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XMSR Remote & Trigger

User Guide

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Congratulations on purchasing your new Bowens product.

Thank you for choosing the XMSR radio and remote trigger.

The Bowens XMSR 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 XMSR has been created as a system remote that will operate multiple type lighting units including monolights and generator systems. As a result some features and functions included in the XMSR may be mutually exclusive of certain compatible products.

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 or to find details of your nearest Bowens dealer, please visit the website.

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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.
- 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.

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 separate disposal of waste, for instance WEEE directive for electrical and electronic equipment on the European market at the end of the product life.

FCC Information

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.

FCCID: 2A12WXMS

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:

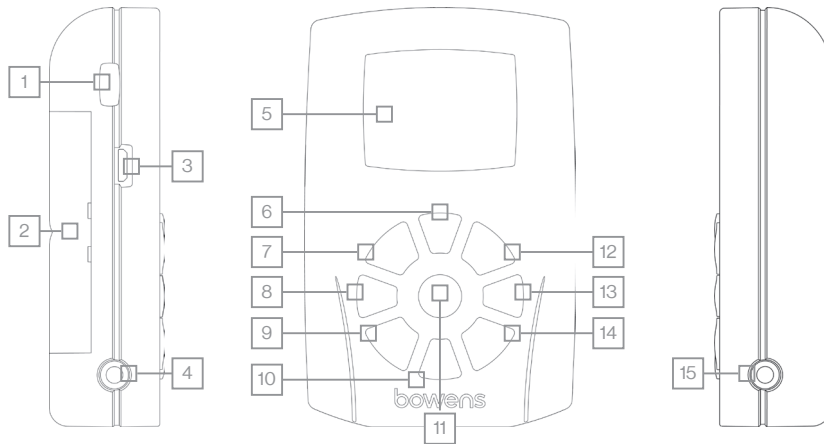
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The XMSR wireless remote permits high speed triggering and adjustment of settings on Bowens XMS range flash. The XMSR also provides a number of advanced features that greatly extend the functions available, including input sync bias and channel cycling.

Devices controlled by the XMSR wireless remote are termed as 'slaves', the XMSR itself being the master. Slave devices may be monolights, packs or another remote configured as a receiver.

To avoid false triggering of slaves by photographers using another master within the immediate area, slaves are first associated to a master that is to control it. This is a one off process.

The use of groups enable slaves operating on the same channels to be divided into sub-sets. This allows the settings of slaves to be adjusted independently while still triggering all slaves on that channel simultaneously.



Item	Ident.	Primary Function	Secondary Function
1	PWR	Power on/off	
2	BTCM	Battery compartment	
3	MUSB	Micro USB connector	
4	SKT1	Sync output 3.5mm jack	
5	DPLY	Colour display	
6	▲	Go to group sub-menu	Increase sub-menu value
7	M+	Modelling lamp power increase	
8	◀	Go to channel sub-menu	Move to previous sub-menu
9	M-	Modelling lamp decrease	
10	▼	Go to group sub-menu	Decrease sub-menu value
11	ENT	Flash test / Exit sub-menus	Flash test / Confirm
12	P+	Flash power increase	
13	▶	Go to channel sub-menu	Move to next sub-menu
14	P-	Flash power decrease	
15	SKT2	Sync input 3.5mm jack	

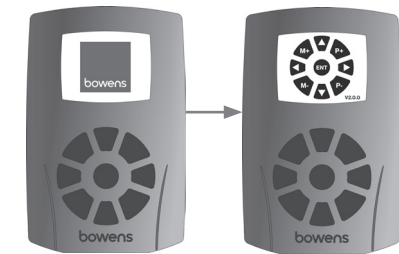
Batteries

Before powering up the XMSR you must first ensure the correct size and battery type (2 x AAA) are inserted into the unit. To insert batteries first remove the battery compartment cover by pressing on the side (as indicated on the cover) and pulling it away from the main unit. Insert the correct battery type and replace the battery compartment cover.

