

Service Manual

VP8600 /F S/U1S

DLP Projector

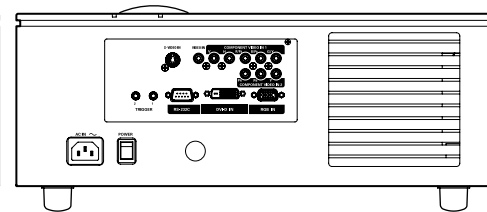
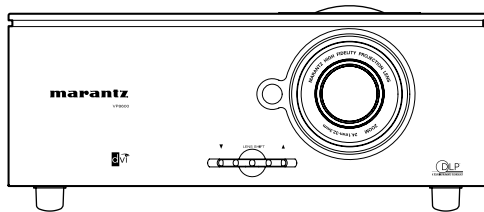
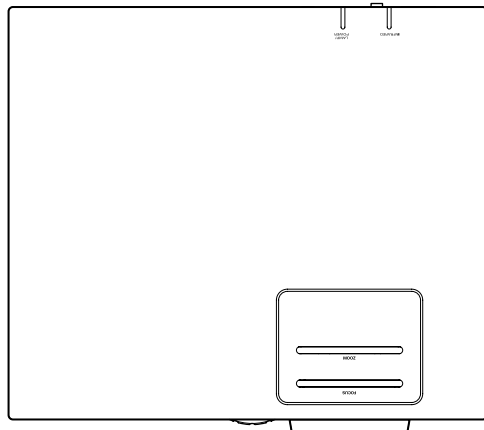


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Please use this service manual with referring to the user guide (D.F.U.) without fail.
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

marantz®

VP8600

Part no. 90M20AV855010
First Issue 2005.12
MZ

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Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

USA

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FAX : 630 - 741 - 0301

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1578 NANJING (WEST) ROAD SHANGHAI
CHINA
TEL : 021 - 6248 - 1064
FAX : 021 - 6248 - 3565

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 60950.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

❖ Optical characteristics

Panel	0.8 inch 16:9 1280 x 720 pixels Digital Micromirror Device
Lamp	200W AC
Lens	f: 32.5 to 44.0mm F: F2.5
Projection size	60 to 300 inches

❖ Input/Output

VIDEO IN	RCA x 1 NTSC-3.58/PAL-4.43/SECAM Composite video 1.0Vp-p/ 75 Ohm
S-VIDEO IN	S-Connector x 1 NTSC-3.58/PAL-4.43/SECAM S-Video
COMPONENT IN	3RCA x 1 (Y, P _B , P _R) 5RCA x 1 (G/Y, B/P _B , R/P _R , H, V)
RGB/HD IN	D-sub M 15 pin x 1 Analog RGB
DIGITAL IN	DVI-D x 1
AC IN	3 Prong Grounding Type
TRIG.1 OUT, TRIG.2 OUT	Mini Jack x 2 Output: DC12V or 0V
RS-232C	RS-232C receptacle plug x 1

❖ General

Power requirement	AC 100-240V, 47-63 Hz
Power consumption	255 W
Standby consumption	1.3 W at 100 V AC 1.6 W at 240 V AC
Safety	UL60950 CAN/CSA-C22-2 NO-60950
EMC	FCC Part-15 Class-B EN55022 Class-B
Dimensions	17 2/16(W) x 14 12/16 (D) x 7 1/16 (H) inch 435(W) x 375(D) x 179.4(H) mm
Net weight	14.1 kg
Operating Temperature	10 to 35 °C
Operating humidity	30 to 85%
Storage Temperature	-20 to 60 °C
Storage humidity	30 to 85%

❖ Accessories

- Lens cap x 1
- Remote controller x 1
- Batteries x 2
- Mains code x 1
- DVI-HDMI Connector
- User Guide
- Warranty Card
(1 copy each for USA, CANADA)

❖ 光学特性

パネル	0.8インチ 16:9 921,600画素(1280×720) Digital Micromirror Device(DMD)
ランプ	200W AC
レンズ	f : 24.1~32.3mm F : F2.2-2.5 1.34倍マニュアルズーム
投影サイズ	60~300インチ

❖ 入出力端子

ビデオ入力端子	RCA 1系統 NTSC-3.58/PAL-4.43/ SECAM コンポジットビデオ1.0Vp-p/ 75Ω
Sビデオ 入力端子	S端子1系統 NTSC-3.58/PAL-4.43 Sビデオ
コンポーネント 入力	3RCA 1系統 (Y,P _B ,P _R) 5RCA 1系統 (G/Y,B/P _B ,R/P _R ,H,V)
RGB/HD入力	ミニD-sub 15ピン1系統 アナログRGB
デジタル入力	DVI-D 1系統
電源コード 接続端子	アース付き3ピンプラグ
トリガー1出力端子、 トリガー2出力端子	ミニジャック2系統 出力 : DC12Vまたは0V
RS-232C端子	RS-232C 1系統

❖ 全般

電源要件	AC100V 50/60Hz
消費電力	255 W
外形寸法	435 (W) x 375 (D) x 179.4 (H) mm
質量	14.1 kg
動作温度	10~35°C
動作湿度	30~85%
保存温度	-20~60°C
保存湿度	30~85%

❖ 付属品

- レンズキャップ×1
- リモコン×1
- 単四形乾電池×2
- 電源コード×1
- DVI-HDMIアダプター×1
- 取扱説明書×1
- 保証書×1
- ご愛用者登録カード×1

Replace Lamp Module

See "Step 2--Remove the Lamp Module (LU8600VP)" in "3. DISASSEMBLE PROCEDURE" section.

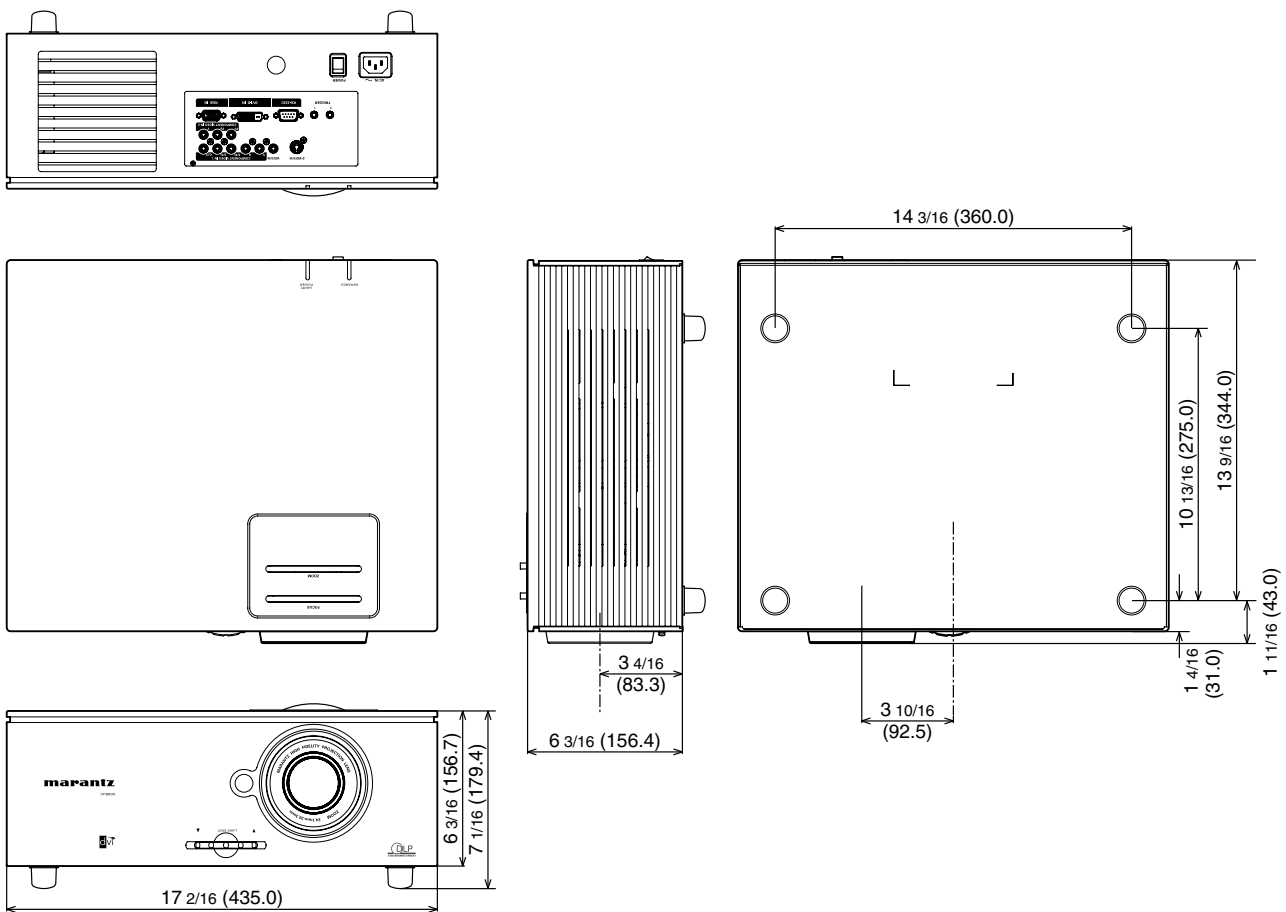
- Service Spare Parts no. (Lamp module LU8600VP) : 90M-ZK000560R

