



V0STAT51P-3
Wired Touchscreen Programmable Controller
60 Hz

Bulletin No. 210876
 March 2020

COMMERCIAL
PRODUCT SPECIFICATIONS



NOTE - Refer to the Installation/Operation Instructions for additional information.

The V0STAT51 is a wired local touchscreen programmable controller for VRF Heat Recovery and Heat Pump indoor units.

Touchscreen Display

- 6-1/4 in. touchscreen with full color LCD display and intuitive navigation
- Screen is illuminated when touched and remains lit during control access

Built-In Scheduling

- Offers the convenience of automatically changing settings according to a set time
- Schedules can be set for individual 7 days, 5+1+1 days, 5+2 days or identical 7 days
- Custom holidays can be set to repeat for a particular year's date or by a particular day of the week and month
- Up to eight different time period actions per day
- Schedules from one day can be copied to another

Override Function

- During any schedule operation the system can be temporarily overridden (30, 60, 90, or 120 minutes)

Battery

- One CR2032 lithium button battery is furnished as standard for memory retention

Dimensions

- 5-1/2 x 7-1/4 x 1-3/8 in. (H x W x D)
- Additional hardware is furnished for installation

Wiring

- Controller uses low voltage 4-wire 18AWG shielded cable (not furnished) for easy connection to the indoor unit

Grouping

- Controller can control up to 16 indoor units on the same system in the same room

System Monitoring

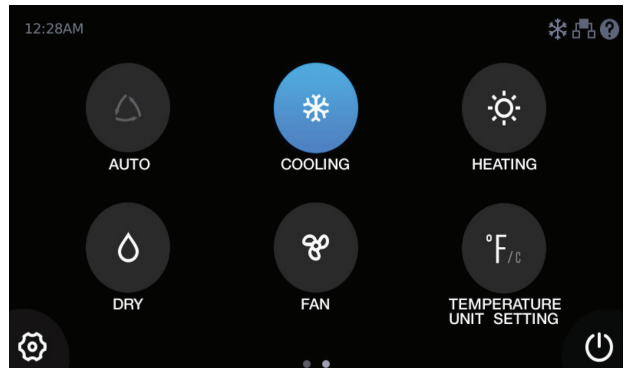
- Displays codes as an aid in troubleshooting controller and indoor/outdoor unit operation

BASIC OPERATION

If the unit is off, the screen displays the current time, indoor temperature, outdoor temperature, menu button (gear icon), power button and status icons (upper right). Touch the power button (lower right) to turn the unit on and display the last used operation mode screen.

Swipe the screen to the left < to see the Main Operating Modes Screen.

Main Operating Modes Screen



Displays buttons for controlling the following unit modes:

- AUTO - See page 2
- COOLING - See page 2
- HEATING - See page 2
- DRY - See page 2
- FAN - See page 3

Touch a **MODE** button to switch the unit operation. The selected mode icon is displayed in the upper right side of the screen.

Swipe the screen back to the right > to see the current Operating Mode Screen.

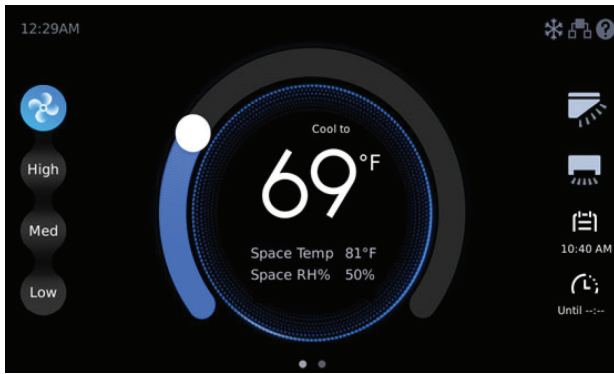
- TEMPERATURE UNIT SETTING (°F or °C)

Touch the **TEMPERATURE UNIT SETTING** button to switch display between °F and °C.

- User Configuration Settings (Gear Icon) - See page 5
- Power (turns indoor unit On/Off)

BASIC OPERATION (continued)

Cooling Operation Mode Screen



Displays buttons for controlling unit during cooling mode:

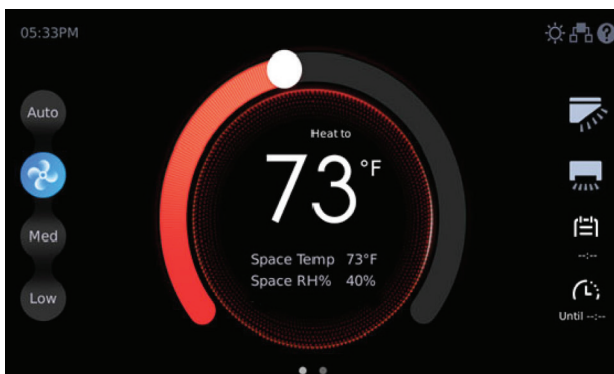
- Cooling Setpoint Button on the round temperature band (adjustable 62 to 86°F)

Setpoint range limits are adjustable in **Service Menu> Setpoint Limit** (see page 7).

