Small Diameter Filter Scavenger Handheld Indicator

Installation and Operation Manual

Rev 6/29/2018 Part # 26100015

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DOCUMENTATION CONVENTIONS

This uses the following conventions to present information:

An exclamation point icon indicates a **WARNING** of a situation or condition that could lead to personal injury or death. You should not proceed until you read and thoroughly understand the **WARNING** message.

WARNING

A raised hand icon indicates **CAUTION** information that relates to a situation or condition that could lead to equipment malfunction or damage. You should not proceed until you read and thoroughly understand the **CAUTION** message.

CAUTION

A note icon indicates **NOTE** information. Notes provide additional or supplementary information about an activity or concept.

NOTE

NOTICES

Do not operate this equipment if it has visible signs of significant physical damage other than normal wear and tear.

Section 1: System Description

The SDFS handheld was designed with ease of use in mind. It gives a single user the flexibility to setup a well by indicating water and product float levels; Low, Med, High and Water Override.

Section 2: System Installation

READ BEFORE PROCEEDING ANY FURTHER

Inspection

Inspect the SDFS Handheld unit upon arrival. If any items are missing or damaged, make note of this on the shipping papers and immediately notify your sales representative at Geotech.

Testing

Turn on the main power switch of the handheld unit to verify battery is operational. A green LED on the switch, and the low LED's for product and water will turn on if the device is working correctly. Refer to *Section 5: System Troubleshooting* for troubleshooting instructions should one or all of these fail to illuminate correctly.

Wiring

The SDFS probe cable easily connects to the handheld unit as it would on the main controller. Simply align the keyed connector, gently insert to make connection and twist locking mechanism to secure cable into place.

Section 3: System Operation

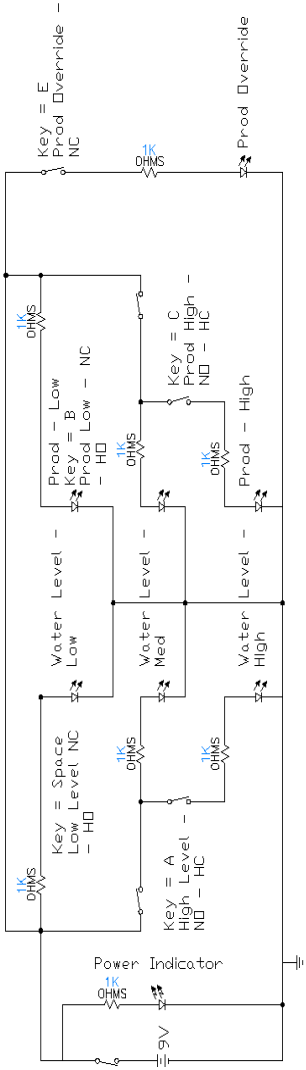

Figure 3-1: System Schematic

Basic Operation

With the main power switch off, connect the SDFS probe cable into the handheld connector. Turn on the main power switch and use the LED's to reference probe location in the well for correct positioning.

The LED's for water will indicate float position in the water as the probe is lowered into the well. Lower the probe until desired position is attained.

The LED's for product level will indicate how full the product reservoir is.

The water override LED should be turned on when the probe cable is plugged in and unit is powered on. If this LED is off, refer to *Section 5: System Troubleshooting* to verify handheld unit is operating correctly. If handheld unit checks out, then refer to the SDFS Operation Manual for further troubleshooting.

