FORCE GAUGE FGV-DXY SERIES Add-in software for Excel Toriemon USB Ver1.02 INSTRUCTION MANUAL

1. ToriemonUSB Information

Toriemon USB is an add-in application software for MS ® Excel. Toriemon USB is used exclusively for the FGV-XY/HXY digital force gauge series.

Torimon USB Operating Environment:

Windows® 2000/XP/7 (DOS/V compatible machine), Microsoft® Excel (2000 or greater). The Set up procedure contained in this manual shows a typical Windows® display.

2. Set up

Before using ToriemonUSB, you will need to setup the FGUSB (force gauge) driver and ToriemonUSB.

(1) Opening the downloaded files

When you open the downloaded file "toriemonUSB_ENG_USA_download_v***.exe" You will see the Files or folders as shown below.

☆ *** shows its versions

• ToriemonUSB_ENG_USA_v***. msi

ullet	FGP Driver_v200	amd64	64bit OS
		x86	32bit OS

① Installation Driver

Double-click the "dpinst.exe" in the folder of "FGP Driver_v200" , please start the installation of the

driver software.

Please note that Installation software varies depending on the version of the Windows 7.

lacksquare	64 bit : execute	"dpinst.exe"	in the folder of	"amd64"
ullet	32 bit : execute	"dpinst.exe"	in the folder of	"x86"

)rganize 🔻 🛛 Include in	n library 🔻 Share with 👻 Burn	New folder			III 🔻 📶
Favorites	Name	Date modified	Туре	Size	
Desktop	📕 Driver	5/23/2013 1:18 PM	File folder		
🚺 Downloads	💐 dpinst	2/8/2010 9:36 PM	Application	1,026 KB	
🖳 Recent Places	🔮 DPInst	9/14/2011 10:35 AM	XML Document	3 KB	
E	🔋 fgp	9/14/2011 10:35 AM	Icon	1 KB	
 Libraries Documents Music Pictures Videos Computer OS (C:) 	FGPSeries	8/19/2011 6:15 PM	Bitmap image	117 KB	

(in case of 64bit)

Click "dpinst.exe" and start installation. Please follow the direction as shown below.

NIDEC-SHIMPO USB Device Dr	iver Installer	ו		
	Welcome to NIDEC-SHIMPO USB driver Installation for FGP series! This wizard helps you install the NIDEC-SHIMPO USB device drivers for FGP series.			
	To continue, click Next.			
	Click the [Next	>], and proceed to the next.		
NIDEC-SHIMPO USB Device Dr	river Installer	ו		
The NIDEC-SHIMPO US	8 device drivers are now installing			
Please wait while the drivers install. This may take some time to complete.				
	< Back Next > Cancel			
		-		
NIDEC-SHIMPO USB Device D	river Installer			
	Completing the NIDEC-SHIMPO USB device driver installation The drivers were successfully installed on this computer. You can now connect your device to this computer. If your device came with instructions, please read them first. Driver Name Status VIDEC-SHIMPO (WinU Ready to use			
	< Back Finish Cancel			

Finish by clicking the [Finish]

• Installation package

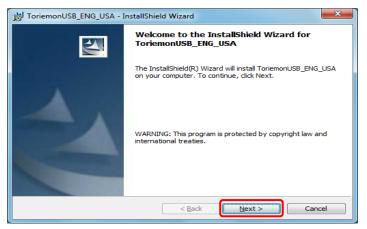
Double-click "ToriemonUSB_ENG_USA_v***.mot" in the folder and start installation.

☆ *** shows its versions

ToriemonUSB_ENG_USA_v1.02.msi

• Installation process

The screens shown below will appear. Follow the direction and perform installation



Click the [Next>], and proceed to the next.

