

User's Manual

DACELL Data Logger Software Manual (PC Program)

USER: Customers of DACELL CO., LTD.

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1. General

This manual provides a detailed description regarding the test methods and other functions to operate the DACELL Data Logger, the software supplied by DACELL Co., Ltd.

2. Test Methods

Each sequence of the test methods and operations are as follows.

- ① Program start and serial number input
- ② Channel and port setting
- \bigcirc Data search
- ④ Data save



1) At the first boot after installation, the screen for inputting the serial number is displayed as shown in the above figure.

2) Enter the serial number provided by DACELL Co., Ltd. and then press the 'CHECK' button.

* The above window will be displayed only at the first program boot. After you have entered the serial number correctly, the above screen will no longer be displayed.

* If the correct serial number is not entered, the program will exit automatically. When running the program again, the serial number entry window will be displayed.

② Channel and Port Setting

	PORT	MODEL	DIMENSION
CH.1	COM1 💌	DN10W	kgf
CH.2	COM2	DN10W	kgf
V CH.3	COM3 💌	DN10W	kgf
CH.4	COM4	DN10W	lbf
V CH.5	COM5	DN10W	lbf
CH.6	COM6	DN10W	lbf
SEARCH		APPLY	CANCEL

1) After the serial number has been entered correctly, the Channel Setting window will be displayed as shown in the above figure.

2) Select the number of channels desired or the same number of channels as the connected models at the selection box that appears at the left of the window.

3) Select the port of model connected from the "PORT" (If you need to update a port, press the "SEARCH PORT" button).

4) Select the protocol of the connected model from "MODEL" (choose one among DN10W, DN550N).

5) Enter the unit of measurement data at "DIMENSION".

6) Press "INITIALIZE" button, and the initialization screen will appear as shown in the following figure.

	PORT		MODEL		DIMENSION
CH.1	COM1	-	DN10W	-	
CH.2	COM2	v	DN10W	•	
CH.3	COM3		DN10W		
CH.4	COM4		DN10W		
CH.5	COM5	v	DN10W		
CH.6	COM6		DN10W		
SFARCH	PORT	INITIAL 17F	APPI	v	CANCE

7) After completion of the channel and port setting, press the "APPLY" button to disable the Channel Setting window (If the same port is selected in different channels, the following warning message will be displayed and the Channel Setting window will not be disabled).

	Please do not select the same ports in different channels.
If the same port is selected at a different channel	ОК

* The address of the model you want to use the PC program for data logging shall be set to "01" (Number 1).

*

When executing the initial program, the "CANCEL" button is disabled in the lower left of the Channel Setting window. If you want to set the channels again during the execution of a program, the "CANCEL" button is enabled.

DACELL Dat	ta Logge	r.								
DACI	ELL					D	ACELL		A LOG	GER G tech
			_					Ż	Auto scale Y 🤇	Auto scale X Extension X Contraction X Clean Up
15- 14- 13- 12- 10- 9- 8- <u>5</u> 6- 5- 4- 3- 2- 1- 0-	15- 14- 13- 12- 11- 10- 9- 8- 7- 5- 6- 5- 4- 3- 2- 1- 0-	15- 15- 14- 14- 13- 13- 12- 12- 11- 11- 10- 10- 9- 9- 8- 8- 7- 7-5 6- 6- 5- 5- 4- 4- 3- 3- 2- 2- 1- 1- 0- 0-	15- 14- 13- 12- 11- 10- 9- 8- THD 6- 5- 6- 5- 4- 3- 2- 1- 0-	15- 14- 13- 12- 10- 10- 10- 10- 10- 10- 10- 10		00:02:	.00 00:C		X:04:00 00:00	55:00 00:06:00 00:07:00 00:08:00 00:09:00 00:10:00
2	_									
COMM.					MOD	EL .	TREND	Y MIN.	Y MAX.	DATA SAVE
-	CH.1		1.37	kgf	DN10W			0	15	SELECT SAVE ITEMS DIGITAL VIEWER
-	CH.2		3.37	kgf	DN10W			0	15	PATH B DATA VIEWER
-	CH.3		5.49	kgf	DN10W			0	15	INTERVAL 1 Hz (1 Sample/S) TORQUE OFFSET
-	CH.4		7.65	lbf	DN10W			0	15	SAVE SAVE STOP CHANNEL SETTING
	CH.5		9.03	lbf	DN10W			0	15	тіме 00:00:00 0
	CH.6		11.75	lbf	DN10W			0	15	PROGRAM STOP

1) At the center of the main window, a data graph of the model connected to each channel is drawn in real time. The graph data allows the most recent 10 minutes' data to be displayed on the screen. Data save can be enabled continuously regardless of graph display status.

