

APPLICATION MANUAL

Tool for Network Convertor

UTR-YLLA

Ver. 1.1

CONTENTS

1. OUTLINE	2
1-1. SYSTEM OUTLINE	2
1-2. INSTALLING & ANALYZING FLOW	3
2. SETTINGS	4
2-1. CONNECTING THE PC AND UTR-YLLA	4
2-2. INSTALLING APPLICATION TOOL	5
2-2-1. Operating Environment	5
2-2-2. Files Included	5
2-2-3. Installing	5
3. SETTING THE PCB (PRINTED CIRCUIT BOARD).....	7
3-1. INSTALLATION MODE	7
3-2. NORMAL MODE	8
4. BASIC OPERATION	9
4-1. STARTING THE APPLICATION	9
4-2. SELECTING A FUNCTION	9
4-3. QUITTING THE APPLICATION	10
5. INSTALLING THE UTR-YLLA (INITIAL SETTING).....	11
5-1. SETTING THE INDOOR/OUTDOOR UNIT ADDRESS	11
5-1-1. Setting the Unit Address	11
5-1-2. Confirming the Set Unit Address.....	13
5-2. SETTING THE CONFIGURATION PROPERTIES	14
5-2-1. Setting the Configuration Properties	15
5-2-2. Confirming the Configuration Properties.....	16
5-3. MAKING/MODIFYING THE XIF	17
5-3-1. Making the XIF	17
5-3-2. Modifying the XIF	18
6. ANALYZING THE UTR-YLLA	19
6-1. LOADING THE INDOOR/OUTDOOR UNIT ADDRESS	19
6-2. LOADING THE CONFIGURATION PROPERTIES	19
6-3. LOADING THE FROM CHECK SUM & SOFTWARE VERSION	19
6-4. SETTING & LOADING THE SRAM DATA	20
6-4-1. Setting the SRAM Data	21
6-4-2. Loading the SRAM Data	21

1. OUTLINE

This application is used to install the Network Convertor UTR-YLLA and extract the data for analysis. The main functions are as follows.

a) Installing (Initial Setting)

- 1) Setting the indoor/outdoor unit addresses
- 2) Setting the configuration properties
- 3) Making/modifying the XIF

b) Analyzing

- 1) Loading the indoor/outdoor unit addresses
- 2) Loading the configuration properties
- 3) Loading the FROM Check Sum of CPU (H8)
- 4) Setting & loading the SRAM dump data

1-1. SYSTEM OUTLINE

The layout of the system is shown in Fig. 1. Installing and analyzing data from the Network Convertor UTR-YLLA are performed using a PC (personal computer).

The RS-232C interface of the PC is used to connect the Network Convertor UTR-YLLA to the PC.

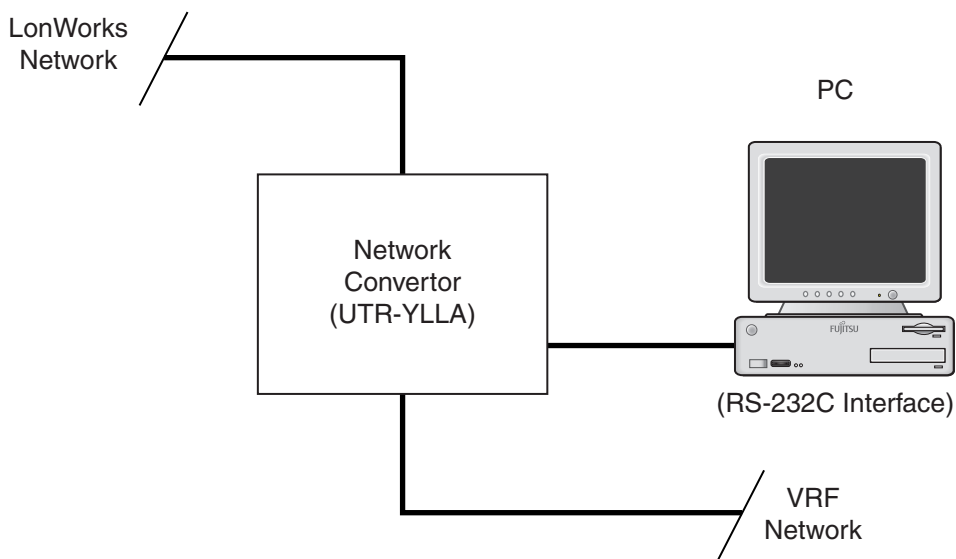


Fig. 1 System Outline

1-2. INSTALLING & ANALYZING FLOW

The installing & analyzing flow for the UTR-YLLA is as follows. (Fig. 2)

