Technical Information

GREEN to UTAdvanced Conversion Tool Operation Guide



TI 05A03A01-02EN





Introduction

Please read through this operation guide carefully before using the product.

IMPORTANT

After data conversion using this tool, check the setting contents on LL50A and re-set the relevant parameter as necessary.



This tool does not guarantee 100% compatibility with GREEN series on its controllability. Always execute a test operation before starting actual operations to check the control action.

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Scope of the Manual

This manual does not explain the basic operations of Windows. For information regarding the basic operations of Windows, see the user's guide that came with Windows.

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GREEN to UTAdvanced Conversion Tool Operation Guide

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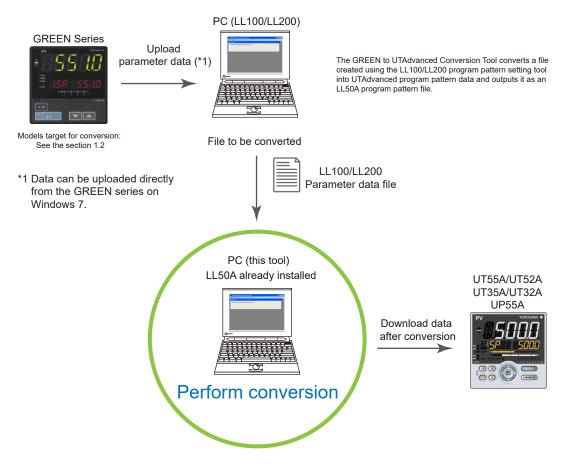
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1. Overview

The GREEN to UTAdvanced Conversion Tool converts files created using the LL100 or LL200 parameter setting tool/program pattern setting tool into UTAdvanced parameter data and outputs it as an LL50A user file.

However, for the UP750 (UP750E), only the program pattern is converted, not the parameter data.

It is not possible to upload parameter data from a GREEN series temperature controller directly to convert it.



1.1 Overview of Conversion Specifications

This tool converts GREEN series parameter data into UTAdvanced parameter data in accordance with the GREEN series specifications.

The parameters whose functions have been partially modified by UTAdvanced cannot be converted; such parameters will be set to the default. For the conversion specifications, see Chapter 4.

The parameters to which functions have been added by UTAdvanced will be set to the default.

The parameters not equipped for UTAdvanced will not be converted. (see the table below).

UT551/UT550/UT520/UT450/UT420

UP550 only

| Parameter Symbol | Parameter Name |
|---------------------|----------------------------------|
| ORB.1 | LOOP1 ON/OFF rate detection band |
| ORH.1 | LOOP1 ON/OFF rate high limit |
| ORL.1 | LOOP1 ON/OFF rate low limit |
| ORB.2 | LOOP2 ON/OFF rate detection band |
| ORH.2 | LOOP2 ON/OFF rate high limit |
| ORL.2 | LOOP2 ON/OFF rate low limit |

| Parameter Symbol | Parameter Name |
|---------------------|---------------------------------|
| GRP | PID group number |
| TSC1 | Primary deviation trend scale |
| TSC2 | Secondary deviation trend scale |
| ттм | Deviation trend time |

UT350/UT320/UT351/UT321

| Parameter Symbol | Parameter Name |
|------------------|----------------------------|
| ORB | ON/OFF rate detection band |
| ORH | ON/OFF rate high limit |
| ORL | ON/OFF rate low limit |

UT350/UT320/UT351/UT321

| Parameter Symbol | Parameter Name |
|------------------|-----------------------|
| PSL | Protocol selection |
| BPS | Baud rate |
| PRI | Parity |
| STP | Stop bit |
| DLN | Data length |
| ADR | Address |
| RP.T | Minimum response time |
| LOCK | Key lock |

Note that the parameters for communication and key-lock are not on the LL100/LL200.

User file information created using the LL100/LL200 parameter setting tool will be converted.

Setpoints in a file created using the LL100/LL200 program pattern setting tool that will become invalid when downloaded to UP550 will not be converted.

1.2 **Models Targeted for Conversion**

The GREEN to UTAdvanced Conversion Tool supports the following models.

| (User | GREEN series files for conversion File for LL100/LL200 Parameter Setting Tool) | | UTAdvanced files after (User File for LL | |
|-----------|---|---------------|---|-----------|
| Extension | Model | | Model | Extension |
| *.t5d | UT550 (Note 1), UT550E (Note 2), UT551 (Note 2) | \rightarrow | UT55A | |
| .iou | UT520 (Note 1), UT520E (Note 2) | \rightarrow | UT52A | |
| *.t4d | UT450 | \rightarrow | UT55A | *.uta |
| .140 | UT420 | \rightarrow | UT52A | (Note 3) |
| *.5td | UT550 | \rightarrow | UT55A | |
| *.4td | UT520 | \rightarrow | UT52A | |
| * ++ | UT351 | \rightarrow | UT35A | |
| *.ttd | UT321 | \rightarrow | UT32A | *.utb |
| * +0 -1 | UT350, UT350E (Note 4) | \rightarrow | UT35A | (Note 5) |
| *.t3d | UT320, UT321E (Note 4) | \rightarrow | UT32A | |
| *.p5d | UP550 (Note 1), UT550E (Note 2) | \rightarrow | | *.upa |
| *.5pd | UP550 | \rightarrow | UP55A | (Note 6) |

| (User File | GREEN series files for conversion for LL100/LL200 Program Pattern Setting Tool) | | UTAdvanced files after ((Program Pattern File f | |
|------------|--|---------------|---|-------------------|
| Extension | Model | | Model | Extension |
| *.p5p | UP550 (Note 1), UT550E (Note 2) | \rightarrow | | |
| *.5pp | UP550 | \rightarrow | UP55A | *.5pt (Note 6) |
| *.p7p | UP750 (Note 1), UT750E (Note 7) | \rightarrow | | , |

Note 1: This extension is assigned if a file is created using LL100/LL200 whose function has been enhanced. Note 2: "UT550E" and "UT520E" are not model names, but are indications on the front panel. Their model names are UT550 and UT520. Note 3: The UTAdvanced parameter version is R1.01.02.

Note 4: "UT350E" and "UT320E" are not model names, but are indications on the front panel. Their model names are UT350 and UT320. Note 5: The UTAdvanced parameter version is R1.02.02.

Note 6: The UTAdvanced parameter version is R1.01.03.

Note 7: "UT750E" is not model names, but are indications on the front panel. Their model names are UT750.

The GREEN series model and suffix codes will be converted to the model and suffix codes (standard) of equivalent specifications. For the details of each code, see the respective Users Manuals.

| G | REEN Series | | | UTAdvanced Series | | | |
|-------|-------------|------|-------|-------------------|---|---------|----------------------|
| Model | Suffix | Code | Model | Model Suffix Code | | | Optional Suffix Code |
| UT520 | | | UT52A | | | | |
| UT420 | | | 0152A | | | | |
| | -0 | | | -0 | | | |
| | | 0 | | | 0 | | |
| | | 7 | | | 1 | | |
| | | 8 |] | | 2 | | |
| | | | | | | 0-10-00 | |

| G | REEN Series | | UTAdvanced Series | | | | | |
|-------|--------------------|------|-------------------|----|-----------|----------------------|--|--|
| Model | Suffix | Code | Model | | Suffix Co | Optional Suffix Code | | |
| UT450 | | | | | | | | |
| UT550 | | | UT55A | | | | | |
| UT551 | | | | | | | | |
| | -0 | | | -0 | | | | |
| | -1 | | | -1 | | | | |
| | -2 | | | -2 | | | | |
| | | 0 | | | 0 | | | |
| | | 1 | | | 1 | | | |
| | | 2 | | | 2 | | | |
| | | 3 | | | 3 | | | |
| | | 4 | | | 4 | | | |
| | | | 1 | | | 0-10-00 | | |

| G | REEN Series | | | UTAdvanced Series | | | | | |
|-------|--------------------|------|-------|-------------------|-----------|----------------------|-----|--|--|
| Model | Suffix | Code | Model | | Suffix Co | Optional Suffix Code | | | |
| UT450 | | | | | | | | | |
| UT550 | | | UT55A | | | | | | |
| UT551 | | | | | | | | | |
| | -3 | | | -0 | | | | | |
| | -4 | | | -1 | | | | | |
| | | 0 | | | 0 | | | | |
| | | 1 | | | 1 | | | | |
| | | 2 | | | 2 | | | | |
| | | 3 | | | 3 | | | | |
| | | 4 | | | 4 | | | | |
| | | | | | | 0-10-00 | | | |
| | | | | | | 5 | /LP | | |

| GREEN Series | | | UTAdvanced Series | | | | |
|--------------|--------|------|-------------------|-------------|---|---------|----------------------|
| Model | Suffix | Code | Model | Suffix Code | | | Optional Suffix Code |
| UT551 | | | UT55A | | | | |
| | -0 | | | -0 | | | |
| | -1 | | | -1 | | | |
| | | А | | | 0 | | |
| | | В | | | 4 | | |
| | | С | | | 3 | | |
| | | D | 1 | | 5 | | |
| | | | | | | 2-10-00 | |

| GREEN Series | | | UTAdvanced Series | | | | |
|--------------|--------|--------|-------------------|----|-----------|--------|----------------------|
| Model | Suffix | c Code | Model | | Suffix Co | de | Optional Suffix Code |
| UT320 | | | UT32A | | | | |
| UT321 | | | 0132A | | | | |
| | -0 | | | -0 | | | |
| | -2 | | | -2 | | | |
| | -3 | |] | -0 | | | /LP |
| | | 0 |] | | 00 | | |
| | | 1 | | | 10 | | /HA |
| | | 2 |] | | 00 | | /HA |
| | | | | | | -10-00 | |

