

## FuelCell Addendum – Model 892 Data Expansion System Support

D. Johnson, Scribner Associates, Inc.

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### Introduction

This document describes setup and operation of Scribner’s Model 892 Data Expansion System with FuelCell software. This document applies to FuelCell version 3.4b and later.

The FuelCell software can support up to 6 modules for a maximum of 32 Aux signals.

### 892 Configuration in FuelCell

The 892 Data Expansion System is configured by directly editing the “fuelaux.ini” configuration file located at C:\FuelCell\.

The 892 modules should be preconfigured for the appropriate RS485 address, baud rate, data format and gain/range.

The format of the ini file is shown on the following page.

Each [Module] section describes a particular unit and must contain the proper **RS485Address** setting. Setting the address to 0 will deactivate the module.

The **Gain** setting (shown for Module2 below) is optional and should only be used to reconfigure a module in the field. It should not be used in preconfigured systems. The Gain setting corresponds to the 8017 and 8018 Data Range values described in their manuals.

Note: The **Gain** value is an integer from 0 to 255. The 8017 and 8018 manuals describe the data ranges in Hexadecimal format (00 to FF).

Each module has 8 inputs. The following settings will activate input #1 and use the text label “Temp1” in the FuelCell program for this input channel. If **Used** and **Name** values are not entered, the input will not be used.

```
Input1Used=1  
Input1Name=Temp1
```

Each input also has optional scaling values. The following settings will multiply the value for input #1 by 10 and then add 5.

```
Input1Scale=10  
Input1Offset=5
```

**Example of the fuelaux.ini configuration file.**

```
[Program]
;This file describes the configuration of the 892 Aux signal options

[Module1]
RS485Address=1

Input1Used=1
Input1Name=Temp1
Input2Used=1
Input2Name=Temp2
Input3Used=1
Input3Name=Voltage1
Input4Used=1
Input4Name=Voltage2

[Module2]
RS485Address=2
Gain=15

Input1Used=1
Input1Name=Temp3
Input1Scale=2
Input1Offset=0

Input2Used=1
Input2Name=Temp4
Input2Scale=1
Input2Offset=5

Input3Used=1
Input3Name=Voltage3
Input3Scale=1
Input3Offset=0

Input4Used=1
Input4Name=Voltage4
Input4Scale=1
Input4Offset=0
```