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**Caution:** This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection systems is highly recommended.

### 1. Introduction

The KanexPro CR-KEY8U is a standalone 8-button programmable wall keypad designed to deliver multi-protocol AV room control from a compact US 1-Gang wall plate. Built on a Linux-based ARM Cortex-A7 platform with 256MB RAM, it provides RS232, RS485, IR, relay, and TCP/IP control without requiring a separate control processor or proprietary software — ideal for conference rooms, classrooms, and huddle spaces where single-gang mounting is preferred.

Featuring 8 programmable buttons with LED status feedback, the CR-KEY8U integrates 4× RS232, 1× RS485, 2× IR output, 2× relay, and 2× configurable I/O ports. Powered via PoE or DC 5V with just 1.1W consumption, it supports TCP/IP, UDP, HTTP, and WebSocket protocols. The magnetic aluminum front panel is field-swappable in black or white. Programming is handled through EASYAccomplish software available for Windows, Mac, and iOS, with web GUI access for network configuration.

### 2. Features

- ARM Cortex-A7 architecture, 1.2GHz main frequency
- Linux system, 256MB RAM, 256MB ROM
- Installation: US 1-Gang standard wall box
- Magnetic aluminum panel design, easy to replace
- 8 programmable buttons, supporting light status feedback (with LED indicators)
- 4-channel RS232 two-way serial communication ports, with configurable baud rate
- 1-channel RS485 serial communication port, with configurable baud rate
- 2-channel isolated low-voltage relay ports
- 2-channel I/O ports, with configurable input/output mode
- 2-channel IR output ports, supporting 20KHz–60KHz wideband output
- 1-channel 100Mbps network port with TCP/IP, UDP, HTTP, and WebSocket
- Dual power supply mode, supporting PoE or DC power supply
- Programmable via EASYAccomplish (Windows, Mac, iOS); web GUI for network configuration

### 3. Package Contents

- 1× Programmable Control Keypad
- 5× 3-pin 3.5mm Phoenix Connector (male)
- 1× 4-pin 3.5mm Phoenix Connector (male)
- 4× 2-pin 3.5mm Phoenix Connector (male)
- 1× 2-pin 3.81mm Phoenix Connector (male)
- 2× Wall Mounting Screws
- 1× User Manual

