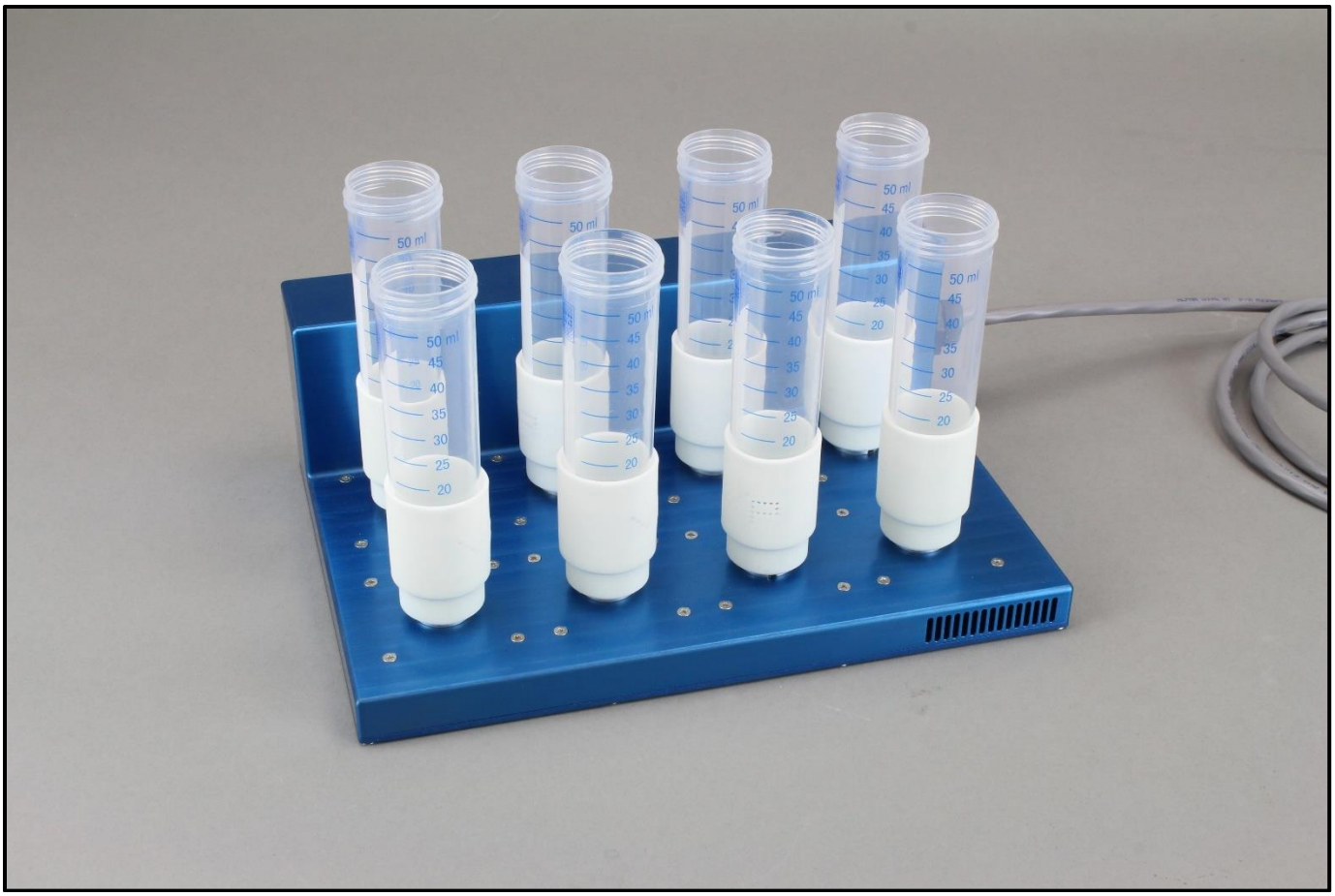
OPERATING INSTRUCTIONS FOR
Two by four 50ml Tube SpinVessel®
VP 418SV2-2x4-50CB-CC
***US and Foreign Patents Pending**

