# **Pro-B4 1000 Air**

**User's Guide** 







# Thank you for choosing Profoto

Thanks for showing us your confidence by investing in a Pro-B4 generator. For more than four decades we have sought the perfect light. What pushes us is our conviction that we can offer even yet better tools for the most demanding photographers.

Before our products are shipped we have them pass an extensive and strict testing program. We check that each individual product comply with specified performance, quality and safety. For this reason our equipment is widely used in rental studios and rental houses worldwide, from Paris, London, Milan, New York and Tokyo to Cape Town.

# Some photographers can tell just from seeing a picture, if Profoto equipment has been used.

Professional photographers around the world have come to value Profoto's expertise in lighting and light-shaping. Our extensive range of Light Shaping Tools offers photographers unlimited possibilities for creating and adjusting their own light.

Every single reflector and accessory creates its special light and the unique Profoto focusing system offers you the possibility to create your own light with only a few different reflectors.

Enjoy your Profoto product!

# **General safety instructions**



#### **SAFETY PRECAUTIONS!**

Do not operate the equipment before studying the instruction manual and the accompanying safety. Make sure that Profoto Safety Instructions is always accompanied the equipment! Profoto products are intended for professional use! Do not place or use the equipment where it can be exposed to moisture, extreme electromagnetic fields or in areas with flammable gases or dust! Do not expose the equipment to dripping or splashing. Do not place any objects filled with liquids, such as vases, on or near the equipment. Do not expose the equipment to hasty temperature changes in humid conditions as this could lead to condensation water in the unit. Do not connect this equipment to flash equipment from other brands. Do not use flash heads without supplied protective glass covers or protective grids. Glass covers shall be changed if it has become visibly damaged to such an extent that their effectiveness is impaired, for example by cracks or deep scratches. Lamps shall be changed if they are damaged or thermally deformed. When placing a lamp into the holder ensure not to touch the bulb with bare hands. Equipment must only be serviced, modified or repaired by authorized and competent service personnel! Warning—The terminals marked with the flash symbol are hazardous live.



## WARNING - Electrical Shock - High Voltage!

Mains powered generator shall always be connected to a mains socket outlet with a protective earthing connection! Only use Profoto extension cables! Do not open or disassemble generator or lamp head! Equipment operates with high voltage. Generator capacitors are electrically charged for a considerable time after being turned off. Do not touch modeling lamp or flash tube when mounting umbrella metal shaft in its reflector hole. Disconnect lamp head cable between generator and lamp head when changing modeling lamp or flash tube! The mains plug or appliance coupler is used as disconnect device. The disconnect device shall remain readily operable. Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.



#### Caution - Burn Hazard - Hot Parts!

Do not touch hot parts with bare fingers! Modeling lamps, flash tubes and certain metal parts emit strong heat when used! Do not point modeling lamps or flash tubes too close to persons. All lamps may on rare occasions explode and throw out hot particles! Make sure that rated voltage for modeling lamp corresponds with technical data of user guide regarding power supply!

# NOTICE - Equipment Overheating Risk

NOTICE

Remove transport cap from lamp head before use! Do not obstruct ventilation by placing filters, diffusing materials, etc. over inlets and outlets of the equipment ventilation or directly over glass cover, modeling lamp or flash tube!

#### Note about RF!

This equipment makes use of the radio spectrum and emits radio frequency energy. Proper care should be taken when the device is integrated in systems. Make sure that all specifications within this document are followed, especially those concerning operating temperature and supply voltage range. Make sure the device is operated according to local regulations. The frequency spectrum this device is using is shared with other users. Interference cannot be ruled out.



## **Final Disposal**

Equipment contains electrical and electronic components that could be harmful to the environment. Equipment may be returned to Profoto distributors free of charge for recycling according to WEEE. Follow local legal requirements for separate disposal of waste, for instance WEEE directive for electrical and electronic equipment on the European market, when product life has ended!

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# **Nomenclature**



- 1. Profoto Air Antenna
- 2. Sync Socket
- 3. Lamp Head Outlet A
- 4. Photocell
- 5. On/Off Button
- 6. Display Button
- 7. Indicator Display
- 8. Lamp Head Outlet B
- 9. USB port
- 10. Sync Control
- 11. Model Control

- 12. Ready Control
- 13. Mode Control
- 14. Display A
- 15. Display B
- 16. Control A
- 17. Control B
- 18. Model Buttons
- 19. Ready Lamp and Test Button
- 20. Charge Socket
- 21. Battery Locks



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# Quick start guide

# Place the battery into the generator

Push the battery all the way into the generator. Ensure that both Battery Locks [21] lock the battery firmly in place.

