

# Ground Controller

## GC-R8

### User's Manual



# Package Contents

If any of following items is damaged, please contact your retailer.



Controller



Top frame



Screw M2.0 X 4\*17  
(for R8 install)



D-Ring Screw\*2  
(for R8 install)



DC-IN cable



Pen holder



Screw M2.0 X 7\*2  
(for pen holder install)



## NOTE

- The pictures are for reference only; actual items may slightly differ.

# Product Overview

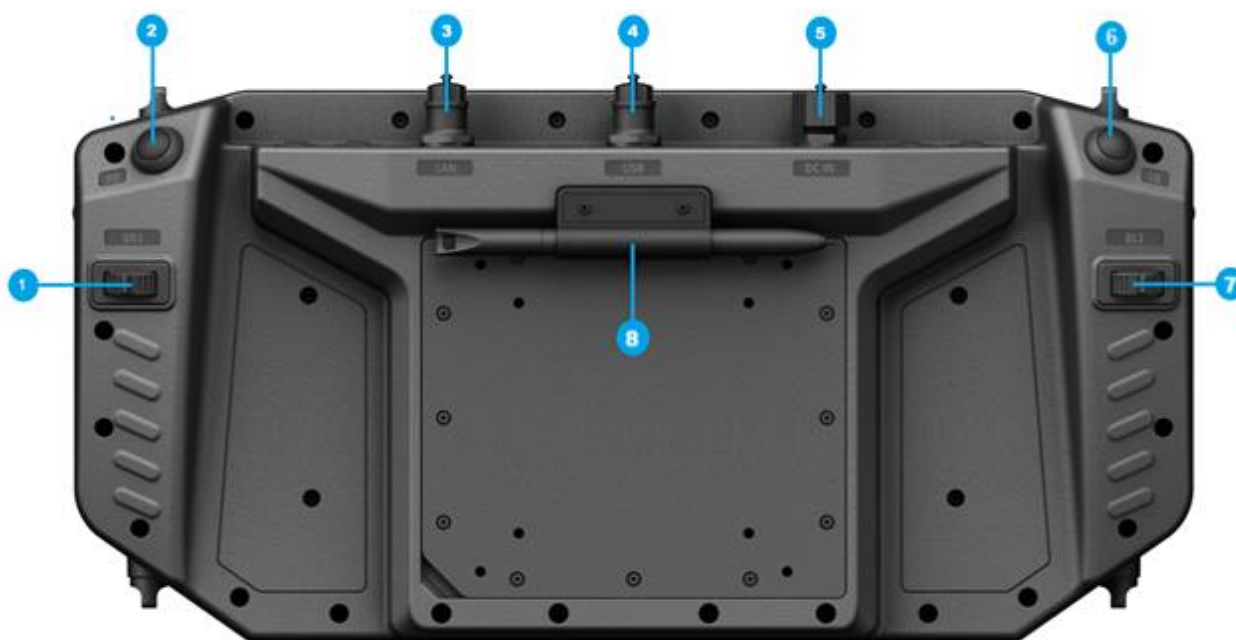
## Front (Photo with R8 Tablet)



No.	Item	Description
1	Ambient light sensor (R8)	Use to detect the current level of visible light in the surrounding environment.
2	Microphones (R8)	Record the surrounding sound.
3	Front camera indicator (R8)	Illuminate when the front camera is in use.
4	Front camera (R8)	Use for video conference.
5	Left Toggle Switch (optional)	L1/L2/L3, Customer definable toggle switch
6	Right Toggle Switch (optional)	R1/R2/R3, Customer definable toggle switch
7	Left D-pad/Joystick (optional)	L4, Customer definable direction control. Select D-pad(direction pad) or Joystick.
8	Right Joystick	R4, Customer definable direction control
9	Left Push Button with Flip Guard Door	L5, Customer definable push button switches with flip guard door
10	Right Push Button	R5, Customer definable push button switches with

No.	Item	Description
	with Flip Guard Door	flip guard door
11	Left Push Button	L6/L7, Customer definable push button
12	Right Push Button	R6/R7, Customer definable push button

