User's Manual

DACELL Data Logger
Software Manual
(PC Program)

USER: Customers of DACELL CO., LTD.

Table of Contents

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
③ Data search
④   Data save

① Program start and serial number input

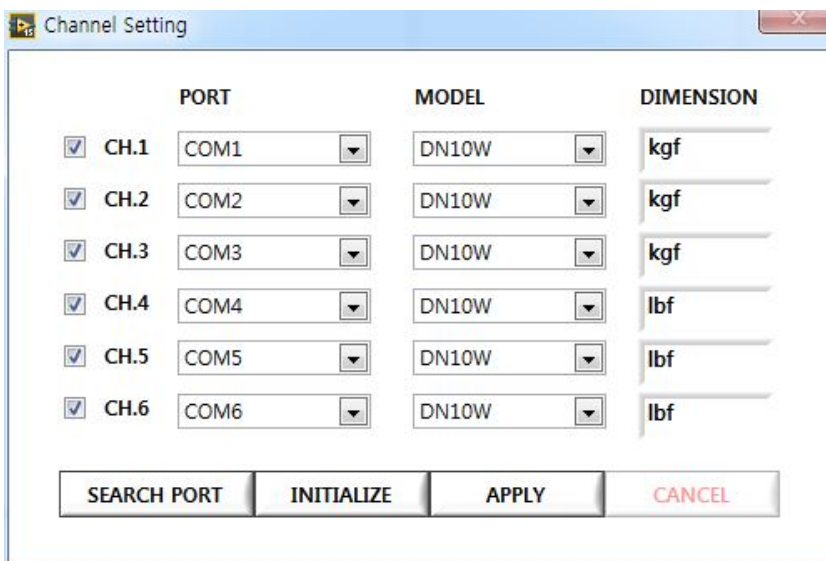**Please input the serial codes.**
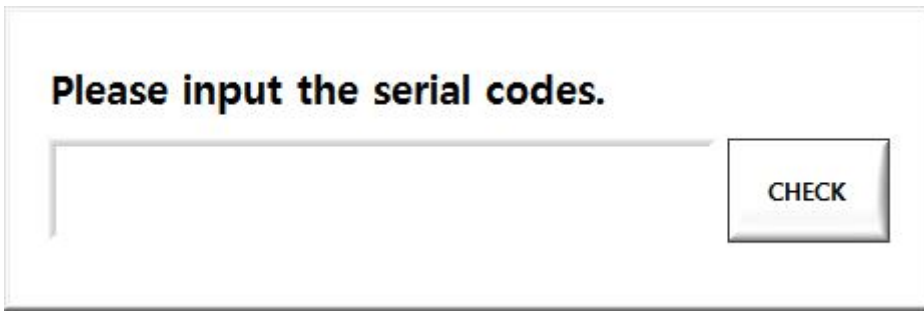
CHECK

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

Channel Setting

		PORT	MODEL	DIMENSION
☑	CH.1	COM1	DN10W	kgf
☑	CH.2	COM2	DN10W	kgf
☑	CH.3	COM3	DN10W	kgf
☑	CH.4	COM4	DN10W	lbf
☑	CH.5	COM5	DN10W	lbf
☑	CH.6	COM6	DN10W	lbf

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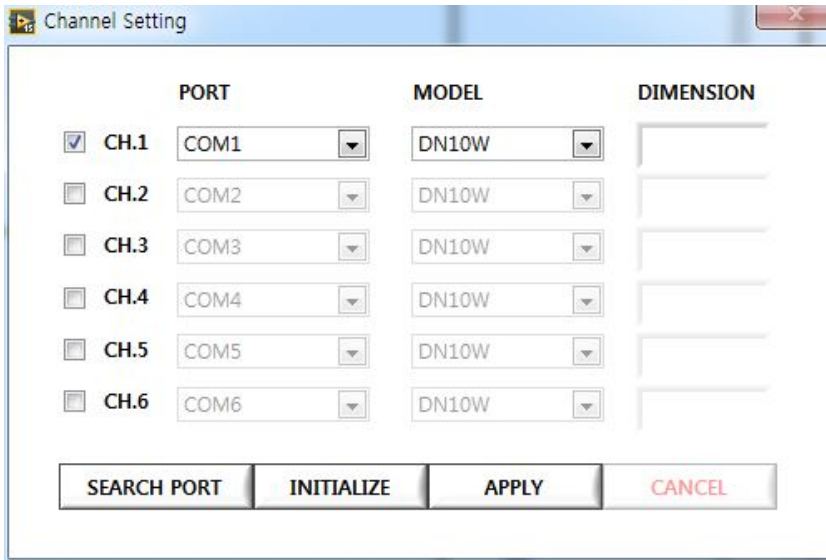
7) After completion of the channel and port setting, press the "APPLY" button to disable the Channel Setting window (If the same port is selected in different channels, the following warning message will be displayed and the Channel Setting window will not be disabled).
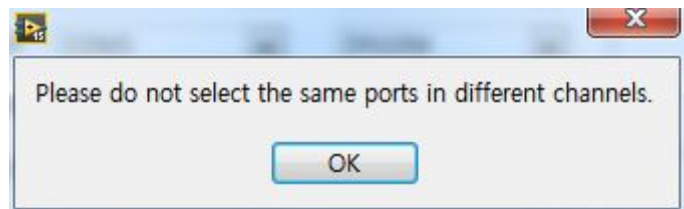
If the same port is selected at a different channel

※ 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.

