



Factory Authorized Start-up Procedure

Installation

Verify there is no physical damage to unit case that would indicate possible damage to internal components. Review Installation instructions and plumbing diagram to verify proper installation.

Verify to assure:

- Specified clearances and service access. Front cover must have clear access or warranty is voided.

- Adequate room size to conform to the National Fuel Gas Code requirements for make-up air for an unvented booster (Model PT-56 only). The unit must not be installed in a closed utility room with no make-up air.

- That the approved flue pipe is directed into dish hood or out of building as required by the National Fuel Gas Code or local code requirements (Model PT-200). **Vent pipe should be properly supported and not exceed 70' in length for 4" pipe and 40' for 3" pipe (each 90°elbow adds 10' to pipe length, refer to installation manual for details).** If the unit is vented to the outside, be sure flue terminus does not allow backdraft of cold air that could cause freezing. Verify the ventilation system is adequate for sufficient make up air. Inspect for excessive positive or negative air movement through booster (power vent blower spins in reverse with booster power off).

- Access to electrical and plumbing hookups and installation of all peripherals including temperature gauges, pressure gauges, gate or ball valves, shock absorber, pressure reducer and temperature and pressure relief valves.

- Verify that voltage, gas type, pressure and pipe size is adequate in relation to its length and number of elbows.

- Verify that the all parts of the easy install kit have been installed, including (Refer to plumbing diagram)
 - A ball or gate valve installed on the water inlet.
 - Temperature and Pressure gauges, PT-56 & PT200RC only, are installed on inlet and outlet of booster (PT-200 has built-in digital temperature gauge).
 - Pressure regulator is installed on OUTLET of booster heater (PT-56 MUST have regulator on outlet) and set to 20 PSI during rinse cycle. **If there is a pressure reducer installed on the dish machine, none should be installed with the booster (refer to installation manual).** Only one pressure regulator should be installed in the system.
 - Temperature and Pressure relief valve is installed and outlet piped to floor or drain. Drain must not be under air intake.
 - Water bypass is installed per plumbing installation drawing.
 - Legs are leveled so that power vent outlet stays aligned with flue outlet pipe and the front cover installs and fits properly.
 - 110 VAC power cords are plugged tightly into DC power supplies inside case.
 - Expansion tank for PT-200RC and PT-56.

- Verify inlet water is at recommended temperature for dish machine being used (not to exceed 140°F) and is connected to the inlet connection.

- Verify the hot water outlet pipe is connected to the outlet of the booster heater and does not exceed 5 feet in length to comply with NSF-5 recommendations. (Must be re-circulated if over five feet.) Verify correct plumbing layout using piping diagrams supplied, flow through or re-circulating.



- Verify nothing is blocking combustion air inlet at bottom of PT-56 or right side of PT-200. Verify that there is no floor drain under the combustion air intake of the PT-56 & PT-200. **This will void warranty.**

Combustion air can be brought from outside of the building on a PT-200, but this is not recommended.

- Check all water connections for leaks and that they are connected to proper fittings.
- Check all gas connections for leaks. Be sure gas union inside case is tight after installation. Again, verify that the gas line is properly sized for its length and number of elbows.

Verify there are no cold water bypasses in plumbing system.

IMPORTANT INFORMATION: DO NOT OPERATE BOOSTER WITHOUT WATER. DON'T TURN ON THE POWER TO THE BOOSTER HEATER UNTIL THE SYSTEM IS FILLED WITH WATER AND ALL AIR IS PURGED. DRY FIRING WILL CAUSE SEVERE DAMAGE THAT WILL NOT BE COVERED BY PRODUCT WARRANTY. THE START UP CANNOT BE PERFORMED WITHOUT WATER, GAS, ELECTRIC AND OPERATIONAL DISHWASHER. Have the PT200 Service Manual available when performing Start-Up.

