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information, if interesting of the combining usage  
with products released after this day.



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Made in China

50703 V10.02



# Flashgun I-TTL Trigger

## **Knight TR-331**

### 閃光燈I-TTL同步器

Product Manual

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中文

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## Overview

First of all ,Thank you for purchasing the high-performance PIXEL Knight TR-331 product, which enables Nikon cameras and flash execute high-speed synchronous photography, as well various creative flash functions, it includes the highest performance I-TTL , BL, FP and other functions, the maximum shutter synchronization speed up to 1/8000s.And the device support to set groups(5 groups in total), also support to control each group individually, include 32 flash modes.

Please completely read this product and camera manuals before use this product, make sure you can familiar to control and use it correctly. You can easily to understand “how to use” and “condition” from this instruction manual.

## Cautions before use

1. Knight TR-331 product will not support the creative CLS system of Nikon wireless flashgun.
2. Make sure the camera and flash are powered off before install TR-331 device
3. This is electronic products accessories; some of the environment causes may affect the working. However this is hardly ever to get this situation, don't worry!
4. This component can't be strong vibration, or may lead to product failure.
5. For a long time non-use, please turned off the transmitter and the receiver's power and remove the battery.
6. The batteries should not install anti-polarity; otherwise the batteries may leak corrosive liquids, heat or explosion.
7. When connected the remote cable with the device, Do not pull the wires.
8. Do not put it in high temperature, such as a closed car under direct sunlight, the control panel and other high-temperature areas.
9. keep dry, do not use wet hand contact with the product, the product must not be immersed in water or exposed to rain, and this may lead to not work properly.
10. Do not use flammable gases in violation of this warning may cause an explosion or fire.
11. 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.
12. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

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## About high-performance of Knight TR-331

### Knight TR-331 Features

- Knight TR-331 use global free FSK 2.4GHz wireless channel, 15 selectable channels.
- The maximum control distances up to 80M.
- Knight TR-331 support to set 5 groups and each group consist of multiple units. Support to control each group individually and 32 different flash modes can be set at most.
- Knight TR-331TX is convenient to use, You just need to set the active group as OFF/ON.
- Knight TR-331RX is also convenient to use, You just need to set group as group A, group B, group C, group D or group E.
- When using the device with other incompatible I-TTL flashgun, you would not need to set the units, Knight TR-331 will do that automatically.
- Knight TR-331 will only support SB-900 and SB-800 to flash in manual mode. Other flashgun model will not allow to flash in manual mode.
- Ultra-low power consumption for standby; the standby time of transmitter

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## About high-performance of Knight TR-331

Knight TR-331TX is more than 1000 hours, the receiver Knight TR-331RX standby time is more than 500 hours.

### Knight TR-331 Functions

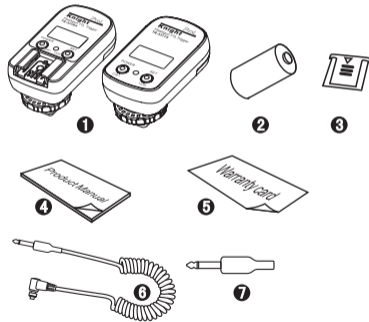
- Simultaneously control multiple flash or studio lights.
- Support for flash's auto-focus feature.
- Support a variety of shutter speeds, its max up to 1 / 8000s.
- Through the PC socket controls the studio lights and other brands flash with PC interface.

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## Included items

Please check all the below items in Knight TR-331 packaging before use.



- 1 Knight TR-331TX ----- 1set  
KnightTR-331RX ----- 1set
- 2 CR-2 Lithium battery --- 2pcs
- 3 Hot shoe protective cover --- 1pc
- 4 Product manual ----- 1pc
- 5 Warranty card ----- 1pc
- 6 PC+3.5 cable ----- 1pc
- 7 3.5 to 6.3 switch plug ----- 1pc

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## Compatible device

### Knight TR-331TX compatible device

- Compatible with Nikon CLS DSLR cameras D3, D700, D2 series, D300, D200, D90, D80, D70 series, D5000, D3000, D60, D50, D40 series, F6 and so on.
- Compatible with Nikon I-TTL COOLPIX Camera COOLPIX8800, COOLPIX8400, COOLPIX P5000, COOLPIX P5100 and so on.
- Compatible with other DSLR camera compatible with Fujifilm and Nikon flash camera.

