

AcuteB 600

User's Guide

Benutzerhandbuch

Guide de l'utilisateur

Guida dell'utente

Guía del usuario

用户说明书

ユーザーズガイド



The Light Shaping Company

SAFETY PRECAUTIONS!

Read and follow all safety instructions below carefully to avoid injuries or damages!

Make sure that this user guide always accompanies equipment!

Profoto products are intended for professional use!

Generator, lamp heads and other parts are only intended for indoor photographic use.

Do not place or use the equipment where it can be exposed to moisture, for instance thorough condensation, extreme electromagnetic fields or in areas with flammable gases or dust!

Do not expose the equipment to dripping or splashing

Do not place objects filled with liquids on the equipment.

Do not store the generator close or below the freezing point, which can lead to loss of capacity and risk of condensation when used in a warmer surrounding immediately.

Do not connect accessories from other brands!

Equipment must only be serviced or repaired by authorised and competent service personnel!

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

WARNING – Electrical Shock Hazard – High Voltage!

Only use Profoto extension cables!

Do not open or disassemble generator or lamp head! Equipment operates with high voltage.

Generator capacitors will be 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, risk of contact with live electrical socket!

Disconnect lamp cable between generator and lamp when changing modeling lamp or flash tube!

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. Light components 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 **NOTICE – Equipment Overheating Risk**

Remove transport cap from lamp head before use!

Do not obstruct ventilation by placing filters, diffusing materials, etc. directly over glass cover modeling lamp or flash tube!

FINAL DISPOSAL

Equipment contains electrical and electronic components that are 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!

**Thank you for choosing Profoto.
Follow the instructions in this booklet to use your new product.**

Thanks for showing us your confidence by investing in an AcuteB 600 generator. For more than three decades we have sought the perfect light. What pushes us is the conviction that we can offer even the most demanding photographer yet better tools.

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Before our products are shipped we have them pass an extensive and strict testing program. We check that they pass the quality and capacity levels the most demanding photographers require. For this reason our flash equipment is the standard in most rental studios in New York and Tokyo and the most rented flash all over the world.