Power On

To power on the XMSR press and hold the power on/off button (see page 5).

When the XMSR powers up it will first display the Bowens logo, followed by a screen indicating the keypad configuration.



Functions

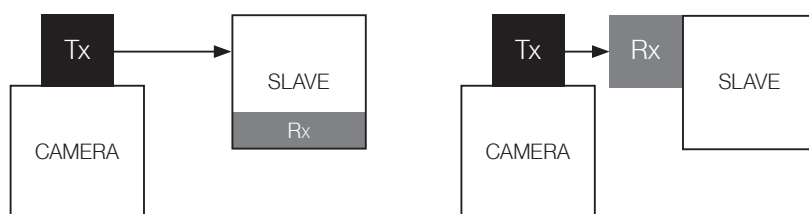
Below is a list of the functions and available settings for the XMSR Remote & Trigger.

Summary	Function	Description
CH	Channel	Selects Channels 1-16
GR	Group	Selects Groups 1-9
MD	Mode	Operation Mode: Transmit (Tx) or Receive (Rx)
FS	Fast Sync	Fast Sync on/off
FST	Fast Sync Time	Select Fast Sync Time 1 - 30mins
ML	Modelling	Modelling on/off
MM	Modelling Mode	Selects Modelling Mode: Max, Auto, Free, Prop
HD	Head	Head on/off
IM	Indication Mode	Selects Indication Mode: Off, Beep, Dim, Dim & Beep
ST	Sleep Time	Selects Sleep Time: 5 - 180mins
SC	Sync	Selects Photocell Sync Mode: Off, Cell, Pre-Cell
RS	Recharge Speed	Set Flash Recharge Speed: 10 - 100%
DT	Display on Time	Set Display on Time: 15 - 180secs
FN	Function	Selects Remote Function: Trigger, Trigger & Remote, Remote
SO	Input Sync Offset	Set interval between the remote triggering and its outputs firing.
CC	Channel Cycling	Select number of channels to be fired sequentially
SP	Pairing	Pairs remote to compatible slave devices
SU	Un-Pairing	Un-Pairs remote to paired slave devices
MT	Menu on Time	Set menu on time 1 - 60secs
EXT	Extended Menu	Turns access to extended menu functions on/off



Flash Trigger

Any slave devices that have a built-in XMSR receiver can be triggered via the XMSR Remote and Trigger. Slave devices that do not have a built-in XMSR receiver can be triggered by connecting an XMSR (using the correct cable) that has been set to receive mode (Rx). Only paired slave device (flash or remote) set to the same channel as the master XMSR will fire when a trigger signal is received.



Remote Control

Bowens XMSR Remote and Trigger can be used to remotely control paired slaved devices with built-in XMSR receivers. Full control over all functions and available settings can be remotely controlled / set via the XMSR Remote and Trigger.

Only slaved devices operating on the same group as the master XMSR will be remotely controlled. Group 9 on the XMSR Remote and Trigger transmits to all groups.

NOTE: If the XMSR Remote and Trigger is transmitting in Group 9, any paired slave devices operating on the same channel will automatically revert to the same settings as the remote.

For the remote to communicate with other slave devices on the XMSR network they must first be associated or 'paired' and be operating on the same channel. For settings such as flash power and modelling power to be adjusted, the slave must also be on the same group as the remote.

Pairing

In order for an XMSR to control / trigger a compatible slave device, it must first be paired. Pairing associates each slave device to the remote, thereby ensuring they only accept commands from your remote.

Slave devices may be monolights, generator packs or other remotes operating as receivers. Pairing of each slave device is required only once as these associations are retained by the remote and slave devices even when powered down.

