

# WATER BOILER WB-10 -12

Revised 7/04



**Curtis**<sup>®</sup>

6913 West Acco Street, ■ Montebello, California 90640  
Tel: 800/421-6150 ■ Technical Support Tel: 800/995-0417 Fax: 323/837-2401

# WATER BOILER - WB-10 -12

## INSTALLATION INSTRUCTIONS

1. Unpack equipment carefully, inspect for any freight damage. Be sure to promptly put a claim into the freight company if any damage is found.
2. Connect faucet securely to the faucet adapter.  
Electrical and plumbing hook-ups should be made by authorized installers only.  
INSTALLATION MUST COMPLY WITH ALL NATIONAL AND LOCAL ELECTRICAL AND PLUMBING CODES.
3. This water boiler can operate on 120, 208 or 220 volt power supply. To ground equipment, connect the ground wire to the green screw on inside bottom of wrap.
4. This boiler comes wired for 208 or 220 volt, single phase, 3 wire plus ground, see wiring diagram.
5. To connect the water boiler for 120 volt operation:
  - A. The facility will have two wires, one WHITE (neutral) and the other BLACK. Plus GREEN for ground.
  - B. Splice the BLACK wire from power source, to both the heavy RED (#10 AWG) and thin BLACK (#18 AWG) wires from the WB-10.
  - C. Take the WHITE wire from the facility power source and splice it to the BLUE wire (#10 AWG) and WHITE wire (#18 AWG) from the machine (see wiring diagram).
6. Water Hook-Up: Use a 1/4" copper line with a female flare fitting. Water inlet fitting is located on the back of the WB-10.

**CAUTION** Before turning thermostat dial to ON position, fill equipment with water up to the probe tip. This will prevent heating elements from burning out.

# TROUBLE SHOOTING

## **PROBLEM: WATER WILL NOT REFILL**

POSSIBLE CAUSE	SOLUTION
1. Water line closed or clogged filter	Check the water system at your facility to make sure the line is open. Replace the water filter.
2. Valve coil burned out	Turn machine off. Disconnect wires from water inlet coil terminals and connect a power cord to the terminals. Plug cord into a 120V outlet and verify if water flows when plugged in and stops when power is disconnected. If valve fails this test, replace valve.
3. Grounded probe	When the water level gets below the probe tip, water should automatically refill the unit. If not, pull wire off the probe terminal. Water should now start flowing into the water boiler.
4. Defective water level control board	Disconnect wire from probe terminal. With a voltmeter, check voltage at the water inlet coil terminals. This should read 110-120 volts. If no voltage is present, check liquid level control (L.L.C.) board. Make sure the L.L.C. board is supplied by 120V across terminals T2 & T3. The L.L.C. board is grounded to the body of the machine by contacting the board to the mounting bracket. Make sure board is grounded here. Check for loose connections at terminals. Replace board.

## **PROBLEM: WATER OVERFLOWING.**

POSSIBLE CAUSE	SOLUTION
1. Defective water inlet valve	Turn power off and observe water level. If water continues to flow into the heating tank, clean or replace leaky valve.
2. Probe limed up	Disconnect wire from probe terminal. Touch the body of the heating tank with the terminal at the end of this wire. If water stops, try cleaning the probe. Probe may have to be replaced.
3. Non-grounded or loose terminal connections at liquid level control board	Liquid level control board must be securely grounded through the back of the board and the mounting bracket. Check for loose connections at the terminals. Check for voltage across the inlet valve terminals. If there is 110 to 120 volts present at the inlet valve terminals when water level is touching the probe tip, replace the L.L.C. board.

## **PROBLEM: WATER DOES NOT REACH PROPER TEMPERATURE**

POSSIBLE CAUSE	SOLUTION
1. Thermostat turned <b>OFF</b> (or set too low)	Check thermostat to make sure the shaft is knob is rotated clockwise to the desired temperature.

