

HYDRUS

TRI-MODE CONTROLLER

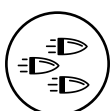


USER MANUAL

KEY HIGHLIGHTS



600MAH BATTERY



TURBO & AUTO TURBO FUNCTION



1000HZ POLLING RATE



HALL EFFECT TRIGGER & TMR JOYSTICK



SPECIFICATIONS

- Product Type: Tri-Mode Wireless Controller
- Connectivity: USB Wired / 2.4GHz Wireless / Bluetooth
- Input Modes: X-Input / D-Input (PC)
- Polling Rate: Up to 1000Hz (PC Wired & 2.4GHz)
- TMR Sticks: High-Precision TMR Sticks (drift-resistant, finer linear control)
- Triggers: Hall-Effect Analog Triggers
- Buttons: D-Pad (UP/DOWN/LEFT/RIGHT), A, B, X, Y, LB, RB, LT, RT, L3, R3, SELECT, START, HOME, TURBO, CAPTURE, MR, ML
- Vibration: Motor vibration, 4 strength levels (100% / 70% / 40% / 0%)
- Battery Capacity: 600mAh
- Usage Time: >10 - 12 hours
- Charging Port: USB Type-C
- Charging Time: 2 hours
- Data Cable: 1m USB-A to Type-C
- Macro Support: Yes (ML/MR back buttons, up to 22 inputs per macro)
- Turbo & Auto Fire Support: Yes
- Keyboard & Mouse Mode: Yes (PC, Dongle, wired only)
- Screenshot/Capture Function: Yes
- Auto Sleep: Yes (5 minutes of inactivity)

TECHNICAL SPECIFICATIONS

- Sleep Current: $\leq 17\mu\text{A}$
- Operating Voltage: 3.7V
- Operating Current: $\approx 30\text{mA} - 180\text{mA}$ (with vibration on)
- Input Voltage: DC 4.5–5.5V
- Input Current: 300mA
- Operating Temperature: -10°C to 55°C
- Operating Humidity: 20–80% RH

BUILT-IN PROTECTION

- Over-Voltage Protection: If input voltage exceeds 6V, the circuit automatically cuts off all input voltage. When voltage returns below 5.8V, the controller automatically resumes normal operation.
- NTC Charging Protection: Charging automatically stops at 45°C or -10°C , complying with the EN62368 standard.

INTRODUCTION

Thank you for purchasing the Cosmic Byte Hydrus Tri-Mode Controller, engineered for accurate input, low-latency performance, and advanced customization.

The controller supports USB Wired, 2.4GHz Wireless, and Bluetooth connectivity, allowing flexible use across supported devices.

IMPORTANT USAGE DISCLAIMER

- This controller is **designed for PC use only**
- **Consoles are NOT supported**
- Some functions may not work on Android or iOS devices, but **PC is the primary supported platform**
- Usage with unsupported devices may result in improper functionality
- **Warranty is NOT applicable** for damage or malfunction caused by usage with unsupported devices

KEY FEATURES

- **Tri-Mode Connectivity**
 - USB Wired
 - 2.4GHz Wireless (USB Receiver)
 - Bluetooth
- **High-Precision TMR Sticks** drift-resistant, smooth linear response
- **Hall-Effect Analog Triggers**
- **Up to 1000Hz Polling Rate** (PC Wired & 2.4GHz)
- **Multiple Input Modes** X-Input, D-Input, Gyro (NS) Mode, and Dualshock Mode for the best compatibility and features on PC, Android, and iOS
- **TURBO & AUTO Fire Support**
- **Macro Programming** via ML/MR back buttons (up to 22 inputs)
- **Adjustable Motor Vibration** (4 levels)
- **Screenshot / Capture Function**
- **Keyboard & Mouse Mode on PC** Yes (PC, Dongle and Wired)
- **Mouse Mode on Android** (wired / 2.4GHz)
- **Joystick Circle Mode / 45-Degree Square Mode** (circle error can reach 0%)

