

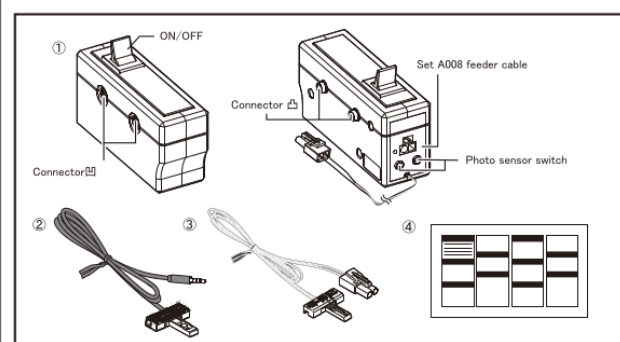
Switch Back Controller Instruction Manual

Thank you for purchasing this Rokuhan product. Please read this instruction manual and the package carefully before use.

Caution

- Turn off the power if train derails.
- Turn off the power and disconnect AC adapter or remove batteries if you see smoke or feel heat coming from this unit or the trains.
- Disassembling and modification could cause failure of this device.
- Handle the code with care to avoid disconnect or short circuit.
- To avoid short circuit, do not put any metallic across the rails.
- This product includes sharp parts. Handle with care.
- Choking hazard. Keep out of reach of small children under 3 years old.
- Do not use this product in a wet location to avoid shock or electrocution.
- Store in dry dust free location to avoid failure of your unit.
- This product is not recommended for use by children under 15 years old unless supervised by an adult.
- Please note that this product may not work on some motor car with high starting voltage other than Rokuhan's Z gauge. Please understand this in advance.

1. Parts list



- ① Controller C006.....1pc ② Photo Sensor Switch.....2pcs
③ Narrow Feeder Cable.....1pc ④ Instruction Manual Sheet.....1pc

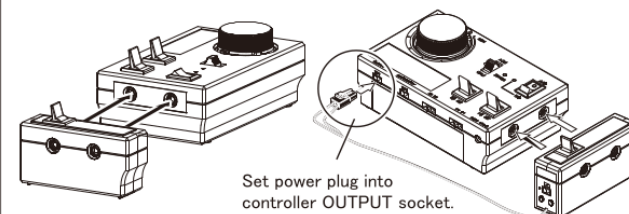
2. Usage Environment

- This product uses photo sensors, please pay attention to the following
- For indoor use only, will not work in sunlight.
 - Shield sensors from strong light. Please reduce direct light with curtain or wall.
 - If malfunction occurs, please shut off main switch and turn switch ON again.

3. How to connect and wire

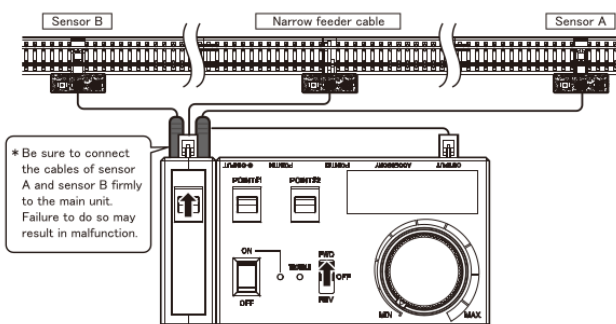
3-1 Connect C006 with ROKUHAN controller (RC02 or RC03)

You can connect C006 with Rokuhan controller (RC02 or RC03). Also, You can't connect any other controller. This is just for RC02 or RC03.



Snap C006 onto side of controller.

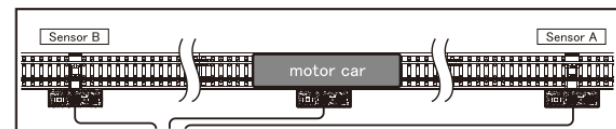
3-2 Track connections as illustrated



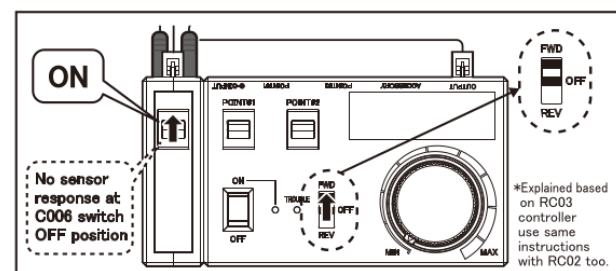
Installing 2 sensors and feeder cable into straight track. Insert as shown in above figure.

4. Operation of Reverse function

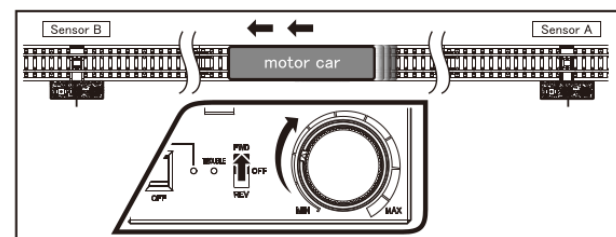
- ① Place motor car on the track with rerailer between sensors A and B.



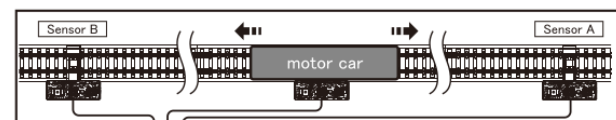
- ② Turn main Controller mains switch ON. Turn C006 ON/OFF switch to ON. Turn direction switch to REV.



- ③ Switch to FWD, then turn throttle dial right slowly, when motor car runs to the Sensor B.
*Turn throttle dial towards mid position until motor car moves slowly.
*While swiching to REV, C006 is not working.