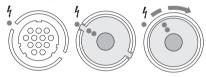
# Connect a lamp head

With Profoto's lamp head connection, heads can be connected and disconnected safely even if the generator is turned on.

If only one lamp head is used, connect the lamp to Lamp Head Socket A [3]

- 1. Lift the protection lid of the Lamp Head Socket A [3] or B [8].
- 2. When connecting the lamp head plug, align the white dots on the plug with the white dot on the generator panel. Secure by turning the ring on the plug clockwise.





## Start generator

- 1. Press the On/Off Button [5] to turn on the generator.
- 2. The Ready Lamp [19] will be illuminated when the generator is ready.

# **Change light output and settings**

- 1. Use the Control A [16] and Control B [17] to set the light output on outlet A and B.
- The Mode Control [13] should normally be set to NORMAL. For short flash duration, set the control to FREEZE. For symmetric energy levels on both channels, set the control to MASTER.
- 3. Set the Model Control [11] to SET TIME. The modeling light setting is shown in the Displays A [14] and B [15]: CONT for continuously on and the time delay in seconds for automatic turn off. Use the Control A [16] or B [17] to change the setting.
- 4. Use the Model Control [11] to select modeling light mode: MAX PROP, MAX or PROP. Press the Model Buttons [18] to turn on the modeling lights.
- 5. Use the Ready Control [12] to select BEEP, BUZZ or OFF.
- 6. Use the Sync Control [10] to select synchronizing or set radio channel. Select OFF if sync cord is used and SLAVE if IR transmitter is used. If Air radio sync is used, set a channel on SET and then activate Air radio receiver by selecting RADIO.

# **Generator functionality**

# **Battery**

The Pro-B4 generator is powered by an exchangeable Lithium-Ion battery. The generator cannot be used without a battery in place. The battery is easily connected/disconnected to the generator with a few handgrips.

- 1. Push the battery all the way into the generator. Ensure that both Battery Locks [21] lock the battery firmly in place.
- Release the battery cassette by pressing the Battery Locks [21] on each side of the battery. Pull out the battery.
- The battery is charged using the supplied Battery Quick Charger for Pro-B4. The battery can be charged either separately or placed in the generator. The Pro-B4 generator can also be used while the battery is charging. The charger is connected to the battery through the Charge socket [20].
  - 1. Lift the protection lid of the Charge Socket [20] and connect the cable from the Pro-B4 Battery Charger. Secure the charger cable by turning the bayonet connector plug.
  - 2. The red LED on the Pro-B4 Battery Charger indicates that charging is in progress. The green LED indicates that charging is completed.

The battery has no memory effect and can be charged from any charge level, but should not be charged for a longer time than necessary. For a long battery life, the battery shall be fully recharged prior to storage.

#### NOTE:

Defective batteries shall be returned to the dealer for recycling.

#### NOTE:

Batteries are covered by dangerous goods regulations for transport. The battery for Pro-B4 is certified and approved for transport with some restrictions. Detailed information and documentation for travelling with batteries can be downloaded from www.profoto.com

# Battery indicator

The battery indicator is shown in the Indicator Display [7]. The battery indicator has three sections, indicating the battery level in percentage of the total capacity:

3 sections: 100-70 % 2 sections: 70-40 % 1 section: 40-10 % 0 sections: <10 %

If the battery is charged while the battery is in use in the generator, the battery indicator will toggle through the sections to indicate that it is charging.

If optional display modes for light output or flash duration has been selected by pressing the Display Button [6], the battery indicator is not shown.

#### NOTE:

If the modeling light is used during charging the battery indication may drift. If this happens, simply recharge the battery to full and the battery will be reset.

### Power on/off

The generator is turned on manually, by pressing the On/Off Button [5].

The generator automatically turns off after 30 minutes of inactivity. For manual power off, press the On/Off Button [5].

#### NOTF:

To save battery, the displays, indicators and backlight of the illuminated panel are dimmed after a while of inactivity.

