SALUS®

ST920WF SOLO
3H/2C Wi-Fi Thermostat

HOLD
SET POINT
75

68 °F

AUTO

Mode   Fan   ⌄   ⌃

SALUS

Installation Manual

For other language versions, please visit: **www.salusinc.com**

Regulatory Statements

FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

FCC AND INDUSTRY CANADA

RF Radiation Exposure statement: This equipment complies with FCC and Industry Canada RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the antenna and all persons.

Cet appareil est conforme aux limites d'exposition au rayonnement FR du FCC et d'Industrie Canada pour un environnement non contrôlé. Cet appareil devrait être installé et devrait fonctionner de sorte qu'il se trouve à une distance d'au moins 20 cm entre l'antenne et toute personne.

INDUSTRY CANADA

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

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.

Safety Instructions

Please read these instructions carefully **BEFORE INSTALLING AND USING** the ST920WF Thermostat. This manual is meant to be used as a reference guide for the installation, configuration and maintenance of your device.

- Follow all regulations required by the local jurisdiction and electricity supplier regarding the installation or replacement of a thermostat. An authorized, qualified installer may be required.

- **DO NOT CONNECT ANY TERMINALS TO 110 VAC or 220 VAC SUPPLY VOLTAGE.** The ST920WF Thermostat uses a 24 VAC power source.

- **DO NOT** expose the unit to voltage fluctuations of more than $\pm10\%$.

- **DO NOT** cover any of the vents on the thermostat.

- **DO NOT** allow the unit to get wet. This device serves as a temperature control system in dry, closed living and office spaces.

- **DO NOT** place the thermostat in a bathroom or area of excessive moisture where relative humidity exceeds 90%.

- **DO NOT** expose the thermostat to temperatures below 14°F (-10°C) or above 140°F (60°C).

- **DO NOT** install this unit in an altitude of over 6,500 feet (2,000 meters).

- **DO NOT** use solvents or aggressive cleaning agents. A soft dry cloth is recommended.

   The manufacturer accepts no responsibility for any damage caused by failure to follow these instructions.

Using this Manual

For the latest Instructions go to: *WWW.SALUSINC.COM*

Special Attention Boxes

This manual uses special attention icons to alert the reader of important safety concerns, information important to reliable operation of the controls or helpful installation/setup information.

Safety:
Indicates a condition which may cause severe personal injury, death or major property damage

Important Information:
Indicates information which requires special attention for correct operation of the control

Your Benefit:
Indicates helpful installation or setup information

Contents

In The Box

ST920WF Thermostat
with Mounting Plate

Wall Plate (if required)

SALUS

ST920WF Wi-Fi Thermostat

Installation Manual
For other language versions, please visit: www.salusinc.com

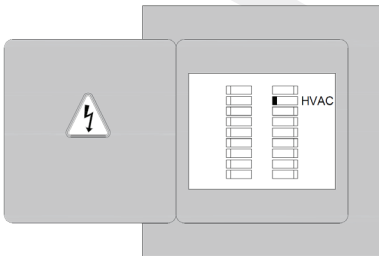Mounting Screws & Anchors

Installation Manual

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Installing the Thermostat

There are five steps to installing the thermostat:

1. Determine Wiring Configuration
2. Remove Old Thermostat
3. Determine if Wall Plate is required to cover opening, damage, or discoloration of wall surface.
4. Install ST920WF Base
5. Connect Wires
6. Attach Display

Tools

You may need the following tools to install the ST920WF Thermostat:

- #1 Phillips or flathead screwdriver
- Power drill with 3/16" bit (if new mounting holes are required)
- Smartphone/camera to photograph wiring for reference (optional)
- Screwdriver to disconnect wires existing thermostat
- Pencil

Turn Off Power to HVAC System

Locate the HVAC panel breaker and turn OFF the system. Before removing the old thermostat, change the temperature setting to cause a heating or cooling call. When the thermost indicates there is a call, make sure the HVAC System is not operating.

Determine Wiring Configuration

If the ST920WF Thermostat is being installed in a new system or if wiring changes are intended, refer to Appendix A for the wiring configurations and skip to Install Mounting Plate.

