TOSVERT VF-PS1 series

LONWORKS® Plug-in LIS006Z

Instruction Manual

NOTICE

1. Read this manual before installing or operating the LONWORKS plug-in for VF-PS1. Keep it in a safe place for reference.
2. All information contained in this manual are subject to change without notice. Please confirm the latest information on TOSVERT series Web site “www.inverter.co.jp”.

Preface

* **Technical information described in this manual is used to explain typical operations and applications of products, and this is not intended to grant warranty or licensing right on its usage regarding TOSHIBA group or a third party intellectual property and the other right.**
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Symbols used in this document have the following meaning.

" ": Items and messages of LIS006Z
[ ]: Buttons on the screen of LIS006Z
Italic: Menus of LIS006Z and Windows
[ ] : Keys of the PC

Table of Contents

1. Introduction

LIS006Z is LNS device plug-in to simplify the configuration, monitoring, controlling of TOSVERT VF-PS1 series LONWORKS option LIU006Z. Carefully read this manual together with the Inverter and LONWORKS option Instruction manual for correct use.

- Recommended Performance environment

  LNS application LonMaker
  HDD ..... Space area About 10 MB
  Display ..... 640 x 480 dot / 256 colors or more
  Others ..... Equipped with a CD-ROM drive or internet, and a mouse or the other pointing device

2. Setup

2.1. Installation

To install LIS006Z, follow these steps.

- **N.B. Install LNS application (ex. LonMaker) before installing LIS006Z.**
- If other applications are working, end their operation.
- If LIS006Z is updated from elder one, uninstall the elder one (refer to next section).
  The version of LIS006Z can be checked on *Help* | *About this plug-in.*

- Run the setup program (LIS006Z_setup.exe).
  N.B. Do not change the installation directory (the default is C:¥LonWorks¥), if your LNS application is installed into the default directory (C:¥LonWorks).

⚠Caution	
Prohibited	▼ Do not install this product into the directory other than specified one. It may cause any computer problem.

2.2. Uninstallation

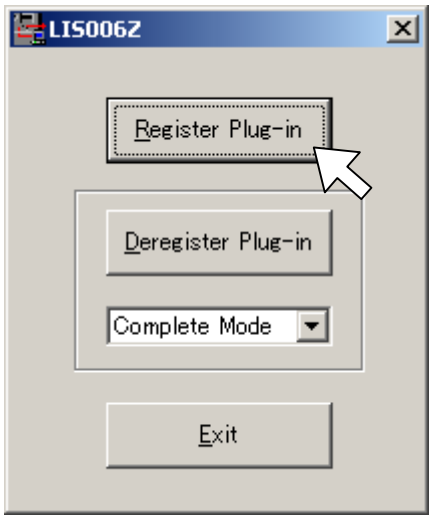
When uninstalling, use *My Computer* | *Control Panel* | *Add / Remove Programs*.

⚠Caution	
Mandatory	▼ Uninstall this product after executing “Deregister”. (Refer to the next page for “Deregister” method). Otherwise, LIS006Z may not be uninstalled correctly.

3. Start up

3.1. Register

Run the LIS006Z.exe (Short-cut is prepared, *Start* | *All programs* | *Toshiba Inverter* | *LIS006Z*).
LIS006Z shows a dialog shown in below.
Click the [Register Plug-in] button and LIS006Z registration command is added into Windows registry, then show the message to inform the completion.



After LIS006Z register command is added with Windows registry, LNS application can find it. Use the “Register” command to register LIS006Z into LNS. See your LNS application instruction manual for detail method to register.

