

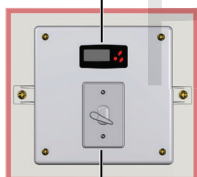
# THE LIL POWERHOUSE MANUAL

## ATMOSPHERIC VENT

Used to fill fire box jacket with transfer fluid (usually non toxic boiler antifreeze). It is also an atmospheric vent for the system.

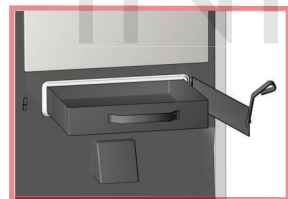
## CONTROL BOX

Sets temperature of transfer fluid.



Switches on/off electrical power to fan and solenoid.

## FIREBOX DOOR LATCH



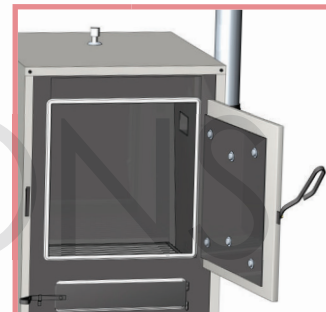
Pulls out for removal of ash.

## CHIMNEY

Standard, (24" x 4") single walled chimney eliminates need for expensive triple wall exhaust stacks.

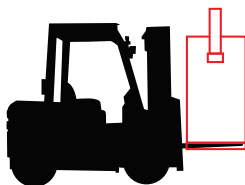
## FIREBOX DOOR

Opens to load wood.



## COMBUSTION AIR VENT

Allows outside air to become preheated before reaching the fan, where it is driven into the firebox.



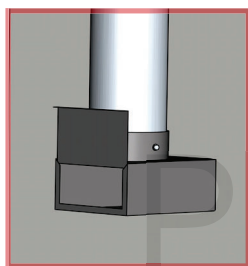
## FORK LIFT BASE

Fork lift blades slide into the base of the furnace for easy transport.

## LIL POWERHOUSE BACK

### CHIMNEY CLEAN OUT

Door opens for removal of fly ash.



### HOT FLUID OUTPUT

Heated by the furnace

### COLD FLUID INPUT

Returns transfer fluid to the furnace to be reheated

### JUNCTION BOX

for connecting wires.

### SOLENOID

opens dampner to allow preheated air into the furnace.

**BLOWER BOX** Internal fan blows preheated air into firebox to enhance the fire's temperature.

### CONTROL BOX

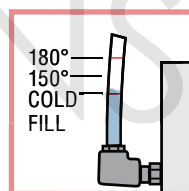
### ELECTRICAL INPUT BOX

Connects system to 110 volt external power source

**Aquastate:** temperature probe

### SIGHT GAUGE

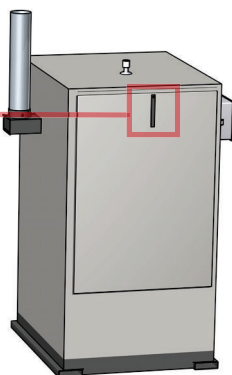
Fill boiler with transfer fluid until fluid become visible in clear tube. Fluid level should be between lines on tube.



## LIL POWERHOUSE ACCESS

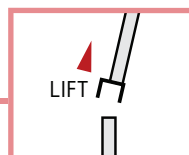
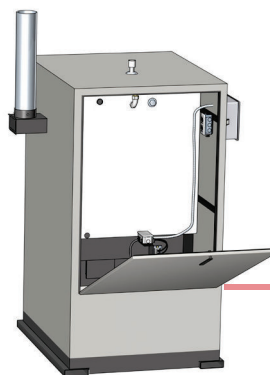
### REAR DOOR

Turn latch on removable panel.

