Photogenic®
professional lighting

Operator's Manual
For PL2 Series Professional Monolights

PowerLights

PL1250, PL625DR, PL1250DR, PL2500DR

Radio-Sync PowerLights

PLR625DR, PLR1250DR, PLR2500DR

Solair Constant Color PowerLights

PL500DR, PL1000DR

Solair Radio-Sync Constant Color PowerLights

PLR500DR, PLR1000DR

Voltage Smart PowerLights & Solair PowerLights

PLX1250DR, PLX2500DR, PLRX1250DR, PLRX2500DR,
PLX500DR, PLX1000DR, PLRX500DR, PLRX1000DR

Remote Control Systems

Infrared Manual System, Infrared Computer Controlled System,
Wired Manual System, Wired Computer Controlled System

p/n 999525 v.02/11

Thank you for selecting the Photogenic Professional PowerLight PL2 series. The PL2 series incorporates the newest electronic components providing improved lighting control, power setting repeatability and expanded functions. These products are designed to meet the demanding needs of professional photographers, and it is our expectation that your PowerLight and PowerLight accessories will provide you with years of dependable service.

INTRODUCTION

Each Photogenic PowerLight is a self-contained monolight with a built-in power supply and light unit. All PowerLights feature a user changeable plug-in flashtube, and 250 watt modeling lamp. The PowerLights will accept all Photogenic Quick Change Accessories. Photogenic PowerLights that have the letter "C" in the model number are equipped with a color corrected flash tube (example: PL1250DRC).

PL1250 has sliding switches for controlling flash and modeling lamp output. The PL1250 is not compatible with the infrared power control systems.

DR series lights have push button power level controls and a digital display. Power levels for flash and modeling lamp can be adjusted in 1/10 or 1/2 f-stop increments.

Solair brand Constant Color series will maintain a constant color temperature of 5400K ± 100K over an eight f-stop power range.

PLR series lights include a built-in PocketWizard™ radio receiver for wireless triggering with a PocketWizard™ transmitter (not included).

PLX and PLRX models will operate on any worldwide voltages and frequencies.

Photogenic Remote Control Systems can be used on all PL2 series PowerLights and Solair lights except for the PL1250.

Before using your new PowerLight for the first time, please read this manual carefully to acquaint yourself with the controls and features. This will help you get the greatest benefit from your new Photogenic monolight and maintain an efficient and safe operation.

SAFETY PRECAUTIONS

Despite the measures that have been taken to make electronic flash equipment safe, it must be recognized that high voltages and high temperatures do exist within the power supply/lighting unit. Certain precautions must be observed in handling the unit. Contact with internal high voltage may result in severe injury or death.

1. Before installing or removing the flashtube and modeling lamp, be sure this appliance is turned off, cooled and unplugged from AC power source.
2. Do not touch the glass tubes with bare hands, as normal body oils will shorten the bulb's life. Always use a clean cloth or wear gloves to protect your hand from glass breakage and heat.
3. Do not defeat the purpose to the three-wire cord by disconnecting the ground. Connect to properly functioning and grounded 3-pin receptacles only. If you are using an extension cord, be sure the cord has an equivalent or greater rating and has a ground.
4. Do not insert a screwdriver or other metal objects into the flashtube socket area or vents. Contact with high voltage may result.
5. Do not operate this appliance with a frayed or damaged line cord. When replacing or using the unit with an extension cable, be sure the cable has an equivalent or greater rating and is a properly connected 3-wire grounded cable.
6. Do not attempt to use this appliance if it has been dropped or damaged, until a qualified service person has serviced it.
7. Do not operate the unit with a damaged or broken flashtube or modeling lamp. Do not use flashtubes with broken, cracked or missing glass envelopes. To prevent damage always use Photogenic specified replacements for the flashtubes and modeling lamps.
8. Perform no internal service work on this unit. Refer all out of warranty to a factory authorized service agent or return to factory. If the monolight is under warranty, return it to the factory only. This will assure the continuation of the warranty.
9. Do not operate when water is present and from extreme temperature shifts. If the unit is stored in hot or below freezing temperatures, allow at least one hour at room temperature before using.

PREPARATION AND BASICS

What's in The Box?

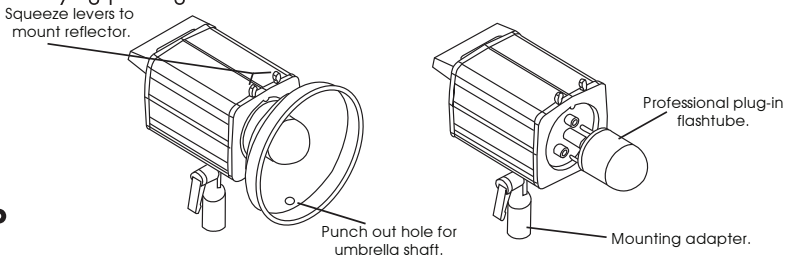
Each PowerLight comes complete with the following items:

1 - PowerLight Monolight
1 - Flash tube
1 - Modeling lamp
1 - 7 1/2" Reflector with umbrella knockout
1 - Warranty Card
1 - Power cord
1 - Sync cord
1 - Flash tube protector
1 - Owner's Manual

Unpacking

Unpack all items carefully from the carton(s). Do not discard or destroy the packing material until the equipment has been inspected, assembled, and all parts are accounted for.

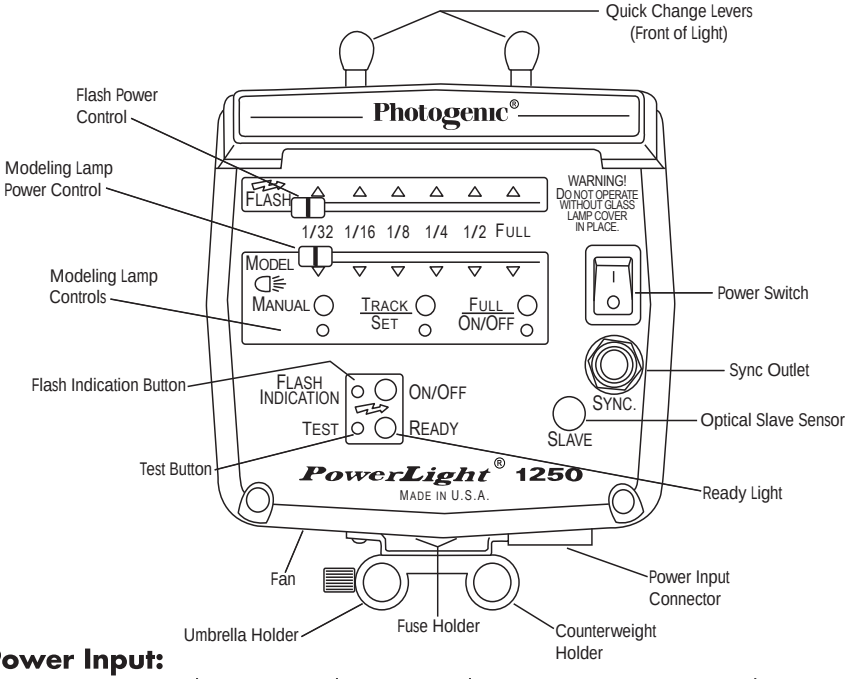
After unpacking, all parts should be examined for any damage, which may have been caused by rough handling during shipment, If any damage is detected, contact the delivering carrier at once. Claim for damage should be made to the delivering carrier before destroying packing cartons.