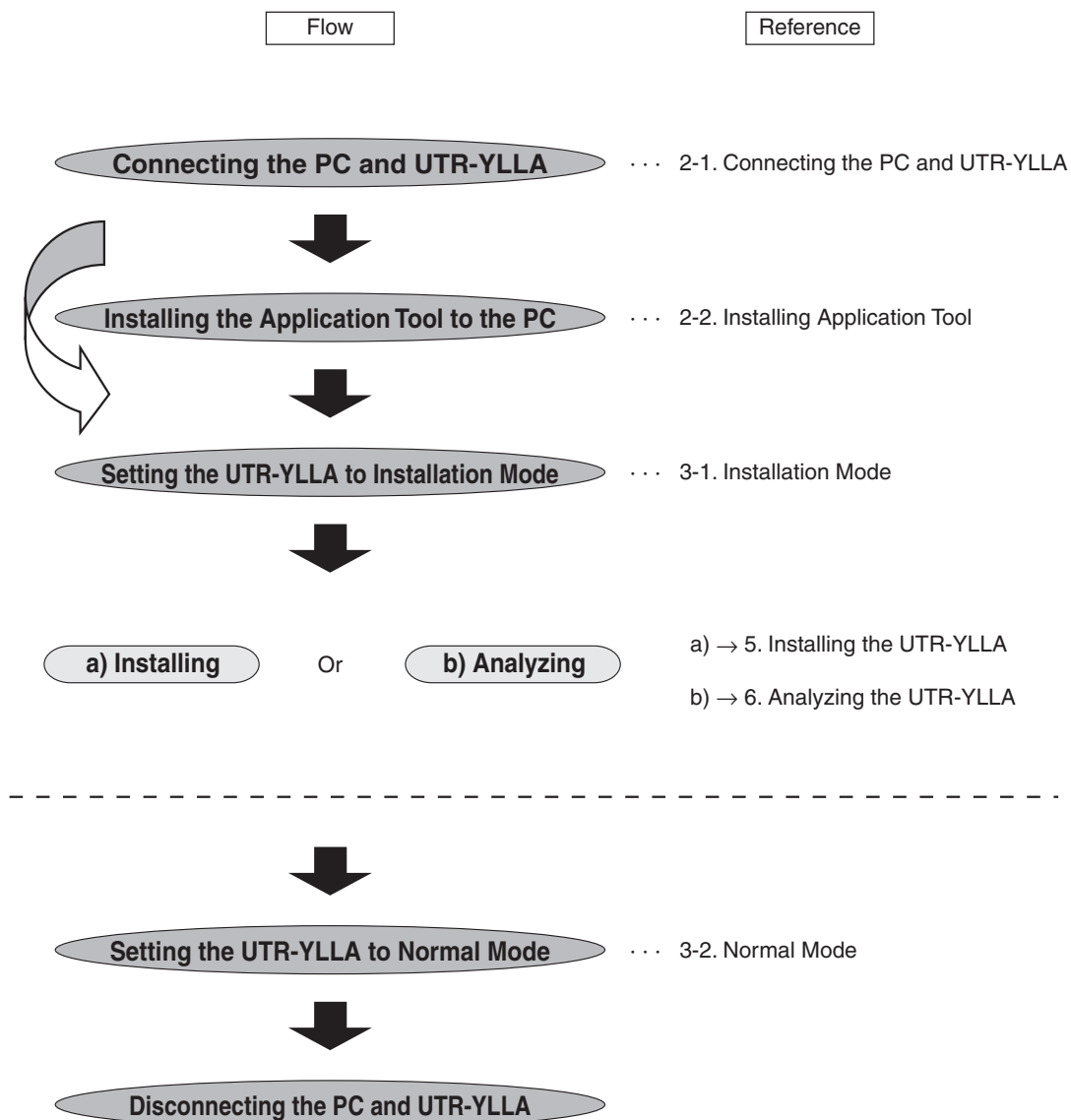


Fig. 2 Installing & Analyzing Flow

2. SETTINGS

Install the application and connect the PC (personal computer) and Network Converter UTR-YLLA according to the following explanations.

2-1. CONNECTING THE PC AND UTR-YLLA

Connect the PC to the UTR-YLLA with the included cable*. Use the following procedure to connect the PC to the UTR-YLLA.

* Cable: D-Sub 9-pin female connector - 3-pin female connector (Fig. 3)

1

Turn off the power of both the PC and UTR-YLLA.

2

Remove the cover of the UTR-YLLA using a screwdriver.

3

Connect the 3-pin connector to the **PC_CONTROL** socket (color: dark red) on the PCB (printed circuit board) in the case.

4

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 UTR-YLLA.

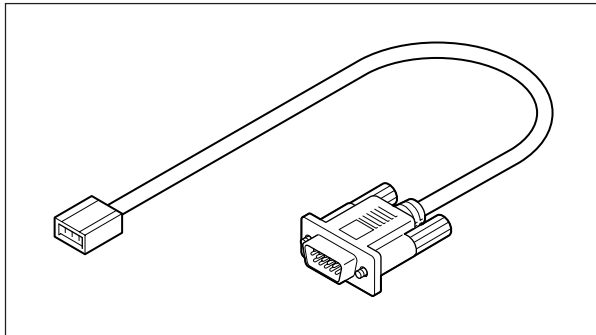


Fig. 3 Connector Cable

2-2. INSTALLING APPLICATION TOOL

If not installing the Tool for UTR-YLLA to a PC, install it according to the following explanation.

2-2-1. Operating Environment

This program requires the following operating environment.

- 1) AT-compatible machine running Microsoft Windows
- 2) Hard disk: 3 MB or more free space is required
- 3) Interface: RS-232C port
- 4) Operating system: Microsoft Windows 2000 or XP
- 5) Required software: Adobe Acrobat Reader

2-2-2. Files Included

The following files are included in the folder for the setup of the application tool for the UTR-YLLA. Confirm that these files are included in the folder.

- readme.txt (Installation Guide)
- setup.exe
- setup.lst
- tool_for_utr-ylla.cab

2-2-3. Installing

Use the following procedure to install the Tool for UTR-YLLA.

1

Double-click the file “setup.exe”.

2

Check the contents of the displayed screen, and then click “OK”.

3

Select the folder in which to install the application, and then click “Install.”

4

Click “Continue” (without changing the group name of the program).

5

Click “OK” if installation is complete.

Removing Application Tool

When removing the Tool for UTR-YLLA from the PC, remove it from “Add/Remove Programs” in Control Panel.

1

On the taskbar, click [Start] → [Settings] → [Control Panel].