INPUT MODES EXPLAINED

The Hydrus supports multiple input modes so your device detects the controller in the way that unlocks the most features:

- **X-Input:** Standard mode for PC gaming. Best compatibility with modern PC games.
- **D-Input:** Legacy/DirectInput mode for PC and Android.
- **Gyro Mode:** The controller is detected as a Pro Controller. Use this mode on PC, Android, and iOS to enable Gyro / motion controls (e.g., gyro aiming in Steam).
- **Dualshock Mode:** The controller is detected as a Dualshock controller. Use this mode on PC, Android, and iOS to enable vibration and native Android/iOS feedback.

SUPPORTED MODES

CONNECTION	SUPPORTED INPUT MODES
Wired	PC X-Input / PC D-Input / Android
2.4GHz Wireless	PC X-Input / PC D-Input / Android
Bluetooth	PC X-Input / Android D-Input / Gyro Mode / Dualshock Mode

IMPORTANT:

- In USB wired mode, press the **HOME** button once after connecting the cable to activate data transfer. Otherwise, connecting the USB cable only charges the controller.
- When a 2.4GHz connection is already active, it takes priority — the USB cable is then used only for charging. USB wired function is used only when no 2.4GHz connection exists (and requires pressing the **HOME** button).

CONNECTIVITY MODES OVERVIEW

WIRED MODE

PLATFORM	INPUT MODE	HOW TO CONNECT	LED STATUS
PC	X-Input (Default)	Connect via USB Type-C cable and press HOME (auto-recognition)	RGB Green stays solid
	D-Input	Under X-Input, long-press HOME for 3 sec	RGB Purple stays solid
Android	D-Input	Connect via USB Type-C cable and press HOME (wired auto-recognition)	RGB Green stays solid
	X-Input	After connection, long-press SELECT + HOME for 3 sec (short motor vibration as prompt)	—
	Mouse Mode	Press and hold CAPTURE + R3 for 5 sec to switch to mouse mode	—
iOS	—	Not Supported (use Bluetooth)	—

2.4GHZ WIRELESS MODE

Insert the 2.4GHz wireless receiver into the device's USB port. With the controller powered off, press and hold X + HOME for 3 seconds to enter 2.4GHz pairing mode.

PLATFORM	INPUT MODE	HOW TO CONNECT	LED STATUS
PC	X-Input (Default)	X + HOME	RGB Orange flashes rapidly (16Hz), stays solid on success
	D-Input	Under X-Input, long-press HOME for 3 sec	RGB Purple stays solid
Android	D-Input	X + HOME	RGB Orange flashes rapidly (16Hz), stays solid on success
	X-Input	After connection, long-press SELECT + HOME for 3 sec (short motor vibration as prompt)	—
	Mouse Mode	Press and hold CAPTURE + R3 for 5 sec to switch to mouse mode	—
iOS	—	Not Supported (use Bluetooth)	—

BLUETOOTH MODE

With the controller powered off, press and hold the key combination for 3 seconds to enter pairing mode.

INPUT MODE	USE ON	HOW TO CONNECT (PRESS FOR 3 SEC)
X-Input	PC	B + HOME
D-Input	Android	A + HOME
Gyro Mode	PC / Android / iOS	Y + HOME
Dualshock Mode	PC / Android / iOS	START + HOME

LED STATUS	BLUETOOTH NAME
RGB Cyan flashes rapidly (16Hz), stays solid on success	Xbox Bluetooth Controller
RGB White flashes rapidly (16Hz), stays solid on success	Gamepad Controller
RGB Red flashes rapidly (16Hz), stays solid on success	Pro Controller
RGB Blue flashes rapidly (16Hz), stays solid on success	Wireless Controller (Android) / DUALSHOCK 4 Wireless Controller (iOS)

Mode benefits:

- **Gyro Mode:** the controller is detected as a Pro Controller, enabling Gyro / motion controls (e.g., gyro aiming in Steam).
- **Dualshock Mode:** enables vibration and native Android/iOS controller feedback.
- **NOTE:** Dualshock and Pro Controller will emulate dualshock controller to support iOS/Android. It is not compatible with consoles.