③　Data Search
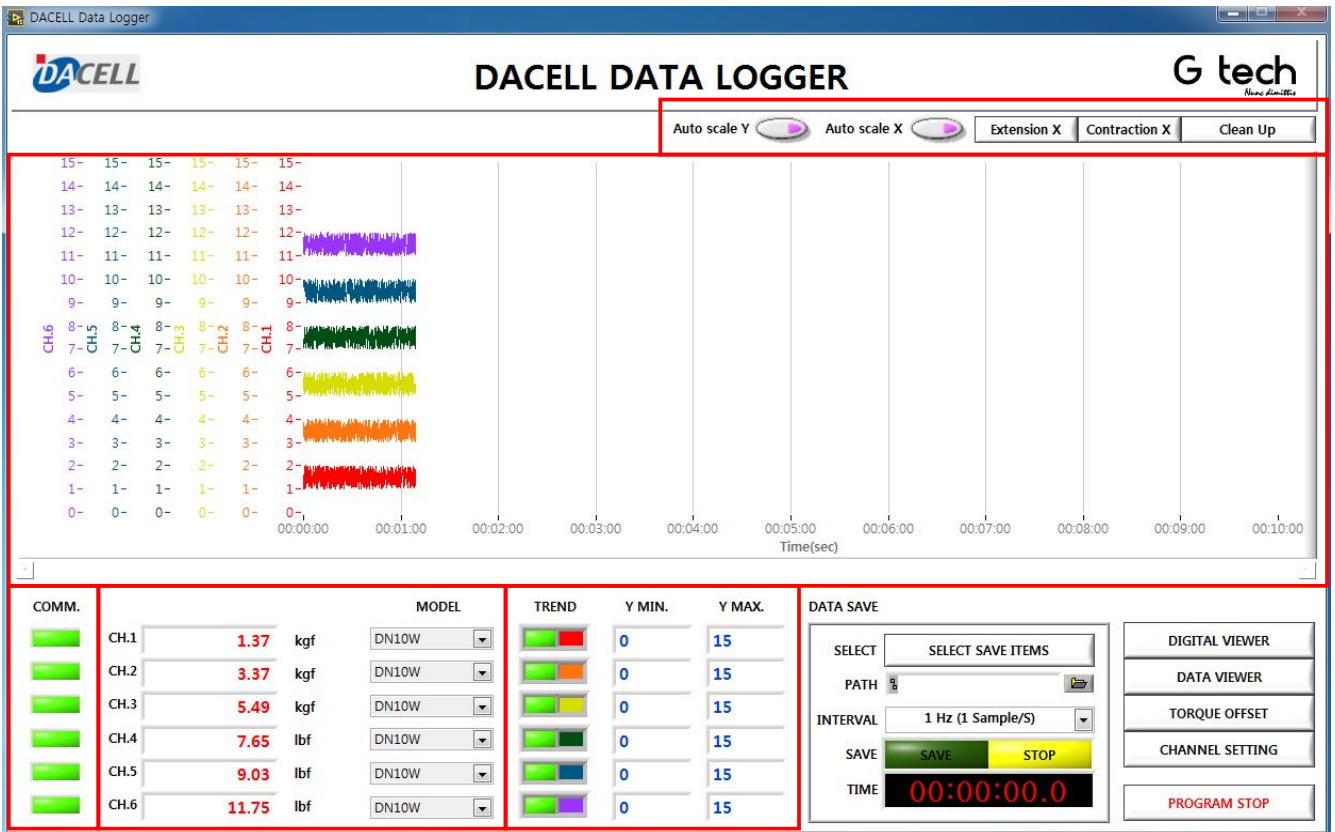
1) At the center of the main window, a data graph of the model connected to each channel is drawn in real time. The graph data allows the most recent 10 minutes' data to be displayed on the screen. Data save can be enabled continuously regardless of graph display status.