Setup

1. Set up a suitable light stand with a 5/8" top post. Place the stand mounting adapter of the PowerLight on top of the stand, and secure it with the thumb screw provided.
   All Photogenic PowerLights are designed to be mounted right side up. Mounting the lights upside down can cause premature capacitor failure. When mounting the lights overhead or on a rail system, use the appropriate mounting adapter, or contact the Photogenic repair department to have the mounting adapter mounted on top of the light.
2. Remove the flash tube protector. Squeeze the two quick change levers on top of the light. Pull the flash tube protector up and out to remove. Set aside.
3. Unpack the modeling lamp. Do not touch the glass with your fingers. Using a clean cloth or glove to protect your hands, insert the base of the modeling lamp all the way into the spring loaded center socket on the front of the light, and twist to the right to secure.
4. Unpack the three pronged flash tube. Using a clean cloth or glove, align the prongs with the three sockets on the front of the light. The prongs will fit in the sockets only one way. Push the flash tube until the prongs are firmly seated in the sockets and the base of the flash tube is in contact with the fronts of the sockets. When handling flash tubes and modeling lamps always use a clean cloth or glove to protect your hands from glass breakage or heat.
5. On a hard surface, place the 7 1/2" reflector on its side with the oval knockout at the bottom of the reflector. Use a screw driver or other metal tool to push the oval knockout out of the side of the reflector. This oval opening allows an umbrella shaft to pass through the reflector and be connected to the umbrella holder on the bottom of the monolight.
6. Attach the reflector. Squeeze the quick change levers on top of the light. Place the top of the reflector mounting ring under the black tab above the flash tube. Push the bottom of the mounting ring in place and release the quick change levers.
7. Make certain the power switch is in the OFF position.
8. Attach the power cord to the power input on the bottom of the light. Connect the power cord plug to a grounded 105 - 125 VAC (90 to 250 VAC for PLX PowerLights) wall outlet. Turn the power switch ON. The ready light will light when the unit has charged to the power level set by the flash power control.
9. Note: The additonal weight of large softboxes may cause the light stand to become unstable. The Photogeinc Adjustable CounterWeight (919148) is the ideal accessory to improve the balance and stability of the lighting system.

POWERLIGHT MODEL PL1250
CONTROL PANEL AND BASIC OPERATION



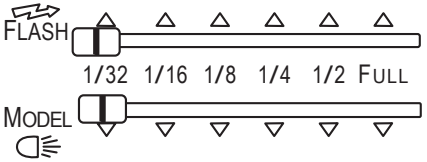
Power Input:
The power required to operate the PowerLight 1250 is 105 to 125 volts AC, 60 Hz, 10 Amp. The power cord has a 125V, 10 Amp. rating. Replacement cords or extension cords rated for less amperage may overheat and should not be used with PowerLights.

Circuit Protection:
Circuit protection automatically protects this appliance from excessive damage due to circuit or component failure. Operation exceeding the rated cycle of the appliance may cause the fuse to open. (Always replace with same rating of fuse.) An additional thermal protector is located inside the PowerLight and may open, if the rated duty cycle is exceeded. A cooling off period of 10 to 45 minutes is required to reset the thermal protector.

To replace a blown fuse (power cord must be disconnected), simply unscrew the fuse holder cap (bottom of unit) and replace the exposed fuse with a new fuse. If fuses continue to blow, contact your dealer or qualified service person. (See specification section for fuse replacements).

Power Switch:
The power switch controls the AC power to both the modeling and flash circuits. You have the option to turn-off the modeling circuit independently.

Flash Power:
All settings and controls of the PowerLight 1250 are extremely stable and repeatable due to the use of an internal microcomputer. The PowerLight 1250 is adjustable from 16 watt seconds to 500 watt seconds.



To adjust the PowerLight 1250 to its lowest flash power setting (16 watt seconds), slide the *FLASH* control knob all the way to the left.

To adjust the PowerLight 1250 to its greatest flash power setting (500 watt seconds), slide the *FLASH* control knob all the way to the right.

Intermediate power settings are continuously variable from lowest power to highest power.

To adjust the PowerLight 1250 to an exact flash power setting, use the accessory digital display, PLDD-1 (919177).

Ready Light:
The PowerLight 1250 is fully charged when the *READY* lamp is on. Lowest power (16 ws) charge time is a maximum of **.5** seconds and at full power (500 ws) time is a maximum of **1.5** seconds. The unit may be flashed before fully charged.

Modeling Light:
The modeling light has three modes of operation:

1. *MANUAL* adjustment (press the *MANUAL* button. LED on) adjusts the modeling lamp intensity with the *MODEL* slide control knob. As with flash power, minimum setting is full left and maximum setting is full right. The *MODEL* intensity scale corresponds to the *FLASH* intensity scale, measures in f-stops.

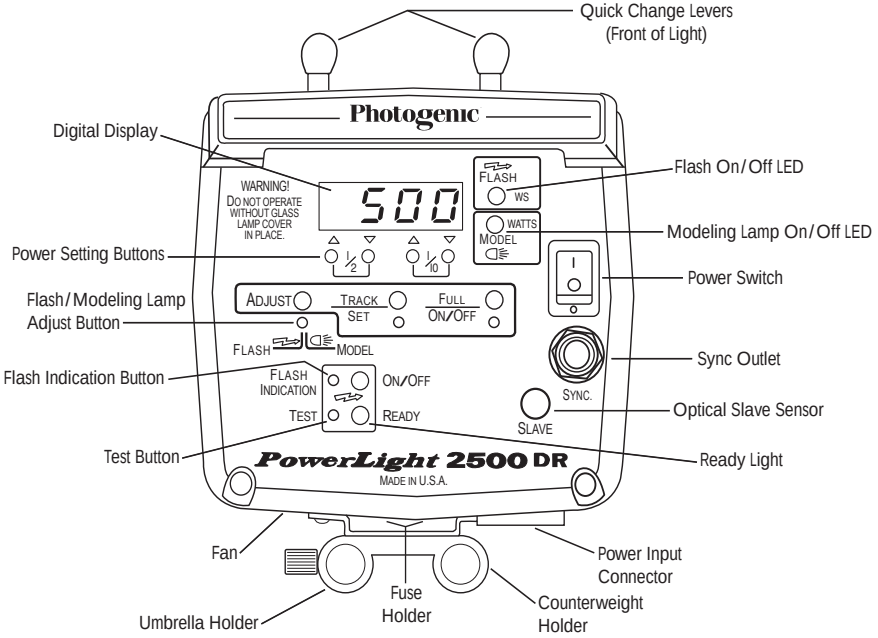
2. *TRACK* mode causes the modeling lamp intensity to track the *FLASH* setting. The modeling lamp may be set to full intensity at any *FLASH* setting, by simply pressing the *TRACK/SET* button a second time, (you will notice the *TRACK/SET LED* light blink once) with the FLASH control knob in the desired position. Setting is retained when user returns from another mode.

