

GH-02 USB Interface Instruction Manual

A&D Company, Limited

1. Features

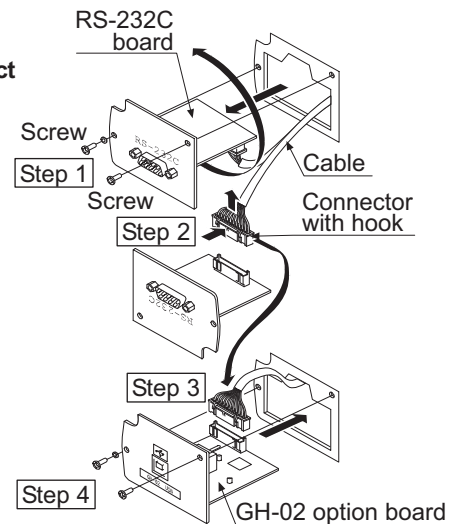
- The GH-02 USB interface connects a GH series analytical balance to a personal computer and is used to transmit the balance weight data to the personal computer via USB. Applicable operating system is Windows 98 or later.
- As the Windows standard driver is used to transmit the weight data, complicated installation of a dedicated driver is not necessary.
- The personal computer recognizes the GH-02 interface much like a keyboard, and processes the weight data in the same way as values input by key operation. Thus, the balance weight data can be transmitted to applications such as Excel, Word and memo pad for Windows.

- Note:**
- Only weight data can be transmitted. Headers and units can not be transmitted.
 - Time and date, ID number, data number and GLP report are not output.
 - Data transmission from the personal computer to the balance is not available. To control the balance by a command, install the RS-232C board and connect the balance and the personal computer using the RS-232C cable.
 - Turn off the screen saver or suspend mode of the personal computer.
 - Windows, Word and Excel are the registered trademarks of the Microsoft Corporation.

2. Installation Procedure

Note: Before installing the GH-02 option board, be sure to disconnect the AC adapter from the balance.

- Step 1 Remove the two screws and pull out the RS-232C board gently. Do not pull on the cable excessively.
- Step 2 Push the hook aside and remove the connector from the RS-232C board. Be sure to push the hook aside before attempting to remove the connector.
- Step 3 Insert the connector into the GH-02 option board.
- Step 4 Install the GH-02 option board in the balance and secure it using the two screws that were removed in step 1.



3. How to Use

- Step 1 Turn the personal computer on to start up Windows. And then, connect the AC adapter to the balance and turn the balance power on.
- Step 2 In the balance function table, set "Baud rate" to "2400 bps (bPS 2)", "Data bit, parity bit" to "7 bits, even (bLPr 0)" and "Data format" to "A&D standard format (tYPE 0)". (Same as the factory settings)
- Step 3 Connect the balance to the personal computer, using the provided USB cable.

Note: When connecting the USB cable, be sure that the balance "Data output mode" is set to a mode other than "Stream mode (PrL 3)".

- Step 4 For the first connection, the driver will be installed automatically. Please wait until the driver installation is completed. This step is not required for later connections.
- Step 5 Start up the application (such as Excel) into which you want to transmit the balance weight data. Place the cursor in the position at which you want to enter the balance weight data.
- Step 6 Press the balance **PRINT** key and the weight data will be transmitted into the application at the cursor position.

Note: When the data stored in memory is to be output at one time, the data number is not available. Set "Data number output" to "No output (d-no 0)" and "Data output pause" to "Pause (1.6 seconds) (PUSE 1)".

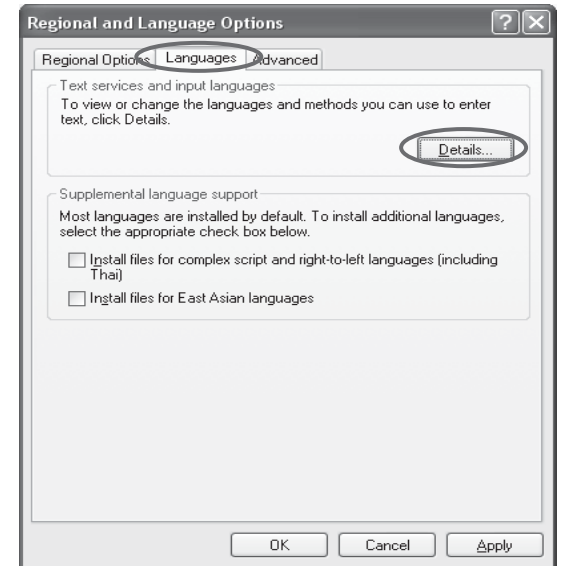
- Step 7 To finish the operation, disconnect the USB cable.

4. Note on Use

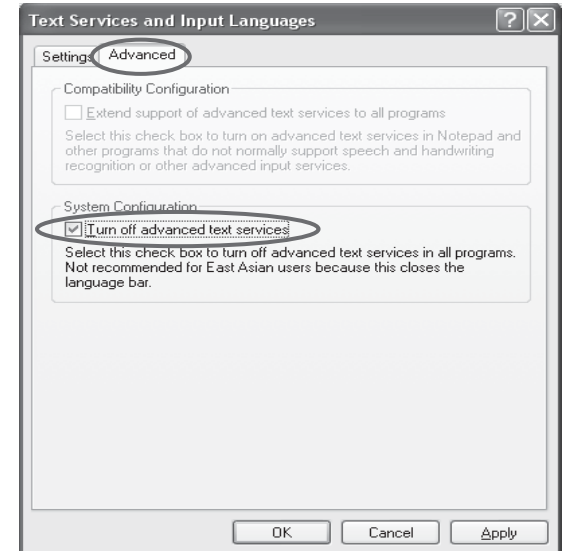
If you are using Windows XP and data cannot be input correctly into Excel, turn off Advanced text services using the following procedure. Other compatible operating systems do not have this function.

Step 1 In **Control Panel**, click **Regional and Language Options**.

Step 2 Click the **Languages** tab, and then click the **Details** button.



Step 3 Click the **Advanced** tab, and then select the **Turnoff advanced text services** check box.



5. Example of Use

- Weight data collection 1 (Basic use)
Balance data output mode: Key mode (factory setting) **dout 0**
Press the balance **PRINT** key to transmit the weight data to the personal computer.
- Weight data collection 2
Balance data output mode: Auto print mode **dout 1** or **dout 2**
When a sample is placed on the balance and the displayed value is stable, the balance transmits the weight data to the personal computer.
Useful when you want to repeatedly add samples and record the weight data