

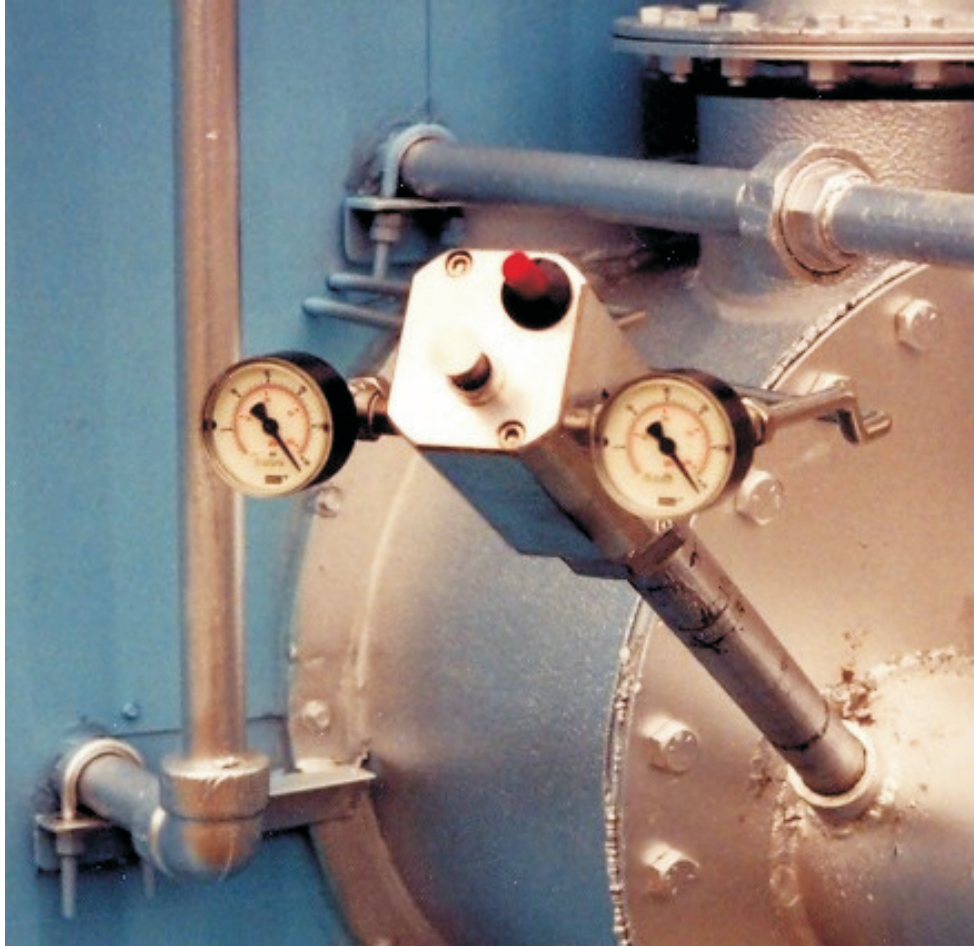
ACL 2000 FLAME FAIL IGNITION MANUAL

WARNING

This manual must be read in its entirety before installation of this system. Installation must be performed by a qualified technician and must adhere to the standards set by the local regulatory authorities.

ACL is not responsible for the misuse or incorrect application of this product.

ACL 2000 FLAME FAIL IGNITION SYSTEM



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Application

The ACL 2000 Flame Fail Ignition System provides safe and reliable ignition/flame recognition for all types of gas fired heating appliances including line heaters, reboilers, dehydrators, and treaters. Economically priced and easy to install, the ACL 2000 mounts into position through a 1" NPT collar, eliminating unnecessary welding and installation of expensive latching valves or cheaters. Its innovative, compact design is self-powered and incorporates an adjustable pilot, CSA approved gas valve, high temperature thermocouple, and stainless steel pilot nozzle. Recommended for use in heating applications requiring up to a maximum of 400,000 BTU/HR.

Features

- **Safe and reliable ignition/flame sensing**
- **Self-powered operation**
- **Innovative, compact design**
- **Easy to install**
- **Aluminum/stainless steel construction resists corrosion.**
- **Economically priced**
- **CSA approved gas valve**
- **Pilot Ignitor Tube lengths from 12" to 72"**
- **Recommended for use in heating applications requiring up to a maximum of 400,000 BTU/HR**
- **Ambient operating temperature (-40C to 65C)**
- **Maximum fuel supply - 25 PSI**
- **Alarm control capabilities**

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Principle of Operation

The ACL 2000 safely provides pilot ignition and ensures flame fail protection through a high temperature thermocouple and CSA approved gas valve. By pushing the gas valve button, fuel gas is released and ignited by the spark generated at the pilot nozzle tip by the piezo (ignitor) button. With the pilot flame present, the thermocouple is energized by the produced heat, which holds the gas valve in the open position and allows flow of fuel gas. When the pilot flame is not present, the thermocouple de-energizes by cooling, effectively closing the gas valve. The pilot flame may be field adjusted by the built-in needle valve to achieve optimal performance.