ランプの交換

"3. DISASSEMBLE PROCEDURE" の "Step 2--Remove the Lamp Module (LU8600VP)" を参照してください。

- サービス パーツ 部品番号 (交換ランプ LU8600VP) : 90M-ZK000560R

Dimensions



Unit : inch (mm)

2. SERVICE MODE

• How to enter the Service Mode

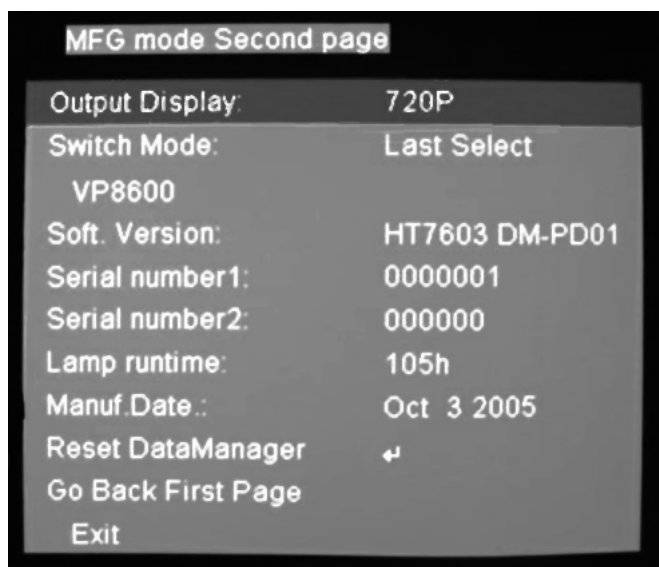
Operate by using [Remote controller RC8600VP]. The unit is no-signal conditions.

1. Press the **Main power switch** to turn on the unit.
2. Press the **LEFT(◀) → RIGHT(▶) → LEFT(◀) → RIGHT(▶)** button on the remote controller.
3. Press the arrow buttons (▲/▼/◀/▶), select "Go to second Page"
4. Press the **ENTER** button.
5. The micro-processor version is displayed on the following "MFG mode Second page".

• サービスモードの入り方

セットは無信号状態で、リモコン RC8600VP にて操作を行います。

1. **主電源スイッチ**を押しセットの電源を入れます。
2. リモコンの **LEFT(◀) → RIGHT(▶) → LEFT(◀) → RIGHT(▶)** ボタンを押します。
3. 矢印 (▲/▼/◀/▶) ボタンを押し、"Go to second Page" を選択します。
4. **ENTER** ボタンを押します。
5. マイコンのバージョンが "MFG mode Second page" に表示されます。



• How to exit Service Mode

Press the **EXIT** button, return to normal operation.

• サービスモードの抜け方

EXIT ボタンを押すと通常モードに戻ります。

3. DISASSEMBLE PROCEDURE

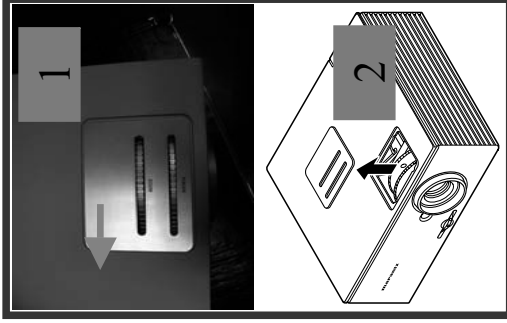
Step 1--Remove the Top Cover



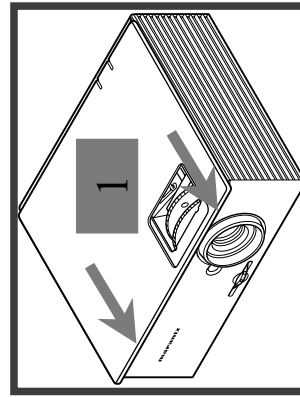
1.-Turn of the power button. Disconnect the mains cord.



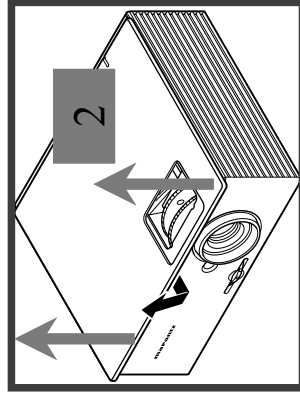
2.-Screw off one screw of the I/O panel.



3.-Disassembly top guide.



4.-Push forward the top cover from projector.(step1.)



5.-Pull up the top cover from projector.(step2)

Step 2--Remove the Lamp Module (LU8600VP)

日本語 ランプ交換手順

準備:

ランプの交換は、プロジェクターの電源を切り、冷却ファン停止後、電源コードをコンセントから抜き、60分待ってランプが充分冷えたことを確認してから行ってください。

English REPLACING THE LAMP

Preparation:

When replacing the lamp, turn off the power for the projector. After the cooling fan stops, disconnect the power cord and wait for 60 minutes until the lamp is cooled completely, then replace the lamp.

Français REMPLACEMENT DE LA LAMPE

Préparation:

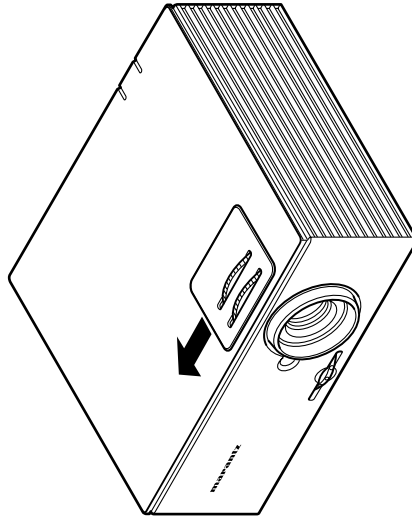
Vous devez éteindre le projecteur lorsque vous remplacez la lampe. Lorsque le ventilateur de refroidissement s'arrête, débranchez le cordon d'alimentation et attendez 60 minutes pour que la lampe soit complètement refroidie et remplacez ensuite la lampe.

