User Guide

Variable Refrigerant Flow (VRF) System
Simple Touch Remote Control

Model Numbers: TVCTRLTWR0002T
TVCTRLTWR0002A

December 2015   **VRF-SVU047A-EN**   (IR) *Ingersoll Rand*

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

⚠ **WARNING**	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ **CAUTION**	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.
NOTICE	Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs such as HCFCs and HFCs.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified. The Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!
Failure to follow code could result in death or serious injury. All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!
Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, MUST follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:
- **Before installing/servicing this unit, technicians MUST put on all PPE recommended for the work being undertaken. ALWAYS refer to appropriate MSDS sheets and OSHA guidelines for proper PPE.**
- **When working with or around hazardous chemicals, ALWAYS refer to the appropriate MSDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection, and handling recommendations.**
- **If there is a risk of arc or flash, technicians MUST put on all PPE in accordance with NFPA 70E or other country-specific requirements for arc flash protection, PRIOR to servicing the unit.**

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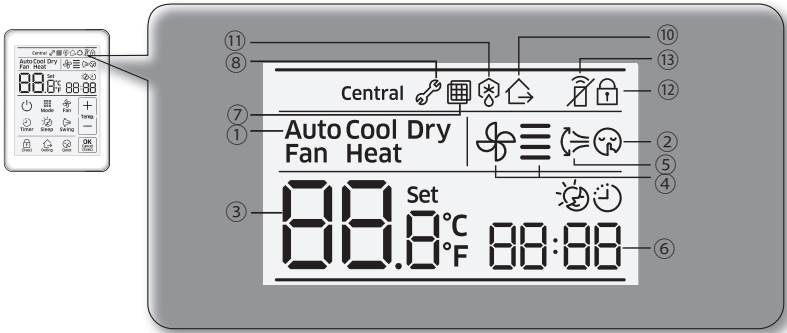All trademarks referenced in this document are the trademarks of their respective owners.

Display

Table 1. Icon descriptions

Item number	Icon	Description
1	Auto Cool Dry Fan Heat	Unit operation
2	Quiet	Quiet operation
3	Set	Indoor temperature/setpointVRF-SVU047A-EN
4	Fan speed	Fan speed
5	Swing	Air swing (up/down)
6	88:88	On/Off timer (scheduled time)
7		Filter cleaning
8		Service required
9	Central	Centralized control
10		Outing (Unoccupied)
11		Defrost operation
12	(3 sec)	Locked function/invalid operation
13		IR receiver

Buttons
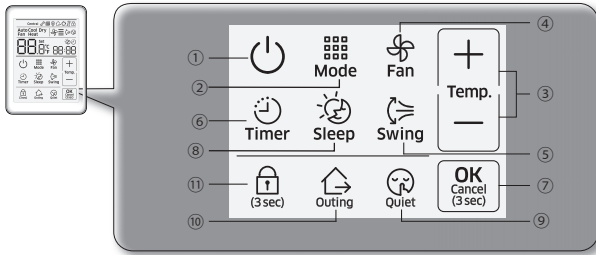
Table 2. **Buttons functions**

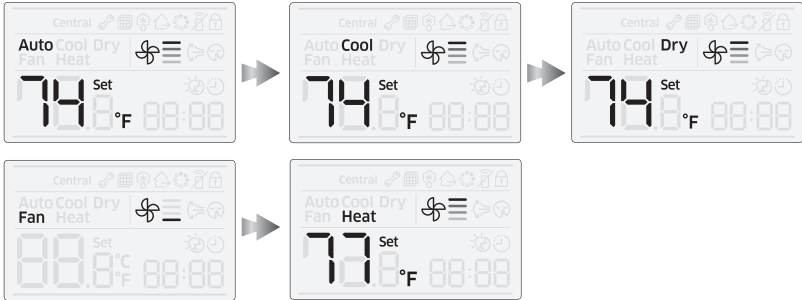| Item number	Button	Function
1	⏻	**Power button** Press to turn the indoor unit On or Off.
2	Mode	**Mode button** Press to select an operating mode: Auto, Cool, Dry, Fan, Heat.
3	+ Temp. −	**Temperature setting button** Press to select an indoor temperature setpoint and to change the time when setting the timer On/Off feature.
4	Fan	**Fan speed button** Press to select a fan speed: Auto, Low, Medium, High.
5	Swing	**Air swing button** Press to select air flow direction.
6	Timer	**Timer button** Press to select the timer function.
7	OK Cancel (3 sec)	**OK/Cancel button** Press for 3 seconds to save/cancel an operation.
8	Sleep	**Sleep button** Press to select the sleep function.
9	Quiet	**Quiet button** Press to select quiet operation.
10	Outing	**Outing (Unoccupied) button** Press to select outing operation.
11	(3 sec)	**Lock button** Press for 3 seconds to lock the controller.

