# User guide Profoto D2 Industrial



# Congratulations on your new Profoto product!

Regardless if you chose a new flash or a new light shaping tool, know that almost half a century's worth of experience was put into its making.

If the years have taught us one thing, it is to never neglect a single detail. We only put our name on a product in which we have the fullest confidence. Before shipping, every one of our products passes an extensive and strict testing program. Unless it complies with the specified performance, quality and safety, it is a no-go.

As a result, we are confident that your new Profoto product will stay with you for years and help you grow as a photographer. But getting the product is only the beginning of that journey. Using it for light shaping is the real adventure. That is why we take pride in providing you with such a wide assortment of light shaping tools, allowing you to shape the light in any way you can imagine.

The almost infinite possibilities might seem bewildering at first, but we're certain you will soon get the hang of it.

Still, I encourage you to sign up for our newsletter at <a href="https://www.profoto.com/newsletter">www.profoto.com/newsletter</a> or visit our blog at <a href="https://www.profoto.com/blog">www.profoto.com/blog</a> so that we can share our experience from almost 50 years of light shaping and hopefully inspire you to grow even further. Enjoy your Profoto product!

Conny Dufgran, founder



#### Safety Precautions!

is impaired, for example by cracks or deep scratches. Lamps shall be changed if they are damaged





#### WARNING - Electrical Shock Hazard - High Voltage!



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

strong heat when used! All lamps may on rare occasions explode and throw out hot particles! Make



#### WARNING - Loud Noises

#### **NOTICE NOTICE - Equipment Overheating Risk**

diffusing materials, etc. over inlets and outlets of the equipment ventilation or directly over glass cover.

#### Note about RF!

This equipment makes use of the radio spectrum and emits radio frequency energy. Proper care



#### **Final Disposal**

Follow local legal requirements for separate disposal of waste, for instance WEEE directive for electrical

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## **Nomenclature**



- 1. Display
- 2. MODEL button
- 3. Power supply indicator
- 4. ON button

- 5. Dial
- 6. SETTINGS button
- 7. Test button and Ready lamp



- 8. Umbrella holder
- 9. Zoom scale
- 10. Front glass

- 11. Tilt-lock knob
- 12. Stand adapter
- 13. Clamp screw



14. Syncinput

- 15. IR slave/Photocell
- 16. Micro USB port

17. Fuse holder

18. Power supply (AC) input

## **Operation**

## **Quick guide**

For detailed operating instructions, see the subsequent sections.

- 1. Fit the stand adapter [12] to a light stand and secure it with the clamp screw [13].
- 2. Adjust the tilt position of the D2 Industrial unit by loosening the tilt-lock knob [11].
- 3. Connect the power cable to the power supply input [18] and then to the AC mains supply.
  - 4. Push the ON button [4].
  - Set the flash light output by using the dial [5] or use the optional Profoto Air accessory (see table on page 15).
  - 6. Release a test flash by pushing the test button [7].
  - Change the settings by using the SETTINGS button [6] and the dial [5].

#### Main menu

The display [1] shows the main menu, with the current settings.



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## **Change settings**

For detailed information about the different settings, see the subsequent sections.

1. Push the SETTINGS button [6] to display the settings menu.



- 2. Turn the dial [5] to select (highlight) a setting.
- 3. Push and hold the dial [5] to show the available options for the selected setting.



- 4. While pushing the dial [5], turn the dial [5] to change the setting option.
- Release the dial [5] to select the currently highlighted setting option.
- 6. Push the SETTINGS button [6] to return to the main menu. Otherwise, the display will automatically return to the main menu after a few seconds.

## **Powersupply**

The D2 Industrial unit can be connected to 100-120 VAC or 200-240 VAC, 50-60 Hz. The unit automatically senses and adapts to the voltage and frequency supplied. The mains power supply fuse must not be smaller than specified in the Technical data section.

Most gas generators with an output of 800 W constant load, or more, can power the D2 Industrial unit. No Profoto ProGas unit is needed.

#### **WARNING**

The mains cable and plug serve as the disconnect device from mains power. When you are done using the equipment, always disconnect from the mains outlet by pulling the plug, not the cable.

Never use ordinary household extension cords to elongate the power cable. They may overheat. Always unwind cord reel extension winders fully before use. Contact your Profoto dealer for proper equipment.

#### **Poweron**

- Connect the included power cable to the power supply input [18] and then to the AC mains supply. The power supply indicator [3] will be red, indicating that the D2 Industrial unit is receiving power.
- 2. Push the ON button [4]. This will turn on the display [1] and turn off the power supply indicator [3], indicating that the D2 Industrial unit is in operational mode.