When replacing a thermostat and replicating the wiring of the existing thermostat is desired on the ST920WF the following applies.
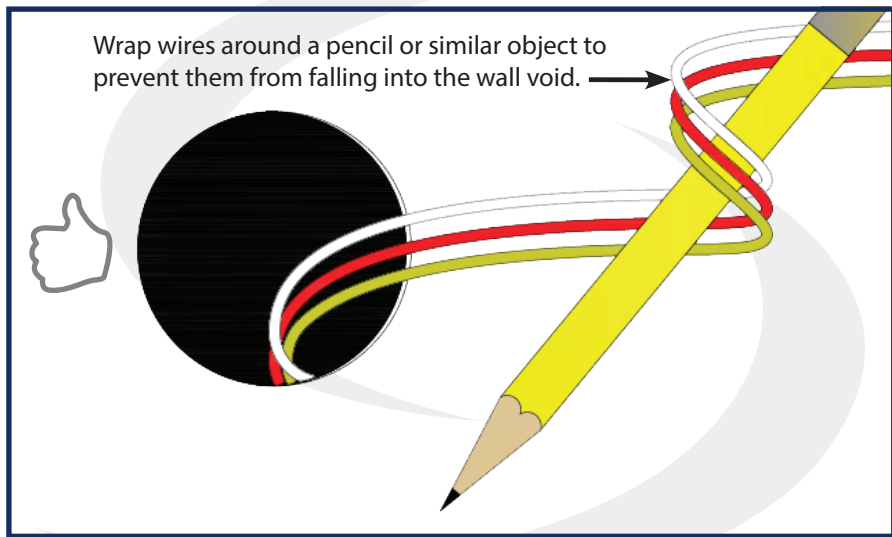
- Remove the old thermostat to expose the wiring terminals
- Photograph the wiring for reference or use the table below to note the wire colors.
- Use the **Wire Color Record** to note the wire color and function of each wire. If the terminals of the existing thermostat are unmarked, determine the wire functions for each color wire at the appliance.
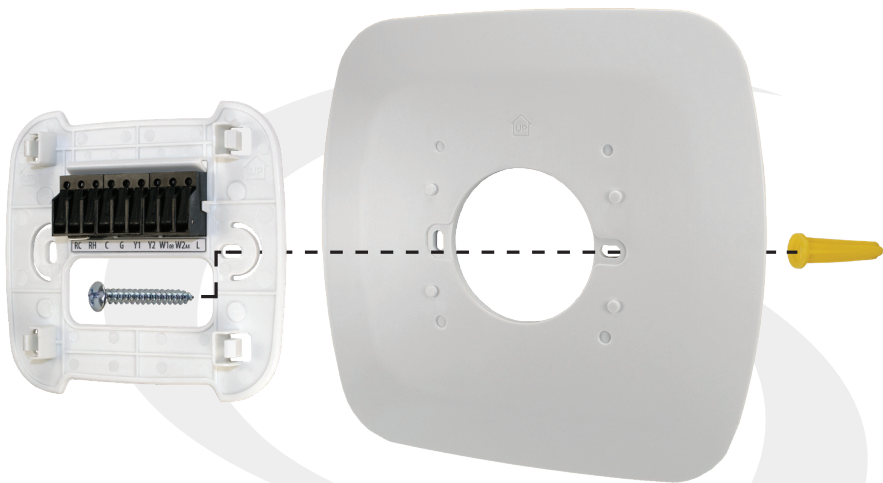
Wire Color Record

HP	NON-HP	Wire Color
RC	RC	
RH	RH	
C		
G		
Y1		
Y2		
O/B	W1	
AX	W2	
L		

Remove Old Thermostat

Remove the old thermostat from the wall, taking care not to allow the wiring to fall inside the wall.

