



THIS MANUAL MUST BE LEFT WITH THE OWNER FOR FUTURE REFERENCE

These instructions are intended as a general guide and do not supersede local codes in any way. Consult authorities having jurisdiction before installation.

CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

OPERATION INSTRUCTIONS

Outdoor Unit Service Console

VRF SYSTEMS

507958-03

08/2020

General

The outdoor unit service console provides system information and allows system setup from an easy to read LCD display.

No laptop or service checker software required. Read system performance data, diagnose faults, setup system parameters and perform service related testing all from the outdoor unit.

- System operational and performance data retrieval to inspect overall health of the system in minutes**

The Data Menu allows the user to select 1 of 4 main menu points and cycle through 16 sub menu points.
- Current and past alarm codes to resolve a failure or intermittent issue**

Up to 10 most recent Fault codes stored.
- System Settings and Configurations**

The Settings Menu allows the user to select one of the six main menu items to configure and or view the current dip switch and rotary settings
- Services**

Perform performance related testing of the system.

System Setup

Use this manual to setup the VRB or VPB system. This manual provides step-by-step instructions for setting up the system. See Page 18.

View System Configuration

Using the Settings menu in the service console, you can view system settings. See Page 25.

View System Data

Use the Data menu in the service console to view system data such as sensor readings. See Page 31.

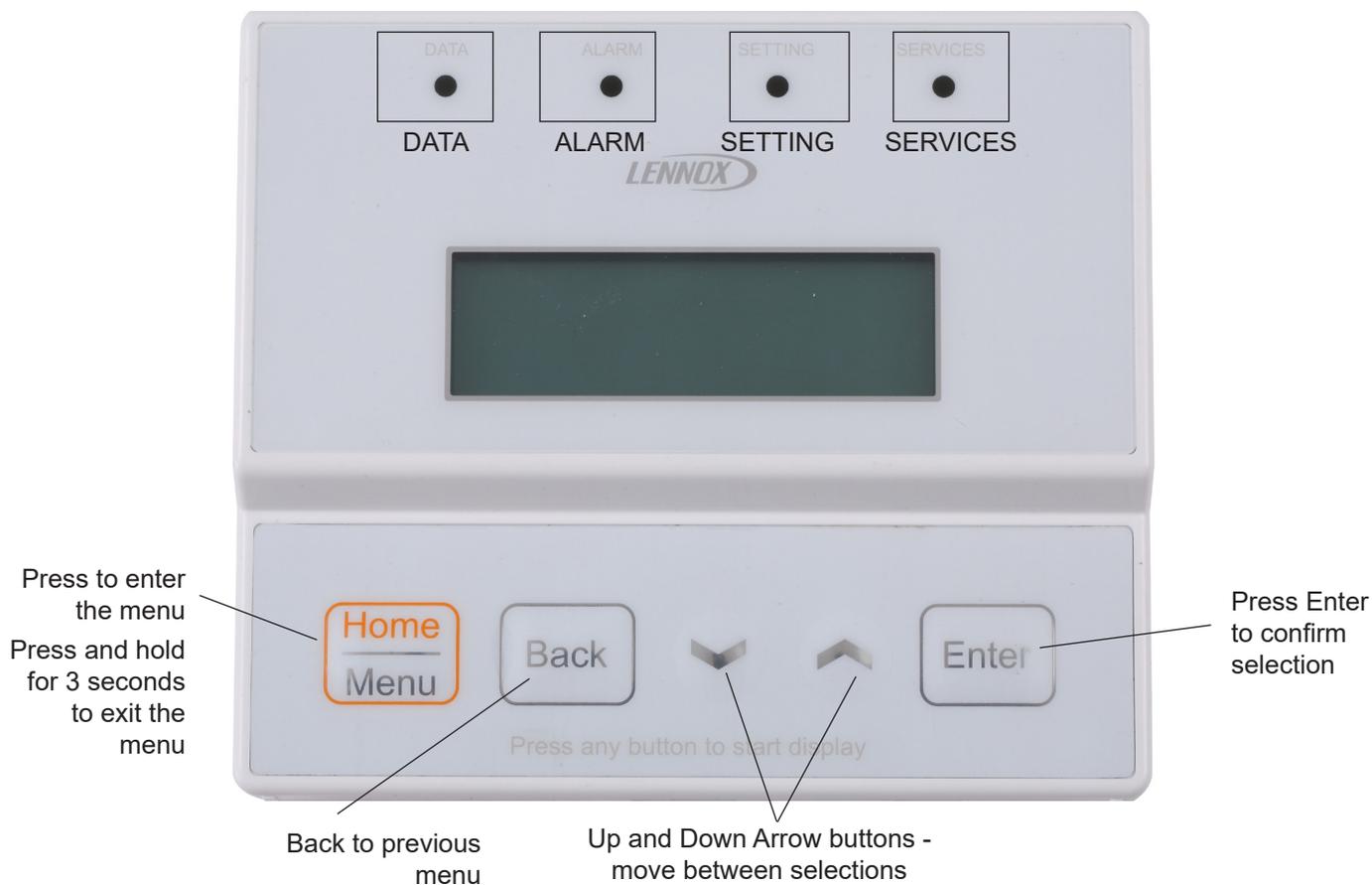
View Outdoor Unit Alarms

Use the Alarm screens in the service console to view system current alarms and history of previous alarms. See Page 40.

Perform Service on the System

Use the Services menu in the service console to perform system service by locking out local controllers and performing specified operations. See Page 6.

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- The Home screen displays when the service console is not otherwise in use. It will display incoming voltage, mode of operation, compressor(s) frequency, and operation status.
- Press the Home / Menu button once to exit sleep mode. the LCD will be blank upon first observation.
- Press the Home / Menu button to enter the service tool.
- Press the Home / Menu button to cycle through the Main Menu Selection Items (Data, Alarm, Setting, Services). Note that the small LED lights will illuminate as you pass through each main menu item. For example, the DATA light will be illuminated once the Data menu has been activated.
- Press the Back Button to return to the previous Main Menu item.
- Use the arrows to cycle through data and configuration options.
- Press Enter to change and/or to configure selected items.
- The Service Tool will return to the Home menu after 30 seconds of inactivity.
- Press and hold the Home / Menu button for 3 seconds to return to the Home screen display.

Access LCD Display

The service console is located inside the outdoor unit's left service door. See Figure 1.

1. Open the left service door.
2. Open the hinged access panel.

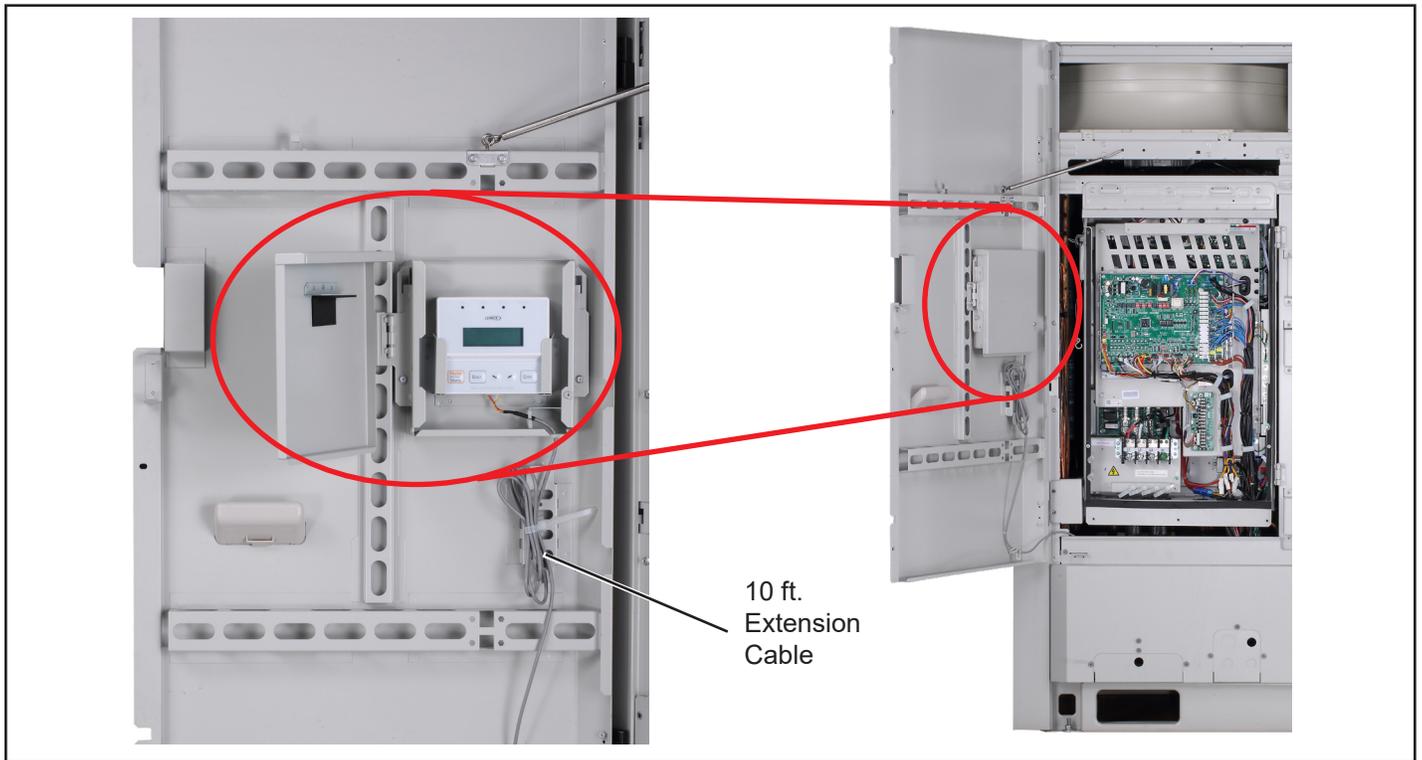


Figure 1. Access Service Console

3. Lift service console out of mounting brackets, being careful not to tangle the cable.
4. Release cable clips and reroute the cable through the square hole in door panel. Close the doors. See Figure 2.
5. Move to any convenient location away from the unit, within the 10 ft. cable range and begin to view performance data, configure system settings, view error codes or perform service testing.



Figure 2. Route Cable

NOTE - For accurate viewing of pressures, temperatures, amps, etc. the outdoor unit doors must be closed while the system is in operation.

Home Screen

The Home screen displays primary performance statistics while at rest.

If the screen is blank, touch any button to activate the Home screen.

The Home screen will display incoming voltage, mode of operation, compressor(s) frequency, and operation status.

