TS03NKHA1

315MHz Low Power Radio Remote Control

Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

Contents

Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

1.Outline

TS03NKHA1 is a compact key holder type wireless remote control transmitter.
When the switch is pushed, the LED flashes to indicate that it is transmitting, and when battery becomes low the LED will not flash, so change the button battery CR2032.

2.features

· The communication distance is approx. 50 m or more.
· Uses 315 MHz band for transmission frequency.
· Highly reliable digital code modulation.
· Compact key holder type case.
· Low battery indication LED.

Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

3.Electrical characteristic

Transmit frequency	315 MHz band	
Modulation	ASK (Amplitude Shift Keying)	
Communication distance	prospect About 50 m or more	Note1
Consumption current	approx. 3 mA @ When transmitting, <1 uA @ standby	
Power supply	3V CR2032 lithium button battery	
Battery life time	more than 2 years (3 seconds / time at 25 ℃, the transmission 5 times / time, in the case of the one-day 8-hour operation)	Note2
Low battery	flashing LED blinks, low battery off	
Operating temperature	-10 to +60 ° C (without condensation)	
Antenna	PCB antenna	
Size	about 55 * 32 * 6.5 (Vertical * Horizontal * Thickness mm)	
Weight	Approximately 12 g (including batteries)	

Note1 Communication distance varies depending on surrounding environment, such as obstacles, noise conditions, etc. The above is a reference value under ideal conditions without obstacles.

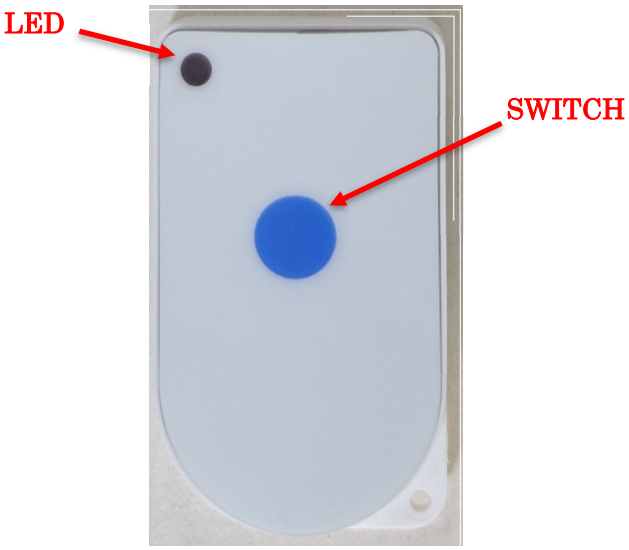
Note2 The above figures are estimated values (reference values) by calculation. May vary with temperature and battery usage.

Note If you hold down the switch, transmission stops in about 5 seconds after transmission starts. If you want to send again, please release your hands from all switches once and then press the desired switch again.
(Even if you change the combination of SWs to be turned on in the middle, transmission stops in 5 seconds from the first transmission.)

Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

4.How to use

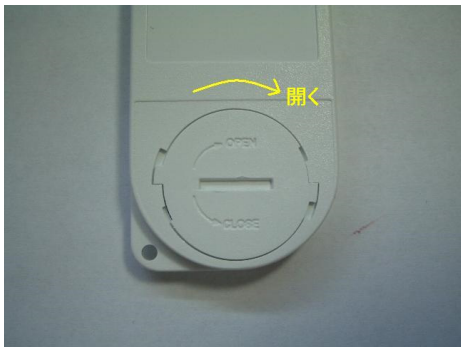
When you press the switch, the LED flashes and ON data is transmitted.
While transmitting, the LED will light up. If the LED does not turn on even if you press the switch, the battery voltage is low, so please replace the battery.



Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

5.How to replace the battery

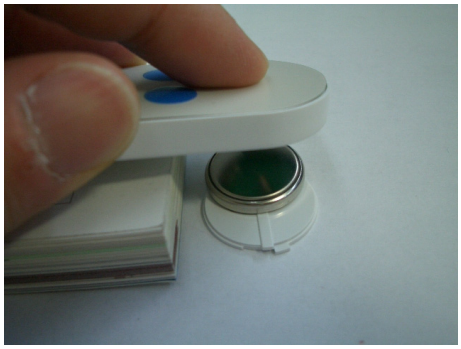
Please insert a coin etc. in the groove of the battery lid on the back side and turn it until it stops in the direction of the arrow.



Hold the back of the case downwards, magazines etc. If you hit lightly on objects of moderate hardness, the back lid and batteries will come off.

* In order to prevent breakage of the battery fittings, even when the battery does not come off do not mess with a screwdriver etc. Please remove it by lightly tapping it.

* Please be careful not to touch the metal fittings with the battery removed. It may not operate properly due to deformation, dirt, etc.

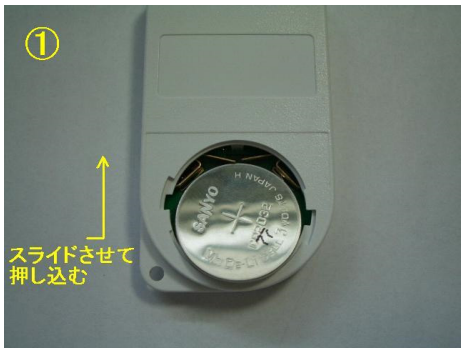


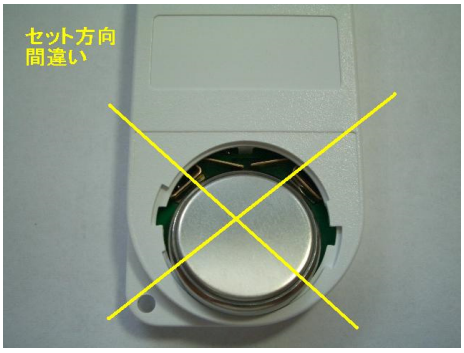
Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

Turn the case over and insert the batteries. The back cover side becomes the + terminal of the battery.

