

ICM-001

Wireless Igniter Controller

User Manual

INTRODUCTION

ICM-001 is a compact wireless igniter control module for blade switcher systems. It connects over Bluetooth to any Android-equipped device, enabling remote arming and trigger control without a wired pendant. Control commands are delivered through the BLE link to the onboard module, then forwarded to the MCU via UART, with status feedback available back to the Android side. Powered by 5V USB Type-C, it provides a 5V relay output and uses an IP68-rated waterproof aviation connector for rugged field wiring.

FEATURES

- BluetoothR 5.1 (2.4 GHz)
- Long-range BLE link: up to 200 m line-of-sight
- 5V relay output for igniter / blade switcher trigger
- Rugged connector: IP68 waterproof aviation connector
- Compact PCB size: 50 × 110 mm
- App workflow is simple and safe: must SCAN → PAIR before PLAY is enabled
- Defined UI actions: SCAN / PAIR / LAUNCH
- Login / arming code UI: Pattern Lock entry (default "Z")
- Pairing security concept: XTEA Encrypt-then-MAC