Español REEMPLAZO DE LA BOMBILLA

Preparación:

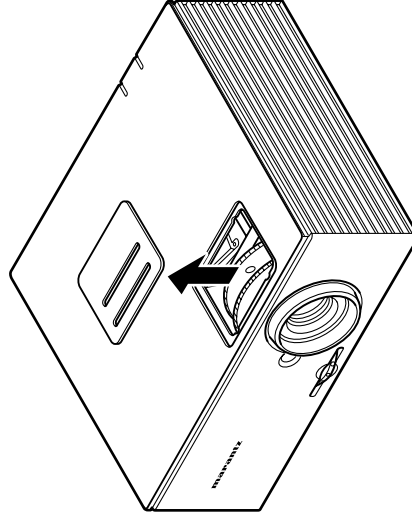
Al reemplazar la lámpara, apague el proyector. Después que el ventilador de enfriamiento se detiene, desconecte el cordón de alimentación y espere por 60 minutos, hasta que la lámpara se enfríe completamente, luego reemplace la lámpara.

1



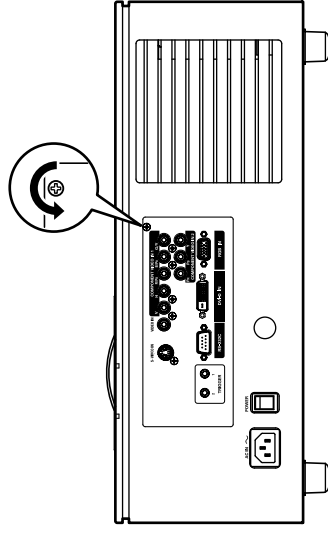
- プレートを矢印の方向へ動かします。
- Move the plate in the direction of the arrow.
- Déplacez la plaque dans le sens de la flèche.
- Mueva la placa en la dirección de la flecha.

2



- プレートを矢印の方向へ外します。
- Remove the plate in the direction of the arrow.
- Retirez la plaque dans le sens de la flèche.
- Saque la placa en la dirección de la flecha.

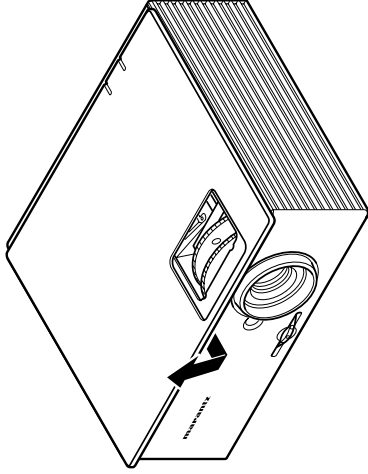
3



- 端子板にある右上のネジを外します。
- Remove the screw from the upper right side of the terminal board.
- Retirez la vis du côté supérieur droit de la planche de bornes.
- Quite el tornillo de la parte superior derecha del tablero de terminales.

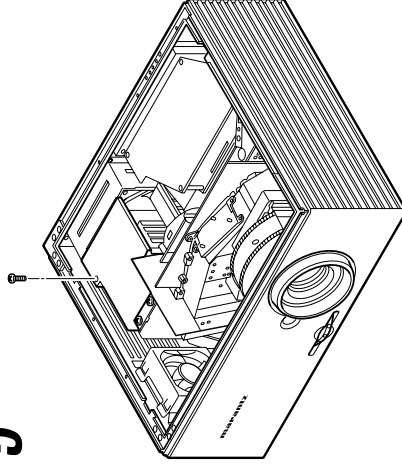
Step 2--Remove the Lamp Module (LU8600VP)

4



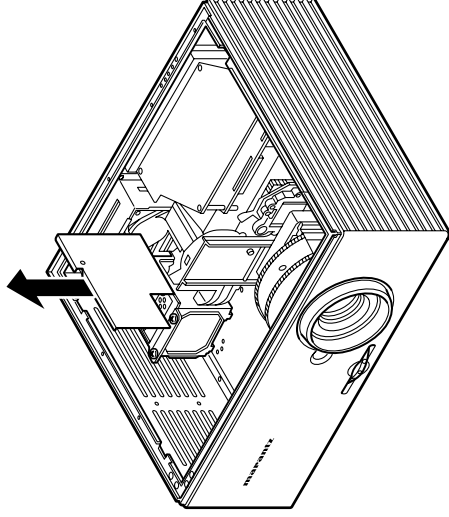
- 上蓋を手前に動かしてから持ち上げます。
- Move the upper case towards you, and then raise it upwards.
- Déplacez le boîtier supérieur vers vous, puis soulevez-le.
- Mueva la caja superior hacia usted y, a continuación, levántela.

5



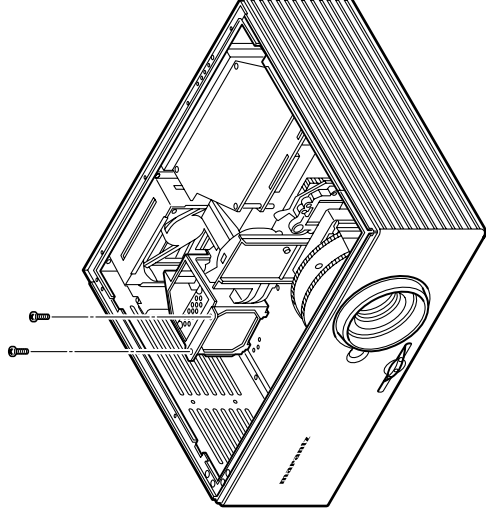
- ランプカバーの止めネジを外します。
- Remove the stopper screw from the lamp cover.
- Retirez la vis d'arrêt du couvercle de lampe.
- Quite el tornillo de retención de la cubierta de la lámpara.

6

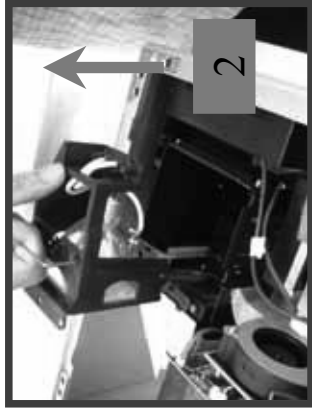
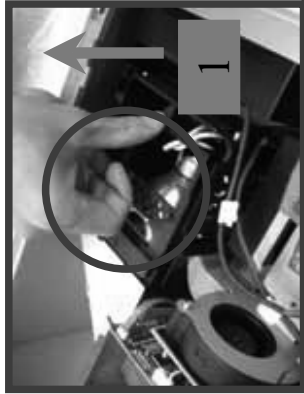


- ランプカバーを矢印のように持ち上げて、外します。
- Raise the lamp cover in the direction of the arrow, and remove it.
- Soulevez le couvercle de lampe dans le sens de la flèche, puis retirez-le.
- Levante la cubierta de la lámpara en la dirección de la flecha y saquelo.

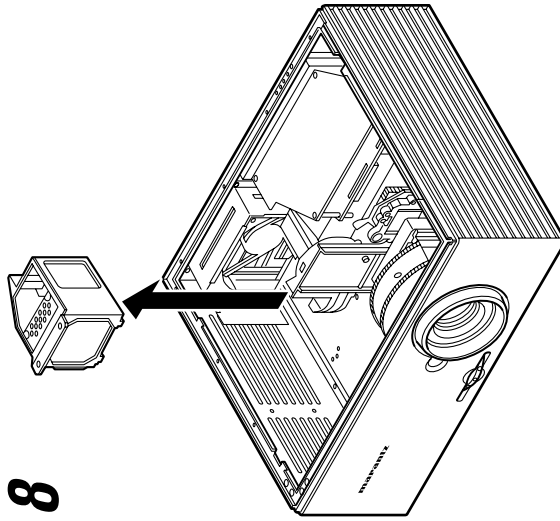
7



- ランプユニットのネジを外します。
- Remove the lamp module screw.
- Retirez la vis du module de lampe.
- Seque el tornillo del módulo de lámpara.



8



- 取手をつかんでランプユニットを上に取り出します。
- Using the handles, lift the lamp module to remove it.
- À l'aide des poignées, soulevez le module de lampe pour le retirer.
- Con la ayuda de las asas, levante el módulo de lámpara para extraerlo.

