

**Continuum**  
Never Run Out Of Hot Water Again

# How to use your New Continuous Flow Water Heater

**Model V2532W**  
(Residential outdoor unit)



ANS Z21.10.3 • CSA 4.3

# Rinnai

**WARNING:** If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS**
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.



S P E C I F I C A T I O N S

Type of appliance	Temperature controlled continuous flow gas hot water system
Operation	With / without remote controls, mounted in kitchen, bathroom, etc.
Exhaust system	Direct Vent - Forced combustion
Rinnai model number	REU-V2532W-US
Maximum/Minimum gas rate (Input BTU's)	199,000 BTU's - 15,000 BTU's Natural Gas 199,000 BTU's - 15,000 BTU's Propane Gas
Thermal Efficiency	Natural Gas: 84%      Propane: 85%
Energy Factor (EF)	Natural Gas: 0.82      Propane: 0.84
Capacity (Gallons 1st Hour @ 90°F rise)	Natural Gas: 218      Propane: 227
NO <sub>x</sub> Emissions (at 3% O <sub>2</sub> )	less than 40 ppm
Hot water capacity, (50°F rise)	0.5 to 6.5 GPM
Maximum hot water capacity, (35°F rise)	8.5 GPM
Setpoint Temperature (without remote)	Factory setting - 120°F
Temperature range with optional remote Keypads connected	MC controller :                      96 - 140°F BC and BSC controller :        96 - 120°F
Approved gas type	Natural or Propane - Ensure unit matches gas type it's being installed on.
Installation	Outdoor Installation Only
Dimensions	Height            23 5/8" Width             13 3/4" Depth             8 7/8"
Weight	46 Lbs.
Connections	Gas supply                      3/4" MNPT Cold water inlet                3/4" MNPT Hot water outlet                3/4" MNPT
Ignition system	Direct electronic ignition
Electrical consumption	Normal                          63 watts Standby                         5.5 watts Anti-frost protection         84 watts
Water temperature control	Simulation feedforward and feedback.
Water flow control	Water flow sensor, electronic water control device, and electronic by-pass control device
Recommended Minimum water supply pressure	20 PSI (Rinnai recommends 50-80 PSI for maximum performance)
Maximum water supply pressure	150 PSI



# S P E C I F I C A T I O N S

Power Supply	Appliance - AC 120 Volts - 60Hz. Remote control DC 12 Volts (Digital)	
Safety devices	Flame failure	- Flame rod
	Boiling protection	- 203°F lockout thermistor
	Remaining flame (OHS)	- 194°F bi-metal switch
	Fusible link	- 264°F thermal fuse
	Automatic frost protection	- Bi metal sensor & anti-frost heaters
	Combustion fan rpm check	- Integrated circuit system
	Over current	- Glass fuse (3 amp)
Remote control	MC-45-4US	Main control Kitchen / Laundry
	BC-45-4US	Bathroom control
	BSC-45-4US	Second bathroom control
Remote control cable	Non-polarized two core cable	
Clearances from combustibles	Top of heater	12"
	Front of heater	24"
	Sides of heater	6"
	Back of heater	0"
	Ground	12"
Clearances from non-combustibles	Top of heater	2"
	Front of heater	0" (Do not block or restrict intake or exhaust vents)
	Sides of heater	1/2"
	Back of heater	0"
	Bottom of heater	2"
	Installations within RGB-25 Recess Box: Clearances from combustibles to recess box top, bottom, back and sides = 0"	
Clearance from Eaves, Porches, Overhangs	Top of heater	36"
Minimum and Maximum gas supply pressure	Natural Gas : Minimum 6" W. C. (NAT.)	Propane Gas: Minimum 10" W. C. (LPG)
	Maximum 10.5" W. C.	Maximum 13.5" W. C.
Manifold Gas Pressure	Natural Gas	3.4" W. C. high fire      0.56" W. C. low fire
	LPG:	5.1" W. C. high fire      0.88" W. C. low fire
Warranty	Residential: Ten years heat exchanger / five years parts (see unit's warranty for details) Commercial or Space Heating: No Warranty -- Use V2532WC Water Heater	

NOTE: Rinnai is continually updating and improving products. Therefore, specifications are subject to change without prior notice.



**L I M I T E D   W A R R A N T Y**  
 Rinnai Continuum Water Heater Models: REU-V2532FFU and REU-V2532W

**WHAT IS COVERED?**

This Warranty covers any defects in materials or workmanship, subject to the terms stated below. This Warranty applies only to products that are installed by a state qualified or licensed contractor. This Warranty applies only if the product is installed within a single family dwelling. This Warranty is void if the installer has not attended a Rinnai product knowledge class before installing this water heater or if the product is used for any application other than potable water heating in a single family dwelling. This Warranty extends to the original purchaser and subsequent transferees, but only while the product remains at the site of the original installation. This Warranty only extends through the first installation of the product and terminates if the product is moved or reinstalled at a new location.

**HOW LONG DOES COVERAGE LAST?**

<u>Item</u>	<u>Period of Coverage</u>
Heat Exchanger	10 Years from Date of Purchase*, or 3 Years from Date of Purchase when used as a hot water circulation loop heater.
All other Parts and Components	5 Years from Date of Purchase, or 3 Years from Date of Purchase when used as a hot water circulation loop heater.

**WHAT WILL RINNAI DO?**

Rinnai will repair or replace the product or any part or component that is defective in materials or workmanship\*, except as set forth as follows. Rinnai will pay reasonable shipping costs, provided you obtain prior authorization from an Authorized Rinnai Distributor. Rinnai will not pay labor charges associated with the repair or replacement of the product or any part or component. All repair parts must be genuine Rinnai parts. All repairs or replacements must be performed by an individual or servicing company that has been authorized by Rinnai or its distributor. Replacement of the product or replacement of the heat exchanger may be authorized by Rinnai only. Rinnai does not authorize any person or company to assume for it any obligation or liability in connection with the replacement of a product or heat exchanger. If Rinnai determines that repair of a product is not possible, Rinnai will replace the product with a comparable product, at Rinnai's discretion.

\* If the Heat Exchanger fails due to defect in material or workmanship within the sixth (6) through tenth (10) year from date of purchase, Rinnai will make the following allowances toward the purchase of replacement heat exchanger:

Year of Failure	Allowance	Year of Failure	Allowance
6	50%	7	40%
8	30%	9	20%
10	10%		

**HOW DO I GET SERVICE?**

**You must contact an Authorized Distributor or Installer for the repair of a defective product under this Warranty. Failure to contact an Authorized Distributor or Installer will void the Warranty.** For the name of the Authorized Distributor or Installer nearest you, please contact your local HVAC dealer or gas service technician, visit the Rinnai website ([www.rinnai.us](http://www.rinnai.us)), call Rinnai at 1-800-621-9419 or write to Rinnai, 103 International Drive, Peachtree City, Georgia 30269.

Proof of purchase is required. You can show proof of purchase with a dated sales receipt, or by completing and mailing the enclosed Warranty registration card within 30 days of purchasing the product. **Please complete the enclosed Warranty registration card and mail it to Rinnai at the address shown on the card.** Receipt of this card by Rinnai will constitute proof-of-purchase for this product. However, return of this Warranty registration card is not necessary in order to validate this Warranty.

**WHAT IS NOT COVERED?**

This Warranty does not cover any failures or operating difficulties due to accident, abuse, misuse, alteration, misapplication, force majeure, improper installation, improper maintenance or service, water quality, scale buildup, or for any other causes other than defects in materials or workmanship. This warranty does not apply to any product whose serial number or manufacture date has been defaced. This Warranty does not cover any product when used as a pool or spa heater, used for space heating, or used for commercial or business purposes.

This Warranty does not apply if the water supply to the water heater does not meet the National Secondary Drinking Water Regulations, as set forth in the U.S. Code of Federal Regulations, 40 CFR, Chapter 1, Part 143.

Rinnai is not liable for any special, incidental, indirect or consequential damages that may arise, including damage to person or property, loss of use, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

**LIMITATION ON IMPLIED WARRANTIES**

Any implied warranties of merchantability and fitness arising under state law are limited in duration to the period of coverage provided by this limited Warranty, unless the period provided by state law is less. Some states do not allow limitations on how long an implied Warranty lasts, so the above limitation may not apply to you.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

C O N T E N T S

Specifications.....	2,3
Limited Warranty .....	4
Owner's Installation Information .....	6
Features of your new Continuum .....	7
Safety Issues.....	8,9
Basic Operation.....	10
About Hot Water .....	11
Scalds-First Aid .....	11
Remote Control Operation .....	12
Maintenance Codes .....	13
Maintenance & Service Information.....	14,15
Trouble Shooting and Common Questions .....	16
For Your Safety Read Before Operating .....	17
Operating Instructions.....	17,18
Care & Lime Condition Warning.....	18,19



## OWNER'S INSTALLATION INFORMATION

### IMPORTANT!

*All Rinnai water heaters **MUST** be installed by a state qualified or licensed contractor. Failure to comply with your local and state codes pertaining to water heater installations will void the warranty on said water heater(s). It is the responsibility of the person having the unit installed to ensure the contractor has the proper licences and permits for his state. In addition to the above, Rinnai requires all contractors attend a product knowledge class before installing our water heaters. This requirement **MUST** be met in order for your product's warranty to be valid. Failure to comply with your local and state codes will result in non-compliance and void the warranty of the product being installed.*

*This appliance must be installed in accordance with local codes, or in the absence of local codes, the National Fuel Gas Code, ANSI Z223.1 and/or the CAN/CGA-B149, Installation Codes.*

*Install this product outdoors **ONLY**, **DO NOT** install indoors.*

*Do Not use this appliance if any part has been underwater. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been underwater.*

*Detailed instructions on the proper installation practices to follow for the installation of your new continuous hot water heater are included at the back of this manual.*

## FEATURES OF YOUR NEW CONTINUUM

-  The Continuum V2532W is one of the most advanced water heaters available. It produces hot water continuously at the temperature preset in the unit or at the temperature set on the remote temperature controller. Installation of the remote temperature controller is recommended for optimum performance.
-  The Continuum V2532W never runs out of hot water. While electricity, water and gas supplies are connected, the Continuum V2532W will produce hot water whenever the water flow rate through the unit exceeds 0.6 gpm and the temperature rise through the unit exceeds 45°F.
-  The gas burner lights automatically when the hot water tap is opened, and goes out when the tap is closed. Ignition is electronic, there is no pilot light. When the hot water tap is off, no gas is used. You save energy and money with the Continuum V2532W.
-  The temperature of the outgoing hot water is constantly monitored by a built in sensor. If the temperature of the outgoing water rises to more than 6 degrees above the selected temperature (shown on the optional digital remote control) the gas burner will automatically go out. The gas burner will re-ignite once the outgoing hot water temperature falls below the selected temperature.
-  With the remote control installed the water temperature is adjustable from 96 to 140°F with the main controller and from 96 to 120°F with the bath controller. **The water temperature cannot be set to a temperature other than 120°F without the use of an optional remote control unit.**
-  Error messages are displayed on the remote control units, simplifying service calls.
-  The Continuum V2532W incorporates a device to limit the temperature fluctuations (cold water sandwich effect) when the water is rapidly turned off, then on again. To eliminate the cold water sandwich effect completely, the Continuum V2532W can be installed with a circulation loop, with a small storage tank, as shown on page 26.
-  The sound (noise) level from the Continuum V2532W is very low.
-  The Continuum V2532W is a very compact power vented device. It saves valuable floor and wall space.

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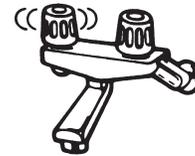
## S A F E T Y

## I S S U E S

Always check water temperature by hand before entering the shower or bath. The temperature may have been changed.

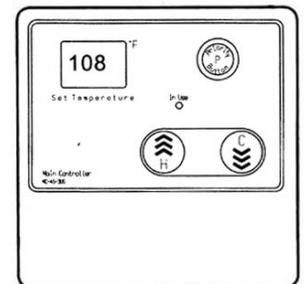
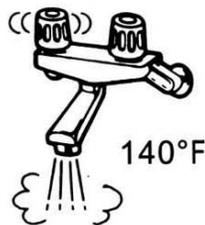
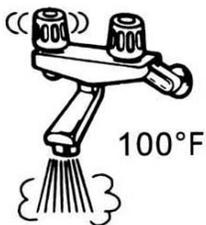


The water temperature can only be adjusted between 96°F and 110°F when the hot water tap is open, and hot water is flowing.



The Continuum V2532W controls the water temperature automatically. To do this it sometimes needs to change the water flow accordingly. The water flow from the hot water tap may vary after the selected temperature at the Remote Control is altered. The water flow may also vary from summer to winter, as incoming water temperatures differ.

Depending on the weather conditions and the length of the pipe between the Continuum V2532W and the tap in use, there may be a variation between the temperatures displayed at the Remote Control and the temperature of the water at the tap.



S A F E T Y I S S U E S

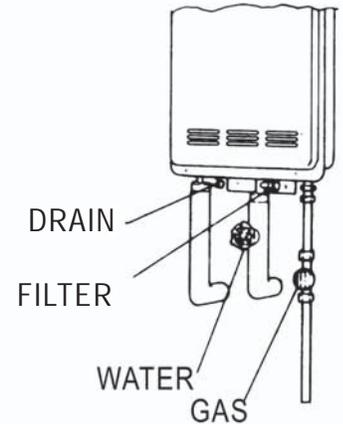
Keep flammable materials, trees, shrubs etc. away from the Continuum V2532W.



Do not spray water directly into the flue terminal.

If the external Continuum V2532W is disconnected from the power supply and freezing conditions are expected, turn off water and gas, and drain all water from the appliance.

