



DIGITAL TTL
UW STROBE
ONE160x^{MkII}
User Guide

Thank you for purchasing an ONEUW product!

We have created this innovative underwater strobe by interpreting your requests and suggestions with the highest technological expression and an extreme attention to quality.

Please read this user guide carefully before using your ONE160x-MarkII underwater strobe. Only in this way will you be able to use it to its full potential in absolute safety for yourself and for others.

For any clarification or additional information please do not hesitate to contact us.

We are confident that this tool will become for you a faithful companion for you in your photographic path and a valuable aid in achieving the greatest satisfactions.

We present you with a "state of the art" light for underwater photography, it is now up to you and with your imagination to create the most beautiful images.

Light becomes emotion, enjoy it.

CONTENTS

IMPORTANT INFORMATION

1.0 CE Mark - Safety notes	1
1.1 CE Mark	1
1.2 Warnings and caution.....	1
1.3 Warnings and information in the chapters.....	3

BASIC INFORMATION

2.0 Key features overview	4
3.0 Available versions	6
3.1 Nikon - Flash exposure modes.....	6
3.2 Canon - Flash exposure modes.....	7
3.3 Sony - Flash exposure modes	7
3.4 Version identification	7
4.0 Strobe parts and controls	8

GETTING STARTED - POWER SUPPLY MANAGEMENT

5.0 Power supply management	10
5.1 Opening the battery compartment	10
5.2 Closing the battery compartment	10
5.3 Installing and removing the battery pack	11
5.4 Recharging the battery pack.....	11
5.5 Battery pack state of charge check.....	12
5.6 Air transport - Shipments	13
6.0 Switching the strobe on/off	15

CONTROLS FUNCTIONS - DISPLAY INDICATIONS

7.0 Lever selectors function	16
7.1 MAIN lever selector - Pilot light.....	16
7.2 MAIN lever selector - TTL mode	16
7.3 INPUT lever selector - Input mode	16
7.4 Storing operating parameters	17

CONTENTS

8.0	Rotary control switch function	18
9.0	Display indications	19
9.1	Inverted display mode - Check flash.....	21
9.2	Power output reading	21

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

10.0	Flash exposure modes.....	22
10.1	digital-TTL - film-TTL auto mode.....	22
10.2	s-TTL auto mode	23
10.3	Manual mode via synchro cable	24
10.4	Manual mode via fiber optic cable	25
10.5	Pre-flash management	25
10.6	Manual mode via optical slave receiver	26
11.0	Rear-curtain sync	27
11.1	Rear-curtain sync Nikon cameras	27
11.2	Rear-curtain sync Canon cameras	27
11.3	Rear-curtain sync Sony cameras.....	28
12.0	High-speed sync HSS	29
12.1	High-speed sync Nikon cameras.....	29
12.2	High-speed sync Canon cameras	29
12.3	High-speed sync Sony cameras.....	30
13.0	Pilot light	32
13.1	Pilot light manual switching on/off	32
13.2	Autofocus assistance mode	32
14.0	Version selection - Firmware upgrade	33
14.1	Version selection	33
14.2	Firmware upgrade	34

CONNECTION - SYNCHRO CABLES - FIBER OPTIC

15.0	Connector - Synchro cables	36
15.1	Synchro cable socket	36

CONTENTS

15.2	Synchro cables	36
15.3	Fiber-optic cable socket.....	37
15.4	Fiber-optic cables	37

SINGLE-STROBE AND MULTI-STROBE SET-UP

16.0	Single-Strobe and Multi-Strobe set-up	38
16.1	Nikon cameras	38
16.2	Setting the ONE160's SLAVE mode	39
16.3	Nikon connection wiring.....	40
16.4	Canon cameras	42
16.5	Canon connection wiring.....	43
16.6	Sony cameras.....	45
16.7	Setting the ONE160's SLAVE mode	46
16.8	Sony connection wiring	47

PROBLEMS AND ERROR INDICATIONS - MAINTENANCE

17.0	Problem and error indications.....	49
17.1	Overheating protection	49
17.2	Battery pack excessive discharge protection.....	50
18.0	Overpressure safety valve	51
19.0	Maintenance.....	53

ACCESSORIES - SPECIFICATION

20.0	Accessories	54
20.1	Standard accessories	54
20.2	Optional accessories.....	54
21.0	Specification	55

REFERENCE INFORMATION - SUPPLEMENT

22.0	Warranty terms	56
-------------	-----------------------------	-----------



CONTENTS

23.0 Environmental protection - Information on disposal	57
23.1 Electrical and electronic equipment disposal	57
23.2 Battery disposal	58
24.0 General information - Notices	59
24.1 Trade mark® information	60
25.0 Annotations	61

IMPORTANT INFORMATION

1.0 Safety Notes

1.1 CE Mark



The ONE160x-MarkII strobe has been developed and manufactured with safety standards in accordance with applicable CE Directives.

1.2 Warnings and caution

- Use the product for its intended purpose – underwater photography – following the modes and instructions given by this user guide.
- Do not attempt to disassemble the strobe under any circumstances. High voltages that can cause fatal electric shocks are present in its electronic components. Any tampering with the flash will void the warranty. All inspections and repairs must be carried out at ONEUW's premises or authorized service centers.
- Never short-circuit the terminals of the battery packs and do not attempt, for any reason, to disassemble them.

IMPORTANT INFORMATION

- Do not leave the strobe in overheated environments such as car interiors in summer or boat engine compartments. Do not expose the strobe in summer directly to the sun for prolonged periods, overheating can damage the unit and create dangerous situations.
- To recharge the battery packs, use only the specific battery charger supplied with the strobe, following the appropriate instructions for use (chapter 5.4). Recharge the battery packs in cool rooms and avoid overheating when using them.
- If the strobe is flooding, turn it off immediately and for your safety do not use it until reconditioning to technically efficient condition. Send the unit to our plant or authorized service centers for inspection. Carefully read the instructions given in this manual in the relevant chapter (18.0).
- Strictly follow the instructions on how to connect the strobe. Camera model, wiring mode, single or dual units, interface with strobes of other brands, are all parameters that should be carefully checked for compatibility. The strobe and the units connected may be seriously damaged due to improper connections. Carefully read the instructions given in this manual in the relevant chapter (16.0).
- Do not fire the strobe directly into the lens of a digital camera, because the camera sensor may become damaged.
- Do not fire the strobe directly into the eyes of someone, and do not look directly at the flash emission, it could cause retinal injury.

IMPORTANT INFORMATION

1.3 Warnings and informations in the chapters

The following chapters contain further notes in the form of "danger warnings" or "technical information notes".

The type of annotation is easily recognizable by the icon that precedes it as indicated below.



This icon indicates warnings concerning potentially dangerous situations that could result in property damage or personal injury.



This icon indicates warnings that allow you to deepen your technical knowledge of the equipment and its correct use.

BASIC INFORMATION

2.0 Key features overview

ONE160x-MarkII (MkII) is a professional underwater strobe with maximum energy of 162 Ws (J) and Guide Number 20 (ISO100-1m-full power). The beam angle is 130° (GN16).

The ONE160x-MkII digital strobe is available for Nikon, Canon and Sony cameras. The digital protocols are all installed on board the strobe and they can be selected directly by the user.

The body of the strobe is machined from a solid block of anticorrosive aluminium, protected by a hard anodizing treatment with nanotech quartz coating.

The depth rating is 200 m.

The strobe control is assigned by a pair of powerful CPU's that manage, firstly the digital communication between the camera and the strobe: i-TTL protocol by Nikon, E-TTL protocol by Canon, digital TTL protocol by Sony (dgt-TTL), and secondly, the power circuits in order to optimize the performance of the unit in every situation, in addition to operational safety and battery life.

High-speed sync (HSS) mode is available in both auto flash exposure digital TTL and manual flash exposure modes.

The possibility of firmware upgrades directly by the user via Bluetooth allows us to correct, improve or add new functionality and to guarantee, within hardware limits, future compatibility with new digital cameras.

BASIC INFORMATION

Two large lever selectors, a multifunction rotary control switch and a wide control display allows us to set and monitor every function.

The left MAIN red lever selector operates the control of the pilot light and the TTL flash light reading mode.

The ↙ - PL - TTL control lamps indicate (1) flash readiness, (2) switching on of the pilot light and (3) selection of the TTL mode respectively.

The right INPUT black lever selector allows us to select the input and connection mode that we intend to use: synchro cable socket, fiber-optic cable socket, optical receiver on parabolic reflector for slave mode.

The control lamps indicate the selected SYN - OPT - SLV input.

The rotary control switch adjusts power output in manual mode or exposure compensation in TTL mode. The selected power or exposure compensation are clearly visible in the center section of the wide display.

The lighting element is a professional and oversized circular flash tube, with a slightly warm coating, mounted on a parabolic reflector with a dome port.

The strobe is equipped with a LED coaxial pilot light with two power levels that can be selected manually or automatically for focusing.

