



ASME CSD-1 CRN

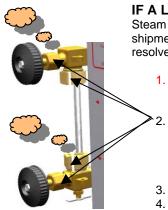
# Electra Steam, Inc.

## Instruction Manual for JR06 Steam Generator, JG- and JJ- Models

#### RETAIN THIS OPERATING MANUAL WITH BOILER. DO NOT DISCARD

### **READ THIS FIRST:**

- The safeguards and instructions appearing on these pages are not meant to cover all possible situations that may occur.
- Understand that common sense, caution, and care are factors which cannot be built into any product. The person operating the unit must supply these factors.
- Read all instructions before installation and operation.
- Ensure that the blowdown valve is properly and safely piped.
- Do not position your face or body over the fill funnel.
- Stand clear of safety valve and scalding steam.
- Never open the fill valve when unit is under pressure.
- Valves and pipes are hot when under pressure or heating up. Do not touch!



#### IF A LEAK IS EVIDENT:

Steam fittings can become loose during shipment and subsequently leak. It is easy to resolve these leaks if you are careful:

 Ensure that the boiler is cold, drained and has no pressure or electricity.

Tighten leaking packing nut gently a quarter of a turn. Do not over tighten, as this will result in gauge glass breakage or in valve stem freezing and valve failure.

- 3. Fill boiler and operate normally.
- 4. Observe for more leaks and repeat steps 1 and 2 as required.

#### 1. General

The Reimers JR-series boiler is a portable, hand-filled steam generator with a total of 2 gallon capacity, for operation at pressures from 5 to 85 psi. Designed to the ASME/CSD-1 Boiler Code and registered with the National Board of Boiler Inspectors, it is safe when installed, maintained, and used properly.

Standard JG-Model equipment includes: Steam pressure gauge (1), steam valve (2), blowdown valve (3), water-fill funnel (4), check valve (5), water fill valve (6) safety valve (7), water level gauge (8), electronic boiler control (9) and power cord (10).

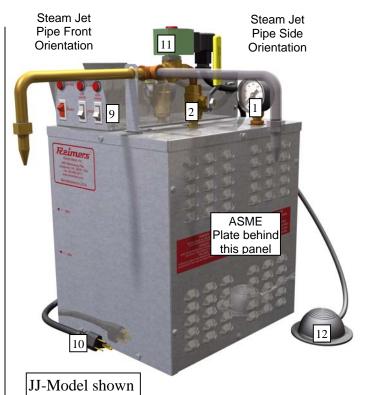
JJ-Model equipment includes in addition to standard model equipment: Steam jet with electric solenoid valve (11) and foot switch (12).

<u>Adjustments:</u> All controls have been set at the factory and should require no adjustments (Open gauge glass valves).

<u>Modification/Misuse:</u> Any modification or misuse of this unit could result in a dangerous situation. Reimers Electra Steam, Inc. is not liable for any product that has been modified or improperly used.

Registration: Most states and cities require boiler registration/inspection. Check with local government authorities.

<u>Repair:</u> Only experienced personnel must attempt repair of this unit. For repair instructions see chapter 5 of this instruction manual.







4407 Martinsburg Pike Clear Brook, VA 22624 USA Phone: 540-662-3811 Fax: 540-665-8101

Email: <u>Sales@reimersinc.com</u>
Web: <u>www.reimersinc.com</u>

#### **LIMITED WARRANTY - STEAM GENERATORS**

Reimers Electra Steam, Inc. warrants the following products of its own manufacture against defects in materials and workmanship under normal use and service. This warranty is in lieu of and excludes all other expressed or implied warranties or merchantability of fitness for any particular use. No person is authorized to extend the terms of this warranty or assume any other liability except by written statement signed by an officer of Reimers Electra Steam, Inc. Clear Brook, Virginia 22624.

#### **WARRANTY PERIOD**

The pressure vessel, as well as the electrical and mechanical components is warranted for one year from date of shipment from Reimers Electra Steam, Inc., Clear Brook, VA 22624.

#### **LIMITATIONS**

Products must be installed, used and maintained in accordance with our instructions, including reasonable and necessary maintenance by the user. Users are responsible for the suitability of the products to their application. There is no warranty for damage resulting from improper installation, abuse, power failure, fire, flood, lightening, improper water, misuse, improper specification, misapplication or other operating conditions beyond our control or parts that are normally expendable in usual course of operation.

