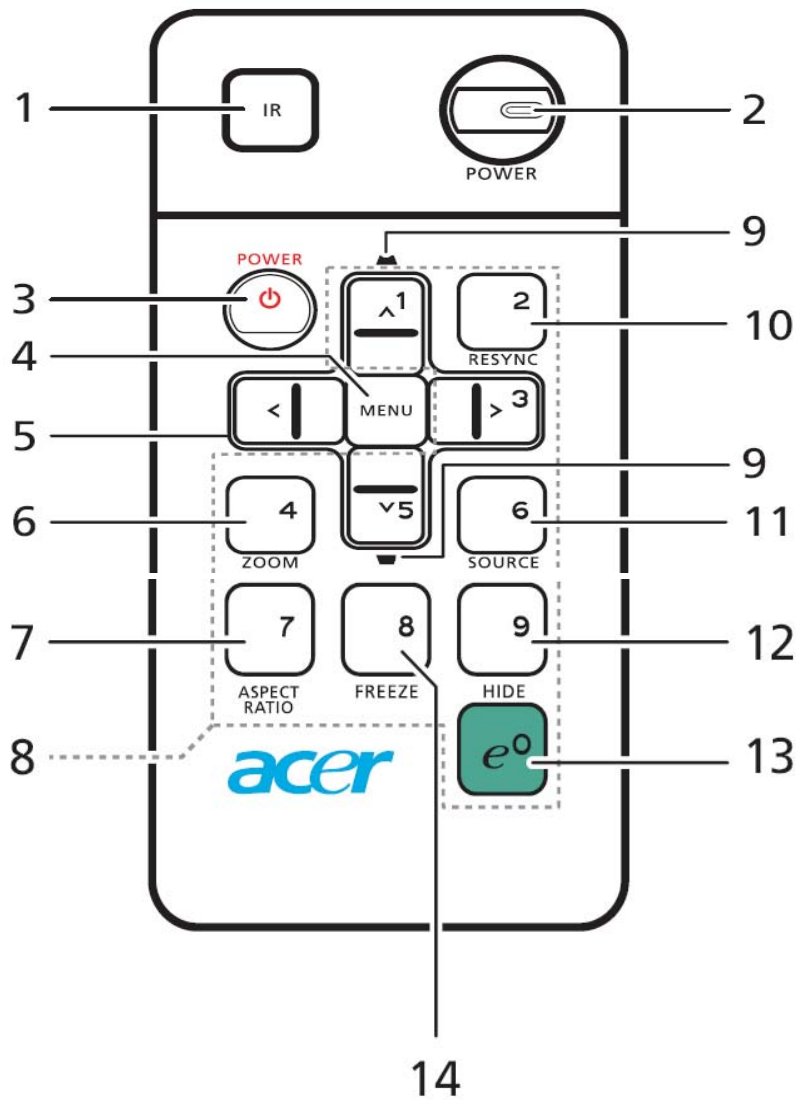
Item	Icon	Function	Description
1		Infrared transmitter	Sends signals to the projector.
2		Power/Power LED	Power button and Power Indicator LED.
3	⊙	POWER	Refer to the "Turning the Projector On/Off" section.
4		MENU	• Press "MENU" to launch the Onscreen display (OSD) menu, back to the previous step for the OSD menu operation or exit the OSD menu. • Confirm your selection of items.
5		Four directional select keys	Use up, down, left, right buttons to select items or make adjustments to your selection.
6		ZOOM	Zooms the projector display in or out.
7		ASPECT RATIO	To choose the desired aspect ratio (Auto/4:3/16:9).
8		KeyPad 0~9	Press "0~9" to input a password in the "Security settings".
9		KEYSTONE	Adjusts the image to compensate for distortion caused by tilting the projector (± 40 degrees).

Item	Icon	Function	Description
10		RESYNC	Automatically synchronizes the projector to the input source.
11		SOURCE	Press "SOURCE" to choose RGB, Component, S-Video, Composite and HDTV sources.
12		HIDE	Momentarily turns off the video. Press "HIDE" to hide the image, press again to display the image.
13	e^o	Empowering key	Unique Acer functions: eView, eTimer Management.
14		FREEZE	To pause the screen image.

Note:

Model NO : A-13

NOTICE

Rating: ▬ ▬ ▬
DC 3V 60mA MAX

FC CE

BONTECH ELECTRONICS CO.,LTD.
MADE IN CHINA

VZ.J5600.001

Connecting the Projector
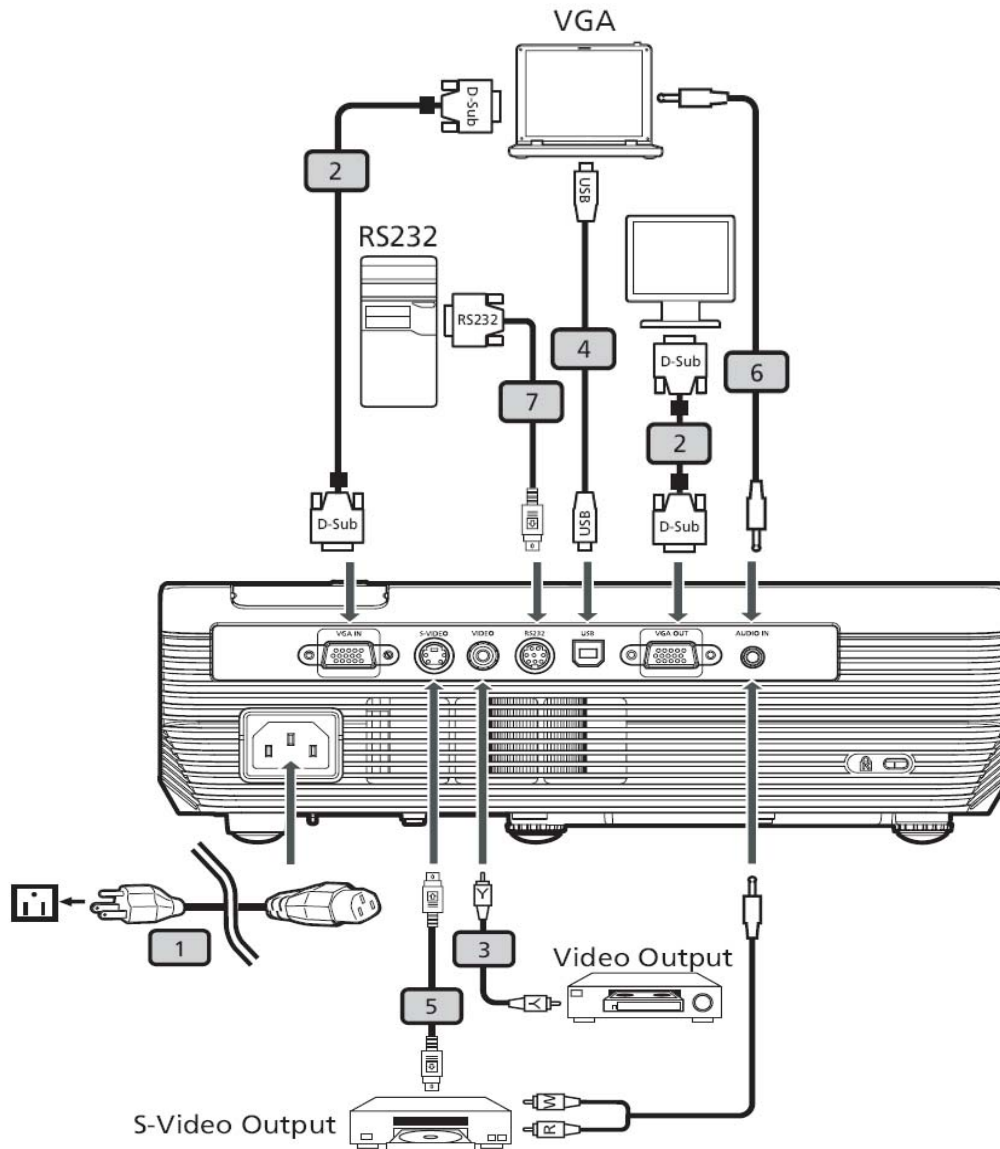
Item	Description	Item	Description
1	Power cord	5	S-Video cable
2	VGA cable	6	Audio cable jack/jack
3	Composite video cable	7	RS232 cable
4	USB cable		

Note: To ensure the projector works well with your computer, please make sure the timing of the display mode is compatible with the projector.

X1160 Refresh/X1160/X1160Z Refresh/X1160Z (there is only one fan)

Main Board

XTAL — 20MHz

CDCDLP223

Flash | 512Mbits XDR DRAM | 100MHz | 20MHz | 320MHz
CDCD5704

8 bits | 400MHz

Front IR
For Option

DMD Board
DC 3.3V

VGA Graphics Component → VGA IN Port → ADC AD9883A — 24bits → Port1

DDP2230 ASIC

DAD2000

0.55" 2xLVDS SVGA DMD Chip → **Display Image**

Svideo Input → Svideo Port
XTAL 14.318MHz

Video decoder TVP5147 — 10bits → Port3

16 pair LVDS

CVBS Input → Composite Port

USB Input → USB Port

I2C

8051-MCU W79E804ASG
For Option

TMP75 | EEPROM

DC output 1.2V/2.5V 3.3V/5V

PMD1000

Motor Driver
PWM

DC 12V → MP1583 CAT7106 — **DC output 1.8V**

For Option
FAN x 1 to 2

Photo Sensor

Power AC 100~240V → LVPS — **DC 380V** → LAMP DRIVER → LAMP — **Light Source** → Color Wheel — **RGB Light Source**

X1160P/X1160PZ (there are two fans)
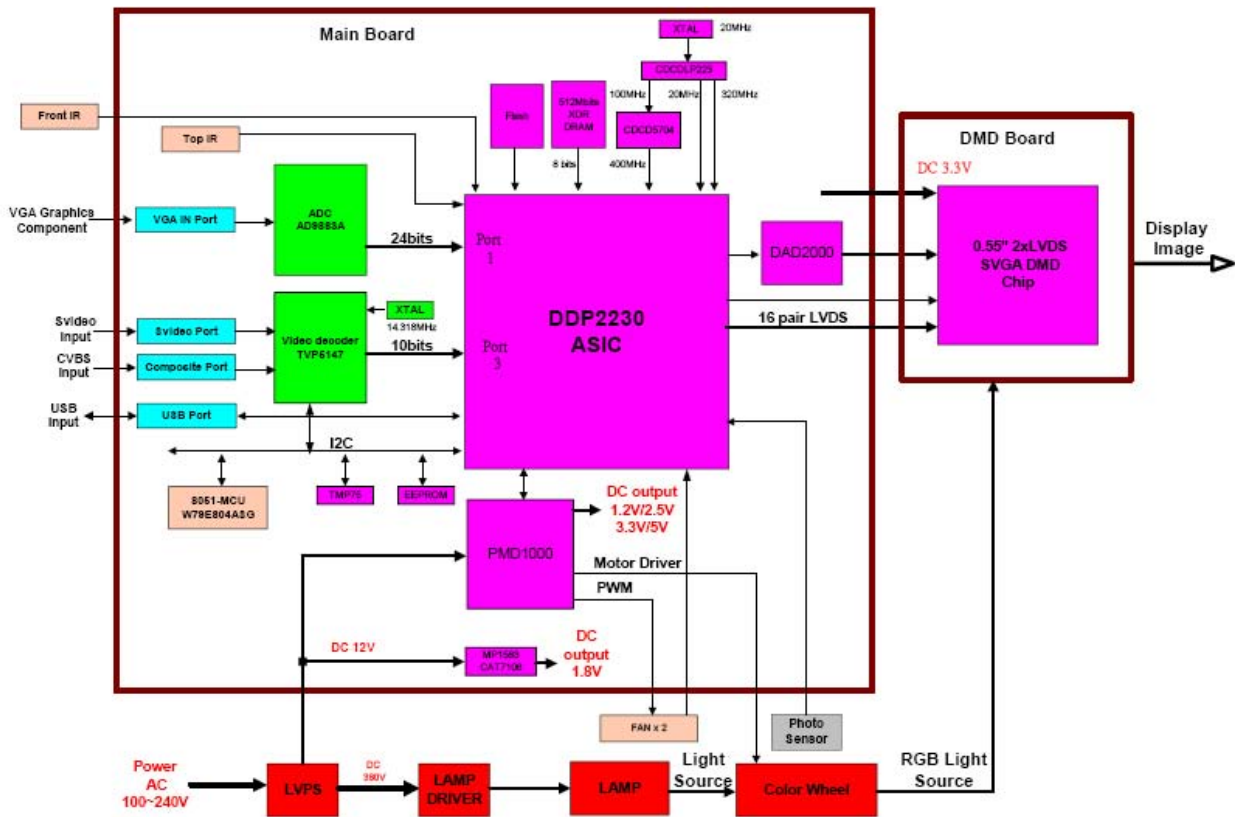
X1260 Refresh/X1260 (there is only one fan)
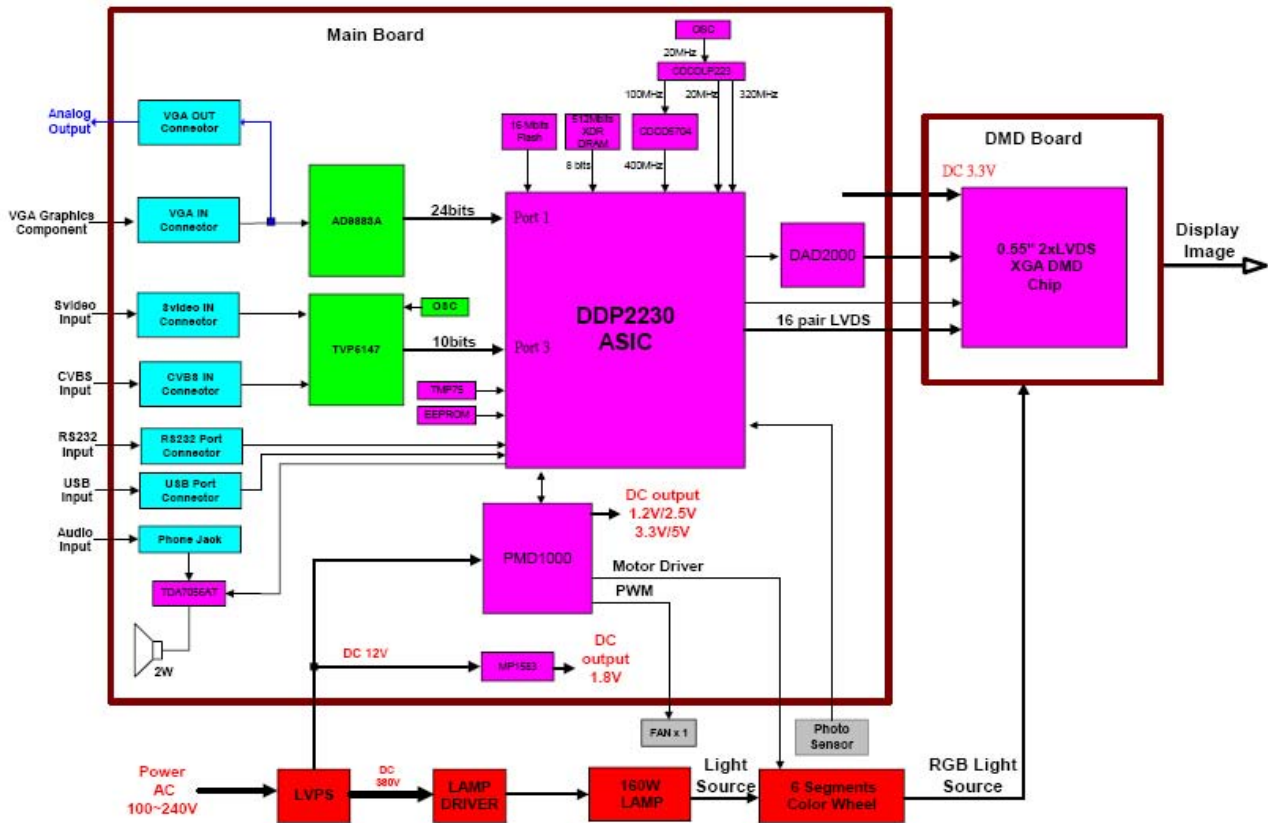
X1260K Refresh/X1260P (there are two fans)

Bottom Cover Dimension

SCREW SPEC. M3 x 20 mm

82.30 mm

110.00 mm
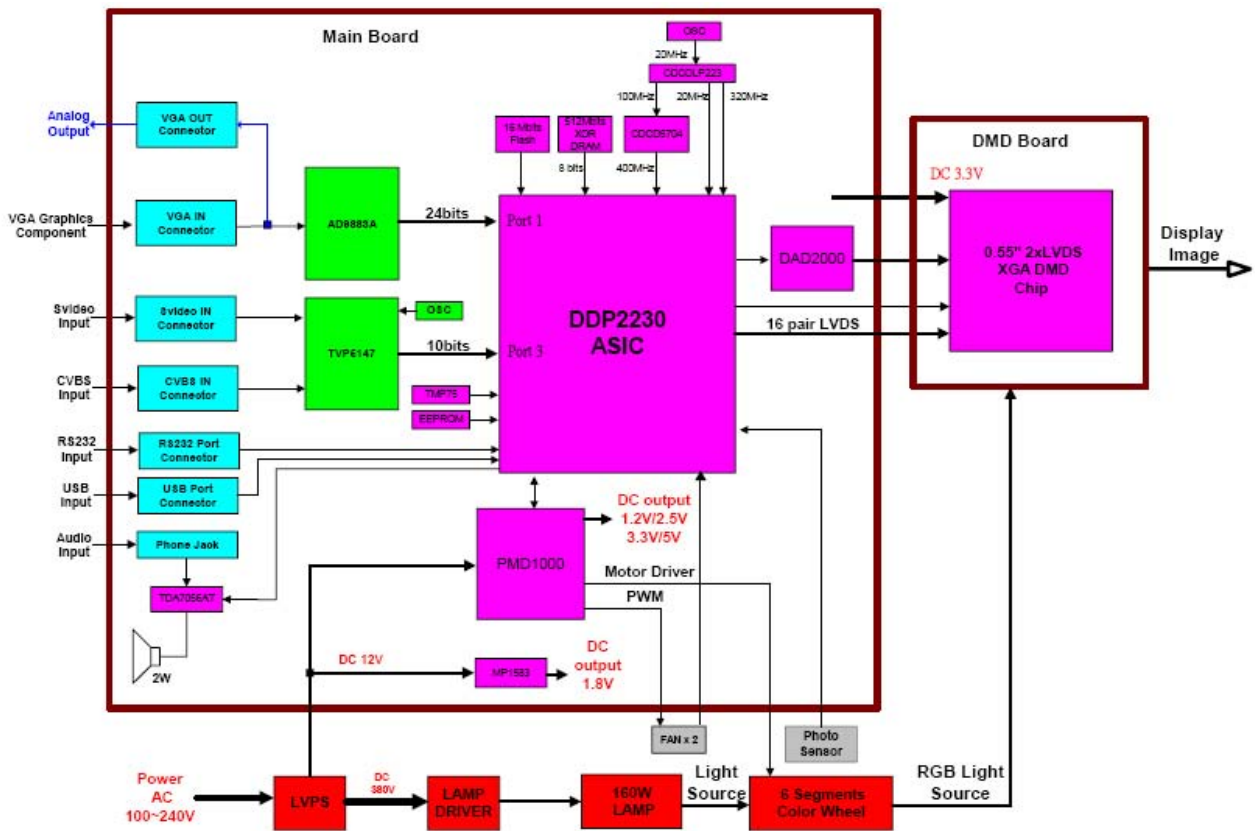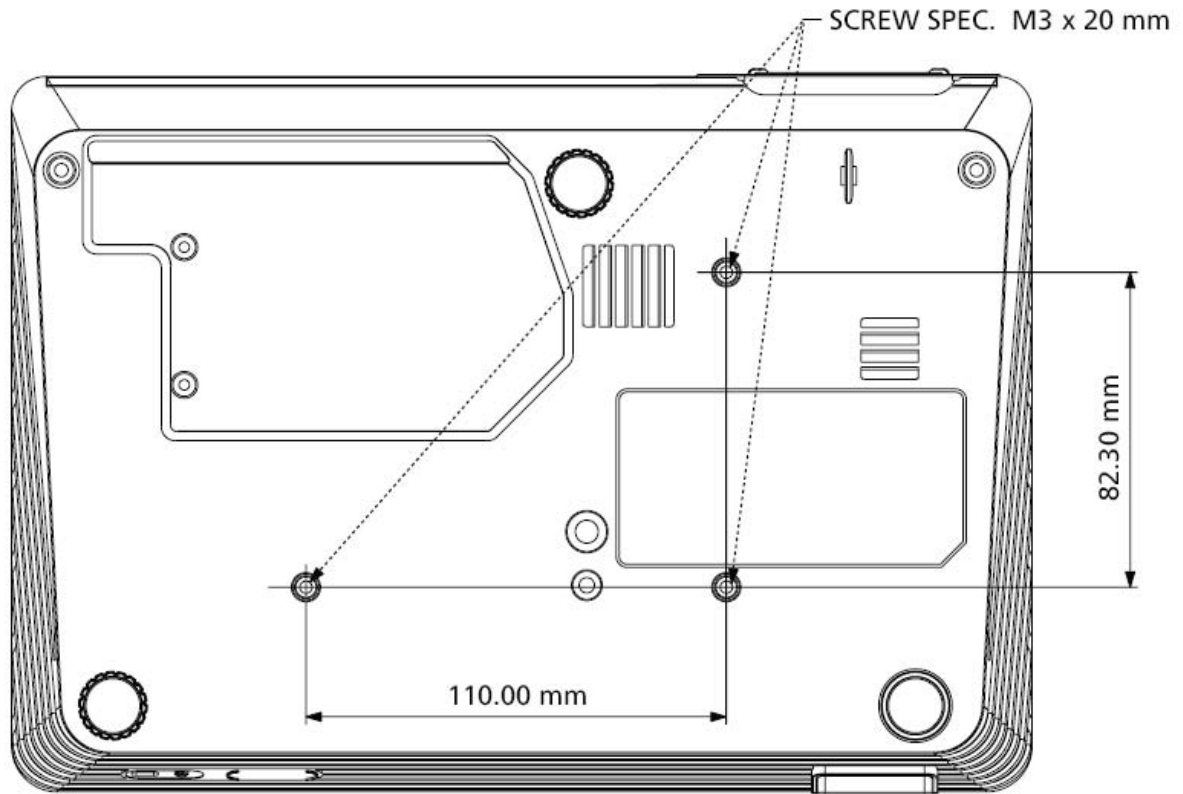
Disassembly& Assembly Process

2-1 Equipment Needed & Product Overview

1. Screw Bit (+) :107

2. Hex Sleeves 5mm

3. Screw Bit (+) :102

4. Screw Bit (-) :102

5. Long Nose Nipper

6. Tweezers

7. X1160 Family/X1260 Family unit

* Before you start: This process is protective level II. Operators should wear electrostatic chains.

