Light is everything™

bowens

XMT Location Flash
User Guide

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Congratulations on purchasing your new Bowens product.

Thank you for choosing the XMT range flash system.

The Bowens XMT monolight has been designed by working closely with photographers to develop a unit that meets the exacting high standards demanded by today's working professionals, while remaining simple and intuitive to use.

The XMT range flash system is a 500 Ws/Joules all-in-one battery location monolight, with integrated radio trigger and remote control functionality. This operates on the worldwide 2.4GHz radio frequency band and has 32 channels and 5 groups available; the XMT can also be controlled via Optical / IR transmissions.

This unit is fully digital, ensuring consistent flash to flash power, colour temperature and short flash durations.

In order to obtain the full benefit from your purchase, please take a few moments to familiarise yourself with this user manual.

For more information about Bowens products and to find details of your nearest Bowens dealer, please visit the website.

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Safety Instructions

Electrical Safety
- Do not open or disassemble the unit as it operates with a high voltage and contains capacitors that can remain electrically charged for a considerable time after the unit is turned off or is disconnected from the mains.
- Always disconnect the unit from the power supply and avoid touching the flashtube or modelling lamp when changing reflectors or fitting an umbrella.

Precautions
- Always study and understand this user guide and accompanying safety instructions before using this unit.
- Make sure that the Bowens Instruction and Safety Instructions always accompany this unit.
- Bowens products are intended for professional photographic use only and should not be used for any other purpose.
- Always remove the protective cap from the unit before use.
- Do not point the unit too close to persons or use the unit without the supplied protective glass dome.
- Do not use the unit if the glass dome has become visibly damaged to such an extent that its effectiveness is impaired. e.g. cracks or deep scratches.
- Do not use the modelling lamp if it is damaged or deformed.
- When replacing a modelling lamp avoid touching the bulb with bare hands, use a clean tissue or cloth.
- Do not touch any hot parts with bare fingers. The glass dome, modelling lamp, flash tube and certain metal parts can become very hot. Allow the unit to cool before touching any user changeable parts.
- Ensure that the modelling lamp voltage and power rating corresponds with that in the user guide specification. A lamp with a lower rated power may be safely used but the voltage must always be correct for the power supply being used.
- Equipment should only be serviced, modified or repaired by authorised and competent service personnel.

Environmental Safety
- Do not place or use the unit where it could be exposed to moisture, dripping, splashing, extreme electromagnetic fields or in areas with flammable liquids, gases or dust.
- Do not expose the unit to rapid temperature changes in humid conditions as this can lead to internal condensation.
- When transporting the unit between cold and warm conditions always allow the unit to acclimatise for at least two hours before connecting to the mains.
- Do not obstruct the ventilation slots in any way with filters, diffusing materials, etc.
- Do not place any form of material over or close to the glass dome, modelling lamp or flash tube.

Radio Frequency - This equipment makes use of the radio spectrum for triggering and remote control and therefore receives and emits radio frequency energy. Ensure that all specifications within this document are followed, especially those concerning operating temperature and supply voltage range. Make sure that the unit is operated according to local regulations. The frequency spectrum that this unit uses is shared with other users so interference either with this unit or with other users is possible.

Final Disposal - This unit contains electrical and electronic components that could be harmful to the environment. Follow local legal requirements for disposal of waste, for instance WEEE directive for electrical and electronic equipment on the European market at the end of the product life.

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

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FCCID: 2AI2WXMT

FCC Caution:

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

FCC Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

XMT

1. Display
2. On / Off
3. Flash Mode / User Menu
4. Open / Test Flash
5. Rotary Control Dial
6. Sync Mode / High-Speed Sync
7. Group / Channel
8. Modelling Lamp
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10. Reflector Cap
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12. Battery Release Latch
13. Battery Level Indicators
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15. Battery Level Check
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17. Umbrella Holder
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19. Angle Adjustment Latch
20. Stand Mount Thumbscrew
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22. Photocell
23. Handle

1. Sync Mode	5. Radio Group	9. Modelling Output
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3. Flash Power	7. Flash Mode	11. High-Speed Sync
4. Photocell Sync	8. Beep	12. Sync Delay

Quick Start Guide

The following is a quickstart guide to the individual controls, display and functions.

