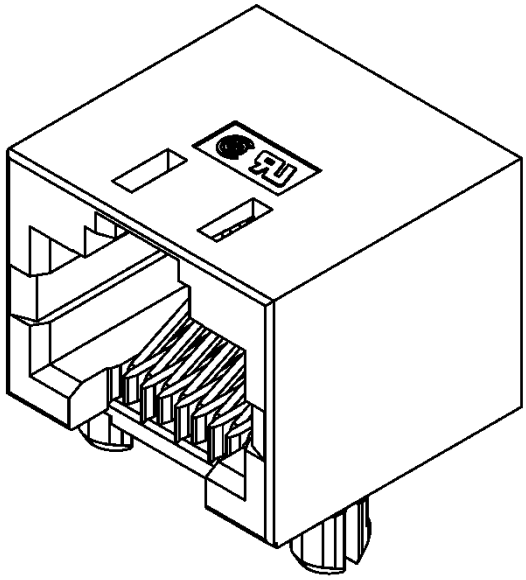
PROGRESSIVE AUTOMATIONS

FORWARD THINKING



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RJ45 Smart Port

User Manual

V 1.0

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RJ45 SMART PORT

Overview

The RJ45 Smart Port is an external accessory interface available on select Progressive Automations control boxes.

It allows compatible accessories and external control devices to operate connected actuators.

Supported functions may vary depending on the Smart Port version used by the control box.

Future Smart Port versions may introduce additional features and accessory support.

Before You Begin

Before connecting accessories to the Smart Port:

- Disconnect power from the control box
- Only use compatible accessories
- Do not apply external voltage to Smart Port command pins
- Reserved pins are not intended for customer use
- Ensure all connections are secure before powering the system

Incorrect wiring may damage the control box or connected accessories.

Compatibility and Versions

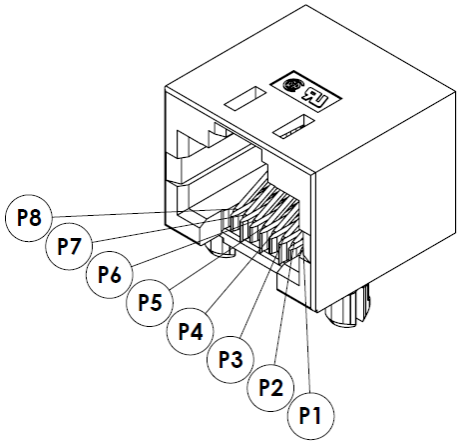
Smart Port functionality is determined by the Smart Port version used by the control box.

Refer to the table below for compatibility information. Batch numbers are found on the label attached to the control box.

Control Box Model	Smart Port Version	Batch Number	Key Features
PA-CB41-2-12V24V	V1	20260120 or higher	Adds basic UP, DOWN and STOP functionality with basic wired remotes and screw terminal adapters.

Connector

The Smart Port uses an 8 pin RJ45 connector for accessory connection and external control.



Pin	Name	Function
P1	K1	Command input
P2	Reserved[1]	Reserved[1]
P3	GND	Ground
P4	Reserved[1]	Reserved[1]
P5	VCC	5V output
P6	K2	Command input
P7	K3	Command input
P8	K4	Command input

[1]Reserved pins are intended for future functionality and are not supported for customer use.

The command input pins use internal pull up resistors. By default, command inputs remain HIGH when left unconnected.

Commands are triggered by connecting the corresponding input pin(s) to GND.

Supported Accessories

The following accessories are supported on Smart Port Version 1 (V1):

Accessory	Supported	Function
Select Wired Remotes	Yes – see Wired Remote Control section	Basic actuator control
RJ45 to Screw Terminal Adapter	Yes – see Screw Terminal Control section	External wired control

WIRED REMOTE CONTROL

Overview

The Smart Port supports compatible wired remote control on select Smart Port versions.

In Smart Port Version 1 (V1), wired remotes provide basic actuator control only, see functions table below. Programming and configuration functions are not available through wired remotes. A compatible wireless remote to the control box must be used to configure functions. Refer to the control box manual for additional instructions.

Connecting a Wired Remote

Connect the wired remote directly to the Smart Port on the control box. No additional adapters are required.

Ensure the connection is secure before applying power to the control box.

Compatible wired remotes can be found on the control box product page under: Control and Interface Options > Wired Remote Support, at www.progressiveautomations.com.

Wired Remote Functions

A connected wired remote provides the following control functions:

Button	Function
UP	Extend actuators.
DOWN	Retract actuators.
STOP	Pressing any button while the actuators are moving will stop movement.

Operation Behavior

Wired remote operation follows the existing control box configuration settings, including:

- Momentary or non momentary operation
- Synchronization settings
- Smooth motion behavior

To change operation behavior, a compatible wireless remote must be used.