- Water Off
- ↓
- Gas Off
- ↓
- Drain Water



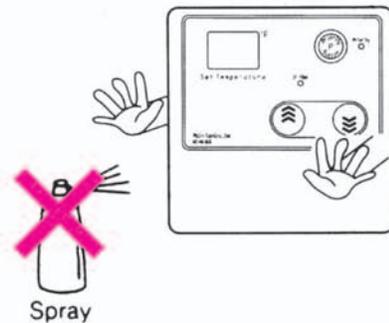
If power and the automatic frost protection are connected, freezing will be prevented in conditions as cold as -30°F.

Do not touch the cover or insert objects into the flue outlet of the Continuum V2532W.



On cold days steam may be discharged from the flue outlet, this is normal with a high efficiency appliance and does not indicate a fault.

Do not clean Remote Controls with solvents. Use a soft damp cloth.



## B A S I C O P E R A T I O N

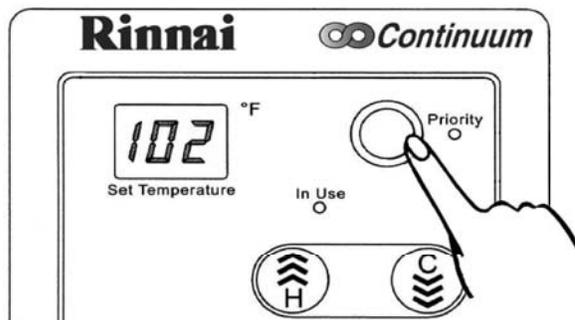
### 1 Adjusting Temperature

The outlet water temperature of the water heater is adjusted using the Remote Control thermostats. The temperature can only be adjusted on the Remote Control which has the Priority indicator light glowing. The temperature displayed on this remote control will also be displayed on all other Remote Controls.



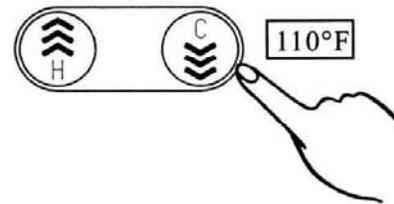
**NOTE** TEMPERATURE CANNOT BE ADJUSTED EXCEPT BETWEEN 96°F AND 110°F WHEN ANY HOT WATER TAP IS OPEN.

- 2 To take control of the Continuum V2532W all hot water taps must be closed. Press the "Priority button" on the controller you want to set the temperature with. The "Priority" indicator light will glow and the "Set Temperature" display will show the last temperature setpoint for this controller, or the factory setting of 108°F.



This indicates that the Continuum V2532W is ready to supply hot water at the set temperature displayed as soon as a tap is opened.

- 3 Simply press the **H** or **C** button until the required temperature is displayed on the Digital Monitor. There is a hot water scald potential if the thermostat is set to high.



**CHECK WATER TEMPERATURE BEFORE ENTERING SHOWER OR BATH.**

Always test the water temperature in bath before a child gets in. This is best done by the parent placing their elbow in the water.

- 4



**IN USE**

To operate the Continuum V2532W simply turn any hot water tap on. This will automatically light the burner providing hot water at the preset temperature. If the optional remote controls have been installed, the "IN USE" indicator will glow on all remote controls.

Note: The Rinnai water heater will not provide hot water instantly at the hot water fixtures. Any cold water existing in the hot water lines must be purged first.

## A B O U T H O T W A T E R

Hot Water Is Dangerous, especially for the young and the elderly or the infirm. The Continuum V2532W allows you to precisely control the temperature of your hot water, ensuring safe hot water temperatures.



Water Temperatures over 125°F can cause severe burns instantly or death from scalds.

Hot Water can cause first degree burns with exposure for as little as:

- 3 seconds at 140 °F
- 20 seconds at 130 °F
- 8 minutes at 120 °F

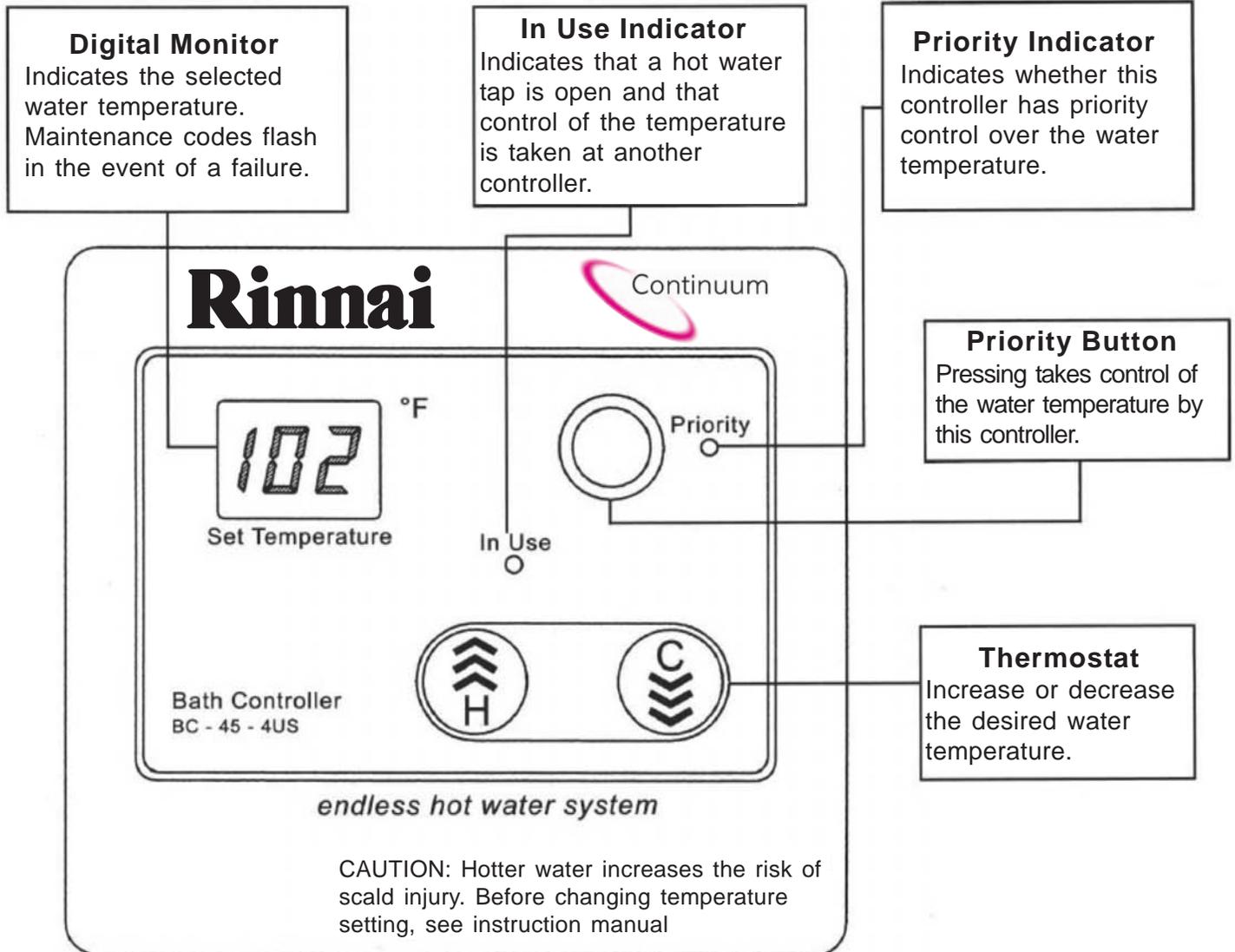
Test the temperature of the water with your elbow before placing a child in the bath or shower.

Do not leave a child or an infirm person in the bath unsupervised.

## S c a l d s - F i r s t A i d

- 1) **Remove clothing;** Remove all wet clothing, quickly. Wet clothing retains the heat.
- 2) **Apply cold water for 30 minutes;** Immediately submerge the burnt area in cold water for 30 minutes to reduce the heat in the skin, preventing deeper burning. *Never use butter, oils or ointment to cover the burn.* They may retain the heat.
- 3) **Keep the scalded person warm;** Place a blanket around the person.
- 4) **Seek Medical Advice;** Call your medical advice hotline and describe the scald, follow their directions.

## REMOTE CONTROL OPERATION



The Main Controller MC-45-4US is intended to be used in the kitchen, laundry room or utility area, the Bath Controller BC-45-4US and the Second Bath Controller BSC-45-4US are intended for installation in bathrooms.

## M A I N T E N A N C E   C O D E S

The Continuum V2532W has the ability to check its own operation continuously. If a fault occurs, a Maintenance Code will flash on the Digital Monitor of the Remote Controls. This assists with diagnosing the fault, and may enable you to overcome a problem without a service call. Please quote the code displayed when inquiring about service.

**NOTE: Failure to remedy faults may result in severe burns, scalds, and/or death.**

Code Displayed	Fault	Remedy
10	Air Supply or Exhaust Blockage	Check that nothing is blocking the air intake or exhaust.
11	No Ignition	Check that the gas is turned on at the water heater, gas meter or cylinder.
12	Flame Failure Grounding Failure	Check that the gas is turned on at the water heater and gas meter. Check for obstructions in flue outlet.
14	Thermal Fuse	Service Call
16	Over Temperature Warning	Service Call
32	Outgoing Water Temperature Sensor Faulty	Service Call
33	Heat Exchanger Outgoing Water Temperature Sensor Faulty	Service Call
52	Mod. Solenoid Valve Answer Abnormal	Service Call
61	Combustion Fan Failure	Service Call
71	Solenoid Valve Driving Circuit Faulty	Service Call
72	Flame Sensing Device Faulty	Service Call
LC	Scale build-up in Heat Exchanger	Service Call

## MAINTENANCE & SERVICE INFORMATION

**Warning:** Always turn off the electrical power supply, the manual gas valve and the manual water control valve whenever servicing the unit.



***The Continuum V2532W should be checked by a Rinnai Certified Technician once a year. A Rinnai Certified Technician should perform any repairs that may be necessary.***

The following items should be checked each inspection:

- 1) The area around the Continuum V2532W unit should be free from combustible materials such as cloth, vegetation and building materials. (see page 9)
- 2) Check burners for presence of foreign debris.
- 3) Remove and clean the inlet water filter.
- 4) Keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.
- 5) Do not obstruct flow of combustion and ventilation air.

***In the case of any fault or error message from the Continuum V2532W***, first turn all hot water taps off. Wait for 5 seconds. Turn the hot water tap back on. If the error message still remains, call your Rinnai Authorized Service Representative or Rinnai at 800-621-9419.

***Should overheating occur or the gas supply fail to shutoff***, turn off the manual gas control valve to the appliance.



***DO NOT ATTEMPT TO SERVICE YOUR Continuum V2532W YOURSELF.***

**Call a Rinnai Authorized Service Technician or call Rinnai at 800-621-9419.**

## MAINTENANCE & SERVICE INFORMATION

### MAINTENANCE SUGGESTIONS

This water heater has been designed and constructed for a long performance life when installed and operated properly under normal conditions. Regular inspections, as outlined in this section, are strongly recommended as a means of keeping your heater operating efficiently.

#### 1. Cleaning

The water heater must be cleaned annually. Keep the water heater clear of dust and debris especially in and around burner. Cleaning procedures for the Continuum are as follows:

- 1) Turn off and disconnect electrical power. Allow to cool for one hour.
- 2) Remove the Front Panel by removing screws. See parts breakdown on panels.
- 3) Use pressurized air to remove dust from around main burner.
- 4) Use soft dry cloth to wipe cabinet.

**DO NOT DAMAGE OR DISTORT ANY PARTS OF HEATER.**

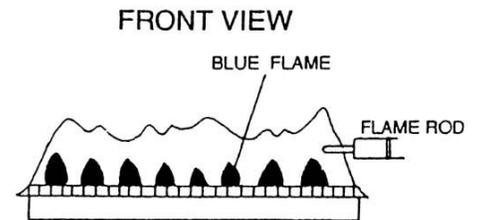
**DO NOT USE WET CLOTH OR SPRAY CLEANERS ON BURNER.**

#### 2. Visual check of main burner flames.

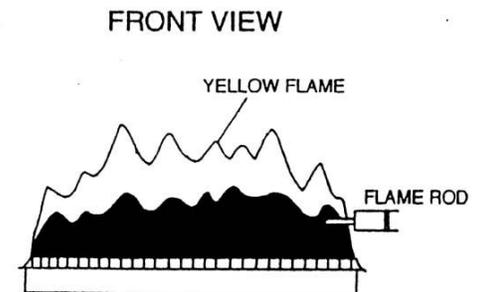
The burner must flame evenly over the entire surface when operating correctly. The flame must burn with a clear, blue, stable flame. See the parts breakdown of the burner for the location of view ports. Any and all parts removed for inspection or service must be replaced before operating the unit. The flame pattern should be as shown in the following Figures.

#### VISUAL CHECK

##### SATISFACTORY



##### UNSATISFACTORY



- \* VENT MAINTENANCE
- \* VENT SYSTEM

Must be checked annually for blockage or deterioration.

- \* MAINTENANCE-ELECTRIC MOTORS

Motors are permanently lubricated and need no lubrication. Keep fan and motor free of dust and dirt, clean annually.

## TROUBLE SHOOTING AND COMMON QUESTIONS

**Q** - *When I was using the hot water, the water got cold!*

**A** - If you adjusted the flow from the tap to lessen it, you may have gone below the minimum flow required. The Continuum V2532W requires 0.5 GPM to operate. If you mix the water with a tap and attempt to get a temperature well below the temperature being controlled by the unit, it may drop the flow below 0.5 GPM. Decrease the temperature supplied by the Continuum V2532W at the remote control or increase your total flow.