REAR PANEL CONTROLS:

PUSH BUTTONS:

Primary (Top) Functions:
ON   - Toggles power to the unit on and off.
MODE   - Selects flash mode (Flash, Strobe or TTL).
TEST   - Open / test flash.
SYNC   - Selects sync mode (2.4Ghz radio, Optical transmission, Photocell).
GROUP   - Toggles through available radio group settings (A - E).
LAMP   - Toggles through available modelling lamp output settings.

Secondary (Bottom) Functions:
MENU   - Selects advanced user menu system.
HSS   - Selects High-Speed Sync mode.
CHANNEL   - Selects radio channel settings (1 - 32).

Unless specified all buttons operate as follow:
• Single press to toggle through available options for primary (top) function.
• Press and hold to select secondary function.

ROTARY CONTROL DIAL:

Turn the Rotary Control Dial clockwise or anti-clockwise to adjust function / setting values.
Push to confirm setting / values.

FUNCTIONS OVERVIEW:

FUNCTION	DESCRIPTION
POWER	Power's the unit on and off.
MODE	Available flash modes include: Flash, Strobe and TTL.
TEST	Open / test flash the unit.
SYNC	Available sync options include: 2.4Ghz radio, Optical transmission and Photocell.
GROUP	Available groups include: A to E.
LAMP	Adjusts modelling lamp output; Off, 30% 60% or 100%.
MENU	Advanced menu functions include: Sync Delay, Photocell, Beep, Standby, Optical, Back Light, Contrast and Reset.
HSS	High-Speed Sync up to 1/8000sec.
CHANNEL	Available channels include: 1 to 32.

Stand Mounting

1. Pull the Angle Adjustment Latch away from the unit to unlock the Stand Mount.
2. Remove the Stand Mount from the storage channel.
3. Place the XMT500 on top of a suitable support stand.
4. Secure the XMT500 in place by turning the Stand Mount Thumbscrew.
5. Adjust the XMT500 to the desired angle and close the Angle Adjustment Latch to lock in place.

Reflector Removal and Mounting

1. To remove a relector/ light modifier, pull the Modifier Release Latch away from the front end of the unit.
2. Turn the modifier and pull away from the main unit.
3. To attach a modifier, align the reflector mount with the mount on the flash head, push together and turn to click/lock in place.

Umbrella Mounting

1. Open your chosen umbrella and slide it into the umbrella mount.
2. Once in the desired position turn the thumb screw to lock in place.

Power

• To turn the power ON, press and hold the POWER button.
• To turn the power OFF, press and hold the POWER button.

Battery

Charging

- Before first use ensure the battery is fully charged.
- For optimum performance the battery should be fully charged before use.
- If the battery has not been used for 2-3 months ensure it is fully charged before using.
- Do not charge for more than 24hrs on a single charge.
- Always recharge the battery as soon as possible after using.
- If the battery is fully depleted after use always recharge within 7 days.

Connecting the Battery

1. Insert the battery into the battery compartment.
2. Ensure the battery is locked in place.

Disconnecting the Battery

1. Slide the battery lock away from the battery.
2. Pull the battery away from the flash head.

Battery Charge Indicator

The current battery charge level can be checked in two ways on the XMT500.
1. The battery charge level can be checked directly on the battery via three LEDs.
2. The battery charge level is always displayed on the LCD screen.

LED Battery Indicator	LCD Battery Indicator	Description
1 red & 3 green LEDs	3 bars	Full charge
1 red & 2 green LEDs	2 bars	Half charge
1 red & 1 green LED	1 bar	Low charge
1 red LED	No bars	<10% charge
No LEDs	Blinking	Charge less than sufficient to power unit. Flash head will turn off.

Wireless Sync:

2.4GHz Radio Sync

The XMT500 has a built-in 2.4GHz radio receiver to enable full control over the flash via a XMTR Radio Transmitter.

To set up and use a XMTR 2.4GHz radio transmitter:

1. Press the SYNC button until the radio symbol 📶 is displayed on the LCD screen.
2. To set the radio channel press and hold the CHN button to select the channel options.
3. Turn the rotary encoder to select the desired channel (1-32).
4. Press the Rotary Control Dial to select the required channel.
5. To set the radio group press the GRP button to scroll through the available groups (A-E).

Optical Sync

In addition to 2.4GHz radio control and triggering, the XMT500 can be controlled and fired via optical (IR) transmissions. The XMT500 is compatible with Canon and Nikon proprietary optical transmission systems.

- The XMT500 can receive signals from Canon Speedlites (eg. 580EXII) and Canon commanders (eg. ST-E2).
- The XMT500 can receive signals from Nikon Speedlites (eg. SB-900) and Nikon commanders (eg. SU-800).