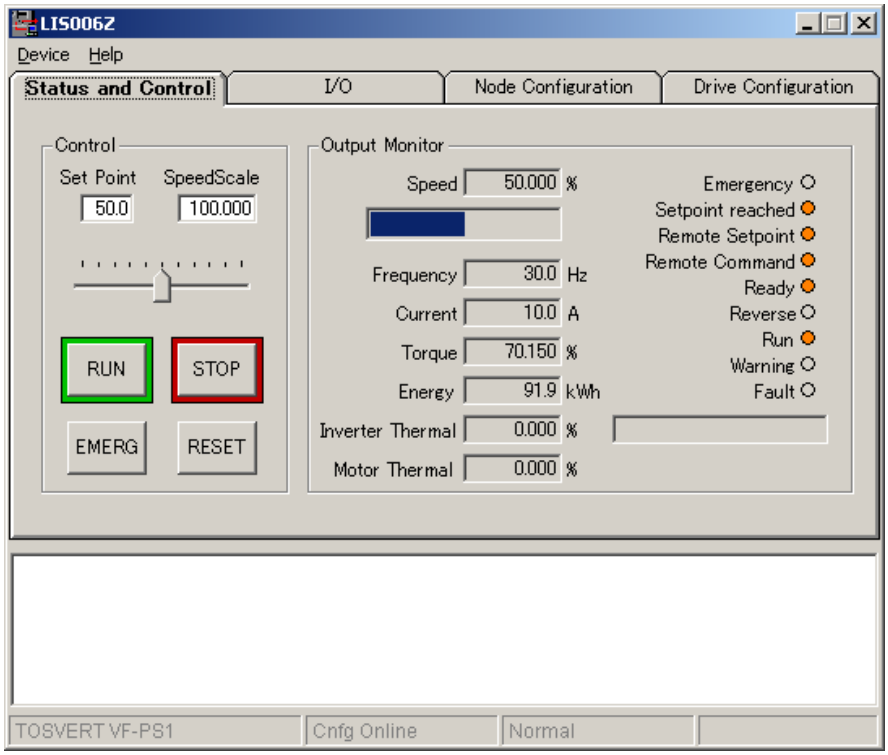
- “Deregister”
  Use [Deregister Plug-in] button when deleting LIS006Z on your LNS or Windows.
  Do “Deregister” by all means before LIS006Z uninstallation.

3.2. Start up plug-in

LIS006Z is LNS device plug-in for ACMotorDrive functional block of VF-PS1 series LONWORKS option LIU006Z. The commands shown in below can be used when starting the functions.

- Browse
- Configure

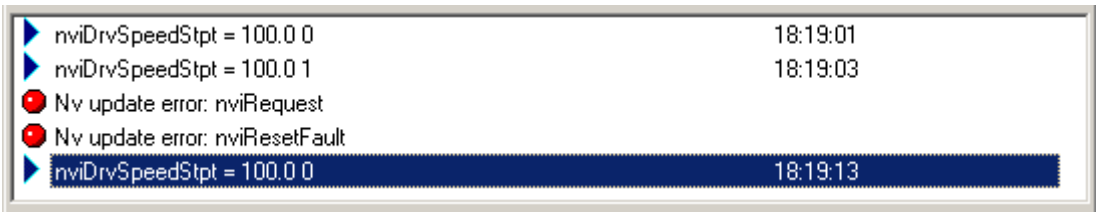
This plug-in controls and monitors the node status through the network variables. Accordingly, it has a short delay time to indicate the display because of reading the initial data of network variables. A dialog after starting up is decided by the command. Lower sample shows the dialog started up by Browse command.



4. Functions

4.1. Log

"Logger list" that lies in the bottom side of the dialog shows the history sending network variables.



4.2. *Device* menu

4.2.1. *Clear*

The Log is cleared by *Clear* command.

4.2.2. *Save, Save as*

The Log is saved into file by *Save* or *Save as* command.

4.2.3. *Monitor*

- *Enable*

  Restart to monitor network.

- *Disable*

  Stop to monitor network.

4.2.4. *Exit*

Close the LIS006Z dialog and exit it.

4.3. *Help* menu

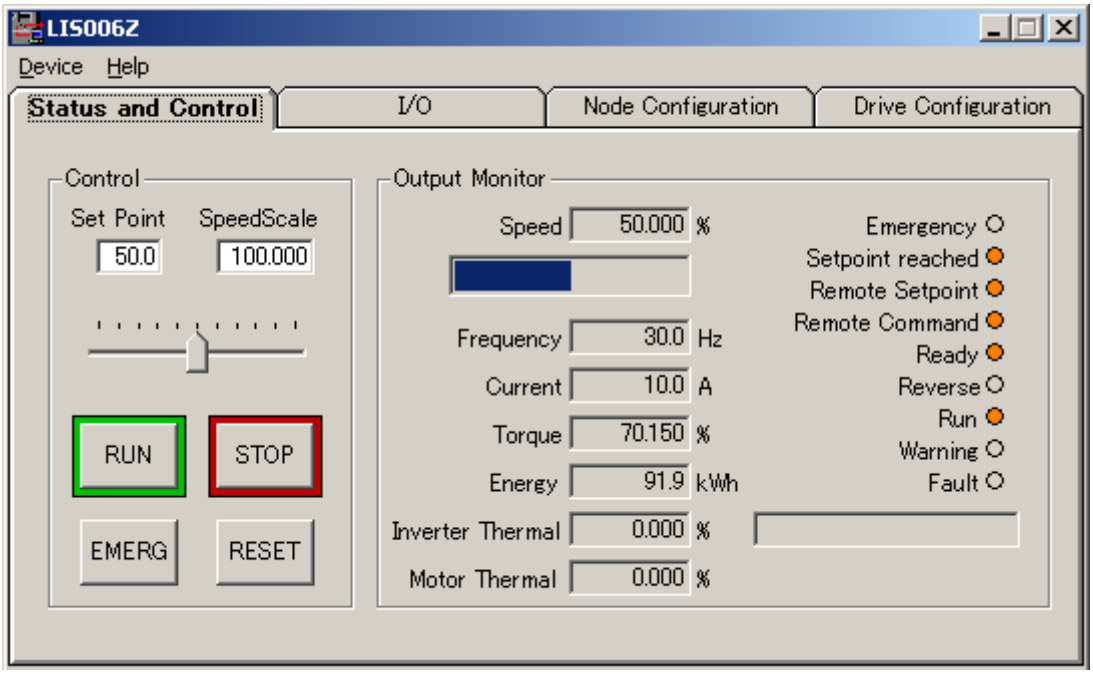
Help | *About this plug-in* command shows the plug-in information.