**Q** - *White smoke comes out of the exhaust!*

**A** - During colder weather when the exhaust temperature is hotter than the air, the exhaust fumes condense producing white steam.

**Q** - *When I open a hot tap. I do not immediately get hot water!*

**A** - Hot water must travel through your plumbing from the Continuum V2532W to the faucet. This can take up to 2 or more minutes depending upon your plumbing system. If hot water is desired instantly at the hot water fixture, a circulator loop system must be installed. Please contact your plumber for details.

**Q** - *After I turn off the hot water tap, the fan on the Continuum V2532W continues to run!*

**A** - The fan is designed to be on for 65 seconds after the flow of water stops. This is to ensure constant water temperatures during rapid starting and stopping, as well as exhausting any residual gas flue products from the unit.

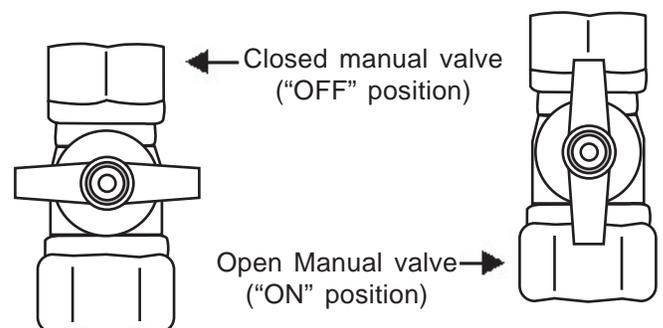
## FOR YOUR SAFETY READ BEFORE OPERATING

**Warning: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.**

- A. This appliance does not have a pilot. It is equipped with a direct ignition device which automatically lights the burner. Do not try to light the burner by hand.
- B. BEFORE OPERATING: Smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
  - **WHAT TO DO IF YOU SMELL GAS**
  - Do not try to light any appliance.
  - Do not touch any electric switch, do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to operate remote control keypad. Never use tools. If the remote keypad doesn't work, do not try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

## O P E R A T I N G I N S T R U C T I O N S

- 1) STOP! Read the safety information above before proceeding.
- 2) Set the thermostat to lowest setting.
- 3) Turn off all electric power to the appliance.
- 4) This appliance does not have a pilot. It is equipped with a direct ignition device which automatically lights the burner. Do not try to light the burner by hand.
- 5) Turn the manual valve located at gas inlet of the appliance clockwise  to "OFF".



- 6) Wait (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to next step.

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## OPERATING INSTRUCTIONS

- 7) Turn the manual valve located at the gas inlet of appliance counterclockwise  to "ON".
- 8) Turn on all electric power to the appliance.
- 9) Set thermostat to desired setting.
- 10) If the appliance will not operate, Follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

### To Turn Off Gas To Appliance

- 1) Set the thermostat to lowest setting.
- 2) Turn off all electric power to the appliance if service is to be performed.
- 3) Turn the manual valve at gas inlet of appliance clockwise  to "OFF"

## CARE & LIME CONDITION WARNING

### Care of Unit's Exterior:

Keep the exterior cabinet clean. Use a soft cloth and warm water when cleaning the cabinet. **Do Not** use volatile substances such as benzene and thinners, as they may ignite, or cause fading of the paint.

### Lime Condition Warning Signal:

If you notice "LC" flashing on the remote key pad, this means the unit is beginning to lime up, and **MUST** be flushed. Contact a qualified Rinnai service technician to flush the appliance. Failure to flush the appliance when "LC" is flashing, will cause damage to the heat exchanger. Damage caused by lime build up is not covered by the unit's warranty.

## CARE & LIME CONDITION WARNING Flush Procedure

### RINNAI Continuum Flush Procedure

1. Disconnect power to Continuum water heater.
2. Close valves V3 and V4.
3. Connect pump outlet hose H1 to service valve V2.
4. Connect drain hose H3 to valve V1.
5. Pour approximately 4 gallons of virgin, food grade, white vinegar (or virgin, food grade, citric acid) into pail.
6. Place free ends of hose H2 and H3 into pail.
7. Open valves V1 and V2.
8. Turn on power to circulating pump and allow solution to circulate through water heater for 45 minutes.
9. Turn off power to circulating pump.
10. Remove free end of hose H3 from pail.
11. Close valve V2 and open valve V4, only.  
**Do NOT open valve V3 at this time.**
12. Allow water to flow out of hose H3 for 5 minutes, rinsing cleaning solution from water heater.
13. Close valve V1 and open valve V3.
14. Disconnect hoses H1 and H3 from service valves.
15. Remove in-line filter from water heater cold water inlet and clean out any residue. Place filter back into unit.
16. Restore power to water heater.

**Continuum V2532W**

Rinnai Continuum

Gas Supply

In-line Filter

Cold Water Line

Hot Water Line

V1, V2, V3, V4

H1, H2, H3

Circulating Pump

5 gallon pail of virgin, food grade, white vinegar (or virgin, food grade, citric acid).

Key		
	3/4" Ball Valve	
	3/4" Union	
	Check Valve	

This drawing is intended only as a guide. It does not imply compliance with local building codes. Installation must be done in accordance with local building codes and may vary depending on installation location. Confer with local building officials before installation.

<h1 style="margin: 0;">Rinnai</h1>	<b>RINNAI CONTINUUM WATER HEATERS</b>
103 International Drive Peachtree City Georgia 30269 1-800-621-9419	V2532W Flushing Procedure to Remove Scale Buildup Following Lime Control Message (Maintenance code LC)

# Installer's Instructions



All Rinnai water heaters MUST be installed by a state qualified or licensed contractor. Failure to comply with your local and state codes pertaining to water heater installations will void the warranty on said water heater(s). It is the responsibility of the person having the unit installed to ensure the contractor has the proper licences and permits for his state. In addition to the above, Rinnai requires all contractors attend a product knowledge class before installing our water heaters. This requirement MUST be met in order for your product's warranty to be valid. Failure to comply with your local and state codes will result in non-compliance and void the warranty of the product being installed.



**THE RINNAI V2532W SERIES WATER HEATERS ARE DESIGN CERTIFIED TO THE ANS Z21.10.3•CSA 4.3 STANDARD FOR COMMERCIAL WATER HEATERS AND MUST BE INSTALLED ACCORDING TO THESE INSTRUCTIONS. THE WATER HEATERS ARE DESIGN CERTIFIED BY CSA INTERNATIONAL.**

## Contents of Installer's Manual

Warnings .....	21	Electrical Connection Notes .....	30
Performance Data .....	22	Wiring Diagram .....	31,32
Locating the Unit .....	23	Lighting the Unit .....	33
Dimensions .....	23	Remote Controls .....	34,35
Recommended Piping for Installation .....	24 - 26	Initial Operation and Testing .....	36
Gas Piping Sizing Charts .....	27	Diagnostic Points .....	37
Gas Piping Notes .....	28	Schematic Diagram .....	38
Water Piping Notes .....	29	Exploded View .....	39 - 42
Pressure Relief Valve .....	29	Parts List .....	43 - 47

## INSTALLER'S INSTALLATION INSTRUCTIONS

-Warnings-

### **This manual must be followed exactly.**

- 1) Read the safety issues completely before installing the Continuum V2532W.
- 2) This water heater is suitable for residential water (potable) heating ONLY. DO NOT use this water heater for space heating, combination space heating/ domestic water heating, or commercial water heating applications.
- 3) The Continuum V2532W is not suitable for use in pool or spa applications.
- 4) ***Install the Continuum V2532W water heater outdoors only.***
- 5) Maintain proper space around the unit for proper servicing and operation. Minimum clearances from combustible materials are listed below.

Top of Heater	12 inches
Back of Heater	0 inch
Front of Heater	24 inches
Sides of Heater	6 inches
Ground	12 inches

Minimum clearances from non-combustible materials are listed below.

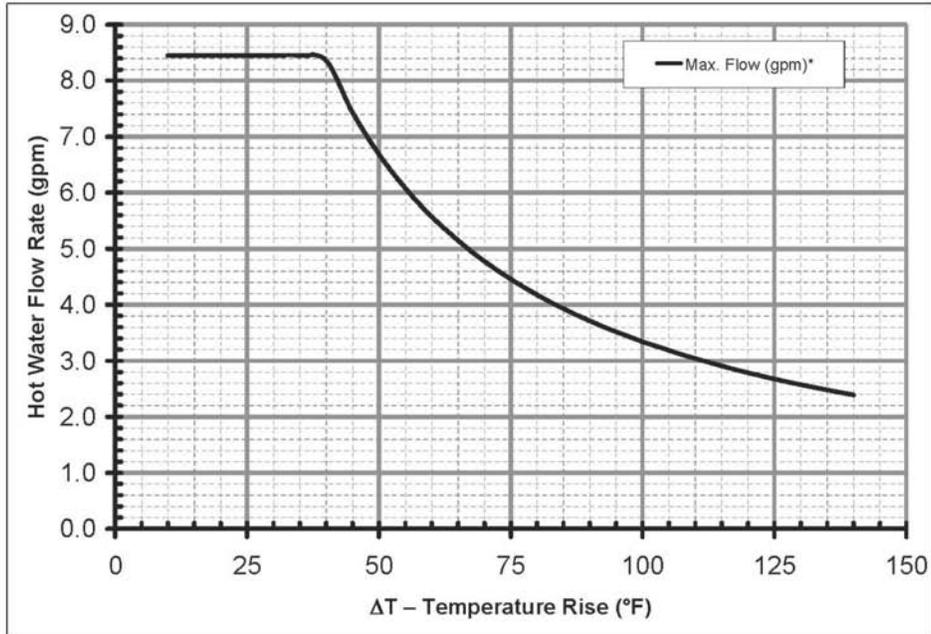
Top of Heater	2 inches
Back of Heater	0 inch
Front of Heater	0 inch
Sides of Heater	1/2 inch
Bottom	2 inches

DO NOT install the Continuum V2532W under an overhang less than 3 feet from the top of the unit. When the overhang protrudes out over the V2532W greater than 3 feet, the area under the overhang must be open on 3 sides.

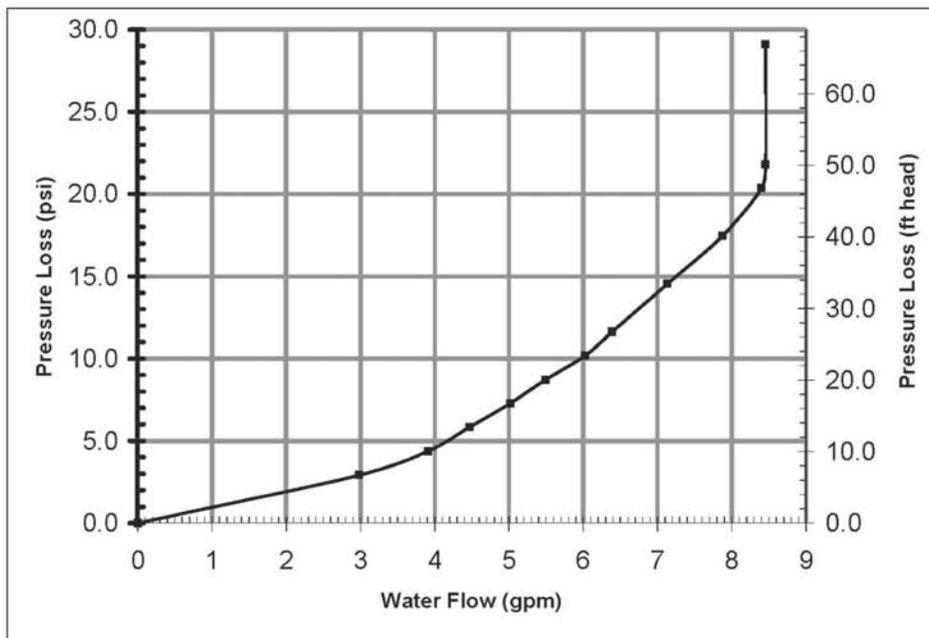
When the V2532W water heater is installed within a Rinnai RGB-25 recess box, the clearances from the top, bottom, sides, and back surfaces of the recess box to combustible materials are 0 inches. The clearance from combustibles from the front of the recess box is 24 inches.

- 6) Installer must install a Pressure relief valve. Pipe pressure relief discharge to a drain or outside environment (see page 29).