Installation and Start-up

The recommended mounting location of the ACL 2000 is from one side of the burner at a 45 degree angle through a 1" connection (either a collar or a union). If a 1" nipple is used for proper positioning, schedule 40 piping is recommended.

Pilot nozzle tip **must not extend past the burner into the main flame.**

A clean, steady dry fuel gas supply (25 PSI max.) is required for reliable operation. When only wet gas is available, it is recommended that a coalescing filter be installed before the gas leaves the heated building or directly after the filter regulator.

Purge air and debris from lines prior to operating ACL 2000.

The gas valve has been factory tested/set for use with a 20 PSI fuel supply and should require no adjustment. If necessary, fine tuning is possible after ignition.

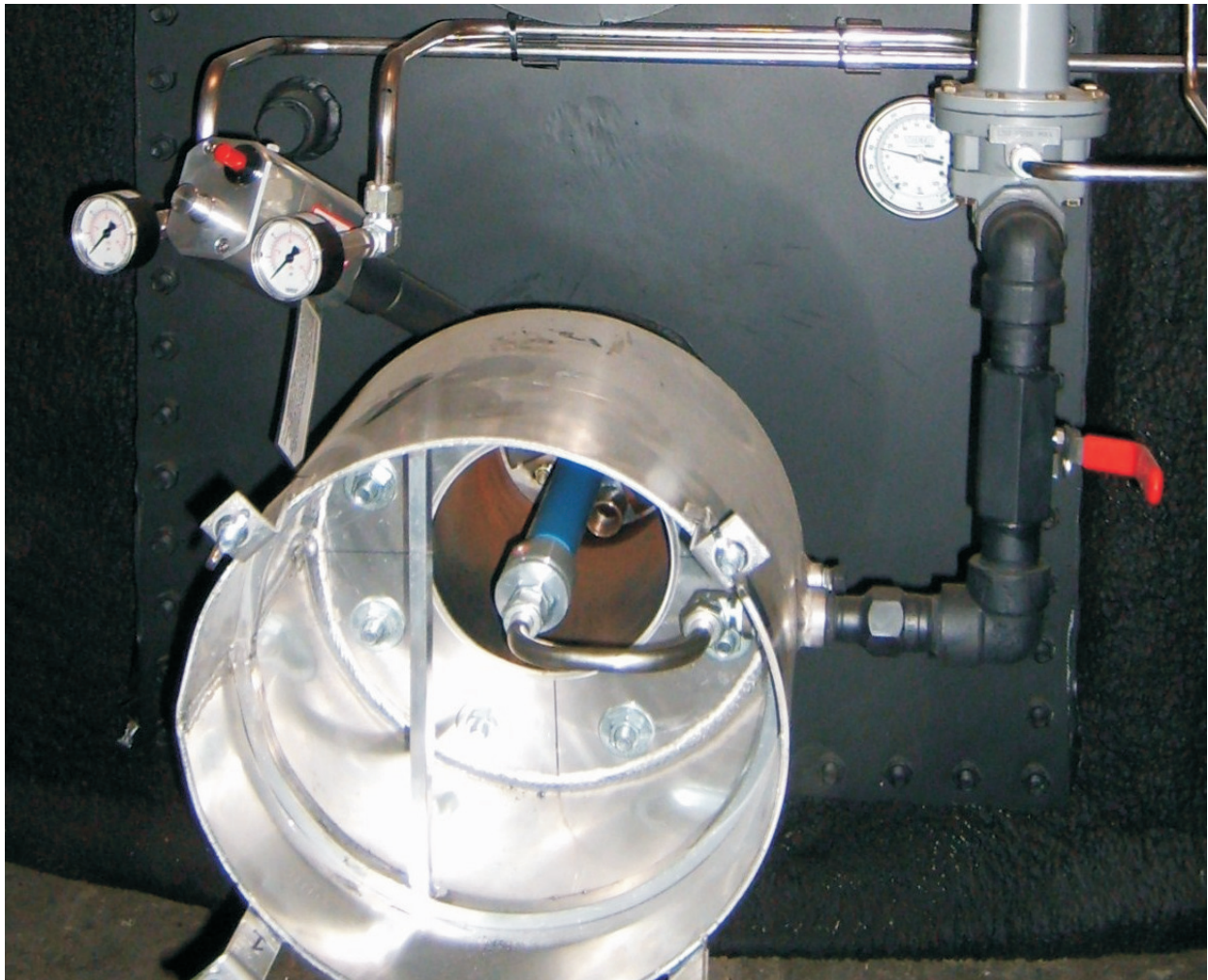
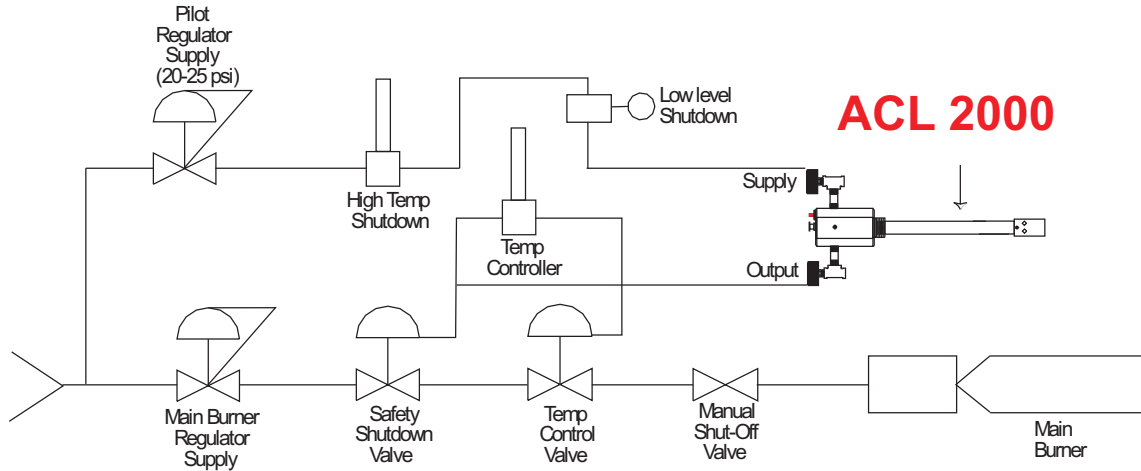
Thermocouple operation may be affected if pilot flame is too large (flame lift-off may occur) or too small (not enough heat) - both conditions will not allow the gas valve to open.