Power is supplied by a removable NiMH battery pack rechargeable by the dedicated desktop battery charger. More than 250 flashes at full power are ensured with recharge times ranging from 0.1 to 1.6 seconds.

BASIC INFORMATION

3.0 Available versions

The ONE160x-MkII digital strobe is available for Nikon, Canon and Sony cameras on the same unit.

All the digital protocols are installed on board the strobe and the appropriate one will be selected directly by the user depending on the camera brand in use (chapter 14.1).

In all versions, Nikon, Canon and Sony the TTL auto flash exposure mode is available when digital cameras are in use connected to the strobe by a synchro cable correctly wired according to the specific digital protocols (chapter 16.0). Also supported are auxiliary functions such as High-Speed Sync (HSS), AF assist illuminator by pilot light and rear-curtain synchronization.

In addition to the digital TTL managed with synchro cable, the s-TTL auto flash exposure mode is also available. This auto flash exposure mode is the same for all versions.

3.1 Nikon - Flash exposure modes

- **i-TTL** auto flash exposure mode - digital camera connected to strobe via synchro cable (wiring in according to the specific protocol - chapter 16.1)
- **film-TTL** auto flash exposure mode - film camera (or digital camera with converter) connected to strobe via synchro cable
- **s-TTL** auto flash exposure mode - strobe connected via fiber-optic cable
- **manual** manual flash exposure mode - strobe connected via synchro cable, fiber-optic cable or by optical slave receiver

3.2 Canon - Flash exposure modes

- **E-TTL** auto flash exposure mode - digital camera connected to strobe via synchro cable (wiring in according to the specific protocol - chapter 16.4)
- **film-TTL** auto flash exposure mode - film camera (or digital camera with converter) connected to strobe via synchro cable
- **s-TTL** auto flash exposure mode - strobe connected via fiber-optic cable
- **manual** manual flash exposure mode - strobe connected via synchro cable, fiber-optic cable or by optical slave receiver

3.3 Sony - Flash exposure modes

- **dgt-TTL** auto flash exposure mode - digital camera connected to strobe via synchro cable (wiring in according to the specific protocol - chapter 16.6)
- **film-TTL** auto flash exposure mode - film camera (or digital camera with converter) connected to strobe via synchro cable
- **s-TTL** auto flash exposure mode - strobe connected via fiber-optic cable
- **manual** manual flash exposure mode - strobe connected via synchro cable, fiber-optic cable or by optical slave receiver

3.4 Version identification

When you switch on the strobe, as first information, the strobe version N=Nikon C=Canon S=Sony and the release number of firmware is showed on display. The battery charge status is showed immediately after. After this quick information the strobe is ready to use.

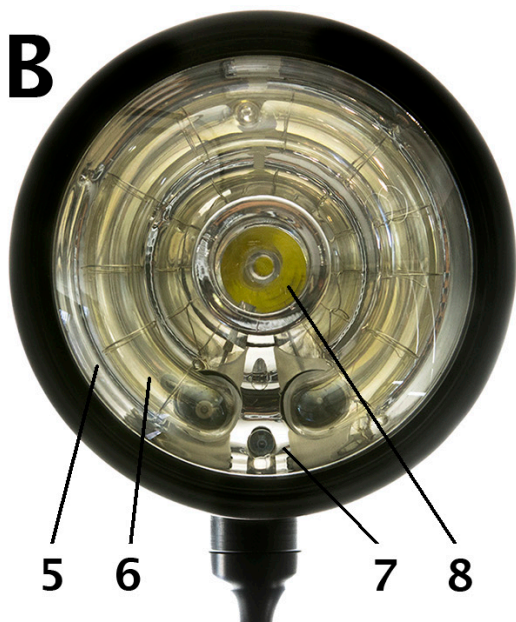
BASIC INFORMATION

4.0 Strobe parts and controls



A - SIDE VIEW

- 1-Strobe body
- 2-Adapter base
- 3-Optical socket
- 4-Syncro socket



B - FRONTAL VIEW

- 5-Dome port
- 6-Circular lamp
- 7-Slave receiver
- 8-Pilot light



C - REAR VIEW

- 9-Control panel
- 10-Battery compartment cap
- 11-Safety release button
- 12-Opening-closing selector
- 13-Safety valve
- 14-Input lever selector
- 15-Main lever selector
- 16-Rotary control switch
- 17-Control display

BASIC INFORMATION

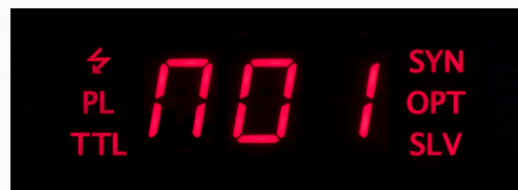


CONTROL DISPLAY

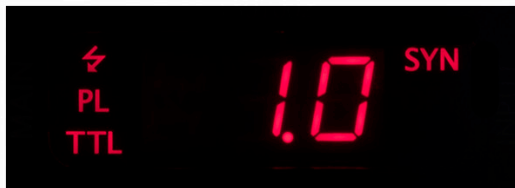
- 1-Main light-⚡-ready to fire
- 2-Main light-PL-pilot light
- 3-Main light-TTL-exposure mode
- 4-Input light-SYN-synchro cable
- 5-Input light-OPT-optical cable
- 6-Input light-SLV-optical receiver
- 7-Power output or compensation



Battery charger status is shown at unit turn on/off



Version and firmware release is shown at unit turn on



Exposure compensation is shown in TTL mode



Power output level is shown in manual mode

BATTERY PACK

- 1-Charging socket
- 2-Tilting metal handle
- 3-Insertion side with power pin



5.0 Power supply management

Power is supplied by a removable NiMH battery pack made with the best professional high-energy cells from Panasonic. More than 250 flashes at full power are ensured with a fully-charged battery pack. The recharge times, electronically managed by CPU, range from 0.1 to 1.6 seconds. The removable battery pack is located inside the strobe in a waterproof battery compartment which you access by a special sealing cap.

- ① The power circuits to optimize performance in every situation are managed by a dedicated CPU. In this way the battery pack voltage and current are constantly monitored and adjusted to guarantee the best performance and to avoid overload currents or excessive cells discharge.

5.1 Opening the battery compartment

Press the red release button and turn the closing cap selector counterclockwise to the open position (selector dot at the open padlock symbol). When this position is reached, there will be a click that will keep the selector in place. It will then be possible, with adequate force, to pull out the closing cap.

5.2 Closing the battery compartment

Before inserting the cap into the battery compartment, make sure that it is in the open position. Place the cap and push it all the way into the slot. Turn the cap selector, in a clockwise direction, to the closed position (selector dot corresponding to the closed padlock symbol). In this position the release button will return to the initial state activating the safety lock.

5.3 Installing and removing the battery pack

Due to its semi-circle shape, the battery pack is inserted in a specific way, with the side to be inserted showing the + positive and - negative power pins.

The battery pack is easily inserted or removed thanks to the tilting metal handle placed in the front.

5.4 Recharging the battery pack

The battery pack must be charged using only the specific supplied battery charger. Insert the AC power plug of the charger into a power outlet (check that the electrical voltage of the appliance corresponds with that of your electricity supply). When the device indicator light is green it is ready to charge. Connect the DC cable connector of the charger to the power connector of the battery pack. When the battery pack is charging the device indicator light turns red. When recharging of the battery pack is completed, after a maximum of 90 min, the charger indicator light turns green.



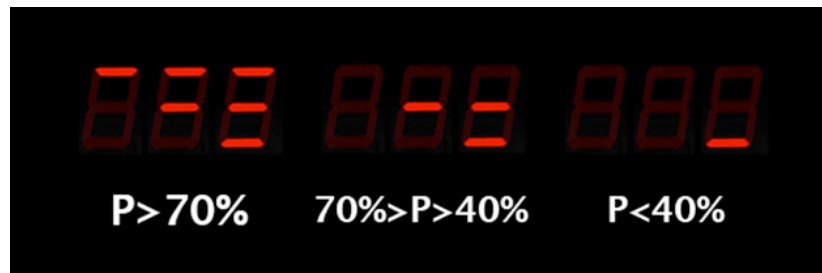
GETTING STARTED - POWER SUPPLY MANAGEMENT

- ① The battery compartment is fully watertight. In the event of water seeping in due to a incorrect positioning of the battery cap compartment, the inside of the strobe body where the electronics are installed, will not be flooded. If the power pins into the battery compartment are oxidized they will have to be replaced. The repair must be carried out at ONEUW's premises or authorized service centers.
- ⚠ Do not charge the battery pack when it is placed in the battery compartment - remove and charge it in a cool and ventilated place to avoid overheating.
- ⚠ Do not insert the battery pack into the strobe compartment after charging if it is still hot.
- ⚠ Do not handle the battery packs or battery chargers with wet hands.
- ⚠ Do not remove the battery pack from the battery compartment when strobe is turned on.
- ⚠ For your safety the battery pack must not be tampered in any way, do not attempt to replace the cells yourself, it is dangerous for you and the strobe may get damaged!

