SAVANT

Metropolitan Wireless Dimmer - WID-xxx102 Quick Reference Guide

For Product Info

The WID-SWS102 (snow white) and WID-LAS102 (light almond) wireless dimmers are specifically designed to function within the Savant Pro System to control most lighting loads.

The Savant Metropolitan style wireless dimmers replace any standard 120V AC light switch or dimmer and can be wired into either a standard or no neutral configuration. With the addition of the Savant WI3-xxx102 Auxiliary Control, these dimmers can accommodate most 3-way wiring designs for multi-location control.

Finally, the WID-xxx102 utilizes the local 802.11 b/g/n wireless network to allow it to be added to the Savant Pro System for complete control of all your lighting needs.

⚠ **IMPORTANT!** Using this product in a manner that is not consistent with this document will void your warranty.

Box Contents

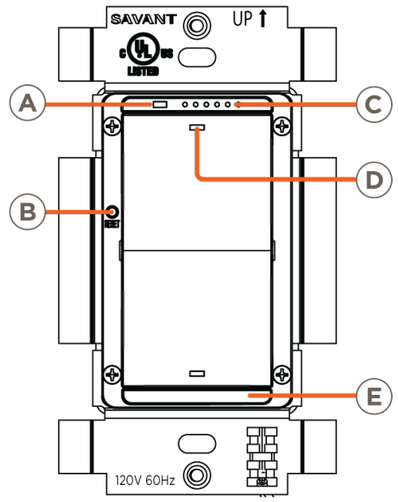
- Metropolitan Style Dimmer without faceplate
- (2) Mounting Screws (6-32 x 3/4 inch)
- (5) Wire Nuts
- Quick Reference Guide (this document)

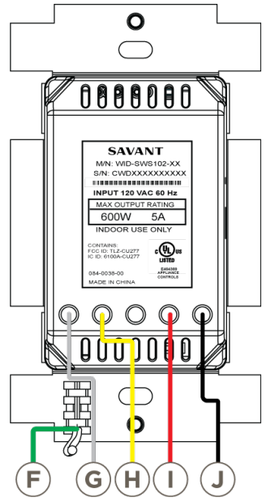
Optional Accessories

- 1- to 4-Gang Faceplates
- Black Conversion Kits

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% Relative Humidity (non-condensing)
Location	Indoor Use Only
Dimensions	
Height	4.13 in (10.49 cm) / Shipping 7.0 in (17.78 cm)
Width	2.38 in (6.05 cm) / Shipping 4.5 in (11.43 cm)
Depth	1.81 in (4.60 cm) / Shipping 3.0 in (7.62 cm)
Weight	0.60 lb (0.272 kg)
Recommended Back Box Depth Dimensions	
All Metropolitan Style Dimmers require a standard U.S electrical back box – Recommended – 3.50 in (8.89 cm) deep – Minimum – 2.25 in (5.72 cm) deep	
Power	
Input	120V AC at 60 Hz
Power: Load (Max)	600W 5A @ 120V AC (See Derating Table)
Supported Load Types	
Standard Configuration	Incandescent, Electronic and Magnetic Low Voltage, Dimmable CFL, Dimmable LED
No Neutral Configuration	Incandescent Only (minimum load = 25 Watts) ⚠ **WARNING!** Using a dimmer in a No Neutral configuration with loads other than incandescent can overheat the device and cause damage.
Standards	
Wireless	802.11 b/g/n
Security	WPA™, WPA2™, WPA1™ + WPA2™, WEP
Regulatory	
Safety and Emissions	FCC Part 15 | UL For more details, refer to the Regulatory section.
Contains FCC ID:	TLZ-CU277
Contains IC:	6100A-CU277
RoHs	Compliant
Minimum Supported Release	
Savant® OS	da Vinci® 8.2





A — **Ambient Light Sensor** - Detects the level of ambient light in the room and adjusts the LED brightness on the front panel. The ambient light sensor operation is modified using RacePoint Blueprint®.

RESET Button – The reset button has two functions:

- Press and Hold (hold for 5 seconds) – Resets dimmer to AP Mode
  - After five seconds, all LEDs on the front panel illuminate, remain on for two seconds, and then flash twice. The dimmer reboots and reverts to Access Point Provisioning Mode (AP Mode). In this mode, the two LEDs on the front buttons flash in an alternating pattern. The dimmer is now ready to be provisioned. Refer to the Metropolitan Wireless Lighting –Provisioning guide on how to provision the dimmer to the network.

B

- Press and Release – Calibrates dimmer.
  - After releasing, all LEDs illuminate for about six seconds and then flash twice.
  - The load characteristics are checked to determine the best phase for the attached load.
  - The control parameters for the no neutral operation, if applicable, are determined.

HELPFUL INFORMATION!! (For Press and Release)

- After the calibration is complete, the dimmer resets. The button LEDs will blink a specific pattern. The pattern indicates if the dimmer was previously connected to a wireless network. Refer to the table in Electrician Removal/Installation section below for the states the dimmer could be in after a reset.