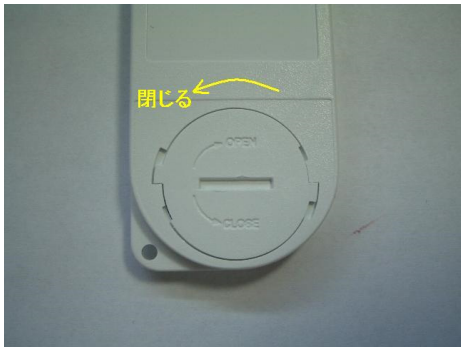
* As shown in the picture below, please push in so that the top side of the battery is first and slide upward from the bottom side.

Never use batteries other than the lithium button battery CR 2032.



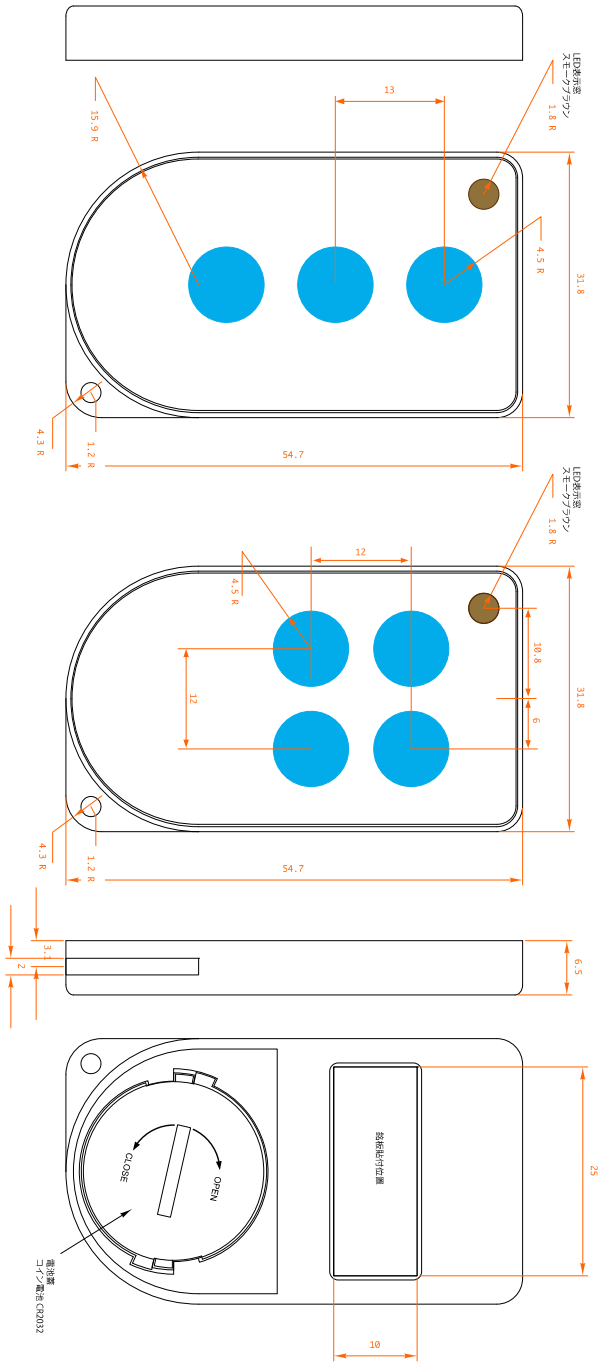


Fit the back cover and turn it in the direction of the arrow until it stops.



Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

6.Dimensions



7.Cautions

★Notes on Radio Law

· Disassembling / remodeling of this product is prohibited. Please disassemble / remodel it.

· Do not remove the label on the back of the case.

★Handling Precautions

· Never use such a way that product malfunction or malfunction directly relates to human life.

This product is not designed in consideration of applications that require high reliability which may cause danger to the body at the time of breakdown, such as medical equipment and transport equipment. Please do not use it directly for the purpose of affecting human life.

· Never use batteries other than the lithium button battery CR2032.

· Do not apply strong shock or soak it in water or other solution as it may cause malfunction.

· Even if the battery is reversely inserted, there is no short circuit of the battery, and there is no damage to the equipment, but please do check it carefully as it will not work.

· Because this product uses radio waves, communication may become impossible due to the influence of noise etc. Even if it becomes impossible to communicate, please be careful in designing the external circuit so that there is no safety problem.

· Depending on the nature of the radio waves, dead points may occur due to the positional relationship with the receiver, and communication may become impossible even within communication distance. In this case, if you move the transmitter or receiver about 25 cm, you may be able to communicate.

· The communication distance may be lowered near motors or other noisy equipment. In this case, it may be improved by adding measures such as adding a spark killer, strengthening the shield, taking measures against noise sources, or devising such as keeping the receiver away from noise sources.

Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551

8.FCC Warning

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

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.

Nomura Engineering Co., Ltd. http://www.nomura-e.co.jp e-mail:info@nomura-e.co.jp
1-7-2 Shibuya, Yamato-city, Kanagawa, 242-0023, Japan
TEL:+81-46-244-0041 FAX:+81-46-244-3551