



CK SERIES

Annual Preventative Maintenance Manual

Typical Items to bring with you during an annual maintenance check:

- Igniter Rod (16-0304)
- Spark Generator (16-0063)
- Long Pilot Assembly (75-0010-001) - 850, 1000, 1500, 3500 (1), 4500 (1)
- Short Pilot Assembly (75-0010-002) - 2000, 2500, 3000, 3500 (1), 4000 (2), 4500 (1), 5000 (2), 6000 (2)
- Pilot Assembly Gasket (05-0504-001) - After October 2021 use Part #05-0510-001.

Note: In all cases above, if the above items are in good working condition, you may not need to change them out.

Visual Inspection:

Ignitor - Verify proper orientation, gap settings, clean electrode tips and no fractures in ceramic.

- Gap 1/8"
- Insertion depth flush to 1/16"

Spark & Ground Cables -

(44-0063) Ignition Cable

- Verify good condition & check inside raja connections to verify a snap fit to the ignition transformer and spark electrode. Also verify there is no moisture or signs of corrosion.

System Pressure - Verify minimum 20 psi (Glycol System 30 psi)

Verify Proper System - Air Elimination

- Should be on supply piping before expansion tank.
- Auto air vent on to of device is to be free and clear (operational) - Must be high Capacity Design.
- Perform bucket test for evidence of foam. Any foam should dissipate within 30 seconds.

Air Filter - Clean or replace (09-0494-001) 850-3000, (09-0494-0020) 3500-6000

Air Intake & Vent System - Inspect for any signs of blockage, corrosion or leakage.

UV Flame Scanner - (16-0009) Clean and verify 5ma volt signal at ignition.

Air Pump for UV Scanner - (12-0027) verify it's operational, air tubes are clear of moisture and kinks....there are 2 little filters in front of pump that may need cleaning or replacement. (Part #3312-0307)

Verify H-Net Firmware Rev.

- Load latest Firmware from heatnet.net for download to flash drive.

Flow Meter Bypass - Perform flush by opening lower shut off valve. Completed process is explained in the IOM.

Dungs Gas Valve Filter - Inspect and clean as necessary, if significantly dirty, check gas drip line.

(11-0651-002) Filter Element, MBC 1000

(11-0652-002) Filter Element, MBC 2500

(11-0653-002) Filter Element, MBC 4000

Condensate Line - verify lines to Condensate Trap and Neutralizer are free and clear with no kinks or blockage.

Condensate Trap - If clogged or excessively dirty, flush and refill with 50% water/glycol mix to prevent evaporation.

Neutralizer - Verify condensate is flowing free and clear, may also want to check PH discharge of Neutralizer to verify the limestone medium is still effective.

Boiler Air Vent - Free and clear of debris and in the open position.

System Water Quality - If glycol in use, verify proper concentration level and anti-foam agent. Refer to Mestek Water Quality document. Perform Bucket Test - Drain for evidence of foam. Note any water program - additives.

Burner - Inspect flame thru site glass verifying burner surface has no visible damage

- Accessing the burner compartment is not necessary during normal maintenance unless damaged or air box pressures don't meet specification
- (850-1500, 3500 (1), 4500 (1)) Small Gasket Kit Part #05-0501-001
- (2000, 3500, 4000 (2), 4500 (1), 5000 (2), 6000 (2)) Large Gasket Kit Part #05-0501-002

Combustion Values - Verify at High & Low Fire while referencing the Inlet Air Temperature & Pressure Tables in the Installation and Operation Manual.

- Check cycles and hours - beyond 6-7 cycles per hour is excessive.

Heat Exchanger - In the rare event that the heat exchanger becomes blocked on the water or fire side, consult factory for further instruction.

Check all Safety Limits to make sure they are fully functional.

Low Water Cut-Off - If probe type, remove and clean probe once a year. Run function test to verify proper operation.

Flow Switch - Verify contacts remain open when water flow is not present.

Relief Valve - Should not weep or discharge water at normal system pressure

- Verify minimum system pressure is 20 psi and 30 psi on glycol mixtures within closed loop.

Water Meter - Install if you suspect system leakage

High Limit - Functionality test