

SAVANT

SmartControl RS485 - Wi-Fi Shade Controller with 1 RS485 - Quick Reference Guide

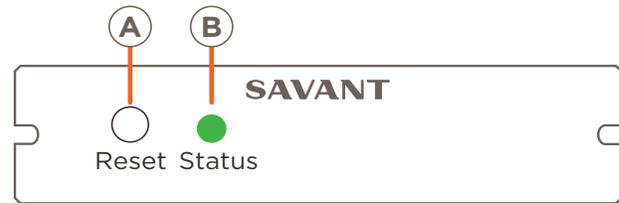
Box Contents

- (1) SmartControl RS485 Wi-Fi Shade Controller (SSC-W485-xx)
- (1) Installation Kit (075-0198-xx)
 - (1) Mounting Plate (074-0569-xx)
 - (1) 6-pin Screw Down Plug-in Connector (028-9352-xx)
 - (1) 4-pin Screw Down Plug-in Connector (028-9395-xx)
- (1) Product Regulatory Statement (009-1950-xx)

Specifications

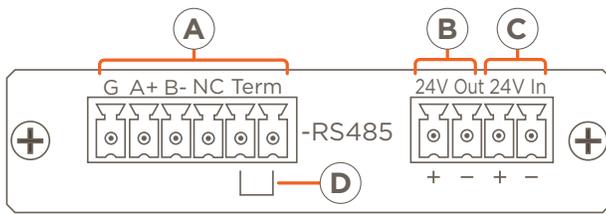
Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% (non-condensing)
Dimensions and Weight (Product)	
Height	0.64 in (1.62 cm)
Width	2.70 in (6.85 cm)
Depth	2.67 in (6.78 cm)
Weight	Net: 0.25 lb (0.11 kg) Shipping: 1.50 lb (0.68 kg)
Power	
Input Power	24V DC 200mA
Max Power	6 watts
Standards	
Wireless	Wi-Fi (802.11 b/g/n 2.4 GHz)
Security	WPA™, WPA2™, WPA/WPA2™, WEP
Regulatory	FCC Part 15B C Tick CE
Safety and Emissions	  
Contains FCC ID	TLZ-CU277
Contains IC:	6100A-CU277
RoHS	Compliant
Minimum Support Requirements	
Software Release	da Vinci 8.5

Front Panel



A	Reset	<p>Press and hold - Press and hold for five seconds until the Status LED blinks rapidly, then release to reboot the controller and clear the previously set network settings.</p> <p>Press and release - Press and release to reset the controller. Resetting the controller can be a useful initial troubleshooting step that may resolve minor performance issues.</p>
	Off:	No power applied.
	On Solid:	The controller is provisioned, assigned an IP address, and can communicate with the system's Host. Solid green indicates the controller is in normal operation mode.
	Blinks Once:	The controller isn't connected to the local Wi-Fi network and needs to be provisioned.
	Blinks Twice:	The controller is establishing a connection with the local Wi-Fi network. This sequence typically occurs during the provisioning process.
B	Blinks Three Times:	The controller is connected with the local Wi-Fi network and trying to establish communications with the Host.
	Short Off Blink:	Firmware is updating. Commonly occurs when the controller is initially added to a Savant system or during a system software upgrade.
	Rapid Blink:	The reset button was pressed and held for at least five seconds. Release the reset button once the LED starts blinking rapidly, and the controller will reboot.

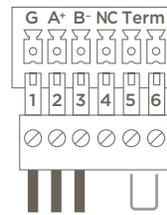
Rear Panel



G	Common or reference port for the RS485 signaling
A+	Data+ signaling line for the RS485 signal.
B-	Data- signaling line for the RS485 signal.
A NC	No Connection
Term	Connect a jumper wire between the two Term connections to add a terminating resistor between the A+ and B- RS485 ports. Stability issues that can occur on the RS485 signal are typically fixed by adding a terminating resistor.
B 24V Out	A 24V DC output that can supply the voltage required to control a single Savant SHA-M24V485 shade motor. See the Connections section below for more information and always observe polarity when making connections.
C 24V In	A 24V DC input to power the controller. Connect a 24V DC source between the + and - ports of the 24V In connection. Observe polarity when making connections.

