

## WINWING FCU Unit1

# WINWING FCU Unit1 Flight Control Unit Instruction Manual

Model: FCU Unit1

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your WINWING FCU Unit1 Flight Control Unit. Designed for flight simulation, the FCU Unit1 offers a realistic experience with its 1:1 structured mold and advanced features. Please read this manual thoroughly before using the product to ensure optimal performance and longevity.

## 2. PRODUCT OVERVIEW

The WINWING FCU Unit1 is a full-size flight control unit engineered to replicate the feel and function of real aircraft controls. It features a robust design, advanced display technology, and precise controls for an immersive flight simulation experience.

### 2.1 Key Features

- **Realistic Design and Build:** Crafted with a 1:1 fully structured mold and 3D textured surface, mirroring real aircraft operation and hand positions.
- **Advanced Display Technology:** Multi-panel adjustable linked backlight with automatic game synchronization, ensuring display colors and characters consistent with real aircraft.
- **Dual-Mode Display Drive:** Supports 'Data-Driven Display Mode' for open interface aircraft modules and 'Stream-Driven Display Mode' for real-time synchronization with aircraft module data on Windows.
- **Precision Controls:** Features four knobs with 2.5mm push/pull stroke and 360° rotation (without detents), and a gear lever rotation angle of 60° for the 100/1000 altitude selector knob.
- **Durability:** Commercial-grade strong trigger knobs and Hall sensors for knob push-pull and 100/1000 position switches ensure a longer lifespan and precision.
- **Modular Design:** Allows for flexible combination with other independent modules and compatibility with various profile brackets or desktop use.



Image: Front view of the WINWING FCU Unit1 Flight Control Unit, showcasing its display and control knobs.

1:1 fully structured mold, 3D textured surface.



Image: The FCU Unit1 demonstrating its 1:1 fully structured mold and 3D textured surface for realistic feel.

Multi-Panel Adjustable Linked Backlight, Supports Automatic Game Synchronization.



Image: The FCU Unit1's multi-panel adjustable linked backlight, supporting automatic game synchronization.

Same Color Display with the Real Aircraft.



Image: Close-up of the FCU Unit1 display, illustrating consistent color and character representation with real aircraft.

Native Glare Shield, Ensuring the Same Operating Hand Position as the Real Aircraft.



Image: The FCU Unit1 featuring a native glare shield, designed to ensure the same operating hand position as in a real aircraft.

### 3. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, please contact

Haptic feedback advancing towards real aircraft.



Image: Visual representation of the FCU Unit1 packing list, including the FCU Unit1, mounting brackets, data cable, toolkit, accessories kit, and adhesive dots.

- FCU Unit1 x 1
- Mounting Bracket Left x 1
- Mounting Bracket Right x 1
- Data Cable x 1
- Toolkit x 1
- Accessories Kit x 1 (includes screws)
- Nanometre Double Sided Adhesive Dots x 1

## 4. SETUP AND INSTALLATION

The FCU Unit1 is designed for flexible installation, either on a desktop or integrated with profile brackets.

### 4.1 Desktop Installation

For desktop use, the FCU Unit1 can be placed directly on a flat surface. Ensure the surface is stable and clear of obstructions. The included Nanometre Double Sided Adhesive Dots can be used for added stability.

For Use in Conjunction with Profile Brackets.



\*The installation brackets may vary in form for different batches. Please refer to the actual product for specific profiles and desk clamp installation. Additional screws and nuts for connecting corresponding profiles need to be purchased separately.

Image: The FCU Unit1 configured for desktop use, showing its stable base.

## 4.2 Profile Bracket Installation

The FCU Unit1 is compatible with various profile brackets for a more integrated setup. Use the provided mounting brackets and screws from the accessories kit to secure the unit to your profile system. Note that installation brackets may vary, and additional screws or nuts for connecting specific profiles may need to be purchased separately.



Image: The FCU Unit1 shown with profile brackets, illustrating how it can be integrated into a larger simulation setup.

## 4.3 Connecting to PC

Connect the FCU Unit1 to your PC using the provided data cable. The unit is designed for plug-and-play functionality with the WINWING SIMAPP software, which handles automatic recognition and configuration.

# 5. OPERATION

The FCU Unit1 provides intuitive controls and a realistic display for managing flight parameters.