Basic Operation

Turning On/Off the Indoor Unit

To turn On or Off the indoor unit, press the **Power** button.

Selecting the Operating Mode

To select an operating mode, press the **Mode** button until the desired operating mode appears on the display. Each time the **Mode** button is pressed, the screen displays a different mode, in the order shown in Figure 1.

Figure 1.   Operating mode sequence

Table 3 describes each of the operating modes.

Table 3.   Operating mode descriptions

Mode	Description
Auto	In Auto mode, the indoor unit automatically sets the temperature and fan speed to maintain the selected temperature. If the indoor temperature is too high, a cooling breeze is generated until the room returns to a comfortable level. As the room cools, the fan slows down and maintains a gentle airflow.
Cool	In Cool mode, the temperature setpoint, fan speed, and air flow direction on the indoor unit can be controlled.
Dry	In Dry mode, the unit dehumidifies the indoor air.
Fan	In Fan mode, the unit ventilates the area to maintain a comfortable indoor environment.
Heat	In Heat mode, the temperature setpoint, fan speed, and air flow direction on the indoor unit can be controlled. ***Notes:*** • There may be a delay before the fan begins running to avoid generating a cold breeze. • The defrost indicator (**Defrost**) appears when frost is being removed from the outdoor unit. When the defrost function is completed, the defrost indicator disappears. • After heating operation is stopped, the fan continues running for a period of time to cool the unit.

Selecting the Fan Speed

To select a fan speed, press the **Fan Speed** button repeatedly until the desired fan speed appears on the display. Fan speed availability is dependent on the current indoor unit operating mode, as shown in Table 4.

Table 4. **Fan speed availability related to operating mode**

Operating mode	Available fan speeds
Auto	⊄≡ (Auto)
Cool	⊄≡ (Auto) ⊄▬ (Low) ⊄▬ (Med) ⊄≡ (High)
Dry	⊄≡ (Auto)
Fan	⊄▬ (Low) ⊄▬ (Med) ⊄≡ (High)
Heat	⊄≡ (Auto) ⊄▬ (Low) ⊄▬ (Med) ⊄≡ (High)
Note: Turbo ⊄≡ will be displayed if turbo fan speed is valid on the indoor unit.	

Setting the Temperature

To set the temperature, press the **up/down arrow** button repeatedly until the desired temperature appears on the display. See Table 5.

Table 5. **Temperature setting ranges and increments**

Operating mode	Temperature range	Temperature setting increments
Auto	65°F–86°F (18°C–30°C)	You can adjust the temperature setting by increments of 1°F (1°C).
Cool		
Dry		
Fan	You cannot adjust the temperature setting in fan mode.	
Heat	61°F–86°F (16°C–30°C)	You can adjust the temperature setting by increments of 1°F (1°C).

Selecting the Air Flow Direction

The air flow can be directed by tilting the blade up or down. To select the air flow direction:

1. Press the **Air Swing** button to tilt the blade up or down.
2. Press and hold the **Air Swing** button again until the desired tilt is achieved. When the button is released, the blade will stop moving.

   Note: If you press the **Air Swing** button on a duct-type indoor unit, the feature will not function and the lock icon light (🔒) will blink on the display.

Example of Air Swing being activated
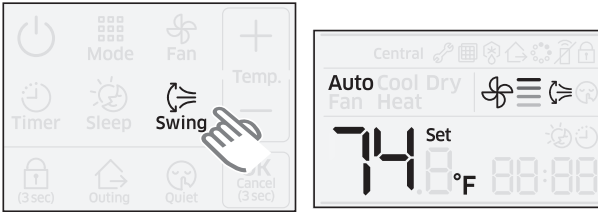
Selecting Quiet Operation

Quiet operation reduces the noise of the indoor unit. To activate this feature, press the **Quiet** button. To cancel quiet operation, press the button again.

