Phottix Laso TTL Flash Trigger_Receiver

Thank you for purchasing a Phottix Product.

Note: Before using the Phottix Laso Wireless Trigger, please read this instruction manual carefully, while also referring to the instruction manuals of your camera, flash and other relevant devices.

Warnings

1. This product is a precise electronic instrument. Do not expose to damp environments or dust.
2. Please shut down the power of all devices when installing the wireless trigger.
3. Do not drop or crush.
4. Do not use the wireless trigger at flammable, explosive or high temperature environment.
5. Do not use harsh chemicals or solvents to clean the body. Use a soft cloth or lens paper.
6. Remove batteries from the wireless trigger if not being used for an extended period.
7. Interference: The Phottix Laso wireless trigger transmits radio signals at 2.4GHz. Its performance can be affected by electrical current, magnetic fields, radio signals, wireless routers, cellular phones, and other electronic devices. Environmental objects, such as large buildings or walls, trees, fences, or cars can also affect transmission performance. If your wireless trigger can't be triggered, move its location slightly.

FCC Interference Statement:
This device complies with part 15 of the FCC Rules. Operation is subject to the followingtwo 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.

FCC Radiation Exposure Statement:
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE: 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.

Phottix Laso TTL FLash Trigger For Canon/Receiver

The Phottix Laso receiver is used with non-wireless Canon ETTL Speedlites to perform wireless radio-receiving control and triggering function. The receiver is compatible with multiple wireless radio transmitting devices, including the Phottix Laso transmitter, Canon ST-E3-RT Speedlite transmitter, and radio-enabled Canon Speedlites.

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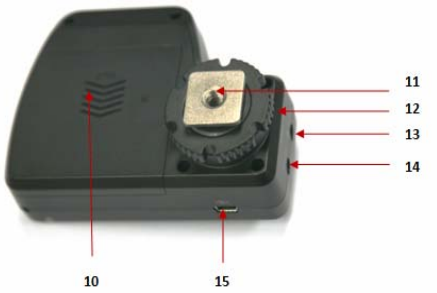
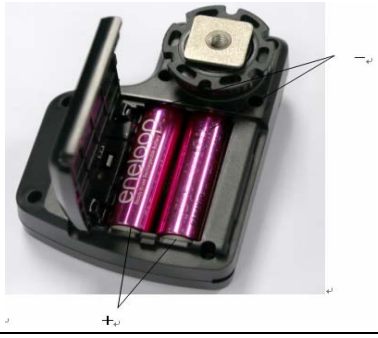


II. Preparation before Use

Installing the batteries

1. Press the battery compartment cover and slide it down as shown to open the battery cover.
2. Insert the batteries. Make sure the “+” and“-”battery contacts are correctly oriented as shown. (Note: Please use 2 pieces of AA alkaline batteries or AA type NI-MH batteries.
3. Replace the battery cover and push back into the locked position.
4. When the power icon on the LCD screen displays insufficient power, replace the batteries with new ones.



Attaching and Removing the Phottix Laso receiver

Attaching the flash to the Phottix Laso receiver

1. Align the flash’s hot shoe and the Phottix Laso receiver’s hot shoe mount.
2. Slide the flash all the way into the Phottix Laso receiver’s hot shoe mount
3. Lock the flash with the flash’s locking mechanism.

Removing the flash

1. Release the lock of flash according to its locking mechanism（see picture）
2. Slide the flash out of the Phottix Laso receiver’s hot shoe mount.

Turn On/Off the Phottix Laso receiver

1. Turn On: Press and hold the power button until MENU interface is displayed on screen.
2. Turn off: Press and hold the power button until the LCD screen goes blank.

Checking Version Info on the Phottix Laso Receiver

You can check the present version information on the Phottix Laso receiver: While pressing power button to turn on the Phottix Laso receiver, press function button 1, 2 or 3 spontaneously until relevant version info is displayed on the LCD screen. Function button 1, 2 and 3 is respectively corresponding to base hardware & software version, RF hardware & software info, and Icon version.

Test Firing:

The Phottix Laso receiver supports test firing function. You can trigger the flash attached to the Phottix Laso receiver by pressing test button< > on the receiver.