5.5 Battery pack state of charge check

The battery charge status is always shown at unit power on/off. The three-level charge indicator is displayed by a series of horizontal lines, as shown on the following page. The data should be considered as indicative and depends on external factors such as temperature, age of the batteries and their wear. For a more accurate indication of battery charge in the shut-down process, wait for about 20-30 seconds without flashing before turning the strobe off.

GETTING STARTED - POWER SUPPLY MANAGEMENT






- ① To maintain the optimal capacity of battery packs, partial charges should be avoided as much as possible. They should first be completely discharged and then fully recharged.
- ① To improve the capacity and duration of battery packs some full discharge-charge cycles are recommended every three months.
- ① Do not discharge the battery pack by flashing. Use the pilot light only. The unit automatically switches off when the battery is discharged.
- ① Do not recharge an already charged battery pack, as you may damage it.

5.6 Air transport - Shipments

Nickel Metal Hydride (NiMH) batteries are not subject to air transport restrictions as indicated in the IATA (International Air Transport Association) specific declaration **“Guidance on the air transport of Batteries, nickel-metal hydride UN3496”** extract from **“Dangerous Goods Regulations (DGR) 62nd edition 2021”**.

The batteries are considered **“NON RESTRICTED”** as in full compliance with the requirements of **“Special Provision A199”**.

GETTING STARTED - POWER SUPPLY MANAGEMENT

-  When the battery packs are shipped by courier, the **“NOT RESTRICTED”** words and the **"Special Provision A199"** number must be included in the description of goods on the Air Waybill as required by IATA DGR 8.2.6.
-  Always travel or ship with the battery pack removed from the strobe. Put the battery pack in its neoprene bag in order to protect it from possible shock and / or damage.
-  Always travel or ship with the minimum battery pack charge level. In this way any dangerous situation that may arise will be less critical and of lower intensity and duration.

6.0 Switching the strobe on/off

The strobe is switched on and off by pressing the MAIN and INPUT lever selectors simultaneously.

Turning the unit on is shown by the visual indications on the display and by a single beeping sound after which the lever selectors can be released.

When the strobe is switched on, the following information is shown on the display:

- Strobe version: N-Nikon or C-Canon or S-Sony and firmware release number
- Battery charge status

Together with this information, all the indicator lights on the display, MAIN section on the left and INPUT section on the right, light up at the same time for a check.

The strobe is switched off by pressing the MAIN and INPUT lever selectors simultaneously for a few seconds. A first beeping sound is emitted after one second and continuing to hold the lever selectors, a second acoustic signal will warn that the lever selectors can be released. The strobe will turn off after displaying the battery charge status on the display.

- ① The left and right lever selectors, operated either individually or together, issue different commands depending on the operating time that we can classify as short (one pulse) or long (one or more seconds depending on the command).

7.0 Lever selectors function

Using the lever selectors, we set the operating parameters of the flash. The red MAIN left lever selector operates the control of the pilot light and the TTL auto flash exposure mode.

The black INPUT right lever selector selects the active input of the flash.

7.1 MAIN lever selector - Pilot light

Pressing the pilot light for a short time switches it on sequentially at 50%, then at 100% output power and lastly turns it off. Switching the pilot light on is signaled by illumination of the PL indicator light and by a single beeping sound after which the MAIN control selector can be released.

7.2 MAIN lever selector - TTL mode

Pressing this for a long time switches from manual mode to TTL mode, both with synchro cable connection and with optical fiber. The activation of the TTL auto flash exposure mode is signaled by illumination of the TTL indicator light. This action immediately emits a first beeping sound and after a couple of seconds a second beep is emitted. At this second warning you can release the control lever.

7.3 INPUT lever selector - Input mode

Pressing this for a short time selects the input and connection mode that we intend to use: synchro cable socket, fiber-optic cable socket, optical receiver on parabolic reflector for slave mode.

The selected input is signaled by illumination of the respective indicator light SYN-OPT-SLV and by a single beeping sound after which the INPUT control selector can be released.

CONTROLS FUNCTIONS - DISPLAY INDICATIONS

When the strobe is connected to a digital camera by a synchro cable properly wired according to the specific i-TTL, E-TTL or dgt-TTL protocol, the SYN input is selected by default and is automatically locked and other input modes are not available.

7.4 Storing operating parameters

When you turn off the strobe, the most recent settings are stored and not lost by power supply interruption (changing battery pack). When you switch the strobe on again, they will be exactly replicated exactly (input mode, exposure mode, power setting, pilot light, 2nd curtain synchro , TTL master and slave, inverted display, etc).

- ① When the TTL auto flash exposure mode is activated, the Nikon i-TTL or Canon E-TTL or Sony dgt-TTL or optical s-TTL, operating protocol is automatically selected according to the strobe version and the selected input mode.
- ① When the SLV slave input mode is selected, frontal signal by optical receiver on parabolic reflector, the TTL auto flash exposure mode is not available - the power output level can be controlled manually only.

8.0 Rotary control switch function

The rotary control switch sets the strobe power output both in manual mode or TTL mode.

When the manual mode is selected, the rotary switch adjusts power control in $\frac{1}{2}$ f-stop increments over a range of - 6 f-stops, starting from the default value of Full - full power.

When the TTL mode is selected, the rotary switch adjusts exposure compensation in $\frac{1}{3}$ f-stop increments over a range of +/- 2 f-stops, starting from the default value of 0.

The selected settings for power or exposure compensation are visible in the display as shown in the table in the following chapter (9.0).

- ① The rotary selector directly controls an incremental encoder, a characteristic feature whereby its rotation in both directions is continuous.

CONTROLS FUNCTIONS - DISPLAY INDICATIONS

9.0 Display indications

The wide display located in the center between the two lever selectors shows all the strobe operating modes and settings.

Switching on the unit is signalled by the visual indications of the display and by a single beeping sound.

The MAIN control lamps, on the left, are the following: ←-PL-TTL. They respectively indicate the strobe is ready to fire, the switching on of the pilot light, and the selection of the TTL mode.

The INPUT control lamps, on the right, are the following: SYN-OPT-SLV. They respectively indicate the selected connection mode: synchro cable socket, fiber-optic cable socket or optical receiver on parabolic reflector for slave mode.

All control lamps are illuminated in red when the relative function is activated.

The selected power levels in manual mode, or exposure compensation in TTL mode, are visible in the 3-digit numerical display as shown in the table on the following page.

CONTROLS FUNCTIONS - DISPLAY INDICATIONS

The selected values of power levels or exposure compensation are visualized on the display as follows:

Manual			TTL EV+/-	
f-stop			f-stop	
(1/1)	F u ll		2. 0	
	- 0. 5		1. 7	
(1/2)	- 1. 0		1. 3	
	- 1. 5		1. 0	
(1/4)	- 2. 0		0. 7	
	- 2. 5		0. 3	
(1/8)	- 3. 0		0. 0	
	- 3. 5	-	0. 3	
(1/16)	- 4. 0	-	0. 7	
	- 4. 5	-	1. 0	
(1/32)	- 5. 0	-	1. 3	
	- 5. 5	-	1. 7	
(1/64)	- 6. 0	-	2. 0	

CONTROLS FUNCTIONS - DISPLAY INDICATIONS

9.1 Inverted display mode - Check flash

Depending on the configuration of use and the number of units, the position of the strobes may be reversed by 180°. With this setup, the control display is upside down, making it difficult to read.

The simultaneous pressing of the left and right lever selectors for a long time (about one second), allows the numerical indication of the central display to be inverted.

Regardless of the position of the strobe, the selected power or compensation values can be read easily at any time.

The activation of the display reverse reading is signaled both by a low power control flash and by a single beeping sound after which the control levers must be released.

The low-power flash emission is useful for quickly checking the operation of the strobe even without digital camera connected.

9.2 Power output reading

In TTL auto flash exposure mode, the correct amount of light is measured automatically.

After every shot in this mode, the display shows the percentage of power output supplied by the strobe.

In this way it is possible to vary the exposure parameters, shutter speeds and/or apertures, in the correct way, always ensuring full power coverage of the flash.

If the required power is greater than the maximum that can be delivered, the display will signal Full - full power - and a repeated beeping sound will be emitted.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

10.0 Flash exposure modes

The flash exposure modes, according to the connecting system used, are the following:

- **d-TTL** auto flash exposure mode - Nikon, Canon or Sony digital camera connected to strobe via synchro cable (wiring in according to the specific protocol - chapter 16.0)
- **film-TTL** auto flash exposure mode - film camera (or digital camera with converter) connected to strobe via synchro cable
- **s-TTL** auto flash exposure mode - strobe connected via fiber-optic cable
- **manual** manual flash exposure mode - strobe connected via synchro cable, fiber-optic cable or by optical slave receiver

Switching on the unit, the last setting used will be replicated.