| G | GREEN Series | | | UTAdvanced Series | | | | | |
|-------|--------------|--------|-------|-------------------|----|--------|----------------------|--|--|
| Model | Suffi | x Code | Model | Suffix Code | | | Optional Suffix Code | | |
| UT350 | | | UT35A | | | | | | |
| | -0 | | | -0 | | | | | |
| | -2 | | 1 | -2 | | | | | |
| | -3 | | | -0 | | | /LP | | |
| | | 0 | | | 00 | | | | |
| | | 1 | 1 | | 01 | | /HA | | |
| | | 2 | | | 00 | | /HA | | |
| | | | | | | -10-00 | | | |

| G | REEN Se | eries | | | UTAdv | anced Series | |
|-------|---------|-------------|-------|----|-----------|--------------|----------------------|
| Model | | Suffix Code | Model | | Suffix Co | de | Optional Suffix Code |
| UT351 | | | UT35A | | | | |
| | -0 | | | -0 | | | |
| | -2 | | | -2 | | | |
| | | 0 | | | 00 | | |
| | | 1 | | | 01 | | /HA |
| | | 2 | | | 00 | | /HA |
| | | 3 | 1 | | 02 | | |
| | | A | | | 02 | | |
| | | <u>.</u> | | | | -10-00 | |

| GREEN Series | | | UTAdvanced Series | | | | |
|--------------|--------|------|-------------------|-------------|----|----------------------|-----|
| Model | Suffix | Code | Model | Suffix Code | | Optional Suffix Code | |
| UT351 | | | UT35A | | | | |
| | -3 | | | -0 | | | /LP |
| | | 0 | | | 00 | | |
| | | 1 | | | 01 | | /HA |
| | | 2 | | | 00 | | /HA |
| | | | | | | -10-00 | |

| G | REEN Series | | UTAdvanced Series | | | | | |
|-------|-------------|-------|-------------------|-----------|--------|----------------------|--|--|
| Model | Suffix Code | Model | | Suffix Co | de | Optional Suffix Code | | |
| UP550 | • | UP55A | | | | | | |
| | -0 | | -0 | | | | | |
| | -1 | | -1 | | | | | |
| | -2 | | -2 | | | | | |
| | 0 | | | 00 | | | | |
| | 1 | | | 11 | | | | |
| | | | | | -10-00 | | | |

| GREEN Series | | | UTAdvanced Series | | | | | |
|--------------|--------|------|-------------------|-------------|----|--------|----------------------|--|
| Model | Suffix | Code | Model | Suffix Code | | | Optional Suffix Code | |
| UP750 | | | UP55A | | | | | |
| | -0 | | | -0 | | | | |
| | -5 | | | -1 | | | | |
| | | | | -2 | | | | |
| | | 0 | | | 00 | | | |
| | | 1 | | | 11 | | | |
| | | | | | | -10-00 | | |

1.3 Operating Environment

The GREEN to UTAdvanced Conversion Tool runs only on a PC in which the LL50A Parameter Setting Software has been installed.

• PC

| Item | Windows 11 ^{∗1} Japanese / English | Windows 10 *1 Japanese / English | Windows 8.1 ^{*1} Japanese / English |
|-----------------------------------|--|--|---|
| Edition | Pro 64bit | Pro 64bit | Pro 32bit or 64bit |
| Version ^{*1} | 21H2 or later | 20H2 or later | Update |
| CPU | Intel processor that supports 64 bit and 1 GHz or faster with 2 or more cores | Intel processor that supports 64 bit and 2 GHz or faster speed(recommended) | Intel processor that 2 GHz or faster speed(recommended) |
| Recommended main memory capacity | 8 GB or more | 8 GB or more | 4 GB or more |
| Recommended storage free capacity | 32 GB or more | 32 GB or more | 16 GB or more |
| Display | Display compatible with OS | Display compatible with OS | Display compatible with OS |
| Printer | Paper size; Letter or A4 (required for printing) | Paper size; Letter or A4 (required for printing) | Paper size; Letter or A4 (required for printing) |

*1: Yokogawa will also stop supporting OSs that Microsoft Corporation no longer supports.

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2. Installation

Download the GREEN to UTAdvanced Conversion Tool from our website (https://www. yokogawa.com/ns/utadv/convert/), extract the compressed file, and then install it in the PC.

The decompression produces two files: setup.exe and SetupEN.msi.

2.1 Installing the Tool

🛝 IMPORTANT

- The GREEN to UTAdvanced Conversion Tool runs on a PC in which the LL50A Parameter Setting Software has been installed.
- If you have used an older version of this conversion tool, first uninstall it and then install the newest one.

Step 1

Double-clicking on a setting file (setup.exe) on the Desktop.

| d GREEN to UTAdvanced Conversion Tool | - | | × |
|---|------------|--------------|---------|
| Welcome to the GREEN to UTAdvanced Conversion Tool Setup Wizard | | | |
| The installer will guide you through the steps required to install GREEN to Tool on your computer. | UTAdvan | iced Conv | ersion |
| | | | |
| | | | |
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| Cancel < Ba | ok | Next | > |

Step 2

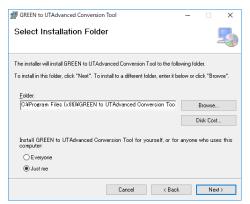
Read the Software License Agreement and click the [Next] button if you agree.

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| THIS | SOFTWARE LICENSE | AGREEMENT ("AG | GREEMENT") IS | Α | ~ |
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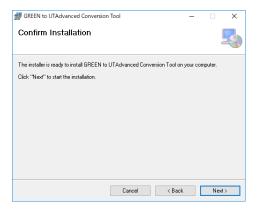
• Step 3

Select the folder to which the GREEN to UTAdvanced Conversion Tool is to be installed and click the [Next] button.



Step 4

To start the installation, click the [Next] button. To cancel installation, click the [Cancel] button.



• Step 5

Installation has been completed. Click the [Close] button.

| GREEN to UTAdvanced Conversion Tool — | | × |
|--|------|-----|
| Installation Complete | | 5 |
| GREEN to UTAdvanced Conversion Tool has been successfully installed. | | |
| Click "Close" to exit. | | |
| | | |
| | | |
| | | |
| | | |
| Please use Windows Update to check for any critical updates to the .NET Framew | ork. | |
| Cancel < Back | CI | ose |

2.2 Verifying Installation of the Tool

Verify that the GREEN to UTAdvanced Conversion Tool is registered.

For Windows 8.1

Click on Windows' [Start], select [All Programs], and then click on [GREEN to UTAdvanced Conversion Tool].

For Windows 10

Click [Start] \rightarrow Apps \rightarrow [GREEN to UTAdvanced Conversion Tool]

For Windows 11

Click [Start] \rightarrow [All apps] \rightarrow [GREEN to UTAdvanced Conversion Tool]

2.3 Uninstalling the Tool

From the Start of Windows, select Control Panel > Programs and Features > GREEN to UTAdvanced Conversion Tool and uninstall it.

The User Account Control screen appears. Click **Allow**. The GREEN to UTAdvanced Conversion Tool is uninstalled.

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3. Tool Startup and Data Conversion

🖄 IMPORTANT

- The GREEN to UTAdvanced Conversion Tool runs on a PC in which the LL50A Parameter Setting Software has been installed.
- If you have used an older version of this conversion tool, first uninstall it and then install the newest one.

Specifications of the BS and FL parameters under the PVS_L1 menu have been changed in the UT35A/UT32A parameter version R1.02.02. Therefore, if the parameter version of an LL50A user file created using the conversion tool differs from the parameter version of UT35A/UT32A, perform the following operation.

When a file converted using the R2.01.01 conversion tool is used in UT35A/ UT32A whose parameter version is R1.02.02 or later

Open the converted file in LL50A, download it to UT35A/UT32A, and then configure the following parameters in UT35A/UT32A.

- Set the BS and FL values under the PVS_L1 menu of LL50A to A.BS and A.FL under the PV menu of UT35A/UT32A.
- Change the BS parameter to 0 (BS=0) and the FL parameter to OFF (FL=OFF) under the PVS_L1 menu of UT35A/UT32A.
- Since changes were made in UT35A/UT32A, click Upload All in LL50A to save the file (to back up the data).
- When a file created using a R3.01 or later conversion tool is used in UT35A/ UT32A whose parameter version is R1.02.01 or earlier

Open the converted file in LL50A, change the setting data in LL50A as shown below, and then download it to UT35A/UT32A.

 Set the A.BS and A.FL values under the PV menu of LL50A to BS and FL under the PVS_L1 menu.

3.1 Starting Up the Tool and Converting Data

Step 1

For Windows 8.1

Click on Windows' [Start], select [All Programs], and then click on [GREEN to UTAdvanced Conversion Tool].