## **Energy control and range**

Control A [16] and Control B [17] are used to adjust the energy level (light output) for outlet A and B respectively:

- Turn the control clockwise to increase the energy in 1/10 f-stop increments and counter-clockwise to decrease.
- Press and hold down the control and turn the control clockwise to increase the energy in 1 f-stop increments and counter-clockwise to decrease.

The Displays A [14] and B [15] show the selected energy, or OFF when the lamp head is turned off.

The lamp heads can be turned off by pressing and holding the respective Model light buttons [18] for 3 seconds and is turned back on by pressing the Model light button [18] again.

The default energy reading is in f-stop. To show energy in Ws scale, push the Display Button [6]. When Ws scale is selected, Ws is shown in the Indicator Display [7].

The light output can totally be adjusted over 11 f-stops (0.1-10.0) but the range is depending on Mode Control [13] setting.

By setting the Mode Control [13] to FREEZE, the energy range of outlet A is restricted to 0.1-5.8 (1-54.4Ws). If both outlets (A and B) are used the maximum output from each outlet is 4.7 (25.4Ws). The maximum output of outlet B is always limited to 4.7 (25.4Ws) in FREEZE mode. FREEZE mode is configured to get extremely short flash duration. See more in section Flash duration & Mode control.

By setting the Mode Control [13] to NORMAL, the energy range of outlet A is restricted to 2.0-10.0 (3.9-1000Ws). If both outlets are used the maximum output from each outlet is

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9.4 (660Ws). The maximum output of outlet B is always limited to 9.4 (660Ws) in NORMAL mode. NORMAL mode is configured for short flash duration and optimal color temperature. See more in section *Flash duration & Mode control*.

By setting the Mode Control [13] to MASTER, the energy level will be simultaneously adjusted for outlets A and B. Either Control A [16] or Control B [17] can then be used to adjust the energy level for both outlets.

#### NOTE:

The generator has auto dump functionality and will automatically discharge if the output is lowered. The auto dumping is primarily for safety reasons in service and therefore quite slow. To save time a flash can be triggered to discharge the generator when the output is lowered.

### Flash duration & Mode control

Pro-B4 has very short flash durations on all energy settings. Even at full output it is as short as 1/2,400s. Short flash duration has more advantages than freezing a moving object, for example to cut out exposure influence from indoor ambient light as well as direct sunlight.

The flash duration can be displayed in the Displays A [14] and B [15], by pushing the Display Button [6]. When flash duration is selected, 1/s is shown in the Indicator Display [7].

The flash duration varies with the energy level setting, see section Technical data. The shortest flash duration is obtained when the Mode Control [13] is selected to FREEZE mode and the energy is set  $4.7 \, \text{f-stop}$  (25.4 Ws). The flash duration in this setting is  $1/25,000 \, \text{s}$ .

As has been indicated the flash duration is depending on Mode Control [13] setting. The modes are configured for different applications of photography.

- FREEZE: Optimized for extremely short flash duration and fast recycling. Recommended for applications where extremely short flash durations or extremely fast image sequences are required.
- NORMAL: Optimized for a stable light output and neutral color temperature. The flash duration is kept short on all power settings. This setting is recommended for most applications.
- MASTER: As NORMAL mode but energy on output A and B is simultaneously adjusted
  if turning either Control A [16] or Control B [17].

#### NOTE:

Setting Mode to NORMAL or MASTER will change the possibilities to adjust light output on both outlets. See more in section Energy range and control.

www.profoto.com

# Modeling light control

The maximum modeling light in total for both outlets is 500 W. The modeling light is automatically max 500 W, regardless of the nominal effect of the lamp heads.

The Model Buttons [18] are used to turn on/off the modeling light for outlet A and B respectively. When the modeling light is turned on, M is shown in the corresponding Display, [14] and [15].

With the Model Control [11] set to SETTIME and by turning the Control A [16] or B [17], the modeling lights can be set to be continuously turned on or automatically turned off after a time delay. The setting applies to both outlets.

- When continuously on, the modeling lamps automatically dim down during recycling or when
  the energy output is changed. In this position, the battery is drained within 10-45 minutes
  depending on the lamp head used (500, 250 or 100 W) and the number of flashes triggered.
- To save battery, the modeling light can be turned off automatically after a selectable time delay (10-120 s, in increments of 10 s).