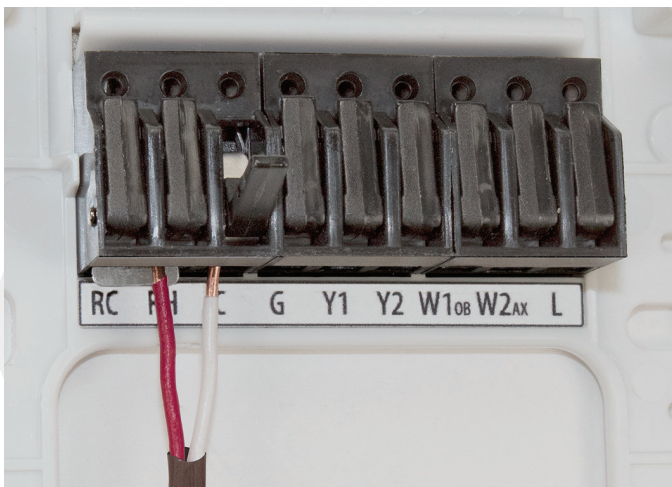Wrap wires around a pencil or similar object to prevent them from falling into the wall void. ➞

The ST920WF Thermostat **IS NOT COMPATIBLE** with supply voltages above 30 VAC. If the old thermostat is connected with thick wire and wire nuts or voltages higher than 30 VAC are noted on the connections, **DO NOT INSTALL** the Thermostat.

Install Mounting Plate (with Wall Plate, if required):

Use the included wall anchors and screws to attach the Mounting Plate to the wall, making sure the wires run through the center opening.
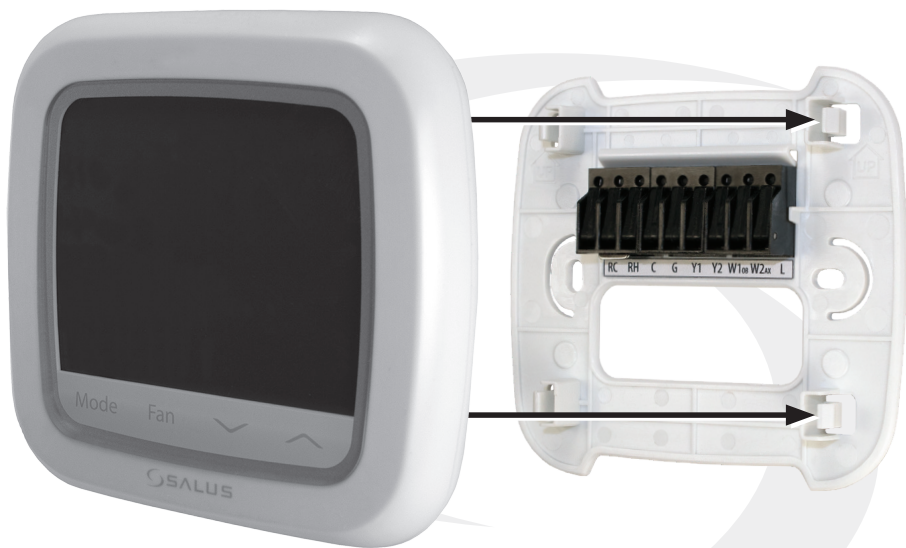
To cover paint or screw holes on the wall behind the thermostat, insert the Wall Plate between the Mounting Plate and the wall as shown. Both plates are secured with the same screws.

RC RH C G Y1 Y2 W1$_{OB}$ W2$_{AX}$ L

Attach Wiring: To insert a wire into a terminal, flip up the locking tab and slide the wire into the socket directly above the corresponding label.   Insert each wire as required for the desired appliance. Once each wire is inserted, flip the tab down to lock it in position. Pull gently on each wire after locking the tab is closed to be sure the wire is secure.

A factory supplied jumper is supplied between RC and RH. This should be removed in two transformer systems (see Appendix A, page 16).

Attach Display to Mounting Plate: Line up sockets in the back of the thermostat with the posts on the wall plate and snap it into place. Make sure the connector pins are not bent and wires do not interfere with the thermostat engagement. The thermostat must be fully seated on the wall plate to operate correctly.

Turn on Power to the HVAC System

Go to the furnace switch or breaker box and turn the HVAC system back on.

Device Boot Sequence

When the ST920WF is first powered or if a Factory Reset is performed, the above boot sequence will be displayed. The last screen displays the thermostat model and firmware version number.