#### NOTE

By enabling a special setting, the D2 Industrial unit will be operational directly when the power cable is connected. For more information, see chapter Special settings.

#### **Power off**

- 1. Push the ON button [4].
- 2. Remove the power cable.

When the D2 Industrial unit is switched off, the current settings are stored and will apply when the unit is switched on again.

## Light output (energy level)

The light output of the flash light is shown on the display [1] in a relative f-stop scale. The maximum energy (100%) is shown as 10.

The dial [5] is used to adjust the flash light output (energy level):

- Turn the dial clockwise to increase the output in 1/10 f-stop increments and counter-clockwise to decrease.
- Push and hold the dial and turn the dial clockwise to increase the output in 1/1f-stop increments and counter-clockwise to decrease.

The light output setting can also be done on the optional Air Remote TTL, Air Remote, or Air USB.

## **Modeling light**

The MODEL button [2] is used to turn on/off the modeling light.

There are three modeling light setting options:

- MAX: The modeling lamp gets the maximum intensity, regardless of the selected energy level (light output).
- PROP: The modeling light intensity is automatically adjusted to be proportional to the selected energy level (light output).
- FREE: The modeling light intensity is manually set, free from any connection to the energy level of the flash light.

## **Synchronization**

The D2 Industrial unit can be synchronized with the camera by wireless sync (radio/IR-slave/photocell) and by cable. Synchronization by cable is always possible, regardless of sync setting.

There are three sync setting options:

- AIR: The built-in Profoto Air transceiver is activated. The D2 Industrial unit is set to be triggered and/or controlled from any of the optional Profoto Air transceivers.
- SLAVE: The built-in IR-slave/photocell [15] is activated. The flash will slave sync if another flash is fired or if an IR signal is detected.
- OFF: The D2 Industrial unit can only be synced via a cable.

With the AIR sync setting, the D2 Industrial unit is set to be triggered and/or controlled from any of the optional Profoto Air transceivers.

To prepare the D2 Industrial unit for Air operation, do the following:

- 1. Push the SETTINGS button [6] to display the settings menu.
- 2. To activate Air, do the following:
  - a. Turn the dial [5] until SYNC is highlighted.
  - b. Push and hold the dial [5] to display the SYNC settings menu.
  - c. While pushing the dial [5], turn the dial [5] until AIR is highlighted.
  - d. Release the dial [5] to select the AIR setting.
- 3. To change the radio channel, do the following:
  - a. Turn the dial [5] until CHANNEL is highlighted.
  - b. Push and hold the dial [5] to display the CHANNEL settings menu.
  - c. While pushing the dial [5], turn the dial [5] to change the channel.
  - d. Release the dial [5] to select the currently highlighted channel.
- 4. To change the radio group, do the following:
  - a. Turn the dial [5] until GROUP is highlighted.
  - b. Push and hold the dial [5] to display the GROUP settings menu.
  - c. While pushing the dial [5], turn the dial [5] to change the group.
  - d. Release the dial [5] to select the currently highlighted group.

The D2 Industrial unit supports all available Air accessories offered by Profoto, including those listed in the table below. (For operating instructions, refer to the user guide of respective accessory).

Optional Profoto Air accessory	Usable features in combination with D2 Industrial	
	Flash sync	Remote control
Air Remote TTL/A1/A1X/ Connect*	X	Х
AirRemote**	X	X
AirSync**	X	
Air USB***		X

<sup>\*</sup>Optional camera mounted transceiver. D2 Industrial does not support TTL nor HSS.

## Slave sync operation

With the SLAVE sync setting, the D2 Industrial unit senses the flash release, as well as IR signals from most IR sync transmitters.

To activate slave sync, do the following:

- 1. Push the SETTINGS button [6] to display the settings menu.
- 2. Turn the dial [5] until SYNC is highlighted.
- 3. Push and hold the dial [5] to display the SYNC settings menu.
- 4. While pushing the dial [5], turn the dial [5] until SLAVE is highlighted.
- 5. Release the dial [5] to select the SLAVE setting.

## Cable sync operation

Sync via cable is possible in all sync modes. Connect a sync cable from the camera or flash meter to the sync input [14].

<sup>\*\*</sup>Optional camera mounted transceive

<sup>\*\*\*</sup> USB device for using Profoto Studio (Note! Channels 1-8 only).

## **Ready signaling**

Ready signaling is used to indicate when the D2 Industrial unit is 100% fully charged.