## Rear



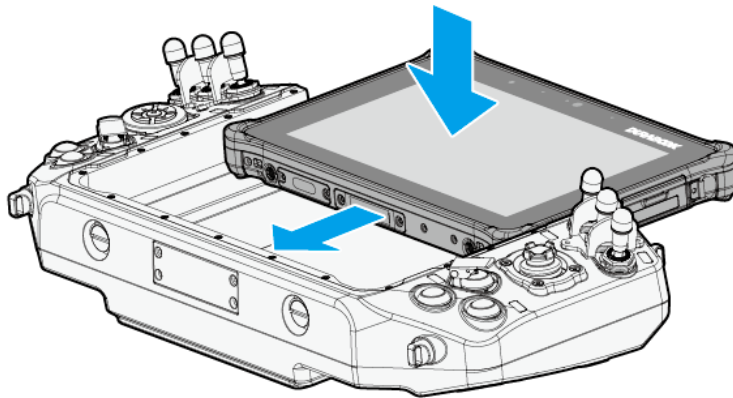
No.	Item	Description
1	Rear Right Thumbwheel (optional)	BR1, Customer definable thumbwheel control
2	Rear Right Push Button	R8, Customer definable push button
3	10/100/1000M LAN, M12 Military Connector	10/100/1000M LAN connection to Ground Control Station or Radio Transmitting Module
4	USB 2.0, M12 Military Connector	USB 2.0 connection to external devices / peripherals
5	DC IN, M12 Military Connector	DC IN for R8 tablet charging, connection to AC adapter / DC adapter
6	Rear Left Push Button	L8, Customer definable push button
7	Rear Left Thumbwheel (optional)	BL1, Customer definable thumbwheel control
8	Pen Holder	Pen/Stylus Holder

# Getting Started

This chapter will help you get started using the device.

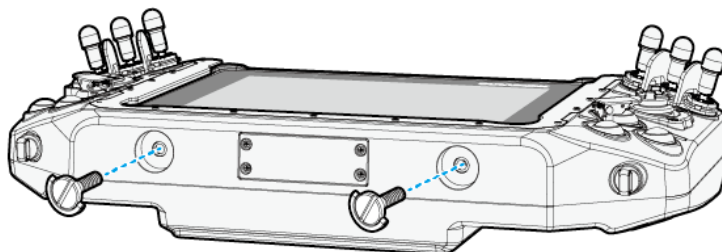
## 1. Insert The R8

Align and insert the R8 tablet on the front side of the controller.



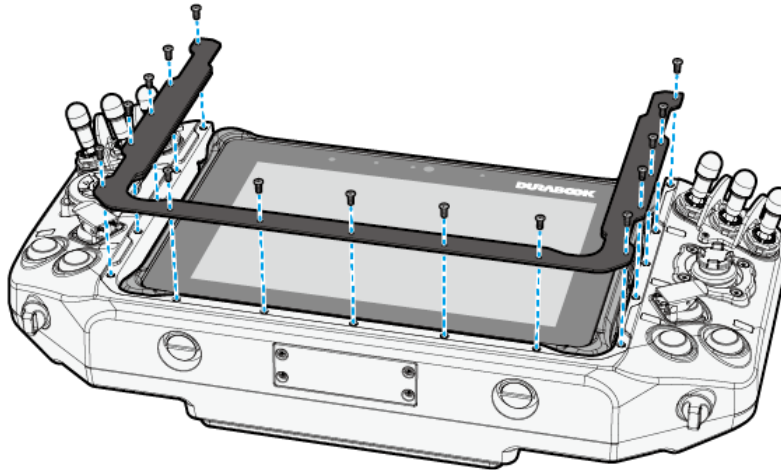
## 2. Fastening

Secure the R8 tablet with the supplied D-ring screws.



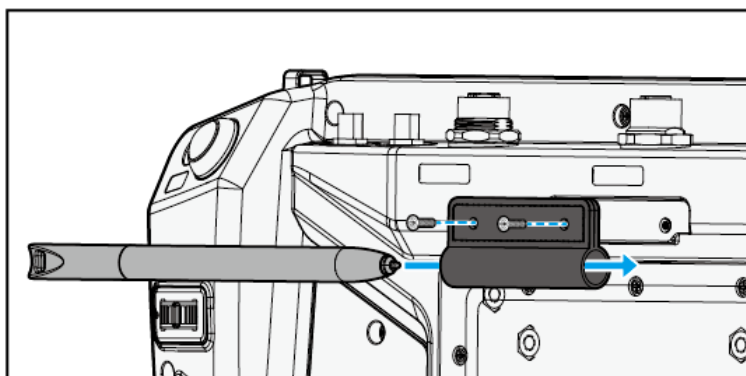
### 3. Frame Assembly

Align and secure the Top frame on the front side of the controller with the supplied screws.



### 4. Install The Pen Holder

Align and secure the Pen holder on the rear side of the controller with the supplied screws.



