Additional Information (FZ-i/iWP/CT/GD series)

Contents
This manual describes additional functions for the FZ-i series, FZ-iWP series, FZ-CT series and FZ-GD series.

- Date and time output ............. The Date and time can be added to the weighing data format.
- The Function switch .............. The description of the switches to protect parameters.
- Correcting the internal mass value using an external calibration weight value. The correction method can be selected either the correction 1 or correction 2.
  - The internal mass correction 1 Calibrating the balance with internal mass, measuring an external calibration weight, calculating the correction value, and storing it in the balance.
  - The internal mass correction 2 Calibrating the balance with an external calibration weight, correcting and storing the internal mass value with automatic calibration using the internal mass.

Caution
- The FX-i series, FX-iWP series, FX-CT series and FX-GD series do not have an internal mass and the date and time function.
- In the factory settings, the internal mass correction function cannot be changed to protect against unintentional operations. When using the function, change the function switch to "Permit".
  Refer to "The Function Switch" on the next page or "Permit Or Inhibit" of the instruction manual.

Date and Time Output

With the parameters of "Time/Date output (S-td)" in "Data output (dOut)". Date and time can be added to the data format of weighing data.

The Function Table For Output Of Date And Time

<table>
<thead>
<tr>
<th>dOut</th>
<th>S-td</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data out</td>
<td>Time/Date output</td>
<td>No output (Factory settings)</td>
<td>Time only</td>
<td>Date only</td>
<td>Time and date</td>
</tr>
</tbody>
</table>

The Data Format Of Date And Time

Date  
This format can be changed in "Clock (Refer to CL Rdd)". The year is output in a four-digit format.

<table>
<thead>
<tr>
<th>2</th>
<th>0</th>
<th>0</th>
<th>9</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Terminator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Time  
This format outputs time in 24-hour format.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Terminator</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1WMPD4002000 1
The Function Switch

The balance has function switches to protect the parameters against unintentional operations. When using the internal mass correction function, change each function switch to "Permit".

Procedure

Step 1 Press the ON:OFF key to turn off the display.

Step 2 While pressing and holding the PRINT key and the SAMPLE key, press the ON:OFF key to display P5.

Step 3 Press the PRINT key. Then the balance displays the function switches.

Step 4 Set the switches using the following keys.

- SAMPLE key To select a switch to change the parameter. The selected switch blinks.
- RE-ZERO key To change the parameter of the switch selected. To inhibit the change. To permit the change.
- PRINT key To store the new parameter and return to the weighing mode.
- CAL key To cancel the operation and return to the weighing mode.

The Function Table

- To inhibit the change.
- / To permit the change. (Factory settings)

Internal Mass Correction

- To inhibit the correction. (Factory settings)
- / To permit the correction.
The Internal Mass Correction 1

- The correction 1 corrects the internal mass using an external calibration weight. Calibrate the balance with the internal mass. Measure an external calibration weight. Calculate the correction value. And store it in the balance.
- The correction range of the internal mass value is as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>External calibration weight</th>
<th>Allowance range</th>
</tr>
</thead>
<tbody>
<tr>
<td>FZ-300CT</td>
<td>50 g</td>
<td>±0.050 g</td>
</tr>
<tr>
<td>FZ-600CT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FZ-120i</td>
<td>FZ-120iWP</td>
<td>100 g</td>
</tr>
<tr>
<td>FZ-200i</td>
<td>FZ-200iWP</td>
<td>200 g</td>
</tr>
<tr>
<td>FZ-300i</td>
<td>FZ-300iWP</td>
<td>200 g</td>
</tr>
<tr>
<td>FZ-1200i</td>
<td>FZ-1200iWP</td>
<td>1 kg</td>
</tr>
<tr>
<td>FZ-2000i</td>
<td>FZ-2000iWP</td>
<td>±0.50 g</td>
</tr>
<tr>
<td>FZ-3000i</td>
<td>FZ-3000iWP</td>
<td></td>
</tr>
</tbody>
</table>

**Procedure**

- Example: Correcting the weight value by +0.003 g in 100 g using the FZ-120iWP. If correcting the weight value by +0.003 g in 50 g, the weight is changed into 100 g, and the correction value is +0.006 g.

**Step 1** Perform one-touch calibration. Measure an external calibration weight. Calculate the correction value.

**Step 2** Change the function switch of "Internal Mass Correction" and "The Function Table" to "Permit".

**Step 3** Press and hold the SAMPLE key to enter the function table and release the key when the value is displayed.

**Step 4** Press the SAMPLE key several times until the value is displayed.

**Step 5** Press the PRINT key to correct the internal mass value using the following keys.
- RE-ZERO key .... To increase the value. Value is displayed +50 digits after +50 digits.
- MODE key ........ To decrease the value.
- PRINT key ........ To store the new parameter and return to the weighing mode.
- CAL key ............ To cancel the operation and return to the weighing mode.

**Step 6** Press the CAL key to return the weighing mode.

**Step 7** Press the CAL key to perform the one-touch calibration.

**Step 8** Measure an external calibration weight and confirm that the weighing error is within the specified value in the "Specifications" of the instruction manual. If not, perform the internal mass correction and calibration.
The Internal Mass Correction 2

- The correction 2 corrects the internal mass using an external weight. Calibrate the balance with an external calibration weight. Correct and store the internal mass value with automatic calibration using the internal mass.
- The corrected mass value is maintained in memory even if the AC adapter is removed. The target range and allowance of an external weight is as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>External calibration weight</th>
<th>Allowance range</th>
</tr>
</thead>
<tbody>
<tr>
<td>FZ-300CT</td>
<td>50g* 20g</td>
<td></td>
</tr>
<tr>
<td>FZ-600CT</td>
<td>100g* 50g</td>
<td>-0.050 g ~ +0.050 g</td>
</tr>
<tr>
<td>FZ-120i WP</td>
<td>200g* 100g 50g</td>
<td></td>
</tr>
<tr>
<td>FZ-120i GD</td>
<td>300g 200g* 100g 50g</td>
<td></td>
</tr>
<tr>
<td>FZ-1200i WP</td>
<td>1000g* 500g</td>
<td>-0.50 g ~ +0.50 g</td>
</tr>
<tr>
<td>FZ-2000i WP</td>
<td>2000g* 1000g 500g</td>
<td></td>
</tr>
<tr>
<td>FZ-3000i WP</td>
<td>3000g 2000g* 1000g 500g</td>
<td></td>
</tr>
</tbody>
</table>

* Factory settings

Procedure

Step 1 Change the function switch of "Internal Mass Correction" and "The Function Table" to "Permit".

Step 2 Press and hold the SAMPLE key in the weighing mode to enter the function table and release the key when CAL is displayed.

Step 3 Press the SAMPLE key several times until the INTERNAL function is not displayed, proceed to step 1.

Step 4 Press the PRINT key to display CAL 0. Perform the calibration using an external calibration weight. Refer to "Calibration Using An External Weight" of the instruction manual.

Step 5 When displaying rEAdy ? after the calibration, Remove the weight on the weighing pan and attach the breeze break. Press the PRINT key.

Step 6 When displaying CAL SET, the balance corrects and stores the new internal mass value.

Step 7 When displaying CAL in, the balance performs calibration using the internal mass automatically.

Step 8 The balance displays End and returns to the weighing mode automatically.

Step 9 Measure an external calibration weight and confirm that the weighing error is within the specified value in the "Specifications" of the instruction manual. If not, perform the internal mass correction and calibration.