谩 ToriemonUSB_ENG_USA - InstallShield Wizard	x	
License Agreement Please read the following license agreement carefully.	4	
Terms of Service		
ToriemonUSB (hereinafter referred to as "this software") is free of charge to use. When using this software, please read the instructions below carefully. By using this software, the user shall be subject to the terms and conditions below.		
1. Rights Nidec-Shimpo Corporation (hereinafter referred to as "the company") shall grant the user a license to download this software free of charge and use it only for our company's products; provided, however, that the company shall retain all rights including but not limited to the convrisits related to this software and annicable		
I accept the terms in the license agreement I do not accept the terms in the license agreement		
InstallShield		
< Back Next > Cancel		



Please check the "I accept the terms in the license agreement." only

if

you can agree to the license agreement.

波 ToriemonUSB_ENG_USA - InstallShield Wizard	
Customer Information	
Please enter your information.	
User Name:	
Organization:	
Install this application for:	
InstallShield	Click the [Next>], and proceed to the next.
< <u>B</u> ack <u>Next</u> Cancel	of tok the [Next/], and proceed to the next.
	-
J ToriemonUSB_ENG_USA - InstallShield Wizard	
Ready to Install the Program	
The wizard is ready to begin installation.	
If you want to review or change any of your installation settings, dick Back. Click Cancel to	
exit the wizard. Current Settings:	
Setup Type:	
Typical	
Destination Folder:	
User Information:	
Name:	
Company:	
	Click [Install] to start the installation.
< Back Install Cancel	
F ToriemonUSB_ENG_USA - InstallShield Wizard	
Installing ToriemonUSB_ENG_USA	
The program features you selected are being installed.	
Please wait while the InstallShield Wizard installs ToriemonUSB_ENG_I	JSA.
This may take several minutes.	
Status:	
InstallShield	
< Back Next >	Cancel
	×
i ToriemonUSB_ENG_USA - InstallShield Wizard	
InstallShield Wizard Completed	
The InstallShield Wizard has successfully installe ToriemonUSB_ENG_USA. Click Finish to exit the	d wizard.
and the second sec	
No. of Concession, Name	
< Back Finish	Cancel
	Finish by clicking the [Finish]

(3) Installation of the USB Driver & ToriemonUSB (for Windows 2000, XP)

① Installation Driver

Please turn the force gauge on (press the "POWER" key and measuring value will be displayed on the LCD), then connect your PC and the force gage by USB cable.

Shortly after that, following picture will be shown. Please check "Install from a list or specific

location (Advanced)", then click the "Next"

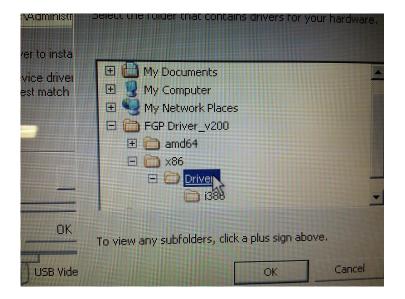
Found New Hardware Wizard	
	Welcome to the Found New Hardware Wizard
	This wizard helps you install software for:
	FGUSB
	If your hardware came with an installation CD or floppy disk, insert it now.
	What do you want the wizard to do?
	Install the software automatically (Recommended) Install from a list or specific location (Advanced)
	Click Next to continue.
	< Back Next > Cancel

Following picture will be shown, then please select "Search for the best driver in these locations".

2.1. Then, the screen shown below appears. Click "Browse" and select the "driver" under the X86 folder as shown in the photo in the next page.

Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
✓ Include this location in the search: xxxxx FGP Driver_v xxxx \Windows XP
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

X Please select "Driver" in the folder in "X86" under FGP Driver V.2.00



After that, go through the displayed dialog, then following picture is shown. Please click the "Finish". Setting for Hard wear is done.

Found New Hardware Wizard		
	Completing the Found New Hardware Wizard	
	The wizard has finished installing the software for:	
	FGUSB	
	Click Finish to close the wizard.	
	< Back Cancel	

(2) Installation ToriemonUSB

Please install in the same way as "2. Installation of the USB Driver & ToriemonUSB (for Windows 7)-(2) InstallationToriemonUSB".

* If the installation failed, please start from the beginning again.