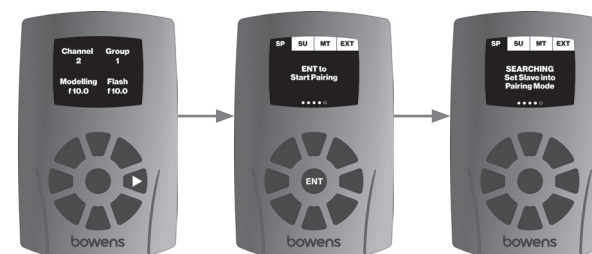
To commence pairing press the MENU button on the XMS until the display shows 'Pr' to indicate 'Pairing' mode. The display will alternate between showing 'Pr' and 'nP' for 'new pair'.

Press the Rotary Control to request pairing with the XMSR. The XMS unit will now display a steady 'nP'.

On the XMSR, scroll through the menu to the Start Pairing (SP) option. Press enter to start pairing. The XMSR will now search for the XMS unit and attempt to 'Pair'.

When the XMS unit is found its display will change to show a random number alternating with 'nP' and will finish by displaying 'FP' for 'Finished Pair'. If the Sounder is enabled then this is also accompanied by a short sequence of beeps. This operation could be almost instantaneous or take up to 30 seconds.

The XMS unit will automatically acknowledge 'Pairing' to the XMSR.



Note: Only one slave device should be in teaming mode at any one time.





On receiving the confirmation signal from the slave, the remote will display "Pairing Complete" indicating that pairing has been successful.

If the pairing session has not completed, or has been unsuccessful, the XMSR will time-out after a period of approximately 15s and the message "Slave Not Found" will be displayed. Repeat the pairing process again.

This process should be repeated for each of your slave devices.

Additional devices can be paired at any time, up to a maximum of 127 slaves.

Once teamed the slave device inherits the group and channel of the remote.



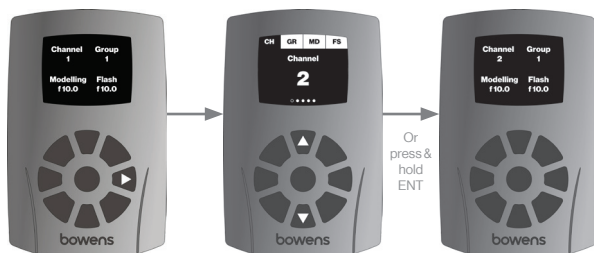
Pairing Successful

Pairing Failed

Channels

The XMSR wireless network operates on 16 channels. For the remote to communicate with the slave devices both must be on the same channel.

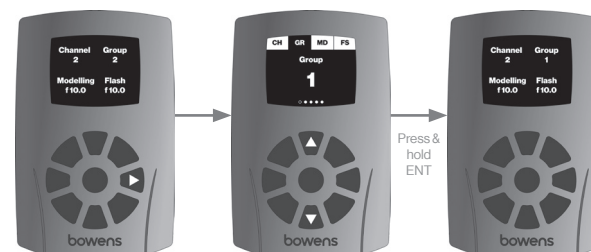
The channel is changed as follows:



Starting at the main menu press the key, the channel sub-menu will be shown, displaying the current channel. Select the required channel by pressing the and keys.

Groups

This function allows slaves operating on the same channel to be sub-divided into 8 independently adjustable groups while still being triggered together. A group may consist of single or multiple slave devices. Group 9 transmits to ALL groups. Groups are changed as follows:



Alternatively, to adjust the group start at the main menu and press the key. The current group setting is shown, use the and keys to select the required group.

Flash Test

Pressing the ENT key at any time (other than when in pairing or un-pairing modes) test fires the flash on all paired devices on the same channel.

Menu Reset

This option allows the user to jump back to the main menu screen on the XMSR remote from any point within the menu system. To do this simply press and hold the ENT button.





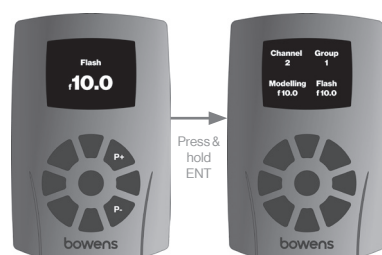
Changes to the settings below are actioned only by slaves on the current channel & group.

