# APPLICATION MANUAL 应用程序说明书

# **APPLICATION MANUAL**

# **Tool for Network Convertor**

网络转换器的工具 UTY-VLGX



KEEP THIS MANUAL FOR FUTURE REFERENCE 使用产品前请仔细阅读本使用说明书 请保留本说明书以供今后参考

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- \*1 PC : Personal Computer
- \*2 PCB : Printed Circuit Board
- \*3 BMS : Building Management System

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# 6 DESCRIPTION OF THE MAIN SCREEN

# 7 SERVICE PIN

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\*1 XIF: External Interface File

### Notice

Please print the "Application Manual" in "Manual" folder of the attached CD-ROM before start the setting operation work from now. Please prepare the "Installation Manual" attached that.

# **1.OUTLINE**

• Connecting the Tool for Network Convertor installed PC on the "Network Convertor", setting or the setting contents can be confirmed.

The main functions are as follows.

### a) Setting (When Initial Setting)

- 1) "Indoor/Outdoor Unit Addresses"
- 2) "Configuration Properties"
- 3) "Making/Modifying the XIF"

### 1-1. System Outline



### Fig. System Outline

\* LONWORKS<sup>®</sup> is registered trademark of Echelon Corporation in the United States and other countries.

### b) Confirming

- 1) "Indoor/Outdoor Unit Addresses"
- 2) "Configuration Properties"
- 3) "FROM Check Sum of CPU (H8)"
- The layout of the system is shown in Fig. System Outline. Setting and confirming the Network Convertor are performed using a PC. The RS-232C interface of the PC is used to connect the Tool for "Network Convertor" to the PC.

# 1-2. Setting (Initial Setting) & Confirming Flow

- The Setting (Initial Setting) & confirming flow for the Network Convertor is as follows. (Fig. Setting (Initial Setting) & Confirming Flow)
- Following are the work item during on line operation. However, XIF making is also possible during off line operation.





# 2.SETTINGS

• Install the application and connect the PC and Network Convertor according to the following explanations.

### 2-1. Installing the Tool for Network Convertor

• If not installing the Tool for Network Convertor to a PC, install it according to the following explanation.

### 2-1-1. Operating Environment

• This program requires the following operating environment.

### Personal Computer Specifications

	Tool for Network Convertor (UTY-VLGX)
CPU	Intel <sup>®</sup> Core <sup>TM</sup>
Display	1024 x 768 dots or more, High color (16bit) or more
Interface	Serial(RS232C) port (x1) *Please be sure to use "COM1"
Operating System	Microsoft <sup>®</sup> Windows <sup>®</sup> 10 (32/64-bit) Home, Pro (English version/ Chinese version) Microsoft <sup>®</sup> Windows <sup>®</sup> 11 (64-bit) Home, Pro (English version/ Chinese version)
Required Hardware	CD-ROM drive

### Note

This application can operate only on operating system (OS) during the period supported by Microsoft. Note that we cannot guarantee the operation of this application on operating system (OS) whose support has expired.

CD-ROM Configuration (Accessory) : English version



\*1. xx is arbitrary character.

2-1-2. Installing the Tool for Network Convertor

 Use the following procedure to install the Tool for Network Convertor.



Double-click the file "setup.exe".

 Please follow the instructions on PC screen to install the Tool for Network Convertor. • Please follow the method of uninstall of each PC about the method of uninstall of Tool for Network Convertor.

### 2-2. Connecting the PC and Network Convertor

 Connect the PC to the Network Convertor with the included cable\*. Use the following procedure to connect the PC to the Network Convertor.

\* Cable: D-Sub 9-pin female connector - 3-pin female connector (Fig. 1). This cable is packed in the carton of the "Network Convertor".



to Network Convertor

(3-pin connector) to PC (D-Sub 9-pin female connector)





### Notice

Please start setting operation after putting the backup battery of the Network Convertor into the state of "ON". (For detail, please refer to the Installation manual)

- 1 Turn off the power of both the PC and Network Convertor.
- 2 Remove the cover of the Network Convertor using a screwdriver. (Please refer to the Installation Manual)
- Connect the 3-pin connector to the PC\_CONTROL socket (CN5) on the PCB in the case. (Fig.2)
- Connect the D-Sub 9-pin female connector to the 9-pin serial port (COM 1) of the PC.
- **5** Turn on the power of both the PC and Network Convertor.

### Notice

The serial port connected with Network Convertor must use "COM 1".

# **3.SETTING THE PCB**

When setting or confirming the Network Convertor, the PCB must be set to the installation mode. (See par. 3-1)

### 3-1. Installation Mode



Fig. 1

Fig. 2

### D19 LED Display Code

### (1) Normal code

Normal code	Contents
88	Normal mode
88	Set state of "Tool for Network Convertor"
88	Address setting mode
88	Under maintenance
88	FB* and unit address allocation information is registered with "Tool for Network Convertor"

FB\*: Functional Blocks

Set the Network Convertor to the "installation mode" according to the following procedure.



Remove the cover of the Network Convertor.



Make sure that the power of the Network Convertor is ON.

Select the special mode by pressing and 3 releasing SW7 (reset button) while holding down SW4 (set button) until special mode "1" (Blinking) is displayed. Please keep holding down SW4 (set button) a few seconds after releasing the SW7 (reset button). Fig. 2 (Lighting). It becomes Installation Mode.

Press SW4 (SET button). "1" (Lighting) will 4 appear as shown in Fig. 3.

· For normal operation, the PCB must be set to the normal mode.

Set the Network Convertor to the normal mode according to the following procedure.

Turn the power off and on or press SW7 (reset 1 button) to exit from installation mode. Anyone of the code in D19 LED display.

