

Thrustmaster T16000M FCS Hotas

Thrustmaster T16000M FCS HOTAS PC Flight Control System User Manual

Model: T16000M FCS HOTAS (2960778)

INTRODUCTION

This manual provides detailed instructions for the setup, operation, and maintenance of your Thrustmaster T16000M FCS HOTAS (Hands On Throttle And Stick) flight control system. The system includes the T.16000M FCS flight stick, featuring H.e.A.R.T magnetic precision technology, and the TWCS (Thrustmaster Weapon Control System) throttle, featuring S.M.A.R.T technology. This system is designed for use with PC platforms running Windows 10, 8, 7, and Vista (32-bit and 64-bit).

PRODUCT OVERVIEW

The Thrustmaster T16000M FCS HOTAS system is comprised of two main components: the T.16000M FCS Joystick and the TWCS Throttle. Each component offers a range of controls for precise flight simulation.

T.16000M FCS Joystick

The joystick features advanced precision with 3D (Hall Effect) magnetic sensors, ensuring accurate control. It includes a total of 16 action buttons and 4 independent axes.

- **Precision:** H.e.A.R.T (Hall Effect Accurate Technology) magnetic sensors for enhanced accuracy.
- **Axes:** 4 independent axes, including a twist rudder controlled by rotating the stick.
- **Buttons:** 16 action buttons with braille-style physical identification.
- **POV Hat:** One 8-way Point of View (POV) hat switch.



Figure 1: Front view of the Thrustmaster T16000M FCS HOTAS system, showing both the joystick and the throttle unit.

TWCS Throttle

The TWCS throttle unit provides comprehensive control over engine power and other aircraft functions, utilizing S.M.A.R.T (Sliding Motion Advanced Rail Tracks) technology for smooth and precise movement.

- **Technology:** S.M.A.R.T technology for smooth sliding motion.
- **Buttons:** 14 action buttons, including two 4-way switches, 3 standard buttons, one 2-position slider, and one push mini-stick.
- **POV Hat:** One 8-way Point of View (POV) hat switch.



Figure 2: Top-down view of the Thrustmaster T16000M FCS HOTAS, illustrating the layout of controls on both the joystick and throttle.

SETUP

Follow these steps to set up your Thrustmaster T16000M FCS HOTAS system.

1. **System Requirements:** Ensure your PC runs Windows 10, 8, 7, or Vista (32-bit or 64-bit).
2. **Driver Installation:** Before connecting the devices, download and install the latest drivers and software from the official Thrustmaster support website. This ensures optimal performance and access to all features.
3. **Connect Joystick:** Plug the USB cable from the T.16000M FCS Joystick into an available USB port on your PC.
4. **Connect Throttle:** Plug the USB cable from the TWCS Throttle into an available USB port on your PC.
5. **System Recognition:** Your operating system should automatically detect and configure the devices. Verify successful installation through your PC's Device Manager.
6. **Software Configuration:** Launch the Thrustmaster TARGET software (if installed) to customize button mappings, axis sensitivities, and create profiles for specific games.