Claims against carriers for damage in transit must be filed by the buyer. Reimers liability, if any, will not exceed the price of Reimers products claimed to be defective.

Components manufactured by any supplier other than Reimers shall bear only that warranty made by the manufacturer of that product and service for that warranty shall be the responsibility of that manufacturer and not Reimers.

#### REMEDY

Claims under this Limited Warranty must be made by obtaining a Return Authorization Number from our office (PHONE: 540-662-3811, FAX: 540-665-8101) and returning the defective part, freight prepaid to: Reimers Electra Steam, Inc., 4407 Martinsburg Pike, Clear Brook, Virginia 22624.

Defective items will be repaired or replaced as necessary within a reasonable time without charge, other than incidental charges such as freight prepayment. Such repair or replacement within a reasonable time is the exclusive remedy available from Reimers Electra Steam, Inc., under this Limited Warranty.

#### **CONSEQUENTIAL DAMAGES**

Reimers Electra Steam, Inc., is not liable for labor costs incurred in the removal, reinstallation, or unauthorized repair of the product, or for damages of any type whatsoever, including incidental and/or consequential damages.

#### THIS WARRANTY SUPERSEDES ALL PREVIOUS WARRANTIES.

#### 2. Installation

<u>Pipe Installation:</u> Steam piping must be of black pipe, not galvanized. Work must be performed by an experienced steamfitter. All state and local codes must be met.

<u>Electrical</u>: All wiring must be in accordance with the National Electric Code and any local codes that may apply. Wiring must be done by a competent, certified electrician. Use only copper wire.

<u>Water:</u> Ensure that all electrical components are in a dry location not subject to steam or water.

**Blowdown Valve:** When the blowdown valve is utilized, a large volume of hot water and steam is discharged. Ensure that this valve is properly piped for this discharge. State and local codes must be met as applicable.

<u>Safety Valve:</u> Safety valve is designed to discharge hot steam when the set pressure is exceeded. Ensure that the discharge port is pointing toward the back of the unit away from the operator and any aisles.

#### 3. Operation

CAUTION! Do not position your face over the fill funnel. Never open the fill valve when unit is under pressure.

- 1. Close blowdown valve (3).
- 2. Connect electric cord to grounded 120-Volt outlet.
- 3. On the electronic boiler control (9), turn on the power switch (16).
- Open fill valve (6) and release air from unit by opening steam valve (2). On JJ-models: Release air by pressing foot switch with power switch of electronic boiler control (9) on.
- Pour water into funnel (4) until it reaches the "Max." level mark beside the gauge glass. Do not overfill. Close fill valve (6).
  - **NOTE:** Overfilling will cause dirt and rust to be carried into the steam lines and onto goods. It will also cause the steam release valve to leak. Use tap water only!
- 6. On the electronic boiler control (9): Push the "Low Water" manual reset switch (15). The "Heating" light (14) will stay on until the preset working pressure is reached.
- 7. When the water level gets low, the unit will shut off automatically and the "Low Water" alarm light (15) will be lit. To refill, turn off the power switch (16) and allow the steam pressure to drop to zero.
- 8. Refill the boiler by repeating this procedure.

#### 4. Maintenance

CAUTION! Maintenance and repair must be performed by experienced personnel. Before maintenance or repair, ensure that the boiler is cold, drained and has no pressure or electricity. All electrical and steam safety precautions must be taken.

<u>Leaks on the gauge glass fixtures:</u> The two brass nuts at the top and bottom of gauge glass (8) should be tightened until leakage stops. Follow instructions on page 1 of this manual. (Note: Gauge glass valves should be open all the time)

Replace the Gauge Glass (8): Replace the gauge glass minimum once per year.

CAUTION! Ensure that the boiler is cold, drained and has no pressure or electricity. Be careful not to break the glass.

- 1. Close gauge glass valves (top and bottom).
- 2. Open petcock on bottom fixture to drain glass.
- 3. Loosen nuts at top and bottom of glass.
- 4. Slide glass up, pull out on bottom of glass and remove. If removing of glass is not possible, then it may be necessary to rotate either the bottom valve or both valves 1/8th of a turn.
- 5. Install glass by reversing above procedure.

