

NOTES:

**Drakken™**

## Pro-Plus Installation Manual



### Models:

- S-4
- S-7
- S-9
- S-12
- S-14
- S-16

For Technical Support Please Call  
1-888-818-4328

# IMPORTANT

## PLEASE READ ALL OF THIS IMPORTANT SAFETY INFORMATION IN THIS BOOKLET

This booklet contains important information & operating instructions for your tankless electric water heater. The example general information contained in this booklet is for guidance only. Please read it carefully, in its entirety and retain it for use later as well.

Tankless water heaters are safe and can be used with less risk than conventional water heaters. This is provided that they are installed, used and maintained in good working order, using common sense.

The unit installation must be carried out by qualified personal and in the proper sequence, listed in this booklet. An example supply list is on the back cover. Care taken during the installation will provide a long trouble-free life for your heater.

### PLEASE FOLLOW ALL RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS

FAILURE TO FOLLOW PROPER PROCEDURE IS HAZARDOUS. IT CAN ALSO DAMAGE THE HEATER AND VOID THE WARRANTY.

TURN OFF ELECTRICAL SUPPLY MAIN AND WATER SUPPLY BEFORE ATTEMPTING ANY INSTALLATION!

DO NOT TURN ON ELECTRIC OR WATER SUPPLY UNIT INSTALLATION IS PROPERLY COMPLETED.

- DO NOT remove the Heater cover, open the unit or break the seal. This could cause DEATH OR INJURY and will VOID THE WARRANTY. (There are no user serviceable parts inside).
- DO NOT Install Heater, in a shower or anywhere it can be reached or adjusted by anyone while using water.
- DO NOT Operate the unit if water ceases to flow during use. Contact technical support for this or any other issue of concern, on the web at:

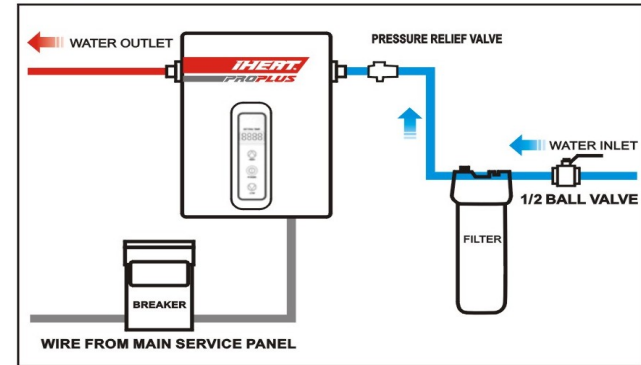
WWW.DRAKKENUSA.COM

or call:305-556-5266 or 1-888-818-4328

- Although installation is simple, DO have a licensed Plumber & Electrician perform the installation.
- COMPLY WITH LOCAL CODES AND PERMITTING!

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- 10, Complete all Plumbing connections and test for leaks Operate a Nearby hot water tap to remove air from water line to avoid a Heater dry start.



## ELECTRICAL INFORMATION

The following example information is for guidance only:

**Please verify all supplied information with your local Building Code Inspector before proceeding with any installation. Your requirements may differ from this supplied information.**

### WARNING! PLEASE READ ALL INFORMATION

The site locations' Main Electrical Supply must be adequate to supply the Heaters electrical load requirement and all other existing circuits.

If your Main Electric Service panel has a rating below the required load amperage for this Heater unit and the existing circuits and/or if there is no spare breaker space, then the installation will not be possible. It will require an upgraded Electric Service and a higher amperage Service Panel to service the location.

Before beginning any installation or attempting any Electrical connection make sure that the Main Electrical Supply Panel and any supply line breaker(s) are switched to the off position. Be certain and **test to verify that there is no electric current before attempting installation.**

The Electric supply line wire, Circuit Breaker and Service Disconnect (if required) must all be sufficient for the load Voltage and Amperage. Determine the **permissible circuit length** and verify the correct wire and breaker size. The Service Disconnect and electrical connections should be placed above or to one side of the heater.

Make sure that all electrical and plumbing connections are connected securely to prevent overheating.

The Heater must be connected to its own independent, dedicated and PROPERLY GROUNDED electric circuit. Heater MUST NOT share any Other circuit i.e. oven, clothes dryer, etc.

The Heater must have a Service Disconnect that the electric pigtail, can Be hard wired into, Models with an amperage of 40 amps or less, may not Require a Service Disconnection. Check with your Code Inspector to verify what is required. The Heater unit must be hard wired, not a plug or socket outlet.