Note: *If an indoor unit is operating in Fan mode, the lock icon light (🔒) will blink on the display.*

Example of Quiet operation being activated
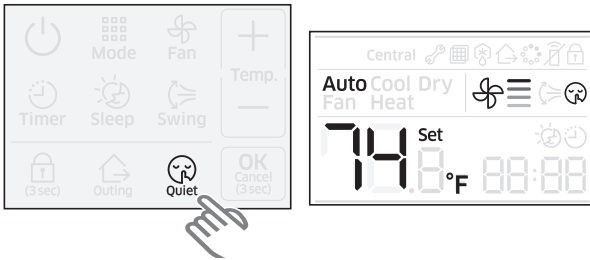
Resetting the Filter Cleaning Timer

When it is time to clean the filter, the filter cleaning icon (▦) appears on the display. When this occurs, do the following:

1. Clean the filter.
2. To reset the filter, refer to .

Setting the On Timer

The On Timer feature is used to set the indoor unit to turn On at a specific time.

Note: *To set the On timer, the indoor unit must be turned Off.*

1. Press the **Timer** button. The time on the display will blink.
2. Press the **up/down arrow** button to display the time you want to unit to turn On.

   Note: *The time is set in 30 minute increments for up to 3 hours, and in 1 hour increments for over 3 hours. The time can be set from 30 minutes to 24 hours.*

3. To save the selected time, press the **OK** button within 3 minutes or the setting will be canceled.

Example of timer set to turn the unit On in 30 minutes

Note: To cancel the On time, press and hold the **OK** button for 3 seconds.

Setting the Off Timer

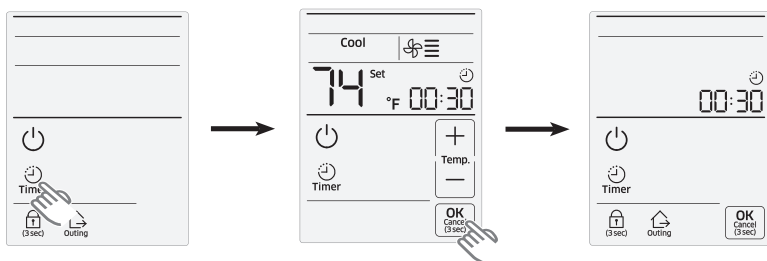The Off Timer feature is used to set the indoor unit to turn off at a specific time.
Note: To set the Off timer, the indoor unit must be turned On.

1. Press the **Timer** button. The time on the display will blink.
2. Press the **up/down arrow** button to display the time you want to unit to turn Off.
   Note: The time is set in 30 minute increments for up to 3 hours, and in 1 hour increments for over 3 hours. The time can be set from 30 minutes to 24 hours.
3. To save the selected time, press the **OK** button within 3 minutes or the setting will be canceled.

Example of setting the Off Timer to turn the unit off 2 hours later
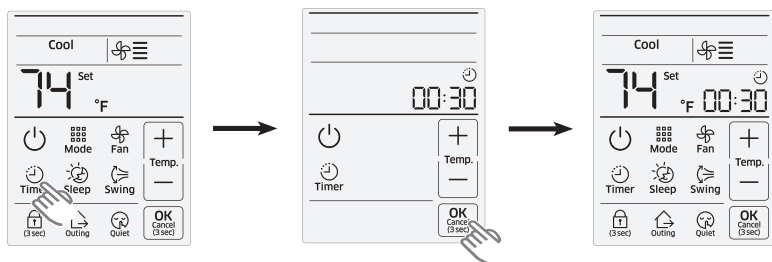
Note: To cancel the Off timer, press and hold the **Set** button for 3 seconds.

Sleep

The Sleep function turns the unit Off automatically after 6 hours of operation. The Sleep function is valid only when the unit is operating in Heating or Cooling mode. If the unit is operating in any other mode, the lock icon light (🔒) will blink on the display if the Sleep button is pressed.

1. Press the **Sleep** button. The Sleep icon will appear to the right of the temperature. After 6 hours of operation, the unit will turn Off.

   To cancel the Sleep function, press the **Sleep** button again.

Example of Sleep function activation
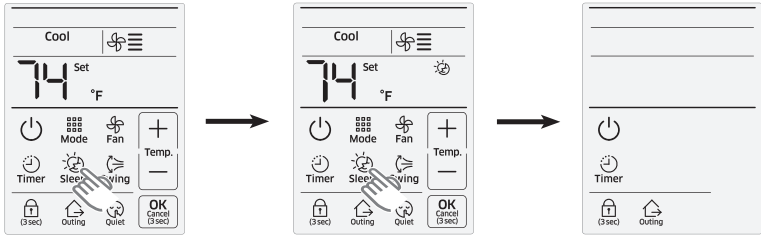
Lock

The Lock function locks the display so that no changes can be made to the unit by using the display.

1. Press the **Lock** button for 3 seconds. The **Lock** icon will appear in the upper right corner of the display. The **Lock** icon will blink if any button is pressed other than the **Lock** button.