### Knight TR-331RX compatible device

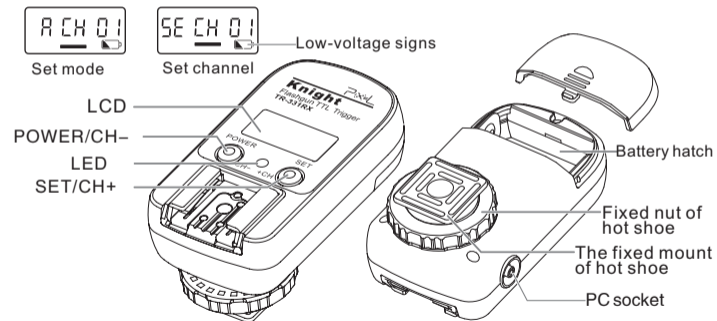
- Compatible with Nikon's flash SB-900, SB-800, SB-600, SB-400.
- Compatible with other brands flash  
Compatible with Nissin & Nikon camera's flash.

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## The name of each part

### Knight TR-331RX

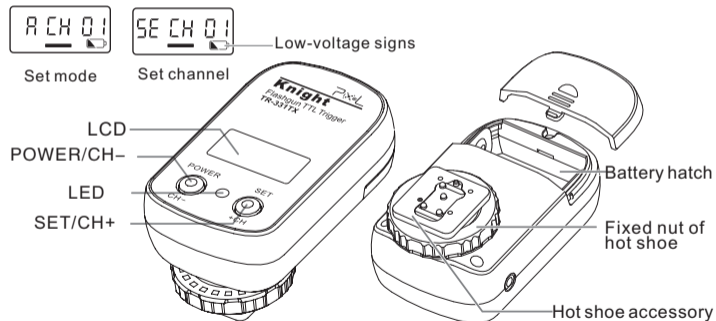


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## The name of each part

### Knight TR-331TX




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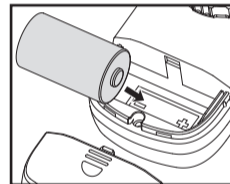
## Basic operation

### How to use the transmitter of Knight TR-331TX

#### Install the battery

1. Slide the battery hatch cover, open it.
2. According to the figure signs [+] and [-] install the battery correctly, or contrast the product Knight TR-331TX sign [+] and [-] for battery inserting.
3. Close the battery hatch.
4. When the battery power is low, the LCD is displayed [  ] as shown, Knight TR-331TX need to replace the batteries as soon as possible to ensure normal flash shooting.
5. Long-term non-use transmitter Knight TR-331TX, turn off the power and remove the battery.

**Battery required: 3V CR-2 lithium battery, standby time more than 1000 hours**



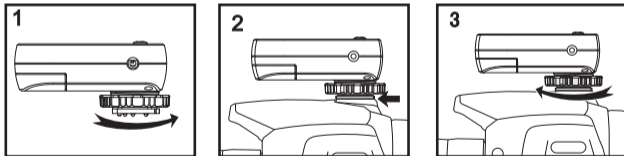
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## How to use the transmitter of Knight TR-331TX

### Connect the camera with Knight TR-331TX

1. Please make sure the camera and the transmitter's power supply had been turned off before installed Knight TR-331TX.
2. Loosen the hot shoe nut by rotating to the right according to picture 1.
3. Follow picture 2 to insert the Knight TR-331TX hot shoe accessory to the camera's accessory shoe.
4. Follow picture 3 to rotate the fixed hot shoe nut to the left for locking.



Lock the fixed nut hot shoe of transmitter in place to prevent the products slide from the camera

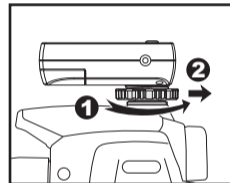
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## How to use the transmitter of Knight TR-331TX

### Remove Knight TR-331TX from the camera

1. Please make sure the camera and Knight TR-331TX power had been turned off before remove TR-331TX.
2. Loosen the hot shoe nut by rotating to the right according to figure 1.
3. Pull out Knight TR-331TX hot shoe mount from the camera accessory shoe.