2

Double-Click “Add/Remove Programs”.

3

Select “Tool for UTR-YLLA”, and then click “Remove”.

4

Check the contents of the displayed screen, and then click “OK”.

5

Click “OK” if removal is complete.

3. SETTING THE PCB (PRINTED CIRCUIT BOARD)

When installing or analyzing the UTR-YLLA, the PCB (printed circuit board) must be set to the installation mode.

3-1. INSTALLATION MODE

Set the UTR-YLLA to the installation mode according to the following procedure.

1

Remove the cover of the UTR-YLLA.

2

Make sure that the power of the UTR-YLLA is ON.
If the power of the UTR-YLLA is OFF, turn it on.

3

Push the **RESET** switch. “8.” will appear in the 7-segment LED display (left side) of the PCB as shown in Fig. 4-a.

4

Push the **SET** switch (before the “8.” display disappears) and hold it down until “1” flashes in the 7-segment LED display (left side) of the as shown in Fig. 4-b.
(Push and hold down for 5 seconds or more.)

5

Push the **SET** switch. “1” will appear in the 7-segment LED display (left side) of the PCB as shown in Fig. 4-c.

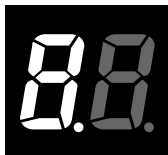


Fig. 4-a

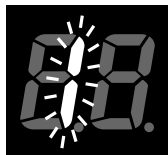


Fig. 4-b



Fig. 4-c

* Any error codes appear in the 7-segment LED display (right side). (Refer to “Error Codes”.)

3-2. NORMAL MODE

For normal operation, the PCB (printed circuit board) must be set to the normal mode. Set the UTR-YLLA to the normal mode according to the following procedure.

1

Remove the cover of the UTR-YLLA.

2

Make sure that the power of the UTR-YLLA is ON.
If the power of the UTR-YLLA is OFF, turn it on.

3

Push the **RESET** switch. "8.8." will appear in the 7-segment LED display of the PCB as shown in Fig. 5-a.

Attention: If "8.8." does not appear in the 7-segment LED display, the UTR-YLLA was not installed completely. Refer to the Installation Instruction Sheet to install the UTR-YLLA correctly.

4

After several seconds, ". ." will appear in the display as shown in Fig. 5-b.



Fig. 5-a



Fig. 5-b

Error Codes:

The error codes appear in the right side on the 7-segment LED display.

LED Display (D19)	Contents
	Address Setting Error
	There is no address information. Please set the unit address. (See the Application Manual, 5-1.)
	Check Sum Error (Address Setting)
	The unit address information is incomplete Please set the unit address again. (See the Application Manual, 5-1.)
	Check Sum Error (Configuration Properties)
	The configuration properties information is incomplete and the convertor has overwritten the existing settings with the default settings. The configuration properties must be reset if they have been customized.
	Address Setting Update Notification
	The number of units has been updated. Please perform commissioning again.

4. BASIC OPERATION

The basic operation of the Tool for Network Converter UTR-YLLA is described in the following explanations.

4-1. STARTING THE APPLICATION

On the taskbar, click [Start] → [Programs] → [Tool for UTR-YLLA] → [Tool for Network Converter UTR-YLLA]
The screen shown in Fig. 6 is displayed.

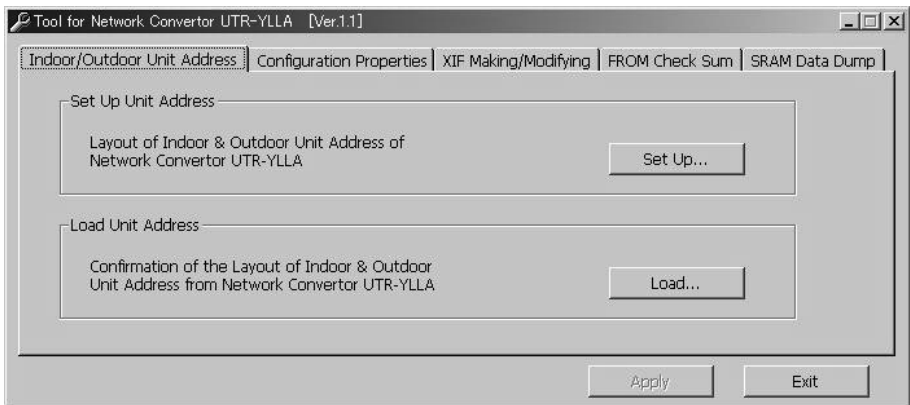


Fig. 6 Starting

4-2. SELECTING A FUNCTION

Click the tab to select the function. (Fig. 7)

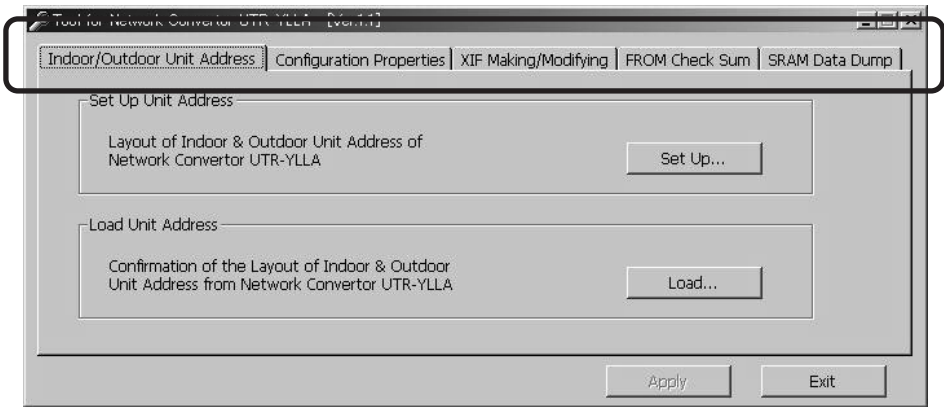


Fig. 7 Function

4-3. QUITTING THE APPLICATION

To quit, click “Exit”. (Fig. 8)

When quitting, any data that has not been saved will be lost.