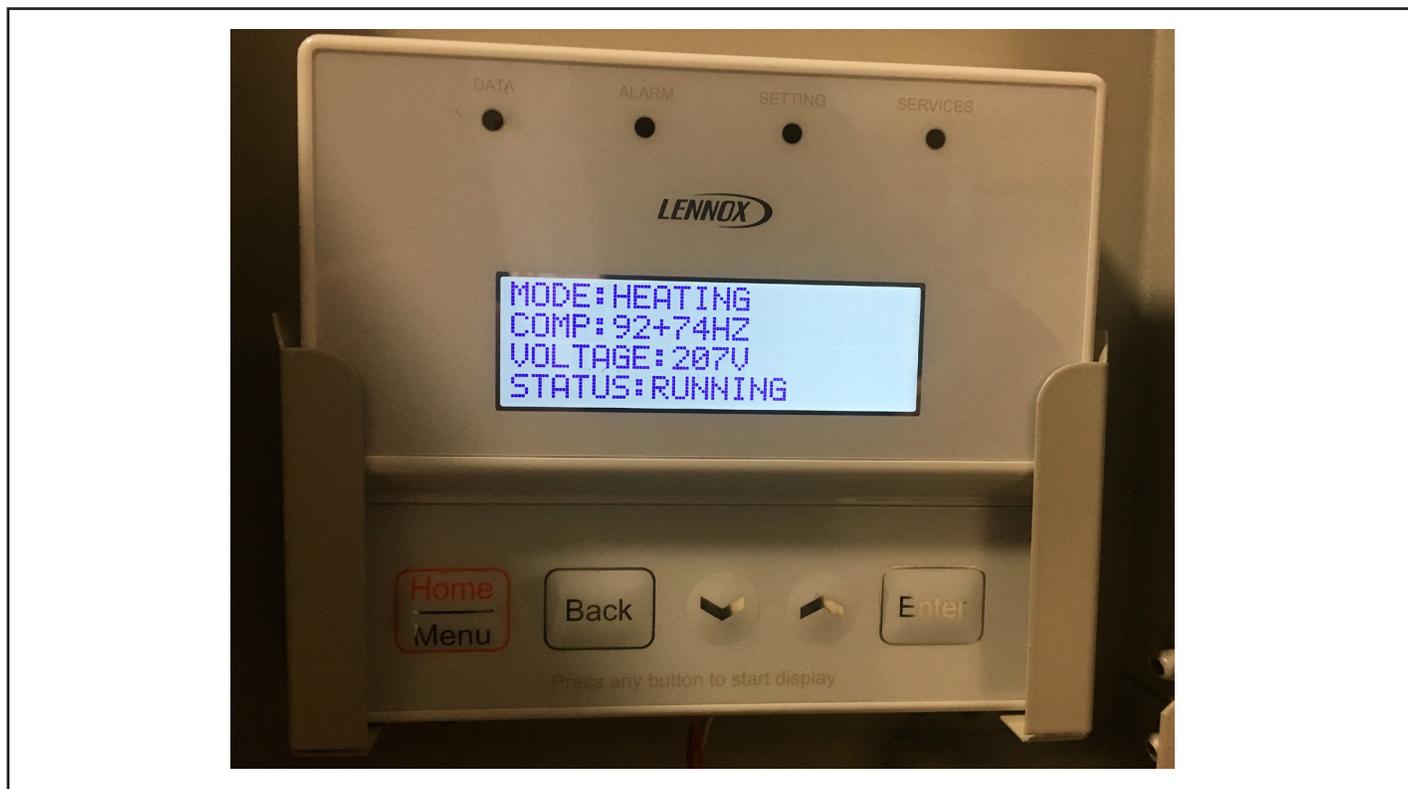


Figure 3. Home Screen

Home Screen

Menu	Example Value	Description
MODE	HEATING	System operation mode: OFF/COOLING /HEATING /MIX COOLING/MIX HEATING
COMP	92+74HZ	Main compressor speed + Sub compressor speed
VOLTAGE	207V	Input voltage
STATUS	RUNNING	Current status. (active error(s)/defrosting/oil return/standby/running)

The system shown in this example is running and operating in the heating mode. It is an outdoor unit with dual compressors and its compressors are running at 92 and 74 hertz respectively. The incoming voltage to the outdoor unit is 207 volts AC. The outdoor unit's status is running.

Services Menu

Operation and configuration of the Services Menu should ONLY be performed by authorized service personnel.

Using the Services menu, up to 12 forced functions or specific modes can be enabled at a single time. Some functions will override the system for a period of one (1) hour while disabling all connected local and central controllers; all mode commands and capacity demands sent from the end user(s) will be ignored. Other functions within the Services menu will restore the LCD service console back to factory settings.

Follow these steps to access the Services menu.

1. Press the Home / Menu button to exit the Home screen.
NOTE - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated. See Figure 6.
3. Press the Enter button.
Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.The factory default pass code is 0-0-0-0.
4. Use the arrows to cycle through the options.
5. Each option is explained in the upcoming pages.
6. Press the Back button to return to the top of the Services menu.
7. Press the Enter button to select the service you want to perform.
8. To exit the Services menu:
Press and hold the Home button to exit the Services menu.
or
Press the Back button to return to the Main menu.

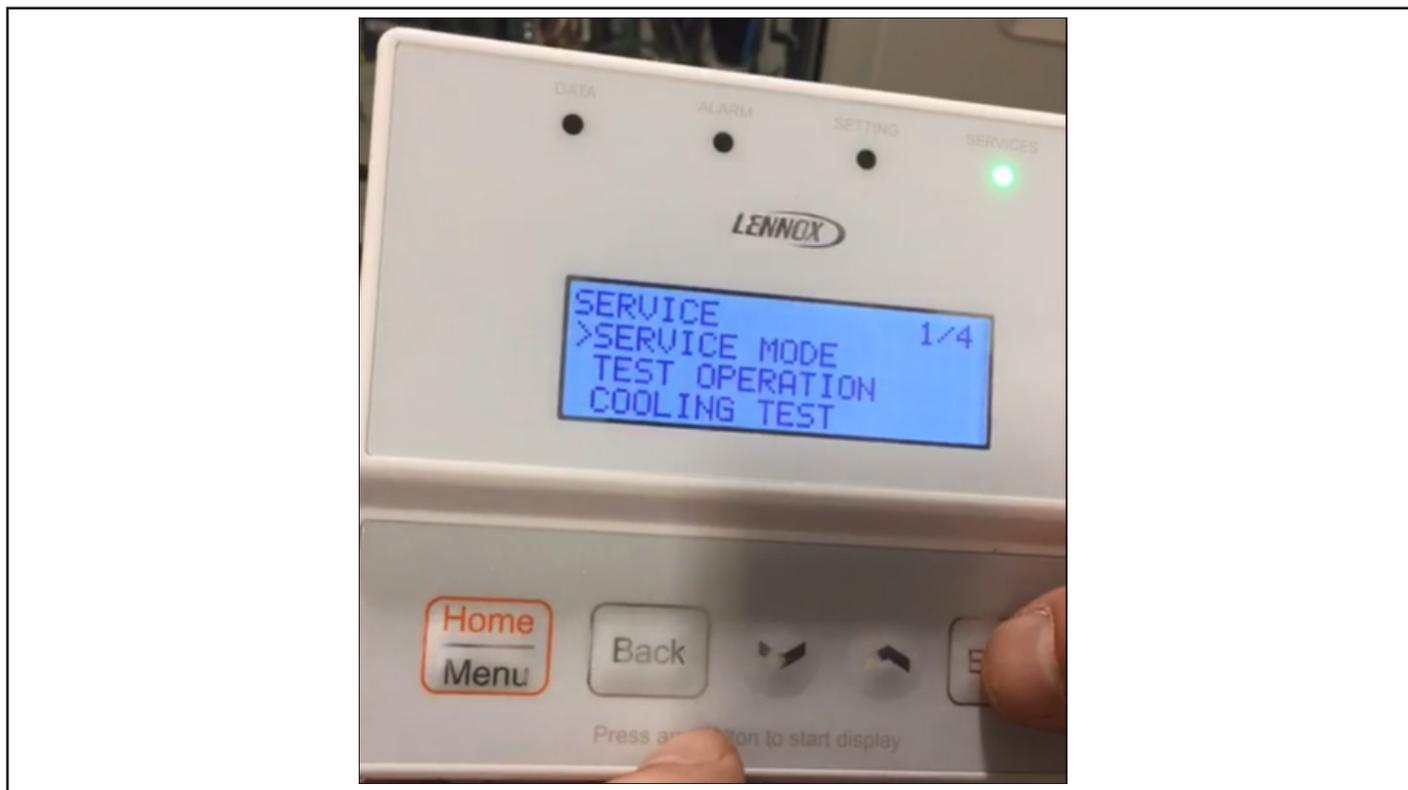
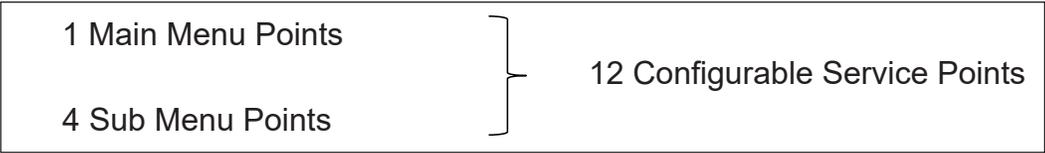


Figure 4. Services Menu



- SERVICE MODE 1/4
- TEST OPERATION
- COOLING TEST

- HEATING TEST 2/4
- MANUAL DEFROST
- REFRI. RECYCLE MODE

- ASSIGN IU ADDRESS 3/4
- ECO MODE
- CANCEL LVM STOP

- CLEAR IU ADDRESS 4/4
- FACTORY SETTING

Enter Service Mode

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
 2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
 3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
 4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
 5. Use the arrows to cycle through the options until SERVICE MODE is selected
 6. Press the Enter button.
- Putting the system in services mode allows a service technician to make repairs to an indoor unit without service interruptions for 120 minutes.
 - The system will continue to operate as normal for all units not “out of service”.
 - After 120 minutes the system will auto discover all configured addresses. Should an address not be discovered the system will then enter fault.

Perform Test Operations

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
5. Use the arrows to cycle through the options until TEST OPERATION is selected
6. Press the Enter button.
7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
8. Press the Enter button.

Putting the system in test operation forces the system to perform pre-start up tests. The outdoor unit will check the following:

Step	Test Item	Object	Malfunction Reason	Error Code
1	Capacity ratio	A=IDU capacity/ODU capacity	A ≥ 135%	01U1
			A < 45%	02U1
2	Indoor ambient temperature	Average T1	Average T1 ≥ 95°F (35°C)	02U2
	Outdoor ambient temperature	T4	T4 ≤ 13°F (-25°C) or T4 ≥ 118°F (48°C)	01U2
	Indoor and outdoor ambient temperature	T4 and average T1	Average T1 < 32°F (0°C), T4 ≥ 41°F (5°C) Average T1 ≥ 32°F (0°C), T4-T1 ≥ 86°F (30°C)	03U2
3	Gas/liquid valve is open or not	High/Low pressure	Pressure protection	Pressure protection
4	Refrigerant and electrical signal are matching	Indoor unit addresses	The outdoor unit sends a message to each indoor unit address and receives a response from each one that is wired properly.	0U4

These are the same tests the system performs after a loss of power and the first time it is started up.

Perform Cooling Test

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
 2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
 3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
 4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
 5. Use the arrows to cycle through the options until COOLING TEST is selected
 6. Press the Enter button.
 7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
 8. Press the Enter button.
- Forced Cooling will override and disable all controllers restricting end-user(s) operation, this is to include centralized controllers as well.
 - Compressor frequency, fan speeds, and EXV positions will be elevated and will operate semi-independently from refrigerant pressures and temperatures.
 - Cooling and heating capacity demands will not be observed during this period.

Exit Force Cooling by pressing SW1 from the main outdoor unit PCB or through the LCD Console within the Services menu.

The system will exit cooling test mode after 120 minutes and resume normal operation.

Perform Heating Test

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
 2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
 3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
 4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
 5. Use the arrows to cycle through the options until HEATING TEST is selected
 6. Press the Enter button.
 7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
 8. Press the Enter button.
- Forced Heating will override and disable all controllers restricting end-user(s) operation, this is to include centralized controllers as well.
 - Compressor frequency, fan speeds, and EXV positions will be elevated and will operate semi-independently from refrigerant pressures and temperatures.
 - Similar to Forced Cooling Operation, the system will enter cooling mode however the high pressure gas line on heat recovery systems will double as a vapor return. In all cases the Compressor(s) operation will be elevated to higher frequencies.
 - Cooling and heating capacity demands will not be observed during this period.

Exit Force Heating through the LCD Console within the Services menu.

The system will exit heating test mode after 120 minutes and resume normal operation.

Perform Manual Defrost

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
 2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
 3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
 4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
 5. Use the arrows to cycle through the options until **MANUAL DEFROST** is selected
 6. Press the Enter button.
 7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
 8. Press the Enter button.
- Use during low ambient heating & cooling operation in order to maintain appropriate refrigerant state and saturation temperatures.
 - Similar to Forced Cooling Operation, the system will enter cooling mode however the high pressure gas line on heat recovery systems will double as a vapor return. In all cases the Compressor(s) operation will be elevated to higher frequencies.

