# VARIABLE REFRIGERANT FLOW SYSTEMS
# VRF
## V0STAT51P-2
### Programmable Wired Controller

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**LENNOX VRF**

## PRODUCT SPECIFICATIONS



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

### FEATURES

- **Touchscreen Display -** 6.2 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 periods per day can be set. 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).

- **Home Screen -** Displays temperature (°F or °C), time and day of week and current date, schedule status, override options, operating mode (COOL, HEAT, AUTO, DRY, and FAN), fan speed, louver swing and ON/OFF.

- **Function Buttons -** Turn unit on or off, change the operation mode, adjust fan speed, turn swing louvers on or off, adjust setpoint, view schedule, activate override, and access configuration settings. Audible tone when each button is touched.

- **Battery -** One CR2032 lithium button battery is furnished as standard.

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

- **Wiring -** Controller uses low voltage 4-wire 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.

### USER SETTINGS

#### HOME SCREEN (Standard Display)



**Indoor Unit Power Button**
- On/Off

**Menu Button (Gear Icon)**
- Access to the Configuration settings (see page 3)

**System Mode Buttons**
- Cool
- Heat
- Auto
- Dry - Turns dehumidification on or off

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

- Fan (Only)

**Temperature Displays and Adjustment**
- Large display of current setpoint temperature (°F or °C) *(adjustable 62 to 86°F)*

> If the system is operating in either **Cooling** or **Heating** Mode, only those setpoints are displayed.
>
> If the system is operating in **Auto** Mode (heat recovery systems only) both heating and cooling setpoints are displayed. The larger display indicates the active mode.

> Setpoint range limits are adjustable on the **Configuration Screen** (see page 3).

- Touch either setpoint to adjust temperature
- Touch and move temperature slider up or down or touch the Plus (+) and Minus (–) buttons to adjust temperature

# USER SETTINGS

## HOME SCREEN (Standard Display) (Continued)

### Fan Speed Button
- High
- Med
- Low

### Room Temperature
- Displays current room temperature

> ⍰ Room temperature is sensed by the internal sensor in the controller (default) or by the indoor unit sensor.
>
> Sensor location can be set on the **Configuration Screen** (see page 4).

### Swing Button
- Enables automatic louver swing function on certain indoor units
  - On/Off

### 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 in the **Configuration Screen** (see page 4).

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

## HOME SCREEN (Simple Display)
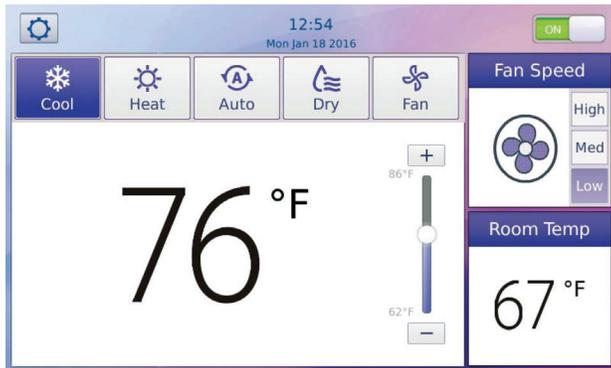


A simple display is also available that shows all functions except Swing and Schedule functions. Set on the Configuration Screen (see page 3).

## SCHEDULE SCREEN



### Schedule Type
- 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)

> ⍰ Up to eight different time periods per day can be set.

> ⍰ Day of the Week Buttons appear at the top of the screen to set each day's schedule.

### Schedule Parameter Buttons
- Start (Start Time)
- On-Off (System Operation)
- Mode (Cool, Heat or Auto)
- Cool Setpoint
- Heat Setpoint
- Fan Speed (Low, Med or High)

### Copy and Paste Buttons
- Settings from one day can be copied and pasted to another day

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

> ⍰ Holiday schedules override normal schedules on the days set.