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
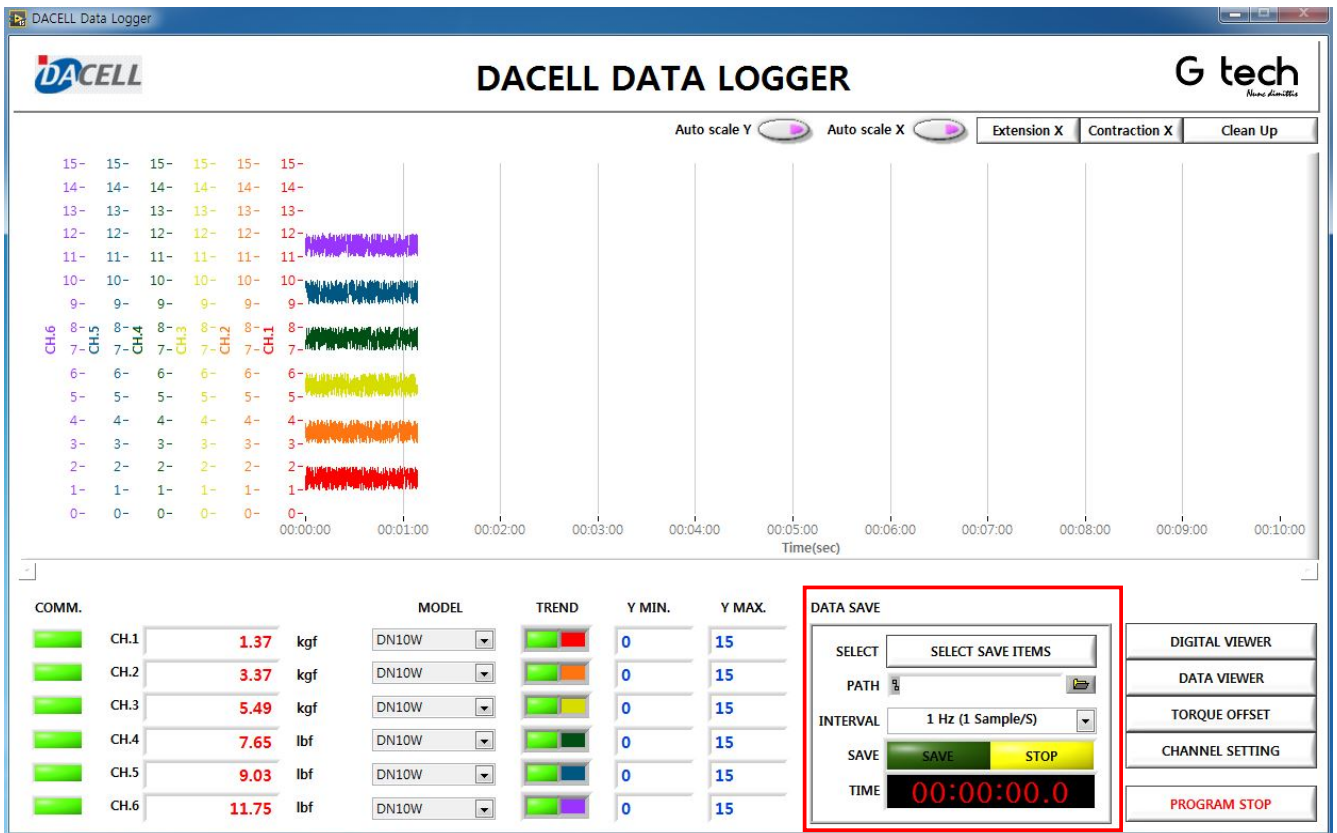
1 Press "SELECT SAVE ITEMS" at the "DATA SAVE" in the lower center of the main window, and the select save items window will appear as shown in the following figure.
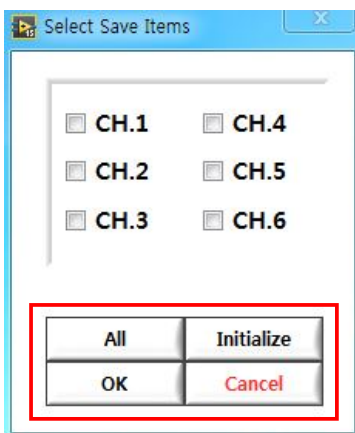
2) To save all measurement channels, press the "All" button to select the entire channel.

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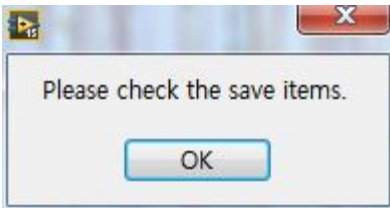
8) Data save time will be displayed at "TIME".

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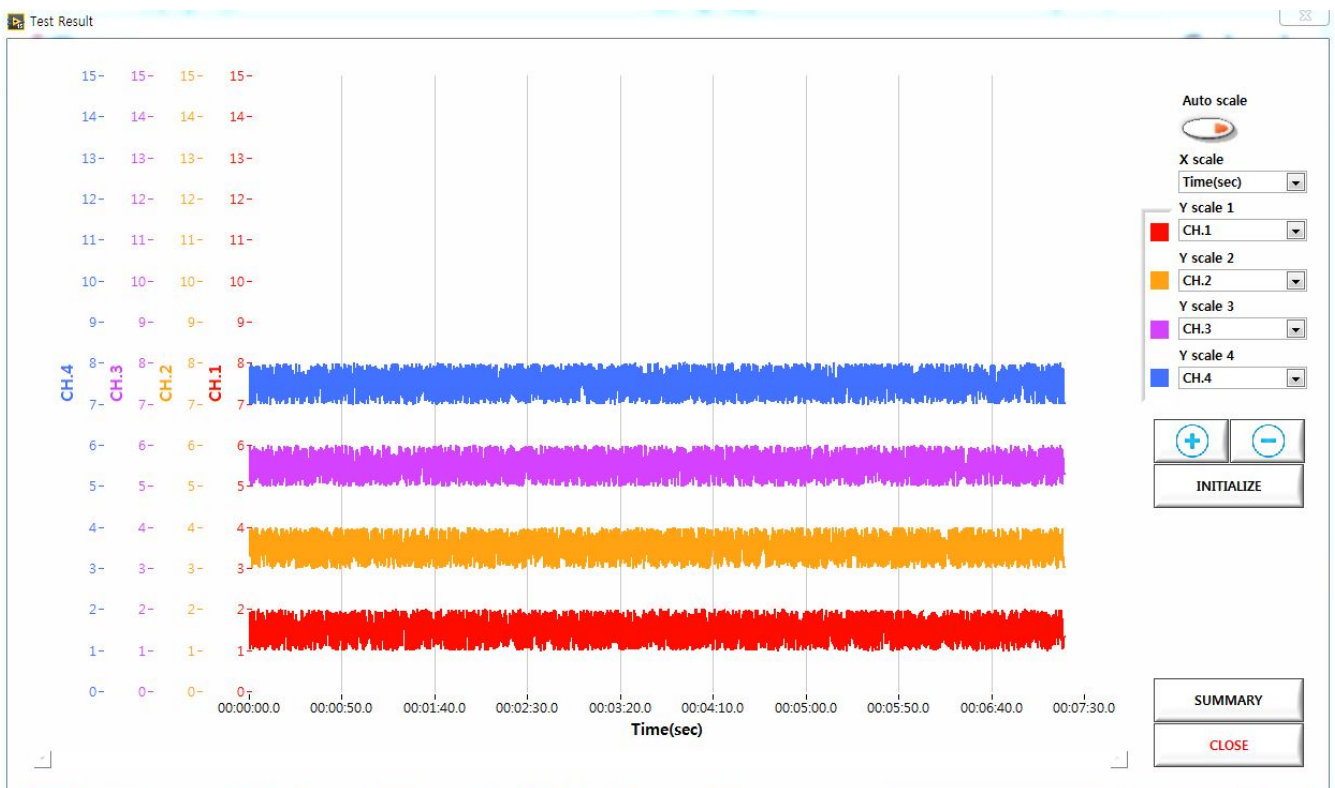
※ The channel not selected in the Channel Setting window will be disabled at the Select Save Items window.