### Note

When error occurs, "LED Display (D19)" on the PCB of the Network Convertor will display the error code. Or, the content is displayed on the screen of PC.

### (2) Error code

Error code	Contents
88	FB and unit address allocation information is not registered
88	Main PCB error
88	VRF Network error
D9 LED lit or blinking D9 D9	Communication error (The Error of the Network interface Device on the VRF System side)
D14 LED lit or blinking □ ;□=: D14 D14	Communication error (The Error of the Network interface Device on the BMS side)*1
88	When V series or S series is connected

\*1. D14 is ON for 1 second, OFF for 1 second, and repeats. When D19 is in Normal mode, Commissioning is unset.

# **4.BASIC OPERATION**

• The basic operation of the Tool for Network Convertor is described in the following explanations.

### 4-1. Starting the Tool for Network Convertor.

1 On the taskbar, click [ Start ]  $\rightarrow$  [ Programs ]  $\rightarrow$ [ Tool for UTY-VLGX ]  $\rightarrow$  [ Tool for UTY-VLGX ] The screen shown in the PC.

 Start the Tool for Network Convertor. Open the screen of "Connection environment" menu.

# 4-2. Selecting the "Connection environment" between the Network Convertor and the Tool for Network Convertor.

### "Connection environment" menu



• Click the selected button of the "Connection environment" menu.

The items that can be selected are as follows.

- A. "Online work (connect the Network Convertor)" : Network Convertor and Tool for Network Convertor connect and perform the setting operation.
- B. "Offline work (not connect the Network Convertor)" : XIF file making is also possible during off line operation.
- C. "EXIT" : End the Tool for Network Convertor.

### Notice

Please check the following if error occurs when begin to communicate with Network Convertor.

- 1. Is the cable connecting the Network Convertor with PC disconnected?
- 2. Is the "COM 1" of the serial port of PC used?
- 3. Is there a power supply of Network Convertor?
- 4. Is the Network Convertor is set in "Installation Mode"?

### Note

When error occurs, the "Error" message display will displayed on the screen of PC. The error is displayed on the "LED (D19)" of the Network Convertor. Please refer to the "LED Display Code (D19)" of the "3-2 Normal Mode". Please contact authorized service personnel.

### Note

It is the "Connection environment" of the relation of 1 to 1, the Tool for Network Convertor and the Network Convertor. The trouble of the VRF system and BMS is not affected.

### 4-3. Setting the "ID Number" of the Network Convertor.

### "Select ID Number"



- When connect 1 BMS with 2 or more Network Convertors, "Tool for Network Convertor (Application Software)" must be reactivated after the setting of the "Network Convertor" of different "ID Number" ends, when 2 or more "Network Convertor" is set up.
- Set the ID Number of the set up Network Convertor.
- This screen opens automatically when the connection environment menu is selected.

### Note

The default value of "ID Number" is set as 0. Please set Each different "ID Number" when you set up 2 or more Network Convertor.

### Note

The maximum number of Network Convertor that can be connected with 1 BMS is 4.

Please set each different "ID Number" from 0 to 3.





Click "Register" button.

• Set the selected "ID Number" in the Network Convertor.

### Notice

If the "Exit" button is clicked, the Tool for Network Convertor will end.

### 4-4. Switching the function of the Tool for Network Convertor./end.

#### Function switching (Tab) "Indoor/Outdoor Unit Address"



Display the "ID Number" of Network Convertor that is in setting.



• If the function switching tab is clicked, the function and the screen will switch.



Click the tab of the selected function.

The items that can be selected are as follows.

- A. "Indoor/Outdoor Unit Address" : Register the Address data in the Network Convertor.
  - → "Indoor/Outdoor Unit Address"
- B. "Configuration Properties" : Set the communication mode between the Network Convertor and BMS → "Configuration Properties"
- C. "XIF Making/Modifying" : In order to binding on the Network Integration Tool, make the necessary XIF file. → "XIF Making/Modifying"
- D. "FROM Check Sum" : Display the "FROM Check Sum" and Software Version of the CPU used in the Network Convertor.
  - → "FROM Check Sum"
- E. "ID Number"
  - Set "ID Number" on the Network Convertor. → "ID Number"
- End the Tool for Network Convertor.



Click "EXIT" button.

The screen of the end confirmation of "Are you" sure you want to Exit? (When Exit, Not saved data is lost.) opens.



Click "OK" button.

End the Tool for Network Convertor.

### Notice

Delete the made data information when end the application. Then end the operation after save the necessary setting file.

# 5. SETTING THE NETWORK CONVERTOR (INITIAL SETTING)

Each of the following operations to set (initial setting) the Network Convertor is explained.

- 1) "Layout of Indoor & Outdoor Unit Address"....... (required)
- 2) "Configuration Properties"...... (not required)
- 3) Making the "XIF"data......(required)

### 5-1. "Layout of Indoor & Outdoor Unit Address" data is made.

### "Indoor/Outdoor Unit Address"



### "Indoor/Outdoor Unit Address"

🎢 Tool for Network Convertor UTY-VLGX [Ver. E017V00P00L03] [Online]	
Indoor/Outdoor Unit Address Configuration Properties XIF Making/Modifying FROM Check Sum ID Number	
- Set Up Unit Address	
Register and Layout of Indoor & Outdoor Unit Addresses to Network Convertor UTY-VLGX Set Up	2
Load Unit Address	
Confirmation of the Layout of Indoor & Outdoor Unit Addresses from Network Convertor UTY-VLGX Load	
ID Number: 0Exit	

1

Click the "Indoor/Outdoor Unit Address" tab.

The screen of the "Indoor/Outdoor Unit Address" opens.