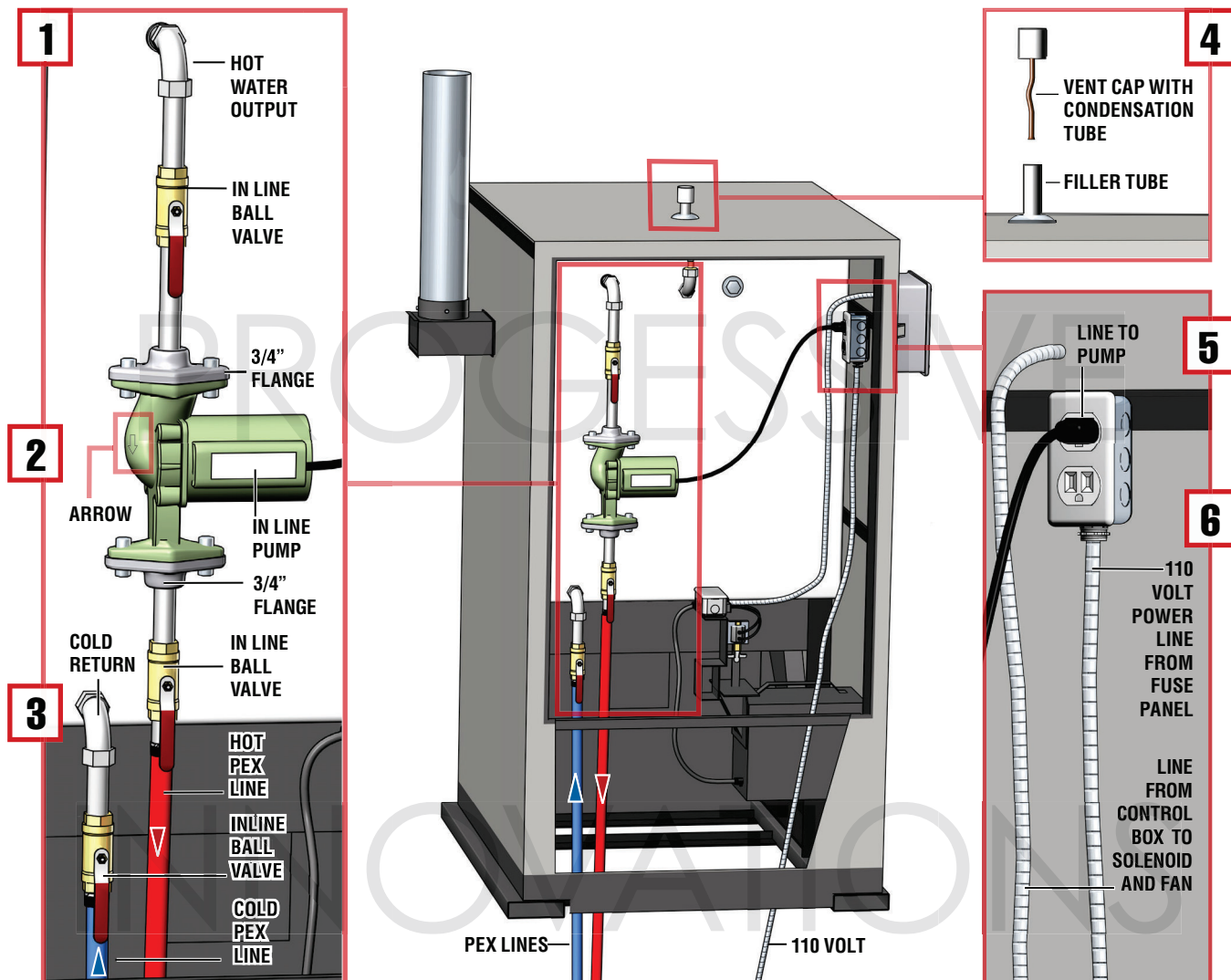


### PULL DOOR

Forward, then up. Make sure door bottom clears door frame, set aside.



# LIL POWERHOUSE HOOKUP



## 1. INSTALL HOT SUPPLY

Screw 3/4 inch pipe into the HOT SUPPLY socket located on upper left corner of firebox. Attach 90° elbow joint positioned downward, and attach in-line ball valve.

## 2. INSTALL IN LINE PUMP

in the hot supply line. Attach a second ball valve down line of the pump. Attach PEX line. **NOTE:** The arrow on the pump casing should face down.

## 3. INSTALL COLD RETURN

Screw 3/4 inch pipe into the COLD RETURN socket in lower left corner of fire box. Attach 90° elbow joint positioned downward, Attach in-line ball valve. Attach cold return PEX line.

## 4. FILL FLUID JACKET

Remove vent cap. Fill fluid transfer jacket inside of furnace with transfer fluid, typically 25 gallons of 100% non toxic boiler antifreeze.

## 5. CONNECT POWER

Bring 110 volt power line from fuse panel of external power source. Wire into outlet box.