* Note: 1.If you need to replace the main board, you have to get into service mode and record the

lamp usage hour. please refer to section 2-18.

2.The disassembly and assembly process for X1160 Family/X1260 Family *is the same.*

Here, we take X1160/X1260 *as example.*
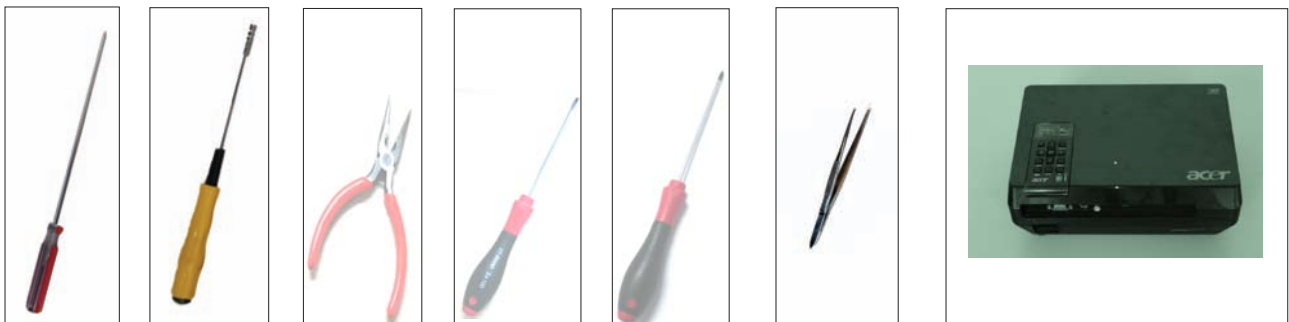
2-2 Disassemble Lamp Cover Module

1. Unscrew 2 screws on the lamp cover module

Lamp Cover Module

2-3 Disassemble Lamp Module

1. Unscrew 2 screws on the lamp module
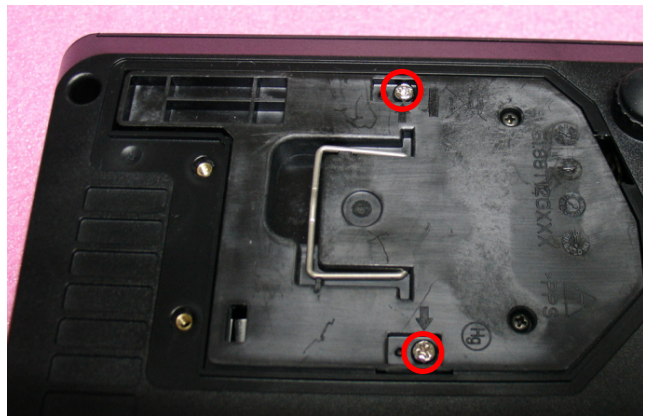
Lamp Module

2-4 Disassemble Top Cover Module

1. Unscrew 2 screws on the unit base

2. Use the tweezers to scratch sharply on the both side

Note:You'd better drop out two tenons in the back side before disassemble the top cover module.(As the red square) And then the rest of the two tenons will be spontaneously fall.(As the green square)
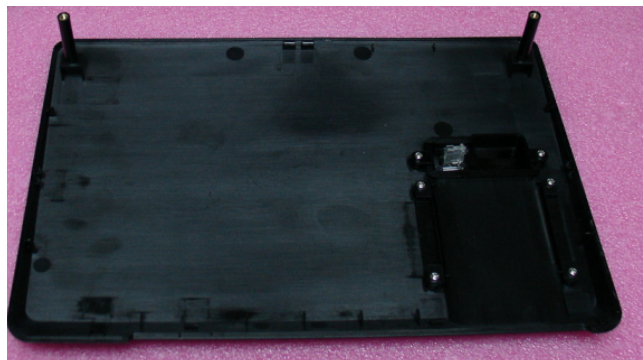
Top Cover Module

2-5 Disassemble Top Shielding

1. Unscrew 7 screws on the top shielding

2-6 Disassemble Front Cover Module

1. Unscrew 1 screw on front cover module (Only for X1260/X1260 Refresh/X1260 Refresh/X1260P)

2. Press four tenons to disassemble the front cover module

  - First,disassemble right side of front cover: Push the top side of bottom cover to right and push the top side of the front cover to front,then one tenon will be out.Push the front cover to above,then another tenon will be out.

- The left side of the front cover is
  the same as the right side

*Note: Avoid to touch the lens when you
disassemble the front cover.*

Front Cover Module

2-7 Disassemble Main Board Module & Back Cover Module

1. Unscrew 3 screws and 5 connectors on main board module & back cover module(X1160/X1160 Refresh/X1160Z/ X1160Z refresh/X1160P/X1160PZ)
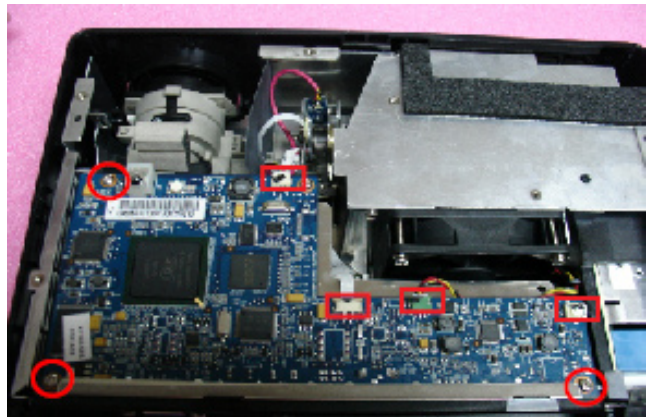
*For (X1160/X1160 Refresh/X1160Z/ X1160Z refresh/X1160P/X1160PZ)*

Note: there is 1 connector under the Main Board

Unscrew 3 screws and 6 connectors on main board module & back cover module(X1260/X1260 Refresh/X1260K Refresh/X1260P)
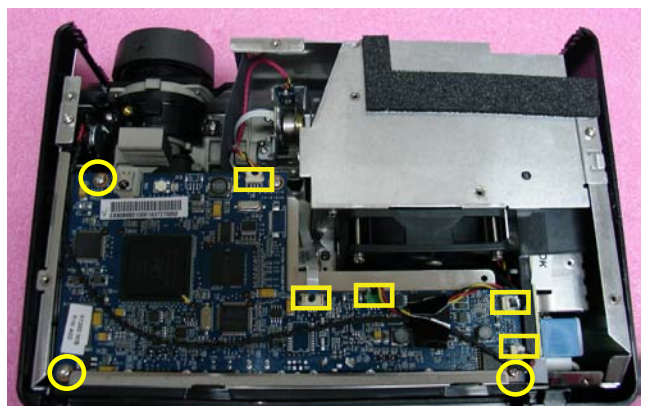
For X1260/X1260 Refresh/X1260K Refresh/X1260P

Note: there is 1 connector under the Main Board

Note:Speaker Cable(only for X1260/X1260

Refresh/X1260K Refresh/X1260P)& Fan Cable

must be fixed on Main Board by film tape to
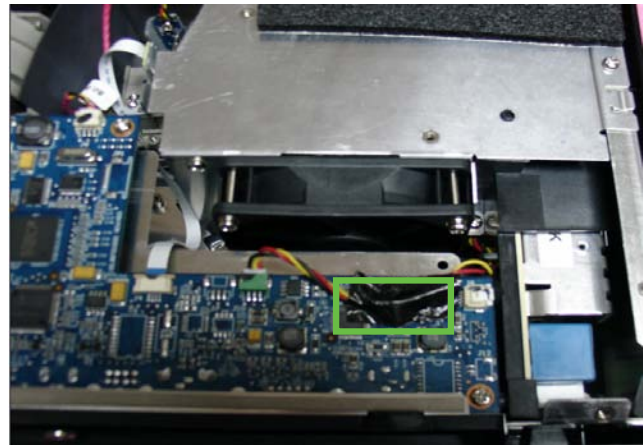
avoid to stretch into the Fan.

2. Unscrew 1 screw on main board module &
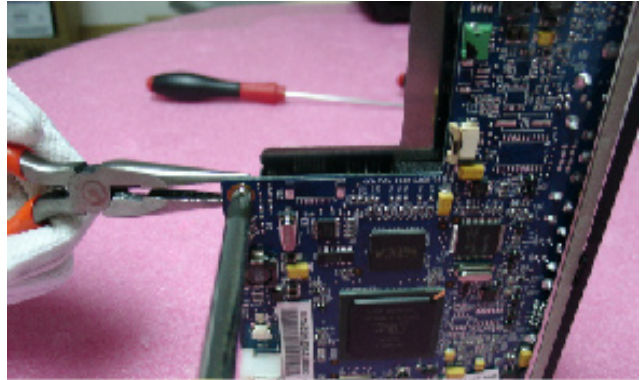
   back cover module

3. Unscrew 2(4 for X1260/X1260 Refresh/
   X1260K Refresh/X1260P) hex screws on
   main board module & back cover module

*For (X1160/X1160 Refresh/
X1160Z/X1160Z refresh/
X1160P/X1160PZ)*

For (X1260/X1260 Refresh/X1260K Refresh/X1260P)

Main Board Module

Back Cover Module

2-8 Disassemble Color Wheel Module

1. Unscrew 1 screw on Mylar

2. Unscrew 2 screws on Color Wheel Module
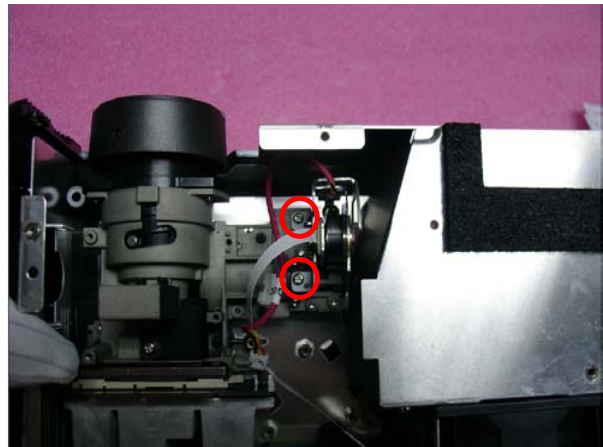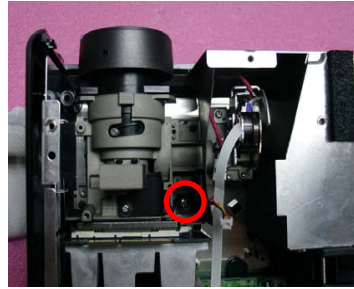
3. Unscrew 1 screw on Photo Sensor to disassemble Color Wheel Module and Photo Sensor

2-9 Disassemble Engine Module

1. Unscrew 4 screws on engine module

2. Unscrew 2 screws on engine module to disassemble the zoom ring and zoom ring holder (only for X1260Family/ X1160Z/X1160Z refresh/X1160PZ)
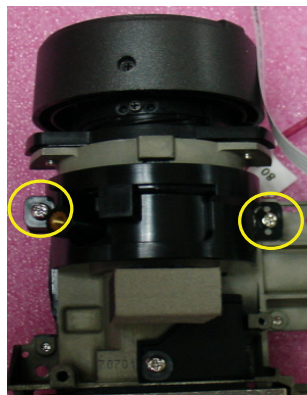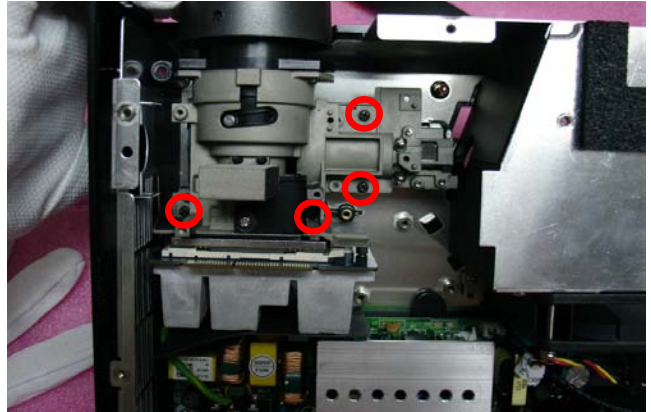
(only for X1260 Family/X1160Z/ X1160Z refresh/X1160PZ)

3. Unscrew 3 screws on focus ring

Zoom Ring Holder and Zoom Ring
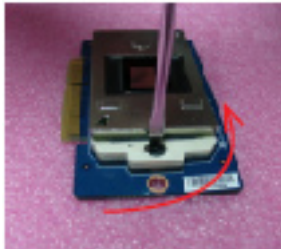*(only for X1260 Family/X1160Z/X1160Z refresh/X1160PZ)*
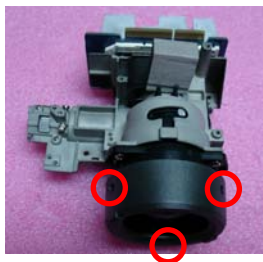
Focus Ring

2-10 Disassemble DMD Board and DMD Chip

1. Unscrew 2 screws on engine module, disassemble Heat Sink and DMD Board&DMD chip module
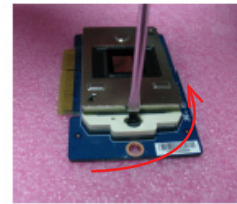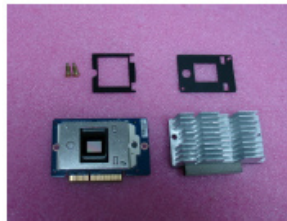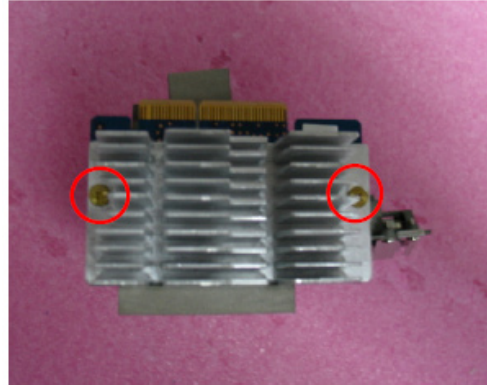
2. Unlock the lockhole by Screw Bit(-) to disassemble the DMD chip from the DMD board

   Note:It will be unlocked if the Screw Bit(-) turn reverse. Contrary,It will be locked.

2-11 Disassemble Speaker Module(For X1260/ X1260 Refresh/X1260K Refresh/X1260P)

1. Unscrew 1 screw and press 2 tenons to disassemble Speaker Module

   - Press the plastic of the speaker Holder and then use the tweezers to press the tenon.
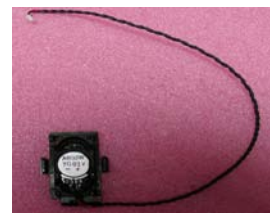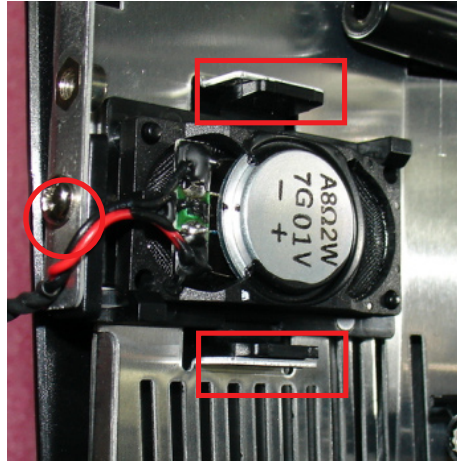
2. Press two tenons to disassemble the speaker from the speaker holder
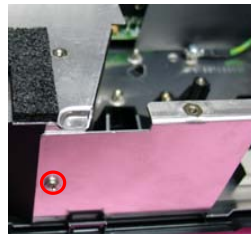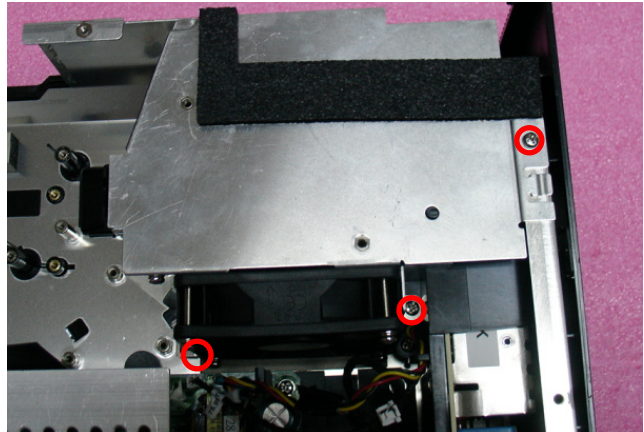

Speaker holder&Speaker

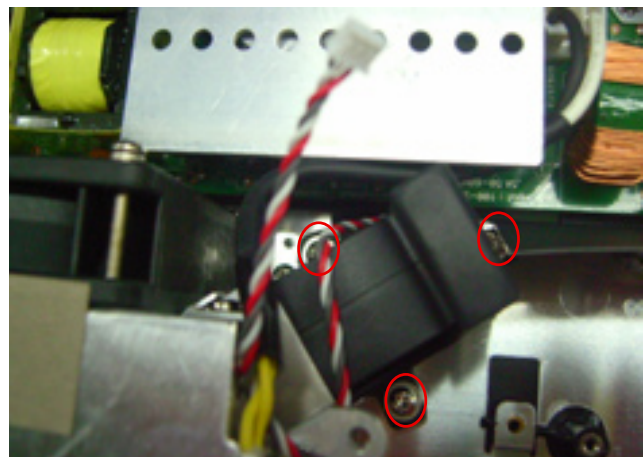*Note:Avoid to press the speaker with great strenth.*

2-12 Disassemble Fan Module and Blower Module

1. Unscrew 4 screws on the fan module to disassemble Fan Module.

2. Unscrew 3 screws on Blower Module and disassemble Blower Module. (only for X1160P/X1160PZ/X1260P/ X1260K refresh)
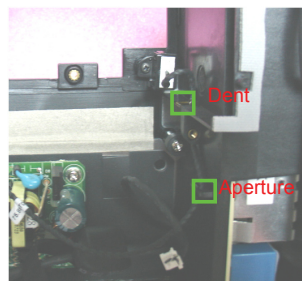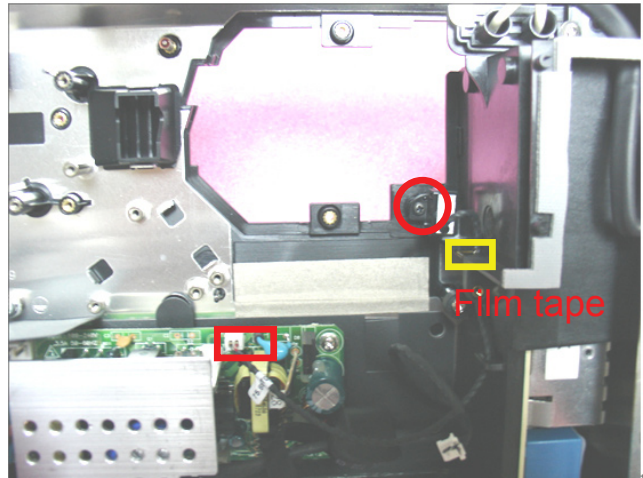

Note: Avoid to press the middle of the Blower with great strength.

2-13 Disassemble Interrupt Switch Module

1. Unplug 1 connector and unscrew 1 screw and disassemble 1 film tape to disassemble interrupt switch module

Note: Interrupt switch cable must be pass through a dent and a aperture.And use a film tape to fix the cable in the dent.