The Model Control [11] is used to select modeling light mode:

- MAX PROP: Maximum proportional modeling light is used when maximum light is needed on one lamp head (the one with highest energy level). The modelling light on one lamp head will get maximum intensity and the other will correspond proportionally. A consequence is that the modeling light may change on a lamp head which is not adjusted.
- MAX: Both modeling lamps get the maximum intensity, regardless of the selected energy levels (light output).
- PROP: The modeling light intensity for each lamp head is automatically adjusted to be proportional to the selected energy level (light output).

# Synchronization & Control through Profoto Air

The Profoto Air radio system is fully integrated in the Pro-B4 generator, allowing wireless remote synchronization and control from the camera. Profoto Air has the fastest wireless transmission of any wireless sync system and has an operating range of up to 300 meters<sup>1</sup>. For more info check *www.profoto.com* 

For sync/control via radio, the Profoto Air receiver in the generator must be activated and a radio channel must be selected. Eight (1-8) sync channels are available and each channel can be divided into 6 (A-F) logic groups for remote control. The group selection allows a large light bank with several lamp heads, for example the background light, to be controlled as one light source. Channel/Group setting and activation of the Profoto Air receiver is reached from the Sync Control [10].

<sup>1</sup> Measured in good conditions between two handheld Air Sync units.

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- 1. Set the Sync Control [10] to SET. The radio channel and group setting for the lamp heads are shown in Display A [14] and B [15] as a radio channel number (1-8) followed by a group letter (A-F).
- 2. Turn the Control A [16] or B [17] clockwise/counter-clockwise to increase/decrease the radio channel number for the generator.
- 3. Push and turn the Control A [16] clockwise/counter-clockwise to increase/decrease the group setting for lamp head A [3].
- 4. Push and turn the Control B [17] clockwise/counter-clockwise to increase/decrease the group setting for lamp head B [8].
- 5. Set the Sync Control [10] to RADIO.

The generator is now set for wireless use.

The generator can be synchronized with the camera via *Profoto Air Remote*, *Profoto Air Sync* or the *Phase One/Mamiya V-Grip Air* vertical grip for Phase One/Mamiya 645DF cameras.

The generator can be remotely controlled from the camera with *Profoto Air Remote* or via *Profoto Air USB* attached to a computer running the Profoto Studio 3 software.

#### NOTE:

The Profoto Air system operates over eight specific frequencies in the 2.4 GHz band. The frequencies are evenly spread over the entire frequency band, to optimize reliable functionality. The large number of radio channels makes it possible to select a channel that is not interfered by other photographers using Profoto Air, or by WLAN and Bluetooth devices and other radio equipment operating on the same widely used 2.4 GHz frequency band.

For best radio operation, pay attention to the following:

- Keep power, sync and lamp head cords away from the Profoto Air Antenna [1].
- Maintain line of sight between the transmitter (Profoto Air Remote, Profoto Air Sync, Profoto Air USB or Phase one/Mamiya V-Grip Air) and the generator whenever possible.
- When hiding the generator from view, try to not hide it behind or against metal or water filled objects as this affects radio range.

# Synchronization through cable or IR slave

If Profoto Air is not used the generator can be synchronized through cable or IR slave. To synchronize through cable, turn the Sync Control [10] to OFF and connect a sync cable from the camera to the Sync Socket [2] on the generator.

The Photocell [4] is activated by setting the Sync Control [10] to SLAVE. When the Photocell [4] is activated the generator will be triggered by a flash release, as well as signals from most IR sync transmitters.

#### Note:

When sync control is set to SLAVE, Radio sync is disabled, but radio remote control is still enabled.

# Visible and audible signals

The Ready Lamp [19] is illuminated when the generator is fully charged and ready to flash. When the energy level is changed, the Ready Lamp [19] and the modeling lights turn off, indicating that dumping or charging of energy is in progress.

The Ready Control [12] is used to select ready signaling:

- BEEP: A short audible signal indicates that the recycling of the generator is completed.
- BUZZ: An audible signal with several "beeps" indicates that recycling is in progress.
- OFF: Ready signaling deactivated.

If a flash is triggered before recycling or auto dumping, there will be a long "beep". See also section *Flash before ready function*.

Before the generator automatically turns of (after 30 minutes of inactivity), there will a number of short "beeps".

