

# Notice



CORRECTION

PRODUCTION CHANGE

SERVICE FLASH

ADD INFORMATION

FILE NO.

REVISION-1

Please add this notice to the Service Manual listed below.

Category : Multi-media Projector

Issued Date : August / 2007

Model : PLC-XP100L

Effective from : Chassis No. KC3-XP100L00

Destination : Canada, U.S./Europe,  
Asia, U.K.

REF. NO. : SM5110873

**NOTE:** Match the Chassis No. on the unit's back cover with the Chassis No. in the Service Manual.

**If the Chassis. No. does not match the unit's**, additional Service Literature is required. Only the difference service information is given in this manual. For detailed service information, refer to the service manual original SM5110873-00 issued in Aug. 2007 for Model PLC-XP100L.

## CORRECTION;

**We correct the Electrical Adjustment and Mechanical Parts List.**

**Please see the next pages for the details.**

### Outline:

Electrical Adjustment change

Delete Panel type check and setting.

Change Service adjustment item no. in the service mode.

Item No. 5 -> 4

Item No. 6 -> 5

Item No. 7 -> 6

Mechanical Parts List change

Key No. is changed from L09 to L01-12.

**FILE WITH ORIGINAL SERVICE MANUAL (SM5110873)**

### PRODUCT CODE

1 122 380 20 (KC3AL)

1 122 381 20 (LC3AL)

1 122 381 22 (LC3CL)

REFERENCE NO. SM5110873-01

# Correction on Electrical Adjustment

## Adjustments after Parts Replacement

● : Adjustment necessary ○ : Check necessary

		Disassembly / Replaced Parts					
		LCD/ Prism Ass'y	Polarized Glass	Optical Filter	Power Board	Main Board	Fans
Optical Adjustment	Contrast adjustment	●	●	●			
Electrical Adjustments	<del>Panel type check and setting</del>	<del>○</del>				<del>●</del>	
	Fan control adjustment				●	●	●
	PC-auto calibration					●	
	Video-auto calibration -1					●	
	Video-auto calibration -2					●	
	Common center adjustment	●				●	
	Gamma shift adjustment	●				●	
	White balance adjustment [PC]	●				●	
	Gamma correction adjustment [PC]	●				●	
	White balance adjustment [AV]	●				●	
	Gamma correction adjustment [AV]	●				●	
	White uniformity adjustment	○	○	○		○	
	Wind sensor calibration				●	●	●

### Note on the main board replacement

When replacing the main board, take read/write procedure of the gamma adjustment data and color shading correction data.

The "gamma adjustment data" and "color shading correction data" of each panel have been adjusted precisely at the factory to match the characteristics of each panel.

When you replace the main board, you need to read out the "gamma adjustment data" and "color shading correction data" stored in the memory IC on the previous main board and write down them into the memory IC on the new main board. By this way, the projector is enabled to reproduce the picture which has the properly adjusted gamma characteristic and color shading correction.

Use "Projector Service Tool" software for Read/Write of the gamma adjustment data and color shading correction data. This tool also enable to correct the color shading and gamma characteristics.

**PROJECTOR SERVICE TOOL v. 4.10**  
**SERVICE PARTS NO.: 610 337 8787**

# Electrical Adjustment

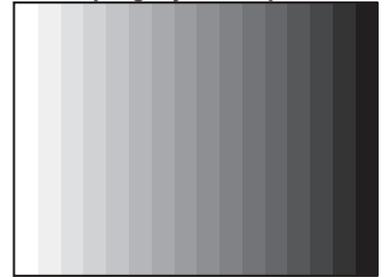
## Circuit Adjustments

**CAUTION:** The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

**[Adjustment Condition]**

- Input signal
  - Video signal ..... 1.0Vp-p/75Ω terminated, 16 steps gray scale (Composite video signal)
  - Computer signal ..... 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern
  - Component Video signal .... 0.7Vp-p/75Ω terminated, 16 steps gray scale (Component video signal with 480p, 575p, 720p or 1080i format)
- Picture control mode..... "STANDARD" mode unless otherwise noted.

**16 steps gray scale pattern**



↑ White 100%

↑ Black 100%

**Note:**

\* Please refer to "Service Adjustment Menu Operation" for entering the service mode and adjusting the service data.

### 1 Panel Type Check and Setting

\* Before setting, you need to check which type of LCD panel is placed on the projector according to the item "LCD Panel/Prism Ass'y removal" in the chapter "Optical Parts Disassembly".

1. Enter the service mode.
2. Panel Type Check  
Select group no. "290", item no. "0". Check the data value as follows;  
Data value: 0 For L-Type of LCD Panel  
Data value: 20 For R-Type of LCD panel
3. Panel Type Setting  
Select group no. "290", item no. "1" and change data value from 10 to 0 or 20 depending on your LCD Panel type. When the data value reaches 0 or 20, it returns to 10 quickly. The gamma-characteristics is reset according to your selection.

**Note:**

Be careful to take this adjustment. The value of gamma adjustment data will be reset and cannot be restored if you change the mode of LCD panel type.

\* This adjustment is not required.