2. Disassemble interrupt switch from interrupt switch holder
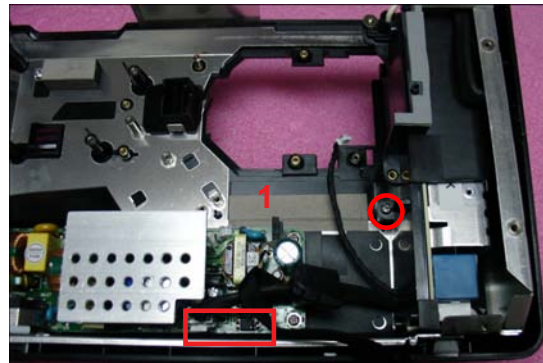
2-14 Disassemble Lamp Driver Module

1. Unplug 1 connector and unscrew 1 screw on lamp driver module

2. Unplug 1 connector and unscrew 2 screws on lamp driver to lamp cable

Note: The lamp driver to lamp cable must be pass through two Dents.(As the yellow square)

3. Unplug 2 connectors to disassemble 3PIN and 5PIN cable

Note:The 3 PIN and 5 PIN cable must be pass through a Dent.(As the yellow square)

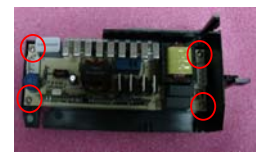4. Unscrew 4 screws on lamp driver module

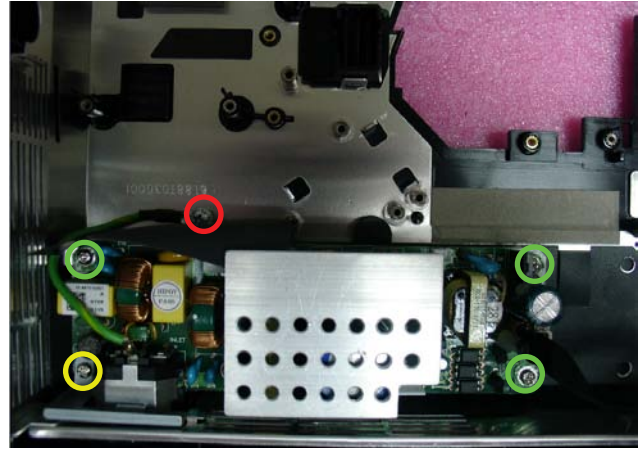*Lamp Driver to Lamp Cable*

3 PIN&5 PIN Cable

Lamp Driver Module

2-15 Disassemble LVPS Module

1. Unscrew 1 ground screw (As red circle)

2. Unscrew 1 screw on LVPS module (As yellow circle)

3. Disassemble LVPS BRKT

4. Unscrew 3 screws on LVPS module(As green circle)

LVPS BRKT

5. Disassemble LVPS module

LVPS Module

# 2-16 Disassemble Bottom Cover Module

1. Unscrew 1 screw on bottom cover module

2. Disassemble 1 EMI tape

3. Disassemble the bottom cover shielding from bottom cover module

4. Press two tenons to disassemble the ROD DUCT

   - Pull aside the iron sheet with Tweezers to disassemble the ROD DUCT
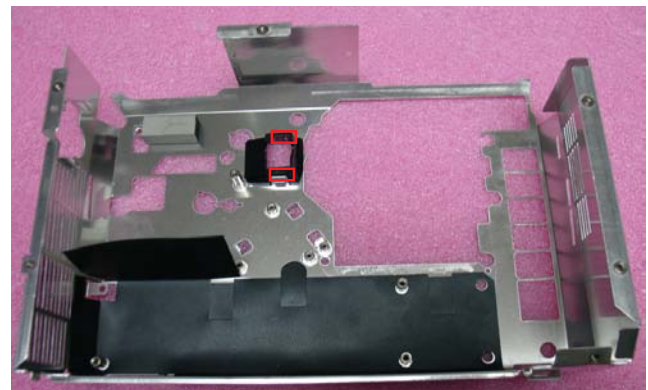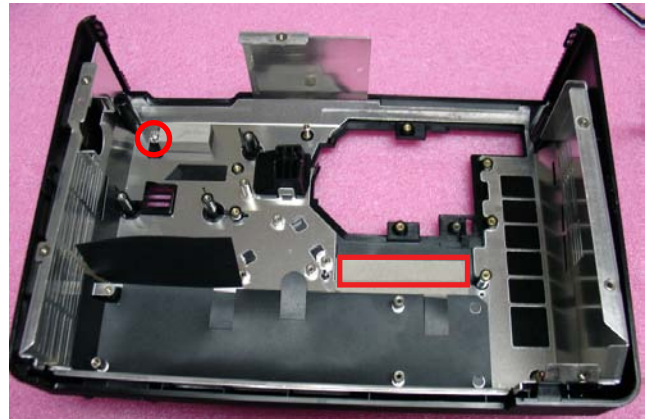
Note: Due to the iron sheet was out of shape,so we must turn it back before assemble the ROD DUCT.
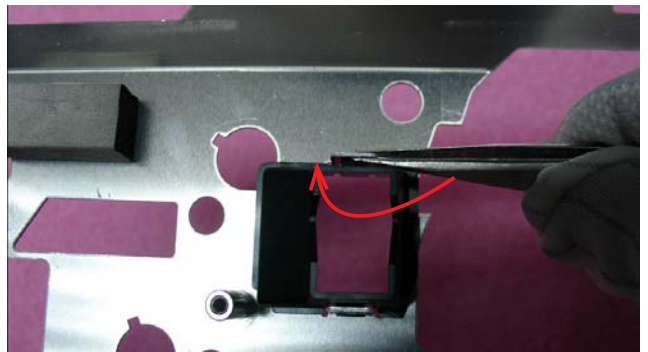
2-17 Rod Adjustment

1. environment adjustment

   - The distance between the engine and the
     screen is 1.7 M

   - This process should be done at a dark
     environment. (under 5 Lux)

2. Procedure adjustment

   - Change the screen to "white screen."

   - Adjust the screws by using the rod on
     the engine module to readjust the image.
     (adjust until the yellowish or bluish parts
     disappeared.)

3. Abnormal image inspection

   - It should not have any abnormal color at the
     rim of the image by estimating through the
     eyes.
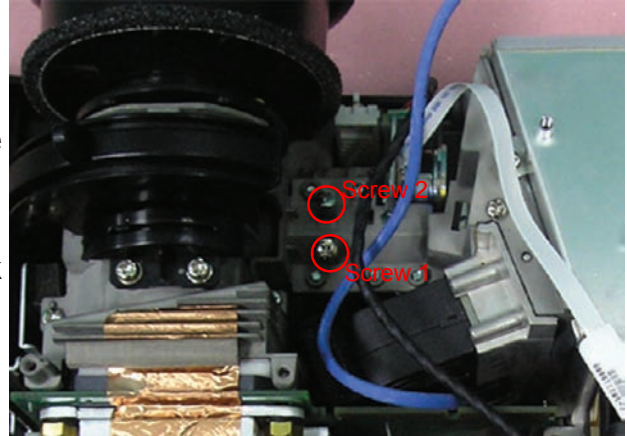
Note: To avoid over adjust the rod. After the

opration,please use the glue to fix the screws.

2-18 Re-write Lamp Usage Hour

- Take X1260 for example,X1160/X1160

Refresh/X1260 Refresh/X1160Z/X1160Z

Refresh/X1260K Refresh/X1260P is the

same as X1260

1. Get into service mode.

   - press (power > left > left > menu) to get

     into service mode.

2. Use left or right key to re-write the lamp

   hour back to previous lamp usage hour.

3. Choose exit
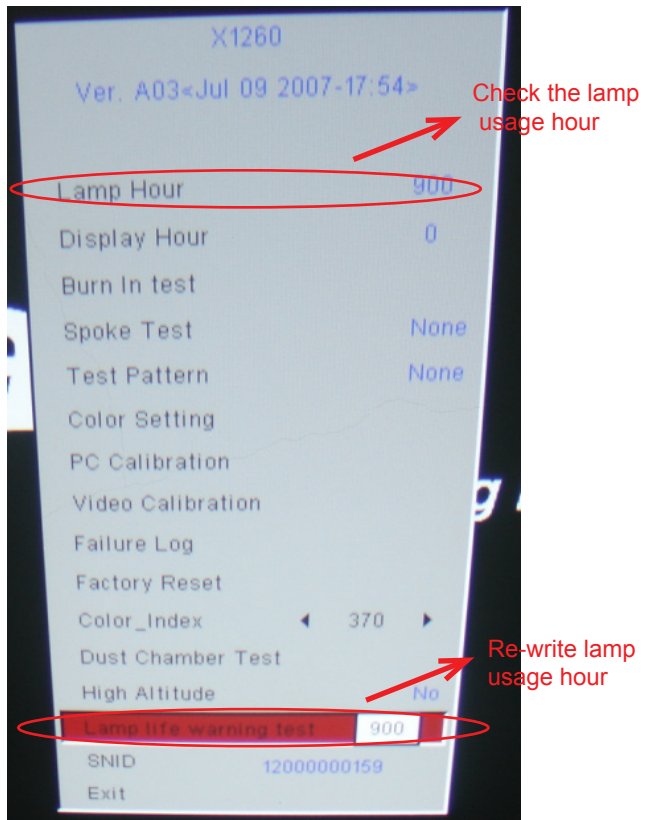
2-19 Assemble Bottom Cover Module

ROD DUCT

1. Fasten two tenons to assemble ROD DUCT

2. Assemble the bottom cover shielding on bottom cover module
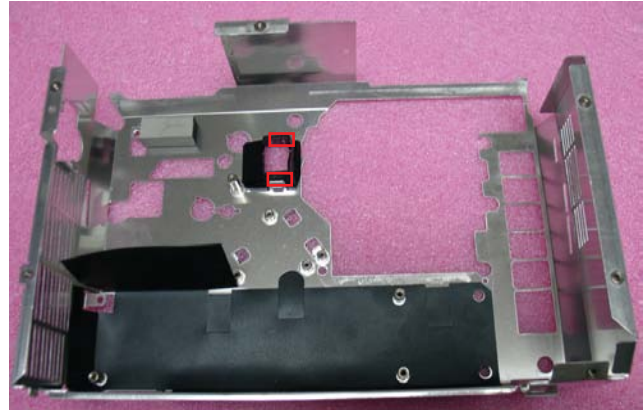
Bottom Cover Module

3. Stick 1 EMI tape

4. Screw 1 screw on bottom cover module
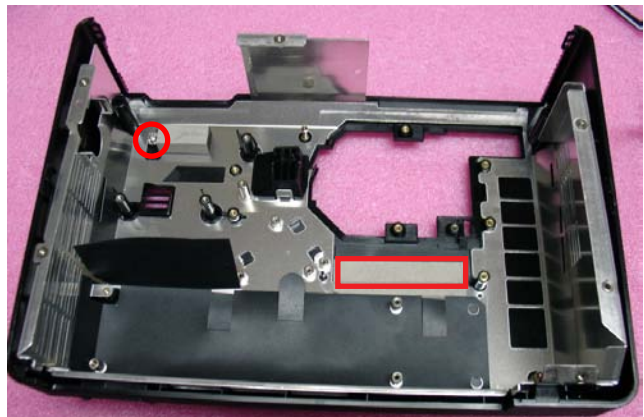
2-20 Assemble LVPS Module

1. Screw 3 screws on LVPS module (As green circle)

2. Screw 1 screw to assemble LVPS BRKT (As yellow circle)
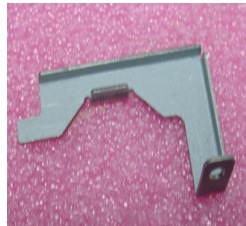
LVPS BRKT

LVPS Module

3. Screw 1 ground screw (As red circle)
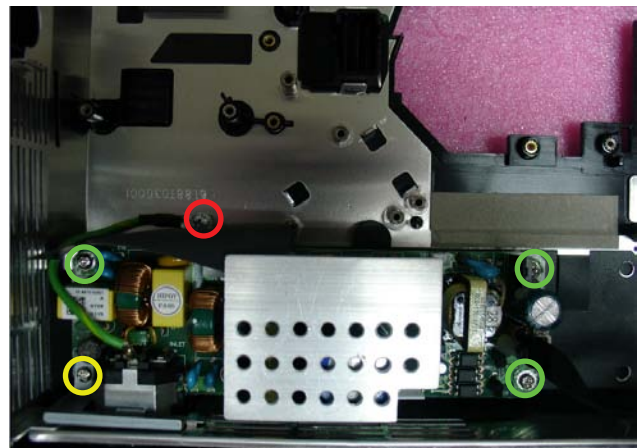
2-21 Assemble Lamp Driver Module

Lamp Driver Holder

Lamp Driver Module

1. Screw 4 screws to assemble lamp driver module on lamp driver holder

2. Plug 2 connectors to assemble 3PIN and 5PIN cable

3 PIN&5 PIN Cable

Note:The 3 PIN and 5 PIN cable must be pass through a Dent.(As the yellow square)

2
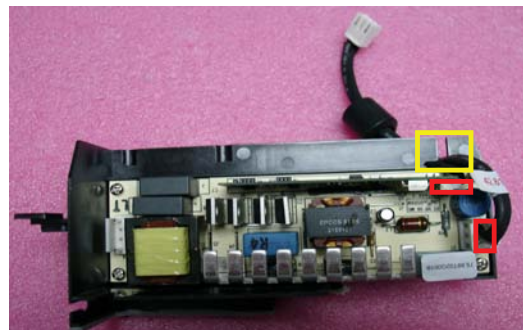
3. Plug 1 connector and screw 2 screws to assemble lamp driver to lamp cable

Note:The lamp driver to lamp cable must be pass through two Dents.(As the yellow square)

4. Plug 1 connector and screw 1 screw on lamp driver module

3

4
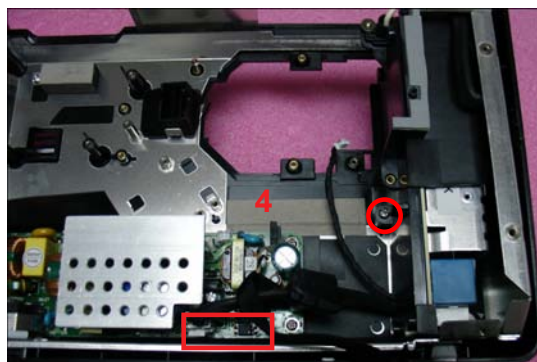
2-22 Assemble Interrupt Switch Module

1. Plug 1 connector and screw 1 screw and stick 1 film tape on interrupt switch module
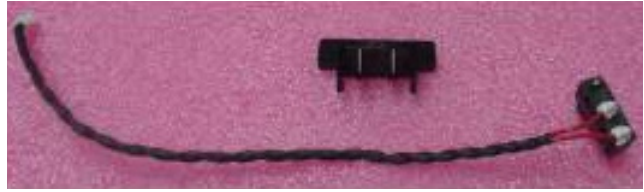
Note:Interrupt switch cable must be pass through a dent and a aperture.And use a film tape to fix the cable in the dent
.
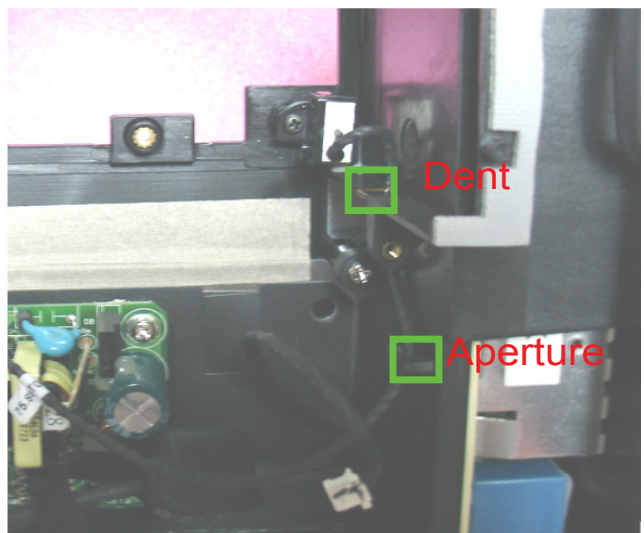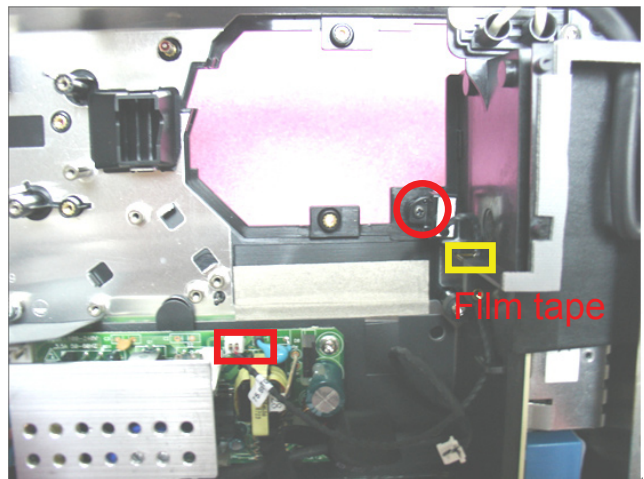
2-23 Assemble Fan Module

1. Screw 4 screws to assemble the Fan Module
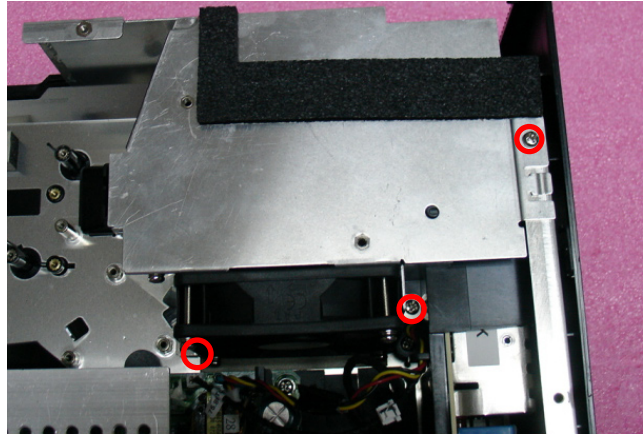
Note: Avoid to press the middle of the Blower with great strength.
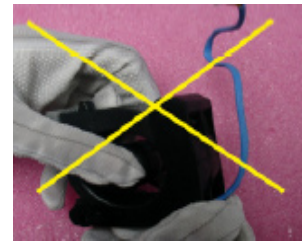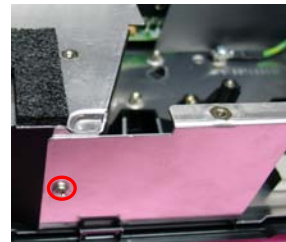
2. Screw 3 screws to assemble the Blower Module (only for X1160P/X1160PZ/ X1260P/X1260K refresh)
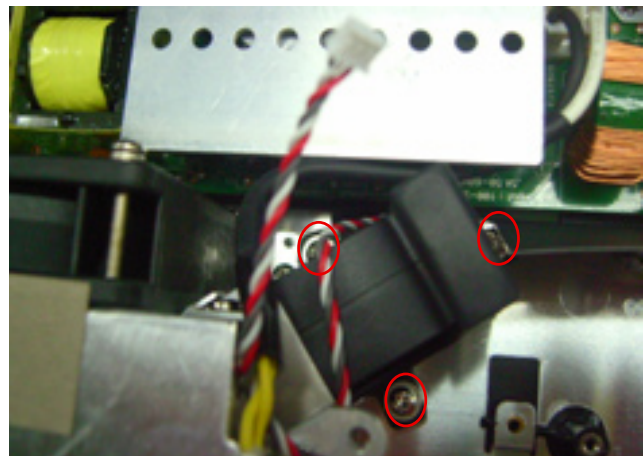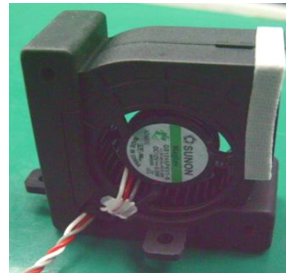
2-24 Assemble Speaker Module(For X1260/ X1260 Refresh/X1260K Refresh/X1260P)

1. Fasten two tenons to assemble the speaker on the speaker holder

Note:Avoid to press the speaker with great strenth.
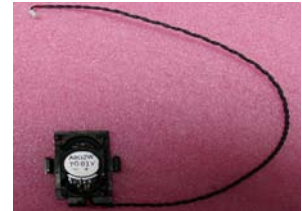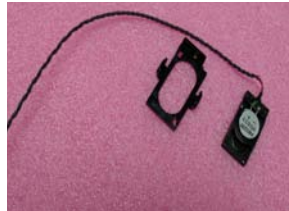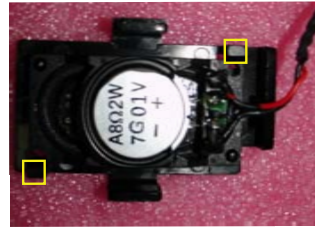
2. Fasten 2 tenons(as the red square) and screw 1 (as red circle) screw to assemble Speaker Module

.
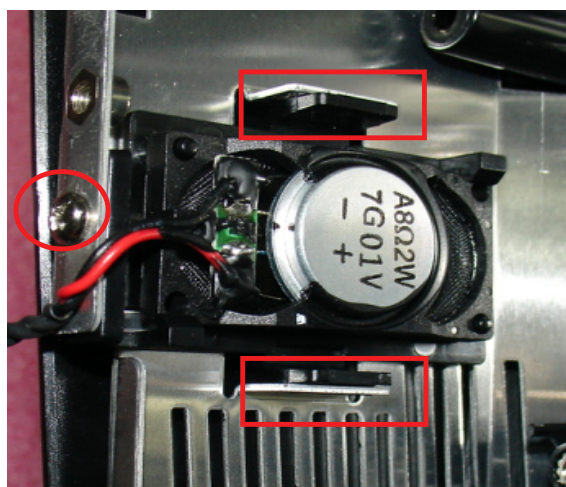
2-25 Assemble DMD Board and DMD Chip

1. Lock the lockhole by Screw Bit(-) to assemble the DMD board on the DMD chip
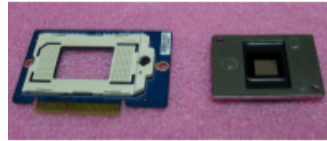
Note:It will be locked if the Screw Bit(-) turn obverse.