- ④ Start automatic reverse function according to "configuration diagram". Sensing time and reverse distance will vary due to car speed and type of cars used.



Due to the characteristics of the motor, the distance between sensor A and sensor B may not be equal until the motor car comes to a stop.

5. Default (Ex. Factory)

Default setting

J1	J2	Default setting
Acceleration time 0.75sec./Deceleration time 0.75sec./Stop time 1.5sec.		

* Short distance between sensor A and Sensor B will make no sense above setting time.

6. sensing time change (for expert user)

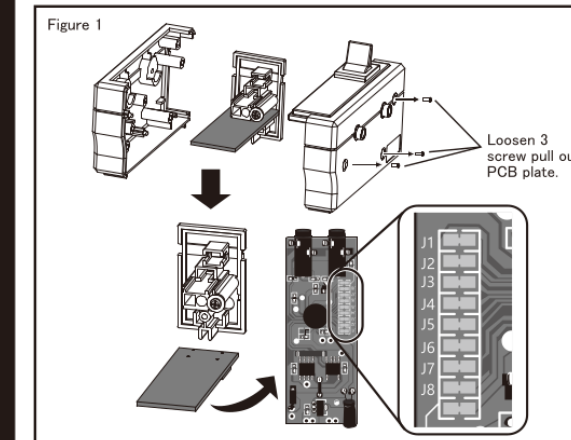
This work is for expert user because required PCB modification. Please read instruction manual carefully. Please handle care for any tools.

* Required cutting tools, screw driver, small knife etc.

Can be changed Acceleration time, Deceleration time & Standing time by modification of PCB.
So If you modify your PCB, You can change to 2 standard mode (Mode A&B) or customer setting mode.
Customer setting mode means can be set each item in detail. It likes J1-J8 pattern.
* Please note this modification is out of support.

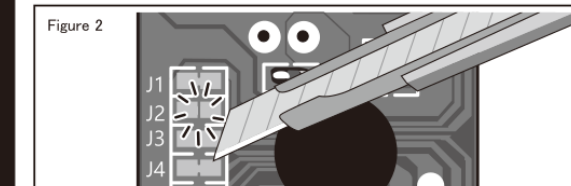
6-1 How to take out PCB plate

Remove C006 from main controller then take out PCB plate.



6-2 How to cut copper pattern

Use small knife or suitable cutting tool. Please handle care as no make damage at other area.



6-3 <Select one mode from 3 standard modes>

You can change to the already set 2 patterns of A mode or B mode by combining by your cutting copper pattern of J1 and J2 only.

-Connected copper pattern
Disconnected copper pattern

	Mode Z gauge	Mode Z shorty	Mode A	Mode B
J1				
J2				
Acceleration time	0.75sec.	0.5sec.	5sec.	2sec.
Deceleration time	0.75sec.	0.5sec.	3sec.	1sec.
Standing time	1.5sec.	1.5sec.	5sec.	5sec.

■ Characteristics of Mode A and Mode B

Mode A : Mode A can be running cars with slowly acceleration or deceleration.
Mode B : Mode B can be running cars with fast (quick) acceleration or deceleration.

6-4 Customer selection of operating mode

By combining your copper patterns of J1 to J8, you can change the acceleration time, deceleration time, and standing time settings to your liking.

* Can't be set with Mode A and Mode B both at the same time.

<For Mode Z gauge and Mode Z shorty>

【Mode Z gauge】

J1		J2	
Acceleration time 0.75sec. Deceleration time 0.75sec. Stop time 1.5sec.			

【Mode Z shorty】

J1		J2	
Acceleration time 0.5sec. Deceleration time 0.5sec. Stop time 1.5sec.			

【Acceleration time】...J3 and J4

	Default setting	J3	J4	J5	J6
Z gauge	0.75sec.	1sec.	2sec.	5sec.	
Z shorty	0.5sec.	0.75sec.	1.3sec.	3.5sec.	

【Acceleration time】: Meaning for time from start to reach max speed.

0.5sec. Sudden acceleration 5.0sec. Slow acceleration

【Deceleration time】...J5 and J6

	Default setting	J5	J6	J7	J8
Z gauge	0.75sec.	0.5sec.	1sec.	3sec.	
Z shorty	0.5sec.	0.3sec.	0.75sec.	2sec.	

【Deceleration time】: Meaning for time to stop after passing sensor.

0.3sec. Sudden braking 3.0sec. Slow braking

【Stop time】...J7 and J8

	Default setting	J7	J8	J9	J10
Z gauge	1.5sec.	5sec.	15sec.	30sec.	
Z shorty	1.5sec.	5sec.	15sec.	30sec.	

【Stop time】: Meaning for time when car is stopped before starting again.

- Above these sensing time will be divided by the condition.
- Deceleration time is depend on Model train.

7. Safety device (For RC-02 and RC-03)

Circuit breakers included in RC-02 and RC-03 controllers. When circuit has interrupted, the power lamp will turn off for RC02 and trouble lamp (red lamp) will turn on for RC03. Then motor car has stop. After these situation happended, please turn off all of power switches and then remove source of short circuit. Turn back dial throttle at MIN. position then turn power switch ON again, to reset circuit breaker.

8. Trouble and repair

- The user is responsible for any trouble, accident or injury caused by misuse, disassembling or modification to this product. Rokuhan will not repair a product which has been opened, taken apart or modified.
- Specification and appearance of our products are subject to change without prior notice.
- Contact Rokuhan customer service if you have any query.