3. *FULL ON/OFF*. Press the *FULL ON/OFF* button to turn the modeling lamp OFF (LED off) or ON (LED on) at full power.

All mode settings are retained, even after the power has been turned off.

TEST BUTTON:
Press the test button to trigger the flash tube for test purposes.

POWERLIGHT MODELS PL625DR, PLR625DR, PL1250DR, PLR1250DR, PLX1250DR, PLRX1250DR, PL2500DR, PLR2500DR, PLX2500DR and PLRX2500DR
CONTROL PANEL AND BASIC OPERATION



Power Input:
All PL and PLR model PowerLights will operate on 105 to 125 volts AC, 60 Hz, 10 amps. All PLX and PLRX Voltage Smart PowerLights will operate on 90 to 250 volts AC, 50 to 60 HZ, 3.5 amps and have a 230 volt power cord with a German/ European plug. Replacement cords or extension cord rated for less amperage may over heat, and should not be used with the above lights.

Flash Power:
Press the *Adjust* button to turn on the Flash ws digital display. Adjust the DR PowerLight *Flash* power setting using the **1/2** or **1/10** f-stops UP/DOWN arrow buttons.

Ready Light:
The DR PowerLights are fully charged when the READY lamp is on. For 1000 ws PowerLights the lowest power charge time is a maximum of **.8** seconds, and at full power charge time is a maximum of **3** seconds. For 500 ws PowerLights, the lowest power charge time is a maximum of **.5** seconds, and at full power the charge time is a maximum of **1.5** seconds. The unit may be flashed before fully charged.

Modeling Light:
The modeling light has three modes of operation:

1. *MANUAL* Press the ADJUST button to turn the MODEL yellow LED on. Adjust the modeling lamp intensity using the **1/2** or **1/10** f-stops UP/DOWN arrow buttons. Pressing the MANUAL button a second time will change the mode to flash adjustment and is indicated by the illuminated red LED.

2. TRACK mode causes the modeling lamp intensity to track the FLASH setting. The modeling lamp may be set to full intensity at any FLASH value, by simply pressing the TRACK/SET button a second time, with the FLASH already set to desired watt-seconds. Setting is retained when user returns from another mode.

3. FULL ON/OFF. Press the FULL ON/OFF button to turn the modeling lamp OFF (LED off) or ON (LED on) at full power.

All mode settings are retained, even after power has been turned off.

Test Function:
Press the *TEST* button to fire the flash tube for test purposes.

Flash Indication:
This function indicates the flash has fired properly. The flash indication feature will dim the modeling light to its lowest setting, then intensify slowly to full brightness or to its original state. This will occur after each flash, even though the modeling light may be off. This feature is turned ON (LED on) or OFF (LED off) with the *FLASH INDICATION* button.

Automatic Flash Dump:
This feature will automatically flash the unit when the FLASH setting is lowered; otherwise, the internally stored power is discharged through a resistor, before the unit is READY. Flash Dump is faster. This feature can be turned on or off, by the user.

Turn FLASH DUMP on: Turn PowerLight AC power off. With unit power off, press and hold the FULL ON/OFF button. While holding the FULL ON/OFF button, turn the unit ON and wait until the FULL ON/OFF LED blinks. Release the FULL ON/OFF button.

Turn FLASH DUMP off: Turn PowerLight AC power off. With unit power off, press and hold the MANUAL button. While holding the MANUAL button, turn the unit power on and wait until the MANUAL LED blinks. Next release the MANUAL button and the MANUAL LED will go off.

Also, each time the AC line power is disconnected or switched off, the flashtube will flash. This removes most of the flash capacitor charge to prolong the life of the unit and is a much safer condition for storage, transporting, and replacement of

flash tube or modeling lamp. This is a feature, over which the user has no control.

Synchronization and Triggering:

Triggering is accomplished by using a sync cord, built-in photoslave, infrared or radio triggering device. Other units in the system are then triggered by photoslave operation. When using a sync cord, it is best to connect the fill light directly to the camera since it will be positioned furthest back in the studio and will usually provide sufficient illumination to trigger the other units.

The sync voltage is 12 volts DC on units made before March 31, 2008. For cameras requiring a sync voltage of less than 12 volts, a sync voltage reduction device should be used. PowerLights made after March 31, 2008 have a sync voltage of 5 volts DC.

PocketWizard™ Use For All PLR Models:

All PLR model PowerLights and PLR Solair Lights have built-in PocketWizard™ radio triggering receivers. Before using the PocketWizard™ system, you must disable the sync outlet on all lights being triggered by radio. Otherwise, the optical slaves in the lights will remain active and can inadvertently trigger the lights.

Disable the sync outlet by inserting a 1/4" microphone plug or 1/4" dowel rod into the 1/4" sync outlet.

PocketWizard™ Setup:

1. Turn on the PocketWizard™ transmitter, and set the "local, both, remote" switch to either both or remote.

2. Select a channel on the transmitter.

3. Hold the test button on the transmitter down and turn the PowerLight on. Continue to hold the test button down for 6 seconds in order for the built-in receiver to recognize the transmitted frequency. Connect the transmitter to the camera to trigger the lights when the shutter is released. Set your camera to "manual" Turn off the camera's TTL infrared exposure meter to prevent premature flashing. Follow the PocketWizard™ instructions for proper operating procedures and connection to the camera.

OPERATIONAL PARAMETERS
PL1250, PL1250DR, PLX1250DR, PLR1250DR and PLXR1250DR

Flashing Rate:
The unit recharges quickly, as indicated by the READY light on the control panel. A quick series of flashes can be obtained within the limits of the recharge time. Continuous rapid flashing, however, can overheat and damage the flashtube and internal parts. The maximum recommended rate of flashing depends upon the power level being used and the amount of operation time. Use the following chart to serve as a guide for the maximum rate to use in your situation.

Power Level	Operating Time	Sec. Between Flashes	Number of Flashes
Full	Continuous	15	Continuous
	30 minutes	6	300
	3 minutes	4	45
1/4	Continuous	6	Continuous
	30 minutes	3	600
	3 minutes	2	90
1/32	Continuous	1.5	Continuous

Exposure Information:
The following charts give the BCPS output for various umbrellas and reflectors. Coverage angle is given in degrees.