The system will initiate its defrost sequence should one or more of the following conditions be met. Should these conditions not be met, the Defrost cycle can be manually entered within the Services menu.

1. If cumulative operating time is more than 40 min when the evaporator outlet temperature of outdoor unit, T3, is continuously below 0°C after the last defrost cycle or oil return cycle, the system will enter defrost operation according to T3 and ambient temperature T4.
2. If cumulative operating time is more than 40 min when the evaporator outlet temperature of outdoor unit, T3, is continuously below 0°C after the last defrost cycle or oil return cycle, the system will enter defrost operation according to T4 and cumulative operating time.
3. If there is excessive Icing within first 5 minutes of operation.

Recycle Refrigerant

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
5. Use the arrows to cycle through the options until **REFRI. RECYCLE MODE** is selected
6. Press the Enter button.
7. Use the arrows to cycle through the options - RECYCLE TO OU, RECYCLE TO IU or RECYCLE TO PIPING. Select YES to start.
8. Press the Enter button.

The recycle refrigerant function allow automatic pump down of the system refrigerant to the outdoor unit, to the indoor units or to the system piping.

Recycle Function	Description
RECYCLE TO OU For systems operating with less than 30 pounds of additional trim charge per outdoor unit.	System goes into cooling, service technician closes liquid service valve. When the pressure drops to 29 psi (2MPa), the technician close other valves. The refrigerant is stored in the outdoor unit coil.
RECYCLE TO IU For systems operating with less than 30 pounds of additional trim charge per outdoor unit.	System goes into heating, service technician closes suction service valve. When the pressure drops to 29 psi (2MPa), the technician close other valves. The refrigerant is stored in the indoor unit coils and refrigerant piping.
RECYCLE TO PIPING	System Line Recovery. All outdoor unit service valves are to be manually closed by service technician. Same as evacuation mode. All EXVs and solenoid valves will open for evacuation and refrigerant recovery.

NOTE - If a refrigerant leak is suspected, all refrigerant shall be removed and weighed for comparison. Pressure testing and evacuation procedures will need to be repeated.

Assign Indoor Unit Addresses

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
5. Use the arrows to cycle through the options until ASSIGN IU ADDRESS is selected
6. Press the Enter button.
7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
8. Press the Enter button.

The outdoor unit will assign each indoor unit an address beginning with "00". The mode selection boxes need to be manually addressed using a dial switch on the mode selection box main PCB.

Enter Economy Mode

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
5. Use the arrows to cycle through the options until ECO MODE is selected
6. Press the Enter button.
7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
8. Press the Enter button.

Energy saving control is used to adjust the target value of T2B/T2 to decrease compressor demand, according to indoor ambient temperature.

Compressor demand determines operating frequency, lower demand leads to lower electricity consumption. Target value of T2B increases with T1 decreasing in cooling mode, while target value of T2 decreases with T1 increasing in heating mode.

Target value of T2B/T2

T1 average	<68°F	68°F - 73°F	73°F - 89°F	89°F - 86°F	≥86°F
	<20°C	20°C - 23°C	23°C - 26°C	26°C - 30°C	≥30°C
Target value of T2B in cooling mode	59°F	54°F	50°F	46°F	43°F
	15°C	12°C	10°C	8°C	6°C
Target value of T2 in heating mode	115°F	111°F	108°F	104°F	100°F
	46°C	44°C	42°C	40°C	38°C

NOTE -

1. T1 average is the average value of all indoor ambient temperature detected by indoor units in operation mode (cooling/heating).
2. After system startup, target value of T2B/T2 is adjusted per 5 minutes.

Cancel LVM Forced Stop

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
5. Use the arrows to cycle through the options until CANCEL LVM STOP is selected
6. Press the Enter button.
7. Use the arrows to cycle through the options - YES or NO. Select YES to cancel the emergency (forced) stop command from the LVM.
8. Press the Enter button.

An emergency stop command can be sent from the LVM centralized controller to the outdoor unit. Select YES to cancel the emergency stop command. The outdoor unit will display 0A0 during forced stop.

Clear Indoor Unit Addresses

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
 2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
 3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
 4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
 5. Use the arrows to cycle through the options until CLEAR IU ADDRESS is selected
 6. Press the Enter button.
 7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
 8. Press the Enter button.
- All indoor unit addresses will be set to 00.
 - All indoor unit addresses will be removed and a communication errors will be displayed at the indoor unit, central and local controls.
 - This function would be used to avoid duplicate indoor unit addresses or to readdress a system due to indoor unit PCB failure should wireless remote or local controller not be available.

Restore Factory Setting

1. **NOTE** - If the LCD display is in sleep mode, press the Home button once to wake it and then once more to exit the Home screen.
2. Press the Home button to cycle through the selection items until SERVICES is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SERVICES light will be illuminated once the Menu button has been activated.
4. Enter your four digit numerical password.
 - A. Use the arrow keys to dial in the first numerical value.
 - B. Once the correct value is displayed within the first box press the Enter button to advance to the second box.
 - C. Repeat steps A & B three additional times.
5. Use the arrows to cycle through the options until FACTORY SETTING is selected
6. Press the Enter button.
7. Use the arrows to cycle through the options - YES or NO. Select YES to start.
8. Press the Enter button.

NOTE - Should the factory reset be enabled, if not manually configured at ODU PCB, all settings and configurations will need to be re-entered.

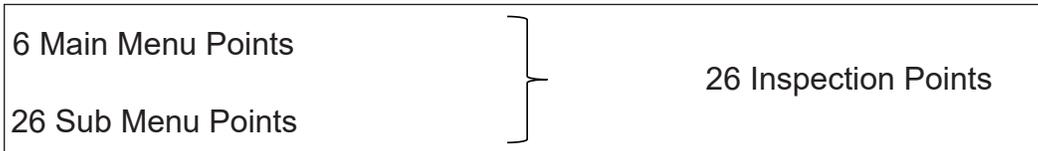
Setting Menu

Use the Settings screens to setup the outdoor unit during system start up or to view or change system settings. Follow these steps to access the Settings screens.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until SETTING is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SETTING would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle through the options. Each option is explained in the upcoming pages.
5. Press the Enter button to select the service you want to perform.
6. To exit the Services menu:
Press and hold the Home button to exit the Settings menu.
or
Press the Back button to return to the Main menu.



Figure 5. Settings Screen



System settings and configurations.

The Settings Menu allows you to select one of the six main menu items to configure and or view the current dip switch and rotary settings.

- **Installation** – View/Input system charge information and date of start up.
- **Dip Switch** –The dip switch menu allows the user to view and or configure the system settings. When settings are reconfigured the outdoor PCB will provide digital conformation along with the on-board service tool.

INSTALLATION	DIP SWITCH	DIP SWITCH	DIP SWITCH
<ul style="list-style-type: none"> • CHARGE INFO. 1/1 • START-UP DATE 	<ul style="list-style-type: none"> • ODU ADDRESS 1/6 ENC 1: 	<ul style="list-style-type: none"> • LL PIPE LENGTH 1/5 >= 295' FEET S9 – 1 YES <input type="checkbox"/> / NO <input type="checkbox"/> 	<ul style="list-style-type: none"> • INDOOR QTY. 1/3 S12 & ENC 3
	<ul style="list-style-type: none"> • ODU MODEL 2/6 ENC 2: 	<ul style="list-style-type: none"> • ODU SERIES 2/5 S2 208/230 VAC <input type="checkbox"/> 460VAC <input type="checkbox"/> • HR <input type="checkbox"/> or HP <input type="checkbox"/> 	<ul style="list-style-type: none"> • VERIFY INDOOR QTY. 2/3 S7 YES <input type="checkbox"/> / NO <input type="checkbox"/>
	<ul style="list-style-type: none"> • SILENCE MODE 3/6 ENC 5: 	<ul style="list-style-type: none"> • SKIP TEST OPERATION 3/5 YES <input type="checkbox"/> / NO <input type="checkbox"/> 	<ul style="list-style-type: none"> • MODE PRIORITY 3/3 S5
	<ul style="list-style-type: none"> • ODU ESP 4/6 S4: 	<ul style="list-style-type: none"> • NET ADDRESS 4/5 ENC 4 	
	<ul style="list-style-type: none"> • ODU GUARD TIME 5/6 S8: 	<ul style="list-style-type: none"> • T10 SENSOR IN- 5/5 STALLED S3 YES <input type="checkbox"/> / NO <input checked="" type="checkbox"/> 	
	<ul style="list-style-type: none"> • LOW AMBIENT KIT 6/6 S9-2 YES <input checked="" type="checkbox"/> / NO <input type="checkbox"/> 		

System settings and configurations.

- **Functional** – Specific function that is configurable within the LCD console and or on the outdoor unit main PCB.
- **Password** – Default Password 0-0-0-0. Password Override must be provided through VRF Technical Support.

NOTE - Some configurations within the LCD Console do not require additional configuration at the main outdoor unit PCB, however these backup settings are recommended should factory settings be restored. The manual PCB configurations will be auto-detected through the LCD Console.

FUNCTIONAL

• INDOOR TEMP UNIT	1/3
• T4 PRIORITY	
• COMP. LOCKOUT	

• T2 TARGET	2/3
• T2B TARGET	
• DEMAND CONTROL	

• VIP ADDRESS	3/3
• SNOW MODE	

Legend

S = Dip Switch

= Switch Bank

- # = Pin number configured within associated dip switch bank

ENC = Rotary Dial

For example: LOW AMBIENT KIT S9-2 is dip switch S9, pin number 2.

Setup System

Follow these steps to setup the system.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until SETTING is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SETTING would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle through the options. Each option is explained below.
5. Press the Enter button to select an item that you want to set or change.
6. Press the arrow buttons to cycle through the options for that setting.
7. Press the Enter button to move to the next setting.
8. Press the Back button when you are done and want to return to the Home screen.

INSTALLATION

• CHARGE INFO. 1/1
[REDACTED]

• START-UP DATE
[REDACTED]

Enter the TOTAL SYSTEM CHARGE. The Total System charge is the amount of charged added during start up plus the factory charge.

Enter the date the system is being started up.

DIP SWITCH

• ODU ADDRESS 1/6
ENC 1:
[REDACTED]

Enter the outdoor unit address.
0 = Main (Largest capacity outdoor unit)
1 = Sub 1 (Next largest capacity outdoor unit)
2 = Sub 2 (Smallest capacity outdoor unit)
The default is 0 (Main).
The corresponding dial switch is ENC 1.
Make the setting using either the service console or the dial switch.

• ODU MODEL 2/6
S2:
[REDACTED]

Enter the outdoor unit model - Heat Pump or Heat Recovery.
The default is heat recovery.
The corresponding dip switch is S2.
Make the setting using either the service console or the dip switch.

•SILENCE MODE 3/6
 ENC 5:

Use to reduce, limit or alter outdoor unit fan speed for the purpose of reducing discharge air noise. Choose one of the four night silent mode settings.
 This setting reduces noise by reducing the outdoor unit fan speed during night time operation. The default is None.
 The corresponding dial switch is ENC 5.
 Make the setting using either the service console or the dial switch.

0	Silence mode 1
1	Silence mode 2
2	Silence mode 3
3	Silence mode 4
4	None (factory default)
5	None
6	None
7	None
8	Silent mode
9	None
A	Super silence mode
B	None
F	Reserved

•ODU ESP 4/6
 S4:

Used to adjust outdoor unit static pressure should ducting of discharge air be required
 Choose one of the five outdoor unit static pressure settings.
 This setting controls the fan speed. See the outdoor unit manual for detailed information.
 The default is None. Select a minimum of 0.16 W.G. if a Low Ambient Cooling Kit is installed.
 The corresponding dip switch is S4.
 Make the setting using either the service console or the dip switch.

