

## Digital Quick Start

# Setup Guide – Using RS232 Test Board

### Application Note A83

## GETTING STARTED

1. File the printed specification sheet that was shipped with the sensor, which has a listing of the **stored calibration parameters** that will be referenced to later in Application Note A84 “Digital Quick Start” Calibration Guide - Using RS232 Test Board.

**CAUTION:** Make sure input power is off prior to connection.  
Connections should only be made after referring to product specification sheet or damage may occur to the PC boards.

2. Install the two wire connector (supplied with RS232 Test Board) between the PCB (J2) and RS232 Test (J1) Boards. Connect the 12VDC power to RS232 Test (J3) Board. Install the Digital Interface six conductor ribbon cable between PCB (J1) connector and the RS232 (J2) Test Board.

Part Numbers: #030522 – RS232 Test Board  
#940014 – 10" Power Wire  
#940015 – 10" SPI Ribbon Cable

3. Connect the male end of a standard RS232 nine pin (D type) cable to the RS232 Test Board and the female end to an open COM port on your computer.
4. Start the HyperTerminal P.E. Version 6.3 program on your computer or download by clicking the hyperlink\* or copying the URL\* (bottom of the page) to the browser address line.
5. Set up communication parameters to the open/designated COM port (1,2,3,4, etc.) for Baud - 9600, Data Bits - 8, Stop Bit - 1, Parity - none and Flow Control - Xon/Xoff.  
(See “File” then “New Connection” drop down box under the HyperTerminal program)

**CAUTION:** After power is applied DO NOT press the calibration switches on the SPI board until you verify proper operation using the RS232 test board.

6. Make sure the SLAVE/MASTER JUMPER on the SPI board to be calibrated is in the MASTER MODE.

NOTE: a) Original SPI boards will have a 2 point “wire loop” at JP2 that should either be missing (OPEN) or cut to be in MASTER MODE.  
b) 2nd Generation SPI boards will have a 2-pin female connector at JP2 that should have a missing “jumper” (OPEN) or the “jumper” is only on 1 of 2 pins to be in MASTER MODE.  
(a or b applies to Models 2005SPI-1, 2005SPI-2, 2015SPI-1, 2015SPI-3, 2015SPI-4, 2015SPI-13 and 2015SPI-100)  
c) 3rd Generation SPI boards will have a 3-pin female connector at JP1 that should have a missing “jumper” (OPEN), a “jumper” only on 1 of 3 pins or the “jumper” installed on the 2 pins closest to the PCB printed JP1/Master to be in MASTER MODE.  
(Applies to Models 2005SPI-2N, 2015SPI-3N, 2015SPI-4N, 2015SPI-CON and 3411-02 & 20)  
d) Only Model 2208-20 boards will have a 3-pin female connector at JP2 that should have a missing “jumper” (OPEN), a “jumper” only on 1 of 3 pins or the “jumper” installed on the 2 pins closest to the printed JP2 to be in MASTER MODE.

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7. Apply power to the RS232 Test Board, then press the RESET Switch on the RS232 Test Board. To confirm communication, the screen should display the text line “LOCKED”.

**NOTE:** The RESET switch on both boards performs a power on reset, they do not clear the calibration data.

8. To continue with calibration procedures please see Application Note A84.

\*(<http://download.cnet.com/downloads/0-10101-108-16536.html?bt.15254.10014..dl-16536>)