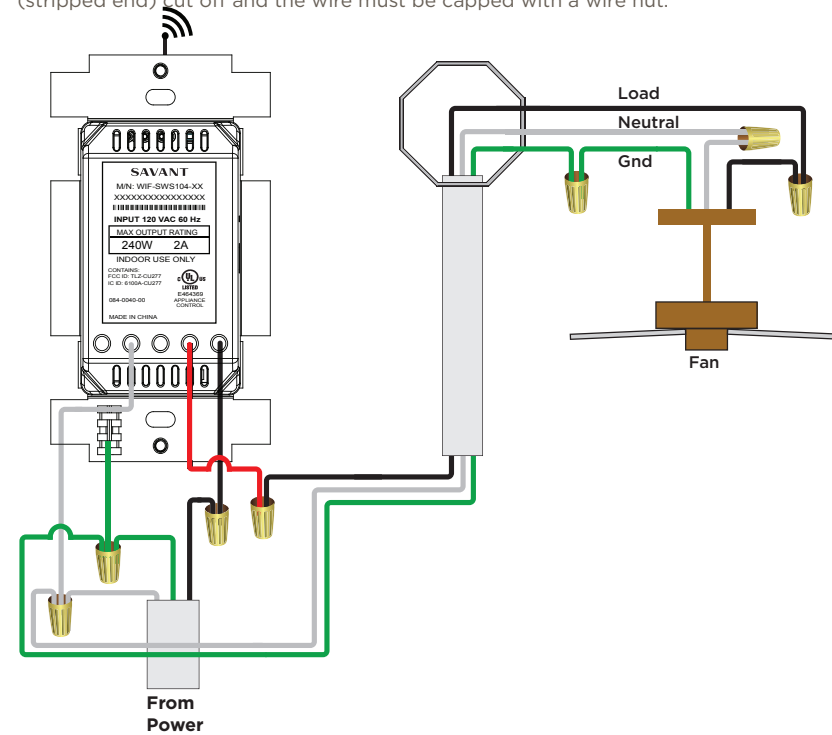## Wiring Diagrams

The diagram below displays how to wire the fan controller to a ceiling fan. Any unused wires must have the bare wire portion (stripped end) cut off and the wire must be capped with a wire nut.

Multi-Gang Installations

When combining multiple Fan Controllers into a multi-ganged box, no derating is required. Removing the outside tabs from one or both sides of each device so they all fit into the electrical switch box. Below are examples of 2, 3 and 4-gang scenarios.
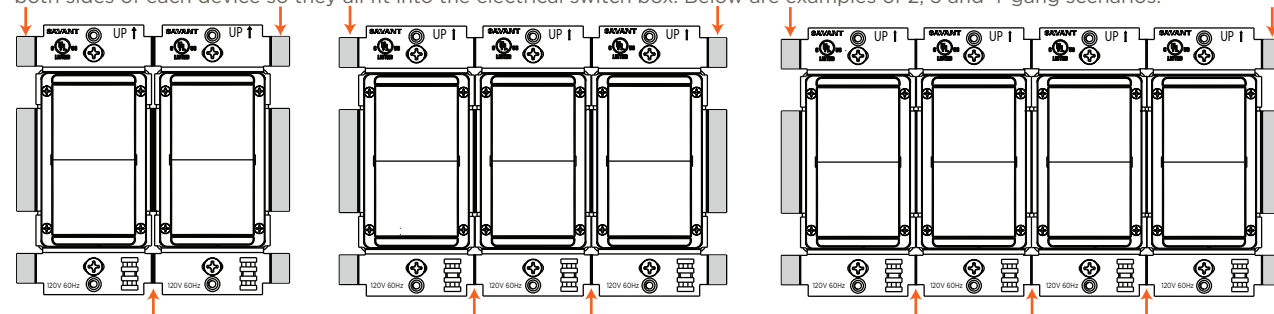
– Tabs are removed from both sides of the inside gang devices.
– Tabs are NOT removed from outside edges of the devices at the end of each gang.