## INSTALLER'S INSTALLATION INSTRUCTIONS CONTINUUM OUTLET FLOW DATA

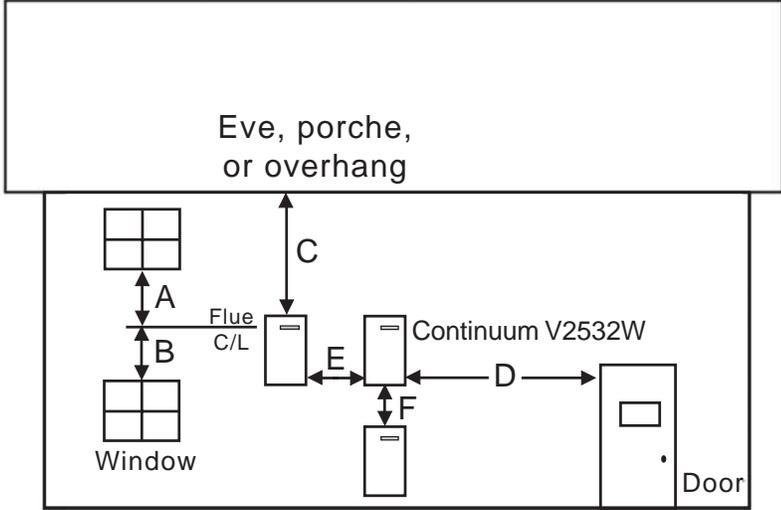


## INSTALLER'S INSTALLATION INSTRUCTIONS CONTINUUM PRESSURE DROP CURVE



## INSTALLER'S INSTALLATION INSTRUCTIONS

### Locating the unit



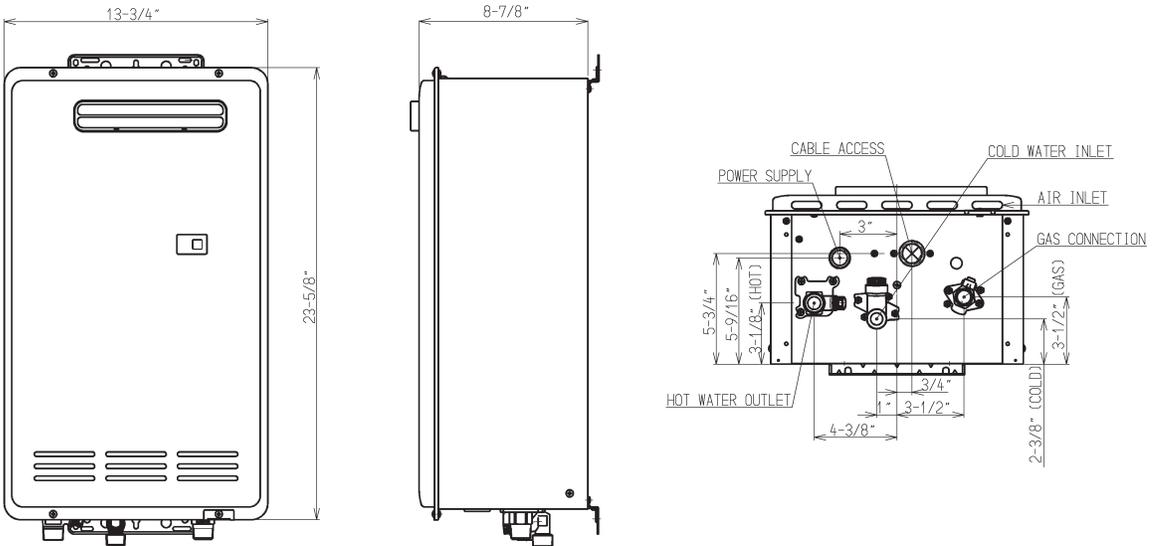
#### Installation clearances

#### Minimum

- A.....Vertically below an openable window.....12”
- B.....Vertically above an openable window, door, etc.....12”
- C.....Below eves, porches, overhangs.....36”
- D.....Horizontally from an openable window, door, etc.....12”
- E.....Horizontally between V2532W water heaters.....2”
- F.....Vertically between V2532W water heaters.....12”

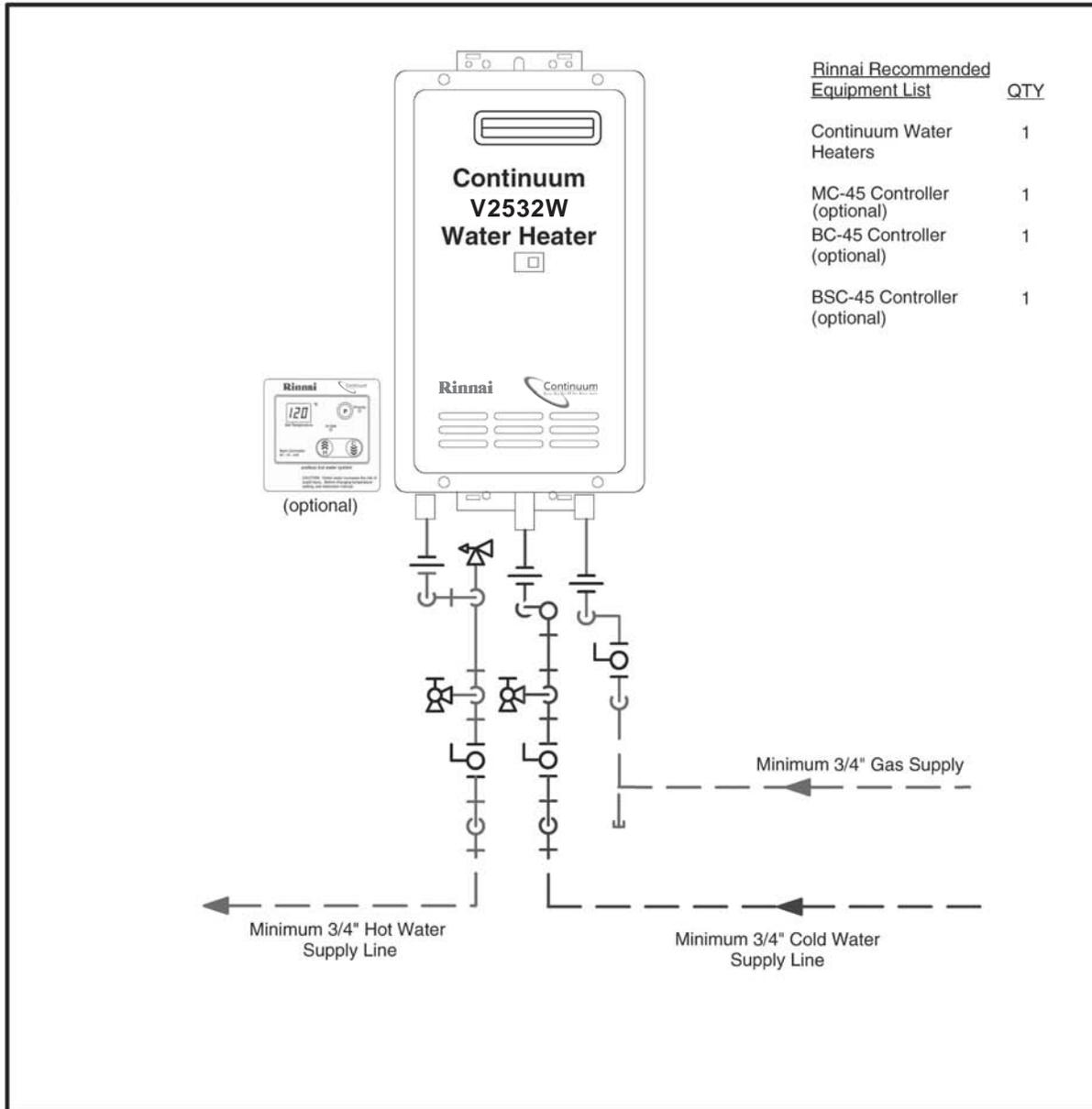
## INSTALLER'S INSTALLATION INSTRUCTIONS

### Dimensions



## INSTALLER'S INSTALLATION INSTRUCTIONS

### Recommended Piping for Basic Installation



<u>Rinnai Recommended Equipment List</u>	<u>QTY</u>
Continuum Water Heaters	1
MC-45 Controller (optional)	1
BC-45 Controller (optional)	1
BSC-45 Controller (optional)	1

#### Key

	3/4" Ball Valve		Pressure Bypass Valve		Circulating Pump
	3/4" Union		Pressure Relief Valve		Solenoid Valve
	Check Valve				

This drawing is intended only as a guide. It does not imply compliance with local building codes. Installation must be done in accordance with local building codes and may vary depending on installation location. Confer with local building officials before installation.

## Rinnai

103 International Drive  
Peachtree City Georgia 30269  
1-800-621-9419

### CONTINUUM WATER HEATERS

Domestic Hot Water  
1 Continuum V2532W - Preferred Method of Installation

## INSTALLER'S INSTALLATION INSTRUCTIONS

### OPTIONAL: Recommended Piping for Power Failure Freeze Protection

**IMPORTANT!**

With electrical power supplied to the Continuum V2532W, it will not freeze in environments as cold as -30°F, when protected from direct wind exposure.

In the event of a power failure at temperatures below freezing, the Continuum V2532W should be drained of all water to prevent freezing damage.

The unit may be drained manually, or through the installation of the optional solenoid valves as shown.

The electrical connections for the two solenoids should be tied to the power terminals provided on the PCB of the Continuum V2532W.

When the electrical power to the Continuum V2532W fails, the 3/4" solenoid closes, stopping flow into the heater and the 1/4" solenoid opens, allowing the unit and the associated piping to drain. Insure you run the drain for the solenoids to the outside environments to prevent discharging water inside the building causing water damage.

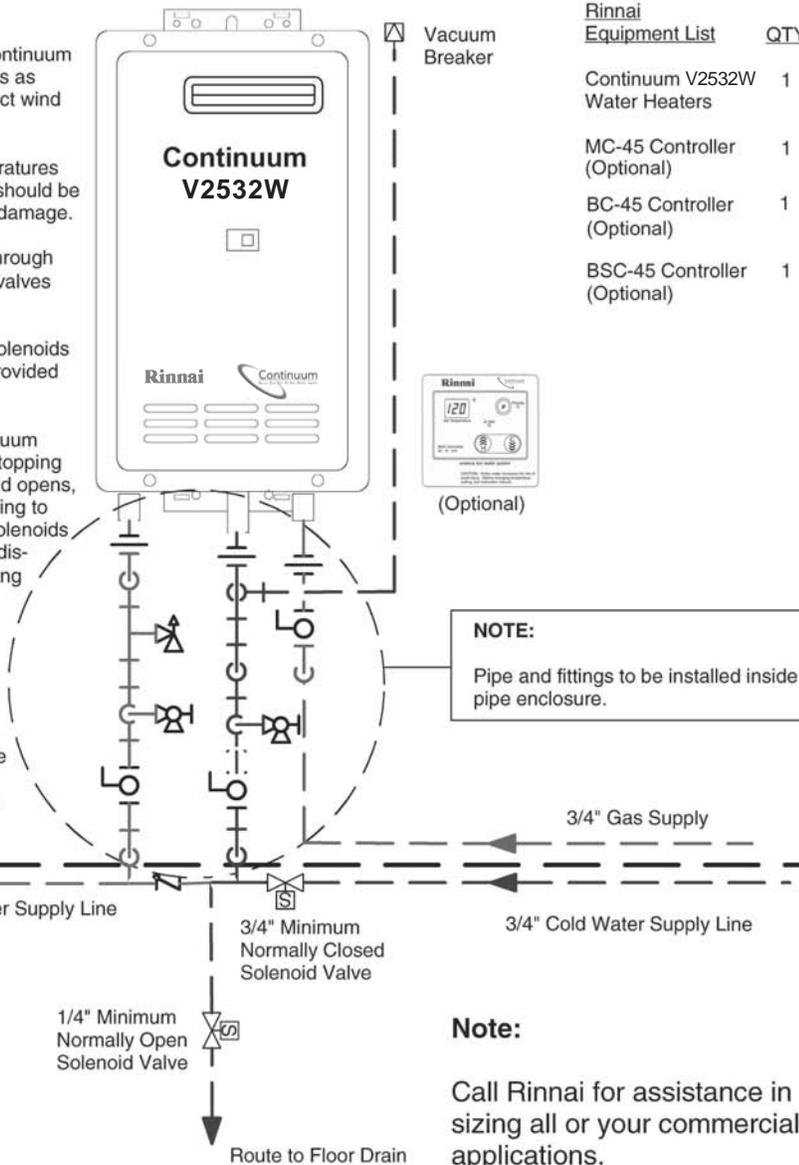
**NOTE:**

Heat trace and insulate ALL water pipe and fittings located outside building structure. (ALL water pipe and fittings shown above the dashed line in the drawing.)

**NOTE:**

ALL water lines shown with dashed lines, and all pipe and fittings shown below dashed black line, should be located inside building structure.

Vacuum breaker line should also be located inside structure.



**Rinnai Equipment List**

Equipment List	QTY
Continuum V2532W Water Heaters	1
MC-45 Controller (Optional)	1
BC-45 Controller (Optional)	1
BSC-45 Controller (Optional)	1

**NOTE:**  
Pipe and fittings to be installed inside pipe enclosure.

**Note:**  
Call Rinnai for assistance in sizing all or your commercial applications.

**Key**

	3/4" Ball Valve		Boiler Drain Valve		Circulating Pump
	3/4" Union		Solenoid Valve		Pressure Bypass Valve
	Check Valve		Pressure Relief Valve		