4.4. Status bar

It displays device name, node status and object status.

4.5. “Status and Control” Tab

Lower dialog appears by selecting “Status and Control” tab.



The functions of objects are shown in the table below.

See VF-PS1 LONWORKS option communication function manual for network variables details.

- “Control”

Objects	network variable	value	launch
“SetPoint” text box SetPoint slider	nviDrvSpeedStpt	0.0 to 100.0% Only for value	ENTER key Changed
“SpeedScale” text box	nviDrvSpeedScale	-163.840 to 163.830%	ENTER key
[RUN] button	nviDrvSpeedStpt	{“SetPoint”, 1}	Click
[STOP] button	nviDrvSpeedStpt	{“SetPoint”, 0}	Click
[EMERG] button	nviEmergOverride	EMERG_SHUTDOWN	Click
[RESET] button	nviResetFault*1	{0,0}→{100.,1}→{0,0}	Click

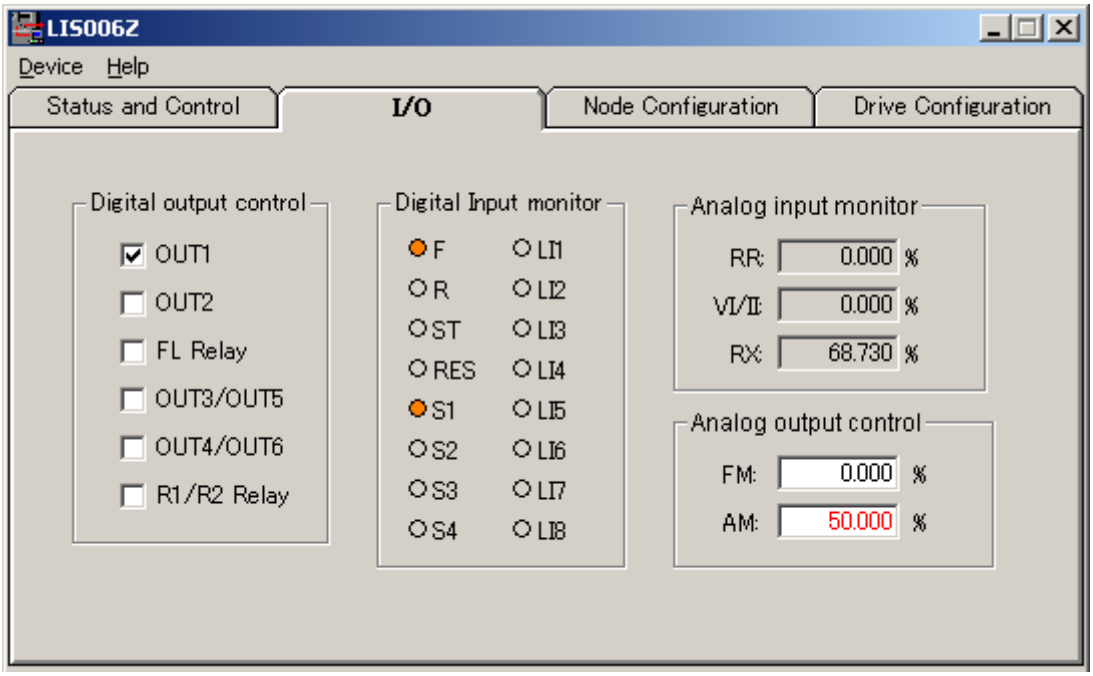
*1: In emergency stop mode by nviEmergOverride network variable, EMERG_NORMAL is sent.

