SALUS®

Wireless Fan Coil Controller
SC102ZB

Quick Start Guide

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

Notices

Please read these instructions carefully **before installing and using** the Wireless Fan Coil Controller.

- Follow all local and electricity supplier regulations regarding the installation or replacement of a thermostat. An authorized, qualified installer may be required.
- **Do not connect any of the terminals to a 120/240 VAC supply**. The Wireless Fan Coil Controller uses a 24 VAC power source.
- **Do not** cover any of the vents on the thermostat.
- **Do not** place the unit in a bathroom or area of excessive moisture.
- **Do not** allow the unit to get wet. This device serves as a temperature control system only in dry, closed living and office spaces.
- **Do not** use solvents or aggressive cleaning agents. A dry, soft cloth is recommended.
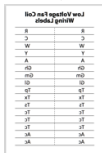
The manufacturer does not accept responsibility for any damage caused by not following these instructions.

1. Let's Get Started

Make sure you have the following items:
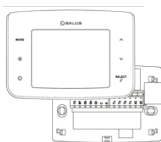
| Controller with Wiring Mount | Wiring Labels | Screws and Anchors | Quick Start Guide |

Tools:
- #1 Phillips or flathead screwdriver
- Drill with 3/16" bit (only if you need to use anchors)

Optional Tools:
- Smartphone or digital camera to take picture of wiring for later reference
- Screwdriver to disconnect wires from old thermostat
- Pencil

2. Turn Off Power to the Fan Coil System

This is usually accomplished by turning off the circuit breaker in the breaker panel.
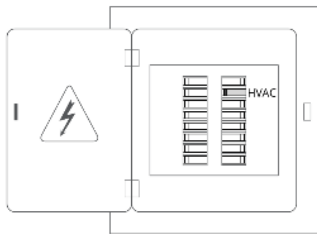
3. Determine Wiring Configuration

- Remove the old thermostat from the wall to expose the wiring terminals.
- Take a picture of the wiring for future reference.
- Note the terminals attached to each wire and attach the matching label to the ends of the wires.

Use the following table as reference:

Terminal Name	Function	
	4 pipe system	2 pipe system
R	24VAC input	
C	Common of AC input	
WY	Hot water valve output	Pipe valve output
YA	Chilled water valve output	Auxiliary Heat (A)
Gl	Fan coil low speed control	
Gm	Fan coil medium speed control	
Gh	Fan coil high speed control	
Ac	Accessory output (relay contact)	
Ac	Accessory output (other side of relay)	
Tp	Pipe temperature sensor input	
Tx	External temperature sensor input	
Ts	Setback contact input	
Tc	Tx/Tp/Ts common	

4. Remove Old Thermostat Terminals

After all wires have been labeled, carefully remove the wiring and any mounting or back plate from the old thermostat.

Tip: Wrap the wires around a pencil to prevent them from falling into the wall space

Note: If you intend to paint the mounting surface, now is the best time to do so to insure complete wall coverage behind and around the controller without the use of a back plate.

Wrap wires around a pencil

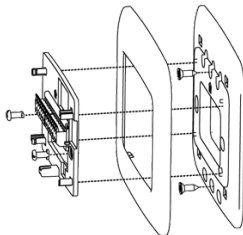Label each wire to the corresponding terminal
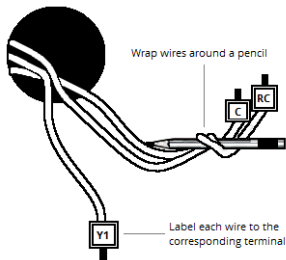
5. Install Wiring Mount

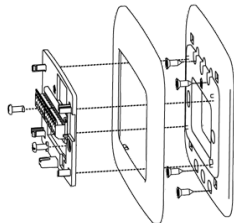Remove the wiring mount from the packaging, and use the included wall screws and/or anchors to attach the wiring mount to the wall, making sure the wires run through the center opening. If alternate mounting holes are required, use a wall plate (sold separately).
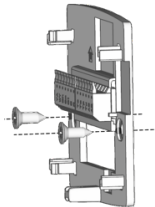
No box or horizontal single gang box

Vertical single gang box (wall plate sold separately)

2 gang (4" square) box (wall plate sold separately)

6. Attach Wiring

Connect the labeled wires to their matching terminals based on the fan coil configuration as follows:

| Configuration	R	C	WY	YA	Gl	Gm	Gh	Ac	Ac	Tp	Tx	Ts	Tc*
2-pipe Heat Only	√	√	W		√	√	√	O	O		O	O	O
2-pipe Cool Only	√	√	Y		√	√	√	O	O		O	O	O
2-pipe Heat or Cool - Manual changeover	√	√	W/Y		√	√	√	O	O		O	O	O
2-pipe Heat or Cool - Seasonal changeover	√	√	W/Y		√	√	√	O	O	√	O	O	√
2-pipe Heat or Cool with Auxiliary Heat	√	√	W/Y	A	√	√	√	O	O	√	O	O	√
4-pipe Heat / Cool, Manual or Auto changeover	√	√	W	Y	√	√	√	O	O		O	O	O

√: Required   O: Optional

* If using more than one T terminal (Tp,Tx,Ts), it may be necessary to splice for Tc.

7. External Antenna

Depending on the installation location, an external antenna may be required for proper radio coverage. To attach the antenna (sold separately), remove the antenna connector cover on the controller and attach the external antenna to the connector, making sure the connector is screwed on finger tight.