### If Knight TR-331TX can't pull out from the camera's hot shoe:

Knight TR-331TX hot shoe nut is not loosened, please loosen it, and gently pull it from the camera's accessory shoe, do not forcibly pull it.

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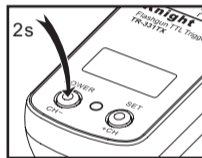
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## How to use the transmitter of Knight TR-331TX

### Turn on the Knight TR-331TX and camera's power

1. Turn on the Knight TR-331TX and camera power.
2. Turn on the Knight TR-331TX power, follow the figure to hold [POWER] for 2s then release.
3. If Knight TR-331TX power is on, hold [POWER] for 2s then release, Knight TR-331TX will enter into power off mode.
4. All group will be defaulted as TTL mode after turn on the power of Knight TR-331TX.

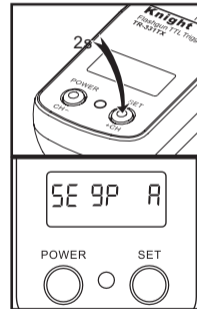


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## How to use the transmitter of Knight TR-331TX

### Function mode setting

- A. Make sure your camera has been shut down or in standby mode when set the function. This product can't support to set the function mode with the camera in working state.
- B. When the Knight TR-331 product doesn't work normally, you can try to power off and then re-start the device.
- C. Turn on the Knight TR-331TX power and hold [SET] button for 2s to set the function mode.
- D. Knight TR-331 support to set five different groups, the factory default setting of them is working under TTL mode.
- E. Hold the button [SET] for 2s, enter to set different function mode of groups, LCD display will show [SE 9P A]; gently press [SET] button once again to



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## How to use the transmitter of Knight TR-331TX

set function mode of next group and the LCD show as [ 5E 9P 6]. You'll need to set all the groups from group A to group E respectively.

- F. You can press [POWER] gently to set the parameter of each group, the function mode include OFF and TTL.
- If set group A as OFF mode, all receivers of group A will not participate to flash.
  - If the group A was set as TTL mode, all receivers of group A will flash under TTL mode, when the flashgun not support to TTL will flash in manual mode, the same as the flashgun which is not compatible with the devices.
- G. The device will automatically save the setting and standby after 4s without any operation. Or press [POWER] and [SET] at the same time to save the setting and exit.
- H. When complete the function setting, you will need to use the camera after the device exit the setting mode.
1. When using the external flashgun which compatible with Nikon the following functions can be realized.
    - Knight series products would not support the creative CLS system of Nikon

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## How to use the transmitter of Knight TR-331TX

flashgun.

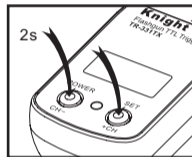
- Knight would not support Nikon SB-600 and vice factory flashgun to flash in manual mode, it'll only support them to flash in TTL mode.
  - The device will support the I-TTL, FP, BL, M, GN flash mode of the flashgun.
  - I-TTL function will support all function mode and shutter speed of Nikon camera, the sync speed will up to 1/8000s.
  - I-TTL mode will support to set the parameter of exposure compensation, FV lock, red-eye reduction flash mode/red-eye reduction slow sync, rear-curtain flash sync, ISO photo sensibility and electromotion zooming through camera.
2. When using the incompatible flashgun or studio light, the following functions will be realized.
    - The external flashgun will be able to flash in manual mode, the shutter sync speed will up to 1/320s.
    - When using studio light, it will be able to flash through connect with PC output socket, the sync speed will up to 1/8000s.