## 5.1 Control Knobs

- The four main knobs feature a push and pull stroke of 2.5mm and a 360° rotational angle (without detents). These are used for adjusting various flight parameters such as speed, heading, and altitude.
- The gear lever rotation angle is 60° for the 100/1000 altitude selector knob, allowing for precise adjustments.
- Knob push-pull and 100/1000 position switches utilize Hall sensors for enhanced durability and precision.

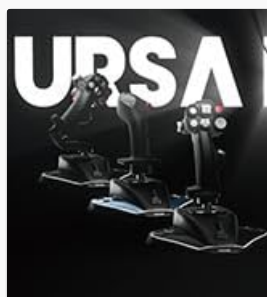


Image: Close-up of the FCU Unit1's commercial-grade trigger knobs, designed for realistic feel and durability.

## 5.2 Display Modes

The FCU Unit1 features a dual-mode display drive:

- **Data-Driven Display Mode:** This mode is efficient and suitable for open interface aircraft modules, where data is directly fed to the display.

- **Stream-Driven Display Mode:** This mode allows the FCU to display information from any A320 aircraft module running on the Windows platform, synchronizing in real-time with aircraft module data.

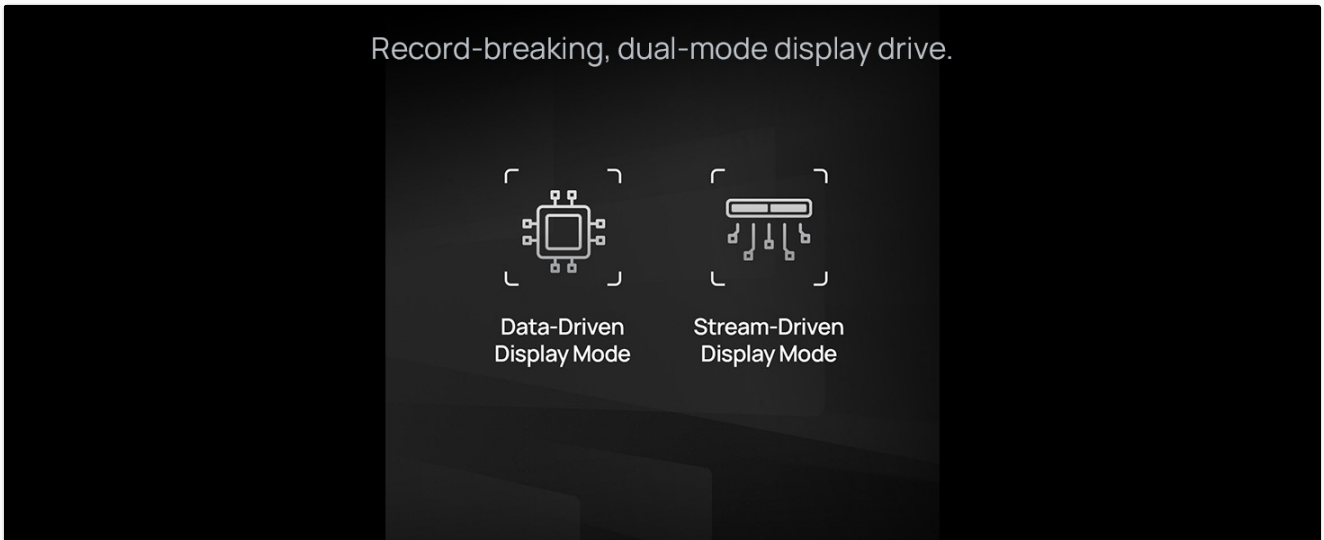


Image: Illustration of the FCU Unit1's dual-mode display drive, highlighting Data-Driven and Stream-Driven modes.