If you want to use a different connection mode, select the correct one by the black INPUT lever selector on the right: SYN-OPT-SLV.

If you want to use a different flash exposure mode, select the correct one by the red MAIN lever selector on the left: Manual-TTL.

10.1 digital-TTL - film-TTL auto mode

In d-TTL and film-TTL auto flash exposure mode the light output is automatically controlled by the camera-strobe system which is digitally interfaced via synchro cable (SYN-input) according to the specifications of the Nikon, Canon and Sony protocols.

Attention, the digital-TTL flash exposure mode does not require the interposition of any TTL converter or other electronic devices.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

The power output supplied by the strobe is displayed in % on display.

In TTL mode it is possible to compensate, through the central rotary switch, the exposure value at $\frac{1}{3}$ f-stop increments over a range of +/- 2 stops, starting from the default value of 0.

If the required power is greater than the maximum that can be supplied, the display will indicate Full - full power - and a repeating beeping sound will be emitted.

10.2 s-TTL auto mode

In s-TTL auto flash exposure mode, the light output is automatically controlled by the camera-TTL trigger-strobe system by optical pulses which are transmitted via fiber-optic cable (OPT-input).

Attention, to operate in s-TTL auto flash exposure mode, the digital camera and ONE160x-MkII strobe must be interfaced by an optical TTL-trigger dedicated to this specific strobe. This device has the function of converting the information received from the camera into optical pulses, which will be decoded by the strobe CPU to managing the correct flash exposure. A low-power pre-flashes are activated before exposure and the light is measured by these flashes. The duration of the main flash is then checked to provide a correct exposure.

The exposure will be correct only if the optical pulses received by the strobe are correctly calibrated according to the unit's technical specification.

The power output supplied by the strobe is displayed in % on display.

In TTL mode it is possible to compensate the exposure value at $\frac{1}{3}$ f-stop increments over a range of +/- 2 stop, starting from the default value of 0, through the central rotary switch.

If the required power is greater than the maximum that can be supplied, the display will indicate Full - full power and a repeated beeping sound will be emitted.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

- ① When the TTL auto flash exposure mode is activated, the Nikon i-TTL or Canon E-TTL or Sony dgt-TTL or optical s-TTL, operating protocol is automatically selected according to the strobe version and the selected input mode.
- ① Digital communication via bus between ONE160x-MkII strobe and digital camera may occasionally be interrupted, thus impeding the correct units interfacing. To restore the proper functioning, the communication needs to be reset by switching the units off and on again. If the problem persists, check the connection elements; hot shoe, connectors and synchro cables must be clean and dry. Otherwise, the data transmission between the units could be disturbed or interrupted.

10.3 Manual mode via synchro cable

In manual flash exposure mode with connection via synchro cable (SYN-input), the light output is manually selected by the rotary control switch. The power level, which is shown on the display, can be adjusted in $\frac{1}{2}$ f-stop increments over a range of - 6 f-stops. When the manual flash exposure mode is selected, the default power value is Full - full power.

- ① If the digital camera is connected to the ONE160x-MkII strobe by a synchro cable with only two cabled wires (trigger+ground) and the TTL auto exposure mode is selected, the flash will be fired at full power. This connection type does not support the TTL auto flash exposure mode - select the manual flash exposure mode and adjust the energy level to the desired value.
- ① In manual flash exposure mode, connection via synchro cable (SYN-input), monitoring pre-flashes are not emitted.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

10.4 Manual mode via fiber optic cable

In manual flash exposure mode with connection via fiber optic cable (OPT-input), the light output is manually selected by the rotary control switch. The power level, which is shown on display, can be adjusted in ½ f-stop increments over a range of - 6 f-stops. When the manual flash exposure mode is selected, the default power value is Full - full power.

10.5 Pre-flash management

The ONE160x-MkII strobe, set in manual exposure mode and connected via fiber optic cable (OPT-input), allows you to disable any monitoring pre-flashes, which cannot be deactivated by the camera, to avoid that the exposure flash is fired in advance - flash not "synch".

To achieve this, a brightness threshold (value expressed in microseconds) of the received optical pulses can be set manually. The light signals received with values lower than the set threshold are considered as pre-flashes and therefore replicated by the unit at a minimum power level, while those with values above it are considered as triggering flashes and therefore enabled to fire the synchronized exposure flash emitted by the unit to the manually selected power.

This function can be activated only when the input selected is optical (OPT-input), while the exposure mode may be selected in both manual and TTL.

This function is activated by holding down the right INPUT control selector for a few seconds. This action immediately emits a first beeping sound and after about four seconds a further beep is emitted; at this second beeping sound you can release the control lever.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

You can then use the central rotary switch to set the desired threshold value, selectable in a range from 0 to 200 microseconds. The selected value is shown on the display.

After 5 seconds of inactivity the selected value will be stored and the strobe will automatically return in shooting mode to the default setting (optical input-manual mode-full power).

The selected default timing is 70, an intermediate brightness threshold value which almost always correctly selects all the optical signals received. Value lower than this are considered pre-flashes and not as triggering flashes.

The value timing 0 is the setting that allows maximum sensitivity to the optical receiver, limited only by its technical features.

10.6 Manual mode via optical slave receiver

When the SLV-input mode is selected, signal received by optical sensor positioned on parabolic reflector, the flash exposure mode is manual. The light output is manually selected by the rotary control switch. The power level, which is shown on the display, can be adjusted in $\frac{1}{2}$ f-stop increments over a range of - 6 f-stops. When the SLV-slave input mode is selected, the manual flash exposure mode is automatically selected to the default power value Full - full power.

- ① When the SLV-input mode is selected, signal by optical sensor on parabolic reflector, the TTL auto flash exposure mode is not available. The power output level can be controlled manually only.

11.0 Rear-curtain sync

11.1 Rear-curtain sync Nikon cameras

This flash synchronization mode is activated via the camera and the unit does not need to be set. The display of the activated function is visible by the illumination of the dedicated icon in the camera display.

11.2 Rear-curtain sync Canon cameras

This flash synchronization mode is activated by the right INPUT control selector on the strobe.

A long press emits a first beeping sound immediately, followed by a second beep which will be emit after about two seconds. After the last beeping sound, the INPUT control selector can be released. In this way the advanced flash sync modes can be selected.

The rear-curtain sync mode is selected first and it is signaled by the illumination of the SYN and SLV indicators lights.

Pressing the selector for another (short) time selects the high-speed sync (HSS) mode and it is signaled by the illumination of the SYN and OPT indicators lights.

By pressing the selector for another (short) time no advanced flash sync mode is selected and it is signaled by the illumination of the SYN indicator light only.

The following points show the selection sequence of these advanced flash synchronization modes:

- 1 - No advanced sync > SYN indicator light
- 2 - Rear-curtain sync > SYN + SLV indicators lights
- 3 - High-Speed sync > SYN + OPT indicators lights

11.3 Rear-curtain sync Sony cameras

This flash synchronization mode is activated via the camera and the unit does not need to be set. The display of the activated function is visible by the illumination of the dedicated icon in the camera display.

- ① In all models, Nikon, Canon, and Sony, the rear-curtain sync mode is available when a digital camera is connected to the strobes by synchro cables correctly wired according to the specific digital protocols (chapter 16.0).
- ① When the SLV - slave input mode is selected, frontal signal by optical receiver on parabolic reflector, the rear-curtain sync is not available.

12.0 High-speed sync HSS

High-speed sync (HSS) allows you to synchronize the light of your strobe when using a shutter speed faster than the camera's maximum flash sync speed (X-sync), usually 1/200 or 1/250 s.

In HSS mode, as soon as the shutter curtain starts to open, the strobe starts rapidly firing creating a stroboscopic effect that illuminates the shutter slit as it moves down the sensor throughout the exposure time, up to 1/8000 second shutter speed.

Because the strobe has to output pulses of continuous light, the available flash power in HSS mode is significantly reduced.

HSS mode is available in both auto flash digital TTL and manual flash exposure modes.

12.1 High-speed sync - Nikon cameras

The HSS mode is automatically activated by the camera when the shutter speed is set over the camera's maximum flash sync speed (X-sync), usually 1/200 or 1/250 sec.

The strobe does not need to be set. The display of the activated function is visible by the illumination of the FP symbol in the camera display.

Camera flash mode settings may vary from model to model, please refer to your camera's user guide to check the activation of the HSS flash mode.

12.2 High-speed sync - Canon cameras

The max flash sync speed (X-sync) is usually 1/200 or 1/250 s.

The HSS mode is activated by the right INPUT control selector on the strobe.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

A long press emits a first beeping sound immediately, followed by a second beep which sounds after about two seconds. After the last (second) beeping sound the INPUT control selector can be released. The advanced flash sync modes can be selected in this way.

First the rear-curtain sync mode is selected, signaled by the illumination of the SYN and SLV indicators lights.

Another short press on the selector selects the high-speed sync (HSS) mode which is signaled by the illumination of the SYN and OPT indicators lights.