Settings for each group are stored, and are fully independent of each other. Slave devices are updated immediately once a setting is changed, however should a slave device be activated or changed to operate on the masters current group/channel, the remote should be test fired to synchronise the slave settings with those of the remote.

NOTE: In the event the remote is set to a power level lower than that can be achieved by one of its slaves, that slave will be set to its minimum power level. In such a case the displayed values on the remote and slave will differ.

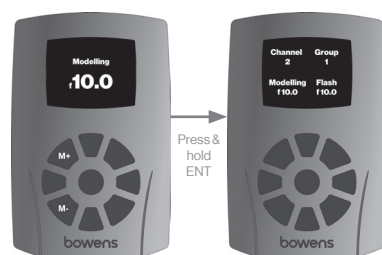
Flash Power

When in the main menu pressing either the P+ or P- keys adjusts the flash power.



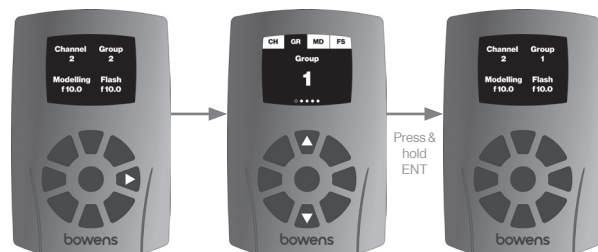
Modelling Lamp Power

When in the main menu pressing either the M+ or M- keys adjusts the modelling lamp power.



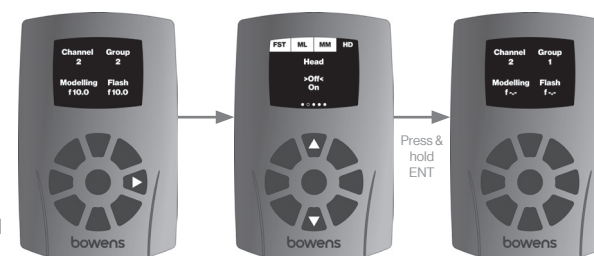
Modelling Lamp On/Off

The modelling lamp may be switched on or off by first selecting the 'Modelling' sub-menu using the ► key, then selecting either 'On' or 'Off' as required using the ▲▼ keys.



Head On/Off

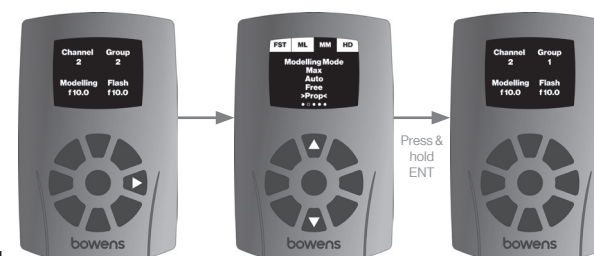
The flash head can be switched on or off by first selecting the 'Head' sub-menu using the ► key, then selecting either 'On' or 'Off' as required using the ▲▼ keys.



Note: Some slave devices do not support all modelling modes. These devices will continue to operate in the last valid selected mode.

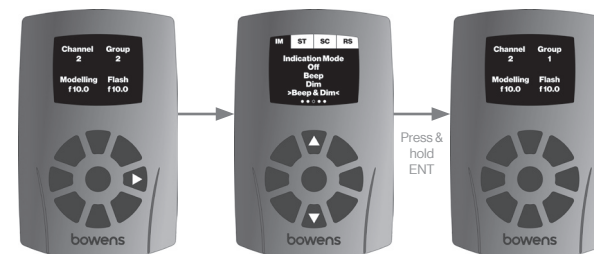
Modelling Mode

The modelling mode can be adjusted by pressing the ► key until the modelling mode page is displayed. The required option can then be selected using the ▲▼ keys.