RECONNECTION MODE

Press the **HOME** button for 1 second to wake the controller. It flashes in the last used mode and attempts to reconnect to the last connected device. If reconnection fails within 30 seconds, the controller enters sleep mode.

PC STEAM MODE (WIRED ONLY)

- Ensure the controller is powered off.
- Press and hold **R3** (right stick click).
- While holding R3, plug the USB cable into the PC.
- The controller boots directly into Steam-compatible mode.

KEYBOARD & MOUSE MODE (PC, DONGLE AND WIRED)

On PC, simultaneously press and hold **TURBO + CAPTURE** for 3 seconds to enter PC, Dongle, Wired & mouse mode (BT not supported). The controller can then be used as a keyboard and mouse. See the Key Mapping Table for details.

KEY MAPPING TABLE

Label / Function	Android mode	PC D-input wired mode	PC X-input wired mode	Keyboard Map
Button A	A	3	1	SPACE
Button B	B	2	2	C
Button X	X	4	3	F
Button Y	Y	1	4	R
D-pad UP	D-pad UP	POV UP	POV UP	W
D-pad RIGHT	D-pad RIGHT	POV RIGHT	POV RIGHT	D
D-pad DOWN	D-pad DOWN	POV DOWN	POV DOWN	S
D-pad LEFT	D-pad LEFT	POV LEFT	POV LEFT	A
L Stick Up	L Stick Up	L Stick Up	L Stick Up	W
L Stick Right	L Stick Right	L Stick Right	L Stick Right	D
L Stick Down	L Stick Down	L Stick Down	L Stick Down	S
L Stick Left	L Stick Left	L Stick Left	L Stick Left	A
LB	LB	5	5	Q
RB	RB	6	6	E
LT	LT	7	Z Axis R	Mouse Right
RT	RT	8	Z Axis L	Mouse Left
Left Stick Click	L3 (Press)	11	9	Shift
Right Stick Click	R3 (Press)	12	10	Middle Mouse
Select	SELECT	9	7	Caps
Start	START	10	8	Tab
Turbo	TURBO	TURBO	TURBO	TURBO
Capture	Capture	Capture	Capture	Capture
Home / Mode	HOME / MODE	13	13	ESC

MOUSE MODE (ANDROID, WIRED / 2.4GHZ ONLY)

Android wired/2.4GHz mode supports mouse function (default is controller mode). Simultaneously press and hold **CAPTURE + R3** for 5 seconds to switch to mouse mode.

Mouse Controls:

- **A** → Left mouse click
- **B** → Right mouse click

See the Key Mapping Table for full details.

TURBO & AUTO FIRE FUNCTIONS

Turbo can be applied to: **A / B / X / Y / LB / LT / RB / RT**

- **ENABLE TURBO**

- Press and hold the desired button together with the **TURBO** button. When a Turbo-enabled button is pressed, the corresponding channel LED blinks at a certain frequency.

- **ENABLE AUTO FIRE**

- Press **TURBO + the already Turbo-enabled button** again to activate automatic continuous pressing (AUTO function).

- **CLEAR TURBO / AUTO**

- Press and hold a Turbo-enabled button together with the **TURBO** button to clear its Turbo function.
- Or press and hold the **TURBO** button for 5 seconds (motor vibration prompt) to clear all Turbo and Auto functions for all buttons.

- **TURBO SPEED LEVELS**

- **Level 1:** 5 presses/sec
- **Level 2:** 12 presses/sec
- **Level 3:** 20 presses/sec

- **ADJUST SPEED**

- While holding the **TURBO** button:
 - Push the Right Stick fully **Right** → increase speed by one level
 - Push the Right Stick fully **Left** → decrease speed by one level
- A short motor vibration confirms each change. The last setting is remembered.