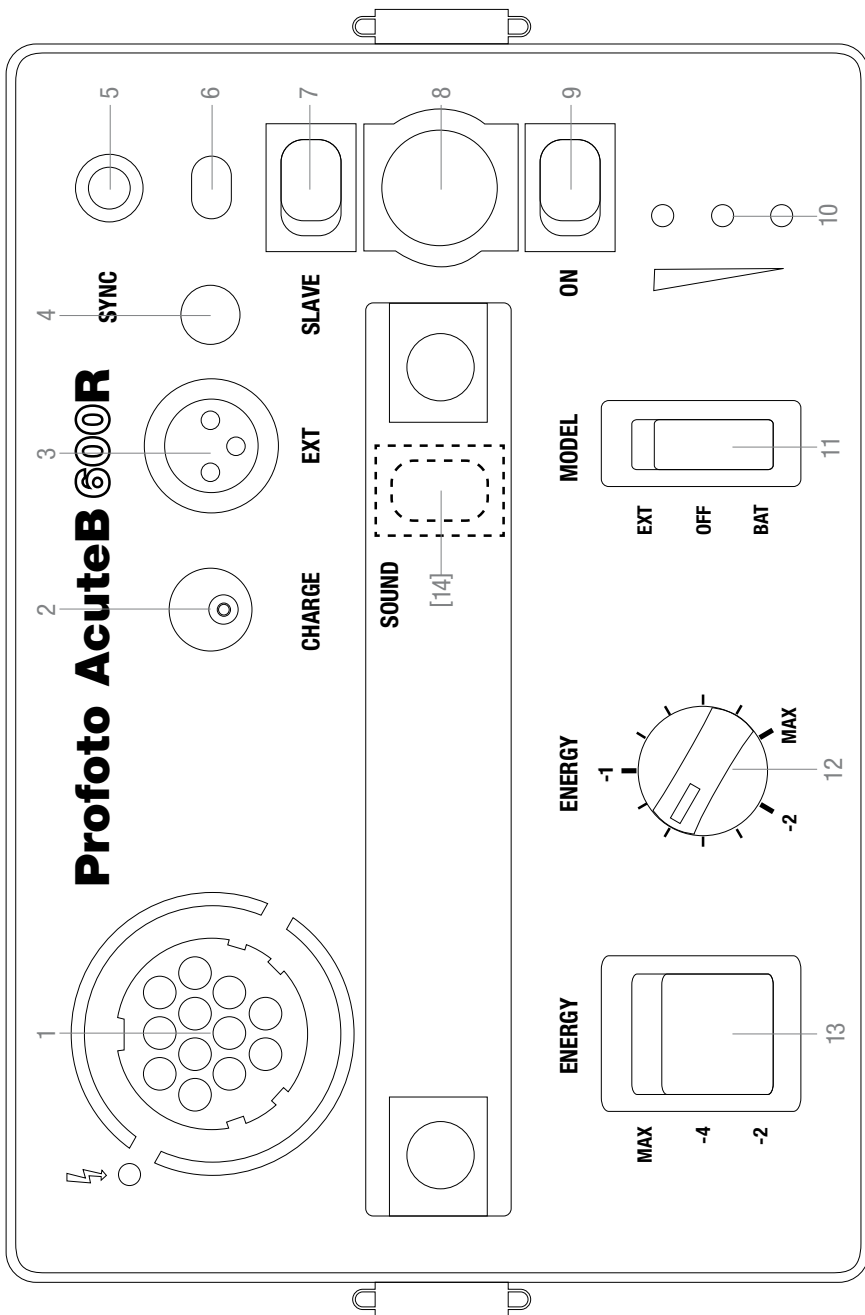
Quality of light

The Profoto system consists of different generators built and designed to meet the needs of the most demanding photographers. Yet the most important thing is the light you create, and it is essential that the system you use offers the freedom to do that. The light source, both the flash tube and the modeling light, is placed high and free in the flash head. This makes it easier for you to adjust the light and use your creativity. Most reflectors can be moved forward or backward in relation to the optical centre of the light source, effectively narrowing or widening the spread of the light and changing the intensity and fall-off characteristics as well. 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!

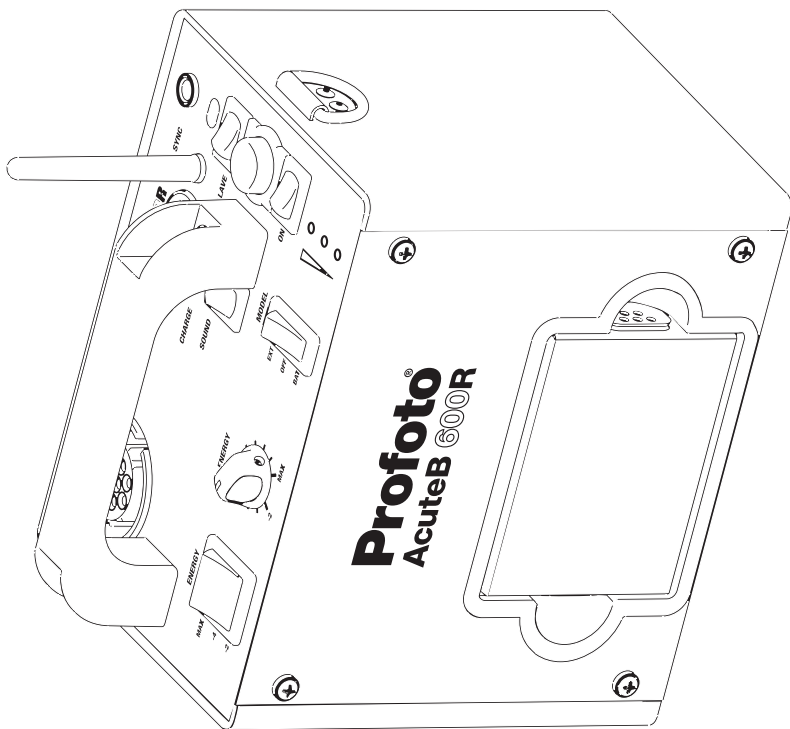
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Nomenclature