- Cooling Setpoint Display (Cool To)
- Space Temperature Display
- Space Relative Humidity (RH%) Display
- Common Control Buttons (Fan, Swing Schedule, Override) - See page 3

Touch and slide the blue cool setpoint indicator on the round temperature band to change the cooling setpoint in one degree increments.

Heating Operation Mode Screen



Displays buttons for controlling unit during heating mode:

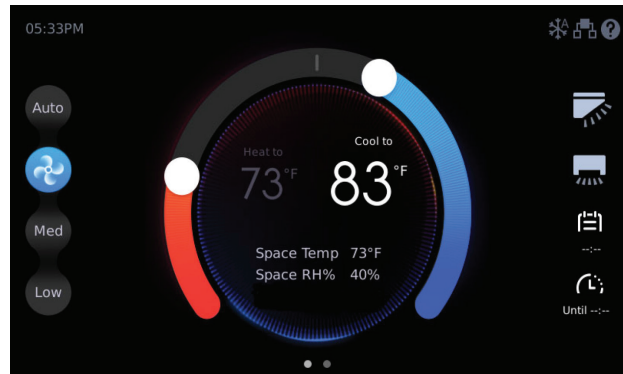
- Heating Setpoint Button on the round temperature band (adjustable 62 to 86°F)

Setpoint range limits are adjustable in **Service Menu> Setpoint Limit** (see page 7).

- Heating Setpoint Display (Heat To)
- Space Temperature Display
- Space Relative Humidity (RH%) Display
- Common Control Buttons (Fan, Swing Schedule, Override) - See page 3

Touch and slide the red heat setpoint indicator on the round temperature band to change the heating setpoint in one degree increments.

Auto Operation Mode Screen



Displays buttons for controlling unit during cooling and heating mode:

- Cooling/Heating Setpoint Buttons on the round temperature band (adjustable)
 - Cooling - 65 to 86°F
 - Heating - 62°F to 83°F

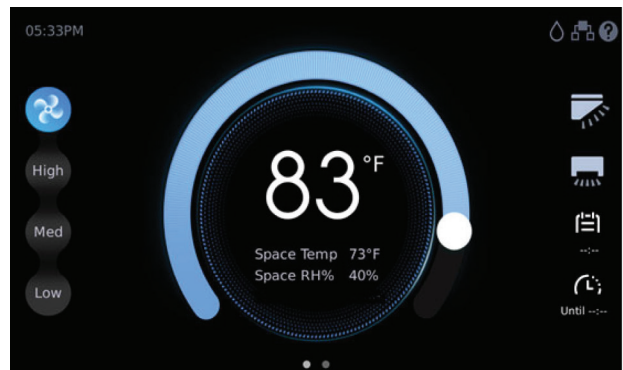
Setpoint range limits are adjustable in **Service Menu> Setpoint Limit** (see page 7).

- Cooling/Heating Setpoint Display (Cool To and Heat To)
- Space Temperature Display
- Space Relative Humidity (RH%) Display
- Common Control Buttons (Fan, Swing Schedule, Override) - See page 3

Touch and slide the red or blue setpoint indicators on the round temperature band to change the heating/cooling setpoints in one degree increments.

If the system is operating in **Auto** Mode, both heating and cooling setpoints are displayed. The larger display indicates the active mode.

Dry Operation Mode Screen



Displays unit operation in dry (dehumidification) mode:

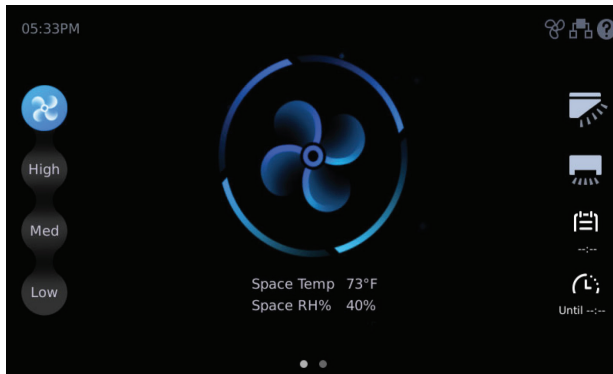
- Dehumidification Setting on the round temperature band
- Space Temperature Display
- Space Relative Humidity (RH%) Display
- Common Control Buttons (Fan, Swing Schedule, Override) - See page 3

Touch and slide the blue setpoint indicator on the round temperature band to change the setpoint in one degree increments.