## TROUBLE SHOOTING CONTINUED:

### **PROBLEM: WATER DOES NOT REACH PROPER TEMPERATURE**

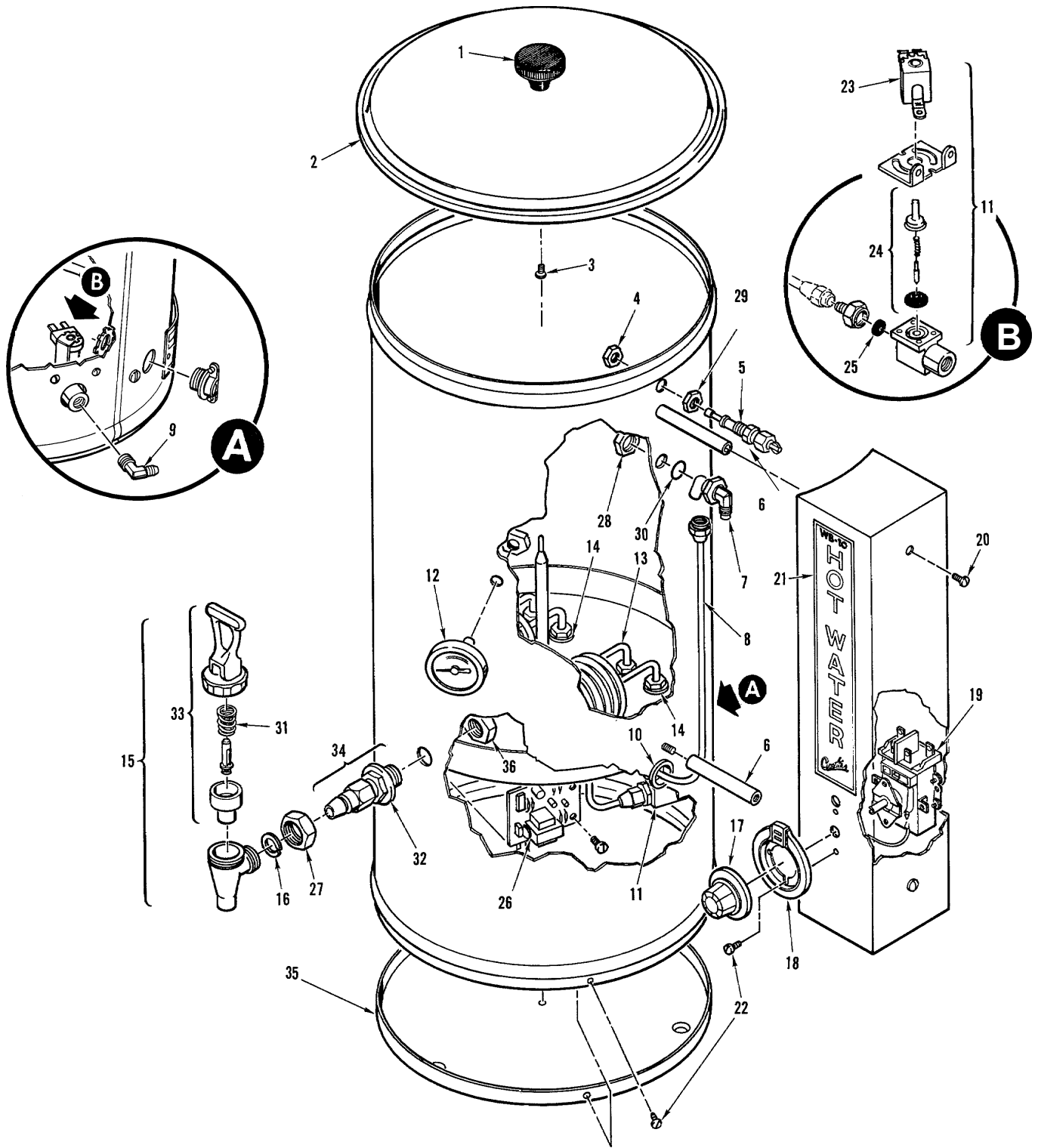
POSSIBLE CAUSE	SOLUTION
2. Defective thermostat	Replace thermostat if contacts are open when knob is fully clockwise and water temperature is less than 190° F. You will measure 120 volts (approximately) to ground from both thermostat terminals when it is ON and from only one terminal when it is OFF.
3. Burned out heating element	<p>In this water boiler there are two elements in parallel. Failure of either will cause very slow heating. Perform the following tests:</p> <ul style="list-style-type: none"><li>a. Clamp-on ammeter test: If both elements are good, you will measure about 21 amps at 240 volts, 24 amps at 208 volts or 29 amps at 120 volts. If you measure only 10 to 12 amps, check the current to each element to identify the defective part.</li><li>b. Ohmmeter or continuity test: Disconnect all power by unplugging unit. Disconnect one terminal to measure each element. They should each have continuity or measure about 20 ohms.</li></ul>

### **PROBLEM: WATER OVERHEATS, ELEMENTS DO NOT SHUT OFF**

POSSIBLE CAUSE	SOLUTION
1. Defective thermostat	Replace the thermostat. You can sometimes operate temporarily by turning the thermostat knob to off until the boiling stops.