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## How to use the transmitter of Knight TR-331TX

### Set Knight TR-331TX channel

1. Turn on the Knight TR-331TX power ,press [ CH- ] and [ +CH ] button 2s at same time for communicate channel setting of the transmitter.
2. After pressed the [ CH- ] and [ +CH ] button, LCD display shown [ SE CH 01 ], " 01 " means channel number, such as shown , enter the setting mode.
3. When the LCD display shown [ SE CH 01 ], Press[ CH- ] or [ +CH ] to set of wireless channel, press[ CH- ] to reduce the number, [ +CH ] to increase the numbers. The channel can be set from 01-15, Avoid multiple sets in the same area at the same time using the Knight TR-331 device then mutual interference will occurred.
4. Press the button[ CH- ] and [ +CH] again, the mode will be saved and enter to stand-by mode in 4s when no action.



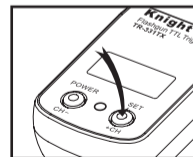
## How to use the transmitter of Knight TR-331TX

5. Please confirm whether the channel is corresponded with the receiver or not after the setting of Knight TR-331TX channel.




### Turn on the LCD backlight of Knight TR-331TX

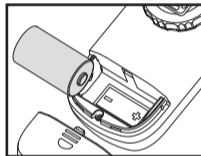
Turn on the Knight TR-331TX power, it is available to open the LCD's backlight through press [SET] button, the backlight will turn off in 4s automatically when no action on [POWER] and [SET].



## How to use the receiver of Knight TR-331RX

### Install the battery

1. Slide the battery hatch , open it.
2. According to the figure signs [+] and [-] install the battery, or contrast Knight TR-331RX product sign [+] and [-] for the battery inserting.
3. Close the battery hatch.
4. When the battery power is low, the LCD is displayed [  ] as shown, Knight TR-331RX need to replace the batteries as soon as possible to ensure normal flash shooting.

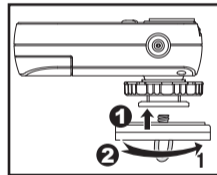


**Battery required: 3V CR-2 lithium battery, standby time more than 500 hours**

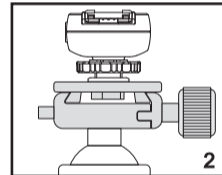
## How to use the receiver of Knight TR-331RX

### Install the Receiver

- Install Knight TR-331RX receiver on the tripod.



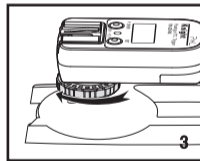
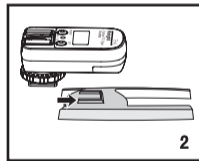
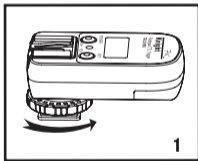
1. Follow picture 1 to insert the receiver screw nut on the tripod, make it tightly.



2. Follow picture 2 to install the receiver on the tripod.

## How to use the receiver of Knight TR-331RX

- Install Knight TR-331RX receiver on the flash bracket
  1. Loosen the hot shoe nut by rotating to the right according to picture 1.
  2. Install Knight TR-331RX hot shoe to flash bracket according to picture 2.
  3. Rotate the fixed shoe nut to the left for locking tightly according to picture 3.



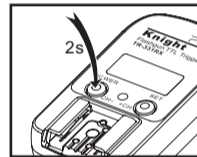
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## How to use the receiver of Knight TR-331RX

### Turn on the Knight TR-331RX power

Turn on the Knight TR-331RX power then set the function mode and channel before install the flashgun for receiver.

1. Turn on the power of Knight TR-331RX, hold [POWER] button for 2s then the power is turned on.
2. If the Knight TR-331RX power is turned on, hold [POWER] for 2s will turn off the receiver power then enter into the shutdown mode.
3. For long time non-use of receiver Knight TR-331RX, turn off the power and remove the battery.
4. All will be defaulted as group A after turn on the power of Knight TR-331RX.