NOTE: Always install new rubber washers.

**Blowdown:** Perform boiler blowdown minimum once per week.

CAUTION! Stand clear of scalding water and steam. Before opening the blowdown valve, ensure that it is properly piped in accordance with state and local codes.

Turn the power switch (16) off and allow steam pressure to drop to 5 psig. Then open the blowdown valve (3).

Adjust Steam Pressure (22): This control is factory preset, and usually does not require adjustment.

CAUTION! Stand clear of safety valve and scalding steam.

- 1. Disconnect the power cord plug from the wall outlet.
- 2. Remove the cabinet side cover to gain access to the operating pressure control.

CAUTION! Do not adjust the pressure high-limit control (23) marked "DO NOT ADJUST". This control is factory preset for safety purposes.

3. Adjust pressure by turning the black adjustment knob.

Test the Safety Valve (7): Test this valve once per month. CAUTION! Stand clear of safety valve and scalding steam. Before testing the safety valve, ensure that it is properly piped in accordance with state and local codes.

**NOTE**: Safety valve should be tested at full operating pressure. If discharge pipe is required, it should not be smaller than valve outlet and must be rigidly supported.

- Hold trip lever open for 5 sec. in order to flush off valve seat.
- 2. Permit valve to "slap" shut. If a leakage is evident, repeat this test or replace the valve.

#### Replace the Heating Element (20):

CAUTION: Ensure that the boiler is cold, drained and has no pressure or electricity.

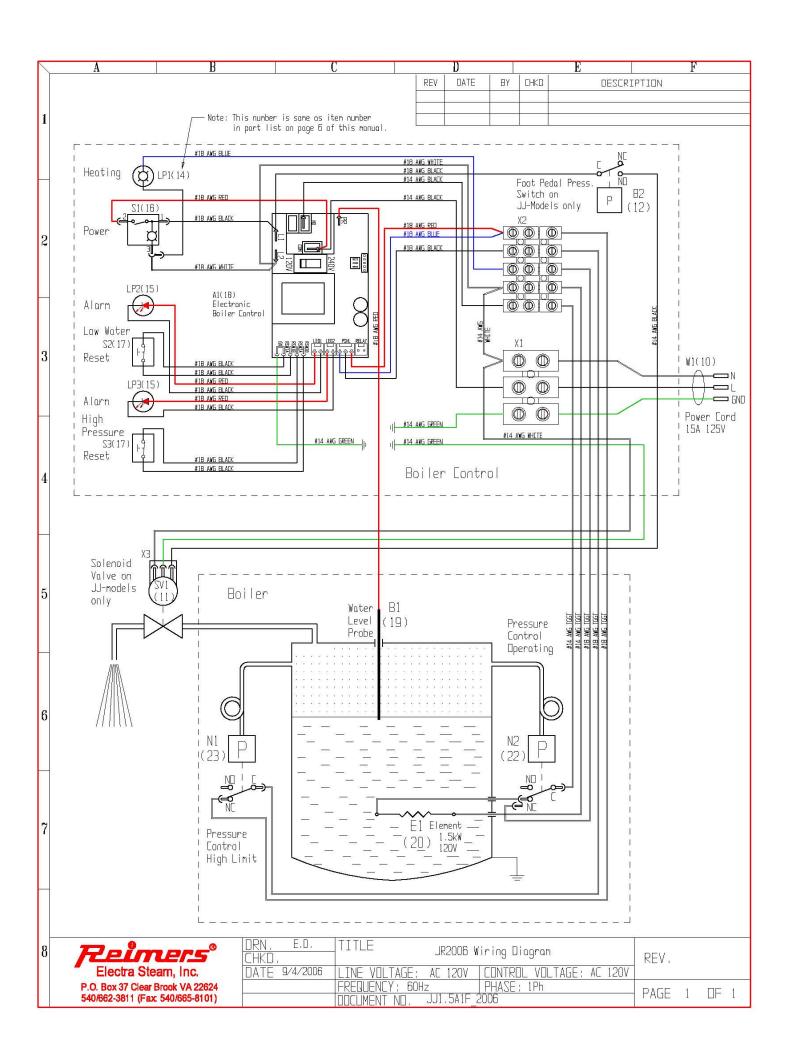
- 1. Remove the cabinet side panel
- 2. Remove the heating element terminal cover
- 3. Disconnect the wires from the heating element terminals.
- 4. Remove all 4 nuts from the element flange and pull out the heating element.
- 5. Clean the flange surface before installing the new element and gasket.