# Flash before ready function

The Flash before ready function makes it possible to flash before the recycling or auto dumping of the generator is fully completed. When a flash is released before the generator is 100% ready, there will be a long "beep", indicating an incorrectly exposed image. Naturally the flash light may not correspond fully to the set value. The incorrect exposure of the image may be so small that it makes no significant difference and the image may still be usable if the catch of the moment was perfect.

#### **Test function**

The Test Button [19] is used to test that all light settings are correct and that the functionality is as expected. When the Test Button [19] is pressed, the generator will flash and the Ready Lamp [19] will be turned off. When the recycling of the generator is completed, the Ready Lamp [19] will be turned on again.

# **USB** port

The USB port [9] is intended for firmware upgrade of the generator. The port cannot be used to connect the Pro-B4 to your PC or Mac via an USB cable.

# Safety and protection functions

The Pro-B4 generator is equipped with integrated fans and the casing is made of cast aluminum to effectively dissipate heat. The fans will automatically start running when the generator is operating at higher energy levels or when the generator is used in hot environments. If there is a risk for overheating, the recycling of the generator will slow down or stop. If the generator or the battery is overheated "ot" will be indicated I the displays. After a while, when the temperature has decreased sufficiently, the generator will start working as normal again.

The generator automatically shuts down if the battery level is too low, to protect it from deep battery discharge.

# **Trouble shooting**

Symptom	Diagnose	Action
The generator does not start.	<ul> <li>The battery is not connected.</li> <li>The battery capacity is too low.</li> <li>The battery temperature is too low.</li> </ul>	Check that the battery is correctly inserted and that the locking devices lock the battery in place.     Replace or charge the battery.     Let the battery warm up before use.
The battery indicator is not visible.	Ws scale or flash duration has been selected; Ws or 1/s is shown in the Indicator Display [7].	Press the Display Button [6] until the battery indicator is shown in the Indicator Display [7].
The energy level for both channels change at the same time.	• The Mode Control [13] is set to MASTER.	Set the Mode Control [13] to NORMAL.
The modeling lights are not lit.	<ul> <li>The modeling lights may not be turned on.</li> <li>The lamp socket may be deactivated.</li> </ul>	Press the Model Buttons [18] to turn on the modeling light. M should be shown in the corresponding Display [14] or [15].  Check that the modeling light switch at the back of the head is at the "On" position.
The modeling light on one channel changes when the energy level on the other channel is adjusted.	The Model Control [11] is set to MAX PROP.	Set the Model Control [11] to MAX or PROP.
Displays, indicators and backlight are dimmed down.	This is fully normal.     After one minute of inactivity, these are dimmed down to save battery.	Press or turn any button or control and the backlight will turn back on.

Symptom	Diagnose	Action
The generator turns off automatically.	The battery level is too low.  After 30 minutes of inactivity, the generator turns off. This is fully normal.	Recharge the battery.     Press the On/Off     Button [5] to turn on the     generator.
Recycling is slow or has stopped completely.	<ul> <li>The generator or battery is overheated.</li> <li>The battery temperature is too low.</li> </ul>	Ensure better ventilation and wait until the temperature decreases. The generator will automatically start recycling at normal pace when the temperature has decreased sufficiently.      Let the battery warm up before use.

# **Technical data**

All data are to be considered as nominal and Profoto reserves the right make changes without further notice.

Energy	1000 Ws		
Energy range	1-1000 Ws (0.1-10.0)		
	Normal Mode: 2.0-10.0		
	Freeze Mode: 0.1-5.8		
Energy control increments	1/10 and 1/1 f-s	stop	
Asymmetry	Full asymmetry	, Max 9.4 (660Ws) on channel B	
Recycling time	Normal mode: 0.03 – 0.99 s		
	Freeze mode: 0	.03-0.1 s	
Color stability	Normal mode:	$\pm$ 150° K over entire energy range; $\pm$ 20° K flash-to-flash	
	Freeze mode:	± 800° K over entire energy range; ± 150° K flash-to-flash	
Energy stability	Normal mode:	± 1/100 f-stop flash-to-flash	
	Freeze mode:	± 1/20 f-stop flash to flash	
Number of lamp head sockets	2		
Modeling light	Maximum 500 W in total, continuous or time controlled		
Auto Dumping	Yes		
Battery type	Lithium-Ion (LiFePO4)		
Battery capacity	220 @ full		
	>50,000 @ min		
	Infinite with charger connected (depending on intensity of usage)		
Battery life	1 200 charge cycles (80% capacity left)		
Battery status indicator	Yes		
Battery charging time	45 min		
Auto power off	Yes		
Operating temperature range	-10 °C to +50 °C (14 °F to +122 °F)		
	Performance is limited when battery temperature is below 0 °C (32 °F)		
Storage temperature range	-20 °C to +50 °C (-4 °F to +122 °F)		
Wire sync	Yes, 1 socket (1/4")		