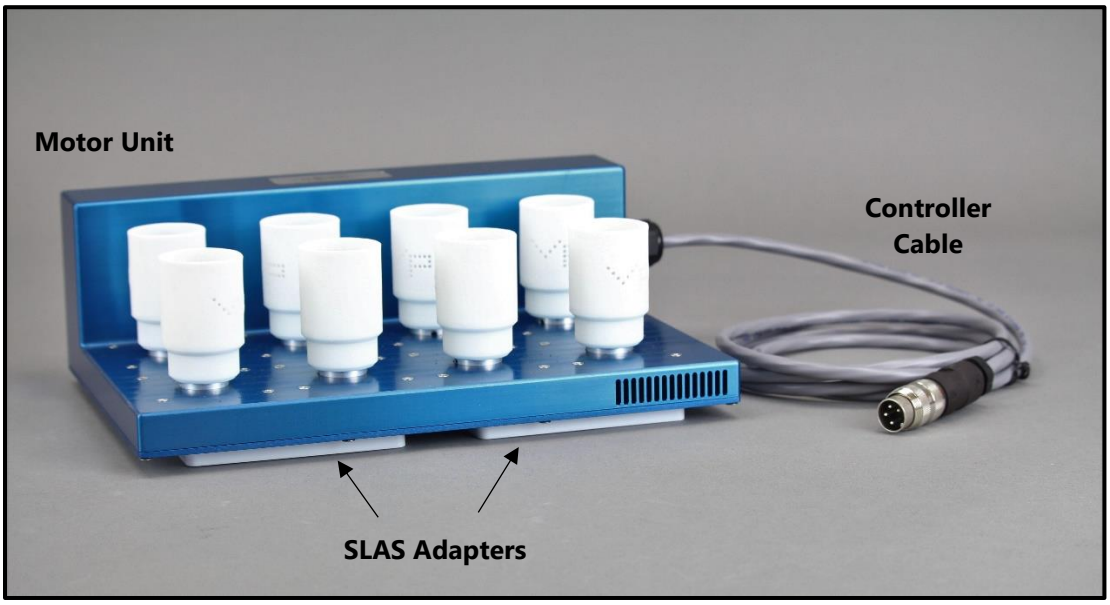


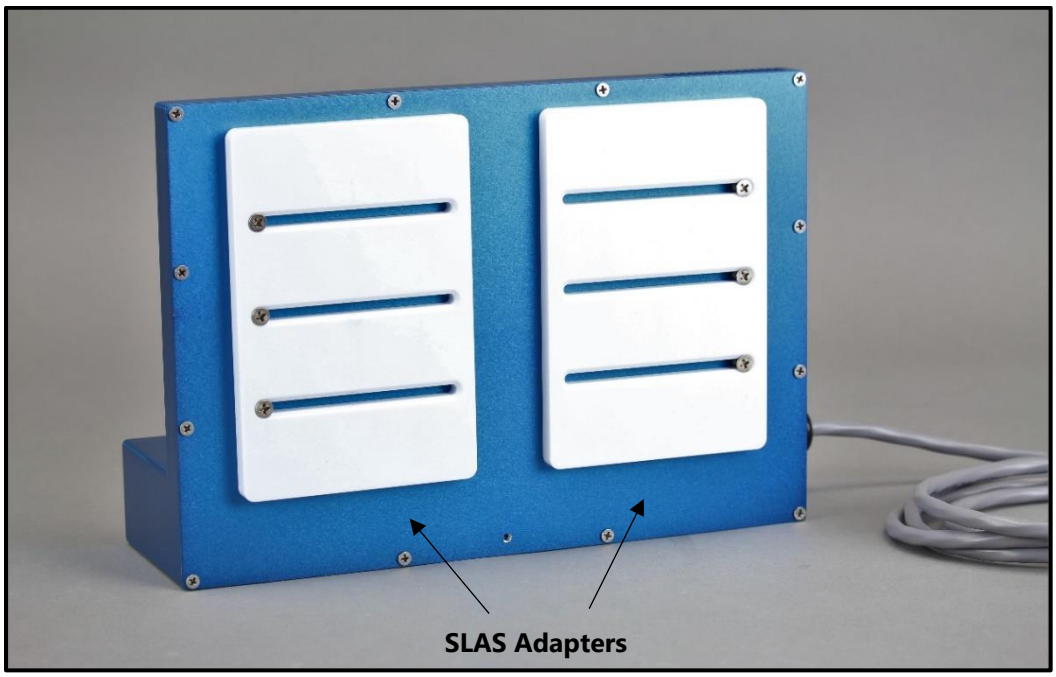
SpinVessel® System, with Computer Control feature, for 50ml and 25 ml SpinVessel® Tubes: SpinVessel® System VP 418SV2-2x4-50CB-CC includes Motor Unit with Spin Bases, as well as Controller and Power Supply (not shown). Shown with VP 830SV-50CB SpinVessel® Tubes which are sold separately.