There are four ready signaling options:

- BEEP: The D2 Industrial unit beeps when it is ready to flash again after recharging.
- DIM: The modeling light turns off after flashing and turns on when the D2 Industrial unit is ready to flash again. This setting also disables the control panel sounds.
- BEEP DIM: The modeling light turns off after flashing. The modeling light turns on and the D2 Industrial unit beeps when it is ready to flash again.
- OFF: No ready signal. This setting also disables the control panel sounds.

The white ready lamp [7] always comes off after flashing and comes on again when the D2 Industrial unit is fully charged.

## Normal/Freeze mode

The D2 Industrial unit can operate in two modes to maximize the versatility in different shooting situations.

- Normal mode: Optimized for color temperature stability over the entire energy range. Best option for most types of shots.
- Freeze mode: Optimized for shortest flash duration. Best option for shots where the flash is used to freeze fast action. The color temperature might deviate and become slightly bluer.

## Wrong exposure alarm

If a flash is released before the D2 Industrial unit is fully recharged, there will be a long beep. This alarm indicates that the flash light does not fully correspond to the set value. The D2 Industrial unit will always flash even if the set light output cannot be met, as the image may still be usable if the catch of the moment was perfect.

The wrong exposure alarm is partially deactivated when the ready signal is set to DIM or OFF.

### **Quick burst**

Quick burst is a function that allows a series (burst) of flashes to be fired at a faster pace than the D2 Industrial unit can recharge, without losing light output. The function is only active when the light output is set to less than full. The length of the burst, in number of flashes, depends on the repetition rate and the set light output. The lower the light output is set, the longer bursts can be triggered. Thanks to this feature, the D2 Industrial unit can trigger several flashes per second on lower power output without triggering the Wrong exposure alarm. Note that the accuracy of the light output is slightly less precise when Quick burst is active. Quick burst is indicated by a blinking energy level setting.

## Ready lamp/Test function

The ready lamp and the test button functions are combined.

The white ready lamp [7] is on when the D2 Industrial unit is fully charged and ready to flash.

The test button [7] is used to test the light setting. Push the test button [7] to release a flash. The D2 Industrial unit will flash and the ready lamp [7] will be off while the unit is recharging. When the recharge is completed, the ready lamp [7] will be on again.

Change the special settings:

- Push and hold the SETTINGS button [6] for 3 seconds to display the special settings menu.
- 2. Turn the dial [5] to select (highlight) a setting.
- 3. Push and hold the dial [5] to show the available options for the selected setting.
- 4. While pushing the dial [5], turn the dial [5] to change the setting option.
- 5. Release the dial [5] to select the currently highlighted setting option.
  - Push the SETTINGS button [6] to return to the main menu. Otherwise, the display will automatically return to the main menu after a few seconds.

#### **Unit info**

This shows information on total number of flashes, number of flashes to next service, number of service resets done, total run time and current firmware revision.

### **Factory reset**

Used to reset all settings except unit data shown in Unit Info.

## **Reset service indication**

When the unit have reach a defined service level an indication will be shown in the display until reset with this selection.

## **Display orientation**

The setting display orientation rotates the display information 180 degrees. This can be useful if the D2 Industrial unit is mounted upside down.

#### **Auto on mode**

To make the D2 Industrial unit operational, you normally connect the power cable and then push the ON button [4]. By enabling auto on mode, the D2 Industrial unit will be operational directly when the power cable is connected.

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### **Speed**

Reduced recycling speed should be enabled when the D2 Industrial unit is connected to a weak power supply network or appliance, for example a battery inverter like the Profoto BatPac.

## **Automatic safety functions**

The D2 Industrial unit is equipped with an efficient cooling and safety system. The integrated fan automatically adjusts its speed to the internal temperature and cooling needs. The fan may run even when the unit is not in operational mode (the power supply indicator [3] is red).

The protective system will automatically protect the D2 Industrial unit from damage if it is exposed to abnormal external influence. The protective system will slow down the recharging intervals and eventually the recharging will stop completely. The protective system may also turn off the modeling light. This automatic protection will only interfere under extreme conditions, such as high ambient temperatures or if the air vents are blocked. When the temperature has decreased sufficiently, the unit will start recharging at a normal pace.

#### NOTE

Do not block or cover the air vents of the unit. Do not operate the unit in a small enclosed space, such as a case or transport box. The lack of ventilation can reduce the life-time of the unit. Do not keep the unit in abnormal temperatures, for example in a car on a hot and sunny day. Avoid storing the unit close or below the freezing point. A cold unit may not work properly or may even fail and will lose capacity (flash output). There is also a risk of failure because of condensation when a cold unit is moved to a warmer surrounding. Do not expose any flash equipment to wet or humid environments or extreme electromagnetic fields.