Fan speed is disabled when system is in DRY (dehumidification) Mode.

BASIC OPERATION (continued)

Fan Only Operation Mode Screen




Displays unit operation in fan only mode.

Common Control Buttons (on all MODE screens)

Fan Control

- Auto
- High
- Medium
- Low


 Selected fan speed icon is animated when unit is operating.

Vertical Swing Angle Button

- Swing Function
- Five Individual Positions

Horizontal Swing Position Button

- Swing
- Stop


 Swing buttons enable automatic louver swing function on certain indoor units.


Schedule Button


- Touch to access the Schedule screen (see Schedule Screen)

Activate Override Button

- Temporarily override system operation in 30, 60, 90, or 120 minute increments

 Individual override time period settings can be enabled/disabled on the **Schedule Screen** (see page 5).

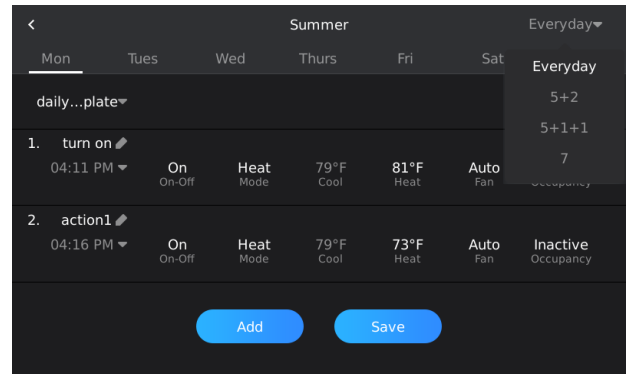
 Override function is only available if a schedule has been set.

 Space temperature is sensed by the internal sensor in the controller (default) or by the indoor unit sensor.

Sensor location can be set on the **Service Menu > Room Temperature Sensor Screen** (see page 7).

USER SETTINGS

Schedule Screen




A Schedule Template contains Schedule Actions which are then added to a weekly Schedule Setup.

See the User/Service Settings table on page 5 for additional information.

Schedule Templates

Create a blank schedule template


- Add Button

 Up to ten different Schedule Templates can be created.

Schedule Actions

Create actions to add to a schedule template:

- Add Button
- Save Button
- Start (Start Time)
- On-Off (System Operation)
- Mode (Cool, Heat or Auto)
- Cool Setpoint (62 to 86°F)
- Heat Setpoint (62 to 86°F)
- Fan Speed (Low, Medium, High or Auto)
- Occupancy (Active/Inactive)

 Up to eight different Schedule Actions can be created.

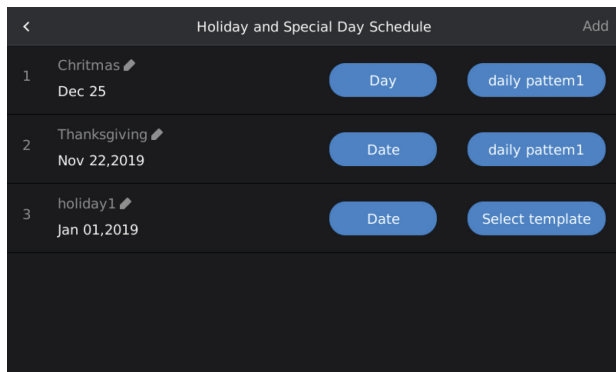
Schedule Setup

Add Schedule Templates (containing Actions) to a weekly schedule:

- Everyday (set individual schedules for days of the week)
- 5+1+1 Days (set same schedule for Mon-Fri and separate schedules for Sat-Sun)
- 5+2 Days (set same schedule for Mon-Fri and same schedule for Sat-Sun)
- 7 Days (set same schedule for all seven days)

USER SETTINGS (continued)

Holiday and Special Day Schedule Screen



Add Schedule Templates (containing Actions) to a holiday or special day schedule:

- Add Button
- Day
- Date
- Day of Month
- Date Range



Holiday schedules can be set by a particular year's date or a repeating day of the year (example: every 3rd Thursday in November).