SCREW TERMINAL CONTROL

Overview

The AC-67-06 RJ45 to Screw Terminal Adapter converts the Smart Port RJ45 connection into accessible screw terminal connections for external control devices or systems such as switches, relays, PLCs, or custom control circuits, depending on the application requirements.

In Smart Port Version 1 (V1), the adapter supports basic actuator control functions only. Programming and configuration functions are not available through the screw terminal adapter. A compatible wireless remote to the control box must be used to configure functions. Refer to the control box manual for additional instructions.

Connecting the Adapter

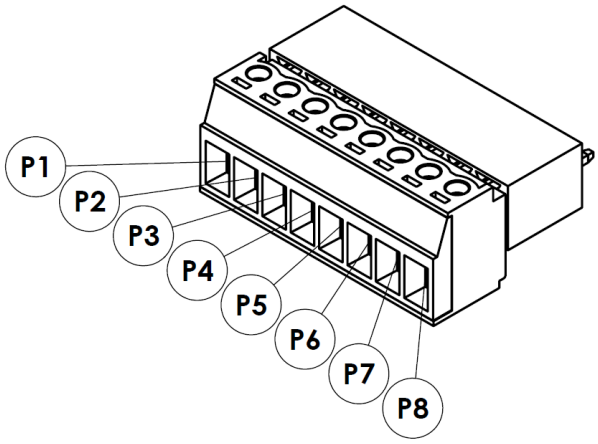
Connect the AC-67-06 adapter directly to the Smart Port on the control box.

To connect external wiring, use a flat head screwdriver to turn the screw terminals counterclockwise to loosen them and clockwise to secure the wires in place. Ensure all wire connections are properly tightened before use.

Complete all wiring connections before applying power to the control box.

Screw Terminal Interface

Refer to the diagram and table below for pin numbering and functions.



Pin	Name	Function
P1	K1	Command input
P2	Reserved[1]	Reserved[1]
P3	GND	Ground
P4	Reserved[1]	Reserved[1]
P5	VCC	5V output
P6	K2	Command input
P7	K3	Command input
P8	K4	Command input

[1]Reserved pins are intended for future functionality and are not supported for customer use.

Basic Control Logic

The Smart Port command inputs use internal pull up resistors.

By default, each command inputs remain HIGH when left unconnected.

Commands are triggered by momentarily connecting the corresponding command input to GND.

Control Functions

Function	Required Connection
Raise / Extend	Connect K3 to GND
Lower / Retract	Connect K4 to GND
Stop (default)	Release all command inputs

Wiring Guidelines

- Do not connect command pins to external voltage sources
- Ensure all ground connections reference the control box GND
- Keep wiring lengths as short as possible to reduce interference
- Ensure wiring is secure before applying power

The 5V output pin is intended only for compatible accessory interfaces.

Do not use the 5V output to power external devices unless specifically approved.

Operation Behavior

Wired remote operation follows the existing control box configuration settings, including:

- Momentary or non momentary operation
- Synchronization settings
- Smooth motion behavior

To change operation behavior, a compatible wireless remote must be used.

CONTROLLER PRIORITY

Overview

When multiple control methods are connected, the control box uses a defined controller priority order.

For reliable operation, only one control method should be used at a time.

Priority Order

Controller inputs are prioritized as follows:

Priority	Control Method
Highest	Wired Remote
Medium	Wireless Remote
Lowest	Bluetooth App

If multiple control methods are used at the same time, the higher priority controller will override lower priority commands.

Operation Recommendations

- Use only one control method at a time for consistent operation
- Ensure actuator movement has stopped before switching control methods
- Disconnect unused control devices when possible

TROUBLESHOOTING

Problem	Possible Cause	Solution
No actuator movement	1. Control box is not powered 2. Incorrect Smart Port wiring 3. Incompatible control box version	1. Verify the control box power connection 2. Verify all Smart Port connections and pin wiring 3. Refer to the compatibility section to confirm Smart Port support
Wired remote does not respond	1. Wired remote is not fully connected 2. Unsupported Smart Port version	1. Ensure the RJ45 connector is fully inserted 2. Verify the control box supports wired remote operation
Only one movement direction works	Incorrect K input wiring	Verify the K3 and K4 pin connections
Actuator stops unexpectedly	Multiple control methods are active	Disconnect unused controllers and operate one control method at a time
Actuator movement behaves unexpectedly	Existing control box settings are active	Verify wireless remote configuration settings
Intermittent operation	Wiring is too long or exposed to interference	Keep wiring as short as possible and avoid electrical noise sources
Wireless remote overrides external control	Controller priority conflict	Use only one control method at a time
Control box behaves unexpectedly after wiring	Incorrect wiring connection	Disconnect power immediately and verify all wiring before reconnecting

Have any queries? Our expert engineers are here to help!

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