Zero static pressure mode (0 WG) (Default factory setting)
Low static pressure mode 0.08 WG (20 Pa)
Medium static pressure mode 0.16 WG (40 Pa)
High static pressure mode 0.24 WG (60 Pa)
Super High static pressure mode 0.32 WG (80 Pa)

•ODU GUARD TIME 5/6
 S8:

Select the outdoor unit time delay on start up or mode change over.
 Options are 7 minutes and 12 minutes
 The default is 12 minutes.
 The corresponding dip switch is S8.
 Make the setting using either the service console or the dip switch.

•LOW AMBIENT KIT 6/6
 S9-1
 YES / NO

Select Yes or No to indicate if a Low Ambient Cooling kit has been installed on this outdoor unit.
 Configure to YES if a LOAM Hood is installed on the applicable outdoor unit.
 The corresponding dip switch is S9-2. Set ODU static pressure on S4.
 Make the setting using either the service console or the dip switch.

DIP SWITCH

• LL PIPE LENGTH
 >= 295' FEET
 S9 – 2
 YES / NO 1/5

For Optimal Performance select YES Should TOTAL Pipe length be greater than 295' feet. This setting ensures that liquid refrigerant does not enter the compressor during defrost when there is a large system charge.
 The corresponding dip switch is S9-1.
 Make the setting using either the service console or the dip switch.

• ODU SERIES
 S2
 208/230 VAC
 460VAC
 • HR or HP 2/5

Check or Configure to appropriate unit designation. Select the outdoor unit voltage supply and the system type.
 The corresponding dip switch is S2.
 Make the setting using either the service console or the dip switch.

• SKIP TEST OPERATION
 YES / NO 3/5

Select Yes to cause the outdoor unit to skip the start-up tests that are performed automatically after a loss of power and when starting the system for the first time.
 The corresponding dip switch is S6-2.

Step	Test Item	Object	Malfunction Reason	Error Code
1	Capacity ratio	A=IDU capacity/ ODU capacity	A ≥ 135%	01U1
			A < 45%	02U1
2	Indoor ambient temperature	Average T1	Average T1 ≥ 95°F (35°C)	02U2
	Outdoor ambient temperature	T4	T4 ≤ 13°F (-25°C) or T4 ≥ 118°F (48°C)	01U2
	Indoor and outdoor ambient temperature	T4 and average T1	Average T1 < 32°F (0°C), T4 ≥ 41°F (5°C) Average T1 ≥ 32°F (0°C), T4-T1 ≥ 86°F (30°C)	03U2
3	Gas/liquid valve is open or not	High/Low pressure	Pressure protection	Pressure protection
4	Refrigerant and electrical signal are matching	Indoor unit addresses	The outdoor unit sends a message to each indoor unit address and receives a response from each one that is wired properly.	0U4

• NET ADDRESS
ENC 4

4/5

Enter the outdoor unit network address assignment (0-7). Used for centralized controller.
This setting is to be configured should a network address be required to identify /assign address(s) to applicable outdoor units within a BMS centralized control system such as BACNet, LON or LVM.
The corresponding dial switch is ENC 4.
Make the setting using either the service console or the dial switch.

• T10 SENSOR IN-
STALLED
S3
YES / NO
5/5

Select if a T10 external temperature sensor has been installed on the outdoor unit.
The optional T10 sensor is an outdoor temperature sensor. This sensor is to be installed only when the outdoor unit is in an enclosure. The sensor will take the place of the T4 sensor and be installed outside of the outdoor unit enclosure.
The corresponding dip switch is S3.
Make the setting using either the service console or the dip switch.

DIP SWITCH

• INDOOR QTY.
S12 & ENC 3

1/3

Configure the total quantity of indoor units connected to this outdoor unit. Mode selection boxes are not counted with configuring the total quantity of indoor units.
The corresponding dip switch and dial switch are ENC 3 and S12.
Make the setting using either the service console or the dial switch.

• VERIFY INDOOR QTY.
S7
YES / NO
2/3

Factory or Service use only. Leave set to the default setting of YES.
The corresponding dip switch is S7.

• MODE PRIORITY
S5

3/3

Select the option that best suits the application for the indoor unit operation mode that is to receive priority.
This setting is how the outdoor unit determines mode of operation. VPB units only.
The corresponding dip switch is S5.

T4 Priority	<p>The T4 outdoor ambient temperature sensor will determine mode priority. If the T10 sensor is used, it will override the T4 sensor.</p> <p>If ambient temperature T4 (T10) is no less than preset value of ambient temperature Ta (°C), the outdoor unit is in cooling priority mode.</p> <p>If ambient temperature T4 (T10) is less than Ta-3 (°C), outdoor unit is in heating priority mode.</p> <table border="1" data-bbox="815 543 1281 707"> <thead> <tr> <th>Ta Setting</th> <th>T4/T10 (°F)</th> <th>T4/T10 (°C)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>50</td> <td>10</td> </tr> <tr> <td>2</td> <td>60</td> <td>15.5</td> </tr> <tr> <td>3</td> <td>70</td> <td>21</td> </tr> </tbody> </table>	Ta Setting	T4/T10 (°F)	T4/T10 (°C)	1	50	10	2	60	15.5	3	70	21
Ta Setting	T4/T10 (°F)	T4/T10 (°C)											
1	50	10											
2	60	15.5											
3	70	21											
Cooling Priority	Calls for cooling will have priority. Indoor units calling for heating will be in stand by until the cooling calls are satisfied.												
VIP	<p>The indoor unit designated as VIP controls the mode of operation. The VIP indoor unit setting is made on screen 3 of 3 in the Functional Setting menu.</p> <p>All indoor units calling for the opposing mode of operation will be in stand by until the units calling for the priority mode are satisfied.</p> <p>If there is no VIP indoor unit, the outdoor unit will operate in the mode of the majority of the number indoor unit calls (voting).</p>												
Cooling Only	The outdoor unit will only respond to calls for cooling. Any indoor units calling for heating will be in stand by.												
Heating Only	The outdoor unit will only respond to calls for heating. Any indoor units calling for cooling will be in stand by.												
Heating Priority	Calls for heating will have priority. Indoor units calling for cooling will be in stand by until the heating calls are satisfied.												
Demand Priority	Priority is determined by the larger demand. If the capacity of the indoor units calling for cooling exceed the capacity of the indoor units calling for heating, the outdoor unit will provide cooling operation.												

FUNCTIONAL

- INDOOR TEMP UNIT 1/3
- T4 PRIORITY
- COMP. LOCKOUT

Select the temperature unit display for indoor units and controllers. Fahrenheit or Celsius. This can be overwritten by the indoor unit's local controller.

Set the Ta setting to use to determine the mode change over temperature when T4 Priority is set as the VPB priority mode. T4 / T10 Outdoor temperature sensor can be used to determine Cooling or Heating Mode Priority based on configured Temp. Input. Mode Priority is set on Dip Switch screen 3 of 3 in the Settings menu.

Ta Setting	T4/T10 (°F)	T4/T10 (°C)
1	50	10
2	60	15.5
3	70	21

Compressor Lockout Feature can be configured to disengage outdoor unit operation based on configured T4/T10 sensor readings allowing alternative forms of heating operation such as baseboard or boiler heating operations. Compressor lock out temp options: Free (only use if no alternate heat is used), 00 F, 75 F, 70 F, 65 F, 60 F, 55F, 50 F, 45 F, 40 F, 35 F, 30 F, 25 F, 20 F, 15 F, 10 F, 7 F

- T2 TARGET 2/3
- T2B TARGET
- DEMAND CONTROL

Select & Configure Target indoor unit coil temperatures for heating mode. This setting forces the system to operate in an attempt to achieve a specified T2 target temperature. This setting can be used to offset the T4 derate. T2 Target settings option: 115 F, 111 F, 108 F, 104 F, 122 F, 119 F

Select & Configure Target indoor unit coil temperatures for cooling mode. This setting forces the system to operate in an attempt to achieve a specified T2 target temperature. This setting can be used to offset the T4 derate. T2B Target settings options: 50 F, 47 F, 43 F, 59 F, 56 F, 53 F

Select & Configure maximum allowable capacity operation should operating restrictions need to apply. Use this setting to reduce the outdoor unit capacity. Demand Control settings options: Mode 1 - 100%, Mode 20 - 40%, Mode 3 - 50%, Mode 4 - 60%, Mode 5 - 70%, Mode 6 - 80%, Mode 7 - 90%

- VIP ADDRESS 3/3
- SNOW MODE

Configure indoor unit address that will determine mode priority. All modes of operation must operate to the VIP unit's controller demands. Any indoor units that are in an opposing mode from the VIP's mode will not wind the demand for mode of operation.

VPB units only. This indoor unit will determine the outdoor unit's mode of operation if VIP is selected as the heat pump system mode priority. The mode priority setting is made on screen 3 of 3 in the Dip Switch Setting menu.

Snow Mode / Debris Mode

Select & Configure Low or High snow / debris load. After each system shut down the outdoor unit fan systems will operate in reverse to loosen and or blow out any snow/debris that may be lodged against outdoor unit coils.

Snow Mode settings options: None, Level 1 - Heavy (15 minutes), Level 2 - Light, (30 minutes)

View System Settings

Follow these steps to view system settings. These settings control system operation. They can be overridden by the physical dip switches on the outdoor unit.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until SETTING is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the SETTING would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle through the options. Each option is explained below.
5. Press the Enter button to select an item that you want to set or change.
6. Press the arrow buttons to cycle through the options for that setting.
7. Press the Enter button to move to the next setting.
8. Press the Back button when you are done and want to return to the Home screen.

INSTALLATION

• CHARGE INFO. 1/1
[REDACTED]

• START-UP DATE
[REDACTED]

This is the TOTAL SYSTEM CHARGE that was entered when the system was first started up. The Total System charge is the amount of charged added during start up plus the factory charge.

This is the date the system was started up.

DIP SWITCH

• ODU ADDRESS 1/6
ENC 1:
[REDACTED]

This is the outdoor unit address.
0 = Main (Largest capacity outdoor unit)
1 = Sub 1 (Next largest capacity outdoor unit)
2 = Sub 2 (Smallest capacity outdoor unit)
The default is 0 (Main).
The corresponding dial switch is ENC 1.
Make the setting using either the service console or the dial switch.

• ODU MODEL 2/6
S2:
[REDACTED]

This is the outdoor unit model - Heat Pump or Heat Recovery.
The default is heat recovery.
The corresponding dip switch is S2.
This setting can be overridden by the physical dip switch on the PCB.

•SILENCE MODE 3/6
 ENC 5:
 [REDACTED]

This is night silent mode setting that was selected during startup. This setting reduces noise by reducing the outdoor unit fan speed during night time operation. The default is None. The corresponding dial switch is ENC 5. This setting can be overridden by the physical dip switch on the PCB.

0	Silence mode 1
1	Silence mode 2
2	Silence mode 3
3	Silence mode 4
4	None (factory default)
5	None
6	None
7	None
8	Silent mode
9	None
A	Super silence mode
B	None
F	Reserved

•ODU ESP 4/6
 S4:
 [REDACTED]

This is the outdoor unit static pressure setting that was selected during startup. This setting controls the fan speed. See the outdoor unit manual for detailed information. The default is None. Select a minimum of 0.16 W.G. if a Low Ambient Cooling Kit is installed. The corresponding dip switch is S4. This setting can be overridden by the physical dip switch on the PCB.

Zero static pressure mode (0 WG) (Default factory setting)
Low static pressure mode 0.08 WG (20 Pa)
Medium static pressure mode 0.16 WG (40 Pa)
High static pressure mode 0.24 WG (60 Pa)
Super High static pressure mode 0.32 WG (80 Pa)

•ODU GUARD TIME 5/6
 S8:
 [REDACTED]

Used to reduce the time delay on start up or mode change over. Options are 7 minutes and 12 minutes. The default is 7 minutes. The corresponding dip switch is S8. This setting can be overridden by the physical dip switch on the PCB.

