

# 2008F2

# Quick Start Guide

Automated Pressure / Vacuum Pump

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**SOILMOISTURE EQUIPMENT CORP.**  
P.O. Box 30025, Santa Barbara, CA. 93130 U.S.A.  
801 S. Kellogg Ave., Goleta, CA. 93117 Ph: (805) 964-3525  
[www.soilmoisture.com](http://www.soilmoisture.com) – [sales@soilmoisture.com](mailto:sales@soilmoisture.com)



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## **UNPACKING**

The 2008F2 was thoroughly tested before shipment. When packed, it was in perfect working order. Unpack with care, being sure to remove all packing material. Follow the instructions carefully in order to ensure long, trouble-free service.

Any damage found upon receipt should be reported immediately to the transport carrier for claim. It is important to save the shipping container and all evidence to support your claim. Be sure to read all operating instructions thoroughly before operating the unit.

## **WARRANTY & LIABILITY**

Soilmoisture Equipment Corp. (SEC) warrants all products manufactured by SEC to be free from defects in materials and workmanship under normal use and service for twelve (12) months from the date of invoice provided the section below has been met.

Soilmoisture Equipment Corp. (SEC) is not liable for any damage, actual or inferred, caused by misuse or improper handling of its products. SEC products are designed to be used solely as described in these product operating instructions by a prudent individual under normal operating conditions in applications intended for use by this product.

## **Caution**

- Wrong settings may cause unsafe levels of pressure or vacuum. It is the user's responsibility to use this pump in a safe and correct manner.
- Vibrating generated by this pump may drift objects from their original positions. Secure this pump and other susceptible objects in their places.
- Secure all tubes and connections before pressure or vacuum application.
- Remove port covers before use.

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# System Specifications

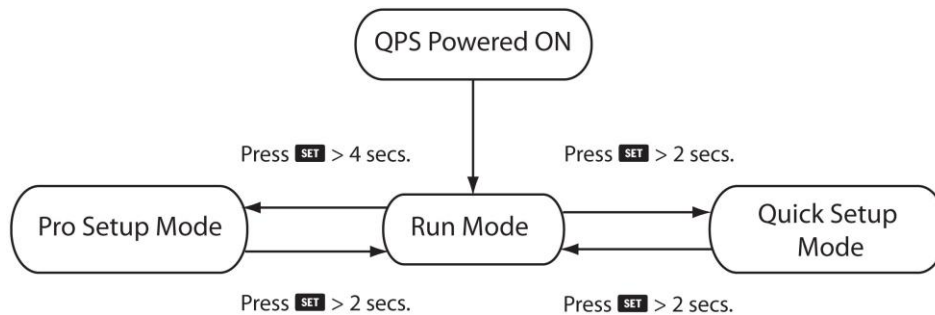
## Initial Setup

You need to perform the following settings once and before using 2008F2 pump for the first time.

1. Adjust Delay Switch (DS) parameters according to picture below.



2. Now turn the Delay Switch knob to zero. This prevents the pump from working while you are adjusting it.
3. Turn 2008F2 on. This turns the Pressure Switch (PS) display on and now you can adjust its parameters.
4. Get familiar with PS modes:

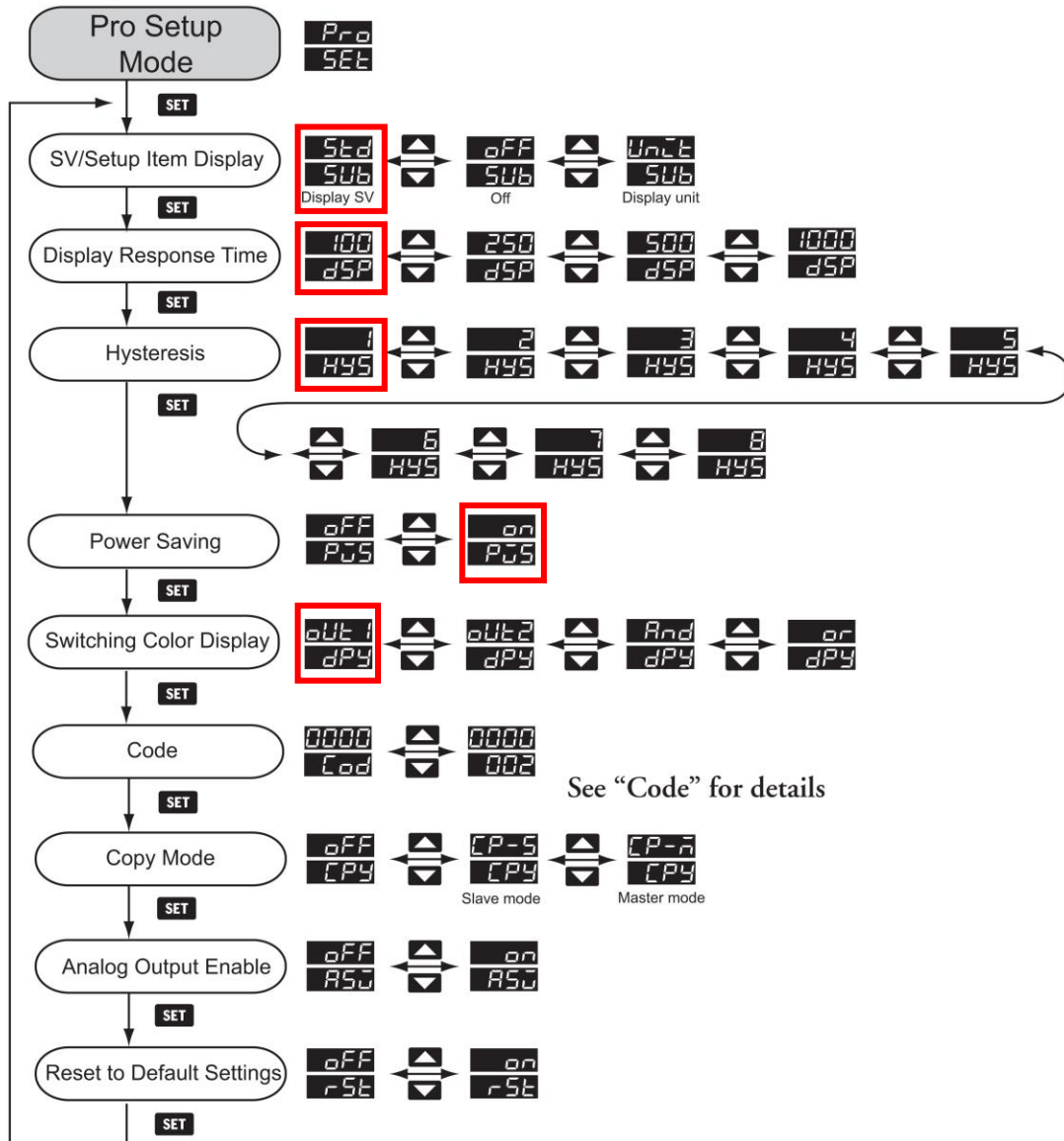


5. Preset Zero Pressure on PS:

When Pressure and Vacuum ports are open to ambient air, PS should show zero. If it does not show zero press ▼▲ to remove pressure from PS.

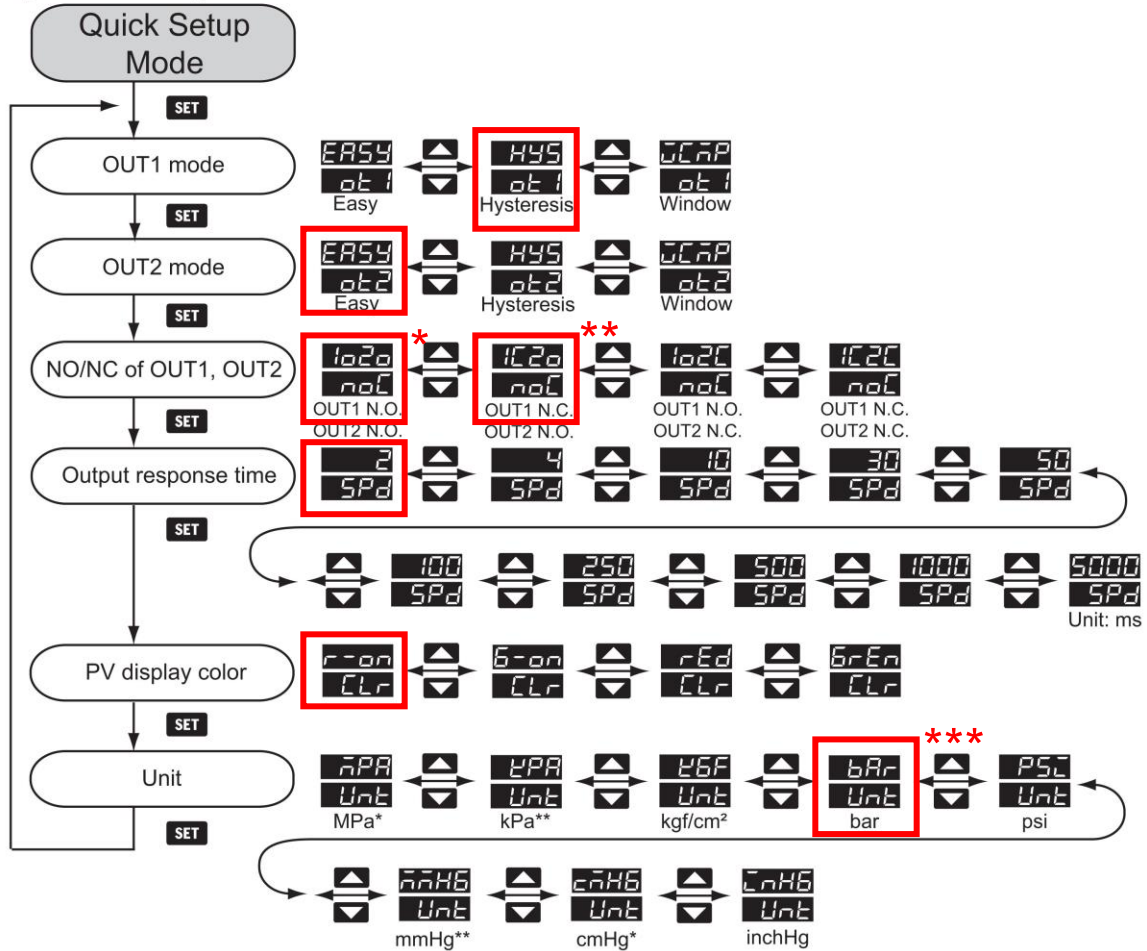
6. Go to “Pro Setup” Mode (press and hold **SET** button for more than 4 seconds) and make the following Adjustments. Select options in red boxes.