(4) How to Start "ToriemonUSB"

After installation, please open the folder "ToriemonUSB_ENG_USA" and make sure there is "ToriemonUSB_ENG_USA.xla" as follows.

The location of the "ToriemonUSB_ENG_USA" folder is different in 64bit and 32bit of Windows7.

- 64 bit : execute "C: \Program Files(x86) \ToriemonUSB_ENG_USA"
- 32 bit : execute "C: \Program Files\ToriemonUSB_ENG_USA"

Please double click "ToriemonUSB_ENG_USA.xla" to start Excel. Please open a new bookfile.

• Excel 2007, 2010

Trust Center Settintgs

When you first use the ToriemonUSB, please perform the following settings.

- ① Open the "Options" from the "FILE" menu of Excel, and then click the "Trust Center Settints" button on the "Trust Center".
- ② Select "Disable all Macros with notification" in "Macro Settings".
- ③ Once finish Excel, then start Excel again.

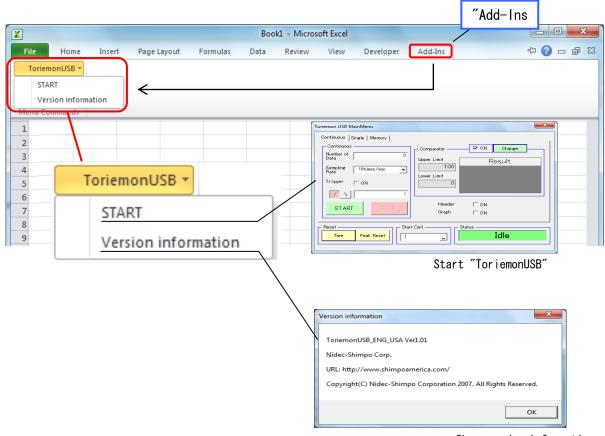
Select "Available Macro" on security window.

Excel Options			the Monthland	? <u>× </u>	
General Formulas Prodnig Save Language Advanced Customize Ribbon Quick Access Toolbar Add Ibs	Protecting your privacy	acy. For more information al avacy statement ement.Program our privacy and security from string	puter secure and healthy. bout how Microsoft Excel helps to protect your priva Office.com.		
		Trust Center Trusted Doublishers Trusted Locations Trusted Documents Add-ins Attract Settings Protected View Message Bar External Content Privacy Options	Macro Settlings	macros entially dangerous code can r	

If you Click "Add-Ins" menu tab , "ToriemonUSB" menuappears.

Click "START" to start "ToriemonUSB"

Click "Version information" to see software version.



Show version information

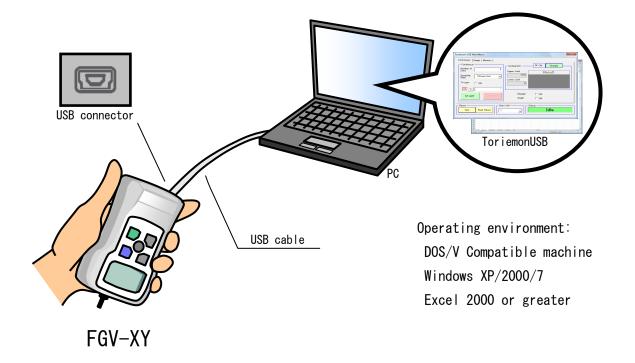
• Ecxel 2000, 2003

In the Tool bar of Excel, please select "Tool" - "Macro" - "Security", and set middle level.

Once finish Excel, then start Excel again. Select "Available Macro" on security window.

After that, please make sure there is "toriemonUSB" on the menu.

3. Connection



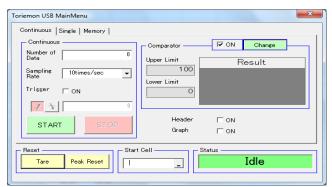
4. Windows and Features

(1) Start-up

Turn the FGV-XY /HXY force gauge on, (press POWER), then connect to PC by USB. After the PC recognizes the connection, start "Toriemon USB" by clicking "START" of ToriemonUSB on menu bar.

