



Operation Manual for RST4 (version 08-01)

Radio Slave Trigger -4 Channel
www.ZTstudio.com

RST4 is a combination of two elements, a transmitter and a receiver. The receiver is the slave and is attached to the flash unit via the sync port. The transmitter is connected to the camera hot shoe (or PC port), and is controlled by the camera. For each flash unit that must be triggered, another receiver is required.

ZTstudio do not bundle transmitters and receivers - that would force professionals to buy things they don't need.

In line with the ZTstudio philosophy, the RST4 is a cost effective, robust, efficient yet simple piece of professional equipment. Yet another ZTstudio alternative to overpaying for those European brands we love. You can outfit the average professional studio with RST4s (with backups!!) for less than \$500 while the same configuration in highly priced models will cost no less than \$1,400. How do we do it? Typically, we use Chinese case castings, Canadian and USA electronic designs, Korean semi conductors, and Japanese parts (and German parts for flash units).

Compliance

FCC & Industry Canada Statement Of Compliance

This device complies with Part 15 of the FCC Rules and Industry Canada Standard RSS-210. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference that may cause undesired operation.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

Unauthorized modification to this equipment will void the user's authority to continue to operate the device within the scope of the Industry Canada and FCC Part 15 Rules.

Important Notice:

ZTstudio products are manufactured according to industrial standards that ensure durability and consistent quality when operated by professionals in a professional environment. Products are NOT tested for compliance against all safety regulations required for use in the residential / domestic environment.

WEEE Directive & Product Disposal

At the end of its serviceable life, this product should not be treated as household, or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.

Transmitter

4 Channels. If more than one photographer works in the same space each will have to set their

transmitters to a different channel. The RST4 has 4 channel choices. The transmitter works on the 315Mz band, that is the same as some alarm, door opener and other industrial applications (eg. shipment tracking). Set your transmitter to a channel that does not open and close your doors, or reset your studio alarm every time you fire a flash.

Range. 15 meters / 35 feet

Sync speed. 1/125th for focal plane shutter or => 1/250th for leaf shutters. Experience with most digital Nikon and Canon shows that 1/60th works as well. Sync delay 1/1600th and is therefore compatible with most shutter types. There is no cost-effective way to manipulate the sync delay for delayed flash synch effects. We manufacture units with such an ability but on special request only.

Battery. 12V. Replace with nicad (for non-leakage and durability) 23, 23A, 23M, VR22, EL12, or EL22. Expected life of battery is 10,000 fires. Microprocessor controls voltage between hot shoe and camera and limits it to max 11V peaks. Most professional digital cameras can handle up to 250V in this exchange but check with your camera supplier.

Receiver

The receiver is the slave unit that plugs into the synch socket of a monolight/flash.

Batteries. 3v. Two AAA batteries. Should last about 1,000 hours. Switch unit off when not in use. Remove batteries when storing for long periods.

Voltage. Rated safe for all ZTstudio flash units. ZTstudio flash units are triggered by 4V~6V, and are safe for use with most small digital cameras.

Setting up

1. Push test button on transmitter, walk around studio and test in various locations. Keep an eye and ear out to check if you are within reach, and on same channel, as another device or another photographer. You can change the channel by selecting a combination on the channel selector.
2. Ensure receiver is switched OFF.
3. Insert 2 x AAA batteries in each receiver.
4. Switch receiver ON. You should not see a light, it comes on briefly when receiving a signal from the transmitter. Plug in to flash head and switch flash on.
5. Push test button on transmitter once. When you see the red LED on the receiver flash, the receiver has locked itself into the transmitter's channel. The flash unit should trigger.
6. Insert transmitter in hot shoe. If no hot shoe, use a cable to connect unit to camera via PC socket.
7. You are setup. Receivers remember their locked-in instruction. Next time there should be no setup required.

Note:

To unlock the receiver from the current channel, press transmitter test button twice.

Troubleshooting

- The most common cause of **misfires** is a bad sync socket connection or a broken cable. The most common cause of misfires or willy-nilly fires caused by the RST4 is a dead battery. And so is the most common cause of not being able to setup the RST4. Before

shipment we inspect and test each unit. We insert brand new, fully charged North American standard batteries into transmitters before testing and shipping. These batteries cost \$10 (in Canada!), so please take care of them. Please don't use cheap Chinese batteries in your units, they don't hold their charge, and sometimes leak acid/alkaline.

- The **transmitter is not activated** by the hot shoe. Modern cameras have intricate hot shoe connections that have various communication links. Hot shoes also come in slightly different sizes. While this is by no means a common issue, we have had feedback that with some older cameras the transmitter does not fit snugly, or does not make good contact with the hot shoe center link. This issue is usually successfully resolved by professionals in the usual manner of what happens in a studio– wedge it, tape it, tighten it.
- **Receiver battery life** is not as expected. Use only high quality alkaline batteries. Switch receivers OFF after use.
- **We were all amateurs once...** If ZTstudio marketed amateur products we would have had to include a long list of 'troubleshooting issues'. For amusement sake here are some suggestions from devotees:

a) “Flash goes off in my face when plugging receiver in to the sync hole” Remedy: Either close your eyes when sticking things into the sync hole or switch the flash off before sticking things into the sync hole.

b) “Doorbell rings every time I start a shoot” Remedy: It is possible that you are pissing off your neighbor because your transmitter is on the same channel as his garage door opener. Now he is getting back at you by ringing your doorbell. Alternatively, you may have programmed your wireless doorbell to the same channel as your flash trigger.

Manufacturing

ZTstudio is based in the border city of Sarnia, one of the oldest industrial cities in Canada. We make use of engineers and other providers in Michigan and our main market is in the USA. We leverage our manufacturing abilities locally and in Hong Kong, China Mainland, Korea, Japan and Western Europe. All products are either locally re-manufactured to North American standards of safety, quality and durability or locally assembled. All products are finally tested and certified “fit for professional standards” in Sarnia before shipment. We manufacture on order and have a standard lead time of 14 days. Even when we have already assembled items in stock, we always run quality assurance and stress tests on equipment before final packaging and shipping.