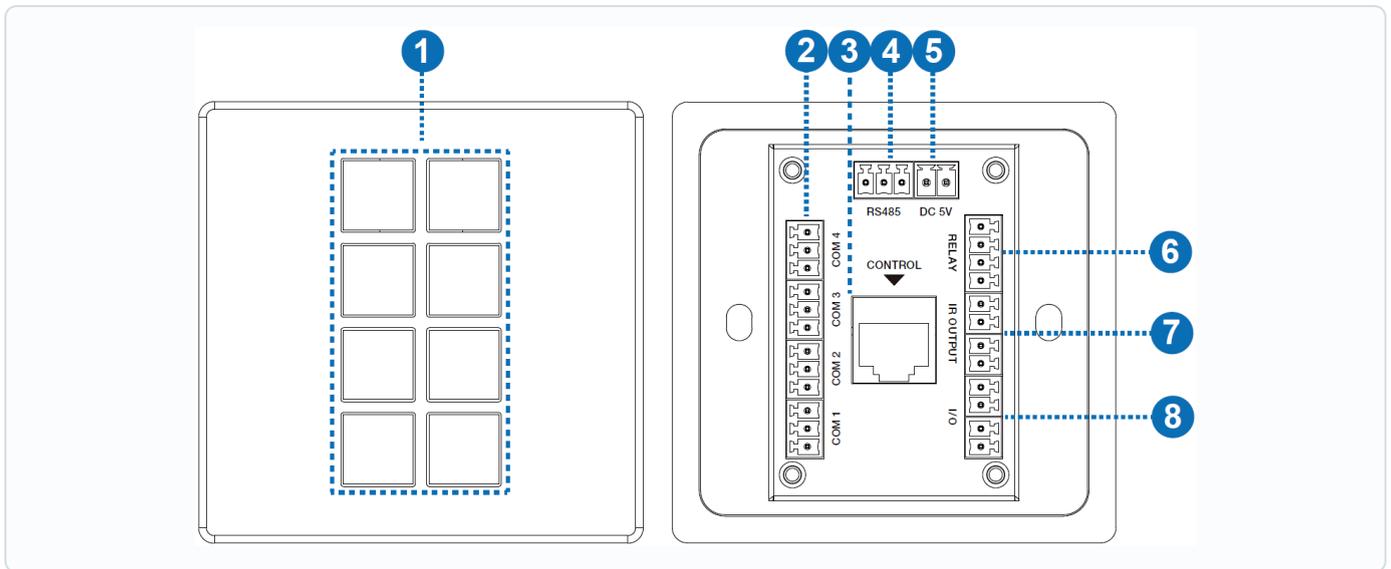


## 4. Specifications

SPECIFICATION	VALUE
<b>Technical</b>	
CPU	ARM Cortex-A7, 1.2GHz
Operating System	Linux
RAM	256MB
Flash Memory	256MB
ESD Protection	IEC 61000-4-2: ±8kV (air-gap) / ±4kV (contact)
<b>Control</b>	
Programmable Buttons	8 buttons with LED status feedback
Programming Software	EASYAccomplish (Windows, Mac, iOS)
<b>Connection</b>	
COM 1/2/3/4 (RS232)	4× 3-pin phoenix, bidirectional, 2400–115200 bps
RS485	1× 3-pin phoenix, bidirectional, 2400–115200 bps
IR Output	2× 2-pin phoenix, 20KHz–60KHz carrier
Relay	2× 2-pin phoenix, normally open, 2A 30VDC / 0.3A 125VAC
I/O	2× 2-pin phoenix, configurable input (24V) / output (5V, 50mA)
Control (LAN/PoE)	1× 10/100M Ethernet RJ45, PoE supported
DC 5V	1× 2-pin phoenix, power supply input
USB	1× USB Type-C (system debug, behind front panel)
<b>Mechanical</b>	
Dimensions (US)	2.76" × 4.49" × 1.52" (70 × 114 × 38.5mm)
Weight (US)	0.49 lbs (222g)
Housing	Front: Aluminum alloy; Rear: Metal enclosure
Color	Front: Black / White (optional); Rear: Black
Installation	US 1-Gang standard wall box
Front Panel	Magnetic aluminum, field-swappable
<b>Power</b>	
Power Supply	DC 5V/1A or PoE
Power Consumption	1.1W
<b>Environmental</b>	
Operating Temperature	32°F–104°F (0°C–40°C)
Operating Humidity	20%–80% RH, non-condensing
Storage Temperature	-4°F–140°F (-20°C–60°C)
Storage Humidity	10%–90% RH, non-condensing
Certifications	CE, FCC, UKCA



## 5. Operation Controls and Functions



### Front Panel

#	NAME	DESCRIPTION
1	Buttons 1-8	8 programmable buttons. Each can be configured to send RS232, RS485, IR, TCP/IP, relay, or I/O commands simultaneously. Button icons are printed on removable film and can be customized. LED indicators provide light status feedback.

### Rear Panel

#	NAME	DESCRIPTION
2	COM 1-4	4-channel RS232 serial ports (3-pin phoenix). Baud rate: 2400-115200 bps. PIN1 = TXD, PIN2 = GND, PIN3 = RXD.
3	Control (LAN/PoE)	10/100M Ethernet RJ45 with PoE. Default: DHCP disabled, IP 192.168.0.101, subnet 255.255.0.0.
4	RS485	1-channel RS485 serial port (3-pin phoenix). Baud rate: 2400-115200 bps. PIN1 = A, PIN2 = B, PIN3 = GND.
5	DC 5V	Power input port (2-pin phoenix). Connect external 5V DC power supply.
6	RELAY	2 sets of isolated low-voltage relay ports. Normally open, max load 2A 30VDC / 0.3A 125VAC. PIN1 = signal input, PIN2 = signal output.
7	IR OUTPUT	2-channel programmable IR ports. Carrier range: 20KHz-60KHz. PIN1 = IR output, PIN2 = GND.
8	I/O	2-channel programmable I/O. Input mode: digital level signal (24V withstand). Output mode: 5V, max 50mA. PIN1 = I/O, PIN2 = GND.