2. Assemble all components of DMD parts.
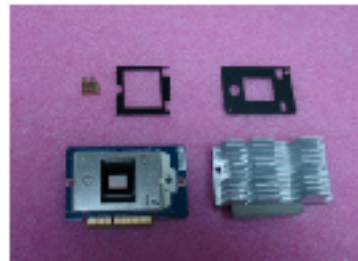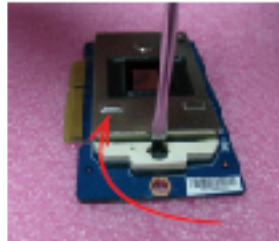
3. Screw 2 screws on engine module, assemble Heat Sink and DMD Board&DMD chip module
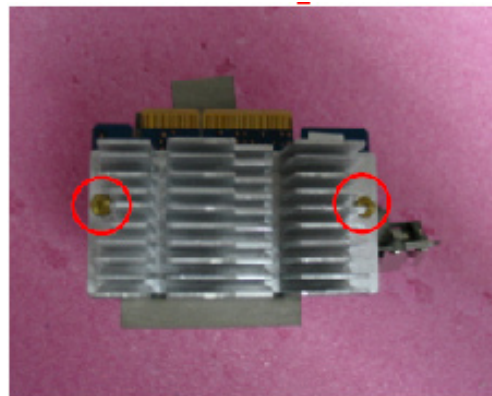
2-26 Assemble Engine Module

1. Screw 3 screws on focus ring

2. Screw 2 screws on engine module to assemble the zoom ring and zoom ring holder(only for X1260 Family/ X1160Z/X1160Z refresh/X1160PZ)
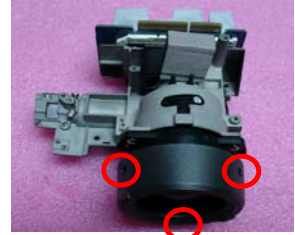
Zoom Ring Holder and Zoom Ring
(only for X1260 Family/X1160Z/X1160Z refresh/X1160PZ)

(only for X1260 Family/ X1160Z/X1160Z refresh/X1160PZ)

2. Screw 4 screws to assemble the engine module
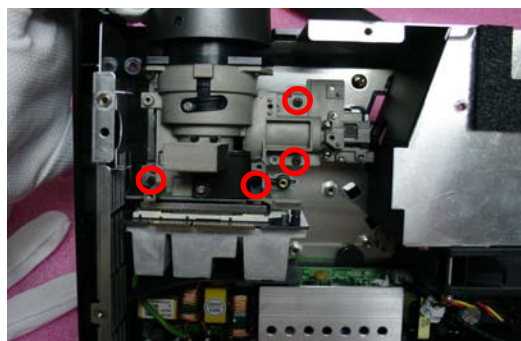
2-27 Assemble Color Wheel Module

1. Screw 1 screw to assemble the photo
   sensor on color wheel module

2. Screw 2 screws to assemble color wheel
   module
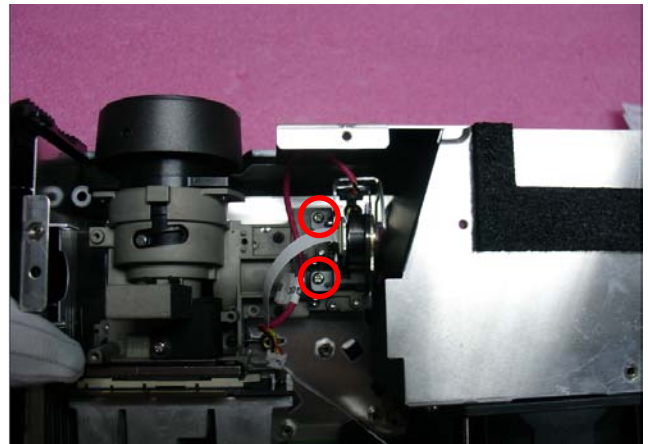
3. Screw 1 screw to assemble the mylar
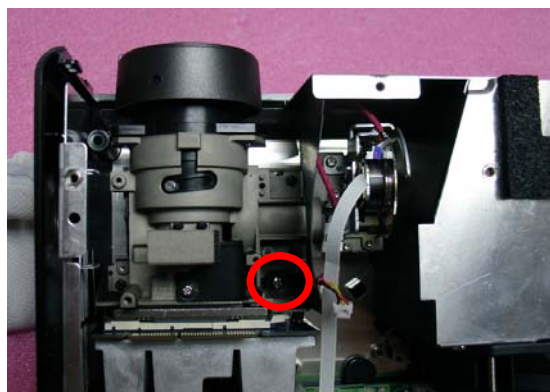
2-28 Assemble Main Board Module & Back Cover Module

1. Screw 2(4 for (X1260/X1260 Refresh/ X1260K Refresh/X1260P) hex screws to assemble main board module & back cover module

Back Cover Module

For X1160/X1160 Refresh/X1160Z/X1160Z Refresh/ X1160P/X1160PZ

2. Screw 1 screw on main board module & back cover module

For (X1260/X1260 Refresh/X1260K Refresh/X1260P)

3. Screw 3 screws and 5 connectors to assemble main board module & back cover module (X1160/X1160 Refresh/ X1160Z/X1160Z Refresh/X1160P/ X1160PZ)

Main Board Module&Back Cover Module
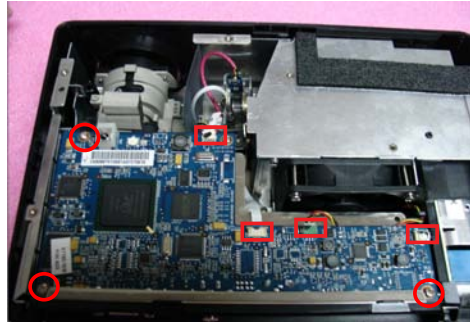
For (X1160/X1160 Refresh/X1160Z/X1160Z Refresh/ X1160P/X1160PZ)

Note:there is 1 connector under main board

Screw 3 screws and 6 connectors to assemblen main board module & back cover module (X1260/X1260 Refresh/ X1260P/X1265K Refresh)

Note: Speaker Cable(only for X1260)& Fan Cable must be fixed on Main Board by film tape to avoid to stretch into the Fan.
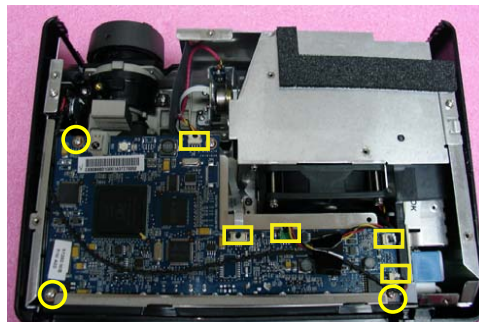
For (X1260/X1260 Refresh/X1260P/X1265K Refresh/X1260P)

Note:there is 1connector under main board

2-29 Assemble Front Cover Module

Front Cover Module

1. Fasten four tenons to assemble the front cover module

   - First,assemble the left side of the front cover: Fasten one tenon on bottom side,then fasten the tenon on top side of the bottom cover.
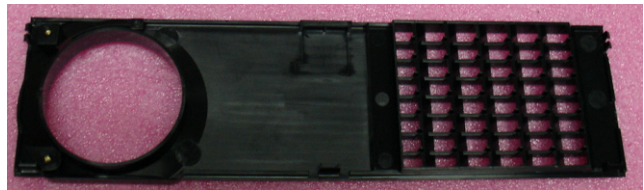
   - Assemble the right side of the front cover as the left side

Note:Avoid touching lens when disassemble the front cover.

2. Screw 1 screw on front cover module

(for X1260/X1260 Refresh/X1260K

Refresh/X1260P)

2-30 Assemble Top Shielding

1. Screw 7 screws on the top shielding
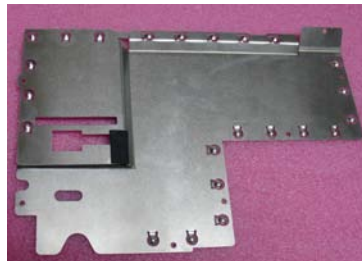
Top Shielding

2-31 Assemble Top Cover Module

1. Assemble the top cover module on the model

2. Screw 2 screws on the unit base
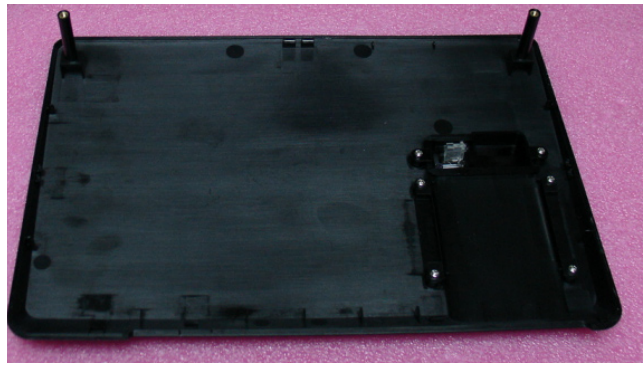
Top Cover Module

2-32 Assemble Lamp Module

Lamp Module

1. Assemble the lamp module on the model

2. Screw 2 screws on the lamp module
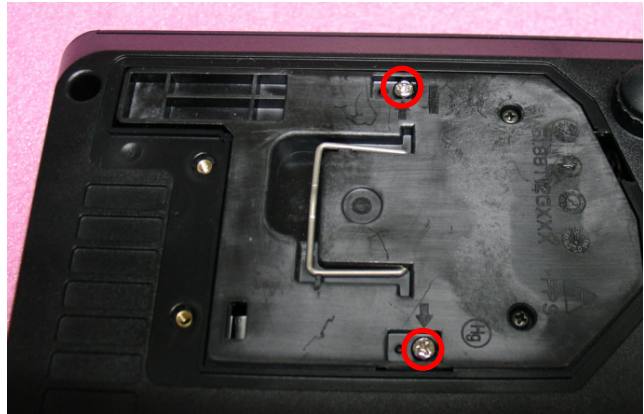
2-33 Assemble Lamp Cover Module

Lamp Cover Module

1. Assemble the lamp cover module
2. Screw 2 screws on the lamp cover module

Chapter 3

Troubleshooting

3-1 LED Lighting Message

Message	Power LED	
	Red	Blue
Input Power Plug	Flash ON to OFF 100ms	O
Standby	V	O
Power button ON	O	V
Lamp retry	O	Quick Flashing
Power off (Cooling state)	Quick Flashing	O
Power button OFF: Cooling completed; Standby Mode	V	O
Error (Thermal Failure)	Quick Flashing RED and Steady BLUE by returns	
Error (Fan lock)	Quick Flashing RED and Steady BLUE by returns	
Error (Lamp breakdown)	Quick Flashing BLUE and Steady RED by returns	
Error (Color Wheel fail)	Quick Flashing BLUE and Steady RED by returns	

V *Light on*   O *Light off*

3-2 Main Procedure

No	Symptom	Procedure
1	No Power	- Ensure the Power Cord and AC Power Outlet are securely connected - Check Lamp Cover and Interrupt Switch - Ensure all connectors are securely connected and aren't broken - Check Lamp Driver - Check LVPS - Check Main Board

2	Auto Shut Down	- Check Power LED status
		
		  a. Quick Flashing RED and Steady BLUE by returns
		
		    - Check Fan
		
		  b. Quick Flashing BLUE and Steady RED by returns
		
		    - Check Lamp
		
		    - Check Lamp driver
		
		  c. Color Wheel
		
		    - Check Color Wheel
		
		    - Check Photo Sensor

3	No Image	- Ensure the Signal Cable and Source work (If you connect multiple sources at the same time, use the "Source" button swtich) - Ensure all connectors are securely connected and aren't broken - Check Main Board - Check DMD Board - Check Color Wheel - Check DMD Chip - Check Engine Module

No	Symptom	Procedure
4	No Light On	- Ensure all connectors are securely connected and aren't broken - Check Lamp Module - Check Lamp Driver - Check LVPS - Check Main Board
5	Mechanical Noise	- Check Color Wheel - Check Fan Module
6	Line Bar/Line Defect	- Check if the Main Board and the DMD Board are assembled properly - Check Main Board - Check DMD Board - Check DMD Chip
7	Image Flicker	- Do "Reset (All data)" of the OSD Menu - Ensure that the signal cables and source are work as well - Check Lamp Module - Check Color Wheel - Check DMD Board - Check Main Board
8	Color Abnormal	- Do "Reset (All data)" of the OSD Menu - Adjust Color Wheel Index - Check Main Board - Check DMD Board - Check Color Wheel

No	Symptom	Procedure
9	Poor Uniformity/ Shadow	- Ensure the projection screen without dirt - Ensure the projection lens is clean - Ensure the Brightness is within spec - Check rod alignment - Check Engine Module
10	Dead Pixel/Dust (Out of spec.)	- Ensure the projection screen without dirt - Ensure the projection lens is clean - Clean DMD Chip and Engine Module - Check DMD Chip- Check Engine Module
11	Garbage Image	- Ensure that the signal cables and source work as well - Check Main Board - Check DMD Board

12	Remote Control/ Control Panel Failed	- Remote Control
		
		  a.Check Battery
		
		  b.Check Remote Controller
		  c.IR receiver
		  d.Check Main Board
		  e.Check IR Board (for refresh models)
		- Control Panel
		
		  a.Check Power Key
		
		  b.Check Main Board

13	Function Abnormal	- Do "Reset (All data)" of the OSD Menu - Check Main Board - Check DMD Board

No	Symptom	Procedure
14	Forgetting Password (administrator Password)	- An unique Universal Password is which was printed on the Security Card. This password is a back door of Administrator Password which will be accepted by projector anytime. - How to get the Universal Password? (1) Click the "AcerSNID" (2) Input SNID number.(SNID number is on the Security Card) (3) Click"Calculate".Then the Universal Password will ap-pear.

3-3 Beep Sound

Power on (as soon as power button pressed)	So(0.3s)
Power on (lamp lighting failed)	2 x {So(0.1s) – Off(0.1s)} per lighting failure
	12s interval for each trial lighting. Max 4 times of trial
Power on (lens cap was not opened, for the model with sliding lens cover only)	2 x {So(0.1s) – Off(0.1s)} periodically per 3 seconds, Totally 5 cycles. Turn off projector after 5 cycles.
Close lens cap while projector is operating (for the model with sliding lens cover only)	2 x {So(0.1s) – Off(0.1s)} periodically per 3 seconds, Totally 5 cycles. Turn off projector after 5 cycles.
Power off (power button pressed twice)	So(0.3s)
Fan lock	So(0.1s) periodically per second
Overheat	2 x {So(0.1s) – Off(0.1s)} periodically per second
Lamp error	3 x {So(0.1s) – Off(0.1s)} periodically per second
Lamp Life reminding	3 x {Do(0.2s) – Off(0.8s) – So(0.2s) – Off(0.8s)} with reminding message
Presentation Timer (time is up)	3 x {Do(0.1s) – Off(0.9s)} - So(0.5s)

Chapter 4

Function Test & Alignment Procedure

4-1 Test Equipment Needed

- IBM PC with SVGA/XGA resolution

- DVD player with Multi-system (NTSC/PAL/SECAM), equipped "Component", "S-Video"

  , "Composite" and "HDMI".

- HDTV Source (480P, 720P, 1080i)

- Minolta CL-100

- Quantum Data 802B or CHROMA2327 (Color Video Signal & Pattern Generator)

- After changing parts, check the information below.

4-2 Service Mode

1. Turn on the projector and input the signal

2. Do the following actions sequentially to enter service mode menu

   (1) Press "Power> Left>Left>Menu".

   (2) Service mode will be shown.

   (3) After confirming the configuration, press "Exit" to exit.

4-3 OSD Reset

1. After final QC step, we have to erase all saved change again and resotre the OSD
   default setting. The following actions will allow you to erase all end-users' settings and
   restore the default setting:

   (1) Please enter OSD menu.

   (2) To execute "Reset" function.

4-4 Test Condition

- Circumstance brightness: Dark room less than 5.0 lux.

- Inspection distance: 1.8m~2.5m functional inspection.

- Screen size: 60 inches diagonal

- After repairing each unit, it should be burn-in (refer to the table below)

Symptom	Run-in Time
Normal repair	2 hours
NFF	4 hours
Auto shutdown	6 hours

- Enter Burn-In Mode

Cycle setting is based on the defect symptoms. ie: If it is NFF, the run-in time is 4 hours. You have to set the lamp on for 50 min. and lamp off for 10 min for 4 cycles.

Press power > left > left > Menu	
Choose Burn-In Test > enter	
Lamp On (Min)	Press right key to adjust the time (50)
Lamp Off (Min)	Press right key to adjust the time (10)
Set burn in cycle	Press right key to adjust the cycle
After setting up the time, choose Burn-In mode and hit enter	

Screen Defects (While replacing DMD Chip, DMD Board and Main Board)
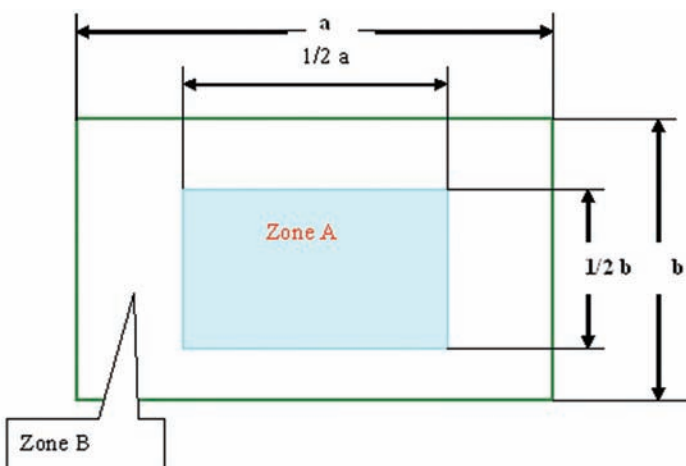
4-5 Test Inspection Procedure

Change parts/ Update	M/B	FW	Color Wheel	Lamp Module	Engine	EDID	Lamp Driver
Version Update	v	v				v	
Color Wheel Index	v		v				
PC Calibration	v	v					
Video Calibration	v	v					
Reset lamp hour				v			
OSD Reset	v	v					
EDID	v						
Re-write Lamp Hour Usage	v						
Reset Default Language (for refresh models and X1160P/X1160PZ/X1260P)	v	v				v	
Rod Adjust					v		
Waveform Download(for refresh models and X1160P/X1160PZ/X1260P)							v

4-6 PC MODE

NOTE:Test Signal:analog 800 x600@60Hz(X1160 family),analog1024x768@60Hz(X1260 family).Take X1260 for example.

1. Frequency and tracking boundry

Procedure
  - Test equipment: video generator.
  - Test signal: analog 1024 x 768@60Hz
  - Test Pattern: general-1 or master
  - Check if the image sharpness is well-performed.
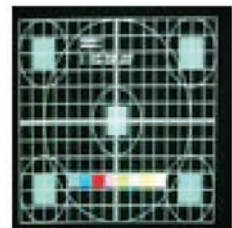
General-1

Master

- If not re-adjust by the following steps:

  (1) Select "Frequency" function to adjust the total pixel number of pixel clock in one line period.

  (2) Select "Tracking" function and use right or left arrow key to adjust the value to minimize video flicker.

- Adjust Resync or Frequency/Tracking/H. Position/V. Position to the inner screen.

Inspection item
- Eliminate visual wavy noise by Rsync, Frequency or Tracking selction.

- Check if there is noise on the screen.

- Horizontal and vertical position of the video should be adjustable to the screen frame.

Criteria
- If there is noise on the screen, the product is considered as failure product.

- If there is noise on the screen, use auto or manual "frequency" function or "tracking" function to adjust the screen.

- The PC mode functionally sure be workable include support format with frequency and auto detected functional will be workable.

2. Light Leak

Procedure
- Test equipment: video generator.

- Test signal: analog 1024x768@60Hz
- Test Pattern: gray 10 pattern

- Check if the light leaks.

  * Light leak on reflective edge, eyecatcher, bondwires and exposed metal.

Gray 10

Inspection item
- Light leak check.

- Bright blemish (dirty).

Criteria
- The bright blemish is unacceptable when it is more than four on gray 10 pattern

- Ref. Defect specification table
  Note: The defect criteria follows TI specification.

3. Blemish (Dark)

Procedure   - Test equipment: video generator.

                             - Test signal: analog 1024x768@60Hz.
                             - Test Pattern: blue 60

Inspection item   - Dark blemish check. (dirty)

Criteria   -The dark blemish is unacceptable when it is

                        more than four on blue 60 pattern

                       - Ref. Defect specification table
                         Note: The defect criteria follows TI specification.

Blue 60

4. Dead Pixel (Bright pixel)

Procedure   - Test equipment: video generator.

                             - Test signal: analog 1024x768@60Hz.
                             - Test Pattern: full black

Inspection item   - Bright pixel check.

                        Note: Frame dimension under operative zone1
                               inch

Criteria   - Bright pixel is unacceptable.

                       - Ref. Defect specification table
                       Note: The defect criteria follows TI specification.

Full black

5. Dead Pixel (Dark pixel)

Procedure   - Test equipment: video generator.

                             - Test signal: analog 1024x768@60Hz.
                             - Test Pattern: full white

Inspection item   - Dead pixels check.

                       - White pattern (IRE=100)

                       - Adjacent dark pixel.

Criteria   - The number of the dead pixels should be less or
                       equal to 6 pixels.

Full white

- Adjacent pixel with each other is unacceptable.
- Ref.Defect specification table
  Note: The defect criteria follows TI specification.

6. Focus test

Procedure
- Test equipment: video generator.
- Test signal: analog 1024 x 768@60Hz
- Test Pattern: full screen or MEME Sony

Inspection item
- Focus check

Criteria
- From screen 1.5 M via visual to check the focus, look at the entire screen, focus shall be clear, crisp, and sharp over the entire surface of the display pattern. (Blur word on one of the corner after adjustment is acceptable. However, the word should at least be recognizable.)
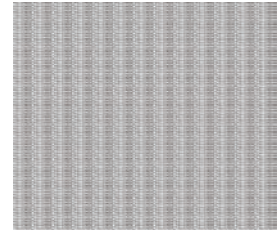
Full screen
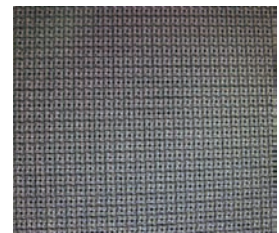
MEME Sony

7. Color performance

Procedure
- Test equipment: video generator.
- Test signal: DVI (HDMI) 720p,1080i
- Test Pattern: Master, In focus II or SMPTE
  RP-133

* Please refer to 4-2 to get into service mode. Use 720P & 1080i signal, master pattern to do HDTV test. Color cannot discolor to purple and blue.