# ILLUSTRATED PARTS LIST

## Water Boiler – WB-10-12

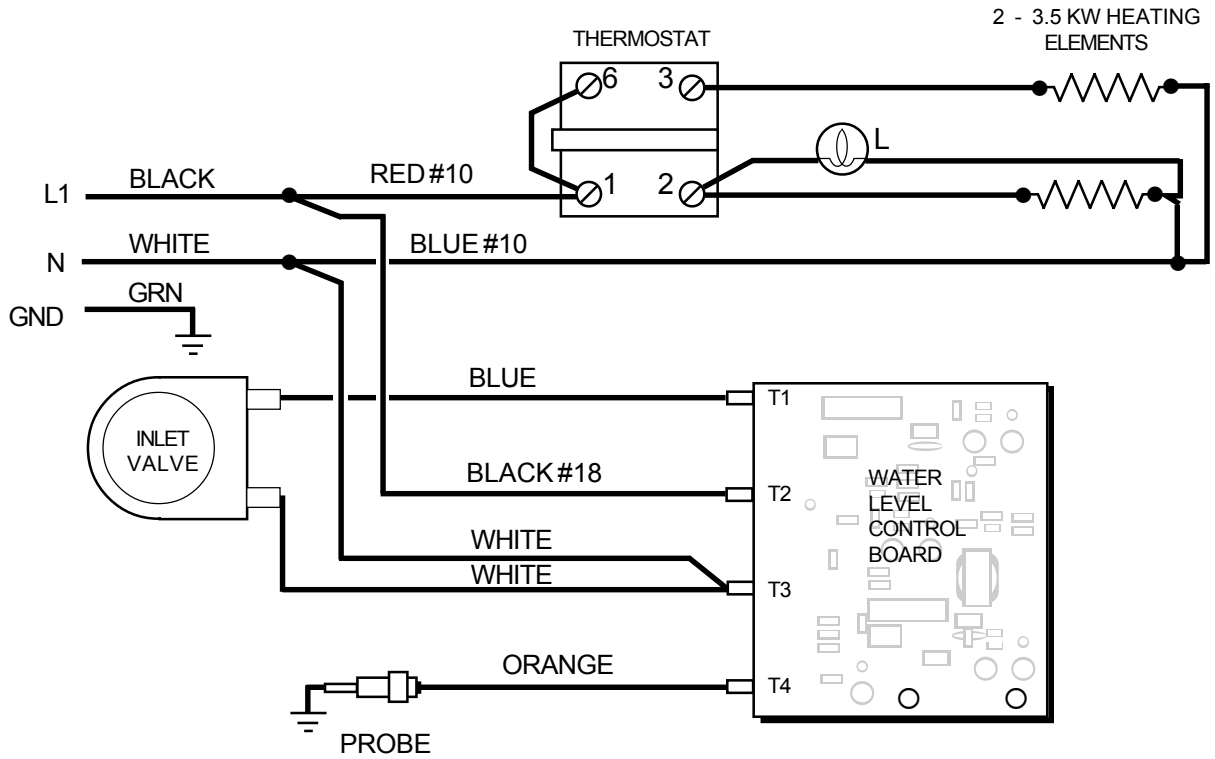


# WATER BOILER - WB-10-12

INDEX Nº	PART Nº	DESCRIPTION
1	WC-3205	KNOB, LID . . . . .
2	WC-5602	LID WITH KNOB . . . . .
3	WC-4600	SCREW, 1/4"-20 x 3/8" ROUND HEAD . . . . .
4	WC-4204	NUT, 1/8" BRASS LOCK . . . . .
5	WC-5502	PROBE, WATER LEVEL . . . . .
6	WC-4383	SPACER, 1/2" DIA. ALUMINUM, 8-32 TAP. . . . .
7	WC-2966	FITTING, WATER INLET 1/4" FLARE . . . . .
8	WC-5386	TUBING ASSEMBLY, 1/4" WATER INLET . . . . .
9	WC-2401	FITTING, 1/4" x 3/8" FLARE BRASS ELBOW . . . . .
10	WC-4392	BUSHING, 1" SNAP IN . . . . .
11	WC- 801	VALVE, WATER INLET S-45 . . . . .
12	WC- 511	THERMOMETER, DIAL . . . . .
13	WC- 922	HEATING ELEMENT, 3500 WATT, 220VOLT . . . . .
14	WC-4304	WASHER, TEFLON 3/8" I.D. . . . .
15	WC-1800HW	S-FAUCET, RED HANDLE . . . . .
16	WC-1906	C- RING . . . . .
17	WC-3217	KNOB, THERMOSTAT . . . . .
18	WC-3220	BEZEL, THERMOSTAT . . . . .
19	WC- 501	THERMOSTAT, D-18 . . . . .
20	WC-4426	SCREW, 8-32 x 3/8" PAN HEAD TRUSS . . . . .
21	WC-3914	LABEL, "HOT WATER" (WB-10) . . . . .