2) The "COMM" in the lower left of the main window displays the communication status of each channel. If the communication link is disconnected due to the removal of a cable or power failure, the lamp will not light up at the channel, if applicable (to restore the communication status, you only need to eliminate the cause of failures; cable reconnection and power problem solving. Without restarting the program, the communication lamp will light up again).

3) At the right of communication status ("COMM"), the digital value and an input unit, and the selected protocol ("MODEL") are displayed for the real time measurement data of each channel.

4) At the right of protocol display ("MODEL"), there is a graph setting area. At "TREND", set whether the graph is displayed at the desired channel data and the graph color, etc. At the "Y MIN." and "Y MAX.", you can set the maximum and minimum values of the Y-axis at the desired channel graph (Enabled only if "Auto scale Y" button is OFF on top of the graph).

5) There are 5 buttons on top of the graph. Their functions are as follows.

i) Auto scale Y: Auto scale all Y axes of the displayed graph. "Y MAX", which appears in the lower part of the window, is disabled when the applicable button is positioned to ON and enabled when the button is positioned to OFF.

ii) Auto scale X: Auto scale X axis (time) of graph. Two "Extension X" and "Contraction X" buttons, which appear to the right of the window, is disabled when the applicable button is positioned to ON and enabled when the button is positioned to OFF.

iii) Extension X: Enabled when the Auto scale X button is positioned to OFF and used to zoom in the X-axis (time).

iv) Contraction X: Enabled when the Auto scale X button is positioned to OFF. Zoom out the X-axis (time).

v) Clean Up: Initialize the accumulated graph data. Clear the graph that has been drawn up to now and then initialize the graph drawing.

** When the "Auto scale Y" button is positioned to OFF, the "Y MIN." and "Y MAX." are disabled, displaying "0".

④ Data Save



1 Press "SELECT SAVE ITEMS" at the "DATA SAVE" in the lower center of the main window, and the select save items window will appear as shown in the following figure.

-	-
CH.1	CH.4
CH.2	CH.5
CH.3	CH.6
All	Initialize

2) To save all measurement channels, press the "All" button to select the entire channel.

3) To cancel all selected channels, press the "Initialize" button.

4) Select the desired channel and then press the "OK" button to disable the Select Save Items window.

5) Set the name and directory of file to be saved at "PATH" (If a save is begun without a designation, the file saved as 'save start time' will be automatically created to save the data in the folder of C:\DC Data Logger\Data directory).

6) Set the data save interval at "INTERVAL" (Select one among 0.1, 1, 2, 5, 10 Hz).

7) Press the "SAVE" button to save the data. When the data save is started, the graph will be initialized to draw the new graph as though the "Clean Up" button was pressed. (If no one channel is selected at the Select Save Items window, the warning message window will be displayed and the save will be disabled as shown in the following figure).

		×
Please che	ck the sa	ve items.
	ОК	

8) Data save time will be displayed at "TIME".

9) After the desired data has been saved, press the "STOP" button. The saved data search window will be displayed automatically as shown in the following figure and the data saved up until the "STOP" button is pressed will be displayed.



* The channel not selected in the Channel Setting window will be disabled at the Select Save Items window.

* For a more detailed description on the Save Item Search window, refer to Para. 3.

3. Other Features

The following paragraph provides information on additional functions of the program.

- 1Instantaneous Value Monitoring
- 2 3 Save Data Search
- Data Offset
- 4 Channel Setting

This shows the instantaneous value of measured data in another (zoom in) window.



1) Press the "DIGITAL VIEWER" button in the lower right of the main window to enable the instantaneous data monitoring window.



2) To exit monitoring, press the "EXIT" button at the bottom of the window.

* The channel not selected in the Channel Setting window will not be shown in the Instantaneous Data Monitoring window.

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31											lime(sec)			
<u> </u>														
COMM.						MOD	EL	TREND	Y MIN.	Y MAX.	DATA SAVE			
-	CH.1			1.37	kgf	DN10W			0	15	SELECT SELECT SAVE ITEMS		IGITAL VIEWE	ER
-	CH.2			3.37	kgf	DN10W			0	15			data viewef	R
-	CH.3			5.49	kgf	DN10W	•		0	15			OROUE OFFSE	ET
-	CH.4			7.65	lbf	DN10W	•		0	15			ANNEL SETTI	ING
-	CH.5			9.03	lbf	DN10W			0	15	SAVE SAVE STOP			
-	CH.6		1	11.75	lbf	DN10W			0	15		P	ROGRAM STO	P

1) Press the "DIGITAL VIEWER" button in the lower right of the main window to enable the save data search window (simultaneous research up to 4 total channels).