SET-UP

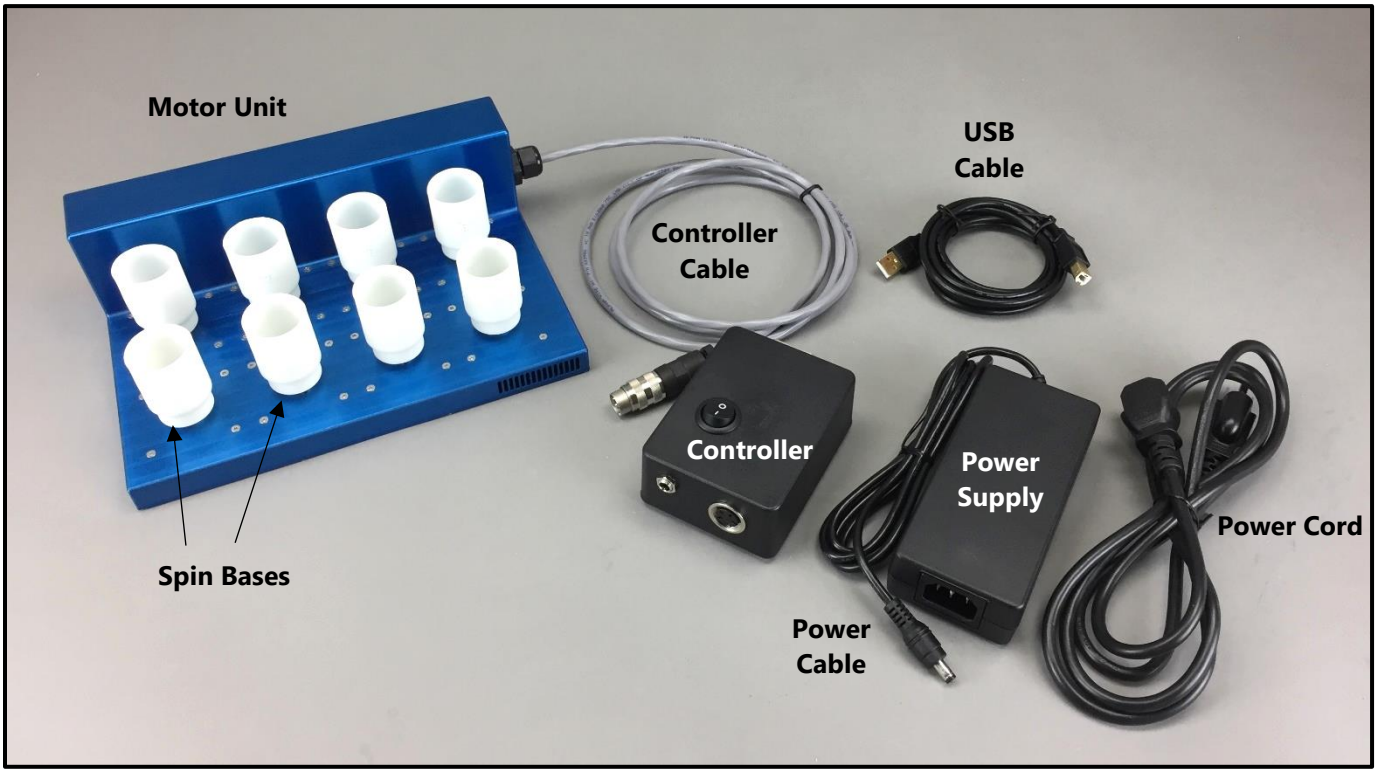
POSITION THE SpinVessel® SYSTEM ON A LIQUID HANDLER