Umbrella	32 inch	45 inch	60 inch
Coverage	**120 degree**	**120 degree**	**120 degree**
Full Power	5500	5583	5583
Half	2750	2792	2792
Quarter	1375	1396	1396
Eighth	688	698	698
Sixteenth	344	349	349
Thirty-Second	172	174	174

Reflector Diameter	**None**	**7 1/2″**	**16″**	**18″**	**24″**
Coverage	360°	35°	60°	126°	145°
Full	2333	25000	23333	3570	4200
Half	1167	12500	11667	1785	2100
Quarter	583	6250	5833	892	1050
Eighth	292	3125	2916	446	525
Sixteenth	146	1562	1458	223	262
Thrity-Second	73	781	729	112	131
GN@ ASA 100	**110**	**365**	**350**	**137**	**150**

SPECIFICATIONS
PL1250, PL625DR, PL1250DR, PLX1250DR, PLR625DR, PLR1250DR and PLXR1250DR

General:

Flash Power PL1250, PL1250DR and PLR1250DR ..... 16 to 500 watt-seconds
PL625DR ..... 7.8 to 250 watt-seconds

Flash Duration ..... 1/1300 second at full power
1/640 second at 1/32 power

Recycle Time ..... 0.5 to 1.5 seconds

Power Control ..... Range: Full to 1/32 power (6 f-stops).
0.1 f-stop resolution

Modeling Light Power ..... 250 watt Quartz, ESS

Modeling Light Control ..... Range: Full to 1/32 power (6 f-stops).
0.1 f-stop resolution.

Triggering ..... Sync. Jack (5 volts*). Push to test button.
Built-in Photo slave. Radio on PLR models.

Main Supply PL625DR, PL1250DR ..... 105 - 125 VAC, 60 Hz, 10 amps.
Main Supply PLX1250DR ..... 230 V, 50 Hz, 10 amps.

Consumption ..... 0.2 amps idling, 15 amps charging.

Voltage Stabilization ..... ± 0.05 f-stop.

Overload Protection ..... Fuse. 3 AG type 15 amp, SLO-BLO.

Housing ..... Extruded Aluminum.

Weight PL625DR ..... 4 lbs. 10 oz.
Weight PL1250DR ..... 5 lbs. 8 oz.
Weight PLX1250DR ..... 6 lbs.

Dimensions PL625DR, PL1250DR ..... 4.5″ x 4.5″ x 6.75″
Dimensions PLX1250DR ..... 4.5″ x 4.5″ x 8.75″

Flash Tubes and Modeling Lamps:

Flash Tube ..... Plug-in style. Use only Photogenic C4-15, C4-15C (color corrected), C4-15F (frosted) and C4-15D (frosted and color corrected)

Modeling Lamp ..... 250 watt quartz halogen, ESS.
150 watt quartz halogen, ESP.
100 watt quartz halogen, ESR.

Fuse PL300DR, PL1250DR ..... 3AG type, 15 amp, SLO-BLO
Fuse PLX1250DR ..... 5mm x 20mm, 8 amp, SLO-BLO

* Trigger Voltage = 12 volts on units purchased before JUNE, 2008

OPERATIONAL PARAMETERS
PL2500DR, PLR2500DR, PLX2500DR and PLXR2500DR

Flashing Rate:
The unit recharges quickly, as indicated by the READY light on the control panel. A quick series of flashes can be obtained within the limits of the recharge time. Continuous rapid flashing, however, can overheat and damage the flashtube and internal parts. The maximum recommended rate of flashing depends upon the power level being used and the amount of operation time. Use the following chart to serve as a guide for the maximum rate to use in your situation.

Power Level	Operating Time	Sec. Between Flashes	Number of Flashes
Full	Continuous	15	Continuous
	30 minutes	10	180
	3 minutes	6	30
1/4	Continuous	6	Continuous
	30 minutes	3	600
	3 minutes	3	60
1/32	Continuous	3	Continuous

Exposure Information:
The following charts give the BCPS output for various umbrellas and reflectors. Coverage angle is given in degrees.

Umbrella	32 inch	45 inch	60 inch
Coverage	**120 degree**	**120 degree**	**120 degree**
Full Power	11000	11166	11166
Half	5500	5583	5583
Quarter	2750	2792	2792
Eighth	1375	1396	1396
Sixteenth	688	698	698
Thirty-Second	344	349	349

Reflector Diameter	**None**	**7 1/2″**	**16″**	**18″**	**24″**
Coverage	360°	35°	60°	126°	145°
Full	4666	50000	46666	7140	8400
Half	2333	25000	23333	3570	4200
Quarter	1167	12500	11667	1785	2100
Eighth	583	6250	5833	892	1050
Sixteenth	292	3125	2916	446	525
Thrity-Second	146	1562	1458	223	262
GN@ ASA 100	**160**	**515**	**495**	**194**	**210**

SPECIFICATIONS
PL2500DR, PLR2500DR, PLX2500DR and PLXR2500DR

General:

Flash Power ..... 32 to 1000 watt-seconds

Flash Duration ..... 1/770 second at full power
1/345 second at 1/32 power

Recycle Time ..... 0.8 to 3.0 seconds

Power Control ..... Range: Full to 1/32 power (6 f-stops).
0.1 f-stop resolution.

Modeling Light Power ..... 250 watt Quartz, ESS

Modeling Light Control ..... Range: Full to 1/32 power (6 f-stops). 0.1 f-stop resolution. Line voltage regulated.

Triggering ..... Sync. Jack (5 volts). Push to test button.
Built-in Photo slave. Radio on PLR models.

Main Supply PL2500DR .....105 - 125 VAC, 60 Hz, 10 amps.
Main Supply PLX2500DR ..... 230 V, 50 Hz, 10 amps.

Consumption PL2500DR ..... 0.2 amps idling, 15 amps charging.
Consumption PLX2500DR ..... 0.2 amps idling, 5 amps charging.

Voltage Stabilization ..... ± 0.05 f-stop.

Fuse PL2500DR ..... 3AG type15 amp, SLO-BLO.
Fuse PLX2500DR ..... 5mm X 20mm, 8amp, SLO-BLO.

Housing ..... Extruded Aluminum.

Weight PL2500DR, PLR2500DR .....7 lbs.
Weight PLX2500DR, PLXR2500DR ..... 7 lbs. 8 oz.

