VRTX Control Station (VCS) Calibration Procedures

Purpose: This document outlines the steps needed to calibrate the VCS's conductivity and pressure sensors. The attached page indicates the screen layout of the VCS Calibration screens.

Pressure Sensors: The corresponding pressure sensor values are shown on the screen next to the VRTX or Filter Labels. The VRTX has one possible pressure reading, while the Filter has both inlet and outlet pressure readings. When you look at the Filter pressures they indicate the following:

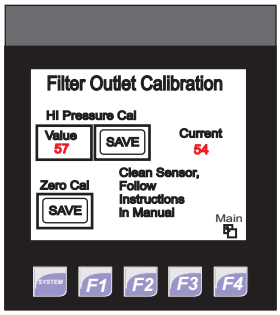
Filter 35/ 30

In this example the 35 reflects the Auto Filter Inlet pressure and the 30 indicates the Auto Filter Outlet pressure.

To calibrate a pressure sensor, press the F2 key (Labeled Cal) from the main screen. A second screen will appear asking you to chose the Conductivity Calibration or the Pressure Calibration. Press the Pressure box on the touch screen. You will then be asked to chose which pressure sensor you wish to calibrate. Please press the box on the screen that reflects which sensor you wish to calibrate.

The Pressure Calibration screen will appear.

Filter Outlet Cal Screen



Turn the pumps OFF, allow the Current pressure reading on the screen to stabilize (allow 50-60 sec), then press the Zero Cal SAVE box on the screen. The Current value should read 0.

Turn the pumps back on, close down the filter outlet valve (valve to the nozzles and any valves back to the pump) Read the gauge pressure on the outlet of the filter, and put this value into the VALUE box. Once the value has been entered, allow the Current pressure to stabilize (allow 50-60 sec), then press the Hi Pressure Cal SAVE box on the screen. The current value should increase to the value you entered in the VALUE box.

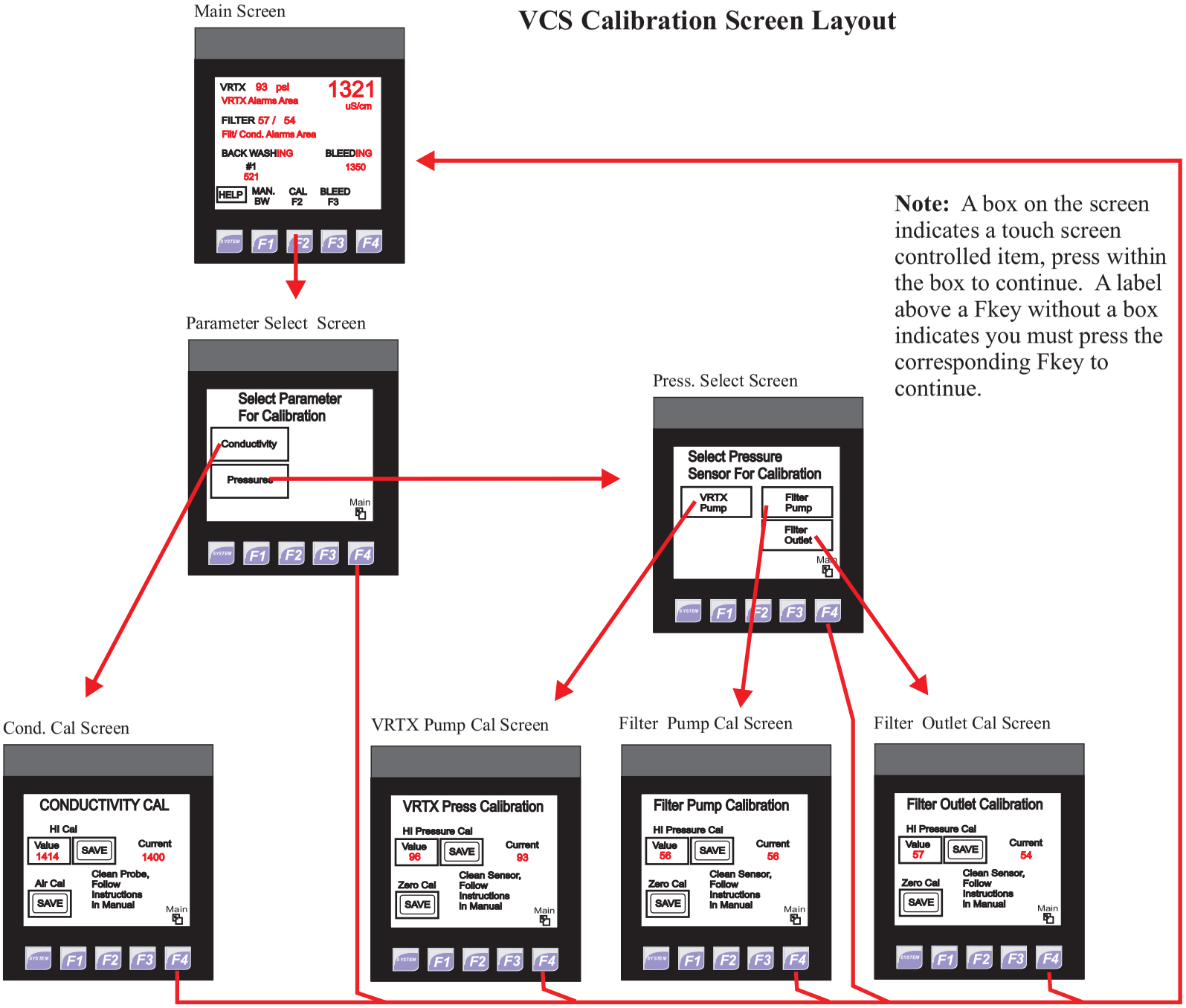
Conductivity Sensor: To calibrate the conductivity sensor, press the F2 key (Labeled Cal) from the main screen. A second screen will appear, press the Conductivity Box on the touch screen.

Each month the High Conductivity Cal should be set, verify the conductivity of the water sample taken from the tower or skid sample port with a hand held meter and then enter this value into the VALUE box on the screen. after allowing the Current reading to stabilize (allow 50-60 sec), then press the HI Calibration SAVE box on the screen. The current value should increase to the value you entered in the VALUE box.

To conduct a Air Calibration (Low cal) turn the pumps off, isolate the skid by closing the suction and discharge valves, remove the sensor from the tee, clean it with a small brush and mild detergent, rinse it off, shake off any water, then press the Air Cal SAVE button, the Current reading should decrease to 0. Insert the probe back into the tee, return the valves closed earlier to their normal position, turn the pump power back on and verify the Current reading increases back up to the Hi Calibration value you set earlier. If it is not within 50 uS of the original setting, repeat the Hi Calibration steps taken earlier.

If you need support, contact VRTX Technical Services at 800-722-0476.

VCS Calibration Screen Layout



Note: A box on the screen indicates a touch screen controlled item, press within the box to continue. A label above a Fkey without a box indicates you must press the corresponding Fkey to continue.