C — **Dimming Level** - Six indicator LEDs track the brightness of the load. LEDs turn on from left to right as the brightness of the load increases and turns off from right to left as the brightness decreases. Once configured in Blueprint, the LEDs track the brightness of the scene created.

D — **Button LED** - LED illuminates when button is pressed. LEDs are also used to indicate the state of the dimmer when connecting the dimmer to a network. Refer to the table in the Electrician Removal/Installation section below. Once configured in Blueprint, the Switch LED shows the scene state.

E — **Service Switch** – Used to power cycle the device, disconnect power from the load (red wire), or calibrate the dimmer whenever the load is changed.

⚠ **IMPORTANT!** When replacing a load (bulb), the power to the load should be toggled Off before removing the load

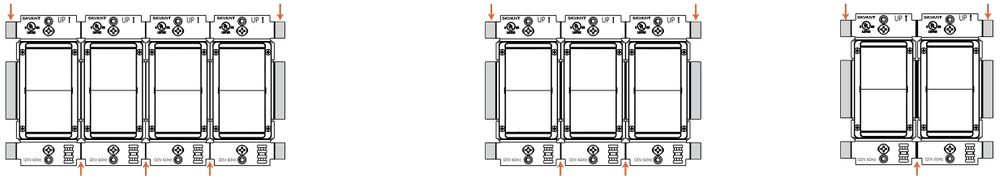
F	Green	**Ground** - Wire to Gnd.
G	White	**Neutral** - Return path for voltage.
H	Yellow	**Traveler** - Wire to one or more Auxiliary Controls for multi-location control.
I	Red	**Load** - Wire to the load.
J	Black	**Line** - Wire to hot from AC power source.

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45 Perseverance Way, Hyannis, MA 02601
Savant.com | 508.683.2500

Multi-Gang Installations/Derating

When combining multiple dimmers and/or keypads into a multi-ganged box, derating is required. Derating requires removing the outside tabs from either one or both sides of each device so the heat generated is dissipated. The dimmer (WID) generates heat and needs to be derated. The image below displays examples of 4, 3, and 2-gang scenarios.



- Inside Gang - Tabs are removed from both sides.
- Outside Gang - Tabs are NOT removed from outside edges.

Note: When combining more than one Savant lighting device into a multi-ganged box and derating is not an issue, the tabs from either one or both sides of the device may need to be removed to fit all devices into the electrical box. Refer to the images above.

Derating Table

Device	Type of Load	1-Gang	2-Gang	3-Gang	4-Gang
Dimmer	Incandescent	600W	550W	500W	500W
Dimmer	CFL/LED	150W	150W	150W	150W
Dimmer	Magnetic Low Voltage	600VA (450W)	550VA (400W)	500VA (375W)	500VA (375W)
Dimmer	Electronic Low Voltage	450W	400W	375W	375W

Electrician Removal/Installation

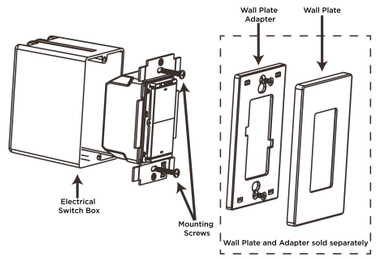
ELECTRIC SHOCK! The 120V AC, 60 Hz source power poses an electrical shock hazard that has the potential to cause serious injury to installers and end users.

IMPORTANT NOTES!

- A licensed electrician is required to install any of the Metropolitan style lighting devices. Isolate and turn off power at the main breaker panel prior to installing any electrical devices.
- For supply, neutral, and ground connections use only #14 AWG or larger solid copper wires (80°C) with insulation stripped to ⅝ in (16 mm).

1. From the main electrical panel, switch off the breaker supplying power to the circuit.
2. Unscrew and remove the wall plate (if applicable).
3. Verify power is removed using a 120V AC tester.
4. Unscrew the two 6-32 flat head screws and remove the existing toggle/rocker switch or analog dimmer (if applicable).
5. Disconnect wires and remove the device. It is good practice to label each wire as it is removed. If not already identified, mark each wire to ensure proper rewiring, especially if the circuit employs a 3-way configuration.
6. Connect the in-wall wires to the leads coming from the Metropolitan style device using the supplied wire nuts or an approved alternative. Refer to the Wiring Diagrams section for different diagram setups.
7. Insert the new device (dimmer, switch, etc.) into the electrical switch box and secure using the 6-32 flat head screws provided. **DO NOT** use a powered screw driver. A powered screwdriver can over tighten the screws.
8. Install the front faceplate wall plate adapter. Toggle the Service Switch to the Off position.

Note: Install the wall adapter to cover the metal yoke prior to applying power. If replacing a Metropolitan style device, remove power before removing the wall plate adapter.



9. Switch power at the breaker to On and toggle the Service Switch to power-on the dimmer. The dimmer will go through a diagnostic sequence and calibrate itself to the type of load connected. The LEDs will blink as follows:
   - All LEDs illuminate bright and then blink twice.
   - The load will switch On for a few seconds and then switch Off. In some instances, the load may switch On again and gradually dim up to full brightness to further refine the calibration process.
   - Next, the two LEDs on the main buttons blink a specific pattern. The pattern indicates the state of the dimmer. The patterns and state of the dimmer are described in the next table.