For Windows 10

Click [Start] \rightarrow Apps \rightarrow [GREEN to UTAdvanced Conversion Tool]

For Windows 11

Click [Start] \rightarrow [All apps] \rightarrow [GREEN to UTAdvanced Conversion Tool]

| GREEN to UTAdvanced Conversion Tool | |
|--|--|
| File Help | |
| Start Menu | |
| Select the LL100/LL200 parameter data file to convert | |
| Select the LL100/LL200 program pattern file to convert | |
| Select the LL100/LL200 program pattern(Batch Copy) folder to convert | |
| | |
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Step 2

Click on the [Select LL100/LL200 parameter data file to convert] to display the Open LL100/ LL200 Data File window. For the information about extensions available, see "1.2 Models Targeted for Conversion." The folder in which the file is stored can be changed as described in 3.4, Making Environmental Settings.

| Open LL100/LL | .200 Data File | | | | | | ? 🗙 |
|-----------------------------------|----------------|-----------------|----------------------|------------|---------|---|--------|
| Look in: | Convert 🦳 | | ~ | G | 3 🖻 | • | |
| My Recent Documents Desktop | C UT551.t5d | | | | | | |
| My Documents | | | | | | | |
| My Computer | | | | | | | |
| | File name: | | | | ~ | | Open |
| My Network | Files of type: | LL100/LL200 Fil | e (*.t4d; *.t5d; *.5 | td; *.4td; | *.t3c 🔽 | | Cancel |

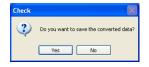
Step 3

Select the file to be converted and click the [Open] button. The applicable model and suffix code after conversion will be displayed.



Step 4

Click the [OK] button to perform conversion. To save converted data in a file, click [Yes]. To return to the first window, click [No].



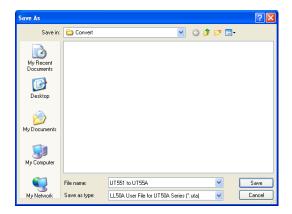
If an error occurs during conversion, the Conversion Error List window is displayed before the storage confirmation message is displayed. The conversion error list is output to a file in csv format (file name: LL100/LL200 file name_date, hr, min, sec.csv). For the folder in which converted data is saved, see 3.4, Making Environmental Settings.

| D. | Pre-Conversion Parameter | Pre-Conversion Data | Post-Conversion Parameter | Post-Conversion Data | Conversion Error Classification |
|----|--------------------------|---------------------|---------------------------|----------------------|---------------------------------|
| | ZON | 3 | ZON | 0 | No convertible setpoint. |
| | U3 | 4 | PV.2C | 0 | Pre-Conversion Setpoint Error |
| | A/M.1 | 5017 | A/M-D | 5025 | No convertible setpoint. |
| | S/R | 5019 | S/R-D | 5026 | No convertible setpoint. |
| | MAN | 5025 | MAN-D | 0 | No convertible setpoint. |
| | LCL1 | 5041 | LCL_L1-D | 0 | No convertible setpoint. |
| | SP.b1 | 5029 | SP.B1-D | 0 | No convertible setpoint. |
| | PID.b0 | 5033 | PN.B0-D | 0 | No convertible setpoint. |
| | PID.b2 | 5035 | PN.B2-D | 0 | No convertible setpoint. |
| | AL2.1 | 25 | AL2.T_L1 | 2 | No convertible setpoint. |
| | U2 | -123.5 | PV.LL | -123.4 | Over Limit |
| | | | | | |
| | | | | | OK Print |

For the details of error, see the Chapter 4.

Step 5

Specify the folder to which the converted data file is to be stored. The folder in which the file is stored can be changed as described in 3.4, Making Environmental Settings.



The file type for UT400 or UT500 series after conversion: LL50A User file for UT50A series (*.uta) The file type for UT300 series after conversion: LL50A User file for UT30A series (*.utb) The file type for UP550 after conversion: LL50A User file for UP50A series (*.upa)

• Step 6

TIP

To finish data conversion, assign a file name and save the file. After conversion, read the file using LL50A and check the contents before using the file.

For how to use the LL50A parameter setting software, see the LL50A Parameter Setting Software User's Manual (IM 05P05A01-02EN.)

3.2 Converting One Program Pattern File

Step 1

Click on the [Select the LL100/LL200 program pattern file to convert] to display the Open LL100/ LL200 Data File window.

For the information about extensions available, see "1.2 Models Targeted for Conversion." The folder in which the file is stored can be changed as described in 3.4, Making Environmental Settings.

| 🖶 GREEN to U | TAdvanced Con | version Tool | | | | |
|-----------------------------------|------------------------------|---|-------|-------|----------------|--|
| File Help | | | | | | |
| Select the LL10 | 00/LL200 program p | r data file to convert astrem file to convert astrem(Batch Copy) folder to co | nvet | | | |
| | | | | | | |
| Open LL100/LI | 200 Data File | | | | ? 🛛 | |
| Look in: | 🗀 Convert | | 💌 G 🖻 | • 📂 🥙 | | |
| My Recent Documents Desktop | C UP550 UP550.p5p | | | | | |
| My Computer | | | | | | |
| My Network | File name: Files of type: | UP550.p5p LL100/LL200 File (*.p5p; *. | 5pp) | ~ | Open Cancel | |

• Step 2

Select the file to be converted and click the [Open] button. The applicable model and suffix code after conversion will be displayed.



• Step 3

Click the [OK] button to perform conversion. To save converted data in a file, click [Yes]. To return to the first window, click [No].



• Step 4

Specify the folder to which the converted data file is to be stored. The folder in which the file is stored can be changed as described in 3.4, Making Environmental Settings.

| Save As | | | | | | ? 🛛 |
|------------------------|---------------|-----------------------------------|-------------|-----|---|--------|
| Save in: | Convert 🦳 | ~ | G | ø 🖻 | • | |
| My Recent Documents | CP550 | | | | | |
| My Documents | | | | | | |
| My Computer | | | | | | |
| | File name: | | | * | | Save |
| My Network | Save as type: | Program pattern file for UP50A Se | eries(*.5pt |) 🔽 | | Cancel |

The file type for UP550/UP750 after conversion: Program pattern file for UP50A series (*.5pt)

• Step 5

To finish data conversion, assign a file name and save the file.

In LL50A, retrieve the LL50A user file for UP50A series converted in section 3.1, and then click on the LL50A menu commands [File] – [Open program pattern file] – [One pattern file] to retrieve the converted program pattern file for UP50A series, and check the settings before using the file.

TIP

For how to use the LL50A parameter setting software, see the LL50A Parameter Setting Software User's Manual (IM 05P05A01-02EN.)

3.3 Converting Program Pattern File Created Using LL100/LL200 Batch Copy Function

• Step 1

Click on the [Select the LL100/LL200 program pattern (Batch Copy) filder to convert] to display the Browse For Folder window.

| File | REEN to UTAd Help | | | | | | |
|---------------|--|---|--------------------|---------------|---------|---|--|
| Stari | t Menu | | | | | | |
| Sel | ect the LL100/LL | .200 parameter d | ata file to conve | n | | | |
| Sel | ect the LL100/LL | 200 program pat | tern file to conve | ert | | | |
| Sel | ect the LL100/LL | 200 program pat | tem(Batch Copy |) folder to a | convert | | |
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| irow | se For Folder | | | 2 🕅 | | | |
| | se For Folder | | | ? 🛛 | | _ | |
| Spec | se For Folder | | | | | | |
| | | | | | | | |
| Spec file. | | | | | | | |
| Spec file. | ify the folder fro Desktop | m which to select | | | | | |
| Spec file. | ify the folder fro Desktop () My Docume () (CF card | m which to select | t the pre-conver | rsion | | | |
| Spec file. | ify the folder fro | m which to select nts to UTAdvanced (| t the pre-conver | rsion | | | |
| Spec file. | ify the folder fro | m which to select nts to UTAdvanced (ivert | t the pre-conver | rsion | | | |
| Spec file. | ify the folder fro | m which to select nts to UTAdvanced (wert UP550 | t the pre-conver | rsion | | | |
| Spec file. | ify the folder fro | m which to select nts to UTAdvanced (ivert | t the pre-conver | rsion | | | |
| Spec file. | Ify the folder fro | m which to select nts to UTAdvanced (wert UPSSO UTA Converter ierEng | t the pre-conver | rsion | | | |
| Spec file. | Ify the folder fro Desktop My Docume Cr carc GREEN GREEN GREEN Co Co Co Co Co Co Co Co Co Co | m which to select nts to UTAdvanced (wert UPSSO UTA Converter ierEng | t the pre-conver | rsion | | | |
| Spec file. | Ify the folder fro | m which to select nts to UTAdvanced (wert UPSSO UTA Converter ierEng | t the pre-conver | rsion | | | |

• Step 2

Select the folder in which the program pattern file created using the LL100/LL200 batch copy function is stored, and then click on the [OK] button to display the model and suffix-code after the conversion.



Note: The names of the files to convert are PTN001.p5p to PTN030.p5p.

• Step 3

Click the [OK] button to perform conversion. To save converted data in a file, click [Yes]. To return to the first window, click [No].



• Step 4

Specify the folder to which the converted data file is to be stored. The folder in which the file is stored can be changed as described in 3.4, Making Environmental Settings.



The file type for UP550/UP750 after conversion: Program pattern file for UP50A series (*.5pt)

• Step 5

To finish data conversion, assign a file name and save the file.

In LL50A, retrieve the LL50A user file for UP50A series converted in section 3.1, and then click on the LL50A menu commands [File] – [Open program pattern file] – [All pattern files] to retrieve the converted program pattern file for UP50A series, and check the settings before using the file.

TIP

For how to use the LL50A parameter setting software, see the LL50A Parameter Setting Software User's Manual (IM 05P05A01-02EN.)

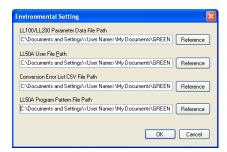
3.4 Making Environmental Settings

The storage location for the Pre-conversion Data File, Conversion User File, Conversion Error Data File, and Conversion Program Pattern File can be set beforehand.

Do not set a path that includes the Program Files folder. Otherwise, the GREEN to UTAdvanced Conversion Tool will not run properly.

Step 1

Click on [File] - [Environmental Setting] in the menu to display the Environmental Setting window.