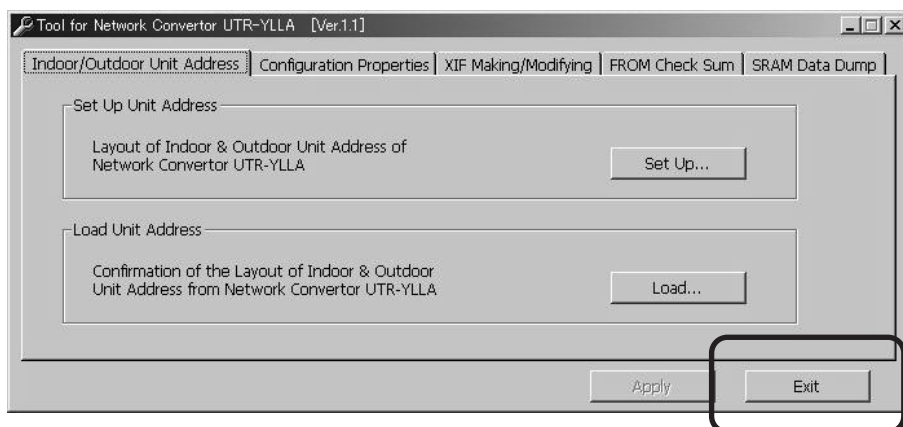


Fig. 8 Quitting

5. INSTALLING THE UTR-YLLA (INITIAL SETTING)

Each of the following operations to install (initial setting) the Network Converter UTR-YLLA is explained.

- 1) Setting the indoor/outdoor unit address (required)
- 2) Setting the configuration properties (not required)
- 3) Making the XIF (required)

5-1. SETTING THE INDOOR/OUTDOOR UNIT ADDRESS

Click the “Indoor/Outdoor Unit Address” tab in order to set the unit address of the UTR-YLLA. (Fig. 9)

Attention: After setting the unit address, be sure to confirm it has been set correctly.

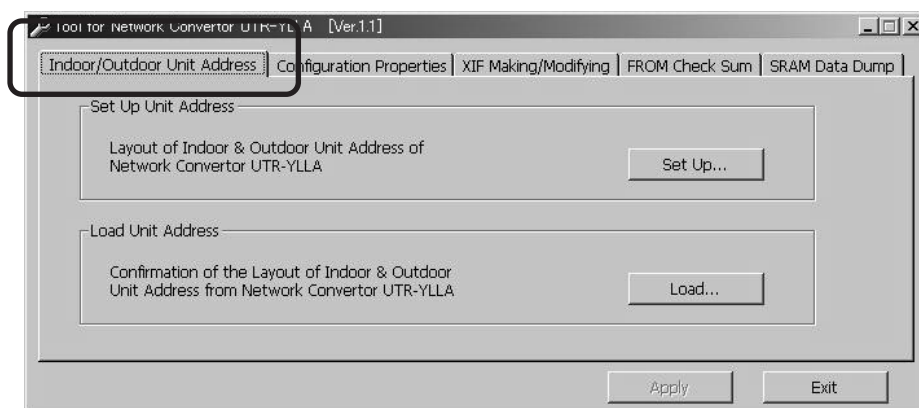


Fig. 9 Setting the Indoor/Outdoor Unit Address

5-1-1. Setting the Unit Address

The unit addresses of the UTR-YLLA are set by associating the FB (function block: variable array of BMS) with each address.

Click “Set Up ...” (**A** in the screen shown in Fig. 10). The screen shown in Fig. 11 is displayed.

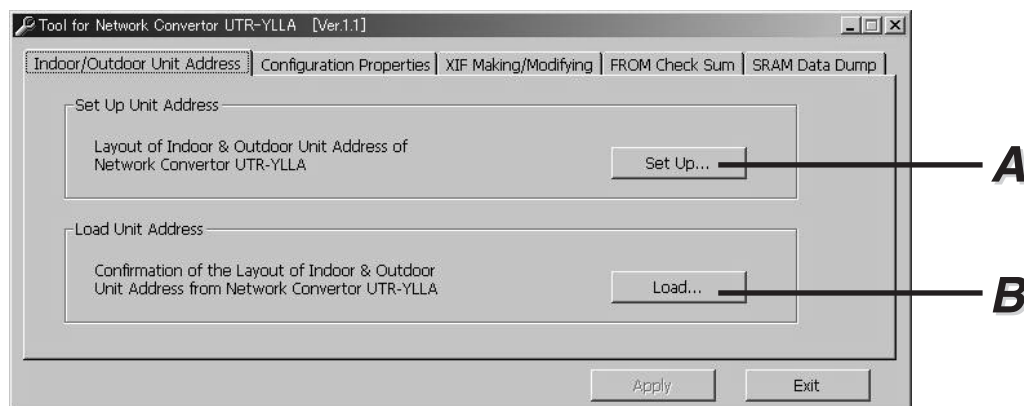


Fig. 10 Set Up/Load Unit Address

a) Editing the unit address

- 1) Click the appropriate tab (**C** in the screen shown in Fig. 11) to change the indoor/outdoor unit address.
- 2) Edit the unit address using the spin boxes (**D** in the screen shown in Fig. 11). (The address data is sorted.)