## Pro Setup Mode



7. Go to Quick Setup Mode and do the following adjustments:

### Quick Setup Mode



\*Select if you are adjusting vacuum level.

\*\*Select if you are adjusting pressure level.

\*\*\*Select pressure unit. You are able to select several other pressure units (see table below):


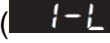
Pressure Unit	Symbol	Resolution
kPa	kPa	0.1
kgf/cm <sup>2</sup>	kgf/cm <sup>2</sup>	0.001
bar	bar	0.001
psi	psi	0.01
mm Hg	mmHg	1
inch Hg	inchHg	0.1

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## Adjust Pressure or Vacuum Level:

Once you are done with Initial Settings (see previous section). You do not need to repeat them again. Follow the steps below for adjusting pressure/vacuum level in you automat-ed pump every time you need to change pressure/vacuum level.

1. If you are using 2008F2 as an automated vacuum pump, turn Direction Valve (DS) to “Vacuum” side. If are using 2008F2 as an automated pressure pump, turn Direction Valve to “Pressure” side.
2. Turn the Delay Switch knob to zero. This prevents the pump from working while you are adjusting it.
3. Turn 2008F2 on.
4. Make sure that you have selected the correct option in “NO/NC of OUT1, OUT2” in “Quick Setup Mode” (see previous page).
5. Make sure that you have selected the correct option in “Unit” in “Quick Setup Mode” (see previous page).

Pressure or Vacuum can be adjusted between a higher level (  ) and a Lower level (  ). The following example shows how to adjust lower level on -0.500 bar and higher level on -0.400 bar.

### 6. Set Lower Pressure Level:

In “Run Mode” Briefly press and release  button until you see  in lower line.

Use  or  button to set lower pressure level on -0.500 bar.

### 7. Set Higher Pressure Level:

In “Run Mode” Briefly press and release  button until you see  in lower line.

Use  or  button to set higher pressure level on -0.400 bar.

8. Turn 2008F2 off.

9. Since you are using 2008F2 as an automated vacuum pump, you need to connect Vacuum Port to a vacuum system.

10. Adjust Delay Switch:

Delay Switch is a safety feature that protects 2008F2 against severe leaking incidents and prevents 2008F2 from working forever (and ultimately burning).

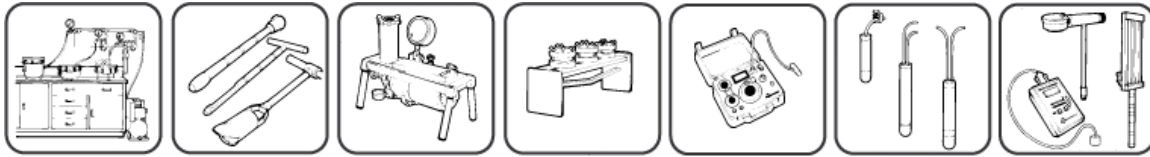
Delay Switch turns off the pump after a certain duration adjusted by DS Knob. This time duration should be slightly more than maximum duration needed for pump to charge the system with vacuum and turn off automatically. For example, if it usually takes 1.5 minutes for 2008F2 to charge the system with vacuum and turn off, you can adjust DS knob on 2 minutes. Now, if the system leaks significantly and the pump is not able to charge the system in 2 minutes, DS shuts down the pump and saves it from potential damage.

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- a. Turn "Scale" screw if you are not able to see your desire time duration.
  - b. Adjust knob on desired Delay Time duration (do not exceed 13 minutes).
11. Turn 2008F2 on again.
  12. Wait until the vacuum reaches to lower pressure limit and stops working. Measure on-duty and off-duty intervals. On-duty should not exceed 36% of duty cycle (maximum of 13 minutes on-duty would need 23 min. off-duty). If the on-duty interval is more than 36% of duty cycle, try to reduce/eliminate unnecessary leakage and/or disconnect some vacuum consuming units to reduce vacuum consumption rate. You can also connect another Y2008F2 to the system.



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