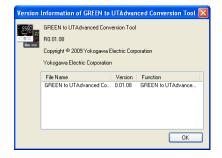
Step 2

Set the path for each file and click the [OK] button.

3.5 Checking Tool Version

Step 1

Click on [Help] – [Version Information] in the menu to display the Version Information of GREEN to UTAdvanced Conversion Tool window.



Step 2

Confirm the version, click the [OK] button.

3

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4. Conversion Error

A parameter regarded as a conversion error will be displayed in the Conversion Error List window. After conversion, check the setting contents on LL50A and re-set the relevant parameter as necessary.

During the conversion, a change of parameter symbol or name will not be regarded as a conversion error. Even if the parameter setpoint is changed, when the function and the specification are not changed, it is not treated as a conversion error. For more information on parameter names, setting range, defaults, etc., see the respective User's Manuals.

TIP

For how to use the LL50A parameter setting software, see the LL50A Parameter Setting Software User's Manual (IM 05P05A01-02EN.)

| <ut300>:</ut300> | for UT350, UT320, UT351 or UT321 |
|------------------|----------------------------------|
| <ut351>:</ut351> | for UT351 |
| <ut400>:</ut400> | for UT450 or UT420 |
| <ut500>:</ut500> | for UT550, UT520, or UT551 |
| <ut551>:</ut551> | for UT551 |
| <up550>:</up550> | for UP550 |
| <up750>:</up750> | for UP750 |

4.1 Parameters Treated as Conversion Errors

Conversion error classification and remedy

| Conversion Error Classification | Remedy | | | | |
|---------------------------------|--|--|--|--|--|
| Over Limit | | | | | |
| Pre-Conversion Setpoint Error | Re-set the parameter because the value after conversion has been set to factory default of the UTAdvanced. | | | | |
| No Convertible Setpoint. | | | | | |
| Change Setpoint | SMP=500ms is changed SMP=200ms. Check the specifications. | | | | |

(1) Control Period <UT500><UP550>

[Conversion Error Classification: Change Setpoint]

- GREEN : **SMP** = 500 ms
- UTAdvanced : Converted to SMP = 200 ms

(2) Control Output <UT500><UP550>

[Conversion Error Classification: No Convertible Setpoint]

- GREEN : OT1 or OT2
- UTAdvanced : CNT, OT.H

If the control output type is set to **OT1** or **OT2** = 3 (ON/OFF control relay contact output) in the controller mode **UTM** or **UPM** \neq 1 (control other than single-loop control), the parameter data is converted into control type **CNT** = 0 (PID control) and output type selection **OT.H** = 3 (OUT terminal relay).

(3) Alarm Type <UT300>

[Conversion Error Classification: No Convertible Setpoint]

- GREEN : AL1 to AL3
- UTAdvanced : AL1.T to AL3.T, AL1.W to AL3.W, AL1.D to AL3.D

* Alarm type parameters are converted to three setting parameters on LL50A.

If the sensor grounding alarm, heater burnout alarm 1, heater burnout alarm 2, heater burnout alarm 1,2, control output value high limit (*1), and control output value low limit (*1) have been set to alarm types **AL1** to **AL3**, the default (PV high-limit alarm or PV low-limit alarm) will be set. If the alarm types becomes the default, the values are not converted but the defaults are set also to the hysteresis, delay timer, and alarm setpoint. (See (9) Alarm Type in 4.2, Special Conversion Specifications.)

(*1) The control output type **OT1** = either from 4 to 12

(4) Alarm Type <UT400><UT500><UP550>

[Conversion Error Classification: No Convertible Setpoint]

- GREEN : AL1 to AL4
- UTAdvanced : AL1.T to AL4.T, AL1.W to AL4.W, AL1.D to AL4.D

* Alarm type parameters are converted to three setting parameters on LL50A.

If the sensor grounding alarm, timer function ^(*2), control output value high limit ^(*3), and control output value low limit ^(*3) have been set to alarm types **AL1** to **AL4**, the default (PV high-limit alarm or PV low-limit alarm) will be set. If the alarm types becomes the default, the values are not converted but the defaults are set also to the hysteresis, delay timer ^(*2), and alarm setpoint. (See (10) Alarm Type in 4.2, Special Conversion Specifications.)

In the controller mode **UPM** \neq 4 (control other than cascade control), if the loop-2 alarm type (41 to 60, 66, and 68 to 71) have been set to alarm types **AL1** to **AL4**, the default (PV high-limit alarm or PV low-limit alarm) will be set to the loop-1 alarm type. If the alarm types becomes the default, the values are not converted but the defaults are set also to the hysteresis and alarm setpoint.

(*2)

Not available for UP550.

(*3)

In the case of <UT400> and <UT500>

If the control output type OT2 = either from 4 to 12 and loop-2 alarm types AL1 to AL4 = 30 or 31 in the controller mode UTM = 4 (cascade control)

Alternatively, if the control output type OT1 = either from 4 to 12 and loop-1 alarm types AL1 to AL4 = 30 or 31 in the controller mode UTM \neq 2 (control other than cascade primary-loop control) or UTM \neq 4 (control other than cascade control) In the case of <UP550>

If the control output type OT2 = either from 4 to 12 and alarm types AL1 to AL4 = 70 or 71 in the controller mode UPM = 4 (cascade control)

Alternatively, if the control output type OT1 = either from 4 to 12 and alarm types AL1 to AL4 = 30 or 31 in the controller mode UPM \neq 2 (control other than cascade primary-loop control) or UPM \neq 4 (control other than cascade control)

(5) Zone Control <UT551>

[Conversion Error Classification: No Convertible Setpoint]

- GREEN : **ZON** = 3
- UTAdvanced : Converted to **ZON** = 0 (SP group number selection method 1)

Use this parameter in combination with parameter PIDN.

(6) SELECT Display <UT300>

[Conversion Error Classification: Over Limit, No Convertible Setpoint]

- GREEN : C.S1 to C.S4
- UTAdvanced : CS1 to CS4

If the register number before conversion is the range of 1 to 200 or 1016 to 9999, a no convertible setpoint error occurs, causing the default to be set.

If the register number after conversion is out of the range of 2301 to 5000, an over limit conversion error occurs, causing the default to be set. If the register number after conversion are within the range of 2301 to 5000 and there is no function in UTAdvanced, the conversion error "No Convertible Setpoint" occurs and the defaults are set.

(7) SELECT Display <UT400><UT500><UP550>

[Conversion Error Classification: Over Limit, No Convertible Setpoint]

- GREEN : C.S1 to C.S5
- UTAdvanced : CS1 to CS5

If the register number after conversion is out of the range of 2301 to 5000 (for UP550: 2201 to 5000), an over limit conversion error occurs, causing the default to be set. If the register number after conversion are within the range of 2301 to 5000 (for UP550: 2201 to 5000) and there is no function in UTAdvanced, the conversion error "No Convertible Setpoint" occurs and the defaults are set.

(8) DO Function <UT500><UP550>

[Conversion Error Classification: Over Limit, No Convertible Setpoint]

- GREEN : **DO1** to **DO7**
- UTAdvanced : AL1.S to AL3.S, DO1.S to DO4.S (E2-terminal area)

If the register number before conversion is out of the range of 5001 to 7048, an over limit conversion error occurs, causing the default to be set. If the register number before conversion are within the range of 5001 to 7048 and there is no function in UTAdvanced, the conversion error "No Convertible Setpoint" occurs and the defaults are set.

(9) DI Function <UT500>

[Conversion Error Classification: Over Limit, No Convertible Setpoint]

- GREEN : A/M.1, L-R/L.1, S/R, CAS, AUT, MAN, SP.b0, SP.b1, SP.b2, SP.b3, PID.b0, PID.b1, PID.b2, PID.b3, REM, LCL
- UTAdvanced : A/M, R/L, S/R, CAS, AUTO, MAN, SP.B0, SP.B1, SP.B2, SP.B3, PN.B0, PN.B1, PN.B2, PN.B3, REM, LCL

If the register number before conversion is out of the range of 5001 to 7048, an over limit conversion error occurs, causing the default to be set. If the register number before conversion are within the range of 5001 to 7048 and there is no function in UTAdvanced, the conversion error "No Convertible Setpoint" occurs and the defaults are set.

(10) DI Function <UP550>

[Conversion Error Classification: Over Limit, No Convertible Setpoint]

- GREEN : PROG, RESET, LOCAL, HOLD, ADV, A/M.1, A/M.2, LSP/CAS, PTNO.b0, PTNO.b1, PTNO.b2, PTNO.b3, PTNO.b4, MG1, MG2, MG3, MG4
- UTAdvanced : PRG, RST, LOC, HOLD, ADV, A/M (A/M_L1-D), A/M (A/M_L2-D), L/C, PT.B0, PT.B1, PT.B2, PT.B3, PT.B4, MG1, MG2, MG3, MG4

If the register number before conversion is out of the range of 5001 to 7048, an over limit conversion error occurs, causing the default to be set. If the register number before conversion are within the range of 5001 to 7048 and there is no function in UTAdvanced, the conversion error "No Convertible Setpoint" occurs and the defaults are set.

(11) Input Switching Range and Action in Loopo Control with PV Switching <UT500><UP550>

[Conversion Error Classification: Over Limit, Pre-Conversion Setpoint Error]

- GREEN : **U1**, **U2**, **U3**
- UTAdvanced : **PV.HL**, **PV.LL**, **PV.2C**

If input switching range **U1** or **U2** is out of the range of **PV.HL** and **PV.LL**, an over limit conversion error occurs, causing the default to be set. **PV.HL** and **PV.LL** are determined depending on the PV input range. If input switching action **U3** is out of the **PV.2C** range, a Pre-Conversion Setpoint Error occurs, causing the default to be set.