Inspection item
- Check if each color level is well-functioned.
- color saturations

Criteria
- Screen appears normal. It should not have any abnormal condition, such as lines appear on the screen and so on.
- Color appears normal.
- It is acceptable to have few lines flashing at the center and on the edge of 1080i image. However, rest of the image should appears stable.
- RGBW should all appear normal on the screen and sort from R -G-B-W.
- Color levels should be sufficient and normal. (the unidentified color levels on both left and
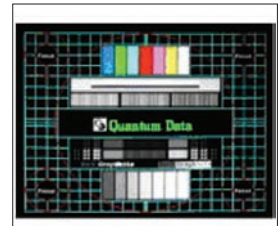
Master
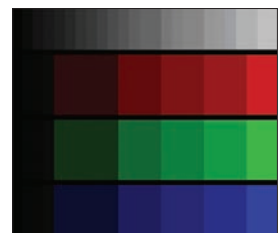
*InFocus II
/ 64 gray RGBW*
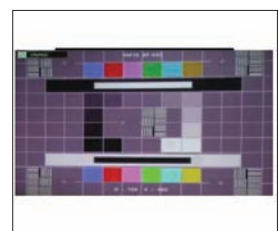
SMPTE RP-133

right sides should not over 8 color levels.)

- Grey level should not have abnormal color or heavy lines.

- The PC mode functionally sure be workable include support format with frequency and auto detected functional will be workable

4-7 Calibration

1. YPbPr calibration

Procedure
- Test equipment: video generator.
- Once main board is changed, YPbPr calibration should be done as well.
  (1) Test signal: 480P
  (2) Test Pattern: SMPTE BAR
- Note
  (1) Calibration pattern should be in full screen mode.
  (2) Please refer to 4-2 Guide to get into Service Mode and OSD Reset.
  (3) Choose and access YPbPr Calibration for correction in service mode. Choose "menu" to leave the service mode after all.
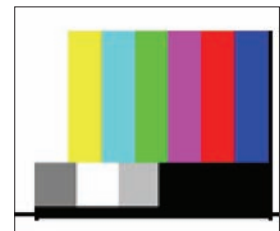
SMPTE BAR

Check pattern
- Test signal: 480P
- Test pattern: In focus II or 64 grey RGBW
  * After finishing ADC adjustment, check 64 gray RGBW pattern.

Inspection item
- Color sturations

Criteria
- There should not have any lack of RGBW. The

In focus II / 64 Gray RGBW

color should appear normal and sort in right
order.

- Color levels should be sufficient and normal.
  (the unidentified color levels on both left and
  right sides should not over 8 color levels.)

- Gray level should not have abnormal color or
  heavy lines.

2. PC calibration

Procedure	- Test equipment: video generator

- Once main board is changed, PC calibration
  should be done as well.

  (1) Test signal analog: 1024x768@60Hz
  (2) Test Pattern: White (up) Black (down)

- Note

  (1) Caibration pattern should be in fill screen
      mode.

  (2) Please refer to *4-2 Guide to get into Service
      Mode and OSD Reset.*

  (3) Choose and access PC Calibration for cor-
      rection in service mode. Choose "menu" to
      leave the service mode after all.

White / Black

Check pattern	- Test signal: analog 1024 x 768@60Hz

- Test pattern: In focus II or 64 grey RGBW

* After finishing ADC adjustment, check 64 gray
  RGBW pattern.

Inspection item	- Color sturations
Criteria	- There should not have any lack of RGBW. The

color should appear normal and sort in right
order.

- Color levels should be sufficient and normal.
  (the unidentified color levels on both left and

*In focus 2 / 64 gray
RGBW*

right sides should not over 8 color levels.)

- Grey level should not have abnormal color ot heavy lines.

Defect specification table

Order	Symptom	Pattern	Criteria
1	Bright pixel (dots)	Black pattern (IRE=O)	A+B=0
2	Dark pixel (dots)	White pattern	A+B=6
3	Unstable pixel (dots)	Any pattern	A+B=1
4	Adjacent dark pixel (dots)	Any pattern	A+B=0
5	Dark blemish (Dirty)	Blue 60 pattern	A+B=4 (diameter <1/2 inch)
6	Bright blemish (Dirty)	Gray 10 pattern	A+B=4 (diameter <1/2 inch)
7	Bright dots on frame	Black pattern	2

4-8 Video Performance

1. CVBS

Procedure   - Test equipment: DVD player

                      - Test signal: CVBS

Inspection item   - Video performance test

Inspection Distance - 1.8M ~2.5M

Criteria   - Check any abnoraml color, line distortion or any noise on the screen.

Motion video

- Check the sound from speakers.

2. S-Video

Procedure	- Test equipment: DVD player
	- Test signal: S-Video
Inspection item	- Video performance test
Inspection Distance	- 1.8M ~2.5M
Criteria	- Check any abnormal color, line distortion or any noise on the screen.
	- Check the sound from speakers.

3. HDTV/ Component

Procedure	- Test equipment: DVD player
	- Test signal: Ycbcr/YPbPr
Inspection item	- HDTV performance test
Inspection Distance	- 1.8M ~2.5M
Criteria	- Check any abnormal color, line distortion or any noise on the screen.
	- Check the sound from speakers.

4. Audio Test   (for X1260 Refresh/X1260/X1260K RefreshX1260P)

Procedure	- Test equipment: DVD player
	- Test signal: CVBS
Inspection item	- Audio performance test
Inspection Distance	- 1.8M ~2.5M
Criteria	- Check the sound from speakers.
	- Check "Volume" is normal
	- Check "Mute" is normal

4-9 Optical Performance Measure

Inspection Condition
- Environment luminance: 5 Lux
- Product must be warmed up for 3 minutes
- Distances from the screen: <Max. zoom & 60 inches diagonal> 1.8 M
- Screen Size: 60 inches diagonal
- Reset to default before measurement

1. Test equipment

Procedure   - Test equipment: vedio generator.

                     - Test signal: analog 1024x768@60Hz.

2. Brightness

Procedure   - Full white pattern

                     - Use CL100 to measure brightness values of
                       P1~P9.

                     - Follow the brightness formula to calculate
                       brightness values.

                     ☼ Brightness Formula

                       Avg.(P1~ P9)x1.1m^2

Criteria   -800 lumens (for X1160/X1260/X1160Z)

                 -900 lumens (for X1160 refresh/X1260 refresh/

                 X1160Z refresh/X1260K refresh)

                 -1000 lumens (for X1160P/X1160PZ/X1260P)
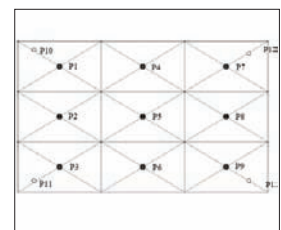
Full white pattern
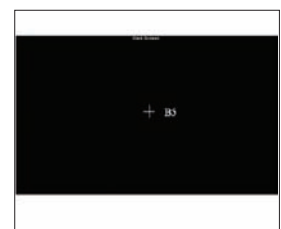
Full black pattern

3. Ful On/Full Off Contrast

Procedure   - Full white pattern & full black pattern

- Use CL100 to measure brightness values of full white pattern P5 & full black pattern B5 (see image: full white)

- Follow Contrast formula to calculate contrast values.

   ☼ Contrast Formula

   P5/B5

    note: P5=center of white image

           B5 = the center of black image.

Criteria   - 1500:1 (X1160/X1260/X1160Z)

- 1400:1 (X1160 Refresh/X1260 Refresh/X1160Z Refresh)

- 400:1 (only for X1260K Refresh)

- 1900:1 (for X1160P/X1160PZ/X1260P)

4. Uniformity

Procedure   - Full white pattern

- Use CL100 to measure brightness values of P1~P9 (see image: full white).

- Follow the Uniformity formula to calculate average values.

  ANSI Uniformity = Avg. $(P1, P3, P7, P9)/P5 \times 100\%$

Criteria   - 65 %

4-10 Others

1. Functional Inspection

Keypad button   - All keypad buttons must operate smoothly.

General   - All OSD functions must be checked for functionality. When OSD menu is displayed, there shall be no visible peaking, ringing, streaking, or smearing artifacts on the screen.

Factory Default   - The factory settings (with appropriate centering, size, geometry distortion, etc.) shall be displayed upon "Recall" is selected from OSD

Display Size   - All preset modes shall expand to full screen size using OSD Horizontal and Vertical Size controls

Display Data Channel
(DDC)   - The purpose of the DDC test is to verify the DDC1/DDC2B operation of the projector and to verify Plug & Play function.

Acoustic   - High pitch sound from cooling fan and color wheel is unacceptable.

2. Check points for exterior and print pattern

Check item	Check point
Text & Pattern	missing letters & pattern or blurry prints are unacceptable.
Exterior	dirt, scrape, water ripples and uneven color are unacceptable.
Buttons	stuck buttons are unacceptable.
Focus ring	Focus ring is functioning smoothly.
Logo	missing logo, missing prints and blurry prints are unacceptable
Screw	All screw sure be fixed and in right type.
Pedestal	well-functioned
Lamp Cover	It should be locked in the correct place.
Plastic Parts	All plastic parts can not be brocken and damaged.
Safety or warning label	All safety and warning label should be visible, including all contents.
Connector	All interface connector should be completed and workable.

Chapter 5

Firmware Upgrade

5-1 Equipment Needed

Software : (DDP 2230- USB)

- DLP Composer

- Firmware

- Library file (library file has to put in PC and set right path in step of 5-4-4 Firmware

  Upgrade Procedure)

Hardware :

- Projector

- Power cord (42.53506G002)

- USB Cable (42.87304G001)

- PC or Laptop

5-2 DLP Composer Lite Setup Procedure

1. Choose "DLP Composer Lite V7.1 Setup"

   Program.

2. Click "Next" button.

3. Read "License Agreement".

   - Choose "I accept and agree to be bound

     by all the terms and conditions of this

     License Agreement".

4. Click "Next".

5. Click "Next".
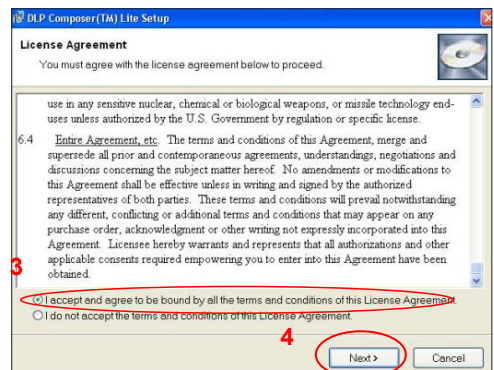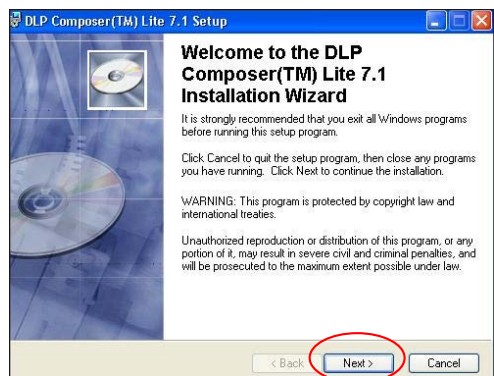
6. Click "Next".

7. Click "Next".

8. Writing system registry values.

9. Click "Finish".
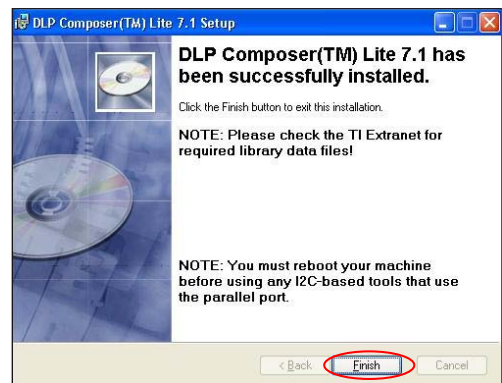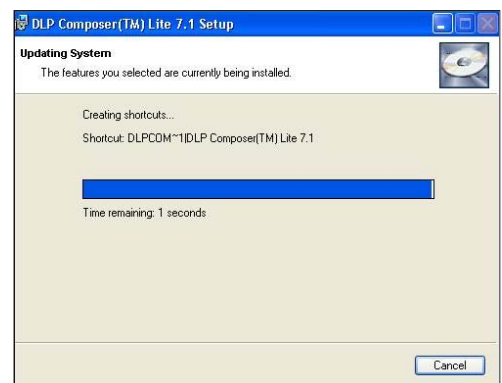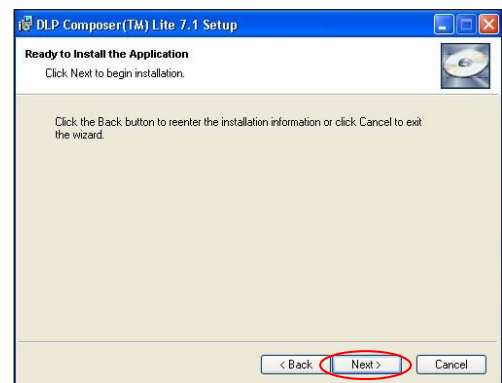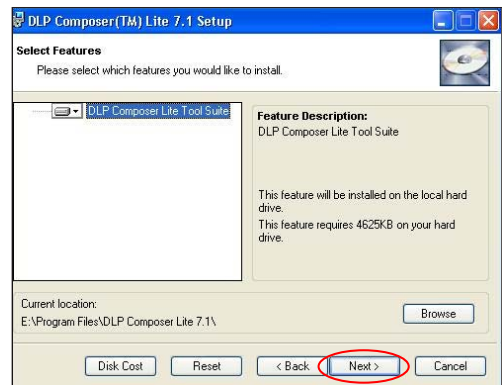
5-3 USB Driver Upgrade Procedure

1. set up

- Plug Power Cord in projector.
- Link PC USB port and projector USB port by USB Cable.

2. Execute Program

(1) "Found new hardware wiszard" will be appearred on the screen.

(2) Select "Install the software automatically (Recommended)".

(3) Then click "Next".

3. Finish

- Click "Finish" to end the installation.

Note:If you have installed the USB driver, there is no need to perform this action.
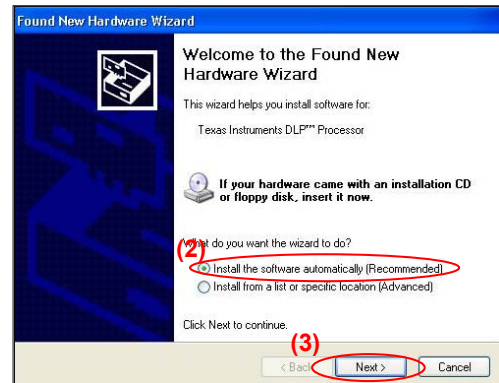
5-4 Firmware Upgrade Procedure

- Take X1160 for example, X1260/X1160 Refresh/
X1260 Refresh/X1160Z/X1160Z Refresh/
X1260K Refresh/X1160P/X1160PZ/X1260P is
the same as X1160

1. Set-up

   - Hold on "Power" and plug in Power Cord

   - Once the Power LED lights on Blue&Red at the

     same time.

   - Connect the projector and PC by USB cable.

Note: The system fan and the light will not operate.

2. Execute the "DLP Compose^{TM}" file.

3. Click "edit" and "perferences".

4. Click "Library".

   - The library path located in the default

     installation directory.

   - E:\ Program Files\DLP Composer Lite 7.1\

     library v7.1 0330.

Note: If not, press "Browse" to select the right path.
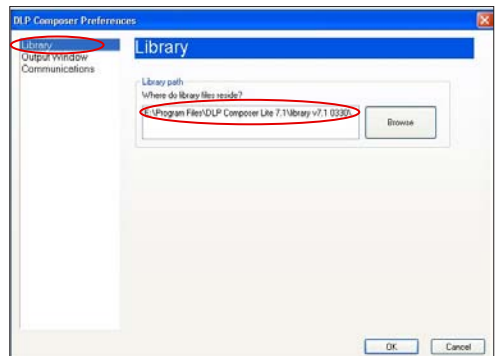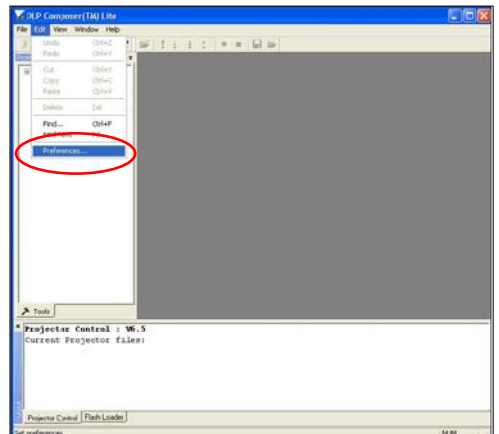
5. Select "Edit\preferences\Communications"

   - Choose "USB."

   - Click "OK".

6. Choose "Flash Loader".

   - Click "Browse" to search the firmware file

7. Select the item "skip Boot Loader Area" (select

   16KB).

   - Click "Reset Bus" to erase the flash memory.

8. If the firmware is ready, click "start download" to

   process the firmware upgrade.

   - Click "Yes" to erase the flash memory.
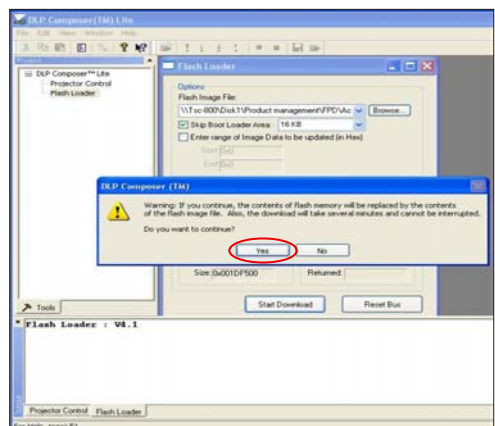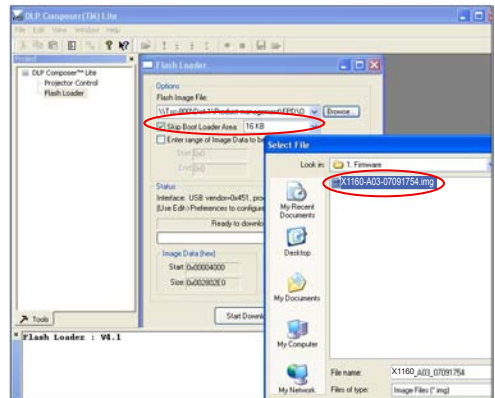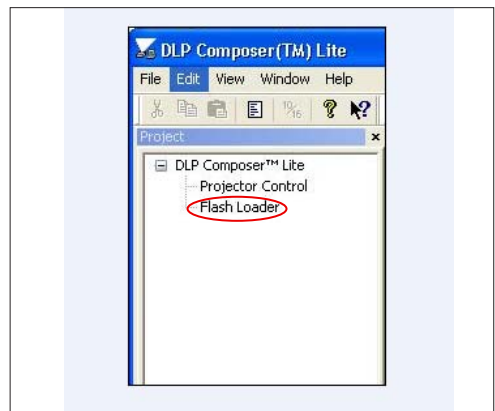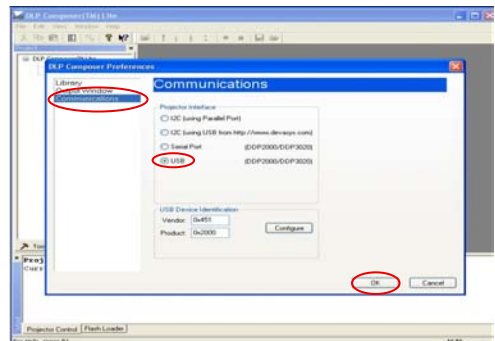
9. When firmware upgrade process is

finished, the unit return to stand-by status

The LED Power lights on and appears Red.

-Unplug USB cable and Power Cord and

replug Power cable.
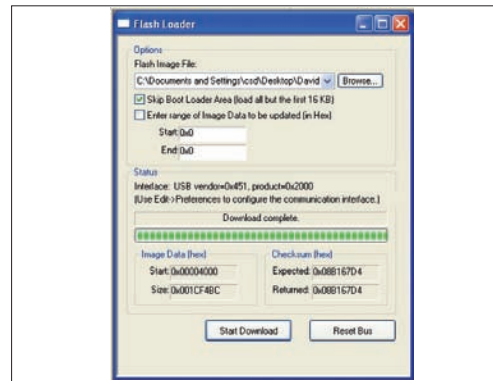
10. Restart the unit and get into the service

mode to check the firmware version.

(*To get into service mode, please refer to*

Chapter 4 Funcation Test and Alignment

Procedure.)
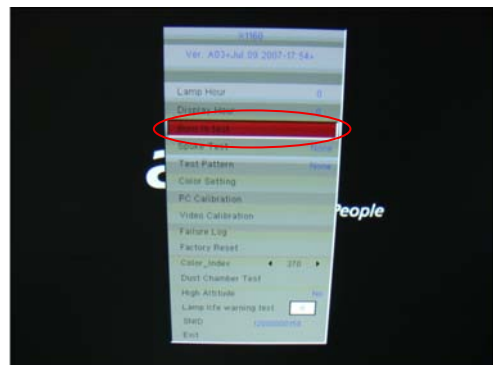
5-5 Waveform Download (for refresh models and X1160P/ X1160PZ/X1260P)

(1) Hold on "Power" button then plug in the Power Cord

Note: At this moment ,Power LED flash in blue and red about 2 seconds until Power

LED flash in blue only for 2 seconds, please release the power botton

(2) After flashing, LED is in steady condition and you can judge the actions as the

following table:

Power LED status	Result
Red	OK
Blue + Red (It will light on red only after 10 seconds)	Fail

EDID Upgrade

6-1 EDID Introduction

Extended Display Identification Data is a VESA standard data format that contains basic information about a display device and its capabilities, including vendor information, maximum image size, color characteristics, factory pre-set timings, frequency range limits, and character strings for the monitor name and serial number.