※ 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.

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

①   Instantaneous Value Monitoring
②   Save Data Search

①   Instantaneous Value Monitoring

This shows the instantaneous value of measured data in another (zoom in) window.
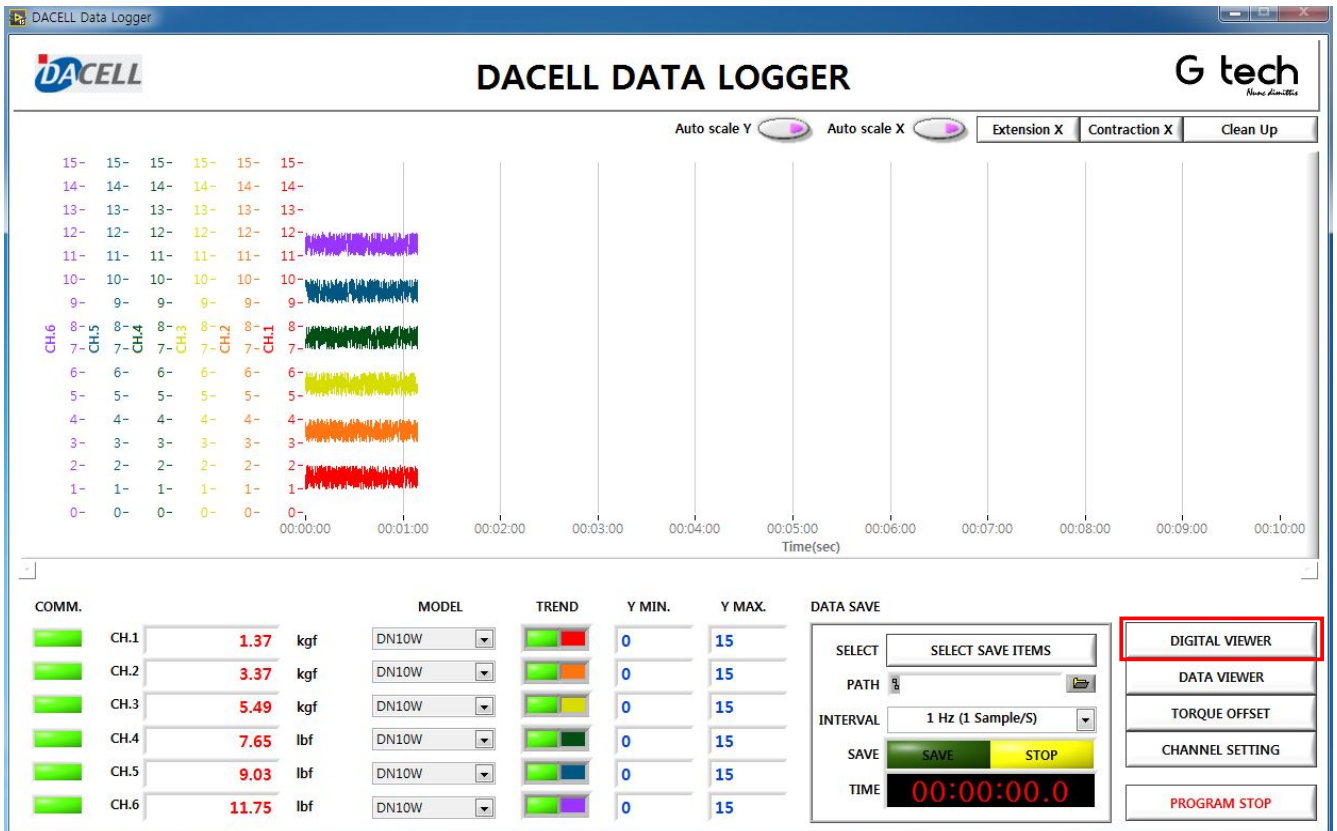
1) Press the "DIGITAL VIEWER" button in the lower right of the