Dimensions PL2500DR, PLR2500DR .....4.5" x 4.5" x 8.75"
Dimensions PLX2500DR, PLXR2500DR ..... 4.5" x 4.5" x 11"

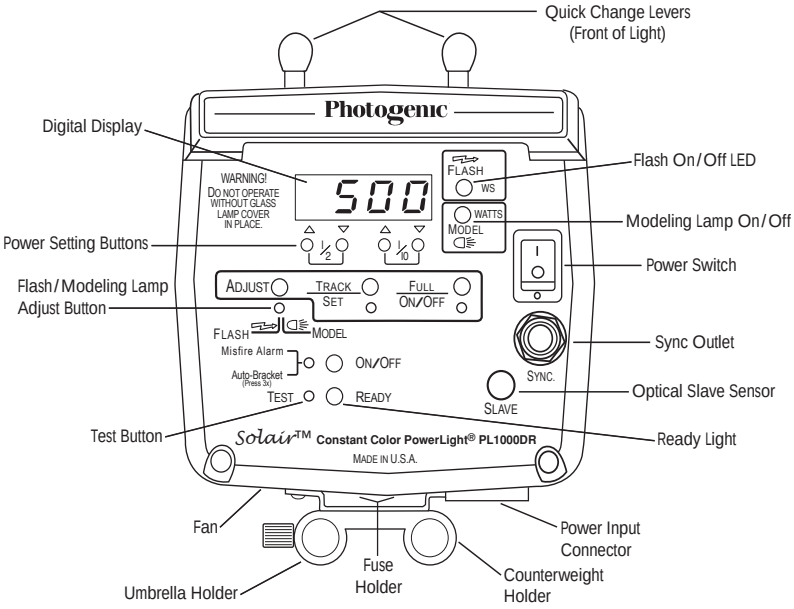
Flash Tubes and Modeling Lamps:

Flash Tube ..... Plug-in style. Use only Photogenic C4-19, C4-19C (color corrected), C4-19F (frosted) and C4-19D (frosted and color corrected)

Modeling Lamp ..... 250 watt quartz halogen, ESS.
150 watt quartz halogen, ESP.
100 watt quartz halogen, ESR.

* Trigger Voltage = 12 volts on units purchased before JUNE, 2008

SOLAIR POWERLIGHT MODELS PL500DRC, PLR500DRC, PLX500DRC, PLRX500DRC, PL1000DRC, PLR1000DRC, PLX1000DRC and PLRX1000DRC CONTROL PANEL AND BASIC OPERATION



Power Input:
All PL and PLR model PowerLights will operate on 105 to 125 volts AC, 60 Hz, 10 amps. All PLX and PLRX Voltage Smart PowerLights will operate on 90 to 250 volts AC, 50 to 60 HZ, 3.5 amps and have a 230 volt power cord with a German/ European plug. Replacement cords or extension cord rated for less amperage may over heat, and should not be used with the above lights.

Flash Power:
Press the *Adjust* button to turn on the Flash ws digital display. Adjust the DR PowerLight *Flash* power setting using the **1/2** or **1/10** f-stops UP/DOWN arrow buttons.

Ready Light:
The DR PowerLights are fully charged when the READY lamp is on. For 1000 ws PowerLights the lowest power charge time is a maximum of **.8** seconds, and at full power charge time is a maximum of **3** seconds. For 500 ws PowerLights, the lowest power charge time is a maximum of **.5** seconds, and at full power the charge time is a maximum of **1.5** seconds. The unit may be flashed before fully charged.

Modeling Light:
The modeling light has three modes of operation:

1. *MANUAL* (press the ADJUST button to turn the MODEL yellow LED on) adjusts the modeling lamp intensity using the **1/2** or **1/10** f-stops UP/DOWN arrow buttons. Pressing the MANUAL button a second time will change the mode to flash adjustment and is indicated by the illuminated red LED.

2. TRACK mode causes the modeling lamp intensity to track the FLASH setting. The modeling lamp may be set to full intensity at any FLASH value, by simply pressing the TRACK/SET button a second time, with the FLASH already set to desired watt-seconds. Setting is retained when user returns from another mode.

3. FULL ON/OFF. Press the FULL ON/OFF button to turn the modeling lamp OFF (LED off) or ON (LED on) at full power.

All mode settings are retained, even after power has been turned off.

Test Function:
Press the *TEST* button to fire the flash tube for test purposes.

Misfire Indication:
The display will show "- - - -" if there is a misfire. Press the test button to reset. Additionally, the Solair PowerLights are equipped with audible alarm if the flash has not fired properly. This audible feature can be turned ON (LED on) or OFF (LED off) with the *Misfire/Auto bracket* button. To activate or deactivate this alarm feature press this button once. If the yellow light next to the button is illuminated this feature is ON.

Flash Indication:
The PowerLight indicates the flash has fired properly. The flash indication feature will dim the modeling light to its lowest setting, then intensify slowly to full brightness or to its original state. This will occur after each flash, even though the modeling light may be off. This feature is turned ON (LED on) or OFF (LED off) with the *FLASH INDICATION* button.

Automatic Flash Dump:
This feature will automatically flash the unit when the FLASH setting is lowered; otherwise, the internally stored power is discharged through a resistor, before the unit is READY. Flash Dump is faster. This feature can be turned on or off, by the user.

Turn FLASH DUMP on: Turn PowerLight AC power off. With unit power off, press and hold the FULL ON/OFF button. While holding the FULL ON/OFF button, turn the unit ON and wait until the FULL ON/OFF LED blinks. Release the FULL ON/OFF button.

Turn FLASH DUMP off: Turn PowerLight AC power off. With unit power off, press and hold the MANUAL button. While holding the MANUAL button, turn the unit power on and wait until the MANUAL LED blinks. Next release the MANUAL button and the MANUAL LED will go off.

Also, each time the AC line power is disconnected or switched off, the flashtube will flash. This removes most of the flash capacitor charge to prolong the life of the unit and is a much safer condition for storage, transporting, and replacement of flash tube or modeling lamp. This feature, over which the user has no control.

Synchronization and Triggering:

Triggering is accomplished by using a sync cord, built-in photoslave, infrared or radio triggering device. Other units in the system are then triggered by photoslave operation. When using a sync cord, it is best to connect the fill light directly to the camera since it will be positioned furthest back in the studio and will usually provide sufficient illumination to trigger the other units.

The sync voltage is 12 volts DC on units made before March 31, 2008. For cameras requiring a sync voltage of less than 12 volts, a sync voltage reduction device should be used. PowerLights made after March 31, 2008 have a sync voltage of 5 volts DC.

PocketWizard™ Use For All PLR Models:

All PLR model PowerLights and PLR Solair Lights have built-in PocketWizard™ radio triggering receivers. Before using the PocketWizard™ system, you must disable the sync outlet on all lights being triggered by radio. Otherwise, the optical slaves in the lights will remain active and can inadvertently trigger the lights.

Disable the sync outlet by inserting a 1/4" microphone plug or 1/4" dowel rod into the 1/4" sync outlet.