VIBRATION STRENGTH ADJUSTMENT

- Hold the **TURBO** button.
- Push the Right Stick:
 - **Up** → Increase strength
 - **Down** → Decrease strength

Each level change is confirmed by one motor vibration.

- **Levels:**
 - 100%
 - 70% (Default on power-up)
 - 40%
 - 0% (Off)

The last setting is remembered.

ADVANCED CONTROLLER FUNCTIONS

- **A/B/X/Y Swap:** Press and hold **TURBO + R3** for 3 seconds (motor vibration prompt) to swap A with B and X with Y simultaneously.
- **D-Pad ↔ Left Stick Swap:** Simultaneously press **START + L3** for 3 seconds to swap their functions (short motor vibration prompt).
- **Stick Shape Mode:** Simultaneously press and hold **L3 + TURBO** for 3 seconds to switch between modes (motor vibration prompt):
 - **Circle Mode** (Default)
 - **45-Degree / Square Mode**
 - Joystick circle error percentage can reach 0%.

STICK CALIBRATION

- Power off the controller.
- Press and hold **CAPTURE + HOME** to enter calibration mode (RGB **PURPLE** LED blinks).
- Briefly press the A button (RGB **PURPLE** LED flashes rapidly).
- Rotate both analog sticks fully for more than three circles (avoid excessive force).
- Press each trigger fully three times.
- Briefly press the A button again to save. If calibration succeeds, the controller returns to normal mode.

MACRO PROGRAMMING (ML / MR BACK BUTTONS)

- **Programmable buttons:**
 - A, B, X, Y, LB, RB, LT, RT, L3, R3, D-Pad, Left/Right 3D sticks. Programming mode is entered via the ML, MR, and TURBO buttons.
- **RECORD MACRO**
 - Briefly press the MR or ML button for 2 seconds (current channel LED blinks slowly, motor vibration prompt) to enter programming mode.
 - Press any button(s) you want to program (map). The channel LED flashes rapidly while a button is held, then blinks slowly when released — recording the press and release timing.
 - After recording, press either the ML or MR button on the back (channel LED stays solid, motor vibration prompt) to save. The chosen trigger button (ML/MR) now acts as the macro key.
 - A maximum of **22 key inputs** can be recorded. After 22 inputs, the channel LED will not flash rapidly for subsequent presses.
 - In macro programming mode, the controller automatically exits after 30 seconds of no button press.

- **MAPPING vs MACRO BEHAVIOUR**

- When a single button is programmed, it acts as a mapping. When ML/MR are both set as mapping functions, pressing both simultaneously triggers both.
- If ML/MR are programmed with multiple keys (a macro), pressing one triggers the macro. Pressing the other MR/ML button can interrupt the currently running macro.

- **CLEAR MACRO PROGRAMMING**

- Press and hold **SELECT + START + R3** for 5 seconds (motor vibration prompt) to clear all macro settings.

BATTERY & CHARGING

- **Battery Capacity:** 600mAh · **Usage Time:** >10 - 12 hours

- **Charging Method:** USB Type-C cable

- **Charging Time:** 2 hours

- **CHARGING INDICATORS**

- **Charging while connected (in use):** the current mode LED breathes and stays solid when full.
- **Charging while powered off / not connected:** the RGB Green LED breathes and stays solid when full.

- **LOW BATTERY ALERT**

- Insufficient battery may prevent power-on. When connected, the current mode LED flashes rapidly and the controller shuts down automatically. Please charge promptly.
- **Battery Voltage Alert (3.5V ±0.1V):** In connected mode, below 3.5V the Red LED flashes rapidly for 10 seconds, then repeats every minute.
- **Low Battery Shutdown (3.35V ±0.1V):** The controller automatically powers off.