main window to enable the instantaneous data monitoring window.
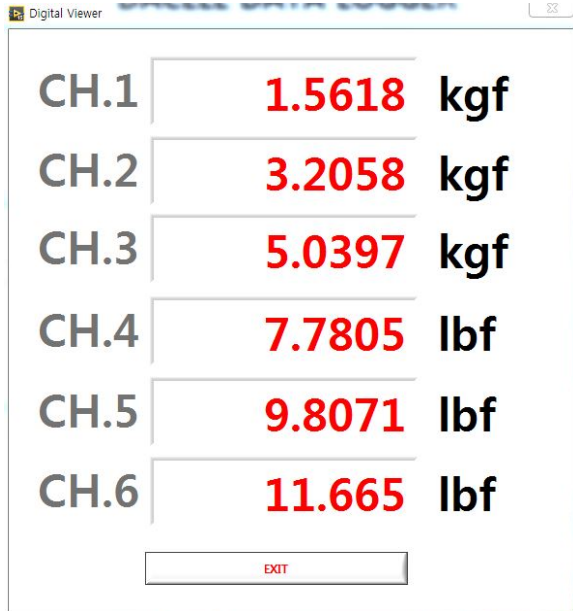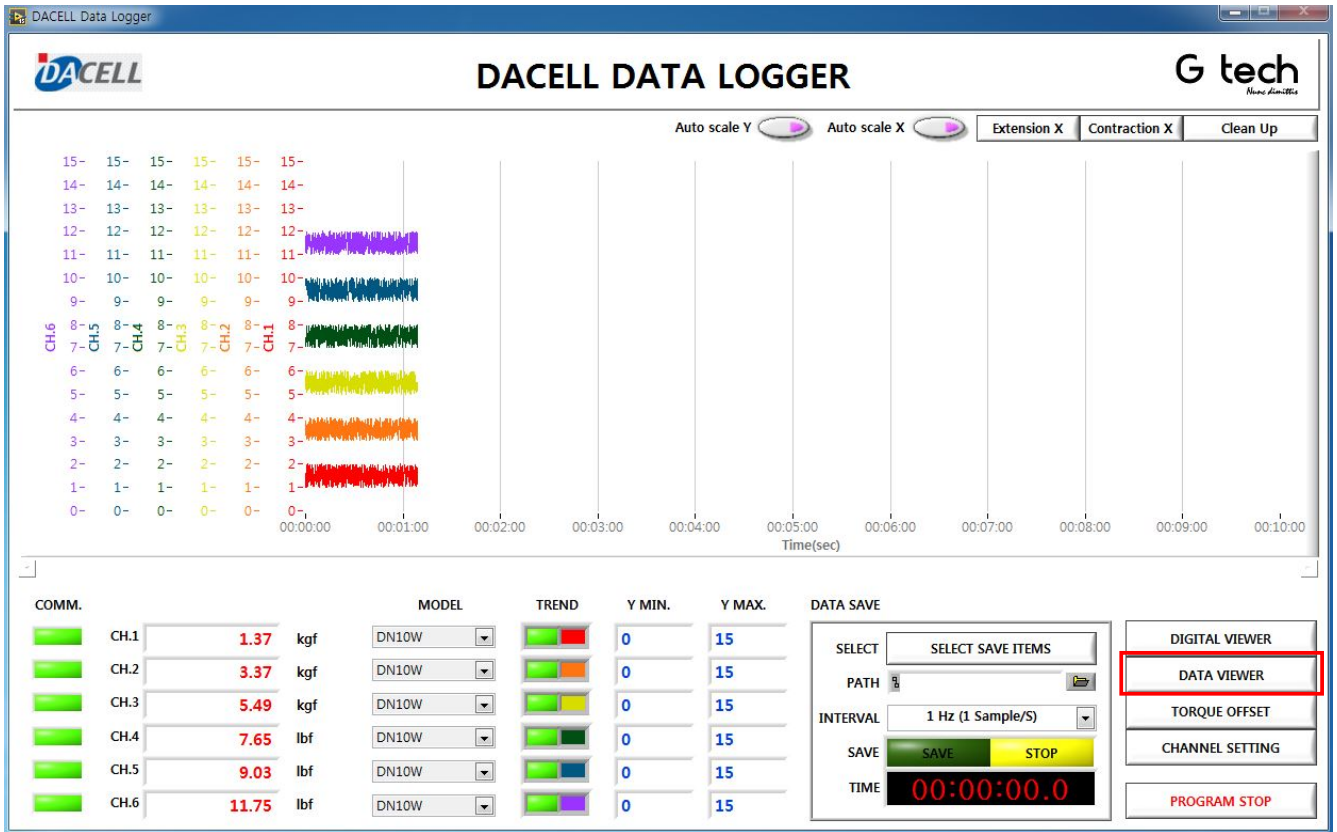

2) To exit monitoring, press the "EXIT" button at the bottom of the window.


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

② Save Data Search
This allows the recall of saved data so that they can be displayed and searched on the graph.