PocketWizard™ Setup:

1. Turn on the PocketWizard™ transmitter, and set the "local, both, remote" switch to either both or remote.

2. Select a channel on the transmitter.

3. Hold the test button on the transmitter down and turn the PowerLight on. Continue to hold the test button down for 6 seconds in order for the built-in receiver to recognize the transmitted frequency. Connect the transmitter to the camera to trigger the lights when the shutter is released. Set your camera to "manual" Turn off the camera's TTL infrared exposure meter to prevent premature flashing. Follow the PocketWizard™ instructions for proper operating procedures and connection to the camera.

Photocell/Photo Slave:
The sensor is built-in and can be shut off by plugging in the sync cord.

Flash Power Bracketing:
Bracketing refers to taking up to three (3) exposures in a sequence with different flash intensities, either additional watt seconds or fewer watt seconds, from the displayed or selected "primary" base intensity. The Solair units enable you to set the base flash power and then one high and one low bracketing values. Once the setting(s) have been pre-set, a sequence of power levels will automatically occur as you take the exposures. If you wish to only bracket up from the primary, set a HIGH value and leave the LOW value at "0". If you wish to only bracket down from the primary, set the HIGH value at "0" and set a LOW value.

The 3-exposure bracketing sequence is:

1. Primary power setting.
2. Higher power pre-set.
3. Lower pre-set.

The 2-exposure bracketing sequence is:

1. Primary power setting.
2. Either Higher or Lower (skips the "0" settings)

To set or change the Auto-Bracketing settings:

1. Press the Auto-Bracketing button 3 times. This will cause the display to read "br", then H. .0
2. Press the small up or down (1/10) button to set the HIGH values. The values can be set at zero "0" to "1.5" f-stops above the primary power setting.
3. Press the large up (1/2) button once. This will cause the display to read "L. .0"
4. Press the small down or up (1/10) button to set the LOW value. The values can be set at zero "0" to "1.5" f-stops below the primary power setting.
5. Press the AUTO-BRACKET button to save these pre-sets.

To turn off the Auto-Bracketing settings:
Setting both the HIGH and the LOW values at zero "0" will turn off the Auto-Bracket feature.

Note: The auto-bracketing settings are retained and sequenced until the feature is manually turned off. If the primary power setting is changed the Auto-Bracketing feature will continue to sequence using the pre-set HIGH and LOW values from the new primary level.

(This bracketing feature is limited by the 8 f-stops of total watt seconds available in each model.)

OPERATIONAL PARAMETERS
Solair® PL500DR, PLR500DR, Voltage Smart™ PLX500DR & PLXR500DR

Flashing Rate:

The unit recharges quickly, as indicated by the READY light on the control panel. A quick series of flashes can be obtained within the limits of the recharge time. Continuous rapid flashing, however, can overheat and damage the flashtube and internal parts. The maximum recommended rate of flashing depends upon the power level being used and the amount of operation time. Use the following chart to serve as a guide for the maximum rate to use in your situation.

Power Level	Operating Time	Sec. Between Flashes	Number of Flashes
Full	Continuous	8.3	Continuous
	11 minutes	6	116
	4 minutes	4	60
1/2	Continuous	4	Continuous
	4 minutes	2	124
	1.4 minutes	1	85
1/4	Continuous	2	Continuous

Exposure Information:

The following charts give the BCPS output for various umbrellas and reflectors. Coverage angle is given in degrees.

Umbrella	32 inch	45 inch	60 inch
Coverage	**120 degree**	**120 degree**	**120 degree**
Full Power	5500	5583	5583
1/2	2750	2792	2792
1/4	1375	1396	1396
1/8	688	698	698
1/16	344	349	349
1/32	172	174	174
1/64	86	87	87
1/128	43	44	44

Reflector		**PL7R**	**PL16R**	**PL18R**	**PL24R**
Diameter	**None**	**7 1/2″**	**16″**	**18″**	**24″**
Coverage	360°	35°	60°	126°	145°
Full Power	2333	25000	23333	3750	4200
1/2	1167	12500	11667	1785	2100
1/4	583	6250	5833	892	1050
1/8	292	3125	2916	446	525
1/16	146	1562	1458	223	262
1/32	73	781	729	112	131
1/64	37	391	365	56	66
1/128	18	195	182	28	33
GN@ ASA 100/10′	**110**	**365**	**350**	**137**	**150**

SPECIFICATIONS
PL500DR, PLR500R, PLX500DR, PLXR500DR

General:

Flash Power ..... 3.9 to 500 watt-seconds

Flash Duration ..... 1/280 second at full power
1/5800 second at 1/128 power

Recycle Time ..... 0.5 to 1.5 seconds.

Power Control ..... Range: Full to 1/128 power (8 f-stops).
0.1 f-stop resolution.

Color Temperatures ..... < ± 50K from full to 1/32 power
< ± 100K from full 1/128 power

Modeling Light Power ..... 250 watt Quartz, ESS.

Modeling Light Control ..... Range: Full to 1/128 power (8 f-stops).
0.1 f-stop resolution. Line voltage regulated.

Triggering ..... Sync. Jack (5 volts *). Push to test button.
Built-in photo slave. Radio on PLR models.

Main Supply PL500DR ..... 105 - 125 VAC, 60 HZ, 10 amp.
Main Supply PLX500DR ..... 90 - 250 VAC, 50/60 Hz, 3.5 amp.

Consumption PL500DR ..... 0.2 amps idling, 15 amps charging
Consumption PLX500DR..... 0.2 amps idling, 5.5 amps charging.

Voltage Stabilization ..... ± 0.05 f-stop.

Recycle Time ..... 0.5 to 1.5 seconds.

Housing ..... Extruded Aluminum.

Weight PL500DR ..... 5 lbs. 8 oz.
Weight PLX500DR ..... 6.1 lbs.

Dimensions PL500DR ..... 4.5" x 4.5" x 6.75"
Dimensions PLX500DR ..... 4.5" x 4.5" x 9"

Flash Tubes and Modeling Lamps:

Flash Tube ..... Plug-in style. Use only Photogenic
C4-15, C4-15C (color corrected),
C4-15F (frosted) and C4-15D
(frosted and color corrected).

Modeling Lamp ..... 250 watt quartz halogen, ESS.
150 watt quartz halogen, ESP.
100 watt quartz halogen, ESR.

* Trigger Voltage = 12 volts on units purchased before JUNE, 2008

OPERATIONAL PARAMETERS
Solair® Constant-Color PL1000DR & Voltage Smart™ Constant Color PLX1000DR

Flashing Rate:

The unit recharges quickly, as indicated by the READY light on the control panel. A quick series of flashes can be obtained within the limits of the recharge time. Continuous rapid flashing, however, can overheat and damage the flashtube and internal parts. The maximum recommended rate of flashing depends upon the power level being used and the amount of operation time. Use the following chart to serve as a guide for the maximum rate to use in your situation.

