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FDIX OPERATION MANUAL / Supplement – 2018

2/27/18

Memory Feature

I. GENERAL

FDIX firmware versions 6.50, and above, support the Memory feature.
Up to 500 force measurements can be saved, reviewed, edited (deleted) and uploaded to a remote PC via the gage USB port.

The memory function computes statistics including average, standard deviation, min value and max value.

The **Memory** function can be programmed to one of the following modes:

OFF - No memory option available.
Normal - Gage operates in normal mode.
Comp Peak - Gage operates in Compression Peak mode only.
Tens Peak - Gage operates in Tension Peak mode only.
T & C Peak - Gage operates in Normal, Compression Peak and Tension Peak mode.

II. ENABLE MEMORY FEATURE

> To enable the memory feature, the gage must be in force display mode.
> Press and hold the **Menu** button until the **1. Select Setup Category** screen is displayed.
> Using the **Scroll down** button, highlight **Memory Mode**.
> Press **Change**.
> The **2. Select Memory Mode** screen is displayed.
Mem Mode is now highlighted. The current memory mode is displayed.

CAUTION: If the memory mode has been previously enabled **AND** there are stored memory points, the message "Cannot change *Memory mode*" will be displayed. **The current memory points must be deleted before memory mode can be changed.** See Section lV.2.

> Press **Change**.
> Using the **Scroll up** and **Scroll down** buttons, select the desired memory mode.
Options are: **Off**, **Normal**, **Comp Peak**, **Tens Peak** and **T & C Peak**.
> After the desired mode is selected and displayed, press **Change**.

> The gage will display the screen "**3. Change Mem Mode**".
> Press **Yes** to enable the selected memory mode.
> Press the **Escape (Zero)** twice to return to force display mode.
> Memory mode is indicated on the force display screen, by the addition of **Count** and **AVG.**
> Note that the menu buttons are different when memory mode is enabled. The buttons are **Menu**, **Review** and **Save**.

III. SAVING MEASUREMENTS IN MEMORY

> To save a force measurement data point in memory, press **Save**.
> Note that the **Count** and **AVG** values are updated.
> The gage can store up to 500 data points. Attempts to save measurements when Memory is full will result in a "Memory Full" message. Gage memory will need to be uploaded and / or deleted before more measurements are stored. See Section IV.2.

IV. REVIEWING AND DELETING SAVED FORCE MEASUREMENTS

IV.1. Reviewing Saved Force Measurements

> Press **Review**. The **Statistics** screen is displayed.

Data displayed:

Count	XXX (YYY deletions)
AVG	Average of saved data
StDev	Standard Deviation of saved data (Pop or Sample)
Max	Maximum value of saved data
Min	Minimum value of saved data

> Note that **AVG, StDev**, **Max** and **Min** DO NOT include deleted values.
> The **Statistics** screen provides buttons for the selection of **Del All** (Delete all data), **Data** (Review data) and **Send** (Send data to PC).

IV.2. Delete ALL Stored Data in Memory

> From the above selected **Review** screen, press **Del All**. The "**Delete all stored data**" screen will be displayed.
> Press **Yes** or **No**.

IV.3. Review Individual Saved Force Measurements

> Select the **Review** screen per Section IV.1.
> Press **Data.**
> The **Data Review** screen is displayed.
Display format:
Measurement number, force value, units and mode.
Note that a deleted value will be prefaced with a "**D**".

Example 1 **0001 56.30 lbf C (Measurement 0001, 56.30 lbs, Compression)**
Example 2 **D 0002 00.01 lbf C (Deleted measurement)**

> **Review** screen options are **Delete**, **Scroll down** and **Scroll up**.
> Use the **Scroll up** and **Scroll down** buttons to display the desired values.
> **Review** screen hints:
* When the first measurement (#1) data point is highlighted, the **Scroll up** button moves data pointer to the end of the data set.
* When the last measurement (#n) data point is highlighted, the **Scroll down** button moves data pointer to the beginning of the data set.
* To review a large data set, it may be desirable to "fast scroll", by pressing and holding either the **Scroll up** or **Scroll down** button for more than 1 second.

IV.4. Delete Individual Saved Force Measurements

> Select the **Review** screen per Section IV.1.
> Press **Data.**
> The **Data Review** screen is displayed.
> Using the **Scroll up** and **Scroll down** buttons, select a measurement to delete.
> Press **Delete.**
> Press **Yes** or **No**.

IV.5. UnDelete Individual Saved Force Measurements

> Select the **Review** screen per Section IV.1.
> Press **Data.**
> The **Data Review** screen is displayed.
> Using the **Scroll up** and **Scroll down** buttons, select a measurement to undelete.
> Press **UnDelete.**
> Press **Yes** or **No**.

IV.6. Send Saved Force Measurements to Attached PC.

> From the **Review** measurements screen, press **Send.**
> The gage will send statistics and data via USB cable to an attached PC.

V. MISCELLANEOUS

*** Additional memory function options ***

V.1. Standard Deviation Calculation Method.

- The gage calculates standard deviation using either the population method or the sample method -- the appropriate method must be determined by the test engineer.
- To select a method, the gage must be in force display mode.
- Press and hold the **Menu** button until the **1. Select Setup Category** screen is displayed.
- Using the **Scroll down** button, highlight **Memory Mode**.
- Press **Change**.
- The **2. Select Memory Mode** screen is displayed.
- Using the **Scroll down** button, highlight **ST DEV mode**.
- Press **Change.**
- **Scroll** to select **Population** or **Sample**.
- Press **Change.**
- Press **Yes** or **No.**

V.2. Send Statistics to PC

- Data sent to an attached PC, using the **Send** button, can be set to send statistics or not send statistics.
- To select, the gage must be in force display mode.
- Press and hold the **Menu** button until the **1. Select Setup Category** screen is displayed.
- Using the **Scroll down** button, highlight **Memory Mode**.
- Press **Change**.
- The **2. Select Memory Mode** screen is displayed.
- Using the **Scroll down** button, highlight **Send Stats**.
- Press **Change.**
- Select **Send** or **Don't Send.**
- Press **Change.**
- Press **Yes** or **No.**

- **Note: The "Send Statistics" setting only applies to using the "streaming" method of sending data to a PC. Please refer Section V.3. "Sending Data to a PC" for a more detailed explanation.**

V.3. Sending Data to a PC

> Two methods are available for the purpose of collecting memory data by an attached PC: "streaming" and "synchronous".

> **"Streaming"**

The "streaming" method sends memory data to the USB port and possibly to a PC, independent of any interaction with a PC application. When the **Send** button is pressed, all memory data is streamed to the PC. Streaming proceeds independent of any application running on the PC. The most often used PC application to collect data in this mode is a "Terminal Emulator"**.** The terminal emulator simply receives and displays data sent by the gage. The terminal emulator will, in most cases, offer a "save data to file" method.

The "Send Statistics" setting (see Section V.2) will determine if statistics are "streamed", followed by the saved memory points.

> **"Synchronous"**

A "synchronous" PC application totally controls the uploading of memory data from the gage to the PC. The PC application sends memory specific commands to the gage and the gage responds accordingly.

Two applications available to upload FDIX memory data are:

"WAGNER FDIX Memory to File" – Uploads data and statistics.

"Mark-10 MESUR^{TM} Lite" – Uploads memory data only.

The "Send Statistics" setting (see Section V.2) will not have any effect on this upload method.

Please refer to documentation that accompanies these applications for further details.