#### Hidden Controls (behind front panel):

**RESET button (#9):** Press >1s <5s → reboot. Press >5s → factory reset (IP restored to 192.168.0.101, password → “admin”; user projects retained).

**USB-C port (#10):** Reserved for system debugging.



## 6. Mounting Instruction

This wall-in control panel can be mounted in a US 1-Gang standard wall box. Follow these steps:

### Step 1

Remove the control panel from the packaging. Remove the magnetic front panel by pulling it horizontally away from the unit.

### Step 2

Install the control panel onto the US 1-Gang wall box and fasten with the 2 included mounting screws.

### Step 3

Connect all required cables to the rear panel connectors (RS232, RS485, IR, Relay, I/O, LAN/PoE, DC 5V) before attaching the front panel.

### Step 4

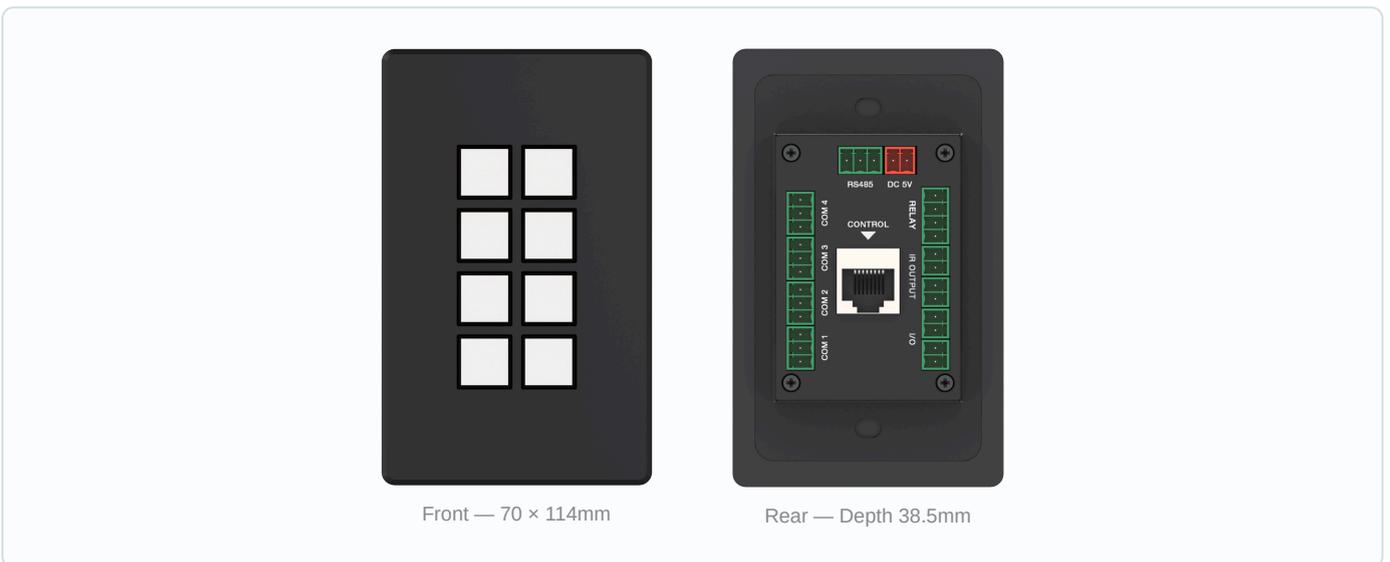
Place the magnetic front panel back onto the control panel to complete the installation.