### 2 Fan Voltages adjustment

1. Enter the service mode.
2. Connect a digital voltmeter to test point **A** (+) and chassis ground (-). (7 test points are provided for this adjustment, perform all the voltage adjustments in the table below.)
3. Select group no. "140". Select item no. **B** and change data value to adjust the voltage to be **C** - 0.1V + 0V, and select item no. **D** and change data value to adjust the voltage to be **E** ±0.1V.
4. Repeat step 2 to 3 for the remaining test points in the table below.

Test Point A	Item B	Voltage C	Item D	Voltage E
TPFN5	0	13.8	1	5.0
TPFN3	2	13.8	3	5.0
TPFN4	2	13.8	3	5.0
TPFN2	4	13.8	5	5.0
TPFN1	6	13.8	7	5.0
TPFN7	8	13.8	9	5.0
TPFN6	10	13.8	11	5.0

### **3 PC-Auto Calibration**

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1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Input 1 [PC analog]** mode.
3. To start the auto-calibration for PC adjustment, select group no. "680", item no. "0" and then change data value from "0" to "1". After the auto-calibration completed, "OK" will appear on the screen.

### **4 Video-Auto Calibration -1**

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1. Enter the service mode.
2. Receive the 16-step grey scale 480i-component video signal with **Input 2 [Y,Pb/Cb,Pr/Cr]** mode.
3. To start the auto-calibration for Video adjustment, select group no. "680", item no. "0" and then change data value from "0" to "1". After the auto-calibration completed, "OK" will appear on the screen.

### **5 Video-Auto Calibration -2**

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1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Input 3 [Video]** mode.
3. To start the auto-calibration for composite video adjustment, select group no. "680", item no. "0" and then change data value from "0" to "1". After the auto-calibration completed, "OK" will appear on the screen.

### **6 Common Center adjustment**

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1. Receive the 50%-Whole Gray composite video signal with **Input 3 [Video]** mode.
2. Enter the service mode.
- ~~3. Select group no. "100", item no. "92" and change data value to "2" to reduce the panel frequency.~~
4. Project only green light component to the screen.
5. Select group no. "200", item no. "9" and change data value to obtain the minimum flicker on the screen.
6. Project only blue light component to the screen.
7. Select item no. "10" and change data value to obtain the minimum flicker on the screen.
8. Project only red light component to the screen.
9. Select item no. "11" and change data value to obtain the minimum flicker on the screen.
- ~~10. Select group no. "100", item no. "92" and change data value to "0" to reset the panel frequency.~~

### **7 Gamma Shift adjustment**

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1. Receive the 100%-whole-white computer signal with **Input 1 [PC analog]** mode.
2. Enter the service mode.
3. Measure luminance on the screen with the luminance meter. It is **A** for the reading of luminance meter.
4. Change the signal source to the 50%-whole-white computer signal with **Input 1 [PC analog]** mode.
5. Select group no. "920", item no. ~~"6"~~ "5" and change the Data value to make the reading of luminance meter to be **A x 22%**.

### **8 White Balance adjustment [PC]**

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This adjustment is carried out in the both of image mode "Standard" and "Real".

1. Receive the 50%-whole-white computer signal with **Input 1 [PC analog]** mode.
2. Set image mode to "Standard" or "Real" you intend to adjust.
3. Enter the service mode, select group no. "920" item no. ~~"5"~~ "4" (Red) or ~~"7"~~ "6" (Blue), and change Data values respectively to make a proper white balance.

Conform that proper white balance is obtained in the both of image mode "Standard" and "Real".

### **9 Gamma Correction adjustment [PC]**

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This adjustment is carried out in the both of image mode "Standard" and "Real".

1. Receive the 16-step grey scale computer signal with **Input 1 [PC analog]** mode.
2. Set image mode to "Standard" or "Real" you intend to adjust.
3. Enter the service mode, select group no. "920", item no. ~~"6"~~ "5" and change the Data value to make a proper 16 steps gradation.

Conform that proper 16 steps gradation is obtained in the both of image mode "Standard" and "Real".

### **10 White Balance adjustment [AV]**

This adjustment is carried out in the both of image mode "Standard" and "Cinema".

1. Receive the 50%-whole-white composite video signal with **Input 3 [Video]** mode.
2. Set image mode to "Standard" or "Cinema" you intend to adjust.
3. Enter the service mode, select group no. "920" item no. ~~5~~ "4" (Red) or ~~7~~ "6" (Blue),, and change Data values respectively to make a proper white balance.

Conform that proper white balance is obtained in the both of image mode "Standard" and "Real".

### **11 Gamma Correction adjustment [AV]**

This adjustment is carried out in the both of image mode "Standard" and "Cinema".

1. Receive the 16-step grey scale composite video signal with **Input 3 [Video]** mode.
2. Set image mode to "Standard" or "Cinema" you intend to adjust.
3. Enter the service mode, select group no. "920", item no. ~~6~~ "5" and change the Data value to make a proper 16 steps gradation.

Conform that proper 16 steps gradation is obtained in the both of image mode "Standard" and "Cinema".

### **12 White Uniformity Adjustment**

If you find the color shading on the screen, please adjust the white uniformity by using the proper computer and "Projector Service Tool" software supplied separately.