•LOW AMBIENT KIT 6/6
 S9-1
 YES / NO

This setting indicates if a Low Ambient Cooling kit has been installed on this outdoor unit. The corresponding dip switch is S9-2. Set ODU static pressure on S4. This setting can be overridden by the physical dip switch on the PCB.

DIP SWITCH

• LL PIPE LENGTH
 >= 295' FEET
 S9 – 2
 YES / NO 1/5

This setting indicates if the pipe length between the outdoor unit and the first branch is ≥ 295 feet. Ensures that liquid refrigerant does not enter the compressor during defrost when there is a large system charge. The corresponding dip switch is S9-1. This setting can be overridden by the physical dip switch on the PCB.

• ODU SERIES
 S2
 208/230 VAC
 460VAC
 • HR or HP 2/5

This is the outdoor unit voltage supply and the system type. The corresponding dip switch is S2. This setting can be overridden by the physical dip switch on the PCB.

• SKIP TEST OPERATION
 YES / NO 3/5

Select Yes to cause the outdoor unit to skip the start-up tests that are performed automatically after a loss of power and when starting the system for the first time. The corresponding dip switch is S6-2.

Step	Test Item	Object	Malfunction Reason	Error Code
1	Capacity ratio	A=IDU capacity/ ODU capacity	A $\geq 135\%$	01U1
			A < 45%	02U1
2	Indoor ambient temperature	Average T1	Average T1 $\geq 95^\circ\text{F}$ (35°C)	02U2
	Outdoor ambient temperature	T4	T4 $\leq 13^\circ\text{F}$ (-25°C) or T4 $\geq 118^\circ\text{F}$ (48°C)	01U2
	Indoor and outdoor ambient temperature	T4 and average T1	Average T1 < 32°F (0°C), T4 $\geq 41^\circ\text{F}$ (5°C) Average T1 $\geq 32^\circ\text{F}$ (0°C), T4-T1 $\geq 86^\circ\text{F}$ (30°C)	03U2
3	Gas/liquid valve is open or not	High/Low pressure	Pressure protection	Pressure protection
4	Refrigerant and electrical signal are matching	Indoor unit addresses	The outdoor unit sends a message to each indoor unit address and receives a response from each one that is wired properly.	0U4

• NET ADDRESS
ENC 4

4/5

This is the outdoor unit network address assigned during startup (0-7). Used for centralized controller.
The corresponding dial switch is ENC 4. This setting can be overridden by the physical dip switch on the PCB.

• T10 SENSOR IN-
STALLED
S3
YES / NO
5/5

This setting indicates if a T10 external temperature sensor has been installed on the outdoor unit. The T10 sensor replaces the T4 outdoor ambient sensor.
The corresponding dip switch is S3. This setting can be overridden by the physical dip switch on the PCB.

DIP SWITCH

• INDOOR QTY.
S12 & ENC 3

1/3

This is the quantity of indoor units connected to this outdoor unit that was entered during startup.
The corresponding dip switch and dial switch are ENC 3 and S12. This setting can be overridden by the physical dip switch on the PCB.

• VERIFY INDOOR QTY.
S7
YES / NO
2/3

Factory or Service use only. Leave set to the default setting of YES.
The corresponding dip switch is S7. This setting can be overridden by the physical dip switch on the PCB.

• MODE PRIORITY
S5

3/3

This is the heat pump outdoor unit operation mode priority that was set during startup. This setting is how the outdoor unit determines mode of operation. VPB units only.
The corresponding dip switch is S5. This setting can be overridden by the physical dip switch on the PCB.

T4 Priority	<p>The T4 outdoor ambient temperature sensor will determine mode priority. If the T10 sensor is used, it will override the T4 sensor.</p> <p>If ambient temperature T4 (T10) is no less than preset value of ambient temperature Ta (°C), the outdoor unit is in cooling priority mode.</p> <p>If ambient temperature T4 (T10) is less than Ta-3 (°C), outdoor unit is in heating priority mode.</p> <table border="1" data-bbox="808 541 1274 709"> <thead> <tr> <th>Ta Setting</th> <th>T4/T10 (°F)</th> <th>T4/T10 (°C)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>50</td> <td>10</td> </tr> <tr> <td>2</td> <td>60</td> <td>15.5</td> </tr> <tr> <td>3</td> <td>70</td> <td>21</td> </tr> </tbody> </table>	Ta Setting	T4/T10 (°F)	T4/T10 (°C)	1	50	10	2	60	15.5	3	70	21
Ta Setting	T4/T10 (°F)	T4/T10 (°C)											
1	50	10											
2	60	15.5											
3	70	21											
Cooling Priority	Calls for cooling will have priority. Indoor units calling for heating will be in stand by until the cooling calls are satisfied.												
VIP	<p>The indoor unit designated as VIP controls the mode of operation. The VIP indoor unit setting is made on screen 3 of 3 in the Functional Setting menu.</p> <p>All indoor units calling for the opposing mode of operation will be in stand by until the units calling for the priority mode are satisfied.</p> <p>If there is no VIP indoor unit, the outdoor unit will operate in the mode of the majority of the number indoor unit calls (voting).</p>												
Cooling Only	The outdoor unit will only respond to calls for cooling. Any indoor units calling for heating will be in stand by.												
Heating Only	The outdoor unit will only respond to calls for heating. Any indoor units calling for cooling will be in stand by.												
Heating Priority	Calls for heating will have priority. Indoor units calling for cooling will be in stand by until the heating calls are satisfied.												
Demand Priority	Priority is determined by the larger demand. If the capacity of the indoor units calling for cooling exceed the capacity of the indoor units calling for heating, the outdoor unit will provide cooling operation.												

FUNCTIONAL

- INDOOR TEMP UNIT 1/3
- T4 PRIORITY
- COMP. LOCKOUT

This is the indoor unit temperature unit display for indoor units and controllers that was set during startup. Fahrenheit or Celsius. This can be overwritten by the indoor unit's local controller.

This is the Ta setting used to determine the mode change over temperature when T4 Priority is set as the VPB priority mode. Mode Priority is set on Dip Switch screen 3 of 3 in the Settings menu.

Ta Setting	T4/T10 (°F)	T4/T10 (°C)
1	50	10
2	60	15.5
3	70	21

When using an alternate heat source, the compressor lockout setting determines the temperature at which the outdoor unit will stop operation.
Compressor lock out temp options: Free (only use if no alternate heat is used), 00 F, 75 F, 70 F, 65 F, 60 F, 55F, 50 F, 45 F, 40 F, 35 F, 30 F, 25 F, 20 F, 15 F, 10 F, 7 F

- T2 TARGET 2/3
- T2B TARGET
- DEMAND CONTROL

This is the T2 target during heating mode. This setting forces the system to operate in an attempt to achieve a specified T2 target temperature. This setting can be used to offset the T4 derate.
T2 Target settings option: 115 F, 111 F, 108 F, 104 F, 122 F, 119 F

This is the T2B target during cooling mode. This setting forces the system to operate in an attempt to achieve a specified T2 target temperature. This setting can be used to offset the T4 derate.
T2B Target settings options: 50 F, 47 F, 43 F, 59 F, 56 F, 53 F

This is the demand control target of the outdoor unit. Use this setting to reduce the outdoor unit capacity.
Demand Control settings options: Mode 1 - 100%, Mode 2 - 40%, Mode 3 - 50%, Mode 4 - 60%, Mode 5 - 70%, Mode 6 - 80%, Mode 7 - 90%

- VIP ADDRESS 3/3
- SNOW MODE

This is the address of the VIP indoor unit. VPB units only. This indoor unit will determine the outdoor unit's mode of operation if VIP is selected as the heat pump system mode priority. The mode priority setting is made on screen 3 of 3 in the Dipswitch Setting menu.

In cold climates where snow may accumulate on the outdoor unit fan blades, set how often the outdoor unit should run in reverse to blow snow off of the fan blades. The setting determines the amount of time between reverse fan cycles.
Snow Mode settings options: None, Level 1 - Heavy (15 minutes), Level 2 - Light, (30 minutes)

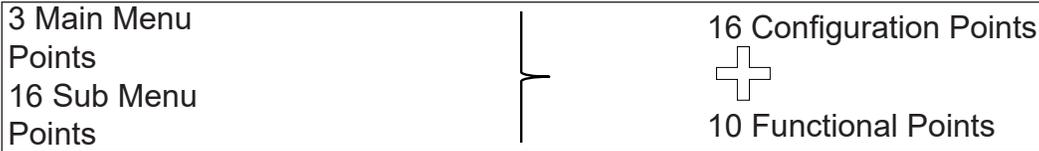
Outdoor Unit Data

Follow these steps to view outdoor unit data.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle through the options. Each option is explained below.
5. Press the Enter button to select an item that you want to set or change.
6. Press the Enter button to move to the next setting.
7. To exit the Data menu:
Press and hold the Home button to exit the Data menu.
or
Press the Back button to return to the Main menu.



Figure 6. Data Menu



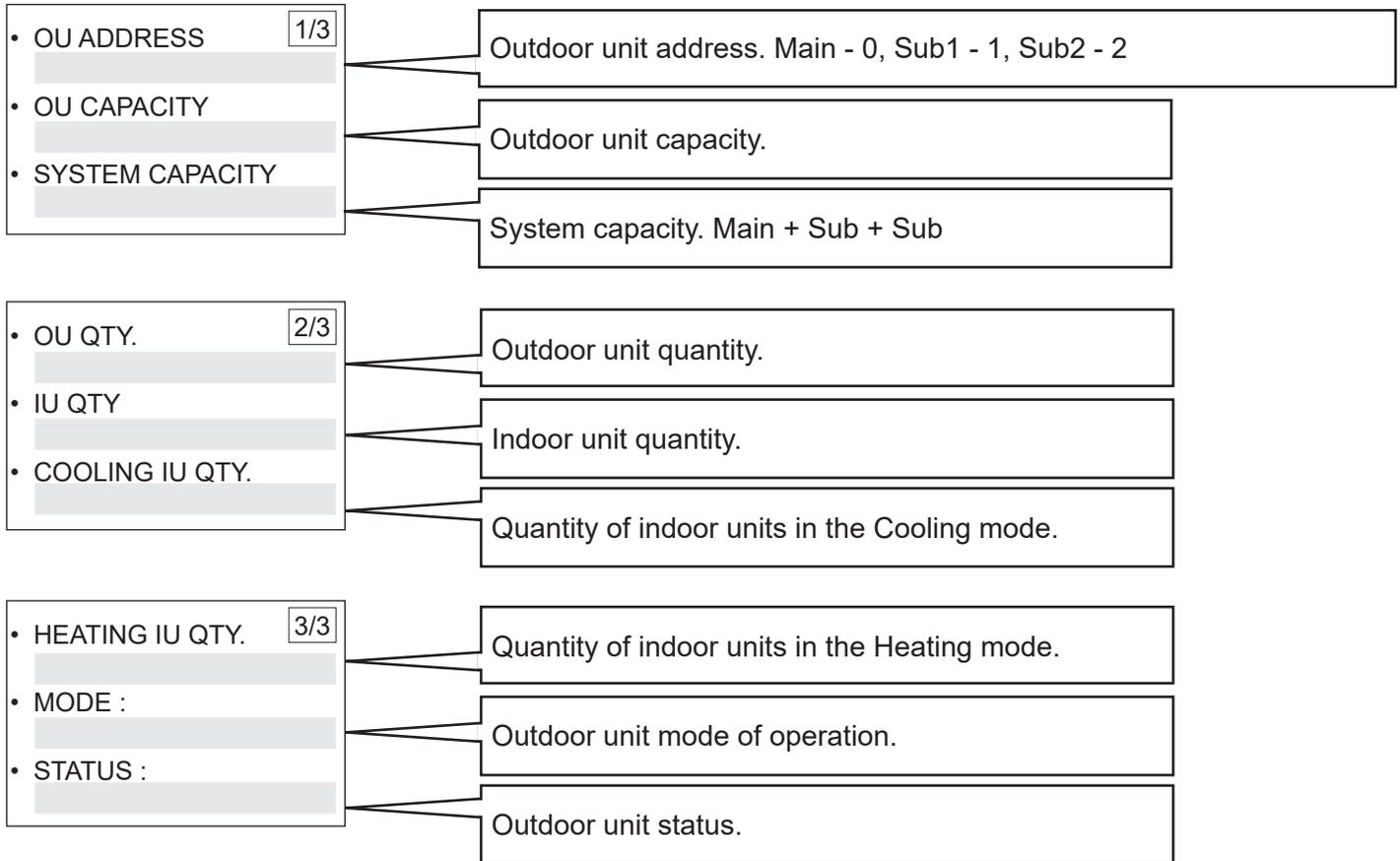
System operational and performance data retrieval to inspect overall health of the system in minutes.