## 6. ENERGIZE PUMP

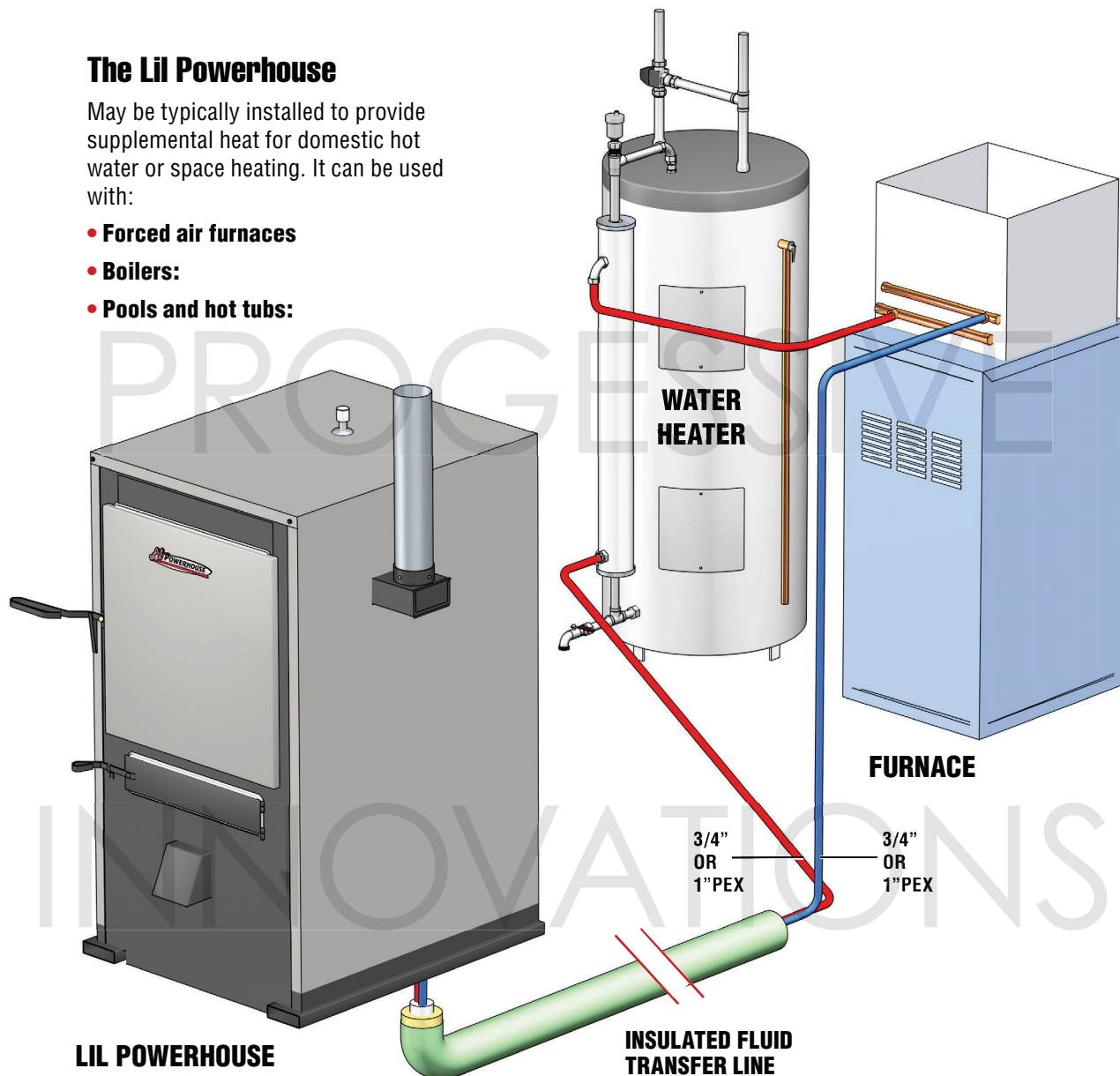
110 volt power outlets used to energize pumps.

# INSTALLING LIL POWERHOUSE

## The Lil Powerhouse

May be typically installed to provide supplemental heat for domestic hot water or space heating. It can be used with:

- **Forced air furnaces**
- **Boilers:**
- **Pools and hot tubs:**



- **Place Lil Powerhouse** on prepared concrete slab, blocks or packed levelled earth. Clear area of vegetation and other combustibles.

- **Lay insulated sheath** in trench approximately twelve inches deep. Run hot and cold fluid transfer PEX lines through insulated sheath.

- **Connect PEX lines** to space and water heating systems with appropriate heat exchanger.

- **Installation must comply** with all applicable codes

- **Water temperature** should be set at 110°-180° (depending on the type of installation)