1. **Place Motor Unit on a sturdy lab bench, table, or robotic workstation.**
    a. **SLAS dimensioned adapters are part of the system and are able to position the SpinVessel® system on a liquid handler.**
    b. **Adapters have adjustment slots to allow for different spacing of microplate positions on various liquid handling workstations.**
2. **Since Controller Cable is 6 feet long, Controller and computer can be placed at a distance from the Motor Unit.**





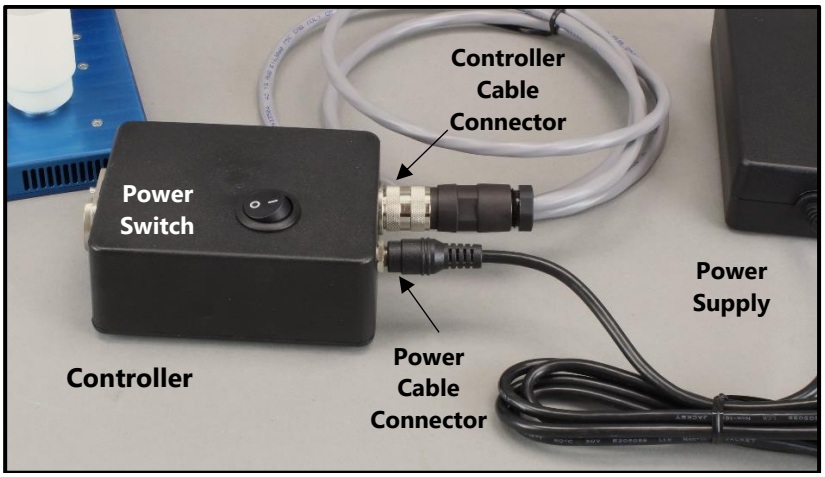
CONNECT PARTS OF THE SpinVessel® SYSTEM

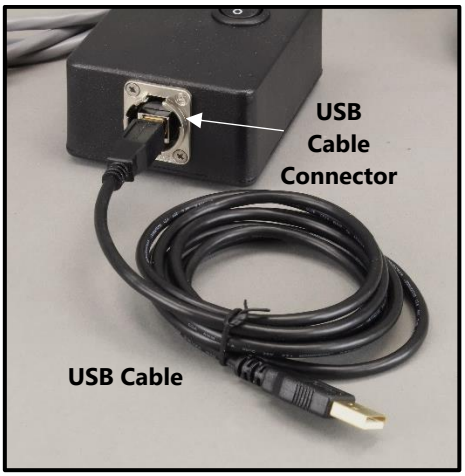


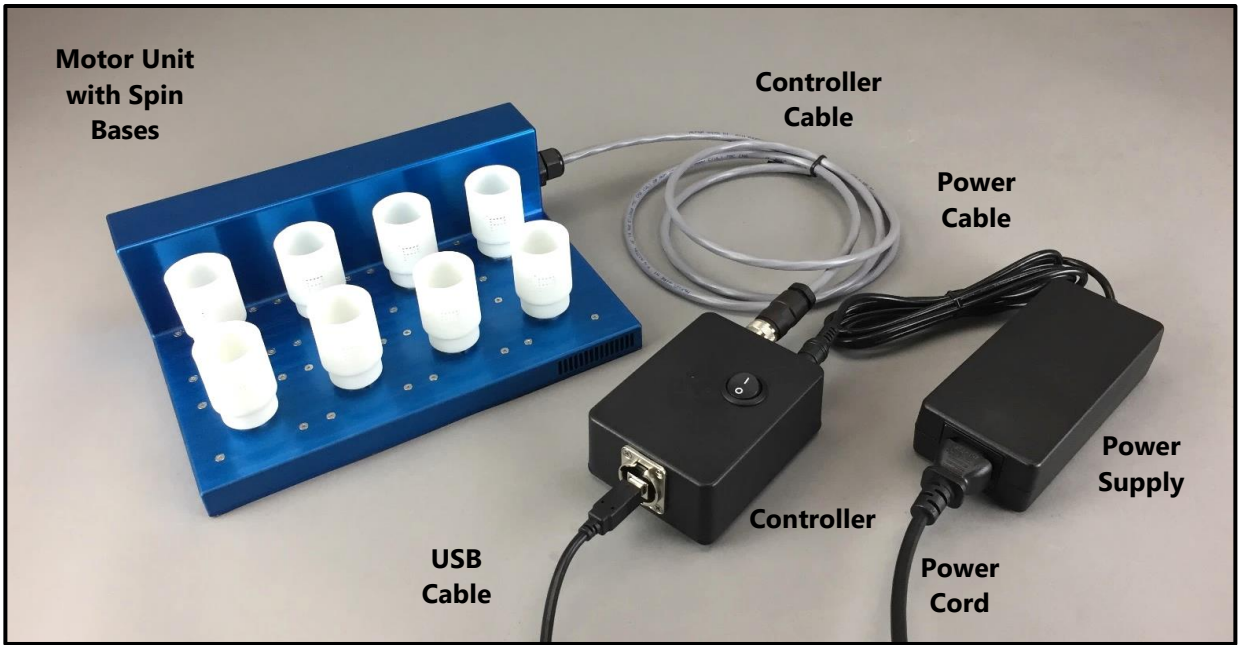
1. **Connect Power Cord from Power Supply to an outlet.**
2. **Connect Power Cable from Power Supply to Controller.**

   Warning: Do not plug Controller in while power is on. Ensure that the Power Switch is in the off position ("0" is down). Always have Controller plugged in before powering up.

3. **Connect Controller Cable from the Motor Unit to the Controller.**
4. **Connect the USB Cable from the Controller to the computer.**







OPERATION

POWERING UP THE SpinVessel® SYSTEM

1. The Power Switch (I/O) is located on the top of the Controller.
2. To power up the Controller, depress the "I" of the switch.

OPERATING THE SpinVessel® SYSTEM WITH COMPUTER CONTROL

The SpinVessel® Models with "-CC" in the part number are controlled using a computer. In this configuration, the control unit does not have a manual Touch Screen Controller. The Controller for the computer controllable SpinVessel® is connected by a USB communication cable to a computer. The Controller accepts simple ASCII commands to set the speed of the rotations, the number of rotations (including fractions of a rotation), duration of pause before reversing direction and degree of ramping to set speed.

Software details

1. The SpinVessel® Controller uses an internal CH340G USB to Serial Converter (set to 9600,8, N,1) which will require driver software. Windows may already have the needed USB driver software installed. If not, download the "CH340 USB DRIVER" from the provided USB flash drive and run "CH341SER.exe" to install it (Windows typically auto-installs once downloaded). If your company policy does not allow the use of the provided USB stick, this driver is also available for download from the internet (contact your IT department for assistance if necessary).

2. The basic command language for this computer-to-stirrer communication is ASCII.
3. Commands can be sent from the computer using a standard terminal program like HyperTerminal or Realterm. Or, if needed, download the V&P Scientific Serial Terminal program from the provided USB flash drive. If your company policy does not allow the use of the provided USB stick, we suggest asking your IT department for a recommendation.
4. Alternatively, the ASCII commands can be sent by an automated liquid handler's software to control the SpinVessel®. Since there are many different automated liquid handlers available, please contact a technical representative from the company that makes the liquid handler.

If assistance is required, contact V&P Scientific, Inc. at 858-455-0643 or sales@vp-sci.com.