(2) Main Window

The following screen appears when Toriemon USB is started.



(A) Mode for data download

There are three different modes for downloading: Continuous, Single, Memory (Memory is data sorted in the force gauge)

1. Continuous	: allow you to download data continuously. Comparator (HI-LO) / Graph feature is available.
2. Single	: allows you to download one data point and the peak value. Comparator is available.
3. Memory	allows you to download memory data which is in force gauge and

(B) Reset

- 1. Tare icon : Tare of the force value.
- 2. Peak reset icon : Reset the peak value.

(C) Start Cell

Enter cell address. Or when you click a right button, present cell for Excel is shown. The cell which you choose is active when data is downloaded

(D) Status

Show status of downloading

X The following message appears if there is a problem with connection or if the FGV-XY force gauge is not turned on.



Toriemon USB MainMenu	x
Continuous Single Memory Continuous Number of 0 Data 0 Sampling 10times/sec • Trisser ON	Comparator Von Change
START STOP	Header I ON Graph I ON
Reset Star	t Cell Status Idle

(A) Continuous

1. Captured Number:

Set the number of data (from 1 to 65,000) to be downloaded. Initial value is 0. You can collect up to 65,000 data points (maximum) while the number stays "0".

2. Captured Interval:

10, 20, 50, and 100 times / sec You can choose from menu, Initial value is 10 times/sec.

3. Data collection Trigger:

 $C \not\models k \rightarrow d$ to switch trigger modes.



: When the measuring data is more than trigger value, start downloading.

: When the measuring data is lower than trigger value, start downloading.

Value of trigger is from -9999 to +9999. Initial value is O. You can choose to turn on or off the trigger by checking the box.

4. Start:

Start downloading continuous data. Once "start" is clicked, all icons can not be used until you click "stop".

5. Stop:

Stop the data download (only available during "continuous" data download).

(B) Comparator (Hi and Lo limits)

1. (Check	the	box	for	comparator	ON	/	0FF
------	-------	-----	-----	-----	------------	----	---	-----

2. Upper/Lower limit:

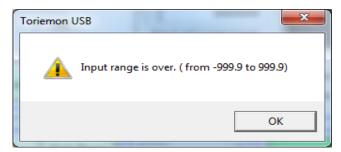
Show upper/lower limit. Measurement range is from -9999 to 9999. Initial value is 0, which means no limitation.

3. Change button:

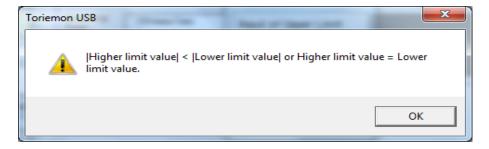
After input the value, click "OK".

Toriemon USB
Input of Upper Limit
100
Input of Lower Limit
0
OK Cancel

Even though input value is entered, if it is outside of the force display value, An warning indication will appear after clicking "OK".



If lower limit is bigger than upper limit, a warning indication will appear after clicking "OK".



4. JUDGMENT:

Just after you download data, a judgment for the upper / lower limit value is performed. The result is shown in the judgment window. If "OK" is displayed, the downloaded (data)

is

with in the previously set limits.

• The background and the font displays in blue as below :

— Comparator ———	ON 🗹	Change
Upper Limit	R	esult
100 Lower Limit	()K
0	L L	Л

• If the downloaded data is over the Upper limit : "NG" in red is displayed (downloaded data > Upper limit \rightarrow the background / font is red)

• If the Max value is less than the Lower limit : "NG" in red is displayed (Upper limit < Lower limit \rightarrow the background / font is red)

Comparator —	I ON	Change
Upper Limit	R	lesult
100 Lower Limit	N	IG
0		

If judgment is not performed, nothing is displayed. (gray)

— Comparator ———	ON 🗹	Change	
Upper Limit	R	esult	
Lower Limit			
0			

1. Header:

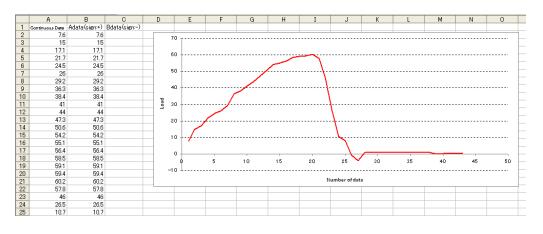
Select to collect data with or without a header in the Excel sheet output. The initial setting is OFF.