LEDs blink in an alternating pattern	Dimmer is in AP Mode and needs to be provisioned. After a short time (up to one minute), the blinking will stop. In this state, the dimmer is still in AP Mode. The blinking stopped intentionally for cases where the dimmer is not provisioned onto the network and can be used as a manual dimmer till provisioned.
Top LED: solid Bottom LED: blinks	Dimmer is connected to the local network (IP Address assigned) but not bound to the Host/Controller. After a short time (up to one minute), the blinking will stop. Although the blinking has stopped, the switch remains in this state until the binding process is complete.
LEDs blink in sync	If the IP settings are incorrect, the dimmer tries to establish a connection with the local network. After a short time (up to one minute) the blinking will stop. Although the blinking has stopped, the dimmer remains in this state until the dimmer is reset to its default values and provisioned with the correct network settings.
All Dimming LEDs blink	Indicates the type of load connected is not supported. Try toggling service switch to recalibrate.

10. Verify the dimmer is calibrated and working correctly, press and hold the dimmer button in the On (up) position and observe the load brightness increases. Press and hold the dimmer button in the Off (down) position and observe the load decreases to Off.

Swapping a Load (Bulb)

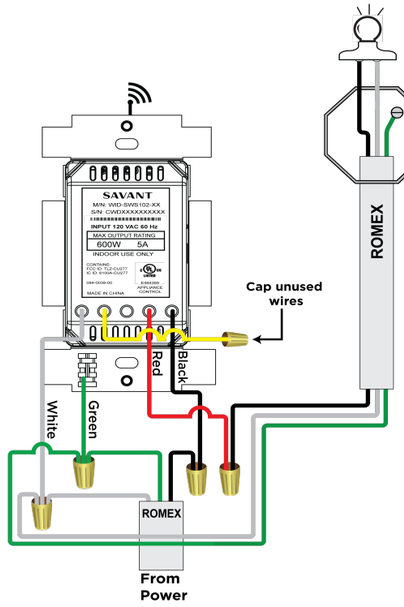
If a load needs to be changed, the dimmer will need to be recalibrated to the new load. To change a load, do the following:

1. Toggle the Service Switch Off.
2. Change the load (bulb).
3. Toggle Service Switch back On. The dimmer will go through the diagnostics and LED sequence described earlier in step 9. Once complete verify the dimmer is calibrated and working correctly. See step 10 above.

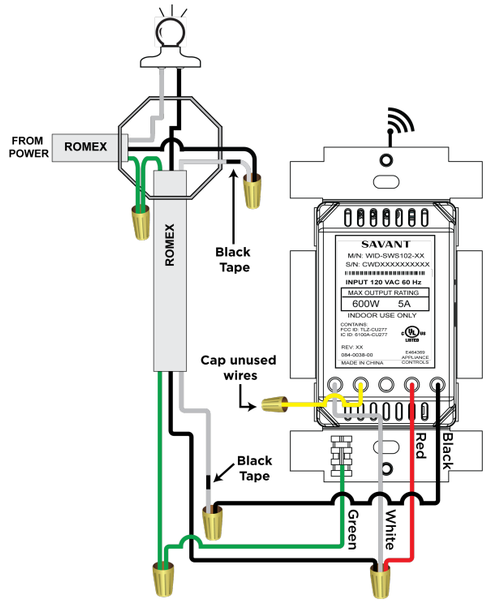
Wiring Diagrams

The diagrams below display how to wire the Metropolitan style dimmer. Any unused wires must have the bare wire portion (stripped end) cut off and the wire must be capped with a wire nut.

Single Dimmer Installation



No Neutral Installation



WARNINGS!

- Using the dimmer in a No Neutral configuration with loads other than incandescent will overheat the device and cause damage.
- In a **No Neutral** configuration, if the dimmer does not support the type of load installed, the dimmer will not supply power to the load and the six dimmer LEDs on the front of the dimmer will blink rapidly.

When ready to connect to a local network, refer to the Metropolitan Style Wireless Lighting – Provisioning and Programming Guides found on the **Savant Customer Community**.

Regulatory

The following statements are applicable to the Metropolitan Wireless Dimmers, Switches, Keypads, and Fan Controllers.

FCC Regulations

15.19. These devices comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) These devices may not cause harmful interference, and (2) these devices must accept any interference received, including interferences that may cause undesired operation.

15.21. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105. This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications, However there is no guarantee that interference will not occur in a particular installation, If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving circuit different from that to which receiver is connected.
- Increase the separation between the equipment and the receiver.
- Consult the dealer or experienced radio/TV technician for help.

IC Regulations:

RSS-Gen 7.1.3. These devices comply with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) These devices may not cause interference, and (2) These devices must accept any interference, including interference that may cause undesired operation of the device.

RSS-21- Annexe 9: A 9.4. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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