### Note

The functions that can be selected are as follows. A. "Set Up Unit Address" :

- Make the "Layout of Indoor & Outdoor Unit Address" data and register the Network Convertor. In addition, the file of the made setting information can be saved in PC. The saved PC data can be confirmed.
- B. "Load Unit Address" : The read of the "Lavout of Indoor & Outdoor Unit Address" data registered in the Network Convertor. The Tool for Network Convertor can be confirmed and the file can be saved.
- C. Printing :

The "Layout of Indoor & Outdoor Unit Address" date that "Loads" from the "Network Convertor" can be printed.

- Register the "Layout of Indoor & Outdoor Unit Address" data in the Network Convertor.
  - Click the button of the "Set Up".
  - The screen of the "Set Up Unit Address" opens.

### Note

In order to control the Indoor Unit and Outdoor Unit that exists in VRF system from BMS, the "Layout of Indoor & Outdoor Unit Address" is the related Address. "Set Up Unit Address" (Indoor Unit)



"Set Up Unit Address" (Outdoor Unit)



Display section of Address that has been Layout

For example: The attaching method of the Outdoor

Outdoor Unit	No.	of Addr	ess
Master	0	-	-
Master + Slave1	0	1	-
Master + Slave1 + Slave2	0	1	2

- Begin setting the "Set Up Unit Address".
- First, set the "Refrigerant Address" and the "Indoor Unit Address".
- **3** Click the tab of the "Indoor Unit Address" on the Address List Part.
  - Switch the setting of the "Indoor Unit Address" on the Address List Part.
- Register the "Refrigerant Address" and the "Indoor Unit Address".
- 4 Select the Address Number after click the "▲" "▼" button of the "Refrigerant Address".
  - Select the Address Number after click the "▲" "▼" button of the "Indoor Unit Address".
- 6 Click "Input" button.

# Notice

4

5

Please set the same "Refrigerant Address" of the "Indoor Unit" and the "Outdoor Unit".

### Note

The "FB No." is automatically allocated to the "Refrigerant Address" and the "Indoor/Outdoor Unit Address" in this tool.

- Continue to register the "Refrigerant Address" and the "Outdoor Unit Address".
  - Click the tab of the "Outdoor Unit Address" on the display section of the Address that has been Layout.
    - 9 Input the "Refrigerant Address" and the "Outdoor Unit Address". Please refer to the "Example : the input method of address" as follows.

10 Click "Input" button.

 The "FB No." is automatically allocated to the "Registered" "Refrigerant Address" and "Outdoor Unit Address".

### Note

8

If input "Indoor/Outdoor Unit Address" The "FB No." was automatically allocated as the following. "Indoor Unit Address" is from 0 to 127. "Outdoor Unit Address" is from 0 to 99.

### Note

The "Refrigerant Address" can be input from 0 to 99. The "Indoor Unit Address" can be input from 0 to 63. \* Now, the maximum number that can be set up is 48. The "Outdoor Unit Address" can be input from 0 to 3. \* The address of the present VRF system is from 0 to 2.

### Note

The "Outdoor Unit Address" including the case of set up 1 outdoor unit must be set from 0. And then, please set it in the order of 1, 2. Don't jump the order of the number. Please refer to the attachment of the "Outdoor Unit Address" on the left.

### For example : the input method of address

### Notice:

Please prepare the material of the "Indoor/Outdoor Unit Address" and the "Refrigerant Address" registered in "VRF system" that can be understand at a glance before start inputting "Address". The setting method of the registered address is explained by using a case.

### For example:

Register the following equipment address of the VRF system.

### • VRF system

Refrigerant System: 6 Systems Outdoor Unit: 17 Units Indoor Unit: 83 Units

Refrigerant System	Indoor Unit	Outdoor Unit
0	15	3
1	15	3
2	15	3
3	15	3
4	15	3
5	8	2
Total 6	Total 83	Total 17

"Set Up Unit Address" (Indoor Unit) (Fig. 1)

Indoor/Outdoor Unit Address [Set Up] [Ver. E017V00P00L03] Indoor Unit Address | Outdoor Unit Address | Refrigerant 0 = 4 Address Indoor Unit 0 = 14 nal Block Refrigerant Address Indo Input Euroctional Block No. i-el Al Delete Address Data File; Open... Save As... Register to Network Convertor UTY-VLGX Register • Total Number of Indoor U Back

15 "Indoor Unit" each is set in the 0 to 4 system of the "Refrigerant Address".

"Set Up Unit Address" (Indoor Unit) (Fig. 2)



- Please input the "Outdoor Unit Address" according to the instructed input method of the "Indoor Unit Address" and the same knacks till now.
- 2 or more "Refrigerant Address" and "Indoor Unit Address" can be input in a batch.
- (1) Input the "Refrigerant Address" from 0 to 4, and the "Indoor Unit Address" from 0 to 14.



(2) Click "Input" button.

- 15 Indoor Unit each is set in the 0 to 4 system of the "Refrigerant Address". Moreover, the "FB No" is automatically allocated. (Fig 1.)
- Register 5 of the "Refrigerant Address". Register from 0 to 7 of the "Indoor Unit Address".
- (1) Input 5 of the "Refrigerant Address", and from 0 to 7 of the "Indoor Unit Address".



Input from 5 to 5 (the lower limit and the upper limit are the same number) of lower limit "▲"

button

Input lower limit of 0, and upper limit of 7

(2) Click "Input" button.

 8 "Indoor Unit" is set in the 5 system of "Refrigerant Address". Moreover, the "FB No" is automatically allocated. (Fig. 2)

### Note

When the lower limit and the upper limit are in the state of the same number, if click the " $\blacktriangle$ " button of the lower limit, the lower limit and the upper limit will switch at the same time. It is convenient when a single setting is input.

