User's Manual

Model 761922
Harmonic Analysis Software
for the WT1600/WT2000

Notice of Alterations

Please make the following alterations to the User's Manual IM761922-01E.

Below are the items that apply to version 3.01 or later of this software.

■ Support for the WT3000

The software program now supports YOKOGAWA's WT3000 Precision Power Analyzer. Harmonic measurements conforming to the standards list below is possible when the software program is used in combination with the WT3000.

To make harmonic measurements using the software program in combination with the WT3000, see the User's Manual IM761922-02E.

- IEC 61000-3-2(Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)) Edition 2.2
- EN61000-3-2 (2000)
- IEC61000-4-7 Edition 2
- JIS C61000-3-2 (2005)

For details on the standards, see the actual text of the applicable standard.

■ Enhanced Help Function

Help Document Format

The help document was in an HTML (Hyper Text Markup Language) format on products with software version before 3.01. For software version 3.01 or later, the user's manual is displayed as a help document in PDF (Portable Document Format). You can view PDF files using Adobe Reader, a freeware.

Viewing the Most Recent User's Manual or Alteration Notice

To obtain the most recent PDF files of the user's manual and alteration notice, click "Manual Download" on the YOKOGAWA's Web page shown below. Then, download the user's manual and alteration notice of this software program.

http://www.yokogawa.com/tm/wtpz/761922/tm-761922_01.htm

Rename the downloaded user's manual and alteration notice as indicated below according to the product that you are using, and copy (overwrite) the files in the software installation folder that you specified when you carried out the steps on page 2-14. You will be able to view the most recent operating instructions by selecting the user's manual or alteration notice from the Help menu.

Product	User's Manual File Name	Alteration Notice File Name
WT1600 WT2000 series	IM761922-01E.pdf	AlterationEWT2000.pdf
WT3000	IM761922-02E.pdf	AlterationEWT3000.pdf

Note
- You can download Adobe Reader from Adobe System's Web page.
- The most recent user's manual and alteration notice that you can download from YOKOGAWA's Web page correspond to the most recent version of this software program. Update the software program as necessary. The program for updating the software can be downloaded from YOKOGAWA's Web page above.
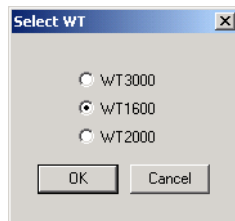
■ Page 1-1 "Applicable Measurement Instruments"

This software can be used with YOKOGAWA's measurement instruments listed below. This user's manual (IM761922-01E) describes the case when this software is used in combination with the WT1600 or the WT2000. When using this software with the WT3000*, see IM761922-02E. For information about the handling precautions, functions, and operating procedures of each WT, see the respective manuals.

* The software versions that support the WT3000 are 3.01 and later.

Product	Model
WT1600	760101
WT2000 series	253101, 253102, and 253103
WT3000	760301, 760302, 760303, and 760304

■ Page 2-16 "Selecting the WT Model"

3. Select WT1600 or WT2000.

* "WT3000" appears as a selectable model on software version 3.01 or later.

■ Page 2-19 "Selecting the WT Model"

Select WT1600, WT2000, or WT3000.

If you are using the WT3000, see the Harmonic Analysis Software User's Manual IM761922-02E for the WT3000.

* The software versions that support the WT3000 are 3.01 and later.

■ Page 9-4 "Using the Help Function"

On software version 3.01 or later, you can select the user's manual of this software or the alteration notice of the user's manual from the Help menu for viewing. Adobe Reader by Adobe Systems is required to view the user's manual and alteration notice.

Below are the items that apply to version 2.10 or later of this software.

■ Page 3-6 "Setting Class A or Class B"

Select the lower power limit for applying the limits

Select 50 W, 75 W, None, or Infinity. When the active power of the EUT is less than the selected power, the limits are not applied.

■ Page 3-7 Setting Class C

• **When the active power from the equipment exceeds 25 W (>25 W)**
Measure the fundamental current and power factor
Set the load of the EUT to the maximum and click **Pre-Meas**. The fundamental current and power factor are measured, and the values are displayed (only when online).

• **When the active power from the equipment is less than or equal to 25 W (≤25 W)**
Evaluating on the conditions of harmonic order 3 and 5
Measure the fundamental current
Set the load of the EUT to the maximum and click **Pre-Meas**. The fundamental current is measured, and the value is displayed (only when online). You can also enter the value.

■ Page 3-8 Setting Class D

Select the lower power limit for applying the limits

Select <u>50 W, 75 W, None, or Infinity</u>. When the active power of the EUT is less than the selected power, the limits are not applied.

■ Page 3-8 Setting Class A

• **Selecting the Lower Power Limit for Applying the Limits**

Select <u>50 W, 75 W, None, or Infinity</u>. When the active power of the EUT is less than the selected power, the limits are not applied.

■ Page 3-9 Setting Class D

• **Selecting the Lower Power Limit for Applying the Limits**

Select <u>50 W, 75 W, None, or Infinity</u>. When the active power of the EUT is less than the selected power, the limits are not applied.

■ Page 4-3 "Evaluation Colors"

Aqua

• None of Condition 1, 2, and Relaxation Condition is met.
• Excluded from applying the limits because the maximum active power is <u>less than the minimum power (75 W or 50 W) for applying the limits or set to Infinity</u>.

■ Page 4-12 "Color of Bars"

Aqua

• Limit exceeded.
• Excluded from applying the limits because the maximum active power is <u>less than the minimum power (75 W or 50 W) for applying the limits or set to Infinity</u>.

■ Page 4-18 Color of Measured Values

Aqua

• Limit exceeded.
• Excluded from applying the limits because the maximum active power is <u>less than the minimum power (75 W or 50 W) for applying the limits or set to Infinity</u>.

■ Pages 7-14 "Print Example"

The power values that are excluded from applying the limits are printed for Classes A, B, and D. The printed contents vary depending on the selection made in "Selecting the Lower Power Limit for Applying the Limits" in section 3.6. The printing is the same as in the past for Class C equipment with an active input power less than or equal to 25 W.

Lower Power Limit for Applying the Limits Selected in Section 3.6	Printed Contents
50 W	50W
75 W	75W
None	-------
Infinity	Always inapplicable

Other Alterations

■ Page 1-7 "GP-IB Interface Card or Board (Not Required When Connecting to the WT1600 via Ethernet)"

Requires PCI-GPIB/PCI-GPIB+/PCMCIAGPIB/PCMCIA-GPIB+ by National Instruments with NI-488.2M driver version 1.60 or later.

■ Page 2-13 "Procedure"

Have the CD-ROM containing the software ready. Exit all programs that are currently running before starting the installation. If an older version of the Harmonic Measurement Software is installed, uninstall it first.

The following procedures are for installing the software on Windows 2000 Professional. The screens shown in the figure may vary depending on the OS that is running on the PC.

1. Start Windows.
   When using Windows NT 4.0, Windows 2000, or Windows XP Professional, set the user name to *Administrator* when starting up.

■ Page 3-1 "Explanation"

When changing the communication mode from Off-Line to On-Line, the communication interface of the target WT must be selected.

■ Page 10-2 "System requirements"

- GP-IB port
  Requires PCI-GPIB/PCI-GPIB+/PCMCIAGPIB/PCMCIA-GPIB+ by National Instruments with NI-488.2M driver version 1.60 or later.
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