Mobile Setup

When the text MOBILE SETUP begins scrolling across the text field, the thermostat is ready to connect with the smart device application.
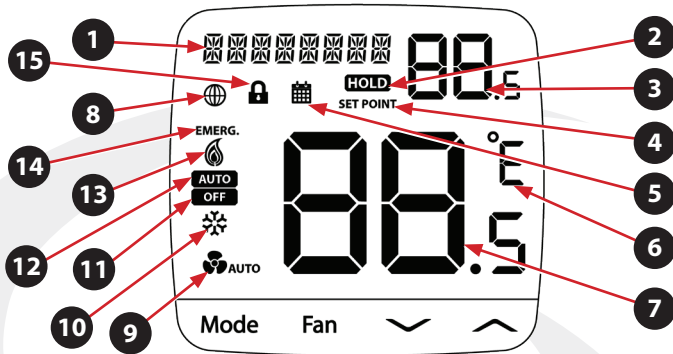
Download the SALUS SOLO application on your IOS or Android device. After downloading the application, follow the steps in the SALUS SOLO Mobile Application Guide at: https://www.salusinc.com/downloads/

Available on the App Store

Available on Google Play

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Screen Display & Controls

1	図図図図図図図 Alphanumeric text display			
2	Schedule Override Indicator Temporary: 📅 & **HOLD** Permanent: **HOLD**		9	Fan indicator: Auto - 🌀**AUTO** On - 🌀
3	**88.**₅ Setpoint or parameter value		10	❄ Cooling Mode
4	**SET POINT** Setpoint indicator		11	**OFF** Off Mode
5	📅 Schedule running indicator		12	**AUTO** Auto Cooling/ Heating mode
6	°F Fahrenheit or Celsius units		13	🔥 Heating Mode
7	**88.**₅ Room Temperature		14	**EMERG.** 🔥 Emergency Heat mode
8	⊕ Wi-Fi indicator		15	🔒 Key lock indicator
Mode - Mode Selection		**Fan -** Fan Speed Selection		⌄⌃ Increase Value Decrease Value

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Specifications

Temperature units	°C or °F	
Environmental	Operating:	32° to 122°F (0° to 50°C)
		5 to 90% Relative Humidity (non-condensing)
	Storage:	14° to 140°F (-10° to 60°C)
		5 to 90% Relative Humidity (non-condensing)
Communications	802.11 b/g/n, 2.4 GHz band Bluetooth v4.2 BR/EDR and BLE (for Commissioning)	
AC power	18-30 VAC at RC and C terminals 5 relay outputs rated for 1A @ 18-30 VAC	
Dimensions	3.9" x 4.2" x 0.9" 10.0cm x10.6cm x 2.3cm	
Weight	0.6 lbs (297 g)	
Compliance	FCC, Industry Canada	
Warranty	5-year limited warranty	
Compatible Devices	SA918 Wire Extender Module	

Note: Specifications subject to change without notice.

Troubleshooting

For troubleshooting instructions go to: https://www.salusinc.com/downloads/

Salus Warranty

SALUS North America, Inc. ("Salus") warrants that for a period of five (5) years ("Warranty Period") from the date of purchase by the consumer ("Customer"), this device, excluding batteries ("Product"), shall be free of defects in materials and workmanship under normal use and service in accordance with all supplied instructions. During the warranty period, Salus shall, at its option, repair or replace any defective Products, at no charge for the device. Any replacement and/or repaired devices are warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer.

This warranty does not cover removal or reinstallation costs. This warranty does not apply to any Product (i) which has been modified, repaired, or altered, except by Salus or an authorized Salus representative, (ii) which has not been maintained in accordance with any handling or operating instructions supplied by Salus, or (iii) which has been subjected to unusual physical or electrical stress, misuses, abuse, negligence or accidents.

This warranty is the only express warranty Salus makes for the Product. Any implied warranties, including warranties of merchantability or fitness for a particular purpose, are limited to the Warranty Period or the shortest period allowed by law.

SALUS SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT.

Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, or limitation on the duration of implied warranties of merchantability or fitness, so these exclusions or limitations may not apply to you.

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Salus Warranty (continued)

No oral or written information or advice given by Salus or a Salus-authorized representative shall modify or extend this warranty. If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

Customer's sole and exclusive remedy under this limited warranty is product repair or replacement as provided herein.