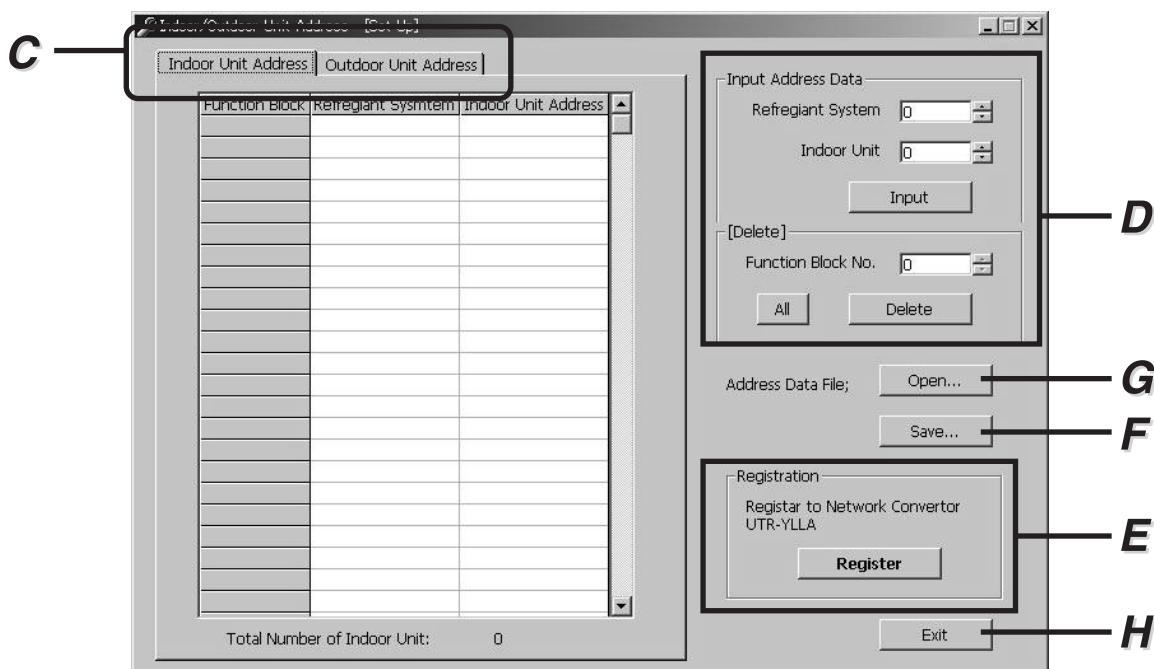


Fig. 11 Editing the Unit Address

NOTE



If additional units (indoor/outdoor units) may be added to the VRF Network at a later date, register a few "dummy" units and make the XIF the same. (Refer to "Making/Modifying the XIF".)

If there is an excess of units, it will not be necessary to carry out "Binding*" when adding additional units to the VRF System.

*Binding: Setting the variables for the LonWorks network.

b) Registration

If editing is finished, Click "Register" (**E** in the screen shown in Fig. 11) to register the unit address with the UTR-YLLA.

c) When saving & opening the unit address data file

To save the edited data, click "Save...". (**F** in the screen shown in Fig. 11)

To open the unit address data file, click "Open...". (**G** in the screen shown in Fig. 11)

d) Quitting

To quit, click "Exit". (**H** in the screen shown in Fig. 11)

5-1-2. Confirming the Set Unit Address

To load the set unit addresses from the UTR-YLLA to confirm the association of the FB with each address, click “Load ...” (**B** in the screen shown in Fig. 10). The screen shown in Fig. 12 is displayed.

a) Loading the unit address data from the UTR-YLLA

Click “Load” (**I** in the screen shown in Fig. 12) to load the unit address data from the UTR-YLLA. If the data has been successfully loaded, the registered unit address data is displayed.

b) Click the appropriate tab (**J** in the screen shown in Fig. 12) to change the indoor/outdoor unit address.

c) Saving the loaded data as the unit address data file

To save the loaded data, click “Save...”. (**K** in the screen shown in Fig. 12)

d) Printing out the unit address data

To print out the unit address data, click “Print”. (**L** in the screen shown in Fig. 12)

e) Quitting

To quit, click “Exit”. (**M** in the screen shown in Fig. 12)