**Tip:** For PoE installations, only the LAN/PoE RJ45 cable is needed — no separate power cable required.

**Network Cable:** Use direct (straight-through T568B) CAT5e/CAT6 cabling. Do not cross connect.

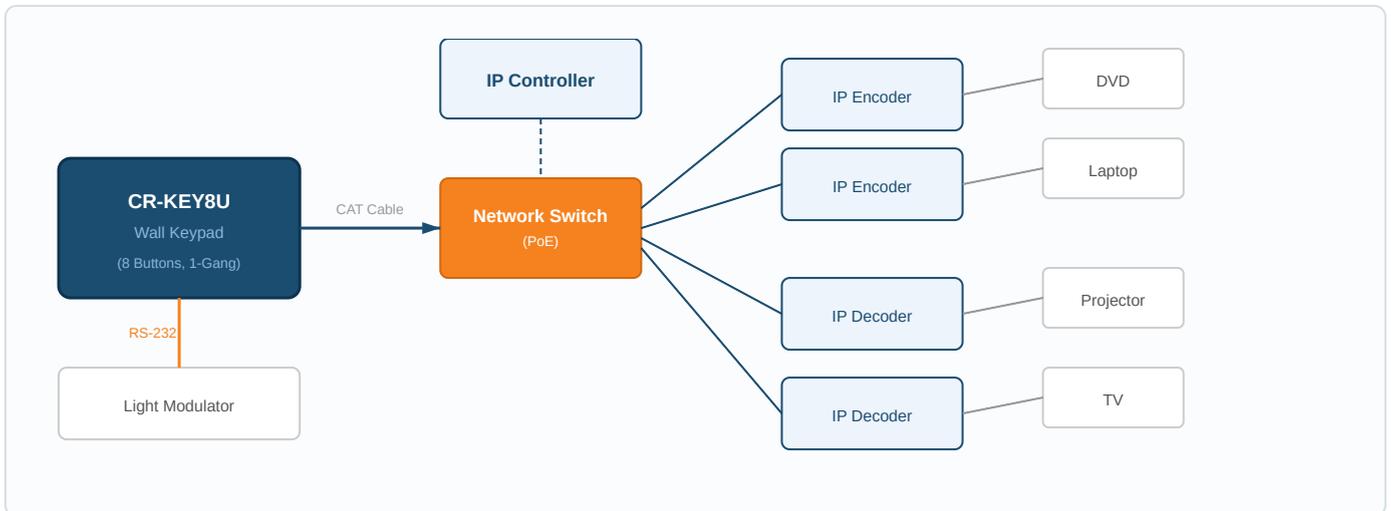
## 7. Product Dimensions

Width	2.76" (70mm)
Height	4.49" (114mm)
Depth	1.52" (38.5mm)
Weight	0.49 lbs (222g)



## 8. Application Example

The CR-KEY8U integrates with AV-over-IP systems, matrix switchers, projectors, lighting controllers, and display devices through its multi-protocol I/O:



## 9. Troubleshooting

**Q: The keypad does not power on.**

**A:** Verify the PoE switch provides 802.3af power, or check the DC 5V connection. Ensure the CAT cable is straight-through. Try a different switch port.

**Q: Buttons do not send commands to connected devices.**

**A:** Confirm the button is programmed in EASYAccomplish. Verify the target device's IP address, RS232 baud rate, or IR code. Check network connectivity.

**Q: Cannot access the web GUI at 192.168.0.101.**

**A:** Ensure your PC is on the same subnet (192.168.0.x, mask 255.255.0.0). Connect directly to the Control port. Disable Wi-Fi. Hold RESET >5s to restore defaults if IP was changed.

**Q: How do I reset to factory defaults?**

**A:** Remove the magnetic front panel. Press and hold RESET for >5 seconds. IP restores to 192.168.0.101, password resets to "admin." User projects are retained.

**Q: Is EASYAccomplish available for Mac?**

**A:** Yes. EASYAccomplish is available for Windows, Mac, and iOS (App Store). Download from the product page at [kanexpro.com](http://kanexpro.com).