8 "Indoor Unit" is set in the 5 system of "Refrigerant Address". And then, the input equipment address is displayed on the upper part of this window.

### Note

The following information necessary for System Integration is automatically displayed.

- A. "Indoor/Outdoor Unit" FB Display the total number of the unit.
- B. The Network Variable Number that sent and received by the "Network Convertor" is displayed: Input: Received total number of NV\*. Output: Sent total number of NV. Total: Sum total of the input and Output.
- \* NV : Network Variable

Cuttor Unit Address         Uncol: Setting and Address         Input: Setting and Address         Input: Setting and Address           Cuttor Unit Address         14         Input: Setting and Address         Input: Setting and Address         Input: Setting and Address           77         5         2         Input: Setting and Address         Input: Seting and Address         Input: Seting and Address <th>or/Outdoor Unit</th> <th>Address [Set Up]</th> <th>[Ver. E017V00</th> <th>POC .03]  </th> <th>[Online]</th>	or/Outdoor Unit	Address [Set Up]	[Ver. E017V00	POC .03]	[Online]
Process Discu tellingetant soldiest problem the Address         Image: Constraint of the	or Unit Address 🛛 O	utdoor Unit Address		- ·	- Torout Address Data
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			nor Linit Address		
75         5         1           76         5         1           77         5         2           78         5         3           79         5         4           79         5         4           90         5         5           81         5         6           22         5         7           4dress Deta Fle;         Open           Seve As         Seve As           Register         Provide Verblevork Variable: 9.	74	angerant Address (11)	14		Refrierant  s 🗄 —  s
76         5         1           77         5         2           78         5         3           79         5         4           80         5         5           81         5         6           82         5         7           Address Data Flag;         Open           Streve Rs         Streve Rs           Registration         Registration           Registration         Registration	75	5	0		Inder Lipit
77         5         2           78         5         3           79         5         4           79         5         4           90         5         5           81         5         6           2         5         7           Address Deta Fley         Open         Save As           Registration         Notices to be work for one to be work	76	5	1		ddress
70         5         3           70         5         4           80         5         5           81         5         5           82         5         7           Address Data Flag;         Open           Signer As         Signer As           Registration         Registration           Registration         Registration           Imput Network Variable:         9	77	5	2		Input
70         5         4           90         5         5           81         5         6           92         5         7           4         Debta         2           5         7         1           4         Debta         2           5         7         1         Debta           4         Debta         2         2           6         Main Conserver         Debta         2           10         Debta         2         2           10         Debta         2         2           10         Debta         2         2           10         Debta         2         2           10         Debta         2 <td>78</td> <td>5</td> <td>3</td> <td></td> <td></td>	78	5	3		
80         5         5         6           82         5         7         Delate           Address Data Flag;         Open         Sime As           Bit         Sime As         Registration           Bit         Sime As         Registration           Bit         Sime As         Registration           Bit         Sime As         Sime As	79	5	4		Delete
B1     5     6       B2     5     7       Address Deta File;     Open       Size As     Size As       Registration     Registration       Registration     Registration       Registration     Registration       Registration     Registration       Registration     Registration	80	5	5		Europeinnal Block No. In
B2     5     7     Image: Constraint of the second secon	81	5	6		
Address Dets File; Coen Save As Registration Regi	82	5	7		Al Dalata
Address Data File; Open Save As Registration UTV-VLOX Register Input Network Variable: 52					
Address Deta File; Open Sere As Registration Regi					
Register to Network Variable: 52					Address Data Eller Open
Save As Registation Registrer Reg					
Registraton     Registraton     Registraton     Registraton     Registraton     Registraton     Registraton     Registraton					Savp 6s
Registration     Registration     Registration     Registration     TryLine     Registrat     Input Network Variable:      State					
Register to Network Convertor UT1-VLGX Register Input Network Viriable: 52					Registration
Constant of the second content of the s				$\vdash$	Register to Network Converter
Register					UTY-VLGX
Input Network Validies 9					
Trout Network Validoies: 92					Register
Input Network Variables: 50					
Input Network Variables: 9,					Torrest Distanced Manhalana 200
				-	Or the st Mature Mariables: 92

• Delete all data of "Layout of Indoor & Outdoor Unit Address".

1 Click the tab of "Indoor Unit Address" or "Outdoor Unit Address" with the deleted Address.



Click the "All" button of the "Delete" section.

- Open the screen of "Are you sure to delete all Indoor Unit Address (Outdoor Unit Address) Data?." for confirmation of deleting all data.
- 3 Click "OK" button.
  - The address content of the opened "Indoor Unit Address" or "Outdoor Unit Address" was deleted.



### Note

If "All" button is clicked, all the address data will be deleted. It is not possible to regain. Please pay attention to it.

# 5-1-2. Delete any data of "Layout of Indoor & Outdoor Unit Address".



• Delete any data of "Layout of Indoor & Outdoor Unit Address".

[The selection method of the "FB No." on the display of Address List]

Click the "FB" of the address list display.

- Select the line of the selected "FB" and "Indoor & Outdoor Unit Address".
- The selected "FB No." of the "Delete" section was displayed in window.

2 Click "Delete" button.

 The deleted "FB" and "Indoor & Outdoor Unit Address" disappear on the display.

### Note

When any line is deleted, the Address of FB below the deleted line will move up automatically.