- 1 Lamp Head Socket
- 2 Charge Socket : CHARGE
- 3 Modeling Light Power Socket : EXT
- 4 Radio Receiver (Only on AcuteB 600R model)
- 5 Sync Socket : SYNC
- 6 Photo/IR-cell
- 7 Photocell Switch : SLAVE
- 8 Ready Lamp & Test Button
- 9 On/Off Switch : ON
- 10 Battery Indicator
- 11 Modeling Light Switch : MODEL
- 12 Energy Control, fine adjustment : ENERGY
- 13 Energy Control : ENERGY
- 14 Audible Signal On/Off : SOUND

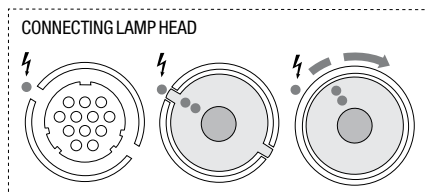


Brief instructions

- Connect the lamp head to the lamp head socket.
- Press the switch **ON (9)** to start. The ready lamp **(8)** will light up when the generator is ready.
- Choose the desired energy level with the controls **ENERGY (12,13)**. The generator will automatically dump if the energy level is lowered.
- Connect sync cord or flash meter to the sync socket **SYNC (5)**.
- Activate the photo/IR cell **(6)** by pressing the button **SLAVE (7)**.
- Activate the audible signal by pressing the button **SOUND (14)**.
- Pressing the test button **(8)** will trigger a flash.
- The Battery Indicator **(10)** shows the battery charge level.
- There are three modes for the modeling light. Press the switch **MODEL (11)** to **EXT** for external power for modeling light or press **MODEL (11)** to **BAT** for battery use only for the modeling light. If you don't want modeling light switch **MODEL (11)** to **OFF**.
- To set radio channel, within 30 seconds from power on, press and hold the PocketWizard Transmitter **TEST** button (up to 4 seconds) until flash triggers. If using a Sekonic meter with Radio module as a Transmitter, press the measure button repeatedly within the 30 second learning period until the flash triggers.
- Press and hold down the button **ON (9)** for 2 seconds to turn off the generator. The generator automatically turns off after 120 minutes when not in use.

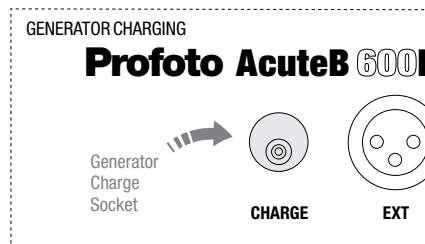
Connecting lamp head

One lamp head can be connected to the lamp head socket. When connecting the lamp head plug to the lamp head socket, align the dots on the plug with the white dot on the generator panel. Push the plug all the way in. Secure by turning the locking ring on the plug clockwise.



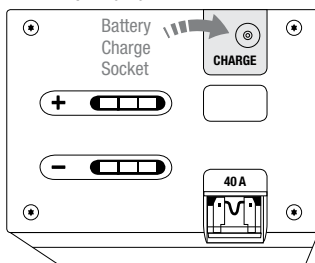
Battery and battery charging

The battery can be charged separately or with the battery in place through the mains outlet by using the standard Profoto Charger 1A which takes 5 hours to charge the battery or the Profoto Charger 2A which charge the battery within 2.5 hours. The generator can be used during charging and cannot be used without a battery in place. The battery will not deteriorate from being charged frequently



- > or from being charged when not fully discharged. The battery indicator (10) shows the charge level and is updated when the generator is turned on or when triggering a flash. If all three indicators are lit, press the test button (8) to trigger a flash, then the battery indicator will be updated. The environment influences the capacity of both the generator and the battery, for example extreme cold decreases the battery charging capacity, for more details please read “Battery Facts”.

