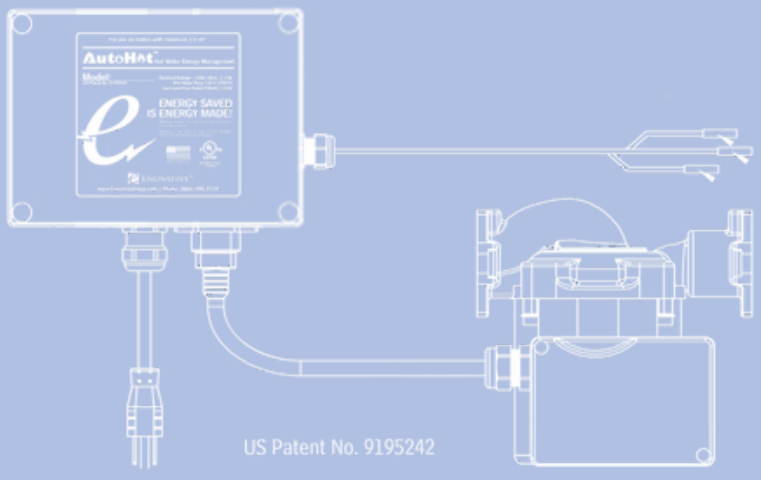


AutoHot®

DEMAND RECIRCULATION AND DHW ENERGY MANAGEMENT SYSTEM

IECC AND CA T24 ENERGY CODE COMPLIANT



ENOVATIVE® MANUFACTURING LLC

MADE IN U.S.A.

NGBS GREEN™
Home Innovation Research Labs



AutoHot®

Comprehensive Hot Water Energy Management
The AutoHot® Energy Management System (EMS)

AutoHot® introduces its most advanced domestic hot water (DHW) recirculationcontrol and energy management system to maximize your water heating and distribution efficiency while notifying you when energy is being wasted or service is needed. The AutoHot® EMS uses an array of sensors to optimize the run time of your water heater and recirculation pumps, while continuously collecting data on the system performance, ensuring that your systems are always providing safe, comfortable and energy efficient hot water.

FEATURES

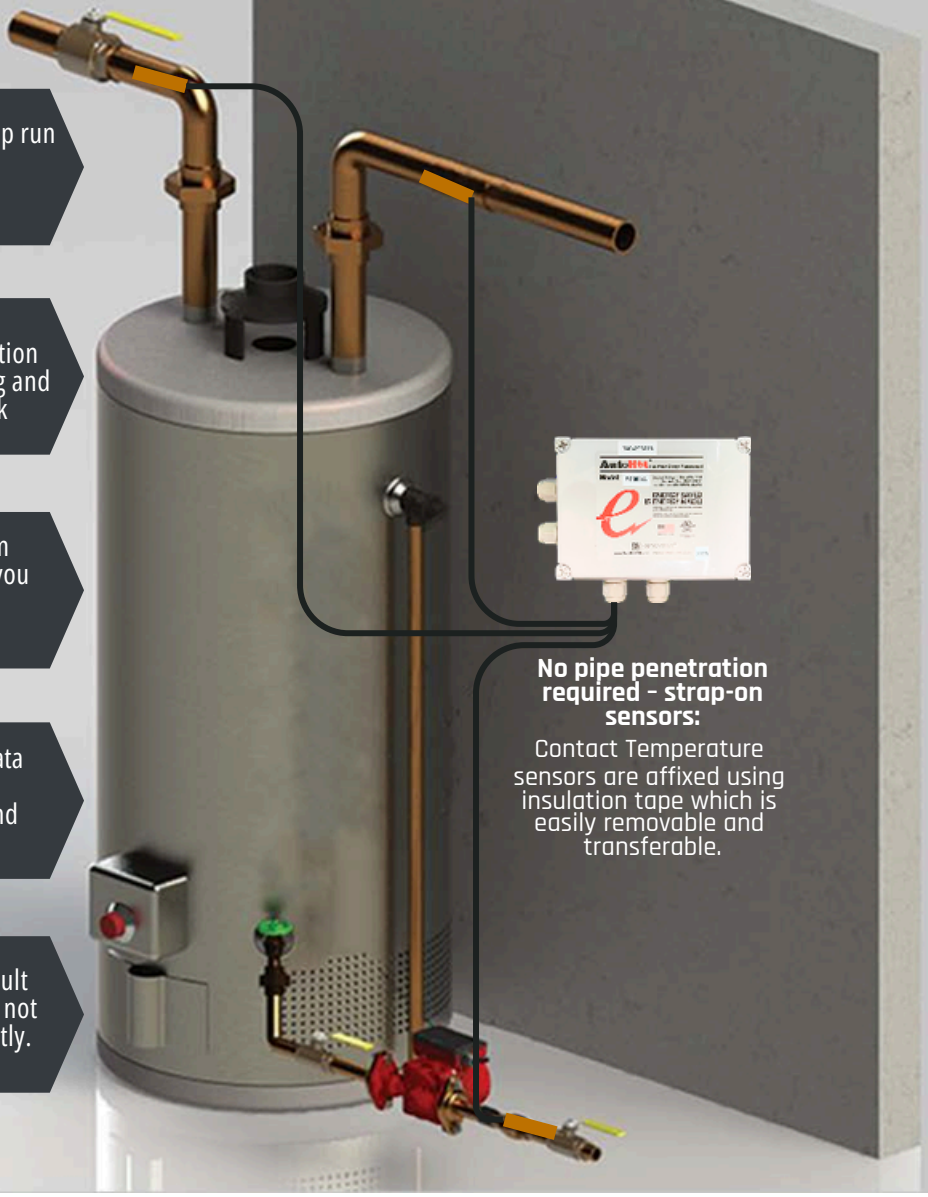
DEMAND RECIRCULATION
Optimizes recirculation pump run time for energy savings and reduced plumbing leaks.

