## **GEOKON**®

# Model GK-406-MUX VW Analyzer Load Cell Multiplexer Ouick Start Guide



For those familiar with Geotechnical instrumentation and its installation, the following guide may be used. For more detailed information than is provided in this Quick Start Guide, please refer to the <u>Model GK-406 Instruction Manual</u>.



FIGURE 1: Load Cell (Left), GK-406-MUX (Middle), and GK-406 VW Analyzer (Right)

### 1. SETUP

- 1. Remove the protective silicon cover from the Model GK-406-MUX Multiplexer and install two AA alkaline batteries into the rear battery compartment.
- 2. Install the multiplexer back into the protective silicon cover.
- 3. Connect the Model GK-406 VW Analyzer to the multiplexer using the supplied cable.
- 4. Connect the load cell to the multiplexer.

### 2. OPERATION

- 1. Press the power button just under the left side of the readout screen on the VW Analyzer.
- 2. Select or add a user and the home screen is displayed.
- 3. Select Read & Record and then Site/Sensor.



FIGURE 2: Read & Record (Left) and Site/Sensor (Right) Selections

4. Select Add Site from drop down menu. Enter a site name, and then Save.



FIGURE 3: Add Site Selection (Left) and Naming the Site (Right)

5. Select Next and then select Add Sensor from the drop down menu.

GPS OFF	Select Site		GF	SOFF	Select Sensor	
Kite 1 Proje	ect Number:	\$>	<	Select (Add Se SenA_S	/ Add Sensor ensor) Sensor A	÷>
B	dit Site Parameters	5				
Back		Next		Back		

FIGURE 4: Next (Left) and Add Sensor (Right) Selections

 Enter a sensor name, select Geokon as the manufacturer. Select the applicable sensor model "GK 4900-#" (-3 for a 3-gauge, -4 for a 4-gauge, -6 for a 6-gauge). Enter the serial number. Select Next.

GPS OFF New Sensor Setup							
Sensor Name:	6 gauge load cell						
Manufacturer:	Geokon	\$					
Sensor:	GK 4900-6	\$					
Serial Number:		2313447					
Excitation:	5 Volts	Help					
Cancel		Next					

FIGURE 5: Enter Applicable Sensor Information (6 Gauge Load Cell Example)

 Select the output units of the load cell and press Next. Enter a baseline digit reading (field zero), enter the gauge factor from the calibration sheet. Use default batch factor of 1. Select Save.

GPS OFF	New Sensor Setup	
Se	nsor: GK 4900-6	
Output L	Inits: Undeclared	\$
	Undeclared	
	lbs	
	kgs	
Cancel		Next



FIGURE 6: Enter Sensor Reading Information

8. Select **Read** and the readout screen is displayed, it will take a few seconds to read all gauges and provide a response on the screen.

GPS OFF Select Sensor		GPS	SOFF	Site/Sensor Measurem	ent 🗾	
6 gauge load cell				2446.680		
Edit Site Parameters	3		6000.60 Digits	0		
		16 Oct 2023 2:58:55 PM				
Back Navigate	Read		Back	Read Sensor	Details	

FIGURE 7: Site/Sensor Measurement

9. To see individual gauges, average, or load output select the **Details** button. At the top of the screen you will see "Site/Sensor Details gauge 1". The over arrows can be used to view each gauge in the load cell, with the last selection being the average.

GPS	OFF Site/Sensor D	etails gauge: 1	GPS C	)FF Site/	Sensor Details (avg)	
	2360.901	5766.933		2500.00	01 5969.93	0
	Frequency (Hz)	Frequency <sup>2</sup> /1000		Frequency (	Hz) Frequency^2/	1000
	3.595	NAN		2.555	NAN	
R	Amplitude (mV RMS)	Signal to Noise Ratio	R -	Amplitude (m∨	RMS) Signal to Noise	Ratio
	0.000	0.255		421.595	0.118	
	Noise Frequency	Decay Hatio		Noise Freque	ency Decay Hat	10
/				20.7769.	3 3629.31	
	Temperature (C/F)	Thermistor (Ohms)		Temperature (	(C/F) Thermistor (O	hms)
В	<b>Back</b> Gauge	Spectrum	Ba	<b>ick</b> Ga	uge <mark>Sp</mark>	ectrum

FIGURE 8: Individual Gauge Readings (Left, Showing Gauge 1) and Average Reading (Right)

10. Spectrum and time graphs are also available from the **Details** screen.

#### 3. **OUTPUT IN LOAD/DISPLAY SETUP**

By default, the screen will display two outputs, one in frequency, and one in digits. This can be changed within the settings menu to display the load cells engineering units output as follows:

1. Select Settings from the main menu. Select Measure.



FIGURE 9: Settings (Left) and Measure (Right) Selection

2. Select Measurement Display. You will now see "Display #1" and "Display #2". Both have drop down menus to select the output displayed in each window. We recommend one display remain as digits (raw data), and one output be set for engineering units (load). Select Save.

GPS OFF





FIGURE 10: Measurement Display Selections



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