2) Press the "Auto scale" button in the upper right of the window to auto-scale the graph in the Y-axis.

3) Select the channel to display from among "X scale", "Y scale 1", "Y scale 2", "Y scale 3", and "Y scale 4" at the bottom of "Auto Scale" button. (Select "None" to hide the graph).

4) The color of each graph can be changed through the color box in front of the channel select portion.

5) Press "+", "-", and "INITIALIZE" button to zoom in, zoom out, and auto scale the X scale.

6) Press the "SUMMARY" button in the lower right of the window, and the header input window, which allows the creation of a simple report, will be displayed.

니험 일시	2016년 06월 19일 20:05:49	
이험 업체	Dacell	
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험 상세	Test	
	입력 완료	

7) After a completion of header input, press "Complete", and a simple report file will be created in the directory of C:\DC Data Logger\Summary. Its file name is the time the button is pressed.

File	Edit Optio	n Help					
	1	2	3	4	5	6	7
1	시엄입시	2016년 06월 19일 20:11:30					
2	시험업체	Dacell					
3	시험인권	Dacell Test					
4	시털상세	Test					
5				6			
6		CH.1	CH.2	CH.3	CH.4	CH.5	CH.6
7	Max.	1.9999	3.9997	6.0000	7.9999	10.0000	11.9999
8	Min.	1.0000	3.0003	5.0003	7.0007	9.0002	11.0006
9	Avg.	1.4996	3.5028	5.4960	7.5066	9,4952	11.4929

8) For the file with the CSV file extension, the maximum, minimum and mean value of each channel for the saved data will be displayed under the header.

9) After a completion of a data search, press the "CLOSE" button to disable the Save Data Search window.

* At the S scale of the graph, you can enter the data of other channels as well as the time.

This allows you to set the offset of each channel.

DAC	ELL						D	ACELL	DAT	A LOGO	ER			G	
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1- 0-	1- 0-	1- 0-	1- 0-	1- 0-	2- 04444 1- 44444 0-, 00:00:00	00:01:00 MOE	00:02:	:00 00:1 TREND	03:00 00: Y MIN.	04:00 00:05: Tim Y MAX.	00 00:06: le(sec) DATA SAVE	00 00:07:00	00:08:00	00:09:00	00:1
1- 0-	1- 0- СН.1	1- 0-	1- 0-	1- 0- 1.37	2 - agerson 1 - 440 des 0-, 00:00:00 kgf	00:01:00 MOE DN10W	00:02: PEL	:00 00: TREND	y MIN.	04:00 00:05: Tim Y MAX. 15	00 00:06: DATA SAVE	00 00:07:00	00:08:00	00:09:00	00:1
1- 0-	1- 0- CH.1 CH.2	1- 0-	1- 0-	1- 0- 1.37 3.37	2 - agerson 1 - Person 0 -, 00:00:00 kgf kgf	00:01:00 MOD DN10W DN10W	oo:o2:	:00 00: TREND	03:00 00: Y MIN.	04:00 00:05: Tim Y MAX. 15 15	00 00:06: e(sec) DATA SAVE SELECT	00 00:07:00 SELECT SAVE ITEM:	00:08:00	00:09:00 DIGITA DATA	00:1 L VIEWER VIEWER
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1- 0-	1- 0- CH.1 CH.2 CH.3 CH.4	1-0-	2- 1- 0-	2- 1- 0- 1.37 3.37 5.49 7.65	2 - geographic 1 - return 0-, 00:00:00 kgf kgf kgf lbf	00:01:00 MOD DN10W DN10W DN10W DN10W	00:02:	:00 00: TREND	Y MIN. 0 0 0 0	04:00 00:05: Tim Y MAX. 15 15 15 15 15	00 00:06: le(sec) DATA SAVE SELECT PATH S INTERVAL SAVE	00 00:07:00 SELECT SAVE ITEM! 1 Hz (1 Sample/S) SAVE STG	00:08:00	00:09:00 DIGITA DATA TORQU CHANNI	00:1 L VIEWER VIEWER E OFFSET L SETTING
1- 0-	1- 0- CH.1 CH.2 CH.3 CH.4 CH.5	1-0-	1- 0-	2- 1- 0- 1.37 3.37 5.49 7.65 9.03	2 - ywynar 1 - ywynar 0 -, 00:00:00 kgf kgf kgf lbf	00:01:00 MOE DN10W DN10W DN10W DN10W DN10W	00:02: DEL	:00 00: TREND	Y MIN. 0 0 0 0 0 0 0	v MAX. 15 15 15 15 15 15 15 15	00 00:06: DATA SAVE SELECT PATH B INTERVAL SAVE TIME	00 00:07:00 SELECT SAVE ITEM! 1 Hz (1 Sample/S) SAVE STO	00:08:00	00:09:00 DIGITA DATA TORQU CHANNE	00:14 L VIEWER E OFFSET L SETTING

1) Press the "TORQUE OFFSET" button in the lower right of the main window to enable the Data Offset window (All 6 channels will be displayed regardless of the channel selection in the Channel Setting window).