TEMPERATURE MODULATION
Controls water heater operation using time-of-day scheduling and return temperature feedback

DATA COLLECTION
Continuously collects system performance data to show you how well your system is running.

REMOTE MONITORING AND CONTROL
Access system performance data .from any device, anywhere Control your water heater and pumps remotely.

Detects abnormal temperature conditions and system performance issues
Receive hot water system fault alert emails when system is not running properly or efficiently.

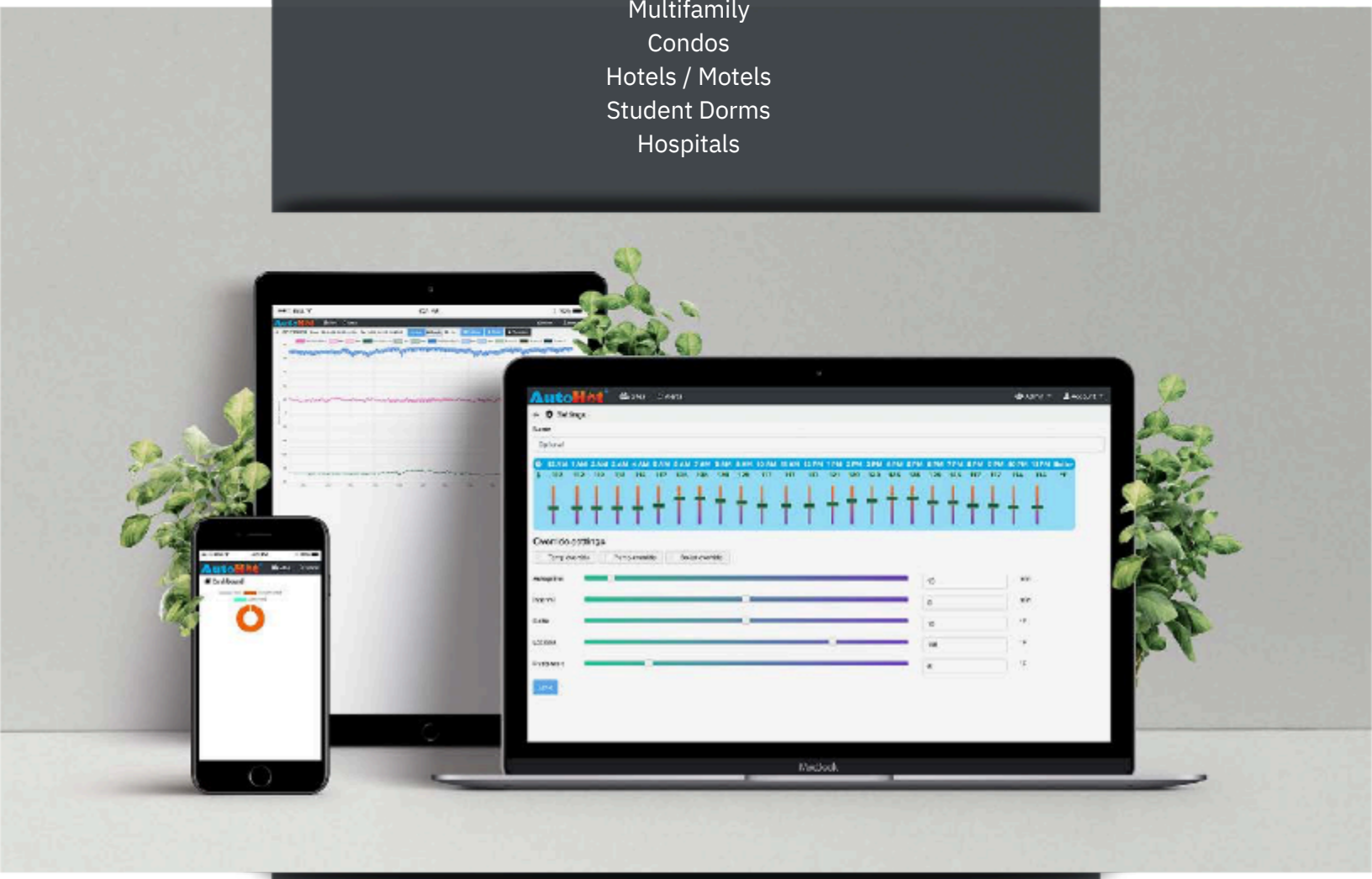


No pipe penetration required - strap-on sensors:
Contact Temperature sensors are affixed using insulation tape which is easily removable and transferable.

DHW Remote Monitoring and Control

IDEALLY SUITED FOR:

Multifamily
Condos
Hotels / Motels
Student Dorms
Hospitals



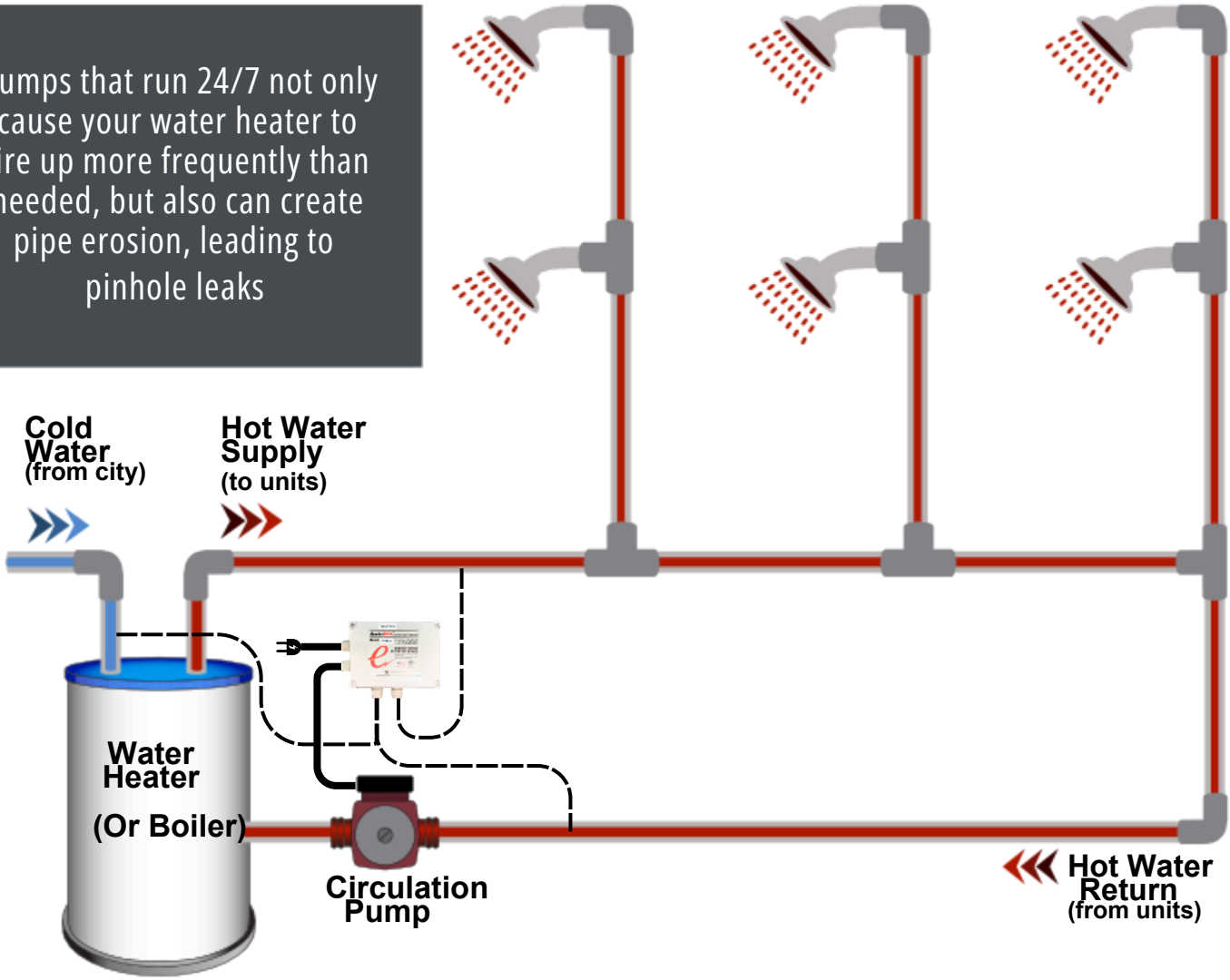
Service water heating is one of the most essential systems in any apartment building, hotel, dorm, or hospital. It is also one of the most costly operating expenses, both in terms of energy use and maintenance.

The AutoHot DHW Energy Management System will continuously monitor your buildings hot water system and send you alert notifications if the system ever fails to perform outside of its control settings, or in the event of a pump or water