The information is stored in the display and is used to communicate with the system through a Display Data Channel (DDC), which sites between the display device and the PC graphics adapter. The system uses this information for configuration purposes, so the monitor and system can work together.

Note: If a display device has digital input ports, like DVI or HDMI, but without EDID in its main board, the display device will show no image while the input source is digital signal. After EDID upgraded, do" default language reset"

6-2 Equipment Needed

Software

- EDID Program (Generic V0.51)

- EDID File *.ini

Hardware

- Projector

- Generic Fixture (80.58704.001) for EDID Key-in (Fixture: JP3 must be closed)

- Power cord(42.53506G002)

- RS-232 Cable (pin to pin, F-M)

- Monitor

- PC

- VGA cable(42.00201G001)

- Power adapter for fixture (47.57702G001)
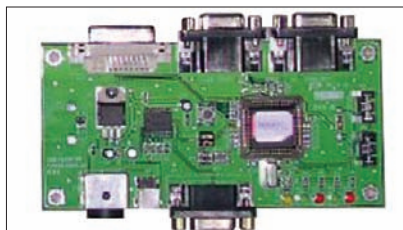
6-3 Setup Procedure

1. Connect all ports

   - Power adapter to fixture JP1

   - Fixture P1 to PC COM1 Port

   - Fixture P2 to Projector analog port
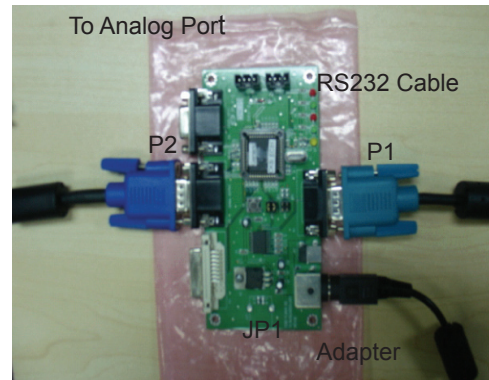
6-4 EDID Key-In Procedure

- Take X1160 for example,X1260 /X1160 Refresh /

X1260 Refresh/X1160Z/X1160Z Refresh/X1260K

Refresh/X1160P/X1160PZ/X1260P is the same as

X1160

1. Click "EDID" to execute EDID program

2. Choose model

   (1) In the port selection bar, please choose

      the port that you use. ie: if you use

      "COM1", choose COM1 in the port

      selection.
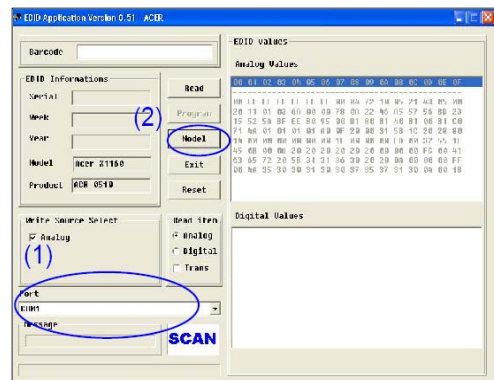
   (2) Click "Model".

   (3) Choose the EDID that responses to the

      model that you choose.
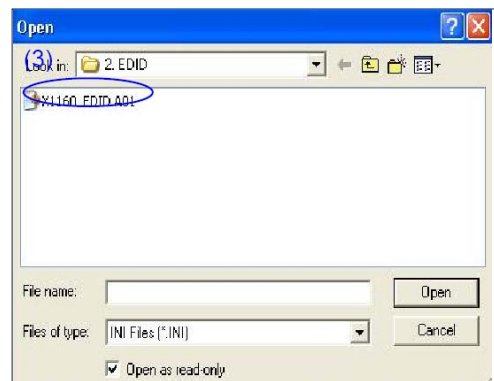
3. Programming

   (1) Key in the serial number into the

     barcode blank space.

   (2) In "Write Source Select" make a check

     in "Analog".

   (3) Click "Program".
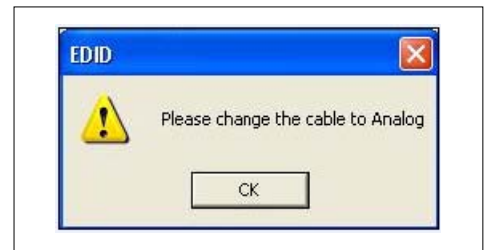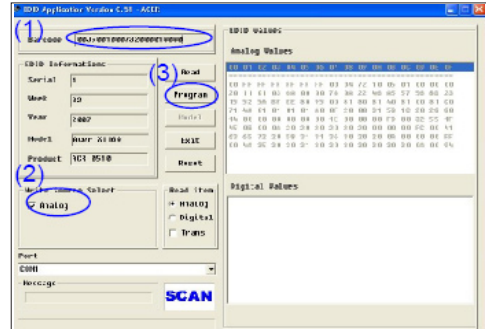
4. Change the cable to Analog

   - Message box appears on the screen,

    then click "OK".
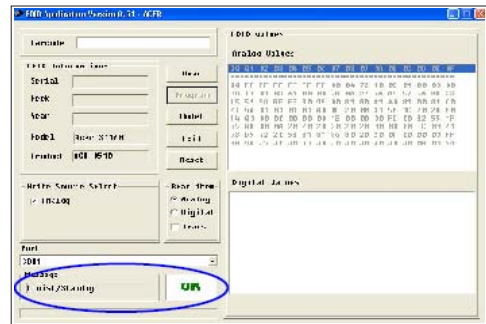
5. When the EDID program for VGA is

   completed, a message "OK" will appear on

   the screen.
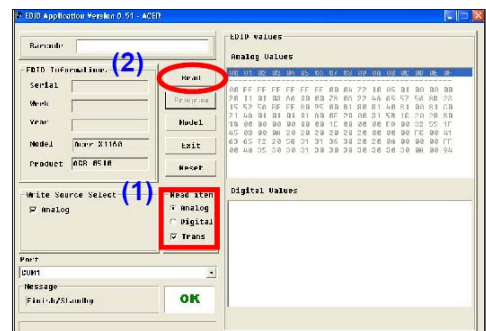
6. (1)In the Read item,select "Analog" and

    "Trans".

   (2)Please press "Read" button.

7. EDID Informations will show the result.
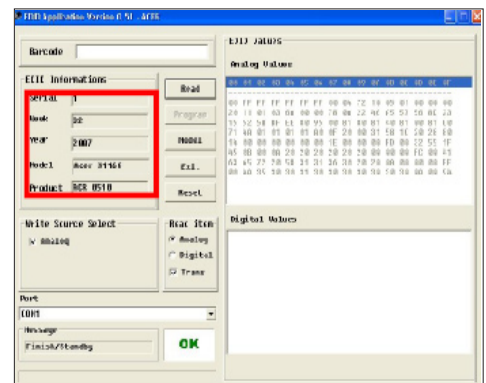
6-5 Default Language Reset (for refresh models and X1160P/X1160PZ/X1260P)

(1) Hold on "Power" button, then plug in the Power Cord

Note: At this moment, Power LED flashes in blue and red about 2 seconds until Power

LED flashes in blue for 2 seconds, please release the power button.

(2) After flashing, LED is in steady condition and you can judge the actions as the following table:

Power LED status	Result
Red	OK
Blue + Red (It will light on red only after 10 seconds)	Fail

Note: if fail, please do the actions as above steps (1)-(2)

S/N General rule :

PPPPPPPPPPWWWWSSSSSMMEF

Use the last 1 digit code (as red word) for language information

Language Code (F)	Default Language
1	English
2	Thailand
3	Japan
4	TC
5	SC
6	Russian
7	Germany
8	Hungarian

Appendix A

Assy Lamp Module X1160
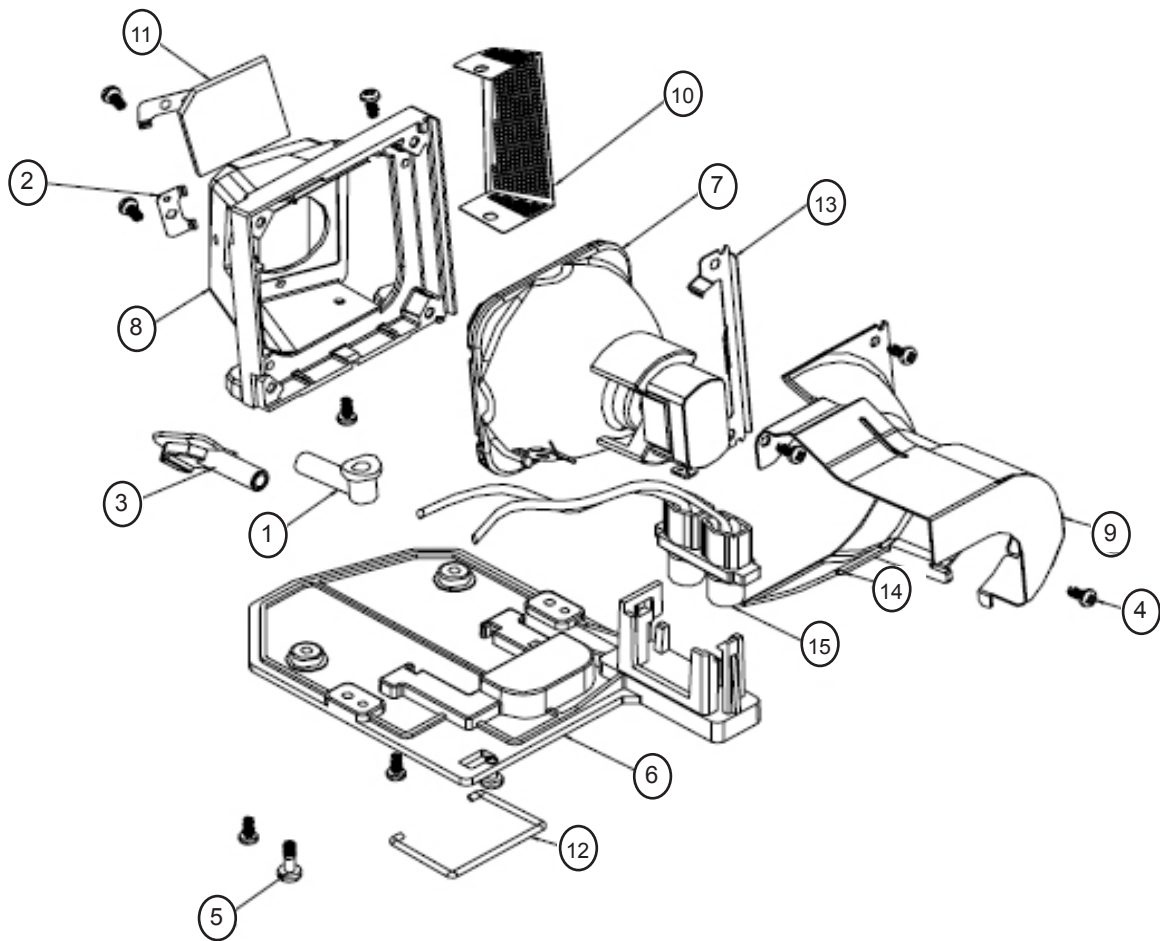
item	P/N	Rev	Description	Parts Supply
1	52.83F12G001	A	LAMP RUBBER HD72	
2	61.80L06G001	A	UVIR SPRING PLATE SUS301 80L	
3	52.85902G012	A	LAMP CONTACT COVER RUBBER 300C	
4	85.1A326G050	A	SCREW PAN HEAD MECH M2.6*5 BLACK	
5	61.00061G001	A	LOCK SCREW PAN MECH M3*8.5-3.5 Ni	
6	51.88T12G001	A	LAMP BOTTOM X1160	
7	23.88T15G001	A	OSRAM P-VIP 150-180/1.0 E20.6	
8	61.88T01G001	A	LAMP HOLDE OSRAM E206 X1160	
9	61.88T10G001	A	LAMP LIGHT CUT AL X1160	
10	61.88T11G001	A	LAMP LEFT MESH X1160	
11	23.87M10G001	A	UV-IR 24*25*2mm(5*5mm cut)UNAXIS	
12	61.86808G001	A	LAMP CHANGER HANDLE SUS DP725	
13	61.83F12G001	A	LAMP CLAMP SUS301 t=0.3 HD72	
14	61.83M17G001	B	LAMP LIGHT CUT 2400MP	
15	76.83M02G002	A	OUTSIDE W.A. 85/95mm FOR 2400MP	

ASSY MAIN-BD MODULE X1160
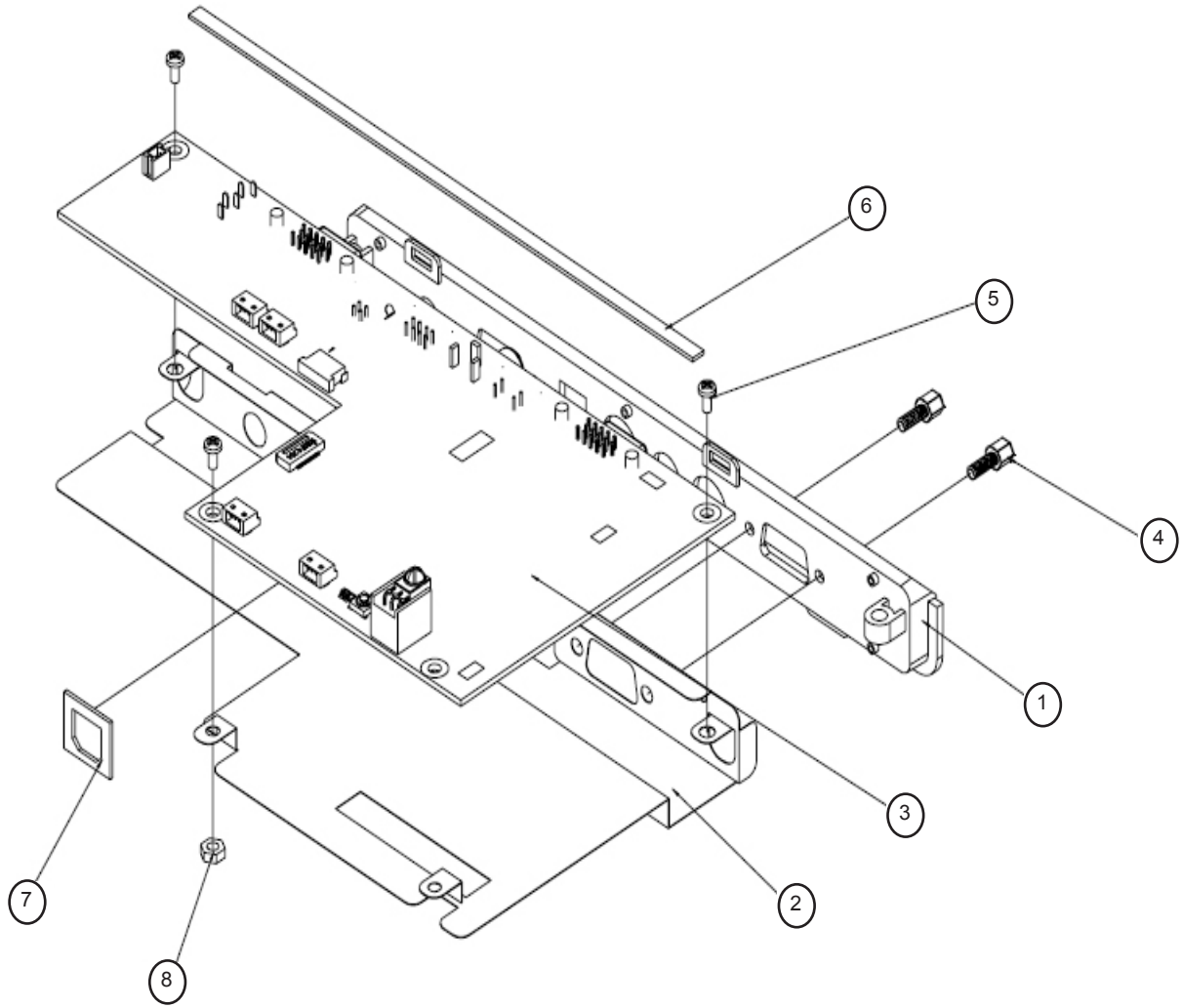
item	P/N	Rev	Description	Parts Supply
1	51.88T04G001	A	IO COVER X1160	
2	61.88T16G001	A	SHIELDING MAIN-BD X1160	
3	80.88T01G001	A03	PCBA MAIN BOARD FOR X1160	
4	85.005AGG075	A	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK	
5	85.1A123G060	A	SCREW PAN MECH M3*6 NI	
6	41.88T02G001	A	EMI GASKET L180*W4*H1	
7	41.82G03G001	A	EMI GASKET USB CONNECTOR EP719	
8	86.0A123G024	A	HEX NUT M3*0.5P L2.4 Ni	

ASSY ENGINE MODULE X1160
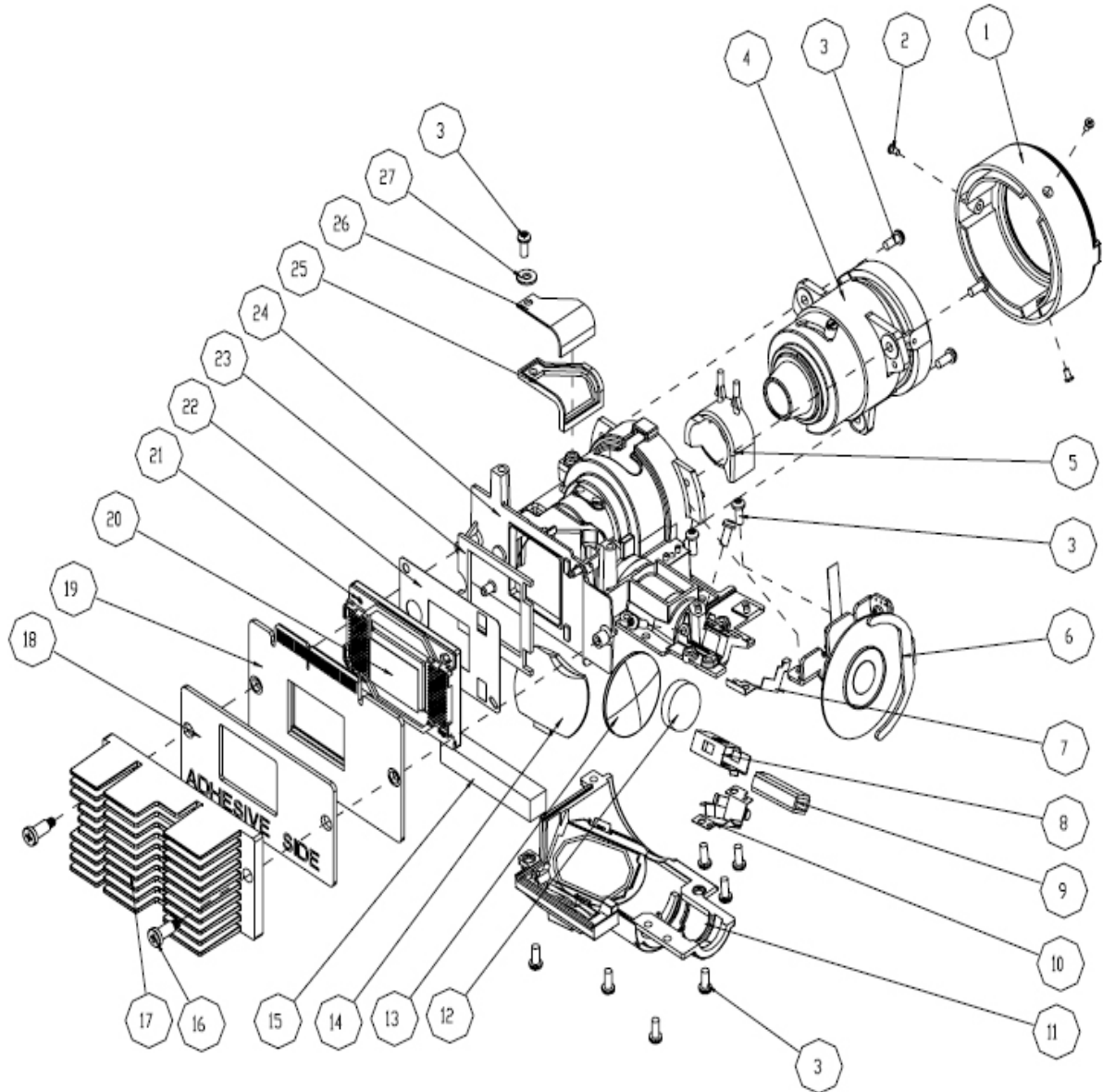
item	P/N	Rev	Description	Parts Supply
1	51.88T09G001	A	FOCUS RING X1160	
2	85.WA321G050	A	SCREW PAN HEAD M1.7*5 BLACK ''	
3	85.1A126G060	A	SCREW PAN MECH M2.6*6 Ni	
4	23.88T01G001	A	YO PROJECTION LENS YM09XS FOR X14	
5	52.89F01G001	A	PROJECTION LENS RUBBER HD65	
	70.88T11GR11		ASSY NEW COLOR WHEEL MODULE X1	V
6	70.88T08G001	A	ASSY COLOR WHEEL MODULE X1160	V
7	61.88N13G001	A	ROD COVER SUS301,X15	
8	61.88N14G001	A	ROD HOLDER SUS301,X15	
9	23.88N17G001	A	YO INTEGRATING ROD FOR x15	
10	61.88N12G001	A	ROD SPRING SUS301,X15	
11	70.88T07G001	A	ASSY ENGINE BOTTOM MODULE X1160	
12	23.88N20G001	A	YO CONDENSER1 FOR X15	
13	23.88N20G011	A	YO CONDENSER2 FOR X15	
14	23.88N06G002	A	PRODISC X15 PLASTIC RELAY LENS	
15	41.85W05G001	A	EMI GASKET W8*H8*L45	
16	85.4A826G118	A	STEP SCREW FOR TYPEX DMD M2.6*11.8mm,X15	V
17	61.88N03G001	A	DMD HEAT SINK AL1070,X15	
18	52.88N03G001	A	HEAT SINK RUBBER,X15	
19	80.88T02G001	A03	PCBA DMD BOARD FOR XD1130	
20	52.87J01G001	A	DMD THERMAL PAD 25*17*0.5t FUJIPOLY SARGON GR-Hn	V
21	48.87K01G001	A	DMD Type-X 800x600 PIXEL 0.55" SVGA LVDS "TI"	V
22	61.88N15G001	A	DMD MASK SUS301,X15	
23	52.88N04G001	A	DMD RUBBER,X15	
24	61.88N01G001	A	ENGINE BASE MG,X15	
25	52.88N01G001	A	OFF RAY RUBBER,X15	
26	61.88N05G001	A	OFF RAY PLATE AL5052,X15	
27	87.FL030G008	A	WASHER FLAT 7*3.1*0.8t PC PINGOOD WS-1M	

