



SAVANT

Dual 500W Adaptive Phase Companion Module Dimmer Installation Manual

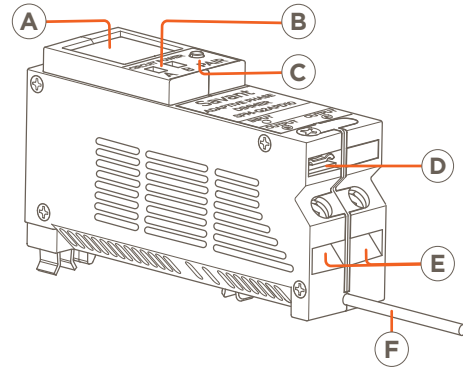
Box Contents

- (1) Adaptive Phase Dimmer Module
 - SPM-Q2APD10-00 QO™ Style Dimmer Module -or-
 - SPM-H2APD10-00™ Homeline Style Dimmer Module
- (1) Product Information and Regulatory Insert (009-1710-xx)
- (1) Quick Reference Guide (this document)

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	5% to 85% Relative Humidity (non-condensing)
Location	Indoor Use Only
Dimensions and Weights	
	Height Width Depth Weight
Module (Homeline)	1.98 in. (5.03 cm) 4.87 in. (12.37 cm) 2.80 in. (7.11 cm) .5 lbs (.23 kg)
Module (QO)	1.48 in. (3.76 cm) 5.00 in. (12.70 cm) 2.63 in. (6.68 cm) .5 lbs (.23 kg)
Power	
Inputs	120V AC @ 60 Hz, 15 Amps (max)
Load Power	500VA 4.1A @ 120V AC per channel (max) (Resistive Load, Tungsten)
Features of Automatic Action	Type 1.Y Action
Standards	
Wireless	Bluetooth Low Energy (BLE) 2.4 GHz radio frequency
Regulatory	
Safety and Emissions	FCC Part 15 UL ICES 003
	 
Contains FCC ID:	2AA9B04
Contains IC:	12208A-04
RoHS	Compliant
Recommended Load Center Types	
All Homeline™ compatible modules fit into 1-inch load centers.	
All QO™ compatible modules fit into ¾ inch load centers	
Supported Load Types	
Standard Configuration	Dimmable circuits - LEDs, incandescent, halogen, electronic low-voltage (solid state) transformers, magnetic low-voltage transformers, fluorescents, and dimmable compact fluorescents.
Minimum Power	> 6W
Terminals	
Screw Tighten Torque	1.34 Nm
Wire / Conductor Type	Copper (Cu) only
Minimum Supported Release	
Savant OS	da Vinci 9.0

Descriptions



Multi-Page LCD screen can display the following:

- Energy usage in watts at the output.
- Percentage of brightness at the output.
- Firmware, Mac Address, and FCC/IC information.
- Real time Bluetooth status connectivity icon.

PAIR Button - This is a multi-use button. How the button is pressed will determine its function:

- Press and Release** - Cycles through the various screens on the LCD (POWER > DIMMER > INFO 1 > INFO 2).
- Press and hold** - Press and hold for 2 seconds to put module into pairing mode. Press and hold for 3 seconds to reset.

Manual Load Switches - Toggle switch to ON position to switch load on. Toggle switch to AUTO for normal operation. Switch A controls output A and Switch B controls output B.

Input Power Connection - Connect the 120V AC output from the companion breaker to this input.

Output Connections - Connections are labeled OUTPUT A and OUTPUT B. Connect each output to a separate load. See the Wiring section (page 2).

Neutral Wire - Connect to the neutral bar in breaker panel. See the Wiring section on page 2.

Features

- Control capability for dimming two loads up to 500 VA (volt-ampere). See the table in the section below.
- All QO™ and Homeline™ lighting modules are compatible with Schneider Electric Square D™, QO™, and Homeline™ load centers.
- The dimmers support both forward reverse phase dimming.
- Adaptive phase eliminates the guesswork when replacing a load.
- Built-in energy monitoring; +/- 3% accuracy / 1 sec sample time.
- Color LCD display for easy identification and load status.

Output Power Maximums

The maximum output in watts is shown below for the different dimmer/load combinations. Use the table to determine the number of loads that can be connected to each output on the module.

Dimmer Type	Incandescent	MLV	LED
Forward Phase	300W	240W	Not Recommended
Adaptive Phase	500W	400W	150W

Additional Documentation

- Savant Panelized Lighting Deployment Guide (009-1823-xx).
- Dual 300W Forward Phase Companion Module Dimmer Installation Manual (009-1485-xx).
- Dual 20 Amp Relay Companion Module Installation Manual (009-1484-xx).
- 240VAC (2-Pole) Relay Companion Module Installation Manual (009-1483-xx)

Important Information

- To determine the size (wattage) of the breaker feeding each set of Companion Modules, do the following:
 1. Determine the wattage requirements of each load connected to a Companion Module.
 2. Sum up the wattage of all loads.
 3. Divide the wattage requirements by the input voltage. This will be the current being drawn.
- Sum up the number of spaces needed for the breaker and the dimming and relay modules. Each breaker requires one space and each Companion Module requires two spaces.
- Maximum number of Companion Modules that can communicate with the Panel Bridge Controller is 40.
- The total current draw from the loads can't exceed 80% of the size of the breaker for that circuit. For example, with 15 amp breaker, 12 amps or 1440 watts. With a 20 amp breaker, max would be 16 amps or 1920 watts.
- Do not add MLV and ELV type loads to the same breaker/ Companion Module circuit. MLV and ELV type loads should be connected to separate breaker circuits. Doing so can cause damage to the dimming module.