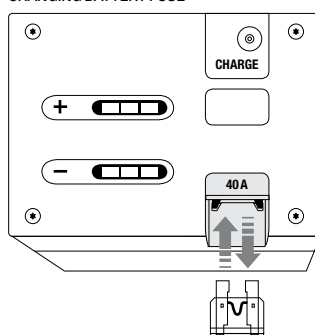
BATTERY CHARGING



Changing battery fuse

The 40 A fuse holder is placed on top of the battery. Pull the fuse out. Use fuses that are recommended, for more details please read “Technical Data”. Push the new 40A fuse all the way into the fuse holder.

CHANGING BATTERY FUSE

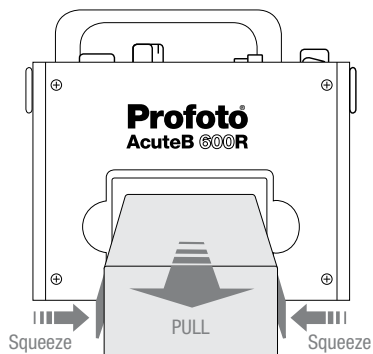


Changing battery

The battery has a cassette for rapid exchange. To release the battery, squeeze the two safety clamps and pull the battery out. Push the new battery all the way into the generator, make sure the text “This side up” on the battery is up. To properly secure the battery, make sure you hear a “click” from each safety clamp.

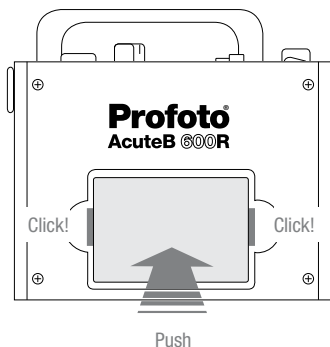
CHANGING BATTERY

Release battery



CHANGING BATTERY

Insert battery



Energy control

The energy output is regulated over seven f-stops. The energy can partly be adjusted with the **ENERGY** switch (13) in 2 f-stop increments, from 1/1 down to 1/16 of the total energy (equivalent to five f-stops) and also via the **ENERGY** dial (12) for fine-grained energy control in 2/10 f-stop increments.

Choice of modeling light

First set the **MODEL** (11) to EXT or BAT. The maximum modeling light is 65 W. Profoto uses a 65 W high efficient halogen lamp equivalent to a 90 W standard halogen lamp. Acute/D4 and Acute2 heads can be used with a special adapter, supplied by Profoto. The modeling light is constant and does not vary with the energy chosen.

EXT: Continuous 65 W modeling light is possible when the Profoto Adapter 85 W is connected to mains outlet and modeling light selector switch is set to EXT. No power will be discharged from the battery if the adapter is connected to mains outlet. A fully recharged battery in this position gives you up to 160 full power flashes and unlimited usage of modeling light, for more details please read “Technical Data”.

BAT: In this position the modeling lamp is connected to the battery. This position is to be used when working on location. A fully recharged battery in this position gives you up to 160 full power flashes or 50 minutes modeling light time.

OFF: If the switch is set to OFF, the modeling light is off.

Connecting camera & flash meter

The sync socket **SYNC** (5) allows the camera or flash meter to be connected. The 5 m sync Cord can be extended with sync extension cords. Further sync connections can be made with the Profoto sync interconnection cable or by so called “hard wiring”.