Display Descriptions

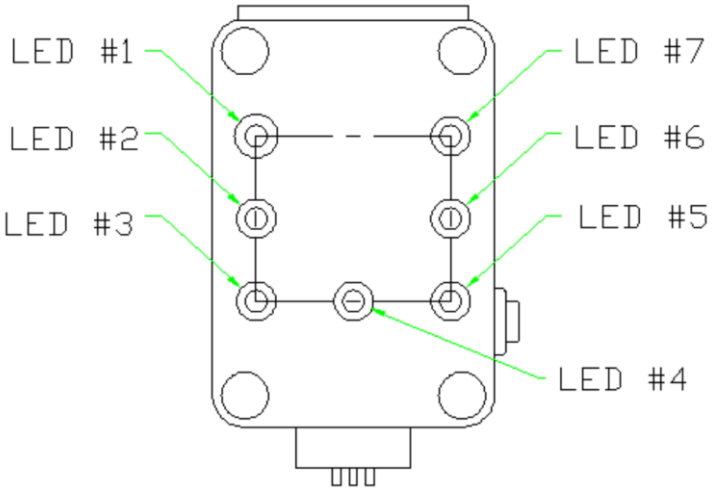

Figure 3-2: Display Layout Guide

Water indicators		Product indicators
Low – LED # 3	Water Override	Low – LED # 7
Med – LED # 2	LED # 4	Med – LED # 6
High – LED # 1		High – LED # 5

LED # 3 and 5 will illuminate when unit is powered on for testing and during normal operations.

LED # 4 represents water override. This will be illuminated when normal conditions apply.

Section 4: System Maintenance

Do not attempt any repairs to damage found on this unit.

All maintenance and troubleshooting procedures must be carried out by qualified personnel only.

Abraded or cut electrical cords should be replaced immediately.

During system troubleshooting, attempt only the procedures outlined in *Section 5: System Troubleshooting* of the manual.

Check the GECM control panel for accumulation of moisture.

The SDFS Handheld should be properly cared for to maintain longevity. Keep the unit clean and free of dirt and debris. Use of solvents to clean the outside is NOT recommended. Use a dry cloth or compressed air to remove dust and debris.

Should the battery need replacing, use a flat object such as a flat tipped screwdriver and lift gently on the battery drawer. Drawer will pop out slightly and can be slid out to access the battery.

Use of a 9V alkaline battery designated 6LR61 or 1604A is recommended.

To install battery, place end opposite of terminals in first and compress the spring with the battery and gently press down into place. Re-install battery drawer into handheld unit until it clicks into place. Drawer is notched according to polarity

When not in use, store the SDFS Handheld unit in a dry and safe location.

If you require further assistance, please call Geotech at 800-833-7958 or (303) 320-4764.

Section 5: System Troubleshooting

These procedures are meant to be carried out by personnel qualified to work on electrical circuitry. If in doubt, obtain the services of a qualified electrician.

Getting Help

If the troubleshooting procedures in this section indicate a component failure, call Geotech Environmental Equipment after documenting the problem as outlined below.

- Read the entire manual and become thoroughly familiar with all system components and troubleshooting procedures.
- Prepare a written list of all problems encountered while operating the equipment.

Service Locations

Geotech Field Service personnel are trained on all aspects of the equipment and are dedicated to helping you maximize the efficiency and cost effectiveness of your PSCAV system. For technical support call our Geotech Service office.

Geotech Environmental Equipment, Inc.
2650 East 40th Avenue
Denver, CO 80205
Toll Free Phone: (800) 833-7958
Commercial Phone: (303) 320-4764
Fax: (303) 322-7242
www.geotechenv.com

Problem: Switch power indicator or low LED's are faintly lit or do not illuminate when unit is switched on.

Solution # 1:
Check the condition and voltage of the battery with a properly calibrated test meter.

Solution # 2:
Verify battery drawer is seated and locked in correctly.

Solution # 3:
Replace battery and If replacement of battery does not correct the problem, unit must be sent in for repairs.

Problem: SDFS connector will not go in.

Solution:
Check connector for debris or damage. If debris exists, clear obstruction and insert connector. If damage exists, DO NOT force connector in or try to repair it; unit must be sent in for repairs.

Problem: There is no change in the LED's when lowering the SDFS into the well.

Solution:
Verify condition of battery. If battery tests properly, use a jumper wire to simulate float conditions of pump. *Section 6: System Specifications* shows connections to jumper during a simulation test of the handheld unit. Unit must be sent in for repairs if any of the jumper tests fail.