# Button Protocol

## ● USB Report Protocol

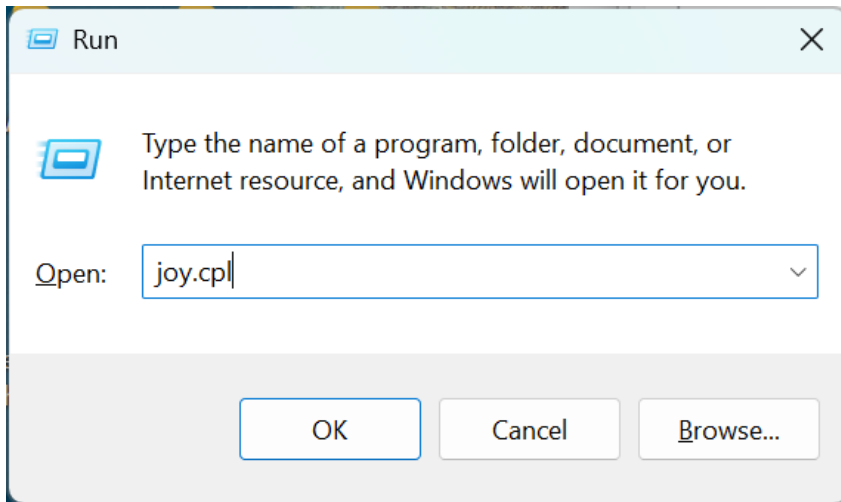
	BIT															
BYTE	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
0									REPORT ID = 0x01							
1~2	Joy X [PC0] [R4]															
3~4	Joy Y [PC1] [R4]															
5~6	Joy Rx [PA5] [BR1]															
7~8	Joy Ry [PA6] [BL1]															
9~10	Joy Z [PB0] [L4]															
11~12	Joy Rz [PB1] [L4]															
13~14	Slider															
15~16	Dial															
17~18	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
19~20	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
21~22	Direction pad															

## ● Button Mapping

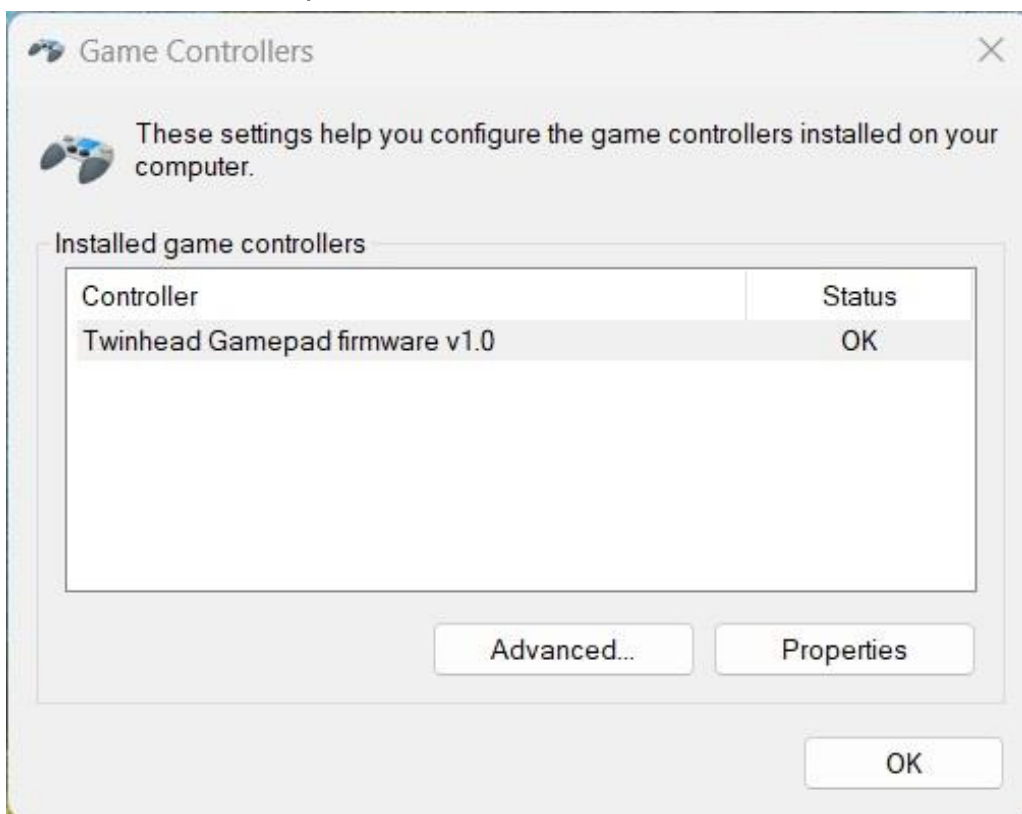
USB Report	Button Name
Button 1	L5
Button 2	L6
Button 3	L7
Button 4	R5
Button 5	R6
Button 6	R7
Button 7	R8
Button 8	L8
Button 9	L1 up
Button 10	L1 down
Button 11	L2 up
Button 12	L2 down
Button 13	L3 up
Button 14	L3 down
Button 15	R3 up
Button 16	R3 down
Button 17	R2 up
Button 18	R2 down
Button 19	R1 up
Button 20	R1 down
Button 25	L4 for direction pad center side