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## PLUMBING INFORMATION



- 1, **Turn off Main Electrical Supply, water main & hot water supply before attempting the installation.** All plumbing should be completed before proceeding to electrical wiring connections.
- 2, Use 1/2" Copper Water Pipe for the Heaters' inlet & outlet lines. If you have 3/4" or other size water pipe, reduce to 1/2" before entering the inlet and enlarge from the outlet. Use compression fittings to connect to Heater & do not over tighten.
- 3, **NEVER CONNECT HEATER DIRECTLY TO ANY TYPE OF CPVC, PLASTIC, PVC OR WATER SUPPLY PIPE.** If the location has PVC, CPVC, or other plastic pipe, always install 36" of copper pipe to inlet and from outlet of heater to insulate Heater from any plastic pipe. Make a "U" or "L" shape if necessary to equal 36" on inlet & outlet. **Not using copper pipe will VOID THE WARRANTY and damage the Heater.**
- 4, **DO NOT SOLDER NEAR HEATER INLET OR OUTLET ( SOLDER ALL CONNECTION PIPES AWAY FROM THE UNIT AND SOLDER THE FINAL JOINT(S) AT LEAST 12" AWAY FROM THE HEATER.**
- 5, **NEVER USE PIPE INSULATION OR WRAP OF ANY KIND, ON HEATER INLET OR OUTLET PIPES.** Never use Pipe Dope or Sealants. Use Teflon tape only if necessary, on heater inlet & outlet.
- 6, All water heaters require a water supply line shut off valve. A second shut off valve on the outlet side will eliminate any back feed of cold water should Heater removal ever be necessary. Ball valves are recommended.
- 7, NOTE: An expansion tank required by some recent code revisions for tank type water heaters is not usually required for tankless water heater installations. Please check with your local codes to verify this.
- 8, It is recommended that a **Clear Canister & Sediment Filter** be installed on the inlet water supply side of the tankless water heater (between the Heater inlet and the water supply valve). This filter can reduce sediment and debris over a period of time from plugging the inlet fine mesh screen. This will also provide cleaner water for showers, washers, etc. These are available from your tankless dealer.
- 9, **Flush Incoming supply pipe** after soldering & before connecting Inlet to Heater. Avoid having debris such as excess flux or solder from plugging the visible water inlet screen. If it becomes restricted the Heater will not operate properly and the screen must be cleaned.

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- 6, There is overheat protection function. While the outlet temperature reaches 158°F (70°C), the heater will pause working automatically, only after the temperature dropped to 104°F(40°C), it will recover to work.
- 7, There is screensaving function, the display screen will light off without operation in 30 seconds, and the display screen will light up again while there is operation.

## ELECTRICAL INFORMATION

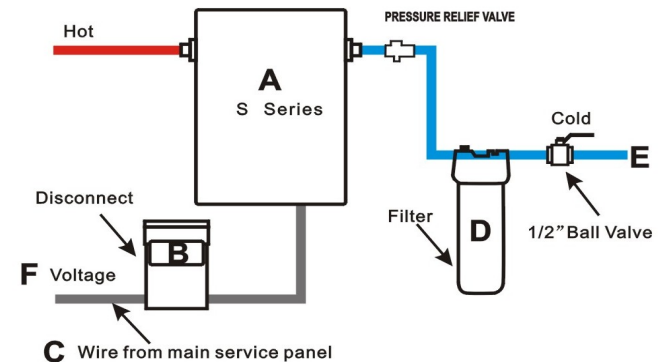
**VERIFY ALL VOLTAGE & AMPERAGE INFO LISTED BELOW, WITH THE ACTUAL LABEL SPECIFICATIONS ON YOUR UNIT, FOR ANY CHANGES OR VARIATIONS.**

ALL SPECIFICATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE WITHOUT NOTICE.

MODEL	KW	VOLTS	AMPS	MODEL	KW	VOLTS	AMPS
S-16	12	208	58	S-9	8	208	38
	13.4	220	61		8.9	220	41
	16	240	67		10.6	240	44
S-14	11.5	208	55	S-7	6	208	29
	12.9	220	58		6.7	220	31
	15.3	240	64		8	240	33
S-12	11	208	53	S-4	3.2	110	30
	12.4	220	56		3.5	120	30
	14.7	240	61				

**WIRE GAUGE AND BREAKER SIZE CAN VARY BASED ON A NUMBER OF FACTORS INCLUDING SUPPLIED VOLTAGE AND LENGTH OF CIRCUIT CHECK LOCAL REQUIREMENTS**

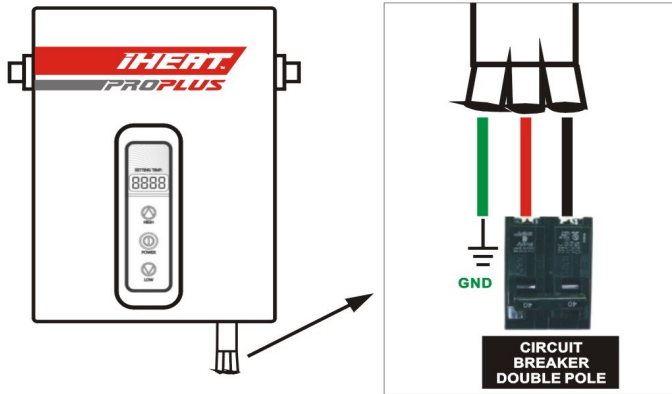
Installation Schematic for S Series Heaters