- “Output Monitor”

Objects	network variable	Description
“Speed” text box Speed bar	nvoDrvSpeed	Output speed of the inverter
“Frequency” text box	nvoInvOutFreq	Output frequency of the inverter
“Current” text box	nvoDrvCurnt	Output current of the inverter
“Torque” text box	nvoTorque	Output torque of the inverter
“Energy” text box	nvoDrvEnergy	Cumulative input energy of the inverter
“Inverter thermal text box	nvoDrvThermal	Inverter overload
“Motor thermal” text box	nvoMotorThermal	Motor overload
Status lamps	nvoStatusWord	The inverter status
“Fault” text box	nvoAlarmWord	Fault information of the inverter

4.6. “I/O” Tab

Lower dialog appears by selecting “I/O” tab.



The functions of objects are shown in the table below.

See VF-PS1 LONWORKS option communication function manual for network variables details.

- “Output control” *1

Objects	network variable	value	launch
“Digital output” check box	nviDigitalOutput	{0,0, ... , 0}	Check OFF Check ON
“Analog output” text box	nviAnalogOut1 nviAnalogOut2	0.0 to 100.0% *2	ENTER key

- “Input monitor”

Objects	network variable	Description
“Digital Input” lamps	nvoDigitalInput	Monitor for logic input terminals Orange color means ON, gray means OFF.
“Analog Input” text box	nvoAnalogIn1 nvoAnalogIn2 nvoAnalogIn3	RR terminal monitor VI/II terminal monitor RX terminal monitor } 10V = 100.000% *3

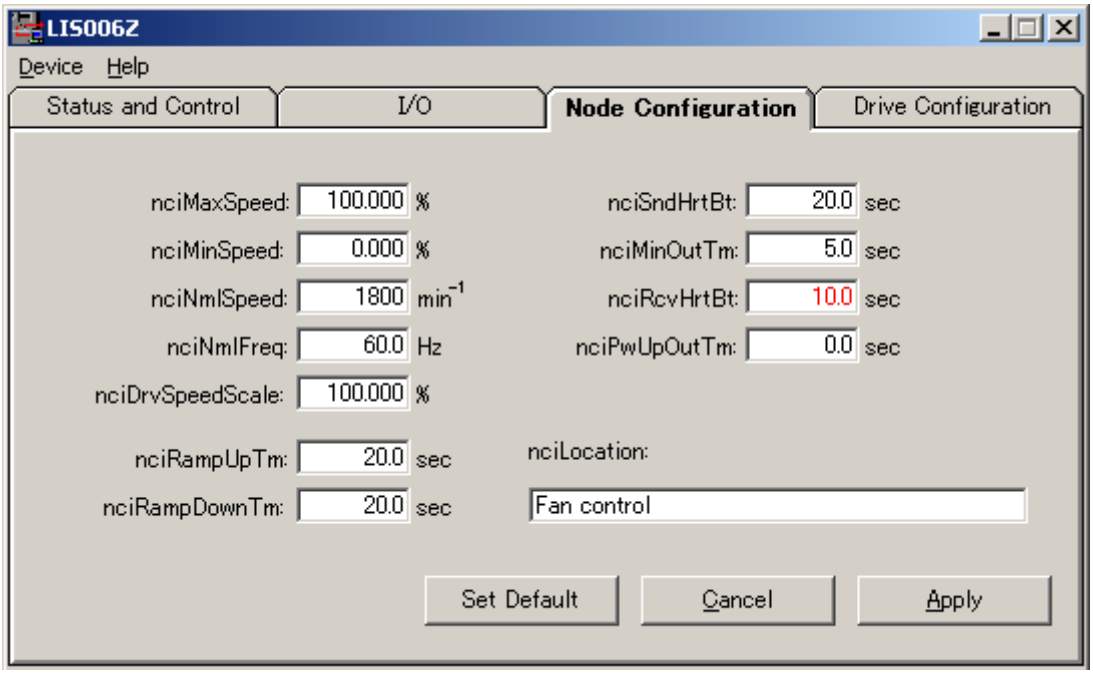
*1: The inverter parameter setting is required to use these functions.

*2: The gain between the input value and output voltage can be adjusted by your software or external impedance.