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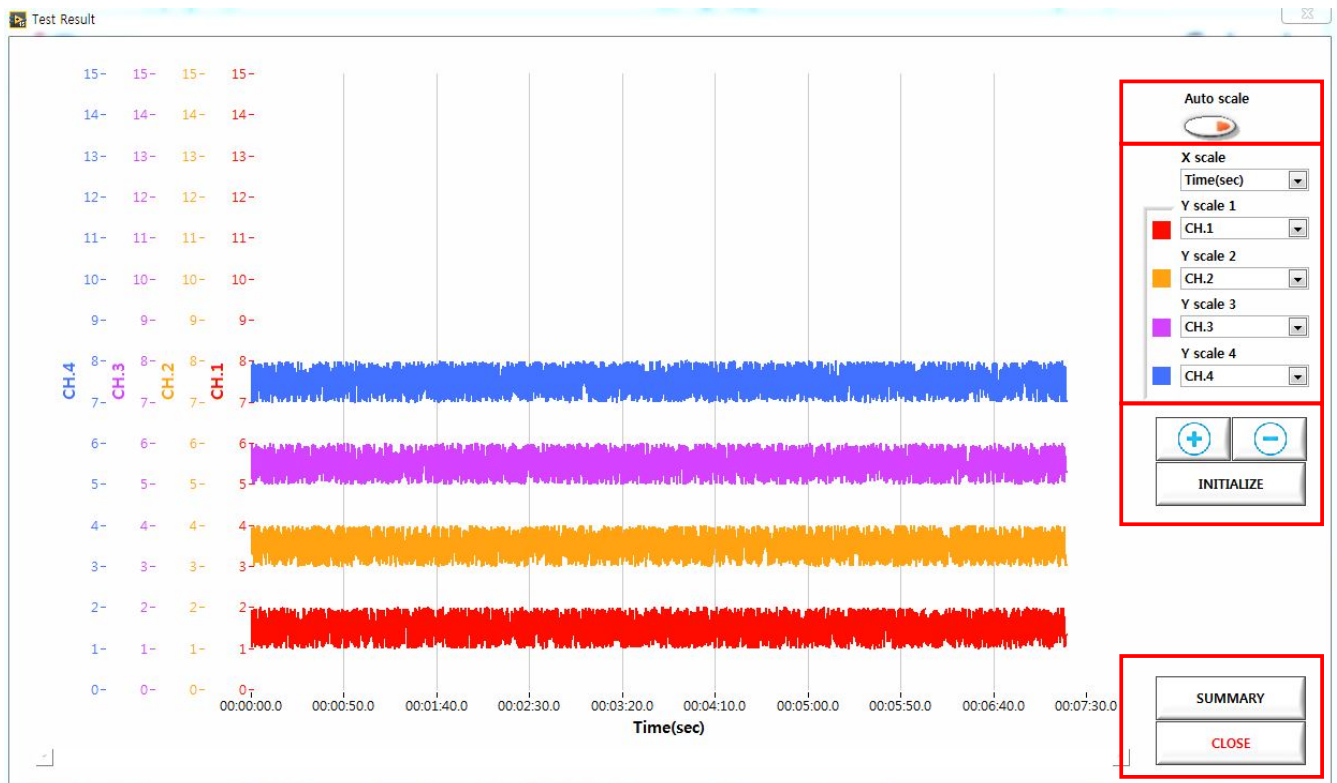
2) Press the "Auto scale" button in the upper right of the window to auto-scale the graph in the Y-axis.

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.

시험 일시	2016년 06월 19일 20:05:49
시험 업체	Dacell
시험 인원	Dacell Test
시험 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.

CSV Viewer - C:\DC Data Logger\Summary\Sumry_20160619_201146.csv

File   Edit   Option   Help

	1	2	3	4	5	6	7
1	시험일시	2016년 06월 19일 20:11:30					
2	시험업체	Dacell					
3	시험인원	Dacell Test					
4	시험상세	Test					
5							
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

Freeware   www.csvviewer.com   Row: 9, Col: 7

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.

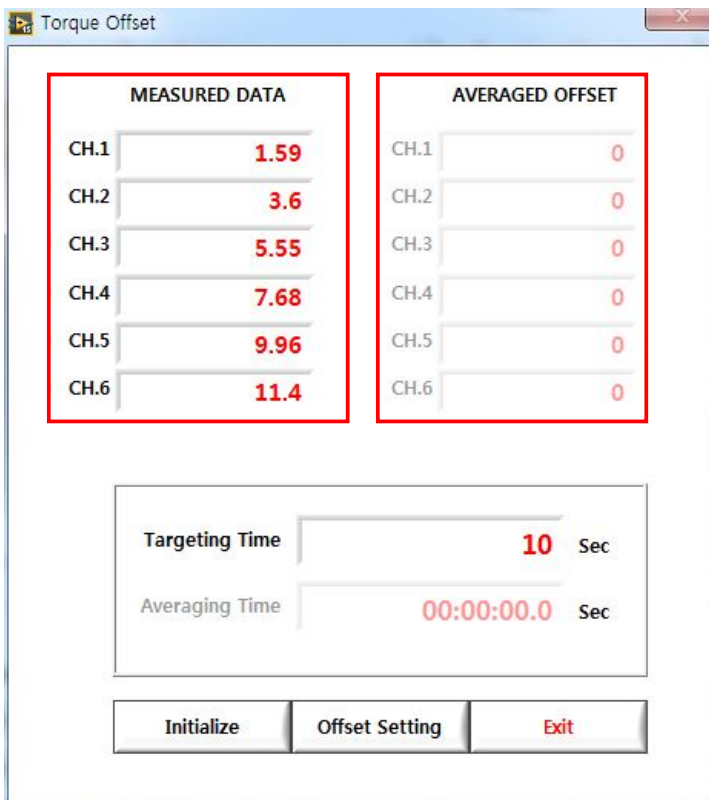
※ At the S scale of the graph, you can enter the data of other channels as well as the time.