Installation into Breaker Panel

ELECTRIC SHOCK! The 120V AC, 60 Hz source poses an electrical shock hazard that has the potential to cause serious injury to installers and end users.

IMPORTANT! A licensed electrician is required to install Savant Lighting Companion Modules.

1. At the breaker panel, switch off the main breaker so there is no power supplied to the panel.
2. Position and install a breaker into one of the slots in the breaker panel. Press firmly until the breaker is fully seated onto the appropriate bus bars.
3. Position and install the Savant Companion Module into the slot where the module will be installed. Press firmly until the module is fully seated onto the appropriate bus bars. Typically the Companion Module is installed alongside the breaker.

HELPFUL! In a 3-phase breaker panel, an adaptive phase dimmer type module, and the breaker that feeds the module, must be installed onto the same phase in the panel. Failure to do so will result in damage to the module.

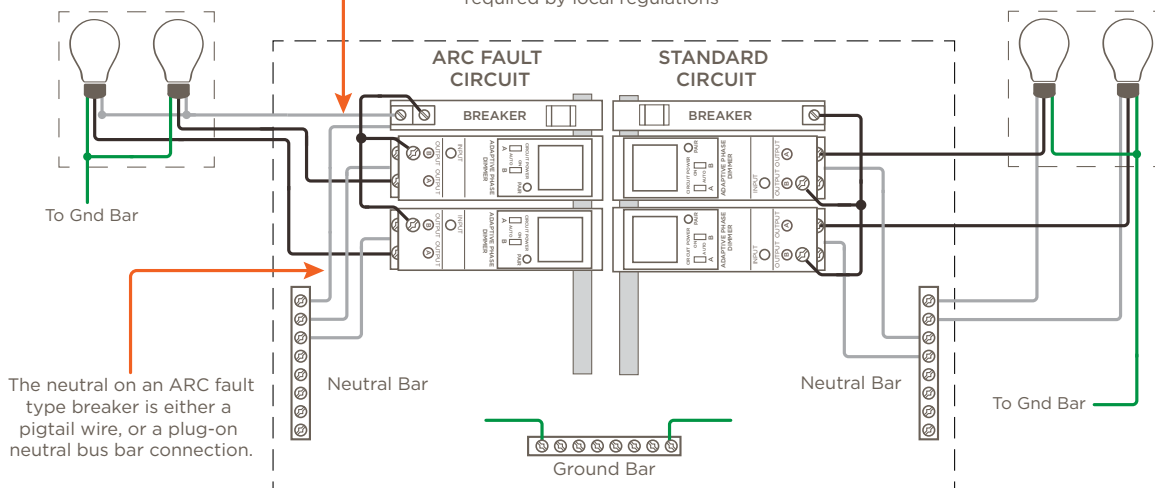
4. Connect the neutral wire (white wire) from the module to the neutral bus bar in the panel.
5. Use the wiring diagram below to complete the wiring.

Wiring

Use the diagram below when making connections between the Companion Module, breaker, and load(s). Additional diagrams are available in the Savant Panelized Lighting Deployment Guide. When making connections, common electrical practices should be followed.

When connecting to an ARC fault type breaker, connect the neutral wire from the load to the neutral screw.

Use AFCI / GFCI protection where required by local regulations



Circuit Test Instructions

The instructions below can be used to test that the Companion Breaker Modules are functioning correctly. The setup requires the following:

- Adaptive Phase Companion Dimmer Module.
- Resistive loads with maximum amperage of 4.16 Amps.
- 15 amp circuit breaker.
- Neutral bus bar
- 120V AC source

To complete this test, follow the instructions below. Refer to the wiring diagram when making connections.

1. Connect neutral pigtail from the module to a neutral bus bar.
2. Connect the output of a 15A circuit breaker (120VAC) to the INPUT connection on the module. Wire must be at least 4 inches (10.1 cm) in length.
3. Connect a resistive load to Output A.
4. Connect a second resistive load to Output B.
5. Connect the unused side of each load to the neutral bus bar.
6. Toggle the CIRCUIT POWER switches A and B to the ON position
7. Connect 120V AC to the hot connection on the rear of the companion module (not shown in diagram).
8. To test, apply 120V AC to the HOT connection on the rear of the module. The loads will switch on. Toggle the CIRCUIT POWER switches to AUTO and verify the loads switch off.