SAVANT

Metropolitan Wireless Fan Controller - WIF-xxx104
Quick Reference Guide

The Savant wireless fan controllers incorporate a push button rotary dial that controls low, medium, and high speed on a 120V AC ceiling fan. In addition to the push button rotary dial, the front panel incorporates three LEDs which are a quick indicator of the current fan speed.

The fan controller will work with most standard 120V AC ceiling fans. If the fan associated with the WIF fan controller being installed also uses a pull chain, RF remote, or equivalent to control the speed of the fan, the fan must either be set to High or the fan speed controller must be removed.

Finally, the Savant Fan Controller communicates with most 802.11 b/g/n wireless networks. Once communicating with the local LAN, the WIF-xxx104 fan controller can be added to the Savant Control system to remotely controlled from most iOS® or Android® devices.

⚠ **IMPORTANT INFO!**

– Using this product in a manner that is not consistent with this document will void your warranty.
– Since the WIF controls a motor and not a lighting load, a Neutral connection is required (No Neutral is not supported).

Box Contents

(1) Fan Controller without faceplate
(2) Mounting Screws
(5) Wire Nuts
(1) Quick Reference Guide (this document)

Supported Load Types
Celling Fan (120V AC)

Additional Documentation

Installation and Calibration (009-1459-xx)
Programming Guide (009-1461-xx)
Provisioning Guide (009-1460-xx)

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% Relative Humidity (non-condensing)
Location	Indoor Use Only
Pollution	Degree 2

Dimensions	
Height	4.13in (10.49cm) Shipping 7.0in (17.78cm)
Width	2.38in (6.05cm) Shipping 4.5in (11.43cm)
Depth	1.81in (4.60cm) Shipping 3.0in (7.62cm)
Weight	Shipping 0.60lb (0.272kg)

Recommended Back Box Depth
All Metro Fan Controllers require a standard U.S. electrical back box. – Recommended - 3.5 in (8.89 cm) deep – Minimum 2.25 in (5.72 cm) deep – Type 1 enclosure for control

Installation	
Operating Control	Type 1.B action
Software Class A	

Power	
Input	120V AC at 60 Hz
Power: Load (Max)	240W 2A @ 120V AC

Standards	
Wireless	802.11 b/g/n (2.4GHz only)
Security	WPA™, WPA2™, WPA1™ +WPA2™, WEP

Regulatory	
Safety and Emissions	FCC Part 15	UL For more details, see the Regulatory and Safety insert.
Contains FCC ID:	TLZ-CU277B
Contains IC:	6100A-CU277B
RoHS	Compliant

Minimum Supported Release
da Vinci Blueprint 7.2.2

Hardware Overview

Front Panel
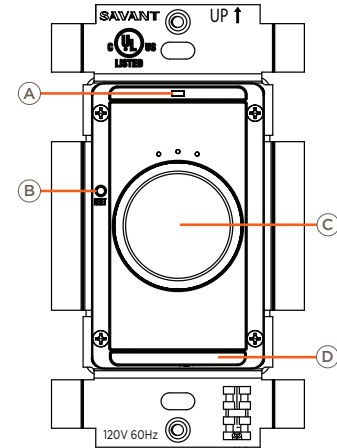
Rear Panel
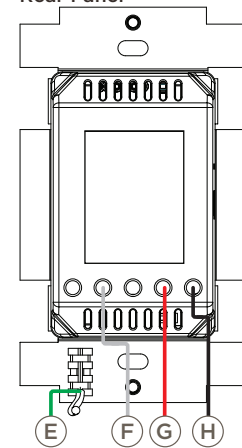
WIF-xxS104

(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®.

(B) Reset Button - The reset button has two functions:

– Press and release the reset button. After button is released, all LEDs on the front panel illuminate for about six seconds and then flash twice. Pressing the reset button causes the fan controller reboot. After the reboot, the LED sequencing is determined by whether the device had previously been connected to a network. Refer to LED Sequencing table.

NOTE: The reset button should always be pressed after the Metropolitan device is installed.

