Manual for PowerStress with Multiplexer

Ver. 201003

This manual is prepared for the PowerStress user who will execute the automatic measurement with multiplexer.

1. Multiplexer for EM Sensors



Figure 1 Multiplexer

2. Connection

All sensors are connected to sensor channels of Multiplexer. (Fig. 2) Two connectors from Multiplexer are connected to PowerStress. (Fig. 3) Each connector has a different end.



Figure 2 Connection with EM sensor and Multiplexer



Figure 3 Connection with Multiplexer and PowerStress



Figure 4 Interface of PowerStress Unit

3. Setup for Multiplexer TOOL

Step 1. Turn on PowerStress. (Fig. 5)

Step 2. Press "Run" button (Fig.6)

| | The second se | Model PS-500 |
|---|---|---------------------|
| Model PS-500 | PowerStress | PS-500 Unit: ISO |
| Power Stress | EM Sensor Measurement Unit | 1.Run-Sensor Test |
| UDT Technologu | | 2.Multi CHNL Tool |
| NDT Pedinotogy | O O Power Hi-Volt. | 3.Run-Muli Test |
| F1 F2 F3 F4 | | 4. HUTO_KUN |
| and the second se | | mann star seto syst |
| ESC A RUN | | |
| | | F1 F2 F3 F4 |
| | | |
| | | ESC DUN |
| Figure 5 Initial State of PowerStress | | Figure 6 Main Page |

Step 3. Press "▼" button (then, the highlight moves down, Fig. 7) and "Run" button (Fig. 8) to use "Multi CHNL Tool".

| Model PS-500 | Model PS-500 |
|--------------------------|---|
| PS-500 Unit: 180 | Sensor ON 12345678 |
| 1.Run-Sensor Test | Sensor0FF |
| 3 Run-Muli Test | SET - NUM O |
| 4.Auto_RUN | SET -TIME |
| Main StaT SetU Syst | BACK TIME TNUM SNSR |
| F1 F2 F3 F4 | F1 F2 F3 F4 |
| Figure 7 Multi CHNL Tool | Figure 8 Current State of Multi Channel |

Step 4. Setup Channels: Sensor ON & OFF

For example to turn off the sensor/channel number 2 only:

A. Press "F4" button (SNSR key) to turn on/off channels that will be used (Fig. 9).

B. Press "▼" button and "◀" button (Fig. 10), where "◀" button is "turn-OFF" and "▶" button is "turn-ON". "F2" (A_ON) is a button to make all channels turn-on. "F3" (Aoff) is a button to make all channels turn-off.

C. Press "F4" (SAVE) to save the current state. Press "F1" (BACK) to go back to previous window (Fig.11). The first two lines on the window indicate the current state of the channel in Fig. 11.



Step 5. Setup the Number of Measurement: SET-NUM

For example to measure the number of 25:

- A. Press "F3" button (tNUM). Then "tNUM" will be highlight (Fig. 12).
- B. Press "▶" button twice and "▲" button five times. SET-NUM becomes to "25".
- C. Press "F3" button (tNUM) to save and return (Fig. 13).

If you want to measure permanently, set to "0".



Step 6. Setup the interval between sets of measurements for all channels: SET-TIME

For example to set the interval with every 5 minutes:

A. Press "F2" button (TIME). Then "TIME" will be highlight (Fig. 14).

B. Press "▲" button 4 times. Then, SET-TIME becomes to "5 min". For 100 digits and 10 digits, use "F4" and "▶" button respectively.

C. Press "F2" button (TIME) to return (Fig. 15).

D. Press "F1" button (BACK) to return to main menu (Fig. 6)



Step 7. Preliminary Test with Multiplexer Mode: Run-Muli Test

A. Press "Run" button at the highlight on "3. Run-Muli Test" (Fig. 16). Then a new window will be shown.

B. Press "Run" button to execute a preliminary test. The first data is temperature and the second is a measured force (Fig. 17).

C. Press "F1" button (BACK) to return to main menu (Fig. 6).



Step 8. Run: Auto_RUN

A. Press "Run" button at the highlight on "4. Auto_RUN" (Fig. 18). Use the button " $\mathbf{\nabla}$ " and " $\mathbf{\Delta}$ " to select the menu. Then, a new window will be shown (Fig. 19).

- B. Press "Run" button to begin the automatic measurement with multiplexer (Fig. 20).
- C. Press "F2" (NEW) to start (Fig. 20). Then, the running window will be shown (Fig. 21).
- D. If you want to stop the Auto-Run, Press "F1" button (STOP key).