### Reset Button
- Deletes all set schedules

## CONFIGURATION SCREEN
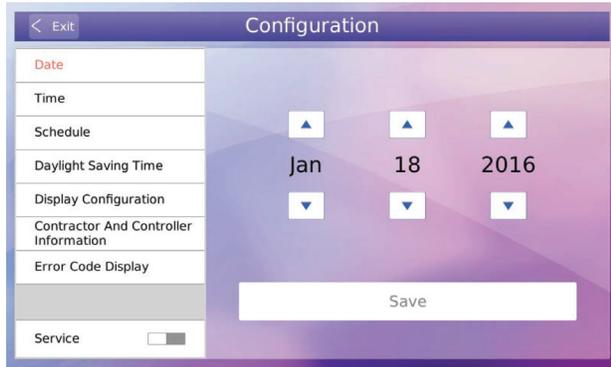


ⓘ Touch menu buttons on left side of screen to display different configuration screens.

### Date Button
• Use Up/Down Arrows to set month, day and year

### Time Button
• Use Up/Down Arrows to set hours, minutes and AM/PM

ⓘ Use Checkbox to change from 12-hour to 24-hour format (adjust hours and minutes only).

### Schedule Button
• Enable or Disable Schedule function

### Daylight Savings Time Button
• Enable or Disable Daylight Savings Time

### Display Configuration Button
• Standard Display/Simple Display

### Contractor and Controller Information Button
• Contractor Information
  • Name
  • Address
  • Phone
  • Email
  • Website

ⓘ Use the keyboard tool to manually input Contractor information.

• Controller Information
  • Model Number
  • Software Revision

### Error Code Display Button
• View last ten error codes
• Each row can display up to six error codes
• Touch Error Code Description to view code description screen
• Touch Back button to return to the Error Code Display Screen

### Service Button
• Swipe Service Button to Access password screen
• Use keypad to enter password and enter the Service Configuration Screen (default is 0000)

ⓘ Password can be changed on the Lock Screen within the Service Configuration options.

## SERVICE CONFIGURATION SCREEN
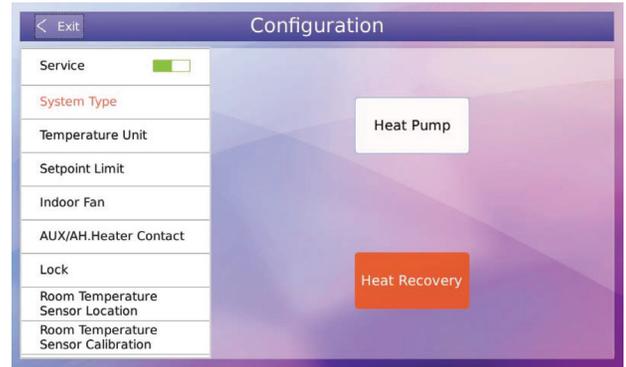


ⓘ Enter password to access Service Configuration Screen.

### System Type Button
• Heat Pump (VPA)
• Heat Recovery (VRA default)

ⓘ If Heat Pump is selected, Auto Mode Button will not display on the Home Screen.

### Temperature Unit Button
• °F or °C (default is °F)

### Setpoint Limit Button
• Use Up/Down Arrows to adjust Cooling or Heating Setpoint Limits that display on the Home Screen *(adjustable 62 to 86°F)*

### Indoor Fan Button
• Sets the fan operation when cooling or heating setpoint is satisfied
  • Fan On (default, recommended for highest efficiency)
  • Fan Off

ⓘ If set to "Fan Off" Controller displays confirmation screen that fan operation may turn off when using alternate heat connected through the HHE Relay Kit Four Dry-Contact board.

### AUX/AH. Heater Contact Button
Sets the operation parameters for alternate heat connected through the HHE Relay Kit Four Dry-Contact board.

• Auxiliary Heat Heater ON Temperature (Heater is energized when room temperature falls below setpoint by this value)
  *(3 or 5°F)*
• Alternative Heat Active at Ambient Temperature (When the outdoor temperature is lower than the selected temperature and the indoor unit is in heating mode, the indoor unit will stop providing heat and alternate heat will be energized.)
  *(adjustable 7, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 72°F or OFF)*

ⓘ If Alternate heat is set to OFF, indoor unit will operate in normal heating mode.