Ready Indication Mode

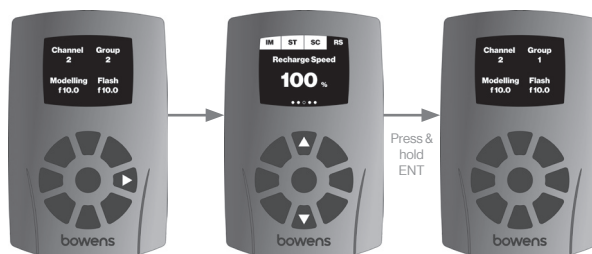
The flash ready indication mode can be adjusted by pressing the ► key until the indication mode page is displayed. The required option can then be selected using the ▲▼ keys.





Recharge Speed

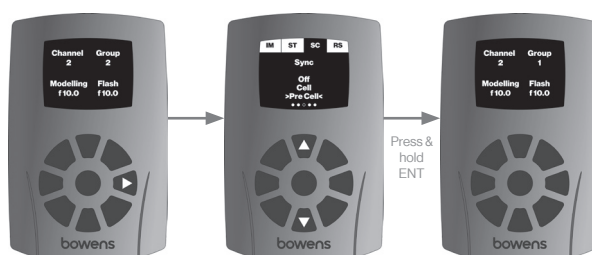
The Recharge Speed can be adjusted by pressing the ► key until the Recharge Speed page is displayed. The required option can then be selected using the ▲▼ keys.



NOTE: The Recharge Speed function is only compatible with units that include this feature. Currently not supported on the XMS.

Sync (Photocell)

The cell sync can be adjusted by pressing the ► key until the Sync page is displayed. The required option can then be selected by pressing the ▲▼ keys.



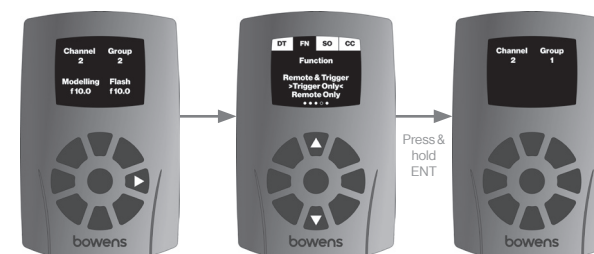
With the exception of the 'Function' setting these settings effect only the operation of the remote and do not change settings on the slave device.

Transmit / Receive Mode

The mode setting determines how the remote will operate. When set to Tx the remote transmits settings/sync trigger commands to slave devices. In the Rx mode the remote acts as a slave device enabling it to be used to trigger flash devices, or act as a camera release. While in the Rx mode the 'Slave Settings' are not active.

In Rx mode the remote will not respond to commands until it has been paired with the remote controlling it. As with the pairing of other slave devices this is a once only process.

The mode of operation can be changed by pressing the ► key until the 'Mode' page is displayed. The mode is then selected using the ▲▼ keys.



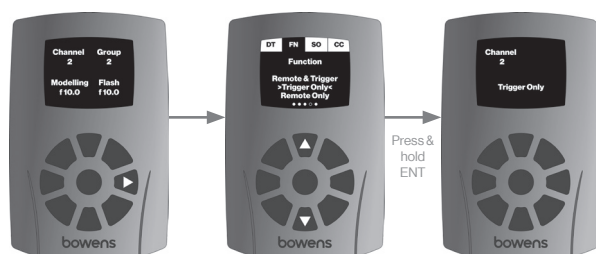
Note: the XMSR network permits the use of up to 8 master devices (remotes in Tx mode), however to avoid setting conflicts only one of these must have the 'Remote' function enabled (see below).

Function

This setting is only active when in Tx mode. The function mode allows you to select the amount of functionality the remote is to have. It may be set to 'Remote & Trigger' thereby enabling both adjustment of slave settings & sync triggering. 'Remote Only' disables sync triggering & 'Trigger Only' disables the adjustment of slave settings.

The function can be changed by pressing the ► key until the 'Function' page is displayed. The mode is then selected using the ▲▼ keys.