(12) Input Computation in Loop Control with PV Auto-selector <UT500><UP550>

[Conversion Error Classification: Pre-Conversion Setpoint Error]

- GREEN : U1
- UTAdvanced : PV.AS

If input selection action **U1** is out of the **PV.AS** range, a conversion error occurs, causing the default to be set.

(13) 10-segment Linearizer <UT500><UP550>

[Conversion Error Classification: No Convertible Setpoint]

- GREEN : No conversion parameter
- UTAdvanced : **PYS** (Group 2)

When controller mode **UTM** or **UPM** = 4 (cascade control), PYS2 10-segment linearizer selection results in a conversion error in some cases. If a conversion error occurs, all group-2 10-segment linearizer parameters are set to the defaults.

(14) 10-segment Linearizer <before Enhanced UT500><UP550>

[Conversion Error Classification: Over Limit]

• GREEN : 1.A1 to 1.A11, 1.B1 to 1.B11 (PYS1 menu)

2.A1 to 2.A11, 2.B1 to 2.B11 (PYS2 menu)

• UTAdvanced : A1 to A11, B1 to B11 (10-segment Linearizer of the group 1 and 2)

If 10-segment linearizer data before conversion is out of the range of 10-segment linearizer inputs A1 to A11 or 10-segment linearizer outputs B1 to B11, a conversion error occurs, causing the defaults to be set.

(15) External RJC Setpoint <UT300><UT500>

[Conversion Error Classification: Over Limit]

- GREEN : ERJC
- UTAdvanced : ERJC

When External RJC setpoint **EJRC** = -50.0 to -10.1 $^{\circ}$ C, (-58.0 to 13.9 $^{\circ}$ F), the parameter **ERJC** is set to the defaults.

(16) DI Function Selection <UT300>

[Conversion Error Classification: No Convertible Setpoint]

- GREEN : DIS
- UTAdvanced : A/M, S/R, SP.B0, SP.B1, SP.B2, SP.BC

When DI function selection DIS = 2, an error occurs. Parameters are set to the defaults.

(17) Junction Cord <UP750>

[Conversion Error Classification: No Convertible Setpoint]

- GREEN : JC=131 to 300
- UTAdvanced : JC=CONT

Patterns 131 to 300 are set to CONT (continuous switching).

4.2 Special conversion Specification

This section describes the main parameters that are specially converted when parameter data is converted from the GREEN series to UTAdvanced series. After conversion, check the converted contents.

(1) Control Period <UT400>

- GREEN : No conversion parameter
- UTAdvanced : Converted to SMP = 200 ms

Converted to control mode CTLM = SGL (single-loop control).

(2) Control Output Type <UT300><UT400><UT500><UP550>

- GREEN : OT1 or OT2
- UTAdvanced : Converted to CNT, OT.H, or OT.C.

Standard Type and Heating/cooling Type

| GREEN | | UTA | Advanced | |
|--|---|---|---|--|
| Control output type OT1 or OT2 | Condition (*1) Control mode CTLM | Control type CNT | Heating-side output type selection OT.H | Cooling-side output type selection OT.C |
| 0: Time proportional PID relay contact output | Independent | 0 (PID control) | 03: OUT terminals (relay) | - |
| 1: Time proportional PID voltage pulse output | | | 01: OUT terminals (voltage pulse) | - |
| 2: Current output | | | 02: OUT terminals (current) | - |
| 3: ON/OFF control relay contact output | CTLM=1 (Single- loop control) | 1 (ON/OFF control, 1 point of hysteresis) | 03: OUT terminals (relay) | - |
| | CTLM≠1 (other than Single-loop control) | 0 (PID control) (*1) | | - |
| 4: Heating-side relay output, cooling-side relay output | CTLM≠2 (other than Cascade | 4 (Heating/ cooling control) | 03: OUT terminals (relay) | 06: OUT2 terminals (relay) |
| 5: Heating-side pulse output, cooling-side relay output | primary-loop control) | | 01: OUT terminals (voltage pulse) | |
| 6: Heating-side current output, cooling-side relay output | | | 02: OUT terminals (current) | |
| 7: Heating-side relay output, cooling-side pulse output | | | 03: OUT terminals (relay) | For UT55A/ UT52A/UP55A; |
| 8: Heating-side pulse output, cooling-side pulse output | | | 01: OUT terminals (voltage pulse) | 04: OUT2 terminals (voltage pulse) |
| 9: Heating-side current output, cooling-side pulse output | | | 02: OUT terminals (current) | For UT35A/ UT32A; 07: RET terminals (voltage pulse) |
| 10: Heating-side relay output, cooling-side current output | | | 03: OUT terminals (relay) | For UT55A/ UT52A/UP55A; |
| 11: Heating-side pulse output, cooling-side current output | | | 01: OUT terminals (voltage pulse) | 05: OUT2 terminals (current) |
| 12: Heating-side current output, cooling-side current output | | | 02: OUT terminals (current) | For UT35A/ UT32A; 08: RET terminals (current) |
| 4 to 12 | CTLM=2 (Cascade primary-loop control) | 0 (PID control) | Same as Heating/ cooling control | - |

*1: Not applicable for UT300.

Position proportional type (Not applicable for UT300.)

| GREEN | UTAdvanced | | | | |
|---------------------|----------------------|-----------------|------------------------|------------------------|--|
| Control output type | Condition | Control type | Heating-side output | Cooling-side output | |
| OT1 or OT2 | Control mode CTLM | CNT | type selection OT.H | type selection OT.C | |
| - | Independent | 0 (PID control) | - | - | |

(3) Input Type <UT300>

- GREEN : IN
- UTAdvanced : IN

| GREEN | UTAdvanced | | |
|------------------------------|---|--|--|
| Input Type IN | PV Input Type IN | | |
| 19 to 29 | 1 | | |
| 32 to 34, 38, 39 | 30 | | |
| 42 to 49, 52 to 54, 57 to 59 | 40 | | |
| Other than above. | This parameter is converted in accordance with GREEN series specifications. | | |

(4) Input Range <UT300>

- GREEN : RH, RL
- UTAdvanced : RH, RL

If the ranges of the GREEN series and UTAdvanced are different on the display digit, the decimal point is converted so that the position will be the same.

(5) Unit <UT400>

- GREEN : UN1 = %
- UTAdvanced : Converted to UNIT = (no unit)

(6) Unit <UT500><UP550>

- GREEN : UN1, UN3, P.U1, P.U2 = %
- UTAdvanced : Converted to UNIT = (no unit)

(7) Decimal Point Position <UT400>

- GREEN : DPC = ON
- UTAdvanced : Converted to P.DP, P.RH, or P.RL in accordance with the GREEN series specifications.

(8) Number of alarms <UT300>

The number of alarms (ALNO.) is changed in accordance with the setting of Control type selection (OT1). If OT1 = 0 to 3, or 7 to 12, the ALNO. is set to 3. If OT1 = 4 to 6, the ALNO. is set to 2.

(9) Alarm Type <UT300>

- GREEN : AL1 to AL3
- UTAdvanced : Converted to AL1.T to AL3.T, AL1.W to AL3.W, AL1.D to AL3.D

* Alarm type parameters are converted to three setting parameters on LL50A.

| GREEN | UTAdvanced |
|-------|---|
| AL1 | AL1.T (Alarm-1 type), AL1.W (Alarm-1 stand-by action), AL1.D (Alarm-1 energized/de-energized) |
| AL2 | AL2.T (Alarm-2 type), AL2.W (Alarm-2 stand-by action), AL2.D (Alarm-2 energized/de-energized) |
| AL3 | AL3.T (Alarm-3 type), AL3.W (Alarm-3 stand-by action), AL3.D (Alarm-3 energized/de-energized) |

Alarm Type Setpoint Conversion

| GREEN | l | JTAdvance | d | GREEN | UTAdvanced | | | |
|-------|-------|------------------|------------------|-------|---|---------------|---------------|--|
| ALn | ALm.T | ALm.W | ALm.D | ALn | ALm.T | ALm.W | ALm.D | |
| 0 | 0 | Initial value | Initial value | 22 | 22 31 | | 0 | |
| 1 | 1 | 0 | 0 | 23 | Initial value | Initial value | Initial value | |
| 2 | 2 | 0 | 0 | 24 | Initial value | Initial value | Initial value | |
| 3 | 5 | 0 | 0 | 25 | Initial value | Initial value | Initial value | |
| 4 | 6 | 0 | 0 | 26 | Initial value | Initial value | Initial value | |
| 5 | 5 | 0 | 1 | - | - | - | - | |
| 6 | 6 | 0 | 1 | 28 | 3 | 0 | 0 | |
| 7 | 7 | 0 | 0 | 29 | 4 | 0 | 0 | |
| 8 | 8 | 0 | 0 | 30 | 15 if control type CNT = 0 or CNT = 1 Default if CNT = 4 | Initial value | 0 | |
| 9 | 1 | 0 | 1 | 31 | 16 if control type CNT = 0 or CNT = 1 Default if CNT = 4 | Initial value | 0 | |
| 10 | 2 | 0 | 1 | 33 | 11 | 0 | 0 | |
| 11 | 1 | 1 | 0 | 34 | 12 | 0 | 0 | |
| 12 | 2 | 1 | 0 | 35 | 11 | 0 | 1 | |
| 13 | 5 | 1 | 0 | 36 | 12 | 0 | 1 | |
| 14 | 6 | 1 | 0 | 37 | 13 | 0 | 0 | |
| 15 | 5 | 1 | 1 | 38 | 14 | 0 | 0 | |
| 16 | 6 | 1 | 1 | 43 | 11 | 1 | 0 | |
| 17 | 7 | 1 | 0 | 44 | 12 | 1 | 0 | |
| 18 | 8 | 1 | 0 | 45 | 11 | 1 | 1 | |
| 19 | 1 | 1 | 1 | 46 | 12 | 1 | 1 | |
| 20 | 2 | 1 | 1 | 47 | 13 | 1 | 0 | |
| 21 | 30 | Initial value | 0 | 48 | 14 | 1 | 0 | |