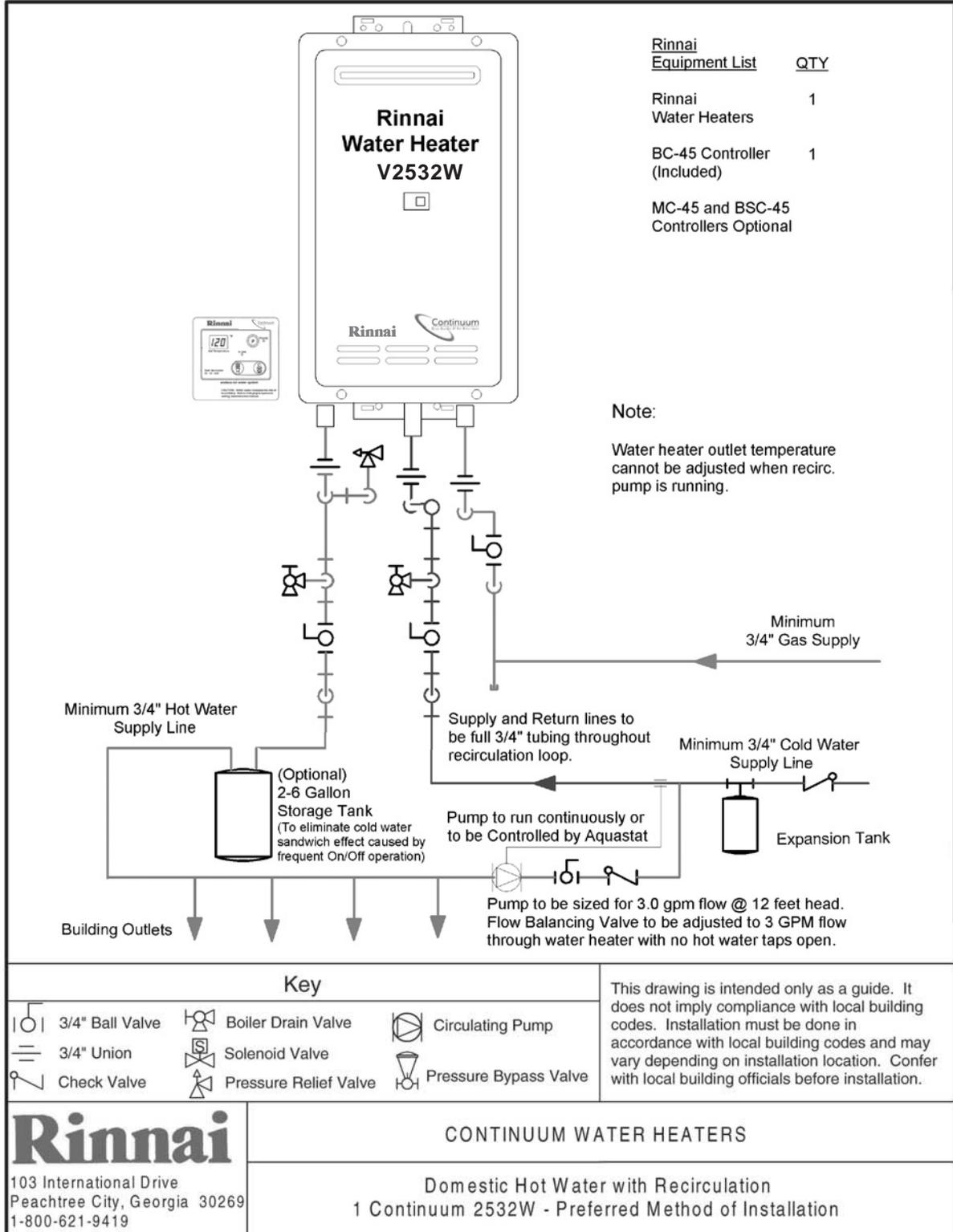
This drawing is intended only as a guide. It does not imply compliance with local building codes. Installation must be done in accordance with local building codes and may vary depending on installation location. Confer with local building officials before installation.

**Rinnai**  
103 International Drive  
Peachtree City, Georgia 30269  
1-800-621-9419

**CONTINUUM V2532W**  
Domestic Hot Water with Optional Pipe Cover  
and Solenoid Valves to Drain Unit During Power Outage  
1 Continuum V2532W Preferred Method of Installation

## INSTALLER'S INSTALLATION INSTRUCTIONS

### Recommended Piping for Circulation Systems





## INSTALLER'S INSTALLATION INSTRUCTIONS

### Gas Pipe Sizing Chart – Black Iron Pipe

Capacity Table for Natural Gas  
cubic feet / hour  
(table assumes .3 inch pressure drop, specific gravity of .60)

Nominal Iron Pipe Size Inches	Length of Pipe in Feet													
	10	20	30	40	50	60	70	80	90	100	125	150	175	200
3/4	278	190	152	130	115	105	96	90	84	79	72	64	59	55
1	520	350	285	245	215	195	180	170	160	150	130	120	110	100
1-1/4	1050	730	590	500	440	400	370	350	320	305	275	250	225	210
1-1/2	1600	1100	890	760	670	610	560	530	490	460	410	380	350	320

After determining the length of pipe required select the pipe size that will supply the cubic feet per hour of gas required for the input rating of the Continuum V2532W. The formula for figuring the cubic feet per hour required is:

$$CFH = \frac{\text{Gas Input of Continuum V2532W(BTU/HR)}}{\text{Heating Value of Gas(BTU/FT}^3\text{)}}$$

\*Gas input requirement is on the water heater data plate

\*The heating value of the gas can be obtained from the local Natural Gas Utility

Capacity Table for LP Gas  
BTUH of undiluted liquified petroleum gases  
(table assumes 11 inches of water column pressure at the inlet, .5 inch drop)

Nominal Iron Pipe Size Inches	Length of Pipe in Feet											
	10	20	30	40	50	60	70	80	90	100	125	150
1/2	275	189	152	129								
3/4	567	393	315	267	237	217	196	185	173	162	146	
1	1071	732	590	504	448	409	378	346	322	307	275	252
1-1/4	2205	1496	1212	1039	913	834	771	724	677	630	567	511

**NOTE: Refer to the National Fuel Gas Code, NFPA 54, for capacity tables for pipe materials other than “Black Iron Pipe”.**



## INSTALLER'S INSTALLATION INSTRUCTIONS

### Gas Piping Notes

- 1) A manual gas control valve must be placed upon the gas inlet connection to the Continuum V2532W before it is connected to the gas line. A union can be used on the connection of the Continuum for the future servicing or disconnection of the unit.
- 2) Check the type of gas and the gas inlet pressure before connecting the Continuum V2532W. If the Continuum V2532W is not of the gas type that the building is supplied with, DO NOT connect the water heater. Contact the dealer for the proper unit to match the gas type.
- 3) Minimum and Maximum Gas pressures are listed below:  
\* Minimum value is for input adjustment

**Natural Gas:**      \*Minimum 7" WC  
                                 Maximum 10.5" WC

**Propane Gas:**      \*Minimum 11" WC  
                                 Maximum 13.5" WC

**WARNING: Conversion of this unit from natural gas to propane or propane to natural gas CANNOT be done in the field.**

- 4) After completion of gas pipe connections, all joints including the heater must be checked for gas-tightness by means of leak detector solution, soap and water, or an equivalent nonflammable solution, as applicable. **Caution:** Since some leak test solutions, including soap and water, may cause corrosion or stress cracking, the piping must be rinsed with water after testing, unless it has been determined that the leak solution is non-corrosive.
- 5) The Continuum V2532W must be leak tested before it is placed into operation.
- 6) The Continuum V2532W and its individual shut-off valve must be disconnected from the gas supply piping system when pressure testing of the gas supply piping system at test pressures greater than 1/2 psi (3.5 kPa).
- 7) Always use approved connectors to connect the unit to the gas line. Always purge the gas line of any debris before connection to the water heater.
- 8) The Continuum V2532W must be isolated from the gas supply piping system by closing it's individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa).
- 9) The Continuum V2532W's Installation location must provide adequate Combustion and Ventilation airflow.

## INSTALLER'S INSTALLATION INSTRUCTIONS

### Water Piping Notes

- 1) A manual water control valve must be placed upon the water inlet connection to the Continuum V2532W before it is connected to the water line. Unions may be used on both the hot/cold water supply lines, for the future servicing or disconnection of the unit.
- 2) All threaded water piping joints should be made up using Teflon tape, DO NOT use pipe dope.
- 3) All soldering materials and piping must be compatible with potable water.
- 4) Purge the water line to remove from it all debris and air. Debris will damage the Continuum V2532W.
- 5) There is a wire mesh strainer on the Continuum V2532W's inlet to discourage the introduction of debris to the unit. It will need to be cleaned after operating the water heater for the first time, and periodically thereafter. **DO NOT** operate unit without filter in place.

**WARNING: DO NOT reverse the inlet and outlet (cold and hot water) connections on the unit. This would cause the Continuum V2532W to operate dangerously or not at all.**

## INSTALLER'S INSTALLATION INSTRUCTIONS

### Pressure Relief Valve

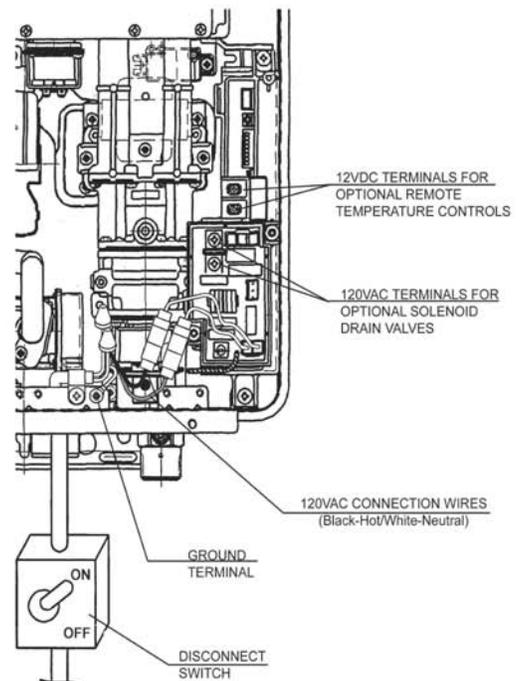
- 1) ANSI code calls for the addition of an approved pressure relief valve to all water heating systems.
- 2) The pressure relief valve must meet the following criteria: The relief valve must comply with the standard for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems ANSI Z21. 22 and/or the standard CAN1-4.4 *Temperature, Pressure, Temperature and Pressure Relief Valves and Vacuum Relief Valves*. This relief valve must be rated at 150 PSI of pressure.
- 3) The relief valve should be added to the hot water outlet line per manufacturer's instructions. DO NOT place any other type valve or shut off device between the relief valve and the hot water heater.
- 4) The discharge from the pressure relief valve should be piped to the ground or into a drain system to prevent exposure or possible burn hazards to humans or other plant or animal life. Water discharged from the relief valve could cause severe burns instantly, scalds and/or death.
- 5) Do not plug the relief valve and do not install any reducing fittings or other restrictions in the relief line. The relief line should allow for complete drainage of the valve and the line.
- 6) If a relief valve discharges periodically, this may be due to thermal expansion in a closed water supply system. Contact the water supplier or local plumbing inspector on how to correct this situation. Do not plug the relief valve.
- 7) Pressure relief valve must be manually operated once a year to check for correct operation. Caution: See Item 4 before manually operating relief valve.
- 8) Should overheating occur or the gas supply fail to shut off, turn off the manual gas valve on the Continuum V2532W.

## INSTALLER'S INSTALLATION INSTRUCTIONS Electrical Connection Notes

**WARNING:** The Continuum V2532W must be electrically grounded in accordance with local codes or in the absence of local codes with the most recent edition of the *National Electrical Code*, ANSI/NFPA 70 and/or the CSA C22.1, *Electrical Code*. Do not rely on the gas or water piping to ground the metal parts of the water heater.

**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

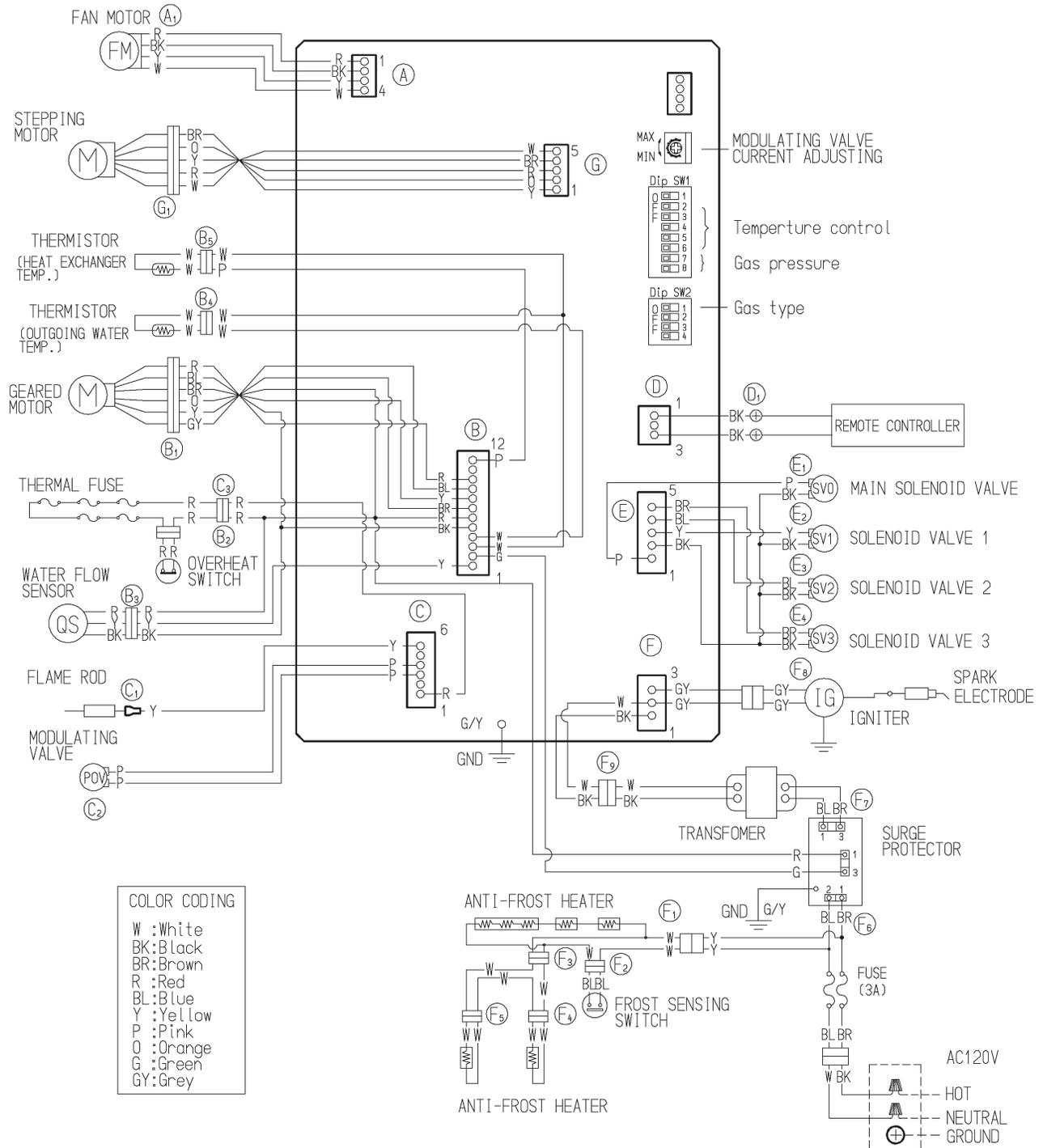
- 1 The Continuum V2532W requires 120VAC/60 HZ. Power from a properly grounded circuit.
- 2 An on/off switch must be provided and installed for the incoming 120VAC power.
- 3 Wire the Continuum V2532W exactly as shown in the wiring diagram on the next page and on the inside of the cover panel. The black wire is the hot leg wire; the white wire is the neutral wire.
- 4 A ground terminal screw is provided in the junction box for the grounding connection (see diagram).