③   Data Offset
This allows you to set the offset of each channel.
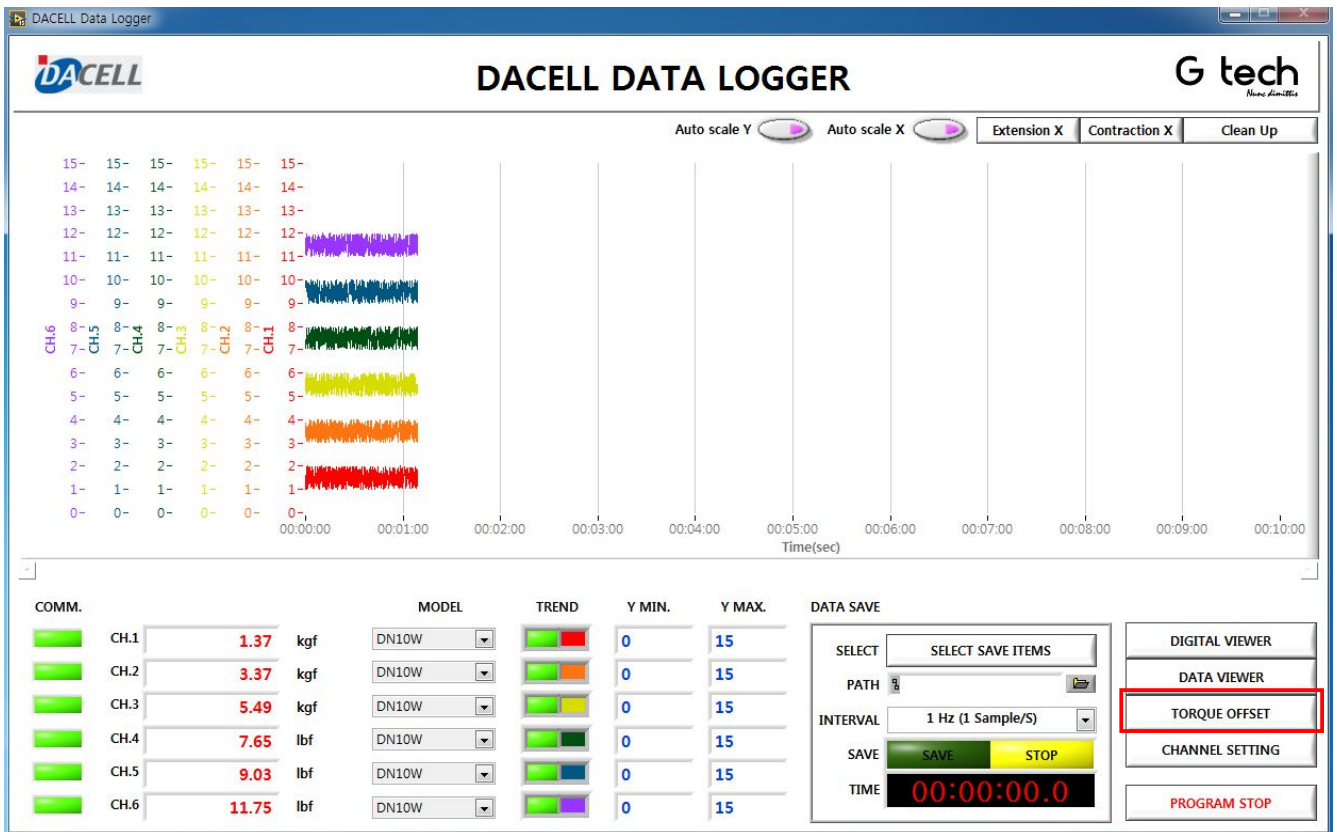
1) Press the "TORQUE OFFSET" button in the lower right of the main window to enable the Data Offset window (All 6 channels will be displayed regardless of the channel selection in the Channel Setting window).