RS-485 wiring

Use the 6-pin screw down plug-in type connector supplied with the controller when making the RS485 connections. Refer to the diagram below for pin-out information.



PIN #	Rear Panel
PIN 1	Gnd
PIN 2	A+ (Data+)
PIN 3	B- (Data-)
PIN 4	NC
PIN 5	Term
PIN 6	Term

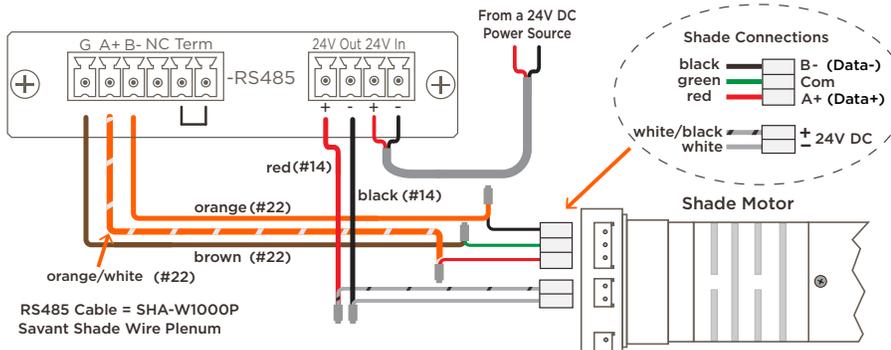
Making Connections

1. Remove power if applied.
2. Pull to remove the 6-pin plug-in type connector from the rear of the controller.
3. Using a small flat-bladed screwdriver, turn the screws on top of the connector counterclockwise until the silver crimp in the connector opens enough to slide a wire into the square slots.
4. Strip the insulation on each of the wires back $\frac{1}{4}$ inch. Using the RS485 Wiring diagram above, insert the stripped wires into their proper ports. There should be no bare wires protruding from the rear of the connector.
5. Turn the screws clockwise until the crimp tightens around each wire. Tug on each wire to verify they are installed securely.
6. Plug the 6-pin connector back into the rear of the controller.
7. Reapply power.

Connections

There are two different methods for connecting power, depending on the number of shade motors in use.

Method 1 (One Shade Motor) - With one shade motor installed, the power for that motor can be taken directly from the 24V Out connections on the shade controller's rear panel. As shown in the diagram below, the 24V Out port can power a single shade motor.



Steps

1. Connect a 24V DC power source between the 24V In connections. Observe polarity.
2. Connect two #14 AWG (minimum) wires between the 24V Out connection on the controller and the shade motor pigtail wires. Savant recommends using the dolphin connectors supplied with the motor to insulate the splices made.
3. Make RS485 connections between the RS485 ports on the shade controller and the shade motor's pigtail wires. Savant recommends using the SHA-W1000P cable for the RS485 wiring.

Method 2 (More than One Shade Motor) - When more than one shade motor is installed, a shade power module and module enclosure must be used (SHA-PMOD5G) (Legacy Modules = SHA-PMOD5, SHA-POW10-10). These power modules contain connections for wiring both power and RS485 to multiple shade motors. Wiring diagrams for this type of installation are available in the Shades Wiring Guide document (009-1532-xx) available on the [Savant Customer Community](#). This Guide contains information pertinent to wiring and installing the legacy SHA-M24V485 shade motors only.

Additional Information

- If having trouble with the RS485 communications, a terminating resistor that connects between the RS485 Data+ and Data- terminals can be enabled. To enable this resistor (internal to the controller), insert a #24 AWG or larger wire between the two Term ports.
- The SSC-W485 controller operates with the Savant SHA-M24V485 shade motors. Installations with other shade motors require either a different type of controller (i.e., JGeiger or Rollease brand motors).
- The Shades Wiring Guide (009-1532) contains additional wiring diagrams and shade mount/tube installation for systems with the SHA-24MV485 shade motors installed.
- The Shades Provisioning and Programming Guide (009-1525) contains information on provisioning and Blueprint programming for systems with the SHA-24MV485 shade motors installed.