



PhotoMaster

Operator's Manual

For

Voltage Smart PhotoMaster PM400
Voltage Smart PhotoMaster PM800
Voltage Smart PhotoMaster PM400R
Voltage Smart PhotoMaster PM800R
&
Remote Studio Control Accessories

OPERATOR MANUAL FOR POWER SUPPLIES

Voltage Smart PhotoMaster PM400, PM400R,
PM800 & PM800R

Voltage Smart Advantage Light Heads: PA8,
PA8C, PA8D & PA8F

Operator Manual for Infrared Accessories

Thank you for selecting the Photogenic Professional Power Supply *PhotoMaster* brand *Voltage Smart* series. The *Voltage Smart PhotoMaster* series incorporates the newest electronic technology providing improved lighting control, power setting repeatability and expanded functions. These products are built for the demanding operational needs of the professional photographer and it is our expectation that your Power Supply and Power Supply accessories will provide you with years of dependable service. The *Voltage Smart PhotoMaster* models permit use of worldwide voltages and frequencies. With the new *Voltage Smart PhotoMaster* “R” models, optional accessories include *infrared remote control*.

INTRODUCTION

The *Voltage Smart PhotoMaster* lighting systems use a power supply unit and up to four detachable PA8 light heads. Each Light Head uses a professional plug-in flashtube, 100-watt ESR adjustable quartz modeling light, and bare bulb capability, both vertically and horizontally. The Light Heads are fitted with Photogenic’s unique quick-change system for holding accessories made by Photogenic Professional. Unlike monolights, light heads can be mounted upside down.

Before using your new PhotoMaster for the first time, please read this manual carefully and acquaint yourself with the controls and features. In this way, you can quickly get the greatest benefit from your new unit 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 & light heads. 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 salts 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 line 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 or light head 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 or injury always use Photogenic specified replacements for the flashtubes and modeling lamps.
8. Perform no internal service work on these units. Refer all such service to a qualified service person or return to the factory. This will provide you safety and continuation of your warranty.
9. Do not operate when water is present and/or extreme temperature shifts. If the unit is stored in hot or below freezing temperatures, allow at least one hour at room temperatures before using.

PREPARATION AND BASICS

Unpacking and Setup:

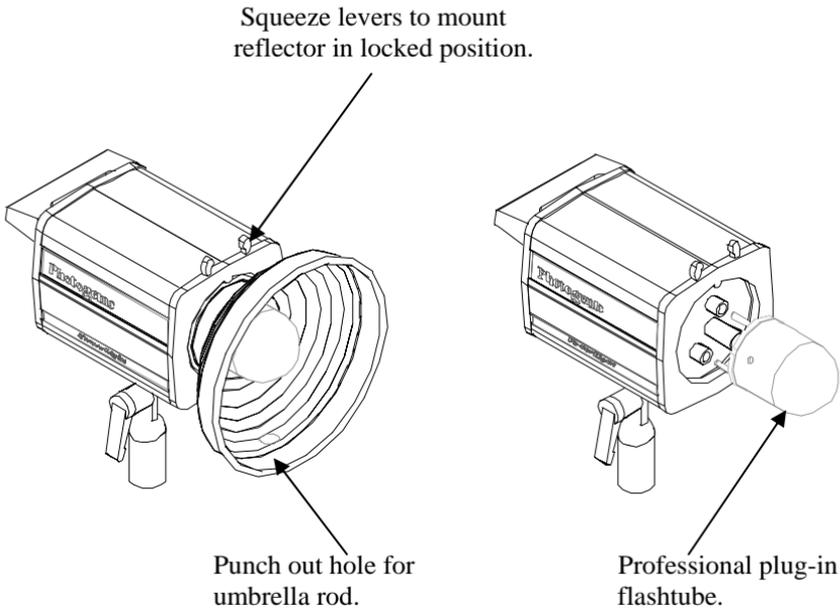
Unpack all units carefully to remove all parts from the carton(s). Do not discard or destroy the packing material until the equipment has been inspected, assembled, and all parts accounted for.