By further pressing the selector another short press, no advanced flash sync mode is selected and it is signaled by the illumination of the SYN indicator light only.

The following points show how these advanced modes are sequenced:

- 1 - No advanced sync > SYN indicator light
- 2 - Rear-curtain sync > SYN + SLV indicators light
- 3 - High-Speed sync > SYN + OPT indicators light

12.3 High-speed sync - Sony cameras

The HSS mode is automatically activated by the camera when the shutter speed is set over the camera's maximum flash sync speed (X-sync), usually 1/200 or 1/250 sec.

The strobe does not need to be set. The display of the activated function is visible by the illumination of the HSS symbol in the camera display. Camera flash mode settings mode flash may vary from model to model, please refer to your camera's user guide to check the activation of HSS flash mode.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

- ① In all models, Nikon, Canon and Sony the HSS mode is available when a digital camera is connected to the strobes by synchro cables correctly wired according to the specific digital protocols (chapter 16.0).
- ① When the OPT (optical input) mode is selected, and strobes are connected via fiber-optic cables, the HSS mode is not available.
- ① When the SLV (slave input) mode is selected, frontal signal by optical receiver on parabolic reflector, the HSS mode is not available.

13.0 Pilot light

A perfectly collimated LED coaxial pilot light facilitates flash aiming operations. The luminous flux level is 200 lumens with a 10° beam angle.

13.1 Pilot light manual switching on/off

The pilot light is activated by the left MAIN control selector on the strobe.

One short press switches on the pilot light switches on sequentially at 50%, then at 100% output power, and finally turns it off. Activation of the pilot light is signaled by illumination of the PL indicator light and by a single beeping sound after which the MAIN control selector can be released.

13.2 Autofocus assistance mode

With synchro cable connection (wiring according to specific digital protocol - chapter 16.0) the autofocus assistance mode is automatically activated by the camera.

During exposure flash, the pilot light is automatically switched off so as not to affect the exposure.

With Nikon and Sony cameras, automatic mode is only active if the autofocus mode selected is S (single servo AF with focus priority) and the focus area selected is the central one.

With Canon cameras, the automatic mode is only active if the autofocus mode selected is One-Shot AF, and the focus area selected is the central one.

Autofocus assistance mode is not available in all camera models.

Camera settings may vary from model to model, please refer to your camera's user guide to check the activation of this mode (if available) or turn it off if necessary.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

14.0 Version selection - Firmware upgrade

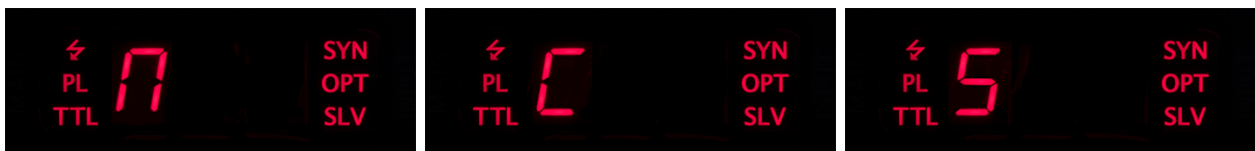
14.1 Version selection

The ONE160x-MkII digital strobe is available for Nikon, Canon and Sony cameras on the same strobe unit.

All the digital protocols are installed on board the strobe and the appropriate one can be selected directly by the user depending on the camera brand in use.

Remove the battery pack from the strobe and wait a few seconds. Pressing the left and right lever selectors simultaneously, insert the battery pack.

The activation of version selection mode is signaled both by the display activation and by a beeping sound after which the control levers must be released.



With the rotary control switch, set the appropriate strobe version, N=Nikon C=Canon S=Sony and confirm your choice, pressing the left and right lever selectors simultaneously.

After a beeping sound release, the control levers and the selected version setting will be stored by turning off the strobe.

FLASH EXPOSURE MODES - ADVANCED OPERATIONS

14.2 Firmware upgrade

The ONE160x-MkII strobe's firmware is upgradable to correct, improve or add new functionality.

The firmware is upgradable directly by the user via Bluetooth on a mobile App.

Remove the battery pack from the strobe and wait a few seconds.

Pressing the left and right lever selectors simultaneously, insert the battery pack.

The activation of procedure is signaled both by the display activation and by a beeping sound after which the control levers must be released.

Initially, a letter will be displayed indicating the digital protocol in use N (Nikon) or C (Canon) or S (Sony).

With the rotary control switch, you will be able to set the Firmware Upgrade mode which will be signaled on the display by the text UPG - all the left and right indicators light will turn off.



FLASH EXPOSURE MODES - ADVANCED OPERATIONS

Please note, be careful do not execute any commands pressing one or both lever selectors and do not remove the battery pack.

This Chapter of User Guide - 14.2 Upgrade-firmware - is drafted separately from the main one and it will be sent to the User together with the firmware file only when an upgrade will be available, so we will avoid improper settings on the strobe that could damage it.



To exit the Firmware Upgrade mode, with the rotary control switch set the previous digital protocol in use, N=Nikon C=Canon S=Sony and confirm your choice, pressing the left and right lever selectors simultaneously.

After a beeping sound release, the control levers and the reselected version setting will be stored by turning off the strobe.

CONNECTIONS - SYNCHRO CABLES - FIBER OPTIC

15.0 Connectors - Synchro cables

The connections used in the ONEUW system are the following:

- NikonosV (NV) - 5 pin connection (5 wires cable)
- S6 - 6 pin connection (6 wires cable)

The NV is the most popular and widespread connection, but the S6 one provides the best safety and reliability performance available on the market today.

All connector components are designed and made in anti-corrosion aluminium with hard anodizing treatment or moulding, with the best technical polymers. All electrical contacts are gold plated to prevent oxidation even in the marine environment.

15.1 Synchro cable socket

The synchro cable socket provided with the strobe, positioned underneath the strobe body, is the S6 type. This choice allows full compatibility of data transmission of Nikon, Canon and Sony digital protocols.

15.2 Synchro cables

ONEUW synchro cables are manufactured according to our technical specifications with high-quality multi-wire conductors and special outer coatings, which are particularly flexible and resistant for use in the marine environment. The synchro cables are available with NV and/or S6 type connections, as shown on the next page. This configuration possibility allows us full compatibility for data transmission of Nikon, Canon, and Sony digital protocols and the almost total interface with most housings offered by the various manufacturers.

15.3 Fiber-optic cable socket

The provided fiber-optic cable socket supplied with the strobe, which is also positioned underneath the strobe body between the S6 socket and the adapter base, is the Sea&Sea type.

15.4 Fiber-optic cables

For a correct transmission of the optical impulses between the digital camera and the strobe, it is essential to use high quality multicore fiber optic cables with a large section.

The fiber-optic cable used to connect the strobe must be equipped with a Sea&Sea plug type.

Any sharp bend or kink in the cable may compromise or interrupt the transmission of the optical signal.



SINGLE-STROBE AND MULTI-STROBE SET-UP

16.0 Single-Strobe and Multi-Strobe set-up

16.1 Nikon cameras

Nikon's TTL digital protocol provides for signal transmission by 5-pin cables.

i-TTL auto exposure mode may be supported by both a single ONE160x-MkII or a pair of them (or more units) connected via synchro cable to a digital camera.

To operate in i-TTL mode, the housing can be equipped with both 5-pin NV and six-pin S6 connections, even in a mixed configuration.

Single-Strobe set-up

- Single NV or S6 socket with all 5 wires connected
ONE160x-MkII
Selectable mode: i-TTL or manual

Multi-Strobe set-up “ONE-slv”

- 1st NV or S6 socket (on the left or right) with all 5 wires connected
ONE160x-MkII - main/pilot strobe called MASTER unit
Selectable mode: i-TTL or manual
- 2nd NV or S6 socket (on the left or right) with all 5 wires connected
ONE160x-MkII - secondary strobe called SLAVE unit
Selectable mode: i-TTL or manual
- 3rd NV or S6 socket (other position) with all 5 wires connected
ONE160x-MkII - secondary strobe called SLAVE unit
Selectable mode: i-TTL or manual

Strobe Unit:	ONE160x-MkII MASTER	ONE160x-MkII SLAVE
Mode:	i-TTL	i-TTL or manual
Mode:	manual	manual

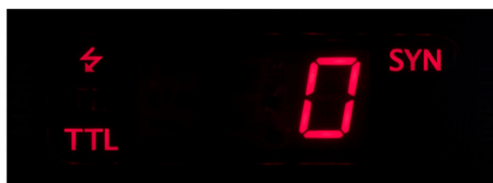
SINGLE-STROBE AND MULTI-STROBE SET-UP

16.2 Setting the ONE160x-MkII's SLAVE mode

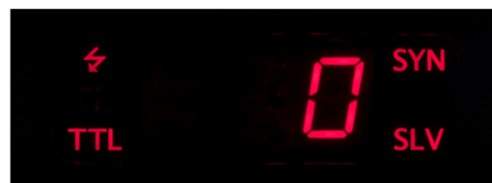
The ONE160x-MkII's SLAVE mode is activated by the right INPUT control selector on the strobe.