## Handling

## Stand mounting

- Fit the stand adapter [12] to a light stand and secure it with the clamp screw [13].
- The D2 Industrial unit can be directed upwards/downwards when the tilt-lockknob [11] is loosened. Fasten the tilt-lockknob [11] when the unit is correctly directed.

## **Mounting Profoto Light Shaping Tools**

The D2 Industrial unit has a built-in reflector that creates a wide and even light spread with a high output. In addition, the D2 Industrial unit is compatible with more than 120 light shaping tools, which can be used to shape its already beautiful light into almost any light you can imagine.

Please note that the D2 Industrial unit is not compatible with the OCF Light Shaping Tools, as they are designed for flashes with LED lights and not for flashes with hot halogen modeling bulbs as in D2 Industrial.

# All tools with standard reflector mount (rubber collar with clasp)

Most reflectors are equipped with Profoto's unique clamp mechanism, which makes them easy to mount and allows you to shape the light by simply sliding the reflector back and forth along the zoom scale [9].

- 1. Unlock the clasp on the external reflector.
- 2. Slide the reflector onto the D2 Industrial unit. Use the zoom scale [9] to place the reflector in the desired position.
- 3. Secure the reflector by locking the clasp.

## **Umbrella mounting**

Umbrellas are easily mounted by sliding the umbrella shaft into the umbrella holder [8]. The diameter of the umbrella shaft must be between 7 mm and 8 mm in order to fit. When an umbrella is used, it is not possible to mount an external reflector at the same time.

- Slide the umbrella shaft into the umbrella holder [8] on the D2 Industrial unit
- After a few centimeters, there will be more friction. Continue to slide the umbrella shaft a few more centimeters into the umbrella holder [8].

## Replacing the front glass

The front glass [10] can be replaced with optional front glass or glass domes. Domes can be used to enhance the "zoom effect", if using any of Profoto's "zoomable" reflectors.

- IMPORTANT: Make sure that the D2 Industrial unit is turned off and that the power cable is not connected.
- IMPORTANT: If the unit has been in use, wait five minutes to allow the unit to be fully discharged and cooled down.
- 3. Gently remove the front glass [10] by pushing the springs holding the glass gently to the sides.
- Carefully fit the new front glass (frosted side inwards) or glass dome in place. Make sure that the springs holding the glass are back in position and securely hold the front glass or glass dome.

## Changing the flash tube and/or modeling lamp

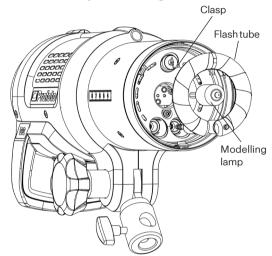
To ensure correct energy levels and color temperature the flash tube should be changed at recommended service intervals. A notification "TIME FOR SERVICE, CHANGE FLASH TUBE" will be shown in the display when it's time for service. When the flash tube has been changed use the 'Special settings' menu to 'Reset service indication'.

#### NOTE:

Do not touch the flash tube and the modeling lamp with bare hands.

- IMPORTANT: Make sure that the D2 Industrial unit is turned off and that the power cable is not connected.
- IMPORTANT: If the unit has been in use, wait five minutes to allow the unit to be fully discharged and cooled down.
- 3. Gently remove the front glass [10] by pushing the springs holding the glass gently to the sides.
- 4. Change the flash tube:
  - Unlock the flash tube trigger by unfolding the stainless steel ribbons around the clasp.
  - Grasp the flash tube in the bottom and pull it straight out of the socket.
  - When inserting the new flash tube, ensure that the trigger connection clasps properly around the flash tube.
  - Lock the flash tube trigger by folding the stainless steel ribbons around the clasp.

- 5. Change the modeling lamp:
  - Pull the lamp straight out of the socket.
  - Insert a new modeling lamp, straight into the socket.
- Carefully fit the front glass [10] in place, with the frosted side inwards. Make sure that the springs holding the glass are back in position and securely hold the front glass.



## Changing the built-in fuse

- Make sure that the D2 Industrial unit is turned off and that the power cable is not connected.
- 2. If the unit has been in use, wait five minutes to allow the unit to be fully discharged and cooled down.
- 3. Pull out the fuse holder [17] from the unit and remove the old fuse.
- 4. Push the new fuse all the way into the fuse holder [17]. Only use recommended fuse, see section Technical data.
- 5. Fit the fuse holder [17] in place, by gently pushing until the holder snaps in place.