Example the Lock function activation
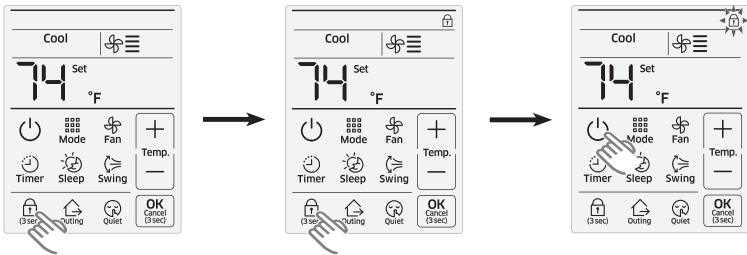
Note: To cancel the Lock function, press and hold the **Lock** button for 3 seconds.

Outing (Unoccupied)

The **Outing** function maintains a minimum cooling/heating temperature when the space is not occupied.

1. Press the **Outing** button. The Outing icon will appear at the top of the display above the Fan mode icon.

   • If the unit is turned Off and the indoor temperature is 9°F (5°C) different from the desired Outing temperature, the unit will automatically turn On.

   • If the unit is turned On and the indoor temperature is the same as the desired outing temperature, the unit will automatically turn Off.

   • If the unit turns On/Off, based on the rules above, more than once within 12 hours, the Outing function will be canceled.

Example of the display showing the Outing (Unoccupied) function

9°F (5°C) difference between indoor temperature and outing setting temperature

After 12 hr
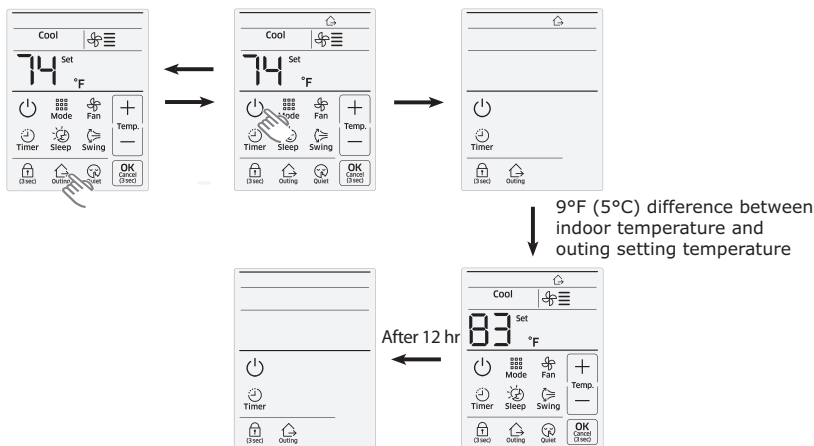
Notes:

- The **Outing (Unoccupied)** *function*
  - *is valid only when the unit is operating in Heating or Cooling mode.*
  - *temperature is set using option codes. See Table 6.*
  - *operates at low fan speed.*
  - *will be canceled if the indoor unit status changes.*
  - *is active when the Simple Touch Remote Control is turned Off.*
  - *will be canceled if there is any button input to the Simple Touch Remote Control.*
- *The slave Simple Touch Remote Control will display the Outing function if it is active on the master Simple Touch Remote Control. The Outing function will be canceled if you change the master/slave settings on the control.*

Additional Functions

To set or change additional functions using the Simple Touch Remote Control, use the following procedure and refer to Figure 2 and Table 6, p. 13.

Figure 2.   User setting mode and main menu
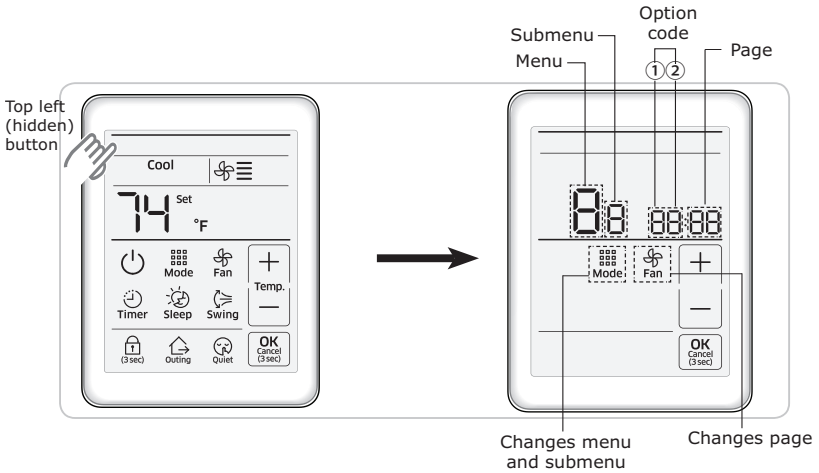
2. Access the user setting mode by pressing the top left (hidden) button for >3 seconds. The display will change to the user setting screen and the main menu will flash "2".