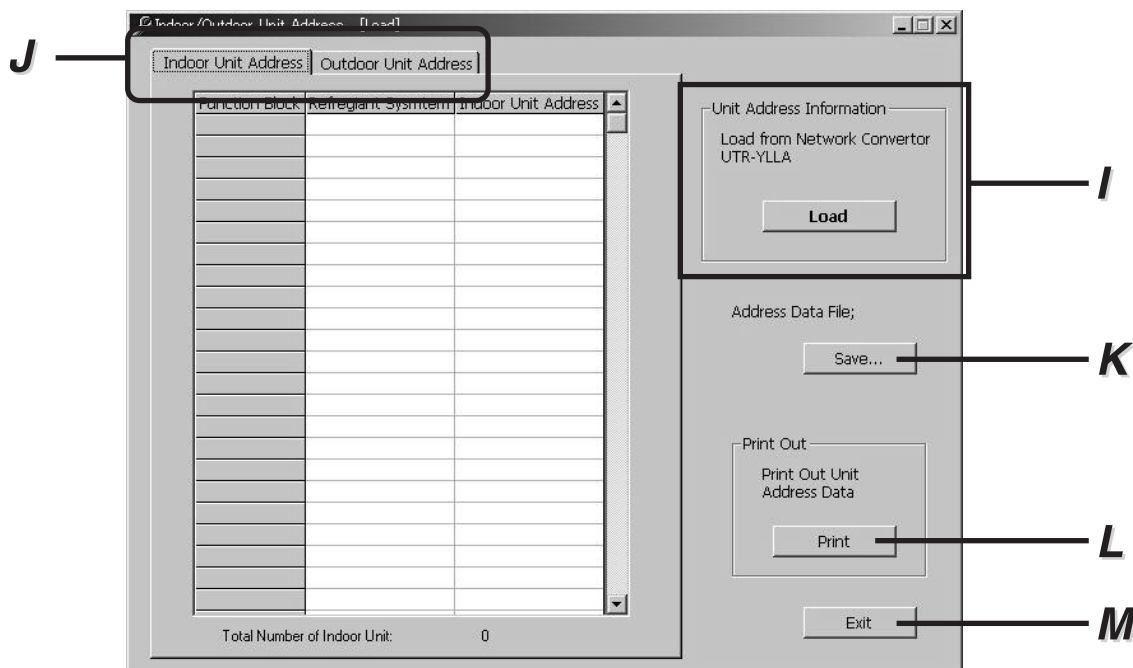


Fig. 12 Load the Unit Address Data

5-2. SETTING THE CONFIGURATION PROPERTIES

Click the “Configuration Properties” tab to set the configuration properties. (Fig. 13)

NOTE



The configuration properties are initially set to the default settings.

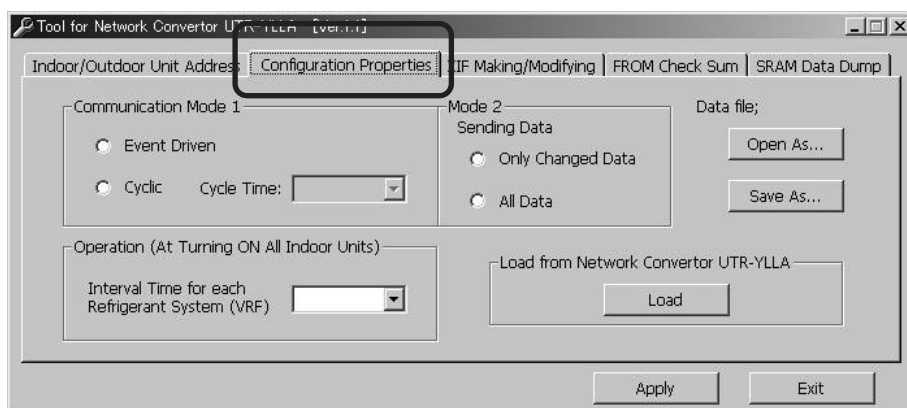


Fig. 13 Configuration Properties

5-2-1. Setting the Configuration Properties

The configuration properties are the communication properties of the UTR-YLLA.

- 1** Check each of the following properties.
 - a-1) Communication Mode (**N** in the screen shown in Fig. 14)
 - Event Driven: Communication occurs only when an event is generated.
 - Cyclic*: Communication occurs cyclically (according to the set “Cycle Time”).
 - * If Cyclic is selected, specify the “Cyclic Time”.
(Default: Event Driven)
 - a-2) Interval Time (**N** in the screen shown in Fig. 14)

This is the time interval between the “ON” signals transmitted to the refrigerant systems when all of the systems are turned on together.
(Default: 5 sec)
 - b) Hvac Mode (**O** in the screen shown in Fig. 14)
 - Only Changed Data: Only changed data is transmitted and received.
 - All Data: All data is transmitted and received.
(Default: Only Changed Data)

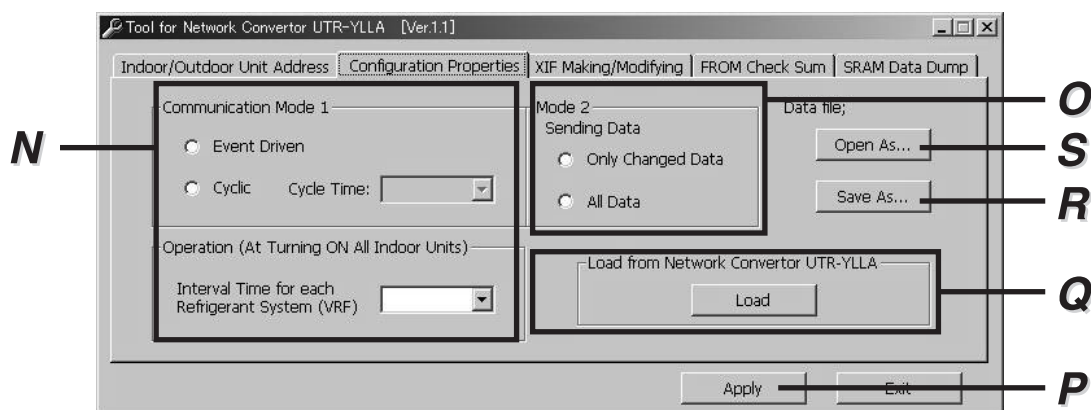


Fig. 14 Configuration Properties

- 2** Click “Apply” (**P** in the screen shown in Fig. 14) to apply the properties to the UTR-YLLA.

Confirm the set communication properties of the UTR-YLLA.

1

Click “Load” (**Q** in the screen shown in Fig. 14) to load the set configuration properties from the UTR-YLLA.

If the data has been successfully loaded, the registered unit address data is displayed.

2

Click “Save As...” (**R** in the screen shown in Fig. 14) to save the loaded or edited data as the configuration properties data file.

3

Click “Open As...” (**S** in the screen shown in Fig. 14) to open the saved data.