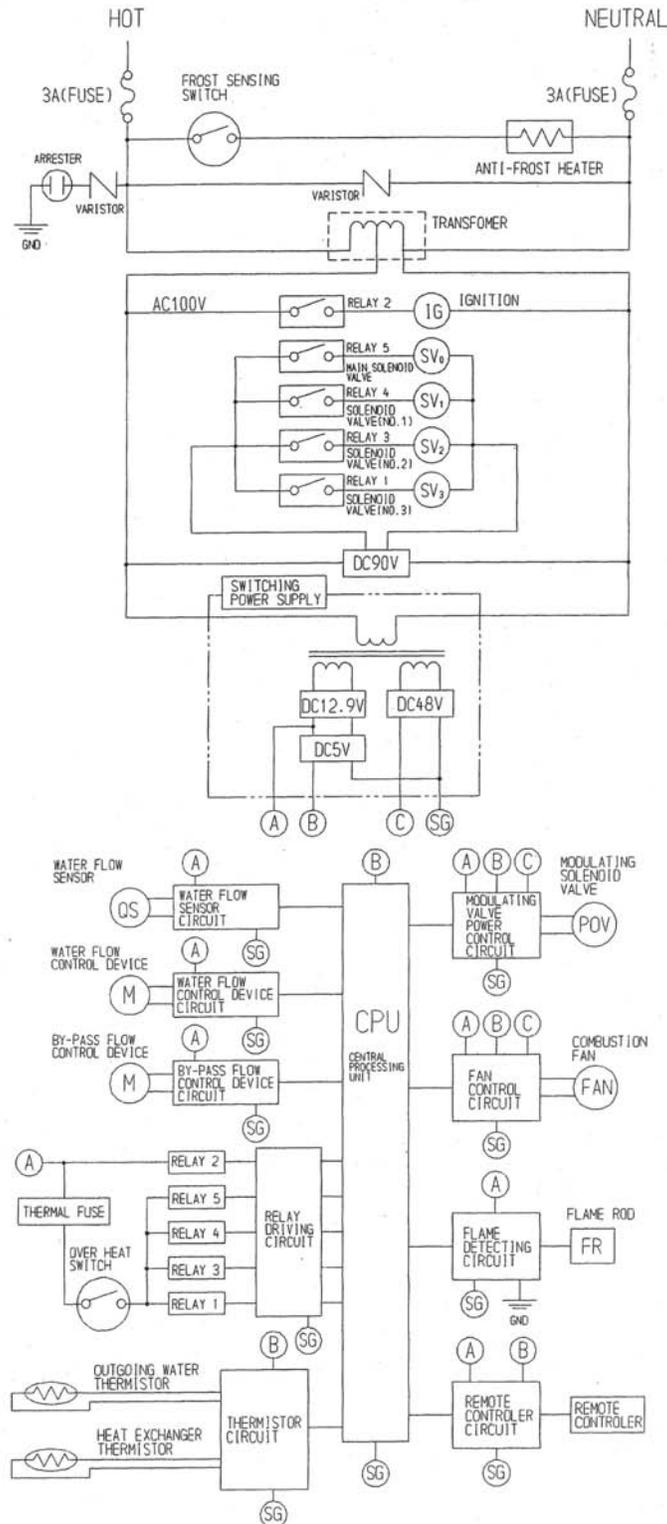
Your disconnect switch should be a type that is suitable for outdoor use. Check National Electrical Codes for proper type switch to use in your area.

# INSTALLER'S INSTALLATION INSTRUCTIONS

## Wiring Diagram



## INSTALLER'S INSTALLATION INSTRUCTIONS Wiring Diagram



## INSTALLER'S INSTALLATION INSTRUCTIONS

### Lighting the Unit

**WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.**

- 1) This water heater does not have a pilot. It is equipped with a direct ignition device which automatically lights the burner. DO NOT TRY TO LIGHT THE BURNER BY HAND.
- 2) Before operating the Continuum V2532W smell all around the unit for gas. Be sure to smell near the ground as leaking gas may settle there.
- 3) Turn the manual gas control valve on.

### **STOP!! READ THE SAFETY ISSUES ON PAGES 8 & 9**

- 4) Turn on any hot water tap. The Continuum V2532W should light and begin heating your water.

### **If the Continuum V2532W fails to light**

- 1) DO NOT ATTEMPT TO LIGHT BY HAND.
- 2) Turn off the electrical power to the unit.
- 3) Turn off the manual gas control.
- 4) Wait 5 minutes, if you smell gas, go to a neighbor's house and call the gas company or the fire department. If you do not smell gas, go to the next step.
- 5) Turn the manual gas control valve on.
- 6) Turn the electrical power to the unit on.
- 7) Turn on any hot water tap.
- 8) If the unit still fails to light, turn off the electricity and gas to the unit and call Rinnai 1-800-621-9419.

## INSTALLER'S INSTALLATION INSTRUCTIONS

### Remote Controls- General

The remote controls for the Continuum V2532W allow the customer to control the functions of the water heater and to diagnose certain fault conditions.

The Main Controller model MC-45-4US is intended to be installed in the kitchen or laundry area where the majority of the hot water is being used.

**NOTE:** The MC-45-4US has a temperature setpoint range of 96-140°F. This is the only controller capable of temperature setpoints greater than 120°F.

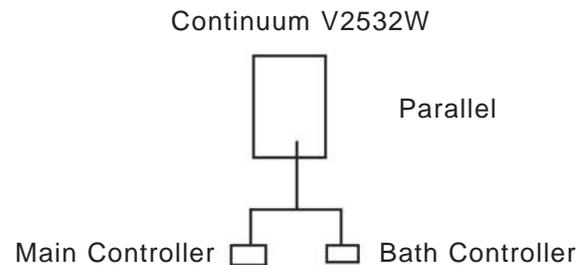
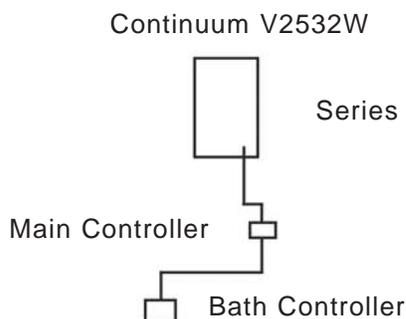
The Bath Controller model BC-45-4US and Secondary Bath Controller model BSC-45-4US are intended to be installed in a bath room close to a shower or tub. Both of these controllers have temperature setpoint ranges of 96-120°F.

**NOTE:** Only one of each type of controller can be connected to one Continuum V2532W water heater. (i.e. Installations with two MC-45-4US, two BC-45-4US, or two BSC-45-4US controllers will not function properly.)

Before installing the remote controls, determine the most convenient location(s). When deciding on the best location for the remote controls, please consider the following items:

- 1) Place the controllers out of reach of small children.
- 2) Avoid locations where the controller(s) will become hot. (over the stove, near the oven or a radiant heater.
- 3) Avoid direct sunlight. (The digital monitor can be difficult to read in direct sunlight)
- 4) Avoid areas where the remote can be splashed with cooking water, oil or sauce.
- 5) The remote control cables carry low voltage, 12VDC digital.

### Every installation is different

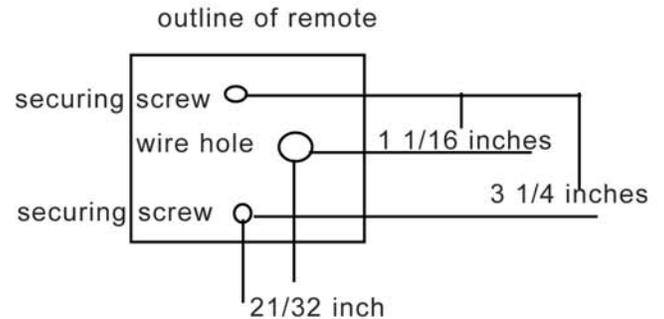


The controls can be wired in series or in parallel depending on which method is desirable for the distances encountered from the Continuum V2532W to the controls.

## INSTALLER'S INSTALLATION INSTRUCTIONS

### Remote Controls - Installation

- 1) Determine a suitable location for the control.
- 2) Make three holes on the wall as shown.
- 3) Run the cable between the control and the Continuum V2532W or the control and the other control.
- 4) Remove the face plate from the remote control, using a screw driver.
- 5) Connect the cable to the remote control.
- 6) Mount the control to the wall using the holes drilled in step 2.

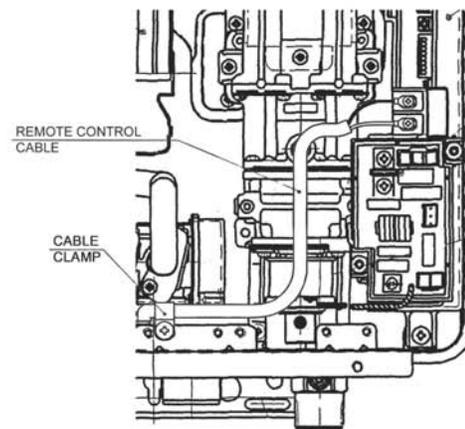


Note: If the cable cannot be run in the wall cavity, the plastic knockout should be removed from the top or bottom of the control to allow flush mounting with the wall

- 7) Disconnect the power from the Continuum V2532W.
- 8) Remove the cover of the Continuum V2532W.
- 9) Remove the plastic cover from the PCB and electrical connections.

**DO NOT ATTEMPT TO CONNECT THE REMOTE CONTROLS WITH THE POWER ON, THERE'S 120 VOLT POTENTIAL, NEXT TO THE REMOTE CONTROL CONNECTIONS INSIDE THE UNIT. DO NOT CONNECT THE REMOTE CONTROL TO THE 120VAC TERMINALS PROVIDED FOR THE OPTIONAL SOLENOID DRAIN VALVES.** All service and wiring should be performed by a certified installer.

- 10) Thread the cable through the access hole at the base of the unit and connect the wires to the control terminals labeled "**TERMINALS FOR CONTROLS**" on the right hand side bottom of the PCB.
- 11) Secure the control cable using the clamp provided.
- 12) Replace plastic cover over PCB and then replace the cover of the Continuum V2532W.



## INSTALLER'S INSTALLATION INSTRUCTIONS Initial Operation and Testing

- 1) Turn on the gas and water.
- 2) Check for water and gas leaks. Use soapy water to test for gas leaks.
- 3) Remove pressure test point screw, attach pressure gauge to test point.
- 4) Turn Power on.
- 5) Open any hot water tap fully.
- 6) Check test point or supply pressure in water columns per inch.

Manifold Pressure:

Natural Gas 3.4" Hi. fire 0.56" Lo. fire  
LPG 5.1" Hi. fire 0.88" Lo. fire

Supply pressure:

Natural Gas Min. 6" Max. 10.5"  
LPG Min. 10" Max. 13.5"

NOTE: The pressure may be low due to too little flow, too high an incoming temperature, and/or undersized gas piping. Examine these areas before determining that the pressure needs to be adjusted. **Contact Rinnai before adjusting manifold pressures at 1-800-621-9419. Failure to contact Rinnai, could void unit's warranty.**

- 7) If it is determined that the gas pressure needs adjusting, first check the incoming pressure at the test point on the gas inlet. If it is correct follow the adjusting procedure contained in the pouch of the unit EXACTLY. If in doubt call Rinnai 1-800-621-9419.

**The regulator is pre-set at the factory, it should not need resetting.**

- 8) Turn the hot water off. Turn the power off. Remove the pressure gauge and replace the test point screw. Check for a gas leak around the test point screw.
- 9) Replace the front cover.
- 10) Turn the power back on.
- 11) Check the operation of the unit (run for a minimum of 15 minutes). Check the operation of each of the remote controls. Check the operation of the Power failure protection system.
- 12) Isolate the water heater from the hot and cold water lines, then remove and clean the inlet water filter screen. Place the water filter back into the water heater and tighten. Open the hot and cold water lines to the water heater and test the operation of the unit.
- 13) Explain the proper operation of the Continuum V2532W to the customer.