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.

To set up the lighting system, first mount and secure all light heads to suitable stands. The stand adapter allows the light head to be mounted on a stand with a 3/8" to 5/8" post. Be sure to use a stand that is stable and will not tip easily.

The light heads are shipped with the modeling lamp and flashtube not installed. While installing the modeling lamp and flashtube (with glove or clean cloth to protect the hand) be certain they are properly inserted and tight to avoid arcing and failure of the socket contacts during operation. 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.

The 7 1/2 inch reflector is attached to the PA8 by the "quick-change" mechanism. Three tabs on the unit grip the ring on the reflector. Finger levers located on the top of the unit control two of these tabs. To mount the reflector, squeeze the finger levers towards each other and tilt the reflector past the stationary top-tab, then past the two tabs that are controlled with the levers. Release the finger levers and make sure all three tabs are securing the reflector (see illustration below.) All accessory reflectors and soft boxes are designed for use with this "quick-change" system or onto this 7-1/2 inch reflector



With power supply's power switch OFF, attach the line cord to the power-input connector, located on the back of the PhotoMaster, and connect it to a grounded 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.



REAR VIEW OF PHOTOMASTER



HEAD
CONNECTOR
TOP VIEW

The light head connectors are key-shaped, snap-in type and will only attach correctly. The plugs must be inserted until the locking snap is heard. Press the flat metal inset to release. The mating pins are automatically lubricated during each insertion and withdrawal to greatly extend the life of these connectors.

DIGITAL CONTROL PANEL AND BASIC OPERATION

Power Input:

The power required to operate the Voltage Smart PhotoMaster PM400, PM400R, PM800, or PM800R is 90 to 250 volts AC, 50 or 60 Hz, 5 Amp. The supplied power cord has a 125V, 15 Amp rating, 15 ft long, and is detachable. For European operation, Photogenic can supply a 230V power cord (PLXLC) with a German plug, rated 90 to 250 volts AC, 50/60 Hz, 10 Amp, 20 ft. Replacement cords or extension cords rated for less amperage may overheat and should not be used with PhotoMaster.

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 breaker to open. The power supply has an external circuit breaker and four internal fuses (one for each light head modeling lamp). An additional thermal protector is located inside the power supply and may open (removing all power from circuits), if the rated duty cycle is exceeded. The internal thermal protector may require four minutes to cool down. Simply press the center of the circuit breaker (located on rear panel of power supply) to reset.

Each light head has an external fuse in the modeling lamp circuit. To replace a blown light head fuse (power cord must be disconnected), simply unscrew the fuse holder cap (bottom of unit) and replace the exposed fuse with a new fuse (217315-00, 3 Amp, 250V, FB, 5x20mm). If fuses continue to blow, contact your dealer or qualified service person. (See specification section for fuses replacements). If the modeling lamp will not light, switch head connections on the power supply. If no modeling lamps will light on a particular power supply head connector, then the power supply internal modeling lamp fuse has blown. Return power supply to service for repair. Never, never replace a fuse with one of higher current rating. This is a non-warranty repair.

Power-Up display sequence.

The processor will search the unit for functions that have been activated from the last time the light was used. As this search is done the first display reads "8888". Next in the search sequence is AC and Hertz and you will see 50 or 60 displayed. If Auto-Bracketing is active you will see =br= followed by the High "H" setting and then the Low "L" setting (see Auto-Bracketing, page 10.) The final standard sequence displays the unit number designated for the power supply pack, 1 through 9. When the search cycle is complete, the display will then show the setting for flash watt seconds.