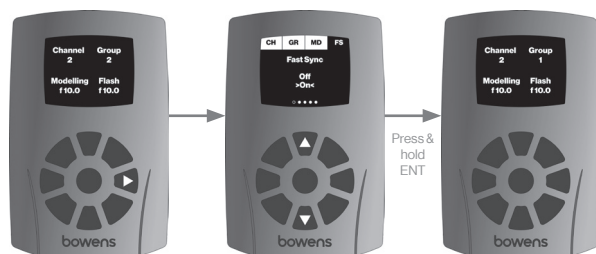


**Function Cont.****Fast Sync**

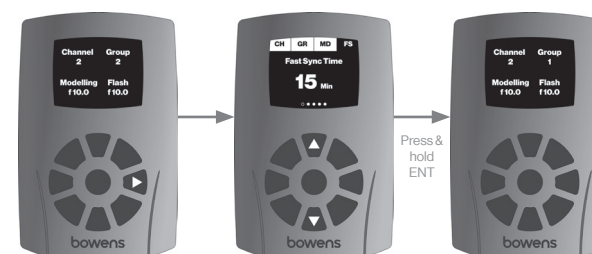
Fast Sync mode enables Leaf Shutter cameras to sync at speeds faster than their standard X-Sync. The X-Sync speed for Leaf Shutters is generally limited to the mechanical speed limitations of the shutter, usually around 1/800th of a second. Fast Sync mode on the XMSR allows greater speeds than 1/800th second which in some cases can increase up to 1/1600th second.

The 'Fast Sync' option permits high speed triggering. Due to its impact on battery life this option is only enabled for a period of time, specified on the 'Fast Sync Time' page.

Fast sync can be enabled by pressing the key until the 'Fast Sync' page is displayed then selected 'On' or 'Off' as required using the keys.

**Fast Sync Time**

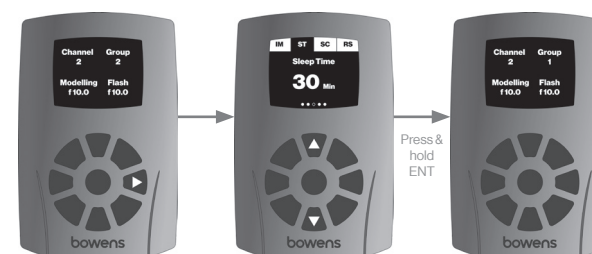
The 'Fast Sync Time' page is only visible when the fast sync option is enabled. This determines how long Fast Sync will remain active after the last trigger pulse before reverting back to normal sync speed. An interval of up to 30 minutes can be selected. Selecting '0' disables the time-out and the remote will remain in the Fast Sync mode indefinitely, however it is advised that this is only done when connected to an external power supply source via the USB port. The Fast Sync time can be changed by pressing the key until the 'Fast Sync Time' page is displayed then selecting the required duration using the keys.

**Sleep Time**

Sleep time is the length of time the remote remains powered-up after the last trigger pulse was received or key pressed.

An interval of up to 180 minutes can be selected. Selecting '0' disables the time-out and the remote will remain active indefinitely.

The sleep time can be changed by pressing the key until the 'Sleep Time' page is displayed then selected 'the required duration using the keys.



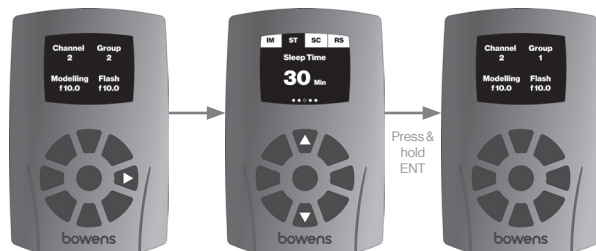


Display On Time

The 'Display On Time' is the duration the remote's screen remains on after the last button press.

An interval of up to 180 seconds can be selected. Selecting '0' disables the time-out and the display will remain active indefinitely, however it is advised that this is only done when connected to an external power supply source via the USB port.