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").
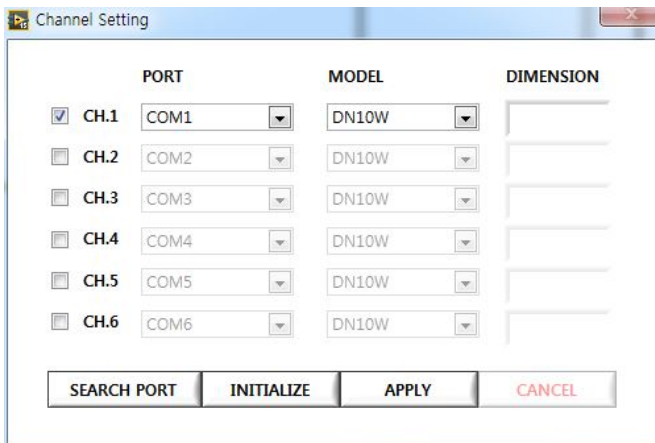
④　Channel Setting
This allows you to set the data collection channel (up to 6 channels).
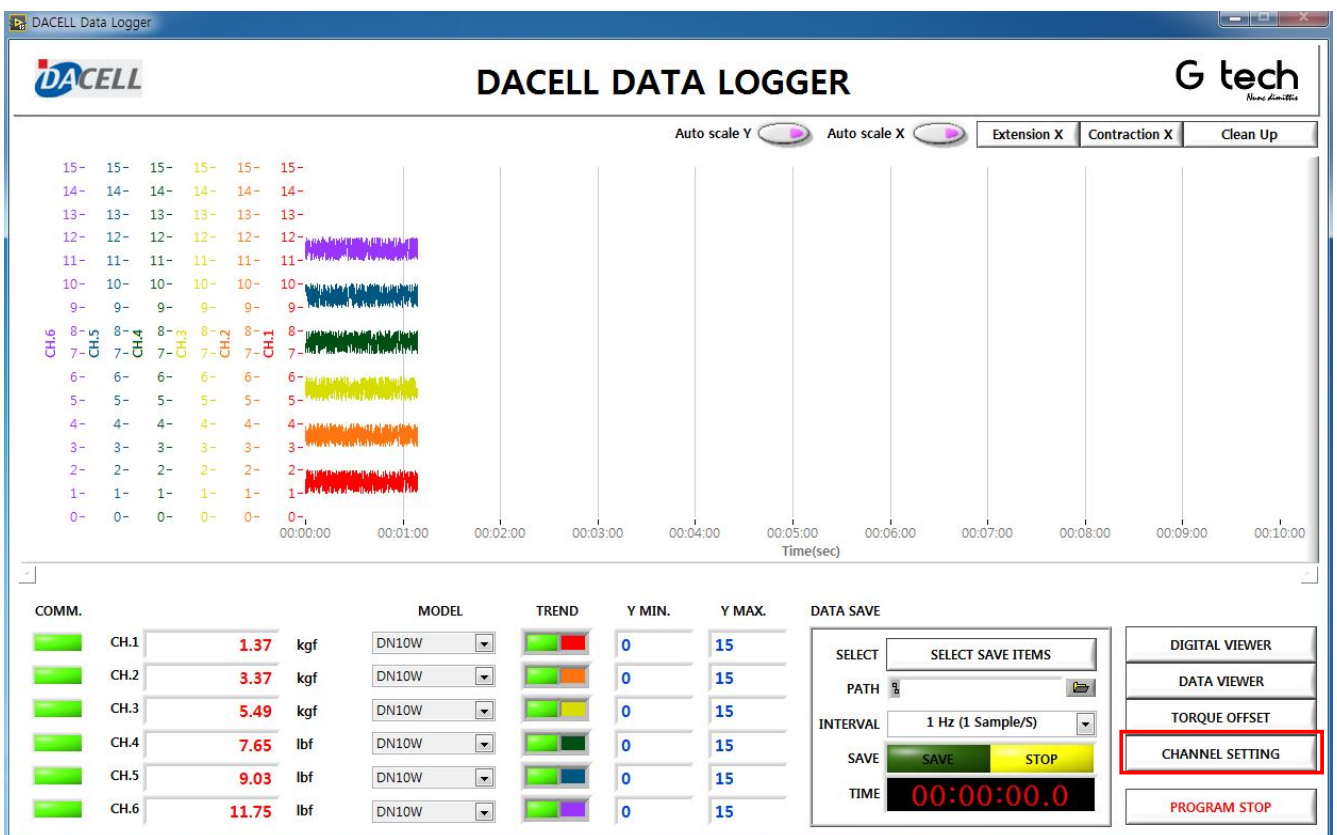
1)　Press the "CHANNEL SETTING" button in the lower left of the main window to enable the Channel Setting window (The channel setting window enabled at the initial program execution will be displayed again. The setting methods are as described in the previous section).
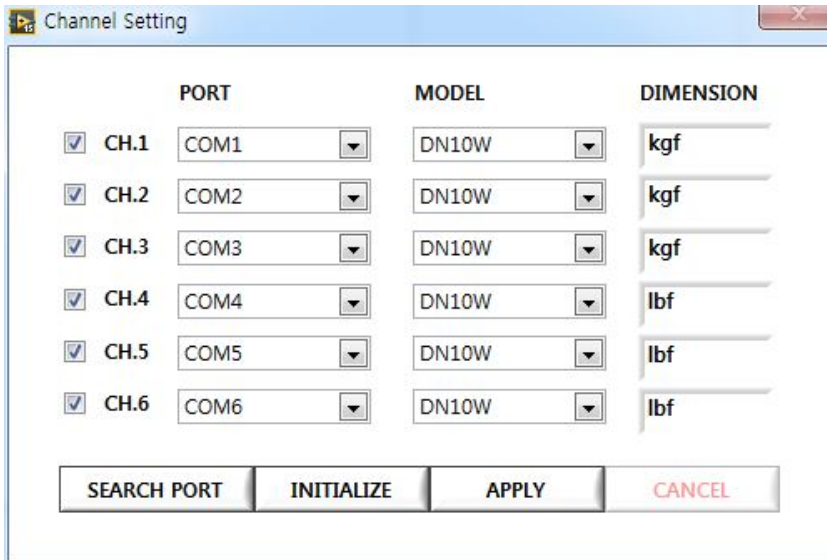
2) Select as many channels or models as desired at the Channel Selection Box on the left of the window.

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.

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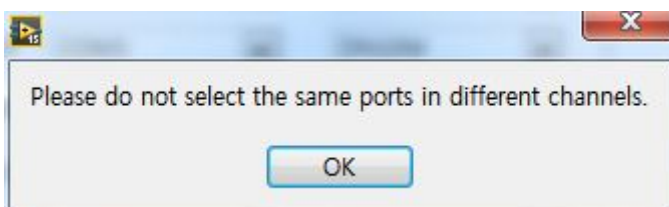
※ The address of the model you want to use the PC program for data logging shall be set to "01" (Number 1).

※ 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.

① 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.

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- info@dacell.com