



The World Leader in Vibrating Wire Technology

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Instructions

Model 8021-1

Micro-1000 Datalogger

Quick Start Guide

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Model 8021-1

MICRO-1000 Datalogger Operation Notes

Overview

The MICRO-1000 Datalogger system is designed to support the reading of a large number of Geokon Vibrating Wire Instruments through the use of Geokon's Model 8032 Multiplexers. The standard MICRO-1000 can support six (6) 16/32 channel Multiplexers. A Digital Signal Processor (AVW200) provides the required excitation and signal processing for the vibrating wire sensors connected to the datalogger.

System

The MICRO-1000 Datalogger is a pre-wired and includes the necessary cable for serial communication with a computer and an external power supply for the charging of the internal battery.

The vibrating wire sensors are connected to the external multiplexers through the weather tight strain relief fittings mounted to the enclosure; with the final connection made to the terminal blocks mounted on the multiplexer. Each terminal block consists of five clamp connections, where the connections are as follows:

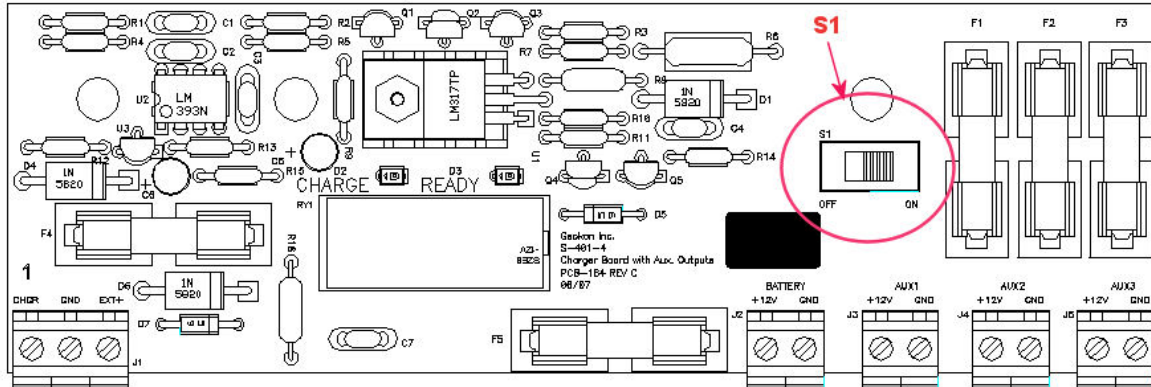
- #H1 = VW+ (usually the Red wire)
- #L1 = VW- (usually the Black wire)
- #H2 = TH+ (usually the Green or White wire)
- #L2 = TH- (usually the White or Green wire)
- S1 = Cable Shield (usually the Bare wire)

Each Multiplexer is connected to the MICRO-1000 through one of the six (6) weather tight 10-pin Bendix connectors mounted on the enclosure. Each connector is pre-wired to control and read the Multiplexers.

Power

NOTE: When the Datalogger is shipped from the factory, the internal battery is disconnected from the system through a switch to prevent the battery from being discharged prior to use. The S1 switch on the internal charging board must be in the ON position for the Datalogger to operate properly.

-Internal Charging Board



Whenever achievable, the external AC power supply should be connected to the Datalogger to maintain the proper charge of the internal lead-acid battery. This is accomplished by attaching the power supply to the 3-pin connector on the outside of the Datalogger enclosure.

External Battery

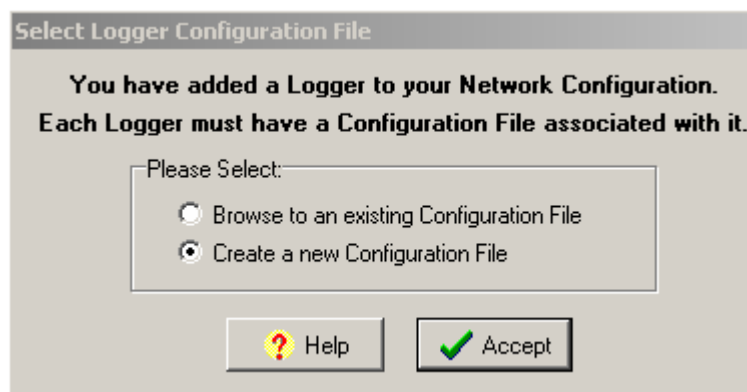
An external battery may be used to power the Datalogger via the supplied external battery cable. The internal charging board has an external battery sense circuit that will disable the internal battery.