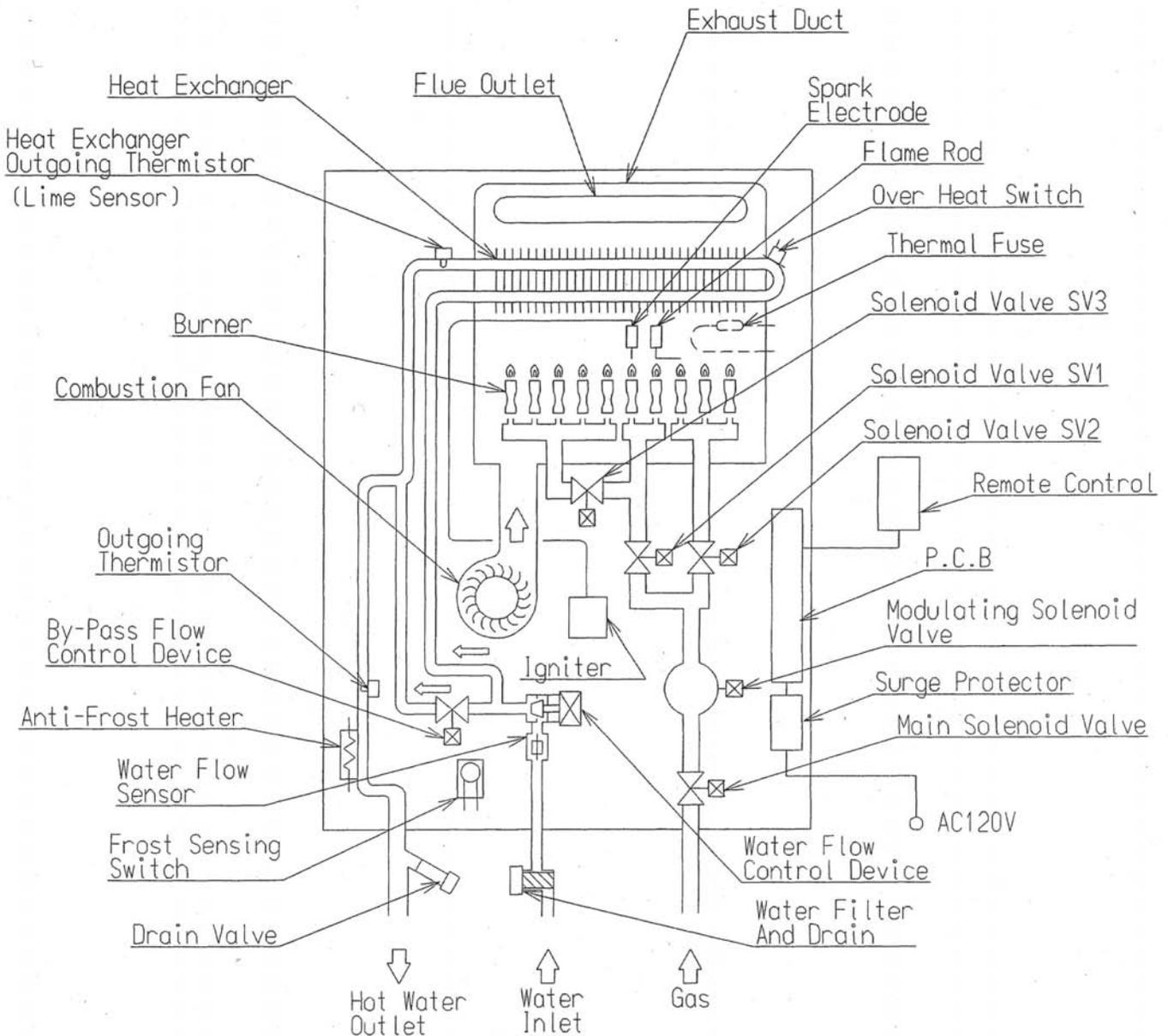
## INSTALLER'S INSTALLATION INSTRUCTIONS

### Diagnostic Points

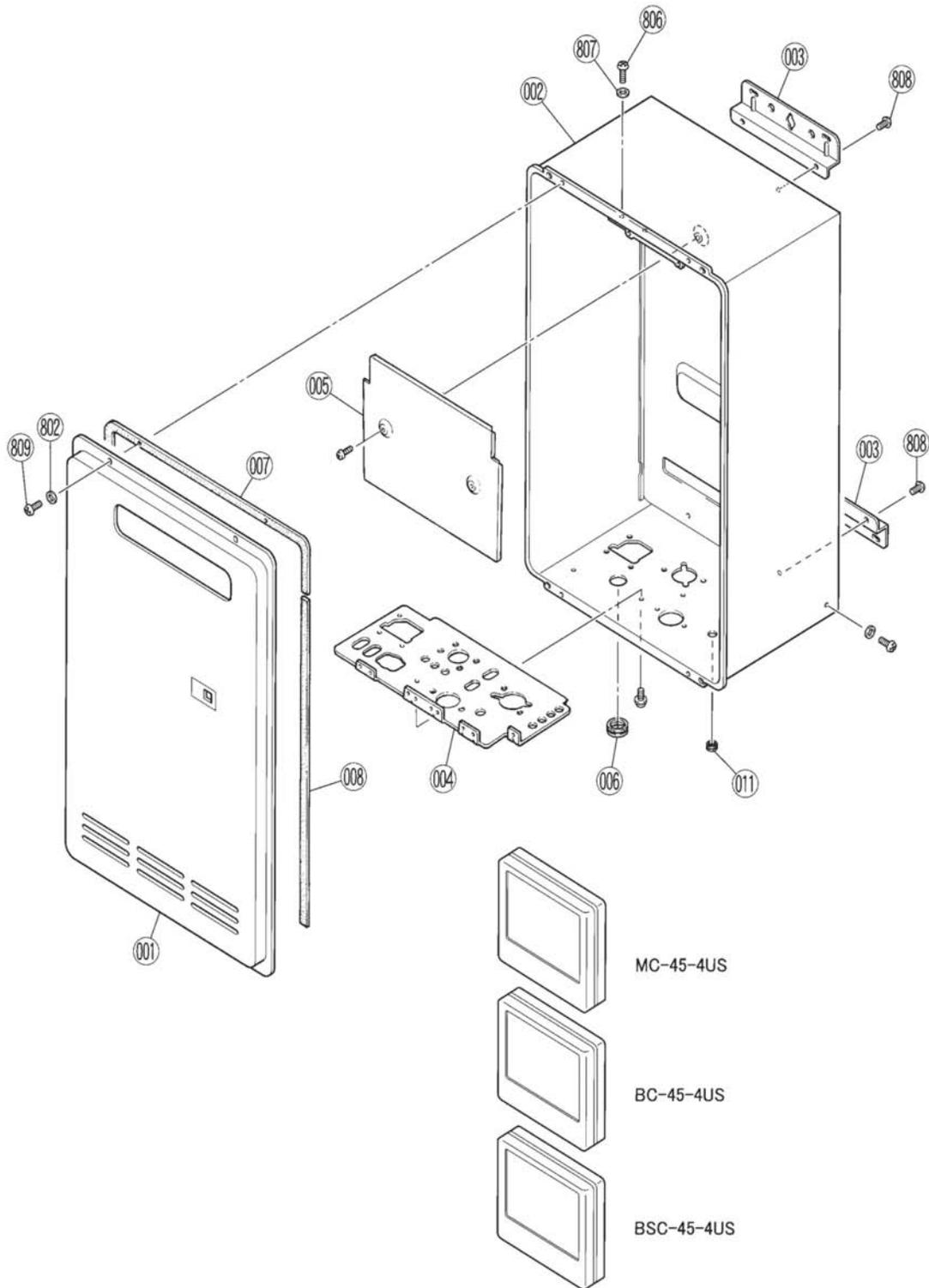
Component	Measurement Point		Normal Value	Notes
	Comp. No.	Wire Color		
Surge Protector	F <sub>7</sub>	Blue - Brown	AC 108 - 132 V	
Water Flow Control Device	B <sub>1</sub>	Red-Blue	± DC 11 - 13 V	Power Supplied to Unit
		Gray-Orange	DC 11 - 13 V	Power Supplied to Unit
		Gray-Yellow	Below DC 1 V (Limiter On)	Full Open Position
			DC 4 - 6 V (Limiter Off)	
		Gray-Brown	Below DC 1 V (Limiter On)	Full Close Position
DC 4 - 6 V (Limiter Off)				
By-pass Flow Control Device	G <sub>1</sub>	Brown-White Orange-White Yellow-White Red-White Gnd	DC 2 - 6 V	Unit In Operating Mode
			15 - 35 Ω	
Remote Control	D <sub>1</sub>	Black-Black	DC 11 - 13 V	
Water Flow Sensor	B <sub>3</sub>	Red - Black	DC 11 - 13 V	On 0.82 gal/min (30 Hz) Over 1800 pulse/min
		Yellow - Black Gnd	DC 4 - 7 V (Pulse 17-460 Hz)	Off 0.6 gal/min (20 Hz) Below 1200 pulse/min
Combustion Fan	A <sub>1</sub>	Red-Black	DC 6 - 45 V	
		Yellow-Black	DC 11 - 13 V	
		White-Black Gnd	DC 5 - 10 V (33-400 Hz)	
Flame Rod	C <sub>1</sub>	Yellow-Gnd	AC 5 - 150 V	After Ignition
		Yellow-Flame Rod	Over DC 1 μA	Flame Condition
Modulating Valve	C <sub>2</sub>	Pink-Pink	DC 2 - 15 V 67 - 81 Ω	
Outgoing Thermistor	B <sub>4</sub>	White-White	59°F 11.4 - 14.0 kΩ	
Heat Exchanger	B <sub>5</sub>		86°F 6.4 - 7.8 kΩ	
Outgoing Thermistor			113°F 3.6 - 4.5 kΩ	
			140°F 2.2 - 2.7 kΩ	
			221°F 0.6 - 0.8 kΩ	
Thermal Fuse	B <sub>2</sub> C <sub>3</sub>	Red-Red	Below 1 Ω	
Ignitor	F <sub>8</sub>	Gray-Gray	AC 90 - 110 V	
Main Solenoid Valve	E <sub>1</sub>	Pink - Black	DC 80 - 100 V 1.7 - 2.1 kΩ	
Solenoid Valve 1	E <sub>2</sub>	Yellow - Black	DC 80 - 100 V 1.7 - 2.1 kΩ	
Solenoid Valve 2	E <sub>3</sub>	Blue-Black	DC 80 - 100 V 1.7 - 2.1 kΩ	
Solenoid Valve 3	E <sub>4</sub>	Brown - Black	DC 80 - 100 V 1.7 - 2.0 kΩ	
<b>TRANSFORMER VOLTAGES AND RESISTANCES</b>				
Primary Windings	F <sub>7</sub>	Blue-Brown	51 - 63 Ω	
Secondary Windings	F <sub>9</sub>	White-Black	AC 90 - 110 V	