Attaching the Phottix Laso receiver to studio lights or flashes by cable

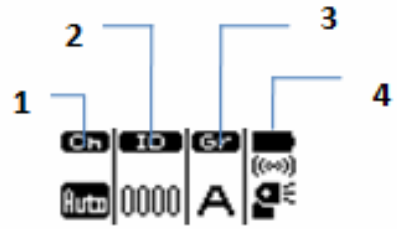
1) Turn off the flash/strobe and the Phottix Laso receiver
2) Connect a cable to the receiver's 3.5 mm output port
3) Connect the opposite end of the cable to a flash or studio strobe
4) Turn on the flash/strobe and the Phottix Laso receiver
5) Set the flash to Manual mode – no ETTL functions can be used when a compatible flash is triggered by cable.

Lock function

While the Phottix Laso receiver is on, press and hold power button and function button 1 simultaneously for 2 sec to enable lock function. The function can disable receiver's button operation. And "LOCK!" will be displayed on the LCD screen. Use this to prevent the receiver function settings from being accidentally changed after you set them.

Again press and hold power button and function button 1 simultaneously for 2 sec, you can disable the lock function.

III. LCD Display



1.	Ch	Transmission Channel	Ch.1-Ch.15and Auto
2.	ID	Wireless radio ID	0000-9999
3.	Gr	Firing group	Up to five groups (A/B/C/D/E)
4.		Battery power state	-
		Slave units and master unit in contact state	-
		Phottix Laso receiver in contact state with flash that attached to its hot shoe mount	-

IV. Wireless Flash Shooting: Radio Transmission

Note:

The transmitter attached to the camera is called the master unit, the Phottix Laso receiver and a flash that is wirelessly controlled is called the slave unit.

Wireless Flash Shooting

Set the master unit and the Phottix Laso receiver to exactly the same channel and ID, and the flash mounted on the Phottix Laso receiver set to ETTL mode. The flash (slave) will fire at the flash mode and flash output set on the master unit. Flash exposure compensation and other settings set on the master unit will be automatically set in the flash (slave). You don't need to operate the slave unit.

The Phottix Laso receiver can be used to receive wireless radio signal transmitted from the Phottix Laso transmitter、Canon ST-E3-RT Speedlite Transmitter or radio-enabled Canon flashes.

<table>
<tr><td>Master: Phottix Laso TTL Flash Trigger for Canon/Transmitter
  </td><td rowspan="3">Slave: Phottix Laso receiver
  </td></tr>
<tr><td>Master: Canon ST-E3-RT Speedlite Transmitter
  </td></tr>
<tr><td>Master: Canon 600EX-RT Speedlite
  </td></tr>
</table>

Flash mode

The Phottix Laso receiver supports two flash modes: ETTL and M

1. When the master unit is set to ETTL, you can shoot with advanced wireless flash lighting in the same way as normal E-TTL Ⅱ/E-TTL auto flash shooting;
2. When the master unit is set to M, slave unit fires at the set flash output
3. When the master unit is set to Gr, you can shoot with a different flash mode （ETTL/M/ OFF）for each group（A/B/C/D/E）.

Note:

1) After connecting flash with the Phottix Laso receiver, please firstly turn on the flash, set the flash mode to ETTL, and lastly turn on the receiver.
2) During wireless shooting, do not operate the flash.
3) The Phottix Laso receiver does not support Multi flash mode. If master unit is set to Multi mode, the slave unit using the Phottix Laso receiver does not fire.
4) The Phottix Laso receiver does not support Ext.A flash mode.

Setting the Slave Units

1. Setting firing group for Save Units

Set the firing group for slave units (up to 15 units) accordingly with the setting of master unit.

Master Unit		Slave Unit
ETTL/M	Ratio OFF	Set A, B or C as the firing group. If set to D or E, flash will not be triggered
	Ratio A:B	Set A or B as the firing group. If set to C, D or E, flash will not be triggered
	Ratio A:B C（ETTL）/ Ratio A:B:C（M）	Set A,B or C as the firing group
Gr		Set A, B, C, D or E as the firing group. Each group will fire at a flash mode accordingly with how it is set on the master unit.: ETTL/M/OFF

Setting the firing group:
Press function button 3 〈Gr〉, the firing group parameter will flash on the LCD; press function button 2〈-〉 or 3〈+〉to select from A/B/C/D/E; press power button or function button 〈↵〉 to finish the setting.