The Data Menu allows the user to select 1 of 4 main menu points and cycle through 16 sub menu points.

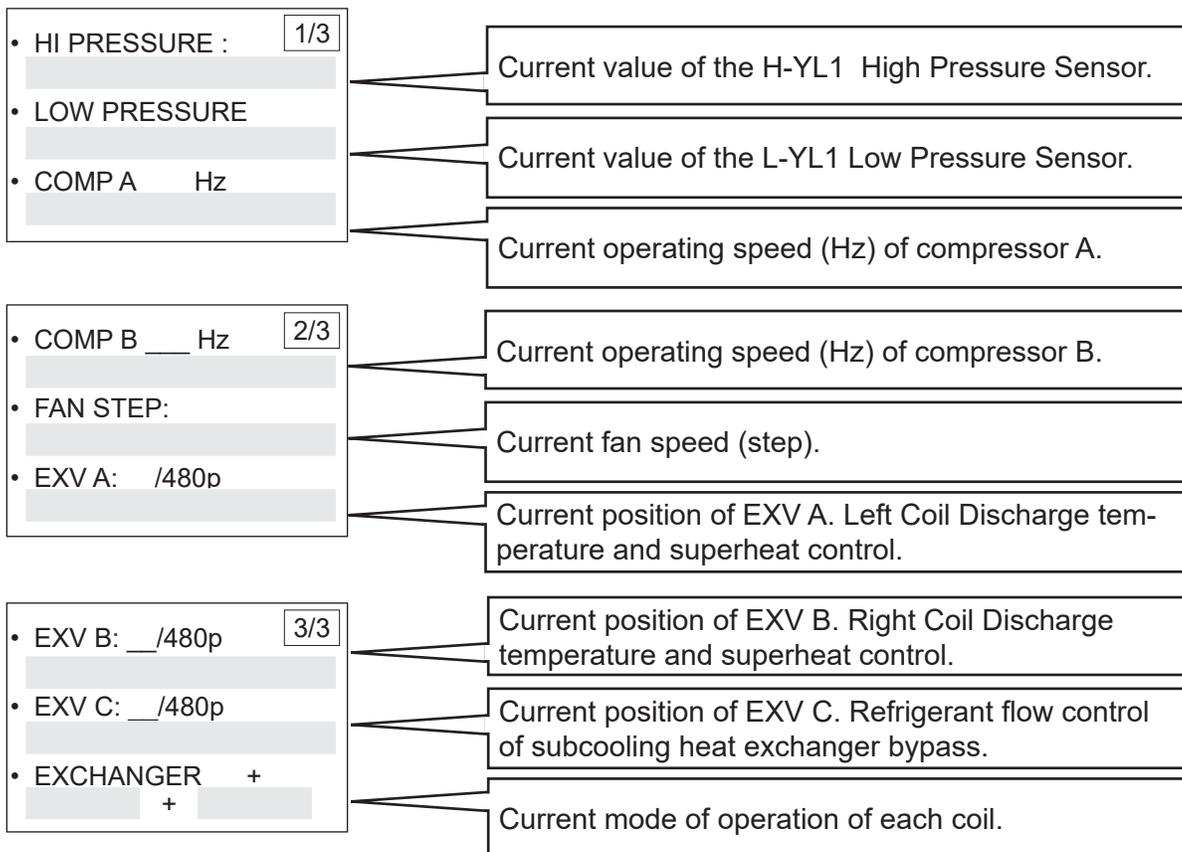
- **System** – Provides set-up configurations, indoor units in cooling Mode, indoor units in heating mode, and system status.
- **Operational** – Provides refrigerant pressure, compressor frequency, fan speed (steps), EXV throttle position, & outdoor unit coil state.
- **Temp. Sensor** – Provides temperature feed back from all points throughout the system.
- **Electrical** – Provides compressor current & line feed voltage.

SYSTEMS	OPERATIONAL	TEMP. SENSOR	ELECTRICAL																														
<ul style="list-style-type: none"> • OU ADDRESS 1/3 _____ • OU CAPACITY _____ • SYSTEM CAPACITY _____ 	<ul style="list-style-type: none"> • HI PRESSURE : 1/3 _____ • LOW PRESSURE _____ • COMP A Hz _____ 	<ul style="list-style-type: none"> • T2 AVG. 1/5 _____ • T2B AVG. _____ • LEFT CON T3A _____ 	<ul style="list-style-type: none"> • COMP A Amp 1/1 _____ • COMP B Amp _____ • VOLTAGE: _____ 																														
<ul style="list-style-type: none"> • OU QTY. 2/3 _____ • IU QTY _____ • COOLING IU QTY. _____ 	<ul style="list-style-type: none"> • COMP B Hz 2/3 _____ • FAN STEP: _____ • EXV A: /480p _____ 	<ul style="list-style-type: none"> • RIGHT CON T3B 2/5 _____ • AMBIENT T4 _____ • T6A _____ 																															
<ul style="list-style-type: none"> • HEATING IU QTY. 3/3 _____ • MODE : _____ • STATUS : _____ 	<ul style="list-style-type: none"> • EXV B: /480p 3/3 _____ • EXV C: /480p _____ • EXCHANGER + _____ + _____ 	<ul style="list-style-type: none"> • T6B 3/5 _____ • T7C1 _____ • T7C2 _____ 																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20%;">T2 AVERAGE</td><td>Average of all indoor unit coil temperature sensors.</td></tr> <tr><td>T2B AVERAGE</td><td>Average of all indoor unit coil outlet temperature sensors.</td></tr> <tr><td>LEFTCON. T3A</td><td>Outdoor left exchanger temperature sensor.</td></tr> <tr><td>RIGHTCON. T3B</td><td>Outdoor right exchanger temperature sensor.</td></tr> <tr><td>AMBIENT T4</td><td>Outdoor ambient temperature sensor.</td></tr> <tr><td>T6A</td><td>Outdoor unit subcooler inlet temperature sensor.</td></tr> <tr><td>T6B</td><td>Outdoor unit subcooler outlet temperature sensor.</td></tr> <tr><td>T7C1</td><td>Main compressor discharge temperature sensor.</td></tr> <tr><td>T7C2</td><td>Sub compressor discharge temperature sensor.</td></tr> <tr><td>TC</td><td>System condensation temperature sensor.</td></tr> <tr><td>TE</td><td>System evaporation temperature sensor.</td></tr> <tr><td>TF1</td><td>Main compressor inverter module temperature sensor.</td></tr> <tr><td>TF2</td><td>Sub compressor inverter module temperature sensor.</td></tr> <tr><td>DSH</td><td>Discharge temperature superheat sensor.</td></tr> <tr><td>T10</td><td>External outdoor ambient temperature sensor.</td></tr> </table>	T2 AVERAGE	Average of all indoor unit coil temperature sensors.	T2B AVERAGE	Average of all indoor unit coil outlet temperature sensors.	LEFTCON. T3A	Outdoor left exchanger temperature sensor.	RIGHTCON. T3B	Outdoor right exchanger temperature sensor.	AMBIENT T4	Outdoor ambient temperature sensor.	T6A	Outdoor unit subcooler inlet temperature sensor.	T6B	Outdoor unit subcooler outlet temperature sensor.	T7C1	Main compressor discharge temperature sensor.	T7C2	Sub compressor discharge temperature sensor.	TC	System condensation temperature sensor.	TE	System evaporation temperature sensor.	TF1	Main compressor inverter module temperature sensor.	TF2	Sub compressor inverter module temperature sensor.	DSH	Discharge temperature superheat sensor.	T10	External outdoor ambient temperature sensor.		<ul style="list-style-type: none"> • TC 4/5 _____ • TE _____ • TF1 _____ 	
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TF2	Sub compressor inverter module temperature sensor.																																
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T10	External outdoor ambient temperature sensor.																																
			<ul style="list-style-type: none"> • TF2 5/5 _____ • DSH _____ • T10 _____ 																														