22	WC-4439	SCREW, 6-32 x 1/4" PH PAN HEAD SS . . . . .
23	WC- 409	COIL, 115V (DOLE VALVES) . . . . .
24	WC-3700	KIT, REPAIR INLET VALVE . . . . .
25	WC- 813	WASHER, 1/2" FLOW .5 G.P.M. (S-45) . . . . .
26	WC- 608	CONTROL BOARD, WATER LEVEL . . . . .
27	WC-1903	NUT, SHANK UNION . . . . .
28	WC-4211	NUT, 3/8" JAM PLATED . . . . .
29	WC-4237	NUT, 7/16-20" HEX BRASS . . . . .
30	WC-4320	O- RING . . . . .
31	WC-3402	SPRING, RETURN "S" SERIES FAUCET . . . . .
32	WC-1901	NUT, CHROME PLATED . . . . .
33	WC-3705HW	KIT, REPAIR FAUCET . . . . .
34	WC-1902	NUT, SHANK FLANGED . . . . .
35	WC-5611	COVER, BOTTOM . . . . .
36	WC-4203	NUT, 3/8-24 JAM PLATED . . . . .

### Water Boiler WB 10 -12

120 VOLTS, 2100 WATTS, 17.5 AMPS, 1Ø



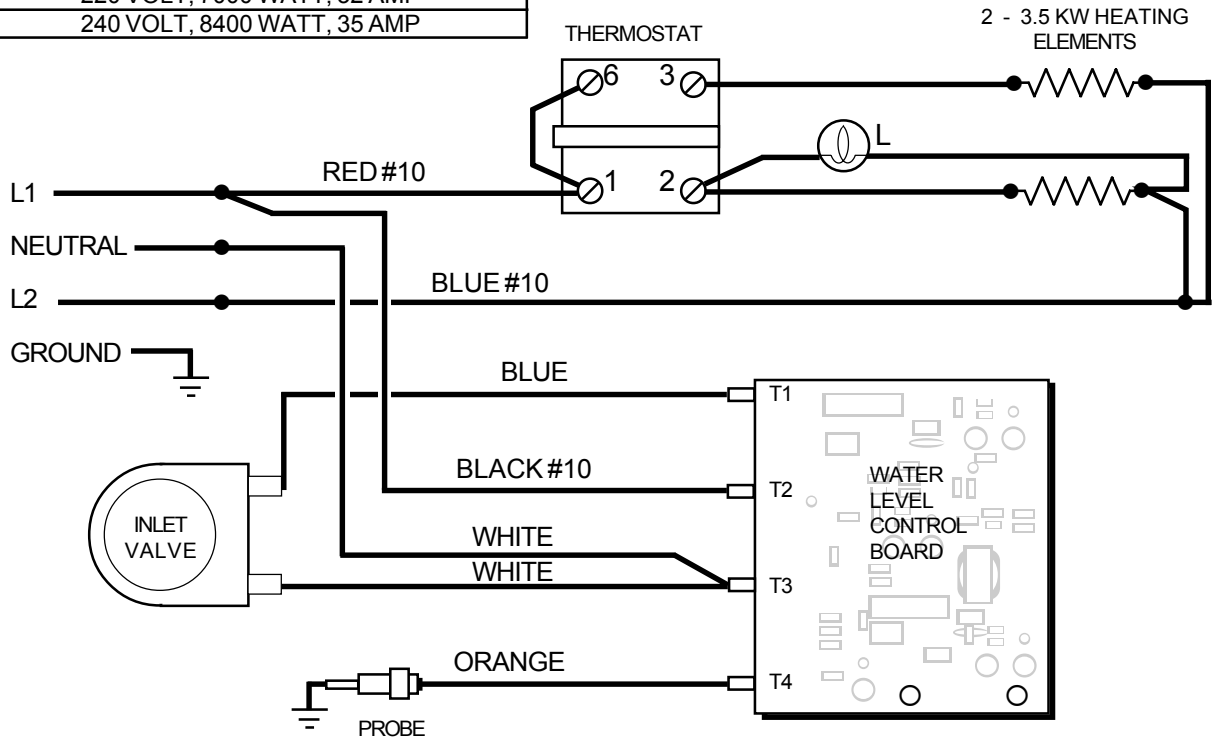
Rev. 4/15/98

### Single Phase 3 Wire

208 VOLT, 6300 WATT, 30 AMP

220 VOLT, 7000 WATT, 32 AMP

240 VOLT, 8400 WATT, 35 AMP



Rev. 4/15/98

## Product Warranty Information

The Wilbur Curtis Company certifies that its products are free from defects in material and workmanship under normal use. The following limited warranties and conditions apply:

- 3 Years, Parts and Labor, from Original Date of Purchase on digital control boards.
- 2 Years, Parts, from Original Date of Purchase on all other electrical components, fittings and tubing.
- 1 Year, Labor, from Original Date of Purchase on all electrical components, fittings and tubing.

Additionally, the Wilbur Curtis Company warrants its Grinding Burrs for Forty (40) months from date of purchase or 40,000 pounds of coffee, whichever comes first. Stainless Steel components are warranted for two (2) years from date of purchase against leaking or pitting and replacement parts are warranted for ninety (90) days from date of purchase or for the remainder of the limited warranty period of the equipment in which the component is installed.

All in-warranty service calls must have prior authorization. For Authorization, call the Technical Support Department at 1-800-995-0417. Effective date of this policy is April 1, 2003.

Additional conditions may apply. Go to [www.wilburcurtis.com](http://www.wilburcurtis.com) to view the full product warranty information.

### CONDITIONS & EXCEPTIONS

The warranty covers original equipment at time of purchase only. The Wilbur Curtis Company, Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from the Wilbur Curtis Company, Inc. The Wilbur Curtis Company will not accept any responsibility if the following conditions are not met. The warranty does not cover and is void under the following circumstances:

- 1) **Improper operation of equipment:** *The equipment must be used for its designed and intended purpose and function.*
- 2) **Improper installation of equipment:** *This equipment must be installed by a professional technician and must comply with all local electrical, mechanical and plumbing codes.*
- 3) **Improper voltage:** *Equipment must be installed at the voltage stated on the serial plate supplied with this equipment.*
- 4) **Improper water supply:** *This includes, but is not limited to, excessive or low water pressure, and inadequate or fluctuating water flow rate.*
- 5) **Adjustments and cleaning:** *The resetting of safety thermostats and circuit breakers, programming and temperature adjustments are the responsibility of the equipment owner. The owner is responsible for proper cleaning and regular maintenance of this equipment.*
- 6) **Damaged in transit:** *Equipment damaged in transit is the responsibility of the freight company and a claim should be made with the carrier.*
- 7) **Abuse or neglect (including failure to periodically clean or remove lime accumulations):** *Manufacturer is not responsible for variation in equipment operation due to excessive lime or local water conditions. The equipment must be maintained according to the manufacturer's recommendations.*
- 8) **Replacement of items subject to normal use and wear:** *This shall include, but is not limited to, light bulbs, shear disks, "O" rings, gaskets, silicone tube, canister assemblies, whipper chambers and plates, mixing bowls, agitation assemblies and whipper propellers.*
- 9) **Repairs and/or Replacements** *are subject to our decision that the workmanship or parts were faulty and the defects showed up under normal use. All labor shall be performed during regular working hours. Overtime charges are the responsibility of the owner. Charges incurred by delays, waiting time, or operating restrictions that hinder the service technician's ability to perform service is the responsibility of the owner of the equipment. This includes institutional and correctional facilities. The Wilbur Curtis Company will allow up to 100 miles, round trip, per in-warranty service call.*

**RETURN MERCHANDISE AUTHORIZATION:** *All claims under this warranty must be submitted to the Wilbur Curtis Company Technical Support Department prior to performing any repair work or return of this equipment to the factory. All returned equipment must be repackaged properly in the original carton. No units will be accepted if they are damaged in transit due to improper packaging. **NO UNITS OR PARTS WILL BE ACCEPTED WITHOUT A RETURN MERCHANDISE AUTHORIZATION (RMA). RMA NUMBER MUST BE MARKED ON THE CARTON OR SHIPPING LABEL.** All in-warranty service calls must be performed by an authorized service agent. Call the Wilbur Curtis Technical Support Department to find an agent near you.*



Factory & RMA Address: 6913 Acco St., Montebello, CA 90640 ♦ Customer Service Tel: 800/421-6150

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