Power Level	Operating Time	Sec. Between Flashes	Number of Flashes
Full	Continuous	17	Continuous
	7 minutes	10	40
	2.5 minutes	6	25
1/2	Continuous	8.3	Continuous
	4 minutes	4	60
	1.4 minutes	2	43
1/4	Continuous	4	Continuous

Exposure Information:

The following charts give the BCPS output for various umbrellas and reflectors. Coverage angle is given in degrees.

Umbrella	32 inch	45 inch	60 inch
Coverage	**120 degree**	**120 degree**	**120 degree**
Full Power	11000	111666	111666
1/2	5500	5583	5583
1/4	2750	2792	2792
1/8	1375	1396	1396
1/16	688	698	698
1/32	344	349	349
1/64	172	174	174
1/128	86	87	87

Reflector Diameter	**None**	**PL7R 7 1/2″**	**PL16R 16″**	**PL18R 18″**	**PL24R 24″**
Coverage	360°	35°	60°	126°	145°
Full Power	4666	50000	46666	7140	8400
1/2	2333	25000	23333	3750	4200
1/4	1167	12500	11667	1785	2100
1/8	583	6250	5833	892	1050
1/16	292	3125	2916	446	525
1/32	146	1562	1458	223	262
1/64	73	781	729	112	131
1/128	37	391	365	56	66
GN@ ASA 100/10′	**160**	**515**	**495**	**194**	**210**

SPECIFICATIONS
PL1000DR, PLR1000DR, PLX1000DR, PLXR1000DR

General:

Flash Power ..... 7.8 to 1000 watt-seconds

Flash Duration ..... 1/250 second at full power.
1/4000 second at 1/128 power.

Recycle Time ..... 0.8 to 3 seconds.

Power Control ..... Range: Full to 1/128 power (8 f-stops).
0.1 f-stop resolution.

Color Temperatures ..... < ± 50K from full to 1/32 power.
< ± 100K from full to 1/128 power.

Modeling Light Power ..... 250 watt Quartz, ESS.

Modeling Light Control ..... Range: Full to 1/128 power (8 f-stops).
0.1 f-stop resolution.

Triggering .....Sync. Jack (5 volts *). Push to test button.
Built-in photo slave. Radio on PLR models.

Main Supply PL1000DR ..... 105 - 125 VAC, 60 Hz, 10 amp.
Main Supply PLX1000DR ..... 90 - 250 VAC, 50/60 Hz, 3.5 amp.

Consumption PL1000DR ..... 0.2 amps idling, 15 amps charging.

Consumption PLX1000DR ..... 0.2 amps idling, 5.5 charging.

Voltage Stabilization ..... ± 0.05 f-stop.

Housing ..... Extruded Aluminum.

Weight PL1000DR ..... 5 lbs. 8 oz.
Weight PLX1000DR ..... 6 lbs.

Dimensions PL1000DR (housing only) ..... 4.5" x 4.5" x 6.75"
Dimensions PLX1000DR (housing only) ..... 4.5" x 4.5" x 8.75"

Flash Tubes and Modeling Lamps:

Flash Tube ..... Plug-in style. Use only Photogenic C4-19, C4-19C (color corrected), C4-19F (frosted) and C4-19D (frosted and color corrected).

Modeling Lamp ..... 250 watt quartz halogen, ESS.
150 watt quartz halogen, ESP.
100 watt quartz halogen, ESR.

* Trigger Voltage = 12 volts on units purchased before JUNE, 2008

ADVANCED POWERLIGHT FEATURES
MODEL PL1250, PL1250DR AND PL2500DR

Unit Number Assignment:

This feature allows the user to assign a UNIT NUMBER (1 to 9) to each DR type PowerLight in the studio. The UNIT NUMBER is necessary when INFRARED remote control is used (see accessories).

To assign a UNIT NUMBER: Turn PowerLight AC power off. With unit power off, press and hold the 1/2 UP arrow button. While holding the 1/2 UP arrow button, turn the unit power on. Digital display should be "un #", where # means some number 1 to 9. Next, release the 1/2 f-stop UP arrow button. Change the UNIT number using the 1/10 UP/DOWN arrow buttons. Close the assignment feature and save the UNIT number by pressing the 1/2 UP arrow button.

ADVANCED PL2 SERIES ACCESSORIES

PLDD-1 Digital display for Model 1250 only.
The PLDD-1 is a digital display to enhance the resolution and repeatability of the Model 1250's Flash analog slide-pot control. It displays only Flash power, over the full range of 16 to 500 watt-seconds. Resolution of the PLDD-1 is 0.1 f-stop.

The PLDD-1 should be mounted to the umbrella bracket under the housing of the Model 1250 PowerLight, on flexible rotating mount, or on an extension cable, for better viewing.

PLDRC-1 Remote digital display and flash adjustment for models 1250DR and 2500DR.
The PLDRC-1 is a digital display to enhance the visibility of, and to change the Flash power setting. It displays and controls only Flash power, over the full range of watt-seconds. Resolution is 0.1 f-stop, using the 1/2 f-stop and 0.1 f-stop UP/DOWN buttons.

The PLDRC-1 should be mounted to the umbrella bracket under the housing of the PowerLight, on rotating mount, or on an extension cable, for better viewing and easier control accessibility.

PLDIR-2 Remote digital display and Infrared receiver for models 1250DR and 2500DR. (must be used with PLIRC-2 controller)
The PLDIR-2 is digital display to enhance the visibility of, and to receive infrared signals to control all functions of the 1250DR and 2500DR PowerLights. It displays both Flash power and Modeling lamp power and unit number. It has a green READY indicator and a BI-color indicator for Flash or Model. Behind a small window is an infrared receiver. Resolution is 0.1 f-stop.

The PLDIR-2 should be mounted to the umbrella bracket under the housing of the PowerLight. Press the pins on the goose neck into the holes on the back of the display panel. Screw the goose neck into the threaded hole of the umbrella bracket. Plug the telephone connector into the socket at the bottom rear of the PowerLight. The display panel can be turned and the goose neck can be bent to improve the viewing angle.

PLIRC-2 Infrared remote controller for models 1250DR and 2500DR (must be used with PLDIR-2 receivers).
Similar to TV, VCR, DTV universal remote controllers, the PLIRC-2 can control up to nine (9) PowerLights with individual settings. If several PowerLights are used with identical settings the same unit number can be assigned to them. This will expand the total number of lights that can be controlled with the PLIRC-2. All panel button controls are available, plus STANDBY.

ADVANCED PL2 SERIES ACCESSORIES

All PowerLights must have PLDIR-2 infrared receivers and have their unique unit numbers assigned. PowerLights may have identical unit number numbers, if they are to be operated exactly the same, under all studio arrangements.

Select a Unit Number on one of the top ten buttons, then control the PowerLight with the lower buttons, observing the PowerLight digital display for the changes.

The All button, under Unit Number, transmits the changes to all active PowerLights. This enables the photographer to raise or lower flash or model levels on all the units, without the laborious task of changing them all, individually.