Photocell/IR slave	Yes
Radio sync	Yes, built-in Profoto Air
Radio remote control	Yes, built-in Profoto Air
Radio range	Up to 100 meters with built-in radio. Profoto Air supports up to 300m range between 2 handheld traceivers.
Computer control	Yes, Profoto Studio via Profoto Air
Size	25.5 x 18.5 x 25 cm; 10 x 7.3 x 9.8 in
Weight	9.8 kg (22 lbs), including battery

# Flash duration on different energy settings

In NORI	VIAL mode	In FREE	EZE mode
Flash duration (t0.5)	Energy/Light output	Flash duration (t0.5)	Energy/Light output
1/2400s	10.0	-	-
1/2400s	9.9	-	-
1/2400s	9.8	-	-
1/2200s	9.7	-	-
1/2200s	9.6	-	-
1/2200s	9.5	-	-
1/3000s	9.4	-	-
1/3000s	9.3	-	-
1/3000s	9.2	-	-
1/3000s	9.1	-	-
1/3000s	9.0	-	-
1/3000s	8.9	-	-
1/3000s	8.8	-	-
1/3200s	8.7	-	-
1/3200s	8.6	-	-
1/3200s	8.5	-	-
1/3200s	8.4	-	-
1/5000s	8.3	-	_

In NOR	MAL mode	In FRE	EZE mode
Flash duration (t0.5)	Energy/Light output	Flash duration (t0.5)	Energy/Light output
1/5000s	8.2	-	-
1/5000s	8.1	-	-
1/5500s	8.0	-	-
1/5500s	7.9	-	-
1/5500s	7.8	-	-
1/5500s	7.7	-	-
1/5500s	7.6	-	-
1/5500s	7.5	-	-
1/5500s	7.4	-	-
1/5000s	7.3	-	-
1/5000s	7.2	-	-
1/5000s	7.1	-	-
1/5000s	7.0	-	-
1/5000s	6.9	-	-
1/5000s	6.8	-	-
1/4500s	6.7	-	-
1/4500s	6.6	-	-
1/4500s	6.5	-	-
1/4500s	6.4	-	-
1/4500s	6.3	-	-
1/4500s	6.2	-	-
1/4500s	6.1	-	-
1/4500s	6	-	-
1/4000s	5.9	-	-
1/4000s	5.8	1/18000s	5,8
1/4000s	5.7	1/17500s	5,7
1/4000s	5.6	1/17500s	5,6
1/4000s	5.5	1/17000s	5,5

In NORI	RMAL mode In FREEZE mode		EZE mode
Flash duration (t0.5)	Energy/Light output	Flash duration (t0.5)	Energy/Light output
1/4000s	5.4	1/17000s	5,4
1/4000s	5.3	1/17000s	5,3
1/4000s	5.2	1/16500s	5,2
1/4000s	5.1	1/16500s	5,1
1/4000s	5	1/16500s	5
1/4000s	4.9	1/16500s	4,9
1/4000s	4.8	1/16000s	4,8
1/3500s	4.7	1/25000s	4,7
1/3500s	4.6	1/25000s	4,6
1/3500s	4.5	1/25000s	4,5
1/3000s	4.4	1/23000s	4,4
1/3000s	4.3	1/23000s	4,3
1/3000s	4.2	1/23000s	4,2
1/3000s	4.1	1/21000s	4,1
1/2500s	4	1/21000s	4
1/2500s	3.9	1/21000s	3,9
1/2500s	3.8	1/21000s	3,8
1/2500s	3.7	1/20000s	3,7
1/2500s	3.6	1/20000s	3,6
1/2500s	3.5	1/20000s	3,5
1/2500s	3.4	1/19000s	3,4
1/2500s	3.3	1/19000s	3,3
1/2500s	3.2	1/19000s	3,2
1/2500s	3.1	1/19000s	3,1
1/2500s	3.0	1/18000s	3
1/2500s	2.9	1/18000s	2,9
1/2500s	2.8	1/17000s	2,8
1/2000s	2.7	1/17000s	2,7