The SLAVE mode is activated with one long press which is signaled by the illumination of both the SYN and SLV indicator lights. A beeping sound will emit after about two seconds and the INPUT control selector can be released.

MULTI-STROBE SET-UP ONE-slV



**ONE160x MkII MASTER
TTL mode**



**ONE160x MkII SLAVE
TTL mode**

At the first set-up, or a new one not memorized, the first strobe you switch-on must always be set as the SLAVE unit, and the second (or last) one as the MASTER unit.

If you want to reverse the set-up of two strobes already switched on, for example A = MASTER & B = SLAVE, first set the unit A as the new SLAVE and then the unit B as the new MASTER.

By respecting these sequences, the camera will always and only be interfaced with one MASTER unit, as required by i-TTL protocol.

Otherwise, if two MASTER units are recognized by the camera, the digital data communication will be transmitted in error, creating anomalies in the functioning of both strobes.

SINGLE-STROBE AND MULTI-STROBE SET-UP

To restore the proper functioning, a reset can be done by switching the strobe units off and on again.

16.3 Nikon connection wiring

On the next page - pictures 1 and 2 - the correct wiring of NV and S6 connections for dual strobe setup can be viewed in detail.

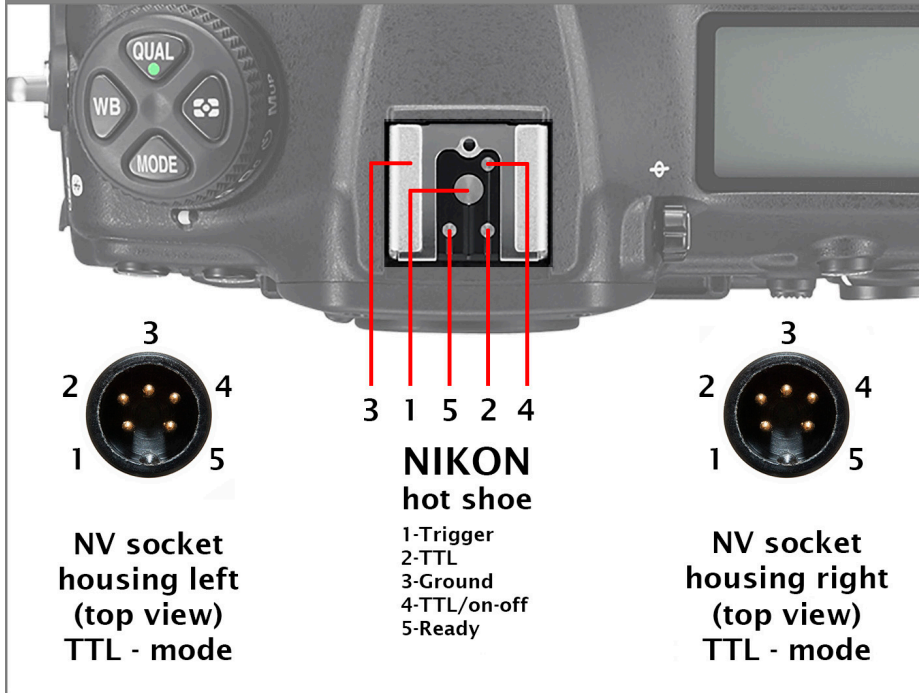
If only 2 wires of sockets have been connected - X trigger and GND ground - only the manual exposure mode is available - no TTL.

Warning: Only ONE160x-MkII strobes can be used in pairs (or more units) with connections that carry both all 5 wires wired. Do not use other strobes with connections wired like this, you could seriously damage your Nikon digital camera and strobes.

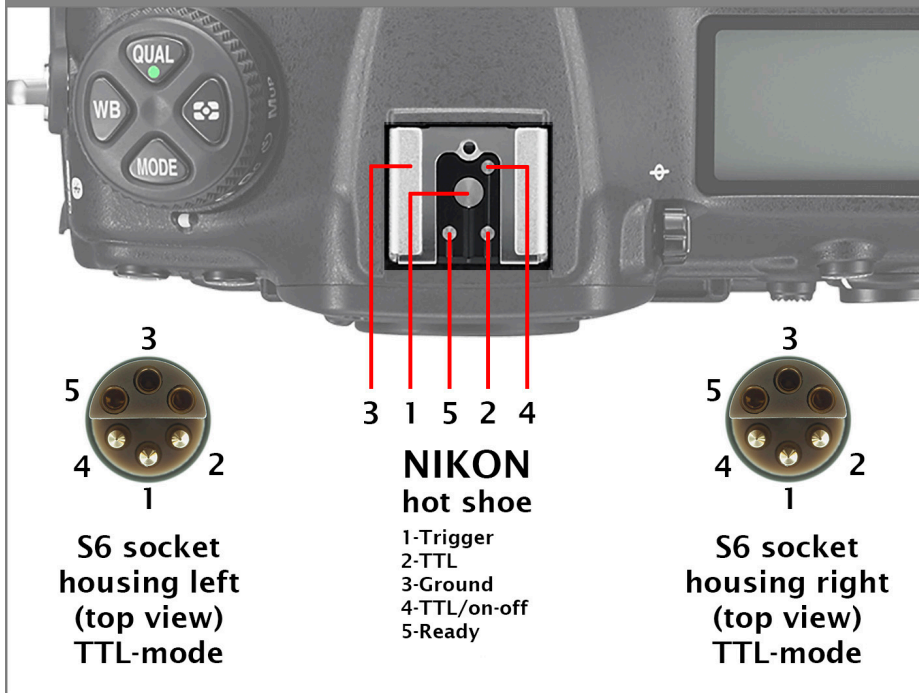
Warning: do not couple the ONE160x-MkII with strobes of other brands particularly older units, the high voltage used on these models is not compatible with the one used in current digital electronic circuit boards and can seriously damage the ONE160x-MkII and the digital camera, whether Nikon, Canon or Sony.

SINGLE-STROBE AND MULTI-STROBE SET-UP

1-NIKON dual NV sockets



2-NIKON dual S6 sockets



SINGLE-STROBE AND MULTI-STROBE SET-UP

16.4 Canon cameras

Canon's TTL digital protocol provides for signal transmission by 6-pin cables.

E-TTL auto exposure mode is supported by a single ONE160x-MkII strobe or a couple of units connected by synchro cable to the digital camera.

To operate in E-TTL mode, the housing must be equipped with six-pin S6 connections.

Single-Strobe set-up

- Single S6 socket with all 6 wires connected
ONE160x-MkII
Selectable mode: E-TTL or manual

Dual-Strobe set-up

- 1st S6 socket (on the left or right) with all 6 wires connected
ONE160x-MkII
Selectable mode: E-TTL or manual
- 2nd S6 socket (on the left or right) with all 6 wires connected
ONE160x-MkII
Selectable mode: E-TTL or manual

If NikonosV connections are used, only the manual exposure mode is available - no TTL - and only 2 wires must be connected (X trigger and GND ground).