If ALm.T in the table above is converted to the default, it is treated as a conversion error. See 4.1, Parameters Treated as Conversion Errors.

n=1 to 3, m=1 to 3

(10) Alarm Type <UT400><UT500>

- GREEN : AL1 to AL4
- : Converted to AL1.T to AL4.T, AL1.W to AL4.W, AL1.D to AL4.D UTAdvanced •

* Alarm type parameters are converted to three setting parameters on LL50A.

| GREEN | UTAdvanced |
|-------|---|
| AL1 | AL1.T (Alarm-1 type), AL1.W (Alarm-1 stand-by action), AL1.D (Alarm-1 energized/de-energized) |
| AL2 | AL2.T (Alarm-2 type), AL2.W (Alarm-2 stand-by action), AL2.D (Alarm-2 energized/de-energized) |
| AL3 | AL3.T (Alarm-3 type), AL3.W (Alarm-3 stand-by action), AL3.D (Alarm-3 energized/de-energized) |
| AL4 | AL4.T (Alarm-4 type), AL4.W (Alarm-4 stand-by action), AL4.D (Alarm-4 energized/de-energized) |

Alarm Type Setpoint Conversion

ALm.T

Initial

value

GREEN

ALn

| ι | UTAdvanced | | | GREEN | UTAdvanced | | |
|---|------------------|------------------|--|-------|---|---------------|---------------|
| | ALm.W | ALm.D | | ALn | ALm.T | ALm.W | ALm.D |
| | lnitial value | lnitial value | | 22 | Initial value | Initial value | Initial value |
| | 0 | 0 | | 23 | Initial value | Initial value | Initial value |
| | 0 | 0 | | 24 | Initial value | Initial value | Initial value |
| | 0 | 0 | | 25 | Initial value | Initial value | Initial value |
| | 0 | 0 | | 26 | 30 | Initial value | 0 |
| | 0 | 1 | | 27 | 31 | Initial value | 0 |
| | 0 | 1 | | 28 | 3 | Initial value | 0 |
| | 0 | 0 | | 29 | 4 | Initial value | 0 |
| | 0 | 0 | | 30 | 27 for position proportional 15 if control type CNT = 0 or CNT = 1 Default if CNT = 4 | Initial value | 0 |
| | 0 | 1 | | 31 | 28 for position proportional 16 if control type CNT = 0 or CNT = 1 Default if CNT = 4 | Initial value | 0 |
| | 0 | 1 | | 33 | 11 | 0 | 0 |
| | 1 | 0 | | 34 | 12 | 0 | 0 |
| | 1 | 0 | | 35 | 11 | 0 | 1 |
| | 1 | 0 | | 36 | 12 | 0 | 1 |
| | 1 | 0 | | 37 | 13 | 0 | 0 |
| | 1 | 1 | | 38 | 14 | 0 | 0 |
| | 1 | 1 | | 43 | 11 | 1 | 0 |
| | 1 | 0 | | 44 | 12 | 1 | 0 |
| | 1 | 0 | | 45 | 11 | 1 | 1 |
| | 1 | 1 | | 46 | 12 | 1 | 1 |
| | 1 | 1 | | 47 | 13 | 1 | 0 |
| Ι | lnitial value | lnitial value | | 48 | 14 | 1 | 0 |

If ALm.T in the table above is converted to the default, it is treated as a conversion error. See 4.1, Parameters Treated as Conversion Errors.

n=1 to 4, m=1 to 8

(11) Alarm Type <UP550>

- GREEN : AL1 to AL4
- UTAdvanced : Converted to AL1.T to AL4.T, AL1.W to AL4.W, AL1.D to AL4.D

* Alarm type parameters are converted to three setting parameters on LL50A.

| GREEN | UTAdvanced |
|-------|---|
| AL1 | AL1.T (Alarm-1 type), AL1.W (Alarm-1 stand-by action), AL1.D (Alarm-1 energized/de-energized) |
| AL2 | AL2.T (Alarm-2 type), AL2.W (Alarm-2 stand-by action), AL2.D (Alarm-2 energized/de-energized) |
| AL3 | AL3.T (Alarm-3 type), AL3.W (Alarm-3 stand-by action), AL3.D (Alarm-3 energized/de-energized) |
| AL4 | AL4.T (Alarm-4 type), AL4.W (Alarm-4 stand-by action), AL4.D (Alarm-4 energized/de-energized) |

Loop-1 Alarm Type Setpoint Conversion

| GREEN | l | JTAdvance | d | GREEN | UTAdvanced | | |
|-------|--------------|------------------|------------------|-------|--|---------------|---------------|
| ALn | ALm. T_L1 | ALm. W_L1 | ALm. D_L1 | ALn | ALm.T_L1 | ALm.W_L1 | ALm.D_L1 |
| 0 | 0 | lnitial value | lnitial value | 16 | 6 | 1 | 1 |
| 1 | 1 | 0 | 0 | 17 | 7 | 1 | 0 |
| 2 | 2 | 0 | 0 | 18 | 8 | 1 | 0 |
| 3 | 5 | 0 | 0 | 19 | 1 | 1 | 1 |
| 4 | 6 | 0 | 0 | 20 | 2 | 1 | 1 |
| 5 | 5 | 0 | 1 | 25 | Initial value | Initial value | Initial value |
| 6 | 6 | 0 | 1 | 26 | 30 | Initial value | 0 |
| 7 | 7 | 0 | 0 | 27 | 31 | Initial value | 0 |
| 8 | 8 | 0 | 0 | 28 | 3 | Initial value | 0 |
| 9 | 1 | 0 | 1 | 29 | 4 | Initial value | 0 |
| 10 | 2 | 0 | 1 | 30 | 15 for position proportional type and UPM = 4 27 for position proportional type and UPM \neq 4 15 for standard type or heating/ cooling type, and CNT = 0 or 1 Default for standard type or heating/cooling type, and CNT = 4 | Initial value | 0 |
| 11 | 1 | 1 | 0 | 31 | 16 for position proportional type and UPM = 4 28 for position proportional type and UPM \neq 4 16 for standard type or heating/ cooling type, and CNT = 0 or 1 Default for standard type or heating/cooling type, and CNT = 4 | Initial value | 0 |
| 12 | 2 | 1 | 0 | 67 | 31 | Initial value | 0 |
| 13 | 5 | 1 | 0 | | | | |
| 14 | 6 | 1 | 0 | | | | |
| 15 | 5 | 1 | 1 | | | | |

If ALm.T_L1 in the table above is converted to the default, it is treated as a conversion error. See 4.1, Parameters Treated as Conversion Errors.

4-11

n=1 to 4, m=1 to 4

Loop-2 Alarm Type Setpoint Conversion

| GREEN | l | JTAdvance | d | GREEN | GREEN UTAdvanced | | |
|-------|--------------|--------------|--------------|-------|---|---------------|---------------|
| ALn | ALm. T_L2 | ALm. W_L2 | ALm. D_L2 | ALn | ALm.T_L2 | ALm.W_L2 | ALm.D_L2 |
| 41 | 1 | 0 | 0 | 54 | 6 | 1 | 0 |
| 42 | 2 | 0 | 0 | 55 | 5 | 1 | 1 |
| 43 | 5 | 0 | 0 | 56 | 6 | 1 | 1 |
| 44 | 6 | 0 | 0 | 57 | 7 | 1 | 0 |
| 45 | 5 | 0 | 1 | 58 | 8 | 1 | 0 |
| 46 | 6 | 0 | 1 | 59 | 1 | 1 | 1 |
| 47 | 7 | 0 | 0 | 60 | 2 | 1 | 1 |
| 48 | 8 | 0 | 0 | 65 | Initial value | Initial value | Initial value |
| 49 | 1 | 0 | 1 | 66 | 30 | Initial value | 0 |
| 50 | 2 | 0 | 1 | 68 | 3 | Initial value | 0 |
| 51 | 1 | 1 | 0 | 69 | 4 | Initial value | 0 |
| 52 | 2 | 1 | 0 | 70 | 27 for position proportional type 15 for standard type or heating/ cooling type, and CNT = 0 Default for standard type or heating/cooling type, and CNT = 4 | Initial value | 0 |
| 53 | 5 | 1 | 0 | 71 | 28 for position proportional type 16 for standard type or heating/ cooling type, and CNT = 0 Default for standard type or heating/cooling type, and CNT = 4 | Initial value | 0 |

n=1 to 4, m=1 to 4

If ALm.T_L2 in the table above is converted to the default, it is treated as a conversion error. See 4.1, Parameters Treated as Conversion Errors.