	MEASURED DATA		AVERAGED O	FFSET		
CH.1	1.59	CH.1		0		
CH.2	3.6	CH.2		0		
CH.3	5.55	CH.3		0		
CH.4	7.68	CH.4		0		
CH.5	9.96	CH.5		0		
CH.6	11.4	CH.6		0		
[Toppoting Time		10	Sec		
	Averaging Time	00	:00:00.0	Sec		

2) At the "MEASURED DATA" in the upper left of the window, the instantaneous value of measuring data will be displayed (The channels not selected in the Channel Setting Window will be displayed as "0").

3) Enter the offset mean time at the "Targeting Time" at the bottom of the window (Up to 999 seconds can be entered. Decide the offset value by collecting and averaging the data for each channel for as much time as targeting time).

4) Press the "Offset Setting" button at the bottom of the window to start the offset data collection. The collected and averaged data for each channel will be displayed in real time at the "AVERAGED OFFSET" in the upper right of the window. When this time is the same as the "Targeting Time", the offset setting is complete.

5) The offset setting is automatically applied when restarting the program. To initialize the offset setting, press the "Initialize" button in the lower left of Torque Offset window (All channels' offset will be set to "0").

* The offset saved for each channel will be applied automatically when running the program. To initialize this, press the "TORQUE OFFSET" button to enable the Data Offset window and then press the "Initialize" button in the lower left of the window. All channels' offset will be set to "0").

④ Channel Setting

This allows you to set the data collection channel (up to 6 channels).



1) Press the "CHANNEL SETTING" button in the lower left of the main window to enable the Channel Setting window (The channel setting window enabled at the initial program execution will be displayed again. The setting methods are as described in the previous section).

	PORT	MODEL	DIMENSION
CH.1	COM1 💌	DN10W 💌	kgf
CH.2	COM2 💌	DN10W 💌	kgf
V CH.3	COM3 💌	DN10W	kgf
CH.4	COM4 💌	DN10W	lbf
CH.5	COM5	DN10W 💌	lbf
CH.6	COM6	DN10W	lbf
SEARCH		APPLY	CANCEL

2) Select as many channels or models as desired at the Channel Selection Box on the left of the window.

3) Select the port of connected model at "PORT" (If the port needs updated, press the "SEARCH PORT" button).

4) Select the protocol of the connected model from "MODEL" (choose one among DN10W, DN550N).

5) Enter the unit of measurement data at "DIMENSION".

6) Press the "INITIALIZE" button, and the initialization screen will appear as shown in the following figure.

	PORT		MODEL		DIMENSION
CH.1	COM1	-	DN10W	•	
CH.2	COM2		DN10W	v	
CH.3	COM3		DN10W		
CH.4	COM4		DN10W		
CH.5	COM5		DN10W		
CH.6	COM6		DN10W		
SFARCH PORT		INITIAL 17F	APPI	v	CANCEL

7) After a completion of the channel and port setting, press the "APPLY" button to disable the Channel Setting window (If the same port is selected in different channels, the following warning message will be displayed and the Channel Setting window will not be disabled).

Pa	×
Please do not select the same ports in differ	ent channels.
ОК	

* The address of the model you want to use the PC program for data logging shall be set to "01" (Number 1).

* When executing the initial program, the "CANCEL" button is disabled in the lower left of the Channel Setting window. The "CANCEL" button enables the performance of channel setting again during the execution of a program.

4. When Any Problem Occurs in the Program

This paragraph provides information on each solution if any program occurs in the program.

- When the system connection LED does not illuminate on "COMM" in the lower left of the main window.
 Check the system for normal power conditions.
 - Check the cable connection between the system and the measurement PC.
 - Check the communication setting of the system (Check if the system Address is set to "01").
- 2 When the program does not operate normally (button malfunction and slow operation)
 - Restart the program.
 - Reboot the PC.

③ When the program does not stop (Even though "PROGRAM STOP" button is pressed, the program fails to stop).

- If the program fails to stop after pressing the "PROGRAM STOP" button and waiting more than 7 seconds, a forced shutdown shall occur.

- Window Taskbar > Task ManagerStart > Process Tab > LabVIEW.exe (select) >Process Exit

- ④ If the problem still persists in spite of the above remedies, contact DACELL Co., Ltd.
 - -043.260.2242
 - info@dacell.com