START-UP

- With the power and gas turned off, run dish washer through 3 cycles to fill booster heater with water and purge all air from the system. Check for any leaks at this time.
- Turn power switch on and verify that the green LED is flashing, and make sure no red LED service codes are flashing.
- Verify that all air has been purged from the gas line. Purge if necessary.
- Turn on gas supply including shut off valve in booster heater case.

PT-56 and PT-200-RC (Recirculating)

- Turn off power to unit.
- Take front cover off of unit, turn power switch to on. Burner should fire up in low burn and immediately ramp up to high burn. If burner does not light on first attempt, cycle power off and on until it does. All air should now be purged from gas line.
- When water in tank approaches set temperature, burner will go into low burn and then turn off. It will re-light fairly quickly until tank is at operating temperature.
- Run dish machine through wash cycle and verify:
 - Rinse water pressure is at 20 PSI at dishwasher gauge during rinse cycle
 - Inlet water temperature to booster heater is at least 120°F.
 - Outlet temperature of booster heater is at least 180°F.
 - After running dish washer at full capacity for at least eight cycles it maintains at least 180°F outlet temperature.
 - Expansion tank set at 40-60 PSI

PT-200-FT (Flow through)

With front cover removed, turn power switch to on. Only green LED should be flashing. Burner should remain off.

Lock dish machine rinse on. This can usually be done by turning a rack upside down at rinse cam. Verify:

- Fan on the booster heater activates, followed by the burner ignition at low burn.
- Burner immediately ramps to high burn.
- Rinse water pressure is at 20 PSI on the dish washer gauge during rinse cycle. Verify the GPM flow rate by counting the green light flashes between pauses (refer to Service Manual SB-13) when the rinse is operating.
- Inlet water temperature to booster heater is at least 120°F, and does not exceed 140°F.
- Push the white button on the digital display for inlet water temperature while display is operational.
- Outlet water temperature of booster heater maintains at least 180°F and not more than 195°.
- That after running dish washer at full capacity for at least eight racks, it maintains an outlet temperature of at least 180°F.
- When rinse is turned off, the booster shuts down.

Comments and recommendations:



Installation Name: _____

Installation Address: _____

Dealer Name: _____

Install Date: _____ **Purchase Order#:** _____

PrecisionTemp Model#: _____ **Serial #:** _____

Gas Type – Propane or Natural (circle one)

Service Agency: _____

Address: _____

Phone #: _____

Technician Signature: _____

Date: _____

Please make three copies and send to Representative, Dealer and PrecisionTemp, Inc.

For assistance, comments, or suggestions please contact you service agent or:

PrecisionTemp, Inc.
11 Sunnybrook Drive
Cincinnati, OH 45237
513-641-4446 FAX 513-641-0733
1-800-934-9690

Return this completed form to *PrecisionTemp, Inc.* to activate warranty. No warranty service will be performed unless this form is completed and returned.



PT-200 FT Testing and Operating Instructions

Test Procedures

Note: The outlet water temperature has been factory set to deliver a constant 180°F minimum. Never reset the thermostat without contacting PrecisionTemp.

Before replacing the front cover, run the booster heater through the following test:

1. With the gas and power supply turned off, fill the booster heater with water.
2. Run dishwasher for at least two minutes until all air is out of the system.
3. Turn off the power to the booster heater.
4. Turn on the gas supply.
5. Turn the power on, observing the flashing green light. The light should flash with a regular speed.
6. Run the dish machine to initiate water flow. The blower should rotate and the burner will ignite. Note: If the burner does not ignite the first time the water is turned on, there is air in the gas line. Purge the air by cycling water flow (the dish machine) until ignition occurs. The number of cycles can vary with the length of the gas line.
7. Allow the booster heater to run and observe that the outlet water temperature is at least 180° by the time the first rack exits machine.
8. Turn the dish machine off and the booster burner will shut down.
9. Replace front cover and the booster heater is ready for use.

If this test does not proceed as described, call PrecisionTemp at 800-934-9690 for technical assistance.