- Controller Buttons Test SOP:

Step1. Press "Win + r" on R8, and then the following message box will show up:

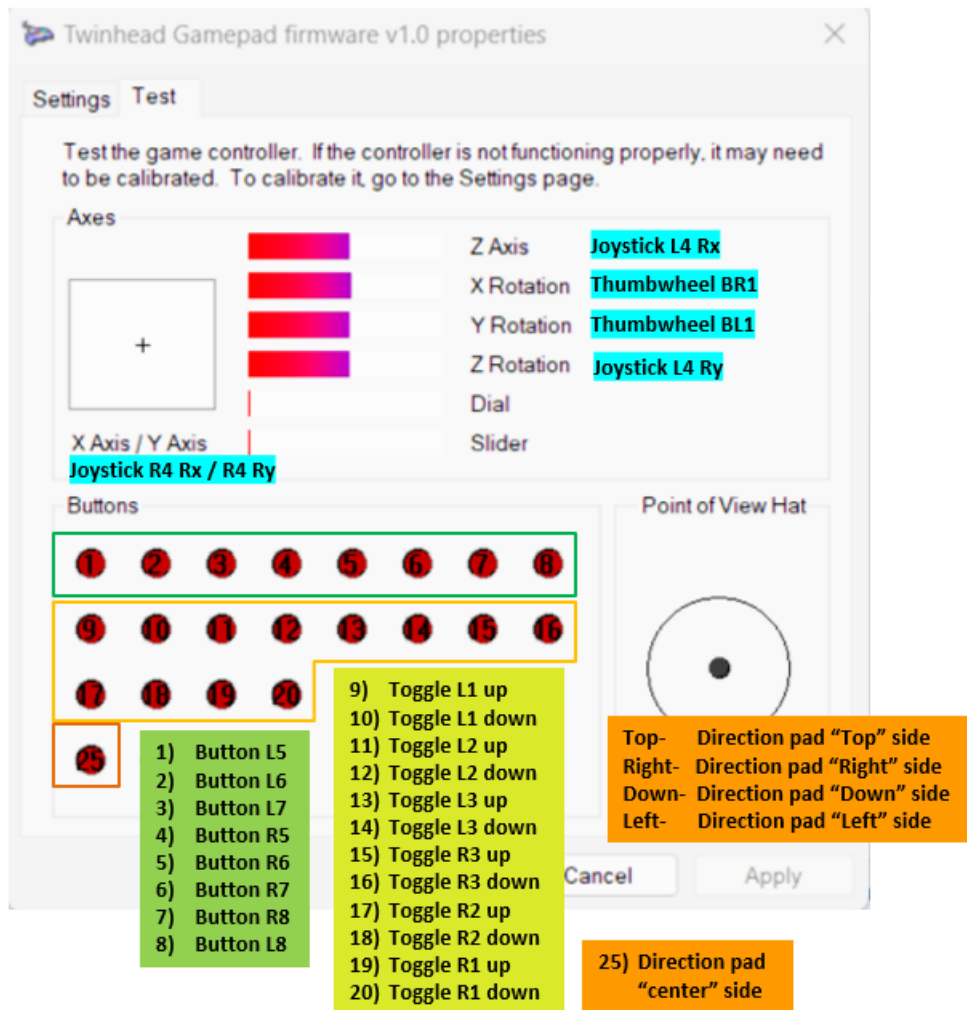


Step2. Input "joy.cpl" in the context box, then press "enter", then the following window will show up:



Step3. Find our controller, click it, press "Properties" button to test.

Test window and button mapping as below:



# Federal Communications Commission Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**Warning: Operation of this equipment in a residential environment could cause radio interference.**

## IC Regulations

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**This Class A digital apparatus complies with Canadian ICES-003.**

**Cet appareil numérique de la classe A est conform à la norme NMB-003 du Canada.**

**Twinhead International Corp.**

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