# THE AQUA SMART<sup>TM</sup> RECEIVER

The heart of the AQUA SMART™ system is the RECEIVER-CONTROL PANEL (R-CP) which mounts on top of the water heater. The incoming power lines are routed into the back of R-CP and attached to the water heater supply lines.

A TEMPERATURE SENSOR is attached to the water heater's output HOT water pipe, which relays temperature readings to the transmitter, and then to the Transmitter which processes the signals and communicates the user program commands back to the R-CP.

THERMAL SENSOR ATTACHES
TO THE HOT WATER PIPE
AND TO THE R-CP.



R-CP MOUNTS TO TOP OF THE HOT WATER HEATER AND IS POWERED BY THE INCOMING POWER SUPPLY TO THE HOT WATER HEATER.



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#### AQUA SMART, INC.

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"WIRELESS" REMOTE CONTOL SYSTEM TO OPERATE ELECTRIC HOT WATER HEATERS

REDUCE ELECTRICITY CONSUMPTION AND COSTS WITH THE INSTALLATION OF A PROGRAMMABLE THERMOSTAT THAT CONTROLS THE OPERATION OF A RESIDENTIAL ELECTRIC HOT WATER HEATER.

# REDUCE ENERGY BILLS. SAVE \$\$\$

RECEIVER-CONTROL PANEL (R-CP)
R-CP Mounts
To Top of Hot

Water Heater





Wall-Mounted Transmitter



TWO-WAY COMMUNICATION BETWEEN TRANSMITTER and RECEIVER.

The AQUA SMART™ system RETROFITS to standard, residential, electric hot water heaters requiring a minimal of installation and electrical rewiring.

The AQUA SMART™ can be installed by the Homeowner, familiar with the wiring of 220V electric hot water heaters and can be accomplished in less than one hour. Installation by a certified electrician is also recommended.



### THE AQUA SMART<sup>TM</sup> TRANSMITTER

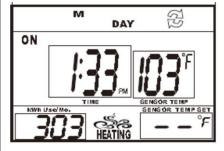
The **AQUA SMART™** transmitter easily mounts on a wall. It operates on 2- AAA alkaline batteries. Wireless, 2-way signals are transmitted between the transmitter and receiver up to a distance of 80 feet, depending on *structural* interferences within the home.



VIEW OF TRANSMITTER LCD IN NORMAL STATE FOLLOWING INSTALLATION SET-UP

#### <u>LCD – Liquid Crystal Display</u>

VIEW OF TRANSMITTER'S LCD WITH ALL OPERATING ICONS SHOWING FOR DEMONSTRATION PURPOSES.



#### TRANSMITTER FEATURES

**MODES:** The AQUA SMART™ system operates on one of 4 MODES.

**ON:** When engaged in the ON mode, water heater operates, all the time, at the settings of the "on-board" thermostats on the water heater. Factory setting for the water heater is normally at 120°F.

**AWAY:** When engaged in the AWAY mode, the water temperature is maintained between 75°F and 85°F. This setting is recommended when the homeowner is to be away from the home from between 3-7 days, saving energy, but allowing for faster recovery. Upon return, reset system to a normal mode.

**VACATION:** When engaged in the VACATION mode, the water temperature is maintained between 40°F and 50°F. This setting is recommended when the homeowner to be away from the home for more than 7 days. Upon return, reset to normal mode.

**PROGRAM:** When engaged in the PROGRAM mode, water heater operates at the "set programs" entered by the homeowner at initial set up. Transmitter has "default", factory program encrypted into software which will operate system only in PROGRAM mode.

## more.....TRANSMITTER SETTINGS

TEMPERATURE: Readings can be programmed in, °F or °C, at initial set up.

**PROGRAM SETTINGS:** Program by day, period of day and temperature.

**TIME:** 12 Hour, AM/PM, clock to be set at initial set up.

**SENSOR TEMP:** Read out of approximate temperature of water in water heater. Calibration of actual water temperature and sensor temperature can be "balanced" at initial set up.

KILOWATT USE/MO: At initial set up, homeowner enters his water heater wattage and then the AQUA SMART™ system records the energy usage, by month, of the water heater in kilowatt hours (kWh). Cost of operating water heater can be calculated by multiplying the kWh times the utility company's rate charge per kWh. Each 30 days, this icon readout is reset to zero (0) kWh.

OVERRIDE: User can override the "programmed temperature", in the PROGRAM mode, adjusting only the water temperature setting. The override temperature will remain 'reset' until the next programmed "set temperature" is activated by the transmitter.

TWO-WAY COMMUNICATION: The Transmitter and Receiver have a TWO-WAY communication protocol to confirm RF (radio frequency) signals are being received. When the communication is interrupted, a WARNING icon flashes on the LCD. Operating distance for system is up to 80 feet depending on structural interferences within the home.

LOW BATTERY: Transmitter displays a LOW BATTERY icon to alert homeowner when it is time to replace batteries. It is suggested that batteries be replaced every 12-15 months. Transmitter operates on 2-AAA batteries (included).

**LOCKOUT:** Transmitter includes security LOCKOUT preventing unauthorized resetting of system. Homeowner can easily engage or cancel lockout feature.

**SECURITY CODE:** Transmitter is factory-programmed with one of 1,048,576 unique security codes to prevent false activation of the system. At initial set up, user "teaches" security code to the receiver using the LEARN button on the receiver.