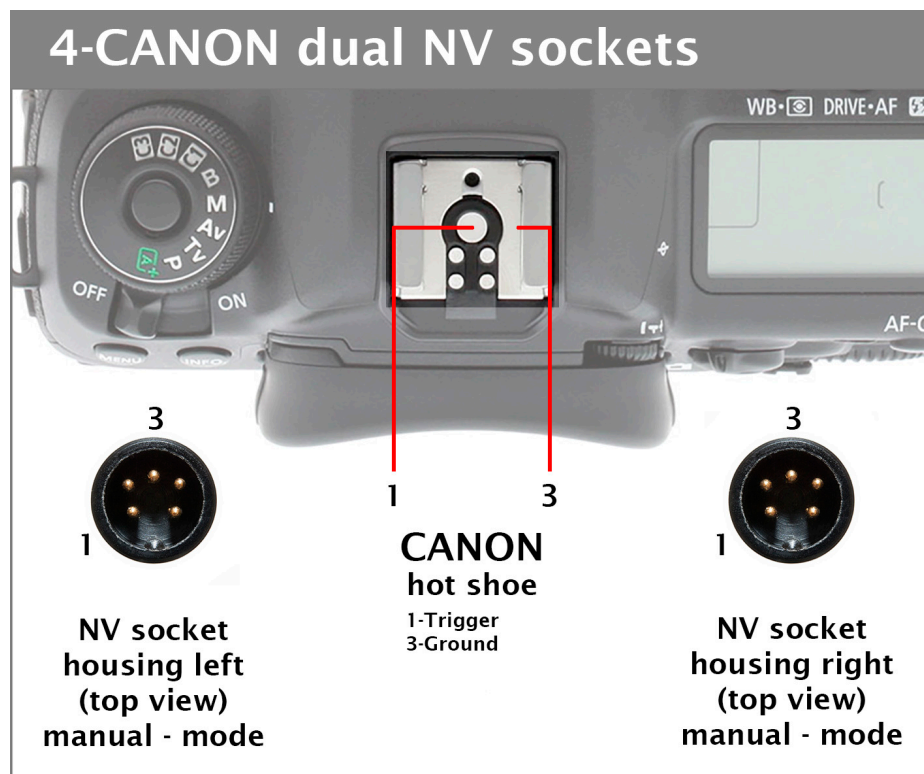
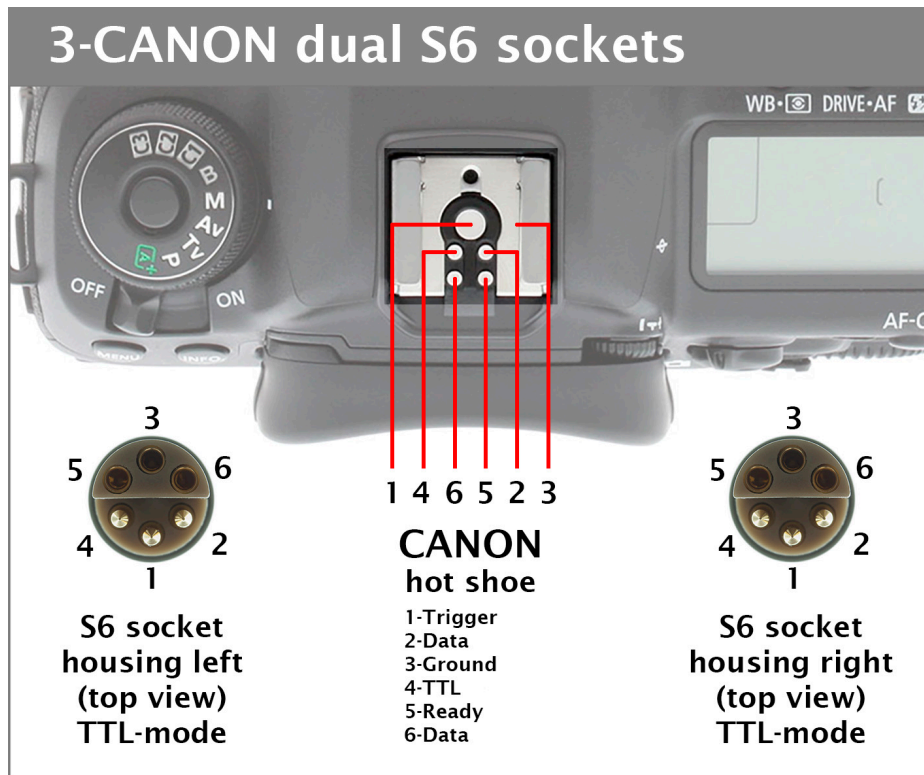
SINGLE-STROBE AND MULTI-STROBE SET-UP

16.5 Canon connection wiring

On the next page - pictures 3 and 4 - the correct wiring of NV and S6 connections for dual strobe setup can be viewed in detail.

Warning: Only ONE160x-MkII strobes can be used in pairs (or more units) with connections that carry both all 6 wires wired. Do not use other strobes with connections wired like this, you could seriously damage your Canon digital camera and strobes.

SINGLE-STROBE AND MULTI-STROBE SET-UP



SINGLE-STROBE AND MULTI-STROBE SET-UP

16.6 Sony cameras

Sony's TTL digital protocol provides for signal transmission by 4-pin cables.

Digital TTL auto exposure mode may be supported by both a single ONE160x-MkII or a pair of them connected via synchro cable to the digital camera.

To operate in dgt-TTL mode, the housing can be equipped with both 5-pin NV and six-pin S6 connections, even in a mixed configuration.

Single-Strobe set-up

- Single NV or S6 socket with all 4 wires connected
ONE160x-MkII
Selectable mode: dgt-TTL or manual

Multi-Strobe set-up "ONE-slv"

- 1st NV or S6 socket (on the left or right) with all 4 wires connected
ONE160x-MkII - main/pilot strobe called MASTER unit
Selectable mode: dgt-TTL or manual
- 2nd NV or S6 socket (on the left or right) with all 4 wires connected
ONE160x-MkII - secondary strobe called SLAVE unit
Selectable mode: dgt-TTL or manual

Strobe Unit:	ONE160x-MkII MASTER	ONE160x-MkII SLAVE
Mode:	dgt-TTL	dgt-TTL or manual
Mode:	manual	manual

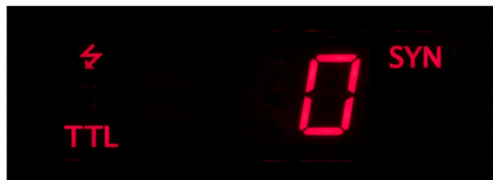
SINGLE-STROBE AND MULTI-STROBE SET-UP

16.7 Setting the ONE160x-MkII's SLAVE mode

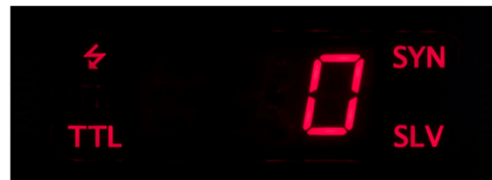
The ONE160x-MkII's SLAVE mode is activated by the right INPUT control selector on the strobe.

The SLAVE mode is activated by a long press and is signaled by the illumination of both the SYN and SLV indicator lights. While pressing the selector, a beep will be heard after about two seconds. After the beeping sound, the INPUT control selector can be released.

MULTI-STROBE SET-UP ONE-slV



**ONE160x MkII MASTER
TTL mode**



**ONE160x MkII SLAVE
TTL mode**

At the first set-up, or a new one not memorized, the first strobe you switch on must always be set as the SLAVE unit, and the second (or last) one as the MASTER unit.

If you want to reverse the set-up of two strobes already switched on, for example A = MASTER & B = SLAVE, first set the unit A as the new SLAVE and then the unit B as the new MASTER.

By respecting these sequences, the camera will always and only be interfaced with one MASTER unit, as required by dgt-TTL protocol.

Otherwise, if two MASTER units are recognized by the camera, the digital data communication will be transmitted in error, creating anomalies in the functioning of both strobes.

SINGLE-STROBE AND MULTI-STROBE SET-UP

To restore the proper functioning a reset can be done by switching the strobe units off and on again.

16.8 Sony connection wiring

On the next page - pictures 5 and 6 - the correct wiring of NV and S6 connections for dual strobe setup can be viewed in detail.

In the pictures you will find the reference pins to connect using both the Sony camera multi interface hot shoe - MIS - and the original Sony ADP-MMAA adapter.

The Sony ADP-MMAA adapter allows the multi-interface type hot shoe to accept older Sony Alpha accessories like extension sync cords (plug hot shoe) and first series strobes.



The Sony ADP-MMAA appropriately modified and wired directly to the housing sockets is an excellent connection solution.

If only 2 wires of sockets have been connected - X trigger and GND ground - only the manual exposure mode is available - no TTL.

Warning: Only ONE160x-MkII strobes can be used in pairs with connections that carry both all 4 wired wires. Do not use other strobes with connections so wired, you could seriously damage your Sony digital camera and strobes.

SINGLE-STROBE AND MULTI-STROBE SET-UP

5-SONY dual NV sockets

SONY ADP-MMA adapter	SONY hot shoe
1-X Trigger	X
2-F2 Data (TTL)	19
3-G Ground	7-15-21
5-F3 Clock (Ready)	18

6-SONY dual S6 sockets

SONY ADP-MMA adapter	SONY hot shoe
1-X Trigger	X
2-F2 Data (TTL)	19
3-G Ground	7-15-21
5-F3 Clock (Ready)	18 Clock

17.0 Problem and error indications

The strobe unit is controlled by microprocessors that allow all operational functions to be managed intelligently, thus guaranteeing a very high level of reliability.

The safety and protection alerts of essential operational parameters such as operating temperature and battery pack discharge are indicated as follows:


17.1 Overheating protection

If the internal temperature of the unit is higher than the maximum allowed value, the fault is indicated on the display by the following safety alert:

- **EH1**

The unit automatically switches to the standby mode for 20 seconds, the safety alert flashes on the display and a beeping sound is emitted every 2 seconds. At the end of the standby time the unit automatically switches off.

If this happens, remove the battery pack from the strobe and put the separate units in a cool place or in a ventilated area until they cool down.

 Do not leave the strobe in overheated environments such as car interiors in summer or boat engine compartments. Do not expose the strobe in summer to direct sunlight for prolonged periods, as overheating can damage the unit and create dangerous situations.

17.2 Battery pack excessive discharge protection

If the battery capacity is low, the display starts flashing and the unit will emit a beep is emitted every minute.

When the battery pack reaches the maximum discharge value, which is considered correct to avoid damaging it, the status is indicated on the display by the following protection alert:

- - - -
- **Off**

The unit automatically switches to the standby mode for 20 seconds, the protection alert flashes on the display and a beeping sound is emitted every 2 seconds.