### 5-1-3. Register the data of "Layout of Indoor & Outdoor Unit Address" in Network Convertor.



Register the data of "Layout of Indoor & Outdoor

Confirm the data information of the "Layout of

The setting method of the deleted "FB No." on the

- After "Register" is completed, the screen of the "Unit Address Registration is Success" opens.
- ◆ If it is "Success", the D19 (LED) in the "Network

"Connection environment" menu is in "Online work" state. In case of using on the "Offline work" state, after a necessary file is saved once, Please switch to "Online work" state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

Function switching (Tab) "Indoor/Outdoor Unit Address" :



• After each operation ends, return to the function switching (Tab) screen.



Click "Back" button.

 The "Indoor/Outdoor Unit Address" screen opens.

• Save the file of the made "Layout of Indoor &

# 5-1-4. Saving the file of the "Layout of Indoor & Outdoor Unit Address" data registered in the Network Convertor in PC.

"Set Up Unit Address"



# 5-1-5. Opening the saved file data of the "Layout of Indoor & Outdoor Unit Address" in PC.

"Set Up Unit Address"	<ul> <li>Saved the "Layout of Indoor &amp; Outdoor Unit Address" data from PC is confirmed or changed.</li> </ul>
Indoor Unit Address         Undoor Unit Address         Input Address Data           Refregment         Refregment Address         Partitional Block         Refregment Partitional Partitorita Partitorita Partita Partitional Partitore Partitional P	1 Click "Open" button.
Address Linut	<ul> <li>The window of "Open" opens.</li> </ul>
A Delete	2 Open the directory that the file is saved.
Registration Regis	3 Select the read in file.
Total Number of Indox Unit: 0	4 Click the "Open" button.
Back	<ul> <li>Start opening</li> </ul>
Tool for UTY-VLGX	<ul> <li>After the file reading in is completed, the screen of "Opening File is Success" opens.</li> </ul>
	5 Click "OK" button.
Opening File is Success.	<ul> <li>That screen closes.</li> </ul>
5	

### 5-1-6. Confirming the read in of the "Layout of Indoor & Outdoor Unit Address" data registered in the Network Convertor.

"Indoor/Outdoor Unit Address"



### "Load Unit Address"

🖗 Indoor/Outdoor Un	it Address [Load	i] [Ver. E017V00P	00L03] [O	nline] 📃 🗖 🔀	
Indoor Unit Address	Outdoor Unit Addre	ss			
Functional Block	Refrigerant Address	Indoor Unit Address		Unit Address Information Load from Network Convertor UTY-VLGX	2
				Address Data File; Save As	-2
				Print Out Print Out Unit Address Data	
				Print Print Print Dutput Network Variables: D Dutput Network Variables: D Total Network Variables: D	
Total Number	of Indoor Unit	0		Back	- 4



 Confirm the read in of the "Lavout of Indoor & Outdoor Unit Address" data information registered in the Network Convertor.



Click the "Load" button.

The screen of the "Load Unit Address" opens. The previous data might be displayed sometimes. Please press the button of step 2 to display the new data.



Click "Load" button.

- Read in the "Layout of Indoor & Outdoor Unit Address" that has already been set the Network Convertor.
- Use tab to switch the display of the read in "Indoor Unit Address" and "Outdoor Unit Address" in the display section.
- ◆ After "Load" is completed, the screen of the "Loading Unit Address is Success" opens.
- Click "OK" button. 3
  - That screen closes.
- Confirm the data information of the read in address. Please refer to 5-1-7 when that file of data is saved.
- Returns to the function menu after each operation ends.



The "Indoor/Outdoor Unit Address" screen opens.

### Note

"Load" the data information from the Network Convertor becomes effective only in case of the connection environment menu is in "Online work" state. In case of using on the "Offline work" state, after a necessary file is saved once, Please switch to "Online work" state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

### Note

The data that displayed on the "Load" will not disappear even if the display of the "Indoor/Outdoor Unit Address" is returned with "Back" button. In addition, in case of the display of the "Load Unit Address" is open, please pay attention that the content of previous "Load" will be displayed, when "Load" is not made.

# 5-1-7. Saving the file of the data of the "Layout of Indoor & Outdoor Unit Address" read in from the Network Convertor.

"Load Unit Address"	<ul> <li>Here, the file of the data information of "Layout of Indoor &amp; Outdoor Unit Address" was saved in PC</li> </ul>
Indoor/Outdoor Unit Address [Load] [Ver. E017V00P00L03] [Online]	
Indoor Unit Address Outdoor Unit Address	
Functional Block Refrigerant Address Indoor Unit Address  Unit Address Information	Click "Save As" button.
0 0 0 Load from Network Convertor	
2 0 2 UTY-VLGX	
	<ul> <li>The window of "Save with Name" opens.</li> </ul>
<u> </u>	
	Colort o filo coving oddroop
8 0 8	Select a file saving address.
9 0 9 Address Data He;	
10 0 10 Save As	
12 0 12	
	Fill in the "File name when saving it".
15 0 15 Print Cut	3
16 0 16 Print Out Unit 17 0 17 Address Data	
18 0 18	
19 0 19 Print	Click the "Save As." button
21 0 21	A Click the Save As button.
22 0 22 Input Network Variables: 720	
24 0 24 V Total Network Variables: 1624	
Total Number of Indoor Unit: 64 Back	<ul> <li>Start saving</li> </ul>
	·
	After the file equing is completed the
	<ul> <li>Alter the me saving is completed, the</li> </ul>
	screen of "Saving File is Success" opens
	Click "OK" button.
	5
Saving File is Success.	
V	<ul> <li>I hat screen closes.</li> </ul>
L	