9

新しいランプユニットの取り付けは、取り外しと逆の順番で確実に行なってください。
その後、下記の手順に従ってランプ時間のリセットを行ってください。

1. 電源コードをコンセントに差し込み、電源スイッチを入れます。
注意：ランプ時間のリセット中はプロジェクターに入カケープルを接続しないでください。
2. リモコンのPOWERボタンを押します。
3. LEFT/RIGHT/FREEZEの順番でリモコンのボタンを押します。
4. Reset Lamp Run Timeが表示されたらENTERボタンを押して、ランプ時間をリセットします。

Perform the above sequence in reverse order to install the new lamp module.
Next, use the following procedure to reset "Lamp Hour".

1. Connect the power cord to a wall outlet, and turn on the main power switch.
Note: Do not connect any input cables to the projector while resetting "Lamp Hour".
2. Press the **POWER** button on the remote controller.
3. Press **LEFT/RIGHT/FREEZE** in this order on the remote controller.
4. Press the **ENTER** button when Reset Lamp Run Time is displayed to reset "Lamp Hour".

Suivez la procédure ci-dessus dans l'ordre inverse pour installer le module de lampe neuf.
Ensuite, procédez comme suit pour réinitialiser "Heures de lampe" (Vie de lampe).

1. Branchez le cordon d'alimentation dans une prise de courant et mettez l'appareil sous tension.
Remarque: Ne connectez aucun câble d'entrée sur le projecteur pendant la réinitialisation de "Heures de lampe" (Vie de lampe).
2. Appuyez sur la touche **POWER** de la télécommande.
3. Appuyez dans l'ordre sur **LEFT/RIGHT/FREEZE** sur la télécommande.
4. Appuyez sur la touche **ENTER** lorsque Reset Lamp Run Time s'affiche pour réinitialiser "Heures de lampe" (Vie de lampe).

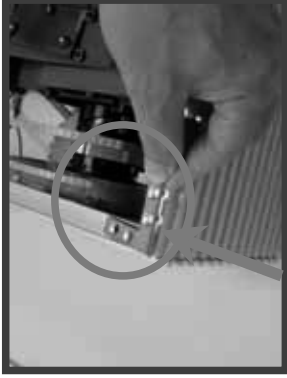
Para instalar el módulo de lámpara nuevo, realice los pasos anteriores en orden inverso.
A continuación, realice el siguiente procedimiento para restablecer la "Hora de lámpara".

1. Conecte el cable de alimentación a una toma de corriente eléctrica y encienda el interruptor principal.
Nota: Mientras restablece la "Hora de lámpara", no conecte ningún cable de entrada al proyector.
2. Pulse el botón **POWER** en el mando a distancia.
3. Pulse **LEFT/RIGHT/FREEZE** en este orden en el mando a distancia.
4. Pulse el botón **ENTER** cuando aparezca Reset Lamp Run Time para restablecer la "Hora de lámpara".

Step 3--Remove the Corner bracket & I/O board Panel



1-Screw off 12 screws of the corner bracket.



2-Take out 4 pcs of the corner bracket.

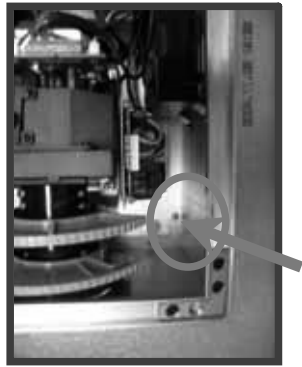


3-Screw off 6 hexagonal screws of the I/O board Panel. (MAIN PWB)



4-Screw off 5 screws of the I/O board Panel. (RCA PWB)

Step 4--Remove the Right & Rear Panel and Cable



1.-Screw off 1 screw of right panel.



2.-Disconnect 3 cables.



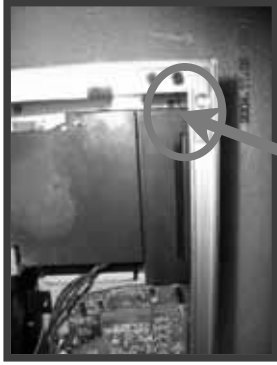
3.-Disconnect 1 cable from right panel.



4.-Screw off 1 screw of the panel.



5.-Screw off 1 screw of rear panel.



6.-Screw off 1 screw of rear panel.



7.-Disconnect 4 cables from rear panel.

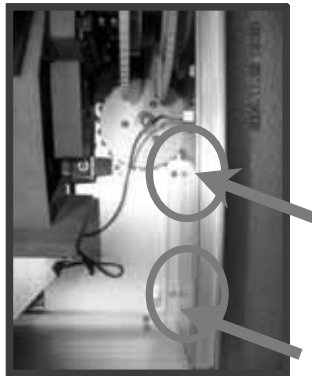
Step 5--Remove the Left & Front Panel and cable



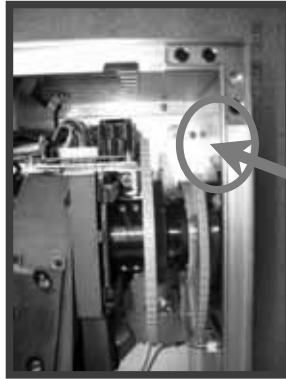
1-Screw off 1 screw of the Left Panel.



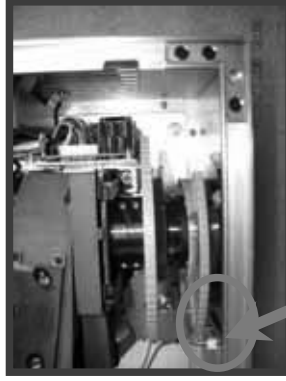
2-Screw off 2 screws of the Left Panel.



3-Screw off 2 screws of the Front Panel.



4-Screw off 1 screw of the Front Panel.



5-Disconnect the 1 cable of the Front Panel.

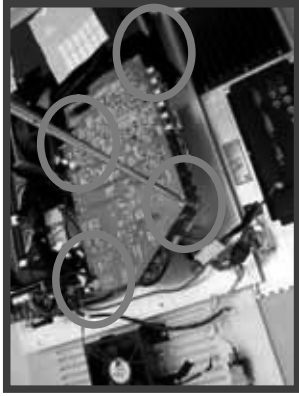
Step 6--Remove the RCA PWB & Main PWB & Bracket



1-Screw off 2 ground wires from the RCA PWB.



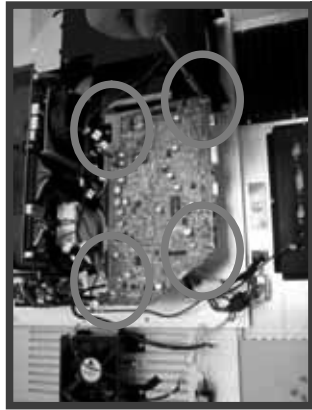
2-Disconnect 7 cables from RCA PWB.



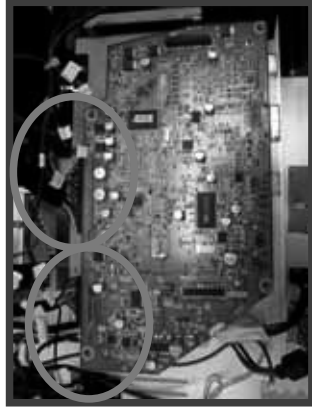
3-Screw off 4 screws of the RCA PWB.



4-Pull up the RCA PWB vertically.



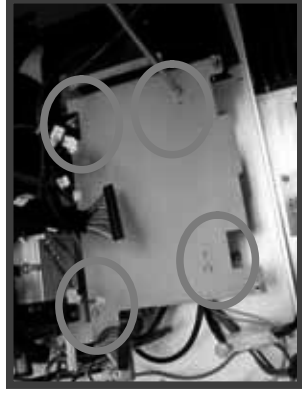
5-Screw off 4 pcs hexagonal stand off screws of the RCA PWB.