5-3. MAKING/MODIFYING THE XIF

(Making/modifying the XIF of the VRF Network)

Select the “XIF Making/Modifying” tab to modify the XIF. (Fig. 15)

Attention: If the XIF is incorrect, the system will not operate correctly.

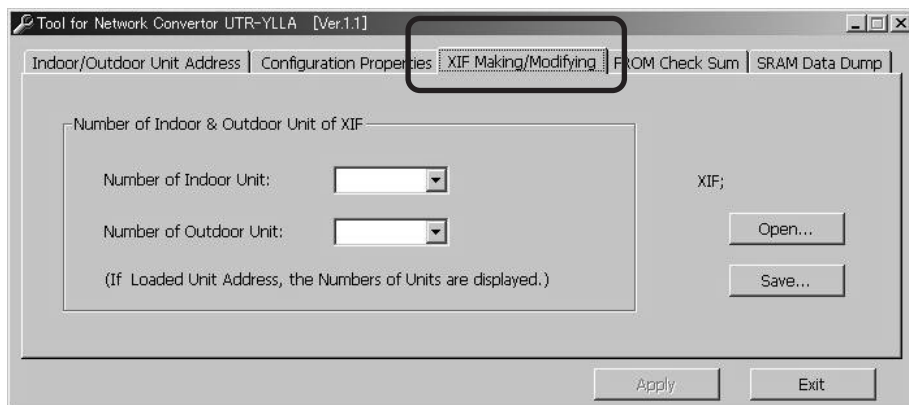


Fig. 15 Making/Modifying the XIF

5-3-1. Making the XIF

Use the following procedure to make a new XIF for the UTR-YLLA.

1

Select the number of indoor/outdoor units. (*T* in the screen shown in Fig. 16)

Attention: The number of indoor/outdoor units must be equal to the number of set unit addresses.

2

Click “Save...” to save the data as the XIF. (*U* in the screen shown in Fig. 16)

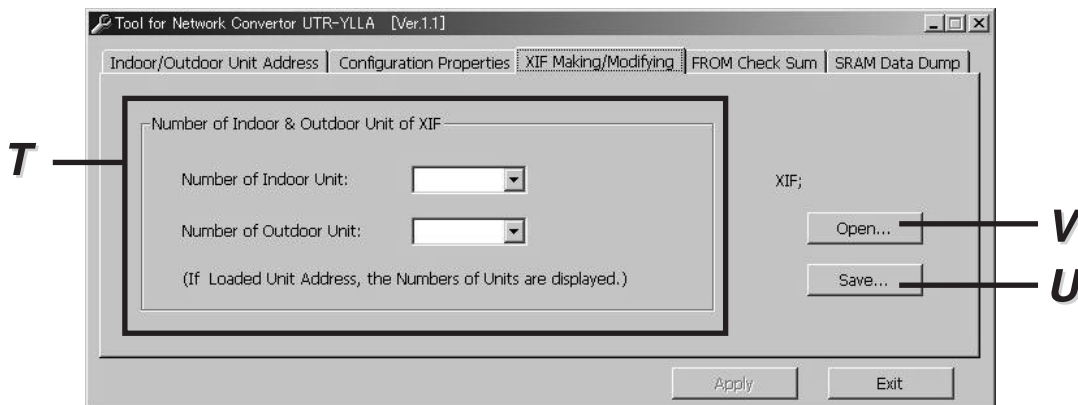


Fig. 16 Making/Modifying the XIF

5-3-2. Modifying the XIF

Use the following procedure to modify the existing XIF and save it as a new XIF.

1

Click “Open...” to open the XIF. (**V** in the screen shown in Fig. 16)
The numbers of the indoor/outdoor units is displayed.

2

Modify the numbers of the indoor/outdoor units. (**T** in the screen shown in Fig. 16)

Attention: The numbers of the indoor/outdoor units must be equal to the numbers of each set unit address.

3

Click “Save...” to save as a new XIF. (**U** in the screen shown in Fig. 16)

6. ANALYZING THE UTR-YLLA

The operations for analyzing the Network Converter UTR-YLLA are described in the following explanations.

6-1. LOADING THE INDOOR/OUTDOOR UNIT ADDRESS

Refer to “5-1-2. Confirming the Set Unit Address”.

6-2. LOADING THE CONFIGURATION PROPERTIES

Refer to “5-2-2. Confirming the Configuration Properties”.

6-3. LOADING THE FROM CHECK SUM & SOFTWARE VERSION

(Loading the FROM Check Sum in the CPU H8)

Click the “FROM Check Sum” tab to load the FROM Check Sum and the software version. (Fig. 17)

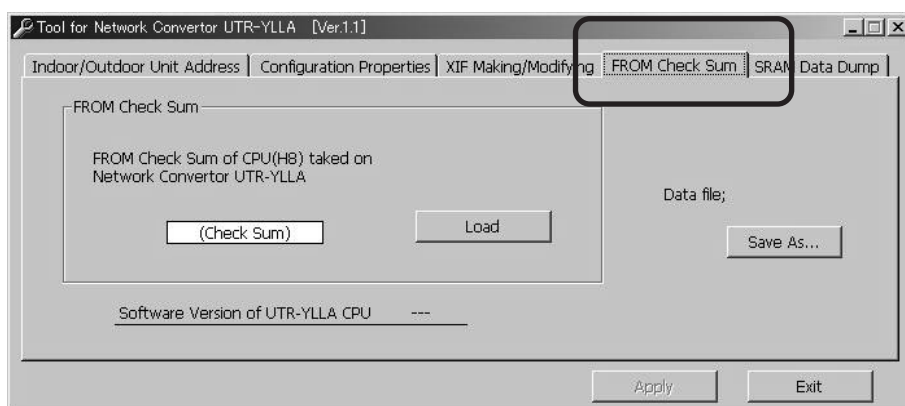


Fig. 17 FROM Check Sum

1

Click “Load” (**W** in the screen shown in Fig. 18) to load the Check Sum data from the UTR-YLLA.