### **13 Wind Sensor Calibration**

1. Enter the service mode, select group no. "170" and item no. "0".
2. To start the calibration, change data value from "0" to "1". During the calibration, the word "Please wait..." appears on the screen. After the calibration completed correctly, "OK" will appear on the screen.

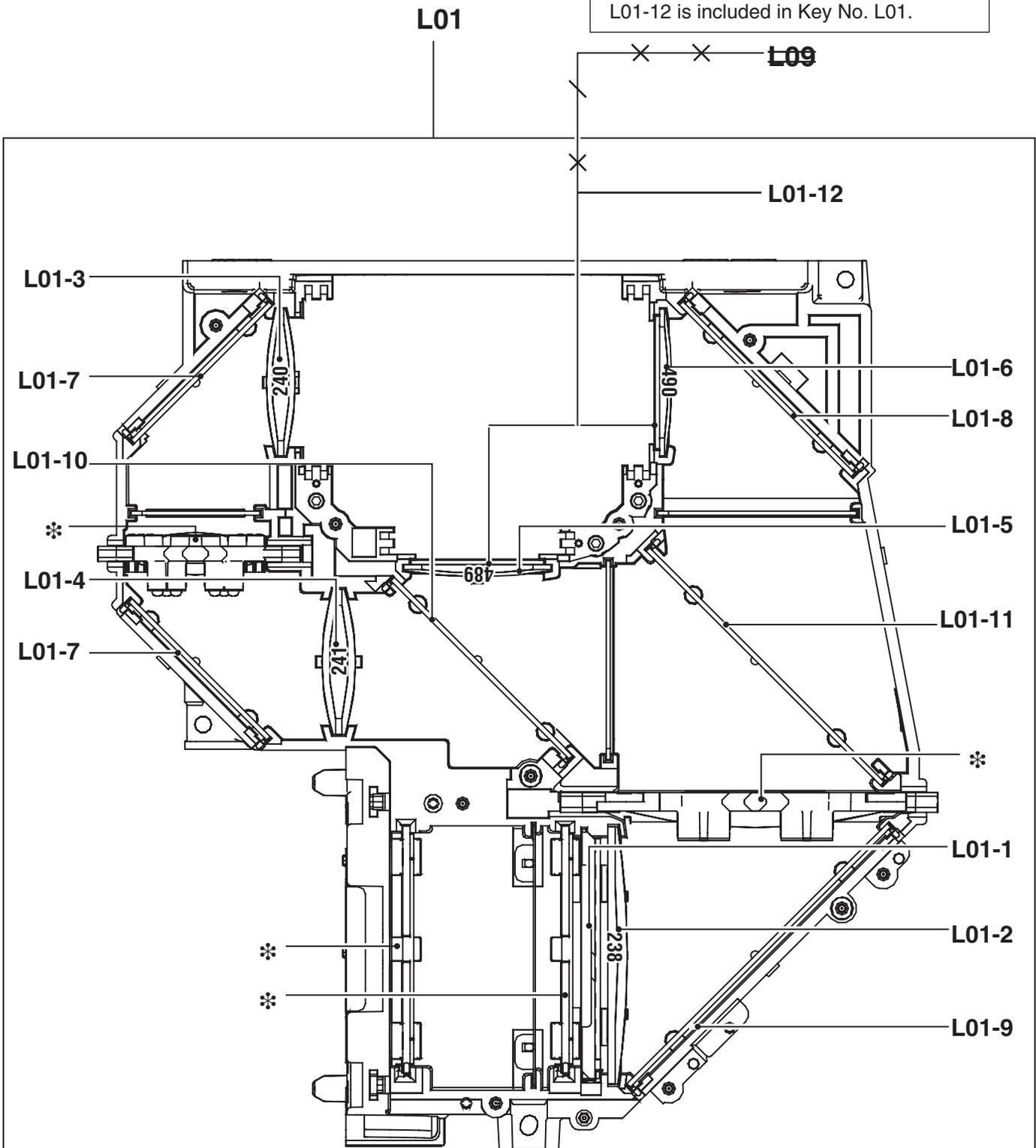
#### **IMPORTANT**

Before taking this adjustment, you need to replace the filter cartridge with new one or scrolled up to new filter.

# Correction on Mechanical Parts List

In the Optical Unit

\* Change Key No. from L09 to L01-12 and L01-12 is included in Key No. L01.



Note:  
The parts indicated with (\*) are fixed with the adhesive onto the optical base bottom, so these parts are not the replaceable parts.

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## Mechanical Parts List

Key No. is changed from L09 to L01-12.

Key No. L01-12 (POLARIZED GLASS(IN/GB) is included in Key No. L01 (COMPLE OPTICAL-KC3A).

State	Ref. No.	Parts No.	Description
	L01	610 336 9594	COMPL,OPTICAL-KC3A (Optical Unit Ass'y, Including Key No. L01-1 to L01-12)
Add	L01-12	645 093 0027	POLARIZED GLASS(IN/GB)
Delete	L09	645 093 0027	POLARIZED GLASS(IN/GB)

