Sentinel I-21/B-21/F-21/C-20 Instrument Communication with a GageTalker

A GageTalker brand data collection system can be connected to the Sentinel I-21/B-21/F-21/C-20 instrument to obtain charted leak test data. This document provides information on configuring the GageTalker line of equipment (Endura, GT3+ handheld, GT3+ workstation, and software based systems) for the Sentinel I21/B21/F-21 instruments. Cincinnati Test Systems does not stock the hardware specified herein. The reader is encouraged to contact his local GageTalker representative for this equipment

THE INFORMATION PROVIDED BELOW IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. IN NO EVENT SHALL CINCINNATI TEST SYSTEMS OR ITS REPRESENTATIVES BE LIABLE FOR DAMAGES WHATSOEVER INCLUDING DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, LOSS OF PROFITS, OR SPECIAL DAMAGES UNDER ANY CIRCUMSTANCES. THE USER OF THIS INFORMATION IS SOLELY RESPONSIBLE FOR PROPERLY ENGINEERING AND IMPLEMENTING ALL CONNECTIONS TO THE SENTINEL TEST EQUIPMENT.

Discussion

GageTalker provides a line of products designed to automatically collect gage measurement data from many types of gages and present this data in x-bar type charts. The Sentinel I-21/B-21/F-21/C-20 instruments can be connected to a GageTalker using the 9 pin RS-232 port on the front (Sentinel I21/F-21/C-20) or back (Sentinel B-21) of the instrument. The following GageTalker equipment is needed:

1. **GF0903R cable**
2. **Gage Port Model 2102 or 2104 adapter module.**
   You may already have this item.
3. **A GageTalker system (Endura, GT3+ handheld, etc.).**
   You probably already have this item.

To connect the GageTalker system to the Sentinel I-21/B-21/F-21/C-20 instruments, plug one end of the cable into the Gage Port adapter module and the other into the instrument. Next plug the adapter module into the GageTalker system. This completes the hardware installation.

Both the Sentinel instrument and GageTalker need to be configured to communicate. For the Sentinel I-21/B-21/F-21/C-20 instrument, perform the following steps:

1. **Press the "COMM" key on the Sentinel I-21/B-21/F-21 keypad or MENU/"Inst" on the Sentinel C-20 keypad.**
2. **Use the arrow keys to select "Connect To: Printer or RS485 Network" ("Ser Port" on the Sentinel C-20) and press the "ENTER" (MENU) key.**
3. **Use the arrow keys to select "Xfer Data: EACH TEST (Push Enter to Send)" and press the "ENTER" (MENU) key.**

For the GageTalker, you will need to create a "part setup" and then configure the communications. The following example, based on the Windows version of GageTalkers' software, illustrates one way of performing these tasks.

Create Part Setup
1. **From the top menu bar, select FILE and NEW**
2. **Choose the Basic Wizard**
3. **Choose the following settings from the selection screens:**
   - **Page 1**
     - **Enter part name**
     - **Sequence = piece**
     - **Subgroup size = 1**
     - **Push the Next button**
   - **Page 2**
     - **Enter the characteristic name (Leak Rate)**
     - **Target = 0**
     - **Plus = your reject rate**
     - **Minus = your maximum negative leak**
     - **Decimal point = 3**
     - **Push the Next button**
   - **Page 3**
     - **Chart type = Xbar-Range**
     - **Input type = RS232**
     - **Push the Next button**
   - **Page 4**
     - **Accept these defaults and push Finish**

Set Communications Protocol
1. **From the top menu bar, select WINDOW and GAGE.VSG.**
2. **From this configure file screen, select the Utilities tab.**
3. **From this Utilities screen, select RS232 in the "ports to configure" drop box. This will select the Communication Parameters worksheet.**
4. **Choose the following settings from this screen:**
   - **9600 baud**
   - **No parity**
   - **8 bit**
   - **1 stop bit**
   - **gage mode = wait**
   - **field 4**

Note:

For Sentinel I-21/B-21/F-21 - Field 4 contains the leak rate information. If you prefer to collect the pressure loss data (or Pressure data for Sentinel F-21), choose field 2 instead.

For Sentinel C-20 – Field 1 contains the leak rate information and field 3 contains the pressure loss data.

5. **Select "OK to accept these settings.**
6. **Select "Program Flash" to program the Gage Port**

This completes the GageTalker setup procedure.

Once you have completed this setup, each test run on the Sentinel instrument will be logged to the GageTalker. If you have questions about viewing or printing the collected data, please contact your GageTalker representative.

AB116A.doc
6Ju02
B. B./G.G.