USER / SERVICE SETTINGS

MENU	SETTING (default is bold)	Notes:			
HOME >>					
GENERAL >	Use 24 Hour Format >	Off	Slide button enabled.		
		On			
	Date and Time >	set date and time	Input the date and time using the set date and set time tools.		
	Theme >	Dark	Change the background on the main screens.		
		Colorful			
		Simple			
	Brightness >	10 to 100%	Adjust brightness using the slide control.		
	Controller Touch Tone >	On	Slide button enabled.		
Off					
Screen Saver >	Blank	Drop-Down Menu.			
	System Information	Load custom image using USB drive (800 x 400 PNG).			
	Custom Image				
Screen Saver Delay >	30, 60 , 90 seconds or light	Use slide control to adjust delay time.			
SWING >	Vertical >	Swing, position 1, 2, 3 ,4 or 5	Use slide control to set swing operation.		
	Horizontal >	Swing	Slide button enabled.		
Stop					
SCHEDULE >	Override Options >	30, 60, 90, 120 minutes, clear button	Only available if a schedule has been set.		
	Schedule Templates >	Add Schedule Template Button		Create up to 10 schedule templates. Swipe left to delete or rename template. Touch and hold to copy template.	
		Add Action >	Add Action Button to Schedule Template		Create up to 8 actions for each schedule template.
			Time		Swipe left to delete or rename action.
			On/Off		Input time using the set time tool.
			Mode (Auto, Cool, Heat, Dry, Fan)		NOTE - Fan speed disabled when system is in DRY (dehumidification) Mode.
			Cool Temp (62 to 86°F)		NOTE - Depending on selection some modes are grayed out if Auto Mode is not selected.
			Heat Temp (62 to 83°F)		
	Fan (Low, Med, High, Auto)				
	Occupancy (Active, Inactive)				
	Schedule Setup >	Add Weekly Schedule Button		Add a schedule template containing actions to a weekly schedule.	
		Every Day			
5+2 Days					
5+1+1 Days					
Individual 7 Days					
Holiday/Special Day Schedule >	Add Holiday Schedule Button		Add Schedule templates containing Actions to a holiday or special day schedule.		
	Day				
	Date		NOTE - Holiday schedules override normal schedules on the days set.		
	Day of Month				
	Date Range				
	Select Template to use				
DAYLIGHT SAVINGS TIME >	Daylight Savings Time >	On	Slide button enabled.		
		Off			
		Start Date	Input the date and time using the set date and set time tools.		
		End Date			
ROOM TEMPERATURE & RH% >	Temperature Unit >	°F	Slide button enabled.		
		°C			
	Display Space Temperature on Homepage >	On	Slide button enabled.		
		Off			
	Display RH on Homepage >	On	Slide button enabled.		
		Off			

USER / SERVICE SETTINGS

MENU	SETTING (default is bold)	Notes:	
HOME >>			
ADVANCED INFORMATION >	Operation Data >	ODU Priority (Auto/Cool/Heat/VIP/Heat Only/Cool Only)	View information about the system.
		ODU Mode (Cool/Heat/Fan/Force Cool/OFF)	
		Master IDU	
		Number of Indoor Units Connected	
		Indoor Unit Address	
		Series (indoor unit type)	
		Capacity	
		Mode	
		Cooling Setpoint	
		Heating Setpoint	
		T1 - In Use (indoor temp used by system)	
		T1 - IDU (Indoor unit sensor)	
		T2 (evaporator middle temperature)	
		T2A (evaporator inlet temperature)	
		T2B (evaporator outlet temperature)	
	EXV (expansion valve open position)		
	Fan Speed		
Software Version			
Error Code >	No. (serial number)	View the error code history for each outdoor unit connected to the controller.	
	IDU#		
	Error (error code number)		
	Type (IDU, ODU, CTRL)		
	Date and Time		
	Clear History Button		
	Error Code Description Button		
HHE Interface >	Number of Indoor Units Connected	Access the HHE relay query interface.	
	Indoor Unit Address		
	FAN (inactive)		
	CTON (inactive)		
	HTON (inactive)		
	AUXH (inactive)		
	DEHU (inactive)		
	Dry Contacts (Reserved) (inactive)		
Controller >	Controller Model Number	View information about the Controller.	
	Controller Software Version		
	Group No.		
	Space Temp.		
	Space RH%		
Contractor Information >	Name	Use the keyboard tool to manually input Contractor information.	
	Company name		
	Address		
	Phone Number		
	Email Address		
	Web Site		
Help >	Home Page Instruction Graphic		
	Error Code List		
	CPU Information		
	Memory Information		