6-Disconnect 2 cables of the Main PWB.

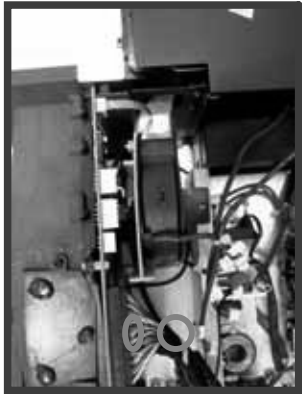


7-Disconnect 1 cable of the Main PWB.

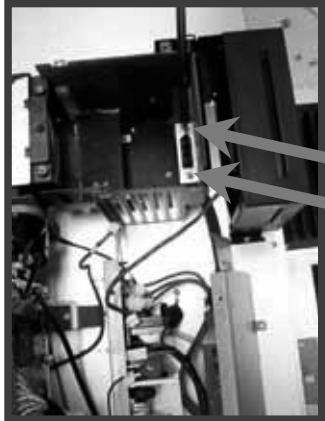


8-Screw off 4 screws of the Main PWB bracket.

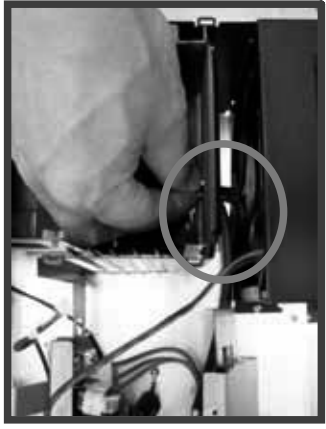
Step 7-- Remove the Lamp housing & Ballast PWB



1.-Screw off 2 screws of fan.



2.-Screw off 2 screws of the lamp connector bracket.



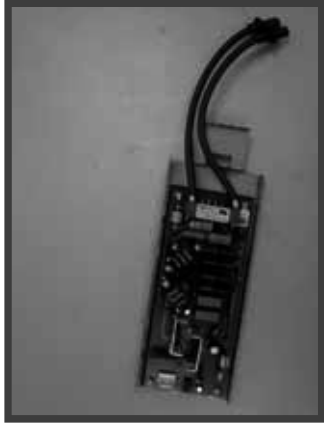
3.-Pull out the power board wire connector.



4.-Screw off 2 screws of Ballast module (PWB).

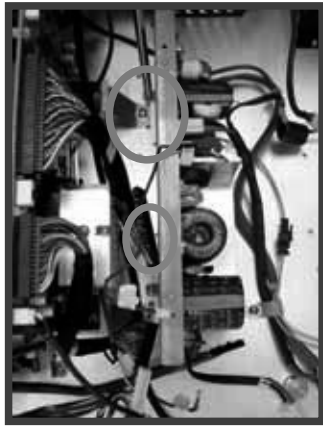


5-Remove 2 wires of Ballast module (PWB).



6-The view of the Ballast module (PWB).

Step 8--Remove the Power PWB & Fan



1.-Screw off 2 screws of Power PWB.



2.-Remove 4 wires of Power PWB.



3.-The view of the Power PWB.



4.-Screw off 1 screw of fan
On the left side.

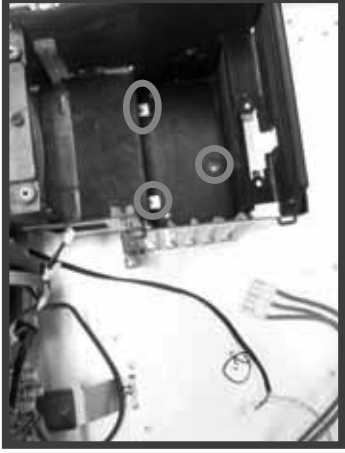


5.-Screw off 2 screws of fan
On the right side.

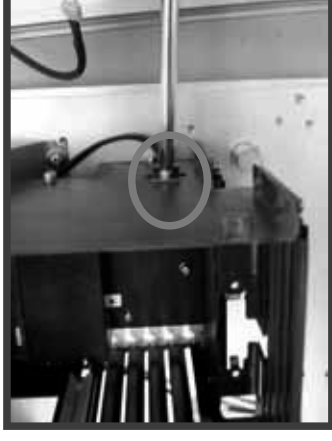
Step 9--Remove the LVPS board and Optical engine



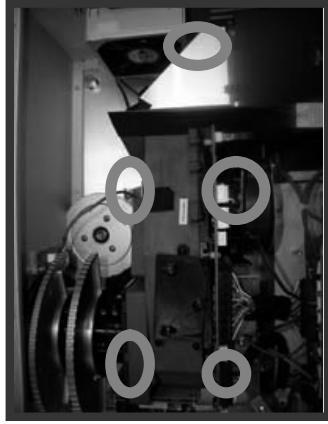
1.-Screw off 2 screws of LVPS PWB.



2.-Screw off 3 screws of Lamp housing inside.



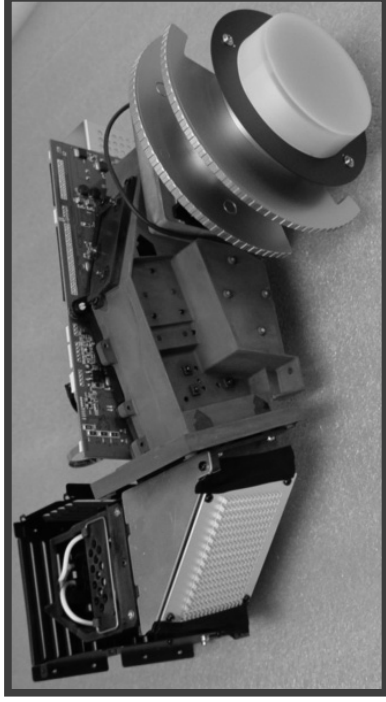
3.-Screw off lamp thermal wire with 1 screw outside the lamp module.