Each time after completion of a download, it turns OFF.

	A	В	С	D
1	Continuous Data	Adata(sign:+)	Bdata(sign:-)	
2	0	2		
3	0	1.8		
4	-0.1	9.7	0.1	
5	-0.1	17.2	0.1	
6	0	22.4		
7	0	29.9		
8	0	34.9		
9	-0.1	41.1	0.1	
10	-0.1	44	0.1	
11	0	39.7		
12	0	23.7		
13	0	7.7		
14	-0.1	2.5	0.1	
15	-0.1		0.1	
16	4.4	4.4	9.3	
17	10	10		
18	20.8	20.8	0.9	
19	25.8	25.8	0.5	
20	27.7	27.7	0.4	

2. Graph:

Continuous data is translated in a new graph sheet when you check the GRAPH box. When downloading the continuous data with check box ON, another sheet (Graph1...) is added on the end of the sheets, and the graph is displayed. (see below) When plotting a graph, the data download starts in cell "A1" of Graph1 with the header shown, regardless if the "Header" is ON or OFF.



After composing the graph, the following window will be shown.

Next, click a "Return to former sheet" to go back to view a previous worksheet.

Toriemon USB	×				
Comparator Upper Limit 100 Lower Limit	Result OK				
Return to Previous Sheet					

	Toriemon USB
Judge is performed	Judge is not performed

(4) Single data download

Continuous Single Memory	
- Single	Comparator ON Change
Current Data	Upper Limit Result
Peak Data	Lower Limit
Cell © Down C Right	Header (CON
Reset	Start Cell Status Idle

(A) Single data download

1. Current data button:

When you click "Current Data" button, you will download the single (one) data into a selected cell.

2. Peak data button:

When click "Peak Data" button, you will download a \pm peak value. After downloading this peak data, the data will be automatically reset.

3. Cell:

The selection of the Data feed direction is available for the cell of a single data point.

```
(B) Comparator
```

1. JUDGMENT: Judgment will be performed at the same time as downloading the data. The result is then shown on JUDGMENT. Judgment will not correspond to the Peak value. 0K ÷ The measured data is within a limit. (Background/font: blue) HIGH : The measured data is higher than upper limit. (Background/font: red) LOW The measured data is lower than lower limit. (Background/font: red) : BOTH Upper limit < Lower limit: the measured data is higher than the upper limit : and lower than the lower limit. (Background/font: red) Nothing : The "judgment" is not performed. (gray)

1. Header:

Select with or without of header output. Initial setting is OFF. If Header is "ON", "Current Data" will appear on the top (Single data point), "+ Peak" / "-Peak" will appear on the top (Peak data). After each completion of a download, it turns OFF.

(5) Memory data download

Toriemon USB MainMenu	×
Continuous Single Memory	
Memory mode Number of memory	- Comparator
Single Memory Mode Memory Data Measurement Import Clear START STOP	Change Upper Limit Lower Limit
Reset Start Cell Status	Idle

(A) Memory Mode

Select Single / Continuous / Standard mode by using the pull-down menu. By selecting, you can then

change the memory mode of the FGV-XY/HXY force gauge.

When running this software or changing the mode of downloading, the memory readout from the force gauge is then shown in the current memory mode.

(B) Memory data

1. "Import" button:

When clicking this button, data will be downloaded in the memory mode selected at the force gauge.

If there is no memory data available, the display will read 'No memory data".