The display on time can be changed by pressing the key until the 'Display On Time' page is displayed then selected 'the required duration using the keys.

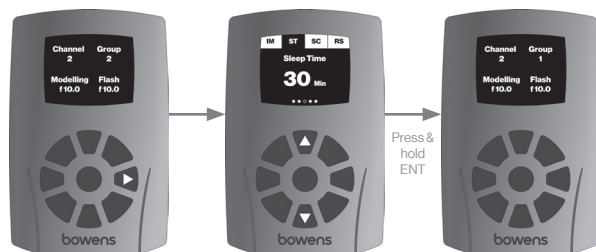


Menu On Time

The 'Menu On Time' is the duration the remote's screen remains on a menu page after the last press. Once the time period has expired the remote will revert back to the main page.

An interval of up to 180 seconds can be selected. Selecting '0' disables the time-out and the display will remain active indefinitely, however it is advised that this is only done when connected to an external power supply source via the USB port.

The display on time can be changed by pressing the key until the 'Display On Time' page is displayed then selected 'the required duration using the keys.

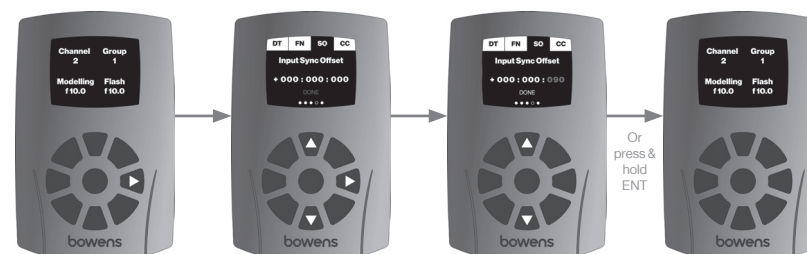


Input Sync Offset

To access the Input Sync Offset screen you must first turn 'on' the extended menu. The Input Sync Offset function allows adjustment of the interval between the remote being triggered and its outputs (sync output connector or radio sync command transmission) being fired. In this mode the remote and camera are triggered from an external manual release.

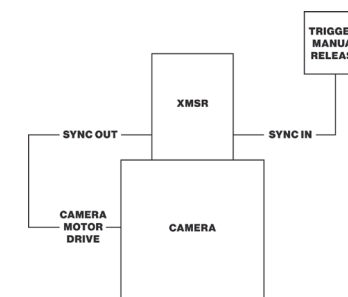
The 'Timebase' defines the range over which the 'Input Sync Offset' will operate. There are three time ranges available 0-999 seconds, 0-999 milliseconds, and 0-990 microseconds. This allows the delay value to have a wide range while permitting rapid adjustment.

When the remote is operating in Tx mode the value may be set positive or negative within the range selected in the 'Timebase' menu. Positive values cause the remote's local sync output to trigger in advance of the radio sync command being transmitted. A negative value causes the remote's local sync output to be triggered after the transmission radio sync command. Selecting a value other than zero enables this function. When the remote is operating in the Rx mode the input sync delay function adds the delay between the sync command being received and the sync output being triggered. In this mode only positive values may be entered.



To set the input sync offset time press the key until the 'Input Sync Offset' page is displayed then use the keys to select the offset range. Use the keys to adjust the selected timebase range, and the keys to select the required timebase.

NOTE: To use the Input Sync Offset function a 'trigger switch / release' with a 3.5mm jack connection, and a camera compatible motor-drive cable with a 3.5mm jack connection is required.





Input Sync Offset Cont.




To use of the Input Sync Offset function the camera / lens must be set to manual focus.

When ready to take a photograph first half press the camera's trigger button to enable the cameras pre-focus and to prepare the camera to trigger.

Then press the trigger switch / release to fire the XMSR which will then trigger the lighting and the cameras motor-drive in sequence according to the values set.