## **5. Trouble Shooting**

Boiler Status	Quick Fix
Power cord plugged into wall outlet, power switch on boiler control turned on, but no lights lit on the front panel of the boiler control:	- Check circuit breaker or fuse of the wall outlet where the boiler is plugged in. If the circuit breaker is tripped or the fuse blown, check whether other appliances are plugged into outlets that are fed by the same circuit breaker/fuse. If that is the case, then plug those other appliances into outlets that are protected by other circuit breakers or fuses.
"Low Water" alarm light lit:	<ul> <li>Press the "Low Water" reset button</li> <li>Check Water Level. Water level must be above the "Min." mark.</li> <li>Ensure that the boiler is filled with tab water and not distilled water.</li> </ul>
"High Pressure" alarm light lit:	<ul> <li>Press the "High Pressure" reset switch</li> <li>If the pressure gauge indicates steam pressure above the preset value, reduce pressure and press the "High Pressure" reset switch</li> </ul>
On JJ-Models: Pressure gauge shows pressure, but no steam can be discharged through jet when foot switch pressed:	<ul> <li>Ensure that the steam outlet ball valve (2) is open</li> <li>Ensure that the steam solenoid valve generates a "click" noise when the foot switch is pressed. If no "click" noise, then check the air hose of the foot switch for breakage or other damage.</li> </ul>
Boiler is hard to refill manually. When refilling, water gurgles in fill funnel:	On JJ-Models:  - Plug the power cord of the boiler into the wall outlet.  - Turn the power switch on the boiler control on.  - Open the steam outlet ball valve.  - Press the foot switch while refilling.

If trouble shooting did not resolve problem, please contact our service technicians at:

Phone: 540-662-3811 Email: <u>sales@reimersinc.com</u> Web: <u>www.reimersinc.com</u>





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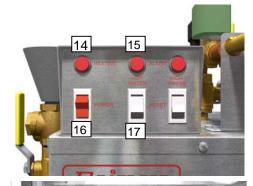
## Parts List for Model JR2006 Steam Generator

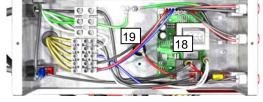
Table 1				
1	04661	Pressure Gauge 0 – 160psi		
2	02472	Ball Valve ¼" NPT		
3	03346	Ball Valve ½" with latch		
4	MBJ-1	Fill Funnel		
5	02462	Swing Check Valve 1/2" NPT		
6	02490	Ball Valve 1/2" NPT		
7	02637	Safety Valve 1/2" NPT 100psi		
8	02396	Gauge Glass Fixture Set ½" NPT		
	04201	Gauge Glass 5"		
	04670	Gauge Glass Protector 5"		
	02006	Gauge Glass Washer (Rubber)		
	02448	Gauge Glass Washer (Brass)		
9		Electronic Boiler Control, see Table 2		
10	03266	Power Cord 125V		
11*	04667	Solenoid Valve 1/4" NPT 120V		
12*	20708	Foot Switch Pneumatic Assembly		
13*	20058	Steam Jet Brass #53		

*	JJ	-M	ode	ls	only

Table 2			
14	04396	Heating Light 125V	
15	20720	Alarm Light Assembly	
16	04213	Power Switch 16A 250V	
17	20592	Reset Switch Assembly	
18	04316	Low Water Cut-Off Circuit Board	
19	MBJ187	Electrode Fitting 7.375"	

Table 3			
20	02283	Heating Element 1500W, 120V	
	02281	Heating Element Gasket	
21	01314	Nuts for Element Flange	
22	04163	Pressure Control Operating	
23	04296	High-Limit Pressure Control	











# **APPLICATIONS**



**JEWELRY CLEANING** 



JIFFY HEAD FOR AUTO SEAT INSTALLATION



**HAT STEAMING** 







DENTAL WAX REMOVAL