## **Additional information**

### **Color temperature**

A frosted glass plate is included in the D2 Industrial delivery. It gives, in combination with the flash tube, a recommended color temperature for daylight conditions. Distinctive color temperature adjustments can be obtained by using glass covers with different coatings.

## **USB** port

The Micro USB port [16] is intended for firmware upgrade of the D2 Industrial unit. The port can be used to control the unit. Please contact your local sales representative for more information.

## **Upgrade firmware**

We recommend that you look for firmware upgrades before you start using your new D2 Industrial unit.

To access the latest free upgrades please contact your local service station.

Upgrade of firmware is made via the Micro USB port [16] on the D2 Industrial unit, following the instructions provided in the upgrade application downloaded from profoto.com/myprofoto.You can always contact your local dealer or distributor for professional service.

Check current firmware version:

- 1. Connect the D2 Industrial unit to the power supply.
- 2. Make sure that the power supply indicator [3] is red.
- 3. Push and hold the SETTINGS button [6] and then push the ON button [4].
- The current firmware version is shown on the display [1] (for example: A7).

## **Technical data**

Energy	1000 Ws
Energyrange	10 f-stops (2-1000 Ws)
Energy control increments	1/10 orfull f-stops
Recycling time	0.03 - 1.2 s
Quick burst	Up to 20 flashes/s
Flash duration Normal mode (t0.5)	1/1,600 s (1000 Ws) - 1/11,000 s (2 Ws)
Flash duration Freeze mode (t0.5)	1/1,600 s (1000 Ws) - 1/50,000 s (2 Ws)
Energy stability Normal mode	±1/20f-stop
Energy stability Freeze mode	±1/20 f-stop
Color stability Normal mode	±150 K over range. ±20 K flash to flash
Color stability Freeze mode	±1200 K over range. ±100 K flash to flash
Modeling lamp	Max 300 W (Halogen)
Modeling light modes	Max, Prop, Free, Off
Guide number @ 2 m, 100 ISO with Magnum Reflector	648/10
Input power supply	100-127 V / 200-240 V, 50/60 Hz (nominal)
Fuse requirements	6 A/230 V, 10 A/120 V
Synchronization modes	Air/IR/Sync cable
Dimensions (LxWxH)	31x13x18 cm (12.2x5.1x7.1 in)
Weight	3.4 kg (7.5 lbs)

Operating temperature	+10 C to +35 C (-10 C to +50 C with reduced performance)
Storage temperature	-20 C to +60 C
Frequency band	2.4GHz (2404 to 2479.3 MHz)
No offrequency channels	20 (1-20)
Radio Power Output	Maximum 9.9 dBm

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

## Warranty

For warranty information visit: https://profoto.com/support/warranty

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## **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 transceiver shall be operated and make sure that they are followed.

### **United States and Canada**

#### **Profoto AB**

Transmitter / Receiver MODEL: Profoto D2 Industrial PRODUCT NO: PCA1468-0000 Contains FCC ID: W4G-RMI3 and IC: 8167A-RMI3

Designed in Sweden and manufactured in Thailand

## Responsible Party - U.S. Contact Information Profoto US

Profoto US 220 Park Ave Suite 120 Florham Park NJ 07932 +1973-822-1300 us-info@profoto.com

www.profoto.com

## 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.

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

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.

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.

## 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.

## **FCC Radio Frequency Exposure**

WARNING: The Profoto D2 Industrial device radiates radio frequency energy at a level below the United States FCC radio frequency exposure limits. Nevertheless, this device should be used in such a manner that the potential for human contact during normal operation is minimized. For handheld operation, this device has been tested and meets FCC RF exposure guidelines when the device is positioned a minimum of 1.0 cm from the body.

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The Profoto D2 Industrial device complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. For handheld operation, this device has been tested and meets IC RF exposure limits when the device is positioned a minimum of 1.0 cm from the body.

## **Limites d'exposition RFIC**

Le dispositif Profoto D2 Industrial est conforme aux limites sur l'exposition aux rayonnements IC RSS-102 définies pour un environnement non contrôlé. En mode manuel, ce dispositif a été testé et respecte les limites d'exposition IC RF lorsque ce dernier est placé à au moins 1 cm du corps.

## **Japan**

Japanese Radio Law. This device is granted pursuant to the Japanese Radio Law(電波法). This device should not be modified (otherwise the granted designation number will become invalid).



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