5

# 5-1-8. Printing the data of the "Layout of Indoor & Outdoor Unit Address" read in from the Network Convertor.

### "Load Unit Address"

			-	
Functional Block	Refrigerant Address	Indoor Unit Address	<b>_</b>	Unit Address Information
0	0	0		Load from Network Convertor
1	0	1		UTY-VLGX
2	0	2		01111001
3	0	3		
4	0	4		Load
5	0	5		
6	0	6		
7	0	7		
8	0	8		
9	0	9		Address Data File;
10	0	10	1	
11	0	11	1	Save As
12	0	12	1	
13	0	13		
14	0	14		
15	0	15		Print Out
16	0	16		Print Out Unit
17	0	17		Address Data
18	i o	18		
19	0	19		0004
20	0	20		Phrit
21	1 0	21		
22	0	22		Input Natwork Variables: 720
23	i ő	23		Output National Variables: 720
24	i õ	24	-	Total Natural Variables 1694

### "Indoor/Outdoor Unit Address"

🔑 Tool for Network Convertor UTY-VLGX [Ver. E017V00P00L03] [Online]	
Indoor/Outdoor Unit Address Configuration Properties XIF Making/Modifying FROM Check	Sum   ID Number
- Set Lin Linit & driver	
ber op one waaress	
Register and Layout of Indoor & Outdoor Unit	
- Load Linit Address	
Edd one Aduless	
Confirmation of the Layout of Indoor & Outdoor	
The Manakaran Ch	Evit

• Print the "Layout of Indoor & Outdoor Unit Address" data information.



Click "Print" button.

• The window of "Print" opens.

### Note

Please follow the operating manual of the printer connected with the PC for the detailed setting of the print.

• After each operation ends, return to the function switching (Tab) screen.



 The "Indoor/Outdoor Unit Address" screen opens.

# 5-2. Setting the communication mode between the Network Convertor and BMS.

#### Function switching (Tab) "Indoor/Outdoor Unit Address"

cor/Outdoor Unit Address Configuration	Properties   XIF Making/M	odifying   FROM Check Sum   ID Nu	nber
Set Up Unit Address			- 1
Register and Layout of Indoor & Out Addresses to Network Convertor UT	door Unit Y-VLGX	Set Up	
Load Unit Address			
Confirmation of the Layout of Indoor Unit Addresses from Network Corver	& Outdoor tor UTY-VLGK	Load	

### "Configuration Properties"



- Switch to "Configuration Properties".
  - Click the "Configuration Properties" tab.
  - The "Configuration Properties" screen opens.

### Note

The default setting of "Configuration Properties" is as follows:

- "Mode 1 (Property of Sending Data to BMS)": Cyclic, Cyclic Time: 3 min. "Mode 2 (Condition of Sending Data to BMS)":
- Only Changed Data "Mode 3 (Condition of Transmission start all NVs)":
- "Mode 3 (Condition of thansmission start an NVS). 3 min.
- "Mode 4 (Condition of the Room temperature output)": 1.0°C Unit: Celsius

### Note

Please set as follows if it is possible.

- A. "Mode 1 (Property of Sending Data to BMS)"
- B. "Mode 2 (Condition of Sending Data to BMS)"
- C. "Mode 3 (Condition of Transmission start all NVs )"
- D. "Mode 4 (Condition of the Room temperature output)"

# 5-2-1. Setting the "Mode 1 (Property of Sending Data to BMS)".

### "Configuration Properties"



 Set the timing in which it begins to send the registered data information of the "Indoor/Outdoor Unit" from Network Convertor to BMS.

### Note

Please select as follows if it is possible. "Event Driven" sends information uploading from the VRF system in real time to BMS. "Cyclic" keeps the information uploading from the VRF system for certain time according to the set timing and then sends to BMS.

### Note

In case of the "Cyclic" of sending information to BMS in a timing of certain time is set, it will be lack of real time property when "Cycle Time" is set at a long time. Moreover, the traffic amount of information will increase when setting at a short time.

- 1 Click the check box of the "Event Driven" or "Cyclic".
- When "Cyclic" is set, "Cycle Time" is set with "▼" button.

### Note

The range of the "Cycle Time" can be set is from 2 min to 30 min. (the interval is 1min.)

### "Configuration Properties"

Tool for Hetnerk Convertor UTY-VLOX (Ver. E012VD Indox/Ouddox Unit Address Configuration Properties) are is Plobal(Property of Sending Data to BMS)     Centro Driven     Code Configuration Flagments     Code Configuration Flagments     Sender Tree Internations start at Nov)     Code Condition of Transmission start at Nov)     Code Condition of Transmission start at Nov)     Sender To Network     Connector.	BPDBL031 (Online)     Image: Control of Standing Data to BMS)     Dista file;       Control of Sending Data to BMS)     Data file;     Open       Control of Sending Data to BMS)     Data file;     Open       Control of Sending Data to BMS)     Data file;     Open       Control on the Boom temperature output)     Save Ac     Exclose Version       Control on the Boom temperature output)     Fadvenheat     Network Convertor UTV-VIGX       Register     Load     Load
ID Number: 0	Exit
	1

• Set the condition of information sent from the Network Convertor to BMS.

Click the check box of the "Only Changed Data" or "All Data".

### Note

Please select as follows if it is possible. "Only Changed Data" only sends the changed information to BMS. "All Data" sends all data to BMS.

### Note

It is possible to decrease the traffic amount of information sends to BMS compare with the "All Data" situation because only the changed information is selected, when the "Only Changed Data" is set.

### 5-2-3. Setting the "Mode 3 (Condition of Transmission start all NVs)".

#### "Configuration Properties"



• After the power supply of Network Convertor is put into operation, set the beginning time for communication. Please make the settings suitable for the system.

The "Delay time for transmission start to BMS" is set by Click "▼" button.

### Note

Because the equipment with different start up time exists together, the communication start is made stand by. Set the standby time and to avoid the trouble of communication.