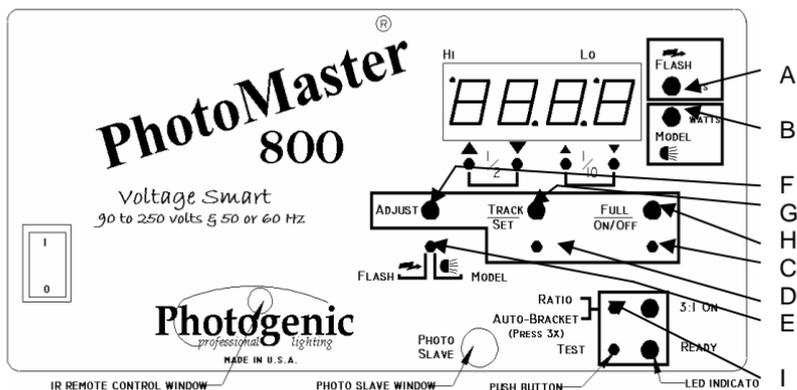
See Advanced Features & Diagnostic Display Codes.

Functional Operation

Voltage Smart PhotoMaster PM400, PM400R, PM800 & PM800R

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 by pressing the Full On/Off button.



Flash Power:

When the power is turned on the red **Flash** LED (A) is illuminated. You adjust the *Flash* power settings by pressing the **1/2** or **1/10** f-stops UP/DOWN arrow buttons. The watt second settings will be displayed. (If the *adjust* button (E) is pressed again the modeling circuit and yellow **Watts** LED (B) will be turned on.)

Ready Light:

The Voltage Smart PhotoMaster PM800 & PM800R models are fully charged when the green **READY** lamp is on. Lowest power (25 ws) setting charge time is a maximum of **.8** seconds and at full power charge (800 ws) time is a maximum of **3** seconds. The unit may be flashed before fully charged. When adjusting flash power settings downward, the units will bleed stored power until the lowered power setting is reached. The green **READY** light will then be re-illuminated.

The Voltage Smart PhotoMaster PM400 & PM400R models are fully charged when the green **READY** lamp is on. Lowest power (12.5 ws) setting charge time is a maximum of **.5** seconds and at full power charge (400 ws) time is a maximum of **1.5** seconds. The unit may be flashed before fully charged. When adjusting flash power settings downward, the units will bleed stored power until the lowered power setting is reached. The green **READY** light will then be re-illuminated.

Modeling Lights:

The modeling lights have three symmetrical modes of operation (NOT independent):

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

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

3. **FULL ON/OFF** is exactly what it says. Press the **FULL ON/OFF** button (C) to turn the modeling lamp OFF (LED off) or ON (LED on).

Note: All current mode settings are retained, even after the power is turned off.

4. Each light head modeling lamp can also be turned on/off with rear switch on the respective light head.

Test Function:

The **TEST** Flash button is pressed to fire the flashtube for test purposes, to re-set after a misfire or to dump stored power when moving to a lower watt second level.

Ratio Light Head Flash Power:

The two left light heads (looking at the power supply front) can have a 3:1 flash power ratio to the two right light heads. There are four flash capacitors, of equal value, inside the power supply. All four light heads share the total flash power setting. The **RATIO** function simply connects the two left light heads to three flash capacitors and the two right light heads to one flash capacitor. [Note that if all four light heads are used, without ratio, each would deliver 1/4 of the flash power setting. If all four light heads are used, with ratio, the two left light heads would each deliver 3/8 of the flash setting, and the two right light heads would each deliver 1/8 of the flash setting (3:1 ratio). If using three heads (two left and one right), the two left heads would each deliver 3/8 of setting and the right head would deliver 1/4 of the setting.] The **RATIO** feature can be turned ON (LED on) or OFF (LED off) with the **RATIO/Auto Bracket** button.

Diagnostic Display Codes:

In addition to internal thermal protection, the microcomputer software monitors the AC line power and flash power consumption to prevent catastrophic damage to your new PhotoMaster units. The following error codes may be displayed:

“Er-0” message means that an AC line power frequency problem has occurred. This could be internal or in the power cable or outlet at the location. Try turning the main power off, wait for 5 seconds and turn power back on.