To set up and use the XMT500 optical (IR) control and triggering mode:

1. Press the SYNC button until the optical symbol ⊕ is displayed on the LCD screen.
2. To set the optical channel press and hold the CHN button to select the channel options.
3. Turn the rotary encoder to select the desired channel (1-4).
4. Press the rotary encoder to select the required channel.
5. To set the optical group press the GRP button to scroll through the available groups (A-C).

Further information:

- Optical transmission mode allows up to three different groups (A-C) in a single set-up.
- Optical transmission mode allows up to four different channels (1-4) in a single set-up.

Sync Options

Photocell

The XMT500 features a built-in light sensitive photocell for flash synchronisation. The XMT500 Photocell can be set to fire on the first or second flash detected.

To set up and use the Photocell to trigger the XMT500:
1. First select either S1 (1st flash) or S2 (2nd flash) Photocell option within the Advanced Menu.
2. Press the SYNC button until the Photocell symbol is displayed on the LCD screen.

High-Speed Sync

High-Speed Sync allows the flash to sync with shutter speeds up to 1/8000th sec. To set up and use High-Speed Sync:

1. Press and hold the HSS button to turn on High-Speed Sync.
2. Adjust the shutter speed on you camera.
3. To turn off High-Speed Sync press and hold the HSS button.

Further information:

• If the shutter speed on your camera is set to it's X-Sync or slower High-Speed Sync will not work.
• High-Speed Sync will not work in Strobe mode

Wired Sync

3.5mm PC Sync

The XMT can be triggered via a standard 3.5mm PC sync lead. Wired sync is always on.

Flash Modes

The XMT has three different flash modes including Flash, Strobe, and TTL. To select one of the three flash modes press the MODE button on the rear panel of the XMT.

Flash

To set up and use Flash mode:

1. Press the MODE button on the rear panel until FLS is displayed on the LCD screen.
2. Turn the Rotary Control Dial to adjust the flash power to the desired level.
3. Press the Rotary Control Dial to set and confirm the desired flash power.

Strobe

In Strobe mode the XMT can rapidly fire a predetermined number of flashes at set time intervals. This feature can be used to capture multiple images of a single event on one exposure.

To set up and use Strobe mode:

1. Press the MODE button on the rear panel until STR is displayed on the LCD screen.
2. Turn the Rotary Control Dial to adjust the flash power to the desired level.
3. Press the Rotary Control Dial to set and confirm the desired flash power.
4. To set the number of flashes and time interval press the Rotary Control Dial.
5. The time interval value (Hz) will then be highlighted and can be adjusted. Press the rotary dial to confirm desired time interval value and to select the number of flashes required.
6. Turn the Rotary Control Dial to adjust the number of flashes required.
7. Press the Rotary Control Dial to confirm the number of flashes.
8. When the unit is fired it will 'strobe' with the set number of flashes at the set time interval.

Calculating your shutter speed when using Strobe mode - When in Strobe mode, your cameras shutter will need to remain open long enough to capture all of the flashes. The formula below will help you calculate the required shutter speed.

Number of flashes / Flash frequency = Shutter speed
Example: number of flashes @ 20 / flash frequency @ 5 (Hz), then the shutter speed = 4 seconds.

Further information:
- In Strobe mode only ¼ flash power or lower can be selected. Full or ½ power cannot be selected.
- To prevent overheating and component deterioration, do not use Strobe mode repetitively in excess of 10 times. If Strobe mode is used in excess of 10 bursts the XMT may automatically disable all flash modes to allow the components to cool down. If all flash modes are disabled due to excessive Strobe bursts allow at least 15-20 minutes for the unit to cool sufficiently.

Flash Modes and Modelling

Maximum Flashes in Strobe mode:

Flash Output	Hz	1	2	3	4	5	6-7	8-9	10	11	12-14	15-19	10-50	60-100
¼		7	6	5	4	4	3	3	2	2	2	2	2	2
⅛		14	14	12	10	8	6	5	4	4	4	4	4	4
1/16		30	30	30	20	20	20	10	8	8	8	8	8	8
1/32		60	60	60	50	50	40	30	20	20	20	18	16	12
1/64		90	90	90	80	80	70	60	50	40	40	35	30	20
1/128		100	100	100	100	100	90	80	70	70	60	50	40	40
1/256		100	100	100	100	100	90	80	70	70	60	50	40	40

TTL

In TTL mode the camera determines the flash output by metering light levels through the lens. To enter TTL mode press the MODE button until TTL is displayed on the LCD screen.