Operating Instructions

1. Push and hold gas valve button.
2. While pressing gas valve button, push piezo (ignitor) button.
3. Release gas valve button after 20 seconds (or until thermocouple has heated enough to hold gas valve open)
4. Confirm gas valve is open by pressure reading on output gauge.
5. Repeat procedure if pilot does not light.

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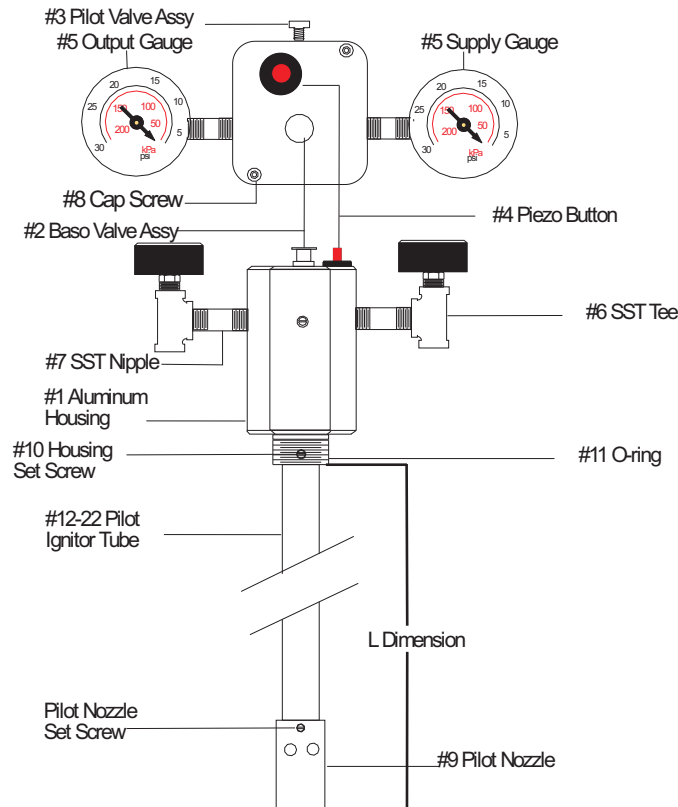
Schematic Installation



ACL 2000 and ACL High Efficiency Burner installed on boil-off tank

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Replacing Pilot Ignitor Tube (#12)

1. Remove cap screws (#8), loosen housing set screw (#10), and slide aluminum housing (#1) Down the pilot ignitor tube (#12)
2. Disconnect lead wire from piezo button (#4) and disconnect thermocouple from gas valve button (#2)
3. Disconnect the pilot line from pilot valve assembly (#3)
4. Slide pilot ignitor tube (#12) through the aluminum housing (#1) and replace with new pilot ignitor tube
5. Reconnect pilot line, thermocouple, and piezo button
6. Slide housing back together and tighten cap screws and housing set screw



Website: www.aclmfg.com

Limited Warranty

Seller warrants that the product hereby purchased is, upon delivery, free from defects in material and workmanship and that any product which is found to be defective in such workmanship or material will be repaired or replaced by Seller for a period of one year from purchase date. Warranty of such items do not include shipping, installation or set-up.

Liability Statement

ACL Manufacturing Inc. Shall not be liable for any special, indirect, consequential or other damages of a like general nature, including, without limitation, loss of profits or production, or loss of expenses of any nature incurred by the buyer or any third party.

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