Recycling

The recycling time is approximately 2.6 seconds at full energy if the battery is fully charged. When extremely short recharging times are required, for instance when rapid-firing a continuous series of frames, choose lower energy settings. The lowest energy setting offers the fastest recycling rate (0.09 sec. or 10 flashes/sec.).

Photocell

The built-in photocell (6) will sense flash release as well as IR-signals from most IR-transmitters. The photocell is disabled when the **SLAVE** switch (7) is switched off.

Signals, audible & visible

The charge indicator (10) is updated when a flash is triggered. When all indicators light up the generator has no charging value – fire a flash. When the energy output is changed the white ready lamp (8) and the modeling lamp turns off thus indicating that dumping or charging of the energy is in progress. A short “beep” can be heard when the generator is ready. Switching the SOUND switch (14) can turn off this signal. If a flash is fired before the generator is fully charged a long “beep” can be heard thus indicating an underexposed frame.

Safety functions

If the generator overheats, the recharging will slow down or stop. After a while, when the temperature has gone down sufficiently, the generator will start recharging as normal. The generator automatically shuts down if the battery level is too low to protect it from deep battery discharge. The 40 A fuse mounted on the battery cassette protects it from short circuit damage.

Reliability testing – the R-Test

The Profoto R-test guarantees that all products leaving the factory meet the very high standards required of professional equipment by professional photographers. The R-test is a rigorous performance test that Profoto generators are put through – 360 full power flashes are released during one hour, which is equivalent to 10 rolls of 35 mm film. After the test the equipment is examined to see that all parts have kept a normal operating temperature and are not malfunctioning in any way. All Profoto products are subjected to the R-test prior to being shipped.

Color temperature

The AcuteB 600 is perfectly suited for digital and critical analogue shoots. The color temperature is constant with a variation of a maximum of +/- 150 °K. Flash to Flash color precision, +/- 50 °K. Color temperature in between MAX to -4 +/- 150 °K.

NOTICE *Combining flash tubes and/or glass covers with different coatings can make even more distinctive color temperature adjustments.*

Flash duration

In order to reduce the flash duration use ENERGY control (13), for more details please read “Energy Control” and “Technical Data”.

Lamp heads

Lamp heads that can be used with AcuteB 600 are AcuteB Head and Acute/D4 Ring. Acute/D4 Head and Acute/D4 Twin can be used with a 12 V 65 W lamp together with a special adapter supplied by Profoto.

NOTICE *Remember to change back the special adapter before reconnecting to a non battery powered Acute generator.*

Radio receiver

The optional built-in sync radio receiver is available in 315 Mhz (Japan), 344 MHz (USA) and 433 MHz (Europe). They are compatible with all PocketWizard Transmitters and Transceivers working on the same frequency! The Radio module built-into the generator is a learning Pocket Wizard Receiver with 32 channels.

NOTICE *Please make sure to use the frequency allowed in your country.*

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The radio receiver has a learning function which means that during 30 seconds from power on, it will try to detect a trigger signal on any of the 32 channels. If a trigger signal is detected, the radio receiver will lock to that channel. If no trigger is detected, the radio receiver will default to the previously used channel. Actual photo shooting with radio should not be performed during the 30 second learn period since the result may be unpredictable due to the channel learning process. It can also learn multiple zones on the Quad-Triggering channels, 17 through 32. This provides the photographer with the convenience to activate or deactivate the flash unit(s) wirelessly in four separately controllable zones (ABCD) without leaving the camera position.

To teach the generator a receive Channel and Zone* follow these steps:

- Select the desired channel and zone on a PocketWizard (Transmitter or transceiver).
- Power off the generator and wait 5 seconds.
- Power on the generator.
- Within 30 seconds, press and hold the PocketWizard Transmitter TEST button (up to 4 seconds) until flash triggers. If using a Sekonic meter with radio module as a transmitter, press the measure button repeatedly within the 30 second learning period until the flash triggers.