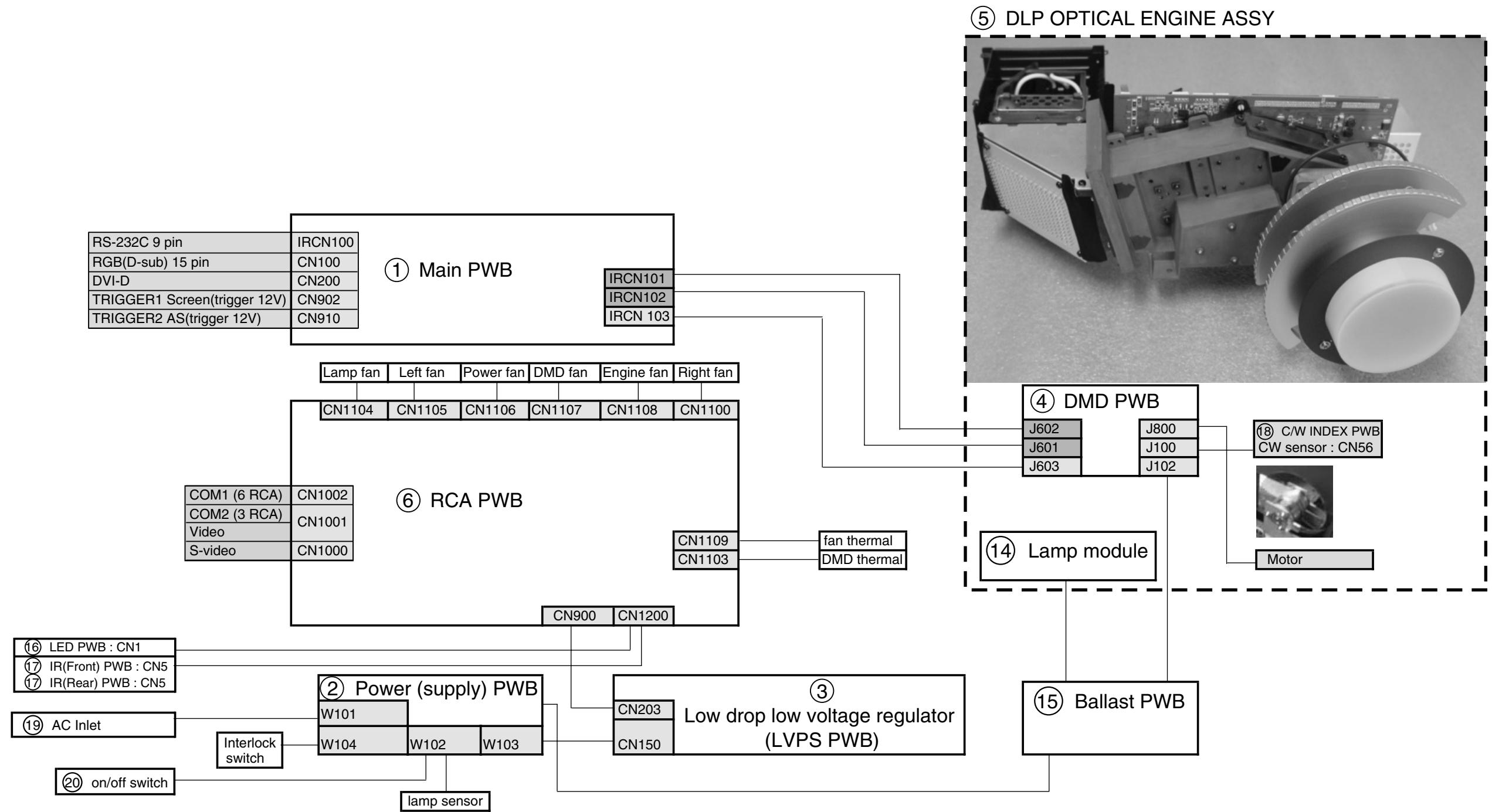
4.-Screw off 5 screws of optical engine.



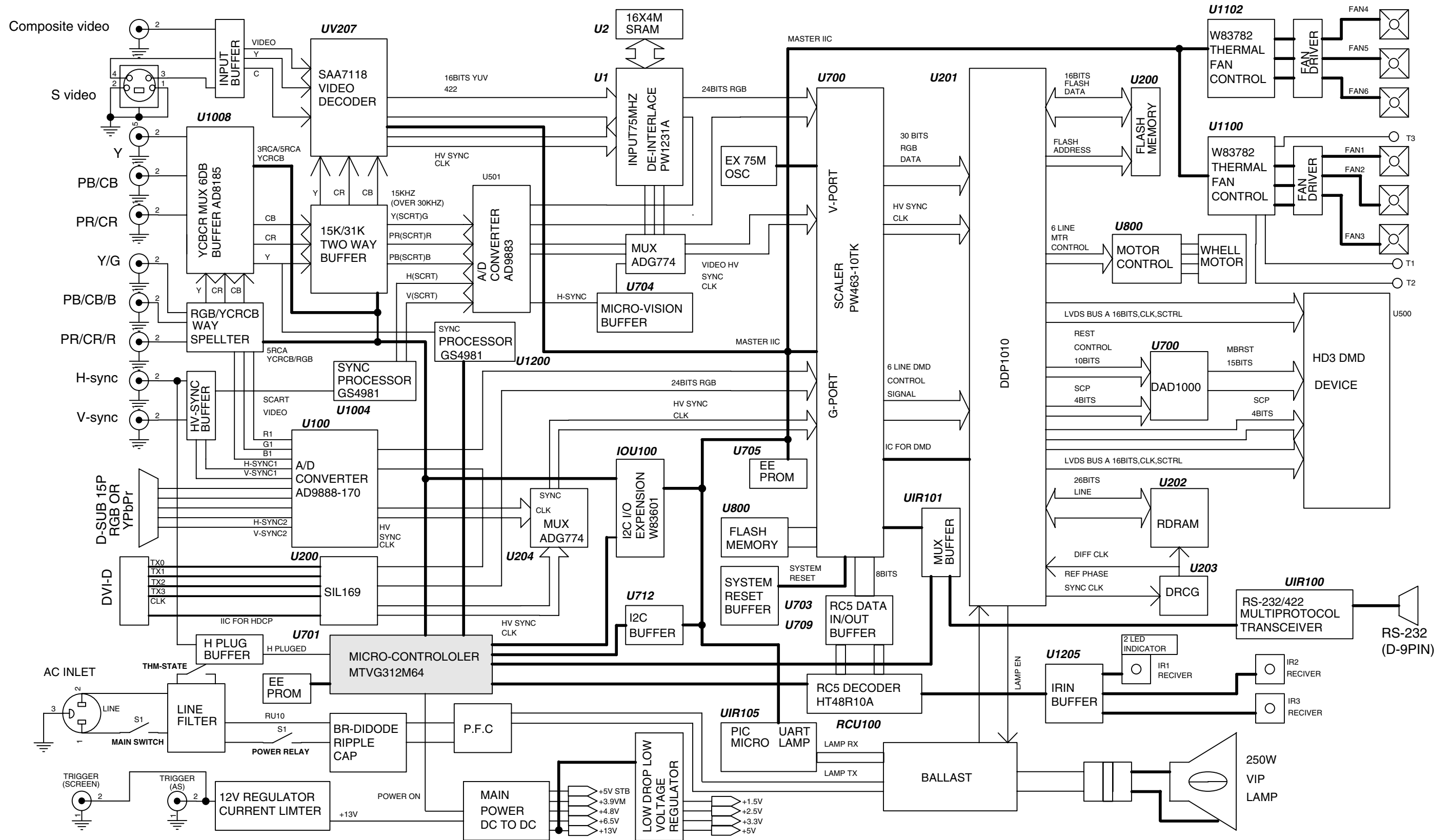
5.-The view of the optical engine.