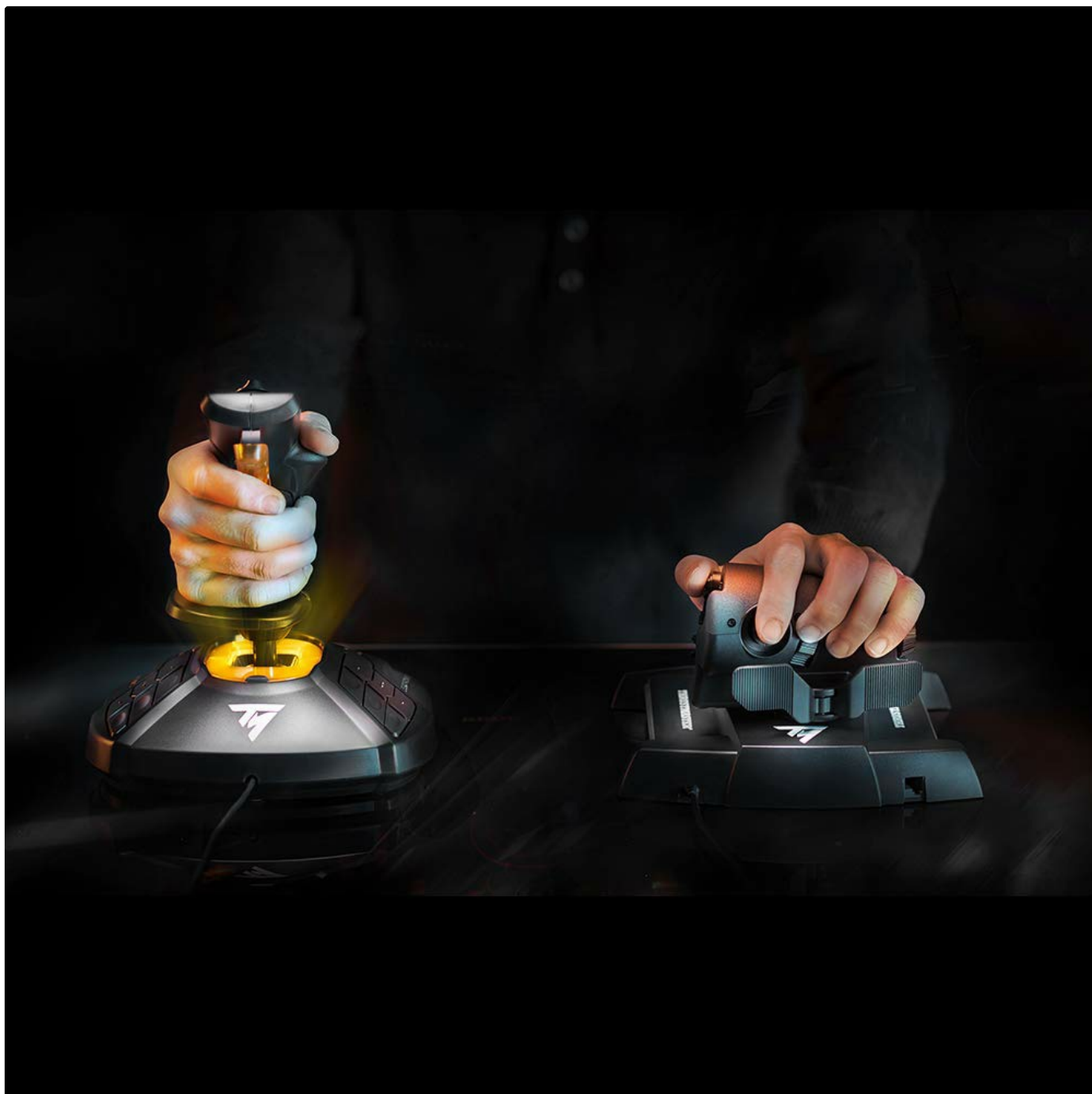


Figure 3: A user's hand on the T.16000M FCS Joystick, demonstrating typical grip during setup or operation.

OPERATING INSTRUCTIONS

This section outlines the basic operation of the T16000M FCS HOTAS components.

Joystick Operation

- **Pitch & Roll:** Move the joystick forward/backward for pitch control and left/right for roll control.
- **Yaw (Rudder):** Twist the joystick handle left or right to control the yaw axis (rudder).
- **Trigger:** The primary trigger on the front of the stick is typically used for firing weapons.
- **Buttons:** Utilize the 16 programmable action buttons for various in-game functions such as gear, flaps, targeting, etc.
- **POV Hat:** The 8-way POV hat switch is commonly used for camera views or quick menu navigation.

Throttle Operation

- **Thrust Control:** Slide the main throttle lever forward and backward to adjust engine thrust. The S.M.A.R.T technology ensures smooth and precise movement.

- **Mini-Stick:** The push mini-stick on the throttle can be used for precise camera control or strafing in space simulations.
- **Switches & Buttons:** The 14 action buttons, including 4-way switches and a slider, can be assigned to functions like speed brakes, landing gear, weapon selection, or communication.



Figure 4: A user's hand on the TWCS Throttle, demonstrating the ergonomic design and accessible controls.

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your flight control system.

- **Cleaning:** Use a soft, dry cloth to clean the surfaces of the joystick and throttle. Avoid abrasive cleaners or solvents.
- **Dust Protection:** When not in use, cover the devices to prevent dust accumulation, especially in the throttle's sliding mechanism.
- **Cable Management:** Avoid sharp bends or excessive tension on the USB cables to prevent damage.
- **Storage:** Store the devices in a cool, dry place away from direct sunlight and extreme temperatures.

TROUBLESHOOTING

If you encounter issues with your Thrustmaster T16000M FCS HOTAS, refer to the following common solutions.

- **Device Not Recognized:**
 - Ensure USB cables are securely connected to both the devices and the PC.
 - Try a different USB port.
 - Reinstall the latest drivers from the Thrustmaster support website.
 - Restart your PC.
- **Buttons/Axes Not Responding:**
 - Check in your game's control settings if the buttons/axes are correctly mapped.
 - Calibrate the devices through Windows Game Controller settings or Thrustmaster's TARGET software.
 - Ensure no other conflicting input devices are connected.
- **Throttle Movement Not Smooth:**
 - Dust or debris might be in the sliding mechanism. Gently clean the throttle track.
 - Consider applying a small amount of non-conductive, plastic-safe lubricant (e.g., Nyogel 767A) to the rails if the issue persists and you are comfortable with advanced maintenance.

SPECIFICATIONS

Model Number	2960778
Product Dimensions	10.71 x 9.02 x 10.39 inches
Item Weight	4.84 pounds
Compatibility	PC (Windows 10, 8, 7, Vista - 32-bit and 64-bit)
Manufacturer	Thrustmaster VG
Date First Available	June 19, 2016
Release Date	October 10, 2016

WARRANTY AND SUPPORT

For warranty information, technical support, and additional resources, please visit the official Thrustmaster support website. You can find drivers, firmware updates, and FAQs there.

Note: Specific warranty terms may vary by region and retailer. Please retain your proof of purchase.