(12) Alarm Setpoint <UT300>

When the alarm type **ALn** is set to 21 (Fault diagnosis output) or 22 (FAIL output), or when the conversion error (No Convertible Setpoint) occurs, the alarm setpoints are set to the default values.

n=1 to 3

| | for GREEN Series (ALn) = 0 to 3, 5, 7 to 20, 28 to 31, 33, 35, 37, 38, 43, | Alarm Type 1 44, 36, 46 | for GREEN Series (ALn) = 4, 14, 6, 16, 34, |
|-------|--|----------------------------|---|
| GREEN | UTAdvanced | GREEN | UTAdvanced |
| A1 | Converted to A1 of each group. | A1 | Converts a value with inverted sign to A1 of each group. |
| A2 | Converted to A2 of each group. | A2 | Converts a value with inverted sign to A2 of each group. |
| A3 | Converted to A3 of each group. However, If OT1 = 4 to 6, can not be converted. | A3 | Converts a value with inverted sign to A3 of each group. However, If OT1 = 4 to 6, can not be converted. |

(13) Alarm Setpoint <UT400>

When the conversion error (No Convertible Setpoint) occurs on the alarm type **ALn**, the alarm setpoints are set to the default values.

n=1 to 4

| Alarm Type (26 to 31 | ALn) = 0 to 3, 5, 7 to 13, 15, 17 to 20, | Alarm Type (ALn) = 4, 14, 6, 16 | | |
|--------------------------|--|--|--|--|
| GREEN | UTAdvanced | GREEN | UTAdvanced | |
| A1 | Converted to A1 of each group. | A1 | Converts a value with inverted sign to A1 of each group. | |
| A2 | Converted to A2 of each group. | A2 | Converts a value with inverted sign to A2 of each group. | |
| A3 | Converted to A3 of each group. | A3 | Converts a value with inverted sign to A3 of each group. | |
| A4 | Converted to A4 of each group. | A4 | Converts a value with inverted sign to A4 of each group. | |

(14) Alarm Setpoint <UT500>

When the conversion error (No Convertible Setpoint) occurs on the alarm type **ALn**, the alarm setpoints are set to the default values.

n=1 to 4

| Alarm Type (ALn) = 0 to 3, 5, 7 to 13, 15, 17 to 20, 26 to 31, 33, 35, 37 to 38, 43, 45, 47, 48 | | Alarm Type (ALn) = 4, 14, 6, 16, 34, 44, 36, 46 | |
|--|--------------------------------|--|--|
| GREEN | UTAdvanced | GREEN | UTAdvanced |
| 1.A1 to 8.A1 | Converted to A1 of each group. | 1.A1 to 8.A1 | Converts a value with inverted sign to A1 of each group. |
| 1.A2 to 8.A2 | Converted to A2 of each group. | 1.A2 to 8.A2 | Converts a value with inverted sign to A2 of each group. |
| 1.A3 to 8.A3 | Converted to A3 of each group. | 1.A3 to 8.A3 | Converts a value with inverted sign to A3 of each group. |
| 1.A4 to 8.A4 | Converted to A4 of each group. | 1.A4 to 8.A4 | Converts a value with inverted sign to A4 of each group. |

(15) Alarm Setpoint <UP550>

When the conversion error (No Convertible Setpoint) occurs on the alarm type ALn, the alarm setpoints are set to the default values.

n=1 to 4

| Alarm Type (ALn) = 0 to 3, 5, 7 to 13, 15, 17 to 20, 26 to 31, 67 | | Alarm Type (ALn) = 4, 14, 6, 16 | | |
|---|----------------------------|--|--|--|
| GREEN | UTAdvanced | GREEN | UTAdvanced | |
| A1 | Converted to A1 of loop-1. | A1 | Converts a value with inverted sign to A1 of loop-1. | |
| A2 | Converted to A2 of loop-1. | A2 | Converts a value with inverted sign to A2 of loop-1. | |
| A3 | Converted to A3 of loop-1. | A3 | Converts a value with inverted sign to A3 of loop-1. | |
| A4 | Converted to A4 of loop-1. | A4 | Converts a value with inverted sign to A4 of loop-1. | |

| Alarm Type (ALn) = 41 to 43, 45, 47 to 53, 55, 57 to 60, 66, 68 to 71 | | Alarm Type (ALn) = 44, 54, 46, 56 | | |
|---|----------------------------|--|--|--|
| GREEN | UTAdvanced | GREEN | UTAdvanced | |
| A1 | Converted to A1 of loop-2. | A1 | Converts a value with inverted sign to A1 of loop-2. | |
| A2 | Converted to A2 of loop-2. | A2 | Converts a value with inverted sign to A2 of loop-2. | |
| A3 | Converted to A3 of loop-2. | A3 | Converts a value with inverted sign to A3 of loop-2. | |
| A4 | Converted to A4 of loop-2. | A4 | Converts a value with inverted sign to A4 of loop-2. | |

(16) Eight Alarms <UT500>

- GREEN : **AMD** = 3, 4, 5
- UTAdvanced : Converted to AMD in accordance with the GREEN series specifications.

Set to the number of alarms **ALNO**. = 8. The alarm type and alarm setpoint are converted as follows:

See item (10) for alarm-type setpoint conversion and item (14) for alarm setpoint conversion.

Alarm Type

| | GREEN | UTAdvanced |
|--------|-------|---------------------|
| Loop 1 | AL1 | AL1.T, AL1.W, AL1.D |
| | AL2 | AL2.T, AL2.W, AL2.D |
| | AL3 | AL3.T, AL3.W, AL3.D |
| | AL4 | AL4.T, AL4.W, AL4.D |
| Loop 2 | AL1 | AL5.T, AL5.W, AL5.D |
| | AL2 | AL6.T, AL6.W, AL6.D |
| | AL3 | AL7.T, AL7.W, AL7.D |
| | AL4 | AL8.T, AL8.W, AL8.D |

Hysteresis

| | GREEN | UTAdvanced | | |
|--------|-------|------------|--|--|
| Loop 1 | HY1 | HY1 | | |
| | HY2 | HY2 | | |
| | HY3 | HY3 | | |
| | HY4 | HY4 | | |
| Loop 2 | HY1 | HY5 | | |
| | HY2 | HY6 | | |
| | HY3 | HY7 | | |
| | HY4 | HY8 | | |

Delay Timer

| | GREEN | UTAdvanced |
|--------|-------|------------|
| Loop 1 | DY1 | DYN1 |
| | DY2 | DYN2 |
| | DY3 | DYN3 |
| | DY4 | DYN4 |
| Loop 2 | DY1 | DYN5 |
| | DY2 | DYN6 |
| | DY3 | DYN7 |
| | DY4 | DYN8 |

Alarm Setpoint

| | GREEN | UTAdvanced |
|--------|--------------|------------------|
| Loop 1 | 1.A1 to 8.A1 | A1 of each group |
| | 1.A2 to 8.A2 | A2 of each group |
| | 1.A3 to 8.A3 | A3 of each group |
| | 1.A4 to 8.A4 | A4 of each group |
| Loop 2 | 1.A1 to 8.A1 | A5 of each group |
| | 1.A2 to 8.A2 | A6 of each group |
| | 1.A3 to 8.A3 | A7 of each group |
| | 1.A4 to 8.A4 | A8 of each group |

(17) PID Group Number <UT500>

- GREEN : GRP
- UTAdvanced : Converted to SPGR. and PIDG. (the same value for each)

(18) PID Parameter for Reference Deviation <UT400><UT500><UP550>

- GREEN : GRP, n.P, n.I, n.D, n.OH, n.OL, n.MR, n.H, n.DR, n.Pc, n.Ic, n.Dc, n.Hc, n.DB, n.PO, n.Oc (n=GRP)
- UTAdvanced : P, I, D, OH, OL, MR, HYS, DR, Pc, Ic, Dc, HYSc, DB, PO, POc (Group R)

The parameters for Number of PID groups (GRP, n.P, n.I, n.D, n.OH, n.OL, n.MR, n.H, n.DR, n.Pc, n.Ic, n.Dc, n.Hc, n.DB, n.PO, and n.Oc) are converted to the Group R parameters (P, I, D, OH, OL, MR, HYS, DR, Pc, Ic, Dc, HYSc, DB, PO, POc) for each loop.

(19) Control Output Limiter for Heating/Cooling Control <UT300><UT500><UP550>

- GREEN
 : n.OH (Heating-side output high limit), n.OL (Cooling-side output high limit)
- UTAdvanced : n.OH is converted to OH of each group. n.OL is converted as described below:

If the control type after conversion is **CNT** = 4 (heating/cooling control) when controller mode **UTM** or **UPM** \neq 4 (control other than cascade control), **n.OL** is converted to **OHc**. If the control type after conversion is **CNT** \neq 4 (control other than heating/cooling control), it is converted to **OL**.

If the control type after conversion is **CNT** = 4 (heating/cooling control) when controller mode **UTM** or **UPM** = 4 (cascade control), the first loop is converted to **OL**, and the second loop is converted to **OHc**.

Moreover, if the control type after conversion is $CNT \neq 4$ (control other than heating/cooling control), both the first and second loops are converted to OL.

Each group's OLc is set to the default. n = 1 to 8

(20) SELECT Display <UT300><UT400><UT500><UP550>

- GREEN : C.S1 to C.S5 (C.S1 to C.S4 for UT300)
- UTAdvanced : CS1 to CS5 (CS1 to CS4 for UT35A/UT32A)

If the register number after conversion are within the range of 2301 to 5000 (for UP550: 2201 to 5000) and there is the function in UTAdvanced, conversion is made.