“Er-1” message means that an AC line power voltage problem has occurred. This could be internal or can happen with voltage spikes and voltage fall-off in the location AC line power. Try turning the main power off, wait for 5 seconds and turn power back on.

“Er-3” message means over heating has occurred. This could be internal or by exceeding the recommended flash frequency. (See flash rate chart) Once **“Er-3”** is displayed a **“COOL”** mode is activated to cool off internal components, preventing damage. This usually is caused by too many quick-discharges, resulting in the overheating of the unit’s circuits. (See flash rate chart) The unit remains in this COOL mode for approximately 4 minutes. This is an electronically timed period and turning the power OFF will not shorten this COOL period.

Synchronization and Triggering:

Triggering is accomplished by using a built-in photoslave or a trigger cable from the power supply to the camera shutter contacts of “X” or “zero” delay. Other units in the system are then triggered by photoslave operation. It is suggested that all walls and ceiling be painted either white or light neutral colors for most reliable photoslave operation.

After the trigger cord is properly connected, check the synchronization with the camera. Adjust a light head to same height as the camera lens and face the light into the lens. The lens aperture should be open to its fullest extent and set on “X” or “zero” delay. Remove the camera back. It is best to perform this test with the modeling lamps turned off.

While looking at the lens through the back of the camera, operate the shutter. A few sheets of white paper in front of the lens will cut down the brilliance of the flash and aid in making the observation. The flash of the light should then appear as a circle the same size as the aperture. If the circle is flattened on the sides, or if no light appears through the lens, the shutter is not synchronized. If the shutter appears not to be synchronized, a reputable camera repair shop should check the shutter contacts.

The sync polarity is Positive on center pin of cable connectors (Photogenic part PLTC, and defined in ISO 518.)

Sync voltage is 12 vdc (Spec. = less than 24 vdc per ISO 10330:1992E, and greater than 9 vdc for Wein photo slave at 10 microampere drain.) Internal 240 ohm discharge limit, with 68 k ohms continuous limit.

Sync signal = negative pulse, 10 microseconds or longer, from sync voltage to 1.6 vdc or less (per ISO 518.)

Photocell/Photo Slave:

The sensor is built into the power supply 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 PhotoMaster enables you to set the base flash power and then one high and one low bracketing value. 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 value. 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 6 f-stop range of total watt seconds available.)

OPERATIONAL PARAMETERS

Voltage Smart PhotoMaster PM400R & PM400R

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 would depend 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
	6.8 Minutes	4	100
	2 Minutes	4	60
1/2	Continuous	3.3	Continuous
	6.8 Minutes	2	200
	2 Minutes	1	116
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 Coverage	32 inch 120 degree	45 inch 120 degree	60 inch 120 degree
Full Power	4400	4466	4466
1/2	2200	2233	2233
1/4	1100	1117	1117
1/8	550	558	558
1/16	275	279	279
1/32	137	140	140

Reflector						
Diameter	None	7 1/2"	14"	16"	20"	24"
Coverage	360°	35°	40°	60°	65°	145°
Full Power	1866	20000	14000	18666	13066	3360
1/2	933	10000	7000	9333	6533	1680
1/4	467	5000	3500	4667	3267	840
1/8	233	2500	1750	2333	1633	420
1/16	117	1250	875	1167	817	210
1/32	58	625	438	583	408	105
GN@ASA100/10'	88	292	244	280	236	120

SPECIFICATIONS

Voltage Smart PhotoMaster PM400 & PM400R

General:

Flash Power.....	12.5 to 400 watt-seconds. Maximum (6 f-stops)
Flash Duration.....	1/1625 second at Full 1/800 second at 1/32
Reciprocity.....	Excellent, no filters required
Recycling time.....	0.5 to 1.5 seconds @ full
Power Control.....	Full to 1/32 range. (6 f-stops) 0.1 f-stop resolution.
Modeling Light Power	100 Watt Quartz, ESR
Modeling Light Control	Full to 1/32 range. 0.1 f-stop resolution. Line voltage regulated.
Triggering	Built in Photoslave. Push to Test button. Synchronization Jack. 12 volt isolated.
Main Supply	90-250 VAC, 50/60 Hz, 3.5 A.
Consumption	0.2 amps idling, 5.5 amps charging.
Voltage Stabilization	Plus or minus 0.05 f-stop.
Packaging PM400, PM400R.....	Tough, Kydex plastic case.
Packaging PA8.....	Extruded Aluminum case.
Weight PM400, PM400R.....	6.2 pounds.
Weight PA8.....	3.5 pounds, (w flash tube).
Dimensions PM400, PM400R.....	9"H x 9.5"W x 6"D
PA8 (housing only).....	4.5"H x 4.5"W x 6"D

Flashtubes and Modeling Lamps:

Flashtube	Plug-in style, use Photogenic's C4-19, C4-19C, C4-19D, C4-19F, L4-19 or L4-19C.
Modeling Lamp (each PA8).....	100-Watt Quartz Halogen, ESR.
Overload Protection PM400, PM400R.....	Circuit Breaker, 12 Amp.
Overload Protection Fuse PA8.....	5 mm X 20 mm, 3 Amp, fast blow.

OPERATIONAL PARAMETERS

Voltage Smart PhotoMaster PM800, PM800R

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 would depend 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
	13 Minutes	10	81
	2.7 Minutes	5	32
1/2	Continuous	8	Continuous
	6.8 Minutes	4	100
	2 Minutes	2	58
1/4	Continuous	3.3	Continuous

Exposure Information:

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

Umbrella Coverage	32 inch 120 degree	45 inch 120 degree	60 inch 120 degree
Full Power	8800	8933	8933
1/2	4400	4466	4466
1/4	2200	2233	2233
1/8	1100	1117	1117
1/16	550	558	558
1/32	275	279	279

Reflector Diameter	None	7 1/2"	14"	16"	20"	24"
Coverage	360°	35°	40°	60°	65°	145°
Full Power	3733	40000	28000	37333	26133	6720
1/2	1866	20000	14000	18666	13066	3360
1/4	933	10000	7000	9333	6533	1680
1/8	467	5000	3500	4667	3267	840
1/16	233	2500	1750	2333	1633	420
1/32	117	1250	875	1167	817	210
GN@ASA100/10'	128	412	344	396	332	168

SPECIFICATIONS

Voltage Smart PhotoMaster PM800, PM800R

General:

Flash Power.....	25 to 800 watt-seconds. Maximum (6 f-stops)
Flash Duration.....	1/962 second at Full 1/431 second at 1/32
Reciprocity.....	Excellent, no filters required
Recycling time.....	0.8 to 3 seconds @ full
Power Control.....	Full to 1/32 range. (6 f-stops) 0.1 f-stop resolution.
Modeling Light Power	100 Watt Quartz, ESR
Modeling Light Control	Full to 1/32 range. 0.1 f-stop resolution. Line voltage regulated.
Triggering	Built in Photo slave. Push to Test button. Synchronization Jack. 12 volt isolated.
Main Supply	90-250 VAC, 50/60 Hz, 3.5 A.
Consumption	0.2 amps idling, 5.5 amps charging.
Voltage Stabilization	Plus or minus 0.05 f-stop.
Packaging PM800, PM800R.....	Tough, Kydex plastic case.
Packaging PA8.....	Extruded Aluminum case.
Weight PM800, PM800R.....	6.2 pounds.
Weight PA8.....	3.5 pounds, (w flash tube).
Dimensions PM400, PM400R.....	9"H x 9.5"W x 6"D
PA8 (housing only).....	4.5"H x 4.5"W x 6"D

Flashtubes and Modeling Lamps:

Flashtube	Plug-in style, use Photogenic's C4-19, C4-19C, C4-19D, C4-19F, L4-19 or L4-19C.
Modeling Lamp (each PA8).....	100-Watt Quartz Halogen, ESR.
Overload Protection PM400, PM400R.....	Circuit Breaker, 12 Amp.
Overload Protection Fuse PA8.....	5 mm X 20 mm, 3 Amp, fast blow.