– Press and hold the reset button for five seconds until all LEDs on the front panel illuminate. The LEDs will remain on for two seconds and then flash twice. The fan controller then reboots and reverts to Provisioning Mode. In Provisioning Mode, the LEDs on the front panel will blink as described in the LED Sequencing table.

(C) Rotary Dial/Button - Press the rotary button/dial to switch the load (fan) On and Off. Once switched On, turning the dial counterclockwise decreases the speed of the fan. Turning the dial clockwise increases the speed of the fan. The three LEDs above the dial indicate speed of the fan. As the speed of the fan increases, more LEDs are lit. As the speed of the fan decreases, less LEDs are lit.

(D) Service Switch - The service switch disconnects power from the load (red wire). Toggle the service switch to Off whenever changing the load. The service switch can also be used to power cycle the switch.

(E) Green	Ground - Wire to Gnd.	
(F) White	Neutral - Return path for voltage.	
(G) Red	Load -Wire to the load.	
(H) Black	Line - Wire to hot from AC power source.	

Device wires are all a five inch #16 AWG stranded wire.

LED Sequencing

|	
The 1st LED blinks in an alternating pattern with the 2nd and 3rd LEDs.	The fan controller is in AP Mode and waiting to be provisioned. After a short time (up to one minute), the blinking will stop. In this scenario, the fan controller is still in AP Mode. The blinking was stopped intentionally for cases where the fan controller is not put on the network immediately and can be used as a manual fan controller till provisioned.
1st LED illuminates solid and the 2nd and 3rd LEDS blink in sync.	The fan controller 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 fan controller remains in this state until the binding process has been completed.
All three front panel LEDs flash in sync	If the IP settings are incorrect, the fan controller 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 fan controller remains in this state until the fan controller is reset to its default values and provisioned with the correct network settings.

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 Metro wireless 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. At the main breaker panel, switch the breaker that supplies power to the existing fan controller to Off.

2. Unscrew the wall plate and remove. Verify power is removed using a 120V AC tester.

3. Unscrew the two 6-32 flat head screws and remove the existing fan controller switch.

4. Disconnect wires from the existing device and remove the device. It is good practice to label each wire as it is removed. If not already identified, mark the wires to ensure proper rewiring. Especially if the circuit employs a 3-way configuration.

5. Connect the in-wall wires to the leads coming from the Metropolitan Wireless Fan Controller using the supplied wire nuts or approved alternative. Refer to the Wiring Diagrams and Rear View Descriptions sections.

6. Insert the fan controller into the electrical switch box and secure with the 6-32 flat head screws provided. DO NOT use a powered screw driver. A powered screw driver can over tighten the screws.
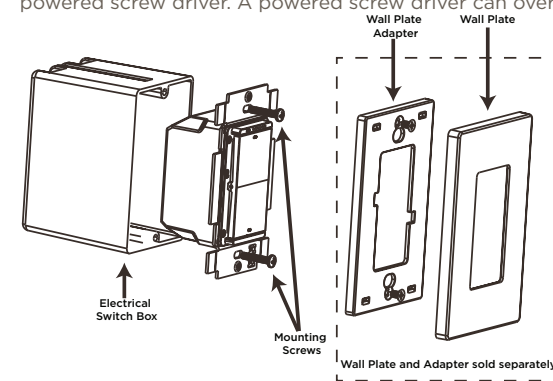
7. Re-establish power at the main breaker panel.

8. Once the fan controller has booted, it will go into a quick diagnostic and the LEDs will cycle as follows:

– All LEDs will illuminate bright and then flash twice.
– Next, the three front panel LEDs will flash several times in sync.
– From there, the same front panel LEDs will blink. Refer to the LED Sequencing table.

9. To test the device without connecting to a local network, press the rotary dial to switch the fan On. The fan will switch On to full speed. Turn the rotary dial counterclockwise to decrease the fan speed till the fan stops. From the Off position, turn the rotary dial clockwise and the fan speed will increase. Press the rotary dial again to switch the fan Off.

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.