



Manuals.plus /

› Space Age /

› Space Age SSU-PAM-4 Multi-Voltage Series Relay Instruction Manual

## Space Age SSU-PAM-4

# Space Age SSU-PAM-4 Multi-Voltage Series Relay Instruction Manual

Model: SSU-PAM-4

## 1. INTRODUCTION

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This manual provides comprehensive instructions for the installation, operation, and maintenance of the Space Age SSU-PAM-4 Multi-Voltage Series Relay. This device is designed for reliable switching applications in various electrical systems. Please read this manual thoroughly before installation and operation to ensure proper function and safety.

## 2. SAFETY INFORMATION

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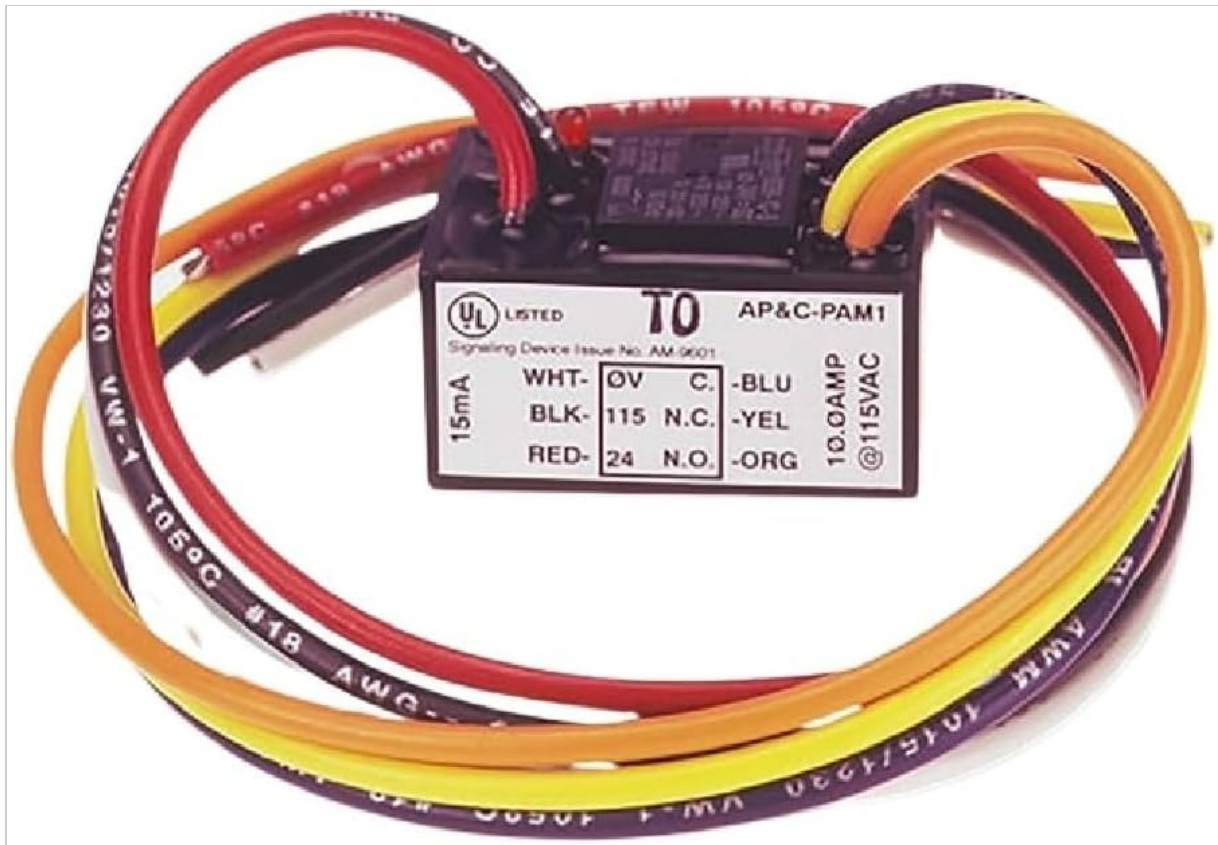
**WARNING:** Electrical shock hazard. Installation and servicing should only be performed by qualified personnel. Disconnect power before installing or servicing this device.

- Always follow local and national electrical codes.
- Ensure proper grounding where required.
- Do not exceed the specified voltage and current ratings.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (Proposition 65 warning). Handle with care and wash hands after handling.

## 3. PRODUCT OVERVIEW

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The Space Age SSU-PAM-4 is a multi-voltage, single-pole, double-throw (SPDT) relay module. It features an encapsulated enclosure for durability and includes an LED indicator for status. The relay is supplied with 12-inch (30.48 cm) leads and six wire nuts for connection.