If the data has been successfully loaded, the FROM Check Sum and the software version are displayed.

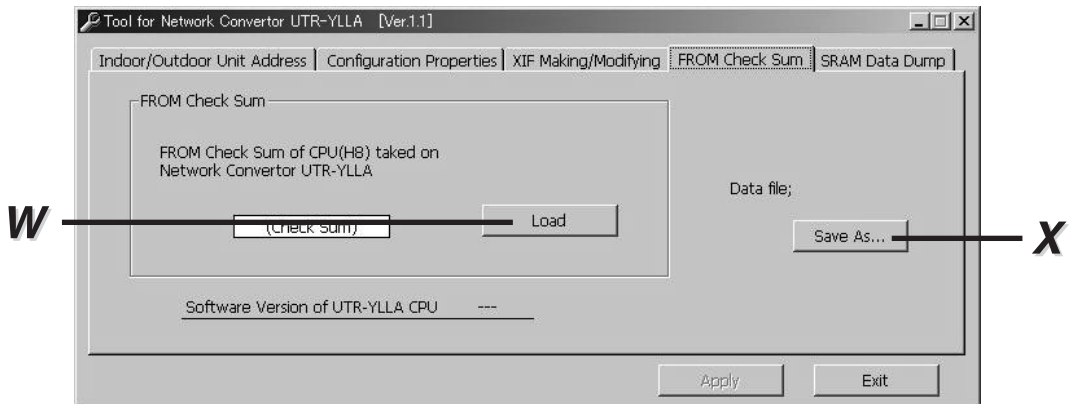


Fig. 18 FROM Check Sum

2

Click “Save As...” (**X** in the screen shown in Fig. 18) to save the loaded data as the Check Sum data file.

6-4. SETTING & LOADING THE SRAM DATA

(Setting and loading the SRAM data of the expanded memory)

Click the “SRAM Data Dump” tab to set or load the SRAM data. (Fig. 19)

This command requires authorization.

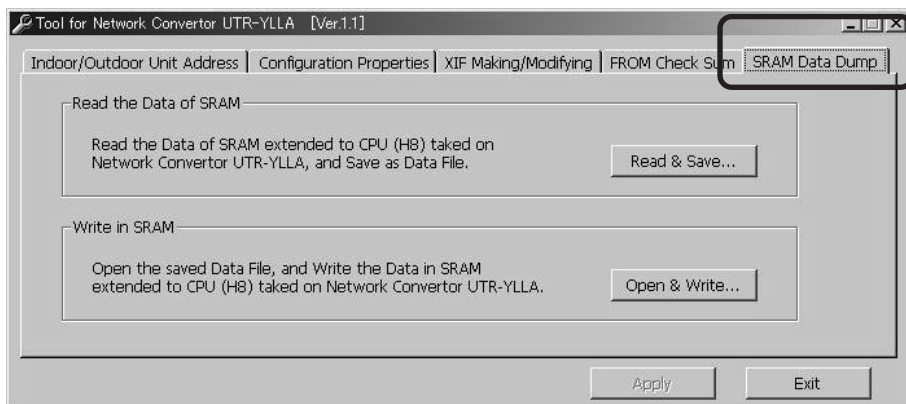


Fig. 19 SRAM Data Dump

The screen shown Fig. 20-a is displayed. A password is required. Type the password, and then click “OK”. (Fig. 20-b, Password: UTR-YLLA)



Fig. 20-a Password Required



Fig. 20-b Type Password

6-4-1. Setting the SRAM Data

Click “Read & Save...” to load the SRAM data from the UTR-YLLA and save it as a data file. (**Y** in the screen shown in Fig. 21)

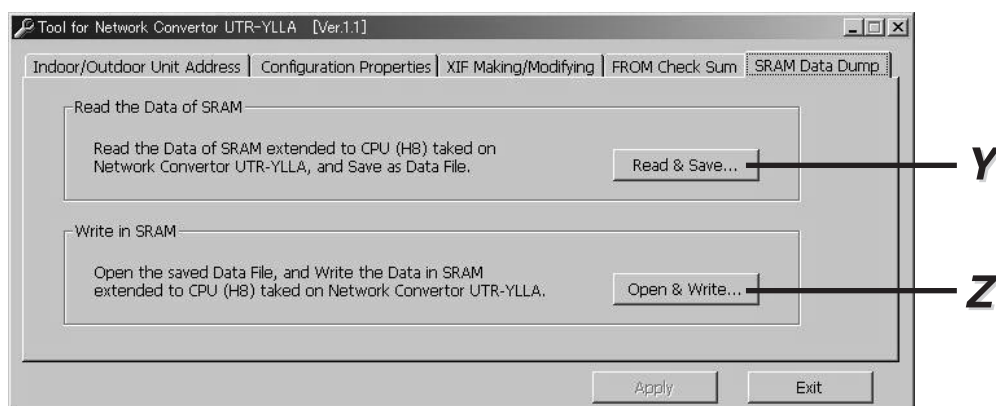


Fig. 21 SRAM Data Dump

6-4-2. Loading the SRAM Data

Click “Open & Write...” to open an SRAM data file and write the data to the UTR-YLLA. (**Z** in the screen shown in Fig. 21)

Attention: If the wrong data was written is the SRAM, the UTR-YLLA will not operate correctly.

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