At the end of standby time the unit will automatically switches off.

18.0 Overpressure safety valve

A battery pack malfunction can generate gas inside the battery compartment. The operational safety is guaranteed by the presence of a stainless-steel over-pressure relief valve in the cap of the battery compartment cap.

Any overpressure in the battery compartment is automatically reduced by means of this special safety valve.

If you notice bubbles coming out through the valve during use, this means that there may be gas present.

In this case, the strobe must be switched off immediately and no longer used.

Once on the surface, handle the unit carefully without turning the battery compartment cap towards people, to avoid possible injuries.

Inside the battery compartment, after the automatic release, there may be a residue of gas that must be vented manually as described below to prevent the risk of a violent cap ejection when you open it.


Using a small screwdriver or other pointed tool, lift the edge of the as shown in the picture on the page 52. The small residual overpressure will be eliminated allowing safe opening of the battery compartment cap.

It is however possible to also remove the battery compartment cap even without manual gas venting. In this case we recommend a firm grip on the cap selector to counterbalance any pressure at the time of opening.

PROBLEMS - ERROR INDICATIONS - MAINTENANCE

Should any liquids leak from the battery pack, avoid contact with skin; rinse and dry the battery compartment and lid while wearing gloves.



 In the case of liquid leak from a damage battery pack coming into contact with skin or clothing, wash off the affected areas repeatedly with soap and rinse well with clean water.

19.0 Maintenance

The strobe is manufactured from a solid block of anticorrosive aluminium protected by a hard anodizing treatment of high specification and nanotech quartz coating which makes the surface hydrophobic.

To preserve the look and maintain the functionality of the unit, a rinsing in fresh water and a careful drying is necessary after each dive in sea water. Water stagnation in the strobe cavities such as the safety valve or optical socket needs to be avoided. Blow repeatedly in these areas. Periodic cleaning with a neutral, mild detergent is recommended. Do not use any chemical products to clean the strobe.

Clean and lubricate the battery compartment lid o-ring regularly. A light coating of silicone grease is sufficient, and do not apply too much.

Clean and lubricate the o-rings of the strobe socket and synchro cable plugs periodically.

Pay particular attention when removing the synchro cable from the strobe socket, that water drops do not fall on the connection pins. Pay careful attention to this operation, and ensure that all connections are kept dry.

Store the synchro cables with their own protective caps, and avoid tangling the cables. Always put the protective cap on the strobe synchro socket of the strobe when no cable is inserted.

- ① Slight stains on the anodised aluminium surface, are due to reaction with the marine sodium chloride, and are not to be considered defects that may compromise the protection of the components, but as an effect of ordinary wear and tear.

ACCESSORIES - SPECIFICATION

20.0 Accessories

20.1 Standard accessories

The Standard Packaging includes:

- NiMH 4,8V 3050mAh Battery Pack
- Neoprene Battery Pack Bag
- Desktop Battery Charger 6.4V 1.6A - 110~240V 50/60hz - AC Plug EU
- O-ring Maintenance Set
- User Guide - downloadable pdf file
- 2 years ONEUW Warranty on Strobe
- 1 year ONEUW Warranty on Battery Pack and Charger

20.2 Optional accessories

The following accessories may be supplied on request:

- NiMH 4,8V 3050mAh Spare Battery Pack
- Neoprene Battery Pack Bag
- Neoprene Body Cover
- Neoprene Dome Cover
- Ball Adapter L50 1" M6
- Ball Adapter L50 1" M6 45°
- Spiral Synchro Cable S6-S6
- Spiral Synchro Cable S6-NV
- Dual-Y Synchro Cable S6-S6
- Dual-Y Synchro Cable NV-S6
- White diffuser with red filter

ACCESSORIES - SPECIFICATION

21.0 Specification

- CNC machined with high-quality anticorrosional aluminium and hard anodized
- Shooting modes Nikon, Canon, Sony dgt TTL, s-TTL, film TTL, manual
- Digital protocols Nikon, Canon, Sony on board selectable by users
- Firmware upgradable by user via App-Bluetooth
- High-speed sync HSS available in D-TTL and manual by synch cable
- Special coated warm circular flash lamp with dome port
- Input by S6 synch cable and Sea&Sea fiber-optic sockets, slave sensor
- Ergonomic controls insensitive to hydrostatic pressure
- Input, operating mode and power level showed on digital display

▪ Max energy	162 Ws (J)
▪ Manual mode power control range - step	Full -6 f-stop - 1/2
▪ TTL mode EV control range - step	±2 f-stop - 1/3
▪ Maximum shutter speed in HSS mode, up to	1/8000 s
▪ GN Guide number ISO100-1m	20
▪ GN ISO100-1m - detection angle	20-90° 18-110° 16-130°
▪ Beam angle	130° (circular)
▪ Number of full power flashes	over 250
▪ Recycle time	0,2-1,6 s
▪ Color temperature	4.600 °K
▪ Pilot light	LED 200 lm 10° 2 levels
▪ Power supply	interchang. battery pack
▪ Battery type and capacity	NiMH 4,8V 3050mAh
▪ Battery charging time	90 min
▪ Flash arm connection	M6 threaded hole
▪ Dimension Diameter x Length (controls included)	99x200 mm
▪ Weight in air battery included	1.460 g
▪ Weight UW battery included (with neoprene cover)	≈ -170 (≈ -50) g
▪ Max operating depth	200 m

22.0 Warranty terms

ONEUW srl guarantees its products against manufacturing defects for a period of 24 months from date of sale by ONEUW. Warranty covers the repair or replacement, free of charge, of parts acknowledged to be faulty by ONEUW.

The warranty is not recognized when damage or defects to the unit are caused by:

- Inappropriate or negligent use by the purchaser
- Improper maintenance or use beyond the limits of the intended use of the unit
- Improper connections with digital cameras, other units or old strobes from other manufacturers
- Transport, fall, impact occurred after the purchase of the product
- Any circumstance that cannot be attributed to manufacturing defects

Synchro cables, circular flash lamp and battery packs are to be considered consumable parts and therefore covered by a different warranty from the standard one. The warranty will be bound by the terms and conditions offered by the respective suppliers which are the best one on the market for the quality of products offered.

Any tampering with the strobe will automatically void the warranty. All inspection or repairs, under penalty of forfeiture of the warranty, must be performed by ONEUW or by authorized service centers.

Any repair of the equipment under warranty will always be carried out at ONEUW's premises. The warranty covers the costs of defective components and labor cost for their replacement. Shipping costs are not included in the warranty and shall be borne by the purchaser.

23.0 Information on recycling and disposal

23.1 Electrical and electronic equipment disposal



For private households:

Information on Disposal for Users of WEEE

The symbol with the crossed-out bin on our products and / or accompanying documents means that at the end of their life cycle, these used electrical and electronic equipment (WEEE) should not be mixed with general household waste. For proper treatment, recovery and recycling, please take these products to designated collection points where it will be accepted free of charge. Alternatively, in some countries, you may be able to return your products to your local retailer upon purchase of an equivalent new product. Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

For professional users in the European Union

If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.

For disposal in countries outside of the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

23.2 Battery disposal



The crossed-out wheeled bin symbol on the battery and/or in the packaging and/or in the accompanying documentation indicates that used batteries must be collected in the appropriate waste containers. They cannot therefore be thrown into general collection bins and mixed with household waste.

Please dispose of used batteries at designated collection centers.

Disposing of this product correctly is important to minimize any potential effects of batteries on the environment and human health due to the potential presence of hazardous substances.

For disposal in countries outside of the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

24 General information - Notices

If you have any more questions, please feel free to contact us at:

ONEUW S.r.l.
Viale Trieste, 208/2
33043 Cividale del Friuli UD - Italy
Tel/Fax +39 0432 753387
mail@oneuw.com
www.oneuw.com

This document is the property of ONEUW srl.

It is strictly forbidden to reproduce and/or disseminating, even partially, in any form, without the explicit written permission of ONEUW.

ONEUW srl disclaims any liability for damages resulting either directly or indirectly to persons and devices from the use of this unit.

No refund or compensation may be claimed by the Purchaser to ONEUW srl.

With the intention to continuously improve our products, ONEUW srl reserves the right to modify the design and technical features of the unit without prior notice and is not bound by the information and illustrations provided in this user guide.

24.1 Trade mark® information

In compliance with industrial and intellectual property, all company and products names mentioned in this manual are trademarks or registered trademarks of their respective holders.

NIKON

Is a registered trademark of NIKON CORPORATION

CANON

Is a registered trademark of Canon Inc.

SONY

Is a registered trademark of SONY CORPORATION

PANASONIC

Is a registered trademark of Panasonic Corporation

SEA&SEA

Is a registered trademark of SEA&SEA SUNPAK Co., Ltd.

ONEUW

Is a registered trademark of ONEUW S.r.l.