If the handheld unit checks out properly then refer to the SDFS Operation Manual for further troubleshooting.

Section 6: System Specifications

Handheld probe designator	Handheld wire color
A	White
B	Black
C	Yellow
D	Blue
E	Orange
F	Red
G	(Not Used)
H	Green
J	Brown
K	Violet

Using a jumper between the following pins will simulate specified conditions as a useful troubleshooting tool.

A – B Simulates water level high condition.

B – C Simulates water float is up from the bottom stop and in an up or down travel.

D – F Simulates that the reservoir product float is up from the bottom stop and in travel up or down.

D – J Simulates reservoir float at top of travel (product high).

E – H Simulates water override.

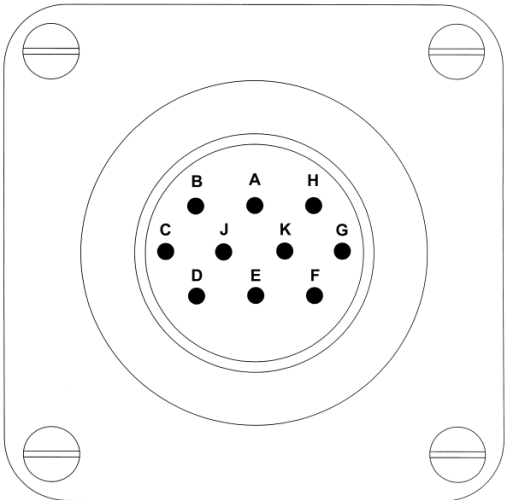

Figure 6-1: Receptacle

Controller Specifications:

Input Voltage Range 7 - 10 Volt DC
Volt Out Range 0 to Vin
Power usage 10mW
Storage Temp -4°F to 185°F (-20°C to 85°C)
Operational Temp -4°F to 122°F (-20°C to 50°C)

Physical Specifications:

Enclosure - 3.70 x 2.56 x 2.24 in. (94 x 65 x 57 mm)
Weight - 7.186 oz. (203.8 g)
Enclosure Material - Polystyrene Gray

REVISION HISTORY		
PROJECT #	**DESCRIPTION**	**DATE**
1554	Removed replacement parts list. General formatting edits. Added Revision History – StellaR	6/29/2018

The Warranty

For a period of one (1) year from date of first sale, product is warranted to be free from defects in materials and workmanship. Geotech agrees to repair or replace, at Geotech's option, the portion proving defective, or at our option to refund the purchase price thereof. Geotech will have no warranty obligation if the product is subjected to abnormal operating conditions, accident, abuse, misuse, unauthorized modification, alteration, repair, or replacement of wear parts. User assumes all other risk, if any, including the risk of injury, loss, or damage, direct or consequential, arising out of the use, misuse, or inability to use this product. User agrees to use, maintain and install product in accordance with recommendations and instructions. User is responsible for transportation charges connected to the repair or replacement of product under this warranty.

Equipment Return Policy

A Return Material Authorization number (RMA #) is required prior to return of any equipment to our facilities, please call our 800 number for appropriate location. An RMA # will be issued upon receipt of your request to return equipment, which should include reasons for the return. Your return shipment to us must have this RMA # clearly marked on the outside of the package. Proof of date of purchase is required for processing of all warranty requests.

This policy applies to both equipment sales and repair orders.

FOR A RETURN MATERIAL AUTHORIZATION, PLEASE CALL OUR SERVICE DEPARTMENT AT 1-800-833-7958.

Model Number: _____

Serial Number: _____

Date of Purchase: _____

Equipment Decontamination

Prior to return, all equipment must be thoroughly cleaned and decontaminated. Please make note on RMA form, the use of equipment, contaminants equipment was exposed to, and decontamination solutions/methods used. Geotech reserves the right to refuse any equipment not properly decontaminated. Geotech may also choose to decontaminate the equipment for a fee, which will be applied to the repair order invoice.

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