If a Product under warranty is defective, the Customer may:

• Contact the party ("Seller") from which the Customer purchased the Product to obtain an equivalent replacement product after the Seller has determined that the Product is defective and the Customer is eligible for a replacement, or,

• Contact Salus Service at support@salusinc.com, to determine whether the device qualifies for a replacement. If a replacement is warranted and is shipped prior to the return of the device under warranty, a credit card is required and a hold may be placed on the Customer's credit card for the value of the replacement until the returned device is verified as eligible for replacement, in which case, the Customer's credit card will not be charged. This warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.
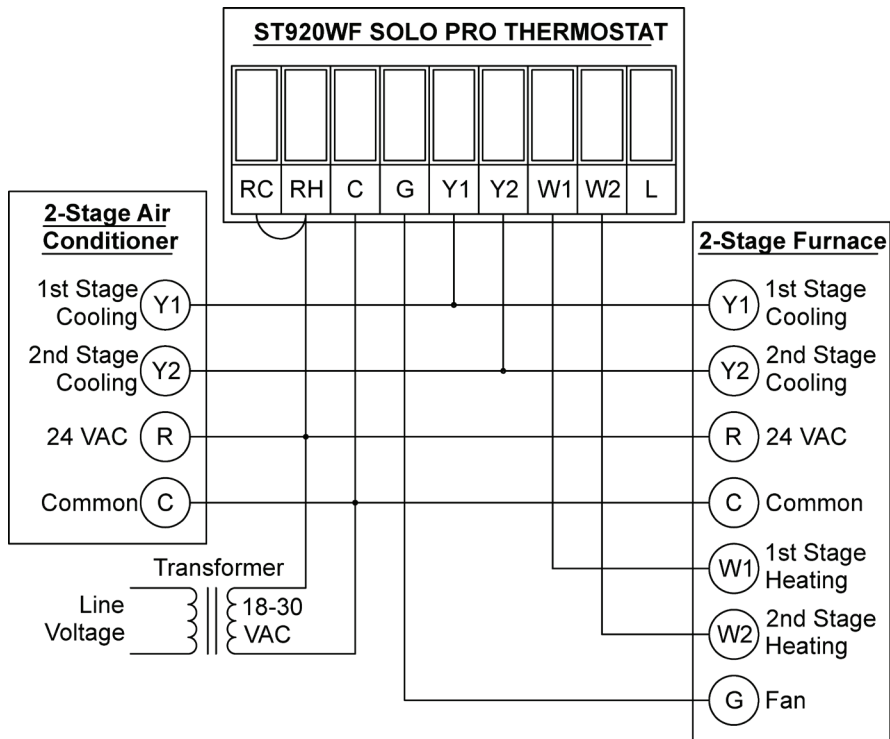
If you have any questions regarding this warranty, please write Salus at:

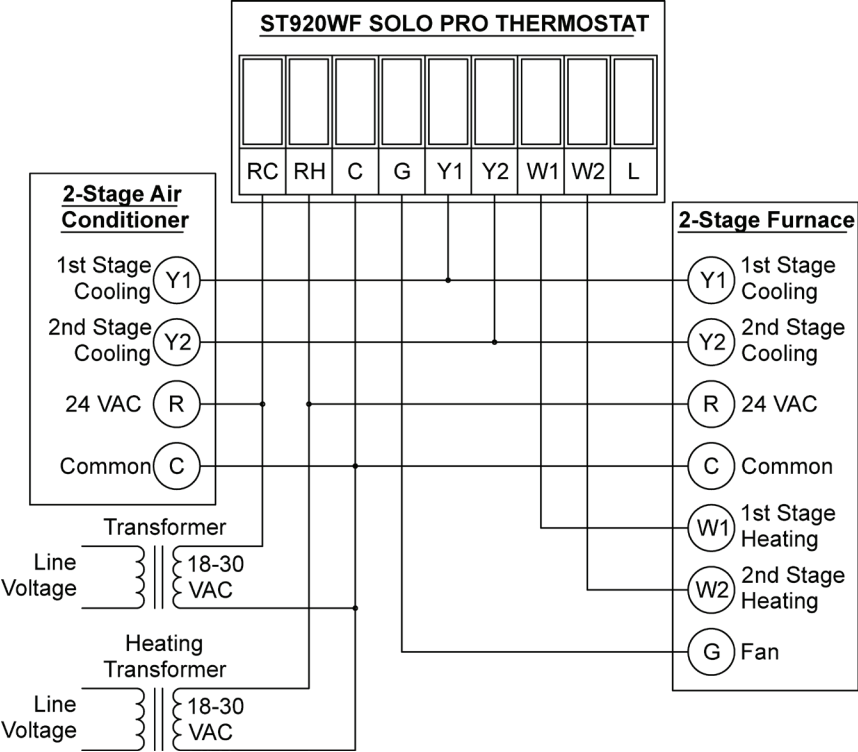> SALUS NA, Inc.
> 4700 Duke Drive
> Suite 200
> Mason, OH 45040-9507