USER / SERVICE SETTINGS

MENU	SETTING (default is bold)	Notes:	
HOME >>			
SERVICE MENU > NOTE - Use keypad number tool to enter password and enter the Service Menu Screen (default is 0000). Password can be changed on the Service Menu screen.	Master/Sub >	Master Sub	Select if the Controller is the Master Controller or Sub-Controller.
	Indoor Unit Addressing >	#0 to 63	Set indoor unit address. Only available for connected single indoor unit
	Indoor Unit Display Board >	Display Board - On/Off	Slide button enabled.
		Buzzer - On/Off	Digital display shows setpoint temperature. Indoor unit beeps when setting change.
	Room Temperature Sensor >	Sensitive (1°F or 2°F.)	
		Calibration (-5°F to 5°F (0°F))	
		Location >	
		Controller Individual Indoor Unit Select One of the Indoor Units	
	Auto Mode >	Auto Mode Changeover (15 , 30, 60 90 minutes)	
		Setpoint Deadband (3 , 4, 5,6 ,7°F)	
	Draft Prevention >	59 , 68, 75, 79°F	When the evaporator temperature (T2 Sensor) is lower than the set value in heating mode the indoor unit fan will stop to prevent supplying cold air.
	Indoor Fan Settings >	Cool (off -low-medium-high-maintain)	Use the slide control to set indoor unit fan operation when setpoint is satisfied.
		Heat (off -low-medium-high-maintain)	
	Static Pressure >	0 to 1.0 in. w.g. (0 in. w.g.)	In increments of 0.04.
	Occupancy Sensor >	On/Off	Slide button enabled.
		Delay (0 , 15, 30, 60 minutes)	Use slide control to adjust.
		Unoccupied Setpoint Offset (0, 2 , 4, 6, 8°F)	
		Heating Setback (54, 62 , 70°F)	Drop-Down Menu.
	Humidity Sensor >	Auto Dry (On/Off)	Slide button enabled.
		Dehumidifier Contact (On/Off)	
		Target RH% (0 to 100%, 50%)	Use slide control to adjust.
		Cutoff (On/Off) 3, 4 , 5°F	Slide button enabled. Use slide control to adjust.
	Aux/AH. Heat Contact >	No Auxiliary/Alternative Heat Installed	
		Aux/Alt Heat Installed at IDU or in Duct	
		Other Aux/Alt Heat Installation	
		Heat On (2 , 3, 4, 5, 6, 7°F)	
		Heat Off (-4 to 4°F, 1°F)	
	Setpoint Limit >	Minimum Cooling Setpoint (62 to 86°F)	
Minimum Heating Setpoint (62 to 86°F)			
Lock >	Lock (OFF/ON)	Use slide control to adjust.	
	Mode (OFF/ON)		
	Temperature Setpoint (OFF/ON)		
	Schedule (OFF/ON)		
	Horizontal Louver (OFF/ON)		
	Vertical Louver (OFF/ON)		
Firmware and Setting >	Controller Firmware Update button	Requires USB drive.	
	Indoor Unit Firmware Update button		
	Backup Setting		
	Import Setting		
	Reset Setting	Reset to factory defaults.	

SPECIAL STATUS SYMBOL DISPLAYS (Located on Upper-Right Mode Screens)

Icon	Name	Description
	Fan	Displays when the indoor unit is in Fan mode.
	Cool	Displays when the indoor unit is in Cooling mode.
	Heat	Displays when the indoor unit is in Heating mode.
	Dry	Displays when the indoor unit is in Dry mode.
	Cooling operation in Auto mode	Displays when the indoor unit is in Auto mode providing cooling operation.
	Heating operation in Auto mode	Displays when the indoor unit is in Auto mode providing heating operation.
	Centralized controller lock	Displays when some functionality is locked by a centralized controller.
	Group control	Displays when more than one indoor unit is connected to the controller.
	Occupancy sensor	Displays when an occupancy sensor is active.
	Help	Tap to see the Help screens.
	Mode conflict prompt	Displays when the indoor unit is in mode conflict with the outdoor unit (heat pump systems)
	Auto Dry function	Displays when auto dry function is ON.
	Master controller	Displays if the controller is a master.
	Sub controller	Displays if the controller is a sub.
	Outside air ducted indoor unit	Displays if the connected indoor unit is providing outside air.
	ON/OFF lock	Displays when some functionality is locked by settings on this controller.
	Mode lock	Displays when Mode is locked.
	Setpoint lock	Displays when Setpoint is locked.
	Schedule lock	Displays when Schedule is locked.
	Defrosting or oil return	Displays when the outdoor unit is in defrost or oil return operation.
	Cold air prevention	Displays during period of time before the coil warms to the determined cold air prevention temperature. The fan will not run during this time period.



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