In NORI	VIAL mode	In FREI	EZE mode
Flash duration (t0.5)	Energy/Light output	Flash duration (t0.5)	Energy/Light output
1/2000s	2.6	1/16500s	2,6
1/2000s	2.5	1/16500s	2,5
1/2000s	2.4	1/16500s	2,4
1/2000s	2.3	1/16500s	2,3
1/2000s	2.2	1/16000s	2,2
1/2000s	2.1	1/16000s	2,1
1/2000s	2.0	1/15000s	2
-	-	1/15000s	1,9
-	-	1/15000s	1,8
-	-	1/15000s	1,7
-	-	1/15000s	1,6
-	-	1/15000s	1,5
-	-	1/15000s	1,4
-	-	1/15000s	1,3
-	-	1/14000s	1,2
-	-	1/14000s	1,1
-	-	1/14000s	1
-	-	1/13000s	0,9
-	-	1/12500s	0,8
-	-	1/12500s	0,7
-	-	1/12500s	0,6
-	-	1/12500s	0,5
-	-	1/12000s	0,4
-	-	1/12000s	0,3
-	-	1/12000s	0,2
-	-	1/11000s	0,1

# **Accessories**

#### Heads

- ProHead and ProHead Plus
- ProB head and ProB head Plus
- ProRing and ProRing Plus
- ProRing2 and ProRing2 Plus
- ProTwin
- Special heads
  - StickLight
  - MultiSpot<sup>2</sup>
  - Fresnel Spot<sup>2</sup>
  - ZoomSpot<sup>2</sup>
  - Striplights<sup>2</sup>
  - StillLights2

## Bag

Pro-B4 Protective Bag

Consult your local dealer or distributor for specific information on accessories.

# Warranty

All Profoto generators and heads are individually tested before they leave the company and guaranteed for a period of two years (local deviations may apply) with the exception of flash tubes, glass covers, modeling lamps and cables. Profoto is not responsible for technical malfunctions created by improper use or accessories made by other companies. If you have any technical problems please get in contact with an authorized Profoto service station.

# **Regulatory information**

# World-wide Usage of Radio Spectrum

The Profoto Air system operates on the license-free 2.4GHz ISM band for SRD (Short Range Devices). This band may be used in most parts of the world. Regional restrictions may apply.

#### Note:

Refer to national regulations for the region where the Profoto Air Sync or Profoto Air Remote unit shall be operated and make sure that they are followed.

#### Unites States and Canada

### F.C.C. and Industry Canada

Compliance Statement (Part 15.19) This device complies with Part 15 of FCC rules and RSS-210 of Industry Canada. Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference and,
- this device must accept any interference received,including interference that may cause undesired operation.

## Warning (Part 15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Ce dispositif est conforme aux normes RSS-210 d'Industrie Canada. L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes :

- 1) il ne doit pas produire de brouillage et
- l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term 'IC' before the certification/registration number only signifies that the Industry Canada technical specifications were met.

Les lettres 'IC' n'ont aucune autre signification ni aucun autre but que d'identifier ce qui suit comme le numéro de certification/d'enregistrement d'Industrie Canada.

#### Profoto AB

Transmitter / Receiver MODEL: Profoto Air Sync PRODUCT NO: PCA5108-0000

MODEL: Profoto Air Remote PRODUCT NO: PCA5102-0000 MODEL: Profoto Air USB PRODUCT NO: PCA5104-0000

FCC ID: W4G-RMI IC: 8167A-RMI Made in Sweden

www.profoto.com

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## Japan

The module has been granted modular approval for sale and operation in Japan.

特定無線設備の種類

Classification of specified radio equipment:

Article 2, Clause 1, Item 19

2.4 GHz Wide Band Low Power Data Communication

上記のとおり、電波法第38条の24第1項の規定に基づく認証を行ったものであることを証する。

This is to certify that the above-mentioned certification by type has been granted in accordance with the provisions of Article 38-24, Paragraph 1 of the Radio Law.



Profoto AB SWEDEN

Phone +46 8 447 53 00 info@profoto.com www.profoto.com