ADVANCED POWERLIGHT FEATURES.

Voltage Smart PhotoMaster PM400, PM400R, PM800 & PM800R

Automatic Discharge

Each time the AC line power is disconnected or switched off, the unit will automatically flash-dump most of the stored power, and then discharge by resistor the remainder of the stored power. This removes all of the flash capacitor charge to prolong the life of the unit and is a much safer condition for storage, for transporting, and replacement of flash tube or modeling lamp. Even if the flash tube is defective or absent, the internal resistor will discharge all power within 30 seconds after the unit is turned off. This is a feature, over which the user has no control.

Unit Number Assignment

This feature allows the user to assign a UNIT NUMBER (1 to 9) to each PhotoMaster in the studio. The UNIT NUMBER is necessary when INFRARED remote control is used with the PM400R or PM800R models (see accessories.)

To assign a UNIT NUMBER, the startup sequence will need to be interrupted. Turn PhotoMaster AC power OFF. With the unit OFF press and hold the ½ stop “UP” button then turn the power switch to ON, continue holding the ½ stop button until the display reads “ir” then release the button. The Digital display should read “ir” when you press and release the ½ UP button again, and the display will then read “Un - 1”, or some number 1 to 9. To change the UNIT number, press and release the 1/10 UP/DOWN arrow buttons until the desired number is displayed. To save and close the assignment feature and save the UNIT number, press and release the 1/2 UP arrow button again. This allows the startup sequence to finish and save the new settings. Each “R” unit’s default unit number is set at “Un - 1”. You must re-set the unit number with the 1/10 adjustment buttons, or the default “Un 1” will automatically be assigned.

Wireless Setup.

The “R” units are pre-set for *Infrared* wireless operations at the factory and no adjustments are necessary for operation. See next section.

Advanced Series Accessories.

Voltage Smart PhotoMaster PM400R & PM800R

PLIRC-1 Infrared remote controller.

Similar to TV, VCR, DTV universal remote controllers, the PLIRC-1 can control up to nine (9) PhotoMasters with individual settings. If several PhotoMasters 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-1. All panel button controls are available, plus STANDBY. Photogenic's PowerLight monolights may be mixed into a studio set-up with PhotoMasters and controlled with the same PLIRC-1 remote.

Unit Number Assignment

This feature allows the user to assign a UNIT NUMBER (1 to 9) to each PhotoMaster power supply in the studio. The UNIT NUMBER is necessary when INFRARED remote control is used.

To assign a UNIT NUMBER, the startup sequence will need to be interrupted. Turn PhotoMaster AC power OFF. With the unit OFF press and hold the 1/2 "UP" button and then turn the power switch to ON. The display should read "un#" (# being some number 1 through 9.). To change the UNIT number, press and release the 1/10 UP/DOWN arrow buttons until the desired number is displayed. To save and close the assignment feature and saving the UNIT number, press and release the 1/2 "UP" arrow button again. This allows the startup sequence to finish and save the new settings. Each PhotoMaster default unit number is set at "Un - 1".

PLIRC-1 Use

Select a *Unit Number* on one of the top ten buttons, and then control the PhotoMaster with the lower buttons, observing the PhotoMaster digital display for the changes. All PhotoMaster front panel controls/functions (except LED displays) are available on the remote and operate in exactly the same way. Refer to pages 7 and 8 for operational instructions for each button, feature and function.

The *All* button, under *Unit Number*, transmits the changes to all active PhotoMasters. This enables the photographer to raise or lower flash or model levels on several PhotoMaster power packs, without the laborious task of changing them individually.