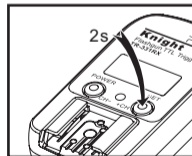
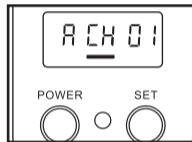


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## How to use the receiver of Knight TR-331RX

### Function mode setting

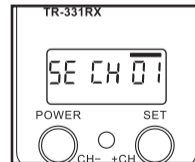
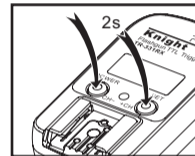
1. When first install the batteries in the receiver, the LCD will show [R CH 01], as shown.
  - The first letter "R" means that the receiver was set as group A, "CH 01" means the communicating channel of the device, 15 frequency channels can be selectable.
2. Press [ SET ] button and hold for 2s to set the group mode of Knight TR-331RX, the LCD will show [5E 9P R], the receiver default as group A.
3. Slightly press [SET] or [POWER] button to set the next group, 5 groups A to E will need to be set.
4. Press [SET] and [POWER] at the same time to save the setting and exit.
5. It's available to set all the functions through transmitter which installed on the camera.



## How to use the receiver of Knight TR-331RX

### Knight TR-331RX channel setting

1. Turn on the Knight TR-331RX power, press [ CH- ] and [ +CH ] button 2s at same time for communicate channel setting of the receiver.
2. After pressed the [ CH- ] and [ +CH ] button, LCD display shown [ 5E CH 01 ], "01" means channel number, such as shown, enter the setting mode.
3. When the LCD display shown [ 5E CH 01 ], Press [ CH- ] or [ +CH ] to set of wireless channel, press [ CH- ] to reduce the number, [ +CH ] to increase the numbers. The channel can be set from 01-15, Avoid multiple sets in the same area at the same time using the Knight TR-331 device then mutual interference will occurred.
4. Press the button [ CH- ] and [ +CH ] again, the mode will be saved and enter to standby mode in 4s when no any action.



## How to use the receiver of Knight TR-331RX

- Please confirm whether the channel is corresponded with the transmitter or not after the setting of Knight TR-331RX channel.

### Turn on the LCD backlight of Knight TR-331RX

Turn on the Knight TR-331RX power, it is available to open the LCD's backlight through press [SET], the backlight will turn off in 4s automatically when no action on [POWER] and [SET].

### Connect Knight TR-331RX with the flash

- Please make sure the flash's power is turned off before install the flash into Knight TR-331RX, confirm the power of Knight TR-331RX is turned on, Set the function mode and channel.
- The receiver does not support the flash hot-drawing and hot-plug in the installation

**Lock the flash to the right position, please lock the rod clockwise by rotation until to the signs of installation mount.**

## How to use the receiver of Knight TR-331RX

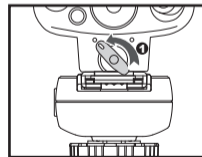
- or removal of flash, the flash must be inserted or pulled out in the off state.
- Insert the flash and mount into the hot shoe of Knight TR-331RX.
  - Rotate the flash bar to the locked position.

### Remove the flash from Knight TR-331RX

- Please make sure the flash's power is off before remove the flash.
- Follow the figure to rotate the flash lock rod 90 degrees to the left.
- Pull out the flash from the hot shoe mount of Knight TR-331RX.

#### If the flash can't be pulled out from the hot shoe:

Installation lock of flash was still inserted on Knight TR-331RX hot shoe, rotate 90 degrees of flash lock rod to the left again, and gently pull out the flash from the TR-331RX hot shoe, do not forcibly pull it.



## How to use the receiver of Knight TR-331RX

### The flashgun operation

1. Adjust the flash head after the flash installed.
2. Turn on the flash power.
3. Select the flashgun's mode.
4. Make sure the flash or camera light has been lit in the preparation before shooting.

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## PIXEL TR-331 Specifications

<b>Type:</b>	Using FSK 2.4GHz wireless remote control system
<b>Operation distance:</b>	80 meters
<b>Channel:</b>	15
<b>Transmitter standby time:</b>	1000 hours (using the CR -2 Lithium battery)
<b>Receiver standby time:</b>	500 hours (using the CR-2 lithium battery)
<b>Dimension (W × H × D):</b>	Transmitter: 38 × 63 × 30mm Receiver: 38 × 70 × 30 mm
<b>Weight:</b>	Transmitter: 34g (with battery) Receiver: 38g (with battery)

Now you can start to use unique high-performance PIXEL product Knight TR-331, If you have any questions you can contact the local distributor. Or visit the website <http://www.pixelhk.com>.

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