### Note

The range of the beginning time for sending information can be set from 1min. to 30 min. (the interval is 1 min.)

### 5-2-4. Setting the "Mode 4 (Condition of the Room temperature output)".

#### "Configuration Properties"



- In case of sending data information when the room temperature changes, set the minimum change range of the output room temperature data.
  - The "changing range of the room temperature" can be selected by Click "▼" button.

### Note

The changing range of the sending room temperature data can be set at  $0.5^{\circ}$ C to  $10.0^{\circ}$ C (the interval is  $0.5^{\circ}$ C). Moreover, in case of it is displayed in Fahrenheit, the changing range can be set at  $1^{\circ}$ F to  $20^{\circ}$ F (the interval is  $1^{\circ}$ F). The traffic amount of information increases when the changing range is set small. Information can not be uploaded if the changing range is set big. The difference is generated in the operation condition of VRF system and the monitoring situation on the BMS side.

### "Configuration Properties"

• Model (Property of Sending Data to BMS)       • Model2(condition of Sending Data to BMS)       Optim	Tool for Network Convertor UTY-VLGX [Ver. E0 Indoor/Outdoor Unit Address Configuration Properties	17V00P00L03] [Online]
Hodda Condition of Transmission start all MVD     Hodel (Condition of the Room temperature output)     Belevir more transmission     Hodda Condition of the Room temperature output)     Temperature when     Faring and the temperature output)     Formetry     Faring and the temperature output)     In the temperature output of the temperature output)     In the temperature output of the temperature output of temp	Mode1(Property of Sending Data to BMS) C Event Driven Cyclic Cycle Time: 3 min 💌	Mode2(Condition of Sending Data to BMS) — Data file;
Network Convertor UTY-VLGK Register Load	Mode3 (Condition of Transmission start all NVs) Delay time for transmission start to BMS at turning on the power for Network 3 min I	Mode4 (Condition of the Room temperature output) Variation width of Room Temperature when Sending Date to BMS.
Ext		-Network Convertor UTY-VLGX Register Load
	ID Number: 0	Exit

### Note

The temperature unit can be switched from Centigrade (°C) to Fahrenheit (°F).

 In case of switching the temperature display from Centigrade (°C) to Fahrenheit (°F).



Click the check box of "Fahrenheit".

 The temperature display is switching from Centigrade (°C) to Fahrenheit (°F).
 If the check box is clicked again, it will return to display in Centigrade (°C).

### The temperature is displayed in Fahrenheit (°F).

### 5-2-5. Opening the data saved in PC to the Tool for Network Convertor.



### 5-2-6. Saving the setting data in PC.



eel for Network Cenverter UTY-VLOX IVer. E017V00P001091 [Online]	information of the Tool for Network Convertor, and save the file in PC.
Control (Chryster) of Serving Lota to Bes)     Polazizational of Serving Lota to Bes)     Control (Chryster)     Control (Chryster)	1 Click "Save As" button.
Model (Condition of Transmission stat al NVs) Model (Condition of the Room temperature output) Delay time for transmission stat to BMS at turning on Temperature when Sending Data to BMS. Fahrenheit	The window of "Save with Name" opens.
Network Convertor UTV-VLGX Register Load	2 Select a file saving directory.
DNumber: 0Eat	3 Fill in the "File name when saving it".

That screen closes.

Confirm the change or else of the read in data



Click the "Save As..." button.

- Start saving.
- After the file saving is completed, the screen of "Saving File is Success" opens.
- 5 Click "OK" button.
  - That screen closes.

# 5-2-7. Opening the setting data in Network Convertor.

Network Convertor UTY-VLGX

Register Load

Exit



### Note

"Load" the data information from the Network Convertor becomes effective only in case of the "Connection environment" menu is in "Online work" state. In case of using on the "Offline work" state, after a necessary file is saved once, please switch to "Online work" state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

ID Number: 0

3

# 5-2-8. Register the setting data in Network Convertor.

#### "Configuration Properties"





• Confirm the set (changed) data information, and register it in Network Convertor.

1 Click "Register" button.

 The setting content is registered in the Network Convertor, and the screen of the "Configuration Properties Registration is Success" opens.

2 Click "OK" button.

• The registration of the setting data ends.

### Note

"Register" the data information in the Network Convertor becomes effective only in case of the connection environment menu is in "Online work" state. In case of using on the "Offline work" state, after a necessary file is saved once, Please switch to "Online work" state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

# 5-3. Making the "XIF" file.

#### Function switching (Tab) "Indoor/Outdoor Unit Address"

r/Outdoor Unit Address    Configuration Properties   XIF Making/	Modifying   FROM Check Sum   ID Number
Set Up Unit Address	
Register and Layout of Indoor & Outdoor Unit Addresses to Network Convertor UTY-VLGX	Set Up
Load Unit Address	
Confirmation of the Layout of Indoor & Outdoor Unit Addresses from Network Convertor UTY-VLGX	Load
ID Number: 0	Exit

### "XIF Making/Modifying"



- In order to make Binding with the Network Integration Tool, the necessary "XIF" file is made.
- "ID Number" related information is included in the "XIF" file. The "ID Number" "Register" in the "Network Convertor" must be in consistent with the ID Number" when the "XIF" file is made.



The "XIF Making/Modifying" screen opens.

### Note

The made item is as follows.

- A. "Number of Indoor Unit"
- B. "Number of Outdoor Unit"

### Note

When 5-1-3 "Register" and 5-1-6 "Load" succeed, it is displayed as defaults based on the unit number information of the communicated "Indoor Unit" and "Outdoor Unit" with the Network Convertor.

