



Cornelius Viper FCB Startup Process

Field Technicians and store personnel should follow all proper cleaning procedures provided by their management and should follow any applicable Cornelius cleaning and sanitizing procedures, found in the operator's manual, when starting up and commissioning a unit.

1. Check all connections supplying water, syrup and Co2. Check the back room connections and connections entering the Viper.
2. Slowly engage Water – slowly open shutoff for the water supply
3. Remove the splash panel (panel below dispense nozzles)
 - a. Place the sample tube for the barrel you are working on into a large cup or clean container.
 - b. Turn the 3-way valve for the barrel you are working on to the brix position.
4. Prime water – Failure to do so may cause internal water pump to fail from running dry.
 - a. You can activate the water valve using your finger or by inserting a flat head pocket screwdriver into the slot in front of the flow control at a 45° angle and pushing the screwdriver down towards the ground. This will lift up on the solenoid plunger and allow the water to flow.
5. Connect FCB BIB connectors
6. Slowly engage Co2
 - a. Viper Unit secondary Co2 regulator – 75Psi
 - b. FCB BIB Pump secondary Co2 regulator – 75Psi
7. Purge Syrup – This will ensure you have a steady stream of syrup
 - a. You can activate the Syrup valve using your finger or by inserting a flat head pocket screwdriver into the slot in front of the flow control at a 45° angle and pushing the screwdriver down towards the ground. This will lift up on the solenoid plunger and allow syrup to flow.
8. Purge any remaining product / sanitizer from the barrels - When you activate Purge, it activates the motor and Co2 solenoid. The barrel will not fill during the PURGE process.
 - a. Enter the menu, enter the MAINT option, enter the BARREL MAINTENANCE, highlight the barrel you would like to purge and select PURGE.
 - i. Note: You won't be able to remove all of the product, the product that is below the dispense point of the valve you will have to remove manually by removing the faceplate
 - b. Select STOP to stop the purge process. Once you stop the purge process, actuate the dispense valve to remove the pressure in the barrel.



9. Checking the Brix - You will need a Refractometer
 - a. Make sure you calibrate your refractometer before each unit to ensure it is zeroed out. Run it under cold plain water and it should read 0, adjust if needed.
 - b. Enter the MENU, enter the MAINT option and enter BRIX SETUP
 - c. Highlight the barrel you are working on and select BRIX, once you press BRIX, it will dispense product out of the sample tube for three to four seconds (it stops dispensing on its own)
 - d. Discard three samples and collect a fourth to take a reading. A standard brix setting is 13 +/- 1 but may change based on the syrup manufacturer. Cornelius recommends a BRIX of 13.5 – 14.0.
10. Adjusting and setting the brix – You will need a Refractometer.
 - a. If you need to make adjustments to your brix you will adjust your syrup flow control; CW to increase your flow and CCW to decrease your flow.
 - b. Discard three samples after each adjustment to let the adjustment take effect. Check your reading on the fourth sample looking for 13.5 - 14.0.
 - c. Once the proper brix is achieved, flush the sample tube with water by manually activating the water solenoid. You can activate the water valve using your finger or by inserting a flat head pocket screwdriver into the slot in front of the flow control at a 45° angle and pushing the screwdriver down towards the ground. This will lift up on the solenoid plunger and allow the water to flow. We flush the sample tube with water to ensure the brixed product does not turn harden over time and it does not attract any unwanted pests.
11. Filling the barrel – fill only one barrel at a time
 - a. Enter the MENU, select MAINT, select BARREL MAINTENANCE, highlight the barrel you are working on, select FILL. Let the barrel fill, as it stops filling, relieve the pressure slowly using the relief valve on the faceplate. Release the relief valve as it starts to fill and continue until the barrel is filled to a ½" below the top of the barrel. Once complete, press stop.
12. Calibrate the motor
 - a. Enter the menu, select MAINT, select MOTOR SETUP, highlight the barrel you are working on and select CAL. Let the barrel calibrate itself, this process will take 5 minutes
13. Check and verify settings – Viscosity, Syrup type, Defrost lockouts, Date and Time, etc.
14. Placing barrel into freeze mode.
 - a. Highlight the barrel you are working on and select FREEZE.
 - i. Viscosity readout on the display should be between 17-22 on initial start up.
 - b. Make sure the product is of good quality once the freeze cycle is completed.

Settings are as follow...

Co2 – 2 secondary regulators; one feeding the Viper unit at 75Psi and one to the FCB BIB pumps set at 75Psi

Water – 50-60Psi

Barrel Regulators – 36-38Psi for 100% overrun

Viscosity – default of 4

Motor – Type 1 (60 Hz) Type 2 (50Hz)

Brix – 13.5 – 14.0