2. Setting transmission channel and wireless radio ID for Save Units

Please make sure master unit and slave units are set to the same transmission channels and wireless radio IDs. If the transmission channels and wireless radio IDs of the master unit and slave unit are different, the slave unit does not fire.

Setting the transmission channel: press function button 1 〈Ch〉, the transmission channel parameter will flash on the LCD; press function button 2〈-〉 or 3〈+〉to select from Ch. 1-15 or Auto; press power button or function button 4〈↵〉to finish the setting.

Setting the wireless radio ID: press function button 2 〈ID〉, the thousands digit will flash on the LCD; press function button 1 〈→〉 to select the ID digit to set; press function button 2〈-〉 or 3〈+〉 to select ID number from 0-9; press power button or function button 4 〈↵〉to finish setting for each digit.

3.Positioning the flash and camera

Position the camera and flash within the range of wireless radio transmission.

4.Check the transmission status

Check that the radio transmission confirmation lamp is lit green. Icons and are displayed on the receiver's LCD screen.

The color of radio transmission confirmation lamp changes depending on the transmission status of the master unit and the slave unit.

Color	Status	Description	Action
Green	Lit	Transmission OK	-
Red	Lit	No connected	Check the channel and ID
	Blinking	Too many units	Master Units + slave units = 16units or less
		Error	Turn the power off and on again
Blue	Lit	Shortly lit when Phottix Laso receiver sends flash or remote release order	

5. Check the operation

Press the master unit's test flash button (charge lamp). The slave unit flash will fire. If not, check that it is placed within the operation range.

Remote Release

While performing wireless shooting, you can release camera shutter remotely from slave unit that using the Phottix Laso receiver. Simply by pressing function button 4 〈Rel〉on the Phottix Laso receiver, you can perform remote release (remote control shooting). For master unit operations, see instruction manual of the Phottix Laso transmitter, Canon ST-E3-RT Speedlite transmitter or flash based on personal choice of transmitting devices.

USB port

The firmware of the Phottix Laso receiver can be upgraded via the USB port, so as to adjust its parameter and extend its compatibility with cameras to come in the future.

1.1 Connect the USB cable to the computer and the other end of the USB cable to the Phottix Laso receiver's USB port. A mobile device icon will be displayed on the computer when successfully connected.

1.2 Double click to start the upgrade software. The upgrade software can be used to check version info, and upgrade the Base software, RF software and Icon.

Click "Version" icon, the current version information of the connected Phottix Laso transmitter will be displayed in the software window.
Click "Base software" icon, locate and double click on the FDS file from the pop-out window. Then it starts loading the new firmware.
Click "RF software" icon, locate and double click on the RFC file from the pop-out window. Then it starts loading the new firmware.

Click "Icon" icon, locate and double click on the FIF file from the pop-out window. Then it starts loading the new firmware.

1.3 The status of the upgrade will be displayed in the process bar. When completed, an "Updata OK" will be displayed at the bottom of the upgrade software window, and an “update OK” will be displayed on the receivers’ LCD screen. Upon completion, disconnect the USB cable and restart the Phottix Laso receiver.

Note:
Please ensure stable power supply when attempting to upgrade the Phottix Laso receiver. Loss of computer power during the upgrade process could fail the upgrading.

Ⅴ· Technical Specification

Type	Wireless Trigger For Canon/Receiver
Compatible cameras	EOS type-A camera compatible with E-TTL II/E-TTL autoflash
Exposure control system	E-TTL Ⅱ/E-TTL auto, manual flash
Frequency	2405 – 2475Hz
Channel	Auto, Ch.1-15
Wireless radio ID	0000-9999
Slave unit control	Up to 5 groups（A/B/C/D/E）, up to 15 units
Transmission distance	100m+
Power source	2 x AA alkaline batteries or AA NI-MH batteries; 5V DC（External power port）
Receiving current	≤70mA
Max. operating current	≤80mA
Dimension	（L×W×H）: L（93×70×47.5）mm
Weight(approx.)	93.3g（Excluding the batteries）

Please note: Product specifications and external design are subject to change without further notice.