Example:

The teaching Transmitter is set to channel 17 with zones A, B, and C selected. If the generator is taught this combination it will trigger from any Transmitter set to channel 17 with zones A, B, or C selected. It will not trigger if only zone D is selected on the Transmitter. It will trigger if zones A and D are selected.

To teach the generator to trigger in only one zone make sure the teaching Transmitter has only one zone selected. Be aware that while teaching a channel, other PocketWizard transmitters should refrain from triggering to prevent the receiver locking to the incorrect channel. While this is highly unlikely, 1 in 32 chance, and only during the 30 second learning period) it is still possible. The generator radio receiver is always in operation while the generator is powered on. It is possible to use the photo slave or a sync cord in addition to radio triggering.

>

> **For best radio operation do the following:**

- Keep power, sync, and lamp head cords away from the antenna.
- Maintain line of sight between the Transmitter and 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.
- Keep the Transmitter's antenna parallel with the generator antenna.

NOTICE *This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.*

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

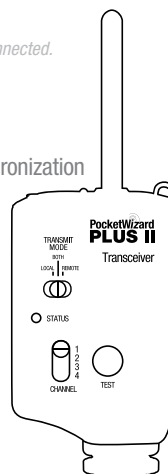
PocketWizard wireless freedom

PocketWizard Plus2 is a 4 channel radio transceiver for wireless synchronization from a distance up to 100 m (1 600 feet) via digital encoded radio signals. This transceiver is compatible with dedicated Sekonic® flash meters, PocketWizard® transmitters, transceivers and Profoto products with built-in radio receiver. The PocketWizard Plus 2 transceiver for wireless synchronization is available through Profoto. Visit www.pocketwizard.com for further information.

PocketWizard wireless freedom offers

- Studio or on-location shoots without unreliable and disturbing PC cords.
- A handy solution for triggering cameras, flash units or both simultaneously from behind a camera or from a remote location.
- A light meter that wirelessly triggers all or only selected electronic flash units and measures the light simultaneously, can even trigger a camera. (Sekonic L-358, L-608 or L-558)
- All this wireless technology built into your photo equipment, ready for you to control remotely.

NOTICE *The PWDF system is available in three different versions, 315 Mhz (Japan), 344 MHz (USA) and 433 MHz (Europe). If you are in any doubt about the frequency allowed in your country, please get in contact with the local Profoto distributor BEFORE you activate the radio slave transmitter. It is strictly forbidden by law to use these frequencies in other countries and it is impossible to use both versions in combination.*



Battery facts

About battery lifetime and how to prolong it

The generator is equipped with one of the best long-life batteries with special characteristics to support very short recycling times. This battery type does not suffer from so called memory effects known from old cellular phones. In fact, the battery is negatively affected by complete discharge and recharge cycles. On the other hand, frequent charges have a positive effect. The battery life can vary from two hundred recharges up to several thousand. With optimal care the battery can last up to 3.5 years. With normal usage, it will last 1–3 years. Nevertheless, if the battery is fully discharged every time it is used, it will still keep its capacity for 250–350 recharges.

Factors that will prolong the battery life

Charge the battery as often as possible. This is valid using either a Profoto Charger 1A or Profoto Charger 2A. If the battery is to be stored for periods longer than 30 days, make sure to recharge the battery completely prior to storage. The life is doubled if less than 50% of the batteries capacity is used before recharge. If only 25% of the batteries capacity is used before recharge, the lifetime increases 8 times, i.e. make sure to charge the battery as often as you can. Only use Profoto intelligent chargers.

Factors that will shorten battery life

The battery is left fully discharged for long periods. High battery temperature. Usage of non-Profoto chargers.

At what temperatures can the generator be used, charged and stored?