**Figure 1:** Space Age SSU-PAM-4 Multi-Voltage Series Relay. This image shows the compact, encapsulated black housing of the relay with multiple colored wires (red, black, white, yellow, orange, blue) extending from it. A label on the relay body indicates its model number (AP&C-PAM1), UL listing, and wiring details including voltage ratings (15mA, 10.0AMP @115VAC) and contact configurations (WHT-0V, BLK-115 N.C., RED-24 N.O., C.-BLU, -YEL, -ORG). The wires are #18 AWG, rated 105°C.

Key features include:

- 10.0 A at 120 VAC, 7.0 A at 24 VDC, 250uA at 5 VDC
- Multi-Voltage Relay Module
- SPDT (Single-Pole, Double-Throw) contact configuration
- Encapsulated enclosure
- Integrated LED indicator

## 4. SETUP AND INSTALLATION

The SSU-PAM-4 relay is designed for panel mounting. It comes with double-sided adhesive tape and a mounting screw for flexible installation options. Ensure the mounting surface is clean, dry, and stable.

### 4.1 Wiring Instructions

Refer to the wiring diagram on the relay label and the specifications below for correct connections. Use the provided wire nuts for secure electrical connections.

## Wiring Diagram Reference (from relay label)

Function	Wire Color	Description
Input (Coil)	White (WHT)	0V (Common for input)
Input (Coil)	Black (BLK)	115V Input
Input (Coil)	Red (RED)	24V Input
Common (C)	Blue (BLU)	Common contact for switched circuit
Normally Closed (N.C.)	Yellow (YEL)	Contact closed when relay is de-energized
Normally Open (N.O.)	Orange (ORG)	Contact open when relay is de-energized

**Important:** Connect the appropriate input voltage (115V or 24V) to the Black or Red wire, respectively, with the White wire as the common return. The Blue wire is the common for the switched load. The Yellow wire provides a Normally Closed (N.C.) connection, and the Orange wire provides a Normally Open (N.O.) connection to the Blue common.

## 5. OPERATING INSTRUCTIONS

Once properly wired and powered, the SSU-PAM-4 relay operates automatically. When the coil is energized by the input voltage (115V or 24V), the internal contacts switch state:

- The connection between the Blue (Common) and Yellow (Normally Closed) wires will open.
- The connection between the Blue (Common) and Orange (Normally Open) wires will close.

The integrated LED indicator will illuminate when the relay coil is energized, providing visual confirmation of its operational state.

## 6. MAINTENANCE

The Space Age SSU-PAM-4 relay is designed for minimal maintenance due to its encapsulated enclosure. However, periodic inspection is recommended:

- **Visual Inspection:** Check for any signs of physical damage, discoloration, or loose connections.
- **Connection Integrity:** Ensure all wire connections remain secure and free from corrosion.
- **Environmental Conditions:** Verify that the operating environment remains within the specified temperature and humidity ranges.

No user-serviceable parts are inside the encapsulated enclosure. Do not attempt to open the relay.

## 7. TROUBLESHOOTING

If the relay is not functioning as expected, consider the following troubleshooting steps:

- **No LED Indication:**
  - Check if the correct input voltage (115V or 24V) is applied to the Black or Red wire, respectively, with the White wire as common.
  - Verify that power is supplied to the circuit.
  - Inspect all wiring for loose connections or breaks.
- **Relay Not Switching:**
  - Confirm the LED indicator is illuminated, indicating the coil is energized.

- Ensure the load connected to the Blue, Yellow, and Orange wires is within the relay's current rating.
- Check the continuity of the switched circuit.

- **Slow Response Time:**

- While the SSU-PAM-4 is designed for general switching, some applications may require faster response. If a 2-second activation delay is observed and unacceptable for your specific application, consider alternative relay types designed for high-speed switching. This relay is not optimized for instantaneous response in all scenarios.

If issues persist after troubleshooting, contact Space Age technical support.

## 8. SPECIFICATIONS

Attribute	Value
Brand	Space Age
Model	SSU-PAM-4
Contact Type	SPDT (Single-Pole, Double-Throw)
Current Rating	10 Amps (at 120 VAC), 7.0 Amps (at 24 VDC), 250uA (at 5 VDC)
Maximum Switching Current	10 Amps
Coil Voltage (Input)	Multi-Voltage (e.g., 24V, 115V as per label)
Coil Resistance	10 Ohms
Operation Mode	Automatic
Mounting Type	Panel Mount
Connector Type	Wire Leads (Screw connections for external wiring)
Contact Material	Silver
Product Dimensions	6 x 8 x 4 inches
Item Weight	2.4 ounces
Certification	UL Listed
UPC	849137000046

## 9. WARRANTY AND SUPPORT

Specific warranty details for the Space Age SSU-PAM-4 Multi-Voltage Series Relay are typically provided at the point of purchase or can be obtained directly from the manufacturer. Please retain your proof of purchase for warranty claims.

For technical support, service, or further information, please contact Space Age, the manufacturer of this product. Refer to their official website or product packaging for current contact information.