Place the external antenna in a location without large metal enclosures or pipes between the controller and the Wireless Fan Coil Remote.
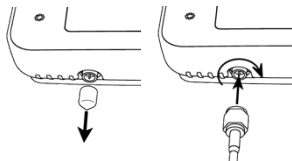
8. Attach Controller to Wiring Mount

Attach the controller to the wiring mount by aligning the connector pins and the plastic retention posts and pushing the controller onto the wiring mount.

Make sure the connector pins are not bent and that the controller is fully seated on the wiring mount.
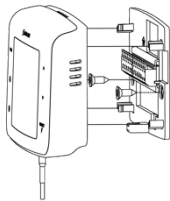
9. Turn On Power to the Fan Coil System

Turn on the circuit breaker at the breaker panel to power up the fan coil system and thermostat.

10. Pair Controller and/or Remote

After power up, the Wireless Fan Coil Controller will display the pairing screen to join a Smart Home system (see the Smart Home pairing guide for directions). After joining, the controller enters Parameter Setup to configure the controller. After configuration, place the controller in Identify Mode, then power up and pair the remote to the system which will then automatically link the two devices.

If not using a Smart Home system, the Wireless Fan Coil Controller can build its own network. Press SETTINGS (⚙) to skip pairing and confirm "build" using ∧ or ∨, and SELECT. Once the network is built, the controller will display the radio channel number being used, then enter Parameter Setup to

configure the controller. After configuration, place the controller in Identify Mode and power up the Wireless Fan Coil Remote, which will then automatically link the two devices.

To enter Parameter Setup immediately and skip the pairing and build processes, press SETTINGS (⚙) and decline building a network.

11. Configuring the Thermostat

In Installer Mode, the buttons have the following function:

Button	Function
SELECT	Save displayed value for parameter and,
short press	go to next parameter (wrap around at end back to 0)
long press (~2s)	go to previous parameter (wrap at 0 to end of parameters)
▲ or ▼	Up or down selection of value options for parameter
SETTINGS	Exit Installer Mode and go to Home screen

For the purposes of this Quick Start Guide, only the minimum essential parameters are covered. To view the full list of parameters, please consult the User Manual at www.salusinc.com.

Parameter	Name	Values (default in bold)	
P00	Thermostat Type	**0 = Non-Programmable** (for home automation systems with schedules) 1 = Programmable	
P01	Fan Coil Type	**0 = 2 Pipe** 1 = 4 pipe	
P02	Heat/Cool Configuration	*For 2 Pipe:* 0 = Heat Only 1 = Cool Only 2 = Heat or Cool, Manual changeover **3 = Heat or Cool Seasonal changeover (Pipe sensor required)** 4 = Heat or Cool with Auxiliary Heat (Pipe sensor required)	*For 4 Pipe:* 2 = Heat or Cool Manual changeover **3 = Heat, Cool or Auto changeover** 4 = Auto changeover only
P03	Pipe Valve Type	**0 = Normally closed** 1 = Normally open	
P12	External Sensor Type	**0 = External sensor** 1 = Zigbee remote sensor	
P13	Pipe Sensor Type	**0 = Analog input** 1 = Normal open, default mode is Heat 2 = Normal open, default mode is Cool 3 = Normal close, default mode is Heat 4 = Normal close, default mode is Cool	

12. Normal Operation

After exiting Installer Mode, the device will go to the Home Screen with the following button functions.

Button	Function
MODE	Select heat/cool/auto mode
FAN	Select fan operating mode
SETTINGS	Enter/Exit User Settings Mode for the following user accessible settings: • C/F temperature units selection • Internal/External temperature sensor selection • Setback set point setup (if P16 is not Disable) • 12/24 hour time display mode selection • Set Time (if Standalone or Local mode) • Set Month and Date (if Standalone or Local mode) • Set Year (if Standalone or Local mode) • Enter Program Schedule mode (if P0 = Programmable) • Set temperature offset
∧ or ∨	Home Screen: Enter Set Point Change mode Set Point Change: increase or decrease the set point for the selected heat/cool mode
SELECT	Home Screen: Select what to display under ambient temperature; time, or set point and humidity. Set Point Change: Toggle state of permanent hold between ON and OFF

13. Code Functions

The device can perform additional functions required for certain situations. To access the functions, press the MODE, FAN, and SETTINGS buttons simultaneously until the $CDdE$ screen appears (~2 seconds). Enter the code for the desired function from the table below using the ∧ ∨ buttons, then press SELECT to perform the function. If confirmation is required (∧ ∨ buttons to display Y, then SELECT) and is not received within 3 minutes, the device will return to the Home Screen.

Code	Function
00	**Identify Mode**: Flashes display and links to Wireless Fan Coil Remote if available.
49	**Parameter Setup**: function to set operating parameters.
55	**Join/Leave Network**: If not part of a network, the device will start the pairing process. If part of a network, the device will ask for confirmation to unpair from the network. If confirmed, the device will leave the network and start the pairing process.
56	**Unpair Remote**: If a fan coil remote is paired to the controller, this function unpairs the remote. The device will ask for confirmation to unpair the fan coil remote.
86	**Factory Default**: Restores all parameters to factory default values and reboots. The device will ask for confirmation to restore factory defaults.

14. FCC and Industry Canada

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 licence-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.

15. 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.

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 North America, Inc.
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Redwood City, CA 94063