heater failure that requires immediate service. Using our web based front end portal, you can see real time and historical hot water usage data that gives you the power to control energy losses and ensure your systems are always running at their peak performance.

- **Monitors the energy performance of your hot water system 24 hrs a day**
- **Sends you notifications when service is needed or energy being wasted**
- **Allows you to control system remotely**

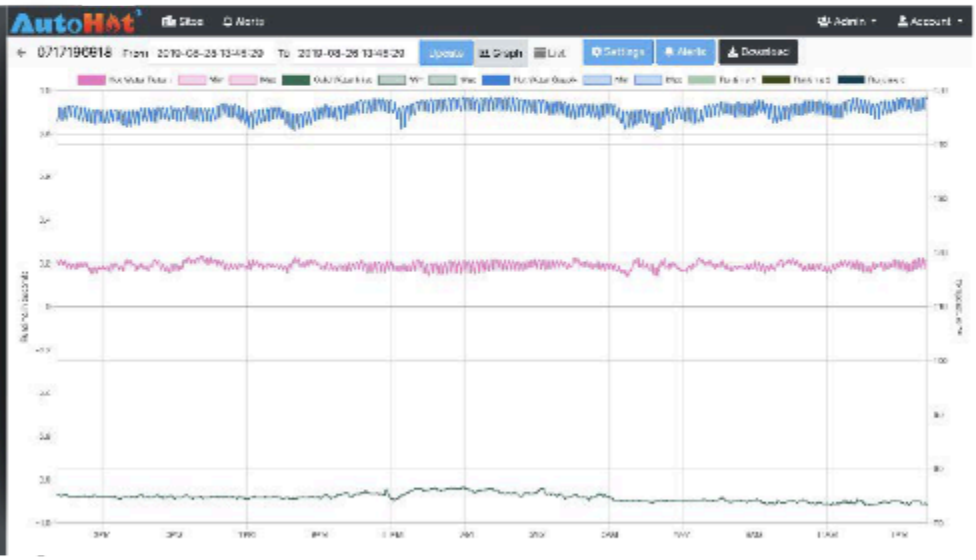
Optimized System Performance and Data Collection