Appendix A - Wiring Diagrams

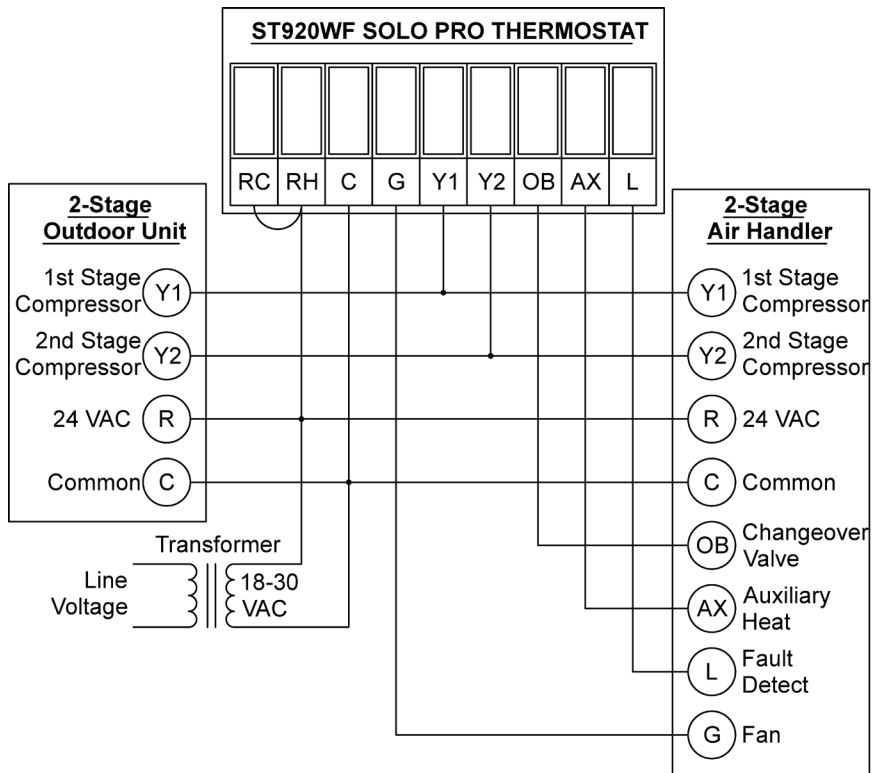| ST920WF Thermostat Terminal Reference		
Terminal	**Non-Heat Pump**	**Heat Pump**
RC	24 VAC Power – Cool	
RH	24 VAC Power – Heat	
C	24 VAC Common (Use SA918 Wire Extender if C-wire is not available)	
G	Fan	
Y1	1st Stage Cooling	1st Stage Compressor
Y2	2nd Stage Cooling	2nd Stage Compressor
W1/OB	1st Stage Heating	Reversing Valve
W2/AX	2nd Stage Heating	Aux/Emergency Heat
L	Not Used	Check/Fault Input

Conventional Single Transformer Heat and Cool System:

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Conventional Two Transformer Heat and Cool System:

Single Transformer Heat Pump System:

ST920WF SOLO PRO THERMOSTAT

| RC | RH | C | G | Y1 | Y2 | OB | AX | L |

2-Stage Outdoor Unit

1st Stage Compressor (Y1)
2nd Stage Compressor (Y2)
24 VAC (R)
Common (C)

Transformer
Line Voltage — 18-30 VAC

2-Stage Air Handler

(Y1) 1st Stage Compressor
(Y2) 2nd Stage Compressor
(R) 24 VAC
(C) Common
(OB) Changeover Valve
(AX) Auxiliary Heat
(L) Fault Detect
(G) Fan

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