MultiLogger Software Configuration

The 'Device Type' attached to the COM Port or Modem is a CR1000 Datalogger

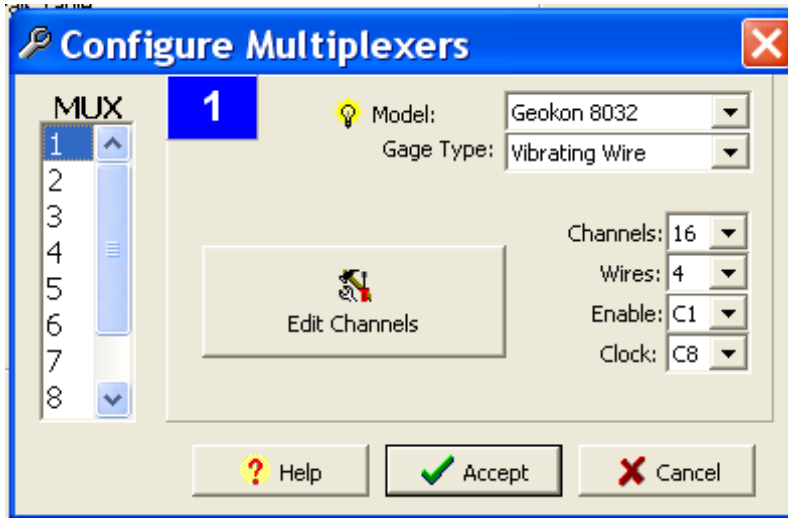


When adding/saving the CR1000 Datalogger to the Network Configuration the user will be prompted for a Logger Configuration File; Select Create a new Configuration File.

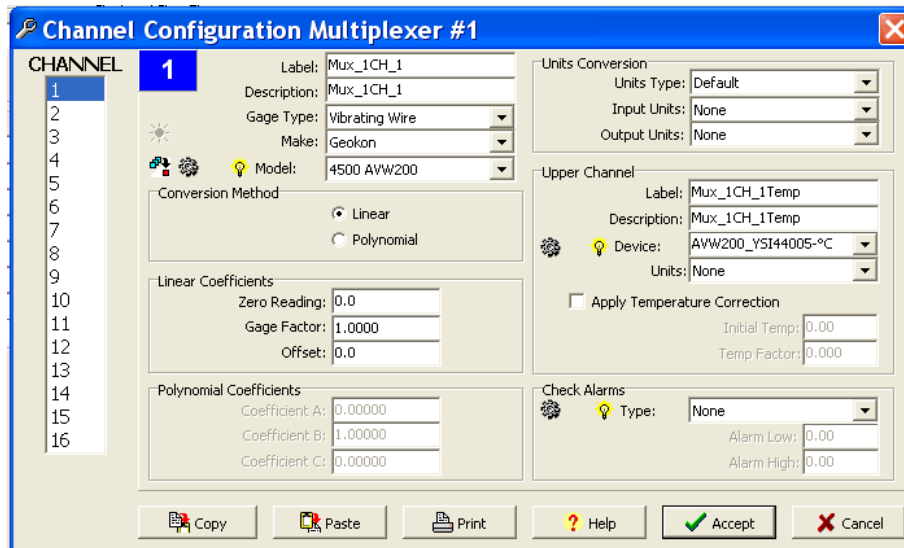


After pressing the *Accept* button above, the Logger Configuration form will display. This form allows the user to set-up the various parameters for the datalogger operation, including the scan interval, collection options, graphing, and the gage parameters for each multiplexer channel.

Note that when configuring the multiplexer that the MUX # will change depending on multiplexer being configured.



Use the *Edit Channels* button to configure each channel of the Multiplexer. The Model will be the Geokon Gage Model and AVW200. The Upper Channel (Thermistor) will be AVW200-YSI44005-°C for an output of Celsius or AVW200-YSI44005-°F for an output of Fahrenheit.



Please see the MultiLogger instruction manual for more specific details regarding the complete programming of a Datalogger and the associated configuration files.

-CR1000 Wiring

CR1000 Connections	Color	MUX Interface Ribbon Cable	MUX Enable Ribbon Cable	SDI-12 Comm Cable	CR1000 Power Cable	Description
C1	Brown	NC	Conductor 1	NC	NC	MUX Enable 1
C2	Red	NC	Conductor 2	NC	NC	MUX Enable 2
C3	Orange	NC	Conductor 3	NC	NC	MUX Enable 3
C4	Yellow	NC	Conductor 4	NC	NC	MUX Enable 4
C5	Green	NC	Conductor 5	NC	NC	MUX Enable 5
C6	Blue	NC	Conductor 6	NC	NC	MUX Enable 6
C7	Blue	NC	NC	Blue	NC	SDI-12 Communications
C8	White	Conductor 9	NC	NC	NC	MUX Clock
12V	Blue	Conductor 6	NC	NC	NC	MUX 12 VDC
G	Black, Violet and Blue's Black	Conductor 7 and 10	NC	Black	NC	Ground
AG	Green	Conductor 5	NC	NC	NC	Analog Ground
PWR IN 12V	Red	NC	NC	NC	Red	CR1000 12 VDC
PWR IN G	Black	NC	NC	NC	Black	CR1000 Power Ground

-AVW200 Wiring

AVW200 Connections	Color	MUX Interface Ribbon Cable	CR1000 Datalogger	Description
1V +	Brown	Conductor 1	NC	Vibrating Wire +
1V -	Red	Conductor 2	NC	Vibrating Wire -
1T+	Orange	Conductor 3	NC	Thermistor +
1T-	Yellow	Conductor 4	NC	Thermistor -
SDI12	Blue	NC	C7	SDI-12 Communications
G	Blue's Black	NC	G	Ground