# VARIABLE REFRIGERANT FLOW SYSTEMS
## VRF
### V0CTRL75P-1
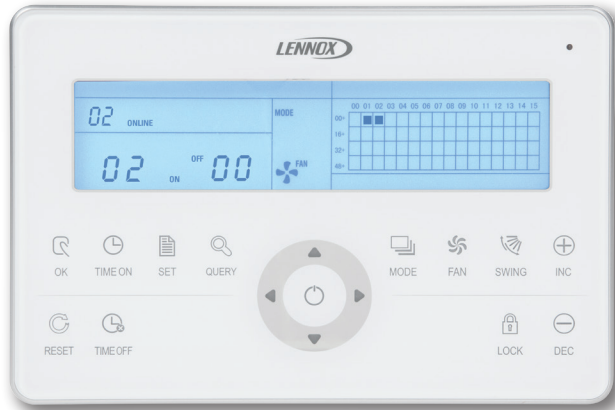### Indoor Unit Central Controller

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## PRODUCT SPECIFICATIONS

Multi-function Indoor Unit Central Controller can individually control up to 64 indoor units in a single building management system network. Controller can also connect to a computer or gateway to the Internet for local or remote control.
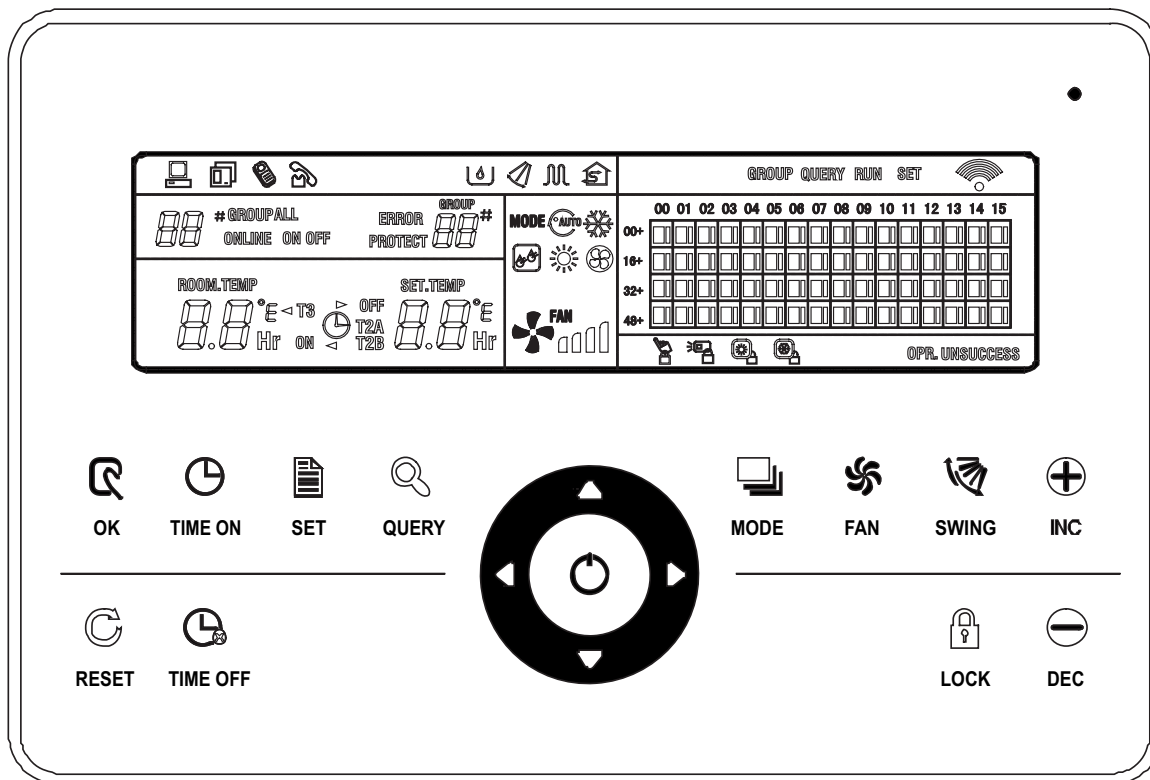
### Features

- **Backlight -** Allows easy operation in a dark room. The controller lights when any button (except Reset) is pressed and remains lit during control access and during system operation.

- **LED Indicator -** LED lights during normal system operation and will flash as an aid in troubleshooting.

- **LCD Display -** See page 3 for details.

- **Audible Tone -** Audible tone at system startup and when any button is pressed.

- **Emergency Stop -** Connections are furnished for an Emergency Stop Switch (not furnished) to manually shut down all outdoor units in the system.

- **Forced On Switch -** Connections are furnished for a Forced On Switch (not furnished) to manually start all outdoor units in the system in cooling mode.

- **Locking -** Lock and unlocks system and/or controller operation. Various locking functions are available:

  1. Central Controller Lock - Disables the Central Indoor Unit Controller operation to prevent tampering. The Query function is available.