3. To change the main menu from "2" to another number, press the **+**/– buttons (see Table 6).

   In the example on the right, "3" was selected.

4. Press the **Mode** button to display the submenu. The submenu will flash "1".

5. Press the **+**/– buttons to change the submenu to the desired setting (see Table 6).

   In the example on the right, "2" was selected.

6. Press the **Mode** button to display the option code and the page number. the option code flashes "0". The page number appears as "01".

7. Press the **+**/– buttons to change the option code setting.

VRF-SVU047A-EN

In the example on the right (menu "3", submenu "2", page "01", option code "1") locking the **On/Off (Power)** button has been selected.
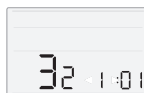
Important: *If you leave the page number set to "01", you will be changing the option code setting for the option that has a page number of "01". To change the page number, you must proceed to the next step to change the page number before changing the option code setting.*

8. To change an option code setting that has a different page number, press the **Fan** button once to advance to the next page, and repeat until the desired page number appears. Then press the **+/–** buttons to change the option code setting.
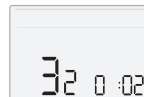
   In the example on the right, (men "3", submenu "2", page "02", option code "0"), the temperature setting buttons (**+/–**) have been unlocked (see Table 6).

9. Press the **OK** button to save the setting.

Notes:

- The **OK** button is invalid for the main menu or the submenu setting screen.
- To exit to the normal display mode without saving settings, press the **OK** button for 3 seconds.

Table 6.   Options and settings for additional user functions

Main menu code	Sub menu	Function description		Setting		Page
				Option code/ value	Factory default	
2	1	Temperature limit	Lower limit	47–86°F (8–30°C)	47°F (8°C)	01
	2		Upper limit	47–86°F (8–30°C)	86°F (30°C)	01
	3	Outing (Unoccupied) temperature	Cooling	77–86°F (25–30°C)	81°F (27°C)	01
	4		Heating	61–72°F (16–22°C)	61°F (16°C)	01
3	1	Lock all buttons		0: Clear 1: Lock	0	01
	2	Partial button lock 1	On/Off (Power) button	0: Clear 1: Lock	0	01
			Lock temperature setting button	0: Clear 1: Lock	0	02
			Lock fan speed button	0: Clear 1: Lock	0	03
3	3	Partial button lock 2	Lock On/Off timer button	0: Clear 1: Lock	0	01
			Lock Air Swing button	0: Clear 1: Lock	0	02
			Lock Sleep button	0: Clear 1: Lock	0	03
			Lock Quiet button	0: Clear 1: Lock	0	04
			Lock Outing (Unoccupied) button	0: Clear 1: Lock	0	05

Table 6. Options and settings for additional user functions (continued)

Main menu code	Sub menu	Function description		Setting Option code/ value	Setting Factory default	Page
3	4	Operation mode partial button lock	Lock operation mode button	0: Clear 1: Lock	0	01
			Hide Auto mode	0: Clear 1: Lock	0	02
			Hide Cool mode	0: Clear 1: Lock	0	03
			Hide Dry mode	0: Clear 1: Lock	0	04
			Hide fan mode	0: Clear 1: Lock	0	05
			Hide heat mode	0: Clear 1: Lock	0	06
6	1	Checking/setting of backlight time out[a]		0–30 (0:Disable)	5	01
7	1	User setting functions	Resetting filter cleaning timer	0: Disable 1: Reset	0	01
	2		Not used	N/A	0	01
	3		Display space temperature	0: Disable 1: Enable	1	01
	4		Use button melody	0: Disable 1: Enable	1	01
	5		Use infrared receiver for wireless remote control[b]	0: Disable 1: Enable	0	01
8	1	Controller re-calibration[a]		-2 to +2	0	01
0	1	Reset to default value of user setting mode (except current time)[a]		0: Disable 1: Reset	0	01

(a) Functions only for a single occurrence.
(b) The infrared receiver is capable of commanding on/off, temperature setpoint, mode, fan setting, blade position, and channel settings. Modifying configuration/option codes with the infrared receiver is not recommended; instead, the Trane technician utilities tool (TUT) is recommended.

VRF-SVU047A-EN

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