STANDBY lets the photographer put all the PowerLights into a standby state to stop public photographers from slaving the units at a wedding, or some studio units can be put in standby when not required for a shot. The infrared control can easily reach to units on 12-foot stands (it has been tested to 100 feet, indoors).

PLIBM-2 Studio System Controller software for IBM compatibles (must be used with PL1250DR and PL2500DR with PLDIR-1 receivers).

Along with infrared transmitter hardware and an IBM compatible computer using Windows 95 or 98, the software is used by the photographer to specify the PowerLight settings for up to nine units with independent settings and save a studio settings or as a pose file. An unlimited number of pose files my be saved. All PowerLights must have PLDIR-2 infrared receivers. Instructions are included with the PLIBM-2 software.

PLX-10 Ten foot extension cable with adapter for PLDD-1, PLDRC-1 and PLDIR-1 displays.

POWERLIGHT QUICK CHANGE ACCESSORIES

REFLECTORS:

PL7R (918945) 7 1/2" Standard high gain reflector. 35 degree coverage.

PL16R (916741) 16" Parabolic for portraits, feathering, flood and fill lighting. 60 degree coverage.

PL16BD (916654) 16" 2-panel clamp-fit barndoor.

PL16BDK (916683) 16" 4-panel barndoor.

PL18R (916973) 18" Parabolic for portraits, feathering, flood and fill lighting. 126 degree coverage.

PL24R (917234) 24" Parabolic for soft illumination and flood lighting. 145 degree coverage.

PL24BD (917147) 24" 2-panel barndoor kit.

PL3R (917901) Shallow Background reflector rotates to control light for high key and back lighting.

PL3RV (917930) Veil Slotted Background reflector for veil and burst-lighting effects.

PL5R (918626) Deep Conical Background reflector. 20 degree coverage.

PL5D (918568) Gel and Diffuser holder for Deep background reflector.

PL7BDK (918742) 4-panel barndoor, frame and diffuser kit for PL7R. Diffuser available separately.

PL7SNK (919090) 3" and 5" snoot kit with diffuser and mounting frame. Snoots also available separately.

PL7GK (918742) Fine and coarse grids with diffuser and mounting frame. Grids also available separately.

PLCW (919148) Counter weight for PowerLights. Used with softboxes, umbrellas and large reflectors.

PLH (919351) Tilting handle for PowerLight

POWERLIGHT QUICK CHANGE ACCESSORIES

UMBRELLAS:

EC32BC (909143) 32″ White satin flat panel inner umbrella with black blocking outer umbrella.

EC45BC (909201) 45″ White satin flat panel inner umbrella with black blocking outer umbrella.

EC60BC (909317) 60″ White satin flat panel inner umbrella with black blocking outer umbrella.

EC32S (909172) 32″ Silver satin flat panel inner umbrella with black blocking outer umbrella.

EC45S (909288) 45″ Silver satin flat panel inner umbrella with black blocking outer umbrella.

EC60S (909375) 60″ Silver satin flat panel inner umbrella with black blocking outer umbrella.

SOFT BOXES:

SB12x36 (958212) 12″x36″ Silver inner panels from black blocking outer and Quick-Change bracket.

PL30x40FR (917698) 30″x40″ Silver inner panels from black blocking outer and Quick-Change bracket.

SB22 (959102) 22″x22″ Silver inner panels from black blocking outer and Quick-Change bracket.

SB36 (920917) 36″x36″ Silver inner panels from black blocking outer and Quick-Change bracket

SERVICE

The operator should not attempt to make repairs.

Consult a dealer for an authorized Photogenic Professional Lighting service agent. This will provide you safety, insure proper operational functions and provide continuation of your warranty.

For replacing the flashtube or modeling lamp, follow the directions and specifications given earlier in this manual in the setup section.

Before removing the old tubes or installing new tubes, always unplug your PowerLight and discharge the stored energy by pressing the “test” button. Wait approximately two hours for the main capacitors to deplete any residual stored wattage. Never place your fingers or any metal objects into the flash or modeling sockets. Contact with high voltage may result.

GENERAL TROUBLE SHOOTING

COMMON PROBLEMS AND CAUSES

Unit does not charge.

Probable causes:

a. Fuse blown. (Unplug and discharge the unit-Replace fuse.)
b. No line power to unit. (Check line cord and outlet.)

Modeling light does not turn on.

Probable causes:

a. Lamp turned off. (Press FULL ON/OFF button until LED lights.)
b. Lamp burned out. (Inspect and replace, when cool. See SERVICE section of this manual.

Light flashes by itself without apparent reason.

Probable causes:

a. Defective trigger cord, or trigger cord incorrectly polarized.
b. Bright light falling on photoslave.
c. Poor connection in line cord.
d. Reverse connection on trigger cord connection at camera.
e. Some radio slaves will cause interference - consult slave manufacturer.

Trigger cord will not flash unit, but charge indicator shows that the system has charged.

Probable causes:

a. Defective trigger cord.
b. Defective flashtube. Turn unit off. Wait until cool, then replace flashtube. (See SERVICE section of this manual)
c. Unit is on, but will not charge. (Safety thermal detector activated by heavy use, beyond specified Flashing Rates on page 9.)
d. Unit completely off, but is connected to power and is turned on. (Safety thermal switch activated through internal discharge. Decreasing flash power setting **repeatedly** with the down arrow key or placing the unit into STANDBY with the remote control **repeatedly** causes the flash power to discharge through an internal power resistor. If the resistor over-heats, a thermal switch will open and cut off line power to the unit. After a 3 minute cool-off period, the power will return. This is a unit-protecting feature and can be caused by user actions or circuit failure.)

LIMITED POWERLIGHT WARRANTY

Photogenic warranties the "standard line" products are free from defects in material and workmanship of the PL2 series of PowerLights for a period of two years from date of purchase. All warranty repairs must be done by the Photogenic Professional Lighing Factory Repair Department. Send units for warranty repair to the address below Attention: Repair Department.

Products out of warranty can be serviced by Photogenic or a Photogenic authorized repair agency. Contact Photogenic for an authorized repair agency near you.

At our choice, we will repair or replace any PL2 series light that is deemed to be defective. This warranty does not cover damages caused by shipping, product abuse or use other than the intended photographic applications.

Any product modifications will render this warranty void. Use of other manufacture's accessories, which restrict normal or intended operation (especially venting airflow), may cause damage and will void this warranty.

LIMITED ACCESSORIES WARRANTY

Flashtubes, reflectors, snoots, barndoors, light stands, posing tables & stools, and Quick-Change™ accessories except diffusers 1 year from date of purchase.

Umbrellas, softboxes and Chameleon reflectors 30 days from date of purchase.

Modeling lamps, tungsten, halogen, quartz lamps, gels, grids and diffusers. Initial failures only.

Photogenic®
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