  2. Wireless Remote Control Lock - Disables any signals from a wireless remote control.

  3. Mode Lock - Disables changing a system's mode of operation (cooling or heating).

  4. Central Control Key Lock and Unlock - Disable all controls on the Controller.

- **Built-In Timer -** Offers the convenience of automatically starting and stopping the system according to a set time. Timer can be set for hours of operation (1 to 24).

- **Function Buttons -** ON/OFF, OK, TIME ON, TIME OFF, SET, QUERY, RESET, MODE, FAN, SWING, INC (Increase), DEC (decrease), LOCK. UP, DOWN, LEFT and RIGHT buttons for navigation.

- **Dimensions (H x W x D) -** 7 x 4-1/2 x 3 in. Control is flush mounted in a wall. Additional hardware is furnished for installation.

- **Power and Wiring -** 24V (field provided). Controller uses 3-wire shielded cable (not furnished) for easy connection to the indoor unit. Controller can control up to 16 indoor units on the same system in the same room.

- **Error Code Display -** Displays error codes as an aid in troubleshooting controller and indoor/outdoor unit operation.

- **Filter Reminder -** Adjustable indoor unit runtime setting (0 to 10,000 hours) will show a reminder on the display that filter servicing is required. DIP switch setting on Controller enables or disables reminder.

- **Computer Control -** One computer can connect and control up to 16 Indoor unit Central Controllers (with a maximum of 1024 indoor units). Indoor Unit Central Controllers are set with a rotary DIP switch for individual network addresses (0 to 15). Connections are made through a RS485 (Controller) to RS232 (Computer) interface converter.

## Buttons and Functions

### ⏻ POWER
Turns all indoor units on or off. The On mode is set according to the system mode settings for individual units. Can turn on all indoor units that are not operating or can turn on individual indoor units using the arrow keys and grid information.

### ◀ ▶ ▲ ▼ ARROWS
Used for navigating the indoor unit address matrix during mode selection to review and change settings.

### MODE
Sets single or global modes for indoor units.

### FAN
Sets individual or global fan speeds for indoor units (Auto, Low, Medium, High).

### SWING
Sets the horizontal swing on indoor units (if equipped) during Mode settings.

### ⊕ INC (Increase)
Increases various unit parameters, Temperature Up (one degree increments), Timing Up (1/2 hour increments). In Mode Settings scrolls through available screen parameters. Used in conjunction with the Decrease button.

### ⊖ DEC (Decrease)
Decreases various unit parameters, Temperature Down (one degree increments), Timing Down (1/2 hour increments). In Mode Settings scrolls through available screen parameters. Used in conjunction with the Increase button.

### ⏱ TIME ON
Sets start time on indoor units. INC button increases timer setting in 30 minute increments (hours 1-10) and one hour increments after 10 hours.

### ⏱ TIME OFF
Sets stop time on indoor units. DEC button decreases timer setting in 30 minute increments (hours 1-10) and one hour increments after 10 hours.

### SET
Enter the mode setting parameters and also shift between single and global indoor unit settings to set different modes of operation.

### OK
Confirms settings for various functions (Mode, Fan, Temperature Settings, Timer, Filter Reminder enable). Also controls all or individual indoor unit operation.
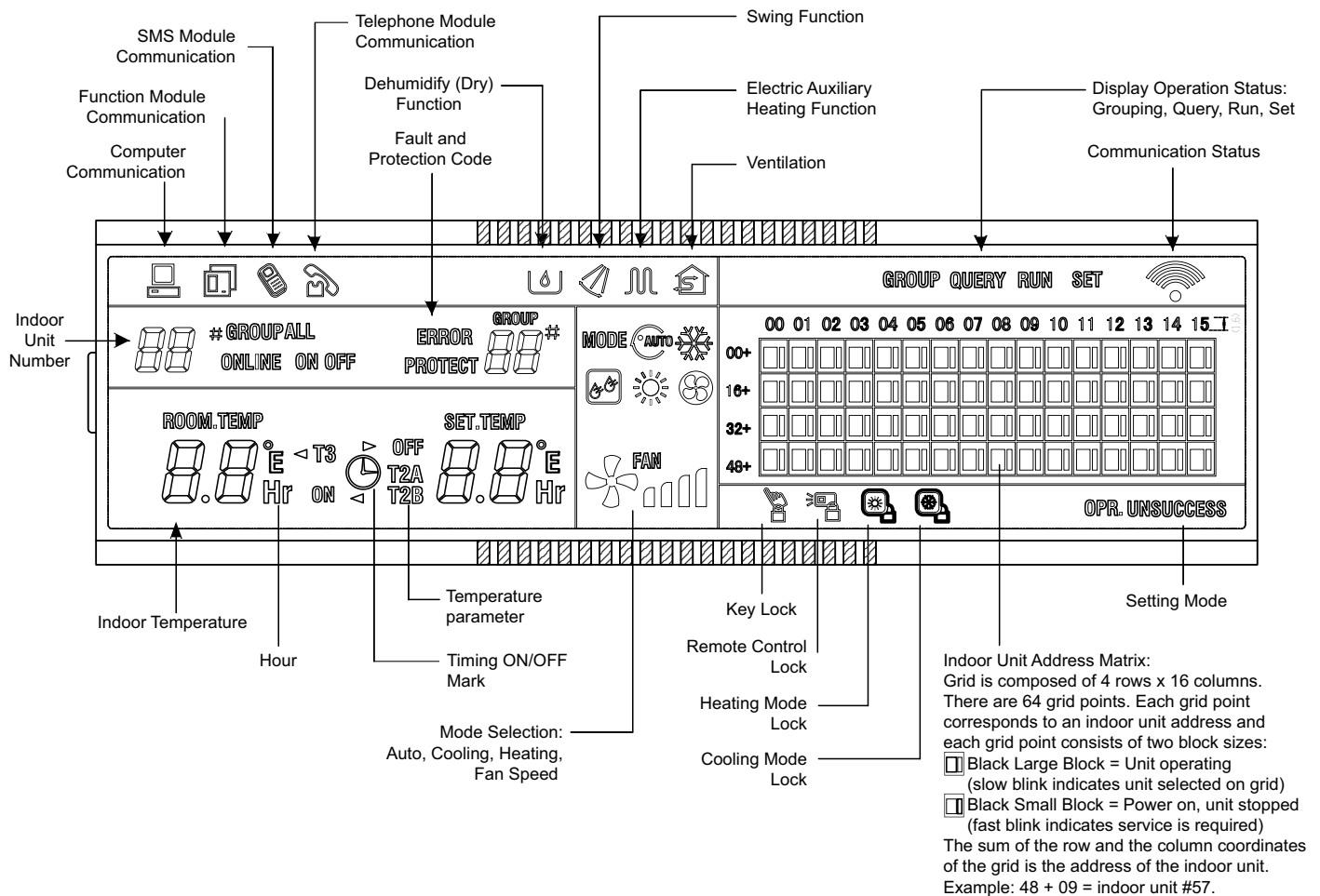
### QUERY
Queries the operation of the indoor unit. By default the first operating unit in the system is queried.