*3: The gain between input voltage and monitor value is adjustable by the inverter parameter.

4.7. “Node Configuration” Tab

Lower dialog appears by selecting “Node Configuration” tab.



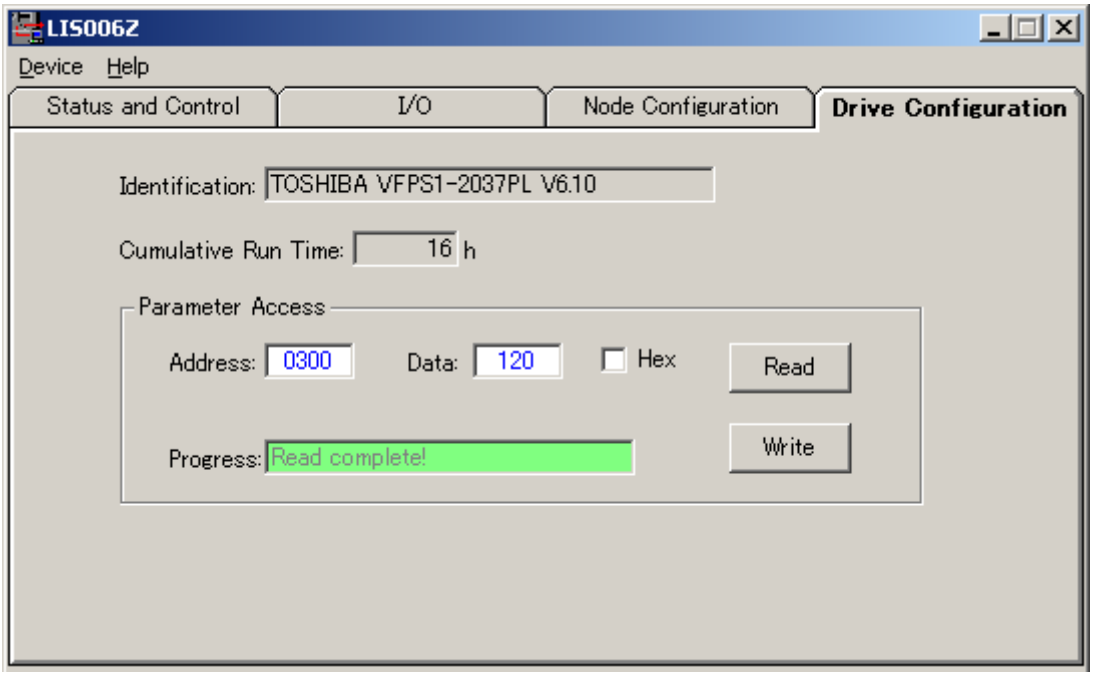
Input the configuration property text from keyboard. Changed value shows red text, it is not transmitted to the node yet. The functions of buttons are shown in the table below.

Objects	Function
[Set Default] button	All configuration properties are set to the default value. They are not transmitted to the node.
[Cancel] button	The configuration properties changed the value (red color) are returns to previous value.
[Apply] button	The configuration properties changed the value (red color) are transmit to the node.

See VF-PS1 LONWORKS option communication function manual for configuration properties details.

4.8. “Drive Configuration” Tab

Lower dialog appears by selecting “Drive Configuration” tab.



The functions of objects are shown in the table below.

See VF-PS1 LONWORKS option communication function manual for network variables details.

- Monitor

Objects	network variable	Description
“Identification”	nvoTypeVer	Inverter commercial reference, software version
“Cumulative Run Time”	nvoDrvRunHours	Cumulative run time for the inverter

- “Parameter Access” (by using nviParamCmd, nvoParamResp)

Objects	Function
“Address” text box	Input the access address text from keyboard.
“Data” text box	In case of READ: The data is shown in this text box (blue). In case of WRITE: Input the data text from keyboard.
“Hex” check box	Checked: “Data” value is transferred to Hexadecimal. Unchecked: “Data” value is transferred to decimal.
“Progress” text box	It shows the parameter access progress.
[READ] button	nviParamCmd is propagated with LN_REPORT_VALUE command.
[WRITE] button	nviParamCmd is propagated with LN_LEARN_VALUE command.

5. Specifications

Item	Specifications
Applicable model	VF-PS1 series that LIU006Z is installed
Performance environment	On the Windows computer - which the LNS application is installed - which is connected to LONWORKS network
LNS command	Browse, Configure
Language	English
Functions	Controls and monitors the inverter I/O controls and monitor Configuration for the node Inverter maintenance