Pumps that run 24/7 not only cause your water heater to fire up more frequently than needed, but also can create pipe erosion, leading to pinhole leaks



AutoHot® EMS Benefits:

- Reduces pump operation by 90%
- Reduces total hot water energy use by up to 30%
- Reduces occurrence of pipe pinhole leaks
- Increases useful life of hot water system



Designed for Performance Energy Code Compliant

Are you a plumbing engineer or building energy consultant looking to design a high performing hot water system?

AutoHot® meets the latest building energy code requirements for demand controlled recirculation, including:

- International Energy Conservation Code (IECC)
- California Title 24 Department of Energy – Zero Energy Ready
- Home (ZERH) Program



MODEL NUMBER	DESCRIPTION
DC000A	AutoHot® EMS recirculation and boiler controller, 3 temp sensors, SD Card. Standalone control unit.
DC055A	AutoHot® EMS recirculation and boiler controller, 55-series pump, 3 temp sensors, MicroSD Card.

MODEL NUMBER	DESCRIPTION
DC099A	AutoHot® EMS recirculation and boiler controller, 99-series pump, 3 temp sensors, MicroSD Card.
DC150A	AutoHot® EMS recirculation and boiler controller, 150-series pump, 3 temp sensors, MicroSD Card.

ACCESSORIES

MODEL NUMBER	DESCRIPTION
CTS	Copper Temperature Sensor
DTS	Digital Temperature Sensor
CT-100	Current Trandsducer (CT) logger

MODEL NUMBER	DESCRIPTION
ERK-001	External Relay Kit, for use with AutoHot controller and pumps greater than 1/3 HP, or pumps without capacitors
RM-ROU-001	Cellular Router - includes SIM card - For Remore Monitoring

Technical & Electrical Data
Pump Specification

55-SERIES



Flow range:	0-25 gpm
Head range:	0-18 feet
Motors :	2-pole, single-phase
Max. liquid temperature:	230°F (110°C)
Min. liquid temperature:	36°F (2°C)
Max. system pressure:	145 psi (10 bar)

Model	Spd	Volts	Amps	Watts	HP	Capacitor
55-Series	3		0.75	87	0.1210	µF/180 V
	2	115	0.69	77	0.1010	µF/180 V
	1		0.53	58	0.0810	µF/180 V

99-SERIES



Flow range:	0-33 gpm
Head range:	0-29 feet
M otors :	2-pole, single-phase
Max. liquid temperature:	230°F (110°C)
Min. liquid temperature:	36°F (2°C)
Max. system pressure:	145 psi (10 bar)

Model	Spd	Volts	Amps	Watts	HP	Capacitor
99-Series	3		1.8	197	1/6	20 µF/180 V
	2	115	1.8	179	1/6	20 µF/180 V
	1		1.8	150	1/6	20 µF/180 V

150-SERIES



Flow range:	0-53 gpm
Head range:	0-46 feet
M otors :	2-pole, single-phase
Max. liquid temperature:	230°F (110°C)
Min. liquid temperature:	36°F (2°C)
Max. system pressure:	145 psi (10 bar)

Model	Spd	Volts	Amps	Watts	HP	Capacitor
150-Series	3		3.5	370	1/640	µF/180 V
	2	115	3.1	335	1/640	µF/180 V
	1		2.5	265	1/640	µF/180 V