POWER & RESET FUNCTIONS

- **Power ON:** Short press HOME (300ms–1 sec)
- **Auto Sleep:** After 5 minutes of inactivity (no button or stick input)
- **Power OFF:** Hold HOME for 5 seconds (also works from sleep mode)
- **Factory Reset:** Hold SELECT + L3 + R3 for 5 seconds to restore factory defaults. This clears: all Turbo functions, Turbo speed settings, motor vibration strength, Auto functions, joystick mode swap, D-Pad & left stick swap, ABXY swap, keyboard & mouse function, joystick deadzone (resets to default), mode switching (resets to default), and programming functions.

TROUBLESHOOTING

- **Controller not powering on**
 - Battery may be fully drained → charge promptly
 - Insufficient battery may prevent power-on
- **Controller charging but not working (wired)**
 - Press **HOME** once after connecting the USB cable — otherwise the cable only charges
 - If a 2.4GHz connection is active, it takes priority and the USB cable only charges; disconnect the 2.4GHz receiver if wired data is needed
- **Controller not connecting wirelessly**
 - Ensure the correct pairing key combination for your platform and mode (see Connectivity Modes)
 - Remove any previous Bluetooth pairing and re-pair
- **Controller doesn't reconnect after waking**
 - Press **HOME** for 1 second to wake; if reconnection fails within 30 seconds the controller sleeps — wake it again and retry
- **No Gyro / motion controls**
 - Connect via Bluetooth in Gyro Mode (**Y + HOME**) so the controller is detected as a Pro Controller

- **No vibration / weak vibration**
 - Increase vibration level (hold **TURBO** + push Right Stick up)
 - On Android/iOS, connect in Dualshock Mode (**START + HOME**) to enable vibration and native feedback
- **Buttons behaving incorrectly**
 - ABXY swap or D-Pad ↔ Left Stick swap may be enabled → perform a factory reset (**SELECT + L3 + R3** for 5 seconds)
- **Analog stick drift**
 - Perform stick calibration (see Stick Calibration)
- **Macro (ML/MR) not working**
 - ML/MR have no function by default — they must be programmed first
 - Ensure the macro was saved by pressing ML or MR after recording
- **Android mouse mode not workingt**
 - Works only in wired / 2.4GHz mode
 - Bluetooth does not support mouse mode
- **iOS controller not detected**
 - iOS is supported via Bluetooth only — use Gyro (NS) Mode or Dualshock Mode
 - The iOS app must support external controllers
- **Steam not detecting controller**
 - **Use Steam Mode (wired only):** hold R3 while plugging in the USB cable
 - Restart Steam after connection
- **Charging stops unexpectedlyt**
 - NTC protection stops charging at 45°C or -10°C — charge within normal temperature range

SOFTWARE SUPPORT

Set up your device with Cosmic Byte Orbit.

Your Cosmic Byte product is fully configurable through Orbit, our free browser-based configurator. There is nothing to download or install — connect your device and set it up right in your web browser.



- Connect your device to the computer (cable or 2.4 GHz dongle).
- **Scan the QR code, or visit orbit.thecosmicbyte.com.**
- Select your device when it appears.
- Adjust your settings and Apply — they save to the device.

SUPPORT DETAILS

Stuck? Get instant AI-powered support.



Scan the QR code or visit ai.thecosmicbyte.com to chat with our AI assistant — available 24/7 for setup help, troubleshooting, and product questions across all Cosmic Byte gaming products.

Customer Care Number: +91 7351615161 (Mon-Sat 10am to 6pm)

WhatsApp Support: +91 7351615161

Email: cc@thecosmicbyte.com

WARRANTY

The Hydrus tri-mode controller carries 1 Year warranty against manufacturing defects only.

Physical, Water damage and Tampered products are not covered under warranty.

Regular wear and tear from battery usage is not covered under warranty.



Scan the QR code to know the Warranty Claim Procedure.