The preferred long term usage surrounding temperature is within the range +5 °C to +30 °C (+40 °F to +86 °F). The generator can be shortly used when the temperature of the battery is within the range of -20 °C to +40 °C (-4 °F to +104 °F). The capacity of the battery decreases dramatically when the battery temperature falls below freezing 0 °C (+32 °F). The generator and battery have a great thermal mass which will maintain the operational temperature for a long time. Use the protective case to keep the generator warm when used at low temperatures.

NOTICE *Because of this heavy mass, it can take several hours for a cold battery to restore operational temperature.*



Never charge the battery if the battery temperature is below 0 °C (+32 °F) or above +40 °C (+104 °F). Do not store the unit in hot or cold conditions prior to use. The battery itself must have the right temperature, it is not sufficient that the surrounding temperature is within the correct range. Do not expose the generator to direct sunlight and/or extremely high temperatures for longer periods than one hour. Keep the generator protected from snow, water, moisture and dirt.

Accessories

- AcuteB Head*
- Acute/D4 Head**
- Acute/D4 Twin**
- Acute/D4 Ring*
- AcuteB Kit Bag
- PocketWizard Transceiver
- Profoto Adapter 85 W
- Profoto Charger 1A
- Profoto Charger 2A
- Shoulder Strap
- Limited usage of Special Light Heads

Please consult with your local dealer or distributor for specific information.

* Accessories available.

** Special adapter needed for modeling light. Accessories available.

Technical data

Specifications	
Energy:	600Ws.
Input:	12V ---
Energy Control:	Over a seven f-stop range. In 2/10 step adjustments.
F-stop at 2 m (ISO 100/21°):	64.2 with Magnum 50° reflector.
Recycling:	0.09–2.6 s.
Flash Capacity:	Ws: 600 300 150 75 37 18 9 Energy: Max -1 -2 -3 -4 -5 -6 Flashes: 160 320 600 1200 2000 4000 8000
Modeling Light:	65 W continuous modeling light.
Flash Duration (t0,5):	Ws: 600 150 37 Time: 1/1 000 1/2 700 1/6 800
Energy Precision:	1/75 f-stop flash to flash
Energy Range:	Ws: 600 300 150 75 37 18 9 F-stop: 1/1 1/2 1/4 1/8 1/16 1/32 1/64 Ev: Max -1 -2 -3 -4 -5 -6
Battery:	12V 5 Ah. Non spillable lead/acid battery.
Battery Indicators:	1/1, 1/2, and 1/4 indicators for battery status.
Charging Time:	5 h (standard Profoto Charger 1A), 2.5 h (Profoto Charger 2A).
Auto dumping:	Yes.
Fuse:	40A.
Lamp Head Socket:	1 socket.
Radio:	Optional built-in Radio with 32 channel/4Zone for remote operation.
Radio Range:	Up to 100 m.
Sync Socket:	1 socket.
Sync Voltage:	Compliant to ISO 10330 Standard.
Measurements	
Size (including handle):	19 x 19 x 13 cm (7.5 x 7.5 x 5").
Weight (including battery):	4.8 kg (10.6 lbs).
<i>Specifications subject to change. Not responsible for typographical errors.</i>	



FCC Compliance Statement

This device complies with Part 15 B of the FCC rules. Operation is subjected to the following two conditions: (1) This device may not cause harmful interference (2) This device must accept any interference received, including interference that may cause undesired operation.



Declaration of Conformity

We, Profoto AB of

PO Box 2023

SE-128 21 Skarpnäck, Sweden

hereby declare that the following products Profoto AcuteB 600, AcuteB 600R and in combination with our accessories, to which this declaration relates is in conformity with the appropriate standards EN 300 220-1/3, EN 301 489-1/3, EN 55022, EN 61 000 and IEC 60065, following the provisions of, Radio Equipment and Telecommunications Terminal Equipment directive 99/5/EC with requirements covering EMC Directive 89/336/EEC, and Low Voltage Directive 73/23/EEC.

Stockholm, September 2006

Anders Hedebark

Managing Director of Profoto AB

www.profoto.com