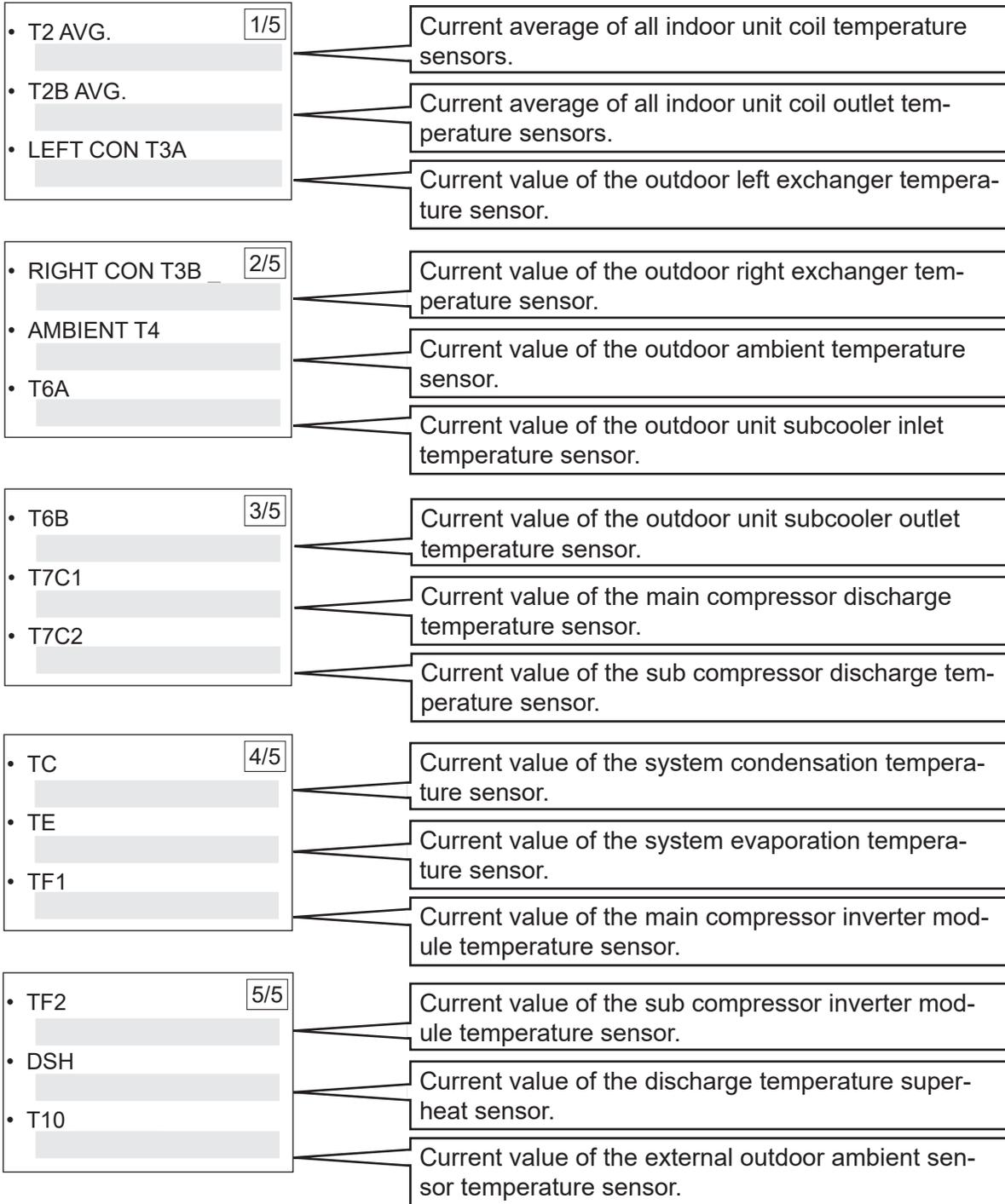
SYSTEMS



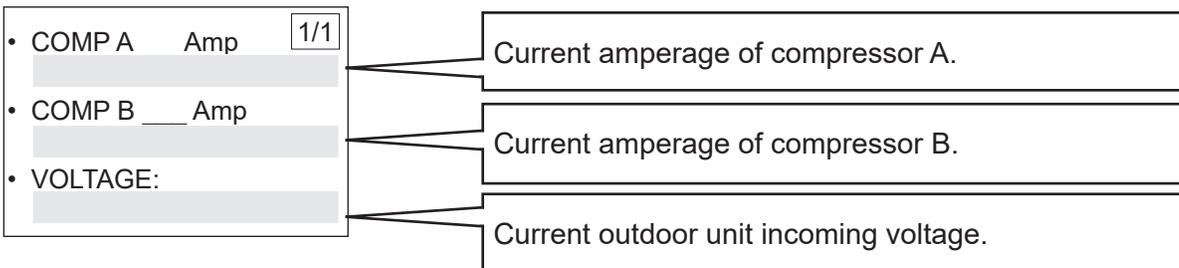
OPERATIONAL



TEMP. SENSOR



ELECTRICAL



Name	Abbreviation	Major Function
Inverter compressor	INV1	Variable Speed compressor(s) that operate @ 0 - 100 Hz based on total capacity demand.
	INV2	
Gas-liquid separator	ACC	1) Used to separate liquid refrigerant from gas refrigerant. 2) Refrigerant storage.
Oil separator	O/S	Recovers refrigerant oil that may escape through compressor discharge.
High pressure sensor	PH	Prevention of High Head Pressure above 638 PSI.
Low pressure sensor	PL	Low Refrigerant Pressure Cut-out 7.25 PSI.
High pressure switch	HPS	This switch are used to prevent abnormal increase of high pressure, to which will activate at 4.4MPa and shut down compressors.
Low pressure switch	LPS	This switch are used to prevent abnormal decrease of low pressure, to which will activate at 0.05MPa and shut down compressors.
Thermistor (Heat exchanger defrosting)	T3A	Defrost Control Sensors.
	T3B	
Thermistor (Outside air)	T4	Used to detect outdoor air temperature.
Thermistor (Subcooler heat exchanger)	T6A	Inlet/Outlet Temperature Sensors for Plate Exchanger.
	T6B	
Thermistor (INV1 discharge pipe)	T7C1	Compressor Discharge Sensor Compressor A.
Thermistor (INV2 discharge pipe)	T7C2	Compressor Discharge Sensor Compressor B.
Thermistor (remote outside air)	T10	Used to detect outdoor air temperature when outdoor unit is installed indoors
Thermistor (INV1 module)	TF1	Inverter Drive Module Temperature Sensor A.
Thermistor (INV2 module)	TF2	Inverter Drive Module Temperature Sensor B.
Solenoid valve	SV2	Discharge temperature protection
	SV4	1) Used for control the amount of oil from the oil separator to the compressor 2) Oil balance control of parallel outdoor units
	SV5	1) High pressure prevention 2) Fast defrosting 3) Medium pressure bypass
	SV7	Discharge bypass
	SV8A	Refrigerant injection
Electronic expansion valve (Heat exchanger)	EXVA	Left Coil Discharge temperature and sub-cooled control
	EXVB	Right Coil Discharge temperature and sub-cooled control
Electronic expansion valve (Subcooler heat exchanger)	EEVC	Refrigerant flow control of subcooling heat exchanger bypass
4-way valve	ST1	Switch the heat exchanger mode between condenser and evaporator
	ST2	
	ST3	1) Close high pressure gas pipe in cooling mode 2) Open high pressure gas pipe in heating mode and mixed mode
Heater band (INV1)	HEAT1	Crank case heater operation.
	HEAT2	
Heater band (Base)	HEAT3	Base pan heat operation.

View Outdoor Unit Address

Follow these steps to view the outdoor unit address.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to OU ADDRESS. The value shown is the Main or Sub 1 or Sub 2 Configuration.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Outdoor Unit Capacity

Follow these steps to view the outdoor unit capacity.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to OU CAPACITY. The value shown is the single outdoor unit capacity.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View System Capacity

Follow these steps to view the system (Main + Sub 1 + Sub 2) capacity.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to SYSTEM CAPACITY. The value shown is the total system modular capacity. For example, Main + Sub + Sub = ___.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Outdoor Unit Quantity

Follow these steps to view the number of outdoor units connected together. (Main + Sub + Sub)

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to OU QTY. The value shown is the modular number of outdoor units connected to system.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Indoor Unit Quantity

Follow these steps to view the number of indoor units in the system.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to IU QTY. The value shown is the total quality. of indoor units configured.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Indoor Units in Cooling Quantity

Follow these steps to view the number of indoor units in cooling.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to COOLING IU QTY. The value shown is the number of indoor units in cooling mode.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Indoor Units in Heating Quantity

Follow these steps to view the number of indoor units in heating.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to HEATING IU QTY. The value shown is the number of indoor units in heating mode.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Outdoor Unit Mode

Follow these steps to view the outdoor unit mode of operation.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to MODE. The value shown is the outdoor unit mode of operation.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Outdoor Unit Status

Follow these steps to view the current operating status of the outdoor unit.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to STATUS. The value shown is the current operating status outdoor unit.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Hi/Low Pressure

Follow these steps to view the current high pressure and low pressure sensor readings.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to HI PRESSURE or LOW PRESSURE. The value shown is the current system high or low pressure sensor reading.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Compressor Speed

Follow these steps to view the compressor(s) speed. Six through ten ton units have one compressor. Twelve through Sixteen ton units have two compressors.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to COMP A ___ Hz or COMP B ___ Hz. The value shown is the compressor speed.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Outdoor Unit Fan Speeds

Follow these steps to view the outdoor unit fan speed. The speed is shown in steps.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to FAN STEP. The value shown is the fan speed. Both fans operate at the same speed.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Outdoor Unit EXV Positions

Follow these steps to view the outdoor unit coil statuses.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to EXV A: ___/480p, EXV B: ___/480p, or EXV C: ___/480p. The value shown is the EXV position out of 480 steps; 480p is the maximum pulse width position.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Outdoor Unit Coil Status

Follow these steps to view the positions of the three outdoor unit EXVs.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to EXCHANGER ___ + ___. The values shown are the coil's mode of operation.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Temperature Sensor Data

Temperature Sensor Data

Follow these steps to view the readings of temperature sensors in the system.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to the name of the sensor you want to view, see the table below for sensor names and descriptions. The value shown is the selected temperature sensor reading.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

	Sensor	Description	Recorded Value
Temp Sensor Data	T2 AVERAGE	Average of all indoor units in the heating mode coil temperature	
	T2B AVERAGE	Average of all indoor units in the cooling mode coil outlet temperature	
	LEFTCON. T3A	Outdoor left exchanger temperature	
	RIGHTCON. T3B	Outdoor right exchanger temperature	
	AMBIENT T4	Outdoor ambient temperature	
	T6A	Outdoor unit subcooler inlet temperature	
	T6B	Outdoor unit subcooler outlet temperature	
	T7C1	Main compressor discharge temperature	
	T7C2	Sub compressor discharge temperature	
	TC	System condenser temperature	
	TE	System evaporator temperature	
	TF1	Inverter module A temperature	
	TF2	Inverter module B temperature	
	DSH	Discharge temperature superheat	
	T10	Outdoor Temperature Sensor (Enclosure Applications)	

View Compressor Amp Draw

Follow these steps to view the amp draw of the compressor(s) . Six through ten ton units have one compressor. Twelve through Sixteen ton units have two compressors.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to COMP A ___Amp or COMP B ___Amp. The value shown is the amp draw of the compressor.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

View Incoming Voltage to the Outdoor Unit

Follow these steps to view the incoming power supply voltage to the outdoor unit.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until DATA is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the DATA would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to VOLTAGE: ___. The value shown is measured between L2 and L3 only.
5. Press the Enter button to move to the next data point.
6. Press the Back button when you are done and want to return to the Home screen.

Outdoor Fault Codes

Follow these steps to view outdoor unit fault codes or to clear the fault code history.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until ALARM is highlighted.
3. Press the Enter button.

Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the ALARM would be illuminated once the Menu button has been activated.

4. Use the arrows to cycle through the past ten fault codes. See the out
5. Press the Enter button to select an item that you want to set or change.
6. Press the Enter button to move to the next setting.
7. Press the Back button when complete to exit to the Home screen.