Game Platform	Aircraft Module	Module Version	Status	Estimated Release Date
MSFS2020	Fenix A320/A319/A321	V2.2.0.x	Supported	-
	Airbus A320 Neo	V1	Supported	-
	FlyByWire A32NX	V0.12.1/ Development	Supported	-
	Airbus A320 Neo	V2	Supported	-
	FlyByWire A380X	V0.12.3	Supported	-
	HeadWind Airbus A339X	0.5.9	Supported	-
	HeadWind SU95X	0.5.9	In Development	November 25, 2024
	inBuilds A350 Airliner		Upcoming	Awaiting Aircraft Release
	Toliss A320Neo		Supported	-
X-Plane11 X-Plane12	Toliss A319/A321/A340-600		Supported	-
	Fight Factor A320 Ultimate		Supported	-
	Airbus A330		Supported	-
	Fight Factor A350 Ultimate		Upcoming	November 11, 2024
Prepar3D (v4/v5)  MSFS2024	Aerosoft A318/A319/A320/A321		Under Research	
	inBuilds A320Neo		In Development	November 25, 2024
	inBuilds A330-200RR		In Development	November 25, 2024
	inBuilds A321		In Development	November 25, 2024
	inBuilds A330-743L		In Development	November 25, 2024
	FlyByWire A32NX (MSFS2020)		In Development	November 25, 2024
	FlyByWire A380X (MSFS2020)		In Development	November 25, 2024
	HeadWind Airbus A339X (MSFS2020)		In Development	November 25, 2024
	HeadWind Airbus SU95 (MSFS2020)		In Development	November 25, 2024
	inBuilds A310-300		Pending Research	

Image: The FCU Unit1 operating in Data-Driven Display Mode, suitable for open interface aircraft modules.



Image: The FCU Unit1 operating in Stream-Driven Display Mode, synchronizing real-time with aircraft module data on Windows.

## 6. SOFTWARE AND COMPATIBILITY

The WINWING FCU Unit1 is designed to work seamlessly with the WINWING SIMAPP software.

### 6.1 SIMAPP Software

SIMAPP is essential for initial setup, firmware updates, and advanced configuration. It provides a user-friendly interface for managing your WINWING devices. Download the latest version of SIMAPP from the official WINWING website.



Image: The FCU Unit1 demonstrating plug-and-play functionality with the SIMAPP software, requiring no manual setup.

### 6.2 Firmware Updates

It is recommended to regularly check for and install firmware updates via SIMAPP to ensure optimal performance and compatibility with the latest flight simulators and aircraft modules.

### 6.3 Compatibility

The FCU Unit1 is compatible with various aircraft modules and games on the Windows platform. Refer to the WINWING website or SIMAPP for the most up-to-date compatibility list.



Image: A compatibility table showing supported flight simulators and aircraft modules for the FCU Unit1.

## 7. MAINTENANCE

Proper maintenance ensures the longevity and performance of your FCU Unit1.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid abrasive cleaners or solvents.
- **Storage:** Store the unit in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Handling:** Handle the unit with care. Avoid dropping or subjecting it to strong impacts.

## 8. TROUBLESHOOTING

If you encounter issues with your FCU Unit1, refer to the following common troubleshooting steps:

- **Unit Not Recognized:** Ensure the data cable is securely connected to both the FCU Unit1 and your PC. Try a different USB port. Restart your PC.
- **Software Issues:** Ensure you have the latest version of WINWING SIMAPP installed. Check for and install any available firmware updates for the FCU Unit1.
- **Controls Unresponsive:** Verify that the unit is powered on and connected. Check SIMAPP for calibration or mapping issues.
- **Display Malfunction:** Check connections and ensure SIMAPP is running correctly. If using Stream-Driven Display Mode, ensure the aircraft module is active and compatible.

For persistent issues, consult the WINWING official support resources or contact customer service.

## 9. SPECIFICATIONS

Feature	Detail
Model	FCU Unit1
Dimensions	13.58 x 5.43 x 4.13 inches
Item Weight	2.2 pounds
Manufacturer	WINWING
Connectivity	USB
Display Type	Segment code liquid crystal display with adjustable backlight
Control Knobs	4 knobs (push/pull 2.5mm, 360° rotation), 100/1000 altitude selector knob (60° rotation)
Sensors	Hall sensors for knob push-pull and position switches
Compatibility	Windows PC, various flight simulators and aircraft modules

## 10. WARRANTY AND SUPPORT

Specific warranty details for the WINWING FCU Unit1 are not provided in this document. For warranty information, technical support, and service inquiries, please refer to the official WINWING website or contact their customer support directly.

**WINWING Official Website:** [Visit the WINWING Store on Amazon](#)

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