ASSY ENGINE BOTTOM MODULE X1160
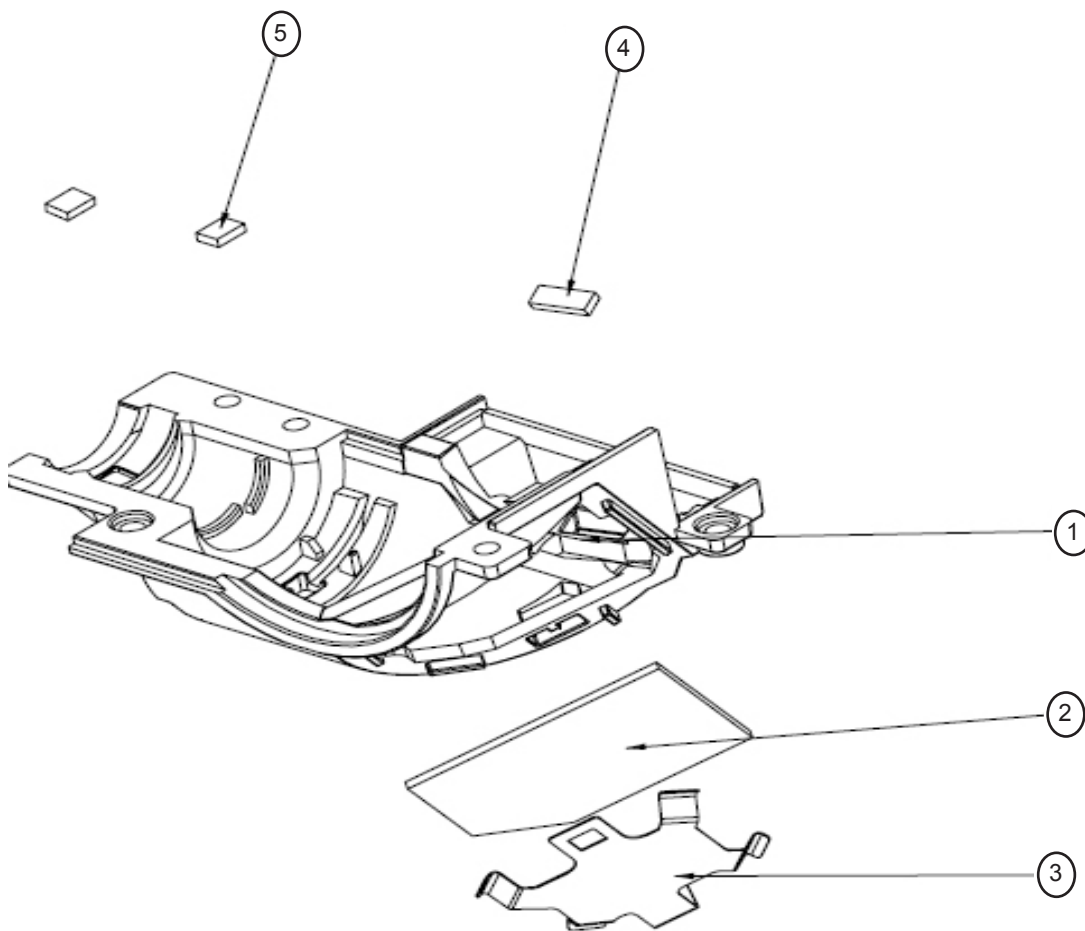
item	P/N	Rev	Description	Parts Supply
1	51.88N01G001	A	ENGINE BOTTOM COVER PC945,X15	
2	23.88N02G001	A	YO MIRROR1 FOR X15	
3	61.88N11G001	A	MIRROR SPRING SUS301,X15	
4	52.88N05G001	A	RELAY RUBBER,X15	
5	52.85808G001	A	PORON-LENS BLACK XB31	

D.C. X1160
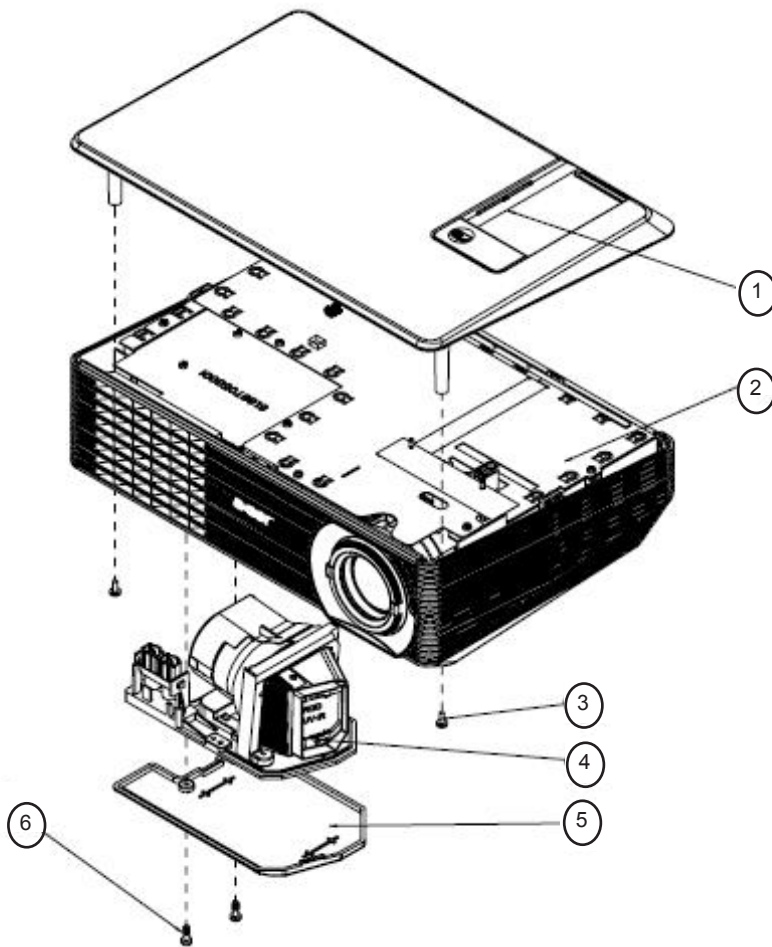
item	P/N	Rev	Description	Parts Supply
1	75.88T03G001	A	ASSY TOP COVER X1160	
2	70.88T01G001	A	ASSY BOTTOM HOUSING MODULE X1160	
3	85.1A323G080	A	SCREW PAN MECH M3*8 BLACK "GREEN"	
4	70.88T02G001	A	ASSY LAMP MODULE X1160	
5	51.88T05G001	A	LAMP COVER X1160	
6	61.00061G001	A	LOCK SCREW PAN MECH M3*8.5-3.5 Ni	

ASSY BOTTOM HOUSING MODULE X1160
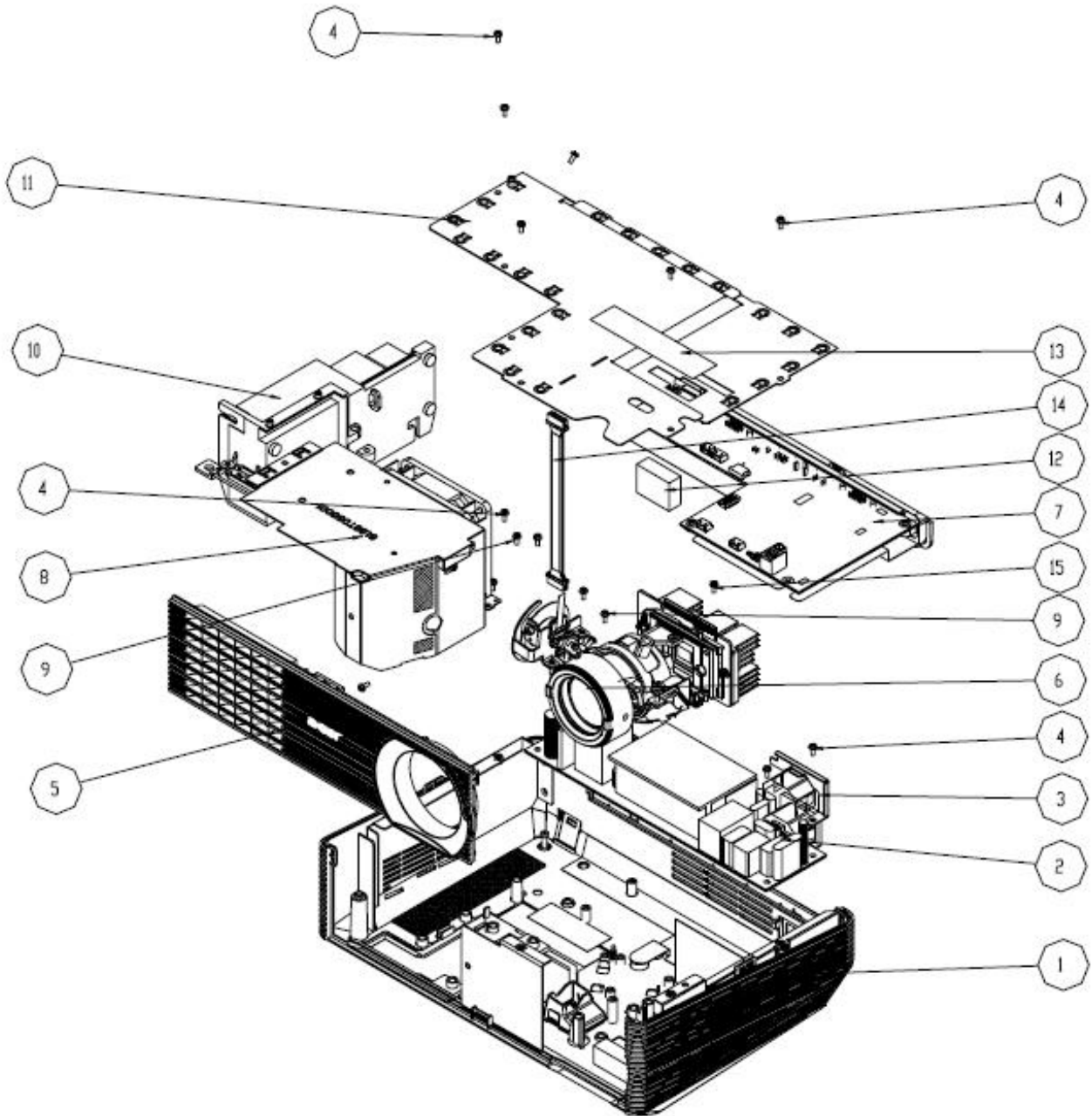
item	P/N	Rev	Description	Parts Supply
1	70.88T09G001	A	ASSY HOUSING MODULE X1160	
2	75.88T01G001	A	ASSY LVPS MATRITEK 160W XD1130	
3	61.88T09G001	A	BRKT INLET X1160	
4	85.1A123G060	A	SCREW PAN MECH M3*6 NI	
5	51.88T03G001	A	FRONT COVER X1160	V
	70.88T12GR01		ASSY ENGINE MODULE X1160(SERVI)	
6	70.88T05G001	A	ASSY ENGINE MODULE X1160	
7	70.88T03G001	A	ASSYMAIN-BD MODULE X1160	
8	70.88T06G001	A	ASSY FAN SHIELDING X1160	
9	85.1A326G060	A	SCREW PAN HEAD MECH M2.6*6 BLACK	
10	70.88T04G001	A	ASSY LAMP DRIVER MODULE X1160	
11	61.88T02G001	A	SHELDING TOP COVET X1160	
12	41.85A01G001	A	EMI GASKET / 10*27*20	
13	41.88T01G001	A	EMI q L85*W20	
14	42.00454G001	A	W.A 8P 120mm MB TO LVPS X1160	
15	85.1C224G050	A	SCREW PAN MECH M4*5 COLOR W/TOOTH WASHER	

ASSY LAMP DRIVER MODULE X1160
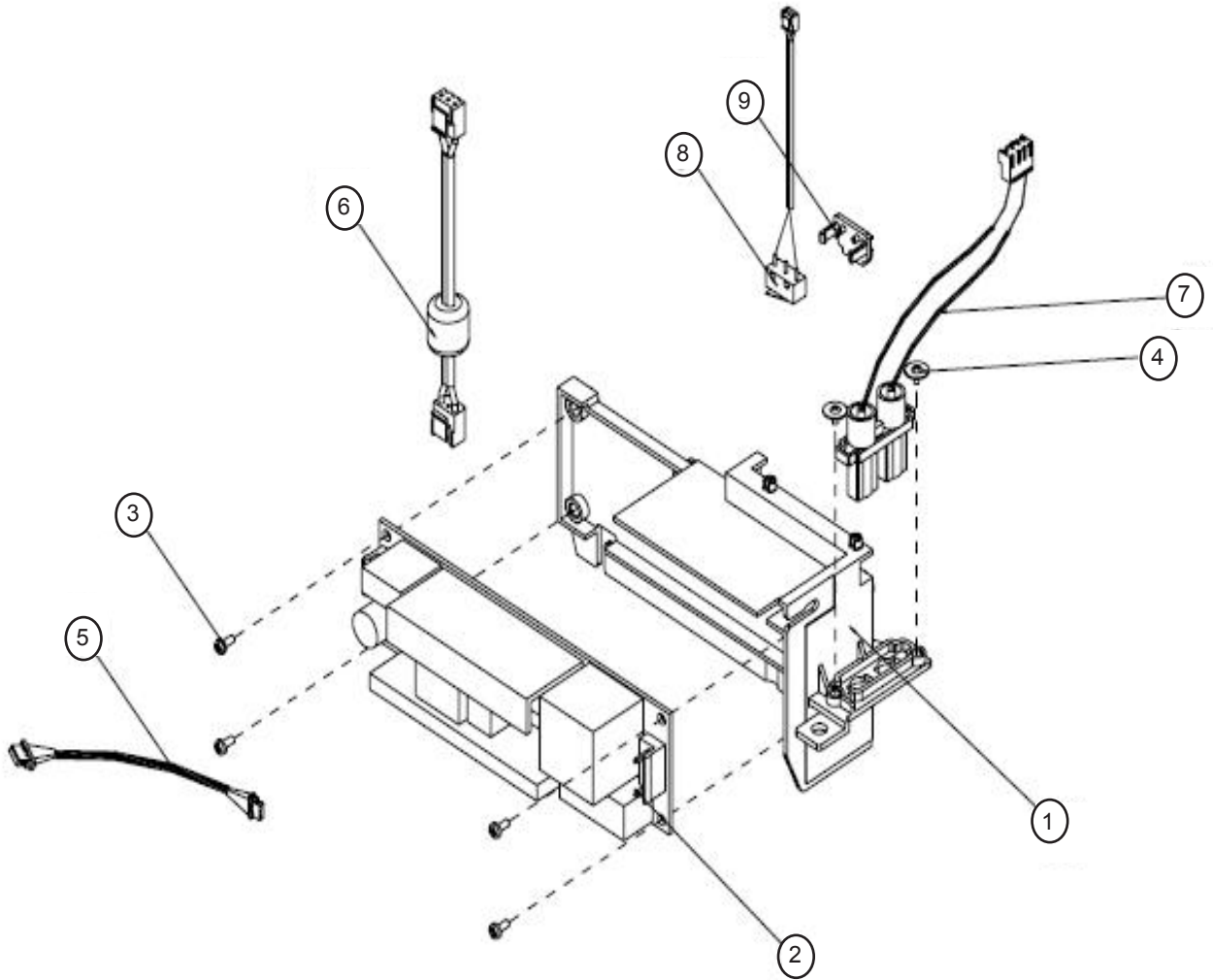
item	P/N	Rev	Description	Parts Supply
1	51.88T11G001	A	HOLDER LAMP DRIVER X1160	
2	75.88T02G001	A	ASSY OSRAM LAMP DRIVER 160W(O6 MIC)	
3	85.1A123G060	A	SCREW PAN MECH M3*6 NI	
4	85.3A122G040	A	SCREW CAP MECH M2*4 Ni	
5	42.00422G001	A	W.A 5P 150mm LAMP DRIVER TO MB X1160	V
6	42.81G01G001	A	CABLE W.A. 2P #20 160mm LAPS TO BALLAST PD120	V
7	42.85F01G001	A	CABLE W.A. 2P #22 160mm LAMP DRIVER TO LAMP EP1690	
8	75.88T05G001	A	ASSY INTERRUPT SWITCH MODULE XD1130	V
9	51.88N25G001	A	INTERLOCK SWITCH HOLDER PC MN3600H,EP721	

ASSY COLOR WHEEL MODULE X1160
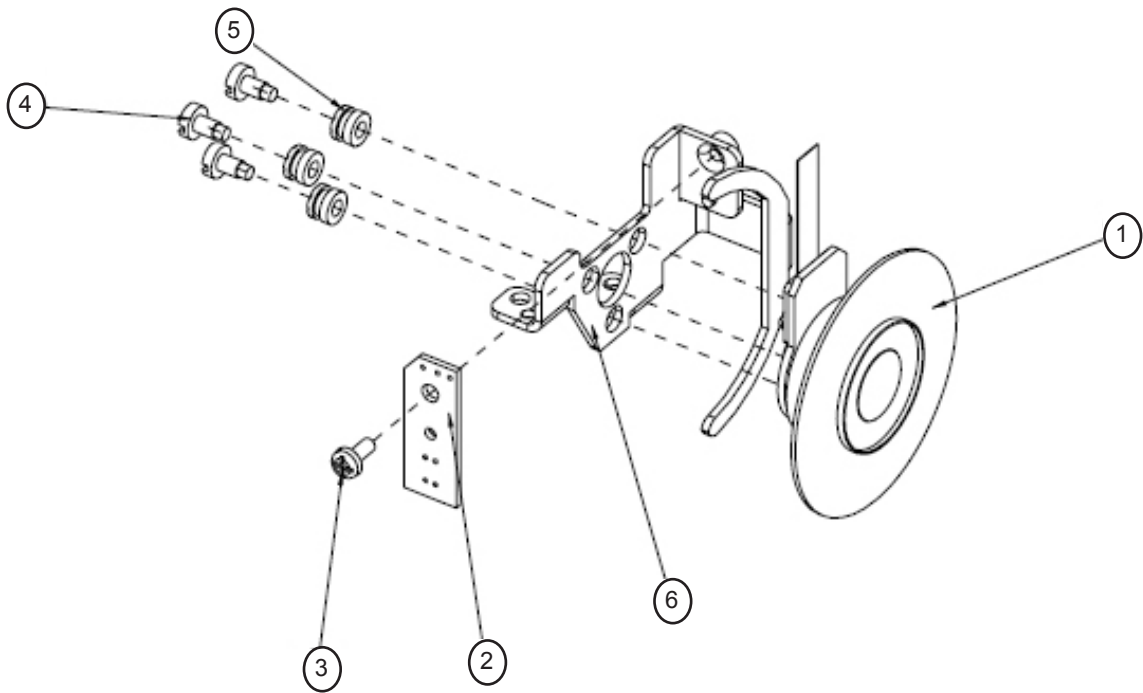
item	P/N	Rev	Description	Parts Supply
1	23.88T19G001	A	YO NA32R CW R90Y28G90C28W42B82 FOR X15	
2	80.87Y04G001	A	PCBA PHOTO SENSOR BOARD FOR PD7280	V
3	85.1A126G040	A	SCREW PAN MECH M2.6*4 Ni	
4	61.83628G001	A	COLOR WHEEL SHOULDER SCREW,EzPro755	
5	52.83615G001	A	COLOR WHEEL DISC RUBBER, EzPro755	
6	61.88N10G001	A	COLOR WHEEL HOLDER SECC,X15	