	A	В	С	
1	Single Merr	nory		
2	Unit	lb		
3	Number of data	5		
4	+MAX	53.3		
5	-MAX	0		
6	+MIN	16.7		
7	-MIN	0		
8	AVG	41.4		
9	DEV	13.27		
10	Upper Limit	100		
11	Lower Limit	0		
12	Data No.	Result	Load	
13	1	0	16.7	
14	2	0	41.7	

AOE

20

Continuous memory data screen display Single memory data screen display

		A	В	С	
	1	Continuous	s Memory		
	2	Unit	lb		
	3	Number of data	5		
	4	+MAX	29.6		
	5	-MAX	0		
	6	+MIN	16.8		
	7	-MIN	0		
	8	+Peak	31.6		
	9	-Peak	0		
18	10	AVG	20.7		
	11	DEV	5.06		
	12	Upper Limit	100		
	13	Lower Limit	0		
	14	Data No.	Result	Load	
	15	1	0	16.9	

	A	В	С	D	E	F	G	Н
1	Standard M	lemory						
2	Unit	lb	Upper Limit	100	Lower Limit	0		
3	No.	+MAX	-MAX	+MIN	-MIN	+Peak	-Peak	Last_data
4	1	0	-0.2	0	-0.2	0	-0.2	-0.1
5	2	0	0	0	0	0	-0.1	-0.1
6	3	38.1	0	36.2	0	41	0	36.4
7	4	52.6	0	31.2	0	63.9	0	31.2
8	5	50.2	0	46	0	54.3	0	46
9								

Standard memory data screen display

2. "Clear" button:

If you click the "Clear" button, the following dialog will be displayed.

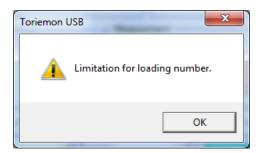


Click "Yes", and the memory data will be cleared, from the mode selected on the force gauge.

(C) Number of memory data points

The number of memory data points in the selected memory mode is shown.

When running this software or changing the data download mode, the number of the read outs in the memory mode of the force gauge is shown as a number.



(D) Measurement

1. "START" button:

In the selected memory mode, start downloading the memory data from the force gauge.

In the case of Continuous/Standard memory mode, stop the data collection/measuring by clicking

STOP.

If the memory is full, "Limitation for loading number" is displayed. Measuring cannot start.

2. "STOP" button:

When you click this button while measuring, stop measuring. (Unavailable in single mode)

(E) Comparator

Setting and showing the upper / lower limit value. (same as in section $4_{(3)}$)

(6) Communication Error

When the power supply of the force gauge is turned off, or while ToriemonUSB is in use, or the USB

cable is detached, the following messages are displayed.

riemon USB	
FG communication fa	ailed. tion with force gauge or power supply.
	ОК
iemon USB	×
Communication e Please check con	error happens. nection with force gauge or power supply.
	ОК
mon USB MainMenu	OK
ontinuous Single Memory - Continuous	Comparator I ON Change Upper Limit Result
Number of 0 Sampling 10times/sec • Trisser ON	Comparator ON Change Upper Limit Result

If the messages appear, check the connections or the power supply of the force gauge. Note. Please operate again after the PC/computer recognizes the FGV-XY force gauge. If the communication is not re-established, end or exit the ToriemonUSB program and disconnect USB cable from the pc/computer. Return to the first procedure to re-establish communications. Afterwards, continue with your measurements.

5. Trouble Shooting

- Can not install "ToriemonUSB" and "FGP Driver".
 - If you can not install, please install while logged on as an administrator.

Can not start "ToriemonUSB". (Menu does not appear in Excel)

• Please check the security settings for macros.

• Depending on the version of Excel, tab menu that is displayed is different. Please refer to P10.

• Can not communicate

- Please install the "ToriemonUSB" after performing the installation of "FGP driver".
- Please check the connection of the USB cable.
- Please confirm driver is installed.

For information on installing the driver, it is possible to check from the "Device Manager". Please check that the "FGUSB" is displayed "USB (Universal Serial Bus) controller" in "Device Manager".

• Uninstall the "FGP Driver" and "ToriemonUSB" when you do not solve the problem, please install again in the order of "FGP Driver" and "ToriemonUSB"

the