## SERVICE CONFIGURATION SCREEN (continued)

### Lock Button

- Select functions to lock on the Home Screen Display
  - On/Off
  - Temp Setting
  - Mode
  - Swing
  - Schedule

> ⍰ If a function is locked, the Home Screen Display will show "*Function has been locked*", blocking user access.

- Change Password
  - Enter Old Password
  - Enter New Password

> ⍰ Use the keypad number tool to enter password information.

> ⍰ **WARNING - IF A PASSWORD IS LOST THERE IS NO RESET FUNCTION!**

### Room Temperature Sensor Location Button

- Controller
- Indoor Unit

> ⍰ If more than one indoor unit is controlled by this controller, the room temperature sensor location is set to Controller and cannot be changed.
>
> If outdoor air is being supplied to the indoor unit, Controller should be selected.

### Room Temperature Sensor Calibration Button

- Touch and move temperature slider up or down or touch the Plus (+) and Minus (–) buttons to adjust temperature
- Adjustable (*–4 to 4°F*)

### Override Button

- Limits the user to one override schedule on the home screen (30, 60, 90, or 120 minutes)

### Louver

- Yes/No buttons enable/disable the Swing Button on Home Screen if indoor unit does not have swing louvers

### ERV

- For future use (disabled)

### Advanced Information

- View indoor unit operating data, error code history and HHE Relay four dry-contact status

### Operating Data

- View the current operation status of each indoor unit connected to the controller
  - Indoor Unit Address Number

> ⍰ Touch Up/Down Arrow buttons to switch between different connected indoor unit addresses.

  - Indoor Unit Status (On/Off, Mode, Cool Setpoint, Heat Setpoint, Fan Speed)
  - Current Readings
    - T1 Temperature (Indoor unit sensor)
    - T2 Temperature (middle of indoor unit evaporator)
    - T2B Temperature (outlet of indoor unit evaporator)
    - EXV Position (expansion valve open position)
  - Total number of connected indoor units

### Error Code

- View the error code history for each indoor unit connected to the controller
- Displays last ten error codes
- If indoor unit has multiple errors, they will be displayed on the same row
- Each row can display up to six error codes

> ⍰ Touch the error code to display the description screen.

- Reset button erases all errors and history

### Dry Contacts

- View the HHE Relay four dry-contact status for each indoor unit connected to the controller

> ⍰ Touch Up/Down Arrow buttons to switch between different connected indoor unit addresses.

### Firmware and Setting

- View the firmware and setting information of the controller
- Copy/Change Settings or Update Firmware

> ⍰ Allows user to copy user settings to USB drive, upload user settings from USB drive. Makes it easy to copy user settings from one controller to another.
>
> Update controller software from USB drive.

## Reset Settings

- Restores Controller to factory settings

| Option Category | Parameter Option | Factory Default |
|---|---|---|
| General Function Settings | Parameter Option | Factory Default |
| | Date | January 1, 2010 |
| | Time | 12-hour format |
| | Schedule | None |
| | Daylight Saving Time | Disabled |
| | Display Configuration | Standard Display |
| | Contractor And Controller Information | Blank |
| | Error Code Display | Updated in real time |
| Service Options | System Type | Heat Recovery |
| | Temperature Unit | °F |
| | Setpoint Limit | Min. 62°F |
| | | Max. 86°F |
| | Indoor Fan | Cooling Fan ON |
| | | Heating Fan ON |
| | AUX/AH. Heater Contact | Auxiliary heat: 3°F |
| | | Alternative heat: OFF |
| | Lock | No function locked |
| | Room Temperature Sensor Location | Controller |
| | Room Temperature Sensor Calibration | 0°F |
| | Override | Not set |
| | Louver | Yes |
| | ERV | No |
| | Advanced Information | Updated in real time |
| | Firmware and Setting | Display firmware information |
| | Reset Settings | - - - |

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