5-3-1. Making the "XIF" file on the Tool for Network Convertor. (In case of the Default value is changed)

# "XIF Making/Modifying"

- In order to make Binding, the necessary "XIF" file is made.
- 1 Set the number of the controlled indoor unit by clicking the [▼] button of the "Number of Indoor Unit".
- 2 Set the number of the controlled outdoor unit by clicking the [▼] button of the "Number of Out-door Unit".

### Note

The "Number of Indoor Unit" that can be controlled is from 1 to 128 (maximum is128).

### Note

The "Number of Outdoor Unit" that can be controlled is from 1 to 100 (maximum is100).

### Note

"XIF" file is the data necessary for "Binding". Please definitely input the same unit number with the number of the "Indoor/Outdoor Unit Address" registered in the Network Convertor in 5-1.

### "XIF Making/Modifying"

Tool for Network Convertor UTY-VLOX [Ver. E017V00P00103] [Online] Index/Outdoor Unit Address   Configuration Properties [XE Making/Modifying.] Ric	DM Check Sum   ID Number
Number of Indoor & Outdoor Units of XP     Number of Indoor Unit:      V     Number of Outdoor Unit:      V     Usaded or Registered Unit Address, the Number of Units are displayed.)	XIF; 
ID Number: 0	Exit

The connecting "ID Number" of "Network Convertor" is displayed.



• The "XIF" file saved in the PC is read in the Tool for Network Convertor.



- ◆ The window of "Open the file" opens.
- Open the directory that the file is saved.





Click the "Open" button.

- Start opening.
- After the file reading in is completed, the screen of "Opening File is Success" opens.
- The read in ID Number" of the "XIF" file" is displayed on the sub-display. The "Network Convertor" that is different from the "ID Number" of Network Convertor doesn't operate.

• Save the file of the "XIF" file made by the Tool for

- 5 Click "OK" button.
  - ♦ That screen closes.

# 5-3-3. Saving the "XIF" file made by the Tool for Network Convertor in PC.

### "XIF Making/Modifying"



### 5-4. Confirming the product information of the Network Convertor.



### "FROM Check Sum"

FROM Check Sum Continuing the product (CPU) information of Intervents: Convertor UTV-NLSX  Colored Sum Colored Sum Software Version of Network Convertor UTV-NLSX	Tool for Network Convertor UTY-VLGX [Ver. E017V00P001.03] [On Indoor/Outdoor Unit Address   Configuration Properties   XIF Making/Modifying	FROM Check Sum ID Number
	FROM Check Sum Confirming the product (CPU) information of Network Convertion UTV*NOX (Check Sum) Load Software Version of Network Convertor UTV*NLGX	Data ffe; Sare As

 Confirm the "FROM Check Sum" data information of the CPU mounted on the Network Convertor and the software version information.



Click the tab of the "FROM Check Sum".

### Note

Please confirm as follows if it is possible.

- 1. "Software Version of UTY-VLGX CPU"
- 2. CPU information
- The "FROM Check Sum" screen opens.

5-4-1. Confirming the load in the information of the "FROM Check Sum" in the Network Convertor.





 Confirm the "FROM Check Sum" information of the Network Convertor.



Click "Load" button.

- The numerical value of the "FROM Check Sum of CPU" is displayed in the display section.
- The "Software Version of UTY-VLGX CPU" is displayed on the lower part of the "FROM Check Sum".
- The screen of the "Loading Check Sum of FROM is Success" opens.
- 2 Click "OK" button.

### Note

"Load" the data information from the Network Convertor becomes effective only in case of the "Connection environment" menu is in "Online work" state. Nothing can be made when in "Offline work" state. Please switch to "Online work" state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

# 5-4-2. Saving the information of the "FROM Check Sum" in the Network Convertor in PC.



Please contact with authorized service personnel of this software version when the problem occurs on the Network Convertor.



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# **6.DESCRIPTION OF THE MAIN SCREEN**

### "Connection environment" menu screen



### "ID Number" screen (Online)



### "ID Number" screen (Offline)



### Function switching (Tab) "Indoor/Outdoor Unit Address" screen



### "Set Up Unit Address" screen



(Number is assigned automatically)

### "Load Unit Address" screen



### "Configuration Properties" screen

### "Event Driven"

Check box	"Cycle Time	' setting button		
To if for Network Convertor U      In bor/Outdoor Unit Address Cor      -Mode1(Property of Sending D      Cevent Driven      Cyclic Cycle Time:      Mode3 (Condition of Transmison     start to BMS at turning on     the power for Network Convertor.      D Number: 0	TV-VLQX [Ver. El     7V00P00L1       ifiguration Properties     XIF Making/M       bata to BMS)     Mod 22(Cond       3 min     Al Data       sion start all NVS)     Mod 24 (Cond       3 min     Sending Data       3 min     Note 4 (Cond)       Variation with temperature sending Data	131 [Online]  133 [Online]  134 [Online]  135 [ROM Check Sum] ID Nu  135 [ID Nu  135 [ID Nu  145 [ID N	mber ) ta file; open	"Only Changed Data" check box "Open" button "Save As" button "All Data" check box "Condition of the Space temperature output" Setting button "Load" button
"Cyclic" "Cond Check box start a	lition of Transmissio Ill NVs" setting butto	n "Fahrenheit' n "Register" button	" check box	

### "XIF Making/Modifying" screen

"Number of Indoor Unit" setting button





### "FROM Check Sum" screen



Displays "Software Version"

### ID Number (Change)" screen



# **7.SERVICE PIN**

When the Binding & Commissioning is done by Network Integration Tool, it is used to recognize the Network Convertor.

If the Service Pin is pushed, the Neuron ID will be sent.



This is Service Pin. Neuron ID is sent upon pushing BMS service switch (SW2)