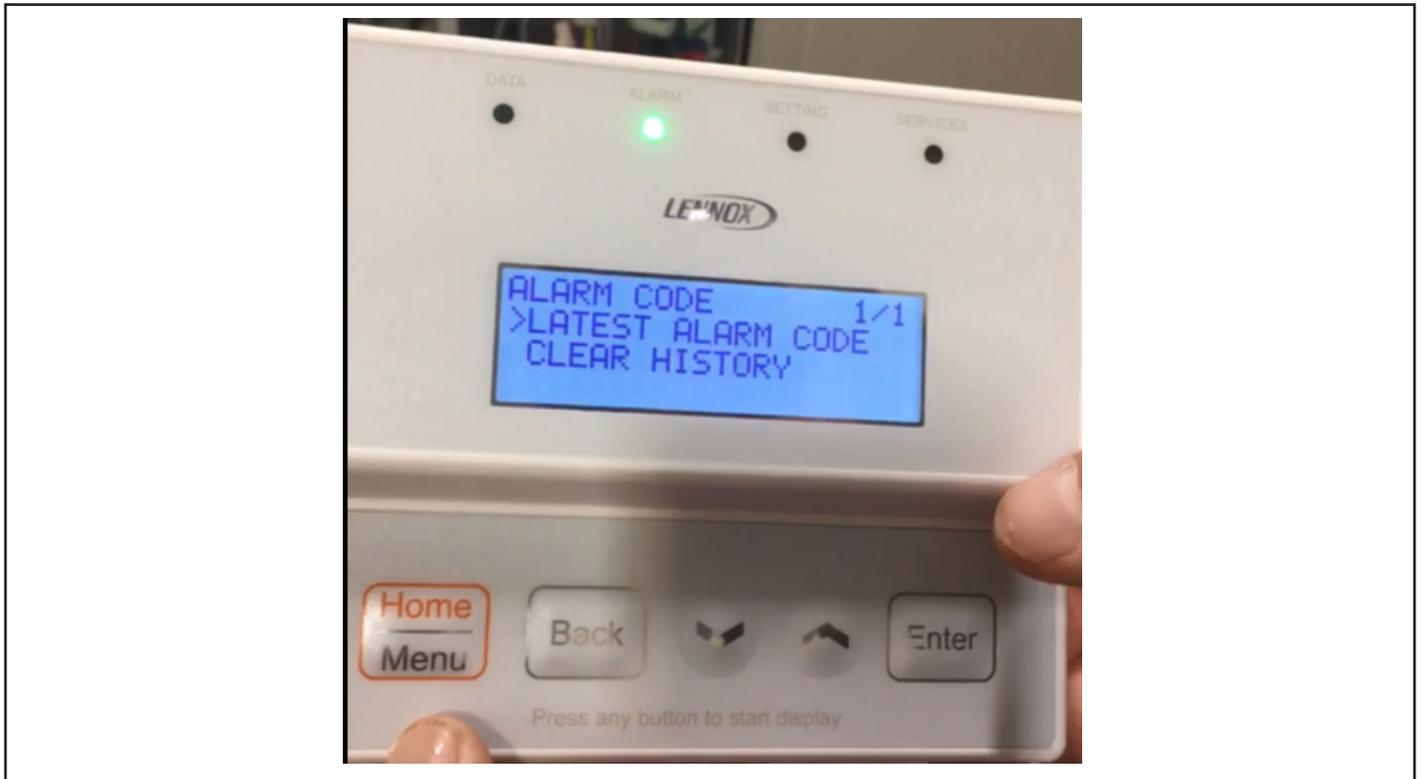
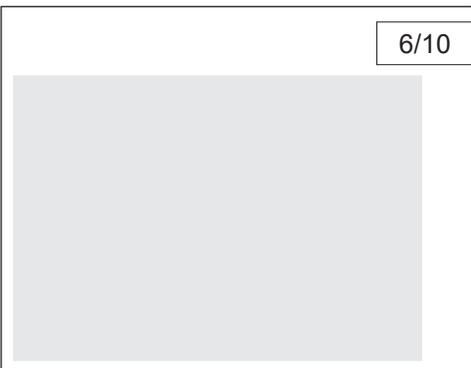
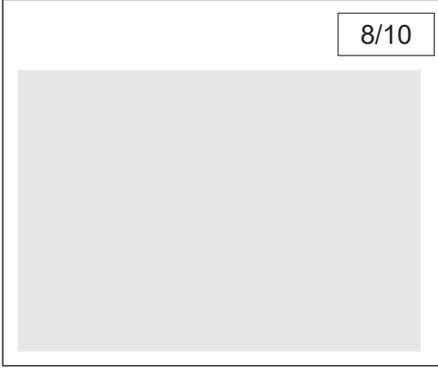
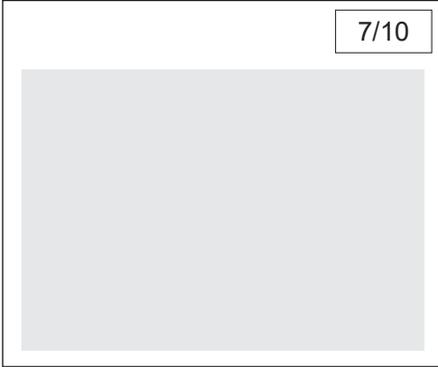
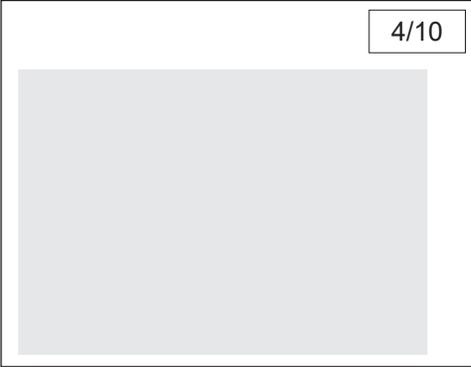


Figure 7. Alarm Screens

Present Fault. With Past 9 Triggers } 10 Inspection Points with fault description

Current and past alarm codes to resolve a failure or intermittent issue.

- Up to 10 most recent Fault codes stored.
- Troubleshoot the fault codes using the VRF mobile App



View Recent System Fault Codes

Follow these steps to view outdoor unit data.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until ALARM is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the ALARM would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle through the fault codes.
5. Press the Enter button to select a fault code and see its description.
6. Press the Back button when complete to exit to the Home screen.
7. For detailed fault code descriptions and step by step trouble shooting instructions, see the outdoor unit manual, the service manual or the VRF and Mini-Splits mobile device app.

Clear Fault Code History

Follow these steps to view outdoor unit data.

1. Press the Home / Menu button to enter the service tool.
2. Press the Home button to cycle through the selection items until ALARM is highlighted.
3. Press the Enter button.
Note that the small LEDs will illuminate as you pass through each main menu item. In this Case the ALARM would be illuminated once the Menu button has been activated.
4. Use the arrows to cycle to CLEAR HISTORY.
5. Press the Enter button.
6. Press the Back button when complete to exit to the Home screen.

Menu Structure

1st Level Menu	2nd Level Menu	Display	Recorded Value	Description
DATA	System Data	OU ADDRESS		Outdoor unit address: 0/1/2
		OU CAPACITY		Outdoor capacity/Ton
		SYS.CAPACITY		System capacity/Ton
		OU QUANTITY		Outdoor unit quantity in the system
		IU QTY.		Indoor unit quantity in the system
		COOLING IU QTY.		Indoor unit quantity in cooling in the system
		HEATING IU QTY.		Indoor unit quantity in heating in the system
		MODE		System operation mode: OFF/COOLING /HEATING / MIX COOLING/MIX HEATING
		STATUS		Current status, LATEST ERROR CODE/ DEFROSTING/OIL RETURN/STANDBY/RUNNING
	Operational Data	HIPRESSURE		System high pressure
		LOPRESSURE		System low pressure
		COMPRESSOR A		Main compressor speed
		COMPRESSOR B		Sub compressor speed
		FAN STEP		Outdoor left and right fan motor speed step:0~25
		EXVA		EXV A opening: current opening/fully opening
		EXVB		EXV B opening: current opening/fully opening
		EXVC		EXV C opening: current opening/fully opening
		EXCHANGER		Outdoor left and right exchanger status: COND+COND/ COND+ OFF/EVAP+OFF/EVAP+EVAP/ COND + EVAP (COND-CONDENSER,EVAP- EVAPORATOR)
	Temp Sensor Data	T2 AVERAGE		Average of all indoor unit coil temperature
		T2B AVERAGE		Average of all indoor unit coil outlet temperature
		LEFTCON. T3A		Outdoor left exchanger temperature
		RIGHTCON. T3B		Outdoor right exchanger temperature
		AMBIENT T4		Outdoor ambient temperature
		T6A		Outdoor unit subcooler inlet temperature
		T6B		Outdoor unit subcooler outlet temperature
		T7C1		Main compressor discharge temperature
		T7C2		Sub compressor discharge temperature
		TC		System condensation temperature
		TE		System evaporation temperature
		TF1		Main compressor inverter module temperature
		TF2		Sub compressor inverter module temperature
		DSH		Discharge temperature superheat
	T10		External outdoor ambient sensor temperature	
	Electrical Data	COMPRESSOR A		Main compressor current
		COMPRESSOR B		Sub compressor current
		VOLTAGE		Input voltage
	Firm Ware Version	MAIN SOFTWARE		Main control PCB software version
		LCD SOFTWARE		LCD module software version
	ALARM CODE	LATEST ALARM CODE		
		CLEAR HISTORY		Clear all the error code record

SETTINGS	INSTALLATION INFO	TOTAL CHARGE		Field input	
		COMMISSION		Field input	
	DIP SWITCH READING				
	FUNCTION SETTINGS	INDOOR TEMP UNIT		Command, can change all the indoor unit temperature unit to C/F	
		T4 PRIORITY		Field setting, options:50F/60F/70F	
		COMP. LOCKOUT		Ambient temperature for compressor lockout setting in heating mode.	
		T2 TARGET		Field setting, options: 104/108/111/115(DEFAULT)/119/122F	
		T2B TARGET		Field setting, options: 43/47/50(DEFAULT)/53/56/59F	
		DEMAND CONTROL		Field setting, options: 100%/90%/80%/70%/60%/50%/40%	
		VIP ADDRESS		Field setting, options: 0~63, OXFF - no VIP indoor	
SNOW MODE		Field setting, options: NONE/HEAVY/LIGHT			
CHANGE PASSWORD			Default password is 0000		
SERVICE	SERVICE MODE			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.	
	TEST OPERATION			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.	
	COOLING TEST			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.	
	HEATING TEST			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.	
	MANUAL DEFROST			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.	
	REFRIGERANT RECYCLE MODE	RECYCLE TO ODU			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.
		RECYCLE TO IDU			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.
		RECYCLE TO PIPING			Command, select "YES" to enter and "NO" to exit and press "Enter" to confirm the command.
	ASSIGN IDU ADDRESS			Command, automatically assign addresses to the indoor units in the system.	
	ECO MODE			Field setting.	
	CANCEL LVM E-STOP			Command, clear the emergency stop status from LVM in case LVM is broken.	
CLEAR IDU ADDRESS			Command, clear all indoor unit addresses in the system.		
FACTORY SETTINGS			Command		

System Data

Use the forms on the following pages to record your system information, data checks and alarm codes.

Retain a copy of the initial setup configuration for your records.

Retain a copy of the initial setup configuration with the outdoor unit for future service information.

Alarm

Present Fault. With
Past 9 Triggers



10 Inspection Points
with fault description

Current and past alarm codes to resolve a failure or intermittent issue.

- Up to 10 most recent Fault codes stored.
- Troubleshoot the fault codes using the VRF mobile App

1/10	4/10	7/10
2/10	5/10	8/10
3/10	6/10	9/10

Setting

6 Main Menu Points
26 Sub Menu Points

26 Inspection Points

System settings and configurations.

The Settings Menu allows the user to select one of the six main menu items to configure and or view the current dip switch and rotary settings

- **Installation** – View/Input system charge information and date of start up.
- **Dip Switch** –The dip switch menu allows the user to view and or configure the system settings. When settings are reconfigured the outdoor PCB will provide digital conformation along with the on-board service tool.

INSTALLATION	DIP SWITCH	DIP SWITCH	DIP SWITCH
<ul style="list-style-type: none"> • CHARGE INFO. 1/1 • START-UP DATE 	<ul style="list-style-type: none"> • ODU ADDRESS ENC 1: 1/6 	<ul style="list-style-type: none"> • LL PIPE LENGTH >= 295' FEET S9 – 1 YES / NO 1/5 	<ul style="list-style-type: none"> • INDOOR QTY. S12 & ENC 3 1/3
	<ul style="list-style-type: none"> • ODU MODEL ENC 2: 2/6 	<ul style="list-style-type: none"> • ODU SERIES S2 208/230 VAC 460VAC • HR or HP 2/5 	<ul style="list-style-type: none"> • VERIFY INDOOR QTY. S7 YES / NO 2/3
	<ul style="list-style-type: none"> • SILENCE MODE ENC 5: 3/6 	<ul style="list-style-type: none"> • SKIP TEST OPERATION YES / NO 3/5 	<ul style="list-style-type: none"> • MODE PRIORITY S5 3/3
	<ul style="list-style-type: none"> • ODU ESP S4: 4/6 		
	<ul style="list-style-type: none"> • ODU GUARD TIME S8: 5/6 	<ul style="list-style-type: none"> • NET ADDRESS ENC 4 4/5 	
	<ul style="list-style-type: none"> • LOW AMBIENT KIT S9-2 YES / NO 5/6 	<ul style="list-style-type: none"> • T10 SENSOR INSTALLED S3 YES / NO 5/5 	

System settings and configurations.

- **Functional** – allows the person to change coil target temperatures, capacity demand control %.
- **Password** – change password.

FUNCTIONAL

- INDOOR TEMP UNIT 1/3
- T4 PRIORITY
- COMP. LOCKOUT

- T2 TARGET 2/3
- T2B TARGET
- DEMAND CONTROL

- VIP ADDRESS 3/3
- SNOW MODE

DIP SWITCH

- ODU ADDRESS 1/1
- ENC 1:

Services

1 Main Menu Points

4 Sub Menu Points



12 Configurable Service Points

- SERVICE MODE 1/4
- TEST OPERATION
- COOLING TEST

- HEATING TEST 2/4
- MANUAL DEFROST
- REFRI. RECYCLE MODE

- ASSIGN IU ADDRESS 3/4
- ECO MODE
- CANCEL LVM STOP

- ASSIGN IU ADDRESS 4/4
- CLEAR IU ADDRESS
- FACTORY SETTING

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