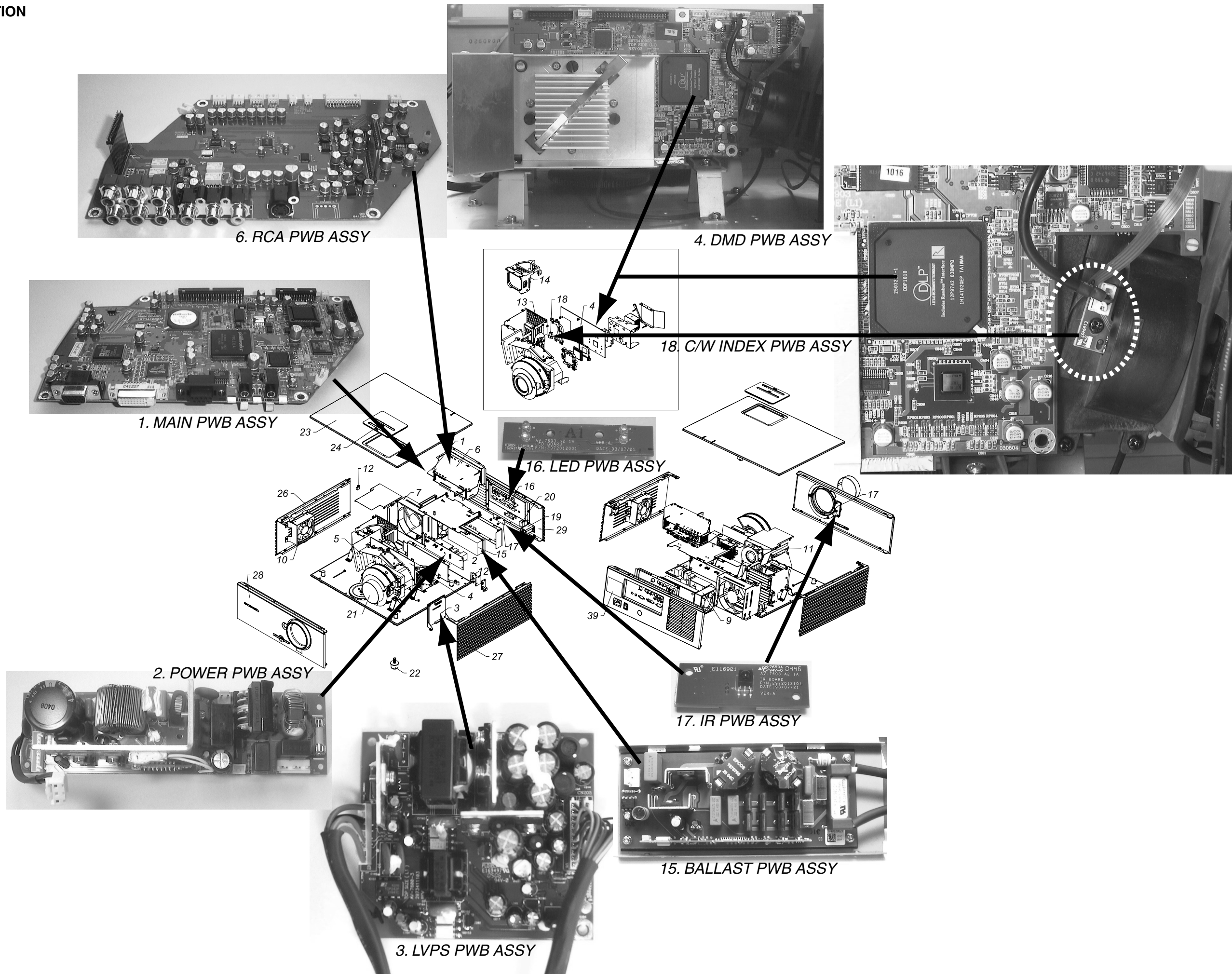
4. WIRING DIAGRAM



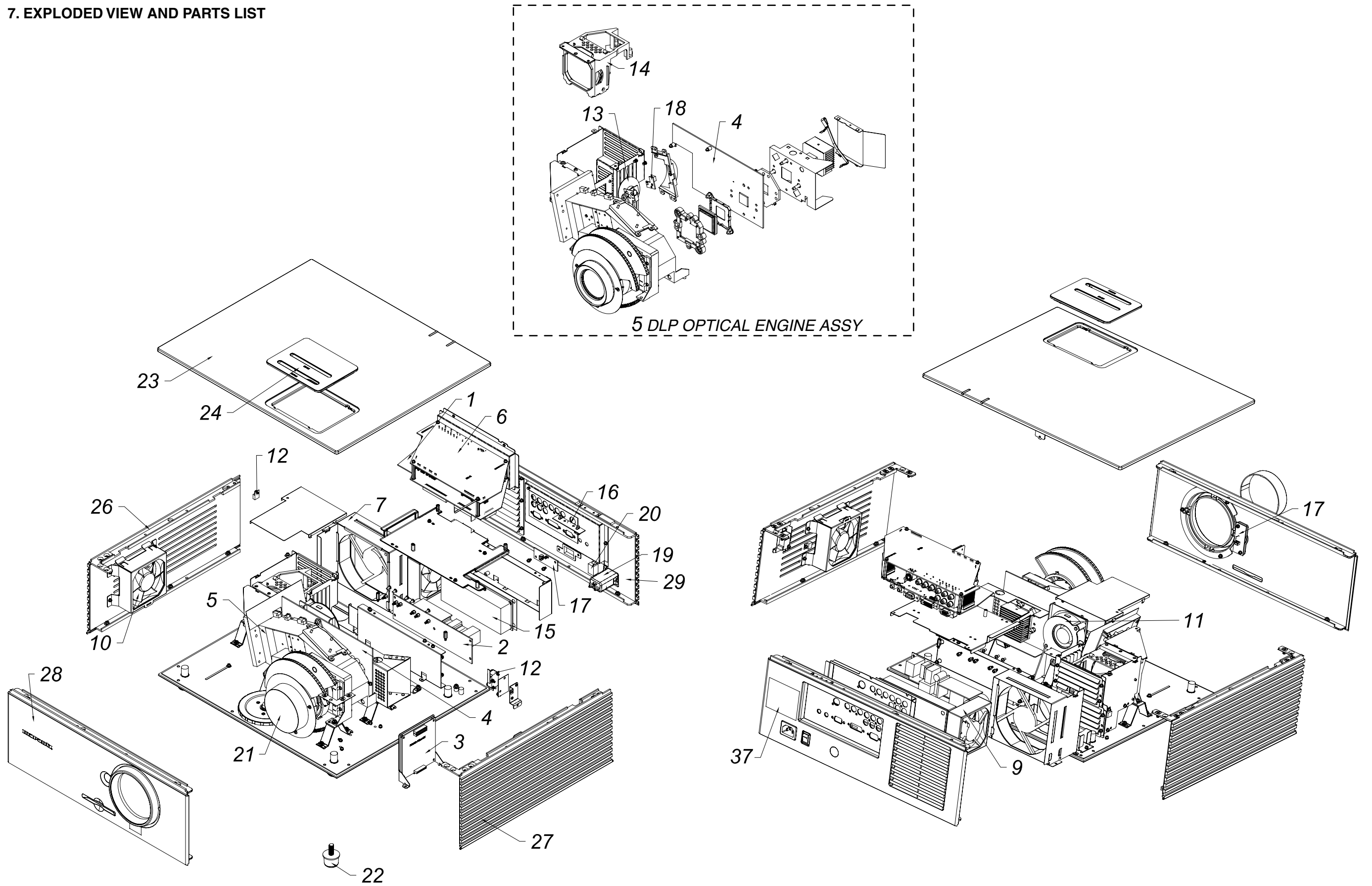
5. BLOCK DIAGRAM

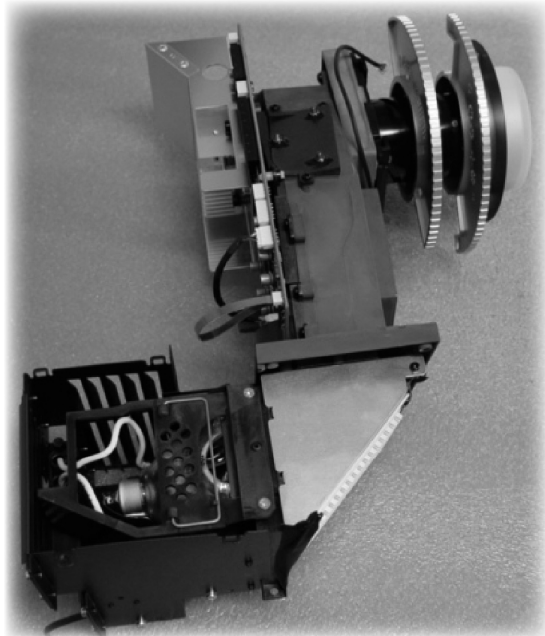


6. PWB LOCATION

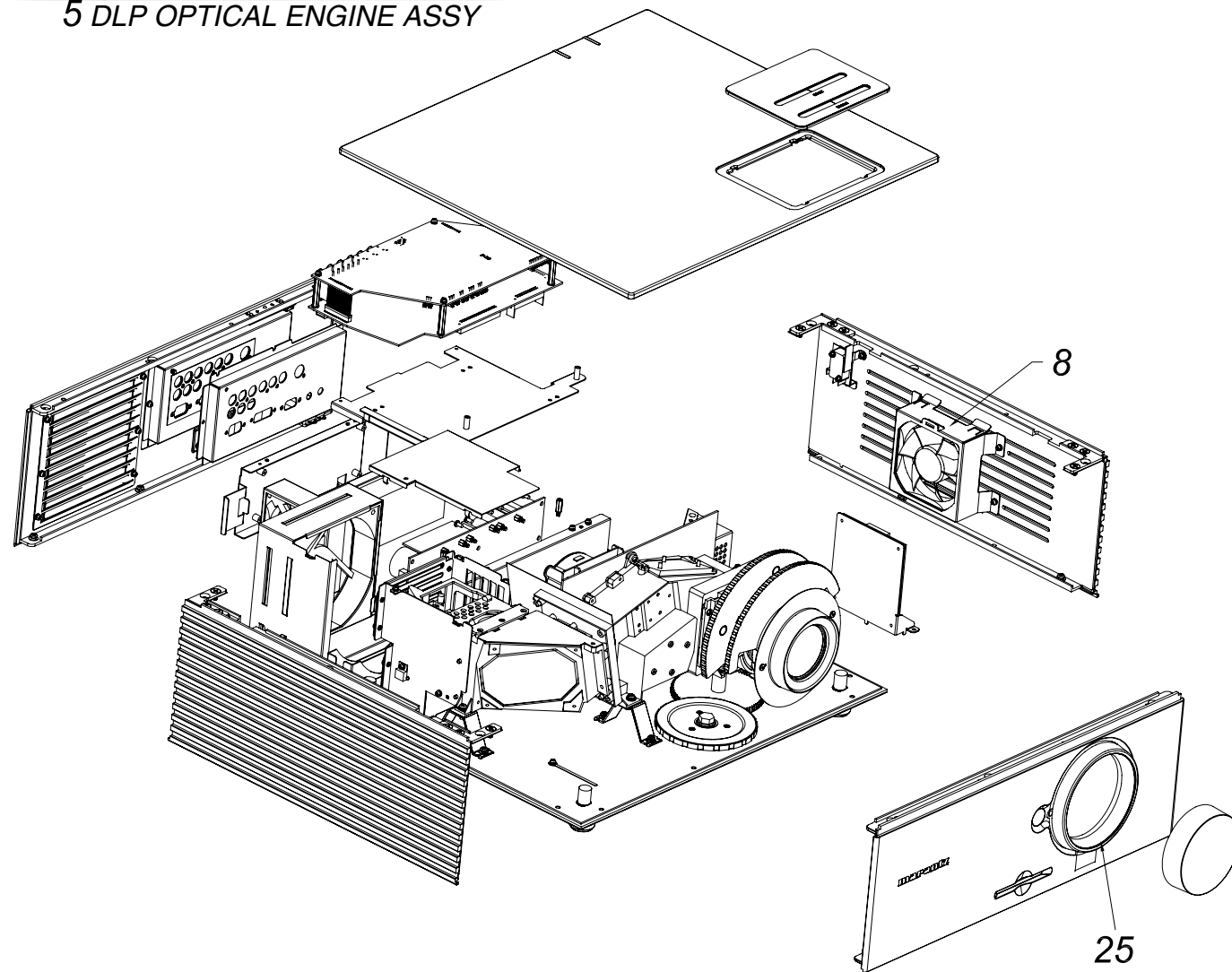


7. EXPLODED VIEW AND PARTS LIST





5 DLP OPTICAL ENGINE ASSY



POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION	
1	F S		90M-ZZ003380R	PWB ASSY	MAIN PWB ASSY-JP	5600200495-S2
1	/U1S		90M-ZZ003240R	PWB ASSY	MAIN PWB ASSY-WW	5600200495-S1
2			90M-ZZ003250R	PWB ASSY	POWER PWB ASSY	5600204251-S
3			90M-ZZ003260R	PWB ASSY	LVPS PWB ASSY	5600204235-S
4			90M-ZZ003390R	PWB ASSY	DMD PWB ASSY	5600204145-S
5	F S		90M-ZK000550R	UNIT KIT	DLP OPTICAL ENGINE ASSY (NITTO)	3797326100-S
5	/U1S		90M-ZK000580R	UNIT KIT	DLP OPTICAL ENGINE ASSY (MINOLTA)	3797326200-S
6			90M-ZZ003270R	PWB ASSY	RCA PWB ASSY	5600204140-S
7			90M-MM001350R	MOTOR	DC FAN ASSY AFB1212L-F00(150/100) 12CM	3620009411
8			90M-MM001310R	MOTOR	DC FAN ASSY TYF300-J31(110/90)7.65	3620828211
9			90M-MM001330R	MOTOR	DC FAN ASSY AFB0812L-F00(170/155) 8CM (B)	3620829011
10			90M-MM001320R	MOTOR	DC FAN ASSY AFB0812L-F00(170/155) 8CM (B)	3620830611
11			90M-MM001340R	MOTOR	DC FAN ASSY AFB0812L-R00(370/355)	3620791211
12			nsp	SW	CABLE SW+THERMOSTAT 1430#24 L550 2P	3790920000
13			90M-ZK000590R	UNIT KIT	PLATE CW OD50 6-SEG FD	3250700680
14			90M-ZK000560R	UNIT KIT	LAMP HOUSING ASSY	3797058300-S1
15			90M-ZZ003280R	PWB ASSY	BALLAST PWB ASSY 250W 170MM PULSE FFO	0990073300-S
16			90M-ZZ003290R	PWB ASSY	LED PWB ASSY AV-7603 A2 1A/LED	5600100144
17			90M-ZZ003300R	PWB ASSY	IR PWB ASSY AV-7603 A2 1A/IR	5600100145