TTL Flash Exposure Compensation

Flash Exposure Compensation allows to you make adjustments to the flash power level as determined by the camera in TTL mode. The flash output can be adjusted by ±3 f-stops in ⅓-stop increments.

To adjust the Flash Exposure Compensation in TTL mode:

1. Press the Rotary Control Dial to select Flash Exposure Compensation.
2. Turn the Rotary Control Dial to adjust the compensation level.
3. Press the Rotary Control Dial to set the desired compensation level.

Further information:

- In TTL mode XMT units can be divided into a maximum of three groups.
- Flash ratios of XMT units in different groups can be adjusted (up to a max of 3 groups).
- In TTL mode different flash modes can be used on different groups.

Modelling Lamp

The XMT500 uses a 10W LED modelling lamp. Modelling output can be adjusted in four steps including Off, 30%, 60%, and 100%.

To use the modelling lamp:

1. Press the LAMP button to scroll through the modelling output options.

Advanced Menu

The advanced menu allows users to custom set functions on the Mono XT:

To access the advanced menu and functions:

1. Press and hold the MENU button to access the advanced menu system.
2. Turn the rotary encoder to highlight the required function.
3. Press the rotary encoder to access the required function options.
4. Turn the rotary encoder to highlight the required function option.
5. Press the rotary encoder to select the required option.
6. Press the MENU button to exit the advanced menu.

Advanced Menu Functions:

FUNCTION	DESCRIPTION	SETTING	DESCRIPTION	RESTRICTION
BEEP	Ready Sounder	On	On	
		Off	Off	
PHOTOCELL	Flash Sync	Off	Off	Flash only
		S1	S1	
		S2	S2	
STANDBY	Auto Power Down	Off	Off	No
		30 mins	Auto Power Down if not used.	
		60 mins	Auto Power Down if not used.	
		90 mins	Auto Power Down if not used.	
BACK LIGHT	LCD Backlight On Time	Off	Off	
		On	On	
		15 secs.	On for 15 secs.	
SYNC DELAY	Flash Delay	Off, 0.01 - 30 secs.	Can be triggered on 2nd curtain.	Flash & Strobe only
CONTRAST	Screen Contrast	0 - 9	Varied brightness levels	
OPTICAL	Optical Remote Control	Canon	Canon	Optical Remote only
		Nikon	Nikon	Optical Remote only
RESET	Factory Reset	No		
		Yes	Factory Reset	

Protection, Errors and Firmware Updates

Overheat Prevention

To prevent the unit from overheating, the XMT includes internal temperature sensors that will automatically enable the overheat function after excessive use. To prevent the overheat function fom enabling, do not fire the unit at full power more than 100 times in quick succession.

If the temperature sensors enable the overheat function the XMT will automatically reduce flash recycle to over 10 seconds. If this occurs allow the unit rest and cool for at least 10 minutes before commencing use.

Error Codes

In case of failure the following is a list of unit error codes:

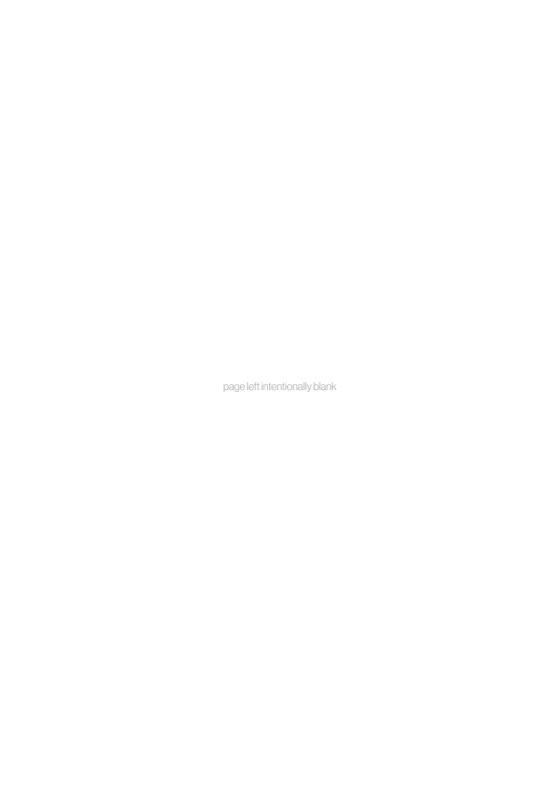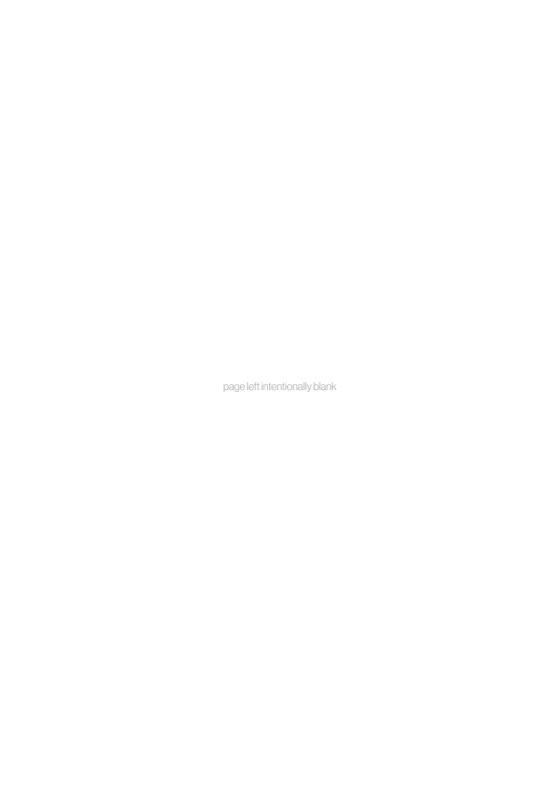| ERROR CODE	DESCRIPTION	SOLUTION
E1	Recycling error.	Restart the unit. If problem persists send to Bowens for servicing.
E2	Excessive heat.	Allow the unit to rest for at least 10 minutes.
E3	Flashtube error.	Restart the unit. If problem persists send to Bowens for servicing.
E4	Software error.	Update to latest firmware.

Firmware Updates

The XMT firmware may be updated via the micro USB connector.

XMT500	SPECIFICATIONS
Part Code:	BW5400
Flashtube:	BW3003
Modelling Lamp:	10W LED
Rated Energy:	500Ws
Energy Range:	9-stops (full - 1/256 | 500Ws - 2Ws)
Power Control:	1/3rd-stop adjustment
Flash Duration (shortest):	1/10,309 sec.
Guide Number:	87 (100 ISO)
Flash Modes:	Flash, Strobe, and TTL.
Colour Temperature:	5600ºK ±300
Recycle Time:	0.01 - 2.5 sec.
Flash Delay:	0.01 - 30 sec.
Flash Sync:	High-Speed-Sync (up to 1/8,000 sec), 1st curtain sync, 2nd curtain sync.
Photocell:	Yes. Sync on 1st or 2nd flash.
Flash Exposure Compensation:	±3-stops in 1/3rd-stop increments
Strobe Flash:	Max 40 flashes (@ 1/128 power & 5Hz). Max 100Hz (@ 40 flashes & 1/128 power)
Ready Indications:	Illuminated test button, beep
Modelling Control:	Off, 30%, 60%, or 100%
Fan Cooled:	Yes
Display:	DOT matrix
Sync Voltage:	5V
Sync Input:	3.5mm jack sync input
WIRELESS OPERATION	
Wireless Control Options:	2.4GHz receiver mode	Optical receiver mode
2.4GHz Transmission Range:	<80m
Optical Transmission Range:	Indoors: 12 - 15m (39.4 - 49.2ft)	Outdoors: 8 - 10m (26.2 - 32.8ft)
Remote Groups:	2.4GHz operation: 5 (A - E)	Optical operation: 3 (A - C)
Remote Channels:	2.4GHz operation: 32 (1 - 32)	Optical operation: 4 (1 - 4)
BATTERY	
Battery Operation:	Lithium-ion (11.7V / 8700mAh)
Battery Capacity:	500 flashes @ full power
Battery Charge Time:	Approx 4 hours to 100% (from 0%)
Battery Charger Input:	100-240V 50/60Hz 1.0A
Battery Charger Output:	12.6V / 3.3A
Weight:	0.6Kg
BODY	
Dimensions (LxWxH):	368mm x 126mm x 144mm (14.5" x 5" x 5.7")
Weight (inc reflector and reflector cap):	2.9Kg

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