## INSTALLER'S INSTALLATION INSTRUCTIONS

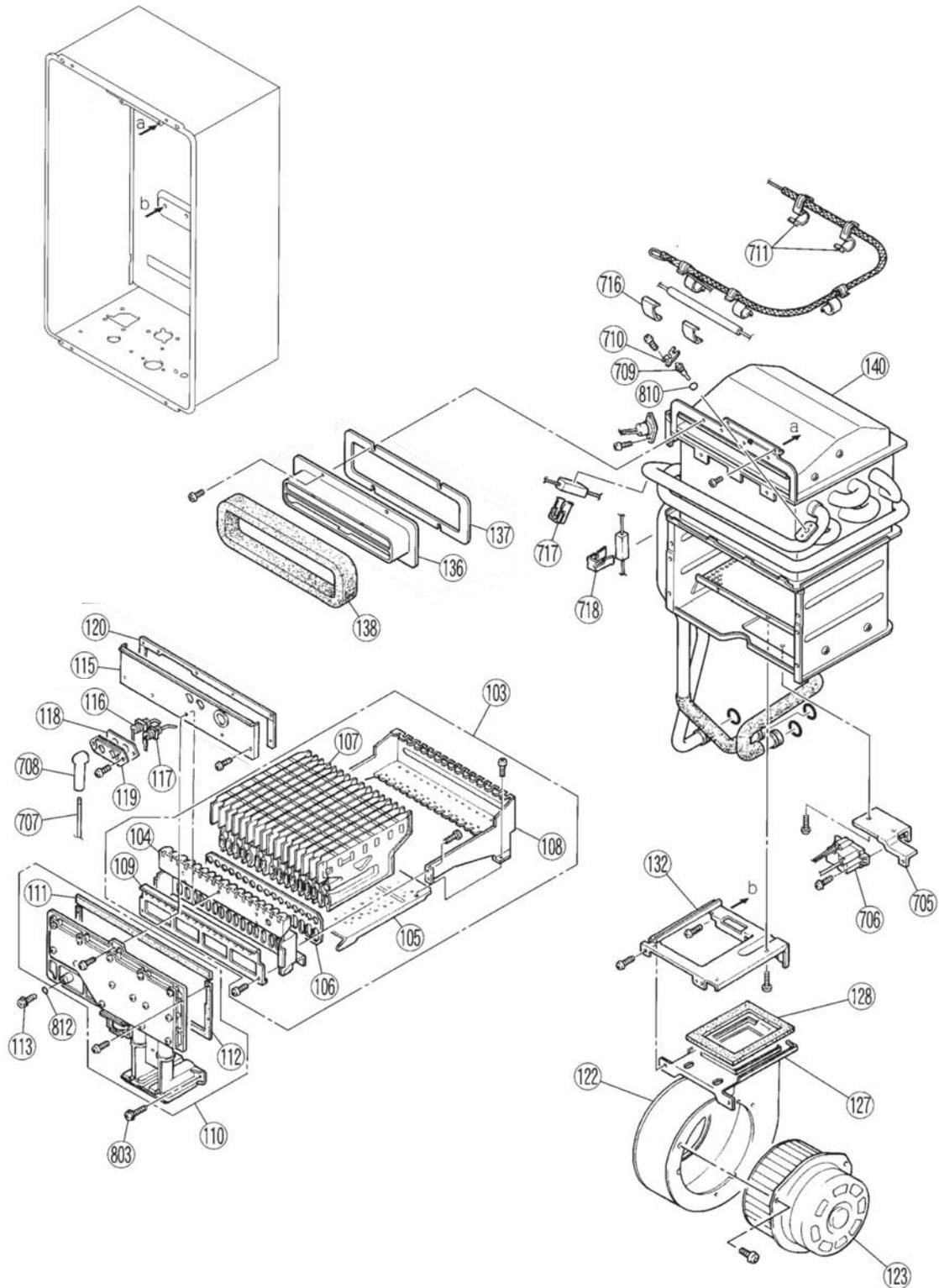
### Schematic Diagram



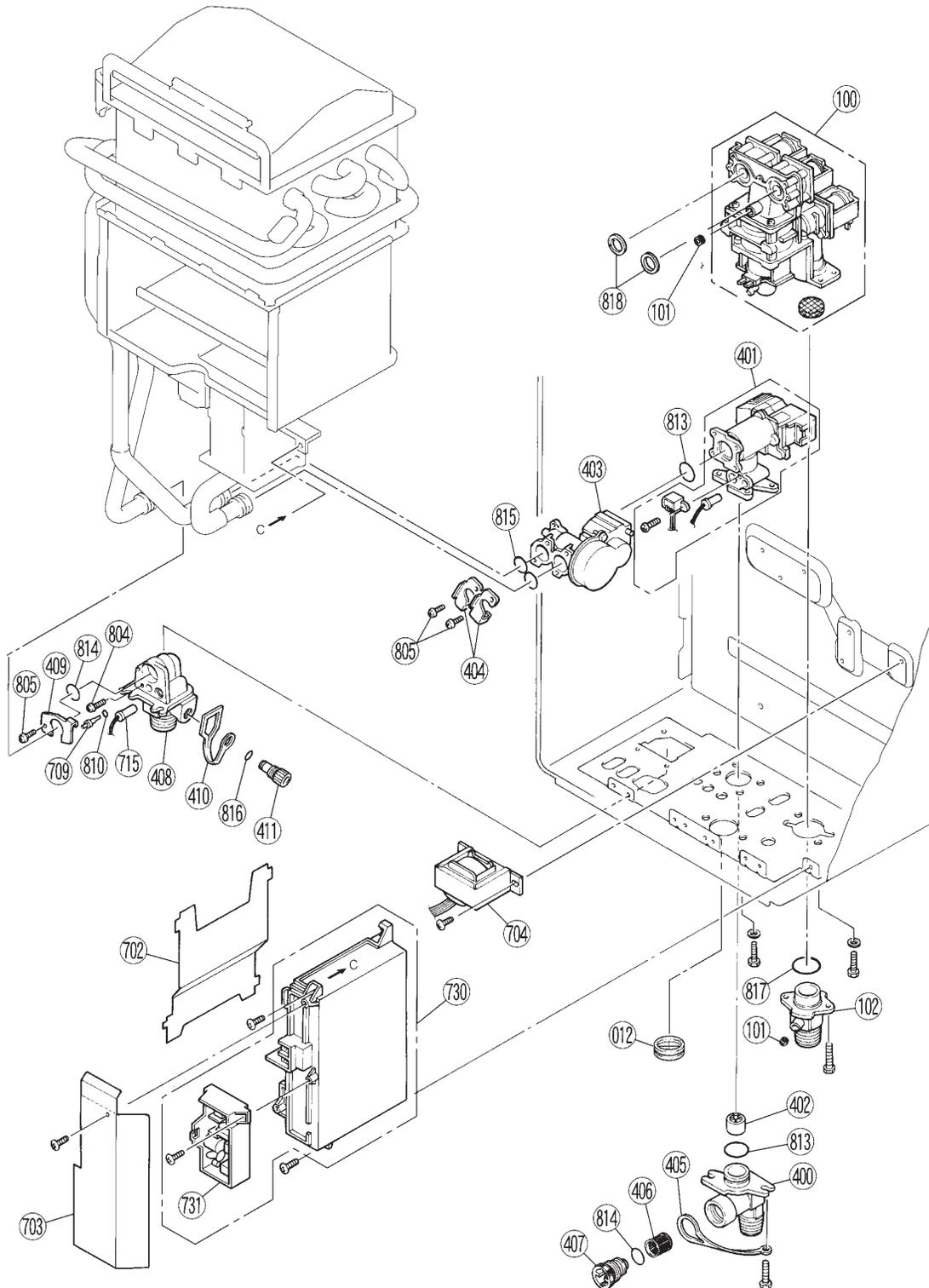
**INSTALLER'S INSTALLATION INSTRUCTIONS**  
Exploded View - Cabinet



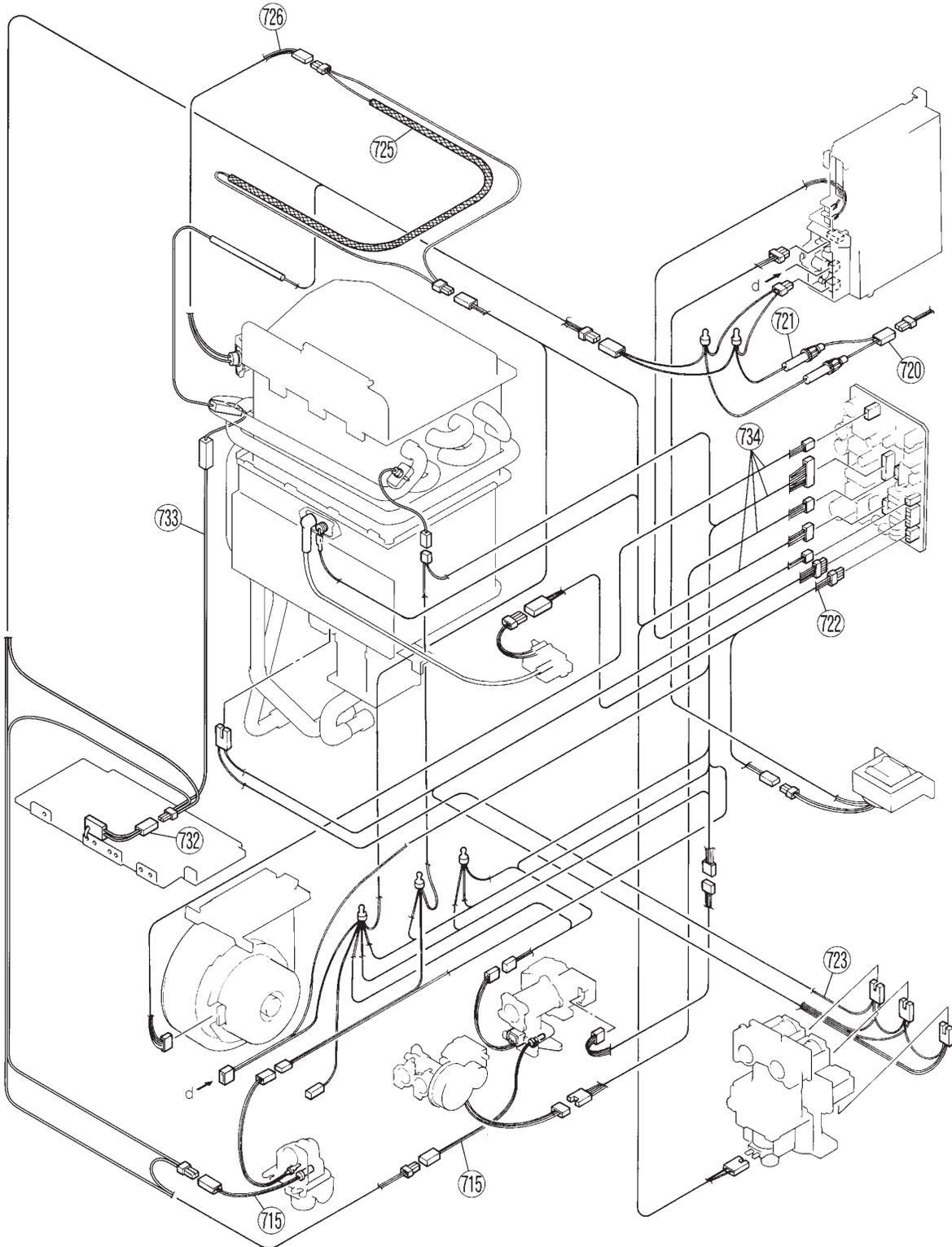
## INSTALLER'S INSTALLATION INSTRUCTIONS Exploded View - Internals



**INSTALLER'S INSTALLATION INSTRUCTIONS**  
Exploded View - Internals



## INSTALLER'S INSTALLATION INSTRUCTIONS Exploded View - Electrical



**INSTALLER'S INSTALLATION INSTRUCTIONS**  
Parts List

<u>Number</u>	<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>
001	Front Panel Assembly	U245-1110	1
002	Casing Assembly	U245-1100	1
003	Wall Installation Bracker	U195-121	1
004	Connection Reinforcement Panel	U245-120	1
005	Heat Protection Plate	U245-107	1
006	Rubber Bushing	CF79-41020-A	1
007	Front Panel Packing	BU195-167	1
008	Front Panel Packing Side	AU115-163	1
011	Seal Packing	AU105-113	1
012	Rubber Bushing	U245-125	1
100	Gas Control Assembly	C36E-41-S	1
101	Screw	AU39-965	2
102	"Gas Connection (3/4" NPT)"	CU195-1866	1
103	Burner Unit Assembly	H73-110	1
104	Burner Case Front	CH51-209	1
105	Burner Case Bottom Panel	H73-112	1
106	Packing	BH51-218	1
107	Lean and Rich Bunsen Burner Assembly	B3A7-1	16
108	Burner Case Back Panel	CH51-211	1
109	Damper	H73-115	1
110	Manifold Assembly-A (LPG)	U245-200-A	1
110	Manifold Assembly-C (Nat. G)	U245-200-C	1



**INSTALLER'S INSTALLATION INSTRUCTIONS**  
**Parts List**

<u>Number</u>	<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>
111	Packing of Combustion Chamber	AU155-207-2	1
112	Lower Packing of Combustion Chamber	H73-214	1
113	Screw	C10D-5	1
115	Combustion Chamber Front Plate	U245-261	1
116	Electrode	H73-120	1
117	Flame Rod	AH41-216	1
118	Electrode Packing	AH66-398	1
119	Electrode Holder	AH66-393	1
120	Upper Packing of Combustion Chamber	U245-262	1
122	Fan Casing Assembly	CH51-615	1
123	Blower Motor	H89-261	1
127	Fan Connecting Bracket	BH29-606	1
128	Fan Connecting Packing	AU183-562	1
132	Combustion Chamber Bracket	U245-255	1
136	Flue Outlet	U245-1130	1
137	Flue Outlet Packing	U245-1122	1
138	Flue Outlet Packing - 6	AH24-653-6	1
140	Heat Exchanger Complete Assembly	U245-1310	1
400	"Water Inlet (3/4"NPT)	H73-501-2	1
401	Water Flow Servo & Sensor Assembly	M8E-6-5	1
402	Rectifier	M8D1-15	1



## INSTALLER'S INSTALLATION INSTRUCTIONS

### Parts List

<u>Number</u>	<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>
403	By-pass Servo Assembly	M6J-1-3	1
404	Stop Bracket	AH69-310	2
405	Plug Band	H73-512	1
406	Water Filter Assembly	H73-511	1
407	Filter Plug	H73-510	1
408	Hot Water Outlet (3/4"NPT)	U245-865-3	1
409	Stop Bracket	AU162-1876	1
410	Plug Band Small	AU103-413	1
411	Drain Valve	AU142-444	1
702	PCB Cover-Side	U245-774	1
703	PCB Cover-Front	BU168-707	1
704	Transformer Assembly	ET-281	1
705	PCB Bracket	U245-257	1
706	Ignitor	EI-189	1
707	High Tension Cord	BH38-710-240	1
708	Electrode Sleeve	AU206-218	1
709	Thermistor	BH45-650	2
710	Thermistor Clip Large	CP-90172	1
711	Thermal Fuse Clip	U217-676	5
715	120V Valve Heater Assembly	U245-622	1
716	Anti-Frost Heater Clip	CF29-742	2
717	Anti-Frost Heater Clip A	AU111-653	1

## INSTALLER'S INSTALLATION INSTRUCTIONS Parts List

<u>Number</u>	<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>
718	Anti-Frost Heater Clip	AU100-721	1
720	Power Supply Harness	AU195-1876	1
721	Fuse Harness	BU195-1630	1
722	100V Harness	U245-601	1
723	Solenoid Valve Harness	U245-602	1
725	Thermal Fuse Harness	U245-610	1
726	Mold-Type Over Heat Switch	BU129-824-2	1
730	PCB	U245-1200	1
731	Surge Protector	BU195-1873	1
732	Frost Sensing Switch	H73-750	1
733	120V Anti-Frost Heater Assembly	U245-1320	1
734	Sensor Harness - 2	U245-603-2	1
802	Washer	AU33-184	4
803	Screw	CP-21478-412	3
804	Screw	U217-449	1
805	Screw	ZAA0408UK	3
806	Screw	ZBD0508UK	2
807	Screw	AU48-174	2
808	Screw	ZBA0510UK	4
809	Screw	ZAD0408TK	4
810	O-ring	M10B-2-4	2
812	O-ring	M10B-13-4	1
813	O-ring	M10B-2-18	2

**INSTALLER'S INSTALLATION INSTRUCTIONS**  
Parts List

<u>Number</u>	<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>
814	O-ring	M10B-2-16	2
815	O-ring	M10B-2-14	2
816	O-ring	M10B-2-7	1
817	O-ring	M10B-1-24	1
818	Packing	C36E1-6	2
888	V2532W Owner's Manual	U245-1360	1
-	Package Spec Sheet	PWB-261	1
-	"Manual 3/4" gas control valve"	BU195-1865	1
-	Kitchen remote control kit	MC-45-4US	1
-	Bathroom remote control kit	BC-45-4US	1
-	2nd Bathroom remote control kit	BSC-45-4US	1

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\*North America's only vent-free convection heater

\*99% efficient

\*whisper quiet

\*perfect for hard to heat areas

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Printed in Japan 2003.05