### RESET
Hold for 5 seconds to reset the Indoor Central Controller.

### LOCK
Locks or unlocks the various locking functions. Used in combination with other buttons for the different lock settings. See features for various locking functions available.

Computer Communication

Function Module Communication

SMS Module Communication

Telephone Module Communication

Dehumidify (Dry) Function

Fault and Protection Code

Swing Function

Electric Auxiliary Heating Function

Ventilation

Display Operation Status: Grouping, Query, Run, Set

Communication Status

GROUP QUERY RUN SET

Indoor Unit Number

# GROUP ALL ONLINE ON OFF

ERROR PROTECT GROUP

MODE AUTO

FAN

ROOM.TEMP

℉ ℃ Hr

◁ T3 ▷ OFF T2A T2B ON ◁

SET.TEMP

℉ ℃ Hr

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

00+
16+
32+
48+

OPR. UNSUCCESS

Indoor Temperature

Hour

Temperature parameter

Timing ON/OFF Mark

Mode Selection: Auto, Cooling, Heating, Fan Speed

Key Lock

Remote Control Lock

Heating Mode Lock

Cooling Mode Lock

Setting Mode

Indoor Unit Address Matrix:
Grid is composed of 4 rows x 16 columns. There are 64 grid points. Each grid point corresponds to an indoor unit address and each grid point consists of two block sizes:
Black Large Block = Unit operating (slow blink indicates unit selected on grid)
Black Small Block = Power on, unit stopped (fast blink indicates service is required)
The sum of the row and the column coordinates of the grid is the address of the indoor unit.
Example: 48 + 09 = indoor unit #57.

## LCD Display Features

**Indoor and Set Temperature Display**
Displays 00 to 99 (°F or °C).

**Indoor Unit Number**
Displays total number of indoor units operating. Also shows indoor unit address selected in Indoor Unit Address Matrix (00 to 64). Used when setting mode, timer, fan speed, swing (if equipped) and temperature settings. Also displays status (Group, Online).

**Computer Communication**
Indicates communication with computer or gateway.

**Function Module Communication**
Indicates communication with the functional module.

**SMS Module Commnunication**
Indicates communication with wireless remote control.

**Telephone Remote**
Indicates communication with telephone remote control.

**Communication Status**
Indicates communication with the indoor unit network. Flashes to indicate normal communication.

**Button Lock**
Indicates if a button lock function on Controller is active.

**Remote Lock**
Indicates if a wireless remote control lock is active.

**Cooling Mode Lock**
Indicates a cooling mode lock.

**Heating Mode Lock**
Indicates a heating mode lock.

**Timing Mark On/Off**
Indicates if an indoor unit is operating in a timed mode.

**Hour**
Indicates hours in a timed setting.

**Temperature Parameters (T3, T2A, T2B)**
Indicates temperature parameters in a single indoor unit query.

**Fault and Protection Code**
Indicates a if servicing is required through various fault and protection codes for indoor and outdoor units. Also indicates when filter servicing is required for individual indoor units (if enabled).

**Setting Mode**
Indicates if a mode setting operation change was set successfully.

**LENNOX**