Channel Cycling

To access the channel cycling screen you must first turn 'on' the extended menu. Channel cycling permits slave devices on different channels to be triggered in sequence. Starting at Channel 1, each time a sync pulse is received from the camera, or ENT is pressed, the remote advances the transmission channel. Once the remote reaches the channel specified, the next sync pulse causes the channel to revert to channel 1. For example if channel cycling is set to 4, the sequence of channels will be 1, 2, 3, 4, 1, 2, 3 etc.

To set channel cycling press the  key until the 'Channel Cycling' page is displayed then use the   keys to select the number of required channels to be cycled through. Selecting 1 disables the function.





Extended Menu

The extended menu enables access to functions that are not used as often as some of the main features. Functions that can be accessed once the Extended Menu is turned on include 'Sync Input Offset' and 'Channel Cycling'.

Note: Functions within the extended menu will remain active if a value is set when access to the extended menu is disabled. For 'Sync Input Offset' the value must be set to '0', and 'Channel Cycling' must be set to '1' in order for the functions to be non-operational.

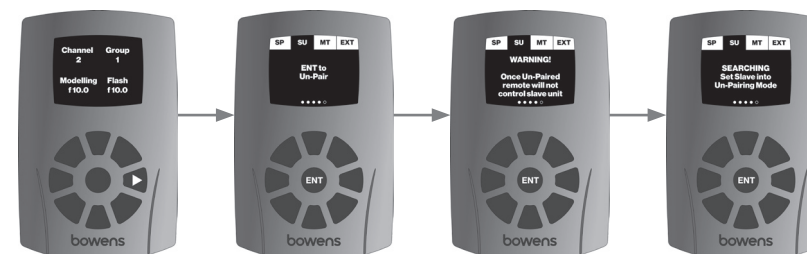
In the event you should wish to remove the association between the remote and one of its slaves the un-pairing process should be used.

To commence un-pairing start at the main menu and press  key until the un-pairing page is displayed then press the ENT key.

A warning message is displayed reminding you that once you have completed this process you will no longer be able to communicate with the slave device. If you wish to continue press the ENT key, otherwise press the  key to exit.

Another message is now displayed instructing you to set the slave device you wish to un-team into un-teaming mode. Once this is done press the ENT key to continue.

Note: Only one slave device should be in un-pairing mode at any one time.



To enter un-pairing mode on the XMS press the MENU button until the display shows 'Pr' to indicate 'Pairing' mode. Use the Rotary Control to scroll through the available options until the display alternates between showing 'Pr' and 'UP' for 'Un-Pair'.

Press the Rotary Control to request pairing with the XMSR. The XMS unit will now display a steady 'UP'.

When the XMS unit is found its display will change to display a random number alternating with 'UP' and will finish by displaying 'FP' for 'Finished Pair'. If the Sounder is enabled then this is also accompanied by a short sequence of beeps. This operation could be almost instantaneous or take up to 30 seconds.

The XMS unit will automatically acknowledge 'Pairing' to the XMSR.

On receiving the confirmation signal from the slave, the remote will display "Un-Pairing Complete" indicating that un-pairing has been successful.

If the un-pairing session has not completed, or has been unsuccessful, the XMSR will time-out after a period of approximately 15s and the message "Slave Not Found" will be displayed. Repeat the pairing process again.



**Un-Pairing Cont.**

Un-Pairing Successful



Un-Pairing Failed

USB Input

The USB input on the side of the XMSR (see page 6) can be used to externally power the remote if required. Simply insert a USB micro connector into the XMSR input and connect to a suitable power source.

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Specifications

Frequency Band	2.4GHz
Radio Channels	16
Groups	8
Typical Control Range	>30m
Battery Type	2 x AAA
Typical Battery Life	<18 hours continuous run time
Sync Delay Fast / Normal	<250µS / 360µS
Dimensions mm (H x W x D)	97 x 58 x 25
Dimensions inches (H x W x D)	3.8 x 2.3 x 0.9
Part Code:	BW5190