(21) DO Function <UT500><UP550>

- GREEN : DO1 to DO7
- UTAdvanced : Converted to AL1.S to AL3.S, DO1.S to DO4.S (E2-terminal area)

If the register number before conversion is within the range of 5001 to 7048 and there is a function in UTAdvanced, conversion is made.

| GREEN | UTAdvanced |
|-------|------------|
| DO1 | AL1.S |
| DO2 | AL2.S |
| DO3 | AL3.S |
| DO4 | DO1.S |
| DO5 | DO2.S |
| DO6 | DO3.S |
| DO7 | DO4.S |

(22) DI Function <UT500>

- GREEN : A/M.1, L-R/L.1, S/R, CAS, AUT, MAN, SP.b0, SP.b1, SP.b2, SP.b3, PID.b0, PID.b1, PID.b2, PID.b3, REM, LCL
- UTAdvanced : A/M, R/L, S/R, CAS, AUTO, MAN, SP.B0, SP.B1, SP.B2, SP.B3, PN.B0, PN.B1, PN.B2, PN.B3, REM, LCL

These parameters are converted to each setpoint of the contact input parameters in accordance with the GREEN series specifications.

If the register number before conversion is within the range of 5001 to 7048 and there is the function in UTAdvanced, conversion is made.

| GREEN | UTAdvanced |
|---------|------------|
| A/M.1 | A/M |
| L-R/L.1 | R/L |
| S/R | S/R |
| CAS | CAS |
| AUT | AUTO |
| MAN | MAN |
| SP.b0 | SP.B0 |
| SP.b1 | SP.B1 |
| SP.b2 | SP.B2 |
| SP.b3 | SP.B3 |
| PID.b0 | PN.B0 |
| PID.b1 | PN.B1 |
| PID.b2 | PN.B2 |
| PID.b3 | PN.B3 |
| REM | REM |
| LCL | LCL |

(23) DI Function <UP550>

- GREEN : PROG, RESET, LOCAL, HOLD, ADV, A/M.1, A/M.2, LSP/CAS, PTNO.b0, PTNO.b1, PTNO.b2, PTNO.b3, PTNO.b4, MG1, MG2, MG3, MG4
- UTAdvanced : PRG, RST, LOC, HOLD, ADV, A/M (A/M_L1-D), A/M (A/M_L2-D), L/C, PT.B0, PT.B1, PT.B2, PT.B3, PT.B4, MG1, MG2, MG3, MG4

These parameters are converted to each setpoint of the contact input parameters in accordance with the GREEN series specifications.

If the register number before conversion is within the range of 5001 to 7048 and there is the function in UTAdvanced, conversion is made.

| GREEN | UTAdvanced | Remarks |
|---------|----------------|---|
| PROG | PRG | |
| RESET | RST | |
| LOCAL | LOC | |
| HOLD | HOLD | |
| ADV | ADV | |
| A/M.1 | A/M (A/M_L1-D) | When controller mode UPM \neq 4 (control other than cascade control), A/M.1 is converted to A/M (A/M_L1-D). |
| A/M.2 | A/M (A/M_L2-D) | When controller mode UPM = 4 (cascade control), A/M.2 is converted to A/M (A/M_L2-D). |
| LSP/CAS | L/C | When controller mode UPM = 4 (cascade control), LSP/CAS is converted to L/C. |
| PTNO.b0 | PT.B0 | |
| PTNO.b1 | PT.B1 | |
| PTNO.b2 | PT.B2 | |
| PTNO.b3 | PT.B3 | |
| PTNO.b4 | PT.B4 | |
| MG1 | MG1 | |
| MG2 | MG2 | |
| MG3 | MG3 | |
| MG4 | MG4 | |

(24) DI Function Selection <UT300>

This parameter is converted to the parameters of the DI function-assigned menu in accordance with the GREEN series specifications.

| GREEN | UTAdvanced | | | | | | |
|-------|------------|--|-----------|-------|-----------|-----------|--|
| DIS | SP.BC | SP.B0 | SP.B1 | SP.B2 | A/M | S/R | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1 | 1 | 5025(DI1) | 0 | 0 | 5026(DI2) | 0 | |
| 2 | | See 4.1 Parameters Treated as Conversion Errors. | | | | | |
| 3 | 1 | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | |
| 4 | 1 | 5025(DI1) | 0 | 0 | 0 | 5026(DI2) | |

(25) DI Function Selection <UT400>

This parameter is converted to the parameters of the DI function-assigned menu in accordance with the GREEN series specifications.

| GREEN | UTAdvanced | | | | | | | |
|-------|------------|-----------|-----------|-----------|-------|-------|-----|-------|
| DIS | A/M | S.R | SP.B0 | SP.B1 | SP.B2 | SP.B3 | R/L | SP.BC |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 5025(DI1) | 5027(DI3) | 5026(DI2) | 0 | 0 | 0 | 0 | 1 |
| 3 | 5027(DI3) | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 0 | 1 |
| 4 | 0 | 0 | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 1 |

UTAdvanced (UT55A/UT52A Suffix code: Type 2 = 0)

UTAdvanced (UT55A Suffix code: Type 2 = 1)

| GREEN | UTAdvanced | | | | | | | |
|-------|------------|------------|------------|------------|------------|------------|------------|-------|
| DIS | A/M | S.R | SP.B0 | SP.B1 | SP.B2 | SP.B3 | R/L | SP.BC |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5046(DI16) | 0 |
| 1 | 5025(DI1) | 5026(DI2) | 5073(DI31) | 5074(DI32) | 5075(DI33) | 5076(DI34) | 5046(DI16) | 0 |
| 2 | 5025(DI1) | 5027(DI3) | 5026(DI2) | 0 | 0 | 0 | 5046(DI16) | 1 |
| 3 | 5027(DI3) | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 5046(DI16) | 1 |
| 4 | 5074(DI32) | 5073(DI31) | 5025(DI1) | 5026(DI2) | 0 | 0 | 5046(DI16) | 1 |

UTAdvanced (UT52A Suffix code: Type 2 =1 or 2, or UT55A Suffix code: Type 2 = 2 or 4)

| GREEN | UTAdvanced | | | | | | | |
|-------|------------|-----------|-----------|-----------|-------|-------|------------|-------|
| DIS | A/M | S.R | SP.B0 | SP.B1 | SP.B2 | SP.B3 | R/L | SP.BC |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5046(DI16) | 0 |
| 1 | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 0 | 5046(DI16) | 0 |
| 2 | 5025(DI1) | 5027(DI3) | 5026(DI2) | 0 | 0 | 0 | 5046(DI16) | 1 |
| 3 | 5027(DI3) | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 5046(DI16) | 1 |
| 4 | 0 | 0 | 5025(DI1) | 5026(DI2) | 0 | 0 | 5046(DI16) | 1 |

UTAdvanced (UT55A Suffix code: Type 2 = 3)

| GREEN | UTAdvanced | | | | | | | |
|-------|------------|------------|------------|------------|------------|------------|-----|-------|
| DIS | A/M | S.R | SP.B0 | SP.B1 | SP.B2 | SP.B3 | R/L | SP.BC |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 5025(DI1) | 5026(DI2) | 5041(DI11) | 5042(DI12) | 5043(DI13) | 5044(DI14) | 0 | 0 |
| 2 | 5025(DI1) | 5027(DI3) | 5026(DI2) | 0 | 0 | 0 | 0 | 1 |
| 3 | 5027(DI3) | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 0 | 1 |
| 4 | 5042(DI12) | 5041(DI11) | 5025(DI1) | 5026(DI2) | 0 | 0 | 0 | 1 |

(26) Baud Rate of Ethernet-serial Gateway <UT351><UT551>

- GREEN : No conversion parameter (fixed to 9600 bps internally)
- UTAdvanced : The parameter **BPS**, Baud rate of Ethernet-serial Gateway, is converted to 9600 bps.

4-20

(27) Input Switching Range and Action in Loop Control with PV Switching <UT500><UP550>

- GREEN : U1, U2, U3
- UTAdvanced : Converted to PV.HL, PV.LL, PV.2C

(28) Input computation in Loop Control with PV Auto-selector <UT500><UP550>

- GREEN : U1
- UTAdvanced : Converted to PV.AS

(29) Security (LOCK) <UT500>

This parameter is converted to key-lock and menu lock parameters in accordance with the GREEN series specifications.

| GREEN | UTAdvanced | | | |
|-------|-----------------------------------|--|--|--|
| DAT | DATA (key) | | | |
| A/M | A/M (key) | | | |
| MOD | MODE | | | |
| LP1 | SP, PVS, PID, TUNE, ZONE | | | |
| LP2 | SP, PVS, PID, TUNE, ZONE | | | |
| PID | SP, PVS, PID, ZON (loop 1/loop 2) | | | |
| USR | PPAR | | | |
| PY1 | PYS1 | | | |
| PY2 | PYS2 | | | |

(30) Security (LOCK) <UT400>

This parameter is converted to key-lock and menu lock parameters in accordance with the GREEN series specifications.

| GREEN | UTAdvanced |
|-------|--------------------|
| DAT | DATA (key) |
| A/M | A/M (key) |
| R/L | MODE |
| PID | SP, PVS, PID, ZONE |

(31) Security (LOCK) <UP550>

This parameter is converted to key-lock and menu lock parameters in accordance with the GREEN series specifications.

| GREEN | UTAdvanced |
|-----------|---------------------------------|
| AV | DATA (key) |
| PT.NO | PTN (key) |
| RUN | RUN, RST (key) |
| MODE | MODE |
| PRG | PROG, LOC, EDIT |
| LP1 | SPS, PVS, PID, TUNE, MODE, ZONE |
| LP2 | PVS, PID, TUNE, MODE, ZONE |
| PID | PID, ZONE (loop 1/loop 2) |
| USR | PPAR |
| PYS1 | PYS1 |
| PYS2 | PYS2 |

(32) Program Pattern < UP750>

The program pattern for Loop-2 control is set to the UP55A transmission program pattern (PT.G=ON).

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