18			90M-ZZ003400R	PWB ASSY	C/W INDEX PWB ASSY	5600200072-S
▲			90M-YT004730R	TERMINAL	MAINS SOCKET ASSY	2909010701
▲			90M-SC000710R	SW	MAINS SWITCH	3790920100
21			90M20AW067010	COVER	COVER RUBBER OD84 ID81 H23	324150850X
22			90M20AW057010	LEG	RUBBER FOOT BLACK	347020450X
23			90M20AW257510	LID	SILVER COVER AL5052 TOP	345523580X
24			90M20AW053010	COVER	SILVER TOP GUIDE	339014590X
25			90M20AW353010	RING	SILVER FRONT LENS PC+ABS 94V0 BLK	339503330X
26			90M20AW249510	PANEL	SILVER COVER AL6063 LEFT VP8600	3455236100
27			90M20AW249520	PANEL	SILVER COVER AL6063 RIGHT VP8600	3455236200
28			90M20AW248510	PANEL	SILVER COVER AL6063 FRONT VP8600	3455235900
29			90M20AW250510	PANEL	SILVER COVER AL6063 REAR VP8600	3455236000
F101			90M-FS001320R	FUSE	FUSE T5AH 250V	
PACKING						
▲	33/U1S		90M-ZC000490R	MAINS CORD	MAINS CORD L2500 BLK USA	309013320X
▲	34 F S		90M-ZC000500R	MAINS CORD	MAINS CORD JAPAN L=180CM	309013280X
36	F S		00M20AV851110	USER GUIDE	USER GUIDE JP VP8600	501003160X
36	/U1S		00M20AV851250	USER GUIDE	USER GUIDE WW VP8600	501003200X
38			00MZK20AV0010	UNIT KIT	REMOTE CONTROLLER RC8600VP	
NOT STANDARD SPARE PART						
30			00M20AV801010	PACKING CASE	CARTON 561*551*293	351229170X
31			90M20AW809020	CUSHION	END BLOCK TOP 555*480*120	350013480X
32			90M20AW809010	CUSHION	END BLOCK BOTTOM 535*495*100	350014310X
35			90M-ZY000100R	CONN.	CONN ADP TV PLUG DVI MALE/HDMI FEMALE	3072284633
37	F S		nsp	LABEL	LABEL MODEL NAME JAPAN	320281500X
37	/U1S		nsp	LABEL	LABEL MODEL NAME WW	320281460X

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

PACKING