STANDBY lets the photographer put the PhotoMaster into a standby state to stop public photographers from slaving the units at a wedding, or some PhotoMaster studio units can be put in standby when not required for a shot. The infrared control can easily reach to 100 feet, indoors.

General Trouble Shooting

COMMON PROBLEMS AND CAUSES

Unit does not charge. Probable causes:

1. Circuit breaker tripped. (Depress breaker button, rear of unit.)
2. No line power to unit. (Check line cord and outlet. If unit was being heavily used, wait 5 minutes for internal thermal protector to reset.)

Modeling light does not turn on. Probable causes:

1. Lamp turned off. (Press FULL ON/OFF button, check PA8 switch.)
2. Lamp burned out. (Inspect and replace, when cool. See SERVICE section of this manual)
3. Internal fuse blown (inside power supply), caused by shorted modeling lamp. (Factory service required.)
4. External fuse blown on PA8. (Inspect and replace.)

Light flashes by itself without apparent reason. Probable causes:

1. Defective trigger cord, or trigger cord incorrectly polarized.
2. Bright light falling on photo slave.
3. Poor connection in line cord.
4. Reverse connection on trigger cord connection at camera.
5. 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:

1. Defective trigger cord. Try TEST button.
2. Internal failure. Try TEST button.

Defective flashtube:

1. Turn unit OFF. Wait until cool, and then replace flashtube. (See SERVICE section of this manual)

Infrared not working. Probable causes:

1. When using the Hand-Held controller, press the unit number on the keypad before pressing any adjustment buttons.
2. Point remote directly at PhotoMaster control panel from about five feet distance.
3. Check 9 volt battery inside remote.
4. Unit number on controller must agree with unit number on PhotoMaster. Try the *All* key before testing.

Limited PhotoMaster Warranty

Photogenic warranties the “standard line” products are free from defects in material and workmanship of the PhotoMaster PM400, PM400R, PM800, PM800R and PA8 units for a period of three years, from date of manufacture. At our choice, we will repair or replace any of the above 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 (including flash tubes and modeling lamps), which restrict normal or intended operation (especially venting airflow on the PA8), may cause damage and will void this warranty.

SERVICE

The photographer should not attempt to make internal 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.

The technicians find it helpful to have the complete unit to better troubleshoot and evaluate any problems. This includes the light unit, the power cord, light heads, head cables, flash tubes and all modeling lamps.

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 PhotoMaster to discharge the stored energy. Wait approximately 30 seconds 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.

PA8 QUICK CHANGE ACCESSORIES

REFLECTORS:

PL3R -----**3"** Shallow Background reflector rotates to control light for high key and back lighting.

PL3RV-----**3"** Veil Slotted Background reflector for veil and burst-lighting

PL5R-----**5"** Deep Conical Background reflector.

PL7R-----**7 1/2"** Standard high grain reflector. 35-degree coverage.

PL14R-----**14"** Parabolic for portraits, feathering, flood and fill lighting. 45-degree coverage.

PL16R-----**16"** Parabolic for portraits, feathering, flood and fill lighting. 60-degree coverage.

PL18R-----**18"** Parabolic for soft illumination and flood lighting. 125-degree coverage.

PL20R-----**20"** Parabolic for portraits, feathering, flood and fill lighting. 65-degree coverage.

PL24R-----**24"** Parabolic for soft illumination and flood lighting. 145-degree coverage.

Additional Photogenic Light-Shaping Accessory items and Kits.

Grids.

Snoots.

Soft Boxes.

Barndoor Sets.

Tilting Handle.

Scrim & Gel rings.

Eclipse Umbrellas.

Counter-Balance weights.

Contact your local dealer for these and other Professional Photographic products by:

Photogenic Professional Lighting

1268 Humbracht Circle

Bartlett, Illinois 60103

www.Photogenicpro.com

Telephone: 630-830-2500 Fax: 630-830-2525