MODEL	BREAKER	WIRE	FILTER	PIPE	VOLTAGE
A	B	C	D	E	F
S-16	70AMP	#6-2	AHQD-1100	COPPER	240VAC
S-14	60AMP	#6-2	AHQD-1100	COPPER	240VAC
S-12	60AMP	#6-2	AHQD-1100	COPPER	240VAC
S-9	40AMP	#8-2	AHQD-1100	COPPER	240VAC
S-7	30AMP	#8-2	AHQD-1100	COPPER	240VAC
S-4	30AMP	#8-2	AHQD-1100	COPPER	120VAC

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The electric heating elements operate at a constant temperature hot water at your chosen temperature setting. It is the rate of the water passing through the heater unit which determines the water temperature at any given setting. The slower the flow, less volume the hotter the water becomes, the faster the flow gallons per minute equals cooler water.

Press POWER switch key to turn on/off the heaters, press the key of "HIGH" and "LOW" to adjust outlet temperature. Test water and adjust to desired comfort outlet temperature. During winter the incoming water supply maybe cooler than in Summer, The heaters thermostat control knob maybe readjusted to compensate, up to its rated capacity.

Make sure that all electrical and plumbing connections are securely connected to prevent overheating.

Contact customer service for customer support about any concern or if any of the following occurs:

If the unit experience a distinct change in performance, the unit is or has been frozen or the Heater is to be operated at pressures above 75 PSI. Turn off power to Heater immediately, if water ceases to flow during use.

Switch off the heater unit at the Service disconnect and at breaker's, when not in use for extended periods or upon any concern. This is for all electrical appliances and devices.

Risk of electrical shock, for heater used the first time or not used for a long period, let water go through it, turn on the power, and then operate it according to the manual.

### Operation Instruction

- 1, Turn on the circuit breaker to bring electrical power to the unit.
- 2, After the unit is supplied with power, turn on the water and then the heaters will start work. The min. water flow to active the unit is 0.53GPM (2L/min).
- 3, Turn off the water flow or press "POWER", the heaters will stop working.
- 4, Press "HIGH" and "LOW" to adjust outlet hot water temperature. Every time press the key of "LOW" and "HIGH", the setting temperature will be 2°F up and down in degree fahrenheit display status or 1°C up and down in celsius degree display status.
- 5, Temperature setting arrange is from 82°F(27°C) to 140°F(60°C), turn off the heater, then press the key of "HIGH" or "LOW" to convert the temperature display between degree fahrenheit and degree celsius.

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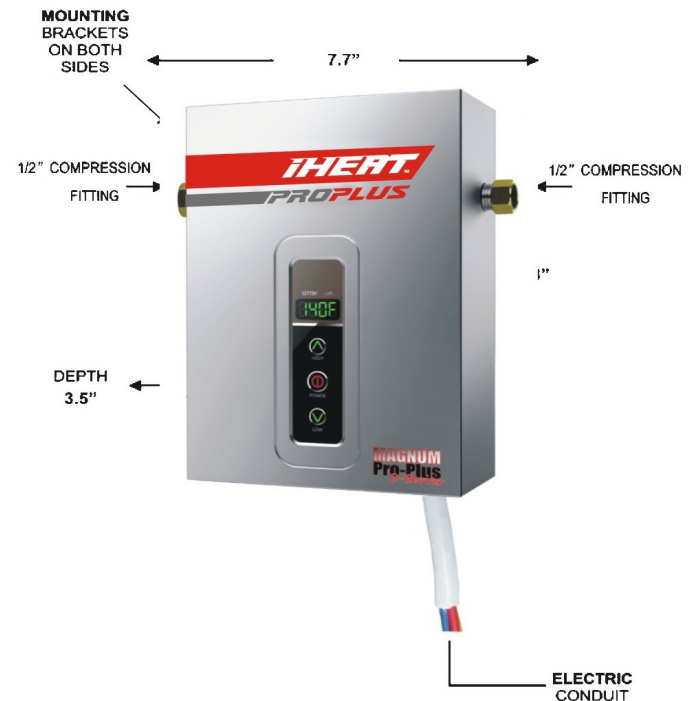
### MOUNTING ELECTRIC TANKLESS WATER HEATER

Using the template which has been included in the package, place template on the mounting surface, make sure mounting surface is solid and secure, and ensure when placing the template on the mounting surface that the placement is level prior to marking the screw positions.

After leveling, mark the holes provided on the template onto the mounting surface. Place wall anchors and or screws depending on the material of the surface, then mount the unit upright as seen on the figure below.

We recommend that this product be installed in an upright position with the inlet and outlet water connections on the left side and right side unit using 1/2" compression fitting (or NPT fitting).

**Recommended Clearances:** Clearance to combustable materials should be kept at a minimum of 24 inches away from the unit and the outlet water connections



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