ASSY MAIN-BD MODULE X1260
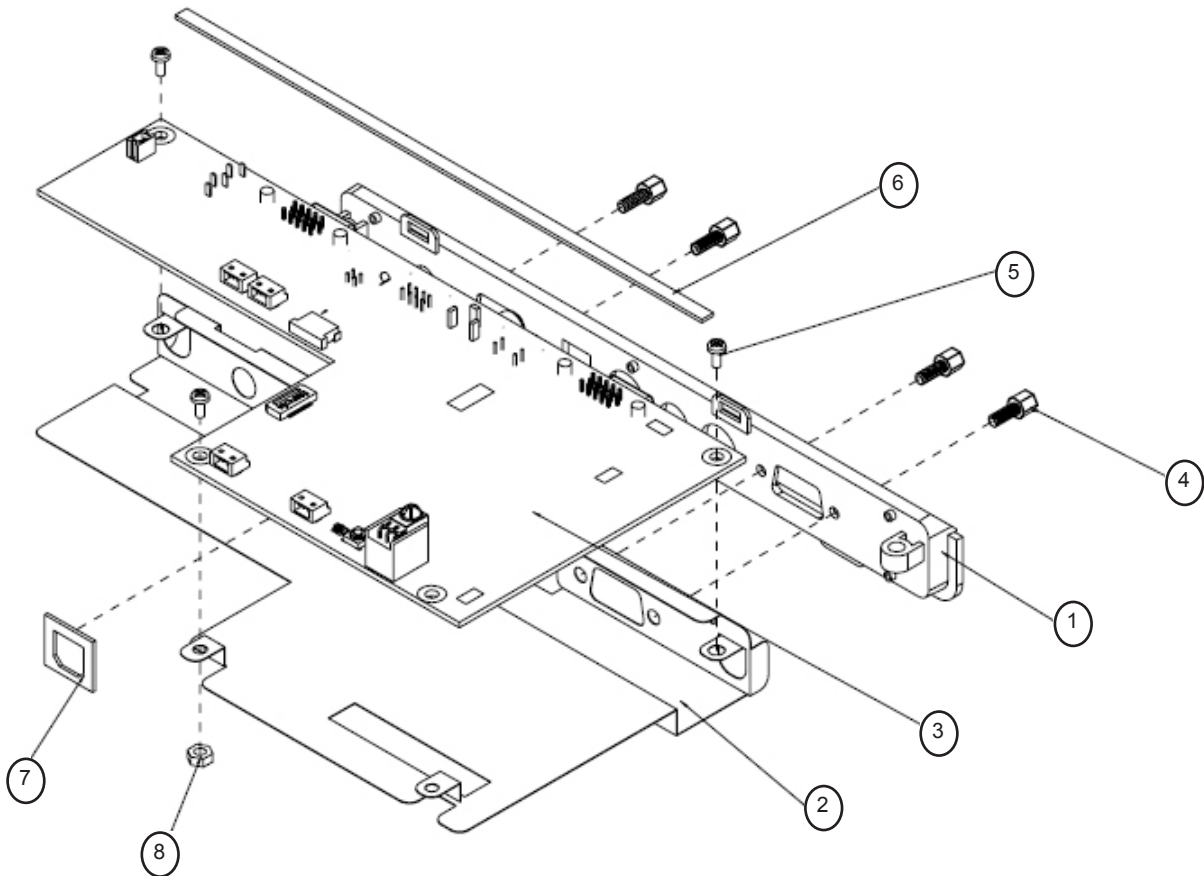
item	P/N	Rev	Description	Parts Supply
1	51.88T04G001	A	IO COVER X1160	
2	61.88T16G001	A	SHIELDING MAIN-BD X1160	
	70.88T33GR01		ASSY MAIN BOARD MODULE X1160	V
3	80.89B01G001	A03	PCBA MAIN BOARD FOR X1260	
4	85.005AGG075	A	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK	
5	85.1A123G060	A	SCREW PAN MECH M3*6 NI	
6	41.88T02G001	A	EMI GASKET L180*W4*H1	
7	41.82G03G001	A	EMI GASKET USB CONNECTOR EP719	
8	86.0A123G024	A	HEX NUT M3*0.5P L2.4 Ni	

ASSY ENGINE MODULE X1260
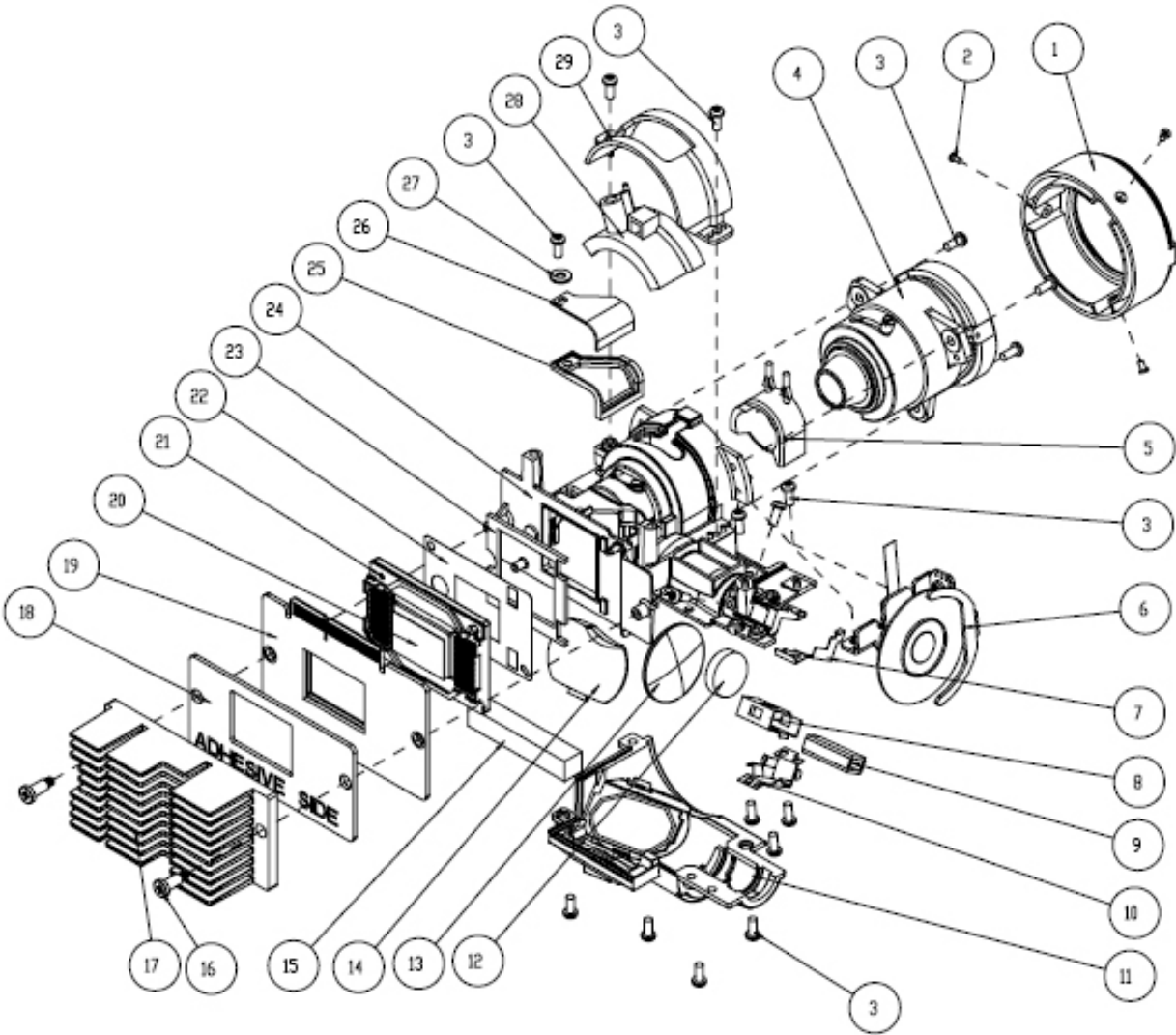
item	P/N	Rev	Description	Parts Supply
1	51.88T09G001	A	FOCUS RING X1160	V
2	85.WA321G050	A	SCREW PAN HEAD M1.7*5 BLACK ''	
3	85.1A126G060	A	SCREW PAN MECH M2.6*6 Ni	
4	23.88N01G001	A	YO PROJECTION LENS YM09X FOR X15	
5	52.89F01G001	A	PROJECTION LENS RUBBER HD65	
	70.88T11GR01		ASSY COLOR WHEEL MODULE X1160(SERVICE)	V
6	70.88T08G001	A	ASSY COLOR WHEEL MODULE X1160	
7	61.88N13G001	A	ROD COVER SUS301,X15	
8	61.88N14G001	A	ROD HOLDER SUS301,X15	
9	23.88N17G001	A	YO INTEGRATING ROD FOR x15	
10	61.88N12G001	A	ROD SPRING SUS301,X15	
11	70.88T07G001	A	ASSY ENGINE BOTTOM MODULE X1160	
12	23.88N20G001	A	YO CONDENSER1 FOR X15	
13	23.88N20G011	A	YO CONDENSER2 FOR X15	
14	23.88N06G002	A	PRODISC X15 PLASTIC RELAY LENS	
15	41.85W05G001	A	EMI GASKET W8*H8*L45	
16	85.4A826G118	A	STEP SCREW FOR TYPEX DMD M2.6*11.8mm,X15	
17	61.88N03G001	A	DMD HEAT SINK AL1070,X15	
18	52.88N03G001	A	HEAT SINK RUBBER,X15	
19	80.88T02G001	A03	PCBA DMD BOARD FOR XD1130	V
20	52.87J01G001	A	DMD THERMAL PAD 25*17*0.5t FUJIPOLY SAR-GON GR-Hn	V
21	48.87M01G001	A	DMD Type-X 1024x768 PIXEL 0.55" XGA LVDS "TI"	
22	61.88N15G001	A	DMD MASK SUS301,X15	
23	52.88N04G001	A	DMD RUBBER,X15	
24	61.88N01G001	A	ENGINE BASE MG,X15	
25	52.88N01G001	A	OFF RAY RUBBER,X15	
26	61.88N05G001	A	OFF RAY PLATE AL5052,X15	
27	87.FL030G008	A	WASHER FLAT 7*3.1*0.8t PC PINGOOD WS-1M	
28	51.89B04G001	A	ZOOM RING X1260	
29	51.89B01G001	A	HOLDER ZOOM RING X1260	

D.C. X1260
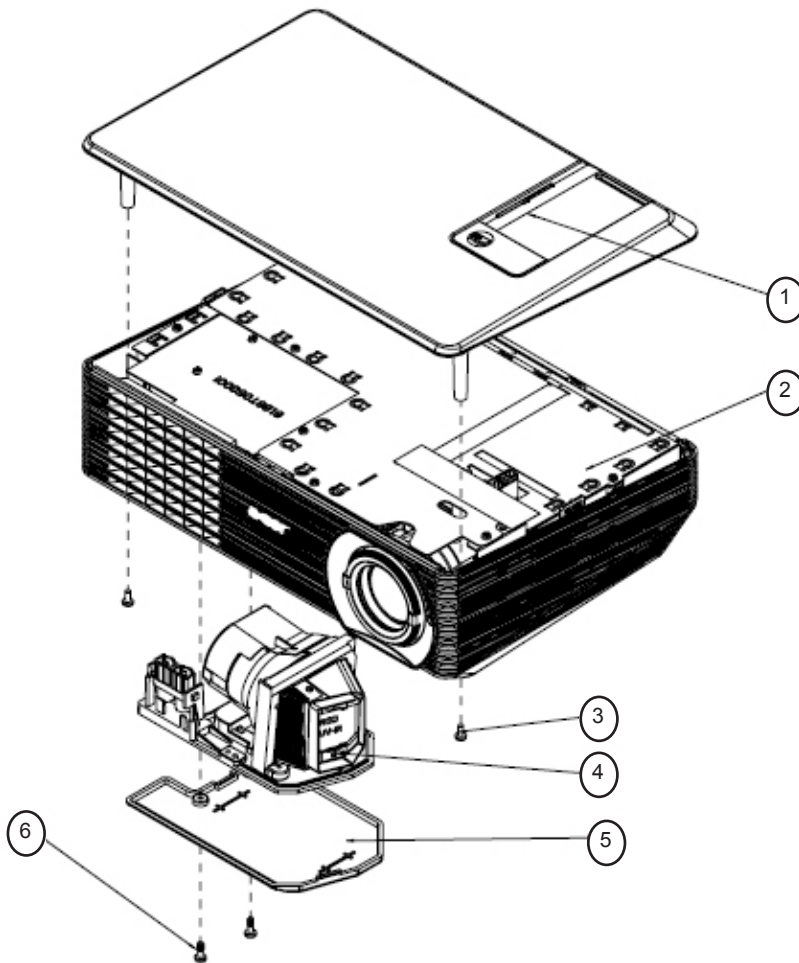
item	P/N	Rev	Description	Parts Supply
1	75.88T03G001	A	ASSY TOP COVER X1160	V
2	70.89B04G001	A	ASSY BOTTOM HOUSING MODULE X1260	
3	85.1A323G080	A	SCREW PAN MECH M3*8 BLACK "GREEN"	
4	70.88T02G001	A	ASSY LAMP MODULE X1160	
5	51.88T05G001	A	LAMP COVER X1160	
6	61.00061G001	A	LOCK SCREW PAN MECH M3*8.5-3.5 Ni	

ASSY BOTTOM HOUSING MODULE X1260
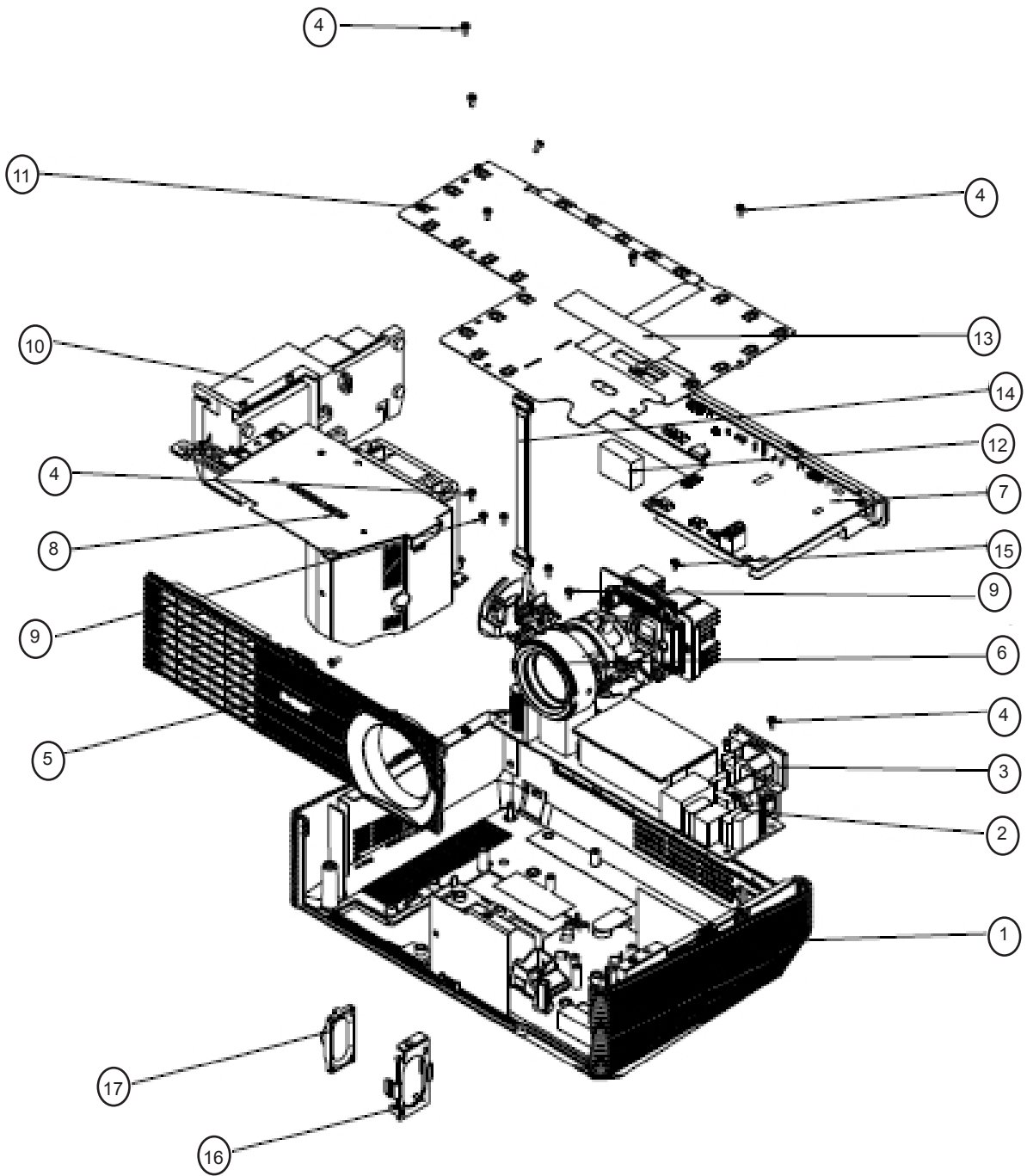
item	P/N	Rev	Description	Parts Supply
1	70.88T09G001	A	ASSY HOUSING MODULE X1160	
2	75.88T01G001	A	ASSY LVPS MATRITEK 160W XD1130	V
3	61.88T09G001	A	BRKT INLET X1160	
4	85.1A123G060	A	SCREW PAN MECH M3*6 NI	
5	75.89B01G001	A	ASSY FRONT COVER X1260	
6	70.89B01G001	A	ASSY ENGINE MODULE X1260	
7	70.89B06G001	A	ASSYMAIN-BD MODULE X1260	
8	70.88T06G001	A	ASSY FAN SHIELDING X1160	
9	85.1A326G060	A	SCREW PAN HEAD MECH M2.6*6 BLACK	
	70.88T22GR01		ASSY LAMP DRIVER MODULE X1160Z	V
10	70.88T04G001	A	ASSY LAMP DRIVER MODULE X1160	
11	61.88T02G001	A	SHELDING TOP COVET X1160	
12	41.85A01G001	A	EMI GASKET / 10*27*20	
13	41.88T01G001	A	EMI q L85*W20	
14	42.00454G001	A	W.A 8P 120mm MB TO LVPS X1160	V
15	85.1C224G050	A	SCREW PAN MECH M4*5 COLOR W/TOOTH WASHER	
16	51.89B05G001	A	EMI q L85*W20	
17	49.80J01G001	A	SPEAKER,3W,80HM,NEOSONICA,DAB128,200mm,VULCAN-1	

Appendix B

I. Serial Number System Definition

(For X1160/X1160Z/X1260,take X1260 for example)

Serial Number Format for Projector

EYJ5901001   742 00000 59   10

    ①   ②   ③   ④   ⑤

①   :   **EYJ5901001 = Part Number excluded "dot"**

②   :   **742 = Week Code(ex:200_7_ = 7,forty-two weeks of the year = 42)**

③   :   **00000 = Serial Numbers**

④   :   **59 = Manufacturing Code**

⑤   :   **10 = Projector Version**

EX: EYJ5901001742000005910

This label represents the serial number for X1260. It is produced for Europe at CPC on forty-two week of 2007. Its serial code is 00000.

II.Serial Number System Definition

(For refresh models and X1160P/X1160PZ/X1260P, take X1260 Refresh for example)

Serial Number Format for Projector

EYJ7201007   **819** **00000** **59**   **2**   **1**

    ①   ②   ③   ④   ⑤   ⑥

① :   **EYJ7201007= Part Number excluded "dot"**

② :   **819 = Week Code(ex:200<u>8</u> = 8,nineteen weeks of the year = 19)**

③ :   **00000 = Serial Numbers**

④ :   **59 = Manufacturing Code**

⑤ :   **2 = Projector Version**

⑥ :   **1 = Default Language Information**

EX: EYJ7201007819000005921

This label represents the serial number for X1260 refresh. It is produced for Europe at CPC on nineteen week of 2008. Its serial code is 00000.

Note: About the discrimination between refresh model and non refresh model, please refer to RM-P-A08015.

III. PCBA Code Definition

PCBA Code for Projector

A   B   XXX   XXXXXXXX   CC   XXX   EEEE

(1) (2) (3)   (4)   (5) (6) (7)

(1)	:	**ID**
(2)	:	**Vendor Code**
(3)	:	**Firmware Version**
(4)	:	**P/N**
(5)	:	**Revision**
(6)	:	**Date Code**
(7)	:	**S/N**

Appendix C

RS232 function command summary table (for X1260/ X1260 Refresh/X1260K Refresh/X1260P)

General command type (Projector "receives" commands)

No	Code (character)	Function feature
1	OKOKOKOKOK	Power On
2	* 0 IR 001	Power On
3	* 0 IR 002	Power Off
4	* 0 IR 004	Keystone
5	* 0 IR 006	Mute
6	* 0 IR 007	Freeze
7	* 0 IR 008	Menu
8	* 0 IR 009	Up
9	* 0 IR 010	Down
10	* 0 IR 011	Right
11	* 0 IR 012	Left
12	* 0 IR 014	Re-Sync
13	* 0 IR 015	Source Analog RGB for D-sub
14	* 0 IR 018	Source S-Video
15	* 0 IR 019	Source Composite Video
16	* 0 IR 020	Source Component Video
17	* 0 IR 021	Aspect ratio 16: 9
18	* 0 IR 022	Aspect ratio 4: 3
19	* 0 IR 023	Volume +
20	* 0 IR 024	Volume –
21	* 0 IR 025	Brightness
22	* 0 IR 026	Contrast
23	* 0 IR 027	Color Temperature
24	* 0 IR 030	Hide

No	Code (character)	Function feature
25	* 0 IR 031	Source
26	* 0 IR 032	Video: Color saturation adjustment
27	* 0 IR 033	Video: Hue adjustment
28	* 0 IR 034	Video: Sharpness adjustment
29	* 0 IR 035	Query Model name
30	* 0 IR 036	Query Native display resolution
31	* 0 IR 037	Query company name
32	* 0 IR 041	Aspect ratio 1:1
33	* 0 IR 042	Keystone Up
34	* 0 IR 043	Keystone Down
35	* 0 IR 046	Zoom
36	* 0 IR 047	e-Key
37	* 0 IR 050	Source HDMI