



StanCo Scientific, Inc.



SSD5500 – Refrigerated Intake Tower for Motor
Octane Testing

Installation, Operation, and Maintenance Manual

Version 1.2

System Requirements

- Standard wall outlet or 115 VAC power supply
- Input water line (3/8" hose barb)
- 3/8" insulated tubing connections to engine carburetors

Installation

To install the StanCo Scientific, Inc. SSD5500:

- 1) Place unit in desired location
- 2) Connect engine carburetor tubing to designated hose barbs on the unit
- 3) Place inlet air pipe over top exhaust opening of unit and secure with proper rubber hosing. Secure with hose clamps if required.
- 4) Plug in power cord to standard 115V wall outlet. **DO NOT POWER ON**
- 5) Once all connections are in place and secured, coolant can be added to the reservoir: Begin by setting the valve handle to the **BYPASS** direction. Remove the white screw cap and fill the white reservoir with high quality antifreeze diluted to a concentration of 50/50. Fill until just under the return port near the top of the reservoir.
- 6) Once the reservoir is nearing the top of the reservoir, the unit (and pump can be turned on). The pumping of the coolant will prime the lines of the system, causing the level within the reservoir to decrease. Let this run for a few minutes to remove all air bubbles present within the system. As the pump is operating, fill the coolant to the appropriate level again. Once this is complete, the carburetor lines are now ready to be added to the system. By turning the flow control valve on the side of the unit to **CARBURETORS**, the lines to the carburetors will now be receiving flow from the SSD5000.
- 7) Once the carburetor lines have been filled and stabilized and no air bubbles appear to be present in the return flow, turn the flow control valve back to **BYPASS** and turn the unit off. The coolant level will stabilize, and you may add more coolant so that it reaches the maximum level. Replace the cap on the reservoir.

Maintenance

General Maintenance tips:

- Wipe down excess condensation when encountered to reduce corrosion of components
- Turn off SSD5000 when not in use to prolong life of pump, compressor, and electronics.
- Complete maintenance procedures every 6 months to improve longevity of SSD5000.
- A temperature calibration can be achieved on the temperature controllers. Consult the included manual for assistance with adjusting the offset of the temperature controller.

Operation

Once installation of the StanCo Scientific, Inc. SSD5500 is complete, operation of the unit can be achieved.

Turn on the unit using the main power switch.

cooling of the carburetors can be bypassed by switching the flow control valve to **BYPASS**. The SSD5000 will still be cooling the air passing through it under this configuration.

NOTE: Never leave the flow control valve half-turned. This will present flow issues within the system, resulting in poor performance.

The SSD5500 coolant temperature can be controlled. To adjust the set temperature of the unit, press the up and down arrows of the bottom controller on the front face. The green digits indicate what temperature the controller will target. There is a natural overshoot of a couple degrees. The red indicating number on the display shows the coolant temperature that is travelling to the carburetors if the SSD5500 is set to 'carburetors'

NOTE: Be careful not to reduce the temperature too much as this can cause failure within the cooling system. Never use low temperature setpoints with high water content coolant, the system will freeze.



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